5ESS®-2000 Switch
Output Messages
5E10 and Later Software Releases

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1. INTRODUCTION

1.1 PURPOSE

The *5ESS*®-2000 Switch Output Messages document describes output messages (OMs) in the human-machine language (MML) that are printed through *5ESS*®-2000 switch output channels. This document and the *5ESS*®-2000 Switch Input Messages document are reference guides for switch support personnel. This document is available on paper and electronic media.

The messages in this document and its updates represent complete documentation for software releases 5E11 and later.

5ESS®-2000 switch output messages are generated either in response to input messages, or to inform support personnel of system conditions or automatic operations that have been performed by the system. Examples of the uses of information given in output messages include locating trouble, reporting subsystem status, or supplying information on audit results.

Because output messages vary in length and complexity, you must know how output messages are documented and what kind of information they contain. Become familiar with the structure and format rules discussed in the User Guidelines of this document. Pay particular attention to the priority of action field. This field indicates the importance of the message and, consequently, the urgency of the action to be taken.

1.1.1 UPDATE INFORMATION

This document is being updated and may include documentation for the 5E14 software release of the *5ESS*®-2000 switch. It also includes numerous enhancements and responses to customer requests for more information.

The following messages are included in this update.

CNVT:RT-SID-LRT-B
COPY:TAPE-TOP
EXC:ALE-PER-D
EXC:PM-D
LNUPD:LN
OP:CCS-DPCLS-C
OP:CCS-GSM-C
OP:LNUPD
OP:PM-D
OP:RT-ALARM-B
OP:RT-ALL-B
OP:RT-SID-SNA-B
OP:ST-GSMNET
OP:ST-MD-C
OP:ST-NGSMNET
OP:TRFC30-ECPS
OP:TRFC30-PSUC
OP:TRFC30-TG-C
OPLST:PRCST
OPLST:PROC
REPT:AMA-DISK-ALM-B
REPT:AMA-TAPE-RL-B
REPT:BALANCE
REPT:CCS-MTC
REPT:HMMCC-B

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REPT:MD-C
REPT:PCTDX-TBTF
REPT:PCTDX-TPE
REPT:PCTDX-TPLCF
REPT:PM-MEPIPE-A
REPT:PROCEDURE
REPT:RCLCTL
REPT:RCLPAGE
REPT:RT-SID-A
REPT:RTS
REPT:SDFI-TSCR
REPT:TTFCOM-TIDPF
RMV:MD-C
RST:MD-C
RST:S96-STOPPED
STOP:LNUPD
STP:RST
TRC:UTIL-TRK-C
TST:FAC
VFY:OFC-C

1.1.2 SUPPORTED SOFTWARE RELEASES

In accordance with the *5ESS*®-2000 Switch Software Support Plan, the 5E11 software release will be rated Discontinued Availability (DA) as of November 13, 1998. The information supporting 5E11 and earlier is being removed over time, instead of concurrently, from all documentation.

If you are supporting offices that use a software release prior to 5E12 and you have a need for the information that is being removed, retain the associated pages as they are removed from the paper documents, or retain the earlier copy of the CD-ROM.

1.1.2.1 TERMINOLOGY

As of March 18, 1999, Bellcore officially changed its name to Telcordia Technologies. Not all pages of this document are being reissued to reflect this change; instead, the pages will be reissued over time, as technical and other changes are required. Customers on standing order for this document may see that, on previous-issue pages, the Bellcore name is still exclusively used.

Customers receiving new orders for this document will see the Telcordia Technologies name used as appropriate throughout the document, and the Bellcore name used only to identify items that were produced under the Bellcore name. Exceptions may exist in software-influenced elements such as input/output messages, master control center screens, and recent change/verify screens. These elements will not be changed in this document until such time as they are changed in the software code. Document updates will not be made specifically to remove historical references to Bellcore.

National ISDN is an evolving platform in which new features will continue to be introduced for new revenue opportunities, improved operational efficiencies, and for support of specific applications. NI 1, NI 2, and NI 3 represent specific features as documented in Bellcore SRs 1937, 2120, and 2457. The industry is migrating to an additional terminology to more specifically denote the availability of National ISDN features: NI 95, NI 96, etc. A feature is included in a specific version (such as, NI 96) if it is available by the switch vendors by the first quarter of the year.

As a result of the World Telecommunications Standardization Conference held March 1-12, 1993, the International Telegraph and Telephone Consultative Committee (CCITT), no longer exists as an organization under the

International Telecommunication Union (ITU). According to the ITU, the CCITT is now referred to as the International Telecommunication Union - Telecommunication Standardization Sector (ITU-TS).

For new and revised Recommendations issued by the ITU-TS, the term "CCITT Recommendation X.xxx" will be replaced by the "ITU-T Recommendation X.xxx" designation. For a transition period from 1993 to 1997, if the Recommendation had a previous CCITT designation, the new name will include "(formerly CCITT Recommendation X.xxx)". Names of existing CCITT Recommendations will not change unless revised.

1.1.2.2 HANDLE DATE AND TIME TRANSITION TO YEAR 2000

For any time-stamp data that occurs in *5ESS*®-2000 switch operations after the time is transitioned to the year 2000 and beyond, the year 00 shall be interpreted as 2000 after 12/31/1999. The data (billing, log files, and etc.) shall continue to work even right after transition to the year 2000 from midnight 12/31 1999.

1.1.3 ORGANIZATION

The Output Messages document contains the following helpful information:

Introduction - explains the purpose and organization of the document.

User Guidelines - contains information about the conventions used in documenting output messages. This section also discusses MML syntax, the structure and layout of the messages, naming and usage conventions, format notation, and the organization and content of the message descriptions.

Acronyms - defines acronyms and abbreviations used in the Input and Output Messages documents.

Indexes - contains two helpful indexes. These indexes may be used as guides for locating and selecting specific message descriptions in the Output Messages document.

- The Alphabetical Index (paper only) lists, in alphabetical order by message ID, all output message descriptions found in the entire Output Messages document. A subset of this index is placed at the beginning of every volume of the Output Messages document. The subset lists the message descriptions that should be found in that particular volume.
- The Format Index (paper only) lists, in alphabetical order by the first line of each format, all output message formats and its related message ID.

Appendixes - contains information that is referred to by two or more message descriptions, such as listings of message classes, audits, and error codes.

The rest of the Output Messages document contains the message descriptions, presented in alphabetical order by message ID.

1.1.4 USER FEEDBACK

The producers of this manual are constantly striving to improve its quality and usability. Please use the enclosed user feedback form for your comments and to advise us of any errors (available in paper documents only). Or, you can write to us at the following address:

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Winston-Salem, NC 27106

Please include the issue number and/or date of the document, your complete mailing address, and telephone number. We will answer all correspondence within 30 days, informing you of the disposition of your comments.

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Document users who have access to electronic mail facilities may send comments via electronic mail. The electronic address is hotline5@wrddo.lucent.com. When sending comments via electronic mail please make sure that the document title, document number, document issue number and/or document date are included in the mail along with the sender's name, phone number, and address.

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1.1.7 SECURED FEATURES

For all secured features, a right to use (RTU) fee must be paid before enabling information is provided. Contact your Account Team Representative for additional information about the specified secured feature.

For a complete list of secured feature identifiers (SFID), refer to the TG-5 manual (235-080-100).

1.1.8 REFERENCES

Additional references are given as needed, within individual message descriptions. An "x" or "x"s in the last three positions of a release specific document number indicate the digits that change from release to release. Refer to 235-001-001, Documentation Description and Ordering Guide for the document number associated with each

software release.

The 235-190-105 and 235-190-110 have been combined into the 235-190-104. Any references to the 235-190-105 or 235-190-110 will be changed in the messages over time.

The 235-190-101 and 235-190-102 have been combined into the 235-190-103. Any references to the 235-190-101 or 235-190-102 will be changed in the messages over time.

The 235-190-10x should be listed as 235-190-11x. These references will be changed in the messages over time.

This document contains information concerning the Compact Digital Exchange (CDX) and the Very Compact Digital Exchange (VCDX), which are switching systems based on the *5ESS*®-2000 switch. This document is a standard *5ESS*®-2000 switch document that is also applicable to the CDX and VCDX switching systems. Information applicable only to CDX or VCDX may be found in the following manuals:

235-120-010 Compact Digital Exchange (CDX) Reference Guide

235-120-020 Compact Digital Exchange (CDX) User's Guide

235-120-110 Very Compact Digital Exchange (VCDX) Reference Guide

235-120-120 Very Compact Digital Exchange (VCDX) User's Guide

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2. USER GUIDELINES

2.1 INTRODUCTION

This section explains the rules to which *5ESS*®-2000 switch output messages (OMs) must conform, and the conventions that are used in this manual to show how messages are constructed.

The term messages refers to the output given by the switch system.

Each switch system is set to accept only one message language, human-machine language (MML). MML is the human interface language developed by the International Telecommunication Union - Telecommunication Standardization Sector (ITU-TS) (formerly CCITT).

2.2 MESSAGE DESCRIPTIONS

The message descriptions form the bulk of the OM manual. Message descriptions are documented on manual pages.

The term "manual page" refers to the description of an OM without regard to how many physical sheets of paper or screens are used to complete the description.

Each OM manual page consists of several elements that form the message description.

2.3 MANUAL PAGE - GENERAL PARTS

This section gives a general description of each part of a manual page.

2.3.1 Page Headers (Paper Only)

The header consists of two lines across the top of each manual page. The header on the inside of the manual page identifies the document number and the issue date. The header on the outside of the manual page shows the name of the document (for example, Switch Output Messages), and the message name.

2.3.2 Message Name

The message name is made up of the command code and parameter names from the message format omitting any variables and optional values and has a maximum length of 20 characters. This is used like a dictionary heading to give a general idea of placement in the manual.

2.3.3 Page Footers (Paper Only)

The footer on the inside of the page contains the issue number. The outside footer shows the message ID and page number. The message ID is explained with the key block items.

2.3.4 The Key Block

The key block is the block of text in the upper right corner of the manual page. The key block includes:

ID
RELEASE
MESSAGE CLASS
APPLICATION

2.3.4.1 ID

The ID is the unique identifier of the OM. Every message ID is composed of two parts separated by a colon. The part to the left of the colon is the command code of the message. One or more parameter names from the format usually make up the remaining portion of the ID. If there is more than one parameter name to the right of the colon, these parameter names are separated by a hyphen. For example: REPT:PM-QLNK-QGP.

2.3.4.2 RELEASE

This was formerly labeled GENERIC. The switch software release or range of releases to which the message description applies. Here are some examples of possible software release entries:

5E12 only	The message description applies only to release 12.
5E12 and later	The message description applies to release 12 and to all later releases.
5E12 - 5E13	The message description applies to release 12 through release 13.

If changes from one release to another have affected a format, two or more separate manual pages are provided. Such a split is indicated by the last character of the message ID. If separate manual pages exist for the same message, the ID for the first manual page is followed by "-A", the second by "-B", and so forth.

Please note that the "dash-letter" suffix is dynamic depending on the number of software releases being supported and the number of versions of a message.

2.3.4.3 MESSAGE CLASS

Message classes are used to determine the proper TTY device (also called the channel) to which the message is printed.

Message classes suffixed with "MON" are normally logged. Message classes suffixed with "RSP" are normally printed only at the originating terminal in response to an input message. Message classes with neither suffix are normally printed at the receive-only printer (ROP) and the Switching Center Control System (SCCS).

Refer to the APP:MSGCLS appendix in the Appendixes section of this manual for a complete list of all message classes and the messages belonging to each. (See output message APP:MSGCLS.)

2.3.4.4 APPLICATION

This specifies the application to which the message pertains.

Application Code	Explanation
5	USA *5ESS*®-2000 switch. May also apply to CDX, VCDX, or WNC. Refer to the help facility to verify applicability for these systems.
3B	administrative module (AM) software.
CNI	Common Network Interface.
CDX	Compact Digital Exchange only.
VCDX	Very Compact Digital Exchange. May also apply to the AEWNC. Refer to the help facility to verify applicability for this system.
AEWNC	*Air Extension*® Wireless Network Controller only.

This implies that a listing such as "5,3B" means that this message applies to both USA *5ESS*®-2000 switch and the administrative module software.

2.3.5 FORMAT

Message formats are a kind of notation that is used in this document to show the possible ways in which OMs can appear. Formats are described in greater detail in the MANUAL PAGE-SECTION DETAILS section of the User

Guidelines.

2.3.6 REASON FOR OUTPUT

This section of the manual page contains a brief summary of why the message appeared.

2.3.7 VARIABLE FIELD DEFINITIONS

This section explains the meaning of the various keywords, arguments, and variables shown in the format.

2.3.8 ACTION TO BE TAKEN

This section is a brief summary of any actions that should be taken in response to the output message.

2.3.9 ALARMS

Any alarms that are associated with this output message are listed in this section. The alarm types are described in Table 1.

2.3.10 REFERENCES

This section lists all related input and output messages, documentation references, Master Control Center (MCC) display pages, recent change views, and OMDB keys.

2.4 MANUAL PAGE - SECTION DETAILS

2.4.1 FORMAT Section

The format is the most important part of every manual page. The FORMAT shows the syntax of the message (that is, the way the message must be constructed).

2.4.1.1 Example

Here is an example of how the FORMAT section of a typical manual page might look:

```
RST LUCHBD=a-b-c-d e [f]
```

When appropriate, distinct formats are shown separately and given a number (in square brackets).

2.4.1.2 Format Notation

The message formats shown in this document may include one or more types of format notation that are not part of the message itself. The purpose of this notation is to assist in interpreting the message as it is printed.

[ ]	Brackets enclose optional entries. Optional entries may be included in the message or may be omitted.
{ }	Braces enclose two or more entries where one entry, but only one, must be included in the message.
|	OR bars separate a selection of entries enclosed by braces or brackets. One of the entries separated by OR bars, but only one, may be selected.
. . .	Vertical ellipsis marks (three vertical dots) following a format means that there may be more than one line when an OM is printed. These additional lines will conform to the same format, but may contain different data.
...	Horizontal ellipsis marks used within a format depict variable repetition.
. . .	Three ellipsis marks with embedded spaces, either at the beginning of a line or at the end of a line, indicate that a format string is divided into multiple lines in the manual page. This is for documentation purposes only.

Remember that brackets, braces, OR bars, and ellipsis marks never actually appear in the printed output message. They are only used in message formats to explain how a message is constructed.

2.4.1.3 Notation Examples

The following examples illustrate the use of brackets, braces, OR bars, and ellipsis.

`ENTRY1 ENTRY2`	Both ENTRY1 and ENTRY2 must be used.
`[ENTRY1][ENTRY2]`	Both entries are optional. Both, either, or neither may be used.
`{ENTRY1|ENTRY2}`	Either ENTRY1 or ENTRY2 must be used. Using both is not permitted.
`[ENTRY1|ENTRY2]`	Either ENTRY1 or ENTRY2, but not both, may be used. Both entries may be omitted.
`[ENTRY1{ENTRY2|ENTRY3}]`	All three entries may be omitted; however, if any of these entries is used, your options are: ENTRY1 and ENTRY2 or ENTRY1 and ENTRY3. It is not permissible to use both ENTRY2 and ENTRY3.
`{ENTRY1|ENTRY2|ENTRY3}`	One of these three entries must be used, but it is not permissible to use more than one.
`[ENTRY1]...[ENTRY1]`	Signifies repetition of ENTRY1.

`a b c`
`.`
`.`
`.`
 	
`.`
`.`
`.`
 	
`.`
`.`
`.`
	Signifies that there may be more than one line when an OM is printed.

2.4.1.4 Variables

The message format shows keywords in upper case. These keywords appear in the printed output message exactly as they are shown in the format. The keywords denote the action that is the subject of the report and the units, systems, or functions that are acted upon.

The lower case letters shown in the format are normally used to denote variables. When an output message is printed by the system, information appears in place of these variables. Do not confuse variables with text phrases containing lower case letters as part of the text.

2.4.1.5 Sample Output Message

The example below shows how a typical MML output message, together with its header information, might look when displayed.

```
   S570-52 90-07-20 08:05:05 012033 PRFM C2 K26.1
A  REPT ALE LEVEL 1 INTERVAL TRANSFER COMPLETED
```

The above message contains three elements:

```
S570-52 90-07-20 08:05:05 012033 PRFM C2 K26.1
```
= Header

```
A
```
= Priority of action

```
REPT
```
= Message body

2.4.1.6 Header

The header has the following format:

```
Saaa-bb cc/dd/ee ff:gg:hh i j k l
```

where:

```
S
```
= System.

```
a
```
= Utility ID of the sending process in hexadecimal.

```
b
```
= Process ID of the sending process in decimal.

```
c
```
= Year when the message was triggered for output.

```
d
```
= Month when the message was triggered for output.

```
e
```
= Day of the month when the message was triggered for output.

```
f
```
= Hour when the message was triggered for output.

```
g
```
= Minute when the message was triggered for output.

```
h
```
= Second when the message was triggered for output.

`i`
= Sequence number of message in decimal.

`j`
= Message class of the message.

`k`
= System name.

`l`
= Software release load number.

2.4.1.7 Priority of Action

This code indicates the relative importance of the message, and whether or not it was generated with an audible alarm. The code is composed of two-characters (In some cases, a space is used as one or both characters). See Table 1 for a listing of the meanings of the various priority of action codes.

2.4.1.8 Body of Message

This portion of the message contains the information that the message is intended to convey. This information includes the keywords of the message and the information that corresponds to the variables in the message format. A message may be printed as one line of information, several lines of information, or as blocks of data.

2.5 OUTPUT MESSAGE SEQUENCE/PRINTING

The sequence in which messages are printed depends on:

- The priority of action code associated with a message.
- The brevity control and log/print status of the output message class.

There is at least one blank line between each output message.

2.6 OUTPUT MESSAGE CONTROL

Because of the large number of output messages that may be generated by the system, it is important to control the printing of these messages. The volume of output messages can be controlled by three techniques:

- brevity control
- log/print control features
- throttling

2.6.1 Brevity Control

When brevity control is "allowed", repetitive, functionally similar messages are suppressed after a predefined threshold has been reached. Brevity control can be "allowed" or "inhibited" by message class or by processor. (See input messages ALW:BREVC and INH:BREVC.) Messages that carry an alarm or are generated in response to

manual requests are not affected by brevity control. Alarmed and manually requested messages can be affected by brevity control by using a CHG:MSGCNTL input message. (See input messages CHG:MSGCNTL.)

2.6.2 Log/Print Control

The log/print control feature enables you to control the destination of output messages on the basis of output message class. You may choose to have certain messages:

- Logged (stored on disk in /log/DAYLOG).
- Sent to output devices.
- Both logged and output.
- Discarded.

The output device is not necessarily a receive-only printer (ROP). Each output message class has its own equipment configuration database (ECD) classdef form. The classdef form determines which output device is used for messages belonging to that class. You may change the classdef forms by using the recent change ECD facility.

The log/print status (LPS) of each message class can be changed by using the CHG:LPS-MSGCLS input message. The OP:LPS input message can be used to request a log/print status report. (See input messages CHG:LPS-MSGCLS and OP:LPS.)

In addition to the current log/print status of each message class, a record is also kept of a back-up status for that message class. By storing the previous status of a message class as the back-up status, you can make a temporary change in the log/print status and then easily change the log/print status back to what it was by restoring the back-up status, using the CHG:LPS-MSGCLS input message. (See input message CHG:LPS-MSGCLS.)

One application of log/print control is to temporarily restrict the output of messages while you are troubleshooting. If you desire, you can suppress all superfluous messages by changing the log/print status of the undesired messages to have those messages logged (or discarded) but not printed. Discarding messages takes much less time than printing. Logged messages can be retrieved by using the OP:LOG input message. Since the messages stored on disk can be overwritten (and destroyed) during periods of heavy message output, it is advisable to run OP:LOG as soon as possible. (See input message OP:LOG.)

The APP:MSGCLS appendix in the Appendixes section of the Output Messages document lists the default log/print statuses of all message classes. Input messages that affect logging and brevity control are listed under the headings Log, Off-Normal Status, and Brevity Control in the Functional Index for the Input Messages document. $feature (not IDS) (See output message APP:MSGCLS.) $endfeature (not IDS) $feature (IDS) (See output message APP:MSGCLS. Since the location of this message in this database is dynamic, please refer to the outline for the exact reference point.) $endfeature (IDS)

> ***NOTE:*** Manually requested output messages and output messages that carry an alarm will always be printed regardless of their log/print status.

2.6.3 Throttling

Throttling controls the rate at which output messages are unloaded from the queue to the AM for printing. This is done to control the amount of system resources for output message processing and also to selectively discard low priority messages when the queue is full and there are high priority messages that must be printed. Throttling cannot be altered by the service provider.

2.7 OMDB KEYS

Output message database (OMDB) keys relate to the alarm level and message class for an output message. The alarm level indicates the severity of the output message. The message class defines a set of output devices (for example, receive-only printer, log file, or Switching Control Center System) to which an output message is reported or recorded. An output message format may have more than one OMDB key associated with it, because a message can be generated with different alarm levels or message classes.

2.8 MCC DISPLAY PAGES

Master Control Center (MCC) display pages are used to perform maintenance and administrative functions for the *5ESS*®-2000 switch.

See the 235-105-110 System Maintenance Requirements and Tools manual for a further explanation of MCC pages.

2.9 DESCRIPTION OF ERROR REPORTS FOR THE ADMINISTRATIVE MODULE (AM)

There are three AM error log files:

- Memory history log file (MEMLOG).
- Error interrupt handler log file (ERLOG).
- Postmortem dump log file (PMLOG).

Error messages that pertain to the control unit (CU) are found in MEMLOG and ERLOG. The MEMLOG file contains the REPT:CU supplementary data particular to memory failures. (See output message REPT:CU.) The ERLOG file contains supplementary error interrupt data detected by the error interrupt handler (EIH).

2.9.1 Automatic Postmortem Dumps

This message is printed after a system initialization. It contains register and system data collected at the time the system reset occurred.

For more information and details on AM error reports, see the 235-105-210 Routine Operations and Maintenance manual.

2.9.2 Processor Recovery Messages

Processor recovery messages (PRMs) are generated at each critical step of an initialization and can, therefore, be used to monitor the progress of an initialization. Unlike normal system messages that are routed to the spooling process and require a stable operating environment, PRMs can be output even when the system is unable to achieve recovery. For this reason, they become invaluable in determining the causes of severe system problems.

Because of the severe circumstances under which PRMs become most valuable, the amount of data they provide is kept to a minimum. The purpose of the PRM is to provide indications of the problem in an expedient manner.

A PRM can provide much needed information in the analysis of system problems. It is, therefore, recommended that whenever a problem with the system develops, the entire ROP output, from the time preceding the onset of the problem until the system has fully recovered, be collected.

For more information about PRMs, see the 235-600-601 Processor Recovery Messages manual.

2.9.3 Protocol Error Record Messages

Protocol error record (PER) messages provide details of error events associated with switch-detected protocol

errors.

For more information about PERs, see the 235-600-755 Protocol Error Record Descriptions manual.

2.10 BINARY-DECIMAL-HEXADECIMAL CONVERSIONS

Both input and output messages use values in hexadecimal (base 16), decimal (base 10), octal (base 8), and binary (base 2). To convert binary numbers to hexadecimal, do the following:

- Separate the binary number into groups of four, starting with the rightmost number.
- Convert each group of four into its hexadecimal equivalent. (See Table 6 of the User Guidelines.)
- Example:

```
001000011110
```
Binary number

```
0010 0001 1110
```
Binary number in groups of four

```
  2    1    E
```
Hexadecimal equivalent

To convert hexadecimal numbers to binary, perform the above procedure in reverse order.

To convert numbers from hexadecimal to decimal or vice-versa, refer to Table 5 of the User Guidelines. The left column contains hexadecimal numbers without the units digits. The units digits are shown in the first row.

2.11 TABLES

2.11.1 Table 1

Priority Code	Accompanying Alarm	Importance of Message
*C	Critical.	Critical trouble. Immediate action required.
**	Major.	Major trouble or power failure. Immediate action required.
M	No alarm.	Response to a manual request.
*	Minor.	Minor trouble. Action required.
A	No alarm.	Automatically generated message. Action may be required.
2 spaces	No alarm.	Information message only.

2.11.2 Table 2: Binary-Octal-Decimal-Hexadecimal Conversions

Binary	Octal	Decimal	Hexadecimal
0000	00	00	0
0001	01	01	1
0010	02	02	2
0011	03	03	3
0100	04	04	4
0101	05	05	5
0110	06	06	6
0111	07	07	7
1000	10	08	8
1001	11	09	9
1010	12	10	A
1011	13	11	B

1100	14	12	C
1101	15	13	D
1110	16	14	E
1111	17	15	F

2.11.3 Table 3: Hexadecimal-Decimal Conversion

-	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
00	000	001	002	003	004	005	006	007	008	009	010	011	012	013	014	015
10	016	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031
20	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047
30	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063
40	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079
50	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095
60	096	097	098	099	100	101	102	103	104	105	106	107	108	109	110	111
70	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127
80	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143
90	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159
A0	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175
B0	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191
C0	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207
D0	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223
E0	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239
F0	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255

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3. ACRONYMS

ACRONYM

Software Release: 5E10 and later
Application: 5
Type: Output

1. ACRONYM LIST

ACRONYM	DEFINITION
AATLSOS	alternate access to language specific operator service
AATOS	alternate access to operator service
ABT	abort
AC	alternating current
AC	automatic callback
ACC	automatic congestion control
ACCDICT	access dictionary
ACCS	automatic calling card service
ACCSDB	ACCS data block
ACD	automatic call distributor
ACG	automatic call gap
ACH	attempts per circuit per hour
ACKDB	acknowledgement database
ACL	audit control library
ACM	address complete message
ACP	action control point
ACQS	automatic charge quotation system
ACS	alert control status
ACSR	automatic customer station rearrangement
ACT	active
ACT	alternate code treatment
ACTS	automated coin toll service
ACTSR	active circuit status register
ADC	address complete
ADDR	address
ADP	automatic diagnostic process
ADPTR	address pointer register
AEOC	alternate embedded operations channel
AERM	alignment error rate monitor
AIBNS	automated inward billed number screening
AILS	automated inward line screening
AIM	application integrity monitor
AIOD	automatic identified outward dialing
AIOD	automatic input/output dialing
AIS	alarm indication signal
AIS-L	AIS for line
AIS-P	AIS for path
AIU	access interface unit
AIU	application interface unit
AIUEN	access interface unit equipment number
AIULC	access interface unit line circuit
ALCB	access line control block
ALE	automatic line evaluation
ALINK	A-link
ALIT	automatic line insulation test
ALMMDE	alarm retire mode
ALT	automatic link transfer
ALW	allow
AM	administrative module
AMA	automatic message accounting
AMAIRR	AMA irregularity
AMAT	AMA teleprocessing
AMEX	asynchronous transfer mode media transfer
AMI	administrative module intervention
AMI	alternate mark inversion
AML	automatic maintenance limit
AMLOOS	automatic maintenance limit out-of-service
ANCB	analog channel bank
ANI	automatic number identification
ANN	announcement
ANS	answer

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ANSI	American National Standards Institute
AOC	announcement only channel
AP	application processor
AP	automated position
APB	associated process block
APC	adjacent point code
APC	application specific controller
APDL	application processor data link
APDU	application processor data unit
APESM	application processor control error source mask
APID	applications processor identifier
APPLHOOK	application hook
APPRC	application recent change
APS	automated position system
APS	automatic protection switch
APT	automatic progression testing
AQ	associated autoquote
AQEST	autoquote establishment
AQM	autoquote mate analog
AR	automatic recall
ARC	alternate route cancellation
ARR	automatic ring recovery
ARS	automatic route selection
ARU	audio response unit
ASC	alarm and status circuit
ASCII	American standard code for information interchange
ASP	advanced services platform
ASPLG	advanced service platform large
ASPTF	advanced services platform toll free
ASU	alarm and status unit
ATA	automatic task administrator
ATCO	automation of TCS/CPS override
ATF	ASCII translation file
ATF	Announcement test function
ATM	asynchronous transfer mode
ATP	all test pass
ATS	automatic terminal setup
ATTG	attendant group
ATTS	automatic trunk test scheduler
AUD	audit
AUTISS	automatic time slot switching
AUTOVON	automatic voice network
AVL	available
AWS	administrative work station
BCI	blocked call indication
BCLID	bulk calling line identification
BCST	broadcast pump
BE	block errors
BER	bit error rate
BERR	buss error
BES	bursty errored seconds
BG	background
BGD	bi-directional gating bus direction
BGE	business group element
BISO	beginning of isolation
BIST	built in self test
BITS	building integrated timing supply
BLCTR	B data link parity counter register
BLK	block
BLKD	blocked
BLO	blocking
BNP	basic number portability
BNS	billed number screening
BOLO	back-out-last-official
BPUMP	backup pump
BPV	bi-polar violations
BRCF	business residential customer feature
BRCS	business and residential customer service
BRI	basic rate interface
BRITE	basic rate interface transmission extension
BSN	backward sequence number
BST	basic services terminal

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BST	bitmap salvage technique
BTSR	bootstrapper
BUD	backup update database
BUSCR	bus control register
BVA	billing validation application
BWM	broadcast warning message
CA	call appearance
CA	community address
CACTL	cache control register
CADN	circuit administration
CAMA	centralized automated message accounting
CAMPON	camp-on
CANC	cancel
CAR	computer access restriction
CAS	customer account services
CATL	code answer test line
CATP	conditional all tests passed
CAXEM	core auxiliary error source mask
CAXES	core auxiliary error source
CC	common control
CC	common controller
CCB	channel control block
CCB	communication control buffer
CCB	control communication buffer
CCC	commercial credit card
CCID	carrier issuer identification
CCIS	common channel interoffice signaling
CCP	common control processor
CCQS	centralized charge quotation system
CCR	continuity check request
CCRD	calling card
CCS	common channel signaling
CCS	hundred-call-seconds
CCS7	common channel signaling number 7
CCSLK	CCS links
CD	common data
CDAL	control and diagnostic access link
CDAL	control diagnostic access link
CDB	circuit data blocks
CDBCOM	circuit data block common
CDBS	customer defined billing segmentation
CDC	call duration and charge
CDFI	cluster digital facility interface
CDFI	communication link digital facility interface
CDI	control data interface
CDM	call disposition messages
CDMA	code division multiple access
CDN	customer directory number
CE	critical event
CF	call forwarding
CF	control fanout
CFAC	cluster facility
CFT	craft
CGA	carrier group alarm
CGAP	call gapping
CGC	circuit group carrier
CH	channel
CHG	charge
CHNG	channel group
CI	carrier interconnect
CI	control interface
CI	critical information
CIB	control interconnect bus
CIC	circuit identification code
CICADA	completion of interLATA calls accessing directory assistance
CICEXP	carrier identification code expansion
CIF	corruption indication flag
CKT	circuit
CKTLIM	circuit limit
CL	card limit
CLCT	collect
CLD	called

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CLF	communications line fault
CLI	change level indicator
CLID	calling line identification
CLLI	common language location identifier
CLNK	communication link
CLNORM	communication link normalization
CLR	clear
CLS	combined linkset
CM	communication module
CMCU	communication module control unit
CMISE	common management information service element
CMP	communication module processor
CMPMSG	communication module processor message handler
CNAM	calling name
CNC	central node control
CND	calling number delivery
CND	calling number display
CNI	common network interface
CNR	critical node restoration
CNTL	control
CO	cutover
COCTL	core control
COFA	change-of-frame alignments
COFF	common object file format
COINOT	coin service terminal process
COM	common controller
COMDAC	common data and control
COMGR	command group
COND	conditional
CONFIG	configuration
CONT	continuity
CORC	customer originated recent change
CORES	core error source
COT	central office terminal
COT	customer originated trace
CP	Central processor
CPDL	call processing data link
CPE	customer premises equipment
CPI	central processor intervention
CPISR	CPI status register
CPN	calling party number
CPS	country pair screening
CPU	call pick up
CPU	central processing unit
CPUT	call pickup group
CQ	circuit query
CQDB	call queue data blocks
CR	call record
CRA	circuit reservation acknowledgment
CRAM	control random access memory
CRC	cyclical redundancy checks
CRM	circuit reservation message
CRS	circuit reset signaling
CS	circuit-switched
CSC	clock synchronization circuit
CSCANS	Customer Service Computer Access Network System
CSD	circuit-switched data
CSI	Carrier selection information
CSOP	coordinator of spooler output process
CSS	controlled slip seconds
CSU	cache store unit's
CSV	circuit-switched voice
CTC	country-to-country
CTS	clear to send
CTS	common time slot
CTS	control time slot
CTTU	centralized trunk test units
CU	channel unit
CU	control unit
CUD	central update database
CUD	current update database
CUMEM	control unit memory

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CURR	current
CVR	circuit validation response
CVT	circuit validation test
CV_STATE	call vectoring state
DA	digit analysis
DA	directory assistance
DACC	directory assistance call completion
DACT	deactivating
DAM	dual access memory
DAOPER	directory assistance operator
DAP	Display administration process
DARAM	dual access random access memory
DAS	digit analysis selector
DAS/C	directory assistance services/computer
DASC	directory assistance system computer
DAT	digital audio tape
DBM	Database manager
DC	Direct current
DCBU	D-channel backup
DCC	destination code cancellation
DCCB	D-channel control block
DCHN	D-channel node
DCHOOS	D-channel out-of-service
DCI	dual channel/computer interconnect
DCLU	digital carrier line unit
DCR	device control register
DCTU	directly connected test unit
DCTUCOM	directly connected test unit common
DCTUPORT	directly connected test unit port
DD	data delivery
DDD	direct distance dialed
DDL	derived data link
DDMA	diagnostic direct memory access
DEN	digital equipment number
DESTSM	destination switching module
DF	data fanout
DF	distribution frame
DFC	device file controller's
DFC	disk file controller
DFI	digital facility interface
DFIH	host digital facilities interface
DFIH	host/remote digital facility interface
DFIMP	digital facility interface module processor
DFSA	data file system access
DFTAC	distributing frame test access circuit
DG	Data group
DGN	diagnostic
DGR	degraded
DI	data interface
DIAG	diagnostic
DIAMON	diagnostic monitor
DID	direct inward dialing
DIDNC	DI diagnostic control
DIEMR	DI error mask register
DIESR	DI error source register
DIOP	disk independent operation
DIOR	direct international origination
DIP	dual in-line package
DIS	disassembly
DIST	distribute
DKDRV	disk driver
DL	duration limit
DLEMR	DLI-MP interface error mask register
DLESR	DLI-MP interface error source register
DLGSHL	dialogue shell
DLI	dual link interface
DLI-MP	dual link interface-module processor/module controller ^
DLIT	demand LIT
DLN	direct link node
DLP	data link processor
DLT	data link terminal
DLTU	digital line and trunk unit

DLTURH	digital line and trunk unit host
DMA	direct memory access
DMAC	direct memory access controller
DMCH	direct memory access channel
DMI	dual message interface
DMQ	deferred maintenance queue
DN	directory number
DNS	directory numbers
DNU-S	digital networking unit - SONET
DNU-S	digital networking unit - synchronous optical network
DNUSCC	DNU-S common controller
DNUSCD	DNU-S common data
DOC	dynamic overload control
DOTTO	direct international origination offered transfer to operator
DPA	dump all
DPC	destination point code
DPIDB	direct PIDB
DPIDB	directly-connected peripheral interface data bus
DPT	diagnostic phase table
DRHR	Division of revenue hourly report
DS1	digital signal level one
DS1SFAC	digital signal level 1 facility
DSC	DSU subtending circuit
DSC	digital service circuit
DSC	double seizing control
DSCH	dual serial channel
DSE	direct signaling event
DSL	digital service line
DSL	digital subscriber line
DSLG	digital subscriber line group
DSLGM	digital subscriber line group and member
DSN	defense switched network
DSP	digital signal processing
DSU	digital service unit
DSU2-RAF	digital service unit 2 - recorded announcement function
DTA	dial through announcement
DTCB	Digital channel bank
DTF	dial tone first
DTLU	Digital line trunk unit
DTMF	dual tone multi-frequency
DTR	data terminal ready
DUFR	Dynamic update function replacer
DUI	direct user interface
DUIC	direct user interface controller
DUR	duration
EA	equal access
EADAS	engineering and administrative data acquisition system
EAI	emergency action interface
EAIU	expansion access interface unit
EAN	equipment access network
EBD	enhanced buffer dump
EBU	E bus unit
ECD	equipment configuration database
ECDMAN	equipment configuration database manager
ECDN	expanded customer directory number
ECMA	European computer manufacturers
ECP	executive cellular processor
EDP-R	event detection point request
EDSC	electronic directory service customers
EDSL	extended digital subscriber line
EI	emergency interrupt
EIB	Ethernet interface board
EIH	by the error interrupt handler
EIR	enhanced information report
EIS	external information system
EISO	end of isolation
EL	enhanced limit
ELI	electrical line interface
ELI	electrical loop interface
ELS	electronic loop segregation
EMA	extended memory addressing
EN	equipment number

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ENAC	Engineering Network Administration Center
EO	end office
EOC	embedded operations channel
EOC	extended operations channel
EOF	end-of-file
EOT	end-of-transmission
EPCS	expanded personal communications services
EQCU	equipped CUs
EQL	equipment location
EQUIP	Equipment
ERAM	early RAM
ERR	Error
ES	errored seconds
ESA	enhanced 911 service adjunct
ESN	emergency service number
ESP	enhanced service provider
ESP	essential service protection
ESR	error source register
ET	elapsed time
ETE	end-to-end
EVRC	enhanced variable rate coding
EXT	external
FAC	facility
FACIL	facility
FACR	feature activation counting and reconciliation
FCG	false cross or ground
FE	family of equipment
FE	far end
FELP	far end loop
FG	foreground
FGD	feature group D
FI	facility interface
FI	full initialization
FIB	forward indicator bit
FID	feature identification
FIDB	facility interface data bus
FIFO	first in, first out
FIP	fully initializing protocol
FIW	frame information word
FMC	forced management center
FMGR	file manager
FMS	flat and measured services
FN	file name
FNC	forward number check
FP1	feature package one
FPC	foundation peripheral controller
FPCR	full point code routing
FPI	full process init
FR	fault recovery
FRC	forced
FRL	facility restriction level
FRPH	frame relay protocol handler
FS	failed seconds
FS	forced switch
FSCMPT	file system compaction
FSLINK	file system link
FTON	far to near
FTS	Field test set
FTS	federal telecommunication system
FUNCL	function code latch
FX	foreign exchange
GAC	group alerting circuit
GDG	guard data guard
GDSF	global digital services function
GDSUCOM	global digital service unit common
GDX	gated diode crosspoint
GDXACC	gated diode crosspoint access
GDXC	gated diode crosspoint compensator
GDXCON	gated diode crosspoint control
GDXCON	gated diode crosspoint controller
GDXCTRL	gated diode crosspoint control
GKCCR	generated key collection and compression routine

GRASP	generic access package
GRC	global recent change
GRID	gated diode crosspoint grid
GRIDBD	GRID board
GROW	growth
GRS	group reset
GSM	global switching module
GTT	global title translation
GVAR	global variable
HA	host adapter
HDFI	host digital facilities interface
HDR	header
HDSU	hardware digital service unit
HDWCHK	hardware check
HFAC	host facility
HISRC	high interrupt source
HIST	history
HLR	home location register
HLSC	high level service circuit
HOBIC	hotel billing information center
HOBIS	hotel billing information system
HOC	host collector
HPQ	high priority queue
HRSMR	hardware reset source mask register
HRSRC	hardware reset source
HSD	high-speed synchronous datalink
HSDC	high-speed synchronous datalink controller
HSM	host switching module
HSR	hardware status register
HV	hardware version
HW	high-and-wet
IAM	initial address message
IBNS	international billed number screening
IC	interLATA carrier
IC	interexchange carrier
ICCV	international credit card validation
ICL	inter-RSM communication link
ICL	inter-cluster link
ICL	intra-cluster link
ICS	inmate calling services
ICVC	international card verification center
ID	identifier
IDCU	integrated digital carrier unit
IDENT	identity
IDLC	integrated digital loop carrier
IDP	individual dialing plan
IE	information element
IECSST	inter-exchange carrier start signal timeout
IFAC	Integrated digital carrier unit facility
IFAC	IDCU facility
IFB	interframe buffer
ILA	Idle link assurance
ILEN	IDCU line equipment number
ILEN	integrated digital carrier unit line equipment number
ILHB	incoming line history block
IM	input message
IM	interface module
IMS	interface module system
IMS	Interprocess message switch
IMSRMVRST	interprocess message switch remove/restore
IMT	intermodule trunk
IMTTASK	inter-module trunk task
INCBLK	INC block
INCR	Incremental
INDN	incoming directory number
INEN	IDLC network equipment number
INH	inhibit
INH	inhibited
INIT	initialization
INT	interval
INWATS	inward wide area telecommunications service
IO	input-output

IODRV	input/output driver
IOMI	input and output message interface
IOP	input/output processor
IP	interface processor
IP	internal protocol
IPCT	in-progress call trace
IPM	interruptions per minute
IREX	installation routine exercise
IRN	integrated ring node
IS	in-service
ISAT	ISDN attendant
ISC	intelligent serial controller
ISDN	integrated services digital network
ISDNPCKT	Integrated services digital network packet
ISGEN	Incremental system generation
ISLC	integrated subscriber loop carrier
ISLU	integrated services line unit
ISLU	integrated switching line unit
ISLUCC	integrated services line unit common controller
ISLUCD	integrated services line unit common data
ISLUHLSC	ntegrated services line unit high level service circuit
ISLULC	integrated services line unit line card
ISLULCKT	integrated services line unit line circuit
ISLULGC	integrated services line unit line group controller
ISLUMAN	integrated services line unit metallic access network
ISLUPIDB	integrated services line unit peripheral interface data bus
ISLURG	integrated services line unit ringing generators
ISM	inter-switching module
ISMNAIL	inter-SM nailup
ISMQLNK	inter-switching module communication link
ISP	Intermediate switching point
ISTF	integrated services test function
ISTF	integrated services transmission function
ITAP	incoming test access port
ITNA	improved third number acceptance
ITU-TS	International Telecommunication Union - Telecommunication Standardization Sector
IUN	IMS user node
IUN	interprocessor message switch user node
JIP	jurisdiction information parameter
KP	kernel process
KP	key pulse
LAC	line applications for consumers
LALT	LIDB alternate
LASS	local area signaling services
LASS	local area switching services
LATA	local access and transport area
LATA	local access transport area
LAU	link adapter unit
LB	line board
LB	little boot
LC	line card
LC	line circuit
LCA	local alarm
LCCB	logical channel control block
LCEN	line card equipment number
LCKEN	line circuit equipment number
LCN	logical channel number
LDFT	load disk from tape
LDSCUCOM	local digital service circuit unit common
LDSF	local digital services function
LDSU2	local digital service unit~-~model~2 common
LDSUCOM	local digital service unit common
LE	link establishment
LEC	local exchange carrier
LEN	line equipment number
LG	line group
LGC	line group controller
LI	link interface
LIA	link inhibit acknowledgement
LIDB	line information database
LIT	line insulation testing
LLCB	logical link control block

LN	leased network
LN	link node
LNP	local number portability
LOFA	loss of frame alignment
LOP	language override parameter
LP	line pack
LP	local processor
LP	lock out protection
LPA	loop-back acknowledgement
LPBK	loop-back
LPS	log/print status
LRAM	late RAM
LRN	location routing number
LRT	Local RT
LS	linkset
LSF	LASS selective features
LSI	loop side interface
LSM	local switching modules
LT	line termination
LTD	local test desk
LTD	long term denial
LTE	line terminating equipment
LTP	logical test ports
LTSB	line time slot bridging
LTSBDB	LTSB data block
LTTYPE	LT hardware type
LU	line unit
LU2	line unit - model two
LU3	line unit - model three
LUA	link uninhibit acknowledgement
LUCHAN	line unit channel
LUCHBD	line unit channel board
LUCOMC	line unit common control
LUCOMC	line unit common data and control
LUHLSC	line unit high level service circuit
LUPEX	line unit path exerciser
MA	metallic access
MAB	metallic access bus
MAC	memory administration center
MACTL	memory auxiliary control
MAN	metallic access network
MASC	main store controller
MBD	message buffer dump
MBESM0	memory board 0 error source mask
MBESM1	memory board 1 error source mask
MBESM2	memory board 2 error source mask
MBESM3	memory board 3 error source mask
MBTP	monitoring bridge terminal process
MC	microcode
MC	modular constructed
MCA	multiple call appearance
MCC	Master Control Center
MCH	Maintenance channel
MCRT	maintenance terminal
MCTRL	memory control
MCTSI	module control time slot interchange
MCTSI	module control/time slot interchange
MCTSI	module controller time slot interchange
MCTSI	module controller/time slot interchange
MCTSI	slot interchange
MCTU2	module controller and time slot interchanger unit
MCU	module controller unit
MD	message delivery
MDCT	major device chain table
MDCT	minor device chain table
MDCT	minor device configuration table
MDCT	monitor device chain table
MDCT-RID	Minor device chain table record ID
MDII	machine-detected interoffice irregularity
MECH	more efficient call handling
MELNK	MCTSI-based ethernet links
MEMES	memory error source

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MESMR	memory error source mask register
MF	multi-frequency
MGDSC	message discard
MGSC	message service customer
MH	message handler
MHD	moving head disk
MI	message interface
MIB	message interface bus
MICU	message interface/clock unit
MIM	maintenance information message
MIN	minimum
MINT	multifarious Intra-Network Trunk
MIRA	maintenance input request administrator
MISC	Miscellaneous
MISLNK	management information system data link
MLHG	multi-line hunt group
MLI	message link interface
MLNC	matching loss and no circuit
MLPP	multi-level precedence and preemption
MLTS	micro level test set
MMP	module message processor
MMRSM	multi-module remote switching module
MMSU	modular metallic service unit
MMU	memory management unit
MOC	measurement output control
MON	monitor
MOP	mount off-line partition
MP	micro processor
MP	modem pool
MP	module processor
MP	multi-point
MPG	modem pool group
MPR	machine performance report
MRA	maintenance request administrator
MRVA	MTP routing verification acknowledgement
MRVT	MTP routing verification test
MS	manual switch
MSCU	message switch control unit
MSGH	message handler
MSGS	message switch
MSGS	messages
MSKP	message switch kernel process
MSMTCH	mismatch
MSPU	message switch peripheral unit
MSS	Message Service System
MSU	metallic service unit
MSUCOM	MSU common
MSUCOM	metallic service unit common
MT	magnetic tape
MTB	metallic test bus
MTC	magnetic tape controller
MTCE	maintenance
MTIB	metallic test interconnect bus
MTIBAX	metallic test interconnect bus access
MTP	message transfer part
MTTY	maintenance teletypewriter
MTTYC	maintenance teletypewriter controller
MUPH	multiple position hunt
MWI	message waiting indicator
NA	not applicable
NAI	network access interrupt
NAI	number of address indication
NANP	North American numbering plan
NAP	name privacy
NC	network clock
NCAS	non-call associated services
NCD	network call denial
NCLK	network clock
NCOSC	network clock oscillator
NCP	network control point
NCREF	network clock reference
NCT	network control and timing

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NE	near-end
NEN	network equipment number
NESS	network element services signaling
NEXTMEM	next member
NI	national ISDN
NID	network ID
NLBIST	NLI built in self test
NLEMR	NLI error mask register
NLESR	NLI error source register
NLI	network link interface
NLLCR	NLI link control register
NM	network management
NMI	non-maskable interrupt
NMNODES	network management node schedule
NMTHD	Network management threshold
NNDA	name/number display allowed
NNP	name/number privacy
NOC	Network Operations Center
NOP	no-operation message
NP	node processor
NPA	numbering plan area
NRA	network remote access
NREL	new release
NRODD	non-redundant office dependent data
NRT	no response test
NS	number services
NSD	network services division
NSEP	national security emergency preparedness
NSN	network switch number
NT	network termination
NTE	network termination equipment
NTR	no test run
OAP	OSPS administrative processor
OC	office code
OCU	office channel unit
ODB	on-demand B-channel
ODBE	office database editor
ODD	office dependent data
ODMA	operational direct memory access
ODP	on-demand packet
ODPS	on-demand packet-switched
ODR	optional data region
OE	office equipment
OFC	official
OFFN	off-normal
OFLBOOT	offline boot
OFR	office records
OGEN	overwrite generator
OILD	Overwrite incremental loader
OIOP	operational input/output processor
OKP	operational kernel process
OLAC	OSPS line applications for consumers
OLHB	outgoing line history block
OLI	originating line information
OLS	originating line screening
OMDB	output message database
ONAC	Operations Network Administration Center
ONI	operator number identification
ONTC	office network and timing complex
ONTCCOM	office network and timing complex common
OOF	out-of-frame
OOS	out-of-service
OOST	out-of-service test
OP	output
OPC	origination point code
OPT	operator position terminal
ORIG	originating
ORM	optical remote module
OSC	Operator Service Center
OSCXC	network clock 2 oscillator cross-couple
OSDS	Operating System for Distributed Switching
OSPS	Operator Services Position System

OSPSPORT	OSPS port
OSR	operational software restart
OSS	Operational Support System
OST	originating station type
OST	operating system trap
OT	originating treatment
OT	outpulse timing
OTA	OSPS toll and assistance
OTAP	outgoing test access port
OTGBLK	OTG block
OTO	office-to-office
OTR	operator trouble report
OUTDN	outgoing DN
OVOEQ	OTA call volume and equipment usage
OVRWT	overwrite
PAFFR	pre-active flip-flop register
PAS	protected application segment
PAUTH	person authority
PB	Packet business
PB	position busy
PBX	private branch exchange
PC	peripheral controller
PC	point code
PCB	process control block
PCBLA	process control block link area
PCGRP	person-command group
PCN	privacy of calling name
PCPAUD	processor control process audit
PCS	personal communications services
PCSD	and peripheral controller subdevice
PCSDN	personal communications services directory number
PCTF	per-call test failure
PCUSD	Packet switching uniform call distribution
PD	previous day
PDT	partial dial time-out
PDU	protocol data unit
PEC	protocol error code
PER	protocol error record
PERPH	peripheral
PF	packet fanout
PF	printout follows
PFA	private facilities access
PFR	peripheral fault recovery
PH	protocol handler
PHA	packet handler for ATM
PHDB	protocol handler data bus
PHV	packet handler voice
PI	packet interface
PI	peripheral interface
PIB	power interlock board
PIC	peripheral interface controller
PIC	pre-subscribed inter-exchange carrier
PICB	peripheral interface control bus
PID	process ID
PIDB	peripheral interface data bus
PIN	personal identification number
PIO	processor input/output
PIO	program input/output
PIT	programmable interval timer
PKG	package
PKTDN	packet directory number
PKTPIPE	packet pipe
PL	purchase limit
PLBIST	PLI built in self test register
PLEMR	PLI error mask register
PLESR	PLI error source register
PLI	peripheral link interface
PLLCR	PLI link control register
PM	performance monitoring
PM	protocol monitoring
PMCFF	protocol monitoring common format file
PMCR	the plant measurements common report

PMDB	process message data block
PMGR	process-manager
PMS	plant measurements system
PMU	precision measurement unit
PNI	private network interface
POC	peripheral object file converter
POH	path overhead
POTS	plain old telephone service
PP	packet pipe
PPB	permanent packet B-channel
PPC	pump peripheral controller
PPM	packet pipe member
PPMTC	periodic pulse metering circuit
PPOCC	pre-paid overtime coin calls
PPSRV	Pre-port service
PR	packet routing
PRERCR	pre-software release recent change reapplication
PREV	previous
PRI	primary rate interface
PRL	population rule language
PRM	process recovery message
PROC	processor
PROC1	processor status 1 register
PROC2	processor status 2 register
PROC3	processor status 3 register
PROFL	profile
PROT	protection
PROT	protocol
PROTO	protocol circuit
PRTBN	scan port B
PS	packet switching
PSAP	public safety answering point
PSD	packet-switched data
PSGRP	packet switching group
PSLNK	link
PSLT	periodic signaling link test
PSML	packet switch maintenance limit
PSSWD	Password
PSU	packet switch unit
PSUCOM	packet switch unit common
PSUEN	Packet switching unit equipment number
PSUPH	packet switch unit protocol handler
PSW	process status word
PTE	path terminating equipment
PTRACE	program trace
PTS	peripheral time-slot
PTSB	packet switching unit time slot block
PU	peripheral units
PU	program update
PURGE-CNT	purge count
PUT	port under test
PUTBRG	port under test bridge
PVN	private virtual network
PWRUP	power-up
PX	power cross
QGL	QLPS gateway processor link
QGP	QLPS gateway processor
QLFR	QLPS fault recovery
QLFR CON	QLPS fault recovery configuration
QLI	QLPS interface
QLPS	quat-link packet switch
QTG	queuing for trunk group
QTMSLNK	QLPS time multiplex switch links
QTS	quarter time-slot
QUICC	quad integrated communications controller
RAF	recorded announcement function
RAM	random access memory
RAO	regional accounting office
RAO	revenue accounting office
RAP	recorded announcement ports
RAS	remote alarm section
RAU	remote switching module alarm unit

RBPSC	Remote BLDG/PWR MSU scan points
RBPSC	Remote building/power MSU scan point
RBPSC	remote BLDG/PWR MSU scan points
RC	receive control
RC	recent change
RC/V	recent change/verify
RCF	ring continuity failure
RCIW	receive cell information word
RCL	remote communication link
RCLK	remote clock
RCOSC	remote clock oscillator
RCOXC	remote clock oscillator cross couple
RCREF	remote clock reference
RCV	recent change and verify
RCXC	remote clock cross couple
RDFI	remote switching module digital facilities interface
RDI	remote defect indication
RDI-L	RDI for line
RDI-P	RDI for path
RDT	remote digital terminal
RDTA	remote digital test access
REFERR	reference error
REG	register
REMACS	remote access subsystem
REPT	report
REX	routine exercise
RFD	receive frame descriptor
RFIW	receive frame information word
RG	ringing generator
RGRASP	ring generic access package
RI	ring interface
RID	record identification number
RISLU	remote integrated services line unit
RISLUCC	remote ISLU common control
RIUSBL	ring interface usable
RLG	release guard
RLI	remote link interface
RMF	recovery message formatter
RMV	remove
RN	redirecting number
RN	ring node
RNA	ring node address
RNMS	remote network management system
RODD	redundant office dependent data
ROM	read only memory
ROP	receive-only printer
ROS	request out-of-service
RPC	ring peripheral controller
RPCN	ring peripheral controller node
RPCU	radio port controller unit
RPI	return-to-the-point-of-interrupt
RPT	repeat
RR	reroute
RRCLK	remote clock
RSC	reset circuit
RSM	remote switching module
RSMSK	reset mask
RST	reset
RST	restore
RSTSR	reset error source register
RT	remote terminal
RTAG	return tag
RTBM	real time billing memory
RTC	real time clock
RTCD	real time call detail
RTI	routing index
RTN	routine
RTRS	Real Time Rating System
RTRS	real-time rating service
RTS	real time status
RTT	reply to translation test
RVF	restore verify test

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RVPT	revertive pulsing transceiver
SA	sub-address
SAB	stand-alone billing
SAB	subaccount billing
SAC	service access code
SAD	System access delay
SAMEM	stand-alone billing memory
SAPI	service access point identifier
SAS	service announcement system
SAS	sender attached signal
SBUS	SCSI bus
SCA	selective call acceptance
SCAN	scan point board
SCANS	software change administration and notification system
SCC	Switching Control Center
SCCP	signaling connection control part
SCF	selective call forwarding
SCMDB	shared call model data block
SCP	service control point
SCR	selective call rejection
SCSD	scanner and signal distributor
SCSDC	scanner and signal distributor controller
SCSI	small computer system interface
SD	signal degrade
SDA	selective distinctive alert
SDAP	speed dialing auto-provisioning
SDC	speed dial code
SDF	special device file
SDFI	*SLC*® digital facility interface
SDFN	speed dial forward number
SDH	synchronous digital hierarchy
SDH-TE	synchronous digital hierarchy - transport equipment
SDL	signalling data link
SDL	speed dial list
SDL	synchronous data link
SDLC	synchronous data link controller
SDN	software defined network
SDP	software demand paging
SDS	shared data segment
SES	session
SES	severely errored seconds
SESMR	summary error source mask register
SESR	summary error source register
SF	signal failure
SFG	simulated facilities group
SFI	signal facility interface
SG	service group
SG	system generation
SGEN	system generation
SGRO	special growth
SH	speech handler
SH TRK	speech handler trunk
SHADDR	shadow address register
SHBCR	shadowed bus control register
SHDN	shared directory number
SHOPR	shadowed operations register
SI	system integrity
SID	site identification
SID	station identification
SILC	selective incoming load control
SIM	system integrity monitor
SIMCNTL	SIM monitor control
SIO	service information octet
SIOF	system integrity output formatter
SL	single limit
SLE	screen list editing
SLIM	subscriber line instrument measurement
SLK	signaling links
SLMK	signaling link maintenance kernel
SLS	signaling link selection
SM	switching module

SMD	storage module drive
SME	signaling message encryption
SMP	switching module processor
SMS	Service Management System
SMST	Switching Module System test
SNAT	signaling network administration time
SNKNCT	sink network, control, and timing
SNM	signaling network management
SNTM	signaling network traffic management
SODD	static office-dependent data
SOF	spooler output function
SOH	section overhead
SONET	synchronous optical network
SOP	service order profile
SOP	spooler output process
SOST	special operator services traffic
SP	scan point
SP	signal processor
SPCTL	SP control
SPESR	SP error source register
SPID	service profile ID
SPP	single process purge
SQA	simulated facility group queuing announcement
SRA	switching resource allocator
SRCNCT	Source network, control, and timing
SRSMR	software reset source mask register
SRSRC	software reset source register
SRST	signaling route set test
SRVT	SCCP routing verification test
SSC	Special services code
SSD	secondary start dial
SSD	shared secret data
SSI	small scale integration
SSN	subsystem number
SSP	service switching point
SSR	system status register
SSTR	service selective trunk reservation
STBY	standby
STD	short term denial
STDBY	standby
STE	switch terminating equipment
STE	section terminating equipment
STF	some test fail
STKWD	stack window
STLWS	supplemental trunk and line workstation
STP	service transfer point
STP	signaling transfer point
STP	stop
STRM	signaling traffic route and management
STS	synchronous transport signal
STSFAC	synchronous transport signal facility
STSX	synchronous transport signal electrical interface
SU	signal unit
SU	software update
SUBRR	subunit ready register
SUERM	signaling unit error rate monitor
SVC	service circuit
SWPCT	subunit write-protect control
SYS	system
T&A	toll and assistance
TAC	Technical Assistance Center
TAC	test access circuit
TAOPER	toll assistance operator
TAU	trunk access unit
TAUTH	terminal authority
TBCU	test bus control unit
TBCU	trunk bus control unit
TC	transaction capability
TCA	threshold crossing alert
TCAP	transaction capability application part
TCGRP	terminal-command group
TCIW	transmit cell information word

TCN	T1FA control node
TCS	terminating code screening
TDB	task data block
TDM	time division multiplexing
TDP-R	trigger detection point request
TDTP	traffic diversion terminal process
TEC	test execution control
TEI	terminal endpoint identifier
TEN	trunk equipment number
TERA	trunk error analysis
TERM	terminal
TERM	termination
TFD	transmit frame descriptor
TG	trunk group
TGC	trunk group controls
TGMNCNT	trunk group member threshold count
TGSR	terminal group station restrictions
TKG	trunk group
TKGMN	trunk group member number
TLP	trouble locating procedure
TLWS	trunk and line workstation
TM	terminal management
TM	timer
TMC	timeslot management channel
TMS	time-multiplexed switch
TMSLNK	time multiplexed switch link
TMSU	TMS switch unit
TMUX	transmission multiplexer
TNS	transit network selection
TO	time-out
TOD	time of day
TP	test position
TPR	terminating point restriction
TQ	trunk query
TQA	trunk group queuing announcement
TR	trunk reservation
TRCU	transmission rate converter unit
TRFC30	30-minute traffic report
TRM	trunk remoted module
TRM	two-mile remote module
TRM	two-mile remote switching module
TRUMP	trunk maintenance package
TSBEMR	TSI board error mask register
TSCMCCR	TSI clock control register
TSCMDNR	TSICOM diagnostic control register
TSCMEMR	TSICOM error mask register
TSCMESR	TSICOM error source register
TSDB	time slot data block
TSGRP	timeslot group
TSI	time slot interchange
TSICOM	TSI common
TSIFCTL	TSI IF control
TSIFDGC	TSI IF diagnostic control
TSIFESR	TSI IF error source register
TSIU	time slot interchange unit
TSIUEQP	TSI equipage
TSIUIMR	TSI interrupt summary error mask register
TSIUISR	TSI interrupt summary error source register
TSM	trunk status mapping
TSPS	Traffic Service Position System
TSSR	time slot select register
TT	touch tone
TTF	touch tone fraud
TTF	transmission test facility
TTF	transmission test function
TTFCOM	transmission test facility common
TTY	teletypewriter
TU	trunk unit
TUCHBD	trunk unit channel board
TUP	telephone user part
TUP	telephone user port
TV	transfer vector

TWS	trunk work station
TYPE	type
UA	unnumbered acknowledgement
UAS	unavailable seconds
UBS	unsuccessful backward setup
UCB	unit control block
UCD	uniform call distribution
UCI	unified control interface
UCI	universal control interface
UCIC	unequipped circuit identification code
UCL	unconditional
UCONF	universal conference
UCS	user control string
UCT	utility call trace
UF	update file
UID	utility identification
UMB	umbilical
UNA	unassigned
UNAV	unavailable
UNLD	unloader
UNP	uniform number plan
UO-CDM	update-only call disposition messages
UPD	update
UPNM	update name
UPPS	user-provided passed screening
UPT	universal pointer table
USPID	users service profile identification
UT	utilities
UTD	universal tone decoder
UTD	universal tone detector
UTG	universal tone generator
UVAR	utility variable
VAT	voice access test
VCDX	very compact digital exchange
VCF	virtual card format
VCXO	voltage controlled oscillator
VDT	video display terminal
VFL	voice frequency link
VFY	verify
VISA	vocoder interrupt and serial access chip
VL	volume limit
VLMM	very large main memory
VM	voice message
VMS	voice message service
VPA	voice path assurance
VPATH	virtual path
VPI	virtual path identifier
VT	virtual tributary
VT1.5	virtual tributary 1.5 facility
VT1FAC	virtual tributary level 1 facility
VTOC	volume table of contents
VTOC	volume table of contents
WATS	wide area telephone service
WBTGMEAS	wideband trunk group measurement
WNC	wireless network controller
XDB	External database
XPC	X.25 protocol controller
ZBTSI	zero byte time slot interchange
ZCS	zero code suppression

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4. APPENDIXES

APP:ACK-DB

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. ACKNOWLEDGMENT DATABASE APPENDIX

If an error is encountered with the acknowledgment database, an input message acknowledgment of the following format may appear.

```
NA BAD ACKDB (key 1) (key 2) (key 3) (key 4)
```

where key = a numerical value.

This appendix lists the text associated with each key.

To clear the condition where every message results in the NA BAD ACKDB acknowledgement, enter the CLR:ACKDB input message, followed by the 808 and 805 pokes on the 103 page.

The following list contains acknowledgements that print after an input indicator (; ! or ?) or delete message character (DEL or CAN) is entered. The ACKDB key assigned to each acknowledgement is also given.

Key	Text
0	
1	OK
2	NG
3	RL
4	IP
5	PF
6	?V
7	?A
8	?I
9	?D
10	?E
11	?C
12	?P
13	?T
14	?O
15	?X
16	NA
17	FIRST PARAMETER BLOCK
18	SECOND PARAMETER BLOCK
19	THIRD PARAMETER BLOCK
20	DATA BLOCK
21	FIRST KEYWORD
22	SECOND KEYWORD
23	THIRD KEYWORD
24	FOURTH KEYWORD
25	OPTIONAL KEYWORD
26	PUNCTUATION ERROR
27	INVALID CHARACTER
28	MISSING KEYWORD
29	EXTRA KEYWORD
30	INVALID KEYWORD
31	INCONSISTENT KEYWORD
32	MISSING DATA
33	RANGE ERROR
34	INVALID DATA
35	INCONSISTENT DATA
36	INPUT ERROR
37	INVALID KEY
38	INVALID EQUIPMENT ID

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39	BLOCK
40	REPT
41	CFTSHL
42	DLGSHL
43	ABORTED
44	NOT STARTED
45	COMPLETED
46	CONFLICT WITH CURRENT SYSTEM STATUS
47	RETRY LATER
48	INVALID ACTION FIELD
49	INVALID ID FIELD
50	INVALID DATA FIELD
51	UNABLE TO IDENTIFY ERROR
52	ERROR
53	ACKDB UNAVAILABLE
54	TERMINAL IN SERVICE
55	UNIDENTIFIED ERROR
56	HANGUP SIGNAL RECEIVED
57	UNABLE TO READ LINE
58	CANNOT CHANGE DIRECTORY TO
59	CANNOT CREATE
60	EOF ENCOUNTERED
61	SETGID TO
62	SETUID TO
63	INTERRUPT RECEIVED
64	IMPROPERLY TERMINATED INPUT
65	INVALID ENVIRONMENT ARGUMENT PASSED TO ALTERNATE SHELL
66	TERMINAL READING ERROR,
67	UNABLE TO EXECUTE PROCESS
68	UNABLE TO INITIATE COMMAND
69	UNABLE TO MATCH COMMAND
70	UNABLE TO FORK PROCESS
71	CANNOT EXECUTE 'EXC:UCL' ITSELF
72	TERMINAL SECURITY VIOLATION
73	PREVIOUS COMMAND HAD A SYNTAX ERROR
74	NO PREVIOUS COMMAND AVAILABLE
75	BAD IM CATALOG
76	CAPABILITY MODE
77	OF .pname FILE
78	INSTALL a .pname FILE IN DIRECTORY
79	AND SHELL WILL RECOVER
80	ALTERNATE SHELL
81	FAILED
82	ERRNO
83	OF .pname FILE FOR ALTERNATE SHELL
84	AND ENVIRONMENT ARGUMENT MISSING
85	'EXC:UCL' INVALID IN PART MODE
86	IMPROPERLY ESCAPED INPUT
87	INSUFFICIENT AUTHORITY
88	INVALID POSITIONAL PARAMETER
89	KEYWORD
90	TYPED OUT OF ORDER
91	UNRECOGNIZABLE MESSAGE
92	MISSING POSITIONAL PARAMETERS
93	TOO MANY POSITIONAL PARAMETERS
94	INCORRECT VALUE
95	FOR POSITIONAL PARAMETERS
96	NOT ENOUGH VALUES WERE TYPED FOR
97	TOO MANY VALUES WERE TYPED FOR
98	ARG
99	ONLY ONE MAY BE USED
100	OF
101	OR
102	DUPLICATED KEYWORD
103	INVALID VERB
104	MISSING VERB
105	TO EXECUTE COMMAND
106	INVALID TERMINATOR
107	FILE INACCESSIBLE
108	SEGMENT NAME CANNOT BE CLEARED

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109	CANCELED
110	COMMAND CANCELED WHILE IN EXECUTION
111	Enter Password
112	Identification Terminated
113	UNABLE TO ACCESS AUTHORITY ADMINISTRATION
114	Illegal Password
115	Identification Aborted
116	UNABLE TO RETRIEVE AUTHORITY GROUPS
117	Terminal out of service.
118	SEGCODE CANNOT BE DETERMINED
119	TOO MANY KEYS
120	SYNTAX ERROR
121	INVALID MESSAGE CLASS
122	INVALID ALARM
123	INVALID OMDB COPY
124	NON-EXISTENT PERSON IDENTITY
125	NON-EXISTENT TERMINAL IDENTITY
126	PASSWORD PREFIX NOT UNIQUE
127	PASSWORD PREFIX
128	AND/OR SUFFIX INCORRECT
129	COMMAND GROUP NOT ASSIGNED TO
130	THIS PERSON
131	THIS TERMINAL
132	TERMINAL ID ALREADY EXISTS
133	INVALID TERMINAL IDENTITY
134	PERSON IDENTITY NOT UNIQUE
135	MISSING PARAMETER(S)
136	ILLEGAL LENGTH
137	AUTHORITY ADMINISTRATION UNDER UPDATE
138	COMMAND GROUP ALREADY ASSIGNED TO
139	NO PERSON AUTHORITY PRESENT
140	NO TERMINAL AUTHORITY PRESENT
141	NO AUTHORITY GROUPS ASSIGNED TO
142	INSUFFICIENT RESOURCES
143	PASSWORD SUFFIX

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APP:AUD-A

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. AUDIT PARSING ERRORS FOLLOWING "?D" APPENDIX

Explanation:	Reason for Failure:
EXTRA KEYWORD	Too many keywords in data field.
INVALID CHARACTER	Member number given was not numeric.
INVALID DATA, ERROR 101	Cannot specify a range of member numbers.
INVALID DATA, ERROR 102	Only one member number allowed.
INVALID DATA, ERROR 103	The record for the specified audit name and member number is not found in the equipment configuration data base.
INVALID DATA, ERROR 105	An instance can be associated with one and only one audit name and member number.
INVALID DATA, ERROR 201	The data field must be empty.
INVALID DATA, ERROR 202	Only one instance can be specified.
INVALID DATA, ERROR 203	The record for the specified instance is not in the equipment configuration data base for the given audit name and member number.
INVALID DATA, ERROR 204	No additional data can be entered when ALL is used in an input message or RUN is used with the OP:AUD input message.
INVALID DATA, ERROR 501	Data string to the AUD message too long.
INVALID DATA, ERROR 502	Data string for the AUD message should not have an argument.
INVALID KEYWORD, ERROR 101	The audit name is too long.
INVALID KEYWORD, ERROR 102	No records for specified audit name were found in the equipment configuration data base.
INVALID KEYWORD, ERROR 201	The keyword is not INS.
INVALID KEYWORD, ERROR 501	The keyword is not PARAM.
MISSING DATA, ERROR 101	No member number was given.
MISSING DATA, ERROR 201	The INS keyword was entered but not instance name was specified.
MISSING DATA, ERROR 501	The PARAM keyword was entered but no additional parameter string was specified.
RANGE ERROR	Member number out of range.

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APP:AUD-B

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. AUDIT PARSING ERRORS FOLLOWING "?I" APPENDIX

Explanation	Reason for Failure
INCONSISTENT KEYWORDS	Conflicting action items.
INVALID DATA, ERROR 101	Cannot specify a range.
INVALID DATA, ERROR 102	Only one member number allowed.
INVALID DATA, ERROR 103	The record for the specified audit name and member number is not found in the equipment configuration database.
INVALID DATA, ERROR 201	The instance name is too long.
INVALID DATA, ERROR 202	Only one instance can be specified.
INVALID DATA, ERROR 203	The record for the specified instance is not in the equipment configuration database for the given audit name and member number.
INVALID DATA, ERROR 301	First action option keyword must not have a keyword data field.
INVALID DATA, ERROR 302	Second action option keyword must not have a keyword data field.
INVALID DATA, ERROR 401	Keyword data cannot follow keyword AUD.
EXTRA KEYWORD, ERROR 1	Too many action options.
EXTRA KEYWORD, ERROR 3	The third identification field subfield must be empty.
INVALID KEYOWRD, ERROR 101	The audit name is too long.
INVALID KEYWORD, ERROR 201	The keyword is not INS.
INVALID KEYWORD, ERROR 202	The keyword is invalid.
INVALID KEYWORD, ERROR 203	The keyword RUN is valid only with the OP:AUD input message.
INVALID KEYWORD, ERROR 301	The first action option is not valid.
INVALID KEYWORD, ERROR 401	The second action option is not valid.
INVALID KEYWORD, ERROR 501	ID keywords cannot follow AUD keyword.
MISSING DATA, ERROR 101	No member number was given.
MISSING DATA, ERROR 201	The INS keyword was entered but no instance name was specified.
MISSING KEYWORD, ERROR 1	No audit name was given.
MISSING KEYWORD, ERROR 2	The INS keyword (and its data) is missing.
RANGE ERROR	Member number out of range.

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APP:AUD-C

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. AUDIT ERRORS RESULTING FROM A CONFLICT WITH SYSTEM STATES APPENDIX

Explanation	Reason for Failure
ALREADY ALLOWED, ERROR 1	All member numbers associated with the audit name are already allowed. At least one member must not be currently allowed for the ALW:AUD input message to be executed.
ALREADY ALLOWED, ERROR 2	At least one of the specified members is already allowed. Use the OP:AUD input message to determine which members associated with the audit are currently allowed and which are not.
ALREADY ALLOWED, ERROR 3	The instance of the audit is already allowed.
ALREADY INHIBITED, ERROR 1	All the member numbers associated with the audit name are already inhibited. There must be at least one member number which is not inhibited.
ALREADY INHIBITED, ERROR 2	At least one of the specified members is already inhibited. Use the OP:AUD input message to determine which members associated with the audit are currently inhibited and which are not.
ALREADY INHIBITED, ERROR 3	The instance of the audit is already inhibited.
NO CHANGE	No change.
NOT MANUAL AUDIT	Not manual audit.
NOT RUNNING	The audit specified to be stopped is not running.

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APP:AUD-D

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. EXPLANATION FOR 'RETRY LATER' AUDIT ERRORS APPENDIX

Explanation	Reason for Failure
ALREADY RUNNING	The requested audit is already running.
AUDIT BLOCKED	Audit blocked.
AUDIT PROCESS NOT FULLY CREATED	Audit has not been dispatched yet, retry STOP:AUD later.
DIFFERENT MEMBER OF THIS AUDIT RUNNING	Another audit with the same name is already running. Only uniquely-named audits are permitted to run at the same time. The OP:AUD input message may be used to obtain further information about currently-running audits which may be preventing the initiation of the requested audit.

NOTE: If the following equipment configuration database error conditions continue, obtain technical assistance.

Explanation	Reason for Failure
ECD INTERFACE ERROR 1	Cannot attach the segments of the equipment configuration database to the message.
ECD INTERFACE ERROR 2	Cannot connect to the equipment configuration database.
ECD INTERFACE ERROR 3	Cannot read the equipment configuration database control record.
ECD INTERFACE ERROR 4	Cannot open a sequence for all audits with the specified name.
ECD INTERFACE ERROR 5	Error occurred while obtaining an audit record sequentially.
ECD INTERFACE ERROR 6	Error occurred while obtaining an audit record by key.
ECD INTERFACE ERROR 7	Error occurred while obtaining an instance record.
ECD INTERFACE ERROR 8	Cannot read SIM control record. If these equipment configuration database error conditions continue, obtain technical assistance.

Explanation	Reason for Failure
MAXIMUM KERNEL AUDITS RUNNING	A kernel process audit is already running. Only on kernel process audit may run at any one time. (It may have been initiated manually, or by a system process.) The OP:AUD input message may be used to obtain further information about currently-running audits which may be preventing the initiation of the requested audit.
MAXIMUM SUPERVISOR AUDITS RUNNING	The maximum number of supervisor process audits is already running. (They may have been initiated manually, or by a system process.) This number is controlled by a parameter in the SINCNTL record in the equipment configuration database. The OP:AUD input message may be used to obtain further information about currently-running audits which may be preventing the initiation of the requested audit.
RUNNING AUDIT, ERROR 6	The requested audit is already running.
RUNNING AUDIT, ERROR 7	A kernel process audit is already running. Only one kernel process audit may run at any one time. (It may have been initiated manually or by a system process.) The OP:AUD input message may be used to obtain further information about currently-running audits which may be preventing the initiation of the requested audit.
RUNNING AUDIT, ERROR 8	The maximum number of supervisor process audits is already running. (They may have been initiated manually or by a system process.) This number is controlled by a

	parameter in the SIMCNTL record in the equipment configuration database. The OP:AUD input message may be used to obtain further information about currently-running audits which may be preventing the initiation of the requested audit.
RUNNING AUDIT, ERROR 11	Another audit with the same name is already running. Only uniquely named audits are permitted to run at the same time. The OP:AUD input message may be used to obtain further information about currently running audits which may be preventing the initiation of the requested audit.
SIM INTERFACE ERROR 3	Audit system initialization is in progress.
SIM INTERFACE ERROR 4	Audit system initialization failed.

Explanation	**Reason for Failure**
SIM INTERFACE ERROR 5	SIM was unable to access an equipment configuration database record using a record identifier (RID) passed to it by the message program.
SIM INTERFACE ERROR 10	SIM failed to start the audit.
SIM INTERFACE ERROR 15	System integrity output formatter is dead.
SIM INTERFACE ERROR 19	An invalid RID was passed to SIM by the message program.
SIM INTERFACE ERROR 20	An invalid instance RID was passed to SIM by the message program.
SIM INTERFACE ERROR 23	Cannot stop a non-segmented audit.

APP:AUDITS

Software Release: 5E10 and later
Message Class: N/A
Application: 5
Type: Output

1. APPLICATION AUDITS APPENDIX

Audit ID	AATA
Description	AMPS automatic task scheduler.
Application(s) 5E10 - 5E12	OKP
Application(s) 5E13	OKP, ASM, SM-2000
Application(s) 5E14	SM, SM-2000, OKP

Audit ID	ACAHSS
Description	Automated circuit assurance and hundred second scan.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	ACB
Description	Allocation control block.
Application(s) 5E13	OKP, ASM, SM-2000
Application(s) 5E14	SM, SM-2000, OKP

Audit ID	ACCSDB
Description	Automated calling card service data block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	ACDINFO
Description	Automatic call distributor information.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	ACDPOSDB
Description	Automatic call distributor position block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	ACRECORD
Description	Auxiliary call record.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	ACSRQC
Description	Automatic customer station re-arrangement queue.

Application(s) 5E10 - 5E12	OKP, SM-2000
Application(s) 5E13	OKP
Application(s) 5E14	OKP

Audit ID	ACTBASE
Description	Active common controller.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	ADB
Description	Analog data block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	ADCB
Description	*Autoplex*™ data control block.
Application(s) 5E13	PHV
Application(s) 5E14	PH

Audit ID	AGENTID
Description	Agent login identifiers and serving team assignments for all agents.
Application(s) 5E11 - 5E12	SM-2000, CMP
Application(s) 5E13	CMP, CMPKP
Application(s) 5E14	CMP

Audit ID	AGENTPOS
Description	Agent position assignments of currently logged in agents.
Application(s) 5E11 - 5E12	SM-2000, CMP
Application(s) 5E13	CMP, CMPKP
Application(s) 5E14	CMP

Audit ID	AIGSDB
Description	
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	AIUAP
Description	
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	AIUPIDB
Description	
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	ALCB
Description	Access line control block.
Application(s) 5E10 - 5E12	SM-2000, PH
Application(s) 5E13	ISDNPH, PH4

Application(s) 5E14	PH

Audit ID	ALDB
Description	Access line data block.
Application(s) 5E10 - 5E12	SM-2000, PH
Application(s) 5E13	ISDNPH, PH4
Application(s) 5E14	PH

Audit ID	ALMRDT
Description	Alarm remote digital terminal.
Application(s) 5E12	SM-2000
Application(s) 5E13	SM-2000
Application(s) 5E14	SM-2000

Audit ID	AML
Description	Automatic maintenance limit.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	AMLINFO
Description	Automatic maintenance limit information.
Application(s) 5E10 - 5E12	OKP, SM-2000
Application(s) 5E13	OKP
Application(s) 5E14	OKP

Audit ID	ANILHB
Description	Analog incoming line history block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	ANOLHB
Description	Analog outgoing line history block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	ANQ
Description	Automatic terminal setup notification queue.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	APB
Description	Associated process block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	APBUF

Description	Applications processor message buffers.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	APCIAPC
Description	
Application(s) 5E14 and later	SM, SM-2000

Audit ID	APCSTAT
Description	
Application(s) 5E14 and later	SM, SM-2000

Audit ID	APDU
Description	Application protocol data unit.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	APHEADC
Description	Applications processor message buffers head cell.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	APLST
Description	Applications processor link status table.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	APSITE
Description	Applications processor site to link conversion.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	APSPB
Description	Applications processor supplemental protocol block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	APXCTBL
Description	Autoplex table array.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	ASPDISP
Description	
Application(s) 5E14 and later	SM, SM-2000

Audit ID	ASPTP
Description	
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	ASPTRANS
Description	
Application(s) 5E14 and later	SM, SM-2000

Audit ID	ATCALL
Description	Autocall.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	ATPDB
Description	Announcement terminal process data block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	ATPMBUF
Description	Acknowledged transport protocol message buffer.
Application(s) 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	ATTHBLF
Description	Attendant link header.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	ATTMBLF
Description	Attendant button status.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	AUTOQ
Description	Switch maintenance automatic request queue.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	BASE
Description	*SLC*® 96 base.
Application(s) 5E10 - 5E12	SM, SM-2000

Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	BCLGCNT
Description	Bulk calling line ID MLHG/trunk group counts.
Application(s) 5E10 - 5E12	SM, SM-2000, CMP
Application(s) 5E13	ASM, SM-2000, CMP, CMPKP
Application(s) 5E14	SM, SM-2000, CMP

Audit ID	BCLLCNT
Description	Bulk calling line ID Counts.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	BCLLTM
Description	Bulk calling line ID logical termination.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	BCLMHTG
Description	Bulk calling line ID MLHG/trunk group counts.
Application(s) 5E10 - 5E12	SM, SM-2000, CMP
Application(s) 5E13	ASM, SM-2000, CMP, CMPKP
Application(s) 5E14	SM, SM-2000, CMP

Audit ID	BD
Description	Buffer descriptor.
Application(s) 5E10 - 5E12	SM-2000, PH, PI
Application(s) 5E13	ISDNPH, PH4, PI1, PI2, PHV, PHA, PH3CCS
Application(s) 5E14	PH, PI

Audit ID	BFDATA
Description	Buffer data.
Application(s) 5E10 - 5E12	OKP, SM-2000
Application(s) 5E13	OKP
Application(s) 5E14	OKP

Audit ID	BLOCK
Description	SM peripheral fault recovery count blocks.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	BRCSDB
Description	Business and residential customer data block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	BRGDB
Description	
Application(s) 5E14 and later	SM, SM-2000

Audit ID	BRKPT
Description	Breakpoint table.
Application(s) 5E10 - 5E12	SM, SM-2000, CMP, PH
Application(s) 5E13	ISDNPH, PH4, PI1, PI2, PHV, PHA, PH3CCS, ASM, SM-2000, CMP
Application(s) 5E14	SM, SM-2000, PH, PI, CMP

Audit ID	BUFMSG
Description	Buffer message for feature execution control.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	CALINFO
Description	
Application(s) 5E14 and later	SM, SM-2000, PH

Audit ID	CBDB
Description	Call buildup data block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	CBHC
Description	Concentrated buffer head cell.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	CCATBL
Description	Conference circuit access table.
Application(s) 5E10 - 5E12	SM-2000, CMP
Application(s) 5E13	CMP
Application(s) 5E14	CMP

Audit ID	CCBCOM
Description	Channel control block common area.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	CCENDPT
Description	
Application(s) 5E14 and later	MH, PH

Audit ID	CCEST
Description	Common control processor equipment status.
Application(s) 5E10 - 5E12	SM-2000
Application(s) 5E13	SM-2000
Application(s) 5E14	SM-2000

Audit ID	CCGINFO
Description	SCCP global information table.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	CCGTBL
Description	SCCP global title translation table.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	CCGTT
Description	SCCP global title translation type table.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	CCSLINK
Description	Elimination of false CCS link congestion.
Application(s) 5E13	PH3CCS
Application(s) 5E14	PH

Audit ID	CCSSTPDB
Description	Common channel signaling setup data block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	CDBCOM
Description	Circuit data block common area.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	CFLNTRM
Description	Call forwarding line termination message storage.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	CFSCOP
Description	Call forwarding system camp-on process.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	CGACKT
Description	Carrier group alarm circuit.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	CGALIST
Description	Carrier group alarm list.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	CGAPORT
Description	Carrier group alarm port.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	CGASTAT
Description	Carrier group alarm status.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	CHALLOC
Description	Channel allocation.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM
Application(s) 5E14	SM

Audit ID	CHAN
Description	Line unit channel board.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	CHDB
Description	Channel data block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	CINDX7
Description	MCAH CIC list index.
Application(s) 5E10 - 5E12	OKP, SM, SM-2000
Application(s) 5E13	OKP, ASM, SM-2000
Application(s) 5E14	SM, SM-2000, OKP

Audit ID	CKTDATA
Description	Circuit data.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	CLAPCRDB
Description	
Application(s) 5E14 and later	SM, SM-2000

Audit ID	CLDB

Description	Call leg data block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	CLLQDB
Description	Call queue data block.
Application(s) 5E11 - 5E12	SM-2000, CMP
Application(s) 5E13	CMP, CMPKP
Application(s) 5E14	CMP

Audit ID	CLNK
Description	Communication link.
Application(s) 5E10 - 5E12	SM-2000
Application(s) 5E13	SMKP
Application(s) 5E14	SMKP

Audit ID	CLSLS
Description	Combined link set.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	CLSSTAT
Description	Combined link set status.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	CLUAPCI
Description	
Application(s) 5E14 and later	SM, SM-2000

Audit ID	CLUINFO
Description	
Application(s) 5E14 and later	SM, SM-2000

Audit ID	CLURDB
Description	
Application(s) 5E14 and later	SM, SM-2000

Audit ID	CLUSTAT
Description	
Application(s) 5E14 and later	SM, SM-2000

Audit ID	CMIM
Description	Communication package in the SM.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM
Application(s) 5E14	SM

Audit ID	CMPKT
Description	
Application(s) 5E14 and later	SM, SM-2000, OKP, CMP

Audit ID	CNAMDATA
Description	ICLID CNAM message count.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	CNDDATA
Description	Calling number delivery.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	COINOT
Description	Automated coin.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	CONFC
Description	Conference.
Application(s) 5E10 - 5E12	SM, SM-2000, CMP
Application(s) 5E13	ASM, SM-2000, CMP
Application(s) 5E14	SM, SM-2000, CMP

Audit ID	CPEST
Description	AM equipment status table.
Application(s) 5E10 - 5E12	SM-2000, CMP
Application(s) 5E13	CMP, CMPKP
Application(s) 5E14	CMP

Audit ID	CPLR
Description	Coupler.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	CPNBNCNT
Description	Calling party/billing number count.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	CQB
Description	Circuit queuing block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000

Application(s) 5E14	SM, SM-2000

Audit ID	CQDB
Description	Call queue data block.
Application(s) 5E10 - 5E12	SM-2000, CMP
Application(s) 5E13	CMP, CMPKP
Application(s) 5E14	CMP

Audit ID	CQPARM
Description	Call queue related parameters
Application(s) 5E11 - 5E12	SM-2000, CMP
Application(s) 5E13	CMP, CMPKP
Application(s) 5E14	CMP

Audit ID	CRDATA
Description	Cluster route data.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	CRECORD
Description	Call record.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	CRV
Description	Call reference value.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000

Audit ID	CTINFO
Description	Call type related information.
Application(s) 5E10 - 5E12	SM-2000, CMP
Application(s) 5E13	CMP, CMPKP
Application(s) 5E14	CMP

Audit ID	CVADMGP
Description	Conversion administration group table.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	CVCDPY
Description	Conversion called party.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	CVCGPY
Description	Conversion calling party table.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	CVSTATE

Description	Call vector state tuples.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	DALB
Description	D-channel application link block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	DASC
Description	Directory assistance call mapping.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	DBCND
Description	Calling number delivery for individual calling line identification.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	DBCSTMSG
Description	Broadcast message.
Application(s) 5E10 - 5E12	SM-2000, CMP
Application(s) 5E13	CMP, CMPKP
Application(s) 5E14	CMP

Audit ID	DBHEADC
Description	Database head cell.
Application(s) 5E10 - 5E12	OKP, SM, SM-2000, CMP
Application(s) 5E13	OKP, ASM, SM-2000, CMP, CMPKP
Application(s) 5E14	SM, SM-2000, OKP, CMP

Audit ID	DBLOCK
Description	Database lock.
Application(s) 5E10 - 5E12	OKP, SM, SM-2000, CMP
Application(s) 5E13	OKP, ASM, SM-2000, CMP, CMPKP
Application(s) 5E14	SM, SM-2000, OKP, CMP

Audit ID	DBSMSTAT
Description	SM status.
Application(s) 5E10 - 5E12	SM-2000, CMP
Application(s) 5E13	CMP, CMPKP
Application(s) 5E14	CMP

Audit ID	DCCB
Description	D-channel protocol handler control block.
Application(s) 5E10 - 5E12	SM-2000, PH

Application(s) 5E13	ISDNPH, PH4
Application(s) 5E14	PH

Audit ID	DCDB
Description	D-channel protocol handler data block.
Application(s) 5E10 - 5E12	SM-2000, PH
Application(s) 5E13	ISDNPH, PH4
Application(s) 5E14	PH

Audit ID	DCHNPRI
Description	D-channel primary rate interface group defined.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000

Audit ID	DD
Description	Data delivery.
Application(s) 5E10 - 5E12	SMKP, OKP, SM, SM-2000, CMP
Application(s) 5E13	ASM, SM-2000, CMP, CMPKP, OKP, SMKP
Application(s) 5E14	SM, SM-2000, OKP, SMKP, CMP

Audit ID	DFIMP
Description	*SLC*® 96 digital facility interface microprocessor.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	DFISHELF
Description	*SLC*® 96 digital facility interface shelf.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	DFMAP
Description	Data fanout map.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	DFNIBBLE
Description	Data fanout flexible time slot bits.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	DISPDB
Description	Display data block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	DLI
Description	Dual link interface.
Application(s) 5E10 - 5E12	SM-2000
Application(s) 5E13	SMKP
Application(s) 5E14	SMKP

Audit ID	DLTDATA
Description	Digital line and trunk data audit.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	DLTSBDB
Description	Line time slot bridging data block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	DNGSDB
Description	DNU-S group scan data block.
Application(s) 5E12	SM-2000
Application(s) 5E13	SM-2000
Application(s) 5E14	SM-2000

Audit ID	DOC
Description	Dynamic overload control.
Application(s) 5E10 - 5E12	SM-2000, CMP
Application(s) 5E13	SM-2000, CMP, CMPKP
Application(s) 5E14	CMP, SM-2000

Audit ID	DPB
Description	D-channel port block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	DPCDPCI
Description	Destination point code to destination point code index.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	DPCSTAT
Description	Destination point code status.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	DPCTFPR
Description	
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	DS0B
Description	Digital signal 0 block.

Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	DSCC
Description	Digital service circuit common board.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	DSLEQUIP
Description	Digital subscriber line equipage status.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	DSLOWN
Description	Digital subscriber line ownership.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	DT
Description	Data transport bits.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	DYNPICB
Description	Dynamic PICB.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	E911DB
Description	Emergency 911 data block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	EDSLTRKG
Description	Electronic directory service trunk group.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	EFD
Description	Ethernet frame descriptor.
Application(s) 5E13	ASM, MH
Application(s) 5E14	MH, SM

Audit ID	EISCALL
Description	External Information System calls.
Application(s) 5E10 -	SM, SM-2000

5E12	
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	EISLKSEL
Description	External Information System links select.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	EISLNK
Description	External Information System links.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	EISSM
Description	External Information System switching module.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	ENTRY7
Description	MCAH table entry.
Application(s) 5E10 - 5E12	OKP, SM, SM-2000
Application(s) 5E13	OKP, ASM, SM-2000
Application(s) 5E14	SM, SM-2000, OKP

Audit ID	EPKB
Description	Extended packet buffer.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	EQUIP
Description	*SLC*® 96 equipment status.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	EXENET
Description	External ethernet link.
Application(s) 5E12	SM-2000, MH
Application(s) 5E13	MH
Application(s) 5E14	MH

Audit ID	EXRR
Description	Extended reroute.
Application(s) 5E10 - 5E12	SM-2000, CMP
Application(s) 5E13	SM-2000, CMP, CMPKP
Application(s) 5E14	SM-2000, CMP

Audit ID	FACPM
Description	Facility performance monitoring alert state.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	FACSTAT
Description	Facility status.
Application(s) 5E10 - 5E12	SM-2000, CMP
Application(s) 5E13	ASM, SM-2000, CMP, CMPKP
Application(s) 5E14	SM, SM-2000, CMP

Audit ID	FARPID
Description	Far process identifier.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	FCASITBL
Description	Feature control advanced service interface table.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	FCLINE
Description	Individual line feature data.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	FCSTRUTD
Description	
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	FCTRUNK
Description	Feature data for trunks.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	FD
Description	Frame descriptor.
Application(s) 5E10 - 5E12	SM-2000, MH, QGP
Application(s) 5E13	MH, QGP
Application(s) 5E14	MH, QGP

Audit ID	FRNAMA
Description	
Application(s) 5E14 and later	SM, SM-2000

Audit ID	GCKTI
Description	Global service circuit.
Application(s) 5E10 - 5E12	SM-2000, CMP
Application(s) 5E13	CMP
Application(s) 5E14	CMP

Audit ID	GPAXDB
Description	General purpose process annex data block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	GPFTIMER
Description	General purpose function timers.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	GRPPORT
Description	Group and member number to port.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	GRPTGC
Description	Group trunk group controls.
Application(s) 5E10 - 5E12	SM-2000, CMP
Application(s) 5E13	SM-2000, CMP, CMPKP
Application(s) 5E14	SM-2000, CMP

Audit ID	GSDB
Description	Group scan data block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	GSLK
Description	
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	HCCALLTQ
Description	Head cells for call type queues.
Application(s) 5E10 - 5E12	SM-2000, CMP
Application(s) 5E13	CMP, CMPKP
Application(s) 5E14	CMP

Audit ID	HCCLLQ
Description	Head cells for call queues.
Application(s) 5E11 - 5E12	SM-2000, CMP
Application(s) 5E13	CMP, CMPKP
Application(s) 5E14	CMP

Audit ID	HCSERVTM
Description	Head cells for serving team position queues.
Application(s) 5E10 - 5E12	SM-2000, CMP
Application(s) 5E13	CMP, CMPKP
Application(s) 5E14	CMP

Audit ID	HCSRVQ
Description	Head cells for serving team position queues.
Application(s) 5E11 - 5E12	SM-2000, CMP
Application(s) 5E13	CMP, CMPKP
Application(s) 5E14	CMP

Audit ID	HLSC
Description	High-level service circuit.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	HTLSEQN
Description	Autoquote hotel/motel.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	ICLIDIDX
Description	In-coming line identification index.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	ICPEST
Description	Interprocessor central processor equipment status table.
Application(s) 5E10 - 5E12	SM, SM-2000, CMP
Application(s) 5E13	ASM, SM-2000, CMP, CMPKP
Application(s) 5E14	SM, SM-2000, CMP

Audit ID	ICR
Description	Intercom calling restriction.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	ICRLGST
Description	Intercom calling restriction large status.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	ICRST

Description	Intercom calling restriction status.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	ICRTG
Description	Incoming routing data.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	IDDS1
Description	IDCU digital signal 1.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	IDPIDB
Description	IDCU peripheral interface data bus.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	IDXDPCS
Description	
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	IDXGTT
Description	
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	IDXSSN
Description	
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	IFD
Description	Internal frame descriptors.
Application(s) 5E10 - 5E12	SM-2000, PH, PI
Application(s) 5E13	ISDNPH, PH4, PI1, PI2, PHV, PHA, PH3CCS
Application(s) 5E14	PH, PI

Audit ID	IMIIA
Description	Interrupt inhibit administrator.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	IMTGRPS
Description	
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	IMTRCNTS
Description	
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	INPCB
Description	Internet protocol control block.
Application(s) 5E12	SM-2000, MH
Application(s) 5E13	MH
Application(s) 5E14	MH

Audit ID	INSPDATA
Description	Inspect data.
Application(s) 5E13	ASM
Application(s) 5E14	SM

Audit ID	IPCSPCI
Description	
Application(s) 5E14 and later	SM, SM-2000

Audit ID	ISANBUS
Description	Analog integrated services line unit metallic access network bus.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	ISATUCD
Description	ISDN attendant universal call distribution hunt.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	ISCDCFG
Description	Common data configuration.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	ISILHB
Description	ISDN incoming line history block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	ISLIDBTS
Description	Local interface data bus time slot map.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	ISLINE

Description	Digital subscriber line logical termination directory number feature.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	ISLUTRAN
Description	Remoted integrated services line unit index.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	ISMDB
Description	ISDN maintenance data block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	ISOLHB
Description	ISDN outgoing line history block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	ISPABUF
Description	Integrated services port administration buffer.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	ISPIDBTS
Description	Peripheral interface data bus time slot map.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	ISTERM
Description	Digital subscriber line terminal feature.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	ISTF
Description	ISDN test function application.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	LAESCASE
Description	
Application(s) 5E14 and later	PH

Audit ID	LCCB
Description	Logical channel control block.
Application(s) 5E10 - 5E12	SM-2000, PH
Application(s) 5E13	ISDNPH, PH4
Application(s) 5E14	PH

Audit ID	LCGREP
Description	Line concentrator report inhibit mask.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	LCGSSMASK
Description	Line concentrator grid summary scan inhibit mask.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	LCSMSK
Description	Line concentrator scan mask.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	LDATBLF
Description	Local line status.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	LGLNSTAT
Description	Large line status.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	LGMEM
Description	Multi-line hunt large group member status.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	LGSFSTAT
Description	Large simulated facility status.
Application(s) 5E10 - 5E12	SM-2000, CMP
Application(s) 5E13	ASM, SM-2000, CMP, CMPKP
Application(s) 5E14	SM, SM-2000, CMP

Audit ID	LGTKSTAT

Description	Large trunk status.
Application(s) 5E10 - 5E12	SM, SM-2000, CMP
Application(s) 5E13	ASM, SM-2000, CMP, CMPKP
Application(s) 5E14	SM, SM-2000, CMP

Audit ID	LINE
Description	Line concentrator link map.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	LLCB
Description	Logical link control block.
Application(s) 5E10 - 5E12	SM-2000, PH, PI
Application(s) 5E13	ISDNPH, PH4
Application(s) 5E14	PH

Audit ID	LLMRDT
Description	Logical link map for the remote digital terminal.
Application(s) 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	LMDB
Description	Link management data block.
Application(s) 5E10 - 5E12	SM-2000, MH, QGP
Application(s) 5E13	MH, QGP
Application(s) 5E14	MH, QGP

Audit ID	LNKDATA
Description	Link status data.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	LNKSLS
Description	Signaling link selection.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	LNKUSE
Description	TSI link type.
Application(s) 5E10 - 5E12	SM-2000
Application(s) 5E13	SM-2000
Application(s) 5E14	SM-2000

Audit ID	LNSTAT
Description	Line status.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	LOGINID

Description	B-channel port assignments of currently logged in operators.
Application(s) 5E10 - 5E12	SM-2000, CMP
Application(s) 5E13	CMP, CMPKP
Application(s) 5E14	CMP

Audit ID	LOOPDB
Description	Loop data block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	LORSTMR
Description	
Application(s) 5E14 and later	SM, SM-2000

Audit ID	LPRTACCS
Description	Local port to automated calling card service data block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	LPRTPOS
Description	Local port to position mapping.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	LSCMDB
Description	Large shared call model data block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	LSDATA
Description	Link set status.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	LSLINK
Description	Link set linkage data.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	LSTAB
Description	Link set routing data table.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	LTMSTAT
Description	Logical termination busy idle status.
Application(s) 5E10 - 5E12	SM, SM-2000

Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	LTSBPORT
Description	Line time slot bridging port.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	LTSBSTAT
Description	Line time slot bridging status.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	MALLOC
Description	Memory allocation block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	MATESM
Description	Mate SM audit.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	MCB
Description	Message control block.
Application(s) 5E10 - 5E12	SMKP, OKP, SM, SM-2000, CMP
Application(s) 5E13	PI2, ISDNPH, PH4, PHV, PHA, PH3CCS, ASM, SM-2000, CMP, CMPKP, OKP, SMKP
Application(s) 5E14	SM, SM-2000, OKP, SMKP, PH, PI, CMP

Audit ID	MDB
Description	Model data block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	MDRQ
Description	Message detail recording queue.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	MELNK
Description	MCTSI-based ethernet link.
Application(s) 5E12	SM-2000
Application(s) 5E13	SM-2000
Application(s) 5E14	SM-2000

Audit ID	MEM
Description	Multi-line hunt group member status.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	MEMMAN
Description	Memory management.
Application(s) 5E10 - 5E12	OKP, SM, SM-2000, CMP
Application(s) 5E13	OKP, ASM, SM-2000, CMP, CMPKP
Application(s) 5E14	SM, SM-2000, OKP, CMP

Audit ID	MODHBLF
Description	100's group busy lamp field request header.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	MODMBLF
Description	100's group busy lamp field request members.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	MPHDATA
Description	Metallic service unit path data.
Application(s) 5E10 - 5E12	SM-2000, CMP
Application(s) 5E13	CMP, CMPKP
Application(s) 5E14	CMP

Audit ID	MSALWSG
Description	Measurements allow switch group.
Application(s) 5E10 - 5E12	OKP, SM-2000
Application(s) 5E13	OKP
Application(s) 5E14	OKP

Audit ID	MSLUSDY
Description	Measurements line unit study.
Application(s) 5E10 - 5E12	OKP, SM-2000
Application(s) 5E13	OKP
Application(s) 5E14	OKP

Audit ID	MSMWIDA
Description	Message waiting indicator data.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	MSQ
Description	Message queue.
Application(s) 5E10 -	OKP, SM, SM-2000, CMP

5E12	
Application(s) 5E13	OKP, ASM, SM-2000, CMP, CMPKP
Application(s) 5E14	SM, SM-2000, OKP, CMP

Audit ID	MSSGCNT
Description	Measurements switch group count.
Application(s) 5E10 - 5E12	OKP, SM-2000
Application(s) 5E13	OKP

Audit ID	MSSGEQ
Description	Measurements switch group equipped.
Application(s) 5E10 - 5E12	OKP, SM-2000
Application(s) 5E13	OKP

Audit ID	MSSGLIST
Description	Measurements switch group list.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	MTIB
Description	Metallic test interconnect bus.
Application(s) 5E10 - 5E12	SM, SM-2000, CMP
Application(s) 5E13	ASM, SM-2000, CMP, CMPKP
Application(s) 5E14	SM, SM-2000, CMP

Audit ID	MUPHST
Description	Multiple position hunt status.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	NAILUP
Description	Nail up path audit.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	NETINFO
Description	
Application(s) 5E14 and later	SM, SM-2000

Audit ID	NETSTAT
Description	
Application(s) 5E14 and later	SM, SM-2000

Audit ID	NLI
Description	Network link interface.
Application(s) 5E10 -	SM-2000

5E12	
Application(s) 5E13	SMKP
Application(s) 5E14	SMKP

Audit ID	NMCC
Description	Network management code controls.
Application(s) 5E10 - 5E12	SM, SM-2000, CMP
Application(s) 5E13	ASM, SM-2000, CMP, CMPKP
Application(s) 5E14	SM, SM-2000, CMP

Audit ID	NMDCOFC
Description	Network management directly connected office.
Application(s) 5E10 - 5E12	SM-2000, CMP
Application(s) 5E13	CMP, CMPKP
Application(s) 5E14	CMP

Audit ID	NMDSNARC
Description	Network management defense switched network alternate routing control.
Application(s) 5E10 - 5E12	SM-2000, CMP
Application(s) 5E13	CMP, CMPKP
Application(s) 5E14	CMP

Audit ID	NMTR
Description	Information per individual trunk group.
Application(s) 5E10 - 5E12	SM-2000, CMP
Application(s) 5E13	SM-2000, CMP, CMPKP
Application(s) 5E14	CMP, SM-2000

Audit ID	NRROUTE
Description	
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	NSBILL
Description	Network services billing information.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	NSDB
Description	Network services data block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	NSIDX
Description	Network services index.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	NSTN
Description	Number services termination notification.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	OAOTDB
Description	OSPS originating treatment data block.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	OCRECORD
Description	OSPS Call record.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	OHTIMER
Description	Owning headcell for timers.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	OLOGINID
Description	Login identifiers and serving team assignments for all operators.
Application(s) 5E10 - 5E12	SM-2000, CMP
Application(s) 5E13	CMP, CMPKP
Application(s) 5E14	CMP

Audit ID	OPNDC
Description	Open dictionary.
Application(s) 5E10 - 5E12	OKP, SM, SM-2000, CMP
Application(s) 5E13	OKP, ASM, SM-2000, CMP, CMPKP
Application(s) 5E14	SM, SM-2000, OKP, CMP

Audit ID	OSBCB
Description	Broadcast message control block.
Application(s) 5E10 - 5E12	OKP, SM-2000, CMP
Application(s) 5E13	OKP, CMP, CMPKP
Application(s) 5E14	OKP, CMP

Audit ID	OSBIT
Description	Broadcast identifier table.
Application(s) 5E10 - 5E12	OKP, SM-2000, CMP
Application(s) 5E13	OKP, CMP, CMPKP
Application(s) 5E14	OKP, CMP

Audit ID	PAGBUF
Description	Paging buffer.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	PARKLOT
Description	Call park parklot data block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	PATHMAP
Description	*SLC*® 96 path map.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	PBCB
Description	Packet bus control block.
Application(s) 5E13	ISDNPH, PH4, PI1, PI2, PHV, PHA, PH3CCS
Application(s) 5E14	PH, PI

Audit ID	PCB
Description	Process control block.
Application(s) 5E10 - 5E12	SMKP, OKP, SM, SM-2000, CMP
Application(s) 5E13	PI2, ISDNPH, PH4, PHV, PHA, PH3CCS, ASM, SM-2000, CMP, CMPKP, OKP, SMKP
Application(s) 5E14	SM, SM-2000, OKP, SMKP, PH, PI, CMP

Audit ID	PCBLA
Description	Process control block linkage area.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	PCCB
Description	Peripheral channel control block.
Application(s) 5E10 - 5E12	SM-2000, MH
Application(s) 5E13	MH
Application(s) 5E14	MH

Audit ID	PCD
Description	Peripheral configuration data.
Application(s) 5E10 - 5E12	SM-2000
Application(s) 5E13	SMKP
Application(s) 5E14	SMKP

Audit ID	PCI7LAB
Description	Point code index translation for CCS7 trunks.
Application(s) 5E10 - 5E12	OKP, SM, SM-2000
Application(s) 5E13	OKP, ASM, SM-2000
Application(s) 5E14	SM, SM-2000, OKP

Audit ID	PCILST7
Description	MCAH PCI list head cell.
Application(s) 5E10 - 5E12	OKP, SM, SM-2000

Application(s) 5E13	OKP, ASM, SM-2000
Application(s) 5E14	SM, SM-2000, OKP

Audit ID	PCIRTE
Description	
Application(s) 5E14 and later	SM, SM-2000

Audit ID	PCITAB
Description	Point code index to table.
Application(s) 5E13	ASM, SM-2000

Audit ID	PCNAM
Description	Calling name for PRI.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	PERIIA
Description	Peripheral circuit interrupt inhibit administrator.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	PHDATA
Description	Path hunt data.
Application(s) 5E10 - 5E12	SM-2000, CMP
Application(s) 5E13	CMP, CMPKP, SMKP
Application(s) 5E14	CMP, SMKP

Audit ID	PHDB
Description	Path data block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	PHDBBT
Description	Background timer head cells.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	PHDSLGP
Description	Protocol handler to digital services line group.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	PHISTORY
Description	Pending history.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	PHJBUF
Description	Protocol handler data administrator job buffer.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	PHS7RDB
Description	
Application(s) 5E13	PH3CCS
Application(s) 5E14	PH

Audit ID	PICB
Description	Peripheral interface control bus.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	PIPESTAT
Description	MH/QGP Pipe status in the SM.
Application(s) 5E10 - 5E12	SM-2000
Application(s) 5E13	SM-2000
Application(s) 5E14	SM-2000

Audit ID	PKB
Description	Packet buffer.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	PMDB
Description	Process message data block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	PMFACGRP
Description	Performance monitoring facility group.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	PORTLA
Description	Port linkage area.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	PORTTYP
Description	Port name to service class.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	POSACD
Description	Position for automatic call distribution.
Application(s) 5E10 - 5E12	SM-2000, CMP
Application(s) 5E13	CMP, CMPKP
Application(s) 5E14	CMP

Audit ID	POSDB
Description	Position data block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	POSNOPORT
Description	
Application(s) 5E13	CMP, CMPKP
Application(s) 5E14	CMP

Audit ID	POSPORT
Description	Position to B-channel port mapping.
Application(s) 5E10 - 5E12	SM-2000, CMP
Application(s) 5E13	CMP, CMPKP
Application(s) 5E14	CMP

Audit ID	PPDB
Description	Packet pipe data block.
Application(s) 5E13	PH4
Application(s) 5E14	PH

Audit ID	PPLLNST
Description	Precedence and preemption large line status.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	PPLNST
Description	Precedence and preemption line status.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	PPLTKST
Description	Precedence and preemption large trunk status.
Application(s) 5E10 - 5E12	SM, SM-2000, CMP
Application(s) 5E13	ASM, SM-2000, CMP, CMPKP
Application(s) 5E14	SM, SM-2000, CMP

Audit ID	PPSAST
Description	Precedence and preemption subaddress status.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000

Application(s) 5E14	SM, SM-2000

Audit ID	PPTKST
Description	Precedence and preemption trunk status.
Application(s) 5E10 - 5E12	SM, SM-2000, CMP
Application(s) 5E13	ASM, SM-2000, CMP, CMPKP
Application(s) 5E14	SM, SM-2000, CMP

Audit ID	PRIASGN
Description	Array of switching modules with D-channel PRI.
Application(s) 5E10 - 5E12	OKP, SM-2000
Application(s) 5E13	OKP

Audit ID	PRIDSTAT
Description	Primary rate interface PRI D-channel provisioning statuses.
Application(s) 5E13	OKP
Application(s) 5E14	OKP

Audit ID	PRIGRP
Description	Primary rate interface groups.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	PRISM
Description	Primary rate interface to SM mapping.
Application(s) 5E13	OKP
Application(s) 5E14	OKP

Audit ID	PRISTAT
Description	Primary rate interface status.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	PRTLST
Description	Port list.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	PSGRPPORT
Description	Packet switching group and member number to port.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	PSHC
Description	Packet switching head cell.
Application(s) 5E10 - 5E12	SM-2000, PH, PI
Application(s) 5E13	ISDNPH, PH4

Application(s) 5E14	PH

Audit ID	PSPIDBTS
Description	Packet switching peripheral interface data bus time slot.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	PSTELEM
Description	
Application(s) 5E13	ISDNPH, PH4, PI1, PI2, PHV, PHA, PH3CCS
Application(s) 5E14	PH, PI

Audit ID	PSTSCKT
Description	Packet switching time slot circuit.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM
Application(s) 5E14	SM

Audit ID	PSUCON
Description	
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	PSX25LN
Description	Packet switching X25 line.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	PTDB
Description	Peripheral task data block.
Application(s) 5E10 - 5E12	SM-2000
Application(s) 5E13	SM-2000
Application(s) 5E14	SM-2000

Audit ID	PTRDB
Description	Pointer data block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	PTSB
Description	Peripheral interface data bus time slot block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	PUENTRY
Description	Call pick-up storage for a particular queued call.
Application(s) 5E10 - 5E12	SM, SM-2000

Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	PUGSM
Description	Call pick-up group per SM.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	PUQUEUE
Description	Call pick-up queue information.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	QENDPT
Description	
Application(s) 5E14 and later	SM, SM-2000

Audit ID	QGP
Description	Quad-link gateway processor.
Application(s) 5E10 - 5E12	SM-2000
Application(s) 5E13	SMKP
Application(s) 5E14	SMKP

Audit ID	QISAT
Description	ISDN attendant queues.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	QLLCB
Description	QLPS logical link control block.
Application(s) 5E10 - 5E12	SM-2000, MH, QGP
Application(s) 5E13	MH, QGP
Application(s) 5E14	MH, QGP

Audit ID	QLNK
Description	QLPS link.
Application(s) 5E10 - 5E12	SM-2000
Application(s) 5E13	SMKP
Application(s) 5E14	SMKP

Audit ID	QLPS
Description	Quad-link packet switch.
Application(s) 5E10 - 5E12	SM-2000
Application(s) 5E13	SMKP
Application(s) 5E14	SMKP

Audit ID	QMMLHG

Description	Multi-line hunt group queue member.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	QMOGT
Description	Outgoing trunk queue members.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	QOICI
Description	ISDN attendant subqueues.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	QOMLHG
Description	Multi-line hunt group queue owner.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	QOOGT
Description	Outgoing trunk queue owner.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	QPH2LPH
Description	
Application(s) 5E14 and later	SM, SM-2000

Audit ID	QPIPE
Description	QLPS MH/QGP pipe.
Application(s) 5E10 - 5E12	SM-2000
Application(s) 5E13	SMKP
Application(s) 5E14	SMKP

Audit ID	QRYDB
Description	Query data block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	QUOGTOS
Description	Outgoing queue initialization.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	QUOS
Description	Multi-line hunt group queue.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	QVSTATE
Description	Queuing and vectoring state tuples.
Application(s) 5E11 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	RCACSRQ
Description	Recent change automatic customer re-arrangement queue.
Application(s) 5E10 - 5E12	OKP, SM-2000
Application(s) 5E13	OKP
Application(s) 5E14	OKP

Audit ID	RCATPS
Description	Control area test position status.
Application(s) 5E10 - 5E12	OKP, SM-2000
Application(s) 5E13	OKP
Application(s) 5E14	OKP

Audit ID	RCGDDB
Description	
Application(s) 5E13	PH3CCS
Application(s) 5E14	PH

Audit ID	RCGTMR
Description	Route congestion timer list.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	RDTADATA
Description	Remote data test access.
Application(s) 5E10 - 5E12	OKP, SM-2000
Application(s) 5E13	OKP
Application(s) 5E14	OKP

Audit ID	RDTCPDAT
Description	Remote digital terminal call processing data.
Application(s) 5E12	SM-2000
Application(s) 5E13	SM-2000
Application(s) 5E14	SM-2000

Audit ID	RELQ
Description	Relation queue dictionary.
Application(s) 5E10 - 5E12	OKP, SM, SM-2000, CMP
Application(s) 5E13	OKP, ASM, SM-2000, CMP, CMPKP
Application(s) 5E14	SM, SM-2000, OKP, CMP

Audit ID	REPLYBLF
Description	Busy lamp field report.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	REQBLOCK
Description	
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	RESTRTMR
Description	
Application(s) 5E14 and later	SM, SM-2000

Audit ID	RFD
Description	Receive frame descriptor.
Application(s) 5E10 - 5E12	SM-2000, PH
Application(s) 5E13	ISDNPH, PH4, PH3CCS
Application(s) 5E14	PH

Audit ID	RGBUS
Description	Ringing generator bus.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	RGOCUP
Description	Generalized ringing occupancy table.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	RGTDB
Description	Generalized ringing task data block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	RLHPTPN
Description	Port type to port number list head.
Application(s) 5E10 - 5E12	OKP, SM-2000
Application(s) 5E13	OKP
Application(s) 5E14	OKP

Audit ID	RMB
Description	Receive message buffer.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	RMCATPS
Description	Master control area test position status.
Application(s) 5E10 - 5E12	OKP, SM-2000
Application(s) 5E13	OKP
Application(s) 5E14	OKP

Audit ID	RPSITE
Description	
Application(s) 5E14 and later	SM, SM-2000, OKP

Audit ID	RQKEYPT
Description	Global port number to random mapping number.
Application(s) 5E10 - 5E12	OKP, SM-2000
Application(s) 5E13	OKP
Application(s) 5E14	OKP

Audit ID	RQTP
Description	
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	RSPTPN
Description	Port type to port number.
Application(s) 5E10 - 5E12	OKP, SM-2000
Application(s) 5E13	OKP
Application(s) 5E14	OKP

Audit ID	RSTBSTAT
Description	
Application(s) 5E14 and later	OKP

Audit ID	RSTMR
Description	Route set timing list.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	RT303DS1
Description	303 remote terminal to digital signal 1.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	RTDB
Description	Routing data block.
Application(s) 5E10 - 5E12	SM-2000, PH
Application(s) 5E13	ISDNPH, PH4
Application(s) 5E14	PH

Audit ID	RTDBIX

Description	Routing data block index.
Application(s) 5E10 - 5E12	SM-2000, PH
Application(s) 5E13	ISDNPH, PH4
Application(s) 5E14	PH

Audit ID	RTEILA
Description	Remote terminal endpoint identifier
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	RTLB
Description	Remote terminal linkage block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	RTMHG
Description	Multi-line hunt group information.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	RTMSGBUF
Description	Remote terminal message buffer.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	RTPSTAT
Description	Test position status.
Application(s) 5E10 - 5E12	OKP, SM-2000
Application(s) 5E13	OKP
Application(s) 5E14	OKP

Audit ID	RTTRKG
Description	Trunk group information.
Application(s) 5E10 - 5E12	SM, SM-2000, CMP
Application(s) 5E13	ASM, SM-2000, CMP, CMPKP
Application(s) 5E14	SM, SM-2000, CMP

Audit ID	S7MDB
Description	CCS7 message data block.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	S7RDB
Description	CCS7 Routing data block.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	SCB
Description	Stack control block.
Application(s) 5E10 - 5E12	SMKP, OKP, SM, SM-2000, CMP
Application(s) 5E13	PI2, ISDNPH, PH4, PHV, PHA, PH3CCS, ASM, SM-2000, CMP, CMPKP, OKP, SMKP
Application(s) 5E14	SM, SM-2000, OKP, SMKP, PH, PI, CMP

Audit ID	SCCPPC
Description	
Application(s) 5E14 and later	SM, SM-2000

Audit ID	SCCPSTAT
Description	
Application(s) 5E14 and later	SM, SM-2000

Audit ID	SCMDB
Description	Shared call model data block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	SCNMSK
Description	Scan mask.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	SCOCTCB
Description	
Application(s) 5E14 and later	PH

Audit ID	SCPSM
Description	SCCP global SM information.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	SDAPSDL
Description	Speed dial autoprovisioning speed dial list.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	SESSION
Description	
Application(s) 5E13	PH3CCS
Application(s) 5E14	PH

Audit ID	SFG
Description	Simulated facility group.
Application(s) 5E10 - 5E12	SM-2000, CMP
Application(s) 5E13	ASM, SM-2000, CMP, CMPKP
Application(s) 5E14	SM, SM-2000, CMP

Audit ID	SFGCOR
Description	Simulated facility group global dynamic status array.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	SFSTAT
Description	Simulated facility status.
Application(s) 5E10 - 5E12	SM-2000, CMP
Application(s) 5E13	ASM, SM-2000, CMP, CMPKP
Application(s) 5E14	SM, SM-2000, CMP

Audit ID	SGDB
Description	Service group data block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	SILCTG
Description	Selective incoming load control in the AM.
Application(s) 5E10 - 5E12	OKP, SM-2000
Application(s) 5E13	OKP, SM-2000
Application(s) 5E14	SM-2000, OKP

Audit ID	SIPCB
Description	System integrity protocol control block.
Application(s) 5E13	ASM, MH
Application(s) 5E14	MH, SM

Audit ID	SITEOWN
Description	
Application(s) 5E14 and later	SM, SM-2000

Audit ID	SLLOC
Description	Subscriber line and measurement device.
Application(s) 5E13	OKP, ASM, SM-2000
Application(s) 5E14	SM, SM-2000, OKP

Audit ID	SMEST
Description	Switch maintenance equipment status table.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	SMXRF
Description	Switch maintenance external reference table.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	SOCKET
Description	Socket protocol control block.
Application(s) 5E12	SM-2000, MH
Application(s) 5E13	MH
Application(s) 5E14	MH

Audit ID	SPB
Description	Supplementary protocol block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	SPID
Description	Service profile identifier.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	SPRCRD
Description	Spare card.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	SRVOT
Description	Service for originating treatment.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	SRVQDB
Description	Position data blocks for serving team queues.
Application(s) 5E11 - 5E12	SM-2000, CMP
Application(s) 5E13	CMP, CMPKP
Application(s) 5E14	CMP

Audit ID	STINFO
Description	Serving team related information.
Application(s) 5E10 - 5E12	SM-2000, CMP
Application(s) 5E13	CMP, CMPKP
Application(s) 5E14	CMP

Audit ID	STPARM
Description	Serving team related parameters.
Application(s) 5E11 - 5E12	SM-2000, CMP
Application(s) 5E13	CMP, CMPKP
Application(s) 5E14	CMP

Audit ID	STPDB
Description	Standardized ISDN setup data block.
Application(s) 5E10 - 5E12	SM, SM-2000

Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	STQDB
Description	Position data blocks for serving team queues.
Application(s) 5E10 - 5E12	SM-2000, CMP
Application(s) 5E13	CMP, CMPKP
Application(s) 5E14	CMP

Audit ID	T1USG
Description	T1 usage.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	TABGSM
Description	Table to global SM.
Application(s) 5E13	OKP, ASM, SM-2000
Application(s) 5E14	SM, SM-2000, OKP

Audit ID	TALOOPDB
Description	Toll and assistance loop data block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	TAPOSDB
Description	Toll and assistance position data block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	TATDB
Description	Terminating attempt trigger data block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	TCB
Description	Timer control block.
Application(s) 5E10 - 5E12	SMKP, OKP, SM, SM-2000, CMP
Application(s) 5E13	PI2, ISDNPH, PH4, PHV, PHA, PH3CCS, ASM, SM-2000, CMP, CMPKP, OKP, SMKP
Application(s) 5E14	SM, SM-2000, OKP, SMKP, PH, PI, CMP

Audit ID	TCPBLK
Description	TCP data block.
Application(s) 5E13	OKP, ASM, SM-2000
Application(s) 5E14	SM, SM-2000, OKP

Audit ID	TCPCB
Description	Transmission control protocol control block.
Application(s) 5E12	SM-2000, MH

Application(s) 5E13	MH
Application(s) 5E14	MH

Audit ID	TCPCONN
Description	TCP connection.
Application(s) 5E13	OKP, ASM, SM-2000
Application(s) 5E14	SM, SM-2000, OKP

Audit ID	TCPPKT
Description	TCP packet.
Application(s) 5E13	OKP, ASM, SM-2000
Application(s) 5E14	SM, SM-2000, OKP

Audit ID	TCPRCV
Description	TCP receive data block.
Application(s) 5E13	OKP, ASM, SM-2000
Application(s) 5E14	SM, SM-2000, OKP

Audit ID	TD
Description	Transmit descriptor.
Application(s) 5E10 - 5E12	SM-2000, MH, QGP
Application(s) 5E13	MH
Application(s) 5E14	MH

Audit ID	TDB
Description	Task data block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	TDRWL
Description	Time dependant routing work list.
Application(s) 5E13	ASM, SM-2000, CMP, CMPKP
Application(s) 5E14	SM, SM-2000, CMP

Audit ID	TEDB
Description	Terminal equipment data block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	TEILA
Description	Terminal endpoint identifier linkage.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	TELEM
Description	Timer elements.
Application(s) 5E10 - 5E12	SM-2000, MH
Application(s) 5E13	MH
Application(s) 5E14	MH

Audit ID	TFD
Description	Transmit frame descriptor.
Application(s) 5E10 - 5E12	SM-2000, PH
Application(s) 5E13	ISDNPH, PH4, PH3CCS
Application(s) 5E14	PH

Audit ID	TFPRDPC
Description	
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	TGC
Description	Trunk group controls.
Application(s) 5E10 - 5E12	SM-2000, CMP
Application(s) 5E13	SM-2000, CMP, CMPKP
Application(s) 5E14	SM-2000, CMP

Audit ID	THC
Description	Timer headcell.
Application(s) 5E10 - 5E12	SM-2000, MH
Application(s) 5E13	MH
Application(s) 5E14	MH

Audit ID	TIMER7
Description	MCAH Timer list head cell.
Application(s) 5E10 - 5E12	OKP, SM, SM-2000
Application(s) 5E13	OKP, ASM, SM-2000
Application(s) 5E14	SM, SM-2000, OKP

Audit ID	TKGSILC
Description	Selective incoming load control in the SM.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	TKOWNER
Description	Trunk owner.
Application(s) 5E10 - 5E12	SM, SM-2000, CMP
Application(s) 5E13	ASM, SM-2000, CMP, CMPKP
Application(s) 5E14	SM, SM-2000, CMP

Audit ID	TKQUE
Description	Trunk queue.
Application(s) 5E10 - 5E12	SM, SM-2000, CMP
Application(s) 5E13	ASM, SM-2000, CMP, CMPKP
Application(s) 5E14	SM, SM-2000, CMP

Audit ID	TKSTAT
Description	Trunk status.
Application(s) 5E10 - 5E12	SM, SM-2000, CMP
Application(s) 5E13	ASM, SM-2000, CMP, CMPKP

Application(s) 5E14	SM, SM-2000, CMP

Audit ID	TMRSM
Description	C7 level 3 timer for SM.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	TMSLNK
Description	Time-multiplexed switch link.
Application(s) 5E10 - 5E12	SM-2000
Application(s) 5E13	SMKP
Application(s) 5E14	SMKP

Audit ID	TNINFO
Description	Termination notification information.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	TONECH
Description	Tone to channel.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	TPCBUF
Description	Terminal process control block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	TRNDC
Description	Transaction dictionary.
Application(s) 5E10 - 5E12	OKP, SM, SM-2000, CMP
Application(s) 5E13	OKP, ASM, SM-2000, CMP, CMPKP
Application(s) 5E14	SM, SM-2000, OKP, CMP

Audit ID	TSDB
Description	Time slot data block.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	TSI
Description	Time slot interchanger.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	TTF
Description	Transmission test facility.

Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	TXNINFO
Description	
Application(s) 5E14 and later	SM, SM-2000

Audit ID	TXNMGR
Description	Transaction manager.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	UBHC
Description	Unconcentrated buffer head cell.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	UNIT2RDT
Description	Unit number to remote digital terminal.
Application(s) 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	UNITCFG
Description	Unit configuration.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	VCCB
Description	Vocoder control block.
Application(s) 5E13	PHV
Application(s) 5E14	PH

Audit ID	VTTMRS
Description	Verification test timer tables.
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	WSFCORRAL
Description	Simulated facility group array for wide-band calls.
Application(s) 5E10 - 5E12	SM, SM-2000
Application(s) 5E13	ASM, SM-2000
Application(s) 5E14	SM, SM-2000

Audit ID	XDPCSTAT
Description	
Application(s) 5E14 and later	SM, SM-2000

Audit ID	XLIST
Description	

Application(s) 5E14 and later	SM, SM-2000

Audit ID	XLISTMR
Description	
Application(s) 5E14 and later	SM, SM-2000

Audit ID	XPTMR
Description	
Application(s) 5E14 and later	SM, SM-2000

APP:BOOTDISKCHK

Software Release: 5E13 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. BOOTDISKCHK CODE NUMBERS

Result Code	Description
1	UCB RID is set to IDNULL.
2	Could not get UCB record using specified RID.
3	Unit is marked UNEQIP.
4	Could not get UCB record for controlling unit.
5	Controlling unit is not marked ACT.
6	Could not reserve the unit.
7	Failed to fill in special device file name.
8	Failed to open special device file.
9	Could not set up physical I/O.
10	Could not read VTOC on the unit.
11	No LBOOT21 partition with size greater than zero.
12	No BBOOT partition with size greater than zero.
13	No SWAP partition with size greater than zero.
14	No ROOT partition with size greater than zero.
15	ROOT partition is not a file system.
16	no ECD partition with size greater than zero.
17	ECD partition is not a file system.
18	No ETC partition with size greater than zero.
19	ETC partition is not a file system.
20	Seek error while accessing root inode.
21	Read error while accessing root inode.
22	UCB specified by RID is not for a MHD.
23	Seek error while accessing "time stamp" inode.
24	Read error while accessing "time stamp" inode.
25	Seek error while accessing direct data block.
26	Read error while accessing direct data block.
27	Seek error while accessing single indirect header block.
28	Read error while accessing single indirect header block.
29	Seek error while accessing single indirect data block.
30	Read error while accessing single indirect data block.
31	Seek error while accessing double indirect header block.
32	Read error while accessing double indirect header block.
33	Seek error while accessing single from double indirect header block.
34	Read error while accessing single from double indirect header block.
35	Seek error while accessing double indirect data block.
36	Read error while accessing double indirect data block.
37	Seek error while accessing triple indirect header block.
38	Read error while accessing triple indirect header block.
39	Seek error while accessing double from triple indirect header block.
40	Read error while accessing double from triple indirect header block.
41	Seek error while accessing single from triple indirect header block.
42	Read error while accessing single from triple indirect header block.
43	Seek error while accessing triple indirect data block.
44	Read error while accessing triple indirect data block.
45	MHD number is not in the range of 0-15 inclusive.
46	MHDs attached to DFC are not cabled to the expected DMAC, channel and device.
47	Up UCB from the SBUS is not a DFC.
48	Up UCB from the MHD is not a SBUS.
49	MHD number and internal device number do not correspond.
50	MHD number and SBUS internal device number do not correspond.
51	Cannot get to the DFC using up RID.
52	Cannot get to the channel using up RID.
53	Cannot get to the DMAC using up RID.
54	Up UCB from the DFC is not a channel.
55	Up UCB from the channel is not a DMAC.
56	No VTOC partition with size greater than zero.
57	VTOC partition does not start at address zero.
58	VTOC partition too small to hold "vtoc" data.

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Exit Code	Description
1	Unable to enable messages.
2	Message returned not of size requested.
3	Unable to open /dev/ecd.
4	Received message is not of expected size.
5	Received message is not of expected inter-process type.
6	Received message is not of expected internal type.
7	Timed out waiting for message.
8	Unable to send event - parent process gone.
9-64	Not used at present.
65-97	Exiting due to signal. Subtract 64 to calculate the specific signal value.

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APP:CALLMON

Software Release: 5E10 and later
Message Class: N/A
Application: 5
Type: Output

1. CALL MONITOR FAILURE CODES APPENDIX

The codes are in hexadecimal notation.

Code:	Explanation:
H'0	No test performed.
H'1	Non-common channel signaling (CCS) test call completed and passed.
H'F991	Voice path assurance (VPA) allowed on CCS trunks only.
H'F992	Continuity test not valid for connection appraisal.
H'F993	Feature-optioned package not loaded.
H'F994	Bad CCS state encountered.
H'F996	RA1, RA2, RA3, CB1, CB2, CB3 received.
H'F997	Operating system restart returned.
H'F998	Failed to get path.
H'F999	Failed to close path.
H'F99A	Failed to set up VPA.
H'F99B	Failed to activate port.
H'F99C	Database read failure.
H'F99D	Clear forward (CLF) glare.
H'F99E	Continuity (COT) glare.
H'F99F	Initial address message (IAM) glare.
H'F9A0	Unsuccessful backward setup (UBS): confusion
H'F9A1	UBS: unequipped label.
H'F9A2	UBS: message refusal.
H'F9A3	UBS: line out of service.
H'F9A4	UBS: unallocated number (vacant code).
H'F9A5	UBS: subscriber busy.
H'F9A6	UBS: call failure.
H'F9A7	UBS: address incomplete.
H'F9A8	UBS: national network congestion.
H'F9A9	UBS: circuit group congestion.
H'F9AA	UBS: switching equipment congestion.
H'F9AB	UBS: type unknown.
H'F9AC	Secondary start dial message received.
H'F9AD	Reset received.
H'F9AE	Ring forward message received.
H'F9AF	Release guard received during call.
H'F9B0	Returned IAM due to link congestion.
H'F9B1	Pass along message received.
H'F9B2	Interrupt received.
H'F9B3	Blocking received.
H'F9B4	Port under test (PUT) time out.
H'F9B5	Answer message timeout.
H'F9B6	Address complete timeout.
H'F9B7	Release guard timeout.
H'F9B8	Invalid test for CCS trunks.
H'F9B9	Continuity test passed.
H'F9BA	Continuity test failed.
H'F9BB	Timeout waiting for CCS message.
H'F9BC	Failed to send CCS message.
H'F9BD	Operating system failed to send message.
H'F9BE	Unexpected CCS message received.
H'F9BF	Unimplemented CCS message received.
H'F9C0	Unexpected CCS userpart encountered.
H'F9C1	Timeout while waiting for termination message.
H'F9E5	Test skipped due to route busy.
H'F9F8	High and dry (no answer).
H'F9FA	Test failed due to timeout.
H'F9FF	Failed to signal the trunk.
H'FA03	Test aborted due to hardware resource failure.
H'FA09	Unexpected message received.
H'FA0A	Test call aborted.

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H'FA0B	Operational test call failure.
H'FA24	Internal failure.
H'FFFF	Internal failure.

APP:CNI

Software Release: 5E10 and later
Message Class: N/A
Application: 5,CNI
Type: Output

1. COMMON NETWORK INTERFACE APPENDIX

Error Codes Generated by the IMSRMVRST Process

Code	Meaning
1	Cannot enable message reception.
2	recvw function error.
3	Cannot open spooler.
4	Cannot open ECD manager.
5	Cannot get UCB.
6	UCB not for requested unit.
7-8	Not used.
9	Invalid message tag from DIAMON.
10	Not used.
11	sendw function error.
12	Cannot set u_tnum in UCB.
13	Not used.
14	Cannot set u_manrqst in UCB.
15	Not used.
16	Abort request using manual input.
17	sendpw function call error.
18	Received illegal instruction signal.
19	Received bus error signal.
20	Received segment violation signal.
21-22	Not used.
23	Request to im.state returned fail.
24	np minor state did not get updated.
25	Node maintenance state did not get updated.
26	RI minor state did not get updated.
27	Not used.
28	Time out awaiting driver action.

Error Codes Returned to the IMSRMVRST Process by the IMS Driver

Code	Meaning
-1	Failure due to driver error.
-2	User denied the request.
-3	Driver denied the request.
-4	Driver denied the request, invalid input parameter.
-5	Restoration of node failed, however the restore may succeed if attempted again after waiting 1 to 2 minutes.

Reason for a Remove or Restore Request Being Stopped

Code	Meaning
1	The diagnostic had failures.
2	Not used.
3	Diagnostic request only, not remove or restore.
4	The unit is already active.
5	The unit is already out of service.
6	The unit is off-line.
7	The unit is unavailable (forced).
8	The unit is in the INIT state.
9	The unit is in the GROW state.
10	Diagnostic was aborted, request denied.
11	The unit is in the UNEQIP state.
12	The unit is in the STBY state.
13-15	Not used.
16	Node was unable to be configured into the active ring.
17	Diagnostic went ATP, but either the RI or NP node minor state (or both) was other

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	than USBL. Verify that the UCB MV field is correct for the node being restored.
18	Same as 17 except diagnostic went CATP.
19	Diagnostic ran CATP with the ring down, but the NP minor state was not USBL.

Error Codes Generated In Response To Diagnostic Commands by IMSDRV

Code	Definition
1	Failed to attach interrupt.
2	Failed to detach interrupt.
3	Failed to get DMA address (getdma failed).
4	Wrong sequence.
5	Wrong opercode.
6	Wrong node address.
7	Driver not open for diagnostics.
8	Failed to open since initialization is in progress.
9	Failed to lock segment.
a	Failed diagnostics due to other reasons.
b	Failed due to time out.
c	Fault code received.

Codes Printed in REPT IMSDRV INIT Messages REQUEST CODES

Request Code	Definition
1	Normal process start from E_INIT event.
2	Abort requested by user of IMS from event.
3	Abort requested from within IMS using it_abort().
4	DMERT level 1 initialization (FLT_SINIT received).
5	IMS driver faulted by DMERT, indicating a software problem.
6	Requested from within IMS using _it_rqinit().
7	Illegal request from within IMS using _it_rqinit().
8	Message from user of IMS - min mode not requested.
9	Message from user of IMS - min mode requested.
10	Illegal request in message from user of IMS.
11	Phase failed before break and requested IMS abort.
12	Phase failed after break and requested IMS abort.
13	Unexpected 1B acknowledgement message from user of IMS.
14	Program encountered illegal sequence (level) code.
15	FPI requested by user through event.
16	Timeout awaiting begin non-critical message from user of IMS.

Codes Printed in REPT IMSDRV INIT Messages (ESCALATION FLAGS)

If more than mne code applies, their sum is printed in the message.

Escalation Flags	Definition
X'0000	No escalation occurred.
X'0001	Too many recent initializations at requested level.
X'0002	Non-boot initialization requested during initialization or abort.
X'0004	Level 2, 3, or 4 sequence requested when not in boot prologue.
X'0008	Program bug - reqseq() got illegal sequence (level) code.
X'0010	Phase failed before break and requested sequence abort.
X'0020	Program bug - illegal phase termination code before break.
X'0040	Program bug - couldn't start guard timer.
X'0080	Phase requested guard timer recycle, which failed.
X'0100	Phase failed after break and requested sequence abort.
X'0200	Program bug - illegal phase termination code after break.
X'0400	Program bug - phase retry couldn't restart guard timer.
X'0800	Phase failed and requested retry too many times.
X'1000	Phase did not report termination within time limit requested.
X'2000	Other abort request during initialization.
X'4000	No timer for real-time break between phases.
X'8000	Non-critical process creations received out of sequence.

Codes Printed in REPT IMSDRV INIT Messages (PHASE NUMBERS)

NOTE: Each IMS initialization sequence consists of a series of individual initialization phases. These phases are shown in chronological order for each of the IMS initialization sequences.

IMS level 0 initialization sequence

Phase Number	Definition
IMCL	Re-establish driver's RTR timer.
ITCT	Ensure initialization timer is stopped.
ITSB	Notify user that initialization is starting.
ITAB	Begin breaking after each phase.
ITPG	Print generic and release ID.
ITST	Correct for stimuli lost in starting sequence.
ITBA	Block all IMS audits.
AUCN	Run audit CNC 1.
AUS1	Run audit NODEST 1.
CFRF	Refresh ring group and ring summary pages.
ITUA	Start unblocking all IMS audits.
XXX0	Spare slot for field update.
XXX1	Spare slot for field update.
XXX2	Spare slot for field update.
ITAN	Stop breaking after each phase.
ITSC	Notify user of initialization complete.

IMS level 1A initialization sequence

Phase Number	Definition
IMCL	Re-establish driver's *UNIX*® RTR timer.
ITCT	Ensure initialization timer is stopped.
RGRS	Ensure ring is stable.
ITSB	Notify user that initialization is starting.
OPRR	Restart RPC DMA channels.
UNH1	Restart IUN DMA channels, and so forth.
RMAM	Abort RPC maintenance activities.
ITNE	Begin non-essential section.
ITAB	Begin breaking after each phase.
ITST	Correct for stimuli lost in starting sequence.
ITPG	Print generic and release ID.
ITBA	Block all IMS audits.
AUCN	Run audit CNC 1.
AUS1	Run audit NODEST 1.
IMNA	Start node audit.
CFRF	Refresh ring group and ring summary pages.
ITUA	Start unblocking all IMS audits.
XXX0	Spare slot for field update.
XXX1	Spare slot for field update.
XXX2	Spare slot for field update
ITAN	Stop breaking after each phase.
ITSC	Notify user of initialization complete.

IMS level 1B initialization sequence

Phase Number	Definition
IMCL	Re-establish driver's *UNIX*® RTR timer.
ITCT	Ensure initialization timer is stopped.
RGRS	Ensure ring is stable.
OPOF	Cancel message switch periodic timer.
ITBA	Block all IMS audits.
ITAB	Begin breaking after each phase.
ITPG	Print generic and release ID.
ITSB	Stop user access to message switch in AM.
OPIN	All message switch data initialization.
RMRS	Abort RPC maintenance activities, restart RPCs.
OPON	Restart message switch periodic timer.
RGDA	Ring data initialization ring audit.
RMAR	Clean up RPC initialization after ring initialization.
UNH1	Restart IUN DMA channels, and so forth.
IMNA	Start node audit.
CFRF	Refresh ring group and ring summary pages.
ITUA	Start unblocking all IMS audits.
XXX0	Spare slot for field update.
XXX1	Spare slot for field update.
XXX2	Spare slot for field update.

ITAN	Stop breaking after each phase.
ITSC	Notify user of initialization complete.

IMS boot and FPI prologue initialization sequence

Phase Number	Definition
IMFU	Initialize IMS field update system.
IMSP	Node bit map, ring maintenance status, and so forth.
IMCL	Initialize all driver timing and gearshift.
RMDT	RPC maintenance data initialization.
RMD0	Mark DLN data not ready.
IMKF	Clear history of *UNIX*® RTR faults handled.
ITPC	Clear process creation table.
OPAB	Message switch abort.
RGCH	Clear deferrable ring configuration job tables.
IMDM	*UNIX*® RTR message receiver, attach to port.
NPPD	Indicate NP pumper inaccessible.
NPRI	Node recovery monitor set inhibit flag.
IMEA	Automatic ring fault recovery.
DBAE	Attach driver to ECD.
NPCC	CNC restore job queues.
ITDI	Monitor DIOP status.
XXX0	Spare slot for field update.
XXX1	Spare slot for field update.
XXX2	Spare slot for field update.
CFRF	Write display page indicators.
ITAB	Begin breaking after each phase.
ITSU	Suspend other IMS processes.
TRTR	If tdcp not running, add to automatic creation/recovery list.
ITBA	Block all IMS audits.
ITSB	Ask user which boot level.

IMS level 2 initialization sequence

Phase Number	Definition
ITL2	Invoke level 3 initialization

IMS level 3 initialization sequence

Phase Number	Definition
ITCT	Ensure initialization timer is stopped.
ITAB	Begin breaking after each phase.
CFIT	Write display page to LVL3 INIT.
DBIN	Initialize internal database from ECD.
RMD1	Initialize DLN DMA data.
RGDT	Ring data initialization.
ARCD	Application redundancy control (ARC) data.
MESG	Generate data structures for measurements.
NPLD	Initialize 3BWRT data.
UNDT	IUN maintenance data in AM.
OPIN	Message switch data initialization.
PERF	Performance measurements of IMS driver.
IMPA	Open _MTCE channel - read/write IMS maintenance messages.
MIL	Open _DFLT channel - receive source match copies, and so forth.
RMLF	Initialize IMS load factor table.
RMIN	Restart OOS RPCs (if all fail request npp.p, UCL restore).
RGRI	Ring initialization.
RMAR	Clean up RPC initialization after ring initialization.
RGSM	Set non-OOS, -IUN minor states.
UNH3	Check IUN hardware, update states.
RGIS	Initialize isolated nodes states.
RGBI	Deal with BISO/EISO nodes if inactive.
IMSN	Notify AIM node states known.
IMSM	Start measurements on OOS nodes.
TRMR	Set message switch ready flag for TRACE.
NPHB	Node recovery monitor start heartbeat timer.
IMNA	Start node audit.
ITUA	Start unblocking all IMS audits.
IMCL	Cease requiring high gear due to boot.

NPNR	Adjust the pump rate for 3BWRT.
IMFU	Start field update system.
XXX0	Spare slot for field update.
XXX1	Spare slot for field update.
XXX2	Spare slot for field update.
ITAN	Stop breaking after each phase.
ITSC	Notify user of initialization complete.
CFCC	Write display page to CRIT SEQ complete.

IMS level 4 initialization sequence

Phase Number	Definition
ITCT	Ensure initialization timer is stopped.
ITAB	Begin breaking after each phase.
CFIT	Write display page to LVL4 INIT.
DBIN	Initialize internal database from ECD.
RMD1	Initialize DLN DMA data.
RGDT	Ring data initialization.
ARCD	Application redundancy control (ARC) data.
RGID	IUN test data initialization.
MESG	Generate data structures for measurements.
NPLD	Initialize 3BWRT data.
UNDT	IUN maintenance data in AM.
OPIN	Message switch data initialization.
PERF	Performance measurements of IMS driver.
IMPA	Open _MTCE channel - read/write IMS maintenance messages.
IMIL	Open _DFLT channel - receive source match copies, and so forth.
RMLF	Initialize IMS load factor table.
NPPC	dd npp.p to automatic creation/recovery list.
RMIN	Restore all OOS RPCs without diagnostics.
RGRI	Ring initialization.
RMAR	Clean up RPC initialization after ring initialization.
RGTI	Test IUN communications.
IMSN	Notify AIM node states known.
UNH4	UCL restore IUNs by generic.
RGIS	Initialize isolated nodes states.
RGET	Enable IRN RPC lethal message trap.
RGBI	Deal with BISO/EISO nodes if inactive.
IMSM	Start measurements on OOS nodes.
ITMW	Start periodic min-mode warning.
TRMR	Set message switch ready flag for TRACE.
NPHB	Node recovery monitor start heartbeat timer.
IMNA	Start node audit.
ITUA	Start unblocking all IMS audits.
IMCL	Cease requiring high gear due to boot.
NPNR	Adjust the pump rate for 3BWRT.
IMFU	Start field update system.
XXX0	Spare slot for field update.
XXX1	Spare slot for field update.
XXX2	Spare slot for field update.
ITAN	Stop breaking after each phase.
ITSC	Notify user of initialization complete.
CFCC	Write display page to CRIT SEQ complete.

IMS Non-Critical Process Creations sequence

Phase Number	Definition
ITCT	Ensure initialization timer is stopped.
ITST	Correct for stimuli lost in starting sequence.
CFRT	Add imsrts.p to automatic creation/recovery list.
MECR	Add msdc.p to automatic creation/recovery list.
NPPC	If not done, add npp.p to automatic creation/recovery list.
CRTM	Add op_rtm.p to automatic creation/recovery list.
ITPG	Print generic and release ID.
XXX0	Spare slot for field update.
XXX1	Spare slot for field update.
XXX2	Spare slot for field update.
ITLP	All permanent processes are on automatic creation/recovery list.
ITTT	Terminate transient IMS processes.

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IMS abort sequence

Phase Number	Definition
IMCL	Initialize all driver timing and gearshift.
ITAG	Start master guard timer for abort.
TRMN	Reset message switch ready flag for TRACE.
ITPG	Print generic and release ID.
OPAB	Message switch abort.
ITAB	Begin breaking after each phase.
NPRA	Node recovery monitor.
RMAB	RPC.MTCE abort.
UNAB	Shutdown IUN DMA.
CFRF	Write display page indicators.
XXX0	Spare slot for field update.
XXX1	Spare slot for field update.
XXX2	Spare slot for field update.
ITAN	Stop breaking after each phase.
ITTE	Terminate most processes, send events to others.

Codes Printed in REPT IMSDRV INIT Messages (FAILURE CODES)

Failure Code	Definition
0	Sequence was not started - startseq() failed.
1	Phase failed before break and requested sequence abort.
2	Phase failed before break and requested IMS abort.
3	Phase failed before break and requested DMERT boot.
4	Program bug - illegal phase termination code before break.
5	Program bug - couldn't start guard timer.
6	Program bug - requested guard timer recycle couldn't cancel.
7	Program bug - requested guard timer recycle couldn't restart.
8	Phase requested guard timer recycle too many times.
9	Phase failed after break and requested sequence abort.
10	Phase failed after break and requested IMS abort.
11	Phase failed after break and requested DMERT boot.
12	Program bug - illegal phase termination code after break.
13	Phase did not report termination within time limit requested.
14	The user of IMS was not found (not attached to its port, and so forth).
15	Program bug - phase retry couldn't start pause timer.
16	Phase failed and requested retry too many times.
17	Escalation due to request (refer to the request code of the next such message indicating that a new sequence has STARTED)
18	No timer for real-time break between phases.

System Error Code Numbers

Code	Meaning
1	Not a super-user.
2	No such file or directory.
3	No such process.
4	Interrupted system call.
5	I/O error.
6	No such device or address.
7	Argument list too long
8	Exec format error.
9	Bad file number.
10	No children.
11	No more processes.
12	Not enough core.
13	Permission denied.
14	Bad address.
15	Block device required.
16	Mount device busy.
17	File exists.
18	Cross-device link.
19	No such device.
20	Not a directory.
21	Is a directory.
22	Invalid argument.
23	File table overflow.
24	Too many open files.

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25	Not a typewriter.
26	Text file busy.
27	File too large.
28	No space left on device.
29	Illegal seek.
30	Read-only file system.
31	Too many links.
32	Broken pipe.
33-34	Not used.
35	No message.
36	Not allocated.
37-38	Not used.
39	First access of logical block.
40	Fmove failed.
41	No extents.
42	Pathname too long.
43	No entries left.
44	Invalid operation.
45-50	Not used.
51	Message type not recognized.
52	Cannot find process in process tables.
53	Library file does not exist.
54	All process slots (DCTEs) are in use (pstart fail).
55	Failure to load a kernel process because of insufficient memory.
56	All sdes are allocated or there is no swap space left.
57	Unable to read a pfile or library file.
58	Segment too big for virtual address space available.
59	Cannot add a shared segment to a process.
60	Invalid emt value for driver.
61	I/O map error.
62	Hardware not available (out-of- service or reserved).
63	Not a pseudo unit.
64	Pointer not valid.
65	No mate unit.
66	Not a legitimate start unit control block (UCB).
67	Bad equipment ID entry.
68	Bad search level entry.
69	Could not find equipment ID unit.
70	Unit not out-of-service.
71	Unit already reserved.
72	Not idle MDCT entry.
73	Backup not available.
74	Unit control block type incorrect.
75	Not a control unit (CU) unit control block.
76	Invalid maintenance channel order.
77	PCPMD driver busy. Try again later.
78	Micro-assist code in off-line/slave failed.
79	Pointer not pointing to a unit control block.
80	Invalid PCPMD driver message.
81	Cannot fault the driver.
82	CONFIG program returned a failure.
83	Processor not duplexed.
84	Mate processor not active.
85	Invalid argument.
86	Maintenance channel hardware error.
87	EXECMCH function did not process expected number of bytes.
88	PTIMER kernel function failed.
89	Read of off-line CU timed out.
90	Parity error in on-line processor.
91	Parity error in off-line processor.
92	Data is not same in both processors.
93	The on-line processor was specified when off-line was expected.
94	Stop DMA routine failed.
95	Start DMA routine failed.
96	Unequipped unit control block specified or accessed.
97	Not a top unit control block.
98	Named unit control block not found.
99	Bad tag value.
100-119	Not used.
120	"lla_nsqrid" function failed.
121	"lla_rdget" function failed.
122	"lla_uprid" function failed.

123	"lla_opnsq" function failed.
124	"lla_attrid" function failed.
125	"lla_delete" function failed.
126	"lla_sinfo" function failed.
127	"lla_get" function failed.
128	"lla_gtrid" function failed.

3BI Status Word

Bit	Description
00	Parity error byte 4
01	Parity error byte 1
02	Parity error byte 2
03	Parity error byte 3
04	EOT error
05	FIFO access error
06	FIFO overflow
07	Command overflow
08-14	Data FIFO count
15	DFLAG
16-23	NP message register
24	NP sane
25	Command available
26	DMA mode
27	DMA direction
28	End of transfer expected
29	Interrupt request
30	Transfer request
31	Setup request

The link monitor can output a large number of indicators. Output of these indicators, called "Events" in the table below, can be selected as "ON" or "OFF" by a mask field on the MON:SLK input message. Bits may be "ORed" together to various combinations of control for selecting monitor output. The monitor has a default mask value of 0xde7f. For some events output is enabled by this mask. For others, like CCS6 TFX and CCS7 TFX, output is normally disabled. Caution should be exercised whenever the monitor is turned on. System availability may be affected. Special caution is suggested for those areas not covered by the default mask.

The following table shows what may appear for a link/node monitor output. The "Mask" field is the value that may be included in the mask if reports of that event are desired. Again caution is the word. Some events have variable data items. These data items are defined below:

`a` = CCS6 band number in decimal.

`b` = Incoming node identification in group-member number format, decimal numbers.

`c` = A concerned point code (CPC), destination point code (DPC), or originating point code (OPC) in hexadecimal.

`d` = Signaling link code (SLC) in decimal.

`e` = Congestion level

`xx` = Link state numbers,

`yy` = Link events.

Link Monitor Masks With Their Events

Mask	Event	Possible Trouble Location
X'00001	CONDITIONAL NODE REMOVAL	Indeterminate
X'00001	CRITICAL NODE RECOVERY SUCCESSFUL	Information Only

X'00001	CRITICAL NODE RECOVERY FAILED	Near-End
X'00001	CRITICAL NODE RECOVERY FAILED, STATUS CHECK	Near-End
X'00001	DATA PUMP COMPLETE	Information Only
X'00001	DIAGNOSTIC DELAY TIMER EXPIRED	Information Only
X'00001	HOME DLN REQUEST	Information Only
X'00001	NODE INITIALIZED	Information Only
X'00001	NODE REMOVED	Indeterminate
X'00001	NODE REMOVED FROM MSN	Near-End
X'00001	NODE RESTORED	Information Only
X'00001	NODE RESTORED FROM MSN	Information Only
X'00001	REMOVAL ALLOWED	Indeterminate
X'00001	REMOVAL DENIED	Near-End
X'00001	START CRITICAL NODE RECOVERY	Information Only
X'00002	BLOCKED	Near-End
X'00002	CNI MAINTENANCE COMPLAINT	Near-End
X'00002	CONTINUOUS LINK CONGESTION	Near-End
X'00002	CONTINUOUS PSC	Near-End
X'00002	COV	Indeterminate
X'00002	DIAGNOSTIC DELAY TIMER EXPIRED	Information Only
X'00002	EMERGENCY REQUESTED	Information Only
X'00002	FAR-END PRO	Far-End
X'00002	LBO	Facility
X'00002	LEVEL 2 DEMAND RESTART	Information Only
X'00002	LI COMATOSE	Near-End
X'00002	LI WRITE FAILURE	Near-End
X'00002	LINK ACTIVATE RETURNED	Near-End
X'00002	LOST SYNC	Near-End
X'00002	MAINTENANCE CNI FAILURE	Near-End
X'00002	MAINTENANCE IMS FAILURE	Near-End
X'00002	MAINTENANCE RING FAILURE	Near-End
X'00002	MAINTENANCE TIMER EXPIRED	Information Only
X'00002	NEAR-END PRO	Near-End
X'00002	STOP PRO RETURNED	Near-End
X'00002	UNKNOWN FAILURE TYPE	Indeterminate
X'00004	2/3 BAD BACKWARD SEQUENCE NUMBERS RECEIVED	Indeterminate
X'00004	2/3 BAD FORWARD INDICATOR BITS RECEIVED	Indeterminate
X'00004	ALIGNMENT ERROR RATE THRESHOLD EXCEEDED	Facility
X'00004	ALIGNMENT GUARD TIMER, T1 EXPIRED	Indeterminate
X'00004	ALIGNMENT NOT POSSIBLE, T2 EXPIRED	Indeterminate
X'00004	ALIGNMENT NOT POSSIBLE, T3 EXPIRED	Indeterminate
X'00004	BAD START PARAMETERS	Near-End
X'00004	BOUNCING FE SIPO	Far-End
X'00004	BSNT RECEIVED	Information Only
X'00004	CCS7 COA/ECA TIMER EXPIRED	Indeterminate
X'00004	CONGESTION GUARD TIMER EXPIRED	Indeterminate
X'00004	DIAGNOSTIC DELAY TIMER EXPIRED	Information Only
X'00004	EMERGENCY REQUESTED	Information Only
X'00004	ENCRYPTION TROUBLE	Indeterminate
X'00004	ENC ALL ONES KEY	Near-End
X'00004	ENC CANNOT GENERATE AUDIT DATA	Near-End
X'00004	ENC CANNOT INIT ENCRYPTION	Near-End
X'00004	ENC CANNOT PROCESS PUBKEY	Indeterminate
X'00004	ENC CANNOT START	Near-End
X'00004	ENC DES KEY ALL ZERO	Indeterminate
X'00004	ENC DES TEST FAILED	Indeterminate
X'00004	ENC ERROR THRESHOLD EXCEEDED	Facility
X'00004	ENC KEY EQUALS ONE	Near-End
X'00004	ENC LAPB CANNOT EXECUTE	Near-End
X'00004	ENC LINK STUCK AT ZERO	Near-End
X'00004	ENC NO SYNC REPORT FROM KEY	Indeterminate

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	EXCHANGE	
X'00004	ENC NULL KEY GENERATED	Near-End
X'00004	ENC RANDOM NUMBER GENERATION FAILED	Near-End
X'00004	ENC STREAM CHECK FAILED	Indeterminate
X'00004	ENC TRANSMIT BUFFER TOO SMALL	Near-End
X'00004	ENC UNEXPECTED MESSAGES IN LONG KEY	Indeterminate
X'00004	ENC UNEXPECTED MESSAGES IN SHORT KEY	Indeterminate
X'00004	EXCESSIVE ACKNOWLEDGEMENT TIMER EXCEEDED	Indeterminate
X'00004	FAR-END PRO	Far-End
X'00004	INVALID TRANSMIT FRAME SIZE	Near-End
X'00004	LEVEL 2 DEMAND RESTART	Information Only
X'00004	LI COMATOSE	Near-End
X'00004	LI DETECTED IDLE CODE	Near-End
X'00004	LI ILLEGAL INTERRUPT DETECTED	Near-End
X'00004	LI INVALID INTERNAL STATE TRANSITION	Near-End
X'00004	LI PARITY CHECKING CIRCUIT FAILED	Near-End
X'00004	LI PARITY ERROR DETECTED	Near-End
X'00004	LI PROCESSOR FAILED	Near-End
X'00004	LI SUM CHECK ERROR	Near-End
X'00004	LSSU RECEIVED WITH SIO, SIOS, SIN, SIE	Indeterminate
X'00004	MAINTENANCE TIMER EXPIRED	Information Only
X'00004	NEAR-END PRO	Near-End
X'00004	NODE SILENT	Near-End
X'00004	NULL POINTER FOUND IN REXMIT QUEUE	Near-End
X'00004	RECEIVER LINK FAILURE	Indeterminate
X'00004	REMOTE CHANGEOVER REMINDER	Information Only
X'00004	RETRIEVAL COMPLETE	Information Only
X'00004	STOP/START COMMAND REFUSED	Near-End
X'00004	SU ERROR RATE MONITOR THRESHOLD EXCEEDED	Facility
X'00004	Q707 T2 TIMEOUT	Indeterminate
X'00004	UNEXPECTED SIE RECEIVED	Indeterminate
X'00004	UNEXPECTED SIN RECEIVED	Indeterminate
X'00004	UNEXPECTED SIO RECEIVED	Indeterminate
X'00004	UNKNOWN FAILURE	Near-End
X'00008	AM INITIALIZING	Information Only
X'00008	CCS6 ELT/LTR TIMER EXPIRED	Information Only
X'00008	CCS6 ESU TIMER EXPIRED	Information Only
X'00008	CCS6 LICR TIMER EXPIRED	Information Only
X'00008	EMERGENCY REMOVED	Information Only
X'00008	FAR-END PSC ENDED	Information Only
X'00008	LEVEL 2 ACTIVE	Information Only
X'00008	LEVEL 3 RECOVERY COMPLETE	Information Only
X'00008	LEVEL 3 RECOVERY STARTED	Information Only
X'00008	LINK ACTIVATE RETURNED	Information Only
X'00008	LONG KEY EXCHANGE STARTED	Information Only
X'00008	LONG KEY ON PIC	Information Only
X'00008	MINOR CHANGE REQUESTED	Information Only
X'00008	NODE INITIALIZED	Information Only
X'00008	RECEIVED ENCRYPTION DATA	Information Only
X'00008	STOP PRO RETURNED	Near-End
X'00008	TIMEOUT UNKNOWN ENCSTATE	Near-End
X'00008	TIMEOUT WAITING AUDITDATA FOR LIC	Information Only
X'00008	TIMEOUT WAITING AUDITDATA FOR LICS	Information Only
X'00008	TIMEOUT WAITING LIC	Information Only
X'00008	TIMEOUT WAITING LICR	Information Only
X'00010	AM INITIALIZING	Information Only
X'00010	APPL COMPLETE, CONTINUE LINK RECOVERY	Information Only

X'00010	CCS7 CBA TIMER EXPIRED	Information Only
X'00010	CCS7 SLT - APPL NOT READY	Indeterminate
X'00010	CCS7 SLTA TIMER EXPIRED	Indeterminate
X'00010	EMERGENCY REMOVED	Information Only
X'00010	LEVEL 2 ACTIVE	Information Only
X'00010	LEVEL 3 RECOVERY COMPLETE	Information Only
X'00010	LEVEL 3 RECOVERY STARTED	Information Only
X'00010	LONG KEY EXCHANGE STARTED	Information Only
X'00010	MINOR CHANGE REQUESTED	Information Only
X'00010	NODE INITIALIZED	Information Only
X'00010	RECEIVED ENCRYPTION DATA	Information Only
X'00010	WAITING FOR APPL - NO SLT SENT	Indeterminate
X'00020	CCS6 ELT	Information Only
X'00020	CCS6 ELTs/LTRs - NOT SENT, LINK APPEARS SELF-LOOPED	Near-End
X'00020	CCS6 ELTs/LTRs - SENT, BUT LINK APPEARS SELF-LOOPED	Near-End
X'00020	CCS6 ESU	Information Only
X'00020	CCS6 LTA	Information Only
X'00020	CCS6 LTA - NOT SENT, LINK APPEARS SELF-LOOPED	Near-End
X'00020	CCS6 LTA - SENT, BUT LINK APPEARS SELF-LOOPED	Near-End
X'00020	CCS6 LTR	Information Only
X'00020	CCS6 MCO	Information Only
X'00020	CCS6 MCOA	Information Only
X'00020	CCS6 PSC	Information Only
X'00020	CCS6 RAB	Information Only
X'00020	LIC	Information Only
X'00020	LICR	Information Only
X'00040	CCS7 CBA, IN RNA=b, OPC=c, SLC=d	Information Only
X'00040	CCS7 CBD, IN RNA=b, OPC=c, SLC=d	Information Only
X'00040	CCS7 COA, IN RNA=b, OPC=c, SLC=d	Information Only
X'00040	CCS7 COO, IN RNA=b, OPC=c, SLC=d	Information Only
X'00040	CCS7 ECA, IN RNA=b, OPC=c, SLC=d	Information Only
X'00040	CCS7 ECO, IN RNA=b, OPC=c, SLC=d	Information Only
X'00040	CCS7 LFU, IN RNA=b, OPC=c, SLC=d	Information Only
X'00040	CCS7 LIA, IN RNA=b, OPC=c, SLC=d	Information Only
X'00040	CCS7 LID, IN RNA=b, OPC=c, SLC=d	Information Only
X'00040	CCS7 LIN, IN RNA=b, OPC=c, SLC=d	Information Only
X'00040	CCS7 LUA, IN RNA=b, OPC=c, SLC=d	Information Only
X'00040	CCS7 LUN, IN RNA=b, OPC=c, SLC=d	Information Only
X'00040	CCS7 RCT, CPC=c, OPC=c, DPC=c	Information Only
X'00040	CCS7 SLT, OPC=c, DPC=c, SLC=d	Indeterminate
X'00040	CCS7 SLT - ACKED, BUT LINK APPEARS SELF-LOOPED	Indeterminate
X'00040	CCS7 SLT - NOT ACKED, LINK APPEARS SELF-LOOPED	Indeterminate
X'00040	CCS7 SLT - NOT ACKED, DPC NOT EQUAL LOCPC	Indeterminate
X'00040	CCS7 SLT - NOT ACKED, OPC NOT EQUAL FEPC	Indeterminate
X'00040	CCS7 SLT - NOT ACKED, SLC IS NOT CORRECT	Indeterminate
X'00040	CCS7 SLTA	Indeterminate
X'00040	CCS7 SLTA - NOT PROCESSED, BAD MSG LENGTH	Indeterminate
X'00040	CCS7 SLTA - NOT PROCESSED, DPC NOT EQUAL LOCPC	Indeterminate
X'00040	CCS7 SLTA - NOT PROCESSED, OPC NOT EQUAL FEPC	Indeterminate
X'00040	CCS7 SLTA - NOT PROCESSED, SLC IS NOT CORRECT	Indeterminate
X'00040	CCS7 SLTA - NOT PROCESSED, TEST PATTERN MISMATCH	Indeterminate
X'00040	CCS7 TFC, CPC=c, OPC=c, DPC=c	Information Only
X'00080	CCS6 TFA BAND=a	Information Only

X'00080	CCS6 TFP BAND=a	Information Only
X'00080	CCS6 TFR BAND=a	Information Only
X'00100	CCS7 TCA, CPC=c, OPC=c, DPC=c	Information Only
X'00100	CCS7 TCP, CPC=c, OPC=c, DPC=c	Information Only
X'00100	CCS7 TCR, CPC=c, OPC=c, DPC=c	Information Only
X'00100	CCS7 TFA, CPC=c, OPC=c, DPC=c	Information Only
X'00100	CCS7 TFP, CPC=c, OPC=c, DPC=c	Information Only
X'00100	CCS7 TFR, CPC=c, OPC=c, DPC=c	Information Only
X'00200	CCS6 ELTs/LTRs - NOT SENT, LINK APPEARS SELF-LOOPED	Near-End
X'00200	CCS6 ELTs/LTRs - SENT, BUT LINK APPEARS SELF-LOOPED	Near-End
X'00200	CCS6 LTA - NOT SENT, LINK APPEARS SELF-LOOPED	Near-End
X'00200	CCS6 LTA - SENT, BUT LINK APPEARS SELF-LOOPED	Near-End
X'00200	CCS7 SLT - ACKED, BUT LINK APPEARS SELF-LOOPED	Indeterminate
X'00200	CCS7 SLT - NOT ACKED, LINK APPEARS SELF-LOOPED	
X'00200	CCS7 SLT - NOT ACKED, DPC NOT EQUAL LOCPC	Indeterminate
X'00200	CCS7 SLT - NOT ACKED, OPC NOT EQUAL FEPC	Indeterminate
X'00200	CCS7 SLT - NOT ACKED, SLC IS NOT CORRECT	Indeterminate
X'00200	CCS7 SLTA - NOT PROCESSED, BAD MSG LENGTH	Indeterminate
X'00200	CCS7 SLTA - NOT PROCESSED, DPC NOT EQUAL LOCPC	Indeterminate
X'00200	CCS7 SLTA - NOT PROCESSED, OPC NOT EQUAL FEPC	Indeterminate
X'00200	CCS7 SLTA - NOT PROCESSED, SLC IS NOT CORRECT	Indeterminate
X'00200	CCS7 SLTA - NOT PROCESSED, TEST PATTERN MISMATCH	Indeterminate
X'00400	CCS6 ELT	Information Only
X'00400	CCS6 FAR-END MCO TIMER EXPIRED	Information Only
X'00400	CCS6 LTA	Information Only
X'00400	CCS6 LTR	Information Only
X'00400	CCS6 MCO	Information Only
X'00400	CCS6 MCOA	Information Only
X'00400	CCS6 NEAR-END MCO TIMER EXPIRED	Information Only
X'00400	CCS7 FAR-END INHIBIT TIMER EXPIRED	Information Only
X'00400	CCS7 LFU	Information Only
X'00400	CCS7 LIA	Information Only
X'00400	CCS7 LID	Information Only
X'00400	CCS7 LIN	Information Only
X'00400	CCS7 LUA	Information Only
X'00400	CCS7 LUN	Information Only
X'00400	CCS7 NEAR-END INHIBIT TIMER EXPIRED	Information Only
X'00400	CCS7 UNINHIBIT TIMER EXPIRED	Information Only
X'00400	MINOR CHANGE REQUESTED	Information Only
X'00400	NEAR/FAR END MCO ACCEPTED	Information Only
X'00400	NEAR/FAR END MCO REFUSED	Information Only
X'00400	NEAR/FAR END MI ACCEPTED	Information Only
X'00400	NEAR/FAR END MI REFUSED	Indeterminate
X'00800	AUDIT DATA RECEIVED	Information Only
X'00800	CONNECT TO MAINTENANCE REQUEST	Information Only
X'00800	CONNECT TO VAT1 REQUEST	Information Only
X'00800	DISCONNECT FROM MAINTENANCE	Information Only
X'00800	DISCONNECT FROM VAT1	Information Only

X'00800	DISCONNECT VFL RETURNED	Information Only
X'00800	FORCE REKEY	Information Only
X'00800	MINOR CHANGE REQUESTED	Information Only
X'00800	RESTART PROTOCOL	Information Only
X'00800	SET UP FOR REKEY	Information Only
X'00800	VFL CONNECTION DENIED	Information Only
X'00800	VFL CONNECTED	Information Only
X'08000	DLN USER REQUEST - OOS	Information Only
X'08000	DLN USER REQUEST - ACT 1WAYOUT	Information Only
X'08000	DLN USER REQUEST - ACT HOME	Information Only
X'08000	DLN USER REQUEST - OFL	Information Only
X'08000	DLN USER REQUEST - STBY	Information Only
X'08000	DLN USER REQUEST - NO CHANGE	Information Only
X'08000	DLN USER RESPONSE TIMER EXPIRED	Information Only
X'10000	CHANGING FROM STATE xx TO xx FOR EVENT yy	Information Only
X'20000	LSSU RECEIVED WITH SIO, SIOS, SIN, SIE	Indeterminate
X'40000	CHANGEOVER EVENTS	Indeterminate
X'40000	CHANGEOVER COMPLETED	Information Only
X'40000	CHANGEOVER (NO DR) STARTED, LINK STATE ACT	Information Only
X'40000	CHANGEOVER (NO DR) STARTED, LINK STATE CB WCBA	Information Only
X'40000	CHANGEOVER (NO DR) STARTED, LINK STATE CB W6/OOS	Information Only
X'40000	CHANGEOVER (NO DR) STARTED, LINK STATE CO W RET COMPL	Information Only
X'40000	CHANGEOVER (NO DR) STARTED, LINK STATE CO W6/7	Information Only
X'40000	CHANGEOVER (NO DR) STARTED, LINK STATE REMOTE CO	Information Only
X'40000	CHANGEOVER STARTED	Information Only
X'40000	CHANGEOVER STARTED, COO/COA HANDSHAKE COMPLETE	Information Only
X'40000	CO GUARD TIMER TIMEOUT, LINK STATE ACT	Near-End
X'40000	CO GUARD TIMER TIMEOUT, LINK STATE CB WCBA	Near-End
X'40000	CO GUARD TIMER TIMEOUT, LINK STATE CB W6	Near-End
X'40000	CO GUARD TIMER TIMEOUT, LINK STATE CBM	Near-End
X'40000	CO GUARD TIMER TIMEOUT, LINK STATE OOS	Near-End
X'40000	CO GUARD TIMER TIMEOUT, LINK STATE REMOTE CO	Near-End
X'40000	CO GUARD TIMER TIMEOUT, LINK STATE W6 CO	Near-End
X'40000	CO GUARD TIMER TIMEOUT, LINK STATE W6 CO	Near-End
X'40000	CO GUARD TIMER TIMEOUT, LINK STATE W6/7 CO	Near-End
X'40000	CO GUARD TIMER TIMEOUT, LINK STATE W7 CO	Near-End
X'40000	CT7FENA, FAR END NOT ACCESSIBLE	Information Only
X'40000	LINK STATE NOT WAITING FOR DATA RETRIEVAL COMPLETE	Information Only
X'40000	S6 CHANGEOVER COMPLETE	Information Only
X'40000	S6 CHANGEOVER COMPLETE, PROCEED WITH S7 CO	Information Only
X'40000	S6 CHANGEOVER COMPLETE, STATE	Information Only

	NOT WAITING FOR 6 COMPLETE	
X'40000	T1 TIMER TIMEOUT, LINK STATE NOT READY FOR CO	Information Only
X'40000	T1 TIMER TIMEOUT, PROCEED WITH CHANGEOVER	Information Only
X'40000	T2 TIMER TIMEOUT, LINK STATE NOT READY FOR CO	Far-End
X'40000	T2 TIMER TIMEOUT, PROCEED WITH CHANGEOVER	Far-End
X'80000	CHANGEBACK EVENTS	Indeterminate
X'80000	BEGIN ACTUAL CHANGEBACK	Information Only
X'80000	CB GUARD TIMER TIMEOUT, LINK STATE IS ACT	Near-End
X'80000	CB GUARD TIMER TIMEOUT, LINK STATE IS CB WCBA	Near-End
X'80000	CB GUARD TIMER TIMEOUT, LINK STATE IS CB W6	Near-End
X'80000	CB GUARD TIMER TIMEOUT, LINK STATE IS CO WAITING ON DRC	Near-End
X'80000	CB GUARD TIMER TIMEOUT, LINK STATE IS CO W6	Near-End
X'80000	CB GUARD TIMER TIMEOUT, LINK STATE IS CO W6/7	Near-End
X'80000	CB GUARD TIMER TIMEOUT, LINK STATE IS CO W7	Near-End
X'80000	CB GUARD TIMER TIMEOUT, LINK STATE IS REMOTE CO	Near-End
X'80000	CB GUARD TIMER TIMEOUT, LINK STATE IS OOS	Near-End
X'80000	CHANGEBACK S6 PART COMPLETE, LINK STATE CB W6	Information Only
X'80000	CHANGEBACK S6 PART COMPLETE, LINK STATE NOT CB W6	Information Only
X'80000	CHANGEBACK STARTED, LINK STATE IS CBM OR OOS	Information Only
X'80000	CHANGEBACK STARTED, LINK STATE IS CO STATE	Information Only
X'80000	CHANGEBACK STARTED, LINK STATE IS WAITING FOR DRC	Information Only
X'80000	CHANGEOVER STARTED, LINK STATE CB W6, ACT, OR CB WCBA	Information Only
X'80000	T4 TIMEOUT WAITING FOR CBA, LINK STATE NOT WAITING CBA	Far-End
X'80000	T4 TIMEOUT WAITING FOR CBA, LINK STATE WAITING CBA	Far-End
X'80000	T5 TIMEOUT WAITING FOR CBA, LINK STATE NOT WAITING CBA	Far-End
X'80000	T5 TIMEOUT WAITING FOR CBA, LINK STATE WAITING CBA	Far-End
X'200000	CCS7 RSP, CPC=c, OPC=c, DPC=c	Information Only
X'200000	CCS7 RSR, CPC=c, OPC=c, DPC=c	Information Only
X'200000	CCS7 RCP, CPC=c, OPC=c, DPC=c	Information Only
X'200000	CCS7 RCR, CPC=c, OPC=c, DPC=c	Information Only
X'200000	CCS7 CSP, CPC=c, OPC=c, DPC=c	Indeterminate
X'200000	CCS7 CSR, CPC=c, OPC=c, DPC=c	Indeterminate

CNI CCIS Signaling Network Critical Event

Event ID	Data	Meaning
C6ACB	VFL	Auto changeback.
C6ACBFLD	VFL	Auto changeback from confirmed failure.
C6ACOCOV	VFL	Auto changeover signal (COV) received.
C6ACOER	VFL	Auto changeover ERMO.

C6BOFR	Signaling Link	Receive buffer overflows.
C6BOFX	Signaling Link	Transmit buffer overflows.
C6BOLR	Signaling Link	Receive buffer overload begins.
C6BOLRE	Signaling Link	Receive buffer overload ends.
C6BOLX	Signaling Link	Transmit buffer overload begins.
C6BOLXE	Signaling Link	Transmit buffer overload ends.
C6EMR	Signaling Link	Emergency restart begins.
C6EMRE	Signaling Link	Emergency restart ends.
C6EMRPO	Signaling Link	Emergency restart due to Processor outage (POU) begins.
C6FLDCOL	VFL	Declared failure due to one minute continuous overload.
C6FLDCOV	VFL	Declared failure due to changeover received.
C6FLDER	VFL	Declared failure due to ERMO.
C6FLDSNT	VFL	Declared failure due to sanity check failure.
C6FLDPCR	VFL	Declared failure due to continuous far end processor congestion.
C6MCB	VFL	Manual changeback.
C6MCOF	VFL	Far end manual changeover.
C6MCON	VFL	Near end manual changeover.
C6PCR	Signaling Link	Far end Processor Congestion started.
C6PCRE	Signaling Link	Far end Processor Congestion ended.
C6POR	Signaling Link	Far end POU event begins.
C6PORE	Signaling Link	Far end POU event ends.
C7ACB	Signaling Link	Automatic changeback.
C7ACBFLD	Signaling Link	Automatic changeback from FLD.
C7ACOCOV	Signaling Link	Automatic changeover due to changeover received.
C7ACOER	Signaling Link	Automatic changeover due to excessive error rate.
C7ALTR	Link Set	Alternate routing begins.
C7ALTRE	Link Set	Alternate routing ends.
C7BOLR	Signaling Link	Receive buffer overload begins.
C7BOLRE	Signaling Link	Receive buffer overload ends.
C7FLDCOL	Signaling Link	Declared failure due to continuous overload.
C7FLDCOV	Signaling Link	Declared failure due to changeover.
C7FLDER	Signaling Link	Declared failure due to excessive error rate.
C7FLDSNT	Signaling Link	Declared failure due to sanity check failure.
C7LCABM1X	Signaling Link	Transmit buffer L1 congestion ends and L1 abatement begins.
C7LCABM2X	Signaling Link	Transmit buffer L2 congestion ends and L2 abatement begins.
C7LCABM3X	Signaling Link	Transmit buffer L3 congestion ends and L3 abatement begins.
C7LCDIS1X	Signaling Link	Transmit buffer L1 discard begins.
C7LCDIS2X	Signaling Link	Transmit buffer L2 discard begins.
C7LCON1X	Signaling Link	Transmit buffer L1 onset begins.
C7LCON2X	Signaling Link	Transmit buffer L2 onset begins.
C7LCON3X	Signaling Link	Transmit buffer L3 onset begins.
C7LCDIS3X	Signaling Link	Transmit buffer L3 discard begins.
C7LSF	Link Set	Link set failure begins.
C7LSFE	Link Set	Link set failure ends.
C7MCB	Signaling Link	Manual changeback.
C7MCOF	Signaling Link	Far end manual changeover.
C7MCON	Signaling Link	Near end manual changeover.
C7POR	Signaling Link	Far end POU event begins.
C7PORE	Signaling Link	Far end POU event ends.
C7RTERR	Point Code	CCS7 message routing error.
C7SPI	Point Code	Signaling point isolation begins.
C7SPIE	Point Code	Signaling point isolation ends.
C7SPIPO	Point Code	Signaling path indicator (SPI) due to far end POU begins.

CCS6 Fail Codes

The fail codes are bit-mapped. Multiple failure events may occur in the same code.

Fail Code	Definition
0	IMS node restore.
1	Node initialized.
2	IMS node failed.
3	Prove-in complete.
4	ELT received.
5	LTR received.
6	LTA received.
7	Maintenance timer timeout.
8	Send load transfer timer timeout.
9	Prove-in mode requested.
10	LBO detected.
11	COV received.
12	LI insane.
13	Far-end PRO received.
14	Near-end PRO sent.
15	New LN data received.
16	Long sync started (encrypted link).
17	IMS remove delay timer expired.
18	ESU message received.
19	Far-end PSC timeout.
20	Near-end PSC timeout.
21	RAB message received.
22	MCO message received.
23	MCOA message received.
24	Connect VFL to VAT1 or maintenance bus.
25	Disconnect VFL from previous test setup.
26	Unused.
27	Unused.
28	Unused.
29	Unused.
30	Transmit buffer overload.
31	Transmit buffer overflow.

CCS7 Fail Codes

The fail codes are categorized as follows:

`0x0aa` = FIBR and BNSR failures.

`0x1aa` = Excessive acknowledgement delay.

`0x2aa` = Excessive error rate.

`0x3aa` = Excessive duration of congestion.

`0x4aa` = General hardware trouble.

`0x5aa` = General software trouble.

`0x6aa` = Other troubles.

The "`aa`" portion of the number ranges from 00 to 99 and is used to provide further resolution of the problem. The exact fail codes and their meaning follow.

Fail Code	Definition
0x001	2/3 bad backward sequence numbers received.
0x002	2/3 bad forward indicator bits received.
0x101	Excessive acknowledgement timer expired.

0x201	SU error rate monitor threshold exceeded.
0x202	Alignment error rate threshold exceeded.
0x203	SUERM exceeded due to octet counting mode.
0x301	Congestion guard timer expired, 0x302 taken.
0x401	Node removed.
0x402	Node restored.
0x403	Node reinitialized.
0x404	Alignment guard timer, t1 expired.
0x405	Alignment not possible, t2 expired.
0x406	Alignment not possible, t3 expired.
0x407	LSSU received with SIO, SIOS, SIN, SIE.
0x408	Receiver link failure.
0x409	Invalid transmit frame size.
0x410	LI comatose.
0x411	LI write failed.
0x412	SIO received in a wrong state.
0x413	SIN received in a wrong state.
0x414	SIE received in a wrong state.
0x416	Local loop-back test failure.
0x501	Invalid internal state transition.
0x502	Null pointer found in re-transmit queue.
0x503	Encryption trouble.
0x506	Maintenance guard timer expired.
0x507	Link blocked.
0x508	Link abnormal.
0x509	Level 2 demand restart.
0x511	Unknown fail code.
0x514	Link did not restore after initialization.
0x515	LI parity failure.
0x516	LI parity-checking circuit failure.
0x517	LI checksum failure.
0x518	LI-NP interface failure.
0x519	LI 8086 test failure.
0x520	Link idle is detected.
0x521	LI illegal interrupt detected.
0x522	Link check failed, selfloop not set.
0x523	Link check failed, data doesn't match.
0x524	Bad parameters passed from NP to LI.
0x525	Level 2 not started in time.
0x526	Node processor detected bad PRO state.
0x601	SIPOs sent.
0x602	SIPOs received.
0x603	Bad link parameters.
0x604	Remote changeover.
0x605	Bad message to LI.
0x606	Periodic SLT failed.
0x607	Far end bouncing SIPO.
0x608	Unable to access AM/ring.
0x609	BX25 error threshold exceeded.
0x610	Link stuck at zero.
0x611	Cannot execute LAPB.
0x612	Data encryption standard (DES) test failed.
0x613	Unexpected message during long key exchange.
0x614	Stream check fails.
0x615	Random number generation failed.
0x616	Cannot execute PUBKEY process.
0x617	Null key generated.
0x618	Key = 1.
0x619	All ones key.
0x620	Cannot generate audit data.
0x621	Unexpected message during short key exchange.
0x622	Cannot initialize encryption, DES problem.
0x623	DES key all zeroes.
0x624	No sync report from key exchange.
0x625	Encryption could not get started.
0x626	Transmit buffer too small.
0x627	Management inhibit.
0x628	ISDN user part down.
0x629	Excessive local RCV buffer congestion.
0x630	All ones received on link.
0x631	DSU RLSD lead indicates valid data not received.
0x632	Sending SIPOs for off-line boot (OFLBOOT).

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States Printed in REPT SLMK INIT Messages

NOTE: Each SLMK initialization sequence consists of a series of individual initialization states. The following tables show these states, in chronological order, for each of the SLMK initialization sequences. The sequences do not progress in numerical order. State 14 is the normal steady state for the SLMK process, all other states are considered transient.

State	Definition
1	Normal process start from E_INIT event.
2	Abort state, shared library initialization incomplete.
3	IMS channels open, shared libraries not initialized.
4	Shared libraries initialized.
5	IMS channels closed after previous open, shared libraries not initialized.
6	IMS channels opened, shared libraries initialized.
7	IMS channels opened, received first IMS boot message (applin) from CNI application.
8	Abort state, shared libraries initialized.
9	Shared libraries initialized, IMS channels opened.
10	Shared libraries initialized, IMS channels closed.
11	Shared libraries initialized, IMS channels opened, received first IMS boot message from CNI application, pump of remote data started.
12	Received second IMS boot message (start reports) from CNI application and remote data pump complete.
13	Initialization of CCS6/CCS7 links complete.
14	Received last IMS boot message (socitome) from CNI application.
15	IMS channels closed, start of level 1 initialization.
16	Reopened IMS channels during level 1.
17	Received first IMS boot message (applin) from CNI application during level 1.
18	Recovery state of SLMK, shared library contents reused.
19	Start of internal level 1 initialization.
20	Received first IMS boot message (applin) during internal level 1 initialization.
21	Received second IMS boot message (start reports) from CNI application but remote data pump incomplete.
22	Remote data pump complete, waiting second IMS boot message (start reports) from CNI application.

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APP:DCI-A-A

Software Release: 5E10 only
Message Class: N/A
Application: 5,3B
Type: Output

1. ERROR CODES GENERATED BY DCIDRV

FILE	CODE	COMMENT
delay.c	0x030	Access to BIC failed.
deljob.c	0x039	IO job has no associated IO message.
deljob.c	0x040	IO message "ms_to" field is invalid.
deljob.c	0x045	Message type not valid for IOJOB or MIJOB.
deljob.c	0x050	Invalid completion code returned.
deljob.c	0x05a	Response contains jobid not in use.
dciserv.c	0x070	Mode message: base queue full.
dciserv.c	0x073	bhqjobid failed for MODE job.
dci_cmds.c	0x098	DCI version message base queue full.
dci_cmds.c	0x09a	DCI version message bhqjobid failed.
do_init.c	0x0a0	initmem1() failed.
do_init.c	0x0a3	DCIDRV timing index 0 already assigned.
do_init.c	0x0a4	DCIDRV port attach failed.
do_msg.c	0x0d0	DMA_OK flag not set in msg.
do_msg.c	0x0d7	Maintenance job failure.
do_msg.c	0x0dd	Unknown acknowledgement message received.
do_msg.c	0x0df	Unrecognizable message type.
do_msg.c	0x0ef	Unknown acknowledgement message received.
dcidip.c	0x0f4	Message allocation failed for DCIDIP message.
dcidip.c	0x0f6	Message allocation failed for DCIDIP message.
dcidip.c	0x0f8	Message allocation failed for DCIDIP message.
dcidip.c	0x0fc	Invalid opercode in util message.
getpta.c	0x140	Virtual address does not map into segment no.
getpta.c	0x145	iolock() failed.
getpta.c	0x14a	uniolock() failed.
getjobid.c	0x14e	Job inventory table is full.
getjobid.c	0x14f	Job inventory table is no longer full.
initkint.c	0x1a0	dtchintr call returned fail.
initkint.c	0x1a5	atchintr call returned fail.
initkint.c	0x1aa	enabintr call returned fail.
initmem.c	0x1b0	ECD attach failed.
kfault.c	0x1b1	Clear DDSBS message failed.
kfault.c	0x1b2	Clear BIC, FIFO and SWDMD message failed.
kfault.c	0x1b3	Set interface enable message failed.
kfault.c	0x1b4	initmem5() function failed.
initmem.c	0x1b5	CONFIG OPEN failed.
kfault.c	0x1b6	dtchintr() function call failed.
kfault.c	0x1b7	atchintr() function call failed.
initmem.c	0x1b8	atchdata call to ECD failed.
kfault.c	0x1b9	enabintr() function call failed.
kfault.c	0x1bc	enabintr() function call failed.
initmem.c	0x1bc	No DCIs in ECD.
initmem.c	0x1be	DCI growth failed.
initmem.c	0x1d6	RID to UCB conversion failed.
initmem.c	0x1d8	Invalid device type.
initmem.c	0x1dc	RID update and release failed.
initmem.c	0x1de	Device is unequipped.
initmem.c	0x1df	Invalid DCI internal device ID.
initmem.c	0x1e1	Channel RID to UCB conversion failed.
initmem.c	0x1e2	Failed to get DCI option record.
initmem.c	0x1fc	Memory initialization failed.
initmem.c	0x203	getpta() function failed.
initmem.c	0x209	idmadev() (write to DMAC RAM) failed.

initmem.c	0x20f	RID not known by DCIDRV.
initmem.c	0x213	DCI being degrown is being used.
initmem.c	0x216	RID to UCB conversion failed.
initmem.c	0x219	DCI being degrown not UNEQIP.
iomsg.c	0x252	Job request not allowed for non ACT DCI.
cancel.c	0x257	READ job for IOCANCEL not found.
iomsg.c	0x259	Bad message.
kfault.c	0x25a	progio (RETRY message to PIC) failed.
io_ucbs.c	0x260	Incorrect MDCT from IO message.
io_ucbs.c	0x263	Unknown device.
io_ucbs.c	0x268	Warning - enlarge DCIDRV's internal MDCT.
trtpdf.c	0x270	MDCT points to non-HA-OMP DCI unit.
trtpdf.c	0x271	MDCT backup UCB field is empty.
trtpdf.c	0x272	Cannot find adjunct device that is ACT.
trtpdf.c	0x273	Cannot find adjunct device that is STBY.
trtpdf.c	0x274	Cannot access STBY adjunct if no ACT mate.
trtpdf.c	0x275	Cannot access a STBY adjunct in simplex configuration.
jobrsp.c	0x305	Unrecognizable DCIDRV internal job type.
rcc.c	0x308	Failed to set unsolicited job timeout.
rcc.c	0x310	Failed to get DCI option record.
rcc.c	0x315	Failed to update DCI option record.
rcc.c	0x320	Changing adjunct's state followed by the old state and the new state. The states are S_ACT through S_GROW as defined in head/lla/ecd.h.
kevent.c	0x32a	Unexpected event.
kevent.c	0x32c	Driver is terminating itself.
kevent.c	0x32d	pdfptr does not have valid value.
kfault.c	0x343	Failed to restart driver.
kfault.c	0x344	Failed to partially initialize DCI.
kfault.c	0x345	dtchintr call returned fail.
kfault.c	0x346	Nonqueued audit error message.
kfault.c	0x347	atchintr call returned fail.
kfault.c	0x349	Unexpected fault code.
kfault.c	0x34a	Critical hit - S_RSP.
kfault.c	0x34b	Critical hit - S_RSP.
delay.c	0x35	Desired BIC status not obtained.
kfault.c	0x350	Driver is processing the PIO failure fault.
kfault.c	0x353	Driver state error.
kfault.c	0x373	Unknown RID faulted.
kfault.c	0x376	PIO lost for a unit.
kfault.c	0x379	Unknown RID faulted.
kfault.c	0x37c	Unexpected fault code.
kfault.c	0x383	timereq() failed - dciinit.
kfault.c	0x39b	Major DCI reinitialization.
kfault.c	0x3a6	Invalid dciinit() sequence.
kint.c	0x3ba	Failed to clear BIC INTP.
kint.c	0x3bc	Stray interrupts detected.
maint.c	0x3d0	RID not known by DCIDRV.
maint.c	0x3d3	DCIDRV has aborted client.
maint.c	0x3d5	Invalid maintenance state.
maint.c	0x3d8	Device file not open.
maint.c	0x3dc	Another process has device file open.
maint.c	0x3de	Request prohibited on S_ACT DCI.
maint.c	0x3e1	Maint attach interrupt failed.
maint.c	0x3e3	Maint enable interrupt failed.
maint.c	0x3e8	DMAC RAM init failed.
maint.c	0x3ec	Detach/attach/enable interrupt failed.
maint.c	0x3ef	Detach intr failed.
maint.c	0x409	CONFIG denied request to remove unit.
maint.c	0x40c	May only restore S_OOS units.
maint.c	0x40d	Cannot restore DCI if CU OFFLINE.
maint.c	0x40e	Cannot restore DCI if CU OFFLINE.
maint.c	0x43c	getdmaa function failed.
maint.c	0x43e	Received WSETUP0 before SPECDMA.
maint.c	0x442	WSETUP1 received before WSETUP0.
maint.c	0x445	uniolock failed.
maint.c	0x448	getdmaa function failed.
maint.c	0x4aa	Device must be non-ACT to init error message

		inhibit flag.
maint.c	0x4ac	Invalid opercode in maintenance message.
maint.c	0x4ae	Unexpected maint interrupt.
maint.c	0x4b3	dtchintr() function call failed.
maint.c	0x4b6	Maintenance work timed out.
maint.c	0x4b8	Unexpected timeout.
pdfmsg.c	0x550	Physical device file not opened.
pdfmsg.c	0x556	iolock() function call failed.
pdfmsg.c	0x55b	getjobid() function call failed.
pdfmsg.c	0x573	This physical device file already open.
pdfmsg.c	0x575	RID to UCB conversion failed.
pdfmsg.c	0x57a	Update of device file variables failed.
pdfmsg.c	0x585	uniolock() function call failed.
progio.c	0x5a0	Command to BIC failed.
progio.c	0x5a5	Command to PIC failed.
progio.c	0x5aa	Clear of DDSBS failed.
progio.c	0x5bc	Read status of BIC failed.
progio.c	0x5c5	progio() cmdtype not defined.
remove.c	0x600	Requested maintenance message is not a unit remove.
remove.c	0x60e	CONFIG chgstate() call failed.
remove.c	0x613	dtchintr() failed.
remove.c	0x614	progio(MODE cmd to PIC) failed.
remove.c	0x615	Failed to get timer.
restore.c	0x6be	rstdcisi() failed to get timer.
restore.c	0x6bf	rstdcis - invalid argument.
restore.c	0x6c3	chgstate() function call failed.
restore.c	0x6c5	initmem3() function call failed.
restore.c	0x6c8	initmem5() function call failed.
restore.c	0x6ce	progio() function call to clear DDSBS failed.
restore.c	0x6d1	progio() (BIC init and PIC reset) failed.
restore.c	0x6d3	enabintr() function call failed.
restore.c	0x6d5	sysgen() function call failed.
restore.c	0x6d7	Version of SUN and 3B driver are not same.
restore.c	0x6d8	sysgen() function returned fail.
restore.c	0x6df	dciserv() function call failed.
restore.c	0x6e2	dciserv() function returned fail.
restore.c	0x6e5	Call to chgstate() failed.
restore.c	0x6ea	RID to UCB conversion failed.
restore.c	0x6eb	Failed to get timer.
restore.c	0x6ef	Invalid DCI restore sequence number.
sysgen.c	0x760	progio(set BIC IFEN flag) failed.
sysgen.c	0x761	Job inventory table corrupted.
queuejob.c	0x762	Resume pio failed.
queuejob.c	0x763	Base queue no longer full.
sysgen.c	0x765	progio(SYSGEN cmd to PIC) failed.
timeock.c	0x770	Job timed out.
timeock.c	0x771	Failed to queue heartbeat job.
timeock.c	0x778	Heartbeat job timed out.
timeock.c	0x77e	Removed DCI, CU OFFLINE.
timeock.c	0x77f	DCI usability audit failed.
timer.c	0x790	Timing table full.
timer.c	0x795	Timeout request is out of range.
timeock.c	0x799	Write job timed out.
timeock.c	0x79a	Open job timed out.
timeock.c	0x79b	Close job timed out.
timeock.c	0x79c	Invalid jobtype timed out.
timeock.c	0x79d	READ CANCELIO job timed out.
reljobid.c	0x801	Removing job that is not in use.
restore.c	0xaca	atchintr() function call failed.
sndcmd.c	0xce2	DCI device not online.
sndcmd.c	0xce8	DCI sndcmd: job queue full.
sndcmd.c	0xcea	Failed to get job ID.
sndcmd.c	0xceb	Invalid message type.
sndcmd.c	0xdeb	Invalid message type.

APP:DCI-A-B

Software Release: 5E11 - 5E13
Message Class: N/A
Application: 5,3B
Type: Output

1. ERROR CODES GENERATED BY DCIDRV

FILE	CODE	COMMENT
delay.c	0x030	Access to BIC failed.
deljob.c	0x039	IO job has no associated IO message.
deljob.c	0x040	IO message "ms_to" field is invalid.
deljob.c	0x045	Message type not valid for IOJOB or MIJOB.
deljob.c	0x050	Invalid completion code returned.
deljob.c	0x05a	Response contains jobid not in use.
dciserv.c	0x070	Mode message: base queue full.
dciserv.c	0x073	bhqjobid failed for MODE job.
dci_cmds.c	0x098	DCI version message base queue full.
dci_cmds.c	0x09a	DCI version message bhqjobid failed.
do_init.c	0x0a0	initmem1() failed.
do_init.c	0x0a3	DCIDRV timing index 0 already assigned.
do_init.c	0x0a4	DCIDRV port attach failed.
do_msg.c	0x0d0	DMA_OK flag not set in msg.
do_msg.c	0x0d7	Maintenance job failure.
do_msg.c	0x0dd	Unknown acknowledgement message received.
do_msg.c	0x0df	Unrecognizable message type.
do_msg.c	0x0ef	Unknown acknowledgement message received.
dcidip.c	0x0f4	Message allocation failed for DCIDIP message.
dcidip.c	0x0f6	Message allocation failed for DCIDIP message.
dcidip.c	0x0f8	Message allocation failed for DCIDIP message.
dcidip.c	0x0fc	Invalid opercode in util message.
getpta.c	0x140	Virtual address does not map into segment no.
getpta.c	0x145	iolock() failed.
getpta.c	0x14a	uniolock() failed.
getjobid.c	0x14e	Job inventory table is full.
getjobid.c	0x14f	Job inventory table is no longer full.
initkint.c	0x1a0	dtchintr call returned fail.
initkint.c	0x1a5	atchintr call returned fail.
initkint.c	0x1aa	enabintr call returned fail.
initmem.c	0x1b0	ECD attach failed.
kfault.c	0x1b1	Clear DDSBS message failed.
kfault.c	0x1b2	Clear BIC, FIFO and SWDMD message failed.
kfault.c	0x1b3	Set interface enable message failed.
kfault.c	0x1b4	initmem5() function failed.
initmem.c	0x1b5	CONFIG OPEN failed.
kfault.c	0x1b6	dtchintr() function call failed.
kfault.c	0x1b7	atchintr() function call failed.
initmem.c	0x1b8	atchdata call to ECD failed.
kfault.c	0x1b9	enabintr() function call failed.
kfault.c	0x1bc	enabintr() function call failed.
initmem.c	0x1bc	No DCIs in ECD.
initmem.c	0x1be	DCI growth failed.
initmem.c	0x1d6	RID to UCB conversion failed.
initmem.c	0x1d8	Invalid device type.
initmem.c	0x1dc	RID update and release failed.
initmem.c	0x1de	Device is unequipped.
initmem.c	0x1df	Invalid DCI internal device ID.
initmem.c	0x1e1	Channel RID to UCB conversion failed.
initmem.c	0x1e2	Failed to get DCI option record.
initmem.c	0x1fc	Memory initialization failed.
initmem.c	0x203	getpta() function failed.
initmem.c	0x209	idmadev() (write to DMAC RAM) failed.

initmem.c	0x20f	RID not known by DCIDRV.
initmem.c	0x213	DCI being degrown is being used.
initmem.c	0x216	RID to UCB conversion failed.
initmem.c	0x219	DCI being degrown not UNEQIP.
iomsg.c	0x252	Job request not allowed for non ACT DCI.
cancel.c	0x257	READ job for IOCANCEL not found.
iomsg.c	0x259	Bad message.
kfault.c	0x25a	progio (RETRY message to PIC) failed.
io_ucbs.c	0x260	Incorrect MDCT from IO message.
io_ucbs.c	0x263	Unknown device.
io_ucbs.c	0x268	Warning - enlarge DCIDRV's internal MDCT.
trtpdf.c	0x270	MDCT points to non-HA-OMP DCI unit.
trtpdf.c	0x271	MDCT backup UCB field is empty.
trtpdf.c	0x272	Cannot find adjunct device that is ACT.
trtpdf.c	0x273	Cannot find adjunct device that is STBY.
trtpdf.c	0x274	Cannot access STBY adjunct if no ACT mate.
trtpdf.c	0x275	Cannot access a STBY adjunct in simplex configuration.
jobrsp.c	0x305	Unrecognizable DCIDRV internal job type.
rcc.c	0x308	Failed to set unsolicited job timeout.
rcc.c	0x310	Failed to get DCI option record.
rcc.c	0x315	Failed to update DCI option record.
rcc.c	0x320	Changing adjunct's state followed by the old state and the new state. The states are S_ACT through S_GROW as defined in head/lla/ecd.h.
kevent.c	0x32a	Unexpected event.
kevent.c	0x32c	Driver is terminating itself.
kevent.c	0x32d	pdfptr does not have valid value.
kfault.c	0x343	Failed to restart driver.
kfault.c	0x344	Failed to partially initialize DCI.
kfault.c	0x345	dtchintr call returned fail.
kfault.c	0x346	Nonqueued audit error message.
kfault.c	0x347	atchintr call returned fail.
kfault.c	0x349	Unexpected fault code.
kfault.c	0x34a	Critical hit - S_RSP.
kfault.c	0x34b	Critical hit - S_RSP.
delay.c	0x35	Desired BIC status not obtained.
kfault.c	0x350	Driver is processing the PIO failure fault.
kfault.c	0x353	Driver state error.
kfault.c	0x373	Unknown RID faulted.
kfault.c	0x376	PIO lost for a unit.
kfault.c	0x379	Unknown RID faulted.
kfault.c	0x37c	Unexpected fault code.
kfault.c	0x383	timereq() failed - dciinit.
kfault.c	0x39b	Major DCI reinitialization.
kfault.c	0x3a6	Invalid dciinit() sequence.
kint.c	0x3ba	Failed to clear BIC INTP.
kint.c	0x3bc	Stray interrupts detected.
maint.c	0x3d0	RID not known by DCIDRV.
maint.c	0x3d3	DCIDRV has aborted client.
maint.c	0x3d5	Invalid maintenance state.
maint.c	0x3d8	Device file not open.
maint.c	0x3dc	Another process has device file open.
maint.c	0x3de	Request prohibited on S_ACT DCI.
maint.c	0x3e1	Maint attach interrupt failed.
maint.c	0x3e3	Maint enable interrupt failed.
maint.c	0x3e8	DMAC RAM init failed.
maint.c	0x3ec	Detach/attach/enable interrupt failed.
maint.c	0x3ef	Detach intr failed.
maint.c	0x409	CONFIG denied request to remove unit.
maint.c	0x40c	May only restore S_OOS units.
maint.c	0x40d	Cannot restore DCI if CU OFFLINE.
maint.c	0x40e	Cannot restore DCI if CU OFFLINE.
maint.c	0x43c	getdmaa function failed.
maint.c	0x43e	Received WSETUP0 before SPECDMA.
maint.c	0x442	WSETUP1 received before WSETUP0.
maint.c	0x445	uniolock failed.
maint.c	0x448	getdmaa function failed.
maint.c	0x4aa	Device must be non-ACT to init error message

		inhibit flag.
maint.c	0x4ac	Invalid opercode in maintenance message.
maint.c	0x4ae	Unexpected maint interrupt.
maint.c	0x4b3	dtchintr() function call failed.
maint.c	0x4b6	Maintenance work timed out.
maint.c	0x4b8	Unexpected timeout.
pdfmsg.c	0x550	Physical device file not opened.
pdfmsg.c	0x556	iolock() function call failed.
pdfmsg.c	0x55b	getjobid() function call failed.
pdfmsg.c	0x573	This physical device file already open.
pdfmsg.c	0x575	RID to UCB conversion failed.
pdfmsg.c	0x57a	Update of device file variables failed.
pdfmsg.c	0x585	uniolock() function call failed.
progio.c	0x5a0	Command to BIC failed.
progio.c	0x5a5	Command to PIC failed.
progio.c	0x5aa	Clear of DDSBS failed.
progio.c	0x5bc	Read status of BIC failed.
progio.c	0x5c5	progio() cmdtype not defined.
remove.c	0x600	Requested maintenance message is not a unit remove.
remove.c	0x60e	CONFIG chgstate() call failed.
remove.c	0x613	dtchintr() failed.
remove.c	0x614	progio(MODE cmd to PIC) failed.
remove.c	0x615	Failed to get timer.
restore.c	0x6be	rstdcisi() failed to get timer.
restore.c	0x6bf	rstdcis - invalid argument.
restore.c	0x6c3	chgstate() function call failed.
restore.c	0x6c5	initmem3() function call failed.
restore.c	0x6c8	initmem5() function call failed.
restore.c	0x6ce	progio() function call to clear DDSBS failed.
restore.c	0x6d1	progio() (BIC init and PIC reset) failed.
restore.c	0x6d3	enabintr() function call failed.
restore.c	0x6d5	sysgen() function call failed.
restore.c	0x6d7	Version of SUN and 3B driver are not same.
restore.c	0x6d8	sysgen() function returned fail.
restore.c	0x6df	dciserv() function call failed.
restore.c	0x6e2	dciserv() function returned fail.
restore.c	0x6e5	Call to chgstate() failed.
restore.c	0x6ea	RID to UCB conversion failed.
restore.c	0x6eb	Failed to get timer.
restore.c	0x6ef	Invalid DCI restore sequence number.
sysgen.c	0x760	progio(set BIC IFEN flag) failed.
sysgen.c	0x761	Job inventory table corrupted.
queuejob.c	0x762	Resume pio failed.
queuejob.c	0x763	Base queue no longer full.
sysgen.c	0x765	progio(SYSGEN cmd to PIC) failed.
timeock.c	0x770	Job timed out.
timeock.c	0x771	Failed to queue heartbeat job.
timeock.c	0x778	Heartbeat job timed out.
timeock.c	0x77e	Removed DCI, CU OFFLINE.
timeock.c	0x77f	DCI usability audit failed.
timer.c	0x790	Timing table full.
timer.c	0x795	Timeout request is out of range.
timeock.c	0x799	Write job timed out.
timeock.c	0x79a	Open job timed out.
timeock.c	0x79b	Close job timed out.
timeock.c	0x79c	Invalid jobtype timed out.
timeock.c	0x79d	READ CANCELIO job timed out.
reljobid.c	0x801	Removing job that is not in use.
restore.c	0xaca	atchintr() function call failed.
sndcmd.c	0xce2	DCI device not online.
sndcmd.c	0xce8	DCI sndcmd: job queue full.
sndcmd.c	0xcea	Failed to get job ID.
sndcmd.c	0xceb	Invalid message type.
sndcmd.c	0xdeb	Invalid message type.

APP:DCI-B

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. Autonomous Response Special Completion Code

This appendix contains an exhibit describing the DCI driver the special completion codes, which are applicable for autonomous response output messages.

Code	Definition
3	`SYSGEN` message completed. The DCI is reporting the completion of a `SYSGEN` message. The job ID code for the `SYSGEN` message is zero by design.
5	DCI idle. This is in response to a *UNIX*® driver initiated ABORT sequence, simply indicating that the DCI was idle when the *UNIX*® driver sent abort message.
6	Illegal message. The DCI received a bit pattern in the message field which it could not decode.
7	DCI autonomous error. When BIC reports software error during data transfer, the *UNIX*® driver aborts the data transfer if it is in progress.

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APP:DCI-C

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. DSCH STATUS LAYOUT

BIT	DESCRIPTION
00	Low return code (*)
01	Low return code (* high 3 bits)
02	Low return code (*)
03	High return code (*)
04	High return code (* high 3 bits)
05	High return code (*)
06	Channel busy f-f
07	I/O inhibit override f-f
08	Sequencer error
09	Illegal 3 out of 6 device address
10	Command error
11	Channel error (or of previous message)
12	Maintenance f-f

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APP:DCI-D

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. D2SBS STATUS LAYOUT

BIT	DESCRIPTION
00	Device reported error
01	Overflow error
02	Sequencer error
03	Illegal D2SBS message
04	Maintenance f-f
05	Device interrupt request
06	Device setup request
07	Device transfer request

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APP:DCI-E

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. BIC STATUS LAYOUT

BIT	DESCRIPTION
00	Unit address
01	Unit address
02	Unit address
03	Unit address
04	DMA setup overwrite (*)
05	PBI parity error - byte 0 (*)
06	PBI parity error - byte 1 (*)
07	PBI parity error - byte 2 (*)
08	PBI parity error - byte 3 (*)
09	EOD error (* ERROR)
10	PIC fatal error summary (* FLAGS)
11	PIC sanity error (*)
12	PIC data bus parity error - lo byte (*)
13	PIC data bus parity error - hi byte (*)
14	Data FIFO overflow/underflow (*)
15	Command register overflow (*)
16	FIFO word count
17	FIFO word count
18	FIFO word count
19	FIFO word count
20	FIFO word count
21	Interrupt
22	Transfer
23	Setup
24	EOD expected
25	EOD received
26	Transfer mode (0=WRD, 1=BLK)
27	Enable PIC data bus parity check
28	Interface enabled
29	Data flag (0=3B, 1=PIC)
30	Command in progress (CIP)
31	Command present flag (CP)

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APP:DCI-F

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. REMOVE/RESTORE PROCESS ERROR CODES

CODE	DESCRIPTION
1	Cannot enable message reception.
2	recvw function error
3	Cannot open spooler.
4	Cannot open ECD manager.
5	Cannot get UCB.
6	UCB not for requested unit.
7	Cannot get special device file.
8	Cannot open special device file.
9	Invalid message tag from DIAMON.
a	Cannot reset reserve bit.
b	sendw function error.
c	Cannot set `u_tnum` in UCB.
d	Request type from DIAMON not manual or auto.
e	Cannot set `u_manrqst` in UCB.
f	Cannot release special device file.
10	Abort request made using DIAMON; reasons for abort request are by manual input by recovery process

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APP:DCI-G

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. REMOVE/RESTORE STOPPED CODES

CODE	DESCRIPTION
1	Diagnostic had failures.
2	ROS (power control switch) is off normal.
3	Diagnostic request only, not remove or restore.
4	Unit is already active.
5	Unit is already out of service.
6	Unit is off-line.
7	Unit is unavailable (forced).
8	Unit is in the `INIT` state.
9	Unit is in the `GROWTH` state.
a	Diagnostic abort, request denied.
b	Unit is essential.

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APP:DCI-H

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. FAULT CODES

No Fault

CODE	DEFINITION
00	No fault (normal)

Peripheral Faults - With Accompanying Message

CODE	DEFINITION
b1	Device reported error - device implicated - pio in progress
b2	Parity divert error - device implicated - pio in progress
b3	Channel error - device not implicated but possibly affected - pio in progress
b4	Device reported error - device implicated
b5	DMA addressing error - device implicated
b6	DMA used OOR address - device implicated
b7	Channel error - device not implicated but possibly affected
b8	Device reported error - cannot identify unit
b9	Parity divert error - cannot identify unit
ba	Addressing error - cannot identify unit

Configuration Manager Fault Codes - With Accompanying Message

CODE	DEFINITION
c3	Informative - excessive recoverable errors
c4	Remove directive - excessive errors
c5	Remove request - attempt restoration of OOS usable unit
c6	Limp mode - attempt restoration of OOS unusable unit
c7	Limp mode - no replacement avail
c8	Manual remove
c9	Unconditional remove
cc	Configuration manager remove under fault conditions

Software Errors - No Accompanying Message

CODE	DEFINITION
d1	Memory Management - page invalid or not in memory
d3	Memory Management - segment invalid
d4	Memory Management - segment index too large
d5	Illegal operating system trap (OST)
d6	Protection violation
d7	Byte or halfword addressing violation
d8	Instruction privilege violation
d9	Illegal op code

System Initialization - No Accompanying Message

CODE	DEFINITION
e1	Substantial system recovery has occurred

Message Buffer Audit Faults

CODE	DEFINITION
bc	Message buffer audit fault for queued error messages
bd	Message buffer audit fault for non-queued error messages

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APP:DFC-A-A

Software Release: 5E10 only
Message Class: N/A
Application: 5,3B
Type: Output

1. DKDRV ERROR/WARNING CODES APPENDIX

The codes are in hexadecimal notation.

Error Code	Explanation
010	No inventory room - restructure disk driver (DKDRV).
020	Report failure.
030	Access to bus interface controller (BIC) failed.
035	Desired BIC status not obtained.
039	IO job has no associated IO message.
040	IO message "ms_to" field is invalid.
045	Message type not IOREAD or IOWRITE.
04a	No job found in inventory data.
050	Invalid completion code returned by disk file controller (DFC).
055	Job reported error.
05a	Response contains job ID not in use.
060	Response specified an unknown device.
06f	Drive status error.
070	Special queue full.
073	spqjobid failed.
076	queuejob failed for DFC change maintenance mode message.
07a	intpwait function failed for DFC change maintenance mode.
07c	Special queue full for small computer system interface (SCSI) bus (SBUS) change mode job.
07e	spqjobid failed for SBUS change mode message.
082	queuejob for SBUS change maintenance mode failed.
085	intpwait function failed for SBUS change maintenance mode.
098	DFC version message: special queue full.
09a	DFC version message: spqjobid failed.
09c	Version message fail.
09e	dfc_vers: intpwait function failed.
0a0	initmem1() failed.
0a2	Timeout request to get DIOP feature level failed.
0a3	DKDRV timing chain index 0 already assigned.
0a4	Failed to read btparm record.
0a5	No mate for boot device found.
0a8	DFC restore failed during boot.
0ab	Fail to change the usable bit for SBUS.
0af	Moving head disk (MHD) marked S_ACT but DFC not marked S_ACT.
0b1	MHD marked S_ACT but SBUS not marked S_ACT.
0b3	Simplex MHD restore failed config denied removal.
0b5	Simplex MHD restore failed config approved removal.
0b8	MHD restore failed and no S_ACT mate.
0c0	initkint (interrupt detach/attach) failed.
0c3	Fail to request pump after boot.
0c6	Invalid MHD to be restored during boot.
0c9	Invalid mate MHD.
0ca	RID to UCB conversion failed.
0cb	RID update and release failed.
0cf	Duplicate fields in the message do not match.
0d5	Byte offset not on word boundary.
0d7	Maintenance job failure - refer to the DKDRV error report.
0d9	Power switch monitor (PSM) sent a bad power transition message.
0db	Temp message - old message returned.
0dd	Unknown maintenance acknowledgement (ACK) received.
0df	Unrecognizable message type.
0e2	Unrecognizable device.
0e5	Unknown file manager (FMGR) ACK message received.
0e6	Segment removed failed, pump buffer retained.
0e8	Unknown memory manager (MMGR) ACK message received.
0ec	Unknown DKDRV ACK message received.
0ef	Unknown ACK message received.

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0f0	Incorrect swap LOG_REC record identification number (RID) from equipment configuration data originator (ECDORG).
0f1	Incorrect SWAP minor device chain table (MDCT) RID.
0f2	Cannot update the ROOT/SWAP device table.
0f3	DLM indicator message alloc failed (to SIM).
0f4	DLM indicator message alloc failed (to DKDIP).
0f6	DLM indicator message alloc failed(to DKDIP).
0f8	DLM indicator message alloc failed(to DKDIP).
0fa	Could not get a CDLM timer entry.
0fb	dlmstrt ost returned SWFAIL.
0fd	Microstore limpmode flag set.
0fe	Bad return from dlmstrt.
0ff	Unknown RID from DKDIP.
100	Invalid operation code in UTIL message.
101	Power down of an active unit.
102	DFC power down message received - unit still usable.
103	MHD is powered down - abort client.
104	MHD power down message received - unit still usable.
105	Special priority queue full.
106	queuejob failed.
107	spqjobid failed.
108	Invalid device type for power up check.
10a	intpwait function failed.
110	No volume table of contents (VTOC) on disk pack.
113	VTOC too large for DKDRV to handle.
116	Invalid partition number in VTOC entry.
119	Invalid partition number in message.
140	Virtual address does not map into segment number.
145	iolock() failed.
14a	uniolock() failed.
160	RID to unit control block (UCB) low level access (LLA) call failed.
165	RID update and release failed.
16a	RID unknown by DKDRV.
170	RID to UCB LLA call failed.
175	RID update and release failed.
17a	RID to UCB LLA call failed.
180	RID update and release failed.
185	RID to UCB LLA call failed.
18a	RID update and release failed.
190	Invalid inhibit administration opcode.
1a0	dtchintr call returned fail.
1a5	atchintr call returned fail.
1aa	enabintr call returned fail.
1b0	Equipment configuration database (ECD) attach failed.
1b3	Digital link module (DLM) INIT failed.
1b5	CONFIG OPEN failed.
1b8	atchdata call to ECD failed.
1bc	No DFCs in ECD.
1be	DFC growth failed.
1c3	downucbs ECD call failed.
1c6	SBUS growth failed.
1c9	downucbs ECD call failed.
1cc	Growth of SCSI device failed..
1ce	downucbs ECD call failed.
1d1	SMD MHD growth failed.
1d3	Too many devices.
1d6	RID to UCB conversion failed.
1d8	Invalid device type.
1d9	Unable to determine DFC type.
1dc	RID update and release failed.
1de	Device is unequipped.
1df	Invalid DFC internal device ID.
1e1	Channel RID to UCB conversion failed.
1e3	Invalid SBUS internal device ID.
1e5	DFC RID to UCB conversion failed.
1e7	Invalid device ID for SCSI device.
1e9	SBUS RID to UCB conversion failed.
1eb	Invalid SBUS's internal device ID.
1ed	DFC RID to UCB conversion failed.
1ef	Invalid device ID for SMD MHD.
1f2	DFC RID to UCB conversion failed.

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1f4	Incorrect device type for the device's control unit.
1fc	Memory initialization failed.
1fe	DKDRV port attach failed.
203	getpta() function failed.
206	RID to UCB conversion failed.
209	idmadev() (write to direct memory access controller (DMAC) random access memory (RAM)) failed.
20c	atchintr call failed.
20f	RID not known by DKDRV.
213	DFC being de-grown.
216	Update of DKDRV local DFC UCB failed.
219	DFC being de-grown not in UNEQUIP state.
21c	SBUS being de-grown.
21f	Update of DKDRV local SBUS UCB failed.
223	SBUS being de-grown not in UNEQUIP state.
226	Unit being de-grown.
229	Update of DKDRV local MHD UCB failed.
22c	Unit being de-grown not in UNEQUIP state.
22f	RID to UCB conversion failed.
233	RID update and release failed.
236	Drive type in ECD does not agree with backplane - restore aborted. For SMD MHDs with UCB device_id field = 0 (first MHD on DFC, usually MHD 0 or 1): MHD type read from DFC backplane may not agree with MHD UCB equipage field or may not be read correctly by DFC TN65 or UN64 board.
239	RID to UCB conversion failed.
23a	RID update and release failed.
23b	RID to UCB conversion failed.
23c	get option block for DFC failed.
23d	Invalid eirflag field in DFC option block.
23e	get option block for MHD failed.
240	Delay (failed to find interrupt set in BIC).
242	RID to UCB conversion failed.
250	Job complete code == fail.
252	Job request not allowed.
254	Job request not allowed.
258	Tape device already opened.
25a	Driver I/O error.
25c	No S_ACT device - open.
260	Incorrect monitor device configuration table (MDCT) from I/O message.
263	Growth of device failed.
265	No RIDs in ECD MDCT.
268	Warning - enlarge DKDRV's internal MDCT.
26c	Disk specific write not allowed.
270	No S_ACT device - read.
275	Invalid partition number in read message.
278	Access to DIAG partition is not allowed - read.
27a	Unable to inventory job.
27d	bhqjobid failed.
280	io_blk exceeds partition size - read.
290	no S_ACT device - write.
295	Invalid partition number in write message.
29a	Tried to write into protected partition.
2b1	No job IDs left.
2ba	Unable to inventory all jobs.
2be	Access to DIAG partition is not allowed - write.
2c0	io_blk exceeds partition size - write.
305	Unrecognizable DKDRV internal job type.
307	Unexpected denial of request to remove MHD.
308	Duplex operation compromised, removing MHD.
320	Boot indicator message allocation failed.
325	INIT entry failed.
32a	Unexpected event.
340	do_error(0x340).
343	Failed to restart driver.
346	Old non-queued audit error message.
349	Unexpected fault code.
34c	Critical hit - S_RSP.
34f	Critical hit - S_MSG.
353	Driver state error.
355	Calling dfcinit() for lack of "warm" restart.

356	ss32b() failed.
359	PIC never reset CMD IN PROG flag.
35f	progio (D2SBS clear) failed.
363	progio (BIC initialization and PIC reset) failed.
366	initmem5 (DMAC RAM initialization) failed.
369	enabintr function failed.
36c	progio (send ABORT message to PIC) failed.
36f	progio (set BIC IFEN flag) failed.
373	unknown RID faulted.
376	PIO lost for a unit.
379	Unknown RID faulted.
37c	Unexpected fault code.
37f	Message buffer audit error - abort maintenance on this unit.
383	timereq() failed - dfcinit.
391	Invalid pdfptr.
392	Invalid pdfptr.
395	RID to UCB LLA call failed.
397	Message alloc failed (to FMGR).
398	Could not get a timer entry for FMGR.
39b	Major DFC reinitialization due to either operational problems or manual request.
39c	Tape operations aborted.
39e	Warning - queue full detected.
3a6	Invalid dfcinit() sequence.
3a9	Cannot identify panic dump device.
3ac	Incorrect PANIC DUMP RID.
3af	ss32b() failed.
3b3	PIC never reset CMD IN PROG flag.
3b6	progio (D2SBS clear) failed.
3b9	progio (BIC initialization and PIC reset) failed.
3ba	Failed to clear BIC INTP.
3bc	kint() - stray interrupts detected.
3be	kint() entered before kfault after panic dump.
3d0	RID not known by DKDRV.
3d3	DKDRV has aborted client.
3d5	Invalid maintenance state.
3d8	Device file not open.
3dc	Another process has device file open.
3dd	Tape device is already open.
3de	Request prohibited on S_ACT DFC.
3e1	maint() attach interrupt failed.
3e3	maint() enable interrupt failed.
3e5	UCB is not a DFC.
3e8	DMAC RAM initialization failed.
3ec	Detach/attach/enable interrupt failed.
3ef	Detach interrupt failed.
402	FORMAT - unit is not a disk.
403	Device type is not SCSI for explicit SCSI message.
405	DFC is not ACTIVE for SCSI message.
407	SBUS is not ACTIVE for SCSI message.
409	CONFIG denied request to remove unit.
40c	May only restore S_OOS units.
40e	MHD/SBUS restore no good - DFC not S_ACT.
412	MHD restore no good - SBUS not S_ACT.
415	Compare/correct - unit not a disk.
418	Compare/correct - DFC not S_ACT.
41b	Compare/correct - SBUS not ACTIVE.
41d	May not compare/correct a S_INIT unit.
41f	Only one compare/correct is allowed to run at one time.
422	May only restore S_OOS units.
425	SBUS restore - DFC is not ACTIVE.
426	MHD or MT restore - SBUS is not ACTIVE.
427	MHD restore - DFC is not ACTIVE.
428	DIAG SYSGEN PIO failed.
429	Restore not allowed, device not supported.
42a	UCB is not a DFC UCB.
42c	Not allowed to DGN an S_ACT unit.
42e	Special queue full.
432	Invalid device to be diagnosed.
435	spqjobid failed.
438	queuejob failed.
43c	getdmaa function failed.
43e	Received WSETUP0 before SPECDMA.

442	WSETUP1 received before WSETUP0.
445	uniolock failed.
448	getdmaa function failed.
44c	Invalid disk lock process.
44f	Base queue full.
452	bhqjobid failed.
455	queuejob failed.
458	Version job failed.
460	FORMAT requires non-S_ACT MHD.
462	FORMAT/VERIFY - unit is not a disk.
465	FORMAT/VERIFY requires S_ACT DFC.
468	INIT/VFY MHD - SBUS not S_ACT.
46a	VERIFY in progress - retry later.
470	Start track/block greater than last track/block.
473	Base queue full.
476	bhqjobid failed.
479	MHD usability changed because of INIT operation.
47c	queuejob failed.
480	Invalid when MHD is S_ACT.
483	DFC must be S_ACT.
486	Invalid when MHD is S_ACT.
489	DFC must be S_ACT.
48b	REMAP dskserv() failed.
48d	Device major status update failed.
48f	Failed to initialize device status.
492	Base queue full.
494	Unable to queue link map (LM) job.
496	Invalid DFC type for DFC reset request.
498	DFC is not ACTIVE to be reset.
49a	Firmware is running - cannot reset DFC.
49f	DFC type does not support pump.
4a3	DFC is not ACTIVE for pumpcode downloading.
4a6	Other pump in progress - retry later.
4a9	Unable to queue pump job.
4aa	Device must be non-ACT to init error message inhibit flag.
4ab	CLRMAEC - unit is not a disk.
4ac	Invalid opercode in maintenance message.
4ae	Unexpected maintenance interrupt.
4b3	dtchintr call failed.
4b6	Maintenance work timed out.
4b9	No base or high job IDs left.
4bc	Failed to get page table address.
4be	No job IDs left for base or high queue.
4c2	Offset of the SCSI message is not on word boundary.
4c5	Explicit SCSI message, response and data are not on the same segment.
4c8	Base queue full for SCSI message.
4ca	Request exceeds DFC capability.
4cb	Invalid second device for SCSI message.
4cc	Request exceeds expscsi capability.
4cd	Unable to queue the SCSI message.
4d0	readvtoc() function failed.
4d1	Another pump in progress, retry later.
4d2	Flash reprogram not started.
4d3	Unable to program flash memory on S_ACT unit.
4d5	readvtoc() job failed.
4d6	Unable to clear DDSBS.
4d8	Unable to send message to BIC.
4d9	getpta() function failed.
4da	VTOC sort function failed.
4db	initmem5() DMAC init failed.
4dc	Unable to send message to BIC.
4dd	dtchintr call returned fail.
4de	atchintr call returned fail.
4df	DFC pump: getjobid failed.
4e0	Invalid newvtoc() sequence.
4e1	Failed to write word in BIC FIFO.
4e2	enabintr call returned fail.
4e3	Failed to write word in BIC FIFO.
4e5	Partition number out of range for DKDRV.
4e6	Failed to write word in BIC FIFO.
4e7	Failed to write word in BIC FIFO.
4e8	Partition number out of range for VTOC.

4e9	wakeup PIO failed.
4eb	Unable to get firmware versions.
4f1	Flash reprogram not started.
4f2	Unable to clear DDSBS.
4f3	Unable to send message to BIC.
4f5	DFC pump: getjobid failed.
4f7	Failed to write word in BIC FIFO.
4f9	Failed to write word in BIC FIFO.
4fa	Failed to write word in BIC FIFO.
4fb	Failed to write word in BIC FIFO.
4fc	wakeup PIO failed.
500	Base queue full for maintenance read.
503	Tried to use invalid VTOC for maintenance read.
505	Invalid partition number in message.
508	Invalid block in partition.
50c	bhqjobid failed for maintenance read.
50e	Unable to inventory job for maintenance read.
520	Base queue full for maintenance write.
523	Tried to use invalid VTOC for maintenance write.
526	Invalid partition number in message.
529	Tried to write into protected partition.
52c	Invalid block in partition.
537	MHD usability changed because of pdfwrite job.
539	bhqjobid failed for maintenance write.
53b	Unable to inventory job for maintenance write.
550	Physical device file not opened.
553	Cannot write to read only disk.
556	iolock failed.
55b	getjobid failed.
55f	Maintenance I/O request to a non-disk device.
56a	DISK read or write requires active DFC.
56f	DISK read or write requires active SBUS.
573	This physical device file already open.
575	Device major status update failed.
57a	Update of device file variables failed.
580	May not maintenance write ACT device.
583	SDF prematurely closed during a restore.
585	uniolock failed.
5a0	Command to BIC failed.
5a5	Command to PIC failed.
5aa	Clear of duplex dual serial bus selector (DDSBS) failed.
5b0	Read status of DDSBS failed.
5b5	Read of BIC first-in, first-out (FIFO) failed.
5ba	Write of BIC FIFO failed.
5bc	Read status of BIC failed.
5bf	BIC message to read host adapter (HA) shadow register failed.
5c3	Read status of SCSI HA shadow register failed.
5c5	progio cmdtype not defined.
5e0	queuejob failed.
5e1	Base queue full.
5e2	getjobid failed.
5ec	intpwait function failed.
5f0	readdisk queuejob failed.
5f1	readdisk base queue full.
5f2	readdisk getjobid failed.
5fc	readdisk intpwait function failed.
600	Excessive errors - device being reset.
601	Excessive errors - device being reset.
603	SBUS work terminated - DFC going S_OOS.
609	MHD work terminated - DFC going S_OOS.
60a	Tape work terminated - DFC going S_OOS.
60c	MHD work terminated - SBUS going S_OOS.
60d	Tape work terminated - SBUS going S_OOS.
60e	CONFIG chgstate() call failed.
613	dtchintr() failed.
615	dskserv (OFFLINE) function failed.
618	dskserv (OFFLINE) job failed.
61c	sbuserv (OFFLINE) function failed.
61f	sbuserv (OFFLINE) job failed.
650	RID to UCB LLA call failed.
653	RID to UCB LLA call failed.
655	RID to UCB LLA call failed.

658	RID to UCB LLA call failed.
65c	RID to UCB LLA call failed.
65e	RID to UCB LLA call failed.
661	RID to UCB LLA call failed.
663	RID to UCB LLA call failed.
666	RID to UCB LLA call failed.
667	RID to UCB LLA call failed.
669	RID to UCB LLA call failed.
673	RID to UCB LLA call failed.
678	RID to UCB LLA call failed.
67a	EIR contains jobid not in use.
67b	RID to UCB LLA call failed.
67c	RID to UCB LLA call failed.
67d	RID to UCB LLA call failed.
67e	RID to UCB LLA call failed.
682	RID to UCB LLA call failed.
6a9	Retry peripheral I/O sub-system (PIO) failed.
6aa	Failed to requeue job.
6b0	Remake: job ID not in use.
6b5	Remake: bad message type.
6be	Restore - invalid device type.
6c0	Unable to change usable bit for DFC.
6c3	CONFIG chgstate call failed.
6c5	DKDRV DFC memory init failed.
6c8	initmem5() (DMAC init) failed.
6ca	initmem6() (atchintr) failed.
6ce	progio (D2SBS clear) failed.
6d1	progio (BIC initialization and PIC reset) failed.
6d3	enabintr() failed.
6d5	SYSGEN function failed.
6d8	sysgen job failed.
6d9	dfc_vers request function failed.
6da	dfc_vers job failed.
6db	dfc_vers request function failed.
6dd	dfc_vers job failed.
6df	dfcserv (ONLINE) function failed.
6e2	dfcserv (ONLINE) job failed.
6e5	CONFIG chgstate call failed.
6e8	Unable to change usable bit for DFC.
6eb	Cannot request a timer for pump after DFC restore.
6ef	Invalid DFC restore sequence number.
6f2	Unit is in FULL DLM - abort restore.
6f5	Mate unit is in FULL DLM - abort restore.
6f8	Unable to change usable bit for MHD.
6fb	CONFIG chgstate call failed.
6fe	DKDRV MHD memory initialization failed.
6ff	dlm_chks() denied restore request.
701	readdisk() function failed.
703	Disk job (readdisk) failed.
706	dskserv (ONLINE,RSTJOB) function failed.
709	DFC failed to put MHD on-line.
70c	readvtoc() function failed.
70e	Disk job (readvtoc) failed.
711	VTOC integrity check failed.
713	CONFIG chgstate call failed.
715	Unable to change usable bit for MHD.
718	invalid MHD restore sequence number.
71c	CONFIG chgstate call failed.
71e	subserv (ONLINE) function failed.
722	sbuserv (ONLINE) job failed.
725	CONFIG chgstate call failed.
728	unable to change usable bit for SBUS.
72c	Invalid SBUS restore sequence number.
730	Maintenance state audit requested.
732	Invalid MHD "compcor" sequence number.
741	Unit is FULL DLM - abort restore.
742	Failed to change usable bit for tape.
745	CONFIG chgstate call failed.
748	DKDRV tape memory initialization failed.
74b	devserv(ONLINE)) function failed.
74e	Failed to put tape device ONLINE.
752	CONFIF chgstate call failed.

755	Failed to change usable bit for tape.
758	Invalid tape restore sequence number.
75b	DIOP restore not allowed: mate MHD is active.
75e	DIOP restore not allowed: MHD is marked essential.
760	progio (set BIC IFEN flag) failed.
761	Wakeup PIO failed.
762	Resume PIO failed.
765	progio (send SYSGEN message to PIC) failed.
76a	intpwait function failed.
770	Job timed out.
775	DFC timed out.
776	Invalid pump state.
778	Cannot request timer for DFC pump.
77a	DFC entering overload.
77c	DFC leaving overload.
77f	DFC usability audit failed.
790	Timing table full.
795	Timeout request is out of range.
7c0	No base or high job IDs left.
7c3	No job IDs left for base or high queue.
7c5	No job IDs left for special queue.
7c7	Failed to get page table address.
7c9	No job IDs left for PIO jobs.
800	"prc/s_update" terminated abnormally.
801	"prc/s_dskutil" terminated abnormally.
825	Could not alloc message buf.
830	Could not pcreat process.
835	Could not alloc message buf.
900	DKDIP PID is null.
903	alocmessage failed.
906	Failed to remove the segment.
909	Cannot pump - other pump in progress.
90c	Invalid DFC state for pump.
90e	Cannot perform pump at this time.
911	DFC is not S_ACT for pump.
913	Invalid global pump state.
916	DFC is scheduled for major reinitialization - can't pump.
919	Pump not started - DFC is reserved.
91b	Firmware version not known.
91c	Failed to allocate message for FMGR.
91d	Cannot alloc message for FMGR.
91e	File stat error.
91f	pumpfile is zero byte in size.
921	pumpfile is not a contiguous one extent file.
923	Cannot get segnum.
926	Failed to queue the pump request.
929	Cannot get segnum.
92c	Failed to determine pump type.
92d	Cannot get segnum for DKDRV's internal pump buffer.
92e	Failed to download the pumpcode.
931	Request to read pump-file failed.
933	Failed to read pump-file.
936	Failed to send the pump request.
939	Pump failed at last pump.
93c	Failed to queue a version message in pump procedure.
93e	Pumpcode version message failed.
93f	Failed to start new pump.
943	Invalid pump sequence.
946	Invalid MDCT RID for pump file.
949	Invalid segment size requested.
94c	Failed to get a segment index for new segment.
94e	Failed to get a segment number for new segment.
951	Failed to allocate a message buffer.
953	Failed to allocate a message buffer.
956	Cannot iolock the buffer.
959	Cannot allocate the message buffer for reading pumpfile.
95c	Cannot send the I/O message.
95f	DFC pump: high priority queue full.
963	DFC pump: base priority queue full.
966	DFC pump: getjobid failed.
969	DFC pump: queuejob failed.
96c	Cannot remove the segment used for pump buffer.

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96f	Invalid time out for pump procedure.
971	Pump timeout - abort pump.
980	Incorrect root LOG_REC RID from ECDORG.
981	Incorrect root MDCT RID.
a01	s_update started.
a0a	Bad MAINT message opercode.
a15	Cannot open ECD.
a1a	Cannot get specified unit UCB.
a20	Specified unit UCB not reserved.
a25	Failed to get "to" unit SDF.
a2a	Open of "to" SDF failed.
a30	ugucbm() failed.
a35	No active mate found.
a3a	Failed to reserve active mate UCB.
a40	Failed to get "from" unit SDF.
a45	Open of "from" SDF failed.
a48	Cannot read VTOC on active disk.
a4a	Invalid VTOC on active disk.
a55	Asynchronous write failure.
a5a	Asynchronous write failure.
a60	VTOC read (source disk) failed.
a65	VTOC write (destination disk) failed.
a6a	Too many partitions.
a70	Block number not within VTOC.
a75	Primary BBOOT partition is INVALID.
a7a	Backup BBOOT partition is INVALID.
a80	Tried to access unopened file.
a85	segoff failure.
a8a	movetrap failure.
a90	Disk read error.
a95	Disk read error - correctly reread.
a9a	Invalid file descriptor.
aa0	IOQUEUEM failure.
aa5	Maintenance job to DKDRV failed.
aaa	Received application abort restore request.
ab5	Invalid argument.
aba	Segname already exists.
ac0	Segment exists.
ac5	No segments available.
aca	Not enough space.
ad0	Bad segndx.
ad3	Cannot find a free segindex.
ad5	segoff failure.
ada	Driver startup message not received.
ae0	Terminated externally.
ae5	Invalid U_ABRTRST message.
aea	Invalid maintenance message.
af0	Unknown ACK message.
af5	Process was faulted.
b01	s_dskutil started.
b06	Cannot connect to port PT_DSKUTL.
b09	Bad MAINT message opercode.
b10	Cannot open ECD.
b13	"DEST" unit not specified.
b16	ugucbm() failed for "DEST" unit.
b19	Cannot get "DEST" unit UCB.
b1c	"DEST" unit UCB not reserved.
b20	Failed to get "to" unit SDF.
b23	Open of "to" SDF failed.
b26	Dup of "to" SDF failed.
b29	ugetucb() failed for "from" unit.
b36	Failed to reserve "from" unit UCB.
b39	Failed to get "from" unit SDF.
b3c	Open of "from" SDF failed.
b40	Remove mate of "DEST" unit and reenter message.
b46	Dup of "from" SDF failed.
b48	Failed to read VTOC on "to" disk.
b49	Invalid VTOC on "to" disk.
b4b	Failed to read VTOC on "from" disk.
b4c	Invalid VTOC on "from" disk.
b50	Both VTOCs do not match.
b5c	Read failure (DEST disk).

b60	Read failure (SRC disk).
b63	Too many partitions.
b66	VTOCs do not match in size.
b69	sync write failure (DEST disk).
b6c	Block number not within VTOC.
b70	Block number not within VTOC.
b73	Block number not within VTOC.
b80	Tried to access unopened file.
b85	segoff failure.
b8a	movetrap failure.
b90	Disk read error.
b95	Disk read error - correctly reread.
b9a	Invalid file descriptor.
ba0	IOQUEUEM failure.
ba5	Maintenance job to DKDRV failed.
baa	Received application abort restore request.
bb5	Invalid argument.
bba	segname already exists.
bc0	segment exists.
bc5	No segments available.
bca	Not enough space.
bd0	Bad segndx.
bd3	Cannot find a free segindex.
bd5	segoff failure.
bda	Driver startup message not received.
be0	Terminated externally.
be5	Invalid U_ABRTRST message.
bea	Invalid maintenance message.
bf0	Unknown ACK message.
bf5	Process was faulted.
c02	Tape device already open.
c0b	Device not active.
c12	Open for both read and write.
c15	Incorrect read/write access permissions.
c18	Failed to send "test unit ready" message.
c1b	"Test unit ready" message failed.
c1e	"Test unit ready" message failed.
c22	Failed to send "test unit ready" message.
c25	"Test unit ready" message failed.
c28	"Test unit ready" message failed.
c2b	Failed to send "test unit ready" message.
c2e	"Test unit ready" message failed.
c32	"Test unit ready" message failed.
c35	Failed to send "inquiry" message.
c38	"Inquiry" message failed.
c3b	"Inquiry" message failed.
c3e	Insufficient "inquiry" data.
c42	Failed to send "inquiry" message.
c45	"Inquiry" message failed.
c48	"Inquiry" message failed.
c4b	Unknown device.
c4e	Failed to send "read block limits" message.
c52	"Read block limits" message failed.
c55	"Read block limits" message failed.
c58	Partition information is invalid.
c5b	Not a supported tape device.
c5e	Invalid tape I/O open sequence number.
c62	Reserved field in partition used.
c65	Device does not support variable record sizes.
c68	Device does not support fixed records.
c69	Fixed record size is invalid.
c6a	Invalid record type specified.
c6b	Record size greater than device capability.
c6e	Record size less than device capability.
c72	Failed to send tape setup message to DFC.
c75	Tape setup message failed.
c78	Invalid sequence number.
c82	Base queue full.
c85	Failed to get job ID.
c88	Request exceeds DFC capability.
c89	Request exceeds expscsi capability.
c8b	No base/high job IDs left.

c8e	No job IDs left for base/high queue.
c92	Base queue full.
c95	Failed to get job ID.
c9b	Base queue full.
c9e	Failed to get job ID.
ca2	Entity type to space over is invalid.
ca5	Base queue is full.
ca8	Failed to get job ID.
cab	Base queue full.
cae	Failed to get job ID.
cb1	Device not active.
cb2	Invalid state for closing device.
cb7	Invalid state for closing device.
cb8	Failed to send tape "rewind" message to DFC.
cbb	Tape "rewind" failed.
cbe	Invalid sequence number.
cc2	Failed to send tape "space" message to DFC.
cc5	Tape "space" message failed.
cc8	Invalid sequence number.
ccb	Failed to send "write filemarks" message to DFC.
cce	"Write filemarks" message failed.
cd2	Failed to send tape "space" message to DFC.
cd5	Tape "space" message failed.
cd8	Invalid sequence number.
ce2	Device not active.
ce4	Device not open.
ce6	Incorrect read/write permissions.
ce8	Base queue full.
cea	Failed to get job ID.
cec	Unable to inventory job.
cf2	Device not active.
cf4	Device not open.
cf6	Incorrect read/write permissions.
cf8	Base queue full.
cfa	Failed to get job ID.
cfc	Unable to inventory job.
d01	Wrong device type specified.
d02	Failed to send "mode sense" message.
d05	"Mode sense" message failed.
d08	"Mode sense" message failed.
d0b	Failed to send "mode sense" message.
d0e	"Mode sense" message failed.
d12	"Mode sense" message failed.
d15	Not enough data returned from "mode sense" message.
d18	Unexpected amount of data returned from "mode sense" message.
d1b	Device is write protected.
d1e	Failed to obtain expected mode pages.
d22	Failed to send "mode select" message.
d25	"Mode select" message failed.
d28	"Mode select" message failed.
d2b	Invalid tape sequence number.
d2e	Multi-partition tape is not supported.
d31	Wrong device type specified.
d32	Failed to send "mode sense" message.
d35	"Mode sense" message failed.
d38	"Mode sense" message failed.
d3b	Failed to send "mode sense" message.
d3e	"Mode sense" message failed.
d42	"Mode sense" message failed.
d45	Not enough data returned from "mode sense" message.
d48	Unexpected amount of data returned from "mode sense" message.
d4b	Device is write protected.
d4e	Failed to obtain expected mode pages.
d52	Failed to send "mode select" message.
d55	"Mode select" message failed.
d58	"Mode select" message failed.
d5b	Invalid tape sequence number.
d5e	Multi-partition tape is not supported.
d61	Wrong device type specified.
d62	Invalid density specified.
d65	Failed to send "mode sense" message.
d68	"Mode sense" message failed.

d6b	"Mode sense" message failed.
d6e	Failed to send "mode sense" message.
d72	"Mode sense" message failed.
d75	"Mode sense" message failed.
d78	Not enough data returned from "mode sense" message.
d7b	Unexpected amount of data returned from "mode sense" message.
d7e	Device is write protected.
d82	Requested density does not match set device density.
d85	Failed to obtain expected mode pages.
d88	Failed to send "mode select" message.
d8e	"Mode select" message failed.
d92	"Mode select" message failed.
d95	Invalid tape sequence number.
da1	Wrong device type specified.
da2	Invalid density specified.
da5	Failed to send "mode sense" message.
da8	"Mode sense" message failed.
dab	"Mode sense" message failed.
dae	Failed to send "mode sense" message.
db2	"Mode sense" message failed.
db5	"Mode sense" message failed.
db8	Not enough data returned from "mode sense" message.
dbb	Unexpected amount of data returned from "mode sense" message.
dbe	Device is write protected.
dc2	Requested density does not match set device density.
dc5	Failed to obtain expected mode pages.
dc8	Failed to send "mode select" message.
dce	"Mode select" message failed.
dd2	"Mode select" message failed.
dd5	Invalid tape sequence number.
e01	Not SCSI dfc.
e03	Invalid DFC state for pump.
e05	dtchintr call returned fail.
e07	Unable to clear DDSBS.
e09	Unable to send message to BIC.
e0a	Unable to send message to BIC.
e0b	atchintr call returned fail.
e0d	enabintr call returned fail.
e0f	getjobid failed.
e11	Failed to write word in BIC FIFO.
e13	wakeup PIO failed.
e15	version message failed.
e17	getjobid failed.
e19	Failed to write word in BIC FIFO.
e1a	wakeup PIO failed.
e1b	version message failed.
e1c	Unable to allocate message for FMGR.
e1d	1-byte wide firmware version not known.
e1f	Unable to allocate message for FMGR.
e20	Unable to do a stat() on the pumpfile.
e22	Pumpfile invalid size.
e24	Pumpfile is not a single extent contiguous file.
e26	Unable to get segnum.
e28	Unable to iolock the buffer.
e2a	Unable to allocate the message buffer for reading pumpfile.
e2c	Unable to send the I/O message.
e2e	Unable to read pumpfile header.
e2f	Pumpfile has invalid size.
e30	4-wide firmware needs to be reprogrammed, retry later.
e32	Unable to get segnum.
e33	Unable to get segnum for DKDRV's internal pump buffer.
e35	Unable to download the pumpcode.
e37	Unable to request reading pumpfile.
e39	Unable to read pumpfile.
e3a	DFC pump: getjobid failed.
e3b	Failed to write word in BIC FIFO.
e3d	Failed to write word in BIC FIFO.
e3f	Failed to write word in BIC FIFO.
e41	Failed to write word in BIC FIFO.
e43	wakeup PIO failed.
e45	Pump failed at last pump.
e46	Cannot remove the segment.

e47	dtchintr call returned fail.
e48	Unable to send message to BIC.
e49	Invalid pump sequence.
e4a	dtchintr call returned fail.
e4b	Cannot remove the segment.
e4c	Unable to send message to BIC.
e50	Invalid header magic number.
e53	1-byte wide firmware and pumpfile are incompatible - issue.
e55	1-byte wide firmware and pumpfile are incompatible - generic.
e57	4-byte wide firmware and pumpfile are incompatible with 1-byte wide firmware.
e59	Pumpfile has different revision level.
e5a	1-byte wide firmware and pumpfile are incompatible.
e5c	Unable to determine revision levels.
e60	Unable to send message to BIC.
e62	jcistat message failed.
e64	Read status of BIC failed.
e66	Failed to read BIC FIFO.
e68	Failed to read BIC FIFO.
e69	Received interrupt but no response.
e6a	Failed to clear BIC interrupt.
e6b	dtchintr call returned fail.
e6c	Unable to send message to BIC.
e6d	dtchintr call returned fail.
e6e	atchintr call returned fail.
e6f	enabintr call returned fail.
e70	DFC flash programming timed out.
e71	Unable to clear DDSBS.
e72	Unable to send message to BIC.
e73	DFC version message failed.
e74	Unable to send message to BIC.
e78	initmem5() DMAC initialization failed.
e7a	dtchintr call returned fail.
e7b	atchintr call returned fail.
e7c	enabintr call returned fail.
e7d	getjobid failed.
e7f	Unable to send version message failed.
e80	Unrecognizable DKDRV internal job type.
e85	Response contains jobid not in use.
e86	IO job has no associated IO message.
e88	IO message "ms_to" field is invalid.
e8a	Message type not IOREAD or IOWRITE.
e8c	No job found in inventory data.
e8d	Invalid completion code returned by DFC.
e8f	Job reported error.

APP:DFC-A-B

Software Release: 5E11 only
Message Class: N/A
Application: 5,3B
Type: Output

1. DKDRV ERROR/WARNING CODES APPENDIX

The codes are in hexadecimal notation.

Error Code	Explanation
010	No inventory room - restructure disk driver (DKDRV).
020	Report failure.
030	Access to bus interface controller (BIC) failed.
035	Desired BIC status not obtained.
039	IO job has no associated IO message.
040	IO message "ms_to" field is invalid.
041	Message buffer not marked allocated.
045	Message type not IOREAD or IOWRITE.
04a	No job found in inventory data.
050	Invalid completion code returned by disk file controller (DFC).
055	Job reported error.
05a	Response contains job ID not in use.
060	Response specified an unknown device.
06f	Drive status error.
070	Special queue full.
073	spqjobid failed.
076	queuejob failed for DFC change maintenance mode message.
07a	intpwait function failed for DFC change maintenance mode.
07c	Special queue full for small computer system interface (SCSI) bus (SBUS) change mode job.
07e	spqjobid failed for SBUS change mode message.
082	queuejob for SBUS change maintenance mode failed.
085	intpwait function failed for SBUS change maintenance mode.
098	DFC version message: special queue full.
09a	DFC version message: spqjobid failed.
09c	Version message fail.
09e	dfc_vers: intpwait function failed.
0a0	initmem1() failed.
0a2	Timeout request to get DIOP feature level failed.
0a3	DKDRV timing chain index 0 already assigned.
0a4	Failed to read btparm record.
0a5	No mate for boot device found.
0a8	DFC restore failed during boot.
0ab	Fail to change the usable bit for SBUS.
0af	Moving head disk (MHD) marked S_ACT but DFC not marked S_ACT.
0b1	MHD marked S_ACT but SBUS not marked S_ACT.
0b3	Simplex MHD restore failed config denied removal.
0b5	Simplex MHD restore failed config approved removal.
0b8	MHD restore failed and no S_ACT mate.
0c0	initkint (interrupt detach/attach) failed.
0c3	Fail to request pump after boot.
0c6	Invalid MHD to be restored during boot.
0c9	Invalid mate MHD.
0ca	RID to UCB conversion failed.
0cb	RID update and release failed.
0cf	Duplicate fields in the message do not match.
0d5	Byte offset not on word boundary.
0d7	Maintenance job failure - refer to the DKDRV error report.
0d9	Power switch monitor (PSM) sent a bad power transition message.
0db	Temp message - old message returned.
0dd	Unknown maintenance acknowledgement (ACK) received.
0df	Unrecognizable message type.
0e2	Unrecognizable device.
0e5	Unknown file manager (FMGR) ACK message received.
0e6	Segment removed failed, pump buffer retained.
0e8	Unknown memory manager (MMGR) ACK message received.
0ec	Unknown DKDRV ACK message received.

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0ef	Unknown ACK message received.
0f0	Incorrect swap LOG_REC record identification number (RID) from equipment configuration data originator (ECDORG).
0f1	Incorrect SWAP minor device chain table (MDCT) RID.
0f2	Cannot update the ROOT/SWAP device table.
0f3	DLM indicator message alloc failed (to SIM).
0f4	DLM indicator message alloc failed (to DKDIP).
0f6	DLM indicator message alloc failed(to DKDIP).
0f8	DLM indicator message alloc failed(to DKDIP).
0fa	Could not get a CDLM timer entry.
0fb	dlmstrt ost returned SWFAIL.
0fd	Microstore limpmode flag set.
0fe	Bad return from dlmstrt.
0ff	Unknown RID from DKDIP.
100	Invalid operation code in UTIL message.
101	Power down of an active unit.
102	DFC power down message received - unit still usable.
103	MHD is powered down - abort client.
104	MHD power down message received - unit still usable.
105	Special priority queue full.
106	queuejob failed.
107	spqjobid failed.
108	Invalid device type for power up check.
10a	intpwait function failed.
110	No volume table of contents (VTOC) on disk pack.
113	VTOC too large for DKDRV to handle.
116	Invalid partition number in VTOC entry.
119	Invalid partition number in message.
140	Virtual address does not map into segment number.
145	iolock() failed.
14a	uniolock() failed.
160	RID to unit control block (UCB) low level access (LLA) call failed.
165	RID update and release failed.
16a	RID unknown by DKDRV.
170	RID to UCB LLA call failed.
175	RID update and release failed.
17a	RID to UCB LLA call failed.
180	RID update and release failed.
185	RID to UCB LLA call failed.
18a	RID update and release failed.
190	Invalid inhibit administration opcode.
1a0	dtchintr call returned fail.
1a5	atchintr call returned fail.
1aa	enabintr call returned fail.
1b0	Equipment configuration database (ECD) attach failed.
1b3	Digital link module (DLM) INIT failed.
1b5	CONFIG OPEN failed.
1b8	atchdata call to ECD failed.
1bc	No DFCs in ECD.
1be	DFC growth failed.
1c3	downucbs ECD call failed.
1c6	SBUS growth failed.
1c9	downucbs ECD call failed.
1cc	Growth of SCSI device failed..
1ce	downucbs ECD call failed.
1d1	SMD MHD growth failed.
1d3	Too many devices.
1d6	RID to UCB conversion failed.
1d8	Invalid device type.
1d9	Unable to determine DFC type.
1dc	RID update and release failed.
1de	Device is unequipped.
1df	Invalid DFC internal device ID.
1e1	Channel RID to UCB conversion failed.
1e3	Invalid SBUS internal device ID.
1e5	DFC RID to UCB conversion failed.
1e7	Invalid device ID for SCSI device.
1e9	SBUS RID to UCB conversion failed.
1eb	Invalid SBUS's internal device ID.
1ed	DFC RID to UCB conversion failed.
1ef	Invalid device ID for SMD MHD.

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1f2	DFC RID to UCB conversion failed.
1f4	Incorrect device type for the device's control unit.
1fc	Memory initialization failed.
1fe	DKDRV port attach failed.
203	getpta() function failed.
206	RID to UCB conversion failed.
209	idmadev() (write to direct memory access controller (DMAC) random access memory (RAM)) failed.
20c	atchintr call failed.
20f	RID not known by DKDRV.
213	DFC being de-grown.
216	Update of DKDRV local DFC UCB failed.
219	DFC being de-grown not in UNEQUIP state.
21c	SBUS being de-grown.
21f	Update of DKDRV local SBUS UCB failed.
223	SBUS being de-grown not in UNEQUIP state.
226	Unit being de-grown.
229	Update of DKDRV local MHD UCB failed.
22c	Unit being de-grown not in UNEQUIP state.
22f	RID to UCB conversion failed.
233	RID update and release failed.
236	Drive type in ECD does not agree with backplane - restore aborted. For SMD MHDs with UCB device_id field = 0 (first MHD on DFC, usually MHD 0 or 1): MHD type read from DFC backplane may not agree with MHD UCB equipage field or may not be read correctly by DFC TN65 or UN64 board.
239	RID to UCB conversion failed.
23a	RID update and release failed.
23b	RID to UCB conversion failed.
23c	get option block for DFC failed.
23d	Invalid eirflag field in DFC option block.
23e	get option block for MHD failed.
240	Delay (failed to find interrupt set in BIC).
242	RID to UCB conversion failed.
250	Job complete code == fail.
252	Job request not allowed.
254	Job request not allowed.
258	Tape device already opened.
25a	Driver I/O error.
25c	No S_ACT device - open.
260	Incorrect monitor device configuration table (MDCT) from I/O message.
263	Growth of device failed.
265	No RIDs in ECD MDCT.
268	Warning - enlarge DKDRV's internal MDCT.
26c	Disk specific write not allowed.
270	No S_ACT device - read.
275	Invalid partition number in read message.
278	Access to DIAG partition is not allowed - read.
27a	Unable to inventory job.
27d	bhqjobid failed.
280	io_blk exceeds partition size - read.
290	no S_ACT device - write.
295	Invalid partition number in write message.
29a	Tried to write into protected partition.
2b1	No job IDs left.
2ba	Unable to inventory all jobs.
2be	Access to DIAG partition is not allowed - write.
2c0	io_blk exceeds partition size - write.
305	Unrecognizable DKDRV internal job type.
307	Unexpected denial of request to remove MHD.
308	Duplex operation compromised, removing MHD.
320	Boot indicator message allocation failed.
325	INIT entry failed.
32a	Unexpected event.
340	do_error(0x340).
343	Failed to restart driver.
346	Old non-queued audit error message.
349	Unexpected fault code.
34c	Critical hit - S_RSP.
34f	Critical hit - S_MSG.
353	Driver state error.

355	Calling dfcinit() for lack of "warm" restart.
356	ss32b() failed.
359	PIC never reset CMD IN PROG flag.
35f	progio (D2SBS clear) failed.
363	progio (BIC initialization and PIC reset) failed.
366	initmem5 (DMAC RAM initialization) failed.
369	enabintr function failed.
36c	progio (send ABORT message to PIC) failed.
36f	progio (set BIC IFEN flag) failed.
373	unknown RID faulted.
376	PIO lost for a unit.
379	Unknown RID faulted.
37c	Unexpected fault code.
37f	Message buffer audit error - abort maintenance on this unit.
383	timereq() failed - dfcinit.
391	Invalid pdfptr.
392	Invalid pdfptr.
395	RID to UCB LLA call failed.
397	Message alloc failed (to FMGR).
398	Could not get a timer entry for FMGR.
39b	Major DFC reinitialization due to either operational problems or manual request.
39c	Tape operations aborted.
39e	Warning - queue full detected.
3a6	Invalid dfcinit() sequence.
3a9	Cannot identify panic dump device.
3ac	Incorrect PANIC DUMP RID.
3af	ss32b() failed.
3b3	PIC never reset CMD IN PROG flag.
3b6	progio (D2SBS clear) failed.
3b9	progio (BIC initialization and PIC reset) failed.
3ba	Failed to clear BIC INTP.
3bc	kint() - stray interrupts detected.
3be	kint() entered before kfault after panic dump.
3d0	RID not known by DKDRV.
3d3	DKDRV has aborted client.
3d5	Invalid maintenance state.
3d8	Device file not open.
3dc	Another process has device file open.
3dd	Tape device is already open.
3de	Request prohibited on S_ACT DFC.
3e1	maint() attach interrupt failed.
3e3	maint() enable interrupt failed.
3e5	UCB is not a DFC.
3e8	DMAC RAM initialization failed.
3ec	Detach/attach/enable interrupt failed.
3ef	Detach interrupt failed.
402	FORMAT - unit is not a disk.
403	Device type is not SCSI for explicit SCSI message.
405	DFC is not ACTIVE for SCSI message.
407	SBUS is not ACTIVE for SCSI message.
409	CONFIG denied request to remove unit.
40c	May only restore S_OOS units.
40e	MHD/SBUS restore no good - DFC not S_ACT.
412	MHD restore no good - SBUS not S_ACT.
415	Compare/correct - unit not a disk.
418	Compare/correct - DFC not S_ACT.
41b	Compare/correct - SBUS not ACTIVE.
41d	May not compare/correct a S_INIT unit.
41f	Only one compare/correct is allowed to run at one time.
422	May only restore S_OOS units.
425	SBUS restore - DFC is not ACTIVE.
426	MHD or MT restore - SBUS is not ACTIVE.
427	MHD restore - DFC is not ACTIVE.
428	DIAG SYSGEN PIO failed.
429	Restore not allowed, device not supported.
42a	UCB is not a DFC UCB.
42c	Not allowed to DGN an S_ACT unit.
42e	Special queue full.
432	Invalid device to be diagnosed.
435	spqjobid failed.
438	queuejob failed.
43c	getdmaa function failed.

43e	Received WSETUP0 before SPECDMA.
442	WSETUP1 received before WSETUP0.
445	uniolock failed.
448	getdmaa function failed.
44c	Invalid disk lock process.
44f	Base queue full.
452	bhqjobid failed.
455	queuejob failed.
458	Version job failed.
460	FORMAT requires non-S_ACT MHD.
462	FORMAT/VERIFY - unit is not a disk.
465	FORMAT/VERIFY requires S_ACT DFC.
468	INIT/VFY MHD - SBUS not S_ACT.
46a	VERIFY in progress - retry later.
470	Start track/block greater than last track/block.
473	Base queue full.
476	bhqjobid failed.
479	MHD usability changed because of INIT operation.
47c	queuejob failed.
480	Invalid when MHD is S_ACT.
483	DFC must be S_ACT.
486	Invalid when MHD is S_ACT.
489	DFC must be S_ACT.
48b	REMAP dskserv() failed.
48d	Device major status update failed.
48f	Failed to initialize device status.
492	Base queue full.
494	Unable to queue link map (LM) job.
496	Invalid DFC type for DFC reset request.
498	DFC is not ACTIVE to be reset.
49a	Firmware is running - cannot reset DFC.
49f	DFC type does not support pump.
4a3	DFC is not ACTIVE for pumpcode downloading.
4a6	Other pump in progress - retry later.
4a9	Unable to queue pump job.
4aa	Device must be non-ACT to init error message inhibit flag.
4ab	CLRMAEC - unit is not a disk.
4ac	Invalid opercode in maintenance message.
4ae	Unexpected maintenance interrupt.
4b3	dtchintr call failed.
4b6	Maintenance work timed out.
4b9	No base or high job IDs left.
4bc	Failed to get page table address.
4be	No job IDs left for base or high queue.
4c2	Offset of the SCSI message is not on word boundary.
4c5	Explicit SCSI message, response and data are not on the same segment.
4c8	Base queue full for SCSI message.
4ca	Request exceeds DFC capability.
4cb	Invalid second device for SCSI message.
4cc	Request exceeds expscsi capability.
4cd	Unable to queue the SCSI message.
4d0	readvtoc() function failed.
4d1	Another pump in progress, retry later.
4d2	Flash reprogram not started.
4d3	Unable to program flash memory on S_ACT unit.
4d5	readvtoc() job failed.
4d6	Unable to clear DDSBS.
4d8	Unable to send message to BIC.
4d9	getpta() function failed.
4da	VTOC sort function failed.
4db	initmem5() DMAC init failed.
4dc	Unable to send message to BIC.
4dd	dtchintr call returned fail.
4de	atchintr call returned fail.
4df	DFC pump: getjobid failed.
4e0	Invalid newvtoc() sequence.
4e1	Failed to write word in BIC FIFO.
4e2	enabintr call returned fail.
4e3	Failed to write word in BIC FIFO.
4e5	Partition number out of range for DKDRV.
4e6	Failed to write word in BIC FIFO.
4e7	Failed to write word in BIC FIFO.

4e8	Partition number out of range for VTOC.
4e9	wakeup PIO failed.
4eb	Unable to get firmware versions.
4f1	Flash reprogram not started.
4f2	Unable to clear DDSBS.
4f3	Unable to send message to BIC.
4f5	DFC pump: getjobid failed.
4f7	Failed to write word in BIC FIFO.
4f9	Failed to write word in BIC FIFO.
4fa	Failed to write word in BIC FIFO.
4fb	Failed to write word in BIC FIFO.
4fc	wakeup PIO failed.
500	Base queue full for maintenance read.
503	Tried to use invalid VTOC for maintenance read.
505	Invalid partition number in message.
508	Invalid block in partition.
50c	bhqjobid failed for maintenance read.
50e	Unable to inventory job for maintenance read.
520	Base queue full for maintenance write.
523	Tried to use invalid VTOC for maintenance write.
526	Invalid partition number in message.
529	Tried to write into protected partition.
52c	Invalid block in partition.
537	MHD usability changed because of pdfwrite job.
539	bhqjobid failed for maintenance write.
53b	Unable to inventory job for maintenance write.
550	Physical device file not opened.
553	Cannot write to read only disk.
556	iolock failed.
55b	getjobid failed.
55f	Maintenance I/O request to a non-disk device.
56a	DISK read or write requires active DFC.
56f	DISK read or write requires active SBUS.
573	This physical device file already open.
575	Device major status update failed.
57a	Update of device file variables failed.
580	May not maintenance write ACT device.
583	SDF prematurely closed during a restore.
585	uniolock failed.
5a0	Command to BIC failed.
5a5	Command to PIC failed.
5aa	Clear of duplex dual serial bus selector (DDSBS) failed.
5b0	Read status of DDSBS failed.
5b5	Read of BIC first-in, first-out (FIFO) failed.
5ba	Write of BIC FIFO failed.
5bc	Read status of BIC failed.
5bf	BIC message to read host adapter (HA) shadow register failed.
5c3	Read status of SCSI HA shadow register failed.
5c5	progio cmdtype not defined.
5e0	queuejob failed.
5e1	Base queue full.
5e2	getjobid failed.
5ec	intpwait function failed.
5f0	readdisk queuejob failed.
5f1	readdisk base queue full.
5f2	readdisk getjobid failed.
5fc	readdisk intpwait function failed.
600	Excessive errors - device being reset.
601	Excessive errors - device being reset.
603	SBUS work terminated - DFC going S_OOS.
609	MHD work terminated - DFC going S_OOS.
60a	Tape work terminated - DFC going S_OOS.
60c	MHD work terminated - SBUS going S_OOS.
60d	Tape work terminated - SBUS going S_OOS.
60e	CONFIG chgstate() call failed.
613	dtchintr() failed.
615	dskserv (OFFLINE) function failed.
618	dskserv (OFFLINE) job failed.
61c	sbuserv (OFFLINE) function failed.
61f	sbuserv (OFFLINE) job failed.
650	RID to UCB LLA call failed.
653	RID to UCB LLA call failed.

655	RID to UCB LLA call failed.
658	RID to UCB LLA call failed.
65c	RID to UCB LLA call failed.
65e	RID to UCB LLA call failed.
661	RID to UCB LLA call failed.
663	RID to UCB LLA call failed.
666	RID to UCB LLA call failed.
667	RID to UCB LLA call failed.
669	RID to UCB LLA call failed.
673	RID to UCB LLA call failed.
678	RID to UCB LLA call failed.
67a	EIR contains jobid not in use.
67b	RID to UCB LLA call failed.
67c	RID to UCB LLA call failed.
67d	RID to UCB LLA call failed.
67e	RID to UCB LLA call failed.
682	RID to UCB LLA call failed.
6a9	Retry peripheral I/O sub-system (PIO) failed.
6aa	Failed to requeue job.
6b0	Remake: job ID not in use.
6b5	Remake: bad message type.
6be	Restore - invalid device type.
6c0	Unable to change usable bit for DFC.
6c3	CONFIG chgstate call failed.
6c5	DKDRV DFC memory init failed.
6c8	initmem5() (DMAC init) failed.
6ca	initmem6() (atchintr) failed.
6ce	progio (D2SBS clear) failed.
6d1	progio (BIC initialization and PIC reset) failed.
6d3	enabintr() failed.
6d5	SYSGEN function failed.
6d8	sysgen job failed.
6d9	dfc_vers request function failed.
6da	dfc_vers job failed.
6db	dfc_vers request function failed.
6dd	dfc_vers job failed.
6df	dfcserv (ONLINE) function failed.
6e2	dfcserv (ONLINE) job failed.
6e5	CONFIG chgstate call failed.
6e8	Unable to change usable bit for DFC.
6eb	Cannot request a timer for pump after DFC restore.
6ef	Invalid DFC restore sequence number.
6f2	Unit is in FULL DLM - abort restore.
6f5	Mate unit is in FULL DLM - abort restore.
6f8	Unable to change usable bit for MHD.
6fb	CONFIG chgstate call failed.
6fe	DKDRV MHD memory initialization failed.
6ff	dlm_chks() denied restore request.
701	readdisk() function failed.
703	Disk job (readdisk) failed.
706	dskserv (ONLINE,RSTJOB) function failed.
709	DFC failed to put MHD on-line.
70c	readvtoc() function failed.
70e	Disk job (readvtoc) failed.
711	VTOC integrity check failed.
713	CONFIG chgstate call failed.
715	Unable to change usable bit for MHD.
718	invalid MHD restore sequence number.
71c	CONFIG chgstate call failed.
71e	subserv (ONLINE) function failed.
722	sbuserv (ONLINE) job failed.
725	CONFIG chgstate call failed.
728	unable to change usable bit for SBUS.
72c	Invalid SBUS restore sequence number.
730	Maintenance state audit requested.
732	Invalid MHD "compcor" sequence number.
741	Unit is FULL DLM - abort restore.
742	Failed to change usable bit for tape.
745	CONFIG chgstate call failed.
748	DKDRV tape memory initialization failed.
74b	devserv(ONLINE)) function failed.
74e	Failed to put tape device ONLINE.

752	CONFIF chgstate call failed.
755	Failed to change usable bit for tape.
758	Invalid tape restore sequence number.
75b	DIOP restore not allowed: mate MHD is active.
75e	DIOP restore not allowed: MHD is marked essential.
760	progio (set BIC IFEN flag) failed.
761	Wakeup PIO failed.
762	Resume PIO failed.
765	progio (send SYSGEN message to PIC) failed.
76a	intpwait function failed.
770	Job timed out.
775	DFC timed out.
776	Invalid pump state.
778	Cannot request timer for DFC pump.
77a	DFC entering overload.
77c	DFC leaving overload.
77f	DFC usability audit failed.
790	Timing table full.
795	Timeout request is out of range.
7c0	No base or high job IDs left.
7c3	No job IDs left for base or high queue.
7c5	No job IDs left for special queue.
7c7	Failed to get page table address.
7c9	No job IDs left for PIO jobs.
800	"prc/s_update" terminated abnormally.
801	"prc/s_dskutil" terminated abnormally.
825	Could not alloc message buf.
830	Could not pcreat process.
835	Could not alloc message buf.
900	DKDIP PID is null.
903	alocmessage failed.
906	Failed to remove the segment.
909	Cannot pump - other pump in progress.
90c	Invalid DFC state for pump.
90e	Cannot perform pump at this time.
911	DFC is not S_ACT for pump.
913	Invalid global pump state.
916	DFC is scheduled for major reinitialization - can't pump.
919	Pump not started - DFC is reserved.
91b	Firmware version not known.
91c	Failed to allocate message for FMGR.
91d	Cannot alloc message for FMGR.
91e	File stat error.
91f	pumpfile is zero byte in size.
921	pumpfile is not a contiguous one extent file.
923	Cannot get segnum.
926	Failed to queue the pump request.
929	Cannot get segnum.
92c	Failed to determine pump type.
92d	Cannot get segnum for DKDRV's internal pump buffer.
92e	Failed to download the pumpcode.
931	Request to read pump-file failed.
933	Failed to read pump-file.
936	Failed to send the pump request.
939	Pump failed at last pump.
93c	Failed to queue a version message in pump procedure.
93e	Pumpcode version message failed.
93f	Failed to start new pump.
943	Invalid pump sequence.
946	Invalid MDCT RID for pump file.
949	Invalid segment size requested.
94c	Failed to get a segment index for new segment.
94e	Failed to get a segment number for new segment.
951	Failed to allocate a message buffer.
953	Failed to allocate a message buffer.
956	Cannot iolock the buffer.
959	Cannot allocate the message buffer for reading pumpfile.
95c	Cannot send the I/O message.
95f	DFC pump: high priority queue full.
963	DFC pump: base priority queue full.
966	DFC pump: getjobid failed.
969	DFC pump: queuejob failed.

96c	Cannot remove the segment used for pump buffer.
96f	Invalid time out for pump procedure.
971	Pump timeout - abort pump.
980	Incorrect root LOG_REC RID from ECDORG.
981	Incorrect root MDCT RID.
a01	s_update started.
a0a	Bad MAINT message opercode.
a15	Cannot open ECD.
a1a	Cannot get specified unit UCB.
a20	Specified unit UCB not reserved.
a25	Failed to get "to" unit SDF.
a2a	Open of "to" SDF failed.
a30	ugucbm() failed.
a35	No active mate found.
a3a	Failed to reserve active mate UCB.
a40	Failed to get "from" unit SDF.
a45	Open of "from" SDF failed.
a48	Cannot read VTOC on active disk.
a4a	Invalid VTOC on active disk.
a55	Asynchronous write failure.
a5a	Asynchronous write failure.
a60	VTOC read (source disk) failed.
a65	VTOC write (destination disk) failed.
a6a	Too many partitions.
a70	Block number not within VTOC.
a75	Primary BBOOT partition is INVALID.
a7a	Backup BBOOT partition is INVALID.
a80	Tried to access unopened file.
a85	segoff failure.
a8a	movetrap failure.
a90	Disk read error.
a95	Disk read error - correctly reread.
a9a	Invalid file descriptor.
aa0	IOQUEUEM failure.
aa5	Maintenance job to DKDRV failed.
aaa	Received application abort restore request.
ab5	Invalid argument.
aba	Segname already exists.
ac0	Segment exists.
ac5	No segments available.
aca	Not enough space.
ad0	Bad segndx.
ad3	Cannot find a free segindex.
ad5	segoff failure.
ada	Driver startup message not received.
ae0	Terminated externally.
ae5	Invalid U_ABRTRST message.
aea	Invalid maintenance message.
af0	Unknown ACK message.
af5	Process was faulted.
b01	s_dskutil started.
b06	Cannot connect to port PT_DSKUTL.
b09	Bad MAINT message opercode.
b10	Cannot open ECD.
b13	"DEST" unit not specified.
b16	ugucbm() failed for "DEST" unit.
b19	Cannot get "DEST" unit UCB.
b1c	"DEST" unit UCB not reserved.
b20	Failed to get "to" unit SDF.
b23	Open of "to" SDF failed.
b26	Dup of "to" SDF failed.
b29	ugetucb() failed for "from" unit.
b36	Failed to reserve "from" unit UCB.
b39	Failed to get "from" unit SDF.
b3c	Open of "from" SDF failed.
b40	Remove mate of "DEST" unit and reenter message.
b46	Dup of "from" SDF failed.
b48	Failed to read VTOC on "to" disk.
b49	Invalid VTOC on "to" disk.
b4b	Failed to read VTOC on "from" disk.
b4c	Invalid VTOC on "from" disk.
b50	Both VTOCs do not match.

b5c	Read failure (DEST disk).
b60	Read failure (SRC disk).
b63	Too many partitions.
b66	VTOCs do not match in size.
b69	sync write failure (DEST disk).
b6c	Block number not within VTOC.
b70	Block number not within VTOC.
b73	Block number not within VTOC.
b80	Tried to access unopened file.
b85	segoff failure.
b8a	movetrap failure.
b90	Disk read error.
b95	Disk read error - correctly reread.
b9a	Invalid file descriptor.
ba0	IOQUEUEM failure.
ba5	Maintenance job to DKDRV failed.
baa	Received application abort restore request.
bb5	Invalid argument.
bba	segname already exists.
bc0	segment exists.
bc5	No segments available.
bca	Not enough space.
bd0	Bad segndx.
bd3	Cannot find a free segindex.
bd5	segoff failure.
bda	Driver startup message not received.
be0	Terminated externally.
be5	Invalid U_ABRTRST message.
bea	Invalid maintenance message.
bf0	Unknown ACK message.
bf5	Process was faulted.
c02	Tape device already open.
c0b	Device not active.
c12	Open for both read and write.
c15	Incorrect read/write access permissions.
c18	Failed to send "test unit ready" message.
c1b	"Test unit ready" message failed.
c1e	"Test unit ready" message failed.
c22	Failed to send "test unit ready" message.
c25	"Test unit ready" message failed.
c28	"Test unit ready" message failed.
c2b	Failed to send "test unit ready" message.
c2e	"Test unit ready" message failed.
c32	"Test unit ready" message failed.
c35	Failed to send "inquiry" message.
c38	"Inquiry" message failed.
c3b	"Inquiry" message failed.
c3e	Insufficient "inquiry" data.
c42	Failed to send "inquiry" message.
c45	"Inquiry" message failed.
c48	"Inquiry" message failed.
c4b	Unknown device.
c4e	Failed to send "read block limits" message.
c52	"Read block limits" message failed.
c55	"Read block limits" message failed.
c58	Partition information is invalid.
c5b	Not a supported tape device.
c5e	Invalid tape I/O open sequence number.
c62	Reserved field in partition used.
c65	Device does not support variable record sizes.
c68	Device does not support fixed records.
c69	Fixed record size is invalid.
c6a	Invalid record type specified.
c6b	Record size greater than device capability.
c6e	Record size less than device capability.
c72	Failed to send tape setup message to DFC.
c75	Tape setup message failed.
c78	Invalid sequence number.
c82	Base queue full.
c85	Failed to get job ID.
c88	Request exceeds DFC capability.
c89	Request exceeds expscsi capability.

c8b	No base/high job IDs left.
c8e	No job IDs left for base/high queue.
c92	Base queue full.
c95	Failed to get job ID.
c9b	Base queue full.
c9e	Failed to get job ID.
ca2	Entity type to space over is invalid.
ca5	Base queue is full.
ca8	Failed to get job ID.
cab	Base queue full.
cae	Failed to get job ID.
cb1	Device not active.
cb2	Invalid state for closing device.
cb7	Invalid state for closing device.
cb8	Failed to send tape "rewind" message to DFC.
cbb	Tape "rewind" failed.
cbe	Invalid sequence number.
cc2	Failed to send tape "space" message to DFC.
cc5	Tape "space" message failed.
cc8	Invalid sequence number.
ccb	Failed to send "write filemarks" message to DFC.
cce	"Write filemarks" message failed.
cd2	Failed to send tape "space" message to DFC.
cd5	Tape "space" message failed.
cd8	Invalid sequence number.
ce2	Device not active.
ce4	Device not open.
ce6	Incorrect read/write permissions.
ce8	Base queue full.
cea	Failed to get job ID.
cec	Unable to inventory job.
cf2	Device not active.
cf4	Device not open.
cf6	Incorrect read/write permissions.
cf8	Base queue full.
cfa	Failed to get job ID.
cfc	Unable to inventory job.
d01	Wrong device type specified.
d02	Failed to send "mode sense" message.
d05	"Mode sense" message failed.
d08	"Mode sense" message failed.
d0b	Failed to send "mode sense" message.
d0e	"Mode sense" message failed.
d12	"Mode sense" message failed.
d15	Not enough data returned from "mode sense" message.
d18	Unexpected amount of data returned from "mode sense" message.
d1b	Device is write protected.
d1e	Failed to obtain expected mode pages.
d22	Failed to send "mode select" message.
d25	"Mode select" message failed.
d28	"Mode select" message failed.
d2b	Invalid tape sequence number.
d2e	Multi-partition tape is not supported.
d31	Wrong device type specified.
d32	Failed to send "mode sense" message.
d35	"Mode sense" message failed.
d38	"Mode sense" message failed.
d3b	Failed to send "mode sense" message.
d3e	"Mode sense" message failed.
d42	"Mode sense" message failed.
d45	Not enough data returned from "mode sense" message.
d48	Unexpected amount of data returned from "mode sense" message.
d4b	Device is write protected.
d4e	Failed to obtain expected mode pages.
d52	Failed to send "mode select" message.
d55	"Mode select" message failed.
d58	"Mode select" message failed.
d5b	Invalid tape sequence number.
d5e	Multi-partition tape is not supported.
d61	Wrong device type specified.
d62	Invalid density specified.
d65	Failed to send "mode sense" message.

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d68	"Mode sense" message failed.
d6b	"Mode sense" message failed.
d6e	Failed to send "mode sense" message.
d72	"Mode sense" message failed.
d75	"Mode sense" message failed.
d78	Not enough data returned from "mode sense" message.
d7b	Unexpected amount of data returned from "mode sense" message.
d7e	Device is write protected.
d82	Requested density does not match set device density.
d85	Failed to obtain expected mode pages.
d88	Failed to send "mode select" message.
d8e	"Mode select" message failed.
d92	"Mode select" message failed.
d95	Invalid tape sequence number.
da1	Wrong device type specified.
da2	Invalid density specified.
da5	Failed to send "mode sense" message.
da8	"Mode sense" message failed.
dab	"Mode sense" message failed.
dae	Failed to send "mode sense" message.
db2	"Mode sense" message failed.
db5	"Mode sense" message failed.
db8	Not enough data returned from "mode sense" message.
dbb	Unexpected amount of data returned from "mode sense" message.
dbe	Device is write protected.
dc2	Requested density does not match set device density.
dc5	Failed to obtain expected mode pages.
dc8	Failed to send "mode select" message.
dce	"Mode select" message failed.
dd2	"Mode select" message failed.
dd5	Invalid tape sequence number.
e01	Not SCSI dfc.
e03	Invalid DFC state for pump.
e05	dtchintr call returned fail.
e07	Unable to clear DDSBS.
e09	Unable to send message to BIC.
e0a	Unable to send message to BIC.
e0b	atchintr call returned fail.
e0d	enabintr call returned fail.
e0f	getjobid failed.
e11	Failed to write word in BIC FIFO.
e13	wakeup PIO failed.
e15	version message failed.
e17	getjobid failed.
e19	Failed to write word in BIC FIFO.
e1a	wakeup PIO failed.
e1b	version message failed.
e1c	Unable to allocate message for FMGR.
e1d	1-byte wide firmware version not known.
e1f	Unable to allocate message for FMGR.
e20	Unable to do a stat() on the pumpfile.
e22	Pumpfile invalid size.
e24	Pumpfile is not a single extent contiguous file.
e26	Unable to get segnum.
e28	Unable to iolock the buffer.
e2a	Unable to allocate the message buffer for reading pumpfile.
e2c	Unable to send the I/O message.
e2e	Unable to read pumpfile header.
e2f	Pumpfile has invalid size.
e30	4-wide firmware needs to be reprogrammed, retry later.
e32	Unable to get segnum.
e33	Unable to get segnum for DKDRV's internal pump buffer.
e35	Unable to download the pumpcode.
e37	Unable to request reading pumpfile.
e39	Unable to read pumpfile.
e3a	DFC pump: getjobid failed.
e3b	Failed to write word in BIC FIFO.
e3d	Failed to write word in BIC FIFO.
e3f	Failed to write word in BIC FIFO.
e41	Failed to write word in BIC FIFO.
e43	wakeup PIO failed.
e45	Pump failed at last pump.

e46	Cannot remove the segment.
e47	dtchintr call returned fail.
e48	Unable to send message to BIC.
e49	Invalid pump sequence.
e4a	dtchintr call returned fail.
e4b	Cannot remove the segment.
e4c	Unable to send message to BIC.
e50	Invalid header magic number.
e53	1-byte wide firmware and pumpfile are incompatible - issue.
e55	1-byte wide firmware and pumpfile are incompatible - generic.
e57	4-byte wide firmware and pumpfile are incompatible with 1-byte wide firmware.
e59	Pumpfile has different revision level.
e5a	1-byte wide firmware and pumpfile are incompatible.
e5c	Unable to determine revision levels.
e60	Unable to send message to BIC.
e62	jcistat message failed.
e64	Read status of BIC failed.
e66	Failed to read BIC FIFO.
e68	Failed to read BIC FIFO.
e69	Received interrupt but no response.
e6a	Failed to clear BIC interrupt.
e6b	dtchintr call returned fail.
e6c	Unable to send message to BIC.
e6d	dtchintr call returned fail.
e6e	atchintr call returned fail.
e6f	enabintr call returned fail.
e70	DFC flash programming timed out.
e71	Unable to clear DDSBS.
e72	Unable to send message to BIC.
e73	DFC version message failed.
e74	Unable to send message to BIC.
e78	initmem5() DMAC initialization failed.
e7a	dtchintr call returned fail.
e7b	atchintr call returned fail.
e7c	enabintr call returned fail.
e7d	getjobid failed.
e7f	Unable to send version message failed.
e80	Unrecognizable DKDRV internal job type.
e85	Response contains jobid not in use.
e86	IO job has no associated IO message.
e88	IO message "ms_to" field is invalid.
e8a	Message type not IOREAD or IOWRITE.
e8c	No job found in inventory data.
e8d	Invalid completion code returned by DFC.
e8f	Job reported error.
e95	Null message buffer pointer.
e96	Invalid "ms_to" field in message.
e97	Message buffer not marked allocated.

APP:DFC-A-C

Software Release: 5E12 only
Message Class: N/A
Application: 5,3B
Type: Output

1. DKDRV ERROR/WARNING CODES APPENDIX

The codes are in hexadecimal notation.

Error Code	Explanation
010	No inventory room - restructure disk driver (DKDRV).
020	Report failure.
030	Access to bus interface controller (BIC) failed.
035	Desired BIC status not obtained.
039	IO job has no associated IO message.
040	IO message "ms_to" field is invalid.
041	Message buffer not marked allocated.
045	Message type not IOREAD or IOWRITE.
04a	No job found in inventory data.
050	Invalid completion code returned by disk file controller (DFC).
055	Job reported error.
05a	Response contains job ID not in use.
060	Response specified an unknown device.
06f	Drive status error.
070	Special queue full.
073	spqjobid failed.
076	queuejob failed for DFC change maintenance mode message.
07a	intpwait function failed for DFC change maintenance mode.
07c	Special queue full for small computer system interface (SCSI) bus (SBUS) change mode job.
07e	spqjobid failed for SBUS change mode message.
082	queuejob for SBUS change maintenance mode failed.
085	intpwait function failed for SBUS change maintenance mode.
098	DFC version message: special queue full.
09a	DFC version message: spqjobid failed.
09c	Version message fail.
09e	dfc_vers: intpwait function failed.
0a0	initmem1() failed.
0a2	Timeout request to get DIOP feature level failed.
0a3	DKDRV timing chain index 0 already assigned.
0a4	Failed to read btparm record.
0a5	No mate for boot device found.
0a8	DFC restore failed during boot.
0ab	Fail to change the usable bit for SBUS.
0af	Moving head disk (MHD) marked S_ACT but DFC not marked S_ACT.
0b1	MHD marked S_ACT but SBUS not marked S_ACT.
0b3	Simplex MHD restore failed config denied removal.
0b5	Simplex MHD restore failed config approved removal.
0b8	MHD restore failed and no S_ACT mate.
0c0	initkint (interrupt detach/attach) failed.
0c3	Fail to request pump after boot.
0c6	Invalid MHD to be restored during boot.
0c9	Invalid mate MHD.
0ca	RID to UCB conversion failed.
0cb	RID update and release failed.
0cf	Duplicate fields in the message do not match.
0d5	Byte offset not on word boundary.
0d7	Maintenance job failure - refer to the DKDRV error report.
0d9	Power switch monitor (PSM) sent a bad power transition message.
0db	Temp message - old message returned.
0dd	Unknown maintenance acknowledgement (ACK) received.
0df	Unrecognizable message type.
0e2	Unrecognizable device.
0e5	Unknown file manager (FMGR) ACK message received.
0e6	Segment removed failed, pump buffer retained.
0e8	Unknown memory manager (MMGR) ACK message received.
0ec	Unknown DKDRV ACK message received.

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0ef	Unknown ACK message received.
0f0	Incorrect swap LOG_REC record identification number (RID) from equipment configuration data originator (ECDORG).
0f1	Incorrect SWAP minor device chain table (MDCT) RID.
0f2	Cannot update the ROOT/SWAP device table.
0f3	DLM indicator message alloc failed (to SIM).
0f4	DLM indicator message alloc failed (to DKDIP).
0f6	DLM indicator message alloc failed(to DKDIP).
0f8	DLM indicator message alloc failed(to DKDIP).
0fa	Could not get a CDLM timer entry.
0fb	dlmstrt ost returned SWFAIL.
0fd	Microstore limpmode flag set.
0fe	Bad return from dlmstrt.
0ff	Unknown RID from DKDIP.
100	Invalid operation code in UTIL message.
101	Power down of an active unit.
102	DFC power down message received - unit still usable.
103	MHD is powered down - abort client.
104	MHD power down message received - unit still usable.
105	Special priority queue full.
106	queuejob failed.
107	spqjobid failed.
108	Invalid device type for power up check.
10a	intpwait function failed.
110	No volume table of contents (VTOC) on disk pack.
113	VTOC too large for DKDRV to handle.
116	Invalid partition number in VTOC entry.
119	Invalid partition number in message.
140	Virtual address does not map into segment number.
145	iolock() failed.
14a	uniolock() failed.
160	RID to unit control block (UCB) low level access (LLA) call failed.
165	RID update and release failed.
16a	RID unknown by DKDRV.
170	RID to UCB LLA call failed.
175	RID update and release failed.
17a	RID to UCB LLA call failed.
180	RID update and release failed.
185	RID to UCB LLA call failed.
18a	RID update and release failed.
190	Invalid inhibit administration opcode.
1a0	dtchintr call returned fail.
1a5	atchintr call returned fail.
1aa	enabintr call returned fail.
1b0	Equipment configuration database (ECD) attach failed.
1b3	Digital link module (DLM) INIT failed.
1b5	CONFIG OPEN failed.
1b8	atchdata call to ECD failed.
1bc	No DFCs in ECD.
1be	DFC growth failed.
1c3	downucbs ECD call failed.
1c6	SBUS growth failed.
1c9	downucbs ECD call failed.
1cc	Growth of SCSI device failed..
1ce	downucbs ECD call failed.
1d1	SMD MHD growth failed.
1d3	Too many devices.
1d6	RID to UCB conversion failed.
1d8	Invalid device type.
1d9	Unable to determine DFC type.
1dc	RID update and release failed.
1de	Device is unequipped.
1df	Invalid DFC internal device ID.
1e1	Channel RID to UCB conversion failed.
1e3	Invalid SBUS internal device ID.
1e5	DFC RID to UCB conversion failed.
1e7	Invalid device ID for SCSI device.
1e9	SBUS RID to UCB conversion failed.
1eb	Invalid SBUS's internal device ID.
1ed	DFC RID to UCB conversion failed.
1ef	Invalid device ID for SMD MHD.

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1f2	DFC RID to UCB conversion failed.
1f4	Incorrect device type for the device's control unit.
1fc	Memory initialization failed.
1fe	DKDRV port attach failed.
203	getpta() function failed.
206	RID to UCB conversion failed.
209	idmadev() (write to direct memory access controller (DMAC) random access memory (RAM)) failed.
20c	atchintr call failed.
20f	RID not known by DKDRV.
213	DFC being de-grown.
216	Update of DKDRV local DFC UCB failed.
219	DFC being de-grown not in UNEQUIP state.
21c	SBUS being de-grown.
21f	Update of DKDRV local SBUS UCB failed.
223	SBUS being de-grown not in UNEQUIP state.
226	Unit being de-grown.
229	Update of DKDRV local MHD UCB failed.
22c	Unit being de-grown not in UNEQUIP state.
22f	RID to UCB conversion failed.
233	RID update and release failed.
236	Drive type in ECD does not agree with backplane - restore aborted. For SMD MHDs with UCB device_id field = 0 (first MHD on DFC, usually MHD 0 or 1): MHD type read from DFC backplane may not agree with MHD UCB equipage field or may not be read correctly by DFC TN65 or UN64 board.
239	RID to UCB conversion failed.
23a	RID update and release failed.
23b	RID to UCB conversion failed.
23c	get option block for DFC failed.
23d	Invalid eirflag field in DFC option block.
23e	get option block for MHD failed.
240	Delay (failed to find interrupt set in BIC).
242	RID to UCB conversion failed.
250	Job complete code == fail.
252	Job request not allowed.
254	Job request not allowed.
258	Tape device already opened.
25a	Driver I/O error.
25c	No S_ACT device - open.
260	Incorrect monitor device configuration table (MDCT) from I/O message.
263	Growth of device failed.
265	No RIDs in ECD MDCT.
268	Warning - enlarge DKDRV's internal MDCT.
26c	Disk specific write not allowed.
270	No S_ACT device - read.
275	Invalid partition number in read message.
278	Access to DIAG partition is not allowed - read.
27a	Unable to inventory job.
27d	bhqjobid failed.
280	io_blk exceeds partition size - read.
290	no S_ACT device - write.
295	Invalid partition number in write message.
29a	Tried to write into protected partition.
2b1	No job IDs left.
2ba	Unable to inventory all jobs.
2be	Access to DIAG partition is not allowed - write.
2c0	io_blk exceeds partition size - write.
305	Unrecognizable DKDRV internal job type.
307	Unexpected denial of request to remove MHD.
308	Duplex operation compromised, removing MHD.
320	Boot indicator message allocation failed.
325	INIT entry failed.
32a	Unexpected event.
340	do_error(0x340).
343	Failed to restart driver.
346	Old non-queued audit error message.
349	Unexpected fault code.
34c	Critical hit - S_RSP.
34f	Critical hit - S_MSG.
353	Driver state error.

355	Calling dfcinit() for lack of "warm" restart.
356	ss32b() failed.
359	PIC never reset CMD IN PROG flag.
35f	progio (D2SBS clear) failed.
363	progio (BIC initialization and PIC reset) failed.
366	initmem5 (DMAC RAM initialization) failed.
369	enabintr function failed.
36c	progio (send ABORT message to PIC) failed.
36f	progio (set BIC IFEN flag) failed.
373	unknown RID faulted.
376	PIO lost for a unit.
379	Unknown RID faulted.
37c	Unexpected fault code.
37f	Message buffer audit error - abort maintenance on this unit.
383	timereq() failed - dfcinit.
391	Invalid pdfptr.
392	Invalid pdfptr.
395	RID to UCB LLA call failed.
397	Message alloc failed (to FMGR).
398	Could not get a timer entry for FMGR.
39b	Major DFC reinitialization due to either operational problems or manual request.
39c	Tape operations aborted.
39e	Warning - queue full detected.
3a6	Invalid dfcinit() sequence.
3a9	Cannot identify panic dump device.
3ac	Incorrect PANIC DUMP RID.
3af	ss32b() failed.
3b3	PIC never reset CMD IN PROG flag.
3b6	progio (D2SBS clear) failed.
3b9	progio (BIC initialization and PIC reset) failed.
3ba	Failed to clear BIC INTP.
3bc	kint() - stray interrupts detected.
3be	kint() entered before kfault after panic dump.
3d0	RID not known by DKDRV.
3d3	DKDRV has aborted client.
3d5	Invalid maintenance state.
3d8	Device file not open.
3dc	Another process has device file open.
3dd	Tape device is already open.
3de	Request prohibited on S_ACT DFC.
3e1	maint() attach interrupt failed.
3e3	maint() enable interrupt failed.
3e5	UCB is not a DFC.
3e8	DMAC RAM initialization failed.
3ec	Detach/attach/enable interrupt failed.
3ef	Detach interrupt failed.
402	FORMAT - unit is not a disk.
403	Device type is not SCSI for explicit SCSI message.
405	DFC is not ACTIVE for SCSI message.
407	SBUS is not ACTIVE for SCSI message.
409	CONFIG denied request to remove unit.
40c	May only restore S_OOS units.
40e	MHD/SBUS restore no good - DFC not S_ACT.
412	MHD restore no good - SBUS not S_ACT.
415	Compare/correct - unit not a disk.
418	Compare/correct - DFC not S_ACT.
41b	Compare/correct - SBUS not ACTIVE.
41d	May not compare/correct a S_INIT unit.
41f	Only one compare/correct is allowed to run at one time.
422	May only restore S_OOS units.
425	SBUS restore - DFC is not ACTIVE.
426	MHD or MT restore - SBUS is not ACTIVE.
427	MHD restore - DFC is not ACTIVE.
428	DIAG SYSGEN PIO failed.
429	Restore not allowed, device not supported.
42a	UCB is not a DFC UCB.
42c	Not allowed to DGN an S_ACT unit.
42e	Special queue full.
432	Invalid device to be diagnosed.
435	spqjobid failed.
438	queuejob failed.
43c	getdmaa function failed.

43e	Received WSETUP0 before SPECDMA.
442	WSETUP1 received before WSETUP0.
445	uniolock failed.
448	getdmaa function failed.
44c	Invalid disk lock process.
44f	Base queue full.
452	bhqjobid failed.
455	queuejob failed.
458	Version job failed.
460	FORMAT requires non-S_ACT MHD.
462	FORMAT/VERIFY - unit is not a disk.
465	FORMAT/VERIFY requires S_ACT DFC.
468	INIT/VFY MHD - SBUS not S_ACT.
46a	VERIFY in progress - retry later.
470	Start track/block greater than last track/block.
473	Base queue full.
476	bhqjobid failed.
479	MHD usability changed because of INIT operation.
47c	queuejob failed.
480	Invalid when MHD is S_ACT.
483	DFC must be S_ACT.
486	Invalid when MHD is S_ACT.
489	DFC must be S_ACT.
48b	REMAP dskserv() failed.
48d	Device major status update failed.
48f	Failed to initialize device status.
492	Base queue full.
494	Unable to queue link map (LM) job.
496	Invalid DFC type for DFC reset request.
498	DFC is not ACTIVE to be reset.
49a	Firmware is running - cannot reset DFC.
49f	DFC type does not support pump.
4a3	DFC is not ACTIVE for pumpcode downloading.
4a6	Other pump in progress - retry later.
4a9	Unable to queue pump job.
4aa	Device must be non-ACT to init error message inhibit flag.
4ab	CLRMAEC - unit is not a disk.
4ac	Invalid opercode in maintenance message.
4ae	Unexpected maintenance interrupt.
4b3	dtchintr call failed.
4b6	Maintenance work timed out.
4b9	No base or high job IDs left.
4bc	Failed to get page table address.
4be	No job IDs left for base or high queue.
4c2	Offset of the SCSI message is not on word boundary.
4c5	Explicit SCSI message, response and data are not on the same segment.
4c8	Base queue full for SCSI message.
4ca	Request exceeds DFC capability.
4cb	Invalid second device for SCSI message.
4cc	Request exceeds expscsi capability.
4cd	Unable to queue the SCSI message.
4d0	readvtoc() function failed.
4d1	Another pump in progress, retry later.
4d2	Flash reprogram not started.
4d3	Unable to program flash memory on S_ACT unit.
4d5	readvtoc() job failed.
4d6	Unable to clear DDSBS.
4d8	Unable to send message to BIC.
4d9	getpta() function failed.
4da	VTOC sort function failed.
4db	initmem5() DMAC init failed.
4dc	Unable to send message to BIC.
4dd	dtchintr call returned fail.
4de	atchintr call returned fail.
4df	DFC pump: getjobid failed.
4e0	Invalid newvtoc() sequence.
4e1	Failed to write word in BIC FIFO.
4e2	enabintr call returned fail.
4e3	Failed to write word in BIC FIFO.
4e5	Partition number out of range for DKDRV.
4e6	Failed to write word in BIC FIFO.
4e7	Failed to write word in BIC FIFO.

4e8	Partition number out of range for VTOC.
4e9	wakeup PIO failed.
4eb	Unable to get firmware versions.
4f1	Flash reprogram not started.
4f2	Unable to clear DDSBS.
4f3	Unable to send message to BIC.
4f5	DFC pump: getjobid failed.
4f7	Failed to write word in BIC FIFO.
4f9	Failed to write word in BIC FIFO.
4fa	Failed to write word in BIC FIFO.
4fb	Failed to write word in BIC FIFO.
4fc	wakeup PIO failed.
500	Base queue full for maintenance read.
503	Tried to use invalid VTOC for maintenance read.
505	Invalid partition number in message.
508	Invalid block in partition.
50c	bhqjobid failed for maintenance read.
50e	Unable to inventory job for maintenance read.
520	Base queue full for maintenance write.
523	Tried to use invalid VTOC for maintenance write.
526	Invalid partition number in message.
529	Tried to write into protected partition.
52c	Invalid block in partition.
537	MHD usability changed because of pdfwrite job.
539	bhqjobid failed for maintenance write.
53b	Unable to inventory job for maintenance write.
550	Physical device file not opened.
553	Cannot write to read only disk.
556	iolock failed.
55b	getjobid failed.
55f	Maintenance I/O request to a non-disk device.
56a	DISK read or write requires active DFC.
56f	DISK read or write requires active SBUS.
573	This physical device file already open.
575	Device major status update failed.
57a	Update of device file variables failed.
580	May not maintenance write ACT device.
583	SDF prematurely closed during a restore.
585	uniolock failed.
5a0	Command to BIC failed.
5a5	Command to PIC failed.
5aa	Clear of duplex dual serial bus selector (DDSBS) failed.
5b0	Read status of DDSBS failed.
5b5	Read of BIC first-in, first-out (FIFO) failed.
5ba	Write of BIC FIFO failed.
5bc	Read status of BIC failed.
5bf	BIC message to read host adapter (HA) shadow register failed.
5c3	Read status of SCSI HA shadow register failed.
5c5	progio cmdtype not defined.
5e0	queuejob failed.
5e1	Base queue full.
5e2	getjobid failed.
5ec	intpwait function failed.
5f0	readdisk queuejob failed.
5f1	readdisk base queue full.
5f2	readdisk getjobid failed.
5fc	readdisk intpwait function failed.
600	Excessive errors - device being reset.
601	Excessive errors - device being reset.
603	SBUS work terminated - DFC going S_OOS.
609	MHD work terminated - DFC going S_OOS.
60a	Tape work terminated - DFC going S_OOS.
60c	MHD work terminated - SBUS going S_OOS.
60d	Tape work terminated - SBUS going S_OOS.
60e	CONFIG chgstate() call failed.
613	dtchintr() failed.
615	dskserv (OFFLINE) function failed.
618	dskserv (OFFLINE) job failed.
61c	sbuserv (OFFLINE) function failed.
61f	sbuserv (OFFLINE) job failed.
650	RID to UCB LLA call failed.
653	RID to UCB LLA call failed.

655	RID to UCB LLA call failed.
658	RID to UCB LLA call failed.
65c	RID to UCB LLA call failed.
65e	RID to UCB LLA call failed.
661	RID to UCB LLA call failed.
663	RID to UCB LLA call failed.
666	RID to UCB LLA call failed.
667	RID to UCB LLA call failed.
669	RID to UCB LLA call failed.
673	RID to UCB LLA call failed.
678	RID to UCB LLA call failed.
67a	EIR contains jobid not in use.
67b	RID to UCB LLA call failed.
67c	RID to UCB LLA call failed.
67d	RID to UCB LLA call failed.
67e	RID to UCB LLA call failed.
682	RID to UCB LLA call failed.
6a9	Retry peripheral I/O sub-system (PIO) failed.
6aa	Failed to requeue job.
6b0	Remake: job ID not in use.
6b5	Remake: bad message type.
6be	Restore - invalid device type.
6c0	Unable to change usable bit for DFC.
6c3	CONFIG chgstate call failed.
6c5	DKDRV DFC memory init failed.
6c8	initmem5() (DMAC init) failed.
6ca	initmem6() (atchintr) failed.
6ce	progio (D2SBS clear) failed.
6d1	progio (BIC initialization and PIC reset) failed.
6d3	enabintr() failed.
6d5	SYSGEN function failed.
6d8	sysgen job failed.
6d9	dfc_vers request function failed.
6da	dfc_vers job failed.
6db	dfc_vers request function failed.
6dd	dfc_vers job failed.
6df	dfcserv (ONLINE) function failed.
6e2	dfcserv (ONLINE) job failed.
6e5	CONFIG chgstate call failed.
6e8	Unable to change usable bit for DFC.
6eb	Cannot request a timer for pump after DFC restore.
6ef	Invalid DFC restore sequence number.
6f2	Unit is in FULL DLM - abort restore.
6f5	Mate unit is in FULL DLM - abort restore.
6f8	Unable to change usable bit for MHD.
6fb	CONFIG chgstate call failed.
6fe	DKDRV MHD memory initialization failed.
6ff	dlm_chks() denied restore request.
701	readdisk() function failed.
703	Disk job (readdisk) failed.
706	dskserv (ONLINE,RSTJOB) function failed.
709	DFC failed to put MHD on-line.
70c	readvtoc() function failed.
70e	Disk job (readvtoc) failed.
711	VTOC integrity check failed.
713	CONFIG chgstate call failed.
715	Unable to change usable bit for MHD.
718	invalid MHD restore sequence number.
71c	CONFIG chgstate call failed.
71e	subserv (ONLINE) function failed.
722	sbuserv (ONLINE) job failed.
725	CONFIG chgstate call failed.
728	unable to change usable bit for SBUS.
72c	Invalid SBUS restore sequence number.
730	Maintenance state audit requested.
732	Invalid MHD "compcor" sequence number.
741	Unit is FULL DLM - abort restore.
742	Failed to change usable bit for tape.
745	CONFIG chgstate call failed.
748	DKDRV tape memory initialization failed.
74b	devserv(ONLINE)) function failed.
74e	Failed to put tape device ONLINE.

752	CONFIF chgstate call failed.
755	Failed to change usable bit for tape.
758	Invalid tape restore sequence number.
75b	DIOP restore not allowed: mate MHD is active.
75e	DIOP restore not allowed: MHD is marked essential.
760	progio (set BIC IFEN flag) failed.
761	Wakeup PIO failed.
762	Resume PIO failed.
765	progio (send SYSGEN message to PIC) failed.
76a	intpwait function failed.
770	Job timed out.
775	DFC timed out.
776	Invalid pump state.
778	Cannot request timer for DFC pump.
77a	DFC entering overload.
77c	DFC leaving overload.
77f	DFC usability audit failed.
790	Timing table full.
795	Timeout request is out of range.
7c0	No base or high job IDs left.
7c3	No job IDs left for base or high queue.
7c5	No job IDs left for special queue.
7c7	Failed to get page table address.
7c9	No job IDs left for PIO jobs.
800	"prc/s_update" terminated abnormally.
801	"prc/s_dskutil" terminated abnormally.
825	Could not alloc message buf.
830	Could not pcreat process.
835	Could not alloc message buf.
900	DKDIP PID is null.
903	alocmessage failed.
906	Failed to remove the segment.
909	Cannot pump - other pump in progress.
90c	Invalid DFC state for pump.
90e	Cannot perform pump at this time.
911	DFC is not S_ACT for pump.
913	Invalid global pump state.
916	DFC is scheduled for major reinitialization - can't pump.
919	Pump not started - DFC is reserved.
91b	Firmware version not known.
91c	Failed to allocate message for FMGR.
91d	Cannot alloc message for FMGR.
91e	File stat error.
91f	pumpfile is zero byte in size.
921	pumpfile is not a contiguous one extent file.
923	Cannot get segnum.
926	Failed to queue the pump request.
929	Cannot get segnum.
92c	Failed to determine pump type.
92d	Cannot get segnum for DKDRV's internal pump buffer.
92e	Failed to download the pumpcode.
931	Request to read pump-file failed.
933	Failed to read pump-file.
936	Failed to send the pump request.
939	Pump failed at last pump.
93c	Failed to queue a version message in pump procedure.
93e	Pumpcode version message failed.
93f	Failed to start new pump.
943	Invalid pump sequence.
946	Invalid MDCT RID for pump file.
949	Invalid segment size requested.
94c	Failed to get a segment index for new segment.
94e	Failed to get a segment number for new segment.
951	Failed to allocate a message buffer.
953	Failed to allocate a message buffer.
956	Cannot iolock the buffer.
959	Cannot allocate the message buffer for reading pumpfile.
95c	Cannot send the I/O message.
95f	DFC pump: high priority queue full.
963	DFC pump: base priority queue full.
966	DFC pump: getjobid failed.
969	DFC pump: queuejob failed.

96c	Cannot remove the segment used for pump buffer.
96f	Invalid time out for pump procedure.
971	Pump timeout - abort pump.
980	Incorrect root LOG_REC RID from ECDORG.
981	Incorrect root MDCT RID.
a01	s_update started.
a0a	Bad MAINT message opercode.
a15	Cannot open ECD.
a1a	Cannot get specified unit UCB.
a20	Specified unit UCB not reserved.
a25	Failed to get "to" unit SDF.
a2a	Open of "to" SDF failed.
a30	ugucbm() failed.
a35	No active mate found.
a3a	Failed to reserve active mate UCB.
a40	Failed to get "from" unit SDF.
a45	Open of "from" SDF failed.
a48	Cannot read VTOC on active disk.
a4a	Invalid VTOC on active disk.
a55	Asynchronous write failure.
a5a	Asynchronous write failure.
a60	VTOC read (source disk) failed.
a65	VTOC write (destination disk) failed.
a6a	Too many partitions.
a70	Block number not within VTOC.
a75	Primary BBOOT partition is INVALID.
a7a	Backup BBOOT partition is INVALID.
a80	Tried to access unopened file.
a85	segoff failure.
a8a	movetrap failure.
a90	Disk read error.
a95	Disk read error - correctly reread.
a9a	Invalid file descriptor.
aa0	IOQUEUEM failure.
aa5	Maintenance job to DKDRV failed.
aaa	Received application abort restore request.
ab5	Invalid argument.
aba	Segname already exists.
ac0	Segment exists.
ac5	No segments available.
aca	Not enough space.
ad0	Bad segndx.
ad3	Cannot find a free segindex.
ad5	segoff failure.
ada	Driver startup message not received.
ae0	Terminated externally.
ae5	Invalid U_ABRTRST message.
aea	Invalid maintenance message.
af0	Unknown ACK message.
af5	Process was faulted.
b01	s_dskutil started.
b06	Cannot connect to port PT_DSKUTL.
b09	Bad MAINT message opercode.
b10	Cannot open ECD.
b13	"DEST" unit not specified.
b16	ugucbm() failed for "DEST" unit.
b19	Cannot get "DEST" unit UCB.
b1c	"DEST" unit UCB not reserved.
b20	Failed to get "to" unit SDF.
b23	Open of "to" SDF failed.
b26	Dup of "to" SDF failed.
b29	ugetucb() failed for "from" unit.
b36	Failed to reserve "from" unit UCB.
b39	Failed to get "from" unit SDF.
b3c	Open of "from" SDF failed.
b40	Remove mate of "DEST" unit and reenter message.
b46	Dup of "from" SDF failed.
b48	Failed to read VTOC on "to" disk.
b49	Invalid VTOC on "to" disk.
b4b	Failed to read VTOC on "from" disk.
b4c	Invalid VTOC on "from" disk.
b50	Both VTOCs do not match.

b5c	Read failure (DEST disk).
b60	Read failure (SRC disk).
b63	Too many partitions.
b66	VTOCs do not match in size.
b69	sync write failure (DEST disk).
b6c	Block number not within VTOC.
b70	Block number not within VTOC.
b73	Block number not within VTOC.
b80	Tried to access unopened file.
b85	segoff failure.
b8a	movetrap failure.
b90	Disk read error.
b95	Disk read error - correctly reread.
b9a	Invalid file descriptor.
ba0	IOQUEUEM failure.
ba5	Maintenance job to DKDRV failed.
baa	Received application abort restore request.
bb5	Invalid argument.
bba	segname already exists.
bc0	segment exists.
bc5	No segments available.
bca	Not enough space.
bd0	Bad segndx.
bd3	Cannot find a free segindex.
bd5	segoff failure.
bda	Driver startup message not received.
be0	Terminated externally.
be5	Invalid U_ABRTRST message.
bea	Invalid maintenance message.
bf0	Unknown ACK message.
bf5	Process was faulted.
c02	Tape device already open.
c0b	Device not active.
c12	Open for both read and write.
c15	Incorrect read/write access permissions.
c18	Failed to send "test unit ready" message.
c1b	"Test unit ready" message failed.
c1e	"Test unit ready" message failed.
c22	Failed to send "test unit ready" message.
c25	"Test unit ready" message failed.
c28	"Test unit ready" message failed.
c2b	Failed to send "test unit ready" message.
c2e	"Test unit ready" message failed.
c32	"Test unit ready" message failed.
c35	Failed to send "inquiry" message.
c38	"Inquiry" message failed.
c3b	"Inquiry" message failed.
c3e	Insufficient "inquiry" data.
c42	Failed to send "inquiry" message.
c45	"Inquiry" message failed.
c48	"Inquiry" message failed.
c4b	Unknown device.
c4e	Failed to send "read block limits" message.
c52	"Read block limits" message failed.
c55	"Read block limits" message failed.
c58	Partition information is invalid.
c5b	Not a supported tape device.
c5e	Invalid tape I/O open sequence number.
c62	Reserved field in partition used.
c65	Device does not support variable record sizes.
c68	Device does not support fixed records.
c69	Fixed record size is invalid.
c6a	Invalid record type specified.
c6b	Record size greater than device capability.
c6e	Record size less than device capability.
c72	Failed to send tape setup message to DFC.
c75	Tape setup message failed.
c78	Invalid sequence number.
c82	Base queue full.
c85	Failed to get job ID.
c88	Request exceeds DFC capability.
c89	Request exceeds expscsi capability.

c8b	No base/high job IDs left.
c8e	No job IDs left for base/high queue.
c92	Base queue full.
c95	Failed to get job ID.
c9b	Base queue full.
c9e	Failed to get job ID.
ca2	Entity type to space over is invalid.
ca5	Base queue is full.
ca8	Failed to get job ID.
cab	Base queue full.
cae	Failed to get job ID.
cb1	Device not active.
cb2	Invalid state for closing device.
cb7	Invalid state for closing device.
cb8	Failed to send tape "rewind" message to DFC.
cbb	Tape "rewind" failed.
cbe	Invalid sequence number.
cc2	Failed to send tape "space" message to DFC.
cc5	Tape "space" message failed.
cc8	Invalid sequence number.
ccb	Failed to send "write filemarks" message to DFC.
cce	"Write filemarks" message failed.
cd2	Failed to send tape "space" message to DFC.
cd5	Tape "space" message failed.
cd8	Invalid sequence number.
ce2	Device not active.
ce4	Device not open.
ce6	Incorrect read/write permissions.
ce8	Base queue full.
cea	Failed to get job ID.
cec	Unable to inventory job.
cf2	Device not active.
cf4	Device not open.
cf6	Incorrect read/write permissions.
cf8	Base queue full.
cfa	Failed to get job ID.
cfc	Unable to inventory job.
d01	Wrong device type specified.
d02	Failed to send "mode sense" message.
d05	"Mode sense" message failed.
d08	"Mode sense" message failed.
d0b	Failed to send "mode sense" message.
d0e	"Mode sense" message failed.
d12	"Mode sense" message failed.
d15	Not enough data returned from "mode sense" message.
d18	Unexpected amount of data returned from "mode sense" message.
d1b	Device is write protected.
d1e	Failed to obtain expected mode pages.
d22	Failed to send "mode select" message.
d25	"Mode select" message failed.
d28	"Mode select" message failed.
d2b	Invalid tape sequence number.
d2e	Multi-partition tape is not supported.
d31	Wrong device type specified.
d32	Failed to send "mode sense" message.
d35	"Mode sense" message failed.
d38	"Mode sense" message failed.
d3b	Failed to send "mode sense" message.
d3e	"Mode sense" message failed.
d42	"Mode sense" message failed.
d45	Not enough data returned from "mode sense" message.
d48	Unexpected amount of data returned from "mode sense" message.
d4b	Device is write protected.
d4e	Failed to obtain expected mode pages.
d52	Failed to send "mode select" message.
d55	"Mode select" message failed.
d58	"Mode select" message failed.
d5b	Invalid tape sequence number.
d5e	Multi-partition tape is not supported.
d61	Wrong device type specified.
d62	Invalid density specified.
d65	Failed to send "mode sense" message.

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d68	"Mode sense" message failed.
d6b	"Mode sense" message failed.
d6e	Failed to send "mode sense" message.
d72	"Mode sense" message failed.
d75	"Mode sense" message failed.
d78	Not enough data returned from "mode sense" message.
d7b	Unexpected amount of data returned from "mode sense" message.
d7e	Device is write protected.
d82	Requested density does not match set device density.
d85	Failed to obtain expected mode pages.
d88	Failed to send "mode select" message.
d8e	"Mode select" message failed.
d92	"Mode select" message failed.
d95	Invalid tape sequence number.
da1	Wrong device type specified.
da2	Invalid density specified.
da5	Failed to send "mode sense" message.
da8	"Mode sense" message failed.
dab	"Mode sense" message failed.
dae	Failed to send "mode sense" message.
db2	"Mode sense" message failed.
db5	"Mode sense" message failed.
db8	Not enough data returned from "mode sense" message.
dbb	Unexpected amount of data returned from "mode sense" message.
dbe	Device is write protected.
dc2	Requested density does not match set device density.
dc5	Failed to obtain expected mode pages.
dc8	Failed to send "mode select" message.
dce	"Mode select" message failed.
dd2	"Mode select" message failed.
dd5	Invalid tape sequence number.
e01	Not SCSI dfc.
e03	Invalid DFC state for pump.
e05	dtchintr call returned fail.
e07	Unable to clear DDSBS.
e09	Unable to send message to BIC.
e0a	Unable to send message to BIC.
e0b	atchintr call returned fail.
e0d	enabintr call returned fail.
e0f	getjobid failed.
e11	Failed to write word in BIC FIFO.
e13	wakeup PIO failed.
e15	version message failed.
e17	getjobid failed.
e19	Failed to write word in BIC FIFO.
e1a	wakeup PIO failed.
e1b	version message failed.
e1c	Unable to allocate message for FMGR.
e1d	1-byte wide firmware version not known.
e1f	Unable to allocate message for FMGR.
e20	Unable to do a stat() on the pumpfile.
e22	Pumpfile invalid size.
e24	Pumpfile is not a single extent contiguous file.
e26	Unable to get segnum.
e28	Unable to iolock the buffer.
e2a	Unable to allocate the message buffer for reading pumpfile.
e2c	Unable to send the I/O message.
e2e	Unable to read pumpfile header.
e2f	Pumpfile has invalid size.
e30	4-wide firmware needs to be reprogrammed, retry later.
e32	Unable to get segnum.
e33	Unable to get segnum for DKDRV's internal pump buffer.
e35	Unable to download the pumpcode.
e37	Unable to request reading pumpfile.
e39	Unable to read pumpfile.
e3a	DFC pump: getjobid failed.
e3b	Failed to write word in BIC FIFO.
e3d	Failed to write word in BIC FIFO.
e3f	Failed to write word in BIC FIFO.
e41	Failed to write word in BIC FIFO.
e43	wakeup PIO failed.
e45	Pump failed at last pump.

e46	Cannot remove the segment.
e47	dtchintr call returned fail.
e48	Unable to send message to BIC.
e49	Invalid pump sequence.
e4a	dtchintr call returned fail.
e4b	Cannot remove the segment.
e4c	Unable to send message to BIC.
e50	Invalid header magic number.
e53	1-byte wide firmware and pumpfile are incompatible - issue.
e55	1-byte wide firmware and pumpfile are incompatible - generic.
e57	4-byte wide firmware and pumpfile are incompatible with 1-byte wide firmware.
e59	Pumpfile has different revision level.
e5a	1-byte wide firmware and pumpfile are incompatible.
e5c	Unable to determine revision levels.
e60	Unable to send message to BIC.
e62	jcistat message failed.
e64	Read status of BIC failed.
e66	Failed to read BIC FIFO.
e68	Failed to read BIC FIFO.
e69	Received interrupt but no response.
e6a	Failed to clear BIC interrupt.
e6b	dtchintr call returned fail.
e6c	Unable to send message to BIC.
e6d	dtchintr call returned fail.
e6e	atchintr call returned fail.
e6f	enabintr call returned fail.
e70	DFC flash programming timed out.
e71	Unable to clear DDSBS.
e72	Unable to send message to BIC.
e73	DFC version message failed.
e74	Unable to send message to BIC.
e78	initmem5() DMAC initialization failed.
e7a	dtchintr call returned fail.
e7b	atchintr call returned fail.
e7c	enabintr call returned fail.
e7d	getjobid failed.
e7f	Unable to send version message failed.
e80	Unrecognizable DKDRV internal job type.
e85	Response contains jobid not in use.
e86	IO job has no associated IO message.
e88	IO message "ms_to" field is invalid.
e8a	Message type not IOREAD or IOWRITE.
e8c	No job found in inventory data.
e8d	Invalid completion code returned by DFC.
e8f	Job reported error.
e95	Null message buffer pointer.
e96	Invalid "ms_to" field in message.
e97	Message buffer not marked allocated.

APP:DFC-A-D

Software Release: 5E13 only
Message Class: N/A
Application: 5,3B
Type: Output

1. DKDRV ERROR/WARNING CODES APPENDIX

The codes are in hexadecimal notation.

Error Code	Explanation
010	No inventory room - restructure disk driver (DKDRV).
020	Report failure.
030	Access to bus interface controller (BIC) failed.
035	Desired BIC status not obtained.
039	IO job has no associated IO message.
040	IO message "ms_to" field is invalid.
041	Message buffer not marked allocated.
045	Message type not IOREAD or IOWRITE.
04a	No job found in inventory data.
050	Invalid completion code returned by disk file controller (DFC).
055	Job reported error.
05a	Response contains job ID not in use.
060	Response specified an unknown device.
06f	Drive status error.
070	Special queue full.
073	spqjobid failed.
076	queuejob failed for DFC change maintenance mode message.
07a	intpwait function failed for DFC change maintenance mode.
07c	Special queue full for small computer system interface (SCSI) bus (SBUS) change mode job.
07e	spqjobid failed for SBUS change mode message.
082	queuejob for SBUS change maintenance mode failed.
085	intpwait function failed for SBUS change maintenance mode.
098	DFC version message: special queue full.
09a	DFC version message: spqjobid failed.
09c	Version message fail.
09e	dfc_vers: intpwait function failed.
0a0	initmem1() failed.
0a2	Timeout request to get DIOP feature level failed.
0a3	DKDRV timing chain index 0 already assigned.
0a4	Failed to read btparm record.
0a5	No mate for boot device found.
0a8	DFC restore failed during boot.
0ab	Fail to change the usable bit for SBUS.
0af	Moving head disk (MHD) marked S_ACT but DFC not marked S_ACT.
0b1	MHD marked S_ACT but SBUS not marked S_ACT.
0b3	Simplex MHD restore failed config denied removal.
0b5	Simplex MHD restore failed config approved removal.
0b8	MHD restore failed and no S_ACT mate.
0c0	initkint (interrupt detach/attach) failed.
0c3	Fail to request pump after boot.
0c6	Invalid MHD to be restored during boot.
0c9	Invalid mate MHD.
0ca	RID to UCB conversion failed.
0cb	RID update and release failed.
0cf	Duplicate fields in the message do not match.
0d5	Byte offset not on word boundary.
0d7	Maintenance job failure - refer to the DKDRV error report.
0d9	Power switch monitor (PSM) sent a bad power transition message.
0db	Temp message - old message returned.
0dd	Unknown maintenance acknowledgement (ACK) received.
0df	Unrecognizable message type.
0e2	Unrecognizable device.
0e5	Unknown file manager (FMGR) ACK message received.
0e6	Segment removed failed, pump buffer retained.
0e8	Unknown memory manager (MMGR) ACK message received.
0ec	Unknown DKDRV ACK message received.

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0ef	Unknown ACK message received.
0f0	Incorrect swap LOG_REC record identification number (RID) from equipment configuration data originator (ECDORG).
0f1	Incorrect SWAP minor device chain table (MDCT) RID.
0f2	Cannot update the ROOT/SWAP device table.
0f3	DLM indicator message alloc failed (to SIM).
0f4	DLM indicator message alloc failed (to DKDIP).
0f6	DLM indicator message alloc failed(to DKDIP).
0f8	DLM indicator message alloc failed(to DKDIP).
0fa	Could not get a CDLM timer entry.
0fb	dlmstrt ost returned SWFAIL.
0fd	Microstore limpmode flag set.
0fe	Bad return from dlmstrt.
0ff	Unknown RID from DKDIP.
100	Invalid operation code in UTIL message.
101	Power down of an active unit.
102	DFC power down message received - unit still usable.
103	MHD is powered down - abort client.
104	MHD power down message received - unit still usable.
105	Special priority queue full.
106	queuejob failed.
107	spqjobid failed.
108	Invalid device type for power up check.
10a	intpwait function failed.
110	No volume table of contents (VTOC) on disk pack.
113	VTOC too large for DKDRV to handle.
116	Invalid partition number in VTOC entry.
119	Invalid partition number in message.
140	Virtual address does not map into segment number.
145	iolock() failed.
14a	uniolock() failed.
160	RID to unit control block (UCB) low level access (LLA) call failed.
165	RID update and release failed.
16a	RID unknown by DKDRV.
170	RID to UCB LLA call failed.
175	RID update and release failed.
17a	RID to UCB LLA call failed.
180	RID update and release failed.
185	RID to UCB LLA call failed.
18a	RID update and release failed.
190	Invalid inhibit administration opcode.
1a0	dtchintr call returned fail.
1a5	atchintr call returned fail.
1aa	enabintr call returned fail.
1b0	Equipment configuration database (ECD) attach failed.
1b3	Digital link module (DLM) INIT failed.
1b5	CONFIG OPEN failed.
1b8	atchdata call to ECD failed.
1bc	No DFCs in ECD.
1be	DFC growth failed.
1c3	downucbs ECD call failed.
1c6	SBUS growth failed.
1c9	downucbs ECD call failed.
1cc	Growth of SCSI device failed..
1ce	downucbs ECD call failed.
1d1	SMD MHD growth failed.
1d3	Too many devices.
1d6	RID to UCB conversion failed.
1d8	Invalid device type.
1d9	Unable to determine DFC type.
1dc	RID update and release failed.
1de	Device is unequipped.
1df	Invalid DFC internal device ID.
1e1	Channel RID to UCB conversion failed.
1e3	Invalid SBUS internal device ID.
1e5	DFC RID to UCB conversion failed.
1e7	Invalid device ID for SCSI device.
1e9	SBUS RID to UCB conversion failed.
1eb	Invalid SBUS's internal device ID.
1ed	DFC RID to UCB conversion failed.
1ef	Invalid device ID for SMD MHD.

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1f2	DFC RID to UCB conversion failed.
1f4	Incorrect device type for the device's control unit.
1fc	Memory initialization failed.
1fe	DKDRV port attach failed.
203	getpta() function failed.
206	RID to UCB conversion failed.
209	idmadev() (write to direct memory access controller (DMAC) random access memory (RAM)) failed.
20c	atchintr call failed.
20f	RID not known by DKDRV.
213	DFC being de-grown.
216	Update of DKDRV local DFC UCB failed.
219	DFC being de-grown not in UNEQUIP state.
21c	SBUS being de-grown.
21f	Update of DKDRV local SBUS UCB failed.
223	SBUS being de-grown not in UNEQUIP state.
226	Unit being de-grown.
229	Update of DKDRV local MHD UCB failed.
22c	Unit being de-grown not in UNEQUIP state.
22f	RID to UCB conversion failed.
233	RID update and release failed.
236	Drive type in ECD does not agree with backplane - restore aborted. For SMD MHDs with UCB device_id field = 0 (first MHD on DFC, usually MHD 0 or 1): MHD type read from DFC backplane may not agree with MHD UCB equipage field or may not be read correctly by DFC TN65 or UN64 board.
239	RID to UCB conversion failed.
23a	RID update and release failed.
23b	RID to UCB conversion failed.
23c	get option block for DFC failed.
23d	Invalid eirflag field in DFC option block.
23e	get option block for MHD failed.
240	Delay (failed to find interrupt set in BIC).
242	RID to UCB conversion failed.
250	Job complete code == fail.
252	Job request not allowed.
254	Job request not allowed.
258	Tape device already opened.
25a	Driver I/O error.
25c	No S_ACT device - open.
260	Incorrect monitor device configuration table (MDCT) from I/O message.
263	Growth of device failed.
265	No RIDs in ECD MDCT.
268	Warning - enlarge DKDRV's internal MDCT.
26c	Disk specific write not allowed.
270	No S_ACT device - read.
275	Invalid partition number in read message.
278	Access to DIAG partition is not allowed - read.
27a	Unable to inventory job.
27d	bhqjobid failed.
280	io_blk exceeds partition size - read.
290	no S_ACT device - write.
295	Invalid partition number in write message.
29a	Tried to write into protected partition.
2b1	No job IDs left.
2ba	Unable to inventory all jobs.
2be	Access to DIAG partition is not allowed - write.
2c0	io_blk exceeds partition size - write.
305	Unrecognizable DKDRV internal job type.
307	Unexpected denial of request to remove MHD.
308	Duplex operation compromised, removing MHD.
320	Boot indicator message allocation failed.
325	INIT entry failed.
32a	Unexpected event.
340	do_error(0x340).
343	Failed to restart driver.
346	Old non-queued audit error message.
349	Unexpected fault code.
34c	Critical hit - S_RSP.
34f	Critical hit - S_MSG.
353	Driver state error.

355	Calling dfcinit() for lack of "warm" restart.
356	ss32b() failed.
359	PIC never reset CMD IN PROG flag.
35f	progio (D2SBS clear) failed.
363	progio (BIC initialization and PIC reset) failed.
366	initmem5 (DMAC RAM initialization) failed.
369	enabintr function failed.
36c	progio (send ABORT message to PIC) failed.
36f	progio (set BIC IFEN flag) failed.
373	unknown RID faulted.
376	PIO lost for a unit.
379	Unknown RID faulted.
37c	Unexpected fault code.
37f	Message buffer audit error - abort maintenance on this unit.
383	timereq() failed - dfcinit.
391	Invalid pdfptr.
392	Invalid pdfptr.
395	RID to UCB LLA call failed.
397	Message alloc failed (to FMGR).
398	Could not get a timer entry for FMGR.
39b	Major DFC reinitialization due to either operational problems or manual request.
39c	Tape operations aborted.
39e	Warning - queue full detected.
3a6	Invalid dfcinit() sequence.
3a9	Cannot identify panic dump device.
3ac	Incorrect PANIC DUMP RID.
3af	ss32b() failed.
3b3	PIC never reset CMD IN PROG flag.
3b6	progio (D2SBS clear) failed.
3b9	progio (BIC initialization and PIC reset) failed.
3ba	Failed to clear BIC INTP.
3bc	kint() - stray interrupts detected.
3be	kint() entered before kfault after panic dump.
3d0	RID not known by DKDRV.
3d3	DKDRV has aborted client.
3d5	Invalid maintenance state.
3d8	Device file not open.
3dc	Another process has device file open.
3dd	Tape device is already open.
3de	Request prohibited on S_ACT DFC.
3e1	maint() attach interrupt failed.
3e3	maint() enable interrupt failed.
3e5	UCB is not a DFC.
3e8	DMAC RAM initialization failed.
3ec	Detach/attach/enable interrupt failed.
3ef	Detach interrupt failed.
402	FORMAT - unit is not a disk.
403	Device type is not SCSI for explicit SCSI message.
405	DFC is not ACTIVE for SCSI message.
407	SBUS is not ACTIVE for SCSI message.
409	CONFIG denied request to remove unit.
40c	May only restore S_OOS units.
40e	MHD/SBUS restore no good - DFC not S_ACT.
412	MHD restore no good - SBUS not S_ACT.
415	Compare/correct - unit not a disk.
418	Compare/correct - DFC not S_ACT.
41b	Compare/correct - SBUS not ACTIVE.
41d	May not compare/correct a S_INIT unit.
41f	Only one compare/correct is allowed to run at one time.
422	May only restore S_OOS units.
425	SBUS restore - DFC is not ACTIVE.
426	MHD or MT restore - SBUS is not ACTIVE.
427	MHD restore - DFC is not ACTIVE.
428	DIAG SYSGEN PIO failed.
429	Restore not allowed, device not supported.
42a	UCB is not a DFC UCB.
42c	Not allowed to DGN an S_ACT unit.
42e	Special queue full.
432	Invalid device to be diagnosed.
435	spqjobid failed.
438	queuejob failed.
43c	getdmaa function failed.

43e	Received WSETUP0 before SPECDMA.
442	WSETUP1 received before WSETUP0.
445	uniolock failed.
448	getdmaa function failed.
44c	Invalid disk lock process.
44f	Base queue full.
452	bhqjobid failed.
455	queuejob failed.
458	Version job failed.
460	FORMAT requires non-S_ACT MHD.
462	FORMAT/VERIFY - unit is not a disk.
465	FORMAT/VERIFY requires S_ACT DFC.
468	INIT/VFY MHD - SBUS not S_ACT.
46a	VERIFY in progress - retry later.
470	Start track/block greater than last track/block.
473	Base queue full.
476	bhqjobid failed.
479	MHD usability changed because of INIT operation.
47c	queuejob failed.
480	Invalid when MHD is S_ACT.
483	DFC must be S_ACT.
486	Invalid when MHD is S_ACT.
489	DFC must be S_ACT.
48b	REMAP dskserv() failed.
48d	Device major status update failed.
48f	Failed to initialize device status.
492	Base queue full.
494	Unable to queue link map (LM) job.
496	Invalid DFC type for DFC reset request.
498	DFC is not ACTIVE to be reset.
49a	Firmware is running - cannot reset DFC.
49f	DFC type does not support pump.
4a3	DFC is not ACTIVE for pumpcode downloading.
4a6	Other pump in progress - retry later.
4a9	Unable to queue pump job.
4aa	Device must be non-ACT to init error message inhibit flag.
4ab	CLRMAEC - unit is not a disk.
4ac	Invalid opercode in maintenance message.
4ae	Unexpected maintenance interrupt.
4b3	dtchintr call failed.
4b6	Maintenance work timed out.
4b9	No base or high job IDs left.
4bc	Failed to get page table address.
4be	No job IDs left for base or high queue.
4c2	Offset of the SCSI message is not on word boundary.
4c5	Explicit SCSI message, response and data are not on the same segment.
4c8	Base queue full for SCSI message.
4ca	Request exceeds DFC capability.
4cb	Invalid second device for SCSI message.
4cc	Request exceeds expscsi capability.
4cd	Unable to queue the SCSI message.
4d0	readvtoc() function failed.
4d1	Another pump in progress, retry later.
4d2	Flash reprogram not started.
4d3	Unable to program flash memory on S_ACT unit.
4d5	readvtoc() job failed.
4d6	Unable to clear DDSBS.
4d8	Unable to send message to BIC.
4d9	getpta() function failed.
4da	VTOC sort function failed.
4db	initmem5() DMAC init failed.
4dc	Unable to send message to BIC.
4dd	dtchintr call returned fail.
4de	atchintr call returned fail.
4df	DFC pump: getjobid failed.
4e0	Invalid newvtoc() sequence.
4e1	Failed to write word in BIC FIFO.
4e2	enabintr call returned fail.
4e3	Failed to write word in BIC FIFO.
4e5	Partition number out of range for DKDRV.
4e6	Failed to write word in BIC FIFO.
4e7	Failed to write word in BIC FIFO.

4e8	Partition number out of range for VTOC.
4e9	wakeup PIO failed.
4eb	Unable to get firmware versions.
4f1	Flash reprogram not started.
4f2	Unable to clear DDSBS.
4f3	Unable to send message to BIC.
4f5	DFC pump: getjobid failed.
4f7	Failed to write word in BIC FIFO.
4f9	Failed to write word in BIC FIFO.
4fa	Failed to write word in BIC FIFO.
4fb	Failed to write word in BIC FIFO.
4fc	wakeup PIO failed.
500	Base queue full for maintenance read.
503	Tried to use invalid VTOC for maintenance read.
505	Invalid partition number in message.
508	Invalid block in partition.
50c	bhqjobid failed for maintenance read.
50e	Unable to inventory job for maintenance read.
520	Base queue full for maintenance write.
523	Tried to use invalid VTOC for maintenance write.
526	Invalid partition number in message.
529	Tried to write into protected partition.
52c	Invalid block in partition.
537	MHD usability changed because of pdfwrite job.
539	bhqjobid failed for maintenance write.
53b	Unable to inventory job for maintenance write.
550	Physical device file not opened.
553	Cannot write to read only disk.
556	iolock failed.
55b	getjobid failed.
55f	Maintenance I/O request to a non-disk device.
56a	DISK read or write requires active DFC.
56f	DISK read or write requires active SBUS.
573	This physical device file already open.
575	Device major status update failed.
57a	Update of device file variables failed.
580	May not maintenance write ACT device.
583	SDF prematurely closed during a restore.
585	uniolock failed.
5a0	Command to BIC failed.
5a5	Command to PIC failed.
5aa	Clear of duplex dual serial bus selector (DDSBS) failed.
5b0	Read status of DDSBS failed.
5b5	Read of BIC first-in, first-out (FIFO) failed.
5ba	Write of BIC FIFO failed.
5bc	Read status of BIC failed.
5bf	BIC message to read host adapter (HA) shadow register failed.
5c3	Read status of SCSI HA shadow register failed.
5c5	progio cmdtype not defined.
5e0	queuejob failed.
5e1	Base queue full.
5e2	getjobid failed.
5ec	intpwait function failed.
5f0	readdisk queuejob failed.
5f1	readdisk base queue full.
5f2	readdisk getjobid failed.
5fc	readdisk intpwait function failed.
600	Excessive errors - device being reset.
601	Excessive errors - device being reset.
603	SBUS work terminated - DFC going S_OOS.
609	MHD work terminated - DFC going S_OOS.
60a	Tape work terminated - DFC going S_OOS.
60c	MHD work terminated - SBUS going S_OOS.
60d	Tape work terminated - SBUS going S_OOS.
60e	CONFIG chgstate() call failed.
613	dtchintr() failed.
615	dskserv (OFFLINE) function failed.
618	dskserv (OFFLINE) job failed.
61c	sbuserv (OFFLINE) function failed.
61f	sbuserv (OFFLINE) job failed.
650	RID to UCB LLA call failed.
653	RID to UCB LLA call failed.

655	RID to UCB LLA call failed.
658	RID to UCB LLA call failed.
65c	RID to UCB LLA call failed.
65e	RID to UCB LLA call failed.
661	RID to UCB LLA call failed.
663	RID to UCB LLA call failed.
666	RID to UCB LLA call failed.
667	RID to UCB LLA call failed.
669	RID to UCB LLA call failed.
673	RID to UCB LLA call failed.
678	RID to UCB LLA call failed.
67a	EIR contains jobid not in use.
67b	RID to UCB LLA call failed.
67c	RID to UCB LLA call failed.
67d	RID to UCB LLA call failed.
67e	RID to UCB LLA call failed.
682	RID to UCB LLA call failed.
6a9	Retry peripheral I/O sub-system (PIO) failed.
6aa	Failed to requeue job.
6b0	Remake: job ID not in use.
6b5	Remake: bad message type.
6be	Restore - invalid device type.
6c0	Unable to change usable bit for DFC.
6c3	CONFIG chgstate call failed.
6c5	DKDRV DFC memory init failed.
6c8	initmem5() (DMAC init) failed.
6ca	initmem6() (atchintr) failed.
6ce	progio (D2SBS clear) failed.
6d1	progio (BIC initialization and PIC reset) failed.
6d3	enabintr() failed.
6d5	SYSGEN function failed.
6d8	sysgen job failed.
6d9	dfc_vers request function failed.
6da	dfc_vers job failed.
6db	dfc_vers request function failed.
6dd	dfc_vers job failed.
6df	dfcserv (ONLINE) function failed.
6e2	dfcserv (ONLINE) job failed.
6e5	CONFIG chgstate call failed.
6e8	Unable to change usable bit for DFC.
6eb	Cannot request a timer for pump after DFC restore.
6ef	Invalid DFC restore sequence number.
6f2	Unit is in FULL DLM - abort restore.
6f5	Mate unit is in FULL DLM - abort restore.
6f8	Unable to change usable bit for MHD.
6fb	CONFIG chgstate call failed.
6fe	DKDRV MHD memory initialization failed.
6ff	dlm_chks() denied restore request.
701	readdisk() function failed.
703	Disk job (readdisk) failed.
706	dskserv (ONLINE,RSTJOB) function failed.
709	DFC failed to put MHD on-line.
70c	readvtoc() function failed.
70e	Disk job (readvtoc) failed.
711	VTOC integrity check failed.
713	CONFIG chgstate call failed.
715	Unable to change usable bit for MHD.
718	invalid MHD restore sequence number.
71c	CONFIG chgstate call failed.
71e	subserv (ONLINE) function failed.
722	sbuserv (ONLINE) job failed.
725	CONFIG chgstate call failed.
728	unable to change usable bit for SBUS.
72c	Invalid SBUS restore sequence number.
730	Maintenance state audit requested.
732	Invalid MHD "compcor" sequence number.
741	Unit is FULL DLM - abort restore.
742	Failed to change usable bit for tape.
745	CONFIG chgstate call failed.
748	DKDRV tape memory initialization failed.
74b	devserv(ONLINE)) function failed.
74e	Failed to put tape device ONLINE.

752	CONFIF chgstate call failed.
755	Failed to change usable bit for tape.
758	Invalid tape restore sequence number.
75b	DIOP restore not allowed: mate MHD is active.
75e	DIOP restore not allowed: MHD is marked essential.
760	progio (set BIC IFEN flag) failed.
761	Wakeup PIO failed.
762	Resume PIO failed.
765	progio (send SYSGEN message to PIC) failed.
76a	intpwait function failed.
770	Job timed out.
775	DFC timed out.
776	Invalid pump state.
778	Cannot request timer for DFC pump.
77a	DFC entering overload.
77c	DFC leaving overload.
77f	DFC usability audit failed.
790	Timing table full.
795	Timeout request is out of range.
7c0	No base or high job IDs left.
7c3	No job IDs left for base or high queue.
7c5	No job IDs left for special queue.
7c7	Failed to get page table address.
7c9	No job IDs left for PIO jobs.
800	"prc/s_update" terminated abnormally.
801	"prc/s_dskutil" terminated abnormally.
825	Could not alloc message buf.
830	Could not pcreat process.
835	Could not alloc message buf.
900	DKDIP PID is null.
903	alocmessage failed.
906	Failed to remove the segment.
909	Cannot pump - other pump in progress.
90c	Invalid DFC state for pump.
90e	Cannot perform pump at this time.
911	DFC is not S_ACT for pump.
913	Invalid global pump state.
916	DFC is scheduled for major reinitialization - can't pump.
919	Pump not started - DFC is reserved.
91b	Firmware version not known.
91c	Failed to allocate message for FMGR.
91d	Cannot alloc message for FMGR.
91e	File stat error.
91f	pumpfile is zero byte in size.
921	pumpfile is not a contiguous one extent file.
923	Cannot get segnum.
926	Failed to queue the pump request.
929	Cannot get segnum.
92c	Failed to determine pump type.
92d	Cannot get segnum for DKDRV's internal pump buffer.
92e	Failed to download the pumpcode.
931	Request to read pump-file failed.
933	Failed to read pump-file.
936	Failed to send the pump request.
939	Pump failed at last pump.
93c	Failed to queue a version message in pump procedure.
93e	Pumpcode version message failed.
93f	Failed to start new pump.
943	Invalid pump sequence.
946	Invalid MDCT RID for pump file.
949	Invalid segment size requested.
94c	Failed to get a segment index for new segment.
94e	Failed to get a segment number for new segment.
951	Failed to allocate a message buffer.
953	Failed to allocate a message buffer.
956	Cannot iolock the buffer.
959	Cannot allocate the message buffer for reading pumpfile.
95c	Cannot send the I/O message.
95f	DFC pump: high priority queue full.
963	DFC pump: base priority queue full.
966	DFC pump: getjobid failed.
969	DFC pump: queuejob failed.

96c	Cannot remove the segment used for pump buffer.
96f	Invalid time out for pump procedure.
971	Pump timeout - abort pump.
980	Incorrect root LOG_REC RID from ECDORG.
981	Incorrect root MDCT RID.
990	The UCB RID for the "alternate" device is invalid.
992	Update of DKDRV local device UCB failed.
994	Invalid MDCT RID.
996	Failed to get MDCT record.
998	Update of DKDRV local device UCB failed.
a01	s_update started.
a0a	Bad MAINT message opercode.
a15	Cannot open ECD.
a1a	Cannot get specified unit UCB.
a20	Specified unit UCB not reserved.
a25	Failed to get "to" unit SDF.
a2a	Open of "to" SDF failed.
a30	ugucbm() failed.
a35	No active mate found.
a3a	Failed to reserve active mate UCB.
a40	Failed to get "from" unit SDF.
a45	Open of "from" SDF failed.
a48	Cannot read VTOC on active disk.
a4a	Invalid VTOC on active disk.
a55	Asynchronous write failure.
a5a	Asynchronous write failure.
a60	VTOC read (source disk) failed.
a65	VTOC write (destination disk) failed.
a6a	Too many partitions.
a70	Block number not within VTOC.
a75	Primary BBOOT partition is INVALID.
a7a	Backup BBOOT partition is INVALID.
a80	Tried to access unopened file.
a85	segoff failure.
a8a	movetrap failure.
a90	Disk read error.
a95	Disk read error - correctly reread.
a9a	Invalid file descriptor.
aa0	IOQUEUEM failure.
aa5	Maintenance job to DKDRV failed.
aaa	Received application abort restore request.
ab5	Invalid argument.
aba	Segname already exists.
ac0	Segment exists.
ac5	No segments available.
aca	Not enough space.
ad0	Bad segndx.
ad3	Cannot find a free segindex.
ad5	segoff failure.
ada	Driver startup message not received.
ae0	Terminated externally.
ae5	Invalid U_ABRTRST message.
aea	Invalid maintenance message.
af0	Unknown ACK message.
af5	Process was faulted.
b01	s_dskutil started.
b06	Cannot connect to port PT_DSKUTL.
b09	Bad MAINT message opercode.
b10	Cannot open ECD.
b13	"DEST" unit not specified.
b16	ugucbm() failed for "DEST" unit.
b19	Cannot get "DEST" unit UCB.
b1c	"DEST" unit UCB not reserved.
b20	Failed to get "to" unit SDF.
b23	Open of "to" SDF failed.
b26	Dup of "to" SDF failed.
b29	ugetucb() failed for "from" unit.
b36	Failed to reserve "from" unit UCB.
b39	Failed to get "from" unit SDF.
b3c	Open of "from" SDF failed.
b40	Remove mate of "DEST" unit and reenter message.
b46	Dup of "from" SDF failed.

b48	Failed to read VTOC on "to" disk.
b49	Invalid VTOC on "to" disk.
b4b	Failed to read VTOC on "from" disk.
b4c	Invalid VTOC on "from" disk.
b50	Both VTOCs do not match.
b5c	Read failure (DEST disk).
b60	Read failure (SRC disk).
b63	Too many partitions.
b66	VTOCs do not match in size.
b69	sync write failure (DEST disk).
b6c	Block number not within VTOC.
b70	Block number not within VTOC.
b73	Block number not within VTOC.
b80	Tried to access unopened file.
b85	segoff failure.
b8a	movetrap failure.
b90	Disk read error.
b95	Disk read error - correctly reread.
b9a	Invalid file descriptor.
ba0	IOQUEUEM failure.
ba5	Maintenance job to DKDRV failed.
baa	Received application abort restore request.
bb5	Invalid argument.
bba	segname already exists.
bc0	segment exists.
bc5	No segments available.
bca	Not enough space.
bd0	Bad segndx.
bd3	Cannot find a free segindex.
bd5	segoff failure.
bda	Driver startup message not received.
be0	Terminated externally.
be5	Invalid U_ABRTRST message.
bea	Invalid maintenance message.
bf0	Unknown ACK message.
bf5	Process was faulted.
c02	Tape device already open.
c0b	Device not active.
c12	Open for both read and write.
c15	Incorrect read/write access permissions.
c18	Failed to send "test unit ready" message.
c1b	"Test unit ready" message failed.
c1e	"Test unit ready" message failed.
c22	Failed to send "test unit ready" message.
c25	"Test unit ready" message failed.
c28	"Test unit ready" message failed.
c2b	Failed to send "test unit ready" message.
c2e	"Test unit ready" message failed.
c32	"Test unit ready" message failed.
c35	Failed to send "inquiry" message.
c38	"Inquiry" message failed.
c3b	"Inquiry" message failed.
c3e	Insufficient "inquiry" data.
c42	Failed to send "inquiry" message.
c45	"Inquiry" message failed.
c48	"Inquiry" message failed.
c4b	Unknown device.
c4e	Failed to send "read block limits" message.
c52	"Read block limits" message failed.
c55	"Read block limits" message failed.
c58	Partition information is invalid.
c5b	Not a supported tape device.
c5e	Invalid tape I/O open sequence number.
c62	Reserved field in partition used.
c65	Device does not support variable record sizes.
c68	Device does not support fixed records.
c69	Fixed record size is invalid.
c6a	Invalid record type specified.
c6b	Record size greater than device capability.
c6e	Record size less than device capability.
c72	Failed to send tape setup message to DFC.
c75	Tape setup message failed.

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c78	Invalid sequence number.
c82	Base queue full.
c85	Failed to get job ID.
c88	Request exceeds DFC capability.
c89	Request exceeds expscsi capability.
c8b	No base/high job IDs left.
c8e	No job IDs left for base/high queue.
c92	Base queue full.
c95	Failed to get job ID.
c9b	Base queue full.
c9e	Failed to get job ID.
ca2	Entity type to space over is invalid.
ca5	Base queue is full.
ca8	Failed to get job ID.
cab	Base queue full.
cae	Failed to get job ID.
cb1	Device not active.
cb2	Invalid state for closing device.
cb7	Invalid state for closing device.
cb8	Failed to send tape "rewind" message to DFC.
cbb	Tape "rewind" failed.
cbe	Invalid sequence number.
cc2	Failed to send tape "space" message to DFC.
cc5	Tape "space" message failed.
cc8	Invalid sequence number.
ccb	Failed to send "write filemarks" message to DFC.
cce	"Write filemarks" message failed.
cd2	Failed to send tape "space" message to DFC.
cd5	Tape "space" message failed.
cd8	Invalid sequence number.
ce2	Device not active.
ce4	Device not open.
ce6	Incorrect read/write permissions.
ce8	Base queue full.
cea	Failed to get job ID.
cec	Unable to inventory job.
cf2	Device not active.
cf4	Device not open.
cf6	Incorrect read/write permissions.
cf8	Base queue full.
cfa	Failed to get job ID.
cfc	Unable to inventory job.
d01	Wrong device type specified.
d02	Failed to send "mode sense" message.
d05	"Mode sense" message failed.
d08	"Mode sense" message failed.
d0b	Failed to send "mode sense" message.
d0e	"Mode sense" message failed.
d12	"Mode sense" message failed.
d15	Not enough data returned from "mode sense" message.
d18	Unexpected amount of data returned from "mode sense" message.
d1b	Device is write protected.
d1e	Failed to obtain expected mode pages.
d22	Failed to send "mode select" message.
d25	"Mode select" message failed.
d28	"Mode select" message failed.
d2b	Invalid tape sequence number.
d2e	Multi-partition tape is not supported.
d31	Wrong device type specified.
d32	Failed to send "mode sense" message.
d35	"Mode sense" message failed.
d38	"Mode sense" message failed.
d3b	Failed to send "mode sense" message.
d3e	"Mode sense" message failed.
d42	"Mode sense" message failed.
d45	Not enough data returned from "mode sense" message.
d48	Unexpected amount of data returned from "mode sense" message.
d4b	Device is write protected.
d4e	Failed to obtain expected mode pages.
d52	Failed to send "mode select" message.
d55	"Mode select" message failed.
d58	"Mode select" message failed.

d5b	Invalid tape sequence number.
d5e	Multi-partition tape is not supported.
d61	Wrong device type specified.
d62	Invalid density specified.
d65	Failed to send "mode sense" message.
d68	"Mode sense" message failed.
d6b	"Mode sense" message failed.
d6e	Failed to send "mode sense" message.
d72	"Mode sense" message failed.
d75	"Mode sense" message failed.
d78	Not enough data returned from "mode sense" message.
d7b	Unexpected amount of data returned from "mode sense" message.
d7e	Device is write protected.
d82	Requested density does not match set device density.
d85	Failed to obtain expected mode pages.
d88	Failed to send "mode select" message.
d8e	"Mode select" message failed.
d92	"Mode select" message failed.
d95	Invalid tape sequence number.
da1	Wrong device type specified.
da2	Invalid density specified.
da5	Failed to send "mode sense" message.
da8	"Mode sense" message failed.
dab	"Mode sense" message failed.
dae	Failed to send "mode sense" message.
db2	"Mode sense" message failed.
db5	"Mode sense" message failed.
db8	Not enough data returned from "mode sense" message.
dbb	Unexpected amount of data returned from "mode sense" message.
dbe	Device is write protected.
dc2	Requested density does not match set device density.
dc5	Failed to obtain expected mode pages.
dc8	Failed to send "mode select" message.
dce	"Mode select" message failed.
dd2	"Mode select" message failed.
dd5	Invalid tape sequence number.
e01	Not SCSI dfc.
e03	Invalid DFC state for pump.
e05	dtchintr call returned fail.
e07	Unable to clear DDSBS.
e09	Unable to send message to BIC.
e0a	Unable to send message to BIC.
e0b	atchintr call returned fail.
e0d	enabintr call returned fail.
e0f	getjobid failed.
e11	Failed to write word in BIC FIFO.
e13	wakeup PIO failed.
e15	version message failed.
e17	getjobid failed.
e19	Failed to write word in BIC FIFO.
e1a	wakeup PIO failed.
e1b	version message failed.
e1c	Unable to allocate message for FMGR.
e1d	1-byte wide firmware version not known.
e1f	Unable to allocate message for FMGR.
e20	Unable to do a stat() on the pumpfile.
e22	Pumpfile invalid size.
e24	Pumpfile is not a single extent contiguous file.
e26	Unable to get segnum.
e28	Unable to iolock the buffer.
e2a	Unable to allocate the message buffer for reading pumpfile.
e2c	Unable to send the I/O message.
e2e	Unable to read pumpfile header.
e2f	Pumpfile has invalid size.
e30	4-wide firmware needs to be reprogrammed, retry later.
e32	Unable to get segnum.
e33	Unable to get segnum for DKDRV's internal pump buffer.
e35	Unable to download the pumpcode.
e37	Unable to request reading pumpfile.
e39	Unable to read pumpfile.
e3a	DFC pump: getjobid failed.
e3b	Failed to write word in BIC FIFO.

e3d	Failed to write word in BIC FIFO.
e3f	Failed to write word in BIC FIFO.
e41	Failed to write word in BIC FIFO.
e43	wakeup PIO failed.
e45	Pump failed at last pump.
e46	Cannot remove the segment.
e47	dtchintr call returned fail.
e48	Unable to send message to BIC.
e49	Invalid pump sequence.
e4a	dtchintr call returned fail.
e4b	Cannot remove the segment.
e4c	Unable to send message to BIC.
e50	Invalid header magic number.
e53	1-byte wide firmware and pumpfile are incompatible - issue.
e55	1-byte wide firmware and pumpfile are incompatible - generic.
e57	4-byte wide firmware and pumpfile are incompatible with 1-byte wide firmware.
e59	Pumpfile has different revision level.
e5a	1-byte wide firmware and pumpfile are incompatible.
e5c	Unable to determine revision levels.
e60	Unable to send message to BIC.
e62	jcistat message failed.
e64	Read status of BIC failed.
e66	Failed to read BIC FIFO.
e68	Failed to read BIC FIFO.
e69	Received interrupt but no response.
e6a	Failed to clear BIC interrupt.
e6b	dtchintr call returned fail.
e6c	Unable to send message to BIC.
e6d	dtchintr call returned fail.
e6e	atchintr call returned fail.
e6f	enabintr call returned fail.
e70	DFC flash programming timed out.
e71	Unable to clear DDSBS.
e72	Unable to send message to BIC.
e73	DFC version message failed.
e74	Unable to send message to BIC.
e78	initmem5() DMAC initialization failed.
e7a	dtchintr call returned fail.
e7b	atchintr call returned fail.
e7c	enabintr call returned fail.
e7d	getjobid failed.
e7f	Unable to send version message failed.
e80	Unrecognizable DKDRV internal job type.
e85	Response contains jobid not in use.
e86	IO job has no associated IO message.
e88	IO message "ms_to" field is invalid.
e8a	Message type not IOREAD or IOWRITE.
e8c	No job found in inventory data.
e8d	Invalid completion code returned by DFC.
e8f	Job reported error.
e95	Null message buffer pointer.
e96	Invalid "ms_to" field in message.
e97	Message buffer not marked allocated.

APP:DFC-B

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. DISK FILE CONTROLLER (DFC) APPENDIX

There are seven exhibits in this appendix. Exhibit 1 describes various disk file controller (DFC) error codes and the corrective actions which may be taken. Exhibit 2 describes several conditional success codes. Exhibit 3 explains the special completion codes, which are applicable for autonomous response output messages. Exhibit 4 contains the enhanced completion codes. Exhibits 5 and 6 contain the values of the firmware/pumpcode, driver communications register. Exhibit 7 contains job types pending.

The data in Exhibit 2 and Exhibit 3 are seen only by the disk driver. They are included here only to provide complete documentation on the DFC error codes.

Exhibit 1 lists the errors which can be detected by the DFC, explains the cause of the error, and shows any corrective actions which may be required. The DFC responds to all system-requested work with job completion codes. When the DFC detects errors on those jobs, it reports with the error information shown in Exhibit 1. In addition to running those jobs, the DFC can create its own internal work and can handle requests which do not have unique job identification codes.

All error codes are in hexadecimal.

Exhibit 1

DFC Name	Code	Probable Cause and Corrective Action
CCOK	00	Job completed. This code implies successful completion, except in some autonomous responses. In the case of autonomous responses, the special completion code takes precedence over this code.
CCRAMWE	80,81	PIC ram read/write boundary error. If the DFC is a SMD-DFC: The DFC was requested to write outside the address range of E00 to FFF (hexadecimal). This area is reserved for the diagnostics group and may be read and/or written by them. Addresses outside this range are reserved for the operational portion of the firmware and may not be written by anyone. ACTION: This error should never occur since only the diagnostics group uses the write ram message. If the DFC is a SCSI-DFC: The DFC was requested to write to write-protected ram. The DFC was requested to write to outside of allowed area of DFC RAM. The DFC was requested to read non-existent memory. ACTION: This error should never occur since only the diagnostics groups uses the ram read and write messages.
CCSEEKER	82,83	"Seek" error on disk. The DFC issued a "seek" to an MHD and then detected an error in the MHD. The error

		from the MHD indicates either that the "seek" did not complete within 75 milliseconds, or that the drive interpreted the address "seek" as beyond the last available cylinder on the disk. ACTION: Check the cables to the MHDs for loose connections or perform preventive maintenance.
CCNOINDX	84,85	No index detected on disk. The DFC could not find an 'index' mark from the disk after counting 33 sector marks. ACTION: Replace either the disk pack or the MHD in question.
CCERRCMD	86,87	Invalid message from administrative module (AM). The DFC received a message that was not valid for the state of the DFC. ACTION: There is no response for this error. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
CCSTATER	88,89	MHD status error. There is a problem with the drive which the DFC tried to access. One of the following: No unit ready = The drive is not powered up or the ID plug is missing. No on cylinder indication = The drive has not been powered up or the disk pack is not spinning. Fault = There is a hard fault on the drive, not the disk pack, which the firmware cannot correct. ACTION: Correct the problem and try again.
CCUCDE	8A,8B	Uncorrectable data error. If the DFC is a SMD-DFC, the DFC detected an error in the data on the disk which is beyond 11 bits long. The data which has been read cannot be used. ACTION: Use the VERIFY message to determine the location of the error and re-format the track on which the error is located. The data on that track is lost forever, and the whole disk pack may have to be re-populated with data from a mate disk. 1 If the DFC is a SCSI-DFC, the target controller was not able to read a block of data from the disk. ACTION: Use the VERIFY message to determine the location of the error. Place the location of the error in a defect list and re-format the disk. The whole disk pack must be repopulated with data from a mate disk.
CCDBO	8C,8D	Disk boundary overflow. An attempt to read or write beyond the last block on a disk was made. ACTION: Run MHD diagnostics, and check the data cables. Another possibility is that the VTOC on the disk specifies a partition which exceeds the last available cylinder on the disk pack.
CCUHSM	8E,8F	Head - sector mismatch error.

		The DFC read a sector off the disk and the header information, which contains the cylinder, head and sector number, did not agree with the value the DFC calculated for the head-sector number. ACTION: Try the job again and if it fails, reformat that area of the disk.
CCUWD	90,91	Wrong disk selected. A disk which the controller did not try to select answered to the poll of the disks. ACTION: Check the id plug of the drive and then make sure that the data cable to the drive is properly placed on the backplane of the DFC.
CCUND	92,93	No disk selected. There was no answer to the polling of the disks, but the DFC expected an answer. ACTION: Insure that the disk to be selected is powered up, that its data cable is in the right place on the DFC backplane, and that the drive has an id plug.
CCUHP	94,95	Head positioning error. The drive was requested to go to a given cylinder, but upon reading the header from the cylinder, the cylinder number there did not match the number that the DFC had calculated it should be. There was no "seek" error (82, 83) detected. ACTION: Try the job again or reformat that area of the disk pack where the error occurred.
CCUHSE	96,97	Head selection error. The head number read from the disk did not agree with what the DFC had calculated it should be. ACTION: Retry the job, or reformat the area of the disk pack where the error occurred, or check the control cable to the MHD.
CCUBPE	98,99	BIC parity error. There was a data parity error on a data transfer either to or from the BIC when the BIC was communicating with the processor. ACTION: The DFC cannot cause this error, only report it. The BIC and/or the DDSBS should be diagnosed.
CCUBPSE	9A,9B	BIC-PIC soft error. ACTION: Run DFC diagnostics.
CCPICE	9C,9D	PIC error. The DFC tried to do a match against a known condition but could not detect a match condition. For example, if the DFC knows that there is a message to decode from BIC, the DFC tries to decode the message; if no match is found, this error is generated. ACTION: Run DFC diagnostics.
CCU3BE	9E,9F	DMA setup overwrite. The BIC detects that the DMA has attempted to write to the BIC data FIFO while a setup

		request is pending. ACTION: Run DFC and DMA diagnostics.
CCUJTE	A0,A1	Early EOT from DMA. The error is detected in the BIC when the BIC receives an EOT signal from the DMA and the DFC has not set the EOT EXPECT flag in the BIC. ACTION: Run BIC and DMA diagnostics.
CCUNET	A2,A3	No EOT from DMA. The error is detected in the BIC when the DFC has set the EOT EXPECT flag in the BIC and the DMA has responded to a transfer request with data rather than an EOT. ACTION: Run BIC and/or DMA diagnostics.
CCPUMPER	A4,A5	Error detected in pumped data. The file containing the data to be pumped is not compatible with the firmware on the SCSI-DFC or there is an error in the contents of the pump file. ACTION: Check that the UCB associated with the SCSI-DFC points to the pump file compatible with the SCSI-DFC.
CCUFPE	A6,A7	PSDI first in/first out (FIFO) parity error. The parallel to serial data interface in the DFC has detected a parity error in the data stream which has been written on the disk. ACTION: Run DFC diagnostics.
CCUFUF	A8,A9	PSDI FIFO underflow. The PSDI has run out of data while trying to write data on the disk. This will cause a single sector on the disk to be scrambled, and a reformat of the track must be initiated. ACTION: Reformat the track where the error occurred and run DFC/MHD diagnostics.
CCUFOV	AA,AB	PSDI FIFO overflow. The PDSI FIFO received more data than it could hold while reading the disk. ACTION: Run DFC/MHD diagnostics.
CCUPAK	AC,AD	PSDI acknowledge failure. The DFC tried to start the PSDI in a read or write mode but the PSDI failed to respond. ACTION: Run DFC/MHD diagnostics.
CCUFED	AE,AF	Extra data in PSDI. The DFC has finished reading what it thought was 512 data bytes from the disk, but data continued to arrive. ACTION: The data format on the disk is not correct and must be reformatted.
CCUDBE	B0,B1	Disk data buffer error.

		The DFC could not find any internal data buffers into which it could put data. This is a DFC internal error code. ACTION: None.
CCMASADR	B2,B3	Main store address error. The DFC has calculated a setup of an address in AM mainstore which will cross a page table (segment) boundary. ACTION: Check the coding of the program in AM which causes this to occur.
CCDEVTO	B4,B5	Device timed out. The DFC has tried to access a device, and the device has failed to respond in a reasonable amount of time. ACTION: Check for DKDRV error(s) on the ROP for the device status to determine the failure.
CCFAIL	B8,B9	Software release failure response. An error has occurred which does not fall into any other category. Check the enhanced completion code in the "Enhanced Information Report" for more data. ACTION: There is no user response for this error. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
CCUUDD	BA,BB	Uncorrectable data error in manufacturer defect table. ACTION: Rebuild manufacturer default table. If error persists, replace disk drive.
CCUTOV	BC,BD	Defect table overflow. ACTION: Call support group.
CCDMUNDD	BE,BF	Inappropriate message for defect managed disk. ACTION: There is no user response for this error. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
CCDMUCDT	C0,C1	Unable to create user defect table on disk. ACTION: There is no user response for this error. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
CCDMTMD	C2,C3	Too many defects in manufacturer table. ACTION: There is no user response for this error. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
CCDMEPA	C4,C5	Uncorrectable data error on area supposedly error-free. ACTION: There is no user response for this error. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
CCDMIDDT	C6,C7	Invalid data in defect table. ACTION: There is no user response for this error. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

CCDMIDR	C8,C9	Invalid data in ram. ACTION: There is no user response for this error. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
CCDMTNG	CA,CB	Invalid manufacturer defect table. ACTION: There is no user response for this error. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
CCDMEMA	CC,CD	Uncorrectable data error in manufacturer defect table. ACTION: There is no user response for this error. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
CCDMURDT	CE,CF	Unable to read defect table. ACTION: There is no user response for this error. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
CCDMURMT	D0,D1	Unable to read manufacturer defect table. ACTION: There is no user response for this error. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
CCDMUWDT	D2,D3	Unable to write defect table. ACTION: There is no user response for this error. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
CCUBPR	D4,D5	Mismatch between random access memory (RAM) and expected value. ACTION: There is no user response for this error. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
CCBUSOFF	D6,D7	Bus drivers for selected small computer system interface (SCSI) bus turned off. The bus drivers for a SCSI bus have been turned off. A message using a device on that SCSI bus was sent to the SCSI-DFC. ACTION: Turn on the bus drivers before sending messages to devices on the bus. Refer to the RST:SBUS input message.
CCINCONC	D8,D9	Command arguments are inconsistent. The arguments passed in a message to the SCSI-DFC are not consistent. The message fails error checks. ACTION: There is no user response for this error. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
CCUSTL	DA,DB	Uncorrectable data error and attempt to write temp list failed. ACTION: Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
CCBVD	E0,E1	Mismatch between FIRM and PUMP version. ACTION: There is no user response for this error. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

CCPTO	E4,E5	Pump job timed out. ACTION: There is no user response for this error. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
CCDEVERR	FA,FB	Job failed due to medium error. An error condition associated with the medium. At or beyond end of partition/medium (EOP/M). A check condition status was encountered by the DFC and the sense key indicated an error such as volume overflow or medium error. ACTION: Try a different medium if possible; otherwise, contact support group.
CCDKDRV	FF	Reserved for disk driver use.

Note: Exhibit 2 describes the conditional success codes which are seen only by the disk driver.

Exhibit 2 -- Conditional Success Codes

Code	Definition
02	The read disk job completed successfully but the DFC had to perform error correction to complete the job. This is an indication that the data are becoming somewhat marginal and that the disk pack may soon require reformatting.
04	In response to a VERIFY message, the DFC found that one or more sectors were not usable. The header information was incorrect or the data could not be corrected using ECC. The disk pack must be reformatted.
07	During a system phase one, the DFC was reset and could not continue a job that was in progress. This success code indicates that the job was reported to the disk driver for appropriate recovery actions.
08	There was a fault condition detected on the disk drive, the DFC was able to correct it and proceed to successful completion.
0A	The DFC detected a "seek" error on the disk, but was able to correct it and complete the job successfully.
0C	Job was early terminated by the DFC because a subsequent message was received for the same target device.
0E	The pump job was successful, but the DFC is expecting more data before the pump can be completed.
12	A "check condition" status was encountered by the DFC, but the sense key did not indicate a medium or hardware error. An early warning or a filemark may have been encountered.

Note: Exhibit 3 explains the special completion codes, which are only applicable for autonomous response output messages. The description of an error code in Exhibit 1 may be used to supplement Exhibit 3 code descriptions to give a more detailed reason for job failure.

Exhibit 3 -- Autonomous Response Special Completion Code

Code	Definition
0	Special job. DFC information report. The DFC is letting the disk driver know there is some enhanced information report (EIR) information available.
1	On-board diagnostic error. The on-board diagnostic of the DFC has detected an error, and the DFC should be removed and diagnosed as soon as possible.
2	On-board exerciser error. The disk exerciser has detected an error. The error may be an uncorrectable data error, or a head/sector mismatch, the error should be analyzed using the DFC enhanced error data (REPT DFCE), if available.

3	SYSGEN message completed. The DFC is reporting the completion of a SYSGEN message. The job id code for the SYSGEN message is zero by design.
4	Boot message completed. The DFC is reporting the completion of a BOOT message. The job id code for the BOOT message is zero by design. Since the disk driver does not issue a BOOT message, this is regarded as an error.
5	DFC idle. This is in response to a DFC driver initiated ABORT sequence, simply indicating that the DFC was not sending any data for a particular job to the administrative module (AM) using the AM DMAC.
6	Illegal message. The DFC received a bit pattern in the message field which it could not decode.
7	Hitemp warning. The disk exerciser has detected a high temperature condition in a disk drive and is giving warning that the air flow may be becoming insufficient to continue to allow the heads to fly over the disk pack.

Exhibit 4 -- Enhanced Completion Codes

DFC Name	Code	Definition
NOERROR	0x0000	Nothing is wrong.
ERROR_ICS	0x1001	Command from invalid source.
ERROR_IDHA	0x1002	Device ID code belongs to host adapter (HA).
ERROR_INVCMD	0x1003	Invalid message received from AM.
ERROR_CMDNEX	0x1004	Command from AM not expected.
ERROR_NUMWRD	0x1005	Invalid number of words to transfer.
ERROR_NUMBLK	0x1006	Invalid number of blocks specified.
ERROR_NOTFIT	0x1007	The data to transfer will not fit within segment on AM.
ERROR_NOTRAM	0x1008	The data to be transferred from HA is not RAM or erasable programmable read only memory (EPROM).
ERROR_WRTPRO	0x1009	The destination location in RAM is write-protected.
ERROR_INVPMP	0x100a	Invalid pump option in pump message.
ERROR_PMPNGO	0x100b	A pump must be going for the pump to be continued.
ERROR_NODEV	0x100c	There is no working device with the specified device id.
ERROR_INVBLK	0x100d	The block number(s) specified does not fit on specified device.
ERROR_BDMGC	0x100e	Bad MAGIC number for pumpfile.
ERROR_HDHSH	0x100f	Hash failed over pumpfile header.
ERROR_UNNZR	0x1010	Unused area of pumpfile header not zero.
ERROR_INVADR	0x1011	Data to be pumped not in valid areas.
ERROR_DTHSH	0x1012	Hash failed over pumpfile data.
ERROR_PFNST	0x1013	Pump file did not start.

ERROR_PABRT	0x1014	Pump file restart did not succeed.
ERROR_INVTV	0x1015	Invalid transfer vector address in header.
ERROR_INVFMT	0x1016	Invalid format option in format message.
ERROR_DFCTBIG	0x1017	User defect list in format message too big.
ERROR_INVEXPS	0x1018	Invalid SCSI option in explicit SCSI message.
ERROR_EXCMDTB	0x1019	Size of SCSI message in explicit SCSI message too big.
ERROR_EXCMDTS	0x101a	Size of SCSI message in explicit SCSI message too small.
ERROR_OPTNOT2	0x101b	SCSI option in explicit SCSI message does not allow two devices.
ERROR_DIFBUS	0x101c	Explicit SCSI message has two devices on different buses.
ERROR_RETCODE	0x101d	Unexpected return code from a function call.
ERROR_DEFCASE	0x101e	Default case reached in a switch() statement.
ERROR_VERSION	0x101f	Version in pumpfile does not match firmware.
ERROR_ETERM	0x1020	Unable to early terminate job in progress.
ERROR_OKCR	0x1021	Job completed OK, but ECC was required.
ERROR_UCDE	0x1022	Job failed; uncorrectable data (media error).
ERROR_DBO	0x1023	Disk boundary overflow (end of disk reached).
ERROR_RETRIES	0x1024	Too many retries.
ERROR_BSYTMO	0x1025	Device returned BUSY status for too long.
ERROR_NOBUF	0x1026	Unable to obtain an HA data buffer.
ERROR_TAPEOP	0x1027	Invalid tape operation specified.
ERROR_OPTION	0x1028	Invalid option to tape operation specified.
ERROR_NOFUNC	0x1029	Function address expected but not found.
ERROR_SEEK	0x102a	"Seek" failed to achieve desired location.
ERROR_OKCS	0x102d	Extended sense data sense key (ESD SK) indicated no error: check status word.
ERROR_DEVERR	0x102e	ESD SK indicated a device (medium) error.
ERROR_DEVFAIL	0x1-2f	ESD SK indicated a device failure.
ERROR_FWWFCLR	0x1030	Flash word write failed - doing flash clear.
ERROR_FWWFERA	0x1031	Flash word write failed - doing flash erase.
ERROR_FWWFPGM	0x1032	Flash word write failed - doing flash program.
ERROR_CMDSIZE	0x1033	Command received by 1-wide code has wrong message size.
ERROR_RSVFL	0x2001	Reserve/unreserve failed.
ERROR_RSTFL	0x2002	Reset disk failed.
ERROR_SPCJF	0x200	spc_job failed to start.

	3	
ERROR_REXFL	0x2004	Read failure during REX job.
ERROR_SJB0	0x3000	Base value of SJB failures; used by the error_sjb() function.
ERROR_ABORT	0x3001	Command was aborted.
ERROR_BRESET	0x3002	Reset was detected on the bus, and was probably not caused by this job; it may or may not have been caused by this HA.
ERROR_CKSTAT	0x3003	Check the status byte.
ERROR_CRESET	0x3004	This HA reset the bus due to an irrecoverable error while processing this job.
ERROR_INPROG	0x3005	Job is still in progress.
ERROR_SJBERR	0x3006	SJB contents error.
ERROR_MEMERR	0x3007	Memory fault.
ERROR_BADBUS	0x3008	SCSI bus is unterminated.
ERROR_SELECT	0x3009	Device select failed.
ERROR_QFLUSH	0x300a	Job was flushed.
ERROR_SHORT	0x300b	Target ctrlr did not transfer all of the data.
ERROR_TIMEOUT	0x300c	Job timed out.
ERROR_CHAIN_LINKS	0x300d	Insufficient DMA chain links.
ERROR_LU_QNODES	0x300e	Insufficient line unit (LU) queue nodes.
ERROR_BUS_OFFLINE	0x300f	The SCSI bus is off-line.
ERROR_BUS_PARITY	0x3010	HA detected SCSI bus parity error and terminated the job.
ERROR_SJBDEF	0x301f	Unknown SJB completion code.
ERROR_NOT_READY	0x3020	Target device not ready to process jobs.
ERROR_REQ_SEN	0x3021	Request sense message failed.
ERROR_BAD_STATE	0x3022	Invalid SCSI job state.
ERROR_BAD_PROTOCOL	0x3023	Invalid SCSI protocol transition.
ERROR_SJABTFL	0x3024	Fail to send ABORT message to SCSI device.

Exhibit 5 -- Firmware-Driver Communications Register (FW/PC versions 7.0 and 8.0)

Code	Definition
0x01	Power-on or reset received from AM.
0x02	Invalid interrupt.
0x03	Sanity timer failure.
0x04	Normal exception - integer zero divide.
0x05	Normal exception - trace trap.
0x06	Normal exception - illegal opcode.
0x07	Normal exception - reserved opcode.
0x08	Normal exception - invalid descriptor.
0x09	Normal exception - external memory.
0x0a	Normal exception - gate vector.
0x0b	Normal exception - illegal level change.
0x0c	Normal exception - reserved data type.
0x0d	Normal exception - integer overflow.
0x0e	Normal exception - privileged opcode.

0x0f	Normal exception - breakpoint.
0x10	Normal exception - privileged register.
0x11	Normal exception - unknown type.
0x12	Stack exception - stack bound.
0x13	Stack exception - stack.
0x14	Stack exception - interrupt ID fetch.
0x15	Stack exception - unknown type.
0x16	Process exception - old PCB.
0x17	Process exception - gate PCB.
0x18	Process exception - new PCB.
0x19	Process exception - unknown type.
0x1a	BIC error.
0x1b	Parity error.
0x1c	Write protect violation.
0x1d	BIC FIFO overflow/underflow.
0x1e	Channel 0 of HA DMAC dead.
0x1f	Channel 1 of HA DMAC dead.
0x20	Channel 2 of HA DMAC dead.
0x21	Channel 3 of HA DMAC dead.
0x22	Unexpected interrupt from DMAC (32104).
0x23	Unexpected interrupt from read/write word/blk.
0x24	Unexpected interrupt from software timer 2.
0x25	Unexpected interrupt from software timer 1.
0x26	Unexpected interrupt from SCSI bus 0.
0x27	Unexpected interrupt from SCSI bus 1.
0x28	Unexpected interrupt from data in BIC cmd reg.
0x29	Oper firm invalid major state.
0x2a	Oper firm invalid message source.
0x2b	An error was detected during boot message processing.
0x2c	FW PC transition failure; PUMPCODE initialization failure.
0x2d	dgn_fault() returned to SW Timer 2 Int Hdlr.
0x2e	dgn_fault() returned to SPC0 Int Hdlr.
0x2f	dgn_fault() returned to SPC1 Int Hdlr.
0x30	No timer nodes avail for timeout processing.
0x31	Job response is using JCISTAT interface.
0x32	Firmware to pumpcode restart failed.
0x33	ON RESET: all memory is being cleared.
0x34	ON RESET: normal memory is being cleared.
0x35	ON RESET: no memory is being cleared.
0x3f	No message from AM is being processed.
0x40	Invalid message opcode 0x00 received from AM.
0x41	Invalid message opcode 0x01 received from AM.
0x42	Invalid message opcode 0x02 received from AM.
0x43	Invalid message opcode 0x03 received from AM.
0x44	Invalid message opcode 0x04 received from AM.
0x45	Invalid message opcode 0x05 received from AM.
0x46	Invalid message opcode 0x06 received from AM.
0x47	Invalid message opcode 0x07 received from AM.
0x48	Invalid message opcode 0x08 received from AM.
0x49	Invalid message opcode 0x09 received from AM.
0x4a	Invalid message opcode 0x0a received from AM.
0x4b	Invalid message opcode 0x0b received from AM.
0x4c	Invalid message opcode 0x0c received from AM.
0x4d	Invalid message opcode 0x0d received from AM.
0x4e	Invalid message opcode 0x0e received from AM.
0x4f	Invalid message opcode 0x0f received from AM.
0x50	Invalid message opcode 0x10 received from AM.
0x51	Invalid message opcode 0x11 received from AM.
0x52	Invalid message opcode 0x12 received from AM.
0x53	Invalid message opcode 0x13 received from AM.
0x54	Invalid message opcode 0x14 received from AM.
0x55	Invalid message opcode 0x15 received from AM.
0x56	Invalid message opcode 0x16 received from AM.
0x57	Invalid message opcode 0x17 received from AM.
0x58	Invalid message opcode 0x18 received from AM.
0x59	Invalid message opcode 0x19 received from AM.
0x5a	Invalid message opcode 0x1a received from AM.
0x5b	Invalid message opcode 0x1b received from AM.
0x5c	Invalid message opcode 0x1c received from AM.
0x5d	Invalid message opcode 0x1d received from AM.
0x5e	Invalid message opcode 0x1e received from AM.
0x5f	Invalid message opcode 0x1f received from AM.

0x60	No-op message being processed by operational firmware.
0x61	Spare message having opcode of 0x01 being processed by operational firmware.
0x62	Spare message having opcode of 0x02 being processed by operational firmware.
0x63	Version message being processed by operational firmware.
0x64	Reserve message being processed by operational firmware.
0x65	Retry message being processed by operational firmware.
0x66	Wakeup message being processed by operational firmware.
0x67	Read options message being processed by operational Firmware.
0x68	Resume message being processed by operational firmware.
0x69	Reset disk message being processed by operational firmware.
0x6a	Change MHD mode message being processed by operational firmware.
0x6b	Sysgen message being processed by operational firmware.
0x6c	Change DFC mode message being processed by operational firmware.
0x6d	Boot message being processed by operational firmware.
0x6e	JCI message being processed by operational firmware.
0x6f	Abort message being processed by operational firmware.
0x70	Read RAM message being processed by operational firmware.
0x71	Read DISK message being processed by operational firmware.
0x72	Explicit SCSI message being processed by operational firmware.
0x73	Verify message being processed by operational firmware.
0x74	Spare message having opcode of 0x14 being processed by operational firmware.
0x75	Spare message having opcode of 0x15 being processed by operational firmware.
0x76	Spare message having opcode of 0x16 being processed by operational firmware.
0x77	Spare message having opcode of 0x17 being processed by operational firmware.
0x78	Write RAM message being processed by operational firmware.
0x79	Write DISK message being processed by operational firmware.
0x7a	Pump message being processed by operational firmware.
0x7b	Format message being processed by operational firmware.
0x7c	Request device status message being processed by operational firmware.
0x7d	Diagnostic helper message being processed by operational firmware.
0x7e	Disk to disk copy message being processed by operational firmware.
0x7f	Diagnostic device message being processed by operational firmware.
0xa0	SPC:timeout for DMAC normal termination.
0xa1	SPC:timeout on DMAC flush.
0xa2	SPC:bad disconnect; non-word boundary.
0xa3	SPC:timeout for SPC FIFO to empty.
0xa4	SPC:DMAC error on READ/WRITE completion.
0xa5	SPC:DMAC error on READ flush.
0xa6	SPC:Bad time value passed to timeout().
oxb0	Timeout on DMAC normal termination (bus A).
0xb1	Timeout on DMAC normal termination (bus B).
0xb2	Timeout on DMAC flush (bus A).
0xb3	Timeout on DMAC flush (bus B).
0xb4	Timeout for SPC FIFO to empty (bus A).
0xb5	Timeout for SPC FIFO to empty (bus B).
0xb6	DMAC error on READ/WRITE completion (bus A).
0xb7	DMAC error on READ/WRITE completion (bus B).
0xb8	DMAC error on READ flush (bus A).
0xb9	DMAC error on READ flush (bus B).
0xc0	The pump code is running.
0xc1	A function returned that should not have.
0xc2	The dispatcher is in an invalid state.
0xc3	Invalid pump state value.
0xc4	Invalid return code.
0xc5	Invalid task major state value.
0xc6	Invalid task minor state value.
0xc7	Invalid SCSI job state.
0xc8	Invalid task ID number argument.
0xc9	Buffer management error.
0xca	Error occurred while initializing pump code.
0xcb	Pump state is ERROR but no error task exists.
0xcc	Task allocation failed - all tasks busy.
0xcd	AM DMAC should not be busy but is.
0xce	Error occurred during slow job early term.
0xcf	Error occurred during overlapped RDDSK job.
0xd0	No free task management link-list queue nodes.
0xd1	Pumpcode has failed to install a code patch.

Exhibit 6 -- Firmware-Driver Communications Register (FW/PC versions 9.0)

Code	Definition

0x01	Power-on or reset received from the administrative module (AM).
0x02	Invalid interrupt.
0x03	Sanity timer failure.
0x04	4wide state - ready.
0x05	4wide state - error.
0x06	4wide state - sleeping and slow jobs.
0x07	4wide state - sleeping and no slow jobs.
0x08	4wide state - awake.
0x09	4wide state - running interrupt node task.
0x0a	4wide state - reading messages.
0x0b	4wide state - routing messages.
0x0c	4wide state - start a job on a device.
0x0d	4wide state - flush a job on a device.
0x0e	4wide state - start a job on the AM DMA.
0x19	Other level 6 error.
0x1a	BIC error.
0x1b	Memory parity error.
0x1c	Write protect violation.
0x1d	BIC FIFO overflow/underflow.
0x1e	Channel 0 of HA DMAC dead.
0x1f	Channel 1 of HA DMAC dead.
0x20	Channel 2 of HA DMAC dead.
0x21	Channel 3 of HA DMAC dead.
0x22	Unexpected interrupt from DMAC (32104).
0x23	Unexpected interrupt from word/block transfer counter.
0x24	Unexpected interrupt from software timer 2.
0x25	Unexpected interrupt from software timer 1.
0x26	Unexpected interrupt from SCSI bus 0.
0x27	Unexpected interrupt from SCSI bus 1.
0x28	Unable to early terminate job on device.
0x29	Operational firmware invalid major state.
0x2a	Operational firmware invalid message source.
0x2b	An error was detected during boot message processing.
0x2c	Firmware to pumpcode transition failure.
0x2d	dgn_fault() returned to SW timer 2 interrupt handler.
0x2e	dgn_fault() returned to SPC0 interrupt handler.
0x2f	dgn_fault() returned to SPC1 interrupt handler.
0x30	No timer nodes available for timeout processing.
0x31	Job response is using JCISTAT interface.
0x32	Firmware to pumpcode restart failed.
0x33	ON RESET: all memory is being cleared.
0x34	ON RESET: normal memory is being cleared.
0x35	ON RESET: no memory is being cleared.
0x36	Invalid switch value.
0x37	Buffer management error.
0x38	1-byte wide firmware is running.
0x39	FPGA programming error/failure.
0x3a	Double bus fault detected.
0x3b	Count of jobs in HA is less than zero.
0x3f	No message from the AM is being processed.
0x40	Invalid message received from the AM (opcode 0x00).
0x41	Invalid message received from the AM (opcode 0x01).
0x42	Invalid message received from the AM (opcode 0x02).
0x43	Invalid message received from the AM (opcode 0x03).
0x44	Invalid message received from the AM (opcode 0x04).
0x45	Invalid message received from the AM (opcode 0x05).
0x46	Invalid message received from the AM (opcode 0x06).
0x47	Invalid message received from the AM (opcode 0x07).
0x48	Invalid message received from the AM (opcode 0x08).
0x49	Invalid message received from the AM (opcode 0x09).
0x4a	Invalid message received from the AM (opcode 0x0a).
0x4b	Invalid message received from the AM (opcode 0x0b).
0x4c	Invalid message received from the AM (opcode 0x0c).
0x4d	Invalid message received from the AM (opcode 0x0d).
0x4e	Invalid message received from the AM (opcode 0x0e).
0x4f	Invalid message received from the AM (opcode 0x0e).
0x50	Invalid message received from the AM (opcode 0x10).
0x51	Invalid message received from the AM (opcode 0x11).
0x52	Invalid message received from the AM (opcode 0x12).
0x53	Invalid message received from the AM (opcode 0x13).
0x54	Invalid message received from the AM (opcode 0x14).
0x55	Invalid message received from the AM (opcode 0x15).

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0x56	Invalid message received from the AM (opcode 0x16).
0x57	Invalid message received from the AM (opcode 0x17).
0x58	Invalid message received from the AM (opcode 0x18).
0x59	Invalid message received from the AM (opcode 0x19).
0x5a	Invalid message received from the AM (opcode 0x1a).
0x5b	Invalid message received from the AM (opcode 0x1b).
0x5c	Invalid message received from the AM (opcode 0x1c).
0x5d	Invalid message received from the AM (opcode 0x1d).
0x5e	Invalid message received from the AM (opcode 0x1e).
0x5f	Invalid message received from the AM (opcode 0x1f).
0x60	Operational firmware processing message 0x00 (no-op).
0x61	Operational firmware processing message 0x01 (spare).
0x62	Operational firmware processing message 0x02 (tapecmd).
0x63	Operational firmware processing message 0x03 (version).
0x64	Operational firmware processing message 0x04 (reserve).
0x65	Operational firmware processing message 0x05 (retry).
0x66	Operational firmware processing message 0x06 (wakeup).
0x67	Operational firmware processing message 0x07 (DFC options).
0x68	Operational firmware processing message 0x08 (resume).
0x69	Operational firmware processing message 0x09 (reset device).
0x6a	Operational firmware processing message 0x0a (device mode).
0x6b	Operational firmware processing message 0x0b (sysgen).
0x6c	Operational firmware processing message 0x0c (DFC mode).
0x6d	Operational firmware processing message 0x0d (boot).
0x6e	Operational firmware processing message 0x0e (JCI status).
0x6f	Operational firmware processing message 0x0f (abort).
0x70	Operational firmware processing message 0x10 (read RAM).
0x71	Operational firmware processing message 0x11 (read disk).
0x72	Operational firmware processing message 0x12 (explicit scsi).
0x73	Operational firmware processing message 0x13 (verify).
0x74	Operational firmware processing message 0x14 (spare).
0x75	Operational firmware processing message 0x15 (spare).
0x76	Operational firmware processing message 0x16 (spare).
0x77	Operational firmware processing message 0x17 (spare).
0x78	Operational firmware processing message 0x18 (write RAM).
0x79	Operational firmware processing message 0x19 (write disk).
0x7a	Operational firmware processing message 0x1a (pump).
0x7b	Operational firmware processing message 0x1b (format).
0x7c	Operational firmware processing message 0x1c (request device status).
0x7d	Operational firmware processing message 0x1d (diag helper).
0x7e	Operational firmware processing message 0x1e (disk-to-disk copy).
0x7f	Operational firmware processing message 0x1f (diag device).
0xa0	SPC:timeout for DMAC normal termination.
0xa1	SPC:timeout on DMAC flush.
0xa2	SPC:bad disconnect; non-word boundary.
0xa3	SPC:timeout for SPC FIFO to empty.
0xa4	SPC:DMAC error on READ/WRITE completion.
0xa5	SPC:DMAC error on READ flush.
0xa6	SPC:bad time value passed to timeout().
0xa7	SPC:bad function passed to timeout().
0xb0	Timeout on DMAC normal termination (bus A).
0xb1	Timeout on DMAC normal termination (bus B).
0xb2	Timeout on DMA stop (bus A).
0xb3	Timeout on DMA stop (bus B).
0xb4	Timeout for SPC FIFO to empty (bus A).
0xb5	Timeout for SPC FIFO to empty (bus B).
0xb6	DMAC error on READ/WRITE completion (bus A).
0xb7	DMAC error on READ/WRITE completion (bus B).
0xb8	DMAC error on READ flush (bus A).
0xb9	DMAC error on READ flush (bus B).
0xbc	Invalid condition.
0xc0	The 4wide code has started.
0xc1	A function returned that should not have.
0xc2	The dispatcher is in an invalid state.
0xc3	Invalid pump state value.
0xc4	Invalid return code.
0xc5	Invalid task major state value.
0xc6	Invalid task minor state value.
0xc7	Invalid SCSI job state.
0xc8	Invalid task ID number argument.
0xc9	Buffer management error.
0xca	Error occurred while initializing pump code.

0xcb	Pump state is ERROR but no error task exists.
0xcc	Task allocation failed - all tasks busy.
0xcd	AM DMAC should not be busy but is.
0xce	Error occurred during slow job early term.
0xcf	Error occurred during overlapped RDDSK job.
0xd0	No free task management link-list queue nodes.
0xd1	Pumpcode has failed to install a code patch.

Exhibit 7 -- Job Type Pending

Code	Definition
0	No device exists.
1	No status received from device.
2	Slow message active on device.
3	Fast message active on device.
4	Diagnostic message active on device.
5	No message active on device.
6	Secondary device for slow message.
7	Secondary device for fast message.

APP:DFC-C

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. MOVING HEAD DISK (MHD) STATUS LAYOUT APPENDIX

Note: M bit - 0=online, 1=offline (maint).

Bit	Description
00	M bit of device 0.
01	M bit of device 1.
02	M bit of device 2.
03	M bit of device 3.
04	M bit of device 4.
05	M bit of device 5.
06	M bit of device 6.
07	M bit of device 7.
08	M bit of device 8.
09	M bit of device 9.
10	M bit of device 10.
11	M bit of device 11.
12	M bit of device 12.
13	M bit of device 13.
14	M bit of device 14.
15	M bit of device 15.
16	Identification Device (ID).
17	Device ID.
18	Device ID.
19	Device ID.
20	MHD Status Register (MHSR) - Unused.
21	MHSR - On cylinder.
22	MHSR - Unit ready.
23	MHSR - High temp.
24	MHSR - "Seek" error.
25	MHSR - Fault.
26	MHSR - Sector mark.
27	MHSR - Index mark.

If SCSI-DFC:

If bits 24-27 are 0111B, bits 20-23 contain the sense key of the extended sense data described in the APP:DFC-J appendix in the Appendixes section of the Output Messages manual.

Otherwise, bits 20-27 contain the additional sense code of the extended sense data described in the APP:DFC-J appendix in the Appendixes section of the Output Messages manual.

Both DFC's Description	Bit
28	Multiple disks selected.
29	Incorrect disk selected.
30	M bit of DFC.
31	M bit of device ID.

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APP:DFC-D

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. DSCH STATUS LAYOUT (CHANNEL STATUS) APPENDIX

Bit	Description
00	High 3 bits of low return code.
01	High 3 bits of low return code.
02	High 3 bits of low return code.
03	High 3 bits of high return code.
04	High 3 bits of high return code.
05	High 3 bits of high return code.
06	Channel busy f-f.
07	Input/output (I/O)inhibit override f-f.
08	Sequencer error.
09	Illegal 3 out of 6 device address.
10	Command error.
11	Channel error (or of previous message).
12	Maintenance f-f.

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APP:DFC-E

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. D2SBS STATUS LAYOUT APPENDIX

Bit	Description
00	Device reported error.
01	Overflow error.
02	Sequencer error.
03	Illegal D2SBS message.
04	Maintenance f-f.
05	Device interrupt request.
06	Device setup request.
07	Device transfer request.

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APP:DFC-F

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. BIC STATUS LAYOUT APPENDIX

FW/PC version 8.0 and earlier

Bit	Description
31	Message present flag (CP).
30	Message in progress (CIP).
29	Data flag (0=AM, 1=PIC).
28	Interface enabled.
27	Enable PIC data bus parity check.
26	Transfer mode (0=WRD, 1=BLK).
25	EOD received.
24	EOD expected.
23	Setup.
22	Transfer.
21	Interrupt.
20	FIFO word count.
19	FIFO word count.
18	FIFO word count.
17	FIFO word count.
16	FIFO word count.
15	Message register overflow.
14	Data first-in first-out (FIFO) overflow/underflow.
13	PIC data bus parity error - high byte.
12	PIC data bus parity error - low byte.
11	PIC sanity error.
10	Peripheral interface controller (PIC) fatal error summary. * ERROR
09	EOD error. * FLAG
08	PBI parity error - byte 3.
07	PBI parity error - byte 2.
06	PBI parity error - byte 1.
05	Peripheral bus interface (PBI) parity error - byte 0.
04	Direct memory access (DMA) setup overwrite.
03	Unit address.
02	Unit address.
01	Unit address.
00	Unit address.

FW/PC version 9.0

Bit	Description
31	Message in BIC message register.
30	Message in progress.
29	Data ready flag (0=AM 1=DFC).
28	Interface enabled.
27	Data bus parity checks enabled.
26	Transfer mode (0=word 1=black).
25	End of data received.
24	End of data expected.
23	DMA setup request pending.
22	DMA data transfer request pending.
21	AM interrupt request pending.
20	Word-in-block count.
19	Word-in-block count.
18	Word-in-block count.
17	Word-in-block count.
16	Word-in-block count.
15	BIC message register overflow/underflow.
14	BIC FIFO overflow/underflow.
13	BIC FIFO parity error - high half.
12	BIC FIFO parity error - low half.

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11	Sanity error.
10	HA fatal error summary.
09	End-of-data error.
08	INF parity error - byte 3.
07	INF parity error - byte 2.
06	INF parity error - byte 1.
05	INF parity error - byte 0.
04	AM DMA setup overwrite error.
03	Device address.
02	Device address.
01	Device address.
00	Device address.

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APP:DFC-G

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. REMOVE/RESTORE PROCESS ERROR CODES APPENDIX

Note: The codes are in hexadecimal notation.

Code	Description
1	Cannot enable message reception.
2	recvw function error
3	Cannot open spooler.
4	Cannot open ECD manager.
5	Cannot get UCB.
6	UCB not for requested unit.
7	Cannot get special device file.
8	Cannot open special device file. For SMD MHDs with UCB device_id field = 0 (first MHD on DFC, usually MHD 0 or 1): MHD type read from DFC backplane may not agree with MHD UCB equipage field or may not be read correctly by DFC TN65 or UN64 board.
9	Invalid message tag from DIAMON.
a	Cannot reset reserve bit.
b	sendw function error.
c	Cannot set u_tnum in UCB.
d	Request type from DIAMON not manual or auto.
e	Cannot set u_manrqst in UCB.
f	Cannot release special device file.
10	Abort request made using DIAMON. The reasons for abort request include:

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APP:DFC-H

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. REMOVE/RESTORE STOPPED CODES APPENDIX

Note: The codes are in hexadecimal notation.

Code	Description
1	Diagnostic had failures.
2	ROS (power control switch) is off normal.
3	Diagnostic request only, not remove or restore.
4	Unit is already active.
5	Unit is already out of service.
6	Unit is off-line.
7	Unit is unavailable (forced).
8	Unit is in the INIT state.
9	Unit is in the GROWTH state.
a	Diagnostic abort, request denied.
b	Unit is essential.

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APP:DFC-I

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. FAULT CODES APPENDIX

Note: The codes are in hexadecimal.

No fault:
00 = No fault (normal).

Peripheral faults with accompanying message:
b1 = Device reported error - device implicated - pio in progress.
b2 = Parity divert error - device implicated - pio in progress.
b3 = Channel error - device not implicated but possibly affected - pio in progress.
b4 = Device reported error - device implicated.
b5 = Direct memory access (DMA) addressing error - device implicated.
b6 = DMA used out of range (OOR) address - device implicated.
b7 = Channel error - device not implicated but possibly affected.

Peripheral faults without accompanying message:
b8 = Device reported error - cannot identify unit.
b9 = Parity divert error - cannot identify unit.
ba = Addressing error - cannot identify unit.

Configuration manager fault codes with accompanying message:
c3 = Informative - excessive recoverable errors.
c4 = Remove directive - excessive errors.
c5 = Remove request - attempt restoration of OOS usable unit.
c6 = Limp mode - attempt restoration of oos unusable unit.
c7 = Limp mode - no replacement avail.
c8 = Manual remove.
c9 = Unconditional remove.

Not seen by DRIVER; no accompanying message.
cb = Routine soft switch - pcpeih only.

Software errors without accompanying message:
d1 = Memory management - page invalid or not in memory.
d2 = Memory management - page index too large.
d3 = Memory management - segment invalid.
d4 = Memory management - segment index too large.
d5 = Illegal ost (from kernel).
d6 = Protection violation.
d7 = Byte or halfword addressing violation.
d8 = Instruction privilege violation.

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d9 = Illegal op code.

System initialization without accompanying message:
e1 = Substantial system recovery has occurred.
e2 = System initialization critical.

APP:DFC-J

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. EXTENDED SENSE LAYOUT APPENDIX

Exhibit A -- Extended Sense Data Format

```
-----------------------------------------------------------------
|    7    |    6    |    5    |    4    |    3    |    2    |    1    |    0    |
-----------------------------------------------------------------
```

Byte	Meaning
0	7 = Valid, 6 = Error class, 5-0 = Error code
1	7-0 =Segment number
2	7 = FM, 6 = EOM, 5 = ILI, 4 = R, 3-0 = Sense key
3	7-0 = Information byte (MSB)
4	7-0 = Information byte
5	7-0 = Information byte
6	7-0 = Information byte (LSB)
7	7-0 = Additional sense length (n)
8	7-0 = Command-specific information byte (MSB).
9	7-0 = Command-specific information byte.
10	7-0 = Command-specific information byte.
11	7-0 = Command-specific information byte (LSB).
12	7-0 = Additional Sense Code
13	7-0 = Additional sense code qualifier.
14	7-0 = Field replacement unit (FRU) code.
15	7 = SKSV, 6-0 = Sense-Key Specific

The "valid" bit indicates whether the information bytes contain valid data. If the valid bit is zero, the information bytes are not defined. If the valid bit is one, the information bytes contain valid information.

An error code of 70 (hex 0 specifies that the sense data is for a current condition. An error code value of 71 (hex) specifies that the sense data is for a deferred condition. Error code values 72 (hex) to 7E (hex) are reserved. Error code value 7F (hex) is for vendor-specific data formats. All other error code values are undefined.

The segment number contains the number of the current segment descriptor if extended sense is in response to a COPY, COMPARE, or COPY AND VERIFY messages. Up to 256 segments are supported beginning with segment zero.

The filemark (FM) bit indicates that the current message has read a filemark. This bit is only used for sequential-access devices.

The end-of-medium (EOM) bit indicates that an end-of-medium condition (end-of-tape, beginning-of-tape, out-of-paper, and so forth) exists on a sequential-access device or printer device. For sequential access devices, this bit indicates that the unit is at or past the early-warning end-of-tape if the direction was forward or that the message could not be completed because beginning-of-tape was encountered if the direction was reverse. Direct-access devices do not use this bit; instead, these devices report attempts to access beyond the end-of-medium as ILLEGAL REQUEST sense key [refer to Sense Keys 0 - 7 (hex) in the sense key listing].

The incorrect length indicator (ILI) bit indicates that the requested logical block length did not match the logical block length of the data on the medium.

R indicates reserved.

Exhibit B -- Sense Key Descriptions

Sense Key	Description
0x0	NO SENSE. Indicates that there is no specific sense key information to be reported for the designated logical unit. This is the case for a successful message or a message that received a CHECK CONDITION status because one of the FM, EOM, or ILI bits is set to one.
0x1	RECOVERED ERROR. Indicates that the last message completed successfully with some recovery action performed by the target controller. Details may be determined by examining the additional sense bytes and the information bytes.
0x2	NOT READY. Indicates that the logical unit addressed cannot be accessed. Operator intervention may be required to correct this condition.
0x3	MEDIUM ERROR. Indicates that the message terminated with a nonrecovered error condition that was probably caused by a flaw in the medium or an error in the recorded data.
0x4	HARDWARE ERROR. Indicates that the target controller detected a nonrecoverable hardware failure (for example, controller failure, device failure, parity error, etc.) while performing the message or during a self-test.
0x5	ILLEGAL REQUEST. Indicates that there was an illegal parameter in the message descriptor block or in the additional parameters supplied as data for some messages (FORMAT UNIT, SEARCH DATA, and so forth). If the target controller detects an invalid parameter in the message descriptor block, then it terminates the message without altering the medium. If the target controller detects an invalid parameter in the additional parameters supplied as data, then the target controller may have already altered the medium.
0x6	UNIT ATTENTION. Indicates that the removable medium may have been changed or the target controller has been reset.
0x7	DATA PROTECT. Indicates that a message that reads or writes the medium was attempted on a block that is protected from this operation. The read or write operation is not performed.
0x8	BLANK CHECK. Indicates that a write-once read-multiple device or a sequential-access device encountered a blank block while reading or a write-once read-multiple device encountered a nonblank block while writing.
0x9	Vendor specific. This sense key is available for reporting vendor specific conditions.
0xa	COPY ABORTED. Indicates a COPY, COMPARE, or COPY AND VERIFY message was aborted due to an error condition on the source device, the destination device, or both. (Refer to the COPY message for additional information about this sense key.)
0xb	ABORTED COMMAND. Indicates that the target controller aborted the message. The initiator may be able to recover by trying the message again.
0xc	EQUAL. Indicates a SEARCH DATA message has satisfied an equal comparison.
0xd	VOLUME OVERFLOW. Indicates that a buffered peripheral device has reached the end-of-medium and data remains in the buffer that has not been written to the medium. A RECOVER BUFFERED DATA message(s) may be issued to read the unwritten data from the buffer.
0xe	MISCOMPARE. Indicates that the source data did not match the data read from the medium.
0xf	This sense key is reserved.

The information bytes are device-type or message specific. If the valid bit is one, the information bytes contain information as follows:

A The unsigned logical block address associated with the sense key for direct-access devices (Type 0), write-once read-multiple devices(Type 4), and read-only direct-access devices (Type 5).

B The difference (residue) of the requested length minus the actual length in either bytes or blocks, s determined by the message for sequential-access devices (Type 1), printer devices (Type 2), and processor devices (Type 3). (Negative values are indicated by two's complement notation.)

C The difference (residue) of the requested number of blocks minus the actual number of blocks copied or compared for the current segment descriptor of a COPY, COMPARE, or COPY and VERIFY message.

D For sequential-access devices operating in buffered modes 1 or 2 that detect unrecoverable write errors when unwritten data blocks, filemarks, or setmarks remain in the buffer, the value of the information field for all messages shall be:

a The total number of data blocks, filemarks, and setmarks in the buffer if the device is in fixed block mode (block length field of the MODE SENSE block descriptor is non-zero and the fixed bit of the WRITE message is one).

b The number of bytes in the buffer, including filemarks and setmarks, if the device is

in variable mode (the fixed bit of the WRITE message is zero).

The additional sense length specifies the number of additional sense bytes to follow. If the allocation length of the message descriptor block is too small to transfer all of the additional sense bytes, the additional sense length is not adjusted to reflect the truncation.

The message-specific information bytes contain message specific data, peripheral device specific data, or both kinds of data that further define the nature of the CHECK CONDITION status. The COPY, COMPARE, COPY AND VERIFY, and SEARCH DATA messages define a standard purpose for some of these bytes. Except as described in these messages, the additional sense bytes are vendor unique.

The additional sense code (byte 12) may be applied with the same code by the target controller to extended and nonextended sense formats. The additional sense code 00 (hex) indicates that the target controller does not support any additional sense code for the related sense key or does not have any appropriate additional sense to return for the CHECK CONDITION status that it created. The additional sense codes are either defined, reserved, or vendor unique. The codes are allocated to the peripheral device type returned by the INQUIRY message. Some additional sense codes may be shared among various device types.

The additional sense code qualifier (byte 13) indicates detailed information related to the additional sense code. The additional sense code qualifier is optional.

Field replaceable unit code is used to define a device-specific mechanism or unit that has failed. A value of zero indicates that no specific mechanism or unit has been identified to have failed or that the data is not available. The field replacement unit code field is optional.

Exhibit C -- Additional Sense Code (ASC) and Additional Sense Code Qualifier (ASCQ) Assignments

Byte 12	Byte 13	ASC and ASCQ Assignments	Description
00	00	DTLPWRSOMC	No additional information.
00	01	T	Filemark detected.
00	02	T S	End-of-partition/medium detected.
00	03	T	Setmark detected.
00	04	T S	Beginning-of-partition/medium detected.
00	05	T S	End-of-data detected.
00	06	DTLPWRSOMC	I/O process terminated.
00	11	R	Audio play operation in progress.
00	12	R	Audio play operation paused.
00	13	R	Audio play operation successfully completed.
00	14	R	Audio play operation stopped due to error.
00	15	R	No current audio status to return.
01	00	D W O	No index/sector signal.
02	00	D WR OM	No "seek" complete.
03	00	DTL W SO	Peripheral device write fault.
03	01	T	No write current.
03	02	T	Excessive write errors.
04	00	DTLPWRSOMC	Logical unit not ready, cause not reportable.
04	01	DTLPWRSOMC	Logical unit is in process of becoming ready.
04	02	DTLPWRSOMC	Logical unit not ready; initialization message required.
04	03	DTLPWRSOMC	Logical unit not ready; manual intervention required.
04	04	DTL O	Logical unit not ready; format in progress.
05	00	DTL WRSOMC	Logical unit does not respond to selection.
06	00	D WR OM	No reference position found.
07	00	DTL WRSOM	Multiple peripheral devices selected.
08	00	DTL WRSOMC	Logical unit communication failure.
08	01	DTL WRSOMC	Logical unit communication time-out.
08	02	DTL WRSOMC	Logical unit communication parity error.
09	00	DT WR O	Track following error.
09	01	WR O	Tracking servo failure.
09	02	WR O	Focus servo error.
09	03	WR O	Spindle servo failure.
0A	00	DTLPWRSOMC	Error log overflow.

0B	00		
0C	00	T S	Write error.
0C	01	D W O	Write error recovered with auto reallocation.
0C	02	D W O	Write error - auto reallocation failed.
0D	00		
0E	00		
0F	00		
10	00	D W O	ID CRC or ECC error.
11	00	DT WRSO	Unrecovered read error.
11	01	DT W SO	Read retries exhausted.
11	02	DT W SO	Error too long to correct.
11	03	DT W SO	Multiple read errors.
11	04	D W O	Unrecovered read error - auto reallocate failed.
11	05	WR O	L-EC uncorrectable error.
11	06	WR O	CIRC unrecovered error.
11	07	W O	Data resynchronization error.
11	08	T	Incomplete block read.
11	09	T	No gap found.
11	0A	DT O	Miscorrected error.
11	0B	D W O	Unrecovered read error - recommend reassignment.
11	0C	D W O	Unrecovered read error - recommend rewrite the data.
12	00	D W O	Address mark not found for ID field.
13	00	D W O	Address mark not found for data field.
14	00	DTL WRSO	Recorded entity not found.
14	01	DT WR O	Record not found.
14	02	T	Filemark or setmark not found.
14	03	T	End-of-data not found.
14	04	T	Block sequence error.
15	00	DTL WRSOM	Random positioning error.
15	01	DTL WRSOM	Mechanical positioning error.
15	02	DT WR O	Positioning error detected by read of medium.
16	00	D W O	Data synchronization mark error.
17	00	DT WRSO	Recovered data with no error correction applied.
17	01	DT WRSO	Recovered data with retries.
17	02	DT WR O	Recovered data with positive head offset.
17	03	DT WR O	Recovered data with negative head offset.
17	04	WR O	Recovered data with retries and/or CIRC applied.
17	05	D WR O	Recovered data using previous sector ID.
17	06	D W O	Recovered data without ECC - data auto-reallocated.
17	07	D W O	Recovered data without ECC - recommend reassignment.
17	08	D W O	Recovered data without ECC - recommend rewrite.
18	00	DT WR O	Recovered data with error correction applied.
18	01	DT WR O	Recovered data with error correction and retries applied.
18	02	D WR O	Recovered data - data auto reallocated.
18	03	R	Recovered data with CIRC.
18	04	R	Recovered data with LEC.
18	05	D WR O	Recovered data - recommend reassignment.
18	06	D WR O	Recovered data - recommend rewrite.
19	00	D O	Defect list error.
19	01	D O	Defect list not available.
19	02	D O	Defect list error in primary list.
19	03	D O	Defect list error in grown list.
1A	00	DTLPWRSOMC	Parameter list length error.
1B	00	DTLPWRSOMC	Synchronous data transfer error.
1C	00	D O	Defect list not found.
1C	01	D O	Primary defect list not found.
1C	02	D O	Grown defect list not found.
1D	00	D W O	Miscompare during verify operation.
1E	00	D W O	Recovered ID with ECC correction.
1D	00	D W O	Miscompare during verify operation.
1E	00	D W O	Recovered ID with ECC correction.
1F	00		
20	00	DTLPWRSOMC	Invalid message operation code.
21	00	DT WR OM	Logical block address out of range.
21	01	M	Invalid element address.
22	00	D	Illegal function (should use 20 00, 24 00, or 26 00).
23	00		
24	00	DTLPWRSOMC	Invalid field in CDB.
25	00	DTLPWRSOMC	Logical unit not supported.
26	00	DTLPWRSOMC	Invalid field in parameter list.
26	01	DTLPWRSOMC	Parameter not supported.
26	02	DTLPWRSOMC	Parameter value invalid.

26	03	DTLPWRSOMC	Threshold parameters not supported.
27	00	DT W O	Write protected.
28	00	DTLPWRSOMC	Not ready to ready transition (medium may have changed.
28	01	M	Import or export element accessed.
29	00	DTLPWRSOMC	Power on, reset, or bus device reset occurred.
2A	00	DTL WRSOMC	Parameters changed.
2A	01	DTL WRSOMC	Mode parameters changed.
2A	02	DTL WRSOMC	Log parameters changed.
2B	00	DTLPWRSO C	Copy cannot execute since host cannot disconnect.
2C	00	DTLPWRSOMC	Command sequence error.
2C	01	S	Too many windows specified.
2C	02	S	Invalid combination of windows specified.
2D	00	T	Overwrite error on update in place.
2E	00		
2F	00	DTLPWRSOMC	Commands cleared by another initiator.
30	00	DT WR OM	Incompatible medium installed.
30	01	DT WR O	Cannot read medium - unknown format.
30	02	DT WR O	Cannot read medium - incompatible format.
30	03	DT	Cleaning cartridge installed.
31	00	DT W O	Medium format corrupted.
31	01	D L	Format message failed.
32	00	D W O	No defect spare location available.
32	01	D W O	Defect list update failure.
33	00	T	Tape length error.
34	00		
35	00		
36	00	L	Ribbon, ink, or toner failure.
37	00	DTL WRSOMC	Rounded parameter.
38	00		
39	00	DTL WRSOMC	Saving parameters not supported.
3A	00	DTL WRSOM	Medium not present.
3B	00	TL	Sequential positioning error.
3B	01	T	Tape position error at beginning-of-medium.
3B	02	T	Tape position error at end-of-medium.
3B	03	L	Tape or electronic vertical forms unit not ready.
3B	04	L	Slew failure.
3B	05	L	Paper jam.
3B	06	L	Failed to sense top-of-form.
3B	07	L	Failed to sense bottom-of-form.
3B	08	T	Reposition error.
3B	09	S	Read past end-of-medium
3B	0A	S	Read past beginning-of-medium.
3B	0B	S	Position past end-of-medium.
3B	0C	S	Position past beginning-of-medium.
3B	0D	M	Medium destination element full.
3B	0E	M	Medium source element empty.
3C	00		
3D	00	DTLPWRSOMC	Invalid bits in identify message.
3E	00	DTLPWRSOMC	Logical unit has not self-configured yet.
3F	00	DTLPWRSOMC	Target operating conditions have changed.
3F	01	DTLPWRSOMC	Microcode has been changed.
3F	02	DTLPWRSOMC	Changed operating definition.
3F	03	DTLPWRSOMC	Inquire data has changed.
40	00	D	RAM failure (should use 40 NN).
40	NN	DTLPWRSOMC	Diagnostic failure on component NN (0x80-0xff).
41	00	D	Data path failure (should use 40 NN).
42	00	D	Power-on or self-test failure (should use 40 NN).
43	00	DTLPWRSOMC	Message error.
44	00	DTLPWRSOMC	Internal target failure.
45	00	DTLPWRSOMC	Select or reselect failure.
46	00	DTLPWRSOMC	Unsuccessful soft reset.
47	00	DTLPWRSOMC	SCSI parity error.
48	00	DTLPWRSOMC	Initiator detected error message received.
49	00	DTLPWRSOMC	Invalid message error.
4A	00	DTLPWRSOMC	Command phase error.
4B	00	DTLPWRSOMC	Data phase error.
4C	00	DTLPWRSOMC	Logical unit failed self-configuration.
4D	00		
4E	00	DTLPWRSOMC	Overlapped messages attempted.
4F	00		
50	00	T	Write append error.
50	01	T	Write append position error.

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50	02	T	Position error related to timing.
51	00	T O	Erase failure.
52	00	T	Cartridge fault.
53	00	DTL WRSOM	Media load or eject failed.
53	01	T	Unload tape failure.
53	02	DT WR OM	Medium removal prevented.
54	00	P	SCSI to host system interface failure.
55	00	P	System resource failure.
56	00		
57	00	R	Unable to recover table-of-contents.
58	00	O	Generation does not exist.
59	00	O	Updated block read.
5A	00	DTLPWRSOM	Operator request or state change input (unspecified).
5A	01	DT WR OM	Operator medium removal request.
5A	02	DT W O	Operator selected write protect.
5A	03	DT W O	Operator selected write permit.
5B	00	DTLPWRSOM	Log exception.
5B	01	DTLPWRSOM	Threshold condition met.
5B	02	DTLPWRSOM	Log counter at maximum.
5B	03	DTLPWRSOM	Log list codes exhausted.
5C	00	D O	RPL status change.
5C	01	D O	Spindles synchronized.
5C	02	D O	Spindles not synchronized.
5D	00		
5E	00		
5F	00		
60	00	S	Lamp failure.
61	00	S	Video acquisition error.
61	01	S	Unable to acquire video.
61	02	S	Out of focus.
62	00	S	Scan head positioning error.
63	00	R	End of user area encountered on this track.
64	00	R	Illegal mode for this track.
65	00		
66	00		
67	00		
68	00		
69	00		
6A	00		
6B	00		
6C	00		
6D	00		
6E	00		
6F	00		
70	00		
71	00		
72	00		
73	00		
74	00		
75	00		
76	00		
77	00		
78	00		
79	00		
7A	00		
7B	00		
7C	00		
7D	00		
7E	00		
7F	00		
80	xx		Through FF xx are vender specific.
xx	80		Through xx FF are vendor specific qualification of standard ASC.

ASC and ASCQ assignments legend.

D = Direct access device.
T = Sequential access device.
L = Printer device.
P = Processor device.
W = Write once read multiple device.

R	= Read only (CD-ROM) device.
S	= Scanner device.
O	= Optical memory device.
M	= Media changer device.
C	= Communication device.

APP:DFC-K

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. SMALL COMPUTER SYSTEM INTERFACE (SCSI) JOB BLOCK (SJB) STRUCTURE LAYOUT APPENDIX

```
AABBCCDD EEEEEEEE FFFFFFFF GGGGGGGG HHHHHHHH IIIIIIIII JJJJJJJJ KK--LLLL
MMMMMMMM NNNNNNNN OOOOOOOO PPPPPPPP
```

General Notations:

In	= Input that is entered by firmware/pumpcode.
Out	= Output that is returned by small computer system interfac (SCSI) protocol controller (SPC) code.
Res	= Reserved for SPC code usage.

Device ID Information:

A	= SCSI bus number: 0 or 1.
B	= SCSI target controller number: 0 - 7.

General job information:

C = In. Job state - initiated by spc_job(), but updated by firmware/pumpcode. Valid value(s):

0	= Initial state of job when spc_job() returns.
1	= Job has been retried once.
2	= SCSI request sense message has been issued.
3	= Job has been retried twice.
4	= Job has completed successfully.
5	= Job has failed.

D = Out. Miscellaneous flags - used by the SPC to convey additional information to firmware/pumpcode Valid value(s):

1	= One or more RESTORE POINTERS messages received after host adapter (HA) direct memory access (DMA) was begun for this job.

E = In. Job ID code (optional).

F = Out. Function to be performed. Valid value(s):

0	= SCSI message.
!0	= Function code.

G = In. Time limit for job, in milliseconds.

!0	= Time limit.
0	= No time limit.

H = Out. Job completion code. Valid value(s):

0x00	= Job completed normally.
0x01	= Command was aborted.
0x02	= Reset was detected on the bus and was probably not caused by this job; it may or may not have been caused by this HA.
0x03	= Check the status byte.
0x04	= This HA reset the bus due to an unrecoverable error while processing this job.

0x05	= Job in progress.
0x06	= SCSI job block (SJB) contents error.
0x07	= Memory fault.
0x08	= The bus appears to be unterminated.
0x09	= The SCSI bus device select failed.
0x0a	= Job was flushed.
0x0b	= Target controller did not transfer all of the data.
0x0c	= Job timed out.
0x0d	= Insufficient DMA chain links.
0x0e	= Insufficient logical unit (LU) queue nodes.
0x0f	= The SCSI bus is off-line.
0x10	= HA detected SCSI bus parity error and terminated the job.

I = Res. Value returned from function timeout().

SCSI message information:

J = Out. Bytes of data not transferred.

K = Out. Target SCSI status byte. Valid value(s):

0x00	= Successful message completion.
0x02	= Check condition.
0x04	= Condition met good status.
0x08	= Busy.
0x10	= Intermediate good status.
0x14	= Intermediate condition met good.
0x18	= Reservation conflict.
0x22	= Command terminated.
0x28	= Queue full.
0xff	= Status not available.

L = In. Mode flags for current job. Valid value(s):

0x00	= Non-read message.
0x01	= Read message.
0x02	= External chaining.
0x04	= Read overlap is active.
0x80	= Immediate message.

M = In. Pointer to SCSI message.

N = In. Size of SCSI message in bytes.

O = In. Pointer to data buffer, or pointer to memory and 32104 DMA chain control node.

P = In. Size of data.

APP:DFC-L

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. INQUIRY LAYOUT APPENDIX

Exhibit A -- Standard INQUIRY Data Format

```
-----------------------------------------------------------------
|     7     |     6     |     5     |     4     |     3     |     2     |     1     |     0     |
-----------------------------------------------------------------
```

Byte	Meaning
0	7-5 = Peripheral qualifier, 4-0 = Peripheral device type
1	7 = RMB, 6-0 = Device-type qualifier
2	7-6 = ISO version, 5-3 = ECMA version, 2-0 = *ANSI*® version
3	7 = AENC, 6 = TrmIOP, 5-4 = Reserved, 3-0 = Response data format
4	7-0 = Additional length (n - 4)
5	7-0 = Reserved
6	7-0 = Reserved
7	7 = RelAdr, 6 = WBus32, 5 = WBus16, 4 = Sync, 3 = Linked, 2 = Reserved, 1 = CmdQue, 0 = SftRe
8 - 15	7-0 = Vendor identification (in ASCII)
16 - 31	7-0 = Product identification (in ASCII)
32 - 35	7-0 = Revision level (in ASCII)
36 - 95	7-0 = Vender specific
56 - 95	7-0 = Reserved
96 - n	7-0 = Vendor specific

The peripheral qualifier and peripheral device-type fields identify the device currently connected to the logical unit. If the target is not capable of supporting a device on this logical unit, this field will be set to 7F hex (peripheral qualifier set to 011 binary and peripheral device type set to 1F hex).

Exhibit B -- Peripheral Qualifier

Qualifier (binary)	Description
000	The specified peripheral device is currently connected to this logical unit. If the target cannot determine whether or not a physical device is currently connected, it will also use this peripheral qualifier when returning the INQUIRY data. ***NOTE:*** This peripheral qualifier does not imply that the device is ready for access by the initiator.
001	The target is capable of supporting the specified peripheral device type on this logical unit; however, the physical device is not currently connected to this logical unit.
010	Reserved.
011	The target is not capable of supporting a physical device on this logical unit. For this peripheral qualifier, the peripheral device type will be set to 1Fh to provide compatibility with previous versions of SCSI. All other peripheral device type values are reserved for this peripheral qualifier.
1XX	Vendor specific.

Exhibit C -- Peripheral Device Type Table

Code (hex)	Description
00	Direct-access device (such as, magnetic disk).
01	Sequential-access device (such as, magnetic tape).
02	Printer device.
03	Processor device.
04	Write-once read-multiple device (such as, some optical disks).
05	CD-ROM device.
06	Scanner device.
07	Optical memory device (such as, some optical disks).

08	Medium changer device (such as, jukeboxes).
09	Communication device.
0A - 0B	Defined by ASC IT8 (graphic arts pre-press devices).
0C - 1E	Reserved.
1F	Unknown or no device type.

A removable medium (RMB) bit of zero indicates that the medium is not removable. An RMB bit of one indicates that the medium is removable.

The gdevice-type qualifier field was defined in SCSI-1 to permit vendor-specific qualification codes of the device type. This field contains a g7-bit user-specified code, which may be set with switches or by some other means by the target controller or peripheral device. SCSI controllers that do not support this feature return all zero bits. This feature allows each user to assign unique codes to each specific type of peripheral device that is supported on the system being used. These codes may then be used by gself-configuring software to determine what specific peripheral device is at each logical unit number. This is especially valuable for systems that support multiple types of removable medium.

The usage of nonzero code values in the international standards organization (ISO) version and European computer manufacturers (ECMA) version fields are defined by the ISO and the ECMA, respectively. A zero code value in these fields indicates that the target controller does not claim compliance to the ISO or ECMA versions of SCSI. Note that it is possible to claim compliance to more than one of these SCSI standards.

The *ANSI*® version indicates the implemented version of the *ANSI*® standard and is defined in the following *ANSI*® version listing.

Exhibit D -- *ANSI*®-Approved Version

Code (hex)	Description
0	This device might or might not comply to an *ANSI*®-approved standard.
1	The device complies to *ANSI*® X3.131-1986 (SCSI-1).
2	This code is reserved to designate the SCSI-2 standard upon approval by *ANSI*®.
3 - 7	Reserved.

The asynchronous event notification capability (AENC) bit indicates that the device supports the asynchronous event notification capability:

A Processor device-type definition: An AENC bit of one indicates that the processor device is capable of accepting asynchronous event notifications. An AENC bit of zero indicates that the processor device does not support asynchronous event notifications.

B All other device types: This bit is reserved.

A terminate I/O process (TrmIOP) bit of one indicates that the device supports the TERMINATE I/O PROCESS message. A value of zero indicates that the device does not support the TERMINATE I/O PROCESS message.

The response data formats are given in the response data format exhibit that follows. Target controllers conforming to at least conformance level 2 and conforming to *ANSI*® X3.131-1986 (SCSI-1) set the common message set code (1 hex) in the response data format field.

Exhibit E -- Response Data Format

Code (hex)	Description:
0	SCSI-1
1	Common command set (CCS)
2	SCSI-2
3 - F	Reserved

The additional length byte specifies the length in bytes of the parameters. If the allocation length of the message

descriptor block is too small to transfer all of the parameters, the additional length is not adjusted to reflect the truncation.

A relative addressing (RelAdr) bit of one indicates that the device supports the relative addressing mode for this logical unit. If this bit is set to one, the linked message (Linked) bit will also be set to one since relative addressing can only be used with linked messages. A RelAdr bit of zero indicates the device does not support relative addressing for this logical unit.

A wide bus 32 (WBus32) bit of one indicates that the device supports 32-bit wide data transfers. A value of zero indicates that the device does not support 32-bit wide data transfers.

A wide bus 16 (WBus16) bit of one indicates that the device supports 16-bit wide data transfers. A value of zero indicates that the device does not support 16-bit wide data transfers.

If the values of both the WBus16 and WBus32 bits are zero, the device only supports 8-bit wide data transfers.

A synchronous transfer (Sync) bit of one indicates that the device supports synchronous data transfer. A value of zero indicates that the device does not support synchronous data transfer.

A linked message (Linked) bit of one indicates that the device supports linked messages for this logical unit. A value of zero indicates the device does not support linked messages for this logical unit.

A message queuing (CmdQue) bit of one indicates that the device supports tagged message queuing for this logical unit. A value of zero indicates the device does not support tagged message queuing for this logical unit.

A soft reset (SftRe) bit of zero indicates that the device responds to the RESET condition with the hard RESET alternative. A SftRe bit of one indicates that the device responds to the RESET condition with the soft RESET alternative.

SCSI devices that implement the hard reset alternative upon detection of the reset condition will:

A Clear all I/O processes including queued I/O processes.

B Release all SCSI device reservations.

C Return any SCSI device operating modes to their appropriate initial conditions, similar to those conditions that would be found after normal power-on reset. MODE SELECT conditions will be restored to their last saved values if saved values have been established. MODE SELECT conditions for which no values have been saved will be returned to their default values.

SCSI devices that implement the soft reset alternative upon detection of the reset condition will:

A Attempt to complete any I/O processes which have not completed and that were fully identified.

B Preserve all SCSI device reservations.

C Preserve any SCSI device operating modes (MODE SELECT, PREVENT/ALLOW MEDIUM REMOVAL messages, and so forth).

D Preserve all the information required to continue normal dispatching of I/O processes queued prior to the reset condition.

ACSII data fields contain only graphic codes (that is, code values 20 hex through 7E hex). Left-aligned fields will place any unused bytes at the end of the field (highest offset) and the unused bytes are filled with the space characters (20 hex). Right-aligned fields will pace any unused bytes at the start of the field (lowest offset) and the

unused bytes will be filled with space characters (20 hex).

The vendor identification field contains eight bytes of ASCII data identifying the vendor of the product. The data is left-aligned within this field.

The product identification field contains sixteen bytes of ASCII data as defined by the vendor. The data is lift-aligned within this field.

The product revision level field contains four bytes of ASCII data as defined by the vendor. The data is left-aligned within this field.

APP:DFC-M

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. HOST ADAPTER COMMAND DEFINITIONS APPENDIX

This appendix provides the definitions of the messages sent from the administrative module (AM) to the host adapter (HA). The messages are either one word or four words in size. If the message is a one-word message, the last three words in the output are unknown and undefined. Only those words which are used are defined in this document.

The leftmost five bits of the first word of each message is the message operation code (opcode). Apply the following bit-field template to the first word of the message to determine the message opcode, then find that opcode in Exhibit A to determine which format should be used to decipher the remainder of the message.

Sample:

```
aaaa axxx xxxx xxxx xxxx xxxx xxxx xxxx
```

Where:

`a` = Operation code (opcode).

`x` = Command specific.

Exhibit A

Hex:	Explanation:	Format:
0x0 (0)	No-op message.	1
0x1 (1)	Invalid message.	2
0x2 (2)	Tape message.	2
0x3 (3)	Version message.	3
0x4 (4)	Reserve/unreserve message.	4
0x5 (5)	Retry message.	5
0x6 (6)	Wakeup message.	5
0x7 (7)	Change DFC options message.	6
0x8 (8)	Resume message.	5
0x9 (9)	Reset disk message.	6
0xa (10)	Change MHD mode message.	7
0xb (11)	Sysgen message.	8
0xc (12)	Change DFC mode message.	9
0xd (13)	Boot message.	10
0xe (14)	jcistat message.	11
0xf (15)	Abort message.	12
0x10 (16)	Read DFC RAM message.	13
0x11 (17)	Read disk message.	14
0x12 (18)	Explicit SCSI message.	15
0x13 (19)	Verify disk message.	16
0x14 (20)	Invalid message.	13
0x15 (21)	Invalid message.	13
0x16 (22)	Invalid message.	13
0x17 (23)	Invalid message.	13
0x18 (24)	Write DFC ram message.	13
0x19 (25)	Write disk message.	17
0x1a (26)	Pump message.	18
0x1b (27)	Format message.	19
0x1c (28)	Request device status message.	20
0x1d (29)	Diagnostic helper message.	21
0x1e (30)	Disk-to-disk copy message.	22
0x1f (31)	Diagnose DFC or disk message.	23

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FORMATS

```
[1]    ;aaaa abbb bbbb bbbb bbbb bbbb bbbb bccc
```

a = Opcode.

b = Must be all zeros.

c = Peripheral I/O sub-subsystem (PIO) destination bits.

```
[2]    ;aaaa abbb bbbb cccc dddd deee eeee exxxx
       ;ffff ffff ffff ffff ffff ffff ffff ffff
       ;gghh hhhh hhhh hhhi iiii iiii iiii iiii
       ;jjjj jjjj jjjj jjjj jjjj jjjj jjjj jjjj
```

a = Opcode.

b = Tape message operation. Valid value(s):

0x1	= Erase medium.
0x2	= Load - enable tape unit.
0x3	= Locate.
0x4	= Read position.
0x5	= Read reverse.
0x6	= Read forward.
0x7	= Rewind.
0x8	= Space forward.
0x9	= Space reverse.
0xa	= Tape setup options.
0xb	= Set tape speed.
0xc	= Unload - disable tape unit.
0xd	= Verify.
0xe	= Write.
0x10	= Set variable recode mode.
0x11	= Set fixed record mode.

c = Small computer system interface (SCSI) bus and device ID.

d = Tape options (depends on the tape operation).

e = Job ID assigned by the AM.

x = Not used and undefined.

f = Block number (depends on the tape operation). Valid value(s):

Read	= Tape block number.
Write	= Tape block number.
Write filemarks	= Number of filemarks
Tape setup	= Tape blocking factor.
Space	= Number of entities to space over.

g = Number of bytes to ignore.

h = Job time limit in seconds.

i = Byte offset into the AM segment.

j = AM transfer length in words for read or write.

```
[3]    ;aaaa abbb bbbb bbbb bbbb cddd dddd deee
```

a = Opcode.

b = Data address in AM mainstore.

c = Version requested. Valid value(s):
- 1 = Request for firmware version number.
- 0 = Request for pumpcode version number.

d = Job ID assigned by AM.

e = PIO destination bits.

```
[4]    ;aaaa abxx xxxx cccc xxxx xddd dddd deee
```

a = Opcode.

b = Type of message. Valid value(s):
- 0 = Unreserve.
- 1 = Reserve.

x = Not used and undefined.

c = Small computer system interface (SCSI) bus and device ID.

d = Job ID assigned by the AM.

e = PIO destination bits.

```
[5]    ;aaaa axxx xxxx xxxx xxxx xxxx xxxx xbbb
```

a = Opcode.

x = Not used and undefined.

b = PIO destination bits.

```
;aaaa axxx xxxx bbbb xxxx xccc cccc cddd
```

a = Opcode.

x = Not used and undefined.

b = SCSI bus and device ID.

c = Job ID assigned by the AM.

d = PIO destination bits.

[7] ;aaaa abxx xxxx cccc xxxx xddd dddd deee

a = Opcode.

b = New maintenance mode. Valid value(s):
0 = Device is online.
1 = Device is offline.

x = Not used and undefined.

c = SCSI bus and device ID.

d = Job ID assigned by the AM.

e = PIO destination bits.

[8] ;aaaa axxx xxxx bbbb bbbb bbbb bbbb bccc

a = Opcode.

x = Not used and undefined.

b = Sysgen data block addr.

c = PIO destination bits.

[9] ;aaaa abxx xcde ffff xxxx xggg gggg ghhh

a = Opcode.

b = New maintenance mode. Valid value(s):
0 = Device is online.
1 = Device is offline.

c = Select DFC. Valid value(s):
0 = Device is not selected.
1 = Device is selected.

d = Select SCSI bus 1. Valid value(s):
- 0 = Bus is not selected.
- 1 = Bus is selected.

e = Select SCSI bus 0. Valid value(s):
- 0 = Bus is not selected.
- 1 = Bus is selected.

x = Not used and undefined.

f = SCSI bus and device ID.

g = Job ID assigned by the AM.

h = PIO destination bits.

Note: If 'c', 'd' and 'e' are all 0 all three are selected.

```
[10]   ;aaaa abcc cccc dddd eeee eeee eeee efff
```

a = Opcode.

b = Retry boot job.

c = Number of disk blocks to read.

d = SCSI bus and device ID.

e = Starting disk block number.

f = PIO destination bits.

```
[11]   ;aaaa axxx xxxx xxxx bxxx xxxx xxxx xccc
```

a = Opcode.

x = Not used and undefined.

b = More jobs in submit queue. Valid value(s):
- 0 = No jobs in submit queue.
- 1 = At least one job in submit queue.

c = PIO destination bits.

```
[12]   ;aaaa abxx xxxx xxxx xxxx xxxx xxxx xccc
```

a = Opcode.

b = Option.

x = Not used and undefined.

c = PIO destination bits.

```
[13]   ;aaaa axxx xxxx bbbb xxxx xccc cccc cxxx
       ;dddd dddd dddd dddd dddd dddd dddd dddd
       ;xxxx xxxx xxxx xxxe eeee eeee eeee eeee
       ;ffff ffff ffff ffff ffff ffff ffff ffff
```

a = Opcode.

x = Not used and undefined.

b = SCSI bus and device ID.

c = Job ID assigned by the AM.

d = HA RAM address.

e = Data address in mainstore.

f = Number of words to be transferred.

```
[14]   ;aaaa abxx xxxx cccc xxxx xddd dddd dxxx
       ;eeee eeee eeee eeee eeee eeee eeee eeee
       ;xxxx xxxx xxxx xxxf ffff ffff ffff ffff
       ;gggg gggg gggg gggg gggg gggg gggg gggg
```

a = Opcode.

b = Retry on job failure.

x = Not used and undefined.

c = SCSI bus and device ID.

d = Job ID assigned by the AM.

e = Starting disk block number.

f = Data address in mainstore.

g = Number of words to be transferred.

```
[15]   ;aaaa abcd dddd eeee fggg ghhh hhhh hiii
       ;jjjj jjjj jjjj jjjk kkkk kkkk kkkk kkkk
       ;llll llll llll lllm mmmm mmmm mmmm mmmm
       ;nnnn nnnn nnnn nnno oooo oooo oooo oooo
```

a = Opcode.

b = Indicates a slow SCSI message.

c = Command is done with minimum error checks and no recovery. Valid value(s):
- 0 = Do not just do the message.
- 1 = Just do the message.

d = SCSI message options. Valid value(s):
- 0 = No data to transfer to or from SCSI device.
- 1 = Data is transferred to SCSI device.
- 2 = Data is transferred from SCSI device.
- 3 = Send message to reset SCSI bus 0.
- 4 = Send message to reset SCSI bus 1.
- 5 = Send "abort" message to device.
- 6 = Send "reset device" message to device.

e = SCSI bus and device ID.

f = Device may use two SCSI devices. Valid value(s):
- 0 = Command does not use two devices.
- 1 = Command uses two devices.

g = Second SCSI bus and device ID.

h = Job ID assigned by the AM.

i = Job time limit in minutes for slow jobs.

j = Size of SCSI cmd in bytes.

k = Address of SCSI message in AM memory.

l = Size of response in bytes.

m = Address of response to SCSI message in AM memory.

n = Number of bytes of data to be transferred.

o = Address of data to be transferred in AM memory.

```
[16]   ;aaaa axxx xxxx bbbb xxxx xccc cccc cxxx
       ;dddd dddd dddd dddd dddd dddd dddd dddd
       ;xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx
       ;xxxx xxxx xxxx xxxx ffff ffff ffff ffff
```

a = Opcode.

x = Not used and undefined.

b = SCSI bus and device ID.

c = Job ID assigned by the AM.

d = Starting disk block number.

e = Number of disk blocks to be verified.

```
[17]   ;aaaa axxx xxxx bbbb xxxx xccc cccc cxxx
       ;dddd dddd dddd dddd dddd dddd dddd dddd
       ;xxxx xxxx xxxx xxxe eeee eeee eeee eeee
       ;ffff ffff ffff ffff ffff ffff ffff ffff
```

a = Opcode.

x = Not used and undefined.

b = SCSI bus and device ID.

c = Job ID assigned by the AM.

d = Starting disk block number.

e = Data address in mainstore.

f = Number of words to be transferred.

```
[18]   ;aaaa axxx xxxx bbbb cddd deee eeee exxx
       ;ffff ffff ffff ffff ffff ffff ffff ffff
       ;xxxx xxxx xxxx xxxg gggg gggg gggg gggg
       ;hhhh hhhh hhhh hhhh hhhh hhhh hhhh hhhh
```

a = Opcode.

x = Not used and undefined.

b = SCSI bus and device ID.

c = Auto-vector at end of pump. Valid value(s):
- 0 = Do not auto-vector.
- 1 = Auto-vector.

d = DFC pump options. Valid value(s):
- 1 = Pump from disk.
- 2 = Begin pump from AM RAM.
- 6 = Continue pump from AM RAM.

e = Job ID assigned by the AM.

f = Starting disk block number.

g = Data address in mainstore.

h = Number of words to be pumped.

```
[19]   ;aaaa abbx xxxx cccc xxxx xddd dddd dxxx
       ;eeee eeee xxxx xxxx xfgh hhii jjjj jjjj
       ;kkkk kkkk kkkk kkkl llll llll llll llll
       ;mmmm mmmm nnnn nnnn oooo oooo pppp pppp
```

a = Opcode.

b = Format options. Valid value(s):
- 1 = No header or defect list provided by AM
- 2 = Header only provided by AM
- 3 = Both header and defect list provided by AM

x = Not used and undefined.

c = SCSI bus and device ID.

d = Job ID assigned by the AM

e = Time limit for format messages.

f = Format data.

g = Complete list.

h = Defect list format.

i = Vendor unique data 2.

j = Vendor unique data 1.

k = Flaw data length in bytes.

l = Flaw data mainstore address.

m = Format header byte 0.

n = Format header byte 1.

o = Format header byte 2.

p = Format header byte 3.

```
[20]   ;aaaa axxx xxxx bbbb xxxx xccc cccc cxxx
       ;xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx
       ;xxxx xxxx xxxx xxxd dddd dddd dddd dddd
       ;eeee eeee eeee eeee eeee eeee eeee eeee
```

a = Opcode.

x = Not used and undefined.

b = SCSI bus and device ID.

c = Job ID assigned by the AM.

d = Data address in mainstore.

e = Number of words to be transferred.

```
[21]   ;aaaa abbb bbbb bbbb bbbb bbbb bbbb bccc
```

a = Opcode.

b = Diagnostic control data.

c = PIO destination bits.

```
[22]   ;aaaa axxx xxxx bbbb xccc cddd dddd dxxx
       ;eeee eeee eeee eeee eeee eeee eeee eeee
       ;ffff ffff ffff ffff ffff ffff ffff ffff
       ;gggg gggg gggg gggg gggg gggg gggg gggg
```

a = Opcode.

x = Not used and undefined.

b = Source SCSI bus and device ID.

c = Destination SCSI bus and device ID.

d = Job ID assigned by the AM.

e = Starting source disk block number.

f = Starting destination disk block number.

g = Number of disk blocks to be copied.

```
[23]   ;aaaa abbb bbbb cccc dddd deee eeee efff
```

a = Opcode.

b = Diagnostic control data.

c = SCSI bus and device ID.

d = Device type selected. Valid value(s):
0 = Disk.
1 = DFC.

`e` = Job ID assigned by the AM.

`f` = PIO destination bits.

APP:DFC-N

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. HOST ADAPTER STATUS REGISTER (FW/PC versions 7.0 and 8.0)

Bit	Description:
31	Power on reset
30	Waiting for administrative module (AM) DMAC
29	Power disconnect one
28	Power disconnect zero
27	Over temperature bus 1
26	Over temperature bus 0
25	Mask interrupt level 9
24	Mask interrupt level 10
23	Direct memory access controller (DMAC) channel 1 flush
22	Small computer system interface (SCSI) bus 1 enable
21	SCSI bus 1 receive bad parity
20	SCSI bus 1 send bad parity
19	DMAC channel 0 flush
18	SCSI bus 0 enable
17	SCSI bus 0 receive bad parity
16	SCSI bus 0 send bad parity
15	Address overlap inactive
14	Mask interrupt level 11
13	Mask interrupt level 13
12	DMAC channel 1 high priority
11	Diagnostics passed
10	Fault caused by diagnostics
09	Spare
08	Diagnostics in progress
07	Force bad parity byte 3
06	Force bad parity byte 2
05	Force bad parity byte 1
04	Force bad parity byte 0
03	Bus interface controller (BIC) access error
02	Parity error on static random access memory (SRAM)
01	Write protect violation
00	Sanity failure

The HA central processing unit (CPU) can read this register a byte at a time and write to each bit individually with each bit having a unique address. The HA status register bits are also controlled by individual jam sets derived from asynchronous events on the HA board. All the bits are cleared on the "Power On" reset or the "HA Reset". The detailed description of each bit is given below.

Bit 31 (Power on reset) = This bit is set after the power on reset. This bit differentiates between the two resets, the power on reset and the HA reset.

Bit 30 (HA waiting for AM DMAC) = This bit is set using software when the HA is waiting for the AM DMAC to complete a transfer of data between the AM and the HA. After the HA detects completion of the transfer, the bit is cleared using software.

Bit 29 (Power disconnect one) = This bit is reserved for use by the HA CPU to disconnect SCSI bus 1.

Bit 28 (Power disconnect zero) = This bit is reserved for use by the HA CPU to disconnect SCSI bus 0.

Bit 27 (Over temperature one) = This bit is reserved for a possible future application.

Bit 26 (Over temperature zero) = This bit is reserved for a possible future application.

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Bit 25 (Mask interrupt level 9) = When this bit is set by the software control, level 9 interrupt to the HA CPU is selectively masked regardless of the interrupt priority level (IPL) of the HA CPU in the processor status word (PSW). In a special case, when this bit is set after the interrupt occurs but before it is recognized by the HA CPU, the interrupt will be negated and will not be recognized by the HA CPU (unless the interrupt is still present after the mask bit is cleared).

Bit 24 (Mask interrupt level 10) = Same as bit 25 except the interrupt level is 10.

Bit 23 (DMAC channel 1 flush) = When '0', the DMAC channel operates normally. When '1', any incoming bytes from SCSI bus that are buffered in the DMAC are flushed and channel operation is terminated.

Bit 22 (SCSI bus 1 enable) = Enables SCSI bus 1. When '0', SCSI bus drivers and receivers are disabled. When '1', drivers and receivers are enabled.

Bit 21 (SCSI bus 1 receive bad parity) = When this bit is set by the software, a bad parity is received on the SCSI bus 1. This bit is cleared on the RESET.

Bit 20 (SCSI bus 1 send bad parity) = When this bit is set, a bad parity is sent to the SCSI bus 1 for diagnostic purposes. This bit is cleared on the RESET.

Bit 19 (DMAC channel 0 flush) = Same as bit 23 but for SCSI bus 0.

Bit 18 (SCSI bus 0 enable) = Same as bit 22 but for SCSI bus 0.

Bit 17 (SCSI bus 0 receive bad parity) = Same as bit 21 but for SCSI bus 0.

Bit 16 (SCSI bus 0 send bad parity) = Same as bit 20 but for SCSI bus 0.

Bit 15 (Address overlap inactive) = This bit is set or cleared by the software writing a '1' or '0' in the HASR bit 15 respectively. When this bit is set, address overlap is inactive. This bit is cleared on the RESET or after interrupt 15 to the HA CPU, so that just after the HA reset or memory fault, the address overlap is active and the system operates through EPROM.

Bit 14 (Mask interrupt level 11) = When this bit is set by the software, level 11 interrupt (information present in BIC message register) is selectively masked regardless of the IPL value of the PSW in the HA CPU. This bit functions similar to the bit 25 in the HASR.

Bit 13 (Mask interrupt level 13) = Same as bit 25 except the interrupt level is 13.

Bit 12 (DMAC channel 1 high priority) = This bit selects which SCSI bus has higher HA DMAC priority.

Bit 11 (Diagnostics passed) This bit is set or cleared by the software writing a '1' or '0' ,respectively, in the HASR bit 11. When this bit is set, it indicates that the diagnostics have passed. This bit is cleared on a RESET.

Bit 10 (Fault caused by diagnostics) = This bit is set or cleared by the software by writing '1' or '0' ,respectively, in the HASR bit 10. Diagnostics set this bit before initiating an error on the board to distinguish between an actual error and an error caused by the diagnostic test.

Bit 9 (Spare) = Spare bit.

Bit 8 (Diagnostics in progress) = This bit is set or cleared by the software writing a '1' or '0', respectively, in the HASR bit 8. When set, it indicates that the diagnostics are in progress.

Bit 7 (Force bad parity on byte 3) = When this bit is set, a bad parity is generated on byte 3 of HA SRAM during a write operation. This bit is set or cleared by the software by writing a '1' or '0', respectively, in the HASR bit 7. This bit is cleared on a RESET.

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Bit 6 (Force bad parity on byte 2) = When this bit is set, in the HASR, a bad parity is generated on byte 2 of HA SRAM during the write operation. This bit is set or cleared by the software by writing a '1' or '0', respectively, in the HASR bit 6. This bit is cleared on a RESET.

Bit 5 (Force bad parity on byte 1) = When this bit is set, a bad parity is generated on byte 1 of HA SRAM during a write operation. This bit is set or cleared by the software by writing a '1' or '0', respectively, in the HASR bit 5. This bit is cleared on a RESET.

Bit 4 (Force bad parity on byte 0) = When this bit is set, a bad parity is forced on the byte 0 of the HA SRAM during a write operation. This bit is set or cleared by the software by writing a '1' or '0', respectively, in the HASR bit 4. This bit is cleared on a RESET.

Bit 3 (BIC access error) = This bit is set when the HA CPU or the HA DMAC tries to access the FIFO or BIC registers when the access is inhibited (the status bit "BIC - HA CPU interface enabled" in the BIC status register is not set). It also generates an interrupt (level 13) to the HA CPU if it is not masked.

Bit 2 (Parity error) = This bit is set by the parity checker/generator when the parity error is detected while reading the HA SRAM. This bit can also be set or cleared by the software. It is cleared on RESET. A level 15 interrupt is also generated when the parity error is detected on the read operation on the HA SRAM.

Bit 1 (Write protect violation) = This bit is set when the microbus master tries to write in to the write protected area of the HA SRAM. A level 15 interrupt is generated to the HA CPU when this bit is set. This bit can also be set or cleared by the software.

Bit 0 (Sanity failure) = This bit is set when the sanity timer times out. A non-maskable interrupt is generated when the sanity failure occurs. This bit can also be set or cleared by the software.

HOST ADAPTER STATUS REGISTER (FW/PC version 9.0)

Bit	**Description:**
31	Spare
30	AM DMA transfer in progress
29	Spare
28	Spare
27	Spare
26	Spare
25	Mask (hide) SPC-B interrupt
24	Mask (hide) SPC-A interrupt
23	Spare
22	Enable SCSI Bus-B bus drivers
21	Spare
20	Spare
19	Spare
18	Enable SCSI Bus-A bus drivers
17	Spare
16	Mask (inhibit) setting the QUICC bus clear (QBC) bit
15	Write protect violation
14	Mask (hide) message present interrupt (4)
13	Swap AUICC-1 and SPC interrupt levels (3/2 to 2/3)
12	QUICC-0 IDMAs have higher priority than QUICC-1
11	Diagnostics passed
10	Fault caused by diagnostics
09	Enable EOT signal as interrupt source
08	Diagnostics in progress
07	Force bad parity - microbus byte 3 (07-00)
06	Force bad parity - microbus byte 2 (15-08)
05	Force bad parity - microbus byte 1 (23-16)
04	Force bad parity - microbus byte 0 (31-24)
03	BIC access error
02	Parity error on SRAM
01	QUICC bus clear
00	Sanity failure.

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The HA central processing unit (CPU) can read this register a byte at a time and write to each bit individually with each bit having a unique address. The HA status register bits are also controlled by individual jam sets derived from asynchronous events on the HA board. All the bits are cleared on the "Power On" reset or the "HA Reset".

Bit 31 = Spare bit.

Bit 30 - (AM DMA transfer in progress) = This bit is set to '1' by HA software to indicate that a 3B21D DMA transfer is in progress.

Note: There are cases when AM DMA is in progress and the bit is not set.

Bit 29 = Spare bit.

Bit 28 = Spare bit.

Bit 27 = Spare bit.

Bit 26 = Spare bit.

Bit 25 [Mask (hide) SPC-B interrupt) = This bit is set to '1' by software to block interrupts from SPC-B. The output from this bit is used by the interrupt logic inside the FPGA.

Bit 24 [Mask (hide) SPC-A interrupt) = This bit is set to '1' by software to inhibit interrupts from SPC-A. The output from this bit is used by the interrupt logic inside the FPGA.

Bit 23 = Spare bit.

Bit 22 (Enable SCSI Bus-B drivers) = The SCSI bus drivers are enabled when this bit is set to '1' and disabled when this bit is '0' (that is, tri-stated).

Bit 21 = Spare bit.

Bit 20 = Spare bit.

Bit 19 = Spare bit.

Bit 18 (Enable SCSI Bus-A drivers) = The SCSI bus drivers are enabled when this bit is set to '1' and disabled when this bit is inactive '0' (that is, tri-stated).

Bit 17 = Spare bit.

Bit 16 [Mask (inhibit) setting the QUICC bus clear bit] = This bit is always set to '1' by HA software to prevent the HA CPU interrupt pending output from setting QUICC bus clear HASR bit.

Bit 15 (Write protect violation) = This bit is set to '1' by software when the bus master attempts to write into a protected area of SRAM.

Bit 14 [Mask (hide) message present interrupt level 4] = This bit is set to '1' by HA software to inhibit the BIC message interrupt. This masking is independent of the interrupt priority mask in the HA CPU's status register.

Bit 13 [Swap QUICC-1 and SPC interrupt levels (3/2 to 2/3)] = This bit is set to '1' by HA software to make the QUICC-1 interrupt a level 2 interrupt and the SPC interrupt a level 3 interrupt. When this bit is not set '0', the QUICC-1 interrupt is level 3 and the SPC interrupt is level 2.

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Bit 12 (QUICC-0 IDMAs have high priority than QUICC-1) = This bit is set to '1' by HA software to give bus requests from the QUICC-0 IDMA channels higher priority than the request from the QUICC-1 IDMA channels. HA software can only change the state for this bit when the IDMAs are idle.

Bit 11 (Diagnostics passed) = This bit is set to '1' by HA diagnostic software to indicate that diagnostics have passed.

Bit 10 (Fault caused by diagnostics) = This bit is set to '1' by HA diagnostics software before it causes an error to distinguish between an operational error and an error caused by a diagnostic test.

Bit 9 (Enable EOT signal as interrupt source) = This bit is set to '1' by HA software to enable the EOT signal as level 3 interrupt source in place of the AM read/write complete interrupt source from QUICC-1 timer 4. Note that software must disable the AM read/write complete interrupt as as separate operation. This bit is used in the interrupt logic inside the FPGA.

Bit 8 (Diagnostics in progress) = This bit is set to '1' by HA diagnostic software to indicate when diagnostic execution is in progress.

Bit 7 [Force bad parity - microbus byte 3 (07-00)] = This bit is set to '1' by the HA diagnostic software to force bad parity onto the HA CPU data bus and write bad parity into the SRAM or BIC FIFO. This bit is not set by hardware.

Bit 6 [Force bad parity - microbus byte 2 (15-00)] = This bit is set to '1' by the HA diagnostic software to force bad parity onto the HA CPU data bus and write bad parity into the SRAM or BIC FIFO. This bit is not set by hardware.

Bit 5 [Force bad parity - microbus byte 1 (23-16)] = This bit is set to '1' by the HA diagnostic software to force bad parity onto the HA CPU data bus and write bad parity into the SRAM or BIC FIFO. This bit is not set by hardware.

Bit 4 [Forced bad parity - microbus byte 0 (31-24)] = This bit is set to '1' by the HA diagnostic software to force bad parity onto the HA CPU data bus and write bad parity into the SRAM or BIC FIFO. This bit is not set by hardware.

Bit 3 (BIC access error) = This bit is set to '1' using hardware when the bus master attempts to access the BIC FIFO when the access is inhibited. The output of this bit triggers a level 6 interrupt to the HA CPU.

Bit 2 (Parity error on SRAM) = This bit is set to '1' using hardware when a parity error is detected during an SRAM read. The output of this bit triggers a level 6 interrupt to the HA CPU.

Bit 1 (QUICC bus clear) = This bit is set to '1' using hardware by the interrupt pending output from the HA CPU. Can also be set to '1' and cleared '0' by HA software. The output from this register bit goes to the bus clear inputs of QUICC-0 and QUICC-1.

Bit 0 (Sanity failure) = This bit is set to '1' using hardware when the HA sanity timer times out.

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APP:DFC-O

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. VERSION STRUCTURE BIT LAYOUT APPENDIX

```
aaaa bbbb bbcc cccc dddd eeee ffff ffff
```

a = Host adapter (HA) software version number.

b = HA software issue number.

c = HA software point issue number.

d = HA software EDI tens digit number.

e = HA software EDI units digit number.

f = HA software EDI character in American Standard Code for Information Interchange (ASCII).

Note: If all of the bits in the version structure layout are "1", the information is not obtainable.

For firmware version 7.1.0-04A, the values in the version number, issue number, and EDI fields must be identical to the values in the same fields in the pumpcode version in order for the firmware and pumpcode to be compatible.

For all other firmware versions, the values in the version number and issue number fields must be identical to the values in the same fields in the pumpcode version in order for the firmware and pumpcode to be compatible.

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APP:DFC-P

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. HOST ADAPTER SHADOW REGISTER APPENDIX

The host adapter (HA) shadow register provides information about the HA status at the time of the HA's last reset. All fields except the last field provide a snapshot of HA status immediately prior to the last HA reset. The last field provides a snapshot of HA status immediately after the last HA reset. The HA status register is known as the HASR.

HA shadow register layout:

```
abcd efgh ijkl mnop qqqq qqqq rrrr rrrr
```

APP:ENVIR

Software Release: 5E10 and later
Message Class: N/A
Application: 5
Type: Output

1. ENVIRONMENT TO PATHNAME CROSS REFERENCE

Environment	Pathname	Description
3BSWA		Swab bytes in files for other machines.
ABTAM	/cft/shl/cmds/ABT/AMATAPE	Abort automatic message accounting (AMA) tape writing process.
AIM	/no5text/prc/aim	Application integrity monitor.
ALSAM	/cft/shl/cmds/ALW/AMA/SESSION	Allow AMA session.
ALTAM	/cft/shl/cmds/ALW/AMA/ALLTOST	Allow automatic AMA tape writing.
AMDW	/no5text/prc/amdwic /no5test/prc/amdwoc	AMA message disk writer kernel process.
AMVM	/no5text/prc/AMvm	AMA English translation *UNIX*® process
APDL	/no5text/prc/apdl	Application processor data link process.
APPRC	/usr/bin/apprc	Recent change (RC) maintenance control center.
AUDIT	/no5text/rcv/SODD/p5err	PRL checks for static ODD (SODD) audits
AUDUTIL	/no5text/rcv/SODD/RCsoddaud	Automated static ODD (SODD) audits control process
BINTOASC	/no5text/rcv/SODD/DBbintoasc	translation of a relation attribute to ASCII
BKCNTL	/no5text/rcv/bkcntl	Office-dependent data (ODD) backup control *UNIX*® RTR process.
BOCNTL	/no5text/prc/SIrcbk	RC backup control *UNIX*® RTR process.
CCSINIT	/no5text/prc/ccsinit	Common channel signaling initialization.
CCpgeupdt	/no5text/hm/CCpgeupdt	(CCS).
CFILEAM	/cft/shl/cmds/OP/AMA/CONTROLFILE	Output contents of AMA control file.
CMKP	/no5text/prc/cmkp	Communication package kernel process.
CMP-AP	CMP application processor.	
CMP-MSGH	/no5text/prc/cmpmsgh.out	CMP message handler processor.
CMP-OUT	/no5text/prc/cmp.out	
CMPPUMP	/no5text/prc/cmppump	CMP pump process.
COTDL		Customer-originated trace data link.
CPBKUP		Database backup *UNIX*® RTR process for AM.
CPIMCTL		AM-SM Control.
CPDIAGC	/no5text/diag/dgnc/cpdiag	AM diagnostic control.
CPRS	/no5text/diag/dgnc/cprs	Diagnostic (DG).
CPTLPR	/no5text/diag/dgnc/cptlpr	AM trouble locating procedure process (for CM hardware).
CTRD	/no5text/tm/CTrd	Terminal maintenance (TM).
CTWR	/no5text/tm/CTwr	TM.
DB3BBSTUNX		Redundant bit map recovery process.
DBAMGRW	/no5text/rcv/amgrw	AM ODD size growth process
DBCP3BEDPKG	/usr/bin/odbe	*UNIX*® RTR product for office database editor (ODBE).
DBNRGRWUNX		Non-redundant ODD growth.
DBODDCRT	/no5text/rcv/oddcrt	SM core ODD growth process
DBODDGRW	/no5text/rcv/oddgrw	AM ODD growth.
DBODDRM	/no5text/rcv/oddrm	ODD remove growth process
DBRGRWUNX		Redundant ODD growth.
DBSACNVT		Converts an RSM to a stand-alone module.
DBUGRWUNX		Unprotected ODD growth.
DGCPSUPC	/no5text/prc/DGcpsupc	AM diagnostic supervisor.
DGPSUP	/no5text/prc/DGsup	DG paging supervisor.
DMAM		Diagnostic maintenance administrator.
DMON	/no5text/diag/dgnc/dmon	Diagnostic monitor.
DWAM	/no5text/prc/amdwic	DG.
ECAP	/no5text/as/ECap	EADAS *UNIX*® RTR administrative process.
ECR3	/no5text/as/ECr3	EADAS *UNIX*® RTR high priority channel

		read process.
ECR4	/no5text/as/ECr4	EADAS *UNIX*® RTR low priority.
ECR5	/no5text/as/ECr5	EADAS *UNIX*® RTR read process.
ECR6	/no5text/as/ECr6	EADAS *UNIX*® RTR read process.
ECW3	/no5text/as/ECw3	EADAS *UNIX*® RTR high priority channel write process.
ECW4	/no5text/as/ECw4	EADAS *UNIX*® RTR low priority channel write process.
ECW5	/no5text/as/ECw5	EADAS *UNIX*® RTR write process.
ECW6	/no5text/as/ECw6	EADAS *UNIX*® RTR write process.
FPUMP	/no5text/prc/fpump	SM fast pump.
FTPAM	/no5text/prc/amftpic	AMA file transfer process.
GROWTH	/no5text/rcv/smoddbst /no5text/rcv/smoddngre /no5text/rcv/smoddrgrw /no5text/rcv/smoddugrw	ODD growth process.
HMALM	/no5text/hm/HMalm	Human machine alarm process.
HMIRA	/no5text/hm/HMira	Human machine input request administrator.
HMLOGMAP	/no5text/hm/HMlogmap	Human machine logfile mapping *UNIX*® RTR process.
HMMCC	/no5text/hm/HMmcc	Human machine master control center control process.
HMOPN		Human machine *UNIX*® RTR process.
HMSIP	/no5text/hm/HMsip	Human machine spooler input process.
HMTIME	/no5text/hm/HMtime	Human machine timing process.
HMREAD	/no5text/hm/HMiread /no5text/hm/HMoread	Human machine read *UNIX*® RTR process.
INHSAM	/cft/shl/cmds/INH/AMA/SESSION	Inhibit AMA session.
INHTAM	/cft/shl/cmds/INH/AMA/AUTOST	Inhibit automatic AMA tape writing.
IODRV	/bootfiles/3bsgen.kern	Input/output (I/O) driver kernel process.
LBPUMP	/no5text/prc/lbpump	Switching module little boot pump.
LGCNTL	/no5text/rcv/lgcntl	RC log control *UNIX*® RTR process.
LGCRC	/no5text/rcv/lgcrc	Customer originated recent change (CORC) log control *UNIX*® RTR process.
LGINITROLL	/no5text/rcv/lginitroll	Odd log roll forward *UNIX*® RTR process.
LGLOG	/no5text/rcv/lglog	RC log control *UNIX*® RTR process.
LGROLL	/no5text/rcv/lgroll	RC recovery *UNIX*® RTR process.
MCRTRC	/usr/bin/mcrtrc	RC.
MONAM		AMA monitor process.
MOP	/no5text/prc/mop	Mount offline partition process.
MSDIAGC	Diagnostic control.	
MSKP	/no5text/prc/mskp	Message switch kernel process.
ODDPAR	/no5text/rev/oddgrow	Parent process of the ODD growth.
ODISKAM	/cft/shl/cmds/OP/AMA/DISK	Output AMA disk occupancy information.
OGEN	/no5text/prc/ogen	AM modified for switch use.
OKP	/no5text/prc/okp	Operational kernel process.
OPTPAM	/cft/shl/cmds/OP/AMA/TELEPROCESSING	Output AMA teleprocessing information.
OSDSM	/no5text/im/D.standard/IM.out /no5text/im/D.loaded/IM.out /no5text/im/D.basic/IM.out	OSDS in the switching module.
OSESAM	/cft/shl/cmds/OP/AMA/SESSION	Output AMA session information.
PCTL	/no5text/prc/UPpctl	Program update control.
PDSHL.APP	/cft/bin/pdshl.app	Application synchronous shell.
PDSHLA.APP		Application asynchronous shell.
PFMNUX	/no5text/tm/pfmnux	*ANSI*® Standard Level 1 Performance Monitoring Feature unix process
PLOD	/no5text/prc/plod	Process for loading ODD on to disk.
PLOP	/no5text/prc/plop	Process for loading ODD in the PAS.
PMKP	/prc/pmkp	Pump kernel process.
PMXCTL	/no5text/tm/pmxctl	AM based protocol monitoring translator unix process
PUCR	/no5text/prc/pucr	Pump control process.
PUMP		SM pump process.

PUPCI	/no5text/prc/UPpupci	Program update process - user interface.
QGP-AP	/no5text/prc/QGPAP.out	QGP application processor.
QGP-MSGH	/no5text/prc/QGPIP.out	QGP message handler processor.
RCCP3BSRC	/no5text/rcv/RCcp3bsec	RC.
RCKP	/no5text/prc/rckp	RC kernel process.
RINGMON	/no5text/ccs/proc/CCringmon	Common channel signaling ring monitor process.
RTR		RTR kernel process.
SFAM	/cft/shl/cmds/SET/AMA/CONTROL	Set AMA control file information.
SIOFFN	/no5text/prc/SIoffn	System integrity offnormal reporting process.
SMAPRTS	/no5text/prc/SMaprts	Application real time status.
SMBKUP	/no5text/rcv/cpbkup	SM ODD backup *UNIX*® RTR process.
SMDIMP	/no5text/prc/SMdimp	SM diagnostic input message processor.
SMDOMP	/no5text/prc/SMdomp	SM diagnostic output message processor.
SMIIAU	/no5text/prc/SMiiau	Switch maintenance inhibit and allow *UNIX*® RTR process.
SMIMRPT		SM, IM report generator.
SMKP	/no5text/prc/smkp	Switch maintenance kernel process.
SMONL		SM off-normal reporting *UNIX*® RTR process.
SMNO5FM		Switch frame power monitor.
SMPSM	/no5text/prc/SMpsm	Switch maintenance power switch monitor.
SMQNTWKOUT	/no5text/prc/SMqntwkout	Switch maintenance QLPS network status output *UNIX*® RTR process.
STAM		Stop AMA tape writing process.
SMSTO	/no5text/prc/SMstout	Switch maintenance status output *UNIX*® RTR process.
SMSTOUT	/no5text/prc/SMstout	
TAPEAM		AMA tape writing process.
TERAUX		Export trunk error analysis.
TMDAP		TM display administrator.
UCNTL	/no5text/prc/ucntl	AM modified for switch use.
UNKNOWN		Unknown environment.
UPAUDRQSTR	/no5text/prc/UPaudrq	Program update *UNIX*® RTR process.
UPDISPATCH	/no5text/prc/UPdispatch	Program update *UNIX*® RTR process.
UPDSKDSPCH	/no5text/prc/UPdskdspch	Program update *UNIX*® RTR process.
UPSETIND	/no5text/prc/UPsetind	Program update *UNIX*® RTR process.
UTCP3B	/no5text/prc/utcp3b	AM utilities *UNIX*® RTR process.
UTLRMAIN	/no5text/prc/WElrmain	AM untilities *UNIX*® RTR process.
UTLSMAIN	/no5text/prc/WElsmain	AM utilities *UNIX*® RTR process.
VERTAPEAM	/no5text/prc/amtapeic	Verify the AMA tape.
VTAM	/cft/shl/cmds/VFY/AMATAPE	Verify the AMA tape.
WTAM	/cft/shl/cmds/CPY/AMATAPE	Write the AMA tape.

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APP:ERRCODE-FU

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. FIELD UPDATE ERROR CODES

1.1 Introduction

Field Update error messages are categorized into one of the following error types:

Internal = The error occurred due to incorrect processing within a Field Update process.

System = A system call (malloc(), realloc(), fork(), and so forth) failed.

Database = The process failed to access or update the Field Update database (/etc/bwm/fudb), the BWM database (/etc/bwm/bwmdb) or the system generation (SG) database.

Usage = The process was invoked with incorrect or missing arguments.

Coff = Common object file format errors were found.

Filesys = Errors occurred in file system functions (open(), close(), read(), lseek(), fopen(), and so forth).

A number may follow the error category as in, for example, "DATABASE ERROR -1". This error value is simply the value passed to exit() upon termination. It will always be non-zero to show the process's parent that an error has occurred.

The error category message is followed by additional information about the error and may contain Field Update error codes. Error messages of type "System" or "Filesys" sometimes contain their own error codes.

Error messages of type "Database" generally occur as a result of a function call which accesses or updates the Field Update database, the BWM database, or the SG database and are printed as "Field Update Database Errors" (FUDBERRNO or ERRNO). They are described in the following exhibit.

Error messages specific to the Field Update DUFR process are described after the Field Update database errors.

1.2 Field Update Error Codes

ERROR CODE EXPLANATION

Error Code:	Error Message:	Explanation:
1	UNABLE TO ADD RID 0X%lX to SETID 0X%lX	The call to lla library function lla_attrid() failed.
2	UNABLE TO ATTACH TO %s	The call to lla library function lla_dbatt() failed.
3	UNABLE TO CREATE %s	The call to lla library function lla_dbcrte() failed.
4	UNABLE TO RELEASE DATABASE	The call to lla library function lla_dbrel() failed.
5	UNABLE TO REMOVE RID 0X%lX FROM SET 0X%lX	The call to lla library function lla_delete() failed.
6	UNABLE TO DUPLICATE CURSOR	The call to lla library function lla_dupsq() failed.
7	UNABLE TO GET RECORD	The call to lla library function lla_get() failed.
8	UNABLE TO GET RID	The call to lla library function lla_gtrid() failed.
9	UNABLE TO GET NEXT RECORD	The call to lla library function lla_nextseq() failed.
10	UNABLE TO GET NEXT RID	The call to lla library function lla_nsqrid() failed.
11	UNABLE TO GET NUMBER OF SETS CONTAINING RID 0X%lX	The call to lla library function lla_numset() failed.
12	UNABLE TO OPEN SEQUENCE FOR SETID 0X%lX	The call to lla library function lla_opensq() failed.
13	UNABLE TO OPEN SET SEQUENCING	The call to lla library function lla_opnsets() failed.

14	UNABLE TO GET RECORD FOR RID 0X%lX	The call to lla library function lla_rdget() failed.
15	UNABLE TO CREATE RECORD FOR SET 0X%lX	The call to lla library function lla_reccrt() failed.
16	UNABLE TO FIND RECORD INFORMATION FOR RECORD 0X%lX	The call to lla library function lla_rinfo() failed.
17	UNABLE TO REMOVE SET 0X%lX	The call to lla library function lla_rmset() failed.
18	UNABLE TO FIND SETS CONTAINING RID 0X%lX	The call to lla library function lla_rsets() failed.
19	*UNABLE TO GET NEXT SET IDENTIFIER	The call to lla library function lla_seqset() failed.
20	UNABLE TO CREATE SET	The call to lla library function lla_setcrt() failed.
21	UNABLE TO FIND INFORMATION FOR SET 0X%lX	The call to lla library function lla_sinfo() failed.
22	UNABLE TO CLOSE SEQUENCE	The call to lla library function lla_sqcl() failed.
23	UNABLE TO SYNC DISK AND CORE	The call to lla library function lla_sync() failed.
24	UNABLE TO ABORT TRANSACTION BLOCKS	The call to lla library function tb_abort() failed.
25	UNABLE TO COMMIT TRANSACTION BLOCKS	The call to lla library function tb_commit() failed.
26	UNABLE TO PUMP CHANGES FOR %s	The call to lla library function tb_cleanup() failed.
27	UNABLE TO GET SPACE INFORMATION	The call to lla library function tb_get_sp() failed.
28	UNABLE TO UPDATE RID 0X%lX	The call to lla library function lla_uprid() failed.
29	Attempt to continue with no pending BWM	An update process must be in a pending temp state before CONT can be used to continue an operation.
30	Cannot find record for %s	No record exists for the update.
31	Do not recognize action (%d)	An attempt was made to perform some action that is not known to field update.
32	*Head of queue (0x%lx) does not match pending (0x%lx)	There is a mismatch between the head of the queue and the pending update.
33	For %s, expected status (%s) does not match status (%s)	There is a mismatch between the status of update files.
34	Cannot perform action when BWM is pending	A BWM is in a pending state and the user is still trying to perform updates. The user should perform an APPLY:CONT, BKOUT:CONT, RESET, or OMIT before doing any more updates.
35	BWM is out of order	An attempt was made to update a BWM with a lower number than one that has already been updated. BWM's must be applied in increasing numerical order.
36	Attempt to apply official BWM	The user is trying to update a BWM that has already been PERMED.
37	%s exists and is not the last BWM applied	When backing out BWMs, the last one applied has to be the first one backed out.
38	Cannot %s a BWM which is not temporary	A BWM has to be in a temporary state before it can be PERMED.
39	*Expecting RID 0x%lx for %s to be in queue	The record id for a particular record cannot be found in the queue.
40	Cannot back out a PENDOFC BWM with no omitted updates	If a BWM is in a pending official state, the user will have to do an OMIT in order to get it out of that state.
41	For %s, expected status %s or %s does not match %s	There is a mismatch between the status of two or more update files.
42	*Set 0x%lx has wrong set count (%d)	The count is not correct for a particular set.
43	*Record 0x%lx is in %d sets	This explains how many sets an update record is in.
44	Expecting a pending update but found none	If the user is trying to do an APPLY:CONT, BKOUT:CONT, OMIT, or RESET, the process expects the update to be in a pending state.
45	*Pending update RID 0x%lx not in queue	The pending update record is not on the queue.
46	Do not recognize operation %d	The user is attempting to do an operation that is not in the MSGS file.
47	Cannot reset an update which is not pending	An update must be in a pending state for a RESET to work.
48	Unknown release action (%d)	The generic that has been specified is not valid.
49	Update for %s is not a function replacement	Most likely, the user is using the wrong MSGS file. The messages in the MSGS file are for function replacement when the update may actually be a file replacement or byte replacement.
50	Update set 0x%lx for %s does not match saved set (0x%lx)	There is a mismatch between the current set and saved set of the update.
51	Must pass non-NULL BWM buffer to updget	The buffer passed to the call to function updget() must contain data.

52	Incompatible database versions: %d versus %d	The correct version of the database is not being used.
53	BWM name (%s) does not match that of update (%s)	A mismatch between BWM names occurred.
54	%s cannot be made official before %s	The record the user is trying to make official is out of order.
55	For %s, expecting update record for %s	The process expects a record of the update.
56	Could not malloc space for reclaimable RIDs	The system call malloc() is failed.
57	Unexpected end of sequence for reclaimable loop	RECLAIM processing ended before it should.
58	UNABLE TO REFRESH	The call to lla library function tb_refresh() failed.
59	Could not attach to port for %s	The process failed to attach to the port it was supposed to. Most likely, another process (perhaps another instance of the same process) has already attached to it.
60	Inconsistent attaches to update databases	The process did not attach to the Field Update database correctly.
61	Basedir %s does not match record %s	There is a mismatch between the user's base directory and the record being updated.
62	Unknown status: %s	The state of the BWM is not known (examples of known states are PENDOFC, PENDBKOUT, and so forth).
63	Unknown type: %s	The type of the BWM is not known (examples of known types are FILER, FUNCR, BYTER, DMRT, ADMRT, and BOOTBOTH).
64	CANNOT ATTACH TO %s	The process failed to attach to the database.
65	CANNOT RELEASE %s	The process failed to release the database.
66	RID %x IS IN TOO MANY SETS (%d)	The return value from lla library function lla_numset() was greater than 3.
67	CANNOT Purge %s: STILL {HAS UNRECLAIMED UPDATES | TEMPORARY}	An attempt was made to purge a BWM which still has unreclaimed updates or is still in a temporary state.
68	UNKNOWN NAME FOR RID %x	The database does not have a name for the RID.
69	NO UPDATE PENDING	An attempt was made to omit a field update which wasn't in a pending state.
70	BWM PENDING	An attempt was made to omit a BWM which was in the pending reclaim state.
71	CANNOT CONDENSE RECLAIMED RECORDS FOR %s	The call to function condrecl() failed.
72	NO BWM PENDING	An attempt was made to omit a BWM which was not in a pending state (pending temp, pending bkout, or pending ofc).
73	UNKNOWN STATE (%d) FOR %s	The BWM was found to be in an unknown state in the database.
74	UNABLE TO PERM BWM RECORD FOR %s	In trying to omit the BWM, the perm_bwm() function failed.

1.3 Field Update Warning/Error Codes For DUFR

ERROR CODE EXPLANATION

Error Code:	Explanation:
-2	Warning that the attached data segment is named.
-4	Warning that the segment names have been cleared.
2	Bad return from (kernel overwrite process) KOP process.
4	Error in opening or reading the Update File or error in the update file format.
6	Too many segments need attaching in order to perform update.
8	Could not grow patch segment.
10	Error in attempting to attach segments to dufr process.
12	Mismatch between old data in update file and core data.
14	Too many address-data couplets.
16	Dufr internal error.
18	Error in detaching segments from dufr.
20	Overwrite attempts to reference address not in process's address space.
22	Address of transfer vector or address-data overwrite not aligned on a full word boundary.

24	Error in obtaining process ID's from utility manager.
26	Error in processing overwrite for multiple invocations of process, although at least one process was updated correctly.
28	Error in p_creating kopf process.
30	Kopf did not send kopf-init event to kop.
32	Kopf and kop faulted; overwrite was backed out.
34	Kop process faulted; overwrite/backout not performed.
36	Dufr process faulted.
38	Dufr process externally terminated.
40	Invalid message for dufr process.
42	Dufr process segment name clear failed, system reasons.
44	Dufr process target process died (for KPUPDATE).

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APP:EVENT-HIST-A

Software Release: 5E10 only
Message Class: N/A
Application: 5
Type: Output

1. INTERPRETING SWITCHING MODULE (SM), QUAD-LINK GATEWAY PROCESSOR (QGP), MESSAGE HANDLER (MH), AND COMMUNICATIONS MODULE PROCESSOR (CMP) EVENT LOGS APPENDIX

Event histories are data dumps of the latest events for the switching module (SM), quad-link gateway processor (QGP), message handler (MH), and the communications module processor (CMP). They are printed on the receive-only printer (ROP) after selective initializations, or full initializations in the SM, QGP, MH, or CMP; when manually requested using the message '`op:postmort,sm=a`', where '`a`' is the SM number or '`op:postmort,cmp=0,prim/mate`'; and as part of a CMP error post mortem dump.

Up to 240 events may be printed in 15 separate message blocks, each containing 16 events. The most recent event is printed first and the oldest event is printed last. If there are fewer than 240 events, the message block which contains event 1 will be the last one printed.

This appendix describes how to read the event log and is partitioned into three sections. The first section describes the SM event log, the second describes the CMP event log, and the third describes the QGP/MH event logs.

1.1 Analyzing the SM event log

Event histories for the SM have the format shown in the diagram below. The letters in the following list and table refer to the letters in this template.

1.1.1 Format

```
a  REPT EVENTHIST SM=b DATA=c,d EVENT=e

   ffffgggg hhhhhhhh ijklmmmm ffffgggg hhhhhhhh ijklmmmm
   ffffgggg hhhhhhhh ijklmmmm ffffgggg hhhhhhhh ijklmmmm
   ffffgggg hhhhhhhh ijklmmmm ffffgggg hhhhhhhh ijklmmmm
   ffffgggg hhhhhhhh ijklmmmm ffffgggg hhhhhhhh ijklmmmm
   ffffgggg hhhhhhhh ijklmmmm ffffgggg hhhhhhhh ijklmmmm
   ffffgggg hhhhhhhh ijklmmmm ffffgggg hhhhhhhh ijklmmmm
   ffffgggg hhhhhhhh ijklmmmm ffffgggg hhhhhhhh ijklmmmm
   ffffgggg hhhhhhhh ijklmmmm ffffgggg hhhhhhhh ijklmmmm
```

1.1.2 Explanation of Variables

`a` = Report trigger. Valid value(s):
- `A` = Automatically generated.
- `M` = Manually requested.

`b` = SM number.

`c` = Type of dump. Valid value(s):
- `OFFLINE` = If the dump is during a retrofit.
- `ONLINE` = If the dump is during normal operation.

`d` = Sequence number of event history message (1-15).

`e` = Event number of first event in the message.

The following discussion is based on the value of the event format found in '`l`' of the dump, which are defined in hdr/si/SIrpterr.h.

Hex Code	Explanation
0x1	Asserts.
0x2	ptraces or asserts. Valid value(s): `ffff` = Hexadecimal assert code found in hlam/pag/asserts/AR*, hlsm/pag/asserts/AR*, or the Asserts Manual. `gggg` = Hexadecimal process number (PN) `hhhhhhhh` = Failing address
0x3	User requested single process purge. Valid value(s): `ffff` = 0x8 SI_FMAN from hdr/si/DMsitriger.h. `gggg` = Hexadecimal process number. `hhhhhhhh` = Address in the function INtty_prge().
0x4	Generic retrofit. All fields are dependent on the actual use; fields may contain circuit indices or port names and addresses. They may also be used to provide more data for an assert which would use the previous event number.
0x7	Processor fault. Valid value(s): `ffff` = Interrupt source: hdr/db/DMsmer_srs.h. `gggg` = Hexadecimal process number. `hhhhhhhh` = Failing address.
0x8	Peripheral fault. Valid value(s): `ffff` = Circuit ID. `gggg` = Hexadecimal process number. `hhhhhhhh` = xxyyzzzz, where: `xx` = Unit type: hdr/db/DMunittype.h `yy` = Recovery action: hdr/db/DMrcvyact.h `zzzz` = Error type: hdr/db/DMerrtype.h ***NOTE:*** Before forwarding information related to peripheral fault recovery please execute the opcnv message for each circuit ID according to the table "OP:CONV Commands For Peripheral Faults" at the end of this subsection, and also pass this information onto technical support.
0x9	Segmented audit error. Valid value(s): `ffff` = If the address in hhhhhhhh points to AUaer(), this field contains an audit error: hdr/au/DMauerc.h. If the address in hhhhhhhh points to AUfail(), this field contains an audit failure: hdr/au/DMauf_code.h. `gggg` = Audit identifier: hdr/au/DMauid.h. `hhhhhhhh` = Address in the function AUaer() or AUfail().
0xa	Directed audit error. Valid value(s): `ffff` = If the address in hhhhhhhh points to AUdaud(), this field contains the process ID that executed the directed audit. If the address in hhhhhhhh points to AUfail(), this field contains an audit failure: hdr/au/DMauf_code.h. `gggg` = Audit identifier: hdr/au/DMauid.h `hhhhhhhh` = Address in the function AUdaud() or AUfail().
0xd	Hardware init error. Valid value(s):

	ffff = Name of the failing circuit. gggg = Unused or extra data unique to each error case. hhhhhhhh = xxyyzzzz, where: xx = Unit type: hdr/db/DMunittype.h yy = 3 most significant bits = init type: hdr/si/SIrpterr.h 5 least significant bits = init stage zzzz = Error type: hdr/si/SIrpterr.h

i = Value of the hardware reset counter.

j = Side of the SM that the event occurred on. This is a four bit quantity, bit 3 indicates the side, bits 0 - 2 are fill bits for future use.

k = Fill bits for future use.

l = Event format. Refer to variable 'e'.

mmmm = Time the event occurred. Valid value(s):
bits 11 - 15 = Day of the month when the event occurred.
bits 6 - 10 = Hour when the event occurred.
bits 0 - 5 = Minute when the event occurred.

OP:CONV Commands for Peripheral Faults Table

Unit Type	Recovery Action	Error Type	Message(s)
line unit*	removal**	don't care	"OP:CONV,LEN=ffff" and "OP:CONV,ALINK=ffff"
line unit	don't care	per call test failure***	"OP:CONV,LEN=ffff" and "OP:CONV,ALINK=ffff"
line unit	don't care	not per call test failure	"OP:CONV,CKT=ffff"
not line unit	don't care	don't care	"OP:CONV,CKT=ffff"

* Where xx is unit type associated with line unit (such as, SMLU, SMC1LU, SMLU3)
** Where yy is recovery action associated with removal (such as, SMPRRMV)
*** Where zzzz is error type associated with per call test failure (such as, SMHLEXTCUR, SMLUSCON, SMLU1XPC, SMLUCUTOFF, SMPRPCTO)

1.1.3 Examples

SM initialization example: 01c20001 004410f6 80077b1f
01c2 = The phase trigger reason is a program loop.
0001 = Process number.
004410f6 = Address where event occurred.
8 = Hardware level.
0 = MCTSI side.

0	= Fill bits.
7	= Fault.
7b1f	= Event occurred on the 15th day of the month at 12:31.

Peripheral interrupt example: a034000a 30170007 08088460

1429	= Logical circuit name.
000a	= Process number.
30	= Integrated service line unit (ISLU).
17	= Pump of peripheral.
0007	= Software bad address.
0	= Hardware level.
8	= MCTSI side.
0	= Fill bits.
8	= Peripheral fault recovery.
8460	= Event occurred on the 16th day of the month at 17:32.

1.2 Analyzing the CMP event log

Event histories for the CMP have the format shown in the diagram below. The letters in the following list refer to the letters in this template.

1.2.1 Format

```
a  REPT EVENTHIST CMP=b,c d DATA=ONLINE,e EVENT=f

   gggghhhh iiiiiiii jklmnnnn gggghhhh iiiiiiii jklmnnnn
   gggghhhh iiiiiiii jklmnnnn gggghhhh iiiiiiii jklmnnnn
   gggghhhh iiiiiiii jklmnnnn gggghhhh iiiiiiii jklmnnnn
   gggghhhh iiiiiiii jklmnnnn gggghhhh iiiiiiii jklmnnnn
   gggghhhh iiiiiiii jklmnnnn gggghhhh iiiiiiii jklmnnnn
   gggghhhh iiiiiiii jklmnnnn gggghhhh iiiiiiii jklmnnnn
   gggghhhh iiiiiiii jklmnnnn gggghhhh iiiiiiii jklmnnnn
   gggghhhh iiiiiiii jklmnnnn gggghhhh iiiiiiii jklmnnnn
```

1.2.2 Explanation of Variables

a = Report trigger. Valid value(s):
- A = Automatically generated.
- M = Manually requested.

b = Messages switch side (MSGS).

c = Physical CMP number.

d = Processor being reported on. Valid value(s):
- PRIM = Primary CMP.
- MATE = Mate CMP.

e = Sequence number of event history message (1-15).

f = Event number of first event in the message.

The following discussion is based on the value of the event format found in 'm' of the dump, which are defined in hdr/si/SIrpterr.h

Hex Code:	Explanation:

0x1	Asserts.
0x2	ptraces or asserts. Valid value(s): `gggg` = Hexadecimal assert code found in hlam/pag/asserts/AR*, hlcmp/pag/asserts/AR*, or the Asserts manual. `hhhh` = Hexadecimal process number (PN). `iiiiiiii` = Failing address
0x3	User requested single process purge. Valid value(s): `gggg` = 0x8 SI_FMAN from hdr/si/DMsitriger.h. `hhhh` = Hexadecimal process number. `iiiiiiii` = Address in the function INtty_spp().
0x4	Generic retrofit. All fields are dependent on the actual use; fields may contain circuit indices or port names and addresses. They may also be used to provide more data for an assert which would use the previous event number.
0x7	Processor fault. Valid value(s): `gggg` = xxyy where: `xx` = Unused. `yy` = Interrupt source: hdr/smim/PPerrty.h or hdr/si/SIcmptrig.h. `hhhh` = Hexadecimal process number. `iiiiiiii` = Failing address.
0x9	Segmented audit error. Valid value(s): `gggg` = If the address in `iiiiiiii` points to AUaer(), this field contains an audit error: hdr/au/DMauerc.h. If the address in `iiiiiiii` points to AUfail(), this field contains an audit failure: hdr/au/DMauf_code.h. `hhhh` = Audit identifier: hdr/au/DMauid.h `iiiiiiii` = Address in the function AUaer() or AUfail().
0xa	Directed audit error. Valid value(s): `gggg` = If the address in `iiiiiiii` points to AUdaud(), this field contains the process ID that executed the directed audit. If the address in `iiiiiiii` points to AUfail(), this field contains an audit failure: hdr/au/DMauf_code.h. `hhhh` = Audit identifier: hdr/au/DMauid.h. `iiiiiiii` = Address in the function AUdaud() or AUfail().

`j` = Software initialization level: si/hdr/SIinlevs.h.
`k` = CMP active/standby status. Valid value(s):
- `0` = The CMP was the standby when the event occurred.
- `1` = The CMP was active when the event occurred.

`l` = Fill bits for future use.
`m` = Event format. Refer to variable '`f`'.
`nnnn` = Time the event occurred. Valid value(s):
- bits 11 - 15 = Day of the month when the event occurred.
- bits 6 - 10 = Hour when the event occurred.
- bits 0 - 5 = Minute when the event occurred.

1.3 Analyzing the MH/QGP event log

MH/QGP event history messages are generated as a result of escalation to a critical error where an MH/QGP initialization is required to recover the unit.

The MH/QGP can print up to 240 events in 15 separate message blocks. The most recent event is printed first and

the oldest event is printed last. If there are fewer than the maximum number of events, the message block which contains the oldest event will be the last one printed.

MH/QGP event histories have the format shown in the diagram below. The letters in the following list and following table refer to the letters in this template.

1.3.1 Format

```
a  REPT EVENTHIST b=c-d e DATA=f,g EVENT=h

   iiiijjjj kkkkkkkk lmnopqrs iiiijjjj kkkkkkkk lmnopqrs
   iiiijjjj kkkkkkkk lmnopqrs iiiijjjj kkkkkkkk lmnopqrs
   iiiijjjj kkkkkkkk lmnopqrs iiiijjjj kkkkkkkk lmnopqrs
   iiiijjjj kkkkkkkk lmnopqrs iiiijjjj kkkkkkkk lmnopqrs
   iiiijjjj kkkkkkkk lmnopqrs iiiijjjj kkkkkkkk lmnopqrs
   iiiijjjj kkkkkkkk lmnopqrs iiiijjjj kkkkkkkk lmnopqrs
   iiiijjjj kkkkkkkk lmnopqrs iiiijjjj kkkkkkkk lmnopqrs
   iiiijjjj kkkkkkkk lmnopqrs iiiijjjj kkkkkkkk lmnopqrs
```

1.3.2 Explanation of Variables

`a` = Report trigger. Valid value(s):
- `A` = Automatically generated.

`b` = Reporting processor. Valid value(s):
- `MCTSI` = Module controller/time slot interchange unit.
- `QGP` = Quad-link gateway processor.

`c` = SM number for processor MCTSI or for QGP it is the MSGS (message switch) side.

`d` = MCTSI side (0 or 1) or QGP number.

`e` = Reporting message handler identifier. Valid value(s):
- `MH0` = Message handler 0.
- `MH1` = Message handler 1.
- `MH2` = Message handler 2.

`f` = Type of dump. Valid value(s):
- `ONLINE` = If dump is during normal operation

`g` = Sequence number of event history message (1-4).

`h` = Event number of first event in the message.

The following discussion is based on the value of the event format found in '`o`' field of the dump, which are defined in hdr/si/SIrpterr.h

Hex Code:	Explanation:
0x1	Asserts. Valid value(s): `iiii` = Hexadecimal assert code found in the Asserts Manual. `jjjj` = Operational software job number: hdr/smim/SMmgdefs.h `kkkkkkkk` = Failing address.
0x7	Processor fault. Valid value(s): `iiii` = Interrupt source: hdr/db/DMsmer_srs.h `jjjj` = Operational software job number: hdr/smim/SMmgdefs.h `kkkkkkkk` = Failing address.
0x9	Segmented audit error. Valid value(s):

	iiii = If the address in kkkkkkkk points to AUaer(), this field contains an audit error: hdr/au/DMauerc.h. If the address in kkkkkkkk points to AUfail(), this field contains an audit failure: hdr/au/DMauf_code.h. jjjj = Audit identifier: hdr/au/DMauid.h kkkkkkkk = Address in the function AUaer or AUfail().
0xa	Directed audit error. Valid value(s): iiii = If the address in kkkkkkkk points to AUdaud(), this field contains the process id that executed the directed audit. If the address in kkkkkkkk points to AUfail(), this field contains an audit failure: hdr/au/DMauf_code.h. jjjj = Audit identifier: hdr/au/DMauid.h kkkkkkkk = Address in the function AUdaud or AUfail().
0xb	Processor initialization event. Valid value(s): iiii = The initialization type requested: hdr/smim/SMmhmbox.h jjjj = Operational software job number: hdr/smim/SMmgdefs.h kkkkkkkk = Address in the MH/QGP initialization function.

l = Requested recovery level: hdr/si/SIinlevs.h
m = Side of the SM that the event occurred on. This is a four bit quantity, bit 3 indicates the side, bits 0 - 2 are unused.
n = Fill bits for future use.
o = Event format. Refer to variable 'h'.
p = Unused
q = Unused
r = Unused
s = Escalation trigger reason: hdr/si/SImqtrig.h

1.3.3 Examples

MH/QGP initialization example: 80000002 000172ea 000b0000

8000 = The initialization trigger reason is a full initialization.
0002 = Operational software job which was running at time of initialization.
000172ea = Address where event occurred.
0 = Recovery level unused for initialization event.
0 = MCTSI side or 0 for QGP report.
0 = Fill bits.
b = Processor initialization format (evaluate/decode this field first).
000 = Fill bits.
0 = Phase trigger reason (unused for initialization event).

Fault example: 01060002 00043000 58070002

0106 = Fault code (which is MMU write protect error for this example).
0002 = Operational software job communications package.
00043000 = Address where event occurred.
5 = Recovery level requested full initialization.
8 = MCTSI side (8 for side 1) or 0 for QGP report.
0 = Fill bits.
7 = Processor fault format (evaluate/decode this field first).
000 = Fill bits.
2 = Phase trigger reason - excessive processor faults.

APP:EVENT-HIST-B

Software Release: 5E11 - 5E13
Message Class:
Application: 5
Type: Output

1. INTERPRETING SWITCHING MODULE (SM), COMMUNICATIONS MODULE PROCESSOR (CMP), MESSAGE HANDLER (MH), AND QUAD-LINK GATEWAY PROCESSOR (QGP) EVENT LOGS APPENDIX

1.1 Introduction

Event histories are data dumps of the latest events for the switching module (SM), communications module processor (CMP), message handler (MH), and the quad-link gateway processor (QGP). SM event histories are printed on the read-only printer (ROP) after selective initializations or full initializations of the SM, or when manually requested using the input command '`op:postmort,sm=a,event`', where '`a`' is the SM number. A limited SM event history dump is also printed when escalation of errors in the SM reaches the point where an initialization of the SM is triggered. CMP event histories are printed on the ROP after selective initializations or full initializations of the CMP, or when escalation of errors in the CMP reaches the point where an initialization is requested in order to recover. CMP event histories can also be manually requested using the input command '`op:postmort,cmp=0,prim/mate,event`'. Event histories from the MH or QGP are printed on the ROP when escalation has occurred to the point where an initialization is requested to recover the unit.

This appendix describes how to read the event log and is partitioned into three sections. The first section describes the SM event log, the second describes the CMP event log, and the third describes the MH/QGP event logs.

1.2 Analyzing the SM event log

If the SM is an SM-2000, up to 544 events are printed in up to 34 message blocks, with each message block containing 16 events. If the SM is not an SM-2000, up to 240 events are printed in up to 15 message blocks, with each message block containing 16 events. The most recent event is printed first and the oldest event is printed last. If there are fewer than the maximum number of events, the message block which contains the oldest event will be the last one printed.

Event histories for the SM have the format shown in the diagram below. The letters in the following list and table refer to the letters in this template.

1.2.1 Format

```
a  REPT EVENTHIST SM=b DATA=c,d EVENT=e
   ffffgggg hhhhhhhh ijjjjjjj ffffgggg hhhhhhhh ijjjjjjj
   ffffgggg hhhhhhhh ijjjjjjj ffffgggg hhhhhhhh ijjjjjjj
   ffffgggg hhhhhhhh ijjjjjjj ffffgggg hhhhhhhh ijjjjjjj
   ffffgggg hhhhhhhh ijjjjjjj ffffgggg hhhhhhhh ijjjjjjj
   ffffgggg hhhhhhhh ijjjjjjj ffffgggg hhhhhhhh ijjjjjjj
   ffffgggg hhhhhhhh ijjjjjjj ffffgggg hhhhhhhh ijjjjjjj
   ffffgggg hhhhhhhh ijjjjjjj ffffgggg hhhhhhhh ijjjjjjj
   ffffgggg hhhhhhhh ijjjjjjj ffffgggg hhhhhhhh ijjjjjjj
```

1.2.2 Explanation of Variables

`a` = Report trigger. Valid value(s):
`A` = Automatically generated.

M = Manually requested.

b = SM number.

c = Type of dump. Valid value(s):
OFFLINE = If the dump is during a retrofit.
ONLINE = If the dump is during normal operation.

d = Sequence number of event history message (1-34 if SM is an SM-2000; 1-15 if SM is not an SM-2000).

e = Event number of first event in the message.

The values of the ffff, gggg, and hhhhhhhh fields are dependent on the event format being used. The event format is indicated by bits 16-20 of the jjjjjjj field. The values used in the event format field are defined in hdr/si/SIrpterr.h. The following table shows how the ffff, gggg, and hhhhhhhh fields are populated for each of those event format types.

Hex code:	Explanation:
0x1	Asserts.
0x2	Ptraces or manual action asserts. Valid value(s): ffff = Hexadecimal assert code found in the Asserts Manual. gggg = Hexadecimal process number (PN) hhhhhhhh = Failing address
0x3	User requested single process purge. Valid value(s): ffff = Reason for purge request: hdr/db/DMsi_reas.h. gggg = Hexadecimal process number. hhhhhhhh = Address in the function INtty_prge().
0x4	Generic retrofit. All fields are dependent on the actual use; fields may contain circuit indices or port names and addresses. They may also be used to provide more data for an assert which would use the previous event number.
0x5	MH error. Valid value(s): ffff = MH event number. gggg = MH number. hhhhhhhh = Failing address.
0x6	MH failure. Valid value(s): ffff = xxyy, where: xx = Initialization type requested: hdr/si/INmhvars.h.

	yy = Error code: hdr/si/lNmhvars.h. gggg = MH number. hhhhhhhh = Failing address.
0x7	Processor fault. Valid value(s): ffff = Interrupt source: hdr/db/DMsmer_srs.h. gggg = Hexadecimal process number. hhhhhhhh = Failing address.
0x8	Peripheral fault. Valid value(s): ffff = Circuit name. gggg = Hexadecimal process number. hhhhhhhh = xxyyzzzz, where: xx = Unit type: hdr/db/DMunittype.h yy = Recovery action: hdr/db/DMrcvyact.h zzzz = Error type: hdr/db/DMerrtype.h Note: Before forwarding information related to peripheral fault recovery please execute the opcnv message for each circuit ID according to the table "OP:CONV Commands For Peripheral Faults" at the end of this subsection, and also pass this information on to technical support.
0x9	Segmented audit error. Valid value(s): ffff = If the address in hhhhhhhh points to AUaer(), this field contains an audit error: hdr/au/DMauerc.h. If the address in hhhhhhhh points to AUfail(), this field contains an audit failure code: hdr/au/DMauf_code.h. gggg = Audit identifier: hdr/au/DMauid.h. hhhhhhhh = Address in the function AUaer() or AUfail().
0xa	Directed audit error. Valid value(s): ffff = If the address in hhhhhhhh points to AUdaud(), this field contains the process number that executed the directed audit. If the address in hhhhhhhh points to AUfail(), this field contains an audit failure code: hdr/au/DMauf_code.h. gggg = Audit identifier: hdr/au/DMauid.h hhhhhhhh = Address in the function AUdaud() or AUfail().
0xc	Single process purge requested by audits or by ASSERTC/D. Valid value(s): ffff = wxxx, where: w = Audit mode: hdr/au/AUem.h

	xxx = Audit identifier: hdr/au/DMauid.h. (The value AUDCF is used for ASSERTC/D requests.) gggg = Process number being purged. hhhhhhhh = yyyyzzzz, where: yyyy = Program ID of process being purged. zzzz = Original event number that this additional information is related to.
0xd	Hardware init error. Valid value(s): ffff = Name of the failing circuit. gggg = Unused or extra data unique to each error case. hhhhhhhh = xxyyzzzz, where: xx = Unit type: hdr/db/DMunittype.h yy = 3 most significant bits indicate the init type: hdr/si/SIrpterr.h. 5 least significant bits indicate the init stage zzzz = Error type: hdr/si/SIrpterr.h
0xe	Miscellaneous error. Valid value(s): ffff = Unused or extra data unique to each error case. gggg = Miscellaneous error type: hdr/si/SIrpterr.h hhhhhhhh = Failing address. i = Value of the hardware reset counter. jjjjjjj = This is a 28-bit quantity, broken down as follows: bits 21 - 26 = Seconds field of the time when the event occurred. bits 16 - 20 = Indicates the format used for this event history entry. Possible values are defined in hdr/si/SIrpterr.h. Also, refer to the table above. bits 11 - 15 = Day of the month when the event occurred. bits 6 - 10 = Hours field of the time when the event occurred. bits 0 - 5 = Minutes field of the time when the event occurred.

OP:CONV Commands for Peripheral Faults Table

unit type	recovery action	error type	message(s)
line unit*	removal**	don't care	"OP:CONV,LEN=ffff" and

			"OP:CONV,ALINK=ffff"
line unit	don't care	per call test failure***	"OP:CONV,LEN=ffff" and "OP:CONV,ALINK=ffff"
line unit	don't care	not per call test failure	"OP:CONV,CKT=ffff"
not line unit	don't care	don't care	"OP:CONV,CKT=ffff"

* Where xx is unit type associated with line unit (such as, SMLU, SMC1LU, SMLU3)

** Where yy is recovery action associated with removal (such as, SMPRRMV)

*** Where zzzz is error type associated with per call test failure (such as, SMHLEXTCUR, SMLUSCON, SMLU1XPC, SMLUCUTOFF, SMPRPCTO)

1.2.3 Examples

SM initialization example:

```
01c20001 004410f6 85677b1f
```

`01c2` = The phase trigger reason is a program loop.

`0001` = Process number.

`004410f6` = Address where event occurred.

`8` = Hardware level.

`5677b1f` = MCTSI side was 0. Format for this event is 'Processor fault'. Event occurred on the 15th day of the month at 12:31 and 43 seconds.

Peripheral interrupt example:

```
a034000a 30170007 0ec88460
```

`1429` = Logical circuit name.

`000a` = Process number.

`30` = Integrated service line unit (ISLU).

`17` = Pump of peripheral.

`0007` = Software bad address.

`0` = Hardware level.

`ec88460` = MCTSI side was 1. Format for this event is 'Peripheral fault'. Event occurred on the 16th day of the month at 17:32 and 54 seconds.

1.3 Analyzing the CMP event log

Up to 240 events can be stored in the CMP event log. These events are printed in up to 15 separate message blocks, each containing 16 events. The most recent event is printed first and the oldest event is printed last. If there are fewer than the maximum number of events, the message block which contains the oldest event will be the last

one printed.

Event histories for the CMP have the format shown in the diagram below. The letters in the following list refer to the letters in this template.

1.3.1 Format

```
a  REPT EVENTHIST CMP=b,c d DATA=ONLINE,e EVENT=f
   gggghhhh iiiiiiii jklmnnnn gggghhhh iiiiiiii jklmnnnn
   gggghhhh iiiiiiii jklmnnnn gggghhhh iiiiiiii jklmnnnn
   gggghhhh iiiiiiii jklmnnnn gggghhhh iiiiiiii jklmnnnn
   gggghhhh iiiiiiii jklmnnnn gggghhhh iiiiiiii jklmnnnn
   gggghhhh iiiiiiii jklmnnnn gggghhhh iiiiiiii jklmnnnn
   gggghhhh iiiiiiii jklmnnnn gggghhhh iiiiiiii jklmnnnn
   gggghhhh iiiiiiii jklmnnnn gggghhhh iiiiiiii jklmnnnn
   gggghhhh iiiiiiii jklmnnnn gggghhhh iiiiiiii jklmnnnn
```

1.3.2 Explanation of Variables

`a` = Report trigger. Valid value(s):

- `A` = Automatically generated.
- `M` = Manually requested.

`b` = Messages switch side (MSGS).

`c` = Physical CMP number.

`d` = Processor being reported on. Valid value(s):

- `PRIM` = Primary CMP.
- `MATE` = Mate CMP.

`e` = Sequence number of event history message (1-15).

`f` = Event number of first event in the message.

The following discussion is based on the value of the event format found in '`m`' of the dump, which are defined in hdr/si/SIrpterr.h

Hex code:	Explanation:
0x1	Asserts.
0x2	Ptraces or manual action asserts. Valid value(s): `gggg` = Hexadecimal assert code found in the Asserts manual. `hhhh` = Hexadecimal process number (PN). `iiiiiiii` = Failing address
0x3	User requested single process purge. Valid value(s):

	gggg = Reason for purge request: hdr/db/DMsi_reas.h. hhhh = Hexadecimal process number. iiiiiiii = Address in the function INtty_spp().
0x4	Generic retrofit. All fields are dependent on the actual use; fields may contain circuit indices or port names and addresses. They may also be used to provide more data for an assert which would use the previous event number.
0x7	Processor fault. Valid value(s): gggg = xxyy where: xx = Unused. yy = Interrupt source: hdr/smim/PPerrty.h or hdr/si/SIcmptrig.h. hhhh = Hexadecimal process number. iiiiiiii = Failing address.
0x9	Segmented audit error. Valid value(s): gggg = If the address in iiiiiiii points to AUaer(), this field contains an audit error: hdr/au/DMauerc.h. If the address in iiiiiiii points to AUfail(), this field contains an audit failure: hdr/au/DMauf_code.h. hhhh = Audit identifier: hdr/au/DMauid.h iiiiiiii = Address in the function AUaer() or AUfail().
0xa	Directed audit error. Valid value(s): gggg = If the address in iiiiiiii points to AUdaud(), this field contains the process ID that executed the directed audit. If the address in iiiiiiii points to AUfail(), this field contains an audit failure: hdr/au/DMauf_code.h. hhhh = Audit identifier: hdr/au/DMauid.h. iiiiiiii = Address in the function AUdaud() or AUfail(). j = Software initialization level: hdr/si/SIinlevs.h. k = This is a 4-bit quantity. Bits 0 - 2 are unused. Bit 3 indicates the CMP active/standby status: 0 = The CMP was the standby when the event occurred. 1 = The CMP was active when the event occurred. l = Fill bits for future use. m = Event format. Refer to variable 'f'. nnnn = Time the event occurred. Valid value(s): bits 11 - 15 = Day of the month when the event occurred.

	bits 6 - 10 = Hour when the event occurred. bits 0 - 5 = Minute when the event occurred.

1.4 Analyzing the MH/QGP event log

The MH/QGP can print up to 240 events in up to 15 separate message blocks. The most recent event is printed first and the oldest event is printed last. If there are fewer than the maximum number of events, the message block which contains the oldest event will be the last one printed.

MH/QGP event histories have the format shown in the diagram below. The letters in the following list and following table refer to the letters in this template.

1.4.1 Format

```
a  REPT EVENTHIST b=c-d e DATA=f,g EVENT=h
   iiiijjjj kkkkkkkk lmnopqrs iiiijjjj kkkkkkkk lmnopqrs
   iiiijjjj kkkkkkkk lmnopqrs iiiijjjj kkkkkkkk lmnopqrs
   iiiijjjj kkkkkkkk lmnopqrs iiiijjjj kkkkkkkk lmnopqrs
   iiiijjjj kkkkkkkk lmnopqrs iiiijjjj kkkkkkkk lmnopqrs
   iiiijjjj kkkkkkkk lmnopqrs iiiijjjj kkkkkkkk lmnopqrs
   iiiijjjj kkkkkkkk lmnopqrs iiiijjjj kkkkkkkk lmnopqrs
   iiiijjjj kkkkkkkk lmnopqrs iiiijjjj kkkkkkkk lmnopqrs
   iiiijjjj kkkkkkkk lmnopqrs iiiijjjj kkkkkkkk lmnopqrs
```

1.4.2 Explanation of Variables

`a` = Report trigger. Valid value(s):

- `A` = Automatically generated.

`b` = Reporting processor. Valid value(s):

- `MCTSI` = Module controller/time slot interchange unit.
- `QGP` = Quad-link gateway processor.

`c` = SM number for processor MCTSI or for QGP it is the MSGS (message switch) side.

`d` = MCTSI side (0 or 1) or QGP number.

`e` = Reporting message handler identifier. Valid value(s):

- `MH0` = Message handler 0.
- `MH1` = Message handler 1.
- `MH2` = Message handler 2.

`f` = Type of dump. Valid value(s):

ONLINE = If dump is during normal operation

g = Sequence number of event history message (1-4).

h = Event number of first event in the message.

The following discussion is based on the value of the event format found in 'o' field of the dump, which are defined in hdr/si/SIrpterr.h

Hex code:	Explanation:
0x1	Asserts. Valid value(s): iiii = Hexadecimal assert code found in the Asserts Manual. jjjj = Operational software job number: hdr/smim/SMmgdefs.h kkkkkkkk = Failing address.
0x7	Processor fault. Valid value(s): iiii = Interrupt source: hdr/db/DMsmer_srs.h jjjj = Operational software job number: hdr/smim/SMmgdefs.h kkkkkkkk = Failing address.
0x9	Segmented audit error. Valid value(s): iiii = If the address in kkkkkkkk points to AUaer(), this field contains an audit error: hdr/au/DMauerc.h. If the address in kkkkkkkk points to AUfail(), this field contains an audit failure: hdr/au/DMauf_code.h. jjjj = Audit identifier: hdr/au/DMauid.h kkkkkkkk = Address in the function AUaer or AUfail().
0xa	Directed audit error. Valid value(s): iiii = If the address in kkkkkkkk points to AUdaud(), this field contains the process id that executed the directed audit. If the address in kkkkkkkk points to AUfail(), this field contains an audit failure: hdr/au/DMauf_code.h. jjjj = Audit identifier: hdr/au/DMauid.h kkkkkkkk = Address in the function AUdaud or AUfail().
0xb	Processor initialization event. Valid value(s): iiii = The initialization type requested: hdr/smim/SMmhmbox.h jjjj = Operational software job number: hdr/smim/SMmgdefs.h kkkkkkkk = Address in the MH/QGP initialization function. l = Requested recovery level: hdr/si/SIinlevs.h m = For MH events, this field indicates the side of the SM MCTSI that the event occurred on. This is a four bit

	quantity, bit 3 indicates the side, bits 0 - 2 are unused. For QGP events, this field is not used. n = Fill bits for future use. o = Event format. Refer to variable 'h'. p = Unused q = Unused r = Unused s = Escalation trigger reason: hdr/si/SImqtrig.h

1.4.3 Examples

MH/QGP initialization example:

```
80000002 000172ea 000b0000
```

8000	= The initialization trigger reason is a full initialization.
0002	= Operational software job which was running at time of initialization.
000172ea	= Address where event occurred.
0	= Recovery level unused for initialization event.
0	= For MH events, MCTSI side was 0. Not used for QGP.
0	= Fill bits.
b	= Processor initialization format (evaluate/decode this field first).
000	= Fill bits.
0	= Phase trigger reason (unused for initialization event).

Fault example:

```
01060002 00043000 58070002
```

0106	= Fault code (which is MMU write protect error for this example).
0002	= Operational software job communications package.
00043000	= Address where event occurred.
5	= Recovery level requested - full initialization.
8	= For MH events, MCTSI side was 1. Not used for QGP.
0	= Fill bits.

7	= Processor fault format (evaluate/decode this field first).
000	= Fill bits.
2	= Phase trigger reason - excessive processor faults.

APP:EVENT-HIST-C

Software Release: 5E14 and later
Message Class: N/A
Application: 5
Type: Output

1. INTERPRETING SWITCHING MODULE (SM), QUAD-LINK GATEWAY PROCESSOR (QGP), MESSAGE HANDLER (MH), AND COMMUNICATIONS MODULE PROCESSOR (CMP) EVENT LOGS APPENDIX

Event histories are data dumps of the latest events for the switching module (SM), communications module processor (CMP), message handler (MH), and the quad-link gateway processor (QGP). SM event histories are printed on the receive-only printer (ROP) after selective initializations or full initializations of the SM, or when manually requested using the input command '`op:postmort,sm=a,event`', where '`a`' is the SM number. A limited SM event history dump is also printed when escalation of errors in the SM reaches the point where an initialization of the SM is triggered. CMP event histories are printed on the ROP after selective initializations or full initializations of the CMP, or when escalation of errors in the CMP reaches the point where an initialization is requested in order to recover. CMP event histories can also be manually requested using the input command '`op:postmort,cmp=0,prim/mate,event`'. Event histories from the MH or QGP are printed on the ROP when escalation has occurred to the point where an initialization is requested to recover the unit.

This appendix describes how to read the event log and is partitioned into three sections. The first section describes the SM event log, the second describes the CMP event log, and the third describes the MH/QGP event logs.

1.1 Analyzing the SM event log

If the SM is an SM-2000, up to 544 events are printed in up to 34 message blocks, with each message block containing 16 events. If the SM is not an SM-2000, up to 240 events are printed in up to 15 message blocks, with each message block containing 16 events. The most recent event is printed first and the oldest event is printed last. If there are fewer than the maximum number of events, the message block which contains the oldest event will be the last one printed.

Event histories for the SM have the format shown in the diagram below. The letters in the following list and table refer to the letters in this template.

1.1.1 Format

```
a  REPT EVENTHIST SM=b DATA=c,d EVENT=e

   ffffgggg hhhhhhhh iiiiiiii ffffgggg hhhhhhhh iiiiiiii
   ffffgggg hhhhhhhh iiiiiiii ffffgggg hhhhhhhh iiiiiiii
   ffffgggg hhhhhhhh iiiiiiii ffffgggg hhhhhhhh iiiiiiii
   ffffgggg hhhhhhhh iiiiiiii ffffgggg hhhhhhhh iiiiiiii
   ffffgggg hhhhhhhh iiiiiiii ffffgggg hhhhhhhh iiiiiiii
   ffffgggg hhhhhhhh iiiiiiii ffffgggg hhhhhhhh iiiiiiii
   ffffgggg hhhhhhhh iiiiiiii ffffgggg hhhhhhhh iiiiiiii
   ffffgggg hhhhhhhh iiiiiiii ffffgggg hhhhhhhh iiiiiiii
```

1.1.2 Explanation of Variables

`a` = Report trigger. Valid value(s):
- `A` = Automatically generated.
- `M` = Manually requested.

`b` = SM number.

`c` = Type of dump. Valid value(s):
`OFFLINE` = If the dump is during a retrofit.
`ONLINE` = If the dump is during normal operation.

`d` = Sequence number of event history message (1-34 if SM is SM-2000; 1-15 if SM is not an SM-2000).

`e` = Event number of first event in the message.

The values of the `ffff`, `gggg`, and `hhhhhhhh` fields are dependent on the event format being used. The event format is indicated by bits 16-20 of the `jjjjjjj` field. The values used in the event format field are defined in hdr/si/SIrpterr.h. The following table shows how the `ffff`, `gggg`, and `hhhhhhhh` fields are populated for each of those event format types.

Hex Code	Explanation
0x1	Asserts.
0x2	Ptraces or Craft asserts. Valid value(s): `ffff` = Hexadecimal assert code found in hlam/pag/asserts/AR*, hlsm/pag/asserts/AR*, or the Asserts Manual. `gggg` = Hexadecimal process number (PN) `hhhhhhhh` = Failing address
0x3	User requested single process purge. Valid value(s): `ffff` = 0x8 SI_FMAN from hdr/si/DMsitriger.h. `gggg` = Hexadecimal process number. `hhhhhhhh` = Address in the function INtty_prge().
0x4	Generic retrofit. All fields are dependent on the actual use; fields may contain circuit indices or port names and addresses. They may also be used to provide more data for an assert which would use the previous event number.
0x7	Processor fault. Valid value(s): `ffff` = Interrupt source: hdr/db/DMsmer_srs.h. `gggg` = Hexadecimal process number. `hhhhhhhh` = Failing address.
0x8	Peripheral fault. Valid value(s): `ffff` = Circuit ID. `gggg` = Hexadecimal process number. `hhhhhhhh` = xxyyzzzz, where: `xx` = Unit type: hdr/db/DMunittype.h `yy` = Recovery action: hdr/db/DMrcvyact.h `zzzz` = Error type: hdr/db/DMerrtype.h ***NOTE:*** Before forwarding information related to peripheral fault recovery please execute the opcnv message for each circuit ID according to the table "OP:CONV Commands For Peripheral Faults" at the end of this subsection, and also pass this information onto technical support.
0x9	Segmented audit error. Valid value(s): `ffff` = If the address in hhhhhhhh points to AUaer(), this field contains an audit error: hdr/au/DMauerc.h. If the address in hhhhhhhh points to AUfail(), this field contains an audit failure: hdr/au/DMauf_code.h.

	gggg = Audit identifier: hdr/au/DMauid.h. hhhhhhhh = Address in the function AUaer() or AUfail().
0xa	Directed audit error. Valid value(s): ffff = If the address in hhhhhhhh points to AUdaud(), this field contains the process ID that executed the directed audit. If the address in hhhhhhhh points to AUfail(), this field contains an audit failure: hdr/au/DMauf_code.h. gggg = Audit identifier: hdr/au/DMauid.h hhhhhhhh = Address in the function AUdaud() or AUfail().
0xd	Hardware init error. Valid value(s): ffff = Name of the failing circuit. gggg = Unused or extra data unique to each error case. hhhhhhhh = xxyyzzzz, where: xx = Unit type: hdr/db/DMunittype.h yy = 3 most significant bits = init type: hdr/si/SIrpterr.h 5 least significant bits = init stage zzzz = Error type: hdr/si/SIrpterr.h

i = Value of the hardware reset counter.

j = Side of the SM that the event occurred on. This is a four bit quantity, bit 3 indicates the side, bits 0 - 2 are fill bits for future use.

k = Fill bits for future use.

l = Event format. Refer to variable 'e'.

mmmm = Time the event occurred. Valid value(s):
bits 11 - 15 = Day of the month when the event occurred.
bits 6 - 10 = Hour when the event occurred.
bits 0 - 5 = Minute when the event occurred.

OP:CONV Commands for Peripheral Faults Table

Unit Type	Recovery Action	Error Type	Message(s)
line unit*	removal**	don't care	"OP:CONV,LEN=ffff" and "OP:CONV,ALINK=ffff"
line unit	don't care	per call test failure***	"OP:CONV,LEN=ffff" and "OP:CONV,ALINK=ffff"
line unit	don't care	not per call test failure	"OP:CONV,CKT=ffff"
not line unit	don't care	don't care	"OP:CONV,CKT=ffff"

* Where xx is unit type associated with line unit (such as, SMLU, SMC1LU, SMLU3)
** Where yy is recovery action associated with removal (such as, SMPRRMV)
*** Where zzzz is error type associated with per call test failure (such as, SMHLEXTCUR, SMLUSCON, SMLU1XPC, SMLUCUTOFF, SMPRPCTO)

1.1.3 Examples

SM initialization example: `01c20001 004410f6 80077b1f`

`01c2`	= The phase trigger reason is a program loop.
`0001`	= Process number.
`004410f6`	= Address where event occurred.
`8`	= Hardware level.
`0`	= MCTSI side.
`0`	= Fill bits.
`7`	= Fault.
`7b1f`	= Event occurred on the 15th day of the month at 12:31.

Peripheral interrupt example: `a034000a 30170007 08088460`

`1429`	= Logical circuit name.
`000a`	= Process number.
`30`	= Integrated service line unit (ISLU).
`17`	= Pump of peripheral.
`0007`	= Software bad address.
`0`	= Hardware level.
`8`	= MCTSI side.
`0`	= Fill bits.
`8`	= Peripheral fault recovery.
`8460`	= Event occurred on the 16th day of the month at 17:32.

1.2 Analyzing the CMP event log

Event histories for the CMP have the format shown in the diagram below. The letters in the following list refer to the letters in this template.

1.2.1 Format

```
a  REPT EVENTHIST CMP=b,c d DATA=ONLINE,e EVENT=f

   gggghhhh iiiiiiii jklmnnnn gggghhhh iiiiiiii jklmnnnn
   gggghhhh iiiiiiii jklmnnnn gggghhhh iiiiiiii jklmnnnn
   gggghhhh iiiiiiii jklmnnnn gggghhhh iiiiiiii jklmnnnn
   gggghhhh iiiiiiii jklmnnnn gggghhhh iiiiiiii jklmnnnn
   gggghhhh iiiiiiii jklmnnnn gggghhhh iiiiiiii jklmnnnn
   gggghhhh iiiiiiii jklmnnnn gggghhhh iiiiiiii jklmnnnn
   gggghhhh iiiiiiii jklmnnnn gggghhhh iiiiiiii jklmnnnn
   gggghhhh iiiiiiii jklmnnnn gggghhhh iiiiiiii jklmnnnn
```

1.2.2 Explanation of Variables

`a` = Report trigger. Valid value(s):

- `A` = Automatically generated.
- `M` = Manually requested.

`b` = Messages switch side (MSGS).

`c` = Physical CMP number.

d = Processor being reported on. Valid value(s):
PRIM = Primary CMP.
MATE = Mate CMP.

e = Sequence number of event history message (1-15).
f = Event number of first event in the message.

The following discussion is based on the value of the event format found in 'm' of the dump, which are defined in hdr/si/SIrpterr.h

Hex Code:	Explanation:
0x1	Asserts.
0x2	ptraces or asserts. Valid value(s): gggg = Hexadecimal assert code found in hlam/pag/asserts/AR*, hlcmp/pag/asserts/AR*, or the Asserts manual. hhhh = Hexadecimal process number (PN). iiiiiiii = Failing address
0x3	User requested single process purge. Valid value(s): gggg = 0x8 SI_FMAN from hdr/si/DMsitriger.h. hhhh = Hexadecimal process number. iiiiiiii = Address in the function INtty_spp().
0x4	Generic retrofit. All fields are dependent on the actual use; fields may contain circuit indices or port names and addresses. They may also be used to provide more data for an assert which would use the previous event number.
0x7	Processor fault. Valid value(s): gggg = xxyy where: xx = Unused. yy = Interrupt source: hdr/smim/PPerrty.h or hdr/si/SIcmptrig.h. hhhh = Hexadecimal process number. iiiiiiii = Failing address.
0x9	Segmented audit error. Valid value(s): gggg = If the address in iiiiiiii points to AUaer(), this field contains an audit error: hdr/au/DMauerc.h. If the address in iiiiiiii points to AUfail(), this field contains an audit failure: hdr/au/DMauf_code.h. hhhh = Audit identifier: hdr/au/DMauid.h iiiiiiii = Address in the function AUaer() or AUfail().
0xa	Directed audit error. Valid value(s): gggg = If the address in iiiiiiii points to AUdaud(), this field contains the process ID that executed the directed audit. If the address in iiiiiiii points to AUfail(), this field contains an audit failure: hdr/au/DMauf_code.h. hhhh = Audit identifier: hdr/au/DMauid.h. iiiiiiii = Address in the function AUdaud() or AUfail().

j = Software initialization level: si/hdr/SIinlevs.h.
k = CMP active/standby status. Valid value(s):
0 = The CMP was the standby when the event occurred.
1 = The CMP was active when the event occurred.

l = Fill bits for future use.
m = Event format. Refer to variable 'f'.
nnnn = Time the event occurred. Valid value(s):
bits 11 - 15 = Day of the month when the event occurred.

bits 6 - 10 = Hour when the event occurred.
bits 0 - 5 = Minute when the event occurred.

1.3 Analyzing the MH/QGP event log

MH/QGP event history messages are generated as a result of escalation to a critical error where an MH/QGP initialization is required to recover the unit.

The MH/QGP can print up to 240 events in 15 separate message blocks. The most recent event is printed first and the oldest event is printed last. If there are fewer than the maximum number of events, the message block which contains the oldest event will be the last one printed.

MH/QGP event histories have the format shown in the diagram below. The letters in the following list and following table refer to the letters in this template.

1.3.1 Format

```
a  REPT EVENTHIST b=c-d e DATA=f,g EVENT=h

   iiiijjjj kkkkkkkk lmnopqrs iiiijjjj kkkkkkkk lmnopqrs
   iiiijjjj kkkkkkkk lmnopqrs iiiijjjj kkkkkkkk lmnopqrs
   iiiijjjj kkkkkkkk lmnopqrs iiiijjjj kkkkkkkk lmnopqrs
   iiiijjjj kkkkkkkk lmnopqrs iiiijjjj kkkkkkkk lmnopqrs
   iiiijjjj kkkkkkkk lmnopqrs iiiijjjj kkkkkkkk lmnopqrs
   iiiijjjj kkkkkkkk lmnopqrs iiiijjjj kkkkkkkk lmnopqrs
   iiiijjjj kkkkkkkk lmnopqrs iiiijjjj kkkkkkkk lmnopqrs
   iiiijjjj kkkkkkkk lmnopqrs iiiijjjj kkkkkkkk lmnopqrs
```

1.3.2 Explanation of Variables

a = Report trigger. Valid value(s):
- A = Automatically generated.

b = Reporting processor. Valid value(s):
- MCTSI = Module controller/time slot interchange unit.
- QGP = Quad-link gateway processor.

c = SM number for processor MCTSI or for QGP it is the MSGS (message switch) side.
d = MCTSI side (0 or 1) or QGP number.
e = Reporting message handler identifier. Valid value(s):
- MH0 = Message handler 0.
- MH1 = Message handler 1.
- MH2 = Message handler 2.

f = Type of dump. Valid value(s):
- ONLINE = If dump is during normal operation

g = Sequence number of event history message (1-4).
h = Event number of first event in the message.

The following discussion is based on the value of the event format found in 'o' field of the dump, which are defined in hdr/si/SIrpterr.h

Hex Code:	Explanation:

0x1	Asserts. Valid value(s): `iiii` = Hexadecimal assert code found in the Asserts Manual. `jjjj` = Operational software job number: hdr/smim/SMmgdefs.h `kkkkkkkk` = Failing address.
0x7	Processor fault. Valid value(s): `iiii` = Interrupt source: hdr/db/DMsmer_srs.h `jjjj` = Operational software job number: hdr/smim/SMmgdefs.h `kkkkkkkk` = Failing address.
0x9	Segmented audit error. Valid value(s): `iiii` = If the address in `kkkkkkkk` points to AUaer(), this field contains an audit error: hdr/au/DMauerc.h. If the address in `kkkkkkkk` points to AUfail(), this field contains an audit failure: hdr/au/DMauf_code.h. `jjjj` = Audit identifier: hdr/au/DMauid.h `kkkkkkkk` = Address in the function AUaer or AUfail().
0xa	Directed audit error. Valid value(s): `iiii` = If the address in `kkkkkkkk` points to AUdaud(), this field contains the process id that executed the directed audit. If the address in `kkkkkkkk` points to AUfail(), this field contains an audit failure: hdr/au/DMauf_code.h. `jjjj` = Audit identifier: hdr/au/DMauid.h `kkkkkkkk` = Address in the function AUdaud or AUfail().
0xb	Processor initialization event. Valid value(s): `iiii` = The initialization type requested: hdr/smim/SMmhmbox.h `jjjj` = Operational software job number: hdr/smim/SMmgdefs.h `kkkkkkkk` = Address in the MH/QGP initialization function.

`l` = Requested recovery level: hdr/si/SIinlevs.h
`m` = Side of the SM that the event occurred on. This is a four bit quantity, bit 3 indicates the side, bits 0 - 2 are unused.
`n` = Fill bits for future use.
`o` = Event format. Refer to variable '`h`'.
`p` = Unused
`q` = Unused
`r` = Unused
`s` = Escalation trigger reason: hdr/si/SImqtrig.h

1.3.3 Examples

MH/QGP initialization example: `80000002 000172ea 000b0000`

`8000` = The initialization trigger reason is a full initialization.
`0002` = Operational software job which was running at time of initialization.
`000172ea` = Address where event occurred.
`0` = Recovery level unused for initialization event.
`0` = For MH events, MCTSI side was 0. Not used for QGP.
`0` = Fill bits.
`b` = Processor initialization format (evaluate/decode this field first).
`000` = Fill bits.
`0` = Phase trigger reason (unused for initialization event).

Fault example: `01060002 00043000 58070002`

`0106` = Fault code (which is MMU write protect error for this example).

0002	= Operational software job communications package.
00043000	= Address where event occurred.
5	= Recovery level requested - full initialization.
8	= For MH events, MCTSI side was 1. Not used for QGP.
0	= Fill bits.
7	= Processor fault format (evaluate/decode this field first).
000	= Fill bits.
2	= Phase trigger reason - excessive processor faults.

APP:FAULT-CODE

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. FAULT CODES APPENDIX

Code	Comment
0x00	No fault (normal).
0xb0	Disk independent operation (DIOP) state is FULL DISK LIMP MODE.
0xb1	Device reported error for programmed input/output (PIO) (kernel process only).
0xb2	PIC fault for PIO (kernel process only).
0xb3	Processor fault for PIO (kernel process only).
0xb4	Device reported error for direct memory access (DMA) input/output (IO).
0xb5	DMA addressing fault for DMA IO (kernel process only).
0xb6	PIC fault for DMA IO (kernel process only).
0xb7	Processor fault for DMA IO (kernel process only).
0xb8	Device reported error - PIO. No message.
0xb9	Peripheral interface controller (PIC) implicated - PIO in progress. No message sent with fault.
0xba	Addressing error - PIO in progress. No message associated with fault.
0xbb	Data being used by the process has non-correctable parity error.
0xbc	Message buffer audit fault for queued error messages.
0xbd	Message buffer audit fault for non-queued error messages.
0xbe	DIOP state is DUPLEX.
0xbf	DIOP state is SIMPLEX.
0xc0	Craft initialization fault.
0xc1	Recovery switch of processors is complete. Sent from pcpeih to sim to aim.
0xc2	Soft switch is complete. Sent from pcpeih to sim.
0xc3	Configuration manager initialize request (kernel process only).
0xc4	Configuration manager remove request (kernel process only).
0xc5	Configuration manager remove request (kernel process only).
0xc6	Configuration manager limp mode (kernel process only).
0xc7	Configuration manager limp mode (kernel process only).
0xc8	Configuration manager manual or automatic diagnostic process (ADP) or routine remove (kernel process only).
0xc9	Unconditional remove (kernel process only).
0xca	Request that a soft switch be done. Sent from pcpmd to sim.
0xcb	Routine soft switch - pcpeih only. Sent from sim to pcpeih.
0xcc	Configuration manager remove under fault conditions (kernel process only).
0xcd	Non-segmented kernel level audit has been timed out by sim.
0xd1	Memory management - page invalid or not in memory.
0xd2	Memory management - page index too large.
0xd3	Memory management - segment invalid.
0xd4	Memory management - segment index too large.
0xd5	Illegal operating system trap (OST).
0xd6	Protection violation.
0xd7	Byte or halfword addressing violation.
0xd8	Instruction privilege violation.
0xd9	Illegal op code.
0xda	Illegal switch between kernel and private stack (or vice versa).
0xe0	Phase level - initialization.
0xe1	System initialization.
0xe2	System initialization - critical.

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APP:FC-MSKP-DMRT

Software Release: 5E10 and later
Message Class: N/A
Application: 5
Type: Output

1. HARDWARE AND SOFTWARE FAULTS APPENDIX

There are two types of faults, software and hardware. Each fault is classified with a code as shown in Exhibits 1 and 2.

Conditions leading to a software fault are recognized only by *UNIX*® RTR hardware and software facilities. The affected process (the process that was running at the time the error occurred) is faulted with one of the codes listed in Exhibit 2. When message switch kernel process (MSKP) faulted, the fault handling software will internally fault only the logical entity that was running at the time of the error [such as, message switch control unit (MSCU) handler, foundation peripheral controller (FPC) handler, pump peripheral controller (PPC) handler, module message processor (MMP) handler, communication module processor (CMP) handler, diagnostic handler, or one of several areas within the MSKP environment]. For internal faulting, MSKP collapses all *UNIX*® RTR software faults into the SMFLT_29 code in Exhibit 1. Handlers, upon detecting a software fault (with a hardware ID, if available), will initiate hardware recovery in an attempt to isolate the problem. If this fails, the level of recovery will escalate. Software faults in the diagnostic handler will cause the diagnostic to be aborted. Software faults in the MSKP environment will result in loss of continuity in the activity in progress at the time of the error. Depending on the level of disruption this will soon result in a higher level of recovery.

Hardware errors in the message switch can be recognized by *UNIX*® RTR hardware/software facilities, by the MSKP environment, or by a handler within MSKP. *UNIX*® RTR-detected hardware faults are passed to MSKP as one of the codes listed in Exhibit 2. These faults, along with faults initially detected by the environment (Exhibit 1), are passed to the appropriate handler.

The following faults are detected by the MSKP environment and passed to the MSCU handler, FPC handler, PPC handler, MMP handler, CMP handler, diagnostic handler, or MSKP environment.

1.1 Exhibit 1

MSKP Environment Detected Faults

Mnemonic	Dec	Hex	Handler	Description
SMFLT_20	20	14	PIC/---	Cannot identify and map response to handler.
SMFLT_21	21	15	PIC/---	Peripheral control (PC) sanity check failure.
SMFLT_22	22	16	PIC/---	High priority output queue overflow.
SMFLT_23	23	17	PIC/---	PIO function returned fail - on interrupt entry.
SMFLT_24	24	18	PIC/---	PIO function returned fail - on message transmittal.
SMFLT_25	25	19	---/PC	PC state in AM MAS and peripheral interface controller (PIC) RAM.
SMFLT_26	26	1a	PIC/---	BIC status error - in interrupt entry.
SMFLT_27	27	1b	DIAG	Abort diagnostics.
SMFLT_28	28	1c	PIC/---	Direct memory access (DMA) map table full.
SMFLT_29	29	1d	PIC/PC	Fatal software error - S2 recovery initiated.
SMFLT_30	30	1e	PIC/---	High priority input queue unload pointer is out of range.
SMFLT_31	31	1f	PIC/---	Fatal error response for message switch

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				controller unit (MSCU) message.
SMFLT_32	32	20	PIC/---	High priority output queue load out of range.
SMFLT_33	33	21	PIC/---	BIC status error - on message transmittal.
SMFLT_34	34	22	---/---	Not used.
SMFLT_35	35	23	---/---	Not used.
SMFLT_36	36	24	---/---	Not used.

UNIX® RTR-detected faults are passed as the following fault codes to the MSKP fault handling routines.

1.2 Exhibit 2

UNIX® RTR Detected Faults

1.2.1 Hardware Faults

MSKP Mnemonic	*UNIX*® Mnemonic	Dec	Hex	Description
SMFLT_IHW	FLT_PICD	182	b6	PIC fault for DMA IO.
SMFLT_IHW	FLT_ADRD	181	b5	DMA addressing fault for DMA IO.
SMFLT_IHW	FLT_DRED	180	b4	Device reported error for DMA IO.
SMFLT_IHW	FLT_PICP	178	b2	PIC fault for PIO.
SMFLT_IHW	FLT_DREP	177	b1	Device reported error for PIO.
SMFLT_IHW	FLT_NADRP	186	ba	Addressing error PIO in progress.
SMFLT_IHW	FLT_NPICP	185	b9	PIC implicated - PIO in progress.
SMFLT_IHW	FLT_NDREP	184	b8	Device reported error - PIO.
SMFLT_NIHW	FLT_CCP	179	b3	Processor fault for PIO.
SMFLT_NIHW	FLT_CCD	183	b7	Processor fault for DMA IO.

1.2.2 Miscellaneous Faults

MSKP Mnemonic	*UNIX*® Mnemonic	Dec	Hex	Description
SMFLT_CONF	FLT_UCLRMV	201	c9	Unconditional remove.
SMFLT_CONF	FLT_CMAN	200	c8	Configuration manager man*rout remove.
SMFLT_CONF	FLT_CMD	199	c7	Configuration manager limp mode.
SMFLT_CONF	FLT_CMC	198	c6	Configuration manager limp mode.
SMFLT_CONF	FLT_CMB	197	c5	Configuration manager remove request.
SMFLT_CONF	FLT_CMA	196	c4	Configuration manager remove request.
SMFLT_CONF	FLT_CMI	195	c3	Configuration manager initialize request.
SMFLT_SWF	FLT_SSCOMP	194	c2	CU soft switch request.
SMFLT_SWF	FLT_RSCOMP	193	c1	CU recovery switch request.

1.2.3 Software Faults

MSKP Mnemonic	*UNIX*® Mnemonic	Dec	Hex	Description
SMFLT_SWF	FLT_OPCD	217	d9	Illegal OP_CODE.
SMFLT_SWF	FLT_PRIV	216	d8	Instruction privilege violation.
SMFLT_SWF	FLT_ADDR	215	d7	Byte or halfword address violation.
SMFLT_SWF	FLT_PROT	214	d6	Protection violation.
SMFLT_SWF	FLT_SIND	212	d4	Memory management - segment index too large.
SMFLT_SWF	FLT_SINV	211	d3	Memory management - segment invalid.
SMFLT_SWF	FLT_PIND	210	d2	Memory management - page index too large.
SMFLT_SWF	FLT_PINV	209	d1	Mem management - page invalid or not in memory.
SMFLT_SWF	FLT_MYC	187	bb	Data has noncorrectable parity error.
SMFLT_SWF	FLT_BADOST	213	d5	Illegal OST.

1.2.4 Initialization Fault

MSKP Mnemonic	*UNIX*® Mnemonic	Dec	Hex	Description
SMFLT_SWF	FLT_SINIT	225	e1	System initialization.

1.2.5 Audit Fault

MSKP Mnemonic	*UNIX*® Mnemonic	Dec	Hex	Description
SMFLT_MSGER	FLT_NONQMSAUD	189	bd	Nonqueued error messages.
SMFLT_MSGER	FLT_QMSAUD	188	bc	Queued error messages.

APP:FMC

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. FIELD MAINTENANCE COMMANDS SYNTAX ERROR CODES APPENDIX

Exhibit 1

Code:	Explanation:
1	EXTRA KEYWORD(S)
2	EXTRA DATA - FIRST KEYWORD OF THE DATA FIELD
3	SECOND KEYWORD OF THE DATA FIELD MISSING
4	SECOND KEYWORD OF THE DATA FIELD INVALID
5	MISSING OR INVALID DATA - SECOND KEYWORD OF THE DATA FIELD
6	THIRD KEYWORD OF THE DATA FIELD MISSING
7	THIRD KEYWORD OF THE DATA FIELD INVALID
8	EXTRA DATA - THIRD KEYWORD OF THE DATA FIELD
9	MISSING OR INVALID DATA - THIRD KEYWORD OF THE DATA FIELD
10	OPTIONAL KEYWORD OF THE DATA FIELD INVALID
11	EXTRA DATA - OPTIONAL KEYWORD OF THE DATA FIELD
12	MISSING OR INVALID DATA - OPTIONAL KEYWORD OF THE DATA FIELD
13	MISSING SECOND LINE
14	EXTRA LINE(S)

Exhibit 2 -- FMC System Error Codes

Code:	Explanation:
1	PDSOP CAN'T FDOPEN WRFD
2	PDSOPRW READ ERROR, ERRNO IS #errno (system error code number); refer to the APP:SYSERR appendix in the Appendixes section of this manual.

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APP:HANDLER-ERR

Software Release: 5E10 and later
Message Class: N/A
Application: 5
Type: Output

1. HANDLER ERROR CODES APPENDIX

Errors (software or hardware) are recognized by the message switch kernel process (MSKP) environment, the message switch control unit (MSCU) handler, the foundation peripheral controller (FPC) handler, the module message processor (MMP) handler, the pump peripheral controller (PPC) handler, the communication module processor (CMP) handler, the diagnostic handler (DIAGH), the 3B communication module simulator (3BCMSIM) handler, or the automatic workstation message switch kernel process (AWMSKP).

An error code is assigned for each point of detection. Error code ranges are assigned as follows:
0 - 1999 = MSKP environment.
2000 - 2999 = FPC handler.
3000 - 3999 = MMP handler.
4000 - 4999 = PPC handler.
5000 - 5999 = DIAG handler.
6000 - 6999 = MSCU handler.
7000 - 7999 = CMP handler.
8000 - 8999 = QGP handler.
9000 - 9999 = 3BCMSIM handler.
10000 - 10999 = AWMSKP handler.

Often the error code will be printed along with one or two supplemental values. The description with each error code would be sufficient to trouble shoot the problem. However, the supplemental information can also be used, in conjunction with source listings, for additional input to the problem.

Error Code Range 0-1999

Release Range	Error Code	MSKP Environment Code
10+	0 (SMKPE + 0)	LOC: SMkpevent.c - kevent() - event entry. DESC: Cannot attach to message port (PT_MSGS). PROBABLE CAUSE: Old MSKP process still arround.
10+	1 (SMKPE + 1)	LOC: SMkpevent.c - kevent() - event entry. DESC: Message port attachment verification failed. PROBABLE CAUSE: Software bug.
10+	2 (SMKPE + 2)	LOC: SMkpevent.c - kevent() - event entry. DESC: CMKP not attached to message port (PT_CMKP). PROBABLE CAUSE: Software bug.
10+	3 (SMKPE + 3)	LOC: SMkpevent.c - kevent() - event entry. DESC: Cannot allocate msg buffer to open to CMKP. PROBABLE CAUSE: Message buffer resource overload.
10+	4 (SMKPE + 4)	LOC: SMkpevent.c - kevent() - event entry. DESC: Cannot send open message to CMKP. PROBABLE CAUSE: Software bug.
10+	5 (SMKPE + 5)	LOC: SMkpevent.c - kevent() - event entry. DESC: Message (type IOCMDBP) received with invalid eqid.

		PROBABLE CAUSE: Software bug.
10+	6 (SMKPE + 6)	LOC: SMkpevent.c - kevent() - event entry. DESC: Message received with unidentifiable DMERT message type. PROBABLE CAUSE: Software bug.
10+	7 (SMKPE + 7)	LOC: SMkpevent.c - kevent() - event entry. DESC: The lla_rdget returned fail. PROBABLE CAUSE: Software bug.
10+	8 (SMKPE + 8)	LOC: SMkpevent.c - SMkpackmsg() - process acknowledgement messages. DESC: Unknown message acknowledgement. PROBABLE CAUSE: Software bug.
10+	9 (SMKPE + 9)	LOC: SMkpevent.c - SMkpackmsg() - process acknowledgment messages. DESC: Unknown message acknowledgment. PROBABLE CAUSE: Software bug.
10+	10 (SMKPE + 10)	LOC: SMkpevent.c - kevent() - event entry. DESC: MSKP did not successfully open to cmkp during software initialization. PROBABLE CAUSE: Software bug or system overload.
10+	11 (SMKPE + 11)	LOC: SMkpevent.c - kevent() - event entry. DESC: UCB record had u_unit field not equal 0 or 1 PROBABLE CAUSE: Software bug.
10+	12 (SMKPE + 12)	LOC: SMkpevent.c - kevent() - event entry. DESC: Could not read the PCD. PROBABLE CAUSE: Software bug.
10+	13 (SMKPE + 13)	LOC: SMkpevent.c - kevent() - event entry. DESC: Craft changed the UCB with the MSCU active. PROBABLE CAUSE: Software bug.
10+	14 (SMKPE + 14)	LOC: SMkpevent.c - kevent() - event entry. DESC: MSKP environment received a message indicating that *UNIX*® -RTR (the operating system) was unable to deliver a message sent by MSKP - *UNIX*® -RTR message type USRACK (0x80). PROBABLE CAUSE: Abnormal termination of a *UNIX*® process.
10+	15 (SMKPE + 15)	LOC: SMkpinterr.c - SMkpprocrsp() - process response/report. DESC: PC marked unequipped in ODD or cannot read ODD PROBABLE CAUSE: Software bug.
10+	16 (SMKPE + 16)	LOC: SMkpinterr.c - SMkpprocrsp() - process response/report. DESC: Error in reading ODD for PCn PROBABLE CAUSE: Software bug.
10+	17 (SMKPE + 17)	LOC: SMkpinterr.c - SMkpinterr() - interrupt entry. DESC: PIO function call returned fail. PROBABLE CAUSE: Hardware failure in channel.
10+	19 (SMKPE + 19)	LOC: SMkpinterr.c - SMkpinterr() - interrupt entry. DESC: PIO function call returned fail. PROBABLE CAUSE: Hardware failure in channel.
10+	20 (SMKPE + 20)	LOC: SMkpinterr.c - SMkpinterr() - interrupt entry. DESC: Failed to read BIC status (in MSCU) PROBABLE CAUSE: Hardware failure in channel.

10+	21 (SMKPE + 21)	LOC: SMkpinterr.c - SMkpinterr() - interrupt entry. DESC: BIC status error (in MSCU) PROBABLE CAUSE: Hardware failure in MSCU
10+	22 (SMKPE + 22)	LOC: SMkpinterr.c - SMkpinterr() - interrupt entry. DESC: Failed to send BIC PIO command (unload pointer) PROBABLE CAUSE: Hardware failure in channel.
10+	23 (SMKPE + 23)	LOC: SMkpinterr.c - SMkpinterr() - interrupt entry. DESC: Failed to send BIC PIO command (reset BIC interr. flag) PROBABLE CAUSE: Hardware failure in channel.
10+	24 (SMKPE + 24)	LOC: SMkpinterr.c - SMkpinterr() - interrupt entry. DESC: Failed to send BIC PIO command (unload pointer) PROBABLE CAUSE: Hardware failure in channel.
10+	26 (SMKPE + 26)	LOC: SMkpinterr.c - SMkpprocrsp() - process response/report. DESC: Invalid sequence-in-progress state (env_seq_ip) PROBABLE CAUSE: Software bug.
10+	27 (SMKPE + 27)	LOC: SMkpinterr.c - SMkppopque() - pop entry from HP queue. DESC: The HP response queue pointer is out of range. PROBABLE CAUSE: Software bug or MSCU hardware error.
10+	29 (SMKPE + 29)	LOC: SMkpinterr.c - SMkppcpwr() - process PC pwr down report. DESC: Invalid PC sequence-in-progress state (env_seq_ip) PROBABLE CAUSE: Software bug.
10+	32 (SMKPE + 32)	LOC: SMkpfault.c - kfault() - fault entry. DESC: Neither MSCU identified in fault message. PROBABLE CAUSE: Software bug.
10+	33 (SMKPE + 33)	LOC: SMkpfault.c - SMkpdqfmsg() - dequeue fault message. DESC: RID in fault message does not match either MSCU RID PROBABLE CAUSE: Software bug.
10+	34 (SMKPE + 34)	LOC: SMkpfault.c - SMkpfact() - map software errors. DESC: Software error occurred while in INIT QGP routines. PROBABLE CAUSE: Software bug.
10+	35 (SMKPE + 35)	LOC: SMkpfault.c - SMkpfact() - map software errors. DESC: Software error occurred while in INIT PIP routines. PROBABLE CAUSE: Software bug.
10+	36 (SMKPE + 36)	LOC: SMkpfault.c - SMkpfact() - map software errors. DESC: Software error occurred while in interrupt entry. PROBABLE CAUSE: Software bug or MSCU hardware failure.
10+	37 (SMKPE + 37)	LOC: SMkpfault.c - SMkpfact() - map software errors. DESC: Unknown task in progress when software error occurred. PROBABLE CAUSE: Software bug.
10+	38 (SMKPE + 38)	LOC: SMkpfault.c - SMkpfact() - map software errors. DESC: Software error occurred while timing admin. was in control. PROBABLE CAUSE: Software bug.
10+	39 (SMKPE + 39)	LOC: SMkpfault.c - kfault() - fault entry. DESC: Software error threshold has been exceeded. PROBABLE CAUSE: Software bug or cp memory failure.

10+	40 (SMKPE + 40)	LOC: SMkpfault.c - kfault() - fault entry. DESC: DMERT level 1 initialization (0xe1) with AIM software initialization level at S6 or S7. PROBABLE CAUSE: Software bug in AIM
10+	41 (SMKPE + 41)	LOC: SMkpfault.c - SMkpfact() - map software errors. DESC: Software error occurred while down load sequncer was in control. PROBABLE CAUSE: Software bug.
10+	49 (SMKPE + 49)	LOC: SMkplink.c - SMkplkflt() -link fault to handler. DESC: Invalid handler ID PROBABLE CAUSE: Software bug.
10+	50 (SMKPE + 50)	LOC: SMkpserv.c - SMxmitcmd() - transmit command to MSCU or PC DESC: The HP command (output) queue pointer is out of range. PROBABLE CAUSE: MSCU hardware error.
10+	51 (SMKPE + 51)	LOC: SMkpserv.c - SMxmitcmd() - transmit command to MSCU or PC DESC: The HP command (output) queue is full. PROBABLE CAUSE: MSCU hardware error or overload condition.
10+	52 (SMKPE + 52)	LOC: SMkpserv.c - SMxmitcmd() - transmit command to MSCU or PC DESC: Failed to read BIC status (in MSCU) PROBABLE CAUSE: Hardware failure in channel.
10+	53 (SMKPE + 53)	LOC: SMkpserv.c - SMxmitcmd() - transmit command to MSCU or PC DESC: Failed to read BIC status (in MSCU) PROBABLE CAUSE: Hardware failure in channel.
10+	54 (SMKPE + 54)	LOC: SMkpserv.c - SMxmitcmd() - transmit command to MSCU or PC DESC: BIC status error or command flag stuck set (in MSCU) PROBABLE CAUSE: MSCU hardware fault.
10+	55 (SMKPE + 55)	LOC: SMkpserv.c - SMxmitcmd() - transmit command to MSCU or PC DESC: Failed to send BIC PIO command (load pointer) PROBABLE CAUSE: Hardware failure in channel.
10+	56 (SMKPE + 56)	LOC: SMkpserv.c - SMkpddread() - read PCD state. DESC: Failed to read PCD state SMddread() returned fail. PROBABLE CAUSE: Software bug.
10+	57 (SMKPE + 57)	LOC: SMkpserv.c - SMprckptr() - check MSKP REPT buffer queue. DESC: The MSKP REPT buffer pointer were out of range. PROBABLE CAUSE: Software bug.
10+	58 (SMKPE + 58)	LOC: SMkpserv.c - SMkp25usdly - real time delay DESC: Number of us passed is too large. PROBABLE CAUSE: Software bug.
10+	59 (SMKPE + 59)	LOC: SMkpserv.c - SMkppcsanity - 10 sec. PC sanity check. DESC: Failed to transmit command to MSCU (SMxmitcmd()) PROBABLE CAUSE: MSCU overload, MSCU hardware fault, or channel flt.
10+	60 (SMKPE + 60)	LOC: SMkpserv.c - SMkpsane() - 10 sec. PC sanity check. DESC: PIC RAM read failure (read PC OOS states in PIC RAM) PROBABLE CAUSE: MSCU n hardware failure.
10+	61 (SMKPE + 61)	LOC: SMkpserv.c - SMkpsane() - 10 sec. PC sanity check. DESC: Failure to read PAS database. PROBABLE CAUSE: Software bug.

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10+	62 (SMKPE + 62)	LOC: SMkpserv.c - SMkpsane() - 10 sec. PC sanity check. DESC: Failed to transmit PC sanity check command (SMxmitcmd()) PROBABLE CAUSE: MSCU overload, MSCU hardware flt, or channel flt.
10+	63 (SMKPE + 63)	LOC: SMkpserv.c - SMkppcsanity - 10 sec. PC sanity check. DESC: MSCU did not respond to cmd (read PC OOS states in PIC RAM) PROBABLE CAUSE: MSCU overload, MSCU hardware fault, or channel flt.
10+	70 (SMKPE + 70)	LOC: SMkptime.c - SMkptime() - timing table administrator. DESC: Failed to delete old timeout entry. PROBABLE CAUSE: Software bug.
10+	71 (SMKPE + 71)	LOC: SMkptime.c - SMkptime() - timing table administrator. DESC: Caller's return address is out of range. PROBABLE CAUSE: Software bug or cp memory fault.
10+	72 (SMKPE + 72)	LOC: SMkptime.c - SMreqtime() - timeout request service routine. DESC: Timer table is full and is being reinitialized. PROBABLE CAUSE: Software bug or timer table is overloaded.
10+	73 (SMKPE + 73)	LOC: SMkptime.c - SMplacetime() - place timing entry. DESC: Linkage error in timing table. PROBABLE CAUSE: Software bug or cp memory failure.
10+	74 (SMKPE + 74)	LOC: SMkptime.c - SMkptime() - timing table administrator. DESC: Return of SMplacetime() is fail. PROBABLE CAUSE: Software bug or cp memory fault.
10+	75 (SMKPE + 75)	LOC: SMkptime.c - SMplacetime() - place timing entry. DESC: Entry's final count is out of range. PROBABLE CAUSE: Software bug or cp memory failure.
10+	76 (SMKPE + 76)	LOC: SMkptime.c - SMplacetime() - place timing entry. DESC: Timing list is out of sort. PROBABLE CAUSE: Software bug or cp memory failure.
10+	77 (SMKPE + 77)	LOC: SMkptime.c - SMptimer() - set dmert timer. DESC: Final count in head entry is out of range. PROBABLE CAUSE: Software bug or cp memory failure.
10+	78 (SMKPE + 78)	LOC: SMkptime.c - SMptimer() - set dmert timer. DESC: The ptimer() returned fail. PROBABLE CAUSE: Software bug or cp memory failure.
10+	79 (SMKPE + 79)	LOC: SMkptime.c - SMkptime() - timing table administrator. DESC: Repeatative timer final count is out of range. PROBABLE CAUSE: Software bug or cp memory fault.
10+	80 (SMKPE + 80)	LOC: SMkptime.c - SMplacetime() - place timing entry. DESC: Entry's final count is out of range. PROBABLE CAUSE: Software bug or cp memory failure.
10+	81 (SMKPE + 81)	LOC: SMkptime.c - SMplacetime() - place timing entry. DESC: Timing list is out of sort. PROBABLE CAUSE: Software bug or cp memory failure.
10+	82 (SMKPE + 82)	LOC: SMkptime.c - SMplacetime() - place timing entry. DESC: Linkage error in timing table. PROBABLE CAUSE: Software bug or cp memory failure.

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10+	84 (SMKPE + 84)	LOC: SMkptime.c - SMplacetime() - place timing entry. DESC: Linkage error in timing table. PROBABLE CAUSE: Software bug or cp memory failure.
10+	90 (SMKPE + 90)	LOC: SMkpdma.c - SMinitmap() - initialize DMA map table. DESC: Invalid segment ID found in DMA map table. PROBABLE CAUSE: Software bug or cp memory failure.
10+	91 (SMKPE + 91)	LOC: SMkpdma.c - SMtdma() - delete DMA JN after 2 sec. timeout. DESC: Invalid eqid - cannot locate DMA map table. PROBABLE CAUSE: Software bug or cp memory failure.
10+	92 (SMKPE + 92)	LOC: SMkpdma.c - SMtdma() - delete DMA JN after 2 sec. timeout. DESC: Failed to delete DMA job number. PROBABLE CAUSE: Software bug.
10+	100 (SMKPE + 100)	LOC: SMkppm.c - SMkppcmcmd() - xmit next cmd in postmort seq. DESC: Failed to assign DMA job number [SMasndma()] for reading PC status in PIC RAM. PROBABLE CAUSE: Software bug or DMA map table full.
10+	101 (SMKPE + 101)	LOC: SMkppm.c - SMkppcmcmd() - xmit next cmd in postmort seq. DESC: Failed to transmit command to MSCU to read PC status in. PIC RAM PROBABLE CAUSE: MSCU overload, MSCU hardware flt, or channel flt.
10+	102 (SMKPE + 102)	LOC: SMkppm.c - SMkppcmcmd() - xmit next cmd in postmort seq. DESC: Failed to transmit command to MSCU to mark PC community 'n' in service. PROBABLE CAUSE: MSCU overload, MSCU hardware flt, or channel flt.
10+	103 (SMKPE + 103)	LOC: SMkppm.c - SMkppcmcmd() - xmit next cmd in postmort seq. DESC: Failed to transmit command to MSCU to clear PC n. PROBABLE CAUSE: MSCU overload, MSCU hardware flt, or channel flt.
10+	104 (SMKPE + 104)	LOC: SMkppm.c - SMkppcmcmd() - xmit next cmd in postmort seq. DESC: Failed to transmit command to MSCU to unisolate PC n and mark PC n in service. PROBABLE CAUSE: MSCU overload, MSCU hardware flt, or channel flt.
10+	105 (SMKPE + 105)	LOC: SMkppm.c - SMkppcmcmd() - xmit next cmd in postmort seq. DESC: Failed to transmit command to MSCU to scan PC n to see if it is physically equipped. PROBABLE CAUSE: MSCU overload, MSCU hardware flt, or channel flt.
10+	106 (SMKPE + 106)	LOC: SMkppm.c - SMkppcmcmd() - xmit next cmd in postmort seq. DESC: Failed to assign DMA job number to read PC postmort buffer in PIC DAM - second attempt. PROBABLE CAUSE: Software bug or DMA map table full.
10+	107 (SMKPE + 107)	LOC: SMkppm.c - SMkppcmcmd() - xmit next cmd in postmort seq. DESC: Failed to transmit command to MSCU to read PC postmort buffer in PIC DAM - second attempt. PROBABLE CAUSE: MSCU overload, MSCU hardware flt, or channel flt.
10+	108 (SMKPE + 108)	LOC: SMkppm.c - SMkppcmcmd() - xmit next cmd in postmort seq. DESC: Failed to return control to caller - caller's return address is invalid - PC initialization successful. PROBABLE CAUSE: Software bug or cp memory failure.
10+	109	LOC: SMkppm.c - SMkpmseqfail() - postmort buffer read failure.

	(SMKPE + 109)	DESC: Failed to return control to caller - caller's return address is invalid - PC initialization unsuccessful. PROBABLE CAUSE: Software bug or cp memory failure.
10+	110 (SMKPE + 110)	LOC: SMkppm.c - SMkppcmcmd() - xmit next cmd in postmort seq. DESC: Bad eqid. PROBABLE CAUSE: Software bug or cp memory failure.
10+	111 (SMKPE + 111)	LOC: SMkppm.c - SMkpmseqfail() - postmort buffer read failure. DESC: Bad eqid. PROBABLE CAUSE: Software bug or cp memory failure.
10+	112 (SMKPE + 112)	LOC: SMkppm.c - SMkppcmcmd() - xmit next cmd in postmort seq. DESC: Cannot get segment ID and/or pagetable address for PIC RAM read. PROBABLE CAUSE: Software bug.
10+	113 (SMKPE + 113)	LOC: SMkppm.c - SMgetpmort() - initiate postmort buffer read seq. DESC: Watchdog timer timed out (overall timer) PROBABLE CAUSE: MSCU or PC hardware failure.
10+	120 (SMKPE + 120)	LOC: SMkppm.c - SMkppcmrsp() - examine response in postmort seq. DESC: Completion code failure for trial read of postmort buffer (PIC DAM read) PROBABLE CAUSE: MSCU hardware failure.
10+	121 (SMKPE + 121)	LOC: SMkppm.c - SMkppcmrsp() - examine response in postmort seq. DESC: Completion code failure for marking the PC community in service. PROBABLE CAUSE: MSCU hardware failure.
10+	122 (SMKPE + 122)	LOC: SMkppm.c - SMkppcmrsp() - examine response in postmort seq. DESC: Completion code failure for the PC clear command. PROBABLE CAUSE: MSCU hardware failure.
10+	123 (SMKPE + 123)	LOC: SMkppm.c - SMkppcmrsp() - examine response in postmort seq. DESC: Cannot get 500 millisecond delay for PC clear. PROBABLE CAUSE: Software bug.
10+	124 (SMKPE + 124)	LOC: SMkppm.c - SMkppcmrsp() - examine response in postmort seq. DESC: Completion code failure for unisolating PC n and marking. PC n in service. PROBABLE CAUSE: MSCU hardware failure.
10+	125 (SMKPE + 125)	LOC: SMkppm.c - SMkppcmrsp() - examine response in postmort seq. DESC: Completion code failure for the PC n scan command. PROBABLE CAUSE: MSCU hardware failure.
10+	126 (SMKPE + 126)	LOC: SMkppm.c - SMkppcmrsp() - examine response in postmort seq. DESC: The PC n scanback failed. PROBABLE CAUSE: PC n not physically equipped.
10+	127 (SMKPE + 127)	LOC: SMkppm.c - SMkppcmrsp() - examine response in postmort seq. DESC: Completion code failure for command to read PC postmort buffer (PIC DAM read) - second attempt. PROBABLE CAUSE: MSCU hardware failure.
10+	128 (SMKPE + 128)	LOC: SMkppm.c - SMkppcmrsp() - examine response in postmort seq. DESC: Invalid sequence number. PROBABLE CAUSE: Software bug.
10+	129 (SMKPE + 129)	LOC: SMkppm.c - SMkppcmcmd() - xmit next cmd in postmort seq. DESC: Invalid sequence number. PROBABLE CAUSE: Software bug.

10+	150 (SMKPE + 150)	LOC: SMkppint.c - SMkppcicmd() - xmit next cmd in PC boot seq. DESC: Failed to transmit command to MSCU to mark PC community 'n' in service. PROBABLE CAUSE: MSCU overload, MSCU hardware flt, or channel flt.
10+	151 (SMKPE + 151)	LOC: SMkppint.c - SMkppcicmd() - xmit next cmd in PC boot seq. DESC: Failed to transmit command to MSCU to clear PC n. PROBABLE CAUSE: MSCU overload, MSCU hardware flt, or channel flt.
10+	152 (SMKPE + 152)	LOC: SMkppint.c - SMkppcicmd() - xmit next cmd in PC boot seq. DESC: Failed to transmit command to MSCU to unisolate PC n and mark PC n in service. PROBABLE CAUSE: MSCU overload, MSCU hardware flt, or channel flt.
10+	153 (SMKPE + 153)	LOC: SMkppint.c - SMkppcicmd() - xmit next cmd in PC boot seq. DESC: Failed to transmit command to MSCU to scan PC n to see if it is physically equipped. PROBABLE CAUSE: MSCU overload, MSCU hardware flt, or channel flt.
10+	156 (SMKPE + 156)	LOC: SMkppint.c - SMkppcicmd() - xmit next cmd in PC boot seq. DESC: Failed to assign DMA job number to download PC code. PROBABLE CAUSE: Software bug or DMA map table full.
10+	157 (SMKPE + 157)	LOC: SMkppint.c - SMkppcicmd() - xmit next cmd in PC boot seq. DESC: Failed to transmit command to MSCU to download PC code. PROBABLE CAUSE: MSCU overload, MSCU hardware flt, or channel flt.
10+	158 (SMKPE + 158)	LOC: SMkppint.c - SMkppcicmd() - xmit next cmd in PC boot seq. DESC: Invalid sequence number. PROBABLE CAUSE: Software bug.
10+	159 (SMKPE + 159)	LOC: SMkppint.c - SMkpseqfail() - PC initialization failed. DESC: Failed to return control to caller - caller's return address is invalid - PC initialization unsuccessful. PROBABLE CAUSE: Software bug or cp memory failure.
10+	160 (SMKPE + 160)	LOC: SMkppint.c - SMkppcicmd() - xmit next cmd in PC boot seq. DESC: Failed to return control to caller - caller's return address is invalid - PC initialization successful. PROBABLE CAUSE: Software bug or cp memory failure.
10+	161 (SMKPE + 161)	LOC: SMkppint.c - SMkppcicmd() - xmit next cmd in PC boot seq. DESC: Invalid eqid. PROBABLE CAUSE: Software bug or cp memory failure.
10+	162 (SMKPE + 162)	LOC: SMkppint.c - SMkpseqfail() - PC boot service routine fail exit. DESC: Bad eqid. PROBABLE CAUSE: Software bug or cp memory failure.
10+	163 (SMKPE + 163)	LOC: SMkppint.c - SMpcinit() - start PC bootstrap sequence. DESC: Watchdog timer timed out (overall timer) PROBABLE CAUSE: MSCU or PC hardware failure.
10+	164 (SMKPE + 164)	LOC: SMkppint.c - SMkppcicmd() - xmit next cmd in PC boot. DESC: Failed to get PC download file from disk. PROBABLE CAUSE: Software bug or file not on disk.
10+	165 (SMKPE + 165)	LOC: SMkppint.c - SMkppcirsp() - examine response in PC DESC: Failed to get PC download file from core(disk) PROBABLE CAUSE: Software bug or too many PC download files.

10+	166 (SMKPE + 166)	LOC: SMkppint.c - SMkpseqfail() - PCn restore failure. DESC: MSCU did not respond for first command. PROBABLE CAUSE: Software bug.
10+	167 (SMKPE + 167)	LOC: SMkppint.c - SMkppcicmd() - xmit next cmd in PC boot. DESC: 500ms Timeout on PC audit command during an PC RST sequence. PROBABLE CAUSE: PC hardware problem.
10+	168 (SMKPE + 168)	LOC: SMkppint.c - SMkppcicmd() - xmit next cmd in PC boot. DESC: 4000ms Timeout on PC RAM file acquisition. PROBABLE CAUSE: Shortage of system real time or MSKP ENV
10+	169 (SMKPE + 169)	LOC: SMkppint.c - SMkppcicmd() - xmit next cmd in PC boot. DESC: SMgetpta() returned fail. PROBABLE CAUSE: Software bug of AM memory failure.
10+	170 (SMKPE + 170)	LOC: SMkppint.c - SMkppcirsp() - examine response in PC boot seq. DESC: Completion code failure for marking the PC community 'n' in service. PROBABLE CAUSE: MSCU hardware failure.
10+	171 (SMKPE + 171)	LOC: SMkppint.c - SMkppcirsp() - examine response in PC boot seq. DESC: Completion code failure for the PC clear command. PROBABLE CAUSE: MSCU hardware failure.
10+	172 (SMKPE + 172)	LOC: SMkppint.c - SMkppcirsp() - examine response in PC boot seq. DESC: Completion code failure for unisolating PC n and marking. PC n in service. PROBABLE CAUSE: MSCU hardware failure.
10+	173 (SMKPE + 173)	LOC: SMkppint.c - SMkppcirsp() - examine response in PC boot seq. DESC: Completion code failure for the PC n scan command. PROBABLE CAUSE: MSCU hardware failure.
10+	174 (SMKPE + 174)	LOC: SMkppint.c - SMkppcirsp() - examine response in PC boot seq. DESC: The PC n scanback failed. PROBABLE CAUSE: PC n not physically equipped.
10+	175 (SMKPE + 175)	LOC: SMkppint.c - SMkppcirsp() - examine response in PC boot seq. DESC: Completion code failure for command to download PC code. PROBABLE CAUSE: MSCU hardware failure.
10+	176 (SMKPE + 176)	LOC: SMkppint.c - SMkppcirsp() - examine response in PC boot seq. DESC: Invalid sequence number. PROBABLE CAUSE: Software bug.
10+	177 (SMKPE + 177)	LOC: SMkppint.c - SMpcinit() - request to bootstrap. DESC: PC download file status is in an invalid state. PROBABLE CAUSE: Software bug.
10+	178	LOC: SMkppint.c - SMkppcicmd() - Send next command in PC boot. /no5text/prc directory. The PC pump file names. PPCCM200000000, MMPCM100000000, and MMPCM200000000.
10+	200 (SMKPE + 200)	LOC: SMkppcload.c - SMkpfmread() - read file off disk. DESC: SMgetpta() returned fail() PROBABLE CAUSE: Software bug.
10+	201 (SMKPE + 201)	LOC: SMkppcload.c - SMkpmmgrow() - grow AM memory. DESC: SMgetpta() returned fail() PROBABLE CAUSE: Software bug.

10+	202 (SMKPE + 202)	LOC: SMkppcload.c - SMdlinittbl() - init down load table entry. DESC: SMgetpta() returned fail() PROBABLE CAUSE: Software bug.
10+	203 (SMKPE + 203)	LOC: SMkppcload.c - SMdlaudit() - determine file existence. DESC: SMgetpta() returned fail() PROBABLE CAUSE: Software bug.
10+	204 (SMKPE + 204)	LOC: SMkppcload.c - SMkpfmaread() - Read file from disk to. DESC: SMgetpta() returned failure for auxiliary segment. PROBABLE CAUSE: MSKP environment software bug.
10+	205 (SMKPE + 205)	LOC: SMkppcload.c - SMdlinittbl() - Initialize main segment. DESC: Received out of range control table index parameter. PROBABLE CAUSE: MSKP environment software bug.
10+	206 (SMKPE + 206)	LOC: SMkppint.c - SMkppcirsp() - handle request to download. DESC: No entry for PC in ODD or PC is not equipped. PROBABLE CAUSE: Software bug.
10+	207 (SMKPE + 207)	LOC: SMkppint.c - SMkppcirsp() - handle request to download. DESC: Error in reading ODD for PCn. PROBABLE CAUSE: Software bug.
10+	208 (SMKPE + 208)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Watchdog timer timed out (shrink state) PROBABLE CAUSE: Software bug or system overload.
10+	209 (SMKPE + 209)	LOC: SMkppcload.c - SMkpdlret() - reactivate all waiting. DESC: Error in the wait list linkage. PROBABLE CAUSE: Software bug or cp memory failure.
10+	210 (SMKPE + 210)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Bad message buffer pointer. PROBABLE CAUSE: Software bug or cp memory failure.
10+	211 (SMKPE + 211)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Out of range sequencer control table index. PROBABLE CAUSE: Software bug.
10+	212 (SMKPE + 212)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Failed to send a dmert message (idle state) PROBABLE CAUSE: Software bug or shortage of system message.
10+	213 (SMKPE + 213)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Unknown input stimuli to PC download sequencer PROBABLE CAUSE: Software bug.
10+	215 (SMKPE + 215	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: ACK received for wrong message type (open state) PROBABLE CAUSE: Software bug.
10+	216 (SMKPE + 216)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Failed to open PC download file specified in. ODD (open state) PROBABLE CAUSE: Procedural error or file missing from disk.
10+	217 (SMKPE + 217)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Failed to send a dmert message (open state) PROBABLE CAUSE: Software bug or shortage of system.

10+	218 (SMKPE + 218)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Unknown input stimuli to PC download sequencer (open state) PROBABLE CAUSE: Software bug.
10+	219 (SMKPE + 219)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: ACK received for wrong message type (grow state) PROBABLE CAUSE: Software bug.
10+	220 (SMKPE + 220)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Failed to grow memory (grow state) PROBABLE CAUSE: Software bug.
10+	221 (SMKPE + 221)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Memory not grown to sufficient size to hold file. (grow state) PROBABLE CAUSE: Software bug or shortage of memory resources.
10+	222 (SMKPE + 222)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Failed to send a dmert message (grow state) PROBABLE CAUSE: Software bug or shortage of system message.
10+	223 (SMKPE + 223)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Unknown input stimuli to PC download sequencer. (grow state) PROBABLE CAUSE: Software bug.
10+	224 (SMKPE + 224)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: ACK received for wrong message type (read state) PROBABLE CAUSE: Software bug.
10+	225 (SMKPE + 225)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Failed to read PC download file from disk (read state) PROBABLE CAUSE: Software bug.
10+	226 (SMKPE + 226)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Did not read correct amount of data from disk. (read state) PROBABLE CAUSE: Software bug or bad file on disk.
10+	227 (SMKPE + 227)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Failed to send a dmert message. PROBABLE CAUSE: Software bug or shortage of system message.
10+	228 (SMKPE + 228)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Unknown input stimuli to PC download sequencer. (read state) PROBABLE CAUSE: Software bug.
10+	229 (SMKPE + 229)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: ACK received for wrong message type (close state) PROBABLE CAUSE: Software bug.
10+	230 (SMKPE + 230)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Failed to close PC download file (close state) PROBABLE CAUSE: Software bug.
10+	231 (SMKPE + 231)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Unknown input stimuli to PC download sequencer (close state) PROBABLE CAUSE: Software bug.
10+	232 (SMKPE + 232)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Failed to send a dmert message (avail state) PROBABLE CAUSE: Software bug or shortage of system message

10+	233 (SMKPE + 233)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Unknown input stimuli to PC download sequencer. (avail state) PROBABLE CAUSE: Software bug.
10+	234 (SMKPE + 234)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Failed to send a dmert message (wdma state) PROBABLE CAUSE: Software bug or shortage of system message.
10+	235 (SMKPE + 235)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Unknown input stimuli to PC download sequencer. (wdma state) PROBABLE CAUSE: Software bug.
10+	236 (SMKPE + 236)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: ACK received for wrong message type (shrink state) PROBABLE CAUSE: Software bug.
10+	237 (SMKPE + 237)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Failed to shrink memory (shrink state) PROBABLE CAUSE: Software bug.
10+	238 (SMKPE + 238)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Did not shrink memory to minimum size (shrink state) PROBABLE CAUSE: Software bug.
10+	239 (SMKPE + 239)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Unknown input stimuli to PC download sequencer (shrink state) PROBABLE CAUSE: Software bug.
10+	240 (SMKPE + 240)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: ACK message received for wrong message type (error state) PROBABLE CAUSE: Software bug.
10+	241 (SMKPE + 241)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Previous open message returned a status failure. (error state) PROBABLE CAUSE: File was not opened in the first place.
10+	242 (SMKPE + 242)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Unknown input stimuli to PC download sequencer. (error state) PROBABLE CAUSE: Software bug.
10+	243 (SMKPE + 243)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Message received while in wrong state (unknown state) PROBABLE CAUSE: Software bug.
10+	244 (SMKPE + 244)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Timeout occurred while in wrong state (unknown state) PROBABLE CAUSE: Software bug.
10+	245 (SMKPE + 245)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Unknown input stimuli to seq while in wrong state. (unknown state) PROBABLE CAUSE: Software bug.
10+	246 (SMKPE + 246)	LOC: SMkppcload.c - SMdlfstat() - determine PC download. DESC: Out of range sequencer control table index. PROBABLE CAUSE: Software bug or cp memory failure.
10+	247 (SMKPE + 247)	LOC: SMkppcload.c - SMdlerror() - error in sequence, fail. DESC: Failed to get a watchdog timer. PROBABLE CAUSE: Software bug or timing table overload.

10+	248 (SMKPE + 248)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Unknown input stimuli to PC download sequencer. PROBABLE CAUSE: Software bug.
10+	250 (SMKPE + 250)	LOC: SMkppcload.c - SMdlfdsk() - assign a PC download. DESC: There are no sequencer control tables available to assign to a PC download file. PROBABLE CAUSE: Procedural error - too many PC download.
10+	251 (SMKPE + 251)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Failed to get a watchdog timer (idle state) PROBABLE CAUSE: Software bug or timing table overload.
10+	252 (SMKPE + 252)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Failure to get watchdog timer. PROBABLE CAUSE: Software bug or timing table overload.
10+	253 (SMKPE + 253)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Failed to send a dmert message (idle state) PROBABLE CAUSE: Software bug or shortage of system message.
10+	254 (SMKPE + 254)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Watchdog timer has timed out (open state) PROBABLE CAUSE: Software bug or system overload.
10+	255 (SMKPE + 255)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Watchdog timer timed out (grow state) PROBABLE CAUSE: Software bug or system overload.
10+	256 (SMKPE + 256)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Time out of watchdog timer (read state) PROBABLE CAUSE: Software bug or system overload.
10+	257 (SMKPE + 257)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Time out of watchdog timer (close state) PROBABLE CAUSE: Software bug or system overload.
10+	258 (SMKPE + 258)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Failed to get watchdog timer (avail state) PROBABLE CAUSE: Software bug or timing table overload.
10+	259 (SMKPE + 259)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Failed to get watchdog timer (avail state) PROBABLE CAUSE: Software bug or timing table overload.
10+	260 (SMKPE + 260)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Failed to get continuity timer (avail state) PROBABLE CAUSE: Software bug or timing table overload.
10+	261 (SMKPE + 261)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Watchdog timer has timed out (error state) PROBABLE CAUSE: Software bug or system overload.
10+	262 (SMKPE + 262)	LOC: SMkppcload.c - SMkpdlret() -delay return. DESC: SMvertv() failed, this indicates a bad TV was found. PROBABLE CAUSE: Software bug in MSKP ENV
10+	263 (SMKPE + 263)	LOC: SMkppcload.c - SMdlfdsk() - assign a PC download. DESC: A request was made to transfer an MSGS RAM file from AM disk to AM CORE because the system is in. "Limp Mode" the CORE image of the RAM will be used if

		available. PROBABLE CAUSE: If the system is in "Limp Mode" this
10+	264 (SMKPE + 264)	LOC: SMkppcload.c - SMdlquser() Add a task to the wait. DESC: MSGS RAM code file wait list is fill. PROBABLE CAUSE: AM memory corruption or software bug in MSKP ENV.
10+	265 (SMKPE + 265)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Failed to send a dmert message (grow state). PROBABLE CAUSE: Software bug or shortage of system message.
10+	266 (SMKPE + 266)	LOC: SMkppcload.c - SMdlfstat() - PC disk file acquisition. DESC: Memory for a MSGS RAM file is being de-grown. PROBABLE CAUSE: This is not a problem if the Craft has installed a new MSGS RAM file. If the user has not, this indicates a *UNIX*® RTR or MSKP ENV software bug.
10+	267 (SMKPE + 267)	LOC: SMkppcload.c - SMkpmmsgrow() - Shrink auxiliary segment. DESC: SMgetpta() returned failure for auxiliary segment. PROBABLE CAUSE: MSKP environment software bug.
10+	268 (SMKPE + 268)	LOC: SMkppcload.c - SMdlaudit() - Audit PC download file. DESC: SMgetpta() returned failure for auxiliary segment. PROBABLE CAUSE: MSKP environment software bug.
10+	269 (SMKPE + 269)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Received an invalid ident from an RTR message. PROBABLE CAUSE: MSKP ENV software bug or corrupt RTR message.
10+	270 (SMKPE + 270)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: MSGS RAM file image is too large for AM core memory. A size of 1 page size (2048 bytes) is assumed. PROBABLE CAUSE: MSKP ENV software bug.
10+	271 (SMKPE + 271)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: MSGS RAM file on AM disk is too large to fit in AM core memory. A size of 1 segment (131072 bytes) is assumed. PROBABLE CAUSE: MSKP ENV software bug or corrupt disk file.
10+	272 (SMKPE + 272)	LOC: SMkppcload.c - SMdliauxtbl() - Initialize auxiliary segment. DESC: Received out of range auxiliary control table index parameter. PROBABLE CAUSE: MSKP environment software bug.
10+	273 (SMKPE + 273)	LOC: SMkppcload.c - SMkpmmagrow() - Grow auxiliary segment. DESC: SMgetpta() returned failure for auxiliary segment. PROBABLE CAUSE: Software bug.
10+	274 (SMKPE + 274)	LOC: SMkppcload.c - SMdlgetaux() - Allocate auxiliary segment. DESC: There are no auxiliary segment control table entries available to assign to a PC download file. PROBABLE CAUSE: Procedural error - too many PC download files identified in ODD.
10+	275 (SMKPE + 275)	LOC: SMkppcload.c - SMdliauxtbl() - Initialize auxiliary segment. DESC: SMgetpta() returned failure for auxiliary segment. PROBABLE CAUSE: Software bug.
10+	276 (SMKPE + 276)	LOC: SMkppcload.c - SMdlgrrd() - Send a grow, read, or close. DESC: Main segment was grown or read to incorrect size. PROBABLE CAUSE: Memory resource problem or MSKP ENV software bug.

10+	277 (SMKPE + 277)	LOC: SMkppcload.c - SMdlgrrd() - Send a grow, read, or close. DESC: Invalid sequence - auxiliary segment index does not match sequence number. PROBABLE CAUSE: MSKP ENV software bug.
10+	278 (SMKPE + 278)	LOC: SMkppcload.c - SMdlgrrd() - Send a grow, read, or close. DESC: Auxiliary segment was grown or read to incorrect size. PROBABLE CAUSE: Memory resource problem or MSKP ENV software bug.
10+	279 (SMKPE + 279)	LOC: SMkppcload.c - SMdlgrrd() - Send a grow, read, or close. DESC: Failed to send read message for the main segment. PROBABLE CAUSE: Message resource problem or MSKP ENV software bug.
10+	280 (SMKPE + 280)	LOC: SMkppcload.c - SMdlgrrd() - Send a grow, read, or close. DESC: Failed to send close message to file manager. PROBABLE CAUSE: Message resource problem or MSKP ENV software bug.
10+	281 (SMKPE + 281)	LOC: SMkppcload.c - SMdlgrrd() - Send a grow, read, or close. DESC: Invalid sequence number -too large. PROBABLE CAUSE: MSKP ENV software bug or corrupt RTR message.
10+	282 (SMKPE + 282)	LOC: SMkppcload.c - SMdlgrrd() - Send a grow, read, or close. DESC: Failed to send grow message for an auxiliary segment. PROBABLE CAUSE: Message resource problem or MSKP ENV software bug.
10+	283 (SMKPE + 283)	LOC: SMkppcload.c - SMdlgrrd() - Send a grow, read, or close. DESC: Failed to send read message for an auxiliary segment. PROBABLE CAUSE: Message resource problem or MSKP ENV software bug.
10+	284 (SMKPE + 284)	LOC: SMkppcload.c - SMdlgrow() - Send a grow message to RTR. DESC: Failed to send grow message for the main segment. PROBABLE CAUSE: Message resource problem or MSKP ENV software bug.
10+	285 (SMKPE + 285)	LOC: SMkppcload.c - SMdlgrow() - Send a grow message to RTR. DESC: Failed to send grow message for an auxiliary segment. PROBABLE CAUSE: Message resource problem or MSKP ENV software bug.
10+	286 (SMKPE + 286)	LOC: SMkppcload.c - SMdldegrow() - Send a degrow message to RTR. DESC: Failed to send degrow message for the main segment. PROBABLE CAUSE: Message resource problem or MSKP ENV software bug.
10+	287 (SMKPE + 287)	LOC: SMkppcload.c - SMdldegrow() - Send a degrow message to RTR. DESC: Failed to send degrow message for an auxiliary segment. PROBABLE CAUSE: Message resource problem or MSKP ENV software bug.
10+	288 (SMKPE + 288)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Failed to send message to read or close a file. PROBABLE CAUSE: MSKP ENV software bug or corrupt RTR message.
10+	289 (SMKPE + 289)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Unsuccessful acknowledgement message received from file manager. PROBABLE CAUSE: MSKP ENV software problem or corrupt RTR message.
10+	290 (SMKPE + 290)	LOC: SMkppcload.c - SMdlstate() - PC disk file acquisition. DESC: Failed to obtain an auxiliary segment to grow memory. - SMdlgrow() or SMdldegrow() failed. PROBABLE CAUSE: Auxiliary segment exhaustion or MSKP ENV software bug.
10+	291 (SMKPE + 291)	LOC: SMkppcload.c - SMdlgetaux() - Allocate auxiliary segment. DESC: Failed to send close message to file manager - SMkpfmiclose() failed. PROBABLE CAUSE: Message resource problem or MSKP ENV software bug.

10+	300 (SMKPE + 300)	LOC: SMkpip.c - SMinit_pip() -Initialize CMP service routine. DESC: Invalid CMP physical ID. PROBABLE CAUSE: CMPH or DGNH called this routine with an invalid.
10+	301 (SMKPE + 301)	LOC: SMkpip.c - SMinit_pip() -Initialize CMP service routine. DESC: Invalid CMP pump type. PROBABLE CAUSE: CMPH or DGNH called this routine with an invalid.
10+	302 (SMKPE + 302)	LOC: SMkpip.c - SMinit_pip() -Initialize CMP service routine. DESC: Invalid CMP pump level for pump type. PROBABLE CAUSE: CMPH or DGNH called this routine with an invalid.
10+	303 (SMKPE + 303)	LOC: SMkpip.c - SMinit_pip() -Initialize CMP service routine. DESC: Invalid CMP pump priority. PROBABLE CAUSE: CMPH or DGNH called this routine with an invalid.
10+	304 (SMKPE + 304)	LOC: SMkpip.c - SMinit_pip() -Initialize CMP service routine. DESC: Invalid CMP pump level. PROBABLE CAUSE: CMPH or DGNH called this routine with an invalid.
10+	305 (SMKPE + 305)	LOC: SMkpip.c - SMinit_pip() -Initialize CMP service routine. DESC: Invalid delayed return function. PROBABLE CAUSE: CMPH or DGNH called this routine with an invalid.
10+	306 (SMKPE + 306)	LOC: SMkpip.c - SMinit_pip() -Initialize CMP service routine. DESC: The CMP initialization service routine SMinit_pip() was called while another service was in-progress. PROBABLE CAUSE: MSKP ENV software bug or MSCU or CMP hardware failure.
10+	307 (SMKPE + 307)	LOC: SMkpip.c - SMinit_pip() -Initialize CMP service routine. DESC: Failed to request a timer -SMreqtime() failed. PROBABLE CAUSE: MSKP ENV software bug.
10+	308 (SMKPE + 308)	LOC: SMkpip.c - SMinit_pip() -Initialize CMP service routine. DESC: Fail to start CMP initialization. PROBABLE CAUSE: MSCU hardware failure.
10+	309 (SMKPE + 309)	LOC: SMkpip.c - SMipctrl() - Controls initialization. DESC: Invalid response or message pointer. PROBABLE CAUSE: MSKP ENV software bug.
10+	310 (SMKPE + 310)	LOC: SMkpip.c - SMipctrl() - Controls initialization. DESC: Failed to send a command or message. PROBABLE CAUSE: MSKP ENV software bug or MSCU hardware failure.
10+	311 (SMKPE + 311)	LOC: SMkpip.c - SMipctrl() - Controls initialization. DESC: Invalid control event. PROBABLE CAUSE: MSKP ENV software bug.
10+	312 (SMKPE + 312)	LOC: SMkpip.c - SMipstate() - Determines next state. DESC: Invalid pump level. PROBABLE CAUSE: MSKP ENV software bug.
10+	313 (SMKPE + 313)	LOC: SMkpip.c - SMipstate() - Determines next state. DESC: Invalid pump type. PROBABLE CAUSE: MSKP ENV software bug.
10+	314 (SMKPE + 314)	LOC: SMkpip.c - SMipstate() - Determines next state. DESC: Invalid state.

		PROBABLE CAUSE: MSKP ENV software bug.
10+	315 (SMKPE + 315)	LOC: SMkpip.c - SMipstate() - Determines next state. DESC: Invalid new state. PROBABLE CAUSE: MSKP ENV software bug.
10+	316 (SMKPE + 316)	LOC: SMkpip.c - SMipsend() - Sends commands or messages. DESC: Failed to delete a DMA job number. PROBABLE CAUSE: MSKP ENV software bug.
10+	317 (SMKPE + 317)	LOC: SMkpip.c - SMipsend() - Sends commands or messages. DESC: Invalid state. PROBABLE CAUSE: MSKP ENV software bug.
10+	318 (SMKPE + 318)	LOC: SMkpip.c - SMipsend() - Sends commands or messages. DESC: Invalid completion code (not success). PROBABLE CAUSE: MSKP ENV software bug.
10+	319 (SMKPE + 319)	LOC: SMkpip.c - SMipsend() - Sends commands or messages. DESC: Invalid send event. PROBABLE CAUSE: MSKP ENV software bug.
10+	320 (SMKPE + 320)	LOC: SMkpip.c - SMipsval() -Validates the required pointers. DESC: Invalid state. PROBABLE CAUSE: MSKP ENV software bug.
10+	321 (SMKPE + 321)	LOC: SMkpip.c - SMipsval() -Validates the required pointers. DESC: Invalid pointer for current state. PROBABLE CAUSE: MSKP ENV software bug.
10+	322 (SMKPE + 322)	LOC: SMkpip.c - SMipscmd() - Sends commands. DESC: Invalid send event. PROBABLE CAUSE: MSKP ENV software bug.
10+	323 (SMKPE + 323)	LOC: SMkpip.c - SMipscmd() - Sends commands or messages. DESC: Invalid DMA buffer (not 0 or 1). PROBABLE CAUSE: MSKP ENV software bug.
10+	324 (SMKPE + 324)	LOC: SMkpip.c - SMipscmd() - Sends commands. DESC: Invalid state. PROBABLE CAUSE: MSKP ENV software bug.
10+	325 (SMKPE + 325)	LOC: SMkpip.c - SMipsend() - Sends commands. DESC: Fail to send a command -SMxmitcmd() failed. PROBABLE CAUSE: MSCU hardware failure.
10+	326 (SMKPE + 326)	LOC: SMkpip.c - SMipsmsg() - Sends messages. DESC: Invalid send event. PROBABLE CAUSE: MSKP ENV software bug.
10+	327 (SMKPE + 327)	LOC: SMkpip.c - SMipsmsg() - Sends messages. DESC: Invalid DMA buffer number (not 0 or 1). PROBABLE CAUSE: CMP software bug.
10+	328 (SMKPE + 328)	LOC: SMkpip.c - SMipsmsg() - Sends messages. DESC: Invalid state. PROBABLE CAUSE: MSKP ENV software bug.
10+	329 (SMKPE + 329)	LOC: SMkpip.c - SMipsmsg() - Sends messages. DESC: Failed to send a message to PUCR -SMsendmsg() failed.

		PROBABLE CAUSE: The PUCR *UNIX*® process is dead or MSKP ENV Software bug.
10+	330 (SMKPE + 330)	LOC: SMkpip.c - SMipsttm() - Requests a timer on the state. DESC: Invalid state event. PROBABLE CAUSE: MSKP ENV software bug.
10+	331 (SMKPE + 331)	LOC: SMkpip.c - SMipsttm() - Requests a timer on the state. DESC: Failed to request a timer -SMreqtime() failed. PROBABLE CAUSE: MSKP ENV software bug.
10+	332 (SMKPE + 332)	LOC: SMkpip.c - SMiprecv() - Receives a MSG, RSO, or TMO. DESC: Invalid CMP physical ID. PROBABLE CAUSE: MSKP ENV software bug.
10+	333 (SMKPE + 333)	LOC: SMkpip.c - SMiprecv() - Receives a MSG, RSO, or TMO. DESC: Failed to delete the state timer -SMdeltimer() Failed. PROBABLE CAUSE: MSKP ENV software bug.
10+	334 (SMKPE + 334)	LOC: SMkpip.c - SMiprecv() - Receives a response. DESC: MSCU asynchronous error response: MSCU detected a. CMP critical error -error lead. Examine CMP post mortem for details. PROBABLE CAUSE: CMP software (ROM or Phase 2) or hardware failure.
10+	335 (SMKPE + 335)	LOC: SMkpip.c - SMiprecv() - Receives a response. DESC: MSCU asynchronous error response: MSCU detected a CMP critical error. Examine abnormal response for details. PROBABLE CAUSE: CMP software (ROM or phase 2) or hardware failure.
10+	336 (SMKPE + 336)	LOC: SMkpip.c - SMiprecv() - Receives a response. DESC: Invalid or old response (invalid event number). PROBABLE CAUSE: CMP software (ROM or phase 2) or hardware failure.
10+	337 (SMKPE + 337)	LOC: SMkpip.c - SMiprecv() - Receives a response. DESC: Invalid or old message (invalid event number). PROBABLE CAUSE: CMP software (ROM or phase 2) or hardware failure.
10+	338 (SMKPE + 338)	LOC: SMkpip.c - SMiprecv() - Receives a response. DESC: Received PUCR/CMP PUMP finished pumping error message. -AM disk failure. PROBABLE CAUSE: AM disk problem or CMP pump files are missing or corrupted on disk.
10+	339 (SMKPE + 339)	LOC: SMkpip.c - SMiprecv() - Receives a response. DESC: Received PUCR/CMP PUMP finished pumping error message. -CMP pump was preempted by a Switching Module pump. PROBABLE CAUSE: Switch Module hardware or software bug.
10+	340 (SMKPE + 340)	LOC: SMkpip.c - SMiprecv() - Receives a response. DESC: Received PUCR/CMP PUMP finished pumping error message. PROBABLE CAUSE: PUCR/CMPPUMP software bug. SUP Data 2 has. the error code from PUCR/CMPPUMP (see si/INpdefs.h for an explanation of the error code).
10+	341	Not used.
10+	342	Not used.
10+	343	Not used.
10+	344	Not used.
10+	345 (SMKPE + 345)	LOC: SMkpip.c - SMiprecv() - Receives a MSG, RSO, or TMO. DESC: Timeout on buffer setup or ready message from PUCR/CMP PUMP (non-deferred pump). PROBABLE CAUSE: PUCR/CMP PUMP software bug.

10+	346 (SMKPE + 346)	LOC: SMkpip.c - SMiprecv() - Receives a MSG, RSO, or TMO. DESC: Timeout on message from PUCR or CMP PUMP. PROBABLE CAUSE: PUCR or CMP PUMP software bug.
10+	347 (SMKPE + 347)	LOC: SMkpip.c - SMiprecv() - Receives a MSG, RSO, or TMO. DESC: Timeout on response from MSCU. PROBABLE CAUSE: MSCU hardware failure.
10+	348 (SMKPE + 348)	LOC: SMkpip.c - SMiprecv() - Receives a MSG, RSO, or TMO. DESC: Timeout on response from CMP. PROBABLE CAUSE: CMP hardware failure.
10+	349 (SMKPE + 349)	LOC: SMkpip.c - SMiprecv() - Receives a MSG, RSO, or TMO. DESC: Invalid receive event. PROBABLE CAUSE: MSKP ENV software bug.
10+	350	Not used.
10+	351 (SMKPE + 351)	LOC: SMkpip.c - SMiprrsp() - Receives a response. DESC: MSCU completion code failure. Examine abnormal response for details. PROBABLE CAUSE: MSCU hardware failure.
10+	352 (SMKPE + 352)	LOC: SMkpip.c - SMiprrsp() - Receives a response. DESC: CMP completion code response failure. Examine abnormal response for details. PROBABLE CAUSE: CMP software (ROM or phase 2) or CMP hardware failure.
10+	353 (SMKPE + 353)	LOC: SMkpip.c - SMiprrsp() - Receives a response. DESC: Received a HW response while waiting for message or timeout. PROBABLE CAUSE: MSKP ENV software bug or CMP software bug..
10+	354 (SMKPE + 354)	LOC: SMkpip.c - SMiprrsp() - Receives a response. DESC: Invalid MSCU command type -not mark PC community in-service. PROBABLE CAUSE: MSCU hardware failure.
10+	355 (SMKPE + 355)	LOC: SMkpip.c - SMiprrsp() - Receives a response. DESC: Invalid MSCU command type -not reset PC. PROBABLE CAUSE: MSCU hardware failure.
10+	356 (SMKPE + 356)	LOC: SMkpip.c - SMiprrsp() - Receives a response. DESC: Invalid MSCU command type -not unisolate PC. PROBABLE CAUSE: MSCU hardware failure.
10+	357 (SMKPE + 357)	LOC: SMkpip.c - SMiprrsp() - Receives a response. DESC: Invalid CMP command type -not clear memory. PROBABLE CAUSE: CMP hardware failure.
10+	358 (SMKPE + 358)	LOC: SMkpip.c - SMiprrsp() - Receives a response. DESC: Invalid MSCU command type -not isolate PC. PROBABLE CAUSE: MSCU hardware failure.
10+	359 (SMKPE + 359)	LOC: SMkpip.c - SMiprrsp() - Receives a response. DESC: Invalid CMP command type -not audit. PROBABLE CAUSE: CMP software (ROM) bug or CMP hardware failure.
10+	360 (SMKPE + 360)	LOC: SMkpip.c - SMiprrsp() - Receives a response. DESC: MSGH audit pattern failure. This failure indicates that the CMP-MSGH is not running or is insane. PROBABLE CAUSE: CMP-MSGH hardware failure.

10+	361 (SMKPE + 361)	LOC: SMkpip.c - SMiprrsp() - Receives a response. DESC: AP audit pattern failure for diagnostic pump. This failure indicates that the CMP-AP is not running or is insane. Since this is a diagnostic pump, the error is ignore. PROBABLE CAUSE: CMP-AP hardware failure.
10+	362 (SMKPE + 362)	LOC: SMkpip.c - SMiprrsp() - Receives a response. DESC: AP audit pattern failure for operation pump. This failure indicates that the CMP-AP is not running or is insane. PROBABLE CAUSE: CMP-AP hardware failure.
10+	363 (SMKPE + 363)	LOC: SMkpip.c - SMiprrsp() - Receives a response. DESC: Inconsistent CM/CMP hardware vinatge. PROBABLE CAUSE: ODD problem or CMP is wired wrong on the back-plan. Check ODD for correct CM hardware vintage and check back-plan pin 315 of the TN1368 board (CMP core board). For CM1, the pin should be open. For CM2, the pin should be connect to +5 Volts.
10+	364 (SMKPE + 364)	LOC: SMkpip.c - SMiprrsp() - Receives a response. DESC: The requested pump level is too low for the pump to successfully complete (CMP memory has been cleared). PROBABLE CAUSE: This is a normal error if the CMP has been powered cycled.
10+	365 (SMKPE + 365)	LOC: SMkpip.c - SMiprrsp() - Receives a response. DESC: Invalid or out of sequence response -not buffer loaded. PROBABLE CAUSE: CMP software (ROM or phase 2) or CMP hardware failure.
10+	366 (SMKPE + 366)	LOC: SMkpip.c - SMiprrsp() - Receives a response. DESC: Invalid or out of sequence response -not jump to RAM. PROBABLE CAUSE: CMP software (phase 2) or CMP hardware failure.
10+	367 (SMKPE + 367)	LOC: SMkpip.c - SMiprrsp() - Receives a response. DESC: Invalid or out of sequence response -not continue. PROBABLE CAUSE: CMP software (phase 2) or CMP hardware failure.
10+	368 (SMKPE + 368)	LOC: SMkpip.c - SMiprrsp() - Receives a response. DESC: Invalid or out of sequence response -not text data request or finished requesting. PROBABLE CAUSE: CMP software (phase 2) or CMP hardware failure.
10+	369 (SMKPE + 369)	LOC: SMkpip.c - SMiprrsp() - Receives a response. DESC: CMP had to re-pump some failing ranges more than once. Examine abnormal response for details. PROBABLE CAUSE: DMA corrupted parts of the pump or. CMP software (phase 2) failure.
10+	370 (SMKPE + 370)	LOC: SMkpip.c - SMiprrsp() - Receives a response. DESC: CMP non-correctable "hashsum". Examine CMP post mortem for failing ranges. PROBABLE CAUSE: Out of date or bad "hashsum" files or CMP software (phase 2) failure.
10+	371 (SMKPE + 371)	LOC: SMkpip.c - SMiprrsp() - Receives a response. DESC: CMP returned fail in the finished requesting response. PROBABLE CAUSE: CMP software (phase 2) or CMP hardware failure.
10+	372 (SMKPE + 372)	LOC: SMkpip.c - SMiprrsp() - Receives a response. DESC: Invalid or out of sequence response -not finished TDR. PROBABLE CAUSE: CMP software (phase 2) or CMP hardware failure.

10+	373 (SMKPE + 373)	LOC: SMkpip.c - SMiprrsp() - Receives a response. DESC: Received a response when waiting for a message or timeout. PROBABLE CAUSE: CMP software failure or CMP hardware failure.
10+	374	Not used.
10+	375 (SMKPE + 375)	LOC: Not used. DESC: Invalid or out of sequence message -not busy or ready message. PROBABLE CAUSE: PUCR or CMP PUMP software bug.
10+	376 (SMKPE + 376)	LOC: SMkpip.c - SMiprmsg() - Receives a message. DESC: Invalid or out of sequence message -not ready or buffer set-up message. PROBABLE CAUSE: PUCR or CMP PUMP software bug.
10+	377 (SMKPE + 377)	LOC: SMkpip.c - SMiprmsg() - Receives a message. DESC: Failed to assign DMA job numbers. PROBABLE CAUSE: MSKP ENV software bug.
10+	378 (SMKPE + 378)	LOC: SMkpip.c - SMiprmsg() - Receives a message. DESC: Invalid or out of sequence message -not buffer setup or busy message. PROBABLE CAUSE: PUCR or CMP PUMP software bug.
10+	379 (SMKPE + 379)	LOC: SMkpip.c - SMiprmsg() - Receives a message. DESC: Failed to assign DMA job numbers. PROBABLE CAUSE: MSKP ENV software bug.
10+	380 (SMKPE + 380)	LOC: SMkpip.c - SMiprmsg() - Receives a message. DESC: Invalid or out of sequence message -not buffer loaded message. PROBABLE CAUSE: PUCR/CMP PUMP software bug.
10+	381 (SMKPE + 381)	LOC: SMkpip.c - SMiprmsg() - Receives a message. DESC: Invalid buffer loaded message: out of range DMA buffer number (not 0 or 1) or out of range block number (< 1 or > 64). PROBABLE CAUSE: CMP PUMP software bug.
10+	382 (SMKPE + 382)	LOC: SMkpip.c - SMiprmsg() - Receives a message. DESC: Invalid or out of sequence message -not buffer loaded or finished pumping message. PROBABLE CAUSE: CMP PUMP software bug.
10+	383 (SMKPE + 383)	LOC: SMkpip.c - SMiprmsg() - Receives a message. DESC: Invalid buffer loaded message: out of range DMA buffer number (not 0 or 1), out of range block number (< 1 or > 64), or AM buffer offset is not on a word boundry. PROBABLE CAUSE: CMP PUMP software bug.
10+	384 (SMKPE + 384)	LOC: SMkpip.c - SMiprmsg() - Receives a message. DESC: Invalid or out of sequence message -not jump to RAM message. PROBABLE CAUSE: CMP PUMP software bug.
10+	385 (SMKPE + 385)	LOC: SMkpip.c - SMiprmsg() - Receives a message. DESC: Received a message when waiting for a response or timeout. PROBABLE CAUSE: CMP PUMP software bug.
10+	386 (SMKPE + 386)	LOC: SMkpip.c - SMipdma() - Assigns DMA job numbers. DESC: DMA job numbers are not NULL. PROBABLE CAUSE: MSKP ENV software bug.
10+	387 (SMKPE + 387)	LOC: SMkpip.c - SMipdma() - Assigns DMA job numbers. DESC: Failed to get PTA -lock() failed. PROBABLE CAUSE: MSKP ENV software bug.

10+	388 (SMKPE + 388)	LOC: SMkpip.c - SMipdma() - Assigns DMA job numbers. DESC: Invalid DMA job number. PROBABLE CAUSE: MSKP ENV software bug.
10+	389 (SMKPE + 389)	LOC: SMkpip.c - SMiptmo() - Receives timeouts. DESC: Invalid CMP physical ID. PROBABLE CAUSE: MSKP ENV software bug.
10+	390 (SMKPE + 390)	LOC: SMkpip.c - SMiptmo() - Receives timeouts. DESC: Invalid timeout. PROBABLE CAUSE: MSKP ENV software bug.
10+	391 (SMKPE + 391)	LOC: SMkpip.c - SMiptmo() - Receives timeouts. DESC: Invalid overall initialization timeout. PROBABLE CAUSE: MSKP ENV software bug.
10+	392 (SMKPE + 392)	LOC: SMkpip.c - SMiptmo() - Receives timeouts. DESC: Invalid state. PROBABLE CAUSE: MSKP ENV software bug.
10+	393 (SMKPE + 393)	LOC: SMkpip.c - SMiptmo() - Receives timeouts. DESC: No timer is pending on the overall initialization sequence. PROBABLE CAUSE: MSKP ENV software bug.
10+	394 (SMKPE + 394)	LOC: SMkpip.c - SMiptmo() - Receives timeouts. DESC: Timeout on overall initialization sequence (non-deferred). PROBABLE CAUSE: PUCR, CMP PUMP, or CMP software bug.
10+	395 (SMKPE + 395)	LOC: SMkpip.c - SMiptmo() - Receives timeouts. DESC: Failed to request a timer on the overall initialization sequence -SMreqtime() failed. PROBABLE CAUSE: MSKP ENV software bug.
10+	396 (SMKPE + 396)	LOC: SMkpip.c - SMiptmo() - Receives timeouts. DESC: Invalid timeout event. PROBABLE CAUSE: MSKP ENV software bug.
10+	397 (SMKPE + 397)	LOC: SMkpip.c - SMipdone() -Complete initialization. DESC: Failed to delete overall initialization timer -SMdeltime() failed. PROBABLE CAUSE: MSKP ENV software bug.
10+	398 (SMKPE + 398)	LOC: SMkpip.c - SMipdone() -Complete initialization. DESC: Invalid user's delayed return function. PROBABLE CAUSE: MSKP ENV software bug.
10+	500 (SMKPE + 500)	LOC: SMkpiq.c - SMinit_qgp() -Initialize QGP service routine. DESC: Invalid QGP physical ID. PROBABLE CAUSE: QGPH or DGNH called this routine with an invalid.
10+	501 (SMKPE + 501)	LOC: SMkpiq.c - SMinit_qgp() -Initialize QGP service routine. DESC: Invalid QGP pump type. PROBABLE CAUSE: QGPH or DGNH called this routine with an invalid.
10+	502 (SMKPE + 502)	LOC: SMkpiq.c - SMinit_qgp() -Initialize QGP service routine. DESC: Invalid QGP pump level for pump type. PROBABLE CAUSE: QGPH or DGNH called this routine with an invalid.
10+	503 (SMKPE + 503)	LOC: SMkpiq.c - SMinit_qgp() -Initialize QGP service routine. DESC: Invalid delayed return function. PROBABLE CAUSE: QGPH or DGNH called this routine with an invalid.

10+	504 (SMKPE + 504)	LOC: SMkpiq.c - SMinit_qgp() -QGP Initialize service routine. DESC: The QGP initialization service routine SMinit_qgp() was called while another service routine was in-progress. PROBABLE CAUSE: MSCU or QGP hardware failure.
10+	506 (SMKPE + 506)	LOC: SMkpiq.c - SMinit_qgp() -Initialize QGP service routine. DESC: Failed to request a timer -SMreqtime() failed. PROBABLE CAUSE: MSKP ENV software bug.
10+	507 (SMKPE + 507)	LOC: SMkpiq.c - SMinit_qgp() -Initialize QGP service routine. DESC: Failed to start QGP initialization. PROBABLE CAUSE: MSCU hardware failure.
10+	508 (SMKPE + 508)	LOC: SMkpiq.c - SMiqctrl() - Controls initialization. DESC: Failed to send a command or message. PROBABLE CAUSE: MSKP ENV software bug or MSCU hardware failure.
10+	509 (SMKPE + 509)	LOC: SMkpiq.c - SMiqctrl() - Controls initialization. DESC: Invalid control event. PROBABLE CAUSE: MSKP ENV software bug.
10+	510 (SMKPE + 510)	LOC: SMkpiq.c - SMiqstate() - Determines next state. DESC: Invalid pump level. PROBABLE CAUSE: MSKP ENV software bug.
10+	511 (SMKPE + 511)	LOC: SMkpiq.c - SMiqstate() - Determines next state. DESC: Invalid state. PROBABLE CAUSE: MSKP ENV software bug.
10+	512 (SMKPE + 512)	LOC: SMkpiq.c - SMiqstate() - Determines next state. DESC: Invalid new state. PROBABLE CAUSE: MSKP ENV software bug.
10+	513 (SMKPE + 513)	LOC: SMkpiq.c - SMiqsend() - Sends commands or messages. DESC: Failed to delete a DMA job number. PROBABLE CAUSE: MSKP ENV software bug.
10+	514 (SMKPE + 514)	LOC: SMkpiq.c - SMiqsend() - Sends commands or messages. DESC: Invalid state. PROBABLE CAUSE: MSKP ENV software bug.
10+	515 (SMKPE + 515)	LOC: SMkpiq.c - SMiqsend() - Sends commands or messages. DESC: Invalid completion code (not success). PROBABLE CAUSE: MSKP ENV software bug.
10+	516 (SMKPE + 516)	LOC: SMkpiq.c - SMiqsend() - Sends commands or messages. DESC: Invalid send event. PROBABLE CAUSE: MSKP ENV software bug.
10+	517 (SMKPE + 517)	LOC: SMkpiq.c - SMiqscmd() - Sends commands. DESC: Invalid send event. PROBABLE CAUSE: MSKP ENV software bug.
10+	518 (SMKPE + 518)	LOC: SMkpiq.c - SMiqscmd() - Sends commands. DESC: Invalid state. PROBABLE CAUSE: MSKP ENV software bug.
10+	519 (SMKPE + 519)	LOC: SMkpiq.c - SMiqsend() - Sends commands. DESC: Fail to send a command -SMxmitcmd() failed.

		PROBABLE CAUSE: MSCU hardware failure.
10+	520 (SMKPE + 520)	LOC: SMkpiq.c - SMiqsttm() - Requests a timer on the state. DESC: Invalid state. PROBABLE CAUSE: MSKP ENV software bug.
10+	521 (SMKPE + 521)	LOC: SMkpiq.c - SMiqsttm() - Requests a timer on the state. DESC: Failed to request a timer -SMreqtime() failed. PROBABLE CAUSE: MSKP ENV software bug.
10+	522 (SMKPE + 522)	LOC: SMkpiq.c - SMiqrecv() - Receives a DLY, RSO, or TMO. DESC: Invalid QGP physical ID. PROBABLE CAUSE: MSKP ENV software bug.
10+	523 (SMKPE + 523)	LOC: SMkpiq.c - SMiqrecv() - Receives a DLY, RSO, or TMO. DESC: Failed to delete the state timer -SMdeltime() failed. PROBABLE CAUSE: MSKP ENV software bug.
10+	524 (SMKPE + 524)	LOC: SMkpiq.c - SMiqrecv() - Receives a DLY, RSO, or TMO. DESC: MSCU asynchronous error response: MSCU detected a. QGP critical error -error lead. Examine QGP post mortem for details. PROBABLE CAUSE: QGP software (ROM or Phase 2) or hardware failure.
10+	525 (SMKPE + 525)	LOC: SMkpiq.c - SMiqrecv() - Receives a DLY, RSO, or TMO. DESC: MSCU asynchronous error response: MSCU detected. a QGP critical error. Examine abnormal response for details. PROBABLE CAUSE: QGP software (ROM or phase 2) or hardware failure.
10+	526 (SMKPE + 526)	LOC: SMkpiq.c - SMiqrecv() - Receives a DLY, RSO, or TMO. DESC: Invalid or old delayed return entry. PROBABLE CAUSE: QGP software (ROM or phase 2) or hardware failure.
10+	527 (SMKPE + 527)	LOC: SMkpiq.c - SMiqrecv() - Receives a DLY, RSO, or TMO. DESC: Timeout on response from MSCU. PROBABLE CAUSE: MSCU hardware failure.
10+	528 (SMKPE + 528)	LOC: SMkpiq.c - SMiqrecv() - Receives a DLY, RSO, or TMO. DESC: Timeout on download from disk primitive SMdlfdsk(). PROBABLE CAUSE: MSKP ENV software bug.
10+	529 (SMKPE + 529)	LOC: SMkpiq.c - SMiqrecv() - Receives a DLY, RSO, or TMO. DESC: Timeout on response from QGP. PROBABLE CAUSE: QGP hardware failure.
10+	530 (SMKPE + 530)	LOC: SMkpiq.c - SMiqrecv() - Receives a DLY, RSO, or TMO. DESC: Invalid receive event. PROBABLE CAUSE: MSKP ENV software bug.
10+	547 (SMKPE + 547)	LOC: SMkpiq.c - SMiqrrsp() - Receives a response. DESC: Invalid MSCU command destination field. Examine abnormal response for details. PROBABLE CAUSE: MSCU hardware failure.
10+	548 (SMKPE + 548)	LOC: SMkpiq.c - SMiqrrsp() - Receives a response. DESC: MSCU completion code failure. Examine abnormal response for details. PROBABLE CAUSE: MSCU hardware failure.
10+	549 (SMKPE + 549)	LOC: SMkpiq.c - SMiqrrsp() - Receives a response. DESC: Invalid QGP command destination field or invalid MSCU side field. Examine abnormal response for details.

		PROBABLE CAUSE: QGP software (ROM or phase 2) or QGP hardware failure.
10+	550 (SMKPE + 550)	LOC: SMkpiq.c - SMiqrrsp() - Receives a response. DESC: QGP non-correctable hashsum error. Examine QGP post mortem for failing ranges. PROBABLE CAUSE: Corrupt QGP disk file -check "/no5text/prc/ QGPCM2OPER.out" for the operational file and. "/no5text/prc/QGPCM2DIAG.out" for the diagnostic file.
10+	551 (SMKPE + 551)	LOC: SMkpiq.c - SMiqrrsp() - Receives a response. DESC: QGP hardware error and QGP non-correctable hashsum error. Examine QGP post mortem for failing ranges. PROBABLE CAUSE: QGP hardware failure and corrupt QGP disk file -check "/no5text/prc/QGPCM2OPER.out" for the operational file and "/no5text/prc/QGPCM2DIAG.out" for the diagnostic file.
10+	552 (SMKPE + 552)	LOC: SMkpiq.c - SMiqrrsp() - Receives a response. DESC: QGP completion code failure. Examine abnormal response for details. PROBABLE CAUSE: QGP hardware failure.
10+	553 (SMKPE + 553)	LOC: SMkpiq.c - SMiqrrsp() - Receives a response. DESC: Received a hardware response while waiting for message or timeout. PROBABLE CAUSE: MSKP ENV software bug or QGP software bug.
10+	554 (SMKPE + 554)	LOC: SMkpiq.c - SMiqrrsp() - Receives a response. DESC: Invalid MSCU command type -not mark PC community in-service. PROBABLE CAUSE: MSCU hardware failure.
10+	555 (SMKPE + 555)	LOC: SMkpiq.c - SMiqrrsp() - Receives a response. DESC: Invalid MSCU command type -not reset PC. PROBABLE CAUSE: MSCU hardware failure.
10+	556 (SMKPE + 556)	LOC: SMkpiq.c - SMiqrrsp() - Receives a response. DESC: Invalid MSCU command type -not unisolate PC. PROBABLE CAUSE: MSCU hardware failure.
10+	557 (SMKPE + 557)	LOC: SMkpiq.c - SMiqrrsp() - Receives a response. DESC: Invalid QGP command type -not clear memory. PROBABLE CAUSE: QGP hardware failure.
10+	558 (SMKPE + 558)	LOC: SMkpiq.c - SMiqrrsp() - Receives a response. DESC: Invalid MSCU command type -not isolate PC. PROBABLE CAUSE: MSCU hardware failure.
10+	559 (SMKPE + 559)	LOC: SMkpiq.c - SMiqrrsp() - Receives a response. DESC: Invalid QGP command type -not audit. PROBABLE CAUSE: QGP software (ROM) bug or QGP hardware failure.
10+	560 (SMKPE + 560)	LOC: SMkpiq.c - SMiqrrsp() - Receives a response. DESC: MSGH audit pattern failure. This failure indicates that the QGP-MSGH is not running or is insane. PROBABLE CAUSE: QGP-MSGH hardware failure.
10+	561 (SMKPE + 561)	LOC: SMkpiq.c - SMiqrrsp() - Receives a response. DESC: AP audit pattern failure for diagnostic pump. This failure indicates that the QGP-AP is not running or is insane. Since this is a diagnostic pump, the error is ignore. PROBABLE CAUSE: QGP-AP hardware failure.
10+	562 (SMKPE + 562)	LOC: SMkpiq.c - SMiqrrsp() - Receives a response. DESC: AP audit pattern failure for operation pump. This failure indicates that the

		QGP-AP is not running or is insane. PROBABLE CAUSE: QGP-AP hardware failure.
10+	563 (SMKPE + 563)	LOC: SMkpiq.c - SMiqrrsp() - Receives a response. DESC: The requested pump level is too low for the pump to successfully complete (QGP memory has been cleared). PROBABLE CAUSE: This is a normal error if the QGP has been powered cycled.
10+	564 (SMKPE + 564)	LOC: SMkpiq.c - SMiqrrsp() - Receives a response. DESC: Invalid or out of sequence response -not jump to phase 2 RAM. PROBABLE CAUSE: QGP software (ROM or phase 2) or QGP hardware failure.
10+	565 (SMKPE + 565)	LOC: SMkpiq.c - SMiqrrsp() - Receives a response. DESC: Invalid or out of sequence response -not buffer loaded. PROBABLE CAUSE: QGP software (ROM or phase 2) or QGP hardware failure.
10+	566 (SMKPE + 566)	LOC: SMkpiq.c - SMiqrrsp() - Receives a response. DESC: Out of range pump phase 2 or phase 3 buffer loaded counter. PROBABLE CAUSE: MSKP ENV software or corrupted MSKP .BSS.
10+	567 (SMKPE + 567)	LOC: SMkpiq.c - SMiqrrsp() - Receives a response. DESC: Invalid or out of sequence response -not phase 2 or phase 3 hashsum check. PROBABLE CAUSE: QGP software (phase 2) or QGP hardware failure.
10+	568 (SMKPE + 568)	LOC: SMkpiq.c - SMiqrrsp() - Receives a response. DESC: Invalid or out of sequence response -not jump to diagnostic. PROBABLE CAUSE: QGP software (phase 2) or QGP hardware failure.
10+	569 (SMKPE + 569)	LOC: SMkpiq.c - SMiqrrsp() - Receives a response. DESC: Received a response when waiting for a delayed return entry or timeout. PROBABLE CAUSE: QGP software failure or QGP hardware failure.
10+	570 (SMKPE + 570)	LOC: SMkpiq.c - SMiqdmajb() - Assigns DMA job number. DESC: Failed to lock segment -SMgetpta() failed. PROBABLE CAUSE: MSKP ENV software bug.
10+	571 (SMKPE + 571)	LOC: SMkpiq.c - SMiqdmajb() - Assigns DMA job number. DESC: Failed to get a DMA job numer -SMasndma() failed. PROBABLE CAUSE: MSKP ENV software bug.
10+	572 (SMKPE + 572)	LOC: SMkpiq.c - SMiqtmo() - Receives timeouts. DESC: Invalid QGP physical ID. PROBABLE CAUSE: MSKP ENV software bug.
10+	573 (SMKPE + 573)	LOC: SMkpiq.c - SMiqtmo() - Receives timeouts. DESC: Invalid timeout. PROBABLE CAUSE: MSKP ENV software bug.
10+	574 (SMKPE + 574)	LOC: SMkpiq.c - SMiqtmo() - Receives timeouts. DESC: Invalid overall initialization timeout. PROBABLE CAUSE: MSKP ENV software bug.
10+	575 (SMKPE + 575)	LOC: SMkpiq.c - SMiqtmo() - Receives timeouts. DESC: Invalid state detected on timeout.. PROBABLE CAUSE: MSKP ENV software bug.
10+	576 (SMKPE + 576)	LOC: SMkpiq.c - SMiqtmo() - Receives timeouts. DESC: Timeout on overall initialization sequence. PROBABLE CAUSE: MSKP ENV software bug.

10+	577 (SMKPE + 577)	LOC: SMkpiq.c - SMiqtmo() - Receives timeouts. DESC: Invalid timeout event. PROBABLE CAUSE: MSKP ENV software bug.
10+	578 (SMKPE + 578)	LOC: SMkpiq.c - SMiqrram() - Request RAM. DESC: Failed to read QGP operational filename from ODD -DBfrdtup() failed. PROBABLE CAUSE: ODD problem.
10+	579 (SMKPE + 579)	LOC: SMkpiq.c - SMiqrram() - Request RAM. DESC: Failed to request from file from core -SMdlfdsk() failed. PROBABLE CAUSE: MSKP ENV software bug or memory resource problem.
10+	580 (SMKPE + 580)	LOC: SMkpiq.c - SMiqrram() - Request RAM. DESC: QGPH or DGNH requested an AM core memory pump of the QGP, but the RAM image is not in AM core memory. The request will be changed to pump from AM disk and the QGP initialization sequence will continue. PROBABLE CAUSE: QGP RAM image was removed from AM core memory.
10+	581 (SMKPE + 581)	LOC: SMkpiq.c - SMiqrram() - Request RAM. DESC: Failed to request QGP RAM file/image -SMdlfdsk() failed. PROBABLE CAUSE: MSKP ENV software bug or memory resource problem.
10+	582 (SMKPE + 582)	LOC: SMkpiq.c - SMiqdlyret() - Download delayed return. DESC: Invalid physical ID. PROBABLE CAUSE: MSKP ENV software bug.
10+	583 (SMKPE + 583)	LOC: SMkpiq.c - SMiqdlyret() - Download delayed return. DESC: Invalid delayed return entry, PROBABLE CAUSE: MSKP ENV software bug.
10+	584 (SMKPE + 584)	LOC: SMkpiq.c - SMiqdlyret() - Download delayed return. DESC: Invalid control table index. PROBABLE CAUSE: MSKP ENV software bug.
10+	585 (SMKPE + 585)	LOC: SMkpiq.c - SMiqdlyret() - Download delayed return. DESC: Failed to get RAM image -delayed return entery completion code failure. PROBABLE CAUSE: Memory resource or MSKP ENV software bug.
10+	586 (SMKPE + 586)	LOC: SMkpiq.c - SMiqdlyret() - Download delayed return. DESC: Main segment index does not match the first entry in the segment list. PROBABLE CAUSE: MSKP ENV software bug.
10+	587 (SMKPE + 587)	LOC: SMkpiq.c - SMiqdlyret() - Download delayed return. DESC: Invalid QGP RAM file size. PROBABLE CAUSE: MSKP ENV software bug.
10+	588 (SMKPE + 588)	LOC: SMkpiq.c - SMiqdlyret() - Download delayed return. DESC: Invalid auxiliary segment index. PROBABLE CAUSE: MSKP ENV software bug.
10+	589 (SMKPE + 589)	LOC: SMkpiq.c - SMiqdlyret() - Download delayed return. DESC: Invalid magic number in COFF header. PROBABLE CAUSE: QGP RAM file on disk is corrupt or AM core memory image of disk file is corrupt.
10+	590 (SMKPE + 590)	LOC: SMkpiq.c - SMiqdlyret() - Download delayed return. DESC: Invalid number of section in COFF header -too large. PROBABLE CAUSE: QGP RAM file on disk is corrupt or AM core memory image of disk file is corrupt.

10+	591 (SMKPE +591)	LOC: SMkpiq.c - SMiqdlyret() - Download delayed return. DESC: Invalid QGP RAM file COFF section address or COFF section size. PROBABLE CAUSE: QGP RAM file on disk is corrupt or AM core memory image of disk file is corrupt.
10+	592 (SMKPE + 592)	LOC: SMkpiq.c - SMiqdlyret() - Download delayed return. DESC: QGP Operational RAM file/image does not have phase 3 sections. PROBABLE CAUSE: QGP RAM file on disk is corrupt or AM core memory image of disk file is corrupt.
10+	593 (SMKPE + 593)	LOC: SMkpiq.c - SMiqdlyret() - Download delayed return. DESC: QGP Diagnostic RAM file/image has phase 3 sections. The pump sequence will continue assuming that the phase 3 sections are not needed. PROBABLE CAUSE: QGP RAM file on disk is corrupt or AM core memory image of disk file is corrupt.
10+	594 (SMKPE + 594)	LOC: SMkpiq.c - SMiqcalpbl() - Calculate pump buffer loaded. DESC: QGP RAM file COFF section does not start on a 2048 byte boundry. PROBABLE CAUSE: QGP RAM file on disk is corrupt or AM core memory image of disk file is corrupt.
10+	595 (SMKPE + 595)	LOC: SMkpiq.c - SMiqcalpbl() - Calculate pump buffer loaded. DESC: QGP RAM file COFF section size is not on a 2048 byte boundary. PROBABLE CAUSE: QGP RAM file on disk is corrupt or AM core memory image of disk file is corrupt.
10+	596 (SMKPE + 596)	LOC: SMkpiq.c - SMiqcalpbl() - Calculate pump buffer loaded. DESC: Invalid number of section of phase 2 or phase 3 COFF sections. PROBABLE CAUSE: QGP RAM file on disk is corrupt or AM core memory image of disk file is corrupt.
10+	597 (SMKPE + 597)	LOC: SMkpiq.c - SMiqdone() -Complete initialization. DESC: Failed to delete overall initialization timer -SMdeltime() failed. PROBABLE CAUSE: MSKP ENV software bug.
10+	598 (SMKPE + 598)	LOC: SMkpiq.c - SMiqdone() -Complete initialization. DESC: Failed to delete overall initialization timer -SMdeltime() failed. PROBABLE CAUSE: MSKP ENV software bug.
10+	700 (SMKPE + 700)	LOC: SMkppcload.c - SMdlastate() - PC auxiliary segment control. DESC: Received invalid auxiliary segment parameter. PROBABLE CAUSE: MSKP environment software bug.
10+	701 (SMKPE + 701)	LOC: SMkppcload.c - SMdlastate() - PC auxiliary segment control. DESC: Failed to obtain shrink sequence timer - SMreqtime() returned failure. PROBABLE CAUSE: Timer overload or MSKP environment software bug.
10+	702 (SMKPE + 702)	LOC: SMkppcload.c - SMdlastate() - PC auxiliary segment control. DESC: Failed to send RTR message to grow (shrink) an auxiliary segment - SMkpmmsgrow()/queuem() failed. PROBABLE CAUSE: MSKP environment software bug or shortage of system message buffers.
10+	703 (SMKPE + 703)	LOC: SMkppcload.c - SMdlastate() - PC auxiliary segment control. DESC: Received invalid flag parameter for idle auxiliary segment. PROBABLE CAUSE: MSKP environment software bug.
10+	704 (SMKPE + 704)	LOC: SMkppcload.c - SMdlastate() - PC auxiliary segment control. DESC: Auxiliary segment in shrink state received acknowledgment containing wrong

		message type (not MSGROW). PROBABLE CAUSE: MSKP environment software bug.
10+	705 (SMKPE + 705)	LOC: SMkppcload.c - SMdlastate() - PC auxiliary segment control. DESC: Failed to shrink auxiliary segment memory - MSGROW ack message failure. PROBABLE CAUSE: MSKP environment software bug.
10+	706 (SMKPE + 706)	LOC: SMkppcload.c - SMdlastate() - PC auxiliary segment control. DESC: Failed to shrink auxiliary segment memory to minimum size - MSGROW ack message failure. PROBABLE CAUSE: MSKP environment software bug.
10+	707 (SMKPE + 707)	LOC: SMkppcload.c - SMdlastate() - PC auxiliary segment control. DESC: Auxiliary segment shrink sequence timed out. PROBABLE CAUSE: MSKP environment software bug or system overload.
10+	708 (SMKPE + 708)	LOC: SMkppcload.c - SMdlastate() - PC auxiliary segment control. DESC: Received invalid flag parameter for auxiliary segment in the shrink state. PROBABLE CAUSE: MSKP environment software bug.
10+	709 (SMKPE + 709)	LOC: SMkppcload.c - SMdlastate() - PC auxiliary segment control. DESC: Input stimulus received for auxiliary segment in an unexpected state. PROBABLE CAUSE: MSKP environment software bug.
10+	720 (SMKPE + 720)	LOC: SMkppcload.c - SMdlaudit() - Audit PC download file. DESC: Invalid control table data found for idle main segment. PROBABLE CAUSE: MSKP environment software bug.
10+	721 (SMKPE + 721)	LOC: SMkppcload.c - SMdlaudit() - Audit PC download file. DESC: Invalid control table data found for available main segment. PROBABLE CAUSE: MSKP environment software bug.
10+	722 (SMKPE + 722)	LOC: SMkppcload.c - SMdlaudit() - Audit PC download file. DESC: Invalid auxiliary segment control table index found in segment list of available main segment. PROBABLE CAUSE: MSKP environment software bug.
10+	723 (SMKPE + 723)	LOC: SMkppcload.c - SMdlaudit() - Audit PC download file. DESC: Invalid auxiliary segment control table data found for auxiliary segment linked to available main segment. PROBABLE CAUSE: MSKP environment software bug.
10+	724 (SMKPE + 724)	LOC: SMkppcload.c - SMdlaudit() - Audit PC download file. DESC: Accrued segment sizes of main/auxiliary segments do not match total file size. PROBABLE CAUSE: MSKP environment software bug.
10+	725 (SMKPE + 725)	LOC: SMkppcload.c - SMdlaudit() - Audit PC download file. DESC: Inactive main segment found in a transient state. PROBABLE CAUSE: MSKP environment software bug.
10+	726 (SMKPE + 726)	LOC: SMkppcload.c - SMdlaudit() - Audit PC download file. DESC: Invalid sequence timer index found for main segment in transient state. PROBABLE CAUSE: MSKP environment software bug.
10+	727 (SMKPE + 727)	LOC: SMkppcload.c - SMdlaudit() - Audit PC download file. DESC: Invalid segment count found for main segment in transient state. PROBABLE CAUSE: MSKP environment software bug.
10+	728 (SMKPE + 728)	LOC: SMkppcload.c - SMdlaudit() - Audit PC download file. DESC: Invalid auxiliary segment control table index found in segment list of main

		segment in transient state. PROBABLE CAUSE: MSKP environment software bug.
10+	729 (SMKPE + 729)	LOC: SMkppcload.c - SMdlaudit() - Audit PC download file. DESC: Invalid auxiliary segment control table data found for auxiliary segment linked to main segment in transient state. PROBABLE CAUSE: MSKP environment software bug.
10+	730 (SMKPE + 730)	LOC: SMkppcload.c - SMdlaudit() - Audit PC download file. DESC: Inactive main segment found in shrink state. PROBABLE CAUSE: MSKP environment software bug.
10+	731 (SMKPE + 731)	LOC: SMkppcload.c - SMdlaudit() - Audit PC download file. DESC: Invalid control table data found for main segment in shrink state. PROBABLE CAUSE: MSKP environment software bug.
10+	732 (SMKPE + 732)	LOC: SMkppcload.c - SMdlaudit() - Audit PC download file. DESC: Inactive main segment found in error state. PROBABLE CAUSE: MSKP environment software bug.
10+	733 (SMKPE + 733)	LOC: SMkppcload.c - SMdlaudit() - Audit PC download file. DESC: Main segment control table entry found in invalid state. PROBABLE CAUSE: MSKP environment software bug.
10+	734 (SMKPE + 734)	LOC: SMkppcload.c - SMdlaudit() - Audit PC download file. DESC: Invalid control table data found for idle auxiliary segment. PROBABLE CAUSE: MSKP environment software bug.
10+	735 (SMKPE + 735)	LOC: SMkppcload.c - SMdlaudit() - Audit PC download file. DESC: Inactive auxiliary segment found in shrink state. PROBABLE CAUSE: MSKP environment software bug.
10+	736 (SMKPE + 736)	LOC: SMkppcload.c - SMdlaudit() - Audit PC download file. DESC: Invalid control table data found for auxiliary segment in shrink state. PROBABLE CAUSE: MSKP environment software bug.
10+	737 (SMKPE + 737)	LOC: SMkppcload.c - SMdlaudit() - Audit PC download file. DESC: Auxiliary segment control table entry found in invalid state. PROBABLE CAUSE: MSKP environment software bug.

Error Code Range 2000-2999

Release Range	Error Code	FPC Handler Code
10+	2000	LOC: SMfppmsg.c - SMfppmsg() DESC: Invalid unit in input message. PROBABLE CAUSE: Software bug.
10+	2001	LOC: SMfppmsg.c - SMfppmsg() DESC: Invalid equipment ID in input message. PROBABLE CAUSE: Software bug.
10+	2002	LOC: SMfppmsg.c - SMfppmsg() DESC: Invalid action in input message. PROBABLE CAUSE: Software bug.
10+	2003	LOC: SMfppmsg.c - SMfpmrej() DESC: Send acknowledgement failed PROBABLE CAUSE: Software bug.

10+	2004	LOC: SMfppmsg.c - SMfpmcln() DESC: Post Mortem Buffer message not found in dynamic data when seq_ip=SMACPMB PROBABLE CAUSE: Software bug.
10+	2005	LOC: SMfppmsg.c - SMfpmcln() DESC: Dequeue of the message failed PROBABLE CAUSE: Software bug.
10+	2006	LOC: SMfppmsg.c - SMfpmcln() DESC: Invalid message pointer. PROBABLE CAUSE: Software bug.
10+	2007	LOC: SMfppmsg.c - SMfpmsdd() DESC: An FPC Soft Switch has been requested while a QLPS Soft Switch is in progress. PROBABLE CAUSE: Software bug.
10+	2008	LOC: SMfppmsg.c - SMfpmsdd() DESC: An FPC Soft Switch has been requested on the mate FPC while a QLPS Soft Switch is in progress on the mate FPC. PROBABLE CAUSE: Software bug.
10+	2050	LOC: SMfpprsp.c - SMfpprsp() DESC: Bad equipment ID passed by MSKP ENV PROBABLE CAUSE: Software bug.
10+	2051	LOC: SMfpprsp.c - SMfpprsp() DESC: Old command response received during FPC restore. PROBABLE CAUSE: Software bug.
10+	2052	LOC: SMfpprsp.c - SMfpprsp() DESC: Invalid response received. PROBABLE CAUSE: Software bug in FPC
10+	2053	LOC: SMfpprsp.c - SMfprtms() DESC: Send response to TMSCON for fabric update PROBABLE CAUSE: Problem in sending message.
10+	2054	LOC: SMfpprsp.c - SMfpprsp() DESC: PIC detected BPINQ overflow, exceeded overflow count. PROBABLE CAUSE: FPC cannot process connect orders fast enough,
10+	2055	LOC: SMfpprsp.c - SMfpprsp() DESC: Request to take out timer failed for BPINQ overflow. PROBABLE CAUSE: Software bug in FPC
10+	2056	LOC: SMfpprsp.c - SMfppbp() DESC: Send message to ROP with number of call connect orders lost. PROBABLE CAUSE: Information message to craft of number of call
10+	2057	LOC: SMfpprsp.c - SMfppbp() DESC: Send message to FPC SMER for PIC detected BPINQ overflow. PROBABLE CAUSE: Problem in sending message.
10+	2058	LOC: SMfpprsp.c - SMfpprsp() DESC: Bad connect orders have been received in the FPC. The abnormal reponse dumped with this MSKP FPC environment report will dump the maximum number of bad connect orders received in the FPC in 30 seconds.

		PROBABLE CAUSE: Software or Hardware error from sending process to FPC or FPC resident code software error.
10+	2059	LOC: SMfpprsp.c - SMfpprsp() DESC: The number of Bad connect orders asynchronous responses received in the FPC handler has exceeded the threshold of 4. PROBABLE CAUSE: FPC Resident code Software error.
10+	2060	LOC: SMfpprsp.c - SMfprpost() DESC: FPC handler requested a timer and failed getting it. PROBABLE CAUSE: Software error.
10+	2061	LOC: SMfpprsp.c - SMfprqlps() DESC: The FPC resident code has detected a bad return value from the IO driver (CDtmsio) or from the TMS firmware when the QLPS was in the Broadcast mode. PROBABLE CAUSE: Software error.
10+	2062	LOC: SMfpprsp.c - SMfprqlps() DESC: The FPC resident code has returned an invalid completion code when the QLPS was in the Broadcast mode. PROBABLE CAUSE: Software error.
10+	2063	LOC: SMfpprsp.c - SMfprqlps() DESC: The FPC resident code has detected a bad return value from the IO driver (CDtmsio) or from the TMS firmware when the QLPS was in the Elevate mode. PROBABLE CAUSE: Software error.
10+	2064	LOC: SMfpprsp.c - SMfprqlps() DESC: The FPC resident code has returned an invalid completion code when the QLPS was in the Elevate mode. PROBABLE CAUSE: Software error.
10+	2065	LOC: SMfpprsp.c - SMfprqlps() DESC: The FPC Handler has detected an invalid FPC - QLPS Dynamic Data array. QLPS Sequence in-progress flag not set correctly. PROBABLE CAUSE: Software error.
10+	2066	LOC: SMfpprsp.c - SMfpqlps() DESC: FPC handler failed to send QLPS Soft Switch or Simplex remove completion message to TMSCON. PROBABLE CAUSE: Software error.
10+	2067	LOC: SMfpprsp.c - SMfptqlps() DESC: FPC handler detected QLPS Soft Switch or Simplex remove timeout when the QLPS was in the Broadcast mode. PROBABLE CAUSE: Software error.
10+	2068	LOC: SMfpprsp.c - SMfptqlps() DESC: FPC handler detected QLPS Soft Switch or Simplex remove timeout when the QLPS was in Elevate mode. PROBABLE CAUSE: Software error.
10+	2069	LOC: SMfpprsp.c - SMfprqlps() DESC: QLPS Soft Switch or Simplex remove request to delete a message timer failed. PROBABLE CAUSE: Software bug.
10+	2070	LOC: SMfpprsp.c - SMfpprsp() DESC: The FPC resident code returned a QLPS related asynchronous response to the FPC handler and the FPC handler's (FPC - QLPS dynamic data) indicates no QLPS

		soft switch in progress. PROBABLE CAUSE: Software bug.
10+	2071	LOC: SMfpprsp.c - SMfpprsp() DESC: The FPC resident code did not receive an "all seems well" indication for the input message sent to the TMS. Additional data is reported in the abnormal response dump. PROBABLE CAUSE: Software bug or hardware problem.
10+	2100	LOC: SMfppinit.c - SMfppinit() DESC: Bad equipment ID passed by MSKP_ENV PROBABLE CAUSE: Software bug.
10+	2150	LOC: SMfpherr.c - SMfppflt() DESC: Bad equipment ID passed by MSKP_ENV PROBABLE CAUSE: Software bug.
10+	2151	LOC: SMfpherr.c - SMfppflt() DESC: FPC Handler - Peripheral Controller sanity check failure. PROBABLE CAUSE: Software bug in FPC
10+	2152	LOC: SMfpherr.c - SMfppflt() DESC: Fatal software error -S2 recovery PROBABLE CAUSE: Software bug.
10+	2153	LOC: SMfpherr.c - SMfppflt() DESC: FPC is out of service in administrative module database. PROBABLE CAUSE: Software bug.
10+	2154	LOC: SMfpherr.c - SMfppflt() DESC: Inconsistent FPC state detected in the administrative module and peripheral interface controller, FPC is not out of service in administrative module database. PROBABLE CAUSE: Software bug.
10+	2155	LOC: SMfpherr.c - SMfppflt() DESC: Invalid fault code passed by MSKP_ENV PROBABLE CAUSE: Software bug.
10+	2200	LOC: SMfpmrst.c - SMfpmrst() DESC: Bad action qualifier (bad boot type) in input message. PROBABLE CAUSE: Software bug.
10+	2201	LOC: SMfpmrst.c - SMfpmrst() DESC: Failed to place message in the overflow queue PROBABLE CAUSE: Software bug.
10+	2202	LOC: SMfpmrst.c - SMfpmrst() DESC: Move message to in-progress queue failed PROBABLE CAUSE: Software bug.
10+	2203	LOC: SMfpmrst.c - SMfpmrst() or SMfprdlr() DESC: Request timer failed. PROBABLE CAUSE: Software bug.
10+	2204	LOC: SMfpmrst.c - SMfpprst() DESC: SMpcinit failed on immediate return PROBABLE CAUSE: Software bug.
10+	2205	LOC: SMfpmrst.c - SMfprdlr()

		DESC: Delayed return failed on calling SMpcinit PROBABLE CAUSE: Software bug.
10+	2206	LOC: SMfpmrst.c - SMfprstp() DESC: Bad response detected during FPC restore. PROBABLE CAUSE: Software bug in FPC.
10+	2207	LOC: SMfpmrst.c - SMfprstp() DESC: Return data (Post Mortem Buffer information.) in response for restore, invalid. PROBABLE CAUSE: Software bug.
10+	2208	LOC: SMfpmrst.c - SMfprstp() DESC: Sequence in-progress indicator out of range PROBABLE CAUSE: Software bug.
10+	2209	LOC: SMfpmrst.c - SMfprsucc() DESC: Dequeue message failed. PROBABLE CAUSE: Software bug.
10+	2210	LOC: SMfpmrst.c - SMfprsucc() DESC: Send acknowledgment failed PROBABLE CAUSE: Software bug.
10+	2211	LOC: SMfpmrst.c - SMfprfail() DESC: Dequeue message failed PROBABLE CAUSE: Software bug.
10+	2212	LOC: SMfpmrst.c - SMfprfail() DESC: Send acknowledgement failed PROBABLE CAUSE: Software bug.
10+	2215	LOC: SMfpmrst.c - SMfpmact() DESC: Failed to place message in overflow queue PROBABLE CAUSE: Software bug.
10+	2216	LOC: SMfpmrst.c - SMfpmrst() or SMfpmact() DESC: Failed to move message to in-progress queue. PROBABLE CAUSE: Software bug.
10+	2217	LOC: SMfpmrst.c - SMfpmact() DESC: Request timer failed PROBABLE CAUSE: Software bug.
10+	2218	LOC: SMfpmrst.c - SMfprstp() DESC: Invalid message pointer in queue. PROBABLE CAUSE: Software bug.
10+	2230	LOC: SMfppmsg.c - SMfpmsdd() DESC: Invalid equipment ID in input message. PROBABLE CAUSE: Software bug.
10+	2231	LOC: SMfppmsg.c - SMfpmsdd() DESC: Send acknowledgement failed. PROBABLE CAUSE: Software bug.
10+	2232	LOC: SMfpprsp.c - SMfprqsw() DESC: Request timer failed. PROBABLE CAUSE: Software bug.
10+	2233	LOC: SMfpprsp.c - SMfprqsw()

		DESC: Send acknowledgement failed. PROBABLE CAUSE: Software bug.
10+	2234	LOC: SMfpprsp.c - SMfprstm() DESC: Send acknowledgement failed. PROBABLE CAUSE: Software bug.
10+	2235	LOC: SMfpmdef.c - SMfpmmsw() DESC: Invalid equipment ID in input message. PROBABLE CAUSE: Software bug.
10+	2236	LOC: SMfpmdef.c - SMfpmmsw() DESC: The In-progress queue is full, reject the message. PROBABLE CAUSE: To many messages received by the FPC Handler
10+	2237	LOC: SMfpmdef.c - SMfpmmsw() DESC: Queueing message into the overflow queue failed. PROBABLE CAUSE: Software bug.
10+	2238	LOC: SMfpmdef.c - SMfpmmsw() DESC: Move the message from overflow queue to in-progress queue failed. PROBABLE CAUSE: Software bug.
10+	2239	LOC: SMfpmdef.c - SMfpmmsw() DESC: Request timer failed. PROBABLE CAUSE: Software bug.
10+	2250	LOC: SMfpmrmv.c - SMfpmrmv() DESC: Send acknowledgment failed PROBABLE CAUSE: Software bug.
10+	2300	LOC: SMfpmdef.c - SMfpmdef() DESC: Invalid side of equipment ID in input message PROBABLE CAUSE: Software bug.
10+	2301	LOC: SMfpmdef.c - SMfpmdef() DESC: Invalid side of equipment ID in input message PROBABLE CAUSE: Software bug.
10+	2302	LOC: SMfpmdef.c - SMfpmdef() DESC: Invalid side of equipment ID in input message PROBABLE CAUSE: Software bug.
10+	2303	LOC: SMfpmdef.c - SMfpmdef() DESC: Failed on read FPC0 status PROBABLE CAUSE: Software bug.
10+	2304	LOC: SMfpmdef.c - SMfpmdef() DESC: Read status of FPC1 failed PROBABLE CAUSE: Software bug.
10+	2306	LOC: SMfpmdef.c - SMfpmdef() DESC: No active FPC for a NON-FPC or an active side FPC request. PROBABLE CAUSE: Software bug.
10+	2307	LOC: SMfpmdef.c - SMfpmdef() DESC: FPC not in service for a FPC request. PROBABLE CAUSE: Software bug.
10+	2308	LOC: SMfpmdef.c - SMfpmdef()

		DESC: The in-progress queue is full, reject the message. PROBABLE CAUSE: Too many messages received by the FPC handler.
10+	2309	LOC: SMfpmdef.c - SMfpmdef() DESC: Queueing the message into the overflow queue failed PROBABLE CAUSE: Software bug.
10+	2310	LOC: SMfpmdef.c - SMfpmdef() DESC: Moving the message from overflow queue to I_P queue failed PROBABLE CAUSE: Software bug.
10+	2311	LOC: SMfpmdef.c - SMfpmdef() DESC: Request timer failed PROBABLE CAUSE: Software bug.
10+	2312	LOC: SMfpmdef.c - SMfpmdef() DESC: SMfpmdef detected invalid ONTC unit in input message. PROBABLE CAUSE: Software bug.
10+	2313	LOC: SMfpmdef.c - SMfprnor() DESC: Response is inconsistent with the send command PROBABLE CAUSE: Software bug.
10+	2314	LOC: SMfpmdef.c - SMfprnor() DESC: Delete message timer failed. PROBABLE CAUSE: Software bug.
10+	2315	LOC: SMfpmdef.c - SMfprnor() DESC: Bad completion code due to FPC fault PROBABLE CAUSE: Software bug.
10+	2316	LOC: SMfpmdef.c - SMfprnor() DESC: Dequeue message failed PROBABLE CAUSE: Software bug.
10+	2317	LOC: SMfpmdef.c - SMfprnor() DESC: Send acknowledgement failed PROBABLE CAUSE: Software bug.
10+	2318	LOC: SMfpmdef.c - SMfpmdef() DESC: Can't get dynamic memory due to invalid segment ID and pointer to table address is invalid. PROBABLE CAUSE: Software bug.
10+	2319	LOC: SMfpmdef.c - SMfprnor() DESC: Invalid message pointer in in-progress queue. PROBABLE CAUSE: Software bug.
10+	2320	LOC: SMfpmdef.c - SMfpmdef() DESC: Can't lock utilities memory segment PROBABLE CAUSE: Software bug.
10+	2321	LOC: SMfpmdef.c - SMfpmdef() DESC: Can't get utilities dual memory access number. PROBABLE CAUSE: Software bug.
10+	2322	LOC: SMfpmdef.c - SMfpmdef() DESC: READ or WRITE BLOCK message sent to the FPC Handler with the message SOURCE field not set or invalid source. PROBABLE CAUSE: Software bug.

10+	2323	LOC: SMfpmdef.c - SMfpmdef() DESC: QLPS Soft Switch or Simplex remove requested a timer and failed getting one. PROBABLE CAUSE: Software bug.
10+	2324	LOC: SMfpmdef.c - SMfprnor() DESC: QLPS Soft Switch or Simplex remove request to delete a message timer failed. PROBABLE CAUSE: Software bug.
10+	2325	LOC: SMfpmdef.c - SMfprnor() DESC: Bad completion code due to FPC fault PROBABLE CAUSE: Software bug.
10+	2326	LOC: SMfpmdef.c - SMfpmdef() DESC: Can't lock memory segment for diagnostics. PROBABLE CAUSE: Software bug.
10+	2350	LOC: SMfppmsg.c - SMfpmpmb() DESC: Invalid equipment ID in input message. PROBABLE CAUSE: Software bug.
10+	2351	LOC: SMfppmsg.c - SMfpmpmb() DESC: Seq_ip is not NULL, can't retrieve Post Mortem Buffer data. PROBABLE CAUSE: Software bug.
10+	2352	LOC: SMfppmsg.c - SMfpmpmb() DESC: Information of Post Mortem Buffer (size & location) invalid. PROBABLE CAUSE: Software bug.
10+	2353	LOC: SMfppmsg.c - SMfpmpmb() DESC: Can't get segment ID & pointer to table address for. Post Mortem Buffer data. PROBABLE CAUSE: Software bug.
10+	2354	LOC: SMfppmsg.c - SMfpdrpmd() DESC: Invalid equipment ID passed by MSKP_ENV PROBABLE CAUSE: Software bug.
10+	2355	LOC: SMfppmsg.c - SMfpdrpmd() DESC: Failed on send acknowledgement. PROBABLE CAUSE: Software bug.
10+	2356	LOC: SMfppmsg.c - SMfpmabd() DESC: Invalid equipment ID in input message. PROBABLE CAUSE: Software bug.
10+	2357	LOC: SMfppmsg.c - SMfpmabd() DESC: Failed on send acknowledgement. PROBABLE CAUSE: Software bug.
10+	2358	LOC: SMfppmsg.c - SMfpdrpmb() DESC: Could not set message pointer to input message. PROBABLE CAUSE: Software bug.
10+	2400	LOC: SMfpherr.c - SMfpherr() DESC: Err_reported timer is not pending when err_reported flag is set. PROBABLE CAUSE: Software bug.
10+	2401	LOC: SMfpherr.c - SMfpherr() DESC: Can't get a timer PROBABLE CAUSE: Software bug.

10+	2402	LOC: SMfpherr.c - SMfpherr() DESC: Can't get a timer PROBABLE CAUSE: Software bug.
10+	2403	LOC: SMfpherr.c - SMfpherr() DESC: Can't send error message to SMKP PROBABLE CAUSE: Software bug.
10+	2405	LOC: SMfpherr.c - SMfperr2() DESC: Invalid data in asynchronous rsponse for ONTC unit PROBABLE CAUSE: Software bug.
10+	2406	LOC: SMfpherr.c - SMfperr2() DESC: Invalid unit in asynchronous response. PROBABLE CAUSE: Software bug.
10+	2407	LOC: SMfpherr.c - SMfperr2() DESC: Get segment ID failed PROBABLE CAUSE: Software bug.
10+	2408	LOC: SMfpherr.c - SMfperr2() DESC: Can't get direct memory access job no. PROBABLE CAUSE: Software bug.
10+	2409	LOC: SMfpherr.c - SMfperr2() DESC: Request timer failed PROBABLE CAUSE: Software bug.
10+	2410	LOC: SMfpherr.c - SMfpsder() DESC: Delete timer failed, log error PROBABLE CAUSE: Software bug.
10+	2411	LOC: SMfpherr.c - SMfpsder() DESC: Failed on retrieve ONTC error data PROBABLE CAUSE: Software bug.
10+	2412	LOC: SMfpherr.c - SMfpsder() DESC: Invalid ONTC unit is found after retrieved ONTC error data. PROBABLE CAUSE: Software bug.
10+	2413	LOC: SMfpherr.c - SMfpsder() DESC: Can't send error message to SMKP PROBABLE CAUSE: Software bug.
10+	2414	LOC: SMfpherr.c - SMfpherr() DESC: Can't read FPC state PROBABLE CAUSE: Software bug.
10+	2415	LOC: SMfpherr.c - SMfperr2() DESC: Can't read FPC state PROBABLE CAUSE: Software bug.
10+	2416	LOC: SMfpherr.c - SMfperr2() DESC: 2nd ONTC error, asynchronous response received before the 1st ONTC error report completely processed. PROBABLE CAUSE: Software bug in FPC.
10+	2417	LOC: SMfpherr.c - SMfperr2() DESC: ONTC error, asynchronous response received from the not_active FPC

		PROBABLE CAUSE: Software bug.
10+	2418	LOC: SMfpherr.c - SMfpherr() DESC: Control and Diagnostic Access Link (CDAL) error, the FPC not active. PROBABLE CAUSE: Software bug.
10+	2430	LOC: SMfpherr.c - SMfphsser() DESC: Can't read FPC state. PROBABLE CAUSE Soft warebug.
10+	2431	LOC: SMfpherr.c - SMfphsser() DESC: Error report timer not pending when err-reported flag is set. PROBABLE CAUSE: Software bug.
10+	2432	LOC: SMfpherr.c - SMfphsser() DESC: Can't get a timer. PROBABLE CAUSE: Software bug.
10+	2433	LOC: SMfpherr.c - SMfphsser() DESC: Can't get a timer. PROBABLE CAUSE: Software bug.
10+	2434	LOC: SMfpherr.c - SMfphsser() DESC: Can't send error message to SMKP PROBABLE CAUSE: Software bug.
10+	2435	LOC: SMfpherr.c - SMfphmsser() DESC: Error report timer not pending when err-reported Flag is set. PROBABLE CAUSE: Software bug.
10+	2436	LOC: SMfpherr.c - SMfphmsser() DESC: Can't get a timer. PROBABLE CAUSE: Software bug.
10+	2437	LOC: SMfpherr.c - SMfphmsser() DESC: Can't get a timer. PROBABLE CAUSE: Software bug.
10+	2438	LOC: SMfpherr.c - SMfphmsser() DESC: Can't send error message to SMKP PROBABLE CAUSE: Software bug.
10+	2450	LOC: SMfprdma.c - SMfprdma() DESC: Direct memory access job number in response and in queued message are not consistent. PROBABLE CAUSE: Software bug.
10+	2451	LOC: SMfprdma.c - SMfprpic() DESC: Invalid direct memory access job number in response from the Peripheral Interface Controller. PROBABLE CAUSE: Software bug.
10+	2452	LOC: SMfprdma.c - SMfprdma() DESC: Invalid message pointer. PROBABLE CAUSE: Software bug.
10+	2453	LOC: SMfprdma.c - SMfprdma() DESC: No message in in-progress queue when response is received to direct memory access to administrative module. PROBABLE CAUSE: Software bug.

10+	2454	LOC: SMfprdma.c - SMfprpic() DESC: Bad read of FPC state from database. PROBABLE CAUSE: Software bug.
10+	2455	LOC: SMfprdma.c - SMfprdma() DESC: Bad read of FPC state from database. PROBABLE CAUSE: Software bug.
10+	2500	LOC: SMfphtm1.c - SMfphtm1() DESC: FPC restore timeout error PROBABLE CAUSE: Software bug or FPC hardware.
10+	2501	LOC: SMfphtm1.c - SMfphtm1() DESC: Invalid equipment ID on tm1 timed out. PROBABLE CAUSE: Software bug.
10+	2502	LOC: SMfphtm1.c - SMfphtm1() DESC: Returned index inconsistent with dynamic data PROBABLE CAUSE: Software bug.
10+	2503	LOC: SMfphtm1.c - SMfphtm2() DESC: Bad equipment ID on tm2 time out. PROBABLE CAUSE: Software bug.
10+	2504	LOC: SMfphtm1.c - SMfphtm2() DESC: Returned index inconsistent with dynamic data PROBABLE CAUSE: Software bug.
10+	2507	LOC: SMfphtm1.c - SMfphtm3() DESC: Bad equipment ID on tm3 time out. PROBABLE CAUSE: Software bug.
10+	2508	LOC: SMfphtm1.c - SMfphtm3() DESC: Returned index inconsistent with dynamic data PROBABLE CAUSE: Software bug.
10+	2509	LOC: SMfphtm1.c - SMfphtm3() DESC: Timeout on retrieving ONTC error data. PROBABLE CAUSE: Software bug.
10+	2510	LOC: SMfphtm1.c - SMfphtm3() DESC: The direct memory access, job1, is invalid on tm3, time out. PROBABLE CAUSE: Software bug.
10+	2511	LOC: SMfphtm1.c - SMfphtm4() DESC: Bad equipment ID on tm4 time out return PROBABLE CAUSE: Software bug.
10+	2512	LOC: SMfphtm1.c - SMfphtm4() DESC: The in_progress queue is empty on tm4 time out, invalid entry PROBABLE CAUSE: Software bug.
10+	2513	LOC: SMfphtm1.c - SMfphtm4() DESC: Dequeueing message failed. PROBABLE CAUSE: Software bug.
10+	2514	LOC: SMfphtm1.c - SMfphtm4() DESC: In-progress message timed out - most likely is the ONTC unit read or write block message. PROBABLE CAUSE: Software bug.

10+	2550	LOC: SMfpherr.c - SMfperr2() DESC: The FPC failed sending a command to the MSKP environment, using the SMfpmxmit primitive, due to invalid input parameter data or the MSCU is out of service. PROBABLE CAUSE: Software bug.
10+	2551	LOC: SMfpherr.c - SMfppflt() DESC: The FPC failed sending a command to the MSKP environment, using the SMfpmxmit primitive, due to invalid input parameter data or the MSCU is out of service. PROBABLE CAUSE: Software bug.
10+	2552	LOC: SMfpherr.c - SMfppflt() DESC: The FPC failed sending a command to the MSKP environment, using the SMfpmxmit primitive, due to invalid input parameter data or the MSCU is out of service. PROBABLE CAUSE: Software bug.
10+	2553	LOC: SMfpmdef.c - SMfpmdef() DESC: The FPC failed sending a command to the MSKP environment, using the SMfpmxmit primitive, due to invalid input parameter data or the MSCU is out of service. PROBABLE CAUSE: Software bug.
10+	2554	LOC: SMfpmdef.c - SMfpmdef() DESC: The FPC failed sending a command to the MSKP environment, using the SMfpmxmit primitive, due to invalid input parameter data or the MSCU is out of service. PROBABLE CAUSE: Software bug.
10+	2555	LOC: SMfpmdef.c - SMfpmdef() DESC: The FPC failed sending a command to the MSKP environment, using the SMfpmxmit primitive, due to invalid input parameter data or the MSCU is out of service. PROBABLE CAUSE: Software bug.
10+	2556	LOC: SMfpmdef.c - SMfpmdef() DESC: The FPC failed sending a command to the MSKP environment, using the SMfpmxmit primitive, due to invalid input parameter data or the MSCU is out of service. PROBABLE CAUSE: Software bug.
10+	2557	LOC: SMfpmdef.c - SMfpmmsw() DESC: The FPC failed sending a command to the MSKP environment, using the SMfpmxmit primitive, due to invalid input parameter data or the MSCU is out of service. PROBABLE CAUSE: Software bug.
10+	2558	LOC: SMfpmrmv.c - SMfpmrmv() DESC: The FPC failed sending a command to the MSKP environment, using the SMfpmxmit primitive, due to invalid input parameter data or the MSCU is out of service. PROBABLE CAUSE: Software bug.
10+	2559	LOC: SMfpmrmv.c - SMfpmrmv() DESC: The FPC failed sending a command to the MSKP environment, using the SMfpmxmit primitive, due to invalid input parameter data or the MSCU is out of service. PROBABLE CAUSE: Software bug.
10+	2560	LOC: SMfpmrst.c SMfprdlr() DESC: The FPC failed sending a command to the MSKP environment, Using the SMfpmxmit primitive, due to invalid input parameter data or the MSCU is out of service. PROBABLE CAUSE: Software bug.
10+	2561	LOC: SMfpmrst.c - SMfprstp() DESC: The FPC failed sending a command to the MSKP environment, using the SMfpmxmit primitive, due to invalid input parameter data or the MSCU is out of service.

		PROBABLE CAUSE: Software bug.
10+	2562	LOC: SMfpmrst.c - SMfprfail() DESC: The FPC failed sending a command to the MSKP environment, using the SMfpmxmit primitive, due to invalid input parameter data or the MSCU is out of service. PROBABLE CAUSE: Software bug.
10+	2563	LOC: SMfpmrst.c - SMfpmact() DESC: The FPC failed sending a command to the MSKP environment, using the SMfpmxmit primitive, due to invalid input parameter data or the MSCU is out of service. PROBABLE CAUSE: Software bug.
10+	2564	LOC: SMfprdma.c - SMfprdma() DESC: The FPC failed sending a command to the MSKP environment, using the SMfpmxmit primitive, due to invalid input parameter data or the MSCU is out of service. PROBABLE CAUSE: Software bug.
10+	2565	LOC: SMfprdma.c - SMfprpic() DESC: The FPC failed sending a command to the MSKP environment, using the SMfpmxmit primitive, due to invalid input parameter data or the MSCU is out of service. PROBABLE CAUSE: Software bug.

Error Code Range 3000-3999

Release Range	Error Code	MMP Handler Code
10+	3000	LOC: SMmmpmsg.c - SMmmabtmq() DESC: Can not delete a timer - SMdeltime() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3001	LOC: SMmmpmsg.c - SMmmabtmq() DESC: Can not delete a timer - SMdeltime() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3002	LOC: SMmmpmsg.c - SMmmabtmq() DESC: Abort service routine failed -SMabortsr() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3003	LOC: SMmmpmsg.c - SMmmabtmq() DESC: Can not delete DMA request - SMtdeldma() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3004	LOC: SMmmpmsg.c - SMmmabtmq() DESC: Can not unlock memory - SMunlock() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3005	LOC: SMmmpmsg.c - SMmmabtmq() DESC: Invalid message was dequeued from an MMP's queue. PROBABLE CAUSE: Software defensive check failure.
10+	3006	LOC: SMmmpmsg.c - SMmmabtmq() DESC: Can not dequeue a message -SMdequemsg() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3007	LOC: SMmmpmsg.c - SMmmabtmq() DESC: SMdeltime failed to delete timer on appinit command. PROBABLE CAUSE: Software defensive check failure.
10+	3050	LOC: SMmmprsp.c - SMmmasyncr()

		DESC: Invalid command field from MMP PROBABLE CAUSE: Software defensive check failure in the MMP
10+	3051	LOC: SMmmprsp.c - SMmmasyncr() DESC: MMP non critical error. PROBABLE CAUSE: MMP hardware problem.
10+	3052	LOC: SMmmprsp.c - SMmmasyncr() DESC: Invalid non critical error type from MMP PROBABLE CAUSE: Software defensive check failure in the MMP
10+	3053	LOC: SMmmprsp.c - SMmmasyncr() DESC: Can not send a MMP NCR message - SMsendmsg() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3054	LOC: SMmmprsp.c - SMmmasyncr() DESC: Can not send a CL link EST message - SMsendmsg failed. PROBABLE CAUSE: Software defensive check failure.
10+	3055	LOC: SMmmprsp.c - SMmmasyncr() DESC: Can not send a CL link error message - SMsendmsg failed. PROBABLE CAUSE: Software defensive check failure.
10+	3056	LOC: SMmmprsp.c - SMmmasyncr() DESC: Invalid command field from MMP/CLFR PROBABLE CAUSE: Software defensive check failure in the MMP
10+	3057	LOC: SMmmprsp.c - SMmmasyncr() DESC: PIC MMP CR or MMP non-critical error detected. PROBABLE CAUSE: Software defensive check failure or hardware problem in the MMP
10+	3058	LOC: SMmmprsp.c - SMmmasyncr. DESC: PIC detected MMP critical error - cc F7:PC error lead. PROBABLE CAUSE: Software defensive check failure or hardware problem in the MMP
10+	3059	LOC: SMmmprsp.c - SMmmasyncr() DESC: PIC detected MMP critical error - cc is F7 PROBABLE CAUSE: Software defensive check failure or hardware problem in the MMP
10+	3060	LOC: SMmmprsp.c - SMmmasyncr() DESC: PIC detected MMP critical error - cc F6 PROBABLE CAUSE: Software defensive check failure or hardware problem in the MMP
10+	3061	LOC: SMmmprsp.c - SMmmasyncr() DESC: PIC detected MMP critical error - cc F3 PROBABLE CAUSE: Software defensive check failure.
10+	3062	LOC: SMmmprsp.c - SMmmasyncr() DESC: PIC detected MMP critical error - cc F4 PROBABLE CAUSE: Software defensive check failure or hardware problem in the MMP
10+	3063	LOC: SMmmprsp.c - SMmmasyncr() DESC: PIC detected MMP critical error - cc is invalid. PROBABLE CAUSE: Software defensive check failure in the PIC or MSKP ENV

10+	3064	LOC: SMmmprsp.c - SMmmasyncr() DESC: SMddread() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3065	LOC: SMmmprsp.c - SMmmasyncr() DESC: Receieved too many non critical errors - cause critical error. PROBABLE CAUSE: Software bug in MMP resident code.
10+	3100	LOC: SMmmpmsg.c - SMmmckmsg() DESC: Can not delete a message timer -SMdeltime() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3101	LOC: SMmmpmsg.c - SMmmckmsg() DESC: Can not acknowledge a message - SMmsgack() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3150	LOC: SMmmpflt.c - SMmmdlypm() DESC: Invalid physical ID PROBABLE CAUSE: Software defensive check failure.
10+	3151	LOC: SMmmpflt.c - SMmmdlypm() DESC: Can not send PM message - SMsendmsg() failed. PROBABLECAUSE: Software defensive check failure.
10+	3152	LOC: SMmmpflt.c - SMmmdlypm() DESC: MMP PM DMA failed. PROBABLE CAUSE: Hardware defensive check failure in the MMP
10+	3200	LOC: SMmmrst.c - SMmmdlyrst() DESC: Invalid physical ID PROBABLE CAUSE: Software defensive check failure.
10+	3201	LOC: SMmmrst.c - SMmmdlyrst() DESC: MMP's queue is empty during a RST request. PROBABLE CAUSE: Software defensive check failure.
10+	3202	LOC: SMmmrst.c - SMmmdlyrst() DESC: MMP's sequence flags are in the wrong state. PROBABLE CAUSE: Software defensive check failure.
10+	3203	LOC: SMmmrst.c - SMmmdlyrst() DESC: MMP down load failed. PROBABLE CAUSE: Software defensive check failure or hardware problem in MMP or MSCU
10+	3204	LOC: SMmmrst.c - SMmmdlyrst() DESC: Can not get SDLC-SM table - DBfrdtup() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3205	LOC: SMmmrst.c - SMmmdlyrst() DESC: Failure in sending restore command to MMP PROBABLE CAUSE: Hardware Problem in MSCU
10+	3206	LOC: SMmmrst.c - SMmmdlyrst() DESC: Failure of SMdeltime to delete timer on appinit command. PROBABLE CAUSE: Software defensive check failure.
10+	3207	LOC: SMmmrst.c - SMmmdlyrst() DESC: Cannot read MODATT relation. - DBfrdtup() returned fail. PROBABLE CAUSE: Software bug.

10+	3250	LOC: SMmmpflt.c - SMmmpcr() DESC: Can not read state of MMP - SMddread failed. PROBABLE CAUSE: Software defensive check failure.
10+	3251	LOC: SMmmpflt.c - SMmmpcr() DESC: Can not request a timer - SMreqtime() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3252	LOC: SMmmpflt.c - SMmmpcr() DESC: Can not verify a timeout request -SMvertime() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3253	LOC: SMmmpflt.c - SMmmpcr() DESC: MMP's error flag is in an invalid state. PROBABLE CAUSE: Software defensive check failure.
10+	3254	LOC: SMmmpflt.c - SMmmpcr() DESC: Invalid state for MMP PROBABLE CAUSE: Software defensive check failure.
10+	3255	LOC: SMmmpflt.c - SMmmpcr() DESC: Can not request a timer - SMreqtime() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3256	LOC: SMmmpflt.c - SMmmpcr() DESC: Can not send a message - SMsendmsg() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3257	LOC: SMmmpflt.c - SMmmpcr() DESC: An MMP error is reported in order to cause MMP recovery. PROBABLE CAUSE: Hardware problem or software defensive check failure detected elsewhere.
10+	3300	LOC: SMmmpflt.c - SMmmpflt() DESC: Invalid physical ID PROBABLE CAUSE: Software defensive check failure.
10+	3301	LOC: SMmmpflt.c - SMmmpflt() DESC: PC sanity check failure. PROBABLE CAUSE: Software defensive check failure or hardware problem in MMP
10+	3302	LOC: SMmmpflt.c - SMmmpflt() DESC: AM and PIC status of MMP are not the same. PROBABLE CAUSE: Software defensive check failure.
10+	3303	LOC: SMmmpflt.c - SMmmpflt() DESC: Fatal software error -S2 recovery. PROBABLE CAUSE: Software defensive check failure or MMP hardware problem.
10+	3304	LOC: SMmmpflt.c - SMmmpflt() DESC: Invalid response destination in MSCU or PC response. PROBABLE CAUSE: Software defensive check failure in the MMP or MSCU
10+	3305	LOC: SMmmpflt.c - SMmmpflt() DESC: Bad MSKP fault code. PROBABLE CAUSE: Software defensive check failure.
10+	3350	LOC: SMmmpinit.c - SMmmpinit() DESC: Invalid physical ID

		PROBABLE CAUSE: Software defensive check failure.
10+	3400	LOC: SMmmpmsg.c - SMmmpmsg() DESC: Invalid message - SMmmvalmsg() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3401	LOC: SMmmpmsg.c - SMmmpmsg() DESC: Can not acknowledge a message - SMmsgack() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3402	LOC: SMmmpmsg.c - SMmmpmsg() DESC: Can not request a timer - SMreqtime() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3403	LOC: SMmmpmsg.c - SMmmpmsg() DESC: Can not acknowledge a message - SMmsgack() failed PROBABLE CAUSE: Software defensive check failure.
10+	3404	LOC: SMmmpmsg.c - SMmmpmsg() DESC: Can not queue a message - SMqueumsg() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3405	LOC: SMmmpmsg.c - SMmmpmsg() DESC: Can not move a message from OV to IP - SMovftoip() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3406	LOC: SMmmpmsg.c - SMmmpmsg() DESC: Can not read state of MMP - SMddread() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3407	LOC: SMmmpmsg.c - SMmmpmsg() DESC: Can not queue a message - SMqueumsg() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3408	LOC: SMmmpmsg.c - SMmmpmsg() DESC: Can not move message from OV to IP - SMovftoip() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3450	LOC: SMmmpmsg.c - SMmmpreq() DESC: Can not read state of MMP - SMddread() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3451	LOC: SMmmpmsg.c - SMmmpreq() DESC: MMP's queue is empty. PROBABLE CAUSE: Software defensive check failure.
10+	3452	LOC: SMmmpmsg.c - SMmmpreq() DESC: An invalid message was dequeued. PROBABLE CAUSE: Software defensive check failure.
10+	3453	LOC: SMmmpmsg.c - SMmmpreq() DESC: MMP's error flag is set PROBABLE CAUSE: Software defensive check failure.
10+	3454	LOC: SMmmpmsg.c - SMmmpreq() DESC: Can not request a timeout -SMreqtime() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3455	LOC: SMmmpmsg.c - SMmmpreq() DESC: MMP RST Failed - SMpcinit() failed.

		PROBABLE CAUSE: Software defensive check failure or hardware problem in MMP or MSCU
10+	3456	LOC: SMmmpmsg.c - SMmmpreq() DESC: Can not get a DMA job number - SMasndma() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3457	LOC: SMmmpmsg.c - SMmmpreq() DESC: Can not get PTA for PM DMA - SMgetpta() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3458	LOC: SMmmpmsg.c - SMmmpreq() DESC: Can not get PM Data from MMP - SMgetpmort() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3459	LOC: SMmmpmsg.c - SMmmpreq() DESC: Cannot get a PTA for utilities - SMgetpta() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3460	LOC: SMmmpmsg.c - SMmmpreq() DESC: Can not get a DMA job number - SMasndma() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3461	LOC: SMmmpmsg.c - SMmmpreq() DESC: Failure by SMmmxmitcmd to send PC clear command. PROBABLE CAUSE: MSCU hardware problem.
10+	3462	LOC: SMmmpmsg.c - SMmmpreq() DESC: Failure by SMmmxmitcmd to send RMV command. PROBABLE CAUSE: MSCU hardware problem.
10+	3463	LOC: SMmmpmsg.c - SMmmpreq() DESC: Failure by SMmmxmitcmd to send config command. PROBABLE CAUSE: MSCU hardware problem.
10+	3464	LOC: SMmmpmsg.c - SMmmpreq() DESC: Failure by SMmmxmitcmd to send status command. PROBABLE CAUSE: MSCU hardware problem.
10+	3465	LOC: SMmmpmsg.c - SMmmpreq() DESC: Failure by SMmmxmitcmd to send PC read. PROBABLE CAUSE: MSCU hardware problem.
10+	3466	LOC: SMmmpmsg.c - SMmmpreq() DESC: Failure by SMmmxmitcmd to send utility execute. PROBABLE CAUSE: MSCU hardware problem.
10+	3467	LOC: SMmmpmsg.c - SMmmpreq() DESC: Failure by SMmmxmitcmd to send utility PROBABLE CAUSE: MSCU hardware problem.
10+	3500	LOC: SMmmprsp.c - SMmmprsp() DESC: Invalid physical ID PROBABLE CAUSE: Unknown.
10+	3501	LOC: SMmmprsp.c - SMmmprsp() DESC: Invalid response/command destination in response. PROBABLE CAUSE: Software defensive check failure in MMP
10+	3502	LOC: SMmmprsp.c - SMmmprsp()

		DESC: Invalid MMP physical address - from MMP PROBABLE CAUSE: Software defensive check failure in MMP
10+	3503	LOC: SMmmprsp.c - SMmmprsp() DESC: Invalid opcode in response - from MMP PROBABLE CAUSE: Software defensive check failure in MMP
10+	3504	LOC: SMmmprsp.c - SMmmprsp() DESC: Invalid command field in response - from MMP PROBABLE CAUSE: Software defensive check failure in MMP
10+	3505	LOC: SMmmprsp.c - SMmmprsp() DESC: Invalid who field in response - from MMP PROBABLE CAUSE: Software defensive check failure in MMP
10+	3506	LOC: SMmmprspc. - SMmmprsp() DESC: Invalid opcode in response - from PIC PROBABLE CAUSE: Software defensive check failure in MMP
10+	3507	LOC: SMmmprspc. - SMmmprsp() DESC: Response received while MMP was in recovery. PROBABLE CAUSE: Hardware problem detected elsewhere.
10+	3550	LOC: SMmmpmsg.c - SMmmreqdone() DESC: Can not delete a sequence timer - SMdeltime() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3551	LOC: SMmmpmsg.c - SMmmreqdone() DESC: Can not dequeue in progress message - SMdequeue() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3552	LOC: SMmmpmsg.c - SMmmreqdone() DESC: Dequeue an invalid message from the MMP's queue. PROBABLE CAUSE: Software defensive check failure.
10+	3553	LOC: SMmmpmsg.c - SMmmreqdone() DESC: Can not move message from OV to IP - SMovftoip() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3554	LOC: SMmmpmsg.c - SMmmreqdone() DESC: SMdeltime() failed to delete timer on appinit. PROBABLE CAUSE: Software defensive check failure.
10+	3600	LOC: SMmmrst.c - SMmmrstdone() DESC: MMP RST request is out of sequence. PROBABLE CAUSE: Software defensive check failure.
10+	3601	LOC: SMmmrst.c - SMmmrstdone() DESC: Can not send update status message -SMsendmsg() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3602	LOC: SMmmrst.c - SMmmrstdone() DESC: MMP has failed all retries. PROBABLE CAUSE: Software defensive check failure or hardware problem in MMP
10+	3603	LOC: SMmmrst.c - SMmmrstdone() DESC: Can not delete a sequence timer on an RST request. PROBABLE CAUSE: Software defensive check failure.
10+	3604	LOC: SMmmrst.c - SMmmrstdone()

		DESC: Abort service routine failed -SMabortsr() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3605	LOC: SMmmrst.c - SMmmrstdone() DESC: SMmmrstdone() has been entered with a bad cc. PROBABLE CAUSE: Software defensive check failure.
10+	3606	LOC: SMmmrst.c - SMmmrstdone() DESC: Failure in sending appinit command to MMP PROBABLE CAUSE: Hardware defensive check failure in MSCU
10+	3607	LOC: SMmmrst.c - SMmmrstdone() DESC: Failure in deleting timer on appinit. PROBABLE CAUSE: Software defensive check failure.
10+	3650	LOC: SMmmprsp.c - SMmmsyncr() DESC: MMP has sent a synchronous response with no IP request. PROBABLECAUSE: MMP software defensive check failure or MMP hardware problem.
10+	3651	LOC: SMmmprsp.c - SMmmsyncr() DESC: No in-progress message on MMP's queue. PROBABLE CAUSE: Software defensive check failure.
10+	3652	LOC: SMmmprsp.c - SMmmsyncr() DESC: Event NO. in message does not match event NO. in response. PROBABLE CAUSE: Software defensive check failure or MMP software defensive check failure.
10+	3653	LOC: SMmmprsp.c - SMmmsyncr() DESC: MTCE request is out of sequence. PROBABLE CAUSE: Software defensive check failure or MMP software defensive check failure.
10+	3654	LOC: SMmmprsp.c - SMmmsyncr() DESC: Received a MMP DMA response with no R/W BLK message PROBABLE CAUSE: Software defensive check failure or MMP software defensive check failure.
10+	3655	LOC: SMmmprsp.c - SMmmsyncr() DESC: Received a MMP DMA response with bad DMA data. PROBABLE CAUSE: Software defensive check failure in MMP
10+	3656	LOC: SMmmprsp.c - SMmmsyncr() DESC: MMP RST failed: APP INIT command failed. PROBABLE CAUSE: Software defensive check failure or hardware problem in MMP
10+	3657	LOC: SMmmprsp.c - SMmmsyncr() DESC: MMP failed a MTCE request. PROBABLE CAUSE: Software defensive check failure or hardware problem in MMP
10+	3658	LOC: SMmmprsp.c - SMmmsyncr() DESC: MMP returned invalid data from read interrupts command. PROBABLE CAUSE: MMP software problem.
10+	3659	LOC: SMmmprsp.c - SMmmsyncr() DESC: MMP returned invalid data from read CCS command. PROBABLE CAUSE: MMP software problem.
10+	3660	LOC: SMmmprsp.c - SMmmsyncr()

		DESC: Can not delete a DMA job number - SMdeldma() failed. PROBABLE CAUSE: Software defensive check failure.
10+	3661	LOC: SMmmprsp.c - SMmmsyncr() DESC: Failure by SMmmxmitcmd to send DMA request to PIC PROBABLE CAUSE: MSCU hardware problem.
10+	3662	LOC: SMmmprsp.c - SMmmsyncr() DESC: Failure by SMmmxmitcmd to send completion report. PROBABLE CAUSE: Hardware problem in MSCU
10+	3663	LOC: SMmmprsp.c - SMmmsyncr() DESC: MMP returned invalid data for AM/CM re-synchronization. PROBABLE CAUSE: MMP software problem.
10+	3700	LOC: SMmmpflt.c - SMmmtimeout() DESC: Invalid physical ID PROBABLE CAUSE: Software defensive check failure.
10+	3701	LOC: SMmmpflt.c - SMmmtimeout() DESC: Block Message timeout. PROBABLE CAUSE: Software defensive check failure.
10+	3702	LOC: SMmmpflt.c - SMmmtimeout() DESC: Dequeue an invalid message. PROBABLE CAUSE: Software defensive check failure.
10+	3703	LOC: SMmmpflt.c - SMmmtimeout() DESC: Invalid message timer index. PROBABLE CAUSE: Software defensive check failure.
10+	3704	LOC: SMmmpflt.c - SMmmtimeout() DESC: MMP message timeout PROBABLE CAUSE: Software defensive check failure.
10+	3705	LOC: SMmmpflt.c - SMmmtimeout() DESC: MMP error flag timeout. PROBABLE CAUSE: Software defensive check failure.
10+	3706	LOC: SMmmpflt.c - SMmmtimeout() DESC: Invalid timer index for error flag timeout. PROBABLE CAUSE: Software defensive check failure.
10+	3707	LOC: SMmmpflt.c - SMmmtimeout() DESC: MMP sequence timeout. PROBABLE CAUSE: Software defensive check failure or hardware problem in MMP
10+	3708	LOC: SMmmpflt.c - SMmmtimeout() DESC: Invalid timer index for an MMP sequence timeout. PROBABLE CAUSE: Software defensive check failure.
10+	3709	LOC: SMmmpflt.c - SMmmtimeout() DESC: Invalid timeout type. PROBABLE CAUSE: Software defensive check failure.
10+	3710	LOC: SMmmpflt.c - SMmmtimeout() DESC: MMP appinit timeout on RST PROBABLE CAUSE: Software defensive check failure or hardware problem in MMP
10+	3711	LOC: SMmmpflt.c - SMmmtimeout()

		DESC: Invalid timer index for an MMP appinit RST timer. PROBABLE CAUSE: Software defensive check failure.
10+	3800	LOC: SMmmpmsg.c - SMmmmsgtime() DECS: Range check failed on the number of MMPs. PROBABLE CAUSE: Software defensive check failure.
10+	3801	LOC: SMmmpmsg.c - SMmmmsgtime() DECS: Range check failed on a message timeout value PROBABLE CAUSE: Software defensive check failure.
10+	3850	LOC: SMmmpmsg.c - SMmmseqtime() DECS: Range check failed on a sequence timeout value PROBABLE CAUSE: Software defensive check failure.

Error Code Range 4000-4999

Release Range	Error Code	PPC Handler Code
10+	4000	LOC: SMpppmsg.c - SMpppmsg() DESC: Invalid unit in input message. PROBABLE CAUSE: Software bug.
10+	4001	LOC: SMpppmsg.c - SMpppmsg() DESC: Invalid equipment ID in input message. PROBABLE CAUSE: Software bug.
10+	4002	LOC: SMpppmsg.c - SMpppmsg() DESC: Invalid action in input message. PROBABLE CAUSE: Software bug.
10+	4003	LOC: SMpppmsg.c - SMppmrej() DESC: Send acknowledgement failed PROBABLE CAUSE: Software bug.
10+	4005	LOC: SMpppmsg.c - SMppmcln() DESC: Dequeue of the message failed PROBABLE CAUSE: Software bug.
10+	4050	LOC: SMppprsp.c - SMppprsp() DESC: Bad equipment ID passed by MSKP ENV PROBABLE CAUSE: Software bug.
10+	4051	LOC: SMppprsp.c - SMppprsp() DESC: Old command response received during PPC restore. PROBABLE CAUSE: Software bug.
10+	4052	LOC: SMppprsp.c - SMppprsp() DESC: Invalid response received. PROBABLE CAUSE: Software bug in PPC
10+	4100	LOC: SMpppinit.c - SMpppinit() DESC: Bad equipment ID passed by MSKP_ENV PROBABLE CAUSE: Software bug.
10+	4150	LOC: SMppprsp.c - SMpppflt() DESC: Bad equipment ID passed by MSKP_ENV PROBABLE CAUSE: Software bug.

10+	4151	LOC: SMppprsp.c - SMpppflt() DESC: PPC Handler - Peripheral Controller sanity check failure. PROBABLE CAUSE: Software bug in PPC
10+	4152	LOC: SMppprsp.c - SMpppflt() DESC: Fatal software error -S2 recovery PROBABLE CAUSE: Software bug.
10+	4153	LOC: SMppprsp.c - SMpppflt() DESC: PPC is out of service in administrative module database. PROBABLE CAUSE: Software bug.
10+	4154	LOC: SMppprsp.c - SMpppflt() DESC: Inconsistent PPC state detected in the administrative module and peripheral interface controller, PPC is not out of service in administrative module database. PROBABLE CAUSE: Software bug.
10+	4155	LOC: SMppprsp.c - SMpppflt() DESC: Invalid fault code passed by MSKP_ENV PROBABLE CAUSE: Software bug.
10+	4200	LOC: SMppmrst.c - SMppmrst() DESC: Bad action qualifier (bad boot type) in input message. PROBABLE CAUSE: Software bug.
10+	4201	LOC: SMppmrst.c - SMppmrst() DESC: Failed to place message in the overflow queue PROBABLE CAUSE: Software bug.
10+	4202	LOC: SMppmrst.c - SMppmrst() DESC: Move message to in-progress queue failed PROBABLE CAUSE: Software bug.
10+	4203	LOC: SMppmrst.c - SMppmrst() or SMpprdlr() DESC: Request timer failed. PROBABLE CAUSE: Software bug.
10+	4204	LOC: SMppmrst.c - SMppprst() DESC: SMpcinit failed on immediate return PROBABLE CAUSE: Software bug.
10+	4205	LOC: SMppmrst.c - SMpprdlr() DESC: Delayed return failed on calling SMpcinit PROBABLE CAUSE: Software bug.
10+	4206	LOC: SMppmrst.c - SMpprstp() DESC: Bad response detected during PPC restore. PROBABLE CAUSE: Software bug in PPC.
10+	4207	LOC: SMppmrst.c - SMpprstp() DESC: Return data (Post Mortem Buffer information.) in response for restore, invalid. PROBABLE CAUSE: Software bug.
10+	4208	LOC: SMppmrst.c - SMpprstp() DESC: Sequence in-progress indicator out of range PROBABLE CAUSE: Software bug.
10+	4209	LOC: SMppmrst.c - SMpprsucc() DESC: Dequeue message failed. PROBABLE CAUSE: Software bug.

10+	4210	LOC: SMppmrst.c - SMpprsucc() DESC: Send acknowledgment failed PROBABLE CAUSE: Software bug.
10+	4211	LOC: SMppmrst.c - SMpprfail() DESC: Dequeue message failed PROBABLE CAUSE: Software bug.
10+	4212	LOC: SMppmrst.c - SMpprfail() DESC: Send acknowledgement failed. PROBABLE CAUSE: Software bug.
10+	4250	LOC: SMppmrmv.c - SMppmrmv() DESC: Send acknowledgment failed PROBABLE CAUSE: Software bug.
10+	4300	LOC: SMppmdef.c - SMppmdef() DESC: Invalid side of equipment ID in input message PROBABLE CAUSE: Software bug.
10+	4302	LOC: SMppmdef.c - SMppmdef() DESC: Invalid side of equipment ID in input message PROBABLE CAUSE: Software bug.
10+	4303	LOC: SMppmdef.c - SMppmdef() DESC: Failed on read PPC0 status PROBABLE CAUSE: Software bug.
10+	4304	LOC: SMppmdef.c - SMppmdef() DESC: Read status of PPC1 failed PROBABLE CAUSE: Software bug.
10+	4308	LOC: SMppmdef.c - SMppmdef() DESC: The in-progress queue is full, reject the message PROBABLE CAUSE: Too many messages received by PPC handler.
10+	4309	LOC: SMppmdef.c - SMppmdef() DESC: Queueing the message into the overflow queue failed PROBABLE CAUSE: Software bug.
10+	4310	LOC: SMppmdef.c - SMppmdef() DESC: Moving the message from overflow queue to I_P queue failed PROBABLE CAUSE: Software bug.
10+	4311	LOC: SMppmdef.c - SMppmdef() DESC: Request timer failed PROBABLE CAUSE: Software bug.
10+	4313	LOC: SMppmdef.c - SMpprnor() DESC: Response is inconsistent with the send command PROBABLE CAUSE: Software bug.
10+	4314	LOC: SMppmdef.c - SMpprnor() DESC: Delete message timer failed. PROBABLE CAUSE: Software bug.
10+	4315	LOC: SMppmdef.c - SMpprnor() DESC: Bad completion code due to PPC fault PROBABLE CAUSE: Software bug.

10+	4316	LOC: SMppmdef.c - SMpprnor() DESC: Dequeue message failed PROBABLE CAUSE: Software bug.
10+	4317	LOC: SMppmdef.c - SMpprnor() DESC: Send acknowledgement failed PROBABLE CAUSE: Software bug.
10+	4318	LOC: SMppmdef.c - SMppmdef() DESC: Unknown config command for the PPC. PROBABLE CAUSE: Software bug.
10+	4319	LOC: SMppmdef.c - SMppmdef() DESC: Can't lock segment for BCB. PROBABLE CAUSE: Software bug.
10+	4320	LOC: SMppmdef.c - SMppmdef() DESC: Can't get Dual Memory Access number for BCB. PROBABLE CAUSE: Software bug.
10+	4321	LOC: SMppmdef.c - SMppmdef() DESC: Can't lock segment for buffer1. PROBABLE CAUSE: Software bug.
10+	4322	LOC: SMppmdef.c - SMppmdef() DESC: Can't get Dual Memory Access number for buffer1. PROBABLE CAUSE: Software bug.
10+	4323	LOC: SMppmdef.c - SMppmdef() DESC: Can't lock segment for buffer2. PROBABLE CAUSE: Software bug.
10+	4324	LOC: SMppmdef.c - SMppmdef() DESC: Can't get Dual Memory Access number for buffer1. PROBABLE CAUSE: Software bug.
10+	4325	LOC: SMppmdef.c - SMppmdef() DESC: Unknown command sent to PPC handler. PROBABLE CAUSE: Software bug.
10+	4326	LOC: SMppmdef.c - SMppmdef() DESC: Can't lock segment for utility command. PROBABLE CAUSE: Software bug.
10+	4327	LOC: SMppmdef.c - SMppmdef() DESC: Can't get Dual Memory Access number for buffer1. PROBABLE CAUSE: Software bug.
10+	4356	LOC: SMpppsp.c - SMppmabd() DESC: Invalid equipment ID in input message. PROBABLE CAUSE: Software bug.
10+	4357	LOC: SMpppsp.c - SMppmadb() DESC: Send acknowledgement failed. PROBABLE CAUSE: Software bug.
10+	4400	LOC: SMpppsp.c - SMppherr() DESC: Err_reported timer is not pending when err_reported flag is set. PROBABLE CAUSE: Software bug.

10+	4401	LOC: SMpprsp.c - SMppherr() DESC: Can't get a timer PROBABLE CAUSE: Software bug.
10+	4402	LOC: SMppprsp.c - SMppherr() DESC: Can't get a timer PROBABLE CAUSE: Software bug.
10+	4403	LOC: SMppprsp.c - SMppherr() or SMpposprep() DESC: Can't send error message to SMKP or OKP PROBABLE CAUSE: Software bug.
10+	4404	LOC: SMppprsp.c - SMppherr() DESC: Invalid data about the PPC post mortem buffer saved in dynamic data. PROBABLE CAUSE: Software bug.
10+	4405	LOC: SMppprsp.c - SMppherr() DESC: Get segment ID failed PROBABLE CAUSE: Software bug.
10+	4407	LOC: SMppprsp.c - SMppdrpmb() DESC: Bad equipment ID and can't send message to PPCSMER. PROBABLE CAUSE: Software bug.
10+	4450	LOC: SMpprdma.c - SMpprdma() DESC: Direct memory access job number in response and in queued message are not consistent. PROBABLE CAUSE: Software bug.
10+	4451	LOC: SMpprdma.c - SMpprpic() DESC: Invalid direct memory access job number in response from the Peripheral Interface Controller. PROBABLE CAUSE: Software bug.
10+	4452	LOC: SMpprdma.c - SMpprdma() DESC: Invalid message pointer. - SMvermsg() returned fail. PROBABLE CAUSE: Software bug.
10+	4453	LOC: SMpprdma.c - SMpprdma() DESC: Active PPC received an invalid DMA response. PROBABLE CAUSE: Hardware bug.
10+	4454	LOC: SMpprdma.c - SMpprpic() DESC: Failed to read PPC PCD state. - SMddread() returned fail. PROBABLE CAUSE: Software bug.
10+	4455	LOC: SMpprdma.c - SMpprdma() DESC: Failed to read PPC PCD state. - SMddread() returned fail. PROBABLE CAUSE: Software bug.
10+	4456	LOC: SMpprdma.c - SMpprpic() DESC: Invalid message pointer. PROBABLE CAUSE: Software bug.
10+	4500	LOC: SMpphtm1.c - SMpphtm1() DESC: PPC restore timeout error PROBABLE CAUSE: Software bug or PPC hardware.
10+	4501	LOC: SMpphtm1.c - SMpphtm1() DESC: Invalid equipment ID on tm1 timed out.

		PROBABLE CAUSE: Software bug.
10+	4502	LOC: SMpphtm1.c - SMpphtm1() DESC: Returned index inconsistent with dynamic data PROBABLE CAUSE: Software bug.
10+	4503	LOC: SMpphtm1.c - SMpphtm4() DESC: Bad equipment ID on tm4 time out. PROBABLE CAUSE: Software bug.
10+	4504	LOC: SMpphtm1.c - SMpphtm2() DESC: Returned index inconsistent with dynamic data PROBABLE CAUSE: Software bug.
10+	4505	LOC: SMpphtm1.c - SMpphtm3() DESC: Returned index inconsistent with dynamic data PROBABLE CAUSE: Software bug.
10+	4506	LOC: SMpphtm1.c - SMpphtm2() DESC: Invalid equipment ID. PROBABLE CAUSE: Software bug.
10+	4507	LOC: SMpphtm1.c - SMpphtm3() DESC: Bad equipment ID on tm3 time out. PROBABLE CAUSE: Software bug.
10+	4550	LOC: SMppmdef.c - SMppmdef() DESC: The PPC failed sending a command to the MSKP environment, using the SMppmxmit primitive, due to invalid input parameter data or the MSCU is out of service. PROBABLE CAUSE: Software bug.
10+	4551	LOC: SMppmdef.c - SMppmdef() DESC: The PPC failed sending a command to the MSKP environment, using the SMppmxmit primitive, due to invalid input parameter data or the MSCU is out of service. PROBABLE CAUSE: Software bug.
10+	4552	LOC: SMppmdef.c - SMppmdef() DESC: The PPC failed sending a command to the MSKP environment, using the SMppmxmit primitive, due to invalid input parameter data or the MSCU is out of service. PROBABLE CAUSE: Software bug.
10+	4553	LOC: SMppmdef.c - SMppmdef() DESC: The PPC failed sending a command to the MSKP environment, using the SMppmxmit primitive, due to invalid input parameter data or the MSCU is out of service. PROBABLE CAUSE: Software bug.
10+	4554	LOC: SMppmdef.c - SMppmdef() DESC: The PPC failed sending a command to the MSKP environment, using the SMppmxmit primitive, due to invalid input parameter data or the MSCU is out of service. PROBABLE CAUSE: Software bug.
10+	4555	LOC: SMppmdef.c - SMppmdef() DESC: The PPC failed sending a command to the MSKP environment, using the SMppmxmit primitive, due to invalid input parameter data or the MSCU is out of

		service. PROBABLE CAUSE: Software bug.
10+	4556	LOC: SMppmrmv.c - SMppmrmv() DESC: The PPC failed sending a command to the MSKP environment, using the SMppmxmit primitive, due to invalid input parameter data or the MSCU is out of service. PROBABLE CAUSE: Software bug.
10+	4557	LOC: SMppmrmv.c - SMppmrmv() DESC: The PPC failed sending a command to the MSKP environment, using the SMppmxmit primitive, due to invalid input parameter data or the MSCU is out of service. PROBABLE CAUSE: Software bug.
10+	4558	LOC: SMppmrst.c - SMpprdlr() DESC: The PPC failed sending a command to the MSKP environment, using the SMppmxmit primitive, due to invalid input parameter data or the MSCU is out of service. PROBABLE CAUSE: Software bug.
10+	4559	LOC: SMppmrst.c - SMpprstp() DESC: The PPC failed sending a command to the MSKP environment, using the SMppmxmit primitive, due to invalid input parameter data or the MSCU is out of service. PROBABLE CAUSE: Software bug.
10+	4560	LOC: SMppmrst.c - SMpprfail() DESC: The PPC failed sending a command to the MSKP environment, using the SMppmxmit primitive, due to invalid input parameter data or the MSCU is out of service. PROBABLE CAUSE: Software bug.
10+	4561	LOC: SMpppprsp() - SMpppflt.c DESC: The PPC failed sending a command to the MSKP environment, using the SMppmxmit primitive, due to invalid input parameter data or the MSCU is out of service. PROBABLE CAUSE: Software bug.
10+	4562	LOC: SMpppprsp.c - SMpppflt() DESC: The PPC failed sending a command to the MSKP environment, using the SMppmxmit primitive, due to invalid input parameter data or the MSCU is out of service. PROBABLE CAUSE: Software bug.
10+	4563	LOC: SMpprdma.c - SMpprdma() DESC: The PPC failed sending a command to the MSKP environment, using the SMppmxmit primitive, due to invalid input parameter data or the MSCU is out of service. PROBABLE CAUSE: Software bug.
10+	4564	LOC: SMpprdma.c - SMpprpic() DESC: The PPC failed sending a command to the MSKP environment, using the SMppmxmit primitive, due to invalid input parameter data or the MSCU is out of service. PROBABLE CAUSE: Software bug.

Error Code Range 5000-5999

Release Range	Error Code	DIAG Handler Code
10+	5000	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Failed to attach to the ECD. PROBABLE CAUSE: Software bug.
10+	5001	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Failed to get a page table address on a. SYSGEN request. PROBABLE CAUSE: Software bug.
10+	5002	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Failure to assign a DMA job number on a. SYSGEN request. PROBABLE CAUSE: Software bug or exhausted DMA job numbers.
10+	5003	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Failure to request a timer on a SYSGEN request. PROBABLE CAUSE: Software bug or timer table exhausted.
10+	5004	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Failure to attach to MSCU interrupts on a. PIO/SDC request. PROBABLE CAUSE: Software bug.
10+	5005	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Failure to enable interrupts for the MSCU on a. PIO/SDC request. PROBABLE CAUSE: Software bug.
10+	5006	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Failure on timing to set a timer on a. PIO/SDC request. PROBABLE CAUSE: Software bug.
10+	5007	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Illegal PIO diagnostic request. PROBABLE CAUSE: Software bug.
10+	5008	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Failure to attach to MSCU interrupts on. ENAINT request. PROBABLE CAUSE: Software bug.
10+	5009	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Failure to enable interrupts on ENAINT request. PROBABLE CAUSE: Software bug.
10+	5010	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Illegal request to attach to interrupts on. ENAINT request. PROBABLE CAUSE: Software bug.
10+	5011	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Failure to detach from interrupts on a DETINT request. PROBABLE CAUSE: Software bug.
10+	5012	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Illegal request to detach from interrupts on a. DETINT request. PROBABLE CAUSE: Software bug.
10+	5013	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Failure to get a page table address on a DGNDMA request. PROBABLE CAUSE: Software bug.

10+	5014	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Failure to initialize the DMAC on a DGNDMA sequence. PROBABLE CAUSE: Software bug.
10+	5015	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Failure to lock a segment on a DGNDMA sequence. PROBABLE CAUSE: Software bug.
10+	5016	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Failure to assign a DMA job number on a. DGNDMA sequence. PROBABLE CAUSE: Software bug.
10+	5017	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Failure to get the DMA address on a RDMAC request. PROBABLE CAUSE: Software bug.
10+	5018	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Failure to unlock a DMA segment on a WSETUP0 request. PROBABLE CAUSE: Software bug.
10+	5019	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: DIAGH in wrong state for a WSETUP0 request. PROBABLE CAUSE: Software bug.
10+	5020	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Failure to delete a DMA job number on a WSETUP1 request. PROBABLE CAUSE: Software bug.
10+	5021	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Failure to unlock a DMA segment on a WSETUP1 request. PROBABLE CAUSE: Software bug.
10+	5022	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: DIAGH in wrong state for a WSETUP1 request. PROBABLE CAUSE: Software bug.
10+	5023	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Failure to delete a DMA job number on a DMAEND request. PROBABLE CAUSE: Software bug.
10+	5024	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Failure to get the DMA address on a WDMAC request. PROBABLE CAUSE: Software bug.
10+	5025	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Failure to lock a DMA segment on a DMA request. PROBABLE CAUSE: Software bug.
10+	5026	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Failure to assign a DMA job number on a DMA request. PROBABLE CAUSE: Software bug.
10+	5027	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Failure to transmit a message on a DMA request. PROBABLE CAUSE: Software bug.
10+	5028	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Failure to request a timer on a DMA request. PROBABLE CAUSE: Software bug.

10+	5029	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Illegal request specifying a "NORTN". PROBABLE CAUSE: Software bug.
10+	5030	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Failure to transmit a message to the MSCU on a HP request. PROBABLE CAUSE: Software bug.
10+	5031	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Failure to get a timer on a HP request. PROBABLE CAUSE: Software bug.
10+	5032	LOC: DGdiagfun.c - DGtimeout() - DIAGH timeout function. DESC: Failure to delete a timed DMA request. PROBABLE CAUSE: Software bug.
10+	5033	LOC: DGdiagfun.c - DGdgintrpt() - DIAGH interrupt handler. DESC: Unsolicited interrupt received. PROBABLE CAUSE: Software bug.
10+	5034	LOC: DGdiagfun.c - DGdgintrpt() - DIAGH interrupt handler. DESC: Failure to detach from interrupts in interrupt handler. PROBABLE CAUSE: Software bug.
10+	5035	LOC: DGdgprsp.c - DGdgprsp() - DIAGH response processor. DESC: Failure to transmit a message to the MSCU after PIC response. PROBABLE CAUSE: Software bug.
10+	5036	LOC: DGdgprsp.c - DGdgprsp() - DIAGH response processor. DESC: Failure to get a timer after a PIC response during a read block. PROBABLE CAUSE: Software bug.
10+	5037	LOC: DGdgprsp.c - DGdgprsp() - DIAGH response processor. DESC: Failure to transmit a message to the MSCU after a response from the PC during a read block. PROBABLE CAUSE: Software bug.
10+	5038	LOC: DGdgprsp.c - DGdgprsp() - DIAGH response processor. DESC: Failure to get a timer after a response from the PC during a read block. PROBABLE CAUSE: Software bug.
10+	5039	LOC: DGdgprsp.c - DGdgprsp() - DIAGH response processor. DESC: Failure to detach from interrupts after a non-solicited interrupt. PROBABLE CAUSE: Software bug.
10+	5040	LOC: DGdgprsp.c - DGdgprsp() - DIAGH response processor. DESC: Processing a non-solicited interrupted. PROBABLE CAUSE: Mapping error in MSKP.
10+	5041	LOC: DGdgprsp.c - DGdgprsp() - DIAGH response processor. DESC: Failure to assign a DMA job number for the PIC queues on a SYSGEN request. PROBABLE CAUSE: Software bug.
10+	5042	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Failure to get the page table address for the PIC queues on a SYSGEN request. PROBABLE CAUSE: Software bug.
10+	5043	LOC: DGdiagfun.c - DGtimeout() - DIAGH timeout function.. DESC: DIAGH in wrong state for timeout call.

		PROBABLE CAUSE: Software bug.
10+	5044	LOC: DGdgpflt.c - DGdgpflt() - DIAGH fault entry. DESC: DIAGC aborted using automatic request while waiting for response. PROBABLE CAUSE: Fault recovery action.
10+	5045	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Failure on a sdc32b on a SYSGEN request. PROBABLE CAUSE: Hardware fault.
10+	5046	LOC: DGdgpflt.c - DGdgpflt() - DIAGH fault entry. DESC: DIAGC aborted using automatic request while in idle state. PROBABLE CAUSE: Fault recovery action.
10+	5047	LOC: DGdiagfun.c - DGmsgrtn() - DIAGH message return function. DESC: Bad pointer to DMERT message buffer detected. PROBABLE CAUSE: Software problem.
10+	5050	LOC: DGdiagfun.c - DGdlyrtn() - DIAGH delay return function from SMinit_pip. DESC: DIAGH in wrong state for delayed return call. PROBABLE CAUSE: Software bug.
10+	5051	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: DIAGH in wrong state for message processor call. PROBABLE CAUSE: Software bug.
10+	5052	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Failure on call to SMinit_pip(). PROBABLE CAUSE: Software bug.
10+	5053	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Failure to get a timer on SMinit_pip() request. PROBABLE CAUSE: Software bug.
10+	5054	LOC: DGdiagfun.c - DGdlyrtn() - DIAGH delay return function from SMinit_pip. DESC: Failure on call to SMinit_pip(). PROBABLE CAUSE: Software bug.
10+	5055	LOC: DGdiagfun.c - DGdlyrtn() - DIAGH delay return function from SMinit_pip. DESC: Failure to get a timer on SMinit_pip() request. PROBABLE CAUSE: Software bug.
10+	5056	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Failure to transmit a message to the CMP on an asynchronous high priority response request. PROBABLE CAUSE: Software bug.
10+	5057	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: Failure to get a timer on high priority request for message to CMP. PROBABLE CAUSE: Software bug.
10+	5058	LOC: DGdiagfun.c - DGtimout() - DIAGH timeout function. DESC: Incorrect unit type for DLYRTN state in timeout function. PROBABLE CAUSE: Software bug.
10+	5060	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: DIAGH failed to read office dependent data for the pump file name for the message switch controller unit. PROBABLE CAUSE: File missing from disk.

10+	5061	LOC: DGdgpmsg.c - DGdgpmsg() - DIAGH message processor. DESC: DIAGH request for download from disk failed on a SYSGEN request. PROBABLE CAUSE: Software bug.
10+	5064	LOC: DGdiagfun.c - DGmsrst2() - DIAGH delay return function from call to SMdlfdsk(). DESC: Unsolicited call to this delayed entry function. PROBABLE CAUSE: Software bug.
10+	5065	LOC: DGdiagfun.c - DGmsrst2() - DIAGH delay return function from call to SMdlfdsk(). DESC: Failure during pump of MSCU diagnostic. PROBABLE CAUSE: Hardware failure.
10+	5066	LOC: DGdiagfun.c - DGmsrst2() - DIAGH delay return function from call to SMdlfdsk(). DESC: Failure to assign DMA job number. PROBABLE CAUSE: Software bug.
10+	5067	LOC: DGdiagfun.c - DGmsrst2() - DIAGH delay return function from call to SMdlfdsk(). DESC: Failure to get page table address on pump of MSCU request. PROBABLE CAUSE: Software bug.
10+	5068	LOC: DGdiagfun.c - DGmsrst2() - DIAGH delay return function from call to SMdlfdsk(). DESC: Failure to assign DMA job number. PROBABLE CAUSE: Software bug.
10+	5069	LOC: DGdiagfun.c - DGmsrst2() - DIAGH delay return function from call to SMdlfdsk(). DESC: Failure on a sdc32b on a pump request. PROBABLE CAUSE: Hardware fault.
10+	5070	LOC: DGdiagfun.c - DGmsrst2() - DIAGH delay return function from call to SMdlfdsk(). DESC: Failure to get a timer on a sdc32b request. PROBABLE CAUSE: Software bug.

Error Code Range 6000-6999

Release Range	Error Code	MSCU Handler Code
10+	6000	LOC: SMmspmsg.c - SMmspmsg() DESC: MSCU Handler received a bad message. PROBABLE CAUSE: Software bug.
10+	6001	LOC: SMmspmsg.c - SMmspmsg() DESC: SMmsgack() returned failure. PROBABLE CAUSE: Low DMERT msg buffer resources or software bug.
10+	6002	LOC: SMmspmsg.c - SMmspmsg() DESC: Bad segid in message received. PROBABLE CAUSE: Software bug.
10+	6003	LOC: SMmspmsg.c - SMmspmsg() DESC: SMmsgack() returned failure. PROBABLE CAUSE: Low DMERT msg buffer resources or software bug.
10+	6004	LOC: SMmspmsg.c - SMmspmsg() DESC: Message queue is full. PROBABLE CAUSE: Software bug.
10+	6005	LOC: SMmspmsg.c - SMmspmsg() DESC: SMmsgack returned failure. PROBABLE CAUSE: Low DMERT msg buffer resources or software bug.

10+	6006	LOC: SMmspmsg.c - SMmspmsg() DESC: Bad segid in queued message. PROBABLE CAUSE: Software bug.
10+	6007	LOC: SMmspmsg.c - SMmspmsg() DESC: SMmsgack() returned failure. PROBABLE CAUSE: Low DMERT msg buffer resources or software bug.
10+	6008	LOC: SMmspmsg.c - SMmspmsg() DESC: SMquemsg() returned failure. PROBABLE CAUSE: Heavy FR activity or software bug.
10+	6009	LOC: SMmspmsg.c - SMmspms1() DESC: Attempted to start a job with another already in progress. PROBABLE CAUSE: Software bug.
10+	6010	LOC: SMmspmsg.c - SMmspms1() DESC: SMovftoip() returned failure. PROBABLE CAUSE: Software bug.
10+	6011	LOC: SMmspmsg.c - SMmspms1() DESC: Bad action field in queued message. PROBABLE CAUSE: Software bug.
10+	6012	LOC: SMmspmsg.c - SMmsackmsg() DESC: Empty in progress queue found. PROBABLE CAUSE: Software bug.
10+	6013	LOC: SMmspmsg.c - SMmsackmsg() DESC: SMdequemsg() returned failure. PROBABLE CAUSE: Software bug.
10+	6014	LOC: SMmspmsg.c - SMmsackmsg() DESC: SMmsgack() returned failure. PROBABLE CAUSE: Low DMERT msg buffer resources or software bug.
10+	6015	LOC: SMmspmsg.c - SMmsackmsg() DESC: Invalid queued message -SMmsvalmsg() returned fail. PROBABLE CAUSE: Software Bug.
10+	6016	LOC: SMmspmsg.c - SMmsvalmsg() DESC: Invalid message -bad message pointer. PROBABLE CAUSE: MSCUH or MSKP ENV software bug.
10+	6017	LOC: SMmspmsg.c - SMmsvalmsg() DESC: Invalid physical ID -the physical ID in the message and physical ID passed by MSKP ENV are not the same. PROBABLE CAUSE: MSCUH or MSKP ENV software bug.
10+	6018	LOC: SMmspmsg.c - SMmsvalmsg() DESC: Invalid message -invalid action field for CM1. PROBABLE CAUSE: Software bug.
10+	6019	LOC: SMmspmsg.c - SMmsvalmsg() DESC: Invalid message -invalid actqual field for CM2. PROBABLE CAUSE: Software bug.
10+	6020	LOC: SMmspmsg.c - SMmsvalmsg() DESC: Invalid message -invalid action field for CM2.

		PROBABLE CAUSE: Software bug.
10+	6021	LOC: SMmspmsg.c - SMmsvalmsg() DESC: Invalid office vintage. PROBABLE CAUSE: Software bug or ODD problem.
10+	6022	LOC: SMmspmsg.c - SMmspms1() DESC: SMddread() failed. PROBABLE CAUSE: Software bug.
10+	6024	LOC: SMmspmsg.c - SMmspms1() DESC: SMunlock() failed. PROBABLE CAUSE: Software bug.
10+	6025	LOC: SMmspmsg.c - SMmspmsg() DESC: SMmsgack() failed. PROBABLE CAUSE: Software bug.
10+	6026	LOC: SMmspmsg.c - SMmspmsg1() DESC: Overflow section of the message queue is empty. PROBABLE CAUSE: Software bug.
10+	6100	LOC: SMmspflt.c - SMmspflt() DESC: Sequence inprogress aborted by fault. PROBABLE CAUSE: Hardware or software bug.
10+	6101	LOC: SMmspflt.c - SMmspflt() DESC: Invalid sequence in progress. PROBABLE CAUSE: Software bug.
10+	6102	LOC: SMmspflt.c - SMmspflt() DESC: SMmspflt() - SMddread() returned failure. PROBABLE CAUSE: Incorrect library versions.
10+	6103	LOC: SMmspflt.c - SMmspflt() DESC: SMmspflt() - SMddread() returned failure. PROBABLE CAUSE: Incorrect library versions.
10+	6104	LOC: SMmspflt.c - SMmspflt() DESC: Bad eqid upon entry to function. PROBABLE CAUSE: Software bug.
10+	6200	LOC: SMmsprsp.c - SMmsprsp() DESC: Bad sequence in progress indicator. PROBABLE CAUSE: Software bug.
10+	6202	LOC: SMmsprsp.c - SMmsasync() DESC: Bad equipment id passed into function. PROBABLE CAUSE: Software bug.
10+	6204	LOC: SMmsprsp.c - SMmsasync() DESC: SMsendmsg() returned failure. PROBABLE CAUSE: Software bug.
10+	6205	LOC: SMmsprsp.c - SMmsasync() DESC: SMsendmsg() returned failure. PROBABLE CAUSE: Low DMERT msg buffer resources.
10+	6206	LOC: SMmsprsp.c - SMmsprsp() DESC: Bad eqid upon entry to function.

		PROBABLE CAUSE: Software bug.
10+	6207	LOC: SMmsprsp.c - SMmsclnkinh() DESC: An OOS control time slot response recieved while the PC or MSCU had the time slot inhibited. PROBABLE CAUSE: Not necessarily a problem.
10+	6300	LOC: SMmspinit.c - SMmsqinit() DESC: A bad equipment id was passed PROBABLE CAUSE: Software bug.
10+	6301	LOC: SMmspinit.c - SMmspinit() DESC: Bad eqid upon entry to function. PROBABLE CAUSE: Software bug.
10+	6400	LOC: SMmsrst.c - SMmsrst() DESC: SMmsabt() returned failure. PROBABLE CAUSE: MSCU hardware bug.
10+	6401	LOC: SMmsrst.c - SMmsrst() DESC: SMmsgack() returned failure. PROBABLE CAUSE: Low DMERT msg buffer resources or software bug.
10+	6402	LOC: SMmsrst.c - SMmsrst() DESC: SMquemsg() returned failure. PROBABLE CAUSE: Software bug.
10+	6403	LOC: SMmsrst.c - SMmsrst() DESC: SMmsgack() returned failure. PROBABLE CAUSE: Low DMERT msg buffer resources or software bug.
10+	6404	LOC: SMmsrst.c - SMmsrst() DESC: SMovftoip() returned failure. PROBABLE CAUSE: Software bug.
10+	6405	LOC: SMmsrst.c - SMmsrst() DESC: SMmsgack() returned failure. PROBABLE CAUSE: Low DMERT msg buffer resources or software bug.
10+	6406	LOC: SMmsrst.c - SMmsrst() DESC: SMreqtime() returned failure. PROBABLE CAUSE: Software bug.
10+	6407	LOC: SMmsrst.c - SMmsrst() DESC: SMmsecdin() returned failure. PROBABLE CAUSE: Software bug.
10+	6408	LOC: SMmsrst.c - SMmsrst() DESC: The atchintr() returned failure. PROBABLE CAUSE: Software bug.
10+	6409	LOC: SMmsrst.c - SMmsrst() DESC: The disabintr() returned failure. PROBABLE CAUSE: Software bug.
10+	6410	LOC: SMmsrst.c - SMmsrst() DESC: The cldbs() returned failure. PROBABLE CAUSE: MSCU hardware bug.
10+	6411	LOC: SMmsrst.c - SMmsrst()

		DESC: The sdc32() returned failure. PROBABLE CAUSE: MSCU hardware bug.
10+	6412	LOC: SMmsrst.c - SMmsrst() DESC: SMgetpta() returned failure. PROBABLE CAUSE: Software bug.
10+	6413	LOC: SMmsrst.c - SMmsrst() DESC: The idmadev() returned failure. PROBABLE CAUSE: DMAC/MSCU hardware bug.
10+	6414	LOC: SMmsrst.c - SMmsrst() DESC: SMgetpta() returned failure. PROBABLE CAUSE: Software bug.
10+	6415	LOC: SMmsrst.c - SMmsrst() DESC: SMasndma() returned failure. PROBABLE CAUSE: Software bug.
10+	6416	LOC: SMmsrst.c - SMmsrst() DESC: The enabintr() returned failure. PROBABLE CAUSE: Software bug.
10+	6417	LOC: SMmsrst.c - SMmsrst() DESC: The sdc32() returned failure. PROBABLE CAUSE: MSCU hardware bug.
10+	6418	LOC: SMmsrst.c - SMmsrst2() DESC: SMgetpta() returned failure. PROBABLE CAUSE: Software bug.
10+	6419	LOC: SMmsrst.c - SMmsrst2() DESC: SMasndma() returned failure. PROBABLE CAUSE: Software bug.
10+	6420	LOC: SMmsrst.c - SMmsrst2() DESC: The sdc32() returned failure. PROBABLE CAUSE: MSCU hardware bug.
10+	6421	LOC: SMmsrst.c - SMmsrs1() DESC: SMdeldma() returned failure. PROBABLE CAUSE: Software bug.
10+	6422	LOC: SMmsrst.c - SMmsrs1() DESC: No Timer running but timeout occurred. PROBABLE CAUSE: Software bug.
10+	6423	LOC: SMmsrst.c - SMmsrs1() DESC: SMdeltime() returned failure. PROBABLE CAUSE: Software bug.
10+	6424	LOC: SMmsrst.c - SMmsrs1() DESC: SMdeldma() returned failure. PROBABLE CAUSE: Software bug.
10+	6425	LOC: SMmsrst.c - SMmsrserr() DESC: SMdeltime() returned failure. PROBABLE CAUSE: Software bug.
10+	6426	LOC: SMmsrst.c - SMmsrstout()

		DESC: Inconsistent timer index when timer fired. PROBABLE CAUSE: Software bug.
10+	6427	LOC: SMmsrst.c - SMmsrstout() DESC: Restore of MSCU timed out. PROBABLE CAUSE: MSCU hardware bug.
10+	6428	LOC: SMmsrst.c - SMmsecdin() DESC: The ecd_dbatt() returned failure. PROBABLE CAUSE: Software bug.
10+	6429	LOC: SMmsrst.c - SMmsecdin() DESC: The atchdata() returned failure. PROBABLE CAUSE: Software bug. ECD does not contain 2 MSCU UCBs.
10+	6430	LOC: SMmsrst.c - SMmsecdin() DESC: The lla_rdget() returned failure. PROBABLE CAUSE: Software bug.
10+	6431	LOC: SMmsrst.c - SMmsecdin() DESC: Bad UCB returned by lla_rdget() PROBABLE CAUSE: Software bug.
10+	6432	LOC: SMmsrst.c - SMmsecdin() DESC: Can't get both MSCU UCBs from ECD. PROBABLE CAUSE: Software bug.
10+	6433	LOC: SMmsrst.c - SMmsbldblk() DESC: The MSCU UCB in the ECD has an invalid u_mv field which is used to indicate the number of IOMI boards equipped. PROBABLE CAUSE: ECD populated incorrectly.
10+	6434	LOC: SMmsrst.c - SMmsrstout() DESC: Restore sequence time out without a RST,INIT or RESTART value in the sequence in progress field. PROBABLE CAUSE: Software bug.
10+	6435	LOC: SMmsrst.c - SMmsrst() DESC: The MSCU2 pump file history table (SMmspfstate[]) is in an invalid state. PROBABLE CAUSE: MSCUH software bug.
10+	6436	LOC: SMmsrst.c - SMmsrst() DESC: No ODD relation for MSCU2 -DBfrdtup() returned DBNO_MATCH PROBABLE CAUSE: MSCUH software bug or ODD is populated incorrectly.
10+	6437	LOC: SMmsrst.c - SMmsrst() DESC: DBfrdtup() failed to read MSCU2's OOD. PROBABLE CAUSE: Software bug.
10+	6438	LOC: SMmsrst.c - SMmsrst2() DESC: Invalid physical ID. PROBABLE CAUSE: MSCUH or MSKP ENV software bug.
10+	6439	LOC: SMmsrst.c - SMmsrst2() DESC: Message queue is empty. PROBABLE CAUSE: MSCUH or MSKP ENV software bug.
10+	6440	LOC: SMmsrst.c - SMmsrst2() DESC: Invalid in-progress sequence. PROBABLE CAUSE: MSCUH or MSKP ENV software bug.

10+	6441	LOC: SMmsrst.c - SMmsrst2() DESC: Invalid control table index. PROBABLE CAUSE: MSCUH or MSKP ENV software bug.
10+	6442	LOC: SMmsrst.c - SMmsrst2() DESC: MSKP ENV failed to get MSCU2's RAM file from AM disk or AM memory (core) -SMdlfdsk() failed. PROBABLE CAUSE: MSCUH or MSKP ENV software bug.
10+	6443	LOC: SMmsrst.c - SMmsrst2() DESC: Can't get a DMA job number -SMasndma() failed. PROBABLE CAUSE: MSCUH or MSKP ENV software bug.
10+	6444	LOC: SMmsrst.c - SMms2bldblk() DESC: The MSCU UCB in the ECD has an invalid u_mv field which is used to indicate the number of IOMI boards equipped. PROBABLE CAUSE: ECD is populated incorrectly.
10+	6445	LOC: SMmsrst.c - SMmsrs1() DESC: Invalid in-progress sequence. PROBABLE CAUSE: MSCUH or MSKP ENV software bug.
10+	6450	LOC: SMmsrst.c - SMmsrstsa. DESC: SMmsabt() returned failure. PROBABLE CAUSE: MSCU hardware bug.
10+	6451	LOC: SMmsrst.c - SMmsrstsa. DESC: SMmsgack() returned failure. PROBABLE CAUSE: Low DMERT msg buffer resources or software bug.
10+	6452	LOC: SMmsrst.c - SMmsrstsa. DESC: SMquemsg() returned failure. PROBABLE CAUSE: Software bug.
10+	6453	LOC: SMmsrst.c - SMmsrstsa. DESC: SMmsgack() returned failure. PROBABLE CAUSE: Low DMERT msg buffer resources or software bug.
10+	6454	LOC: SMmsrst.c - SMmsrstsa. DESC: SMovftoip() returned failure. PROBABLE CAUSE: Software bug.
10+	6455	LOC: SMmsrst.c - SMmsrstsa. DESC: SMmsgack() returned failure. PROBABLE CAUSE: Low DMERT msg buffer resources or software bug.
10+	6456	LOC: SMmsrst.c - SMmsrstsa. DESC: SMreqtime() returned failure. PROBABLE CAUSE: Software bug.
10+	6457	LOC: SMmsrst.c - SMmsrstsa. DESC: SMmsecdin() returned failure. PROBABLE CAUSE: Software bug.
10+	6458	LOC: SMmsrst.c - SMmsrstsa. DESC: The atchintr() returned failure. PROBABLE CAUSE: Software bug.
10+	6459	LOC: SMmsrst.c - SMmsrstsa.

		DESC: The disabintr() returned failure. PROBABLE CAUSE: Software bug.
10+	6460	LOC: SMmsrst.c - SMmsrstsa. DESC: The cldbs() returned failure. PROBABLE CAUSE: MSCU hardware bug.
10+	6461	LOC: SMmsrst.c - SMmsrstsa. DESC: The sdc32() returned failure. PROBABLE CAUSE: MSCU hardware bug.
10+	6462	LOC: SMmsrst.c - SMmsrstsa. DESC: SMgetpta() returned failure. PROBABLE CAUSE: Software bug.
10+	6463	LOC: SMmsrst.c - SMmsrstsa. DESC: The idmadev() returned failure. PROBABLE CAUSE: DMAC/MSCU hardware bug.
10+	6464	LOC: SMmsrst.c - SMmsrstsa. DESC: SMgetpta() returned failure. PROBABLE CAUSE: Software bug.
10+	6465	LOC: SMmsrst.c - SMmsrstsa. DESC: SMasndma() returned failure. PROBABLE CAUSE: Software bug.
10+	6466	LOC: SMmsrst.c - SMmsrstsa. DESC: The enabintr() returned failure. PROBABLE CAUSE: Software bug.
10+	6467	LOC: SMmsrst.c - SMmsrstsa. DESC: The sdc32() returned failure. PROBABLE CAUSE: MSCU hardware bug.
10+	6468	LOC: SMmsrst.c - SMmsrst() DESC: The sdc32() returned failure. PROBABLE CAUSE: MSCU hardware bug.
10+	6469	LOC: SMmsrst.c - SMmsrspa() DESC: No Timer running but timeout occurred. PROBABLE CAUSE: Software bug.
10+	6470	LOC: SMmsrst.c - SMmsrspa() DESC: SMdeltime() returned failure. PROBABLE CAUSE: Software bug.
10+	6471	LOC: SMmsrst.c - SMmsrst2() DESC: SMgetpta() returned failure. PROBABLE CAUSE: Software or AM memory mutilation bug.
10+	6500	LOC: SMmsrmv.c - SMmsrmv() DESC: SMmsabt() returned failure. PROBABLE CAUSE: MSCU hardware bug.
10+	6501	LOC: SMmsrmv.c - SMmsrmv() DESC: SMovftoip returned failure. PROBABLE CAUSE: Software bug.
10+	6502	LOC: SMmsrmv.c - SMmsisolate()

		DESC: Excessive MSCU errors prior to FR actions. PROBABLE CAUSE: MSCU hardware bug. Reset MSCU to help to prevent excessive AM real time execution, because of MSCU error reporting.
10+	6506	LOC: SMmsrmv.c - SMmsrmv() DESC: SMdeldma() returned failure. PROBABLE CAUSE: Software bug.
10+	6510	LOC: SMmsrmv.c - SMmssarmv() DESC: SMmsabt() returned failure. PROBABLE CAUSE: MSCU hardware bug.
10+	6511	LOC: SMmsrmv.c - SMmssarmv() DESC: SMovftoip() returned failure. PROBABLE CAUSE: Software bug.
10+	6600	LOC: SMmsrpterr.c - SMmsrpterr() DESC: An MSCU error is reported in order to cause MSCU recovery. PROBABLE CAUSE: Hardware or software problem detected elsewhere.
10+	6601	LOC: SMmsrpterr.c - SMmsrpterr() DESC: SMsendmsg() returned failure. PROBABLE CAUSE: Software bug.
10+	6602	LOC: SMmsrpterr.c - SMmsrpterr() DESC: SMsendmsg() returned failure. PROBABLE CAUSE: DMERT message buffer resource problem.
10+	6603	LOC: SMmsrpterr.c - SMmsrpterr() DESC: SMreqtime() returned failure. PROBABLE CAUSE: Software bug.
10+	6604	LOC: SMmsrpterr.c - SMmserrtout() DESC: MSCUH error flag timeout. PROBABLE CAUSE: Heavy FR.
10+	6605	LOC: SMmsrpterr.c - SMmsrpterr() DESC: SMreqtime() returned failure. PROBABLE CAUSE: Software bug.
10+	6606	LOC: SMmsrpterr.c - SMmsrpterr() DESC: MSCUH reported an error during manual CM isolation. PROBABLE CAUSE: AM software problem.
10+	6700	LOC: SMmsrdram.c - SMmsrdram() DESC: SMreqtime() returned failure. PROBABLE CAUSE: Software bug or garbaged program text.
10+	6701	LOC: SMmsrdram.c - SMmsrdram() DESC: SMasndma() returned failure. PROBABLE CAUSE: Message contains bad segment id due to software bug.
10+	6702	LOC: SMmsrdram.c - SMmsrdram() DESC: SMxmitcmd() returned failure. PROBABLE CAUSE: MSCU hardware bug or MSCU is OOS.
10+	6703	LOC: SMmsrdram.c - SMmsrdr1() DESC: SMdeldma() returned failure. PROBABLE CAUSE: Software bug.

10+	6704	LOC: SMmsrdram.c - SMmsrdr1() DESC: SMdeltime returned failure. PROBABLE CAUSE: Software bug.
10+	6706	LOC: SMmsrdram.c - SMmsrdtout() DESC: Timer indices not consistent. PROBABLE CAUSE: Software bug.
10+	6707	LOC: SMmsrdram.c - SMmsrdtout() DESC: Read PIC RAM Timeout. PROBABLE CAUSE: MSCU hardware bug.
10+	6708	LOC: SMmsrdram.c - SMmsrderr() DESC: SMdeltime returned failure. PROBABLE CAUSE: Software bug.
10+	6709	LOC: SMmsrdram.c - SMmsrdfail() DESC: SMdeldma() returned failure. PROBABLE CAUSE: Software bug.
10+	6710	LOC: SMmsrdram.c - SMmsrdtout() DESC: Not a block read sequence. PROBABLE CAUSE: Software bug.
10+	6750	LOC: SMmsint.c - SMmscin() DESC: Can't get a timer -SMreqtime() failed. PROBABLE CAUSE: Software bug.
10+	6751	LOC: SMmsint.c - SMmscin() DESC: Can't send a command -SMxmitcmd() failed. PROBABLE CAUSE: Hardware bug.
10+	6752	LOC: SMmsint.c - SMmscin1() DESC: Can't delete a timer -SMdeltime() failed. PROBABLE CAUSE: Software bug.
10+	6753	LOC: SMmsint.c - SMmscin1() DESC: Message queue is empty when an sync response was received. PROBABLE CAUSE: Software or hardware bug.
10+	6754	LOC: SMmsint.c - SMmscin1() DESC: Invalid in-progress sequence. PROBABLE CAUSE: Software or hardware bug.
10+	6755	LOC: SMmsint.c - SMmscin1() DESC: Invalid command type. PROBABLE CAUSE: Software or hardware bug.
10+	6756	LOC: SMmsint.c - SMmscin1() DESC: Failed to configure error interrupts -cc failure. PROBABLE CAUSE: Hardware bug.
10+	6757	LOC: SMmsint.c - SMmsrin() DESC: Can't get a timer -SMreqtime() failed. PROBABLE CAUSE: Software bug.
10+	6758	LOC: SMmsint.c - SMmsrin() DESC: Can't send a command -SMxmitcmd() failed. PROBABLE CAUSE: Hardware bug.

10+	6759	LOC: SMmsint.c - SMmsrin1() DESC: Can't delete a timer -SMdeltime() failed. PROBABLE CAUSE: Software bug.
10+	6760	LOC: SMmsint.c - SMmsrin1() DESC: Message queue is empty when an sync response was received. PROBABLE CAUSE: Software or hardware bug.
10+	6761	LOC: SMmsint.c - SMmsrin1() DESC: Invalid in-progress sequence. PROBABLE CAUSE: Software or hardware bug.
10+	6762	LOC: SMmsint.c - SMmsrin1() DESC: Invalid command type. PROBABLE CAUSE: Software or hardware bug.
10+	6763	LOC: SMmsint.c - SMmsrin1() DESC: Failed to read interrupts -cc failure. PROBABLE CAUSE: Hardware bug.
10+	6764	LOC: SMmsint.c - SMmsintout() DESC: Invalid timer index passed in by MSKP ENV. PROBABLE CAUSE: Software bug.
10+	6765	LOC: SMmsint.c - SMmsintout() DESC: Invalid in-progress sequence. PROBABLE CAUSE: Software bug.
10+	6766	LOC: SMmsint.c - SMmsintout() DESC: MSCUH time out on an allow, inhibit, or read error interrupt sequence. PROBABLE CAUSE: Hardware bug.
10+	6767	LOC: SMmsint.c - SMmsinterr() DESC: Timer index is in an invalid state. PROBABLE CAUSE: Software bug.
10+	6768	LOC: SMmsint.c - SMmsinterr() DESC: Can't delete a timer -SMdeltime() failed. PROBABLE CAUSE: Software bug.
10+	6800	LOC: SMmsupdtbl.c - SMmsupdtbl() DESC: SMreqtime() returned failure. PROBABLE CAUSE: Software bug.
10+	6803	LOC: SMmsupdtbl.c - SMmsupdtbl() DESC: SMxmitcmd() returned failure. PROBABLE CAUSE: MSCU hardware bug or MSCU is OOS.
10+	6805	LOC: SMmsupdtbl.c - SMmsupd1() DESC: SMdeltime returned failure. PROBABLE CAUSE: Software bug.
10+	6807	LOC: SMmsupdtbl.c - SMmsupdtout() DESC: Timer indices not consistent when timer fired. PROBABLE CAUSE: Software bug.
10+	6808	LOC: SMmsupdtbl.c - SMmsupdtout() DESC: Update PIC Table Timed out. PROBABLE CAUSE: MSCU hardware bug.

10+	6809	LOC: SMmsupdtbl.c - SMmsupderr() DESC: No Timer Running but a timer fired. PROBABLE CAUSE: Software bug.
10+	6810	LOC: SMmsupdtbl.c - SMmsupderr() DESC: SMdeltime returned failure. PROBABLE CAUSE: Software bug.
10+	6811	LOC: SMmsupdtbl.c - SMmsupdfail() DESC: SMdeldma() returned failure. PROBABLE CAUSE: Software bug.
10+	6812	LOC: SMmsupdtbl.c - SMmsuptout() DESC: Not a table update sequence. PROBABLE CAUSE: Software bug.
10+	6813	LOC: SMupdtbl.c - SMmsupdtbl() DESC: This CM1 function was called from a CM2 switch. PROBABLE CAUSE: Software bug.
10+	6850	LOC: SMmsdln.c - SMmsdasync() DESC: DLN Asynchronous error report but DLN is unequipped PROBABLE CAUSE: Software bug.
10+	6851	LOC: SMmsdln.c - SMmsdddma() DESC: SMdeldma() returned failure. PROBABLE CAUSE: Software bug.
10+	6852	LOC: SMmsdln.c - SMmsdgdma() DESC: SMgetpta() returned failure. PROBABLE CAUSE: Software bug.
10+	6853	LOC: SMmsdln.c - SMmsdgdma() DESC: SMasndma() returned failure. PROBABLE CAUSE: Software bug.
10+	6854	LOC: SMmsdln.c - SMmsdsend() DESC: SMsendmsg() returned failure. PROBABLE CAUSE: Software bug.
10+	6855	LOC: SMmsdln.c - SMmsdsend() DESC: SMsendmsg() returned failure. PROBABLE CAUSE: Software bug.
10+	6856	LOC: SMmsdln.c - SMmsdsend() DESC: An DLN error is reported to RINGMON PROBABLE CAUSE: Software bug.
10+	6857	LOC: SMmsdln.c - SMmsdasync() DESC: Non critical error flag timer is not pending. The a new timer will be taken out and new DLN error will be reported to RINGMON. PROBABLE CAUSE: Software bug.
10+	6858	LOC: SMmsdln.c - SMmsdasync() DESC: Failed to request a timer. PROBABLE CAUSE: SOftware bug.
10+	6859	LOC: SMmsdln.c - SMmsdasync() DESC: DLN OOS timeslot error. The MSCU/DLN translation will be update to correct this problem.

		PROBABLE CAUSE: Transient hardware/software error.
10+	6860	LOC: SMmsdln.c - SMmsnctmo) DESC: Non-critical error flag timeout. This error means that the RINGMON kernel did not acknowledge an error message. The error flag will be cleared. PROBABLE CAUSE: Software bug.
10+	6900	LOC: SMmsrsdma.c - SMmsrsdma() DESC: Invalid equipment id passed to function. PROBABLE CAUSE: Software bug.
10+	6901	LOC: SMmsrsdma.c - SMmsrsdma() DESC: SMgetpta() returned failure. PROBABLE CAUSE: Software bug.
10+	6902	LOC: SMmsrsdma.c - SMmsrsdma() DESC: The disabintr() returned failure. PROBABLE CAUSE: An ACT MSCU already isolated.
10+	6903	LOC: SMmsrsdma.c - SMmsrsdma() DESC: Failed to initialize DMAC PROBABLE CAUSE: DMAC/MSCU hardware bug.
10+	6904	LOC: SMmsrsdma.c - SMmsrsdma() DESC: The sdc32() returned failure. PROBABLE CAUSE: MSCU hardware bug.
10+	6905	LOC: SMmsrsdma.c - SMmsrsdma() DESC: The sdc32() returned failure. PROBABLE CAUSE: MSCU hardware bug.
10+	6906	LOC: SMmsrsdma.c - SMmsrsdma() DESC: The enabintr() returned failure. PROBABLE CAUSE: Software bug.
10+	6907	LOC: SMmsrsdma.c - SMmsrsdma() DESC: The sdc32() returned failure. PROBABLE CAUSE: MSCU hardware bug.
10+	6908	LOC: SMmsrsdma.c - SMmsabdma() DESC: Invalid equipment id passed to function. PROBABLE CAUSE: Software bug.
10+	6909	LOC: SMmsrsdma.c - SMmsabdma() DESC: SMgetpta() returned failure. PROBABLE CAUSE: Software bug.
10+	6911	LOC: SMmsrsdma.c - SMmsabdma() DESC: Failed to initialize DMAC PROBABLE CAUSE: DMAC/MSCU hardware bug.
10+	6912	LOC: SMmsrsdma.c - SMmsabdma() DESC: The sdc32() returned failure. PROBABLE CAUSE: MSCU hardware bug.
10+	6913	LOC: SMmsrsdma.c - SMmsabdma() DESC: The sdc32() returned failure. PROBABLE CAUSE: MSCU hardware bug.
10+	6914	LOC: SMmsrsdma.c - SMmsabdma()

		DESC: The enabintr() returned failure. PROBABLE CAUSE: Software bug.
10+	6915	LOC: SMmsrsdma.c - SMmsabdma() DESC: The sdc32() returned failure. PROBABLE CAUSE: MSCU hardware bug.
10+	6950	LOC: SMmsabort.c - SMmsabt() DESC: SMdequemsg() returned failure. PROBABLE CAUSE: Software bug.
10+	6951	LOC: SMmsabort.c - SMmsabt() DESC: The cldbs() returned failure. PROBABLE CAUSE: MSCU hardware bug.
10+	6952	LOC: SMmsabort.c - SMmsabt() DESC: The sdc32() returned failure. PROBABLE CAUSE: MSCU hardware bug.
10+	6953	LOC: SMmsabort.c - SMmsabt() DESC: SMdeldma() returned failure. PROBABLE CAUSE: Software bug.
10+	6954	LOC: SMmsabort.c - SMmsabt() DESC: SMdeltime() returned failure. PROBABLE CAUSE: Software bug.
10+	6955	LOC: SMmsabort.c - SMmsabt() DESC: SMmsgack() returned failure. PROBABLE CAUSE: Low DMERT message buffer resources or software bug.
10+	6956	LOC: SMmsabort.c - SMmsabt() DESC: SMddequemsg() returned failure. PROBABLE CAUSE: Software bug.
10+	6957	LOC: SMmsabort.c - SMmsabt() DESC: SMquemsg() returned failure. PROBABLE CAUSE: Heavy FR activity or software bug.
10+	6958	LOC: SMmsabort.c - SMmsabt() DESC: SMunlock() returned failure. PROBABLE CAUSE: Software bug.
10+	6959	LOC: SMmsabort.c - SMmsabt() DESC: SMmsgack() returned failure. PROBABLE CAUSE: Low DEMERT message buffer resources or software bug.

Error Code Range 7000-7999

Release Range	Error Code	CMP Handler Code
10+	7000	LOC: SMpipmsg.c - SMpipmsg() DESC: Invalid message - SMpivalmsg() failed. PROBABLE CAUSE: Software defensive check failure.
10+	7001	LOC: SMpipmsg.c - SMpipmsg() DESC: Can not acknowledge a message - SMmsgack() failed. PROBABLE CAUSE: Software defensive check failure.

10+	7002	LOC: SMpipmsg.c - SMpipmsg() DESC: Can not request a timer - SMreqtime() failed. PROBABLE CAUSE: Software defensive check failure.
10+	7003	LOC: SMpipmsg.c - SMpipmsg() DESC: Can not acknowledge a message - SMmsgack() failed. PROBABLE CAUSE: Software defensive check failure.
10+	7004	LOC: SMpipmsg.c - SMpipmsg() DESC: Can not queue a message - SMqueumsg() failed. PROBABLE CAUSE: Software defensive check failure.
10+	7005	LOC: SMpipmsg.c - SMpipmsg() DESC: Can not move a message from overflow to in-progress section of queue - SMovftoip() failed. PROBABLE CAUSE: Software defensive check failure.
10+	7006	LOC: SMpipmsg.c - SMpipmsg() DESC: Can not read state of CMP - SMddread() failed. PROBABLE CAUSE: Software defensive check failure.
10+	7007	LOC: SMpipmsg.c - SMpipmsg() DESC: CMP is in the wrong state (not ACT or STBY) to. PROBABLE CAUSE: Software defensive check failure.
10+	7008	LOC: SMpipmsg.c - SMpipmsg() DESC: Can not queue a message - SMqueumsg() failed. PROBABLE CAUSE: Software defensive check failure.
10+	7009	LOC: SMpipmsg.c - SMpipmsg() DESC: Can not move message from overflow to in-progress. PROBABLE CAUSE: Software defensive check failure.
10+	7010	LOC: SMpipmsg.c - SMpipmsg() DESC: Invalid action for message. PROBABLE CAUSE: Software defensive check failure.
10+	7011	LOC: SMpipmsg.c - SMpipmsg() DESC: Read/write BLK or UT message failed because. PROBABLE CAUSE: Not a problem, the UT request should.
10+	7050	LOC: SMpipmsg.c - SMpipreq() DESC: CMP's queue is empty. PROBABLE CAUSE: Software defensive check failure.
10+	7051	LOC: SMpipmsg.c - SMpipreq() DESC: An invalid message was dequeued. PROBABLE CAUSE: Software defensive check failure.
10+	7052	LOC: SMpipmsg.c - SMpipreq() DESC: Can not request sequence timer -SMreqtime() failed. PROBABLE CAUSE: Software defensive check failure.
10+	7053	LOC: SMpipmsg.c - SMpipreq() DESC: Failed to determine PIP's processor ID for RST. PROBABLE CAUSE: Software defensive check failure.
10+	7054	LOC: SMpipmsg.c - SMpipreq() DESC: CMP RST Failed - SMinit_pip() failed. PROBABLE CAUSE: Software defensive check failure or

10+	7055	LOC: SMpipmsg.c - SMpipreq() DESC: Failed to determine PIP's processor ID for elevate. PROBABLE CAUSE: Software defensive check failure.
10+	7056	LOC: SMpipmsg.c - SMpipreq() DESC: Failed to send elevate to active command PROBABLE CAUSE: MSCU hardware failure.
10+	7057	LOC: SMpipmsg.c - SMpipreq() DESC: Can not get PTA for post mortem DMA -SMgetpta() failed. PROBABLE CAUSE: Software defensive check failure.
10+	7058	LOC: SMpipmsg.c - SMpipreq() DESC: Can not get post mortem from CMP - SMgetpmort() failed. PROBABLE CAUSE: Software defensive check failure or MSCU/CMP
10+	7059	LOC: SMpipmsg.c - SMpipreq() DESC: Failed to send utility execute command -SMxmitcmd() PROBABLE CAUSE: MSCU hardware failure.
10+	7060	LOC: SMpipmsg.c - SMpipreq() DESC: Cannot get a PTA for utilities - SMlock() failed. PROBABLE CAUSE: Software defensive check failure.
10+	7061	LOC: SMpipmsg.c - SMpipreq() DESC: Can not get a DMA job number - SMasndma() failed. PROBABLE CAUSE: Software defensive check failure or MSCU
10+	7062	LOC: SMpipmsg.c - SMpipreq() DESC: Failed to send read/write block command -SMxmitcmd() PROBABLE CAUSE: MSCU hardware failure.
10+	7063	LOC: SMpipmsg.c - SMpipreq() DESC: Invalid action. PROBABLE CAUSE: Software defensive check failure.
10+	7064	LOC: SMpipmsg.c - SMpipreq() DESC: CMP pump type and level are being overwritten to PROBABLE CAUSE: This error is normal for the lab.
10+	7065	LOC: SMpipmsg.c - SMpipreq() DESC: Failed to send resync query command -SMxmitcmd() PROBABLE CAUSE: MSCU hardware failure.
10+	7100	LOC: SMpipmsg.c - SMpiabtmq() DESC: Abort service routine failed -SMabortsr() failed. PROBABLE CAUSE: Software defensive check failure.
10+	7101	LOC: SMpipmsg.c - SMpiabtmq() DESC: Can not unlock memory - SMunlock() failed. PROBABLE CAUSE: Software defensive check failure.
10+	7150	LOC: SMpipmsg.c - SMpivalmsg() DESC: Invalid message pointer. PROBABLE CAUSE: Software defensive check failure.
10+	7151	LOC: SMpipmsg.c - SMpivalmsg() DESC: Invalid OSDS message type -not MGSMPI. PROBABLE CAUSE: Software defensive check failure.

10+	7152	LOC: SMpipmsg.c - SMpivalmsg() DESC: Invalid action field. PROBABLE CAUSE: Software defensive check failure.
10+	7153	LOC: SMpipmsg.c - SMpivalmsg() DESC: Invalid action qualifier. PROBABLE CAUSE: Software defensive check failure.
10+	7154	LOC: SMpipmsg.c - SMpivalmsg() DESC: Invalid segment ID. PROBABLE CAUSE: Software defensive check failure.
10+	7155	LOC: SMpipmsg.c - SMpivalmsg() DESC: Invalid pipnum array -invalid status field. PROBABLE CAUSE: Software defensive check failure.
10+	7156	LOC: SMpipmsg.c - SMpivalmsg() DESC: Invalid pipnum array -no CMP are affected. PROBABLE CAUSE: Software defensive check failure.
10+	7200	LOC: SMpipmsg.c - SMpickmsg() DESC: Can not delete block message timer -SMdeltime() failed. PROBABLE CAUSE: Software defensive check failure.
10+	7201	LOC: SMpipmsg.c - SMpickmsg() DESC: Can not acknowledge a message - SMmsgack() failed. PROBABLE CAUSE: Software defensive check failure.
10+	7250	LOC: SMpipmsg.c - SMpireqdone() DESC: Can not delete a sequence timer - SMdeltime() failed. PROBABLE CAUSE: Software defensive check failure.
10+	7251	LOC: SMpipmsg.c - SMpireqdone() DESC: Can not dequeue in progress message - SMdequeue() PROBABLE CAUSE: Software defensive check failure.
10+	7252	LOC: SMpipmsg.c - SMpireqdone() DESC: Can not move message from overflow to in-progress. PROBABLE CAUSE: Software defensive check failure.
10+	7300	LOC: SMpiprsp.c - SMpiprsp() DESC: Invalid equipment ID. PROBABLE CAUSE: Software defensive check failure.
10+	7301	LOC: SMpiprsp.c - SMpiprsp() DESC: Response received while CMP was in recovery. PROBABLE CAUSE: CMP hardware failure.
10+	7350	LOC: SMpiprsp.c - SMpisyncr() DESC: Response received with no in-progress activity. PROBABLE CAUSE: Software defensive check failure or.
10+	7351	LOC: SMpiprsp.c - SMpisyncr() DESC: No in-progress message on CMP's queue. PROBABLE CAUSE: Software defensive check failure.
10+	7352	LOC: SMpiprsp.c - SMpisyncr() DESC: Received an out of sequence or old response. PROBABLE CAUSE: Software defensive check failure or

10+	7353	LOC: SMpiprsp.c - SMpisyncr() DESC: CMP elevate to active failed -completion code. PROBABLE CAUSE: CMP software defensive check failure or.
10+	7354	LOC: SMpiprsp.c - SMpisyncr() DESC: CMP read/write block failed -completion code. PROBABLE CAUSE: CMP software defensive check failure or.
10+	7355	LOC: SMpiprsp.c - SMpisyncr() DESC: Failed to delete DMA job number -SMdeldma() failed. PROBABLE CAUSE: Software defensive check.
10+	7356	LOC: SMpiprsp.c - SMpisyncr() DESC: CMP execute utilities failed -completion code. PROBABLE CAUSE: CMP software defensive check failure or.
10+	7357	LOC: SMpiprsp.c - SMpisyncr() DESC: Failed to send write AM memory DMA command to MSCU PROBABLE CAUSE: MSCU hardware failure.
10+	7358	LOC: SMpiprsp.c - SMpisyncr() DESC: MSCU failed to write AM memory -completion code PROBABLE CAUSE: MSCU hardware failure.
10+	7359	LOC: SMpiprsp.c - SMpisyncr() DESC: Failed to send write AM memory completion report - PROBABLE CAUSE: MSCU hardware failure.
10+	7360	LOC: SMpiprsp.c - SMpisyncr() DESC: Received an invalid command type. PROBABLE CAUSE: CMP software defensive check failure or
10+	7361	LOC: SMpiprsp.c - SMpisyncr() DESC: Invalid state for sequence in-progress flag. PROBABLE CAUSE: Software defensive check failure.
10+	7362	LOC: SMpiprsp.c - SMpisyncr() DESC: A RESYNC response was received during a RESYNC PROBABLE CAUSE: A retry occurred.
10+	7363	LOC: SMpiprsp.c - SMpirsync() DESC: A bad resync response. PROBABLE CAUSE: A software error.
10+	7364	LOC: SMpiprsp.c - SMpirsync() DESC: Failed to send status update message to CMP CON. PROBABLE CAUSE: A software error.
10+	7400	LOC: SMpiprsp.c - SMpiasyncr() DESC: Failed to read CMP's system state. PROBABLE CAUSE: Software defensive check failure.
10+	7401	LOC: SMpiprsp.c - SMpiasyncr. DESC: MSCU detected CMP critical error - PC error lead. PROBABLE CAUSE: CMP software defensive check failure or
10+	7402	LOC: SMpiprsp.c - SMpiasyncr. DESC: MSCU detected CMP critical error - PC error. PROBABLE CAUSE: CMP software defensive check failure or

10+	7403	LOC: SMpiprsp.c - SMpiasyncr() DESC: MSCU detected CMP critical error - community power. PROBABLE CAUSE: Community has been powered down or
10+	7404	LOC: SMpiprsp.c - SMpiasyncr() DESC: MSCU detected CMP critical error - message to an PROBABLE CAUSE: CMP hardware failure or out of date MSCU
10+	7405	LOC: SMpiprsp.c - SMpiasyncr() DESC: MSCU detected CMP critical error - CP to CP message. PROBABLE CAUSE: CMP hardware failure or out of date MSCU
10+	7406	LOC: SMpiprsp.c - SMpiasyncr() DESC: PIC detected CMP critical error - unknow error type. PROBABLE CAUSE: CMP hardware failure.
10+	7407	LOC: SMpiprsp.c - SMpiasyncr() DESC: CMP non critical error -Level 3 error an active CMP. PROBABLE CAUSE: CMP hardware failure.
10+	7408	LOC: SMpiprsp.c - SMpiasyncr() DESC: CMP non critical error -Level 3 error stand-by CMP. PROBABLE CAUSE: CMP hardware failure.
10+	7409	LOC: SMpiprsp.c - SMpiasyncr() DESC: CMP non critical error -Correctable memory error. PROBABLE CAUSE: CMP hardware failure.
10+	7410	LOC: SMpiprsp.c - SMpiasyncr() DESC: CMP non critical error -Audit detected hashsum errors. PROBABLE CAUSE: Bad hashsum files or CMP hardware failure.
10+	7411	LOC: SMpiprsp.c - SMpiasyncr() DESC: CMP non critical error -Unknown error type. PROBABLE CAUSE: CMP software or hardware failure.
10+	7412	LOC: SMpiprsp.c - SMpiasyncr() DESC: Non-critical error threshold exceed. PROBABLE CAUSE: CMP software or hardware failure.
10+	7413	LOC: SMpiprsp.c - SMpiasyncr() DESC: Failed to request a timer for a non-critical error. PROBABLE CAUSE: CMPH software failure.
12+	7414	LOC: SMpiprsp.c - SMpiasyncr() DESC: CMP non critical error - CRC message error. PROBABLE CAUSE: CMP or MSCU hardware failure.
10+	7450	LOC: SMpipflt.c - SMpipflt() DESC: Invalid equipment ID. PROBABLE CAUSE: Software defensive check failure.
10+	7451	LOC: SMpipflt.c - SMpipflt() DESC: CMP audit/sanity check failure. PROBABLE CAUSE: CMP software or hardware failure.
10+	7452	LOC: SMpipflt.c - SMpipflt() DESC: Inconsistent AM and MSCU status -OOS CP and ACT MSCU. PROBABLE CAUSE: CMP CON software problem or MSCU hardware

10+	7453	LOC: SMpipflt.c - SMpipflt() DESC: Inconsistent AM and MSCU status -ACT CP and OOS MSCU. PROBABLE CAUSE: CMP CON software problem or MSCU hardware
10+	7454	LOC: SMpipflt.c - SMpipflt() DESC: Fatal software error -S2 recovery. PROBABLE CAUSE: Software defensive check failure or CMP
10+	7455	LOC: SMpipflt.c - SMpipflt() DESC: Invalid response destination in MSCU or PC response. PROBABLE CAUSE: Software defensive check failure in the
10+	7456	LOC: SMpipflt.c - SMpipflt() DESC: Unknown MSKP fault code. PROBABLE CAUSE: Software defensive check failure.
10+	7500	LOC: SMpipflt.c - SMpipcr() DESC: Error flag was set with out a timer pending. PROBABLE CAUSE: Software defensive check failure.
10+	7501	LOC: SMpipflt.c - SMpipcr() DESC: Can not read CMP's system state - SMddread() failed. PROBABLE CAUSE: Software defensive check failure.
10+	7502	LOC: SMpipflt.c - SMpipcr() DESC: Can not request a timer - SMreqtime() failed. PROBABLE CAUSE: Software defensive check failure.
10+	7550	LOC: SMpipflt.c - SMpiermsg() DESC: Can not send a error message - SMsendmsg() failed. PROBABLE CAUSE: Software defensive check failure.
10+	7600	LOC: SMpipflt.c - SMpitimeout() DESC: Invalid block message. PROBABLE CAUSE: Software defensive check failure.
10+	7601	LOC: SMpipflt.c - SMpitimeout() DESC: CMP sequence timeout index. PROBABLE CAUSE: Software defensive check failure.
10+	7602	LOC: SMpipflt.c - SMpitimeout() DESC: Invalid in-progress sequence. PROBABLE CAUSE: Software defensive check failure.
10+	7603	LOC: SMpipflt.c - SMpitimeout() DESC: Failed to request a sequence timer. PROBABLE CAUSE: Software defensive check failure.
10+	7604	LOC: SMpipflt.c - SMpitimeout() DESC: CMP sequence timeout. PROBABLE CAUSE: Software defensive check failure.
10+	7605	LOC: SMpipflt.c - SMpitimeout() DESC: CMP RST timeout. PROBABLE CAUSE: CMP software or hardware failure.
10+	7606	LOC: SMpipflt.c - SMpitimeout() DESC: Invalid timer index for RST timeout. PROBABLE CAUSE: Software defensive check failure.

10+	7607	Not used.
10+	7608	LOC: SMpipflt.c - SMpitimeout() DESC: Invalid timer index for error flag timeout. PROBABLE CAUSE: Software defensive check failure.
10+	7609	LOC: SMpipflt.c - SMpitimeout() DESC: Invalid timer index for block message time. PROBABLE CAUSE: Software defensive check failure.
10+	7610	LOC: SMpipflt.c - SMpitimeout() DESC: Block message is complete but was not returned to. PROBABLE CAUSE: Software defensive check failure.
10+	7611	LOC: SMpipflt.c - SMpitimeout() DESC: Invalid message action for block message. PROBABLE CAUSE: Software defensive check failure.
10+	7612	LOC: SMpipflt.c - SMpitimeout() DESC: Failed to request timer on block message. PROBABLE CAUSE: Software defensive check failure.
10+	7613	LOC: SMpipflt.c - SMpitimeout() DESC: Block message timeout on CMP. PROBABLE CAUSE: Software defensive check failure.
10+	7614	LOC: SMpipflt.c - SMpitimeout() DESC: Block message timeout. PROBABLE CAUSE: Software defensive check failure.
10+	7615	LOC: SMpipflt.c - SMpitimeout() DESC: Invalid timeout type. PROBABLE CAUSE: Software defensive check failure.
10+	7650	LOC: SMpipflt.c - SMpidlypm() DESC: Failed to get CMP's post mortem data -SMgetpm() failed. PROBABLE CAUSE: CMP hardware failure.
10+	7651	LOC: SMpipflt.c - SMpidlypm() DESC: ROP is not available to print the post mortem data. PROBABLE CAUSE: Software defensive check failure.
10+	7652	LOC: SMpipflt.c - SMpidlypm() DESC: Can not determine logical ID of PIP -SMphy2log() PROBABLE CAUSE: Software defensive check failure.
10+	7653	LOC: SMpipflt.c - SMpidlypm() DESC: Invalid post mortem buffer size. PROBABLE CAUSE: Garbaged post mortem buffer.
10+	7700	LOC: SMpipinit.c - SMpipinit() DESC: Invalid equipment ID. PROBABLE CAUSE: Software defensive check failure.
10+	7750	LOC: SMpirst.c - SMpidlyrst() DESC: Invalid sequence flags for CMP RST. PROBABLE CAUSE: Software defensive check failure.
10+	7751	LOC: SMpirst.c - SMpidlyrst() DESC: Failed to delete timer on SMinit_pip(). PROBABLE CAUSE: Software defensive check failure.

10+	7752	LOC: SMpirst.c - SMpidlyrst() DESC: CMP's queue is empty during a CMP RST. PROBABLE CAUSE: Software defensive check failure.
10+	7753	LOC: SMpirst.c - SMpidlyrst() DESC: Invalid block message for CMP RST. PROBABLE CAUSE: Software defensive check failure.
10+	7754	LOC: SMpirst.c - SMpidlyrst() DESC: Invalid or out of sequence message. PROBABLE CAUSE: Software defensive check failure.
10+	7755	LOC: SMpirst.c - SMpidlyrst() DESC: CMP failed to no-pump/pump -SMinit_pip() failed. PROBABLE CAUSE: CMP Software or hardware failure.
10+	7756	LOC: SMpirst.c - SMpidlyrst() DESC: Failed to request a timer on the phase 3 INIT command. PROBABLE CAUSE: MSCU hardware failure.
10+	7757	LOC: SMpirst.c - SMpidlyrst() DESC: Failed to read CMP's processor ID -SMddread() failed.. PROBABLE CAUSE: Software defensive check failure.
10+	7758	LOC: SMpirst.c - SMpidlyrst() DESC: Failed to send phase 3 INIT command. PROBABLE CAUSE: MSCU hardware failure.
10+	7800	LOC: SMpirst.c - SMpirstdone() DESC: Invalid phase 3 INIT response. PROBABLE CAUSE: CMP software or hardware failure.
10+	7801	LOC: SMpirst.c - SMpirstdone() DESC: CMP failed the phase 3 INIT command -completion code. PROBABLE CAUSE: Unknown.
10+	7802	LOC: SMpirst.c - SMpirstdone() DESC: Failed to send status update message to CMP CON. PROBABLE CAUSE: Software defensive check failure.
10+	7850	LOC: SMpiserv.c - SMpirels() DESC: Failed delete a timer - SMdeltime() failed. PROBABLE CAUSE: Software defensive check failure.
10+	7851	LOC: SMpiserv.c - SMpirels() DESC: Failed to delete DMA request - SMtdeldma() failed. PROBABLE CAUSE: Software defensive check failure.
10+	7900	LOC: SMpssw.c - SMpsmsg() DESC: Failure by SMpixmitcmd to send command to CMP PROBABLE CAUSE: Hardware problem in MSCU
10+	7910	LOC: SMpssw.c - SMpsindata() DESC: Can not get PTA for soft switch DMA - SMgetpta() failed. PROBABLE CAUSE: Software defensive check failure.
10+	7911	LOC: SMpssw.c - SMpsindata() DESC: Can not get a DMA job number - SMasndma() failed. PROBABLE CAUSE: Software defensive check failure.

10+	7912	LOC: SMpssw.c - SMpsindata() DESC: Can not lock memory - SMlock() failed. PROBABLE CAUSE: Software defensive check failure.
10+	7913	LOC: SMpssw.c - SMpsindata() DESC: Failure to initialize data for CMP soft switch. PROBABLE CAUSE: Software defensive check failure.
10+	7914	LOC: SMpssw.c - SMpsindata() DESC: Failure to determine CMP logical processor ID PROBABLE CAUSE: Software defensive check failure.
10+	7920	LOC: SMpssw.c - SMpsstrt() DESC: Can not read state of PIP - SMddread() failed. PROBABLE CAUSE: Software defensive check failure.
10+	7921	LOC: SMpssw.c - SMpsstrt() DESC: Failure by SMpixmitcmd to send command to CMP PROBABLE CAUSE: Hardware problem in MSCU
10+	7930	LOC: SMpssw.c - SMpsrsp() DESC: Can not read state of PIP - SMddread() failed. PROBABLE CAUSE: Software defensive check failure.
10+	7931	LOC: SMpssw.c - SMpsrsp() DESC: Response received for active CMP but state of CMP PROBABLE CAUSE: Software defensive check failure.
10+	7932	LOC: SMpssw.c - SMpsrsp() DESC: Command response from CMP indicates failure. PROBABLE CAUSE: Software defensive check failure.
10+	7933	LOC: SMpssw.c - SMpsrsp() DESC: Failure by SMsendmsg to send message to SMKP PROBABLE CAUSE: Software defensive check failure.
10+	7934	LOC: SMpssw.c - SMpsrsp() DESC: Failure by SMpixmitcmd to send command to CMP PROBABLE CAUSE: Hardware problem in MSCU
10+	7935	LOC: SMpssw.c - SMpsrsp() DESC: Command response from CMP contains unknown completion. PROBABLE CAUSE: Software defensive check failure.
10+	7936	LOC: SMpssw.c - SMpsrsp() DESC: Command response from CMP for unexpected command. PROBABLE CAUSE: Software defensive check failure.
10+	7937	LOC: SMpssw.c - SMpsrsp() DESC: Response received for standby CMP but state of CMP PROBABLE CAUSE: Software defensive check failure.
10+	7938	LOC: SMpssw.c - SMpsrsp() DESC: Standby CMP detected hash sum failure and requested. PROBABLE CAUSE: Software defensive check failure.
10+	7939	LOC: SMpssw.c - SMpsrsp() DESC: Command response from CMP for unexpected command type. PROBABLE CAUSE: Software defensive check failure.

10+	7940	LOC: SMpssw.c - SMpshabt() DESC: Failure by SMpixmitcmd to send command to CMP PROBABLE CAUSE: Hardware problem in MSCU
10+	7941	LOC: SMpssw.c - SMpshabt() DESC: CMP soft switch aborted due to a higher priority. PROBABLE CAUSE: This is a debugging mechanism.
10+	7950	LOC: SMpssw.c - SMpsabort() DESC: Failure by SMpixmitcmd to send command to CMP PROBABLE CAUSE: Hardware problem in MSCU
10+	7960	LOC: SMpssw.c - SMpsstcomp() DESC: Can not read state of PIP - SMddread() failed. PROBABLE CAUSE: Software defensive check failure.
10+	7961	LOC: SMpssw.c - SMpsstcomp() DESC: NONE PROBABLE CAUSE: Software defensive check failure.
10+	7962	LOC: SMpssw.c - SMpsstcomp() DESC: Failure by SMpixmitcmd to send command to CMP PROBABLE CAUSE: Hardware problem in MSCU
10+	7963	LOC: SMpssw.c - SMpsstcomp() DESC: Finite state machine state of CMP is not valid. PROBABLE CAUSE: Software defensive check failure.
10+	7964	LOC: SMpssw.c - SMpsstcomp() DESC: The software state of the CMP is not valid. PROBABLE CAUSE: Software defensive check failure.
10+	7965	LOC: SMpssw.c - SMpsstcomp() DESC: Received invalid action. PROBABLE CAUSE: Software defensive check failure.

Error Code Range 8000-8999

Release Range	Error Code	QGP Handler Code
10+	8000	LOC: SMqgphd/SMqgpmsg.c - SMqgpmsg() DESC: Invalid message contents - SMqgvalmsg() failed. PROBABLE CAUSE: Software defensive check failure.
10+	8001	LOC: SMqgphd/SMqgpmsg.c - SMqgpmsg() DESC: Cannot acknowledge a message - SMmsgack() failed. PROBABLE CAUSE: Software defensive check failure.
10+	8002	LOC: SMqgphd/SMqgpmsg.c - SMqgpmsg() DESC: Cannot obtain a message timer - SMreqtime() failed. PROBABLE CAUSE: Software defensive check failure.
10+	8003	LOC: SMqgphd/SMqgpmsg.c - SMqgpmsg() DESC: Cannot acknowledge a message - SMmsgack() failed. PROBABLE CAUSE: Software defensive check failure.
10+	8004	LOC: SMqgphd/SMqgpmsg.c - SMqgpmsg() DESC: Cannot queue a message - SMquemsg() failed. PROBABLE CAUSE: Software defensive check failure.

10+	8005	LOC: SMqgphd/SMqgpmsg.c - SMqgpmsg() DESC: Cannot move a message from overflow to in-progress. PROBABLE CAUSE: Software defensive check failure.
10+	8006	LOC: SMqgphd/SMqgpmsg.c - SMqgpmsg() DESC: Cannot read QGP state - SMddread() failed. PROBABLE CAUSE: Software defensive check failure.
10+	8007	LOC: SMqgphd/SMqgpmsg.c - SMqgpmsg() DESC: QGP is in the wrong state (not ACT) to process a. PROBABLE CAUSE: Software defensive check failure.
10+	8008	LOC: SMqgphd/SMqgpmsg.c - SMqgpmsg() DESC: Cannot queue a message - SMquemsg() failed. PROBABLE CAUSE: Software defensive check failure.
10+	8009	LOC: SMqgphd/SMqgpmsg.c - SMqgpmsg() DESC: Cannot move a message from overflow to in-progress. PROBABLE CAUSE: Software defensive check failure.
10+	8010	LOC: SMqgphd/SMqgpmsg.c - SMqgpmsg() DESC: Invalid action for message to QGPH. PROBABLE CAUSE: Software defensive check failure.
10+	8030	LOC: SMqgphd/SMqgpmsg.c - SMqgpreq() DESC: Cannot process a QGP maintenance request because the. PROBABLE CAUSE: Software defensive check failure.
10+	8031	LOC: SMqgphd/SMqgpmsg.c - SMqgpreq() DESC: An invalid message was dequeued - SMqgvalmsg() failed. PROBABLE CAUSE: Software defensive check failure.
10+	8032	LOC: SMqgphd/SMqgpmsg.c - SMqgpreq() DESC: Cannot obtain a sequence timer - SMreqtime() failed. PROBABLE CAUSE: Software defensive check failure.
10+	8033	LOC: SMqgphd/SMqgpmsg.c - SMqgpreq() DESC: QGP pump level is being overwritten to no-pump because. PROBABLE CAUSE: The SMqgplab flag has been set to SMQGPLAB
10+	8034	LOC: SMqgphd/SMqgpmsg.c - SMqgpreq() DESC: QGP restore failed - SMinit_qgp() failed. PROBABLE CAUSE: Software defensive check failure or MSCU
10+	8036	LOC: SMqgphd/SMqgpmsg.c - SMqgpreq() DESC: Failed to send read interrupt status command. PROBABLE CAUSE: MSCU hardware failure.
10+	8037	LOC: SMqgphd/SMqgpmsg.c - SMqgpreq() DESC: Failed to send QGP configuration command - SMxmitcmd() PROBABLE CAUSE: MSCU hardware failure.
10+	8038	LOC: SMqgphd/SMqgpmsg.c - SMqgpreq() DESC: Cannot get page table address for the postmortem buffer. PROBABLE CAUSE: Software defensive check failure.
10+	8039	LOC: SMqgphd/SMqgpmsg.c - SMqgpreq() DESC: Cannot get postmortem from QGP - SMgetpmort() failed. PROBABLE CAUSE: Software defensive check failure or MSCU/QGP

10+	8040	LOC: SMqgphd/SMqgpmsg.c - SMqgpreq() DESC: Failed to send UT execute command - SMxmitcmd() failed. PROBABLE CAUSE: MSCU hardware failure.
10+	8041	LOC: SMqgphd/SMqgpmsg.c - SMqgpreq() DESC: Cannot get page table address or lock memory segment. PROBABLE CAUSE: Software defensive check failure.
10+	8042	LOC: SMqgphd/SMqgpmsg.c - SMqgpreq() DESC: Cannot get DMA job number to perform a read or write. PROBABLE CAUSE: Software defensive check failure or MSCU
10+	8043	LOC: SMqgphd/SMqgpmsg.c - SMqgpreq() DESC: Failed to send read block or write block command. PROBABLE CAUSE: MSCU hardware failure.
10+	8044	LOC: SMqgphd/SMqgpmsg.c - SMqgpreq() DESC: Invalid QGL state encountered in a QGL remove, PROBABLE CAUSE: Software defensive check failure.
10+	8045	LOC: SMqgphd/SMqgpmsg.c - SMqgpreq() DESC: Failed to send QGL remove, restore, or switch. PROBABLE CAUSE: MSCU hardware failure.
10+	8046	LOC: SMqgphd/SMqgpmsg.c - SMqgpreq() DESC: Failed to send QGL packet test command - SMxmitcmd() PROBABLE CAUSE: MSCU hardware failure.
10+	8047	LOC: SMqgphd/SMqgpmsg.c - SMqgpreq() DESC: Failed to send QL configuration command - SMxmitcmd() PROBABLE CAUSE: MSCU hardware failure.
10+	8048	LOC: SMqgphd/SMqgpmsg.c - SMqgpreq() DESC: Failed to send read QGL/QPIPE state status command. PROBABLE CAUSE: MSCU hardware failure.
10+	8049	LOC: SMqgphd/SMqgpmsg.c - SMqgpreq() DESC: Invalid or unsupported action field in a QGPH message. PROBABLE CAUSE: Software defensive check failure.
10+	8050	LOC: SMqgphd/SMqgpmsg.c - SMqgpreq() DESC: Cannot get SEGMENT ID to perform a read or write. PROBABLE CAUSE: Software defensive check failure.
10+	8051	LOC: SMqgphd/SMqgpmsg.c - SMqgpreq() DESC: Cannot get DMA job number to perform a read or write. PROBABLE CAUSE: Software defensive check failure or MSCU
10+	8052	LOC: SMqgphd/SMqgpmsg.c - SMqgpreq() DESC: Failed to send RESYNC command to the QGP PROBABLE CAUSE: MSCU hardware failure.
10+	8053	LOC: SMqgphd/SMqgpmsg.c - SMqgpreq() DESC: Failed to send QGP test message command to QGP PROBABLE CAUSE: MSCU hardware failure.
10+	8070	LOC: SMqgphd/SMqgpmsg.c - SMqgabort() DESC: Cannot abort an MSKP service routine - SMabortsr() PROBABLE CAUSE: Software defensive check failure.

10+	8071	LOC: SMqgphd/SMqgpmsg.c - SMqgabort() DESC: Cannot unlock memory for a read block or write block. PROBABLE CAUSE: Software defensive check failure.
10+	8080	LOC: SMqgphd/SMqgpmsg.c - SMqgvalmsg() DESC: Invalid QGPH message pointer - SMvermsg() failed. PROBABLE CAUSE: Software defensive check failure.
10+	8081	LOC: SMqgphd/SMqgpmsg.c - SMqgvalmsg() DESC: The OSDS message type of a QGPH message was not MGSMQG. PROBABLE CAUSE: Software defensive check failure.
10+	8082	LOC: SMqgphd/SMqgpmsg.c - SMqgvalmsg() DESC: Invalid action qualifier in a restore/restart message. PROBABLE CAUSE: Software defensive check failure.
10+	8083	LOC: SMqgphd/SMqgpmsg.c - SMqgvalmsg() DESC: Invalid read block client in a read block message. PROBABLE CAUSE: Software defensive check failure.
10+	8084	LOC: SMqgphd/SMqgpmsg.c - SMqgvalmsg() DESC: Invalid write block client in a write block message. PROBABLE CAUSE: Software defensive check failure.
10+	8085	LOC: SMqgphd/SMqgpmsg.c - SMqgvalmsg() DESC: Invalid page table address in a read block or write. PROBABLE CAUSE: Software defensive check failure.
10+	8086	LOC: SMqgphd/SMqgpmsg.c - SMqgvalmsg() DESC: Invalid segment number in a read block or write block. PROBABLE CAUSE: Software defensive check failure.
10+	8087	LOC: SMqgphd/SMqgpmsg.c - SMqgvalmsg() DESC: Invalid DMA byte count, AM virtual address, or DMA PROBABLE CAUSE: Software defensive check failure.
10+	8088	LOC: SMqgphd/SMqgpmsg.c - SMqgvalmsg() DESC: Invalid or unsupported action field in a QGPH message. PROBABLE CAUSE: Software defensive check failure.
10+	8089	LOC: SMqgphd/SMqgpmsg.c - SMqgvalmsg() DESC: A QGL message specified no affected QGLs for an. PROBABLE CAUSE: Software defensive check failure.
10+	8090	LOC: SMqgphd/SMqgpmsg.c - SMqgvalmsg() DESC: Invalid QGL state found in a QGL message. PROBABLE CAUSE: Software defensive check failure.
10+	8091	LOC: SMqgphd/SMqgpmsg.c - SMqgvalmsg() DESC: Invalid QGP processor (not AP or IP) specified for an. PROBABLE CAUSE: Software defensive check failure.
10+	8092	LOC: SMqgphd/SMqgpmsg.c - SMqgvalmsg() DESC: Invalid QGP status field in the qgpnum[][] array of a. PROBABLE CAUSE: Software defensive check failure.
10+	8093	LOC: SMqgphd/SMqgpmsg.c - SMqgvalmsg() DESC: No affected QGPs found in the qgpnum[][] array of a. PROBABLE CAUSE: Software defensive check failure.

10+	8094	LOC: SMqgphd/SMqgpmsg.c - SMqgvalmsg() DESC: More than one affected QGP found in the qgpnum[][] PROBABLE CAUSE: Software defensive check failure.
10+	8110	LOC: SMqgphd/SMqgpmsg.c - SMqgackmsg() DESC: Cannot delete block message timer - SMdeltime() failed. PROBABLE CAUSE: Software defensive check failure.
10+	8111	LOC: SMqgphd/SMqgpmsg.c - SMqgackmsg() DESC: Cannot acknowledge a message - SMmsgack() failed. PROBABLE CAUSE: Software defensive check failure.
10+	8120	LOC: SMqgphd/SMqgpmsg.c - SMqgreqdone() DESC: Cannot delete a sequence timer - SMdeltime() failed. PROBABLE CAUSE: Software defensive check failure.
10+	8121	LOC: SMqgphd/SMqgpmsg.c - SMqgreqdone() DESC: Cannot dequeue an in-progress message - SMdequemsg() PROBABLE CAUSE: Software defensive check failure.
10+	8122	LOC: SMqgphd/SMqgpmsg.c - SMqgreqdone() DESC: Cannot move a message from overflow to in-progress. PROBABLE CAUSE: Software defensive check failure.
10+	8200	LOC: SMqgphd/SMqgprsp.c - SMqgprsp() DESC: Invalid QGP equipment ID parameter. PROBABLE CAUSE: Software defensive check failure.
10+	8201	LOC: SMqgphd/SMqgprsp.c - SMqgprsp() DESC: Response received while QGP was in recovery. PROBABLE CAUSE: QGP hardware failure.
10+	8202	LOC: SMqgphd/SMqgprsp.c - SMqgrsync() DESC: Failed to send QGPCON update status message. PROBABLE CAUSE: Software defensive check failure.
10+	8210	LOC: SMqgphd/SMqgprsp.c - SMqgsync() DESC: QGP synchronous response received when no apparent. PROBABLE CAUSE: Software defensive check failure or QGP
10+	8211	LOC: SMqgphd/SMqgprsp.c - SMqgsync() DESC: QGP's dynamic data indicates in-progress activity, but. PROBABLE CAUSE: Software defensive check failure.
10+	8212	LOC: SMqgphd/SMqgprsp.c - SMqgsync() DESC: A response containing an unexpected event number was. PROBABLE CAUSE: Received out of date response associated with.
10+	8213	LOC: SMqgphd/SMqgprsp.c - SMqgsync() DESC: Either QGP dynamic data disagrees with the in-progress. PROBABLE CAUSE: Software defensive check failure or QGP
10+	8214	LOC: SMqgphd/SMqgprsp.c - SMqgsync() DESC: Read QGP interrupt status command failed - invalid. PROBABLE CAUSE: QGP software or hardware failure.
10+	8215	LOC: SMqgphd/SMqgprsp.c - SMqgsync() DESC: Invalid QGP interrupt status found in read QGP PROBABLE CAUSE: QGP software or hardware failure.

10+	8216	LOC: SMqgphd/SMqgprsp.c - SMqgsync() DESC: QGP configuration command failed - invalid response. PROBABLE CAUSE: QGP software or hardware failure.
10+	8217	LOC: SMqgphd/SMqgprsp.c - SMqgsync() DESC: QGP UT execute command failed - invalid response data. PROBABLE CAUSE: QGP software or hardware failure.
10+	8218	LOC: SMqgphd/SMqgprsp.c - SMqgsync() DESC: Phase 1 QLL postmortem read block command failed. PROBABLE CAUSE: QGP software or hardware failure.
10+	8219	LOC: SMqgphd/SMqgprsp.c - SMqgsync() DESC: Failed to send phase 2 QLL postmortem read block. PROBABLE CAUSE: MSCU hardware failure.
10+	8220	LOC: SMqgphd/SMqgprsp.c - SMqgsync() DESC: QGP read block command failed - invalid response data. PROBABLE CAUSE: QGP software or hardware failure.
10+	8221	LOC: SMqgphd/SMqgprsp.c - SMqgsync() DESC: Cannot delete read block DMA job number - SMdeldma() PROBABLE CAUSE: Software defensive check failure.
10+	8222	LOC: SMqgphd/SMqgprsp.c - SMqgsync() DESC: Invalid DMA job number in a QGP request to write AM PROBABLE CAUSE: QGP hardware or software failure.
10+	8223	LOC: SMqgphd/SMqgprsp.c - SMqgsync() DESC: Failed to send write AM memory DMA command (read block) PROBABLE CAUSE: MSCU hardware failure.
10+	8224	LOC: SMqgphd/SMqgprsp.c - SMqgsync() DESC: MSCU failed to DMA data from QGP memory into AM memory. PROBABLE CAUSE: MSCU hardware failure.
10+	8225	LOC: SMqgphd/SMqgprsp.c - SMqgsync() DESC: Failed to send write AM memory (read block) DMA PROBABLE CAUSE: MSCU hardware failure.
10+	8226	LOC: SMqgphd/SMqgprsp.c - SMqgsync() DESC: Invalid command type found in a response associated. PROBABLE CAUSE: QGP or MSCU software or hardware failure.
10+	8227	LOC: SMqgphd/SMqgprsp.c - SMqgsync() DESC: QGP write block command failed - invalid response data. PROBABLE CAUSE: QGP software or hardware failure.
10+	8228	LOC: SMqgphd/SMqgprsp.c - SMqgsync() DESC: Cannot delete write block DMA job number - SMdeldma() PROBABLE CAUSE: Software defensive check failure.
10+	8229	LOC: SMqgphd/SMqgprsp.c - SMqgsync() DESC: QGL remove, restore, or switch command failed. PROBABLE CAUSE: QGP software or hardware failure.
10+	8230	LOC: SMqgphd/SMqgprsp.c - SMqgsync() DESC: QGL packet test command failed - invalid response data. PROBABLE CAUSE: QGP software or hardware failure.

10+	8231	LOC: SMqgphd/SMqgprsp.c - SMqgsync() DESC: QL configuration command failed - invalid response. PROBABLE CAUSE: QGP software or hardware failure.
10+	8232	LOC: SMqgphd/SMqgprsp.c - SMqgsync() DESC: Read QGL/QPIPE state status command failed - invalid. PROBABLE CAUSE: QGP software or hardware failure.
10+	8233	LOC: SMqgphd/SMqgprsp.c - SMqgsync() DESC: QGP sequence in-progress flag contained an invalid or. PROBABLE CAUSE: Software defensive check failure.
10+	8250	LOC: SMqgphd/SMqgprsp.c - SMqgasync() DESC: Cannot read QGP state - SMddread() failed. PROBABLE CAUSE: Software defensive check failure.
10+	8251	LOC: SMqgphd/SMqgprsp.c - SMqgasync() DESC: MSCU-detected QGP critical error - community power. PROBABLE CAUSE: Community has been powered down or MSCU
10+	8252	LOC: SMqgphd/SMqgprsp.c - SMqgasync() DESC: MSCU-detected QGP critical error - PC error lead set. PROBABLE CAUSE: QGP software or hardware failure.
10+	8253	LOC: SMqgphd/SMqgprsp.c - SMqgasync() DESC: MSCU-detected QGP critical error - PC error without. PROBABLE CAUSE: QGP software or hardware failure.
10+	8254	LOC: SMqgphd/SMqgprsp.c - SMqgasync() DESC: MSCU-detected QGP critical error - message to an. PROBABLE CAUSE: QGP hardware failure or out of date MSCU
10+	8255	LOC: SMqgphd/SMqgprsp.c - SMqgasync() DESC: MSCU-detected QGP critical error - CP to CP message. PROBABLE CAUSE: QGP hardware failure or out of date MSCU
10+	8256	LOC: SMqgphd/SMqgprsp.c - SMqgasync() DESC: MSCU-detected QGP critical error - unknown error type. PROBABLE CAUSE: QGP hardware failure.
10+	8257	LOC: SMqgphd/SMqgprsp.c - SMqgasync() DESC: Received a QGL fault asynchronous response. PROBABLE CAUSE: QGL hardware fault in the QGP. This report.
10+	8258	LOC: SMqgphd/SMqgprsp.c - SMqgasync() DESC: Received a QLL down asynchronous response. PROBABLE CAUSE: A QLL went down in the QGP. This report.
10+	8259	LOC: SMqgphd/SMqgprsp.c - SMqgasync() DESC: Received a QLL up asynchronous response. PROBABLE CAUSE: A QLL came up in the QGP. This report.
10+	8260	LOC: SMqgphd/SMqgprsp.c - SMqgasync() DESC: Received a CM routing table refresh asynchronous. PROBABLE CAUSE: QGP-detected routing errors resulted in a CM
10+	8261	LOC: SMqgphd/SMqgprsp.c - SMqgasync() DESC: Received a QLL link map refresh asynchronous. PROBABLE CAUSE: QGP-detected layer two errors resulted in a.

10+	8262	LOC: SMqgphd/SMqgprsp.c - SMqgasync() DESC: Received a QPIPE up asynchronous response. PROBABLE CAUSE: A QPIPE came up in the QGP. This report.
10+	8263	LOC: SMqgphd/SMqgprsp.c - SMqgasync() DESC: Received a QPIPE down asynchronous response. PROBABLE CAUSE: A QPIPE went down in the QGP. This report.
10+	8264	LOC: SMqgphd/SMqgprsp.c - SMqgasync() DESC: Received a QPIPE bad broadcast message asynchronous. PROBABLE CAUSE: A bad broadcast message was received on a.
10+	8266	LOC: SMqgphd/SMqgprsp.c - SMqgasync() DESC: Received an unknown QLL endpoint asynchronous. PROBABLE CAUSE: Frames were sent to/received from an unknown.
10+	8267	LOC: SMqgphd/SMqgprsp.c - SMqgasync() DESC: Received an invalid or unexpected QGP asynchronous. PROBABLE CAUSE: QGP software or hardware failure.
10+	8268	LOC: SMqgphd/SMqgprsp.c - SMqgasync() DESC: Asynchronous response (non-critical error) threshold. PROBABLE CAUSE: QGP software or hardware failure.
10+	8269	LOC: SMqgphd/SMqgprsp.c - SMqgasync() DESC: Cannot obtain an error threshold timer to start an. PROBABLE CAUSE: Software defensive check failure.
10+	8270	LOC: SMqgphd/SMqgprsp.c - SMqgasync() DESC: Failed to send SMKP a message reporting the receipt. PROBABLE CAUSE: Software defensive check failure.
10+	8271	LOC: SMqgphd/SMqgprsp.c - SMqgasync() DESC: Invalid command destination in an asynchronous. PROBABLE CAUSE: MSCU or QGP software or hardware failure.
10+	8400	LOC: SMqgphd/SMqgpinit.c - SMqgpinit() DESC: Invalid QGP equipment ID parameter. PROBABLE CAUSE: Software defensive check failure.
10+	8450	LOC: SMqgphd/SMqgserv.c - SMqgrels() DESC: Cannot delete a pending timer - SMdeltime() failed. PROBABLE CAUSE: Software defensive check failure.
10+	8451	LOC: SMqgphd/SMqgserv.c - SMqgrels() DESC: Cannot delete a DMA request - SMtdeldma() failed. PROBABLE CAUSE: Software defensive check failure.
10+	8600	LOC: SMqgphd/SMqgpflt.c - SMqgpflt() DESC: Invalid QGP equipment ID parameter. PROBABLE CAUSE: Software defensive check failure.
10+	8601	LOC: SMqgphd/SMqgpflt.c - SMqgpflt() DESC: QGP PC audit/sanity check failure. PROBABLE CAUSE: QGP software or hardware failure.
10+	8602	LOC: SMqgphd/SMqgpflt.c - SMqgpflt() DESC: Inconsistent AM and MSCU QGP status - QGP shows OOS in. PROBABLE CAUSE: QGPCON software problem or MSCU hardware.

10+	8603	LOC: SMqgphd/SMqgpflt.c - SMqgpflt() DESC: Inconsistent AM and MSCU QGP status - QGP shows ACT in. PROBABLE CAUSE: QGPCON software problem or MSCU hardware.
10+	8604	LOC: SMqgphd/SMqgpflt.c - SMqgpflt() DESC: Fatal software error - S2 recovery. PROBABLE CAUSE: Software defensive check failure or QGP
10+	8605	LOC: SMqgphd/SMqgpflt.c - SMqgpflt() DESC: Invalid response destination in MSCU or PC response. PROBABLE CAUSE: MSCU or QGP software failure.
10+	8606	LOC: SMqgphd/SMqgpflt.c - SMqgpflt() DESC: Invalid or unknown QGP handler fault code. PROBABLE CAUSE: Software defensive check failure.
10+	8620	LOC: SMqgphd/SMqgpflt.c - SMqgpcr() DESC: Critical error reported flag was set without a pending. PROBABLE CAUSE: Software defensive check failure.
10+	8621	LOC: SMqgphd/SMqgpflt.c - SMqgpcr() DESC: Cannot read QGP state - SMddread() failed. PROBABLE CAUSE: Software defensive check failure.
10+	8622	LOC: SMqgphd/SMqgpflt.c - SMqgpcr() DESC: Cannot obtain an error flag timer - SMreqtime() failed. PROBABLE CAUSE: Software defensive check failure.
10+	8630	LOC: SMqgphd/SMqgpflt.c - SMqgermsg() DESC: Failed to send QGP error report message to QGPSMER PROBABLE CAUSE: Software defensive check failure.
10+	8640	LOC: SMqgphd/SMqgpflt.c - SMqgtmout() DESC: Invalid in-progress message contents - SMqgvalmsg() PROBABLE CAUSE: Software defensive check failure.
10+	8641	LOC: SMqgphd/SMqgpflt.c - SMqgtmout() DESC: Invalid timer index for QGP sequence timeout. PROBABLE CAUSE: Software defensive check failure.
10+	8642	LOC: SMqgphd/SMqgpflt.c - SMqgtmout() DESC: QGP dynamic data action disagrees with the in-progress. PROBABLE CAUSE: Software defensive check failure.
10+	8643	LOC: SMqgphd/SMqgpflt.c - SMqgtmout() DESC: QGP sequence timeout. PROBABLE CAUSE: QGP software or hardware failure.
10+	8644	LOC: SMqgphd/SMqgpflt.c - SMqgtmout() DESC: Invalid timer index for QGP phase 3 initialization. PROBABLE CAUSE: Software defensive check failure.
10+	8645	LOC: SMqgphd/SMqgpflt.c - SMqgtmout() DESC: QGP phase 3 initialization (restore/restart) timeout. PROBABLE CAUSE: QGP software or hardware failure.
10+	8646	LOC: SMqgphd/SMqgpflt.c - SMqgtmout() DESC: Invalid timer index for QGP error flag timeout. PROBABLE CAUSE: Software defensive check failure.

10+	8647	LOC: SMqgphd/SMqgpflt.c - SMqgtmout() DESC: Invalid timer index for QGP block message timeout. PROBABLE CAUSE: Software defensive check failure.
10+	8648	LOC: SMqgphd/SMqgpflt.c - SMqgtmout() DESC: All QGPs in a block message completed the requested. PROBABLE CAUSE: Software defensive check failure.
10+	8649	LOC: SMqgphd/SMqgpflt.c - SMqgtmout() DESC: Block message timeout aborted an in-progress QGP. PROBABLE CAUSE: QGP software or hardware failure.
10+	8650	LOC: SMqgphd/SMqgpflt.c - SMqgtmout() DESC: QGP block message timeout. PROBABLE CAUSE: QGP software or hardware failure.
10+	8651	LOC: SMqgphd/SMqgpflt.c - SMqgtmout() DESC: Received invalid timeout type parameter. PROBABLE CAUSE: Software defensive check failure.
10+	8670	LOC: SMqgphd/SMqgpflt.c - SMqgdlypm() DESC: Cannot obtain QGP postmortem data - SMgetpmort() PROBABLE CAUSE: QGP hardware failure.
10+	8671	LOC: SMqgphd/SMqgpflt.c - SMqgdlypm() DESC: ROP is not available to print QGP postmortem data. PROBABLE CAUSE: Software defensive check failure.
10+	8672	LOC: SMqgphd/SMqgpflt.c - SMqgdlypm() DESC: Invalid postmortem buffer size found in SMqgpmbuf. PROBABLE CAUSE: Corrupted postmortem buffer.
10+	8673	LOC: SMqgphd/SMqgpflt.c - SMqgdlypm() DESC: Cannot determine logical equipment ID of a QGP PROBABLE CAUSE: Software defensive check failure.
10+	8800	LOC: SMqgphd/SMqgrst.c - SMqgdlyrst() DESC: Invalid sequence in-progress flag for a QGP PROBABLE CAUSE: Software defensive check failure.
10+	8801	LOC: SMqgphd/SMqgrst.c - SMqgdlyrst() DESC: Cannot delete QGP initialization sequence timer. PROBABLE CAUSE: Software defensive check failure.
10+	8802	LOC: SMqgphd/SMqgrst.c - SMqgdlyrst() DESC: No in-progress message found on QGP message queue. PROBABLE CAUSE: Software defensive check failure.
10+	8803	LOC: SMqgphd/SMqgrst.c - SMqgdlyrst() DESC: Invalid QGP initialization message - SMqgvalmsg() PROBABLE CAUSE: Software defensive check failure.
10+	8804	LOC: SMqgphd/SMqgrst.c - SMqgdlyrst() DESC: QGP dynamic data disagrees with the in-progress QGP PROBABLE CAUSE: Software defensive check failure.
10+	8805	LOC: SMqgphd/SMqgrst.c - SMqgdlyrst() DESC: QGP hashsum errors are being ignored because the. PROBABLE CAUSE: The SMqgplab flag has been set to SMQGPLAB

10+	8806	LOC: SMqgphd/SMqgrst.c - SMqgdlyrst() DESC: QGP pump/initialization failed due to hashsum errors. PROBABLE CAUSE: Corrupted QGP image or QGP hardware failure.
10+	8807	LOC: SMqgphd/SMqgrst.c - SMqgdlyrst() DESC: QGP pump/initialization failed due to both hashsum. PROBABLE CAUSE: Corrupted QGP image or QGP hardware failure.
10+	8808	LOC: SMqgphd/SMqgrst.c - SMqgdlyrst() DESC: QGP pump/initialization failed for a reason other than. PROBABLE CAUSE: Software defensive check failure, MSCU
10+	8809	LOC: SMqgphd/SMqgrst.c - SMqgdlyrst() DESC: Cannot obtain a QGP phase 3 initialization sequence. PROBABLE CAUSE: Software defensive check failure.
10+	8810	LOC: SMqgphd/SMqgrst.c - SMqgdlyrst() DESC: Failed to send QGP phase 3 initialization command. PROBABLE CAUSE: MSCU hardware failure.
10+	8820	LOC: SMqgphd/SMqgrst.c - SMqgrstdone() DESC: QGP phase 3 initialization command failed - invalid. PROBABLE CAUSE: QGP software or hardware failure.
10+	8821	LOC: SMqgphd/SMqgrst.c - SMqgrstdone() DESC: QGP phase 3 initialization command failed - completion. PROBABLE CAUSE: QGP software or hardware failure.
10+	8822	LOC: SMqgphd/SMqgrst.c - SMqgrstdone() DESC: Failed to send QGP restore/restart status update. PROBABLE CAUSE: Software defensive check failure.

Error Code Range 9000-9999

Release Range	Error Code	3BCMSIM Handler Code
10+	9000	LOC: SMcmsim5/SMcmsim.c - main() DESC: sigsuspend() error PROBABLE CAUSE: Workstation operating system error
10+	9001	LOC: SMcmsim5/SMcmsim.c - SMcmsim_init() DESC: sigemptyset() failed PROBABLE CAUSE: Workstation operating system error
10+	9002	LOC: SMcmsim5/SMcmsim.c - SMsig_init() DESC: sigemptyset() error PROBABLE CAUSE: Workstation operating system error
10+	9003	LOC: SMcmsim5/SMcmsim.c - SMunexp_sigh() DESC: An unexpected signal type has arrived PROBABLE CAUSE: Workstation operating system error
10+	9004	LOC: SMcmsim5/SMcmsim.c - SMsig_setup() DESC: sigaction failed PROBABLE CAUSE: Workstation operating system error
10+	9005	LOC: SMcmsim5/SMcmsim.c - SMproc_req() DESC: Error occurred in reading job table in ioas_srchnlock. PROBABLE CAUSE: Data or pointer corruption

10+	9006	LOC: SMcmsim5/SMcmsim.c - SMproc_req() DESC: Received an invalid request from the AM PROBABLE CAUSE: Programming error or transient software error
10+	9100	LOC: SMcmsim5/SMcntldnld.c - SMdld_main() DESC: Unable to perform a level 2 (ROM) ping PROBABLE CAUSE: Electrical discontinuity in coax
10+	9101	LOC: SMcmsim5/SMcntldnld.c - SMdld_main() DESC: EIB pump failure due to inablity to open sockets PROBABLE CAUSE: Workstation operating system error
10+	9102	LOC: SMcmsim5/SMcntldnld.c - SMdld_main() DESC: EIB pump failure due to inablity to open sockets PROBABLE CAUSE: SM interference, or excessive ethernet traffic on mate, or insufficient workstation real time
10+	9105	LOC: SMcmsim5/SMdnldcoff.c - SMdld_coff() DESC: Cannot download EIB PROBABLE CAUSE: coff magic number in EIB.out indicates it is not for mc68, file probably corrupted.
10+	9106	LOC: SMcmsim5/SMdnldcoff.c - SMdld_coff() DESC: Cannot download EIB PROBABLE CAUSE: EIB.out coff has null loadable section
10+	9107	LOC: SMcmsim5/SMdnldcoff.c - SMdld_coff() DESC: Cannot download EIB PROBABLE CAUSE: Corrupted pointers to EIB.out sections
10+	9108	LOC: SMcmsim5/SMdnldcoff.c - SMdld_coff() DESC: Reading of wrong section of COFF file PROBABLE CAUSE: Corrupt EIB.out, unexpected section order
10+	9115	LOC: SMcmsim5/SMeibhash.c - SMeibhash() DESC: Cannot write to ethernet PROBABLE CAUSE: Excessive ethernet traffic, Workstation operating system error
10+	9120	LOC: SMcmsim5/SMinitsip.c - SMinitlink() DESC: fcntl F_GETFL failure PROBABLE CAUSE: Workstation operating system error
10+	9121	LOC: SMcmsim5/SMinitsip.c - SMinitlink() DESC: fcntl F_SETFL FNDELAY failure PROBABLE CAUSE: Workstation operating system error
10+	9122	LOC: SMcmsim5/SMinitsip.c - SMinitlink() DESC: ioctl failure PROBABLE CAUSE: Workstation operating system error
10+	9123	LOC: SMcmsim5/SMinitsip.c - SMinitlink() DESC: fcntl F_GETFL failure PROBABLE CAUSE: Workstation operating system error
10+	9124	LOC: SMcmsim5/SMinitsip.c - SMinitlink() DESC: fcntl F_SETFL FNDELAY failure PROBABLE CAUSE: Workstation operating system error
10+	9125	LOC: SMcmsim5/SMinitsip.c - SMinitlink()

		DESC: Failed to open socket PROBABLE CAUSE: Workstation operating system error
10+	9126	LOC: SMcmsim5/SMinitsip.c - SMinitlink() DESC: Invalid input signal parameter for SMinit_sip() PROBABLE CAUSE: Programming error
10+	9127	LOC: SMcmsim5/SMinitsip.c - SMinitlink() DESC: Failed address socket -setsockopt() failed PROBABLE CAUSE: Workstation operating system error
10+	9128	LOC: SMcmsim5/SMinitsip.c - SMinitlink() DESC: Failed to bind socket to ethernet socket -bind() failed PROBABLE CAUSE: Workstation operating system error
10+	9130	LOC: SMcmsim5/SMmemcopy.c - SMcopyto3b() DESC: SMgetpgptr() failure PROBABLE CAUSE: Page pointer corruption
10+	9131	LOC: SMcmsim5/SMmemcopy.c - SMcopyto3b() DESC: SMgetpgptr() failure PROBABLE CAUSE: Page pointer corruption
10+	9135	LOC: SMcmsim5/SMsip.c - SMsip() DESC: Received too many bad messages from SM/EIB. PROBABLE CAUSE: Corrupt 3bcmsim memory or SM/ethernet hardware error.
10+	9136	LOC: SMcmsim5/SMsip.c - SMsip() DESC: Failed to send CPI due link initialization failure PROBABLE CAUSE: Corrupt 3bcmsim memory or SM/ethernet hardware error.
10+	9137	LOC: SMcmsim5/SMsip.c - SMsip() DESC: Failed to send CPI due link failure PROBABLE CAUSE: Transient SM/ethernet hardware error.
10+	9138	LOC: SMcmsim5/SMsip.c - SMsip() DESC: shmctl failure PROBABLE CAUSE: Workstation operating system error, or workstation file corruption, or ungraceful exit of previous invocation of 3bcmsim.
10+	9139	LOC: SMcmsim5/SMsip.c - SMsip() DESC: shmat failure PROBABLE CAUSE: Workstation operating system error.
10+	9140	LOC: SMcmsim5/SMsip.c - SMsip() DESC: shmctl failure PROBABLE CAUSE: Workstation operating system error.
10+	9141	LOC: SMcmsim5/SMsip.c - SMsip() DESC: Failed to create child process for EIB pump. PROBABLE CAUSE: Workstation operating system error.
10+	9142	LOC: SMcmsim5/SMsip.c - SMsip() DESC: Invalid SIP service request. PROBABLE CAUSE: Corrupt 3bcmsim memory or programming error
10+	9143	LOC: SMcmsim5/SMsip.c - SMsip() DESC: Failed to create control file for shared memory PROBABLE CAUSE: Workstation operating system error

10+	9144	LOC: SMcmsim5/SMsip.c - SMsip() DESC: Failed to create shared memory for EIB pump PROBABLE CAUSE: Corrupt 3bcmsim memory or programming error
10+	9145	LOC: SMcmsim5/SMsip.c - SMsip() DESC: Invalid SIP service request. PROBABLE CAUSE: Corrupt 3bcmsim memory or programming error.
10+	9150	LOC: SMcmsim5/SMsiputil.c - SMcoaxping() DESC: map_getent() failure PROBABLE CAUSE: corrupt 3bem/vars/em_devmap file
10+	9151	LOC: SMcmsim5/SMsiputil.c - SMcoaxping() DESC: sigaction() SIGCHLD failure PROBABLE CAUSE: Workstation operating system error
10+	9152	LOC: SMcmsim5/SMsiputil.c - SMcoaxping() DESC: signal() SIGCHLD failure PROBABLE CAUSE: Workstation operating system error
10+	9153	LOC: SMcmsim5/SMsiputil.c - SMcoaxping() DESC: sigaction() SIGCHLD failure PROBABLE CAUSE: Workstation operating system error
10+	9154	LOC: SMcmsim5/SMsiputil.c - SMswitchside() DESC: Invalid side PROBABLE CAUSE: Corrupt message or programming error
10+	9155	LOC: SMcmsim5/SMsiputil.c - SMswitchside() DESC: Failed to initialize link on side switch. PROBABLE CAUSE: Corrupt message or programming error
10+	9156	LOC: SMcmsim5/SMsiputil.c - SMcleanmem() DESC: shmctl failure PROBABLE CAUSE: Workstation operating system error
10+	9157	LOC: SMcmsim5/SMsiputil.c - SMcleanmem() DESC: unlink failure PROBABLE CAUSE: Workstation operating system error, shared memory not created for this invocation of 3bcmsim - unusual unless this invocation did not pump EIBs
10+	9160	LOC: SMcmsim5/SMsiputil.c - SMmicroalarm() DESC: sigemptyset() failure PROBABLE CAUSE: Workstation operating system error
10+	9161	LOC: SMcmsim5/SMsiputil.c - SMmicroalarm() DESC: sigaddset() failure PROBABLE CAUSE: Workstation operating system error
10+	9162	LOC: SMcmsim5/SMsiputil.c - SMmicroalarm() DESC: sigaction() SIGALRM failure PROBABLE CAUSE: Workstation operating system error
10+	9163	LOC: SMcmsim5/SMsiputil.c - SMmicroalarm() DESC: setitimer() failure PROBABLE CAUSE: Workstation operating system error
10+	9164	LOC: SMcmsim5/SMsiputil.c - SMmicrosleep() DESC: Unreasonably short sleep time PROBABLE CAUSE: Programming error

10+	9165	LOC: SMcmsim5/SMsiputil.c - SMmicrosleep() DESC: sigpause() failure PROBABLE CAUSE: Workstation operating system error
10+	9166	LOC: SMcmsim5/SMsiputil.c - SMque_add() DESC: Bad input parameter -NULL pointer to message buffer PROBABLE CAUSE: Programming error
10+	9167	LOC: SMcmsim5/SMsiputil.c - SMque_add() DESC: Busy queue is full. PROBABLE CAUSE: Overload condition
10+	9168	LOC: SMcmsim5/SMsiputil.c - SMque_add() DESC: Cannot grow memory -malloc() failed PROBABLE CAUSE: Workstation operating system error
10+	9169	LOC: SMcmsim5/SMsiputil.c - SMque_add() DESC: Cannot copy memory from AM base priority queue to 3bcmsim memory -SMcopyfrom3b() failed PROBABLE CAUSE: 3bcmsim/3bem interface problem
10+	9170	LOC: SMcmsim5/SMsiputil.c - SMsend_qmsg() DESC: Failed to send queued message PROBABLE CAUSE: Workstation operating system error
10+	9175	LOC: SMcmsim5/SMwrt_enet.c - SMsend_smsg() DESC: complete sendto() failure PROBABLE CAUSE: Workstation operating system error
10+	9176	LOC: SMcmsim5/SMwrt_enet.c - SMsend_smsg() DESC: complete sendto() failure PROBABLE CAUSE: Workstation operating system error
10+	9177	LOC: SMcmsim5/SMwrt_enet.c - SMsend_emsg() DESC: partial sendto() failure PROBABLE CAUSE: Workstation operating system error
10+	9178	LOC: SMcmsim5/SMwrt_enet.c - SMsend_emsg() DESC: partial sendto() failure PROBABLE CAUSE: Workstation operating system error
10+	9179	LOC: SMcmsim5/SMwrt_enet.c - SMsend_emsg() DESC: complete sendto() failure PROBABLE CAUSE: Workstation operating system error
10+	9180	LOC: SMcmsim5/SMwrt_enet.c - SMdump_ethernet() DESC: Partial sendto() failure PROBABLE CAUSE: Workstation operating system error
10+	9185	LOC: SMcmsim5/SMxreadmsg.c - SMreadmsg() DESC: Provided buffer too small PROBABLE CAUSE: Workstation operating system error
10+	9190	LOC: SMcmsim5/SMdnldmsg.c - SMdld_msg() DESC: Read() failed PROBABLE CAUSE: Workstation operating system error
10+	9191	LOC: SMcmsim5/SMdnldmsg.c - SMdld_msg() DESC: Read() read wrong number of bytes

		PROBABLE CAUSE: Workstation operating system error
10+	9200	LOC: SMcmsim5/SMprocemsg.c - SMproc_emsg() DESC: Bad SIP headers read from either SM or EIB PROBABLE CAUSE: Corruption on EIB board, Workstation operating system errors, insane SM.
10+	9201	LOC: SMcmsim5/SMprocemsg.c - SMproc_emsg() DESC: Received old message from the SM. The link is restarted. PROBABLE CAUSE: Workstation operating system error
10+	9202	LOC: SMcmsim5/SMprocemsg.c - SMproc_emsg() DESC: Received reject message from the SM with a sequence number that is not in the transmit queue. The link is restarted. PROBABLE CAUSE: Message corruption, or SM/EIB transient hardware fault.
10+	9203	LOC: SMcmsim5/SMprocemsg.c - SMproc_emsg() DESC: Invalid value for "freebuf", index of free output buffers. PROBABLE CAUSE: 3bcmsim memory was corrupt.
10+	9204	LOC: SMcmsim5/SMprocemsg.c - SMproc_emsg() DESC: Excessive number of messages with bad SIP headers read from either SM or EIB PROBABLE CAUSE: Corruption on EIB board, workstation operating system errors, transient SM/EIB hardware error.
10+	9205	LOC: SMcmsim5/SMprocemsg.c - SMproc_emsg() DESC: Received out of sequence message. Sending reject. PROBABLE CAUSE: Tranisent SM/EIB/SUN hardware error.
10+	9206	LOC: SMcmsim5/SMprocemsg.c - SMproc_emsg() DESC: SM request to re-send messages (SM reject). PROBABLE CAUSE: Tranisent SM/EIB/SUN hardware error.
10+	9207	LOC: SMcmsim5/SMprocemsg.c - SMproc_emsg() DESC: Received bad SIP header -message is ignored. PROBABLE CAUSE: Corruption on EIB board, workstation operating system errors, transient SM/EIB hardware error.
10+	9208	LOC: SMcmsim5/SMprocemsg.c - SMproc_emsg() DESC: Received bad OSDS message type for EIB message -message is ignored. PROBABLE CAUSE: Corruption on EIB board, workstation operating system errors, transient SM/EIB hardware error.
10+	9209	LOC: SMcmsim5/SMprocemsg.c - SMproc_emsg() DESC: Failed to send message to the SM. PROBABLE CAUSE: Workstation operating system errors
10+	9210	LOC: SMcmsim5/SMprocemsg.c - SMproc_emsg() DESC: Received bad OSDS message PROBABLE CAUSE: Transient SM/EIB/workstation software/hardware error.
10+	9211	LOC: SMcmsim5/SMprocemsg.c - SMproc_emsg() DESC: Failed to send message to the SM. PROBABLE CAUSE: Workstation operating system errors
10+	9212	LOC: SMcmsim5/SMprocemsg.c - SMproc_emsg() DESC: Failed to send message to the SM. PROBABLE CAUSE: Workstation operating system errors

10+	9213	LOC: SMcmsim5/SMprocemsg.c - SMproc_emsg() DESC: Failed to send message to the SM. PROBABLE CAUSE: Workstation operating system errors
10+	9214	LOC: SMcmsim5/SMprocemsg.c - SMproc_emsg() DESC: Failed to send message to the SM. PROBABLE CAUSE: Workstation operating system errors
10+	9215	LOC: SMcmsim5/SMprocemsg.c - SMproc_emsg() DESC: Failed to send message to the SM. PROBABLE CAUSE: Workstation operating system errors
10+	9216	LOC: SMcmsim5/SMprocemsg.c - SMproc_emsg() DESC: Received SIP END message form the SM. PROBABLE CAUSE: Workstation operating system errors
10+	9300	LOC: SMcmsim5/SMcpi2k.c - SMcpi_init() DESC: Failed to read device name. PROBABLE CAUSE: Workstation operating system errors
10+	9301	LOC: SMcmsim5/SMcpi2k.c - SMcpi_init() DESC: Failed to open device for CPI. PROBABLE CAUSE: Workstation operating system errors
10+	9302	LOC: SMcmsim5/SMcpi2k.c - SMcpi_init() DESC: Failed to configure device. PROBABLE CAUSE: Workstation operating system errors
10+	9303	LOC: SMcmsim5/SMcpi2k.c - SMcpi_init() DESC: Failed to read configuration data. PROBABLE CAUSE: Workstation operating system errors
10+	9304	LOC: SMcmsim5/SMcpi2k.c - SMcpi_init() DESC: Device not correctly configured. PROBABLE CAUSE: Workstation operating system errors
10+	9305	LOC: SMcmsim5/SMcpi2k.c - SMcpi_init() DESC: Failed to get device status flags. PROBABLE CAUSE: Workstation operating system errors
10+	9306	LOC: SMcmsim5/SMcpi2k.c - SMcpi_init() DESC: Failed to configure device for non-blocking. PROBABLE CAUSE: Workstation operating system errors
10+	9307	LOC: SMcmsim5/SMcpi2k.c - SMcpi_init() DESC: Failed to get device status flags. PROBABLE CAUSE: Workstation operating system errors
10+	9308	LOC: SMcmsim5/SMcpi2k.c - SMcpi_init() DESC: Failed to make device non-blocking PROBABLE CAUSE: Workstation operating system errors
10+	9309	LOC: SMcmsim5/SMcpi2k.c - SMcpi_init() DESC: Failed to configure device. PROBABLE CAUSE: Workstation operating system errors
10+	9310	LOC: SMcmsim5/SMcpi2k.c - SMcpi_ctl() DESC: Invalid queue state. PROBABLE CAUSE: Workstation operating system errors

10+	9311	LOC: SMcmsim5/SMcpi2k.c - SMcpi_ctl() DESC: Invalid event for state. PROBABLE CAUSE: Workstation operating system errors
10+	9312	LOC: SMcmsim5/SMcpi2k.c - SMcpi_ctl() DESC: Error count exceed. PROBABLE CAUSE: Overload condition.
10+	9313	LOC: SMcmsim5/SMcpi2k.c - SMcpi_ctl() DESC: Invalid state. PROBABLE CAUSE: Workstation operating system errors
10+	9314	LOC: SMcmsim5/SMcpi2k.c - SMcpi_rcv() DESC: Invalid interupt. PROBABLE CAUSE: Corrupt memory, workstation operating system errors
10+	9315	LOC: SMcmsim5/SMcpi2k.c - SMcpi_rcv() DESC: Failed to get time. PROBABLE CAUSE: Workstation operating system errors
10+	9316	LOC: SMcmsim5/SMcpi2k.c - SMcpi_rcv() DESC: Timeout. PROBABLE CAUSE: Workstation operating system errors
10+	9317	LOC: SMcmsim5/SMcpi2k.c - SMcpi_rcv() DESC: Timeout. PROBABLE CAUSE: Workstation operating system errors

Error Code Range 10000-10999

Release Range	Error Code	AWMSKP Handler Code
10+	10000	LOC: SMmskpcm/SMkpevent.c - kevent() DESC: Cannot attach to message port (PT_MSGS) PROBABLE CAUSE: Old MSKP process still arround
10+	10001	LOC: SMmskpcm/SMkpevent.c - kevent() DESC: Message port attachment verification failed PROBABLE CAUSE: Software bug
10+	10002	LOC: SMmskpcm/SMkpevent.c - kevent() DESC: CMKP not attached to message port (PT_CMKP) PROBABLE CAUSE: Software bug
10+	10003	LOC: SMmskpcm/SMkpevent.c - kevent() DESC: Cannot allocate msg buffer to open to CMKP PROBABLE CAUSE: Message buffer resource overload
10+	10004	LOC: SMmskpcm/SMkpevent.c - kevent() DESC: Cannot send open message to CMKP PROBABLE CAUSE: Software bug
10+	10005	LOC: SMmskpcm/SMkpevent.c - kevent() DESC: MSKP did not successfully open to cmkp during software initialization PROBABLE CAUSE: Software bug or system overload
10+	10006	LOC: SMmskpcm/SMkpevent.c - kevent() DESC: Message (type IOCMDBP) received with invalid eqid PROBABLE CAUSE: Software bug

10+	10007	LOC: SMmskpcm/SMkpevent.c - kevent() DESC: Message received with unidentifiable DMERT message type PROBABLE CAUSE: Software bug
10+	10008	LOC: SMmskpcm/SMkpevent.c - SMkplkflt() DESC: Invalid handler ID PROBABLE CAUSE: Software bug
10+	10050	LOC: SMmskpcm/SMkpfault.c - SMkpdqfmsg() DESC: RID in fault message does not match either MSCU RID PROBABLE CAUSE: Software bug
10+	10100	LOC: SMawsmkp/SMawserv.c - SMaweib_exist() DESC: If no success, assume that EIBs do exist PROBABLE CAUSE: Software bug
10+	10200	LOC: SMawmskp/SMawpccom.c - SMawpcinit() DESC: Invalid physical ID PROBABLE CAUSE: Software bug
10+	10201	LOC: SMawmskp/SMawpccom.c - SMawpcflt() DESC: Invalid physical ID PROBABLE CAUSE: Software bug
10+	10202	LOC: SMawmskp/SMawpccom.c - SMawpcflt() DESC: Invalid fault code PROBABLE CAUSE: Software bug
10+	10203	LOC: SMawmskp/SMawpccom.c - SMawpcflt() DESC: Failed to ack a message -SMackmsg() failed PROBABLE CAUSE: Software bug
10+	10250	LOC: SMawmskp/SMawtime.c - SMkptime() DESC: Repeatative timer final count is out of range. PROBABLE CAUSE: Software bug or cp memory fault
10+	10251	LOC: SMawmskp/SMawtime.c - SMkptime() DESC: Return of SMplacetime() is fail. PROBABLE CAUSE: Software bug or cp memory fault
10+	10252	LOC: SMawmskp/SMawtime.c - SMkptime() DESC: Failed to delete old timeout entry PROBABLE CAUSE: Software bug
10+	10253	LOC: SMawmskp/SMawtime.c - SMkptime() DESC: Caller's return address is out of range PROBABLE CAUSE: Software bug or cp memory fault
10+	10254	LOC: SMawmskp/SMawtime.c - SMreqtime() DESC: Timer table is full and is being reinitialized PROBABLE CAUSE: Software bug or timer table is overload
10+	10255	LOC: SMawmskp/SMawtime.c - SMptimer() DESC: Final count in head entry is out of range. PROBABLE CAUSE: Software bug or cp memory failure
10+	10256	LOC: SMawmskp/SMawtime.c - SMptimer() DESC: Ptimer() returned fail. PROBABLE CAUSE: Software bug or cp memory failure

10+	10400	LOC: SMawmskp/SMawcmsim.c - SMaw_rpt() DESC: Error during request to send BPQ message PROBABLE CAUSE: Software bug or cp memory failure
10+	10401	LOC: SMawmskp/SMawcmsim.c - SMaw_rpt() DESC: Mark link as OOS PROBABLE CAUSE: Software bug
10+	10403	LOC: SMawmskp/SMawcmsim.c - SMaw_rpt() DESC: No error type reported PROBABLE CAUSE: Software bug
10+	10404	LOC: SMawmskp/SMawcmsim.c - SMaw_rpt() DESC: No error type reported PROBABLE CAUSE: Software bug
10+	10405	LOC: SMawmskp/SMawcmsim.c - SMcmspinit() DESC: Fail to attach to 3bcmsim interrupt channel PROBABLE CAUSE: Software bug
10+	10406	LOC: SMawmskp/SMawcmsim.c - SMcmspinit() DESC: Fail to attach to interrupt entry 3bcmsim PROBABLE CAUSE: Software bug
10+	10407	LOC: SMawmskp/SMawcmsim.c - SMcmspinit() DESC: Fail to enable CMSIM interrupts PROBABLE CAUSE: Software bug
10+	10409	LOC: SMawmskp/SMawcmsim.c - SMawcsrst() DESC: Fail to init and attach to interrupt entry PROBABLE CAUSE: Software bug
10+	10410	LOC: SMawmskp/SMawcmsim.c - SMawcsrst() DESC: CMSIM init process failed PROBABLE CAUSE: Software bug
10+	10413	LOC: SMawmskp/SMawcmsim.c - SMaw_rsp() DESC: Error during sending BPQ message to the SM PROBABLE CAUSE: Software bug
10+	10414	LOC: SMawmskp/SMawcmsim.c - SMaw_rsp() DESC: Failed to init link PROBABLE CAUSE: Software bug
10+	10420	LOC: SMawmskp/SMawcmsim.c - SMawsetboot() DESC: Invalid timer PROBABLE CAUSE: Software bug
10+	10421	LOC: SMawmskp/SMawcmsim.c - SMawclrboot() DESC: Delete boot timer, invalid value PROBABLE CAUSE: Software bug
10+	10500	LOC: SMawmskp/SMawppc.c - SMpppmsg() DESC: Invalid unit in input message PROBABLE CAUSE: Software bug
10+	10501	LOC: SMawmskp/SMawppc.c - SMpppmsg() DESC: Failed to ack message PROBABLE CAUSE: Software bug

10+	10502	LOC: SMawmskp/SMawppc.c - SMpppmsg() DESC: Invalid action in input message PROBABLE CAUSE: Software bug
10+	10503	LOC: SMawmskp/SMawppc.c - SMppmrej() DESC: Send acknowledgement failed PROBABLE CAUSE: Software bug
10+	10504	LOC: SMawmskp/SMawppc.c - SMppmdef() DESC: Invalid side of equipment ID in input message PROBABLE CAUSE: Software bug
10+	10505	LOC: SMawmskp/SMawppc.c - SMpptmout() DESC: The in-progress queue is full, reject the message PROBABLE CAUSE: Too many messages received by PPC handler.
10+	10506	LOC: SMawmskp/SMawppc.c - SMppmdef() DESC: Queueing the message into the overflow queue failed PROBABLE CAUSE: Software bug.
10+	10507	LOC: SMawmskp/SMawppc.c - SMppmdef() DESC: Moving the message from overflow queue to I_P queue failed PROBABLE CAUSE: Software bug.
10+	10508	LOC: SMawmskp/SMawppc.c - SMpppmsg() DESC: Can't lock segment for BCB. PROBABLE CAUSE: Software bug.
10+	10509	LOC: SMawmskp/SMawppc.c - SMpppmsg() DESC: Can't lock segment for buffer1. PROBABLE CAUSE: Software bug.
10+	10510	LOC: SMawmskp/SMawppc.c - SMpppmsg() DESC: Can't lock segment for buffer2. PROBABLE CAUSE: Software bug.
10+	10511	LOC: SMawmskp/SMawppc.c - SMpppmsg() DESC: SM is not isolated PROBABLE CAUSE: Software bug.
10+	10512	LOC: SMawmskp/SMawppc.c - SMpprnor() DESC: No in-progress message PROBABLE CAUSE: Software bug.
10+	10513	LOC: SMawmskp/SMawppc.c - SMpprnor() DESC: Fail completion no return ack PROBABLE CAUSE: Software bug.
10+	10514	LOC: SMawmskp/SMawppc.c - SMpprnor() DESC: Fail to delete message timer PROBABLE CAUSE: Software bug.
10+	10515	LOC: SMawmskp/SMawppc.c - SMpprnor() DESC: Fail to ack message PROBABLE CAUSE: Software bug.
10+	10516	LOC: SMawmskp/SMawppc.c - SMppoprep() DESC: Can't send error message to OKP PROBABLE CAUSE: Software bug.

10+	10600	LOC: SMawmskp/SMawmscu.c - SMmspinit() DESC: Bad equipment id PROBABLE CAUSE: Software bug.
10+	10601	LOC: SMawmskp/SMawmscu.c - SMmspinit() DESC: Invalid pointer to set of queues PROBABLE CAUSE: Software bug.
10+	10602	LOC: SMawmskp/SMawmscu.c - SMmspflt() DESC: Verification show EQID invalid PROBABLE CAUSE: Software bug.
10+	10603	LOC: SMawmskp/SMawmscu.c - SMmspmsg() DESC: Request timer failed PROBABLE CAUSE: Software bug.
10+	10604	LOC: SMawmskp/SMawmscu.c - SMmspmsg() DESC: Request timer failed PROBABLE CAUSE: Software bug.
10+	10605	LOC: SMawmskp/SMawmscu.c - SMmspmsg() DESC: Invalid request PROBABLE CAUSE: Software bug.
10+	10606	LOC: SMawmskp/SMawmscu.c - SMmspmsg() DESC: Message acknowledgement failed PROBABLE CAUSE: Software bug.
10+	10607	LOC: SMawmskp/SMawmscu.c - SMmstm0() DESC: Request timer failed PROBABLE CAUSE: Software bug.
10+	10608	LOC: SMawmskp/SMawmscu.c - SMmstm1() DESC: CMSIM is dead PROBABLE CAUSE: Software bug.
10+	10609	LOC: SMawmskp/SMawmscu.c - SMmstm1() DESC: Request timer failed PROBABLE CAUSE: Software bug.
10+	10610	LOC: SMawmskp/SMawmscu.c - SMmstm1() DESC: Queues are bad PROBABLE CAUSE: Software bug.
10+	10611	LOC: SMawmskp/SMawmscu.c - SMmstm1() DESC: Request timer failed PROBABLE CAUSE: Software bug.
10+	10612	LOC: SMawmskp/SMawmscu.c - SMmstm1() DESC: Request timer failed PROBABLE CAUSE: Software bug.
10+	10613	LOC: SMawmskp/SMawmscu.c - SMmstm3() DESC: CMSIM is dead PROBABLE CAUSE: Software bug.
10+	10614	LOC: SMawmskp/SMawmscu.c - SMmstm3() DESC: Request timer failed PROBABLE CAUSE: Software bug.

10+	10615	LOC: SMawmskp/SMawmscu.c - SMmstm3() DESC: Request timer failed PROBABLE CAUSE: Software bug.
10+	10616	LOC: SMawmskp/SMawmscu.c - SMmstm4() DESC: Request timer failed PROBABLE CAUSE: Software bug.
10+	10617	LOC: SMawmskp/SMawmscu.c - SMmstm4() DESC: Request timer failed PROBABLE CAUSE: Software bug.
10+	10618	LOC: SMawmskp/SMawmscu.c - SMmstm4() DESC: Level 2 failure PROBABLE CAUSE: Software bug.
10+	10619	LOC: SMawmskp/SMawmscu.c - SMmstm4() DESC: Level 3 failure PROBABLE CAUSE: Software bug.
10+	10620	LOC: SMawmskp/SMawmscu.c - SMmstm4() DESC: CMSIM is dead PROBABLE CAUSE: Software bug.
10+	10621	LOC: SMawmskp/SMawmscu.c - SMmstm4() DESC: Request timer failed PROBABLE CAUSE: Software bug.
10+	10622	LOC: SMawmskp/SMawcmsim.c - SMawboot() DESC: Invalid value PROBABLE CAUSE: Software bug.
10+	10623	LOC: SMawmskp/SMawcmsim.c - SMawboot() DESC: Init request failed PROBABLE CAUSE: Software bug.

APP:IOP-A

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. INPUT/OUTPUT DRIVER (IODRV) JOB COMPLETION ERROR CODES APPENDIX

Job completion reports have the same format as messages except for the addition of a completion code field.

For peripheral interface controller (PIC) reports the completion field size is 16 bits.

For peripheral controller (PC) and peripheral controller subdevice (PCSD) reports the completion field size is 12 bits.

Note: The codes are in hexadecimal.

Errors reported by the PC or PCSD (rejected messages):

Error code:	Explanation:
0000	Successful completion.
0001	Successful completion - recoverable errors.
0002	Job aborted - unrecoverable errors.
0003	Job rejected - illegal message format.
0004	Job rejected - illegal message context codes 05-0f reserved.

Errors reported by the PC (rejected messages):

Error code:	Explanation:
0010	PC XMT buffer underflow.
0011	PC RCV buffer overflow.
0012	PC RCV queue underflow (asynch report): Codes 14-1f reserved; codes 20-ef spare.

Errors reported by the PIC (rejected messages):

Error code:	Explanation:
00f0	PC dequeue full.
00f1	PC out-of-service.
00f2	PC DAM error - CSA timeout.
00f3	PC DAM error - data parity error.

Errors reported by the PIC (asynchronous reports):

Error code:	Explanation:
00f5	BP resp queue overflow.
00f6	PC community power failure.
aaf7	PC error detected by the PIC: (aa = PC error type); codes f8-ff reserved.

PC errors detected by the PIC (asynchronous reports - aaf7 format):

Upon detection of a PC error, the PIC will isolate the faulty PC from the common community busses, mark the PC out-of-service, flush all outstanding requests for PIC service by the faulty PC, and issue a HP autonomous error report to the driver. The completion report field includes one of the following error types:

LD/ULD = Load/unload.

DAM = Dual access memory.

CSA = Control signal acknowledgment.

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IR = Interrupt request.

SR = Service request.

ER = Error report.

Error code:	Explanation:
01f7	PC ER lead set.
02f7	Spare IR status bit set.
03f7	Spare SR status bit set.
04f7	Illegal test IR received.
05f7	Illegal test SR received.
06f7	Illegal test ER received.
10f7	PC DAM parity error detected.
11f7	PC CSA timed-out.
12f7	AM transfer for PC job aborted.
20f7	Illegal LD/ULD buffer IR parameter: Illegal PCSD ID.
21f7	Illegal LD/ULD buffer IR parameter: Illegal byte count.
22f7	Illegal LD/ULD buffer IR parameter: Illegal LD/ULD pointer.
23f7	Illegal LD/ULD buffer IR parameter: Illegal buffer boundaries.
30f7	Illegal LD/ULD buffer SR parameter: Illegal PCSD ID.
31f7	Illegal LD/ULD buffer SR parameter: Illegal byte count.
32f7	Illegal LD/ULD buffer SR parameter: Illegal LD/ULD pointer.
33f7	Illegal LD/ULD buffer SR parameter: Illegal buffer boundaries.
40f7	Error detected during HP job order: Boundary error.
41f7	Error detected during HP job order: ULD PTR OOR.
42f7	Error detected during HP job order: LD PTR OOR.
43f7	Error detected during HP job order: PC job PTR OOR.
50f7	Error detected during BP job order: Boundary error.
51f7	Error detected during BP job order: ULD PTR OOR.
52f7	Error detected during BP job order: LD PTR OOR.
53f7	Error detected during BP job order: PC job PTR OOR.
60f7	Error detected during HP job compl: Boundary error.
61f7	Error detected during HP job compl: ULD PTR OOR.
62f7	Error detected during HP job compl: LD PTR OOR.
63f7	Error detected during HP job compl: PC job PTR OOR.
70f7	Error detected during BP job compl: Boundary error.
71f7	Error detected during BP job compl: ULD PTR OOR.
72f7	Error detected during BP job compl: LD PTR OOR.
73f7	Error detected during BP job compl: PC job PTR OOR.
80f7	Illegal HP job cmp report: Illegal response destination field.
81f7	Illegal HP job cmp report: Illegal PC ID field.
82f7	Illegal HP job cmp report: Illegal PCSD ID field.
90f7	Illegal BP job cmp report: Illegal response destination field.
91f7	Illegal BP job cmp report: Illegal PC ID field.
92f7	Illegal BP job cmp report: Illegal PCSD ID field.
a0f7	Babbling PC IR signal.
a1f7	Babbling PC SR signal.

PC and PCSD reported errors (device dependent):

Error code:	Explanation:
0003	Invalid message type or maintenance access message without 4 control bits properly set (invalid format).
0011	Input buffer overflow.
0013	Command other than RST or RMV with PCSD out-of-service.
0020	Job terminated by quit, interrupt, or break.
0021	Job aborted by disconnect or flush.
0022	High priority message too long for job.

TTYC (PC)

Error code:	Explanation:
0003	Invalid message type or maintenance access message without 4 control bits properly set (invalid format).
0006	Checksum error (PC pump).

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MT (PCSD)

Error code:	Explanation:
0100	Tape unit write protected.
0200	End of physical tape.
0300	Subdevice off-line.
0400	Timeout error.
0500	Reached end of file during read.

APP:IOP-B

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. DSCH STATUS LAYOUT (CHANNEL) APPENDIX

Bit	Description
00	High 3 bits of low return code.
01	High 3 bits of low return code.
02	High 3 bits of low return code.
03	High 3 bits of high return code.
04	High 3 bits of high return code.
05	High 3 bits of high return code.
06	Channel busy f-f.
07	I/O inhibit override f-f.
08	Sequencer error.
09	Illegal 3 out of 6 device address.
10	Command error.
11	Channel error (or of previous message).
12	Maintenance f-f.

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APP:IOP-C

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. BIC STATUS LAYOUT APPENDIX

Bit	Description
00	Unit address.
01	Unit address.
02	Unit address.
03	Unit address.
04	Direct memory access (DMA) setup overwrite.
05	Peripheral bus interface (PBI) parity error 0.
06	PBI parity error 1.
07	PBI parity error 2.
08	PBI parity error 3.
09	EOD error.
10	Peripheral interface controller (PIC) fatal error summary.
11	Sanity error.
12	PIC data bus parity error lo.
13	PIC data bus parity error hi.
14	Data first-in first-out (FIFO) overflow.
15	Command register overflow.
16	FIFO word count.
17	FIFO word count.
18	FIFO word count.
19	FIFO word count.
20	FIFO word count.
21	Interrupt.
22	Transfer.
23	Setup.
24	EOD expected.
25	EOD received.
26	Transfer mode (0=WRD, 1=BLK).
27	Enable PIC data bus parity check.
28	Interface enable.
29	Data flag.
30	Command in progress (CIP).
31	Command flag.

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APP:IOP-D

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. D2SBS STATUS LAYOUT APPENDIX

Bit	Description
00	Device reported error.
01	Overflow error.
02	Sequencer error.
03	Illegal D2SBS message.
04	Maintenance f-f.
05	Device interrupt request.
06	Device setup request.
07	Device transfer request.

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APP:IOP-E

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. FAULT CODES RECOGNIZED BY INPUT/OUTPUT DRIVER (IODRV)

Note: The codes are in hexadecimal.

No Fault

00	No fault (normal).

Peripheral Faults - With Accompanying Message

b1	Device reported error - IOPn (PIC or PCm) implicated - IOPn had pio in progress.
b2	Parity divert error - IOPn (PIC) implicated - IOPn had pio in progress.
b3	Channel error - IOPn not implicated but possibly affected - IOPn had pio in progress.
b4	Device reported error - IOPn (PIC or PCm) implicated.
b5	DMA addressing error - IOPn (PIC or PCm) implicated.
b6	DMA used OOR address - IOPn (PIC) implicated.
b7	Channel error - IOPn not implicated but possibly affected.

Peripheral Faults - No Accompanying Message

b8	Device reported error - cannot identify unit.
b9	Parity divert error - cannot identify unit.
ba	Addressing error - cannot identify unit.

Message Buffer Audit Faults

bc	Old or new queued audit messages (with accompanying message).
bd	Old non-queued audit messages (no accompanying message).

Configuration Manager Fault Codes - With Accompanying Message

c3	Config. manager - excessive recoverable errors.
c4	Config. manager remove directive - excessive errors.
c5	Config. manager remove request - attempt restoration of oos usable unit.
c6	Config. manager limp mode - attempt restoration of oos unusable unit.

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c7	Config. manager limp mode - no replacement avail.
c8	Config. manager manual remove.
c9	Unconditional remove - not used by IODRV.

Not Seen By IODRV - No Accompanying Message

cb	Routine soft switch - pcpeih only.

Software Errors - No Accompanying Message

d1	Memory management - page invalid or not in memory.
d2	Memory management - page index too large.
d3	Memory management - segment invalid.
d4	Memory management - segment index too large.
d5	Illegal ost (from kernel).
d6	Protection violation.
d7	Byte or halfword addressing violation.
d8	Instruction privilege violation.
d9	Illegal op code.

System Initialization - No Accompanying Messages

e1	Substantial system recovery has occurred IOPn might be affected.
e2	System initialization - critical.

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APP:IOP-F-A

Software Release: 5E10 - 5E12
Message Class: N/A
Application: 5,3B
Type: Output

1. ERROR CODES GENERATED BY INPUT/OUTPUT DRIVER (IODRV)

The codes are in hexadecimal notation.

1.1 IODRV

Function	Code	Comment
iointr.c	0100	Cannot convert iorid to ucblp.
iointr.c	0101	Report error has exceeded the acceptable error count.
iointr.c	0102	Cannot reset interrupt flag in BIC.
iointr.c	0104	PIC passed out of range load printer.
iointr.c	0106	Failed to sense D2SBS status.
iointr.c	0107	D2SBS status off-normal.
em_iointr.c	0108	Error encountered getting response from response queue.
procrsp.c	0200	Base priority queue overflow.
procrsp.c	0300	Cannot convert iorid to ucblp.
procrsp.c	0301	Unknown response received.
procrsp.c	0304	PC audit response failure.
procrsp.c	0400	Cannot convert iorid to ucblp.
procrsp.c	0401	Unknown response received.
kost.c	0501	OST is invalid for this dev.
kost.c	0504	Extraneous OST.
kost.c	0505	Cannot map ldin to UCB(s).
servr2.c	0600	Cannot convert iorid to ucblp.
servr2.c	0640	Failed to get PCSD's UCB.
servr2.c	0641	`downucb()` failed for PCSDs.
servr2.c	0642	Cannot get PC's UCB.
servr2.c	0643	`downucb()` failed to get PC's UCB.
servr2.c	0644	Failed to get IOP's UCB.
servr2.c	0645	Link to device handler failed.
servr2.c	0646	Link to device handler failed.
servr2.c	0670	Failed to get PCSD's UCB.
servr2.c	0671	`downucb()` failed for PCSDs.
servr2.c	0672	Cannot get PC's UCB.
servr2.c	0673	`downucb()` failed to get PC's UCB.
servr2.c	0674	Failed to get IOP's UCB.
servr2.c	0677	Cannot get IOP/PC's UCB.
procrsp.c	0711	Encountered idle response queue entry.
procrsp.c	0712	Response queue load pointer out of range.
isc.c	0740	isalloc failure - align argument out of acceptable range.
isc.c	0741	isalloc failure - user requested more than segment of space.
isc.c	0742	isalloc failure - iolockseg failed.
isc.c	0743	isalloc failure - no requester nodes available.
isc.c	0744	isalloc error - isalign could not find growable element.
isc.c	0748	isalloc failure - IMF add message could not be sent to MMGR.
isc.c	0749	isalloc failure - IMF grow message could not be sent to MMGR.
isc.c	074a	isalloc failure - IMF add message could not be sent to MMGR.
isc.c	0750	isc problem - MSACK from MMGR indicates add failed.
isc.c	0751	isc failure - grow retry failed.
isc.c	0752	isc failure - isimfretry could not find growable element.
isc.c	0758	isc failure - normal grow request failed.
isc.c	0759	isc failure - retry grow request for single user failed.
isc.c	075a	isc failure - degrow request failed.
isc.c	075b	isc failure - grow of unidentifiable type failed.
isc.c	075c	isalloc failure - iolockseg failed.
isc.c	0760	isc problem - IMF could not send remove message to MMGR.
isc.c	0761	isc problem - IMF could not send degrow message to MMGR.
isc.c	0768	iscanreq failure - invalid cancellation identifier.
isc.c	0769	iscanreq failure - invalid cancellation identifier (o).
isc.c	0770	isfree problem - attempt to unlock failed.
isc.c	0771	isfree failure - invalid security identifier.

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isc.c	0772	isfree failure - invalid user area address.
isc.c	077a	isunlk failure - imf could not decrement lock count.
isc.c	077b	isunlk warning - block unlocked but iounlkseg not invoked.
isc.c	077c	isunlk failure - invalid security identifier.
isc.c	077d	isunlk failure - invalid user area address.
isc.c	077e	isc problem - no growable free space element in segment.
smc.c	0780	smalloc failure - SMID length argument exceeds maximum.
smc.c	0781	smalloc failure - invalid alignment boundary argument.
smc.c	0782	smalloc failure - block length argument exceeds allocated size.
smc.c	0783	smalloc failure - alignment argument differs from allocated block.
smc.c	0784	smalloc failure - no requester nodes available.
smc.c	0785	smalloc failure - block length argument exceeds size requested.
smc.c	0786	smalloc failure - no shared memory block request nodes available.
smc.c	0787	smalloc failure - no requester nodes available.
smc.c	0788	smalloc failure - ISC allocation failed.
smc.c	0789	smalloc error - rqip node not found.
smc.c	078a	smalloc failure - ISC allocation failed.
smc.c	0790	smcanreq failed - invalid cancel request identifier.
smc.c	0791	smcanreq failed - invalid shared memory identifier.
smc.c	0792	smcanreq failed - zero is invalid cancel request identifier.
smc.c	0798	smfree failed - invalid shared memory block address.
smc.c	0799	smfree failed - invalid security identifier.
cfr.c	07c0	cfread failure - no requester nodes available.
cfr.c	07c1	cfread failure - no file request nodes available.
cfr.c	07c2	cfread failure - no requester nodes available.
cfr.c	07c8	cfread failure - unable to open file.
cfr.c	07d0	cfread failure - isalloc unsuccessful.
cfr.c	07d1	cfread abort by cfreadbuf - no requesters or invalid state.
cfr.c	07d8	cfread - iounlk failed in cfreadack.
cfr.c	07d9	cfread failure - FMGR message acknowledgement has bad status.
cfr.c	07da	cfread - no file request node found for read acknowledgement.
cfr.c	07e0	cfread failure - FMGR message retry threshold exceeded.
cfr.c	07e4	cfread failure - RQIP node with timeout tag not found.
cfr.c	07e8	cfcanreq error - invalid cancel request identifier.
cfr.c	07e9	cfcanreq error - file not found.
cfr.c	07ea	cfcanreq error - invalid cancel request identifier.
cfr.c	07f0	cffree - freeing file with negative use count.
cfr.c	07f1	cffree error - invalid security identifier.
cfr.c	07f2	cffree error - invalid address.
cfr.c	07f3	`cfaunlock()` - freeing file with negative use count.
cfr.c	07f8	cfread failure - message buffer overflow.
cfr.c	07f9	cfread failure - timer request unsuccessful.
cfr.c	07fa	cfread failure - message buffer overflow.
cfr.c	07fb	cfread failure - timer request unsuccessful.
cfr.c	07fc	cfread failure - kgetsgn call unsuccessful.
cfr.c	07fd	cfread - queuemn for close message to FMGR unsuccessful.
cfr.c	07fe	cfread - buffer allocation failure for close message.
faultaud.c	0802	No handler to process message audit. Format of additional string information is defined as: `UNIT a b1` `a` = A string for device name. `b` = A decimal for device number.
ioevnt.c	0803	Invalid message type.
ioevnt.c	0804	Message doesn't contain an iorid.
ioevnt.c	0805	Message doesn't contain an iorid.
ioevnt.c	0806	IOMESG message doesn't contain an iorid.
ioevnt.c	0808	Cannot link message to device handler.
ioevnt.c	0809	Cannot link message to maint handler.
ioevnt.c	080a	Unknown message type.
ioevnt.c	080b	Cannot link message to device handler.
ioevnt.c	080c	IODRV both send and receiver of message (not USRACK).
ioevnt.c	0810	Not a pointer in driver's data space.

ioevnt.c	0813	Cannot link message to transport protocol handler.
faultaud.c	0828	`lkhand1()` returned ENOHAND.
faultaud.c	0829	Cannot map to a UCB.
faultaud.c	082a	Invalid input option.
faultaud.c	0830	USRACK expected in system returned message.
faultaud.c	0831	`lkhand1()` returned ENOHAND.
faultaud.c	0832	`lkhand1()` returned ENOHAND.
faultaud.c	0833	`lkhand1()` returned ENOHAND.
procmsg.c	0901	RID cannot map to a UCB. Format of additional string information is defined as: `a b c d` `a` = Message sender's process number in hexadecimal. `b` = A '`0`' indicates the following item in '`c`' is a MDCT RID. A '`1`' indicates that to be a UCB RID. `c` = UCB PID or MDCT RID in hexadecimal. `d` = Message sender's utility ID in hexadecimal. 1 To get a full copy of the above UCB or MDCT, use following browse procedures: ">" is the browse prompt, after it is the operator input. The line below the input line is response from browse. Comments enclosed are not part of the input/response. >`browse %-ecd` /* Enter database name for browse */ `%-ecd` /* browse acknowledgement */ >`dd /usr/bin/ecd_aux` /* Enter data dictionary look up */ >`/usr/bin/ecd_aux` /* browse acknowledgement */ >`0x496a0/r` /* dump record with RID of 0x496a0 */ &..... content of the record &..... >`q` /* quit after dump completion */
procmsg.c	0902	Invalid input option (not CVTRID or CVTLDIN).
procmsg.c	0905	Cannot link message to maint handler.
procmsg.c	0906	Cannot link message to device handler.
procmsg.c	0a01	Cannot map RID to UCB.
procmsg.c	0a06	Cannot link message to device handler.
updflsh.c	0b00	PCn flash programming - timed out - mark PC community in service.
updflsh.c	0b01	PCn flash programming - timed out - clear PC.
updflsh.c	0b02	PCn flash programming - timed out- reset PC isolate flip-flop and mark in-service.
updflsh.c	0b03	PCn flash programming - timed out- read PC scan back.
updflsh.c	0b04	PCn flash programming - timed out- pump PC code.
updflsh.c	0b05	PCn flash programming - timed out - read PC code version.
updflsh.c	0b06	PCn flash programming - timed out - execute PC code.
updflsh.c	0b07	PCn flash programming - timed out - pump PC code.
updflsh.c	0b08	PCn flash programming - timed out - clear PC.
updflsh.c	0b0b	PCn flash programming - proc_ufm() failed to get timer to update flash RAM.
updflsh.c	0b0c	PCn flash programming - timed out - update flash RAM.
initma.c	0c00	`initdb()` cannot get list of IOPs.
initma.c	0c01	`initdb()` cannot attach to database.
initma.c	0c02	Failed DMAC RAM initialization - IOPn not restored.

initma.c	0c03	EMPT pointer has bad virtual address.
initma.c	0c04	EMPT has bad virtual address.
initma.c	0d00	IOP member number too large - IOPn not restored.
initma.c	0d03	Cannot convert iorid to ucblp.
initma.c	0d04	Cannot convert iorid to ucblp.
initma.c	0d05	Cannot get list of IOPs.
initma.c	0d06	Cannot attach to ECD.
initma.c	0d07	IOPn attached to wrong port.
initma.c	0d08	`timreq1()` function returned FAIL.
initma.c	0d09	Failed to attach to a port.
initma.c	0d0a	Unable to obtain PC power down reset timer.
initmb.c	0e04	Memory not allocated for IOPn - leave OOS.
initmb.c	0e05	Unable to convert PC RID to UCB.
initmb.c	0e06	Unable to convert PCSD RID to UCB.
initmb.c	0e07	No memory exists for PC.
initmb.c	0e08	No memory exists for PCSD.
initmb.c	0e0a	Downucbs returned fail.
initmb.c	0e0b	Downucbs function returned fail.
servr2.c	0f00	Unable to convert I/O rid to a ucblp.
servr2.c	0f01	Cannot map virtual address to a segment number or downucbs failed for PCSDs.
servr2.c	0f02	Cannot lock segment or cannot get PC's UCB.
servr2.c	0f03	Cannot unlock segment or cannot get PC's UCB.
servr2.c	0f04	Failed to get IOP's UCB.
servr2.c	0f05	Failed to link to application handler.
servr2.c	0f06	Link to device handler failed.
picgh.c	1001	Asynchronous PIC completion failure report (not during restoration).
picgh.c	1002	Generic PIC handler in wrong state for given response.
servr1.c	1100	C_FAIL returned by CONFIG for rptrerr.
servr1.c	1101	Recovery - timeout request failure.
servr1.c	1102	Cannot convert iorid to ucblp.
servr1.c	1103	Recovery will be performed on device.
picgh.c	1200	IOPn restore - no timing available.
picgh.c	1300	IOPn restore - cannot clear BIC.
picgh.c	1302	IOPn restore - invalid sequence number.
picgh.c	1303	IOPn restore - cannot reset PIC.
picgh.c	1306	IOPn restore - cannot send sysgen pio.
picgh.c	1307	IOPn restore - failed to enable interrupts.
picgh.c	1308	IOPn restore - cannot clear D2SBS.
picgh.c	1309	IOP restore - PIC pump failure - trying alternate pumpcode filename. ECD may have incorrect name for IOP pump file or system might be configured for AM IOP.
picgh.c	130a	IOP restore - PIC pump failure - trying backup version alternate pumpcode filename. ECD may have incorrect name for IOP pump file or the primary pumpcode file may be corrupted or the IOP is configured for the AM.
picgh.c	130d	Failed to free use of the pumpcode file.
picgh.c	130e	Cancellation of request to read pumpcode file failed.
picgh.c	1400	IOPn restore - completion code error.
picgh.c	1401	IOPn restore - invalid sequence number.
picgh.c	1402	IOPn restore - the `asndma21()` function failed to assign DMA slot.
picgh.c	1403	IOPn restore - the `getpta()` function failed to get PTA.
picgh.c	1404	IOPn restore - the `sendpio1()` function failed to send the message to IOP.
picgh.c	1405	IOPn restore - the `cfread()` function failed to read the pumpcode file.
picgh.c	1406	IOPn restore - invalid sequence number.
picgh.c	1407	IOPn restore - the `getsucbl()` function call failed, cannot retrieve the UCB record for the IOP.
picgh.c	1408	IOPn restore - the `getpta()` function failed to get PTA.
picgh.c	1409	IOPn restore - the `asndma21()` function failed to assign DMA slot.
picgh.c	1500	IOPn restore - timed out.
pcgh.c	1601	Asynchronous PC completion failure report (not during restoration).

pcgh.c	1602	Generic PC handler in wrong state for given response.
pcgh.c	1701	PCn restore failed.
pcgh.c	1702	Cannot get PIC UCB.
prms.c	170a	Unable to get message buffer for PRM.
prms.c	170b	Unable to send PRM message to SIM.
pcgh.c	1800	PCn restore - message queue failure - mark PC comm in service.
pcgh.c	1801	PCn restore - message queue failure - clear PC.
pcgh.c	1802	PCn restore - message queue failure - reset PC isolate flip-flop and mark in service.
pcgh.c	1803	PCn restore - message queue failure - read PC scanback.
pcgh.c	1804	PCn restore - message queue failure - pump PC code.
pcgh.c	1805	PCn restore - message queue failure - execute PC code.
pcgh.c	1806	`getpta()` returned failure.
pcgh.c	1807	PCn restore - invalid sequence number.
pcgh.c	1808	PCn restore - message queue failure - read PC code version.
pcgh.c	1809	MTTYC restore - PC pump failure - trying alternate pumpcode filename. ECD database may have incorrect name for MTTYC pump file (TN83/TN983).
pcgh.c	180a	pcclear failed to free copy of pump file.
pcgh.c	180b	pcclear failed to cancel pending request for copy of pump file.
pcgh.c	180c	`Asndma1()` failure.
pcgh.c	180d	pccomp cannot pump - getpta call failed.
pcgh.c	180e	pccomp cannot pump - cfread failed.
pcgh.c	180f	PCn pump abort - PC already being pumped.
pcgh.c	1810	PCn pump abort - wrong sequence number.
pcgh.c	1811	PCn restore failure - could not get UCB.
pcgh.c	1813	getpta() returned failure for MTTYC (UN583).
pcgh.c	1814	MTTYC restore - message queue failure - read UN583 pump file version.
pcgh.c	1820	PCn restore - no timing available.
pcgh.c	1821	MTTYC restore - no timing available - read UN583 pump file version.
pcgh.c	1900	PCn restore - completion code failure mark PC comm in service.
pcgh.c	1901	PCn restore - completion code failure - clear PC.
pcgh.c	1902	PCn restore - completion code failure - reset PC isolate flip-flop and mark in service.
pcgh.c	1903	PCn restore - completion code failure - read PC scan back.
pcgh.c	1904	PCn restore - completion code failure - pump PC code.
pcgh.c	1905	PCn restore - completion code failure - execute PC code.
pcgh.c	1906	PCn restore - invalid sequence no.
pcgh.c	1907	PCn restore - no timing available.
pcgh.c	1908	PCn restore - completion code failure - read PC code version.
pcgh.c	1909	PCn restore - PC not plugged in.
pcgh.c	190a	MTTYC restore - completion code failure - read UN583 pump file version.
pcgh.c	1930	PCn restore - unrecognized response - mark PC comm in service.
pcgh.c	1931	PCn restore - unrecognized response - clear PC.
pcgh.c	1932	PCn restore - unrecognized response - reset PC isolate flip-flop and mark in service.
pcgh.c	1933	PCn restore - unrecognized response - read PC scan back.
pcgh.c	1934	PCn restore - unrecognized response - pump PC code.
pcgh.c	1935	PCn restore - unrecognized response - execute PC code.
pcgh.c	1938	PCn restore - unrecognized response - read PC code version.
pcgh.c	1939	MTTYC restore - unrecognized response - read UN583 pump file version.
pcgh.c	1a00	PCn restore - timed out - mark PC comm in service.
pcgh.c	1a01	PCn restore - timed out - clear PC.
pcgh.c	1a02	PCn restore - timed out - reset PC isolate flip-flop and mark in service.
pcgh.c	1a03	PCn restore - timed out - read PC scanback.
pcgh.c	1a04	PCn restore - timed out - pump PC code.
pcgh.c	1a05	PCn restore - timed out - read PC code version.
pcgh.c	1a06	PCn restore - timed out - execute PC code.
updflsh.c	1a0b	PCn flash programming - prgflsh1() message queue failure -

		mark PC community in-service.
updflsh.c	1a0c	PCn flash programming - prgflsh1() message queue failure - clear PC.
updflsh.c	1a0d	PCn flash programming - prgflsh1() message queue failure - reset PC isolate flip-flop and mark in-service.
updflsh.c	1a0e	PCn flash programming - prgflsh1() message queue failure - read PC scan back.
updflsh.c	1a0f	PCn flash programming - prgflsh1() failed to get page table address.
updflsh.c	1a10	PCn flash programming - prgflsh190 message queue failure - read PC code version.
updflsh.c	1a11	PCn flash programming - prgflsh1() message queue failure - execute PC code.
updflsh.c	1a12	PCn flash programming - prgflsh190 message queue failure - clear PC.
updflsh.c	1a13	PCn flash programming - prgflsh1() failed to get message buffer.
updflsh.c	1a14	PCn flash programming - prgflsh1() - invalid sequence number.
updflsh.c	1a20	PCn flash programming - prgflsh1() - no timing available for mark PC community in-service.
updflsh.c	1a21	PCn flash programming - prgflsh1() - no timing available for clear PC.
updflsh.c	1a22	PCn flash programming - prgflsh1() - no timing available for reset PC isolate flip-flop and mark in-service.
updflsh.c	1a23	PCn flash programming - prgflsh1() - no timing available for read PC scan back.
updflsh.c	1a24	PCn flash programming - prgflsh1() - no timing available for read PC code version.
updflsh.c	1a25	PCn flash programming - prgflsh1() - no timing available for execute PC code.
updflsh.c	1a26	PCn flash programming - prgflsh1() - no timing available for clear PC.
pcgh.c	1aff	PCn restore - timed out - PC restoration no longer in progress.
iowque.c	1b00	Push queue - message queue full.
em_iowque.c	1b01	Push queue - push queue failure.
em_iowque.c	1b02	Push queue - failure to queue request due to invalid request, queue corruption, or resource problem.
em_iowque.c	1b03	Push queue - failure to queue request for unknown reason.
updflsh.c	1b0a	PCn flash programming - pcclear2() failed to free use of pumpcode/flash file.
updflsh.c	1b0b	PCn flash programming - pcclear2() failed to cancel request for pumpcode/flash file.
updflsh.c	1b0c	PCn flash programming - pccomp2() failed to assign DMA slot.
updflsh.c	1b0d	PCn flash programming - pccomp2() message queue failure - PC pump (no erase of flash file).
updflsh.c	1b0e	PCn flash programming - ppcomp2() message queue failure - PC pump (erase of flash file).
updflsh.c	1b0f	PCn flash programming - ppcomp2() message queue failure - PC pump (administration flash file).
updflsh.c	1b10	PCn flash programming - ppcomp2() failed to get page table address.
updflsh.c	1b11	PCn flash programming - ppcomp2() failed to read flash file.
updflsh.c	1b12	PCn flash programming - ppcomp2() abort PC pump - PC already being pumped.
updflsh.c	1b13	PCn flash programming - ppcomp2() abort PC pump - wrong sequence number.
updflsh.c	1b14	PCn flash programming - ppcomp2() could not get PC UCB.
updflsh.c	1b15	PCn flash programming - ppcomp2() failed to cancel request for pumpcode/flash file.
updflsh.c	1b16	PCn flash programming - ppcomp2() failed to read flash file.
updflsh.c	1b17	PCn flash programming - ppcomp2() failed to read all of the flash files.
updflsh.c	1b18	PCn flash programming - ppcomp2() retrieved flash file with

		incorrect file size.
updflsh.c	1b19	PCn flash programming - get_flsh_files() - invalid flash file index.
updflsh.c	1b20	PCn flash programming - ppcomp2() - no timing available for PC pump (no erase of flash file).
updflsh.c	1b21	PCn flash programming - ppcomp2() - no timing available for PC pump (erase of flash file).
updflsh.c	1b22	PCn flash programming - ppcomp2() - no timing available for PC pump (administration flash file).
rstcont.c	1c01	Cannot convert iorid to ucblp.
rstcont.c	1c02	Cannot convert iorid to ucblp.
updflsh.c	1c0a	PCn flash programming - prgflsh2() completion code failure - mark PC community in-service.
updflsh.c	1c0b	PCn flash programming - prgflsh2() completion code failure - clear PC.
updflsh.c	1c0c	PCn flash programming - prgflsh2() completion code failure - reset PC isolate flip-flop and mark in-service.
updflsh.c	1c0d	PCn flash programming - prgflsh2() - PC not plugged in.
updflsh.c	1c0e	PCn flash programming - prgflsh2() completion code failure - read scan back.
updflsh.c	1c0f	PCn flash programming - prgflsh2() completion code failure - pump PC code.
updflsh.c	1c10	PCn flash programming - prgflsh2() completion code failure - read PC code version.
updflsh.c	1c11	PCn flash programming - prgflsh2() completion code failure - execute PC code.
updflsh.c	1c12	PCn flash programming - prgflsh2() completion code failure - pump PC code.
updflsh.c	1c13	PCn flash programming - prgflsh2() completion code failure - clear PC.
updflsh.c	1c14	PCn flash programming - prgflsh2() invalid sequence number.
updflsh.c	1c15	PCn flash programming - prgflsh2() failed to get a message buffer.
updflsh.c	1c20	PCn flash programming - prgflsh2() - no timing available for clear PC.
updflsh.c	1c21	PCn flash programming - prgflsh2() - no timing available for clear PC.
updflsh.c	1c30	PCn flash programming - prgflsh2() unrecognized response - mark PC community in-service.
updflsh.c	1c31	PCn flash programming - prgflsh2() unrecognized response - clear PC.
updflsh.c	1c32	PCn flash programming - prgflsh2() unrecognized response - reset PC isolate flip-flop and mark in-service.
updflsh.c	1c33	PCn flash programming - prgflsh2() unrecognized response - read PC scan back.
updflsh.c	1c34	PCn flash programming - prgflsh2() unrecognized response - pump PC code.
updflsh.c	1c35	PCn flash programming - prgflsh2() unrecognized response - read PC code version.
updflsh.c	1c36	PCn flash programming - prgflsh2() unrecognized response - execute PC code.
updflsh.c	1c37	PCn flash programming - prgflsh2() unrecognized response - pump PC code.
updflsh.c	1c38	PCn flash programming - prgflsh2() unrecognized response - clear PC.
rstcont.c	1d00	Cannot complete common IODRV mem initialization.
rstcont.c	1d01	Unable to convert IOP RID to UCB.
rstcont.c	1d02	Unable to release data base record.
rstcont.c	1d03	Unable to obtain list of PCs.
rstcont.c	1d04	Unable to convert PC RID to UCB.
rstcont.c	1d05	Unable to release database record.
rstcont.c	1d06	Unable to obtain list of PCSDs.
rstcont.c	1d07	Unable to convert PCSD RID to UCB.

rstcont.c	1d08	Unable to release database record.
rstcont.c	1d09	Unable to obtain list of PCSDs.
rstcont.c	1d0a	Unable to convert PCSD RID to UCB.
rstcont.c	1d0b	Unable to release database record.
rstcont.c	1d0c	Bad device level.
rstcont.c	1d20	`setboot()` got FAIL from `downucb()`.
rstcont.c	1d21	`setboot()` got FAIL from `relrec()`.
rstcont.c	1d22	`setboot()` cannot convert RID to UCB.
servr1.c	1d60	Unknown unit level.
servr1.c	1d61	No words to zero.
iowque.c	1e00	Send pio - cannot read BIC status.
iowque.c	1e01	Send pio - failed to read BIC status.
iowque.c	1e02	Send pio - BIC status error or message flag stuck.
iowque.c	1e03	Send pio - failed to send programmed I/O instr.
outmsg.c	1f00	Cannot convert iorid to ucblp.
iotime.c	2000	Cannot convert iorid to ucblp.
rstcont.c	2100	Cannot convert iorid to ucblp.
rstcont.c	2101	`lkhand1()` returned fail.
rstcont.c	2200	downucbs function returned fail.
rstcont.c	2300	Bad handler ID.
rstcont.c	2301	`restsd()` cannot convert RID to UCB.
iolkh.c	2400	`getucbl()` failed to get IOP UCB.
rmvcont.c	2401	downucbs function returned fail.
rmvcont.c	2402	Cannot convert a rid to a UCB record.
rmvcont.c	2403	`rqstrmv()` returned C_FAIL or unknown response.
iolkh.c	2410	getcomsupv - no free comsupvinfo structure.
servr1.c	2500	Cannot convert iorid to ucblp.
servr1.c	2501	downucbs function returned fail.
servr1.c	2502	downucbs function returned fail.
servr1.c	2503	Cannot convert iorid to ucblp.
servr1.c	2504	downucbs function returned fail.
servr1.c	2505	Cannot convert PCSD RID to UCB record.
servr1.c	2506	`haltact()` cannot convert RID to UCB.
servr1.c	2600	Cannot convert a rid to a UCB record.
servr1.c	2601	downucbs function returned fail.
servr1.c	2602	Cannot convert iorid to ucblp.
outmsg.c	2700	Cannot convert iorid to ucblp.
outmsg.c	2800	Cannot convert iorid to ucblp.
rmvcont.c	2900	downucbs function returned fail.
rmvcont.c	2901	Cannot convert iorid to ucblp.
rmvcont.c	2a00	downucbs function returned fail.
rmvcont.c	2a01	Unable to convert PC RID to UCB.
rmvcont.c	2b00	Cannot convert iorid to ucblp.
rmvcont.c	2b01	`rmv half()` encountered invalid unit level.
rmvcont.c	2c00	Cannot convert iorid to ucblp.
crmvcont.c	2c03	Cannot convert iorid to ucblp.
crmvcont.c	2c04	`downucbs()` function returned FAIL.
crmvcont.c	2c05	Cannot convert iorid to ucblp.
crmvcont.c	2c06	`downucbs()` function returned FAIL.
crmvcont.c	2c07	Cannot convert iorid to ucblp.
crmvcont.c	2c08	Cannot convert iorid to ucblp.
crmvcont.c	2c09	Cannot convert iorid to ucblp.
crmvcont.c	2c0a	Cannot convert iorid to ucblp.
crmvcont.c	2c0b	`downucbs()` function returned FAIL.
crmvcont.c	2c0c	Cannot convert iorid to ucblp.
crmvcont.c	2c0d	`downucbs()` function returned FAIL.
crmvcont.c	2c0e	Cannot convert iorid to ucblp.
crmvcont.c	2c0f	`downucbs()` function returned FAIL.
crmvcont.c	2c10	Cannot convert iorid to ucblp.
crmvcont.c	2c11	PCn remove - no timing available.
crmvcont.c	2c12	Cannot get PC UCB.
crmvcont.c	2c13	Cannot get PIC UCB.
crmvcont.c	2c14	Cannot get PC UCB.
crmvcont.c	2c15	Function `deltrg1()` returned FAIL.
outmsg.c	2c20	Conditional remove - cannot get timing.
outmsg.c	2c21	Conditional remove - cannot get timing.
rmvcont.c	2c30	Function `downucbs()` returned FAIL.
rmvcont.c	2c31	Function `rqstrmv()` returned C_FAIL or unknown response.
rmvcont.c	2c32	Function `get llarec()` returned FAIL from UCB access.
outmsg.c	2d00	Cannot convert iorid to ucblp.
rstcont.c	2e00	Memory initialization failure.

rstcont.c	2e01	Cannot convert iorid to ucblp.
rstcont.c	2e02	`getucbl()` failed to get IOP UCB.
rstcont.c	2f00	downucbs function returned fail.
fault.c	3000	FLT_SCRIT fltcode unexpected.
fault.c	3001	FLT_SINIT fault.
fault.c	3002	Software fault. Format of additional string information is defined as: `FLTC X'a PA X'b,` `a` = Reference APP:IOP-E for fault code. `b` = Program address.
fault.c	3003	FLT_SOFTSW fltcode unexpected.
fault.c	3004	Strange fault code.
fault.c	3005	IODRV owns an old non-queued audit error message.
fault.c	3006	Illegal OST.
outmsg.c	3101	Unable to convert unit RID to UCB.
wkspc.c	3110	Unable to convert unit RID to UCB.
wkspc.c	3120	`bgrowucmp()` got FAIL from `isfree()`.
wkspc.c	3121	`bgrowucm()` got FAIL from `isfree()`.
wkspc.c	3122	`dyngrowump()` got FAIL from `isfree()`.
wkspc.c	3123	Failed to release UCB reword.
wkspc.c	3124	Cannot get size requirement for PCSD boot growth.
wkspc.c	3125	Cannot get size requirement for PC boot growth.
wkspc.c	3126	Cannot update incore UCB for boot growth failure.
wkspc.c	3127	Cannot update incore UCB for delayed growth failure.
wkspc.c	3130	Cannot update incore UCB for growth failure.
ioimf.c	3160	Unable to obtain a message buffer while attempting to add a segment.
ioimf.c	3161	Unable to activate a timer while attempting to add a segment.
ioimf.c	3162	Unable to obtain a message buffer while attempting to grow a segment.
ioimf.c	3163	Unable to activate a timer while attempting to grow a segment.
ioimf.c	3164	Unable to obtain a message buffer while attempting to remove a segment.
ioimf.c	3165	Invalid message type.
ioimf.c	3166	Unable to queue the message.
ioimf.c	3170	Add message acknowledgement received but no timer was set.
ioimf.c	3171	Grow message acknowledgement received but no timer was set.
ioimf.c	3172	Invalid message type.
ioimf.c	3173	Pointer contained in ms_ident is not in I/O driver's address space.
iointr.c	3174	Pointer contained in ms_ident is not in I/O driver's address space.
ioimf.c	3180	Either a message was lost or an attempt failed, causing a retry to have to be made.
ioimf.c	3181	Unable to activate the settle-down timer.
ioimf.c	3182	The retry counter has been exceeded.
ioimf.c	3190	Invalid message type.
ioimf.c	3191	Unable to set initialization timer in imfinit.
ioimf.c	3192	ioimftout cannot find MCT.
wkspc.c	31c0	Bad unit level.
wkspc.c	31c1	Cannot get size requirement for PC growth.
wkspc.c	31c2	Cannot get size requirement for PCSD growth.
wkspc.c	31e0	Unable to attach to interrupts for IOPn.
wkspc.c	31e1	Unable to get page table address for IOPn.
wkspc.c	31e2	Unable to initialize DMAC RAM for IOPn.
wkspc.c	31e3	Unable to obtain IOPn option block.
wkspc.c	31e4	Failed to attach to interrupt - IOP not restored.
fault1.c	3200	DMA restart - cannot abort job.
fault1.c	3201	Failed to enable interrupts for IOPn.
fault1.c	3202	Failed to initialize DMAC ram.
fault1.c	3203	DMA restart - cannot clear BIC.
fault1.c	3204	DMA restart - cannot set interface enable.

fault1.c	3300	Cannot convert iorid to ucblp.
fault1.c	3401	Reboot IOP - pio lost.
fault.c	3500	Cannot convert iorid to ucblp.
fault.c	3501	pio has been lost for a unit.
fault.c	3503	IODRV took message buffer audit fault.
fault.c	3600	Cannot convert iorid to ucblp.
fault.c	3601	PICn or PCn implicated.
fault.c	3602	PICn implicated.
fault.c	3603	PICn affected but not implicated.
fault.c	3604	High error count, but must limp along.
fault.c	3605	Fault message ignored.
fault.c	3606	High error count, remove.
fault.c	3607	PICn affected but not implicated.
fault.c	3608	High error count, but must limp along.
fault.c	3609	Too many faults.
fault.c	360a	No timer entry for short limp mode delay.
fault.c	360b	No timer entry for long limp mode delay.
fault.c	360c	Function `rptierr()` returned C_FAIL or unknown response.
fault.c	360d	Message buffer audit fault.
fault1.c	3703	NADRD, NPICP, or NDREP fault code - unit not identified.
iolla.c	3801	Unable to get UCB record (IORID call Phase I).
iolla.c	3802	Unable to get MDCT record (IORID call Phase II).
iolla.c	3803	Invalid input option (not CVTRID or CVTLDIN).
iolla.c	3806	MDCT rid not available.
iolla.c	3807	Cannot convert a rid to a MDCT record.
iolla.c	3808	MDCT does not contain at least one UCB rid.
iolla.c	3900	`getsucb1()` cannot get UCB.
iolla.c	3901	Bad RID passed as argument to `getsucb1()`.
iolla.c	3902	Invalid record ID.
iolla.c	3904	Failed to get ucbl record.
iolla.c	3b02	Cannot convert rid to a MDCT record.
iolla.c	3c02	Cannot release a record.
pcaudit.c	3e00	downucbs function returned fail.
pcaudit.c	3e01	Cannot convert iorid to ucblp.
pcaudit.c	3e03	pushq1 function returned fail.
pcaudit.c	3e05	PCn audit failure - restart PCn.
iolla.c	3f00	Invalid record ID.
iolla.c	3f01	Unable to convert RID to a specified record.
inhadm.c	4600	Arguments in inhibit admin message unknown.

1.2 MT HANDLER

Function	Code	Comment
mterrhand.c	4000	MT is in an improper state for restore/restart.
mterrhand.c	4001	Invalid type of restore/restart.
mterrhand.c	4002	Failed to restore; scratch area is not allocated.
mterrhand.c	4004	Cannot delete a DMA slot while processing a restoration.
mterrhand.c	4005	Cannot get PC UCB during PC restoration.
mterrhand.c	4006	No scratch area - restoration failed.
mterrhand.c	4007	Bad major state for restoration of device.
mterrhand.c	4008	Bad restore type.
mterrhand.c	4009	Cannot get recovery timer.
mterrhand.c	4100	Cannot delete DMA slot while completing manual remove.
mterrhand.c	4200	Cannot delete remove timer while processing half remove.
mterrhand.c	4201	Cannot get remove timer.
mterrhand.c	4202	Cannot delete DMA slot while processing half remove.
mterrhand.c	4203	Bad remove type.
mterrhand.c	4300	Cannot delete remove timer from `mtrmvdly()`.
pmsgmt3.c	4302	Improper message type.
pmsgmt3.c	4400	Failure due to MT not open.
pmsgmt3.c	4401	MT already open; not allowed to open to second user.
pmsgmt3.c	4402	Mode must be read or write.
pmsgmt3.c	4500	Record size is > 2048 bytes.
pmsgmt3.c	4501	Buffer must start on a word boundary in read mode.
pmsgmt3.c	4502	Offset into buffer must be on a word boundary in read mode.
pmsgmt3.c	4503	Writes must be sequential.
mtproc.c	4600	DMA assignment failure.
mtproc.c	4601	PC Q area is full.
mtproc.c	4602	Pushq failure.
mtproc.c	4603	Record size > 2048 (because of alignment).

pmsgmt3.c	4700	Attempt to open a device which is not closed.
pmsgmt3.c	4701	Attempt to read a device not open for reading.
pmsgmt3.c	4702	Attempt to write a device not open for writing.
pmsgmt3.c	4703	Bad message type detected by `pmsgmt3()`.
pmsgmt3.c	4704	Major state unit or handler state not suitable for accepting work.
mtproc.c	4800	Bad mode for opening a tape device.
mtproc.c	4801	Bad parameters for a read request.
mtproc.c	4802	Bad parameters for a write request.
mtproc.c	4803	Attempt to do non-sequential write.
mtproc.c	4804	Inconsistent internal state for closing a tape device.
mtproc.c	4805	Bad message type detected by `mtgetwk()`.
mtproc.c	4900	`pushq1()` returned fail when sending an open message.
mtproc.c	4901	`pushq1()` returned fail when sending a read/write message.
mtproc.c	4902	`pushq1()` returned fail when sending a close message.
mtproc.c	4903	`pushq1()` returned fail when sending a "seek" message.
mtproc.c	4904	`pushq1()` returned fail when sending a rewind message.
mtproc.c	4905	PC queue counter was not zero during open.
mtproc.c	4906	Cannot send rewind message, PC queue full.
mtproc.c	4907	Cannot send close message, PC queue full.
mtproc.c	4908	Bad opcode in current job structure.
mtproc.c	4909	Failed to assign DMA slot.
mtproc.c	490a	Hit EOF when trying to SEEK.
mtproc.c	490b	Detected fatal error when trying to SEEK.
mtproc.c	490c	Detected other errors when trying to SEEK.
prspmt3.c	4a00	Failed to delete DMA slot when current job completed.
prspmt3.c	4a01	Failed to delete DMA slot when received unexpected response.
prspmt3.c	4a02	Failed to delete DMA slot when received response for non active unit.
prspmt3.c	4a03	opcode in response does not match what was sent.
prspmt3.c	4a04	Obsolete response received and ignored.
prspmt3.c	4b00	Cannot delete DMA slot when handling an error in response.
prspmt3.c	4b01	Job rejected illegal message.
prspmt3.c	4b02	Job rejected illegal message sequence.
prspmt3.c	4b03	Job aborted nonrecoverable errors, such as, bad spot on tape.
prspmt3.c	4b04	Generic part of response invalid.
prspmt3.c	4b05	Tape unit write protected.
prspmt3.c	4b06	End of physical tape.
prspmt3.c	4b07	Subdevice off-line.
prspmt3.c	4b08	Time out error - PC did not hear from tape unit in time.
prspmt3.c	4b09	Reached end of file during read.
prspmt3.c	4b0a	User part of response has unidentified error.
prspmt3.c	4b0b	Generic part of response has unidentified error.
prspmt3.c	4b0c	Unknown handler state when handling response.
prspmt3.c	4b0d	Cannot get error handling dead man timer.
prspmt3.c	4b0e	Cannot delete DMA slot from `procerrs()`.
prspmt3.c	4b0f	Cannot delete DMA slot from `mterrto()`.
prspmt3.c	4b10	PC timed out returning all pending responses following an error.
prspmt3.c	5000	Response opcode error.
prspmt3.c	5001	Response comp code default.
prspmt3.c	5102	Block contained more bytes than the number of bytes requested by read; the excess bytes are lost.
prspmt3.c	5200	EOF reached during read or "seek".
prspmt3.c	5201	Tape unit write protected.
prspmt3.c	5202	End of physical tape.
prspmt3.c	5203	Subdevice off-line.
prspmt3.c	5204	PC time-out error.
prspmt3.c	5300	Job aborted non-recover errors.
prspmt3.c	5301	Job rejected illegal message.
prspmt3.c	5302	Job rejected illegal message context.
prspmt3.c	5304	MT was not active when PC response was received.

1.3 TTY HANDLER

Function	Code	Comment
prspmt3.c	5400	Retried four times with no success; return with failure.
pmsgci3.c	6000	No active subdevice for supervisor.
pmsgci3.c	6001	Unexpected acknowledge message received. Format of additional string information is defined as:

		a a = Channel flags (hex).
pmsgci3.c	6002	Process manager cannot create /prc/unix. Format of additional string information is defined as: a b a = Message status (hex). b = Channel ID (hex).
pmsgci3.c	6003	Unknown process ID for pcreate message.
pmsgci3.c	6004	Unknown message type. Format of additional string information is defined as: a b a = Message type (hex). b = ms_from field of message (hex).
pmsgci3.c	6005	Unable to get ciopt record.
pmsgci3.c	6006	Unable to get active UCB switchable device.
pmsgci3.c	6007	Non-switchable device not in proper state for close. Format of additional string information is defined as: a a = State of non-switchable device (hex).
pmsgci3.c	6008	Could not find active switchable device for cancel.
pmsgci3.c	6009	Non-switchable device not in proper state for cancel. Format of additional string information is defined as: a a = State of non-switchable device (hex).
prmvci3.c	6010	Error on subdevice conditional remove.
prmvci3.c	6011	Unable to initiate remove timing.
prmvci3.c	6012	Unknown remove type. Format of additional string information is defined as: [a] a = Remove request type (hex).
prmvci3.c	6013	Unable to retrieve MDCT for remove switchable unit.
prmvci3.c	6015	prmvci3 - alocmsg failed in cihandqs.
prmvci3.c	6016	prmvci3 - could not get a timer for cifoswitch.
prspci3.c	6020	PC message not in maintenance queue.
prspci3.c	6021	Unknown opcode in PC response. Format of additional string information is defined as: a b a = Response word 1 (hex).

		b = Response word 2 (hex).
prspci3.c	6022	Unknown PC asynchronous report type. Format of additional string information is defined as: a b a = Response word 1 (hex). b = Response word 2 (hex).
prspci3.c	6023	Connection report for unit not in standby state. Format of additional string information is defined as: a a = Unit state (hex).
prspci3.c	6024	Unrecognized async error report type.
prspci3.c	6025	Unable to get header update timing index.
prspci3.c	6026	Unrecognized async read priority. Format of additional string information is defined as: a a = Priority value number (hex).
prspci3.c	6027	Failed to get connection wait timer. Format of additional string information is defined as: a b a = Portswitch status (hex). b = Number of portswitch failures (hex).
prspci3.c	6028	Device switched to OOS unit (HIT).
prspci3.c	6029	Device not switched; could not get a mate on disconnect. Format of additional string information is defined as: a b a = Portswitch status (hex). b = Number of portswitch failures (hex).
prspci3.c	602a	Could not get a mate; device restored. Format of additional string information is defined as: a b a = Portswitch status (hex). b = Number of portswitch failures (hex).
prspci3.c	602b	Controller reported excessive BREAKs on subdevice. Format of additional string information is defined as: a b

		a = Response word 1 (hex). b = Response word 2 (hex). 1 If b = 31000000 then high priority input. If b = 32000000 then base (low) priority input.
ptrpci3.c	6030	Unknown ost code. Format of additional string information is defined as: a a = OST type (hex).
prstci3.c	603a	Restore failure during restart.
prstci3.c	603b	Invalid restore type.
prstci3.c	603c	Unable to get logical date pointer.
prstci3.c	603d	Unable to retrieve ttopts or ciopts.
prstci3.c	603e	Unable to retrieve mdct.
prstci3.c	603f	prstci3 - alocmsg failed in cihandqs().
ciexec.c	6040	Unknown maintenance opcode. Format of additional string information is defined as: a b a = Maintenance message opcode (hex). b = Option record pointer (hex).
ciexec.c	6041	Unable to find page table address.
ciexec.c	6042	Could not get a timer to reschedule I/O during port switch.
ciexec.c	6043	Could not get a timer to still hold I/O.
ciexec.c	6044	No active device to process held I/O.
ciexec.c	6045	Failed to get mate; no active device to process held I/O.
ciexec.c	6046	Could not get scratch area for any device held I/O.
ciexec.c	6048	Unable to add maintenance queue. Format of additional string information is defined as: a b [b] [b] [b] [b] a = Command to be added. b = Commands on the maintenance queue (up to 5 of these).
ciexec.c	6050	Fail to push PC message queue. Format of additional string information is defined as: a b c a = Command word 1 (hex). b = Command word 2 (hex). c = Message pointer (hex).
ciexec.c	6051	Unrecognized PC message code. Format of additional string information is defined as: a a = PC opcode.

cipcreat.c	6060	Unable to be created by non-active subdevice.
cipcreat.c	6061	Number of pcreate attempts >THRESHOLD.
cisupv.c	6062	Index bad when pcreate timer fires. Format of additional string information is defined as: `a` `a` = Channel ID (hex).
cisupv.c	6063	Unable to allocate message buffer. Format of additional string information is defined as: `a` `a` = Channel ID (hex).
cisupv.c	6064	Fail to queuem supervisor pcreate message. Format of additional string information is defined as: `a` `a` = Channel ID (hex).
cipcreat.c	6070	Unable to send signal in high priority.
cipcreat.c	6071	Unable to send signal for unclear priority.
ciswitch.c	6080	Switching attempts >THRESHOLD. Format of additional string information is defined as: `a` `a` = Number of portswitch failures (hex).
ciswitch.c	6081	timreq1 failure on port switch DTR timing. Format of additional string information is defined as: `a b` `a` = Portswitch status (hex). `b` = Number of portswitch failures (hex).
ciswitch.c	6082	timreq1 failure on port switch DTR on timing. Format of additional string information is defined as: `a b` `a` = Portswitch status (hex). `b` = Number of portswitch failures (hex).
ciswitch.c	6083	No standby mate device for port switch.
ciswitch.c	6084	Forced switch attempts >THRESHOLD. Format of additional string information is defined as: `a` `a` = Number of portswitch failures (hex).
ciswitch.c	6085	`timreq1()` failure on forced port switch. Format of additional string information is defined as:

		a b a = Portswitch status (hex). b = Number of portswitch failures (hex).
ciswitch.c	6086	Could not get UCB for forced switch cifoswitch.
ciswitch.c	6087	Device in wrong state to switch.
ciswitch.c	6088	Device in wrong state and so is mate to do forced switch. Format of additional string information defined as: a b a = Portswitch status (hex). b = Number of portswitch failures (hex).
ciswitch.c	6089	Could not get a timer to wait for connection forced switch. Format of additional string information is defined as: a b a = Portswitch status (hex). b = Number of portswitch failures (hex).
ciswitch.c	608a	Could not get UCB ciswfon.
ciswitch.c	608b	Could not switch; device not in good state. Format of additional string information is defined as: a b a = Portswitch status (hex). b = Number of portswitch failures (hex).
ciswitch.c	608c	Switch delay timer fired; other device not in a good state to switch.
ciswitch.c	608d	Portswitch fail print turned off. Format of additional string information is defined as: SWITCH FAIL PRINT OFF
prstci3.c	60a0	Restore-timer fired. Format of additional string information is defined as: a b c a = Command word 1 (hex). b = Command word 2 (hex). c = Command opcode (hex).
prmvci3.c	60b0	Cannot ci_opt record.
prmvci3.c	60b1	Cannot get MDCT record.
prmvci3.c	60b2	Invalid type of flshsrch.
prmvci3.c	60b8	Old Message should not be around. Format of additional string information is defined as: X'a X'b

		a = Message pointer. b = Message type.
prmvci3.c	60b9	Found write message on audit. Format of additional string information is defined as: X'a X'b a = Message pointer. b = ms_from field of message (hex).
prmvci3.c	60ba	Message for audit not found. Format of additional string information is defined as: X'a X'b a = Message pointer. b = IO segment ID.
prmvci3.c	60bb	Unknown message typed owned. Format of additional string information is defined as: X'a X'b a = Message pointer. b = Message type.
prmvci3.c	60bc	Message audit for read message. Format of additional string information is defined as: X'a X'b a = Message pointer. b = ms_from field of message (hex).
cisupv.c	60c0	Process manager fails to respond to pcreate message. Format of additional string information is defined as: a b c a = Device status (hex). b = Channel ID (hex). c = Channel ID flags (hex).
cisupv.c	60c1	Unable to get ucbrec by get_llarec call.
ciexec.c	60d0	CI logical pointer NULL.
ciexec.c	60d1	Could not get any device scratch area for switchable device.
ciexec.c	60d2	CI scratch pointer NULL.
ciqueue.c	60e0	Put queue type error. Format of additional string information is defined as: a

		`a` = CIH queue type (decimal).
ciqueue.c	60e1	Get queue type error. Format of additional string information is defined as: `a` `a` = CIH queue type (decimal).
ciqueue.c	60e2	Delete queue type error. Format of additional string information is defined as: `a` `a` = CIH queue type (decimal).
ciqueue.c	60e3	Dump queue type error. Format of additional string information is defined as: `a` `a` = Channel flags (hex).
ciqueue.c	60e4	Unknown qtype type - ciniphy. Format of additional string information is defined as: `a` `a` = CIH queue type (hex).
ciqueue.c	60e5	Queue type error - cisrch. Format of additional string information is defined as: `a` `a` = CIH queue type (decimal).
ciqueue.c	60e6	Queue type error - cisrchp. Format of additional string information is defined as: `a` `a` = CIH queue type (decimal).
ciqueue.c	60e7	Queue type error - ciinitq. Format of additional string information is defined as: `a` `a` = CIH queue type (decimal).
ciqueue.c	60e8	Queue damaged - cigetq. Format of additional string information is defined as: `CIH QUEUE DAMAGED a` `a` = CIH queue type (decimal).
prstci3.c	6201	Invalid type of restart/restore.
prstci3.c	6202	`pushq1()` returned a failure.
tycfrmt.c	6301	getopt failure.

tycfrmt.c	6302	get_llarec (ttopt_rec) failure.
tyrdwrt.c	6401	getopt failure.
tyrdwrt.c	6402	Read job failed after failures to access DMA slot.
tyrdwrt.c	6403	Write job failed after failures to access DMA slot.
prmvci3.c	6901	pushq1 returned failure.
ptrpci3.c	6a01	LDIN partition invalid for SETTY.
ptrpci3.c	6a02	LDIN partition invalid for GETTY.
ptrpci3.c	6a07	Iomap for SETTRAP OST failed.
ptrpci3.c	6a08	Iomap for GETTRAP OST failed.
ptrpci3.c	6a09	OST code unknown to handler.
ptrpaux.c	6b01	getopt failure in `tty_to_ci()`.
ptrpaux.c	6b02	get_llarec (ttopt_rec) failure in `tty_to_ci()`.
ptrpaux.c	6b03	getopt failure in `ci_to_tty()`.
ptrpaux.c	6b04	get_llarec (ttopt_rec) failure in `ci_to_tty()`.
prspci3.c	6d01	PCSD response opcode not recognized (base priority).
prspci3.c	6d02	PCSD response opcode not recognized (high priority read).
prspci3.c	6d03	PCSD response opcode not recognized (high priority write).
prspci3.c	6d04	PCSD message-destination field not recognized.
prspci3.c	6d05	DMA slot removal failed after 'transmit long' PCSD.
prspci3.c	6d06	DMA slot removal failed after 'set options' PCSD.
prspci3.c	6d07	DMA slot removal failed after high priority 'transmit long' PCSD.
prspci3.c	6d08	DMA slot removal failed after 'rcv long' response (base priority).
prspci3.c	6d09	DMA slot removal failed after 'rcv long' response (high priority).
tyrwrite.c	6e01	Received write-response but WCQ was empty.
tyrwrite.c	6e02	Fixed field in response different from that in the message.
tyrwrite.c	6e03	Unknown response case.
tyrshrt.c	6f01	Received rcv-short response but RCQ was empty.
tyrshrt.c	6f02	Fixed field in response different from that in the message.
tyrlong.c	7001	Received rcv-long response but RCQ was empty.
tyrlong.c	7002	DMA slot removal failed after rcv-long response.
tyrlong.c	7003	Read response received but RCQ was empty.
tyrlong.c	7005	Read response received but RCQ was empty.
tyrlong.c	7007	Read response received but RCQ was empty.
tysdrst.c	7101	SD_REST response received, but no message sent.
tysdrst.c	7102	User-completion-code error (boot restore).
tyrasync.c	7201	Connection reported but TTY not restored.
tyrasync.c	7202	Async report not recognized.
tyrasync.c	7203	Warning: connection reported, but supervisor still up.
tyrasync.c	7204	getmdct failure.
tyrasync.c	7205	getopt failure.
tyrasync.c	7206	get_llarec (ttopt_rec) failure.
tyrasync.c	7207	get-llarec (cdopt_rec) failure.
tymsack.c	7301	No MSACK message is expected.
tymsack.c	7302	max number of P_CREAT attempts.
tymsack.c	7303	pushq1 failure.
tyswitch.c	7401	Wrong index passed to time-out routine.
tyswitch.c	7402	Unable to get mdct from database.
tyswitch.c	7403	Unable to send message to PC using pushq1.
tyswitch.c	7404	Invalid combination of t_status flags.
tyswitch.c	7405	Unable to return to controlling PC after switchover failure.
tyswitch.c	7406	Both switchable subdevices are in the ACTIVE state, or unable to return to 'at rest' PC after switchover failure.
tyswitch.c	7407	Unable to handle S/D message due to earlier 7402 error.
tyswitch.c	7408	Invalid cmd_type in SW message.
tyswitch.c	7409	Invalid message sub-type in a received IORID ms_type.
tyswitch.c	740a	Unable to send message to PC using call to `pushg1()`.
tyswitch.c	740c	Unable to request timer using call to `timereq1()`.
sttyproc.c	7a04	Unable to send message to PC because PC queues are full.
tytime.c	7501	`tyrstsupv()` - wrong timeout index.
tytime.c	7502	`tyrstsupv()` - no previous failure in P_CREAT attempt.
tytime.c	7503	`tyrestto()` - no pending restoration.
tytime.c	7504	`tyrestto()` - wrong timeout index.
tytime.c	7514	`tyholdto()` - wrong timeout index.
tytime.c	7521	`tyoosto()` - wrong timeout index.
tytime.c	7522	`tyoosto()` - SD_REMOVE request timed out.
tystrtsupv.c	7601	Max number of P_CREAT attempts.
tystrtsupv.c	7602	getmdct failure.
tyrsderr.c	7701	Intercharacter timeout detected.
tyrsderr.c	7702	Acknowledgement timeout detected.
tyrsderr.c	7703	Suspend-output timeout detected.
tyrsderr.c	7704	Line printer error detected.

tyrsderr.c	7706	Async report not recognized.
tyrcntrl.c	7801	Received disconnect response but no message sent.
tyrcntrl.c	7802	TY_CNTRL response not recognized.
tycmdproc.c	7902	Error in formatting PCSD message.
tycmdproc.c	7903	pushq1 returned failure.
tycmdproc.c	7904	DMA slot removal failed after PCSD message formatting error.
tycmdproc.c	7905	DMA slot removal failed after pushq1 failure.
sttyproc.c	7a01	DMA slot assignment failed.
sttyproc.c	7a02	`pushq1()` returned failure.
sttyproc.c	7a03	`getpta()` returned failure.
tyrslnk.c	7f01	Received rcv-short-linked response, but RCQ was empty.
tyrslnk.c	7f02	Fixed field in response different from that in the message.
tyrslnk.c	7f03	DMA slot removal failed after rcv-short-linked response.

1.4 MAINT HANDLER

Function	Code	Comment
mainthan.c	8000	ucbptr is zero.
mainthan.c	8001	Unit is not in correct state for diagnosis.
mainthan.c	8002	u_stat is in undefined state.
mainthan.c	8003	ucbptr is zero.
mainthan.c	8004	ucbptr is different than what came with the iopen.
mainthan.c	8005	Failed iolock.
mainthan.c	8006	Error on asndma1 function.
mainthan.c	8007	Handler is not in DMAEXP state.
mainthan.c	8008	Error on asndma1 function.
mainthan.c	8009	Error on pushing message into queue.
mainthan.c	800a	Error on timreq1 function.
mainthan.c	800b	ucbptr is zero.
mainthan.c	800c	ucbptr is different than what came with the iopen.
mainthan.c	800d	Unrecognized message from iop driver.
mainthan.c	800e	Function `uniolock()` returned FAIL during IOCLOSE processing.
mainthan.c	800f	Function `uniolock()` returned FAIL after `asndma1()` failure.
maintfun.c	8100	Detach from interrupts must be babbling.
maintfun.c	8101	Failed to detach from interrupts.
maintfun.c	8102	Byte count returned from IOP is not correct.
iomaint.c	8103	The call to `getpta()` failed.
iomaint.c	8104	The `asndma21()` function failed to assign DMA slot number.
iomaint.c	8105	The `asndma21()` function failed to assign DMA slot number.
iomaint.c	8106	The call to `getpta()` failed.
iomaint.c	8107	The `sdc32b()` function call failed.
iomaint.c	8108	The `timreq()` function call failed.
iomaint.c	8109	The `cfread()` function was unsuccessful in reading the pumpcode file.
iomaint.c	810a	The `getsucbl()` function was returned null UCB pointer to the IOP.
maintfun.c	8200	Detach from interrupts must be babbling.
maintfun.c	8201	Failed to detach from interrupts.
maintfun.c	8400	Wrong index for timeout.
maintfun.c	8401	Time out function and handler in wrong state.
maintfun.c	8500	Level is not equal to 1,2,3.
iomaint.c	8600	ucbptr is zero.
iomaint.c	8601	ucbptr is different then what came with iopen.
iomaint.c	8602	Maint message in NONINT state and not PIO.
iomaint.c	8603	Maint message in NONINIT state and not remove or restore.
iomaint.c	8604	IOP driver has req DGN be aborted.
iomaint.c	8605	Maint handler is in wrong state for iomaint message.
iomaint.c	8606	Request for timreq failed for iomaint message.
iomaint.c	8607	Attach to interrupt failed.
iomaint.c	8608	Enable interrupts failed.
iomaint.c	8609	SDC timreq.
iomaint.c	860a	Not diag controller should not ask for this SDC attach.
iomaint.c	860b	Attach to interrupt failed.
iomaint.c	860c	Enable interrupts failed.
iomaint.c	860d	DIAGC is diagnosing controller should not ask for attach.
iomaint.c	860e	Detach from interrupts.
iomaint.c	860f	DIAGC diagnosing controller should not not ask for detach.
iomaint.c	8610	Error in trying to remove unit.

iomaint.c	8611	Attach to interrupt failed.
iomaint.c	8612	Enable interrupts failed.
iomaint.c	8613	u_stat is undefined state.
iomaint.c	8614	Error trying to restore unit.
iomaint.c	8615	Error on timing req DGNDMA.
iomaint.c	8616	getdmaa returned an error.
iomaint.c	8617	Received WSETUP0 before DGNDMA.
iomaint.c	8618	Received WSETUP1 before WSETUP0.
iomaint.c	8619	Received DMAEND before WSETUP1.
iomaint.c	861a	Failed uniolock.
iomaint.c	861b	getdmaa returned an error.
iomaint.c	861c	DIAGC has sent bad data in statword and operword.
iomaint.c	861d	Unable to push a message into the queue.
iomaint.c	861e	Error on time request.
iomaint.c	861f	Function `uniolock()` returned FAIL during WSETUP0 processing.
iomaint.c	8620	Function uniolock() returned FAIL.
maintfun.c	8700	Took interrupt handler in wrong state.
maintfun.c	8701	Detach failed.
maintfun.c	87f1	Cannot convert iorid to ucblp.

1.5 DUI HANDLER

Function	Code	Comment
pmsgdu3.c	9001	Unable to store a message sent by application kernel.
pmsgdu3.c	9002	pushq1 failure.
pmsgdu3.c	9003	DUI ERROR message received from application kernel.
pmsgdu3.c	9004	getpta failure.
pmsgdu3.c	9005	asndma failure for restore parameters.
pmsgdu3.c	9006	asndma failure for DUI table.
pmsgdu3.c	9007	getopt failure.
pmsgdu3.c	9010	Scratch area order entry not NULL (case D_START).
pmsgdu3.c	9011	Scratch area order entry not NULL (case D_STOP).
pmsgdu3.c	9012	Scratch area order entry not NULL (case D_RMRQAY).
prspdu3.c	9101	TN82 software error.
prspdu3.c	9102	Unrecognized asynchronous report received.
prspdu3.c	9103	deldma1 failure.
prspdu3.c	9104	asndma1 failure.
prspdu3.c	9105	Received restore message response w/Null message pointer.
prspdu3.c	9106	Received successful remove message from unknown dui message type.
prspdu3.c	9107	Remove message from D_STOP message failed.
prspdu3.c	9108	Remove message from D_RMRQAK message failed.
prspdu3.c	9109	Unsuccessful remove message response from unknown message.
prspdu3.c	910a	Received response from unconditional remove.
prspdu3.c	910b	Received unsuccessful response from remove message.
prspdu3.c	910c	Received unrecognized response from PC.
prspdu3.c	910d	Received RESTORE message response of unknown origin.
prspdu3.c	910e	Received REMOVE message response of unknown origin.
prstdu3.c	9201	timreq1 failure.
prstdu3.c	9202	IODRV sent illegal restore case.
prmvdu3.c	9301	timreq1 failure.
duchgstate.c	9400	Received illegal usr_type.
duisendmsg.c	9500	Requested message type to send to application kernel is illegal.
pinitdu3.c	9600	Invalid type of initializing.
duifuncts.c	9901	Cannot store PCSD message.

1.6 SCC AND SDL HANDLER

Function	Code	Comment
prstcp3.c	a010	Restart during growth.
prstcp3.c	a012	Failure to obtain option block, restore fails.
prstcp3.c	a014	Restore fails, device failed growth.
prstcp3.c	a015	Restore fails, device has no memory status.
prstcp3.c	a017	Restart failed, failed to obtain option block.
prstcp3.c	a019	Received a restart during growth, restart fails.
prstcp3.c	a01a	Restart failed, device has no memory status.
prstcp3.c	a01c	Restart failed, device has no memory status.

prstcp3.c	a01d	Restore type unknown.
prstcp3.c	a01e	Restart failed, device failed growth.
prstcp3.c	a026	Unable to obtain PTA and SEGID for PCSD scratch area.
prstcp3.c	a027	Unable to obtain DMA job for PCSD scratch area.
prstcp3.c	a028	Unable to obtain DMA job for common scratch area.
prstcp3.c	a030	Invalid restore type.
pinitcp3.c	a100	Unknown initialization type.
pmsgcp3.c	a212	NULL common scratch area pointer.
pmsgcp3.c	a222	Unknown open type.
ptrpcp3.c	a302	NULL common scratch area pointer.
prspcp3.c	a414	Invalid dial-out response - feature not supported.
prspcp3.c	a417	Unknown base-priority PCSD response type.
prspcp3.c	a418	Unknown high-priority PCSC response type.
prspcp3.c	a419	Invalid priority type.
prspcp3.c	a422	Unexpected restore-rsp from a restored PCSD.
prspcp3.c	a423	Unexpected restore-rsp from an OOS PCSD.
prspcp3.c	a431	Unexpected CONNECT-report.
prspcp3.c	a433	DIAL-OUT-FAILURE-report not yet supported.
prspcp3.c	a434	Invalid asynchronous report from PCSD.
prspcp3.c	a435	Failure to send RECEIVE jobs to PCSD.
prspcp3.c	a436	DISCONNECT-report not yet supported.
prspcp3.c	a442	Unable to allocate an input buffer.
prspcp3.c	a443	Unable to send a RECEIVE-message.
prspcp3.c	a445	No RECEIVE-jobs at PCSD.
prspcp3.c	a450	Failure to send RECEIVE-jobs to PCSD.
prspcp3.c	a451	Unexpected TRANSMIT-response.
prspcp3.c	a452	Error on TRANSMIT-response for XID ack packet - dial-up link.
prspcp3.c	a453	Error in TRANSMIT-job.
prspcp3.c	a461	Unexpected RECEIVE-response.
prspcp3.c	a462	Error in RECEIVE-job - private line link.
prspcp3.c	a463	Error in RECEIVE-job - dial-up link.
prspcp3.c	a470	Hardware error/link disconnect report.
prspcp3.c	a471	Unknown hardware error.
prspcp3.c	a472	Invalid BX.25 level 2 protocol line address on TRANSMIT-job.
prspcp3.c	a473	PCSD microcode has detected an operational error. Format of additional information is defined as: `a b` `a` = Word 1 of error response (hex). `b` = Word 2 of error response (hex).
prspcp3.c	a474	BX.25 level 2 N2 count exceeded; number of retransmissions exceeded.
prspcp3.c	a475	Invalid asynchronous error report.
prspcp3.c	a476	Cause of receive frame-reject not known.
prspcp3.c	a477	Cause of transmit frame-reject not known.
prspcp3.c	a478	Aggregate one-count error type not known.
prspcp3.c	a479	Receive-frame reject.
prspcp3.c	a47a	Frame-reject probable line address conflict.
prspcp3.c	a47b	Transmit-frame reject.
prspcp3.c	a47c	This error type reported by DDCMP version.
prspcp3.c	a47d	Error in RESTORE-data - private line link.
prspcp3.c	a481	Unable to obtain timer entry for Dial-Up DT2.
prspcp3.c	a482	Unable to obtain PCSD option block from ECD - dial-up link.
prspcp3.c	a483	Unable to send RECEIVE-message for XID packet.
prspcp3.c	a484	Failure to send RECEIVE-jobs to PCSD.
prspcp3.c	a492	Unable to obtain PCSD option block from ECD - dial-up link.
prspcp3.c	a493	Unable to send TRANSMIT-message for XID acknowledgement packet.
prspcp3.c	a4a1	Unable to obtain timer entry for dial-up DT2.
prspcp3.c	a4b1	Unable to obtain timer entry for dial-up DT3.
prspcp3.c	a4d1	Unable to initialize plants measurement database.
prspcp3.c	a4d2	Unable to create PCSD record in PM database.
prspcp3.c	a4d3	Unable to read PCSD record in PM database.
prspcp3.c	a4d4	Unable to update PCSD record in PM database.
pdmod.c	a505	Unable to push PCSD message.
prmvcp3.c	a507	The go-out-of-service (GOOS) timer is active when a remove

		request is made. Format of additional information is defined as: a b a = Word of pdstat (hex). b = Short word of GOOS timer index (hex).
prmvcp3.c	a508	The GOOS timer is invalid.
ldmod.c	a611	Fatal error reported on the PCSD.
ldmod.c	a612	Reported PCSD error not recognized.
ldmod.c	a614	Multiple-active-link config not supported.
ldmod.c	a616	Invalid link configuration.
ldmod.c	a636	Invalid link configuration.
ldmod.c	a637	Multiple-active-link config not supported.
ldmod.c	a644	Multiple-active-link config not supported.
ldmod.c	a646	Invalid link configuration.
ldmod.c	a654	Multiple-active-link config not supported.
ldmod.c	a655	Invalid link configuration.
ldmod.c	a663	Multiple-active-link config not supported.
ldmod.c	a664	Invalid link configuration.
ldmod.c	a665	No ucblp available - simplex config.
ldmod.c	a666	No ucblp available - duplex config.
ldmod.c	a669	Failure to obtain ucblp.
ldmod.c	a66a	Failure to obtain second ucblp.
ldmod.c	a66b	No PCSD is active.
ldmod.c	a66c	Number of PCSDs is greater than 2.
ldmod.c	a66d	Second RID equal to NULL and not PCSD is active.
ldmod.c	a673	Multiple-active-link config not supported.
ldmod.c	a674	Invalid link configuration.
ldmod.c	a675	Reporting PCSD not the active unit.
ldmod.c	a681	Invalid remove-type.
ldmod.c	a684	Multiple-active-link config not supported.
ldmod.c	a685	Invalid link configuration.
ldmod.c	a691	NULL ucblp for simplex config.
ldmod.c	a692	Multiple-active-link config not supported.
ldmod.c	a693	No active device for duplex config.
ldmod.c	a694	NULL ucblp for duplex config.
ldmod.c	a699	Invalid link configuration.
ldmod.c	a6a0	Restore-failure in an OOS (internal state) PCSD.
ldmod.c	a6a3	Link-available-report from an OOS (internal state) PCSD.
ldmod.c	a6a4	Invalid stimulus for an OOS (internal state) PCSD.
ldmod.c	a6a5	Invalid stimulus for a GOOS (internal state) PCSD.
ldmod.c	a6aa	Connection-timeout for a restored (internal state) PCSD.
ldmod.c	a6ab	Invalid stimulus for a restored (internal state) PCSD.
ldmod.c	a6ae	Invalid stimulus for an active (internal state) PCSD.
ldmod.c	a6b2	Failure to get ucblp.
ldmod.c	a6b3	Invalid stimulus for a standby (internal state) PCSD.
ldmod.c	a6b4	Invalid stimulus for S1_RECOV state.
ldmod.c	a6b7	Invalid stimulus for S1_INIT state.
ldmod.c	a6be	Multiple-active-link config not supported.
ldmod.c	a6bf	Invalid link configuration.
ldmod.c	a6c5	Multiple-active-link config not supported.
ldmod.c	a6c6	Invalid link configuration.
ldmod.c	a6c8	Connection timeout for a simplex PCSD.
ldmod.c	a6c9	Connection timeout for a duplex config.
ldmod.c	a6ca	Multiple-active-link config not supported.
ldmod.c	a6cb	Invalid link configuration.
ldmod.c	a6d3	Multiple-active-link config not supported.
ldmod.c	a6d4	Invalid link configuration.
ldmod.c	a6d8	NULL timeout flag.
ldmod.c	a6d9	Timeout flag different from stored value.
ldmod.c	a6da	Failure to get ucblp.
ldmod.c	a6db	No record of previously active PCSD.
ldmod.c	a6dc	Both PCSDs are OOS or GOOS (internal state).
ldmod.c	a6dd	Maximum number of timing periods.
ldmod.c	a6de	Maximum number of timing periods, NULL ucblp.
ldmod.c	a6df	Maximum number of timing periods, NULL ucblp.
ldmod.c	a6e1	Multiple-active-link config not supported.
ldmod.c	a6e2	Invalid link configuration.

ldmod.c	a6ff	Invalid internal state for PCSD.
cminit.c	a712	Unable to obtain PTA and SEGID for common scratch area.
cminit.c	a716	Unable to obtain MDCT record.
chmod.c	a831	Invalid output action for PUTCHAR input.
chmod.c	a832	Invalid current output state for PUTCHAR input.
chmod.c	a833	Invalid return value for `choastrat()`.
chmod.c	a835	Invalid closing action for PUTCHAR input.
chmod.c	a836	Invalid return value from `chorstrat()`.
chmod.c	a841	Invalid input action for GETCHAR input.
chmod.c	a842	Invalid current state for GETCHAR input.
chmod.c	a843	Invalid return value from `chiastrat()`.
chmod.c	a845	Invalid closing action for GETCHAR input.
chmod.c	a846	Invalid return value from `chirstrat()`.
chmod.c	a847	Unable to unlink buffer of a zero-length data packet from the common handler queue.
chmod.c	a854	Unsuccessful transfer of all input data of user's buffer.
chmod.c	a855	Unsuccessful transfer of all input data to user's buffer.
chmod.c	a856	Unsuccessful transfer of requested input data.
chmod.c	a857	Invalid return value from `chirstrat()`.
chmod.c	a858	Invalid current input state for GETCHAR input.
chmod.c	a859	Invalid return value from `chiastrat()`.
chmod.c	a85a	Error encountered in background data transfer.
chmod.c	a861	Invalid action for output procedure continuation.
chmod.c	a862	Invalid current output state.
chmod.c	a865	Invalid return value from `chorstrat()`.
chmod.c	a866	Invalid output state.
chmod.c	a867	Invalid return value from `chorstrat()`.
chmod.c	a868	Invalid return value from `choastrat()`.
chmod.c	a869	cphslfree is NULL.
chmod.c	a870	cphlkfree is NULL.
choastrat	a871	Invalid output state.
chiostrat.c	a881	More bytes of output than requested.
chiostrat.c	a882	Invalid output procedure flag.
chiostrat.c	a885	Partition in an invalid output state.
phmod.c	a910	Invalid system status being reported.
phmod.c	a941	Invalid return value from logical device handler.
mmmmod.c	aa00	`ioaddseg()` failed in case of IOREBOOT.
mmmmod.c	aa01	Invalid memory initialization type to `mminit()`.
mmmmod.c	aa10	Invalid init type.
mmmmod.c	aa20	Bad segment.
mmmmod.c	aa21	Queue is full.
mmmmod.c	aa30	`iogrowseg()` returned failure.
mmmmod.c	aa31	`ioaddseg()` returned failure.
mmmmod.c	aa40	`get_cell()` returned failure.
mmmod.c	aa41	No matching address and key found.
mmmod.c	aa50	Segment count greater than MAXSEGS.
mmmmod.c	aa51	`get_cell()` returned FAIL.
mmmmod.c	aa60	Bad segment.
mmmmod.c	aa70	`iogrowseg()` returned failure.
mmmmod.c	aa71	Bad segment.
mmmod.c	aa80	No matching address and key found.
mmmod.c	aa90	`get_cell()` returned failure.
mmmmod.c	aaa0	free_area number of cells zero.
mmmmod.c	aaa1	`iogrowseg()` returned failure.
mmmmod.c	aab0	vaddr and key invalid.
mmmmod.c	aab1	IODRV unable to grow segment.
pgrowcp3.c	ab00	Unknown growth type.
pgrowcp3.c	ab02	Failure to obtain option block, growth fails.
pgrowcp3.c	ab03	Degrow fails; memory not allocated at growth time.
pgrowcp3.c	ab04	Degrow fails; no memory status for this device.
pgrowcp3.c	ab06	Failure to obtain option block; boot restore fails.
pgrowcp3.c	ab08	Growth fails; memory allocation from SMC failed.
pgrowcp3.c	ab0a	Failed to obtain same ucb; boot restore fails.
chpcreat.c	ac01	No global free space for restio entry.
chpcreat.c	ac02	Index bad when pcreate timer fires. Format of additional string information is defined as: `a`

		a = Channel ID (hex).
chpcreat.c	acf3	chpcreat returned SUCCESS.
chpcreat.c	acff	findpid() returned non-NULL.
x3send.c	af00	BX.25 level 3 cannot restart with far end.
x3send.c	af01	Unexpected failure to send control packet.
x3send.c	af02	Unexpected failure to send interrupt packet.
x3send.c	af03	Unexpected failure to send data packet.

1.7 NPH HANDLER

Function	Code	Comment
psconn.c	b001	Invalid high level user protocol-ID.
psconn.c	b002	Invalid application tag.
psdetach	b003	Unknown application tag.
psrstnp3	b101	DTE table full.
psinit	b302	RUNA record set_id not found.
psinit	b303	Failure to open cursor for sets.
pgrownp3.c	b500	Failure to obtain PCSD option block.
pgrownp3.c	b501	ACT internal state for DEGROW request.
pgrownp3.c	b502	Unknown internal state.
pgrownp3.c	b503	Unknown type of IODRV request.
pgrownp3.c	b504	Failure to get SEGID and PTA for buffer area.
pgrownp3.c	b505	Failure to allocate scratch memory.
pgrownp3.c	b506	Failure to get RESTORE PCSD.
pgrownp3.c	b507	Failure to get obtain ucblp.
pgrownp3.c	b508	Failure to allocate scratch memory.
pinitnp3.c	b580	Unknown type of IODRV request.
prstnp3.c	b600	ACT internal state for RESTORE request.
prstnp3.c	b601	Failure to RESTORE a PCSD.
prstnp3.c	b602	ACT internal state for NOT_IMPLICATED_RESTART request.
prstnp3.c	b603	Failure to RESTORE a PCSD.
prstnp3.c	b604	ACT internal state for IMPLICATED_RESTART request.
prstnp3.c	b605	Failure to obtain an IODRV timer element.
prstnp3.c	b606	Failure to RESTORE a PCSD.
prstnp3.c	b607	Unknown type of IODRV request.
prstnp3.c	b608	Memory allocation request in progress.
prstnp3.c	b609	Failed to allocate scratch memory.
prstnp3.c	b60a	Failure to get SEGID and PTA for PCSD scratch.
prstnp3.c	b60b	Failure to get DMA slot for PCSD scratch.
prstnp3.c	b60c	Failure to get DMA slot for buffer area.
prstnp3.c	b60d	Failure to obtain PCSD option block.
prstnp3.c	b60e	Somebody changed the option block.
prmvnp3.c	b680	ACT internal state for UNCONDITIONAL_REMOVE request.
prmvnp3.c	b681	Failure to send GO_OUT_OF_SERVICE message to PCSD.
prmvnp3.c	b682	Failure to obtain IODRV timer element.
prmvnp3.c	b683	Unknown type of IODRV request.
prmvnp3.c	b684	Unknown type of IODRV request.
prmvnp3.c	b685	Unknown internal state.
prmvnp3.c	b686	OOS internal state for (UN)CONDITIONAL_REMOVE request.
prmvnp3.c	b687	OOS internal state for HALF_REMOVE request.
prmvnp3.c	b688	OOS internal state for unknown type of IODRV request.
prspnp3.c	b700	Unexpected RESTORE response, ACT internal state.
prspnp3.c	b701	Unexpected DIAL-OUT response, ACT internal state.
prspnp3.c	b702	Unknown PCSD response, ACT internal state.
prspnp3.c	b703	Unexpected RECEIVE report, INIT internal state.
prspnp3.c	b704	Unexpected TRANSMIT report, INIT internal state.
prspnp3.c	b705	Unexpected ASYNCHRONOUS report, INIT internal state.
prspnp3.c	b706	Unexpected DIAL-OUT response, INIT internal state.
prspnp3.c	b707	Unknown PCSD response, INIT internal state.
prspnp3.c	b708	Unexpected GO_OUT_OF_SERVICE response, OOS internal state.
prspnp3.c	b709	Unexpected RECEIVE report, OOS internal state.
prspnp3.c	b70a	Unexpected TRANSMIT report, OOS internal state.
prspnp3.c	b70b	Unexpected ASYNCHRONOUS report, OOS internal state.
prspnp3.c	b70c	Unexpected DIAL-OUT response, OOS internal state.
prspnp3.c	b70d	Unexpected PCSD response, OOS internal state.
prspnp3.c	b70e	Unexpected RESTORE response, RMVIP internal state.
prspnp3.c	b70f	Unexpected ASYNCHRONOUS_ERROR report, RMVIP internal state.

prspnp3.c	b710	Unexpected RECEIVE report, RMVIP internal state.
prspnp3.c	b711	Unexpected TRANSMIT report, RMVIP internal state.
prspnp3.c	b712	Unexpected ASYNCHRONOUS report, RMVIP internal state.
prspnp3.c	b713	Unexpected DIAL-OUT response, RMVIP internal state.
prspnp3.c	b714	Unknown PCSD response, RMVIP internal state.
prspnp3.c	b715	Unexpected response; memory request in progress.
prspnp3.c	b716	Unexpected response, memory request failed.
prspnp3.c	b717	Unknown internal state.
prspnp3.c	b720	No jobs queued for input on PCSD.
prspnp3.c	b721	Error on a RECEIVE job.
prspnp3.c	b730	Error on a TRANSMIT job.
prspnp3.c	b740	Failure to initialize buffers.
prspnp3.c	b741	Failure to initialize scratch areas.
prspnp3.c	b742	Failure to obtain PCSD option block.
prspnp3.c	b750	Failure to send RESTORE message to PCSD.
prspnp3.c	b760	Failure to remove an IODRV timer element.
prspnp3.c	b761	CONNECT report received on a connected PCSD.
prspnp3.c	b762	No jobs queued for input on PCSD.
prspnp3.c	b763	Invalid DATA-SET DISCONNECT report.
prspnp3.c	b765	Unknown ASYNCHRONOUS report.
prspnp3.c	b770	Hardware error, link disconnect report.
prspnp3.c	b771	Unknown hardware error.
prspnp3.c	b772	PCSD software error.
prspnp3.c	b773	CRC error report.
prspnp3.c	b774	Invalid line address on a RECEIVE job.
prspnp3.c	b775	Invalid line address on a TRANSMIT job.
prspnp3.c	b776	N2 count exceeded.
prspnp3.c	b777	Frame reject received.
prspnp3.c	b778	Frame reject received, cause unknown.
prspnp3.c	b779	Frame reject transmitted.
prspnp3.c	b77a	Frame reject transmitted, cause unknown.
prspnp3.c	b77b	Frame reject transmitted; probable line address conflict.
prspnp3.c	b77c	Aggregate one-count error type unknown.
prspnp3.c	b77d	This error type reported by DDCMP version.
prspnp3.c	b77e	Error in RESTORE data.
prspnp3.c	b77f	Unknown asynchronous error report.
prspnp3.c	b790	Failure to allocate an input buffer.
prspnp3.c	b791	Failure to send a RECEIVE job to PCSD.
prspnp3.c	b792	RESTORE message timeout.
prspnp3.c	b793	CONNECT (level 2 protocol init.) timeout.
dimod.c	b800	Failure to get ucblp.
dimod.c	b805	Failure to push PCSD message.
dimod.c	b806	No jobs queued for input on PCSD.
dimod.c	b807	Failure to get ucblp.
dimod.c	b808	Failure to get ucblp.
plinit.c	ba01	Failure to get timer index from IODRV.
plrcv.c	ba11	Packet < 2 octets or invalid GFI or channel unassigned.
plrcv.c	ba12	Packet type invalid.
plrcv.c	ba13	RESTART INDICATION packet in state R3_RSTIND.
plrcv.c	ba14	Logical channel 0 in undefined state.
plrcv.c	ba15	RESTART INDICATION on non-zero channel in state P6_CLRREQ.
plrcv.c	ba16	RESTART INDICATION on non-zero channel in state D2_RESREQ.
plrcv.c	ba17	RESTART INDICATION on non-zero channel in state R2_RESREQ.
plrcv.c	ba18	Logical channel in an undefined state.
plrcv.c	ba19	Illegal channel and packet type combination.
plrcv.c	ba1a	Invalid packet length. Format of additional information is defined as: `a b c` `a` = packet type (hex) `b` = number of bytes in packet (decimal) `c` = channel number (decimal).

plcaccept.c	bb01	Logical channel in an undefined state.
pldacks.c	bb02	Logical channel in an undefined state.
plexdt.c	bb03	Logical channel in an undefined state.
plrest.c	bb04	Logical channel in an undefined state.
pldacks.c	bb05	Read substate of the logical channel undefined.
plrest.c	bb06	RESET INDICATION packet in state D3_RESIND.
plcconfi.c	bb11	CALL CONNECTED packet in state R2_RSTREQ.
plcindic.c	bb21	INCOMING CALL packet in state R2_RSTREQ or P6_CLRREQ.
plcindic.c	bb22	Originally-called DTE address is out of order in call redirection notification facility.
plcindic.c	bb23	Originally-called DTE address is busy in call redirection notification facility.
plcindic.c	bb24	Non-supported reason for redirecting originally-called DTE address in call redirection notification facility.
plcindic.c	bb25	Originally-called DTE address is out of order in called line address modified notification facility.
plcindic.c	bb26	Originally-called DTE address is busy in called line address modified notification facility.
plcindic.c	bb27	Non-supported reason for modifying originally-called DTE address in called line address modified notification facility.
pldiscr.c	bb41	Logical channel in an undefined state.
pldiscr.c	bb42	CLEAR INDICATION packet in state P7_CLRIND.
pldiscr.c	bb43	Logical channel in an undefined state.
pldiscr.c	bb44	CLEAR CONFIRMATION in state R2_RSTREQ or R3_RSTIND.
pldiscr.c	bb45	Logical channel in an undefined state.
plrest.c	bb70	RESET INDICATION packet in state R2_RSTREQ or R3_RSTIND.
plrest.c	bb71	RESET CONFIRMATION in state R2_RSTREQ or R3_RSTIND.
plrest.c	bb72	Reset received with diag code of "d-bit not supported."
plexdt.c	bb81	Logical channel in an undefined state.
plexdt.c	bb82	Logical channel in an undefined state.
plrndata.c	bc01	Logical channel in an undefined state.
plrndata.c	bc02	Invalid return code from "copypacket" function.
plrndata.c	bc03	Read substate of logical channel undefined.
plrndata.c	bc05	Read substate of logical channel undefined.
plrndata.c	bc70	DATA packet in state R2_RSTREQ or R3_RSTIND.
plsndata.c	bd01	Send substate of logical channel undefined.
plsndata.c	bd02	Logical channel in an undefined state.
plsndata.c	bd03	Invalid return code from "edmacopy" function.
plsndata.c	bd04	Send substate of channel undefined.
plsndata.c	bd80	RR/RNR packet in state R2_RSTREQ or R3_RSTIND.
pltime.c	be00	T22 timer not active in state D2_RESREQ.
pltime.c	be01	T21 timer not active in state P2_CALLREQ.
pltime.c	be02	T23 timer not active in state P6_CLRREQ.
pltime.c	be03	T20 timer not active in state R2_RSTREQ.

1.8 TP HANDLER

Function	Code	Comment
md_buffer.c	c101	Wait for a buffer; type is unknown.
md_buffer.c	c111	Failure to format an AK, EA, or RJ TPDU.
md_init.c	c121	Failure to read the "TPH 0" UCB ECD record.
md_init.c	c122	Failure to read the tphopt ECD record for TPH.
md_init.c	c125	Failure to retrieve RID for ECD record being changed.
md_init.c	c126	Failure to find tsapinfo record RID in table; DELETE operation.
md_init.c	c131	Failure to read the tphopt ECD record for TPH.
md_init.c	c133	Failure to retrieve tsapinfo record; INSERT operation.
md_init.c	c134	Failure to retrieve tsapinfo record; UPDATE operation.
md_init.c	c135	Failure to retrieve NSAP to DTE mapping table; DELETE operation.
md_init.c	c136	Failure to retrieve NSAP to DTE mapping table; UPDATE operation.
md_init.c	c137	Failure to retrieve NSAP to DTE mapping table; INSERT

		operation.
md_init.c	c141	Request for memory from the IODRV failed.
md_timers.c	c142	Request for memory for TPH input buffer failed.
md_input.c	c201	Unknown address type for TS user data area.
md_input.c	c202	Unknown state of the TC input queue.
md_input.c	c211	Unknown address type for TS user data area.
md_input.c	c212	Unknown TPDU type for a NPH RDCMP.
md_input.c	c213	Unknown NPH return code value for a NPH RDCMP.
md_input.c	c221	Unknown address type for TS user data area.
md_input.c	c222	Unknown state of the TC input queue.
md_input.c	c223	TS user read error; class 2 TC.
md_input.c	c224	TS user read error; class 2 TC.
md_input.c	c225	Peer TE sent invalid TPDU-NR in DT TPDU; class 0 or 2 TC.
md_input.c	c226	TS user read error; class 0 or 2 TC.
md_input.c	c227	Peer TE sent invalid TPDU-NR in DT TPDU; class 0 or 2 TC.
md_input.c	c228	Peer TE sent invalid TPDU-NR in DT TPDU; class 0 or 2 TC.
md_input.c	c229	TS user read error; class 0 or 2 TC.
md_timers.c	c231	Timeout for unknown timer type.
md_timers.c	c232	Timeout for invalid TC local reference.
md_timers.c	c233	Invalid timeout element for timer type.
tl_buffers.c	c301	Cannot find TPDU on retain queue.
tl_buffers.c	c302	Retain queue is empty.
tl_conn.c	c311	DR TPDU not found in the retained queue.
tl_conn.c	c315	Failure to initiate TCONreq; invalid predicate, P1 or P3.
tl_conn.c	c316	Failure to initiate TCONreq; all tc_data structures in use.
tl_conn.c	c317	Failure to initiate TCONreq; no tsapinfo for TSAP addresses specified.
tl_conn.c	c318	Failure to initiate TCONreq; TS user data length exceeds maximum.
tl_conn.c	c319	Failure to initiate TCONreq; all nc_data structures in use.
tl_conn.c	c320	Failure to initiate TCONreq; invalid class in tsapinfo.
tl_conn.c	c321	DR TPDU not found in the retained queue.
tl_conn.c	c322	Failure handling incoming CR; cannot allocate tc_data.
tl_conn.c	c323	Failure handling incoming CR; cannot assign nc_data.
tl_conn.c	c324	Failure handling incoming CR; cannot assign nc_data.
tl_conn.c	c325	Failure handling incoming CR; insufficient throughput available.
tl_conn.c	c326	Invalid CR TPDU received; connection refused.
tl_conn.c	c331	CR TPDU not found in the retained queue.
tl_conn.c	c332	Invalid TC state for a N-CONNECT confirmation.
tl_conn.c	c333	DR TPDU not found in the retained queue.
nsi.c	c341	Unknown NPH indication.
nsi.c	c342	tc-data structure queued twice on DTE priority queue.
nsi.c	c343	tc-data structure queued twice on DTE priority queue.
nsi.c	c344	Failure requesting NC for TC; no tsapinfo for TSAP addresses specified.
nsi.c	c345	Failure requesting NC for TC; invalid local nsap in tsapinfo.
nsi.c	c346	Failure to obtain NC; class 0 or 1 TC.
nsi.c	c347	Failure to obtain NC; no DTE found to degrade TC's service.
nsi.c	c348	Failure to obtain NC; no NCs available for multiplexing.
nsi.c	c349	Failure to obtain NC; could not change throughput on multiplexed NC.
nsi.c	c350	Failure to obtain NC on retry; no NCs and/or throughput.
nsi.c	c351	Failure to obtain NC on retry; invalid return.
nsi.c	c352	Failure to obtain NC; class 0 or 1 TC.
nsi.c	c353	Failure to obtain NC; no NCs available for multiplexing.
nsi.c	c354	Failure to obtain NC; could not change throughput on multiplexed NC.
nsi.c	c355	Failure to obtain NC; invalid QOS specified.
nsi.c	c356	Failure to obtain NC; DTE specified is unavailable.
nsi.c	c357	Failure to obtain NC; invalid return.
nsi.c	c358	Failure to obtain NC; no NCs and/or throughput for class 0 TC.
tl_data.c	c401	Invalid event for first TPDU received.
tl_data.c	c405	Error formatting CC TPDU; extended TSAPID requested, but not found.
tl_data.c	c406	Error formatting CC TPDU; user data specified for class 0 TC.
tl_data.c	c407	Error formatting CC TPDU; TS user data length exceeds maximum.
tl_data.c	c411	DR TPDU not found in the retained queue.
tl_data.c	c421	Unknown event for tl_dt_procedure.

tl_data.c	c422	Retained DT TPDU mismatches lower window.
tl_data.c	c431	DT TPDU not found in the retained queue.
tl_data.c	c432	DT TPDU not found in the retained queue.
tl_data.c	c433	CC TPDU not found in the retained queue.
tl_data.c	c434	DR TPDU not found in the retained queue.
tl_data.c	c435	NS provider error for transmission of a DT TPDU.
tl_disc.c	c441	Invalid TC state for a DR TPDU.
tl_disc.c	c442	DR TPDU RECEIVED; invalid SRC-REF.
tl_disc.c	c443	DR TPDU RECEIVED; class 0 TC, OPEN state.
tl_disc.c	c444	DR TPDU RECEIVED; WFCC state, peer refused connect request.
tl_disc.c	c445	DR TPDU RECEIVED; class 0 TC, WBCL state.
tl_disc.c	c446	Receipt of DC TPDU; class 0 TC, CLOSING state.
tl_disc.c	c447	Receipt of DC TPDU; protocol error, invalid state.
tl_disc.c	c451	Invalid TC state for a N-DISCONNECT indication.
tl_disc.c	c452	NDISind; class 0 or 2 TC, WFCC state.
tl_disc.c	c453	NDISind; class 0 o 2 TC, WFNC state.
tl_disc.c	c454	NDISind; TTR timeout, WFNC state.
tl_disc.c	c455	NDISind; TTR timeout, WBCL state.
tl_disc.c	c456	NDISind; WFTRESP or WBOC state, no TWR timer value.
tl_disc.c	c457	NDISind; class 0 or 2 TC, CLOSING or WBCL state.
tl_disc.c	c458	TDISreq; WFCC state.
tl_disc.c	c459	TDISreq; WFTRESP state.
tl_disc.c	c45a	TDISreq; WBOC state.
tl_interf.c	c461	Unknown incoming event.
tl_interf.c	c462	Unsupported class.
tl_interf.c	c463	AK or EA TPDU received; class 0 TC.
tl_interf.c	c464	RJ TPDU received; class 0 or 2 TC.
tl_interf.c	c465	Expedited data request; class 0 TC.
tl_interf.c	c471	Unknown TPDU type.
tl_interf.c	c481	Fatal TPH error for a reassignment.
tl_misc.c	c491	Changing TC state to an invalid state.
tl_misc.c	c4a1	TPDU not found in the retained queue.
tl_timers.c	c501	Unknown timer type.
tl_timer.c	c502	Failure to start timer.
tl_timers.c	c511	Unknown timer type.
tl_timers.c	c512	Failure to stop timer.
tl_timers.c	c541	Invalid state.
tl_timers.c	c551	Invalid state.
tl_timers.c	c561	Unknown timer type.
tl_reset.c	c581	Failure to format RJ TPDU.
tl_reset.c	c582	NRSTind; class 0 or 2 TC, OPEN state.
tl_reset.c	c583	NRSTind; OPEN state, TTR timer has previously expired.
tl_reset.c	c584	NRSTind; class 0 or 2 TC, WFCC state.
tl_reset.c	c585	NRSTind; WFCC state, TTR timer has previously expired.
tl_reset.c	c586	NRSTind; class 0 or 2 TC, WFTRESP state.
tl_reset.c	c587	NRSTind; class 0 TC, WBCL state.
tl_reset.c	c588	NRSTind; class 0 TC, CLOSING state.
tl_reset.c	c589	Protocol error for a TPDU received.
tsi.c	c591	No tsapinfo ECD record for specified TSAP.
tsi.c	c592	Failure to open ECD for tsapinfo records.

1.9 BTI HANDLER

Function	Code	Comment
update_tc_state()	cf00	Transport connection state invalid.
update_control_state()	cf01	Control state invalid.
update_output_state()	cf02	Output state invalid.
timeout_tc()	cf03	Transport connection timeout.
fatal_btih_error()	cf04	Fatal BT interface handler error.
inp_avail()	cf10	Received unexpected pdu type.
receive_complete()	cf10	Received unexpected pdu type.
connect_tc()	cf11	TSAP not found.
connect_tc()	cf12	Respond failed.
inp_avail()	cf13	T_recv failed.
write_to_tl()	cf20	T_send failed.
get_query_info()	cf21	P_iomap failed.
open_device()	cf30	T_attach failed.
pass_poll_request()	cf40	Sendevent failed.
pass_checkpt_ack()	cf40	Sendevent failed.

neg_clean_up()	cf40	Sendevent failed.
open_device()	cf40	Sendevent failed.
disconnect_tc()	cf40	Sendevent failed.
ptrpbt3()	cf50	G_iomap failed.
read_ecd_data()	cf60	Bad logdev record for control device.
read_ecd_data()	cf61	Bad logdev record for output device.
read_ecd_data()	cf62	Bad btihdev ecd record.
pmsgbt3()	cf70	No more available pdu blocks.
get_free_block()	cf70	No more available pdu blocks.

1.10 SP HANDLER

Function	Code	Comment
s_i_ab_spdu_mi()	d010	Expected TDisconnect indication.
s_req_buffer_md()	d101	Requested more than a segment of memory.
s_init_all_buffers_md()	d103	Handler initialization error.
s_init_s_con_data_md()	d104	Handler not initialized yet.
s_rel_con_data_md()	d105	NULL pointer for pointer to connection data structure.
s_rel_con_data_md()	d106	Connection data structure corrupted.
s_rel_con_data_md()	d107	Connection data structure already returned to map.
s_rel_con_data_md()	d108	Too many connection data structures returned.
s_reuse_con_data_md()	d109	Connection data structure pointer is NULL.
s_reuse_con_data_md()	d109	Connection data structure pointer is NULL.
s_reuse_con_data_md()	d10a	Connection data structure corrupted.
s_reuse_con_data_md()	d10b	Expedited service selected.
s_reuse_con_data_md()	d10c	No reuse in effect.
s_reuse_con_data_md()	d10d	Duplicate entry in no reuse structure.
s_reuse_con_data_md()	d10e	Duplicate entry in reuse structure.
s_reuse_con_data_md()	d10f	Too many connections allocated.
s_find_ind_function_md()	d110	Session protocol handler not ready.
s_attach()	d111	Session protocol handler not ready.
s_detach()	d112	Session protocol handler not ready.
s_reuse_con_data_md()	d113	Illegal state of session protocol machine.
s_attach()	d114	Invalid version.
s_o_t_req_connect_md()	d201	Call to `t_connect()` failed.
s_o_t_rsp_connect_md()	d202	Call to `t_respond()` failed.
s_o_t_disconnect_md()	d203	Call to `t_disconnect()` failed.
pinitsp3	d301	Attach to local TSAP failed.
pmsgsp3	d302	Invalid message type.
pmsgsp3	d303	Message had bad record ID.
pmsgsp3	d304	lla_rdget call failed.
pmsgsp3	d305	Attach to local TSAP failed.
pmsgsp3	d306	Illegal ECD operation reported.
s_o_norm_spdu_send_md	d402	Failed attempt to send CN SPDU.
s_o_norm_spdu_send_md	d403	Illegal state to send SPDU.
s_o_norm_spdu_send_md	d404	Failed attempt to send SPDU.
s_o_norm_spdu_send_md	d405	Illegal state to send SPDU.
s_o_norm_spdu_send_md	d406	Failed attempt to send AA or AB SPDU.
s_o_norm_spdu_send_md	d407	Illegal state to send AA or AB SPDU.
s_o_norm_spdu_send_md	d408	Illegal SPDU type.
s_o_ssdu_send_md()	d409	Illegal use of segmenting.
s_o_ssdu_send_md()	d40a	Illegal state for sending unsegmented data.
s_o_ssdu_send_md()	d40b	Illegal ssdu_segment value.
s_o_ssdu_send_md()	d40c	Illegal ssdu_segment value.
s_o_ssdu_send_md()	d40d	Illegal state for sending segmented data.
s_o_ssdu_send_md()	d40e	tsdu size <= GTSEGDTHDR.
s_send_tsc_md()	d40f	Failed attempt to send AA or AB SPDU.
s_send_tsc_md()	d410	Session protocol machine in illegal state.
s_send_ack_md()	d411	Inconsistent number of t_acknowledges outstanding.
s_send_ack_md()	d412	Inconsistent number of t_acknowledges.
s_send_ack_md()	d413	Inconsistent number of t_acknowledges.
s_send_ack_md()	d414	Number of t_acknowledges > NUMSEGHEADS.
s_send_ack_md()	d415	Inconsistent number of t_acknowledges.
s_send_ack_md()	d416	Inconsistent number of t_acknowledges.
s_send_ack_md()	d417	Inconsistent number of t_acknowledges.
s_send_ack_md()	d418	Number of t_acknowledges > NUMSEGHEADS.
s_send_ack_md()	d419	Inconsistent number of t_acknowledges.
s_send_ack_md()	d41a	Inconsistent number of t_acknowledges.
s_send_ack_md()	d41b	Inconsistent number of acknowledges.
s_send_ack_md()	d41c	Inconsistent number of acknowledges.

s_send_ack_md()	d41d	Inconsistent number of acknowledges.
s_send_ack_md()	d41e	Session protocol machine in illegal state.
s_unseg_send_md()	d41f	Transport send failed.
s_unseg_send_md()	d420	Transport send failed.
s_seg_send_md()	d421	Data transmission error - not enough user data.
s_seg_send_md()	d422	Data transmission error - not enough user data.
s_seg_send_md()	d423	Data transmission error.
s_seg_send_md()	d424	Data transmission error.
s_o_exp_spdu_send_md()	d425	Expedited data transmission error at transport layer.
s_o_exp_spdu_send_md()	d426	Expedited data transmission error at session layer.
s_o_ssdu_send_md()	d427	Length of user data <= 0.
s_o_ssdu_send_md()	d428	SS-user tried to send after S_PARTIAL response.
s_o_ssdu_send_md()	d429	SS-user tried to send after S_PARTIAL response.
s_send_ack_md()	d42a	Bad state for orderly release.
s_send_ack_md()	d42b	Unexpected acknowledgement.
s_unseg_send_md()	d42e	Invalid T_ACKNOWLEDGE indication.
s_send_ack_md()	d42f	Bad disconnect state for orderly abort.
s_send_suc_md()	d430	Bad disconnect state for orderly abort.
s_send_suc_md()	d431	Bad disconnect state for orderly abort.
s_o_exp_spdu_md()	d432	Cannot send EX SPDU.
s_send_suc_md()	d43a	Invalid state for an orderly release.
s_send_suc_md()	d43b	Invalid return code value from t_send.
s_send_suc_md()	d43c	Invalid send machine state.
s_i_spdu_rec_md()	d501	Failed while reading SPDU header.
s_i_spdu_rec_md()	d502	Failed while reading concatenated SPDU header.
s_i_spdu_rec_md()	d503	Extended concatenation not supported.
s_i_spdu_rec_md()	d504	Invalid return from `s_i_process_spdu_md()`.
s_i_spdu_rec_md()	d505	Invalid return from `s_i_process_spdu_md()`.
s_i_spdu_rec_md()	d506	Wrong state to receive a new SPDU.
s_i_decode_length()	d507	SPDU header too long for input buffer.
s_i_decode_length()	d508	Length of SPDU header wrong.
s_i_decode_length()	d509	Length of SPDU header wrong.
s_i_decode_length()	d50a	Unrecognized return code from `t_receive()`.
s_i_PI_buf_get_md()	d50b	Failure to get PG length in SPDU header.
s_i_PI_buf_get_md()	d50c	Failure to get PG data in SPDU header.
s_i_header_get_md()	d50d	SPDU header too long for input buffer.
s_i_header_get_md()	d50e	Wrong number of bytes returned from `t_receive()`.
s_i_header_get_md()	d50f	Unrecognized return code from `t_receive()`.
s_i_header_get_md()	d510	Invalid length of parameter group data.
s_i_header_get_md()	d511	User data indicated, but reached end of SPDU.
s_i_header_get_md()	d512	Invalid SPDU header length.
s_i_header_get_md()	d513	Too many bytes in SPDU header.
s_i_header_get_md()	d514	End of SPDU header, wrong length.
s_i_data_get_md()	d515	SPDU header too long for input buffer.
s_i_data_get_md()	d516	Number of bytes in SPDU header greater than indicated.
s_i_data_get_md()	d517	Wrong number of bytes returned from `t_receive()`.
s_i_data_get_md()	d518	End of SPDU header, wrong length.
s_i_data_get_md()	d519	Invalid return code from `t_receive()`.
s_i_type_spdu_decode_md()	d51a	Illegal concatenation.
s_i_type_spdu_decode_md()	d51b	Illegal SPDU type.
s_i_length_PG_md()	d51c	SPDU header too long for input buffer.
s_i_length_PG_md()	d51d	Wrong number of bytes returned from `t_receive()`.
s_i_length_PG_md()	d51e	While reading LONG SPDU header got return code of T_NEW_TSDU.
s_i_length_PG_md()	d51f	While reading LONG SPDU header got return code of T_READ_END.
s_i_length_PG_md()	d520	While reading LONG SPDU header got invalid return code.
s_i_length_PG_md()	d521	SPDU header too long for input buffer; SPDU type is CN, AC, or RF.
s_i_length_PG_md()	d522	SPDU header too long for input buffer; SPDU type is GT, OUR_DT, PT, FN, DN, AA, or AB.
s_i_length_PG_md()	d523	Unknown SPDU type header.
s_i_trc_md()	d524	Wrong byte count from `t_receive_complete()`.
s_i_trc_md()	d525	Illegal type of SPDU received.
s_i_trc_md()	d526	Illegal length of SPDU header.
s_i_trc_md()	d527	Failed to process concatenated SPDU.
s_i_trc_md()	d528	Illegal concatenation.
s_i_trc_md()	d529	Invalid return from `s_i_process_spdu_md()`.
s_i_trc_md()	d52a	Illegal concatenation.
s_i_trc_md()	d52b	Failed to read in SPDU header.

s_i_trc_md()	d52c	Failed to read in concatenated SPDU header.
s_i_trc_md()	d52d	Illegal concatenation.
s_i_trc_md()	d52e	Invalid return from `s_i_process_spdu_md()`.
s_i_trc_md()	d52f	Invalid return from `s_i_PI_buf_get_md()`.
s_i_trc_md()	d530	Illegal SPDU type.
s_i_trc_md()	d531	Invalid return code from `t_receive_complete()`.
s_i_trc_md()	d532	Wrong byte count from `t_receive_complete()`.
s_i_trc_md()	d533	Failed while reading SPDU header.
s_i_trc_md()	d534	Illegal concatenation.
s_i_trc_md()	d535	Failed while reading concatenated SPDU.
s_i_trc_md()	d536	Invalid return from `s_i_process_spdu_md()`.
s_i_trc_md()	d537	Invalid return from `s_i_PI_buf_get()`.
s_i_trc_md()	d538	LONG SPDU header;t_receive returned T_NEW_TSDU.
s_i_trc_md()	d539	LONG SPDU header;t_receive returned T_READ_END.
s_i_trc_md()	d53a	Invalid return from `t_receive_complete()`.
s_i_trc_md()	d53b	Wrong byte count from `t_receive_complete()`.
s_i_trc_md()	d53c	Invalid length of SPDU header.
s_i_trc_md()	d53d	Have USER DATA;SPDU header length wrong.
s_i_trc_md()	d53e	Illegal concatenation.
s_i_trc_md()	d53f	Failed while reading header of concatenated SPDU.
s_i_trc_md()	d540	Invalid return from `s_i_process_spdu_md()`.
s_i_trc_md()	d541	Failed while reading SPDU header.
s_i_trc_md()	d542	Failed while reading header of concatenated SPDU.
s_i_trc_md()	d543	Illegal concatenation.
s_i_trc_md()	d544	Invalid return from `s_i_process_spdu_md()`.
s_i_trc_md()	d545	Invalid return from `s_i_PI_buf_get_md()`.
s_i_trc_md()	d546	USERDATA indicated, none present.
s_i_trc_md()	d547	USERDATA indicated, none present.
s_i_trc_md()	d548	Parameter group length != 0; wrong.
s_i_trc_md()	d549	Wrong parameter group length.
s_i_trc_md()	d54a	Invalid return from `t_receive_complete()`.
s_i_trc_md()	d54b	Illegal concatenation.
s_i_trc_md()	d54c	Failed while reading head of concatenated SPDU.
s_i_trc_md()	d54d	Invalid return from `s_i_process_spdu_md()`.
s_i_trc_md()	d54e	Failed while reading parameter groups of SPDU header.
s_i_trc_md()	d54f	Failed while reading header of concatenated SPDU.
s_i_trc_md()	d550	Illegal concatenation.
s_i_trc_md()	d551	Invalid return from `s_i_process_spdu_md()`.
s_i_trc_md()	d552	Invalid return from `s_i_PI_buf_get_md()`.
s_i_trc_md()	d553	Incorrect byte count in SPDU header.
s_i_trc_md()	d554	Invalid return from `t_receive_complete()`.
s_i_trc_md()	d555	Bad byte count from t_receive_complete().
s_i_trc_md()	d556	USER DATA; bad byte count in SPDU header.
s_i_trc_md()	d557	Illegal concatenation.
s_i_trc_md()	d558	Failed while reading header of concatenated SPDU.
s_i_trc_md()	d559	Invalid return from `s_i_process_spdu_md()`.
s_i_trc_md()	d55a	Failed while reading parameter groups of SPDU header.
s_i_trc_md()	d55b	Failed while reading header of concatenated SPDU.
s_i_trc_md()	d55c	Illegal concatenation.
s_i_trc_md()	d55d	Invalid return from `s_i_process_spdu_md()`.
s_i_trc_md()	d55e	Failed while reading parameter groups of SPDU header.
s_i_trc_md()	d55f	LONG SPDU header; t_receive returned T_NEW_TSDU.
s_i_trc_md()	d560	LONG SPDU header; t_receive returned T_READ_END.
s_i_trc_md()	d561	Invalid return from `t_receive_complete()`.
s_i_trc_md()	d562	Invalid return from `t_receive_complete()`.
s_i_trc_md()	d563	Invalid return from `t_receive_complete()`.
s_i_trc_md()	d564	Illegal receive state.
s_i_size_check_md()	d565	SPDU header too long for input buffer; SPDU type is CN, AC, or RF.
s_i_size_check_md()	d566	SPDU header too long for input buffer; SPDU type is OUR_DT, PT, FN, DN, AA, or AB.
s_i_size_check_md()	d567	SPDU header too long for input buffer; SPDU type is GT.
s_i_size_check_md()	d568	Unknown SPDU type header.
s_i_last_norm_data_md()	d569	Invalid return code from `t_receive()`.
s_i_last_norm_data_md()	d56a	Illegal state - receive data.
s_i_more_norm_data_md()	d56b	Invalid return code from `t_receive()`.
s_i_more_norm_data_md()	d56c	Illegal state - receive data.
s_i_rec_norm_data_md()	d56d	Invalid return code from `t_receive()`.
s_i_rec_norm_data_md()	d56e	Invalid return code from `t_receive()`.
s_i_rec_norm_data_md()	d56f	Illegal state - receive data.

s_i_process_spdu_md()	d570	Bad byte count from `t_receive()`.
s_i_process_spdu_md()	d571	Unknown SPDU type.
s_i_process_spdu_md()	d572	Unknown SPDU type.
s_i_process_spdu_md()	d573	Illegal length of AB SPDU.
s_i_process_spdu_md()	d574	Illegal SPDU header length.
s_i_process_spdu_md()	d575	Failed while reading parameter groups of SPDU header.
s_i_process_spdu_md()	d576	Illegal concatenation.
s_i_process_spdu_md()	d577	Invalid return from `s_i_PI_buf_get_md()`.
s_i_process_spdu_md()	d578	Illegal state - receive SPDU header.
s_i_concat_check_md()	d579	Illegal concatenation with a GT SPDU.
s_i_concat_check_md()	d57a	Illegal concatenation.
s_i_trc_md()	d57b	Illegal length of AB SPDU.
s_i_trc_md()	d57c	Invalid return code from t_receive().
s_i_trc_md()	d57d	Bad byte count while reading AB SPDU.
s_i_trc_md()	d57e	Invalid return from `t_receive_complete()` while reading AB SPDU.
s_i_process_spdu_md()	d57f	Invalid return code while reading AB SPDU.
s_i_process_spdu_md()	d580	Bad byte count from `t_receive()`.
s_i_trc_md()	d581	Bad state for orderly release.
s_i_rec_norm_data_md()	d582	Bad state for orderly release.
s_i_concat_check_md()	d583	Improper concatenation - RS SPDU must be concatenated with meaningless GT SPDU.
s_i_concat_check_md()	d584	Improper concatenation - RA SPDU must be concatenated with a PT SPDU.
s_i_trc_md()	d585	Failure to discard remainder of SPDU.
s_i_trc_md()	d586	Invalid return code from `t_receive()` when in the discard receive state.
s_i_type_spdu_decode_md()	d587	RS/RA SPDU must be concatenated with GT/PT SPDU.
s_i_trc_md()	d588	Bad state for orderly release.
s_i_ac_spdu_mi()	d601	Session protocol machine in (illegal) state STA01C.
s_i_ac_spdu_mi()	d602	Parsing of SPDU failed.
s_i_ac_spdu_mi()	d603	No transport connection exists.
s_i_ac_spdu_mi()	d604	Expected t_connect_confirm.
s_i_ac_spdu_mi()	d605	Invalid session protocol machine state.
s_ac_parse_mi()	d606	Invalid token setting in AC SPDU.
s_ac_parse_mi()	d607	Invalid parameter group in AC SPDU.
s_ac_parse_mi()	d608	Parsing of AC SPDU failed.
s_ac_parse_mi()	d609	AC SPDU functional units specified incorrectly.
s_cn_spdu_mi()	d60a	Expected abort accept or transport disconnect indication.
s_cn_spdu_mi()	d60b	Receiving side not transport acceptor.
s_cn_spdu_mi()	d60c	Expected t_connect_confirm.
s_cn_spdu_mi()	d60d	No transport connection exists.
s_cn_spdu_mi()	d60e	Invalid session protocol machine state.
s_cn_parse_mi()	d60f	Invalid token setting in CN SPDU.
s_cn_parse_mi()	d610	Invalid duplex/half duplex choice in CN SPDU.
s_cn_parse_mi()	d611	SSAP length exceeds S_MAX_SSAP_ID_LEN.
s_cn_parse_mi()	d612	Invalid parameter group in CN SPDU.
s_cn_parse_mi()	d613	Parsing of CN SPDU failed.
s_i_rf_spdu_mi()	d614	Session protocol machine in illegal state (STA01C).
s_i_rf_spdu_mi()	d615	Session protocol machine in illegal state (STA01).
s_i_rf_spdu_mi()	d616	Expected t_connect_confirm.
s_i_rf_spdu_mi()	d617	Session protocol machine in invalid state.
s_rf_parse_mi()	d618	Duplex/half duplex option not specified in RF SPDU.
s_rf_parse_mi()	d619	Invalid parameter group in RF SPDU.
s_rf_parse_mi()	d61a	Parsing of RF SPDU failed.
s_i_c_req_mi()	d61b	User data length exceeds S_U_512_LEN.
s_i_c_req_mi()	d61c	Failed attempt to construct CN SPDU.
s_i_c_req_mi()	d61d	Failed attempt to get a transport connection.
s_i_c_req_mi()	d61e	User data length exceeds S_U_512_LEN.
s_i_c_req_mi()	d61f	Failed attempt to send CN SPDU.
s_i_c_req_mi()	d620	Failed attempt to construct CN SPDU.
s_i_c_req_mi()	d621	Sender not transport connection initiator.
s_i_c_req_mi()	d622	Session protocol machine in invalid state to receive connection request.
build_cn_spdu_mi()	d623	Failed attempt to add the connection ID parameter field to CN spdu.
build_cn_spdu_mi()	d624	Invalid token setting in building CN SPDU.
build_cn_spdu_mi()	d625	Invalid duplex/half duplex choice.
build_cn_spdu_mi()	d626	Failed attempt to add the session user requirements field to CN

		spdu.
build_cn_spdu_mi()	d627	Calling ssap identifier length > S_MAX_SSAP_ID_LEN.
build_cn_spdu_mi()	d628	Called ssap identifier length > S_MAX_SSAP_ID_LEN.
add_conn_id_mi()	d629	User reference parameter length > S_REF_MAX_LEN.
add_conn_id_mi()	d62a	Common reference length parameter > S_REF_MAX_LEN.
add_conn_id_mi()	d62b	Additional reference length parameter > S_REF_MAX_LEN.
add_cn_rf_sess_req_mi()	d62c	Invalid duplex/half duplex setting.
add_cn_rf_sess_req_mi()	d62d	Invalid expedited data setting.
add_cn_rf_sess_req_mi()	d62e	Invalid International Telecommunication Union - Telecommunication, Standardization Sector (ITU-TS) (formerly CCITT) standard subset selected.
add_ac_sess_req_mi()	d62f	Invalid duplex/half duplex setting.
add_ac_sess_req_mi()	d630	Invalid expedited data setting.
add_ac_sess_req_mi()	d631	Invalid International Telecommunication Union - Telecommunication, Standardization Sector (ITU-TS) (formerly CCITT) standard subset selected.
s_i_cacc_rsp_connect_mi()	d632	Expected TConnect confirm.
s_i_cacc_rsp_connect_mi()	d633	User data length > S_U_512_LEN.
s_i_cacc_rsp_connect_mi()	d634	Failed attempt to construct AC SPDU.
s_i_cacc_rsp_connect_mi()	d635	Failed attempt to send AC SPDU.
s_i_cacc_rsp_connect_mi()	d636	Session protocol machine in invalid state.
build_ac_spdu_mi()	d637	Failed attempt to add connection identifier parameter group to AC SPDU.
build_ac_spdu_mi()	d638	Invalid token setting.
build_ac_spdu_mi()	d639	Attempt to set data token in duplex mode.
build_ac_spdu_mi()	d63a	Invalid token holder setting.
build_ac_spdu_mi()	d63b	Failed to add session user requirements parameter items to an AC SPDU.
build_ac_spdu_mi()	d63c	Called ssap length > S_MAX_SSAP_ID_LEN.
s_i_crej_rsp_connect_mi()	d63d	Expected TConnect confirm.
s_i_crej_rsp_connect_mi()	d63e	User data length > S_U_512_LEN.
s_i_crej_rsp_connect_mi()	d63f	Failed attempt to construct RF SPDU with reuse set.
s_i_crej_rsp_connect_mi()	d640	Failed attempt to send RF SPDU with reuse set.
s_i_crej_rsp_connect_mi()	d641	Failed attempt to construct RF SPDU with no reuse set.
s_i_crej_rsp_connect_mi()	d642	Failed attempt to send RF SPDU with no reuse set.
s_i_crej_rsp_connect_mi()	d643	Session protocol machine in invalid state.
build_rf_spdu_mi()	d644	Invalid reason code with user data.
build_rf_spdu_mi()	d645	Failed attempt to add connection ID parameter group field to RF SPDU.
build_rf_spdu_mi()	d646	Invalid reason code with session user requirements.
build_rf_spdu_mi()	d647	Failed attempt to add session user requirements field to RF SPDU.
build_rf_spdu_mi()	d648	Illegal reason code.
s_i_t_con_connect_mi()	d649	Failed attempt to send CN SPDU.
s_i_t_con_connect_mi()	d64a	Expected T_Disconnect or abort accept indication.
s_i_t_con_connect_mi()	d64b	No transport connection.
s_i_t_con_connect_mi()	d64c	Illegal state for transport connection confirm.
s_i_tc_ind_mi()	d64d	Failed attempt to send T_CONNECT_RESPONSE.
s_i_tc_ind_mi()	d64e	Transport connection already established.
s_i_tc_ind_mi()	d64f	Expected abort accept or T_Disconnect indication.
s_i_tc_ind_mi()	d650	Illegal or invalid state to receive transport connection indication.
build_ac_spdu_mi()	d651	Invalid token holder setting.
build_ac_spdu_mi()	d652	Calling ssap identifier length > S_MAX_SSAP_ID_LEN.
s_i_c_req_mi()	d653	Could not get buffer to build CN SPDU.
s_ac_parse_mi()	d654	Too much user data on version 1 AC SPDU.
s_ac_parse_mi()	d655	Enclosure item not supported on AC SPDU.
s_ac_parse_mi()	d656	AC SPDU does not contain proposed version.
s_ac_parse_mi()	d657	AC SPDU does not contain one of the proposed data mode types (duplex or half duplex).
s_ac_parse_mi()	d658	Initial sync point serial number is missing.
s_i_cn_spdu_mi()	d659	Proposed version is not supported on this SSAP.
s_i_cn_spdu_mi()	d65a	Could not find indication function due to unrecognized SSAP.
s_cn_parse_mi()	d65b	User data too large for version 1 connect SPDU.
s_cn_parse_mi()	d65c	Extended user data not valid in version 1.
s_cn_parse_mi()	d65d	Overflow parameter not supported.
s_refuse_cn_mi()	d65e	Could not get buffer for sending RF SPDU.
s_refuse_cn_mi()	d65f	Failed to build RF SPDU.
s_refuse_cn_mi()	d660	Failed to send RF SPDU.
s_rf_parse_mi()	d661	Too much user information on version 1 RF SPDU.

s_rf_parse_mi()	d662	Enclosure parameter not supported on refuse SPDU.
s_i_c_req_mi()	d663	Invalid initial sync point serial number.
s_i_c_req_mi()	d664	Initial sync point serial number must not be set if resync functional unit not proposed.
s_i_c_req_mi()	d665	Invalid initial sync point serial number.
s_i_c_req_mi()	d666	Initial sync point serial number must not be set if resync functional unit not proposed.
add_cn_rf_sess_req_mi()	d667	Invalid resync functional unit setting.
add_ac_sess_req_mi()	d668	Invalid resync functional unit setting.
s_i_cacc_rsp_connect_mi()	d669	Invalid initial sync point serial number.
s_i_cacc_rsp_connect_mi()	d66a	Serial number must be S_NO_SERNUM if resync functional unit not proposed.
build_ac_spdu_mi()	d66b	Maximum SPDU length exceeded on AC.
build_ac_spdu_mi()	d66c	AC SPDU exceeds negotiated max TSDU size.
build_rf_spdu_mi()	d66d	Maximum SPDU length exceeded on RF SPDU.
build_rf_spdu_mi()	d66e	RF SPDU exceeds negotiated max TSDU size.
s_i_ac_spdu_mi()	d66f	Failure to discard AC SPDU.
s_ac_parse_mi()	d670	SSAP length exceeds S_MAX_SSAP_ID_LEN.
s_ac_parse_mi()	d671	Token setting item missing in conditions when it is required.
s_req_connect()	d701	Indication function not specified.
s_req_connect()	d702	No connection data structure available.
s_req_connect()	d703	Session connection set up failed.
s_acc_con_res()	d704	Error processing session accept request.
s_rej_con_res()	d705	Error processing session connect reject.
s_send_normal()	d706	Error processing send normal data request.
s_receive()	d707	Error processing receive request.
s_send_exp()	d708	Error processing send expedited data request.
s_give_tokens()	d709	Error processing give tokens request.
s_please_tokens()	d70a	Error processing please tokens request.
s_req_rel()	d70b	Error processing release request.
s_resp_rel()	d70c	Error processing release response request.
s_u_abort()	d70d	Error processing user abort request.
s_acc_con_res()	d70e	Illegal connection data structure pointer.
s_rej_con_res()	d70f	Illegal connection data structure pointer.
s_send_normal()	d710	Illegal connection data structure pointer.
s_receive()	d711	Illegal connection data structure pointer.
s_send_exp()	d712	Illegal connection data structure pointer.
s_give_tokens()	d713	Illegal connection data structure pointer.
s_please_tokens()	d714	Illegal connection data structure pointer.
s_req_rel()	d715	Illegal connection data structure pointer.
s_rel_resp()	d716	Illegal connection data structure pointer.
s_u_abort()	d717	Illegal connection data structure pointer.
s_set_uinfo()	d718	Invalid pointer to connection data structure.
s_rs_req()	d719	Invalid resync type requested - only abandon is supported.
s_rs_req()	d71a	Illegal connection data structure pointer.
s_rs_req()	d71b	Error processing resync request.
s_rs_rsp()	d71c	Illegal connection data structure pointer.
s_rs_rsp()	d71d	Error processing resync response.
s_set_timer_md()	d801	Abort timer already active on this connection.
s_gt_timer_md()	d802	Give tokens timer already active on this connection.
s_tnewtsdu_timer_md()	d803	tnewtsdu timer already active on this connection.
s_stop_timer_md()	d804	Abort timer not active on this connection.
s_timer_exp_md()	d805	Unknown timer type.
s_i_fn_spdu_mi()	d901	Illegal state (STA01C) to receive FN SPDU.
s_i_fn_spdu_mi()	d902	Illegal reuse after SPDU collision.
s_i_fn_spdu_mi()	d903	Illegal reuse during data transfer.
s_i_fn_spdu_mi()	d904	Illegal state to receive FN SPDU.
s_fn_parse_mi()	d905	User data > S_U_512_LEN.
s_fn_parse_mi()	d906	Illegal parameter identifier.
s_fn_parse_mi()	d907	FN SPDU parsing failed.
s_i_dn_spdu_mi()	d908	Illegal state (STA01C) to receive DN SPDU.
s_i_dn_spdu_mi()	d909	DN SPDU parsing failed.
s_i_dn_spdu_mi()	d90a	DN SPDU parsing error or S_P69_MI failed.
s_i_dn_spdu_mi()	d90b	Illegal state to receive DN SPDU.
s_dn_parse_mi()	d90c	User data > S_U_512_LEN.
s_dn_parse_mi()	d90d	Illegal parameter identifier.
s_dn_parse_mi()	d90e	DN SPDU parsing failed.
s_i_ab_spdu_mi()	d90f	AB SPDU parsing failed.
s_i_ab_spdu_mi()	d911	Failed attempt to send abort accept SPDU.
s_i_ab_spdu_mi()	d912	Failed attempt to send abort accept SPDU.
s_i_ab_spdu_mi()	d913	Illegal/invalid state to receive AB SPDU.

s_ab_parse_mi()	d914	Missing transport disconnect parameter.
s_ab_parse_mi()	d915	Illegal parameter group or length.
s_ab_parse_mi()	d916	Illegal user data in AB SPDU.
s_ab_parse_mi()	d917	REFLCT parameter not allowed.
s_ab_parse_mi()	d918	Illegal parameter identifier.
s_ab_parse_mi()	d919	AB SPDU parsing failed.
s_i_aa_spdu_mi()	d91a	Illegal state (STA01C) to receive AA SPDU.
s_i_aa_spdu_mi()	d91b	Expected TDisconnect indication.
s_i_aa_spdu_mi()	d91c	Illegal state to receive AA SPDU.
s_i_req_mi()	d91d	Expected abort accept, got release request.
s_i_req_mi()	d91e	User data length > S_U_512_LEN.
s_i_req_mi()	d91f	Failed attempt to send FN, no reuse, SPDU.
s_i_req_mi()	d920	Data token not available.
s_i_req_mi()	d921	User data length > S_U_512_LEN.
s_i_req_mi()	d922	Failed attempt to send FN SPDU, no reuse.
s_i_req_mi()	d923	Failed attempt to send FN SPDU, with reuse.
s_i_req_mi()	d924	Data token error.
s_i_req_mi()	d925	Illegal state to receive release request.
s_i_racc_rsp_release_mi()	d926	Expected abort accept, got release accept request.
s_i_racc_rsp_release_mi()	d927	Illegal value for finish request response.
s_i_racc_rsp_release_mi()	d928	User data length > S_U_512_LEN.
s_i_racc_rsp_release_mi()	d929	Failed attempt to send DN SPDU.
s_i_racc_rsp_release_mi()	d92a	Failed attempt to send DN SPDU.
s_i_racc_rsp_release_mi()	d92b	Failed attempt to send DN SPDU.
s_i_racc_rsp_release_mi()	d92c	Illegal state to receive release accept request.
s_i_racc_rsp_release_mi()	d92d	Null connection data structure pointer.
s_i_racc_rsp_release_mi()	d92e	Null connection data structure pointer.
s_i_u_abort_mi()	d92f	User data length > S_U_512_LEN.
s_i_td_ind_mi()	d933	Illegal state to receive TDisconnect indication.
s_i_timer_exp_mi()	d934	Illegal state for abort timer to expire.
s_i_u_abort_mi()	d935	Illegal state.
s_i_r_req_mi()	d936	Failed to get buffer for FN SPDU.
s_i_r_req_mi()	d937	Failed to get buffer for FN SPDU.
s_i_r_req_mi()	d938	Failed to get buffer for FN SPDU.
s_i_fn_spdu_mi()	d939	Parse of FN SPDU failed due to implementation restriction.
s_fn_parse_mi()	d93a	Enclosure item not supported on FN SPDU.
s_i_dn_spdu_mi()	d93b	Parse of DN SPDU failed due to implementation restriction.
s_dn_parse_mi()	d93c	Enclosure item not supported on DN SPDU.
s_ab_parse_mi()	d93d	Enclosure item not supported on AB SPDU.
s_i_r_req_mi()	d93e	Could not build FN SPDU (no reuse) due to too much user data.
s_i_r_req_mi()	d93f	Could not build FN SPDU (no reuse) due to too much user data.
s_i_r_req_mi()	d940	Could not build FN SPDU (reuse) due to too much user data.
s_i_racc_rsp_release_mi()	d941	Could not build DN SPDU due to too much user data.
s_i_racc_rsp_release_mi()	d942	Could not build DN SPDU due to too much user data.
s_i_racc_rsp_release_mi()	d943	Could not build DN SPDU due to too much user data.
s_i_u_abort_mi()	d944	Could not build AB SPDU due to too much user data.
s_i_fn_spdu_mi()	d945	Failed to discard FN SPDU.
s_i_fn_spdu_mi()	d946	Parse of FN SPDU failed due to implementation restriction.
s_i_fn_spdu_mi()	d947	Failure to discard FN SPDU.
s_i_fn_spdu_mi()	d948	Failure to discard FN SPDU.
s_i_fn_spdu_mi()	d949	Parse of FN SPDU failed due to implementation restriction.
s_i_fn_spdu_mi()	d94a	Parse of FN SPDU failed due to protocol error.
s_i_aa_spdu_mi()	d94b	Illegal state (STA01 or STA01B) to receive AA SPDU.
s_i_u_abort_mi()	d94c	Copy of abort user data from edma structure failed.
s_i_u_abort_mi()	d94d	Copy of abort user data from edma structure failed.
s_i_t_ind_md()	da01	Transport connection disconnected due to congestion.
s_i_t_ind_md()	da02	New connection data structure not allocated.
s_i_t_ind_md()	da03	No user indication function.
s_i_result_parse_md()	da04	Illegal value from indication function.
s_i_t_ind_md()	da05	Illegal connection data structure pointer.
s_i_result_parse_md()	da06	Null indication function.
s_i_result_parse_md()	da07	Null indication function.
s_i_result_parse_md()	da08	Null indication function.
s_i_result_parse_md()	da09	Null indication function.
s_i_result_parse_md()	da0a	Null indication function.
s_i_result_parse_md()	da0b	Null indication function.
s_i_result_parse_md()	da0c	Null indication function.
s_i_result_parse_md()	da0d	Null indication function.
s_i_t_ind_md()	da0e	Illegal state or return code combination for transport receive

		complete indication.
s_i_t_ind_md()	da0f	Illegal state or return code combination for transport receive complete indication.
s_i_result_parse_md()	da10	Null indication function.
s_i_result_parse_md()	da11	Null indication function.
s_i_result_parse_md()	da12	Invalid return code from processing a PT SPDU.
s_i_result_parse_md()	da13	Null indication function.
s_i_result_parse_md()	da14	Invalid return code from processing a PT SPDU.
s_i_result_parse_md()	da15	Null indication function.
s_i_result_parse_md()	da16	Null indication function.
s_i_result_parse_md()	da17	Null indication function.
s_parse_pi_pgi_mi()	db01	Reference parameter length > S_REF_MAX_LEN.
s_parse_pi_pgi_mi()	db02	Additional reference parameter length > S_ADDREF_MAX_LEN.
s_parse_pi_pgi_mi()	db03	Reflect parameter length > S_RFLCT_MAX_LEN.
s_parse_pi_pgi_mi()	db04	Called or calling SSAP length > S_MAX_SSAP_ID_LEN.
s_parse_pi_pgi_mi()	db05	Protocol options parameter length != S_LEN_PROOPT.
s_parse_pi_pgi_mi()	db06	Invalid value for TSDU maximum size.
s_parse_pi_pgi_mi()	db07	Invalid value for session user requirements parameter.
s_parse_pi_pgi_mi()	db08	Incorrect length for token setting parameters.
s_parse_pi_pgi_mi()	db09	Incorrect length for token item parameter.
s_parse_pi_pgi_mi()	db0a	Incorrect length for transport disconnect parameter.
s_parse_pi_pgi_mi()	db0b	Zero length reason code parameter.
s_parse_pi_pgi_mi()	db0c	Invalid parameter identifier.
s_parse_pi_pgi_mi()	db0d	Incorrect length of enclosure item parameter.
s_exq_put()	db0e	Incorrect length of expedited data SPDU.
s_exq_put()	db0f	Expedited data queue is full.
s_parse_pi_pgi_mi()	db10	User data > S_U_512_LEN.
s_parse_pi_pgi_mi()	db11	Invalid length of extended user data field.
s_parse_pi_pgi_mi()	db12	Invalid length of version parameter field.
s_parse_pi_pgi_mi()	db13	Invalid length of serial number parameter field.
s_parse_pi_pgi_mi()	db14	Invalid character in serial number parameter field.
s_parse_pi_pgi_mi()	db15	Reason code must be one byte for any reason other than S_RUINFO.
s_parse_pi_pgi_mi()	db16	Invalid length of prepare type parameter field.
s_parse_pi_pgi_mi()	db17	Invalid prepare type.
s_parse_pi_pgi_mi()	db18	Invalid length of resync type parameter field.
s_parse_pi_pgi_mi()	db19	Invalid resync type.
s_chk_u_data()	db1a	Parse failed while looking for user data.
s_cleanup()	db1b	Discard failed while cleaning up after refuse.
s_cleanup()	db1c	Invalid receive machine state for cleaning up after refuse.
s_cleanup()	db1d	Discard failed while cleaning up after abort.
s_cleanup()	db1e	Invalid receive machine state for cleaning up after abort.
s_cleanup()	db1f	The action causing cleanup is invalid.
s_i_nrm_data_mi()	dc01	Session protocol machine in illegal state to send data.
s_i_dt_data_mi()	dc02	Session protocol machine in illegal state to receive data.
s_i_exp_data_mi()	dc03	Session protocol machine in illegal state to send expedited data.
s_i_ex_data_mi()	dc04	Session protocol machine in illegal state to receive expedited data.
s_i_give_token_mi()	dc05	Session protocol machine in illegal state to send give tokens SPDU.
s_i_gt_spdu_mi()	dc06	Session protocol machine in illegal state to receive give tokens SPDU.
s_i_please_token_mi()	dc07	Session protocol machine in illegal state to send please tokens SPDU.
s_i_pt_spdu_mi()	dc08	Session protocol machine in illegal state to receive please tokens SPDU.
s_i_please_token_mi()	dc09	Previous action not complete.
s_i_dt_spdu_mi()	dc0a	Error detected after receiving DT SPDU while in discard state.
s_i_dt_spdu_mi()	dc0b	Error in discarding DT SPDU when waiting after PR-AB.
s_i_give_token_mi()	dc0c	No user data allowed on version 1 GT SPDU.
s_i_give_token_mi()	dc0d	Could not get buffer to send GT SPDU.
s_i_give_token_mi()	dc0e	Maximum SPDU size exceeded on GT SPDU.
s_i_gt_spdu_mi()	dc0f	Error while discarding GT SPDU.
s_i_gt_spdu_mi()	dc10	Error while discarding GT SPDU.
s_gt_parse_mi()	dc11	Missing token item parameter on GT SPDU.
s_gt_parse_mi()	dc12	GT SPDU received when either data token not in use or token

		already available.
s_gt_parse_mi()	dc13	Parse of GT SPDU failed.
s_gt_parse_mi()	dc14	User data not allowed on version 1 GT SPDU.
s_gt_parse_mi()	dc15	Enclosure item not supported on GT SPDU.
s_gt_parse_mi()	dc16	Invalid parameter on GT SPDU.
s_gt_parse_mi()	dc17	Parse of GT SPDU failed.
s_i_please_token_mi()	dc18	Maximum SPDU size exceeded on PT SPDU.
s_i_pt_spdu_mi()	dc19	Error while discarding PT SPDU.
s_i_gt_spdu_mi()	dc1a	Error while discarding PT SPDU.
s_pt_parse_mi()	dc1b	Missing parameter on PT SPDU.
s_pt_parse_mi()	dc1c	PT SPDU received when data token not in use.
s_pt_parse_mi()	dc1d	Parse of PT SPDU failed.
s_pt_parse_mi()	dc1e	User data exceeds maximum allowable size for version 1 PT SPDU.
s_pt_parse_mi()	dc1f	Enclosure item not supported on PT SPDU.
s_pt_parse_mi()	dc20	Invalid parameter on PT SPDU.
s_pt_parse_mi()	dc21	Parse of PT SPDU failed.
s_i_pr_spdu_mi()	dd01	Invalid state for receiving PR-RS.
s_i_pr_spdu_mi()	dd02	Invalid state for receiving PR-RS.
s_i_pr_spdu_mi()	dd03	Invalid state for receiving PR-RS.
s_i_pr_spdu_mi()	dd04	Invalid state for receiving PR-RA.
s_i_pr_spdu_mi()	dd05	Invalid state for receiving PR-RA.
s_i_pr_spdu_mi()	dd06	PR-AB invalid for version 1 protocol.
s_i_pr_spdu_mi()	dd07	Invalid state for receiving PR-AB.
s_i_pr_spdu_mi()	dd08	Invalid prepare type.
s_i_pr_spdu_mi()	dd09	Parse of PR SPDU failed.
s_i_pr_spdu_mi()	dd0a	Invalid PR SPDU - wrong size.
s_i_rs_qst_mi()	dd0b	Resync functional unit not selected.
s_i_rs_qst_mi()	dd0c	Invalid conditions for receiving resync request.
s_i_rs_qst_mi()	dd0e	Invalid conditions for receiving resync request.
s_i_rs_qst_mi()	dd0f	Must wait until send in progress completes before making resync request.
s_i_rs_qst_mi()	dd10	Failed to build RS SPDU.
s_i_rs_qst_mi()	dd11	Failed to send PR-RS SPDU.
s_i_rs_qst_mi()	dd12	Failed to send RS SPDU.
s_i_rs_qst_mi()	dd13	Invalid or unsupported resync type on resync request.
s_i_rs_qst_mi()	dd14	Invalid state for receiving resync request.
build_rs_spdu_mi()	dd15	Invalid token setting in RS request.
build_rs_spdu_mi()	dd16	Token setting missing in resync request when half duplex functional unit selected.
build_rs_spdu_mi()	dd17	Invalid or missing serial number in resync request.
build_rs_spdu_mi()	dd18	Too much user data for version 1 resync request.
build_rs_spdu_mi()	dd19	Resync request exceeds max SPDU size.
build_rs_spdu_mi()	dd1a	Resync request exceeds max TSDU size.
s_i_rs_rsp_mi()	dd1b	Serial number on resync response request does not match serial number on RS(a) indication.
s_i_rs_rsp_mi()	dd1c	Resync response requested before action completed for previous request.
s_i_rs_rsp_mi()	dd1d	Failure to build RA SPDU.
s_i_rs_rsp_mi()	dd1e	Failure in sending expedited PR-RA SPDU.
s_i_rs_rsp_mi()	dd1f	Failure to send RA SPDU.
s_i_rs_rsp_mi()	dd20	Illegal state for SS user to request a resync response.
build_ra_spdu_mi()	dd21	Illegal token setting on resync response.
build_ra_spdu_mi()	dd22	Illegal token setting on resync response.
build_ra_spdu_mi()	dd23	Illegal token setting on resync response.
build_ra_spdu_mi()	dd24	Token setting is missing on resync response.
build_ra_spdu_mi()	dd25	Illegal serial number on resync response.
build_ra_spdu_mi()	dd26	Too much user data for version 1 resync response.
build_ra_spdu_mi()	dd27	Resync response exceeds max SPDU size.
build_ra_spdu_mi()	dd28	Resync response exceeds max TSDU size.
s_i_rs_spdu_mi()	dd29	Discard of RS SPDU failed.
s_i_rs_spdu_mi()	dd2a	Invalid conditions for receiving RS SPDU.
s_i_rs_spdu_mi()	dd2b	Discard of RS SPDU failed.
s_i_rs_spdu_mi()	dd2c	Invalid conditions for receiving RS SPDU, or parse of RS SPDU failed.
s_i_rs_spdu_mi()	dd2d	Discard of RS SPDU failed.
s_i_rs_spdu_mi()	dd2e	Invalid conditions for receiving RS SPDU, or parse of RS SPDU failed.
s_i_rs_spdu_mi()	dd2f	Illegal state to receive RS SPDU.

s_rs_parse_mi()	dd30	Illegal token setting in RS SPDU.
s_rs_parse_mi()	dd31	Too much user data on RS SPDU for session protocol version 1.
s_rs_parse_mi()	dd32	Enclosure item not supported on RS SPDU.
s_rs_parse_mi()	dd33	Illegal parameter type on RS SPDU.
s_rs_parse_mi()	dd34	Parse of parameter on RS SPDU failed.
s_rs_parse_mi()	dd35	RS SPDU is missing mandatory resync type parameter.
s_rs_parse_mi()	dd36	RS SPDU is missing mandatory serial number parameter.
s_rs_parse_mi()	dd37	RS SPDU is missing token setting parameter in conditions when this parameter is mandatory.
s_i_ra_spdu_mi()	dd38	Discard of RA SPDU failed.
s_i_ra_spdu_mi()	dd39	Invalid conditions for receiving RA SPDU, or parse of RA SPDU failed.
s_i_ra_spdu_mi()	dd3a	Invalid conditions for receiving RA SPDU, or parse of RA SPDU failed.
s_i_ra_spdu_mi()	dd3b	Illegal state to receive RA SPDU.
s_ra_parse_mi()	dd3c	Conflicting token setting in RA SPDU.
s_ra_parse_mi()	dd3d	Conflicting token setting in RA SPDU.
s_ra_parse_mi()	dd3e	Illegal token setting in RA SPDU.
s_ra_parse_mi()	dd3f	Too much user data in RA SPDU.
s_ra_parse_mi()	dd40	Enclosure item not supported on RA SPDU.
s_ra_parse_mi()	dd41	Illegal parameter type on RA SPDU.
s_ra_parse_mi()	dd42	Parse of parameter on RA SPDU failed.
s_ra_parse_mi()	dd43	RA SPDU is missing mandatory serial number parameter.
s_ra_parse_mi()	dd44	RA SPDU is missing token setting parameter in conditions when this parameter is mandatory.

1.11 AP HANDLER

Source	Function	Code	Comment
pinitap3.c	pinitap3	df00	Call to IODRV space controller for memory failed.
pinitap3.c	pinitap3	df01	APH could not attach application type to SSAP.
pmsgap3.c	pmsgap3	df01	APH could not attach application type to SSAP.
archive.c	arch_lib	df02	ECD access of aphuser record for archive user requesting a connection returned IDNULL or IDERROR.
as_op_cl.c	as_open	df02	ECD access of aphuser record returned IDNULL or IDERROR.
asi_funcs.c	as_con_ind	df02	ECD access of aphuser record that an indication is to go to returned IDNULL or IDERROR.
as_op_cl.c	as_open	df0e	alloc_mdct failed in as_open().
asi_funcs.c	as_con_ind	df0f	alloc_mdct failed in as_con_ind().

1.12 SCSD HANDLER

Function	Code	Comment
prspsd3.c	e001	pushq1 failure.
pmsgsd3.c	e001	pushq1 failure.
sc_func.c	e001	pushq1 failure.
scsd.c	e102	No timing available.
prstsd3.c	e205	PC restoration failed.
sc_func.c	e206	Illegal internal state in sc_rst().
prspsd3.c	e503	Cannot allocate message.
prspsd3.c	e504	Failed to get port of admin.
prspsd3.c	e506	Failed to send message to admin.
prspsd3.c	e507	Unrecognized response from PC.
pmsgsd3.c	e701	Number of UCB pointers greater than one.
pmsgsd3.c	e707	Illegal point number.
pmsgsd3.c	e708	Illegal operation.
pmsgsd3.c	e709	Received unrecognized message.
pgrowsd3.c	e801	Cannot allocate message.
sc_admin.c	e902	Bad port number used for admin attach.
prspsd3.c	eaxx	PC returned error: code in low order bits (refer to the completion codes).

1.13 PP HANDLER

Each error code is of the form `SNN`, where `S` is the severity of the error and `NN` is an error identifier unique within the

given severity level.

The severity of an error will be one of the following:

0 = Minor error. Either a resource was exhausted, a procedural error was committed, or a minor software error was encountered. In the second two cases, the user may proceed normally, though if a software error occurred, some resources may have been lost.

These messages print at level 2.

1 = Association fatal error. An application association has gone insane. PPH will fail all send or receive requests from the user of the association until PPH is reinitialized, and any indication received by the association will result in an abort. Since the damage was limited to only the single association, other associations may proceed normally, though some resources may have been lost. Note that the affected user process may hang when errors of this sort occur. Each process will receive an E_ABORT event if the PPH is reinitialized. It is the process' responsibility to clean up and exit when this event is received.

These messages print at level 1.

2 = PPH fatal error. PPH's global data structures have become inconsistent or corrupted. All associations will be locked up, and PPH will fail all send and receive requests from any user until PPH is reinitialized. An indication received for any association will result in an abort. Note that some or all user processes may hang when errors of this sort occur. Each process will receive an E_ABORT event if the PPH is reinitialized. It is the process' responsibility to clean up and exit when this event is received.

These messages print at level 1.

If a severity 1 or 2 error is encountered, contact the first level of technical support for instructions on how to reinitialize the PPH.

Function	Code	Comment
acse_pm	f001	Unexpected or invalid ACSE indication; aborting association.
a_ascreq_idle	f002	Could not get pphuser record.
a_pascrsp_w_assoc_rsp	f003	Could not get ACSE implementation information.
a_nascrsp_w_assoc_rsp	f004	Could not get ACSE implementation information.
a_aarq_idle	f005	Error decoding AARQ; aborting association.
a_aarq_idle	f006	ACSE version not supported; refusing association.
a_aarq_idle	f007	Could not map to ACSE user; refusing association.
a_aarep_w_aare	f008	Error decoding AARE; aborting association.
a_aarep_w_aare	f009	Invalid ACSE version; aborting association.
a_aarep_w_aare	f00a	Invalid ACSE association result; aborting association.
a_aaren_w_aare	f00b	Error decoding AARE; aborting association.
a_aaren_w_aare	f00c	Invalid ACSE association result; aborting association.
a_aaren_w_aare	f00d	Invalid ACSE result source diagnostic; aborting association.
a_aaren_w_aare	f00e	ACSE called application entity invocation identifier not recognized; aborting association.
a_rlrq_assoc	f00f	Error decoding RLRQ--APPLICATION 1 tag not present; aborting association.
a_rlrq_assoc	f010	Error decoding RLRQ--APPLICATION 1 tag not present; aborting association.
a_rlrq_assoc	f011	Error decoding RLRQ; aborting association.
a_rlrep	f012	Error decoding RLRE--APPLICATION 1 tag not present; aborting association.
a_rlrep	f013	Error decoding RLRE--APPLICATION 1 tag not present; aborting association.
a_rlrep	f014	Error decoding RLRE; aborting association.
a_p_2uabind_anybut_idle	f015	Error decoding ABRT; aborting association.
a_getrqevt	f016	Invalid read queue primitive; aborting association.

p_sindics	f017	Invalid session indication--ignored.
p_sindics	f018	Indication received while PPH fatal error condition exists; aborting connection.
p_sindics	f019	Presentation connection data structure invalid or all structures exhausted; aborting connection.
p_sindics	f01a	Indication received while association fatal error condition exists; aborting connection.
p_sindics	f01b	Indication structures exhausted; aborting connection.
p_sindics	f01c	Unexpected session indication received while another is pending; aborting connection.
p_sindics	f01d	Could not set session user information; aborting connection.
p_sindics	f01e	Could not free presentation connection data structure.
p_sindics	f01f	Encoded connect PDU header buffers exhausted; aborting connection.
p_sindics	f020	Could not free presentation connection data structure.
p_sindics	f021	Decoded connect PDU header buffers exhausted; aborting connection.
p_sindics	f022	Could not free presentation connection data structure.
p_sindics	f023	Could not receive connect PDU headers; connection is gone.
p_sindics	f024	Encoded connect PDU header buffers exhausted; aborting connection.
p_sindics	f025	Decoded connect PDU header buffers exhausted; aborting connection.
p_sindics	f026	Could not receive connect confirm PDU headers; connection is gone.
p_sindics	f027	Encoded abort PDU header buffers exhausted; aborting connection.
p_sindics	f028	Decoded abort PDU header buffers exhausted; aborting connection.
p_sindics	f029	Could not receive abort PDU headers; connection is gone.
p_sindics	f02a	Encoded abort PDU header buffers exhausted; aborting connection.
p_sindics	f02b	Decoded abort PDU header buffers exhausted; aborting connection.
p_sindics	f02c	Could not receive release PDU headers; connection is gone.
p_sindics	f02d	Encoded resynchronize PDU header buffers exhausted; aborting connection.
p_sindics	f02e	Decoded resynchronize PDU header buffers exhausted; aborting connection.
p_sindics	f02f	Could not receive resynchronize PDU headers; connection is gone.
p_sindics	f030	Received send acknowledgement when no user was attached; aborting connection.
p_sindics	f031	Received send acknowledgement when no user was attached; aborting connection.
p_sindics	f032	Could not free presentation connection data structure.
p_sindics	f033	Could not free presentation connection data structure.
p_sindics	f034	Could not free presentation connection data structure.
p_sindics	f035	Invalid action complete indication--ignored.
p_sindics	f036	Encoded abort PDU header buffers exhausted; aborting connection.
p_sindics	f037	Decoded abort PDU header buffers exhausted; aborting connection.
p_sindics	f038	Could not receive PDU headers; connection is gone.
p_give_sindic	f039	Decoded connect PDU header buffer was not allocated.
p_give_sindic	f03a	Could not free presentation connection data structure.
p_give_sindic	f03b	Fatal error occurred after passing up session indication.
p_free_pdu_buffers	f03c	Encoded connect PDU header buffer not allocated.
p_free_pdu_buffers	f03d	Decoded connect PDU header buffer not allocated.
p_free_pdu_buffers	f03e	Encoded abort PDU header buffer not allocated.
p_free_pdu_buffers	f03f	Decoded abort PDU header buffer not allocated.
p_free_pdu_buffers	f040	Encoded resynchronize PDU header buffer not allocated.
p_free_pdu_buffers	f041	Decoded resynchronize PDU header buffer not allocated.
p_free_pdu_buffers	f042	Invalid indication type; buffer not freed.
p_no_hdr_cleanup	f043	Could not free presentation connection data structure.

p_no_hdr_cleanup	f044	Invalid indication; PDU header buffers not freed and abort indication not sent.
p_no_hdr_cleanup	f045	Encoded abort PDU header buffers exhausted; aborting connection.
p_no_hdr_cleanup	f046	Decoded abort PDU header buffers exhausted; aborting connection.
a_dabort	f047	Unexpected user abort output PDU header buffer.
setup_edma	f048	Could not map user buffer.
p_add_tag	f049	Could not map user buffer.
pinitpp3	f04a	Unrecognized initialization type--ignored.
p_sindics	f04b	Could not discard data; connection is gone.
pmsgpp3	f04c	Process died with association waiting; aborting association.
si_detach	f04d	Detached while association waiting; aborting association.
pph_memory	f04e	Could not attach to SSAP.
pph_memory	f04f	ECD access error; may have unattached SSAPs.
pph_memory	f050	Too many pphuser records; excess records ignored.
si_close	f051	Closed while association waiting; aborting association.
pmsgpp3	f053	Could not map control buffer; read request failed.
pmsgpp3	f054	Could not map control buffer; write request failed.
pmsgpp3	f055	Could not map control buffer; detach request may or may not have failed.
pmsgpp3	f056	Invalid RC/V operation type--ignored.
pmsgpp3	f057	Could not attach to new SSAP--ignored.
pmsgpp3	f058	ECD access error; pphuser insertion ignored.
pmsgpp3	f059	ACSE user information structures exhausted; pphuser insertion ignored.
pmsgpp3	f05a	Could not attach to new SSAP--ignored.
pmsgpp3	f05b	Unrecognized pphuser record; update ignored.
pmsgpp3	f05c	ECD access error; pphuser update ignored.
pmsgpp3	f05d	Invalid RC/V operation type--ignored.
pmsgpp3	f05e	Unexpected ECD record type--ignored.
pmsgpp3	f05f	No presentation connection data structure corresponding to MSACK; association may have been previously aborted.
pmsgpp3	f060	Received MSACK for unexpected message type, or process creation failed.
pph_restart	f061	Detach failed or caused an active session connection to be aborted.
si_req_ack	f062	Could not map control buffer; user request failed.
pph_ssap_detach	f063	Detach failed or caused an active session connection to be aborted.
pph_ssap_detach	f064	Active user forcibly detached.
pph_ssap_detach	f065	Waiting user forcibly detached.
pph_ssap_detach	f066	Waiting association discarded because of a detach.
si_dequeue	f067	Queue corrupted; dequeue failed.
pres_pm	f068	Unexpected or invalid presentation layer indication; aborting connection.
p_cp_idle	f069	Error decoding CP; aborting connection.
p_cp_idle	f06a	Could not get pphuser record; refusing connection.
p_cp_idle	f06b	Called presentation address unknown; refusing connection.
p_cp_idle	f06c	Called presentation address unknown; refusing connection.
p_cp_idle	f06d	Presentation version not supported; refusing connection.
p_cp_idle	f06e	ACSE presentation context not found or transfer syntax not supported; refusing connection.
p_cpa_w_cpar	f06f	Error decoding CPA; aborting connection.
p_cpa_w_cpar	f070	Presentation version not supported; aborting connection.
p_cpa_w_cpar	f071	Presentation context definition result list not present; aborting connection.
p_cpa_w_cpar	f072	Presentation requirements not supported; aborting connection.
p_cpr_w_cpar	f073	Error decoding CPR; aborting connection.
p_cpr_w_cpar	f074	Presentation context definition result list not present; aborting connection.
p_arp_anybut_idle	f075	Error decoding ARP; aborting connection.
p_arp_anybut_idle	f076	Invalid presentation provider abort reason; aborting connection.
p_aru_anybut_idle	f077	Error decoding ARU; aborting connection.
p_rsyncind_dx	f078	Error decoding RS; aborting connection.
p_rsynccnf_dx	f079	Error decoding RSA; aborting connection.
p_getrqevt	f07a	Error in processing presentation indication; aborting

		connection.
p_getrqevt	f07b	Invalid session primitive; aborting connection.
si_attach	f07c	ACSE/PL user structures exhausted; attach failed.
si_attach	f07d	ECD access error; attach failed.
si_detach	f07e	Could not free ACSE/PL user structure.
si_detach	f07f	Unexpected ACSE/PL user structure; detach failed.
pp_get_p_con_data	f080	Presentation connection data structures exhausted.
pp_get_p_con_data	f081	Presentation connection data structure corrupted; discarding structure.
pp_free_p_con_data	f082	Invalid presentation connection data structure--ignored.
pp_free_p_con_data	f083	Unexpected user abort output PDU header buffer.
pp_free_p_con_data	f084	Indication queue corrupted; discarding presentation connection data structure.
pp_get_acse_pl_user	f085	ACSE/PL user structures exhausted.
pp_fr_acse_pl_user	f086	Invalid ACSE/PL user structure--ignored.
pp_fr_acse_pl_user	f087	Could not map control buffer; user request failed.
si_cbuf_size	f088	Invalid ACSE/PL indication.
si_open	f089	Process information structures exhausted; open failed.
si_close	f08a	Could not free ACSE/PL user structure.
si_enq_indic	f08b	Could not free ACSE/PL user structure.
si_prc_recv	f08c	Invalid ACSE/PL indication; aborting association.
si_prc_recv	f08d	Could not map control buffer; receive request failed.
si_prc_recv	f08e	Could not map user buffer; receive request failed.
si_prc_recv	f08f	Could not receive user data; association is gone.
si_cmp_recv	f090	Error decoding user data; aborting association.
si_cmp_recv	f091	User data overran buffer trailer area; aborting association.
si_cmp_recv	f092	Data present beyond end of PDUs; aborting association.
si_cmp_recv	f093	Invalid ACSE/PL indication; aborting association.
si_cmp_recv	f094	Could not acknowledge user request and data may have been lost; aborting association.
si_fr_inbuf	f095	Encoded connect PDU header buffer not found.
si_fr_inbuf	f096	Decoded connect PDU header buffer not found.
si_fr_inbuf	f097	Encoded abort PDU header buffer not found.
si_fr_inbuf	f098	Decoded abort PDU header buffer not found.
si_fr_inbuf	f099	Encoded resynchronize PDU header buffer not found.
si_fr_inbuf	f09a	Decoded resynchronize PDU header buffer not found.
si_fr_inbuf	f09b	Invalid ACSE/PL indication.
si_ack_recv	f09c	Could not receive user data; aborting association.
si_udata_present	f09d	Invalid ACSE/PL indication.
si_dec_trailers	f09e	Error decoding ABRT trailer; aborting association.
si_dec_trailers	f09f	Error decoding ARU PDV-list trailer; aborting association.
si_dec_trailers	f0a0	Error decoding ARU trailer; aborting association.
si_dec_trailers	f0a1	Error decoding RLRQ trailer; aborting association.
si_dec_trailers	f0a2	Error decoding RLRQ PDV-list trailer; aborting association.
si_dec_trailers	f0a3	Error decoding RLRE trailer; aborting association.
si_dec_trailers	f0a4	Error decoding RLRE PDV-list trailer; aborting association.
si_dec_trailers	f0a5	Error decoding AARQ trailer; aborting association.
si_dec_trailers	f0a6	Error decoding AARQ PDV-list trailer; aborting association.
si_dec_trailers	f0a7	Error decoding CP trailer; aborting association.
si_dec_trailers	f0a8	Presentation mode not supported; aborting association.
si_dec_trailers	f0a9	Error decoding AARE trailer; aborting association.
si_dec_trailers	f0aa	Error decoding AARE PDV-list trailer; aborting association.
si_dec_trailers	f0ab	Error decoding CPA trailer; aborting association.
si_dec_trailers	f0ac	Presentation mode not supported; aborting association.
si_dec_trailers	f0ad	Error decoding AARE trailer; aborting association.
si_dec_trailers	f0ae	Error decoding AARE PDV-list trailer; aborting association.
si_dec_trailers	f0af	Error decoding CPR trailer; aborting association.
si_dec_trailers	f0b0	Error decoding RS trailer; aborting association.
si_dec_trailers	f0b1	Error decoding RSA trailer; aborting association.
si_dec_trailers	f0b2	Unexpected provider abort PDU trailers.
si_dec_trailers	f0b3	Unexpected data, expedited data, give token, or please token PDU trailers.
si_dec_trailers	f0b4	Invalid ACSE/PL indication.
si_end_data	f0b5	Invalid ACSE/PL indication.
si_end_data	f0b6	Could not map user buffer and data may have been lost; aborting association.
si_more_data	f0b7	More data result received for unexpected indication type; aborting association.
si_more_data	f0b8	Could not map control buffer and data may have been lost;

		aborting association.
si_map_assoc	f0b9	No user found to receive association indication.
si_map_assoc	f0ba	Could not get ucb record for process creation.
si_map_assoc	f0bb	ECD access error.
si_map_assoc	f0bc	Could not allocate process creation message.
si_map_assoc	f0bd	Could not send process creation message.
si_prc_send	f0be	Could not map control buffer; failing send request.
si_prc_send	f0bf	Presentation connection data structures exhausted; failing association request.
si_prc_send	f0c0	Unexpected encoded abort PDU header buffer.
si_prc_send	f0c1	Encoded abort PDU header buffers exhausted.
si_prc_send	f0c2	Unexpected encoded connect PDU header buffer.
si_prc_send	f0c3	Encoded connect PDU header buffers exhausted.
si_fr_outbuf	f0c4	Encoded abort PDU header buffer not found.
si_fr_outbuf	f0c5	Encoded connect PDU header buffer not found.
si_fr_outbuf	f0c6	Invalid ACSE/PL indication.
si_abt_comp	f0c7	Could not free ACSE/PL user structure.
si_abt_ind	f0c8	Could not map control buffer; failing send request.
si_resync_ind	f0c9	Could not map control buffer; failing send request.
si_resync_ind	f0ca	Could not map control buffer; failing send request.
si_resync_ind	f0cb	Could not map control buffer; failing send request.
si_resync_ind	f0cc	Could not map control buffer; failing send request.
si_send_abt	f0cd	Unexpected generated abort failure or process created user died without closing.
si_send_abt	f0ce	Unexpected generated abort failure.
si_send_abt	f0cf	Unexpected generated abort failure.
si_send_abt	f0d0	Unexpected generated abort failure.
si_send_abt	f0d1	Unexpected generated abort failure.
si_send_abt	f0d2	Unexpected generated abort failure.
si_send_abt	f0d3	Invalid return code from ACSE protocol machine.
si_snd_pabt	f0d4	Unexpected generated abort failure.
si_snd_pabt	f0d5	Unexpected generated abort failure.
si_snd_pabt	f0d6	Unexpected generated abort failure.
si_snd_pabt	f0d7	Unexpected generated abort failure.
si_snd_pabt	f0d8	Unexpected generated abort failure.
si_snd_pabt	f0d9	Unexpected generated abort failure.
si_snd_pabt	f0da	Invalid return code from ACSE protocol machine.
pp_discard	f0db	Could not receive data to be discarded; association is gone.
si_deq_msg	f0dc	Data corruption in ACSE/PL user queue; PPH will be restarted.
si_deq_msg	f0dd	Hanging ACSE/PL user may occur after PPH is restarted.
flshmmp3	f0de	Data corruption in ACSE/PL user's receive queue; PPH will be restarted.
flshmmp3	f0df	Hanging ACSE/PL user may occur after PPH is restarted.
pph_init	f0e0	ECD access error; unable to get messages count from btparm record.
p_sindics	f101	Presentation connection data structure corrupted; discarding structure and aborting connection.
p_sindics	f102	Waiting indication queue corrupted; abort indication ignored.
p_sindics	f103	Indication free queue corrupted; abort indication ignored.
p_sindics	f104	Presentation connection data structure corrupted; discarding structure and aborting connection.
p_sindics	f105	Indication free queue corrupted; discarding presentation connection data structure.
p_sindics	f106	Indication free queue corrupted; discarding presentation connection data structure.
p_sindics	f107	Indication free queue corrupted; discarding presentation connection data structure.
p_sindics	f108	Waiting indication queue corrupted; receive acknowledgement indication ignored.
p_sindics	f109	Waiting indication queue corrupted.
p_sindics	f10a	Waiting indication queue corrupted.
p_s_rs_req	f10b	Receive request queue corrupted.
p_s_rs_req	f10c	Indication queue corrupted.
pp_fr_waiting_indics	f10d	Waiting indication queue corrupted.
pp_fr_waiting_indics	f10e	Waiting indication queue corrupted.
si_enq_recv	f10f	Receive request queue corrupted; receive request failed.
si_enq_indic	f110	Receive request queue corrupted; receive request failed.
si_enq_indic	f111	Indication queue corrupted; discarding presentation connection

		data structure.
si_prc_recv	f112	Indication queue corrupted; receive request failed.
si_recv_error	f113	Indication queue corrupted; no abort sent.
si_recv_error	f114	Receive request queue corrupted; no abort sent.
si_enq_send	f115	Send request queue corrupted; request failed.
si_resync_ind	f116	Send request queue corrupted; failing send request.
si_resync_ind	f117	Send request queue corrupted; failing send request.
acse_pm	f201	ACSE double abort finite state machine entry not found.
acse_pm	f202	Internally generated ACSE finite state machine entry not found.
p_sindics	f203	ACSE/PL user structure queue corrupted; action complete indication ignored.
p_sindics	f204	Presentation connection data structure queue corrupted; action complete indication ignored.
p_sindics	f205	Presentation connection data structure queue corrupted; action complete indication ignored.
p_sindics	f206	Received action complete indication when no user was attached; indication ignored.
p_sindics	f207	Received receive complete indication when no user was attached; indication ignored.
p_give_sindic	f208	Invalid return code from presentation layer protocol machine.
p_gen_cpr	f209	Could not encode generated CPR.
p_p_dabort	f20a	Could not encode generated ARP.
p_p_dabort	f20b	Could not set up EDMA for generated ARP.
a_gen_aaren	f20c	Could not encode generated refuse AARE.
a_gen_aaren	f20d	Could not set up EDMA for generated refuse AARE.
a_gen_aaren	f20e	Could not send generated refuse AARE.
a_dabort	f20f	Could not encode generated ABRT.
a_dabort	f210	Could not set up EDMA for generated ABRT.
a_dabort	f211	Could not send generated ABRT.
pph_memory	f212	ACSE user information table corrupted.
pp_mem_complete	f213	Invalid dynamic memory type; initialization
pp_mem_complete	f214	Incorrect amount of dynamic memory; initialization failed.
pp_mem_complete	f215	Invalid dynamic memory type; initialization failed.
pmsgpp3	f216	ACSE user information structure queue corrupted.
pmsgpp3	f217	ACSE user information structure queue corrupted.
pmsgpp3	f218	ACSE user information structure queue corrupted.
pph_ssap_detach	f219	Presentation connection data structure queue corrupted.
pph_ssap_detach	f21a	ACSE/PL user structure queue corrupted.
pph_ssap_detach	f21b	ACSE/PL user structure queue corrupted.
pph_ssap_detach	f21c	Presentation connection data structure queue corrupted.
pres_pm	f21d	Presentation double abort finite state machine entry not found; aborting connection.
pres_pm	f21e	Internally generated presentation finite state machine entry not found; aborting connection.
si_attach	f21f	Presentation connection data structure queue corrupted; attach failed.
si_detach	f220	Process information structure not found; detach failed.
si_detach	f221	ACSE/PL user structure queue corrupted; detach failed.
pp_fr_acse_pl_user	f222	ACSE/PL user structure still linked to presentation connection data structure.
si_close	f223	ACSE/PL user structure queue corrupted.
si_close	f224	Process information structure queue corrupted.
si_enq_indic	f225	Presentation connection data structure queue corrupted.
si_enq_indic	f226	Presentation connection data structure queue corrupted.
si_enq_indic	f227	ACSE/PL user structure queue corrupted.
si_cmp_recv	f228	Presentation connection data structure queue corrupted.
si_cmp_recv	f229	ACSE/PL user structure queue corrupted.
si_map_assoc	f22a	ACSE/PL user structure queue corrupted.
si_prc_send	f22b	ACSE/PL user structure not found or queue is corrupted.
si_prc_send	f22c	ACSE/PL user structure queue corrupted.
si_prc_send	f22d	Presentation connection data structure queue corrupted.
si_prc_pm_result	f22e	Unexpected return code from protocol machine.
si_prc_pm_result	f22f	Presentation connection data structure queue corrupted.
si_prc_pm_result	f230	ACSE/PL user structure queue corrupted.
si_cmp_send	f231	Presentation connection data structure queue corrupted.
si_cmp_send	f232	ACSE/PL user structure queue corrupted.
si_abt_comp	f233	Presentation connection data structure queue corrupted.
si_abt_comp	f234	ACSE/PL user structure queue corrupted.
si_send_abt	f235	Presentation connection data structure queue corrupted.

si_snd_pabt	f236	ACSE/PL user structure queue corrupted.
si_snd_pabt	f237	Presentation connection data structure queue corrupted.
pph_init	f238	Exceeded dynamic memory limit; initialization failed.
pph_memory	f239	Could not allocate dynamic memory; initialization failed.
pph_memory	f23a	Could not allocate timer; initialization failed.
pp_ecd_init_info	f23b	ECD access error; initialization failed.
pp_ecd_init_info	f23c	ECD access error; initialization failed.

1.14 BXSL HANDLER

Function	Code	Comment
modglob.c	e1	A signal has been delivered to a locked model. Model name, signal number, and state of the model are given. Format of additional string information is defined as: `m4:p q r` `p` = A string of model name. `q` = Signal in hexadecimal. `r` = Major control block's state in decimal.
modglob.c	e2	A signal is not recognized by a model. Model name, signal number, and state of the model are given. Format of additional string information is defined as: `m4:p q r` `p` = A string of model name. `q` = Signal in hexadecimal. `r` = Major control block's state in decimal.
modglob.c	e3	A signal is sent from a major model to a submodel that has not been invoked. Hex code for the major model, state of the major model, and signal number are given. Format of additional string information is defined as: `m4:p q r` `p` = Major model in hexadecimal. `q` = State of the major model in decimal. `r` = Signal in hexadecimal.
modglob.c	e4	A major model attempted to invoke a submodel that is already invoked. Address of the major model and state of the major model are given. Format of additional string information is defined as: `m4:p q` `p` = Model control function's program address in hexadecimal. `q` = Model control block's state in decimal.

pmsgsl3.C	e5	The model failed to free an SCB from the user. Some SCB structures may be orphaned.
modglob.c	f0	`Idle_model()` was called with a session control block address of NULL. Return address of the caller is given. Format of additional string information is defined as: `m4:p` `p` = `Idle_model()` return address in hexadecimal.
modglob.c	f1	`Idle_model()` was called with a session control block still joined to the user. Address of the model and state of the model is given. Format of additional string information is defined as: `m4:p q` `p` = Model control function's program address in hexadecimal. `q` = Model control block's state in decimal.
modglob.c	f2	`Idle_model()` was called with a session control block still joined to the circuit. Address of the model and state of the model is given. Format of additional string information is defined as: `m4:p q` `p` = Model control function's program address in hexadecimal. `q` = Model control block's state in decimal.
modglob.c	f3	`Idle_model()` was called and the input submodel has not been updated to idle. Address of the input submodel, state of the input submodel, address of the major model, and state of the major model are given. Format of additional string information is defined as: `m4:p q r s` `p` = Input model control function's program address in hexadecimal. `q` = Input model control block's state in decimal. `r` = Model control function's program address in hexadecimal. `s` = Model control block's state in decimal.
modglob.c	f4	`Idle_model()` was called and the output submodel has not been updated to idle. Address of the output submodel, state of the output submodel, address of the major model, and state of the major model are given. Format of additional string information is defined as:

		`m4:p q r s` `p` = Output model control function's program address in hexadecimal. `q` = Output model control block's state in decimal. `r` = Model control function's program address in hexadecimal. `s` = Model control block's state in decimal.
modglob.c	f5	`Idle_model()` was called and the auxiliary input buffer has not been released. Address and state of the model are given. Format of additional string information is defined as: `m4:p q` `p` = Model control function's program address in hexadecimal. `q` = Model control block's state in decimal.
modglob.c	f6	`Idle_model()` was called and a timer is still running. The timer type, address and state of the model are given. Format of additional string information is defined as: `m4:p q r` `p` = Session control block's timer type in hexadecimal. `q` = Output model control function's program address in hexadecimal. `r` = Output model control block's state in decimal.
modglob.c	f7	`Idle_model()` was called and the session control block is still on the list of pcreated processes. Address of the model and state of the model are given. Format of additional string information is defined as: `m4:p q` `p` = Model control function's program address in hexadecimal. `q` = Model control block's state in decimal.
sltime.C	7	Current timer index in SCB is not the same as the time-out index. Format of additional string information is defined as: `TIM:p q` `p` = Current timer index in hexadecimal. `q` = Time-out index in hexadecimal. 1 Connect ID mapping failed. Format of additional string

		information is defined as: `Tmapfail:p` `p` = Session connect ID in hexadecimal.

1.15 SPECIAL WARNING MESSAGES

Code	Comment
fff01	No responses to process in interrupt entry.
fff02	Response not properly passed to handler (lost).
fff03	Resp queue ul pointer written by someone other than IODRV.

The output of all of the above error codes can be controlled by the SET:IODRV and CLR:IODRV input messages.

APP:IOP-F-B

Software Release: 5E13 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. ERROR CODES GENERATED BY INPUT/OUTPUT DRIVER (IODRV)

The codes are in hexadecimal notation.

1.1 IODRV

Function	Code	Comment
iointr.c	0100	Cannot convert iorid to ucblp.
iointr.c	0101	Report error has exceeded the acceptable error count.
iointr.c	0102	Cannot reset interrupt flag in BIC.
iointr.c	0104	PIC passed out of range load printer.
iointr.c	0106	Failed to sense D2SBS status.
iointr.c	0107	D2SBS status off-normal.
em_iointr.c	0108	Error encountered getting response from response queue.
procrsp.c	0200	Base priority queue overflow.
procrsp.c	0300	Cannot convert iorid to ucblp.
procrsp.c	0301	Unknown response received.
procrsp.c	0304	PC audit response failure.
procrsp.c	0400	Cannot convert iorid to ucblp.
procrsp.c	0401	Unknown response received.
kost.c	0501	OST is invalid for this dev.
kost.c	0504	Extraneous OST.
kost.c	0505	Cannot map ldin to UCB(s).
servr2.c	0600	Cannot convert iorid to ucblp.
servr2.c	0640	Failed to get PCSD's UCB.
servr2.c	0641	`downucb()` failed for PCSDs.
servr2.c	0642	Cannot get PC's UCB.
servr2.c	0643	`downucb()` failed to get PC's UCB.
servr2.c	0644	Failed to get IOP's UCB.
servr2.c	0645	Link to device handler failed.
servr2.c	0646	Link to device handler failed.
servr2.c	0670	Failed to get PCSD's UCB.
servr2.c	0671	`downucb()` failed for PCSDs.
servr2.c	0672	Cannot get PC's UCB.
servr2.c	0673	`downucb()` failed to get PC's UCB.
servr2.c	0674	Failed to get IOP's UCB.
servr2.c	0677	Cannot get IOP/PC's UCB.
procrsp.c	0711	Encountered idle response queue entry.
procrsp.c	0712	Response queue load pointer out of range.
isc.c	0740	isalloc failure - align argument out of acceptable range.
isc.c	0741	isalloc failure - user requested more than segment of space.
isc.c	0742	isalloc failure - iolockseg failed.
isc.c	0743	isalloc failure - no requester nodes available.
isc.c	0744	isalloc error - isalign could not find growable element.
isc.c	0748	isalloc failure - IMF add message could not be sent to MMGR.
isc.c	0749	isalloc failure - IMF grow message could not be sent to MMGR.
isc.c	074a	isalloc failure - IMF add message could not be sent to MMGR.
isc.c	0750	isc problem - MSACK from MMGR indicates add failed.
isc.c	0751	isc failure - grow retry failed.
isc.c	0752	isc failure - isimfretry could not find growable element.
isc.c	0758	isc failure - normal grow request failed.
isc.c	0759	isc failure - retry grow request for single user failed.
isc.c	075a	isc failure - degrow request failed.
isc.c	075b	isc failure - grow of unidentifiable type failed.
isc.c	075c	isalloc failure - iolockseg failed.
isc.c	0760	isc problem - IMF could not send remove message to MMGR.
isc.c	0761	isc problem - IMF could not send degrow message to MMGR.
isc.c	0768	iscanreq failure - invalid cancellation identifier.
isc.c	0769	iscanreq failure - invalid cancellation identifier (o).
isc.c	0770	isfree problem - attempt to unlock failed.
isc.c	0771	isfree failure - invalid security identifier.

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isc.c	0772	isfree failure - invalid user area address.
isc.c	077a	isunlk failure - imf could not decrement lock count.
isc.c	077b	isunlk warning - block unlocked but iounlkseg not invoked.
isc.c	077c	isunlk failure - invalid security identifier.
isc.c	077d	isunlk failure - invalid user area address.
isc.c	077e	isc problem - no growable free space element in segment.
smc.c	0780	smalloc failure - SMID length argument exceeds maximum.
smc.c	0781	smalloc failure - invalid alignment boundary argument.
smc.c	0782	smalloc failure - block length argument exceeds allocated size.
smc.c	0783	smalloc failure - alignment argument differs from allocated block.
smc.c	0784	smalloc failure - no requester nodes available.
smc.c	0785	smalloc failure - block length argument exceeds size requested.
smc.c	0786	smalloc failure - no shared memory block request nodes available.
smc.c	0787	smalloc failure - no requester nodes available.
smc.c	0788	smalloc failure - ISC allocation failed.
smc.c	0789	smalloc error - rqip node not found.
smc.c	078a	smalloc failure - ISC allocation failed.
smc.c	0790	smcanreq failed - invalid cancel request identifier.
smc.c	0791	smcanreq failed - invalid shared memory identifier.
smc.c	0792	smcanreq failed - zero is invalid cancel request identifier.
smc.c	0798	smfree failed - invalid shared memory block address.
smc.c	0799	smfree failed - invalid security identifier.
cfr.c	07c0	cfread failure - no requester nodes available.
cfr.c	07c1	cfread failure - no file request nodes available.
cfr.c	07c2	cfread failure - no requester nodes available.
cfr.c	07c8	cfread failure - unable to open file.
cfr.c	07d0	cfread failure - isalloc unsuccessful.
cfr.c	07d1	cfread abort by cfreadbuf - no requesters or invalid state.
cfr.c	07d8	cfread - iounlk failed in cfreadack.
cfr.c	07d9	cfread failure - FMGR message acknowledgement has bad status.
cfr.c	07da	cfread - no file request node found for read acknowledgement.
cfr.c	07e0	cfread failure - FMGR message retry threshold exceeded.
cfr.c	07e4	cfread failure - RQIP node with timeout tag not found.
cfr.c	07e8	cfcanreq error - invalid cancel request identifier.
cfr.c	07e9	cfcanreq error - file not found.
cfr.c	07ea	cfcanreq error - invalid cancel request identifier.
cfr.c	07f0	cffree - freeing file with negative use count.
cfr.c	07f1	cffree error - invalid security identifier.
cfr.c	07f2	cffree error - invalid address.
cfr.c	07f3	`cfaunlock()` - freeing file with negative use count.
cfr.c	07f8	cfread failure - message buffer overflow.
cfr.c	07f9	cfread failure - timer request unsuccessful.
cfr.c	07fa	cfread failure - message buffer overflow.
cfr.c	07fb	cfread failure - timer request unsuccessful.
cfr.c	07fc	cfread failure - kgetsgn call unsuccessful.
cfr.c	07fd	cfread - queuemn for close message to FMGR unsuccessful.
cfr.c	07fe	cfread - buffer allocation failure for close message.
faultaud.c	0802	No handler to process message audit. Format of additional string information is defined as: `UNIT a b1` `a` = A string for device name. `b` = A decimal for device number.
ioevnt.c	0803	Invalid message type.
ioevnt.c	0804	Message doesn't contain an iorid.
ioevnt.c	0805	Message doesn't contain an iorid.
ioevnt.c	0806	IOMESG message doesn't contain an iorid.
ioevnt.c	0808	Cannot link message to device handler.
ioevnt.c	0809	Cannot link message to maint handler.
ioevnt.c	080a	Unknown message type.
ioevnt.c	080b	Cannot link message to device handler.
ioevnt.c	080c	IODRV both send and receiver of message (not USRACK).
ioevnt.c	0810	Not a pointer in driver's data space.

ioevnt.c	0813	Cannot link message to transport protocol handler.
faultaud.c	0828	`lkhand1()` returned ENOHAND.
faultaud.c	0829	Cannot map to a UCB.
faultaud.c	082a	Invalid input option.
faultaud.c	0830	USRACK expected in system returned message.
faultaud.c	0831	`lkhand1()` returned ENOHAND.
faultaud.c	0832	`lkhand1()` returned ENOHAND.
faultaud.c	0833	`lkhand1()` returned ENOHAND.
procmsg.c	0901	RID cannot map to a UCB. Format of additional string information is defined as: `a b c d` `a` = Message sender's process number in hexadecimal. `b` = A '`0`' indicates the following item in '`c`' is a MDCT RID. A '`1`' indicates that to be a UCB RID. `c` = UCB PID or MDCT RID in hexadecimal. `d` = Message sender's utility ID in hexadecimal. 1 To get a full copy of the above UCB or MDCT, use following browse procedures: ">" is the browse prompt, after it is the operator input. The line below the input line is response from browse. Comments enclosed are not part of the input/response. >`browse %-ecd` /* Enter database name for browse */ `%-ecd` /* browse acknowledgement */ >`dd /usr/bin/ecd_aux` /* Enter data dictionary look up */ >`/usr/bin/ecd_aux` /* browse acknowledgement */ >`0x496a0/r` /* dump record with RID of 0x496a0 */ &..... content of the record &..... >`q` /* quit after dump completion */
procmsg.c	0902	Invalid input option (not CVTRID or CVTLDIN).
procmsg.c	0905	Cannot link message to maint handler.
procmsg.c	0906	Cannot link message to device handler.
procmsg.c	0a01	Cannot map RID to UCB.
procmsg.c	0a06	Cannot link message to device handler.
updflsh.c	0b00	PCn flash programming - timed out - mark PC community in service.
updflsh.c	0b01	PCn flash programming - timed out - clear PC.
updflsh.c	0b02	PCn flash programming - timed out- reset PC isolate flip-flop and mark in-service.
updflsh.c	0b03	PCn flash programming - timed out- read PC scan back.
updflsh.c	0b04	PCn flash programming - timed out- pump PC code.
updflsh.c	0b05	PCn flash programming - timed out - read PC code version.
updflsh.c	0b06	PCn flash programming - timed out - execute PC code.
updflsh.c	0b07	PCn flash programming - timed out - pump PC code.
updflsh.c	0b08	PCn flash programming - timed out - clear PC.
updflsh.c	0b0b	PCn flash programming - proc_ufm() failed to get timer to update flash RAM.
updflsh.c	0b0c	PCn flash programming - timed out - update flash RAM.
initma.c	0c00	`initdb()` cannot get list of IOPs.
initma.c	0c01	`initdb()` cannot attach to database.
initma.c	0c02	Failed DMAC RAM initialization - IOPn not restored.

initma.c	0c03	EMPT pointer has bad virtual address.
initma.c	0c04	EMPT has bad virtual address.
initma.c	0d00	IOP member number too large - IOPn not restored.
initma.c	0d03	Cannot convert iorid to ucblp.
initma.c	0d04	Cannot convert iorid to ucblp.
initma.c	0d05	Cannot get list of IOPs.
initma.c	0d06	Cannot attach to ECD.
initma.c	0d07	IOPn attached to wrong port.
initma.c	0d08	`timreq1()` function returned FAIL.
initma.c	0d09	Failed to attach to a port.
initma.c	0d0a	Unable to obtain PC power down reset timer.
initmb.c	0e04	Memory not allocated for IOPn - leave OOS.
initmb.c	0e05	Unable to convert PC RID to UCB.
initmb.c	0e06	Unable to convert PCSD RID to UCB.
initmb.c	0e07	No memory exists for PC.
initmb.c	0e08	No memory exists for PCSD.
initmb.c	0e0a	Downucbs returned fail.
initmb.c	0e0b	Downucbs function returned fail.
servr2.c	0f00	Unable to convert I/O rid to a ucblp.
servr2.c	0f01	Cannot map virtual address to a segment number or downucbs failed for PCSDs.
servr2.c	0f02	Cannot lock segment or cannot get PC's UCB.
servr2.c	0f03	Cannot unlock segment or cannot get PC's UCB.
servr2.c	0f04	Failed to get IOP's UCB.
servr2.c	0f05	Failed to link to application handler.
servr2.c	0f06	Link to device handler failed.
picgh.c	1001	Asynchronous PIC completion failure report (not during restoration).
picgh.c	1002	Generic PIC handler in wrong state for given response.
servr1.c	1100	C_FAIL returned by CONFIG for rptrerr.
servr1.c	1101	Recovery - timeout request failure.
servr1.c	1102	Cannot convert iorid to ucblp.
servr1.c	1103	Recovery will be performed on device.
picgh.c	1200	IOPn restore - no timing available.
picgh.c	1300	IOPn restore - cannot clear BIC.
picgh.c	1302	IOPn restore - invalid sequence number.
picgh.c	1303	IOPn restore - cannot reset PIC.
picgh.c	1306	IOPn restore - cannot send sysgen pio.
picgh.c	1307	IOPn restore - failed to enable interrupts.
picgh.c	1308	IOPn restore - cannot clear D2SBS.
picgh.c	1309	IOP restore - PIC pump failure - trying alternate pumpcode filename. ECD may have incorrect name for IOP pump file or system might be configured for AM IOP.
picgh.c	130a	IOP restore - PIC pump failure - trying backup version alternate pumpcode filename. ECD may have incorrect name for IOP pump file or the primary pumpcode file may be corrupted or the IOP is configured for the AM.
picgh.c	130d	Failed to free use of the pumpcode file.
picgh.c	130e	Cancellation of request to read pumpcode file failed.
picgh.c	1400	IOPn restore - completion code error.
picgh.c	1401	IOPn restore - invalid sequence number.
picgh.c	1402	IOPn restore - the `asndma21()` function failed to assign DMA slot.
picgh.c	1403	IOPn restore - the `getpta()` function failed to get PTA.
picgh.c	1404	IOPn restore - the `sendpio1()` function failed to send the message to IOP.
picgh.c	1405	IOPn restore - the `cfread()` function failed to read the pumpcode file.
picgh.c	1406	IOPn restore - invalid sequence number.
picgh.c	1407	IOPn restore - the `getsucbl()` function call failed, cannot retrieve the UCB record for the IOP.
picgh.c	1408	IOPn restore - the `getpta()` function failed to get PTA.
picgh.c	1409	IOPn restore - the `asndma21()` function failed to assign DMA slot.
picgh.c	1500	IOPn restore - timed out.
pcgh.c	1601	Asynchronous PC completion failure report (not during restoration).

pcgh.c	1602	Generic PC handler in wrong state for given response.
pcgh.c	1701	PCn restore failed.
pcgh.c	1702	Cannot get PIC UCB.
prms.c	170a	Unable to get message buffer for PRM.
prms.c	170b	Unable to send PRM message to SIM.
pcgh.c	1800	PCn restore - message queue failure - mark PC comm in service.
pcgh.c	1801	PCn restore - message queue failure - clear PC.
pcgh.c	1802	PCn restore - message queue failure - reset PC isolate flip-flop and mark in service.
pcgh.c	1803	PCn restore - message queue failure - read PC scanback.
pcgh.c	1804	PCn restore - message queue failure - pump PC code.
pcgh.c	1805	PCn restore - message queue failure - execute PC code.
pcgh.c	1806	`getpta()` returned failure.
pcgh.c	1807	PCn restore - invalid sequence number.
pcgh.c	1808	PCn restore - message queue failure - read PC code version.
pcgh.c	1809	MTTYC restore - PC pump failure - trying alternate pumpcode filename. ECD database may have incorrect name for MTTYC pump file (TN83/TN983).
pcgh.c	180a	pcclear failed to free copy of pump file.
pcgh.c	180b	pcclear failed to cancel pending request for copy of pump file.
pcgh.c	180c	`Asndma1()` failure.
pcgh.c	180d	pccomp cannot pump - getpta call failed.
pcgh.c	180e	pccomp cannot pump - cfread failed.
pcgh.c	180f	PCn pump abort - PC already being pumped.
pcgh.c	1810	PCn pump abort - wrong sequence number.
pcgh.c	1811	PCn restore failure - could not get UCB.
pcgh.c	1813	getpta() returned failure for MTTYC (UN583).
pcgh.c	1814	MTTYC restore - message queue failure - read UN583 pump file version.
pcgh.c	1820	PCn restore - no timing available.
pcgh.c	1821	MTTYC restore - no timing available - read UN583 pump file version.
pcgh.c	1900	PCn restore - completion code failure mark PC comm in service.
pcgh.c	1901	PCn restore - completion code failure - clear PC.
pcgh.c	1902	PCn restore - completion code failure - reset PC isolate flip-flop and mark in service.
pcgh.c	1903	PCn restore - completion code failure - read PC scan back.
pcgh.c	1904	PCn restore - completion code failure - pump PC code.
pcgh.c	1905	PCn restore - completion code failure - execute PC code.
pcgh.c	1906	PCn restore - invalid sequence no.
pcgh.c	1907	PCn restore - no timing available.
pcgh.c	1908	PCn restore - completion code failure - read PC code version.
pcgh.c	1909	PCn restore - PC not plugged in.
pcgh.c	190a	MTTYC restore - completion code failure - read UN583 pump file version.
pcgh.c	1930	PCn restore - unrecognized response - mark PC comm in service.
pcgh.c	1931	PCn restore - unrecognized response - clear PC.
pcgh.c	1932	PCn restore - unrecognized response - reset PC isolate flip-flop and mark in service.
pcgh.c	1933	PCn restore - unrecognized response - read PC scan back.
pcgh.c	1934	PCn restore - unrecognized response - pump PC code.
pcgh.c	1935	PCn restore - unrecognized response - execute PC code.
pcgh.c	1938	PCn restore - unrecognized response - read PC code version.
pcgh.c	1939	MTTYC restore - unrecognized response - read UN583 pump file version.
pcgh.c	1a00	PCn restore - timed out - mark PC comm in service.
pcgh.c	1a01	PCn restore - timed out - clear PC.
pcgh.c	1a02	PCn restore - timed out - reset PC isolate flip-flop and mark in service.
pcgh.c	1a03	PCn restore - timed out - read PC scanback.
pcgh.c	1a04	PCn restore - timed out - pump PC code.
pcgh.c	1a05	PCn restore - timed out - read PC code version.
pcgh.c	1a06	PCn restore - timed out - execute PC code.
updflsh.c	1a0b	PCn flash programming - prgflsh1() message queue failure -

		mark PC community in-service.
updflsh.c	1a0c	PCn flash programming - prgflsh1() message queue failure - clear PC.
updflsh.c	1a0d	PCn flash programming - prgflsh1() message queue failure - reset PC isolate flip-flop and mark in-service.
updflsh.c	1a0e	PCn flash programming - prgflsh1() message queue failure - read PC scan back.
updflsh.c	1a0f	PCn flash programming - prgflsh1() failed to get page table address.
updflsh.c	1a10	PCn flash programming - prgflsh190 message queue failure - read PC code version.
updflsh.c	1a11	PCn flash programming - prgflsh1() message queue failure - execute PC code.
updflsh.c	1a12	PCn flash programming - prgflsh190 message queue failure - clear PC.
updflsh.c	1a13	PCn flash programming - prgflsh1() failed to get message buffer.
updflsh.c	1a14	PCn flash programming - prgflsh1() - invalid sequence number.
updflsh.c	1a20	PCn flash programming - prgflsh1() - no timing available for mark PC community in-service.
updflsh.c	1a21	PCn flash programming - prgflsh1() - no timing available for clear PC.
updflsh.c	1a22	PCn flash programming - prgflsh1() - no timing available for reset PC isolate flip-flop and mark in-service.
updflsh.c	1a23	PCn flash programming - prgflsh1() - no timing available for read PC scan back.
updflsh.c	1a24	PCn flash programming - prgflsh1() - no timing available for read PC code version.
updflsh.c	1a25	PCn flash programming - prgflsh1() - no timing available for execute PC code.
updflsh.c	1a26	PCn flash programming - prgflsh1() - no timing available for clear PC.
pcgh.c	1aff	PCn restore - timed out - PC restoration no longer in progress.
iowque.c	1b00	Push queue - message queue full.
em_iowque.c	1b01	Push queue - push queue failure.
em_iowque.c	1b02	Push queue - failure to queue request due to invalid request, queue corruption, or resource problem.
em_iowque.c	1b03	Push queue - failure to queue request for unknown reason.
updflsh.c	1b0a	PCn flash programming - pcclear2() failed to free use of pumpcode/flash file.
updflsh.c	1b0b	PCn flash programming - pcclear2() failed to cancel request for pumpcode/flash file.
updflsh.c	1b0c	PCn flash programming - pccomp2() failed to assign DMA slot.
updflsh.c	1b0d	PCn flash programming - pccomp2() message queue failure - PC pump (no erase of flash file).
updflsh.c	1b0e	PCn flash programming - ppcomp2() message queue failure - PC pump (erase of flash file).
updflsh.c	1b0f	PCn flash programming - ppcomp2() message queue failure - PC pump (administration flash file).
updflsh.c	1b10	PCn flash programming - ppcomp2() failed to get page table address.
updflsh.c	1b11	PCn flash programming - ppcomp2() failed to read flash file.
updflsh.c	1b12	PCn flash programming - ppcomp2() abort PC pump - PC already being pumped.
updflsh.c	1b13	PCn flash programming - ppcomp2() abort PC pump - wrong sequence number.
updflsh.c	1b14	PCn flash programming - ppcomp2() could not get PC UCB.
updflsh.c	1b15	PCn flash programming - ppcomp2() failed to cancel request for pumpcode/flash file.
updflsh.c	1b16	PCn flash programming - ppcomp2() failed to read flash file.
updflsh.c	1b17	PCn flash programming - ppcomp2() failed to read all of the flash files.
updflsh.c	1b18	PCn flash programming - ppcomp2() retrieved flash file with

		incorrect file size.
updflsh.c	1b19	PCn flash programming - get_flsh_files() - invalid flash file index.
updflsh.c	1b20	PCn flash programming - ppcomp2() - no timing available for PC pump (no erase of flash file).
updflsh.c	1b21	PCn flash programming - ppcomp2() - no timing available for PC pump (erase of flash file).
updflsh.c	1b22	PCn flash programming - ppcomp2() - no timing available for PC pump (administration flash file).
rstcont.c	1c01	Cannot convert iorid to ucblp.
rstcont.c	1c02	Cannot convert iorid to ucblp.
updflsh.c	1c0a	PCn flash programming - prgflsh2() completion code failure - mark PC community in-service.
updflsh.c	1c0b	PCn flash programming - prgflsh2() completion code failure - clear PC.
updflsh.c	1c0c	PCn flash programming - prgflsh2() completion code failure - reset PC isolate flip-flop and mark in-service.
updflsh.c	1c0d	PCn flash programming - prgflsh2() - PC not plugged in.
updflsh.c	1c0e	PCn flash programming - prgflsh2() completion code failure - read scan back.
updflsh.c	1c0f	PCn flash programming - prgflsh2() completion code failure - pump PC code.
updflsh.c	1c10	PCn flash programming - prgflsh2() completion code failure - read PC code version.
updflsh.c	1c11	PCn flash programming - prgflsh2() completion code failure - execute PC code.
updflsh.c	1c12	PCn flash programming - prgflsh2() completion code failure - pump PC code.
updflsh.c	1c13	PCn flash programming - prgflsh2() completion code failure - clear PC.
updflsh.c	1c14	PCn flash programming - prgflsh2() invalid sequence number.
updflsh.c	1c15	PCn flash programming - prgflsh2() failed to get a message buffer.
updflsh.c	1c20	PCn flash programming - prgflsh2() - no timing available for clear PC.
updflsh.c	1c21	PCn flash programming - prgflsh2() - no timing available for clear PC.
updflsh.c	1c30	PCn flash programming - prgflsh2() unrecognized response - mark PC community in-service.
updflsh.c	1c31	PCn flash programming - prgflsh2() unrecognized response - clear PC.
updflsh.c	1c32	PCn flash programming - prgflsh2() unrecognized response - reset PC isolate flip-flop and mark in-service.
updflsh.c	1c33	PCn flash programming - prgflsh2() unrecognized response - read PC scan back.
updflsh.c	1c34	PCn flash programming - prgflsh2() unrecognized response - pump PC code.
updflsh.c	1c35	PCn flash programming - prgflsh2() unrecognized response - read PC code version.
updflsh.c	1c36	PCn flash programming - prgflsh2() unrecognized response - execute PC code.
updflsh.c	1c37	PCn flash programming - prgflsh2() unrecognized response - pump PC code.
updflsh.c	1c38	PCn flash programming - prgflsh2() unrecognized response - clear PC.
rstcont.c	1d00	Cannot complete common IODRV mem initialization.
rstcont.c	1d01	Unable to convert IOP RID to UCB.
rstcont.c	1d02	Unable to release data base record.
rstcont.c	1d03	Unable to obtain list of PCs.
rstcont.c	1d04	Unable to convert PC RID to UCB.
rstcont.c	1d05	Unable to release database record.
rstcont.c	1d06	Unable to obtain list of PCSDs.
rstcont.c	1d07	Unable to convert PCSD RID to UCB.

rstcont.c	1d08	Unable to release database record.
rstcont.c	1d09	Unable to obtain list of PCSDs.
rstcont.c	1d0a	Unable to convert PCSD RID to UCB.
rstcont.c	1d0b	Unable to release database record.
rstcont.c	1d0c	Bad device level.
rstcont.c	1d20	`setboot()` got FAIL from `downucb()`.
rstcont.c	1d21	`setboot()` got FAIL from `relrec()`.
rstcont.c	1d22	`setboot()` cannot convert RID to UCB.
servr1.c	1d60	Unknown unit level.
servr1.c	1d61	No words to zero.
iowque.c	1e00	Send pio - cannot read BIC status.
iowque.c	1e01	Send pio - failed to read BIC status.
iowque.c	1e02	Send pio - BIC status error or message flag stuck.
iowque.c	1e03	Send pio - failed to send programmed I/O instr.
outmsg.c	1f00	Cannot convert iorid to ucblp.
iotime.c	2000	Cannot convert iorid to ucblp.
rstcont.c	2100	Cannot convert iorid to ucblp.
rstcont.c	2101	`lkhand1()` returned fail.
rstcont.c	2200	downucbs function returned fail.
rstcont.c	2300	Bad handler ID.
rstcont.c	2301	`restsd()` cannot convert RID to UCB.
iolkh.c	2400	`getucbl()` failed to get IOP UCB.
rmvcont.c	2401	downucbs function returned fail.
rmvcont.c	2402	Cannot convert a rid to a UCB record.
rmvcont.c	2403	`rqstrmv()` returned C_FAIL or unknown response.
iolkh.c	2410	getcomsupv - no free comsupvinfo structure.
servr1.c	2500	Cannot convert iorid to ucblp.
servr1.c	2501	downucbs function returned fail.
servr1.c	2502	downucbs function returned fail.
servr1.c	2503	Cannot convert iorid to ucblp.
servr1.c	2504	downucbs function returned fail.
servr1.c	2505	Cannot convert PCSD RID to UCB record.
servr1.c	2506	`haltact()` cannot convert RID to UCB.
servr1.c	2600	Cannot convert a rid to a UCB record.
servr1.c	2601	downucbs function returned fail.
servr1.c	2602	Cannot convert iorid to ucblp.
outmsg.c	2700	Cannot convert iorid to ucblp.
outmsg.c	2800	Cannot convert iorid to ucblp.
rmvcont.c	2900	downucbs function returned fail.
rmvcont.c	2901	Cannot convert iorid to ucblp.
rmvcont.c	2a00	downucbs function returned fail.
rmvcont.c	2a01	Unable to convert PC RID to UCB.
rmvcont.c	2b00	Cannot convert iorid to ucblp.
rmvcont.c	2b01	`rmv half()` encountered invalid unit level.
rmvcont.c	2c00	Cannot convert iorid to ucblp.
crmvcont.c	2c03	Cannot convert iorid to ucblp.
crmvcont.c	2c04	`downucbs()` function returned FAIL.
crmvcont.c	2c05	Cannot convert iorid to ucblp.
crmvcont.c	2c06	`downucbs()` function returned FAIL.
crmvcont.c	2c07	Cannot convert iorid to ucblp.
crmvcont.c	2c08	Cannot convert iorid to ucblp.
crmvcont.c	2c09	Cannot convert iorid to ucblp.
crmvcont.c	2c0a	Cannot convert iorid to ucblp.
crmvcont.c	2c0b	`downucbs()` function returned FAIL.
crmvcont.c	2c0c	Cannot convert iorid to ucblp.
crmvcont.c	2c0d	`downucbs()` function returned FAIL.
crmvcont.c	2c0e	Cannot convert iorid to ucblp.
crmvcont.c	2c0f	`downucbs()` function returned FAIL.
crmvcont.c	2c10	Cannot convert iorid to ucblp.
crmvcont.c	2c11	PCn remove - no timing available.
crmvcont.c	2c12	Cannot get PC UCB.
crmvcont.c	2c13	Cannot get PIC UCB.
crmvcont.c	2c14	Cannot get PC UCB.
crmvcont.c	2c15	Function `deltrg1()` returned FAIL.
outmsg.c	2c20	Conditional remove - cannot get timing.
outmsg.c	2c21	Conditional remove - cannot get timing.
rmvcont.c	2c30	Function `downucbs()` returned FAIL.
rmvcont.c	2c31	Function `rqstrmv()` returned C_FAIL or unknown response.
rmvcont.c	2c32	Function `get llarec()` returned FAIL from UCB access.
outmsg.c	2d00	Cannot convert iorid to ucblp.
rstcont.c	2e00	Memory initialization failure.

rstcont.c	2e01	Cannot convert iorid to ucblp.
rstcont.c	2e02	`getucbl()` failed to get IOP UCB.
rstcont.c	2f00	downucbs function returned fail.
fault.c	3000	FLT_SCRIT fltcode unexpected.
fault.c	3001	FLT_SINIT fault.
fault.c	3002	Software fault. Format of additional string information is defined as: `FLTC X'a PA X'b,` `a` = Reference APP:IOP-E for fault code. `b` = Program address.
fault.c	3003	FLT_SOFTSW fltcode unexpected.
fault.c	3004	Strange fault code.
fault.c	3005	IODRV owns an old non-queued audit error message.
fault.c	3006	Illegal OST.
outmsg.c	3101	Unable to convert unit RID to UCB.
wkspc.c	3110	Unable to convert unit RID to UCB.
wkspc.c	3120	`bgrowucmp()` got FAIL from `isfree()`.
wkspc.c	3121	`bgrowucm()` got FAIL from `isfree()`.
wkspc.c	3122	`dyngrowump()` got FAIL from `isfree()`.
wkspc.c	3123	Failed to release UCB reword.
wkspc.c	3124	Cannot get size requirement for PCSD boot growth.
wkspc.c	3125	Cannot get size requirement for PC boot growth.
wkspc.c	3126	Cannot update incore UCB for boot growth failure.
wkspc.c	3127	Cannot update incore UCB for delayed growth failure.
wkspc.c	3130	Cannot update incore UCB for growth failure.
ioimf.c	3160	Unable to obtain a message buffer while attempting to add a segment.
ioimf.c	3161	Unable to activate a timer while attempting to add a segment.
ioimf.c	3162	Unable to obtain a message buffer while attempting to grow a segment.
ioimf.c	3163	Unable to activate a timer while attempting to grow a segment.
ioimf.c	3164	Unable to obtain a message buffer while attempting to remove a segment.
ioimf.c	3165	Invalid message type.
ioimf.c	3166	Unable to queue the message.
ioimf.c	3170	Add message acknowledgement received but no timer was set.
ioimf.c	3171	Grow message acknowledgement received but no timer was set.
ioimf.c	3172	Invalid message type.
ioimf.c	3173	Pointer contained in ms_ident is not in I/O driver's address space.
iointr.c	3174	Pointer contained in ms_ident is not in I/O driver's address space.
ioimf.c	3180	Either a message was lost or an attempt failed, causing a retry to have to be made.
ioimf.c	3181	Unable to activate the settle-down timer.
ioimf.c	3182	The retry counter has been exceeded.
ioimf.c	3190	Invalid message type.
ioimf.c	3191	Unable to set initialization timer in imfinit.
ioimf.c	3192	ioimftout cannot find MCT.
wkspc.c	31c0	Bad unit level.
wkspc.c	31c1	Cannot get size requirement for PC growth.
wkspc.c	31c2	Cannot get size requirement for PCSD growth.
wkspc.c	31e0	Unable to attach to interrupts for IOPn.
wkspc.c	31e1	Unable to get page table address for IOPn.
wkspc.c	31e2	Unable to initialize DMAC RAM for IOPn.
wkspc.c	31e3	Unable to obtain IOPn option block.
wkspc.c	31e4	Failed to attach to interrupt - IOP not restored.
fault1.c	3200	DMA restart - cannot abort job.
fault1.c	3201	Failed to enable interrupts for IOPn.
fault1.c	3202	Failed to initialize DMAC ram.
fault1.c	3203	DMA restart - cannot clear BIC.
fault1.c	3204	DMA restart - cannot set interface enable.

fault1.c	3300	Cannot convert iorid to ucblp.
fault1.c	3401	Reboot IOP - pio lost.
fault.c	3500	Cannot convert iorid to ucblp.
fault.c	3501	pio has been lost for a unit.
fault.c	3503	IODRV took message buffer audit fault.
fault.c	3600	Cannot convert iorid to ucblp.
fault.c	3601	PICn or PCn implicated.
fault.c	3602	PICn implicated.
fault.c	3603	PICn affected but not implicated.
fault.c	3604	High error count, but must limp along.
fault.c	3605	Fault message ignored.
fault.c	3606	High error count, remove.
fault.c	3607	PICn affected but not implicated.
fault.c	3608	High error count, but must limp along.
fault.c	3609	Too many faults.
fault.c	360a	No timer entry for short limp mode delay.
fault.c	360b	No timer entry for long limp mode delay.
fault.c	360c	Function `rptierr()` returned C_FAIL or unknown response.
fault.c	360d	Message buffer audit fault.
fault1.c	3703	NADRD, NPICP, or NDREP fault code - unit not identified.
iolla.c	3801	Unable to get UCB record (IORID call Phase I).
iolla.c	3802	Unable to get MDCT record (IORID call Phase II).
iolla.c	3803	Invalid input option (not CVTRID or CVTLDIN).
iolla.c	3806	MDCT rid not available.
iolla.c	3807	Cannot convert a rid to a MDCT record.
iolla.c	3808	MDCT does not contain at least one UCB rid.
iolla.c	3900	`getsucb1()` cannot get UCB.
iolla.c	3901	Bad RID passed as argument to `getsucb1()`.
iolla.c	3902	Invalid record ID.
iolla.c	3904	Failed to get ucbl record.
iolla.c	3b02	Cannot convert rid to a MDCT record.
iolla.c	3c02	Cannot release a record.
pcaudit.c	3e00	downucbs function returned fail.
pcaudit.c	3e01	Cannot convert iorid to ucblp.
pcaudit.c	3e03	pushq1 function returned fail.
pcaudit.c	3e05	PCn audit failure - restart PCn.
iolla.c	3f00	Invalid record ID.
iolla.c	3f01	Unable to convert RID to a specified record.
inhadm.c	4600	Arguments in inhibit admin message unknown.

1.2 MT HANDLER

Function	Code	Comment
mterrhand.c	4000	MT is in an improper state for restore/restart.
mterrhand.c	4001	Invalid type of restore/restart.
mterrhand.c	4002	Failed to restore; scratch area is not allocated.
mterrhand.c	4004	Cannot delete a DMA slot while processing a restoration.
mterrhand.c	4005	Cannot get PC UCB during PC restoration.
mterrhand.c	4006	No scratch area - restoration failed.
mterrhand.c	4007	Bad major state for restoration of device.
mterrhand.c	4008	Bad restore type.
mterrhand.c	4009	Cannot get recovery timer.
mterrhand.c	4100	Cannot delete DMA slot while completing manual remove.
mterrhand.c	4200	Cannot delete remove timer while processing half remove.
mterrhand.c	4201	Cannot get remove timer.
mterrhand.c	4202	Cannot delete DMA slot while processing half remove.
mterrhand.c	4203	Bad remove type.
mterrhand.c	4300	Cannot delete remove timer from `mtrmvdly()`.
pmsgmt3.c	4302	Improper message type.
pmsgmt3.c	4400	Failure due to MT not open.
pmsgmt3.c	4401	MT already open; not allowed to open to second user.
pmsgmt3.c	4402	Mode must be read or write.
pmsgmt3.c	4500	Record size is > 2048 bytes.
pmsgmt3.c	4501	Buffer must start on a word boundary in read mode.
pmsgmt3.c	4502	Offset into buffer must be on a word boundary in read mode.
pmsgmt3.c	4503	Writes must be sequential.
mtproc.c	4600	DMA assignment failure.
mtproc.c	4601	PC Q area is full.
mtproc.c	4602	Pushq failure.
mtproc.c	4603	Record size > 2048 (because of alignment).

pmsgmt3.c	4700	Attempt to open a device which is not closed.
pmsgmt3.c	4701	Attempt to read a device not open for reading.
pmsgmt3.c	4702	Attempt to write a device not open for writing.
pmsgmt3.c	4703	Bad message type detected by `pmsgmt3()`.
pmsgmt3.c	4704	Major state unit or handler state not suitable for accepting work.
mtproc.c	4800	Bad mode for opening a tape device.
mtproc.c	4801	Bad parameters for a read request.
mtproc.c	4802	Bad parameters for a write request.
mtproc.c	4803	Attempt to do non-sequential write.
mtproc.c	4804	Inconsistent internal state for closing a tape device.
mtproc.c	4805	Bad message type detected by `mtgetwk()`.
mtproc.c	4900	`pushq1()` returned fail when sending an open message.
mtproc.c	4901	`pushq1()` returned fail when sending a read/write message.
mtproc.c	4902	`pushq1()` returned fail when sending a close message.
mtproc.c	4903	`pushq1()` returned fail when sending a "seek" message.
mtproc.c	4904	`pushq1()` returned fail when sending a rewind message.
mtproc.c	4905	PC queue counter was not zero during open.
mtproc.c	4906	Cannot send rewind message, PC queue full.
mtproc.c	4907	Cannot send close message, PC queue full.
mtproc.c	4908	Bad opcode in current job structure.
mtproc.c	4909	Failed to assign DMA slot.
mtproc.c	490a	Hit EOF when trying to SEEK.
mtproc.c	490b	Detected fatal error when trying to SEEK.
mtproc.c	490c	Detected other errors when trying to SEEK.
prspmt3.c	4a00	Failed to delete DMA slot when current job completed.
prspmt3.c	4a01	Failed to delete DMA slot when received unexpected response.
prspmt3.c	4a02	Failed to delete DMA slot when received response for non active unit.
prspmt3.c	4a03	opcode in response does not match what was sent.
prspmt3.c	4a04	Obsolete response received and ignored.
prspmt3.c	4b00	Cannot delete DMA slot when handling an error in response.
prspmt3.c	4b01	Job rejected illegal message.
prspmt3.c	4b02	Job rejected illegal message sequence.
prspmt3.c	4b03	Job aborted nonrecoverable errors, such as, bad spot on tape.
prspmt3.c	4b04	Generic part of response invalid.
prspmt3.c	4b05	Tape unit write protected.
prspmt3.c	4b06	End of physical tape.
prspmt3.c	4b07	Subdevice off-line.
prspmt3.c	4b08	Time out error - PC did not hear from tape unit in time.
prspmt3.c	4b09	Reached end of file during read.
prspmt3.c	4b0a	User part of response has unidentified error.
prspmt3.c	4b0b	Generic part of response has unidentified error.
prspmt3.c	4b0c	Unknown handler state when handling response.
prspmt3.c	4b0d	Cannot get error handling dead man timer.
prspmt3.c	4b0e	Cannot delete DMA slot from `procerrs()`.
prspmt3.c	4b0f	Cannot delete DMA slot from `mterrto()`.
prspmt3.c	4b10	PC timed out returning all pending responses following an error.
prspmt3.c	5000	Response opcode error.
prspmt3.c	5001	Response comp code default.
prspmt3.c	5102	Block contained more bytes than the number of bytes requested by read; the excess bytes are lost.
prspmt3.c	5200	EOF reached during read or "seek".
prspmt3.c	5201	Tape unit write protected.
prspmt3.c	5202	End of physical tape.
prspmt3.c	5203	Subdevice off-line.
prspmt3.c	5204	PC time-out error.
prspmt3.c	5300	Job aborted non-recover errors.
prspmt3.c	5301	Job rejected illegal message.
prspmt3.c	5302	Job rejected illegal message context.
prspmt3.c	5304	MT was not active when PC response was received.

1.3 TTY HANDLER

Function	Code	Comment
prspmt3.c	5400	Retried four times with no success; return with failure.
pmsgci3.c	6000	No active subdevice for supervisor.
pmsgci3.c	6001	Unexpected acknowledge message received. Format of additional string information is defined as:

		a a = Channel flags (hex).
pmsgci3.c	6002	Process manager cannot create /prc/unix. Format of additional string information is defined as: a b a = Message status (hex). b = Channel ID (hex).
pmsgci3.c	6003	Unknown process ID for pcreate message.
pmsgci3.c	6004	Unknown message type. Format of additional string information is defined as: a b a = Message type (hex). b = ms_from field of message (hex).
pmsgci3.c	6005	Unable to get ciopt record.
pmsgci3.c	6006	Unable to get active UCB switchable device.
pmsgci3.c	6007	Non-switchable device not in proper state for close. Format of additional string information is defined as: a a = State of non-switchable device (hex).
pmsgci3.c	6008	Could not find active switchable device for cancel.
pmsgci3.c	6009	Non-switchable device not in proper state for cancel. Format of additional string information is defined as: a a = State of non-switchable device (hex).
prmvci3.c	6010	Error on subdevice conditional remove.
prmvci3.c	6011	Unable to initiate remove timing.
prmvci3.c	6012	Unknown remove type. Format of additional string information is defined as: [a] a = Remove request type (hex).
prmvci3.c	6013	Unable to retrieve MDCT for remove switchable unit.
prmvci3.c	6015	prmvci3 - alocmsg failed in cihandqs.
prmvci3.c	6016	prmvci3 - could not get a timer for cifoswitch.
prspci3.c	6020	PC message not in maintenance queue.
prspci3.c	6021	Unknown opcode in PC response. Format of additional string information is defined as: a b a = Response word 1 (hex).

		b = Response word 2 (hex).
prspci3.c	6022	Unknown PC asynchronous report type. Format of additional string information is defined as: a b a = Response word 1 (hex). b = Response word 2 (hex).
prspci3.c	6023	Connection report for unit not in standby state. Format of additional string information is defined as: a a = Unit state (hex).
prspci3.c	6024	Unrecognized async error report type.
prspci3.c	6025	Unable to get header update timing index.
prspci3.c	6026	Unrecognized async read priority. Format of additional string information is defined as: a a = Priority value number (hex).
prspci3.c	6027	Failed to get connection wait timer. Format of additional string information is defined as: a b a = Portswitch status (hex). b = Number of portswitch failures (hex).
prspci3.c	6028	Device switched to OOS unit (HIT).
prspci3.c	6029	Device not switched; could not get a mate on disconnect. Format of additional string information is defined as: a b a = Portswitch status (hex). b = Number of portswitch failures (hex).
prspci3.c	602a	Could not get a mate; device restored. Format of additional string information is defined as: a b a = Portswitch status (hex). b = Number of portswitch failures (hex).
prspci3.c	602b	Controller reported excessive BREAKs on subdevice. Format of additional string information is defined as: a b

		a = Response word 1 (hex). b = Response word 2 (hex). 1 If b = 31000000 then high priority input. If b = 32000000 then base (low) priority input.
ptrpci3.c	6030	Unknown ost code. Format of additional string information is defined as: a a = OST type (hex).
prstci3.c	603a	Restore failure during restart.
prstci3.c	603b	Invalid restore type.
prstci3.c	603c	Unable to get logical date pointer.
prstci3.c	603d	Unable to retrieve ttopts or ciopts.
prstci3.c	603e	Unable to retrieve mdct.
prstci3.c	603f	prstci3 - alocmsg failed in cihandqs().
ciexec.c	6040	Unknown maintenance opcode. Format of additional string information is defined as: a b a = Maintenance message opcode (hex). b = Option record pointer (hex).
ciexec.c	6041	Unable to find page table address.
ciexec.c	6042	Could not get a timer to reschedule I/O during port switch.
ciexec.c	6043	Could not get a timer to still hold I/O.
ciexec.c	6044	No active device to process held I/O.
ciexec.c	6045	Failed to get mate; no active device to process held I/O.
ciexec.c	6046	Could not get scratch area for any device held I/O.
ciexec.c	6048	Unable to add maintenance queue. Format of additional string information is defined as: a b [b] [b] [b] [b] a = Command to be added. b = Commands on the maintenance queue (up to 5 of these).
ciexec.c	6050	Fail to push PC message queue. Format of additional string information is defined as: a b c a = Command word 1 (hex). b = Command word 2 (hex). c = Message pointer (hex).
ciexec.c	6051	Unrecognized PC message code. Format of additional string information is defined as: a a = PC opcode.

cipcreat.c	6060	Unable to be created by non-active subdevice.
cipcreat.c	6061	Number of pcreate attempts >THRESHOLD.
cisupv.c	6062	Index bad when pcreate timer fires. Format of additional string information is defined as: `a` `a` = Channel ID (hex).
cisupv.c	6063	Unable to allocate message buffer. Format of additional string information is defined as: `a` `a` = Channel ID (hex).
cisupv.c	6064	Fail to queuem supervisor pcreate message. Format of additional string information is defined as: `a` `a` = Channel ID (hex).
cipcreat.c	6070	Unable to send signal in high priority.
cipcreat.c	6071	Unable to send signal for unclear priority.
ciswitch.c	6080	Switching attempts >THRESHOLD. Format of additional string information is defined as: `a` `a` = Number of portswitch failures (hex).
ciswitch.c	6081	timreq1 failure on port switch DTR timing. Format of additional string information is defined as: `a b` `a` = Portswitch status (hex). `b` = Number of portswitch failures (hex).
ciswitch.c	6082	timreq1 failure on port switch DTR on timing. Format of additional string information is defined as: `a b` `a` = Portswitch status (hex). `b` = Number of portswitch failures (hex).
ciswitch.c	6083	No standby mate device for port switch.
ciswitch.c	6084	Forced switch attempts >THRESHOLD. Format of additional string information is defined as: `a` `a` = Number of portswitch failures (hex).
ciswitch.c	6085	`timreq1()` failure on forced port switch. Format of additional string information is defined as:

		a b a = Portswitch status (hex). b = Number of portswitch failures (hex).
ciswitch.c	6086	Could not get UCB for forced switch cifoswitch.
ciswitch.c	6087	Device in wrong state to switch.
ciswitch.c	6088	Device in wrong state and so is mate to do forced switch. Format of additional string information defined as: a b a = Portswitch status (hex). b = Number of portswitch failures (hex).
ciswitch.c	6089	Could not get a timer to wait for connection forced switch. Format of additional string information is defined as: a b a = Portswitch status (hex). b = Number of portswitch failures (hex).
ciswitch.c	608a	Could not get UCB ciswfon.
ciswitch.c	608b	Could not switch; device not in good state. Format of additional string information is defined as: a b a = Portswitch status (hex). b = Number of portswitch failures (hex).
ciswitch.c	608c	Switch delay timer fired; other device not in a good state to switch.
ciswitch.c	608d	Portswitch fail print turned off. Format of additional string information is defined as: SWITCH FAIL PRINT OFF
prstci3.c	60a0	Restore-timer fired. Format of additional string information is defined as: a b c a = Command word 1 (hex). b = Command word 2 (hex). c = Command opcode (hex).
prmvci3.c	60b0	Cannot ci_opt record.
prmvci3.c	60b1	Cannot get MDCT record.
prmvci3.c	60b2	Invalid type of flshsrch.
prmvci3.c	60b8	Old Message should not be around. Format of additional string information is defined as: X'a X'b

		a = Message pointer. b = Message type.
prmvci3.c	60b9	Found write message on audit. Format of additional string information is defined as: X'a X'b a = Message pointer. b = ms_from field of message (hex).
prmvci3.c	60ba	Message for audit not found. Format of additional string information is defined as: X'a X'b a = Message pointer. b = IO segment ID.
prmvci3.c	60bb	Unknown message typed owned. Format of additional string information is defined as: X'a X'b a = Message pointer. b = Message type.
prmvci3.c	60bc	Message audit for read message. Format of additional string information is defined as: X'a X'b a = Message pointer. b = ms_from field of message (hex).
cisupv.c	60c0	Process manager fails to respond to pcreate message. Format of additional string information is defined as: a b c a = Device status (hex). b = Channel ID (hex). c = Channel ID flags (hex).
cisupv.c	60c1	Unable to get ucbrec by get_llarec call.
ciexec.c	60d0	CI logical pointer NULL.
ciexec.c	60d1	Could not get any device scratch area for switchable device.
ciexec.c	60d2	CI scratch pointer NULL.
ciqueue.c	60e0	Put queue type error. Format of additional string information is defined as: a

		`a` = CIH queue type (decimal).
ciqueue.c	60e1	Get queue type error. Format of additional string information is defined as: `a` `a` = CIH queue type (decimal).
ciqueue.c	60e2	Delete queue type error. Format of additional string information is defined as: `a` `a` = CIH queue type (decimal).
ciqueue.c	60e3	Dump queue type error. Format of additional string information is defined as: `a` `a` = Channel flags (hex).
ciqueue.c	60e4	Unknown qtype type - ciniphy. Format of additional string information is defined as: `a` `a` = CIH queue type (hex).
ciqueue.c	60e5	Queue type error - cisrch. Format of additional string information is defined as: `a` `a` = CIH queue type (decimal).
ciqueue.c	60e6	Queue type error - cisrchp. Format of additional string information is defined as: `a` `a` = CIH queue type (decimal).
ciqueue.c	60e7	Queue type error - ciinitq. Format of additional string information is defined as: `a` `a` = CIH queue type (decimal).
ciqueue.c	60e8	Queue damaged - cigetq. Format of additional string information is defined as: `CIH QUEUE DAMAGED a` `a` = CIH queue type (decimal).
prstci3.c	6201	Invalid type of restart/restore.
prstci3.c	6202	`pushq1()` returned a failure.
tycfrmt.c	6301	getopt failure.

tycfrmt.c	6302	get_llarec (ttopt_rec) failure.
tyrdwrt.c	6401	getopt failure.
tyrdwrt.c	6402	Read job failed after failures to access DMA slot.
tyrdwrt.c	6403	Write job failed after failures to access DMA slot.
prmvci3.c	6901	pushq1 returned failure.
ptrpci3.c	6a01	LDIN partition invalid for SETTY.
ptrpci3.c	6a02	LDIN partition invalid for GETTY.
ptrpci3.c	6a07	Iomap for SETTRAP OST failed.
ptrpci3.c	6a08	Iomap for GETTRAP OST failed.
ptrpci3.c	6a09	OST code unknown to handler.
ptrpaux.c	6b01	getopt failure in `tty_to_ci()`.
ptrpaux.c	6b02	get_llarec (ttopt_rec) failure in `tty_to_ci()`.
ptrpaux.c	6b03	getopt failure in `ci_to_tty()`.
ptrpaux.c	6b04	get_llarec (ttopt_rec) failure in `ci_to_tty()`.
prspci3.c	6d01	PCSD response opcode not recognized (base priority).
prspci3.c	6d02	PCSD response opcode not recognized (high priority read).
prspci3.c	6d03	PCSD response opcode not recognized (high priority write).
prspci3.c	6d04	PCSD message-destination field not recognized.
prspci3.c	6d05	DMA slot removal failed after 'transmit long' PCSD.
prspci3.c	6d06	DMA slot removal failed after 'set options' PCSD.
prspci3.c	6d07	DMA slot removal failed after high priority 'transmit long' PCSD.
prspci3.c	6d08	DMA slot removal failed after 'rcv long' response (base priority).
prspci3.c	6d09	DMA slot removal failed after 'rcv long' response (high priority).
tyrwrite.c	6e01	Received write-response but WCQ was empty.
tyrwrite.c	6e02	Fixed field in response different from that in the message.
tyrwrite.c	6e03	Unknown response case.
tyrshrt.c	6f01	Received rcv-short response but RCQ was empty.
tyrshrt.c	6f02	Fixed field in response different from that in the message.
tyrlong.c	7001	Received rcv-long response but RCQ was empty.
tyrlong.c	7002	DMA slot removal failed after rcv-long response.
tyrlong.c	7003	Read response received but RCQ was empty.
tyrlong.c	7005	Read response received but RCQ was empty.
tyrlong.c	7007	Read response received but RCQ was empty.
tysdrst.c	7101	SD_REST response received, but no message sent.
tysdrst.c	7102	User-completion-code error (boot restore).
tyrasync.c	7201	Connection reported but TTY not restored.
tyrasync.c	7202	Async report not recognized.
tyrasync.c	7203	Warning: connection reported, but supervisor still up.
tyrasync.c	7204	getmdct failure.
tyrasync.c	7205	getopt failure.
tyrasync.c	7206	get_llarec (ttopt_rec) failure.
tyrasync.c	7207	get-llarec (cdopt_rec) failure.
tymsack.c	7301	No MSACK message is expected.
tymsack.c	7302	max number of P_CREAT attempts.
tymsack.c	7303	pushq1 failure.
tyswitch.c	7401	Wrong index passed to time-out routine.
tyswitch.c	7402	Unable to get mdct from database.
tyswitch.c	7403	Unable to send message to PC using pushq1.
tyswitch.c	7404	Invalid combination of t_status flags.
tyswitch.c	7405	Unable to return to controlling PC after switchover failure.
tyswitch.c	7406	Both switchable subdevices are in the ACTIVE state, or unable to return to 'at rest' PC after switchover failure.
tyswitch.c	7407	Unable to handle S/D message due to earlier 7402 error.
tyswitch.c	7408	Invalid cmd_type in SW message.
tyswitch.c	7409	Invalid message sub-type in a received IORID ms_type.
tyswitch.c	740a	Unable to send message to PC using call to `pushg1()`.
tyswitch.c	740c	Unable to request timer using call to `timereq1()`.
sttyproc.c	7a04	Unable to send message to PC because PC queues are full.
tytime.c	7501	`tyrstsupv()` - wrong timeout index.
tytime.c	7502	`tyrstsupv()` - no previous failure in P_CREAT attempt.
tytime.c	7503	`tyrestto()` - no pending restoration.
tytime.c	7504	`tyrestto()` - wrong timeout index.
tytime.c	7514	`tyholdto()` - wrong timeout index.
tytime.c	7521	`tyoosto()` - wrong timeout index.
tytime.c	7522	`tyoosto()` - SD_REMOVE request timed out.
tystrtsupv.c	7601	Max number of P_CREAT attempts.
tystrtsupv.c	7602	getmdct failure.
tyrsderr.c	7701	Intercharacter timeout detected.
tyrsderr.c	7702	Acknowledgement timeout detected.
tyrsderr.c	7703	Suspend-output timeout detected.
tyrsderr.c	7704	Line printer error detected.

tyrsderr.c	7706	Async report not recognized.
tyrcntrl.c	7801	Received disconnect response but no message sent.
tyrcntrl.c	7802	TY_CNTRL response not recognized.
tycmdproc.c	7902	Error in formatting PCSD message.
tycmdproc.c	7903	pushq1 returned failure.
tycmdproc.c	7904	DMA slot removal failed after PCSD message formatting error.
tycmdproc.c	7905	DMA slot removal failed after pushq1 failure.
sttyproc.c	7a01	DMA slot assignment failed.
sttyproc.c	7a02	`pushq1()` returned failure.
sttyproc.c	7a03	`getpta()` returned failure.
tyrslnk.c	7f01	Received rcv-short-linked response, but RCQ was empty.
tyrslnk.c	7f02	Fixed field in response different from that in the message.
tyrslnk.c	7f03	DMA slot removal failed after rcv-short-linked response.

1.4 MAINT HANDLER

Function	Code	Comment
mainthan.c	8000	ucbptr is zero.
mainthan.c	8001	Unit is not in correct state for diagnosis.
mainthan.c	8002	u_stat is in undefined state.
mainthan.c	8003	ucbptr is zero.
mainthan.c	8004	ucbptr is different than what came with the iopen.
mainthan.c	8005	Failed iolock.
mainthan.c	8006	Error on asndma1 function.
mainthan.c	8007	Handler is not in DMAEXP state.
mainthan.c	8008	Error on asndma1 function.
mainthan.c	8009	Error on pushing message into queue.
mainthan.c	800a	Error on timreq1 function.
mainthan.c	800b	ucbptr is zero.
mainthan.c	800c	ucbptr is different than what came with the iopen.
mainthan.c	800d	Unrecognized message from iop driver.
mainthan.c	800e	Function `uniolock()` returned FAIL during IOCLOSE processing.
mainthan.c	800f	Function `uniolock()` returned FAIL after `asndma1()` failure.
maintfun.c	8100	Detach from interrupts must be babbling.
maintfun.c	8101	Failed to detach from interrupts.
maintfun.c	8102	Byte count returned from IOP is not correct.
iomaint.c	8103	The call to `getpta()` failed.
iomaint.c	8104	The `asndma21()` function failed to assign DMA slot number.
iomaint.c	8105	The `asndma21()` function failed to assign DMA slot number.
iomaint.c	8106	The call to `getpta()` failed.
iomaint.c	8107	The `sdc32b()` function call failed.
iomaint.c	8108	The `timreq()` function call failed.
iomaint.c	8109	The `cfread()` function was unsuccessful in reading the pumpcode file.
iomaint.c	810a	The `getsucbl()` function was returned null UCB pointer to the IOP.
maintfun.c	8200	Detach from interrupts must be babbling.
maintfun.c	8201	Failed to detach from interrupts.
maintfun.c	8400	Wrong index for timeout.
maintfun.c	8401	Time out function and handler in wrong state.
maintfun.c	8500	Level is not equal to 1,2,3.
iomaint.c	8600	ucbptr is zero.
iomaint.c	8601	ucbptr is different then what came with iopen.
iomaint.c	8602	Maint message in NONINT state and not PIO.
iomaint.c	8603	Maint message in NONINIT state and not remove or restore.
iomaint.c	8604	IOP driver has req DGN be aborted.
iomaint.c	8605	Maint handler is in wrong state for iomaint message.
iomaint.c	8606	Request for timreq failed for iomaint message.
iomaint.c	8607	Attach to interrupt failed.
iomaint.c	8608	Enable interrupts failed.
iomaint.c	8609	SDC timreq.
iomaint.c	860a	Not diag controller should not ask for this SDC attach.
iomaint.c	860b	Attach to interrupt failed.
iomaint.c	860c	Enable interrupts failed.
iomaint.c	860d	DIAGC is diagnosing controller should not ask for attach.
iomaint.c	860e	Detach from interrupts.
iomaint.c	860f	DIAGC diagnosing controller should not not ask for detach.
iomaint.c	8610	Error in trying to remove unit.

iomaint.c	8611	Attach to interrupt failed.
iomaint.c	8612	Enable interrupts failed.
iomaint.c	8613	u_stat is undefined state.
iomaint.c	8614	Error trying to restore unit.
iomaint.c	8615	Error on timing req DGNDMA.
iomaint.c	8616	getdmaa returned an error.
iomaint.c	8617	Received WSETUP0 before DGNDMA.
iomaint.c	8618	Received WSETUP1 before WSETUP0.
iomaint.c	8619	Received DMAEND before WSETUP1.
iomaint.c	861a	Failed uniolock.
iomaint.c	861b	getdmaa returned an error.
iomaint.c	861c	DIAGC has sent bad data in statword and operword.
iomaint.c	861d	Unable to push a message into the queue.
iomaint.c	861e	Error on time request.
iomaint.c	861f	Function `uniolock()` returned FAIL during WSETUP0 processing.
iomaint.c	8620	Function uniolock() returned FAIL.
maintfun.c	8700	Took interrupt handler in wrong state.
maintfun.c	8701	Detach failed.
maintfun.c	87f1	Cannot convert iorid to ucblp.

1.5 DUI HANDLER

Function	Code	Comment
pmsgdu3.c	9001	Unable to store a message sent by application kernel.
pmsgdu3.c	9002	pushq1 failure.
pmsgdu3.c	9003	DUI ERROR message received from application kernel.
pmsgdu3.c	9004	getpta failure.
pmsgdu3.c	9005	asndma failure for restore parameters.
pmsgdu3.c	9006	asndma failure for DUI table.
pmsgdu3.c	9007	getopt failure.
pmsgdu3.c	9010	Scratch area order entry not NULL (case D_START).
pmsgdu3.c	9011	Scratch area order entry not NULL (case D_STOP).
pmsgdu3.c	9012	Scratch area order entry not NULL (case D_RMRQAY).
prspdu3.c	9101	TN82 software error.
prspdu3.c	9102	Unrecognized asynchronous report received.
prspdu3.c	9103	deldma1 failure.
prspdu3.c	9104	asndma1 failure.
prspdu3.c	9105	Received restore message response w/Null message pointer.
prspdu3.c	9106	Received successful remove message from unknown dui message type.
prspdu3.c	9107	Remove message from D_STOP message failed.
prspdu3.c	9108	Remove message from D_RMRQAK message failed.
prspdu3.c	9109	Unsuccessful remove message response from unknown message.
prspdu3.c	910a	Received response from unconditional remove.
prspdu3.c	910b	Received unsuccessful response from remove message.
prspdu3.c	910c	Received unrecognized response from PC.
prspdu3.c	910d	Received RESTORE message response of unknown origin.
prspdu3.c	910e	Received REMOVE message response of unknown origin.
prstdu3.c	9201	timreq1 failure.
prstdu3.c	9202	IODRV sent illegal restore case.
prmvdu3.c	9301	timreq1 failure.
duchgstate.c	9400	Received illegal usr_type.
duisendmsg.c	9500	Requested message type to send to application kernel is illegal.
pinitdu3.c	9600	Invalid type of initializing.
duifuncts.c	9901	Cannot store PCSD message.

1.6 SCC AND SDL HANDLER

Function	Code	Comment
prstcp3.c	a010	Restart during growth.
prstcp3.c	a012	Failure to obtain option block, restore fails.
prstcp3.c	a014	Restore fails, device failed growth.
prstcp3.c	a015	Restore fails, device has no memory status.
prstcp3.c	a017	Restart failed, failed to obtain option block.
prstcp3.c	a019	Received a restart during growth, restart fails.
prstcp3.c	a01a	Restart failed, device has no memory status.
prstcp3.c	a01c	Restart failed, device has no memory status.

prstcp3.c	a01d	Restore type unknown.
prstcp3.c	a01e	Restart failed, device failed growth.
prstcp3.c	a026	Unable to obtain PTA and SEGID for PCSD scratch area.
prstcp3.c	a027	Unable to obtain DMA job for PCSD scratch area.
prstcp3.c	a028	Unable to obtain DMA job for common scratch area.
prstcp3.c	a030	Invalid restore type.
pinitcp3.c	a100	Unknown initialization type.
pmsgcp3.c	a212	NULL common scratch area pointer.
pmsgcp3.c	a222	Unknown open type.
ptrpcp3.c	a302	NULL common scratch area pointer.
prspcp3.c	a414	Invalid dial-out response - feature not supported.
prspcp3.c	a417	Unknown base-priority PCSD response type.
prspcp3.c	a418	Unknown high-priority PCSC response type.
prspcp3.c	a419	Invalid priority type.
prspcp3.c	a422	Unexpected restore-rsp from a restored PCSD.
prspcp3.c	a423	Unexpected restore-rsp from an OOS PCSD.
prspcp3.c	a431	Unexpected CONNECT-report.
prspcp3.c	a433	DIAL-OUT-FAILURE-report not yet supported.
prspcp3.c	a434	Invalid asynchronous report from PCSD.
prspcp3.c	a435	Failure to send RECEIVE jobs to PCSD.
prspcp3.c	a436	DISCONNECT-report not yet supported.
prspcp3.c	a442	Unable to allocate an input buffer.
prspcp3.c	a443	Unable to send a RECEIVE-message.
prspcp3.c	a445	No RECEIVE-jobs at PCSD.
prspcp3.c	a450	Failure to send RECEIVE-jobs to PCSD.
prspcp3.c	a451	Unexpected TRANSMIT-response.
prspcp3.c	a452	Error on TRANSMIT-response for XID ack packet - dial-up link.
prspcp3.c	a453	Error in TRANSMIT-job.
prspcp3.c	a461	Unexpected RECEIVE-response.
prspcp3.c	a462	Error in RECEIVE-job - private line link.
prspcp3.c	a463	Error in RECEIVE-job - dial-up link.
prspcp3.c	a470	Hardware error/link disconnect report.
prspcp3.c	a471	Unknown hardware error.
prspcp3.c	a472	Invalid BX.25 level 2 protocol line address on TRANSMIT-job.
prspcp3.c	a473	PCSD microcode has detected an operational error. Format of additional information is defined as: `a b` `a` = Word 1 of error response (hex). `b` = Word 2 of error response (hex).
prspcp3.c	a474	BX.25 level 2 N2 count exceeded; number of retransmissions exceeded.
prspcp3.c	a475	Invalid asynchronous error report.
prspcp3.c	a476	Cause of receive frame-reject not known.
prspcp3.c	a477	Cause of transmit frame-reject not known.
prspcp3.c	a478	Aggregate one-count error type not known.
prspcp3.c	a479	Receive-frame reject.
prspcp3.c	a47a	Frame-reject probable line address conflict.
prspcp3.c	a47b	Transmit-frame reject.
prspcp3.c	a47c	This error type reported by DDCMP version.
prspcp3.c	a47d	Error in RESTORE-data - private line link.
prspcp3.c	a481	Unable to obtain timer entry for Dial-Up DT2.
prspcp3.c	a482	Unable to obtain PCSD option block from ECD - dial-up link.
prspcp3.c	a483	Unable to send RECEIVE-message for XID packet.
prspcp3.c	a484	Failure to send RECEIVE-jobs to PCSD.
prspcp3.c	a492	Unable to obtain PCSD option block from ECD - dial-up link.
prspcp3.c	a493	Unable to send TRANSMIT-message for XID acknowledgement packet.
prspcp3.c	a4a1	Unable to obtain timer entry for dial-up DT2.
prspcp3.c	a4b1	Unable to obtain timer entry for dial-up DT3.
prspcp3.c	a4d1	Unable to initialize plants measurement database.
prspcp3.c	a4d2	Unable to create PCSD record in PM database.
prspcp3.c	a4d3	Unable to read PCSD record in PM database.
prspcp3.c	a4d4	Unable to update PCSD record in PM database.
pdmod.c	a505	Unable to push PCSD message.
prmvcp3.c	a507	The go-out-of-service (GOOS) timer is active when a remove

		request is made. Format of additional information is defined as: a b a = Word of pdstat (hex). b = Short word of GOOS timer index (hex).
prmvcp3.c	a508	The GOOS timer is invalid.
prmvcp3.c	a509	Request for GOOS-rsp timer returned FAIL
ldmod.c	a611	Fatal error reported on the PCSD.
ldmod.c	a612	Reported PCSD error not recognized.
ldmod.c	a614	Multiple-active-link config not supported.
ldmod.c	a616	Invalid link configuration.
ldmod.c	a636	Invalid link configuration.
ldmod.c	a637	Multiple-active-link config not supported.
ldmod.c	a644	Multiple-active-link config not supported.
ldmod.c	a646	Invalid link configuration.
ldmod.c	a654	Multiple-active-link config not supported.
ldmod.c	a655	Invalid link configuration.
ldmod.c	a663	Multiple-active-link config not supported.
ldmod.c	a664	Invalid link configuration.
ldmod.c	a665	No ucblp available - simplex config.
ldmod.c	a666	No ucblp available - duplex config.
ldmod.c	a669	Failure to obtain ucblp.
ldmod.c	a66a	Failure to obtain second ucblp.
ldmod.c	a66b	No PCSD is active.
ldmod.c	a66c	Number of PCSDs is greater than 2.
ldmod.c	a66d	Second RID equal to NULL and not PCSD is active.
ldmod.c	a673	Multiple-active-link config not supported.
ldmod.c	a674	Invalid link configuration.
ldmod.c	a675	Reporting PCSD not the active unit.
ldmod.c	a681	Invalid remove-type.
ldmod.c	a684	Multiple-active-link config not supported.
ldmod.c	a685	Invalid link configuration.
ldmod.c	a691	NULL ucblp for simplex config.
ldmod.c	a692	Multiple-active-link config not supported.
ldmod.c	a693	No active device for duplex config.
ldmod.c	a694	NULL ucblp for duplex config.
ldmod.c	a699	Invalid link configuration.
ldmod.c	a6a0	Restore-failure in an OOS (internal state) PCSD.
ldmod.c	a6a3	Link-available-report from an OOS (internal state) PCSD.
ldmod.c	a6a4	Invalid stimulus for an OOS (internal state) PCSD.
ldmod.c	a6a5	Invalid stimulus for a GOOS (internal state) PCSD.
ldmod.c	a6aa	Connection-timeout for a restored (internal state) PCSD.
ldmod.c	a6ab	Invalid stimulus for a restored (internal state) PCSD.
ldmod.c	a6ae	Invalid stimulus for an active (internal state) PCSD.
ldmod.c	a6b2	Failure to get ucblp.
ldmod.c	a6b3	Invalid stimulus for a standby (internal state) PCSD.
ldmod.c	a6b4	Invalid stimulus for S1_RECOV state.
ldmod.c	a6b7	Invalid stimulus for S1_INIT state.
ldmod.c	a6be	Multiple-active-link config not supported.
ldmod.c	a6bf	Invalid link configuration.
ldmod.c	a6c5	Multiple-active-link config not supported.
ldmod.c	a6c6	Invalid link configuration.
ldmod.c	a6c8	Connection timeout for a simplex PCSD.
ldmod.c	a6c9	Connection timeout for a duplex config.
ldmod.c	a6ca	Multiple-active-link config not supported.
ldmod.c	a6cb	Invalid link configuration.
ldmod.c	a6d3	Multiple-active-link config not supported.
ldmod.c	a6d4	Invalid link configuration.
ldmod.c	a6d8	NULL timeout flag.
ldmod.c	a6d9	Timeout flag different from stored value.
ldmod.c	a6da	Failure to get ucblp.
ldmod.c	a6db	No record of previously active PCSD.
ldmod.c	a6dc	Both PCSDs are OOS or GOOS (internal state).
ldmod.c	a6dd	Maximum number of timing periods.
ldmod.c	a6de	Maximum number of timing periods, NULL ucblp.
ldmod.c	a6df	Maximum number of timing periods, NULL ucblp.
ldmod.c	a6e1	Multiple-active-link config not supported.

ldmod.c	a6e2	Invalid link configuration.
ldmod.c	a6ff	Invalid internal state for PCSD.
cminit.c	a712	Unable to obtain PTA and SEGID for common scratch area.
cminit.c	a716	Unable to obtain MDCT record.
chmod.c	a831	Invalid output action for PUTCHAR input.
chmod.c	a832	Invalid current output state for PUTCHAR input.
chmod.c	a833	Invalid return value for `choastrat()`.
chmod.c	a835	Invalid closing action for PUTCHAR input.
chmod.c	a836	Invalid return value from `chorstrat()`.
chmod.c	a841	Invalid input action for GETCHAR input.
chmod.c	a842	Invalid current state for GETCHAR input.
chmod.c	a843	Invalid return value from `chiastrat()`.
chmod.c	a845	Invalid closing action for GETCHAR input.
chmod.c	a846	Invalid return value from `chirstrat()`.
chmod.c	a847	Unable to unlink buffer of a zero-length data packet from the common handler queue.
chmod.c	a854	Unsuccessful transfer of all input data of user's buffer.
chmod.c	a855	Unsuccessful transfer of all input data to user's buffer.
chmod.c	a856	Unsuccessful transfer of requested input data.
chmod.c	a857	Invalid return value from `chirstrat()`.
chmod.c	a858	Invalid current input state for GETCHAR input.
chmod.c	a859	Invalid return value from `chiastrat()`.
chmod.c	a85a	Error encountered in background data transfer.
chmod.c	a861	Invalid action for output procedure continuation.
chmod.c	a862	Invalid current output state.
chmod.c	a865	Invalid return value from `chorstrat()`.
chmod.c	a866	Invalid output state.
chmod.c	a867	Invalid return value from `chorstrat()`.
chmod.c	a868	Invalid return value from `choastrat()`.
chmod.c	a869	cphslfree is NULL.
chmod.c	a870	cphlkfree is NULL.
choastrat	a871	Invalid output state.
chiostrat.c	a881	More bytes of output than requested.
chiostrat.c	a882	Invalid output procedure flag.
chiostrat.c	a885	Partition in an invalid output state.
phmod.c	a910	Invalid system status being reported.
phmod.c	a941	Invalid return value from logical device handler.
mmmmod.c	aa00	`ioaddseg()` failed in case of IOREBOOT.
mmmmod.c	aa01	Invalid memory initialization type to `mminit()`.
mmmmod.c	aa10	Invalid init type.
mmmmod.c	aa20	Bad segment.
mmmmod.c	aa21	Queue is full.
mmmmod.c	aa30	`iogrowseg()` returned failure.
mmmmod.c	aa31	`ioaddseg()` returned failure.
mmmmod.c	aa40	`get_cell()` returned failure.
mmmod.c	aa41	No matching address and key found.
mmmod.c	aa50	Segment count greater than MAXSEGS.
mmmmod.c	aa51	`get_cell()` returned FAIL.
mmmmod.c	aa60	Bad segment.
mmmmod.c	aa70	`iogrowseg()` returned failure.
mmmmod.c	aa71	Bad segment.
mmmod.c	aa80	No matching address and key found.
mmmod.c	aa90	`get_cell()` returned failure.
mmmmod.c	aaa0	free_area number of cells zero.
mmmmod.c	aaa1	`iogrowseg()` returned failure.
mmmmod.c	aab0	vaddr and key invalid.
mmmmod.c	aab1	IODRV unable to grow segment.
pgrowcp3.c	ab00	Unknown growth type.
pgrowcp3.c	ab02	Failure to obtain option block, growth fails.
pgrowcp3.c	ab03	Degrow fails; memory not allocated at growth time.
pgrowcp3.c	ab04	Degrow fails; no memory status for this device.
pgrowcp3.c	ab06	Failure to obtain option block; boot restore fails.
pgrowcp3.c	ab08	Growth fails; memory allocation from SMC failed.
pgrowcp3.c	ab0a	Failed to obtain same ucb; boot restore fails.
chpcreat.c	ac01	No global free space for restio entry.
chpcreat.c	ac02	Index bad when pcreate timer fires. Format of additional string information is defined as: `a`

		a = Channel ID (hex).
chpcreat.c	acf3	chpcreat returned SUCCESS.
chpcreat.c	acff	findpid() returned non-NULL.
x3send.c	af00	BX.25 level 3 cannot restart with far end.
x3send.c	af01	Unexpected failure to send control packet.
x3send.c	af02	Unexpected failure to send interrupt packet.
x3send.c	af03	Unexpected failure to send data packet.

1.7 NPH HANDLER

Function	Code	Comment
psconn.c	b001	Invalid high level user protocol-ID.
psconn.c	b002	Invalid application tag.
psdetach	b003	Unknown application tag.
psrstnp3	b101	DTE table full.
psinit	b302	RUNA record set_id not found.
psinit	b303	Failure to open cursor for sets.
pgrownp3.c	b500	Failure to obtain PCSD option block.
pgrownp3.c	b501	ACT internal state for DEGROW request.
pgrownp3.c	b502	Unknown internal state.
pgrownp3.c	b503	Unknown type of IODRV request.
pgrownp3.c	b504	Failure to get SEGID and PTA for buffer area.
pgrownp3.c	b505	Failure to allocate scratch memory.
pgrownp3.c	b506	Failure to get RESTORE PCSD.
pgrownp3.c	b507	Failure to get obtain ucblp.
pgrownp3.c	b508	Failure to allocate scratch memory.
pinitnp3.c	b580	Unknown type of IODRV request.
prstnp3.c	b600	ACT internal state for RESTORE request.
prstnp3.c	b601	Failure to RESTORE a PCSD.
prstnp3.c	b602	ACT internal state for NOT_IMPLICATED_RESTART request.
prstnp3.c	b603	Failure to RESTORE a PCSD.
prstnp3.c	b604	ACT internal state for IMPLICATED_RESTART request.
prstnp3.c	b605	Failure to obtain an IODRV timer element.
prstnp3.c	b606	Failure to RESTORE a PCSD.
prstnp3.c	b607	Unknown type of IODRV request.
prstnp3.c	b608	Memory allocation request in progress.
prstnp3.c	b609	Failed to allocate scratch memory.
prstnp3.c	b60a	Failure to get SEGID and PTA for PCSD scratch.
prstnp3.c	b60b	Failure to get DMA slot for PCSD scratch.
prstnp3.c	b60c	Failure to get DMA slot for buffer area.
prstnp3.c	b60d	Failure to obtain PCSD option block.
prstnp3.c	b60e	Somebody changed the option block.
prmvnp3.c	b680	ACT internal state for UNCONDITIONAL_REMOVE request.
prmvnp3.c	b681	Failure to send GO_OUT_OF_SERVICE message to PCSD.
prmvnp3.c	b682	Failure to obtain IODRV timer element.
prmvnp3.c	b683	Unknown type of IODRV request.
prmvnp3.c	b684	Unknown type of IODRV request.
prmvnp3.c	b685	Unknown internal state.
prmvnp3.c	b686	OOS internal state for (UN)CONDITIONAL_REMOVE request.
prmvnp3.c	b687	OOS internal state for HALF_REMOVE request.
prmvnp3.c	b688	OOS internal state for unknown type of IODRV request.
prspnp3.c	b700	Unexpected RESTORE response, ACT internal state.
prspnp3.c	b701	Unexpected DIAL-OUT response, ACT internal state.
prspnp3.c	b702	Unknown PCSD response, ACT internal state.
prspnp3.c	b703	Unexpected RECEIVE report, INIT internal state.
prspnp3.c	b704	Unexpected TRANSMIT report, INIT internal state.
prspnp3.c	b705	Unexpected ASYNCHRONOUS report, INIT internal state.
prspnp3.c	b706	Unexpected DIAL-OUT response, INIT internal state.
prspnp3.c	b707	Unknown PCSD response, INIT internal state.
prspnp3.c	b708	Unexpected GO_OUT_OF_SERVICE response, OOS internal state.
prspnp3.c	b709	Unexpected RECEIVE report, OOS internal state.
prspnp3.c	b70a	Unexpected TRANSMIT report, OOS internal state.
prspnp3.c	b70b	Unexpected ASYNCHRONOUS report, OOS internal state.
prspnp3.c	b70c	Unexpected DIAL-OUT response, OOS internal state.
prspnp3.c	b70d	Unexpected PCSD response, OOS internal state.
prspnp3.c	b70e	Unexpected RESTORE response, RMVIP internal state.
prspnp3.c	b70f	Unexpected ASYNCHRONOUS_ERROR report, RMVIP

		internal state.
prspnp3.c	b710	Unexpected RECEIVE report, RMVIP internal state.
prspnp3.c	b711	Unexpected TRANSMIT report, RMVIP internal state.
prspnp3.c	b712	Unexpected ASYNCHRONOUS report, RMVIP internal state.
prspnp3.c	b713	Unexpected DIAL-OUT response, RMVIP internal state.
prspnp3.c	b714	Unknown PCSD response, RMVIP internal state.
prspnp3.c	b715	Unexpected response; memory request in progress.
prspnp3.c	b716	Unexpected response, memory request failed.
prspnp3.c	b717	Unknown internal state.
prspnp3.c	b720	No jobs queued for input on PCSD.
prspnp3.c	b721	Error on a RECEIVE job.
prspnp3.c	b730	Error on a TRANSMIT job.
prspnp3.c	b740	Failure to initialize buffers.
prspnp3.c	b741	Failure to initialize scratch areas.
prspnp3.c	b742	Failure to obtain PCSD option block.
prspnp3.c	b750	Failure to send RESTORE message to PCSD.
prspnp3.c	b760	Failure to remove an IODRV timer element.
prspnp3.c	b761	CONNECT report received on a connected PCSD.
prspnp3.c	b762	No jobs queued for input on PCSD.
prspnp3.c	b763	Invalid DATA-SET DISCONNECT report.
prspnp3.c	b765	Unknown ASYNCHRONOUS report.
prspnp3.c	b770	Hardware error, link disconnect report.
prspnp3.c	b771	Unknown hardware error.
prspnp3.c	b772	PCSD software error.
prspnp3.c	b773	CRC error report.
prspnp3.c	b774	Invalid line address on a RECEIVE job.
prspnp3.c	b775	Invalid line address on a TRANSMIT job.
prspnp3.c	b776	N2 count exceeded.
prspnp3.c	b777	Frame reject received.
prspnp3.c	b778	Frame reject received, cause unknown.
prspnp3.c	b779	Frame reject transmitted.
prspnp3.c	b77a	Frame reject transmitted, cause unknown.
prspnp3.c	b77b	Frame reject transmitted; probable line address conflict.
prspnp3.c	b77c	Aggregate one-count error type unknown.
prspnp3.c	b77d	This error type reported by DDCMP version.
prspnp3.c	b77e	Error in RESTORE data.
prspnp3.c	b77f	Unknown asynchronous error report.
prspnp3.c	b790	Failure to allocate an input buffer.
prspnp3.c	b791	Failure to send a RECEIVE job to PCSD.
prspnp3.c	b792	RESTORE message timeout.
prspnp3.c	b793	CONNECT (level 2 protocol init.) timeout.
dimod.c	b800	Failure to get ucblp.
dimod.c	b805	Failure to push PCSD message.
dimod.c	b806	No jobs queued for input on PCSD.
dimod.c	b807	Failure to get ucblp.
dimod.c	b808	Failure to get ucblp.
plinit.c	ba01	Failure to get timer index from IODRV.
plrcv.c	ba11	Packet < 2 octets or invalid GFI or channel unassigned.
plrcv.c	ba12	Packet type invalid.
plrcv.c	ba13	RESTART INDICATION packet in state R3_RSTIND.
plrcv.c	ba14	Logical channel 0 in undefined state.
plrcv.c	ba15	RESTART INDICATION on non-zero channel in state P6_CLRREQ.
plrcv.c	ba16	RESTART INDICATION on non-zero channel in state D2_RESREQ.
plrcv.c	ba17	RESTART INDICATION on non-zero channel in state R2_RESREQ.
plrcv.c	ba18	Logical channel in an undefined state.
plrcv.c	ba19	Illegal channel and packet type combination.
plrcv.c	ba1a	Invalid packet length. Format of additional information is defined as: `a b c` `a` = packet type (hex) `b` = number of bytes in packet (decimal)

		c = channel number (decimal).
plcaccept.c	bb01	Logical channel in an undefined state.
pldacks.c	bb02	Logical channel in an undefined state.
plexdt.c	bb03	Logical channel in an undefined state.
plrest.c	bb04	Logical channel in an undefined state.
pldacks.c	bb05	Read substate of the logical channel undefined.
plrest.c	bb06	RESET INDICATION packet in state D3_RESIND.
plcconfi.c	bb11	CALL CONNECTED packet in state R2_RSTREQ.
plcindic.c	bb21	INCOMING CALL packet in state R2_RSTREQ or P6_CLRREQ.
plcindic.c	bb22	Originally-called DTE address is out of order in call redirection notification facility.
plcindic.c	bb23	Originally-called DTE address is busy in call redirection notification facility.
plcindic.c	bb24	Non-supported reason for redirecting originally-called DTE address in call redirection notification facility.
plcindic.c	bb25	Originally-called DTE address is out of order in called line address modified notification facility.
plcindic.c	bb26	Originally-called DTE address is busy in called line address modified notification facility.
plcindic.c	bb27	Non-supported reason for modifying originally-called DTE address in called line address modified notification facility.
pldiscr.c	bb41	Logical channel in an undefined state.
pldiscr.c	bb42	CLEAR INDICATION packet in state P7_CLRIND.
pldiscr.c	bb43	Logical channel in an undefined state.
pldiscr.c	bb44	CLEAR CONFIRMATION in state R2_RSTREQ or R3_RSTIND.
pldiscr.c	bb45	Logical channel in an undefined state.
plrest.c	bb70	RESET INDICATION packet in state R2_RSTREQ or R3_RSTIND.
plrest.c	bb71	RESET CONFIRMATION in state R2_RSTREQ or R3_RSTIND.
plrest.c	bb72	Reset received with diag code of "d-bit not supported."
plexdt.c	bb81	Logical channel in an undefined state.
plexdt.c	bb82	Logical channel in an undefined state.
plrndata.c	bc01	Logical channel in an undefined state.
plrndata.c	bc02	Invalid return code from "copypacket" function.
plrndata.c	bc03	Read substate of logical channel undefined.
plrndata.c	bc05	Read substate of logical channel undefined.
plrndata.c	bc70	DATA packet in state R2_RSTREQ or R3_RSTIND.
plsndata.c	bd01	Send substate of logical channel undefined.
plsndata.c	bd02	Logical channel in an undefined state.
plsndata.c	bd03	Invalid return code from "edmacopy" function.
plsndata.c	bd04	Send substate of channel undefined.
plsndata.c	bd80	RR/RNR packet in state R2_RSTREQ or R3_RSTIND.
pltime.c	be00	T22 timer not active in state D2_RESREQ.
pltime.c	be01	T21 timer not active in state P2_CALLREQ.
pltime.c	be02	T23 timer not active in state P6_CLRREQ.
pltime.c	be03	T20 timer not active in state R2_RSTREQ.

1.8 TP HANDLER

Function	Code	Comment
md_buffer.c	c101	Wait for a buffer; type is unknown.
md_buffer.c	c111	Failure to format an AK, EA, or RJ TPDU.
md_init.c	c121	Failure to read the "TPH 0" UCB ECD record.
md_init.c	c122	Failure to read the tphopt ECD record for TPH.
md_init.c	c125	Failure to retrieve RID for ECD record being changed.
md_init.c	c126	Failure to find tsapinfo record RID in table; DELETE operation.
md_init.c	c131	Failure to read the tphopt ECD record for TPH.
md_init.c	c133	Failure to retrieve tsapinfo record; INSERT operation.
md_init.c	c134	Failure to retrieve tsapinfo record; UPDATE operation.
md_init.c	c135	Failure to retrieve NSAP to DTE mapping table; DELETE operation.
md_init.c	c136	Failure to retrieve NSAP to DTE mapping table; UPDATE

		operation.
md_init.c	c137	Failure to retrieve NSAP to DTE mapping table; INSERT operation.
md_init.c	c141	Request for memory from the IODRV failed.
md_timers.c	c142	Request for memory for TPH input buffer failed.
md_input.c	c201	Unknown address type for TS user data area.
md_input.c	c202	Unknown state of the TC input queue.
md_input.c	c211	Unknown address type for TS user data area.
md_input.c	c212	Unknown TPDU type for a NPH RDCMP.
md_input.c	c213	Unknown NPH return code value for a NPH RDCMP.
md_input.c	c221	Unknown address type for TS user data area.
md_input.c	c222	Unknown state of the TC input queue.
md_input.c	c223	TS user read error; class 2 TC.
md_input.c	c224	TS user read error; class 2 TC.
md_input.c	c225	Peer TE sent invalid TPDU-NR in DT TPDU; class 0 or 2 TC.
md_input.c	c226	TS user read error; class 0 or 2 TC.
md_input.c	c227	Peer TE sent invalid TPDU-NR in DT TPDU; class 0 or 2 TC.
md_input.c	c228	Peer TE sent invalid TPDU-NR in DT TPDU; class 0 or 2 TC.
md_input.c	c229	TS user read error; class 0 or 2 TC.
md_timers.c	c231	Timeout for unknown timer type.
md_timers.c	c232	Timeout for invalid TC local reference.
md_timers.c	c233	Invalid timeout element for timer type.
tl_buffers.c	c301	Cannot find TPDU on retain queue.
tl_buffers.c	c302	Retain queue is empty.
tl_conn.c	c311	DR TPDU not found in the retained queue.
tl_conn.c	c315	Failure to initiate TCONreq; invalid predicate, P1 or P3.
tl_conn.c	c316	Failure to initiate TCONreq; all tc_data structures in use.
tl_conn.c	c317	Failure to initiate TCONreq; no tsapinfo for TSAP addresses specified.
tl_conn.c	c318	Failure to initiate TCONreq; TS user data length exceeds maximum.
tl_conn.c	c319	Failure to initiate TCONreq; all nc_data structures in use.
tl_conn.c	c320	Failure to initiate TCONreq; invalid class in tsapinfo.
tl_conn.c	c321	DR TPDU not found in the retained queue.
tl_conn.c	c322	Failure handling incoming CR; cannot allocate tc_data.
tl_conn.c	c323	Failure handling incoming CR; cannot assign nc_data.
tl_conn.c	c324	Failure handling incoming CR; cannot assign nc_data.
tl_conn.c	c325	Failure handling incoming CR; insufficient throughput available.
tl_conn.c	c326	Invalid CR TPDU received; connection refused.
tl_conn.c	c331	CR TPDU not found in the retained queue.
tl_conn.c	c332	Invalid TC state for a N-CONNECT confirmation.
tl_conn.c	c333	DR TPDU not found in the retained queue.
nsi.c	c341	Unknown NPH indication.
nsi.c	c342	tc-data structure queued twice on DTE priority queue.
nsi.c	c343	tc-data structure queued twice on DTE priority queue.
nsi.c	c344	Failure requesting NC for TC; no tsapinfo for TSAP addresses specified.
nsi.c	c345	Failure requesting NC for TC; invalid local nsap in tsapinfo.
nsi.c	c346	Failure to obtain NC; class 0 or 1 TC.
nsi.c	c347	Failure to obtain NC; no DTE found to degrade TC's service.
nsi.c	c348	Failure to obtain NC; no NCs available for multiplexing.
nsi.c	c349	Failure to obtain NC; could not change throughput on multiplexed NC.
nsi.c	c350	Failure to obtain NC on retry; no NCs and/or throughput.
nsi.c	c351	Failure to obtain NC on retry; invalid return.
nsi.c	c352	Failure to obtain NC; class 0 or 1 TC.
nsi.c	c353	Failure to obtain NC; no NCs available for multiplexing.
nsi.c	c354	Failure to obtain NC; could not change throughput on multiplexed NC.
nsi.c	c355	Failure to obtain NC; invalid QOS specified.
nsi.c	c356	Failure to obtain NC; DTE specified is unavailable.
nsi.c	c357	Failure to obtain NC; invalid return.
nsi.c	c358	Failure to obtain NC; no NCs and/or throughput for class 0 TC.
tl_data.c	c401	Invalid event for first TPDU received.
tl_data.c	c405	Error formatting CC TPDU; extended TSAPID requested, but not found.
tl_data.c	c406	Error formatting CC TPDU; user data specified for class 0 TC.
tl_data.c	c407	Error formatting CC TPDU; TS user data length exceeds maximum.

tl_data.c	c411	DR TPDU not found in the retained queue.
tl_data.c	c421	Unknown event for tl_dt_procedure.
tl_data.c	c422	Retained DT TPDU mismatches lower window.
tl_data.c	c431	DT TPDU not found in the retained queue.
tl_data.c	c432	DT TPDU not found in the retained queue.
tl_data.c	c433	CC TPDU not found in the retained queue.
tl_data.c	c434	DR TPDU not found in the retained queue.
tl_data.c	c435	NS provider error for transmission of a DT TPDU.
tl_disc.c	c441	Invalid TC state for a DR TPDU.
tl_disc.c	c442	DR TPDU RECEIVED; invalid SRC-REF.
tl_disc.c	c443	DR TPDU RECEIVED; class 0 TC, OPEN state.
tl_disc.c	c444	DR TPDU RECEIVED; WFCC state, peer refused connect request.
tl_disc.c	c445	DR TPDU RECEIVED; class 0 TC, WBCL state.
tl_disc.c	c446	Receipt of DC TPDU; class 0 TC, CLOSING state.
tl_disc.c	c447	Receipt of DC TPDU; protocol error, invalid state.
tl_disc.c	c451	Invalid TC state for a N-DISCONNECT indication.
tl_disc.c	c452	NDISind; class 0 or 2 TC, WFCC state.
tl_disc.c	c453	NDISind; class 0 o 2 TC, WFNC state.
tl_disc.c	c454	NDISind; TTR timeout, WFNC state.
tl_disc.c	c455	NDISind; TTR timeout, WBCL state.
tl_disc.c	c456	NDISind; WFTRESP or WBOC state, no TWR timer value.
tl_disc.c	c457	NDISind; class 0 or 2 TC, CLOSING or WBCL state.
tl_disc.c	c458	TDISreq; WFCC state.
tl_disc.c	c459	TDISreq; WFTRESP state.
tl_disc.c	c45a	TDISreq; WBOC state.
tl_interf.c	c461	Unknown incoming event.
tl_interf.c	c462	Unsupported class.
tl_interf.c	c463	AK or EA TPDU received; class 0 TC.
tl_interf.c	c464	RJ TPDU received; class 0 or 2 TC.
tl_interf.c	c465	Expedited data request; class 0 TC.
tl_interf.c	c471	Unknown TPDU type.
tl_interf.c	c481	Fatal TPH error for a reassignment.
tl_misc.c	c491	Changing TC state to an invalid state.
tl_misc.c	c4a1	TPDU not found in the retained queue.
tl_timers.c	c501	Unknown timer type.
tl_timer.c	c502	Failure to start timer.
tl_timers.c	c511	Unknown timer type.
tl_timers.c	c512	Failure to stop timer.
tl_timers.c	c541	Invalid state.
tl_timers.c	c551	Invalid state.
tl_timers.c	c561	Unknown timer type.
tl_reset.c	c581	Failure to format RJ TPDU.
tl_reset.c	c582	NRSTind; class 0 or 2 TC, OPEN state.
tl_reset.c	c583	NRSTind; OPEN state, TTR timer has previously expired.
tl_reset.c	c584	NRSTind; class 0 or 2 TC, WFCC state.
tl_reset.c	c585	NRSTind; WFCC state, TTR timer has previously expired.
tl_reset.c	c586	NRSTind; class 0 or 2 TC, WFTRESP state.
tl_reset.c	c587	NRSTind; class 0 TC, WBCL state.
tl_reset.c	c588	NRSTind; class 0 TC, CLOSING state.
tl_reset.c	c589	Protocol error for a TPDU received.
tsi.c	c591	No tsapinfo ECD record for specified TSAP.
tsi.c	c592	Failure to open ECD for tsapinfo records.

1.9 BTI HANDLER

Function	Code	Comment
update_tc_state()	cf00	Transport connection state invalid.
update_control_state()	cf01	Control state invalid.
update_output_state()	cf02	Output state invalid.
timeout_tc()	cf03	Transport connection timeout.
fatal_btih_error()	cf04	Fatal BT interface handler error.
inp_avail()	cf10	Received unexpected pdu type.
receive_complete()	cf10	Received unexpected pdu type.
connect_tc()	cf11	TSAP not found.
connect_tc()	cf12	Respond failed.
inp_avail()	cf13	T_recv failed.
write_to_tl()	cf20	T_send failed.
get_query_info()	cf21	P_iomap failed.
open_device()	cf30	T_attach failed.

pass_poll_request()	cf40	Sendevent failed.
pass_checkpt_ack()	cf40	Sendevent failed.
neg_clean_up()	cf40	Sendevent failed.
open_device()	cf40	Sendevent failed.
disconnect_tc()	cf40	Sendevent failed.
ptrpbt3()	cf50	G_iomap failed.
read_ecd_data()	cf60	Bad logdev record for control device.
read_ecd_data()	cf61	Bad logdev record for output device.
read_ecd_data()	cf62	Bad btihdev ecd record.
pmsgbt3()	cf70	No more available pdu blocks.
get_free_block()	cf70	No more available pdu blocks.

1.10 SP HANDLER

Function	Code	Comment
s_i_ab_spdu_mi()	d010	Expected TDisconnect indication.
s_req_buffer_md()	d101	Requested more than a segment of memory.
s_init_all_buffers_md()	d103	Handler initialization error.
s_init_s_con_data_md()	d104	Handler not initialized yet.
s_rel_con_data_md()	d105	NULL pointer for pointer to connection data structure.
s_rel_con_data_md()	d106	Connection data structure corrupted.
s_rel_con_data_md()	d107	Connection data structure already returned to map.
s_rel_con_data_md()	d108	Too many connection data structures returned.
s_reuse_con_data_md()	d109	Connection data structure pointer is NULL.
s_reuse_con_data_md()	d109	Connection data structure pointer is NULL.
s_reuse_con_data_md()	d10a	Connection data structure corrupted.
s_reuse_con_data_md()	d10b	Expedited service selected.
s_reuse_con_data_md()	d10c	No reuse in effect.
s_reuse_con_data_md()	d10d	Duplicate entry in no reuse structure.
s_reuse_con_data_md()	d10e	Duplicate entry in reuse structure.
s_reuse_con_data_md()	d10f	Too many connections allocated.
s_find_ind_function_md()	d110	Session protocol handler not ready.
s_attach()	d111	Session protocol handler not ready.
s_detach()	d112	Session protocol handler not ready.
s_reuse_con_data_md()	d113	Illegal state of session protocol machine.
s_attach()	d114	Invalid version.
s_o_t_req_connect_md()	d201	Call to `t_connect()` failed.
s_o_t_rsp_connect_md()	d202	Call to `t_respond()` failed.
s_o_t_disconnect_md()	d203	Call to `t_disconnect()` failed.
pinitsp3	d301	Attach to local TSAP failed.
pmsgsp3	d302	Invalid message type.
pmsgsp3	d303	Message had bad record ID.
pmsgsp3	d304	lla_rdget call failed.
pmsgsp3	d305	Attach to local TSAP failed.
pmsgsp3	d306	Illegal ECD operation reported.
s_o_norm_spdu_send_md	d402	Failed attempt to send CN SPDU.
s_o_norm_spdu_send_md	d403	Illegal state to send SPDU.
s_o_norm_spdu_send_md	d404	Failed attempt to send SPDU.
s_o_norm_spdu_send_md	d405	Illegal state to send SPDU.
s_o_norm_spdu_send_md	d406	Failed attempt to send AA or AB SPDU.
s_o_norm_spdu_send_md	d407	Illegal state to send AA or AB SPDU.
s_o_norm_spdu_send_md	d408	Illegal SPDU type.
s_o_ssdu_send_md()	d409	Illegal use of segmenting.
s_o_ssdu_send_md()	d40a	Illegal state for sending unsegmented data.
s_o_ssdu_send_md()	d40b	Illegal ssdu_segment value.
s_o_ssdu_send_md()	d40c	Illegal ssdu_segment value.
s_o_ssdu_send_md()	d40d	Illegal state for sending segmented data.
s_o_ssdu_send_md()	d40e	tsdu size <= GTSEGDTHDR.
s_send_tsc_md()	d40f	Failed attempt to send AA or AB SPDU.
s_send_tsc_md()	d410	Session protocol machine in illegal state.
s_send_ack_md()	d411	Inconsistent number of t_acknowledges outstanding.
s_send_ack_md()	d412	Inconsistent number of t_acknowledges.
s_send_ack_md()	d413	Inconsistent number of t_acknowledges.
s_send_ack_md()	d414	Number of t_acknowledges > NUMSEGHEADS.
s_send_ack_md()	d415	Inconsistent number of t_acknowledges.
s_send_ack_md()	d416	Inconsistent number of t_acknowledges.
s_send_ack_md()	d417	Inconsistent number of t_acknowledges.
s_send_ack_md()	d418	Number of t_acknowledges > NUMSEGHEADS.
s_send_ack_md()	d419	Inconsistent number of t_acknowledges.
s_send_ack_md()	d41a	Inconsistent number of t_acknowledges.

s_send_ack_md()	d41b	Inconsistent number of acknowledges.
s_send_ack_md()	d41c	Inconsistent number of acknowledges.
s_send_ack_md()	d41d	Inconsistent number of acknowledges.
s_send_ack_md()	d41e	Session protocol machine in illegal state.
s_unseg_send_md()	d41f	Transport send failed.
s_unseg_send_md()	d420	Transport send failed.
s_seg_send_md()	d421	Data transmission error - not enough user data.
s_seg_send_md()	d422	Data transmission error - not enough user data.
s_seg_send_md()	d423	Data transmission error.
s_seg_send_md()	d424	Data transmission error.
s_o_exp_spdu_send_md()	d425	Expedited data transmission error at transport layer.
s_o_exp_spdu_send_md()	d426	Expedited data transmission error at session layer.
s_o_ssdu_send_md()	d427	Length of user data <= 0.
s_o_ssdu_send_md()	d428	SS-user tried to send after S_PARTIAL response.
s_o_ssdu_send_md()	d429	SS-user tried to send after S_PARTIAL response.
s_send_ack_md()	d42a	Bad state for orderly release.
s_send_ack_md()	d42b	Unexpected acknowledgement.
s_unseg_send_md()	d42e	Invalid T_ACKNOWLEDGE indication.
s_send_ack_md()	d42f	Bad disconnect state for orderly abort.
s_send_suc_md()	d430	Bad disconnect state for orderly abort.
s_send_suc_md()	d431	Bad disconnect state for orderly abort.
s_o_exp_spdu_md()	d432	Cannot send EX SPDU.
s_send_suc_md()	d43a	Invalid state for an orderly release.
s_send_suc_md()	d43b	Invalid return code value from t_send.
s_send_suc_md()	d43c	Invalid send machine state.
s_i_spdu_rec_md()	d501	Failed while reading SPDU header.
s_i_spdu_rec_md()	d502	Failed while reading concatenated SPDU header.
s_i_spdu_rec_md()	d503	Extended concatenation not supported.
s_i_spdu_rec_md()	d504	Invalid return from `s_i_process_spdu_md()`.
s_i_spdu_rec_md()	d505	Invalid return from `s_i_process_spdu_md()`.
s_i_spdu_rec_md()	d506	Wrong state to receive a new SPDU.
s_i_decode_length()	d507	SPDU header too long for input buffer.
s_i_decode_length()	d508	Length of SPDU header wrong.
s_i_decode_length()	d509	Length of SPDU header wrong.
s_i_decode_length()	d50a	Unrecognized return code from `t_receive()`.
s_i_PI_buf_get_md()	d50b	Failure to get PG length in SPDU header.
s_i_PI_buf_get_md()	d50c	Failure to get PG data in SPDU header.
s_i_header_get_md()	d50d	SPDU header too long for input buffer.
s_i_header_get_md()	d50e	Wrong number of bytes returned from `t_receive()`.
s_i_header_get_md()	d50f	Unrecognized return code from `t_receive()`.
s_i_header_get_md()	d510	Invalid length of parameter group data.
s_i_header_get_md()	d511	User data indicated, but reached end of SPDU.
s_i_header_get_md()	d512	Invalid SPDU header length.
s_i_header_get_md()	d513	Too many bytes in SPDU header.
s_i_header_get_md()	d514	End of SPDU header, wrong length.
s_i_data_get_md()	d515	SPDU header too long for input buffer.
s_i_data_get_md()	d516	Number of bytes in SPDU header greater than indicated.
s_i_data_get_md()	d517	Wrong number of bytes returned from `t_receive()`.
s_i_data_get_md()	d518	End of SPDU header, wrong length.
s_i_data_get_md()	d519	Invalid return code from `t_receive()`.
s_i_type_spdu_decode_md()	d51a	Illegal concatenation.
s_i_type_spdu_decode_md()	d51b	Illegal SPDU type.
s_i_length_PG_md()	d51c	SPDU header too long for input buffer.
s_i_length_PG_md()	d51d	Wrong number of bytes returned from `t_receive()`.
s_i_length_PG_md()	d51e	While reading LONG SPDU header got return code of T_NEW_TSDU.
s_i_length_PG_md()	d51f	While reading LONG SPDU header got return code of T_READ_END.
s_i_length_PG_md()	d520	While reading LONG SPDU header got invalid return code.
s_i_length_PG_md()	d521	SPDU header too long for input buffer; SPDU type is CN, AC, or RF.
s_i_length_PG_md()	d522	SPDU header too long for input buffer; SPDU type is GT, OUR_DT, PT, FN, DN, AA, or AB.
s_i_length_PG_md()	d523	Unknown SPDU type header.
s_i_trc_md()	d524	Wrong byte count from `t_receive_complete()`.
s_i_trc_md()	d525	Illegal type of SPDU received.
s_i_trc_md()	d526	Illegal length of SPDU header.
s_i_trc_md()	d527	Failed to process concatenated SPDU.
s_i_trc_md()	d528	Illegal concatenation.
s_i_trc_md()	d529	Invalid return from `s_i_process_spdu_md()`.

s_i_trc_md()	d52a	Illegal concatenation.
s_i_trc_md()	d52b	Failed to read in SPDU header.
s_i_trc_md()	d52c	Failed to read in concatenated SPDU header.
s_i_trc_md()	d52d	Illegal concatenation.
s_i_trc_md()	d52e	Invalid return from `s_i_process_spdu_md()`.
s_i_trc_md()	d52f	Invalid return from `s_i_PI_buf_get_md()`.
s_i_trc_md()	d530	Illegal SPDU type.
s_i_trc_md()	d531	Invalid return code from `t_receive_complete()`.
s_i_trc_md()	d532	Wrong byte count from `t_receive_complete()`.
s_i_trc_md()	d533	Failed while reading SPDU header.
s_i_trc_md()	d534	Illegal concatenation.
s_i_trc_md()	d535	Failed while reading concatenated SPDU.
s_i_trc_md()	d536	Invalid return from `s_i_process_spdu_md()`.
s_i_trc_md()	d537	Invalid return from `s_i_PI_buf_get()`.
s_i_trc_md()	d538	LONG SPDU header;t_receive returned T_NEW_TSDU.
s_i_trc_md()	d539	LONG SPDU header;t_receive returned T_READ_END.
s_i_trc_md()	d53a	Invalid return from `t_receive_complete()`.
s_i_trc_md()	d53b	Wrong byte count from `t_receive_complete()`.
s_i_trc_md()	d53c	Invalid length of SPDU header.
s_i_trc_md()	d53d	Have USER DATA;SPDU header length wrong.
s_i_trc_md()	d53e	Illegal concatenation.
s_i_trc_md()	d53f	Failed while reading header of concatenated SPDU.
s_i_trc_md()	d540	Invalid return from `s_i_process_spdu_md()`.
s_i_trc_md()	d541	Failed while reading SPDU header.
s_i_trc_md()	d542	Failed while reading header of concatenated SPDU.
s_i_trc_md()	d543	Illegal concatenation.
s_i_trc_md()	d544	Invalid return from `s_i_process_spdu_md()`.
s_i_trc_md()	d545	Invalid return from `s_i_PI_buf_get_md()`.
s_i_trc_md()	d546	USERDATA indicated, none present.
s_i_trc_md()	d547	USERDATA indicated, none present.
s_i_trc_md()	d548	Parameter group length != 0; wrong.
s_i_trc_md()	d549	Wrong parameter group length.
s_i_trc_md()	d54a	Invalid return from `t_receive_complete()`.
s_i_trc_md()	d54b	Illegal concatenation.
s_i_trc_md()	d54c	Failed while reading head of concatenated SPDU.
s_i_trc_md()	d54d	Invalid return from `s_i_process_spdu_md()`.
s_i_trc_md()	d54e	Failed while reading parameter groups of SPDU header.
s_i_trc_md()	d54f	Failed while reading header of concatenated SPDU.
s_i_trc_md()	d550	Illegal concatenation.
s_i_trc_md()	d551	Invalid return from `s_i_process_spdu_md()`.
s_i_trc_md()	d552	Invalid return from `s_i_PI_buf_get_md()`.
s_i_trc_md()	d553	Incorrect byte count in SPDU header.
s_i_trc_md()	d554	Invalid return from `t_receive_complete()`.
s_i_trc_md()	d555	Bad byte count from t_receive_complete().
s_i_trc_md()	d556	USER DATA; bad byte count in SPDU header.
s_i_trc_md()	d557	Illegal concatenation.
s_i_trc_md()	d558	Failed while reading header of concatenated SPDU.
s_i_trc_md()	d559	Invalid return from `s_i_process_spdu_md()`.
s_i_trc_md()	d55a	Failed while reading parameter groups of SPDU header.
s_i_trc_md()	d55b	Failed while reading header of concatenated SPDU.
s_i_trc_md()	d55c	Illegal concatenation.
s_i_trc_md()	d55d	Invalid return from `s_i_process_spdu_md()`.
s_i_trc_md()	d55e	Failed while reading parameter groups of SPDU header.
s_i_trc_md()	d55f	LONG SPDU header; t_receive returned T_NEW_TSDU.
s_i_trc_md()	d560	LONG SPDU header; t_receive returned T_READ_END.
s_i_trc_md()	d561	Invalid return from `t_receive_complete()`.
s_i_trc_md()	d562	Invalid return from `t_receive_complete()`.
s_i_trc_md()	d563	Invalid return from `t_receive_complete()`.
s_i_trc_md()	d564	Illegal receive state.
s_i_size_check_md()	d565	SPDU header too long for input buffer; SPDU type is CN, AC, or RF.
s_i_size_check_md()	d566	SPDU header too long for input buffer; SPDU type is OUR_DT, PT, FN, DN, AA, or AB.
s_i_size_check_md()	d567	SPDU header too long for input buffer; SPDU type is GT.
s_i_size_check_md()	d568	Unknown SPDU type header.
s_i_last_norm_data_md()	d569	Invalid return code from `t_receive()`.
s_i_last_norm_data_md()	d56a	Illegal state - receive data.
s_i_more_norm_data_md()	d56b	Invalid return code from `t_receive()`.
s_i_more_norm_data_md()	d56c	Illegal state - receive data.
s_i_rec_norm_data_md()	d56d	Invalid return code from `t_receive()`.

s_i_rec_norm_data_md()	d56e	Invalid return code from `t_receive()`.
s_i_rec_norm_data_md()	d56f	Illegal state - receive data.
s_i_process_spdu_md()	d570	Bad byte count from `t_receive()`.
s_i_process_spdu_md()	d571	Unknown SPDU type.
s_i_process_spdu_md()	d572	Unknown SPDU type.
s_i_process_spdu_md()	d573	Illegal length of AB SPDU.
s_i_process_spdu_md()	d574	Illegal SPDU header length.
s_i_process_spdu_md()	d575	Failed while reading parameter groups of SPDU header.
s_i_process_spdu_md()	d576	Illegal concatenation.
s_i_process_spdu_md()	d577	Invalid return from `s_i_PI_buf_get_md()`.
s_i_process_spdu_md()	d578	Illegal state - receive SPDU header.
s_i_concat_check_md()	d579	Illegal concatenation with a GT SPDU.
s_i_concat_check_md()	d57a	Illegal concatenation.
s_i_trc_md()	d57b	Illegal length of AB SPDU.
s_i_trc_md()	d57c	Invalid return code from t_receive().
s_i_trc_md()	d57d	Bad byte count while reading AB SPDU.
s_i_trc_md()	d57e	Invalid return from `t_receive_complete()` while reading AB SPDU.
s_i_process_spdu_md()	d57f	Invalid return code while reading AB SPDU.
s_i_process_spdu_md()	d580	Bad byte count from `t_receive()`.
s_i_trc_md()	d581	Bad state for orderly release.
s_i_rec_norm_data_md()	d582	Bad state for orderly release.
s_i_concat_check_md()	d583	Improper concatenation - RS SPDU must be concatenated with meaningless GT SPDU.
s_i_concat_check_md()	d584	Improper concatenation - RA SPDU must be concatenated with a PT SPDU.
s_i_trc_md()	d585	Failure to discard remainder of SPDU.
s_i_trc_md()	d586	Invalid return code from `t_receive()` when in the discard receive state.
s_i_type_spdu_decode_md()	d587	RS/RA SPDU must be concatenated with GT/PT SPDU.
s_i_trc_md()	d588	Bad state for orderly release.
s_i_ac_spdu_mi()	d601	Session protocol machine in (illegal) state STA01C.
s_i_ac_spdu_mi()	d602	Parsing of SPDU failed.
s_i_ac_spdu_mi()	d603	No transport connection exists.
s_i_ac_spdu_mi()	d604	Expected t_connect_confirm.
s_i_ac_spdu_mi()	d605	Invalid session protocol machine state.
s_ac_parse_mi()	d606	Invalid token setting in AC SPDU.
s_ac_parse_mi()	d607	Invalid parameter group in AC SPDU.
s_ac_parse_mi()	d608	Parsing of AC SPDU failed.
s_ac_parse_mi()	d609	AC SPDU functional units specified incorrectly.
s_cn_spdu_mi()	d60a	Expected abort accept or transport disconnect indication.
s_cn_spdu_mi()	d60b	Receiving side not transport acceptor.
s_cn_spdu_mi()	d60c	Expected t_connect_confirm.
s_cn_spdu_mi()	d60d	No transport connection exists.
s_cn_spdu_mi()	d60e	Invalid session protocol machine state.
s_cn_parse_mi()	d60f	Invalid token setting in CN SPDU.
s_cn_parse_mi()	d610	Invalid duplex/half duplex choice in CN SPDU.
s_cn_parse_mi()	d611	SSAP length exceeds S_MAX_SSAP_ID_LEN.
s_cn_parse_mi()	d612	Invalid parameter group in CN SPDU.
s_cn_parse_mi()	d613	Parsing of CN SPDU failed.
s_i_rf_spdu_mi()	d614	Session protocol machine in illegal state (STA01C).
s_i_rf_spdu_mi()	d615	Session protocol machine in illegal state (STA01).
s_i_rf_spdu_mi()	d616	Expected t_connect_confirm.
s_i_rf_spdu_mi()	d617	Session protocol machine in invalid state.
s_rf_parse_mi()	d618	Duplex/half duplex option not specified in RF SPDU.
s_rf_parse_mi()	d619	Invalid parameter group in RF SPDU.
s_rf_parse_mi()	d61a	Parsing of RF SPDU failed.
s_i_c_req_mi()	d61b	User data length exceeds S_U_512_LEN.
s_i_c_req_mi()	d61c	Failed attempt to construct CN SPDU.
s_i_c_req_mi()	d61d	Failed attempt to get a transport connection.
s_i_c_req_mi()	d61e	User data length exceeds S_U_512_LEN.
s_i_c_req_mi()	d61f	Failed attempt to send CN SPDU.
s_i_c_req_mi()	d620	Failed attempt to construct CN SPDU.
s_i_c_req_mi()	d621	Sender not transport connection initiator.
s_i_c_req_mi()	d622	Session protocol machine in invalid state to receive connection request.
build_cn_spdu_mi()	d623	Failed attempt to add the connection ID parameter field to CN spdu.
build_cn_spdu_mi()	d624	Invalid token setting in building CN SPDU.

build_cn_spdu_mi()	d625	Invalid duplex/half duplex choice.
build_cn_spdu_mi()	d626	Failed attempt to add the session user requirements field to CN spdu.
build_cn_spdu_mi()	d627	Calling ssap identifier length > S_MAX_SSAP_ID_LEN.
build_cn_spdu_mi()	d628	Called ssap identifier length > S_MAX_SSAP_ID_LEN.
add_conn_id_mi()	d629	User reference parameter length > S_REF_MAX_LEN.
add_conn_id_mi()	d62a	Common reference length parameter > S_REF_MAX_LEN.
add_conn_id_mi()	d62b	Additional reference length parameter > S_REF_MAX_LEN.
add_cn_rf_sess_req_mi()	d62c	Invalid duplex/half duplex setting.
add_cn_rf_sess_req_mi()	d62d	Invalid expedited data setting.
add_cn_rf_sess_req_mi()	d62e	Invalid International Telecommunication Union - Telecommunication, Standardization Sector (ITU-TS) (formerly CCITT) standard subset selected.
add_ac_sess_req_mi()	d62f	Invalid duplex/half duplex setting.
add_ac_sess_req_mi()	d630	Invalid expedited data setting.
add_ac_sess_req_mi()	d631	Invalid International Telecommunication Union - Telecommunication, Standardization Sector (ITU-TS) (formerly CCITT) standard subset selected.
s_i_cacc_rsp_connect_mi()	d632	Expected TConnect confirm.
s_i_cacc_rsp_connect_mi()	d633	User data length > S_U_512_LEN.
s_i_cacc_rsp_connect_mi()	d634	Failed attempt to construct AC SPDU.
s_i_cacc_rsp_connect_mi()	d635	Failed attempt to send AC SPDU.
s_i_cacc_rsp_connect_mi()	d636	Session protocol machine in invalid state.
build_ac_spdu_mi()	d637	Failed attempt to add connection identifier parameter group to AC SPDU.
build_ac_spdu_mi()	d638	Invalid token setting.
build_ac_spdu_mi()	d639	Attempt to set data token in duplex mode.
build_ac_spdu_mi()	d63a	Invalid token holder setting.
build_ac_spdu_mi()	d63b	Failed to add session user requirements parameter items to an AC SPDU.
build_ac_spdu_mi()	d63c	Called ssap length > S_MAX_SSAP_ID_LEN.
s_i_crej_rsp_connect_mi()	d63d	Expected TConnect confirm.
s_i_crej_rsp_connect_mi()	d63e	User data length > S_U_512_LEN.
s_i_crej_rsp_connect_mi()	d63f	Failed attempt to construct RF SPDU with reuse set.
s_i_crej_rsp_connect_mi()	d640	Failed attempt to send RF SPDU with reuse set.
s_i_crej_rsp_connect_mi()	d641	Failed attempt to construct RF SPDU with no reuse set.
s_i_crej_rsp_connect_mi()	d642	Failed attempt to send RF SPDU with no reuse set.
s_i_crej_rsp_connect_mi()	d643	Session protocol machine in invalid state.
build_rf_spdu_mi()	d644	Invalid reason code with user data.
build_rf_spdu_mi()	d645	Failed attempt to add connection ID parameter group field to RF SPDU.
build_rf_spdu_mi()	d646	Invalid reason code with session user requirements.
build_rf_spdu_mi()	d647	Failed attempt to add session user requirements field to RF SPDU.
build_rf_spdu_mi()	d648	Illegal reason code.
s_i_t_con_connect_mi()	d649	Failed attempt to send CN SPDU.
s_i_t_con_connect_mi()	d64a	Expected T_Disconnect or abort accept indication.
s_i_t_con_connect_mi()	d64b	No transport connection.
s_i_t_con_connect_mi()	d64c	Illegal state for transport connection confirm.
s_i_tc_ind_mi()	d64d	Failed attempt to send T_CONNECT_RESPONSE.
s_i_tc_ind_mi()	d64e	Transport connection already established.
s_i_tc_ind_mi()	d64f	Expected abort accept or T_Disconnect indication.
s_i_tc_ind_mi()	d650	Illegal or invalid state to receive transport connection indication.
build_ac_spdu_mi()	d651	Invalid token holder setting.
build_ac_spdu_mi()	d652	Calling ssap identifier length > S_MAX_SSAP_ID_LEN.
s_i_c_req_mi()	d653	Could not get buffer to build CN SPDU.
s_ac_parse_mi()	d654	Too much user data on version 1 AC SPDU.
s_ac_parse_mi()	d655	Enclosure item not supported on AC SPDU.
s_ac_parse_mi()	d656	AC SPDU does not contain proposed version.
s_ac_parse_mi()	d657	AC SPDU does not contain one of the proposed data mode types (duplex or half duplex).
s_ac_parse_mi()	d658	Initial sync point serial number is missing.
s_i_cn_spdu_mi()	d659	Proposed version is not supported on this SSAP.
s_i_cn_spdu_mi()	d65a	Could not find indication function due to unrecognized SSAP.
s_cn_parse_mi()	d65b	User data too large for version 1 connect SPDU.
s_cn_parse_mi()	d65c	Extended user data not valid in version 1.
s_cn_parse_mi()	d65d	Overflow parameter not supported.
s_refuse_cn_mi()	d65e	Could not get buffer for sending RF SPDU.

s_refuse_cn_mi()	d65f	Failed to build RF SPDU.
s_refuse_cn_mi()	d660	Failed to send RF SPDU.
s_rf_parse_mi()	d661	Too much user information on version 1 RF SPDU.
s_rf_parse_mi()	d662	Enclosure parameter not supported on refuse SPDU.
s_i_c_req_mi()	d663	Invalid initial sync point serial number.
s_i_c_req_mi()	d664	Initial sync point serial number must not be set if resync functional unit not proposed.
s_i_c_req_mi()	d665	Invalid initial sync point serial number.
s_i_c_req_mi()	d666	Initial sync point serial number must not be set if resync functional unit not proposed.
add_cn_rf_sess_req_mi()	d667	Invalid resync functional unit setting.
add_ac_sess_req_mi()	d668	Invalid resync functional unit setting.
s_i_cacc_rsp_connect_mi()	d669	Invalid initial sync point serial number.
s_i_cacc_rsp_connect_mi()	d66a	Serial number must be S_NO_SERNUM if resync functional unit not proposed.
build_ac_spdu_mi()	d66b	Maximum SPDU length exceeded on AC.
build_ac_spdu_mi()	d66c	AC SPDU exceeds negotiated max TSDU size.
build_rf_spdu_mi()	d66d	Maximum SPDU length exceeded on RF SPDU.
build_rf_spdu_mi()	d66e	RF SPDU exceeds negotiated max TSDU size.
s_i_ac_spdu_mi()	d66f	Failure to discard AC SPDU.
s_ac_parse_mi()	d670	SSAP length exceeds S_MAX_SSAP_ID_LEN.
s_ac_parse_mi()	d671	Token setting item missing in conditions when it is required.
s_req_connect()	d701	Indication function not specified.
s_req_connect()	d702	No connection data structure available.
s_req_connect()	d703	Session connection set up failed.
s_acc_con_res()	d704	Error processing session accept request.
s_rej_con_res()	d705	Error processing session connect reject.
s_send_normal()	d706	Error processing send normal data request.
s_receive()	d707	Error processing receive request.
s_send_exp()	d708	Error processing send expedited data request.
s_give_tokens()	d709	Error processing give tokens request.
s_please_tokens()	d70a	Error processing please tokens request.
s_req_rel()	d70b	Error processing release request.
s_resp_rel()	d70c	Error processing release response request.
s_u_abort()	d70d	Error processing user abort request.
s_acc_con_res()	d70e	Illegal connection data structure pointer.
s_rej_con_res()	d70f	Illegal connection data structure pointer.
s_send_normal()	d710	Illegal connection data structure pointer.
s_receive()	d711	Illegal connection data structure pointer.
s_send_exp()	d712	Illegal connection data structure pointer.
s_give_tokens()	d713	Illegal connection data structure pointer.
s_please_tokens()	d714	Illegal connection data structure pointer.
s_req_rel()	d715	Illegal connection data structure pointer.
s_rel_resp()	d716	Illegal connection data structure pointer.
s_u_abort()	d717	Illegal connection data structure pointer.
s_set_uinfo()	d718	Invalid pointer to connection data structure.
s_rs_req()	d719	Invalid resync type requested - only abandon is supported.
s_rs_req()	d71a	Illegal connection data structure pointer.
s_rs_req()	d71b	Error processing resync request.
s_rs_rsp()	d71c	Illegal connection data structure pointer.
s_rs_rsp()	d71d	Error processing resync response.
s_set_timer_md()	d801	Abort timer already active on this connection.
s_gt_timer_md()	d802	Give tokens timer already active on this connection.
s_tnewtsdu_timer_md()	d803	tnewtsdu timer already active on this connection.
s_stop_timer_md()	d804	Abort timer not active on this connection.
s_timer_exp_md()	d805	Unknown timer type.
s_i_fn_spdu_mi()	d901	Illegal state (STA01C) to receive FN SPDU.
s_i_fn_spdu_mi()	d902	Illegal reuse after SPDU collision.
s_i_fn_spdu_mi()	d903	Illegal reuse during data transfer.
s_i_fn_spdu_mi()	d904	Illegal state to receive FN SPDU.
s_fn_parse_mi()	d905	User data > S_U_512_LEN.
s_fn_parse_mi()	d906	Illegal parameter identifier.
s_fn_parse_mi()	d907	FN SPDU parsing failed.
s_i_dn_spdu_mi()	d908	Illegal state (STA01C) to receive DN SPDU.
s_i_dn_spdu_mi()	d909	DN SPDU parsing failed.
s_i_dn_spdu_mi()	d90a	DN SPDU parsing error or S_P69_MI failed.
s_i_dn_spdu_mi()	d90b	Illegal state to receive DN SPDU.
s_dn_parse_mi()	d90c	User data > S_U_512_LEN.
s_dn_parse_mi()	d90d	Illegal parameter identifier.
s_dn_parse_mi()	d90e	DN SPDU parsing failed.
s_i_ab_spdu_mi()	d90f	AB SPDU parsing failed.

s_i_ab_spdu_mi()	d911	Failed attempt to send abort accept SPDU.
s_i_ab_spdu_mi()	d912	Failed attempt to send abort accept SPDU.
s_i_ab_spdu_mi()	d913	Illegal/invalid state to receive AB SPDU.
s_ab_parse_mi()	d914	Missing transport disconnect parameter.
s_ab_parse_mi()	d915	Illegal parameter group or length.
s_ab_parse_mi()	d916	Illegal user data in AB SPDU.
s_ab_parse_mi()	d917	REFLCT parameter not allowed.
s_ab_parse_mi()	d918	Illegal parameter identifier.
s_ab_parse_mi()	d919	AB SPDU parsing failed.
s_i_aa_spdu_mi()	d91a	Illegal state (STA01C) to receive AA SPDU.
s_i_aa_spdu_mi()	d91b	Expected TDisconnect indication.
s_i_aa_spdu_mi()	d91c	Illegal state to receive AA SPDU.
s_i_req_mi()	d91d	Expected abort accept, got release request.
s_i_req_mi()	d91e	User data length > S_U_512_LEN.
s_i_req_mi()	d91f	Failed attempt to send FN, no reuse, SPDU.
s_i_req_mi()	d920	Data token not available.
s_i_req_mi()	d921	User data length > S_U_512_LEN.
s_i_req_mi()	d922	Failed attempt to send FN SPDU, no reuse.
s_i_req_mi()	d923	Failed attempt to send FN SPDU, with reuse.
s_i_req_mi()	d924	Data token error.
s_i_req_mi()	d925	Illegal state to receive release request.
s_i_racc_rsp_release_mi()	d926	Expected abort accept, got release accept request.
s_i_racc_rsp_release_mi()	d927	Illegal value for finish request response.
s_i_racc_rsp_release_mi()	d928	User data length > S_U_512_LEN.
s_i_racc_rsp_release_mi()	d929	Failed attempt to send DN SPDU.
s_i_racc_rsp_release_mi()	d92a	Failed attempt to send DN SPDU.
s_i_racc_rsp_release_mi()	d92b	Failed attempt to send DN SPDU.
s_i_racc_rsp_release_mi()	d92c	Illegal state to receive release accept request.
s_i_racc_rsp_release_mi()	d92d	Null connection data structure pointer.
s_i_racc_rsp_release_mi()	d92e	Null connection data structure pointer.
s_i_u_abort_mi()	d92f	User data length > S_U_512_LEN.
s_i_td_ind_mi()	d933	Illegal state to receive TDisconnect indication.
s_i_timer_exp_mi()	d934	Illegal state for abort timer to expire.
s_i_u_abort_mi()	d935	Illegal state.
s_i_r_req_mi()	d936	Failed to get buffer for FN SPDU.
s_i_r_req_mi()	d937	Failed to get buffer for FN SPDU.
s_i_r_req_mi()	d938	Failed to get buffer for FN SPDU.
s_i_fn_spdu_mi()	d939	Parse of FN SPDU failed due to implementation restriction.
s_fn_parse_mi()	d93a	Enclosure item not supported on FN SPDU.
s_i_dn_spdu_mi()	d93b	Parse of DN SPDU failed due to implementation restriction.
s_dn_parse_mi()	d93c	Enclosure item not supported on DN SPDU.
s_ab_parse_mi()	d93d	Enclosure item not supported on AB SPDU.
s_i_r_req_mi()	d93e	Could not build FN SPDU (no reuse) due to too much user data.
s_i_r_req_mi()	d93f	Could not build FN SPDU (no reuse) due to too much user data.
s_i_r_req_mi()	d940	Could not build FN SPDU (reuse) due to too much user data.
s_i_racc_rsp_release_mi()	d941	Could not build DN SPDU due to too much user data.
s_i_racc_rsp_release_mi()	d942	Could not build DN SPDU due to too much user data.
s_i_racc_rsp_release_mi()	d943	Could not build DN SPDU due to too much user data.
s_i_u_abort_mi()	d944	Could not build AB SPDU due to too much user data.
s_i_fn_spdu_mi()	d945	Failed to discard FN SPDU.
s_i_fn_spdu_mi()	d946	Parse of FN SPDU failed due to implementation restriction.
s_i_fn_spdu_mi()	d947	Failure to discard FN SPDU.
s_i_fn_spdu_mi()	d948	Failure to discard FN SPDU.
s_i_fn_spdu_mi()	d949	Parse of FN SPDU failed due to implementation restriction.
s_i_fn_spdu_mi()	d94a	Parse of FN SPDU failed due to protocol error.
s_i_aa_spdu_mi()	d94b	Illegal state (STA01 or STA01B) to receive AA SPDU.
s_i_u_abort_mi()	d94c	Copy of abort user data from edma structure failed.
s_i_u_abort_mi()	d94d	Copy of abort user data from edma structure failed.
s_i_t_ind_md()	da01	Transport connection disconnected due to congestion.
s_i_t_ind_md()	da02	New connection data structure not allocated.
s_i_t_ind_md()	da03	No user indication function.
s_i_result_parse_md()	da04	Illegal value from indication function.
s_i_t_ind_md()	da05	Illegal connection data structure pointer.
s_i_result_parse_md()	da06	Null indication function.
s_i_result_parse_md()	da07	Null indication function.
s_i_result_parse_md()	da08	Null indication function.
s_i_result_parse_md()	da09	Null indication function.
s_i_result_parse_md()	da0a	Null indication function.
s_i_result_parse_md()	da0b	Null indication function.

s_i_result_parse_md()	da0c	Null indication function.
s_i_result_parse_md()	da0d	Null indication function.
s_i_t_ind_md()	da0e	Illegal state or return code combination for transport receive complete indication.
s_i_t_ind_md()	da0f	Illegal state or return code combination for transport receive complete indication.
s_i_result_parse_md()	da10	Null indication function.
s_i_result_parse_md()	da11	Null indication function.
s_i_result_parse_md()	da12	Invalid return code from processing a PT SPDU.
s_i_result_parse_md()	da13	Null indication function.
s_i_result_parse_md()	da14	Invalid return code from processing a PT SPDU.
s_i_result_parse_md()	da15	Null indication function.
s_i_result_parse_md()	da16	Null indication function.
s_i_result_parse_md()	da17	Null indication function.
s_parse_pi_pgi_mi()	db01	Reference parameter length > S_REF_MAX_LEN.
s_parse_pi_pgi_mi()	db02	Additional reference parameter length > S_ADDREF_MAX_LEN.
s_parse_pi_pgi_mi()	db03	Reflect parameter length > S_RFLCT_MAX_LEN.
s_parse_pi_pgi_mi()	db04	Called or calling SSAP length > S_MAX_SSAP_ID_LEN.
s_parse_pi_pgi_mi()	db05	Protocol options parameter length != S_LEN_PROOPT.
s_parse_pi_pgi_mi()	db06	Invalid value for TSDU maximum size.
s_parse_pi_pgi_mi()	db07	Invalid value for session user requirements parameter.
s_parse_pi_pgi_mi()	db08	Incorrect length for token setting parameters.
s_parse_pi_pgi_mi()	db09	Incorrect length for token item parameter.
s_parse_pi_pgi_mi()	db0a	Incorrect length for transport disconnect parameter.
s_parse_pi_pgi_mi()	db0b	Zero length reason code parameter.
s_parse_pi_pgi_mi()	db0c	Invalid parameter identifier.
s_parse_pi_pgi_mi()	db0d	Incorrect length of enclosure item parameter.
s_exq_put()	db0e	Incorrect length of expedited data SPDU.
s_exq_put()	db0f	Expedited data queue is full.
s_parse_pi_pgi_mi()	db10	User data > S_U_512_LEN.
s_parse_pi_pgi_mi()	db11	Invalid length of extended user data field.
s_parse_pi_pgi_mi()	db12	Invalid length of version parameter field.
s_parse_pi_pgi_mi()	db13	Invalid length of serial number parameter field.
s_parse_pi_pgi_mi()	db14	Invalid character in serial number parameter field.
s_parse_pi_pgi_mi()	db15	Reason code must be one byte for any reason other than S_RUINFO.
s_parse_pi_pgi_mi()	db16	Invalid length of prepare type parameter field.
s_parse_pi_pgi_mi()	db17	Invalid prepare type.
s_parse_pi_pgi_mi()	db18	Invalid length of resync type parameter field.
s_parse_pi_pgi_mi()	db19	Invalid resync type.
s_chk_u_data()	db1a	Parse failed while looking for user data.
s_cleanup()	db1b	Discard failed while cleaning up after refuse.
s_cleanup()	db1c	Invalid receive machine state for cleaning up after refuse.
s_cleanup()	db1d	Discard failed while cleaning up after abort.
s_cleanup()	db1e	Invalid receive machine state for cleaning up after abort.
s_cleanup()	db1f	The action causing cleanup is invalid.
s_i_nrm_data_mi()	dc01	Session protocol machine in illegal state to send data.
s_i_dt_data_mi()	dc02	Session protocol machine in illegal state to receive data.
s_i_exp_data_mi()	dc03	Session protocol machine in illegal state to send expedited data.
s_i_ex_data_mi()	dc04	Session protocol machine in illegal state to receive expedited data.
s_i_give_token_mi()	dc05	Session protocol machine in illegal state to send give tokens SPDU.
s_i_gt_spdu_mi()	dc06	Session protocol machine in illegal state to receive give tokens SPDU.
s_i_please_token_mi()	dc07	Session protocol machine in illegal state to send please tokens SPDU.
s_i_pt_spdu_mi()	dc08	Session protocol machine in illegal state to receive please tokens SPDU.
s_i_please_token_mi()	dc09	Previous action not complete.
s_i_dt_spdu_mi()	dc0a	Error detected after receiving DT SPDU while in discard state.
s_i_dt_spdu_mi()	dc0b	Error in discarding DT SPDU when waiting after PR-AB.
s_i_give_token_mi()	dc0c	No user data allowed on version 1 GT SPDU.
s_i_give_token_mi()	dc0d	Could not get buffer to send GT SPDU.
s_i_give_token_mi()	dc0e	Maximum SPDU size exceeded on GT SPDU.
s_i_gt_spdu_mi()	dc0f	Error while discarding GT SPDU.

s_i_gt_spdu_mi()	dc10	Error while discarding GT SPDU.
s_gt_parse_mi()	dc11	Missing token item parameter on GT SPDU.
s_gt_parse_mi()	dc12	GT SPDU received when either data token not in use or token already available.
s_gt_parse_mi()	dc13	Parse of GT SPDU failed.
s_gt_parse_mi()	dc14	User data not allowed on version 1 GT SPDU.
s_gt_parse_mi()	dc15	Enclosure item not supported on GT SPDU.
s_gt_parse_mi()	dc16	Invalid parameter on GT SPDU.
s_gt_parse_mi()	dc17	Parse of GT SPDU failed.
s_i_please_token_mi()	dc18	Maximum SPDU size exceeded on PT SPDU.
s_i_pt_spdu_mi()	dc19	Error while discarding PT SPDU.
s_i_gt_spdu_mi()	dc1a	Error while discarding PT SPDU.
s_pt_parse_mi()	dc1b	Missing parameter on PT SPDU.
s_pt_parse_mi()	dc1c	PT SPDU received when data token not in use.
s_pt_parse_mi()	dc1d	Parse of PT SPDU failed.
s_pt_parse_mi()	dc1e	User data exceeds maximum allowable size for version 1 PT SPDU.
s_pt_parse_mi()	dc1f	Enclosure item not supported on PT SPDU.
s_pt_parse_mi()	dc20	Invalid parameter on PT SPDU.
s_pt_parse_mi()	dc21	Parse of PT SPDU failed.
s_i_pr_spdu_mi()	dd01	Invalid state for receiving PR-RS.
s_i_pr_spdu_mi()	dd02	Invalid state for receiving PR-RS.
s_i_pr_spdu_mi()	dd03	Invalid state for receiving PR-RS.
s_i_pr_spdu_mi()	dd04	Invalid state for receiving PR-RA.
s_i_pr_spdu_mi()	dd05	Invalid state for receiving PR-RA.
s_i_pr_spdu_mi()	dd06	PR-AB invalid for version 1 protocol.
s_i_pr_spdu_mi()	dd07	Invalid state for receiving PR-AB.
s_i_pr_spdu_mi()	dd08	Invalid prepare type.
s_i_pr_spdu_mi()	dd09	Parse of PR SPDU failed.
s_i_pr_spdu_mi()	dd0a	Invalid PR SPDU - wrong size.
s_i_rs_qst_mi()	dd0b	Resync functional unit not selected.
s_i_rs_qst_mi()	dd0c	Invalid conditions for receiving resync request.
s_i_rs_qst_mi()	dd0e	Invalid conditions for receiving resync request.
s_i_rs_qst_mi()	dd0f	Must wait until send in progress completes before making resync request.
s_i_rs_qst_mi()	dd10	Failed to build RS SPDU.
s_i_rs_qst_mi()	dd11	Failed to send PR-RS SPDU.
s_i_rs_qst_mi()	dd12	Failed to send RS SPDU.
s_i_rs_qst_mi()	dd13	Invalid or unsupported resync type on resync request.
s_i_rs_qst_mi()	dd14	Invalid state for receiving resync request.
build_rs_spdu_mi()	dd15	Invalid token setting in RS request.
build_rs_spdu_mi()	dd16	Token setting missing in resync request when half duplex functional unit selected.
build_rs_spdu_mi()	dd17	Invalid or missing serial number in resync request.
build_rs_spdu_mi()	dd18	Too much user data for version 1 resync request.
build_rs_spdu_mi()	dd19	Resync request exceeds max SPDU size.
build_rs_spdu_mi()	dd1a	Resync request exceeds max TSDU size.
s_i_rs_rsp_mi()	dd1b	Serial number on resync response request does not match serial number on RS(a) indication.
s_i_rs_rsp_mi()	dd1c	Resync response requested before action completed for previous request.
s_i_rs_rsp_mi()	dd1d	Failure to build RA SPDU.
s_i_rs_rsp_mi()	dd1e	Failure in sending expedited PR-RA SPDU.
s_i_rs_rsp_mi()	dd1f	Failure to send RA SPDU.
s_i_rs_rsp_mi()	dd20	Illegal state for SS user to request a resync response.
build_ra_spdu_mi()	dd21	Illegal token setting on resync response.
build_ra_spdu_mi()	dd22	Illegal token setting on resync response.
build_ra_spdu_mi()	dd23	Illegal token setting on resync response.
build_ra_spdu_mi()	dd24	Token setting is missing on resync response.
build_ra_spdu_mi()	dd25	Illegal serial number on resync response.
build_ra_spdu_mi()	dd26	Too much user data for version 1 resync response.
build_ra_spdu_mi()	dd27	Resync response exceeds max SPDU size.
build_ra_spdu_mi()	dd28	Resync response exceeds max TSDU size.
s_i_rs_spdu_mi()	dd29	Discard of RS SPDU failed.
s_i_rs_spdu_mi()	dd2a	Invalid conditions for receiving RS SPDU.
s_i_rs_spdu_mi()	dd2b	Discard of RS SPDU failed.
s_i_rs_spdu_mi()	dd2c	Invalid conditions for receiving RS SPDU, or parse of RS SPDU failed.
s_i_rs_spdu_mi()	dd2d	Discard of RS SPDU failed.

s_i_rs_spdu_mi()	dd2e	Invalid conditions for receiving RS SPDU, or parse of RS SPDU failed.
s_i_rs_spdu_mi()	dd2f	Illegal state to receive RS SPDU.
s_rs_parse_mi()	dd30	Illegal token setting in RS SPDU.
s_rs_parse_mi()	dd31	Too much user data on RS SPDU for session protocol version 1.
s_rs_parse_mi()	dd32	Enclosure item not supported on RS SPDU.
s_rs_parse_mi()	dd33	Illegal parameter type on RS SPDU.
s_rs_parse_mi()	dd34	Parse of parameter on RS SPDU failed.
s_rs_parse_mi()	dd35	RS SPDU is missing mandatory resync type parameter.
s_rs_parse_mi()	dd36	RS SPDU is missing mandatory serial number parameter.
s_rs_parse_mi()	dd37	RS SPDU is missing token setting parameter in conditions when this parameter is mandatory.
s_i_ra_spdu_mi()	dd38	Discard of RA SPDU failed.
s_i_ra_spdu_mi()	dd39	Invalid conditions for receiving RA SPDU, or parse of RA SPDU failed.
s_i_ra_spdu_mi()	dd3a	Invalid conditions for receiving RA SPDU, or parse of RA SPDU failed.
s_i_ra_spdu_mi()	dd3b	Illegal state to receive RA SPDU.
s_ra_parse_mi()	dd3c	Conflicting token setting in RA SPDU.
s_ra_parse_mi()	dd3d	Conflicting token setting in RA SPDU.
s_ra_parse_mi()	dd3e	Illegal token setting in RA SPDU.
s_ra_parse_mi()	dd3f	Too much user data in RA SPDU.
s_ra_parse_mi()	dd40	Enclosure item not supported on RA SPDU.
s_ra_parse_mi()	dd41	Illegal parameter type on RA SPDU.
s_ra_parse_mi()	dd42	Parse of parameter on RA SPDU failed.
s_ra_parse_mi()	dd43	RA SPDU is missing mandatory serial number parameter.
s_ra_parse_mi()	dd44	RA SPDU is missing token setting parameter in conditions when this parameter is mandatory.

1.11 AP HANDLER

Source	Function	Code	Comment
pinitap3.c	pinitap3	df00	Call to IODRV space controller for memory failed.
pinitap3.c	pinitap3	df01	APH could not attach application type to SSAP.
pmsgap3.c	pmsgap3	df01	APH could not attach application type to SSAP.
archive.c	arch_lib	df02	ECD access of aphuser record for archive user requesting a connection returned IDNULL or IDERROR.
as_op_cl.c	as_open	df02	ECD access of aphuser record returned IDNULL or IDERROR.
asi_funcs.c	as_con_ind	df02	ECD access of aphuser record that an indication is to go to returned IDNULL or IDERROR.
as_op_cl.c	as_open	df0e	alloc_mdct failed in as_open().
asi_funcs.c	as_con_ind	df0f	alloc_mdct failed in as_con_ind().

1.12 SCSD HANDLER

Function	Code	Comment
prspsd3.c	e001	pushq1 failure.
pmsgsd3.c	e001	pushq1 failure.
sc_func.c	e001	pushq1 failure.
scsd.c	e102	No timing available.
prstsd3.c	e205	PC restoration failed.
sc_func.c	e206	Illegal internal state in sc_rst().
prspsd3.c	e503	Cannot allocate message.
prspsd3.c	e504	Failed to get port of admin.
prspsd3.c	e506	Failed to send message to admin.
prspsd3.c	e507	Unrecognized response from PC.
pmsgsd3.c	e701	Number of UCB pointers greater than one.
pmsgsd3.c	e707	Illegal point number.
pmsgsd3.c	e708	Illegal operation.
pmsgsd3.c	e709	Received unrecognized message.
pgrowsd3.c	e801	Cannot allocate message.
sc_admin.c	e902	Bad port number used for admin attach.
prspsd3.c	eaxx	PC returned error: code in low order bits (refer to the completion codes).

1.13 PP HANDLER

Each error code is of the form `SNN`, where `S` is the severity of the error and `NN` is an error identifier unique within the given severity level.

The severity of an error will be one of the following:

`0` = Minor error. Either a resource was exhausted, a procedural error was committed, or a minor software error was encountered. In the second two cases, the user may proceed normally, though if a software error occurred, some resources may have been lost.

These messages print at level 2.

`1` = Association fatal error. An application association has gone insane. PPH will fail all send or receive requests from the user of the association until PPH is reinitialized, and any indication received by the association will result in an abort. Since the damage was limited to only the single association, other associations may proceed normally, though some resources may have been lost. Note that the affected user process may hang when errors of this sort occur. Each process will receive an E_ABORT event if the PPH is reinitialized. It is the process' responsibility to clean up and exit when this event is received.

These messages print at level 1.

`2` = PPH fatal error. PPH's global data structures have become inconsistent or corrupted. All associations will be locked up, and PPH will fail all send and receive requests from any user until PPH is reinitialized. An indication received for any association will result in an abort. Note that some or all user processes may hang when errors of this sort occur. Each process will receive an E_ABORT event if the PPH is reinitialized. It is the process' responsibility to clean up and exit when this event is received.

These messages print at level 1.

If a severity `1` or `2` error is encountered, contact the first level of technical support for instructions on how to reinitialize the PPH.

Function	Code	Comment
acse_pm	f001	Unexpected or invalid ACSE indication; aborting association.
a_ascreq_idle	f002	Could not get pphuser record.
a_pascrsp_w_assoc_rsp	f003	Could not get ACSE implementation information.
a_nascrsp_w_assoc_rsp	f004	Could not get ACSE implementation information.
a_aarq_idle	f005	Error decoding AARQ; aborting association.
a_aarq_idle	f006	ACSE version not supported; refusing association.
a_aarq_idle	f007	Could not map to ACSE user; refusing association.
a_aarep_w_aare	f008	Error decoding AARE; aborting association.
a_aarep_w_aare	f009	Invalid ACSE version; aborting association.
a_aarep_w_aare	f00a	Invalid ACSE association result; aborting association.
a_aaren_w_aare	f00b	Error decoding AARE; aborting association.
a_aaren_w_aare	f00c	Invalid ACSE association result; aborting association.
a_aaren_w_aare	f00d	Invalid ACSE result source diagnostic; aborting association.
a_aaren_w_aare	f00e	ACSE called application entity invocation identifier not recognized; aborting association.
a_rlrq_assoc	f00f	Error decoding RLRQ--APPLICATION 1 tag not present; aborting association.
a_rlrq_assoc	f010	Error decoding RLRQ--APPLICATION 1 tag not present; aborting association.
a_rlrq_assoc	f011	Error decoding RLRQ; aborting association.
a_rlrep	f012	Error decoding RLRE--APPLICATION 1 tag not present; aborting association.
a_rlrep	f013	Error decoding RLRE--APPLICATION 1 tag not present;

		aborting association.
a_rlrep	f014	Error decoding RLRE; aborting association.
a_p_2uabind_anybut_idle	f015	Error decoding ABRT; aborting association.
a_getrqevt	f016	Invalid read queue primitive; aborting association.
p_sindics	f017	Invalid session indication--ignored.
p_sindics	f018	Indication received while PPH fatal error condition exists; aborting connection.
p_sindics	f019	Presentation connection data structure invalid or all structures exhausted; aborting connection.
p_sindics	f01a	Indication received while association fatal error condition exists; aborting connection.
p_sindics	f01b	Indication structures exhausted; aborting connection.
p_sindics	f01c	Unexpected session indication received while another is pending; aborting connection.
p_sindics	f01d	Could not set session user information; aborting connection.
p_sindics	f01e	Could not free presentation connection data structure.
p_sindics	f01f	Encoded connect PDU header buffers exhausted; aborting connection.
p_sindics	f020	Could not free presentation connection data structure.
p_sindics	f021	Decoded connect PDU header buffers exhausted; aborting connection.
p_sindics	f022	Could not free presentation connection data structure.
p_sindics	f023	Could not receive connect PDU headers; connection is gone.
p_sindics	f024	Encoded connect PDU header buffers exhausted; aborting connection.
p_sindics	f025	Decoded connect PDU header buffers exhausted; aborting connection.
p_sindics	f026	Could not receive connect confirm PDU headers; connection is gone.
p_sindics	f027	Encoded abort PDU header buffers exhausted; aborting connection.
p_sindics	f028	Decoded abort PDU header buffers exhausted; aborting connection.
p_sindics	f029	Could not receive abort PDU headers; connection is gone.
p_sindics	f02a	Encoded abort PDU header buffers exhausted; aborting connection.
p_sindics	f02b	Decoded abort PDU header buffers exhausted; aborting connection.
p_sindics	f02c	Could not receive release PDU headers; connection is gone.
p_sindics	f02d	Encoded resynchronize PDU header buffers exhausted; aborting connection.
p_sindics	f02e	Decoded resynchronize PDU header buffers exhausted; aborting connection.
p_sindics	f02f	Could not receive resynchronize PDU headers; connection is gone.
p_sindics	f030	Received send acknowledgement when no user was attached; aborting connection.
p_sindics	f031	Received send acknowledgement when no user was attached; aborting connection.
p_sindics	f032	Could not free presentation connection data structure.
p_sindics	f033	Could not free presentation connection data structure.
p_sindics	f034	Could not free presentation connection data structure.
p_sindics	f035	Invalid action complete indication--ignored.
p_sindics	f036	Encoded abort PDU header buffers exhausted; aborting connection.
p_sindics	f037	Decoded abort PDU header buffers exhausted; aborting connection.
p_sindics	f038	Could not receive PDU headers; connection is gone.
p_give_sindic	f039	Decoded connect PDU header buffer was not allocated.
p_give_sindic	f03a	Could not free presentation connection data structure.
p_give_sindic	f03b	Fatal error occurred after passing up session indication.
p_free_pdu_buffers	f03c	Encoded connect PDU header buffer not allocated.
p_free_pdu_buffers	f03d	Decoded connect PDU header buffer not allocated.
p_free_pdu_buffers	f03e	Encoded abort PDU header buffer not allocated.
p_free_pdu_buffers	f03f	Decoded abort PDU header buffer not allocated.

p_free_pdu_buffers	f040	Encoded resynchronize PDU header buffer not allocated.
p_free_pdu_buffers	f041	Decoded resynchronize PDU header buffer not allocated.
p_free_pdu_buffers	f042	Invalid indication type; buffer not freed.
p_no_hdr_cleanup	f043	Could not free presentation connection data structure.
p_no_hdr_cleanup	f044	Invalid indication; PDU header buffers not freed and abort indication not sent.
p_no_hdr_cleanup	f045	Encoded abort PDU header buffers exhausted; aborting connection.
p_no_hdr_cleanup	f046	Decoded abort PDU header buffers exhausted; aborting connection.
a_dabort	f047	Unexpected user abort output PDU header buffer.
setup_edma	f048	Could not map user buffer.
p_add_tag	f049	Could not map user buffer.
pinitpp3	f04a	Unrecognized initialization type--ignored.
p_sindics	f04b	Could not discard data; connection is gone.
pmsgpp3	f04c	Process died with association waiting; aborting association.
si_detach	f04d	Detached while association waiting; aborting association.
pph_memory	f04e	Could not attach to SSAP.
pph_memory	f04f	ECD access error; may have unattached SSAPs.
pph_memory	f050	Too many pphuser records; excess records ignored.
si_close	f051	Closed while association waiting; aborting association.
pmsgpp3	f053	Could not map control buffer; read request failed.
pmsgpp3	f054	Could not map control buffer; write request failed.
pmsgpp3	f055	Could not map control buffer; detach request may or may not have failed.
pmsgpp3	f056	Invalid RC/V operation type--ignored.
pmsgpp3	f057	Could not attach to new SSAP--ignored.
pmsgpp3	f058	ECD access error; pphuser insertion ignored.
pmsgpp3	f059	ACSE user information structures exhausted; pphuser insertion ignored.
pmsgpp3	f05a	Could not attach to new SSAP--ignored.
pmsgpp3	f05b	Unrecognized pphuser record; update ignored.
pmsgpp3	f05c	ECD access error; pphuser update ignored.
pmsgpp3	f05d	Invalid RC/V operation type--ignored.
pmsgpp3	f05e	Unexpected ECD record type--ignored.
pmsgpp3	f05f	No presentation connection data structure corresponding to MSACK; association may have been previously aborted.
pmsgpp3	f060	Received MSACK for unexpected message type, or process creation failed.
pph_restart	f061	Detach failed or caused an active session connection to be aborted.
si_req_ack	f062	Could not map control buffer; user request failed.
pph_ssap_detach	f063	Detach failed or caused an active session connection to be aborted.
pph_ssap_detach	f064	Active user forcibly detached.
pph_ssap_detach	f065	Waiting user forcibly detached.
pph_ssap_detach	f066	Waiting association discarded because of a detach.
si_dequeue	f067	Queue corrupted; dequeue failed.
pres_pm	f068	Unexpected or invalid presentation layer indication; aborting connection.
p_cp_idle	f069	Error decoding CP; aborting connection.
p_cp_idle	f06a	Could not get pphuser record; refusing connection.
p_cp_idle	f06b	Called presentation address unknown; refusing connection.
p_cp_idle	f06c	Called presentation address unknown; refusing connection.
p_cp_idle	f06d	Presentation version not supported; refusing connection.
p_cp_idle	f06e	ACSE presentation context not found or transfer syntax not supported; refusing connection.
p_cpa_w_cpar	f06f	Error decoding CPA; aborting connection.
p_cpa_w_cpar	f070	Presentation version not supported; aborting connection.
p_cpa_w_cpar	f071	Presentation context definition result list not present; aborting connection.
p_cpa_w_cpar	f072	Presentation requirements not supported; aborting connection.
p_cpr_w_cpar	f073	Error decoding CPR; aborting connection.
p_cpr_w_cpar	f074	Presentation context definition result list not present; aborting connection.
p_arp_anybut_idle	f075	Error decoding ARP; aborting connection.
p_arp_anybut_idle	f076	Invalid presentation provider abort reason; aborting connection.

p_aru_anybut_idle	f077	Error decoding ARU; aborting connection.
p_rsyncind_dx	f078	Error decoding RS; aborting connection.
p_rsynccnf_dx	f079	Error decoding RSA; aborting connection.
p_getrqevt	f07a	Error in processing presentation indication; aborting connection.
p_getrqevt	f07b	Invalid session primitive; aborting connection.
si_attach	f07c	ACSE/PL user structures exhausted; attach failed.
si_attach	f07d	ECD access error; attach failed.
si_detach	f07e	Could not free ACSE/PL user structure.
si_detach	f07f	Unexpected ACSE/PL user structure; detach failed.
pp_get_p_con_data	f080	Presentation connection data structures exhausted.
pp_get_p_con_data	f081	Presentation connection data structure corrupted; discarding structure.
pp_free_p_con_data	f082	Invalid presentation connection data structure--ignored.
pp_free_p_con_data	f083	Unexpected user abort output PDU header buffer.
pp_free_p_con_data	f084	Indication queue corrupted; discarding presentation connection data structure.
pp_get_acse_pl_user	f085	ACSE/PL user structures exhausted.
pp_fr_acse_pl_user	f086	Invalid ACSE/PL user structure--ignored.
pp_fr_acse_pl_user	f087	Could not map control buffer; user request failed.
si_cbuf_size	f088	Invalid ACSE/PL indication.
si_open	f089	Process information structures exhausted; open failed.
si_close	f08a	Could not free ACSE/PL user structure.
si_enq_indic	f08b	Could not free ACSE/PL user structure.
si_prc_recv	f08c	Invalid ACSE/PL indication; aborting association.
si_prc_recv	f08d	Could not map control buffer; receive request failed.
si_prc_recv	f08e	Could not map user buffer; receive request failed.
si_prc_recv	f08f	Could not receive user data; association is gone.
si_cmp_recv	f090	Error decoding user data; aborting association.
si_cmp_recv	f091	User data overran buffer trailer area; aborting association.
si_cmp_recv	f092	Data present beyond end of PDUs; aborting association.
si_cmp_recv	f093	Invalid ACSE/PL indication; aborting association.
si_cmp_recv	f094	Could not acknowledge user request and data may have been lost; aborting association.
si_fr_inbuf	f095	Encoded connect PDU header buffer not found.
si_fr_inbuf	f096	Decoded connect PDU header buffer not found.
si_fr_inbuf	f097	Encoded abort PDU header buffer not found.
si_fr_inbuf	f098	Decoded abort PDU header buffer not found.
si_fr_inbuf	f099	Encoded resynchronize PDU header buffer not found.
si_fr_inbuf	f09a	Decoded resynchronize PDU header buffer not found.
si_fr_inbuf	f09b	Invalid ACSE/PL indication.
si_ack_recv	f09c	Could not receive user data; aborting association.
si_udata_present	f09d	Invalid ACSE/PL indication.
si_dec_trailers	f09e	Error decoding ABRT trailer; aborting association.
si_dec_trailers	f09f	Error decoding ARU PDV-list trailer; aborting association.
si_dec_trailers	f0a0	Error decoding ARU trailer; aborting association.
si_dec_trailers	f0a1	Error decoding RLRQ trailer; aborting association.
si_dec_trailers	f0a2	Error decoding RLRQ PDV-list trailer; aborting association.
si_dec_trailers	f0a3	Error decoding RLRE trailer; aborting association.
si_dec_trailers	f0a4	Error decoding RLRE PDV-list trailer; aborting association.
si_dec_trailers	f0a5	Error decoding AARQ trailer; aborting association.
si_dec_trailers	f0a6	Error decoding AARQ PDV-list trailer; aborting association.
si_dec_trailers	f0a7	Error decoding CP trailer; aborting association.
si_dec_trailers	f0a8	Presentation mode not supported; aborting association.
si_dec_trailers	f0a9	Error decoding AARE trailer; aborting association.
si_dec_trailers	f0aa	Error decoding AARE PDV-list trailer; aborting association.
si_dec_trailers	f0ab	Error decoding CPA trailer; aborting association.
si_dec_trailers	f0ac	Presentation mode not supported; aborting association.
si_dec_trailers	f0ad	Error decoding AARE trailer; aborting association.
si_dec_trailers	f0ae	Error decoding AARE PDV-list trailer; aborting association.
si_dec_trailers	f0af	Error decoding CPR trailer; aborting association.
si_dec_trailers	f0b0	Error decoding RS trailer; aborting association.
si_dec_trailers	f0b1	Error decoding RSA trailer; aborting association.
si_dec_trailers	f0b2	Unexpected provider abort PDU trailers.
si_dec_trailers	f0b3	Unexpected data, expedited data, give token, or please token PDU trailers.
si_dec_trailers	f0b4	Invalid ACSE/PL indication.
si_end_data	f0b5	Invalid ACSE/PL indication.
si_end_data	f0b6	Could not map user buffer and data may have been lost; aborting association.

si_more_data	f0b7	More data result received for unexpected indication type; aborting association.
si_more_data	f0b8	Could not map control buffer and data may have been lost; aborting association.
si_map_assoc	f0b9	No user found to receive association indication.
si_map_assoc	f0ba	Could not get ucb record for process creation.
si_map_assoc	f0bb	ECD access error.
si_map_assoc	f0bc	Could not allocate process creation message.
si_map_assoc	f0bd	Could not send process creation message.
si_prc_send	f0be	Could not map control buffer; failing send request.
si_prc_send	f0bf	Presentation connection data structures exhausted; failing association request.
si_prc_send	f0c0	Unexpected encoded abort PDU header buffer.
si_prc_send	f0c1	Encoded abort PDU header buffers exhausted.
si_prc_send	f0c2	Unexpected encoded connect PDU header buffer.
si_prc_send	f0c3	Encoded connect PDU header buffers exhausted.
si_fr_outbuf	f0c4	Encoded abort PDU header buffer not found.
si_fr_outbuf	f0c5	Encoded connect PDU header buffer not found.
si_fr_outbuf	f0c6	Invalid ACSE/PL indication.
si_abt_comp	f0c7	Could not free ACSE/PL user structure.
si_abt_ind	f0c8	Could not map control buffer; failing send request.
si_resync_ind	f0c9	Could not map control buffer; failing send request.
si_resync_ind	f0ca	Could not map control buffer; failing send request.
si_resync_ind	f0cb	Could not map control buffer; failing send request.
si_resync_ind	f0cc	Could not map control buffer; failing send request.
si_send_abt	f0cd	Unexpected generated abort failure or process created user died without closing.
si_send_abt	f0ce	Unexpected generated abort failure.
si_send_abt	f0cf	Unexpected generated abort failure.
si_send_abt	f0d0	Unexpected generated abort failure.
si_send_abt	f0d1	Unexpected generated abort failure.
si_send_abt	f0d2	Unexpected generated abort failure.
si_send_abt	f0d3	Invalid return code from ACSE protocol machine.
si_snd_pabt	f0d4	Unexpected generated abort failure.
si_snd_pabt	f0d5	Unexpected generated abort failure.
si_snd_pabt	f0d6	Unexpected generated abort failure.
si_snd_pabt	f0d7	Unexpected generated abort failure.
si_snd_pabt	f0d8	Unexpected generated abort failure.
si_snd_pabt	f0d9	Unexpected generated abort failure.
si_snd_pabt	f0da	Invalid return code from ACSE protocol machine.
pp_discard	f0db	Could not receive data to be discarded; association is gone.
si_deq_msg	f0dc	Data corruption in ACSE/PL user queue; PPH will be restarted.
si_deq_msg	f0dd	Hanging ACSE/PL user may occur after PPH is restarted.
flshmmp3	f0de	Data corruption in ACSE/PL user's receive queue; PPH will be restarted.
flshmmp3	f0df	Hanging ACSE/PL user may occur after PPH is restarted.
pph_init	f0e0	ECD access error; unable to get messages count from btparm record.
p_sindics	f101	Presentation connection data structure corrupted; discarding structure and aborting connection.
p_sindics	f102	Waiting indication queue corrupted; abort indication ignored.
p_sindics	f103	Indication free queue corrupted; abort indication ignored.
p_sindics	f104	Presentation connection data structure corrupted; discarding structure and aborting connection.
p_sindics	f105	Indication free queue corrupted; discarding presentation connection data structure.
p_sindics	f106	Indication free queue corrupted; discarding presentation connection data structure.
p_sindics	f107	Indication free queue corrupted; discarding presentation connection data structure.
p_sindics	f108	Waiting indication queue corrupted; receive acknowledgement indication ignored.
p_sindics	f109	Waiting indication queue corrupted.
p_sindics	f10a	Waiting indication queue corrupted.
p_s_rs_req	f10b	Receive request queue corrupted.
p_s_rs_req	f10c	Indication queue corrupted.
pp_fr_waiting_indics	f10d	Waiting indication queue corrupted.
pp_fr_waiting_indics	f10e	Waiting indication queue corrupted.

si_enq_recv	f10f	Receive request queue corrupted; receive request failed.
si_enq_indic	f110	Receive request queue corrupted; receive request failed.
si_enq_indic	f111	Indication queue corrupted; discarding presentation connection data structure.
si_prc_recv	f112	Indication queue corrupted; receive request failed.
si_recv_error	f113	Indication queue corrupted; no abort sent.
si_recv_error	f114	Receive request queue corrupted; no abort sent.
si_enq_send	f115	Send request queue corrupted; request failed.
si_resync_ind	f116	Send request queue corrupted; failing send request.
si_resync_ind	f117	Send request queue corrupted; failing send request.
acse_pm	f201	ACSE double abort finite state machine entry not found.
acse_pm	f202	Internally generated ACSE finite state machine entry not found.
p_sindics	f203	ACSE/PL user structure queue corrupted; action complete indication ignored.
p_sindics	f204	Presentation connection data structure queue corrupted; action complete indication ignored.
p_sindics	f205	Presentation connection data structure queue corrupted; action complete indication ignored.
p_sindics	f206	Received action complete indication when no user was attached; indication ignored.
p_sindics	f207	Received receive complete indication when no user was attached; indication ignored.
p_give_sindic	f208	Invalid return code from presentation layer protocol machine.
p_gen_cpr	f209	Could not encode generated CPR.
p_p_dabort	f20a	Could not encode generated ARP.
p_p_dabort	f20b	Could not set up EDMA for generated ARP.
a_gen_aaren	f20c	Could not encode generated refuse AARE.
a_gen_aaren	f20d	Could not set up EDMA for generated refuse AARE.
a_gen_aaren	f20e	Could not send generated refuse AARE.
a_dabort	f20f	Could not encode generated ABRT.
a_dabort	f210	Could not set up EDMA for generated ABRT.
a_dabort	f211	Could not send generated ABRT.
pph_memory	f212	ACSE user information table corrupted.
pp_mem_complete	f213	Invalid dynamic memory type; initialization
pp_mem_complete	f214	Incorrect amount of dynamic memory; initialization failed.
pp_mem_complete	f215	Invalid dynamic memory type; initialization failed.
pmsgpp3	f216	ACSE user information structure queue corrupted.
pmsgpp3	f217	ACSE user information structure queue corrupted.
pmsgpp3	f218	ACSE user information structure queue corrupted.
pph_ssap_detach	f219	Presentation connection data structure queue corrupted.
pph_ssap_detach	f21a	ACSE/PL user structure queue corrupted.
pph_ssap_detach	f21b	ACSE/PL user structure queue corrupted.
pph_ssap_detach	f21c	Presentation connection data structure queue corrupted.
pres_pm	f21d	Presentation double abort finite state machine entry not found; aborting connection.
pres_pm	f21e	Internally generated presentation finite state machine entry not found; aborting connection.
si_attach	f21f	Presentation connection data structure queue corrupted; attach failed.
si_detach	f220	Process information structure not found; detach failed.
si_detach	f221	ACSE/PL user structure queue corrupted; detach failed.
pp_fr_acse_pl_user	f222	ACSE/PL user structure still linked to presentation connection data structure.
si_close	f223	ACSE/PL user structure queue corrupted.
si_close	f224	Process information structure queue corrupted.
si_enq_indic	f225	Presentation connection data structure queue corrupted.
si_enq_indic	f226	Presentation connection data structure queue corrupted.
si_enq_indic	f227	ACSE/PL user structure queue corrupted.
si_cmp_recv	f228	Presentation connection data structure queue corrupted.
si_cmp_recv	f229	ACSE/PL user structure queue corrupted.
si_map_assoc	f22a	ACSE/PL user structure queue corrupted.
si_prc_send	f22b	ACSE/PL user structure not found or queue is corrupted.
si_prc_send	f22c	ACSE/PL user structure queue corrupted.
si_prc_send	f22d	Presentation connection data structure queue corrupted.
si_prc_pm_result	f22e	Unexpected return code from protocol machine.
si_prc_pm_result	f22f	Presentation connection data structure queue corrupted.
si_prc_pm_result	f230	ACSE/PL user structure queue corrupted.
si_cmp_send	f231	Presentation connection data structure queue corrupted.

si_cmp_send	f232	ACSE/PL user structure queue corrupted.
si_abt_comp	f233	Presentation connection data structure queue corrupted.
si_abt_comp	f234	ACSE/PL user structure queue corrupted.
si_send_abt	f235	Presentation connection data structure queue corrupted.
si_snd_pabt	f236	ACSE/PL user structure queue corrupted.
si_snd_pabt	f237	Presentation connection data structure queue corrupted.
pph_init	f238	Exceeded dynamic memory limit; initialization failed.
pph_memory	f239	Could not allocate dynamic memory; initialization failed.
pph_memory	f23a	Could not allocate timer; initialization failed.
pp_ecd_init_info	f23b	ECD access error; initialization failed.
pp_ecd_init_info	f23c	ECD access error; initialization failed.

1.14 BXSL HANDLER

Function	Code	Comment
modglob.c	e1	A signal has been delivered to a locked model. Model name, signal number, and state of the model are given. Format of additional string information is defined as: `m4:p q r` `p` = A string of model name. `q` = Signal in hexadecimal. `r` = Major control block's state in decimal.
modglob.c	e2	A signal is not recognized by a model. Model name, signal number, and state of the model are given. Format of additional string information is defined as: `m4:p q r` `p` = A string of model name. `q` = Signal in hexadecimal. `r` = Major control block's state in decimal.
modglob.c	e3	A signal is sent from a major model to a submodel that has not been invoked. Hex code for the major model, state of the major model, and signal number are given. Format of additional string information is defined as: `m4:p q r` `p` = Major model in hexadecimal. `q` = State of the major model in decimal. `r` = Signal in hexadecimal.
modglob.c	e4	A major model attempted to invoke a submodel that is already invoked. Address of the major model and state of the major model are given. Format of additional string information is defined as: `m4:p q` `p` = Model control function's program address in

		hexadecimal. `q` = Model control block's state in decimal.
pmsgsl3.C	e5	The model failed to free an SCB from the user. Some SCB structures may be orphaned.
modglob.c	f0	`Idle_model()` was called with a session control block address of NULL. Return address of the caller is given. Format of additional string information is defined as: `m4:p` `p` = `Idle_model()` return address in hexadecimal.
modglob.c	f1	`Idle_model()` was called with a session control block still joined to the user. Address of the model and state of the model is given. Format of additional string information is defined as: `m4:p q` `p` = Model control function's program address in hexadecimal. `q` = Model control block's state in decimal.
modglob.c	f2	`Idle_model()` was called with a session control block still joined to the circuit. Address of the model and state of the model is given. Format of additional string information is defined as: `m4:p q` `p` = Model control function's program address in hexadecimal. `q` = Model control block's state in decimal.
modglob.c	f3	`Idle_model()` was called and the input submodel has not been updated to idle. Address of the input submodel, state of the input submodel, address of the major model, and state of the major model are given. Format of additional string information is defined as: `m4:p q r s` `p` = Input model control function's program address in hexadecimal. `q` = Input model control block's state in decimal. `r` = Model control function's program address in hexadecimal. `s` = Model control block's state in decimal.
modglob.c	f4	`Idle_model()` was called and the output submodel has not been updated to idle. Address of the output submodel, state of the output submodel, address of the major model, and state of

		the major model are given. Format of additional string information is defined as: `m4:p q r s` `p` = Output model control function's program address in hexadecimal. `q` = Output model control block's state in decimal. `r` = Model control function's program address in hexadecimal. `s` = Model control block's state in decimal.
modglob.c	f5	`Idle_model()` was called and the auxiliary input buffer has not been released. Address and state of the model are given. Format of additional string information is defined as: `m4:p q` `p` = Model control function's program address in hexadecimal. `q` = Model control block's state in decimal.
modglob.c	f6	`Idle_model()` was called and a timer is still running. The timer type, address and state of the model are given. Format of additional string information is defined as: `m4:p q r` `p` = Session control block's timer type in hexadecimal. `q` = Output model control function's program address in hexadecimal. `r` = Output model control block's state in decimal.
modglob.c	f7	`Idle_model()` was called and the session control block is still on the list of pcreated processes. Address of the model and state of the model are given. Format of additional string information is defined as: `m4:p q` `p` = Model control function's program address in hexadecimal. `q` = Model control block's state in decimal.
sltime.C	7	Current timer index in SCB is not the same as the time-out index. Format of additional string information is defined as: `TIM:p q` `p` = Current timer index in hexadecimal.

		`q` = Time-out index in hexadecimal. 1 Connect ID mapping failed. Format of additional string information is defined as: `Tmapfail:p` `p` = Session connect ID in hexadecimal.

1.15 SPECIAL WARNING MESSAGES

Code	Comment
fff01	No responses to process in interrupt entry.
fff02	Response not properly passed to handler (lost).
fff03	Resp queue ul pointer written by someone other than IODRV.

The output of all of the above error codes can be controlled by the SET:IODRV and CLR:IODRV input messages.

APP:IOP-G

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. ERROR CODES RETURNED BY THE MAINTENANCE HANDLER (ERRWD)

Note: The codes are in hexadecimal.

Function	Code	Comment
iomaint.c	01	ucbptr is zero.
iomaint.c	03	Maint message in NONINT state and not peripheral I/O sub-system (PIO).
iomaint.c	06	Maint message in NONINIT state and not rmv or rst.
iomaint.c	07	Input/output processor (IOP) driver has req dgn be aborted.
iomaint.c	08	Maint handler is in wrong state for iomaint msg.
iomaint.c	09	Request for timreq failed for iomaint msg.
iomaint.c	0a	Attach to interrupt failed.
iomaint.c	0b	Enable interrupts failed.
iomaint.c	0c	Store data control (SDC) tim req.
iomaint.c	0d	Not diag controller should not ask for this SDC attach.
iomaint.c	0e	Attach to interrupt failed.
iomaint.c	0f	Enable interrupts failed.
iomaint.c	10	Diagnostic control program (DIAGC) is not diagnosing controller should not ask for attach.
iomaint.c	11	Detach from interrupts.
iomaint.c	12	DIAGC not diagnosing controller should not ask for detach.
iomaint.c	13	Attach to interrupt failed.
iomaint.c	14	Enable interrupts failed.
iomaint.c	15	u_stat is undefined state.
iomaint.c	16	getdmaa returned an error.
iomaint.c	17	Received WSETUP0 before DGNDMA.
iomaint.c	18	Received WSETUP1 before WSETUP0.
iomaint.c	1a	Failed uniolock.
iomaint.c	1b	getdmaa returned an error.
iomaint.c	1c	DIAGC has sent a nonsense op code.
iomaint.c	1d	DIAGC has sent bad data in statword and operword.
iomaint.c	1e	Unable to push a message into the queue.
iomaint.c	1f	Error on time request.
iomaint.c	20	The getpta() function returned error.
iomaint.c	21	The asndma21() function returned error.
iomaint.c	22	The asndma21() function returned error.
iomaint.c	23	The getpta() function returned error.
iomaint.c	24	The sdc32() function returned error.
iomaint.c	25	The request for timreq failed.
iomaint.c	26	The cfread() function returned unsuccessful read.
iomaint.c	27	The getsucbl() function returned nul unit control block (UCB) pointer.
crmvcont.c	30	Conditional remove failed - conference (CONF) denial or equipment configuration data base (ECD) access error.
crmvcont.c	31	Conditional remove failed - CONF denial or ECD access error.
crmvcont.c	32	Conditional remove failed - CONF denial or ECD access error.
crmvcont.c	33	Peripheral controller subdevices (PCSD) conditional remove failed by handler.
crmvcont.c	34	PCSD conditional remove failed - ECD access error.
crmvcont.c	35	Peripheral controller subsystem (PC) conditional remove failed by handler.
crmvcont.c	36	PC conditional remove failed - ECD access error.
crmvcont.c	37	Peripheral interface controller (PIC) conditional remove failed by handler.
outmsg.c	39	No timing available to continue conditional remove.
outmsg.c	40	Conditional remove failed.
outmsg.c	42	Handler failed to restore unit to service.
outmsg.c	44	Restore failed - PC not plugged in slot.
servr1.c	46	An error has occurred - abort restoration.
servr1.c	47	An error has occurred - abort conditional removal.
faultaud.c	48	Remove or restore aborted
mainthan.c	51	Failed iolock.
mainthan.c	52	Error on asndma1 function.

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mainthan.c	53	Handler is not in DMAEXP state.
mainthan.c	54	Error on asndma1 function.
mainthan.c	56	Error on timreq1 function.
mainthan.c	57	u_stat is in undefined state.
maintfu.c	70	Byte cnt is not correct.
maintfun.c	72	Abort the diagnostic.
maintfun.c	73	Abort the diagnostic.
updflsh.c	80	Update flash RAM has been aborted.

APP:IOP-H

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. ERROR CODES GENERATED BY REMOVE/RESTORE PROCESS

Note: The codes are in hexadecimal.

Code	Description
1	Cannot enable message reception.
2	recvw function error.
3	Cannot open spooler.
4	Cannot open equipment configuration database (ECD) manager.
5	Cannot get unit control block (UCB).
6	UCB not for requested unit.
7	Cannot get special device file.
8	Cannot open special device file.
9	Invalid message tag from diagnostic monitor program (DIAMON).
0a	Cannot reset reserve bit.
0b	sendw function error.
0c	Cannot set u_tnum in UCB.
0d	Request type from DIAMON not manual or auto.
0e	Cannot set u_manrqst in UCB.
0f	Cannot release special device file.
10	Abort request using manual input.

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APP:IOP-I

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. REASONS FOR A REMOVE OR RESTORE REQUEST BEING STOPPED

Code	Description
1	The diagnostic had failures.
2	The request out of service (ROS) (power control switch) is off normal.
3	Diagnostic request only, not remove or restore.
4	The unit is already active.
5	The unit is already out of service.
6	The unit is off-line (in update or growth mode).
7	The unit is unavailable (forced).
8	The unit is in the INIT state.
9	The unit is in the GROWTH state.
a	Aborted diagnostic, request denied.

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APP:IOP-J

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. ERROR CODES GENERATED BY IODRV FOR GROWTH AND DEGROWTH APPENDIX

Note: The codes are in hexadecimal notation.

Error Code	Description
1	Cannot get peripheral controller subdevices (PCSD) scratch size for boot time growth.
2	Cannot get PCSD unit control block (UCB) for boot time growth.
3	Cannot get peripheral controller subsystem (PC) scratch size for boot time growth.
4	downucb() failed to get PCSDs for boot time growth.
5	Cannot get PC UCB for boot time growth.
6	downucb() failed to get PCs for boot time growth.
7	Cannot get PIC UCB for boot time growth.
8	Intelligent serial controller (ISC) failed to allocate memory for boot time growth of peripheral interface controller (PIC).
9	Bad unit level for boot time growth.
a	Cannot restore the PIC during boot time growth.
b	ioplevl() failed to get level of unit.
c	Cannot get PC or PCSD UCB for boot time growth.
d	ISC failed to allocate memory for boot time growth of PC or PCSD.
e	Failed to restore a PIC which has no subunits.
f	Cannot initialize PC scratch area during boot time growth.
10	Cannot initialize PCSD scratch area during boot time growth.
11	Cannot link to handler for boot time growth of PC.
12	Cannot link to handler for boot time growth of PCSD.
20	Bad unit level for dynamic growth.
21	Cannot dynamically grow a unit, controlling unit is unequipped.
22	Cannot get UCB of the controlling unit for dynamic growth.
23	Unit has wrong major state for dynamic growth.
24	Failed to initialize PIC during dynamic growth.
25	Failed to initialize PC during dynamic growth.
26	Failed to link to handler for dynamic growth of a PC.
27	Failed to initialize PCSD during dynamic growth.
28	Failed to link to handler for dynamic growth of a PCSD.
29	Cannot get level of unit for dynamic growth.
2a	Cannot get UCB of unit for dynamic growth.
2b	ISC failed to allocate memory for dynamic growth of a unit.
2c	Cannot get size of unit for dynamic growth.
2d	Bad unit level during dynamic growth completion.
2e	grow() encountered bad unit level.
30	ISC failed to deallocate memory for dynamic degrowth of a PIC.
31	ISC failed to deallocate memory for dynamic degrowth of a PC.
32	ISC failed to deallocate memory for dynamic degrowth of a PCSD.
33	Invalid unit level during dynamic degrowth.
34	Cannot dynamically degrow a unit, it has equipped units below it.
35	Unit has wrong major state for dynamic degrowth.
36	Cannot link to handler for PC dynamic degrowth.
37	Cannot link to handler for PCSD dynamic growth.
38	degrow() encountered unit level out of range.
39	degrow() encountered NULL pointer to IOP data area.
40	dyngrow() got bad opcode for growth.
41	dyngrow() failed to get UCB of unit.

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APP:LLA

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. LLA AUDIT OUTPUT MESSAGES APPENDIX

The LLA audit output messages come in three types:

`DIAG` = Diagnostic only.

`RCVY` = Error detection and associated recovery actions.

`UNRCVY` = Detection of an unrecoverable error.

Note: A percent character, "%", followed by a `x`, `lx`, `d`, and `ld` in an error message means that the appropriate value is substituted into the output message at this point.

`lx` = Long (four byte) hexadecimal number.

`x` = Integer hexadecimal number.

`d` = Long (four bytes) decimal number.

`d` = Integer decimal number.

Error Code	Status	Message	Descriptions
100	RCVY	STRAUD00	Incore data base sanity ID found to have incorrect value with 0x%lx
101	RCVY	STRAUD01	Offset to sdp SPACE structure being reset from 0x%lx to 0x%x
102	RCVY	STRAUD02	Offset to user data section being reset from 0x%lx to 0x%lx
103	UNRCVY	STRAUD03	Either user rootid in STARTUP(=0x%lx) or DMLHEAD(=0x%lx) is bad, use browse to patch error
104	RCVY	STRAUD04	Startup data base size being reset from 0x%lx to 0x%lx
105	RCVY	STRAUD05	Space maxpage being reset from 0x%lx to 0x%lx
106	RCVY	STRAUD06	Number of SDP space allocation stacks being reset from 0x%lx to 0x%lx
107	RCVY	STRAUD07	Pointer to SDP stacks being reset from 0x%lx to 0x%lx
108	RCVY	STRAUD08	SDP space pointer to environ being reset from 0x%lx to 0x%lx
109	RCVY	STRAUD09	ENVIRON manager pointer

			being reset from 0x%lx to 0x%lx
110	RCVY	STRAUD10	SDP manager frame pointer being reset from 0x%lx to 0x%lx
111	RCVY	STRAUD11	SDP manager page ID being reset from 0x%lx to 0x0
112	RCVY	STRAUD12	SDP manager use count being reset from 0x%lx to 0x1
113	RCVY	STRAUD13	SDP manager next index being reset from 0x%lx to 0xl
114	RCVY	STRAUD14	SDP manager previous index being reset from 0x%lx to 0x1
115	RCVY	STRAUD15	SDP manager page ID being reset from 0x%lx to IDNULL
116	RCVY	STRAUD16	SDP manager use count being reset from 0x%lx to 0x0
117	RCVY	STRAUD17	SDP manager next index being reset from 0x%lx to 0x0
118	RCVY	STRAUD18	SDP manager previous index being reset from 0x%lx to 0x0
200	DIAG	SDPAUD00	Stack entry 0x%lx next ID found to have incorrect value with 0x%lx
201	DIAG	SDPAUD01	Stack entry 0x%lx on %d list size %ld out of range
202	RCVY	SDPAUD02	Resetting depth of %d control stack from %ld to %ld
203	RCVY	SDPAUD03	Resetting next ID of %d control stack from 0x%lx to 0x%lx
204	RCVY	SDPAUD04	Stack entry 0x%lx next ID being reset from 0x%lx to 0x%lx
205	RCVY	SDPAUD05	Resetting next ID of %d control stack from 0x%lx to 0x%lx
206	DIAG	SDPAUD06	Four byte stack entry 0x%lx top found to have incorrect value 0x%l
207	RCVY	SDPAUD07	Resetting top item ID of four byte stack from 0x%lx to 0x%lx
208	RCVY	SDPAUD08	Resetting depth of four byte stack from %ld
209	RCVY	SDPAUD09	Resetting top of four byte stack from 0x%lx to 0x%lx
210	RCVY	SDPAUD10	Four byte stack entry 0x%lx next ID being reset from 0x%lx to 0x%lx
300	UNRCVY	DMLAUD00	Unable to load DMLHEAD structure with SDP
301	RCVY	DMLAUD01	DML sanity ID at itemid = 0 was found to have incorrect value with 0x%lx
302	RCVY	DMLAUD02	DML page size found to have incorrect value with %d, should be %d
303	RCVY	DMLAUD03	Number of rids in ridblk per page found to have incorrect

			value with %d, should be %d
304	DIAG	DMLAUD04	Start of set header list found to have incorrect value with 0x%lx
305	DIAG	DMLAUD05	Set start points to bad set header at 0x%lx
306	DIAG	DMLAUD06	End of set header list found to have incorrect value with 0x%lx
307	DIAG	DMLAUD07	Set end points to bad set header at 0x%lx
308	RCVY	DMLAUD08	Set start itemid being reset to 0x%lx from 0x%lx
309	RCVY	DMLAUD09	Set end itemid being reset to 0x%lx from 0x%lx
310	DIAG	DMLAUD10	Start of rid block list found to have incorrect value with 0x%lx
311	DIAG	DMLAUD11	Rid block start points to bad rid block header at 0x%lx
312	DIAG	DMLAUD12	End of rid block list found to have incorrect value with 0x%lx
313	DIAG	DMLAUD13	Rid block end points to bad rid block at 0x%lx
314	RCVY	DMLAUD14	Rid block start itemid being reset to 0x%lx from 0x%lx
315	RCVY	DMLAUD15	Rid block end itemid being reset to 0x%lx from 0x%lx
316	RCVY	DMLAUD16	SPACE page size found to have incorrect value with %d, should be %d
400	RCVY	SETAUD00	Set header sanity ID at 0x%lx overwritten with 0x%lx
401	RCVY	SETAUD01	Previous link field in set header at 0x%lx being reset from 0x%lx to 0x%lx
402	RCVY	SETAUD02	Next link field in set header at 0x%lx being reset from 0x%lx to 0x%lx
500	RCVY	RBLAUD00	Rid block sanity ID at 0x%lx found to have incorrect value with 0x%lx
501	RCVY	RBLAUD01	Previous link field in rid block at 0x%lx being reset from 0x%lx to 0x%lx
502	RCVY	RBLAUD02	Next link field in rid block at 0x%lx being reset from 0x%lx to 0x%lx
600	RCVY	BCKAUD00	Record sanity ID at 0x%lx found to have incorrect value with 0x%lx
601	RCVY	BCKAUD01	Record at 0x%lx back link being reset from 0x%lx to 0x%lx
602	RCVY	BCKAUD02	Rid block slot at 0x%lx being reset from 0x%lx to 0x%lx
603	RCVY	BCKAUD03	Rid block slot 0x%lx bad, being reset from 0x%lx to

			0x%lx
700	RCVY	ORPAUD00	Resetting ridblk slot at 0x%lx to 0x%lx from 0x%lx
800	RCVY	FREAUD00	Rid block 0x%lx being put on free rid block list at head
801	RCVY	FREAUD01	Rid block 0x%lx on free list has no free slots
900	DIAG	FRLAUD00	Rid block 0x%lx next free link found to have incorrect value with 0x%lx
901	DIAG	FRLAUD01	Dmlhead link to start of rid block free list found to have incorrect value with 0x%lx
1000	RCVY	FRLAUDR00	Rid block 0x%lx next free link being reset from 0x%lx to 0x%lx
1001	RCVY	FRLAUDR01	Resetting free rid block ID in dmlhead from 0x%lx to 0x%lx
1200	UNRCVY	SHDAUD00	Set 0x%lx ordinal in both header and accessid bad
1201	RCVY	SHDAUD01	Set 0x%lx ordinal being reset from 0x%x to 0x%x
1202	RCVY	SHDAUD02	Set 0x%lx number of access methods being reset from %d to %d
1203	RCVY	SHDAUD03	Set 0x%lx cluster flag being reset from 0x%x to 0x%x
1204	RCVY	SHDAUD04	Set 0x%lx, access method %d, accessid being reset from 0x%lx to 0x%lx
1205	RCVY	SHDAUD05	Set 0x%lx, access method %d, pagesize being reset from 0x%x to 0x%x
1206	RCVY	SHDAUD06	Set 0x%lx, access method %d, keylength being reset from %d to %ld
1300	RCVY	DMLAUDR0	Start and end rid block links being reset from 0x%lx, 0x%lx to 0x%lx,0x%lx
1301	RCVY	DMLAUDR1	Start and end set header links being reset from 0x%lx, 0x%lx to 0x%lx,0x%lx
1400	RCVY	DSTRAUD1400	Offset to DML structure being reset from 0x%lx to 0x%lx
1401	UNRCVY	DSTRAUD1401	Offset to DML structure found to be 0x%lx but should be 0x%lx
1402	RCVY	DSTRAUD1402	Disk database sanity ID being reset from 0x%lx to 0x%lx
1403	UNRCVY	DSTRAUD1403	Disk database sanity ID found to be 0x%lx and should be 0x%lx
1404	RCVY	DSTRAUD1404	Offset to sdp SPACE structure being reset from 0x%lx to 0x%lx
1405	UNRCVY	DSTRAUD1405	Offset to sdp SPACE structure found to be 0x%lx but should be 0x%lx
1406	UNRCVY	DSTRAUD1406	Sanity ID for DML structure found to be 0x%lx but should

			be 0x%lx
1407	UNRCVY	DSTRAUD1407	Either user rootid in STARTUP(=0x%lx) or DMLHEAD(=0x%lx) is bad, use fsdb to patch
1408	RCVY	DSTRAUD1408	Disk database size in STARTUP being reset from 0x%lx to 0x%lx
1409	UNRCVY	DSTRAUD1409	Disk database size in STARTUP found to be 0x%lx but should be 0x%lx
1410	RCVY	DSTRAUD1410	Disk database size in sdp SPACE structure being reset from 0x%lx to 0x%lx
1411	UNRCVY	DSTRAUD1411	Disk database size in sdp SPACE structure found to be 0x%lx but should be 0x%lx
1412	RCVY	DSTRAUD1412	Number of sdp stax being reset from 0x%lx to 0x%lx
1413	UNRCVY	DSTRAUD1413	Number of sdp stax found to be 0x%lx but should be 0x%lx
1414	RCVY	DSTRAUD1414	sdp SPACE structure page size reset from 0x%lx to 0x%lx
1415	UNRCVY	DSTRAUD1415	sdp SPACE structure found to have page size 0x%lx but should be 0x%lx
1416	RCVY	DSTRAUD1416	Address of file information structure being reset from 0x%lx to 0x%lx
1417	UNRCVY	DSTRAUD1417	Address of file information structure found to be 0x%lx but should be 0x%lx
1418	RCVY	DSTRAUD1418	Address of stax information structure being reset from 0x%lx to 0x%lx
1419	UNRCVY	DSTRAUD1419	Address of stax information structure found to be 0x%lx but should be 0x%lx
1420	RCVY	DSTRAUD1420	Address of environment structure reset from 0x%lx to 0x%lx
1421	UNRCVY	DSTRAUD1421	Address of environment structure found to be 0x%lx but should be 0x%lx
1422	RCVY	DSTRAUD1422	Address of head name reset from 0x%lx to 0x%lx
1423	UNRCVY	DSTRAUD1423	Address of head name found to be 0x%lx but should be 0x%lx
1424	RCVY	DSTRAUD1424	Address of manager structure reset from 0x%lx to 0x%lx
1425	UNRCVY	DSTRAUD1425	Address of manager structure found to be 0x%lx but should be 0x%lx
1426	RCVY	DSTRAUD1426	Number of frames in environment structure reset from 0x%lx to 0x%lx
1427	UNRCVY	DSTRAUD1427	Number of frames in

			environment found to be 0x%lx but should be 0x%lx
1428	RCVY	DSTRAUD1428	Frame pointer address reset from 0x%lx to 0x%lx
1429	UNRCVY	DSTRAUD1429	Frame pointer address found to be 0x%lx but should be 0x%lx
1430	RCVY	DSTRAUD1430	manager[0] space pointer reset from 0x%lx to 0x%lx
1431	UNRCVY	DSTRAUD1431	manager[0] space pointer found to be 0x%lx but should be 0x%lx
1432	RCVY	DSTRAUD1432	manager[0] page id reset from 0x%lx to 0x%lx
1433	UNRCVY	DSTRAUD1433	manager[0] page id found to be 0x%lx but should be 0x%lx
1434	RCVY	DSTRAUD1434	manager[0] use count reset from 0x%lx to 0x%lx
1435	UNRCVY	DSTRAUD1435	manager[0] use count found to be 0x%lx but should be 0x%lx
1436	RCVY	DSTRAUD1436	manager[0] forward pointer reset from 0x%lx to 0x%lx
1437	UNRCVY	DSTRAUD1437	manager[0] forward pointer found to be 0x%lx but should be 0x%lx
1438	RCVY	DSTRAUD1438	manager[0] backward pointer reset from 0x%lx to 0x%lx
1439	UNRCVY	DSTRAUD1439	manager[0] backward pointer found to be 0x%lx but should be 0x%lx
1440	RCVY	DSTRAUD1440	manager[1] page id reset from 0x%lx to 0x%lx
1441	UNRCVY	DSTRAUD1441	manager[1] page id found to be 0x%lx but should be 0x%lx
1442	RCVY	DSTRAUD1442	manager[1] use count reset from 0x%lx to 0x%lx
1443	UNRCVY	DSTRAUD1443	manager[1] use count found to be 0x%lx but should be 0x%lx
1444	RCVY	DSTRAUD1444	manager[1] forward pointer reset from 0x%lx to 0x%lx
1445	UNRCVY	DSTRAUD1445	manager[1] forward pointer found to be 0x%lx but should be 0x%lx
1446	RCVY	DSTRAUD1446	manager[1] backward pointer reset from 0x%lx to 0x%lx
1447	UNRCVY	DSTRAUD1447	manager[1] backward pointer found to be 0x%lx but should be 0x%lx
1448	UNRCVY	DSTRAUD1448	Cannot open %s for writing - no corrections made
1449	UNRCVY	DSTRAUD1449	Cannot rewrite lla control structures for %s - no corrections made

APP:MAINT-RESP

Software Release: 5E10 and later
Message Class: N/A
Application: 5
Type: Output

1. APPENDIX

The following is a list of 'responses' error code strings that are used in many of the output messages for switch maintenance activities. The 'response' is additional information on the completion status of the requested action. This information is helpful in understanding why an action could not complete as requested.

ABORTED BY FAULT RECOVERY

An action has been aborted by fault recovery. The action requested by fault recovery will take precedence. This normally means that the circuit is marked to ACT-PROOS and will soon be removed from service.

ALL HDW MAY NOT BE ALLOWED

Some part of an allow request did not work properly and some of the hardware may not have been allowed.

ALL HDW MAY NOT BE INHIBITED

Some part of an inhibit request did not work properly and some of the hardware may not have been inhibited.

AML EXCEEDED

The automatic maintenance limit (AML) for number of out-of-service (OOS) circuits has been exceeded.

AML NOT EXCEEDED

AML on this circuit can not be exceeded because no trunk group is defined for circuit.

APPLICATION IS NOT OPERATIONAL

A transport facility restore request was rejected because the corresponding application circuit is in either the unequipped or growth equipage state. The application must be updated to the operational equipage state before the transport may be restored.

ASSOCIATED CIRCUITS OOS

Hardware required for operation is OOS and must be restored first.

ASSOCIATED UNIT NOT OPERATIONAL

Hardware required for operation is in the growth state.

ATP

All tests or phases have passed while running diagnostics on the circuit.

BAD ARGUMENT IN OPERATE CALL

During resource checks for integrated services line unit (ISLU) line card sparing usage, a non-ISLU circuit was passed to the check function.

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BAD BOARD DATA

The request was terminated because bad board data was specified in the trouble locating procedure (TLP).

BAD CIRCUIT TYPE

Bad circuit type was found while performing a removal or restoration of the circuit.

BAD DATA ON REQUEST

The request was terminated because illegal data was received on the initial request.

BAD DDL RECEIVED FROM HSM

The connectivity exercise (performed during restorations of digital facility interface (DFI) and facilities of remote-to-host at links failed due to bad derived data link (DDL) received at the remote switching module (RSM) end.

BAD MEMBER NUMBER

The request was terminated because a bad member number was specified in a resource or path request.

BAD PHASE COMPLETION CODE

The request was terminated because an illegal phase completion code was received.

BAD PHASE NUM IN BGNPHASE

The request was terminated because of incorrect phase number in bgnphase.

BAD PORT FOUND

A port name of zero for a full time slot was found which is an error.

BAD VERB IN REQUEST

Bad verb has been received by maintenance request administration (MRA) (that is, RMV, RST ABT, STP, and so forth).

BEGINNING CAMPON

A camp-on for resources for the requested circuit has started.

BOARD LIST OVERFLOW

The request was terminated because the number of boards on the TLP list exceeded the board limit.

BUT INHIBIT ON

A request to switch to the *SLC*® 96 protection line was denied because the switch to the P-line is inhibited.

BY REQUEST

The request has been requested to stop.

CAMPON SUCCESSFUL, ALL LINES REMOVED

During removals of integrated services line unit common data (ISLUCDs) or integrated services line group controllers (ISLULGCs) the subtending line cards have all been removed.

CAMPON TIMEOUT

The camp-on of a circuit has timed out.

CAMPON TIMEOUT, LESS THAN 16 LINES BUSY

During ISLUCD removal attempts, some lines remained busy for the camp-on duration. Number indicates possible range of activity.

CAMPON TIMEOUT, LESS THAN 32 LINES BUSY

During ISLUCD removal attempts, some lines remained busy for the camp-on duration. Number indicates possible range of activity.

CAMPON TIMEOUT, 32 OR MORE LINES BUSY

During ISLUCD removal attempts, some lines remained busy for the camp-on duration. Number indicates possible range of activity.

CAMPON TIMEOUT, SOME CKTS/PORTS MAY BE OOS

Camp-on timed out waiting for the subtending circuits, and some portion of circuits/ports may have been removed.

CAMPON TIMEOUT-X LINE BUSY, SOME CHILD CKTS OOS

During removal of ISLUCDs or ISLULGCs not all of the subtending line cards were removed due to ownership's not being obtained due to call in progress. Those circuits obtained are left OOS. "X" number of lines were found busy and left active. The range of X is 1-10.

CAMPON TIMEOUT-15 LINE BUSY, SOME CHILD CKTS OOS

During removal of ISLUCDs or ISLULGCs not all of the subtending line cards were removed due to ownership's not being obtained due to call in progress. Those circuits obtained are left OOS. 10-15 lines were found busy and left active.

CAMPON TIMEOUT-20 LINE BUSY, SOME CHILD CKTS OOS

During removal of ISLUCDs or ISLULGCs not all of the subtending line cards were removed due to ownership's not being obtained due to call in progress. Those circuits obtained are left OOS. 20-30 lines were found busy and left active.

CAMPON TIMEOUT-30 LINE BUSY, SOME CHILD CKTS OOS

During removal of ISLUCDs or ISLULGCs not all of the subtending line cards were removed due to ownership's not being obtained due to call in progress. Those circuits obtained are left OOS. 30-31 lines were found busy and left active.

CAMPON TIMEOUT-32 LINE BUSY, SOME CHILD CKTS OOS

During removal of ISLUCDs or ISLULGCs not all of the subtending line cards were removed due to ownership's not being obtained due to call in progress. Those circuits obtained are left OOS. 32 lines were found busy and left active.

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CAN NOT RESTORE RCL

RCL could not be restored due to one of the following reasons: 1)protocol failures, 2) parent circuit is out-of-service, 3)RCL is manually out-of-service and an automatic request attempted to restore it, 4) RCL is busy

CAN NOT RESTORE CHANNELS AT OTHER END

Timed out waiting for other end RSM to restore its channels to service.

CANNOT COMMUNICATE WITH MH

Message handler (MH) communication failure.

CANNOT REMOVE CHANNELS AT OTHER END

Channels at the other end of a facility being removed either timed out during the removal or were stopped from being removed.

CANNOT REMOVE PH ASSIGNED TO INTRA SM MD PATH

Removal requests on MD/MDST7 PH3s assigned to intra-SM MD paths will be denied if no spare PH3 is available. be BHPHs.

CANNOT REMOVE RCL

The removal of the remote communication link (RCL) could not be performed for a variety of reasons.

CANNOT REMOVE CLOCK REFERENCE

The remote clock reference is busy due to other maintenance activity and cannot be removed.

CANT SEND MESSAGE

The request was not started because a message cannot be sent to the appropriate process.

CARRIER FAILURE

An automatic action has taken place because a carrier failure condition on an integrated digital carrier unit (IDCU) facility has occurred.

CARRIER FAILURE CLEARED

An automatic action has taken place because a carrier failure condition on an IDCU facility has cleared.

CATP

Diagnostic was conditionally completed; not all tests could be run. Some problems may still be present in the circuit.

CC CIRCUIT IS MRA BUSY

The ISLUCC circuit request was rejected because it was busy with another maintenance request.

CC COMMUNICATION FAILURE

While attempting to complete the request, an error was encountered in communication with the CC. Therefore, the request could not be completed successfully.

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CC DUPLEX FAILURE - REMOVE MATE FIRST

Both CCs in the unit are OOS.

CC DUPLEX FAILURE

The last CC in a unit has been removed and now no service can be provided by the unit.

CC TEST TIMED OUT

The peripheral diagnostic task timed out.

CD CIRCUIT IS MRA BUSY

The ISLUCD circuit request was rejected because it was busy with another maintenance request.

CD DUPLEX FAILURE

The last ISLUCD in a unit has been removed and now no service can be provided by the unit.

CDFI_MAP READ FAILURE

A database read of the relation RLcdfi_map failed. The failure can be due to database errors or to missing tuples in the relation.

CGA NOT CLEARED

A carrier group alarm (CGA) exists on a facility on which some configuration request is being attempted.

CHANNEL GROUP WITHOUT SERVICE

Unconditional removal of the PH completed successfully, resulting in loss of service.

CIRCUIT DATA ERROR

The requested action has encountered an error in the RLcktdata relation for the requested circuit/unit.

CIRCUIT INVOLVED IN LINE SPARING

Remove requests are denied due to the ISLU circuit's being actively involved in a spare path between two lines. Possible circuits are integrated services line unit metallic access network (ISLUMAN), integrated services line unit line card (ISLULC), or ISLULGC.

CIRCUIT MANUALLY REMOVED

A diagnostic requested by an automatic maintenance activity can not be completed on this circuit because it is manually removed.

CIRCUIT NOT IN GROWTH STATE

A diagnostic request specifying the growth option can not be completed because the circuit is not in the growth state.

CIRCUIT ON MRA RECOVERY QUEUE

The request circuit is on the MRA recovery queue, therefore no further action will be taken.

CKTDATA READ FAILURE

Software failed in read of static data relation RLcktdata. Could be caused by corrupt office-dependent data (ODD) or invalid input circuit name.

CLNK ON THIS T1FAC AND MATE OOS OR UNEQ

A configuration request was made that requires the common time slot (CTS) for the RSM to move. The mate T1 facility (T1FAC) is either OOS or unequipped. During the power down of the mate module controller/time slot interchange (MCTSI), the central processor intervention (CPI) force on the active MCTSI has been lost. The user should make an evaluation to see if the CPI force needs to be replied.

COMDAC REMOVE FAILURE

A request to remove a COMDAC did not complete successfully.

COMMON CIRCUIT BUSY

A remove/restore request for a subtending circuit, will be denied if the common circuit is busy. A switch request, of the common circuits, will also be denied if one of the common circuits are busy.

COMMON CIRCUIT DUPLEX FAILURE

The last common circuit in a unit has been removed and no service can be provided by the unit.

COMMON CIRCUIT OFF NORMAL

During a remove, diagnose, or restore of a child of a common circuit, the common circuit or both common circuits were found to be off normal.

CONTENTION CONTROL REQUEST FAILED

A request for a maintainable circuit failed to invoke the Infinite Contention Elimination process.

CONTENTION CONTROL REQUEST TIMEOUT

A request for a maintainable circuit timed out waiting for an acknowledgement from the Infinite Contention Elimination process.

CONTROL SWITCH FAILURE

An attempt to do a soft switch has failed.

COULD NOT ASSIGN TO REQUESTED GRP, ANOTHER GRP IS OOS

Request to restore a PH with "grp=" option is denied - there is at least one other currently OOS channel group that needs to be restored first.

COULD NOT ASSIGN TO REQUESTED GRP, ANOTHER GRP IS DEGRADED

Request to restore a PH with "grp=" option is denied - there is at least one other currently DEGRADED channel group that needs to be restored first.

COULD NOT GET TIMER

An action has been stopped due to the inability to obtain a machine-level timer.

COULD NOT OBTAIN CFC DATA BLOCK

The request has been stopped because a configuration control data block could not be obtained.

COULD NOT OBTAIN GLOBAL DIAGNOSTIC DATA BLOCK

The request has been denied because a global diagnostic data block could not be obtained.

COULD NOT OBTAIN QUEUE DATA BLOCK

The request has been denied because a queue data block could not be obtained.

COULD NOT OBTAIN SPARE DATA BLOCK

The request has been denied because a spare data block could not be obtained.

CPI FORCE ON THE MATE HAS BEEN LOST

CPI force on the mate MCTSI has been lost. The user needs to reapply the force if necessary.

CURRENT RINGING LOAD IS TOO HIGH

The total number of calls that are currently ringing is greater than the total number of ringing jobs that a single ring generator (RG) can support.

DATA BASE ERROR

A general database error occurred.

DATA DELIVERY READ FAILURE

An attempt to read data delivery keys resulted in a failure.

DCTU COMMUNICATION ERROR

There was a communication error with the requested directly connected test unit (DCTU) during the requested action.

DEFERRED MAINTENANCED QUEUE IS FULL

The request could not be completed because the deferred maintenance queue was full.

DEFERRED RESTORAL SCHEDULED

The unit is being put on the deferred queue to be restored later.

DESIRED CFAC'S BUFFER IS BUSY

The buffer for the cluster facility (CFAC) is currently in use (probably due to high message volume), so messages cannot be sent over the RCL. Try again later.

DIAGNOSTIC CONTROL BLOCK CORRUPTED

DGN request found corrupted dynamic data. Retry request.

DIAGNOSTIC STOPPED BY CFT/MRA

The requested diagnostic has been stopped either by a manual request from the user or by an automatic request

from MRA.

DID NOT RECEIVE RMV FAC COMPLETION MSG

Timed out while waiting for a facility (FAC) remove response (7 minute timer).

DRIVER ERROR

The request was rejected because message switch kernel process (MSKP) error occurred.

DUE TO LEVEL 2 ERROR

Action completed due to errors detected during level 2 communication for the embedded operations channel (EOC) and the time management channel (TMC).

DUE TO LEVEL 3 ERROR

Action completed due to errors detected during level 3 communication for the EOC and the TMC.

DUE TO LINE SPARING CONFLICT

The requested action was rejected because there was a line sparing conflict.

DUE TO LOSS OF LEVEL 2

Action completed due to loss of level 2 protocol for the EOC and the TMC.

DUE TO RELATION RLACT_SPR POPULATION OR READ ERROR

Unable to verify if ISLU line card sparing is active as static relation RLact_spr read failed.

DUPLEX FAILURE

Recovery on the unit can not be performed because the unit has duplex failed.

DUPLEX FAILURE FOR UPD:PMPPERF, UNIT NOW BEING PUMPED

This message is to inform the user that a duplex failure has occurred on the unit that was being updated. The unit is now being pumped.

DUPLEX FAILURE, DIAGNOSTIC IN PROGRESS

A duplex failure of this unit has occurred, and an automatic diagnostic is scheduled.

DUPLEX FAILURE, MANUAL ACTION REQUIRED

A duplex failure of this unit has occurred, and some manual intervention is needed to restore this unit.

DUPLEX FAILED RINGING GENERATORS

Both integrated services line unit ringing generators (ISLURG) are now out-of-service. Ringing is now sourced only from the high-level service circuit (HLSC).

EARLY TERMINATION

Early termination of diagnostics was requested by peripheral fault recovery.

ESCALATED TO HARD SW: ACT UNIT DEGRADED

Fault recovery actions were initiated during an ISLUCC operation to cause forced switch. The circuit has been marked degraded.

ESCALATED TO HARD SW: ACT UNIT PRE-OOS

Fault recovery actions were initiated during an ISLUCC operation to cause forced switch. The circuit has been marked PRE-OOS and recovery actions have begun.

EXTERNAL RG VOLTAGE CHECK FAIL

The voltage of the external ring generator is outside a specified range.

FAC OOS-CGA NOT CLEARED

During the restoration of a digital facility, a carrier group alarm was seen on the facility, and it was left OOS.

FAC OOS-SPARE UNAVAILABLE

The subtending facility was removed because the spare transmission multiplexer (TMUX) was unavailable.

FAC SOFT SPARED

The subtending facility was successfully moved to the spare TMUX.

FAC SOFT UNSPARED

The subtending facility was successfully moved to the restored TMUX.

FAC SPARED

The subtending facility was successfully moved to the spare TMUX but internal performance monitoring or alarm data may have been lost.

FAC UNSPARED

The subtending facility was successfully moved to the restored TMUX but internal performance monitoring or alarm data may have been lost.

FAILED HASH SUMS

The requested action was stopped because the unit failed its hash sum checks.

FAILED TO GET CONTROL OF CIRCUIT

The request was stopped due to the inability to get control of the circuit.

FAILED TO STOP ALL SUBTENDING CIRCUITS

An attempt to stop all busy subtending circuits has failed.

FAILURE TO OPEN A FILE

The request was terminated because there was failure to open a pump file from the disk.

FAILURE TO RETRIEVE NEXT REQUEST FROM QUEUE

The request timed out while waiting on the deferred maintenance queue. The request continues to be blocked by some previous request.

FAILURE TO SEIZE RESOURCE

An attempt to obtain an essential resource, such as ownership of a circuit, failed. The resource may be busy with another job, busy with a stable call, unavailable due to a generally high level of resource usage, etc.

FAR-END LOOP SET

A far end loop around has been set on an IDCU facility due to an automatic request.

FAR-END LOOP CLEARED

A far end loop around has been cleared on an IDCU facility due to an automatic request.

FAULT-STATUS UNKNOWN

A fault has occurred during the requested action, and the status of the circuit is unknown.

FEATURE PACKAGE NOT LOADED

The request was rejected for the specified unit because the feature package is not loaded.

FLASH MEMORY FAILURE

The CC was not restored due to a failure to update FLASH memory.

FORCE RELEASE FAILED

A request to unconditionally clear protection on an IDCU facility has failed to complete. However, if the pinjack was set, it has been cleared. The release could eventually occur automatically.

FOREIGN VOLTAGE ON RG BUS

A request to restore an access interface unit (AIU) ring generator (RG) has failed because a significant foreign voltage was detected on the RG bus.

GENERIC DIFFERENCE CURRENTLY TRUE

The request was not honored because the module owning the requested circuit is currently running a different software issue than in running on the administrative module (AM).

HARDWARE ERROR DURING SWITCH

During the reconfiguration of the remote clock (RCLK) an internal hardware error was detected.

HARDWARE INCONSISTENCY DETECTED

Request to restore a PH is denied - the requested channel group's hardware type is incompatible with the PH hardware type.

HARDWARE INIT FAILURE

The request has stopped because hardware initialization of the circuit has failed.

HASHUM ERROR

Pump of a PH failed due to hash errors.

HDW IS SET TO INHIBIT SWITCH STATE

A request to switch hardware has failed. The software switch flag for the hardware has been set to "inhibit switch".

HIGHER NUMBERED PIDB NOT IN APPROPRIATE STATE

The remove request has been rejected due to a higher numbered PIDB not being in the OOS-RMVD state.

HIGHER PRIORITY ACTION INTERVENED

Request aborted due to a higher priority recovery action.

IDCU COMMUNICATION FAILURE

An action has been stopped due to the inability to communicate with the integrated digital carrier unit (IDCU) hardware.

IN PROGRESS

The requested action is currently in progress.

INCONSISTENT DATA

An inconsistency had been detected in the data during the requested action on the circuit.

INCONSISTENT DATA FOUND DURING SWITCH ATTEMPT

Software detected data inconsistency while trying to switch PHs. Either PHs are not on the same shelfs or data has been set up incorrectly.

INHIBIT ALREADY OFF

Switch to protection inhibits are already off.

INHIBIT ALREADY ON

Switch to protection inhibits are already on.

INHIBIT FAILURE

An attempt to inhibit interrupts on a circuit has failed.

INTERNAL ERROR

Internal inconsistencies and/or other errors found.

INTERNAL SYSTEM FAILURE

Internal inconsistencies were found.

INSUFFICIENT MEMORY

The restoration of the unit has been stopped because there is insufficient memory available for this unit to execute properly.

INTERNAL HARDWARE ERROR

During the reconfiguration of the RCLK an internal hardware error was detected.

INVALID RESPONSE FROM TST OF FAC

While waiting for the result of the TST:FAC input request, an unexpected message type was received.

ISPA FAILURE: SOME CIRCUITS LEFT ACT

The Integrated Services Port Administrator has failed to remove all of the requested ports, so some of the circuits may have been left active.

ISPA FAILURE: SOME CIRCUITS MAY BE OOS

The Integrated Services Port Administrator has failed to restore all of the requested ports, so some of the circuits may have been left out of service.

LINE SPARING RELEASED

The message is to inform that a line that was spared has now been released.

LOSS OF MULTI FRAME ESTABLISH

The request was rejected because multi-frame establish was lost before the switch request could be processed.

LOWER NUMBERED PIDB NOT IN APPROPRIATE STATE

The restore request was rejected due to a lower position PIDB being in the OOS-RMVD state.

MAINTENANCE PERFORMED VIA ELEMENT MANAGER

Maintenance operations on this application pack are performed by the Element Manager.

MANUAL ACTION REQUIRED

A failure of this unit has occurred, and some manual intervention is needed to restore this unit.

MANUAL SEPARATION IN EFFECT

The RSMs have been manually separated. Certain operations are not allowed during this condition.

MANUALLY OR AUTOMATICALLY STOPPED

The requested message has been stopped either by a manual request from the user or by an automatic request from MRA.

MATE CIRCUIT IS MRA BUSY

The request is denied - the mate circuit is in the process of being removed or restored by MRA.

MATE COMDAC OOS

The request was rejected because the mate COMDAC is out-of-service.

MATE COMMON CIRCUIT OFF NORMAL

During a remove, diagnose, and restore of a common circuit, the mate common circuit was found to be off normal or degraded. The diagnostics were skipped and an unconditional restore of the requested common circuit was performed.

MATE ERRORS DURING UPDATE

While performing the requested action on the mate circuit, errors were detected on that mate circuit.

MATE EXTERNAL CACHE FAILED

The built in self test (BIST) on the mate's external cache failed during mate update preventing the mate MCTSI from being restored to service.

MATE FAILED WHILE INITIALIZING A SUBUNIT

Mate update failed while initializing a subunit of the unit.

MATE IS ACT_FRCD

The request has been rejected because the mate circuit is active forced.

MATE IS ACT RESTRICTED

A request is currently in progress on the MATE digital carrier line unit (DCLU).

MATE IS OOS

The request has been rejected because the mate of the circuit is OOS.

MATE IS POWERED OFF

The requested action for the unit was rejected because the mate is powered off.

MATE IS UNAVAILABLE

A mate communication path loopback failure occurred.

MATE NOT EQUIPPED

The request has been rejected because the mate circuit is not equipped on this unit.

MATE UPDATE FAILED WHILE UPDATING MESSAGE HANDLER

The request was terminated because a failure occurred while attempting to update the mate of an MH.

MELNK ALREADY IN SERVICE

Specified MELNK is not out-of-service.

MELNK ALREADY MANUALLY REMOVED

Specified MELNK is already in a manual out-of-service state.

MELNK UNEQUIPPED

Input command specified an unequipped MELNK number.

MEPIPE INITIALIZING

An MEPIPE initialization is in progress. If appropriate, the command should be re-tried.

MH COMMUNICATION FAILURE

The message handler failed to drain peripheral messages from the active communication path.

MH COMMUNICATION RESOURCE FAILURE

The message handler failed to send a peripheral diagnostic task due to unavailable MH resources.

MH1/MH2 PUMP FAILURE

A pump of the MH operational image to an MH1 or MH2 in growth failed during mate updating.

MSGTYPE UNDEFINED

The request was terminated because an unrecognized message type was received.

MUST RESTORE TO STANDBY

The circuit must be restored to standby.

NO ACKNOWLEDGEMENT FROM OTHER END

Timed out while waiting for a response from the far-end RSM.

NO ACKNOWLEDGEMENT

A handshake channel failure has occurred on the phase request.

NO ISLUCC AVAIL FOR RG BUS SWITCHES

Ringing generator (RG) BUS switch request is denied - ISLUCC is not available.

NO ISLUMANS AVAILABLE FOR RG BUS CONNECTS

An ISLURG was restored to service but there were no ISLUMANs in service to close output relays to.

NO MELNK EQUIPPED ON ACCESSIBLE SMS

No MELNK is equipped on any accessible SM in the specified SM range.

NO MELNK FOUND TO RESTORE

All MELNKS are in service.

NO MELNK IN REQUESTED STATE

No MEPIPE/MELNK is in the requested maintenance state.

NO PHs FULLY PASSED PUMP AND INIT

Concurrent PH tests were aborted because all pump/initializations failed for PHs.

NO REQ IN PROGRESS

The request has been rejected because the action on the requested circuit is not in progress.

NO SPARE AVAILABLE, PH DEGRADED

Conditional removal of a PH was denied because no spare PHs were available, PH left degraded.

NO SPARE AVAILABLE

Conditional removal of a PH was denied because no spare PHs were available.

NO SWITCH, DGN IN PROGRESS ON ASSOC CKTS

Switch request is denied - the mate circuit is currently being diagnosed.

NO T1FAC MATCH FOR HFAC

Could not find matching T1 facility (T1FAC) for the host facility (HFAC) given (uses RLrcb_hcb to associate HFAC and T1FAC).

NOT ALL PSU PH UNITS RESTORED

A packet switch unit (PSU) restoration from duplex failure completed but some PHs were left OOS.

NTR

No tests run. Circuit was unable to be tested.

OOS THRESHOLD EXCEEDED

The request has been denied because the maintenance threshold has been exceeded.

OPERATING SYSTEM CALL FAILURE

An unexpected failure of an operating system primitive occurred.

OTHER END CHANNELS REMOVED

The channels at the other end of a facility, which is being removed, were successfully removed in a previous attempt.

OVERRIDDEN BY HIGHER REQUEST

The request has been overridden by a higher priority request. This is normally seen when running in min-mode, which turns all automatic conditional restoration requests to removal request.

PARENT CIRCUIT IS BUSY WITH ANOTHER MAINTENANCE REQUEST

The request has been rejected because the parent circuit is busy with another maintenance request.

PARENT CIRCUIT OOS

The request has been rejected because the parent circuit is OOS.

PARENT SCHEDULED FOR RECOVERY

The fault detected on this circuit is believed to be caused by the circuit's parent. Therefore, the parent circuit will be scheduled for diagnosis.

PC DATA PROBLEM

The requested action was stopped because of a dynamic data problem in the peripheral control area.

PENDING

Facility is in service, FELP request pending. Only after facility is removed will FELP request be honored.

PERIPHERAL PUMP FAILURE

The peripheral image could not be pumped.

PH SWITCH FAILED

A PH switch failed due to errors on the PH being switched to. The PH being switched to is believed to be faulty, therefore the PH has been put on a deferred maintenance queue and will be diagnosed and restored, dependent upon system load.

PH-DSLG HARDWARE INCONSISTENCY

User requested a restoration of a PH with a specific channel group to be assigned to the PH. The requests has been denied because the channel group is being assigned to the wrong PH hardware type, audit has been scheduled to correct the problem. The PH is left OOS.

PHASE TABLE ERROR

The request was rejected because a phase table error has occurred.

PIDB TIMESLOT REMOVAL FAILED

An attempt to remove a PIDB timeslot failed.

PIDB TIMESLOT REMOVAL TIMED OUT

Timed out awaiting PIDB timeslot removal.

PIDB TIMESLOT RESTORAL FAILED

An attempt to restore a PIDB timeslot failed.

PIDB TIMESLOT RESTORAL TIMED OUT

Timed out awaiting PIDB timeslot restoration.

PORT BUSY

Diagnostics were skipped on a circuit because the circuit is not in an out-of-service state. This is most likely due to the circuit's associated port being busy.

PORT NAILED UP

The requested action was stopped because the port(s) is/are nailed up.

PORT PROCESSOR COMPLETION CODE - ERROR IN MESSAGE RETURNED

The request was terminated because a message from the port processor was received with an unexpected data field.

PORT PROCESSOR MESSAGE VERIFY - TIMEOUT ERROR

The request was terminated because a timeout occurred while waiting to get a message back from PH.

PORT PROCESSOR SEND MESSAGE ERROR RETURN

The request was rejected because a message could not be sent to the port processor due to user input error.

PORT PROCESSOR SEQUENCE NUMBER - ERROR IN MESSAGE RETURNED

The request was terminated because an out-of-sequence message was received from the port processor.

PORT RESTORAL FAILED

Restoration of ports associated with a PH channel group failed. Since the restoration request for the PH was manual, the PH is marked OOS and will require manual action to recover.

PORT RESTORAL FAILED, DEFERRED RESTORAL WITH DGN REQUESTED

Restoration of ports associated with a PH channel group failed. Since the restoration request for the PH was automatic, the PH is marked OOS and put on a deferred maintenance queue, and will be diagnosed and restored in the near future.

PORTS STILL ASSIGNED TO DPIDB

During requests for directly connected peripheral interface data bus (DPIDB) removal (degrowth applications), some ports were found still assigned to DPIDB types. Need to unassign ports prior to removal and degrowth.

PREVIOUS REQUEST IN PROGRESS

The request was not accepted because a previous request was in progress on the requested circuit.

PREVIOUS SWITCH IN PROGRESS

The hardware switch request cannot be completed due to a previous switch in progress.

PROCESS LIMIT EXCEEDED

The request was not started because terminal process limit has been exceeded.

CRAFT REQUEST LIMIT EXCEEDED

The request was not started because the user request limit has been exceeded.

PROTECTION LINE NOT EQUIPPED

A request was denied because there is no *SLC*® 96 protection subscriber loop carrier digital facility interface (SDFI) [protection SDFI (P-SDFI)] for this remote terminal (RT). The P-SDFI is unequipped.

PROTECTION LINE UNAVAILABLE

Removal of a *SLC*® 96 DFI failed because the *SLC*® 96 protection SDFI was in use.

PROTECTION SWITCH FAILURE

An automatic request for a protection line switch of an IDCU facility has failed. This means that the facility has experienced a facility failure and has been removed.

PROTECTION SWITCH OK

An automatic request for a protection line switch of an IDCU facility was successful.

PROTECTION UN-SWITCH FAILURE

An automatic request to take an IDCU facility off protection has failed.

PROTECTION UN-SWITCH OK

An automatic request to take an IDCU facility off protection was successful.

PUMP RECEIVED STOP REQUEST

The restoration request was stopped because the pump software received a stop request from peripheral fault recovery (PFR).

QUEUE LIST OVERFLOW

The request has been stopped because the camp-on queue list has overflowed.

RCLK IS INHIBITED

If the RCLK is inhibited, subtending circuits cannot have hardware checks allowed.

RCOSC IN WARMUP

The remote clock oscillator (RCOSC) is in the WARMUP state and cannot be restored until the RCOSC is OOS.

RCXC MUST BE STBY

A conditional removal of active remote clock cross couple (RCXCs) was not allowed. Unconditional removals will remove an active RCXC but may affect the timing of the SM.

REFERENCE SOURCE UNAVAILABLE

The facility associated with the remote clock reference (RCREF) cannot provide a timing source.

RELEASE FAILED

The request was terminated because the release of the resource failed.

REMOVAL OF LAST ACTIVE PH ON CRITICAL PSU IS NOT ALLOWED

A Packet Switch Unit that is designated a Critical Unit PSU has to have at least one ACT PH. If you desire to remove the last ACT PH from service, in Recent Change set the CRIT PSU field on 22.2 RCV form to "N".

REQUEST DENIED - OSPS PORTS BUSY

Removal of an ISLU circuit containing Operator Service Position System (OSPS) is denied except for unconditional requests.

REQUEST DENIED - DGN IN PROGRESS ON ASSOC CKTS

The request is denied - at least one associate circuit is currently being diagnosed.

REQUEST DENIED-SOME PORTS BUSY

Unable to obtain ownership of ports on requested ISLU circuit. Usually caused by port status errors that prevent control checks.

REQUEST DENIED-AVOIDS CMT CONNECTIVITY LOSS

The request has been denied - connectivity would be lost.

REQUEST ALREADY PENDING

A request to switch to the *SLC*® 96 protection line (P-Line) was denied because a previous request was in progress.

REQUEST LIMIT EXCEEDED

The request has been denied because the request limit has been exceeded.

REQUEST MUST BE CONDITIONAL

This message is not valid with the unconditional option.

REQUEST MUST BE UNCONDITIONAL

This message is valid only with the unconditional option.

REQUEST NOT ALLOWED, CDI INTERRUPTS INHIBITED

The request for the test access circuit (TAC) was not allowed because the control data interface (CDI) had inhibits on.

REQUEST NOT ALLOWED

The request was not allowed on the circuit. This is generally due to the state of a related circuit (such as, the parent circuit is OOS) or to the state of this circuit (such as, IDCU facilities in certain automatic OOS states must be manually removed before a manual restoration is allowed.)

REQUEST NOT ALLOWED FOR CH GRP

The request is not allowed for the channel group currently assigned to the PH. This is generally a response to a conditional request that can not be honored without losing calls.

REQUEST NOT ALLOWED ON TIMESLOT GROUP 0

Non-subtending manual removes of active TIMESLOT GROUP 0 and non-subtending manual conditional restores of TIMESLOT GROUP 0 are not allowed.

REQUESTED BY AUDITS

An automatic action has taken place due to a request by audits.

REQUESTED BY TM

An automatic action has taken place due to a request by terminal maintenance.

REQUESTED GROUP IS MRA BUSY

User requested a restoration of a PH with a specific channel group to be assigned to the PH. The request has been denied because the channel group was in the process of being restored to another PH.

REQUESTED GROUP IS UNEQUIPPED

User requested a restoration of a PH with a specific channel group to be assigned to the PH. The request has been denied because the channel group does not exist. The PH was left OOS.

RESIDENT SPARE TASK FAILED

The ISLU line card sparing activation task failed during internal ISLU operation. No sparing path was set up and static data changes will be backed out.

RESOURCE NAME REUSED

The requested was terminated because resource identifier was reused without releasing the circuit.

RESOURCE UNAVAILABLE FOR SPARING

The requested action was rejected because the sparing resources were unavailable.

RESTORE OTHER CLNK AND TRY AGAIN

A configuration request was made that affects the only communication link (CLNK). Two CLNKs must be active before such a configuration attempt can be made.

RESTORED TO ACTIVE

User requested restoration of a PH to standby, but the circuit was made active because some channel group was not assigned a PH.

RESTORED TO STANDBY

The requested circuit was restored to the standby state rather than the typical active state. For CCS channel groups, the standby state is the default.

RESTORED FROM DUPLEX FAILURE

The unit is now back in service from the duplex failure condition.

RESTORED FROM SIMPLEX FAILURE

The unit is now back in service from the simplex failure condition.

RESTORED TO ACTIVE MINOR

An ISLUCD has been returned to service from OOS state and status updated to ACT/MIN.

RESTORED TO OOSFE

If the parent ISLUCD is OOS, the PIDB status is updated to OOS/family of equipment and parent OOS is returned. If the AIU COMDACs are duplex failed, the line pack or ring generator is updated to OOS/family of equipment and parent OOS is returned. If the AIU COMDAC is OOS, the timeslot group status is updated to OOS/family of equipment and parent OOS is returned. If the AIU line pack is OOS, the line circuit is updated to OOS/family of equipment and parent OOS is returned.

RESULT FROM TST FAC NEVER RECEIVED

Time out while waiting for the result from the TST:FAC input request (10 or 15 seconds).

RG BUS CONNECT FAILED, BUSES RETURNED TO MATE RG

As part of ISLURG restoration, the mate ISLURG must be disconnected from bus and the new one connected. This message says that the new ringing generator (RG) failed and relays closed back to original configuration.

RGBUS CONNECT FAILED, ALSO FAILED RECONNECT TO MATE RG, ISLUMAN DEGRADED

During a restoration of an ISLURG, connection of outputs to available MAN boards failed and the mate (RG) could not be connected either. ISLUMAN was marked degraded to indicate that no ringing source from ISLURGs is possible.

RGBUS CONNECT FAILED TO AN IN SERVICE RG, ISLUMAN DEGRADED

During a restoration of an ISLUMAN, the connect attempt to an available ringing generator circuit failed so that ringing current was not supplied to this ISLUMAN.

RG CANNOT BE SUBSEQUENTLY RESTORED

The conditional remove of an active degraded ring generator was denied.

RG SOFT INIT FAILURE

Ring generator software initialization failure.

RMV FAC UNSUCCESSFUL

While coordinating removal of the two facilities at each end of a communication link, the far end facility removal was stopped or not started.

RTA ERROR

A routing and terminal allocation (RTA) primitive failed on a port of the requested circuit.

RUNNING ON BEST SIDE

The request to switch sides of the RCLK can not be completed because currently used (ACTIVE) RCLK side is operating in a better mode than the other side of the RCLK.

SAVE AREA OVERFLOW

The request was rejected because a save area (stack) overflow occurred while looping.

SCAN ERROR

The request was terminated because there was failure to get the value of a scan point.

SEIZED RESOURCE UNAVAILAB

An attempt to obtain ownership of a circuit failed due to the resources being unavailable.

SM ISOLATED OR BAD/MISSING PAGED PRODUCT

The diagnostic or conditional restore request was terminated because SM is temporarily isolated or the requested diagnostic product is missing (not on 3B disk) or corrupt.

SMEST READ FAILURE

Software failed in a read of the dynamic circuit status relation RLsmest. This could be caused by corrupted memory or a bad circuit name passed to the data base read primitive.

SOME SUBTENDING CIRCUITS ARE BUSY

Request was denied because one or more subtending or child circuits were busy.

SOME SUBTENDING CIRCUITS MAY BE OOS

Part of the request was denied because one or more subtending or child circuits were out-of-service.

SPARE PATH HAS BEEN RELEASED UCL, RC REQUIRED

An ISLU line card sparing operation has been interrupted due to an unconditional removal of an associated ISLUMAN, ISLULGC, ISLULC. Service is no longer provided to the line card that was spared. The recent change (RC) line card sparing view must be brought up and the line "un-spared" to clean up static data changes.

SRA FAILURE

An attempt to obtain ownership of a circuit failed due to the resource's being busy with another job or stable call.

SRA RESOURCE FAILURE

An attempt to obtain ownership of a switching resource allocator (SRA) resource failed due to the resource's being busy with another job or stable call.

STATUS UNKNOWN

The requested CPI message was sent to the SM but no acknowledgement was received.

STF SPARE OF LINE POSSIBLE, USE RCV

The message is to inform the user that a spare line can be added using recent change.

STF

Some tests have failed while running diagnostics on this circuit.

SUBTENDING CIRCUITS FAILED INITIALIZATION

During a restore, some subtending circuits failed initialization.

SUBTENDING FAC OOS-CGA NOT CLEARED

The subtending facility was left out-of-service due to a CGA.

SW FAILED, RST SCHEDULED ON STBY UNIT

Switch of ISLUCC controllers failed. The standby ISLUCC will now be scheduled for RMV/DGN/RST.

SW SUCCEEDED, RST SCHEDULED ON STBY UNIT

Switch of ISLUCC controllers was successful. The standby ISLUCC will now be scheduled for RMV/DGN/RST.

SWITCH FAILED

Active-standby states of the requested and mate circuits could not be switched, typically due to a hardware failure.

SWITCH FAILED, DEFERRED DGN ON TARGET PH

The PH switch failed - The PH, that was being switched to, will be put on the deferred queue to be diagnosed and restored.

SWITCH NOT ATTEMPTED, DGN IN PROGRESS ON ASSOC CKTS

A switch of ISLUCC or ISLUCD will not be allowed if diagnostics are in progress in the unit as false errors could occur. Wait for diagnostic requests to finish.

SWITCH NOT ATTEMPTED, MATE CIRCUIT IS MRA BUSY

The mate ISLU circuit already has some type of maintenance request in progress. Cannot switch to a busy circuit. Wait for mate request to finish.

TASK FAILED FOR RGBUS CONNECTS FAILED FOR SIMPLEX RG

Ringing current cannot be provided by ISLURGs due to connection failure. Probable hardware failure.

TASK FAILED RGBUS DISCONNECT MATE RG, NO RGBUS CHANGES

During ISLURG restoration, the mate RG would not let go of ringing buses, so the newly restored ISLURG could not be connected.

TASK FAILED TO SWITCH CONNECTED ISLUMANS TO ACTIVE MATE RG, ISLUMAN DEGRADED

During ISLURG removal, the available ISLUMANs that were connected to that RG were switched to mate ringing generator for ringing current. This message indicates the switch-over failed and ringing current cannot be provided from any generators.

TERMINAL MAINTENANCE ERROR

Terminal maintenance has encountered an error for a trunk group member of the requested circuit.

TIMEOUT

A timeout has occurred while waiting for a message or while waiting for a resource.

TIMEOUT ON MH ACKNOWLEDGEMENT

A timeout has occurred while waiting for an acknowledgement from the message handler (MH).

TIMEOUT WAITING FOR DDL, MESSAGE FROM OTHER SM

The connectivity exercise (performed during restorations of DFIs and facilities) of remote-to-host links or remote-to-remote links [for inter-cluster links (ICL)] timed out waiting for a DDL message from the other end of the communication link.

TIMEOUT WAITING FOR RCL RESPONSE

Timed out while waiting for a response from the cluster digital facility interface (CDFI) handler (10 seconds).

TIMESLOT GROUP 0 NOT IN APPROPRIATE STATE

The request was rejected because TIMESLOT GROUP 0 is not in the appropriate state of OOS-FE. TIMESLOT GROUP 0 is either OOS-RMVD or OOS-FLT.

TIP-RING CABLE MISSING

The initialization of a new unit will report if the tip/ring cable is missing.

TO PREVENT CC/TMUX PROGRAM INCONSISTENCY

Switch of a DNUSCC not allowed due to inconsistent images between DNUSCC circuits. Currently the active DNUSCC program update level matches the level of the TMUXs, and a DNUSCC switch would make the images inconsistent.

TRANSPORT IS MRA BUSY

A request on a remote application circuit is not allowed when the parent transport circuit is busy.

TST OF FAC FAILED

Periodic ICL connectivity exercise failed.

U LP CONFIGURATION FAILURE

An ISDN U line pack was not configured successfully.

UNABLE TO CHANGE CLOCK MODE

The RCLK could not have its mode changed. Either the RCOSC or the RCREFs are not in the state necessary for the requested mode.

UNABLE TO GET CONTROL OF RGBUS DUE TO OOS ISLUMAN

ISLUMAN was out-of-service and therefore the RG cannot be connected to it. When the ISLUMAN is restored, connection will be made.

UNABLE TO GET CONTROL OF RGBUS FROM MATE RG

Since RGBUS is shared between ISLURGs and only one can be connected at a time, the first one must be removed from the bus prior to connecting the other. Control of resources must be obtained first to prevent stepping on active jobs, and this control was not received in this case.

UNABLE TO MATCH ON DG FEATURE ID

Bad feature identification (FID) was received for software optioning.

UNABLE TO PROTECTION LINE SWITCH

An action has been stopped because a conditional request to remove an IDCU facility was unable to protection-line-switch.

UNABLE TO RESTORE TO ACTIVE

After the RCLK was restored to STBY, the attempt to switch RCLK sides failed.

UNABLE TO RUN TST FAC

Either the FAC to be tested was OOS, or the connectivity exercise returned an error.

UNDEFINED COMMAND

The requested was rejected because an undefined function was found in op-type statement.

UNDEFINED TYPE IN GETDATA

The request was rejected because undefined data type was found in getdata.

UNEXPECTED ERROR RESPONSE MESSAGE FROM RT

Maintenance request administrator (MRA) has received an error response message from a remote terminal which it cannot act upon. Subsequent action may be taken by other layer message handlers.

UNEXPECTED MESSAGE RECEIVED

While waiting for a message, an unexpected message was received (either illegal message type, or message relating to a different circuit).

UNEXPECTED PIDB TIMESLOT ENCOUNTERED

An error was encountered while attempting to move channels from the PIDB being removed to another PIDB.

UNEXPECTED RESPONSE MSG FOR FAC RMV

While waiting for the host FAC removal response, an unexpected message type was received.

UNIT ALREADY OOS

The request was rejected because the unit is already OOS.

UNIT DOES NOT EXIST

The request was rejected because the unit does not exist.

UNIT IN GROWTH STATE

The request was not allowed because the unit is in the growth state.

UNIT IN REQ STATE

The request was rejected because the circuit was in the requested state. Normally such requests are permitted if they include running diagnostics, and denied otherwise.

UNIT IN TROUBLE ANALYSIS STATE

The request has been stopped, and the circuit has been placed in the "Trouble Analysis" state, because automatic diagnostics have been run (and passed) too many times recently.

UNIT IS ACT_FRCD

The request has been rejected because the unit was forced to be active.

UNIT IS DEGRADED

The request has been rejected because the mate or one of its subtending circuits is not available and the unit has been put in a degraded state. Call processing may be degraded.

UNIT IS OUT-OF-SERVICE

The request has been rejected because the unit is OOS.

UNIT NOT EQUIPPED WITH SCAN PTS.

The request has been rejected because the unit is either not a SCAN board or the scan points are not equipped in the office-dependent data (ODD).

UNIT UNEQUIPPED

The requested action was rejected because the requested unit is unequipped.

UNKNOWN HANDLER RETURN

While waiting for a response from the DFI handler, an unknown return code was received.

USED RESOURCE NOT DEFINED

The request was rejected because resources being operated upon were not defined in the resource identifier.

WAIT FOR DGN TO FINISH

The request has been rejected because diagnostics were in progress for the circuit.

WAITING FOR DGN ON MATE TO COMPLETE

Requests on ISLUCC and ISLUCD was not permitted while the mate controller was busy with a DGN request.

WARNING: PORTS MAY STILL BE OOS

During the restoration of ISLU/ISLU2 or packet switching unit (PSU) circuit, some port control attempts failed but the associated circuit was restored back in service. Therefore the ISLU/ISLU2 or PSU circuit is left in service but some ports may still be out-of-service (OOS).

WARNING: PORTS MAY STILL BE IN SERVICE

During the removal of ISLUGCs, some port control attempts failed but the associated line card was removed from service anyway due to unconditional removal request.

WARNING - THE SM IS RUNNING SLOW

An inhibit hardware checks input message has inhibited the operation of cache on the MCTSI. The MCTSI may be running at only 60% to 65% of its normal speed.

WOULD REMOVE LAST MELNK

Attempting conditional removal of last MELNK on MEPIPE.

XPC CHIPS NOT IN INFO TRANSFER STATE

The X.25 protocol is not established over the ICL. Try the restoration again.

APP:MDII

Software Release: 5E10 and later
Message Class: N/A
Application: 5
Type: Output

1. MACHINE-DETECTED INTEROFFICE IRREGULARITIES APPENDIX

1.1 Introduction

This appendix provides additional information about machine-detected interoffice irregularities (MDIIs) used throughout the switch. The term "MDII" refers to the identification of signaling problems between switching systems.

MDIIs are reported any time a signaling problem is detected on an incoming or outgoing trunk call. They are reported through the REPT:MDII output message.

MDIIs are generated for incoming, outgoing and two-way trunks and the MDII is based on the direction, incoming or outgoing, of the call being attempted at the time the signaling problem is detected. This appendix provides a list of the possible MDIIs and information as to:

- The direction the MDII can apply to, incoming (ICT) or outgoing (OGT) trunk calls.
- What traffic count can be affected.
- What the acronym means.
- What the MDII means from a call processing standpoint.
- What action the system took as a result of the MDII. This may include logical port removal or restoration, and traffic and/or plant measurements affected.
- Whether trunk error analysis (TERA) acts on the MDII
- What corrective action is needed to clear the problem.

Answers to these questions and other information is provided in the following sections and in the MDII tables (TABLE 1, 2, and 3) below.

1.2 General

MDIIs are not just reported, they can also result in the pegging of traffic counts, the removal of a trunk, and may have quick-check and/or peer group analysis performed by TERA. The traffic counts affected by a particular MDII are dependent upon the type of trunk, its direction (incoming, outgoing, two-way), and its service class.

To determine what traffic/plant counts are affected by MDIIs, refer to the traffic/plan count description table (TABLE 1). To determine which counts are pegged for a particular MDII, refer to the sections that follow and the MDII description table (TABLE 2). The counts reported in each of the traffic/plant reports are specified in TABLE 3.

1.3 MDII Reports

There are times when a REPT:MDII message cannot be printed. Such a case is when the switching module (SM) in which the MDII occurred cannot send the MDII report to the administrative module (AM). In this case the number of the discarded MDII is maintained and reported the next time an MDII can be sent to the AM to be printed. When the MDII is successfully sent, the discarded MDII count is reset.

The reporting of MDIIs can be inhibited or allowed through the INH:MDII and ALW:MDII input messages. Refer to the individual manual pages of these messages for details.

1.4 MDII Counts

For all MDIIs, whether the MDII is printed or not (throttled or inhibited), an incoming or outgoing MDII counter will be

pegged depending upon the call direction. The incoming and outgoing MDII counters are INMDII and OUTMDII respectively.

For the following far-end classes of service, only the incoming and outgoing MDII counts are pegged. This is because these classes of service are reserved for test calls.

Class of Service	Description
TM_LTP	Logical test port (LTP).
TM_TSTK	Local test desk trunk.
TM_ICTC	LTP used for incoming test call.
TM_OGTC	LTP used for outgoing test call.
TM_ROTL	LTP used for remote office test line (ROTL) calls.
TM_MSU	LTP used to control metallic service unit (MSU) junctors.
TM_ACJACK	AC jack port at the trunk and line work station (TLWS) test access unit (TAU).
TM_WSTF	LTP used for interactive TLWS testing.
TM_CALLBK	TLWS call back phone.
TM_OTOTK	Trunk used for office-to-office testing.
TMLTPDCTU	LTP to control the directly connected test unit (DCTU).

1.5 MDII Trunk Group Measurements

As part of the PLNT24 report there is a section (part 24) that reports the number of MDIIs that have occurred on each trunk group in the last 24 hour period. This report includes all the MDIIs that have occurred on a trunk group whether or not an individual MDII was reported (throttled or inhibited) for that trunk group. The counts reported per trunk group are the number of incoming MDIIs (TGMDINC) excluding partial dial timeouts, the number of partial dial timeouts (TGMDPDT), the number of outgoing trial 1 MDIIs (TGMD1TR), and the number of outgoing trial 2 MDIIs (TGMD2TR). Refer to TABLEs 1, 2, and 3 for more information.

The counts are printed as part of the PLNT24 report, and can also be printed on demand. The demand report outputs the most recent 24-hour plant report. The PLNT24 report is generated once a day.

1.6 Carrier Counts

If an MDII is on an incoming call from a directly connected carrier, the DINCST traffic count will be pegged in addition to the counts normally pegged for that MDII.

An MDII on an outgoing call to a directly connected carrier will peg the DOTGCST traffic count in addition to the counts normally pegged for that MDII. If in this case the outgoing MDII is a wink start, steady on-hook (WSN) or wink start, steady off-hook (WSR), the (DOTGSST) count will also be pegged.

In outgoing call on a tandem trunk to a carrier, all failures up to and including failure to receive an SSD wink will cause the (SOTGSSD) traffic count to be pegged. An MDII occurring during an outgoing call on a tandem trunk to a carrier will cause the (SOTGACK) traffic count to be pegged. This count will include all failures that occur after the receipt of a second start dial (SSD) wink, up to and including failure to receive the acknowledgment wink.

In addition to the MDII counts, all MDIIs on integrated services digital network - user part (ISUP) trunks will also peg ISUP MDII counters. The incoming and outgoing ISUP counts are IMDII7 and OMDII7 respectively. These counts will be pegged for all ISUP MDIIs unless the message transfer point (MTP) is down. On a switch equipped with a CNI ring, "MTP down" means that the CNI ring is not operational. When the CNI is down, no MDII counts (INMDII,OUTMDII,IMDII7,OMDII7) will be pegged for ISUP or (CCSI6) MDIIs.

1.7 Exceptions

For an MDII on an incoming call, when the class of service on the trunk is FC_PF or PC_PFLASH and the MDII is PDA, PDT, PST or VCA, no errors will be pegged on any trunk for dialing irregularities because the entity on the other end of the trunk may be a digit-by-digit overlap outpulsing trunk which may not send all the digits needed due to the caller's going on-hook.

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If the start signal type is dial-tone or immediate dial, or dial-tone with answer supervision (FCANSDTONE), no trunk errors for dialing irregularities will be pegged because the entity on the other end of the trunk is a person, not a machine. However, if the trunk has a revertive pulsing (RP) signaling type and there is an equipment failure, the MDII will be printed.

1.8 Logical Port Removal

The logical port associated with a trunk will be removed from service for the following MDIIs that occur on an outgoing trunk call (refer to TABLE 2).

ABF	ICA	SCK	WSN
DDF	PFR	SSD	WSR
DSN	PST	UXS	XST

The status of the port applied is dependent upon the type of outgoing trunk used. If the trunk is a one-way outgoing trunk, then the port status will be:

```
OOS BLKD - PCTF AUTO
```

If the trunk is a two-way trunk, then the port status will be:

```
OOS MTCE HW PCTF AUTO
```

Incoming trunks are generally not automatically removed from service. Refer to APP:PORT-STATUS for details on port statuses.

1.9 TERA Action

The action taken by TERA is a function of the TERA recovery action specified for a trunk group and whether or not TERA is enabled for the switch.

TERA can be enabled or disabled for the entire switch using RC/V View 8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]. If TERA is disabled, the TERA recovery action specified for a trunk group has no affect. If enabled, then what TERA will do when MDIIs occur on a trunk is dependent on the recovery specified for that trunk group.

The TERA recovery option in effect on a trunk group can be obtained and altered using RC/V View 5.1 (TRUNK GROUP). The following list specifies the TERA recovery options available.

Option	Description
NOA	No action, no analysis, no report, no test, and no removal will take place.

TST	Quick check analysis will be performed and an operational test will be performed if three MDIIs occur on a trunk in the trunk group. The operational test is determined by the (ATTTN) found in the trunk group data for the trunk in question. If the operational test fails, the trunk is placed
	`OOS MTCE DSBLD ERATC AUTO`
	
	If the trunk passes the operational test it remains in service. If the trunk quick checks three time and passes the operational test three times it will be removed from service indicating a potential problem. The trunk will be placed
	`OOS MTCE DSBLD ERATP AUTO`

RMV	Remove the trunk directly, do not perform any operational test. The trunk is placed `OOS MTCE DSBLD ERATC AUTO`
RPT	Only report the problem using a REPT TERA message. Do not perform an operational test and do not take the trunk out of service.

1.10 Documentation

The following is a list of the documents referenced by the MDII appendix where 'x' is the release-specific version of the specified manual.

Doc. Number	Document Name
235-105-220	Corrective Maintenance Procedures
235-118-2xx	Recent Change Menu Mode/Text Interface
235-118-25x	Recent Change Reference
235-118-25x	Recent Change Procedures
235-600-10x	Data Translations Manual
235-700-100	Interface/Compatibility Guide
235-900-113	Product Specification
235-600-700	Input Messages
235-600-750	Output Messages

1.11 MDI Tables Descriptions

1.11.1 Traffic/Plant Reports Reporting MDII Affected Counts

Specifies the traffic/plant reports that report counts affected by MDIIs.

Specifies which counts are reported.

Traffic/Plant Report	Section/Part	Counts Reported
M5	23	DOTGSST
PLNT24	1A	CMONIIA
PLNT24	1B	INCST OUTMDII
PLNT24	3	INCST OUTGCST OTGCSPERF
PLNT24	4	INCST
PLNT24	5	DEACTOT INMDII
PLNT24A	5	OUTMDII
PLNT24	6	COTFAIL DINCST DOTGCST IMDII7 OMDII7 SOTGSSD SOTGACK
PLNT24	24	TGMDINC TGMDPDT TGMD1TR TGMD2TR
PLNTHRLY	2	BFMR COTTO RELREC
TRFC30	120	TMPFAIL

1.11.2 Traffic/Plant Counts Affected By MDIIs

Specifies the counts affected by MDIIs.

Specifies what the count means.

Specifies the reports in which that count is reported and under what name or title it can be found.

Count	Description	Report Name	Report Sec./Part	Report Topic
BFMR	Number of backward fail messages received on outgoing CCS attempts indicating trouble at a following switch.	PLNTHRLY	2	BFMA
CMONIIA	CAMA ineffective attempt traffic count.	PLNT24	1A	CAMAOIA
COTFAIL	Number of ISUP continuity failures after two attempts at the end office or access tandem.	PLNT24	6	COTFAIL
COTTO	Number of time-outs while waiting to receive a continuity message after the IAM for an incoming CCS call.	PLNTHRLY	2	COTTO
DEACTOT	Total TERA deactivations.	PLNT24	5	TOTAL TERA DEACTIVATIONS
DINCST	Direct incoming carrier call set-up trouble traffic count.	PLNT24	6	DINMDII
DOTGCST	Direct outgoing carrier call set-up	PLNT24	6	DOTMDII

	trouble traffic count.			
DOTGSST	Direct outgoing carrier start signal trouble traffic count.	M5	23	SS-TO
IMDII7	The number of incoming ISUP MDIIs on trunks directly connected to carriers. Pegged only for incoming ISUP (CCS7) MDIIs.	PLNT24	6	IMDII7
INCST	Incoming call set-up trouble traffic count.	PLNT24 PLNT24 PLNT24 PLNT24 PLNT24	1B 1B 3 4 4	CONNECT INCOM CONNECTING RMCONN RMINC
INMDII	Incoming MDII traffic count. Pegged for all incoming MDIIs.	PLNT24	5	TOTAL INCOMING MDIIS
OMDII7	The number of outgoing ISUP MDIIs on trunks directly connected to carriers. Pegged only for outgoing ISUP (CCS7) MDIIs.	PLNT24	6	OMDII7
OUTGCST	Outgoing call set-up trouble traffic count. Pegged on last trial.	PLNT24 PLNT24 PLNT24 PLNT24	1B 3 4 4	CONNECT CONNECTING RMCONN RMOUTG
OUTMDII	Outgoing MDII traffic count. Pegged for all outgoing MDIIs.	PLNT24A	5	TOTAL OUTGOING MDIIS
OTGCSPERF	Outgoing call set-up performance count. Pegged on all trials.	PLNT24	3	OUTGOING
RELREC	After glare has occurred on a CCIS6 outgoing attempt at the non-control office and the clear forward message was sent, time-out occurred while waiting for the release guard message.	PLNTHRLY	2	RELREC
SOTGSSD	Tandem outgoing call start signal detect traffic count.	PLNT24	6	TSDMDII
SOTGACK	Tandem outgoing call acknowledgment failure traffic count.	PLNT24	6	TACKMDII
TMPFAIL	ISUP failure occurring in this switch resulting in sending a release (REL) message with cause set to temporary failure (41).	TRFC30	120	TMPFAIL
TGMD1TR	The number of outgoing Trial 1 MDIIs that occurred on a specified trunk group.	PLNT24	24	TRIAL1
TGMD2TR	The number of outgoing Trial 2 MDIIs that occurred on a specified trunk group.	PLNT24	24	TRIAL2
TGMDINC	The number of incoming [except partial dial time-out (PDT)] MDIIs that occurred on a specified trunk group.	PLNT24	24	OTHER
TGMDPDT	The number of incoming PDT MDIIs that occurred on a specified trunk group.	PLNT24	24	PDT

1.12 MDII Descriptions Overview

Specifies all the MDIIs that can be reported. Each is identified by the MDII acronym that will be printed for that MDII

and the list is in alphanumeric order.

Specifies the direction in which the MDII can occur by a "Yes" indication in the appropriate column. The direction column ICT indicates incoming. The direction column OGT indicates outgoing.

Specifies the traffic/plant counts pegged in addition to any general rule specified above in the sections on counts. When an MDII occurs, only the counts associated with the direction in which the MDII occurred may be pegged, even though counts for both directions may be listed.

Specifies not only the MDII description, but also provides action that can be taken to resolve the cause of the MDII.

Specifies a yes/no to indicate if any action will be taken by TERA for this MDII. The specific TERA action is dependent on what has been specified for the trunk group in which the MDII occurred.

1.12.1 2SPDT (MDII Descriptions)

ITEM	DETAIL
Description Expansion	Second stage partial dial timeout
Direction	ICT
TERA	Yes
Traffic/Plant Counts	INCST INMDII TGMDPDT
Description	Reported during digit collection and analysis of the second stage of a traditional two-stage international outbound call under one or more of the following conditions: 1 A time-out occurred while waiting for the next digit of the digit sequence and at least one valid digit had already been collected. 2 An unexpected digit was received from the far office. 3 During the translation of the digit sequence, the number of digits received was determined to be invalid. 4 For MF address signaling, an unexpected "null" sequence (KP + ST) was received.
Corrective Action	1 Verify the functionality of the trunk hardware and service circuit used for digit collection (refer to the Corrective Maintenance Procedures manual and any appropriate diagnostic messages in the Input Messages manual). If the hardware is functioning properly, have the far office check its corresponding trunk hardware. 2 Check RC/V View 5.1 (TRUNK GROUP) attribute TRK CLASS. Verify that the attribute setting is compatible with the far office's interpretation of the trunk's operation (refer to the Recent Change Menu Mode/Text Interface manual). 3 Verify that the partial-dial timing conditions at both offices are compatible (refer to the Product Specification manual). Check global parameter Gl2spdt (contains the partial-dial timing value for the collection of the digit sequence of the second stage) (refer to the Data Translations manual). 4 Check the translations data in RC/V Views 9.3 [LOCAL DIGIT (OFFICE DIALING)] and 9.5 [INCOMING TRUNK DIGITS (OFFICE DIALING)] for the expected number for incoming digits. Also, check forms 5309 and 5300-3 of the Office Records Manual for the incoming digits. If the incoming digits in the office records match the digits found in the recent change views, then have the far office check its data translations (refer to the Recent Change Menu Mode/Text Interface manual).

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1.12.2 2SPST (MDII Description)

ITEM	DETAIL
Description Expansion	Second stage permanent signal timeout
Direction	ICT
TERA	Yes
Traffic/Plant Counts	TGMDINC INMDII
Description	During the collection of the digit sequence of the second stage of a traditional two-stage international outbound call, a time-out occurred while waiting for the arrival of the first digit from the far office.
Corrective Action	1 Verify the functionality of the trunk hardware and service circuit used for digit collection (refer to the Corrective Maintenance Procedures manual and any appropriate diagnostic messages in the Input Messages manual). If the hardware is functioning properly, have the far office check its corresponding trunk hardware. 2 Verify that the permanent-signal timing conditions at both offices are compatible. Check global parameter Gl2spst (contains the permanent-signal timing value for the collection of the digit sequence of the second stage) (refer to the Data Translations manual). 3 Verify that the second start dial wink timing conditions at both offices are compatible (refer to the Product Specification manual).

1.12.3 2SVCA (MDII Description)

ITEM	DETAIL
Description Expansion	Second stage vacant code announcement
Direction	ICT
TERA	Yes
Traffic/Plant Counts	TGMDINC INCST INMDII
Description	May occur during the collection and translation of the digit sequence of the second stage of a traditional two-stage international outbound call that uses fully coded addressing (FCA). 2SVCA is reported under one or more of the following conditions: 1 Translation of the second stage digit sequence did not result in a destination type indicating an international direct distance dialed call using FCA. 2 For CCS trunks, an invalid MF digit code was received during the collection of the second stage.
Corrective Action	1 Verify the functionality of the trunk hardware and service circuit used for digit collection (refer to the Corrective Maintenance Procedures manual and any appropriate diagnostic messages in the Input Messages manual). If the hardware is functioning properly, have the far office check its corresponding trunk hardware. 2 Check RC/V View 5.1 (TRUNK GROUP) attribute TRK CLASS. Verify that the attribute setting is compatible with the far office's interpretation of the trunk's operation (refer to the Recent Change Menu Mode/Text Interface manual). 3 Check the translations data in RC/V Views 9.3 [LOCAL DIGIT (OFFICE DIALING)] and 9.5 [INCOMING TRUNK DIGITS (OFFICE DIALING)] for the expected incoming digits. Also, check forms

	5309 and 5300-3 of the Office Records Manual for the incoming digits. If the incoming digits in the office records match the digits found in the recent change views, then have the far office check its data translations (refer to the Recent Change Menu Mode/Text Interface manual).

1.12.4 ABF (MDII Descriptions)

ITEM	DETAIL
Description Expansion	Abandon failure
Direction	OGT
TERA	Yes
Traffic/Plant Counts	OUTMDII OUTGCST OTGCSPERF TGMD1TR TGMD2TR
Description	An abandon handshake failure occurred for an outgoing call over a revertive pulsing trunk. This failure may occur when the call has been abandoned during outpulsing. When a call is abandoned, a start pulsing signal (loop closed) is sent to the far office to drive it to "telltale". When driven to telltale, the far office is expected to return a reverse-battery condition to initiate the telltale signaling sequence. ABF is reported when the far office fails to return the reverse-battery condition or if somewhere within the telltale signaling sequence, a handshake failure occurs.
Corrective Action	1 Verify the functionality of the trunk hardware and revertive pulsing transceiver used for outpulsing (refer to the Corrective Maintenance Procedures manual and any appropriate diagnostic messages in the Input Messages manual). If the hardware is functioning properly, have the far office check its corresponding trunk hardware. 2 Verify the compatibility of the trunk interface hardware at both offices (refer to the Interface/Compatibility Guide manual). 3 Verify that the revertive pulse signaling electrical and timing conditions at both offices are compatible.

1.12.5 ACK (MDII Description)

ITEM	DETAIL
Description Expansion	Acknowledgement
Direction	OGT
TERA	Yes
Traffic/Plant Counts	OTGCSPERF OUTGCST OUTMDII TGMD1TR TGMD2TR
Description	No acknowledgement wink received or unexpected acknowledgment wink received. An acknowledgment (ACK) wink (on-hook/off-hook/on-hook series of transitions) was not received from the far office over a trunk that uses equal access (EA) signaling protocol, or an ACK wink was received in place of a steady off-hook signal from the far office over a trunk that uses modified equal access signaling. The ACK wink is expected from the far office after all digits have been outpulsed using EA signaling, while a steady off-hook is expected when using modified EA signaling.
Corrective Action	1 Verify the functionality of the trunk hardware (refer to the Corrective Maintenance Procedures

	manual and any appropriate diagnostic messages in the Input Messages manual). If the hardware is functioning properly, have the far office check its corresponding trunk hardware. 2 Verify the functionality of time slot interchange unit's signal processor hardware (refer to any appropriate diagnostic in the Input Messages manual). 3 Check RC/V View 5.1 (TRUNK GROUP) attributes TRK CLASS and INC TNDWNK. Verify that the attribute settings are compatible with the far office's interpretation of the trunk's operation (refer to the Recent Change Menu Mode/Text Interface manual). 4 Verify that the timing conditions at both offices are compatible. The ACK wink timing conditions for the possible call connections are: a EA end office (EO) to interexchange carrier (IC), transition EO to IC, transition EO to access tandem (AT) to IC, EAEO to AT to IC, AT connecting non-EAEO to IC, AT to EAEO using CCS7 trunk and AT to IC using EAMF trunk: 100-600 ms wink pulse width, 8.6 seconds maximum wait time to receive ACK wink. b EAEO to international carrier (INC): 100-1500 ms wink pulse width, 9.5 seconds maximum wait time to receive ACK wink. c EAEO to AT to INC, AT to EAEO using CCS7 trunk and AT to INC using EAMF trunk: 100-1500 ms wink pulse width, 13.5 seconds maximum wait time to receive ACK wink. 5 For modified EA signaling, check RC/V View 5.1 (TRUNK GROUP) attribute TRK CLASS and View 10.2 (ROUTING) attributes SIG PRO, PREF DIG, and RT DES TYP. Verify that the attribute settings are compatible with the far office's interpretation of the trunk's operation (refer to the Recent Change Interface Specification manual, the Local and Toll System Features manual, and the Product Specification manual).

1.12.6 ANF (MDII Description)

ITEM	DETAIL
Description Expansion	Automatic number identification failure
Direction	ICT
TERA	Yes
Traffic/Plant Counts	TGMDINC INCST INMDII
Description	Automatic number identification failure reported under one or more of the following conditions: 1 During the initiation of a software defined network (SDN) or leased network transaction, the calling sequence digit count retrieved from the call record was not equal to 10 (10 digits were expected). For this case, ANF is reported for toll-connecting, centralized automatic message accounting (CAMA) operator number identification (ONI) (SDN transaction only), and CAMA automatic number identification (ANI) trunks, and for trunks that use ISUP7 signaling. 2 During CAMA ANI digit collection and analysis, the "I" (information) digit within the ANI digit sequence received from the far-end indicated an identification failure (I = 2 or I = 5) in the originating end office. In this case, operator identification of the calling number was required. 3 During ANI digit collection over a toll-connecting trunk that uses equal access (EA) signaling and where ANI is requested, a null or invalid ANI sequence was received. The null or invalid ANI sequence

	is indicated by one of the following: a A KP digit immediately followed by a ST digit. b EA information read from ODD relation RLFCEAINFO (keyed on the first two digits received in the ANI sequence). 4 During the initiation of an OSPS SS7 signaled call, the signaled charge number parameter in the incoming IAM was received with less then 10 address digits, or the incoming IAM did not contain a charge number parameter.
Corrective Action	1 Verify the functionality of the trunk hardware and service circuit used for digit collection (refer to the Corrective Maintenance Procedures manual and any appropriate diagnostic messages in the Input Messages manual). If the hardware is functioning properly, have the far office check its corresponding trunk hardware. 2 Check RC/V View 5.1 (TRUNK GROUP) attributes TRK CLASS, BLK NO ANI, and View 5.5 (TRUNK MEMBER) attribute ANI. Verify that the attribute settings are compatible with the far office's interpretation of the trunk's operation (refer to the Recent Change Menu Mode/Text Interface manual). 3 Check the RLFCEAINFO ODD tuples for the correct data (refer to the Data Translations manual). 4 Contact the originating *4ESS*® toll office and inform them of the ANI signaling error.

1.12.7 ANF2 (MDII Description)

ITEM	DETAIL
Description Expansion	Automatic number identification failure
Direction	ICT
TERA	No
Traffic/Plant Counts	TGMDINC
Description	An operator collected the calling number following an automatic number identification (ANI) failure - reported under the following condition: During CAMA ANI digit collection and analysis, the "I" (information) digit within the ANI digit sequence received from the far-end indicated an identification failure (I = 2 or I = 5) in the originating end office. In this case, operator identification of the calling number was required and the operator successfully identified the calling number.
Corrective Action	Contact the originating end office of the calling party and inform them of the identification failure.

1.12.8 ANI (MDII Description)

ITEM	DETAIL
Description Expansion	Automatic number identification timeout
Direction	ICT
TERA	Yes
Traffic/Plant Counts	OUTMDII TGMD1TR TGMD2TR
Description	For calls over a trunk that uses the traditional, equal access, or modified equal access signaling protocol, a time-out occurred while waiting for an off-hook signal from the far office after the called digit sequence was successfully outpulsed. This off-hook signal is expected for outgoing trunk calls where ANI

	information is required. For trunks using the traditional or equal access signaling protocols, the off-hook indicates that the far office is ready to receive the ANI digit sequence. For trunks using the modified equal access signaling protocol, the off-hook indicates that the called number was received and that operator hold should now apply to the call.
Corrective Action	1 Verify the functionality of the trunk hardware (refer to the Corrective Maintenance Procedures manual and any appropriate diagnostic messages in the Input Messages manual). If the hardware is functioning properly, have the far office check its corresponding trunk hardware. 2 Verify the functionality of the time slot interchange unit's signal processor hardware (refer to any appropriate diagnostics in the Input Messages manual). 3 Check RC/V View 5.1 (TRUNK GROUP) attribute TRK CLASS, and View 5.5 (TRUNK MEMBER) attribute ANI. Verify that the attribute settings are compatible with the far office's interpretation of the trunk's operation (refer to the Recent Change Menu Mode/Text Interface manual). 4 Verify that the timing conditions at both offices are compatible. The off-hook signal is expected from the far office within 20 seconds after the called digit sequence has been outpulsed for traditional and equal access signaling. For trunks using modified equal access signaling, the off-hook is expected from the far office within 9 seconds for a U.S. call, and within 14 seconds for an international call. 5 For modified EA signaling, check RC/V View 5.1 (TRUNK GROUP) attribute TRK CLASS and View 10.2 (ROUTING) attributes SIG PRO, PREF DIG, and RT DES TYP. Verify that the attribute settings are compatible with the far office's interpretation of the trunk's operation (refer to the Recent Change Interface Specification manual, Local and Toll System Features manual, and the Product Specification manual).

1.12.9 AST (MDII Description)

ITEM	DETAIL
Description Expansion	Acknowledge seizure signal timeout
Direction	ICT, OGT
TERA	Yes
Traffic/Plant Counts	CMONIIA TGMDINC INMDII OUTMDII TGMD1TR TGMD2TR
Description	Position acknowledged seizure timeout. May occur over a centralized automated message accounting (CAMA) operator keying/talking trunk pair where the operator number identification (ONI) function is used to collect the calling digit sequence. In this case, a time-out occurred while waiting for a position acknowledged seizure signal (PASS) (off-hook) from the far office over the keying trunk after an office seizes position (OSP)(off-hook) signal was sent to the far office over the talking trunk.
Corrective Action	1 Verify the functionality of the trunk hardware (refer to the Corrective Maintenance Procedures manual and any appropriate diagnostic messages in the Input Messages manual). If the hardware is functioning properly, have the far office check its corresponding trunk hardware. 2 Verify the functionality of the time slot interchange unit's signal processor hardware (refer to any appropriate diagnostic messages in the Input Messages manual). 3 Check RC/V View 5.1 (TRUNK GROUP) attribute TRK CLASS. Verify that the attribute setting is compatible with the far office's interpretation of the trunk's operation (refer to the Recent Change

	Menu Mode/Text Interface manual). 4 Check the RLKEY_TALK ODD tuple for the operator keying/talking trunk pair. Verify that this pair matches the pair recognized at the far office (refer to the Data Translations manual). 5 Verify that the timing conditions at both offices are compatible. The PASS is expected from the far office within 5 seconds after the OSP signal is sent to the far office.

1.12.10 ATO (MDII Description)

ITEM	DETAIL
Description Expansion	Address timeout
Direction	OGT
TERA	Yes
Traffic/Plant Counts	OMDII7 OTGCSPERF OUTGCST OUTMDII TGMD1TR TGMD2TR
Description	This MDII is used exclusively for common channel signaling (CCS). This MDII occurs when the outgoing side of a CCS call has sent an initial address message (IAM) and has timed out waiting for a address complete message (ACM) which is needed to continue the call. After the MDII fires, the trunk is idled and no second attempt is made. Release is sent to the far-end office. Since there is no re-try the outgoing trouble count is pegged on the first trial.
Corrective Action	The problem may be from one or more of the following sources: signaling failure, long setup time, abnormal configuration at the far-end office. 1 If there is signaling failure, then some portion of the CCS network between the two offices has a failure that did not allow the IAM to reach the far-end office. It is possible that the IAM did reach the far-end office, but the ACM message sent back did not reach the originating office. If there is a signaling failure, several other CCS related MDIIs will also be firing, that is, BAF and CAF. 2 If long setup delays is the problem, several ATO MDII's will be seen in a variety of trunks. The user can fine tune the wait period between the IAM sending and the ACM reception by changing Glacmtim office parameter. Increase this value until the ATO MDII's stop. The Range is from 20 to 30 seconds. 3 If the ATO MDII occurs infrequently, then it is likely that the far-end trunk is in a transient state that does not allow IAM reception, that is, initialization and audits. If this occurs there is no corrective action required. The situation should be self-correcting. However, if the trunks continue to fail call setup, then contact the far-end office.

1.12.11 BAF (MDII Description)

ITEM	DETAIL
Description Expansion	Blocking acknowledgment failure
Direction	ICT
TERA	Yes
Traffic/Plant Counts	TGMDINC INMDII OUTMDII

	TGMD1TR TGMD2TR
Description	This MDII is used exclusively for common channel signaling (CCS). This MDII occurs when a blocking (BLO) CCS message is sent for a an ISUP trunk and the far-end office has not responded with a blocking acknowledgment (BLA) message. The BLA reception indicates that the far-end office has blocked its trunk and inhibited call originations. The detailed scenario is an ISUP trunk is taken out-of-service for either OOS,MTCE,DSBLD, OOS,MTCE,LKDO, or OOS,MTCE,FE status. This status transition stimulates a blocking message sent to the far-end office to inhibit traffic requests. BLO sending can also start because of an SM initialization. This BLO message has been sent every 4-15 seconds based on office parameter, BLO RSND for 1 minute without receiving a BLA message. At this point the BAF MDII is printed and no more BLO messages are sent. The BAF MDII can also occur when a circuit group blocking (CGB) is sent for a set of ISUP trunks and the circuit group blocking acknowledgement (CGBA) is received indicating the ISUP trunk was not successfully blocked.
Corrective Action	The problem may be from one or more of the following sources: signaling failure, abnormal configuration at the far-end office. If there is signaling failure, then some portion of the CCS network between the two offices has a failure that did not allow the BLO to reach the far-end office. It is possible that the BLO did reach the far-end office, but the BLA message sent back did not reach the originating office. If there is a signaling failure, several other CCS related MDIIs will also be firing, that is, ATO, CAF, etc. The BAF MDII may occur when the far-end trunk is in a transient state that does not allow remote blocking to occur, that is, initialization, SM inaccessible and audits. If this occurs there is no corrective action required. The situation should be self-correcting. The first call attempt from the far-end office (reception of an IAM) will be answered with a BLO message. This will block the far-end trunk. If however, the BAF MDIIs continue to fire, contact the far-end office.

1.12.12 BLFCA (MDII Description)

ITEM	DETAIL
Description Expansion	Blocking a fully coded address
Direction	ICT, OGT
TERA	No
Traffic/Plant Counts	TGMDINC INMDII OTGCSPERF OUTMDII TGMD1TR TGMD2TR
Description	Blocked a fully coded addressed international outbound call - reported for international outbound calls using fully coded addressing (FCA) under one of the following conditions: 1 For an incoming trunk, digit analysis determined that the call was an equal access (EA) three-stage international outbound call using FCA after translating the first stage digit sequence. In this case, the service class of the trunk did not indicate a LATA toll-connecting trunk. The call was blocked since billing of EA calls only takes place if the call arrives on a LATA toll-connecting trunk. 2 For an outgoing trunk, digit analysis determined that the call destination type was international direct distance dialing using FCA. In this case, global parameter Gloftyp did not indicate that this is a local office (toll office was indicated).

Corrective Action	1 Check RC/V View 5.1 (TRUNK GROUP) attribute TRK CLASS. Verify that the attribute setting is compatible with the far office's interpretation of the trunk's operation (refer to the Recent Change Menu Mode/Text Interface manual). 2 Check the translations data in RC/V Views 9.3 [LOCAL DIGIT (OFFICE DIALING)] and 9.5 [INCOMING TRUNK DIGITS (OFFICE DIALING)] for the expected incoming digits. Also, check forms 5309 and 5300-3 of the Office Records Manual for the incoming digits. If the incoming digits in the office records match the digits found in the recent change views, then have the far office check its data translations (refer to the Recent Change Menu Mode/Text Interface manual). 3 Check RC/V View 8.1 [OFFICE PARAMETERS (MISCELLANEOUS)] attribute OFFICE TYPE. Verify that it is set to the correct value (refer to the Recent Change Menu Mode/Text Interface manual).

1.12.13 CAF (MDII Description)

ITEM	DETAIL
Description Expansion	Circuit reset acknowledgment failure
Direction	ICT, OGT
TERA	No
Traffic/Plant Counts	TGMDINC INMDII OUTMDII TGMD1TR TGMD2TR
Description	This MDII is used exclusively for common channel signaling (CCS). This MDII occurs when a reset circuit (RSC) message for ISUP or a reset trunk (RST) message for CCIS6 has been sent for a CCS trunk and the far-end office has not responded. The reception of a response message indicates that the far-end office has reset its trunk and the trunk is idle. The detailed scenario for ISUP trunks is an ISUP trunk has sent RSC for some reason and the far-end office does not respond with a UQL, RLC, REL, or RSC message. RSC is sent every 4-15 seconds based on office parameter RSC SHORT for 1 minute, without receiving a response. At this point the CAF MDII is printed. RSC continues to be sent every 2-30 minutes based on office parameter RSC LONG until the far-end answers. The detailed scenario for CCIS6 trunks is a CCIS6 trunk has sent RST for some reason and the far-end office does not respond with a UQL, RLG, CLF, or RST message. At this point the CAF MDII is printed. RST is sent every 4-15 seconds based on office parameter RSC SHORT for 2-30 minutes, based on office parameter RSC LONG. When the long timer expires, RST will be sent at RSC LONG intervals until the far-end office answers.
Corrective Action	The problem may be from one or more of the following sources: signaling failure or abnormal configuration at the far-end office. 1 If there is signaling failure, then some portion of the CCS network between the two offices has a failure that did not allow the RSC/RST to reach the far-end office. It is possible that the RSC/RST did reach the far-end office, but the response message did not reach the originating office. If there is a signaling failure, several other CCS related MDIIs will also be firing, that is, ATO, BAF, etc. 2 If the CAF MDII occurs infrequently, then it is likely that the far-end trunk is in a transient state that does not allow RSC/RST reception, that is, initialization and audits. If this occurs there is no corrective action required. The situation should be self-correcting. The near-end office continues to send the RSC/RST message until the far-end answers. However, if the CAF MDIIs continue to fire, then contact the far-end office.

1.12.14 CAI (MDII Description)

ITEM	DETAIL
Description Expansion	CCS address incomplete
Direction	OGT
TERA	Yes
Traffic/Plant Counts	BFMR OMDII7 OTGCSPERF OUTGCST OUTMDII TGMD1TR TGMD2TR
Description	This MDII is used exclusively for common channel signaling (CCS). This MDII occurs when an outgoing CCS call has sent an initial address complete (IAM) to establish part of a call and has received an address incomplete indication rather than an address complete message (ACM). The address incomplete indication means that the address signal received in the IAM is not sufficient for setting up the call. For CCIS6, and address incomplete message is received. For ISUP, a release (REL) message with a cause field set to 28 is received before an ACM was received. The CAI MDII is generated on the receipt of one of these messages. There is no re-try. Since there is no re-try and a call is lost, the OUTGCST count is pegged on the first trial.
Corrective Action	Check the office dialing ODD against the far office dialing ODD. This MDII indicates an inconsistency.

1.12.15 CFO (MDII Description)

ITEM	DETAIL
Description Expansion	Trunk open after outpulsing
Direction	OGT
TERA	No
Traffic/Plant Counts	OTGCSPERF OUTMDII TGMD1TR TGMD2TR
Description	Open trunk after start of outpulsing.

1.12.16 CFR (MDII Description)

ITEM	DETAIL
Description Expansion	Continuity failure
Direction	OGT
TERA	No
Traffic/Plant Counts	OTGCSPERF OUTMDII TGMD1TR TGMD2TR
Description	Continuity failure.

1.12.17 CII (MDII Description)

ITEM	DETAIL
Description Expansion	CCS initial address message irregularity
Direction	ICT
TERA	Yes
Traffic/Plant Counts	IMDII7

	TGMDINC INCST INMDII TMPFAIL
Description	This MDII is used exclusively for common channel signaling (CCS). This MDII occurs when an incoming CCS trunk has received an initial address message (IAM) containing mutilated or invalid digits or length check failure for CCIS6. Reorder tone is provided to the caller or a release (REL) message with the cause field set to 41 is sent to the far-end office for ISUP calls. A call failure message is sent to the far-end office for CCIS6 calls. The incoming trunk is idled.
Corrective Action	This problem could arise from the following situations: inconsistency of software release between offices or invalid digit detected during digit translation.

1.12.18 CKF (MDII Description)

ITEM	DETAIL
Description Expansion	Continuity check failure
Direction	ICT
TERA	No
Traffic/Plant Counts	TGMDINC INCST INMDII
Description	This MDII does not apply to the 5E6(1) and 5E7 software releases. This MDII is used exclusively for common channel signaling (CCS). This MDII occurs when the per call voice path assurance (VPA) test and the subsequent retry fails for an ISUP call. After this MDII prints, the trunk status is changed to OOS,MTCE,CONT,INC. The call is retried on another trunk. In the OOS,MTCE,CONT,INC state, the VPA test is rerun every 1-3 minutes based on office parameter COT RETST until the test passes or the trunk is removed from the OOS,MTCE,CONT,INC state using an the RST:TRK input message. The repeated VPA test is controlled by the outgoing trunk and started by the reception of a continuity check request (CCR) CCS message. If no CCR is received within 5 minutes, then the OOS,MTCE,CONT,INC,AUTO status is removed and reset circuit (RSC) is sent to the far-end office.
Corrective Action	No corrective action is required. The VPA test will be run periodically until the test passes. When the test passes both ends of the trunk will be restored to service and a RST:TRK message will be printed. I the user does not want the VPA test to be run, then use the RMV:TRK input message to place the trunk in another out of service state or use the RST:TRK input message to put the trunk back in service. Also refer to CRF.

1.12.19 COF (MDII Description)

ITEM	DETAIL
Description Expansion	Confusion received
Direction	OGT
TERA	Yes
Traffic/Plant Counts	OTGCSPERF OUTGCST OUTMDII TGMD1TR TGMD2TR
Description	This MDII is used exclusively for common channel interoffice signaling system 6 (CCIS6). This MDII occurs when a confusion (COF) message is received from a succeeding exchange during the setup of a CCS outgoing call. The COF MDII is generated when a "Confusion" message is received on an outgoing CCIS6 trunk. The call will be retried on another trunk. The outgoing trunk will be idled.
Corrective Action	Check the status of the associated signaling link with this call.

1.12.20 CQR (MDII Description)

ITEM	DETAIL
Description Expansion	Circuit query response timer expired
Direction	OGT
TERA	No
Traffic/Plant Counts	None
Description	The circuit query timer expired and a CQR (circuit query response) message has not been received from the far end in response to two CQM (circuit query message) messages.
Corrective Action	This problem may be from one or more of the following sources: signaling failure, abnormal configuration in network or at far-end office. If associated with an automatic office circuit query, and about the same number of MDIIs are seen each time the automatic office circuit query runs, consider changing the hour for the CQ START TIME on RCV 8.15. In this case the office CQ may be colliding with other CQM messages from another office, causing the CQR MDIIs. If this is associated with a manual request, no action is needed. Attempt to re-run manual request. If MDIIs are produced every time, consider verifying network data and interoffice data (using EXC:CCSXLATE) <5e12+>

1.12.21 CRA (MDII Description)

ITEM	DETAIL
Description Expansion	Circuit reservation acknowledgement failure
Direction	OGT
TERA	No
Traffic/Plant Counts	OMDII7 OTGCSPERF OUTGCST OUTMDII TMPFAIL TGMD1TR TGMD2TR
Description	This MDII is used exclusively for integrated services digital network - user part (ISUP). This MDII occurs on an ISUP call that is interworking with equal access MF signaling after a circuit reservation message (CRM) has been sent which reserves a circuit and will initiate any required continuity checks, and has timed out waiting for a circuit reservation acknowledgment (CRA) message which links the trunk between the access tandem and the carrier. This is an MF - ISUP connection at the originating access tandem. For an access tandem office to obtain required counts of the expiration of Tcra on an ISUP7 trunk group, use RC view 14.8 to add each IEC trunk group, that connects to a interexchange carrier, to the trunk error analysis study group. Up to 20 trunk groups can be entered on RC/V View 14.8 (TRUNK ERROR ANALYSIS). The existence of a trunk group on this view will enable counts of MDII's that occur on the trunk group. Observe the required count on the 24 hour measurement report, Part 5 (TERA report). The trunk is idled. The call is retried on another trunk. The count TMPFAIL ("accumulating count of ISUP call failures") is also pegged if on the second trial a REL message is received with a cause code of temporary failure is sent or received.
Corrective Action	The problem may be from one or more of the following sources: signaling failure, or, abnormal configuration at the far-end office. If there is signaling failure, then some portion of the CCS network between the two offices has a failure that did not allow the CRM to reach the far-end office. It is possible that the CRM did reach the far-end office, but the CRA message sent back did not reach the originating office. If there is a signaling

	failure, several other CCS related MDIIs will also be firing, that is, BAF, CAF, etc. If the CRA MDII occurs infrequently, then it is likely that the far-end trunk is in a transient state that does not allow CRM reception, that is, initialization and audits. If this occurs there is no corrective action required. The situation should be self-correcting. However, if the trunks continue to fail call setup, then contact the far-end office.

1.12.22 CRF (MDII Description)

ITEM	DETAIL
Description Expansion	Continuity recheck failure
Direction	OGT
TERA	No
Traffic/Plant Counts	OTGCSPERF OUTMDII TGMD1TR TGMD2TR
Description	This MDII only applies to 5E5(1) and earlier software releases. This MDII is used exclusively for common channel signaling (CCS). This MDII occurs when the per call voice path assurance (VPA) test and the subsequent retry fails for an ISUP call. After this MDII prints the trunk status is changed to OOS,MTCE,CONT,OGT,AUTO. The call is retried on another trunk. In the OOS,MTCE,CONT,OGT,AUTO state, the VPA test is rerun every 1-3 minutes based on office parameter COT RETST until the test passes or the trunk is removed from the OOS,MTCE,CONT,OGT,AUTO state using an RST:TRK input message. The repeated VPA test is controlled by the outgoing trunk and started sending a continuity check request (CCR) message. A CKF MDII is reported in the far-end office when the incoming side of the call detects the VPA recheck failure. Also refer to CKF.
Corrective Action	No corrective action is required. The VPA test will be run periodically until the test passes. When the test passes both ends of the trunk will be restored to service and a RST:TRK message will be printed. If the user does not want the VPA test to be run, then use the RMV:TRK input message to place the trunk in another out of service state or use the RST:TRK input message to put the trunk back in service.

1.12.23 CRR (MDII Description)

ITEM	DETAIL
Description Expansion	Common channel signaling reset received
Direction	ICT
TERA	Yes
Traffic/Plant Counts	IMDII7 TGMDINC INCST INMDII
Description	This MDII is reported exclusively for common channel signaling (CCS). The CRR MDII will only be printed if a circuit reset message is received for an incoming CCS trunk or a group reset message is received where any of the range of channels indicated in the GRS is part of a DS0 or wideband call and all of the following conditions are met: A The incoming CCS trunk is handling a call when the circuit reset is received. B The call being handled by the CCS trunk is not a test call. C The call is not waiting for the initial address message (IAM) to be sent from the previous office. D The call is not waiting for the continuity (COT) message to be sent from the previous office.

	If a GRS's range of channels includes channels of several calls, a CRR MDII will be printed for each call. The circuit reset message indicates that the far-end office is out of synchronization and is forcing a re-initialization of the trunk. This loss of synchronization can be caused by SM initialization, unexpected message reception, manual trunk removal, automatic fault recovery or lack of tone transceiver. When associated with a wideband call, a CRR MDII fires because a reset circuit was received affecting one of the channels of a wideband call or group reset was received and at least one of the channels in the range of the group reset was involved in a wideband call. Like for narrowband (DS0) situations, the reset will tear down the call. The coding of the trial field in the CRR MDII will depend upon the software release of the switch and the state of the call. Switches that are equipped with the 5E6(1) or later software releases may report a value of one or three in the trial field depending upon whether an address complete message (ACM) has been sent before receiving the circuit reset/circuit group reset message. If an ACM has been sent before the circuit reset/circuit group reset message is received, a value of three will be reported in the trial field. If an ACM has not been sent before the circuit reset/circuit group reset message is received, a value of one will be reported in the trial field. The events that trigger an MDII for wideband will have analogous events in DS0 calls. Only one MDII message (REPT:MDII) will be printed per wideband call.
Corrective Action	CRR MDII reported situations are usually self-correcting. However, if they repeat contact the far end offices and inquire about their status. Also check on the tone transceiver equipage status on the affected SM.

1.12.24 CTO (MDII Description)

ITEM	DETAIL
Description Expansion	Continuity timeout
Direction	ICT
TERA	Yes
Traffic/Plant Counts	COTTO IMDII7 TGMDINC INCST INMDII
Description	This MDII is used exclusively for common channel signaling (CCS). This MDII occurs when the incoming side of a CCS call has received an initial address message (IAM) and has not received the continuity message (COT) in the appropriate interval. Also, no other message was received to indicate a COT failure. For CCIS6, the periodic VPA testing is started. For ISUP trunks, the trunk is idled.
Corrective Action	The problem might be due to long set-up delays. If this is the problem, several CTO MDII's will be seen in a variety of trunks. The user can fine tune the wait period between the IAM sending and the COT reception by changing Glcottim office parameter.

1.12.25 CVN (MDII Description)

ITEM	DETAIL
Description Expansion	CCS vacant number
Direction	OGT
TERA	Yes
Traffic/Plant Counts	BFMR OMDII7

	OTGCSPERF OUTGCST OUTMDII TGMD1TR TGMD2TR
Description	This MDII is used exclusively for common channel signaling (CCS). This MDII is printed when the Initial Address Message (IAM) for a call is sent and an indication is received from the far office that the specified called party number is vacant. For CCIS6, the indication is receipt of a Vacant National Number message (VNN). For CCS7, the indication is receipt of a Release message (REL) with any of the following causes (the numeric cause values are shown in parentheses). (2) = No route to specified transit network. (3) = No route to destination. (57) = Bearer capability not authorized. (58) = Bearer capability presently not available. (63) = Service/Option not available-unspecified. (65) = Bearer capability not implemented. (70) = Only restricted digital information bearer capability is available. (79) = Service/option not implemented, unspecified. (81) = Invalid call reference value. (88) = Incompatible destination. (95) = Invalid message. An additional requirement must be met for CCS7 trunks. The CVN MDII is only printed in the local network if the failure occurred in the same local network as the network that the office receiving the REL message is in. The failing network is identified by the location code in the CCS7 REL message. If the office receiving the REL message is a local exchange office and the location code in the REL message indicates "local network", then the CVN MDII will be printed. The CVN MDII will not be printed in the local network for any other location code in the REL message. (This condition does not apply to test calls. CVN MDIIs will be printed for test calls that receive a REL with one of the cause values specified above regardless of the location specified in the REL message). Exchanges in the transit network will print the CVN MDII regardless of the location indicated in the REL message. After the CVN MDII is printed, the call is either routed to a vacant code announcement or an indication is returned to the previous office to notify it of the vacant number failure. (The indication will be through a REL message for CCS7 or a VNN message for CCIS6).
Corrective Action	Check the ODD against the far office. Depending on the dialing plan, it may be possible to change the ODD in this office so that the vacant code can be detected here, instead of routing the call to the far-end office and have them detect the vacant number condition.

1.12.26 DDF (MDII Description)

ITEM	DETAIL
Description Expansion	Delay dial, steady off-hook
Direction	OGT

TERA	Yes
Traffic/Plant Counts	OUTGCST OUTMDII OTGCSPERF TGMD1TR TGMD2TR
Description	On a delay-dial-controlled trunk, a time-out occurred while waiting for the far office to return the start dial signal (off-hook/on-hook transition) after the trunk was seized. In this case, a steady off-hook state was returned by the far office for the entire duration of the start signal time-out interval.
Corrective Action	1 Verify the functionality of the trunk hardware (refer to the Corrective Maintenance Procedures manual and any appropriate diagnostic messages in the Input Messages manual). If the hardware is functioning properly, have the far office check its corresponding trunk hardware. 2 Verify the functionality of time slot interchange unit's signal processor hardware (refer to any appropriate diagnostic messages in the Input Messages manual). 3 Check RC/V 5.1 (TRUNK GROUP) attributes TRK CLASS and TRK DIR and View 5.5 (TRUNK MEMBER) attributes OUT START DIAL and IDLE STATE. Verify that the attribute settings are compatible with the far office's interpretation of the trunk's operation (refer to the Recent Change Menu Mode/Text Interface manual). 4 Verify the compatibility of the trunk interface hardware at both offices (refer to the Interface/Compatibility Guide manual). 5 Verify that the timing conditions at both offices are compatible (refer to the Product Specification manual).

1.12.27 DSN (MDII Description)

ITEM	DETAIL
Description Expansion	Delay dial, steady on-hook
Direction	OGT
TERA	Yes
Traffic/Plant Counts	OTGCSPERF OUTGCST OUTMDII TGMD1TR TGMD2TR
Description	On a delay-dial-controlled trunk, a time-out occurred while waiting for the far office to return the start dial signal (on-hook/off-hook transition) after the trunk was seized. In this case, a steady on-hook state was returned by the far office for the entire duration of the start signal time-out interval.
Corrective Action	Refer to the DDF MDII Corrective Action.

1.12.28 E911 (MDII Description)

ITEM	DETAIL
Description Expansion	Emergency 911 trunk call
Direction	ICT
TERA	Yes
Traffic/Plant Counts	TGMDINC INCST INMDII
Description	E911 dedicated trunk call collision occurred for the following condition:

	1 A non-E911 call has attempted to terminate to an E911 dedicated facility. This is the result of the incoming digits translating to an incorrect destination type.
Corrective Action	1 Verify the functionality of the trunk hardware and service circuit used for digit collection (refer to the Corrective Maintenance Procedures manual and any appropriate diagnostic messages in the Input Messages manual). If the hardware is functioning properly, have the far office check its corresponding trunk hardware and associated data. 2 Check RC/V View 5.1 (TRUNK GROUP) and View 5.5 (TRUNK MEMBER) attributes. Verify that the attribute settings are compatible with the far-end's interpretation of the trunk's operation (refer to the Recent Change Menu Mode/Text Interface manual). 3 Verify the far office only directs E911 traffic over the outgoing trunk group.

1.12.29 E9ANF (MDII Description)

ITEM	DETAIL
Description Expansion	E911 automatic number identification failure
Direction	ICT
TERA	No
Traffic/Plant Counts	TGMDINC INCST INMDII
Description	Automatic number identification failure was reported under one or more of the following conditions: 1 During ANI digit collection and analysis for an E911 call, the "I" (information) digit within the ANI digit sequence received from the far-end indicated an identification failure (I = 2 or I = 5) in the originating end office. In this case, operator identification of the calling number was required.
Corrective Action	1 Verify the functionality of the trunk hardware and service circuit used for digit collection (refer to the Corrective Maintenance Procedures manual and any appropriate diagnostic messages in the Input Messages manual). If the hardware is functioning properly, have the far office check its corresponding trunk hardware. 2 Check RC/V View 5.1 (TRUNK GROUP) and View 5.5 (TRUNK MEMBER) attributes. Verify that the attribute settings are compatible with the far office's interpretation of the trunk's operation (refer to the Recent Change Menu Mode/Text Interface manual).

1.12.30 E9ANI (MDII Description)

ITEM	DETAIL
Description Expansion	E911 automatic number identification
Direction	ICT
TERA	No
Traffic/Plant Counts	TGMDINC INCST INMDII
Description	Automatic number identification (ANI) failure detected on an E911 call over a trunk using CAMA-ANI signaling protocol occurred for one of the following conditions:

	1 Too many digits were received. 2 Extra pulse detected. 3 No "I" digit present. 4 Digit count less than 10. Or ANI failure detected on an E911 call over a dedicated E911 (except tandem to tandem) CCS trunk (ISUP signaling) for the following reason(s): - Charge parameter and Calling Party number equal 0.
Corrective Action	1 Verify the functionality of the trunk hardware (refer to the Corrective Maintenance Procedures manual and any appropriate diagnostic messages in the Input Messages manual). If the hardware is functioning properly, have the far office check its corresponding trunk hardware. 2 Check RC/V View 5.1 (TRUNK GROUP) and View 5.5 (TRUNK MEMBER) attributes. Verify that the attribute settings are compatible with the far office's interpretation of the trunk's operation (refer to the Recent Change Menu Mode/Text Interface manual).

1.12.31 E9ATO (MDII Description)

ITEM	DETAIL
Description Expansion	E911 ANI timeout
Direction	ICT
TERA	No
Traffic/Plant Counts	INMDII INCST TGMDINC
Description	For E911 calls over a trunk that uses CAMA-ANI-like signaling protocol, E9ATO MDII occurred for one of the following reasons: 1 Time-out occurred while waiting for an ANI digit during ANI collection. 2 Missing ST.
Corrective Action	1 Verify the functionality of the trunk hardware (refer to the Corrective Maintenance Procedures manual and any appropriate diagnostic messages in the Input Messages manual). If the hardware is functioning properly, have the far office check its corresponding trunk hardware. 2 Verify the functionality of the time slot interchange unit's signal processor hardware (refer to any appropriate diagnostic messages in the Input Messages manual). 3 Check RC/V View 5.1 (TRUNK GROUP) and View 5.5 (TRUNK MEMBER) attributes. Verify that the attribute settings are compatible with the far office's interpretation of the trunk's operation (refer to the Recent Change Menu Mode/Text Interface manual). 4 Verify that the timing conditions at both offices are compatible. The off-hook signal is expected from the far office within 20 seconds after the called digit sequence has been outpulsed.

1.12.32 E9BDN (MDII Description)

ITEM	DETAIL
Description Expansion	E911 bad directory number
Direction	ICT
TERA	No
Traffic/Plant Counts	INCST INMDII TGMDINC
Description	This MDII is reported exclusively for E911 calls received on an incoming dedicated E911 tandem to tandem ISUP7 trunk. This MDII occurs when the directroy number in the called party number (CdPN) parameter of the incoming initial address message (IAM) either is not a 7 or 10 digit number or is a 1 to 3 digit number that does not translate to the correct call destination type of EMER.
Corrective Action	1 Verify that the far-end office is sending the correct number of digits in the CdPN parameter of the IAM. 2 If the CdPN paraameter does contain a 7 or 10 digit directory number, then there is a data problem in RCV View 9.3. The NBR OF DIGITS field in RCV View 9.3 should be set to 7 or 10. 3 If the CdPN parameter contains a 1 to 3 digit directory number, verify that the CALL TYPE field in REV View 9.3 is set to EMER.

1.12.33 E9KPST (MDII Description)

ITEM	DETAIL
Description Expansion	E911 ANF key pulse sent/detected
Direction	ICT
TERA	No
Traffic/Plant Counts	TGMDINC INCST INMDII
Description	Automatic number identification failure - reported under the following condition: 1 An extra key pulse (KP) digit detected. 2 No KP sent.
Corrective Action	1 Verify the functionality of the trunk hardware and service circuit used for digit collection (refer to the Corrective Maintenance Procedures manual and any appropriate diagnostic messages in the Input Messages manual). If the hardware is functioning properly, have the far office check its corresponding trunk hardware and associated data. 2 Check RC/V View 5.1 (TRUNK GROUP) and View 5.5 (TRUNK MEMBER) attributes. Verify that the attribute settings are compatible with the far-end's interpretation of the trunk's operation (refer to the Recent Change Menu Mode/Text Interface manual).

1.12.34 E9MTD (MDII Description)

ITEM	DETAIL
Description Expansion	E911 mutilated digit
Direction	ICT
TERA	No
Traffic/Plant Counts	TGMDINC

	INCST INMDII
Description	Mutilated digit reported under the following condition: 1 For an incoming call over an E911 trunk that uses CAMA-ANI-like address signaling, an invalid tone combination was detected during digit collection.
Corrective Action	1 Verify the functionality of the trunk hardware and service circuit used for digit collection or outpulsing (refer to the Corrective Maintenance Procedures manual and any appropriate diagnostic messages in the Input Messages manual). If the hardware is functioning properly, have the far office check its corresponding trunk hardware. 2 Check RC/V View 5.1 (TRUNK GROUP) and View 5.5 (TRUNK MEMBER) attributes. Verify that the attribute settings are compatible with the far-end's interpretation of the trunk's operation (refer to the Recent Change Menu Mode/Text Interface manual). 3 Verify that the electrical and timing conditions of the associated address signaling type at both offices are compatible (refer to the Product Specification manual).

1.12.35 EXD (MDII Description)

ITEM	DETAIL
Description Expansion	Extra digit
Direction	ICT
TERA	Yes
Traffic/Plant Counts	TGMDINC INCST INMDII
Description	More than the expected number of digits were received from the far office for an incoming call during digit collection.
Corrective Action	1 Verify the operation of the trunk hardware and service circuit used for digit collection (refer to the Corrective Maintenance Procedures manual and any appropriate diagnostic messages in the Input Messages manual). If the hardware is functioning properly, have the far office check its corresponding trunk hardware. 2 Check RC/V View 5.1 (TRUNK GROUP) attribute TRK CLASS. Verify that the attribute setting is compatible with the far office's interpretation of the trunk's operation (refer to the Recent Change Menu Mode/Text Interface manual). 3 Check the translations data in RC/V Views 9.3 [LOCAL DIGIT (OFFICE DIALING)] and 9.5 [INCOMING TRUNK DIGITS (OFFICE DIALING)] for the expected number of incoming digits. Also, check forms 5309 and 5300-3 of the Office Records Manual for the incoming digits. If the incoming digits in the office records match the digits found in the recent change views, then have the far office check its data translations (refer to the Recent Change Menu Mode/Text Interface manual). 4 For incoming equal access signaling at an access tandem this could indicate that the far end office is sending a four digit CIC and the RC/V View 5.1 (TRUNK GROUP) attribute, FGDCICSZ, is provisioned to expect a three digit CIC. Verify that the attribute setting is compatible with the far office's interpretation of the trunk's operation (refer to the Recent Change Menu Mode/Text Interface manual). 5 For MINT trunks, use the T-NSC value, printed in the MDII message, to check the translation data on View 8.54 and View 8.53. Make sure that the proper DAS value is provisioned for the T-NSC (TERM NSC) value.

1.12.36 EXP (MDII Description)

ITEM	DETAIL
Description Expansion	Extra pulse
Direction	ICT
TERA	Yes
Traffic/Plant Counts	TGMDINC INCST INMDII
Description	Extra pulse reported under one of the following conditions: 1 For an incoming call over a trunk that uses dial-pulse address signaling, a series of eleven or more pulses representing a single digit was received from the far office during digit collection. 2 For an incoming call over a trunk that uses revertive-pulse address signaling, an invalid pulse count representing a revertive pulse selection was communicated.
Corrective Action	1 Verify the functionality of the trunk hardware and service circuit used for digit collection (if applicable) (refer to the Corrective Maintenance Procedures manual and any appropriate diagnostic messages in the Input Message DGN, If the hardware is functioning properly, have the far office check its corresponding trunk hardware. 2 If no service circuit (for dial pulsing only) was used, then collection was done by the time slot interchange unit's (TSIU) signal processor (SP). Verify the functionality of the TSIU's SP hardware (refer to any appropriate diagnostic messages in the Input Messages manual). 3 Verify that the timing and electrical conditions for dial pulsing or revertive pulsing are compatible at both offices (refer to the Product Specification manual).

1.12.37 FCA (MDII Description)

ITEM	DETAIL
Description Expansion	Final closure abandon
Direction	ICT
TERA	Yes
Traffic/Plant Counts	TGMDINC INCST INMDII
Description	Final closure abandon reported for an incoming call over a revertive pulsing trunk due to a handshake failure during digit collection. An expected final closure signal was not received from the far office after normal battery was returned to the far office. This failure may occur after all revertive pulse selections have been communicated.
Corrective Action	Refer to the ABF MDII Corrective Action.

1.12.38 FKP (MDII Description)

ITEM	DETAIL
Description Expansion	False key pulse
Direction	ICT
TERA	Yes

Traffic/Plant Counts	TGMDINC INCST INMDII
Description	Receipt of a false key pulse digit reported during digit collection under one of the following conditions: 1 For an incoming call over an intermediate switch point trunk, a direct international originations trunk, or a CCS trunk (during the second stage of a traditional two-stage international outbound call), a KP digit was received when another KP digit was previously received within the same sequence of digits. 2 For the incoming calls not mentioned above, either two KP digits were received where the KP digits were not the first two digits in the sequence, or three KP digits were received within the same sequence of digits.
Corrective Action	1 Verify the functionality of the trunk hardware and service circuit used for digit collection (refer to the Corrective Maintenance Procedures manual and any appropriate diagnostic messages Input Messages manual). If the hardware is functioning properly, have the far office check its corresponding trunk hardware. 2 Check RC/V View 5.1 (TRUNK GROUP) attributes TRK CLASS and INPLS. Verify that the attribute settings are compatible with the far office's interpretation of the trunk's operation (refer to the Recent Change Menu Mode/Text Interface manual). 3 Verify that the electrical and timing conditions associated with MF address signaling are compatible at both offices (refer to the Product Specification manual).

1.12.39 FSA (MDII Description)

ITEM	DETAIL
Description Expansion	False start abandon
Direction	ICT
Traffic/Plant Counts	TGMDINC INMDII
Description	False start abandon.

1.12.40 HGBAF (MDII Description)

ITEM	DETAIL
Description Expansion	Hardware group blocking acknowledgment failure
Direction	ICT, OGT
TERA	No
Traffic/Plant Counts	DEACTOT INCDMII INMDII TGMD1TR TGMD2TR
Description	This MDII is used exclusively for common channel signaling (CCS). This MDII occurs when a hardware group blocking (HGB) is sent for a collection of consecutive CIC ISUP trunk and the far-end office has not responded with a hardware group blocking acknowledge (HBA) message. HBA reception indicates that the far-end office has blocked the trunks and inhibited call originations. The detailed scenario is a carrier group alarm (CGA) has occurred for a carrier of ISUP trunks which causes all trunks assigned to the carrier to be taken out-of-service by adding the OOS,MTCE,FAF,-,AUTO status. This status transition stimulates a HGB message sent to the far-end office. The HGB message is sent every 4-15 seconds

	based on office parameter GLBO RSND for 1 minute if no HBA message is received. At this point the HGBAF MDII is printed and no more HGB messages are sent. For this MDII, only the measurement counts for TOTAL OUTGOING MDIIs and TOTAL TERA DEACTIVATIONS of PART5 (1 of x) and OUTGOING of PART24 of PLNT 24 report will be pegged.
Corrective Action	1 If there is signaling failure, then some portion of the CCS network between the two offices had a failure that did not allow the HGB to reach the far-end office. It is possible that the HGB did reach the far-end office, but the HBA message sent back did not reach the originating office. If there is a signaling failure, several other CCS related MDIIs may also be firing, that is, ATO, CAF, BAF, etc. or unequipped trunks. 2 If the HGBAF MDII occurs infrequently, then it is likely that the far-end trunk is in a transient state that does not allow HGB reception, that is, initialization and audits. If this occurs there is no corrective action required. The situation should be self-correcting. The first call attempt from the far-end office (reception of an IAM) will be answered with a BLO message. The BLO message will block the far-end trunk.

1.12.41 HGUAF (MDII Description)

ITEM	DETAIL
Description Expansion	Hardware group unblocking acknowledgment failure
Direction	ICT, OGT
TERA	No
Traffic/Plant Counts	DEACTOT TGMDINC INMDII OUTMDII TGMD1TR TGMD2TR
Description	This MDII is used exclusively for common channel signaling (CCS). This MDII occurs when a hardware group unblocking (HGU) message is sent for a collection of consecutive CIC ISUP trunk and the far-end office has not responded with a hardware group unblocking acknowledge (HUA) message. HUA reception indicates that the far-end office unblocked the trunks and allowed call originations. The detailed scenario is a carrier group alarm (CGA) has been retired for a carrier of ISUP trunks which causes all trunks assigned to the carrier to be placed back in service by removing the OOS,MTCE,FAF,-,AUTO status. This status transition stimulates a HGU message to be sent to the far-end office. The HGU message is sent every 4-15 seconds based on office parameter GUBL RSND for 1 min without receiving a HUA message. At this point the HGUAF MDII is printed and no more HGU messages are sent. For this MDII, only the measurement counts for TOTAL OUTGOING MDIIs and TOTAL TERA DEACTIVATIONS of PART5 (1 of x) and OUTGOING of PART24 of PLNT 24 report will be pegged.
Corrective Action	1 The problem may be from one or more of the following sources: signaling failure or abnormal configuration at the far-end office. 2 If there is signaling failure, then some portion of the CCS network between the two offices has a failure that did not allow the HGU to reach the far-end office. It is possible that the HGU did reach the far-end office, but the HUA message sent back did not reach the originating office. If there is a signaling failure, several other CCS related MDIIs will also be firing, that is, ATO, CAF, etc. 3 If the HGUAF MDII occurs infrequently, then it is likely that the far-end trunk is in a transient state

	that does not allow HGU reception, that is, initialization and audits. If this occurs there is no corrective action required. The situation should be self-correcting. The first time the near-end office uses the trunk for a call (sends an IAM), the far-end office will unblock its trunk and allow the call.

1.12.42 IAD (MDII Description)

ITEM	DETAIL
Description Expansion	Incomplete address detected
Direction	ICT
TERA	Yes
Traffic/Plant Counts	IMDII7 TGMDINC INCST INMDII
Description	This MDII is used exclusively for common channel signaling (CCS). This MDII occurs when an initial address message (IAM) is received containing not enough digits to continue the call. For CCIS6 calls, the IAM does not contain enough digits and the far office indicated that no more addressing information will be sent. For ISUP calls, the IAM does not contain the expected number of digits. For CCIS6 calls, an address incomplete message is sent to the far-end office and the trunk is idled. For ISUP calls, a release (REL) message is with a cause value of 28 is generated rather than the address complete (ACM) message and the trunk is idled.
Corrective Action	Check the office dialing ODD against the far office dialing ODD. This MDII indicates an inconsistency. For MINT trunks, use the T-NSC value, printed in the MDII message, to check the translation data on View 8.54 and View 8.53. Make sure that the proper DAS value is provisioned for the T-NSC (TERM NSC) value.

1.12.43 IAM (MDII Description)

ITEM	DETAIL
Description Expansion	Initial address message timeout
Direction	ICT
TERA	No
Traffic/Plant Counts	TGMDINC INCST INMDII TMPFAIL
Description	This MDII is used exclusively for integrated ISUP. This MDII occurs during an ISUP network interconnect (NI) incoming call. The ISUP NI incoming call has received a circuit reservation message (CRM) and timed out at the originating toll office (OTO) while waiting for an initial address message (IAM). A release (REL) message with a cause of 41 is sent to the far-end office and the trunk is idled. For a Toll office to obtain required counts of the expiration of Tiam on an ISUP7 trunk group, use RC view 14.8 to add each LATA trunk group, that connects to a local exchange carrier, to the trunk error analysis study group. Up to 20 trunk groups can be entered on RC/V View 14.8 (TRUNK ERROR ANALYSIS). The existence of a trunk group on this screen will enable counts of MDII's that occur on the trunk group. Observe the required count on the 24 hour measurement report, part 5 (TERA report).
Corrective Action	The problem may be from one or more of the following sources: signaling failure, or abnormal configuration at the far-end office. If there is signaling failure, then some portion of the CCS network between the two offices has a failure that did not allow the CRA to reach the far-end office. It is possible that the CRA did reach the far-end office, but the IAM message sent back did not reach the originating office. If there is a signaling failure,

	several other CCS related MDIIs will also be firing, that is, BAF, CAF, etc. If the IAM MDII occurs infrequently, then it is likely that the far-end trunk is in a transient state that does not allow CRA reception, that is, initialization and audits. If this occurs there is no corrective action required. The situation should be self-correcting. However, if the trunks continue to fail call setup, then contact the far-end office.

1.12.44 ICA (MDII Description)

ITEM	DETAIL
Description Expansion	Incoming advance
Direction	ICT, OGT
TERA	Yes
Traffic/Plant Counts	TGMDINC INCST INMDII OTGCSPERF OUTGCST OUTMDII TGMD1TR TGMD2TR
Description	Incoming advance reported for a revertive pulsing trunk under one of the following conditions: 1 Incoming call incoming advance sequence handshake failure - after all selections were communicated, a handshake failure occurred during the incoming advance signaling sequence (a reverse-battery condition is returned to the far office to initiate the incoming advance signaling sequence). 2 Outgoing call incoming advance sequence handshake failure - after all selections were communicated, an expected reverse-battery condition was not received from the far office to initiate the incoming advance signaling sequence, or a handshake failure occurred during the incoming advance signaling sequence.
Corrective Action	Refer to the ABF MDII Corrective Action.

1.12.45 IDIG (MDII Description)

ITEM	DETAIL
Description Expansion	Invalid digit
Direction	ICT
TERA	Yes
Traffic/ Plant Counts	TGMDINC INCST INMDII
Description	Invalid digit - For an incoming OSPS call, an invalid digit was encountered during digit collection.
Corrective Action	1 Verify the functionality of the trunk hardware and service circuit used for digit collection (refer to the Corrective Maintenance Procedures manual). and any appropriate diagnostic messages in the Input Messages manual). If the hardware is functioning properly, have the far office check its corresponding trunk hardware. 2 Check RC/V View 8.9 (OSPS OFFICE MISC. & ALARM) attribute BELLCORE ANI. Verify that the attribute setting is compatible with the far office's interpretation of the trunk's operation (refer to the Recent Change Menu Mode/Text Interface manual).

1.12.46 KPST (MDII Description)

ITEM	DETAIL
Description Expansion	Key pulse start
Direction	ICT
TERA	No
Traffic/Plant Counts	TGMDINC INCST INMDII
Description	Automatic number identification failure reported under the following condition: 1 During ANI digit collection over a trunk with TRKCLASS of LATA (LATA connecting) that uses equal access (EA) signaling and where ANI is requested, a null ANI sequence was received. The null ANI sequence is indicated by: a A KP digit immediately followed by a ST digit.
Corrective Action	1 Verify the functionality of the trunk hardware and service circuit used for digit collection (refer to the Corrective Maintenance Procedures manual and any appropriate diagnostic messages in the Input Messages manual). If the hardware is functioning properly, have the far office check its corresponding trunk hardware and associated data. 2 Check RC/V View 5.1 (TRUNK GROUP) attributes TRK CLASS, BLK NO ANI, and View 5.5 attribute ANI. Verify that the attribute settings are compatible with the far-end's interpretation of the trunk's operation (refer to the Recent Change Menu Mode/Text Interface manual).

1.12.47 MCA (MDII Description)

ITEM	DETAIL
Description Expansion	Misrouted CAMA
Direction	ICT, OGT
TERA	Yes
Traffic/Plant Counts	CMONIIA TGMDINC INMDII OUTMDII TGMD1TR TGMD2TR
Description	Misrouted CAMA reported for incoming CAMA tandem calls under one of the following conditions: 1 For a dialed sequence digit count of seven, the office code in the dialed digit sequence was equal to the office code of the originating local end office. 2 For a dialed sequence digit count of ten, the numbering plan area (NPA) code and the office code in the dialed digit sequence was equal to the NPA code and office code of the originating local end office. In both cases, the call could have been routed within the local end office.
Corrective Action	1 Check RC/V View 5.1 (TRUNK GROUP) attribute TRK CLASS. Verify that the attribute setting is compatible with the far office's interpretation of the trunk's operation (refer to the Recent Change Menu Mode/Text Interface manual).

	2 Check the translations data in RC/V Views 9.3 [LOCAL DIGIT (OFFICE DIALING)] and 9.5 [INCOMING TRUNK DIGITS (OFFICE DIALING)] for the expected incoming digits. Also, check forms 5309 and 5300-3 of the Office Records Manual for the incoming digits. If the incoming digits in the office records match the digits found in the recent change views, then have the far office check its data translations (refer to the Recent Change Menu Mode/Text Interface manual). 3 Check ODD FCCAVCTK tuple and verify that the office and NPA code attributes for the originating local end office are correct (refer to the Data Translations manual).

1.12.48 MGBAF (MDII Description)

ITEM	DETAIL
Description Expansion	Maintenance group blocking acknowledgment failure
Direction	ICT, OGT
TERA	No
Traffic/Plant Counts	DEACTOT TGMDINC INMDII OUTMDII TGMD1TR TGMD2TR
Description	This MDII is used exclusively for common channel signaling (CCS). This MDII occurs when a maintenance group blocking (MGB) message is sent for a collection of consecutive CIC ISUP trunk and the far-end office has not responded with a maintenance group blocking acknowledge (MBA) message. Reception of the MBA message indicates that the far-end office has blocked the trunks and inhibited call originations. The detailed scenario is a collection of consecutive CIC ISUP trunk have been removed from service at approximately the same time causing each trunk status to be changed by adding the OOS,MTCE,FE,-, OOS,MTCE,DSBLD,- or OOS,MTCE,LKDO,- statuses. These status transition stimulates a MGB message to be sent to the far-end office. This MGB message has been sent every 4-15 seconds based on office parameter GBLO RSND for 1 minute without receiving a MBA message. At this point the MGBAF MDII is printed and no more MGB messages are sent. For this MDII, only the measurement counts for TOTAL OUTGOING MDIIs and TOTAL TERA DEACTIVATIONS of PART5 (1 of x) and OUTGOING of PART24 of PLNT 24 report will be pegged.
Corrective Action	The problem may be from one or more of the following sources: signaling failure or abnormal configuration at the far-end office. 1 If there is signaling failure, then some portion of the CCS network between the two offices has a failure that did not allow the MGB to reach the far-end office. It is possible that the MGB did reach the far-end office, but the MBA message sent back did not reach the originating office. If there is a signaling failure, several other CCS related MDIIs will also be firing, that is, ATO, CAF, etc. 2 If the MGBAF MDII occurs infrequently, then it likely that the far-end trunk is in a transient state that does not allow MGB reception, that is, initialization and audits. If this occurs there is no corrective action required. The situation should be self-correcting. The first call attempt from the far-end office (reception of an IAM) will be answered with a BLO message. This will block the far-end trunk.

1.12.49 MGUAF (MDII Description)

ITEM	DETAIL
Description	Maintenance group unblocking acknowledgment failure

Expansion	
Direction	ICT, OGT
TERA	No
Traffic/Plant Counts	DEACTOT TGMDINC INMDII OUTMDII TGMD1TR TGMD2TR
Description	This MDII is used exclusively for common channel signaling (CCS). This MDII occurs when a maintenance group unblocking (MGU) message is sent for a collection of consecutive CIC ISUP trunk and the far-end office has not responded with a maintenance group unblocking acknowledge (MUA) message. Reception of MUA indicates that the far-end office unblocked the trunks and allowed call originations. The detailed scenario is a collection of consecutive CIC ISUP trunk have been restored to service at approximately the same time causing each trunk to be placed back in service by removing the OOS,MTCE,FE-, OOS,MTCE,DSBLD-, or OOS,MTCE,LKDO,- status. These status transitions stimulate a MGU message to be sent to the far-end office. This MGU message has been sent every 4-15 seconds based on office parameter GUBL RSND for 1 minute without receiving a MUA message. At this point the MGUAF MDII is printed and no more MGU messages are sent. For this MDII, only the measurement counts for TOTAL OUTGOING MDIIs and TOTAL TERA DEACTIVATIONS of PART5 (1 of x) and OUTGOING of PART24 of PLNT 24 report will be pegged.
Corrective Action	The problem may be from one or more of the following sources: signaling failure or abnormal configuration at the far-end office. 1 If there is signaling failure, then some portion of the CCS network between the two offices has a failure that did not allow the MGU to reach the far-end office. It is possible that the MGU did reach the far-end office, but the MUA message sent back did not reach the originating office. If there is a signaling failure, several other CCS related MDIIs will also be firing, that is, ATO, CAF, etc. 2 If the MGUAF MDII occurs infrequently, then it is likely that the far-end trunk is in a transient state that does not allow MGU reception, that is, initialization and audits. If this occurs there is no corrective action required. The situation should be self-correcting. The first time the near-end office uses the trunk for a call (sends an IAM), the far-end office will unblock its trunk and allow the call.

1.12.50 MPS (MDII Description)

ITEM	DETAIL
Description Expansion	Misplaced start pulse
Direction	ICT
TERA	Yes
Traffic/Plant Counts	TGMDINC INCST INMDII
Description	For an incoming call during the collection of a digit sequence, a start pulse (ST digit) was received from the far office before the expected number of digits were collected. The ST digit indicates the end of the digit sequence.
Corrective Action	1 Verify the functionality of the trunk hardware and service circuit used for digit collection (refer to the Corrective Maintenance Procedures manual and any appropriate diagnostic messages in the Input Messages manual). If the hardware is functioning properly, have the far office check its corresponding trunk hardware.

	2 Check RC/V View 5.1 (TRUNK GROUP) attribute TRK CLASS. Verify that the attribute setting is compatible with the far office's interpretation of the trunk's operation (refer to the Recent Change Menu Mode/Text Interface manual). 3 Check the translations data in RC/V Views 9.3 [LOCAL DIGIT (OFFICE DIALING)] and 9.5 [INCOMING TRUNK DIGITS (OFFICE DIALING)] for the expected number of incoming digits. Also, check forms 5309 and 5300-3 of the Office Records Manual for the incoming digits. If the incoming digits in the office records match the digits found in the recent change views, then have the far office check its data translations (refer to the Recent Change Menu Mode/Text Interface manual).

1.12.51 MRF (MDII Description)

ITEM	DETAIL
Description Expansion	Message refusal
Direction	OGT
TERA	Yes
Traffic/Plant Counts	OTGCSPERF OUTGCST OUTMDII TGMD1TR TGMD2TR
Description	This MDII is used exclusively for common channel signaling (CCS). The message refusal was received during a CCS outgoing call. This signal is sent by a signal transfer point in response to the reception of an initial address message or reset trunk signal. The MRF message indicates the STP is unable to send the message further in the CCS network due to a transfer-prohibited situation or a congested signaling link.
Corrective Action	None. This failure is occurring outside the switch in the CCS network.

1.12.52 MTD (MDII Description)

ITEM	DETAIL
Description Expansion	Mutilated digit
Direction	ICT, OGT
TERA	Yes
Traffic/Plant Counts	TGMDINC INCST INMDII OUTGCST OUTMDII TGMD1TR TGMD2TR
Description	Mutilated digit reported under one of the following conditions: 1 For an incoming call over a trunk that uses DTMF or MF address signaling, an invalid tone combination was detected during digit collection. 2 For an outgoing call over a revertive pulsing trunk, an invalid pulse width was detected during outpulsing.
Corrective Action	1 Verify the functionality of the trunk hardware and service circuit used for digit collection or outpulsing (refer to the Corrective Maintenance Procedures manual and any appropriate diagnostic messages in the Input Messages manual). If the hardware is functioning properly, have the far office check its corresponding trunk hardware.

	2 Check RC/V View 5.1 (TRUNK GROUP) attribute INPLS. Verify that the attribute settings are compatible with the far office's interpretation of the trunk's operation (refer to the Recent Change Menu Mode/Text Interface manual). 3 Verify that the electrical and timing conditions of the associated address signaling type at both offices are compatible (refer to the Product Specification manual).

1.12.53 NACK (MDII Description)

ITEM	DETAIL
Description Expansion	No acknowledgment
Direction	OGT
TERA	Yes
Traffic/Plant Counts	OTGCSPERF OUTGCST OUTMDII TGMD1TR TGMD2TR
Description	No acknowledgment reported under one of the following conditions: 1 For a call over a trunk to an external audio response unit (ARU), a time-out occurred while waiting for an ACK (off-hook) signal to be returned from the ARU. The ACK signal is expected after the trunk is seized and an off-hook signal sent to the ARU. 2 For a call over a FX ground start (FX GS) trunk, no ground (off-hook) signal was returned from the far office after the trunk was seized.
Corrective Action	1 Verify the functionality of the trunk hardware (refer to the Corrective Maintenance Procedures manual and any appropriate diagnostic messages in the Input Messages manual). If the hardware is functioning properly, have the far office check its corresponding trunk hardware. 2 Verify the functionality of the time slot interchange unit's signal processor hardware (refer to any appropriate diagnostic messages in the Input Messages manual). 3 Check RC/V View 5.1 (TRUNK GROUP) attributes TRK CLASS and View 5.5 (TRUNK MEMBER) attributes IDLE STATE and OUT START DIAL. Verify that the attribute settings are compatible with the far office's interpretation of the trunk's operation (refer to the Recent Change Menu Mode/Text Interface manual). 4 Verify the compatibility of the trunk interface hardware at both offices (refer to the Interface/Compatibility Guide manual). 5 Verify that the timing conditions at both offices are compatible. For the connection to an external ARU, the maximum wait time for the ACK signal from the ARU is 5 seconds. For FX GS trunks, there is a delay of 1500 ms between trunk seizure and the check for the ground start signal.

1.12.54 NKP (MDII Description)

ITEM	DETAIL
Description Expansion	No key pulse.
Direction	ICT

TERA	Yes
Traffic/Plant Counts	TGMDINC INCST INMDII
Description	No key pulse digit received reported under one of the following conditions: 1 For an incoming call over a CAMA trunk, a time-out occurred while waiting for the KP digit during the collection of the ANI digit sequence. This time-out occurs if the KP digit is not received within 10.5 seconds after the off-hook signal (used to request the ANI digit sequence) is sent to the far office. 2 For an incoming call over an intermediate switch point trunk or a direct international originations trunk, a time-out occurred while waiting for the KP digit during the collection of the ANI digit sequence. This time-out occurs if the KP digit is not received within 16 seconds after the off-hook signal is sent to the far office. 3 During the collection of a digit sequence, a ST digit was received when no KP digit was previously received.
Corrective Action	Refer to the FKP MDII Corrective Action.

1.12.55 NOANI (MDII Description)

ITEM	DETAIL
Description Expansion	No ANI received
Direction	ICT
TERA	No
Traffic/Plant Counts	TGMDINC INCST INMDII
Description	Automatic number identification failure reported under the following condition: 1 During ANI digit collection over a trunk with TRKCLASS of LATA (LATA connecting) that uses equal access (EA) signaling and where ANI is requested, no ANI sequence at all was received. That is, KP + dialed digits + ST was not preceded by KP + II + ANI + ST.
Corrective Action	1 Verify the functionality of the trunk hardware and service circuit used for digit collection (refer to the Corrective Maintenance Procedures manual and any appropriate diagnostic messages in the Input Messages manual). If the hardware is functioning properly, have the far office check its corresponding trunk hardware and associated data. 2 Check the RLFCEAINFO ODD tuples for the correct data (refer to the Data Translations manual).

1.12.56 NXS (MDII Description)

ITEM	DETAIL
Description Expansion	No expected stop
Direction	OGT
TERA	No
Traffic/Plant Counts	OTGCSPERF OTGCSPERF OUTMDII TGMD1TR TGMD2TR

Description	No expected stop.

1.12.57 OEAS (MDII Description)

ITEM	DETAIL
Description Expansion	OSPS equal access signaling
Direction	ICT
TERA	Yes
Traffic/Plant Counts	INCST INMDII TGMDINC
Description	The call has been routed to an OSPS using equal access signaling, but the carrier specified through the signaling cannot handle the call. This means that either the local office incorrectly signaled the call or there is a data problem in the OSPS office.
Corrective Action	1 Make sure that the local office is signaling the call correctly (that is, INTER-LATA). 2 If the call is being signaled correctly then there is a data problem in RC/V View 9.3 (LDIT). Either the TYPE CI CALL is not set to INTER or the LATA NUM is set to a value which does not produce an INTER-LATA call. The LATA NUM value could only potentially be the source of the problem if LATA mapping is being used.

1.12.58 ONOA (MDII Description)

ITEM	DETAIL
Description Expansion	OSPS nature of address
Direction	ICT
TERA	Yes
Traffic/Plant Counts	TGMDINC INCST INMDII
Description	Nature of address signaling error reported under one or more of the following conditions: A An OSPS SS7 signaled call was signaled with a called Party number parameter with a nature of address coding of "no number present operator requested", but ten address digits were received in the called party number parameter. This call should have been signaled with a nature of address coding of "national number operator requested". B An OSPS SS7 Signaled call was signaled with a called party number parameter with a nature of address coding of "no number present operator requested", "subscriber number operator requested", "national number operator requested", or "international number operator requested" but digit analysis identified the call as inward. Inward calls should never be signaled with the above nature of address coding.
Corrective Action	Contact the originating *4ESS*® toll office and inform them of the signaling error.

1.12.59 OSI (MDII Description)

ITEM	DETAIL
Description Expansion	Operator services information
Direction	ICT
TERA	Yes
Traffic/Plant Counts	TGMDINC

	INCST INMDII
Description	An OSPS SS7 signaled call was received with an operator services information parameter access indicator coding which indicated a 1/011 prefix was dialed, but the called party number parameter did not contain any address digits.
Corrective Action	Contact the originating *4ESS*® toll office and inform them of the signaling error.

1.12.60 PAT (MDII Description)

ITEM	DETAIL
Description Expansion	Position attached signal timeout
Direction	ICT, OGT
TERA	Yes
Traffic/Plant Counts	CMONIIA TGMDINC INMDII OUTMDII TGMD1TR TGMD2TR
Description	PAT may occur over a centralized automated message accounting (CAMA) operator keying/talking trunk pair where the operator number identification (ONI) function is used to collect the calling digit sequence for billing purposes. In this case, a time-out occurred while waiting for a position attached signal (PAS) (off-hook) from the far office over the talking trunk after a sender attached signal (SAS) (off-hook) was sent to the far office over the keying trunk.
Corrective Action	1 Verify the functionality of the trunk hardware (refer to the Corrective Maintenance Procedures manual and any appropriate diagnostic messages in the Input Messages manual). If the hardware is functioning properly, have the far office check its corresponding trunk hardware. Verify the functionality of the time slot interchange unit's signal processor hardware (refer to any appropriate diagnostic messages in the Input Messages manual). 2 Check the RLKEY_TALK ODD tuple for the operator keying/talking trunk pair. Verify that this pair matches the pair recognized at the far office (refer to the Data Translations manual). 4 Check RC/V View 5.1 (TRUNK GROUP) attribute TRK CLASS. Verify that the attribute setting is compatible with the far office's interpretation of the trunk's operation (refer to the Recent Change Menu Mode/Text Interface manual). 5 Verify that the timing conditions at both offices are compatible. The PAS is expected from the far office within 30 seconds after the SAS is sent to the far office. 6 Verify the compatibility of the trunk interface hardware at both offices (refer to the Interface/Compatibility Guide manual).

1.12.61 PDA (MDII Description)

ITEM	DETAIL
Description Expansion	Partial dial abandon
Direction	ICT, OGT
TERA	Yes
Traffic/Plant Counts	TGMDINC INCST INMDII

	TGMD1TR TGMD2TR
Description	Partial dial abandon.

1.12.62 PDT (MDII Description)

ITEM	DETAIL
Description Expansion	Partial dial timeout
Direction	ICT
TERA	Yes
Traffic/Plant Counts	INCST INMDII TGMDPDT
Description	Partial dial time-out reported during digit collection and analysis under one or more of the following conditions: 1 A time-out occurred while waiting for the next digit of a digit sequence where at least one valid digit had already been collected. 2 An unexpected digit was received from the far office. 3 Translation of the digit sequence determined that the number of digits received was invalid. 4 For MF address signaling, an unexpected "null" sequence (KP + ST) was received. 5 For revertive pulsing trunks: a A telltale condition was detected indicating that the call was abandoned at the far office. b After the far office sent a stop pulsing signal indicating the end of a digit selection, a time-out occurred while waiting for the far office to send a start pulsing signal indicating the start of the next digit selection.
Corrective Action	1 Verify the operation of the trunk hardware and service circuit used for digit collection (refer to the Corrective Maintenance Procedures manual and any appropriate diagnostic messages in the Input Messages manual). If the hardware is functioning properly, have the far office check its corresponding trunk hardware. 2 Check RC/V View 5.1 (TRUNK GROUP) attribute TRK CLASS. Verify that the attribute setting is compatible with the far office's interpretation of the trunk's operation (refer to the Recent Change Menu Mode/Text Interface manual). 3 Verify that the timing conditions at both offices are compatible (refer to the Product Specification manual). a Check the partial dial timing values in RC/V View 8.5 [TIMING (MISCELLANEOUS)] (refer to the Recent Change Menu Mode/Text Interface manual). b For CAMA incoming trunks, collection of the ANI digit sequence must be done within 10.5 seconds after the ANI request (off-hook) is sent to the far office. c Check the translations data in RC/V Views 9.3 [LOCAL DIGIT (OFFICE

	DIALING)] and 9.5 [INCOMING TRUNK DIGITS (OFFICE DIALING)] for the expected number of incoming digits. Also, check forms 5309 and 5300-3 of the Office Records Manual for the incoming digits. If the incoming digits in the office records match the digits found in the recent change views, then have the far office check its data translations (refer to the Recent Change Menu Mode/Text Interface manual). d For incoming equal access signaling at an access tandem this could indicate that the far end office is sending a three digit CIC and the RC/V View 5.1 (TRUNK GROUP) attribute, FGDCICSZ, is provisioned to expect a four digit CIC. Verify that the attribute setting is compatible with the far office's interpretation of the trunk's operation (refer to the Recent Change Menu Mode/Text Interface manual).

1.12.63 PFR (MDII Description)

ITEM	DETAIL
Description Expansion	Polarity failure
Direction	OGT
TERA	Yes
Traffic/Plant Counts	OUTGCPERF OUTGCST OUTMDII TGMD1TR TGMD2TR
Description	Polarity failure reported for outgoing revertive pulsing trunks under one of the following conditions: 1 Trunk guard test failure - after the trunk circuit was seized, a trunk guard test was performed prior to sending the connect signal to the far office to check for an idle (on-hook) state. Following expiration of the trunk guard time interval, an on-hook supervisory state was not seen from the far office. 2 During outpulsing, an unexpected battery-reversal was seen from the far end. The battery reversal is detected by the revertive pulsing transceiver after it has been set up for outpulsing and indicates that an invalid selection was received or some other trouble condition occurred at the far office. When using a TM ACJACK port during a trunk guard test prior to terminal maintenance tests the trunk processing state was found to be incorrect. Valid states are: PCRPTBY = "idle state" PCNOSUPV = "cpe idle state" PCIGNORE = "OOS state" PCBYTM = "transient state" PCBYBL = "transient state" Any other encountered states would be deemed a PFR.
Corrective Action	1 Verify the functionality of the trunk hardware and revertive pulsing transceiver (if applicable) (refer to the Corrective Maintenance Procedures manual and any appropriate diagnostic messages in the Input Messages manual). If the hardware is functioning properly, have the far office check its corresponding

	trunk hardware. 2 Check RC/V View 5.1 (TRUNK GROUP) attribute TRK CLASS and TRK DIR, and View 5.5 (TRUNK MEMBER) attributes SUPV and IDLE STATE. Verify that the attribute settings are compatible with the far office's interpretation of the trunk's operation (refer to the Recent Change Menu Mode/Text Interface manual). 3 Verify the compatibility of the trunk interface hardware at both offices (refer to the Interface/Compatibility Guide manual). 4 Verify that the guard timing conditions at both offices are compatible. A guard time interval (required time between trunk seizures) of 300 ms is implemented for the revertive pulsing trunks. 5 Check port definition as defined in office-dependent data (ODD). 6 Check status of port (refer to any appropriate diagnostics in the Input Messages manual). 7 To restore out-of-service (OOS) port to in-service (IS) (refer to the Input Messages manual for execution of RST operation).

1.12.64 PST (MDII Description)

ITEM	DETAIL
Description Expansion	Permanent signal timeout
Direction	ICT, OGT
TERA	Yes
Traffic/Plant Counts	TGMDINC INCST INMDII OUTGCPERF OUTGCST OUTMDII TGMD1TR TGMD2TR
Description	PST is reported under one of the following conditions: 1 For an incoming call during digit collection, a time-out occurred while waiting for the first digit of a digit sequence from the far office after a start signal was sent to the far office. 2 For an outgoing call over a revertive pulsing trunk during outpulsing, a time-out occurred while waiting for the far office to send the revertive pulses after a start pulsing signal (loop closed) was sent to the far office, or the far office stopped pulsing before all selections were transmitted to the far office.
Corrective Action	1 Verify the functionality of the trunk hardware and service circuit used for digit collection or outpulsing (refer to the Corrective Maintenance Procedures manual and any appropriate diagnostic messages in the Input Messages manual). If the hardware is functioning properly, have the far office check its corresponding trunk hardware. 2 Check RC/V View 5.1 (TRUNK GROUP) attributes TRK CLASS, INPLS, and OUTPLS, and View 5.5 (TRUNK MEMBER) attributes IN START DIAL and ANI. Verify that the attribute settings are compatible with the far office's operation for the trunk in question (refer to the Recent Change Menu Mode/Text Interface manual). 3 Verify that the permanent signal timing conditions at both offices are compatible.

	a Check the permanent signal timing values in RC/V View 8.5 [TIMING (MISCELLANEOUS)] (refer to the Recent Change Menu Mode/Text Interface manual). b For a traditional two-stage international outbound call, check global parameter Gl2spst. This parameter contains the permanent signal timing value for the collection of the digit sequence of the second stage (refer to the Data Translations manual). c For an incoming intermediate switch point trunk, check the ODD relation RLFC_OPRTK tuple's attribute "mfj_sig" and verify that this setting is compatible with the far office. If this attribute indicates that the far office is a conforming end office, then a permanent signal timing value of 6 seconds is used for the collection of the ANI digit sequence (refer to the Data Translations manual). 235-600-10X).

1.12.65 RLG (MDII Description)

ITEM	DETAIL
Description Expansion	Release guard timeout
Direction	OGT
TERA	Yes
Traffic/Plant Counts	OTGCSPERF OUTGCST OUTMDII RELRE TGMD1TR TGMD2TR
Description	This MDII is used exclusively for common channel signaling system 6(CCIS6). This MDII occurs during an outgoing CCIS6 when glare has occurred at the noncontrol office. A clear forward (CLF) message was sent and the call timed-out while waiting for the release guard (RLG) message. The outgoing trunk will be idled and the call will be retried.
Corrective Action	The problem may be from one or more of the following sources: signaling failure, or, abnormal configuration at the far-end office. If there is signaling failure, then some portion of the CCS network between the two offices has a failure that did not allow the CLF to reach the far-end office. It is possible that the CLF did reach the far-end office, but the RLG message sent back did not reach the originating office. If there is a signaling failure, several other CCS related MDIIs will also be firing, that is, BAF, CAF, etc. If the RLG MDII occurs infrequently, then it is likely that the far-end trunk is in a transient state that does not allow CLF reception, that is, initialization and audits. If this occurs there is no corrective action required. The situation should be self-correcting. However, if the MDII continue print, then contact the far-end office.

1.12.66 RST (MDII Description)

ITEM	DETAIL
Description Expansion	Reset received
Direction	OGT
TERA	Yes
Traffic/Plant Counts	OMDII7

	OTGCSPERF OUTGCST OUTMDII TGMD1TR TGMD2TR
Description	This MDII is used exclusively for common channel signaling (CCS). The RST MDII occurs during an outgoing CCS call when a reset (RSC) message or a group reset message is received where any of the range of channels indicated in the GRS is part of a DS0 or wideband call indicating the far-end of the trunk or range of far-end trunk members is out of synchronization and is forcing a re-initialization of the trunk. This loss of synchronization can be caused by SM initialization, unexpected message reception, manual trunk removal, automatic fault recovery or lack of tone transceiver. If a GRS's range of channels includes channels of several calls, a RST MDII will be printed for each call. For CCIS6 and ISUP the RST message will be passed along. In the set-up stage of the call, the trunk is idled and a retry on another trunk is attempted. In post set-up stage of the call, the call is torn down. The RST MDII is reported when a reset message is received that aborts an outgoing call. If a reset message is received that does not cause a call to be aborted, then a RST MDII will not be reported. For ISUP the "TRIAL" field of the RST MDII indicates the post setup state of the call when the called/billing number cannot be displayed: A value of "3" indicates the "Waiting for Answer" state. A value of "4" indicates the "Talking" state. When associated with a wideband call, a RST MDII fires because a reset circuit was received affecting one of the channels of a wideband call or group reset was received and at least one of the channels identified in the range of channels in the group reset was involved in a wideband call. Like for narrowband (DS0) situations, the reset will tear down the call. The events that trigger a RST MDII for wideband will have analogous events for DS0 calls. Only one MDII message (REPT:MDII) will be printed per wideband call.
Corrective Action	RST MDII reported situations are usually self-correcting. However, if they repeat contact the far end offices and inquire about their status. Also check on the tone transceiver equipage status on the affected SM.

1.12.67 SFI (MDII Description)

ITEM	DETAIL
Description Expansion	Signaling network failure, incoming
Direction	ICT
TERA	No
Traffic/Plant Counts	TGMDINC INMDII
Description	Signaling network failure, incoming.

1.12.68 SFO (MDII Description)

ITEM	DETAIL
Description Expansion	Signaling network failure, outgoing
Direction	OGT
TERA	No
Traffic/Plant Counts	OTGCSPERF OUTMDII TGMD1TR TGMD2TR

Description	Signaling network failure, outgoing.

1.12.69 SGD (MDII Description)

ITEM	DETAIL
Description Expansion	Station group designation
Direction	ICT
TERA	Yes
Traffic/Plant Counts	TGMDINC INCST INMDII
Description	For an incoming call over a private facilities trunk, an expected SGD digit (to be put into the call record) was not received from the far office. When expected, the SGD digit should appear at the end of the dialed digit sequence. SGD is reported under one or more of the following conditions: 1 Partial dial time-out occurred when attempting to collect the SGD digit. 2 ST digit (marks the end of the digit sequence) had already been received when attempting to collect the SGD digit (for MF signaling only).
Corrective Action	1 Verify the functionality of the trunk hardware and service circuit used for digit collection (refer to the Corrective Maintenance Procedures manual and any appropriate diagnostic messages in the Input Messages manual). If the hardware is functioning properly, have the far office check its corresponding trunk hardware. 2 Check RC/V View 5.1 (TRUNK GROUP) attribute TRK CLASS and ODD RLFC_TRUNK tuple attribute "sgd". Verify that the attribute settings are compatible with the far office's interpretation of the trunk's operation (refer to the Recent Change Menu Mode/Text Interface manual or Data Translations manual). 3 Check RC/V View 8.5 [TIMING (MISCELLANEOUS)] for the partial dial timing data. Verify that the partial dial timing conditions are compatible at both offices (refer to the Recent Change Menu Mode/Text Interface manual).

1.12.70 SSD (MDII Description)

ITEM	DETAIL
Description Expansion	Second start dial
Direction	OGT
TERA	Yes
Traffic/Plant Counts	OTGCSPERF OUTGCST OUTMDII TGMD1TR TGMD2TR
Description	For a call that requires two stages of outpulsing [calls originating from an equal access end office (EAEO) through an access tandem (AT) or from an EAEO to an international carrier (INC)], no second start dial (SSD) wink (on-hook/off-hook/on-hook series of transitions) was received from the far office after the first stage of outpulsing was completed.
Corrective Action	1 Verify the functionality of the trunk hardware (refer to the Corrective Maintenance Procedures manual and any appropriate diagnostic messages in the Input Messages manual). If the hardware is functioning properly, have the far office check its corresponding trunk hardware.

	2 Verify the functionality of time slot interchange unit's signal processor hardware (refer to any appropriate diagnostic message in the Input Messages manual). 3 Check RC/V View 5.1 (TRUNK GROUP) attributes TRK CLASS and INC TNDWNK. Verify that the attribute settings are compatible with the far office's interpretation of the trunk's operation (refer to the Recent Change Menu Mode/Text Interface manual). 4 Verify that the SSD wink timing conditions at both offices are compatible. The SSD wink timing conditions for the possible call connections are as follows: a EAEO to AT to IC, Transition EO to AT to IC: 100-500 ms wink pulse width, 12 second maximum wait time to receive SSD wink from far office after first stage outpulsing completed. b EAEO to AT to INC, EAEO to INC: 100-1500 ms wink pulse width, 28 second maximum wait time to receive SSD wink from far office after after first stage outpulsing completed. c AT connecting EAEO to INC: 100-1500 ms wink pulse width, 13.5 seconds maximum wait time to receive SSD wink from far office after the AT has completed outpulsing to the INC. d EAEO connecting another EAEO to AT (this condition is only possible in an emergency situation): 100-1500 ms wink pulse width, 9.5 seconds maximum wait time to receive SSD wink from far office after outpulsing to the AT has completed. (Refer to the Product Specification manual.)

1.12.71 TRR (MDII Description)

ITEM	DETAIL
Description Expansion	Tip-ring reversal
Direction	ICT
TERA	Yes
Traffic/Plant Counts	OTGCSPERF OUTMDII TGMD1TR TGMD2TR
Description	The terminating office has reported a false answer during MF or TT digit outpulsing. Primarily caused by a noisy incoming trunk (ICT) in the far office. Reporting an off hook to the outgoing trunk in the near office.
Corrective Action	1 Verify outgoing trunk status is IS (in service, either "MAN or AUTO") 2 Verify far-end incoming trunk (ICT) status may be showering (case when a trunk sees continual off hook to on-hook transitions). Incoming trunk would eventually be put high and wet when showering counter reach maximum. 3 Check RC/V View 5.1 (TRUNK GROUP) attribute TRK CLASS and OUTPLS. Verify that the attribute settings are compatible with the far office's interpretation of the trunk's operation (refer to the Recent Change Menu Mode/Text Interface manual). 4 Verify the compatibility of the interface hardware at both offices (refer to the Interface/Compatibility Guide manual).

1.12.72 TTR (MDII Description)

ITEM	DETAIL
Description Expansion	Trunk trouble code received
Direction	ICT, OGT
TERA	No
Traffic/Plant Counts	CMONIIA TGMDINC INMDII OUTMDII TGMD1TR TGMD2TR
Description	TTR may be reported for a centralized automated message accounting (CAMA) operator keying/talking trunk pair where the operator number identification (ONI) function is used to collect the calling digit sequence for billing purposes. In this case, the received ONI digit sequence entered by the CAMA operator at the far office matched one of four trunk trouble codes. The trouble codes are used by the CAMA operator to indicate some sort of trouble in the connection to the customer over the talking trunk.
Corrective Action	1 Verify the functionality of the talking trunk hardware (refer to the Corrective Maintenance Procedures manual and any appropriate diagnostic messages in the Input Messages manual). If the hardware is functioning properly, have the far office check its corresponding trunk hardware. 2 Check RC/V View 8.1 [OFFICE PARAMETERS (MISCELLANEOUS)] attributes TRKTRCD1, TRKTRCD2, TRKTRCD3, TRKTRCD4. Verify that these trunk trouble codes agree with the trunk trouble codes recognized at the far office (refer to the Recent Change Menu Mode/Text Interface manual). 3 Check the RLKEY_TALK ODD tuple for the operator keying/talking trunk pair. Verify that this pair matches the pair recognized at the far office (refer to the Data Translations manual).

1.12.73 UAF (MDII Description)

ITEM	DETAIL
Description Expansion	Unblocking acknowledgment failure
Direction	ICT, OGT
TERA	Yes
Traffic/Plant Counts	TGMDINC INMDII OUTMDII TGMD1TR TGMD2TR
Description	This MDII is used exclusively for common channel signaling (CCS). This MDII occurs when a unblocking message (UBL) message has been sent for an ISUP trunk and the far-end office has not responded with a unblocking acknowledgment (UBA) message. The reception of a UBA message indicates that the far-end office has unblocked its trunk and allowed to make call originations. The detailed scenario is an ISUP trunk is returned to service from either the OOS,MTEC,DSBLD,-OOS,MTCE,LKDO,- or OOS,MTCE,FE,- status. This status transition stimulates a UBL message sent to the far-end office. This UBL message has been sent every 4-15 seconds based on office parameter UBL RSND for 1 minute without receiving a UBA message. At this point the UAF MDII is printed and no more UBL messages are sent.

	The UAF MDII can also occur when a circuit group unblocking (CGU) is sent for a set of ISUP trunks and the circuit group unblocking acknowledgement (CGUA) is received indicating the ISUP trunk was not successfully unblocked.
Corrective Action	The problem may be from one or more of the following sources: signaling failure or abnormal configuration at the far-end office. If there is signaling failure, then some portion of the CCS network between the two offices had a failure that did not allow the UBL to reach the far-end office. It is possible that the UBL did reach the far-end office, but the UBA message sent back did not reach the originating office. If there is a signaling failure, several other CCS related MDIIs will also be firing, that is, ATO, CAF, etc. The UAF MDII may occur when the far-end trunk is in a transient state that does not allow remote blocking to be removed, that is, initialization, SM inaccessible and audits. If this occurs there is no corrective action required. The situation should be self-correcting. The first time the near-end office uses the trunk for a call (sends an IAM), the far-end office will unblock its trunk and allow the call.

1.12.74 UCA (MDII Description)

ITEM	DETAIL
Description Expansion	Unauthorized CAMA
Direction	ICT, OGT
TERA	Yes
Traffic/Plant Counts	CMONIIA TGMDINC INMDII OUTMDII TGMD1TR TGMD2TR
Description	Unauthorized CAMA reported for incoming CAMA calls under one or more of the following conditions: 1 The destination type determined by digit analysis on the dialed digit sequence was not valid for CAMA calls. 2 The number of digits in the dialed digit sequence was not equal to 7 or 10.
Corrective Action	A Verify the functionality of the trunk hardware and service circuit used for digit collection (refer to the Corrective Maintenance Procedures manual and any appropriate diagnostic messages in the Input Messages manual). If the hardware is functioning properly, have the far office check its corresponding trunk hardware. B Check RC/V View 5.1 (TRUNK GROUP) attribute TRK CLASS. Verify that the attribute setting is compatible with the far office's interpretation of the trunk's operation (refer to the Recent Change Menu Mode/Text Interface manual). C Check the translations data in RC/V Views 9.3 [LOCAL DIGIT (OFFICE DIALING)] and 9.5 [INCOMING TRUNK DIGITS (OFFICE DIALING)] for the expected number of incoming digits. Also, check forms 5309 and 5300-3 of Office Records Manual for the incoming digits. If the incoming digits in the office records match the digits found in the recent change views, then have the far office check its data translations (refer to the Recent Change Menu Mode/Text Interface manual).

1.12.75 UQL (MDII Description)

ITEM	DETAIL
Description	Unequipped label message.

Expansion	
Direction	OGT
TERA	Yes
Traffic/Plant Counts	OMDII7 OTGCSPERF OUTGCST OUTMDII TGMD1TR TGMD2TR
Description	This MDII is used exclusively for common channel signaling (CCS). This MDII occurs when an unequipped label (UQL) message is received for a CCIS6 trunk or an unequipped circuit identification code (UCIC) message is received for an ISUP trunk. An unequipped label message is sent in response to a call processing request message like an initial address message (IAM) to tell the far-end that the trunk in the message is unequipped in the far-end office. If a UCIC message is received in response to a trunk maintenance message (such as, blocking), then a UQL MDII will not be reported. After the MDII fires the trunk status is changed to OOS,CADN,DSBLD,-,AUTO. This results in a RC/V action done without a back-up. No roll forward is possible. If the UQL was sent in response to an IAM the call is re-tried on another trunk. This will count as an IMA signaling network failure. When associated with a wideband call, a UQL fires in response to the first UCIC message received on an ISUP trunk used in a wideband call meaning the channel identified in the UCIC is unequipped on the far-end. If additional UCICs are received for other channels of the wideband call, a UQL MDII is not printed for them but automatic RMV:TRK messages are generated for each UCIC received. Multiple UCICs may be sent and multiple UQLs will fire. If all of the channels implied in the IAM are within one trunk group and one or more of the channels are unequipped, then only a UQL MDII enters into this scenario. If at the far end office, the master channel (lowest channel) of the wideband call is unequipped, only a UCIC for the master channel is returned regardless of whether any of the slave channels are unequipped. If the master channel is equipped and one or more of the slaves is unequipped, a UCIC for each unequipped slave channel will be returned to the originating office. If the channels implied in the IAM overflows trunk groups and/or facilities and one or more of the slave channels are unequipped, then only a UCIC is sent back to the originating office for each unequipped channel. No WBF is generated at the office receiving the IAM. The events that trigger an MDII for a narrowband call have analogous events for wideband calls. Only one MDII message (REPT:MDII) will be printed per wideband call.
Corrective Action	Follow the CCS trunk turnup procedure to put the trunk in-service. Review all trunk group data to identify incompatibilities between the near and far end, including unequipped circuits and inconsistent trunk group data.

1.12.76 UXS (MDII Description)

ITEM	DETAIL
Description Expansion	Unexpected stop
Direction	OGT
TERA	Yes
Traffic/Plant Counts	OTGCSPERF OUTGCST OUTMDII TGMD1TR TGMD2TR
Description	An unexpected stop dial (off-hook) signal was received from the far office during outpulsing. UXS is reported under one or more of the following conditions:

	1 Trunk being outpulsed on is not marked for stop-go signaling. 2 A second stop dial signal was received during the outpulsing of the same digit sequence. 3 The stop dial signal was received after outpulsing the third from the last digit of the digit sequence.
Corrective Action	1 Verify the functionality of the trunk hardware (refer to the Corrective Maintenance Procedures manual and any appropriate diagnostic messages in the Input Messages manual). If the hardware is functioning properly, have the far office check its corresponding trunk hardware. 2 Verify the functionality of time slot interchange unit's signal processor hardware (refer to any appropriate diagnostic messages in the Input Messages manual). 3 Check RC/V View 5.1 (TRUNK GROUP) attribute TRK CLASS and OUTPLS and View 5.5 (TRUNK MEMBER) attribute STOPGO. Verify that the attribute settings are compatible with the far office's interpretation of the trunk's operation (refer to the Recent Change Menu Mode/Text Interface manual). 4 Check the translations data in RC/V Views 9.3 [LOCAL DIGIT (OFFICE DIALING)] and 9.5 [INCOMING TRUNK DIGITS (OFFICE DIALING)] for the expected number of incoming digits. Also, check forms 5309 and 5300-3 of the Office Records Manual for the incoming digits. If the incoming digits in the office records match the digits found in the recent change views, then have the far office check its data translations (refer to the Recent Change Menu Mode/Text Interface manual). 5 The user may invoke MON:TRUNK which triggers on the occurrence of this MDII to return the Hardware (HW) talk path for analysis purposes. This tool will hold the trunk off hook and out of service. To invoke MON:TRUNK, refer to the Input Messages manual. Associated input messages are: a CLR:TRUNK, will release any held trunk and terminate MON:TRUNK for the trunk group. b RLS:TRUNK, will release the held trunk and continue to monitor the trunk group for the next occurrence. c OP:TRUNK, will display the MON/HOLD status of each member of the group.

1.12.77 VCA (MDII Description)

ITEM	DETAIL
Description Expansion	Vacant code announcement
Direction	ICT, OGT
TERA	Yes
Traffic/Plant Counts	IMDII7 TGMDINC INMDII OMDII7 OUTMDII TGMD1TR TGMD2TR
Description	This MDII can also be used for integrated services digital network-user part (ISUP). Vacant code announcement reported under one or more of the following conditions: 1 Translation of the dialed number detected an invalid digit sequence for the corresponding call and

	hence was unsuccessful in determining the call destination. 2 An INWATS database (IDB) query failed. Some calls require an IDB query to obtain a POTS number which is subsequently translated to determine the call destination. The IDB query uses the dialed digit sequence, the originating NPA, and the trunk member and group numbers for the current call in progress. 3 Translation of the POTS number retrieved through an IDB query detected an invalid digit sequence for the corresponding call and hence was unsuccessful in determining the call destination. 4 In ISUP when a Release message is received with a cause of 3 before the receipt of an Address Complete message. 5 An incorrect DAS was selected for digits translation. For MINT trunks T-NSC shown may have caused an unexpected DAS value to be selected. 6 For local number portability (LNP), the switch detected its own location routing number (LRN) but was unsuccessful in determining the call destination. In this case, the LRN, the LNP query indicator, and the jurisdiction information parameter (JIP) will be included in the report. <5E11+>
Corrective Action	1 Check RC/V View 5.1 (TRUNK GROUP) attribute TRK CLASS. Verify that the attribute setting is compatible with the far office's interpretation of the trunk's operation (refer to the Recent Change Menu Mode/Text Interface manual). 2 Check the translations data in RC/V Views 9.3 [LOCAL DIGIT (OFFICE DIALING)] and 9.5 [INCOMING TRUNK DIGITS (OFFICE DIALING)] for the expected incoming digits. Also, check forms 5309 and 5300-3 of the Office Records Manual for the incoming digits. If the incoming digits in the office records match the digits found in the recent change views, then have the far office check its data translations (refer to the Recent Change Menu Mode/Text Interface manual). 3 For carrier interconnect calls, check that a RLFC_CARR tuple exists for the given carrier ID and that it contains the correct information. 4 Check the INWATS database. 5 For the LNP case, check for a RLRT_DNTRAN tuple for the subscriber on this switch. If the subscriber is not on this switch, verify the LNP data received from the previous switch. <5E11+> 6 For MINT trunks, use the T-NSC value, printed in the MDII message, to check the translation data on View 8.54 and View 8.53. Make sure that the proper DAS value is provisioned for the T-NSC (TERM NSC) value. <5E12+>

1.12.78 VPA (MDII Description)

ITEM	DETAIL
Description Expansion	Voice path assurance
Direction	OGT
TERA	Yes
Traffic/Plant Counts	COTFAIL OMDII7 OTGCSPERF OUTMDII OUTGCST

	TGMD1TR TGMD2TR
Description	The MDII is used exclusively for common channel signaling (CCS). This VPA MDII is reported by an outgoing CCS signaling handler when an outgoing per-call continuity test fails. A retry will be run. Not all calls require continuity test as this is settable by the user. Also refer to CRF.
Corrective Action	A VPA recheck is done automatically. Frequent VPA MDIIs may indicate poor speech quality. The trunk voice path should be checked using test calls.

1.12.79 WBF (MDII Description)

ITEM	DETAIL
Description Expansion	Wideband failure
Direction	ICT
TERA	Yes
Traffic/Plant Counts	IMDII7 TGMDINC INCST INMDII
Description	This MDII is reported exclusively for a wideband (NxDS0) ISUP7 call. This WBF MDII will be printed when the following condition is met: The switch, on an ISUP7 trunk, receives an incoming wideband call with information in the initial address message (IAM) that indicates incorrect channel usage for a wideband call; the outgoing circuits that were selected for the call are associated with trunks that are in different trunk groups on the incoming side. A wideband call must be carried on trunks within the same trunk group. The number of channels requested for the call is shown in the N field on the output. The number of the first channel assigned to the call is shown in the CIC field. Incorrect channel usage happens when not enough trunks remained in a trunk group to carry a wideband call (NxDS0) when CIC is the first channel. And on the far end, the trunk group is provisioned with more members. Only one WBF MDII message (REPT:MDII) will be printed and the call will be released. Trunk error analysis (TERA) reports on the number of call failures per trunk group. A wideband call is identified by the controlling trunk (master trunk). TERA on the master trunk is required with RPT recovery action and trunks will not be taken out of service. Reporting of the performance counts for this MDII will show up on the 24 hour plant report.
Corrective Action	Notify the far end office of a potential trunk group assignment problem when provisioning wideband trunks on this facility. Either some trunk group members in the far switch which reside on the facility used by the master trunk, are assigned to the wrong trunk group or corresponding trunk group members in this switch are assigned to the wrong trunk group.

1.12.80 WSN (MDII Description)

ITEM	DETAIL
Description Expansion	Wink start, steady on-hook
Direction	OGT
TERA	Yes
Traffic/Plant Counts	OTGCSPERF OUTGCST OUTMDII TGMD1TR TGMD2TR
Description	On a wink-start-controlled trunk, a time-out occurred while waiting for the far office to return a wink start signal (on-hook/off-hook/on-hook series of transitions). In this case, a steady on-hook state was returned

	from the far office for the entire duration of the start signal time-out interval.
Corrective Action	1 Verify the functionality of the trunk hardware (refer to the Corrective Maintenance Procedures manual and any appropriate diagnostic messages in the Input Messages manual). If the hardware is functioning properly, have the far office check its corresponding trunk hardware. 2 Verify the functionality of time slot interchange unit's signal processor hardware (refer to any appropriate diagnostic messages in the Input Messages manual). 3 Check RC/V View 5.1 (TRUNK GROUP) attribute TRK CLASS and View 5.5 (TRUNK MEMBER) attribute OUT START DIAL. Verify that the attribute settings are compatible with the far-end's interpretation of the trunk's operation (refer to the Recent Change Menu Mode/Text Interface manual). 4 Verify the compatibility of the trunk interface hardware at both offices (refer to the Interface/Compatibility Guide manual). 5 Verify that the timing conditions at both offices are compatible (refer to the Product Specification manual).

1.12.81 WSR (MDII Description)

ITEM	DETAIL
Description Expansion	Wink start, steady off-hook
Direction	OGT
TERA	Yes
Traffic/Plant Counts	OTGCSPERF OUTGCST OUTMDII TGMD1TR TGMD2TR
Description	On a wink-start-controlled trunk, a time-out occurred while waiting for the far office to return a wink start signal (on-hook/off-hook/on-hook series of transitions). In this case, an on-hook/off-hook transition was returned from the far office but the subsequent off-hook/on-hook transition was not returned before the start signal time-out interval expired.
Corrective Action	Refer to the WSN MDII Corrective Action.

1.12.82 XST (MDII Description)

ITEM	DETAIL
Description Expansion	Expected stop timeout
Direction	OGT
TERA	Yes
Traffic/Plant Counts	OTGCSPERF OUTGCST OUTMDII TGMD1TR TGMD2TR
Description	On a trunk with expected stop-go signaling, an expected stop dial (off-hook) signal was received from the far office during outpulsing, and the duration of the stop dial signal was longer than the time-out interval.
Corrective Action	1 Verify the functionality of the trunk hardware (refer to the Corrective Maintenance Procedures manual and any appropriate diagnostic messages in the Input Messages manual). If the hardware is functioning properly, have the far office check its corresponding trunk hardware.

	2 Verify the functionality of time slot interchange unit's signal processor hardware (refer to any appropriate diagnostic messages in the Input Messages manual). 3 Check RC/V View 5.1 (TRUNK GROUP) attribute TRK CLASS and OUTPLS and View 5.5 (TRUNK MEMBER) attribute STOPGO. Verify that the attribute settings are compatible with the far office's interpretation of the trunk's operation (refer to the Recent Change Menu Mode/Text Interface manual). 4 Verify that the timing conditions at both offices are compatible (refer to the Product Specification manual).

APP:MEASUREMENTS

Software Release: 5E10 and later
Message Class: N/A
Application: 5
Type: Output

1. MEASUREMENTS LOCATION CROSS REFERENCE APPENDIX

Table 1 Part 1

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
DBretrvblk	CMP	BASE	- - - - -	- - - - -	- - - - -	MSDINCST	tm/TMcfhtrk/ TMadmdii.c
						MSDOTGCST	tm/TMcfhtrk/ TMadmdii.c
						MSDOTGSST	tm/TMcfhtrk/ TMadmdii.c
						MSDTGIPC	as/ASmsmisc/ MScrpegcnt.c
						MSEASTU	as/ASmsscan/ MS100scan.c
						MSMCCANC	- - - - -
						MSPTGRPIP	fc/FCmfcpp/ OBJ/ MCnp.cc
						MSPTGRPOP	rta/RTpp/ RTpptkhnt.c
						MSSILCNT	nm/NMsilc/ NMimsilcsp.c
						MSSOTGACK	tm/TMcfhtrk/ TMadmdii.c
						MSSOTGSSD	tm/TMcfhtrk/ TMadmdii.c
						MSSTGUS	- - - - -
						MSTGEASPC	cra/CRasmblr/ CRsminput.c
						MSTGIPPRMT	fc/FCmfcpfm/ OBJ/ MCpfm.sdc
						MSTGIPPRMT	fc/FCmfcpp/ OBJ/ MCpp.cc
						MSTGIPRMT	fc/FCmfcpfm/ OBJ/ MCpfm.sdc
						MSTGIPRMT	fc/FCmfcpp/ OBJ/ MCpp.cc
						MSTGOPPRMT	fc/FCmfcpp/ OBJ/ MCpp.cc
						MSTGOPRMT	fc/FCmfcpp/ OBJ/ MCpp.cc
						MSTGPFAIL	rta/RTpp/ RTpptkhnt.c
						MSTGPRMT	fc/FCmfcpfm/ OBJ/ MCpfm.sdc
						MSTGPRMT	fc/FCmfcpp/ OBJ/ MCpp.cc
						MSTGRPIPC	cra/CRasmblr/ CRsmprims.c
						MSTGRPMAT	as/ASmsscan/ MS100scan.c
						MSTGRPMTU	- - - - -

						MSTGRPOFL	rta/RTGtrk/ RTtrkbusy.c
						MSTGRPOPC	rta/RTGtrk/ RTtkmem.c
						MSTGRPOPC	rta/RTGtrk/ RTtrkhunt.c
						MSTGRPUSG	as/ASmsscan/ MS100scan.c
DBretrvblk	SM	BASE	- - - - -	- - - - -	- - - - -	MSDINCST	tm/TMcfhtrk/ TMadmdii.c
						MSDOTGCST	tm/TMcfhtrk/ TMadmdii.c
						MSDOTGSST	tm/TMcfhtrk/ TMadmdii.c
						MSDTGIPC	as/ASmsmisc/ MScrpegcnt.c
						MSEASTU	as/ASmsscan/ MS100scan.c
						MSMCCANC	- - - - -
						MSPTGRPIP	fc/FCmfcpp/ OBJ/ MCnp.cc
						MSPTGRPOP	rta/RTpp/ RTpptkhnt.c
						MSSILCNT	nm/NMsilc/ NMimsilcsp.c
						MSSOTGACK	tm/TMcfhtrk/ TMadmdii.c
						MSSOTGSSD	tm/TMcfhtrk/ TMadmdii.c
						MSSTGUS	- - - - -
						MSTGEASPC	cra/CRasmblr/ CRsminput.c
						MSTGIPPRMT	fc/FCmfcpfm/ OBJ/ MCpfm.sdc
						MSTGIPPRMT	fc/FCmfcpp/ OBJ/ MCpp.cc
						MSTGIPRMT	fc/FCmfcpfm/ OBJ/ MCpfm.sdc
						MSTGIPRMT	fc/FCmfcpp/ OBJ/ MCpp.cc
						MSTGOPPRM T	fc/FCmfcpp/ OBJ/ MCpp.cc
						MSTGOPRMT	fc/FCmfcpp/ OBJ/ MCpp.cc
						MSTGPFAIL	rta/RTpp/ RTpptkhnt.c
						MSTGPRMT	fc/FCmfcpfm/ OBJ/ MCpfm.sdc
						MSTGPRMT	fc/FCmfcpp/ OBJ/ MCpp.cc
						MSTGRPIPC	cra/CRasmblr/ CRsmprims.c
						MSTGRPMAT	as/ASmsscan/ MS100scan.c
						MSTGRPMTU	- - - - -
						MSTGRPOFL	rta/RTGtrk/ RTtrkbusy.c
						MSTGRPOPC	rta/RTGtrk/ RTtkmem.c
						MSTGRPOPC	rta/RTGtrk/ RTtrkhunt.c
						MSTGRPUSG	as/ASmsscan/

							MS100scan.c

Table 2 Part 2

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
DBretrvblk	AM	BASE	- - - - -	- - - - -	- - - - -	MSDINCST	tm/TMcfhtrk/ TMadmdii.c
						MSDOTGCST	tm/TMcfhtrk/ TMadmdii.c
						MSDOTGSST	tm/TMcfhtrk/ TMadmdii.c
						MSDTGIPC	as/ASmsmisc/ MScrpegcnt.c
						MSEASTU	as/ASmsscan/ MS100scan.c
						MSMCCANC	- - - - -
						MSPTGRPIP	fc/FCmfcpp/ OBJ/ MCnp.cc
						MSPTGRPOP	rta/RTpp/ RTpptkhnt.c
						MSSILCNT	nm/NMsilc/ NMimsilcsp.c
						MSSOTGACK	tm/TMcfhtrk/ TMadmdii.c
						MSSOTGSSD	tm/TMcfhtrk/ TMadmdii.c
						MSSTGUS	- - - - -
						MSTGEASPC	cra/CRasmblr/ CRsminput.c
						MSTGIPPRMT	fc/FCmfcpfm/ OBJ/ MCpfm.sdc
						MSTGIPPRMT	fc/FCmfcpp/ OBJ/ MCpp.cc
						MSTGIPRMT	fc/FCmfcpfm/ OBJ/ MCpfm.sdc
						MSTGIPRMT	fc/FCmfcpp/ OBJ/ MCpp.cc
						MSTGOPPRMT	fc/FCmfcpp/ OBJ/ MCpp.cc
						MSTGOPRMT	fc/FCmfcpp/ OBJ/ MCpp.cc
						MSTGPFAIL	rta/RTpp/ RTpptkhnt.c
						MSTGPRMT	fc/FCmfcpfm/ OBJ/ MCpfm.sdc
						MSTGPRMT	fc/FCmfcpp/ OBJ/ MCpp.cc
						MSTGRPIPC	cra/CRasmblr/ CRsmprims.c
						MSTGRPMAT	as/ASmsscan/ MS100scan.c
						MSTGRPMTU	- - - - -
						MSTGRPOFL	rta/RTGtrk/ RTtrkbusy.c
						MSTGRPOPC	rta/RTGtrk/ RTtkmem.c
						MSTGRPOPC	rta/RTGtrk/ RTtrkhunt.c
						MSTGRPUSG	as/ASmsscan/ MS100scan.c

Gl_isms	CMP	BASE	PLNT 24	11	EQUIPMENT QUANTITIES-PI	- - - - -	- - - - -
Gl_isms	AM	BASE	PLNT 24	11	EQUIPMENT QUANTITIES-PI	- - - - -	- - - - -
Gl_phs	CMP	BASE	PLNT 24	11	EQUIPMENT QUANTITIES-PH	- - - - -	- - - - -
Gl_phs	AM	BASE	PLNT 24	11	EQUIPMENT QUANTITIES-PH	- - - - -	- - - - -
MS1000ac_bnnmcb	AM	OPAMBACD	TRFC 30	61	BNS	MSBNSNMCB	ccs/CCbns/ CCbnsqry.c
			TRFC 30	62	NM (BNS)		
			TRFC 30	62	NSENT (BNS)		
MS1001ac_bnnid	AM	OPAMBACD	TRFC 30	61	BNS	MSBNSNID	ccs/CCbns/ CCbnsqry.c
			TRFC 30	62	NO-ID (BNS)		
			TRFC 30	62	NSENT (BNS)		
MS1002ac_bnambk	SM	OPSMCDOT	TRFC 30	61	BNS	MSBNSAMBK	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	62	AMBLK (BNS)		
			TRFC 30	62	NSENT (BNS)		
MS1003ac_bnnrtdta	AM	OPAMBACD	TRFC 30	62	ABNOR (BNS)	MSBNSNRTDTA	ccs/CCbns/ CCbnsrply.c
			TRFC 30	62	NRTDG (BNS)		
MS1004ac_bnnwcg	AM	OPAMBACD	TRFC 30	62	ABNOR (BNS)	MSBNSNWCG	ccs/CCbns/ CCbnsrply.c
			TRFC 30	62	CONGEST (BNS)		
MS1005ac_bnnwbk	AM	OPAMBACD	TRFC 30	62	ABNOR (BNS)	MSBNSNWBK	ccs/CCbns/ CCbnsrply.c
			TRFC 30	62	BLKD (BNS)		
MS1006ac_bnfneq	AM	OPAMBACD	TRFC 30	62	ABNOR (BNS)	MSBNSFNEQ	ccs/CCbns/ CCbnsrply.c
			TRFC 30	62	UNEQ (BNS)		
MS1007ac_bnrnp	SM	OPSMCDOT	TRFC 30	62	NPROC (BNS)	MSBNSRNP	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	62	TOTAL (BNS)		

Table 3 Part 3

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS1008ac_bnrnx	AM	OPAMBACD	TRFC 30	62	TOTAL (BNS)	MSBNSRNX	ccs/CCbns/ CCbnsrply.c
			TRFC 30	62	UNEXP (BNS)		
MS1009ac_bnrnvf	SM	OPSMCD	TRFC	62	INVFRMT	MSBNSRNVF	ccs/CCbns/

		OT	30		(BNS)		CCbnsrply.c
			TRFC 30	62	TOTAL (BNS)	MSBNSRNVF	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1009ac_bnrnvf	AM	OPAMBAC D	TRFC 30	62	INVFRMT (BNS)	MSBNSRNVF	ccs/CCbns/ CCbnsrply.c
			TRFC 30	62	TOTAL (BNS)	MSBNSRNVF	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1010ac_bnrvf	SM	OPSMCD OT	TRFC 30	62	TOTAL (BNS)	MSBNSRVF	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	62	VLDFRMT (BNS)		
MS1011ac_bnnres	SM	OPSMCD OT	TRFC 30	62	TIMEOUT (BNS)	MSBNSNRES	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1012ac_bnovld	AM	OPAMBAC D	TRFC 30	62	OVRLD (BNS REPLIES)	MSBNSOVLD	ccs/CCbns/ CCbnsrply.c
MS1013ac_bntest	AM	OPAMBAC D	TRFC 30	62	TEST (BNS)	MSBNSTEST	ccs/CCoptst/ CCbnstst.c
MS1014ac_bnb	SM	OPSMCD OT	TRFC 30	62	ALLOW	MSBNSB	oa/OAtaqry/ OBJ/ OAtaqry.cc
						MSBNSBDNY	oa/OAtaqry/ OBJ/ OAtaqry.cc
						MSBNSBUNK	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1015ac_bnbdny	SM	OPSMCD OT	TRFC 30	62	DENY	MSBNSBDNY	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1016ac_bnbunk	SM	OPSMCD OT	TRFC 30	62	INDET	MSBNSBUNK	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1017ac_scrnabrt	SM	OPSMCD OT	TRFC 30	64	ATMPT (SCRND)	MSSCRNABR T	oa/OAnprls/ OAprlmeas.c
			TRFC 30	64	FAIL		
MS1018ac_scrnss	SM	OPSMCD OT	TRFC 30	64	ATMPT (SCRND)	MSSCRNSS	oa/OAnprls/ OAprlmeas.c
			TRFC 30	64	SUCC		
MS1019ac_rclnq	SM	OPSMCD OT	TRFC 30	64	ATMPT (SUBSCRIBE R)	MSRCLNQ	oa/OAactsot/ OAcn1popr.c
			TRFC 30	64	OP-REC	MSRCLNQ	oa/OAactsot/ OAwaitopr.c
						MSRCLNQ	oa/OAotoper/ OAta_opset.c
						MSRCLNQ	oa/OAta_ot/ OAta_2stup.c
MS1020ac_rclq	SM	OPSMCD OT	TRFC 30	64	ATMPT (SUBSCRIBE R)	MSRCLQ	oa/OAactsot/ OAcn1popr.c
			TRFC 30	64	QUE	MSRCLQ	oa/OAactsot/ OAwaitopr.c
						MSRCLQ	oa/OAotoper/ OAta_opset.c
						MSRCLQ	oa/OAta_ot/ OAta_2stup.c
MS1021ac_rclabnq	SM	OPSMCD OT	TRFC 30	64	ABND	MSRCLABNQ	oa/OAactsot/ OAcn1popr.c
						MSRCLABNQ	oa/OAactsot/ OAcnicopr.c
						MSRCLABNQ	oa/OAactsot/ OAqueopr.c
						MSRCLABNQ	oa/OAotoper/ OAta_opset.c

						MSRCLABNQ	oa/OAta_ot/ OAta_2stup.c
MS1022ac_rclovfw	SM	OPSMCD OT	TRFC 30	64	ATMPT (SUBSCRIBE R)	MSRCLOVFW	oa/OAactsot/ OAcn1popr.c
			TRFC 30	64	OVFL	MSRCLOVFW	oa/OAactsot/ OAwaitopr.c
						MSRCLOVFW	oa/OAotoper/ OAta_opset.c
						MSRCLOVFW	oa/OAta_ot/ OAta_2stup.c
MS1023ac_rclinw	SM	OPSMCD OT	TRFC 30	64	RECALL	MSRCLINW	oa/OAta_ot/ OAta_flash.c
MS1024ac_okcrdrq	SM	OPSMCD OT	TRFC 30	64	CR-REQ	MSOKCRDRQ	oa/OAnupd/ OBJ/ OAnupd.cc
MS1025ac_oinwoaccvd	SM	OPSMCD OT	TRFC 30	64	OPERCC	MSOINWOAC CVD	oa/OAncnfr/ OBJ/ OA_aconn.sdc
						MSOINWOAC CVD	oa/OAncnfr/ OBJ/ OAnconn.sdc
MS1027ac_camaato	SM	OPSMCD OT	TRFC 30	64	ABNDTO (XFER)	MSCAMAATO	oa/OAottcama/ OAtti_call.c
			TRFC 30	64	ABNDTO (XFERCAMA)	MSCAMAATO	oa/OAottcama/ OAttiopans.c
						MSCAMAATO	oa/OAottcama/ OAttioptlk.c
						MSCAMAATO	oa/OAottcama/ OAttique.c
MS1028ac_scamaato	SM	OPSMCD OT	TRFC 30	64	ABNDTO (SYS-ONI)	MSSCAMAAT O	oa/OAotopcam/ OAospsbn.c
			TRFC 30	64	ABNDTO (SYSCAMA)		
MS1029ac_camapd	SM	OPSMCD OT	TRFC 30	64	CAMAPOSD	MSCAMAPD	oa/OAtanca/ OBJ/ OA_atanca.sdc
						MSCAMAPD	oa/OAtanca/ OBJ/ OAtanca.sdc
MS1030ac_ccqsss	SM	OPSMCD OT	TRFC 30	64	CCQSUCC	MSCCQSSS	oa/OAacqsmod/ OAcrd_mcnt.c
MS1031ac_oacdsao	SM	OPSMOT	- - - - -	- - - - -	- - - - -	MSOACDSAO	- - - - -
MS1032ac_anifail	SM	OPSMCD OT	TRFC 30	61	ONI (BASE)	MSANIFAIL	oa/OAotopcam/ OAospsbn.c
			TRFC 30	64	ANIFAIL	MSANIFAIL	oa/OAottcama/ OAttitone.c
						MSANIFAIL	oa/OAta_ot/ OAreq_init.c

Table 4 Part 4

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS1033ac_nani_mp	SM	OPSMCD OT	TRFC 30	61	ONI (BASE)	MSNANI_MP	oa/OAotopcam/ OAospsbn.c
			TRFC 30	64	UNEQ	MSNANI_MP	oa/OAottcama/ OAttitone.c
						MSNANI_MP	oa/OAta_ot/ OAatt_ani.c
						MSNANI_MP	oa/OAta_ot/ OAboc_ani.c
						MSNANI_MP	oa/OAta_ot/ OAea_ani.c
MS1034ac_statcgbld	SM	OPSMCD	TRFC	61	DDD	MSSTATCGBL	oa/OAnprls/

		OT	30			D	OAprlmeas.c
			TRFC 30	61	TOTAL		
MS1035ac_anitrnr	SM	OPSMCD OT	TRFC 30	64	TRK	MSANITRNR	oa/OAta_ot/ OAscrnlncd.c
MS1036ac_epr	SM	OPSMCD OT	TRFC 30	64	EPR	MSEPR	oa/OAnprls/ OAprlmeas.c
MS1037ac_oa3rdblg	SM	OPSMCD OT	TRFC 30	61	3RDBL	MSOA3RDBL G	oa/OAnprls/ OAprlmeas.c
			TRFC 30	61	TOTAL		
MS1038ac_oacccoc	SM	OPSMCD OT	TRFC 30	61	CCCOC	MSOACCCOC	oa/OAnprls/ OAprlmeas.c
			TRFC 30	61	TOTAL		
MS1039ac_otrcama	SM	OPSMCD OT	TRFC 30	64	CAMAOTR	MSOTRCAMA	oa/OAottcama/ OAttioptlk.c
MS103ac_dtdsm	SM	BASE	M5	1	ORIG DTD	MSDTDELAY	pc/PCisorig/ PCisline.c
			TRFC 30	4	DTDSC	MSDTDELAY	pc/PCorig/ PCline.c
						MSDTDELAY	pc/PCorig/ PCqsrch.c
						MSDTDELAY	pc/PCport/ OBJ/ LPactsrq.cc
						MSDTDELAY	pc/PCslc96/ PCs96orig.c
						MSDTDELAY	pc/PCtones/ OBJ/ LPsig.cc
						MSDTDELAY	pc/PCzport/ LPactz.c
MS1040ac_inw6670	SM	OPSMCD OT	TRFC 30	61	AUTOCC	MSINW6670	oa/OAaccs/ OBJ/ OAna.sdc
			TRFC 30	64	10DIGIT		
MS1041ac_3cfrqsv	SM	OPSMCD OT	TRFC 30	61	3PORT (NOT-SERVE D)	MS3CFRQSV	oa/OAactsot/ OAgetconf.c
						MS3CFRQSV	oa/OAta_ot/ OAta_2init.c
						MS3CFRQSV	oa/OAtavn/ OAvnrsvcon.c
MS1042ac_6cfrqsv	SM	OPSMCD OT	TRFC 30	61	6PORT (NOT-SERVE D)	MS6CFRQSV	oa/OAactsot/ OAgetconf.c
						MS6CFRQSV	oa/OAtavn/ OAvnrsvcon.c
MS1043ac_ccrj	SM	OPSMCD OT	TRFC 30	64	REJ	MSCCRJ	oa/OAaccs/ OBJ/ OAna.sdc
						MSCCRJ	oa/OAncoc/ OArplyqry.c
MS1044ac_ccacpt	SM	OPSMCD OT	TRFC 30	64	ACCPT	MSCCACPT	oa/OAaccs/ OBJ/ OAna.sdc
						MSCCACPT	oa/OAncoc/ OArplyqry.c
MS1045ac_ccsnt	AM	OPAMBAC D	- - - - -	- - - - -	- - - - -	MSCCSNT	ccs/CCccd/ CCccdqry.c
MS1046ac_cchw	SM	OPSMCD OT	- - - - -	- - - - -	- - - - -	MSCCHW	ccs/CCccd/ CCccdqry.c
						MSCCHW	oa/OAtaqry/ OBJ/ OAtaqry.cc

MS1046ac_cchw	AM	OPAMBACD	- - - - -	- - - - -	- - - - -	MSCCHW	ccs/CCccd/ CCccdqry.c
						MSCCHW	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1047ac_ccdbcb	AM	OPAMBACD	- - - - -	- - - - -	- - - - -	MSCCDBCB	ccs/CCccd/ CCccdqry.c
MS1048ac_ccnmcb	AM	OPAMBACD	- - - - -	- - - - -	- - - - -	MSCCNMCB	ccs/CCccd/ CCccdqry.c
MS1049ac_ccnid	AM	OPAMBACD	- - - - -	- - - - -	- - - - -	MSCCNID	ccs/CCccd/ CCccdqry.c
MS104ac_dtdpc	SM	BASE	M5	1	LINE ORIG	MSDTDELAY	pc/PCisorig/ PCisline.c
			TRFC 15	2A	DTDPC	MSDTDELAY	pc/PCorig/ PCline.c
			TRFC 30	4	DTDPC	MSDTDELAY	pc/PCorig/ PCqsrch.c
						MSDTDELAY	pc/PCport/ OBJ/ LPactsrq.cc
						MSDTDELAY	pc/PCslc96/ PCs96orig.c
						MSDTDELAY	pc/PCtones/ OBJ/ LPsig.cc
						MSDTDELAY	pc/PCzport/ LPactz.c
MS1050ac_ccambk	SM	OPSMCDOT	- - - - -	- - - - -	- - - - -	MSCCAMBK	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1051ac_ccrv	SM	OPSMCDOT	- - - - -	- - - - -	- - - - -	MSCCRV	oa/OAtaqry/ OBJ/ OAtaqry.cc
						MSCCRVC	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1052ac_ncdsnt	AM	OPAMBACD	- - - - -	- - - - -	- - - - -	MSNCDSNT	ccs/CCopncd/ CCopndqry.c
MS1053ac_ncdhw	SM	OPSMCDOT	- - - - -	- - - - -	- - - - -	MSNCDHW	ccs/CCopncd/ CCopndqry.c
						MSNCDHW	oa/OAotqry/ OAondqry.c
						MSNCDHW	oa/OAtaqry/ OBJ/ OAtaqry.cc

Table 5 Part 5

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS1053ac_ncdhw	AM	OPAMBACD	- - - - -	- - - - -	- - - - -	MSNCDHW	ccs/CCopncd/ CCopndqry.c
						MSNCDHW	oa/OAotqry/ OAondqry.c
						MSNCDHW	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1054ac_ncddbcb	AM	OPAMBACD	- - - - -	- - - - -	- - - - -	MSNCDDBCB	ccs/CCopncd/ CCopndqry.c
MS1055ac_ncdnmcb	AM	OPAMBACD	- - - - -	- - - - -	- - - - -	MSNCDNMCB	ccs/CCopncd/ CCopndqry.c
MS1056ac_ncdnid	AM	OPAMBACD	- - - - -	- - - - -	- - - - -	MSNCDNID	ccs/CCopncd/ CCopndqry.c
MS1057ac_ncdambk	SM	OPSMCDOT	- - - - -	- - - - -	- - - - -	MSNCDAMBK	oa/OAotqry/ OAondqry.c
						MSNCDAMBK	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1058ac_ncdrvf	SM	OPSMCD	- - - - -	- - - - -	- - - - -	MSNCDRVF	oa/OAotqry/

		OT					OAondrply.c
						MSNCDRVF	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1059ac_rqsnt	SM	OPSMCD OT	- - - - -	- - - - -	- - - - -	MSRQSNT	ccs/CCcfr/ CCcfrqry.c
						MSRQSNT	oa/OAncal/ OBJ/ OAncal.cc
						MSRQSNT	oa/OArtrsmod/ OArtrssp.c
MS1059ac_rqsnt	AM	OPAMBAC D	- - - - -	- - - - -	- - - - -	MSRQSNT	ccs/CCcfr/ CCcfrqry.c
						MSRQSNT	oa/OAncal/ OBJ/ OAncal.cc
						MSRQSNT	oa/OArtrsmod/ OArtrssp.c
MS105ac_tdasc	SM	BASE	M5	1	INC SDD	MSDADELAY	pc/PCorig/ PCtkorig.c
			TRFC 30	4	TDASC	MSDADELAY	pc/PCtones/ LPcoll_dig.c
MS1060ac_ccqssnt	SM	OPSMCD OT	- - - - -	- - - - -	- - - - -	MSCCQSSNT	ccs/CCcfr/ CCcfrqry.c
						MSCCQSSNT	oa/OArtrsmod/ OArtrssp.c
MS1060ac_ccqssnt	AM	OPAMBAC D	- - - - -	- - - - -	- - - - -	MSCCQSSNT	ccs/CCcfr/ CCcfrqry.c
						MSCCQSSNT	oa/OArtrsmod/ OArtrssp.c
MS1061ac_t_csnt	SM	OPSMCD OT	- - - - -	- - - - -	- - - - -	MST_CSNT	ccs/CCcfr/ CCcfrqry.c
						MST_CSNT	oa/OArtrsmod/ OArtrssp.c
MS1061ac_t_csnt	AM	OPAMBAC D	- - - - -	- - - - -	- - - - -	MST_CSNT	ccs/CCcfr/ CCcfrqry.c
						MST_CSNT	oa/OArtrsmod/ OArtrssp.c
MS1062ac_rqhw	SM	OPSMCD OT	- - - - -	- - - - -	- - - - -	MSRQHW	ccs/CCcfr/ CCcfrqry.c
						MSRQHW	oa/OAotqry/ OAratqry.c
						MSRQHW	oa/OArtrsmod/ OArtrssp.c
						MSRQHW	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1062ac_rqhw	AM	OPAMBAC D	- - - - -	- - - - -	- - - - -	MSRQHW	ccs/CCcfr/ CCcfrqry.c
						MSRQHW	oa/OAotqry/ OAratqry.c
						MSRQHW	oa/OArtrsmod/ OArtrssp.c
						MSRQHW	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1063ac_rqdbcb	SM	OPSMCD OT	- - - - -	- - - - -	- - - - -	MSRQDBCB	ccs/CCcfr/ CCcfrqry.c
						MSRQDBCB	oa/OArtrsmod/ OArtrssp.c
MS1063ac_rqdbcb	AM	OPAMBAC D	- - - - -	- - - - -	- - - - -	MSRQDBCB	ccs/CCcfr/ CCcfrqry.c
						MSRQDBCB	oa/OArtrsmod/ OArtrssp.c
MS1064ac_rqnmcb	AM	OPAMBAC D	- - - - -	- - - - -	- - - - -	MSRQNMCB	ccs/CCcfr/ CCcfrqry.c
MS1065ac_rqnid	SM	OPSMCD	- - - - -	- - - - -	- - - - -	MSRQNID	ccs/CCcfr/

		OT					CCcfrqry.c
						MSRQNID	oa/OArtrsmod/ OArtrssp.c
MS1065ac_rqnid	AM	OPAMBACD	- - - - -	- - - - -	- - - - -	MSRQNID	ccs/CCcfr/ CCcfrqry.c
						MSRQNID	oa/OArtrsmod/ OArtrssp.c
MS1066ac_rqambk	SM	OPSMCDOT	- - - - -	- - - - -	- - - - -	MSRQAMBK	oa/OAotqry/ OAratqry.c
						MSRQAMBK	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1067ac_rqrss	SM	OPSMCDOT	TRFC 30	63	REPLIES (TOTAL)	MSRQRSS	oa/OAnrate/ OAnrate.c
			TRFC 30	63	SUCCESS (RATEQT)		
			TRFC 30	63	SUCCESS (TOTAL)		
MS1068ac_ccqsrss	SM	OPSMCDOT	- - - - -	- - - - -	- - - - -	MSCCQSRSS	oa/OAta_ot/ OAhotel.c
MS1069ac_t_crss	SM	OPSMCDOT	- - - - -	- - - - -	- - - - -	MST_CRSS	oa/OAta_ot/ OAtimechrg.c
MS106ac_tdad	SM	BASE	M5	1	TRUNK INC	MSDADELAY	pc/PCorig/ PCtkorig.c
			PLNT 24	3	TDAD	MSDADELAY	pc/PCtones/ LPcoll_dig.c
			TRFC 30	4	TDAD		

Table 6 Part 6

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS1070ac_bnsnt	AM	OPAMBACD	- - - - -	- - - - -	- - - - -	MSBNSSNT	ccs/CCbns/ CCbnsqry.c
MS1071ac_bnhw	SM	OPSMCDOT	- - - - -	- - - - -	- - - - -	MSBNSHW	ccs/CCbns/ CCbnsqry.c
						MSBNSHW	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1071ac_bnhw	AM	OPAMBACD	- - - - -	- - - - -	- - - - -	MSBNSHW	ccs/CCbns/ CCbnsqry.c
						MSBNSHW	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1072ac_bndbcb	AM	OPAMBACD	- - - - -	- - - - -	- - - - -	MSBNSDBCB	ccs/CCbns/ CCbnsqry.c
MS1073ac_bnnmcb	AM	OPAMBACD	- - - - -	- - - - -	- - - - -	MSBNSNMCB	ccs/CCbns/ CCbnsqry.c
MS1074ac_bnnid	AM	OPAMBACD	- - - - -	- - - - -	- - - - -	MSBNSNID	ccs/CCbns/ CCbnsqry.c
MS1075ac_bnambk	SM	OPSMCDOT	- - - - -	- - - - -	- - - - -	MSBNSAMBK	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1076ac_bnrvf	SM	OPSMCDOT	- - - - -	- - - - -	- - - - -	MSBNSRVF	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1077ac_inq0	AM	BASE	TRFC 30	66	INPUT (QUEUE 0)	MSDLNIQ0	ccs/CCdtrans/ CCdltrmgh.c
MS1078ac_outq0	AM	BASE	TRFC 30	66	OUTPUT (QUEUE 0)	MSDLNOQ0	ccs/CCdtrans/ CCtrprims.c
MS1079ac_inq1	AM	BASE	TRFC 30	66	INPUT (QUEUE 1)	MSDLNIQ1	ccs/CCdtrans/ CCdltrmgh.c
MS107ac_dporq	SM	BASE	PLNT 24	1A	ORIGIN (REQUESTS)	MSORIGREQ	cra/CRasmblr/ CRsmprims.c

			TRFC 15	1	DPORQ		
			TRFC 30	3	DPORQ		
MS1080ac_acc0pk0	AM	BASE	PLNT 24	14	TOTAL (ACCS)	MSACC0PK0	oa/OAaccs/ OBJ/ OAna.sdc
MS1080ac_acc0pk0	SM	OPSMCD OT	PLNT 24	14	TOTAL (ACCS)	MSACC0PK0	oa/OAaccs/ OBJ/ OAna.sdc
MS1080ac_outq1	AM	BASE	TRFC 30	66	OUTPUT (QUEUE 1)	MSDLNOQ1	ccs/CCdtrans/ CCtrprims.c
MS1080ac_outq1	SM	OPSMCD OT	TRFC 30	66	OUTPUT (QUEUE 1)	MSDLNOQ1	ccs/CCdtrans/ CCtrprims.c
MS1081ac_accflsh	SM	OPSMCD OT	PLNT 24	14	TOTAL (ACCS)	MSACCFLSH	oa/OAaccs/ OBJ/ OAna.sdc
MS1086ac_camanq	SM	OPSMCD OT	PLNT 24	14	TOTAL (XFER)	MSCAMANQ	oa/OAottcama/ OAttiopset.c
						MSTCAMA	oa/OAottcama/ OAtti_call.c
MS1087ac_scamaoni	SM	OPSMCD OT	PLNT 24	14	TOTAL (SYSTEM)	MSSCAMAON I	oa/OAotopcam/ OAospsbn.c
MS1088ac_ccqsqt	SM	OPSMCD OT	PLNT 24	14	ATMPT (CCQS)	MSCCQSQT	oa/OAacqsmod/ OAasp_main.c
MS1089ac_3cfrq	SM	OPSMOT	PLNT 24	14	3PORT (INITIATED)	MS3CFRQ	oa/OAactsot/ OAgetconf.c
						MS3CFRQ	oa/OAta_ot/ OAta_2init.c
						MS3CFRQ	oa/OAtavn/ OAvnrsvcon.c
						MS3CFRQSV	oa/OAactsot/ OAgetconf.c
						MS3CFRQSV	oa/OAta_ot/ OAta_2init.c
						MS3CFRQSV	oa/OAtavn/ OAvnrsvcon.c
MS1089ac_camareord	SM	OPSMCD OT	- - - - -	- - - - -	- - - - -	MSCAMAREO RD	oa/OAottcama/ OAttirordr.c
MS108ac_ttorq	SM	BASE	PLNT 24	1A	ORIGIN (REQUESTS)	MSORIGREQ	cra/CRasmblr/ CRsmprims.c
			TRFC 15	1	TTORQ		
			TRFC 30	3	TTORQ		
MS1090ac_6cfrq	SM	OPSMCD OT	PLNT 24	14	6PORT (INITIATED)	MS6CFRQ	oa/OAactsot/ OAgetconf.c
						MS6CFRQ	oa/OAtavn/ OAvnrsvcon.c
						MS6CFRQSV	oa/OAactsot/ OAgetconf.c
						MS6CFRQSV	oa/OAtavn/ OAvnrsvcon.c
MS1091ac_accank	SM	OPSMCD OT	PLNT 24	14	ABANDNK	MSACCANK	oa/OAaccs/ OBJ/ OAna.sdc
						MSACCANK	oa/OAta_ot/ OAacc_call.c
MS1092ac_acctonk	SM	OPSMCD OT	PLNT 24	14	TO-NK	MSACCTONK	oa/OAaccs/ OBJ/ OAna.sdc
			PLNT 24	14	TOTAL (ACCS)		
MS1093ac_accsqab	SM	OPSMCD OT	PLNT 24	14	SQABAND	MSACCSQAB	oa/OAaccs/ OBJ/ OAna.sdc
			PLNT	14	SQINIT	MSACCSQAB	oa/OAta_ot/

			24				OAans_ta2.c
						MSACCSQAB	oa/OAta_ot/ OAcall_ta.c
MS1094ac_cchw	SM	OPSMCD OT	PLNT 24	12	ATMPT (CCRD)	MSCCHW	ccs/CCccd/ CCccdqry.c
			PLNT 24	12	HDW (CCRD)	MSCCHW	oa/OAtaqry/ OBJ/ OAtaqry.cc
			PLNT 24	12	NSENT (CCRD)		
MS1094ac_cchw	AM	OPAMBAC D	PLNT 24	12	ATMPT (CCRD)	MSCCHW	ccs/CCccd/ CCccdqry.c
			PLNT 24	12	HDW (CCRD)	MSCCHW	oa/OAtaqry/ OBJ/ OAtaqry.cc
			PLNT 24	12	NSENT (CCRD)		

Table 7 Part 7

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS1095ac_ccdbcb	AM	OPAMBAC D	PLNT 24	12	ATMPT (CCRD)	MSCCDBCB	ccs/CCccd/ CCccdqry.c
			PLNT 24	12	NSENT (CCRD)		
			PLNT 24	12	OVRLD (CCRD QUERIES)		
MS1096ac_ccnmcb	AM	OPAMBAC D	PLNT 24	12	ATMPT (CCRD)	MSCCNMCB	ccs/CCccd/ CCccdqry.c
			PLNT 24	12	NM (CCRD)		
			PLNT 24	12	NSENT (CCRD)		
MS1097ac_ccnid	AM	OPAMBAC D	PLNT 24	12	ATMPT (CCRD)	MSCCNID	ccs/CCccd/ CCccdqry.c
			PLNT 24	12	NO-ID (CCRD)		
			PLNT 24	12	NSENT (CCRD)		
MS1098ac_ccambk	SM	OPSMCD OT	PLNT 24	12	AMBLK (CCRD)	MSCCAMBK	oa/OAtaqry/ OBJ/ OAtaqry.cc
			PLNT 24	12	ATMPT (CCRD)		
			PLNT 24	12	NSENT (CCRD)		
MS1099ac_ccnrtdta	AM	OPAMBAC D	PLNT 24	12	ABNOR (CCRD)	MSCCNRTDT A	ccs/CCccd/ CCccdrply.c
			PLNT 24	12	NRTDG (CCRD)		
MS109ac_dpirq	SM	BASE	PLNT 24	1A	INCOM (REQUESTS)	MSINCREQ	cra/CRasmblr/ CRsmprims.c
			TRFC 15	1	DPINRQ		
			TRFC 30	3	DPINRQ		
MS1100ac_ccnwcg	AM	OPAMBAC D	PLNT 24	12	ABNOR (CCRD)	MSCCNWCG	ccs/CCccd/ CCccdrply.c
			PLNT 24	12	CONGEST (CCRD)		
MS1101ac_ccnwbk	AM	OPAMBAC	PLNT	12	ABNOR	MSCCNWBK	ccs/CCccd/

		D	24		(CCRD)		CCccdrply.c
			PLNT 24	12	BLKD (CCRD)		
MS1102ac_ccfneq	AM	OPAMBAC D	PLNT 24	12	ABNOR (CCRD)	MSCCFNEQ	ccs/CCccd/ CCccdrply.c
			PLNT 24	12	UNEQ (CCRD)		
MS1103ac_ccrnp	SM	OPSMCD OT	PLNT 24	12	NPROC (CCRD)	MSCCRNP	oa/OAtaqry/ OBJ/ OAtaqry.cc
			PLNT 24	12	TOTAL (CCRD)		
MS1104ac_ccrnx	AM	OPAMBAC D	PLNT 24	12	TOTAL (CCRD)	MSCCRNX	ccs/CCccd/ CCccdrply.c
			PLNT 24	12	UNEXP (CCRD)		
MS1105ac_ccrnvf	SM	OPSMCD OT	PLNT 24	12	INVFRMT (CCRD)	MSCCRNVF	ccs/CCccd/ CCccdrply.c
			PLNT 24	12	TOTAL (CCRD)	MSCCRNVF	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1105ac_ccrnvf	AM	OPAMBAC D	PLNT 24	12	INVFRMT (CCRD)	MSCCRNVF	ccs/CCccd/ CCccdrply.c
			PLNT 24	12	TOTAL (CCRD)	MSCCRNVF	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1106ac_ccnres	SM	OPSMCD OT	PLNT 24	12	TIMEOUT (CCRD)	MSCCNRES	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1107ac_ccovld	AM	OPAMBAC D	PLNT 24	12	OVRLD (CCRD REPLIES)	MSCCOVLD	ccs/CCccd/ CCccdrply.c
MS1108ac_cctest	AM	OPAMBAC D	PLNT 24	12	TEST (CCRD)	MSCCTEST	ccs/CCoptst/ CCccdtst.c
MS1109ac_ncdsnt	AM	OPAMBAC D	PLNT 24	12	ATMPT (NCD)	MSNCDSNT	ccs/CCopncd/ CCopndqry.c
			PLNT 24	12	SENT (NCD)		
MS110ac_mfirq	SM	BASE	PLNT 24	1A	INCOM (REQUESTS)	MSINCREQ	cra/CRasmblr/ CRsmprims.c
			TRFC 15	1	MFINRQ		
			TRFC 30	3	MFINRQ		
MS1110ac_ncdhw	SM	OPSMCD OT	PLNT 24	12	ATMPT (NCD)		
			PLNT 24	12	HDW (NCD)	MSNCDHW	ccs/CCopncd/ CCopndqry.c
			PLNT 24	12	NSENT (NCD)	MSNCDHW	oa/OAotqry/ OAondqry.c
						MSNCDHW	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1110ac_ncdhw	AM	OPAMBAC D	PLNT 24	12	ATMPT (NCD)	MSNCDHW	ccs/CCopncd/ CCopndqry.c
			PLNT 24	12	HDW (NCD)	MSNCDHW	oa/OAotqry/ OAondqry.c
			PLNT 24	12	NSENT (NCD)	MSNCDHW	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1111ac_ncddbcb	AM	OPAMBAC D	PLNT 24	12	ATMPT (NCD)	MSNCDDBCB	ccs/CCopncd/ CCopndqry.c
			PLNT 24	12	NSENT (NCD)		
			PLNT 24	12	OVRLD (NCD QUERIES)		
MS1112ac_ncdnmcb	AM	OPAMBAC	PLNT	12	ATMPT (NCD)	MSNCDNMCB	ccs/CCopncd/

		D	24				CCopndqry.c
			PLNT 24	12	NM (NCD)		
			PLNT 24	12	NSENT (NCD)		

Table 8 Part 8

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS1113ac_ncdnid	AM	OPAMBACD	PLNT 24	12	ATMPT (NCD)	MSNCDNID	ccs/CCopncd/ CCopndqry.c
			PLNT 24	12	NO-ID (NCD)		
			PLNT 24	12	NSENT (NCD)		
MS1114ac_ncdambk	SM	OPSMCDOT	PLNT 24	12	AMBLK (NCD)	MSNCDAMBK	oa/OAotqry/ OAondqry.c
			PLNT 24	12	ATMPT (NCD)	MSNCDAMBK	oa/OAtaqry/ OBJ/ OAtaqry.cc
			PLNT 24	12	NSENT (NCD)		
MS1115ac_ncdnrtdta	AM	OPAMBACD	PLNT 24	12	ABNOR (NCD)	MSNCDNRTDTA	ccs/CCopncd/ CCopndrply.c
			PLNT 24	12	NRTDG (NCD)		
MS1116ac_ncdnwcg	AM	OPAMBACD	PLNT 24	12	ABNOR (NCD)	MSNCDNWCG	ccs/CCopncd/ CCopndrply.c
			PLNT 24	12	CONGEST (NCD)		
MS1117ac_ncdnwbk	AM	OPAMBACD	PLNT 24	12	ABNOR (NCD)	MSNCDNWBK	ccs/CCopncd/ CCopndrply.c
			PLNT 24	12	BLKD (NCD)		
MS1118ac_ncdfneq	AM	OPAMBACD	PLNT 24	12	ABNOR (NCD)	MSNCDFNEQ	ccs/CCopncd/ CCopndrply.c
			PLNT 24	12	UNEQ (NCD)		
MS1119ac_ncdrnp	SM	OPSMCDOT	PLNT 24	12	NPROC (NCD)	MSNCDRNP	oa/OAotqry/ OAondrply.c
			PLNT 24	12	TOTAL (NCD)	MSNCDRNP	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS111ac_orpc	SM	BASE	M5	3	ORIG	MSORIGPC	as/ASmsmisc/ MScrpegcnt.c
			PLNT 24	1A	ORIGIN (BASE COUNTS)		
			PLNT 24	4	RMORIG (BASE MEASUREMENTS)		
			TRFC 15	1	ORIGPC		
			TRFC 30	5	PEGCT (ORIGINAT)		
			TRFC 30	13	ORGHC		
			TRFC 30	22	ORIG		
			TRFC	22	RMORIG		

			30				
MS1120ac_ncdrnx	AM	OPAMBACD	PLNT 24	12	TOTAL (NCD)	MSNCDRNX	ccs/CCopncd/ CCopndrply.c
			PLNT 24	12	UNEXP (NCD)		
MS1121ac_ncdrnvf	SM	OPSMCDOT	PLNT 24	12	INVFRMT (NCD)	MSNCDRNVF	ccs/CCopncd/ CCopndrply.c
			PLNT 24	12	TOTAL (NCD)	MSNCDRNVF	oa/OAotqry/ OAondrply.c
						MSNCDRNVF	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1121ac_ncdrnvf	AM	OPAMBACD	PLNT 24	12	INVFRMT (NCD)	MSNCDRNVF	ccs/CCopncd/ CCopndrply.c
			PLNT 24	12	TOTAL (NCD)	MSNCDRNVF	oa/OAotqry/ OAondrply.c
						MSNCDRNVF	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1122ac_ncdovld	AM	OPAMBACD	PLNT 24	12	OVRLD (NCD REPLIES)	MSNCDOVLD	ccs/CCopncd/ CCopndrply.c
MS1123ac_ncdnres	SM	BASE	PLNT 24	12	TIMEOUT (NCD)	MSNCDNRES	fc/FCccdsig/ FCatcset.c
						MSNCDNRES	oa/OAotqry/ OAot_qry.c
						MSNCDNRES	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1124ac_ncdtest	AM	OPAMBACD	PLNT 24	12	TEST (NCD)	MSNCDTEST	ccs/CCoptst/ CCopndtst.c
MS1125ac_rqsnt	SM	OPSMCDOT	PLNT 24	13	ATMPT	MSRQSNT	ccs/CCcfr/ CCcfrqry.c
			PLNT 24	13	SENT (QUERIES)	MSRQSNT	oa/OAncal/ OBJ/ OAncal.cc
			PLNT 24	13	SENT (RATEQT)	MSRQSNT	oa/OArtrsmod/ OArtrssp.c
MS1125ac_rqsnt	AM	OPAMBACD	PLNT 24	13	ATMPT	MSRQSNT	ccs/CCcfr/ CCcfrqry.c
			PLNT 24	13	SENT (QUERIES)	MSRQSNT	oa/OAncal/ OBJ/ OAncal.cc
			PLNT 24	13	SENT (RATEQT)	MSRQSNT	oa/OArtrsmod/ OArtrssp.c
MS1126ac_ccqssnt	SM	OPSMCDOT	PLNT 24	13	ATMPT	MSCCQSSNT	ccs/CCcfr/ CCcfrqry.c
			PLNT 24	13	SENT (CCQS)	MSCCQSSNT	oa/OArtrsmod/ OArtrssp.c
			PLNT 24	13	SENT (QUERIES)		
MS1126ac_ccqssnt	AM	OPAMBACD	PLNT 24	13	ATMPT	MSCCQSSNT	ccs/CCcfr/ CCcfrqry.c
			PLNT 24	13	SENT (CCQS)	MSCCQSSNT	oa/OArtrsmod/ OArtrssp.c
			PLNT 24	13	SENT (QUERIES)		
MS1127ac_t_csnt	SM	OPSMCDOT	PLNT 24	13	ATMPT	MST_CSNT	ccs/CCcfr/ CCcfrqry.c
			PLNT 24	13	SENT (QUERIES)	MST_CSNT	oa/OArtrsmod/ OArtrssp.c
			PLNT 24	13	SENT (T&C)		

Table 9 Part 9

Counter	Proc.	PKG	Repo	Repo	Report	Macro Name	Macro Pegged By

			rt Name	rt Sect	Heading		
MS1127ac_t_csnt	AM	OPAMBACD	PLNT 24	13	ATMPT	MST_CSNT	ccs/CCcfr/ CCcfrqry.c
			PLNT 24	13	SENT (QUERIES)	MST_CSNT	oa/OArtrsmod/ OArtrssp.c
			PLNT 24	13	SENT (T&C)		
MS1128ac_rqhw	SM	OPSMCDOT	PLNT 24	13	ATMPT	MSRQHW	ccs/CCcfr/ CCcfrqry.c
			PLNT 24	13	HDW	MSRQHW	oa/OAotqry/ OAratqry.c
			PLNT 24	13	NSENT	MSRQHW	oa/OArtrsmod/ OArtrssp.c
						MSRQHW	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1128ac_rqhw	AM	OPAMBACD	PLNT 24	13	ATMPT	MSRQHW	ccs/CCcfr/ CCcfrqry.c
			PLNT 24	13	HDW	MSRQHW	oa/OAotqry/ OAratqry.c
			PLNT 24	13	NSENT	MSRQHW	oa/OArtrsmod/ OArtrssp.c
						MSRQHW	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1129ac_rqdbcb	SM	OPSMCDOT	PLNT 24	13	ATMPT	MSRQDBCB	ccs/CCcfr/ CCcfrqry.c
			PLNT 24	13	NSENT	MSRQDBCB	oa/OArtrsmod/ OArtrssp.c
			PLNT 24	13	OVRLD (QUERIES)		
MS1129ac_rqdbcb	AM	OPAMBACD	PLNT 24	13	ATMPT	MSRQDBCB	ccs/CCcfr/ CCcfrqry.c
			PLNT 24	13	NSENT	MSRQDBCB	oa/OArtrsmod/ OArtrssp.c
			PLNT 24	13	OVRLD (QUERIES)		
MS112ac_orusg	SM	BASE	TRFC 30	5	USG (ORIGINAT)	MSORIGUSG	as/ASmsscan/ MS100scan.c
MS1130ac_rqnmcb	AM	OPAMBACD	PLNT 24	13	ATMPT	MSRQNMCB	ccs/CCcfr/ CCcfrqry.c
			PLNT 24	13	NM		
			PLNT 24	13	NSENT		
MS1131ac_rqnid	SM	OPSMCDOT	PLNT 24	13	ATMPT	MSRQNID	ccs/CCcfr/ CCcfrqry.c
			PLNT 24	13	NO-ID	MSRQNID	oa/OArtrsmod/ OArtrssp.c
			PLNT 24	13	NSENT		
MS1131ac_rqnid	AM	OPAMBACD	PLNT 24	13	ATMPT	MSRQNID	ccs/CCcfr/ CCcfrqry.c
			PLNT 24	13	NO-ID	MSRQNID	oa/OArtrsmod/ OArtrssp.c
			PLNT 24	13	NSENT		
MS1132ac_rqambk	SM	OPSMCDOT	PLNT 24	13	AMBLK	MSRQAMBK	oa/OAotqry/ OAratqry.c
			PLNT 24	13	ATMPT	MSRQAMBK	oa/OAtaqry/ OBJ/ OAtaqry.cc
			PLNT	13	NSENT		

			24				
MS1133ac_rqnrtdta	AM	OPAMBACD	PLNT 24	13	ABNOR	MSRQNRTDTA	ccs/CCcfr/ CCcfrrply.c
			PLNT 24	13	NRTDG		
MS1134ac_rqnwcg	AM	OPAMBACD	PLNT 24	13	ABNOR	MSRQNWCG	ccs/CCcfr/ CCcfrrply.c
			PLNT 24	13	CONGEST		
MS1135ac_rqnwbk	AM	OPAMBACD	PLNT 24	13	ABNOR	MSRQNWBK	ccs/CCcfr/ CCcfrrply.c
			PLNT 24	13	BLKD		
MS1136ac_rqfneq	AM	OPAMBACD	PLNT 24	13	ABNOR	MSRQFNEQ	ccs/CCcfr/ CCcfrrply.c
			PLNT 24	13	UNEQ		
MS1137ac_rrnp	SM	OPSMCDOT	PLNT 24	13	NPROC	MSRRNP	oa/OAotqry/ OAratrply.c
						MSRRNP	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1138ac_rrnx	SM	OPSMCDOT	PLNT 24	13	UNEXP	MSRRNX	ccs/CCcfr/ CCcfrrply.c
						MSRRNX	oa/OArtrsmod/ OArtndata.c
MS1138ac_rrnx	AM	OPAMBACD	PLNT 24	13	UNEXP	MSRRNX	ccs/CCcfr/ CCcfrrply.c
						MSRRNX	oa/OArtrsmod/ OArtndata.c
MS1139ac_rrnvf	SM	OPSMCDOT	PLNT 24	13	INVFRMT	MSRRNVF	ccs/CCcfr/ CCcfrrply.c
						MSRRNVF	oa/OAotqry/ OAratrply.c
						MSRRNVF	oa/OArtrsmod/ OArtpmghlr.c
						MSRRNVF	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1139ac_rrnvf	AM	OPAMBACD	PLNT 24	13	INVFRMT	MSRRNVF	ccs/CCcfr/ CCcfrrply.c
						MSRRNVF	oa/OAotqry/ OAratrply.c
						MSRRNVF	oa/OArtrsmod/ OArtpmghlr.c
						MSRRNVF	oa/OAtaqry/ OBJ/ OAtaqry.cc

Table 10 Part 10

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS113ac_inpc	SM	BASE	M5	3	INC	MSINCPC	as/ASmsmisc/ MScrpegcnt.c
			PLNT 24	1A	INCOM (BASE COUNTS)		
			TRFC 15	1	INCPC		
			TRFC 30	5	PEGCT (INCOMING)		
			TRFC 30	13	INCHC		

MS1140ac_rqrf	SM	OPSMCD OT	PLNT 24	13	FAILURE (RATEQT)	MSRQRF	oa/OAnrate/ OAnrate.c
			PLNT 24	13	FAILURE (TOTAL)		
			PLNT 24	13	TOTAL		
MS1141ac_ccqsrf	SM	OPSMCD OT	PLNT 24	13	FAILURE (CCQS)	MSCCQSRF	oa/OAta_ot/ OAhotel.c
			PLNT 24	13	FAILURE (TOTAL)		
			PLNT 24	13	TOTAL		
MS1142ac_t_crf	SM	OPSMCD OT	PLNT 24	13	FAILURE (T&C)	MST_CRF	oa/OAta_ot/ OAtimechrg.c
			PLNT 24	13	FAILURE (TOTAL)		
			PLNT 24	13	TOTAL		
MS1143ac_rnres	SM	OPSMCD OT	PLNT 24	13	TIMEOUT	MSRNRES	oa/OAotqry/ OAot_qry.c
						MSRNRES	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1144ac_rqovld	SM	OPSMCD OT	PLNT 24	13	OVRLD (REPLIES)	MSRQOVLD	ccs/CCcfr/ CCcfrrply.c
						MSRQOVLD	oa/OArtrsmod/ OArtndata.c
MS1144ac_rqovld	AM	OPAMBAC D	PLNT 24	13	OVRLD (REPLIES)	MSRQOVLD	ccs/CCcfr/ CCcfrrply.c
						MSRQOVLD	oa/OArtrsmod/ OArtndata.c
MS1145ac_rqtest	AM	OPAMBAC D	PLNT 24	13	TEST	MSRQTEST	ccs/CCoptst/ CCrattst.c
MS1146ac_bnsnt	AM	OPAMBAC D	PLNT 24	12	ATMPT (BNS)	MSBNSSNT	ccs/CCbns/ CCbnsqry.c
			PLNT 24	12	SENT (BNS)		
MS1147ac_bnhw	SM	OPSMCD OT	PLNT 24	12	ATMPT (BNS)	MSBNSHW	ccs/CCbns/ CCbnsqry.c
			PLNT 24	12	HDW (BNS)	MSBNSHW	oa/OAtaqry/ OBJ/ OAtaqry.cc
			PLNT 24	12	NSENT (BNS)		
MS1147ac_bnhw	AM	OPAMBAC D	PLNT 24	12	ATMPT (BNS)	MSBNSHW	ccs/CCbns/ CCbnsqry.c
			PLNT 24	12	HDW (BNS)	MSBNSHW	oa/OAtaqry/ OBJ/ OAtaqry.cc
			PLNT 24	12	NSENT (BNS)		
MS1148ac_bndbcb	AM	OPAMBAC D	PLNT 24	12	ATMPT (BNS)	MSBNSDBCB	ccs/CCbns/ CCbnsqry.c
			PLNT 24	12	NSENT (BNS)		
			PLNT 24	12	OVRLD (BNS QUERIES)		
MS1149ac_bnnmcb	AM	OPAMBAC D	PLNT 24	12	ATMPT (BNS)	MSBNSNMCB	ccs/CCbns/ CCbnsqry.c
			PLNT 24	12	NM (BNS)		
			PLNT 24	12	NSENT (BNS)		
MS114ac_llpc	SM	BASE	M5	3	INTRA-TERM	MSLNLNPC	as/ASmsmisc/

							MScrpegcnt.c
			PLNT 24	1A	INTRA-OFFICE (BASE COUNTS)		
			TRFC 15	1	INTRPC		
			TRFC 30	5	PEGCT (INTRAOFF)		
MS1150ac_bnnid	AM	OPAMBACD	PLNT 24	12	ATMPT (BNS)	MSBNSNID	ccs/CCbns/ CCbnsqry.c
			PLNT 24	12	NO-ID (BNS)		
			PLNT 24	12	NSENT (BNS)		
MS1151ac_bnambk	SM	OPSMCDOT	PLNT 24	12	AMBLK (BNS)	MSBNSAMBK	oa/OAtaqry/ OBJ/ OAtaqry.cc
			PLNT 24	12	ATMPT (BNS)		
			PLNT 24	12	NSENT (BNS)		
MS1152ac_bnnrtdta	AM	OPAMBACD	PLNT 24	12	ABNOR (BNS)	MSBNSNRTDTA	ccs/CCbns/ CCbnsrply.c
			PLNT 24	12	NRTDG (BNS)		
MS1153ac_bnnwcg	AM	OPAMBACD	PLNT 24	12	ABNOR (BNS)	MSBNSNWCG	ccs/CCbns/ CCbnsrply.c
			PLNT 24	12	CONGEST (BNS)		
MS1154ac_bnnwbk	AM	OPAMBACD	PLNT 24	12	ABNOR (BNS)	MSBNSNWBK	ccs/CCbns/ CCbnsrply.c
			PLNT 24	12	BLKD (BNS)		
MS1155ac_bnfneq	AM	OPAMBACD	PLNT 24	12	ABNOR (BNS)	MSBNSFNEQ	ccs/CCbns/ CCbnsrply.c
			PLNT 24	12	UNEQ (BNS)		

Table 11 Part 11

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS1156ac_bnrnp	SM	OPSMCDOT	PLNT 24	12	NPROC (BNS)	MSBNSRNP	oa/OAtaqry/ OBJ/ OAtaqry.cc
			PLNT 24	12	TOTAL (BNS)		
MS1157ac_bnrnx	AM	OPAMBACD	PLNT 24	12	TOTAL (BNS)	MSBNSRNX	ccs/CCbns/ CCbnsrply.c
			PLNT 24	12	UNEXP (BNS)		
MS1158ac_bnrnvf	SM	OPSMCDOT	PLNT 24	12	INVFRMT (BNS)	MSBNSRNVF	ccs/CCbns/ CCbnsrply.c
			PLNT 24	12	TOTAL (BNS)	MSBNSRNVF	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1158ac_bnrnvf	AM	OPAMBACD	PLNT 24	12	INVFRMT (BNS)	MSBNSRNVF	ccs/CCbns/ CCbnsrply.c
			PLNT 24	12	TOTAL (BNS)	MSBNSRNVF	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1159ac_bnnres	SM	OPSMCDOT	PLNT 24	12	TIMEOUT (BNS)	MSBNSNRES	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS115ac_ogpc	SM	BASE	M5	3	OUTG	MSOUTGPC	as/ASmsmisc/

							MScrpegcnt.c
			PLNT 24	1A	OUTGO (BASE COUNTS)		
			TRFC 15	1	OUTGPC		
			TRFC 30	5	PEGCT (OUTGOING)		
MS1160ac_bnovld	AM	OPAMBACD	PLNT 24	12	OVRLD (BNS REPLIES)	MSBNSOVLD	ccs/CCbns/ CCbnsrply.c
MS1161ac_bntest	AM	OPAMBACD	PLNT 24	12	TEST (BNS)	MSBNSTEST	ccs/CCoptst/ CCbnstst.c
MS1162ac_scrnabrt	SM	OPSMCDOT	PLNT 24	14	ATMPT (SCREENED)	MSSCRNABRT	oa/OAnprls/ OAprlmeas.c
			PLNT 24	14	FAILURE		
MS1163ac_scrnss	SM	OPSMCDOT	PLNT 24	14	ATMPT (SCREENED)	MSSCRNSS	oa/OAnprls/ OAprlmeas.c
			PLNT 24	14	SUCCESS (SCREENED)		
MS1164ac_camaato	SM	OPSMCDOT	PLNT 24	14	ABAND (XFER)	MSCAMAATO	oa/OAottcama/ OAtti_call.c
						MSCAMAATO	oa/OAottcama/ OAttiopans.c
						MSCAMAATO	oa/OAottcama/ OAttioptlk.c
						MSCAMAATO	oa/OAottcama/ OAttique.c
MS1165ac_scamaato	SM	OPSMCDOT	PLNT 24	14	ABAND (SYSTEM)	MSSCAMAATO	oa/OAotopcam/ OAospsbn.c
MS1166ac_camapd	SM	OPSMCDOT	PLNT 24	14	CAMAPOSD	MSCAMAPD	oa/OAtanca/ OBJ/ OA_atanca.sdc
						MSCAMAPD	oa/OAtanca/ OBJ/ OAtanca.sdc
MS1167ac_ccqsss	SM	OPSMCDOT	PLNT 24	14	SUCCESS (CCQS)	MSCCQSSS	oa/OAacqsmod/ OAcrd_mcnt.c
MS1168ac_anifail	SM	OPSMCDOT	PLNT 24	14	ANIFAIL	MSANIFAIL	oa/OAotopcam/ OAospsbn.c
			PLNT 24	14	TOTAL (ONI)	MSANIFAIL	oa/OAottcama/ OAttitone.c
						MSANIFAIL	oa/OAta_ot/ OAreq_init.c
MS1169ac_nani_mp	SM	OPSMCDOT	PLNT 24	14	TOTAL (ONI)	MSNANI_MP	oa/OAotopcam/ OAospsbn.c
			PLNT 24	14	UNEQ	MSNANI_MP	oa/OAottcama/ OAttitone.c
						MSNANI_MP	oa/OAta_ot/ OAatt_ani.c
						MSNANI_MP	oa/OAta_ot/ OAboc_ani.c
						MSNANI_MP	oa/OAta_ot/ OAea_ani.c
MS116ac_tmpc	SM	BASE	M5	3	LOCAL-TERM	MSTERMPC	as/ASmsmisc/ MScrpegcnt.c
			PLNT 24	1A	TERM (BASE COUNTS)		
			TRFC 15	1	TERMPC		
			TRFC 30	5	PEGCT (TERMINAT)		
MS1170ac_anitrnr	SM	OPSMCD	PLNT	14	TRUNK	MSANITRNR	oa/OAta_ot/

		OT	24				OAscrnlncd.c
MS1171ac_3cfrqsv	SM	OPSMCD OT	PLNT 24	14	3PORT (NOT-SERVE D)	MS3CFRQSV	oa/OAactsot/ OAgetconf.c
						MS3CFRQSV	oa/OAta_ot/ OAta_2init.c
						MS3CFRQSV	oa/OAtavn/ OAvnrsvcon.c
MS1172ac_camanq	SM	OPSMCD OT	PLNT 24	14	NOQUEUE (XFER)	MSCAMANQ	oa/OAottcama/ OAttiopset.c
MS1173ac_camaoninq	SM	OPSMCD OT	PLNT 24	14	NOQUEUE (SYSTEM)	MSCAMAONI NQ	cra/CRasmblr/ CRsminput.c
						MSCAMAONI NQ	oa/OAotoper/ OAta_opset.c
MS1174ac_camacidfl	SM	OPSMCD OT	PLNT 24	14	IDFAIL	MSCAMACIDF L	oa/OAottcama/ OAttitone.c
MS1175ac_camareord	SM	OPSMCD OT	PLNT 24	14	REORDER	MSCAMAREO RD	oa/OAottcama/ OAttirordr.c
MS1176ac_ccsnt	AM	OPAMBAC D	PLNT 24	12	ATMPT (CCRD)	MSCCSNT	ccs/CCccd/ CCccdqry.c
			PLNT 24	12	SENT (CCRD)		
MS1177ac_6cfrqsv	SM	OPSMCD OT	PLNT 24	14	6PORT (NOT-SERVE D)	MS6CFRQSV	oa/OAactsot/ OAgetconf.c
						MS6CFRQSV	oa/OAtavn/ OAvnrsvcon.c
MS117ac_tmusg	SM	BASE	TRFC 30	5	USG (TERMINAT)	MSTERMUSG	as/ASmsscan/ MS100scan.c

Table 12 Part 12

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS1180ac_lctdu	SM	OPSMCD OT	TRFC 30	103	USG	MSLCTDU	as/ASospsadm/ MSctdsmta.c
MS1181ac_lctdmu	SM	OPSMCD OT	TRFC 30	103	MTCE	MSLCTDMU	as/ASospsadm/ MSsm100s.c
MS1182ac_lctda	SM	BASE	TRFC 30	103	ACCESS	MSLCTDA	pc/PCtones/ PCrqrcv.c
MS1183ac_lctdo	SM	BASE	TRFC 30	103	OVFLOW	MSLCTDO	pc/PCtones/ PCrqrcv.c
MS1186ac_rqrss	SM	OPSMCD OT	PLNT 24	13	TOTAL	MSRQRSS	oa/OAnrate/ OAnrate.c
MS1187ac_ccqsrss	SM	OPSMCD OT	PLNT 24	13	TOTAL	MSCCQSRSS	oa/OAta_ot/ OAhotel.c
MS1188ac_t_crss	SM	OPSMCD OT	PLNT 24	13	TOTAL	MST_CRSS	oa/OAta_ot/ OAtimechrg.c
MS118ac_ttpc	SM	BASE	M5	3	TANDEM	MSTRTRPC	as/ASmsmisc/ MScrpegcnt.c
			PLNT 24	1A	TANDEM (BASE COUNTS)		
			TRFC 15	1	TANPC		
			TRFC 30	5	PEGCT (TANDEM)		
MS1190ac_iinwnoncn	SM	OPSMCD OT	TRFC 30	61	NONCOIN	MSIINWNONC N	oa/OAotoper/ OAinward.c
MS1191ac_camaoninq	SM	OPSMCD	- - - - -	- - - - -	- - - - -	MSCAMAONI	cra/CRasmblr/

		OT				NQ	CRsminput.c
						MSCAMAONI NQ	oa/OAotoper/ OAta_opset.c
MS1192ac_ccrv	SM	OPSMCD OT	PLNT 24	12	TOTAL (CCRD)	MSCCRV	oa/OAtaqry/ OBJ/ OAtaqry.cc
						MSCCRVC	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1193ac_ccrvc	SM	OPSMCD OT	PLNT 24	12	TOTAL (CCRD)	MSCCRVC	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1194ac_ccbnnv	SM	OPSMCD OT	PLNT 24	12	TOTAL (CCRD)	MSCCBNNV	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1195ac_ccsvdny	SM	OPSMCD OT	PLNT 24	12	TOTAL (CCRD)	MSCCSVDNY	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1196ac_ccnpin	SM	OPSMCD OT	PLNT 24	12	TOTAL (CCRD)	MSCCNPIN	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1197ac_ncdrvf	SM	OPSMCD OT	PLNT 24	12	TOTAL (NCD)	MSNCDRVF	oa/OAotqry/ OAondrply.c
						MSNCDRVF	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1198ac_bnrvf	SM	OPSMCD OT	PLNT 24	12	TOTAL (BNS)	MSBNSRVF	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1199ac_accsqvbln	SM	OPSMCD OT	PLNT 24	14	SQINIT	MSACCSQVB LN	oa/OAaccs/ OBJ/ OAna.sdc
MS119ac_ofs	SM	BASE	PLNT 24	1B	ORIGIN (FALSE STARTS)	MSOFS	as/ASmsmisc/ MScrpegcnt.c
			TRFC 30	6	FALST (ORIGIN)		
MS121ac_opda	SM	BASE	TRFC 30	6	PDABAN (ORIGIN)	MSOPDA	as/ASmsmisc/ MScrpegcnt.c
MS123ac_oca	SM	BASE	TRFC 30	6	ABAND (ORIGIN)	MSOCA	as/ASmsmisc/ MScrpegcnt.c
MS124ac_ifs	SM	BASE	PLNT 24	1B	INCOM (FALSE STARTS)	MSIFS	as/ASmsmisc/ MScrpegcnt.c
			TRFC 30	6	FALST (INCOM)		
MS126ac_ipda	SM	BASE	PLNT 24	1B	INCOM (TIMEOUTS AND ABANDONS)	MSIPDA	as/ASmsmisc/ MScrpegcnt.c
			TRFC 30	6	PDABAN (INCOM)		
MS128ac_ica	SM	BASE	PLNT 24	1B	INCOM (TIMEOUTS AND ABANDONS)	MSICA	as/ASmsmisc/ MScrpegcnt.c
			TRFC 30	6	ABAND (INCOM)		
MS1300ac_df	SM	BASE	TRFC 30	72	DNMSGS	MSIBRDF	fc/FCclid/ ISfill_db.c
						MSIBRDF	fc/FCcpnbn/ IScpnbncnt.c
						MSIBRDF	fc/FCeds/ ISpegibrdf.c
						MSIBRDF	fc/FCmfcnr/ OBJ/ MCnear.sdc
						MSIBRDF	fc/FCshdn/ ISpegshlid.c
						MSIBRDF	fp/FPb911/ FP9ans.c

						MSIBRDF	fp/FPInterm/ FPrt_ans.c
MS1304ac_acacs	SM	BASE	TRFC 30	76	AUTO CALLBK-ACS	MSACACS	fc/FCarc/ MCarc_init.c
MS1305ac_accanc	SM	BASE	TRFC 30	76	AUTO CALLBK-CANC	MSACCANC	fc/FCarc/ FCarccanc.c
MS1306ac_acics	SM	BASE	TRFC 30	76	AUTO CALLBK-ICS	MSACICS	fc/FCarc/ OBJ/ MCarc.cc
MS1307ac_accmp	SM	BASE	TRFC 30	76	AUTO CALLBK-CAMPON	MSACCMP	fc/FCarc/ OBJ/ MCarc.cc
MS1308ac_acovfl	SM	BASE	TRFC 30	76	AUTO CALLBK-OVFL	MSACOVFL	fc/FCarc/ FCarcinsrt.c
						MSACOVFL	fc/FCarc/ MCac_2L21L.c
						MSACOVFL	fc/FCarc/ MCarc_init.c
MS1309ac_acltd	SM	BASE	TRFC 30	76	AUTO CALLBK-LTD	MSACLTD	fc/FCarc/ FCarc_trmt.c
						MSACLTD	fc/FCarc/ MCarc_trmt.c
MS130ac_hwdia	SM	BASE	PLNT 24	1B	CONNECT (CALL SETUP TROUBLES)	MSHWDFAIL	as/ASmsmisc/ MScrpegcnt.c
			PLNT 24	3	CONNECTING		
			PLNT 24	4	RMCONN		
			TRFC 30	3	CDIRR		

Table 13 Part 13

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS1310ac_acstd	SM	BASE	TRFC 30	76	AUTO CALLBK-STD	MSACSTD	fc/FCarc/ FCarc_trmt.c
						MSACSTD	fc/FCarc/ MCarc_trmt.c
MS1311ac_actmo	SM	BASE	TRFC 30	76	AUTO CALLBK-TO	MSACTMO	fc/FCarc/ FCarb_fail.c
						MSACTMO	fc/FCarc/ FCarcfetxp.c
MS1312ac_aracs	SM	BASE	TRFC 30	76	AUTO RECALL-ACS	MSARACS	fc/FCarc/ MCarc_init.c
MS1313ac_arcanc	SM	BASE	TRFC 30	76	AUTO RECALL-CANC	MSARACS	fc/FCarc/ MCarc_init.c
						MSARCANC	fc/FCarc/ FCarccanc.c
MS1314ac_arics	SM	BASE	TRFC 30	76	AUTO RECALL-ICS	MSARICS	fc/FCarc/ OBJ/ MCarc.cc
MS1315ac_arcmp	SM	BASE	TRFC 30	76	AUTO RECALL-CAMPON	MSARCMP	fc/FCarc/ OBJ/ MCarc.cc
MS1316ac_arovfl	SM	BASE	TRFC 30	76	AUTO RECALL-OVFL	MSAROVFL	fc/FCarc/ FCarcinsrt.c

						MSAROVFL	fc/FCarc/ MCarc_init.c
MS1317ac_arltd	SM	BASE	TRFC 30	76	AUTO RECALL-LTD	MSARLTD	fc/FCarc/ FCarc_trmt.c
						MSARLTD	fc/FCarc/ MCarc_trmt.c
MS1318ac_arstd	SM	BASE	TRFC 30	76	AUTO RECALL-STD	MSARSTD	fc/FCarc/ FCarc_trmt.c
						MSARSTD	fc/FCarc/ MCarc_trmt.c
MS1319ac_artmo	SM	BASE	TRFC 30	76	AUTO RECALL-TO	MSARTMO	fc/FCarc/ FCarb_fail.c
						MSARTMO	fc/FCarc/ FCarcfetxp.c
MS131ac_scopc	SM	BASE	PLNT 24	1A	SWITCH (CUT OFF CALLS)	MSSCO	fp/FPreport/ FPco_check.c
						MSSCO	oa/OAacqsmod/ OAaq_trans.c
						MSSCOINPC	fc/FCcoin/ FCc_retcol.c
						MSSCOINPC	fp/FPcoin/ FPc_final.c
MS1320ac_bmsg	SM	BASE	TRFC 30	91	INV-CMD-MS G	MSNSBADMS G	ccs/CCnumsv/ CCns_800.c
						MSNSBADMS G	ccs/CCnumsv/ CCns_other.c
						MSNSBADMS G	ccs/CCnumsv/ CCns_recv.c
						MSNSBADMS G	fc/FCnumsv/ FCns_resp.c
						MSNSBADMS G	fc/FCnumsv/ FCns_rpt.c
MS1320ac_bmsg	AM	BASE	TRFC 30	91	INV-CMD-MS G	MSNSBADMS G	ccs/CCnumsv/ CCns_800.c
						MSNSBADMS G	ccs/CCnumsv/ CCns_other.c
						MSNSBADMS G	ccs/CCnumsv/ CCns_recv.c
						MSNSBADMS G	fc/FCnumsv/ FCns_resp.c
						MSNSBADMS G	fc/FCnumsv/ FCns_rpt.c
MS1321ah_nsbvc	AM	BASE	M5	12	NSC-BLK-VAC	MSNSVC	nm/NMnumsv/ NMns_chk.c
MS1322ah_nsbo	AM	BASE	M5	12	NSC-BLK-OVL	MSNSSCP	nm/NMnumsv/ NMns_chk.c
MS1323ah_nsbmc	AM	BASE	M5	12	NSC-BLK-MA S	MSNSMASS	nm/NMnumsv/ NMns_chk.c
MS1324ah_nsbman	AM	BASE	M5	12	NSC-BLK-MA N	MSNSMAN	nm/NMnumsv/ NMns_chk.c
MS1325ah_6dvco	AM	BASE	M5	12	SDV-COL-OV F	MSNSOVC6	nm/NMnumsv/ NMns_set.c
MS1326ah_10dvco	AM	BASE	M5	12	TDV-COL-OVF	MSNSOVC10	nm/NMnumsv/ NMns_set.c
MS1327ah_nnpaco	AM	BASE	M5	12	NON-NPA-OV F	MSNSONNPA	nm/NMnumsv/ NMns_set.c
MS1328ah_scpoco	AM	BASE	M5	12	OVL-COL-OVF	MSNSOSCP	nm/NMnumsv/ NMns_set.c
MS1329ah_mcco	AM	BASE	M5	12	MAS-COL-OV F	MSNSOMASS	nm/NMnumsv/ NMns_set.c
MS132ac_orcst	SM	BASE	PLNT	1B	CONNECT	MSORIGCST	tm/TMcfhlin/

			24		(CALL SETUP TROUBLES)		TMadmpctf.c
			PLNT 24	1B	ORIGIN (CALL SETUP TROUBLES)		
			PLNT 24	4	RMCONN		
			PLNT 24	4	RMORIG (CALL SETUP TROUBLES)		
MS1330ah_mancco	AM	BASE	M5	12	MAN-COL-OVF	MSNSOMAN	nm/NMnumsv/ NMns_set.c
MS1332ac_cdsufl	SM	OPSMCDOT	PLNT 24	15	UNAV	MSCDSUFL	oa/OAactsot/ OAicatptlk.c
						MSCDSUFL	oa/OAactsot/ OAicwatp.c
MS1333ac_cnoann	SM	OPSMCDOT	PLNT 24	15	NOTFY	MSCNOANN	oa/OAactsot/ OAiptalk.c
						MSCNOANN	oa/OAactsot/ OAwatpstup.c
MS1334ac_cauchsz	SM	OPSMCDOT	PLNT 24	15	ACDS	MSCAUCHSZ	oa/OAactsot/ OAchrgratd.c
MS1335ac_caudsat	SM	OPSMCDOT	PLNT 24	15	DEPSAT	MSCAUDSAT	oa/OAactsot/ OAtalkatp.c
MS1336ac_cncldsz	SM	OPSMCDOT	PLNT 24	15	NPER	MSCNCLDSZ	oa/OAactsot/ OAchrgratd.c
						MSCNCLDSZ	oa/OAactsot/ OAwatpstup.c

Table 14 Part 14

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS1337ac_caueocsz	SM	OPSMCDOT	PLNT 24	15	AEOC	MSCAUEOCSZ	oa/OAactsot/ OAchrgratd.c
MS1338ac_coatch	SM	OPSMCDOT	PLNT 24	15	OPER	MSCOATCH	oa/OAactsot/ OAchrgratd.c
						MSCOATCH	oa/OAactsot/ OAwatpstup.c
MS1339ac_ccnadsuz	SM	OPSMCDOT	TRFC 30	46	ACCESS (COIN)	MSCCNADSUZ	oa/OAactsot/ OAchrgratd.c
						MSCCNADSUZ	oa/OAactsot/ OAicrate.c
						MSCCNADSUZ	oa/OAactsot/ OAiptalk.c
						MSCCNADSUZ	oa/OAactsot/ OAringbk.c
						MSCCNADSUZ	oa/OAactsot/ OAtestc.c
						MSCCNADSUZ	oa/OAncoin/ OBJ/ OAncoin.cc
						MSCCNADSUZ	oa/OAnhld/ OBJ/ OAnhld.cc
						MSCCNADSUZ	oa/OAnmain/ OBJ/ OAnmain.cc
MS133ac_tmcst	SM	BASE	PLNT 24	1B	CONNECT (CALL SETUP TROUBLES)	MSTERMCST	tm/TMcfhlin/ TMadmpctf.c
			PLNT 24	1B	TERM (CALL SETUP		

					TROUBLES)		
			PLNT 24	4	RMCONN		
			PLNT 24	4	RMTERM		
MS1340ac_ccnfdsuz	CMP	OPAMBAC D	TRFC 30	46	OVFL (COIN)	MSCCNFDSU Z	rta/RTGtrk/ RTtrkbusy.c
MS1340ac_ccnfdsuz	AM	OPAMBAC D	TRFC 30	46	OVFL (COIN)	MSCCNFDSU Z	rta/RTGtrk/ RTtrkbusy.c
MS1341ac_ccnusg	SM	BASE	TRFC 30	46	TOTUSG (COIN)	MSCCNUSG	- - - - -
MS1342ac_ccnmusg	SM	BASE	TRFC 30	46	MTUSG (COIN)	MSCCNMUSG	- - - - -
MS1343ac_cdtaini	SM	OPSMCD OT	TRFC 30	46	ACCESS (ACCS)	MSCDTAINI	oa/OAta_ot/ OAaccsetup.c
MS1344ac_cdtadsu	SM	OPSMCD OT	TRFC 30	101	NSRV	MSCDTADSU	oa/OAta_ot/ OAaccsetup.c
			TRFC 30	46	OVFL (ACCS)		
MS1345ac_cdtfdsu	SM	OPSMCD OT	- - - - -	- - - - -	- - - - -	MSCDTFDSU	oa/OAta_ot/ OAaccsetup.c
MS1346ac_cdtusg	SM	BASE	TRFC 30	46	TOTUSG (ACCS)	MSCDTUSG	- - - - -
MS1347ac_cdtmusg	SM	BASE	TRFC 30	46	MTUSG (ACCS)	MSCDTMUSG	- - - - -
MS1348ac_casqsnt	AM	OPAMBAC D	PLNT 24	18	ATMPT	MSCASQSNT	ccs/CCcas/ CCcasqry.c
			PLNT 24	18	SENT		
MS1349ac_cashw	SM	OPSMCD OT	PLNT 24	18	ATMPT	MSCASHW	ccs/CCcas/ CCcasqry.c
			PLNT 24	18	HDW	MSCASHW	oa/OAtaqry/ OBJ/ OAtaqry.cc
			PLNT 24	18	NSENT		
MS1349ac_cashw	AM	OPAMBAC D	PLNT 24	18	ATMPT	MSCASHW	ccs/CCcas/ CCcasqry.c
			PLNT 24	18	HDW	MSCASHW	oa/OAtaqry/ OBJ/ OAtaqry.cc
			PLNT 24	18	NSENT		
MS134ac_incst	SM	BASE	PLNT 24	1B	CONNECT (CALL SETUP TROUBLES)	MSINCST	tm/TMcfhtrk/ TMadmdii.c
			PLNT 24	1B	INCOM (CALL SETUP TROUBLES)		
			PLNT 24	4	RMCONN		
			PLNT 24	4	RMINC (CALL SETUP TROUBLES)		
MS1350ac_casdbct	AM	OPAMBAC D	PLNT 24	18	ATMPT	MSCASDBCT	ccs/CCcas/ CCcasqry.c
			PLNT 24	18	NSENT		
			PLNT 24	18	OVRLD (QUERIES)		
MS1351ac_casnwm	AM	OPAMBAC D	PLNT 24	18	ATMPT	MSCASNWM	ccs/CCcas/ CCcasqry.c
			PLNT	18	NM		

			24				
			PLNT 24	18	NSENT		
MS1352ac_casnoid	AM	OPAMBAC D	PLNT 24	18	ATMPT	MSCASNOID	ccs/CCcas/ CCcasqry.c
			PLNT 24	18	NO-ID		
			PLNT 24	18	NSENT		
MS1353ac_casamb	SM	OPSMCD OT	PLNT 24	18	AMBLK	MSCASAMB	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1354ac_casnrtd	AM	OPAMBAC D	PLNT 24	18	ABNOR	MSCASNRTD	ccs/CCcas/ CCcasrply.c
			PLNT 24	18	NRTDG		
MS1355ac_casnwcg	AM	OPAMBAC D	PLNT 24	18	ABNOR	MSCASNWCG	ccs/CCcas/ CCcasrply.c
			PLNT 24	18	CONGEST		
MS1356ac_casnwblk	AM	OPAMBAC D	PLNT 24	18	ABNOR	MSCASNWBL K	ccs/CCcas/ CCcasrply.c
			PLNT 24	18	BLKD		

Table 15 Part 15

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS1357ac_casueqd	AM	OPAMBAC D	PLNT 24	18	ABNOR	MSCASUEQD	ccs/CCcas/ CCcasrply.c
			PLNT 24	18	UNEQ		
MS1358ac_casunproc	SM	OPSMCD OT	PLNT 24	18	NPROC	MSCASUPRO C	oa/OAtaqry/ OBJ/ OAtaqry.cc
			PLNT 24	18	TOTAL		
MS1358ac_casuproc	SM	OPSMCD OT	- - - - -	- - - - -	- - - - -	MSCASUPRO C	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1359ac_casunexr	AM	OPAMBAC D	PLNT 24	18	TOTAL	MSCASUNEX R	ccs/CCcas/ CCcasrply.c
			PLNT 24	18	UNEXP		
MS135ac_ogcst	SM	BASE	PLNT 24	1B	CONNECT (CALL SETUP TROUBLES)	MSOUTGCST	tm/TMcfhtrk/ TMadmdii.c
			PLNT 24	4	RMCONN		
			PLNT 24	4	RMOUTG (CALL SETUP TROUBLES)		
MS1360ac_casivfmt	SM	OPSMCD OT	PLNT 24	18	INVFRMT	MSCASIVFMT	ccs/CCcas/ CCcasrply.c
			PLNT 24	18	TOTAL	MSCASIVFMT	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1360ac_casivfmt	AM	OPAMBAC D	PLNT 24	18	INVFRMT	MSCASIVFMT	ccs/CCcas/ CCcasrply.c
			PLNT 24	18	TOTAL	MSCASIVFMT	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1361ac_castqsnt	AM	OPAMBAC D	PLNT 24	18	TEST	MSCASTQSN T	ccs/CCoptst/ CCcaststt.c

MS1362ac_casovld	AM	OPAMBACD	PLNT 24	18	OVRLD (REPLIES)	MSCASOVLD	ccs/CCcas/ CCcasrply.c
MS1363ac_bvapqsnt	AM	OPAMBACD	- - - - -	- - - - -	- - - - -	MSBVAPQSNT	- - - - -
MS1364ac_bvapnrtd	AM	OPAMBACD	- - - - -	- - - - -	- - - - -	MSBVAPNRTD	- - - - -
MS1365ac_bvaptqsnt	AM	OPAMBACD	- - - - -	- - - - -	- - - - -	MSBVAPTQSNT	- - - - -
MS1366ac_aqcc	SM	OPSMCDOT	PLNT 24	15	COMPL	MSAQCC	oa/OAacqsmod/ OAasp_main.c
MS1367ac_aqpmg	SM	OPSMCDOT	PLNT 24	15	PRINT	MSAQPMG	oa/OAacqsmod/ OAaqmsghdl.c
MS1368ac_aqcrmg	SM	OPSMCDOT	PLNT 24	15	AQCRDT	MSAQCRMG	oa/OAacqsmod/ OAadd_to_q.c
						MSAQCRMG	oa/OAacqsmod/ OAcrd_mcnt.c
						MSAQCRMG	oa/OAacqsmod/ OAwrk_on_q.c
MS1369ac_aqtrmg	SM	OPSMCDOT	PLNT 24	15	REROUT	MSAQRTMG	oa/OAacqsmod/ OAcrd_mcnt.c
MS136ac_tcl	SM	BASE	PLNT 24	1B	CONNECT (TRANSIENT CALLS LOST)	MSTCL	as/ASmsmisc/ MScrpegcnt.c
			PLNT 24	4	TRANSCL		
MS1370ac_aqnore	SM	OPSMCDOT	PLNT 24	15	RQFAIL	MSAQNORE	oa/OAacqsmod/ OAaq_hdlr.c
						MSAQNORE	oa/OAacqsmod/ OAaqmsghdl.c
MS1371ac_vqcrmg	SM	OPSMCDOT	PLNT 24	15	VQCRDT	MSVQCRMG	oa/OAacqsmod/ OAadd_to_q.c
						MSVQCRMG	oa/OAacqsmod/ OAcrd_mcnt.c
						MSVQCRMG	oa/OAacqsmod/ OAwrk_on_q.c
MS1372ac_castonr	SM	OPSMCDOT	PLNT 24	18	TIMEOUT	MSCASTONR	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1373ac_casvf	SM	OPSMCDOT	PLNT 24	18	TOTAL	MSCASIVDN	oa/OAtaqry/ OBJ/ OAtaqry.cc
			PLNT 24	18	VFRMT		
MS137ac_fco	SM	BASE	PLNT 24	1A	FACILITY (CUT OFF CALLS)	MSFCO	fp/FPreport/ FPco_check.c
MS1383ac_cpospd	SM	OPSMCDOT	TRFC 30	100	SNTPD (INITIAL)	MSCPOSPD	oa/OAnprls/ OAprlmeas.c
MS1384ac_cisancv	SM	OPSMCDOT	TRFC 30	100	STAPD	MSCISANCV	oa/OAnprls/ OAprlmeas.c
MS1385ac_cicrqis	SM	OPSMCDOT	TRFC 30	100	SUCC (PREPAY)	MSCICRQIS	oa/OAactsot/ OAicrate.c
			TRFC 30	63	SUCCESS (COIN)	MSCICRQIS	oa/OAncoc/ OArplyrat.c
MS1386ac_crfis	SM	OPSMCDOT	TRFC 30	100	FAIL	MSCRFIS	oa/OAactsot/ OAicrate.c
			TRFC 30	63	FAILURE (COIN)	MSCRFIS	oa/OAncoc/ OArplyrat.c
MS1387ac_cdsufl	SM	OPSMCDOT	TRFC 30	100	NOCKT	MSCDSUFL	oa/OAactsot/ OAicatptlk.c
						MSCDSUFL	oa/OAactsot/ OAicwatp.c
MS1388ac_cabdan	SM	OPSMCD	TRFC	100	ABNDBD	MSCABDAN	oa/OAactsot/

		OT	30				OAicwatp.c
MS1389ac_cabdpcl	SM	OPSMCD OT	TRFC 30	100	ABNDDD	MSCABDPCL	oa/OAactsot/ OAicatptlk.c
MS138cnts.MS2426ac_irta	SM	BASE	TRFC 30	138	ATMPT	MS138ATMPT	pc/PCidport/ LPactidcu.c
			TRFC 30	143	ATMPT		
MS138cnts.MS2427ac_irtob	SM	BASE	TRFC 30	138	ORIG BLKD	MS138OBLKD	pc/PCidport/ LPactidcu.c
			TRFC 30	143	ORIG BLKD		
MS138cnts.MS2428_irtu	SM	BASE	TRFC 30	138	TOTUSG	MS138TOTUS G	pc/PCidpath/ PCidrtusg.c
			TRFC 30	143	TOTUSG		
MS138cnts.MS2429ac_irtm u	SM	BASE	TRFC 30	138	MTUSG	MS138MTUSG	pc/PCidpath/ PCidrtusg.c
			TRFC 30	143	MTUSG		

Table 16 Part 16

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS138cnts.MS2430ac_irtts	SM	BASE	TRFC 30	138	TOT_TS	MS138TOTUS G	pc/PCidpath/ PCidrtusg.c
			TRFC 30	143	TOT_TS		
MS138cnts.MS2431ac_irtlts	SM	BASE	TRFC 30	138	LOC_TS	MS138TOTUS G	pc/PCidpath/ PCidrtusg.c
			TRFC 30	143	LOC_TS		
MS138cnts.MS2432ac_irte	SM	BASE	TRFC 30	138	EOC_PKT	MS138EOCPK T	pc/PCrose/ PCro_msr.c
			TRFC 30	143	EOC_PKT		
MS138cnts.MS2433ac_irtt	SM	BASE	TRFC 30	138	TMC_PKT	MS138TMCPK T	ps/PSrt_link/ PSrtpkt.c
			TRFC 30	143	TMC_PKT	MS138TMCPK T	ps/PSrt_link/ PSrtsndmsg.c
MS138cnts.MS2725ac_irttb	SM	BASE	TRFC 30	138	TERM BLKD	MS138TBLKD	pc/PCidport/ LPactidcu.c
			TRFC 30	143	TERM BLKD		
MS1390ac_cflidpp	SM	OPSMCD OT	TRFC 30	100	FLSHDD	MSCFLIDPP	oa/OAactsot/ OAicatptlk.c
MS1391ac_ctoidpp	SM	OPSMCD OT	TRFC 30	100	TODD	MSCTOIDPP	oa/OAactsot/ OAicatptlk.c
MS1392ac_cislgc	SM	OPSMCD OT	TRFC 30	100	LGCHG (PREPAY)	MSCISLGC	oa/OAactsot/ OAicwatp.c
						MSCISLGC	oa/OAnprls/ OAprlmeas.c
MS1393ac_copovr	SM	OPSMCD OT	TRFC 30	100	OPOVR (PREPAY)	MSCOPOVR	oa/OAnprls/ OAprlatpck.c
MS1394ac_copdsat	SM	OPSMCD OT	TRFC 30	100	SATIS	MSCOPDSAT	oa/OAnprls/ OAprlmeas.c
MS1395ac_coaidsat	SM	OPSMCD OT	TRFC 30	100	DPSAT	MSCOAIDSAT	oa/OAnprls/ OAprlmeas.c
MS1396ac_cicrqpo	SM	OPSMCD OT	TRFC 30	100	SUCC (POSTPAY)	MSCICRQPO	oa/OAactsot/ OAicrate.c

			TRFC 30	63	SUCCESS (COIN)	MSCICRQPO	oa/OAncoc/ OArplyrat.c
MS1397ac_cabfoq	SM	OPSMCD OT	TRFC 30	100	ABNDDQ (POSTPAY)	MSCABFOQ	oa/OAactsot/ OAcn1popr.c
						MSCABFOQ	oa/OAactsot/ OAicwatp.c
MS1398ac_caonoq	SM	OPSMCD OT	TRFC 30	100	ABNDOQ (POSTPAY)	MSCAONOQ	oa/OAactsot/ OAcn1popr.c
						MSCAONOQ	oa/OAactsot/ OAcnicopr.c
MS1399ac_cirqfpo	SM	OPSMCD OT	TRFC 30	100	IRQF (POSTPAY)	MSCIRQFPO	oa/OAactsot/ OAicrate.c
			TRFC 30	63	FAILURE (COIN)	MSCIRQFPO	oa/OAncoc/ OArplyrat.c
MS139cnts.MS2434ac_ipidb a	SM	BASE	TRFC 30	139	TMATT	MS139TMATT	pc/PCidport/ LPactidcu.c
MS139cnts.MS2435ac_ipidb b	SM	BASE	TRFC 30	139	TMBLK	MS139TMBLK	pc/PCidport/ LPactidcu.c
MS139cnts.MS2436ac_ipidb tu	SM	BASE	TRFC 30	139	TOTUSG	MS139TOTUS G	pc/PCidpath/ PCidpdbusg.c
MS139cnts.MS2437ac_ipidb du	SM	BASE	TRFC 30	139	DIGUSG	MS139DIGUS G	pc/PCidpath/ PCidpdbusg.c
MS139cnts.MS2438ac_ipidb mu	SM	BASE	TRFC 30	139	MTUSG	MS139MTUSG	pc/PCidpath/ PCidpdbusg.c
MS139cnts.MS2439ac_ipidb tts	SM	BASE	TRFC 30	139	TOT_TS	MS139TOTUS G	pc/PCidpath/ PCidpdbusg.c
MS139cnts.MS2440ac_ipidb lts	SM	BASE	TRFC 30	139	LOC_TS	MS139TOTUS G	pc/PCidpath/ PCidpdbusg.c
MS1400ac_xxoatpo	SM	OPSMCD OT	TRFC 30	100	OPATT (POSTPAY)	MSXXOATPO	oa/OAactsot/ OAcn1popr.c
MS1401ac_cicrqncv	SM	OPSMCD OT	TRFC 30	100	SUCC (NON-ACTS)	MSCICRQNC V	oa/OAactsot/ OAicrate.c
			TRFC 30	63	SUCCESS (COIN)	MSCICRQNC V	oa/OAncoc/ OArplyrat.c
MS1402ac_caoqbncv	SM	OPSMCD OT	TRFC 30	100	ABNDDQ (NON-ACTS)	MSCAOQ_BN CV	oa/OAactsot/ OAcn1popr.c
MS1403ac_caoqoncv	SM	OPSMCD OT	TRFC 30	100	ABNDOQ (NON-ACTS)	MSCAOQ_ON CV	oa/OAactsot/ OAcn1popr.c
						MSCAOQ_ON CV	oa/OAactsot/ OAcnicopr.c
MS1404ac_crqfncv	SM	OPSMCD OT	TRFC 30	100	IRQF (NON-ACTS)	MSCRQF_NC V	oa/OAactsot/ OAicrate.c
			TRFC 30	63	FAILURE (COIN)	MSCRQF_NC V	oa/OAncoc/ OArplyrat.c
MS1405ac_xxoatnact	SM	OPSMCD OT	TRFC 30	100	OPATT (NON-ACTS)	MSXXOATNA CT	oa/OAactsot/ OAcn1popr.c
MS1406ac_ceoidp	SM	OPSMCD OT	TRFC 30	100	SNTPD (NOTIFY)	MSCEOIDP	oa/OAactsot/ OAiptalk.c
			TRFC 30	101	AUTO		
MS1407ac_cnoann	SM	OPSMCD OT	TRFC 30	100	NPROV	MSCNOANN	oa/OAactsot/ OAiptalk.c
						MSCNOANN	oa/OAactsot/ OAwatpstup.c
MS1408ac_covrsz	SM	OPSMCD OT	TRFC 30	100	OPOVR (CHARGES)	MSCOVRSZ	oa/OAnprls/ OAprlatpck.c
MS1409ac_cincrq	SM	OPSMCD OT	TRFC 30	100	SUCC (CHARGES)	MSCINCRQ	oa/OAactsot/ OAovtalk.c
			TRFC 30	63	SUCCESS (COIN)		
MS140cnts.MS2441ac_idpid	SM	BASE	TRFC	140	ATMPT	MSATIDCODB	pc/PCidport/

ba			30				LPact303p.c
MS140cnts.MS2442ac_idpid bo	SM	BASE	TRFC 30	140	OVFL	MSOVIDCOD B	pc/PCidport/ LPact303p.c
MS140cnts.MS2443ac_idpid btu	SM	BASE	TRFC 30	140	TOTUSG	MS140TOTUS G	pc/PCidpath/ PCidodbusg.c
MS140cnts.MS2444ac_idpid bmu	SM	BASE	TRFC 30	140	MTUSG	MS140MTUSG	pc/PCidpath/ PCidodbusg.c
MS140cnts.MS2445ac_idpid btc	SM	BASE	TRFC 30	140	TOT_TS	MS140TOTUS G	pc/PCidpath/ PCidodbusg.c

Table 17 Part 17

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS140cnts.MS2446ac_idpid bod	SM	BASE	TRFC 30	140	ODB_TS	MS140TOTUS G	pc/PCidpath/ PCidodbusg.c
MS1410ac_crfncl	SM	OPSMCD OT	TRFC 30	100	ICRF	MSCRFNCL	oa/OAactsot/ OAovtalk.c
			TRFC 30	63	FAILURE (COIN)		
MS1411ac_cauchsz	SM	OPSMCD OT	TRFC 30	100	CHGDU	MSCAUCHSZ	oa/OAactsot/ OAchrgratd.c
MS1412ac_cdsopsz	SM	OPSMCD OT	TRFC 30	100	DEP	MSCDSOPSZ	oa/OAnprls/ OAprlmeas.c
MS1413ac_cfldrq	SM	OPSMCD OT	TRFC 30	100	FLASH (CHARGES)	MSCFLDRQ	oa/OAactsot/ OAtalkatp.c
MS1414ac_ctodrq	SM	OPSMCD OT	TRFC 30	100	TMOUT (CHARGES)	MSCTODRQ	oa/OAactsot/ OAtalkatp.c
MS1415ac_cdcdrq	SM	OPSMCD OT	TRFC 30	100	DISCON	MSCDCDRQ	oa/OAactsot/ OAtalkatp.c
MS1416ac_cszdlgc	SM	OPSMCD OT	TRFC 30	100	LGCHG (CHARGES)	MSCSZDLGC	oa/OAactsot/ OAwaitopr.c
MS1417ac_cncldsz	SM	OPSMCD OT	TRFC 30	100	NPERF	MSCNCLDSZ	oa/OAactsot/ OAchrgratd.c
						MSCNCLDSZ	oa/OAactsot/ OAwatpstup.c
MS1418ac_ceocrq	SM	OPSMCD OT	TRFC 30	100	SUCC (END)	MSCEOCRQ	oa/OAactsot/ OAeocrate.c
			TRFC 30	63	SUCCESS (COIN)	MSCEOCRQ	oa/OAactsot/ OAovtalk.c
						MSCEOCRQ	oa/OAncoc/ OArplyrat.c
MS1419ac_ceocrf	SM	OPSMCD OT	TRFC 30	100	ECRF	MSCEOCRF	oa/OAactsot/ OAeocrate.c
			TRFC 30	63	FAILURE (COIN)	MSCEOCRF	oa/OAactsot/ OAovtalk.c
						MSCEOCRF	oa/OAncoc/ OArplyrat.c
MS1420ac_caueocsz	SM	OPSMCD OT	TRFC 30	100	AUTO (END)	MSCAUEOCS Z	oa/OAactsot/ OAchrgratd.c
MS1421ac_ceocoplg	SM	OPSMCD OT	TRFC 30	100	LGCHG (END)	MSCEOCOP_ LG	oa/OAactsot/ OAwaitopr.c
MS1422ac_cauwkp	SM	OPSMCD OT	TRFC 30	100	AWALK	MSCAUWKP	oa/OAactsot/ OAchrgratd.c
						MSCAUWKP	oa/OAactsot/ OAfailopr.c
						MSCAUWKP	oa/OAactsot/ OAovtalk.c
						MSCAUWKP	oa/OAactsot/ OAringbk.c

						MSCAUWKP	oa/OAactsot/ OAtalkatp.c
						MSCAUWKP	oa/OAactsot/ OAtrd.c
						MSCAUWKP	oa/OAactsot/ OAwaitopr.c
MS1423ac_copwkp	SM	OPSMCD OT	TRFC 30	100	CWALK	MSCOPWKP	oa/OAnprls/ OAprlmeas.c
MS1424ac_copoveoc	SM	OPSMCD OT	TRFC 30	100	OPOVR (END)	MSCOPOVEO C	oa/OAnprls/ OAprlatpck.c
MS1425ac_coatch	SM	OPSMCD OT	TRFC 30	100	NCDCIR	MSCOATCH	oa/OAactsot/ OAchrgratd.c
						MSCOATCH	oa/OAactsot/ OAwatpstup.c
MS1426ac_cflaut	SM	OPSMCD OT	TRFC 30	100	FLASH (END)	MSCFLAUT	oa/OAactsot/ OAtalkatp.c
MS1427ac_ctoaut	SM	OPSMCD OT	TRFC 30	100	TMOUT (END)	MSCTOAUT	oa/OAactsot/ OAtalkatp.c
MS1428ac_cfotpd	SM	OPSMCD OT	TRFC 30	100	AUTO (OVERALL)	MSCFOTPD	oa/OAactsot/ OAchrgratd.c
						MSCFOTPD	oa/OAactsot/ OAfailopr.c
						MSCFOTPD	oa/OAactsot/ OAgrace.c
						MSCFOTPD	oa/OAactsot/ OAtrd.c
MS1429ac_copiotp	SM	OPSMCD OT	TRFC 30	100	MANUL	MSCOPIOTP	oa/OAactsot/ OAchrgratd.c
						MSCOPIOTP	oa/OAactsot/ OAfailopr.c
						MSCOPIOTP	oa/OAactsot/ OAgrace.c
						MSCOPIOTP	oa/OAactsot/ OAtrd.c
MS142ac_tdpc	SM	BASE	TRFC 30	7	PEGCT	MSTDECPC	pc/PCtones/ PCrqrcv.c
			TRFC 30	9	PEGCT		
MS142cnts.MS2453ac_iodb a	SM	BASE	TRFC 30	142	ATMPT	MSATIDCODB	pc/PCidport/ LPact303p.c
MS142cnts.MS2454ac_iodb o	SM	BASE	TRFC 30	142	OVFL	MSOVIDCOD B	pc/PCidport/ LPact303p.c
MS142cnts.MS2455ac_iodb u	SM	BASE	TRFC 30	142	USG	MS142USG	pc/PCidpath/ PCidodbusg.c
MS1430ac_cicrqs	SM	OPSMCD OT	TRFC 30	100	INIT	MSCICRQS	ccs/CCcfr/ CCcfrqry.c
			TRFC 30	63	COIN	MSCICRQS	oa/OArtrsmod/ OArtrssp.c
MS1430ac_cicrqs	AM	OPAMBAC D	TRFC 30	100	INIT	MSCICRQS	ccs/CCcfr/ CCcfrqry.c
			TRFC 30	63	COIN	MSCICRQS	oa/OArtrsmod/ OArtrssp.c
MS1431ac_citrqs	SM	OPSMCD OT	TRFC 30	100	INTRM	MSCITRQS	ccs/CCcfr/ CCcfrqry.c
			TRFC 30	63	COIN	MSCITRQS	oa/OArtrsmod/ OArtrssp.c
MS1431ac_citrqs	AM	OPAMBAC D	TRFC 30	100	INTRM	MSCITRQS	ccs/CCcfr/ CCcfrqry.c
			TRFC 30	63	COIN	MSCITRQS	oa/OArtrsmod/ OArtrssp.c

Table 18 Part 18

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS1432ac_crtqeoc	SM	OPSMCDOT	TRFC 30	100	EOC	MSCRTQEOC	ccs/CCcfr/CCcfrqry.c
			TRFC 30	63	COIN	MSCRTQEOC	oa/OArtrsmod/OArtrssp.c
MS1432ac_crtqeoc	AM	OPAMBACD	TRFC 30	100	EOC	MSCRTQEOC	ccs/CCcfr/CCcfrqry.c
			TRFC 30	63	COIN	MSCRTQEOC	oa/OArtrsmod/OArtrssp.c
MS1433ac_c0ccrd	SM	OPSMCDOT	TRFC 30	101	CARD		
			TRFC 30	101	TOTAL (COIN CALLS)	MSC0CCRD	oa/OAnprls/OAprlmeas.c
MS1434ac_cisapr	SM	OPSMCDOT	TRFC 30	101	DIAL1 (PREPAY)	MSCISAPR	oa/OAactsot/OAcaroneplus.c
						MSCISAPR	oa/OAactsot/OAoneplus.c
MS1435ac_cisapo	SM	OPSMCDOT	TRFC 30	101	DIAL1 (POSTPAY)	MSCISAPO	oa/OAactsot/OAcaroneplus.c
						MSCISAPO	oa/OAactsot/OAoneplus.c
MS1436ac_c1nspd	SM	OPSMCDOT	TRFC 30	101	NSNT (PREPAY)	MSC1NSPD_ACT	oa/OAnprls/OAprlmeas.c
			TRFC 30	101	TOTAL (PREPAY)		
MS1437ac_c1ppd	SM	OPSMCDOT	TRFC 30	100	TOTAL	MSC1PPD_ACT	oa/OAnprls/OAprlmeas.c
			TRFC 30	101	PERPD (PREPAY)		
			TRFC 30	101	TOTAL (PREPAY)		
MS1438ac_c1stpd	SM	OPSMCDOT	TRFC 30	100	TOTAL	MSC1STPD_ACT	oa/OAnprls/OAprlmeas.c
			TRFC 30	101	STAPD (PREPAY)		
			TRFC 30	101	TOTAL (PREPAY)		
MS1439ac_cnspd1	SM	OPSMCDOT	TRFC 30	101	NSNT (POSTPAY)	MSCNSPD1_NACT	oa/OAnprls/OAprlmeas.c
			TRFC 30	101	TOTAL (POSTPAY)		
MS143ac_tdofl	SM	BASE	M5	5	IMA (TD)	MSTDECOFL	pc/PCtones/PCrqrcv.c
			TRFC 30	7	OVFLOW		
			TRFC 30	9	OVFLOW		
MS1440ac_cstpd1	SM	OPSMCDOT	TRFC 30	100	TOTAL	MSCSTPD1_NACT	oa/OAnprls/OAprlmeas.c
			TRFC 30	101	PERPD (POSTPAY)		
			TRFC 30	101	TOTAL (POSTPAY)		
MS1441ac_cppd1	SM	OPSMCDOT	TRFC 30	100	TOTAL	MSCPPD1_NACT	oa/OAnprls/OAprlmeas.c
			TRFC 30	101	STAPD (POSTPAY)		

			TRFC 30	101	TOTAL (POSTPAY)		
MS1442ac_c0ppd	SM	OPSMCD OT	TRFC 30	101	PERPD (COIN CALLS)	MSC0PPD	oa/OAnprls/ OAprlmeas.c
			TRFC 30	101	TOTAL (COIN CALLS)		
MS1443ac_c0stpd	SM	OPSMCD OT	TRFC 30	101	STAPD (COIN CALLS)	MSC0STPD	oa/OAnprls/ OAprlmeas.c
			TRFC 30	101	TOTAL (COIN CALLS)		
MS1444ac_c0clct	SM	OPSMCD OT	TRFC 30	101	COLL	MSC0CLCT	oa/OAnprls/ OAprlmeas.c
			TRFC 30	101	TOTAL (COIN CALLS)		
MS1445ac_c03pbl	SM	OPSMCD OT	TRFC 30	101	3RDNO	MSC03PBL	oa/OAnprls/ OAprlmeas.c
			TRFC 30	101	TOTAL (COIN CALLS)		
MS1446ac_c0plat	SM	OPSMCD OT	TRFC 30	101	0PLUS	MSC0PLAT	oa/OAactsot/ OAzroplus.c
						MSC0PLAT	oa/OAta_ot/ OAta_init.c
MS1447ac_c0mnat	SM	OPSMCD OT	TRFC 30	101	0MINUS	MSC0MNAT	oa/OAactsot/ OAzromin.c
MS1448ac_cidsat	SM	OPSMCD OT	TRFC 30	100	TOTAL	MSCIDSAT	oa/OAactsot/ OAcn1popr.c
			TRFC 30	101	INIT	MSCIDSAT	oa/OAactsot/ OAcnicopr.c
						MSCIDSAT	oa/OAactsot/ OAicatptlk.c
MS1449ac_copann	SM	OPSMCD OT	TRFC 30	101	AUTO	MSCOPANN	oa/OAactsot/ OAptpsetup.c
			TRFC 30	101	OPANN	MSCOPANN	oa/OAactsot/ OAwaitopr.c
MS144ac_tdusg	SM	BASE	M5	5	USAGE (TD)	MSTDECUSG	as/ASmsscan/ MS10scan.c
			TRFC 30	7	TOTUSG		
			TRFC 30	9	TOTUSG		
MS1450ac_caudsat	SM	OPSMCD OT	TRFC 30	101	ACDS	MSCAUDSAT	oa/OAactsot/ OAtalkatp.c
MS1451ac_cszcdop	SM	OPSMCD OT	TRFC 30	101	OPCDS	MSCSZCDOP	oa/OAactsot/ OAptpsetup.c
						MSCSZCDOP	oa/OAactsot/ OAwaitopr.c
MS1452ac_copeocsz	SM	OPSMCD OT	TRFC 30	101	OPEOC	MSCOPEOCS Z	oa/OAactsot/ OAptpsetup.c
						MSCOPEOCS Z	oa/OAactsot/ OAwaitopr.c

Table 19 Part 19

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS1453ac_cdsausz	SM	OPSMCD OT	TRFC 30	101	AEOC	MSCDSAUSZ	oa/OAactsot/ OAtalkatp.c
MS1454ac_ccnadsuz	SM	OPSMOT	- - - - -	- - - - -	- - - - -	MSCCNADSU Z	oa/OAactsot/ OAchrgratd.c
						MSCCNADSU	oa/OAactsot/

						Z	OAicrate.c
						MSCCNADSUZ	oa/OAactsot/ OAiptalk.c
						MSCCNADSUZ	oa/OAactsot/ OAringbk.c
						MSCCNADSUZ	oa/OAactsot/ OAtestc.c
						MSCCNADSUZ	oa/OAncoin/ OBJ/ OAncoin.cc
						MSCCNADSUZ	oa/OAnhld/ OBJ/ OAnhld.cc
						MSCCNADSUZ	oa/OAnmain/ OBJ/ OAnmain.cc
MS1455ac_ccnfdsuz	SM	OPSMOT	- - - - -	- - - - -	- - - - -	MSCCNFDSUZ	rta/RTGtrk/ RTtrkbusy.c
MS1456ac_cdtaini	SM	OPSMOT	- - - - -	- - - - -	- - - - -	MSCDTAINI	oa/OAta_ot/ OAaccsetup.c
MS1457ac_cdtadsu	SM	OPSMOT	- - - - -	- - - - -	- - - - -	MSCDTADSU	oa/OAta_ot/ OAaccsetup.c
MS1458ac_cdtfdsu	SM	OPSMOT	- - - - -	- - - - -	- - - - -	MSCDTFDSU	oa/OAta_ot/ OAaccsetup.c
MS1459ac_blvatp	SM	OPSMCDOT	TRFC30	101	ATTS (BUSY LINE)	MSBLVATP	oa/OAnblv/ OBJ/ OAnblv.cc
MS145ac_tdmtu	SM	BASE	M5	5	MTCE (TD)	MSTDECMTU	as/ASmsscan/ MS100scan.c
			TRFC30	7	MTUSG		
			TRFC30	9	MTUSG		
MS1460ac_blvnwf	SM	OPSMCDOT	TRFC30	101	NNET	MSBLVNWF	oa/OAnblv/ OBJ/ OAnblv.cc
MS1461ac_blvnwx	SM	OPSMCDOT	TRFC30	101	EXCL	MSBLVNWX	oa/OAnblv/ OBJ/ OAnblv.cc
MS1462ac_eiatp	SM	OPSMCDOT	TRFC30	101	ATTS (EMERGENCY)	MSEIATP	oa/OAnblv/ OBJ/ OAnblv.cc
MS1463ac_cacblv	SM	OPSMCDOT	TRFC30	101	CANCEL (BUSY LINE)	MSCACBLV	oa/OAncal/ OBJ/ OAncal.cc
MS1464ac_cacei	SM	OPSMCDOT	TRFC30	101	CANCEL (EMERGENCY)	MSCACEI	oa/OAncal/ OBJ/ OAncal.cc
MS1465ac_eicaei	SM	OPSMCDOT	TRFC30	101	EICAN	MSEICAEI	oa/OAnblv/ OBJ/ OAnblv.cc
MS1466ac_blvrct	SM	OPSMCDOT	TRFC30	101	RECRD (BUSY LINE)	MSBLVRCT	oa/OAncal/ OBJ/ OAncal.cc
MS1467ac_eivrct	SM	OPSMCDOT	TRFC30	101	RECRD (EMERGENCY)	MSEIVRCT	oa/OAncal/ OBJ/ OAncal.cc
MS1468ac_blvtqu	SM	OPSMCDOT	TRFC30	101	QUEUE	MSBLVTQU	oa/OAtacct/ OBJ/ OAtacct.cc
MS1469ac_nldsei	SM	OPSMCDOT	TRFC30	101	NLDSU	MSNLDSEI	oa/OAtattot/ OAtt_blv.c
MS146ac_ccpc	CMP	BASE	TRFC30	10	CCPC (3-PORT)	MSUCNFPC	pc/PCgckt/ PCconfalld.c
MS1470ac_itsgau	SM	OPSMCDOT	TRFC30	102	AUTO	MSITSGAU	ccs/CC7setup/ CCti_fca.c
						MSITSGAU	ccs/CCtrksig/ CCt_fca.c
						MSITSGAU	fp/FPsetup/ FPsetup.c
						MSITSGAU	oa/OAta_intl/

							OAtt_2call.c
MS1471ac_itsgoa	SM	OPSMCD OT	TRFC 30	102	OPER (INTERNATIO NAL)	MSITSGOA	ccs/CC7setup/ CCti_fca.c
						MSITSGOA	ccs/CCtrksig/ CCt_fca.c
						MSITSGOA	fp/FPsetup/ FPsetup.c
						MSITSGOA	oa/OAta_intl/ OAtt_2call.c
MS1472ac_accreo	SM	OPSMCD OT	TRFC 30	102	REORD	MSACCREO	oa/OAaccs/ OAtcs_chk.c
MS1473ac_accrop	SM	OPSMCD OT	TRFC 30	102	OPER (TERMINATE D)	MSACCROP	oa/OAaccs/ OBJ/ OAna.sdc
MS1474ac_tcser	SM	OPSMCD OT	TRFC 30	102	ERROR	MSTCSER	oa/OAnmain/ OAtcs.c
MS1475ac_xxfldgrp	SM	OPSMCD OT	TRFC 30	101	FLASH	MSXXFLDGR P	oa/OAactsot/ OAgrace.c
MS1476ac_xcamaop	SM	OPSMCD OT	TRFC 30	101	CAMA	MSXCAMAOP	oa/OAta_ot/ OAscamack.c
						MSXCAMAOP	oa/OAtan1p/ OBJ/ OA_atan1p.sdc
						MSXCAMAOP	oa/OAtan1p/ OBJ/ OAtan1p.sdc
MS1477ac_xncvcdn	SM	OPSMCD OT	TRFC 30	102	COIN	MSXNCVCDN	oa/OAta_ot/ OAacc_talk.c
MS1478ac_xcvcdn	SM	OPSMCD OT	TRFC 30	102	NCOIN	MSXCVCDN	oa/OAta_ot/ OAacc_talk.c
MS1479ac_atcvld	SM	OPSMCD OT	TRFC 30	110	POT VAL CALL	MSATCVLD	oa/OAaccs/ OBJ/ OAna.sdc
						MSATCVLD	oa/OAnccbt/ OAcrdanl.c
MS147ac_ccofl	CMP	BASE	TRFC 30	10	CCOFL (3-PORT)	MSUCNFOFL	pc/PCgckt/ PCconfalld.c
MS1480ac_atsqi	SM	OPSMCD OT	TRFC 30	110	INIT	MSATSQI	oa/OAaccs/ OBJ/ OAna.sdc
MS1481ac_atssqi	SM	OPSMCD OT	TRFC 30	110	SEQINIT	MSATSSQI	oa/OAaccs/ OBJ/ OAna.sdc
MS1482ac_atsqab	SM	OPSMCD OT	TRFC 30	110	ABNDS	MSATSQAB	oa/OAaccs/ OBJ/ OAna.sdc
						MSATSQAB	oa/OAta_ot/ OAans_ta2.c
						MSATSQAB	oa/OAta_ot/ OAcall_ta.c

Table 20 Part 20

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS1483ac_atsqac	SM	OPSMCD OT	TRFC 30	110	ACCPT	MSATSQAC	oa/OAaccs/ OBJ/ OAna.sdc
			TRFC 30	110	AVG		
MS1484ac_nattoa	SM	OPSMCD OT	TRFC 30	110	OPASST	MSNATTOA	oa/OAnccbt/ OAbcardf.c
MS1485ac_natoatt	SM	OPSMCD OT	TRFC 30	110	AUTO	MSNATOATT	oa/OAaccs/ OBJ/ OAna.sdc
			TRFC 30	110	TTOPATT		

MS1486ac_natoamf	SM	OPSMCD OT	TRFC 30	110	AUTO	MSNATOAMF	oa/OAaccs/ OBJ/ OAna.sdc
			TRFC 30	110	MFOPATT		
MS1487ac_natabto	SM	OPSMCD OT	- - - - -	- - - - -	- - - - -	MSNATABTO	oa/OAaccs/ OBJ/ OAna.sdc
MS1487ac_natobto	SM	OPSMCD OT	TRFC 30	110	ABND_TO	MSNATABTO	oa/OAaccs/ OBJ/ OAna.sdc
MS1489ac_rescall	SM	OPSMCD OT	TRFC 30	102	NUMBER RESIDUAL CALLS	MSRESCALL	oa/OAnprls/ OAprlmeas.c
MS148ac_ccusg	SM	BASE	TRFC 30	10	CCUSG (3-PORT)	MSUCNFUSG	as/ASmsscan/ MS100scan.c
MS1490ac_casqsnt	AM	OPAMBAC D	TRFC 30	110	SENT	MSCASQSNT	ccs/CCcas/ CCcasqry.c
			TRFC 30	61	CAS		
MS1491ac_cashw	SM	OPSMCD OT	TRFC 30	110	HDW	MSCASHW	ccs/CCcas/ CCcasqry.c
			TRFC 30	110	NSENT	MSCASHW	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	61	CAS		
MS1491ac_cashw	AM	OPAMBAC D	TRFC 30	110	HDW	MSCASHW	ccs/CCcas/ CCcasqry.c
			TRFC 30	110	NSENT	MSCASHW	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	61	CAS		
MS1492ac_casdbct	AM	OPAMBAC D	TRFC 30	110	NSENT	MSCASDBCT	ccs/CCcas/ CCcasqry.c
			TRFC 30	110	OVRLD (QUERIES)		
			TRFC 30	61	CAS		
MS1493ac_casnm	AM	OPAMBAC D	TRFC 30	110	NM	MSCASNWM	ccs/CCcas/ CCcasqry.c
			TRFC 30	110	NSENT		
MS1493ac_casnwm	AM	OPAMBAC D	TRFC 30	61	CAS	MSCASNWM	ccs/CCcas/ CCcasqry.c
MS1494ac_casnoid	AM	OPAMBAC D	TRFC 30	110	NO_ID	MSCASNOID	ccs/CCcas/ CCcasqry.c
			TRFC 30	110	NSENT		
			TRFC 30	61	CAS		
MS1495ac_casamb	SM	OPSMCD OT	TRFC 30	110	AMBLK	MSCASAMB	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	110	NSENT		
			TRFC 30	61	CAS		
MS1496ac_casnrtd	AM	OPAMBAC D	TRFC 30	110	ABNOR	MSCASNRTD	ccs/CCcas/ CCcasrply.c
			TRFC 30	110	NRTDG		
MS1497ac_casnwcg	AM	OPAMBAC D	TRFC 30	110	ABNOR	MSCASNWCG	ccs/CCcas/ CCcasrply.c
			TRFC 30	110	CONGEST		

MS1498ac_casnwblk	AM	OPAMBACD	TRFC 30	110	ABNOR	MSCASNWBLK	ccs/CCcas/ CCcasrply.c
			TRFC 30	110	BLKD		
MS1499ac_casueqd	AM	OPAMBACD	TRFC 30	110	ABNOR	MSCASUEQD	ccs/CCcas/ CCcasrply.c
			TRFC 30	110	UNEQ		
MS149ac_ccmtu	SM	BASE	TRFC 30	10	CCMTU (3-PORT)	MSUCNFMTU	as/ASmsscan/ MS100scan.c
MS1500ac_casuproc	SM	OPSMCDOT	TRFC 30	110	NPROC	MSCASUPROC	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	110	TOTAL		
MS1501ac_casunexr	AM	OPAMBACD	TRFC 30	110	TOTAL	MSCASUNEXR	ccs/CCcas/ CCcasrply.c
			TRFC 30	110	UNEXP		
MS1502ac_casivfmt	SM	OPSMCDOT	TRFC 30	110	INVFRMT	MSCASIVFMT	ccs/CCcas/ CCcasrply.c
			TRFC 30	110	TOTAL	MSCASIVFMT	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1502ac_casivfmt	AM	OPAMBACD	TRFC 30	110	INVFRMT	MSCASIVFMT	ccs/CCcas/ CCcasrply.c
			TRFC 30	110	TOTAL	MSCASIVFMT	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1503ac_casalw	SM	OPSMCDOT	TRFC 30	110	ALCALL	MSCASALW	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	110	VFRMT		
MS1504ac_casivdn	SM	OPSMCDOT	TRFC 30	110	INVDC	MSCASIVDN	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1505ac_casivpin	SM	OPSMCDOT	TRFC 30	110	INVPN	MSCASIVPIN	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	110	VFRMT		

Table 21 Part 21

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS1506ac_casdrst	SM	OPSMCDOT	TRFC 30	110	DOMRS	MSCASDRST	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	110	VFRMT		
MS1507ac_casinrst	SM	OPSMCDOT	TRFC 30	110	INTRS	MSCASINRST	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	110	VFRMT		
MS1508ac_castonr	SM	OPSMCDOT	TRFC 30	110	TIMEOUT	MSCASTONR	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1509ac_casovld	AM	OPAMBACD	TRFC 30	110	OVRLD (REPLIES)	MSCASOVLD	ccs/CCcas/ CCcasrply.c
MS1510ac_castqsnt	AM	OPAMBACD	- - - - -	- - - - -	- - - - -	MSCASTQSNT	ccs/CCoptst/ CCcastst.c
MS1510ac_castzsnt	AM	OPAMBACD	TRFC 30	110	TEST	MSCASTQSNT	ccs/CCoptst/ CCcastst.c
MS1511ac_casqiab	SM	OPSMCDOT	TRFC 30	110	ABAND	MSCASQIAB	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1512ac_bvapqsnt	AM	OPAMBAC	- - - - -	- - - - -	- - - - -	MSBVAPQSN	- - - - -

		D				T	
MS1513ac_bvapnrtd	AM	OPAMBACD	- - - - -	- - - - -	- - - - -	MSBVAPNRTD	- - - - -
MS1514ac_bvaptqsnt	AM	OPAMBACD	- - - - -	- - - - -	- - - - -	MSBVAPTQSNT	- - - - -
MS1515ac_aqcc	SM	OPSMCDOT	TRFC30	102	COMPL	MSAQCC	oa/OAacqsmod/ OAasp_main.c
MS1516ac_aqpmg	SM	OPSMCDOT	TRFC30	102	PRINT	MSAQPMG	oa/OAacqsmod/ OAaqmsghdl.c
MS1517ac_aqcrmg	SM	OPSMCDOT	TRFC30	102	AQCRDT	MSAQCRMG	oa/OAacqsmod/ OAadd_to_q.c
						MSAQCRMG	oa/OAacqsmod/ OAcrd_mcnt.c
						MSAQCRMG	oa/OAacqsmod/ OAwrk_on_q.c
MS1518ac_aqrtmg	SM	OPSMCDOT	TRFC30	102	REROUT	MSAQRTMG	oa/OAacqsmod/ OAcrd_mcnt.c
MS1519ac_aqnore	SM	OPSMCDOT	TRFC30	102	RQFAIL	MSAQNORE	oa/OAacqsmod/ OAaq_hdlr.c
						MSAQNORE	oa/OAacqsmod/ OAaqmsghdl.c
MS1520ac_vqcrmg	SM	OPSMCDOT	TRFC30	102	VQCRDT	MSVQCRMG	oa/OAacqsmod/ OAadd_to_q.c
						MSVQCRMG	oa/OAacqsmod/ OAcrd_mcnt.c
						MSVQCRMG	oa/OAacqsmod/ OAwrk_on_q.c
MS1521ac_blvinw	SM	OPSMCDOT	- - - - -	- - - - -	- - - - -	MSBLVINW	oa/OAnblv/ OBJ/ OAnblv.cc
MS1522ac_xxvfincblv	SM	OPSMCDOT	- - - - -	- - - - -	- - - - -	MSXXVFINCBLV	oa/OAnblv/ OBJ/ OAnblv.cc
MS1525ac_cicrqs	SM	OPSMCDOT	PLNT24	13	SENT (COIN)	MSCICRQS	ccs/CCcfr/ CCcfrqry.c
			PLNT24	15	INIT (COIN)	MSCICRQS	oa/OArtrsmod/ OArtrssp.c
MS1525ac_cicrqs	AM	OPAMBACD	PLNT24	13	SENT (COIN)	MSCICRQS	ccs/CCcfr/ CCcfrqry.c
			PLNT24	15	INIT (COIN)	MSCICRQS	oa/OArtrsmod/ OArtrssp.c
MS1526ac_citrqs	SM	OPSMCDOT	PLNT24	15	INTRM	MSCITRQS	ccs/CCcfr/ CCcfrqry.c
						MSCITRQS	oa/OArtrsmod/ OArtrssp.c
MS1526ac_citrqs	AM	OPAMBACD	PLNT24	15	INTRM	MSCITRQS	ccs/CCcfr/ CCcfrqry.c
						MSCITRQS	oa/OArtrsmod/ OArtrssp.c
MS1527ac_crtqeoc	SM	OPSMCDOT	PLNT24	15	EOC	MSCRTQEOC	ccs/CCcfr/ CCcfrqry.c
						MSCRTQEOC	oa/OArtrsmod/ OArtrssp.c
MS1527ac_crtqeoc	AM	OPAMBACD	PLNT24	15	EOC	MSCRTQEOC	ccs/CCcfr/ CCcfrqry.c
						MSCRTQEOC	oa/OArtrsmod/ OArtrssp.c
MS1532ac_cashw	SM	OPSMCDOT	- - - - -	- - - - -	- - - - -	MSCASHW	ccs/CCcas/ CCcasqry.c
						MSCASHW	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1532ac_cashw	AM	OPAMBACD	- - - - -	- - - - -	- - - - -	MSCASHW	ccs/CCcas/ CCcasqry.c
						MSCASHW	oa/OAtaqry/ OBJ/

							OAtaqry.cc
MS1533ac_casamb	SM	OPSMCD OT	- - - - -	- - - - -	- - - - -	MSCASAMB	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1534ac_casalw	SM	OPSMCD OT	- - - - -	- - - - -	- - - - -	MSCASALW	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1535ac_casivdn	SM	OPSMCD OT	- - - - -	- - - - -	- - - - -	MSCASIVDN	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1536ac_casivpin	SM	OPSMCD OT	- - - - -	- - - - -	- - - - -	MSCASIVPIN	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1537ac_casdrst	SM	OPSMCD OT	- - - - -	- - - - -	- - - - -	MSCASDRST	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1538ac_casinrst	SM	OPSMCD OT	- - - - -	- - - - -	- - - - -	MSCASINRST	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1539ac_cicrqis	SM	OPSMCD OT	- - - - -	- - - - -	- - - - -	MSCICRQIS	oa/OAactsot/ OAicrate.c
						MSCICRQIS	oa/OAncoc/ OArplyrat.c
MS1540ac_cicrqpo	SM	OPSMCD OT	- - - - -	- - - - -	- - - - -	MSCICRQPO	oa/OAactsot/ OAicrate.c
						MSCICRQPO	oa/OAncoc/ OArplyrat.c
MS1541ac_cicrqncv	SM	OPSMCD OT	- - - - -	- - - - -	- - - - -	MSCICRQNC V	oa/OAactsot/ OAicrate.c
						MSCICRQNC V	oa/OAncoc/ OArplyrat.c

Table 22 Part 22

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS1542ac_cincrq	SM	OPSMCD OT	- - - - -	- - - - -	- - - - -	MSCINCRQ	oa/OAactsot/ OAovtalk.c
MS1543ac_ceocrq	SM	OPSMCD OT	- - - - -	- - - - -	- - - - -	MSCEOCRQ	oa/OAactsot/ OAeocrate.c
						MSCEOCRQ	oa/OAactsot/ OAovtalk.c
						MSCEOCRQ	oa/OAncoc/ OArplyrat.c
MS1544ac_casqsnt	AM	OPAMBAC D	- - - - -	- - - - -	- - - - -	MSCASQSNT	ccs/CCcas/ CCcasqry.c
MS1545ac_casdbct	AM	OPAMBAC D	- - - - -	- - - - -	- - - - -	MSCASDBCT	ccs/CCcas/ CCcasqry.c
MS1546ac_casnwm	AM	OPAMBAC D	- - - - -	- - - - -	- - - - -	MSCASNWM	ccs/CCcas/ CCcasqry.c
MS1547ac_casnoid	AM	OPAMBAC D	- - - - -	- - - - -	- - - - -	MSCASNOID	ccs/CCcas/ CCcasqry.c
MS1548ac_ccrvc	SM	OPSMCD OT	- - - - -	- - - - -	- - - - -	MSCCRVC	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1549ac_ccbnnv	SM	OPSMCD OT	- - - - -	- - - - -	- - - - -	MSCCBNNV	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1550ac_ccsvdny	SM	OPSMCD OT	- - - - -	- - - - -	- - - - -	MSCCSVDNY	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1551ac_ccnpin	SM	OPSMCD OT	- - - - -	- - - - -	- - - - -	MSCCNPIN	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS160ac_coinc	SM	BASE	PLNT 24	1A	COINPC (BILLING TROUBLES)	MSCOINCPC	fc/FCcoin/ FCc_retcol.c
						MSCOINCPC	fp/FPcoin/ FPc_final.c
MS160ac_coinc	AM	BASE	PLNT	1A	COINPC	MSCOINCPC	fc/FCcoin/

			24		(BILLING TROUBLES)		FCc_retcol.c
						MSCOINCPC	fp/FPcoin/ FPc_final.c
MS161ac_scoin	SM	BASE	PLNT 24	1A	COINSTK (BILLING TROUBLES)	MSSCOINPC	fc/FCcoin/ FCc_retcol.c
						MSSCOINPC	fp/FPcoin/ FPc_final.c
MS161ac_scoin	AM	BASE	PLNT 24	1A	COINSTK (BILLING TROUBLES)	MSSCOINPC	fc/FCcoin/ FCc_retcol.c
						MSSCOINPC	fp/FPcoin/ FPc_final.c
MS162ac_s10	SM	BASE	TRFC 30	1	SCN10	MS10SCAN	as/ASmsscan/ MS10scan.c
			TRFC 30	25	USG		
			TRFC 30	60	USG		
			TRFC 30	7	TOTUSG		
			TRFC 30	8	TOTUSG		
			TRFC 30	9	TOTUSG		
MS163ac_s100	SM	BASE	TRFC 30	10	CCUSG (3-PORT)	MS100SCAN	as/ASmsscan/ MS100scan.c
			TRFC 30	10	CCUSG (6-PORT)	MS100SCAN	as/ASmsscan/ MSamscan.c
			TRFC 30	1	SCN100		
MS164ac_proc1	SM	BASE	TRFC 15	2A	PERCENT OCCUP	- - - - -	- - - - -
			TRFC 30	13	PERCENT OCCUP		
MS164ac_proc1	CMP	BASE	TRFC 15	2A	PERCENT OCCUP	- - - - -	- - - - -
			TRFC 30	13	PERCENT OCCUP		
MS165ac_proc2	SM	BASE	TRFC 15	2A	PRCLD	MSTPPC	oa/OAacqsmod/ OAotpcreat.c
			TRFC 30	13	LOAD	MSTPPC	pc/PCccs/ PCccsorig.c
						MSTPPC	rita/Rlacsr/ Rlacsr_pro.c
						MSTPPC	rita/Rlsetup/ Rlcsdoff.c
						MSTPPC	rita/Rlsetup/ Rlcsdterm.c
						MSTPPC	rita/Rlsetup/ Rldsloff.c
						MSTPPC	rita/Rlsetup/ Rldslterm.c
						MSTPPC	rita/Rlsetup/ Rlodboff.c
						MSTPPC	rita/Rlsetup/ Rlprioff.c
						MSTPPC	rta/RTisdn/ RTfeatdispc.c
						MSTPPC	rta/RTisdn/

							RTmcaoff.c
						MSTPPC	rta/RTisdn/ RTmcaterm.c
						MSTPPC	rta/RTmfcqu/ RTlnqterm.c
						MSTPPC	rta/RTprims/ RToffhook.c
						MSTPPC	rta/RTterm/ RTannterm.c
						MSTPPC	rta/RTterm/ RTckterm.c
						MSTPPC	rta/RTterm/ RTlineterm.c
						MSTPPC	rta/RTterm/ RTpf_slvld.c
						MSTPPC	rta/RTterm/ RTrafterm.c
						MSTPPC	rta/RTterm/ RTses_pu.c
						MSTPPC	rta/RTterm/ RTtrkterm.c
						MSTPPC	rta/RTtod/ RTntserv.c

Table 23 Part 23

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS166ac_reqam	AM	BASE	PLNT 24	1A	AMA-PC (BILLING TROUBLES)	MSREQAMA	ama/AMformat/ AMtrplms.c
MS167ac_entam	AM	BASE	PLNT 24	1A	AMAENTR (BILLING TROUBLES)	MSENTAMA	ama/AMformat/ AMtrplms.c
MS1689ac_raatt	SM	BASE	TRFC 30	93	ATTMPT (ACCESS)	MSRAATT	rta/RTterm/ RTrafterm.c
MS168ac_irram	AM	BASE	PLNT 24	1A	AMAIRR (BILLING TROUBLES)	MSIRRGAMA	ama/AMformat/ AMtrplms.c
MS1690ac_ratran	SM	BASE	TRFC 30	93	TRN	MSRATRAN	fc/FCras/ OBJ/ MCras.cc
MS1691ac_radis	SM	BASE	TRFC 30	93	DSCNCT	MSRADIS	fc/FCras/ OBJ/ MCras.cc
MS1692ac_raovfl	CMP	BASE	TRFC 30	93	OVFL	MSRAOVFL	fc/FCras/ MCrasinit.c
						MSRAOVFL	fc/FCras/ OBJ/ MCras.cc
						MSRAOVFL	oa/OAdaannc/ OAeis_atp.c
						MSRAOVFL	rta/RTGtrk/ RTtrkbusy.c
						MSRAOVFL	rta/RTterm/ RTrafterm.c
MS1692ac_raovfl	SM	BASE	TRFC 30	93	OVFL	MSRAOVFL	fc/FCras/ MCrasinit.c
						MSRAOVFL	fc/FCras/ OBJ/ MCras.cc
						MSRAOVFL	oa/OAdaannc/ OAeis_atp.c
						MSRAOVFL	rta/RTGtrk/

							RTtrkbusy.c
						MSRAOVFL	rta/RTterm/ RTrafterm.c
MS1693ac_radcf	SM	BASE	TRFC 30	93	ATMPT (CF)	MSRADCF	fc/FCras/ OBJ/ MCras.cc
MS169ac_lstam	AM	BASE	PLNT 24	1A	AMALOST (BILLING TROUBLES)	MSLOSTAMA	ama/AMformat/ AMtrplms.c
MS1716ac_ifobrmv	SM	OPSMCD OT	PLNT 24	16	B_RMV	MSIFOBRMV	tm/TMps_ea/ TMif_pegcn.c
MS1717ac_ifodrmv	SM	OPSMCD OT	PLNT 24	16	D_RMV	MSIFODRMV	tm/TMps_ea/ TMif_pegcn.c
MS1718ac_lbccsnt	AM	OPAMBAC D	PLNT 24	17	ATMPT (LICCD)	MSLBCCSNT	ccs/CClidb/ CClccdqry.c
			PLNT 24	17	SENT (LICCD)		
MS1719ac_lbcchwprb	SM	OPSMCD OT	PLNT 24	17	ATMPT (LICCD)	MSLBCCHWP RB	ccs/CClidb/ CClccdqry.c
			PLNT 24	17	HDW (LICCD)	MSLBCCHWP RB	ccs/CClidb/ CCldbqrtn.c
			PLNT 24	17	NSENT (LICCD)	MSLBCCHWP RB	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1719ac_lbcchwprb	AM	OPAMBAC D	PLNT 24	17	ATMPT (LICCD)	MSLBCCHWP RB	ccs/CClidb/ CClccdqry.c
			PLNT 24	17	HDW (LICCD)	MSLBCCHWP RB	ccs/CClidb/ CCldbqrtn.c
			PLNT 24	17	NSENT (LICCD)	MSLBCCHWP RB	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1720ac_lbccdbcb	AM	OPAMBAC D	PLNT 24	17	ATMPT (LICCD)	MSLBCCDBC B	ccs/CClidb/ CClccdqry.c
			PLNT 24	17	NSENT (LICCD)		
			PLNT 24	17	OVRLD (LICCD)		
MS1721ac_lbccnmcb	AM	OPAMBAC D	PLNT 24	17	ATMPT (LICCD)	MSLBCCNMC B	ccs/CClidb/ CClccdqry.c
			PLNT 24	17	NM (LICCD)		
			PLNT 24	17	NSENT (LICCD)		
MS1722ac_lbccnid	AM	OPAMBAC D	PLNT 24	17	ATMPT (LICCD)	MSLBCCNID	ccs/CClidb/ CClccdqry.c
			PLNT 24	17	NO-ID (LICCD)		
			PLNT 24	17	NSENT (LICCD)		
MS1723ac_lbccamblk	SM	OPSMCD OT	PLNT 24	17	AMBLK (LICCD)	MSLBCCAMB LK	ccs/CClidb/ CClccdqry.c
			PLNT 24	17	ATMPT (LICCD)	MSLBCCAMB LK	oa/OAtaqry/ OBJ/ OAtaqry.cc
			PLNT 24	17	NSENT (LICCD)		
MS1723ac_lbccamblk	AM	OPAMBAC D	PLNT 24	17	AMBLK (LICCD)	MSLBCCAMB LK	ccs/CClidb/ CClccdqry.c
			PLNT 24	17	ATMPT (LICCD)	MSLBCCAMB LK	oa/OAtaqry/ OBJ/ OAtaqry.cc
			PLNT 24	17	NSENT (LICCD)		
MS1724ac_lbccqrtf	AM	OPAMBAC D	PLNT 24	17	ABNOR (LICCD)	MSLBCCQRT F	ccs/CClidb/ CCldbqrtn.c
			PLNT	17	RTEFA		

			24		(LICCD)		
MS1725ac_lbccqadf	AM	OPAMBAC D	PLNT 24	17	ABNOR (LICCD)	MSLBCCQAD F	ccs/CClidb/ CCldbqrtn.c
			PLNT 24	17	ADDFA (LICCD)		
MS1726ac_lbccssf	AM	OPAMBAC D	PLNT 24	17	ABNOR (LICCD)	MSLBCCSSF	ccs/CClidb/ CCldbqrtn.c
			PLNT 24	17	SYSFA (LICCD)		
MS1727ac_lbccuneq	AM	OPAMBAC D	PLNT 24	17	ABNOR (LICCD)	MSLBCCUNE Q	ccs/CClidb/ CCldbqrtn.c
			PLNT 24	17	UNEQ (LICCD)		
MS1728ac_lbccnf	AM	OPAMBAC D	PLNT 24	17	ABNOR (LICCD)	MSLBCCNF	ccs/CClidb/ CCldbqrtn.c
			PLNT 24	17	NWFA (LICCD)		

Table 24 Part 24

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS1729ac_lbccncg	AM	OPAMBAC D	PLNT 24	17	ABNOR (LICCD)	MSLBCCNCG	ccs/CClidb/ CCldbqrtn.c
			PLNT 24	17	NWCONG (LICCD)		
MS1730ac_lbccuxr	AM	OPAMBAC D	PLNT 24	17	TOTAL (LICCD)	MSLBCCUXR	ccs/CClidb/ CClidbrcv.c
			PLNT 24	17	UNEXP (LICCD)		
MS1731ac_lbccinvf	SM	OPSMCD OT	PLNT 24	17	INVFRMT (LICCD)	MSLBCCINVF	ccs/CClidb/ CCldbqrtn.c
			PLNT 24	17	TOTAL (LICCD)	MSLBCCINVF	ccs/CClidb/ CClidbrcv.c
						MSLBCCINVF	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1731ac_lbccinvf	AM	OPAMBAC D	PLNT 24	17	INVFRMT (LICCD)	MSLBCCINVF	ccs/CClidb/ CCldbqrtn.c
			PLNT 24	17	TOTAL (LICCD)	MSLBCCINVF	ccs/CClidb/ CClidbrcv.c
						MSLBCCINVF	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1732ac_bltunav	SM	OPSMCD OT	PLNT 24	16	B-LINKDOWN	- - - - -	- - - - -
MS1733ac_dltunav	SM	OPSMCD OT	PLNT 24	16	D-LINKDOWN	- - - - -	- - - - -
MS1736ac_lbccto	SM	OPSMCD OT	PLNT 24	17	TIMEOUT (LICCD)	MSLBCCTO	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1737ac_lbacg	AM	OPAMBAC D	PLNT 24	17	COMBINED ACG	MSLBACG	ccs/CClidb/ CClidbrcv.c
MS1738ac_lbcctest	AM	OPAMBAC D	PLNT 24	17	TEST (LICCD)	MSLBCCTEST	ccs/CCoptst/ CClcdtst.c
MS1740ac_lbbnsnt	AM	OPAMBAC D	PLNT 24	17	ATMPT (LIBNS)	MSLBBNSNT	ccs/CClidb/ CClbnsqry.c
			PLNT 24	17	SENT (LIBNS)		
MS1741ac_lbbnhwprb	SM	OPSMCD OT	PLNT 24	17	ATMPT (LIBNS)	MSLBBNHWP RB	ccs/CClidb/ CClbnsqry.c
			PLNT 24	17	HDW (LIBNS)	MSLBBNHWP RB	ccs/CClidb/ CCldbqrtn.c

			PLNT 24	17	NSENT (LIBNS)	MSLBBNHWPRB	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1741ac_lbbnhwprb	AM	OPAMBACD	PLNT 24	17	ATMPT (LIBNS)	MSLBBNHWPRB	ccs/CClidb/ CClbnsqry.c
			PLNT 24	17	HDW (LIBNS)	MSLBBNHWPRB	ccs/CClidb/ CCldbqrtn.c
			PLNT 24	17	NSENT (LIBNS)	MSLBBNHWPRB	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1742ac_lbbndbcb	AM	OPAMBACD	PLNT 24	17	ATMPT (LIBNS)	MSLBBNDBCB	ccs/CClidb/ CClbnsqry.c
			PLNT 24	17	NSENT (LIBNS)		
			PLNT 24	17	OVRLD (LIBNS)		
MS1743ac_lbbnnmcb	AM	OPAMBACD	PLNT 24	17	ATMPT (LIBNS)	MSLBBNNMCB	ccs/CClidb/ CClbnsqry.c
			PLNT 24	17	NM (LIBNS)		
			PLNT 24	17	NSENT (LIBNS)		
MS1744ac_lbbnnid	AM	OPAMBACD	PLNT 24	17	ATMPT (LIBNS)	MSLBBNNID	ccs/CClidb/ CClbnsqry.c
			PLNT 24	17	NO-ID (LIBNS)		
			PLNT 24	17	NSENT (LIBNS)		
MS1745ac_lbbnamblk	SM	OPSMCDOT	PLNT 24	17	AMBLK (LIBNS)	MSLBBNAMBLK	ccs/CClidb/ CClbnsqry.c
			PLNT 24	17	ATMPT (LIBNS)	MSLBBNAMBLK	oa/OAtaqry/ OBJ/ OAtaqry.cc
			PLNT 24	17	NSENT (LIBNS)		
MS1745ac_lbbnamblk	AM	OPAMBACD	PLNT 24	17	AMBLK (LIBNS)	MSLBBNAMBLK	ccs/CClidb/ CClbnsqry.c
			PLNT 24	17	ATMPT (LIBNS)	MSLBBNAMBLK	oa/OAtaqry/ OBJ/ OAtaqry.cc
			PLNT 24	17	NSENT (LIBNS)		
MS1746ac_lbbnqrtf	AM	OPAMBACD	PLNT 24	17	ABNOR (LIBNS)	MSLBBNQRTF	ccs/CClidb/ CCldbqrtn.c
			PLNT 24	17	RTEFA (LIBNS)		
MS1747ac_lbbnqadf	AM	OPAMBACD	PLNT 24	17	ABNOR (LIBNS)	MSLBBNQADF	ccs/CClidb/ CCldbqrtn.c
			PLNT 24	17	ADDFA (LIBNS)		
MS1748ac_lbbnssf	AM	OPAMBACD	PLNT 24	17	ABNOR (LIBNS)	MSLBBNSSF	ccs/CClidb/ CCldbqrtn.c
			PLNT 24	17	SYSFA (LIBNS)		
MS1749ac_lbbnuneq	AM	OPAMBACD	PLNT 24	17	ABNOR (LIBNS)	MSLBBNUNEQ	ccs/CClidb/ CCldbqrtn.c
			PLNT 24	17	UNEQ (LIBNS)		
MS1750ac_lbbnnf	AM	OPAMBACD	PLNT 24	17	ABNOR (LIBNS)	MSLBBNNF	ccs/CClidb/ CCldbqrtn.c
			PLNT 24	17	NWFA (LIBNS)		
MS1751ac_lbbnncg	AM	OPAMBACD	PLNT 24	17	ABNOR (LIBNS)	MSLBBNNCG	ccs/CClidb/ CCldbqrtn.c
			PLNT	17	NWCONG		

			24		(LIBNS)		
MS1752ac_lbbnuxr	AM	OPAMBACD	PLNT 24	17	TOTAL (LIBNS)	MSLBBNUXR	ccs/CClidb/ CClidbrcv.c
			PLNT 24	17	UNEXP (LIBNS)		

Table 25 Part 25

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS1753ac_lbbninvf	SM	OPSMCDOT	PLNT 24	17	INVFRMT (LIBNS)	MSLBBNINVF	ccs/CClidb/ CCldbqrtn.c
			PLNT 24	17	TOTAL (LIBNS)	MSLBBNINVF	ccs/CClidb/ CClidbrcv.c
						MSLBBNINVF	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1753ac_lbbninvf	AM	OPAMBACD	PLNT 24	17	INVFRMT (LIBNS)	MSLBBNINVF	ccs/CClidb/ CCldbqrtn.c
			PLNT 24	17	TOTAL (LIBNS)	MSLBBNINVF	ccs/CClidb/ CClidbrcv.c
						MSLBBNINVF	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1755ac_lbbnqto	SM	OPSMCDOT	PLNT 24	17	TIMEOUT (LIBNS)	MSLBBNQTO	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1757ac_lbbntest	AM	OPAMBACD	PLNT 24	17	TEST (LIBNS)	MSLBBNTEST	ccs/CCoptst/ CClbntst.c
MS1761ac_lbccscg	AM	OPAMBACD	PLNT 24	17	ABNOR (LICCD)	MSLBCCSCG	ccs/CClidb/ CCldbqrtn.c
			PLNT 24	17	SYSCONG (LICCD)		
MS1762ac_lbbnscg	AM	OPAMBACD	PLNT 24	17	ABNOR (LIBNS)	MSLBBNSCG	ccs/CClidb/ CCldbqrtn.c
			PLNT 24	17	SYSCONG (LIBNS)		
MS177acc.ms8449ac_mhar1	SM	BASE	TRFC 30	177	RCV-0(AVERAGE)	CMmspipeocc(sm)	cm/CMprims/ CMsmmspipe.c
MS177acc.ms8450ac_mhat0	SM	BASE	TRFC 30	177	RCV-1(AVERAGE)	CMmspipeocc(sm)	cm/CMprims/ CMsmmspipe.c
MS177acc.ms8451ac_mhat1	SM	BASE	TRFC 30	177	XMT-0(AVERAGE)	CMmspipeocc(sm)	cm/CMprims/ CMsmmspipe.c
MS177acc.ms8452ac_mhpr0	SM	BASE	TRFC 30	177	XMT-1(AVERAGE)	CMmspipeocc(sm)	cm/CMprims/ CMsmmspipe.c
MS177acc.ms8453ac_mhpr1	SM	BASE	TRFC 30	177	RCV-0(PERCENT)	CMmspipeocc(sm)	cm/CMprims/ CMsmmspipe.c
MS177acc.ms8454ac_mhpt0	SM	BASE	TRFC 30	177	RCV-1(PERCENT)	CMmspipeocc(sm)	cm/CMprims/ CMsmmspipe.c
MS177acc.ms8455ac_mhpt1	SM	BASE	TRFC 30	177	XMT-0(PERCENT)	CMmspipeocc(sm)	cm/CMprims/ CMsmmspipe.c
MS177acc.ms8712ac_valid	SM	BASE	TRFC 30	177	XMT-1(PERCENT)	CMmspipeocc(sm)	cm/CMprims/ CMsmmspipe.c
MS1792ac_ifzdpl	SM	OPSMCDOT	TRFC 30	96	PKLOST	MSIFZDPL	ps/PSoipri/ PSoidxfer.c
MS1793ac_lbbnia	SM	OPSMCDOT	TRFC 30	109	ABAND (LIBNS)	MSLBBNIA	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1794ac_ifcs	SM	OPSMCDOT	TRFC 30	95	SENT	MSIFCS	oa/OAnmain/ OBJ/ OAnmain.cc
MS1795ac_ifda	CMP	OPAMBACD	TRFC 30	95	OVFL	MSIFDA	rta/ACclldst/ ACrequest.c
MS1795ac_ifda	AM	OPAMBACD	TRFC 30	95	OVFL	MSIFDA	rta/ACclldst/ ACrequest.c

MS1796ac_ifdpl	SM	OPSMCDOT	TRFC 30	95	PKLOST	MSIFDPL	ps/PSoipri/ PSoidxfer.c
MS1797ac_ifcr	SM	OPSMCDOT	TRFC 30	95	OCCUP	MSIFCR	oa/OAifz_ot/ OAifzcall.c
			TRFC 30	96	RECVD		
MS1798ac_ifdifa	CMP	OPAMBACD	TRFC 30	96	BLKD	MSIFDIFA	rta/ACclldst/ ACrequest.c
MS1798ac_ifdifa	AM	OPAMBACD	TRFC 30	96	BLKD	MSIFDIFA	rta/ACclldst/ ACrequest.c
MS1799ac_ifrrcs	SM	OPSMCDOT	TRFC 30	97	SENT	MSIFRRCS	oa/OAotoper/ OAda_rr_ck.c
						MSIFRRCS	oa/OAotoper/ OAta_rr_ck.c
MS1800ac_lbccms	SM	OPSMCDOT	TRFC 30	109	MSGRP (LICCD)	MSLBCCMS	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	109	TOTAL (LICCD)		
			TRFC 30	109	VLDFRMT (LICCD)		
MS1801ac_lbccng	SM	OPSMCDOT	TRFC 30	109	NPRTGRP (LICCD)	MSLBCCNG	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	109	TOTAL (LICCD)		
			TRFC 30	109	VLDFRMT (LICCD)		
MS1802ac_lbccsnt	AM	OPAMBACD	TRFC 30	109	SENT (LICCD)	MSLBCCSNT	ccs/CClidb/ CClccdqry.c
			TRFC 30	61	LICCD		
MS1803ac_lbcchwprb	SM	OPSMCDOT	TRFC 30	109	HDW (LICCD)	MSLBCCHWPRB	ccs/CClidb/ CClccdqry.c
			TRFC 30	109	NSENT (LICCD)	MSLBCCHWPRB	ccs/CClidb/ CCldbqrtn.c
			TRFC 30	61	LICCD	MSLBCCHWPRB	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1803ac_lbcchwprb	AM	OPAMBACD	TRFC 30	109	HDW (LICCD)	MSLBCCHWPRB	ccs/CClidb/ CClccdqry.c
			TRFC 30	109	NSENT (LICCD)	MSLBCCHWPRB	ccs/CClidb/ CCldbqrtn.c
			TRFC 30	61	LICCD	MSLBCCHWPRB	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1804ac_lbccdbcb	AM	OPAMBACD	TRFC 30	109	NSENT (LICCD)	MSLBCCDBCB	ccs/CClidb/ CClccdqry.c
			TRFC 30	109	OVRLD (LICCD)		
			TRFC 30	61	LICCD		
MS1805ac_lbccnmcb	AM	OPAMBACD	TRFC 30	109	NM (LICCD)	MSLBCCNMCB	ccs/CClidb/ CClccdqry.c
			TRFC 30	109	NSENT (LICCD)		
			TRFC 30	61	LICCD		

Table 26 Part 26

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS1806ac_lbccnid	AM	OPAMBAC	TRFC	109	NO_ID	MSLBCCNID	ccs/CClidb/

		D	30		(LICCD)		CClccdqry.c
			TRFC 30	109	NSENT (LICCD)		
			TRFC 30	61	LICCD		
MS1807ac_lbccamblk	SM	OPSMCD OT	TRFC 30	109	AMBLK (LICCD)	MSLBCCAMB LK	ccs/CClidb/ CClccdqry.c
			TRFC 30	109	NSENT (LICCD)	MSLBCCAMB LK	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	61	LICCD		
MS1807ac_lbccamblk	AM	OPAMBAC D	TRFC 30	109	AMBLK (LICCD)	MSLBCCAMB LK	ccs/CClidb/ CClccdqry.c
			TRFC 30	109	NSENT (LICCD)	MSLBCCAMB LK	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	61	LICCD		
MS1808ac_lbccqrtf	AM	OPAMBAC D	TRFC 30	109	ABNOR (LICCD)	MSLBCCQRT F	ccs/CClidb/ CCldbqrtn.c
			TRFC 30	109	RTEFA (LICCD)		
MS1809ac_lbccqadf	AM	OPAMBAC D	TRFC 30	109	ABNOR (LICCD)	MSLBCCQAD F	ccs/CClidb/ CCldbqrtn.c
			TRFC 30	109	ADDFA (LICCD)		
MS1810ac_lbccng	AM	OPAMBAC D	- - - - -	- - - - -	- - - - -	MSLBCCNG	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1810ac_lbccssf	AM	OPAMBAC D	TRFC 30	109	ABNOR (LICCD)	MSLBCCSSF	ccs/CClidb/ CCldbqrtn.c
			TRFC 30	109	SYSFA (LICCD)		
MS1811ac_lbccuneq	AM	OPAMBAC D	TRFC 30	109	ABNOR (LICCD)	MSLBCCUNE Q	ccs/CClidb/ CCldbqrtn.c
			TRFC 30	109	UNEQ (LICCD)		
MS1812ac_lbccnf	AM	OPAMBAC D	TRFC 30	109	ABNOR (LICCD)	MSLBCCNF	ccs/CClidb/ CCldbqrtn.c
			TRFC 30	109	NWFA (LICCD)		
MS1813ac_lbccncg	AM	OPAMBAC D	TRFC 30	109	ABNOR (LICCD)	MSLBCCNCG	ccs/CClidb/ CCldbqrtn.c
			TRFC 30	109	NWCONG (LICCD)		
MS1814ac_lbccunxr	AM	OPAMBAC D	TRFC 30	109	TOTAL (LICCD)	MSLBCCUXR	ccs/CClidb/ CClidbrcv.c
			TRFC 30	109	UNEXP (LICCD)		
MS1815ac_lbccinvf	SM	OPSMCD OT	TRFC 30	109	INVFRMT (LICCD)	MSLBCCINVF	ccs/CClidb/ CCldbqrtn.c
			TRFC 30	109	TOTAL (LICCD)	MSLBCCINVF	ccs/CClidb/ CClidbrcv.c
						MSLBCCINVF	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1815ac_lbccinvf	AM	OPAMBAC D	TRFC 30	109	INVFRMT (LICCD)	MSLBCCINVF	ccs/CClidb/ CCldbqrtn.c
			TRFC 30	109	TOTAL (LICCD)	MSLBCCINVF	ccs/CClidb/ CClidbrcv.c
						MSLBCCINVF	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1816ac_lbccrv	SM	OPSMCD OT	TRFC 30	109	TOTAL (LICCD)	MSLBCCRV	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC	109	VALID		

			30				
			TRFC 30	109	VLDFRMT (LICCD)		
MS1817ac_lbccbnf	SM	OPSMCD OT	TRFC 30	109	NOT FND	MSLBCCNF	ccs/CClidb/ CCldbqrtn.c
			TRFC 30	109	TOTAL (LICCD)		
			TRFC 30	109	VLDFRMT (LICCD)		
MS1818ac_lbccsd	SM	OPSMCD OT	TRFC 30	109	DENIAL	MSLBCCSD	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	109	TOTAL (LICCD)		
			TRFC 30	109	VLDFRMT (LICCD)		
MS1819ac_lbccnpm	SM	OPSMCD OT	TRFC 30	109	NO-PIN	MSLBCCNPM	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	109	TOTAL (LICCD)		
			TRFC 30	109	VLDFRMT (LICCD)		
MS1820ac_lbccto	SM	OPSMCD OT	TRFC 30	109	TIMEOUT (LICCD)	MSLBCCTO	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1821ac_lbacg	AM	OPAMBAC D	TRFC 30	109	COMBINED ACG	MSLBACG	ccs/CClidb/ CClidbrcv.c
MS1822ac_lbcctest	AM	OPAMBAC D	TRFC 30	109	TEST (LICCD)	MSLBCCTEST	ccs/CCoptst/ CClcdtst.c
MS1823ac_lbccia	SM	OPSMCD OT	TRFC 30	109	ABAND (LICCD)	MSLBCCIA	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1824ac_lbbnsnt	AM	OPAMBAC D	TRFC 30	109	SENT (LIBNS)	MSLBBNSNT	ccs/CClidb/ CClbnsqry.c
			TRFC 30	61	LIBNS		
MS1825ac_lbbnhwprb	SM	OPSMCD OT	TRFC 30	109	HDW (LIBNS)	MSLBBNHWP RB	ccs/CClidb/ CClbnsqry.c
			TRFC 30	109	NSENT (LIBNS)	MSLBBNHWP RB	ccs/CClidb/ CCldbqrtn.c
			TRFC 30	61	LIBNS	MSLBBNHWP RB	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1825ac_lbbnhwprb	AM	OPAMBAC D	TRFC 30	109	HDW (LIBNS)	MSLBBNHWP RB	ccs/CClidb/ CClbnsqry.c
			TRFC 30	109	NSENT (LIBNS)	MSLBBNHWP RB	ccs/CClidb/ CCldbqrtn.c
			TRFC 30	61	LIBNS	MSLBBNHWP RB	oa/OAtaqry/ OBJ/ OAtaqry.cc

Table 27 Part 27

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS1826ac_lbbndbcb	AM	OPAMBAC D	TRFC 30	109	NSENT (LIBNS)	MSLBBNDBC B	ccs/CClidb/ CClbnsqry.c
			TRFC 30	109	OVRLD (LIBNS)		
			TRFC 30	61	LIBNS		
MS1827ac_lbbnnmcb	AM	OPAMBAC D	TRFC 30	109	NM (LIBNS)	MSLBBNNMC B	ccs/CClidb/ CClbnsqry.c
			TRFC 30	109	NSENT (LIBNS)		

			TRFC 30	61	LIBNS		
MS1828ac_lbbnnid	AM	OPAMBACD	TRFC 30	109	NO_ID (LIBNS)	MSLBBNNID	ccs/CClidb/ CClbnsqry.c
			TRFC 30	109	NSENT (LIBNS)		
			TRFC 30	61	LIBNS		
MS1829ac_lbbnamblk	SM	OPSMCDOT	TRFC 30	109	AMBLK (LIBNS)	MSLBBNAMBLK	ccs/CClidb/ CClbnsqry.c
			TRFC 30	109	NSENT (LIBNS)	MSLBBNAMBLK	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	61	LIBNS		
MS1829ac_lbbnamblk	AM	OPAMBACD	TRFC 30	109	AMBLK (LIBNS)	MSLBBNAMBLK	ccs/CClidb/ CClbnsqry.c
			TRFC 30	109	NSENT (LIBNS)	MSLBBNAMBLK	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	61	LIBNS		
MS1830ac_lbbnqrtf	AM	OPAMBACD	TRFC 30	109	ABNOR (LIBNS)	MSLBBNQRTF	ccs/CClidb/ CCldbqrtn.c
			TRFC 30	109	RTEFA (LIBNS)		
MS1831ac_lbbnqadf	AM	OPAMBACD	TRFC 30	109	ABNOR (LIBNS)	MSLBBNQADF	ccs/CClidb/ CCldbqrtn.c
			TRFC 30	109	ADDFA (LIBNS)		
MS1832ac_lbbnssf	AM	OPAMBACD	TRFC 30	109	ABNOR (LIBNS)	MSLBBNSSF	ccs/CClidb/ CCldbqrtn.c
			TRFC 30	109	SYSFA (LIBNS)		
MS1833ac_lbbnuneq	AM	OPAMBACD	TRFC 30	109	ABNOR (LIBNS)	MSLBBNUNEQ	ccs/CClidb/ CCldbqrtn.c
			TRFC 30	109	UNEQ (LIBNS)		
MS1834ac_lbbnnf	AM	OPAMBACD	TRFC 30	109	ABNOR (LIBNS)	MSLBBNNF	ccs/CClidb/ CCldbqrtn.c
			TRFC 30	109	NWFA (LIBNS)		
MS1835ac_lbbnncg	AM	OPAMBACD	TRFC 30	109	ABNOR (LIBNS)	MSLBBNNCG	ccs/CClidb/ CCldbqrtn.c
			TRFC 30	109	NWCONG (LIBNS)		
MS1836ac_lbbnuxr	AM	OPAMBACD	TRFC 30	109	TOTAL (LIBNS)	MSLBBNUXR	ccs/CClidb/ CClidbrcv.c
			TRFC 30	109	UNEXP (LIBNS)		
MS1837ac_lbbninvf	SM	OPSMCDOT	TRFC 30	109	INVFRMT (LIBNS)	MSLBBNINVF	ccs/CClidb/ CCldbqrtn.c
			TRFC 30	109	TOTAL (LIBNS)	MSLBBNINVF	ccs/CClidb/ CClidbrcv.c
						MSLBBNINVF	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1837ac_lbbninvf	AM	OPAMBACD	TRFC 30	109	INVFRMT (LIBNS)	MSLBBNINVF	ccs/CClidb/ CCldbqrtn.c
			TRFC 30	109	TOTAL (LIBNS)	MSLBBNINVF	ccs/CClidb/ CClidbrcv.c
						MSLBBNINVF	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1839ac_lbbnqto	SM	OPSMCD	TRFC	109	TIMEOUT	MSLBBNQTO	oa/OAtaqry/ OBJ/

		OT	30		(LIBNS)		OAtaqry.cc
MS1840ac_lbccurs	SM	OPSMCD OT	TRFC 30	109	NONWKRS (LICCD)	MSLBCCURS	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	109	TOTAL (LICCD)		
			TRFC 30	109	VLDFRMT (LICCD)		
MS1841ac_lbbntest	AM	OPAMBAC D	TRFC 30	109	TEST (LIBNS)	MSLBBNTEST	ccs/CCoptst/ CClbntst.c
MS1842ac_lbbnra	SM	OPSMCD OT	TRFC 30	109	ALLOW	MSLBBNRA	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1843ac_lbbnrd	SM	OPSMCD OT	TRFC 30	109	DENY	MSLBBNRD	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1844ac_lbbnri	SM	OPSMCD OT	TRFC 30	109	INDET	MSLBBNRI	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1845ac_casctlu	SM	OPSMCD OT	TRFC 30	110	AUTOCHK	MSCASCTLU	oa/OAaccs/ OAcntvalid.c
MS1846ac_casctdny	SM	OPSMCD OT	TRFC 30	110	AUTODNY	MSCASCTDN Y	oa/OAaccs/ OAcntvalid.c
MS1847ac_casictlu	SM	OPSMCD OT	TRFC 30	110	AUTOCHK (LEC)	MSCASICTLU	oa/OAaccs/ OAcntvalid.c
						MSCASICTLU	oa/OAaccs/ OBJ/ OAna.sdc
MS1848ac_casidny	SM	OPSMCD OT	TRFC 30	110	AUTODNY (LEC)	MSCASIDNY	oa/OAaccs/ OAcntvalid.c
						MSCASIDNY	oa/OAaccs/ OBJ/ OAna.sdc
MS1849ac_nonisp	SM	OPSMCD OT	TRFC 30	61	RECV	MSNONISP	oa/OAotoper/ OAnit.c
MS1850ac_lbccrj	SM	OPSMCD OT	TRFC 30	109	REJ (LICCD)	MSLBCCRJ	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	109	TOTAL (LICCD)		
			TRFC 30	109	VLDFRMT (LICCD)		

Table 28 Part 28

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS1851ac_lbbnscg	AM	OPAMBAC D	- - - - -	- - - - -	- - - - -	MSLBCCSCG	ccs/CClidb/ CCldbqrtn.c
MS1851ac_lbccscg	AM	OPAMBAC D	TRFC 30	109	ABNOR (LICCD)	MSLBCCSCG	ccs/CClidb/ CCldbqrtn.c
			TRFC 30	109	SYSCONG (LICCD)		
MS1852ac_lbbnscg	AM	OPAMBAC D	TRFC 30	109	ABNOR (LIBNS)	MSLBBNSCG	ccs/CClidb/ CCldbqrtn.c
			TRFC 30	109	SYSCONG (LIBNS)		
MS1854ac_lbbnnr	SM	OPSMCD OT	TRFC 30	109	NORRSP	MSLBBNNR	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	109	TOTAL (LIBNS)		
			TRFC 30	109	VLDFRMT (LIBNS)		
MS1855ac_lbbncrnf	SM	OPSMCD OT	TRFC 30	109	BRCNFND	MSLBBNCRN F	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS1855ac_lbbnrnf	SM	OPSMCD OT	TRFC 30	109	TOTAL (LIBNS)	MSLBBNNF	ccs/CClidb/ CCldbqrtn.c

			TRFC 30	109	VLDFRMT (LIBNS)		
MS1856ac_lbbnms	SM	OPSMCD OT	TRFC 30	109	MSGRP (LIBNS)	MSLBBNMS	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	109	TOTAL (LIBNS)		
			TRFC 30	109	VLDFRMT (LIBNS)		
MS1857ac_lbbnng	SM	OPSMCD OT	TRFC 30	109	NPRTGRP (LIBNS)	MSLBBNNG	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	109	TOTAL (LIBNS)		
			TRFC 30	109	VLDFRMT (LIBNS)		
MS1858ac_lbbnurs	SM	OPSMCD OT	TRFC 30	109	NONWKRS (LIBNS)	MSLBBNURS	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	109	TOTAL (LIBNS)		
			TRFC 30	109	VLDFRMT (LIBNS)		
MS1859ac_lbbnrj	SM	OPSMCD OT	TRFC 30	109	REJ (LIBNS)	MSLBBNRJ	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	109	TOTAL (LIBNS)		
			TRFC 30	109	VLDFRMT (LIBNS)		
MS1861ac_sabeli	SM	OPSMCD OT	TRFC 30	64	ELIGBL	MSSABELI	oa/OAaccs/ OBJ/ OAna.sdc
MS1862ac_sabneli	SM	OPSMCD OT	TRFC 30	64	NELIGBL	MSSABNELI	oa/OAaccs/ OBJ/ OAna.sdc
MS1863ac_sabatmpt	SM	OPSMCD OT	TRFC 30	64	INIT (SAB)	MSSABATMP T	oa/OAaccs/ OBJ/ OAna.sdc
MS1864ac_sab1seqc	SM	OPSMCD OT	TRFC 30	64	BINIT (SAB)	MSSAB1SEQ C	oa/OAaccs/ OBJ/ OAna.sdc
MS1865ac_sabsqc10	SM	OPSMCD OT	TRFC 30	64	THSLD	MSSABSQC10	oa/OAaccs/ OBJ/ OAna.sdc
MS1866ac_sababnd	SM	OPSMCD OT	TRFC 30	64	ABND (SAB)	MSSABABND	oa/OAaccs/ OBJ/ OAna.sdc
						MSSABABND	oa/OAta_ot/ OAans_ta2.c
						MSSABABND	oa/OAta_ot/ OAcall_ta.c
MS1867ac_sabacpt	SM	OPSMCD OT	TRFC 30	64	AVG (SAB)	MSSABACPT	oa/OAaccs/ OBJ/ OAna.sdc
			TRFC 30	64	OK (SAB)		
MS1868ac_mvposz89c	SM	OPSMCD OT	TRFC 30	110	POSSEIZ (89C)	MSMVPOSZ8 9C	oa/OAnmain/ OBJ/ OAnmain.cc
MS1869ac_mvop89c	SM	OPSMCD OT	TRFC 30	110	OPER (89C)	MSMVOP89C	oa/OAnccbt/ OAbcardf.c
						MSMVOP89C	oa/OAnccbt/ OAfcardf.c
MS1870ac_mvacblg89c	SM	OPSMCD OT	TRFC 30	110	ACPTBLG (89C)	MSMVACBLG 89C	oa/OAnccbt/ OBJ/ OAnccbt.cc
MS1871ac_mvcccposz	SM	OPSMCD OT	TRFC 30	110	POSSEIZ (CCC)	MSMVCCCPO SZ	oa/OAnmain/ OBJ/ OAnmain.cc
MS1872ac_mvcccop	SM	OPSMCD OT	TRFC 30	110	OPER (CCC)	MSMVCCCOP	oa/OAnccbt/ OAbcardf.c
						MSMVCCCOP	oa/OAnccbt/ OAfcardf.c
MS1873ac_mvcccacbg	SM	OPSMCD	TRFC	110	ACPTBLG	MSMVCCCAC	oa/OAnccbt/ OBJ/

		OT	30		(CCC)	BG	OAnccbt.cc
MS1874ac_opcasctlu	SM	OPSMCD OT	TRFC 30	110	OPCHK	MSOPCASCT LU	oa/OAaccs/ OAcntvalid.c
MS1875ac_opcasfctlu	SM	OPSMCD OT	TRFC 30	110	OPDNY	MSOPCASFC TLU	oa/OAaccs/ OAcntvalid.c
MS1876ac_opctlu89cc	SM	OPSMCD OT	TRFC 30	110	OPCHK (CCC/89C)	MSOPCTLU_8 9CC	oa/OAaccs/ OAcntvalid.c
MS1877ac_opflu89cc	SM	OPSMCD OT	TRFC 30	110	OPDNY (CCC/89C)	MSOPFLU_89 CC	oa/OAaccs/ OAcntvalid.c
MS1878ac_csctlu89cc	SM	OPSMCD OT	TRFC 30	110	CUSTCHK (CCC/89C)	MSCSCTLU_8 9CC	oa/OAaccs/ OAcntvalid.c
MS1879ac_csflu89cc	SM	OPSMCD OT	TRFC 30	110	CUSTDNY (CCC/89C)	MSCSFLU_89 CC	oa/OAaccs/ OAcntvalid.c
MS1880ac_opilulec	SM	OPSMCD OT	TRFC 30	110	OPCHK (LEC)	MSOPILU_LE C	oa/OAaccs/ OAcntvalid.c
MS1881ac_opifulec	SM	OPSMCD OT	TRFC 30	110	OPDNY (LEC)	MSOPIFLU_L EC	oa/OAaccs/ OAcntvalid.c
MS1893ac_origreq	CMP	BASE	TRFC 30	107	ORIG REQ	MSISDSLORE Q	pc/PCzport/ LPactz.c
						MSISDSLORE Q	rita/RIsetup/ RIdsloff.c
MS1893ac_origreq	PH	BASE	TRFC 30	107	ORIG REQ	MSISDSLORE Q	pc/PCzport/ LPactz.c
						MSISDSLORE Q	rita/RIsetup/ RIdsloff.c

Table 29 Part 29

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS1893ac_origreq	SM	BASE	TRFC 30	107	ORIG REQ	MSISDSLORE Q	pc/PCzport/ LPactz.c
						MSISDSLORE Q	rita/RIsetup/ RIdsloff.c
MS1893ac_origreq	AM	BASE	TRFC 30	107	ORIG REQ	MSISDSLORE Q	pc/PCzport/ LPactz.c
						MSISDSLORE Q	rita/RIsetup/ RIdsloff.c
MS1894ac_termpc	CMP	BASE	TRFC 30	107	TERM	MSISTMPC	fc/FCshdn/ ISsh_dinit.c
						MSISTMPC	rita/RIsetup/ RIdslterm.c
						MSISTMPC	rta/RTisdn/ RTmcaterm.c
MS1894ac_termpc	PH	BASE	TRFC 30	107	TERM	MSISTMPC	fc/FCshdn/ ISsh_dinit.c
						MSISTMPC	rita/RIsetup/ RIdslterm.c
						MSISTMPC	rta/RTisdn/ RTmcaterm.c
MS1894ac_termpc	SM	BASE	TRFC 30	107	TERM	MSISTMPC	fc/FCshdn/ ISsh_dinit.c
						MSISTMPC	rita/RIsetup/ RIdslterm.c
						MSISTMPC	rta/RTisdn/ RTmcaterm.c
MS1894ac_termpc	AM	BASE	TRFC 30	107	TERM	MSISTMPC	fc/FCshdn/ ISsh_dinit.c
						MSISTMPC	rita/RIsetup/ RIdslterm.c

						MSISTMPC	rta/RTisdn/ RTmcaterm.c
MS1896ac_setupreq	CMP	BASE	TRFC 30	107	SETUP DELAY	MSSETUPRE S	fc/FCacctath/ MCleadacct.c
						MSSETUPRE S	fc/FCidp/ MCdsl_dig.c
						MSSETUPRE S	fc/FCidp/ MCpotsa.c
						MSSETUPRE S	fita/Fledsl/ OBJ/ ISe_near.sdc
						MSSETUPRE S	fita/Flisdn/ ISdsl_dig.c
						MSSETUPRE S	fita/Flisdn/ OBJ/ ISnear.sdc
						MSSETUPRE S	fita/Flodb/ ISodbfsm.c
						MSSETUPRE S	rita/RIsetup/ RIdsloff.c
						MSSETUPRE S	rta/RTisdn/ RTatrelcom.c
MS1896ac_setupreq	PH	BASE	TRFC 30	107	SETUP DELAY	MSSETUPRE S	fc/FCacctath/ MCleadacct.c
						MSSETUPRE S	fc/FCidp/ MCdsl_dig.c
						MSSETUPRE S	fc/FCidp/ MCpotsa.c
						MSSETUPRE S	fita/Fledsl/ OBJ/ ISe_near.sdc
						MSSETUPRE S	fita/Flisdn/ ISdsl_dig.c
						MSSETUPRE S	fita/Flisdn/ OBJ/ ISnear.sdc
						MSSETUPRE S	fita/Flodb/ ISodbfsm.c
						MSSETUPRE S	rita/RIsetup/ RIdsloff.c
						MSSETUPRE S	rta/RTisdn/ RTatrelcom.c
MS1896ac_setupreq	SM	BASE	TRFC 30	107	SETUP DELAY	MSSETUPRE S	fc/FCacctath/ MCleadacct.c
						MSSETUPRE S	fc/FCidp/ MCdsl_dig.c
						MSSETUPRE S	fc/FCidp/ MCpotsa.c
						MSSETUPRE S	fita/Fledsl/ OBJ/ ISe_near.sdc
						MSSETUPRE S	fita/Flisdn/ ISdsl_dig.c
						MSSETUPRE S	fita/Flisdn/ OBJ/ ISnear.sdc
						MSSETUPRE S	fita/Flodb/ ISodbfsm.c
						MSSETUPRE S	rita/RIsetup/ RIdsloff.c
						MSSETUPRE S	rta/RTisdn/ RTatrelcom.c
MS1896ac_setupreq	AM	BASE	TRFC 30	107	SETUP DELAY	MSSETUPRE S	fc/FCacctath/ MCleadacct.c
						MSSETUPRE S	fc/FCidp/ MCdsl_dig.c
						MSSETUPRE	fc/FCidp/

						S	MCpotsa.c
						MSSETUPRE S	fita/Fledsl/ OBJ/ ISe_near.sdc
						MSSETUPRE S	fita/Flisdn/ ISdsl_dig.c
						MSSETUPRE S	fita/Flisdn/ OBJ/ ISnear.sdc
						MSSETUPRE S	fita/Flodb/ ISodbfsm.c
						MSSETUPRE S	rita/RIsetup/ RIdsloff.c
						MSSETUPRE S	rta/RTisdn/ RTatrelcom.c
MS1897ac_totusage	CMP	BASE	TRFC 30	107	USAGE	- - - - -	- - - - -

Table 30 Part 30

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS1897ac_totusage	PH	BASE	TRFC 30	107	USAGE	- - - - -	- - - - -
MS1897ac_totusage	SM	BASE	TRFC 30	107	USAGE	- - - - -	- - - - -
MS1897ac_totusage	AM	BASE	TRFC 30	107	USAGE	- - - - -	- - - - -
MS1898ac_origattblk	CMP	BASE	TRFC 30	107	ORIG BLKD	MSISORATTB LK	pc/PCisport/ LPactb.c
						MSISORATTB LK	pc/PCzport/ LPactz.c
MS1898ac_origattblk	PH	BASE	TRFC 30	107	ORIG BLKD	MSISORATTB LK	pc/PCisport/ LPactb.c
						MSISORATTB LK	pc/PCzport/ LPactz.c
MS1898ac_origattblk	SM	BASE	TRFC 30	107	ORIG BLKD	MSISORATTB LK	pc/PCisport/ LPactb.c
						MSISORATTB LK	pc/PCzport/ LPactz.c
MS1898ac_origattblk	AM	BASE	TRFC 30	107	ORIG BLKD	MSISORATTB LK	pc/PCisport/ LPactb.c
						MSISORATTB LK	pc/PCzport/ LPactz.c
MS1899ac_termattblk	CMP	BASE	TRFC 30	107	TERM BLKD	MSISTMATTB LK	pc/PCisport/ LPactb.c
						MSISTMATTB LK	pc/PCzport/ LPactz.c
MS1899ac_termattblk	PH	BASE	TRFC 30	107	TERM BLKD	MSISTMATTB LK	pc/PCisport/ LPactb.c
						MSISTMATTB LK	pc/PCzport/ LPactz.c
MS1899ac_termattblk	SM	BASE	TRFC 30	107	TERM BLKD	MSISTMATTB LK	pc/PCisport/ LPactb.c
						MSISTMATTB LK	pc/PCzport/ LPactz.c
MS1899ac_termattblk	AM	BASE	TRFC 30	107	TERM BLKD	MSISTMATTB LK	pc/PCisport/ LPactb.c
						MSISTMATTB LK	pc/PCzport/ LPactz.c
MS1900ac_otgmg	AM	BASE	TRFC 30	120	MSGOUT (UTILIZATION)	MSOTGISUP	ct/CTtrans/ CTtrans.c

MS1901ac_incmg	AM	BASE	TRFC 30	120	MSGIN (UTILIZATION)	MSINCISUP	ct/CTtrans/ CT7isup.c
MS1902ac_unrmg	SM	BASE	TRFC 30	120	UNRMSG (PERFORMANCE)	MSUNRISUP	ccs/CC7clr/ CCoi_mscnts.c
						MSUNRISUP	ccs/CC7setup/ CCoi_fca.c
						MSUNRISUP	ccs/CC7setup/ CCoi_strtp.c
						MSUNRISUP	ccs/CCisup/ CCo_isup.c
						MSUNRISUP	ccs/CCisup/ CCo_mscnts.c
						MSUNRISUP	ccs/CCisup/ CCt_isup.c
						MSUNRISUP	ccs/CCmisc/ CCo7_rmsg.c
MS1903ac_abrel	SM	BASE	TRFC 30	120	ABNREL (PERFORMANCE)	MSABRISUP	ccs/CC7clr/ CCoi_mscnts.c
						MSABRISUP	ccs/CCisup/ CCo_mscnts.c
MS1904ac_ckblk	SM	BASE	TRFC 30	120	BLKMSG (AVAILABILITY)	MSCBKISUP	tm/TMpsa_ccs/ TMccsdisp.c
MS1905ac_glare	SM	BASE	TRFC 30	120	GLARE (AVAILABILITY)	MSGLRISUP	ccs/CC7clr/ CCti_fail.c
MS1906ac_cotfail	SM	BASE	TRFC 30	120	COTFAIL (AVAILABILITY)	MSCOTISUP	ccs/CC7clr/ CCti_fail.c
MS1907ac_tkrht	SM	BASE	TRFC 30	120	OTHER (AVAILABILITY)	MSTKRISUP	ccs/CC7clr/ CCti_fail.c
MS1908ac_unsuc	SM	BASE	TRFC 30	120	TOTAL UNSUCCESSFUL ATTEMPTS	MSTUAISUP	ccs/CC7clr/ CCti_fail.c
					(END-TO-END PERFORMANCE)	MSTUAISUP	ccs/CC7clr/ CCti_ubs.c
MS1909ac_swcong	SM	BASE	TRFC 30	120	SWCONG (END-TO-END PERFORMANCE)	MSSWCISUP	ccs/CC7clr/ CCoi_mscnts.c
						MSSWCISUP	ccs/CC7clr/ CCti_mscnts.c
						MSSWCISUP	ccs/CC7setup/ CCoi_strtp.c
						MSSWCISUP	ccs/CCisup/ CCo_mscnts.c
						MSSWCISUP	ccs/CCtrksig/ CCt_mscnts.c
MS1910ac_nockt	SM	BASE	TRFC 30	120	NOCKT (END-TO-END PERFORMANCE)	MSCKTISUP	ccs/CC7clr/ CCoi_mscnts.c
						MSCKTISUP	ccs/CC7clr/ CCti_mscnts.c
						MSCKTISUP	ccs/CCisup/

							CCo_mscnts.c
						MSCKTISUP	ccs/CCtrksig/ CCt_mscnts.c
MS1911ac_adrinc	SM	BASE	TRFC 30	120	ADDRINC (END-TO-END PERFORMANCE)	MSADIISUP	ccs/CC7clr/ CCoi_mscnts.c
						MSADIISUP	ccs/CC7clr/ CCti_mscnts.c
						MSADIISUP	ccs/CCisup/ CCo_mscnts.c
						MSADIISUP	ccs/CCtrksig/ CCt_mscnts.c
MS1912ac_tmpfail	SM	BASE	TRFC 30	120	TMPFAIL (END-TO-END PERFORMANCE)	MSTMPISUP	ccs/CC7clr/ CCoi_mscnts.c
						MSTMPISUP	ccs/CC7clr/ CCti_mscnts.c
						MSTMPISUP	ccs/CCisup/ CCo_mscnts.c
						MSTMPISUP	ccs/CCtrksig/ CCt_mscnts.c

Table 31 Part 31

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS1913ac_nonum	SM	BASE	TRFC 30	120	BADNUM (END-TO-END PERFORMANCE)	MSUNAISUP	ccs/CC7clr/ CCoi_mscnts.c
						MSUNAISUP	ccs/CC7clr/ CCti_mscnts.c
						MSUNAISUP	ccs/CCisup/ CCo_mscnts.c
						MSUNAISUP	ccs/CCtrksig/ CCt_mscnts.c
MS1914ac_busy	SM	BASE	TRFC 30	120	BUSY (END-TO-END PERFORMANCE)	MSBSYISUP	ccs/CC7clr/ CCoi_mscnts.c
						MSBSYISUP	ccs/CC7clr/ CCti_mscnts.c
						MSBSYISUP	ccs/CCisup/ CCo_mscnts.c
						MSBSYISUP	ccs/CCtrksig/ CCt_mscnts.c
MS1915ac_oos	SM	BASE	TRFC 30	120	DESTOOS (END-TO-END PERFORMANCE)	MSOOSISUP	ccs/CC7clr/ CCoi_mscnts.c
						MSOOSISUP	ccs/CC7clr/ CCti_mscnts.c
						MSOOSISUP	ccs/CCisup/ CCo_mscnts.c
						MSOOSISUP	ccs/CCtrksig/ CCt_mscnts.c
MS1916ac_other	SM	BASE	TRFC	120	OTHER	MSMSCISUP	ccs/CC7clr/

			30		(END-TO-END PERFORMANCE)		CCoi_mscnts.c
						MSMSCISUP	ccs/CC7clr/ CCti_mscnts.c
						MSMSCISUP	ccs/CCisup/ CCo_mscnts.c
						MSMSCISUP	ccs/CCtrksig/ CCt_mscnts.c
MS1923ac_aoctusg	SM	OPSMCDOT	TRFC 30	123	ATMPT (INIT)	MSDIOTRUNK	oa/OAta_ot/ OAdior_dig.c
MS1924ac_diocolct	SM	OPSMCDOT	TRFC 30	123	COLL	MSDIOCOLCT	oa/OAnprls/ OAprlmeas.c
						MSDIOCOLCT	oa/OAta_ot/ OAans_ta2.c
MS1925ac_dioccrd	SM	OPSMCDOT	TRFC 30	123	CCRD (INIT)	MSDIOCCRD	oa/OAnprls/ OAprlmeas.c
						MSDIOCCRD	oa/OAta_ot/ OAans_ta2.c
MS1926ac_dionchrg	SM	OPSMCDOT	TRFC 30	123	NOCHG	MSDIONCHRG	oa/OAnprls/ OAprlmeas.c
						MSDIONCHRG	oa/OAta_ot/ OAans_ta2.c
MS1927ac_dio3rd	SM	OPSMCDOT	TRFC 30	123	3RDNO	MSDIO3RD	oa/OAnprls/ OAprlmeas.c
						MSDIO3RD	oa/OAta_ot/ OAans_ta2.c
MS1928ac_dioother	SM	OPSMCDOT	TRFC 30	123	OTHER	MSDIOOTHR	oa/OAnprls/ OAprlmeas.c
						MSDIOOTHR	oa/OAta_ot/ OAans_ta2.c
MS1929ac_dioseiz	SM	OPSMCDOT	TRFC 30	123	SEIZED (INIT)	MSDIOSEIZ	oa/OAnmain/ OBJ/ OAnmain.cc
MS1930ac_mechalw	SM	OPSMCDOT	TRFC 30	123	ALLOW	MSMECALW	oa/OAifz_ot/ OAifzmeas.c
						MSMECALW	oa/OAncnfr/ OBJ/ OAnfwcn.sdc
						MSMECALW	oa/OAnprls/ OAprlmeas.c
MS1931ac_mechrcvd	SM	OPSMCDOT	TRFC 30	123	RECVD	MSMECRCVD	oa/OAifz_ot/ OAifzmeas.c
						MSMECRCVD	oa/OAnprls/ OAprlmeas.c
MS1932ac_mechflsh	SM	OPSMCDOT	TRFC 30	123	RECALL	MSMECFLSH	oa/OAnmain/ OBJ/ OAnmain.cc
MS1933ac_mech2ndop	SM	OPSMCDOT	TRFC 30	123	OPER	MSMEC2NDOP	oa/OAnmain/ OBJ/ OAnmain.cc
MS1934ac_mechrout	SM	OPSMCDOT	TRFC 30	123	ANNC (MECH)	MSMECROUT	oa/OAifz_ot/ OAqwannc.c
						MSMECROUT	oa/OAta_ot/ OAmechq.c
MS1935ac_mechnrout	SM	OPSMCDOT	TRFC 30	123	BLKANNC	MSMECNROUT	oa/OAifz_ot/ OAifzmechq.c
						MSMECNROUT	oa/OAifz_ot/ OAqwannc.c
						MSMECNROUT	oa/OAta_ot/ OAmechq.c
MS1936ac_ofhk3rd	SM	OPSMCDOT	TRFC 30	123	OFFHOOK	MSOFHK3RD	oa/OAtavn/ OBJ/ OAtavn.sdc
MS1937ac_3rdsecrd	SM	OPSMCDOT	TRFC 30	123	SECURED	MS3RDSECRD	oa/OAnccbt/ OBJ/ OAnccbt.cc

MS1938ac_3rdacpt	SM	OPSMCD OT	TRFC 30	123	BNSACPT	MS3RDACPT	oa/OAncoc/ OArplyqry.c
MS1939ac_lsverbann	SM	OPSMCD OT	TRFC 30	123	ANNC (LISTING)	MSLSVERBA NN	oa/OAtaeis/ OBJ/ OAtaeis.cc
MS1940ac_eisatmpt	SM	OPSMCD OT	TRFC 30	124	ATMPT	MSEISATMPT	oa/OAeis/ OAcomsend.c
			TRFC 30	124	FAIL	MSEISATMPT	oa/OAeis/ OAeishrtbt.c
MS1941ac_eisovld	SM	OPSMCD OT	TRFC 30	124	FAIL	MSEISOVLD	oa/OAeis/ OAcomsend.c
			TRFC 30	124	OVFL	MSEISOVLD	oa/OAeis/ OAeishrtbt.c
MS1942ac_eissuacs	SM	OPSMCD OT	TRFC 30	124	FAIL	MSEISSUACS	oa/OAeis/ OAcomsend.c
			TRFC 30	124	SUCC	MSEISSUACS	oa/OAeis/ OAeishrtbt.c
			TRFC 30	124	USAGE		
MS1943ac_eisrcvd	SM	OPSMCD OT	TRFC 30	124	RECVD	MSEISRCVD	oa/OAeis/ OAetpemsg.c
			TRFC 30	124	USAGE		

Table 32 Part 32

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS1944ac_eisnrcvd	SM	OPSMCD OT	TRFC 30	124	NRECV	MSEISNRCVD	oa/OAeis/ OAcomsend.c
						MSEISNRCVD	oa/OAeis/ OAesprmcal.c
						MSEISNRCVD	oa/OAeis/ OAetptrmsg.c
						MSEISNRCVD	oa/OAeis/ OAltko_chk.c
MS1945ac_lnorg	SM	BASE	PLNT 24	21	ORIG	MSLNORG	fc/FClnacp/ FClnwkup.c
MS1946ac_lnqry	SM	BASE	PLNT 24	21	QUERY	MSLNQRY	fc/FClnacp/ FClnsinit.c
MS1947ac_lnopuls	SM	BASE	PLNT 24	21	OPLS	MSLNOPULS	fc/FClnacp/ FClntrhdlr.c
MS1948ac_lnorg	SM	BASE	TRFC 30	121	ORIG (BASE)	MSLNORG	fc/FClnacp/ FClnwkup.c
MS1949ac_lnqry	SM	BASE	TRFC 30	121	QUERY (BASE)	MSLNQRY	fc/FClnacp/ FClnsinit.c
MS1950ac_lnopuls	SM	BASE	TRFC 30	121	OPLS (BASE)	MSLNOPULS	fc/FClnacp/ FClntrhdlr.c
MS1951ac_lnfani	SM	BASE	TRFC 30	121	ANI (FAILURE)	MSLNFANI	fc/FCcama/ FCca_fs.c
MS1952ac_lnfti	SM	BASE	TRFC 30	121	INATRN (FAILURE)	MSLNFTI	fc/FClnacp/ FClntrhdlr.c
						MSLNFTI	fc/FClnacp/ FClnwkup.c
MS1953ac_lnfta	SM	BASE	TRFC 30	121	ACTTRN (FAILURE)	MSLNFTA	fc/FClnacp/ FClntrhdlr.c
MS1954ac_lnblk	SM	BASE	TRFC 30	121	BLKD (TRANSACTIO N CAPABILITY)	MSLNBLK	fc/FClnacp/ FClnfail.c
MS1955ac_lnto	SM	BASE	TRFC	121	TO	MSLNTO	fc/FClnacp/

			30		(TRANSACTIO N CAPABILITY)		FClntrhdlr.c
MS1956ac_lnbccs	SM	BASE	TRFC 30	121	CCSBLKD (TRANSACTIO N CAPABILITY)	MSLNBCCS	fc/FClnacp/ FClnfail.c
MS1957ac_lnimsg	SM	BASE	TRFC 30	121	INVMSG (TRANSACTIO N CAPABILITY)	MSLNIMSG	ccs/CCacpsdn/ CCrcvsdn.c
						MSLNIMSG	ccs/CCacpsdn/ CCsdnmsg.c
						MSLNIMSG	fc/FClnacp/ FClntrhdlr.c
						MSLNIMSG	nm/NMacpsdn/ NMsdn_set.c
MS1957ac_lnimsg	AM	BASE	TRFC 30	121	INVMSG (TRANSACTIO N CAPABILITY)	MSLNIMSG	ccs/CCacpsdn/ CCrcvsdn.c
						MSLNIMSG	ccs/CCacpsdn/ CCsdnmsg.c
						MSLNIMSG	fc/FClnacp/ FClntrhdlr.c
						MSLNIMSG	nm/NMacpsdn/ NMsdn_set.c
MS1958ac_lncseq	SM	BASE	TRFC 30	121	INVSEQ (TRANSACTIO N CAPABILITY)	MSLNCSEQ	fc/FClnacp/ FClntrhdlr.c
MS1959ac_lnrr	SM	BASE	TRFC 30	121	ERROR (TRANSACTIO N CAPABILITY)	MSLNRR	fc/FClnacp/ FClnconmsg.c
						MSLNRR	fc/FClnacp/ FClnendmsg.c
MS1960ac_lnrej	SM	BASE	TRFC 30	121	REJECT (TRANSACTIO N CAPABILITY)	MSLNREJ	fc/FClnacp/ FClnconmsg.c
						MSLNREJ	fc/FClnacp/ FClnendmsg.c
MS1961ac_lnabrt	SM	BASE	TRFC 30	121	ABORT (TRANSATION CAPABILITY)	MSLNABRT	fc/FClnacp/ FClnrdat.c
MS1962ac_lnterm	SM	BASE	TRFC 30	121	TERM (TRANSACTIO N CAPABILITY)	MSLNTERM	fc/FClnacp/ FClnendmsg.c
MS1963ac_lnaaqry	SM	BASE	TRFC 30	121	NOREPLY (ABANDONS)	MSLNAAQRY	fc/FClnacp/ FClntrhdlr.c
MS1964ac_aopuls	SM	BASE	TRFC 30	121	NOANS (ABANDONS)	MSLNAOPUL	fc/FClnacp/ FClntrhdlr.c
MS1967ac_flt	AM	BASE	PLNT 24	2A	FAULTS(CMP)	MSCMPFLT	as/ASmsmisc/ MSamprims.c
MS1968ac_mtot	AM	BASE	PLNT 24	2A	MTCE USAGE(CMP)	MSCMPOUT	as/ASmsmisc/ MSamprims.c
MS1969ac_dmot	AM	BASE	PLNT	2A	DUPLEX	MSCMPDMTC	- - - - -

			24		MTCE(CMP)		
MS1970ac_auto_dg	AM	BASE	PLNT 24	2A	AUTO DIAGS(CMP)	MSCMPAUTDG	sm/SMpip/ SMpicft.c
MS1971ac_mtflt	CMP	BASE	PLNT 24	2A	ERROR(CMP)	MSCMPMTFLT	smim/SMcmpram/ PPpopbuf.c
MS1974ac_prcot	AM	BASE	PLNT 24	3	OUTAGE(CMP)	MSCMPPRCOT	si/IMokp/ IMcmpdntm.c
MS1976ac_auder	CMP	BASE	PLNT 24	3	AUD_EV(CMP)	MSAUDCMPERR	au/AUac/ AUaer.c
MS1985ac_proc1	CMP	BASE	TRFC 15	2B	PERCENT OCCUP	- - - - -	- - - - -
			TRFC 30	126	PERCENT OCCUP		
MS1986ac_proc2	CMP	BASE	TRFC 15	2B	CALL OCCUP	- - - - -	- - - - -
			TRFC 30	126	CALL OCCUP		
MS1989ac_cdirr	SM	BASE	TRFC 30	3	CDIRR	MSCDIRR	fc/FCmfcnr/ OBJ/ MCnear.sdc
						MSCDIRR	fita/Flisdn/ OBJ/ ISnear.sdc
						MSCDIRR	fp/FPlnorig/ FPdir_conn.c
						MSCDIRR	fp/FPlnorig/ FPro_call.c
						MSCDIRR	fp/FPlnorig/ FPro_dial.c
						MSCDIRR	fp/FPshared/ FPdig_coll.c
MS1989ac_lnk0ocp	CMP	BASE	TRFC 30	3	CDIRR	- - - - -	- - - - -
MS1989ac_lnk0ocp	SM	BASE	TRFC 30	3	CDIRR	- - - - -	- - - - -

Table 33 Part 33

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS1993ac_cdblg	SM	OPSMCDOT	TRFC 30	64	CD	MSCDBLGCD	oa/OAnupd/ OBJ/ OAnupd.cc
MS1995ac_aocmusg	SM	BASE	TRFC 30	46	MTUSG (AOC)	- - - - -	- - - - -
MS1996ac_aoctusg	SM	BASE	TRFC 30	46	TOTUSG (AOC)	- - - - -	- - - - -
MS2001ac_scfacs	SM	BASE	TRFC 30	76	ACS (SCF)	MSSCFACS	fc/FClsf/ FCsl_tog.c
						MSSCFACS	fc/FClsf/ MCsl_creat.c
MS2002ac_scfat	SM	BASE	TRFC 30	76	ATT (SCF)	MSSCFATT	rta/RTterm/ RTbusyfs.c
						MSSCFATT	rta/RTterm/ RTfrwdfs.c
						MSSCFATT	rta/RTterm/ RTidlefs.c
MS2003ac_scaacs	SM	BASE	TRFC 30	76	ACS (SCA)	MSSCAACS	fc/FClsf/ FCsl_tog.c
						MSSCAACS	fc/FClsf/ MCsl_creat.c
MS2004ac_scamth	SM	BASE	TRFC 30	76	MATCH (SCA)	MSSCAMATCH	rta/RTlsf/ RTlsf_mlg.c

						MSSCAMATCH	rta/RTlsf/ RTsca_scrn.c
MS2005ac_scaann	SM	BASE	TRFC 30	76	ANNC (SDA)	MSSCAANN	rta/RTlsf/ RTlsf_mlg.c
						MSSCAANN	rta/RTlsf/ RTsca_scrn.c
MS2006ac_scafwd	SM	BASE	TRFC 30	76	REROUTE (SCA)	MSSCAFWD	rta/RTlsf/ RTlsf_mlg.c
						MSSCAFWD	rta/RTlsf/ RTsca_scrn.c
MS2007ac_caracs	SM	BASE	TRFC 30	76	ACS (CAR)	MSCARACS	fc/FClsf/ FCsl_tog.c
						MSCARACS	fc/FClsf/ MCsl_creat.c
MS2008ac_carmth	SM	BASE	TRFC 30	76	MATCH (CAR)	MSCARMATCH	rta/RTlsf/ RTlsf_mlg.c
						MSCARMATCH	rta/RTlsf/ RTsca_scrn.c
MS2009ac_carann	SM	BASE	TRFC 30	76	ANNC (CAR)	MSCARANN	rta/RTlsf/ RTlsf_mlg.c
						MSCARANN	rta/RTlsf/ RTsca_scrn.c
MS2010ac_carfwd	SM	BASE	TRFC 30	76	REROUTE (CAR)	MSCARFWD	rta/RTlsf/ RTlsf_mlg.c
						MSCARFWD	rta/RTlsf/ RTsca_scrn.c
MS2011ac_scracs	SM	BASE	TRFC 30	76	ACS (SCR)	MSSCRACS	fc/FClsf/ FCsl_tog.c
						MSSCRACS	fc/FClsf/ MCsl_creat.c
MS2012ac_scrmth	SM	BASE	TRFC 30	76	MATCH (SCR)	MSSCRMATCH	rta/RTlsf/ RTscr_scrn.c
MS2013ac_sdaacs	SM	BASE	TRFC 30	76	ACS (SDA)	MSSDAACS	fc/FClsf/ FCsl_tog.c
						MSSDAACS	fc/FClsf/ MCsl_creat.c
MS2014ac_sdadrng	SM	BASE	TRFC 30	76	RING (SDA)	MSSDADRING	fc/FCcalwat/ MCcw_init.c
						MSSDADRING	fc/FClsf/ FCsda_drng.c
						MSSDADRING	fc/FCmw/ MCcw3wc.c
						MSSDADRING	fita/Flisdn/ OBJ/ ISnear.sdc
MS202ac_tcbsy	SM	BASE	M5	4	CALLS-TO-LB	MSTCBUSY	fc/FCmfcpots/ MCntoneon.c
			TRFC 30	3	TCBSY	MSTCBUSY	fc/FCnumsv/ FCns_busy.c
						MSTCBUSY	fp/FPtn_ann/ FPtone_ann.c
MS2038ac_slbatmpt	CMP	BASE	TRFC 30	128	ATMPTS	MSSLB2TOT	rta/RTterm/ RTbusyfs.c
			TRFC 30	128	TERMC	MSSLB2TOT	rta/RTterm/ RTidlefs.c
MS2038ac_slbatmpt	SM	BASE	TRFC 30	128	ATMPTS	MSSLB2TOT	rta/RTterm/ RTbusyfs.c
			TRFC 30	128	TERMC	MSSLB2TOT	rta/RTterm/ RTidlefs.c
MS2038ac_slbatmpt	AM	BASE	TRFC 30	128	ATMPTS	MSSLB2TOT	rta/RTterm/ RTbusyfs.c
			TRFC	128	TERMC	MSSLB2TOT	rta/RTterm/

			30				RTidlefs.c
MS2039ac_slbbsy	CMP	BASE	TRFC 30	128	BUSY	MSSLB2BSY	rta/RTterm/ RTbusyfs.c
			TRFC 30	128	TBUSY		
MS2039ac_slbbsy	SM	BASE	TRFC 30	128	BUSY	MSSLB2BSY	rta/RTterm/ RTbusyfs.c
			TRFC 30	128	TBUSY		
MS2039ac_slbbsy	AM	BASE	TRFC 30	128	BUSY	MSSLB2BSY	rta/RTterm/ RTbusyfs.c
			TRFC 30	128	TBUSY		
MS203ac_tcans	SM	BASE	TRFC 30	3	TCANS	MSTCANSWR	cra/CRasmblr/ CRsmprims.c
MS2043ac_aocacs	SM	OPSMCD OT	TRFC 30	46	ACCESS (AOC)	MSAOCACS	oa/OAifz_ot/ OAifzmechq.c
						MSAOCACS	oa/OAta_ot/ OAmechq.c
						MSAOCACS	oa/OAta_ot/ OAvmsfail.c
MS2044ac_aocovfl	CMP	OPAMBAC D	TRFC 30	46	OVFL (AOC)	MSAOCOVFL	rta/RTGtrk/ RTtrkbusy.c

Table 34 Part 34

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS2044ac_aocovfl	AM	OPAMBAC D	TRFC 30	46	OVFL (AOC)	MSAOCOVFL	rta/RTGtrk/ RTtrkbusy.c
MS2045ac_dioacatm	SM	OPSMCD OT	TRFC 30	123	ATMPT (SEQ)	MSDIOACATM	oa/OAaccs/ OBJ/ OAna.sdc
MS2046ac_dioacseq	SM	OPSMCD OT	TRFC 30	123	SEIZED (SEQ)	MSDIOACSSE IZ	oa/OAnmain/ OBJ/ OAnmain.cc
MS2047ac_ax0	SM	BASE	TRFC 30	125	OXMT (AVERAGE)	MSCTS0XMT	cm/CMlink/ CMxmt.c
MS2048ac_ar0	SM	BASE	TRFC 30	125	ORCV (AVERAGE)	MSCTS0RCV	cm/CMlink/ CMevents.c
MS2049ac_ax1	SM	BASE	TRFC 30	125	1XMT (AVERAGE)	MSCTS1XMT	cm/CMlink/ CMxmt.c
MS204ac_tcrng	SM	BASE	TRFC 30	3	TCRNG	MSTCRING	fc/FCmfccc/ OBJ/ MCcc.sdc
						MSTCRING	fp/FPb911/ FP9ans.c
						MSTCRING	fp/FPInterm/ FPrt_ans.c
MS2050ac_ar1	SM	BASE	TRFC 30	125	1RCV (AVERAGE)	MSCTS1RCV	cm/CMlink/ CMevents.c
MS2051ac_mx0	SM	BASE	TRFC 30	125	OXMT (MAXIMUM)	MSCTSMAX	si/OCsm/ OCmonitor.c
MS2052ac_mr0	SM	BASE	TRFC 30	125	ORCV (MAXIMUM)	MSCTSMAX	si/OCsm/ OCmonitor.c
MS2053ac_mx1	SM	BASE	TRFC 30	125	1XMT (MAXIMUM)	MSCTSMAX	si/OCsm/ OCmonitor.c
MS2054ac_mr1	SM	BASE	TRFC 30	125	1RCV (MAXIMUM)	MSCTSMAX	si/OCsm/ OCmonitor.c
MS2055ac_dioacccrd	SM	OPSMCD OT	TRFC 30	123	CCRD (SEQ)	MSDIOACCC RD	oa/OAnprls/ OAprlmeas.c
						MSDIOACCC RD	oa/OAta_ot/ OAans_ta2.c

MS205ac_tcint	SM	BASE	TRFC 30	3	CDIRR	MSTCINTERCPT	fp/FPoper/ FPais_c.c
			TRFC 30	3	TCINT		
MS205ac_tcint	AM	BASE	TRFC 30	3	CDIRR	MSTCINTERCPT	fp/FPoper/ FPais_c.c
			TRFC 30	3	TCINT		
MS206ac_sc1dg	SM	BASE	- - - - -	- - - - -	- - - - -	MSSC1DIGIT	- - - - -
MS207ac_sc2dg	SM	BASE	- - - - -	- - - - -	- - - - -	MSSC2DIGIT	- - - - -
MS208ac_scchg	SM	BASE	- - - - -	- - - - -	- - - - -	MSSCCHANGE	- - - - -
MS209ac_cawtg	SM	BASE	- - - - -	- - - - -	- - - - -	MSCALLWTG	- - - - -
MS210ac_ca3wy	SM	BASE	- - - - -	- - - - -	- - - - -	MS3WAYCALL	- - - - -
MS211ac_cafra	SM	BASE	- - - - -	- - - - -	- - - - -	MSFORWDACT	- - - - -
MS212ac_calfr	SM	BASE	- - - - -	- - - - -	- - - - -	MSFORWARDED	- - - - -
MS213ac_tuusg	SM	BASE	TRFC 30	14	TUUSG	MSTUUSG	as/ASmsscan/ MS100scan.c
MS214ac_gdusg	SM	BASE	- - - - -	- - - - -	- - - - -	MSGLBDSUSG	- - - - -
MS215ac_dlusg	SM	BASE	TRFC 30	16	DLUSG	MSDLTUSG	as/ASmsscan/ MS100scan.c
MS216ac_oropc	SM	BASE	PLNT 24	1A	ORIGOUT (BASE COUNTS)	MSOROGPC	as/ASmsmisc/ MScrpegcnt.c
MS217ac_intpc	SM	BASE	PLNT 24	1A	INCTERM (BASE COUNTS)	MSINCTMPC	as/ASmsmisc/ MScrpegcnt.c
MS218ac_cmspc	SM	BASE	PLNT 24	1A	CAMAANI (BASE COUNTS)	MSCAMASEIZ	cra/CRasmblr/ CRsmprims.c
			PLNT 24	1A	CAMASZ (BASE COUNTS)		
MS219ac_cmopc	SM	BASE	PLNT 24	1A	CAMAANI (BASE COUNTS)	MSCAMAONFR	cra/CRasmblr/ CRsminput.c
			PLNT 24	1A	CAMAONI (BASE COUNTS)	MSCAMAONFR	oa/OAotoper/ OAta_opset.c
MS220ac_opsmf	SM	BASE	PLNT 24	1B	ORIGIN (PERMANENT SIGNAL - MF)	MSOPS	as/ASmsmisc/ MScrpegcnt.c
			TRFC 30	6	PERMSIG (ORIGIN)		
MS2211ac_stpaid	SM	OPSMCDOT	TRFC 30	61	STAPD	MSSTPAID	oa/OAnprls/ OAprlmeas.c
MS221ac_opsdp	SM	BASE	PLNT 24	1B	ORIGIN (PERMANENT SIGNAL - DP)	MSOPS	as/ASmsmisc/ MScrpegcnt.c
			TRFC 30	6	PERMSIG (ORIGIN)		
MS222ac_opdmf	SM	BASE	PLNT 24	1B	ORIGIN (PARTIAL DIAL TIMEOUT - MF)	MSOPDTO	as/ASmsmisc/ MScrpegcnt.c

			TRFC 30	6	PDTIMO (ORIGIN)		
MS223ac_opddp	SM	BASE	PLNT 24	1B	ORIGIN (PARTIAL DIAL TIMEOUT - DP)	MSOPDTO	as/ASmsmisc/ MScrpegcnt.c
			TRFC 30	6	PDTIMO (ORIGIN)		
MS224ac_ipsmf	SM	BASE	PLNT 24	1B	INCOM (PERMANENT SIGNAL - MF)	MSIPS	as/ASmsmisc/ MScrpegcnt.c
			PLNT 24	1B	INCOM (TIMEOUTS AND ABANDONS)		
			TRFC 30	6	PERMSIG (INCOM)		
MS225ac_ipsdp	SM	BASE	PLNT 24	1B	INCOM (PERMANENT SIGNAL - DP)	MSIPS	as/ASmsmisc/ MScrpegcnt.c
			PLNT 24	1B	INCOM (TIMEOUTS AND ABANDONS)		
			TRFC 30	6	PERMSIG (INCOM)		
MS226ac_rsver	SM	BASE	PLNT 24	3	CALL_RELEASE	MSRSTVERFAIL	pc/PCport/ PCflt_rpt.c

Table 35 Part 35

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS227ac_ipdmf	SM	BASE	PLNT 24	1B	INCOM (PARTIAL DIAL TIMEOUT - MF)	MSIPDTO	as/ASmsmisc/ MScrpegcnt.c
			PLNT 24	1B	INCOM (TIMEOUTS AND ABANDONS)		
			TRF C30	6	PDTIMO (INCOM)		
MS228ac_ipddp	SM	BASE	PLNT 24	1B	INCOM (PARTIAL DIAL TIMEOUT - DP)	MSIPDTO	as/ASmsmisc/ MScrpegcnt.c
			PLNT 24	1B	INCOM (TIMEOUTS AND ABANDONS)		
			TRF C30	6	PDTIMO (INCOM)		

MS229ac_oocst	SM	BASE	PLNT 24	1B	OUTGO (CALL SETUP TROUBLES	MSOROTGCST	as/ASmsmisc/ MSsmprims.c
					- ORIG-OUTG)		
MS230ac_ttcst	SM	BASE	PLNT 24	1B	OUTGO (CALL SETUP TROUBLES	MSINOTGCST	as/ASmsmisc/ MSsmprims.c
					- INCG-OUTG)		
MS231ac_cmoia	SM	BASE	PLNT 24	1A	CAMAOIA	MSCMONIIA	fc/FCcama/ FCct_exh.c
						MSCMONIIA	fc/FCcama/ FConisetup.c
						MSCMONIIA	tm/TMcfhtrk/ TMadmdii.c
MS231ac_cmoia	AM	BASE	PLNT 24	1A	CAMAOIA	MSCMONIIA	fc/FCcama/ FCct_exh.c
						MSCMONIIA	fc/FCcama/ FConisetup.c
						MSCMONIIA	tm/TMcfhtrk/ TMadmdii.c
MS232ac_cmatb	SM	BASE	PLNT 24	1A	CAMANIT	MSCMANITRBL	fc/FCcama/ FCca_fs.c
						MSCMANITRBL	fc/FCnumsv/ FCns_ani.c
MS233ac_cmfc	SM	BASE	PLNT 24	1A	CAMAFRE	MSCAMAONFR	cra/CRasmblr/ CRsminput.c
						MSCAMAONFR	oa/OAotoper/ OAta_opset.c
MS234ac_rcvac	SM	BASE	PLNT 24	2A	INITIALIZATIO NS - AM	MSDEMAUDIT	au/AUac/ AUdec.c
			PLNT 24	2A	INITIALIZATIO NS - SM	MSRECVRYAC T	si/INamrcvy/ INbg_spp.c
			PLNT 24	2B	INITIALIZATIO NS - AM	MSRECVRYAC T	si/INamrcvy/ INpostctrl.c
			PLNT 24	2B	INITIALIZATIO NS - SM	MSRECVRYAC T	si/INramictl/ INbgspp.c
			PLNT 24	4	INITIALIZATIO NS - RSM	MSRECVRYAC T	si/INramictl/ INpostinit.c
MS234ac_rcvac	AM	BASE	PLNT 24	2A	INITIALIZATIO NS - AM	SDEMAUDIT	au/AUac/ AUdec.c
			PLNT 24	2A	INITIALIZATIO NS - SM	MSRECVRYAC T	si/INamrcvy/ INbg_spp.c
			PLNT 24	2B	INITIALIZATIO NS - AM	MSRECVRYAC T	si/INamrcvy/ INpostctrl.c
			PLNT 24	2B	INITIALIZATIO NS - SM	MSRECVRYAC T	si/INramictl/ INbgspp.c
			PLNT 24	4	INITIALIZATIO NS - RSM	MSRECVRYAC T	si/INramictl/ INpostinit.c
MS2386ac_vmsopatmpt	SM	OPSMCD OT	TRF C30	123	OPER(ATMPT)	MSVMSOPATM PT	oa/OAnprls/ OBJ/ OA_anprls.sdc
						MSVMSOPATM PT	oa/OAnprls/ OBJ/ OAnprls.sdc
MS2387ac_vmsautatmpt	SM	OPSMCD OT	TRF C30	123	AUTO(ATTPT)	MSVMSATMPT AUT	oa/OAaccs/ OBJ/ OAna.sdc
MS2388ac_vmsopcc	SM	OPSMCD OT	TRF C30	123	OPER(COMP L)	MSVMSOPCC	oa/OAta_ot/ OAans_ta1.c
MS2389ac_vmsautcc	SM	OPSMCD OT	TRF C30	123	AUTO(COMPL)	MSVMSAUTCC	oa/OAta_ot/ OAans_ta1.c
MS2390ac_nsdn1800	SM	OPSMCD OT	TRF C30	123	AATOS	MSNSDN1800	oa/OAnprls/ OAprlmeas.c

						MSNSDN1800	oa/OAta_ot/ OAacc_talk.c
MS2391ac_sdn0mins	SM	OPSMCD OT	TRF C30	123	SDNO-	MSSDN0MINS	oa/OAnprls/ OAprlmeas.c
MS2392ac_sdn0pls	SM	OPSMCD OT	TRF C30	123	SDNO+	MSSDN0PLS	oa/OAnprls/ OAprlmeas.c
						MSSDN0PLS	oa/OAta_ot/ OAacc_talk.c
MS2393ac_sdn01pls	SM	OPSMCD OT	TRF C30	123	SDN01+	MSSDN01PLS	oa/OAnprls/ OAprlmeas.c
						MSSDN01PLS	oa/OAta_ot/ OAacc_talk.c
MS2424ac_sdn1800	SM	OPSMCD OT	TRF C30	123	SDN800	MSSDN1800	oa/OAnprls/ OAprlmeas.c
						MSSDN1800	oa/OAta_ot/ OAacc_talk.c
MS2425ac_sdnseq	SM	OPSMCD OT	TRF C30	123	SDNSEQ	MSSDNSEQ	oa/OAta_ot/ OAacc_talk.c
MS243ac_dslps	SM	BASE	PLNT 24	3	EXT_SLP	MSDS1SLIP	tm/TMcgadfi/ TMdfi_msg.c
MS244ac_a7dc	SM	BASE	- - - - -	- - - - -	- - - - -	MSINTRACLS	rta/RTmain/ RTgeninit.c
MS245ac_a7dce	AM	BASE	- - - - -	- - - - -	- - - - -	MSEINTRACLS	as/ASseeval/ SEevalctrl.c
MS2469ac_cfnsnd	SM	BASE	PLNT 24	25	CONF_IN	MSCFNSND	ccs/CCtrksig/ CCsndcfn.c
MS246ac_atdc	SM	BASE	- - - - -	- - - - -	- - - - -	MSINTERCLS	rta/RTmain/ RTgeninit.c
MS2470ac_cfnrcv	AM	BASE	PLNT 24	25	CONF_OUT	MSCFNRCV	ct/CTtrans/ CT7isup.c
MS2471ac_uuilen	SM	BASE	PLNT 24	25	UUI_DIS	MSUUILEN	ccs/CCisup/ CCifuui.c
						MSUUILEN	ccs/CCisup/ CCituui.c

Table 36 Part 36

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS2472ac_atplen	SM	BASE	PLNT 24	25	ATP_DIS	MSATPLEN	ccs/CCisup/ CCifatp.c
						MSATPLEN	ccs/CCisup/ CCitatp.c
MS2473ac_pecsnd	SM	BASE	PLNT 24	25	PEC_IN	MSPECSND	ccs/CCisup/ CCitacm.c
						MSPECSND	ccs/CCisup/ CCitcfn.c
						MSPECSND	ccs/CCisup/ CCitcpg.c
						MSPECSND	ccs/CCisup/ CCitrel.c
MS2474ac_pecrcv	AM	BASE	PLNT 24	25	PEC_OUT	MSPECRCV	ccs/CCisup/ CCifacm.c
						MSPECRCV	ccs/CCisup/ CCifcpg.c
						MSPECRCV	ccs/CCisup/ CCifrel.c
						MSPECRCV	ccs/CCtrksig/ CCdisptccs.c
						MSPECRCV	ct/CTtrans/

							CT7isup.c
MS2474ac_pecrcv	SM	BASE	PLNT 24	25	PEC_OUT	MSPECRCV	ccs/CCisup/ CCifacm.c
						MSPECRCV	ccs/CCisup/ CCifcpg.c
						MSPECRCV	ccs/CCisup/ CCifrel.c
						MSPECRCV	ccs/CCtrksig/ CCdisptccs.c
						MSPECRCV	ct/CTtrans/ CT7isup.c
MS2476ac_lnatt	CMP	BASE	TRFC 30	146	NODEATT	MSNODEATT	rta/RTmain/ RTgeninit.c
MS2477ac_lnovf	CMP	BASE	TRFC 30	146	NODEOVF	MSNODEOVF	rta/RTGbrcs/ RTmc_rting.c
MS2479ac_lnszr	SM	BASE	TRFC 30	146	NODERE	MSNODESZR	cra/CRasmblr/ CRsmprims.c
			TRFC 30	146	NODESZR		
MS247ac_atdce	AM	BASE	- - - - -	- - - - -	- - - - -	MSEINTERCL S	as/ASseeval/ SEevalctrl.c
MS2488ac_bclidn	CMP	BASE	TRFC 30	147	CALLS	MSBCLIDN	rta/RTbclid/ RTbclms.c
MS2488ac_bclidn	SM	BASE	TRFC 30	147	CALLS	MSBCLIDN	rta/RTbclid/ RTbclms.c
MS2489ac_bclidp	CMP	BASE	TRFC 30	147	P_MSG	MSBCLIDP	rta/RTbclid/ RTbclms.c
MS2489ac_bclidp	SM	BASE	TRFC 30	147	P_MSG	MSBCLIDP	rta/RTbclid/ RTbclms.c
MS248ac_mecc	AM	BASE	- - - - -	- - - - -	- - - - -	MSMECCACL S	as/ASsemec/ SEmec_mgr.c
MS2490ac_bclido	CMP	BASE	TRFC 30	147	O_MSG	MSBCLIDO	rta/RTbclid/ RTbclms.c
MS2490ac_bclido	SM	BASE	TRFC 30	147	O_MSG	MSBCLIDO	rta/RTbclid/ RTbclms.c
MS2491ac_bclidl	CMP	BASE	TRFC 30	147	MSGLOST	MSBCLIDL	rta/RTbclid/ RTbclms.c
MS2491ac_bclidl	SM	BASE	TRFC 30	147	MSGLOST	MSBCLIDL	rta/RTbclid/ RTbclms.c
MS2492ac_bclidn	CMP	BASE	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
MS2492ac_bclidn	SM	BASE	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
MS2493ac_bclidp	CMP	BASE	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
MS2493ac_bclidp	SM	BASE	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
MS2494ac_bclido	CMP	BASE	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
MS2494ac_bclido	SM	BASE	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
MS2495ac_bclidl	CMP	BASE	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
MS2495ac_bclidl	SM	BASE	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
MS2497ac_equnav	CMP	BASE	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
MS2497ac_equnav	SM	BASE	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
MS249ac_mecce	AM	BASE	- - - - -	- - - - -	- - - - -	MSEVMECCA CLS	as/ASseeval/ SEevalctrl.c
MS2503ac_inml	SM	BASE	TRFC 30	5	MACHLOS (INCOMING)	MSINCML	as/ASmsmisc/ MScrpegcnt.c
MS2504ac_invmsg	CMP	BASE	TRFC 30	148	INVMSG	MSE9INVMSG	rta/RTe911/ RTcmpqh_e9.c
						MSE9INVMSG	rta/RTe911/ RTfrsp_e9.c
MS2504ac_invmsg	SM	BASE	TRFC 30	148	INVMSG	MSE9INVMSG	rta/RTe911/ RTcmpqh_e9.c
						MSE9INVMSG	rta/RTe911/ RTfrsp_e9.c
MS2505ac_invesn	SM	BASE	TRFC 30	148	INVESN	MSE9INVESN	fc/FCe911/ FCe911_msg.c

MS2506ac_invdata	SM	BASE	TRFC 30	148	INVDATA	MSE9INVDATA	fc/FCe911/ FCe911_msg.c
MS2507ac_esato	SM	BASE	TRFC 30	148	ORIGTO	MSE9ESATO	fc/FCnumsv/ FCns_resp.c
MS2508ac_defrtg	SM	BASE	TRFC 30	148	DEFRTG	MSE9DEFRTG	fc/FCe911/ FCe911_msg.c
						MSE9DEFRTG	fc/FCe911/ FCe911_qry.c
						MSE9DEFRTG	fc/FCnumsv/ FCns_resp.c
MS2509ac_anito	SM	BASE	TRFC 30	148	ANITO	MSE9ANITO	fc/FCnumsv/ FCns_ani.c

Table 37 Part 37

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS2510ac_anidig	SM	BASE	TRFC 30	148	ANIDIG	MSE9FAILDIG	fc/FCnumsv/ FCns_ani.c
MS2511ac_anifmt	SM	BASE	TRFC 30	148	ANIFMT	MSE9FMTFAIL	ccs/CCnumsv/ CCnsdaqry.c
						MSE9FMTFAIL	fc/FCnumsv/ FCns_ani.c
MS2512ac_orter	SM	BASE	TRFC 30	148	ORIG (INTER)	MSE9ORTER	fc/FCe911/ FCe911_vfy.c
MS2513ac_ovter	SM	BASE	TRFC 30	148	OVFL (INTER)	MSE9OVTER	fc/FCe911/ FCe911_msg.c
MS2514ac_ortra	SM	BASE	TRFC 30	148	ORIG (INTRA)	MSE9ORTRA	fc/FCe911/ FCe911_vfy.c
MS2515ac_ovtra	SM	BASE	TRFC 30	148	OVFL (INTRA)	MSE9OVTRA	fc/FCe911/ FCe911_msg.c
MS2516ac_tdml	SM	BASE	TRFC 30	5	MACHLOS (TANDEM)	MSTRTRML	as/ASmsmisc/ MScrpegcnt.c
MS2517ac_iffm	SM	BASE	TRFC 30	5	MACHLOS (IFFM)	MSIFFML	as/ASmsmisc/ MScrpegcnt.c
MS2518ac_isml	SM	BASE	TRFC 30	5	MACHLOS (INTRAOFF)	MSLNLNML	as/ASmsmisc/ MScrpegcnt.c
MS2519ac_ogml	SM	BASE	TRFC 30	5	MACHLOS (OUTGOING)	MSOUTGML	as/ASmsmisc/ MScrpegcnt.c
MS2520ac_orml	SM	BASE	TRFC 30	5	MACHLOS (ORIGINAT)	MSORIGML	as/ASmsmisc/ MScrpegcnt.c
MS2521ac_tmml	SM	BASE	TRFC 30	5	MACHLOS (TERMINAT)	MSTERMML	as/ASmsmisc/ MScrpegcnt.c
MS2523ac_qrysent	CMP	BASE	TRFC 30	148	QRYSENT	MSE9QRYSENT	rta/RTe911/ RTcmpqh_e9.c
MS2523ac_qrysent	SM	BASE	TRFC 30	148	QRYSENT	MSE9QRYSENT	rta/RTe911/ RTcmpqh_e9.c
MS254ac_ornc	SM	BASE	TRFC 30	3	CDIRR	MSORIGNCKT	as/ASmsmisc/ MScrpegcnt.c
			TRFC 30	5	NOCKT (ORIGINAT)		
MS255ac_innc	SM	BASE	TRFC 30	5	NOCKT (INCOMING)	MSINCNCKT	as/ASmsmisc/ MScrpegcnt.c
MS256ac_llnc	SM	BASE	TRFC 30	5	NOCKT (INTRAOFF)	MSLNLNNCKT	as/ASmsmisc/ MScrpegcnt.c
MS257ac_ognc	SM	BASE	M5	4	ORIG-OUT	MSOUTGNCKT	as/ASmsmisc/ MScrpegcnt.c
			PLNT 24	1B	OUTGO (NO CIRCUIT)		
			TRFC	5	NOCKT		

			30		(OUTGOING)		
MS258ac_tmnc	SM	BASE	TRFC 30	5	NOCKT (TERMINAT)	MSTERMNCKT	as/ASmsmisc/ MScrpegcnt.c
MS2595ac_dioaelig	SM	OPSMCDOT	TRFC 30	123	ELIGBL	MSDIOAELIG	oa/OAta_ot/ OAta_init.c
MS2596ac_dionofwd	SM	OPSMCDOT	TRFC 30	123	NOFWD	MSDIONOFWD	oa/OAnmain/ OBJ/ OAnmain.cc
MS2597ac_dionocard	SM	OPSMCDOT	TRFC 30	123	NOCARD	MSDIONOCARD	oa/OAnmain/ OBJ/ OAnmain.cc
MS2598ac_diofauto	SM	OPSMCDOT	TRFC 30	123	ANSWER	MSDIOFAUTO	oa/OAta_ot/ OAans_ta2.c
MS2599ac_opbg	SM	ISDNPCKT	TRFC 30	119	ORIGATT	MSORGPBG	pr/PRfeat/ PRxvrtrs.c
MS259ac_ttnc	SM	BASE	M5	4	TANDEM	MSTRTRNCKT	as/ASmsmisc/ MScrpegcnt.c
			TRFC 30	5	NOCKT (TANDEM)		
MS2600ac_tpbg	SM	ISDNPCKT	TRFC 30	119	TERMATT	MSTRMPBG	pr/PRfeat/ PRxvrtrs.c
						MSTRMPBG	pr/PRtermdt/ PRdtprep.c
MS260ac_ogcsp	SM	BASE	PLNT 24	3	OUTGOING	MSOTGCSPERF	tm/TMcfhtrk/ TMadmdii.c
MS261ac_rmotg	CMP	BASE	PLNT 24	4	RMOUTG (BASE MEASUREMENTS)	MSRMOTG	pc/PCnetwk/ PHset_ntwk.c
			TRFC 30	22	RMOTG	MSSMOTG	pc/PCpath/ PHset.c
MS261ac_rmotg	SM	BASE	PLNT 24	4	RMOUTG (BASE MEASUREMENTS)	MSRMOTG	pc/PCnetwk/ PHset_ntwk.c
			TRFC 30	22	RMOTG	MSSMOTG	pc/PCpath/ PHset.c
MS2623ac_nmpvc	SM	BASE	TRFC 30	76	CNAMPVC	MSCNAMPVC	fc/- - - - -
MS262ac_rminc	CMP	BASE	PLNT 24	4	RMINC (BASE MEASUREMENTS)	MSRMINC	pc/PCnetwk/ PHset_ntwk.c
			TRFC 30	22	RMINC	MSSMINC	pc/PCpath/ PHdef2.c
MS262ac_rminc	SM	BASE	PLNT 24	4	RMINC (BASE MEASUREMENTS)	MSRMINC	pc/PCnetwk/ PHset_ntwk.c
			TRFC 30	22	RMINC	MSSMINC	pc/PCpath/ PHdef2.c
MS2638ac_mod1	SM	BASE	TRFC 30	122	AMAMEM	MSAMAMEM	ama/AMxfer/ AMmessage.c
MS2639ac_aspsto	SM	BASE	TRFC 30	118	STRIG-OVFL	MSASPSTO	fc/FCpvn/ FCstrigchk.c
MS263ac_sausg	SM	BASE	PLNT 24	4	SATIME	MSRMSAUSG	si/SIrsm/ SIrsmsatrn.c
			TRFC 30	22	SATIME		
MS2640ac_asptnr	SM	BASE	TRFC 30	118	TERMNF-RCVD	MSASPTNR	ccs/CCnumsv/ CCvfnsrsp.c
MS2641ac_asptns	SM	BASE	TRFC 30	118	TERMNF-SNT	MSASPTNS	ccs/CCnumsv/ CCns_tn.c
MS2642ac_aspnfr	SM	BASE	TRFC 30	118	UNAVAIL-NFR	MSASPNFR	cra/CRasmblr/ CRaspprms.c

						MSASPNFR	cra/CRasmblr/ CRq_init.c
						MSASPNFR	cra/CRasmblr/ CRrdmprms.c
						MSASPNFR	cra/CRasmblr/ CRsminput.c
						MSASPNFR	cra/CRasmblr/ CRsmprims.c
						MSASPNFR	fc/FCpvn/ FCasp_rpt.c
						MSASPNFR	fc/FCpvn/ FCns_pvnm.c

Table 38 Part 38

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS264ac_saflt	SM	BASE	PLNT 24	4	SAFLT	MSRMSAFLTS	si/SIrsm/ SIrsmsatrn.c
MS2656ac_apbg	CMP	ISDNPCKT	TRFC 30	119	LCNOVFL	MSALCPBG	pr/PRrtgsts/ PRpbg_sfg.c
						MSALCPBG	pr/PRtermdt/ PRsfg_term.c
MS2657ac_cpbg	CMP	ISDNPCKT	TRFC 30	119	TCPOVFL	MSATCPBG	pr/PRrtgsts/ PRpbg_sfg.c
						MSATCPBG	pr/PRtermdt/ PRsfg_term.c
MS2658ac_rpbg	CMP	ISDNPCKT	TRFC 30	119	RTDOVFL	MSRTDPBG	pr/PRrtgsts/ PRpbg_sfg.c
						MSRTDPBG	pr/PRtermdt/ PRsfg_term.c
MS2665ac_isdnlco	SM	BASE	PLNT 24	1A	ISDNLCO	MSISDNLCO	fp/FPreport/ FPloop_trc.c
MS266ac_rfers	SM	BASE	PLNT 24	3	RFERSEC	MSRFERRSEC	tm/TMcgadfi/ TMdfi_msg.c
MS2671ac_orgcpgs	SM	ISDNBASE	TRFC 30	50	ORIG(CGPS)	MSORGCGPS	fc/FCcpnbn/ ISp_cgps.c
MS2672ac_trmcgps	SM	ISDNBASE	TRFC 30	50	TERM(CGPS)	MSTRMCGPS	fc/FCcpnbn/ IScpnbncnt.c
MS2673ac_1unrnd	SM	ISDNBASE	TRFC 30	50	UNAVAIL (RND)	MS1UNRND	fc/FCcpnbn/ ISrnd_cnts.c
MS2674ac_1fdrnd	SM	ISDNBASE	TRFC 30	50	1_PUBLIC (RND)	MS1FDRND	fc/FCcpnbn/ ISrnd_cnts.c
MS2675ac_1ndrnd	SM	ISDNBASE	TRFC 30	50	1_PRIVATE (RND)	MS1NDRND	fc/FCcpnbn/ ISrnd_cnts.c
MS2676ac_2rnd	SM	ISDNBASE	TRFC 30	50	2_DLVRY(RND)	MS2RND	fc/FCcpnbn/ ISrnd_cnts.c
MS2677ac_cwldca	SM	BASE	TRFC 30	26	CWLDCA	MSCWLDCA	fc/FCcalwat/ OBJ/ MCcw.cc
						MSCWLDCA	fc/FCmw/ MCtp1tp2.c
MS267ac_rfslp	SM	BASE	PLNT 24	3	RFSLIP	MSRFSLIPS	tm/TMcgadfi/ TMdfi_msg.c
MS2685ac_ofraco	SM	ISDNBASE	TRFC 30	50	OFFER(ACO)	MSOFRACO	fita/Flibisdn/ OBJ/ IBnear.sdc
MS2686ac_ansaco	SM	ISDNBASE	TRFC 30	50	ANSWER(ACO)	MSANSACO	fita/Flibisdn/ OBJ/ IBnear.sdc
MS2687ac_cpnprv	SM	BASE	TRFC 30	72	CPN_PRIVATE	MSNDCPN	fc/FCcpnbn/ IScpnbncnt.c
MS2688ac_cpnun	SM	BASE	TRFC	72	CPN_UNAVAI	MSUNCPN	fc/FCcpnbn/

			30		L		lScpnbncnt.c
MS2689ac_cpnbn	SM	BASE	TRFC 30	72	CPN_BN	MSFDBN	fc/FCcpnbn/ lScpnbncnt.c
MS268ac_rfalm	SM	BASE	PLNT 24	3	RFALRMS	MSRFALRMS	tm/TMcgadfi/ TMdfi_msg.c
MS2692ac_bamoc	AM	BASE	TRFC 15	2A	PRCLD	- - - - -	- - - - -
MS2693ac_camoc	AM	BASE	TRFC 30	13	LOAD	- - - - -	- - - - -
MS269ac_rlitr	SM	BASE	PLNT 24	3	RLITRB	MSRLITRBLS	smim/SMdlifr/ OBJ/ SMdlierana.cc
MS270ac_asert	CMP	BASE	PLNT 24	3	ASRT-AM	MSASSERT	si/Slaim/ IMactrl.c
			PLNT 24	3	ASRT-CMP	MSASSERT	si/Slassert/ Slamassert.c
			PLNT 24	3	ASRT-SM	MSASSERT	si/Slassert/ Slcmpasert.c
						MSASSERT	si/Slassert/ Slptrace.c
						MSASSERT	si/Slassert/ Slsmassert.c
MS270ac_asert	SM	BASE	PLNT 24	3	ASRT-AM	MSASSERT	si/Slaim/ IMactrl.c
			PLNT 24	3	ASRT-CMP	MSASSERT	si/Slassert/ Slamassert.c
			PLNT 24	3	ASRT-SM	MSASSERT	si/Slassert/ Slcmpasert.c
						MSASSERT	si/Slassert/ Slptrace.c
						MSASSERT	si/Slassert/ Slsmassert.c
MS270ac_asert	AM	BASE	PLNT 24	3	ASRT-AM	MSASSERT	si/Slaim/ IMactrl.c
			PLNT 24	3	ASRT-CMP	MSASSERT	si/Slassert/ Slamassert.c
			PLNT 24	3	ASRT-SM	MSASSERT	si/Slassert/ Slcmpasert.c
						MSASSERT	si/Slassert/ Slptrace.c
						MSASSERT	si/Slassert/ Slsmassert.c
MS2711ac_ntsusg	SM	BASE	TRFC 30	7	NTSUSG	MSNTSUSG	pc/PCnetwk/ PCnctusg.c
			TRFC 30	9	NTSUSG		
MS2714ac_wblo	SM	BASE	TRFC 30	22	ATMPT(L2-6)	MSWBLO	fita/Fledsl/ Flwb_cnt.c
						MSWBLOBLK	fita/Fledsl/ Flwb_cnt.c
MS2715ac_wbhi	SM	BASE	TRFC 30	22	ATMPT(H7-24)	MSWBHI	fita/Fledsl/ Flwb_cnt.c
						MSWBHIBLK	fita/Fledsl/ Flwb_cnt.c
MS2716ac_wbloblk	SM	BASE	TRFC 30	22	BLK(L2-6)	MSWBLOBLK	fita/Fledsl/ Flwb_cnt.c
MS2717ac_wbhiblk	SM	BASE	TRFC 30	22	BLK(H7-24)	MSWBHIBLK	fita/Fledsl/ Flwb_cnt.c
MS273ac_mscms	AM	BASE	- - - - -	- - - - -	- - - - -	MSMSCCPMS G	cm/CMammsgs/ CM_scanq.c
						MSMSCCPMS G	cm/CMammsgs/ CMbput.c
						MSMSCCPMS	cm/CMammsgs/

						G	CMrem_msg.c

Table 39 Part 39

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS2741ac_incatm	SM	BASE	TRFC 30	182	INCOMING (ATMPT)	MSACDATMPT	fita/Flacdfm/ OBJ/ Flacdnr.sdc
						MSACDATMPT	rta/RTGscreen/ RTacdpdn.c
						MSACDATMPT	rta/RTacdqv/ RTcrqvtp.c
MS2742ac_incfail	SM	BASE	TRFC 30	182	INCOMING(FAIL)	MSACDFAIL	fita/Flacdfm/ OBJ/ Flacdnr.sdc
						MSACDFAIL	fita/Flacdqv/ Flcvtrmn.c
						MSACDFAIL	fita/Flacdqv/ Flnextstep.c
						MSACDFAIL	fita/Flacdqv/ Flvrfail.c
						MSACDFAIL	fita/Flacdqv/ OBJ/ Flcvq.cc
MS2743ac_reord	SM	BASE	TRFC 30	182	REORD	MSACDREORD	fita/Flacdqv/ Flcvtrmn.c
						MSACDREORD	fita/Flacdqv/ Flqvtone.c
						MSACDREORD	fita/Flacdqv/ Fltrkerror.c
						MSACDREORD	fita/Flacdqv/ Flvrfail.c
						MSACDREORD	fita/Flacdqv/ Flwaitrec.c
						MSACDREORD	fp/FPacdqv/ FPacdcall.c
						MSACDREORD	rta/RTGscreen/ RTacdpdn.c
MS2744ac_qovfl	SM	BASE	TRFC 30	182	QOVFL	MSACDQOFL	fita/Flacdqv/ Flnextstep.c
MS2745ac_aband	SM	BASE	TRFC 30	182	ABAND	MSACDABND	fita/Flacdqv/ Flacdqry.c
						MSACDABND	fita/Flacdqv/ Flcvroute.c
						MSACDABND	fita/Flacdqv/ Flcvtrmn.c
						MSACDABND	fp/FPacdqv/ FPacdabnd.c
MS2747ac_delmus	SM	BASE	TRFC 30	182	DELMUS	MSACDDMUS	fita/Flacdqv/ OBJ/ Flcvd.cc
MS274ac_otghc	SM	BASE	TRFC 30	13	OUTHC	MSOTGHCLS	fita/Fledsl/ Flet_fs.c
						MSOTGHCLS	fp/FPtkterm/ FPtt_fs.c
						MSOTGHCLS	fp/FPtn_ann/ FPann_term.c
MS276ac_auder	SM	BASE	PLNT 24	3	AUD_EV	MSAUDERR	au/AUac/ AUaer.c
MS276ac_auder	AM	BASE	PLNT 24	3	AUD_EV	MSAUDERR	au/AUac/ AUaer.c
MS277ac_reovd	SM	BASE	TRFC 15	2A	BLKOVD	MSREORDOVLD	rta/RTshared/ RTcp_abnor.c

			TRFC 30	4	BLKOVD		
MS278ac_reord	SM	BASE	TRFC 15	2A	REORD	MSREORDER	cra/CRasmblr/ CRsminput.c
			TRFC 30	3	CDIRR	MSREORDER	fp/FPdiscon/ FPwandis.c
			TRFC 30	4	REORD		
MS281ac_reset	SM	BASE	PLNT 24	2A	ERRORS (SM)	MSRESET	as/ASmshuma/ MSbudgmgr.c
			PLNT 24	3	RESETS	MSRESET	smim/SMmcufr/ SMcnt_rec.c
						MSRESET	smim/SMpi/ SMpi_recov.c
MS282ac_nrset	SM	BASE	PLNT 24	3	RESETS	MSNO_RSET	si/INromictl/ OBJ/ INromcode.cc
						MSNO_RSET	smim/SMromrcv/ OBJ/ SMrst_mt_mc.cc
						MSNO_RSET	smim/SMromrcv/ SMrst_hdlr.c
MS283ac_mtflt	SM	BASE	PLNT 24	2A	ERRORS (SM)	MSMTCEFLTS	smim/SMmcufr/ OBJ/ SMman_int.cc
			PLNT 24	3	MT_INT		
MS285ac_prcot	SM	BASE	PLNT 24	3	OUTAGE (SM TOTALS)	MSPRCOUTAGE	si/IMokp/ IMdntmchk.c
			PLNT 24	3	OUTAGE (SYSTEM)	MSPRCOUTAGE	si/IMram/ IMdntmchk.c
MS285ac_prcot	AM	BASE	PLNT 24	3	OUTAGE (SM TOTALS)	MSPRCOUTAGE	si/IMokp/ IMdntmchk.c
			PLNT 24	3	OUTAGE (SYSTEM)	MSPRCOUTAGE	si/IMram/ IMdntmchk.c
MS2869ac_dnususg	SM-2000	BASE	TRFC 30	189	USAGE	MSDNUSUSG	as/ASmsscan/ MS100scan.c
MS286ac_dismg	CMP	BASE	PLNT 24	3	MSGDIS	MSDISCDMSG	hm/HMamsmsoc/ HMhmmsg.c
						MSDISCDMSG	hm/HMamsmsoc/ HMsoco.c
						MSDISCDMSG	hm/HMsip/ HMlog.c
						MSDISCDMSG	si/INamrcvy/ INbuffers.c
						MSDISCDMSG	si/INcmpcft/ INcmpbuf.c
						MSDISCDMSG	si/INramictl/ INrambuf.c
						MSDISCDMSG	si/SIlib/ INasrtmofl.c

Table 40 Part 40

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS286ac_dismg	SM	BASE	PLNT 24	3	MSGDIS	MSDISCDMSG	hm/HMamsmsoc/ HMhmmsg.c
						MSDISCDMSG	hm/HMamsmsoc/ HMsoco.c
						MSDISCDMS	hm/HMsip/ HMlog.c

						G	
						MSDISCDMSG	si/INamrcvy/ INbuffers.c
						MSDISCDMSG	si/INcmpcft/ INcmpbuf.c
						MSDISCDMSG	si/INramictl/ INrambuf.c
						MSDISCDMSG	si/SIlib/ INasrtmofl.c
MS286ac_dismg	AM	BASE	PLNT 24	3	MSGDIS	MSDISCDMSG	hm/HMamsmsoc/ HMhmmsg.c
						MSDISCDMSG	hm/HMamsmsoc/ HMsoco.c
						MSDISCDMSG	hm/HMsip/ HMlog.c
						MSDISCDMSG	si/INamrcvy/ INbuffers.c
						MSDISCDMSG	si/INcmpcft/ INcmpbuf.c
						MSDISCDMSG	si/INramictl/ INrambuf.c
						MSDISCDMSG	si/SIlib/ INasrtmofl.c
MS2872ac_vbsmtu	SM	BASE	TRFC 30	60	VBMTCE	MSVBSMTCE	- - - - -
MS2873ac_vbsofl	SM	BASE	TRFC 30	60	VBSOVFL	MSVBSOVFL	- - - - -
MS2874ac_vbspc	SM	BASE	TRFC 30	60	VBPC	MSVBSPC	pc/PCckt/ PCrqvbs.c
MS2875ac_vbsusg	SM	BASE	TRFC 30	60	VBUSG	MSVBSUSG	as/ASmsscan/ MS10scan.c
MS2876ac_atpuidis	SM	BASE	TRFC 30	122	ATPUII DIS	MSATPUIDIS	ccs/CCisup/ CCoi_svinfo.c
MS287ac_pump	SM	BASE	PLNT 24	3	PUMPS	MSIMPUMP	si/INrompump/ OBJ/ INpumpctrl.cc
MS288ac_ppblk	SM	BASE	PLNT 24	3	PMPBLK	MSPUMPBLKS	si/INrompump/ OBJ/ INpumpctrl.cc
MS289ac_ersec	SM	BASE	PLNT 24	3	ERR_SEC	MSDS1ERRSEC	tm/TMcgadfi/ TMdfi_msg.c
MS290ac_mmpot	AM	BASE	PLNT 24	2A	MTCE USAGE (MMP)	MSMMPOUT	as/ASmsmisc/ MSamprims.c
MS291ac_mscot	AM	BASE	PLNT 24	2A	MTCE USAGE (MSCU)	MSMSCOUT	as/ASmsmisc/ MSamprims.c
MS292ac_fpcot	AM	BASE	PLNT 24	2A	MTCE USAGE (FPC/CDAL)	MSFPCOUT	as/ASmsmisc/ MSamprims.c
MS293ac_ppcot	AM	BASE	PLNT 24	2A	MTCE USAGE (PPC)	MSPPCOUT	as/ASmsmisc/ MSamprims.c
MS294ac_ontot	AM	BASE	PLNT 24	2A	MTCE USAGE (ONTCCOM)	MSONTOUT	as/ASmsmisc/ MSamprims.c
MS295ac_dliot	AM	BASE	PLNT 24	2A	MTCE USAGE (DLI)	MSDLIOUT	as/ASmsmisc/ MSamprims.c
MS295ac_prtc3	SM	BASE	- - - - -	- - - - -	- - - - -	MSPRTCL3OUT	si/IMram/ IMdntmchk.c
MS295ac_prtc3	AM	BASE	- - - - -	- - - - -	- - - - -	MSPRTCL3OUT	si/IMram/ IMdntmchk.c
MS296ac_cotacs	SM	BASE	TRFC 30	76	CUST ORIG TRACE-ACS	MSCOTACS	fc/FCcot/ FCcottrace.c
MS297ac_cotun	SM	BASE	TRFC 30	76	UNAV	MSCOTUNAV	fc/FCcot/ FCcottrace.c
MS298ac_cotden	SM	BASE	TRFC 30	76	DENIED	MSCOTDEN	fc/FCcot/ FCcot.c
						MSCOTDEN	fc/FCcot/

							FCcottrace.c
						MSCOTDEN	fc/FCcot/ IScot.c
						MSCOTDEN	fc/FCcot/ MCcot.c
MS299ac_pvact	SM	BASE	TRFC 30	76	PVACT	MSPVCACT	fc/FCclid/ MCdnpriv.c
MS299ac_pvcact	SM	BASE	- - - - -	- - - - -	- - - - -	MSPVCACT	fc/FCclid/ MCdnpriv.c
MS305ac_drqmd	AM	BASE	PLNT 24	5	DEACT	MSDEACTER A	tm/TMcfhtrk/ TMinhmdii.c
MS306ac_deofc	AM	BASE	PLNT 24	5	TOTAL TERA DEACTIVATIO NS	MSDEACTOT	tm/TMcfhtrk/ TMmdii.c
MS307ac_incmd	SM	BASE	PLNT 24	5	TOTAL INCOMING MDIIS	MSINMDII	tm/TMcfhtrk/ TMpfmdii.c
MS308ac_otgmd	SM	BASE	PLNT 24	5	TOTAL OUTGOING MDIIS	MSOUTMDII	tm/TMcfhtrk/ TMpfmdii.c
MS309ac_cndact	SM	BASE	TRFC 30	76	CNDACT	MSCNDACT	fc/FCcorc/ IScfwd.c
						MSCNDACT	fc/FCcorc/ MCdnacdc.c
MS311ac_rclktrbl	SM	BASE	PLNT 24	8	RCLKTRBL	MSRCTRBLS	sm/SMrclk/ SMrclk_fr.c
MS312ac_rclksls	SM	BASE	PLNT 24	8	RCLKSLS	MSRCSLS	sm/SMrclk/ SMrclkint.c
MS313ac_rclksms	SM	BASE	PLNT 24	8	RCLKSMS	MSRCSLM	sm/SMrclk/ SMrclkint.c
MS314ac_rclknlkd	SM	BASE	PLNT 24	8	RCLKNLKD	MSNOTLCKD	sm/SMrclk/ SMrclkint.c
MS315ac_psausg	SM	BASE	PLNT 24	8	PSA-USG	MSPSAUSGM M	si/SIrsm/ SIrsmsatrn.c
			TRFC 30	39	PSA-USG		
MS316ac_psaflt	SM	BASE	PLNT 24	8	PSAFALT	MSPSAFLTM M	si/SIrsm/ SIrsmsatrn.c
MS317ac_fsausg	SM	BASE	PLNT 24	8	FSA-USG	MSFSAUSGM M	si/SIrsm/ SIrsmsatrn.c
			TRFC 30	39	FSA-USG		

Table 41 Part 41

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS318ac_fsaflt	SM	BASE	PLNT 24	8	FSAFALT	MSFSAFLTM M	si/SIrsm/ SIrsmsatrn.c
MS324ac_rmotgblk	SM	BASE	PLNT 24	4	RMBLK	MSRSMBLK	rta/RTGsa/ RTsa_rtg.c
			TRFC 30	22	RMBLK		
MS325ac_rmincblk	CMP	BASE	PLNT 24	4	AMRMBLK	MSCPRMBLK	rta/RTGsa/ RTsa_rtg.c
			TRFC 30	22	CPRMB		
MS329ac_tsmm	CMP	BASE	PLNT 24	3	TS_MM	MSTSMM	pc/PCnetwk/ PHtsalc.c
MS331ac_rppc	SM	BASE	TRFC 30	25	PEGCNT	MSRVPTPC	pc/PCckt/ PCrqsckta.c
MS332ac_rpofl	SM	BASE	TRFC	25	OVFLO	MSRVPTOFL	pc/PCckt/

			30				PCrqsckta.c
MS333ac_rpusg	SM	BASE	TRFC 30	25	USG	MSRVPTUSG	as/ASmsscan/ MS10scan.c
MS334ac_rpmtu	SM	BASE	TRFC 30	25	MTUSG	MSRVPTMTU	as/ASmsscan/ MS100scan.c
MS335ac_rpirq	SM	BASE	TRFC 15	1	RPINRQ	MSINCREQ	cra/CRasmblr/ CRsmprims.c
			TRFC 30	3	RPINRQ		
MS336ac_ipsrp	SM	BASE	PLNT 24	1B	INCOM (PERMANENT SIGNAL - RP)	MSIPS	as/ASmsmisc/ MScrpegcnt.c
MS337ac_ipdrp	SM	BASE	PLNT 24	1B	INCOM (PARTIAL DIAL TIMEOUT - RP)	MSIPDTO	as/ASmsmisc/ MScrpegcnt.c
MS338ac_tinwc	SM	BASE	M5	10	TOTAL	MSINWATS	fc/FCccdsig/ FCiwqry.c
			M5	8	TOTAL		
			TRFC 30	36	TOTAL		
MS339ac_sinwr	SM	BASE	TRFC 30	36	SUCCESS	MSINRPL	fc/FCccdsig/ FCiwsucc.c
MS340ac_dsrot	SM	BASE	TRFC 30	36	REORD	MSDSRO	fc/FCccdsig/ FCatcset.c
						MSDSRO	fc/FCccdsig/ FCiwfail.c
						MSDSRO	fc/FCccdsig/ FCiwqry.c
MS341ac_dsnm	SM	BASE	TRFC 30	36	NM	MSDSNM	fc/FCccdsig/ FCiwfail.c
						MSDSNM	fc/FCccdsig/ FCiwqry.c
MS342ac_dsvc	SM	BASE	TRFC 30	36	VCA	MSDSVC	fc/FCccdsig/ FCiwfail.c
						MSDSVC	fc/FCccdsig/ FCiwsucc.c
MS343ac_inwqs	AM	BASE	TRFC 30	36	QRY-SENT	MSIQSNT	ccs/CCinw/ CCiwqry.c
MS344ac_noria	AM	BASE	TRFC 30	36	NO-INDEX	MSNRPLI	ccs/CCinw/ CCiwqry.c
MS345ac_iccdb	AM	BASE	M5	10	IDB-CNTL	MSICCDB	nm/NMccdsig/ NMiwprims.c
						MSICCDBTEN	nm/NMccdsig/ NMiwprims.c
MS346ac_icdbt	AM	BASE	M5	10	IDB-10-CNTL	MSICCDBTEN	nm/NMccdsig/ NMiwprims.c
MS347ac_icndb	AM	BASE	M5	10	NON-IDB-CNTL	MSICCNDB	nm/NMccdsig/ NMiwprims.c
MS348ac_orig	SM	BASE	TRFC 15	1	ORIGPC	MSODBORIG	fita/Flodb/ lSodbfsm.c
MS349ac_term	SM	BASE	TRFC 15	1	TERMPC	MSODBTERM	fita/Flodb/ lSodbfsm.c
MS362ac_pvcfbi	SM	BASE	TRFC 30	118	FAIL-CP-BIQ	MSPVCFBI	ccs/CCnumsv/ CCaspra.c
						MSPVCFBI	fc/FCnumsv/ FCns_ani.c
						MSPVCFBI	fc/FCnumsv/ FCns_qry.c
						MSPVCFBI	fc/FCnumsv/

							FCns_resp.c
						MSPVCFBI	fc/FCpvn/ FCpvnra.c
MS363ac_pvcfai	SM	BASE	TRFC 30	118	FAIL-CP-AIQ	MSPVCFAI	ccs/CC7setup/ CCoi_strtp.c
						MSPVCFAI	ccs/CCnumsv/ CCoi_qry.c
						MSPVCFAI	ccs/CCnumsv/ CCoi_rafrt.c
						MSPVCFAI	ccs/CCnumsv/ CCraf_ans.c
						MSPVCFAI	ccs/CCnumsv/ CCraf_err.c
						MSPVCFAI	ccs/CCnumsv/ CCraf_play.c
						MSPVCFAI	ccs/CCnumsv/ CCrafrdy.c
						MSPVCFAI	fc/FCmfccc/ OBJ/ MCcc.sdc
						MSPVCFAI	fc/FCnumsv/ FCns_cmsg.c
						MSPVCFAI	fc/FCnumsv/ FCns_resp.c
						MSPVCFAI	fc/FCnumsv/ FCns_selrt.c
						MSPVCFAI	fc/FCpvn/ FCnsannc.c
						MSPVCFAI	fc/FCpvn/ FCnsanreq.c
						MSPVCFAI	fc/FCpvn/ OBJ/ MCnsanfm.cc
						MSPVCFAI	fp/FPsetup/ FPwsetup.c

Table 42 Part 42

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS364ac_pvrubi	SM	BASE	TRFC 30	118	UNAVAIL-BIQ	MSPVRUBI	ccs/CCnumsv/ CCaspra.c
						MSPVRUBI	fc/FCnumsv/ FCns_resp.c
						MSPVRUBI	fc/FCpvn/ FCpvnra.c
MS365ac_pvruai	SM	BASE	TRFC 30	118	UNVAIL-AIQ	MSPVRUAI	fc/FCnumsv/ FCns_rpt.c
MS366ac_pvnblk	SM	BASE	TRFC 30	118	NMBLK	MSPVNBLK	fc/FCnumsv/ FCns_qry.c
			TRFC 30	118	NMMC-BLK-C	MSPVNBLK	fc/FCnumsv/ FCns_resp.c
						MSPVNBLK	nm/NMpvn/ NMpvn_chk.c
MS366ac_pvnblk	AM	BASE	TRFC 30	118	NMBLK	MSPVNBLK	fc/FCnumsv/ FCns_qry.c
			TRFC 30	118	NMMC-BLK-C	MSPVNBLK	fc/FCnumsv/ FCns_resp.c
						MSPVNBLK	nm/NMpvn/ NMpvn_chk.c
MS367ac_pvstmo	SM	BASE	TRFC 30	118	SIG-FAIL-TO	MSPVSTMO	fc/FCnumsv/ FCns_resp.c

MS368ac_pvinvm	SM	BASE	TRFC 30	118	INV-CMD-MSG	MSPVINVM	ccs/CCnumsv/ CCns_other.c
			TRFC 30	118	INVLD-CMD	MSPVINVM	ccs/CCnumsv/ CCns_recv.c
						MSPVINVM	ccs/CCnumsv/ CCpvnresp.c
						MSPVINVM	fc/FCnumsv/ FCns_resp.c
						MSPVINVM	fc/FCnumsv/ FCns_rpt.c
						MSPVINVM	fc/FCpvn/ FCpvnra.c
MS368ac_pvinvm	AM	BASE	TRFC 30	118	INV-CMD-MSG	MSPVINVM	ccs/CCnumsv/ CCns_other.c
			TRFC 30	118	INVLD-CMD	MSPVINVM	ccs/CCnumsv/ CCns_recv.c
						MSPVINVM	ccs/CCnumsv/ CCpvnresp.c
						MSPVINVM	fc/FCnumsv/ FCns_resp.c
						MSPVINVM	fc/FCnumsv/ FCns_rpt.c
						MSPVINVM	fc/FCpvn/ FCpvnra.c
MS369ac_pvinvs	SM	BASE	TRFC 30	118	INVLD	MSPVINVS	ccs/CCnumsv/ CCns_rply.c
			TRFC 30	118	INVLD-RESP		
MS370ac_pvrtrj	SM	BASE	TRFC 30	118	RETREJ	MSPVRTRJ	ccs/CCnumsv/ CCns_other.c
			TRFC 30	118	RETREJ-RESP	MSPVRTRJ	fc/FCnumsv/ FCns_resp.c
MS370ac_pvrtrj	AM	BASE	TRFC 30	118	RETREJ	MSPVRTRJ	ccs/CCnumsv/ CCns_other.c
			TRFC 30	118	RETREJ-RESP	MSPVRTRJ	fc/FCnumsv/ FCns_resp.c
MS371ac_pvabbo	SM	BASE	TRFC 30	118	ABDN-BS-OT	MSPVABBO	cra/CRasmblr/ CRsmprims.c
			TRFC 30	118	ABDNBO		
MS372ac_pvabao	SM	BASE	TRFC 30	118	ABDDB-AS-OTBCA	MSPVABAO	cra/CRasmblr/ CRsmprims.c
			TRFC 30	118	ABDNAO		
MS373ac_pvcbsy	SM	BASE	TRFC 30	118	IC-BSY	MSPVCBSY	fc/FCnumsv/ FCns_selrt.c
			TRFC 30	118	TRK-BSY-IC		
MS374ac_pvtbsy	SM	BASE	TRFC 30	118	TRK-BSY	MSPVTBSY	fc/FCnumsv/ FCns_selrt.c
			TRFC 30	118	TRK-BSY-LOC		
MS375ac_pvossp	SM	BASE	TRFC 30	118	ASP-ORG	MSPVOSSP	fc/FCnumsv/ FCns_qry.c
			TRFC 30	118	ASP-ORIG		
			TRFC 30	118	ORIG		
MS376ac_pvonap	SM	BASE	TRFC 30	118	NAP-ORG	MSPVONAP	fc/FCars/ OBJ/ MCan.cc
			TRFC	118	ORIG-NAP	MSPVONAP	fc/FCnumsv/

			30				FCnsdaqry.c
			TRFC 30	118	ORIG-NTWK	MSPVONAP	fc/FCpvn/ FCns_napr.c
MS377ac_pvinc	SM	BASE	TRFC 30	118	ASP-RCV	MSPVINC	fc/FCnumsv/ FCns_qry.c
			TRFC 30	118	ASP-RCVD		
			TRFC 30	118	INC		
MS378ac_pvqry	AM	BASE	TRFC 30	118	QRYS	MSPVQRY	ccs/CCnumsv/ CCpvnqrys.c
MS379ac_pvnrsp	SM	BASE	TRFC 30	118	NORM-RESP	MSPVNRSP	fc/FCpvn/ FCns_pvnm.c
			TRFC 30	118	RSP-MSG		
MS380ac_pvplan	SM	BASE	TRFC 30	118	PLAY-ANN	MSPVPLAN	fc/FCnumsv/ FCns_ann.c
MS381ac_pvat	SM	BASE	TRFC 30	46	ACCESS (ASP)	MSPVANAT	ccs/CCnumsv/ CCoi_rafrt.c
			TRFC 30	46	ACCESS (PVN)	MSPVANAT	fc/FCpvn/ OBJ/ MCnsanfm.cc

Table 43 Part 43

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS382ac_pvov	SM	BASE	TRFC 30	46	OVFL (ASP)	MSPVANFL	ccs/CC7setup/ CCoi_strtp.c
			TRFC 30	46	OVFL (PVN)	MSPVANFL	fc/FCpvn/ OBJ/ MCnsanfm.cc
MS383ac_pvmtu	SM	BASE	TRFC 30	46	MTUSG (ASP)	MSPVANUS	as/ASmsscan/ MS100scan.c
			TRFC 30	46	MTUSG (PVN)		
MS384ac_pvtu	SM	BASE	TRFC 30	46	TOTUSG (ASP)	MSPVANMT	as/ASmsscan/ MS100scan.c
			TRFC 30	46	TOTUSG (PVN)		
MS389ac_ipbgc	PH	PHISDN	TRFC 30	119	INTRA	MSINTPBG	pr/PRfeat/ PRxvrtrs.c
			TRFC 30	119	IPBGC	MSINTPBG	ps/PSxac/ PSxdt_rsp.c
MS389ac_ipbgc	SM	ISDNPCKT	TRFC 30	119	INTRA	MSINTPBG	pr/PRfeat/ PRxvrtrs.c
			TRFC 30	119	IPBGC	MSINTPBG	ps/PSxac/ PSxdt_rsp.c
MS392ac_lccbu	PH	PHISDN	TRFC 30	71	LCCBUSG	MSLCCBU	ps/PSresrce/ PSrlccbuse.c
			TRFC 30	92	LCCB USG		
MS393ac_tsmm	CMP	BASE	TRFC 30	4	TSMM	MSTSMM	pc/PCnetwk/ PHtsalc.c
MS394ac_isincpc	SM	BASE	PLNT 24	11	INCOM (CALLS)	MSISINCPC	fc/FCmfccc/ OBJ/ MCcc.sdc
MS395ac_isoutpc	SM	BASE	PLNT 24	11	OUTGO (CALLS)	MSISOUTPC	fc/FCmfccc/ OBJ/ MCcc.sdc
MS396ac_termhc	SM	BASE	TRFC 30	13	TERMHC	MSTERMHC	fc/FCshdn/ ISsh_nlptp.c
						MSTERMHC	fc/FCshdn/ OBJ/ MCscm.sdc

						MSTERMHC	rita/RIsetup/ RIdslterm.c
						MSTERMHC	rta/RTterm/ RTtermhc.c
MS401ac_dirg	SM	BASE	TRFC 30	26	DIRG	MSMCDIRG	fc/FCacctath/ FCdchk_ath.c
			TRFC 30	3	CDIRR	MSMCDIRG	fc/FCarc/ FClass_fs.c
						MSMCDIRG	fc/FCcorc/ ISval_res.c
						MSMCDIRG	fc/FCcorc/ MCabb.c
						MSMCDIRG	fc/FCcorc/ MCacdc.c
						MSMCDIRG	fc/FCcorc/ MCars.c
						MSMCDIRG	fc/FCcorc/ MCcfdct.c
						MSMCDIRG	fc/FCcorc/ MCcorcinit.c
						MSMCDIRG	fc/FCcorc/ MCcorms.c
						MSMCDIRG	fc/FCcorc/ MCcorprm.c
						MSMCDIRG	fc/FCcorc/ MCcortd.c
						MSMCDIRG	fc/FCcorc/ MCdnacdc.c
						MSMCDIRG	fc/FCcorc/ MCgpacdc.c
						MSMCDIRG	fc/FCcorc/ MCmagic.c
						MSMCDIRG	fc/FCcorc/ MCroom.c
						MSMCDIRG	fc/FCcorc/ MCtdacdc.c
						MSMCDIRG	fc/FCcorc/ MCvarpm.c
						MSMCDIRG	fc/FCcorc/ OBJ/ TOD.cc
						MSMCDIRG	fc/FCidp/ MCspdcall.c
						MSMCDIRG	fc/FCras/ FCacf_init.c
						MSMCDIRG	fc/FCras/ OBJ/ MCras.cc
						MSMCDIRG	fp/FPinit_fs/ FPdcfid.c
						MSMCDIRG	fp/FPinit_fs/ FPdcfs.c
						MSMCDIRG	fp/FPinit_fs/ FPdcmagic.c
						MSMCDIRG	fp/FPinit_fs/ FPnullfid.c
MS402ac_cwca	SM	BASE	TRFC 30	26	CWCA	MSCWCAP	fc/FCcalwat/ OBJ/ MCcw.cc
						MSCWCAP	fc/FCmw/ MCtp2apbs.c
MS403ac_lcorc	SM	BASE	TRFC 30	27	LATMPT	MSLCRCP	db/DBcorc/ DBsmplcorc.c
						MSLCRCP	db/DBrclog/ DBlgsys.c
MS404ac_lcorco	SM	BASE	TRFC	27	LDELY	MSLCRCO	- - - - -

			30				
MS405ac_gcorc	SM	BASE	TRFC 30	27	GATMPT	MSGCRCP	db/DBcorc/ DBsmplcorc.c
MS406ac_gcorco	SM	BASE	TRFC 30	27	GDELY	MSGCRCO	db/DBcorc/ DBglsmpl.c
MS408ac_6cfn	CMP	BASE	TRFC 30	10	CCPC (6-PORT)	MS6CFNP	pc/PCgckt/ PCconfalld.c
MS409ac_1sc	SM	BASE	TRFC 30	26	1SC	MSMC1SCP	fc/FCidp/ MCspdcall.c

Table 44 Part 44

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS410ac_2sc	SM	BASE	TRFC 30	26	2SC	MSMC2SCP	fc/FCidp/ MCspdcall.c
MS411ac_3sc	SM	BASE	TRFC 30	26	3SC	MSMC3SCP	- - - - -
MS412ac_scpchg	SM	BASE	TRFC 30	26	SCPCHG	MSSCPCP	fc/FCcorc/ MCcorcinit.c
MS416ac_6cfnu	SM	BASE	TRFC 30	10	CCUSG (6-PORT)	MS6CNFUSG	as/ASmsscan/ MS100scan.c
MS417ac_6cfnmu	SM	BASE	TRFC 30	10	CCMTU (6-PORT)	MS6CNFMTU	as/ASmsscan/ MS100scan.c
MS418ac_tsiuusg	SM	ISDNBASE	TRFC 30	53	TSIU_USG	MSTSIUUSG	pc/PCrdta/ PCrdtausg.c
MS420ac_6cfno	CMP	BASE	TRFC 30	10	CCOFL (6-PORT)	MS6CFNO	pc/PCgckt/ PCconfalld.c
MS421ac_acbyrb	SM	BASE	TRFC 30	76	AUTO CALLBK-BYRB	MSACBYRB	fc/FCarc/ OBJ/ MCarc.cc
MS422ac_arbyrb	SM	BASE	TRFC 30	76	AUTO RECALL-BYRB	MSARBYRB	fc/FCarc/ OBJ/ MCarc.cc
MS423ac_puqcofl	SM	BASE	TRFC 30	13	PUQCO	MSPKQCO	fc/FCmfcpu/ FCenq_pu.c
			TRFC 30	26	PUQCO		
MS423ac_puqcofl	AM	BASE	TRFC 30	13	PUQCO	MSPKQCO	fc/FCmfcpu/ FCenq_pu.c
			TRFC 30	26	PUQCO		
MS424ac_jtssc	SM	BASE	- - - - -	- - - - -	- - - - -	MSTSSC	ccs/CC7setup/ CCoi_fca.c
						MSTSSC	ccs/CCtrksig/ CCo_fca.c
						MSTSSC	fp/FPtkorig/ FPto_fs.c
MS427ac_jvc2stg	SM	BASE	- - - - -	- - - - -	- - - - -	MS2SVC	fp/FPtn_ann/ FPtone_ann.c
MS428ac_etssc	SM	BASE	PLNT 24	1A	2STAGE	MSTSSC	ccs/CC7setup/ CCoi_fca.c
						MSTSSC	ccs/CCtrksig/ CCo_fca.c
						MSTSSC	fp/FPtkorig/ FPto_fs.c
MS431ac_evc2stg	SM	BASE	- - - - -	- - - - -	- - - - -	MS2SVC	fp/FPtn_ann/ FPtone_ann.c
MS471ac_apbofl	SM	BASE	TRFC 30	26	APBO	MSAPBOFL	oa/OAfex/ OAsproc.c

			TRFC 30	64	APB/OVFL		
MS472ac_todo	SM	BASE	TRFC 30	26	TODE	MSMCTODO	rta/RTtod/ RTtrig_wl.c
MS473ac_acbcofl	SM	BASE	TRFC 30	26	ACBCO	MSACBCOFL	fc/FCacb/ FCacb_bdat.c
						MSACBCOFL	fc/FCacb/ FCacb_mon.c
MS474ac_attu	CMP	BASE	TRFC 30	1	SCN100	MSATSCAN	as/ASmsscan/ MScmpscan.c
MS475ac_mlhu	AM	BASE	TRFC 30	1	SCN100	MSMLSCAN	as/ASmsscan/ MSamscan.c
MS476ac_pfau	CMP	BASE	TRFC 30	1	SCN100	MSPFSCAN	as/ASmsscan/ MScmpscan.c
MS477ac_attrsm	SM	BASE	- - - - -	- - - - -	- - - - -	MSATTRSM	as/ASmsscan/ MS100scan.c
MS478ac_mlhrsm	SM	BASE	- - - - -	- - - - -	- - - - -	MSMLHRSM	as/ASmsscan/ MS100scan.c
MS480ac_ns800	SM	BASE	TRFC 30	91	NSC-800	MSNS800	fc/FCnumsv/ FCns_qry.c
MS481ac_badsig	SM	BASE	TRFC 30	91	FAIL-2S-EA	MSNSBADSIG	ccs/CCnumsv/ CCnsdaqry.c
						MSNSBADSIG	fc/FCnumsv/ FCns_ani.c
						MSNSBADSIG	fc/FCnumsv/ FCns_cst.c
						MSNSBADSIG	fc/FCnumsv/ FCns_qry.c
MS482ac_cpfbq	SM	BASE	TRFC 30	91	FAIL-CP-BIQ	MSNSBQFAIL	fc/FCnumsv/ FCns_ani.c
						MSNSBQFAIL	fc/FCnumsv/ FCns_cst.c
						MSNSBQFAIL	fc/FCnumsv/ FCns_qry.c
						MSNSBQFAIL	fc/FCnumsv/ FCns_resp.c
MS483ac_cpfaq	SM	BASE	TRFC 30	91	FAIL-CP-AIQ	MSNSAQFAIL	fc/FCnumsv/ FCns_resp.c
MS484ac_sspto	SM	BASE	TRFC 30	91	SIG-FAIL-TO	MSNSTO	fc/FCnumsv/ FCns_resp.c
MS485ac_abopul	SM	BASE	TRFC 30	91	ABDN-BS-OT	MSNSBOPUL	cra/CRasmblr/ CRsmprims.c
						MSNSBOPUL	fc/FCnumsv/ FCns_cst.c
MS486ac_aaopul	SM	BASE	TRFC 30	91	ABDN-AS-OT BCA	MSNSAOPUL	cra/CRasmblr/ CRsmprims.c
MS487ac_nsrcv	SM	BASE	TRFC 30	91	NSC-RCVD	MSNSRCV	fc/FCnumsv/ FCns_cst.c
						MSNSRCV	fc/FCnumsv/ FCns_qry.c
MS487ah_nsrcv	SM	BASE	M5	12	NSC-ORG/RC V	MSNSRCV	fc/FCnumsv/ FCns_cst.c
						MSNSRCV	fc/FCnumsv/ FCns_qry.c
MS488ac_nsorig	SM	BASE	TRFC 30	91	NSC-ORG	MSNSORIG	fc/FCnumsv/ FCns_cst.c
						MSNSORIG	fc/FCnumsv/ FCns_qry.c
MS488ah_nsorig	SM	BASE	M5	12	NSC-ORG/RC V	MSNSORIG	fc/FCnumsv/ FCns_cst.c
						MSNSORIG	fc/FCnumsv/

							FCns_qry.c

Table 45 Part 45

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS489ac_nsq800	AM	BASE	TRFC 30	91	NSQ-800	MSNSQ800	ccs/CCnumsv/ CCnsqry.c
MS490ac_nmblkc	SM	BASE	TRFC 30	91	NMMC-BLK-C	MSNSBLKNM	fc/FCnumsv/ FCns_qry.c
						MSNSBLKNM	fc/FCnumsv/ FCns_resp.c
						MSNSBLKNM	nm/NMnumsv/ NMns_chk.c
MS490ac_nmblkc	AM	BASE	TRFC 30	91	NMMC-BLK-C	MSNSBLKNM	fc/FCnumsv/ FCns_qry.c
						MSNSBLKNM	fc/FCnumsv/ FCns_resp.c
						MSNSBLKNM	nm/NMnumsv/ NMns_chk.c
MS491ac_nrmrsp	SM	BASE	TRFC 30	91	NORM-RESP	MSNSNRMRSP	fc/FCnumsv/ FCns_800m.c
MS492ac_playan	SM	BASE	TRFC 30	91	PLAY-ANN	MSNSPLAYAN	fc/FCnumsv/ FCns_resp.c
MS493ac_othrsp	SM	BASE	TRFC 30	91	OTHER-RESP	MSNSOTHRSP	fc/FCnumsv/ FCns_resp.c
MS500ac_rt1us	AM	BASE	M5	2	DURATION (MC1)	MSMCEND	nm/NMsilc/ NMovld.c
MS501ac_1trpc	AM	BASE	M5	2	EVENTS (MC1)	MSMCTRNS	nm/NMsilc/ NMovld.c
MS502ac_rt2us	AM	BASE	M5	2	DURATION (MC2)	MSMCEND	nm/NMsilc/ NMovld.c
MS503ac_2trpc	AM	BASE	M5	2	EVENTS (MC2)	MSMCTRNS	nm/NMsilc/ NMovld.c
MS507ac_fhopc	SM	BASE	M5	6	FHO	MSFHO	fp/FPtn_ann/ FPalt_actn.c
MS508ac_merim	SM	BASE	M5	6	MISC-EQPT	- - - - -	- - - - -
MS509ac_vctpc	SM	BASE	M5	6	VCT	MSVCT	fp/FPtn_ann/ FPtone_ann.c
			PLNT 24	1B	INCOM (VACANT CODE)	MSVCT	oa/OAeisot/ OAais_dstx.c
						MSVCT	oa/OAeisot/ OAais_mf.c
MS510ac_stgpc	CMP	BASE	M5	7	SKIPPED (TGC)	MSTGSKIP	nm/NMtgc/ NMprehunt.c
MS511ac_cldbofl	SM	BASE	TRFC 30	26	CLDBO	MSCLDBOFL	fc/FCfex/ FC_create.c
						MSCLDBOFL	fc/FCfex/ FCmrgexec.c
						MSCLDBOFL	fc/FCfex/ FCsproc.c
						MSCLDBOFL	rta/RTterm/ RTcreatprc.c
						MSCLDBOFL	tm/TMutil/ TMcldb.c
MS512ac_mdbofl	SM	BASE	TRFC 30	26	MDBOO	MSMDBOFL	fc/FCfex/ FC_create.c
						MSMDBOFL	fc/FCfex/ FCsproc.c
						MSMDBOFL	rta/RTterm/

							RTcreatprc.c
MS513ac_ctgpc	CMP	BASE	M5	7	CANCELED (TGC)	MSTGCAN	nm/NMtgc/ NMcro_appl.c
			PLNT 24	1B	OUTGO (NM BLOCKED)	MSTGCAN	nm/NMtgc/ NMposthunt.c
						MSTGCAN	nm/NMtgc/ NMprehunt.c
MS514ac_cnddac	SM	BASE	TRFC 30	76	CNDDACT	MSCNDDACT	fc/FCcorc/ lScfwd.c
						MSCNDDACT	fc/FCcorc/ MCdnacdc.c
MS515ac_csdoc	CMP	BASE	M5	7	SKIPPED (DOC)	MSDOCGSC	nm/NMdoc/ NMdoc_appl.c
						MSDOCGSC	nm/NMdoc/ NMgsc_appl.c
MS516ac_ccdoc	CMP	BASE	M5	7	CANCELED (DOC)	MSDOCGSC	nm/NMdoc/ NMdoc_appl.c
			PLNT 24	1B	OUTGO (NM BLOCKED)	MSDOCGSC	nm/NMdoc/ NMgsc_appl.c
MS518ac_blkpc	CMP	BASE	M5	24	ATTEMPTS	MSNMCCBLK	nm/NMcc/ NMcccheck.c
			M5	24	BLOCKS	MSNMCCBLK	nm/NMcc/ NMmcg.c
			M5	7	CANCELED (CGAP)	MSNMCCID	au/AUnm/ OBJ/ AUnmcc.cc
			PLNT 24	1B	OUTGO (NM BLOCKED)	MSNMCCID	nm/NMcc/ NMcc_nma.c
MS518ac_blkpc	CMP	BASE	M5	24	ATTEMPTS	MSNMCCBLK	nm/NMcc/ NMcccheck.c
			M5	24	BLOCKS	MSNMCCBLK	nm/NMcc/ NMmcg.c
			M5	7	CANCELED (CGAP)	MSNMCCID	au/AUnm/ OBJ/ AUnmcc.cc
			PLNT 24	1B	OUTGO (NM BLOCKED)	MSNMCCID	nm/NMcc/ NMcc_nma.c
MS518ac_blkpc	SM	BASE	M5	24	ATTEMPTS	MSNMCCBLK	nm/NMcc/ NMcccheck.c
			M5	24	BLOCKS	MSNMCCBLK	nm/NMcc/ NMmcg.c
			M5	7	CANCELED (CGAP)	MSNMCCID	au/AUnm/ OBJ/ AUnmcc.cc
			PLNT 24	1B	OUTGO (NM BLOCKED)	MSNMCCID	nm/NMcc/ NMcc_nma.c
MS522ac_gco	SM	BASE	PLNT 24	1A	GDX (CUT OFF CALLS)	MSGCO	pc/PCport/ PCflt_rpt.c
MS524ac_rafp	SM	BASE	TRFC 30	46	ACCESS (BRCS)	MSBRCATT	fc/FCrafctrl/ FCraf_att.c
MS525ac_rafov	CMP	BASE	TRFC 30	46	OVFL (BRCS)	MSBRCOVL	fc/FCrafctrl/ FCraf_fail.c
						MSBRCOVL	fita/FIacsr/ ISacsr_trm.c
						MSBRCOVL	rta/RTGtrk/ RTtrkbusy.c

Table 46 Part 46

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS525ac_rafov	SM	BASE	TRFC 30	46	OVFL (BRCS)	MSBRCOVL	fc/FCrafctrl/ FCraf_fail.c

						MSBRCOVL	fita/FIacsr/ ISacsr_trm.c
						MSBRCOVL	rta/RTGtrk/ RTtrkbusy.c
MS526ac_rafmtu	SM	BASE	TRFC 30	46	MTUSG (BRCS)	MSBRCMTU	as/ASmsscan/ MS100scan.c
MS527ac_raftu	SM	BASE	TRFC 30	46	TOTUSG (BRCS)	MSBRCTU	as/ASmsscan/ MS100scan.c
MS528ac_mforq	SM	BASE	TRFC 30	3	MFOURQ	MSOUTREQ	fp/FPoper/ FPot_fs.c
						MSOUTREQ	fp/FPtkterm/ FPtt_call.c
						MSOUTREQ	oa/OAta_intl/ OAtt_2call.c
MS529ac_c6ourq	SM	BASE	TRFC 30	3	C6OURQ	MSC6OURQ	ccs/CCtrksig/ CCt_setup.c
MS530ac_isupor	SM	BASE	TRFC 30	3	ISUPOR	MSISUPOR	ccs/CC7setup/ CCti_crm.c
						MSISUPOR	ccs/CC7setup/ CCti_setup.c
MS531ac_otg	SM	BASE	TRFC 30	22	OTG	MSSMOTG	pc/PCpath/ PHset.c
MS532ac_inc	SM	BASE	TRFC 30	22	INC	MSSMINC	pc/PCpath/ PHdef2.c
MS533ac_sausg	SM	BASE	TRFC 30	22	SATIME	MSRMSAUSG	si/SIrsm/ SIrsmsatrn.c
MS534ac_otgblk	SM	BASE	TRFC 30	22	OTGBLK	MSRSMBLK	rta/RTGsa/ RTsa_rtg.c
MS535ac_incblk	CMP	BASE	TRFC 30	22	INCBLK	MSCPRMBLK	rta/RTGsa/ RTsa_rtg.c
MS550ac_fsst	SM	BASE	PLNT 24	1A	SSTDET (FRAUD COUNTS)	MSSIGISST	fp/FPtkterm/ FPsigi.c
MS551ac_none	SM	BASE	PLNT 24	1A	IN-INV (FRAUD COUNTS)	MSSIGINONE	fp/FPtkterm/ FPsigi.c
MS552ac_sigi	SM	BASE	PLNT 24	1A	TOT-INV (FRAUD COUNTS)	MSSIGI	fp/FPtkterm/ FPsigi.c
						MSSIGIFRAUD	fp/FPtkterm/ FPsigi.c
						MSSIGINONE	fp/FPtkterm/ FPsigi.c
						MSSIGISST	fp/FPtkterm/ FPsigi.c
MS553ac_fraud	SM	BASE	PLNT 24	1A	FRAUD (FRAUD COUNTS)	MSSIGIFRAUD	fp/FPtkterm/ FPsigi.c
MS554ac_qrys	SM	BASE	M5	10	QUERIES	MSNDQRYS	fc/FCccdsig/ FCndqry.c
			M5	8	QUERIES		
			PLNT 24	7	TOTAL (QUERIES)		
			TRFC 30	36	QUERY		
MS555ac_bncp	AM	BASE	M5	10	NCP-CNTL	MSNDBNCP	nm/NMccdsig/ NMncdchk.c
			PLNT 24	7	BLKD-NCP		
MS556ac_bswcc	SM	BASE	M5	10	CCS-CNTL	MSNDBSWCC	ccs/CCdsadm/ CCcnirtn.c

			PLNT 24	7	BLKD-CCS	MSNDBSWCC	ccs/CCncd/ CCncdqry.c
						MSNDBSWCC	fc/FCccdsig/ FCndqry.c
						MSNDBSWCC	nm/NMccdsig/ NMncdchk.c
MS556ac_bswcc	AM	BASE	M5	10	CCS-CNTL	MSNDBSWCC	ccs/CCdsadm/ CCcnirtn.c
			PLNT 24	7	BLKD-CCS	MSNDBSWCC	ccs/CCncd/ CCncdqry.c
						MSNDBSWCC	fc/FCccdsig/ FCndqry.c
						MSNDBSWCC	nm/NMccdsig/ NMncdchk.c
MS557ac_deny	AM	BASE	PLNT 24	7	DENY-RCV	MSNDDENY	ccs/CCncd/ CCncdrply.c
			TRFC 30	36	DENY-RCV		
MS558ac_kill	SM	BASE	PLNT 24	7	KILLED	MSNDKILL	fc/FCccdsig/ FCndkill.c
			TRFC 30	36	KILLED		
MS559ac_answ	SM	BASE	PLNT 24	7	POST-ANS	MSNDANSW	fc/FCccdsig/ FCndkill.c
			TRFC 30	36	POST-ANS		
MS560ac_rccs	AM	BASE	PLNT 24	7	RET-CCS	MSNDRCCS	ccs/CCncd/ CCncdrply.c
MS561ac_rncp	AM	BASE	PLNT 24	7	RET-NCP	MSNDRNCP	ccs/CCncd/ CCncdrply.c
MS562ac_ann	SM	BASE	TRFC 30	36	ANN	MSNDANN	fp/FPtn_ann/ FPanntidle.c
MS563ac_invmg	AM	BASE	PLNT 24	7	INVALID MESSAGE	MSNDINVMG	ccs/CCncd/ CCncdrply.c
MS564ac_tginc	SM	ISDNPCK T	TRFC 30	92	INC	MSPSTGINC	pr/PRfeat/ PRdsrtrq.c
						MSPSTGINC	pr/PRfeat/ PRgvrtrq.c
						MSPSTGINC	pr/PRfeat/ PRivrtrq.c
MS565ac_tgoutg	CMP	BASE	TRFC 30	92	OUTG	MSPSTGOUT G	pr/PRfeat/ PRpegtgcnt.c
						MSPSTGOUT G	pr/PRrtgsts/ PRroute.c

Table 47 Part 47

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS565ac_tgoutg	SM	ISDNPCK T	TRFC 30	92	OUTG	MSPSTGOUT G	pr/PRfeat/ PRpegtgcnt.c
						MSPSTGOUT G	pr/PRrtgsts/ PRroute.c
MS565ac_tgoutg	AM	ISDNPCK T	TRFC 30	92	OUTG	MSPSTGOUT G	pr/PRfeat/ PRpegtgcnt.c
						MSPSTGOUT G	pr/PRrtgsts/ PRroute.c
MS568ac_tgoutgovfl	CMP	BASE	TRFC 30	92	OUTG OVFL	MSPSTGOVFL	pr/PRfeat/ PRpegtgcnt.c
						MSPSTGOVFL	pr/PRrtgsts/

							PRtkbusy.c
MS568ac_tgoutgovfl	SM	ISDNPCKT	TRFC 30	92	OUTG OVFL	MSPSTGOVFL	pr/PRfeat/ PRpegtgcnt.c
						MSPSTGOVFL	pr/PRrtgsts/ PRtkbusy.c
MS568ac_tgoutgovfl	AM	ISDNPCKT	TRFC 30	92	OUTG OVFL	MSPSTGOVFL	pr/PRfeat/ PRpegtgcnt.c
						MSPSTGOVFL	pr/PRrtgsts/ PRtkbusy.c
MS569ac_tgbovfl	PH	PHISDN	TRFC 30	92	BUFF OVFL	MSPSTGBOVFL	ps/PSgac/ PSggin_clr.c
						MSPSTGBOVFL	ps/PSgac/ PSggin_rst.c
						MSPSTGBOVFL	ps/PSgac/ PSggvctout.c
						MSPSTGBOVFL	ps/PSgac/ PSgirc_req.c
						MSPSTGBOVFL	ps/PSgac/ PSgrc_conn.c
						MSPSTGBOVFL	ps/PSgac/ PSgrclrreq.c
						MSPSTGBOVFL	ps/PSgac/ PSgrcv.c
						MSPSTGBOVFL	ps/PSgac/ PSgsc_conn.c
						MSPSTGBOVFL	ps/PSgac/ PSgsc_req.c
						MSPSTGBOVFL	ps/PSgac/ PSgsclrreq.c
						MSPSTGBOVFL	ps/PSgl3ctrl/ PSglckdone.c
						MSPSTGBOVFL	ps/PSgl3ctrl/ PSglrentry.c
						MSPSTGBOVFL	ps/PSgl3ctrl/ PSglrisend.c
						MSPSTGBOVFL	ps/PSgl3ctrl/ PSglrmv_lc.c
						MSPSTGBOVFL	ps/PSgl3ctrl/ PSgltimout.c
						MSPSTGBOVFL	ps/PSxl3ctrl/ PSxdopvcs.c
						MSPSTGBOVFL	ps/PSxl3ctrl/ PSxgetpvc.c
						MSPSTGBOVFL	ps/PSxl3ctrl/ PSxpvc.c
MS570ac_tandem	SM	ISDNPCKT	TRFC 30	69	TANDEM	MSPSTANDEM	pr/PRfeat/ PRdsrtrq.c
MS570ac_tandem	AM	ISDNPCKT	TRFC 30	69	TANDEM	MSPSTANDEM	pr/PRfeat/ PRdsrtrq.c
MS571ac_qabdn	SM	BASE	PLNT 24	1B	CONNECT (ABANDONS FROM QUEUE)	MSQABANDON	fc/FCcama/ FConisetup.c
MS572ac_nopth	SM	BASE	PLNT 24	1B	CONNECT (NO PATH/NO SVC CKT)	MSNOPATHSC	fc/FCisp/ FCispann.c
						MSNOPATHSC	fp/FPtkorig/ FPto_call.c
MS575ac_isdnirq	SM	BASE	TRFC 15	1	ISDIRQ	MSINCREQ	cra/CRasmblr/ CRsmprims.c
MS576ac_isdnirq	SM	BASE	TRFC	50	INCREQ	MSINCREQ	cra/CRasmblr/

			30				CRsmprims.c
MS577ac_isdnirq	SM	BASE	PLNT 24	11	INCOM (REQUESTS)	MSINCREQ	cra/CRasmblr/ CRsmprims.c
			PLNT 24	1A	INCOM (REQUESTS)		
MS578ac_isipdto	SM	BASE	TRFC 30	50	ISIPDTO	MSIPDTO	as/ASmsmisc/ MScrpegcnt.c
			TRFC 30	6	PDTIMO (INCOM)		
MS579ac_isipdto	SM	BASE	PLNT 24	11	INCOM (PARTIAL)	MSIPDTO	as/ASmsmisc/ MScrpegcnt.c
MS580ac_adcto	SM	BASE	PLNT 24	1B	OUTGO (TIMEOUTS AND ABANDONS)	MSADCTO	ccs/CCecis/ CCt_ccs6.c
						MSADCTO	ccs/CCisup/ CCt_isup.c
MS581ac_cotto	SM	BASE	PLNT 24	1B	INCOM (TIMEOUTS AND ABANDONS)	MSCOTTO	ccs/CC7clr/ CCoi_mdii.c
						MSCOTTO	ccs/CCtrksig/ CCo_mdii.c
MS582ac_tuprq	SM	BASE	PLNT 24	1A	INCOM (REQUESTS)	MSTUPRQ	- - - - -
			TRFC 15	1	TUPRQ		
			TRFC 30	3	TUPRQ		
MS583ac_rlgto	SM	BASE	PLNT 24	1B	INCOM (TIMEOUTS AND ABANDONS)	MSRLGTO	ccs/CCecis/ CCt_ccs6.c
						MSRLGTO	tm/TMpsa_ccs/ TM6cottest.c
MS584ac_bfmo	SM	BASE	PLNT 24	1B	INCOM (BACKWARD FAILURE MESSAGES ORIGINATED)	MSBFMO	ccs/CC7clr/ CCoi_mscnts.c
			TRFC 30	6	BFMO	MSBFMO	ccs/CC7setup/ CCoi_iam.c
						MSBFMO	ccs/CCtrksig/ CCo_idle.c

Table 48 Part 48

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS585ac_snf	SM	BASE	PLNT 24	1B	OUTGO (SIGNALING NETWORK FAILURE)	MSSNF	ccs/CC7clr/ CCti_ubs.c
						MSSNF	ccs/CCtrksig/ CCt_ubs.c
MS586ac_umr	SM	BASE	PLNT 24	1B	INCOM (UNREASONABLE	MSUMR	ccs/CC7setup/ CCoi_fca.c

					MESSAGES)		
						MSUMR	ccs/CC7setup/ CCoi_strtp.c
						MSUMR	ccs/CCecis/ CCo6_strtp.c
						MSUMR	ccs/CCecis/ CCo_ccs6.c
						MSUMR	ccs/CCecis/ CCt_ccs6.c
						MSUMR	ccs/CCisup/ CCo_isup.c
						MSUMR	ccs/CCisup/ CCt_isup.c
						MSUMR	ccs/CCmisc/ CC7ospsmsg.c
						MSUMR	ccs/CCmisc/ CCo7_rmsq.c
						MSUMR	ccs/CCtrksig/ CCo6_rmsq.c
						MSUMR	ccs/CCtrksig/ CCo_fca.c
						MSUMR	ccs/CCtrksig/ CCoi_rmsq.c
						MSUMR	ccs/CCtrksig/ CCospsmsg.c
						MSUMR	tm/TMpsa_ccs/ TM6cottest.c
						MSUMR	tm/TMpsa_ccs/ TM6cro.c
						MSUMR	tm/TMpsa_ccs/ TM7icottst.c
						MSUMR	tm/TMpsa_ccs/ TM7icri.c
						MSUMR	tm/TMpsa_ccs/ TM7icritst.c
						MSUMR	tm/TMpsa_ccs/ TM7icro.c
MS587ac_relrec	SM	BASE	PLNT 24	1B	OUTGO (RELEASE GUARD RECEIVED)	MSRELREC	ccs/CCecis/ CCt_ccs6.c
						MSRELREC	tm/TMpsa_ccs/ TM6cottest.c
MS588ac_cotfail	SM	BASE	M5	8	RECEIVED (CONTINUITY FAILURE)	MSCOTFAIL	ccs/CC7clr/ CCoi_loser.c
			PLNT 24	3	INCOM (COT)	MSCOTFAIL	ccs/CC7setup/ CCoi_cot.c
						MSCOTFAIL	ccs/CC7setup/ CCoi_strtp.c
						MSCOTFAIL	ccs/CC7setup/ CCti_failvpa.c
						MSCOTFAIL	ccs/CCisup/ CCo_isup.c
						MSCOTFAIL	ccs/CClnacp/ CCln_decot.c
						MSCOTFAIL	ccs/CClnacp/ CCoi_decot.c
						MSCOTFAIL	ccs/CCnumsv/ CCo_sdecot.c
						MSCOTFAIL	ccs/CCtrksig/

							CCo_cot.c
						MSCOTFAIL	ccs/CCtrksig/ CCo_decot.c
						MSCOTFAIL	ccs/CCtrksig/ CCtvpa_fl.c
MS589ac_bfmr	SM	BASE	PLNT 24	3	OUTGO (BKWDMSG)	MSBFMR	ccs/CC7clr/ CCti_ubs.c
						MSBFMR	ccs/CCtrksig/ CCt_ubs.c
MS590ac_c6inrq	SM	BASE	PLNT 24	1A	INCOM (REQUESTS)	MSC6INRQ	ccs/CCecis/ CCo_ccs6.c
			TRFC 15	1	C6INRQ	MSC6INRQ	ccs/CCecis/ CCt6_clfgl.c
			TRFC 30	3	C6INRQ	MSC6INRQ	ccs/CCecis/ CCt6_cotgl.c
						MSC6INRQ	ccs/CCecis/ CCt6_iamgl.c
MS591ac_isuprq	SM	BASE	PLNT 24	1A	INCOM (REQUESTS)	MSISUPRQ	ccs/CC7setup/ CCti_iamglr.c
			TRFC 15	1	ISUPRQ	MSISUPRQ	ccs/CCisup/ CCo_isup.c
			TRFC 30	3	ISUPRQ		
MS592ac_inciam	SM	BASE	M5	8	RECEIVED (IAMS)	MSINCIAM	ccs/CC7setup/ CCti_iamglr.c
						MSINCIAM	ccs/CCecis/ CCo_ccs6.c
						MSINCIAM	ccs/CCecis/ CCt6_iamgl.c
						MSINCIAM	ccs/CCecis/ CCt_ccs6.c
						MSINCIAM	ccs/CCisup/ CCo_isup.c
MS593ac_outiam	SM	BASE	M5	8	TRANSMITTE D (IAMS)	MSOUTIAM	ccs/CC7setup/ CCt_iwiam.c
						MSOUTIAM	ccs/CC7setup/ CCti_setup.c
						MSOUTIAM	ccs/CCmaint/ CC7tm_stp.c
						MSOUTIAM	ccs/CCmaint/ CCtm_setup.c
						MSOUTIAM	ccs/CCtrksig/ CCt_setup.c
						MSOUTIAM	tm/TMpsa_ccs/ TM6cottest.c

Table 49 Part 49

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS594ac_ansccs6	SM	BASE	M5	8	TRANSMITTE D (ANS)	MSANSCCS6	ccs/CCecis/ CCo_ccs6.c
MS595ac_anrccs6	SM	BASE	M5	8	RECEIVED (ANS)	MSANRCCS6	ccs/CCecis/ CCt_ccs6.c
MS596ac_blksigx	AM	BASE	PLNT 24	3	OUTGO (BLKXMT)	MSBLKSIGX	ccs/CCmaint/ CC7amsndmg.c
						MSBLKSIGX	ccs/CCmaint/ CCamsndmsg.c
MS597ac_blkasto	AM	BASE	PLNT 24	3	INCOM (ACKTO)	MSBLKASTO	tm/TMmmc/ TMccs7iack.c

MS598ac_oocrecd	SM	BASE	M5	8	RECEIVED (OOC CALLS)	MSOOCRECD	ccs/CC7setup/ CCoi_tcm.c
						MSOOCRECD	ccs/CCtrksig/ CCsettcm.c
MS599ac_oocfail	SM	BASE	M5	8	RECEIVED (OOC CALLS FAILED)	MSOOCFAIL	ccs/CC7setup/ CCoi_strtp.c
						MSOOCFAIL	ccs/CCecis/ CCo6_strtp.c
						MSOOCFAIL	ccs/CCecis/ CCo_ccs6.c
						MSOOCFAIL	ccs/CCisup/ CCo_isup.c
MS5nmarc.MS658ac_arcsk	CMP	BASE	- - - - -	- - - - -	- - - - -	MSNMARID	nm/NMdsnarc/ NMarcadd.c
						MSNMARID	nm/NMdsnarc/ NMarcclr.c
						MSNMARID	nm/NMdsnarc/ NMarcdel.c
						MSNMARID	nm/NMdsnarc/ NMarctup0.c
						MSNMARSK	nm/NMdsnarc/ NMarcpre.c
MS5nmarc.MS659ac_arcps k	CMP	BASE	- - - - -	- - - - -	- - - - -	MSNMARPID	nm/NMdsnarc/ NMarcadd.c
						MSNMARPID	nm/NMdsnarc/ NMarcclr.c
						MSNMARPID	nm/NMdsnarc/ NMarcdel.c
						MSNMARPID	nm/NMdsnarc/ NMarctup0.c
						MSNMARPSK	nm/NMdsnarc/ NMarcpre.c
MS5nmarc.MS660ac_blkpc	CMP	BASE	- - - - -	- - - - -	- - - - -	MSNMARBK	nm/NMdsnarc/ NMarcpost.c
						MSNMARID	nm/NMdsnarc/ NMarcadd.c
						MSNMARID	nm/NMdsnarc/ NMarcclr.c
						MSNMARID	nm/NMdsnarc/ NMarcdel.c
						MSNMARID	nm/NMdsnarc/ NMarctup0.c
MS5nmarc.MS661ac_blkppc	CMP	BASE	- - - - -	- - - - -	- - - - -	MSNMARPBK	nm/NMdsnarc/ NMarcpost.c
						MSNMARPID	nm/NMdsnarc/ NMarcadd.c
						MSNMARPID	nm/NMdsnarc/ NMarcclr.c
						MSNMARPID	nm/NMdsnarc/ NMarcdel.c
						MSNMARPID	nm/NMdsnarc/ NMarctup0.c
MS5nmarc.MS665ac_arcat	CMP	BASE	- - - - -	- - - - -	- - - - -	MSNMARAT	nm/NMdsnarc/ NMarcpost.c
						MSNMARAT	nm/NMdsnarc/ NMarcpre.c
						MSNMARID	nm/NMdsnarc/ NMarcadd.c
						MSNMARID	nm/NMdsnarc/ NMarcclr.c

						MSNMARID	nm/NMdsnarc/ NMarcdel.c
						MSNMARID	nm/NMdsnarc/ NMarctup0.c
MS5nmarc.MS666ac_arcpat	CMP	BASE	- - - - -	- - - - -	- - - - -	MSNMARPAT	nm/NMdsnarc/ NMarcpost.c
						MSNMARPAT	nm/NMdsnarc/ NMarcpre.c
						MSNMARPID	nm/NMdsnarc/ NMarcadd.c
						MSNMARPID	nm/NMdsnarc/ NMarcclr.c
						MSNMARPID	nm/NMdsnarc/ NMarcdel.c
						MSNMARPID	nm/NMdsnarc/ NMarctup0.c
MS5nmarc.on_off	CMP	BASE	- - - - -	- - - - -	- - - - -	MSNMARID	nm/NMdsnarc/ NMarcadd.c
						MSNMARID	nm/NMdsnarc/ NMarcclr.c
						MSNMARID	nm/NMdsnarc/ NMarcdel.c
						MSNMARID	nm/NMdsnarc/ NMarctup0.c
						MSNMARPID	nm/NMdsnarc/ NMarcadd.c
						MSNMARPID	nm/NMdsnarc/ NMarcclr.c
						MSNMARPID	nm/NMdsnarc/ NMarcdel.c
						MSNMARPID	nm/NMdsnarc/ NMarctup0.c
MS5nmcc.MS518ac_blkpc	CMP	BASE	- - - - -	- - - - -	- - - - -	MSNMCCBLK	nm/NMcc/ NMcccheck.c
						MSNMCCBLK	nm/NMcc/ NMmcg.c
						MSNMCCID	au/AUnm/ OBJ/ AUnmcc.cc
						MSNMCCID	nm/NMcc/ NMcc_nma.c

Table 50 Part 50

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS5nmcc.MS519ac_nbkpc	CMP	BASE	M5	24	ATTEMPTS	MSNMCCID	au/AUnm/ OBJ/ AUnmcc.cc
						MSNMCCID	nm/NMcc/ NMcc_nma.c
						MSNMCCNOBLK	nm/NMcc/ NMcccheck.c
						MSNMCCNOBLK	nm/NMcc/ NMmcg.c
MS5nmcc.on_off	CMP	BASE	- - - - -	- - - - -	- - - - -	MSNMCCID	au/AUnm/ OBJ/ AUnmcc.cc
						MSNMCCID	nm/NMcc/ NMcc_nma.c
MS5nmdcc.MS662ac_blkppc	CMP	BASE	- - - - -	- - - - -	- - - - -	MSNMCCPBK	nm/NMcc/ NMcccheck.c
						MSNMCCPBK	nm/NMcc/

							NMmcg.c
						MSNMCCPID	au/AUnm/ OBJ/ AUnmcc.cc
						MSNMCCPID	nm/NMcc/ NMcc_nma.c
MS5nmdcc.MS663ac_nbkpp c	CMP	BASE	- - - - -	- - - - -	- - - - -	MSNMCCPID	au/AUnm/ OBJ/ AUnmcc.cc
						MSNMCCPID	nm/NMcc/ NMcc_nma.c
						MSNMCCPNB K	nm/NMcc/ NMcccheck.c
						MSNMCCPNB K	nm/NMcc/ NMmcg.c
MS5nmdcc.on_off		BASE	- - - - -	- - - - -	- - - - -	MSNMCCPID	as/ASmsdata/ MScmpacdat.c
						MSNMCCPID	au/AUnm/ OBJ/ AUnmcc.cc
						MSNMCCPID	nm/NMcc/ NMcc_nma.c
MS5nmflg.MSactot_auto	CMP	BASE	M5	18	AUTO	MSDOCGSC	nm/NMdoc/ NMdoc_appl.c
						MSDOCGSC	nm/NMdoc/ NMgsc_appl.c
MS5nmflg.doc_flg	CMP	BASE	M5	18	DOC	MSDOCGSC	nm/NMdoc/ NMdoc_appl.c
						MSDOCGSC	nm/NMdoc/ NMgsc_appl.c
MS5nmflg.gsc_flg	CMP	BASE	M5	18	GSC	MSDOCGSC	nm/NMdoc/ NMdoc_appl.c
						MSDOCGSC	nm/NMdoc/ NMgsc_appl.c
MS5nmrr.MS520ac_arrpc	CMP	BASE	M5	25	ATTEMPTS	- - - - -	- - - - -
			M5	7	RR-SUCC		
MS5nmrr.MS521ac_frrpc	CMP	BASE	M5	25	FAILURES	- - - - -	- - - - -
			M5	7	RR-FAIL		
MS602ac_dascmtu	SM	OPSMCD OT	PLNT 24	10	MTUSG (DASC LNK)	- - - - -	- - - - -
			TRFC 30	45	MTUSG		
MS603ac_dascna	SM	OPSMCD OT	PLNT 24	10	FAILURE (DASC LNK)	MSDASCNA	oa/OAbstvt/ OAdascpsez.c
			PLNT 24	10	SUCCESS (DASC LNK)		
			TRFC 30	45	FAILURE		
			TRFC 30	45	SUCCESS		
MS604ac_dasco	SM	OPSMCD OT	PLNT 24	10	OVFL	MSDASCO	oa/OAbstvt/ OAdascpsez.c
			PLNT 24	10	SUCCESS (DASC LNK)		
			TRFC 30	45	OVFL		
			TRFC 30	45	SUCCESS		
MS605ac_dasc	SM	OPSMCD OT	PLNT 24	10	ATTEMPT (DASC LNK)	MSDASCP	oa/OAbstvt/ OAdascpsez.c
			PLNT 24	10	SUCCESS (DASC LNK)		
			TRFC 30	45	ATTEMPT		
			TRFC	45	SUCCESS		

			30				
MS606ac_emercr	SM	OPSMOT	PLNT 24	10	EMERG-CR	MSEMERCR	as/ASospsadm/ ASsmutil.c
MS607ac_lotr	SM	OPSMCD OT	TRFC 30	44	LOTR	MSLOTR	as/ASospsadm/ ASsmutil.c
MS608ac_ospsinc	SM	OPSMCD OT	PLNT 24	10	ATTEMPT (INCOMING)	MSINCOSPS	fc/FCisp/ FCisp_to.c
			PLNT 24	10	SUCCESS (INCOMING)	MSINCOSPS	oa/OAeisot/ OAais_ot.c
			TRFC 30	44	ATTEMPT (INCOMING)	MSINCOSPS	oa/OAotoper/ OAinward.c
			TRFC 30	44	SUCCESS (INCOMING)	MSINCOSPS	oa/OAotoper/ OAop_id.c
						MSINCOSPS	oa/OAta_ot/ OAdior_dig.c
						MSINCOSPS	oa/OAta_ot/ OAta_init.c

Table 51 Part 51

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS609ac_ospsincf	SM	OPSMCD OT	PLNT 24	10	FAILURE (INCOMING)	MSINCFOSPS	fc/FCisp/ FCisp_to.c
			PLNT 24	10	SUCCESS (INCOMING)	MSINCFOSPS	oa/OAactsot/ OAcn1popr.c
			TRFC 30	44	FAILURE (INCOMING)	MSINCFOSPS	oa/OAactsot/ OAcnicopr.c
			TRFC 30	44	SUCCESS (INCOMING)	MSINCFOSPS	oa/OAactsot/ OAcnreqopr.c
						MSINCFOSPS	oa/OAeisot/ OAais_ot.c
						MSINCFOSPS	oa/OAeisot/ OAeisoprt.c
						MSINCFOSPS	oa/OAotcv/ OAcvtrmn.c
						MSINCFOSPS	oa/OAotcv/ OBJ/ OAcvq.cc
						MSINCFOSPS	oa/OAotoper/ OAda_rr_ck.c
						MSINCFOSPS	oa/OAotoper/ OAdasrvchk.c
						MSINCFOSPS	oa/OAotoper/ OAinward.c
						MSINCFOSPS	oa/OAotoper/ OAopsetup.c
						MSINCFOSPS	oa/OAotoper/ OAorigque.c
						MSINCFOSPS	oa/OAotoper/ OAta_opcal.c
						MSINCFOSPS	oa/OAotoper/ OAta_opset.c
						MSINCFOSPS	oa/OAotoper/ OAta_rr_ck.c
						MSINCFOSPS	oa/OAotoper/ OAtaopque.c
						MSINCFOSPS	oa/OAotoper/ OAtasetup.c
						MSINCFOSPS	oa/OAta_ot/ OAaatoschk.c

						MSINCFOSPS	oa/OAta_ot/ OAacc_call.c
						MSINCFOSPS	oa/OAta_ot/ OAacc_talk.c
						MSINCFOSPS	oa/OAta_ot/ OAaccto_op.c
						MSINCFOSPS	oa/OAta_ot/ OAans_ta1.c
						MSINCFOSPS	oa/OAta_ot/ OAatt_ani.c
						MSINCFOSPS	oa/OAta_ot/ OAboc_ani.c
						MSINCFOSPS	oa/OAta_ot/ OAdior_dig.c
						MSINCFOSPS	oa/OAta_ot/ OAissetup.c
						MSINCFOSPS	oa/OAta_ot/ OAlocaltreat.c
						MSINCFOSPS	oa/OAta_ot/ OAmechq.c
						MSINCFOSPS	oa/OAta_ot/ OAreq_init.c
						MSINCFOSPS	oa/OAta_ot/ OAsetotis.c
						MSINCFOSPS	oa/OAta_ot/ OAta_entry.c
						MSINCFOSPS	oa/OAta_ot/ OAta_init.c
						MSINCFOSPS	oa/OAta_ot/ OAtaisp_rr.c
						MSINCFOSPS	oa/OAta_ot/ OAtasrvchk.c
MS610ac_ospsoutg	SM	OPSMCD OT	PLNT 24	10	ATTEMPT (OUTGOING)	MSOUTOSPS	oa/OAda_cc/ OBJ/ OAda_cc.cc
			PLNT 24	10	SUCCESS (OUTGOING)	MSOUTOSPS	oa/OAtacct/ OBJ/ OAtacct.cc
			TRFC 30	44	ATTEMPT (OUTGOING)		
			TRFC 30	44	SUCCESS (OUTGOING)		
MS611ac_ospsoutgf	SM	OPSMCD OT	PLNT 24	10	FAILURE (OUTGOING)	MSOUTFOSP S	oa/OAda_cc/ OBJ/ OAda_cc.cc
			PLNT 24	10	SUCCESS (OUTGOING)	MSOUTFOSP S	oa/OAtacct/ OBJ/ OAtacct.cc
			TRFC 30	44	FAILURE (OUTGOING)		
			TRFC 30	44	SUCCESS (OUTGOING)		
MS612ac_ospsrecall	SM	OPSMCD OT	TRFC 30	44	RECALLS	MSOSPSREC	oa/OAactsot/ OAwaitopr.c
						MSOSPSREC	oa/OAdaannc/ OAoprcl.c
						MSOSPSREC	oa/OAeisot/ OAeisoprt.c
						MSOSPSREC	oa/OAifz_ot/ OAifzcall.c
						MSOSPSREC	oa/OAifz_ot/ OAqantlk.c
						MSOSPSREC	oa/OAifz_ot/ OAqwannc.c
						MSOSPSREC	oa/OAifz_ot/

							OAqwopsz.c
						MSOSPSREC	oa/OAta_ot/ OAta_1rcl.c
						MSOSPSREC	oa/OAta_ot/ OAta_2rcl.c

Table 52 Part 52

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS613ac_ospsreord	SM	OPSMCD OT	PLNT 24	10	REORDER	MSOSPSROR D	oa/OAactsot/ OAcn1popr.c
			TRFC 30	44	REORDER	MSOSPSROR D	oa/OAactsot/ OAcn_idle.c
						MSOSPSROR D	oa/OAactsot/ OAcnicopr.c
						MSOSPSROR D	oa/OAactsot/ OAcnoprsu.c
						MSOSPSROR D	oa/OAactsot/ OAcnreqopr.c
						MSOSPSROR D	oa/OAactsot/ OAicrate.c
						MSOSPSROR D	oa/OAactsot/ OArtclosed.c
						MSOSPSROR D	oa/OAeisot/ OAccannc.c
						MSOSPSROR D	oa/OAeisot/ OAeisoprt.c
						MSOSPSROR D	oa/OAotcv/ OAcvroute.c
						MSOSPSROR D	oa/OAotcv/ OAcvtrmn.c
						MSOSPSROR D	oa/OAotoper/ OAnit.c
						MSOSPSROR D	oa/OAotoper/ OAop_id.c
						MSOSPSROR D	oa/OAotoper/ OAopco_cal.c
						MSOSPSROR D	oa/OAotoper/ OAopto_ans.c
						MSOSPSROR D	oa/OAotoper/ OAopto_cal.c
						MSOSPSROR D	oa/OAotoper/ OAorigque.c
						MSOSPSROR D	oa/OAotoper/ OAsetup.c
						MSOSPSROR D	oa/OAotoper/ OAta_opcal.c
						MSOSPSROR D	oa/OAotoper/ OAtaopque.c
						MSOSPSROR D	oa/OAta_ot/ OAta_opans.c
						MSOSPSROR D	oa/OAta_ot/ OAtasrvchk.c
MS614ac_posmtu	SM	OPSMCD OT	PLNT 24	10	MTUSG (POSITIONS)	- - - - -	- - - - -
MS620ac_rafp	SM	OPSMCD OT	TRFC 30	46	ACCESS (DA)	MSRAFP	oa/OAdaannc/ OAeisissue.c
						MSRAFP	oa/OAdaannc/ OAissue.c

						MSRAFP	oa/OAeisot/ OAeisintrt.c
MS621ac_rafo	SM	OPSMCD OT	TRFC 30	46	OVFL (DA)	MSRAFO	oa/OAeisot/ OAeisintrt.c
						MSRAFO	oa/OAotoper/ OAopsetup.c
						MSRAFO	oa/OAotoper/ OArasetup.c
MS622ac_rafusg	SM	BASE	TRFC 30	46	TOTUSG (DA)	- - - - -	- - - - -
MS623ac_rafmtu	SM	BASE	TRFC 30	46	MTUSG (DA)	- - - - -	- - - - -
MS624ac_l3rstrt	SM	OPSMCD OT	PLNT 24	10	RESTRTS	MSL3RST	ps/PSobx25l3/ PSol3snd.c
MS625ac_l3reset	SM	OPSMCD OT	PLNT 24	10	RESETS	MSL3RSET	ps/PSobx25l3/ PSol3snd.c
MS626ac_l3rtran	SM	OPSMCD OT	PLNT 24	10	RETRANS	MSL3RTRN	ps/PSobx25l3/ PSol3rcv.c
						MSL3RTRN	ps/PSobx25l3/ PSol3tmr.c
MS627ac_acdent	CMP	OPAMBAC D	TRFC 30	44	ACD	MSACDENT	rta/ACclldst/ ACictreq.c
						MSACDENT	rta/ACclldst/ ACrequest.c
MS627ac_acdent	AM	OPAMBAC D	TRFC 30	44	ACD	MSACDENT	rta/ACclldst/ ACictreq.c
						MSACDENT	rta/ACclldst/ ACrequest.c
MS628ac_l1da	CMP	OPAMBAC D	PLNT 24	10	DELAY1	MSL1DA	rta/ACclldst/ ACcstalrt.c
			TRFC 30	44	DELAY1		
MS628ac_l1da	AM	OPAMBAC D	PLNT 24	10	DELAY1	MSL1DA	rta/ACclldst/ ACcstalrt.c
			TRFC 30	44	DELAY1		
MS629ac_l2da	CMP	OPAMBAC D	PLNT 24	10	DELAY2	MSL2DA	rta/ACclldst/ ACcstalrt.c
			TRFC 30	44	DELAY2		
MS629ac_l2da	AM	OPAMBAC D	PLNT 24	10	DELAY2	MSL2DA	rta/ACclldst/ ACcstalrt.c
			TRFC 30	44	DELAY2		
MS630ac_l3da	CMP	OPAMBAC D	PLNT 24	10	DELAY3	MSL3DA	rta/ACclldst/ ACcstalrt.c
			TRFC 30	44	DELAY3		
MS630ac_l3da	AM	OPAMBAC D	PLNT 24	10	DELAY3MSL3 DA	rta/ACclldst/ ACcstalrt.c	
			TRFC 30	44	DELAY3		
MS631ac_ospsqofl	CMP	OPAMBAC D	PLNT 24	10	QOVFL	MSOSPSQOF L	rta/ACclldst/ ACcstalrt.c
			TRFC 30	44	QOVFL		

Table 53 Part 53

Counter	Proc.	PKG	Report	Report	Report Heading	Macro Name	Macro Pegged By

			Name	Sect			
MS631ac_ospsqofl	AM	OPAMBAC D	PLNT 24	10	QOVFL	MSOSPSQOF L	rta/ACclldst/ ACcstalrt.c
			TRFC 30	44	QOVFL		
MS632ac_anstup	SM	BASE	M5	8	TRANSMITTE D (ANS)	MSANSTUP	- - - - -
MS633ac_anrtup	SM	BASE	M5	8	RECEIVED (ANS)	MSANRTUP	- - - - -
MS634ac_ansisup	SM	BASE	M5	8	TRANSMITTE D (ANS)	MSANSISUP	ccs/CCisup/ CCo_isup.c
MS635ac_anrisup	SM	BASE	M5	8	RECEIVED (ANS)	MSANRISUP	ccs/CCisup/ CCt_isup.c
MS636ac_invmsg	SM	BASE	PLNT 24	3	INCOM (INVLDMSG)	MSINVMSG	ct/CTtrans/ CT7isup.c
						MSINVMSG	ct/CTtrans/ CTrecvtccs.c
MS636ac_invmsg	AM	BASE	PLNT 24	3	INCOM (INVLDMSG)	MSINVMSG	ct/CTtrans/ CT7isup.c
						MSINVMSG	ct/CTtrans/ CTrecvtccs.c
MS637ac_tgqreo	CMP	BASE	TRFC 30	26	TGQREO	MSQOFDEC	- - - - -
						MSQOFFAC	rta/RTGbrcs/ RTars_chk.c
						MSQOFFAC	rta/RTGbrcs/ RTmc_rting.c
						MSQOFFAC	rta/RTGbrcs/ RTsfg_set.c
						MSQOFFAC	rta/RTGrting/ RTrouting.c
MS637ac_tgqreo	SM	BASE	TRFC 30	26	TGQREO	MSQOFDEC	- - - - -
						MSQOFFAC	rta/RTGbrcs/ RTars_chk.c
						MSQOFFAC	rta/RTGbrcs/ RTmc_rting.c
						MSQOFFAC	rta/RTGbrcs/ RTsfg_set.c
						MSQOFFAC	rta/RTGrting/ RTrouting.c
MS638ac_incp	SM	BASE	TRFC 30	47	INCPPC	MSINCPPC	fc/FCmfcpp/ MCppamamdr.c
MS639ac_outp	SM	BASE	TRFC 30	47	OUTPPC	MSOUTPPC	as/ASmsmisc/ MScrpegcnt.c
MS640ac_termp	SM	BASE	TRFC 30	47	TERMP	MSTERMPPC	as/ASmsmisc/ MScrpegcnt.c
MS641ac_lnlnp	SM	BASE	TRFC 30	47	INTRAP	MSLNLNPPC	as/ASmsmisc/ MScrpegcnt.c
MS642ac_trtrp	SM	BASE	TRFC 30	47	TANP	MSTRTRPPC	as/ASmsmisc/ MScrpegcnt.c
MS643ac_orghl	SM	BASE	TRFC 30	47	ORGHL	MSORGHL	fc/FCmfcpp/ OBJ/ MCcp.cc
MS644ac_orgd	SM	BASE	TRFC 30	47	ORGD	MSORGD	fc/FCmfcpp/ OBJ/ MCnp.cc
MS645ac_ttpnc	CMP	BASE	TRFC 30	47	TANPNC	MSTRTRPNC KT	as/ASmsmisc/ MScrpegcnt.c
						MSTRTRPNC KT	rta/RTpp/ RTpoly_rtg.c
MS645ac_ttpnc	SM	BASE	TRFC 30	47	TANPNC	MSTRTRPNC KT	as/ASmsmisc/ MScrpegcnt.c

						MSTRTRPNCKT	rta/RTpp/ RTpoly_rtg.c
MS646ac_orgpnc	CMP	BASE	TRFC 30	47	ORGPNC	MSORGPNCKT	as/ASmsmisc/ MScrpegcnt.c
						MSORGPNCKT	rta/RTpp/ RTpoly_rtg.c
MS646ac_orgpnc	SM	BASE	TRFC 30	47	ORGPNC	MSORGPNCKT	as/ASmsmisc/ MScrpegcnt.c
						MSORGPNCKT	rta/RTpp/ RTpoly_rtg.c
MS647ac_outpnc	CMP	BASE	TRFC 30	47	OUTPNC	MSOUTPNCKT	as/ASmsmisc/ MScrpegcnt.c
						MSOUTPNCKT	rta/RTpp/ RTpoly_rtg.c
MS647ac_outpnc	SM	BASE	TRFC 30	47	OUTPNC	MSOUTPNCKT	as/ASmsmisc/ MScrpegcnt.c
						MSOUTPNCKT	rta/RTpp/ RTpoly_rtg.c
MS648ac_ppok	SM	BASE	TRFC 30	47	PRMT	MSPRMT	fc/FCmfcpp/ OBJ/ MCpp.cc
						MSPRMTPEER	tm/TMtera/ TMpeeranal.c
						MSPRMTPEER	tm/TMtera/ TMquckanal.c
MS652ac_ttppfail	CMP	BASE	TRFC 30	47	TPRMTF	MSTRTRPF	rta/RTpp/ RTpoly_rtg.c
MS652ac_ttppfail	SM	BASE	TRFC 30	47	TPRMTF	MSTRTRPF	rta/RTpp/ RTpoly_rtg.c
MS664ac_povfltg	CMP	BASE	TRFC 30	47	POVFL	MSPOVFLTG	rta/RTGtrk/ RTtrkbusy.c
MS664ac_povfltg	SM	BASE	TRFC 30	47	POVFL	MSPOVFLTG	rta/RTGtrk/ RTtrkbusy.c
MS667ac_sdnblk	SM	BASE	TRFC 30	94	BLKD (TRANSACTION CAPABILITY)	MSSDNBLK	fc/FCacpsdn/ FCtrintmsg.c
MS668ac_sdnbccs	SM	BASE	TRFC 30	94	CCSBLKD (TRANSACTION CAPABILITY)	MSSDNBCCS	fc/FCacpsdn/ FCtrintmsg.c
MS669ac_sdnccsbk	SM	BASE	M5	13	CCSBLKD	MSSDNCCSBK	fc/FCacpsdn/ FCtrintmsg.c
MS670ac_sdndbbk	SM	BASE	M5	13	DBOVLD	- - - - -	- - - - -
MS671ac_sdnossbk	SM	BASE	M5	13	OSSCNTL	- - - - -	- - - - -
MS672ac_sdnctlo	AM	BASE	M5	13	OVFL	- - - - -	- - - - -
MS673ac_sdnorg	SM	BASE	M5	13	ORIG	- - - - -	- - - - -

Table 54 Part 54

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS674ac_sdnqry	SM	BASE	TRFC 30	94	QUERY (BASE)	MSSDNQRY	fc/FCacpsdn/ FCtrsndmsg.c
MS675ac_sdnopuls	SM	BASE	TRFC 30	94	OPLS (BASE)	MSSDNOPULS	fc/FCacpsdn/ FCtrhdlr.c
MS676ac_sdnfani	SM	BASE	TRFC 30	94	ANI (FAILURES)	MSSDNFANI	fc/FCcama/ FCca_fs.c
MS677ac_sdnfoni	SM	BASE	TRFC 30	94	ONI (FAILURES)	MSSDNFONI	fc/FCcama/ FCca_fs.c
						MSSDNFONI	oa/OAotopcam/

							OAospsbn.c
MS678ac_sdnfti	SM	BASE	TRFC 30	94	INATRN (FAILURES)	MSSDNFTI	fc/FCacpsdn/ FChdlrwup.c
						MSSDNFTI	fc/FCacpsdn/ FCtrhdlr.c
MS679ac_sdnfta	SM	BASE	TRFC 30	94	ACTTRN (FAILURES)	MSSDNFTA	fc/FCacpsdn/ FCtrhdlr.c
MS680ac_sdnto	SM	BASE	TRFC 30	94	TO (TRANSACTIO N CAPABILITY)	MSSDNTO	fc/FCacpsdn/ FCtrhdlr.c
MS681ac_sdnimsg	SM	BASE	TRFC 30	94	INVMSG (TRANSACTIO N CAPABILITY)	MSSDNIMSG	ccs/CCacpsdn/ CCrcvsdn.c
						MSSDNIMSG	ccs/CCacpsdn/ CCsdnmsg.c
						MSSDNIMSG	fc/FCacpsdn/ FCtrhdlr.c
						MSSDNIMSG	nm/NMacpsdn/ NMsdn_set.c
MS681ac_sdnimsg	AM	BASE	TRFC 30	94	INVMSG (TRANSACTIO N CAPABILITY)	MSSDNIMSG	ccs/CCacpsdn/ CCrcvsdn.c
						MSSDNIMSG	ccs/CCacpsdn/ CCsdnmsg.c
						MSSDNIMSG	fc/FCacpsdn/ FCtrhdlr.c
						MSSDNIMSG	nm/NMacpsdn/ NMsdn_set.c
MS682ac_sdncseq	SM	BASE	TRFC 30	94	INVSEQ (TRANSACTIO N CAPABILITY)	MSSDNCSEQ	fc/FCacpsdn/ FCtrhdlr.c
MS683ac_sdnrr	SM	BASE	TRFC 30	94	ERROR (TRANSACTIO N CAPABILITY)	MSSDNRR	fc/FCacpsdn/ FCtcmsganl.c
MS684ac_sdnrej	SM	BASE	TRFC 30	94	REJECT (TRANSACTIO N CAPABILITY)	MSSDNREJ	fc/FCacpsdn/ FCtcmsganl.c
MS685ac_sdnabrt	SM	BASE	TRFC 30	94	ABORT (TRANSACTIO N CAPABILITY)	MSSDNABRT	fc/FCacpsdn/ FCtrextmsg.c
MS686ac_sdnterm	SM	BASE	TRFC 30	94	TERM (TRANSACTIO N CAPABILITY)	MSSDNTERM	fc/FCacpsdn/ FCtcmsganl.c
MS688ac_sdnaaqry	SM	BASE	TRFC 30	94	NOREPLY (ABANDONS)	MSSDNAAQR Y	fc/FCacpsdn/ FCtrhdlr.c
MS689ac_sdnaopul	SM	BASE	TRFC 30	94	NOANS (ABANDONS)	MSSDNAOPU L	fc/FCacpsdn/ FCtrhdlr.c
MS690ac_sdnorg	SM	BASE	TRFC 30	94	ORIG (BASE)	MSSDNORG	fc/FCacpsdn/ FChdlrwup.c
MS691ac_sdnorg	SM	BASE	PLNT 24	19	ORIG	MSSDNORG	fc/FCacpsdn/ FChdlrwup.c

MS693ac_sdnqry	SM	BASE	PLNT 24	19	QUERY	MSSDNQRY	fc/FCacpsdn/ FCtrsndmsg.c
MS695ac_sdnopuls	SM	BASE	PLNT 24	19	OPLS	MSSDNOPULS	fc/FCacpsdn/ FCtrhdlr.c
MS700ac_orgp	SM	BASE	TRFC 30	47	ORGF	MSORPPC	fc/FCmfcpp/ MCppamamdr.c
			TRFC 30	47	ORGFO		
			TRFC 30	47	ORGI		
			TRFC 30	47	ORGPRI		
MS701ac_lnlnpnc	SM	BASE	- - - - -	- - - - -	- - - - -	MSLNLNPNCKT	as/ASmsmisc/ MScrpegcnt.c
MS702ac_spawats	SM	BASE	TRFC 30	98	SPA-WATS	MSSPAWATS	as/ASmsmisc/ MScrpegcnt.c
MS703ac_spamsg	SM	BASE	TRFC 30	98	*MEGACOM*™	MSSPAMEG	as/ASmsmisc/ MScrpegcnt.c
MS704ac_spab800	SM	BASE	TRFC 30	98	SPA-B800	MSSPAB800	as/ASmsmisc/ MScrpegcnt.c
MS705ac_spam800	SM	BASE	TRFC 30	98	*MEGACOM*™-800	MSSPAM800	as/ASmsmisc/ MScrpegcnt.c
MS706ac_miscna	SM	OPSMCDOT	- - - - -	- - - - -	- - - - -	MSMISCNA	oa/OAcacd/ OAmischdlr.c
MS707ac_misco	SM	OPSMCDOT	- - - - -	- - - - -	- - - - -	MSMISCO	oa/OAcacd/ OAmischdlr.c
MS708ac_misc	SM	OPSMCDOT	- - - - -	- - - - -	- - - - -	MSMISCP	oa/OAcacd/ OAmischdlr.c
MS710ac_mforq	SM	BASE	TRFC 15	1	MFOURQ	MSOUTREQ	fp/FPoper/ FPot_fs.c
						MSOUTREQ	fp/FPtkterm/ FPtt_call.c
						MSOUTREQ	oa/OAta_intl/ OAtt_2call.c
MS711ac_c6ourq	SM	BASE	TRFC 15	1	C6OURQ	MSC6OURQ	ccs/CCtrksig/ CCt_setup.c
MS712ac_isupor	SM	BASE	TRFC 15	1	ISUPOR	MSISUPOR	ccs/CC7setup/ CCti_crm.c
						MSISUPOR	ccs/CC7setup/ CCti_setup.c
MS713ac_sfgqreo	CMP	BASE	TRFC 30	26	SFGQREO	MSQOFDEC	- - - - -
						MSQOFFAC	rta/RTGbrcs/ RTars_chk.c
						MSQOFFAC	rta/RTGbrcs/ RTmc_rting.c
						MSQOFFAC	rta/RTGbrcs/ RTsfg_set.c
						MSQOFFAC	rta/RTGrting/ RTrouting.c

Table 55 Part 55

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS713ac_sfgqreo	SM	BASE	TRFC 30	26	SFGQREO	MSQOFDEC	- - - - -
						MSQOFFAC	rta/RTGbrcs/ RTars_chk.c
						MSQOFFAC	rta/RTGbrcs/

							RTmc_rting.c
						MSQOFFAC	rta/RTGbrcs/ RTsfg_set.c
						MSQOFFAC	rta/RTGrting/ RTrouting.c
MS713ac_sfgqreo	AM	BASE	TRFC 30	26	SFGQREO	MSQOFDEC	- - - - -
						MSQOFFAC	rta/RTGbrcs/ RTars_chk.c
						MSQOFFAC	rta/RTGbrcs/ RTmc_rting.c
						MSQOFFAC	rta/RTGbrcs/ RTsfg_set.c
						MSQOFFAC	rta/RTGrting/ RTrouting.c
MS714ac_oinitbf	SM	OPSMCD OT	TRFC 30	61	BNFN	MSOINITBF	oa/OAnprls/ OAprlmeas.c
MS715ac_iinwoaccvd	SM	OPSMCD OT	TRFC 30	61	OPERCC	MSIINWOACC VD	oa/OAotoper/ OAinward.c
MS716ac_tcama	SM	OPSMCD OT	TRFC 30	61	XFER	MSTCAMA	oa/OAottcama/ OAtti_call.c
			TRFC 30	64	ANSTME (XFERCAMA)		
MS717ac_scamaoni	SM	OPSMCD OT	TRFC 30	61	ONI (INCOMING)	MSSCAMAON I	oa/OAotopcam/ OAospsbn.c
			TRFC 30	64	ANSTME (SYSCAMA)		
MS718ac_0placc	SM	OPSMCD OT	TRFC 30	61	ACCS0+	MS0PLACC	oa/OAta_ot/ OAacc_call.c
MS719ac_ccqsqt	SM	OPSMCD OT	TRFC 30	61	CCQS	MSCCQSQT	oa/OAacqsmod/ OAasp_main.c
MS720ac_0plnoncn	SM	OPSMCD OT	TRFC 30	61	0+NCN	MS0PLNONC N	oa/OAnmain/ OBJ/ OAnmain.cc
MS721ac_0mnnoncn	SM	OPSMCD OT	TRFC 30	61	0-NCN	MS0MNNONC N	oa/OAnmain/ OBJ/ OAnmain.cc
MS722ac_prncgbld	SM	OPSMCD OT	TRFC 30	61	CALLING	MSPRNCGBL D	oa/OAnprls/ OAprlmeas.c
			TRFC 30	61	TOTAL		
MS723ac_oinitxho	SM	OPSMCD OT	TRFC 30	61	HANDOFF	MSOINITXHO	oa/OAnprls/ OAprlmeas.c
						MSOINITXHO	oa/OAnprls/ OBJ/ OA_anprls.sdc
						MSOINITXHO	oa/OAnprls/ OBJ/ OAnprls.sdc
MS724ac_cdbld	SM	OPSMCD OT	TRFC 30	61	CALLED	MSCDBLD	oa/OAnprls/ OAprlmeas.c
			TRFC 30	61	TOTAL		
MS725ac_3cfrq	SM	OPSMCD OT	TRFC 30	61	3PORT (INITIATED)	MS3CFRQ	oa/OAactsot/ OAgetconf.c
						MS3CFRQ	oa/OAta_ot/ OAta_2init.c
						MS3CFRQ	oa/OAtavn/ OAvnrsvcon.c
						MS3CFRQSV	oa/OAactsot/ OAgetconf.c
						MS3CFRQSV	oa/OAta_ot/ OAta_2init.c
						MS3CFRQSV	oa/OAtavn/ OAvnrsvcon.c
MS726ac_6cfrq	SM	OPSMCD	TRFC	61	6PORT	MS6CFRQ	oa/OAactsot/

		OT	30		(INITIATED)		OAgetconf.c
						MS6CFRQ	oa/OAtavn/ OAvnrsvcon.c
						MS6CFRQSV	oa/OAactsot/ OAgetconf.c
						MS6CFRQSV	oa/OAtavn/ OAvnrsvcon.c
MS727ac_accank	SM	OPSMCD OT	TRFC 30	64	ABNDNK	MSACCANK	oa/OAaccs/ OBJ/ OAna.sdc
						MSACCANK	oa/OAta_ot/ OAacc_call.c
MS728ac_acc0pk0	SM	OPSMCD OT	TRFC 30	64	0+KEY0	MSACC0PK0	oa/OAaccs/ OBJ/ OAna.sdc
			TRFC 30	64	TOTAL		
MS729ac_accflsh	SM	OPSMCD OT	TRFC 30	64	FLASH	MSACCFLSH	oa/OAaccs/ OBJ/ OAna.sdc
			TRFC 30	64	TOTAL		
MS730ac_acctonk	SM	OPSMCD OT	TRFC 30	64	TO-NK	MSACCTONK	oa/OAaccs/ OBJ/ OAna.sdc
			TRFC 30	64	TOTAL		
MS731ac_accatok	SM	OPSMCD OT	TRFC 30	64	ABNDK	MSACCATOK	oa/OAaccs/ OBJ/ OAna.sdc
						MSACCATOK	oa/OAta_ot/ OAans_ta2.c
						MSACCATOK	oa/OAta_ot/ OAcall_ta.c
MS732ac_accvbln	SM	OPSMCD OT	TRFC 30	64	PVLDBN	MSACCVBLN	oa/OAaccs/ OAautoqry.c
MS733ac_accsqsq	SM	OPSMCD OT	TRFC 30	64	AVG (ACCS)	MSACCSQSQ	oa/OAaccs/ OBJ/ OAna.sdc
			TRFC 30	64	BINIT		
			TRFC 30	64	BINIT (ACCS)		
			TRFC 30	64	SQAVG		

Table 56 Part 56

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS734ac_accsqab	SM	OPSMCD OT	TRFC 30	64	ABND (ACCS)	MSACCSQAB	oa/OAaccs/ OBJ/ OAna.sdc
			TRFC 30	64	INIT (ACCS)	MSACCSQAB	oa/OAta_ot/ OAans_ta2.c
			TRFC 30	64	SQBAND	MSACCSQAB	oa/OAta_ot/ OAcall_ta.c
			TRFC 30	64	SQINIT		
MS735ac_accsqvbln	SM	OPSMCD OT	TRFC 30	64	AVG (ACCS)	MSACCSQVB LN	oa/OAaccs/ OBJ/ OAna.sdc
			TRFC 30	64	INIT (ACCS)		
			TRFC 30	64	OK (ACCS)		
			TRFC 30	64	SQ-OK		

			TRFC 30	64	SQAVG		
			TRFC 30	64	SQINIT		
MS736ac_inw60	SM	OPSMCD OT	TRFC 30	64	OPASST	MSINW60	oa/OAotoper/ OAinward.c
MS737ac_inw6168	SM	OPSMCD OT	TRFC 30	61	AUTOCC	MSINW6168	oa/OAaccs/ OBJ/ OAna.sdc
			TRFC 30	64	DTMF/TT		
MS738ac_inw6264	SM	OPSMCD OT	TRFC 30	61	AUTOCC	MSINW6264	oa/OAaccs/ OBJ/ OAna.sdc
			TRFC 30	64	MF		
MS739ac_nospsato	SM	OPSMCD OT	TRFC 30	64	ABNDTO (NON-OSPS)	MSNOSPSAT O	oa/OAaccs/ OBJ/ OAna.sdc
MS740ac_ccsnt	AM	OPAMBAC D	TRFC 30	61	CCRD	MSCCSNT	ccs/CCccd/ CCccdqry.c
			TRFC 30	62	SENT (CCRD)		
MS741ac_cchw	SM	OPSMCD OT	TRFC 30	61	CCRD	MSCCHW	ccs/CCccd/ CCccdqry.c
			TRFC 30	62	HDW (CCRD)	MSCCHW	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	62	NSENT (CCRD)		
MS741ac_cchw	AM	OPAMBAC D	TRFC 30	61	CCRD	MSCCHW	ccs/CCccd/ CCccdqry.c
			TRFC 30	62	HDW (CCRD)	MSCCHW	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	62	NSENT (CCRD)		
MS742ac_ccdbcb	AM	OPAMBAC D	TRFC 30	61	CCRD	MSCCDBCB	ccs/CCccd/ CCccdqry.c
			TRFC 30	62	NSENT (CCRD)		
			TRFC 30	62	OVRLD (CCRD QUERIES)		
MS743ac_ccnmcb	AM	OPAMBAC D	TRFC 30	61	CCRD	MSCCNMCB	ccs/CCccd/ CCccdqry.c
			TRFC 30	62	NM (CCRD)		
			TRFC 30	62	NSENT (CCRD)		
MS744ac_ccnid	AM	OPAMBAC D	TRFC 30	61	CCRD	MSCCNID	ccs/CCccd/ CCccdqry.c
			TRFC 30	62	NO-ID (CCRD)		
			TRFC 30	62	NSENT (CCRD)		
MS745ac_ccambk	SM	OPSMCD OT	TRFC 30	61	CCRD	MSCCAMBK	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	62	AMBLK (CCRD)		
			TRFC 30	62	NSENT (CCRD)		
MS746ac_ccnrtdta	AM	OPAMBAC D	TRFC 30	62	ABNOR (CCRD)	MSCCNRTDT A	ccs/CCccd/ CCccdrply.c
			TRFC 30	62	NRTDG (CCRD)		

MS747ac_ccnwcg	AM	OPAMBACD	TRFC 30	62	ABNOR (CCRD)	MSCCNWCG	ccs/CCccd/ CCccdrply.c
			TRFC 30	62	CONGEST (CCRD)		
MS748ac_ccnwbk	AM	OPAMBACD	TRFC 30	62	ABNOR (CCRD)	MSCCNWBK	ccs/CCccd/ CCccdrply.c
			TRFC 30	62	BLKD (CCRD)		
MS749ac_ccfneq	AM	OPAMBACD	TRFC 30	62	ABNOR (CCRD)	MSCCFNEQ	ccs/CCccd/ CCccdrply.c
			TRFC 30	62	UNEQ (CCRD)		
MS750ac_ccrnp	SM	OPSMCDOT	TRFC 30	62	NPROC (CCRD)	MSCCRNP	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	62	TOTAL (CCRD)		
MS751ac_ccrnx	AM	OPAMBACD	TRFC 30	62	TOTAL (CCRD)	MSCCRNX	ccs/CCccd/ CCccdrply.c
			TRFC 30	62	UNEXP (CCRD)		
MS752ac_ccrnvf	SM	OPSMCDOT	TRFC 30	62	INVFRMT (CCRD)	MSCCRNVF	ccs/CCccd/ CCccdrply.c
			TRFC 30	62	TOTAL (CCRD)	MSCCRNVF	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS752ac_ccrnvf	AM	OPAMBACD	TRFC 30	62	INVFRMT (CCRD)	MSCCRNVF	ccs/CCccd/ CCccdrply.c
			TRFC 30	62	TOTAL (CCRD)	MSCCRNVF	oa/OAtaqry/ OBJ/ OAtaqry.cc

Table 57 Part 57

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS753ac_ccrv	SM	OPSMCDOT	TRFC 30	62	TOTAL (CCRD)	MSCCRV	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	62	VALID	MSCCRVC	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	62	VLDFRMT (CCRD)		
MS754ac_ccrvc	SM	OPSMCDOT	TRFC 30	62	TOTAL (CCRD)	MSCCRVC	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	62	VCODE		
			TRFC 30	62	VLDFRMT (CCRD)		
MS755ac_ccbnnv	SM	OPSMCDOT	TRFC 30	62	INV-BN	MSCCBNNV	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	62	TOTAL (CCRD)		
			TRFC 30	62	VLDFRMT (CCRD)		
MS756ac_ccsvdny	SM	OPSMCDOT	TRFC 30	62	DENIAL	MSCCSVDNY	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	62	TOTAL (CCRD)		
			TRFC 30	62	VLDFRMT (CCRD)		
MS757ac_ccnpin	SM	OPSMCDOT	TRFC 30	62	NO-PIN	MSCCNPIN	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC	62	TOTAL		

			30		(CCRD)		
			TRFC 30	62	VLDFRMT (CCRD)		
MS758ac_ccnres	SM	OPSMCD OT	TRFC 30	62	TIMEOUT (CCRD)	MSCCNRES	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS759ac_ccovld	AM	OPAMBAC D	TRFC 30	62	OVRLD (CCRD REPLIES)	MSCCOVLD	ccs/CCccd/ CCccdrply.c
MS760ac_cctest	AM	OPAMBAC D	TRFC 30	62	TEST (CCRD)	MSCCTEST	ccs/CCoptst/ CCccdtst.c
MS761ac_ccabrt	SM	OPSMCD OT	TRFC 30	62	ABAND	MSCCABRT	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS762ac_ncdsnt	AM	OPAMBAC D	TRFC 30	61	NCD	MSNCDSNT	ccs/CCopncd/ CCopndqry.c
			TRFC 30	62	SENT (NCD)		
MS763ac_ncdhw	SM	OPSMCD OT	TRFC 30	61	NCD	MSNCDHW	ccs/CCopncd/ CCopndqry.c
			TRFC 30	62	HDW (NCD)	MSNCDHW	oa/OAotqry/ OAondqry.c
			TRFC 30	62	NSENT (NCD)	MSNCDHW	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS763ac_ncdhw	AM	OPAMBAC D	TRFC 30	61	NCD	MSNCDHW	ccs/CCopncd/ CCopndqry.c
			TRFC 30	62	HDW (NCD)	MSNCDHW	oa/OAotqry/ OAondqry.c
			TRFC 30	62	NSENT (NCD)	MSNCDHW	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS764ac_ncddbcb	AM	OPAMBAC D	TRFC 30	61	NCD	MSNCDDBCB	ccs/CCopncd/ CCopndqry.c
			TRFC 30	62	NSENT (NCD)		
			TRFC 30	62	OVRLD (NCD QUERIES)		
MS765ac_ncdnmcb	AM	OPAMBAC D	TRFC 30	61	NCD	MSNCDNMCB	ccs/CCopncd/ CCopndqry.c
			TRFC 30	62	NM (NCD)		
			TRFC 30	62	NSENT (NCD)		
MS766ac_ncdnid	AM	OPAMBAC D	TRFC 30	61	NCD	MSNCDNID	ccs/CCopncd/ CCopndqry.c
			TRFC 30	62	NO-ID (NCD)		
			TRFC 30	62	NSENT (NCD)		
MS767ac_ncdambk	SM	OPSMCD OT	TRFC 30	61	NCD	MSNCDAMBK	oa/OAotqry/ OAondqry.c
			TRFC 30	62	AMBLK (NCD)	MSNCDAMBK	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	62	NSENT (NCD)		
MS768ac_ncdnrtdta	AM	OPAMBAC D	TRFC 30	62	ABNOR (NCD)	MSNCDNRTD TA	ccs/CCopncd/ CCopndrply.c
			TRFC 30	62	NRTDG (NCD)		
MS769ac_ncdnwcg	AM	OPAMBAC D	TRFC 30	62	ABNOR (NCD)	MSNCDNWC G	ccs/CCopncd/ CCopndrply.c
			TRFC 30	62	CONGEST (NCD)		
MS770ac_ncdnwbk	AM	OPAMBAC	TRFC	62	ABNOR (NCD)	MSNCDNWBK	ccs/CCopncd/

		D	30				CCopndrply.c
			TRFC 30	62	BLKD (NCD)		
MS771ac_ncdfneq	AM	OPAMBAC D	TRFC 30	62	ABNOR (NCD)	MSNCDFNEQ	ccs/CCopncd/ CCopndrply.c
			TRFC 30	62	UNEQ (NCD)		
MS772ac_ncdrnp	SM	OPSMCD OT	TRFC 30	62	NPROC (NCD)MSNCD RNP	oa/OAotqry/ OAondrply.c	
			TRFC 30	62	TOTAL (NCD)	MSNCDRNP	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS773ac_ncdrnx	AM	OPAMBAC D	TRFC 30	62	TOTAL (NCD)	MSNCDRNX	ccs/CCopncd/ CCopndrply.c
			TRFC 30	62	UNEXP (NCD)		
MS774ac_ncdrnvf	SM	OPSMCD OT	TRFC 30	62	INVFRMT (NCD)	MSNCDRNVF	ccs/CCopncd/ CCopndrply.c
			TRFC 30	62	TOTAL (NCD)	MSNCDRNVF	oa/OAotqry/ OAondrply.c
						MSNCDRNVF	oa/OAtaqry/ OBJ/ OAtaqry.cc

Table 58 Part 58

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS774ac_ncdrnvf	AM	OPAMBAC D	TRFC 30	62	INVFRMT (NCD)	MSNCDRNVF	ccs/CCopncd/ CCopndrply.c
			TRFC 30	62	TOTAL (NCD)	MSNCDRNVF	oa/OAotqry/ OAondrply.c
						MSNCDRNVF	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS775ac_ncdrvf	SM	OPSMCD OT	TRFC 30	62	TOTAL (NCD)	MSNCDRVF	oa/OAotqry/ OAondrply.c
			TRFC 30	62	VLDFRMT (NCD)	MSNCDRVF	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS776ac_ncdovld	AM	OPAMBAC D	TRFC 30	62	OVRLD (NCD REPLIES)	MSNCDOVLD	ccs/CCopncd/ CCopndrply.c
MS777ac_ncdnres	SM	BASE	TRFC 30	62	TIMEOUT (NCD)	MSNCDNRES	fc/FCccdsig/ FCatcset.c
						MSNCDNRES	oa/OAotqry/ OAot_qry.c
						MSNCDNRES	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS778ac_ncdtest	AM	OPAMBAC D	TRFC 30	62	TEST (NCD)	MSNCDTEST	ccs/CCoptst/ CCopndtst.c
MS779ac_rqsnt	SM	OPSMCD OT	TRFC 30	61	RATING	MSRQSNT	ccs/CCcfr/ CCcfrqry.c
			TRFC 30	63	RATEQT	MSRQSNT	oa/OAncal/ OBJ/ OAncal.cc
			TRFC 30	63	TOTAL (SENT)	MSRQSNT	oa/OArtrsmod/ OArtrssp.c
MS779ac_rqsnt	AM	OPAMBAC D	TRFC 30	61	RATING	MSRQSNT	ccs/CCcfr/ CCcfrqry.c
			TRFC 30	63	RATEQT	MSRQSNT	oa/OAncal/ OBJ/ OAncal.cc
			TRFC 30	63	TOTAL (SENT)	MSRQSNT	oa/OArtrsmod/ OArtrssp.c
MS780ac_ccqssnt	SM	OPSMCD	TRFC	61	RATING	MSCCQSSNT	ccs/CCcfr/

		OT	30				CCcfrqry.c
			TRFC 30	63	CCQS	MSCCQSSNT	oa/OArtrsmod/ OArtrssp.c
			TRFC 30	63	TOTAL (SENT)		
MS780ac_ccqssnt	AM	OPAMBAC D	TRFC 30	61	RATING	MSCCQSSNT	ccs/CCcfr/ CCcfrqry.c
			TRFC 30	63	CCQS	MSCCQSSNT	oa/OArtrsmod/ OArtrssp.c
			TRFC 30	63	TOTAL (SENT)		
MS781ac_t_csnt	SM	OPSMCD OT	TRFC 30	61	RATING	MST_CSNT	ccs/CCcfr/ CCcfrqry.c
			TRFC 30	63	T&C	MST_CSNT	oa/OArtrsmod/ OArtrssp.c
			TRFC 30	63	TOTAL (SENT)		
MS781ac_t_csnt	AM	OPAMBAC D	TRFC 30	61	RATING	MST_CSNT	ccs/CCcfr/ CCcfrqry.c
			TRFC 30	63	T&C	MST_CSNT	oa/OArtrsmod/ OArtrssp.c
			TRFC 30	63	TOTAL (SENT)		
MS782ac_rqhw	SM	OPSMCD OT	TRFC 30	61	RATING	MSRQHW	ccs/CCcfr/ CCcfrqry.c
			TRFC 30	63	HDW	MSRQHW	oa/OAotqry/ OAratqry.c
			TRFC 30	63	TOTAL (NOT SENT)	MSRQHW	oa/OArtrsmod/ OArtrssp.c
						MSRQHW	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS782ac_rqhw	AM	OPAMBAC D	TRFC 30	61	RATING	MSRQHW	ccs/CCcfr/ CCcfrqry.c
			TRFC 30	63	HDW	MSRQHW	oa/OAotqry/ OAratqry.c
			TRFC 30	63	TOTAL (NOT SENT)	MSRQHW	oa/OArtrsmod/ OArtrssp.c
						MSRQHW	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS783ac_rqdbcb	SM	OPSMCD OT	TRFC 30	61	RATING	MSRQDBCB	ccs/CCcfr/ CCcfrqry.c
			TRFC 30	63	OVRLD (QUERIES)	MSRQDBCB	oa/OArtrsmod/ OArtrssp.c
			TRFC 30	63	TOTAL (NOT SENT)		
MS783ac_rqdbcb	AM	OPAMBAC D	TRFC 30	61	RATING	MSRQDBCB	ccs/CCcfr/ CCcfrqry.c
			TRFC 30	63	OVRLD (QUERIES)	MSRQDBCB	oa/OArtrsmod/ OArtrssp.c
			TRFC 30	63	TOTAL (NOT SENT)		
MS784ac_rqnmcb	AM	OPAMBAC D	TRFC 30	61	RATING	MSRQNMCB	ccs/CCcfr/ CCcfrqry.c
			TRFC 30	63	NM		
			TRFC 30	63	TOTAL (NOT SENT)		
MS785ac_rqnid	SM	OPSMCD OT	TRFC 30	61	RATING	MSRQNID	ccs/CCcfr/ CCcfrqry.c
			TRFC 30	63	NO-ID	MSRQNID	oa/OArtrsmod/ OArtrssp.c
			TRFC	63	TOTAL (NOT		

			30		SENT)		
MS785ac_rqnid	AM	OPAMBACD	TRFC 30	61	RATING	MSRQNID	ccs/CCcfr/ CCcfrqry.c
			TRFC 30	63	NO-ID	MSRQNID	oa/OArtrsmod/ OArtrssp.c
			TRFC 30	63	TOTAL (NOT SENT)		
MS786ac_rqambk	SM	OPSMCDOT	TRFC 30	61	RATING	MSRQAMBK	oa/OAotqry/ OAratqry.c
			TRFC 30	63	AMBLK	MSRQAMBK	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	63	TOTAL (NOT SENT)		

Table 59 Part 59

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS787ac_rqnrtdta	AM	OPAMBACD	TRFC 30	63	ABNOR	MSRQNRTDTA	ccs/CCcfr/ CCcfrrply.c
			TRFC 30	63	NRTDG		
MS788ac_qaband	CMP	OPAMBACD	PLNT 24	10	ABAND	MSACQABAND	rta/ACclldst/ ACabandon.c
			TRFC 30	44	ABAND		
MS788ac_qaband	AM	OPAMBACD	PLNT 24	10	ABAND	MSACQABAND	rta/ACclldst/ ACabandon.c
			TRFC 30	44	ABAND		
MS789ac_nulost	SM	BASE	PLNT 24	1A	NAIL UP LOST	MSNULOST	rta/RTnswss/ RTnumontp.c
MS793ac_usgdclu5	SM	BASE	TRFC 30	54	TOTUSG	MSUSGDCLU5	as/ASmsdc5/ MSdc5usg.c
			TRFC 30	5	USG(O+T)		
MS794ac_orig	SM	BASE	PLNT 24	11	ORIGIN (CALLS)	MSODBORIG	fita/FIodb/ ISodbfsm.c
			PLNT 24	1A	ORIGIN (BASE COUNTS)		
MS795ac_term	SM	BASE	PLNT 24	11	TERM (CALLS)	MSODBTERM	fita/FIodb/ ISodbfsm.c
			PLNT 24	1A	TERM (BASE COUNTS)		
MS797ac_txpc	SM	BASE	TRFC 30	60	PC	MSTXECPC	pc/PCckt/ PCrqsckta.c
MS798ac_txofl	SM	BASE	TRFC 30	60	OVFL	MSTXECOFL	pc/PCckt/ PCrqsckta.c
MS799ac_txusg	SM	BASE	TRFC 30	60	USG	MSTXECUSG	as/ASmsscan/ MS10scan.c
MS900ac_opdto	SM	BASE	PLNT 24	11	ORIGIN (PARTIAL)	MSOPDTO	as/ASmsmisc/ MScrpegcnt.c
MS901ac_ops	SM	BASE	PLNT 24	11	ORIGIN (PERMANENT)	MSOPS	as/ASmsmisc/ MScrpegcnt.c
MS902ac_frmsnt	PH	PHISDN	PLNT 24	11	FRAMES (SENT)	MSFRMSNT	ps/PSlapb/ PSb_isend.c
			PLNT 24	11	RSM FRAMES (SENT)	MSFRMSNT	ps/PSlapb/ PSb_sndfrm.c

			TRFC 30	52	FRAMES	MSFRMSNT	ps/PSlapd/ PSd_isend.c
						MSFRMSNT	ps/PSlapd/ PSdsfutil.c
						MSFRMSNT	ps/PSlapd/ PSg_susend.c
MS902ac_frmsnt	SM	ISDNBASE	PLNT 24	11	FRAMES (SENT)	MSFRMSNT	ps/PSlapb/ PSb_isend.c
			PLNT 24	11	RSM FRAMES (SENT)	MSFRMSNT	ps/PSlapb/ PSb_sndfrm.c
			TRFC 30	52	FRAMES	MSFRMSNT	ps/PSlapd/ PSd_isend.c
						MSFRMSNT	ps/PSlapd/ PSdsfutil.c
						MSFRMSNT	ps/PSlapd/ PSg_susend.c
MS903ac_frmrcd	PH	PHISDN	PLNT 24	11	FRAMES (RECD)	MSFRMRCD	ps/PSpacket/ PSp_chnerr.c
			PLNT 24	11	RSM FRAMES (RECD)	MSFRMRCD	ps/PSpacket/ PSphinj2.c
			TRFC 30	52	FRAMES		
MS903ac_frmrcd	SM	ISDNBASE	PLNT 24	11	FRAMES (RECD)	MSFRMRCD	ps/PSpacket/ PSp_chnerr.c
			PLNT 24	11	RSM FRAMES (RECD)	MSFRMRCD	ps/PSpacket/ PSphinj2.c
			TRFC 30	52	FRAMES		
MS904ac_frerr	PH	PHISDN	PLNT 24	11	FRAMES (ERRORS)	MSL2ERRS	ps/PSpacket/ PSp_chnerr.c
			PLNT 24	11	RSM FRAMES (ERRORS)		
MS904ac_frerr	SM	ISDNBASE	PLNT 24	11	FRAMES (ERRORS)	MSL2ERRS	ps/PSpacket/ PSp_chnerr.c
			PLNT 24	11	RSM FRAMES (ERRORS)		
MS905ac_pksnt	SM	ISDNBASE	TRFC 30	52	PACKETS	MSPCKTSENT	ps/PSsm_int/ PSmsndpkt.c
MS906ac_pksnt	SM	ISDNBASE	PLNT 24	11	PACKETS (SENT)	MSPCKTSENT	ps/PSsm_int/ PSmsndpkt.c
			PLNT 24	11	RSM PACKETS (SENT)		
MS907ac_pkrcd	SM	ISDNBASE	TRFC 30	52	PACKETS	MSPCKTRECD	ps/PSsm_int/ PSmpup.c
MS908ac_pkrcd	SM	ISDNBASE	PLNT 24	11	PACKETS (RECD)	MSPCKTRECD	ps/PSsm_int/ PSmpup.c
			PLNT 24	11	RSM PACKETS (RECD)		
MS909ac_pkerr	SM	BASE	PLNT 24	11	PACKETS (ERRORS)	MSDSLMSGER	fc/FCcorc/ OBJ/ TOD.cc
			PLNT 24	11	RSM PACKETS (ERRORS)	MSDSLMSGER	fc/FCfex/ lSparmcol.c
						MSDSLMSGER	fc/FCidp/ MCdsl_dig.c
						MSDSLMSGER	fc/FCmfccc/ OBJ/ MCcc.sdc
						MSDSLMSGER	fita/FIedsl/ FIe_unexp.c

						MSDSLMSGER	fita/Fledsl/ OBJ/ ISe_near.sdc
						MSDSLMSGER	fita/Flisdn/ ISdsl_dig.c
						MSDSLMSGER	fita/Flisdn/ OBJ/ ISnear.sdc
						MSDSLMSGER	pc/PCbrcsmsg/ PCmbradt.c
						MSDSLMSGER	pc/PCbrcsmsg/ PCunexp.c
						MSDSLMSGER	pc/PCisbnrt/ PCfndcrtp.c
						MSDSLMSGER	pc/PCisbnrt/ PCfst_btrt.c
						MSDSLMSGER	pc/PCisbnrt/ PCqbn.c
						MSDSLMSGER	rita/RIsetup/ RIdsloff.c
						MSDSLMSGER	rita/RIsetup/ RIprioff.c
						MSDSLMSGER	rta/RTisdn/ RTmcaoff.c

Table 60 Part 60

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS910ac_phhlrcv	SM	ISDNBASE	PLNT 24	11	PHHLRCV	- - - - -	- - - - -
MS911ac_phllrcv	SM	ISDNBASE	PLNT 24	11	PHLLRCV	- - - - -	- - - - -
MS912ac_pihlrcv	SM	ISDNBASE	PLNT 24	11	PIHLRCV	- - - - -	- - - - -
MS913ac_pillrcv	SM	ISDNBASE	PLNT 24	11	PILLRCV	- - - - -	- - - - -
MS914ac_dlnknit	PH	PHISDN	PLNT 24	11	L2LL	MSL2LLINIT	ps/PSlapb/ PSb_sndfrm.c
			PLNT 24	11	RSM-L2LL	MSL2LLINIT	ps/PSlapd/ PSg_susend.c
MS914ac_dlnknit	SM	ISDNBASE	PLNT 24	11	L2LL	MSL2LLINIT	ps/PSlapb/ PSb_sndfrm.c
			PLNT 24	11	RSM-L2LL	MSL2LLINIT	ps/PSlapd/ PSg_susend.c
MS915ac_phovld	SM	ISDNBASE	PLNT 24	11	OVERLOADS-PH	- - - - -	- - - - -
MS916ac_piovld	SM	ISDNBASE	PLNT 24	11	OVERLOADS-PI	- - - - -	- - - - -
MS917ac_perpmp	SM	BASE	PLNT 24	3	PERPMP	MSPERPUMP	si/SIunitpmp/ SIphpump.c
						MSPERPUMP	si/SIunitpmp/ SIunitpump.c
MS918ac_ppsnt	PH	PHISDN	PLNT 24	9	RSM PACKETS (SENT)	MSPPKTSNT	ps/PSI2intf/ PSI3_I2.c
			PLNT 24	9	TOTAL PACKETS (SENT)		
			TRFC 30	68	PACKETS		
MS918ac_ppsnt	SM	ISDNPCK	PLNT	9	RSM	MSPPKTSNT	ps/PSI2intf/

		T	24		PACKETS (SENT)		PSI3_I2.c
			PLNT 24	9	TOTAL PACKETS (SENT)		
			TRFC 30	68	PACKETS		
MS919ac_pprcd	PH	PHISDN	PLNT 24	9	RSM PACKETS (RECD)	MSPPKTRCD	ps/PSI2intf/ PSI2_I3.c
			PLNT 24	9	TOTAL PACKETS (RECD)		
			TRFC 30	68	PACKETS		
MS919ac_pprcd	SM	ISDNPCK T	PLNT 24	9	RSM PACKETS (RECD)	MSPPKTRCD	ps/PSI2intf/ PSI2_I3.c
			PLNT 24	9	TOTAL PACKETS (RECD)		
			TRFC 30	68	PACKETS		
MS920ac_ppxfer	PH	PHISDN	TRFC 30	67	PKTSW (PACKETS)	MSPPKTRCD	ps/PSI2intf/ PSI2_I3.c
						MSPPKTSNT	ps/PSI2intf/ PSI3_I2.c
MS921ac_isminit	SM	ISDNPCK T	PLNT 24	9	ISMNAIL AUTO RECOVERIES	MSISMINIT	tm/TMps_ism/ TMrst_ism.c
MS924ac_pdfco	PH	PHISDN	PLNT 24	9	PACKETS (FACILITY CUTOFFS)	MSPDFCO	ps/PSpsip/ PSaitrk.c
MS924ac_pdfco	SM	ISDNPCK T	PLNT 24	9	PACKETS (FACILITY CUTOFFS)	MSPDFCO	ps/PSpsip/ PSaitrk.c
MS925ac_psfco	PH	PHISDN	PLNT 24	9	CALLS(FACILI TY CUTOFFS)	MSPSFCO	ps/PSdslmgr/ PSmchanrmv.c
						MSPSFCO	ps/PSdslmgr/ PSmreentry.c
						MSPSFCO	ps/PSgl3ctrl/ PSglrentry.c
MS925ac_psfco	SM	ISDNPCK T	PLNT 24	9	CALLS(FACILI TY CUTOFFS)	MSPSFCO	ps/PSdslmgr/ PSmchanrmv.c
						MSPSFCO	ps/PSdslmgr/ PSmreentry.c
						MSPSFCO	ps/PSgl3ctrl/ PSglrentry.c
MS926ac_pl3pe	PH	PHISDN	TRFC 30	67	ERRORS (PACKETS)	MSL3PERRS	ps/PSdslmgr/ PSmbcamp.c
						MSL3PERRS	ps/PSdslmgr/ PSmblkidle.c
						MSL3PERRS	ps/PSdslmgr/ PSmcdone.c
						MSL3PERRS	ps/PSdslmgr/ PSmchanrmv.c
						MSL3PERRS	ps/PSdslmgr/ PSmlhgmsg.c
						MSL3PERRS	ps/PSdslmgr/ PSmreentry.c

						MSL3PERRS	ps/PSdslmgr/ PSmremove.c
						MSL3PERRS	ps/PSgac/ PSggbadsiz.c
						MSL3PERRS	ps/PSgac/ PSggin_clr.c
						MSL3PERRS	ps/PSgac/ PSggin_rst.c
						MSL3PERRS	ps/PSgac/ PSggvctout.c
						MSL3PERRS	ps/PSgac/ PSgrc_req.c
						MSL3PERRS	ps/PSgac/ PSgrclrreq.c
						MSL3PERRS	ps/PSgac/ PSgrcv.c
						MSL3PERRS	ps/PSgac/ PSgrnot.c
						MSL3PERRS	ps/PSgac/ PSgsclrcnf.c
						MSL3PERRS	ps/PSgac/ PSgsend.c
						MSL3PERRS	ps/PSgac/ PSgsnot.c
						MSL3PERRS	ps/PSgl3ctrl/ PSglchanrm.c
						MSL3PERRS	ps/PSgl3ctrl/ PSglchgl3.c
						MSL3PERRS	ps/PSgl3ctrl/ PSglckdone.c
						MSL3PERRS	ps/PSgl3ctrl/ PSglinitl3.c
						MSL3PERRS	ps/PSgl3ctrl/ PSglrentry.c
						MSL3PERRS	ps/PSgl3ctrl/ PSglrestrt.c
						MSL3PERRS	ps/PSgl3ctrl/ PSglrisend.c
						MSL3PERRS	ps/PSgl3ctrl/ PSglrmv_lc.c
						MSL3PERRS	ps/PSgl3ctrl/ PSglst_chg.c
						MSL3PERRS	ps/PSgl3ctrl/ PSglstmsg.c
						MSL3PERRS	ps/PSgl3ctrl/ PSglstpl3.c
						MSL3PERRS	ps/PSgl3ctrl/ PSgltimout.c
						MSL3PERRS	ps/PSt3time/ PSt3_tout.c
						MSL3PERRS	ps/PSxac/ PSxbadsize.c
						MSL3PERRS	ps/PSxac/ PSxc_req.c
						MSL3PERRS	ps/PSxac/ PSxi_call.c
						MSL3PERRS	ps/PSxac/ PSxinreset.c
						MSL3PERRS	ps/PSxac/ PSxint_clr.c
						MSL3PERRS	ps/PSxac/ PSxrcv.c
						MSL3PERRS	ps/PSxac/

							PSxrnot.c
						MSL3PERRS	ps/PSxac/ PSxv_timeo.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxckill.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxdopvcs.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxestab.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxgetpvc.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxl3chg.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxlinfo.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxltimout.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxpvc.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxrelse.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxrestart.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxrisend.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxt3xxsta.c

Table 61 Part 61

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS927ac_l3pe	PH	PHISDN	PLNT 24	9	RSM PACKETS (ERRORS)	MSL3PERRS	ps/PSdslmgr/ PSmbcamp.c
			PLNT 24	9	TOTAL PACKETS (ERRORS)	MSL3PERRS	ps/PSdslmgr/ PSmblkidle.c
						MSL3PERRS	ps/PSdslmgr/ PSmcdone.c
						MSL3PERRS	ps/PSdslmgr/ PSmchanrmv.c
						MSL3PERRS	ps/PSdslmgr/ PSmlhgmsg.c
						MSL3PERRS	ps/PSdslmgr/ PSmreentry.c
						MSL3PERRS	ps/PSdslmgr/ PSmremove.c
						MSL3PERRS	ps/PSgac/ PSggbadsiz.c
						MSL3PERRS	ps/PSgac/ PSggin_clr.c
						MSL3PERRS	ps/PSgac/ PSggin_rst.c
						MSL3PERRS	ps/PSgac/ PSggvctout.c
						MSL3PERRS	ps/PSgac/ PSgrc_req.c
						MSL3PERRS	ps/PSgac/ PSgrclrreq.c

						MSL3PERRS	ps/PSgac/ PSgrcv.c
						MSL3PERRS	ps/PSgac/ PSgrnot.c
						MSL3PERRS	ps/PSgac/ PSgsclrcnf.c
						MSL3PERRS	ps/PSgac/ PSgsend.c
						MSL3PERRS	ps/PSgac/ PSgsnot.c
						MSL3PERRS	ps/PSgl3ctrl/ PSglchanrm.c
						MSL3PERRS	ps/PSgl3ctrl/ PSglchgl3.c
						MSL3PERRS	ps/PSgl3ctrl/ PSglckdone.c
						MSL3PERRS	ps/PSgl3ctrl/ PSglinitl3.c
						MSL3PERRS	ps/PSgl3ctrl/ PSglrentry.c
						MSL3PERRS	ps/PSgl3ctrl/ PSglrestrt.c
						MSL3PERRS	ps/PSgl3ctrl/ PSglrisend.c
						MSL3PERRS	ps/PSgl3ctrl/ PSglrmv_lc.c
						MSL3PERRS	ps/PSgl3ctrl/ PSglst_chg.c
						MSL3PERRS	ps/PSgl3ctrl/ PSglstmsg.c
						MSL3PERRS	ps/PSgl3ctrl/ PSglstpl3.c
						MSL3PERRS	ps/PSgl3ctrl/ PSgltimout.c
						MSL3PERRS	ps/PSt3time/ PSt3_tout.c
						MSL3PERRS	ps/PSxac/ PSxbadsize.c
						MSL3PERRS	ps/PSxac/ PSxc_req.c
						MSL3PERRS	ps/PSxac/ PSxi_call.c
						MSL3PERRS	ps/PSxac/ PSxinreset.c
						MSL3PERRS	ps/PSxac/ PSxint_clr.c
						MSL3PERRS	ps/PSxac/ PSxrcv.c
						MSL3PERRS	ps/PSxac/ PSxrnot.c
						MSL3PERRS	ps/PSxac/ PSxv_timeo.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxckill.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxdopvcs.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxestab.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxgetpvc.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxl3chg.c
						MSL3PERRS	ps/PSxl3ctrl/

							PSxlinfo.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxltimout.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxpvc.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxrelse.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxrestart.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxrisend.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxt3xxsta.c
MS927ac_l3pe	SM	ISDNPCKT	PLNT 24	9	RSM PACKETS (ERRORS)	MSL3PERRS	ps/PSdslmgr/ PSmbcamp.c
			PLNT 24	9	TOTAL PACKETS (ERRORS)	MSL3PERRS	ps/PSdslmgr/ PSmblkidle.c
						MSL3PERRS	ps/PSdslmgr/ PSmcdone.c
						MSL3PERRS	ps/PSdslmgr/ PSmchanrmv.c
						MSL3PERRS	ps/PSdslmgr/ PSmlhgmsg.c
						MSL3PERRS	ps/PSdslmgr/ PSmreentry.c
						MSL3PERRS	ps/PSdslmgr/ PSmremove.c
						MSL3PERRS	ps/PSgac/ PSggbadsiz.c
						MSL3PERRS	ps/PSgac/ PSggin_clr.c
						MSL3PERRS	ps/PSgac/ PSggin_rst.c
						MSL3PERRS	ps/PSgac/ PSggvctout.c
						MSL3PERRS	ps/PSgac/ PSgrc_req.c
						MSL3PERRS	ps/PSgac/ PSgrclrreq.c
						MSL3PERRS	ps/PSgac/ PSgrcv.c
						MSL3PERRS	ps/PSgac/ PSgrnot.c
						MSL3PERRS	ps/PSgac/ PSgsclrcnf.c
						MSL3PERRS	ps/PSgac/ PSgsend.c
						MSL3PERRS	ps/PSgac/ PSgsnot.c
						MSL3PERRS	ps/PSgl3ctrl/ PSglchanrm.c
						MSL3PERRS	ps/PSgl3ctrl/ PSglchgl3.c
						MSL3PERRS	ps/PSgl3ctrl/ PSglckdone.c
						MSL3PERRS	ps/PSgl3ctrl/ PSglinitl3.c
						MSL3PERRS	ps/PSgl3ctrl/ PSglrentry.c

						MSL3PERRS	ps/PSgl3ctrl/ PSglrestrt.c
						MSL3PERRS	ps/PSgl3ctrl/ PSglrisend.c
						MSL3PERRS	ps/PSgl3ctrl/ PSglrmv_lc.c
						MSL3PERRS	ps/PSgl3ctrl/ PSglst_chg.c
						MSL3PERRS	ps/PSgl3ctrl/ PSglstmsg.c
						MSL3PERRS	ps/PSgl3ctrl/ PSglstpl3.c
						MSL3PERRS	ps/PSgl3ctrl/ PSgltimout.c
						MSL3PERRS	ps/PSt3time/ PSt3_tout.c
						MSL3PERRS	ps/PSxac/ PSxbadsize.c
						MSL3PERRS	ps/PSxac/ PSxc_req.c
						MSL3PERRS	ps/PSxac/ PSxi_call.c
						MSL3PERRS	ps/PSxac/ PSxinreset.c
						MSL3PERRS	ps/PSxac/ PSxint_clr.c
						MSL3PERRS	ps/PSxac/ PSxrcv.c
						MSL3PERRS	ps/PSxac/ PSxrnot.c
						MSL3PERRS	ps/PSxac/ PSxv_timeo.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxckill.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxdopvcs.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxestab.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxgetpvc.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxl3chg.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxlinfo.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxltimout.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxpvc.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxrelse.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxrestart.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxrisend.c
						MSL3PERRS	ps/PSxl3ctrl/ PSxt3xxsta.c

Table 62 Part 62

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By

MS928ac_pdsc	PH	PHISDN	TRFC 30	67	DISCARD (PACKETS)	MSPKTDSCRD	ps/PSgac/ PSggin_clr.c
						MSPKTDSCRD	ps/PSgac/ PSggin_rst.c
						MSPKTDSCRD	ps/PSgac/ PSgirc_req.c
						MSPKTDSCRD	ps/PSgac/ PSgrc_conn.c
						MSPKTDSCRD	ps/PSgac/ PSgrclrreq.c
						MSPKTDSCRD	ps/PSist_l3/ PSe_rdsrtn.c
						MSPKTDSCRD	ps/PSist_l3/ PSe_rtrtn.c
						MSPKTDSCRD	ps/PSist_l3/ PSenter.c
						MSPKTDSCRD	ps/PSist_l3/ PSexit.c
						MSPKTDSCRD	ps/PSpsip/ PSadata.c
						MSPKTDSCRD	ps/PSpsip/ PSaitrp.c
						MSPKTDSCRD	ps/PSpsip/ PSapvc.c
						MSPKTDSCRD	ps/PSpsip/ PSarcntpvc.c
						MSPKTDSCRD	ps/PSpsip/ PSarst.c
						MSPKTDSCRD	ps/PSpsip/ PSavcclear.c
						MSPKTDSCRD	ps/PSpsip/ PSavcsetup.c
						MSPKTDSCRD	ps/PSxac/ PSxc_req.c
						MSPKTDSCRD	ps/PSxac/ PSxint_clr.c
MS929ac_prtr	PH	PHISDN	TRFC 30	67	RETRANS (PACKETS)	MSPKTRTRNS	ps/PSpsip/ PSaT7.c
						MSPKTRTRNS	ps/PSpsip/ PSaiprte.c
						MSPKTRTRNS	ps/PSpsip/ PSatdata.c
						MSPKTRTRNS	ps/PSpsip/ PSavcsetup.c
						MSPKTRTRNS	ps/PSpsip/ PSavctim.c
MS930ac_porig	PH	PHISDN	TRFC 30	67	ORIG (PACKETS)	MSPSINC	ps/PSgac/ PSgrc_req.c
						MSPSINC	ps/PSgac/ PSgrcv.c
						MSPSINC	ps/PSist_l3/ PSenter.c
						MSPSORIG	ps/PSxac/ PSxc_req.c
MS931ac_pterm	PH	PHISDN	TRFC 30	67	TERM (PACKETS)	MSPSOUT	ps/PSgac/ PSgsc_req.c
						MSPSOUT	ps/PSist_l3/ PSexit.c
						MSPSTERM	ps/PSxac/ PSxi_call.c
MS932ac_orig	PH	PHISDN	PLNT	9	CALLS (ORIG)	MSPSORIG	ps/PSxac/

			24				PSxc_req.c
			TRFC 30	132	ORGHC		
			TRFC 30	69	ORIGPC		
MS932ac_orig	SM	ISDNPCKT	PLNT 24	9	CALLS (ORIG)	MSPSORIG	ps/PSxac/ PSxc_req.c
			TRFC 30	132	ORGHC		
			TRFC 30	69	ORIGPC		
MS933ac_term	PH	PHISDN	PLNT 24	9	CALLS (TERM)	MSPSTERM	ps/PSxac/ PSxi_call.c
			TRFC 30	132	TERMHC		
			TRFC 30	69	TERMPC		
MS933ac_term	SM	ISDNPCKT	PLNT 24	9	CALLS (TERM)	MSPSTERM	ps/PSxac/ PSxi_call.c
			TRFC 30	132	TERMHC		
			TRFC 30	69	TERMPC		
MS934ac_ipin	PH	PHISDN	TRFC 30	132	INCHC	MSPSINC	ps/PSgac/ PSgrc_req.c
			TRFC 30	69	INCPC	MSPSINC	ps/PSgac/ PSgrcv.c
						MSPSINC	ps/PSist_l3/ PSenter.c
MS935ac_ipout	PH	PHISDN	TRFC 30	132	OUTHC	MSPSOUT	ps/PSgac/ PSgsc_req.c
			TRFC 30	69	OUTPC	MSPSOUT	ps/PSist_l3/ PSexit.c
MS936ac_pfrerr	PH	PHISDN	TRFC 30	67	ERRORS (FRAMES)	MSL2ERRS	ps/PSpacket/ PSp_chnerr.c
MS937ac_pfrmrcd	PH	PHISDN	TRFC 30	67	ERRORS (FRAMES)	MSFRMRCD	ps/PSpacket/ PSp_chnerr.c
						MSFRMRCD	ps/PSpacket/ PSphinj2.c
MS938ac_frmrtr	PH	PHISDN	TRFC 30	67	RETRANS (FRAMES)	MSFRMRTRNS	ps/PSlapb/ PSb_rcvfrm.c
						MSFRMRTRNS	ps/PSlapd/ PSde_spfrm.c

Table 63 Part 63

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS939ac_pfrmsnt	PH	PHISDN	TRFC 30	67	RETRANS (FRAMES)	MSFRMSNT	ps/PSlapb/ PSb_isend.c
						MSFRMSNT	ps/PSlapb/ PSb_sndfrm.c
						MSFRMSNT	ps/PSlapd/ PSd_isend.c
						MSFRMSNT	ps/PSlapd/ PSdsfutil.c
						MSFRMSNT	ps/PSlapd/ PSg_susend.c
MS940ac_bfov	PH	PHISDN	TRFC 30	68	BUF OVFL	MSBUFOVFL	si/IMppinteg/ IMps_rcvy.c

MS941ac_lcov	PH	PHISDN	TRFC 30	68	LCCB OVFL	MSLCCBOVFL	ps/PSl3res/ PSl3_lccb.c
MS942ac_cdovld	PH	PHISDN	TRFC 30	69	OVLDEN	MSDNDOVLD	pc/PCpktorig/ PCdqptib.c
						MSDNDOVLD	pc/PCpktorig/ PCdqxpib.c
						MSDNDOVLD	pc/PCpktorig/ PCpkthdlr.c
						MSDNDOVLD	pr/PRfeat/ PRdsrtrs.c
						MSDNDOVLD	pr/PRfeat/ PRgvrtrs.c
						MSDNDOVLD	pr/PRfeat/ PRivrtrs.c
						MSDNDOVLD	pr/PRfeat/ PRxvrtrs.c
						MSDNDOVLD	ps/PSgac/ PSgrc_req.c
						MSDNDOVLD	ps/PSist_l3/ PSenter.c
						MSDNDOVLD	ps/PSist_l3/ PSexit.c
						MSDNDOVLD	ps/PSpsip/ PSavcsetup.c
						MSDNDOVLD	ps/PSxac/ PSxc_req.c
						MSDNDOVLD	rta/RTshared/ RTcp_abnor.c
MS942ac_cdovld	SM	BASE	TRFC 30	69	OVLDEN	MSDNDOVLD	pc/PCpktorig/ PCdqptib.c
						MSDNDOVLD	pc/PCpktorig/ PCdqxpib.c
						MSDNDOVLD	pc/PCpktorig/ PCpkthdlr.c
						MSDNDOVLD	pr/PRfeat/ PRdsrtrs.c
						MSDNDOVLD	pr/PRfeat/ PRgvrtrs.c
						MSDNDOVLD	pr/PRfeat/ PRivrtrs.c
						MSDNDOVLD	pr/PRfeat/ PRxvrtrs.c
						MSDNDOVLD	ps/PSgac/ PSgrc_req.c
						MSDNDOVLD	ps/PSist_l3/ PSenter.c
						MSDNDOVLD	ps/PSist_l3/ PSexit.c
						MSDNDOVLD	ps/PSpsip/ PSavcsetup.c
						MSDNDOVLD	ps/PSxac/ PSxc_req.c
						MSDNDOVLD	rta/RTshared/ RTcp_abnor.c
MS944ac_pspxfer	PH	PHISDN	TRFC 30	67	CKTSW (PACKETS)	MSPCKTRCD	ps/PSlapd/ PSdph2sm.c
						MSPCKTSNT	ps/PSlapd/ PSd_frmrcv.c
						MSPCKTSNT	ps/PSlapd/ PSd_isend.c
MS946ac_lccbu	PH	PHISDN	TRFC	67	LCCB USG	MSLCCBU	ps/PSresrce/

			30				PSrlccbuse.c
MS947ac_lccba	PH	PHISDN	TRFC 30	68	LCCB ATMPT	MSLCCBATT	ps/PSl3res/ PSl3_lccb.c
MS948ac_lccbu	PH	PHISDN	TRFC 30	68	LCCB USG	MSLCCBU	ps/PSresrce/ PSrlccbuse.c
MS949ac_odba	SM	ISDNBASE	TRFC 30	105	ATMPT	MSODBATMPT	rita/RIsetup/ RIodboff.c
MS950ac_odbu	SM	BASE	TRFC 30	105	USG	MSDPIDBUSG	pc/PCispath/ PCdpidbusg.c
						MSDPIDBUSG	pc/PCispath/ PCisluusg.c
MS951ac_odbo	SM	ISDNBASE	TRFC 30	105	OVFL	MSODBOVFL	fita/Flodb/ ISodbend.c
						MSODBOVFL	rita/RIsetup/ RIodboff.c
MS952ac_dpidba	SM	BASE	TRFC 30	106	ATMPT	MSDPIDBATT	pc/PCisport/ LPactd.c
MS953ac_dpidbu	SM	BASE	TRFC 30	106	USG	MSDPIDBUSG	pc/PCispath/ PCdpidbusg.c
						MSDPIDBUSG	pc/PCispath/ PCisluusg.c
MS954ac_dpidbo	SM	BASE	TRFC 30	106	OVFL	MSDPIDBOFL	pc/PCisport/ LPactd.c
MS955ac_origpc	SM	BASE	PLNT 24	11	ORIGIN (CALLS)	MSISORPC	as/ASmsmisc/ MScrpegcnt.c
MS956ac_termpc	SM	ISDNBASE	PLNT 24	11	TERM (CALLS)	MSISTMPC	fc/FCshdn/ ISsh_dinit.c
						MSISTMPC	rita/RIsetup/ RIdslterm.c
						MSISTMPC	rta/RTisdn/ RTmcaterm.c
MS957ac_isdlan	PH	PHISDN	TRFC 30	52	LAN	MSISLAN	ps/PSresrce/ PSrusage.c

Table 64 Part 64

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS958ac_isopdto	SM	BASE	TRFC 30	50	ISOPDTO	MSOPDTO	as/ASmsmisc/ MScrpegcnt.c
			TRFC 30	6	PDTIMO (ORIGIN)		
MS959ac_isdnorq	SM	BASE	TRFC 15	1	ISDORQ	MSORIGREQ	cra/CRasmblr/ CRsmprims.c
MS960ac_isdlnln	SM	BASE	TRFC 30	50	INTRA	MSISLNLN	as/ASmsmisc/ MScrpegcnt.c
MS961ac_isdnorq	SM	BASE	TRFC 30	50	ORIGRQ	MSORIGREQ	cra/CRasmblr/ CRsmprims.c
			TRFC 30	53	ORIGRQ		
MS962ac_isops	SM	BASE	TRFC 30	50	ISOPS	MSOPS	as/ASmsmisc/ MScrpegcnt.c
			TRFC 30	6	PERMSIG (ORIGIN)		
MS963ac_isdnorq	SM	BASE	PLNT 24	11	ORIGIN (REQUESTS)	MSORIGREQ	cra/CRasmblr/ CRsmprims.c
			PLNT 24	1A	ORIGIN (REQUESTS)		
MS964ac_setuprsp	SM	BASE	TRFC 30	53	SETUP_DELAY	MSSETUPRES	fc/FCacctath/ MCleadacct.c

						MSSETUPRES	fc/FCidp/ MCdsl_dig.c
						MSSETUPRES	fc/FCidp/ MCpotsa.c
						MSSETUPRES	fita/Fledsl/ OBJ/ ISe_near.sdc
						MSSETUPRES	fita/Flisdn/ ISdsl_dig.c
						MSSETUPRES	fita/Flisdn/ OBJ/ ISnear.sdc
						MSSETUPRES	fita/Flodb/ ISodbfsm.c
						MSSETUPRES	rita/RIsetup/ RIdsloff.c
						MSSETUPRES	rta/RTisdn/ RTatrelcom.c
MS965ac_isoutpc	SM	BASE	TRFC 30	50	OUTPC	MSISOUTPC	fc/FCmfccc/ OBJ/ MCcc.sdc
MS966ac_isincpc	SM	BASE	TRFC 30	50	INCPC	MSISINCPC	fc/FCmfccc/ OBJ/ MCcc.sdc
MS967ac_istmusg	SM	BASE	TRFC 30	50	TERMUSG	MSISTMUSG	as/ASmsscan/ MS100scan.c
MS968ac_istmpc	SM	ISDNBASE	TRFC 30	50	TERMPC	MSISTMPC	fc/FCshdn/ ISsh_dinit.c
						MSISTMPC	rita/RIsetup/ RIdslterm.c
						MSISTMPC	rta/RTisdn/ RTmcaterm.c
MS969ac_isorusg	SM	BASE	TRFC 30	50	ORIGUSG	MSISORUSG	as/ASmsscan/ MS100scan.c
MS970ac_isorpc	SM	BASE	TRFC 30	50	ORIGPC	MSISORPC	as/ASmsmisc/ MScrpegcnt.c
MS971ac_isld	SM	ISLUBASE	TRFC 30	49	DIG_USG	MSISLDUSG	pc/PCispath/ PCisluusg.c
			TRFC 30	50	O+T_USG		
MS972ac_isluusg	SM	BASE	TRFC 30	49	TOTUSG	MSISLUUSG	pc/PCispath/ PCisluusg.c
			TRFC 30	50	O+T_USG		
			TRFC 30	5	USG(O+T)		
MS973ac_islumtu	SM	ISLUBASE	TRFC 30	49	MTUSG	MSISLUMTU	pc/PCispath/ PCisluusg.c
MS974ac_islutmpc	SM	ISLUBASE	TRFC 30	13	TERMHC	MSISLUTMPC	pc/PCisport/ LPactb.c
			TRFC 30	49	TMATT	MSISLUTMPC	pc/PCzport/ LPactz.c
MS975ac_islublk	SM	ISLUBASE	TRFC 30	49	TMBLK	MSISLUBLK	pc/PCisport/ LPactb.c
						MSISLUBLK	pc/PCzport/ LPactz.c
MS980ac_gscsk	CMP	BASE	M5	8	CALLS SKIPPED DUE TO GSC	MSDOCGSC	nm/NMdoc/ NMdoc_appl.c
						MSDOCGSC	nm/NMdoc/ NMgsc_appl.c
MS981ac_txmtu	SM	BASE	TRFC 30	60	MTCE	MSTXECMTU	as/ASmsscan/ MS100scan.c
MS982ac_rqnwcg	AM	OPAMBACD	TRFC 30	63	ABNOR	MSRQNWCG	ccs/CCcfr/ CCcfrrply.c

			TRFC 30	63	CONGEST		
MS983ac_rqnwbk	AM	OPAMBACD	TRFC 30	63	ABNOR	MSRQNWBK	ccs/CCcfr/ CCcfrrply.c
			TRFC 30	63	BLKD		
MS984ac_rqfneq	AM	OPAMBACD	TRFC 30	63	ABNOR	MSRQFNEQ	ccs/CCcfr/ CCcfrrply.c
			TRFC 30	63	UNEQ		
MS985ac_rrnp	SM	OPSMCDOT	TRFC 30	63	NPROC	MSRRNP	oa/OAotqry/ OAratrply.c
						MSRRNP	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS986ac_rrnx	SM	OPSMCDOT	TRFC 30	63	UNEXP	MSRRNX	ccs/CCcfr/ CCcfrrply.c
						MSRRNX	oa/OArtrsmod/ OArtndata.c
MS986ac_rrnx	AM	OPAMBACD	TRFC 30	63	UNEXP	MSRRNX	ccs/CCcfr/ CCcfrrply.c
						MSRRNX	oa/OArtrsmod/ OArtndata.c

Table 65 Part 65

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MS987ac_rrnvf	SM	OPSMCDOT	TRFC 30	63	INVFRMT	MSRRNVF	ccs/CCcfr/ CCcfrrply.c
						MSRRNVF	oa/OAotqry/ OAratrply.c
						MSRRNVF	oa/OArtrsmod/ OArtpmghlr.c
						MSRRNVF	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS987ac_rrnvf	AM	OPAMBACD	TRFC 30	63	INVFRMT	MSRRNVF	ccs/CCcfr/ CCcfrrply.c
						MSRRNVF	oa/OAotqry/ OAratrply.c
						MSRRNVF	oa/OArtrsmod/ OArtpmghlr.c
						MSRRNVF	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS988ac_rqrss	SM	OPSMCDOT	- - - - -	- - - - -	- - - - -	MSRQRSS	oa/OAnrate/ OAnrate.c
MS989ac_ccqsrss	SM	OPSMCDOT	TRFC 30	63	REPLIES (TOTAL)	MSCCQSRSS	oa/OAta_ot/ OAhotel.c
			TRFC 30	63	SUCCESS (CCQS)		
			TRFC 30	63	SUCCESS (TOTAL)		
MS990ac_t_crss	SM	OPSMCDOT	TRFC 30	63	REPLIES (TOTAL)	MST_CRSS	oa/OAta_ot/ OAtimechrg.c
			TRFC 30	63	SUCCESS (T&C)		
			TRFC 30	63	SUCCESS (TOTAL)		
MS991ac_rqrf	SM	OPSMCDOT	TRFC 30	63	FAILURE (RATEQT)	MSRQRF	oa/OAnrate/ OAnrate.c
			TRFC	63	FAILURE		

			30		(TOTAL)		
			TRFC 30	63	REPLIES (TOTAL)		
MS992ac_ccqsrf	SM	OPSMCD OT	TRFC 30	63	FAILURE (CCQS)	MSCCQSRF	oa/OAta_ot/ OAhotel.c
			TRFC 30	63	FAILURE (TOTAL)		
			TRFC 30	63	REPLIES (TOTAL)		
MS993ac_t_crf	SM	OPSMCD OT	TRFC 30	63	FAILURE (T&C)	MST_CRF	oa/OAta_ot/ OAtimechrg.c
			TRFC 30	63	FAILURE (TOTAL)		
			TRFC 30	63	REPLIES (TOTAL)		
MS994ac_rnres	SM	OPSMCD OT	TRFC 30	63	TIMEOUT	MSRNRES	oa/OAotqry/ OAot_qry.c
						MSRNRES	oa/OAtaqry/ OBJ/ OAtaqry.cc
MS995ac_rqovld	SM	OPSMCD OT	TRFC 30	63	OVRLD (REPLIES)	MSRQOVLD	ccs/CCcfr/ CCcfrrply.c
						MSRQOVLD	oa/OArtrsmod/ OArtndata.c
MS995ac_rqovld	AM	OPAMBAC D	TRFC 30	63	OVRLD (REPLIES)	MSRQOVLD	ccs/CCcfr/ CCcfrrply.c
						MSRQOVLD	oa/OArtrsmod/ OArtndata.c
MS996ac_rqtest	AM	OPAMBAC D	TRFC 30	63	TEST	MSRQTEST	ccs/CCoptst/ CCrattst.c
MS997ac_bnsnt	AM	OPAMBAC D	TRFC 30	61	BNS	MSBNSSNT	ccs/CCbns/ CCbnsqry.c
			TRFC 30	62	SENT (BNS)		
MS998ac_bnhw	SM	OPSMCD OT	TRFC 30	61	BNS	MSBNSHW	ccs/CCbns/ CCbnsqry.c
			TRFC 30	62	HDW (BNS)	MSBNSHW	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	62	NSENT (BNS)		
MS998ac_bnhw	AM	OPAMBAC D	TRFC 30	61	BNS	MSBNSHW	ccs/CCbns/ CCbnsqry.c
			TRFC 30	62	HDW (BNS)	MSBNSHW	oa/OAtaqry/ OBJ/ OAtaqry.cc
			TRFC 30	62	NSENT (BNS)		
MS999ac_bndbcb	AM	OPAMBAC D	TRFC 30	61	BNS	MSBNSDBCB	ccs/CCbns/ CCbnsqry.c
			TRFC 30	62	NSENT (BNS)		
			TRFC 30	62	OVRLD (BNS QUERIES)		
MSCAMASEIZ	SM	BASE	- - - - -	- - - - -	- - - - -	MSCAMASEIZ	cra/CRasmblr/ CRsmprims.c
						MSINCREQ	cra/CRasmblr/ CRsmprims.c
MSTGRPIPC	SM	BASE	- - - - -	- - - - -	- - - - -	MSINCREQ	cra/CRasmblr/ CRsmprims.c
						MSTGRPIPC	cra/CRasmblr/ CRsmprims.c
MS_af	AM	OPAMBAC D	- - - - -	- - - - -	- - - - -	MSAF	nm/NMlst/ NMlst1chk.c
						MSAFBK	nm/NMlst/

							NMlst2chk.c
						MSAFNS	nm/NMlst/ NMlst1chk.c
						MSRMSAFLTS	si/SIrsm/ SIrsmsatrn.c
MS_afbk	AM	OPAMBACD	- - - - -	- - - - -	- - - - -	MSAFBK	nm/NMlst/ NMlst2chk.c
MS_afns	AM	OPAMBACD	- - - - -	- - - - -	- - - - -	MSAFNS	nm/NMlst/ NMlst1chk.c
MSa284ac_mmpft	AM	BASE	PLNT 24	2A	FAULTS (MMP)	MSMMPFLT	as/ASmsmisc/ MSamprims.c

Table 66 Part 66

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MSaccmpcnt.blcys	AM	BASE	TRFC 30	126	BLCYC	- - - - -	- - - - -
MSaccmpcnt.bpin	AM	BASE	TRFC 30	126	BPIN	- - - - -	- - - - -
MSaccmpcnt.bpin	AM	BASE	TRFC 30	126	BPIN	- - - - -	- - - - -
MSaccmpcnt.bplot	AM	BASE	TRFC 30	126	BPOT	- - - - -	- - - - -
MSaccmpcnt.bpqovfl	AM	BASE	TRFC 30	126	BPQOVFL	- - - - -	- - - - -
MSaccmpcnt.hpin	AM	BASE	TRFC 30	126	HPIN- - - - -	- - - - -	
MSaccmpcnt.hpin	AM	BASE	TRFC 30	126	HPIN	- - - - -	- - - - -
MSaccmpcnt.hpot	AM	BASE	TRFC 30	126	HPOT	- - - - -	- - - - -
MSacdlcnts.MS250ac_s96ta	SM	BASE	TRFC 30	13	TERMHC	MSS96TRMPC	pc/PCring/ LPactring.c
			TRFC 30	21	TERMATT	MSS96TRMPC	pc/PCring/ LPcplx_ring.c
MSacdlcnts.MS251ac_s96ba	SM	BASE	TRFC 30	21	TERMBLK	MSS96BLK	pc/PCring/ LPactring.c
MSacdlcnts.MS252ac_s96tu	SM	BASE	TRFC 30	21	TOTUSG	MSS96PBUSG	as/ASmsscan/ MSs96usage.c
			TRFC 30	5	USG(O+T)		
MSacdlcnts.MS253ac_s96mu	SM	BASE	TRFC 30	21	MTUSG	MSS96PBMTU	as/ASmsscan/ MSs96usage.c
MSack	AM	BASE	- - - - -	- - - - -	- - - - -	MSSMACK	sm/SMsmr/ SMsmrse.c
MSaclncnts.MS326ac_latmp	SM	BASE	TRFC 30	90	ATMPTS	- - - - -	- - - - -
MSaclncnts.MS327ac_lblck	SM	BASE	TRFC 30	90	BLOCK	- - - - -	- - - - -
MSaclncnts.MS328ac_lusg	SM	BASE	TRFC 30	90	USAGE	MSLUSG	as/ASmsscan/ MS100scan.c
MSaclucnts.MS138ac_hspc	SM	BASE	TRFC 30	8	PEGCT	MSHLSCPC	pc/PChlsc/ PChlrqst.c
MSaclucnts.MS139ac_hsofl	SM	BASE	TRFC 30	8	SHTOVF	MSHLSCOFL	pc/PChlsc/ PChlrqst.c
MSaclucnts.MS140ac_hsusg	SM	BASE	M5	5	USAGE (HLSC)	MSHLSCUSG	pc/PChlsc/ PChlrlse.c
			TRFC 30	8	TOTUSG		

MSaclucnts.MS141ac_hsmtu	SM	BASE	M5	5	MTCE (HLSC)	MSHLSCMTU	as/ASmsscan/ MS100scan.c
			TRFC 30	8	MTUSG		
			TRFC 30	8	TOTUSG		
MSaclucnts.MS150ac_lutpc	SM	BASE	TRFC 30	11	TMCALLS	MSLUTRMPC	pc/PCring/ LPactring.c
			TRFC 30	13	TERMHC		
MSaclucnts.MS152ac_lucbk	SM	BASE	TRFC 30	11	TMBLK	MSCONBLK	pc/PCring/ LPactring.c
MSaclucnts.MS153ac_luusg	SM	BASE	TRFC 30	11	TOTUSG	MSLUUSG	as/ASmsscan/ MS100scan.c
			TRFC 30	5	USG(O+T)		
MSaclucnts.MS154ac_lumtu	SM	BASE	TRFC 30	11	MTUSG	MSLUMTU	as/ASmsscan/ MS100scan.c
MSaclucnts.MS279ac_rgofl	SM	BASE	M5	5	IMA (HLSC)	MSHLSCRGOFL	pc/PChlsc/ PChlrqst.c
			TRFC 30	8	RNGOVF		
MSacmmpcnt.MS238ac_mmplm	AM	BASE	TRFC 30	18	MSG	MSMMPLMSG	as/ASmstr30/ MSmmpcnts.c
MSacmmpcnt.MS240ac_mmpcy	AM	BASE	TRFC 30	18	BLCYC	MSMMPBLCYCS	as/ASmstr30/ MSmmpcnts.c
MSacmmpcnt.MS242ac_mmpbk	AM	BASE	TRFC 30	18	MGRNR	MSMMPBLKED	as/ASmstr30/ MSmmpcnts.c
MSacmmpcnt. MS390ac_mmptomscu	AM	BASE	TRFC 30	18	TO_MSCU	MSMMPTOMSCU	as/ASmstr30/ MSmmpcnts.c
MSacmmpcnt. MS391ac_mmpfrmscu	AM	BASE	TRFC 30	18	FR_MSCU	MSMMPFRMSCU	as/ASmstr30/ MSmmpcnts.c
MSacmmpcnt.incrstamp	AM	BASE	- - - - -	- - - - -	- - - - -	MSMMPVALID	as/ASmstr30/ MSmmpcnts.c
MSacpeercnts.MS300ac_mdipg	AM	BASE	PLNT 24	5	TRUNK GROUP (per MDII)	MSMDIIPEER	tm/TMtera/ TMmdiianal.c
MSacpeercnts.MS301ac_rcvpg	AM	BASE	PLNT 24	5	TERA RECOVERY	MSRCVRPEER	tm/TMtera/ TMpeeranal.c
						MSRCVRPEER	tm/TMtera/ TMquckanal.c
MSacpeercnts.MS302ac_oospg	AM	BASE	PLNT 24	5	OOS	MSOOSPEER	tm/TMtera/ TMtera_ac.c
MSacpeercnts.MS303ac_prapg	AM	BASE	PLNT 24	5	PREEMPT-PEER	MSPRMTPEER	tm/TMtera/ TMpeeranal.c
						MSPRMTPEER	tm/TMtera/ TMquckanal.c
MSacpeercnts.MS304ac_qcapg	AM	BASE	PLNT 24	5	PREEMPT-QUICK- CHECK	MSPRMTPEER	tm/TMtera/ TMpeeranal.c
						MSPRMTPEER	tm/TMtera/ TMquckanal.c
MSacpiccnt.MS236ac_msccy	AM	BASE	TRFC 30	19	BLCYCL	MSMSBLCYCS	as/ASmstr30/ MSpiccnts.c
MSacpiccnt.MS237ac_mscms	AM	BASE	TRFC 30	19	CPMSG	- - - - -	- - - - -
MSacpiccnt.validity	AM	BASE	- - - - -	- - - - -	- - - - -	MSPICVALID	as/ASmstr30/ MSpiccnts.c
MSacpiccnt.validity	AM	BASE	- - - - -	- - - - -	- - - - -	MSPICVALID	as/ASmstr30/ MSpiccnts.c
MSacpiccnt.validity	AM	BASE	- - - - -	- - - - -	- - - - -	MSPICVALID	as/ASmstr30/ MSpiccnts.c

MSacsucnts.MS2678ac_orgblk	SM	BASE	TRFC 30	20	ORGBLK	MS96RTORGB	pc/PCport/ OBJ/ LPactsrq.cc

Table 67 Part 67

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MSacsucnts.MS2679ac_trmblk	SM	BASE	TRFC 30	20	TRMBLK	MS96RTTRMB	pc/PCring/ LPactring.c
MSacsucnts.MS272ac_ru	SM	BASE	TRFC 30	20	TRFCUSG	MSS96RTRU	as/ASmsscan/ MSs96usage.c
MSact1cnts.MS319ac_t1bkh	SM	BASE	TRFC 30	37	T1BKH	MST1BKH	pc/PCpath/ PHset.c
MSact1cnts.MS320ac_t1pc	SM	BASE	TRFC 30	23	UMPC	MST1PC	pc/PChtp/ PHrsmdef2.c
			TRFC 30	37	T1PC	MST1PC	pc/PCpath/ PHset.c
MSact1cnts.MS321ac_t1ofl	SM	BASE	TRFC 30	23	UMOFL	MST1OFL	pc/PChtp/ PHrsmdef2.c
			TRFC 30	37	T1OFL	MST1OFL	pc/PCpath/ PHset.c
MSact1cnts.MS322ac_t1mt	SM	BASE	TRFC 30	23	UMBMT	MST1MAT	as/ASmsscan/ MS100scan.c
			TRFC 30	37	T1MT		
MSact1cnts.MS323ac_t1ug	SM	BASE	TRFC 30	23	UMBUG	MST1USG	as/ASmsscan/ MS100scan.c
			TRFC 30	37	T1UG		
MSactgcnts.ms156ac_tropc	CMP	BASE	M5	17	OUTG	MSTGRPOPC	rta/RTGtrk/ RTtkmem.c
			TRFC 30	12	OPC	MSTGRPOPC	rta/RTGtrk/ RTtrkhunt.c
			TRFC 30	12	TGOPC		
MSactgcnts.ms157ac_trofl	CMP	BASE	M5	17	OVFL	MSTGRPOFL	rta/RTGtrk/ RTtrkbusy.c
			TRFC 30	12	OFL		
			TRFC 30	12	TGOFL		
MSactgcnts.ms2878ac_opctt	CMP	BASE	TRFC 30	12	OPCTT	MSTGRPOPC	rta/RTGtrk/ RTtkmem.c
						MSTGRPOPC	rta/RTGtrk/ RTtrkhunt.c
MSactgcnts.ms2879ac_ofltt	CMP	BASE	TRFC 30	12	OFLTT	MSTGRPOFL	rta/RTGtrk/ RTtrkbusy.c
MSars_cnt.ars_cnt	AM	BASE	TRFC 30	35	INSF_FRL	- - - - -	- - - - -
			TRFC 30	35	PATATMPT		
			TRFC 30	35	RTESUCC		
MSatt_cnt.cnts	CMP	BASE	TRFC 30	33	INTRAG	MSMCCATT	rta/RTGmlg/ RTbfmlg.c
			TRFC 30	33	OVFL	MSMCCATT	rta/RTGmlg/ RTmlghunt.c
			TRFC 30	33	PC	MSMCCATT	rta/RTGmlg/ RTnohunt.c
			TRFC	33	USG	MSMCCATT	rta/RTstatus/

			30				RTportbusy.c
MSatt_cnt.cnts	SM	BASE	TRFC 30	33	INTRAG	MSMCCATT	rta/RTGmlg/ RTbfmlg.c
			TRFC 30	33	OVFL	MSMCCATT	rta/RTGmlg/ RTmlghunt.c
			TRFC 30	33	PC	MSMCCATT	rta/RTGmlg/ RTnohunt.c
			TRFC 30	33	USG	MSMCCATT	rta/RTstatus/ RTportbusy.c
MSb284ac_ppcft	AM	BASE	PLNT 24	2A	FAULTS (PPC)	MSPPCFLT	as/ASmsmisc/ MSamprims.c
MSc175acc.ms8435ac_msg hin	AM	BASE	TRFC 30	175	MSGIN(MSGH)	MSqgpcnts	cm/CMammsgs/ CM_scanq.c
MSc175acc.ms8436ac_msg hcyc	AM	BASE	TRFC 30	175	BLCYCL(MSG H)	MSqgpcnts	cm/CMammsgs/ CM_scanq.c
MSc175acc.ms8437ac_msg hofl	AM	BASE	TRFC 30	175	OVFL(MSGH)	MSqgpcnts	cm/CMammsgs/ CM_scanq.c
MSc175acc.ms8438ac_apin	AM	BASE	TRFC 30	175	MSGIN(AP)	MSqgpcnts	cm/CMammsgs/ CM_scanq.c
MSc175acc.ms8439ac_apcy c	AM	BASE	TRFC 30	175	BLCYCL(AP)	MSqgpcnts	cm/CMammsgs/ CM_scanq.c
MSc175acc.ms8709ac_msg hout	AM	BASE	TRFC 30	175	MSGOUT(MS GH)	MSqgpcnts	cm/CMammsgs/ CM_scanq.c
MSc175acc.ms8710ac_apo ut	AM	BASE	TRFC 30	175	MSGOUT(AP)	MSqgpcnts	cm/CMammsgs/ CM_scanq.c
MSc176acc.ms8440ac_qap or0	AM	BASE	TRFC 30	176	RCV-0(AVERA GE)	CMmspipeocc(am)	cm/CMprims/ CMammspipe.c
MSc176acc.ms8441ac_qap or1	AM	BASE	TRFC 30	176	RCV-1(AVERA GE)	CMmspipeocc(am)	cm/CMprims/ CMammspipe.c
MSc176acc.ms8442ac_qap ot0	AM	BASE	TRFC 30	176	XMT-0(AVERA GE)	CMmspipeocc(am)	cm/CMprims/ CMammspipe.c
MSc176acc.ms8443ac_qap ot1	AM	BASE	TRFC 30	176	XMT-1(AVERA GE)	CMmspipeocc(am)	cm/CMprims/ CMammspipe.c
MSc176acc.ms8444ac_qpp or0	AM	BASE	TRFC 30	176	RCV-0(PERCE NT)	CMmspipeocc(am)	cm/CMprims/ CMammspipe.c
MSc176acc.ms8446ac_qpp ot0	AM	BASE	TRFC 30	176	XMT-0(PERCE NT)	CMmspipeocc(am)	cm/CMprims/ CMammspipe.c
MSc176acc.ms8447ac_qpp ot1	AM	BASE	TRFC 30	176	XMT-1(PERCE NT)	CMmspipeocc(am)	cm/CMprims/ CMammspipe.c
MSc284ac_fpcft	AM	BASE	PLNT 24	2A	FAULTS (FPC/CDAL)	MSFPCFLT	as/ASmsmisc/ MSamprims.c
MScft_cnt.cnts	SM	BASE	TRFC 30	29	ACTV	MSMCCCF	fc/FCacb/ ISacb_msg.c
			TRFC 30	29	ATMPT	MSMCCCF	fc/FCacb/ MCacb_init.c
			TRFC 30	29	PCHG	MSMCCCF	fc/FCacctath/ MCathacct.c
						MSMCCCF	fc/FCacctath/ MCleadacct.c
						MSMCCCF	fc/FCars/ MCarmnint.c
						MSMCCCF	fc/FCars/ MCarsnint.c
						MSMCCCF	fc/FCcalwat/ OBJ/ MCcw.cc
						MSMCCCF	fc/FCclid/ ISdispck.c
						MSMCCCF	fc/FCclid/ ISoinit.c
						MSMCCCF	fc/FCclid/ MCdnpriv.c
						MSMCCCF	fc/FCconf/ OBJ/ FCconf.sdc

						MSMCCCF	fc/FCcorc/ IScfwd.c
						MSMCCCF	fc/FCcorc/ MCacdc.c
						MSMCCCF	fc/FCcorc/ MCcorcinit.c
						MSMCCCF	fc/FCcorc/ MCdnacdc.c
						MSMCCCF	fc/FCcorc/ MCgpacdc.c
						MSMCCCF	fc/FCcorc/ MCmagic.c
						MSMCCCF	fc/FCcorc/ MCmdnlchk.c
						MSMCCCF	fc/FCcorc/ MCntkey.c
						MSMCCCF	fc/FCcorc/ MCtdacdc.c
						MSMCCCF	fc/FCcpnbn/ IScpnbncnt.c
						MSMCCCF	fc/FCdisp/ ISdfassign.c
						MSMCCCF	fc/FCeds/ ISac.c
						MSMCCCF	fc/FCeds/ ISdqstrt.c
						MSMCCCF	fc/FCeds/ ISedscnd.c
						MSMCCCF	fc/FChi/ MChi_init.c
						MSMCCCF	fc/FCicom/ ISicm_init.c
						MSMCCCF	fc/FCidp/ MCspdcall.c
						MSMCCCF	fc/FCisatnd/ FCat_error.c
						MSMCCCF	fc/FCmfccf/ MCcflook.c
						MSMCCCF	fc/FCmfcpfm/ OBJ/ MCpfm.sdc
						MSMCCCF	fc/FCmfcpu/ MCformadd.c
						MSMCCCF	fc/FCmfcpu/ MCpuo.c
						MSMCCCF	fc/FCmfcpu/ MCput.c
						MSMCCCF	fc/FCmw/ MCmw_peg.c
						MSMCCCF	fc/FCmw/ MCtp2apbs.c
						MSMCCCF	fc/FCpfa/ MCdpfa.c
						MSMCCCF	fc/FCras/ FCacf_init.c
						MSMCCCF	fc/FCras/ OBJ/ MCras.cc
						MSMCCCF	fp/FPinit_fs/ FPrfs.c
						MSMCCCF	fp/FPInterm/ FPformadd.c
						MSMCCCF	rta/RTterm/ RTacvt_chk.c
						MSMCCCF	rta/RTterm/ RTana_pu.c
						MSMCCCF	rta/RTterm/ RTbusyfs.c
						MSMCCCF	rta/RTterm/ RTfrwdfs.c

						MSMCCCF	rta/RTterm/ RTidlefs.c
						MSMCCCF	rta/RTtod/ RTtrig_wl.c

Table 68 Part 68

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MSciamdata.ms352ac_cdofl	CMP	BASE	- - - - -	- - - - -	- - - - -	MSDTGOFL	rta/RTGtrk/ RTtrkbusy.c
						MSDTGOFL	rta/RTGtrk/ RTtrkhunt.c
MSciamdata.ms352ac_cdofl	AM	LP_DOM	- - - - -	- - - - -	- - - - -	MSDTGOFL	rta/RTGtrk/ RTtrkbusy.c
						MSDTGOFL	rta/RTGtrk/ RTtrkhunt.c
MSciamdata.ms353ac_csopc	CMP	BASE	TRFC 30	24	OUTGO	MSSTGOPC	rta/RTGtrk/ RTtrkbusy.c
						MSSTGOPC	rta/RTGtrk/ RTtrkhunt.c
MSciamdata.ms353ac_csopc	AM	LP_DOM	TRFC 30	24	OUTGO	MSSTGOPC	rta/RTGtrk/ RTtrkbusy.c
						MSSTGOPC	rta/RTGtrk/ RTtrkhunt.c
MSciamdata.ms355ac_csofl	CMP	BASE	TRFC 30	24	OVFL	MSSTGOFL	rta/RTGtrk/ RTtrkbusy.c
						MSSTGOFL	rta/RTGtrk/ RTtrkhunt.c
MSciamdata.ms355ac_csofl	AM	LP_DOM	TRFC 30	24	OVFL	MSSTGOFL	rta/RTGtrk/ RTtrkbusy.c
						MSSTGOFL	rta/RTGtrk/ RTtrkhunt.c
MSciamdata.msnm353ac_opc	CMP	BASE	M5	16	OGPC	MSSTGOPC	rta/RTGtrk/ RTtrkbusy.c
						MSSTGOPC	rta/RTGtrk/ RTtrkhunt.c
MSciamdata.msnm353ac_opc	AM	LP_DOM	M5	16	OGPC	MSSTGOPC	rta/RTGtrk/ RTtrkbusy.c
						MSSTGOPC	rta/RTGtrk/ RTtrkhunt.c
MSciamdata.msnm355ac_ofl	CMP	BASE	M5	16	OVFL	MSSTGOFL	rta/RTGtrk/ RTtrkbusy.c
						MSSTGOFL	rta/RTGtrk/ RTtrkhunt.c
MSciamdata.msnm355ac_ofl	AM	LP_DOM	M5	16	OVFL	MSSTGOFL	rta/RTGtrk/ RTtrkbusy.c
						MSSTGOFL	rta/RTGtrk/ RTtrkhunt.c
MSclus24	AM	LP_DOM	PLNT 24	8	FSA-USG	- - - - -	- - - - -
			PLNT 24	8	FSAFALT		
			PLNT 24	8	PSA-USG		
			PLNT 24	8	PSAFALT		
MSclus30	AM	LP_DOM	TRFC 30	39	FSA-USG	- - - - -	- - - - -
			TRFC	39	PSA-USG		

			30				
MScnt_acsr.MS523ac_acsr	SM	ISDNBRCS	TRFC 30	108	OVER20	MSIBACSR	fita/FIacsr/ ISacsr_org.c
			TRFC 30	108	OVERFLOW	MSIBACSR	fita/FIacsr/ OBJ/ ISacsr.cc
			TRFC 30	108	REQUEST	MSIBACSR	rita/RIacsr/ RIacsr_cnt.c
			TRFC 30	108	SUCCESS		
MScoinfail	AM	OPAMBACD	PLNT 24	13	FAILURE (COIN)	- - - - -	- - - - -
			PLNT 24	13	TOTAL		
MScoinsucc	AM	OPAMBACD	PLNT 24	13	TOTAL	- - - - -	- - - - -
MScpinsert	AM	LP_DOM	- - - - -	- - - - -	- - - - -	MSDTGOFL	rta/RTGtrk/ RTtrkbusy.c
						MSDTGOFL	rta/RTGtrk/ RTtrkhunt.c
						MSDTGOPC	rta/RTGtrk/ RTtrkhunt.c
						MSRSTGOPC	rta/RTGtrk/ RTtrkhunt.c
						MSSTGOFL	rta/RTGtrk/ RTtrkbusy.c
						MSSTGOFL	rta/RTGtrk/ RTtrkhunt.c
						MSSTGOPC	rta/RTGtrk/ RTtrkbusy.c
						MSSTGOPC	rta/RTGtrk/ RTtrkhunt.c
MScpinsert	CMP	BASE	- - - - -	- - - - -	- - - - -	MSDTGOFL	rta/RTGtrk/ RTtrkbusy.c
						MSDTGOFL	rta/RTGtrk/ RTtrkhunt.c
						MSDTGOPC	rta/RTGtrk/ RTtrkhunt.c
						MSRSTGOPC	rta/RTGtrk/ RTtrkhunt.c
						MSSTGOFL	rta/RTGtrk/ RTtrkbusy.c
						MSSTGOFL	rta/RTGtrk/ RTtrkhunt.c
						MSSTGOPC	rta/RTGtrk/ RTtrkbusy.c
						MSSTGOPC	rta/RTGtrk/ RTtrkhunt.c
MScplc_init	AM	BASE	TRFC 30	1	DATLOS	- - - - -	- - - - -
			TRFC 30	1	STATUS		
MScqam_ac.acCQ_ABAN	CMP	OPAMBACD	- - - - -	- - - - -	- - - - -	MSACQABAND	rta/ACclldst/ ACabandon.c
MScqam_ac.acCQ_ACDEN	CMP	OPAMBACD	- - - - -	- - - - -	- - - - -	MSACDENT	rta/ACclldst/ ACictreq.c

Table 69 Part 69

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By

						MSACDENT	rta/ACclldst/ ACrequest.c
MScqam_ac.acCQ_L1DLY	CMP	OPAMBACD	- - - - -	- - - - -	- - - - -	MSL1DA	rta/ACclldst/ ACcstalrt.c
MScqam_ac.acCQ_L2DLY	CMP	OPAMBACD	- - - - -	- - - - -	- - - - -	MSL2DA	rta/ACclldst/ ACcstalrt.c
MScqam_ac.acCQ_L3DLY	CMP	OPAMBACD	- - - - -	- - - - -	- - - - -	MSL3DA	rta/ACclldst/ ACcstalrt.c
MScqam_ac.acCQ_OFL	CMP	OPAMBACD	- - - - -	- - - - -	- - - - -	MSOSPSQOFL	rta/ACclldst/ ACcstalrt.c
MScqsm_ac.acCQ_CALLTM	SM	OPSMCDOT	- - - - -	- - - - -	- - - - -	MSOPCALLTM	as/ASospsadm/ MSfrecords.c
						MSOPCALLTM	as/ASospsadm/ MSotafrec.c
MScqsm_ac.acCQ_POSZ	SM	OPSMCDOT	- - - - -	- - - - -	- - - - -	MSPOSZ	oa/OAda_nr/ OBJ/ OAda_nr.cc
						MSPOSZ	oa/OAnmain/ OBJ/ OAnmain.cc
MScqsm_ac.acCQ_RECL	SM	OPSMCDOT	- - - - -	- - - - -	- - - - -	MSOSPSREC	oa/OAactsot/ OAwaitopr.c
						MSOSPSREC	oa/OAdaannc/ OAoprcl.c
						MSOSPSREC	oa/OAeisot/ OAeisoprt.c
						MSOSPSREC	oa/OAifz_ot/ OAifzcall.c
						MSOSPSREC	oa/OAifz_ot/ OAqantlk.c
						MSOSPSREC	oa/OAifz_ot/ OAqwannc.c
						MSOSPSREC	oa/OAifz_ot/ OAqwopsz.c
						MSOSPSREC	oa/OAta_ot/ OAta_1rcl.c
						MSOSPSREC	oa/OAta_ot/ OAta_2rcl.c
MScqsm_ac.acCQ_REORD	SM	OPSMCDOT	- - - - -	- - - - -	- - - - -	MSOSPSRORD	oa/OAactsot/ OAcn1popr.c
						MSOSPSRORD	oa/OAactsot/ OAcn_idle.c
						MSOSPSRORD	oa/OAactsot/ OAcnicopr.c
						MSOSPSRORD	oa/OAactsot/ OAcnoprsu.c
						MSOSPSRORD	oa/OAactsot/ OAcnreqopr.c
						MSOSPSRORD	oa/OAactsot/ OAicrate.c
						MSOSPSRORD	oa/OAactsot/ OArtclosed.c
						MSOSPSRORD	oa/OAeisot/ OAccannc.c
						MSOSPSRORD	oa/OAeisot/ OAeisoprt.c
						MSOSPSRORD	oa/OAotcv/ OAcvroute.c
						MSOSPSRORD	oa/OAotcv/ OAcvtrmn.c
						MSOSPSRORD	oa/OAotoper/ OAnit.c
						MSOSPSROR	oa/OAotoper/

						D	OAop_id.c
						MSOSPSRORD	oa/OAotoper/ OAopco_cal.c
						MSOSPSRORD	oa/OAotoper/ OAopto_ans.c
						MSOSPSRORD	oa/OAotoper/ OAopto_cal.c
						MSOSPSRORD	oa/OAotoper/ OAorigque.c
						MSOSPSRORD	oa/OAotoper/ OAsetup.c
						MSOSPSRORD	oa/OAotoper/ OAta_opcal.c
						MSOSPSRORD	oa/OAotoper/ OAtaopque.c
						MSOSPSRORD	oa/OAta_ot/ OAta_opans.c
						MSOSPSRORD	oa/OAta_ot/ OAtasrvchk.c
MScquscam	CMP	OPAMBACD	TRFC 30	64	ANSTME (SYSCAMA)	- - - - -	- - - - -
MScquscam	AM	OPAMBACD	TRFC 30	64	ANSTME (SYSCAMA)	- - - - -	- - - - -
MScquxcam	CMP	OPAMBACD	TRFC 30	64	ANSTME (XFERCAMA)	- - - - -	- - - - -
MScquxcam	AM	OPAMBACD	TRFC 30	64	ANSTME (XFERCAMA)	- - - - -	- - - - -
MSd284ac_ontft	AM	BASE	PLNT 24	2A	FAULTS (ONTCCOM)	MSONTFLT	as/ASmsmisc/ MSamprims.c
MSdlnlcinit	AM	BASE	TRFC 30	66	VALIDITY	MSDLNRPT	as/ASdln/ MSdlncc.c
MSdsninchash	AM	DSNCOMON	- - - - -	- - - - -	- - - - -	MSPTGRPOP	rta/RTpp/ RTpptkhnt.c
						MSTGPFAIL	rta/RTpp/ RTpptkhnt.c
						MSTGPRMT	fc/FCmfcpfm/ OBJ/ MCpfm.sdc
						MSTGPRMT	fc/FCmfcpp/ OBJ/ MCpp.cc
MSdsninchash	CMP	DSNCOMON	- - - - -	- - - - -	- - - - -	MSPTGRPOP	rta/RTpp/ RTpptkhnt.c
						MSTGPFAIL	rta/RTpp/ RTpptkhnt.c
						MSTGPRMT	fc/FCmfcpfm/ OBJ/ MCpfm.sdc
						MSTGPRMT	fc/FCmfcpp/ OBJ/ MCpp.cc

Table 70 Part 70

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MSe284ac_nckft	AM	BASE	PLNT 24	2A	FAULTS (NCLK)	MSNCKFLT	as/ASmsmisc/ MSamprims.c
			PLNT 24	2A	FAULTS (NCREF or NCLK REF)		
MSecmp_inits	AM	BASE	PLNT 24	2B	INITIALIZATIONS - CMP	- - - - -	- - - - -
MSedc_cnt.MS1301ac_edc	SM	BASE	TRFC	73	ACREQ	MSIBREDC	fc/FCeds/ ISac.c

			30				
			TRFC 30	73	DQDREQ	MSIBREDC	fc/FCeds/ ISdqdspl.c
			TRFC 30	73	DQDSDM	MSIBREDC	fc/FCeds/ ISdqnxt.c
			TRFC 30	73	NDSMSG	MSIBREDC	fc/FCeds/ ISdqstrt.c
			TRFC 30	73	UACREQ	MSIBREDC	fc/FCeds/ OBJ/ IScndfm.cc
MSf284ac_ombft	AM	BASE	PLNT 24	2A	FAULTS (ONTC-MIB)	MSOMBFLT	- - - - -
MSg284ac_nctft	AM	BASE	PLNT 24	2A	ERRORS (CLNKS)	MSNCTFLT	as/ASmsmisc/ MSamprims.c
			PLNT 24	2A	ERRORS (NCT LINKS)		
MSh284ac_mscft	AM	BASE	PLNT 24	2A	FAULTS (MSCU)	MSMSCFLT	as/ASmsmisc/ MSamprims.c
MShscnt	SM	BASE	M5	5	TOTAL CKTS (HLSC)	- - - - -	- - - - -
MSi284ac_tmsft	AM	BASE	PLNT 24	2A	FAULTS (TMSLNK)	MSTMSFLT	as/ASmsmisc/ MSamprims.c
MSidp_cnt.cnts	SM	BASE	TRFC 30	31	ACT	MSMCCIDP	fc/FCcorc/ MCcorcinit.c
			TRFC 30	31	AD1	MSMCCIDP	fc/FCcorc/ MCgpacdc.c
			TRFC 30	31	AD2	MSMCCIDP	fc/FCidp/ MCdiganal.c
			TRFC 30	31	AD3	MSMCCIDP	fc/FCidp/ MCgpic.c
			TRFC 30	31	CARR	MSMCCIDP	fc/FCidp/ MCidact.c
			TRFC 30	31	DPAT	MSMCCIDP	fc/FCidp/ MCiderr.c
			TRFC 30	31	FCD	MSMCCIDP	fc/FCidp/ MCidswitch.c
			TRFC 30	31	INTER	MSMCCIDP	fc/FCidp/ MCintercom.c
			TRFC 30	31	PCHG	MSMCCIDP	fc/FCidp/ MCpotsa.c
			TRFC 30	31	PFA	MSMCCIDP	fc/FCidp/ MCspdcall.c
			TRFC 30	31	POTS	MSMCCIDP	fc/FCidp/ MCspicarr.c
			TRFC 30	31	PRIMCAR		
			TRFC 30	31	UCET		
MSimlc_init	SM	BASE	TRFC 30	1	DATLOS	- - - - -	- - - - -
			TRFC 30	1	STATUS		
MSinforpt	SM	LP_DOM	- - - - -	- - - - -	- - - - -	MSTCL	as/ASmsmisc/ MScrpegcnt.c
MSishircvy	PH	PHISDN	PLNT 24	11	PHHLRCV	MSHLRCVPC	si/SIph/ SIunsegm.c
			PLNT 24	11	PIHLRCV	MSHLRCVPC	si/SIpi/ SIunsegm.c
MSishircvy	PI	PIISDN	PLNT 24	11	PHHLRCV	MSHLRCVPC	si/SIph/ SIunsegm.c
			PLNT 24	11	PIHLRCV	MSHLRCVPC	si/SIpi/ SIunsegm.c
MSisinj	PH	PHISDN	TRFC	51	OCCUP	MSISINJ	ps/PSpacket/

			30				PSphinj2.c
			TRFC 30	52	OCCUP	MSISINJ	ps/PSpacket/ PSpiinj.c
MSisinj	PI	PIISDN	TRFC 30	51	OCCUP	MSISINJ	ps/PSpacket/ PSphinj2.c
			TRFC 30	52	OCCUP	MSISINJ	ps/PSpacket/ PSpiinj.c
MSislorcvy	PH	PHISDN	PLNT 24	11	PHLLRCV	MSLLRCVPC	au/AUpsac/ AUropout.c
			PLNT 24	11	PILLRCV	MSLLRCVPC	si/INppictl/ INppspp.c
						MSLLRCVPC	si/INppictl/ INrecovery.c
MSislorcvy	PI	PIISDN	PLNT 24	11	PHLLRCV	MSLLRCVPC	au/AUpsac/ AUropout.c
			PLNT 24	11	PILLRCV	MSLLRCVPC	si/INppictl/ INppspp.c
						MSLLRCVPC	si/INppictl/ INrecovery.c
MSisovld	PH	PHISDN	PLNT 24	11	OVERLOADS-PH	MSISOVLDPC	si/OCph/ OCautocntl.c
			PLNT 24	11	OVERLOADS-PI	MSISOVLDPC	si/OCpi/ OCautocntl.c
			TRFC 30	51	OVLD		
			TRFC 30	52	OVLD		
MSisovld	PI	PIISDN	PLNT 24	11	OVERLOADS-PH	MSISOVLDPC	si/OCph/ OCautocntl.c
			PLNT 24	11	OVERLOADS-PI	MSISOVLDPC	si/OCpi/ OCautocntl.c
			TRFC 30	51	OVLD		
			TRFC 30	52	OVLD		
MSisscn100	PH	PHISDN	- - - - -	- - - - -	- - - - -	MSISCNPC	as/ASmsis3/ MSpi.c

Table 71 Part 71

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MSisscn100	PI	PIISDN	- - - - -	- - - - -	- - - - -	MSISCNPC	as/ASmsis3/ MSpi.c
MSj284ac_dlift	AM	BASE	PLNT 24	2A	FAULTS (DLI)	MSDLIFLT	as/ASmsmisc/ MSamprims.c
MSk284ac_oscft	AM	BASE	PLNT 24	2A	FAULTS (NCOSC or NCLK OSC)	MSOSCFLT	as/ASmsmisc/ MSamprims.c
MSlatmpt	SM	LP_DOM	- - - - -	- - - - -	- - - - -	MSLATMPT	fc/FCshdn/ FCrtp.c
						MSLATMPT	fp/FPerror/ FPfailrept.c
						MSLATMPT	fp/FPlnorig/ FPro_fs.c
						MSLATMPT	fp/FPlnterm/ FPrt_fs.c
MSlblock	SM	LP_DOM	- - - - -	- - - - -	- - - - -	MSLBLOCK	pc/PCport/ OBJ/ LPactsrq.cc
						MSLBLOCK	pc/PCring/ LPactring.c

MSlc_validity	AM	LP_DOM	TRFC 30	1	DATLOS	- - - - -	- - - - -
			TRFC 30	1	STATUS		
MSlookup	AM	LP_DOM	- - - - -	- - - - -	- - - - -	MSAVNPPG	fc/FCmfcpp/ OBJ/ MCnp.cc
						MSAVNPPG	fc/FCmfcpp/ OBJ/ MCpp.cc
						MSAVNPPG	rta/RTpp/ RTppcounts.c
						MSIBACSR	fita/FIacsr/ ISacsr_org.c
						MSIBACSR	fita/FIacsr/ OBJ/ ISacsr.cc
						MSIBACSR	rita/RIacsr/ RIacsr_cnt.c
						MSIBREDC	fc/FCeds/ ISac.c
						MSIBREDC	fc/FCeds/ ISdqdspl.c
						MSIBREDC	fc/FCeds/ ISdqnxt.c
						MSIBREDC	fc/FCeds/ ISdqstrt.c
						MSIBREDC	fc/FCeds/ OBJ/ IScndfm.cc
						MSIBRMDC	fc/FCeds/ ISac.c
						MSIBRMDC	fc/FCmss/ FCdct_mwi.c
						MSIBRMDC	fc/FCmss/ FCpod_req.c
						MSIBRMDC	fc/FCmss/ ISbgn_mrd.c
						MSIBRMDC	fc/FCmss/ ISmrdapmsg.c
						MSIBRMDC	fc/FCmss/ ISmrdapst.c
						MSIBRMDC	fc/FCmss/ MCmsinit.c
						MSIBRMDG	fc/FCmss/ FCmdc_term.c
						MSIBRMDG	fc/FCmss/ FCvrfy_fid.c
						MSIBRMDG	fc/FCmss/ MCmsinit.c
						MSMCCATT	rta/RTGmlg/ RTbfmlg.c
						MSMCCATT	rta/RTGmlg/ RTmlghunt.c
						MSMCCATT	rta/RTGmlg/ RTnohunt.c
						MSMCCATT	rta/RTstatus/ RTportbusy.c
						MSMCCCF	fc/FCacb/ ISacb_msg.c
						MSMCCCF	fc/FCacb/ MCacb_init.c
						MSMCCCF	fc/FCacctath/ MCathacct.c
						MSMCCCF	fc/FCacctath/ MCleadacct.c
						MSMCCCF	fc/FCars/ MCarmnint.c
						MSMCCCF	fc/FCars/ MCarsnint.c

						MSMCCCF	fc/FCcalwat/ OBJ/ MCcw.cc
						MSMCCCF	fc/FCclid/ ISdispck.c
						MSMCCCF	fc/FCclid/ ISoinit.c
						MSMCCCF	fc/FCclid/ MCdnpriv.c
						MSMCCCF	fc/FCconf/ OBJ/ FCconf.sdc
						MSMCCCF	fc/FCcorc/ IScfwd.c
						MSMCCCF	fc/FCcorc/ MCacdc.c
						MSMCCCF	fc/FCcorc/ MCcorcinit.c
						MSMCCCF	fc/FCcorc/ MCdnacdc.c
						MSMCCCF	fc/FCcorc/ MCgpacdc.c
						MSMCCCF	fc/FCcorc/ MCmagic.c
						MSMCCCF	fc/FCcorc/ MCmdnlchk.c
						MSMCCCF	fc/FCcorc/ MCntkey.c
						MSMCCCF	fc/FCcorc/ MCtdacdc.c
						MSMCCCF	fc/FCcpnbn/ IScpnbncnt.c
						MSMCCCF	fc/FCdisp/ ISdfassign.c
						MSMCCCF	fc/FCeds/ ISac.c
						MSMCCCF	fc/FCeds/ ISdqstrt.c
						MSMCCCF	fc/FCeds/ ISedscnd.c
						MSMCCCF	fc/FChi/ MChi_init.c
						MSMCCCF	fc/FCicom/ ISicm_init.c
						MSMCCCF	fc/FCidp/ MCspdcall.c
						MSMCCCF	fc/FCisatnd/ FCat_error.c
						MSMCCCF	fc/FCmfccf/ MCcflook.c
						MSMCCCF	fc/FCmfcpfm/ OBJ/ MCpfm.sdc
						MSMCCCF	fc/FCmfcpu/ MCformadd.c
						MSMCCCF	fc/FCmfcpu/ MCpuo.c
						MSMCCCF	fc/FCmfcpu/ MCput.c
						MSMCCCF	fc/FCmw/ MCmw_peg.c
						MSMCCCF	fc/FCmw/ MCtp2apbs.c
						MSMCCCF	fc/FCpfa/ MCdpfa.c
						MSMCCCF	fc/FCras/ FCacf_init.c
						MSMCCCF	fc/FCras/ OBJ/ MCras.cc
						MSMCCCF	fp/FPinit_fs/ FPrfs.c
						MSMCCCF	fp/FPInterm/

							FPformadd.c
						MSMCCCF	rta/RTterm/ RTacvt_chk.c
						MSMCCCF	rta/RTterm/ RTana_pu.c
						MSMCCCF	rta/RTterm/ RTbusyfs.c
						MSMCCCF	rta/RTterm/ RTfrwdfs.c
						MSMCCCF	rta/RTterm/ RTidlefs.c
						MSMCCCF	rta/RTtod/ RTtrig_wl.c
						MSMCCIDP	fc/FCcorc/ MCcorcinit.c
						MSMCCIDP	fc/FCcorc/ MCgpacdc.c
						MSMCCIDP	fc/FCidp/ MCdiganal.c
						MSMCCIDP	fc/FCidp/ MCgpic.c
						MSMCCIDP	fc/FCidp/ MCidact.c
						MSMCCIDP	fc/FCidp/ MCiderr.c
						MSMCCIDP	fc/FCidp/ MCidswitch.c
						MSMCCIDP	fc/FCidp/ MCintercom.c
						MSMCCIDP	fc/FCidp/ MCpotsa.c
						MSMCCIDP	fc/FCidp/ MCspdcall.c
						MSMCCIDP	fc/FCidp/ MCspicarr.c
						MSMCCMLHG	rta/RTGmlg/ RTbfmlg.c
						MSMCCMLHG	rta/RTGmlg/ RTmlghunt.c
						MSMCCMLHG	rta/RTGmlg/ RTnohunt.c
						MSMCCPFA	ama/AMentry/ AMsetup.c
						MSMCCPFA	au/AUicr/ OBJ/ AUicrlgst.cc
						MSMCCPFA	au/AUicr/ OBJ/ AUicrst.cc
						MSMCCPFA	au/AUrtasfg/ OBJ/ AUlgsfstat.cc
						MSMCCPFA	au/AUrtasfg/ OBJ/ AUsfstat.cc
						MSMCCPFA	pc/PCnetwk/ PHcallproc.c
						MSMCCPFA	rta/RTGbrcs/ RTmc_rting.c
						MSMCCPFA	rta/RTGbrcs/ RTsffstht.c
						MSMCCPFA	rta/RTGbrcs/ RTsfg_ht.c
						MSMCCPFA	rta/RTGbrcs/ RTsfg_set.c
						MSMCCPFA	rta/RTGtrk/ RTtrkbusy.c
						MSMCCPFA	rta/RTicr/ RTicr_lhnt.c

						MSMCCPFA	rta/RTicr/ RTicr_shnt.c
						MSMCCPFA	rta/RTpp/ RTpoly_rtg.c
						MSMCCTMG	cra/CRasmblr/ CRsminput.c
						MSMCCTMG	fc/FCcalwat/ OBJ/ MCcw.cc
						MSMCCTMG	fc/FCconf/ OBJ/ FCconf.sdc
						MSMCCTMG	fc/FCmfccf/ MCcflook.c
						MSMCCTMG	fc/FCmfcpu/ MCpuo.c
						MSMCCTMG	fc/FCmw/ MCmw_peg.c
						MSMCCTMG	rta/RTterm/ RTbusyfs.c
						MSMCCTMG	rta/RTterm/ RTfrwdfs.c
						MSMCCTMG	rta/RTterm/ RTidlefs.c
						MSMCCTMG	rta/RTtgsr/ RTmhg_tgsr.c
						MSMCCTMG	rta/RTtgsr/ RTtgsr_chk.c
						MSMCCTMG	rta/RTtgsr/ RTtrk_tgsr.c
						MSMCQANN	- - - - -
						MSMCQMLH	fc/FCmfcqu/ FCqdl_set.c
						MSMCQMLH	rta/RTGmlg/ RTmlghunt.c
						MSMCQMLH	rta/RTmfcqu/ RTisat_nq.c
						MSMCQMLH	rta/RTmfcqu/ RTisataban.c
						MSMCQMLH	rta/RTmfcqu/ RTlnqaban.c
						MSMCQMLH	rta/RTmfcqu/ RTlnqreq.c
						MSPMCCMLHG	rta/RTpp/ RTppmlght.c

Table 72 Part 72

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MSlookup	CMP	BASE	- - - - -	- - - - -	- - - - -	MSAVNPPG	fc/FCmfcpp/ OBJ/ MCnp.cc
						MSAVNPPG	fc/FCmfcpp/ OBJ/ MCpp.cc
						MSAVNPPG	rta/RTpp/ RTppcounts.c
						MSIBACSR	fita/FIacsr/ ISacsr_org.c
						MSIBACSR	fita/FIacsr/ OBJ/ ISacsr.cc
						MSIBACSR	rita/RIacsr/ RIacsr_cnt.c

						MSIBREDC	fc/FCeds/ ISac.c
						MSIBREDC	fc/FCeds/ ISdqdspl.c
						MSIBREDC	fc/FCeds/ ISdqnxt.c
						MSIBREDC	fc/FCeds/ ISdqstrt.c
						MSIBREDC	fc/FCeds/ OBJ/ IScndfm.cc
						MSIBRMDC	fc/FCeds/ ISac.c
						MSIBRMDC	fc/FCmss/ FCdct_mwi.c
						MSIBRMDC	fc/FCmss/ FCpod_req.c
						MSIBRMDC	fc/FCmss/ ISbgn_mrd.c
						MSIBRMDC	fc/FCmss/ ISmrdapmsg.c
						MSIBRMDC	fc/FCmss/ ISmrdapst.c
						MSIBRMDC	fc/FCmss/ MCmsinit.c
						MSIBRMDG	fc/FCmss/ FCmdc_term.c
						MSIBRMDG	fc/FCmss/ FCvrfy_fid.c
						MSIBRMDG	fc/FCmss/ MCmsinit.c
						MSMCCATT	rta/RTGmlg/ RTbfmlg.c
						MSMCCATT	rta/RTGmlg/ RTmlghunt.c
						MSMCCATT	rta/RTGmlg/ RTnohunt.c
						MSMCCATT	rta/RTstatus/ RTportbusy.c
						MSMCCCF	fc/FCacb/ ISacb_msg.c
						MSMCCCF	fc/FCacb/ MCacb_init.c
						MSMCCCF	fc/FCacctath/ MCathacct.c
						MSMCCCF	fc/FCacctath/ MCleadacct.c
						MSMCCCF	fc/FCars/ MCarmnint.c
						MSMCCCF	fc/FCars/ MCarsnint.c
						MSMCCCF	fc/FCcalwat/ OBJ/ MCcw.cc
						MSMCCCF	fc/FCclid/ ISdispck.c
						MSMCCCF	fc/FCclid/ ISoinit.c
						MSMCCCF	fc/FCclid/ MCdnpriv.c
						MSMCCCF	fc/FCconf/ OBJ/ FCconf.sdc
						MSMCCCF	fc/FCcorc/ IScfwd.c
						MSMCCCF	fc/FCcorc/ MCacdc.c
						MSMCCCF	fc/FCcorc/ MCcorcinit.c
						MSMCCCF	fc/FCcorc/ MCdnacdc.c

						MSMCCCF	fc/FCcorc/ MCgpacdc.c
						MSMCCCF	fc/FCcorc/ MCmagic.c
						MSMCCCF	fc/FCcorc/ MCmdnlchk.c
						MSMCCCF	fc/FCcorc/ MCntkey.c
						MSMCCCF	fc/FCcorc/ MCtdacdc.c
						MSMCCCF	fc/FCcpnbn/ IScpnbncnt.c
						MSMCCCF	fc/FCdisp/ ISdfassign.c
						MSMCCCF	fc/FCeds/ ISac.c
						MSMCCCF	fc/FCeds/ ISdqstrt.c
						MSMCCCF	fc/FCeds/ ISedscnd.c
						MSMCCCF	fc/FChi/ MChi_init.c
						MSMCCCF	fc/FCicom/ ISicm_init.c
						MSMCCCF	fc/FCidp/ MCspdcall.c
						MSMCCCF	fc/FCisatnd/ FCat_error.c
						MSMCCCF	fc/FCmfccf/ MCcflook.c
						MSMCCCF	fc/FCmfcpfm/ OBJ/ MCpfm.sdc
						MSMCCCF	fc/FCmfcpu/ MCformadd.c
						MSMCCCF	fc/FCmfcpu/ MCpuo.c
						MSMCCCF	fc/FCmfcpu/ MCput.c
						MSMCCCF	fc/FCmw/ MCmw_peg.c
						MSMCCCF	fc/FCmw/ MCtp2apbs.c
						MSMCCCF	fc/FCpfa/ MCdpfa.c
						MSMCCCF	fc/FCras/ FCacf_init.c
						MSMCCCF	fc/FCras/ OBJ/ MCras.cc
						MSMCCCF	fp/FPinit_fs/ FPrfs.c
						MSMCCCF	fp/FPInterm/ FPformadd.c
						MSMCCCF	rta/RTterm/ RTacvt_chk.c
						MSMCCCF	rta/RTterm/ RTana_pu.c
						MSMCCCF	rta/RTterm/ RTbusyfs.c
						MSMCCCF	rta/RTterm/ RTfrwdfs.c
						MSMCCCF	rta/RTterm/ RTidlefs.c
						MSMCCCF	rta/RTtod/ RTtrig_wl.c
						MSMCCIDP	fc/FCcorc/ MCcorcinit.c
						MSMCCIDP	fc/FCcorc/

							MCgpacdc.c
						MSMCCIDP	fc/FCidp/ MCdiganal.c
						MSMCCIDP	fc/FCidp/ MCgpic.c
						MSMCCIDP	fc/FCidp/ MCidact.c
						MSMCCIDP	fc/FCidp/ MCiderr.c
						MSMCCIDP	fc/FCidp/ MCidswitch.c
						MSMCCIDP	fc/FCidp/ MCintercom.c
						MSMCCIDP	fc/FCidp/ MCpotsa.c
						MSMCCIDP	fc/FCidp/ MCspdcall.c
						MSMCCIDP	fc/FCidp/ MCspicarr.c
						MSMCCMLHG	rta/RTGmlg/ RTbfmlg.c
						MSMCCMLHG	rta/RTGmlg/ RTmlghunt.c
						MSMCCMLHG	rta/RTGmlg/ RTnohunt.c
						MSMCCPFA	ama/AMentry/ AMsetup.c
						MSMCCPFA	au/AUicr/ OBJ/ AUicrlgst.cc
						MSMCCPFA	au/AUicr/ OBJ/ AUicrst.cc
						MSMCCPFA	au/AUrtasfg/ OBJ/ AUlgsfstat.cc
						MSMCCPFA	au/AUrtasfg/ OBJ/ AUsfstat.cc
						MSMCCPFA	pc/PCnetwk/ PHcallproc.c
						MSMCCPFA	rta/RTGbrcs/ RTmc_rting.c
						MSMCCPFA	rta/RTGbrcs/ RTsffstht.c
						MSMCCPFA	rta/RTGbrcs/ RTsfg_ht.c
						MSMCCPFA	rta/RTGbrcs/ RTsfg_set.c
						MSMCCPFA	rta/RTGtrk/ RTtrkbusy.c
						MSMCCPFA	rta/RTicr/ RTicr_lhnt.c
						MSMCCPFA	rta/RTicr/ RTicr_shnt.c
						MSMCCPFA	rta/RTpp/ RTpoly_rtg.c
						MSMCCTMG	cra/CRasmblr/ CRsminput.c
						MSMCCTMG	fc/FCcalwat/ OBJ/ MCcw.cc
						MSMCCTMG	fc/FCconf/ OBJ/ FCconf.sdc
						MSMCCTMG	fc/FCmfccf/ MCcflook.c
						MSMCCTMG	fc/FCmfcpu/ MCpuo.c
						MSMCCTMG	fc/FCmw/ MCmw_peg.c

						MSMCCTMG	rta/RTterm/ RTbusyfs.c
						MSMCCTMG	rta/RTterm/ RTfrwdfs.c
						MSMCCTMG	rta/RTterm/ RTidlefs.c
						MSMCCTMG	rta/RTtgsr/ RTmhg_tgsr.c
						MSMCCTMG	rta/RTtgsr/ RTtgsr_chk.c
						MSMCCTMG	rta/RTtgsr/ RTtrk_tgsr.c
						MSMCQANN	- - - - -
						MSMCQMLH	fc/FCmfcqu/ FCqdl_set.c
						MSMCQMLH	rta/RTGmlg/ RTmlghunt.c
						MSMCQMLH	rta/RTmfcqu/ RTisat_nq.c
						MSMCQMLH	rta/RTmfcqu/ RTisataban.c
						MSMCQMLH	rta/RTmfcqu/ RTlnqaban.c
						MSMCQMLH	rta/RTmfcqu/ RTlnqreq.c
						MSPMCCMLH G	rta/RTpp/ RTppmlght.c

Table 73 Part 73

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MSlookup	SM	BASE	- - - - -	- - - - -	- - - - -	MSAVNPPG	fc/FCmfcpp/ OBJ/ MCnp.cc
						MSAVNPPG	fc/FCmfcpp/ OBJ/ MCpp.cc
						MSAVNPPG	rta/RTpp/ RTppcounts.c
						MSIBACSR	fita/FIacsr/ ISacsr_org.c
						MSIBACSR	fita/FIacsr/ OBJ/ ISacsr.cc
						MSIBACSR	rita/RIacsr/ RIacsr_cnt.c
						MSIBREDC	fc/FCeds/ ISac.c
						MSIBREDC	fc/FCeds/ ISdqdspl.c
						MSIBREDC	fc/FCeds/ ISdqnxt.c
						MSIBREDC	fc/FCeds/ ISdqstrt.c
						MSIBREDC	fc/FCeds/ OBJ/ IScndfm.cc
						MSIBRMDC	fc/FCeds/ ISac.c
						MSIBRMDC	fc/FCmss/ FCdct_mwi.c
						MSIBRMDC	fc/FCmss/ FCpod_req.c
						MSIBRMDC	fc/FCmss/ ISbgn_mrd.c
						MSIBRMDC	fc/FCmss/ ISmrdapmsg.c
						MSIBRMDC	fc/FCmss/

							ISmrdapst.c
						MSIBRMDC	fc/FCmss/ MCmsinit.c
						MSIBRMDG	fc/FCmss/ FCmdc_term.c
						MSIBRMDG	fc/FCmss/ FCvrfy_fid.c
						MSIBRMDG	fc/FCmss/ MCmsinit.c
						MSMCCATT	rta/RTGmlg/ RTbfmlg.c
						MSMCCATT	rta/RTGmlg/ RTmlghunt.c
						MSMCCATT	rta/RTGmlg/ RTnohunt.c
						MSMCCATT	rta/RTstatus/ RTportbusy.c
						MSMCCCF	fc/FCacb/ ISacb_msg.c
						MSMCCCF	fc/FCacb/ MCacb_init.c
						MSMCCCF	fc/FCacctath/ MCathacct.c
						MSMCCCF	fc/FCacctath/ MCleadacct.c
						MSMCCCF	fc/FCars/ MCarmnint.c
						MSMCCCF	fc/FCars/ MCarsnint.c
						MSMCCCF	fc/FCcalwat/ OBJ/ MCcw.cc
						MSMCCCF	fc/FCclid/ ISdispck.c
						MSMCCCF	fc/FCclid/ ISoinit.c
						MSMCCCF	fc/FCclid/ MCdnpriv.c
						MSMCCCF	fc/FCconf/ OBJ/ FCconf.sdc
						MSMCCCF	fc/FCcorc/ IScfwd.c
						MSMCCCF	fc/FCcorc/ MCacdc.c
						MSMCCCF	fc/FCcorc/ MCcorcinit.c
						MSMCCCF	fc/FCcorc/ MCdnacdc.c
						MSMCCCF	fc/FCcorc/ MCgpacdc.c
						MSMCCCF	fc/FCcorc/ MCmagic.c
						MSMCCCF	fc/FCcorc/ MCmdnlchk.c
						MSMCCCF	fc/FCcorc/ MCntkey.c
						MSMCCCF	fc/FCcorc/ MCtdacdc.c
						MSMCCCF	fc/FCcpnbn/ IScpnbncnt.c
						MSMCCCF	fc/FCdisp/ ISdfassign.c
						MSMCCCF	fc/FCeds/ ISac.c
						MSMCCCF	fc/FCeds/ ISdqstrt.c
						MSMCCCF	fc/FCeds/

							ISedscnd.c
						MSMCCCF	fc/FChi/ MChi_init.c
						MSMCCCF	fc/FCicom/ ISicm_init.c
						MSMCCCF	fc/FCidp/ MCspdcall.c
						MSMCCCF	fc/FCisatnd/ FCat_error.c
						MSMCCCF	fc/FCmfccf/ MCcflook.c
						MSMCCCF	fc/FCmfcpfm/ OBJ/ MCpfm.sdc
						MSMCCCF	fc/FCmfcpu/ MCformadd.c
						MSMCCCF	fc/FCmfcpu/ MCpuo.c
						MSMCCCF	fc/FCmfcpu/ MCput.c
						MSMCCCF	fc/FCmw/ MCmw_peg.c
						MSMCCCF	fc/FCmw/ MCtp2apbs.c
						MSMCCCF	fc/FCpfa/ MCdpfa.c
						MSMCCCF	fc/FCras/ FCacf_init.c
						MSMCCCF	fc/FCras/ OBJ/ MCras.cc
						MSMCCCF	fp/FPinit_fs/ FPrfs.c
						MSMCCCF	fp/FPInterm/ FPformadd.c
						MSMCCCF	rta/RTterm/ RTacvt_chk.c
						MSMCCCF	rta/RTterm/ RTana_pu.c
						MSMCCCF	rta/RTterm/ RTbusyfs.c
						MSMCCCF	rta/RTterm/ RTfrwdfs.c
						MSMCCCF	rta/RTterm/ RTidlefs.c
						MSMCCCF	rta/RTtod/ RTtrig_wl.c
						MSMCCIDP	fc/FCcorc/ MCcorcinit.c
						MSMCCIDP	fc/FCcorc/ MCgpacdc.c
						MSMCCIDP	fc/FCidp/ MCdiganal.c
						MSMCCIDP	fc/FCidp/ MCgpic.c
						MSMCCIDP	fc/FCidp/ MCidact.c
						MSMCCIDP	fc/FCidp/ MCiderr.c
						MSMCCIDP	fc/FCidp/ MCidswitch.c
						MSMCCIDP	fc/FCidp/ MCintercom.c
						MSMCCIDP	fc/FCidp/ MCpotsa.c
						MSMCCIDP	fc/FCidp/ MCspdcall.c
						MSMCCIDP	fc/FCidp/ MCspicarr.c
						MSMCCMLHG	rta/RTGmlg/

							RTbfmlg.c
						MSMCCMLHG	rta/RTGmlg/ RTmlghunt.c
						MSMCCMLHG	rta/RTGmlg/ RTnohunt.c
						MSMCCPFA	ama/AMentry/ AMsetup.c
						MSMCCPFA	au/AUicr/ OBJ/ AUicrlgst.cc
						MSMCCPFA	au/AUicr/ OBJ/ AUicrst.cc
						MSMCCPFA	au/AUrtasfg/ OBJ/ AUlgsfstat.cc
						MSMCCPFA	au/AUrtasfg/ OBJ/ AUsfstat.cc
						MSMCCPFA	pc/PCnetwk/ PHcallproc.c
						MSMCCPFA	rta/RTGbrcs/ RTmc_rting.c
						MSMCCPFA	rta/RTGbrcs/ RTsffstht.c
						MSMCCPFA	rta/RTGbrcs/ RTsfg_ht.c
						MSMCCPFA	rta/RTGbrcs/ RTsfg_set.c
						MSMCCPFA	rta/RTGtrk/ RTtrkbusy.c
						MSMCCPFA	rta/RTicr/ RTicr_lhnt.c
						MSMCCPFA	rta/RTicr/ RTicr_shnt.c
						MSMCCPFA	rta/RTpp/ RTpoly_rtg.c
						MSMCCTMG	cra/CRasmblr/ CRsminput.c
						MSMCCTMG	fc/FCcalwat/ OBJ/ MCcw.cc
						MSMCCTMG	fc/FCconf/ OBJ/ FCconf.sdc
						MSMCCTMG	fc/FCmfccf/ MCcflook.c
						MSMCCTMG	fc/FCmfcpu/ MCpuo.c
						MSMCCTMG	fc/FCmw/ MCmw_peg.c
						MSMCCTMG	rta/RTterm/ RTbusyfs.c
						MSMCCTMG	rta/RTterm/ RTfrwdfs.c
						MSMCCTMG	rta/RTterm/ RTidlefs.c
						MSMCCTMG	rta/RTtgsr/ RTmhg_tgsr.c
						MSMCCTMG	rta/RTtgsr/ RTtgsr_chk.c
						MSMCCTMG	rta/RTtgsr/ RTtrk_tgsr.c
						MSMCQANN	- - - - -
						MSMCQMLH	fc/FCmfcqu/ FCqdl_set.c
						MSMCQMLH	rta/RTGmlg/ RTmlghunt.c

						MSMCQMLH	rta/RTmfcqu/ RTisat_nq.c
						MSMCQMLH	rta/RTmfcqu/ RTisataban.c
						MSMCQMLH	rta/RTmfcqu/ RTlnqaban.c
						MSMCQMLH	rta/RTmfcqu/ RTlnqreq.c
						MSPMCCMLH G	rta/RTpp/ RTppmlght.c

Table 74 Part 74

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MSmbgcnts.MS2899ac_mb ginc			TRFC 30	192	INC	MSMBGINC	as/ASmsdata/ MSsmacdata.c
						MSMBGINC	rta/RTtgsr/ RTmhg_tgsr.c
						MSMBGINC	rta/RTtgsr/ RTtgsr_chk.c
MSmbgcnts.MS2900ac_mb goutg	SM	BASE	TRFC 30	192	OUTG	MSMBGOUTG	rta/RTtgsr/ RTtgsrinit.c
MSmbgcnts.MS2901ac_mb gannc	SM	BASE	TRFC 30	192	ANNC	MSMBGANNC	rta/RTGmlg/ RTmlghunt.c
						MSMBGANNC	rta/RTtgsr/ RTtgsr_chk.c
MSmbgcnts.MS2902ac_mb gblk	SM	BASE	TRFC 30	192	BLOCK	MSMBGBLK	rta/RTtgsr/ RTmhg_tgsr.c
						MSMBGBLK	rta/RTtgsr/ RTtgsr_chk.c
MSmc1st		LP_DOM	- - - - -	- - - - -	- - - - -	MSMCSTART	as/ASmsdata/ MSrptdata.c
						MSMCSTART	nm/NMsilc/ NMovld.c
MSmc2st		LP_DOM	- - - - -	- - - - -	- - - - -	MSMCSTART	as/ASmsdata/ MSrptdata.c
						MSMCSTART	nm/NMsilc/ NMovld.c
MSmccars		LP_DOM	- - - - -	- - - - -	- - - - -	MSMCCARS	as/ASmstr30/ MSammccars.c
						MSMCCARS	fc/FCacctath/ OBJ/ MCacctath.cc
						MSMCCARS	rta/RTGbrcs/ RTars_chk.c
						MSMCCARS	rta/RTGbrcs/ RTmc_rting.c
						MSMCCARS	rta/RTGbrcs/ RTsfg.c
						MSMCCARS	rta/RTGscreen/ RTscreen.c
						MSMCCARS	rta/RTGtrk/ RTtrkhunt.c
						MSMCCARS	rta/RTmain/ RTgeninit.c
MSmccmdr		BASE	- - - - -	- - - - -	- - - - -	MSMCCMDR	ama/AMmdr/ AMmdrqadd.c
						MSMCCMDR	as/ASmsmdr/ MSmccmdr.c
						MSMCCMDR	ama/AMmdr/

							AMmdrqdist.c
						MSMCCMDR	ama/AMmdr/ AMmdrsend.c
MSmdc_cnt.MS1302ac_mdc	SM	BASE	TRFC 30	74	ACREQ	MSIBRMDC	fc/FCeds/ ISac.c
			TRFC 30	74	MGSREQ	MSIBRMDC	fc/FCmss/ FCdct_mwi.c
			TRFC 30	74	MRDSMS	MSIBRMDC	fc/FCmss/ FCpod_req.c
			TRFC 30	74	UACREQ	MSIBRMDC	fc/FCmss/ ISbgn_mrd.c
						MSIBRMDC	fc/FCmss/ ISmrdapmsg.c
						MSIBRMDC	fc/FCmss/ ISmrdapst.c
						MSIBRMDC	fc/FCmss/ MCmsinit.c
MSmdg_cnt.MS1303ac_mdg	SM	BASE	TRFC 30	75	MGCATT	MSIBRMDG	fc/FCmss/ FCmdc_term.c
			TRFC 30	75	MGCSUC	MSIBRMDG	fc/FCmss/ FCvrfy_fid.c
			TRFC 30	75	MGSUDN	MSIBRMDG	fc/FCmss/ MCmsinit.c
			TRFC 30	75	MWIREQ		
MSmdrgen	SM	BASE	PLNT 24	7	GENERATED	- - - - -	- - - - -
MSmdrlost	SM	BASE	PLNT 24	7	LOST	- - - - -	- - - - -
MSmhcnts.MS2870ac_mhmsg	SM2000	BASE	TRFC 30	185	MESSAGES	MSMHMSG	cm/CMsm2k/ CMmsmh.c
MSmhcnts.MS2871ac_mhblc	SM2000	BASE	TRFC 30	185	CYCLES	MSMHBLCYC	cm/CMsm2k/ CMmsmh.c
MSmlh_cnt.cnts	SM	BASE	TRFC 30	34	DNTERM	MSMCCMLHG	rta/RTGmlg/ RTbfmlg.c
			TRFC 30	34	OVFL	MSMCCMLHG	rta/RTGmlg/ RTmlghunt.c
			TRFC 30	34	TERM	MSMCCMLHG	rta/RTGmlg/ RTnohunt.c
			TRFC 30	34	USG		
MSmlhp_cnt.cnts	CMP	BASE	TRFC 30	65	POVFL	MSPMCCMLHG	rta/RTpp/ RTppmlght.c
			TRFC 30	65	PTERM		
MSmlhp_cnt.cnts	SM	BASE	TRFC 30	65	POVFL	MSPMCCMLHG	rta/RTpp/ RTppmlght.c
			TRFC 30	65	PTERM		
MSmpg_tbl.count2	AM	ISDNPCKT	TRFC 30	71	MPGOOS	MSMPGOOS	tm/TMmptm/ TMmpm_cnt.c
MSmpg_tbl.count2	AM	ISDNPCKT	TRFC 30	71	MPGOOS	MSMPGOOS	tm/TMmptm/ TMmpm_cnt.c
MSmpg_tbl.count2	AM	ISDNPCKT	TRFC 30	71	MPGOOS	MSMPGOOS	tm/TMmptm/ TMmpm_cnt.c
MSnmtgcid	CMP	BASE	- - - - -	- - - - -	- - - - -	MSNMTGCID	as/ASmsmisc/ MSnmcmpfn.c
						MSNMTGCID	au/AUnm/ OBJ/ AUtgc.cc
						MSNMTGCID	nm/NMtgc/ NMtgcadm.c

Table 75 Part 75

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MSntsoccup	SM	BASE	TRFC 30	122	NTSOCC	MSNTSUSG	pc/PCnetwk/ PCnctusg.c
MSoccnts	AM	BASE	TRFC 30	13	PERCENT OCCUP	- - - - -	- - - - -
MSocst	SM	BASE	- - - - -	- - - - -	- - - - -	MSOUTGCST	tm/TMcfhtrk/ TMadmdii.c
MSoosreport	AM	BASE	- - - - -	- - - - -	- - - - -	MSOOSREPORT	sm/SMsmr/ SMsmrse.c
						MSOOSREPORT	sm/SMsmr/ SMupdbuf.c
MSopr_ac.msst_opr.calls_hdld	SM	OPSMDAAC	- - - - -	- - - - -	- - - - -	MSPOSZ	oa/OAda_nr/ OBJ/ OAda_nr.cc
						MSPOSZ	oa/OAnmain/ OBJ/ OAnmain.cc
MSopr_ac.msst_opr.calls_hdld	SM	OPSMDAAC	- - - - -	- - - - -	- - - - -	MSPOSZ	oa/OAda_nr/ OBJ/ OAda_nr.cc
						MSPOSZ	oa/OAnmain/ OBJ/ OAnmain.cc
MSopr_ac.msst_opr.calltim	SM	OPSMDAAC	- - - - -	- - - - -	- - - - -	MSNCQOPCLTM	as/ASospsadm/ MSfrecords.c
						MSNCQOPCLTM	as/ASospsadm/ MSotafrec.c
						MSOPCALLTM	as/ASospsadm/ MSfrecords.c
						MSOPCALLTM	as/ASospsadm/ MSotafrec.c
MSopr_ac.msst_opr.totlogtim	SM	OPSMDAAC	- - - - -	- - - - -	- - - - -	MSPOSOCC	- - - - -
MSopr_ac.msst_opr.wkperiods	SM	OPSMDAAC	- - - - -	- - - - -	- - - - -	MSOWKPER	oa/OAda_fm/ OBJ/ OAda_fm.cc
						MSOWKPER	oa/OAtafm/ OBJ/ OAtafm.cc
MSosc_ac.acOSC_AOUT	SM	OPSMCDOT	- - - - -	- - - - -	- - - - -	MSOUTOSPS	oa/OAda_cc/ OBJ/ OAda_cc.cc
						MSOUTOSPS	oa/OAtacct/ OBJ/ OAtacct.cc
MSosc_ac.acOSC_EMCR	SM	OPSMCDOT	- - - - -	- - - - -	- - - - -	MSEMERCR	as/ASospsadm/ ASsmutil.c
MSosc_ac.acOSC_FOUT	SM	OPSMCDOT	- - - - -	- - - - -	- - - - -	MSOUTFOSPS	oa/OAda_cc/ OBJ/ OAda_cc.cc
						MSOUTFOSPS	oa/OAtacct/ OBJ/ OAtacct.cc
MSosc_ac.acOSC_LOTR	SM	OPSMCDOT	- - - - -	- - - - -	- - - - -	MSLOTR	as/ASospsadm/ ASsmutil.c
MSosc_ac.acOSC_MC	SM	OPSMCDOT	- - - - -	- - - - -	- - - - -	MSMONTCA	oa/OAda_nr/ OBJ/ OAda_nr.cc
						MSMONTCA	oa/OAtamon/ OBJ/ OAfmta.cc
MSosc_ac.acOSC_MO	SM	OPSMCDOT	- - - - -	- - - - -	- - - - -	MSMONTOP	oa/OAda_fm/ OBJ/ OAda_fm.cc
						MSMONTOP	oa/OAtafm/ OBJ/ OAtafm.cc
MSosc_ac.acOSC_POSZ	SM	OPSMCDOT	- - - - -	- - - - -	- - - - -	MSPOSZ	oa/OAda_nr/ OBJ/ OAda_nr.cc
						MSPOSZ	oa/OAnmain/ OBJ/ OAnmain.cc

MSost24_ac.MS24HTMac.calltime	SM	OPSMDAAC	- - - - -	- - - - -	- - - - -	MSNCQOPCLTM	as/ASospsadm/ MSfrecords.c
						MSNCQOPCLTM	as/ASospsadm/ MSotafrec.c
						MSOPCALLTM	as/ASospsadm/ MSfrecords.c
						MSOPCALLTM	as/ASospsadm/ MSotafrec.c
MSost24_ac.MS24HTMac.poseiz	SM	OPSMDAAC	- - - - -	- - - - -	- - - - -	MSPOSZ	oa/OAda_nr/ OBJ/ OAda_nr.cc
						MSPOSZ	oa/OAnmain/ OBJ/ OAnmain.cc
MSost24_ac.osc_id	SM	OPSMDAAC	- - - - -	- - - - -	- - - - -	MSNCQOPCLTM	as/ASospsadm/ MSfrecords.c
						MSNCQOPCLTM	as/ASospsadm/ MSotafrec.c
						MSOPCALLTM	as/ASospsadm/ MSfrecords.c
						MSOPCALLTM	as/ASospsadm/ MSotafrec.c
						MSPOSZ	oa/OAda_nr/ OBJ/ OAda_nr.cc
						MSPOSZ	oa/OAnmain/ OBJ/ OAnmain.cc
MSost24_ac.osc_id	SM	OPSMDAAC	- - - - -	- - - - -	- - - - -	MSNCQOPCLTM	as/ASospsadm/ MSfrecords.c
						MSNCQOPCLTM	as/ASospsadm/ MSotafrec.c
						MSOPCALLTM	as/ASospsadm/ MSfrecords.c
						MSOPCALLTM	as/ASospsadm/ MSotafrec.c
						MSPOSZ	oa/OAda_nr/ OBJ/ OAda_nr.cc
						MSPOSZ	oa/OAnmain/ OBJ/ OAnmain.cc
MSost24_ac.osc_id	SM	OPSMDAAC	- - - - -	- - - - -	- - - - -	MSNCQOPCLTM	as/ASospsadm/ MSfrecords.c
						MSNCQOPCLTM	as/ASospsadm/ MSotafrec.c
						MSOPCALLTM	as/ASospsadm/ MSfrecords.c
						MSOPCALLTM	as/ASospsadm/ MSotafrec.c
						MSPOSZ	oa/OAda_nr/ OBJ/ OAda_nr.cc
						MSPOSZ	oa/OAnmain/ OBJ/ OAnmain.cc

Table 76 Part 76

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MSpfa_cnt.cnts	CMP	BASE	TRFC 30	32	HUNG	MSMCCPFA	ama/AMentry/ AMsetup.c
			TRFC 30	32	ICROVFL	MSMCCPFA	au/AUicr/ OBJ/ AUicrlgst.cc
			TRFC 30	32	PC	MSMCCPFA	au/AUicr/ OBJ/ AUicrst.cc
			TRFC	32	POVFL	MSMCCPFA	au/AUrtasfg/ OBJ/

			30				AUlgsfstat.cc
			TRFC 30	32	SOVFL	MSMCCPFA	au/AUrtasfg/ OBJ/ AUsfstat.cc
			TRFC 30	32	USG	MSMCCPFA	pc/PCnetwk/ PHcallproc.c
						MSMCCPFA	rta/RTGbrcs/ RTmc_rting.c
						MSMCCPFA	rta/RTGbrcs/ RTsffstht.c
						MSMCCPFA	rta/RTGbrcs/ RTsfg_ht.c
						MSMCCPFA	rta/RTGbrcs/ RTsfg_set.c
						MSMCCPFA	rta/RTGtrk/ RTtrkbusy.c
						MSMCCPFA	rta/RTicr/ RTicr_lhnt.c
						MSMCCPFA	rta/RTicr/ RTicr_shnt.c
						MSMCCPFA	rta/RTpp/ RTpoly_rtg.c
MSpfa_cnt.cnts	SM	BASE	TRFC 30	32	HUNG	MSMCCPFA	ama/AMentry/ AMsetup.c
			TRFC 30	32	ICROVFL	MSMCCPFA	au/AUicr/ OBJ/ AUicrlgst.cc
			TRFC 30	32	PC	MSMCCPFA	au/AUicr/ OBJ/ AUicrst.cc
			TRFC 30	32	POVFL	MSMCCPFA	au/AUrtasfg/ OBJ/ AUlgsfstat.cc
			TRFC 30	32	SOVFL	MSMCCPFA	au/AUrtasfg/ OBJ/ AUsfstat.cc
			TRFC 30	32	USG	MSMCCPFA	pc/PCnetwk/ PHcallproc.c
						MSMCCPFA	rta/RTGbrcs/ RTmc_rting.c
						MSMCCPFA	rta/RTGbrcs/ RTsffstht.c
						MSMCCPFA	rta/RTGbrcs/ RTsfg_ht.c
						MSMCCPFA	rta/RTGbrcs/ RTsfg_set.c
						MSMCCPFA	rta/RTGtrk/ RTtrkbusy.c
						MSMCCPFA	rta/RTicr/ RTicr_lhnt.c
						MSMCCPFA	rta/RTicr/ RTicr_shnt.c
						MSMCCPFA	rta/RTpp/ RTpoly_rtg.c
MSpkgloc	AM	LP_DOM	- - - - -	- - - - -	- - - - -	MSPKGLOC	nm/NMonsite/ NMrd3frm.c
MSppg_cnt.cnts	SM	BASE	TRFC 30	43	P-ATN	MSAVNPPG	fc/FCmfcpp/ OBJ/ MCnp.cc
			TRFC 30	43	P-B-ATN	MSAVNPPG	fc/FCmfcpp/ OBJ/ MCpp.cc
			TRFC 30	43	P-IN-TT	MSAVNPPG	rta/RTpp/ RTppcounts.c
			TRFC 30	43	P-INC		
			TRFC 30	43	P-INTRG		
			TRFC	43	P-OUTG		

			30				
			TRFC 30	43	P-SL-IN		
			TRFC 30	43	P-SL-LO		
			TRFC 30	43	P-TK-OV		
			TRFC 30	43	P-TN-TT		
			TRFC 30	43	R-ATN		
			TRFC 30	43	R-B-ATN		
			TRFC 30	43	R-IN-TT		
			TRFC 30	43	R-INC		
			TRFC 30	43	R-INTRG		
			TRFC 30	43	R-OUTG		
			TRFC 30	43	R-SL-IN		
			TRFC 30	43	R-SL-LO		
			TRFC 30	43	R-TK-OV		
			TRFC 30	43	R-TN-TT		
MSpsmlhg_tbl.count3	SM	BASE	TRFC 30	71	MLHGATT	MSPSATTML H	pr/PRrtgsts/ PRmlght.c
MSpsmlhg_tbl.count3	AM	ISDNPCK T	TRFC 30	71	MLHGATT	MSPSATTML H	pr/PRrtgsts/ PRmlght.c
MSpsmlhg_tbl.count3	SM	BASE	TRFC 30	71	MLHGATT	MSPSATTML H	pr/PRrtgsts/ PRmlght.c
MSpsmlhg_tbl.count3	AM	ISDNPCK T	TRFC 30	71	MLHGATT	MSPSATTML H	pr/PRrtgsts/ PRmlght.c

Table 77 Part 77

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MSpsmlhg_tbl.count3	SM	BASE	TRFC 30	71	MLHGATT	MSPSATTML H	pr/PRrtgsts/ PRmlght.c
MSpsmlhg_tbl.count3	SM	BASE	TRFC 30	71	MLHGATT	MSPSATTML H	pr/PRrtgsts/ PRmlght.c
MSpsmlhg_tbl.count3	AM	ISDNPCK T	TRFC 30	71	MLHGATT	MSPSATTML H	pr/PRrtgsts/ PRmlght.c
MSpsmlhg_tbl.count4	AM	ISDNPCK T	TRFC 30	71	MLHGOFL	MSPSOFLML H	pr/PRrtgsts/ PRbfmlg.c
MSpsmlhg_tbl.count4	SM	BASE	TRFC 30	71	MLHGOFL	MSPSOFLML H	pr/PRrtgsts/ PRbfmlg.c
MSpsmlhg_tbl.count4	AM	ISDNPCK T	TRFC 30	71	MLHGOFL	MSPSOFLML H	pr/PRrtgsts/ PRbfmlg.c
MSpsmlhg_tbl.count4	SM	BASE	TRFC 30	71	MLHGOFL	MSPSOFLML H	pr/PRrtgsts/ PRbfmlg.c
MSpsmlhg_tbl.count4	SM	BASE	TRFC 30	71	MLHGOFL	MSPSOFLML H	pr/PRrtgsts/ PRbfmlg.c
MSpsmlhg_tbl.count4	AM	ISDNPCK T	TRFC 30	71	MLHGOFL	MSPSOFLML H	pr/PRrtgsts/ PRbfmlg.c

MSqan_cnt.cnts	SM	BASE	TRFC 30	42	OVFL	MSMCQANN	- - - - -
			TRFC 30	42	PC		
MSqgpann	SM	BASE	- - - - -	- - - - -	- - - - -	MSQGPANN	fc/FCmfcqu/ FCqdl_ancy.c
						MSQGPANN	fc/FCmfcqu/ FCqdl_cnan.c
						MSQGPANN	fc/FCmfcqu/ FCqdl_iftn.c
						MSQGPANN	fc/FCmfcqu/ FCqdl_set.c
MSqgpdec	CMP	BASE	- - - - -	- - - - -	- - - - -	MSQGPDEC	rta/RTtkq/ RTtkq_ms.c
MSqgpdec	SM	BASE	- - - - -	- - - - -	- - - - -	MSQGPDEC	rta/RTtkq/ RTtkq_ms.c
MSqgpfac	CMP	BASE	- - - - -	- - - - -	- - - - -	MSQGPFAC	rta/RTtkq/ RTofh_enq.c
						MSQGPFAC	rta/RTtkq/ RTrbk_enq.c
						MSQGPFAC	rta/RTtkq/ RTtkenq.c
						MSQGPFAC	rta/RTtkq/ RTtkq_can.c
						MSQGPFAC	rta/RTtkq/ RTtkq_tout.c
MSqgpfac	SM	BASE	- - - - -	- - - - -	- - - - -	MSQGPFAC	rta/RTtkq/ RTofh_enq.c
						MSQGPFAC	rta/RTtkq/ RTrbk_enq.c
						MSQGPFAC	rta/RTtkq/ RTtkenq.c
						MSQGPFAC	rta/RTtkq/ RTtkq_can.c
						MSQGPFAC	rta/RTtkq/ RTtkq_tout.c
MSqsf_cnt.cnts	CMP	BASE	TRFC 30	57	PABAN	- - - - -	- - - - -
			TRFC 30	57	PATTMPT		
			TRFC 30	57	POVFL		
			TRFC 30	57	PTIMOUT		
			TRFC 30	57	PUSAGE		
			TRFC 30	57	RABAN		
			TRFC 30	57	RATTMPT		
			TRFC 30	57	ROVFL		
			TRFC 30	57	RTIMOUT		
			TRFC 30	57	RUSAGE		
MSqsf_cnt.cnts	SM	BASE	TRFC 30	57	PABAN	- - - - -	- - - - -
			TRFC 30	57	PATTMPT		
			TRFC	57	POVFL		

			30				
			TRFC 30	57	PTIMOUT		
			TRFC 30	57	PUSAGE		
			TRFC 30	57	RABAN		
			TRFC 30	57	RATTMPT		
			TRFC 30	57	ROVFL		
			TRFC 30	57	RTIMOUT		
			TRFC 30	57	RUSAGE		
MSqsf_cnt.cnts	AM	BASE	TRFC 30	57	PABAN	- - - - -	- - - - -
			TRFC 30	57	PATTMPT		
			TRFC 30	57	POVFL		
			TRFC 30	57	PTIMOUT		
			TRFC 30	57	PUSAGE		
			TRFC 30	57	RABAN		
			TRFC 30	57	RATTMPT		
			TRFC 30	57	ROVFL		
			TRFC 30	57	RTIMOUT		
			TRFC 30	57	RUSAGE		

Table 78 Part 78

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MSqtg_cnt.cnts	CMP	BASE	TRFC 30	55	PABAN	- - - - -	- - - - -
			TRFC 30	55	PATTMPT		
			TRFC 30	55	POVFL		
			TRFC 30	55	PTIMOUT		
			TRFC 30	55	PUSAGE		
			TRFC 30	55	RABAN		
			TRFC 30	55	RATTMPT		
			TRFC 30	55	ROVFL		
			TRFC 30	55	RTIMOUT		
			TRFC 30	55	RUSAGE		

MSqtg_cnt.cnts	SM	BASE	TRFC 30	55	PABAN	- - - - -	- - - - -
			TRFC 30	55	PATTMPT		
			TRFC 30	55	POVFL		
			TRFC 30	55	PTIMOUT		
			TRFC 30	55	PUSAGE		
			TRFC 30	55	RABAN		
			TRFC 30	55	RATTMPT		
			TRFC 30	55	ROVFL		
			TRFC 30	55	RTIMOUT		
			TRFC 30	55	RUSAGE		
MSqtg_cnt.cnts	AM	BASE	TRFC 30	55	PABAN	- - - - -	- - - - -
			TRFC 30	55	PATTMPT		
			TRFC 30	55	POVFL		
			TRFC 30	55	PTIMOUT		
			TRFC 30	55	PUSAGE		
			TRFC 30	55	RABAN		
			TRFC 30	55	RATTMPT		
			TRFC 30	55	ROVFL		
			TRFC 30	55	RTIMOUT		
			TRFC 30	55	RUSAGE		
MSqu_cnt.cnts	CMP	BASE	TRFC 30	40	ABAN	MSMCQMLH	fc/FCmfcqu/ FCqdl_set.c
			TRFC 30	40	ATMPT	MSMCQMLH	rta/RTGmlg/ RTmlghunt.c
			TRFC 30	40	DELAY	MSMCQMLH	rta/RTmfcqu/ RTisat_nq.c
			TRFC 30	40	OVFL	MSMCQMLH	rta/RTmfcqu/ RTisataban.c
			TRFC 30	40	USG	MSMCQMLH	rta/RTmfcqu/ RTlnqaban.c
						MSMCQMLH	rta/RTmfcqu/ RTlnqreq.c
MSqu_cnt.cnts	SM	BASE	TRFC 30	40	ABAN	MSMCQMLH	fc/FCmfcqu/ FCqdl_set.c
			TRFC 30	40	ATMPT	MSMCQMLH	rta/RTGmlg/ RTmlghunt.c
			TRFC 30	40	DELAY	MSMCQMLH	rta/RTmfcqu/ RTisat_nq.c
			TRFC 30	40	OVFL	MSMCQMLH	rta/RTmfcqu/ RTisataban.c
			TRFC	40	USG	MSMCQMLH	rta/RTmfcqu/

			30				RTlnqaban.c
						MSMCQMLH	rta/RTmfcqu/ RTlnqreq.c
MSrcclct.expmsgs	AM	BASE	TRFC 30	1	DATLOS	- - - - -	- - - - -
			TRFC 30	1	STATUS		
MSrcclct.msgrcv	AM	BASE	TRFC 30	1	DATLOS	- - - - -	- - - - -
			TRFC 30	1	STATUS		
MSscorpt	SM	LP_DOM	- - - - -	- - - - -	- - - - -	MSSCO	fp/FPreport/ FPco_check.c
						MSSCO	oa/OAacqsmod/ OAaq_trans.c
						MSSCOINPC	fc/FCcoin/ FCc_retcol.c
						MSSCOINPC	fp/FPcoin/ FPc_final.c
MSsglist.sgcnts.MS2522ac_usg	SM	BASE	TRFC 30	144	USAGE	MSSGUSG	pc/PCconc/ PCsgusg.c
			TRFC 30	145	USAGE	MSSGUSG	pc/PCispath/ PCisluusg.c

Table 79 Part 79

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MSslbsmlist.MS2848ac_cdntc	SM	BASE	TRFC 30	128	NOANS	MSCDNTCA	fc/FCmfccc/ OBJ/ MCcc.sdc
						MSCDNTCA	fc/FCmfccf/ OBJ/ MCcfsdl.sdc
						MSCDNTCA	fc/FCmfcpu/ MCput.c
						MSCDNTCA	fp/FPlnterm/ FPrt_ans.c
MSslbsmlist.MS2849ac_cdntb	SM	BASE	TRFC 30	128	TRMBLK	MSCDNTBLK	fp/FPerror/ FPtfailrpt.c
MSslbsmlist.MS2850ac_cdnoc	SM	BASE	TRFC 30	128	ORG	MSCDNORIG	fc/FCfex/ FCmsgrcvr.c
						MSCDNORIG	fp/FPlnorig/ FPro_dial.c
MSslbsmlist.MS2851ac_cdnob	SM	BASE	TRFC 30	128	ORGBLK	MSCDNOBLK	fc/FCasi/ OBJ/ MCasi_cc.sdc
						MSCDNOBLK	fc/FCbhrte/ OBJ/ MCbhrte.cc
						MSCDNOBLK	fc/FCcoin/ OBJ/ MCcoin.sdc
						MSCDNOBLK	fc/FCconf/ FCjoin.c
						MSCDNOBLK	fc/FCconf/ OBJ/ FCconf.sdc
						MSCDNOBLK	fc/FCcorc/ OBJ/ TOD.cc
						MSCDNOBLK	fc/FChi/ OBJ/ FChisdl.sdc
						MSCDNOBLK	fc/FChold/ OBJ/ FChold.sdc
						MSCDNOBLK	fc/FCmfccc/ OBJ/ MCcc.sdc
						MSCDNOBLK	fc/FCmfcnr/ OBJ/

							MCnear.sdc
						MSCDNOBLK	fc/FCmfcpfm/ OBJ/ MCpfm.sdc
						MSCDNOBLK	fc/FCmfcpots/ MCctoneon.c
						MSCDNOBLK	fc/FCmfcpu/ OBJ/ MCmprk.sdc
						MSCDNOBLK	fc/FCmfcpu/ OBJ/ MCmpuo.sdc
						MSCDNOBLK	fc/FCmfcpu/ OBJ/ MCmput.sdc
						MSCDNOBLK	fc/FCmw/ lSmw_merge.c
						MSCDNOBLK	fc/FCmw/ MCmw_upgrd.c
						MSCDNOBLK	fc/FCmw/ MCmwmvport.c
						MSCDNOBLK	fc/FCmwisdn/ OBJ/ lSmwisdn.sdc
						MSCDNOBLK	fc/FCrafctrl/ OBJ/ MCrafcc.sdc
						MSCDNOBLK	fc/FCshdn/ OBJ/ lSscbm.sdc
						MSCDNOBLK	fc/FCshdn/ OBJ/ MCsct.sdc
						MSCDNOBLK	fc/FCtmcc/ OBJ/ FCtm_cc.sdc
						MSCDNOBLK	fc/FCxfer/ OBJ/ FCxfer.sdc
						MSCDNOBLK	fp/FPerror/ FPfailrept.c
MSslbsmlist.MS2852ac_cdn usg	SM	BASE	TRFC 30	128	USAGE	MSCDNUSG	as/ASmsscan/ MS100scan.c
MSsmars	SM	LP_DOM	- - - - -	- - - - -	- - - - -	MSMCCARS	fc/FCacctath/ OBJ/ MCacctath.cc
						MSMCCARS	rta/RTGbrcs/ RTars_chk.c
						MSMCCARS	rta/RTGbrcs/ RTmc_rting.c
						MSMCCARS	rta/RTGbrcs/ RTsfg.c
						MSMCCARS	rta/RTGscreen/ RTscreen.c
						MSMCCARS	rta/RTGtrk/ RTtrkhunt.c
						MSMCCARS	rta/RTmain/ RTgeninit.c
MSsmerr	AM	BASE	- - - - -	- - - - -	- - - - -	MSSMERR	sm/SMsmr/ SMvproc.c
MSsqa_cnt.cnts	SM	BASE	TRFC 30	58	CHANNEL ANNOUNCEM ENT OVERFLOW	- - - - -	- - - - -
					COUNTS		
			TRFC 30	58	CHANNEL ANNOUNCEM ENT PEG COUNTS		
MSst_ac.acST_CNFO	SM	OPSMCD OT	- - - - -	- - - - -	- - - - -	MSCNFORG	oa/OAda_cc/ OBJ/ OAda_cc.cc
						MSCNFORG	oa/OAtaccp/ OBJ/

							OAtaccp.cc
MSst_ac.acST_CNS	SM	OPSMCDOT	- - - - -	- - - - -	- - - - -	MSCNFSER	oa/OAda_fm/ OBJ/ OAda_fm.cc
						MSCNFSER	oa/OAnmain/ OBJ/ OAnmain.cc
MSst_ac.acST_OWV	SM	OPSMCDOT	- - - - -	- - - - -	- - - - -	MSOPWKVOL	as/ASospsadm/ MSfrecords.c
						MSOPWKVOL	as/ASospsadm/ MSotafrec.c
MSst_ac.acST_POSZ	SM	OPSMCDOT	- - - - -	- - - - -	- - - - -	MSPOSZ	oa/OAda_nr/ OBJ/ OAda_nr.cc
						MSPOSZ	oa/OAnmain/ OBJ/ OAnmain.cc

Table 80 Part 80

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
MSst_ac.acST_XFRO	SM	OPSMCDOT	- - - - -	- - - - -	- - - - -	MSXFRORG	oa/OAda_nr/ OBJ/ OAda_nr.cc
						MSXFRORG	oa/OAnprls/ OAprlmeas.c
MSst_ac.acST_XFS	SM	OPSMCDOT	- - - - -	- - - - -	- - - - -	MSXFRSER	oa/OAda_fm/ OBJ/ OAda_fm.cc
						MSXFRSER	oa/OAnmain/ OBJ/ OAnmain.cc
MStdcnt	SM	BASE	M5	5	TOTAL CKTS (TD)	- - - - -	- - - - -
MSteramdii	AM	BASE	- - - - -	- - - - -	- - - - -	MSDEACTERA	tm/TMcfhtrk/ TMinhmdii.c
						MSMDIIPEER	tm/TMtera/ TMmdiianal.c
MStgrr	CMP	BASE	- - - - -	- - - - -	- - - - -	MSTGRR	nm/NMdoc/ NMdoc_appl.c
						MSTGRR	nm/NMtgc/ NMposthunt.c
						MSTGRR	nm/NMtgc/ NMprehunt.c
						MSTGRR	rta/RTGtrk/ RTtrkbusy.c
MStm24_ac.calltime	SM	OPSMDAAC	- - - - -	- - - - -	- - - - -	MSNCQOPCLTM	as/ASospsadm/ MSfrecords.c
						MSNCQOPCLTM	as/ASospsadm/ MSotafrec.c
						MSOPCALLTM	as/ASospsadm/ MSfrecords.c
						MSOPCALLTM	as/ASospsadm/ MSotafrec.c
MStm24_ac.poseiz	SM	OPSMDAAC	- - - - -	- - - - -	- - - - -	MSPOSZ	oa/OAda_nr/ OBJ/ OAda_nr.cc
						MSPOSZ	oa/OAnmain/ OBJ/ OAnmain.cc
MStmg_cnt.cnts	SM	BASE	TRFC 30	30	CF-BUSY	MSMCCTMG	cra/CRasmblr/ CRsminput.c
			TRFC 30	30	CF-DA	MSMCCTMG	fc/FCcalwat/ OBJ/ MCcw.cc
			TRFC 30	30	CF-REG	MSMCCTMG	fc/FCconf/ OBJ/ FCconf.sdc
			TRFC 30	30	CW	MSMCCTMG	fc/FCmfccf/ MCcflook.c

			TRFC 30	30	INC	MSMCCTMG	fc/FCmfcpu/ MCpuo.c
			TRFC 30	30	INTRAG	MSMCCTMG	fc/FCmw/ MCmw_peg.c
			TRFC 30	30	MW-3W	MSMCCTMG	rta/RTterm/ RTbusyfs.c
			TRFC 30	30	MW-AUTO	MSMCCTMG	rta/RTterm/ RTfrwdfs.c
			TRFC 30	30	MW-DIRCT	MSMCCTMG	rta/RTterm/ RTidlefs.c
			TRFC 30	30	MW-HOLD	MSMCCTMG	rta/RTtgsr/ RTmhg_tgsr.c
			TRFC 30	30	MW-NW	MSMCCTMG	rta/RTtgsr/ RTtgsr_chk.c
			TRFC 30	30	ORIG	MSMCCTMG	rta/RTtgsr/ RTtrk_tgsr.c
			TRFC 30	30	PKUP		
MStqa_cnt.cnts	SM	BASE	TRFC 30	56	CHANNEL ANNOUNCEMENT OVERFLOW	- - - - -	- - - - -
					COUNTS		
			TRFC 30	56	CHANNEL ANNOUNCEMENT PEG COUNTS		
MSvalpkg	AM	LP_DOM	- - - - -	- - - - -	- - - - -	MSVALPKG	as/ASmsmisc/ MSnmfnmac.c
MSvldflg25	AM	LP_DOM	- - - - -	- - - - -	- - - - -	MSTGC_CHK	au/AUnm/ OBJ/ AUtgc.cc
MSvldflg25	CMP	BASE	- - - - -	- - - - -	- - - - -	MSTGC_CHK	au/AUnm/ OBJ/ AUtgc.cc
OSTIMDIFF	AM	BASE	- - - - -	- - - - -	- - - - -	MSPOSOCC	- - - - -
OSTIMDIFF	CMP	BASE	- - - - -	- - - - -	- - - - -	MSPOSOCC	- - - - -
OSTIMDIFF	PH	BASE	- - - - -	- - - - -	- - - - -	MSPOSOCC	- - - - -
OSTIMDIFF	PH	BASE	- - - - -	- - - - -	- - - - -	MSPOSOCC	- - - - -
OSTIMDIFF	SM	BASE	- - - - -	- - - - -	- - - - -	MSPOSOCC	- - - - -
PSaplst.cnt_in	CMP	BASE	TRFC 30	59	DLOCC	- - - - -	- - - - -
PSaplst.cnt_in	SM	BASE	TRFC 30	59	DLOCC	- - - - -	- - - - -
PSaplst.cnt_in	AM	BASE	TRFC 30	59	DLOCC	- - - - -	- - - - -
PSaplst.cnt_out	CMP	BASE	TRFC 30	59	DLOCC	- - - - -	- - - - -
PSaplst.cnt_out	SM	BASE	TRFC 30	59	DLOCC	- - - - -	- - - - -
PSaplst.cnt_out	AM	BASE	TRFC 30	59	DLOCC	- - - - -	- - - - -
rlCPCICNTS.ms353ac_csopc	CMP	BASE	TRFC 30	164	OUTG	MSSTGOPC	rta/RTGtrk/ RTtrkbusy.c
						MSSTGOPC	rta/RTGtrk/ RTtrkhunt.c
rlCPCICNTS.ms353ac_csopc	SM	BASE	TRFC 30	164	OUTG	MSSTGOPC	rta/RTGtrk/ RTtrkbusy.c
						MSSTGOPC	rta/RTGtrk/ RTtrkhunt.c
rlCPCICNTS.ms353ac_csopc	AM	BASE	TRFC 30	164	OUTG	MSSTGOPC	rta/RTGtrk/ RTtrkbusy.c
						MSSTGOPC	rta/RTGtrk/ RTtrkhunt.c

Table 81 Part 81

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
rlCPCICNTS.ms355ac_csofl	CMP	BASE	TRFC 30	164	OVFL	MSSTGOFL	rta/RTGtrk/ RTtrkbusy.c
						MSSTGOFL	rta/RTGtrk/ RTtrkhunt.c
rlCPCICNTS.ms355ac_csofl	SM	BASE	TRFC 30	164	OVFL	MSSTGOFL	rta/RTGtrk/ RTtrkbusy.c
						MSSTGOFL	rta/RTGtrk/ RTtrkhunt.c
rlCPCICNTS.ms355ac_csofl	AM	BASE	TRFC 30	164	OVFL	MSSTGOFL	rta/RTGtrk/ RTtrkbusy.c
						MSSTGOFL	rta/RTGtrk/ RTtrkhunt.c
rlFC_CARR.scd_line_cnt	CMP	BASE	PLNT 24	6	LINES(SELECTIVE CARRIER DENIAL)	MSSCDTGOPC	as/ASmspr24/ MScmpte.c
			PLNT 24	6	SCD_SCREEN		
rlFC_CARR.scd_line_cnt	SM	BASE	PLNT 24	6	LINES(SELECTIVE CARRIER DENIAL)	MSSCDTGOPC	as/ASmspr24/ MScmpte.c
			PLNT 24	6	SCD_SCREEN		
rlFC_CARR.scd_line_cnt	AM	BASE	PLNT 24	6	LINES(SELECTIVE CARRIER DENIAL)	MSSCDTGOPC	as/ASmspr24/ MScmpte.c
			PLNT 24	6	SCD_SCREEN		
rlHISDFIPM.bes24	SM	BASE	PLNT 24	26	BES	MSDFIPM	tm/TMcgactl/ TMcp_cga.c
rlHISDFIPM.bpv24	SM	BASE	PLNT 24	26	LOS BPV	MSDFIPM	tm/TMcgactl/ TMcp_cga.c
rlHISDFIPM.cofa24	SM	BASE	PLNT 24	26	COFA	MSDFIPM	tm/TMcgactl/ TMcp_cga.c
rlHISDFIPM.crc24	SM	BASE	PLNT 24	26	CRC6	MSDFIPM	tm/TMcgactl/ TMcp_cga.c
rlHISDFIPM.es24	SM	BASE	PLNT 24	26	ES	MSDFIPM	tm/TMcgactl/ TMcp_cga.c
rlHISDFIPM.fs24	SM	BASE	PLNT 24	26	FS	MSDFIPM	tm/TMcgactl/ TMcp_cga.c
rlHISDFIPM.ses24	SM	BASE	PLNT 24	26	SES	MSDFIPM	tm/TMcgactl/ TMcp_cga.c
rlHISDFIPM.slip24	SM	BASE	PLNT 24	26	SLIP	MSDFIPM	tm/TMcgactl/ TMcp_cga.c
rlIMCICNTS.ciptr.ms2575ac_np1	AM	BASE	PLNT 24	6	NP1_IAM	MSIAMNP1R	ccs/CC7setup/ CCo_cnnct.c
			PLNT 24	6	NP1_IAM(CCS 7 SPECIFIC)		
rlIMCICNTS.ciptr.ms2575ac_np1	CMP	BASE	PLNT 24	6	NP1_IAM	MSIAMNP1R	ccs/CC7setup/ CCo_cnnct.c
			PLNT 24	6	NP1_IAM(CCS 7 SPECIFIC)		

rlIMCICNTS.ciptr.ms2575ac_np1	SM	BASE	PLNT 24	6	NP1_IAM	MSIAMNP1R	ccs/CC7setup/ CCo_cnnct.c
			PLNT 24	6	NP1_IAM(CCS 7 SPECIFIC)		
rlIMCICNTS.ms1997ac_imdii	SM	BASE	PLNT 24	6	CCS7_IN(CCS 7 SPECIFIC)	MSIMDII7	tm/TMcfhtrk/ TMpfmdii.c
			PLNT 24	6	I7MDII		
rlIMCICNTS.ms1997ac_imdii	AM	BASE	PLNT 24	6	CCS7_IN(CCS 7 SPECIFIC)	MSIMDII7	tm/TMcfhtrk/ TMpfmdii.c
			PLNT 24	6	I7MDII		
rlIMCICNTS.ms1998ac_omdii	SM	BASE	PLNT 24	6	CCS7_OUT(CCS7 SPECIFIC)	MSOMDII7	tm/TMcfhtrk/ TMpfmdii.c
			PLNT 24	6	O7MDII		
rlIMCICNTS.ms1998ac_omdii	AM	BASE	PLNT 24	6	CCS7_OUT(CCS7 SPECIFIC)	MSOMDII7	tm/TMcfhtrk/ TMpfmdii.c
			PLNT 24	6	O7MDII		
rlIMCICNTS.ms1999ac_cotf	SM	BASE	PLNT 24	6	COTFAIL	MSCICOTF	ccs/CC7setup/ CCti_failvpa.c
			PLNT 24	6	COTFAIL(CCS 7 SPECIFIC)	MSCICOTF	ccs/CCtrksig/ CCtvpa_fl.c
rlIMCICNTS.ms1999ac_cotf	AM	BASE	PLNT 24	6	COTFAIL	MSCICOTF	ccs/CC7setup/ CCti_failvpa.c
			PLNT 24	6	COTFAIL(CCS 7 SPECIFIC)	MSCICOTF	ccs/CCtrksig/ CCtvpa_fl.c
rlIMCICNTS.ms350ac_cdipc	SM	BASE	PLNT 24	6	DINC	MSDTGIPC	as/ASmsmisc/ MScrpegcnt.c
			PLNT 24	6	DIR_IN(CALL ATTEMPTS)		
rlIMCICNTS.ms350ac_cdipc	AM	BASE	PLNT 24	6	DINC	MSDTGIPC	as/ASmsmisc/ MScrpegcnt.c
			PLNT 24	6	DIR_IN(CALL ATTEMPTS)		
rlIMCICNTS.ms356ac_cstus	SM	BASE	M5	16	USG	MSSTGTUS	as/ASmsscan/ MS100scan.c
			TRFC 30	164	USAGE	MSSTGUS	- - - - -
			TRFC 30	24	USAGE		
rlIMCICNTS.ms356ac_cstus	CMP	BASE	M5	16	USG	MSSTGTUS	as/ASmsscan/ MS100scan.c
			TRFC 30	164	USAGE	MSSTGUS	- - - - -
			TRFC 30	24	USAGE		
rlIMCICNTS.ms356ac_cstus	SM	BASE	M5	16	USG	MSSTGTUS	as/ASmsscan/ MS100scan.c
			TRFC 30	164	USAGE	MSSTGUS	- - - - -
			TRFC 30	24	USAGE		
rlIMCICNTS.ms356ac_cstus	AM	BASE	M5	16	USG	MSSTGTUS	as/ASmsscan/ MS100scan.c
			TRFC 30	164	USAGE	MSSTGUS	- - - - -
			TRFC	24	USAGE		

			30				

Table 82 Part 82

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
rIIMCICNTS.ms357ac_dicst	SM	BASE	PLNT 24	6	DINMDII	MSDINCST	tm/TMcfhtrk/ TMadmdii.c
			PLNT 24	6	DIR_IN(MDII)		
rIIMCICNTS.ms357ac_dicst	AM	BASE	PLNT 24	6	DINMDII	MSDINCST	tm/TMcfhtrk/ TMadmdii.c
			PLNT 24	6	DIR_IN(MDII)		
rIIMCICNTS.ms358ac_docst	SM	BASE	PLNT 24	6	DIR_OUT(MDII)	MSDOTGCST	tm/TMcfhtrk/ TMadmdii.c
			PLNT 24	6	DOTMDII		
rIIMCICNTS.ms358ac_docst	AM	BASE	PLNT 24	6	DIR_OUT(MDII)	MSDOTGCST	tm/TMcfhtrk/ TMadmdii.c
			PLNT 24	6	DOTMDII		
rIIMCICNTS.ms359ac_sossd	SM	BASE	PLNT 24	6	SHR_SSD(MDII)	MSSOTGSSD	tm/TMcfhtrk/ TMadmdii.c
			PLNT 24	6	TSDMDII		
rIIMCICNTS.ms359ac_sossd	AM	BASE	PLNT 24	6	SHR_SSD(MDII)	MSSOTGSSD	tm/TMcfhtrk/ TMadmdii.c
			PLNT 24	6	TSDMDII		
rIIMCICNTS.ms360ac_soack	SM	BASE	PLNT 24	6	SHR_ACK(MDII)	MSSOTGACK	tm/TMcfhtrk/ TMadmdii.c
			PLNT 24	6	TACKMDII		
rIIMCICNTS.ms360ac_soack	AM	BASE	PLNT 24	6	SHR_ACK(MDII)	MSSOTGACK	tm/TMcfhtrk/ TMadmdii.c
			PLNT 24	6	TACKMDII		
rIIMCICNTS.ms361ac_dosst	SM	BASE	M5	23	SS-TO	MSDOTGSST	tm/TMcfhtrk/ TMadmdii.c
rIIMCICNTS.ms361ac_dosst	AM	BASE	M5	23	SS-TO	MSDOTGSST	tm/TMcfhtrk/ TMadmdii.c
rIIMCICNTS.ms943ac_scdbk	SM	BASE	PLNT 24	6	BLOCKS (SELECTIVE CARRIER DENIAL)	MSSCDBLK	fp/FPdiganl/ FPscd_scrn.c
			PLNT 24	6	SCD_BLOCKS		
rIIMCICNTS.ms943ac_scdbk	AM	BASE	PLNT 24	6	BLOCKS (SELECTIVE CARRIER DENIAL)	MSSCDBLK	fp/FPdiganl/ FPscd_scrn.c
			PLNT 24	6	SCD_BLOCKS		
rIIMPTCNTS.ms649ac_trppok	SM	BASE	TRFC 30	48	PRMT	MSTGPRMT	fc/FCmfcpfm/ OBJ/ MCpfm.sdc
						MSTGPRMT	fc/FCmfcpp/ OBJ/ MCpp.cc
rIIMPTCNTS.ms650ac_trppfail	SM	BASE	TRFC 30	48	PRMTF	MSTGPFAIL	rta/RTpp/ RTpptkhnt.c

rlIMPTCNTS.ms653ac_tropp	SM	BASE	TRFC 30	48	OPPC	MSPTGRPOP	rta/RTpp/ RTpptkhnt.c
rlIMPTCNTS.ms654ac_tripp	SM	BASE	TRFC 30	48	IPPC	MSPTGRPIP	fc/FCmfcpp/ OBJ/ MCnp.cc
rlIMPTCNTS.ms655ac_tripr mt	SM	BASE	TRFC 30	48	IPRMT	MSTGIPRMT	fc/FCmfcpfm/ OBJ/ MCpfm.sdc
						MSTGIPRMT	fc/FCmfcpp/ OBJ/ MCpp.cc
rlIMPTCNTS.ms656ac_tropr mt	SM	BASE	TRFC 30	48	OPRMT	MSTGOPRMT	fc/FCmfcpp/ OBJ/ MCpp.cc
rlIMPTCNTS.ms657ac_trippr mt	SM	BASE	TRFC 30	48	IPPRMT	MSTGIPPRMT	fc/FCmfcpfm/ OBJ/ MCpfm.sdc
						MSTGIPPRMT	fc/FCmfcpp/ OBJ/ MCpp.cc
rlIMPTCNTS.ms658ac_tropp rmt	SM	BASE	TRFC 30	48	OPPRMT	MSTGOPPRM T	fc/FCmfcpp/ OBJ/ MCpp.cc
rlIMTRCNTS.ms155ac_tripc	CMP	BASE	M5	17	INC	MSTGRPIPC	cra/CRasmblr/ CRsmprims.c
			TRFC 30	12	IPC		
			TRFC 30	12	TGIPC		
rlIMTRCNTS.ms155ac_tripc	SM	BASE	M5	17	INC	MSTGRPIPC	cra/CRasmblr/ CRsmprims.c
			TRFC 30	12	IPC		
			TRFC 30	12	TGIPC		
rlIMTRCNTS.ms155ac_tripc	AM	BASE	M5	17	INC	MSTGRPIPC	cra/CRasmblr/ CRsmprims.c
			TRFC 30	12	IPC		
			TRFC 30	12	TGIPC		
rlIMTRCNTS.ms156ac_tropc	CMP	BASE	M5	17	OUTG	MSTGRPOPC	rta/RTGtrk/ RTtkmem.c
			TRFC 30	12	OPC	MSTGRPOPC	rta/RTGtrk/ RTtrkhunt.c
			TRFC 30	12	TGOPC		
rlIMTRCNTS.ms156ac_tropc	SM	BASE	M5	17	OUTG	MSTGRPOPC	rta/RTGtrk/ RTtkmem.c
			TRFC 30	12	OPC	MSTGRPOPC	rta/RTGtrk/ RTtrkhunt.c
			TRFC 30	12	TGOPC		
rlIMTRCNTS.ms156ac_tropc	AM	BASE	M5	17	OUTG	MSTGRPOPC	rta/RTGtrk/ RTtkmem.c
			TRFC 30	12	OPC	MSTGRPOPC	rta/RTGtrk/ RTtrkhunt.c
			TRFC 30	12	TGOPC		
rlIMTRCNTS.ms157ac_trofl	CMP	BASE	M5	17	OVFL	MSTGRPOFL	rta/RTGtrk/ RTtrkbusy.c
			TRFC 30	12	OFL		
			TRFC 30	12	TGOFL		

Table 83 Part 83

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
rlIMTRCNTS.ms157ac_trofl	SM	BASE	M5	17	OVFL	MSTGRPOFL	rta/RTGtrk/ RTtrkbusy.c
			TRFC 30	12	OFL		
			TRFC 30	12	TGOFL		
rlIMTRCNTS.ms157ac_trofl	AM	BASE	M5	17	OVFL	MSTGRPOFL	rta/RTGtrk/ RTtrkbusy.c
			TRFC 30	12	OFL		
			TRFC 30	12	TGOFL		
rlIMTRCNTS.ms158ac_trusg	CMP	BASE	M5	17	USG	MSTGRPMAT	as/ASmsscan/ MS100scan.c
			TRFC 30	12	TGUSG	MSTGRPUSG	as/ASmsscan/ MS100scan.c
			TRFC 30	12	USG		
rlIMTRCNTS.ms158ac_trusg	AM	BASE	M5	17	USG	MSTGRPMAT	as/ASmsscan/ MS100scan.c
			TRFC 30	12	TGUSG	MSTGRPUSG	as/ASmsscan/ MS100scan.c
			TRFC 30	12	USG		
rlIMTRCNTS.ms158ac_trusg	SM	BASE	M5	17	USG	MSTGRPMAT	as/ASmsscan/ MS100scan.c
			TRFC 30	12	TGUSG	MSTGRPUSG	as/ASmsscan/ MS100scan.c
			TRFC 30	12	USG		
rlIMTRCNTS.ms159ac_trmtu	CMP	BASE	TRFC 30	12	MTU	MSTGRPMAT	as/ASmsscan/ MS100scan.c
			TRFC 30	12	TGMTU	MSTGRPMTU	- - - - -
			TRFC 30	92	MTUSG		
rlIMTRCNTS.ms159ac_trmtu	SM	BASE	TRFC 30	12	MTU	MSTGRPMAT	as/ASmsscan/ MS100scan.c
			TRFC 30	12	TGMTU	MSTGRPMTU	- - - - -
			TRFC 30	92	MTUSG		
rlIMTRCNTS.ms159ac_trmtu	AM	BASE	TRFC 30	12	MTU	MSTGRPMAT	as/ASmsscan/ MS100scan.c
			TRFC 30	12	TGMTU	MSTGRPMTU	- - - - -
			TRFC 30	92	MTUSG		
rlIMTRCNTS.ms2877ac_ipctt	SM	BASE	TRFC 30	12	IPCTT	MSTGRPIPC	cra/CRasmblr/ CRsmprims.c
rlIMTRCNTS.ms2878ac_opctt	SM	BASE	TRFC 30	12	OPCTT	MSTGRPOPC	rta/RTGtrk/ RTtkmem.c
						MSTGRPOPC	rta/RTGtrk/ RTtrkhunt.c
rlIMTRCNTS.ms2879ac_ofltt	SM	BASE	TRFC 30	12	OFLTT	MSTGRPOFL	rta/RTGtrk/ RTtrkbusy.c
rlIMTRCNTS.ms330ac_trsilc	CMP	BASE	TRFC 30	12	SILC	MSSILCNT	nm/NMsilc/ NMimsilcsp.c

			TRFC 30	12	TGSILC		
rlIMTRCNTS.ms330ac_trsilc	SM	BASE	TRFC 30	12	SILC	MSSILCNT	nm/NMsilc/ NMimsilcsp.c
			TRFC 30	12	TGSILC		
rlIMTRCNTS.ms330ac_trsilc	AM	BASE	TRFC 30	12	SILC	MSSILCNT	nm/NMsilc/ NMimsilcsp.c
			TRFC 30	12	TGSILC		
rlIMTRCNTS.ms573ac_easpc	CMP	BASE	TRFC 30	12	EAIPC	MSTGEASPC	cra/CRasmblr/ CRsminput.c
rlIMTRCNTS.ms573ac_easpc	SM	BASE	TRFC 30	12	EAIPC	MSTGEASPC	cra/CRasmblr/ CRsminput.c
rlIMTRCNTS.ms573ac_easpc	AM	BASE	TRFC 30	12	EAIPC	MSTGEASPC	cra/CRasmblr/ CRsminput.c
rlIMTRCNTS.ms574ac_eastu	CMP	BASE	TRFC 30	12	EAITU	MSEASTU	as/ASmsscan/ MS100scan.c
rlIMTRCNTS.ms574ac_eastu	SM	BASE	TRFC 30	12	EAITU	MSEASTU	as/ASmsscan/ MS100scan.c
rlIMTRCNTS.ms574ac_eastu	AM	BASE	TRFC 30	12	EAITU	MSEASTU	as/ASmsscan/ MS100scan.c
rlIMTRCNTS.tgmdptr. ms2499ac_pdtc	AM	BASE	PLNT 24	24	PDT	MSTGMDPDT	tm/TMcfhtrk/ TMpfmdii.c
rlIMTRCNTS.tgmdptr. ms2499ac_pdtc	SM	BASE	PLNT 24	24	PDT	MSTGMDPDT	tm/TMcfhtrk/ TMpfmdii.c
rlIMTRCNTS.tgmdptr. ms2500ac_inmc	AM	BASE	PLNT 24	24	OTHER	MSTGMDINC	tm/TMcfhtrk/ TMpfmdii.c
rlIMTRCNTS.tgmdptr. ms2500ac_inmc	SM	BASE	PLNT 24	24	OTHER	MSTGMDINC	tm/TMcfhtrk/ TMpfmdii.c
rlIMTRCNTS.tgmdptr. ms2501ac_tr1c	AM	BASE	PLNT 24	24	TRIAL1	MSTGMD1TR	tm/TMcfhtrk/ TMpfmdii.c
rlIMTRCNTS.tgmdptr. ms2501ac_tr1c	SM	BASE	PLNT 24	24	TRIAL1	MSTGMD1TR	tm/TMcfhtrk/ TMpfmdii.c
rlIMTRCNTS.tgmdptr. ms2502ac_tr2c	AM	BASE	PLNT 24	24	TRIAL2	MSTGMD2TR	tm/TMcfhtrk/ TMpfmdii.c
rlIMTRCNTS.tgmdptr. ms2502ac_tr2c	SM	BASE	PLNT 24	24	TRIAL2	MSTGMD2TR	tm/TMcfhtrk/ TMpfmdii.c
rlMSIDCULN.MS2447ac_ilinedly	SM	BASE	TRFC 30	141	TOTAL DELAY	MS141TDELAY	fc/FCacctath/ MCleadacct.c
						MS141TDELAY	fc/FCacctath/ MCstd_lead.c
						MS141TDELAY	fc/FCidp/ MCdsl_dig.c
						MS141TDELAY	fc/FCidp/ MCpotsa.c
						MS141TDELAY	fc/FCidp/ MCstd_potsa.c
						MS141TDELAY	fita/Fledsl/ OBJ/ ISe_near.sdc
						MS141TDELAY	fita/Flibisdn/ OBJ/ IBnear.sdc
						MS141TDELAY	fita/Flisdn/ ISdsl_dig.c
						MS141TDELAY	fita/Flisdn/ OBJ/ ISnear.sdc
						MS141TDELAY	pc/PCidorig/ PCid303hdl.c
						MS141TDELAY	pc/PCidorig/ PCidline.c
						MS141TDELA	pc/PCidport/

						Y	LPactidcu.c
						MS141TDELAY	pc/PCorig/ PCqsrch.c
						MS141TDELAY	pc/PCtones/ OBJ/ LPsig.cc
						MS141TDELAY	rita/RIsetup/ RIdsloff.c
						MS141TDELAY	rita/RIstdisdn/ RIstdoff.c
						MS141TDELAY	rta/RTisdn/ RTatrelcom.c

Table 84 Part 84

Counter	Proc.	PKG	Report Name	Report Sect	Report Heading	Macro Name	Macro Pegged By
rlMSIDCULN.MS2448ac_ilinereq	SM	BASE	TRFC 30	141	ORIG REQ	MS141REQ	pc/PCidport/ LPactidcu.c
rlMSIDCULN.MS2449ac_ilinea	SM	BASE	TRFC 30	141	TMATT	MS141TMATT	pc/PCidport/ LPactidcu.c
rlMSIDCULN.MS2450ac_ilineofo	SM	BASE	TRFC 30	141	ORIG OVFL	MS141OOVFL	pc/PCidport/ LPactidcu.c
rlMSIDCULN.MS2451ac_ilineoal	SM	BASE	TRFC 30	141	TOTAL OVFL	MS141TOTOVFL	pc/PCidport/ LPactidcu.c
rlMSIDCULN.MS2452ac_ilineusg	SM	BASE	TRFC 30	141	USG	MS141USG	pc/PCidpath/ PCidpdbusg.c
rlTKOWNER.MS479ac_annc	CMP	BASE	- - - - -	- - - - -	- - - - -	MSMCCANC	- - - - -
rlTKOWNER.MS479ac_annc	SM	BASE	- - - - -	- - - - -	- - - - -	MSMCCANC	- - - - -

APP:MEM-NUM-AUD

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. MEMBER NUMBERS APPENDIX

Administrative module (AM)/*UNIX*® RTR Audit Names and Member Numbers

Audit Name	Member Number	Audit Description
CNC	1	Critical node control.
CUMEM	1	Control unit memory comparison.
CUSTAT	1	Control unit hardware status.
DLNDAT	1	Direct link node data.
ECD	1	Incore equipment configuration database (ECD) structure.
ECD	2	Disk ECD structure.
ECD	3	Incore ECD raw data.
ECDOWN	1	ECD record ownership.
FMGR	1	File manager task queue.
FMGR	2	File manager incore inode table.
FMGR	3	File manager hash table & inode pointer.
FMGR	4	File manager file table.
FMGR	5	File manager capability table.
FMGR	6	File manager buffers.
FMGR	7	File manager mount table.
FMGR	8	File manager delayed queue.
FMGR	9	File manager message queue.
FSBLK	1,2, and 3	File system block (all file systems).
FSCMPT	1	File system compaction (all file systems).
FSLINK	1,2, and 3	File system link (all file systems).
LKBDST	1	Link and Band Status.
MMGR	1	Memory manager segment descriptor table.
MMGR	2	Memory manager page tables.
MMGR	3	Memory manager page descriptor table.
MMGR	4	Memory manager segment release.
MMGR	5	Memory manager segment unlock.
MMGR	9	Memory manager swap space compaction.
MSGBUF	1	Message buffer queues.
MSGBUF	2	Message buffer extenders.
NIDATA	1	Internal office identification data audit.
NIDATA	2	Internal link configuration data audit.
NIDATA	3	Internal logical-physical translation data audit.
NIDATA	4	Internal cluster/member routing data audit.
NIDATA	5	Internal subsystem information data audit.
NIDATA	8	Internal global title translator data audit.
NIDATA	10	Internal protocol timers/parameters data audit.
NMDATA	1 or 2	Network management audit.
NODEST	1	Node state audit.
PMS	1	Plant measurements database integrity.
PMS	2	Plant measurements database recovery.
PROAD	1	Process administration.

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APP:MEM-NUM-CU

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. MEMBER NUMBERS APPENDIX

Administrative module (AM) Control Unit (CU) Subunit Names and Member Numbers

Subunit Name	Meaning	Allowed Member Numbers
CC	Central control unit.	0
CH	Channel	0 - 19.
CSU	Cache store unit.	0
DMA	Direct memory access unit.	0 or 1
MASC	Main store controller.	0 or 1
SAT	Store address translator.	0
UC	Utility circuit.	0

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APP:MEM-NUM-UNIT

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. MEMBER NUMBERS APPENDIX

Administrative Module (AM) Hardware Unit Names And Member Numbers

Unit Name	Meaning	*Allowed Member Numbers
CU	Control unit	0 or 1
DFC	Disk file controller	0 - 7
DUI	Direct user interface	0 - 255
DUIC	DUI controller	0 - 255
HSD	High-speed synchronous data link	0 - 255
HSDC	HSD controller	0 - 255
IOP	Input/output processor	0 - 15
LN00	Link node (group 00)	1 - 6
LN32	Link node (group 32)	1 - 6
MHD	Moving head disk	0 - 255
MSGS	Message switch	0 or 1
MT	Magnetic tape drive	0 - 255
MTC	Magnetic tape controller	0 - 255
MTTY	Maintenance terminal	0 - 255
MTTYC	MTTY controller	0 - 255
RPCN00	Ring peripheral controller node (group 00)	0
RPCN32	Ring peripheral controller node (group 32)	0
ROP	Receive-only printer	0 - 255
SBUS	SCSI Bus	0 - 255
SCC	Switching control center data link	0 - 255
SCSDC	Scanner and signal distributor controller	0 - 255
SDL	Synchronous data link	0 - 255
SDLC	Synchronous data link controller	0 - 255
TTY	Terminal (other than MTTY)	0 - 255
TTYC	TTY controller (other than MTTYC)	0 - 255

* These represent the limits imposed by input messages. The actual member numbers of units in a administrative module (AM) computer system are defined in the equipment configuration data base for that system.

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APP:MSCU-ERROR

Software Release: 5E10 and later
Message Class: N/A
Application: 5
Type: Output

1. MSCU AUTONOMOUS ERROR REPORTS APPENDIX

1.1 Format

```
REPT MSKP_ENVIRONMENT:

 a ABNOR RESP: -bccddee ------- -------- -------- EVENT=f
```

1.2 Explanation of Variables

a = Unit identification. Valid value(s):

- CMP = Communication module processor.
- FPC = Foundation peripheral controller.
- MMP = Module message processor.
- MSCU = Message switch control unit.
- PPC = Pump peripheral controller.

b = Opcode (= X'e).

c = Peripheral controller (PC) number (if applicable).

d = Error type (valid only when 'e' = X'f7). Valid value(s):

Code:	Explanation:
X'01	PC error lead set.
X'10	PC dual access memory (DAM) parity error (read).
X'11	Control signal acknowledgement (CSA) timeout.
X'12	Abort direct memory access (DMA) transfer (PC error).
X'13	Illegal PC to peripheral interface controller (PIC) message.
X'14	Illegal PC to PC message.
X'15	PC base priority input queue full.
X'16	PC high priority input queue full.
X'17	A read of AM memory using DMA exceeded 2048 bytes.
X'18	PC defensive check failure.
X'19	Invalid PC address found in response.
X'1a	Illegal high priority switching module (SM) message.
X'56	Range error - base priority input queue.
X'57	Range error - base priority output queue.
X'58	Range error - high priority input queue.
X'59	Range error - high priority output queue.
X'a0	PC babble - base priority queue.
X'a1	PC babble - high priority queue.

e = Completion code type. Valid value(s):

Code:	Explanation:
X'f2	Administrative module (AM) message to an out-of-service (OOS) control time slot.
X'f3	AM message to an OOS peripheral controller (PC).
X'f4	AM message to AM message error.
X'f5	AM base priority input queue full.
X'f6	PC community power failure (refer to variable 'c').
X'f7	PC fatal error (refer to variable 'd').

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X'f8	Illegal peripheral interface controller (PIC) executable message from PC (CM2 only).
X'f9	SM message to unequipped direct link node (DLN) (CM2 only).
X'fa	AM to SM high priority message (CM2 only).
X'fb	AM base priority message to PIC (CM2 only).
X'fc	DLN/AM queue message to OOS control time slot (CM2 only).
X'fd	DLN/AM input queue full (CM2 only).
X'fe	DLN/AM queue pointer invalid (CM2 only).
X'ff	DLN/AM queue message invalid (CM2 only).

f = Event number.

APP:MSGCLS

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. *5ESS*®-2000 SWITCH MESSAGE CLASSES AND THEIR NORMAL DESTINATIONS

The equipment configuration database (ECD) destinations are the normal (default) destinations and do not include the echo of the requesting device. The ECDs used and their acronyms are listed below.

ECD ACRONYM	ECD DESCRIPTION
AMAERLOG	Automatic accounting lost/irregular message log file <5E10+>
AUDLOG	Audit log file
CALLPLOG	Call processing log file
CONFLOG	Log file associated with configuration management messages
CMDLOG	Message log file used for tracking input requests <5E10+>
CNCELOG	Log file associated with common channel signaling (CCS) critical network event messages
COTLOG	Log file associated with customer-originated trace (COT) messages.
DKDRVLOG	Disk subsystem message logfile
ERLOG	Log file associated with process error interrupts messages
GSPL	Grasp (generic utilities) log
MCC	Master Control Center (ttya)
MEMLOG	Log file associated with memory faults messages
MTCLOG	Maintenance log file
OFRLOG	Office record file
PMLOG	Post mortem log
ROP	Receive-only printer (rop0)
RPTERR	Report handler
SCC	Switching Control Center (ttyz)
SIMLOG	Log file for system integrity monitor messages
SODDLOG	Log file for automated static ODD audit messages <5E10+>
SRLOG	Log file for software resource reporting.
TOPperp	TOPAS channels
TRACELOG	Log file associated with common network interface (CNI) switch maintenance messages
ULARPLOG	Log file associated with unit level automatic restart process messages
DBUGLOG	Log file associated DSM debugging messages (5E14+)
ERRORLOG	Log file associated DSM error messages (5E14+)
PERFLOG	Log file associated DSM performance messages (5E14+)

For message classes (MSGCLSs) that normally LOG, the ECD destinations are listed only for the sake of completeness. If a message class is to be logged only, it will not be output to any device, but if the message class is set off-normal so that it is to be both logged and printed, then output messages will be sent to the listed ECD destinations as well as to the requesting device.

UNIX® RTR message classes (Exhibit 4) and common network interface (CNI) message classes (Exhibit 5) do not log in the 5E log file DAYLOG and their log and print status can not be changed. If logged, they appear only in the log file listed in the ECD destinations.

Exhibit 1

MSGCLS Acronym	Message Class Description	Numeric Value	ECD Destinations
ACSR	Automatic customer station rearrangement	147	ROP,SCC
ADMN	Network management and administration	126	ROP,SCC
ALIT	Automatic line insulation test	81	ROP,SCC
ALRM	Alarmed messages	93	ROP,SCC
AMA	Automatic message accounting	135	ROP,SCC
AMAERR	Automatic accounting lost/irregular error messages <5E10+>	186	AMAERLOG
ASRT	Assert messages	44	ROP,SCC
ATL	Automatic progression and maintenance	66	ROP,SCC
AUDT	Audit	47	ROP,SCC
AUDTFST	First audit message for an event	50	ROP,SCC

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BPSC	Building power scan point	87	ROP,SCC
CCS	Common channel signaling	162	ROP,SCC
CLNK	Communication link	117	ROP,SCC
CP	Call processing	156	ROP,SCC
DB	Data base	138	ROP,SCC
DCHTRK	D-channels trunk	173	ROP,SCC,TOPperp
GENR	Generic retrofit	90	ROP,SCC
GRCV	Global recent change and verify.	176	ROP,SCC
HW	Hardware	99	ROP,SCC,TOPperp
INT	Initialization	41	ROP,SCC
IOC	Input output control	132	ROP,SCC
LINE	Line maintenance	78	ROP,SCC,TOPperp
MDII	Machine detected interoffice irregularity	69	ROP,SCC
MSGS	Message switch	120	ROP,SCC
MTCE	Switch maintenance	32	ROP,SCC,MTCLOG
NULLDEV	Device null	165	NULL
ODD	Office dependent data	141	ROP,SCC,MTCLOG
OFR	Office record administration	150	OFRLOG,ROP,SCC
ONTC	Office network & timing complex	114	ROP,SCC
OVLD	Overload report	54	ROP,SCC
PBSU	Peripheral broadband service unit	167	ROP,SCC
PCTFSUM	Per call test failure summary.	84	ROP,SCC
PFR	Peripheral fault recovery	108	ROP,SCC
PLNT	Plant measurement	129	ROP,SCC
PRFM	Performance monitor for ISLU u-card	170	ROP,SCC
PSLNK	PSU link messages <5E11+>	190	ROP,SCC,MTCLOG
RCVY	Recent change verify	144	ROP,SCC
REX	Routine exercise	57	ROP,SCC
RSB	Repair service bureau	96	
SCCS	Switching control center	174	SCC
SED	Software error detection	38	ROP,SCC
SFTW	Software	35	ROP,SCC
SLC	Subscriber loop carrier	123	ROP,SCC
SM	Switching module	111	ROP,SCC
SODD	Automated static ODD audit <5E10+>	187	ROP,SCC,SODDLOG
SORRT	Software resource reporting tool.	185	SRLOG
SPM	Single protocol monitor.	179	ROP,SCC
TLWS	Trunk & line work station	75	ROP,SCC
TM	Terminal maintenance	60	ROP,SCC,TOPperp
TPAS	TOPAS testing operations provisioning & administration system	72	ROP,SCC,TOPperp
TRCE	Call trace	159	ROP,SCC
TRFM	Traffic measurements	153	ROP,SCC
TRK	Trunk	63	ROP,SCC,TOPperp
TRP	Trump	182	SCC,TOPperp
UT	Utilities	51	ROP,SCC
XTRFM	Traffic channel	166	

Exhibit 2

MSGCLS Acronym	**Message Class Description**	**Numeric Value**	**ECD Destinations**
ACSRMON	Logged automatic customer station rearrangement	149	ROP,SCC
ADMNMON	Logged network management and administration	128	ROP,SCC
ALITMON	Logged automatic line insulation testing	83	ROP,SCC
ALRMMON	Logged alarmed	95	ROP,SCC
AMA_MON	Logged automatic message accounting	137	ROP,SCC
ASMDLOG	Logged ASM debug messages (5E14+)	201	DBUGLOG
ASMELOG	Logged ASM error messages (5E14+)	200	ERRORLOG
ASMPLOG	Logged ASM performance messages (5E14+)	202	PERFLOG
ASRTMON	Logged assert	46	ROP,SCC
ATL_MON	Logged automatic progression and maintenance	68	ROP,SCC
AUDTMON	Logged audit	49	ROP,SCC
BPSCMON	Logged building power scan point	89	ROP,SCC
CAPR_LOG	Logged call processing	175	CALLPLOG
CCSMON	Logged common channel signaling	164	ROP,SCC
CLNKMON	Logged communication link	119	ROP,SCC
CP_MON	Logged call processing	158	ROP,SCC
DB_MON	Logged data base	140	ROP,SCC
GENRMON	Logged software release retrofit	92	ROP,SCC

GRCVMON	Logged global recent change verify.	178	
HW_MON	Logged hardware	101	ROP,SCC
INT_MON	Logged initialization	43	ROP,SCC
IOC_MON	Logged input output control	134	ROP,SCC
LINEMON	Logged line maintenance	80	ROP,SCC
MDIIMON	Logged machine detected interoffice irregularity	71	ROP,SCC
MSGSMON	Logged message switch	122	ROP,SCC
MTCEMON	Logged switch maintenance	34	ROP,SCC,MTCLOG
ODD_MON	Logged office dependent data	143	ROP,SCC,MTCLOG
OFR_MON	Logged office record administration	152	OFRLOG
ONTCMON	Logged office network & timing complex	116	ROP,SCC
OVLDMON	Logged overload report	56	ROP,SCC
PBSUMON	Logged peripheral broadband service unit	169	ROP,SCC
PCTFINDV	Logged individual per call test failure.	86	SCC
PCTFRCF	Per call test failure ringing continuity failure.	85	ALIT-RSB,SCC
PFR_MON	Logged peripheral fault recovery	110	ROP,SCC
PLNTMON	Logged plant measurement	131	ROP,SCC
PRFMMON	Logged performance monitor for ISLU u-card	172	ROP,SCC
PSLNKMON	Logged PSU link message <5E11+>	192	ROP,MTCLOG
RCVYMON	Logged recent change verify	146	ROP,SCC
REX_MON	Logged routine exercise	59	ROP,SCC
RSB_MON	Logged repair service bureau	98	ROP,SCC
SED_MON	Logged software error detection	40	ROP,SCC
SFTWMON	Logged software	37	ROP,SCC
SLC_MON	Logged subscriber loop carrier	125	ROP,SCC
SM_MON	Logged switching module	113	ROP,SCC
SODDMON	Logged automated static ODD audit <5E10+>	189	SODDLOG
SPM_MON	Logged single protocol monitor	181	SCC
TLWSMON	Logged trunk line work station	77	ROP,SCC
TM_MON	Logged terminal maintenance	62	ROP,SCC,TOPperp
TPASMAN	Logged TOPAS testing operations provisioning & administration system	74	SCC,TOPperp
TRCEMON	Logged Discarded Program Trace (PTRACE)	161	ROP,SCC
TRFMMON	Logged traffic measurements	155	ROP,SCC
TRK_MON	Logged trunk	65	ROP,SCC
TRP_MON	Logged trump	184	SCC
UT_MON	Logged utilities	53	ROP,SCC

Exhibit 3

MSGCLS Acronym	**Message Class Description**	**Numeric Value**
ACSRRSP	Response automatic customer station rearrangement	148
ADMNRSP	Response network management and administration	127
ALITRSP	Response automatic line insulation testing	82
ALRMRSP	Response alarmed	94
AMA_RSP	Response automatic message accounting	136
ASRTRSP	Response assert	45
ATL_RSP	Response automatic progression and maintenance	67
AUDTRSP	Response audit	48
BPSCRSP	Response building power scan point	88
CCS_RSP	Response common channel signaling	163
CLNKRSP	Response communication link	118
CP_RSP	Response call processing	157
DB_RSP	Response data base	139
GENRRSP	Response generic retrofit	91
GRCVRSP	Response global recent change verify	177
HW_RSP	Response hardware	100
INT_RSP	Response initialization	42
IOC_RSP	Response input output control	133
LINERSP	Response line maintenance	79
MDIIRSP	Response machine detected interoffice irregularity	70
MSGSRSP	Response message switch	121
MTCERSP	Response switch maintenance	33
ODD_RSP	Response office dependent data	142
OFR_RSP	Response office record administration	151
ONTCRSP	Response office network & timing complex	115
OVLDRSP	Response overload report	55
PBSURSP	Response peripheral broadband service unit	168
PFR_RSP	Response peripheral fault recovery	109

PLNTRSP	Response plant measurement	130
PRFMRSP	Response performance monitor for ISLU u-card	171
PSLNKRSP	Response PSU link message <5E11+>	191
RCVYRSP	Response recent change verify	145
REX_RSP	Response routine exercise	58
RSB_RSP	Response repair service bureau	97
SED_RSP	Response software error detection	39
SFTWRSP	Response software	36
SLC_RSP	Response subscriber loop carrier	124
SM_RSP	Response switching module	112
SODDRSP	Response automated static ODD audit message <5E10+>	188
SPM_RSP	Response single protocol monitor.	180
TLWSRSP	Response trunk line work station	76
TM_RSP	Response terminal maintenance	61
TPASRSP	Response TOPAS testing operations provisioning & administration system	73
TRFMRSP	Response traffic measurements	154
TRK_RSP	Response trunk	64
TRP_RSP	Response trump	183
UT_RSP	Response utility	52

Exhibit 4: *UNIX*® RTR Message Classes

MSGCLS Acronym	**Message Class Description**	**Numeric Value**	**ECD Destinations**
AUDL	Audit messages, normally logged	12	AUDLOG,MTCLOG,ROP,SCC
AUDT	Audit messages to be printed immediately	11	ROP,SCC
AUTH	Authority administration reports	27	ROP,SCC
CAT11	Customer access treatment	23	SCC
CONF	Configuration management reports	8	CONFLOG,SCC
DEBUG	Debugging reports	3	ROP,SCC
DGN	Diagnostic reports	9	ROP,SCC
DSKSYS	Disk subsystem reports	25	ROP,SCC,DKDRVLOG
DSKUTL	Disk utility reports	24	MTCLOG,ROP,SCC
EIH	Processor error interrupt reports	6	ERLOG,ROP,SCC
GSPL	Generic utility reports (logged)	19	GSPL,SCC
GSPM	Generic utility reports (printed)	18	ROP,SCC
LGTRM	Log file output reports	20	MCC,SCC
MAINT	General maintenance reports	1	MTCLOG,ROP,SCC
MAIPR	Low priority maintenance reports	2	MTCLOG,ROP,SCC
MEMF	Memory fault reports	7	MEMLOG,ROP,SCC
PMCR	Plant measurement common reports	21	ROP,SCC
PMORT	Post-mortem reports	5	PMLOG,ROP,SCC
PSSWD	Login process reports	26	ROP,SCC
RC	Recent change reports	13	MCC,ROP,SCC
REX	Routine exercise reports	17	ROP,SCC
SIM	System integrity reports	15	SIMLOG,ROP,SCC
SPERR	Spooler error reports	0	ROP,SCC
TIME	Data and time reports	4	ROP,SCC
TLP	Trouble locating procedure reports	10	ROP,SCC
TRCERSP	Response call trace messages	160	COTLOG
ULARP	*UNIX*® level automatic	22	ROP,SCC,ULARPLOG

	restart process reports		
UTIL	Field utility reports	14	ROP,SCC
XUNIT	Unit abnormal condition reports	16	ROP,SCC
	Currently unused	28	
	Currently unused	29	
	Currently unused	30	
	Currently unused	31	

APP:OMDB-X-REF

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. OUTPUT MESSAGE DATABASE (OMDB) CROSS REFERENCE APPENDIX

The output message database (OMDB) cross reference contains information concerning every message contained in the OMDB. The information includes its key, message class, alarm level, message text, variable offsets, sizes and translation types.

The following is an example of a cross reference entry and an explanation of the fields.

```
KEY  =  5   MSGCLS  =  1   ALARM  =  MAN   %1 OMDB COMPLETED
```

The example contains a database entry for key number 5, which has a message class of 1 (MAINT) and an alarm level of MAN (manual). The message has a variable field indicated by the %. In this particular case the variable field is telling you which enum the OMDB completed.

Exhibit 1

Field Name	Description
Key	The key (index) into the OMDB. The key(s) for each message in the data base can be found on the Output Message manual pages.
MSGCLS	The numeric message class for this message (0-255). For a complete list of message classes, refer to the APP:MSG-CLS output message appendix.
Alarm	The alarm level defined for this message. It will be one of the following: CRIT, MAJ, MIN, MAN, ACT, INFO, VAR.
Message	Reason the OMDB was output. The percent sign (%) in this field indicates variable information. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

The following is a listing of the possible DMERT/*UNIX*® RTR OMDB keys.

Key	MSGCLS	Alarm	Message
0	1	INFO	REPT CSOP IN SERVICE
1	1	MAN	ACTV OMDB COMPLETED
2	1	MAN	APPLY OMDB COMPLETED
3	1	MAN	APPLY OMDB NO DATABASE ENTRY FOUND FOR THE FOLLOWING KEYS: UPD OMDB NO DATABASE ENTRY FOUND FOR THE FOLLOWING KEYS:
4	1	MAN	UPD OMDB COMPLETED FOR THE FOLLOWING KEYS:
5	1	MAN	OP OMDB COMPLETED UPD OMDB COMPLETED APPLY OMDB COMPLETED
6	1	MAN	OP OMDB %1
7	1	MAN	OP OMDB %1 NO DATABASE ENTRY FOUND FOR THE FOLLOWING KEYS:
8	1	MAN	APPLY OMDB LOGFILE ERROR
9	1	MAN	UPD OMDB CANNOT OPEN OR CREATE LOGFILE APPLY OMDB CANNOT OPEN OR CREATE LOGFILE
10	1	MAN	APPLY OMDB ABORTED OP OMDB ABORTED
11	1	INFO	REPT CSOP FORMATTING
13	2	INFO	DEL LOG CANNOT OPEN WORKFILE
14	2	INFO	DEL LOG FILE %1 DELETION COMPLETE %2 DELETED
15	14	INFO	DEL LOG CORRUPT LOGFILE %1%2 AT %3
16	1	ACT	ANALY TLPFILE %1 SUMMARY DATA MSG STARTED

17	1	ACT	ANALY TLPFILE %1 TLPSRCH MSG IP
18	1	ACT	ANALY TLPFILE %1 SUSPECTED FAULTY EQUIPMENT MSG COMPL
19	1	ACT	REPT TLP ERROR %1 %2 %3 %4 %5
20	1	ACT	REPT ANALY TLP %1 %2
21	1	ACT	REPT ANALY TLP %1
22	1	ACT	REPT ANALY TLP %1 %2
24	16	MAN	OP REXINH %1
25	1	INFO	OP REXINH CANNOT OPEN %1
26	17	INFO	REPT REX SUMMARY %1
27	1	INFO	REPT REX TERMINATED - INTERNAL REQUEST
28	1	INFO	REPT REX UNABLE TO SEND MESSAGE TO APPLICATION REX PORT
29	1	INFO	REPT REX UNABLE TO REQUEST PORTSWITCH FOR IOP DIAGNOSIS
30	1	INFO	REPT REX ROP PORTSWITCH REQUEST DENIED
31	1	INFO	REPT REX MTTY PORTSWITCH REQUEST DENIED
32	1	MAJ	REPT REX MAJOR ALARM %1
33	1	INFO	REPT REX CANNOT OPEN %1
34	1	ACT	REPT DGN CU ERROR %1
35	1	MAN	EX STEP SCRATCH WORD VALUE IS %1
36	1	ACT	REPT DGN CU ERROR %1
37	1	MAN	EX STEP BYTE SENT %1
38	1	MAN	EX STEP BYTE RECEIVED %1
39	1	MAN	EX LDPARM MASC %1 TEST INPUT VALUES
40	1	MAN	EX LDPARM MASC %1 TEST INPUT VALUES
41	1	MAN	EX LDPARM MASC %1 TEST INPUT VALUES
42	1	MAN	EX LDPARM MASC MEM TEST INPUT VALUES
43	1	MAN	EX LDPARM MASC UPD TEST INPUT VALUES
44	1	MAN	EX LDPARM MASC UPD TEST INPUT VALUES
45	1	ACT	REPT DGN CU %1
46	1	MAN	EX LOOP %2 %3 %4 %5 %6 %7 %8 EX %2 %3 %4 %5 %6 %7 %8 EX STEP %2 %3 %4 %5 %6 %7 %8 EX PAUSE %2 %3 %4 %5 %6 %7 %8
47	1	MAN	EX STEP MESSAGE SENT
48	1	MAN	EX STEP MESSAGE RECEIVED
49	16	MAN	OP CFGSTAT MESSAGE STARTED OP ACT MESSAGE STARTED OP GROW MESSAGE STARTED OP INIT MESSAGE STARTED OP OFL MESSAGE STARTED OP OOS MESSAGE STARTED OP STBY MESSAGE STARTED OP UNAV MESSAGE STARTED OP UNEQIP MESSAGE STARTED
50	16	MAN	OP CFGSTAT COMPLETED OP ACT COMPLETED OP GROW COMPLETED OP INIT COMPLETED OP OFL COMPLETED OP OOS COMPLETED OP STBY COMPLETED OP UNAV COMPLETED OP UNEQIP COMPLETED
51	1	MAN	OP CFGSTAT INTERFACE ERROR, ERRNO = %2 OP ACT INTERFACE ERROR, ERRNO = %2 OP GROW INTERFACE ERROR, ERRNO = %2 OP INIT INTERFACE ERROR, ERRNO = %2 OP OFL INTERFACE ERROR, ERRNO = %2 OP OOS INTERFACE ERROR, ERRNO = %2 OP STBY INTERFACE ERROR, ERRNO = %2 OP UNAV INTERFACE ERROR, ERRNO = %2 OP UNEQIP INTERFACE ERROR, ERRNO = %2
52	12	VAR	AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6
53	1	ACT	RMV CU %2 MASC %3 PH %4 MEMORY FAILURE RESULTS

			RST CU %2 MASC %3 PH %4 MEMORY FAILURE RESULTS RST(UCL) CU %2 MASC %3 PH %4 MEMORY FAILURE RESULTS DGN CU %2 MASC %3 PH %4 MEMORY FAILURE RESULTS EX CU %2 MASC %3 PH %4 MEMORY FAILURE RESULTS
54	1	ACT	REPT DGN %1 NO DIAMON
55	1	ACT	REPT DGN ERROR TEST NUMBER %1
56	1	ACT	REPT DGN AUDIT %1
57	1	ACT	DGN %1 %2 PH %3 DISK READ/WRITE FAILURES
58	1	ACT	REPT DFRMVRST ERROR 3 %2 REPT IORMVRST ERROR 3 %2
59	1	ACT	REPT MIRA %1
60	1	ACT	REPT MIRA CANNOT RESERVE UNITS FOR %1 %2 %3 %4 %5
62	1	MAN	INH DMQ CANNOT INHIBIT A MANUAL SOURCE %1
63	1	MAN	INH DMQ %1
64	12	VAR	AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6
65	1	MAN	INH DMQ CANNOT LCALL INHTIMER PROCESS %1 FOR INHIBIT ERRNO = %2
66	1	MAN	ALW DMQ ENABLED %1%2
67	1	MAN	ALW DMQ SOURCE IS NOT INHIBITED
68	1	ACT	REPT MIRA CANNOT LCALL %1
69	1	MAN	REPT MIRA CANNOT SEND MESSAGE TO %1 ERRNO = %2
70	1	ACT	RMV %2 %3 %4 %5 TASK %6 %7 RST %2 %3 %4 %5 TASK %6 %7 DGN %2 %3 %4 %5 TASK %6 %7 EX %2 %3 %4 %5 TASK %6 %7
71	12	VAR	AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6
72	1	ACT	REPT MIRA %1 ERRNO = %2
73	1	ACT	REPT MIRA %1 %2 %3 %4 %5
74	12	VAR	AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6
75	12	VAR	AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6
76	12	VAR	AUD ENV=RTR %1 %2 %3 %4 %5
77	1	MAN	EX PAUSE %2 NO ACTION TAKEN EX LOOP %2 NO ACTION TAKEN EX STEP %2 NO ACTION TAKEN EX STOP %2 NO ACTION TAKEN
78	12	VAR	AUD ENV=RTR %1 %2 %3 COMPLETED
79	12	VAR	REPT SIOF ERROR - TOO MANY BLOCKS (%1) RETURNED BY SIM
80	12	VAR	REPT SIOF ERROR - INVALID OUTPUT FORMAT TYPE %1
81	12	VAR	REPT SIOF ERROR - INVALID ALARM LEVEL %1 SUBSTITUTING ' '
82	12	VAR	REPT SIOF ERROR - INVALID SUPPLEMENTARY DATA TYPE %1
83	12	VAR	REPT SIOF ERROR - UNABLE TO FIND AVAILABLE SEGMENT INDEX
84	12	VAR	REPT SIOF ERROR - INVALID SEGMENT ID %1 CODE %2
85	12	VAR	REPT SIOF ERROR - UNABLE TO ADD SEGMENT ID %1 CODE %2
86	1	ACT	REPT MIRA %1 %2 %3 %4 %5 ABORT REQUESTED REASON %6
87	12	VAR	REPT SIOF ERROR - CANNOT SET VIRTUAL ADDRESS SEGNUM %1 CODE %2
88	12	VAR	REPT SIOF ERROR - CANNOT ADD SEGNUM %1 CODE %2
89	12	VAR	REPT SIOF ERROR - INVALID SUPPLEMENTARY DATA
90	1	ACT	REPT MIRA CONC=%1 %2
91	1	ACT	OP DMQ
92	1	ACT	REPT DMQ %1 %2%3 %4
93	1	ACT	REPT DMQ INHIBIT %1%2 ACTIVE, REMAINING TIME %3 MINUTES
94	12	VAR	REPT SIOF ERROR - UNABLE TO FREE SEGMENT %1
95	1	ACT	REPT DIAMON ERROR = %1 ERRNO = %2
96	1	ACT	RMV %2 %3 %4 %5 %6 RST %2 %3 %4 %5 %6 RST(UCL) %2 %3 %4 %5 %6 DGN %2 %3 %4 %5 %6 EX %2 %3 %4 %5 %6
97	12	VAR	REPT SIOF ERROR - INVALID SEG ID STAMP %1
98	12	VAR	REPT SIOF ERROR - INVALID SUPPLEMENTARY DATA FORMAT %1
99	1	ACT	RMV %2 %3 %4 %5 %6 %7 %8 RST %2 %3 %4 %5 %6 %7 %8 RST(UCL) %2 %3 %4 %5 %6 %7 %8 DGN %2 %3 %4 %5 %6 %7 %8

			EX %2 %3 %4 %5 %6 %7 %8
100	12	VAR	REPT SIOF ERROR - SIZEOF(%1) NOT FACTOR OF PASSED SIZE
101	12	VAR	REPT SIOF ERROR - CANNOT %1 FILE %2
102	12	VAR	REPT SIOF ERROR - CANNOT OPEN %1 FILE %2
103	1	ACT	RMV %2 %3 %4 %5 %6 (%7 %8 %9) %10 RST %2 %3 %4 %5 %6 (%7 %8 %9) %10 RST(UCL) %2 %3 %4 %5 %6 (%7 %8 %9) %10 DGN %2 %3 %4 %5 %6 (%7 %8 %9) %10 EX %2 %3 %4 %5 %6 (%7 %8 %9) %10
104	6	INFO	REPT ERSLOT
105	7	INFO	REPT NONCORRECTABLE PARITY ERROR ON MEMORY REFERENCE %2 REPT OTHER STORE REFRESH PARITY ERROR %2 REPT OTHER STORE READ PARITY ERROR %2 REPT MEMORY PARITY FAILURE %2
106	1	ACT	RMV %2 %3 %4 %5 ABORTED AT PH %6 STMNT %7 ATP MSG IP RST %2 %3 %4 %5 ABORTED AT PH %6 STMNT %7 ATP MSG IP RST(UCL) %2 %3 %4 %5 ABORTED AT PH %6 STMNT %7 ATP MSG IP DGN %2 %3 %4 %5 ABORTED AT PH %6 STMNT %7 ATP MSG IP EX %2 %3 %4 %5 ABORTED AT PH %6 STMNT %7 ATP MSG IP
107	6	INFO	REPT ERSLOT
108	7	INFO	REPT OTHER STORE HARDWARE ERROR %1
109	1	ACT	RMV %2 %3 %4 %5 %6 %7 %8 %9 STF (%10 %11 %12) MSG IP RST %2 %3 %4 %5 %6 %7 %8 %9 STF (%10 %11 %12) MSG IP RST(UCL) %2 %3 %4 %5 %6 %7 %8 %9 STF (%10 %11 %12) MSG IP DGN %2 %3 %4 %5 %6 %7 %8 %9 STF (%10 %11 %12) MSG IP EX %2 %3 %4 %5 %6 %7 %8 %9 STF (%10 %11 %12) MSG IP
110	1	ACT	RMV %2 %3 %4 %5 %6 %7 %8 %9 STF (%10 %11 %12) MSG IP RST %2 %3 %4 %5 %6 %7 %8 %9 STF (%10 %11 %12) MSG IP RST(UCL) %2 %3 %4 %5 %6 %7 %8 %9 STF (%10 %11 %12) MSG IP DGN %2 %3 %4 %5 %6 %7 %8 %9 STF (%10 %11 %12) MSG IP EX %2 %3 %4 %5 %6 %7 %8 %9 STF (%10 %11 %12) MSG IP
111	1	ACT	RMV %2 %3 %4 %5 %6 %7 %8 %9 %10 (%11 %12) MSG IP RST %2 %3 %4 %5 %6 %7 %8 %9 %10 (%11 %12) MSG IP RST(UCL) %2 %3 %4 %5 %6 %7 %8 %9 %10 (%11 %12) MSG IP DGN %2 %3 %4 %5 %6 %7 %8 %9 %10 (%11 %12) MSG IP EX %2 %3 %4 %5 %6 %7 %8 %9 %10 (%11 %12) MSG IP
112	7	INFO	REPT NONCORRECTABLE PARITY ERROR ON MEMORY REFERENCE %2 REPT OTHER STORE REFRESH PARITY ERROR %2 REPT OTHER STORE READ PARITY ERROR %2 REPT MEMORY PARITY FAILURE %2
113	7	INFO	REPT NONCORRECTABLE PARITY ERROR ON MEMORY REFERENCE %2 REPT OTHER STORE REFRESH PARITY ERROR %2 REPT MEMORY PARITY FAILURE %2
114	6	INFO	REPT ERSLOT
115	6	INFO	REPT ERSLOT
116	6	INFO	REPT ERSLOT
117	1	ACT	REPT ERRPORT %1 %2 %3
118	1	MAN	OP OMDB ABORTED UPD OMDB ABORTED ACTV OMDB ABORTED APPLY OMDB ABORTED
119	24	INFO	CMPR MHD %2 %3 %4 %5 COPY DIFF SRC MHD %2 %3 %4 %5
120	24	MAN	CMPR MHD %2 %3 %4 %5 COPY DIFF SRC MHD %2 %3 %4 %5

121	24	MAJ	CMPR MHD %2 %3 %4 %5 COPY DIFF SRC MHD %2 %3 %4 %5
122	24	MAN	CMPR MHD %2 %3 IN PROGRESS COPY DIFF SRC MHD %2 %3 IN PROGRESS
123	24	MAN	LOAD MHD %1 DEFECT TABLE %2 %3 %4
124	24	MAN	CMPR MHD %2 %3 PARTITION MISMATCH COPY DIFF SRC MHD %2 %3 PARTITION MISMATCH
125	24	INFO	CMPR MHD %2 %3 PARTITION MISMATCH COPY DIFF SRC MHD %2 %3 PARTITION MISMATCH
126	24	MAN	CMPR MHD %2 %3 PARTITION %4 COPY DIFF SRC MHD %2 %3 PARTITION %4
127	24	INFO	CMPR MHD %2 %3 PARTITION %4 COPY DIFF SRC MHD %2 %3 PARTITION %4
128	24	MAN	CMPR MHD %2 %3 PARTITION BYPASSED COPY DIFF SRC MHD %2 %3 PARTITION BYPASSED
129	24	INFO	CMPR MHD %2 %3 PARTITION BYPASSED COPY DIFF SRC MHD %2 %3 PARTITION BYPASSED
130	24	MAN	CMPR MHD %2 %3 FINAL SUMMARY COPY DIFF SRC MHD %2 %3 FINAL SUMMARY
131	24	INFO	CMPR MHD %2 %3 FINAL SUMMARY COPY DIFF SRC MHD %2 %3 FINAL SUMMARY
132	24	MAN	CMPR MHD %2 %3 PARTITION ACCESS FAILURE COPY DIFF SRC MHD %2 %3 PARTITION ACCESS FAILURE
133	24	INFO	CMPR MHD %2 %3 PARTITION ACCESS FAILURE COPY DIFF SRC MHD %2 %3 PARTITION ACCESS FAILURE
134	1	MAN	REPT FAN %1 %2 %3
135	1	MAJ	REPT FAN %1 %2 %3
136	1	MIN	REPT FAN %1 %2 %3
137	1	INFO	REPT FAN %1 %2 %3
138	1	INFO	REPT PSM ERROR %1 %2 %3 %4 %5 %6 %7
139	1	MAN	REPT POWER %1 %2 %3 %4 %5
140	1	INFO	REPT POWER FAULT CLEARED %1 %2 %3 %4
141	1	MIN	REPT POWER %1 %2 %3 %4 %5 %6
142	1	MAJ	REPT POWER %1 %2 %3 %4 %5 %6
143	0	INFO	REPT %1 %2 %3
144	24	MAN	DUMP MHD %1 DEFECT TABLE %2
145	24	MAN	DUMP MHD %1 DEFECT TABLE %2
146	24	MAJ	INIT MHD %2 EARLY TERM VFY FAILED %3 VFY MHD %2 EARLY TERM VFY FAILED %3
147	24	MAN	INIT MHD %2 %3 %4 %5 VFY MHD %2 %3 %4 %5
148	24	INFO	INIT MHD %2 %3 %4 %5 VFY MHD %2 %3 %4 %5
149	24	MAJ	INIT MHD %2 %3 %4 %5 VFY MHD %2 %3 %4 %5
150	24	MAN	OP DFC %1 INFO
151	24	MAN	OP MHD %1 INFO
152	24	MAN	OP DFC %1 INFO
153	24	MAN	OP DFC %2 INFO %3 %4 %5 OP MHD %2 INFO %3 %4 %5
154	24	MAN	REPT DKDIP MESSAGE
155	254	INFO	REPT IODRV %1 %2 %3 %4 %5 %6 %7
156	254	INFO	REPT IODRV %1 %2 %3 %4 %5 %6 %7
157	1	MAN	OP SCSD GRPN %1
158	1	MAN	OP SCSD UNIT %1
159	1	MAN	SET IODRV %2 CLR IODRV %2
160	1	INFO	OP IODRV COMPLETED
161	1	INFO	OP IODRV %1
162	1	INFO	LVL
163	1	INFO	OP IODRV MSG STARTED
164	1	MAN	SW PORTSW %1 %2 %3
165	1	INFO	REPT SCSDA %1 %2 %3 %4 %5 %6
166	1	MAJ	REPT PHASE %1 IN PROGRESS
167	1	CRIT	REPT PHASE %1 IN PROGRESS
168	1	MIN	REPT INHIBIT SCAN POINT %1 ON SCSD %2

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169	13	MAN	RCV MENU %1 %2 %3 %4 %5 %6
170	11	INFO	REPT ECDMAN %1
171	1	ACT	OP DMQ
172	1	ACT	OP DMQ
173	1	ACT	OP DMQ
174	6	INFO	REPT ERSLOT
175	1	INFO	REPT C/D ERROR %1 %2 %3 %4 %5 %6 %7
176	254	INFO	REPT CSOP %1
177	1	INFO	%1
178	1	INFO	%1 %2
179	1	INFO	%1
180	1	INFO	REPT RTS GETDBSEG FAILED ERRNO %1
181	1	MAN	VFY TAPE %1
182	1	MAN	VFY TAPE %1 %2
183	1	MAN	VFY TAPE STOPPED %1 HEADER %2 RECORD %3
184	1	MAN	VFY TAPE COMPLETED RETRIES %1 HEADER MISMATCHES %2 DATA MISMATCHES %3
185	1	MAN	COPY BKDISK STOPPED %2 %3 STOP BKDISK STOPPED %2 %3 COPY BKDISK %2 %3 COPY BKDISK START WAS NOT ISSUED %2 %3 INVALID SPECFILE %2 %3 CANNOT RUN WITH SYSTEM OR FIELD UPDATE, OR ANOTHER COPY BKDISK %2 %3 CANNOT OPEN TAPE DATA %2 %3
186	1	MAN	COPY ACTDISK STOPPED WITH ERROR CODE %1 ERRNO %2 %3
187	1	MAN	COPY ACTDISK ON MHD %1 COMPLETED
188	1	MAN	COPY OOSDISK %2 %3 %4 COPY SPDISK %2 %3 %4
189	1	MAN	CLR PTN STOPPED WITH ERROR CODE %1 ERRNO %2 %3
190	1	MAN	CLR PTN ON MHD %1 COMPLETED
191	1	MAN	CLR PTN CLEARING %1 ON MHD %2
192	25	INFO	REPT DKDRV ERROR DATA %1
193	254	INFO	REPT IODRV RECEIVED UNIDENTIFIED RCV MESSAGE
194	254	INFO	REPT IODRV RECEIVED UNIDENTIFIED RCV MESSAGE
195	254	INFO	RST %2 %3 %4 RMV %2 %3 %4 REPT RCVRY %2 %3 %4
196	254	INFO	RST %2 %3 %4 RMV %2 %3 %4 REPT RCVRY %2 %3 %4
197	254	INFO	REPT %2 %3 %4 %5 REPT GROWTH %2 %3 %4 %5 REPT DEGROWTH %2 %3 %4 %5
198	254	INFO	REPT %2 %3 %4 %5 REPT GROWTH %2 %3 %4 %5 REPT DEGROWTH %2 %3 %4 %5
199	25	INFO	REPT %1 %2 INFO CODE %3
200	25	INFO	REPT %1 %2 INFO HA SHADOW REGISTER STATUS %3
201	254	INFO	REPT CSOP %1 %2%3
202	254	INFO	REPT CSOP %1 %2%3 %4 %5%6
203	254	INFO	REPT CSOP CANNOT SEND MSG TO %1 %2 ERRNO %3
204	254	INFO	REPT CSOP NO QUEUE ENTRY OUTPUT ERROR %1 %2 %3 %4
205	254	INFO	REPT CSOP SOF INIT %1 %2 %3 %4
206	254	INFO	REPT CSOP SOP OUTPUT ERROR
207	254	INFO	REPT %1 %2 %3 %4 %5 %6 %7 %8 %9
208	254	INFO	REPT %1 %2 %3 %4 %5 %6 %7 %8 %9
209	11	ACT	REPT PMSAUD %1
210	12	VAR	AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6
211	1	ACT	REPT PMDBCOPY %1 %2 %3 %4
212	1	ACT	REPT PLDMON ERROR %1 %2 %3 %4
213	1	ACT	OP PMCR ERROR %1 %2 %3 %4
214	1	MAN	OP PMCR WILL %1 OUTPUT %2 REPORTS %3 %4
215	6	INFO	REPT ERSLOT
216	7	INFO	REPT NONCORRECTABLE PARITY ERROR ON MEMORY REFERENCE %2

			REPT OTHER STORE REFRESH PARITY ERROR %2 REPT OTHER STORE READ PARITY ERROR %2 REPT MEMORY PARITY FAILURE %2
217	1	ACT	RMV %2 %3 %4 %5 TERMINATED AT PH %6 STMNT %7 AFTER TEST %8 RST %2 %3 %4 %5 TERMINATED AT PH %6 STMNT %7 AFTER TEST %8 RST(UCL) %2 %3 %4 %5 TERMINATED AT PH %6 STMNT %7 AFTER TEST %8 DGN %2 %3 %4 %5 TERMINATED AT PH %6 STMNT %7 AFTER TEST %8 EX %2 %3 %4 %5 TERMINATED AT PH %6 STMNT %7 AFTER TEST %8
218	1	INFO	ID
219	1	INFO	CLASS
220	1	INFO	MSGSAVE
221	1	INFO	OP IODRV MSG STARTED
223	254	INFO	REPT %1 %2 %3 %4 %5 %6
224	254	INFO	REPT %1 %2 %3 %4 %5 %6
225	254	INFO	REPT %1 %2 %3 %4
226	254	INFO	REPT %1 %2 %3 %4
227	254	INFO	REPT %1 %2 %3 %4 %5 %6
228	254	INFO	REPT %1 %2 %3 %4 %5 %6
229	1	MAN	ALW SCSD %2 %3 %4 %5 %6 %7 %8 %9 %10 %11 %12 %13 %14 %15 %16 %17 INH SCSD %2 %3 %4 %5 %6 %7 %8 %9 %10 %11 %12 %13 %14 %15 %16 %17 ORD SCSD %2 %3 %4 %5 %6 %7 %8 %9 %10 %11 %12 %13 %14 %15 %16 %17 CLR FANALM %2 %3 %4 %5 %6 %7 %8 %9 %10 %11 %12 %13 %14 %15 %16 %17 OP SCSD %2 %3 %4 %5 %6 %7 %8 %9 %10 %11 %12 %13 %14 %15 %16 %17
230	25	INFO	REPT DKDRV INFO CODE %1
231	25	INFO	REPT %1 %2 ERROR DATA %3
232	25	MIN	REPT %1 %2 ERROR COMPLETION CODE %3 MHD STATUS %4
233	25	INFO	REPT %1 %2 ERROR %3 STATUS %4
234	25	INFO	REPT %1 %2 FAULT CODE %3
235	25	INFO	REPT %1 %2 UNIDENTIFIED RESPONSE WD1=%3 WD2=%4
236	25	INFO	REPT %1 %2 ERROR STATUS %3 MASK %4 EXP %5
237	25	MAJ	REPT %1 %2 AUTONOMOUS RESPONSE %3
238	25	MIN	REPT %1 %2 AUTONOMOUS RESPONSE %3
239	25	INFO	REPT %1 %2 AUTONOMOUS RESPONSE %3
240	25	INFO	REPT DKDRV RECEIVED UNKNOWN RCV MESSAGE %1 %2 %3
241	25	INFO	REPT GROWTH %2 %3 %4 REPT DEGROWTH %2 %3 %4
242	1	INFO	REPT DISK INDEPENDENT OPERATION MODE IN EFFECT
243	25	INFO	REPT DISK INDEPENDENT OPERATION MODE STATUS %1 %2 %3 %4
244	25	INFO	REPT %1 %2 ERROR COMPLETION CODE %3 MHD STATUS %4
245	1	INFO	REPT *UNIX*® INIT ERROR %1 CHANID %2 %3
246	24	MAN	DUMP MHD %1 BLOCK %2 %3 %4
247	24	MAN	DUMP MHD %1 BLOCK %2
248	24	MAN	DUMP MHD %1 VTOC %2 %3 %4
249	24	MAN	DUMP MHD %1 VTOC SEGMENT %2 of %3
250	24	MAN	DUMP MHD %1 DEFECT TABLE %2 %3 %4
251	24	MAN	DUMP MHD %1 DEFECT TABLE %2
252	24	MAN	DUMP MHD %1 DEFECT TABLE %2
253	24	MAN	REPT DKDIP MESSAGE
254	24	MAN	REPT DKDIP MESSAGE
255	24	MAN	REPT DKDIP MESSAGE
256	24	MAN	REPT DKDIP MESSAGE
257	24	MAN	REPT DKDIP MESSAGE
258	24	MAN	REPT DKDIP MESSAGE
259	1	INFO	REPT DKDIP MESSAGE
260	1	INFO	RST MHD %1 IN PROGRESS
261	1	INFO	RST MHD %1 IN PROGRESS
262	1	MAN	RST MHD %1 IN PROGRESS

263	1	INFO	RST MHD %1 IN PROGRESS
264	1	MAN	RST MHD %1 IN PROGRESS %2
265	1	INFO	RST MHD %1 IN PROGRESS %2
266	24	MAJ	REPT DKDIP MESSAGE
267	24	MAN	REPT DKDIP MESSAGE
268	24	INFO	REPT DKDIP MESSAGE
269	24	INFO	REPT DKDIP MESSAGE
270	1	MAN	REPT DKDIP MESSAGE
271	1	INFO	REPT DKDIP MESSAGE
272	1	INFO	REPT AUDIT IMCATALOG %1
273	1	INFO	REPT C/D %1 %2 %3 %4 %5 %6 %7 %8
275	1	INFO	REPT C/D %1 %2 %3 %4 %5 %6 %7
276	1	MAN	REPT OP LOG %1 %2
277	14	MAN	OP LOG %2 %3 %4 %5 %6 DEL LOG %2 %3 %4 %5 %6
279	14	INFO	OP LOG %1 %2 SEGMENT %3
280	1	INFO	CAN NOT EXEC %2 %3 %4 CAN NOT CREATE A NEW PROCESS %2 %3 %4 PID = %2 %3 %4 NULL PROGRAM %2 %3 %4 FMC SYSTEM ERR 5 I/O ERROR %2 %3 %4 FMC UNABLE TO CREATE SYSTEM PIPE %2 %3 %4
281	1	MAN	OP STATUS DISKUSE STOPPED
282	1	MAN	OP STATUS FREEDISK %2 %3 %4 %5 ALW FILESYS ACCESS %2 %3 %4 %5 ALW FILESYS OWNER %2 %3 %4 %5 OP STATUS PROCESS %2 %3 %4 %5 OP STATUS PORTS %2 %3 %4 %5 INH FILESYS UMOUNT %2 %3 %4 %5 COPY FILESYS CFILE %2 %3 %4 %5 COPY FILESYS FILE %2 %3 %4 %5 DUMP FILE ALL %2 %3 %4 %5 DUMP FILE FORMAT %2 %3 %4 %5 CLR FILESYS FILE %2 %3 %4 %5 STOP EXC USER %2 %3 %4 %5 STOP EXC ANY %2 %3 %4 %5 EXC ENVIR PROC %2 %3 %4 %5 COPY TAPE IN %2 %3 %4 %5 COPY TAPE OUT %2 %3 %4 %5 EXC ENVIR UPROC %2 %3 %4 %5 CLR FILESYS DIR %2 %3 %4 %5 IN FILESYS DIR %2 %3 %4 %5 OP STATUS DISKUSE %2 %3 %4 %5 OP STATUS SUM %2 %3 %4 %5 CMPR DISK CORE %2 %3 %4 %5 OP STATUS LISTDIR %2 %3 %4 %5 OP STATUS FILESYS %2 %3 %4 %5 ALW FILESYS MOUNT %2 %3 %4 %5 COPY PTN ALL %2 %3 %4 %5 COPY TAPE TEST %2 %3 %4 %5 COPY TAPE EMERDMP %2 %3 %4 %5 DUMP FILE PARTL %2 %3 %4 %5 IN FILE APND %2 %3 %4 %5 IN FILE REPL %2 %3 %4 %5 IN FILE DEL %2 %3 %4 %5 CAN NOT EXEC %2 %3 %4 %5 CAN NOT OPEN %2 %3 %4 %5
283	1	MAN	SET CLK STOPPED

			OP CLK STOPPED
284	1	INFO	OP STATUS FREEDISK %2 %3 %4 %5 ALW FILESYS ACCESS %2 %3 %4 %5 ALW FILESYS OWNER %2 %3 %4 %5 OP STATUS PROCESS %2 %3 %4 %5 OP STATUS PORTS %2 %3 %4 %5 INH FILESYS UMOUNT %2 %3 %4 %5 COPY FILESYS CFILE %2 %3 %4 %5 COPY FILESYS FILE %2 %3 %4 %5 DUMP FILE ALL %2 %3 %4 %5 DUMP FILE FORMAT %2 %3 %4 %5 CLR FILESYS FILE %2 %3 %4 %5 STOP EXC USER %2 %3 %4 %5 STOP EXC ANY %2 %3 %4 %5 EXC ENVIR PROC %2 %3 %4 %5 COPY TAPE IN %2 %3 %4 %5 COPY TAPE OUT %2 %3 %4 %5 EXC ENVIR UPROC %2 %3 %4 %5 CLR FILESYS DIR %2 %3 %4 %5 IN FILESYS DIR %2 %3 %4 %5 OP STATUS DISKUSE %2 %3 %4 %5 OP STATUS SUM %2 %3 %4 %5 CMPR DISK CORE %2 %3 %4 %5 OP STATUS LISTDIR %2 %3 %4 %5 OP STATUS FILESYS %2 %3 %4 %5 ALW FILESYS MOUNT %2 %3 %4 %5 COPY PTN ALL %2 %3 %4 %5 COPY TAPE TEST %2 %3 %4 %5 COPY TAPE EMERDMP %2 %3 %4 %5 DUMP FILE PARTL %2 %3 %4 %5 IN FILE APND %2 %3 %4 %5 IN FILE REPL %2 %3 %4 %5 IN FILE DEL %2 %3 %4 %5 CAN NOT EXEC %2 %3 %4 %5 CAN NOT OPEN %2 %3 %4 %5
285	1	INFO	REPT FIELD MAINT %1
286	1	MAN	COPY TAPE %1 %2 %3 %4
287	1	MAN	SET CLK COMPLETED OP CLK COMPLETED
288	1	MAN	OP STATUS FREEDISK %2 %3 %4 ALW FILESYS ACCESS %2 %3 %4 ALW FILESYS OWNER %2 %3 %4 OP STATUS PROCESS %2 %3 %4 OP STATUS PORTS %2 %3 %4 INH FILESYS UMOUNT %2 %3 %4 COPY FILESYS CFILE %2 %3 %4 COPY FILESYS FILE %2 %3 %4 DUMP FILE ALL %2 %3 %4 DUMP FILE FORMAT %2 %3 %4 CLR FILESYS FILE %2 %3 %4 STOP EXC USER %2 %3 %4 STOP EXC ANY %2 %3 %4 EXC ENVIR PROC %2 %3 %4 COPY TAPE IN %2 %3 %4 COPY TAPE OUT %2 %3 %4 EXC ENVIR UPROC %2 %3 %4

			CLR FILESYS DIR %2 %3 %4 IN FILESYS DIR %2 %3 %4 OP STATUS DISKUSE %2 %3 %4 OP STATUS SUM %2 %3 %4 CMPR DISK CORE %2 %3 %4 OP STATUS LISTDIR %2 %3 %4 OP STATUS FILESYS %2 %3 %4 ALW FILESYS MOUNT %2 %3 %4 COPY PTN ALL %2 %3 %4 COPY TAPE TEST %2 %3 %4 COPY TAPE EMERDMP %2 %3 %4 DUMP FILE PARTL %2 %3 %4 IN FILE APND %2 %3 %4 IN FILE REPL %2 %3 %4 IN FILE DEL %2 %3 %4 CAN NOT EXEC %2 %3 %4 CAN NOT OPEN %2 %3 %4
289	1	INFO	OP STATUS FREEDISK %2 %3 %4 ALW FILESYS ACCESS %2 %3 %4 ALW FILESYS OWNER %2 %3 %4 OP STATUS PROCESS %2 %3 %4 OP STATUS PORTS %2 %3 %4 INH FILESYS UMOUNT %2 %3 %4 COPY FILESYS CFILE %2 %3 %4 COPY FILESYS FILE %2 %3 %4 DUMP FILE ALL %2 %3 %4 DUMP FILE FORMAT %2 %3 %4 CLR FILESYS FILE %2 %3 %4 STOP EXC USER %2 %3 %4 STOP EXC ANY %2 %3 %4 EXC ENVIR PROC %2 %3 %4 COPY TAPE IN %2 %3 %4 COPY TAPE OUT %2 %3 %4 EXC ENVIR UPROC %2 %3 %4 CLR FILESYS DIR %2 %3 %4 IN FILESYS DIR %2 %3 %4 OP STATUS DISKUSE %2 %3 %4 OP STATUS SUM %2 %3 %4 CMPR DISK CORE %2 %3 %4 OP STATUS LISTDIR %2 %3 %4 OP STATUS FILESYS %2 %3 %4 ALW FILESYS MOUNT %2 %3 %4 COPY PTN ALL %2 %3 %4 COPY TAPE TEST %2 %3 %4 COPY TAPE EMERDMP %2 %3 %4 DUMP FILE PARTL %2 %3 %4 IN FILE APND %2 %3 %4 IN FILE REPL %2 %3 %4 IN FILE DEL %2 %3 %4 CAN NOT EXEC %2 %3 %4 CAN NOT OPEN %2 %3 %4
290	1	MAN	REPT CFT LIB %1 %2
291	1	MIN	REPT CFT LIB %1 %2
292	1	INFO	%1 REPT CFTSHL %2 %3 %4 %5
293	1	MAN	%1 REPT CFTSHL %2 %3 %4 %5

294	1	INFO	REPT CFTSHL %2 %3 REPT DLGSHL %2 %3
295	1	INFO	%1 %2
296	1	INFO	REPT C/D POKER %2 %3%4 %5 %6 REPT RMTGETTY %2 %3%4 %5 %6 REPT DLGGETTY %2 %3%4 %5 %6
297	1	INFO	%1 %2
298	1	CRIT	REPT CFTSHL %2 %3 REPT DLGSHL %2 %3
299	1	MIN	REPT CFTSHL %2 %3 REPT DLGSHL %2 %3
300	26	MIN	REPT PASSWORD BREAK ATTEMPT
301	1	INFO	REPT DLGSHL DEVICE %1 %2 %3
302	1	CRIT	REPT DLGSHL DEVICE %1 %2 %3
303	1	INFO	REPT BDG %1 %2 %3%4%5
304	1	MIN	REPT DLGSHL DEVICE %1 %2 %3
305	27	INFO	VFY PAUTH COMPLETED VFY TAUTH COMPLETED VFY PCGRP COMPLETED VFY TCGRP COMPLETED VFY TERM COMPLETED VFY IDENT PSSWDPFX PSSWDSFX COMPLETED VFY IDENT COMGR COMPLETED VFY TERM COMGR COMPLETED
306	27	INFO	VFY PAUTH COMPLETED VFY TAUTH COMPLETED VFY PCGRP COMPLETED VFY TCGRP COMPLETED VFY TERM COMPLETED VFY IDENT PSSWDPFX PSSWDSFX COMPLETED VFY IDENT COMGR COMPLETED VFY TERM COMGR COMPLETED
307	1	INFO	REPT RTS %1
308	1	VAR	REPT RCVRY %2 %3 %4 %5 %6 %7 RST %2 %3 %4 %5 %6 %7 RMV %2 %3 %4 %5 %6 %7 REPT %2 %3 %4 %5 %6 %7 SW %2 %3 %4 %5 %6 %7
309	4	INFO	REPT TIME %1 %2:%3:%4
310	1	INFO	REPT INIT DEVICE STATUS
311	1	INFO	REPT BDG FATAL FAULT FLT CODE %1 PA %2
312	1	INFO	REPT DLGGETTY %2 %3 REPT RMTGETTY %2 %3 REPT SHLGETTY %2 %3
313	1	INFO	REPT C/D %1 %2 %3 %4
314	1	INFO	%1 %2 %3
315	1	MAN	%1 %2
316	1	INFO	REPT CIAGETTY %1 %2
317	1	INFO	REPT C/D %1 %2 %3 %4
319	1	ACT	OP PMCR ERROR %1 %2 %3 %4
320	1	MAN	VFY TAPE IN PROGRESS %1 RETRIES NEEDED TO READ HEADER %2
321	1	MAN	VFY TAPE IN PROGRESS %1 RETRIES NEEDED TO READ DATA %2 RECORD %3
322	1	INFO	REPT OP PMCR REPORT PART 1
323	1	INFO	REPT OP PMCR REPORT PART 2
324	1	CRIT	REPT DISK INDEPENDENT OPERATION MODE ENTERED
325	24	INFO	CMPR MHD %2 %3 IN PROGRESS COPY DIFF SRC MHD %2 %3 IN PROGRESS
326	1	MAN	UPD GEN %2 %3 %4 %5 %6 STOP GEN %2 %3 %4 %5 %6 OP GEN %2 %3 %4 %5 %6
328	1	INFO	REPT MMGR001 BAD DKDRV STAT %1

329	1	INFO	REPT MMGR002 EXCESSIVE RETRIES FOR I/O SWAP
330	1	INFO	REPT MMGR003 ADD MEMORY FAILED. AVAIL MEM = %1 PAGES
331	1	INFO	REPT MMGR004 SWAP SPACE REQUEST FAILED
332	1	INFO	REPT KAUDPRC FAULT CODE %1 %2 %3
333	1	INFO	REPT MAXINTVL %1
334	1	INFO	REPT DIOP %1 %2 %3 %4
335	12	INFO	REPT FMGR TASK STATUS - %2, %3%4 TYPE=%5 ADDR=%6 REPT KLLA TASK STATUS - %2, %3%4 TYPE=%5 ADDR=%6
336	1	INFO	REPT FMGR ECD %1 %2 PID=%3 UID=%4 %5
337	1	INFO	REPT FMGR NON-TASK FAULT %1 ADDR %2
338	1	INFO	REPT LIBC FAULT IN %1 FLTCODE %2 PA %3
339	1	INFO	REPT LIBC ERROR EXEC BAD SHLIB DATA IN PFILE HPATH %1
340	1	INFO	REPT LIBC ERROR EXEC CHANGE ATTRIB FAILED
341	1	INFO	REPT LIBC ERROR EXEC SET CLASS FAILED CLASS %1
342	1	INFO	REPT LIBC ERROR EXEC CHGPCB FAILED %1 %2
343	1	INFO	REPT LIBC ERROR EXEC %1
344	1	INFO	REPT LIBC ERROR EXEC %1
345	1	INFO	REPT LIBC ERROR EXEC ALOCSEG FAILED
346	1	INFO	REPT LIBC ERROR EXEC ADDSEG FAILED SEG NUMBER %1
347	1	INFO	REPT LIBC ERROR EXEC SEG READ FAILED ERRNO %1
348	1	INFO	REPT LIBC ERROR EXEC %1 ERRNO %2
349	1	INFO	REPT LIBC ERROR EXEC BAD LIB HEAD DATA
350	1	INFO	REPT LIBC ERROR FORK COPYSEG FAILED %1 RET %2
351	1	INFO	REPT LIBC ERROR FORK %1
352	1	INFO	REPT LIBC ERROR START COULD NOT OPEN ROOT DIR ERRNO %1
353	1	INFO	REPT LIBC ERROR COULD NOT CREATE TEMP ERROR FILE
354	1	INFO	REPT PMGR ERROR %1 %2 %3
355	1	INFO	REPT PMGR ERROR %1 %2 %3
356	1	INFO	REPT PMGR ERROR %1 %2 %3
357	1	INFO	REPT PMGR ERROR %1 %2 %3
358	1	INFO	REPT PMGR ERROR %1 %2 %3
359	1	INFO	REPT PMGR ERROR %1 %2 %3 %4
360	1	INFO	REPT PMGR ERROR %1 %2 %3
361	1	INFO	REPT PMGR ERROR %1 %2 %3 %4
362	1	MAN	UPD GEN APPLPROC CANNOT GET THE TERMINAL TYPE UPD GEN APPLPROC APPLICATION PROCESS IS EXECUTING UPD GEN APPLPROC APPLICATION PROCESS EXECUTED WITH ARGUMENT UPD GEN APPLPROC APPLICATION PROCESS EXECUTED WITHOUT ARGUMENT UPD GEN APPLPROC APPLICATION PROCESS HAS TERMINATED SUCCESSFULLY UPD GEN APPLPROC ERROR: CANNOT GET THE TERMINAL TYPE UPD GEN APPLPROC ERROR: ARG KEYWORD ON CMD LINE WITHOUT ARGUMENT UPD GEN APPLPROC ERROR: INVALID DATA KEYWORD ON CMD LINE UPD GEN APPLPROC ERROR: CANNOT EXECUTE THE APPLPROC
363	1	MAN	ERROR: %2%3%4%5%6%7 %8 WARNING: %2%3%4%5%6%7 %8 2%3%4%5%6%7 %8 2%3%4%5%6%7 %8 2%3%4%5%6%7 %8
364	1	MAN	CANNOT PRINT MESSAGE ON MESSAGES LINE: INVALID PAGE NUMBER ON CURRENT PAGE
366	22	INFO	REPT ULARP %1 %2 %3
367	22	ACT	REPT ULARP %1 %2 %3
368	1	INFO	OP ULARP %1 %2
369	24	MAJ	CMPR MHD %2 %3 FINAL SUMMARY COPY DIFF SRC MHD %2 %3 FINAL SUMMARY
373	6	INFO	REPT ERSLOT
374	6	INFO	REPT ERSLOT
375	6	INFO	REPT ERSLOT
376	6	INFO	REPT ERSLOT
377	6	INFO	REPT ERSLOT

378	6	INFO	REPT ERSLOT
379	6	INFO	REPT ERSLOT
380	6	INFO	REPT ERSLOT
381	6	INFO	REPT ERSLOT
382	6	INFO	REPT ERSLOT
383	7	INFO	REPT MY STORE C DURING DMA %1
384	6	INFO	REPT ERSLOT
385	6	INFO	REPT ERSLOT
386	6	INFO	REPT ERSLOT
387	6	INFO	REPT ERSLOT
388	6	INFO	REPT ERSLOT
389	6	INFO	REPT ERSLOT
390	6	INFO	REPT ERSLOT
391	6	INFO	REPT ERSLOT
392	6	INFO	REPT ERSLOT
393	6	INFO	REPT ERSLOT
394	6	INFO	REPT ERSLOT
395	6	INFO	REPT ERSLOT
396	6	INFO	REPT ERSLOT
397	6	INFO	REPT ERSLOT
398	6	INFO	REPT ERSLOT
399	6	INFO	REPT ERSLOT
400	6	INFO	REPT ERSLOT
401	5	INFO	REPT PMSLOT
402	5	INFO	REPT PMSLOT
403	1	INFO	REPT RMF %1 %2
404	1	INFO	REPT RMF %1 %2
405	1	INFO	REPT ADP %1 %2 %3 %4 %5 %6
406	1	MAN	INH %2 COMPLETED ALW %2 COMPLETED
407	1	INFO	REPT INHADM FAULTED FCODE = %1
408	1	INFO	REPT INHADM UNABLE TO MAINTAIN INHIBITS
409	1	INFO	REPT INHADM CANNOT GET UCB RECORD
410	1	INFO	REPT INHADM UNABLE TO SEND INHIBIT MESSAGE TO DRIVER %1
411	1	MIN	REPT INHADM MINOR ALARM FROM INHIBIT ADMINISTRATOR
412	1	MAN	OP ERRCHK MESSAGE STARTED
413	1	MAN	OP ERRCHK MESSAGE IN PROGRESS
414	1	MAN	INH %2 ABORTED %3 ALW %2 ABORTED %3 OP %2 ABORTED %3
415	1	INFO	SW CU ABORTED %1
416	1	MAN	DUMP OFFLINE CACHE %1 %2
417	1	INFO	REPT CONFIG FAULT TYPE %1 INACCESSIBLE RID = %2 PID = %3 ASSERT = %4
418	1	INFO	REPT CONFIG FAULT TYPE %1 UNIT = %2 %3 %4 %5 PID = %6 ASSERT = %7
419	1	MIN	REPT CONFIG RECONFIGURATION TYPE %1 UNIT = %2 %3 %4 %5 PID = %6
420	1	INFO	REPT CURSTRMV FAULT TYPE %1 INACCESSIBLE RID = %2 ASSERT = %3
421	1	INFO	REPT CURSTRMV FAULT TYPE %1 UNIT = %2 %3 %4 %5 ASSERT = %6
422	1	INFO	REPT CURSTRMV FAULT TYPE %1 UNIT = %2 %3 %4 %5 %6 %7 %8
423	1	INFO	REPT CURSTRMV FAULT TYPE %1 CHECKSUM FAILED IN SLOT %2 ASSERT = %3
424	1	INFO	RST CU %1 IN PROGRESS
425	1	MIN	REPT CU %1 MAINTENANCE INTERRUPT %2
426	1	MAJ	REPT PHASE 1 IN PROGRESS
427	1	MAN	OP MEMERRS CANNOT OPEN NEW TEMP FILE
428	1	MAN	OP MEMERRS %1
429	1	MAN	OP MEMERRS NO MEMLOG FILES
430	1	INFO	REPT PCPAUD FAULT TYPE %1 ASSERT = %2
431	1	INFO	REPT PCPMD FAULT TYPE %1 INACCESSIBLE RID = %2 ASSERT = %3
432	1	INFO	REPT PCPMD FAULT TYPE %1 UNIT = %2 %3 %4 %5 ASSERT = %6
433	1	INFO	REPT CURSTRMV CU RESTORE CONTINUING DIAGNOSTIC FAILURE IN NON-CRITICAL UNIT
434	1	MAN	OP AUDERR %1
435	1	INFO	OP AUD ABORTED ECD INTERFACE ERROR %2 %3 %4 OP AUDERR ABORTED ECD INTERFACE ERROR %2 %3 %4

			REPT AUDSTAT ABORTED ECD INTERFACE ERROR %2 %3 %4
436	1	MAN	OP AUDERR COMPLETED - NO AUDIT RECORDS IN ECD
437	1	INFO	OP AUD COMPLETED - NO AUDIT RECORDS IN ECD
438	1	INFO	OP AUD ABORTED CANNOT OPEN OUTPUT FILE %2 OP AUDERR ABORTED CANNOT OPEN OUTPUT FILE %2 REPT AUDSTAT ABORTED CANNOT OPEN OUTPUT FILE %2 OP FNAME ABORTED CANNOT OPEN OUTPUT FILE %2
439	1	MAN	OP AUD %1
440	1	INFO	REPT AUDSTAT %1
441	1	MAN	REPT AUDSTAT COMPLETED
442	1	MAN	OP FNAME %1
443	1	INFO	OP FNAME COMPLETED - NO MATCH ON %1
444	15	MAN	OP EMERSTAT COMPLETED
445	15	MAN	OP EMERSTAT COMPLETED
446	15	INFO	REPT SIMCHK %1 %2 %3 %4 %5
447	15	ACT	REPT SIMCHK %1 %2 %3 %4 %5
448	15	MIN	REPT SIMCHK %1 %2 %3 %4 %5
449	15	INFO	REPT OUTPUT MESSAGES LOST REPT MAINTENANCE REQUESTS LOST
450	15	ACT	REPT EMERGENCY DUMP PARTITION FULL
451	15	ACT	REPT FILESYS %1 OVERFLOW %2
452	15	MIN	REPT FILESYS %1 OVERFLOW %2
454	12	VAR	AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6
455	12	VAR	AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6
456	12	VAR	AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6
457	12	VAR	AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6
458	12	VAR	AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6
459	12	VAR	AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6
460	12	VAR	AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6
461	1	INFO	REPT FMGR TASK STATUS - %2, %3%4 TYPE=%5 ADDR=%6 REPT KLLA TASK STATUS - %2, %3%4 TYPE=%5 ADDR=%6
462	1	INFO	REPT KLLA %1 %2 %3 %4%5
463	1	INFO	REPT KLLA NON-TASK FAULT %1 ADDR %2
464	1	INFO	REPT KLLA %1 %2
465	6	INFO	REPT ERSLOT
467	1	INFO	OP ULARP %1 %2
472	1	INFO	OP ULARP STOPPED - CANNOT CREATE TEMPORARY FILE %1
473	1	MIN	REPT REX MINOR ALARM %1
474	1	INFO	REPT %1 FOR %2 %3 %4 %5
475	1	MAJ	REPT %1 FOR %2 %3 %4 %5
476	1	MIN	REPT %1 FOR %2 %3 %4 %5
477	16	ACT	OP CFGSTAT MESSAGE STARTED OP ACT MESSAGE STARTED OP GROW MESSAGE STARTED OP INIT MESSAGE STARTED OP OFL MESSAGE STARTED OP OOS MESSAGE STARTED OP STBY MESSAGE STARTED OP UNAV MESSAGE STARTED OP UNEQIP MESSAGE STARTED
478	16	ACT	OP CFGSTAT COMPLETED OP ACT COMPLETED OP GROW COMPLETED OP INIT COMPLETED OP OFL COMPLETED OP OOS COMPLETED OP STBY COMPLETED OP UNAV COMPLETED OP UNEQIP COMPLETED
479	16	ACT	OP CFGSTAT INTERFACE ERROR, ERRNO = %2 OP ACT INTERFACE ERROR, ERRNO = %2 OP GROW INTERFACE ERROR, ERRNO = %2 OP INIT INTERFACE ERROR, ERRNO = %2

			OP OFL INTERFACE ERROR, ERRNO = %2 OP OOS INTERFACE ERROR, ERRNO = %2 OP STBY INTERFACE ERROR, ERRNO = %2 OP UNAV INTERFACE ERROR, ERRNO = %2 OP UNEQIP INTERFACE ERROR, ERRNO = %2
493	1	MAN	ALW UTIL %2 %3 %4 %5 %6 %7 %8 %9 #G%10 ALW UTILFLG %2 %3 %4 %5 %6 %7 %8 %9 #G%10 ALW UTILFLG ME %2 %3 %4 %5 %6 %7 %8 %9 #G%10 ALW UMEM %2 %3 %4 %5 %6 %7 %8 %9 #G%10 ALW UMEM UCL %2 %3 %4 %5 %6 %7 %8 %9 #G%10 CLR UMEM %2 %3 %4 %5 %6 %7 %8 %9 #G%10 CLR UMEM UCL %2 %3 %4 %5 %6 %7 %8 %9 #G%10 CLR UTIL %2 %3 %4 %5 %6 %7 %8 %9 #G%10 CLR UTILFLG %2 %3 %4 %5 %6 %7 %8 %9 #G%10 CLR UTILFLG ME %2 %3 %4 %5 %6 %7 %8 %9 #G%10 OP UMEM %2 %3 %4 %5 %6 %7 %8 %9 #G%10 OP UMEM UCL %2 %3 %4 %5 %6 %7 %8 %9 #G%10 OP UMEM MCH %2 %3 %4 %5 %6 %7 %8 %9 #G%10
493 (cont.)	1	MAN	INIT UMEM %2 %3 %4 %5 %6 %7 %8 %9 #G%10 INH UTIL %2 %3 %4 %5 %6 %7 %8 %9 #G%10 INH UTILFLG %2 %3 %4 %5 %6 %7 %8 %9 #G%10 INH UTILFLG ME %2 %3 %4 %5 %6 %7 %8 %9 #G%10 INH UMEM %2 %3 %4 %5 %6 %7 %8 %9 #G%10 COPY ADDR %2 %3 %4 %5 %6 %7 %8 %9 #G%10 COPY UID %2 %3 %4 %5 %6 %7 %8 %9 #G%10 COPY PID %2 %3 %4 %5 %6 %7 %8 %9 #G%10 LOAD REG %2 %3 %4 %5 %6 %7 %8 %9 #G%10 LOAD ADDR %2 %3 %4 %5 %6 %7 %8 %9 #G%10 LOAD PMEM %2 %3 %4 %5 %6 %7 %8 %9 #G%10 LOAD UVAR %2 %3 %4 %5 %6 %7 %8 %9 #G%10
493 (cont.)	1	MAN	DUMP REG %2 %3 %4 %5 %6 %7 %8 %9 #G%10 DUMP UVAR %2 %3 %4 %5 %6 %7 %8 %9 #G%10 DUMP PMEM %2 %3 %4 %5 %6 %7 %8 %9 #G%10 COPY REG %2 %3 %4 %5 %6 %7 %8 %9 #G%10 COPY UVAR %2 %3 %4 %5 %6 %7 %8 %9 #G%10 DUMP UID %2 %3 %4 %5 %6 %7 %8 %9 #G%10 DUMP PID %2 %3 %4 %5 %6 %7 %8 %9 #G%10 DUMP ADDR %2 %3 %4 %5 %6 %7 %8 %9 #G%10 DUMP KERN %2 %3 %4 %5 %6 %7 %8 %9 #G%10 DUMP GRASP %2 %3 %4 %5 %6 %7 %8 %9 #G%10 WHEN UID %2 %3 %4 %5 %6 %7 %8 %9 #G%10 WHEN ID %2 %3 %4 %5 %6 %7 %8 %9 #G%10 WHEN COND E %2 %3 %4 %5 %6 %7 %8 %9 #G%10
494	1	MAN	ALW UTIL %2 %3 %4 %5 %6 %7 #G%8 ALW UTILFLG %2 %3 %4 %5 %6 %7 #G%8 ALW UTILFLG ME %2 %3 %4 %5 %6 %7 #G%8 ALW UMEM %2 %3 %4 %5 %6 %7 #G%8 ALW UMEM UCL %2 %3 %4 %5 %6 %7 #G%8 CLR UMEM %2 %3 %4 %5 %6 %7 #G%8 CLR UMEM UCL %2 %3 %4 %5 %6 %7 #G%8 CLR UTIL %2 %3 %4 %5 %6 %7 #G%8 CLR UTILFLG %2 %3 %4 %5 %6 %7 #G%8 CLR UTILFLG ME %2 %3 %4 %5 %6 %7 #G%8

			OP UMEM %2 %3 %4 %5 %6 %7 #G%8 OP UMEM UCL %2 %3 %4 %5 %6 %7 #G%8 OP UMEM MCH %2 %3 %4 %5 %6 %7 #G%8
494 (cont.)	1	MAN	INIT UMEM %2 %3 %4 %5 %6 %7 #G%8 INH UTIL %2 %3 %4 %5 %6 %7 #G%8 INH UTILFLG %2 %3 %4 %5 %6 %7 #G%8 INH UTILFLG ME %2 %3 %4 %5 %6 %7 #G%8 INH UMEM %2 %3 %4 %5 %6 %7 #G%8 COPY ADDR %2 %3 %4 %5 %6 %7 #G%8 COPY UID %2 %3 %4 %5 %6 %7 #G%8 COPY PID %2 %3 %4 %5 %6 %7 #G%8 LOAD REG %2 %3 %4 %5 %6 %7 #G%8 LOAD ADDR %2 %3 %4 %5 %6 %7 #G%8 LOAD PMEM %2 %3 %4 %5 %6 %7 #G%8 LOAD UVAR %2 %3 %4 %5 %6 %7 #G%8 DUMP REG %2 %3 %4 %5 %6 %7 #G%8
494 (cont.)	1	MAN	DUMP UVAR %2 %3 %4 %5 %6 %7 #G%8 DUMP PMEM %2 %3 %4 %5 %6 %7 #G%8 COPY REG %2 %3 %4 %5 %6 %7 #G%8 COPY UVAR %2 %3 %4 %5 %6 %7 #G%8 DUMP UID %2 %3 %4 %5 %6 %7 #G%8 DUMP PID %2 %3 %4 %5 %6 %7 #G%8 DUMP ADDR %2 %3 %4 %5 %6 %7 #G%8 DUMP KERN %2 %3 %4 %5 %6 %7 #G%8 DUMP GRASP %2 %3 %4 %5 %6 %7 #G%8 WHEN UID %2 %3 %4 %5 %6 %7 #G%8 WHEN ID %2 %3 %4 %5 %6 %7 #G%8 WHEN COND E %2 %3 %4 %5 %6 %7 #G%8
495	1	INFO	REPT GRASP %1
496	1	ACT	CLR UMEM %2 WAS %3 NOW %4 STOP UMEM %2 WAS %3 NOW %4
497	1	MAN	INH UTIL COMPLETED %1
498	1	MAN	ALW UTIL %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10 ALW UTILFLG %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10 ALW UTILFLG ME %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10 ALW UMEM %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10 ALW UMEM UCL %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10 CLR UMEM %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10 CLR UMEM UCL %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10 CLR UTIL %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10 CLR UTILFLG %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10 CLR UTILFLG ME %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10 OP UMEM %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10
498 (cont.)	1	MAN	OP UMEM UCL %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10 OP UMEM MCH %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10 INIT UMEM %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10 INH UTIL %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10 INH UTILFLG %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10 INH UTILFLG ME %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10 INH UMEM %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10 COPY ADDR %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10 COPY UID %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10 COPY PID %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10

			LOAD REG %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10 LOAD ADDR %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10
498 (cont.)	1	MAN	LOAD PMEM %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10 LOAD UVAR %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10 DUMP REG %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10 DUMP UVAR %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10 DUMP PMEM %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10 COPY REG %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10 COPY UVAR %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10 DUMP UID %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10 DUMP PID %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10 DUMP ADDR %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10 DUMP KERN %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10
498 (cont.)	1	MAN	DUMP GRASP %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10 WHEN UID %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10 WHEN ID %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10 WHEN COND E %2 %3 %4 %5 %6 %7 WAS %8 NOW %9 #G%10
499	1	INFO	REPT GRASP RMBPT %1 COMPLETED
500	1	MAN	REPT GRASP BREAKPOINT FIRED
501	1	INFO	REPT GRASP BREAKPOINT %1 IN CRITICAL PLACE REMOVED
502	1	MAN	ALW UTIL %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8 ALW UTILFLG %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8 ALW UTILFLG ME %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8 ALW UMEM %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8 ALW UMEM UCL %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8 CLR UMEM %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8 CLR UMEM UCL %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8 CLR UTIL %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8 CLR UTILFLG %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8 CLR UTILFLG ME %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8 OP UMEM %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8
502 (cont.)	1	MAN	OP UMEM UCL %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8 OP UMEM MCH %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8 INIT UMEM %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8 INH UTIL %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8 INH UTILFLG %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8 INH UTILFLG ME %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8 INH UMEM %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8 COPY ADDR %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8 COPY UID %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8 COPY PID %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8 LOAD REG %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8 LOAD ADDR %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8
502 (cont.)	1	MAN	LOAD PMEM %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8 LOAD UVAR %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8 DUMP REG %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8 DUMP UVAR %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8 DUMP PMEM %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8 COPY REG %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8 COPY UVAR %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8 DUMP UID %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8 DUMP PID %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8

			DUMP ADDR %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8 DUMP KERN %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8
502 (cont.)	1	MAN	DUMP GRASP %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8 WHEN UID %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8 WHEN ID %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8 WHEN COND E %2 %3 %4 %5 %6 %7 STOPPED NGINST #G%8
503	1	MAN	ALW UTIL %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 ALW UTILFLG %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 ALW UTILFLG ME %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 ALW UMEM %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 ALW UMEM UCL %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 CLR UMEM %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 CLR UMEM UCL %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 CLR UTIL %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 CLR UTILFLG %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 CLR UTILFLG ME %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 OP UMEM %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 OP UMEM UCL %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9
503 (cont.)	1	MAN	OP UMEM MCH %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 INIT UMEM %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 INH UTIL %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 INH UTILFLG %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 INH UTILFLG ME %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 INH UMEM %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 COPY ADDR %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 COPY UID %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 COPY PID %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 LOAD REG %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 LOAD ADDR %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 LOAD PMEM %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9
503 (cont.)	1	MAN	LOAD UVAR %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 DUMP REG %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 DUMP UVAR %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 DUMP PMEM %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 COPY REG %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 COPY UVAR %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 DUMP UID %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 DUMP PID %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 DUMP ADDR %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 DUMP KERN %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 DUMP GRASP %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 WHEN UID %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 WHEN ID %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9 WHEN COND E %2 %3 %4 %5 %6 STOPPED %7 %8 #G%9
504	1	ACT	CLR UMEM COMPLETED CKT FAILURE #G%1
505	1	ACT	CLR UTILFLAG %1 COMPLETED CKT FAILURE #G%2
506	1	MAN	ALW UTIL %2 %3 %4 %5 %6 NOT STARTED NGUID ALW UTILFLG %2 %3 %4 %5 %6 NOT STARTED NGUID ALW UTILFLG ME %2 %3 %4 %5 %6 NOT STARTED NGUID ALW UMEM %2 %3 %4 %5 %6 NOT STARTED NGUID ALW UMEM UCL %2 %3 %4 %5 %6 NOT STARTED NGUID CLR UMEM %2 %3 %4 %5 %6 NOT STARTED NGUID

			CLR UMEM UCL %2 %3 %4 %5 %6 NOT STARTED NGUID CLR UTIL %2 %3 %4 %5 %6 NOT STARTED NGUID CLR UTILFLG %2 %3 %4 %5 %6 NOT STARTED NGUID CLR UTILFLG ME %2 %3 %4 %5 %6 NOT STARTED NGUID OP UMEM %2 %3 %4 %5 %6 NOT STARTED NGUID OP UMEM UCL %2 %3 %4 %5 %6 NOT STARTED NGUID
506 (cont.)	1	MAN	OP UMEM MCH %2 %3 %4 %5 %6 NOT STARTED NGUID INIT UMEM %2 %3 %4 %5 %6 NOT STARTED NGUID INH UTIL %2 %3 %4 %5 %6 NOT STARTED NGUID INH UTILFLG %2 %3 %4 %5 %6 NOT STARTED NGUID INH UTILFLG ME %2 %3 %4 %5 %6 NOT STARTED NGUID INH UMEM %2 %3 %4 %5 %6 NOT STARTED NGUID COPY ADDR %2 %3 %4 %5 %6 NOT STARTED NGUID COPY UID %2 %3 %4 %5 %6 NOT STARTED NGUID COPY PID %2 %3 %4 %5 %6 NOT STARTED NGUID LOAD REG %2 %3 %4 %5 %6 NOT STARTED NGUID LOAD ADDR %2 %3 %4 %5 %6 NOT STARTED NGUID LOAD PMEM %2 %3 %4 %5 %6 NOT STARTED NGUID LOAD UVAR %2 %3 %4 %5 %6 NOT STARTED NGUID
506 (cont.)	1	MAN	DUMP REG %2 %3 %4 %5 %6 NOT STARTED NGUID DUMP UVAR %2 %3 %4 %5 %6 NOT STARTED NGUID DUMP PMEM %2 %3 %4 %5 %6 NOT STARTED NGUID COPY REG %2 %3 %4 %5 %6 NOT STARTED NGUID COPY UVAR %2 %3 %4 %5 %6 NOT STARTED NGUID DUMP UID %2 %3 %4 %5 %6 NOT STARTED NGUID DUMP PID %2 %3 %4 %5 %6 NOT STARTED NGUID DUMP ADDR %2 %3 %4 %5 %6 NOT STARTED NGUID DUMP KERN %2 %3 %4 %5 %6 NOT STARTED NGUID DUMP GRASP %2 %3 %4 %5 %6 NOT STARTED NGUID WHEN UID %2 %3 %4 %5 %6 NOT STARTED NGUID WHEN ID %2 %3 %4 %5 %6 NOT STARTED NGUID WHEN COND E %2 %3 %4 %5 %6 NOT STARTED NGUID
507	1	MAN	OP UMEM STOPPED COULD NOT CREATE %1 #G%2
508	1	MAN	OP UMEM COMPLETED NO OUTPUT #G%1
509	1	MAN	OP UMEM COMPLETED %1 LINES WRITTEN TO %2 FROM %3 #G%4
510	1	MAN	ALW UTIL %2 %3 %4 %5 %6 COMPLETED #G%7 ALW UTILFLG %2 %3 %4 %5 %6 COMPLETED #G%7 ALW UTILFLG ME %2 %3 %4 %5 %6 COMPLETED #G%7 ALW UMEM %2 %3 %4 %5 %6 COMPLETED #G%7 ALW UMEM UCL %2 %3 %4 %5 %6 COMPLETED #G%7 CLR UMEM %2 %3 %4 %5 %6 COMPLETED #G%7 CLR UMEM UCL %2 %3 %4 %5 %6 COMPLETED #G%7 CLR UTIL %2 %3 %4 %5 %6 COMPLETED #G%7 CLR UTILFLG %2 %3 %4 %5 %6 COMPLETED #G%7 CLR UTILFLG ME %2 %3 %4 %5 %6 COMPLETED #G%7 OP UMEM %2 %3 %4 %5 %6 COMPLETED #G%7 OP UMEM MCH %2 %3 %4 %5 %6 COMPLETED #G%7
510 (cont.)	1	MAN	INIT UMEM %2 %3 %4 %5 %6 COMPLETED #G%7 INH UTIL %2 %3 %4 %5 %6 COMPLETED #G%7 INH UTILFLG %2 %3 %4 %5 %6 COMPLETED #G%7 INH UTILFLG ME %2 %3 %4 %5 %6 COMPLETED #G%7 INH UMEM %2 %3 %4 %5 %6 COMPLETED #G%7 COPY ADDR %2 %3 %4 %5 %6 COMPLETED #G%7

			COPY UID %2 %3 %4 %5 %6 COMPLETED #G%7 COPY PID %2 %3 %4 %5 %6 COMPLETED #G%7 LOAD REG %2 %3 %4 %5 %6 COMPLETED #G%7 LOAD ADDR %2 %3 %4 %5 %6 COMPLETED #G%7 LOAD PMEM %2 %3 %4 %5 %6 COMPLETED #G%7 LOAD UVAR %2 %3 %4 %5 %6 COMPLETED #G%7
510 (cont.)	1	MAN	DUMP REG %2 %3 %4 %5 %6 COMPLETED #G%7 DUMP UVAR %2 %3 %4 %5 %6 COMPLETED #G%7 DUMP PMEM %2 %3 %4 %5 %6 COMPLETED #G%7 COPY REG %2 %3 %4 %5 %6 COMPLETED #G%7 COPY UVAR %2 %3 %4 %5 %6 COMPLETED #G%7 DUMP UID %2 %3 %4 %5 %6 COMPLETED #G%7 DUMP PID %2 %3 %4 %5 %6 COMPLETED #G%7 DUMP ADDR %2 %3 %4 %5 %6 COMPLETED #G%7 DUMP KERN %2 %3 %4 %5 %6 COMPLETED #G%7 DUMP GRASP %2 %3 %4 %5 %6 COMPLETED #G%7 WHEN UID %2 %3 %4 %5 %6 COMPLETED #G%7 WHEN ID %2 %3 %4 %5 %6 COMPLETED #G%7 WHEN COND E %2 %3 %4 %5 %6 COMPLETED #G%7
511	1	MAN	ALW UTIL %2 %3 %4 %5 %6 COMPLETED #G%7 ALW UTILFLG %2 %3 %4 %5 %6 COMPLETED #G%7 ALW UTILFLG ME %2 %3 %4 %5 %6 COMPLETED #G%7 ALW UMEM %2 %3 %4 %5 %6 COMPLETED #G%7 ALW UMEM UCL %2 %3 %4 %5 %6 COMPLETED #G%7 CLR UMEM %2 %3 %4 %5 %6 COMPLETED #G%7 CLR UMEM UCL %2 %3 %4 %5 %6 COMPLETED #G%7 CLR UTIL %2 %3 %4 %5 %6 COMPLETED #G%7 CLR UTILFLG %2 %3 %4 %5 %6 COMPLETED #G%7 CLR UTILFLG ME %2 %3 %4 %5 %6 COMPLETED #G%7 OP UMEM %2 %3 %4 %5 %6 COMPLETED #G%7 OP UMEM MCH %2 %3 %4 %5 %6 COMPLETED #G%7 INIT UMEM %2 %3 %4 %5 %6 COMPLETED #G%7
511 (cont.)	1	MAN	INH UTIL %2 %3 %4 %5 %6 COMPLETED #G%7 INH UTILFLG %2 %3 %4 %5 %6 COMPLETED #G%7 INH UTILFLG ME %2 %3 %4 %5 %6 COMPLETED #G%7 INH UMEM %2 %3 %4 %5 %6 COMPLETED #G%7 COPY ADDR %2 %3 %4 %5 %6 COMPLETED #G%7 COPY UID %2 %3 %4 %5 %6 COMPLETED #G%7 COPY PID %2 %3 %4 %5 %6 COMPLETED #G%7 LOAD REG %2 %3 %4 %5 %6 COMPLETED #G%7 LOAD ADDR %2 %3 %4 %5 %6 COMPLETED #G%7 LOAD PMEM %2 %3 %4 %5 %6 COMPLETED #G%7 LOAD UVAR %2 %3 %4 %5 %6 COMPLETED #G%7 DUMP REG %2 %3 %4 %5 %6 COMPLETED #G%7
511 (cont.)	1	MAN	DUMP UVAR %2 %3 %4 %5 %6 COMPLETED #G%7 DUMP PMEM %2 %3 %4 %5 %6 COMPLETED #G%7 COPY REG %2 %3 %4 %5 %6 COMPLETED #G%7 COPY UVAR %2 %3 %4 %5 %6 COMPLETED #G%7 DUMP UID %2 %3 %4 %5 %6 COMPLETED #G%7 DUMP PID %2 %3 %4 %5 %6 COMPLETED #G%7 DUMP ADDR %2 %3 %4 %5 %6 COMPLETED #G%7 DUMP KERN %2 %3 %4 %5 %6 COMPLETED #G%7

			DUMP GRASP %2 %3 %4 %5 %6 COMPLETED #G%7 WHEN UID %2 %3 %4 %5 %6 COMPLETED #G%7 WHEN ID %2 %3 %4 %5 %6 COMPLETED #G%7 WHEN COND E %2 %3 %4 %5 %6 COMPLETED #G%7
514	1	MAN	ALW UTIL %2 %3 %4 %5 %6 COMPLETED #G%7 ALW UTILFLG %2 %3 %4 %5 %6 COMPLETED #G%7 ALW UTILFLG ME %2 %3 %4 %5 %6 COMPLETED #G%7 ALW UMEM %2 %3 %4 %5 %6 COMPLETED #G%7 ALW UMEM UCL %2 %3 %4 %5 %6 COMPLETED #G%7 CLR UMEM %2 %3 %4 %5 %6 COMPLETED #G%7 CLR UMEM UCL %2 %3 %4 %5 %6 COMPLETED #G%7 CLR UTIL %2 %3 %4 %5 %6 COMPLETED #G%7 CLR UTILFLG %2 %3 %4 %5 %6 COMPLETED #G%7 CLR UTILFLG ME %2 %3 %4 %5 %6 COMPLETED #G%7 OP UMEM %2 %3 %4 %5 %6 COMPLETED #G%7 OP UMEM MCH %2 %3 %4 %5 %6 COMPLETED #G%7
514 (cont.)	1	MAN	INIT UMEM %2 %3 %4 %5 %6 COMPLETED #G%7 INH UTIL %2 %3 %4 %5 %6 COMPLETED #G%7 INH UTILFLG %2 %3 %4 %5 %6 COMPLETED #G%7 INH UTILFLG ME %2 %3 %4 %5 %6 COMPLETED #G%7 INH UMEM %2 %3 %4 %5 %6 COMPLETED #G%7 COPY ADDR %2 %3 %4 %5 %6 COMPLETED #G%7 COPY UID %2 %3 %4 %5 %6 COMPLETED #G%7 COPY PID %2 %3 %4 %5 %6 COMPLETED #G%7 LOAD REG %2 %3 %4 %5 %6 COMPLETED #G%7 LOAD ADDR %2 %3 %4 %5 %6 COMPLETED #G%7 LOAD PMEM %2 %3 %4 %5 %6 COMPLETED #G%7 LOAD UVAR %2 %3 %4 %5 %6 COMPLETED #G%7 DUMP REG %2 %3 %4 %5 %6 COMPLETED #G%7
514 (cont.)	1	MAN	DUMP UVAR %2 %3 %4 %5 %6 COMPLETED #G%7 DUMP PMEM %2 %3 %4 %5 %6 COMPLETED #G%7 COPY REG %2 %3 %4 %5 %6 COMPLETED #G%7 COPY UVAR %2 %3 %4 %5 %6 COMPLETED #G%7 DUMP UID %2 %3 %4 %5 %6 COMPLETED #G%7 DUMP PID %2 %3 %4 %5 %6 COMPLETED #G%7 DUMP ADDR %2 %3 %4 %5 %6 COMPLETED #G%7 DUMP KERN %2 %3 %4 %5 %6 COMPLETED #G%7 DUMP GRASP %2 %3 %4 %5 %6 COMPLETED #G%7 WHEN UID %2 %3 %4 %5 %6 COMPLETED #G%7 WHEN ID %2 %3 %4 %5 %6 COMPLETED #G%7 WHEN COND E %2 %3 %4 %5 %6 COMPLETED #G%7
515	1	MAN	OP UTIL COMPLETED #G%1 - #G%2
517	254	MIN	REPT SOP CANNOT OPEN SCC CHANNEL
518	1	INFO	REPT FMGR %1 IN FILE SYSTEM %2
519	1	MAN	%1 %2 %3 %4 %5
520	1	MAN	BP NUMBER %1 AT %2
521	1	MAN	MISMATCH AT %1 IN SECTION %2
522	1	MAN	CORE CONTENTS %1 %2 %3 %4
523	1	MAN	DISK CONTENTS %1 %2 %3 %4
524	1	MAN	DISK AND CORE ARE EQUAL FOR %1
525	1	MAN	THE CORE SIZE FOR SEGMENT %1 IN SEGMENT MAP FOR %2 IS OVER X'20000
527	1	MAN	%1%2%3%4 %5%6%7 %8%9%10 %11%12%13%14
528	1	MAN	UPD %1 REPT
529	1	MAN	UPD %1 REPT
530	1	MAN	UPD %1 REPT

531	1	MAN	%1 %2
532	1	MAN	UPD %1 %2
533	1	MAN	%1%2%3%4%5%6 %7%8%9%10 %11%12%13%14 %15%16%17%18 %19%20%21%22 %23%24%25%26 %27%28%29%30
534	1	MAN	%1%2%3%4%5 %6%7%8%9 %10%11%12%13 %14%15%16%17 %18%19%20%21 %22%23%24%25 %26%27%28%29
535	1	MAN	%1%2%3%4%5 %6%7%8%9 %10%11%12%13 %14%15%16%17 %18%19%20%21 %22%23%24%25 %26%27%28%29
536	1	MAN	UPD UPNM - AUTO BACK-OUT DELAY STARTED
538	1	INFO	REPT FMGR %1 TABLE %2 FAIL
539	1	MAN	%1%2%3%4%5%6 %7%8%9%10 %11%12%13%14 %15%16%17%18 %19%20%21%22 %23%24%25%26 %27%28%29%30
540	1	MAN	%1
541	1	MAN	%1%2%3%4%5%6 %7%8%9%10 %11%12%13%14 %15%16%17%18 %19%20%21%22 %23%24%25%26 %27%28%29%30
542	1	MAJ	REPT MOP CANNOT UNMOUNT DEVICE %1 ERROR = %2
543	1	MAN	REPT BWMINT
544	1	MAN	%1%2%3%4%5%6 %7%8%9%10 %11%12%13%14 %15%16%17%18 %19%20%21%22 %23%24%25%26 %27%28%29%30
547	25	INFO	REPT DKDRV WARNING, MHD %1 PARTITION %2 IS WRITE RESTRICTED,
548	1	MAN	%1%2%3%4%5%6 %7%8%9%10 %11%12%13%14 %15%16%17%18 %19%20%21%22 %23%24%25%26 %27%28%29%30
549	1	INFO	VFY FILE %1 %2
550	1	INFO	VFY FILE %1 %2
551	1	INFO	VFY FILE CRC CALCULATION REPORT
552	1	MAN	REPT BWMINT: ENCOUNTERED SIGNAL %1 AND TERMINATED
553	1	MAN	%1
554	1	INFO	REPT DKDRV WARNING, MHD %1 EXCEEDS LONG TERM FAILURE THRESHOLD
555	1	MAN	ALW UTIL %2 %3 %4 %5 %6 COMPLETED #G%7 ALW UTILFLG %2 %3 %4 %5 %6 COMPLETED #G%7 ALW UTILFLG ME %2 %3 %4 %5 %6 COMPLETED #G%7 ALW UMEM %2 %3 %4 %5 %6 COMPLETED #G%7 ALW UMEM UCL %2 %3 %4 %5 %6 COMPLETED #G%7 CLR UMEM %2 %3 %4 %5 %6 COMPLETED #G%7 CLR UMEM UCL %2 %3 %4 %5 %6 COMPLETED #G%7 CLR UTIL %2 %3 %4 %5 %6 COMPLETED #G%7 CLR UTILFLG %2 %3 %4 %5 %6 COMPLETED #G%7 CLR UTILFLG ME %2 %3 %4 %5 %6 COMPLETED #G%7 OP UMEM %2 %3 %4 %5 %6 COMPLETED #G%7 OP UMEM MCH %2 %3 %4 %5 %6 COMPLETED #G%7
555 (cont.)	1	MAN	INIT UMEM %2 %3 %4 %5 %6 COMPLETED #G%7 INH UTIL %2 %3 %4 %5 %6 COMPLETED #G%7 INH UTILFLG %2 %3 %4 %5 %6 COMPLETED #G%7 INH UTILFLG ME %2 %3 %4 %5 %6 COMPLETED #G%7 INH UMEM %2 %3 %4 %5 %6 COMPLETED #G%7 COPY ADDR %2 %3 %4 %5 %6 COMPLETED #G%7 COPY UID %2 %3 %4 %5 %6 COMPLETED #G%7 COPY PID %2 %3 %4 %5 %6 COMPLETED #G%7 LOAD REG %2 %3 %4 %5 %6 COMPLETED #G%7 LOAD ADDR %2 %3 %4 %5 %6 COMPLETED #G%7 LOAD PMEM %2 %3 %4 %5 %6 COMPLETED #G%7 LOAD UVAR %2 %3 %4 %5 %6 COMPLETED #G%7
555 (cont.)	1	MAN	DUMP REG %2 %3 %4 %5 %6 COMPLETED #G%7 DUMP UVAR %2 %3 %4 %5 %6 COMPLETED #G%7 DUMP PMEM %2 %3 %4 %5 %6 COMPLETED #G%7 COPY REG %2 %3 %4 %5 %6 COMPLETED #G%7

			COPY UVAR %2 %3 %4 %5 %6 COMPLETED #G%7 DUMP UID %2 %3 %4 %5 %6 COMPLETED #G%7 DUMP PID %2 %3 %4 %5 %6 COMPLETED #G%7 DUMP ADDR %2 %3 %4 %5 %6 COMPLETED #G%7 DUMP KERN %2 %3 %4 %5 %6 COMPLETED #G%7 DUMP GRASP %2 %3 %4 %5 %6 COMPLETED #G%7 WHEN UID %2 %3 %4 %5 %6 COMPLETED #G%7 WHEN ID %2 %3 %4 %5 %6 COMPLETED #G%7 WHEN COND E %2 %3 %4 %5 %6 COMPLETED #G%7
556	1	MAN	IN REMOTE ERROR 10, ERRNO = %1
558	12	VAR	AUD ENV=RTR %1 %2 %3
559	1	MAJ	VFY FILE VERIFICATION FAILURE ON FILE %1
560	1	INFO	REPT FMGR ACCESS WINDOW TO BLOCK DEVICE FOR MOUNTED FILE SYSTEM IS %1
561	1	INFO	REPT FMGR %1 UNMOUNTED DUE TO DISK REMOVAL
562	14	MAN	OP DFCELOG %1 %2
563	14	INFO	OP DFCELOG IN PROGRESS MHD %1 SEGMENT %2
564	27	INFO	VFY PAUTH COMPLETED VFY TAUTH COMPLETED VFY PCGRP COMPLETED VFY TCGRP COMPLETED VFY TERM COMPLETED VFY IDENT PSSWDPFX PSSWDSFX COMPLETED VFY IDENT COMGR COMPLETED VFY TERM COMGR COMPLETED
565	1	MAN	UPD UPNM DUFR WARNING: %1: %2
566	1	INFO	OP:UMEM STOPPED. TRACE DEFINED ON CU %1
567	1	MAN	ALW UTIL %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10 ALW UTILFLG %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10 ALW UTILFLG ME %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10 ALW UMEM %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10 ALW UMEM UCL %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10 CLR UMEM %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10 CLR UMEM UCL %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10 CLR UTIL %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10 CLR UTILFLG %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10 CLR UTILFLG ME %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10 OP UMEM %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10
567 (cont.)	1	MAN	OP UMEM MCH %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10 INIT UMEM %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10 INH UTIL %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10 INH UTILFLG %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10 INH UTILFLG ME %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10 INH UMEM %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10 COPY ADDR %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10 COPY UID %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10 COPY PID %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10 LOAD REG %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10 LOAD ADDR %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10
567	1	MAN	

(cont.)			LOAD PMEM %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10 LOAD UVAR %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10 DUMP REG %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10 DUMP UVAR %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10 DUMP PMEM %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10 COPY REG %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10 COPY UVAR %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10 DUMP UID %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10 DUMP PID %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10 DUMP ADDR %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10 DUMP KERN %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10
567 (cont.)	1	MAN	DUMP GRASP %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10 WHEN UID %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10 WHEN ID %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10 WHEN COND E %2 %3 %4 %5 %6 COULD NOT %7 %8 FILE %9 #G%10
568	24	MAN	LOAD DFC %1 %2 %3 %4 %5
569	24	MAJ	INIT MHD %2 EARLY TERM VFY FAILED %3 VFY MHD %2 EARLY TERM VFY FAILED %3
570	24	MAN	OP DFC %1 INFO
571	24	MAN	OP DFC %1 INFO
572	24	MAN	OP MHD %1 INFO
573	24	MAN	DUMP MHD %1 DEFECT TABLE %2
574	24	MAN	REPT DKDIP MESSAGE
575	24	MAN	REPT DKDIP MESSAGE
576	24	MAN	REPT DKDIP MESSAGE
577	25	INFO	REPT DFC %1 %2 %3
580	16	MAN	OP CFGSTAT IN PROGRESS OP ACT IN PROGRESS OP GROW IN PROGRESS OP INIT IN PROGRESS OP OFL IN PROGRESS OP OOS IN PROGRESS OP STBY IN PROGRESS OP UNAV IN PROGRESS OP UNEQIP IN PROGRESS
582	16	ACT	OP CFGSTAT IN PROGRESS OP ACT IN PROGRESS OP GROW IN PROGRESS OP INIT IN PROGRESS OP OFL IN PROGRESS OP OOS IN PROGRESS OP STBY IN PROGRESS OP UNAV IN PROGRESS OP UNEQIP IN PROGRESS
583	1	INFO	REPT FMGR UNMOUNT FAILED: PROCESS %1 HAS OPEN FOR INODE %2 FOR %3
585	254	INFO	REPT IODRV ERR %1 %2 %3 %4 %5 %6 %7 %8
586	1	INFO	REPT SDLRTC %2 %3 %4 %5 %6 %7 REPT SDLRTN %2 %3 %4 %5 %6 %7
588	16	MAN	OP CFGSTAT RETRY LATER - %2 OP ACT RETRY LATER - %2 OP GROW RETRY LATER - %2 OP INIT RETRY LATER - %2 OP OFL RETRY LATER - %2 OP OOS RETRY LATER - %2 OP STBY RETRY LATER - %2 OP UNAV RETRY LATER - %2

			OP UNEQIP RETRY LATER - %2
589	16	ACT	OP CFGSTAT RETRY LATER - %2 OP ACT RETRY LATER - %2 OP GROW RETRY LATER - %2 OP INIT RETRY LATER - %2 OP OFL RETRY LATER - %2 OP OOS RETRY LATER - %2 OP STBY RETRY LATER - %2 OP UNAV RETRY LATER - %2 OP UNEQIP RETRY LATER - %2
590	0	MAJ	REPT %1 %2 %3
591	1	INFO	%1 AUD NOT STARTED
593	15	MAN	OP EMERSTAT COMPLETED
594	15	MAN	OP EMERSTAT COMPLETED
595	1	INFO	STOP AUD NOT STARTED
596	254	CRIT	REPT *UNIX*® INIT CANNOT MOUNT %1 %2 %3 ERRNO %4
597	1	MAN	OP MEMERRS CANNOT RETRIEVE MEMLOG RECORD FROM ECD
598	1	MAN	OP MEMERRS CANNOT OPEN ECD FOR MEMLOG
599	254	INFO	REPT CSOP BAD DEVICE DEFINITIONS IN ECD
600	1	MAN	OP MEMERRS COMPLETED
601	1	MAJ	REPT RCVRY %2 %3 %4 %5 %6 %7 RST %2 %3 %4 %5 %6 %7 RMV %2 %3 %4 %5 %6 %7 REPT %2 %3 %4 %5 %6 %7 SW %2 %3 %4 %5 %6 %7
602	1	INFO	REPT FMGR PROCESS KILLED BY UNCONDITIONAL MOUNT
603	1	MIN	REPT SYSTEM IS IN MINIMUM CONFIGURATION MODE
604	1	MAN	REPT MKDSK PLEASE MOUNT NEXT TAPE IN SEQUENCE REPT MKDSK STILL WAITING FOR NEXT TAPE IN SEQUENCE
610	24	MAN	LOAD MHD %1 DEFECT TABLE COMPLETED
611	24	MAN	LOAD MHD %1 DEFECT TABLE COMPLETED
612	24	MAN	DUMP MHD %1 DEFECT TABLE COMPLETED
613	24	MAN	REPT DKDIP MESSAGE
615	1	MAN	WARNING: PROCESS INSTANCE DOES NOT EXIST OR
616	1	MAN	USAGE: cmpr -f <filename>
619	12	VAR	AUD ENV=RTR %1 %2 %3 ERROR %4 %5 REPORT %6
620	1	INFO	SW CU NOT STARTED %1
621	24	MAN	CLR MHD %1 MAEC %2 %3 %4
623	1	MAN	UPD ISG %1 CANNOT OPEN %2 %3
624	1	MAN	UPD ISG %1 FAILED TO %2
625	1	MAN	UPD ISG %1 CAN'T FIND %2
626	1	MAN	UPD ISG %1 WRITE FAILED
627	1	MAN	UPD ISG BF_FCHK FILE %1 IS NOT A SINGLE EXTENT CONTIGUOUS FILE
628	1	INFO	OP AUD ABORTED CANNOT WRITE OUTPUT FILE %2 OP AUDERR ABORTED CANNOT WRITE OUTPUT FILE %2 REPT AUDSTAT ABORTED CANNOT WRITE OUTPUT FILE %2 OP FNAME ABORTED CANNOT WRITE OUTPUT FILE %2
629	1	MIN	REPT EAI %1 SELECTED ON EAI PAGE
630	1	MAN	UPD ISG PF_FLAGS PFILE %1 %2
631	1	MAN	UPD ISG %1
632	1	MAN	UPD ISG BT_KERN MISSING OR INVALID %1
633	1	MAN	UPD ISG MAIN CRC VALUE WAS NOT %1
634	1	MAN	UPD ISG DB_CKPTH UNABLE TO FIND MATCH IN SGEN2_REC FOR %1
635	1	MAN	UPD ISG %1 SEGMENT %2 IN %3 IS MARKED COMMON, BUT CSIZE IS ZERO
636	1	MAN	UPD ISG PF_GETFILE FILE %1 MUST BE 3BSWABBED
637	1	MAN	UPD ISG %1 FILE %2 HAS %3 %4
638	1	MAN	UPD ISG %1 INVALID %2
639	1	MAN	UPD ISG %1 EXCEEDED MAX NUMBER OF PFILE SEGMENTS
640	1	MAN	UPD ISG VA_SETSEG SEGMENT %1 ALREADY IN USE
641	1	MAN	UPD ISG PF_SEGCLASS SEGMENT %1 OF PROCESS %2 HAS FSIZE %3
647	1	MAJ	REPT EAI %1 SELECTED ON EAI PAGE
650	1	INFO	OP REXINH CANNOT WRITE TO %1 WRITE FAILURE ON KEY # %2
3001	254	VAR	%1

3002	254	VAR	%1
3003	254	VAR	%1

APP:OP-FNAME

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. EXPLANATIONS OF OP:FNAME OUTPUT MESSAGES APPENDIX

Explanation	Reason for Failure
MOUNT TABLE ERROR	Unable to obtain the mount table from the file manager.
CANNOT CHANGE DIRECTORY TO /dev	Unable to change working directory to /dev.
CANNOT OPEN FILE SYSTEM	Cannot open the file system at its mount point.
CANNOT SEEK TO SUPERBLOCK	Unable to "seek" to the file system's superblock.
CANNOT READ SUPERBLOCK	Unable to read the superblock for the file system.
CANNOT FIND FILE SYSTEM	Unable to find the first directory of the mounted file system.

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APP:OST

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. KERNEL PROCESS OST CODE DEFINITIONS

OST Code	OST Name (Arguments)
1	alocmsg(nbytes, owner)
2	atchintr(process,vector,entry,psw,ident)
3	dequeuem(process, owner)
4	dqtype(process,type,owner)
5	dtchintr(process,vector)
6	freemsg(msgbuf, owner)
7	enabintr(process, vector)
8	getime()
9	iolock(segid)
10	iomap(segid,offset,count)
11	ioqueuem(msgbuf, owner)
12	messink(msgbuf, owner)
13	prtimer(process,time)
14	psignal(channel,evflags)
15	psleep(process,pattern)
16	ptimer(process,time)
17	top_pid()
18	pwakeup(pattern)
19	queuem(msgbuf, owner)
20	queuemn(msgbuf, owner)
21	riteback(segid)
22	rtnint(svstate)
23	segname(segid,segnam)
24	sendevent(process,evflags)
25	sendfault(process,fcode)
26	setime(time)
27	timeleft(process)
28	uniolock(segid)
29	dqlimit(process,ltype,utype,owner)
30	kmsgwflt(buf, fcode, owner)
31	rtiflt(fcode)
32	kconport(portnum,process)
33	kdetport(portnum, process)
34	kportid(portnum)
35	bkpt_irm(segid, offset, nbytes, new_code, save_code, uf)
36	rpaddress(segid, offset)
37	move_ut(address)
38	field update ost
39	field update ost
40	send_err(string, num)
41	rtbp(save, opcode)
42	atchchan(chandstruct)
43	dschmask()
44	ntermclass(type, class, bitspot)
45	evclass(class, event)
46	getclass
47	setclass(pid, class)
48	fltclass(class, fault)
49	kpagemap()
50	phase(d_l, a_l, code, uid)
51	disabintr(process, vector)
52	enable_ev(process, events)
53	mask_ev(process, mask)
54	kvt_kp()
55	overload(parms1, parms2, class, pnum)
56	fupatch(action, patch)
57	rcevent(pnum)
58	termutil(utilid)

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59	idlevent(pid, event)
60	inhibitdv(ivect,action,im,srm)
61	kublkseg(segid)
62	ksegsize(segid)
63	ksegadd(pn,sn,sgx,siz,perm,name)
64	krmvseg(process, segnum)
65	prctype(pnum)
66	phasewop(d_l,a_l,code,uid,action)
67	ep_attach(segindx, pid)
68	dsksimplex()
69	dskduplex()
70	sysdlm()
71	kdlmnkill(pnum, flag)
72	dtchchan(chandstruct)
73	kgetnpas(&word)
74	getemminfo(&word)
75	getmodule(segid)
76	oldmsg(type, owner)
77	maxintvl(process,interval,omsg,prms,failure)
78	dionotify(pnum, flag)

SUPERVISOR/*UNIX*® PROCESS OST CODE DEFINITIONS

OST Code	OST Name (Arguments)
1	addseg(segnum, flag)
2	adduser(process)
3	alockseg(segnum)
4	alocseg(segnum,size,partition,0L)
4	alocseg(segnum,size,partition,name)
5	free slot
6	crb(psync, flag
7	lbolt()
8	kpstart(exl,segnum, class, dctflags, pcls1, pcls2)
9	clrevent(eflag)
10	copyseg(segnum,newid,msident,rtcnt)
11	uplockseg(segid)
12	conport(portnum)
13	detport(portnum)
14	pfork1(segnum)
15	dropseg(segnum)
16	enevent(eflag)
17	event(process,eflag)
18	execute(sp, pcbndx, stkndx, pevp, class, pcl1, pcl2, flags)
19	freeseg(segnum,mode)
20	smsgwflt(buf,fcode)
21	err_rpt(string, num)
22	getime()
23	getmsg(msgbuf)
24	dctreset(state,pnum)
25	gettype(msgbuf)
26	growseg(segnum,nbytes,oszptr)
27	inhibit()
28	ioqueuem(msgbuf)
29	jobchg()
30	lockid(segid)
31	lockseg(segnum)
32	mgetlim(msgbuf)
33	getclass(pid)
34	setclass(pid, class)
35	pfork2(segnum)
36	openseg(segnum,segid,segflags,mode)
37	permit()
38	pstart(segnum)
39	pswap()
40	punswap()
41	field update ost
42	field update ost
43	rmovseg(segnum)
44	rti(evmask,svstate)
45	rtoutset(ticks)
46	segname(segid,name)

47	sendcpmsg(msgbuf)
48	sendfault(process,fcode)
49	sendmsg(msgbuf)
50	sendport(msgbuf)
51	setewait(eflag,opt)
52	setime(time)
53	setmap(segnum,access,segndx)
54	setprior(priority)
55	invalid
56	sizeseg(segnum)
57	sleep(pattern)
58	sndmsgfrom(msgbuf)
59	spacaloc(segnum)
60	sswap(segnum)
61	sunswap(segnum)
62	portid(portnum)
63	toutset(ticks)
64	ulockid(segid)
65	ulockseg(segnum)
66	unblkseg(segnum)
67	wakeup(pattern)
68	writeseg(segnum)
69	kvt_sup()
70	fupatch(action, patch)
71	termutil(utilid)
72	unused
73	utilset(utilid)
74	clrname(segname)
75	chg_attrib(flag,pri,slice,lib1,lib2,name)
76	sprctype(pid)
77	ntermclass(type, class, bitspot)
78	sgetpnum(utilid)
79	ssettflag(prcnum, flag)
80	sdlmnkill(pnum)
81	sadopt(pnum)
82	schgpcb(field, value)
83	sgetnpas(&word)
84	getemminfo(&word)
85	getmodule(segid)
86	smaxintvl(interval,omsg,prms,failure)
87	sevclass(class, event)
88	sdionotify(flag)

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APP:POINT-CODE

Software Release: 5E12 and later
Message Class: NA
Application: 5
Type: Output

1. APPENDIX

Adjacent Point Code (displayed as APC in output messages), **Destination Point Code** (displayed as DPC) and **Origination Point Code** (displayed as OPC) appear in outputs as 9-digit numbers of the form:

aaabbcddd (or **aaa-bbc-ddd**)

These parameters can be parsed into four possible formats, as follow:

Format 1: *ANSI*® format

aaa	network (001-235, 237-253, 255)
bbc	cluster (000-255)
ddd	cluster member (000-255);

Format 2: AT&T format

aaa	network (254)
bb	cluster region (00-31)
c	cluster type (0-7)
ddd	cluster member (000-255);

Format 3: UNITEL format

aaa	network (236)
bb	cluster region (00-31)
c	cluster type (0-7)
ddd	cluster member (000-255);

The last format is used for CNI Inter-Module Trunks (IMTs), and only applies to DPCs.

Specifically this format is:

Format 4: IMT format

aaa	network (000)
bbc	near SM number (1-192)
ddd	far SM number (1-192)

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Format 5: near single SM IMT format

aaa network (000)

bbc 255

ddd far SM number (1-192)

Format 6: far single SM IMT format

aaa network (000)

bbc near SM number (1-192)

ddd 255

An OPC is displayed based upon the value of its **network**.

DPCs are displayed based upon their own **network** and the network of their corresponding **OPCs**, as delineated in the table below:

DPC network	OPC uses *ANSI*® format	OPC uses ATT format	OPC uses UNITEL format
network = 001-235, 237-253, 255	network = 254	network = 236	
network=001-235, 237-253, 255	use *ANSI*® format	use *ANSI*® format	use *ANSI*® format
network=254	use *ANSI*® format	use ATT format	use *ANSI*® format
network=236	use *ANSI*® format	use *ANSI*® format	use UNITEL format
network=0	use IMT format or	use IMT format or	use IMT format or
network=0	near single SM IMT format or	near single SM IMT format or	near single SM IMT format or
network=0	far single SM IMT format	far single SM IMT format	far single SM IMT format

APP:PORT-STATUS

Software Release: 5E10 and later
Message Class: N/A
Application: 5
Type: Output

1. PORT STATUS APPENDIX

1.1 INTRODUCTION

This appendix provides additional information about the statuses that are assigned to ports throughout the switch. The term "status" refers to the logical state of a trunk or line. This logical status is in addition to any hardware status that may be maintained for a trunk circuit, digital facility interface (DFI), line unit (LU) grid or integrated services line unit (ISLU) line card (LC).

1.2 PORT STATUS DESCRIPTION

The status of any port, trunk, or line is made up of five (5) fields:
Basic state (STATE) = Whether the port is in-service (IS) or out-of-service (OOS).
Qualifier (QALFR) = Major reason for the port status.
Operational (RSTN) restriction = What restrictions have been placed on the port.
Supplementary (INFO) Information = Additional information to help clarify the reason or condition.
Mode (MODE) = How the status was applied.

All five of the listed fields together make up a unique status that describes why the port is in-service (IS) or out-of-service (OOS). Since all five fields are required, a null or blank field is significant.

In the switch, a port has a primary status and up to three pending statuses that are all applicable to the port at the same time. Statuses that can be applied to a port simultaneously are said to be able to co-exist. This co-existence, however, requires rules that govern what statuses can co-exist and what priority each status has. This is referred to as the co-existence hierarchy. In addition to co-existence, there are overwrite rules. The overwrite rules govern the condition by which a new status can replace an existing primary status.

A general case is IS versus OOS. If a port is IS and an OOS status is applied to that port, then the OOS status replaces the IS status. However, if an OOS status is removed, primary or pending, then the port will not be placed IS until all co-existing OOS statuses are removed. Another case concerns the statuses that are applied due to recent change activity. Here, the OOS statuses of circuit administration (CADN) and pre-post service (PPSRV) overwrite all other statuses. When this happens, any pending statuses are also removed. Since the overwrite and co-existence hierarchies are different for different ports (lines, DSLs, incoming trunks, outgoing trunks, and so forth).

1.3 OBTAINING THE PORT STATUS OF A PORT

The port status is controlled automatically by the switch or manually through input messages. A report of the status of a trunk or line can be obtained through input message requests, but there is no automatic mechanism for periodically reporting the status of trunks and/or lines. To obtain the status of a single trunk or line use the input message:

```
OP:STATUS
```

To obtain the status of all the out-of-service trunks or lines in the office, use the listed formats of the OP:LIST input message:

```
OP:LIST,TRUNKS
OP:LIST,LINES
OP:LIST,DATALINKS
OP:LIST,OSPSPORTS
```

The status of an entire trunk group, both in-service and out-of-service, can be obtained by entering:

```
OP:LIST,TG=x
```

where '`x`' is the trunk group number.

1.4 CHANGING THE PORT STATUS OF A PORT

To change the logical status of a port for a trunk or line use the listed input messages:

RMV:DATALINK	RST:DATALINK
RMV:TRK	RST:TRK
RMV:LINE	RST:LINE
RMV:OSPSPORT	RST:OSPSPORT

For more information about the listed input requests, refer to the description of these messages in this manual. For each input request, there is a corresponding output message.

1.5 CONTENTS OF APPENDIX

The EXPANDED DESCRIPTIONS section contains additional information about various port status groups listed in this appendix.

The remainder of this appendix contains these set of tables:
Exhibit 1 = List of possible port status values.
Exhibit 2 = List of IS port statuses.
Exhibit 3 = List of OOS port statuses.
Exhibit 4 = List of OOS statuses for digital subscriber lines (DSL) with a packet switched D-channel.
Exhibit 5 = List of OOS statuses for DSL with a packet switched B-channel.
Exhibit 6 = List of statuses applied to CDMA packet pipe and packet pipe member trunks.
Exhibit 7 = List of statuses applied to CDMA speech handler trunks.
Exhibit 8 = List of statuses applied to signaling data link trunks. (5E11+)
Exhibit 9 = List of statuses applied to CDMA bearer channel and bearer channel member trunks.

1.6 EXPANDED DESCRIPTIONS

1.6.1 CADN

The circuit administration (CADN) port statuses have been provided to allow trunks to be placed in a state that will prevent the switch from selecting them for call processing and in a state that will prevent their being placed on the IS list if a full initialization occurs. A trunk can be given a CADN status when it is grown in or updated with recent change (RC/V). This status is applied so that the trunk can be tested before being placed IS. The CADN statuses can also be applied manually to trunks if the need arises. The two available CADN statuses are OOS CADN DSBLD and OOS CADN LKDO. The OOS CADN LKDO status is only valid for two-way trunks. The descriptions for these statuses can be found in Exhibit 3 of this appendix.

The OOS CADN DSBLD status can also be seen on lines, but no recovery action is required. In certain cases, the switch will apply the CADN status to lines for circuit administration purposes but will automatically remove the status within a short period of time.

To prevent the CADN statuses from accidentally being removed from a port, certain port status transition rules apply to CADN trunks. Below is a diagram which shows the port status transitions that are allowed when adding and deleting the CADN statuses. Valid Port Status Transitions for CADN Trunks

When the RMV:TRK or RST:TRK input messages are used to change a port status to or from a CADN state, the full port status should be included in the message, otherwise the request could fail. For example, to remove a trunk to the OOS CADN DSBLD state, the port status must be specified in the input message:

```
RMV:TRK,TKGMN=g-m:OOS,CADN,DSBLD;
```

g = Trunk group number.
m = Trunk member number.

All CADN transitions on trunks are logged as customer originated recent changes (CORCs). As a result, the ODD does not have to be backed up after manually adding or deleting a CADN status to or from a trunk to ensure that the trunk's status is preserved through a full initialization. However, because the CADN transitions are logged as CORCs, there are several situations during which any transition to or from an OOS CADN status could fail.

- CORCs manually inhibited.
- ODD backup in progress.
- Trunk's static data being updated with ODBE or Recent Change.

For CCS7 trunks, no blocking messages are sent when an OOS CADN status is applied. Therefore, any type of manual OOS CADN transition on a CCS7 trunk should be negotiated with the far-end office.

1.6.2 *ANSI®*

The *ANSI®* standard U-interface can provide additional information about the status of the U-interface, T-interface, and basic rate interface transmission extension (BRITE) links. In addition, the *ANSI®* network termination (NT1) is capable of reporting its power and maintenance status to the switch. As a result, the switch software is able to provide more information in the port status. The port statuses added for the *ANSI®* standard U-interface and NT1:

IS	-	-	NTOFN	AUTO	OOS	BLKD	-	DYGSPUS	AUTO
IS	-	-	NTPPWR	AUTO	OOS	BLKD	-	LINK[1-6]	AUTO*
IS	-	-	NTPWR	AUTO	OOS	BLKD	-	MSMTCH	AUTO**
IS	-	-	NTSPWR	AUTO	OOS	BLKD	-	NR	AUTO
IS	-	-	TEST	AUTO***	OOS	BLKD	-	NRT	AUTO
					OOS	BLKD	-	NTOFN	AUTO
					OOS	BLKD	-	NTPWR	AUTO
					OOS	BLKD	-	TEST	AUTO***
					OOS	BLKD	-	TEST[1-6]	AUTO*/***
					OOS	BLKD	-	TINTF	AUTO**
					OOS	BLKD	-	UINTF	AUTO

* Refers to the BRITE link position from 1 to 6 that can't be accessed. Link 1 is between channel unit 1 and channel unit (CU) 2, link 2 is between CU 2 and CU 3, and so forth.

** Indicates the port status is also applied to the alternate mark inversion (AMI) U-interface.

*** The *ANSI®* NT1 or *ANSI®* BRITE channel unit is in test mode.

These IS and OOS BLKD port statuses are not allowed to co-exist, but the OOS BLKD statuses are allowed to overwrite each other.

1.7 Exhibit 1 -- List of Possible Port Status Values

Field	Value
1-Basic State (STATE)	IS = In service. OOS = Out-of-service. ALL = Indicates that all statuses (basic state, qualifier, operational restriction, supplementary information and mode) will match. ***NOTE:*** This value is valid only for use in RST:TRK, RST:LINE, RST:DATALINK or RST:OSPSPORT input messages.
2-Qualifier (QALFR)	ABLKD = Abnormally blocked. BLKD = Blocked. CADN = Circuit administration. CUTOVER = Cutover (pre-cut) inactive state. DSLINIT = DSL initialization. FRCD = Forced. MKBUSY = Make busy. MTCE = Maintenance. NM = network management. PPSRV = Pre/post service. RC = Recent change. STBY = Standby TMT = Traffic management. UNAS = Unassigned. WAIT = Waiting for an acknowledgement
3-Operational Restrictions (RSTN)	BCMOOS = Bearer channel member out-of-service. BCOOS = Bearer channel out-of-service. BUSY = Busy for maintenance purposes CCSINIT = Common channel signaling (CCS) initialization. CONT = CCS continuity error. DCHOOS = D-channel is out-of-service. DSBLD = Disabled. FAF = Facility failure. FE = Family of equipment. HW = High and wet. INIT = Initialization. LKDO = Locked out. LVL1ERR = Level 1 protocol error. LVL2ERR = Level 2 protocol error. LVL3ERR = Level 3 protocol error. L3ERR = Level 3 protocol error. PLGUP = Plug-up. PPMOOS = Packet Pipe Member Trunk out-of-service. PX = Power cross. RAP = Recorded announcement port.
4-Supplementary Information (INFO)	AFAF = Associate facility failure AML = Automatic maintenance limit was exceeded. AQ = Automatic quote problem. AUDIT = Audit detected a problem. CAMA = Central automatic message accounting. CAROT = Centralized automatic reporting on trunks. CCSINIT = CCS initialization. CDI = Control and data interface. CKT = Circuit.

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	CTTU = Central trunk testing unit. DFI = Digital facility interface. DLNORSP = Directory Assistance System/Computer (DAS/C) link no response. DM_RECD = Received a level 2 disconnect message frame from far end. DS1OOS = Digital signal level 1 is out-of-service. DYGSPUS = Dying gasp under study.
4-Supplementary Information (INFO) (Cont.)	ERATC = Trunk error analysis detected errors. ERATP = All Trunk error analysis tests passed. FORPOT = Foreign potential. GRD = Ground fault. GRID = Line unit grid. IAA = Ineffective attempt analysis. IDLE = For packet switching trunks, level 2 protocol did not receive any flags. INC = CCS continuity test incoming end. INIT = Initialization. IP = In progress. ISLU = Integrated services line unit. ISOL = Isolated. L2DOWN = Level 2 is inoperable. For a packet switching trunk or line, it indicates that the far-end switch is not responding. The port cannot be used in call processing. L2QLTY = Poor level 2 transmission quality. Too many level 2 protocol errors occurred during call processing. LINK1 = The basic rate interface transmission extension (BRITE) link one is down. LINK2 = The BRITE link two is down. LINK3 = The BRITE link three is down. LINK4 = The BRITE link four is down. LINK5 = The BRITE link five is down. LINK6 = The BRITE link six is down.
4-Supplementary Information (INFO) (Cont.)	MTCECH = The maintenance channel for the T1D1 standard U-Interface and the custom U-Interface. MPP = Modem pool problem. MPOOS = Modem pool line out-of-service. MSMTCH = Mismatch. NO_RESP = No response from far end during an attempted level 2 communication establishment. NR = No response. NRT = No response while in test mode. NTOFN = Network termination (NT1) off normal. NTDACT = NT1 is deactivated. NTPPWR = NT1 primary power is lost. NTPWR = NT1 lost power. NTSPWR = NT1 secondary power is lost. OCU_CSU = The port failed the routine office channel unit (OCU) or channel service unit (CSU) loopback test. ODD = Office-dependent data. OPNOXL3 = OSPS position no level 3 protocol. ORIG = Origination. OTG = CCS continuity test outgoing (controlling) end.
4-Supplementary Information (INFO) (Cont.)	PCTF = Per-call test failure. PKTOOS = Packet link on the packet-switched D-channel manually disabled. PLNKOOS = Packet switching link out-of-service. POSNOB = OSPS position no B-channel.

	POSNRSP = OSPS position no response. PPM = Periodic pulse metering unit. PROV = Provisioning. PSU = Packet switch unit. PSIU = Packet switch interface unit. RDTA = Remote digital test access. RESTART = Q.931 RESTART message. RESTRT = Q.931 RESTART message. REX = Routine exercise. RO = Routine other. ROTF = Operational trouble (that is: scanner stuck off-hook). RSMMSA = Remote switching module (RSM) in module stand-alone (MSA) mode of operation. RTIDCU = Integrated digital carrier unit (IDCU) remote terminal (RT). RTTF = Routine transmission test failure.
4-Supplementary Information (INFO) (Cont.)	SCC = Switching Control Center. SERVICE = Q.931 SERVICE message. SRVCE = Q.931 SERVICE message. SPARED = Line is involved in an ISLU sparing configuration. STARTUP = The handshake required to bring a trunk in-service is not yet complete. STKSCN = Suspected stuck scan lead on the line group controller (LGC) or the line card (LC). SWEQF = Switch equipment failure. TEST = In test mode. TEST1 = Testing in progress at the NT1 or BRITE channel unit (CU) and the BRITE link one is down. TEST2 = Testing in progress at the NT1 or BRITE CU and the BRITE link two is down. TEST3 = Testing in progress at the NT1 or BRITE CU and the BRITE link three is down. TEST4 = Testing in progress at the NT1 or BRITE CU and the BRITE link four is down. TEST5 = Testing in progress at the NT1 or BRITE CU and the BRITE link five is down. TEST6 = Testing in progress at the NT1 or BRITE CU and the BRITE link six is down. TICOM = Treated interface unit common circuit. TINTF = The T-interface is down. TRBL = Unspecified trouble. TRBLORG = Origination trouble. TREQF = Transmission equipment failure. TRKBD = Trunk board. TRKCT = Trunk circuit. UINTF = The *ANSI*® standard U-interface is down.
5-Mode	MAN = Manually originated request.(MODE) AUTO = Automatically originated request.

1.8 Exhibit 2 -- In-Service Statuses Applied to Ports

STATE	QALFR	RSTN	INFO	MODE	Meaning
IS	-	-	-	AUTO	Was placed in-service automatically.
IS	-	-	AUDIT	AUTO	The port was or is being recovered from a selective initialization.
IS	-	-	INIT	AUTO/ MAN	This port status is applied to the ports of a terminating operator services position system (OSPS) extended digital subscriber line (EDSL) when the originating OSPS EDSL's D-channel is out-of-service. To clear this status, the

					originating side of the OSPS EDSL must be brought into service.
IS	-	-	ISOL	AUTO	The port is on an isolated remote unit.
IS	-	-	L2DOWN	AUTO/ MAN	For a packet switching trunk or line, this status indicates that the far end is not responding. The port cannot be used in call processing.
IS	-	-	NTOFN	AUTO	This status indicates that the layer 1 user error threshold has been exceeded. For this condition, the network termination (NT1) is considered "off normal", and the switch's monitoring of the layer 1 user errors (that is, NT1 power status and test mode maintenance indication) has been inhibited. Routine port conditioning will clear this status and allow the switch to monitor the layer 1 user errors. However, if the layer 1 user errors continue and exceed the threshold again, the port will return to this "off normal" state.
IS	-	-	NTPPWR	AUTO	The network termination's (NT1's) secondary power is normal, but the NT1's primary power is marginal or unavailable. To clear this status, primary power must be restored to the NT1.
IS	-	-	NTPWR	AUTO	The network termination's (NT1's) primary and secondary power supplies are either marginal or unavailable. Because this is a transient state, the digital subscriber line (DSL) may go out-of-service very shortly. To clear this status, power must be restored to the NT1.
IS	-	-	NTSPWR	AUTO	The network termination's (NT1's) primary power is normal, but the NT1's secondary power is marginal or unavailable. To clear this status, secondary power must be restored to the NT1. ***NOTE:*** This may be the normal in-service condition for NT1s that are not equipped with a secondary power source.
IS	-	-	RDTA	AUTO/ MAN	There is a remote digital test access session currently utilizing this port. When the session is terminated the port will resort back to its previously existing supplementary information state.
IS	-	-	STARTUP	AUTO/ MAN	This is a transitional port status that indicates the custom primary rate interface (PRI) is in the process of being initialized. It prevents an incoming Q.931 RESTART request from interrupting the initialization of a PRI, and prevents the B-channels at the far-end from being placed in-service inadvertently while the switch transitions the B-channels out of the OOS MTCE DCHOOS state during a PRI initialization. The STARTUP status will be removed from the supplementary information field of the port status automatically by the switch when the PRI initialization is complete.
IS	FRCD	-	AML	AUTO	Indicates that a trunk has exceeded the automatic maintenance limit of a trunk group.
IS	FRCD	-	AUDIT	AUTO	The port has been placed back in-service by the unloader (UNLD) system process because some recovery action, audit or single process purge, detected a problem, and recovered the port by placing the port on the to-be-idled (TBI) list so that it could be recovered.
IS	FRCD	-	FORPOT	AUTO	Was forced in-service even though there was a foreign potential encountered.

IS	FRCD	-	L2QLTY	AUTO	This status indicates that the packet pipe, X.75 or X.75' packet switching trunk is experiencing layer 2 protocol errors. The switch will not select the trunk for new outgoing calls but will allow the trunk to handle incoming calls. If this status is applied to a packet trunk that has a call up, the call will not be torn down. The switch will automatically restore all ports with this status at midnight. However, if the layer 2 errors continue, the port will return to this in-service state. If this status persists on a X.75 or X.75' port, try isolating the location of the problem by executing sectionalized digital loopback tests on the trunk with the TST:TRK input message or the trunk and line work station (TLWS).
IS	FRCD	-	MPP	AUTO	Indicates that the analog line of the modem pool member identified has failed a user-initiated modem pool test. The FRCD condition can be removed by removing the line from service and then restoring it.
IS	FRCD	-	TEST	AUTO	The port, usually a modem pool analog line, has been forced in-service while it is being tested. When testing is completed the port status will be restored to what it was before testing. If it fails to return to the previous status, the port is already in-service. To change or remove the TEST supplementary field, remove and restore the port indicated.
IS	-	-	TEST	AUTO/ MAN	*ANSI*® standard digital subscriber line (DSL): For an *ANSI*® DSL, this port status means the DSL has layer 1 protocol established and either the network termination (NT1) or a basic rate interface transmission extension channel unit (BRITE CU) is being tested by a source other than the switch. Primary rate interface (PRI) trunk: For a PRI trunk, this status indicates that the trunk has been seized by the trunk and line work station (TLWS) or is in the process of being tested using the TST:TRK input message. While in this state, the trunk is not available for call processing. Packet switching trunk: For a packet switching trunk, this port status means that a loopback test is in progress on the port. External information system (EIS) datalinks: For EIS datalinks, this port status indicates that the link has been put into test mode by the EIS, and only test calls will be routed to the link. For lines, trunks, and datalinks, the TEST value in the supplementary information field of the port status will be removed from the port when the test is done. To manually clear this port status, try to remove and then restore the port with the RMV:LINE and RST:LINE input messages (or RMV:TRK, RST:TRK, RMV:DATALINK, or RST:DATALINK as appropriate). If the port remains in this TEST state, it probably means a test is still being executed on the NT1, BRITE CU, trunk, or datalink.
IS	NM	-	-	MAN	The port is in-service due to network management

					controls.
IS	STBY	-	-	AUTO/ MAN	This status indicates that the port is the standby D-channel of a standard primary rate interface (PRI) with D-channel backup (DCBU). The standby D-channel acts a a backup D-channel in case the active D-channel for the PRI goes out-of-service. If the active D-channel goes out-of-service, the switch will automatically attempt to switch over to the IS STBY D-channel. All layer 3 messages received on a D-channel in this state will be ignored except for Q.931 SERVICE and SETUP messages. If either of these messages are received, the switch will attempt to send a SERVICE message on the active D-channel to verify D-channel synchronization.
IS	WAIT	-	-	AUTO/ MAN	This status indicates that the D-channel backup (DCBU) primary rate interface (PRI) D-channel is waiting for a Q.931 SERVICE or SERVICE_ACK message from the far end so that the D-channel can be placed IS - - - AUTO/MAN. This status is applied to DCBU PRI D-channels during PRI initializations and D-channel switch-overs. This is a transitional status that will only be applied to the D-channel trunk for a maximum duration of T321 seconds. If a SERVICE or SERVICE_ACK message is received within T321 seconds the D-channel will be transitioned to the IS - - - AUTO/MAN state. state. While in this in-service state, the D-channel is not considered active and can not be used to set up calls on the B-channels of the PRI.

1.9 Exhibit 3 -- Out-of-Service Statuses Applied to Ports

STATE	QALFR	RSTN	INFO	MODE	Meaning
OOS	ABLK	-	-	AUTO	The DLT is a warm spare. It will automatically be put in-service when it is needed.
OOS	ABLK	-	NO5ZAKN	AUTO	An outgoing trunk is abnormally blocked because it has not received a seizure acknowledgement.
OOS	ABLK	-	NORLSGD	AUTO	An outgoing trunk is abnormally blocked because it has not received a release guard.
OOS	-	-	AUDIT	AUTO	The port is in the process of being recovered due to an audit detected problem or a single process purge. The port is currently on the to-be-idled (TBI) list.
OOS	BLKD	-	-	AUTO	Outgoing or two-way trunk: For an outgoing or two-way trunk, this status indicates that an off-hook is being received from the distant office. Digital link trunk (DLT): For a DLT, this status indicates that it is unable to carry traffic. Common channel signaling (CCS) trunk: For a CCS trunk, this status indicates that the trunk has been remotely blocked by the far-end office. As of software release 5e11(1) note, this status may be added to CCS trunks while active on a call. Digital subscriber line (DSL): For a DSL, it indicates that the customer premises equipment (CPE) is powered off, or the switch is waiting for a message or signal from the CPE to re-establish communication. When such communication is received, an attempt will

					be made to place the port in-service automatically. This status indicates the DSL is out-of-service because layer 1 is down for some unknown reason. To clear this status from a port, first try restoring the line to service with the RST:LINE input message. If the port status changes to another out-of-service or in-service status, refer to the description of that status in this appendix for additional information. However, if the port status remains OOS BLKD - - AUTO, run a digital sectionalization test on the DSL with the TST:DSL input message. If the loopback tests pass, try diagnosing the line card with the DGN:ISLULC input message. Specify the NT1 demand phase option in the diagnostic test.
OOS	BLKD	-	-	MAN	The port has been put into the blocked state manually. (Refer to OOS BLKD AUTO.) (This state is not valid for CCS trunks.)
OOS	BLKD	-	DM_RECD	AUTO	The primary rate interface (PRI) D-channel trunk or packet switching trunk had a link level failure due to the receipt of a layer 2 DISC frame from the far-end, or the switch sent out a SABME and got a DISC in response. This status may indicate that the far-end trunk has been removed from service manually, or the far-end trunk may have been taken out-of-service automatically by the far-end switch. This status generally indicates that the far-end requested that layer 2 be taken down.
OOS	BLKD	-	DYGSPUS	AUTO	This status indicates that layer 1 is down because a "dying gasp" message may have been received by the switch from the network termination (NT1). Typically, the "dying gasp" message is sent to the switch from the NT1 when the NT1 loses power. However, this message can also be generated if there is a problem with the U-interface or NT1. As a result, the digital subscriber line (DSL) will be under study by the switch until the automatic or manual mismatch test runs to verify whether or not it was a true loss of power by the NT1. When the mismatch test runs on the port, the port status will be changed to indicate the problem that caused this "dying gasp" message. To have the port status updated immediately, execute a manual mismatch test with the TST:DSL input message. Otherwise, if the automatic mismatch test has been enabled for the switching module (SM) that this port is on (using the ALW:MISMATCH input message), then the port status will be updated automatically within a 1 hour period. ***NOTE:*** This port status indicates the state of the DSL at the time this condition was detected. It is possible that the condition of the DSL may change such that no indication is received by the switch to cause the port status to be updated. ***NOTE:*** The NT1 automatic mismatch test does not apply for integrated digital carrier unit (IDCU) DSLs. If this port status is

					experienced on an IDCU DSL, manually remove the port (RMV:LINE).
OOS	BLKD	-	IDLE	AUTO	Packet switching link access level protocol did not receive any flags (bit pattern consisting of 01111110) in the incoming bit stream. This state corresponds to the expiration of the T3 timer in level 2 protocol. When this occurs on a packet pipe trunk it means that the channel group PPCG on the PH4 has lost communication to the far end (CDMA cell site).
OOS	BLKD	-	INIT	AUTO	This status indicates that the switch is attempting to bring up layer 2 on the port. This is a transitional status that is used when a D-channel of a primary rate interface (PRI) with D-channel backup (DCBU) is restored manually with the RST:TRK input message. No action is needed unless the port remains in this state for more than a minute. If a port appears to be stuck in this state, attempt to restore the port by using the ALL option in the RST:TRK input message.
OOS	BLKD	-	LINK[1-6]	AUTO	The digital subscriber line (DSL) is out-of-service because the indicated basic rate interface transmission extension (BRITE) link has lost layer 1 communication. LINKx defines the link that is out-of-service, which is the link between channel unit (CU) x and CU (x+1). If the link number is an even number, this status could be the result of a power loss at the network termination (NT1), or the NT1 may have been disconnected. The U-interface is up between the line card and the first BRITE CU. To clear this status from a port, try restoring the line to service with the RST:LINE input message. If the line remains in this state, try to isolate the location of the problem by executing a digital sectionalization test on the line with the TST:DSL input message. If the test fails and implicates a problem with the same link shown in the port status, try examining the physical connection indicated by the link number. Also, there may be a problem with the BRITE CU(s) connected to the indicated link.

OOS	BLKD	-	MSMTCH	AUTO	The digital subscriber line (DSL) is out-of-service (OOS) because of a mismatch between the line card type (*ANSI*®/AMI) and either the first BRITE CU type or the NT1 type. For all mismatch conditions, layer 1 is down at the U-interface.
					
					All possible mismatch conditions are shown:
					`*ODD line|line card|First BRITE CU`
					`card type|type |or NT1 type`
					`----------`
					`AMI | AMI | ANSI`
					`AMI | ANSI | AMI`
					`AMI | ANSI | ANSI`
					`ANSI | ANSI | AMI`
					`ANSI | AMI | ANSI`
					`ANSI | AMI | AMI`

					Note: The mismatch test assumes the line card type stored in the switching module's (SM's) office-dependent data (ODD) is correct for the U-card under test. To clear this OOS status, a metallic loop test can first be performed on the DSL with the trunk and line work station (TLWS) to confirm that the status is due to an NT1 or BRITE CU mismatch and not a metallic loop fault. Next, the manual mismatch test (using the TST:DSL input message) can be used to determine if it is an NT1, BRITE CU, or line card mismatch. The incorrect NT1, BRITE CU, or line card must then be replaced with the correct type in order for this port to be placed in-service. Note: This port status indicates the state of the DSL at the time this condition was detected. It is possible that the condition of the DSL may change such that no indication is received by the switch to cause the port status to be updated. Note: This port status does not apply for integrated digital carrier unit (IDCU) DSLs because of the inability to run the NT1 automatic mismatch test.
OOS	BLKD	-	RTIDCU	AUTO	This port status only applies to lines and trunks which reside on an IDCU TR303 RT. It indicates that the primary service state maintained in the RT for this line or trunk is out-of-service. This port status will be cleared automatically once the primary service state is restored to in-service.
OOS	BLKD	-	NO_RESP	AUTO	The primary rate interface (PRI) D-channel trunk or packet switching trunk had a link level failure. The switch attempted to set up level 2 communication with the far-end, but the far-end did not respond to the link set up requests. This status may indicate that the far-end trunk has been removed from service manually, or the far-end trunk may have been taken out-of-service automatically by the far-end switch. If this is an IP, X.75, or X.75' trunk group that connects two switches, check to see LAPB ADDR is set to N on one end of the trunk and Y on the other end for each member (RC/V 5.5). If both ends are set to the same value, this will be the status of the respective trunk group member. If this trunk group is connecting a switch and a PPSN (Number 1 Packet Switching System (1PSS), Tymnet, and so forth), each trunk member on the switch side must have the opposite setting as to what the trunk member terminating at the PPSN side has.
OOS	BLKD	-	NR	AUTO	The digital subscriber line (DSL) is out-of-service because layer 1 is down at the T-interface. The reason the port status was marked no response (NR) rather than

					T-interface (TINTF) was the switch was not able to get a message stimulated response from either the network termination (NT1) or a basic rate interface transmission extension channel unit (BRITE CU) after losing layer 1 communication at the T-interface. To help isolate the location of the problem that is causing this port to be out-of-service, try executing a digital sectionalization test on the line with the TST:DSL input message. Also, try diagnosing the line card with the DGN:ISLULC input message since the embedded operations channel (EOC) may be faulty. Specify the NT1 demand phase option in the diagnostic test.
OOS	BLKD	-	NRT	AUTO	The digital subscriber line (DSL) is out-of-service because layer 1 is down at the T-interface. In addition, the NT1 or a BRITE CU is under test by a source other than the switch. The reason the port status was marked no response test (NRT) rather than TEST or TEST[1-6] was the switch was not able to get a message stimulated response from either the network termination (NT1) or a basic rate interface transmission extension channel unit (BRITE CU) after losing layer 1 communication at the T-interface. Before attempting any recovery actions with the switch, investigate to see what tests are being performed on the NT1 or BRITE CUs. When the testing is done and the NT1 or BRITE CUs are taken out of the test mode, the switch should remove this NRT status from the port automatically.
OOS	BLKD	-	NTOFN	AUTO	This status indicates that the layer 1 user error threshold has been exceeded. For this condition, the network termination (NT1) is considered "off normal", and the switch's monitoring of the layer 1 user errors (that is, NT1 power status and test mode maintenance indication) has been inhibited. The U-interface is up between the line card and the NT1 or the first basic rate interface transmission extension channel unit (BRITE CU). Since the NT1 "off normal" state does not cause a port to go out-of-service (OOS), the indicated port was probably OOS before the NT1 became "off normal" (that is, OOS BLKD - TINTF). Routine port conditioning will clear the NTOFN status and allow the switch to monitor the layer 1 user errors, but the port's status may change to another OOS state. Also, if the layer 1 user errors continue and exceed the threshold again, the port will return to this "off normal" state.
OOS	BLKD	-	NTPWR	AUTO	The digital subscriber line (DSL) is out-of-service because the network termination (NT1) lost power and layer 1 is down. This status will be cleared once power is restored to the NT1. ***NOTE:*** This port status indicates the state of the DSL at the time this condition was detected. It is possible that the condition of the DSL may change such that no indication is received by the switch to cause the port status to be updated.
OOS	BLKD	-	NTDACT	AUTO	The digital subscriber line (DSL) is out-of-service because

					layer 1 is down at the U-interface. This status applies only to AMI U-DSLs and is applied when the integrated services line unit (ISLU) line card receives an "NT1 deactivation" message over the maintenance channel. An AMI basic rate interface transmission extension channel unit (BRITE CU) is probably being tested by a source other than the switch. For example, if a test set is connected to an AMI BRITE CU, the BRITE CU will send an "NT1 deactivation" message to the switch. The DSL should return to service when the testing is done and the test set is removed from the BRITE CU.
OOS	BLKD	-	OCU_CSU	AUTO	The packet switching port has failed a routine loopback test at the office channel unit (OCU) or the channel service unit (CSU). This condition is usually associated with faulty OCU or CSU. An attempt will be made to restore the port automatically as soon as the situation is corrected.
OOS	BLKD	-	RDTA	AUTO/ MAN	A remote digital test access session has been executed on this port taking priority over its previous state. When the session is terminated the port will be released back to its previous supplementary information state.
OOS	BLKD	-	RESTRT	AUTO	This status indicates that the trunk is undergoing Q.931 RESTART procedures. Restart procedures are used to clear calls on Custom and Standard PRI B-channels. For Standard PRIs, restart procedures are also used to bring the B-channels into service. This status is transitional and should remain on the port for at most T316 seconds. If the restart procedure fails, the port will be transitioned to the OOS MTCE L3ERR RESTRT state. If the restart procedures succeed, the port will be transitioned to IS.
OOS	BLKD	-	STARTUP	AUTO	The packet switching trunk is being brought into service. The handshake at level 2 (SABM/UA exchange) is not yet complete. The trunk in this state is not available for call processing.
OOS	BLKD	-	TEST	AUTO	The digital subscriber line (DSL) is out-of-service because layer 1 is down at the T-interface between the network termination (NT1) and the customer premises equipment (CPE). The NT1 is probably in the test mode and is being tested by a source other than the switch. When the testing is done and the NT1 is taken out of the test mode, the switch will remove this TEST port status automatically. If there is some concern about this status, an investigation should be done to see what tests are being performed on the DSL.
OOS	BLKD	-	TEST[1-6]	AUTO	The digital subscriber line (DSL) is out-of-service because layer 1 is down at the indicated basic rate interface transmission extension (BRITE) link. The NT1 or a BRITE channel unit (CU) is being tested by a source other than the switch. TESTx defines the BRITE link that is out-of-service, which is the link between CUx and CU(x+1). When the testing is done and the NT1 or BRITE CU is taken out of the test mode, the switch will remove this TESTx port status automatically. If there is some concern about this status, an investigation should be done to see what tests are being performed on the DSL.
OOS	BLKD	-	TINTF	AUTO	For U line cards: This port status means the digital

					subscriber line (DSL) is out-of-service because layer 1 is down at the T-interface, which is the interface between the NT1 and the customer premises equipment (CPE). The U-interface is up between the line card and the NT1 or the first basic rate interface transmission extension channel unit (BRITE CU). The problem may be with the NT1, CPE, or CPE to NT1 connection. For T line cards: This port status means the DSL is out-of-service because layer 1 is down at the T-interface, which is the interface between the line card and the CPE. The problem may be with the CPE, line card, or CPE to line card connection.
OOS	BLKD	-	UINTF	AUTO	The digital subscriber line (DSL) is out-of-service because layer 1 is down at the U-interface, which is between either the NT1 and the line card or if the DSL is equipped with basic BRITE CU, between the first BRITE CU and the line card. To clear this status from a port, first try restoring the line to service with the RST:LINE input message. If the port status doesn't change, try locating the problem by executing a digital loopback test on the line with the TST:DSL input message. If the loopback test is done to the NT1 or the first BRITE CU, a verification can be made as to whether or not a good connection exists between the line card and the NT1 or BRITE CU. The U-interface connection can also be checked by running metallic and digital tests on the line from the trunk and line work station (TLWS). If the tests used to verify the U-interface connection pass, but the port remains out-of-service, try diagnosing the line card with the DGN:ISLULC input message. If this also passes but the port remains out-of-service, the problem may be with the first BRITE CU or the NT1. ***NOTE:*** This port status indicates the state of the DSL at the time this condition was detected. It is possible that the condition of the DSL may change such that no indication is received by the switch to cause the port status to be updated.
OOS	BLKD	PCTF	-	AUTO	The port is blocked because of a per-call test failure (PCTF).
OOS	CADN	-	-	MAN	The port will be out-of-service for a short period of time because circuit administration is being performed. This generally happens when new circuits (ports) are being added to the system. This port status will be removed automatically by the switch and cannot be manually applied to a port.
OOS	CADN	-	RDTA	MAN	A remote digital test access session has been executed on this port taking priority over its previous state. When the session is terminated the port will be released back to its previous supplementary information state.

OOS	CADN	DSBLD	-	AUTO/ MAN	This port status can apply to trunks that have been added or altered by recent change and can be manually applied to an incoming, outgoing, or two-way trunk. This status can also apply to lines, but no recovery action is required. A trunk is given this status to prevent the switch from selecting it for call processing, and will stay in this state until it is manually placed in-service. Outgoing trunks can be tested in this state, and the only valid port status transitions for a port with this status are to another CADN status or to the in-service state. For common channel signaling (CCS) trunks, the OOS CADN DSBLD AUTO status can also mean that the trunk received an unequipped label (UQL) message from the far end trunk. This can be verified by the existence of a UQL machine detected interoffice irregularity (MDII report provided the MDII reporting has been allowed. An MDII will only be reported if a call is affected.
OOS	CADN	DSBLD	PROV	AUTO	This port status only applies to lines and trunks which reside on IDCU TR303 RTs. It indicates that successful provisioning has not occurred. Provisioning is the process by which the switch informs the TR303 RT of the existence and characteristics of lines and trunk assigned to the RT. This port status exists between the time a line is assigned using recent change and when the line is successfully provisioned to the RT. If this status last for over 1 minute, check the embedded operations channel (EOC) to the RT to ensure that they are in-service.
OOS	CADN	DSBLD	RO	MAN	The port will be out-of-service for a short period of time because its static data is being updated using recent change. This port status will be removed automatically by the switch within a short period of time.
OOS	CADN	LKDO	-	AUTO/ MAN	This port status can be manually applied to two-way trunks to allow trunk testing. The trunk will stay in this state until it is manually placed in-service, and the only valid port status transitions for a port with this status are to another CADN status or to the in-service state. While in this state, the switch will not select the two-way trunk for outgoing calls but will allow incoming calls. Therefore, the far end two-way trunk should be in the locked-out state to prevent a non-test call from being made. For packet switching trunks, the switch treats this port status as OOS MTCE LKDO. For common channel signaling (CCS) trunks, such port status is functionally equivalent to OOS CADN DSBLD, prior to 5E11; as of 5E11, the OOS CADN LKDO state is no longer supported for CCS trunks.
OOS	DSLINI T	-	-	AUTO	This status indicates that the ISDN, BRI, PRI, packet pipe trunk or speech handler trunk port is out-of-service because the SM has been initialized. It may also indicate that the port needed to be taken out-of-service because the resources needed to put it in-service were unavailable. For a packet pipe trunk, this state may also indicate that frame relay protocol Handler on the PH4 is out-of-service or experiencing problems. For a speech handler trunk, this state may also indicate that the speech handler on the PHV is out-of-service or experiencing problems. The

					switch will attempt to restore this port automatically within 3 minutes.
OOS	FCDOS	-	-	AUTO	An incoming trunk has detected an invalid signaling sequence.
OOS	MKBUSY	-	-	MAN	This status indicates that the line is able to originate calls but will appear busy to terminations. If an attempt is made to call this line, a busy tone will be heard. This status will remain on the line until the line is manually restored to service or the status is overwritten by another port status of a higher priority.
OOS	MKBUSY	-	AQ	AUTO	This status applies to an autoquote establishment line (AQEST). Error analysis has isolated the problem to the hotel modem or printer equipment. This could be caused, for example, by a printer running out of paper. The AQEST will be restored to service automatically from 1 to 60 minutes following removal from service.
OOS	MTCE	BCMOOS	-	AUTO	This status indicates one or more FRBC member trunks on the DFI are out-of-service.
OOS	MTCE	BCMOOS	AFAF	AUTO	This status indicates the FRBC members on the DFI facility are out-of-service due to a carrier group alarm.
OOS	MTCE	BCOOS	-	AUTO	This status indicates the SVC is out-of-service because of FRBC is out-of-service.
OOS	MTCE	BCOOS	AFAF	AUTO	This status indicates the SVC is out-of-service because the FRBC is out-of-service due to a carrier group alarm.
OOS	MTCE	BUSY	-	AUTO	This status indicates that a primary rate interface (PRI) with D-channel backup (DCBU) is being initialized or is trying to switch over to a standby D-channel. This is a transitional state that should remain on the trunk for at most T321 seconds. While timer T321 is running, this status cannot be deleted from the trunk manually. However, if this state remains on the trunk for more than T321 seconds, attempt to restore the port by specifying the ALL option in the RST:TRK input message. The primary purpose of this status is for it to busy out one D-channel of the PRI while the other D-channel is brought into service. This ensures that both ends of the PRI will bring the same D-channel into service.
OOS	MTCE	CCSINIT	-	AUTO	This status indicates that the common channel signaling (CCS) trunk failed to be reset. RESET messages are being periodically sent out for this trunk to restore it to service. This status will remain on the trunk until the far-end acknowledges the RESET message. This status will also cause all blocking and unblocking requests from the far-end to be discarded.
OOS	MTCE	CCSINIT	STARTUP	AUTO	This status indicates that the common channel signaling (CCS) trunk is out-of-service (OOS) because the switching module (SM) the trunk resides on has gone through a full initialization. RESET messages are being periodically sent out for this trunk to restore it to service. This status will remain on the trunk until the far-end acknowledges the RESET message.
OOS	MTCE	CONT	INC	AUTO	An incoming continuity test has failed on a CCS trunk. While in this state, periodic continuity tests will be run controlled by the far-end office until continuity is restored. The outgoing trunk has status OOS,MTCE,CONT,OTG,AUTO.
OOS	MTCE	CONT	OTG	AUTO	An outgoing continuity test has failed on a CCS trunk.

					While in this state, periodic continuity tests will be run until continuity is restored. The incoming end has status OOS,MTCE,CONT,INC,AUTO.
OOS	MTCE	DCHOOS	-	AUTO	This status indicates that the digital subscriber line (DSL) or primary rate interface (PRI) B-channel is out-of-service because the D-channel associated with the DSL or PRI is out-of-service. When the D-channel is restored to service, this port status will be automatically deleted from the B-channel.
OOS	MTCE	DSBLD	-	AUTO/ MAN	The port is disabled (high-and-dry). The reason is implied by the supplementary information field of the status. For packet-switched trunks, level 2 communication can not be established until this state is removed. This is also the default port status that is applied when a port is manually removed from service.
OOS	MTCE	DSBLD	AQ	AUTO	This status can apply to either an autoquote mate analog line (AQM) or an autoquote establishment line (AQEST). When applied to an AQM, error analysis has isolated the problem to this line. The AQM will be restored to service automatically after 30 minutes. When applied to an AQEST, error analysis has isolated the problem to the hotel modem or printer equipment. The AQEST will be restored to service automatically from 1 to 60 minutes following removal from service.
OOS	MTCE	DSBLD	CAMA	AUTO/ MAN	This port is associated with the talking trunk of a CAMA keying/talking pair. This trunk must be manually restored to service.
OOS	MTCE	DSBLD	CAROT	AUTO/ MAN	The identified trunk has been removed for testing by the centralized automatic reporting on trunks (CAROT/ROTL) system. It should be restored by CAROT when testing is completed. It will not be restored automatically by the switch.
OOS	MTCE	DSBLD	CTTU	MAN	The trunk identified has been manually removed for testing by the central trunk testing unit (CTTU). It should be restored by the CTTU when testing is completed. It will not be restored automatically by the switch.
OOS	MTCE	DSBLD	ERATC	AUTO	The outgoing or two-way trunk identified has failed the operational and/or transmission tests initiated by trunk error analysis (TERA) and has been removed automatically from service. The reason for running the tests was excessive errors reported to TERA implicating this trunk. The associated trunk must be restored manually.
OOS	MTCE	DSBLD	ERATP	AUTO	The identified outgoing trunk has passed the operational and/or transmission tests initiated by TERA four times, but continues to be implicated in the MDIIs reported to TERA and has been removed automatically from service. The associated trunk must be restored manually.
OOS	MTCE	DSBLD	L2QLTY	AUTO	The internal protocol (IP) packet switching trunk had too many level 2 protocol errors. The trunk has been taken out-of-service (OOS) because of poor transmission quality, and all packet calls on the indicated trunk have been re-routed across the other IP trunks in the same trunk group. Since ports with this status are not restored to service automatically by the switch, the indicated port must be restored manually with the RST:TRK input message. If

					the port returns to this OOS status after having performed a manual restore, try isolating the location of the problem by executing sectionalized digital loopback tests on the trunk with the TST:TRK input message or the trunk and line work station (TLWS).
OOS	MTCE	DSBLD	ODD	AUTO	An ODD problem has been encountered and is associated with this port. Relations to verify include FC_PORTTYP, FC_TRUNK, FC_LINE, KEY_TALK and DSLEQUIP. The port implicated must be restored manually.
OOS	MTCE	DSBLD	PCTF	AUTO	The port is OOS due to a per-call test failure. The port must be restored manually.
OOS	MTCE	DSBLD	RDTA	AUTO/ MAN	A remote digital test access session has been executed on this port taking priority over its previous state. When the session is terminated the port will be released back to its previous supplementary information state.
OOS	MTCE	DSBLD	RO	MAN	The port is OOS because of some routine or other reason. On an OSPS basic services terminal (BST), it indicates that terminal firmware retrofit is in progress.
OOS	MTCE	DSBLD	ROTF	AUTO	The port was disabled because excessive scanner-stuck-off-hook operational test failures were encountered during originations. The port will be placed in-service automatically after a minimum of 5 minutes.
OOS	MTCE	DSBLD	RSMMSA	AUTO	The identified trunk terminates on a remote switching module (RSM) that has gone into the module stand-alone (MSA) mode of operation. The trunk will be restored automatically by the switch once the RSM is restored from the MSA mode.
OOS	MTCE	DSBLD	SCC	MAN	The port was placed OOS by the SCC.
OOS	MTCE	DSBLD	SPFIFO	AUTO	This port is OOS because it caused the SP FIFO to overflow. This babbling port rapidly caused off-hooks faster than the switch could unload them from the SP FIFO. The port was placed OOS in order to avoid degraded service for the other ports using the same SP FIFO. The switch will automatically restore the port in a few minutes. If the port continues to babble it will be put in the OOS TBLA state. Ports in the OOS TBLA state are only restored by the switch once a day during the middle of the night.
OOS	MTCE	DSBLD	TEST	MAN	This port status is automatically applied by the switch to an in-service OSPS EDSL B-channel when it is seized by the trunk & line work station (TLWS) or when an automatic loopback test is requested for it with the TST:TRK input message. When the automatic testing of the port has completed or when the port is released from the TLWS, the switch will restore the port automatically.
OOS	MTCE	DSBLD	TRBL	MAN	The port is OOS because of some unspecified trouble.
OOS	MTCE	DSBLD	TRBLORG	AUTO	The port was disabled because of excessive originations that did not result in dialed digits. All such ports will automatically be placed in-service every 3 minutes.
OOS	MTCE	FAF	-	AUTO	The port is OOS due to a facility (that is, D4, T1) failure. There should be a carrier group alarm (CGA) associated with the problem. This port status will be automatically deleted from the port when the CGA clears.
OOS	MTCE	FE	-	AUTO/ MAN	The port is out-of-service (OOS) because a hardware unit associated with this port is OOS. To determine which hardware unit is OOS, refer to the switching module (SM) status page (poke 1010,X; where X=SM number) on a

					trunk and line work station (TLWS) terminal, or use the OP:CFGSTAT input message.
OOS	MTCE	FE	AQ	AUTO	This status applies to an autoquote DSL (AQ-DSL). The AQ-DSL has been removed from service because its mate analog line (AQM) is OOS. The AQ-DSL will be restored to service automatically when the AQM is restored to service.
OOS	MTCE	FE	CAMA	AUTO/ MAN	This port is the keying trunk associated with the talking trunk of a CAMA keying/talking pair. This trunk will be restored to service when the talking trunk is restored.
OOS	MTCE	FE	DS1OOS	AUTO/ MAN	This port status is out-of-service because the DS1 it resides on is out-of-service. This port status is cleared automatically when the DS1 is placed back in-service.
OOS	MTCE	FE	ISLU	AUTO/ MAN	The port is OOS because the associated ISLU is OOS.
OOS	MTCE	FE	MPOOS	AUTO	This modem pool analog line is OOS because its corresponding DSL is OOS. It will be restored when the DSL is restored.
OOS	MTCE	FE	PPM	AUTO/ MAN	The port is OOS because the associated PPM unit is OOS.
OOS	MTCE	FE	PSU	AUTO/ MAN	The port is OOS because the associated PSU is OOS.
OOS	MTCE	FE	RDT	AUTO	This RDT port (TR303 or TR008) is OOS because of a problem in the RDT. The RDT told the switch to put the port OOS. Once the problem in the RDT is cleared, then the port will be put back IS automatically.
OOS	MTCE	FE	REX	AUTO	The port is OOS due to routine exercises.
OOS	MTCE	HW	-	AUTO	The port is high-and-wet (HW) (off-hook) and is being scanned for an on-hook. The status is due to a continuous off-hook on the port. When an on-hook is detected the status will automatically be removed. If a line with this status is a dial tone first (DTF) coin line, a check is made about every 10 seconds for the presence of a coin (initial deposit). If a coin is detected an attempt will be made to return the coin.
OOS	MTCE	HW	GRD	AUTO	The port is HW due to what appears to be a short to ground on the ring lead. The port is off-hook and is being scanned for an on-hook. Manual action is required to isolate and clear the ground fault. When the ground condition causing the port to appear off-hook is cleared the HW status will automatically be removed. If a dial tone first (DTF) coin line is in this state, the check for the presence of a coin is not done.
OOS	MTCE	HW	PCTF	AUTO	The port is OOS due to supervision transfer failure or because the line's scan cutoff failed to open on an origination or termination. For ground start lines, this OOS status could also be due to a low line resistance (LLR) fault. This can be verified by checking with the remote service bureau (RSB) to see if a REPT:PCTF-LLR message was generated for the identified port. The OP:PCTF input message can also be used to see if an LLR report was generated. Manual action is required to isolate and clear the LLR fault. However, once the fault has been cleared, the HW status will be removed automatically by the switch.
OOS	MTCE	HW	ROTF	AUTO	The port is OOS due to a scanner-stuck-off-hook failure.
OOS	MTCE	INIT	-	AUTO	The indicated trunk must be initialized before it can be used by call processing.
OOS	MTCE	INIT	IP	AUTO	The indicated trunk is currently in the process of being

					initialized.
OOS	MTCE	LKDO	-	MAN	The outgoing side of a two way trunk is OOS. For packet switching trunks, this state indicates that the switch will respond to level 2 protocol initiated from the far end, but will not setup nor accept any calls. For common channel signaling (CCS), this port status is functionally equivalent to OOS MTCE DSBLD, prior to 5E11; as of 5E11, the OOS MTCE LKDO state is no longer supported for CCS trunks.
OOS	MTCE	LKDO	CTTU	MAN	The trunk identified has been manually removed for testing by the central trunk testing unit (CTTU). It should be restored by the CTTU when testing is completed. It will not be restored automatically by the switch.
OOS	MTCE	LKDO	ERATP	AUTO	The identified two-way trunk has passed the operational and/or transmission tests initiated by TERA four times, but continues to be implicated in the MDIIs reported to TERA and has been removed automatically from service. The associated trunk must be restored manually.
OOS	MTCE	LKDO	RDTA	MAN	A remote digital test access session has been executed on this port taking priority over its previous state. When the session is terminated the port will be released back to its previous supplementary information state.
OOS	MTCE	LKDO	RO	MAN	The outgoing side of a two-way trunk is OOS for some routine other reason.
OOS	MTCE	LKDO	TRBL	MAN	The outgoing side of a two-way trunk is OOS because of some unspecified trouble.
OOS	MTCE	LVL1ERR	-	AUTO	The digital subscriber line (DSL) is out-of-service because of excessive layer 1 state transitions. The switch will attempt to restore the indicated DSL automatically every 3 minutes. However, if the excessive layer 1 state transitions are still occurring, the port will return to this out-of-service state. To clear this status from a port, first try to isolate the location of the problem by executing a digital sectionalization test on the line with the TST:DSL input message. If all of the digital tests pass, try diagnosing the line card with the DGN:ISLULC input message.
OOS	MTCE	LVL1ERR	MTCECH	AUTO	The digital subscriber line (DSL) is out-of-service because of excessive layer 1 state transitions on the maintenance channel. The switch will attempt to restore the indicated DSL automatically every 3 minutes. However, if excessive layer 1 state transitions are still occurring on the maintenance channel, the port will return to this out-of-service state. For possible recovery actions for a port in this state, refer to the recovery actions described for the OOS MTCE LVL1ERR - AUTO port status.
OOS	MTCE	LVL1ERR	TINTF	AUTO	The digital subscriber line (DSL) is out-of-service because of excessive layer 1 "info" state transitions or framing errors on the T-interface. The switch will attempt to restore the indicated DSL automatically every 3 minutes. However, if excessive layer 1 "info" state transitions are still occurring, the port will return to this out-of-service state. There might be a problem with the customer premises equipment (CPE) or T-interface wiring.
OOS	MTCE	LVL1ERR	UINTF	AUTO	The digital subscriber line (DSL) is out-of-service because of excessive layer 1 state transitions on the U-interface. The U-interface may be going in and out of frame. The

					switch will attempt to restore the indicated DSL automatically every 3 minutes. However, if the excessive layer 1 state transitions are still occurring, the port will return to this out-of-service state. For possible recovery actions for a port in this state, refer to the recovery actions described for the OOS MTCE LVL1ERR - AUTO port status.
OOS	MTCE	LVL1ERR	STKSCN	AUTO	The digital subscriber line (DSL) is out-of-service because a stuck scan lead has been detected on the indicated port's integrated services line unit (ISLU) line group controller (LGC), line card (LC), or possibly another line card connected to the same ISLU LGC. This is a transient state, and the switch will perform its own recovery actions to handle it. The switch will first attempt to restore the indicated DSL port automatically within 3 minutes; but if the scan lead remains stuck, the port will remain in this out-of-service (OOS) state. If the DSL remains in this OOS state, the switch will automatically remove the line card from service and schedule a diagnostic. If the diagnostic then finds a problem with the LGC or LC, the switch will keep the hardware OOS and the port status will change to an OOS MTCE FE state for all ports associated with that hardware. The faulty hardware must then be repaired or replaced in order for the DSL to be put back in-service.
OOS	MTCE	LVL2ERR	-	AUTO	The DSL/DLT, packet pipe trunk or speech handler trunk port is disabled because of excessive level 2 protocol errors. The port indicated will be restored automatically once level 2 is restored.
OOS	MTCE	L3ERR	-	AUTO	The DSL/DLT port is disabled because of excessive level 3 protocol errors. The DSL port indicated will be restored automatically once level 3 is restored.
OOS	MTCE	L3ERR	AQ	AUTO	This status applies to an autoquote DSL (AQ-DSL). The local modem attached to the AQ-DSL is faulty. The AQ-DSL modem will be tested automatically every 3 minutes, and when no problems are detected, the AQ-DSL will be restored to service.
OOS	MTCE	L3ERR	POSNOB	AUTO	A B-channel could not be connected from the TSIU to an OSPS position. The DSL port indicated will be restored automatically once level 3 is restored.
OOS	MTCE	L3ERR	POSNRSP	AUTO	An OSPS position did not send the "Initialization Complete" message after levels 1, 2, and 3 were established (no response). The DSL port indicated will be restored automatically once level 3 is restored.
OOS	MTCE	L3ERR	DLNORSP	AUTO	An OSPS Directory Assistance System Computer (DAS/C) did not send (no response) a "Status Reply" message after levels 1, 2, and 3 were established (no response). The DSL port indicated will be restored automatically once level 3 is restored.
OOS	MTCE	L3ERR	OPNOXL3	AUTO	An OSPS terminal could not establish level 3 with the SM after levels 1 and 2 were established. The DSL port indicated will be restored automatically once level 3 is restored.
OOS	MTCE	L3ERR	RESTRT	AUTO	This status indicates one of two things. Either the primary rate interface (PRI) B-channel failed Q.931 RESTART procedures, or the PRI B-channel is about to undergo restart procedures to clear a call. For Custom and

					Standard PRI B-channels, restart procedures are sometimes used to clear a call when the normal means of clearing a call fails or when an error is encountered on a B-channel that has a call up on it. For Standard PRIs, restart procedures are also used to bring the B-channels into service. The switch will automatically attempt to restore a B-channel in this state within 3 minutes. If the port with this status is a Standard PRI B-channel, this status may indicate that the far-end B-channel has been taken out-of-service because of manual or automatic actions.
OOS	MTCE	L3ERR	SRVCE	AUTO	This status indicates that the PRI D-channel is out-of-service because no Q.931 SERVICE or SERVICE_ACK message was received when a Q.931 SERVICE message was sent out on the D-channel to bring it into service or to verify that it was in-service. This status will only be seen on the D-channel of PRIs that have DCBU. The SERVICE/SERVICE_ACK message exchange is required to bring D-channels into service on PRIs that have DCBU.
OOS	MTCE	PPMFE	-	AUTO/ MAN	A PPM circuit is OOS. Terminating calls are allowed but originating calls are not.
OOS	MTCE	PPMOOS	-	AUTO	A packet pipe member trunk (DS0) circuit is OOS. The RC/V trunk view [PPMEM TRUNK LIST field] defining the packet pipe trunk, will provide a list of packet pipe member trunks in the packet pipe. The DS0 channels on the DFI for the packet pipe can also be found on the VERIFY PKTPIPE CHANNEL GROUP RC/V view.
OOS	MTCE	PPMOOS	AFAF	AUTO	A packet pipe member trunk (DS0) circuit is OOS due to a facility (T1) failure. The RC/V trunk view defining the packet pipe trunk, will provide a list of packet pipe member trunks in the packet pipe. The DS0 channels on the DFI for the packet pipe can also be found on the VERIFY PKTPIPE CHANNEL GROUP RC/V view.
OOS	MTCE	PX	-	AUTO/ MAN	The trunk or line was put on the power cross list. Each port in this state will be re-tested every 15 minutes and restored to service if no power cross is detected.
OOS	MTCE	PX	PCTF	AUTO	A power cross was encountered on the trunk or line during per call tests. Each port in this state will be re-tested every 15 minutes and restored to service if no power cross is detected.
OOS	PPSR V	-	-	MAN	The port is OOS for an indefinite period of time due to growth or service order activity.
OOS	UNAS	-	-	MAN	DSL D-channel is OOS since this is a newly grown line card and no B-channels are assigned.
OOS	UNAS	-	SPARED	MAN	The port is OOS, but the line originally associated with this port is currently assigned to a spare line card. To determine the status of the line, the port status of the spare line card should be checked. The ISLU line card status page on the MCC can be referred to for determining the spare line card. To restore this port, the faulty line card must be fixed or replaced and then recent change must be used to move the line back from the spare card.

1.10 Exhibit 4 -- Out-of-Service Statuses Applied to DSLs with packet-switched D-channels

Type	STATE	QALFR	RSTN	INFO	MODE	Meaning
D(S)	IS	-	-	PLNKOOS	AUTO	The packet service (p-link) on the D-channel is OOS due to ODD problem or user disabling.
B1(S)	IS	-	-	-	AUTO	The packet service (p-link) on the D-channel is OOS due to ODD problem or user disabling.
B2(S)	IS	-	-	-	AUTO	The packet service (p-link) on the D-channel is OOS due to ODD problem or user disabling.
D(S)	IS	-	-	-	AUTO	The packet service (p-link) on the D-channel is in-service while the rest of the DSL is unassigned. This configuration is used for modem pooling.
B1(S)	-	-	-	-	-	The packet service (p-link) on the D-channel is in-service while the rest of the DSL is unassigned. This configuration is used for modem pooling.
B2(S)	-	-	-	-	-	The packet service (p-link) on the D-channel is in-service while the rest of the DSL is unassigned. This configuration is used for modem pooling.
D(S)	IS	-	-	-	AUTO	The DSL has packet switching link and signaling link in-service while the circuit switch-switched B-channels are OOS due to user disabling the B-channels.
B1(S)	OOS	MTCE	DSBLD	-	MAN	The DSL has packet switching link and signaling link in-service while the circuit switch-switched B-channels are OOS due to user disabling the B-channels.
B2(S)	OOS	MTCE	DSBLD	-	MAN	The DSL has packet switching link and signaling link in-service while the circuit switch-switched B-channels are OOS due to user disabling the B-channels.
D(S)	OOS	-	-	PLNKOOS	MAN	The DSL has packet-switching service (p-link) but is OOS due to the DSL being OOS. The DLS may be OOS because of initialization or recovery or user disabling the DSL.
B1(S)	OOS	MTCE	DCHOOS	-	AUTO	The DSL has packet-switching service (p-link) but is OOS due to the DSL being OOS. The DLS may be OOS because of initialization or recovery or user disabling the DSL.
B2(S)	OOS	MTCE	DCHOOS	-	AUTO	The DSL has packet-switching service (p-link) but is OOS due to the DSL being OOS. The DLS may be OOS because of initialization or recovery or user disabling the DSL.
D(S)	OOS	BLKD	-	PLNKOOS	AUTO	The DSL has packet switching service (p-link) but is OOS due to powered-off customer-located equipment (CLE). The circuit switching links are also OOS due to powered off CLEs.
B1(S)	OOS	BLKD	DCHOOS	-	AUTO	The DSL has packet switching service (p-link) but is OOS due to powered-off customer-located equipment (CLE). The circuit switching links are also OOS due to powered off CLEs.
B2(S)	OOS	BLKD	DCHOOS	-	AUTO	The DSL has packet switching service (p-link) but is OOS due to powered-off customer-located equipment (CLE). The circuit switching links are also OOS due to powered off CLEs.

1.11 Exhibit 5 -- Out-of-service statuses applied to DSLs with packet-switched B-channels

Type	STATE	QALFR	RSTN	INFO	MODE	Meaning
D(S)	OOS	DSLINIT	-	-	AUTO	The DSL ports are placed out-of-service due to initialization or recovery activities.
B1(S)	OOS	-	DCHOOS	-	AUTO	The DSL ports are placed out-of-service due to

						initialization or recovery activities.
B2(P)	OOS	DSLINIT	-	-	AUTO	The DSL ports are placed out-of-service due to initialization or recovery activities.
D(S)	OOS	DSLINIT	-	-	AUTO	The packet-switched B-channel is put in-service before the corresponding D-channel during initialization or recovery (because packet B is on a different PH than the corresponding D-channel).
B1(S)	OOS	DSLINIT	-	-	AUTO	The packet-switched B-channel is put in-service before the corresponding D-channel during initialization or recovery (because packet B is on a different PH than the corresponding D-channel).
B2(P)	IS	-	-	-	AUTO	The packet-switched B-channel is put in-service before the corresponding D-channel during initialization or recovery (because packet B is on a different PH than the corresponding D-channel).
D(S)	OOS	MTCE	FE	ISLU	AUTO	Packet B is OOS due to equipment failure (ISLU) whereas circuit-switched B is OOS because D-channel is OOS (DCHOOS) when ISLU equipment fails.
B1(S)	OOS	MTCE	DCHOOS	-	AUTO	Packet B is OOS due to equipment failure (ISLU) whereas circuit-switched B is OOS because D-channel is OOS (DCHOOS) when ISLU equipment fails.
B2(P)	OOS	MTCE	FE	ISLU	AUTO	Packet B is OOS due to equipment failure (ISLU) whereas circuit-switched B is OOS because D-channel is OOS (DCHOOS) when ISLU equipment fails.
D(S)	OOS	MTCE	FE	PSU	AUTO	The packet B is OOS due to equipment failure in the PSU whereas circuit-switched B is OOS because D-channel is OOS (DCHOOS) when PSU equipment fails.
B1(S)	OOS	MTCE	DCHOOS	-	AUTO	The packet B is OOS due to equipment failure in the PSU whereas circuit-switched B is OOS because D-channel is OOS (DCHOOS) when PSU equipment fails.
B2(P)	OOS	MTCE	FE	PSU	AUTO	The packet B is OOS due to equipment failure in the PSU whereas circuit-switched B is OOS because D-channel is OOS (DCHOOS) when PSU equipment fails.
D(S)	OOS	MTCE	LVL1ERR	-	AUTO	Packet B is OOS due to level 1 errors while the circuit B is OOS due to DCHOOS when level 1 errors occurred on the D-channel.
B1(S)	OOS	MTCE	DCHOOS	-	AUTO	Packet B is OOS due to level 1 errors while the circuit B is OOS due to DCHOOS when level 1 errors occurred on the D-channel.
B2(P)	OOS	MTCE	LVL1ERR	-	AUTO	Packet B is OOS due to level 1 errors while the circuit B is OOS due to DCHOOS when level 1 errors occurred on the D-channel.
D(S)	OOS	MTCE	LVL2ERR	-	AUTO	Packet B is OOS due to level 2 errors, while circuit B is OOS due to DCHOOS when level 2 errors occur on the D-channel.
B1(S)	OOS	MTCE	DCHOOS	-	AUTO	Packet B is OOS due to level 2 errors, while circuit B is OOS due to DCHOOS when level 2 errors occur on the D-channel.
B2(P)	OOS	MTCE	LVL2ERR	-	AUTO	Packet B is OOS due to level 2 errors, while circuit B is OOS due to DCHOOS when level 2 errors occur on the D-channel.
D(S)	OOS	MTCE	LVL3ERR	-	AUTO	Packet B is OOS due to level 3 errors while circuit B is

						OOS due to DCHOOS when level 3 errors occur on the D-channel.
B1(S)	OOS	DCHOOS	-	-	AUTO	Packet B is OOS due to level 3 errors while circuit B is OOS due to DCHOOS when level 3 errors occur on the D-channel.
B2(P)	OOS	MTCE	LVL3ERR	-	AUTO	Packet B is OOS due to level 3 errors while circuit B is OOS due to DCHOOS when level 3 errors occur on the D-channel.
D(S)	OOS	MTCE	LVL2ERR	-	AUTO	Packet B is IS while circuit B is OOS due to DCHOOS when level 2 errors occurred on the D-channel.
B1(S)	OOS	MTCE	DCHOOS	-	AUTO	Packet B is IS while circuit B is OOS due to DCHOOS when level 2 errors occurred on the D-channel.
B2(P)	IS	-	-	-	AUTO	Packet B is IS while circuit B is OOS due to DCHOOS when level 2 errors occurred on the D-channel.
D(S)	OOS	MTCE	LVL3ERR	-	AUTO	Packet B is IS while circuit B is OOS due to DCHOOS when level 3 errors occur on the D-channel.
B1(S)	OOS	MTCE	DCHOOS	-	AUTO	Packet B is IS while circuit B is OOS due to DCHOOS when level 3 errors occur on the D-channel.
B2(P)	IS	-	-	-	AUTO	Packet B is IS while circuit B is OOS due to DCHOOS when level 3 errors occur on the D-channel.
D(S)	IS	-	-	-	AUTO/ MAN	Packet B is OOS due to excessive level 2 errors while the D and circuit B are IS.
B1(S)	IS	-	-	-	AUTO/ MAN	Packet B is OOS due to excessive level 2 errors while the D and circuit B are IS.
B2(P)	OOS	MTCE	LVL2ERR	-	AUTO	Packet B is OOS due to excessive level 2 errors while the D and circuit B are IS.
D(S)	IS	-	-	-	AUTO/ MAN	Packet B is OOS due to excessive level 2 errors and circuit B is manually disabled while the D is IS.
B1(S)	OOS	MTCE	DSBLD	-	MAN	Packet B is OOS due to excessive level 2 errors and circuit B is manually disabled while the D is IS.
B2(P)	OOS	MTCE	LVL2ERR	-	AUTO	Packet B is OOS due to excessive level 2 errors and circuit B is manually disabled while the D is IS.

1.12 Exhibit 6 -- List of statuses applied to CDMA packet pipe and packet pipe member trunks.

Exhibit 6 shows port statuses for the packet pipe and packet pipe member, the state of packet pipe manager for the channel group PPCG, the state reported to the *Autoplex*® executive cellular processor (ECP), the path state in response to various stimuli.

Stim-ulus	Pkt Pipe Mgr	STATE	QALFR	RSTN	INFO	State Reported to ECP	Path	STATE	QALFR	RSTN	INFO
1	off	OOS	DSLINIT	-	-	Unavailable	down	IS	-	-	-
2	is	IS	-	-	-	Idle	up	IS	-	-	-
3	idle	OOS	BLKD	-	IDLE	Unavailable	up	IS	-	-	-
4	l2q	IS	FRCD	-	L2QLTY	Softfault	up	IS	-	-	-
5	off	OOS	MTCE	FE	PSU	Unavailable	down	any	-	-	-
6	off	OOS	MTCE	DSBLD	-	Maint Busy	down	any	-	-	-
7	off	OOS	CADN	DSBLD	-	Unassigned	down	any	-	-	-
8	off	OOS	PPSRV	-	-	Unassigned	down	any	-	-	-
9	off	OOS	MTCE	LVL2ERR	-	Unavailable	up	any	-	-	-
10	off	OOS	MTCE	PPMOOS	-	Unavailable	down	OOS	MTCE	FE	DFI
11	off	OOS	MTCE	PPMOOS	-	Unavailable	down	OOS	MTCE	DSBLD	-
12	off	OOS	MTCE	PPMOOS	-	Unavailable	down	OOS	CADN	DSBLD	-
13	off	OOS	MTCE	PPMOOS	-	Unavailable	down	OOS	PPSRV	-	-

14	off	OOS	MTCE	PPMOOS	AFAF	DS1 Busy	NC	OOS	MTCE	FAF	-

Stimuli:

1 Out-of-service due to software initialization or resource problems.
2 Packet pipe (PP) members up and PP up.
3 The PPCG channel group on the PH4 loses communication with the far end (cell site). This is detected by the loss of flags.
4 Layer 2 quality problem due to the protocol monitoring threshold exceeded in PPCG channel group. This condition can be restored without going OOS.
5 A PPCG channel group on the PH4 or PSU is removed from service.
6 PP is disabled (manual or auto).
7 PP manually placed in the circuit administration (CADN) state through a RMV request or by RC/V activity.
8 PP manually placed in the pre-port service (PPSRV) state through RC/V activity.
9 PP is automatically placed in maintenance level 2 error state on a PH hard switch that fails. A transient state applied during the PH hard switch to turn channel off. The trunk will exist in this state for only a short period.
10 PP member (one or all) removed due to family of equipment (FE) (manual or auto). Note that this scenario and the following three states are mapped to the same PP state, so as to avoid multiple pending states on the PP.
11 PP member (one or all) is disabled (manual or auto). If testing the PP member, it must be unconditionally taken OOS manually. The PPCG channel group's packet pipe state is off and path is down. Path is down since a path must be setup to a test circuit.
12 PP member (one or all) is manually placed in the circuit administration (CADN) state through a RMV request or by RC/V activity.
13 PP member is manually placed in the pre-port service (PPSRV) through RC/V activity.
14 All PP members OOS due to a carrier group alarm (CGA)/facility failure (FAF) on the DFI facility terminating the packet pipe members (DS0s).

1.13 Exhibit 7 -- List of status applied to CDMA speech handler trunks

Exhibit 7 shows the port statuses for the speech handler trunk, the trunk busy/idle state, the corresponding state reported to the *Autoplex*® ECP and the state of the speech handler (PHV) channel, path, and loopback.

Stimulus	CHAN	PATH	LPBK	STATE	QALFR	RSTN	INFO	Busy/Idle	State Reported to ECP
1	on	up	down	IS	-	-	-	Idle	Idle
2	on	up	down	IS	-	-	-	Busy	Busy
3	off	down	down	OOS	DSLINIT	-	-	n/a	Unavailable
4	off	down	down	OOS	MTCE	FE	PSU	n/a	Unavailable
5	off	down	down	OOS	MTCE	DSBLD	-	n/a	Maint Busy
6	off	down	down	OOS	CADN	DSBLD	-	n/a	Unassigned
7	off	down	down	OOS	PPSRV	-	-	n/a	Unassigned
8	off	up	down	OOS	MTCE	LVL2ERR	-	n/a	Unavailable

Stimuli:

1 Speech handler (SH) trunk is in-service and idle.
2 SH trunk is in-service and busy.
3 SH trunk is out-of-service due to initialization or resource problems.
4 SH trunk is out-of-service because the PHV is removed or degraded.
5 SH trunk is disabled (manual or auto).
6 SH trunk is manually placed in the circuit administration (CADN) state through RMV requests or by RC/V activity.
7 SH trunk is manually placed in the pre-port (pre-post) service (PPSRV) state through RC/V activity.
8 SH trunk is automatically placed in maintenance level 2 error state on a hard switch that fails. The

trunk will exist in this state for only a short period.

1.14 Exhibit 8 -- List of status applied to SDL trunks for 5E11 and later

The signaling data link (SDL) trunk port, which provided access for PSU-terminated CCS signaling links (supported in 5E11 and later), may possess the listed states only, noting that states are noted in the standard form used in output messages (Base state - qualifier - operational restriction):

STATE	MEANING
IS	SDL is in-service (this only refers to the availability of the DFI/DNU-S trunk ports used by the signaling link, not the usefulness of the link itself in CCS operation)
OOS-MTCE-DSBLD	SDL port has been manually removed (it must be restored manually)
OOS-MTCE-FAF	SDL port is OOS due to a carrier group alarm on the associated facility (this port status will be deleted automatically, when the CGA clears).
OOS-MTCE-FE	SDL port is OOS due to "family-of-equipment" reasons (such as, parent DFI or DNU-S SFI/TMUX/CD hardware or an associated facility have been removed).

The OOS-MTCE-DSBLD state may coexist with OOS-MTCE-FE or OOS-MTCE-FAF. The OOS-MTCE-FE state will overwrite an existing OOS-MTCE-FAF condition. IS is actually the absence of all OOS conditions.

These states (both primary, and pending states, if appropriate) may be viewed by using the OP:ST-TRK input message, using the DEN or NEN as an identifier.

1.15 Bearer Channel

The next item shows port statuses for the bearer channel and bearer channel member, the state reported to the *Autoplex*® executive cellular processor (ECP), the path state in response to various stimuli.

The list of statuses shown applies to CDMA bearer channel and bearer channel member trunks for 5E12 and later.

Stim-ulus	BS	Q	OR	SI	State Rptd to ECP	BC Mgr	BS	Q	OR	SI	BC to BCM Path	BS	Q	OR	SI
1	OOS	MTCE	BCOOS	-	UAV	off	OOS	DSL INIT	-	-	down	IS	-	-	-
2	IS	-	-	-	Idle**	is	IS	-	-	-	up	IS	-	-	-
3	IS	-	-	-	Idle**	is	IS	-	-	L2QLTY	up	IS	-	-	-
4	OOS	MTCE	BCOOS	-	UAV	idle	OOS	BLKD	-	IDLE	up	IS	-	-	-
5	OOS	MTCE	BCOOS	-	UAV	is	OOS	BLKD	-	L2DOWN	up	IS	-	-	-
6	OOS	MTCE	BCOOS	-	UAV	off	OOS	MTCE	FE	-	down	any			
7	OOS	MTCE	BCOOS	-	UAV	off	OOS	MTCE	FE	PSU	down	any			
8	OOS	MTCE	BCOO	-	MB	off	OOS	MTCE	DSBLD	-	down	any			

			S												
9	OOS	MTCE	BCOOS	-	UAV	off	OOS	CADN	DSBLD	-	down	any			
10	OOS	MTCE	BCOOS	-	UAV	off	OOS	PPSRV	-	-	down	any			
11	OOS	MTCE	BCOOS	-	UAV	off	OOS	MTCE	LVL2ERR	-	up	any			
12	OOS	MTCE	BCOOS	-	UAV	off	OOS	MTCE	LVL3ERR	-	up	any			
13	OOS	MTCE	BCOOS	-	UAV	off	OOS	MTCE	BCMOOS	-	down	OOS	MTCE	FE	DFI
14	OOS	MTCE	BCOOS	-	UAV	off	OOS	MTCE	BCMOOS	-	down	OOS	MTCE	DSBLD	-
15	OOS	MTCE	BCOOS	-	UAV	off	OOS	MTCE	BCMOOS	-	down	OOS	CADN	DSBLD	-
16	OOS	MTCE	BCOOS	AFAF	DS1 Busy	off	OOS	MTCE	BCMOOS	AFAF	NC	OOS	MTCE	FAF	-
17	OOS	MTCE	DSBLD	-	UAV	NC	any				NC	any			
18	OOS	CADN	DSBLD	-	UAS	NC	any				NC	any			
19	OOS	PPSRV	-	-	UAS	NC	any				NC	any			

**	= Busy or Idle is dependent upon the DCS's trunk busy/idle maps.
BS	= Basic state (bsc_state)
B/I	= Busy/Idle state (lstat)
OR	= Operational restriction (op_restn)
Q	= Qualifier (qualfr)
SI	= Supplementary information (suppl_info)
UAV	= Unavailable
UAS	= Unassigned
MB	= Maintenance Busy

Stimuli

1	Out-of-service due to software initialization or resource problems.
2	BC Members up and BC up and SVCs up.
3	BC Members up and BC up but Layer 2 quality is in geqstion and SVCs up.
4	BC loses communication with the far end (loss of flags).
5	Layer 2 communication with the far end has been lost and layer 2 is down.
6	IFRPH (PH4) removed from service no spares available.
7	PSU removed from service.
8	BC disabled (manual or auto).
9	BC manually placed Circuit Administration (CADN).
10	BC manually placed Pre-Port Service (BCSRV).
11	BC automatically placed in maintenance level 2 error on a hard switch that fails, transient state to turn channel off, or has reach the layer 2 error threshold.
12	BC automatically placed in maintenance level 3 error because it has reach the layer 3 error threshold.

13	BC member (one or all) removed due to family of equipment (FE) (manual or auto). Note that this scenario and the following two are mapped to the same BC state, so as to avoid multiple pending states on the BC.
14	BC Member (one or all) disabled (manual or auto). If testing the BC Member, it must be taken OOS manually. Path is down since need to set up a path to test circuit; IFRPH's BC state is off and path is down.
15	BC Member (one or all) manually placed Circuit Administration (CADN).
16	SVCs, BC and BC Members (all) OOS due to Carrier Group Alarm (CGA)/Facility Failure (FAF).
17	SVC manually/automatically placed in a disabled maintenance state.
18	SVC in the process of being provisioned or deleted. This is know as the Circuit Administration state (CADN)
19	SVC is in the process of being put in grown in or will be deleted.

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APP:PR-DCF

Software Release: 5E10 and later
Message Class: N/A
Application: 5
Type: Output

1. PR DCF CLASS/FUNCTION APPENDIX

The pr subsystem uses two macros to report errors: PRRTGERR and PRERRASSRT. They can result in the REPT:PR-DCF-RE and REPT:PR-DCF-EE output messages respectively. Each of these macros uses two constants as parameters that identify the error: 1) a pr subsystem local constant (mnemonic) that corresponds to the pr function, and 2) the sourcefile line number of the macro appearance.

The pr mnemonic is of the form: PRX...X where PRX...X should be a capitalization of the function name. For example, an error in the function 'PRaddqueue' should be called with the mnemonic, PRADDQUEUE. The pr mnemonic is defined in pr local header files of the form PRfn_xx.h. Its definition is a scalar value that is printed as a decimal number identified by the word "CLASS" on the output message. Following that value on the output message is the source file line number of the macro appearance. Values are assigned in ranges of 100, with the relative displacement between specific values within a range generally remaining constant across software releases, however a range may shift to prevent overlap. Therefore, the same mnemonic can have a different value in each software release.

The following tables assist advanced analysis of the output messages by providing a cross reference between mnemonic value and name, enclosing function name, and function definition source line number for all active software releases.

The format of the tables is as follows:

1 CLASS to Function:

The CLASS numbers are listed in numerical order with the columns containing a colon-separated triplet of:

function-name:source-line-number:mnemonic-name.

The source-line-number is the number of the source line in the code where the function definition starts. This information helps 'anchor' the search for the specific pr macro in the appropriate PR document.

Note that CLASS numbers with more than one function definition are denoted with a suffix of (a..z). This occurs when:

a a function appears in more than one product (SM versus AM)

b an incorrect mnemonic is being used in the function

c a mnemonic is a misspelled variant (only the first 8 characters are significant)

d an inappropriate symbol is being used as a mnemonic.

Although the latter three cases should not be, code reuse and movement may have occasionally missed mnemonic changes ('c' yields appropriate output regardless). Multiple mnemonic usage will require searching all functions found with the same CLASS number. The source-line-number might be of use in these cases as any line number on an output message having a value less than a function source-line-number excludes that multiple entry.

2 Function to CLASS

This table is organized by function name for convenience in identifying those CLASS numbers that will appear for the same error in all software releases. The format of the columns is:

mnemonic-value:mnemonic-name

Note that multiple entries here re-illustrate cases b,c, and d.

3 Mnemonic to CLASS

This table collects current mnemonic values for all software releases. Note that the few mnemonic duplications in this table are due to a rare occurrence of a mnemonic having more than one definition, but each is mutually exclusive in use. The proper values (associated with the correct enclosing functions) were used in the creation of the first two tables so accurate usage is represented. These occurrences should also migrate to a singular definition.

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APP:PSU-RESP

Software Release: 5E11 and later
Message Class: N/A
Application: 5
Type: Output

1. PSU RESPONSE APPENDIX

The following is a list of responses code strings that are used in some of the *5ESS*® switch output messages for packet switch unit (PSU) link maintenance activities.

AMEX HARDWARE FAILURE The asynchronous transfer mode media transfer (AMEX) device in the protocol handler (PH) for asynchronous transfer mode (ATM) (PHA) failed.

AUTOMATIC PROTECTION SWITCH TIMEOUT The far end automatic protection channel did not respond.

BAD VERB IN REQUEST A bad verb was received by maintenance request administration (MRA).

CANNOT SEND MESSAGE Message can not be sent by the operating system to the appropriate process.

CHANNEL RESTARTED DURING TEST The channel that was running loopback test was restarted.

CHANNELS UNAV MANUALLY PSU link channels were manually made unavailable.

COMPLETED ALREADY REMOTE LP A local lock out of protection switch was requested while a remote lock out of protection switch was in effect.

COULD NOT GET TIMER Could not get timer.

CRAFT REQUEST LIMIT EXCEEDED Craft request limit has been exceeded.

DATA BASE ERROR An internal database error was detected.

DENIED LOCAL FS 0 The request was denied because a higher or equal priority force switch on the local channel 0 (the protection channel) was in effect.

DENIED LOCAL FS 1 The request was denied because a higher or equal priority force switch on the local channel 1 (the working channel) was in effect.

DENIED LOCAL MS 0 The request was denied because an equal priority manual switch on the local channel 0 (the protection channel) was in effect.

DENIED LOCAL MS 1 The request was denied because an equal priority manual switch on the local channel 1 (the working channel) was in effect.

DENIED LOCAL LP The request was denied because a higher priority local lock out of protection switch request was in effect.

DENIED LOCAL SD 0 The request was denied because a higher priority signal degrade condition on the local channel 0 (the protection channel) was in effect.

DENIED LOCAL SD 1 The request was denied because a higher priority signal degrade condition on the local channel 1 (the working channel) was in effect.

DENIED LOCAL SF 1 The request was denied because a higher priority signal fail condition on the local channel 1 (the working channel) was in effect.

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DENIED LOCAL SF0 The request was denied because a higher priority signal fail condition on the local channel 0 (the protection channel) was in effect.

DENIED REMOTE FS 0 The request was denied because a higher priority force switch on the remote channel 0 (the protection channel) was in effect.

DENIED REMOTE FS 1 The request was denied because a higher priority force switch on the remote channel 1 (the working channel) was in effect.

DENIED REMOTE LP The request was denied because a higher priority lock out of protection switch request from remote was in effect.

DENIED REMOTE MS 0 The request was denied because a higher priority manual switch on the remote channel 0 (the protection channel) was in effect.

DENIED REMOTE MS 1 The request was denied because a higher priority manual switch on the remote channel 1 (the working channel) was in effect.

DENIED REMOTE SD 0 The request was denied because a higher priority signal degrade condition on the remote channel 0 (the protection channel) was in effect.

DENIED REMOTE SD 1 The request was denied because a higher priority signal degrade condition on the remote channel 1 (the working channel) was in effect.

DENIED REMOTE SF 1 The request was denied because a higher priority signal fail condition on the remote channel 1 (the working channel) was in effect.

DENIED REMOTE SF0 The request was denied because a higher priority signal fail condition on the remote channel 0 (the protection channel) was in effect.

EQUAL OR HIGHER PRIORITY REQUEST IN PROGRESS The requested unit was in an equal or higher priority state than the requested state.

FAILED Failed.

HARDWARE FAILURE DURING DRAIN The protocol handler (PH) for asynchronous transfer mode (ATM) (PHA) hardware failed while the internal asynchronous transfer mode media transfer (AMEX) device was draining its finished frame first-in-first-out (FIFO) queue.

INCONSISTENT DATA An inconsistency was detected in the data during the requested action on the unit.

LINK IS NOT EQUIPPED Link is not equipped in the office dependent database (ODD).

MATE COULD NOT GO ACTIVE The mate channel could not go active.

MATE FAILED TO GO ACTIVE The mate channel failed to go active.

MATE IS OOS The mate protocol handler (PH) for asynchronous transfer mode (ATM) (PHA) is out of service (OOS) or its channel is OOS.

MATE IS UNAVAILABLE The mate channel was not available.

NO ACTIVE CHANNEL FOUND No active channel was found.

NO CHANNEL EQUIPPED ON PHA No channel is equipped for PHA.

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NO LINK FOUND No link were found for the request.

NO PHA EQUIPPED ON ACCESSIBLE SMS No protocol handler (PH) for asynchronous transfer mode (ATM) (PHA) is equipped on any accessible switch module (SM).

NO RESPONSE No response.

NONE Request successfully completed with nothing found as requested

PARENT CIRCUIT OOS The parent circuit is out of service (OOS).

PASSED Passed.

PHA IS UNEQUIPPED No protocol handlers (PHs) for asynchronous transfer mode (ATM) (PHAs) were found.

PREP FOR SWITCH ACK TIMEOUT Timed out while waiting for the acknowledgement of preparation for switch request from the mate channel.

PREVIOUS REQUEST IN PROGRESS The requested unit is busy because a previous request was in progress.

PROCESS LIMIT EXCEEDED Terminal process limit has been exceeded.

PROCESS PURGED DURING TEST The process that was running loopback test was purged by single process purge (SPP) or selective init (SI).

PROT CHAN CIRCUIT UNEQUIP OR OOS The protection channel is either unequipped or its circuit is OOS.

PSU LINK IS SIMPLEX The PSU link has only one channel.

STOPPED ALREADY LOCAL FS 0 The request was not carried out because the local channel 0 (the protection channel) was already in the forced switch state.

STOPPED ALREADY LOCAL FS 1 The request was not carried out because the local channel 1 (the working channel) was already in the forced switch state.

STOPPED ALREADY LOCAL LP The request was not carried out because it was already in the local lock out of protection switch state.

STOPPED ALREADY LOCAL MS 0 The request was not carried out because the local channel 0 (the protection channel) was already in the manual switch state.

STOPPED ALREADY LOCAL MS 1 The request was not carried out because the local channel 1 (the working channel) was already in the manual switch state.

STOPPED NOTHING TO CLEAR The request was not carried out because nothing could be cleared.

SYSTEM ERROR The result of the request could not be obtained due to operating system error.

TERMINATOR HARDWARE FAILURE The terminator device in the protocol handler (PH) for asynchronous transfer mode (ATM) (PHA) failed.

TEST NOT STARTED Test not started due to resource problem.

TEST NOT STARTED BY MATE Test not started by mate due to mate side's resource problem.

TIMED OUT WAITING FOR MATE TO GO ACTIVE Timed out while waiting for the mate going active

acknowledgement.

TIMEOUT WAITING FOR PH RESPONSE A timeout occurred while waiting for a response message from the protocol handler (PH).

UNABLE TO AUTOMATIC PROTECTION SWITCH A conditional request to switch the packet switch unit (PSU) link (PSLNK) was not able to do automatic protection switch.

UNIT ALREADY IN REQUESTED STATE The requested unit was in the requested state.

APP:RCLK

Software Release: 5E10 and later
Message Class: N/A
Application: 5
Type: Output

1. ASYNCHRONOUS REPORT RCLK REGISTERS

This appendix defines the following format lines, which appear in many REPT:RCLK output messages.

1.1 Format

```
ASYNCHRONOUS REPORT X'
eeffgghh iijjkkll mmnnoopp qqrrsstt uuvv0000
```

1.2 Explanation of Variables

`e` = RCLK (remote clock) hardware error source register.

bit 0	= Digital/analog converter (DAC) error/voltage controlled crystal oscillator (VCXO) phase error.
bit 1	= Memory error/firmware fault.
bit 2	= SYNC 0 local time base energy detector error.
bit 3	= SYNC 0 remote time base energy detector error.
bit 4	= SYNC 1 local time base energy detector error.
bit 5	= SYNC 1 remote time base energy detector error.
bit 6	= Not used.
bit 7	= Not used.

`f` = RCLK oscillator (RCOSC) time base error source register.

bit 0	= Local time base energy detector.
bit 1	= Local time base frequency.
bit 2	= Local time base oven bit (inner)
bit 3	= Local time base oven bit (outer)
bit 4	= Remote time base energy detector.
bit 5	= Remote time base frequency.
bit 6	= Not used.
bit 7	= Not used.

`g` = RCLK cross-couple (RCXC) error source register.

bit 0	= 8 KHz return signal phase error.
bit 1	= Not used.
bit 2	= 8 KHz return signal energy detector.
bit 3	= Cross-couple energy detector.
bit 4	= Cross-couple phase error.
bit 5	= Not used.
bit 6	= Not used.
bit 7	= Not used.

`h` = RCLK reference (RCREF) summary error source register.

A set bit means that there is an error on the corresponding reference. For more information refer to

the following fields:

bit 0 = RCREF 1 refer to variable 'j'.
bit 1 = RCREF 2 refer to variable 'k'.
bit 2 = RCREF 3 refer to variable 'l'.
bit 3 = RCREF 4 refer to variable 'm'.
bit 4 = RCREF 5 refer to variable 'n'.
bit 5 = RCREF 6 refer to variable 'o'.
bit 6 = RCREF 7 refer to variable 'p'.
bit 7 = RCREF 8 refer to variable 'q'.

i = RCLK invalid message address register.

An internal error has occurred and the firmware has received an invalid request. The location is an internal communication control buffer (CCB) address.

j = Reference 1 error source register.

k = Reference 2 error source register.

l = Reference 3 error source register.

m = Reference 4 error source register.

n = Reference 5 error source register.

o = Reference 6 error source register.

p = Reference 7 error source register.

q = Reference 8 error source register.

Individual reference error source registers (ESRs). A set bit in the field means that an error of this type was reported on this reference.

bit 0 = Out-of-range of allowed frequency.
bit 1 = Phase step.
bit 2 = Excess jitter on the reference.
bit 3 = Local alarm (loss of reference).
bit 4 = Low error rate threshold.
bit 5 = High error rate threshold.
bit 6 = Low out of frame threshold.
bit 7 = High out of frame threshold.

r = RCLK hardware error source register pests.

A set bit means an error of the noted type is pested. These errors are detected from the remote clock controller (CNTL) or synchronization (SYNC) circuit pack.

bit 0 = Digital/analog converter (DAC) or voltage-controlled crystal oscillator (VCXO) register error.
bit 1 = Memory error/firmware fault (CNTL).
bit 2 = Local oscillator energy detector error (SYNC 0).
bit 3 = Remote oscillator energy detector error (SYNC 0).
bit 4 = Local oscillator energy detector error (SYNC 1).
bit 5 = Remote oscillator energy detector error (SYNC 1).

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bit 6 = Not used.
bit 7 = Not used.

s = RCLK oscillator (RCOSC) error source register pests.

A set bit means that an error of the noted type is pested. These errors are detected on the remote clock oscillator circuit pack.

bit 0 = Local oscillator energy detector.
bit 1 = Local oscillator frequency.
bit 2 = Local oscillator inner oven bit (loss of temperature stability on high stability oscillator).
bit 3 = Local oscillator outer oven bit (loss of temperature stability on high stability oscillator).
bit 4 = Remote oscillator energy detector.
bit 5 = Remote oscillator frequency.
bit 6 = Not used.
bit 7 = Not used.

t = RCLK error source register pests.

A set bit means that an error of the noted type is pested. These errors are detected on the remote clock controller circuit pack.

bit 0 = 8 KHz return signal frequency difference.
bit 1 = Not used.
bit 2 = 8 KHz return signal energy detector.
bit 3 = Cross-couple energy detector.
bit 4 = Cross-couple frequency difference.
bit 5 = Not used.
bit 6 = Not used.
bit 7 = Not used.

u = RCLK reference (RCREF) summary error source register pests.

A set bit means that all errors on the corresponding reference are pested. For more information refer to the following fields:

bit 0 = RCREF 1 refer to variable 'j'.
bit 1 = RCREF 2 refer to variable 'k'.
bit 2 = RCREF 3 refer to variable 'l'.
bit 3 = RCREF 4 refer to variable 'm'.
bit 4 = RCREF 5 refer to variable 'n'.
bit 5 = RCREF 6 refer to variable 'o'.
bit 6 = RCREF 7 refer to variable 'p'.
bit 7 = RCREF 8 refer to variable 'q'.

v = RCLK invalid message pest. Valid value(s):

00 = Unpested.
FF = Pested.

APP:RCVRY-ACTION

Software Release: 5E10 and later
Message Class: N/A
Application: 5
Type: Output

1. RECOVERY ACTION STIMULUS APPENDIX

This appendix provides additional possible stimulus of recovery action options.

`10 MS INHIBIT WATCHDOG TIMEOUT` = 10 ms inhibit watchdog timeout.

`10MS INTERRUPT - SMIM SOFTSWITCH` = 10 ms interrupt - SMIM softswitch.

`10MS INTERRUPT - SYSTEM INTEGRITY` = 10 ms interrupt - system integrity.

`155.52MHZ CLOCK NOT LOCKED TO SYNC` = 155.52 Mhz clock not locked to synchronization.

`ABORTED FRAME RECEIVED` = An aborted frame was received.

`ACTIVE SYNC` = The ACTIVE protocol handler data bus has a synchronization error.

`ADDRESS ERROR` = Address error.

`ADDRESS OUT-OF-RANGE` = Address was out-of-range.

`AMEX - ATM TX FIFO OVERFLOW` = ATM media exchange device transmit FIFO overflow.

`AMEX - DORMANT PACKET DETECTED` = ATM media exchange device dormant (old) packet detected .

`AMEX - MICRO. RX FIFO IS FULL` = ATM media exchange device microprocessor receive FIFO is full.

`AMEX - PACKET > 4K` = ATM media exchange device packet was received which was greater than 4K bytes.

`AMEX - PACKET NOT LONG ENOUGH` = ATM media exchange device packet received was not long enough .

`AMEX - PACKET WITH LENGTH ERROR SENT` = ATM media exchange device packet with length error sent .

`AMEX - PBMAC RFIW ERROR` = ATM media exchange device PBMAC receive frame information word (RFIW) error.

`AMEX - RCIW READ BEFORE PREVIOUS BYTES` = ATM media exchange device receive cell information word (RCIW) read before previous bytes.

`AMEX - RCIW READ ERROR` = ATM media exchange device receive cell information word read error.

`AMEX - TCIW OVERFLOW` = ATM media exchange device transmit cell information word (TCIW) overflow .

`AMEX - TOO MANY WORDS PUSHED` = ATM media exchange device more data words were written to the AMEX than indicated by the transmit cell information word.

`AMEX AAL5 LENGTH FIELD IS GREATER THAN ACTUAL PACKET` = ATM media exchange device ATM adaptation layer 5 (AAL5) length field of received AAL5 protocol data unit is greater than actual length of packet.

`AMEX AAL5 LENGTH FIELD IS LESS THAN ACTUAL PACKET` = ATM media exchange device AAL5 length field

of received AAL5 protocol data unit is less than actual length of packet .

`AMEX CELL SYNC ERROR` = ATM media exchange device cell sync (frequency) error.

`AMEX CRC-32 ERROR ON AAL5 PACKET` = ATM media exchange device cyclic redundancy check (CRC-32) error on AAL5 mode packet.

`AMEX CYCLE GRANT-DMA DONE` = ATM media exchange device cycle grant/direct memory access done.

`AMEX DEVICE BIST ERROR` = ATM media exchange device built in self test (BIST) error .

`AMEX DIAG REGISTER WRITE VIOLATION` = ATM media exchange device write was attempted to the diagnostic (DIAG) register when write protect bit in the device control register (DCR) was equal to 0.

`AMEX ENTER HARDWARE ASSIST MODE ERROR` = ATM media exchange device enter hardware assist mode error .

`AMEX ERROR` = ATM media exchange device fault was taken trying to access the AMEX.

`AMEX EXIT HARDWARE ASSIST MODE ERROR` = ATM media exchange device exit hardware assist mode error .

`AMEX EXTERNAL SRAM PARITY ERROR` = ATM media exchange device external SRAM parity error detected for location containing an intermediate CRC calculation.

`AMEX EXTERNAL SRAM PARITY ERROR FOR CELL PAYLOAD` = ATM media exchange device external SRAM parity error detected for location containing cell payload.

`AMEX EXTERNAL SRAM PARITY ERROR FOR POINTER` = ATM media exchange device external SRAM parity error detected for location containing a pointer.

`AMEX INTERNAL FIFO BIST ERROR` = ATM media exchange device internal FIFO built in self test error has been detected.

`AMEX LINKED LIST ERROR` = ATM media exchange device linked list error detected.

`AMEX PERIPHERAL BUS PARITY ERROR` = ATM media exchange device peripheral bus parity error detected on a write to the AMEX device.

`AMEX PERIPHERAL BUS TIMEOUT` = ATM media exchange device peripheral bus data acknowledge timeout error.

`AMEX READ ERROR` = ATM media exchange device read error.

`AMEX RX ATM DATA STREAM PARITY ERROR` = ATM media exchange device parity error detected on received ATM data stream.

`AMEX RX EXT CELL SRAM OVERFLOW--CELLS DROPPED` = ATM media exchange device received external cell SRAM overrun due to linked list corruption.

`AMEX RX EXT CELL SRAM OVERFLOW--FATAL` = ATM media exchange device received external cell SRAM overrun due to exhaustion.

`AMEX SRAM BIST ERROR` = ATM media exchange device SRAM built in self test error has been detected .

`AMEX UU-CPI FIELD DOES NOT MATCH AAL5CTL REGISTER` = ATM media exchange device AAL5 packet has been received which has UU/CPI field which does not match the value in the ATM adaptation layer

5 control (AAL5CTL) register.

AMEX WRITE ERROR = ATM media exchange device write error has occurred.

ARRAY BOUNDS EXCEPTION = During BOUND instruction, the array index is outside the array bounds.

ASSERT = Defensive check failure.

AUDITS = Single process purge requested by system audits.

BABBLING CHANNEL = Babbling digital subscriber line (DSL) messages sent to integrated services port administrator (ISPA).

BAD BYTE COUNT ON REC. FRAME = Bad byte count on received frame.

BAD PARITY ON MICRO. ACCESS OF TRAC = Bad parity on microprocessor access of TERMINATOR register access controller (TRAC).

BAD RECEIVE FRAME - CRC = Cyclic redundancy check detected an error.

BDS BEING RETURNED > MAX FOR A FRAME = Buffer descriptors being returned > maximum allowed for a frame.

BREAKPOINT INTERRUPT = Generated if the overflow flag is set.

BRICPIT BIST = Bit register interrupt controller programmable interval times (BRICPIT) built in self test error.

BUS ERROR = Bus error M68030, access fault M68040.

BUS ERROR DURING TRANSLATION TABLE SEARCH = Bus error during translation table search.

BUS PARITY CHECKER System bus parity checker error.

BUS PARITY CHECKER BYTE_X ERROR = Bus parity checker byte_X error.

BUS WATCHDOG TIMER EVENT = Bus watchdog timer expiration occurred.

CAS LOOP ITERATIONS EXCEEDED MAXIMUM = Channel associated signaling (CAS) loop iterations exceeded maximum.

CHANNEL OFF = Channel off error occurred.

CHANNEL STATUS CHANGE = Channel status change idle and active.

CHANNEL STATUS CHANGE ACTIVE = Channel status change - active.

CHANNEL STATUS CHANGE IDLE = Channel status change - idle.

CHK, CHK2 INSTRUCTION = CHK, CHK2 instruction.

COLLISIONS EXCEEDS RETRIES = Collisions exceeds retries.

COPROCESSOR PROTOCOL VIOLATION = Co-processor protocol violation (M68030, not used by the M68040).

CORRUPT PH CHANNEL = Corrupted channel on a PH.

CPTRAPCC, TRAPCC, TRAPV INSTRUCTIONS = Used by cpTRAPcc, TRAPcc, TRAPV instructions.

`CYCLIC REDUNDANCY ERROR` = Cyclic redundancy error occurred.

`DATA PRESERVING SWITCH` = Protocol handler data preserving switch.

`DEFERRED ON TRANSMISSION` = Traffic on the link was deferred on transmission.

`DEFINED FOR 68851 NOT USED BY 68030` = Defined for 68851, not used by 68030 or M68040.

`DIVIDE ERROR EXCEPTION` = Calculated quotient is larger than specified destination.

`DMA 0 INTERRUPT` = Direct memory access (DMA) controller 0 received an interrupt.

`DMA 1 INTERRUPT` = DMA controller 1 received an interrupt.

`DMA OVERRUN` = DMA processor overrun.

`DMA PROCESSOR SANITY ERROR` = DMA processor sanity error.

`DMA PROCESSOR UNIDENTIFIED INTERRUPT` = DMA processor received an unidentified interrupt.

`DMA UNDER RUN` = DMA processor under run.

`DMAP BUS PARITY` = DMA processor bus parity error.

`DMAP CRC` = DMA processor cyclic redundancy error occurred.

`DMDSPP` = Excessive single process purges as demanded by software.

`DRAM CORR MEMORY ERROR` = Dynamic random access memory (DRAM) correctable memory error.

`DRAM NON-CORR MEMORY ERROR` = DRAM non-correctable memory error.

`DRAM NON-CORR MEMORY ACCESS ERROR` = DRAM non-correctable memory access error.

`DSP FAILED TO PUMP/INITIALIZE` = Speech handler digital signal processor failed to either pump or initialize <5E11+>.

`ERROR IN ACCESSING ATM HARDWARE DEVICE` = Error in accessing ATM hardware device.

`ESC OPCODE EXCEPTION` = Escape opcode exception.

`EVENT 0 CHANNEL ATTENTION` = Event 0 channel attention error.

`EVENT 1 CHANNEL ATTENTION` = Event 1 channel attention error.

`EVENT 2 CHANNEL ATTENTION` = Event 2 channel attention error.

`EVENT 3 CHANNEL ATTENTION` = Event 3 channel attention error.

`EXDAUD` = Excessive directed (also known as demand) audits.

`EXPSI` = Excessive PS initializations.

`EXRPI` = Excessive return to point of interrupt.

`EXSEL` = Excessive selective initializations.

`EXSPP` = Excessive single process purges.

`EXSTIM` = Escalation due to excessive error stimuli.

`EXTERNAL BOARD BUS ERROR` = External board bus error occurred.

`FORMAT ERROR` = Format error has occurred.

`FPCP BRANCH OR SET ON UNODERED CONDITION` = Floating point co-processor (FPCP) branch or set on unordered condition.

`FPCP DIVIDE BY ZERO` = FPCP divide by zero calculation.

`FPCP INEXACT RESULT` = FPCP inexact result error.

`FPCP OVERFLOW ERROR` = FPCP overflow error.

`FPCP SIGNALING NAN` = FPCP signaling NAN.

`FPCP UNDER FLOW` = FPCP under flow.

`FPCP operand error` = FPCP operand error.

`GPITS NMI` = GPITS non maskable interrupt occurred.

`GPITS NON MASKABLE INTERRUPT` = GPITS non maskable interrupt occurred.

`HARDWARE WRITE PROTECT VIOLATION` = Hardware write protect violation occurred.

`HASH SUM ERROR` = Hash sum error.

`ILLEGAL ACCESS TO SUPER. PROTECT REGION` = Illegal access to supervisor protected region.

`ILLEGAL INSTRUCTION` = Illegal instruction was encountered.

`ILLEGAL SPYDER COMMAND` = Illegal synchronous/asynchronous protocol data formatter (SPYDER) message.

`INCORRECT PH IMAGE` = Wrong PH image is present in the PH.

`INT0 DETECT OVERFLOW` = Interrupt 0 detected an overflow exception.

`INTERRUPT 0` = External maskable interrupt 0.

`INTERRUPT 1` = External maskable interrupt 1.

`INTERRUPT 2` = External maskable interrupt 2.

`INTERRUPT 3` = External maskable interrupt 3.

`INVALID ACCESS OF TERMINATOR REGISTER` = Invalid access of terminator register.

`INVALID BD OFFSET WAS ENCOUNTERED` = Invalid buffer descriptor (BD) offset was encountered.

`IOMI ISOLATED` = Input/output microprocessor interface (IOMI) isolated.

`IOP BUS ERROR` = Input/Output processor (IOP) bus error.

`IOP BUS PARITY ERROR` = IOP bus parity error.

`IOP BUS WATCHDOG TIMER ERROR` = IOP bus watchdog timer error.

`IOP DDRAM CORRECTABLE BIT ERROR` = IOP dual dynamic random access memory (DDRAM) correctable memory bit error.

`IOP DDRAM NON CORRECTABLE ACCESS ERROR` = IOP DDRAM non correctable access error.

`IOP DDRAM NON CORRECTABLE BIT ERROR` = IOP DDRAM non correctable bit error.

`IOP DRAM CORR MEMORY ERROR` = IOP DRAM correctable memory error.

`IOP DRAM NON-CORR MEMORY ACCESS ERROR` = IOP DRAM non correctable memory access error.

`IOP DRAM NON-CORR MEMORY ERROR` = IOP DRAM non correctable memory error.

`IOP HARDWARE WRITE PROTECT ERROR` = IOP hardware write protect error.

`IOP ILLEGAL INTERRUPT ERROR` = IOP illegal interrupt error.

`LACK OF REC FRAME OF BUFFER DESCRIPTORS` = Lack of received frame.

`LEVEL 1 INTERRUPT AUTOVECTOR` = Level 1 interrupt autovector.

`LEVEL 2 INTERRUPT AUTOVECTOR` = Level 2 interrupt autovector.

`LEVEL 3 INTERRUPT AUTOVECTOR` = Level 3 interrupt autovector.

`LEVEL 4 INTERRUPT AUTOVECTOR` = Level 4 interrupt autovector.

`LEVEL 5 INTERRUPT AUTOVECTOR` = Level 5 interrupt autovector.

`LEVEL 6 INTERRUPT AUTOVECTOR` = Level 6 interrupt autovector.

`LEVEL 7 INTERRUPT AUTOVECTOR` = Level 7 interrupt autovector.

`LINE 1010 EMULATOR` = Line 1010 emulator.

`LINE 1111 EMULATOR` = Line 1111 emulator.

`LONG FRAME RECEIVED -OVER N1 BYTE` = Long frame received - over N1 bytes

`LOSS OF CLEAR TO SEND` = Loss of clear to send (between beginning of destination address and end of frame check sequence).

`LOST LOCAL INTERRUPT` = Lost local interrupt.

`MESSAGE TO PERFR` = Message to peripheral fault recovery.

`MISALIGNED FRAME` = Misaligned frame.

`MMU CONFIGURATION ERROR` = Memory management unit (MMU) configuration error M68030, not used M68040.

`NEG-PROG` = Negative progress detected during initialization.

`NESTEDASRT` = Nested asserts.

`NO CARRIER SENSE` = No carrier sense.

`NO EOF FLAG` = No end-of-frame flag.

`NO FREE RECEIVE BUFFER DESCRIPTORS` = No free receive buffer descriptors.

`NO FREE RECEIVE BUFFERS` = No free receive buffers.

`NO FREE RECEIVE FRAME DESCRIPTORS` = No free receive frame descriptors.

`NON-CORRECTABLE MEMORY ERROR` = Non correctable memory error.

`NON MASKABLE INTERRUPT` = Non maskable interrupt occurred.

`NON-MASKABLE INTERRUPT` = Non maskable interrupt occurred.

`OPTICAL RCVR LOSS OF LIGHT` = Optical receiver loss of light.

`PARITY ERROR WHILE READING DAM` = Parity error while reading dual access memory (DAM).

`PBMAC 0 - LOSS OF CLOCK` = PBMAC 0 loss of clock.

`PBMAC 1 - LOSS OF CLOCK` = PBMAC 1 loss of clock.

`PBMAC0 - ALIGNMENT ERROR` = Packet bus media access controller (PBMAC) 0 alignment error.

`PBMAC0 - BIBBLE BUS PARITY ERR` = PBMAC 0 bibble bus parity error.

`PBMAC0 - BUILT IN SELF TEST ERROR IN ESR` = PBMAC 0 built in self test error in error source register.

`PBMAC0 - CONTROL SEGMENT WAS INCORRECT` = PBMAC 0 control segment was incorrect.

`PBMAC0 - CRC ERROR` = PBMAC 0 cyclic redundancy check error.

`PBMAC0 - EOF BIT NOT SET ON LAST XMIT BD` = PBMAC 0 end of file bit not set on last transmit buffer descriptor.

`PBMAC0 - FRAME ABORTED` = PBMAC 0 frame aborted.

`PBMAC0 - LOSS CRS BEFORE END OF RX` = PBMAC 0 loss circuit reset signaling (CRS) before end of receive.

`PBMAC0 - LOSS CTS BEFORE END OF TX` = PBMAC 0 loss clear to send (CTS) before end of transmit.

`PBMAC0 - RAN OUT OF BDS DURING RECEPTION` = PBMAC 0 ran out of buffer descriptors during reception.

`PBMAC0 - RECEIVE FRAME IS TOO LONG` = PBMAC 0 receive frame is too long.

`PBMAC0 - RECEIVE FRAME IS TOO SHORT` = PBMAC 0 receive frame is too short.

`PBMAC0 - RECEIVE OVERRUN` = PBMAC 0 receive overrun.

`PBMAC0 - RECEIVE UNDERRUN` = PBMAC 0 receive underrun.

`PBMAC0 - RECEIVE VALID BIT IN FIW NOT SET` = PBMAC 0 receive valid bit in frame information word (FIW) not set.

`PBMAC0 - RFD LIST CORRUPTED` = PBMAC 0 receive frame descriptor (RFD) list corrupted.

`PBMAC0 - RFD LIST EXHAUSTED` = PBMAC 0 RFD list exhausted.

`PBMAC0 - STATUS PARITY ERROR IN FIFO` = PBMAC 0 status parity error in first in first out (FIFO).

`PBMAC0 - SYSTEM DATA BUS PARITY ERROR` = PBMAC 0 system data bus parity error.

`PBMAC0 - TFD LIST CORRUPTED` = PBMAC 0 transmit frame descriptor (TFD) list corrupted.

`PBMAC0 - TFD LIST EMPTY` = PBMAC 0 TFD list empty.

`PBMAC0 - TRANSMITTER OVERRUN` = PBMAC 0 transmitter overrun.

`PBMAC0 - TRANSMITTER UNDERRUN` = PBMAC 0 transmitter underrun.

`PBMAC0 - UNKNOWN INTERRUPT` = PBMAC 0 unknown interrupt.

`PBMAC0 - WRITE PROTECT VIOLATION` = Software tried to write a PBMAC register without turning off PBMAC write protect.

`PBMAC0 - XMITTER NOT UNLOADING XFIFO` = PBMAC 0 transmitter not unloading transmit FIFO.

`PBMAC1 - ALIGNMENT ERROR` = PBMAC 1 alignment error.

`PBMAC1 - BIBBLE BUS PARITY ERR` = PBMAC 1 bibble bus parity error.

`PBMAC1 - BUILT IN SELF TEST ERROR IN ESR` =PBMAC 1 built in self test error in error source register.

`PBMAC1 - CONTROL SEGMENT WAS INCORRECT` = PBMAC 1 control segment was incorrect.

`PBMAC1 - CRC ERROR` = PBMAC 1 cyclic redundancy check error.

`PBMAC1 - EOF BIT NOT SET ON LAST XMIT BD` = PBMAC 1 end of file bit not set on last transmit buffer descriptor.

`PBMAC1 - FRAME ABORTED` = PBMAC 1 frame aborted.

`PBMAC1 - LOSS CRS BEFORE END OF RX` = PBMAC 1 loss CRS before end of receive.

`PBMAC1 - LOSS CTS BEFORE END OF TX` = PBMAC 1 loss CTS before end of transmit.

`PBMAC1 - RAN OUT OF BDS DURING RECEPTION` = PBMAC 1 ran out of buffer descriptors during reception.

`PBMAC1 - RECEIVE FRAME IS TOO LONG` = PBMAC 1 receive frame is too long.

`PBMAC1 - RECEIVE FRAME IS TOO SHORT` = PBMAC 1 receive frame is too short.

`PBMAC1 - RECEIVE OVERRUN` = PBMAC 1 receive overrun.

`PBMAC1 - RECEIVE UNDERRUN` = PBMAC 1 receive underrun.

`PBMAC1 - RECEIVE VALID BIT IN FIW NOT SET` = PBMAC 1 receive valid bit in FIW not set.

`PBMAC1 - RFD LIST CORRUPTED` = PBMAC 1 RFD list corrupted.

`PBMAC1 - RFD LIST EXHAUSTED` = PBMAC 1 RFD list exhausted.

`PBMAC1 - STATUS PARITY ERROR IN FIFO` = PBMAC 1 status parity error in first in first out (FIFO).

`PBMAC1 - SYSTEM DATA BUS PARITY ERROR` = PBMAC 1 system data bus parity error.

`PBMAC1 - TFD LIST CORRUPTED` = PBMAC 1 TFD list corrupted.

`PBMAC1 - TFD LIST EMPTY` = PBMAC 1 TFD list empty.

`PBMAC1 - TRANSMITTER OVERRUN` = PBMAC 1 transmitter overrun.

`PBMAC1 - TRANSMITTER UNDERRUN` = PBMAC 1 receive underrun.

`PBMAC1 - UNKNOWN INTERRUPT` = PBMAC 1 unknown interrupt.

`PBMAC1 - WRITE PROTECT VIOLATION` = Software tried to write a PBMAC register without turning off PBMAC write protect.

`PBMAC1 - XMITTER NOT UNLOADING XFIFO` = PBMAC 2 transmitter not unloading transmit FIFO.

`PBMAC2 - ALIGNMENT ERROR` = PBMAC 2 alignment error.

`PBMAC2 - BIBBLE BUS PARITY ERR` = PBMAC 2 bibble bus parity error.

`PBMAC2 - BUILT IN SELF TEST ERROR IN ESR` = PBMAC 2 built in self test error in error source register.

`PBMAC2 - CONTROL SEGMENT WAS INCORRECT` = PBMAC 2 control segment was incorrect.

`PBMAC2 - CRC ERROR` = PBMAC 2 cyclic redundancy check error.

`PBMAC2 - EOF BIT NOT SET ON LAST XMIT BD` = PBMAC 2 end of file bit not set on last transmit buffer descriptor.

`PBMAC2 - FRAME ABORTED` = PBMAC 2 frame aborted.

`PBMAC2 - LOSS CRS BEFORE END OF RX` = PBMAC 2 loss CRS before end of receive.

`PBMAC2 - LOSS CTS BEFORE END OF TX` = PBMAC 2 loss CTS before end of transmit.

`PBMAC2 - RAN OUT OF BDS DURING RECEPTION` = PBMAC 2 ran out of buffer descriptors during reception.

`PBMAC2 - RECEIVE FRAME IS TOO LONG` = PBMAC 2 receive frame is too long.

`PBMAC2 - RECEIVE FRAME IS TOO SHORT` = PBMAC 2 receive frame is too short.

`PBMAC2 - RECEIVE OVERRUN` = PBMAC 2 receive overrun.

`PBMAC2 - RECEIVE UNDERRUN` = PBMAC 2 receive underrun.

`PBMAC2 - RECEIVE VALID BIT IN FIW NOT SET` = PBMAC 2 receive valid bit in FIW not set .

`PBMAC2 - RFD LIST CORRUPTED` = PBMAC 2 RFD list corrupted.

`PBMAC2 - RFD LIST EXHAUSTED` = PBMAC 2 RFD list exhausted.

`PBMAC2 - STATUS PARITY ERROR IN FIFO` = PBMAC 2 status parity error in FIFO.

`PBMAC2 - SYSTEM DATA BUS PARITY ERROR` = PBMAC 2 system data bus parity error.

`PBMAC2 - TFD LIST CORRUPTED` = PBMAC 2 TFD list corrupted.

`PBMAC2 - TFD LIST EMPTY` = PBMAC 2 TFD list empty.

`PBMAC2 - TRANSMITTER OVERRUN` = PBMAC 2 transmitter overrun.

`PBMAC2 - TRANSMITTER UNDERRUN` = PBMAC 2 receive underrun.

`PBMAC2 - UNKNOWN INTERRUPT` = PBMAC 2 unknown interrupt.

`PBMAC2 - WRITE PROTECT VIOLATION` = Software tried to write a PBMAC register without turning off PBMAC write protect.

`PBMAC2 - XMITTER NOT UNLOADING XFIFO` = PBMAC 2 transmitter not unloading transmit FIFO.

`PBMAC3 - ALIGNMENT ERROR` = PBMAC 3 alignment error.

`PBMAC3 - BIBBLE BUS PARITY ERR` = PBMAC 3 bibble bus parity error.

`PBMAC3 - BUILT IN SELF TEST ERROR IN ESR` = PBMAC 3 built in self test error in error source register.

`PBMAC3 - CONTROL SEGMENT WAS INCORRECT` = PBMAC 3 control segment was incorrect.

`PBMAC3 - CRC ERROR` = PBMAC 3 cyclic redundancy check error.

`PBMAC3 - EOF BIT NOT SET ON LAST XMIT BD` = PBMAC 3 end of file bit not set on last transmit buffer descriptor.

`PBMAC3 - FRAME ABORTED` = PBMAC 3 frame aborted.

`PBMAC3 - LOSS CRS BEFORE END OF RX` = PBMAC 3 loss CRS before end of receive.

`PBMAC3 - LOSS CTS BEFORE END OF TX` = PBMAC 3 loss CTS before end of transmit.

`PBMAC3 - RAN OUT OF BDS DURING RECEPTION` = PBMAC 3 ran out of buffer descriptors during reception.

`PBMAC3 - RECEIVE FRAME IS TOO LONG` = PBMAC 3 receive frame is too long.

`PBMAC3 - RECEIVE FRAME IS TOO SHORT` = PBMAC 3 receive frame is too short.

`PBMAC3 - RECEIVE OVERRUN` = PBMAC 3 receive overrun.

`PBMAC3 - RECEIVE UNDERRUN` = PBMAC 3 receive underrun.

`PBMAC3 - RECEIVE VALID BIT IN FIW NOT SET` = PBMAC 3 receive valid bit in FIW not set .

`PBMAC3 - RFD LIST CORRUPTED` = PBMAC 3 RFD list corrupted.

`PBMAC3 - RFD LIST EXHAUSTED` = PBMAC 3 RFD list exhausted.

`PBMAC3 - STATUS PARITY ERROR IN FIFO` = PBMAC 3 status parity error in FIFO.

`PBMAC3 - SYSTEM DATA BUS PARITY ERROR` = PBMAC 3 system data bus parity error.

`PBMAC3 - TFD LIST CORRUPTED` = PBMAC 3 TFD list corrupted.

`PBMAC3 - TFD LIST EMPTY` = PBMAC 3 TFD list empty.

`PBMAC3 - TRANSMITTER OVERRUN` = PBMAC 3 transmitter overrun.

`PBMAC3 - TRANSMITTER UNDERRUN` = PBMAC 3 receive underrun.

`PBMAC3 - UNKNOWN INTERRUPT` = PBMAC 3 unknown interrupt.

`PBMAC3 - WRITE PROTECT VIOLATION` = Software tried to write a PBMAC register without turning off PBMAC write protect.

`PBMAC3 - XMITTER NOT UNLOADING XFIFO` = PBMAC 3 transmitter not unloading transmit FIFO.

`PHV - BRICPIT BIST` = Speech handler bit register interrupt controller programmable interval times built in self test error.

`PHV - BUS PARITY CHECKER` = Speech handler bus parity checker error.

`PHV - DSP TRANSMIT/RECEIVE INTERRUPT` = Speech handler downloadable DSP transmit or receive interrupt error <5E11+>.

`PHV - GPITS NMI` = Speech handler GPITS non maskable interrupt error.

`PHV - PBMAC0 INTERRUPT` = Speech handler PBMAC 0 interrupt.

`PHV - PBMAC0 LOSS OF CLOCK` = Speech handler PBMAC 0 loss of clock.

`PHV - PBMAC1 INTERRUPT` = Speech handler PBMAC 1 interrupt.

`PHV - PBMAC1 LOSS OF CLOCK` = Speech handler PBMAC 1 loss of clock.

`PHV - TIMER 0 INTERRUPT` = Speech handler timer 0 interrupt.

`PHV - TIMER 1 INTERRUPT` = Speech handler timer 1 interrupt.

`PHV - TIMER 2 INTERRUPT` = Speech handler timer 2 interrupt.

`PHV - TIMER 3 INTERRUPT` = Speech handler timer 3 interrupt.

`PHV - TIMER 4 INTERRUPT` = Speech handler timer 4 interrupt.

`PHV - TWO RESET WITHIN A WINDOW` = Speech handler took two resets within a time window.

`PHV - VISA EARLY REFERENCE INTERRUPT` = Speech handler vocoder interrupt and serial access chip (VISA) early reference interrupt.

`PHV - VISA ERROR SOURCE` = Speech handler VISA error source.

`PHV - VISA NORMAL REFERENCE INTERRUPT` = Speech handler VISA normal reference interrupt.

`PHV - VISA RCV OFFSET SUMMARY INTERRUPT` = Speech handler VISA receive offset summary interrupt.

`PHV - VISA TX OFFSET SUMMARY INTERRUPT` = Speech handler VISA transmit offset summary interrupt.

`PHV - VOCODER CRITICAL ERROR` = Speech handler vocoder critical operational error.

`PHV - VOCODER NON-CRITICAL ERROR` = Speech handler vocoder non-critical operational error.

`PHV - WATCH-DOG TIMER INTERRUPT` = Speech handler watch-dog timer interrupt.

`PI2 BRICPIT BIST` = Packet interface 2 (PI2) bit register interrupt controller programmable interval times built in self test error.

`PI2 CHANNEL ATTENTION 0` = PI2 Channel attention 0 error.

`PI2 CHANNEL ATTENTION 1` = PI2 Channel attention 1 error.

`PI2 CHANNEL ATTENTION 2` = PI2 Channel attention 2 error.

`PI2 CHANNEL ATTENTION 3` = PI2 Channel attention 3 error.

`PI2 CORRECTABLE ERROR` = PI2 DRAM correctable memory error.

`PI2 GPITS NMI` = PI2 GPITS non-maskable interrupt error.

`PI2 NON-CORRECTABLE MEMORY ERROR` = PI2 non-correctable memory error.

`PI2 NON-CORRECTABLE MEMORY REFRESH ERR` = PI2 non-correctable memory refresh error.

`PI2 PBMAC0 HIGH-SPEED PB ENABLE` = PI2 PBMAC0 high-speed packet bus enable.

`PI2 PBMAC0 INTERRUPT` = PI2 PBMAC0 interrupt.

`PI2 PBMAC0 LOSS OF CLOCK` = PI2 PBMAC0 loss of clock.

`PI2 PBMAC1 HIGH-SPEED PB ENABLE` = PI2 PBMAC1 high-speed packet bus enable.

`PI2 PBMAC1 INTERRUPT` = PI2 PBMAC1 interrupt.

`PI2 PBMAC1 LOSS OF CLOCK` = PI2 PBMAC1 loss of clock.

`PI2 PBMAC2 HIGH-SPEED PB ENABLE` = PI2 PBMAC2 high-speed packet bus enable.

`PI2 PBMAC2 INTERRUPT` = PI2 PBMAC2 interrupt.

`PI2 PBMAC2 LOSS OF CLOCK` = PI2 PBMAC2 loss of clock.

`PI2 PBMAC3 HIGH-SPEED PB ENABLE` = PI2 PBMAC3 high-speed packet bus enable.

`PI2 PBMAC3 INTERRUPT` = PI2 PBMAC3 interrupt.

`PI2 PBMAC3 LOSS OF CLOCK` = PI2 PBMAC3 loss of clock.

`PI2 READ PARITY ERROR` = PI2 read parity error.

`PI2 TIMER 0 INTERRUPT PB ENABLE` = PI2 timer 0 interrupt packet bus enable.

`PI2 TIMER 1 INTERRUPT` = PI2 timer 1 interrupt.

`PI2 TIMER 2 INTERRUPT` = PI2 timer 2 interrupt.

`PI2 TIMER 3 INTERRUPT` = PI2 timer 3 interrupt.

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`PI2 TIMER 4 INTERRUPT` = PI2 timer 4 interrupt.

`PI2 TWO RESET WITHIN A WINDOW` = PI2 took two resets within a time window.

`PI2 WATCH-DOG TIMER INTERRUPT` = PI2 watch-dog timer interrupt.

`POWER-UP` = Power up port processor initialization.

`PRIVILEGED VIOLATION` = Privileged violation.

`PROGRAMABLE INTERVAL TIMER 0` = Programmable interval timer 0.

`PROGRAMABLE INTERVAL TIMER 1` = Programmable interval timer 1.

`PROGRAMABLE INTERVAL TIMER 2` = Programmable interval timer 2.

`PROGRAMABLE INTERVAL TIMER 3` = Programmable interval timer 3.

`PROGRAMABLE INTERVAL TIMER 4` = Programmable interval timer 4.

`PS HDW FAILURE` = Packet switch hardware failure.

`PSFAIL` = Packet switch (PS) initialization failure.

`RECEIVE FRAME TOO SHORT` = Receive frame too short.

`RECEIVER OVERRUN` = Receiver overrun.

`RESERVED INTERRUPT` = Receiver interrupt.

`RESET INITIAL INTERRUPT STACK POINTER` = Reset initial interrupt stack pointer.

`RESET INITIAL PROGRAM COUNTER` = Reset initial program counter.

`RESOURCE ALLOCATION SHORTAGE` = Unable to allocate a resource such as a timer control block because of shortage.

`RFD LIST CORRUPTION` = Receive frame descriptor list is corrupted.

`SABM RECEIVED` = Set asynchronous balance mode (SABM) received.

`SERIAL DATA READ FROM TERMINATOR HAD BAD PARITY` = The serial read data from the TERMINATOR had bad parity.

`SHORT FRAME RECEIVED` = Short frame received.

`SINGLE STEP INTERRUPT` = Single step interrupt.

`SM-REQ` = SMP requested initialization.

`SPI - MICROPROCESSOR BUS PARITY ERROR` = SONET PHDB interface (SPI) microprocessor bus parity error .

`SPI - PHDB TO SONET POH FIFO ERROR` = SPI protocol handler data block (PHDB) to SONET path overhead (POH) FIFO error.

`SPI - PHDB TO SONET SOH FIFO ERROR` = SPI protocol handler data block to SONET section overhead (SOH) FIFO error.

`SPI - POH CHANNEL PARITY ERROR` = SPI path overhead channel parity error.

`SPI - POH RX CLOCK ERROR` = SPI path overhead receive clock error.

`SPI - POH RX SYNC. ERROR` = SPI path overhead receive sync (frequency) error.

`SPI - POH TX CLOCK ERROR` = SPI path overhead transmit clock error.

`SPI - POH TX SYNC. ERROR` = SPI path overhead transmit sync (frequency) error.

`SPI - SOH CHANNEL PARITY ERROR` = SPI section overhead channel parity error.

`SPI - SOH RX CLOCK ERROR` = SPI section overhead receive clock error.

`SPI - SOH RX SYNC. ERROR` = SPI section overhead receive sync (frequency) error.

`SPI - SOH TX CLOCK ERROR` = SPI section overhead transmit clock error.

`SPI - SOH TX SYNC. ERROR` = SPI section overhead transmit sync (frequency) error.

`SPI - SONET TO PHDB POH FIFO ERROR` = SPI SONET to protocol handler data block path overhead FIFO error.

`SPI - SONET TO PHDB SOH FIFO ERROR` = SPI SONET to protocol handler data block section overhead FIFO error.

`SPI - SYNC ERROR ON ACTIVE PHDB` = SPI sync error on active protocol handler data block.

`SPI - SYNC ERROR ON STANDBY PHDB` = SPI sync error on standby protocol handler data block.

`SPI ERROR` = SPI SONET protocol handler data block interface error.

`SPORT FIFO OVER RUN` = Synchronous protocol receiver/transmitter (SPORT) FIFO overrun.

`SPORT FIFO STATUS PARITY` = SPORT FIFO status parity.

`SPORT FIFO UNDER RUN` = SPORT FIFO underrun.

`SPORT TSA RAM PARITY` = SPORT time slot assign (TSA) RAM parity.

`SPORT XCVR BUS CONTENTION` = SPORT transmit/receiver bus contention.

`SPORT XCVR PTR RAM PARITY` = SPORT transmit/receiver pointer RAM parity.

`SPORT XCVR RAM PARITY` = SPORT transmit/receiver RAM parity.

`SPURIOUS INTERRUPT` = Spurious interrupt.

`SQE TEST` = Signal quality error test.

`STACK PROTECT ERROR` = Stack protect error.

`STACK PROTECTION ERROR` = Stack protection error.

`STANDY SYNC` = The STANDBY protocol handler data bus has a synchronization error.

`STATUS CHANGE` = Status change.

`TERMINATOR ACCESS COMPLETE` = TERMINATOR access complete error.

`TERMINATOR CORRECTABLE HEADER ERROR` = TERMINATOR correctable header error.

`TERMINATOR EXTERNAL RAM PARITY ERROR` = TERMINATOR external RAM parity error.

`TERMINATOR INVALID ADDRESS ERROR` = TERMINATOR invalid address error.

`TERMINATOR READ ERROR` = TERMINATOR read error.

`TERMINATOR RECEIVED CELL DROPPED DUE TO BAD HEC` = TERMINATOR received cell dropped due to bad header contents.

`TERMINATOR RX INPUT SIDE LOSS OF CLOCK` = TERMINATOR receive input side loss of clock.

`TERMINATOR TX ATM CELL PARITY ERROR` = TERMINATOR transmit ATM cell parity error.

`TERMINATOR TX INPUT SIDE LOSS OF CLOCK-FRAME SYNC` = TERMINATOR transmit input side loss of clock-frame synchronization.

`TERMINATOR TX PATH OVERHEAD ACCESS PARITY ERROR` = TERMINATOR transmit path overhead access parity error.

`TERMINATOR TX SECTION OVERHEAD ACCESS PARITY ERROR` = TERMINATOR transmit section overhead access parity error.

`TERMINATOR WRITE COMMAND ERROR` = TERMINATOR write message error.

`TIMEOUT` = Recovery action timeout.

`TIMER 0` = Timer 0.

`TIMER 1` = Timer 1.

`TIMER 2` = Timer 2.

`TIMER 3 INTERRUPT` = Programmable interval timer 3 interrupt (10 ms watchdog).

`TRAC ERROR` = TRAC error.

`TRACE` = Trace stimulus.

`TRANSMIT FRAME COMPLETE` = Transmit frame complete.

`TRANSMITTER UNDERRUN` = Transmitter underrun.

`TRAP 0 INSTRUCTION VECTOR` = Trap 0 instruction vector.

`TRAP 1 INSTRUCTION VECTOR` = Trap 1 instruction vector.

`TRAP 2 INSTRUCTION VECTOR` = Trap 2 instruction vector.

`TRAP 3 INSTRUCTION VECTOR` = Trap 3 instruction vector.

`TRAP 4 INSTRUCTION VECTOR` = Trap 4 instruction vector.

`TRAP 5 INSTRUCTION VECTOR` = Trap 5 instruction vector.

`TRAP 6 INSTRUCTION VECTOR` = Trap 6 instruction vector.

`TRAP 7 INSTRUCTION VECTOR` = Trap 7 instruction vector.

`TRAP 8 INSTRUCTION VECTOR` = Trap 8 instruction vector.

`TRAP 9 INSTRUCTION VECTOR` = Trap 9 instruction vector.

`TRAP 10 INSTRUCTION VECTOR` = Trap 10 instruction vector.

`TRAP 11 INSTRUCTION VECTOR` = Trap 11 instruction vector.

`TRAP 12 INSTRUCTION VECTOR` = Trap 12 instruction vector.

`TRAP 13 INSTRUCTION VECTOR` = Trap 13 instruction vector.

`TRAP 14 INSTRUCTION VECTOR` = Trap 14 instruction vector.

`TRAP 15 INSTRUCTION VECTOR` = Trap 15 instruction vector.

`TWO RESETS WITHIN A WINDOW EVENT` = Two resets within a memory clearing reset event window.

`TYPE 0 EXPANSION BOARD INTERRUPT` = Type 0 expansion board interrupt.

`TYPE 1 EXPANSION BOARD INTERRUPT` = Type 1 expansion board interrupt.

`TYPE 2 EXPANSION BOARD INTERRUPT` = Type 2 expansion board interrupt.

`UAB RECEIVE FIFO UNDERRUN` = User application bus receive FIFO underrun.

`UN-USED OP CODE EXCEPTION` = Un-used op code exception.

`UNIDENTIFIED ERROR` = Unidentified error.

`UNIDENTIFIED FRM INTERRUPT` = Unidentified frame interrupt.

`UNIDENTIFIED INTERRUPT` = Unidentified interrupt.

`UNIDENTIFIED PB RECEPTION ERROR` = Unidentified packet bus (PB) reception error.

`UNIDENTIFIED PB TRANSMISSION ERROR` = Unidentified PB transmission error.

`UNIDENTIFIED REC. STATUS ERROR` = Unidentified received status error.

`UNIDENTIFIED SANITY ERROR` = Unidentified sanity error.

`UNIDENTIFIED SCB INTERRUPT` = Unidentified SPORT (shared protocol receiver transmitter) control block interrupt.

`UNIDENTIFIED SPYDER ERROR` = Unidentified SPYDER error.

`UNINITIALIZED INTERRUPT` = Uninitialized interrupt.

`UNKNOWN ERROR TYPE` = Unknown error type.

`UNUSED USER DEFINED VECTOR` = Unused user defined vector.

`VISA - ACTIVE PHDB INTERFACE SYNC ERROR` = Active protocol handler data block interface sync error.

`VISA - DATA BUS PARITY ERROR - HIGH BYTE` = Data bus parity error in the high byte .

`VISA - DATA BUS PARITY ERROR - LOW BYTE` = Data bus parity error in the low byte .

`VISA - DSP OUTPUT PARITY ERROR` = Digital signal processor output parity error.

`VISA - MULTIPLE VOCODER LOAD ERROR` = Multiple vocoder load error.

`VISA - STANDBY PHDB INTERFACE SYNC ERROR` = Standby protocol handler data block interface sync error.

`WATCH-DOG TIMER INTERRUPT` = Watch-dog timer interrupt fired.

`WRITE PROTECT ERROR` = Write protect error.

`WRITE PROTECTION ERROR` = Write protection error.

`ZERO DIVIDE EXCEPTION` = Zero divide exception error.

APP:REGISTER

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. BIT AND BYTE NUMBERING (ALL REGISTERS)

Bit	31 24	23 16	15 8	7 0
Byte	0	1	2	3

DIRECT MEMORY ACCESS CHANNEL (DMAC) STATUS REGISTER (Model 1)

Bit	Error	Active State
0	Last addressed device*	
1	Last addressed device*	
2	Last addressed device*	
3	Last addressed device*	
4	Last addressed device*	
5	Last addressed device*	
6	Error summary bit (set if any error bits are set)	1
7	Channel access error	1
8	Last message issued	1
9	Last message issued	1
10	DIO acknowledge error	0
11	DIO ready error	1
12	DIO ASW error	0
13	Channel request error	1
14	DIO data parity error	1
15	Busy indicator	0
Bits 8,9	Description	
0	Setup data was requested from the device	
1	DMA write to the device	
2	PIO operation was sent to the channel	
3	DMA read from the device	

* The last addressed device is a 3-out-of-6 code which corresponds to a device number.

Number in Bits 0-5 3/6 Code	Device Number	Number in Bits 0-5 3/6 Code	Device Number
X'07	0	X'25	8
X'0B	1	X'26	9
X'0D	2	X'29	10
X'0E	3	X'2A	11
X'15	4	X'31	12
X'16	5	X'32	13
X'19	6	X'34	14
X'1A	7	X'38	15

Bit	Error	Active State
0	My store error A	0
1	My store error B (unequipped memory)	0
2	My store error C (bad data)	0
3	Not used	-
4	Not used	-
5	DIO data parity error	0
6	DMAC data parity error	0
7	DMA RAM parity error	1
8	ROM sequencer check	0
9	DIO ready error	0
10	DIO ASW error	1
11	DIO acknowledge error	1

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12	CCIO data parity error	0
13	CCIO message error	0
14	ROM sequencer parity error	0
15	Force error flip-flop	1
16	Not used	-
17	Not used	-
18	Not used	-
19	Not used	-
20	DMA fatal error summary	0
21	Maintenance mode	0
22	CCIO interface busy	0
23	Select internal RAM address (1) or register (REG) address (0) *	1/0
24	RAM address register bit 0	1
25	RAM address register bit 1	1
26	RAM address register bit 2	1
27	RAM address register bit 3	1
28	RAM address register bit 4	1
29	RAM address register bit 5	1
30	RAM address register bit 6	1
31	RAM address register bit 7	1

* If bit 23 is a 0, then bits 24-31 select a register. If bit 23 is a 1, then:

- bits 24-31 select a DMA RAM location,
- bits 24, 25 designate one of 4 words in the block of RAM for the device,
- bits 26, 29 designate one of 16 devices allocated to each channel,
- bits 30, 31 designate one of 4 DMA channels.

BITS 24 - 31	REGISTER
1	DIO data
2	Channel 0 channel status
4	Buffer
5	Channel mask
6	Store data
7	Incrementer (incremented by 4)
42	Channel 1 status
B2	Channel 2 status
C2	Channel 3 status

DIRECT MEMORY ACCESS CONTROLLER (DMAC) STATUS REGISTER (Model 2 and 3)

Bit	Error	Description	Active State
0	MSERA	My store error A	0
1	MSERB	My store error B	0
2	MSERC	My store error C	0
3	SEQTCPL	Sequencer test complete	0
4	CCIOER	CCIO message error	1
5	ROMPF	ROM parity error	0
6	DMDPF3	DMA data parity error - byte 3	0
7	CCIOPF3	CCIO data parity error - byte 3	0
8	DMABUSY	CCIO busy	1
9	CH0BUSY	Relative channel 0 busy	0
10	CH1BUSY	Relative channel 1 busy	0
11	DIOPF	DIO parity failure	1
12	DMADR_B0	RAM/REG address bit 0 echo	0
13	DMADR_B1	RAM/REG address bit 1 echo	0
14	DMDPF2	DMA data parity error - byte 2	0
15	CCIOPF2	CCIO data parity error - byte 2	0
16	DMADR_B2	RAM/REG address bit 2 echo	0
17	DMADR_B3	RAM/REG address bit 3 echo	0
18	DMADR_B4	RAM/REG address bit 4 echo	0
19	DMADR_B5	RAM/REG address bit 5 echo	0
20	DMADR_B6	RAM/REG address bit 6 echo	0
21	DMADR_B8	Select internal RAM address (1) or REG address (0) *	1/0
22	DMDPF1	DMA data parity error - byte 1	0
23	CPIOPF1	CCIO data parity error - byte 1	0
24	CHANOP0	Channel opcode bit 0	1

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25	CHANOP1	Channel opcode bit 1	1
26	DIOASWF	DIO asw failure	0
27	DIORDYF	DIO ready failure	0
28	DIORECF	DIO receive error	0
29	DIOSNDF	DIO transmit error	0
30	DMDPF0	DMA data parity error - byte 0	0
31	CCIOPF0	CCIO data parity error - byte 0	0

* If bit 21 is a 1 (RAM), then:

- bits 12-13, 16-19 select a DMA RAM location,
- bits 12, 13 designate one of 4 words in the block of RAM for the device,
- bits 16-19 designate one of 16 devices allocated to each channel,
- bit 20 designates one of 2 DMA channels.

If bit 21 is a 0 (REG), then:

Bits 12-20	Location
1	DIO data
2	Store address
6	Store data
7	Incrementer (incremented by 4)
D	Clear mask for channel 0
15	Set mask for channel 0
25	Clear mask for channel 1
45	Set mask for channel 1

If there are no error bits set in the DMAC status register, refer to the channel data register for the error.

CHANNEL DATA REGISTER

Bits 0-2	Error Condition
1	Invalid WCA message
2	Illegal device request
3	End of segment error
4	Page access failure
5	DIO channel failure

If the channel data register has a value of five, look in the DMAC status register for the DIO error.

Bits 24 and 25 have no active state but are decoded as shown in the following exhibit.

Bits 24,25	Location
0	DMA read from the device
1	PIO to the channel was issued
2	DMA write to the device
3	Setup data was requested from the device

DUAL SERIAL CHANNEL (DSCH) CHANNEL STATUS REGISTER (NOTE)

Bit	Description
0	High bits of low return
1	High bits of low return
2	High bits of low return
3	High bits of high return code
4	High bits of high return code
5	High bits of high return code
6	Channel busy flip-flop
7	I/O inhibit override flip-flop
8	Sequencer error
9	Illegal 3-out-of-6 device address
10	Command error
11	Channel error (logical error or error on previous three status bits)
12	Maintenance flip-flop
NOTE: This register is active high. (If bit = 1, function is asserted.)	

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ERROR REGISTER (ER) (NOTE)

Bit	Error	Class	Active
0	Source bus parity	Stop-and-switch	0
1	Microcontrol parity	Stop-and-switch	0
2	Clock match error	Stop-and-switch	0
3	IB parity error	Stop-and-switch	0
4*	ATB parity	Stop-and-switch	0
5	Cache error	Stop-and-switch	0
6	MYSERA	Stop-and-switch	0
7*	My store time-out	Stop-and-switch	0
8*	MYSERC	On-line error interrupt	
9	Data manipulation unit (DMU) error	Stop-and-switch	0
10	Store address controller (SAC) error	Stop-and-switch	0
11	Invalid maintenance channel (MCH) error	Off-line error interrupt	0
12	Other store error A	Off-line error interrupt	0
13	Other store refresh parity	Off-line error interrupt	0
14	Other store data parity	Off-line error interrupt	0
15*	Other store time-out	Off-line error interrupt	0
16	Channel error	On-line error interrupt	0
17	I/O response error	On-line error interrupt	0
18	I/O addressing error	On-line error interrupt	0
19	Parity divert error	On-line error interrupt	0
20	MYSERD	On-line error interrupt	0
21*	Protection violation	Software error interrupt	0
22*	Virtual address out-of-range (VORA)	Software error interrupt	0
23*	Out-of-range address (MYSERB)	Software error interrupt	0
24	Out-of-range reference (other store)	Software error interrupt	0
25*	Privileged instruction	Software error interrupt	0
26	Bad alignment on memory reference	Software error interrupt	0
27	Source bus parity bits	Software error interrupt	0
28	Source bus parity bits		1
29	Source bus parity bits		1
30	Source bus parity bits		1
31	Source bus parity bits		1

NOTE: This register is active low (if bit = 0, function is asserted).

* These error bits are copied into the UER and cleared in the error register on a microinterrupt.

HARDWARE STATUS REGISTER (HSR)

Bit	Description
0	Carry temporary flag
1	Negative temporary flag
2	Overflow temporary flag
3	Zero temporary flag
4	Channel ASW signal (= 1 if I/O operation terminated due to an error)
5	Channel maintenance response (=1 if maintenance response is received from device)
6	Error in checksum (=1 if error)
7	Channel ready (=1 if channel is ready)
8	MCH backup - used to disable and MRF the processor in the event that MCH has failed. Can be set by other CC pulse point 14.
9	MCH backup - used to disable and MRF the processor in the event that MCH has failed. Can be set by other CC pulse point 15.
10 *	3-out-of-6 code main channel address for CCIO bus address leads
11 *	3-out-of-6 code main channel address for CCIO bus address leads
12 *	3-out-of-6 code main channel address for CCIO bus address leads
13 *	3-out-of-6 code main channel address for CCIO bus address leads
14 *	3-out-of-6 code main channel address for CCIO bus address leads
15 *	3-out-of-6 code main channel address for CCIO bus address leads
16	Bidirectional gating bus direction (BGD)
17	Choice made by BGD multiplexer
18	Choice made by BGD multiplexer
19	Choice made by BGD multiplexer
20	Selection of BGD destination
21	Selection of BGD destination
22	Selection of BGD destination

23	BGD enable
24	Not used
25	Not used
26 □	Control of maintenance states in CC
27 □	Control of maintenance states in CC
28 □	Control of maintenance states in CC
29 □	Control of maintenance states in CC
30 □	Control of maintenance states in CC
31 □	Microinterrupt control (0 = normal, 1 = maintenance state)

* Refer to Exhibit 8.

□ Refer to Exhibit 9.

HARDWARE STATUS REGISTER (HSR) 3-OUT-OF-6 CODES

3/6 Code	Channel
07	0
0B	1
0D	2
0E	3
13	4
15	5
16	6
23	10
25	11
26	12
29	13
2A	14
2C	15
31	16
32	17
34	18
38	19

HARDWARE STATUS REGISTER (HSR) MAINTENANCE STATES

HSR Bits (Note)					Function
30	29	28	27	26	
0	X	X	X	X	No maintenance state active
1	0	0	0	X	RTC timing chain (increment PPR25, reset PPR24)
1	0	0	1	X	3-out-of-6 CCIO response check
1	0	1	0	X	Force bad parity: store control signals
1	0	1	1	X	Force bad parity DST32-35
1	1	0	0	X	Block parity: ALU clock
1	1	0	1	X	Force ATB check circuitry mismatch
1	1	1	0	X	Update circuit clock disable
1	1	1	1	X	EAI maintenance state
X	X	0	0	1	Not used
X	X	0	1	1	ATB memory byte 0 read (VLMM)
X	X	1	0	1	Clear bit rotate error latch
X	X	1	1	1	Clear SRC parity error latch

NOTE: X = don't care.

INTERRUPT SOURCE (IS) REGISTER (NOTE)

Bit	Meaning
0	On-line hardware error interrupt
1	Other CC error interrupt
2	Software error interrupt
3	Not connected
4	5-millisecond timer
5	10-millisecond timer
6	1A processor simulation
7	Flash interrupt (R6.4 and later, not connected)
8	Utility circuit interrupt
9	Stop the world interrupt

10	DMA channel interrupts
11	DMA channel interrupts
12	Not connected
13	Not connected
14	Not connected
15	Not connected
16	Not connected
17	Programmed interrupt request (PIR) 15
18	PIR 14
19	PIR 13
20	PIR 12
21	PIR 11
22	PIR 10
23	PIR 9
24	PIR 8
25	PIR 7
26	PIR 6
27	PIR 5
28	PIR 4
29	PIR 3
30	PIR 2
31	PIR 1
NOTE: This register is active low. (If bit = 0, function is asserted.)	

MAIN STORE CONTROLLER TRAPPED ADDRESS REGISTER

Bit	Name	Description	Active
0	CPF	Correctable parity fail indicator	1
1	DPF	Double parity fail indicator	1
2	TA02	Trapped address bit 2	1
3	TA03	Trapped address bit 3	1
4	TA04	Trapped address bit 4	1
5	TA05	Trapped address bit 5	1
6	TA06	Trapped address bit 6	1
7	TA07	Trapped address bit 7	1
8	TA08	Trapped address bit 8	1
9	TA09	Trapped address bit 9	1
10	TA10	Trapped address bit 10	1
11	TA11	Trapped address bit 11	1
12	TA12	Trapped address bit 12	1
13	TA13	Trapped address bit 13	1
14	TA14	Trapped address bit 14	1
15	TA15	Trapped address bit 15	1
16	TA16	Trapped address bit 16	1
17	TA17	Trapped address bit 17	1
18	TA18	Trapped address bit 18	1
19	TA19	Trapped address bit 19	1
20	TA20	Trapped address bit 20	1
21	TA21	Trapped address bit 21	1
22	TA22	Trapped address bit 22	1
23	REF/SYS	Refresh or system address trapped	
		- Refresh	0
		- System	1
24	TAP3	Trapped address parity byte 3	1
25	TAP2	Trapped address parity byte 2	1
26	TAP1	Trapped address parity byte 1	1
27	TRAP	Trapped address indicator	1
28	ERRD	Error D indication	1
29	ERRC	Error C indication	1
30	TA23	Trapped address bit 23*	1
31	TA24	Trapped Address bit 24□	1

* Valid for UN59 MASC or UN618; unused otherwise.

□ Valid for UN59 MASC, EMM, and UN618; software generated module select otherwise.

MAIN STORE CONTROLLER ERROR REGISTER 1

Bit	Name	Definition	Active
0	ALOOP	Address loop around (err A)	1
1	WDPER	Write data parity error (err A)	1
2	RACMM	Refresh address counter mismatch (err A)	1
3	LNAPER	Latched address parity error (err A)	1
4	BSYCLR	Busy F/F cleared (err A)	1
5	PFCOMD	Parity failed over messages (err A)	1
6	GAPER21	Generated address parity error (err A)	1
7	SLRCNER	Select row column error (err A)	1
8	SELCM	Multiple column select response (err A)	1
9	SELRM	Multiple row select response (err A)	1
10	SELMAER	Select response on maintenance operation (err A)	1
11	RSELN	No row response on refresh cycle (err A)	1
12	NOSHF	Maintenance order. Disable clock to sequencer.	1
13	NOREF	Maintenance state. Stop refresh.	1
14	BLKERD	Maintenance state. Block error D.	1
15	CHECK	Maintenance state. Check array select responses.	1
16	REQREF	Maintenance order. Request refresh.	1
17	STRAC	Maintenance order. Step refresh counter.	1
18	STSF	Maintenance order. Single step sequencer.	1
19	STREFC	Maintenance order. Step refresh timer.	1
20	SETBSY	Maintenance order. Set busy F/F.	1
21	EALOOP	Maintenance order. End address loop around.	1
22	BKSGER	Block store go error (err A)	1
23	CLERA	Maintenance order. Clear error A.	1
24	CLERD	Maintenance order. Clear error D.	1
25	IREF	Maintenance order. Zero refresh address counters.	1
26	RCNTLD	Maintenance order. Load refresh rate.	1
27	LATCH	Maintenance order. Latch state of data bus.	1
28	BYTE3	Decoded byte select	0
29	BYTE2	Decoded byte select	0
30	BYTE1	Decoded byte select	0
31	BYTE0	Decoded byte select	0

MAIN STORE CONTROLLER ERROR REGISTER 2

Bit	Name	Definition	Active
0	PFB3	Parity failure byte 3.	1
1	PFB2	Parity failure byte 2.	1
2	PFB1	Parity failure byte 1.	1
3	PFB0	Parity failure byte 0.	1
4	PFPZ	Parity failure Hamming bit Z.	1
5	PFPY	Parity failure Hamming bit Y.	1
6	PFPX	Parity failure Hamming bit X.	1
7	GMREFAD	Maintenance order. Gate main refresh address into address trap register.	1
8	BLKERC	Maintenance state. Block error C.	1
9	BLKRFD	Maintenance state. Block refresh data parity check.	1
10	INHWH	Maintenance state. Inhibit Hamming bit write.	1
11	INHANC	Maintenance state. Inhibit Hamming correction.	1
12	DRA02	Duplicate refresh address bit 2.	0
13	DRA03	Duplicate refresh address bit 3.	0
14	DRA04	Duplicate refresh address bit 4.	0
15	DRA05	Duplicate refresh address bit 5.	0
16	DRA06	Duplicate refresh address bit 6.	0
17	DRA07	Duplicate refresh address bit 7.	0
18	DRA08	Duplicate refresh address bit 8.	0
19	DRA09	Duplicate refresh address bit 9.	0
20	BLKSCM	Maintenance order. Block store complete.	1
21	TAP0	Trapped address parity byte 0.	1
22*		EMM or VLMM feature active.	1
23	TA25	Trapped address bit 25 (VLMM).	1
24	TIMS02	Maintenance state. Refresh rate.	1
25	TIMS04	Maintenance state. Refresh rate.	1
26	TIMS08	Maintenance state. Refresh rate.	1
27	TIMS32	Maintenance state. Refresh rate.	1
28	PFPA	Parity failure PA.	1
29		TN56 arrays (1) or TN2012 arrays (0).	1/0
30	NREF	Need refresh signal.	1
31	FREF	Force refresh signal.	1

* Valid for UN59 or UN618 MASC; unused otherwise.

□ Valid for UN618 MASC; unused otherwise.

□ Valid for UN59 MASC; unused otherwise.

MICROINTERRUPT ERROR REGISTER (UER) (NOTE)

Bit	Error	Class
0	Unused	
1	Unused	
2	Unused	
3	Unused	
4	ATB error	Stop-and-switch
5	Unused	
6	Unused	
7	My store time-out	Stop-and-switch
8	MYSERC	On-line error interrupt
9	Unused	
10	Unused	
11	Unused	
12	Unused	
13	Unused	
14	Unused	
15	Other store timeout	Off-line error interrupt
16	Unused	
17	Unused	
18	Unused	
19	Unused	
20	Unused	
21	Protection violation	Software error interrupt
22	Virtual address out of range (VORA)	Software error interrupt
23	MYSERB	Software error interrupt
24	Unused	
25	Privileged instruction violation	Software error interrupt
26	Unused	
27	Unused	
28	Unused	
29	Unused	
30	Unused	
31	Unused	

NOTE: This register is active low. (If bit = 0, function is asserted.) This register is also known as firm register B.

MICROINTERRUPT ERROR REGISTER 1 (UER1) (NOTE)

Value	Error	Class
00000001	Segment index too large	Software error interrupt
00000008	Page invalid	Software error interrupt
FFFFFFFF	I/O parity divert error if found on hardware interrupt with ER bit 19 active	Hardware error interrupt
7FFFFFFF	Illegal switch from private to kernel stack	Software error interrupt
3FFFFFFF	Illegal instruction	Software error interrupt
1FFFFFFF	Illegal instruction or operand subdecode	Software error interrupt
0FFFFFFF	No interrupt source during external interrupt entry	Software error interrupt
07FFFFFF	Unused microstore location was executed	Software error interrupt
03FFFFFF	No error showing during error microinterrupt entry	Software error interrupt
01FFFFFF	Unable to flush contents of ATB in purge ATB instruction	Software error interrupt
0001FFFF	Virtual out-of-range error. Tried to read memory out of virtual address space - beyond 64 megabytes.	Software error interrupt
12345678	MRF caused by the microcode or software	Software error interrupt
12345679	Processor going through level 2 (SAS) MRF	Software error interrupt
1234567A	Stop-and-switch due to error microinterrupt that proved fatal	Software error interrupt

NOTE: UER1 is also known as firm register C.

* Applies only to 3B20S/A computers.

PROCESSOR STATUS WORD (PSW) REGISTER (NOTE)

Bit	Description
0	Carry flag
1	Negative flag
2	Overflow flag
3	Zero flag
4	Kernel stack on (yes = 1)
5	Unused
6	Interrupt stack on (yes = 1)
7	Memory management on (yes = 1)
8	Source: SSBR mode = 1, PSBR mode = 0
9	Destination: SBR mode = 1, PSBR mode = 0
10	Primary segmentation base register index
11	Primary segmentation base register index
12	Primary segmentation base register index
13	Secondary segmentation base register index
14	Secondary segmentation base register index
15	Secondary segmentation base register index
16	Emulation control: opcode decoding
17	Emulation control: opcode decoding
18	Emulation control: program counter increment: half-word = 0, full-word = 1
19	Emulation control: interrupt control - control interrupt recognition when instruction halfword
20	Set execution level privilege (yes = 1)
21	Normal input/output privilege (yes = 1)
22	System I/O privilege (yes = 1)
23	Write PSW privilege (yes = 1)
24	Execution level (0-15)
25	Execution level
26	Execution level
27	Execution level
28	Spare
29	Spare
30	Processor mode
31	Processor mode - 00 kernel mode - 01 kernel process - 10 supervisor process
NOTE: This register is active high. (If bit = 1, function is asserted.)	

PULSE POINT REGISTER (PPR) (NOTE)

Bit	Meaning
0	Read the channel data buffer (RD)
1	Read the channel status register (RST)
2	Read channel interrupt state (RINT)
3	Read channel service request (RSR)
4	I/O interrupt acknowledge (IAK)
5	Channel error acknowledge (EACK)
6	Service request acknowledge (SRACK)
7	Idle channel sequencer (IDLE)
8	Clear channel errors (CLRER)
9	Write the channel data buffer (WD)
10	Write channel channel control/address register (WCA)
11	Unused
12	Unused
13	Unused
14	Backup maintenance channel
15	Backup maintenance channel
16	BGB pulse points
17	BGB pulse points
18	BGB pulse points
19	BGB pulse points
20	BGB pulse points

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21	Test sync
22	Interrupt EAI
23	Interrupt EAI
24	Clear timer
25	Increment timer
26	Unused
27	I/O read clock
28	I/O response clock
29	Error register clear
30	Enable a
31	Enable b
NOTE: This register is active high. (If bit = 1, function is asserted.)	

STORE CONTROL REGISTER (SCR) (NOTE)

Bit	Description
0	ATB invalidation counter
1	ATB invalidation counter
2	ATB invalidation counter
3	ATB invalidation counter
4	ATB invalidation counter
5	ATB invalidation counter
6	ATB invalidation counter
7	ATB invalidation counter
8	ATB invalidation counter
9	ATB invalidation counter
10	Enable counter non VLMM, ATB invalidation counter in VLMM
11	Half word available
12	Program counter (PA) shadow
13	Program counter (PA) shadow
14	Program counter (PA) shadow
15	Program counter (PA) shadow
16	Access
17	Fetch
18	Write
19	Clear
20	Bypass ATB
21	Byte
22	Half
23	Stack
24	SAR auto
25	Not used
26	Not used for non VLMM, enable counter in VLMM
27	ATB select
28	Counter select
29	Invalidate ATB
30	Other store
31	Maintenance
NOTE: This register is active low. (If bit = 0, function is asserted.)	

SYSTEM STATUS REGISTER (SSR) (NOTE)

Bit	Description
0	CC identification (CC0 = 1, CC1 = 0)
1*	Master = 0, slave = 1
2	Simplex = 1, duplex = 0
3	Request out-of-service key
4	Initialization sequence control
5	Initialization sequence control
6	Force boot device primary
7	Force boot device secondary
8	Panel interrupt
9	Force off-line
10	Force on-line
11	Inhibit sanity timer
12	Unused
13	Cache bypass
14	Emergency action interface MRF
15	Power clear
16	CC on-line

17	Halt
18	Block interrupts
19	Enable update writes
20	Isolate DMA from my store
21	Isolate update from my store
22	Unused
23	Block hardware checks
24	EAI bus
25	EAI bus
26	EAI bus
27	EAI bus
28	Stop
29	Block timer circuit
30	I/O disable
31	Power key

NOTE: This register is active low unless otherwise indicated. (If bit = 0, function is asserted.)

* Values are:

Bit 1 = 1 for Release 1 UN10/UN11 Cache
Bit 1 = 0 for Release 1 UN616/UN617 Enlarged Cache (option)
Bit 1 = 1 for Release 6 UN59C
Bit 1 = 0 for Release 6 UN618 MASC (option)

APP:RESOURCES

Software Release: 5E10 and later
Message Class: N/A
Application: 5
Type: Output

1. SYSTEM RESOURCES

This appendix lists system resources that can be in a possible overload condition.

Mnemonic	Explanation	Generic(s)
ACREC	Auxiliary call record OSPS data blocks (SM only).	5E10 and later
ADB	Analog data blocks (SM only).	5E10 and later
APB	Auxiliary process blocks (SM only).	5E10 and later
APBUF	AP memory buffer data blocks (SM only).	5E10 and later
APXCTB	Autoplex call table data blocks (SM only).	5E10 and later
ASPDIS	Advanced services platform display information data blocks (SM only).	5E14 and later
ASPTP	Advanced services platform terminal process data blocks (SM only).	5E13 and later
ASPTRN	Advanced services platform call processing transaction data blocks (SM only).	5E14 and later
ATCALL	Auto call data blocks (SM only).	5E10 and later
BRCSDB	Business and residential customer services data blocks (SM only).	5E10 and later
BRGDB	Bridging data blocks (SM only).	5E14 and later
CALINFO	Communications assistance for law enforcement act information data blocks (SM only)	5E14 and later
CBDB	Call buildup data blocks (SM only).	5E10 and later
CCBCOM	Channel control block common area (SM only).	5E10 and later
CCSSTP	CCS setup data blocks (SM only).	5E10 and later
CFLNTR	Call forwarding line and trunk message data blocks (SM only).	5E10 and later
CFSCOP	Call forwarding system process data blocks (SM only).	5E10 and later
CHDB	Channel data blocks (SM only).	5E10 - 5E12
CINDX7	CCS7 list index data blocks (SM only).	5E10 and later
CLDB	Call leg data blocks (SM only).	5E10 and later
COINOT	Coin originating treatment OSPS data blocks (SM only).	5E10 and later
CPLR	Couplers (SM only).	5E10 and later
CQB	Circuit queuing data blocks (SM only).	5E10 and later
CREC	Call record data blocks (SM only).	5E10 and later
CTS	Control time slot (CTS) links (SM only).	5E10 and later

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CVSTAT	Call vectoring state data blocks (SM only).	5E10 and later
DALB	D-channel application linkage blocks (SM only).	5E10 and later
DBCND	Calling number delivery data blocks (SM only).	5E10 and later
DIB	Digital subscriber line input buffer (SM only).	5E10 and later
DISPDB	Display data blocks (SM only).	5E10 and later
DLNPIC	DLN to AM message queue (incoming message queue from network) (DLN only).	5E10 and later
DLTSB	Line time slot bridging data blocks (SM only).	5E10 and later
E911DB	Enhanced 911 data block (SM only).	5E10 and later
EDIB	Extended digital subscriber line input buffer (SM only).	5E10 - 5E13
ENTRY7	CCS7 table entry data blocks (SM only).	5E10 and later
FRNAMA	Furnish AMA information data blocks (SM only).	5E14 and later
GEN	Tone generators (SM only).	5E10 and later
GPAXDB	General purpose annex data block (SM only).	5E10 and later
GPTIME	General purpose timer element index (SM only).	5E12 and later
GSMQPH	Global switching module qual-link protocol handler (SM only).	5E14 and later
IAQ	Interface processor (IP) to application processor (AP) queue (CMP only).	5E10 and later
LSCB	Large stack control blocks (AM only).	5E13 and later
LSCMDB	Large shared call model data blocks (SM only).	5E10 and later
MCB	Message control blocks (AM, CMP and SM only).	5E10 and later
MDB	Model data blocks (SM only).	5E10 and later
MHPIPE	Message handler pipe overload (SM only).	5E14 and later
MHRT	Message handler real time overload (SM only).	5E14 and later
MORE	More than seven resources are in overload. Use input message OP:OVRLD to get complete status.	5E10 and later
MSGS	Message overload in the peripheral interface controller.	5E10 and later
MSMWID	Message service message waiting indicator data blocks (SM only).	5E10 and later
NONE	No resource overload.	5E10 and later
NSDB	Network services data blocks (SM only).	5E10 and later
NSBILL	Network services billing data blocks (SM only).	5E10 and later
NSIDX	Network services index data blocks (SM only).	5E10 and later
OAOTDB	OSPS origination termination data blocks (SM only).	5E10 and later
PCB	Process control blocks (AM, CMP and SM only).	5E10 and later
PHDB	Path data blocks (SM only).	5E10 and

		later
PHIST	Port status history data blocks (SM only).	5E10 and later
PICDLN	AM to DLN message queue (outgoing message queue to network) (DLN only).	5E10 and later
PIFIFO	Peripheral interface unit first-in, first-out message queue (SM only).	5E10 and later
PIGPBD	Peripheral interface unit general purpose buffer descriptor (SM only).	5E10 and later
PILRFD	Peripheral interface unit local area network received frame descriptor (SM only).	5E10 and later
PIRT	Peripheral interface unit real time (SM only).	5E10 and later
PKB	Packet buffers (SM only).	5E10 and later
PSUPH	Packet switch unit protocol handler (SM only).	5E10 and later
PSIB	Packet switching input buffer (SM only).	5E10 and later
PTRDB	Pointer data blocks (SM only).	5E10 and later
PUENTY	Call pickup query data blocks (SM only).	5E10 and later
QLPS	Pipe from SM to quad-link packet switch (QLPS) network (SM only).	5E10 and later
QPIPE	Pipe from QGP to quad-link packet switch (QLPS) (QGP only).	5E10 and later
QRYDB	Query data blocks (SM only).	5E10 and later
QVSTAT	Queuing and vectoring state data blocks (SM only).	5E11 and later
RCV	Tone decoders (SM only).	5E10 and later
RRB	CNI ring receive buffer (DLN only).	5E10 and later
SCB	Stack control blocks (AM, CMP, and SM only).	5E10 and later
SCB4	4K stack control blocks (AM only).	5E10 - 5E12
SCMDB	Shared call model data blocks (SM only).	5E10 and later
SDAP	Speed dial autoprovisioning speed dial list (SM only).	5E10 and later
SRVOT	Listing services call data blocks for OT and EIS interface (SM only).	5E10 and later
STPDB	Setup data blocks (SM only).	5E10 and later
TATDB	Termination attempt trigger data blocks (SM only).	5E10 and later
TCB	Timer control blocks (AM, CMP, and SM only).	5E10 and later
TCPPKT	Transport control protocol packet data blocks (SM only).	5E13 and later
TNINFO	Termination notification information data blocks (SM only).	5E10 and later
TSDB	Time slot data blocks (SM only).	5E10 - 5E12
TXNINF	TCAP transaction management information data blocks (SM only).	5E14 and later
XCVR	Tone transceivers (SM only).	5E10 and later
XDPC	luster destination point code status data blocks (SM only).	5E14 and later
XLIST	Cluster list data blocks (SM only).	5E14 and

		later

APP:RETRO-DBE

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. RETROFIT APPENDIX

ERROR CODES FOR ECD/SG DATABASE EVOLUTION

DISPOSITION	CODE	DESCRIPTION
FATAL	100	?D - incorrect keyword in data field of input
FATAL	101	Execution only allowed on AM
FATAL	102	Network clock option is wrong software release
FATAL	103	Cannot decode input message
FATAL	104	?D - STEP value not in range
FATAL	105	Cannot execute D2C for ROOT
FATAL	106	Cannot execute D2C for ROOTDMLY
FATAL	107	Execution is not allowed on AM
FATAL	108	rangeck found index too large
FATAL	109	Cannot execute sum or a file is missing
FATAL	110	Cannot copy files to MAG tape
FATAL	111	Cannot execute RCV for ROOT
FATAL	112	Cannot execute RCV for ROOTDMLY
FATAL	113	Cannot copy files from MAG tape
FATAL	114	Cannot execute sum or a file is missing
WARNING	115	Cannot find all options
FATAL	116	Cannot open ECD dump file
WARNING	117	Bad case in KEYDEF table (type)
FATAL	118	Cannot write office option file
WARNING	119	Bad case in KEYDEF table (keysize)
WARNING	120	Internal error, cannot have MIN = APP
FATAL	121	Cannot open script files for output
FATAL	122	Cannot read office option file
FATAL	123	Cannot copy ECD (APP) to work area
FATAL	124	Process already running, stop
FATAL	125	Cannot rename APP ECD
FATAL	126	Cannot copy ECD (MIN) to work area
FATAL	127	Cannot read results of PWD message
FATAL	128	Cannot rename MIN ECD
FATAL	129	Magnetic tape certification failed
FATAL	130	RCV error reading script (APP)
WARNING	131	3bgenerror not empty (APP)
WARNING	132	Bad case in form processing
FATAL	133	Cannot convert ECD (APP) to AM format
FATAL	134	Cannot convert ECD (MIN) to AM format
FATAL	135	3bmkdsk cannot write tape
WARNING	136	Cannot read CN forward file
WARNING	137	Cannot read CN backward file
FATAL	139	RCV error reading script (MIN)
WARNING	140	3bgenerror not empty (MIN)
FATAL	141	Check sum of tape files failed
FATAL	142	Cannot initialize work area on disk
FATAL	143	Cannot open TEMPFILE of ODD file names
WARNING	144	Cannot create SITEFILE - oddinfo
WARNING	145	Cannot execute RCV for ROOT
WARNING	146	Cannot execute RCV for ROOTDMLY
FATAL	147	Error in moving min db to work area
FATAL	148	Error in moving app db to work area
FATAL	149	Error in moving script
FATAL	150	Cannot read office option file
WARNING	151	Data missing from keyword in OOF
WARNING	152	Data missing from OFFICE keyword
WARNING	153	Bad keyword in OOF
FATAL	154	Trash failed to verify tape
WARNING	155	Cannot edit office option file
FATAL	156	Cannot mount /dev/bdb
WARNING	157	Cannot unmount /dev/bdb

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FATAL	158	Cannot copy database to /dev/bdb
FATAL	159	No new database in either format
FATAL	160	Cannot create a new app database
FATAL	161	Cannot create a new min database
FATAL	162	Cannot load a new app database
FATAL	163	Cannot load a new min database
FATAL	164	Cannot exec child process - retry later
FATAL	165	Cannot change working (root) directory
WARNING	166	Cannot create lsfile
FATAL	167	Create message failed
FATAL	190	Cannot execute ls message
FATAL	191	LS data not consistent 2 values

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APP:STD-REPAIR

Software Release: 5E10 and later
Message Class: N/A
Application: 5
Type: Output

1. STANDARD REPAIR PROCEDURE APPENDIX

1 Verify unit/circuit 'x' is removed from service.

a Bring up display page for unit/circuit 'x'.

b Circuit 'x' should be out of service (OOS); if not, make sure further action is necessary; if so, use REMOVE poke to remove circuit 'x'.

2 Establish consistent diagnostic failure (some tests failed - STF) pattern.

a Use DIAGNOSE poke to diagnose circuit 'x' and get a suspected faulty equipment list.

b If diagnostic STF pattern (PH, SEG, TEST, MM) is the same as original failure, continue to Step 3;

c If STF pattern is not the same as original failure, diagnose (DGN) circuit several more times, try to get predominant failure pattern, the fault may be intermittent such that diagnosis is all tests passed (ATP) some times. Use UCL and RAW options on DGN input message to see if later tests or phases are failing more consistently; the RPT and PH options are handy for repeating particular phase(s).

d If there is no predominant failure, construct a combined suspect pack list with common packs at the top of list.

3 Examine next pack on suspect pack list along with accompanying notes.

a If suspect pack list has been exhausted, go to Step 9.

b If pack/suspect equipment is in circuit under test continue to Step 4; if not, proceed to next item.

c Remove and diagnose other circuit containing suspect pack (attempt to get confirmation of failure from the other circuit diagnostic).

d If other circuit's diagnosis is STF, choose which unit diagnostic (and suspect pack list) to continue working (usually best to work circuit that is highest in the control hierarchy; such as, if LUCHAN diagnostic's suspected faulty equipment list points to LUCOMC and LUCOMC diagnosis is STF, then work the LUCOMC failure).
Note: When a board is replaced in a second unit, that unit should be diagnosed ATP and restored before rerunning the first unit's diagnostic.

4 Replace suspect pack/equipment with spare. Note: observe any caution indicated by note with

pack on suspected faulty equipment output message.

5 Diagnose circuit and examine results.

a If diagnostic result is ATP, go to Step 6.

b If failure pattern (PH, SEG, TEST, MM) is identical to original, return original pack to the unit and proceed to the next entry on the suspect pack list (Step 3).

c If failure pattern is different, diagnose circuit again using DGN input with UCL and RAW options. If predominant failure pattern is now different from original failure, the spare pack is probably faulty (or wrong series, etc) and another spare pack should be tried (Step 4).

6 If original diagnostic failure was intermittent, diagnose circuit several times to confirm that intermittent failure is indeed cleared; if not, return to Step 3.

7 Swap original apparently faulty board with last spare that was inserted, diagnose the circuit again to confirm the failure returns with that board, then replace with the spare board.

8 Run additional diagnostics if suggested by the note field in the suspected faulty equipment message (for final verification of spare board). Then enter request to restore (RST) unit/circuit.

a If RST diagnosis is ATP and no new error reports are observed after unit/circuit is restored to service, then trouble is cleared.

b If trouble is not cleared, return to Step 5.

9 When the suspect pack list has been exhausted, make a judgement on which of the following is the appropriate alternative depending on the situation:

a Replace, one at a time, the remaining packs in the unit not previously tried.

b Replace, one at a time, packs in adjacent unit(s) connected to the failing unit.

Note: Be sure to remove unit before replacing pack.

c Do multiple pack swap with another unit that diagnoses ATP and that can be removed from service. If problem moves with packs, return the packs until the faulty board is isolated. If the problem does not move with the boards, check for possible cable or wiring problems. Multiple pack swaps must be done very carefully to avoid creating additional problems.

d Request additional assistance, particularly if the trouble is in a critical duplex unit such as a CU, MHD, ONTC, MCTSI, etc.

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APP:SUPR-A

Software Release: 5E10 - 5E12
Message Class: MAINT
Application: 5,3B
Type: Output

1. System Update Error Codes Appendix

1.1 Introduction

This appendix contains the error codes for system update. The error codes consist of six decimal digits. The first three digits indicate the nature of the error. The next two digits ('`xx`') indicate the module in which the error occurred (that information is not provided here). The last digit (the error number, '`y`') is used to differentiate errors of the same error code that can occur multiple times in the same module. To locate exactly which error in the module failed, each error is given its own unique error number.

1.2 Errors Associated with *UNIX*® System Calls

More information about these *UNIX*® system calls can be found in the APP:SYSERR appendix in the Appendixes section of the Output Messages manual. The error code that corresponds with the system call that failed is kept in the system update log file. It can be read by executing the OP:G-READLOG input message. The log entry specifying the *UNIX*® error number will be the error code for the *UNIX*® call that failed.

`101xxy` = mkseg() error.

The *UNIX*® system call mkseg() failed when the system update enter option tried to create a segment using makeseg() that was to be used as a buffer when reading in a new partition from the LDFT tape and writing it to disk. makeseg() may have failed because there was not enough space in memory for the segment. After resolving the problem, try to continue the update using the UPD:G-CONTINUE input message.

`102xxy` = open() error.

The *UNIX*® system call open() failed when system update attempted to open the system update log file. The open may have failed because:

- The system update log file does not exist (/etc/log/suprlog).
- One of the directories in the system update log file pathname (/etc/log) does not exist or does not have read permissions.
- The system update log file is not readable or writable depending on what it is being opened for (reading or writing).
- Too many files are open.

After resolving the problem, try to continue the update using the UPD:G-CONTINUE input message.

`103xxy` = read() error.

The *UNIX*® system call read() failed when system update tried to read an entry from the system update log file. The read may have failed because:

- A damaged log file.
- Physical I/O errors.
- A bad read() parameter.
  - -- Bad buffer address where the data is to be read.
  - -- Number of bytes to be read is bad.

- -- File descriptor indicating the file to be read from is not that of an input file.

Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`104xxy` = "seek()" error.

The *UNIX*® system call lseek() failed when system update attempted to "seek" to a particular log entry in the system update log file. The lseek may have failed because the file descriptor for the log file is undefined, the "seek" went to a position before the beginning of the log file, or the log file is damaged. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`105xxy` = write() error.

The *UNIX*® system call write() failed when system update attempted to write a log entry to the system update log file. The write may have failed because:

- Physical I/O errors.
- A bad write() parameter.
  - Bad buffer address from where the data is to be read.
  - Number of bytes to be written is bad.
  - Bad file descriptor for the system update log file to which the data is to be written.

Try to continue the update using the UPD:G-CONTINUE input message.

`106xxy` = close() error.

The *UNIX*® system call close() failed when system update attempted to close the system update log file. An incorrect file descriptor for the log file may have been passed to the close() option. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`107xxy` = unlink() error.

The *UNIX*® system call unlink() failed when the system update proceed option attempted to unlink (remove) the special device file that was used to copy the system update log file to the offline disk (offline disk method) or to the backup /etc partition (backup partition method). The unlink may have failed because the file it is trying to unlink does not exist or the directory this file is in does not have write permissions. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`108xxy` = setio() error.

The *UNIX*® system call setio() failed when system update attempted to set the input/output mode for the disk being updated to physical I/O. The setio may have failed because the disk being updated was never opened. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`109xxy` = mknod() error.

The *UNIX*® system call mknod() failed when the system update restore or commit option attempted to make a node that would be used to copy the new/old partitions over the old/new partitions using the backup partition method. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, either start the update over from the beginning of the enter step, or take one of the following actions:

- If this error occurred during the restore process, manually restore the partitions containing the new release (for the backup partition update method) or the disks containing the new release (for the offline disk update method) to the old release. Then manually execute the applhook process.
- If this error occurred during the commit process, manually restore the partitions containing the old release (for the backup partition update method) or the disks containing the old release (for the offline disk update method) to the new release. Then manually execute the applhook process.

`110xxy` = lcall() error.

The *UNIX*® system call lcall() failed when system update attempted to execute applhook (/prc/supr/applhook). Applhook may not exist or may not have execution permissions. After resolving the problem, try to continue the update using the UPD:G-CONTINUE input message.

`111xxy` = msgenab() error.

The *UNIX*® system call msgenab() failed when system update attempted to enable message reception from one of the following processes: applhook, continue, the disk driver, MIRA, or SIM. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, either start the update over from the beginning of the Enter step, or take one of the following actions:

- If this error occurred during the restore process, manually restore the partitions containing the new release (for the backup partition update method) or the disks containing the new release (for the offline disk update method) to the old release. Then, manually execute the applhook process.
- If this error occurred during the commit process, manually restore the partitions containing he old release (for the backup partition update method) or the disks containing the old release (for the offline disk update method) to the new release. Then, manually execute the applhook process.
- If this error occurred during any other system update process, start the update over from the beginning of the enter step.

`112xxy` = send() error.

The *UNIX*® system call sendw() failed when the system update continue option either attempted to send an acknowledgement message to the system update enter process which is currently running or attempted to send a message to SIM in order to request system initialization information. Try to continue the update again using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`113xxy` = kill() error.

The *UNIX*® system call kill() failed when the system update stop option attempted to terminate the system update process that is currently running. The kill message may have failed because:

- The process to be killed does not exist.
- The sending process is not a superuser, and the sending and receiving processes do not have the same effective user ID.
- The process ID (PID) of the process being terminated is damaged in the system update log and the stop message passes this PID as a parameter to kill().

If the system update still needs to be stopped, execute the stop process unconditionally (using the UCL argument on its message line).

CAUTION: If stop is executed unconditionally, it will attempt to terminated the running system update process by an extreme method using the pkill() option. Some system resources in use by the process may not be released automatically.

`114xxy` = stat() error.

The *UNIX*® system call stat() failed when system update attempted to obtain status information about the disk that is to be updated. This function may have failed because the disk does not exist. If this error occurred during the enter step of system update, make sure that all destination file names specified on the enter option line exist. After resolving the problem, try to continue the update using the UPD:G-CONTINUE input message.

`115xxy` = msgport() error.

The *UNIX*® system call msgport() failed when system update attempted to send a message to the disk driver so that system update could have access to an out of service disk at the partition level rather than at the disk level. The msgport() may have failed because:

- The disk driver is nonexistent.
- The port number specified is invalid.
- No process is connected to the specified port.
- The message buffer is not in the user address space.

Try to continue the update using the UPD:G-CONTINUE input message..

`116xxy` = mount() error.

The *UNIX*® system call mount() failed when system update attempted to mount the /etc file system so that the system update log file can be copied to the new release or the database file system so that the ECD can by updated. The mount may have failed because:

- The effective user ID of the process executing the mount is not a superuser.
- The specified file system does not exist.
- The file system to be mounted is not specified.

- The block special file from which the file system is to be mounted is inaccessible or not an appropriate file.
- The file system is already mounted.
- The directory pathname that the file system is to be mounted on is not a directory.
- Too many file systems are mounted.

Try to continue the update by using the UPD:G-CONTINUE input message.

`117xxy` = unmount() error.

The *UNIX*® system call umount() failed when system update attempted to unmount the /etc file system after the system update log file has been copied to the new release or the database file system after the ECD has been updated. The umount may have failed because:

- The effective user ID of the process executing the umount is not a superuser.
- The file system is not mounted.
- There are active files on the file system being unmounted.

Try to continue the update using the UPD:G-CONTINUE input message.

`118xxy` = link() error.

RC/V recognizes the ECD by the name /mount_directory/ecd where mount_directory represents the directory path on which the ECD file system is mounted. However, system update recognizes the ECD by the name /mount_directory/dmert or /mount_directory/appdmert. In order for system update to use RC/V, it must link its database name with the name that RC/V recognizes. This error occurs when the link fails using the *UNIX*® system call link(). The link may have failed because:

- The original name that is being linked to cannot be found.
- The new name that is being linked already exists.
- The directory that contains the new name does not have write permissions.
- The link is done by a user other than a superuser.
- The link was attempted on a file that is on another file system.
- The file has too many links.

If this update is continued using the UPD:G-CONTINUE input message, it will keep failing until this problem is resolved. Start the update over from the beginning of the enter step.

`119xxy` = create() error.

The *UNIX*® system call create() failed when a file was being created under the /tmp directory in one of the following situations: the system update enter option attempted to create the system update log file, or the system update readlog option attempted to create a buffer used to store log entries that are about to be printed to the terminal and to the ROP. The create may have failed because:

- A directory in the pathname of the file to be created is not searchable.
- The file to be created does not exist and the directory in which it is to be created does not have write permission.
- The file to be created does exist an does not have write permissions.
- The file to be created is a directory.
- The maximum number of files (20) are already open.
- There is not enough space in the /tmp file system for the created file.

After resolving the problem, try to continue the update using the UPD:G-CONTINUE input message.

`120xxy` = vcall() error.

The *UNIX*® system call vcall() failed when the system update continue option executed the system update process that is being continued. This function normally fails when the process being executed does not exist or does not have execution permissions. Make sure that all system update processes in /prc/supr have execution permissions. After resolving the problem, re-enter the system update using the UPD:G-CONTINUE input message.

`121xxy` = rmovseg() error.

The *UNIX*® system call rmovseg() failed when the system update enter option attempted to remove a previously created segment after it was no longer needed. The segment may have been created in the first place to be used as:

- A buffer used to hold the new release which was read in from tape and then written to disk.
- A buffer used to hold the new release which was read from the primary partitions and written to the backup partitions using the offline disk method. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`122xxy` = mkseg() error.

The *UNIX*® system call mkseg() failed when the system update enter option tried to create a segment using makeseg() that was to be used as a buffer when reading in an updated segment from the offline disk and writing it to its backup partition. makeseg() may have failed because there was not enough space in memory for the segment. After resolving the problem, try to continue the update using the UPD:G-CONTINUE input message.

`123xxy` = fopen() error.

The *UNIX*® system call fopen() failed when the system update restore or commit option attempted to open a partition that is to be used to update the old or new release to the new or old release. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, either start the update over from the beginning of the enter step, or take one of the following actions:

- If this error occurred during the restore process, manually restore the partitions containing the new release (for the backup partition update method) or the disks

containing the new release (for the offline disk update method) to the old release. Then, manually execute the applhook process.

- If this error occurred during the commit process, manually restore the partitions containing the old release (for the backup partition update method) or the disks containing the old release (for the offline disk update method) to the new release. Then, manually execute the applhook process.

`124xxy` = open() error.

The *UNIX*® system call open() failed when system update attempted to open the ECD. The open may have failed because:

- The ECD special device file does not exist (/dev/ecd).
- The root directory which contains the ECD does not have read permissions.
- The ECD is not readable or writable depending on what it is being opened for (reading or writing).
- Too many files are open.

Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, either start the update over from the beginning of the enter step, or take one of the following actions:

- If this error occurred during the restore process, manually restore the partitions containing the new release (for the backup partition update method) or the disks containing the new release (for the offline disk update method) to the old release. Then, manually execute the applhook process.
- If this error occurred during the commit process, manually restore the partitions containing the old release (for the backup partition update method) or the disks containing the old release (for the offline disk update method) to the new release. Then, manually execute the applhook process.
- If this error occurred during any other system update process, start the update over from the beginning of the enter step.

`125xxy` = open() error.

The *UNIX*® system call open() failed when system update attempted to open the disk that is being updated for one of the following reasons:

- The VTOC needs to be read.
- The backup partitions need to be updated during the enter process using the offline disk method.
- The little boot start block address in the VTOC needs to be restored.

The open() may have failed because:

- The disk does not exist.

- One of the directories in the disk pathname does not exist or does not have read permissions.
- The disk is not readable or writable depending on what it is being opened for (reading or writing).
- Too many files are open.

Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`126xxy` = open() error.

The *UNIX*® system call open() failed when system update attempted to open one of the partitions that is being updated. The open may have failed because:

- The partition does not exist.
- One of the directories in the partition pathname does not exist or does not have read permissions.
- The partition is not readable or writable depending on what it is being opened for (reading or writing).
- Too many files are open.

Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`127xxy` = read() error.

The *UNIX*® system call read() failed when system update tried to read the VTOC from the LDFT tape. The read may have failed because:

- physical I/O errors
- a bad read() parameter
    - Bad buffer address where the data is to be read.
    - Number of bytes to be read is bad.
    - File descriptor indicating the file to be read from is not that of an input file.

Make sure the "head" of the tape drive is clean and continue the update using the UPD:G-CONTINUE input message. If the error persists, the LDFT tape may be damaged. Regenerate a new tape.

`128xxy` = read() error.

The *UNIX*® system call read() failed when system update tried to read the VTOC from disk. The read may have failed because:

- Physical I/O errors.
- A bad read() parameter.
    - Bad buffer address where the data is to be read.
    - Number of bytes to be read is bad.
    - File descriptor indicating the file to be read from is not that of an input file.

Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`129xxy` = read() error.

The *UNIX*® system call read() failed when system update tried to read a data block from an LDFT tape. The read may have failed because:

- Physical I/O errors.
- A bad read() parameter.
    - Bad buffer address where the data is to be read.
    - Number of bytes to be read is bad.
    - File descriptor indicating the file to be read from is not that of an input file.

Make sure the "head" of the tape drive is clean and continue the update using the UPD:G-CONTINUE input message. If the error persists, the LDFT tape may be damaged. Regenerate a new tape.

`130xxy` = read() error.

The *UNIX*® system call read() failed when system update tried to read a partition from the offline disk for one of two reasons: the hash sum needed to be computed to make sure that the partition was written correctly, or the backup partition needed to be updated from its primary partition which contained the new release (for offline disk method only). The read may have failed because:

- Physical I/O errors.
- A bad read() parameter.
    - Bad buffer address where the data is to be read.
    - Number of bytes to be read is bad.
    - File descriptor indicating the file to be read from is not that of an input file.

Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`131xxy` = read() error.

The *UNIX*® system call read() failed when system update tried to read a header from an LDFT tape. The read may have failed because:

- Physical I/O errors.
- A bad read() parameter.
  - Bad buffer address where the data is to be read.
  - Number of bytes to be read is bad.
  - File descriptor indicating the file to be read from is not that of an input file.

Make sure the "head" of the tape drive is clean and continue the update using the UPD:G-CONTINUE input message. If the error persists, the LDFT tape may be damaged. Regenerate a new tape.

`132xxy` = lseek() error.

The *UNIX*® system call lseek() failed when system update attempted to "seek" to a particular partition on disk. The lseek() may have failed because the file descriptor for the disk is undefined, or the "seek" went to a position before the beginning of the disk. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, the disk may be damaged.

`133xxy` = lseek() error.

The *UNIX*® system call lseek() failed when system update attempted to "seek" to a previous block on an LDFT tape. A tape read failure may have occurred. If this happens, system update automatically "seeks" back to the beginning of the set of blocks it tried to read and tries to read those blocks again. Since a read error may have occurred first, check the possible causes for a read error located at error codes `103xxy`, and `127xxy` - `131xxy` and take the action listed there. If a read error is not the problem, make sure the "head" of the tape drive is clean and continue the update using the UPD:G-CONTINUE input message. If the error persists, the LDFT tape may be damaged. Regenerate a new tape.

`134xxy` = write() error.

The *UNIX*® system call write() failed when the system update readlog message attempted to write log entries to an output buffer which is later spooled to the terminal and to the ROP. The write may have failed because:

- Physical I/O errors.
- A bad write() parameter.
  - Bad buffer address where the data is to be read from.
  - Number of bytes to be written is bad.

- Bad file descriptor for the buffer to which the data is to be written.

The log file cannot be read.

`135xxy` = write() error.

The *UNIX*® system call write() failed when the system update enter message attempted to write the VTOC to the disk being updated. The write may have failed because:

- Physical I/O errors.
- A bad write() parameter.
  - Bad buffer address from where the data is to be read.
  - Number of bytes to be written is bad.
  - Bad file descriptor for the disk to which the data is to be written.

Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, the disk may be damaged.

`136xxy` = write() error.

The *UNIX*® system call write() failed when the system update enter message attempted to write a partition to the disk being updated. The write may have failed because:

- Physical I/O errors.
- A bad write() parameter.
  - Bad buffer address where the data is to be read from.
  - Number of bytes to be written is bad.
  - Bad file descriptor for the disk to which the data is to be written.

Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, the disk may be damaged.

`137xxy` = fclose() error.

The *UNIX*® system call fclose() failed when the system update restore or commit option attempted to close a partition that was used to update the old or new release to the new or old release. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, either start the update over from the beginning of the enter step, or take one of the following actions:

- If this error occurred during the restore process, manually restore the partitions containing the new release (for the backup partition update method) or the disks containing the new release (for the offline disk update method) to the old release. Then, manually execute the applhook process.

- If this error occurred during the commit process, manually restore the partitions containing the old release (for the backup partition update method) or the disks containing the old release (for the offline disk update method) to the new release. Then, manually execute the applhook process.

`138xxy` = close() error.

The *UNIX*® system call close() failed when system update attempted to close the disk being updated. An incorrect file descriptor for the disk may have been passed to the close() message. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the enter step.

`139xxy` = close() error.

The *UNIX*® system call close() failed when system update attempted to close the ECD. An incorrect file descriptor for the ECD may have been passed to the close() message. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, either start the update over from the beginning of the Enter step, or take one of the following actions:

- If this error occurred during the Restore process, manually restore the partitions containing the new release (for the backup partition update method) or the disks containing the new release (for the offline disk update method) to the old release. Then, manually execute the applhook process.
- If this error occurred during the commit process, manually restore the partitions containing the old release (for the backup partition update method) or the disks containing the old release (for the offline disk update method) to the new release. Then, manually execute the applhook process.
- If this error occurred during any other system update process, start the update over from the beginning of the enter step.

`140xxy` = close() error.

The *UNIX*® system call close() failed when system update attempted to close a partition on the disk being updated. An incorrect file descriptor for the disk partition may have been passed to the close() message. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`141xxy` = close() error.

The *UNIX*® system call close() failed when system update attempted to close the tape device from which the new release was read. An incorrect file descriptor for the tape device may have been passed to the close() message. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`142xxy` = unlink() error.

The *UNIX*® system call unlink() failed when system update attempted to unlink (remove) the special device file that was used to access the offline disk when updating the backup partitions using the offline disk method. The unlink may have failed because the file it is trying to unlink does not exist or the directory this file is in does not have write permissions. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of

the enter step.

`143xxy` = unlink() error.

The *UNIX*® system call unlink() failed when system update attempted to unlink (remove) the special device file that was used to access a partition being updated. The unlink may have failed because the file it is trying to unlink does not exist or the directory this file is in does not have write permissions. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`144xxy` = unlink() error.

The *UNIX*® system call unlink() failed when system update attempted to unlink (remove) a special device file that was used to perform a recent change function on the ECD. The unlink may have failed because the file it is trying to unlink does not exist or the directory this file is in does not have write permissions. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`145xxy` = setio() error.

The *UNIX*® system call setio() failed when system update attempted to set the input/output (I/O) mode for the tape device from which the new release is to be read to physical I/O. The setio may have failed because the tape device was never opened. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`146xxy` = setio() error.

The *UNIX*® system call setio() failed when system update attempted to set the I/O mode for a partition to be updated to physical I/O. The setio may have failed because the partition was never opened. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`147xxy` = mknod() error.

The *UNIX*® system call mknod() failed when the system update proceed option attempted to make a node that would be used to copy the system update log file to the offline disk (offline disk method) or to the backup /etc partition (backup partition method). Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update from the beginning of the enter step.

`148xxy` = mknod() error.

The *UNIX*® system call mknod() failed when system update attempted to make a node that would be used to update the backup partitions using the offline disk method. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update from the beginning of the enter step.

`149xxy` = mknod() error.

The *UNIX*® system call mknod() failed when system update attempted to make a node that would be used to copy the new release to the offline disk (offline disk method) or to the backup partitions (backup partition method). Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update from the beginning of the enter step.

`150xxy` = mknod() error.

The *UNIX*® system call mknod() failed when system update attempted to make a node that would be used to perform a recent change function on the ECD. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update from the beginning of the enter step.

`151xxy` = fopen() error.

The *UNIX*® system call fopen() failed when system update attempted to open a file (located in /tmp) that is to be used to create a recent change script which is used to change the ECD. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`152xxy` = fclose() error.

The *UNIX*® system call fclose() failed when system update attempted to close the file (located in /tmp) that contains a recent change script used to change the ECD. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`153xxy` = sendpw() error.

The *UNIX*® system call sendpw() failed when system update attempted to send a message to MIRA in order to remove or restore a UCB. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, either start the update over from the beginning of the enter step, or take one of the following actions:

- If this error occurred during the restore process, manually restore the partitions containing the new release (for the backup partition update method) or the disks containing the new release (for the offline disk update method) to the old release. Then, manually execute the applhook process.
- If this error occurred during the commit process, manually restore the partitions containing the old release (for the backup partition update method) or the disks containing the old release (for the offline disk update method) to the new release. Then, manually execute the applhook process.
- If this error occurred during any other system update process, start the update over from the beginning of the enter step.

1.3 Errors Associated with the Input Data

`201xxy` = VTOC is not the first piece of data on the mounted LDFT tape.

This error occurred when system update could not find the VTOC because:

- System update incorrectly thinks it should have the first tape of the sequence and therefore searches for the VTOC.
- The wrong tape may have been mounted; check to make sure that the mounted LDFT tape is the first tape in the sequence.

Try to continue the update using the UPD:G-CONTINUE input message. If the problem persists, the LDFT tape may be damaged. Regenerate a new tape.

`202xxy` = HEADER and VTOC addresses are different.

While a partition entry was being searched for in the disk VTOC, the search erroneously went beyond the scope of the VTOC. The disk partition address that was specified in the LDFT header for that partition does not match the disk partition address in the corresponding VTOC entry on the disk. The LDFT tape may be damaged. Regenerate a new LDFT tape and start the update over from the beginning of the enter step.

`203xxy` = Disk and tape VTOCs are different.

The VTOC entry on tape must be identical to the VTOC entry on disk. The VTOC on the LDFT tape may be damaged. Regenerate a new tape sequence.

`204xxy` = A partition being updated does not have a backup partition.

All partitions must have backup partitions if they are being updated using the backup partition method (except for the VTOC and little boot partitions). If some partitions need to be updated but do not have backup partitions, start the update over from the beginning of the enter step using the offline disk method.

`205xxy` = Primary and backup versions of same partition found on same tape.

An LDFT tape can only contain the primary or the backup version of the same partition. Both cannot be found on the LDFT tape. The LDFT tape may be damaged. Regenerate a new tape.

`206xxy` = Partition data spans across partition boundaries.

Each header on the LDFT tape contains the starting address for that partition on the disk and the partition's size. The address plus the size gives the starting address for the next partition. But, in this case, the address plus the size gives an address that is past the starting address for the next partition. The LDFT tape may be damaged. Regenerate a new tape.

`207xxy` = Two VTOCs found in same tape sequence.

Only one VTOC is allowed per tape sequence. This may be a bad tape sequence. The entire tape sequence should be regenerated.

`208xxy` = End-of-tape and end-of-sequence flags on LDFT tape are incompatible.

The end-of-sequence flag is set in the last header on the last tape, but the end-of-tape flag is not set. This may be a bad tape. Regenerate a new tape.

`209xxy` = Different hash sums.

A hash sum is a computed integer used to make sure that the data on the LDFT tape has not been damaged since the tape was created. The hash sum that is in one of the headers on the LDFT tape for that header or its data block does not match the hash sum that system update computed for that header or data block.

Make sure that the "head" of the tape drive is clean and try to continue the update using the UPD:G-CONTINUE input message. If the error persists, the LDFT tape may be damaged. Regenerate a new tape.

`210xxy` = ichk() detected error(s) on file system.

At this time, this error will never occur because system update does not call ichk().

`211xxy` = Cannot find VTOC partition entry in the VTOC VTOC on the LDFT tape.

This may be a bad VTOC on the tape. Regenerate a new tape.

`212xxy` = Cannot find the RTC partition entry in the VTOC on the disk.

The VTOC on the disk may be bad. This update cannot be continued until this problem is resolved.

`213xxy` = Cannot find ETC partition entry in the VTOC on the LDFT tape.

This may be a bad VTOC on the tape. Regenerate a new tape.

`214xxy` = Cannot find ECD partition entry in the VTOC on the LDFT tape.

This may be a bad VTOC on the tape. Regenerate a new tape.

`215xxy` = SG ID on LDFT tape does not match the SG ID on previous LDFT tape.

An SG ID is an identifier in the first header of an LDFT tape that describes the SG database from which this tape was written. It is used to make sure that multiple tapes and sequences were written using the same SG database. The SG ID on the LDFT tape does not match the SG ID on the previously loaded LDFT tape. This is not really an error, just a warning. This may occur if a field site uses its own SG database when generating tapes. Continue the update using the UPD:G-CONTINUE input message and the error will be ignored.

`216xxy` = Release version number on LDFT tape does not match release version number on previous LDFT tape.

A release version number is used to make sure that multiple tapes and sequences were written using the same release version.

Continue the update using the UPD:G-CONTINUE input message and the error will be ignored.

`217xxy` = Little boot entry in offline disk VTOC could not be found when system update attempted to restore the little boot start block address to its valid value.

Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, the VTOC on the offline disk may be damaged.

`218xxy` = Little boot entry in the VTOC on the LDFT tape is different from the little boot entry in the VTOC on the disk when the backup partition method is being used.

During a backup partition method update, the old and new VTOCs must be identical. The LDFT tape may be damaged. Regenerate a new tape and start the update over from the beginning of the enter step.

`219xxy` = One of the VTOC entries for a partition being updated (excluding VTOC and little boot) in the VTOC on the LDFT tape is different from its corresponding VTOC entry on disk when the backup partition method is being used.

During a backup partition method update, the old and new VTOCs must be identical. The LDFT tape may be damaged. Regenerate a new tape and start the update over from the beginning of the Enter step.

`220xxy` = One of the VTOC entries for a partition being updated (excluding VTOC and little boot) in the VTOC on the LDFT tape is different from its corresponding VTOC entry on disk when the offline disk method is being used.

This partition was also already updated in a previous tape sequence. During an offline disk method update, a VTOC may be different only as long as the partition corresponding to the VTOC entry that changed has not been updated in a previous tape sequence.

`221xxy` = VTOC entry for little boot on LDFT tape is different from VTOC entry for little boot on disk when the offline disk method is being used.

The little boot partition was also already updated in a previous tape sequence. During an offline disk method update, a VTOC may be different only as long as the partition corresponding to the VTOC entry that changed has not been updated in a previous tape sequence.

`222xxy` = Header for VTOC on LDFT tape contains starting address for VTOC on the disk and the VTOC's size.

The address plus the size gives the starting address for the next partition. But, in this case, the address plus the size gives an address that is past the starting address for the next partition. The LDFT tape may be damaged. Regenerate a new tape.

`223xxy` = VTOC entry for primary source or backup destination partition not found in offline disk VTOC.

When updating the backup partitions using the offline disk method, the VTOC entry for a source (primary) or destination (backup) partition could not be found in the offline disk VTOC. The offline disk VTOC may be damaged. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`224xxy` = VTOC entry in VTOC on LDFT tape could not be found.

This may be a bad VTOC on the tape. Regenerate a new tape and start the update over from the beginning of the Enter step.

`225xxy` = Little boot entry in VTOC read from LDFT tape could not be found when system update attempted to invalidate the little boot start block address to prevent a boot from occurring from the disk that is being updated.

Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, the VTOC on the LDFT tape may be damaged. Regenerate a new tape and start the update over from the beginning of the Enter step.

`226xxy` = VTOC entry could not be found in VTOC on the mounted LDFT tape.

The LDFT tape may be damaged. Regenerate a new tape and start the update over from the beginning of the Enter step.

`227xxy` = Note: This error message is not available in all releases.

The pack IDs in the tape and destination disk VTOCs do not match. Check that the proper tape is mounted, and that the destination VTOC was entered correctly. This check can be overridden by performing the update unconditionally with the UCL parameter.

1.4 Internal System Update Errors

`301xxy` = Too many message line arguments used.

The maximum number of arguments allowed on the message line has been exceeded for one of the following options: continue, readlog, stop, commit, restore, backout, enter, or proceed. The only way this error message could appear is if the system update process has been executed from a *UNIX*® terminal instead of a user terminal. Re-execute the system update process using the correct arguments, or execute the process from a user terminal using the corresponding input message.

`302xxy` = Message returned was not what was expected.

Any time system update sends a message to SIM, the disk driver, applhook, or continue, it checks the return message that is sent back. In this case, a bad message was returned or the time limit set to receive the message from continue expired. Try to continue the update using the UPD:G-CONTINUE input message.

`303xxy` = Internal buffers are too small.

The data after a header on the LDFT tape is larger than one segment. Up to only one segment is allowed after each header. The LDFT tape may be damaged. Regenerate a new tape.

`304xxy` = Cannot locate system update log.

Any time the system update log is accessed, it is assumed to be in /etc/log/suprlog. In this case, it could not be found. System update may have been attempting to retrieve or write a log entry or attempting to read the entire log file. The log file may have been accidentally removed. If the system update readlog message was executed to read the log file, the log file cannot be read since readlog cannot locate it. If any other system update process was executed, start the update over from the beginning of the enter step.

`305xxy` = No "enter" entries in log.

Log entries for the enter step cannot be found in the system update log. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, the log file may be damaged. Start the update over from the beginning of the enter step.

`306xxy` = Log entries are inconsistent.

The system update continue option found that one of the entries in the system update log file contains a bad value (the type of log entry, tape sequence number, or disk pair number). The system update log may be damaged. Start the update over from the beginning of the enter step.

`307xxy` = Bad process type.

A bad process type was found in one of the log entries in the system update log file. This error occurs when system update tries to continue an update and the entry for the system update process that is being continued cannot be found in the log. The log may be damaged. Start the entire update over from the beginning of the enter step.

`308xxy` = Bad update method.

The system update readlog option found an incorrect update method specified in one of the system update log file entries (begin or disk) or the system update enter option found an incorrect update method specified on its message line. Only two methods are allowed: backup partition method or off-line disk method. If the readlog message was executed, the log may be damaged and therefore

cannot be read. If the enter option was executed, start the update over from the beginning of the enter step.

`309xxy` = Bad execution mode.

The system update readlog option found a bad execution mode in a begin log entry for one of the system update processes. Only two execution modes are allowed: conditional or unconditional. The log file may be damaged and therefore cannot be read.

`310xxy` = Bad bootfile.

The system update readlog option found an incorrect bootfile specified in the end entry in the system update log file. Only two bootfile types are allowed: DMERT or APPDMERT. The log file may be damaged and therefore cannot be read.

`311xxy` = Bad file system.

The system update readlog option found an incorrect file system specified in the end entry in the system update log file. Only two file systems are allowed: PRIMARY or SECONDARY. The log file may be damaged and therefore cannot be read.

`312xxy` = Bad log entry.

A bad disk pair number was found in either the disk or end log entry in the system update log. The log file may be damaged. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`313xxy` = Bad completion code.

The system update readlog option found that the end entry in the system update log file contains a bad completion code. Only two completion codes are allowed: SUCCESS or FAILURE. The log may be damaged and therefore cannot be read.

`314xxy` = Tried to reserve the same disk twice.

System update tried to reserve a disk that has already been reserved. Try to continue the update using the UPD:G-CONTINUE input message.

`315xxy` = Tried to release an unreserved disk.

System update tried to release a disk that was never previously reserved. Try to continue the update using the UPD:G-CONTINUE input message.

`316xxy` = Bad UCB disk state requested.

A bad state was specified when system update attempted to change the state of a UCB (valid state is either OOS or ACT) or a disk (valid state either OOS or OFL). Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, either start the update over from the beginning of the enter step, or take one of the following actions:

- If this error occurred during the restore process, manually restore the partitions containing the new release (for the backup partition update method) or the disks containing the new release (for the offline disk update method) to the old release. Then, manually execute the applhook process.

- If this error occurred during the commit process, manually restore the partitions

containing the old release (for the backup partition update method) or the disks containing the old release (for the offline disk update method) to the new release. Then, manually execute the applhook process.

- If this error occurred during any other system update process, start the update over from the beginning of the enter step.

`317xxy` = Bad sequence indicator.

The system update readlog option found that the tape entry in the system update log file contains a bad sequence number. Only three sequence entries are allowed: FIRST, SECOND, or THIRD. The log may be damaged and therefore cannot be read.

`318xxy` = Bad continuable indicator.

The system update readlog option found that the end entry of the system update log contains a bad continuable flag variable. Only two continuable flag variables are allowed: YES or NO. The log may be damaged and therefore cannot be read.

`319xxy` = BEGIN ENTER log entry could not be found in the system update log file.

The log may be damaged. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`320xxy` = System update enter option terminated.

The system update enter option terminated while it was updating the backup partitions using the offline disk method and then was continued using the UPD:G-CONTINUE input message. In order for system update to know which partition it was in the middle of updating before it terminated, it looks in the log file and attempts to find the last UPDATE ENTER log entry.

In this case, the UPDATE ENTER log entry could not be found. Therefore, system update could not do any further processing. Try to continue the update again using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter message.

`321xxy` = VTOC on FDFT tape exceeds maximum allowed.

The size of the VTOC on the LDFT type is greater than the maximum size allowed (512 bytes). The VTOC may be damaged on the LDFT tape. Regenerate a new tape.

`322xxy` = Write log entry found in system update log file without a proceeding disk log entry.

The log file may be damaged. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`323xxy` = Log file retrived not requested.

System update requested a log entry (disk, tape, or end) from the log file, but the log entry that was retrieved was not the one requested. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`324xxy` = Corresponding disk log not found.

While searching the system update log file, system update could not find the disk log entry that corresponds to the bootdisk being updated. Try to continue the update using the

UPD:G-CONTINUE input message.

`325xxy` = Incorrect update method specified.

System update found an incorrect update method specified in the internal variable glob_method which was obtained through the enter message line or the system update log file. Only two methods are allowed: backup partition method or off-line disk method. The log may be damaged. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the entire update over from the beginning of the enter step.

`326xxy` = Bad execution mode found on enter message line.

Only two execution modes are allowed: conditional or unconditional. Start the update over from the beginning of the enter step.

`327xxy` = Bad sequence option in log file.

System update found bad sequence option in the log file. Valid sequence options are: SGL, DBL, or TPL. The log may be damaged and therefore cannot be read. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter message.

1.5 Errors Associated with Execution

`401xxy` = Context of request is invalid.

The system update enter option was executed conditionally (without the UCL argument) while the system update log file contained log entries (possibly from a previous update session). Either remove the log file (/etc/log/suprlog) or execute the enter message using the UCL argument on the message line.

`402xxy` = Bad input file (tape unit) specified.

The input file specified (normally a tape unit) on the enter message line is invalid. Make sure that the name is entered correctly (the name of a tape unit is of the form /dev/mtnn where 'nn' is a two digit hexadecimal number). If the input is from a tape, make sure that the unit is on-line. Re-execute the enter message with the UCL argument on its message line.

`403xxy` = Data not in sync.

The tape being read is either not a tape usable with system update (not in LDFT format), the data on it has been mutilated, or the LDFT formatted tape being used was created for a different processor. Make sure that the correct tape has been mounted, and continue the update using the UPD:G-CONTINUE input message.

`404xxy` = Data sequence ID incorrect (wrong tape).

The data input does not belong on the disk being written. Make sure that correct tape has been mounted and continue the update using the UPD:G-CONTINUE input message.

`405xxy` = Data sequence number out of order.

One of the tapes in the sequence has been mounted out of order. Mount the correct tape and continue the update using the UPD:G-CONTINUE input message.

406xxy = Bad destination VTOC specified.

The filename specified for the disk being updated is not a block special device file or the disk cannot be opened. Check that the filename was entered correctly. If not, re-execute the Enter message using the UCL argument on the message line.

407xxy = This error code is no longer used.

408xxy = User did not return from "continue" request.

When a new tape needs to be mounted, a mount tape and continue message appears. After the user mounts the tape, the UPD:G-CONTINUE input message needs to be executed in order for the update to continue its processing.

System update waits 30 minutes for the continue message to be executed. If it is not executed, another mount tape and continue message appears and system update waits another 30 minutes for the continue message to be executed. If it still is not executed, system update terminates with this error code. Execute the UPD:G-CONTINUE input message to continue the update process where system update left off.

409xxy = Attempt to run two system update processes.

The user attempted to:

- Run two system update processes at the same time (when one system update process is running another one may not be started unless it is one of the following: stop, continue, or readlog)
- Run a system update process while field update or PDT is currently running (a system update cannot be performed while field update or PDT is running)

If a system update process needs to be stopped, the system update stop message may be used to stop it. If this is not successful, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

410xxy = User stopped process (not a fault condition).

This error code is used to acknowledge that the user terminated one of the system update processes (commit, restore, backout, enter, or proceed) using the system update stop option. There is no fault condition associated with this code.

411xxy = No process exists to talk to (such as, nothing to stop).

The user has attempted to stop a system update process using the system update stop option when there are no system update processes that are running.

412xxy = System update log is empty.

The system update log file does not contain any log entries when it is expected to in one of the following situations:

- An attempt to continue a system update process was made, but the message to be continued could not be figured out since this information is contained in the log file and the log file is either empty or does not contain the BEGIN ENTER log entry,

- The log file was attempted to be read using the system update readlog message, but there was nothing to read since the log file was empty,
- One of the system update processes (excluding the enter process) was executed when the log file was empty. These processes need information in the log in order to complete their processing, or
- The log file was attempted to be searched for information, but the log file is empty.

Start the update over from the beginning of the enter message.

`413xxy` = Off-line disk method started with one disk active.

The offline disk method is being used and a disk was selected by system update to retain the old release, but this disk is not in the active state. All disk pairs must be duplexed (active) before the enter message is executed. Restore all affected disks to service and execute the enter message again using the UCL argument on its message line. If this error occurred because the system update Enter process aborted leaving one or more disks in the offline state, execute the restore message using the UCL argument on its message line and wait for it to complete. Then, start the update over from the beginning of the enter step.

`414xxy` = In off-line disk method with both disks active.

An offline disk was somehow restored to service when system update expected it to be in the offline state. If all affected disks are offline, try to continue the update using the UPD:G-CONTINUE input message. If an affected disk(s) is active or if the error persists after the continue, start the update over from the beginning of the enter step.

`415xxy` = Process did not log failure termination.

The user attempted to restart a system update process with the continue option but the last system update process that was run logged a successful termination and therefore cannot be continued. Dumping the system update log file using the readlog option may be helpful in determining what happened to the last process. Try to execute the next system update process.

`416xxy` = Process is not continuable.

The user attempted to restart a system update process using the continue option, but the last system update process that was run failed due to a problem which would usually cause it to fail again. For example, one of the pathnames in an enter input message was bad, or one or more log entries needed for continuing the process are corrupted.

Dumping the log file using the readlog message may be helpful in determining what happened to the original process. Try to re-enter the original input message using the UCL argument on the message line (for the enter option, make sure the disks are duplexed first - refer to error code `413xxy`).

`417xxy` = Disk is no longer off-line.

A specified disk device is not in any of the following valid states: offline, out of service, or active. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, either start the update over from the beginning of the enter step, or take one of the following actions:

- If this error occurred during the enter process, restore the disk to an active state and re-execute the enter option using the UCL argument on its message line.

- If this error occurred during the restore process, manually restore the partitions containing the new release (for the backup partition update method) or the disks containing the new release (for the offline disk update method) to the old release. Then, manually execute the applhook process.

- If this error occurred during the commit process, manually restore the partitions containing the old release (for the backup partition update method) or the disks containing the old release (for the offline disk update method) to the new release. Then, manually execute the applhook process.

`418xxy` = Bad destination DFC specified.

An invalid DFC unit number was specified as an argument to the OFLDISK keyword on the enter message line. Valid DFC unit numbers are zero and one. The DFC number can be omitted, in which case the Enter process will chose DFC 1.

`419xxy` = Command executed out of order.

A system update message was executed out of order.

- The proceed message was executed before the enter message completed successfully.

- The commit message was executed before the proceed message completed successfully.

- The backout message was executed before the proceed message completed successfully.

- If error code '`y`' is `4`, the restore option was executed before the proceed option completed successfully. Execute the restore option unconditionally using the UCL argument on its message line.

- If error code '`y`' is `5`, conditional restore after successful backout or proceed is no longer valid. Execute the restore message unconditionally using the UCL argument on its message line.

`420xxy` = Incorrect file system base is running.

The wrong file system base is currently running for the system update message that was just executed.

- For backout and commit options, the file system currently running needs to be the new release.

- For proceed and restore options, the file system currently running needs to be the old release.

If the wrong option was executed, execute the right one. If the right option was executed, boot the system so that it is running on the correct file system, then execute the option again.

`421xxy` = Disk not in active state.

The offline disk method is being used and a disk was selected by system update to contain the new release, but this disk is not in the active state. All disk pairs must be duplexed (active) before the enter option is executed. Restore all affected disks to service and execute the enter option again.

If this error occurred because the system update enter process aborted leaving one or more disks in the offline state, execute the restore options using the UCL argument on the message line and wait for it to complete. Then, start the update over from the beginning of the enter step.

`422xxy` = Disk being updated not in offline state.

When the backup partitions are being updated using the offline disk method, the disk being updated should be in the offline state, but it is not. Check the common processor display page or another page which shows the MHDs. If all disks affected are active, try to re-execute the enter option using the UCL argument on the message line. If any affected disks are out of service, restore them and then re-execute the enter option using the UCL argument on the message line.

`423xxy` = Disk being updated is no longer in offline state.

The disk being updated, which should be in the offline state, is no longer in that state. Check the common processor display page or another page which shows the MHDs. If all disks affected are active, try to re-execute the enter option using the UCL argument on the message line. If any affected disks are out of service, restore them and then re-execute the enter option using the UCL argument on the message line.

1.6 Errors Associated with Application Processing

`501xxy` = Time limit message error.

This error may have occurred because:

- The application process did not send a message indicating a time limit that it needs to do its processing.
- The message that the application process sent to set a time limit was damaged.
- The *UNIX*® RTR send() process failed when the application process tried to use it to send a time limit message to the system update process.

If the error occurred because the application process did not send a time limit message, start the application process over using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`502xxy` = Application hook process failed or did not return.

Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

1.7 Errors Associated with Interfaces with *UNIX*® RTR

`601xxy` = User is not privileged for execution.

The system update process must be executed from a login that has superuser permissions. After resolving the problem, try to continue the update using the UPD:G-CONTINUE input message.

`602xxy` = Timeout for SIM message.

When system update sends SIM a message, it sets a time out limit by which it must receive the return message from SIM. This error occurred when system update was waiting for the return message from SIM. This error may have occurred because:

- System update did not receive a return message from SIM within the time out limit.
- The recvw() process that waits for the return message from SIM failed.

Try to continue the update using the UPD:G-CONTINUE input message.

`603xxy` = Time out for MIRA message.

When system update sends MIRA a message, it sets a time out limit by which it must receive the return message from MIRA. This error occurred when system update was waiting for the return message from MIRA. This error may have occurred because:

- System update did not receive a return message from MIRA within the time out limit.
- The recvw() process that waits for the return message from MIRA failed.

Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, either start the update over from the beginning of the enter step, or take one of the following actions:

- If this error occurred during the restore process, manually restore the partitions containing the new release (for the backup partition update method) or the disks containing the new release (for the offline disk update method) to the old release. Then, manually execute the applhook process.
- If this error occurred during the commit process, manually restore the partitions containing the old release (for the backup partition update method) or the disks containing the old release (for the offline disk update method) to the new release. Then, manually execute the applhook process.
- If this error occurred during any other system update process, start the update over from the beginning of the enter step.

`604xxy` = Timeout for disk driver message.

When system update sends the disk driver a message, it sets a time out limit by which it must receive the return message from the disk driver. This error occurred when system update was waiting for the return message from the disk driver. This error may have occurred because:

- System update did not receive a return message from the disk driver within the time out limit.
- The recvw() process that waits for the return message from the disk driver failed.

Try to continue the update using the UPD:G-CONTINUE input message.

605xxy = Bad MIRA return on message.

When system update receives a return message from MIRA, it checks certain fields in the message for bad values. This error occurs when system update finds a bad value in one of the fields in the return message. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, either start the update over from the beginning of the enter step, or take one of the following actions:

- If this error occurred during the restore process, manually restore the partitions containing the new release (for the backup partition update method) or the disks containing the new release (for the offline disk update method) to the old release. Then, manually execute the applhook process.
- If this error occurred during the commit process, manually restore the partitions containing the old release (for the backup partition update method) or the disks containing the old release (for the offline disk update method) to the new release. Then, manually execute the applhook process.
- If this error occurred during any other system update process, start the update over from the beginning of the enter step.

606xxy = Bad disk driver return on message.

When system update receives a return message from the disk driver, it checks the return code that is in the message. The value of the return code must be zero. This error occurred because the return code was a value other than zero. Try to continue the update using the UPD:G-CONTINUE input message.

607xxy = Wrong disk state result.

After MIRA changes the state of the disk (to active or out of service), system update checks the UCB of that disk in the ECD to make sure that the change actually took place. This error occurred when system update thought it changed the state of the disk, but the UCB of that disk does not reflect the change. Either MIRA did not change the state correctly or the state field in the UCB is damaged. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, either start the update over from the beginning of the enter step, or take one of the following actions:

- If this error occurred during the restore process, manually restore the partitions containing the new release (for the backup partition update method) or the disks containing the new release (for the offline disk update method) to the old release. Then, manually execute the applhook process.
- If this error occurred during the commit process, manually restore the partitions containing the old release (for the backup partition update method) or the disks containing the old release (for the offline disk update method) to the new release. Then, manually execute the applhook process.
- If this error occurred during any other system update process, start the update over from the beginning of the enter step.

608xxy = No active boot disks.

System update checks the UCB in the ECD to find out which disk is the current system disk that is in the active state. This error occurred because there were not any disks that were in the active state. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, restore both disks to the active state and start the update over from the beginning of the enter step.

`609xxy` = Partition copy error.

The COPY:PTN-ALL input message failed when the system update restore or commit option used it to copy the new or old release over the old or new release during a backup partition method update. The error(s) associated with the COPY:PTN-ALL input message will be saved in /tmp/supr.prtcp. The most common cause for this error is when the disks are not duplexed (such as, both disks are not active) when the restore or commit options are executed. After resolving the problem, (such as, duplex both disks), continue the update using the UPD:G-CONTINUE input message.

`610xxy` = Recent change error.

This error occurred when system update was performing a recent change on the ECD. The journal file and the error messages will be saved in /tmp/supr.rcv and /tmp/supr.rcvout respectively. After resolving the problem, try to continue the update using the UPD:G-CONTINUE input message.

`611xxy` = Copy message failed.

This error may have occurred when system update was copying the log from the old release to the new release. Additional error codes can be found in /tmp/supr.cp. After resolving the problem, try to continue the update using the UPD:G-CONTINUE input message.

`612xxy` = ECDMAN ugucbn() error.

This error occurred when system update used the ECD function ugucbn() to get information about the UCB record associated with a specified disk. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, either start the update over from the beginning of the enter step, or take one of the following actions:

- If this error occurred during the restore process, manually restore the partitions containing the new release (for the backup partition update method) or the disks containing the new release (for the offline disk update method) to the old release. Then, manually execute the applhook process.
- If this error occurred during the commit process, manually restore the partitions containing the old release (for the backup partition update method) or the disks containing the old release (for the offline disk update method) to the new release. Then, manually execute the applhook process.
- If this error occurred during any other system update process, start the update over from the beginning of the enter step.

`613xxy` = ECDMAN ugetucb() error.

This error occurred when system update used the ECD function ugetucb() to get the UCB record for a specified disk. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, either start the update over from the beginning of the enter step, or take one of the following actions:

- If this error occurred during the restore process, manually restore the partitions

containing the new release (for the backup partition update method) or the disks containing the new release (for the offline disk update method) to the old release. Then, manually execute the applhook process.

- If this error occurred during the commit process, manually restore the partitions containing the old release (for the backup partition update method) or the disks containing the old release (for the offline disk update method) to the new release. Then, manually execute the applhook process.

- If this error occurred during any other system update process, start the update over from the beginning of the enter step.

614xxy = ECDMAN ugmamirids() error.

This error occurred when system update used the ECD function ugetrec() to get the pointer to the UCBs for the two disks that are associated with the update. Try to continue the update using the UPD:G-CONTINUE input message.

`615xxy` = ECDMAN ursvucd() error.

This error occurred when system update used the ECD function ursvucb() to reserve a UCB. The disk that system update is trying to update must first be reserved so that no other processes can write to it. This is done by reserving the disk's UCB. The ursvucb() function may have failed because another process has already reserved the disk that is trying to be reserved. Check to see if the disk is already reserved. If it has been reserved, execute the following input message on a *UNIX*® terminal to unreserve the disk: `/etc/udgnnm MHD x` where '`x`' is the disk number that needs to be unreserved. Then, try to continue the update using the UPD:G-CONTINUE input message.

`616xxy` = ECDMAN ugsdf() error.

This error occurred when system update used the ECD function ugsdf() to get the special device file name associated with the disk to be updated so that system update can access that disk. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`617xxy` = ECDMAN urelucb() error.

This error occurred when system update used the ECD function urelucb() to release (unreserve) a reserved UCB. Try to continue the update using the UPD:G-CONTINUE input message.

`618xxy` = ECDMAN ursdf() error.

This error occurred when system update used the ECD function ursdf() to give back to the system the special device file name of the updated disk that was obtained by the ugsdf() message (refer to error `616xxy`). Try to continue the update using the UPD:G-CONTINUE input message.

`619xxy` = ECDMAN usettnum() error.

System update no longer uses the ECD usettnum() function, so this error should never appear.

`620xxy` = ECDMAN usetucb() error.

System update no longer uses the ECD usetucb() function, so this error should never appear.

`621xxy` = Unable to stop process with pkill().

The system update stop option could not stop the currently running system update process using the pkill() function call. If the stop options cannot kill a system update in progress using the kill() function call, it then tries to kill it using the pkill() function call. The pkill function call may have failed because there was a bad process ID number (PID) in the system update log file for the process that needed to be terminated.

The stop option looks in the log file to find the PID of the process that is currently running and calls pkill() with that PID. If the PID is damaged in the log file, the pkill() option may be executed manually using the correct PID of the process that needs to be terminated.

`622xxy` = Unable to stop process with kill.

The system update stop option could not stop the currently running system update process using the kill() function call. The kill() function call is used in the stop option to terminate the system update process that is currently running. The kill() function call may have failed because:

- The process to be killed does not exist.
- The sending process is not a superuser, and the sending and receiving processes do not have the same effective user ID.
- The PID of the process being terminated is damaged in the system update log. The stop option passes this PID as a parameter to kill().

If the system update still needs to be stopped, execute the system update stop process unconditionally using the UCL argument on its message line.

CAUTION: If stop is executed unconditionally, the system update process will be terminated by a more extreme method than a kill (pkill). Some system resources in use by the process may not be automatically released.

`623xxy` = System error killed the process.

A system update process was terminated due to a phase 1 signal. System update may not get a chance to print this error message when the interrupt occurs. If the system update process is continued using the UPD:G-CONTINUE input message, the continue option will put this error code in the end entry of the system update log file.

APP:SUPR-B

Software Release: 5E13 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. System Update Error Codes Appendix

1.1 Introduction

This appendix contains the error codes for system update. The error codes consist of six decimal digits. The first three digits indicate the nature of the error. The next two digits ('`xx`') indicate the module in which the error occurred (that information is not provided here). The last digit (the error number, '`y`') is used to differentiate errors of the same error code that can occur multiple times in the same module. To locate exactly which error in the module failed, each error is given its own unique error number.

1.2 Errors Associated with *UNIX*® System Calls

More information about these *UNIX*® system calls can be found in the APP:SYSERR appendix in the Appendixes section of the Output Messages manual. The error code that corresponds with the system call that failed is kept in the system update log file. It can be read by executing the OP:G-READLOG input message. The log entry specifying the *UNIX*® error number will be the error code for the *UNIX*® call that failed.

`101xxy` = mkseg() error.

The *UNIX*® system call mkseg() failed when the system update enter option tried to create a segment using makeseg() that was to be used as a buffer when reading in a new partition from the LDFT tape and writing it to disk. makeseg() may have failed because there was not enough space in memory for the segment. After resolving the problem, try to continue the update using the UPD:G-CONTINUE input message.

`102xxy` = open() error.

The *UNIX*® system call open() failed when system update attempted to open the system update log file. The open may have failed because:

- The system update log file does not exist (/etc/log/suprlog).
- One of the directories in the system update log file pathname (/etc/log) does not exist or does not have read permissions.
- The system update log file is not readable or writable depending on what it is being opened for (reading or writing).
- Too many files are open.

After resolving the problem, try to continue the update using the UPD:G-CONTINUE input message.

`103xxy` = read() error.

The *UNIX*® system call read() failed when system update tried to read an entry from the system update log file. The read may have failed because:

- A damaged log file.

- Physical I/O errors.
- A bad read() parameter.
  - -- Bad buffer address where the data is to be read.
  - -- Number of bytes to be read is bad.
  - -- File descriptor indicating the file to be read from is not that of an input file.

Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`104xxy` = "seek()" error.

The *UNIX*® system call lseek() failed when system update attempted to "seek" to a particular log entry in the system update log file. The lseek may have failed because the file descriptor for the log file is undefined, the "seek" went to a position before the beginning of the log file, or the log file is damaged. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`105xxy` = write() error.

The *UNIX*® system call write() failed when system update attempted to write a log entry to the system update log file. The write may have failed because:

- Physical I/O errors.
- A bad write() parameter.
  - - Bad buffer address from where the data is to be read.
  - - Number of bytes to be written is bad.
  - - Bad file descriptor for the system update log file to which the data is to be written.

Try to continue the update using the UPD:G-CONTINUE input message.

`106xxy` = close() error.

The *UNIX*® system call close() failed when system update attempted to close the system update log file. An incorrect file descriptor for the log file may have been passed to the close() option. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`107xxy` = unlink() error.

The *UNIX*® system call unlink() failed when the system update proceed option attempted to unlink (remove) the special device file that was used to copy the system update log file to the offline disk (offline disk method) or to the backup /etc partition (backup partition method). The unlink may have

failed because the file it is trying to unlink does not exist or the directory this file is in does not have write permissions. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`108xxy` = setio() error.

The *UNIX*® system call setio() failed when system update attempted to set the input/output mode for the disk being updated to physical I/O. The setio may have failed because the disk being updated was never opened. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`109xxy` = mknod() error.

The *UNIX*® system call mknod() failed when the system update restore or commit option attempted to make a node that would be used to copy the new/old partitions over the old/new partitions using the backup partition method. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, either start the update over from the beginning of the enter step, or take one of the following actions:

- If this error occurred during the restore process, manually restore the partitions containing the new release (for the backup partition update method) or the disks containing the new release (for the offline disk update method) to the old release. Then manually execute the applhook process.

- If this error occurred during the commit process, manually restore the partitions containing the old release (for the backup partition update method) or the disks containing the old release (for the offline disk update method) to the new release. Then manually execute the applhook process.

`110xxy` = lcall() error.

The *UNIX*® system call lcall() failed when system update attempted to execute applhook (/prc/supr/applhook). Applhook may not exist or may not have execution permissions. After resolving the problem, try to continue the update using the UPD:G-CONTINUE input message.

`111xxy` = msgenab() error.

The *UNIX*® system call msgenab() failed when system update attempted to enable message reception from one of the following processes: applhook, continue, the disk driver, MIRA, or SIM. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, either start the update over from the beginning of the Enter step, or take one of the following actions:

- If this error occurred during the restore process, manually restore the partitions containing the new release (for the backup partition update method) or the disks containing the new release (for the offline disk update method) to the old release. Then, manually execute the applhook process.

- If this error occurred during the commit process, manually restore the partitions containing he old release (for the backup partition update method) or the disks containing the old release (for the offline disk update method) to the new release. Then, manually execute the applhook process.

- If this error occurred during any other system update process, start the update over from the beginning of the enter step.

`112xxy` = send() error.

The *UNIX*® system call sendw() failed when the system update continue option either attempted to send an acknowledgement message to the system update enter process which is currently running or attempted to send a message to SIM in order to request system initialization information. Try to continue the update again using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`113xxy` = kill() error.

The *UNIX*® system call kill() failed when the system update stop option attempted to terminate the system update process that is currently running. The kill message may have failed because:

- The process to be killed does not exist.
- The sending process is not a superuser, and the sending and receiving processes do not have the same effective user ID.
- The process ID (PID) of the process being terminated is damaged in the system update log and the stop message passes this PID as a parameter to kill().

If the system update still needs to be stopped, execute the stop process unconditionally (using the UCL argument on its message line).

CAUTION: If stop is executed unconditionally, it will attempt to terminated the running system update process by an extreme method using the pkill() option. Some system resources in use by the process may not be released automatically.

`114xxy` = stat() error.

The *UNIX*® system call stat() failed when system update attempted to obtain status information about the disk that is to be updated. This function may have failed because the disk does not exist. If this error occurred during the enter step of system update, make sure that all destination file names specified on the enter option line exist. After resolving the problem, try to continue the update using the UPD:G-CONTINUE input message.

`115xxy` = msgport() error.

The *UNIX*® system call msgport() failed when system update attempted to send a message to the disk driver so that system update could have access to an out of service disk at the partition level rather than at the disk level. The msgport() may have failed because:

- The disk driver is nonexistent.
- The port number specified is invalid.
- No process is connected to the specified port.
- The message buffer is not in the user address space.

Try to continue the update using the UPD:G-CONTINUE input message..

`116xxy` = mount() error.

The *UNIX*® system call mount() failed when system update attempted to mount the /etc file system so that the system update log file can be copied to the new release or the database file system so that the ECD can by updated. The mount may have failed because:

- The effective user ID of the process executing the mount is not a superuser.
- The specified file system does not exist.
- The file system to be mounted is not specified.
- The block special file from which the file system is to be mounted is inaccessible or not an appropriate file.
- The file system is already mounted.
- The directory pathname that the file system is to be mounted on is not a directory.
- Too many file systems are mounted.

Try to continue the update by using the UPD:G-CONTINUE input message.

`117xxy` = unmount() error.

The *UNIX*® system call umount() failed when system update attempted to unmount the /etc file system after the system update log file has been copied to the new release or the database file system after the ECD has been updated. The umount may have failed because:

- The effective user ID of the process executing the umount is not a superuser.
- The file system is not mounted.
- There are active files on the file system being unmounted.

Try to continue the update using the UPD:G-CONTINUE input message.

`118xxy` = link() error.

RC/V recognizes the ECD by the name /mount_directory/ecd where mount_directory represents the directory path on which the ECD file system is mounted. However, system update recognizes the ECD by the name /mount_directory/dmert or /mount_directory/appdmert. In order for system update to use RC/V, it must link its database name with the name that RC/V recognizes. This error occurs when the link fails using the *UNIX*® system call link(). The link may have failed because:

- The original name that is being linked to cannot be found.
- The new name that is being linked already exists.
- The directory that contains the new name does not have write permissions.
- The link is done by a user other than a superuser.
- The link was attempted on a file that is on another file system.

- The file has too many links.

If this update is continued using the UPD:G-CONTINUE input message, it will keep failing until this problem is resolved. Start the update over from the beginning of the enter step.

`119xxy` = create() error.

The *UNIX*® system call create() failed when a file was being created under the /tmp directory in one of the following situations: the system update enter option attempted to create the system update log file, or the system update readlog option attempted to create a buffer used to store log entries that are about to be printed to the terminal and to the ROP. The create may have failed because:

- A directory in the pathname of the file to be created is not searchable.
- The file to be created does not exist and the directory in which it is to be created does not have write permission.
- The file to be created does exist an does not have write permissions.
- The file to be created is a directory.
- The maximum number of files (20) are already open.
- There is not enough space in the /tmp file system for the created file.

After resolving the problem, try to continue the update using the UPD:G-CONTINUE input message.

`120xxy` = vcall() error.

The *UNIX*® system call vcall() failed when the system update continue option executed the system update process that is being continued. This function normally fails when the process being executed does not exist or does not have execution permissions. Make sure that all system update processes in /prc/supr have execution permissions. After resolving the problem, re-enter the system update using the UPD:G-CONTINUE input message.

`121xxy` = rmovseg() error.

The *UNIX*® system call rmovseg() failed when the system update enter option attempted to remove a previously created segment after it was no longer needed. The segment may have been created in the first place to be used as:

- A buffer used to hold the new release which was read in from tape and then written to disk.
- A buffer used to hold the new release which was read from the primary partitions and written to the backup partitions using the offline disk method. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`122xxy` = mkseg() error.

The *UNIX*® system call mkseg() failed when the system update enter option tried to create a segment using makeseg() that was to be used as a buffer when reading in an updated segment

from the offline disk and writing it to its backup partition. makeseg() may have failed because there was not enough space in memory for the segment. After resolving the problem, try to continue the update using the UPD:G-CONTINUE input message.

`123xxy` = fopen() error.

The *UNIX*® system call fopen() failed when the system update restore or commit option attempted to open a partition that is to be used to update the old or new release to the new or old release. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, either start the update over from the beginning of the enter step, or take one of the following actions:

- If this error occurred during the restore process, manually restore the partitions containing the new release (for the backup partition update method) or the disks containing the new release (for the offline disk update method) to the old release. Then, manually execute the applhook process.
- If this error occurred during the commit process, manually restore the partitions containing the old release (for the backup partition update method) or the disks containing the old release (for the offline disk update method) to the new release. Then, manually execute the applhook process.

`124xxy` = open() error.

The *UNIX*® system call open() failed when system update attempted to open the ECD. The open may have failed because:

- The ECD special device file does not exist (/dev/ecd).
- The root directory which contains the ECD does not have read permissions.
- The ECD is not readable or writable depending on what it is being opened for (reading or writing).
- Too many files are open.

Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, either start the update over from the beginning of the enter step, or take one of the following actions:

- If this error occurred during the restore process, manually restore the partitions containing the new release (for the backup partition update method) or the disks containing the new release (for the offline disk update method) to the old release. Then, manually execute the applhook process.
- If this error occurred during the commit process, manually restore the partitions containing the old release (for the backup partition update method) or the disks containing the old release (for the offline disk update method) to the new release. Then, manually execute the applhook process.
- If this error occurred during any other system update process, start the update over from the beginning of the enter step.

`125xxy` = open() error.

The *UNIX*® system call open() failed when system update attempted to open the disk that is being updated for one of the following reasons:

- The VTOC needs to be read.
- The backup partitions need to be updated during the enter process using the offline disk method.
- The little boot start block address in the VTOC needs to be restored.

The open() may have failed because:

- The disk does not exist.
- One of the directories in the disk pathname does not exist or does not have read permissions.
- The disk is not readable or writable depending on what it is being opened for (reading or writing).
- Too many files are open.

Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`126xxy` = open() error.

The *UNIX*® system call open() failed when system update attempted to open one of the partitions that is being updated. The open may have failed because:

- The partition does not exist.
- One of the directories in the partition pathname does not exist or does not have read permissions.
- The partition is not readable or writable depending on what it is being opened for (reading or writing).
- Too many files are open.

Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`127xxy` = read() error.

The *UNIX*® system call read() failed when system update tried to read the VTOC from the LDFT tape. The read may have failed because:

- physical I/O errors
- a bad read() parameter
    - Bad buffer address where the data is to be read.

- Number of bytes to be read is bad.
- File descriptor indicating the file to be read from is not that of an input file.

Make sure the "head" of the tape drive is clean and continue the update using the UPD:G-CONTINUE input message. If the error persists, the LDFT tape may be damaged. Regenerate a new tape.

`128xxy` = read() error.

The *UNIX*® system call read() failed when system update tried to read the VTOC from disk. The read may have failed because:

- Physical I/O errors.
- A bad read() parameter.
  - Bad buffer address where the data is to be read.
  - Number of bytes to be read is bad.
  - File descriptor indicating the file to be read from is not that of an input file.

Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`129xxy` = read() error.

The *UNIX*® system call read() failed when system update tried to read a data block from an LDFT tape. The read may have failed because:

- Physical I/O errors.
- A bad read() parameter.
  - Bad buffer address where the data is to be read.
  - Number of bytes to be read is bad.
  - File descriptor indicating the file to be read from is not that of an input file.

Make sure the "head" of the tape drive is clean and continue the update using the UPD:G-CONTINUE input message. If the error persists, the LDFT tape may be damaged. Regenerate a new tape.

`130xxy` = read() error.

The *UNIX*® system call read() failed when system update tried to read a partition from the offline

disk for one of two reasons: the hash sum needed to be computed to make sure that the partition was written correctly, or the backup partition needed to be updated from its primary partition which contained the new release (for offline disk method only). The read may have failed because:

- Physical I/O errors.
- A bad read() parameter.
    - Bad buffer address where the data is to be read.
    - Number of bytes to be read is bad.
    - File descriptor indicating the file to be read from is not that of an input file.

Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`131xxy` = read() error.

The *UNIX*® system call read() failed when system update tried to read a header from an LDFT tape. The read may have failed because:

- Physical I/O errors.
- A bad read() parameter.
    - Bad buffer address where the data is to be read.
    - Number of bytes to be read is bad.
    - File descriptor indicating the file to be read from is not that of an input file.

Make sure the "head" of the tape drive is clean and continue the update using the UPD:G-CONTINUE input message. If the error persists, the LDFT tape may be damaged. Regenerate a new tape.

`132xxy` = lseek() error.

The *UNIX*® system call lseek() failed when system update attempted to "seek" to a particular partition on disk. The lseek() may have failed because the file descriptor for the disk is undefined, or the "seek" went to a position before the beginning of the disk. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, the disk may be damaged.

`133xxy` = lseek() error.

The *UNIX*® system call lseek() failed when system update attempted to "seek" to a previous block on an LDFT tape. A tape read failure may have occurred. If this happens, system update automatically "seeks" back to the beginning of the set of blocks it tried to read and tries to read those blocks again. Since a read error may have occurred first, check the possible causes for a read error located at error codes `103xxy`, and `127xxy` - `131xxy` and take the action listed there. If a read error is not the problem, make sure the "head" of the tape drive is clean and continue the

update using the UPD:G-CONTINUE input message. If the error persists, the LDFT tape may be damaged. Regenerate a new tape.

`134xxy` = write() error.

The *UNIX*® system call write() failed when the system update readlog message attempted to write log entries to an output buffer which is later spooled to the terminal and to the ROP. The write may have failed because:

- Physical I/O errors.
- A bad write() parameter.
    - Bad buffer address where the data is to be read from.
    - Number of bytes to be written is bad.
    - Bad file descriptor for the buffer to which the data is to be written.

The log file cannot be read.

`135xxy` = write() error.

The *UNIX*® system call write() failed when the system update enter message attempted to write the VTOC to the disk being updated. The write may have failed because:

- Physical I/O errors.
- A bad write() parameter.
    - Bad buffer address from where the data is to be read.
    - Number of bytes to be written is bad.
    - Bad file descriptor for the disk to which the data is to be written.

Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, the disk may be damaged.

`136xxy` = write() error.

The *UNIX*® system call write() failed when the system update enter message attempted to write a partition to the disk being updated. The write may have failed because:

- Physical I/O errors.
- A bad write() parameter.
    - Bad buffer address where the data is to be read from.
    - Number of bytes to be written is bad.
    - Bad file descriptor for the disk to which the data is to be written.

Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, the disk may be damaged.

`137xxy` = fclose() error.

The *UNIX*® system call fclose() failed when the system update restore or commit option attempted to close a partition that was used to update the old or new release to the new or old release. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, either start the update over from the beginning of the enter step, or take one of the following actions:

- If this error occurred during the restore process, manually restore the partitions containing the new release (for the backup partition update method) or the disks containing the new release (for the offline disk update method) to the old release. Then, manually execute the applhook process.
- If this error occurred during the commit process, manually restore the partitions containing the old release (for the backup partition update method) or the disks containing the old release (for the offline disk update method) to the new release. Then, manually execute the applhook process.

`138xxy` = close() error.

The *UNIX*® system call close() failed when system update attempted to close the disk being updated. An incorrect file descriptor for the disk may have been passed to the close() message. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the enter step.

`139xxy` = close() error.

The *UNIX*® system call close() failed when system update attempted to close the ECD. An incorrect file descriptor for the ECD may have been passed to the close() message. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, either start the update over from the beginning of the Enter step, or take one of the following actions:

- If this error occurred during the Restore process, manually restore the partitions containing the new release (for the backup partition update method) or the disks containing the new release (for the offline disk update method) to the old release. Then, manually execute the applhook process.
- If this error occurred during the commit process, manually restore the partitions containing the old release (for the backup partition update method) or the disks containing the old release (for the offline disk update method) to the new release. Then, manually execute the applhook process.
- If this error occurred during any other system update process, start the update over from the beginning of the enter step.

`140xxy` = close() error.

The *UNIX*® system call close() failed when system update attempted to close a partition on the disk being updated. An incorrect file descriptor for the disk partition may have been passed to the close() message. Try to continue the update using the UPD:G-CONTINUE input message. If the error

persists, start the update over from the beginning of the enter step.

`141xxy` = close() error.

The *UNIX*® system call close() failed when system update attempted to close the tape device from which the new release was read. An incorrect file descriptor for the tape device may have been passed to the close() message. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`142xxy` = unlink() error.

The *UNIX*® system call unlink() failed when system update attempted to unlink (remove) the special device file that was used to access the offline disk when updating the backup partitions using the offline disk method. The unlink may have failed because the file it is trying to unlink does not exist or the directory this file is in does not have write permissions. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`143xxy` = unlink() error.

The *UNIX*® system call unlink() failed when system update attempted to unlink (remove) the special device file that was used to access a partition being updated. The unlink may have failed because the file it is trying to unlink does not exist or the directory this file is in does not have write permissions. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`144xxy` = unlink() error.

The *UNIX*® system call unlink() failed when system update attempted to unlink (remove) a special device file that was used to perform a recent change function on the ECD. The unlink may have failed because the file it is trying to unlink does not exist or the directory this file is in does not have write permissions. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`145xxy` = setio() error.

The *UNIX*® system call setio() failed when system update attempted to set the input/output (I/O) mode for the tape device from which the new release is to be read to physical I/O. The setio may have failed because the tape device was never opened. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`146xxy` = setio() error.

The *UNIX*® system call setio() failed when system update attempted to set the I/O mode for a partition to be updated to physical I/O. The setio may have failed because the partition was never opened. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`147xxy` = mknod() error.

The *UNIX*® system call mknod() failed when the system update proceed option attempted to make a node that would be used to copy the system update log file to the offline disk (offline disk method) or to the backup /etc partition (backup partition method). Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update from the beginning of the

enter step.

`148xxy` = mknod() error.

The *UNIX*® system call mknod() failed when system update attempted to make a node that would be used to update the backup partitions using the offline disk method. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update from the beginning of the enter step.

`149xxy` = mknod() error.

The *UNIX*® system call mknod() failed when system update attempted to make a node that would be used to copy the new release to the offline disk (offline disk method) or to the backup partitions (backup partition method). Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update from the beginning of the enter step.

`150xxy` = mknod() error.

The *UNIX*® system call mknod() failed when system update attempted to make a node that would be used to perform a recent change function on the ECD. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update from the beginning of the enter step.

`151xxy` = fopen() error.

The *UNIX*® system call fopen() failed when system update attempted to open a file (located in /tmp) that is to be used to create a recent change script which is used to change the ECD. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`152xxy` = fclose() error.

The *UNIX*® system call fclose() failed when system update attempted to close the file (located in /tmp) that contains a recent change script used to change the ECD. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`153xxy` = sendpw() error.

The *UNIX*® system call sendpw() failed when system update attempted to send a message to MIRA in order to remove or restore a UCB. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, either start the update over from the beginning of the enter step, or take one of the following actions:

- If this error occurred during the restore process, manually restore the partitions containing the new release (for the backup partition update method) or the disks containing the new release (for the offline disk update method) to the old release. Then, manually execute the applhook process.

- If this error occurred during the commit process, manually restore the partitions containing the old release (for the backup partition update method) or the disks containing the old release (for the offline disk update method) to the new release. Then, manually execute the applhook process.

- If this error occurred during any other system update process, start the update over

from the beginning of the enter step.

1.3 Errors Associated with the Input Data

`201xxy` = VTOC is not the first piece of data on the mounted LDFT tape.

This error occurred when system update could not find the VTOC because:

- System update incorrectly thinks it should have the first tape of the sequence and therefore searches for the VTOC.
- The wrong tape may have been mounted; check to make sure that the mounted LDFT tape is the first tape in the sequence.

Try to continue the update using the UPD:G-CONTINUE input message. If the problem persists, the LDFT tape may be damaged. Regenerate a new tape.

`202xxy` = HEADER and VTOC addresses are different.

While a partition entry was being searched for in the disk VTOC, the search erroneously went beyond the scope of the VTOC. The disk partition address that was specified in the LDFT header for that partition does not match the disk partition address in the corresponding VTOC entry on the disk. The LDFT tape may be damaged. Regenerate a new LDFT tape and start the update over from the beginning of the enter step.

`203xxy` = Disk and tape VTOCs are different.

The VTOC entry on tape must be identical to the VTOC entry on disk. The VTOC on the LDFT tape may be damaged. Regenerate a new tape sequence.

`204xxy` = A partition being updated does not have a backup partition.

All partitions must have backup partitions if they are being updated using the backup partition method (except for the VTOC and little boot partitions). If some partitions need to be updated but do not have backup partitions, start the update over from the beginning of the enter step using the offline disk method.

`205xxy` = Primary and backup versions of same partition found on same tape.

An LDFT tape can only contain the primary or the backup version of the same partition. Both cannot be found on the LDFT tape. The LDFT tape may be damaged. Regenerate a new tape.

`206xxy` = Partition data spans across partition boundaries.

Each header on the LDFT tape contains the starting address for that partition on the disk and the partition's size. The address plus the size gives the starting address for the next partition. But, in this case, the address plus the size gives an address that is past the starting address for the next partition. The LDFT tape may be damaged. Regenerate a new tape.

`207xxy` = Two VTOCs found in same tape sequence.

Only one VTOC is allowed per tape sequence. This may be a bad tape sequence. The entire tape sequence should be regenerated.

`208xxy` = End-of-tape and end-of-sequence flags on LDFT tape are incompatible.

The end-of-sequence flag is set in the last header on the last tape, but the end-of-tape flag is not set. This may be a bad tape. Regenerate a new tape.

`209xxy` = Different hash sums.

A hash sum is a computed integer used to make sure that the data on the LDFT tape has not been damaged since the tape was created. The hash sum that is in one of the headers on the LDFT tape for that header or its data block does not match the hash sum that system update computed for that header or data block.

Make sure that the "head" of the tape drive is clean and try to continue the update using the UPD:G-CONTINUE input message. If the error persists, the LDFT tape may be damaged. Regenerate a new tape.

`210xxy` = ichk() detected error(s) on file system.

At this time, this error will never occur because system update does not call ichk().

`211xxy` = Cannot find VTOC partition entry in the VTOC VTOC on the LDFT tape.

This may be a bad VTOC on the tape. Regenerate a new tape.

`212xxy` = Cannot find the RTC partition entry in the VTOC on the disk.

The VTOC on the disk may be bad. This update cannot be continued until this problem is resolved.

`213xxy` = Cannot find ETC partition entry in the VTOC on the LDFT tape.

This may be a bad VTOC on the tape. Regenerate a new tape.

`214xxy` = Cannot find ECD partition entry in the VTOC on the LDFT tape.

This may be a bad VTOC on the tape. Regenerate a new tape.

`215xxy` = SG ID on LDFT tape does not match the SG ID on previous LDFT tape.

An SG ID is an identifier in the first header of an LDFT tape that describes the SG database from which this tape was written. It is used to make sure that multiple tapes and sequences were written using the same SG database. The SG ID on the LDFT tape does not match the SG ID on the previously loaded LDFT tape. This is not really an error, just a warning. This may occur if a field site uses its own SG database when generating tapes. Continue the update using the UPD:G-CONTINUE input message and the error will be ignored.

`216xxy` = Release version number on LDFT tape does not match release version number on previous LDFT tape.

A release version number is used to make sure that multiple tapes and sequences were written using the same release version.

Continue the update using the UPD:G-CONTINUE input message and the error will be ignored.

`217xxy` = Little boot entry in offline disk VTOC could not be found when system update attempted to restore the little boot start block address to its valid value.

Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, the VTOC on the offline disk may be damaged.

`218xxy` = Little boot entry in the VTOC on the LDFT tape is different from the little boot entry in the VTOC on the disk when the backup partition method is being used.

During a backup partition method update, the old and new VTOCs must be identical. The LDFT tape may be damaged. Regenerate a new tape and start the update over from the beginning of the enter step.

`219xxy` = One of the VTOC entries for a partition being updated (excluding VTOC and little boot) in the VTOC on the LDFT tape is different from its corresponding VTOC entry on disk when the backup partition method is being used.

During a backup partition method update, the old and new VTOCs must be identical. The LDFT tape may be damaged. Regenerate a new tape and start the update over from the beginning of the Enter step.

`220xxy` = One of the VTOC entries for a partition being updated (excluding VTOC and little boot) in the VTOC on the LDFT tape is different from its corresponding VTOC entry on disk when the offline disk method is being used.

This partition was also already updated in a previous tape sequence. During an offline disk method update, a VTOC may be different only as long as the partition corresponding to the VTOC entry that changed has not been updated in a previous tape sequence.

`221xxy` = VTOC entry for little boot on LDFT tape is different from VTOC entry for little boot on disk when the offline disk method is being used.

The little boot partition was also already updated in a previous tape sequence. During an offline disk method update, a VTOC may be different only as long as the partition corresponding to the VTOC entry that changed has not been updated in a previous tape sequence.

`222xxy` = Header for VTOC on LDFT tape contains starting address for VTOC on the disk and the VTOC's size.

The address plus the size gives the starting address for the next partition. But, in this case, the address plus the size gives an address that is past the starting address for the next partition. The LDFT tape may be damaged. Regenerate a new tape.

`223xxy` = VTOC entry for primary source or backup destination partition not found in offline disk VTOC.

When updating the backup partitions using the offline disk method, the VTOC entry for a source (primary) or destination (backup) partition could not be found in the offline disk VTOC. The offline disk VTOC may be damaged. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`224xxy` = VTOC entry in VTOC on LDFT tape could not be found.

This may be a bad VTOC on the tape. Regenerate a new tape and start the update over from the beginning of the Enter step.

`225xxy` = Little boot entry in VTOC read from LDFT tape could not be found when system update attempted to invalidate the little boot start block address to prevent a boot from occurring from the disk that is being updated.

Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, the VTOC on the LDFT tape may be damaged. Regenerate a new tape and start the update over from the beginning of the Enter step.

`226xxy` = VTOC entry could not be found in VTOC on the mounted LDFT tape.

The LDFT tape may be damaged. Regenerate a new tape and start the update over from the beginning of the Enter step.

`227xxy` = Note: This error message is not available in all releases.

The pack IDs in the tape and destination disk VTOCs do not match. Check that the proper tape is mounted, and that the destination VTOC was entered correctly. This check can be overridden by performing the update unconditionally with the UCL parameter.

1.4 Internal System Update Errors

`301xxy` = Too many message line arguments used.

The maximum number of arguments allowed on the message line has been exceeded for one of the following options: continue, readlog, stop, commit, restore, backout, enter, or proceed. The only way this error message could appear is if the system update process has been executed from a *UNIX*® terminal instead of a user terminal. Re-execute the system update process using the correct arguments, or execute the process from a user terminal using the corresponding input message.

`302xxy` = Message returned was not what was expected.

Any time system update sends a message to SIM, the disk driver, applhook, or continue, it checks the return message that is sent back. In this case, a bad message was returned or the time limit set to receive the message from continue expired. Try to continue the update using the UPD:G-CONTINUE input message.

`303xxy` = Internal buffers are too small.

The data after a header on the LDFT tape is larger than one segment. Up to only one segment is allowed after each header. The LDFT tape may be damaged. Regenerate a new tape.

`304xxy` = Cannot locate system update log.

Any time the system update log is accessed, it is assumed to be in /etc/log/suprlog. In this case, it could not be found. System update may have been attempting to retrieve or write a log entry or attempting to read the entire log file. The log file may have been accidentally removed. If the system update readlog message was executed to read the log file, the log file cannot be read since readlog cannot locate it. If any other system update process was executed, start the update over from the beginning of the enter step.

`305xxy` = No "enter" entries in log.

Log entries for the enter step cannot be found in the system update log. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, the log file may be damaged. Start the update over from the beginning of the enter step.

`306xxy` = Log entries are inconsistent.

The system update continue option found that one of the entries in the system update log file contains a bad value (the type of log entry, tape sequence number, or disk pair number). The system update log may be damaged. Start the update over from the beginning of the enter step.

`307xxy` = Bad process type.

A bad process type was found in one of the log entries in the system update log file. This error occurs when system update tries to continue an update and the entry for the system update process that is being continued cannot be found in the log. The log may be damaged. Start the entire update over from the beginning of the enter step.

`308xxy` = Bad update method.

The system update readlog option found an incorrect update method specified in one of the system update log file entries (begin or disk) or the system update enter option found an incorrect update method specified on its message line. Only two methods are allowed: backup partition method or off-line disk method. If the readlog message was executed, the log may be damaged and therefore cannot be read. If the enter option was executed, start the update over from the beginning of the enter step.

`309xxy` = Bad execution mode.

The system update readlog option found a bad execution mode in a begin log entry for one of the system update processes. Only two execution modes are allowed: conditional or unconditional. The log file may be damaged and therefore cannot be read.

`310xxy` = Bad bootfile.

The system update readlog option found an incorrect bootfile specified in the end entry in the system update log file. Only two bootfile types are allowed: DMERT or APPDMERT. The log file may be damaged and therefore cannot be read.

`311xxy` = Bad file system.

The system update readlog option found an incorrect file system specified in the end entry in the system update log file. Only two file systems are allowed: PRIMARY or SECONDARY. The log file may be damaged and therefore cannot be read.

`312xxy` = Bad log entry.

A bad disk pair number was found in either the disk or end log entry in the system update log. The log file may be damaged. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`313xxy` = Bad completion code.

The system update readlog option found that the end entry in the system update log file contains a bad completion code. Only two completion codes are allowed: SUCCESS or FAILURE. The log may be damaged and therefore cannot be read.

`314xxy` = Tried to reserve the same disk twice.

System update tried to reserve a disk that has already been reserved. Try to continue the update using the UPD:G-CONTINUE input message.

`315xxy` = Tried to release an unreserved disk.

System update tried to release a disk that was never previously reserved. Try to continue the update using the UPD:G-CONTINUE input message.

316xxy = Bad UCB disk state requested.

A bad state was specified when system update attempted to change the state of a UCB (valid state is either OOS or ACT) or a disk (valid state either OOS or OFL). Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, either start the update over from the beginning of the enter step, or take one of the following actions:

- If this error occurred during the restore process, manually restore the partitions containing the new release (for the backup partition update method) or the disks containing the new release (for the offline disk update method) to the old release. Then, manually execute the applhook process.
- If this error occurred during the commit process, manually restore the partitions containing the old release (for the backup partition update method) or the disks containing the old release (for the offline disk update method) to the new release. Then, manually execute the applhook process.
- If this error occurred during any other system update process, start the update over from the beginning of the enter step.

317xxy = Bad sequence indicator.

The system update readlog option found that the tape entry in the system update log file contains a bad sequence number. Only three sequence entries are allowed: FIRST, SECOND, or THIRD. The log may be damaged and therefore cannot be read.

318xxy = Bad continuable indicator.

The system update readlog option found that the end entry of the system update log contains a bad continuable flag variable. Only two continuable flag variables are allowed: YES or NO. The log may be damaged and therefore cannot be read.

319xxy = BEGIN ENTER log entry could not be found in the system update log file.

The log may be damaged. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

320xxy = System update enter option terminated.

The system update enter option terminated while it was updating the backup partitions using the offline disk method and then was continued using the UPD:G-CONTINUE input message. In order for system update to know which partition it was in the middle of updating before it terminated, it looks in the log file and attempts to find the last UPDATE ENTER log entry.

In this case, the UPDATE ENTER log entry could not be found. Therefore, system update could not do any further processing. Try to continue the update again using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter message.

321xxy = VTOC on FDFT tape exceeds maximum allowed.

The size of the VTOC on the LDFT type is greater than the maximum size allowed (512 bytes). The VTOC may be damaged on the LDFT tape. Regenerate a new tape.

`322xxy` = Write log entry found in system update log file without a proceeding disk log entry.

The log file may be damaged. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`323xxy` = Log file retrived not requested.

System update requested a log entry (disk, tape, or end) from the log file, but the log entry that was retrieved was not the one requested. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`324xxy` = Corresponding disk log not found.

While searching the system update log file, system update could not find the disk log entry that corresponds to the bootdisk being updated. Try to continue the update using the UPD:G-CONTINUE input message.

`325xxy` = Incorrect update method specified.

System update found an incorrect update method specified in the internal variable glob_method which was obtained through the enter message line or the system update log file. Only two methods are allowed: backup partition method or off-line disk method. The log may be damaged. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the entire update over from the beginning of the enter step.

`326xxy` = Bad execution mode found on enter message line.

Only two execution modes are allowed: conditional or unconditional. Start the update over from the beginning of the enter step.

`327xxy` = Bad sequence option in log file.

System update found bad sequence option in the log file. Valid sequence options are: SGL, DBL, or TPL. The log may be damaged and therefore cannot be read. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter message.

1.5 Errors Associated with Execution

`401xxy` = Context of request is invalid.

The system update enter option was executed conditionally (without the UCL argument) while the system update log file contained log entries (possibly from a previous update session). Either remove the log file (/etc/log/suprlog) or execute the enter message using the UCL argument on the message line.

`402xxy` = Bad input file (tape unit) specified.

The input file specified (normally a tape unit) on the enter message line is invalid. Make sure that the name is entered correctly (the name of a tape unit is of the form /dev/mtnn where 'nn' is a two digit hexadecimal number). If the input is from a tape, make sure that the unit is on-line. Re-execute the enter message with the UCL argument on its message line.

`403xxy` = Data not in sync.

The tape being read is either not a tape usable with system update (not in LDFT format), the data on it has been mutilated, or the LDFT formatted tape being used was created for a different processor. Make sure that the correct tape has been mounted, and continue the update using the UPD:G-CONTINUE input message.

`404xxy` = Data sequence ID incorrect (wrong tape).

The data input does not belong on the disk being written. Make sure that correct tape has been mounted and continue the update using the UPD:G-CONTINUE input message.

`405xxy` = Data sequence number out of order.

One of the tapes in the sequence has been mounted out of order. Mount the correct tape and continue the update using the UPD:G-CONTINUE input message.

`406xxy` = Bad destination VTOC specified.

The filename specified for the disk being updated is not a block special device file or the disk cannot be opened. Check that the filename was entered correctly. If not, re-execute the Enter message using the UCL argument on the message line.

`407xxy` = This error code is no longer used.

`408xxy` = User did not return from "continue" request.

When a new tape needs to be mounted, a mount tape and continue message appears. After the user mounts the tape, the UPD:G-CONTINUE input message needs to be executed in order for the update to continue its processing.

System update waits 30 minutes for the continue message to be executed. If it is not executed, another mount tape and continue message appears and system update waits another 30 minutes for the continue message to be executed. If it still is not executed, system update terminates with this error code. Execute the UPD:G-CONTINUE input message to continue the update process where system update left off.

`409xxy` = Attempt to run two system update processes.

The user attempted to:

- Run two system update processes at the same time (when one system update process is running another one may not be started unless it is one of the following: stop, continue, or readlog)
- Run a system update process while field update or PDT is currently running (a system update cannot be performed while field update or PDT is running)

If a system update process needs to be stopped, the system update stop message may be used to stop it. If this is not successful, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`410xxy` = User stopped process (not a fault condition).

This error code is used to acknowledge that the user terminated one of the system update processes (commit, restore, backout, enter, or proceed) using the system update stop option. There

is no fault condition associated with this code.

411xxy = No process exists to talk to (such as, nothing to stop).

The user has attempted to stop a system update process using the system update stop option when there are no system update processes that are running.

412xxy = System update log is empty.

The system update log file does not contain any log entries when it is expected to in one of the following situations:

- An attempt to continue a system update process was made, but the message to be continued could not be figured out since this information is contained in the log file and the log file is either empty or does not contain the BEGIN ENTER log entry,
- The log file was attempted to be read using the system update readlog message, but there was nothing to read since the log file was empty,
- One of the system update processes (excluding the enter process) was executed when the log file was empty. These processes need information in the log in order to complete their processing, or
- The log file was attempted to be searched for information, but the log file is empty.

Start the update over from the beginning of the enter message.

413xxy = Off-line disk method started with one disk active.

The offline disk method is being used and a disk was selected by system update to retain the old release, but this disk is not in the active state. All disk pairs must be duplexed (active) before the enter message is executed. Restore all affected disks to service and execute the enter message again using the UCL argument on its message line. If this error occurred because the system update Enter process aborted leaving one or more disks in the offline state, execute the restore message using the UCL argument on its message line and wait for it to complete. Then, start the update over from the beginning of the enter step.

414xxy = In off-line disk method with both disks active.

An offline disk was somehow restored to service when system update expected it to be in the offline state. If all affected disks are offline, try to continue the update using the UPD:G-CONTINUE input message. If an affected disk(s) is active or if the error persists after the continue, start the update over from the beginning of the enter step.

415xxy = Process did not log failure termination.

The user attempted to restart a system update process with the continue option but the last system update process that was run logged a successful termination and therefore cannot be continued. Dumping the system update log file using the readlog option may be helpful in determining what happened to the last process. Try to execute the next system update process.

416xxy = Process is not continuable.

The user attempted to restart a system update process using the continue option, but the last system update process that was run failed due to a problem which would usually cause it to fail

again. For example, one of the pathnames in an enter input message was bad, or one or more log entries needed for continuing the process are corrupted.

Dumping the log file using the readlog message may be helpful in determining what happened to the original process. Try to re-enter the original input message using the UCL argument on the message line (for the enter option, make sure the disks are duplexed first - refer to error code `413xxy`).

`417xxy` = Disk is no longer off-line.

A specified disk device is not in any of the following valid states: offline, out of service, or active. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, either start the update over from the beginning of the enter step, or take one of the following actions:

- If this error occurred during the enter process, restore the disk to an active state and re-execute the enter option using the UCL argument on its message line.
- If this error occurred during the restore process, manually restore the partitions containing the new release (for the backup partition update method) or the disks containing the new release (for the offline disk update method) to the old release. Then, manually execute the applhook process.
- If this error occurred during the commit process, manually restore the partitions containing the old release (for the backup partition update method) or the disks containing the old release (for the offline disk update method) to the new release. Then, manually execute the applhook process.

`418xxy` = Bad destination DFC specified.

An invalid DFC unit number was specified as an argument to the OFLDISK keyword on the enter message line. Valid DFC unit numbers are zero and one. The DFC number can be omitted, in which case the Enter process will chose DFC 1.

`419xxy` = Command executed out of order.

A system update message was executed out of order.

- The proceed message was executed before the enter message completed successfully.
- The commit message was executed before the proceed message completed successfully.
- The backout message was executed before the proceed message completed successfully.
- If error code '`y`' is `4`, the restore option was executed before the proceed option completed successfully. Execute the restore option unconditionally using the UCL argument on its message line.
- If error code '`y`' is `5`, conditional restore after successful backout or proceed is no longer valid. Execute the restore message unconditionally using the UCL argument on its message line.

`420xxy` = Incorrect file system base is running.

The wrong file system base is currently running for the system update message that was just executed.

- For backout and commit options, the file system currently running needs to be the new release.
- For proceed and restore options, the file system currently running needs to be the old release.

If the wrong option was executed, execute the right one. If the right option was executed, boot the system so that it is running on the correct file system, then execute the option again.

`421xxy` = Disk not in active state.

The offline disk method is being used and a disk was selected by system update to contain the new release, but this disk is not in the active state. All disk pairs must be duplexed (active) before the enter option is executed. Restore all affected disks to service and execute the enter option again.

If this error occurred because the system update enter process aborted leaving one or more disks in the offline state, execute the restore options using the UCL argument on the message line and wait for it to complete. Then, start the update over from the beginning of the enter step.

`422xxy` = Disk being updated not in offline state.

When the backup partitions are being updated using the offline disk method, the disk being updated should be in the offline state, but it is not. Check the common processor display page or another page which shows the MHDs. If all disks affected are active, try to re-execute the enter option using the UCL argument on the message line. If any affected disks are out of service, restore them and then re-execute the enter option using the UCL argument on the message line.

`423xxy` = Disk being updated is no longer in offline state.

The disk being updated, which should be in the offline state, is no longer in that state. Check the common processor display page or another page which shows the MHDs. If all disks affected are active, try to re-execute the enter option using the UCL argument on the message line. If any affected disks are out of service, restore them and then re-execute the enter option using the UCL argument on the message line.

1.6 Errors Associated with Application Processing

`501xxy` = Time limit message error.

This error may have occurred because:

- The application process did not send a message indicating a time limit that it needs to do its processing.
- The message that the application process sent to set a time limit was damaged.
- The *UNIX*® RTR send() process failed when the application process tried to use it to send a time limit message to the system update process.

If the error occurred because the application process did not send a time limit message, start the application process over using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`502xxy` = Application hook process failed or did not return.

Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

1.7 Errors Associated with Interfaces with *UNIX*® RTR

`601xxy` = User is not privileged for execution.

The system update process must be executed from a login that has superuser permissions. After resolving the problem, try to continue the update using the UPD:G-CONTINUE input message.

`602xxy` = Timeout for SIM message.

When system update sends SIM a message, it sets a time out limit by which it must receive the return message from SIM. This error occurred when system update was waiting for the return message from SIM. This error may have occurred because:

- System update did not receive a return message from SIM within the time out limit.
- The recvw() process that waits for the return message from SIM failed.

Try to continue the update using the UPD:G-CONTINUE input message.

`603xxy` = Time out for MIRA message.

When system update sends MIRA a message, it sets a time out limit by which it must receive the return message from MIRA. This error occurred when system update was waiting for the return message from MIRA. This error may have occurred because:

- System update did not receive a return message from MIRA within the time out limit.
- The recvw() process that waits for the return message from MIRA failed.

Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, either start the update over from the beginning of the enter step, or take one of the following actions:

- If this error occurred during the restore process, manually restore the partitions containing the new release (for the backup partition update method) or the disks containing the new release (for the offline disk update method) to the old release. Then, manually execute the applhook process.
- If this error occurred during the commit process, manually restore the partitions containing the old release (for the backup partition update method) or the disks containing the old release (for the offline disk update method) to the new release. Then, manually execute the applhook process.

- If this error occurred during any other system update process, start the update over from the beginning of the enter step.

`604xxy` = Timeout for disk driver message.

When system update sends the disk driver a message, it sets a time out limit by which it must receive the return message from the disk driver. This error occurred when system update was waiting for the return message from the disk driver. This error may have occurred because:

- System update did not receive a return message from the disk driver within the time out limit.
- The recvw() process that waits for the return message from the disk driver failed.

Try to continue the update using the UPD:G-CONTINUE input message.

`605xxy` = Bad MIRA return on message.

When system update receives a return message from MIRA, it checks certain fields in the message for bad values. This error occurs when system update finds a bad value in one of the fields in the return message. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, either start the update over from the beginning of the enter step, or take one of the following actions:

- If this error occurred during the restore process, manually restore the partitions containing the new release (for the backup partition update method) or the disks containing the new release (for the offline disk update method) to the old release. Then, manually execute the applhook process.
- If this error occurred during the commit process, manually restore the partitions containing the old release (for the backup partition update method) or the disks containing the old release (for the offline disk update method) to the new release. Then, manually execute the applhook process.
- If this error occurred during any other system update process, start the update over from the beginning of the enter step.

`606xxy` = Bad disk driver return on message.

When system update receives a return message from the disk driver, it checks the return code that is in the message. The value of the return code must be zero. This error occurred because the return code was a value other than zero. Try to continue the update using the UPD:G-CONTINUE input message.

`607xxy` = Wrong disk state result.

After MIRA changes the state of the disk (to active or out of service), system update checks the UCB of that disk in the ECD to make sure that the change actually took place. This error occurred when system update thought it changed the state of the disk, but the UCB of that disk does not reflect the change. Either MIRA did not change the state correctly or the state field in the UCB is damaged. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, either start the update over from the beginning of the enter step, or take one of the following actions:

- If this error occurred during the restore process, manually restore the partitions containing the new release (for the backup partition update method) or the disks containing the new release (for the offline disk update method) to the old release. Then, manually execute the applhook process.

- If this error occurred during the commit process, manually restore the partitions containing the old release (for the backup partition update method) or the disks containing the old release (for the offline disk update method) to the new release. Then, manually execute the applhook process.

- If this error occurred during any other system update process, start the update over from the beginning of the enter step.

`608xxy` = No active boot disks.

System update checks the UCB in the ECD to find out which disk is the current system disk that is in the active state. This error occurred because there were not any disks that were in the active state. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, restore both disks to the active state and start the update over from the beginning of the enter step.

`609xxy` = Partition copy error.

The COPY:PTN-ALL input message failed when the system update restore or commit option used it to copy the new or old release over the old or new release during a backup partition method update. The error(s) associated with the COPY:PTN-ALL input message will be saved in /tmp/supr.prtcp. The most common cause for this error is when the disks are not duplexed (such as, both disks are not active) when the restore or commit options are executed. After resolving the problem, (such as, duplex both disks), continue the update using the UPD:G-CONTINUE input message.

`610xxy` = Recent change error.

This error occurred when system update was performing a recent change on the ECD. The journal file and the error messages will be saved in /tmp/supr.rcv and /tmp/supr.rcvout respectively. After resolving the problem, try to continue the update using the UPD:G-CONTINUE input message.

`611xxy` = Copy message failed.

This error may have occurred when system update was copying the log from the old release to the new release. Additional error codes can be found in /tmp/supr.cp. After resolving the problem, try to continue the update using the UPD:G-CONTINUE input message.

`612xxy` = ECDMAN ugucbn() error.

This error occurred when system update used the ECD function ugucbn() to get information about the UCB record associated with a specified disk. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, either start the update over from the beginning of the enter step, or take one of the following actions:

- If this error occurred during the restore process, manually restore the partitions containing the new release (for the backup partition update method) or the disks containing the new release (for the offline disk update method) to the old release. Then, manually execute the applhook process.

- If this error occurred during the commit process, manually restore the partitions containing the old release (for the backup partition update method) or the disks

containing the old release (for the offline disk update method) to the new release. Then, manually execute the applhook process.

- If this error occurred during any other system update process, start the update over from the beginning of the enter step.

`613xxy` = ECDMAN ugetucb() error.

This error occurred when system update used the ECD function ugetucb() to get the UCB record for a specified disk. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, either start the update over from the beginning of the enter step, or take one of the following actions:

- If this error occurred during the restore process, manually restore the partitions containing the new release (for the backup partition update method) or the disks containing the new release (for the offline disk update method) to the old release. Then, manually execute the applhook process.
- If this error occurred during the commit process, manually restore the partitions containing the old release (for the backup partition update method) or the disks containing the old release (for the offline disk update method) to the new release. Then, manually execute the applhook process.
- If this error occurred during any other system update process, start the update over from the beginning of the enter step.

614xxy = ECDMAN ugmamirids() error.

This error occurred when system update used the ECD function ugetrec() to get the pointer to the UCBs for the two disks that are associated with the update. Try to continue the update using the UPD:G-CONTINUE input message.

`615xxy` = ECDMAN ursvucd() error.

This error occurred when system update used the ECD function ursvucb() to reserve a UCB. The disk that system update is trying to update must first be reserved so that no other processes can write to it. This is done by reserving the disk's UCB. The ursvucb() function may have failed because another process has already reserved the disk that is trying to be reserved. Check to see if the disk is already reserved. If it has been reserved, execute the following input message on a *UNIX*® terminal to unreserve the disk: `/etc/udgnnm MHD x` where '`x`' is the disk number that needs to be unreserved. Then, try to continue the update using the UPD:G-CONTINUE input message.

`616xxy` = ECDMAN ugsdf() error.

This error occurred when system update used the ECD function ugsdf() to get the special device file name associated with the disk to be updated so that system update can access that disk. Try to continue the update using the UPD:G-CONTINUE input message. If the error persists, start the update over from the beginning of the enter step.

`617xxy` = ECDMAN urelucb() error.

This error occurred when system update used the ECD function urelucb() to release (unreserve) a reserved UCB. Try to continue the update using the UPD:G-CONTINUE input message.

`618xxy` = ECDMAN ursdf() error.

This error occurred when system update used the ECD function ursdf() to give back to the system the special device file name of the updated disk that was obtained by the ugsdf() message (refer to error `616xxy`). Try to continue the update using the UPD:G-CONTINUE input message.

`619xxy` = ECDMAN usettnum() error.

System update no longer uses the ECD usettnum() function, so this error should never appear.

`620xxy` = ECDMAN usetucb() error.

System update no longer uses the ECD usetucb() function, so this error should never appear.

`621xxy` = Unable to stop process with pkill().

The system update stop option could not stop the currently running system update process using the pkill() function call. If the stop options cannot kill a system update in progress using the kill() function call, it then tries to kill it using the pkill() function call. The pkill function call may have failed because there was a bad process ID number (PID) in the system update log file for the process that needed to be terminated.

The stop option looks in the log file to find the PID of the process that is currently running and calls pkill() with that PID. If the PID is damaged in the log file, the pkill() option may be executed manually using the correct PID of the process that needs to be terminated.

`622xxy` = Unable to stop process with kill.

The system update stop option could not stop the currently running system update process using the kill() function call. The kill() function call is used in the stop option to terminate the system update process that is currently running. The kill() function call may have failed because:

- The process to be killed does not exist.
- The sending process is not a superuser, and the sending and receiving processes do not have the same effective user ID.
- The PID of the process being terminated is damaged in the system update log. The stop option passes this PID as a parameter to kill().

If the system update still needs to be stopped, execute the system update stop process unconditionally using the UCL argument on its message line.

CAUTION: If stop is executed unconditionally, the system update process will be terminated by a more extreme method than a kill (pkill). Some system resources in use by the process may not be automatically released.

`623xxy` = System error killed the process.

A system update process was terminated due to a phase 1 signal. System update may not get a chance to print this error message when the interrupt occurs. If the system update process is continued using the UPD:G-CONTINUE input message, the continue option will put this error code in the end entry of the system update log file.

`624xxy` = Cannot execute system update while the alternate boot disk (ABD) feature is active.

System update checks the status of the ABD feature when starting. If the system has a boot disk other than MHD0 or MHD1, the ABD feature is active. Wait until the ABD active state has been cleared and then start the update.

APP:SUPR-MENU-PG

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. SYSTEM UPDATE PROCEDURE MENU PAGE APPENDIX

1.1 Introduction

This appendix contains the system update menu page error codes and describes all the possible system update menu page error conditions that can occur when installing a system update using the system update menu page. These error conditions are not affiliated in any way with the error conditions output by the system update processes. System update error conditions are described in the APP:SUPR appendix in the Appendixes section of the Output Messages manual. The system update menu page error conditions are divided into five categories: system update log file errors (1-199), *UNIX*® RTR system call errors (200-399), system update menu page internal errors (400-599), user errors (600-799), and general warning messages (800-999).

For all error conditions corresponding to system update processes, the following actions should be taken in the order they are listed here.

1 After correcting the condition that caused the error, try to continue the update using the 704 menu page poke for the continue option.

2 If the continue option does not work, try finishing the update manually using an input message on the manual input message line.

3 If the update cannot be finished manually, remove the system update log file (/etc/log/suprlog), terminate the system update menu page, and start the update over from the very beginning of the system update procedures (the enter option). The update may be installed using either manual procedures or menu driven procedures (system update menu page). Make sure that the system is in a valid state before re-starting the update.

1.2 System Update Log File Errors

These error conditions can occur when system update is accessing the system update log file.

`1` = The system update getlog() function failed when the continue option was specified. The getlog() function was called to get the last log entry in the system update log file to determine which option is to be continued. If continuing the update does not work, the log file may be damaged.

`2` = When the continue option was specified, the last log entry in the system update log file was obtained in order to determine which option is to be continued. Either no log entries were found in the log file or only the LOGFIRST entry was found which indicates that no option executed long enough to be able to be continued. Try to execute the desired option from the beginning of that option. If continuing the update does not work, the log file may be damaged.

`3` = When the continue option was specified, the last log entry in the system update log file was obtained in order to determine which option is to be continued. The process type in the log entry found contains a bad value. Therefore, the process being continued cannot be determined. Valid process types are:

`b` = Backout option.

c = Commit option.

e = Enter option.

p = Proceed option.

r = Restore option.

If continuing the update does not work, the log file may be damaged.

4 = The system update log file was being searched in order to determine which system update process last completed successfully so that a visual indication of the successfully completed input messages can be displayed in reverse video on the system update menu page. A bad process type was found in the log entry corresponding to the last completed process. Valid process types are:

b = Backout process.

c = Commit process.

e = Enter process.

p = Proceed process.

r = Restore process.

The log file may be damaged.

5 = The system update menu page was trying to get, from the begin enter entry in the system update log file, the enter option line arguments that were previously specified. An invalid sequence option was found in the begin enter log entry. Valid sequence options are:

f = Single sequence (first sequence).

s = Double sequence (second sequence).

t = Triple sequence (third sequence).

The menu page terminates when this error occurs since this may be an indication that the log file is damaged. Try to bring up the menu page again. If the error persists, read the log file using the OP:G-READLOG input message. Look at the begin enter log entry and make sure that the sequence options are listed correctly. If not, remove the log file and start the update over from the beginning of the enter step. If the sequence options are correct, try to finish the update manually using input messages.

6 = The system update menu page was trying to get, from the begin enter entry in the system update log file, the enter option line arguments that were previously specified. An invalid update method was found in the begin enter log entry. Valid update methods are:

b = Backup partition update method.

o = Off-line disk update method.

The menu page terminates when this error occurs since this may be an indication that the log file is damaged. Try to bring up the menu page again. If the error persists, read the log file using the OP:G-READLOG input message. Look at the begin enter log entry and make sure that the sequence options are listed correctly. If not, remove the log file and start the update over from the beginning of the enter step. If the sequence options are correct, try to finish the update manually using input messages.

7 = When it is time for a user to mount a tape and continue the update during the enter option, the enter option sends a signal to the menu page in order to tell the menu page that a "mount tape and continue" message needs to be displayed on the messages line of the menu page. A fake disk log entry, containing the disk pair number of the disk currently being updated, is also written to the system update log file. When the menu page receives the "mount tape and continue" signal from the enter option, the menu page reads the fake disk entry from the log file and obtains the disk pair number of the disk that is currently being updated. The menu page then displays in reverse video the appropriate disk pathname that is displayed in the enter option line in the display area of the menu page. In this case, the fake disk log entry could not be found in the log file. Terminate the menu page and try to bring it back up again. The "mount tape and continue" message should be displayed and the enter input option line should be displayed in the display area with the appropriate disk pathname in reverse video. If this does not happen, either try to start the update over from the beginning of the enter option, or try to continue the update manually using input messages.

8 = When it is time for a user to mount a tape and continue the update during the enter option, the enter option sends a signal to the menu page in order to tell the menu page that a "mount tape and continue" message needs to be displayed on the messages line of the menu page. A fake disk log entry, containing the disk pair number of the disk currently being updated, is also written to the system update log file. When the menu page receives the "mount tape and continue" signal from the enter option, the menu page reads the fake disk entry from the log file and obtains the disk pair number of the disk that is currently being updated. The menu page then displays in reverse video the appropriate disk pathname that is displayed in the enter option line in the display area of the menu page. In this case, an invalid disk pair number was found in the fake disk log entry. The disk pair number found was a number less than one. Valid value(s) 1 and greater. Terminate the menu page and try to bring it back up again. The "mount tape and continue" message should be displayed and the enter input option line should be displayed in the display area with the appropriate disk pathname in reverse video. If this does not happen, either try to start the update over from the beginning of the enter option, or try to continue the update manually using input messages.

9 = When it is time for a user to mount a tape and continue the update during the enter option, the enter option sends a signal to the menu page in order to tell the menu page that a "mount tape and continue" message needs to be displayed on the messages line of the menu page. A fake disk log entry, containing the disk pair number of the disk currently being updated, is also written to the system update log file. When the menu page receives the "mount tape and continue" signal from the enter option, the menu page reads the fake disk entry from the log file and obtains the disk pair number of the disk that is currently being updated. The menu page then displays in reverse video the appropriate disk pathname that is displayed in the enter option line in the display area of the menu page. In this case, an invalid disk pair number was found in the fake disk log entry. The disk pair number found was a number that is greater than the total number of disks being updated. Terminate the menu page and try to bring it back up again. The "mount tape and continue" message should be displayed and the enter input option line should be displayed in the display area with the appropriate disk pathname in reverse video. If this does not happen, either try to start the update over from the beginning of the enter option, or try to continue the update manually using input messages.

1.3 *UNIX*® RTR System Call Errors

These error conditions occur when a *UNIX*® RTR system call executed by the system update menu page fails.

200 = The function sendpw() failed when the menu page was sending DAP a message to free and initialize the system update menu page. Try to bring up the system update menu page again by typing the 107 menu poke.

201 = When the term page poke was requested, the function sendpw() failed. The menu page was sending DAP a message to free the system update menu page before it terminated so that the menu page would terminate cleanly. Try to terminate the menu page again using the term page poke.

202 = When the term page poke was requested, the function sendpw() failed. The menu page was sending DAP a message to free enter arguments page 1 before it terminated the menu page so that the menu page would terminate cleanly. Try to terminate the menu page again using the term page poke.

203 = When the term page poke was requested, the function sendpw() failed. The menu page was sending DAP a message to free enter arguments page 2 before it terminated the menu page so that the menu page would terminate cleanly. Try to terminate the menu page again using the term page poke.

204 = The getenv() function failed when the menu page tried to get the terminal type from the environment. Try to bring up the system update menu page again by typing the 107 poke.

205 = The sendpw() function failed when the menu page tried to send DAP a message to display one of the system update pages.

page number 0 = System update menu page.

page number 1 = Enter arguments page 1.

page number 2 = Enter arguments page 2.

Try to display the page again by typing the appropriate poke.

206 The msgenab() function failed when the menu page tried to enable message reception. Try to bring up the system update menu page again by typing the 107 poke.

207 = The recvw() function failed when receiving or waiting for a message from DAP indicating that a poke was requested from the system update menu page. Re-request the poke that failed.

208 = The sendpw() function failed when sending a message to DAP to display one of the input option lines in the display area of the system update menu page. Re-request the poke for the option that is desired to be displayed.

209 = The recvw() function failed when receiving or waiting for a poke on one of the enter arguments pages. Try to specify the desired poke again.

210 = The recvw() function failed when receiving or waiting for an argument to the enter option line to be input by the user. Re-request the poke to the desired argument and then try to specify the argument contents again.

211 = The sendpw() function failed when sending a pokeop message to DAP so that a poke on the system update menu page can be processed. Try to request the desired poke again.

212 = The open() function failed when the system update log file was being opened for reading. The menu page was going to read the log file entries to determine which system update process last completed successfully in order to visually indicate the successfully completed options in reverse video on the system update menu page. Try to bring up the menu page again by typing the 107 poke. If this error still occurs, the log file may be damaged.

213 = The read() function failed when reading the first log entry in the system update log file. It was being read when the menu page was in the process of determining which system update process last completed successfully in order to visually indicate the successfully completed options in reverse video on the system update menu page. Try to bring up the menu page again by typing the 107 poke. If this error still occurs, the log file may be damaged.

214 = The lseek() function failed when "seeking" to the last log entry in the system update log file. The lseek() function was called when the menu page was in the process of determining which system update process last completed successfully in order to visually indicate the successfully completed options in reverse video on the system update menu page. Try to bring up the menu page again by typing the 107 poke. If this error still occurs, the log file may be damaged.

215 = The read() function failed when reading the last log entry in the system update log file. It was being read when the menu page was in the process of determining which system update process last completed successfully in order to visually indicate the successfully completed options in reverse video on the system update menu page. Try to bring up the menu page again by typing the 107 poke. If this error still occurs, the log file may be damaged.

216 = The lseek() function failed when "seeking" backwards to the next log entry in the system update log file. The lseek() function was called when the menu page was in the process of determining which system update process last completed successfully in order to visually indicate the successfully completed options in reverse video on the system update menu page. Try to bring up the menu page again by typing the 107 poke. If this error still occurs, the log file may be damaged.

217 = The read() function failed when reading the next log entry in the system update log file. It was being read when the menu page was in the process of determining which system update process last completed successfully in order to visually indicate the successfully completed options in reverse video on the system update menu page. Try to bring up the menu page again by typing the 107 poke. If this error still occurs, the log file may be damaged.

218 = The function sendpw() failed when the menu page was sending DAP a message to free and initialize enter arguments page 2. Try to bring up the system update menu page again by typing the 107 menu poke.

219 = The lcall() function failed when the restore process was attempting to be executed. Try to execute the restore process again. If this error still occurs, try to finish the update manually using input messages.

220 = The lcall() function failed when the stop process was attempting to be executed. Try to execute the stop process again. If this error still occurs, try to execute the stop process manually using the input message.

Note: The execution and termination messages for the stop process will not be displayed on the system update menu page if the stop process is executed manually.

221 = The lcall() function failed when the application process was attempting to be executed. Try to execute the application process again. If this error still occurs, try to execute the application process manually using the input message.

Note: The execution and termination messages for the application process will not be displayed on the system update menu page if the application process is executed manually.

222 = The lcall() function failed when the backout process was attempting to be executed. Try to execute the backout process again. If this error still occurs, try to finish the update procedures manually using input messages.

Note: The execution and termination messages for the system update options will not be displayed on the system update menu page if the options are executed manually.

223 = The lcall() function failed when the commit process was attempting to be executed. Try to execute the commit process again. If this error still occurs, try to execute the commit process manually using the input message.

Note: The execution and termination messages for the commit process will not be displayed on the system update menu page if the commit process is executed manually.

224 = The lcall() function failed when the continue process was attempting to be executed. Try to execute the continue process again. If this error still occurs, finish the update manually using input messages.

225 = The vcall() function failed when the enter process was attempting to be executed. Try to execute the enter process again. If this error still occurs, finish the update manually using input messages.

226 = The lcall() function failed when the proceed process was attempting to be executed. Try to execute the proceed process again. If this error still occurs, try to finish the update manually using input messages.

Note The execution and termination messages for the system update options will not be displayed on the system update menu page if the options are executed manually.

227 = The lcall() function failed when the readlog process was attempting to be executed. Try to execute the readlog process again. If it still does not work, try to execute the readlog process manually using the input message.

Note: The execution and termination messages for the readlog process will not be displayed on the system update menu page if the readlog process is executed manually.

228 = The function sendpw() failed when the menu page was sending DAP a message to free and initialize enter arguments page 1. Try to bring up the system update menu page again by typing the 107 menu poke.

229 = When the system update menu page is first brought up, it figures out which system update options have already been successfully executed so that it can display those menu numbers in reverse video on the menu page. It does this by reading the system update log file. This error occurred when the menu page was trying to "seek" to the very first entry in the log file. The lseek() option failed. Try to bring up the menu page again. If the error persists, either try to continue the

update manually using input messages, or remove the log file and start the update over from the beginning of the enter step.

230 = When it is time for a user to mount a tape and continue the update during the enter option, the enter option sends a signal to the menu page in order to tell the menu page that a "mount tape and continue" message needs to be displayed on the messages line of the menu page. A fake disk log entry, containing the disk pair number of the disk currently being updated, is also written to the system update log file. When the menu page receives the "mount tape and continue" signal from the enter option, the menu page reads the fake disk entry from the log file and obtains the disk pair number of the disk that is currently being updated. The menu page then displays in reverse video the appropriate disk pathname that is displayed in the enter option line in the display area of the menu page. In this case, the open() option failed when the menu page was trying to open the log file. Terminate the menu page and try to bring it back up again. The "mount tape and continue" message should be displayed and the enter input option line should be displayed in the display area with the appropriate disk pathname in reverse video. If this does not happen, either try to start the update over from the beginning of the enter option, or try to continue the update manually using input messages.

231 = When it is time for a user to mount a tape and continue the update during the enter option, the enter option sends a signal to the menu page in order to tell the menu page that a "mount tape and continue" message needs to be displayed on the messages line of the menu page. A fake disk log entry, containing the disk pair number of the disk currently being updated, is also written to the system update log file. When the menu page receives the "mount tape and continue" signal from the enter option, the menu page reads the fake disk entry from the log file and obtains the disk pair number of the disk that is currently being updated. The menu page then displays in reverse video the appropriate disk pathname that is displayed in the enter option line in the display area of the menu page. In this case, the lseek() option failed when the menu page was trying to "seek" to the first entry in the log file. Terminate the menu page and try to bring it back up again. The "mount tape and continue" message should be displayed and the enter input option line should be displayed in the display area with the appropriate disk pathname in reverse video. If this does not happen, either try to start the update over from the beginning of the enter option, or try to continue the update manually using input messages.

232 = When it is time for a user to mount a tape and continue the update during the enter option, the enter option sends a signal to the menu page in order to tell the menu page that a "mount tape and continue" message needs to be displayed on the messages line of the menu page. A fake disk log entry, containing the disk pair number of the disk currently being updated, is also written to the system update log file. When the menu page receives the "mount tape and continue" signal from the enter option, the menu page reads the fake disk entry from the log file and obtains the disk pair number of the disk that is currently being updated. The menu page then displays in reverse video the appropriate disk pathname that is displayed in the enter option line in the display area of the menu page. In this case, the read() option failed when the menu page was trying to read the first entry in the log file. Terminate the menu page and try to bring it back up again. The "mount tape and continue" message should be displayed and the enter input option line should be displayed in the display area with the appropriate disk pathname in reverse video. If this does not happen, either try to start the update over from the beginning of the enter option, or try to continue the update manually using input messages.

233 = When it is time for a user to mount a tape and continue the update during the enter option, the enter option sends a signal to the menu page in order to tell the menu page that a "mount tape and continue" message needs to be displayed on the messages line of the menu page. A fake disk log entry, containing the disk pair number of the disk currently being updated, is also written to the system update log file. When the menu page receives the "mount tape and continue" signal from the enter option, the menu page reads the fake disk entry from the log file and obtains the disk pair

number of the disk that is currently being updated. The menu page then displays in reverse video the appropriate disk pathname that is displayed in the enter option line in the display area of the menu page. In this case, the lseek() option failed when the menu page was trying to "seek" to the fake disk entry in the log file. Terminate the menu page and try to bring it back up again. The "mount tape and continue" message should be displayed and the enter input option line should be displayed in the display area with the appropriate disk pathname in reverse video. If this does not happen, either try to start the update over from the beginning of the enter option, or try to continue the update manually using input messages.

234 = When it is time for a user to mount a tape and continue the update during the enter option, the enter option sends a signal to the menu page in order to tell the menu page that a "mount tape and continue" message needs to be displayed on the messages line of the menu page. A fake disk log entry, containing the disk pair number of the disk currently being updated, is also written to the system update log file. When the menu page receives the "mount tape and continue" signal from the enter option, the menu page reads the fake disk entry from the log file and obtains the disk pair number of the disk that is currently being updated. The menu page then displays in reverse video the appropriate disk pathname that is displayed in the enter option line in the display area of the menu page. In this case, the read() option failed when the menu page was trying to read the fake disk entry in the log file. Terminate the menu page and try to bring it back up again. The "mount tape and continue" message should be displayed and the enter input option line should be displayed in the display area with the appropriate disk pathname in reverse video. If this does not happen, either try to start the update over from the beginning of the enter option, or try to continue the update manually using input messages.

1.4 System Update Menu Page Internal Errors

These error conditions occur when the system update menu page gets "mixed up" internally.

400 = One of the three system update pages was attempting to be displayed using the internal dispage() function which failed because a bad page number corresponding to the page to be displayed was passed to this function.

page number 0 = System update menu page.

page number 1 = Enter arguments page 1.

page number 2 = Enter arguments page 2.

Try to display the page again by typing the appropriate poke.

401 = While waiting for a poke to be specified on the system update menu page, the recvw() function received a message from DAP that either contained less than the minimum number of bytes allowed or contained greater than the maximum number of bytes allowed in a message. Try to specify the desired poke again.

402 = The stop option was requested, but the execcmd variable, which contains the poke number of the current executing system update option, contains a bad poke number. Therefore, the menu page does not know which option to stop. Try to specify the stop option again.

403 = The application process was being formatted in order to be displayed when a bad value was found in the variable that saves the mode on which the system is running (MML = 1). Try to request the application process again. If this error still occurs, execute the application manually using the input message.

404 = While waiting for a poke to be specified on one of the enter arguments pages, the recvw() function received a message from DAP that either contained less than the minimum number of bytes allowed or contained greater than the maximum number of bytes allowed in a message. Try to specify the desired poke again.

405 = A poke number could not be found in the text portion of the poke message sent from DAP to the menu page when the user requested a poke from one of the enter arguments pages. Therefore, the specified poke could not be processed. DAP may have sent the menu page a damaged message. Try to specify the desired poke again.

406 = While waiting for an argument to be specified on one of the enter arguments pages, the recvw() function received a message from DAP that either contained less than the minimum number of bytes allowed or contained greater than the maximum number of bytes allowed in a message. Specify the poke corresponding to the desired argument and then try to specify the argument again.

407 = An invalid number of literal strings were found in the text portion of the poke message sent from DAP to the menu page when the user specified arguments contents on one of the enter arguments pages. Therefore, the specified poke or literal string could not be processed. DAP may have sent the menu page a damaged message. Try to specify the desired argument poke and argument contents again.

408 = The internal function checkargs() checks to make sure that all of the mandatory enter option line arguments have been specified. If all of them have not been specified, checkargs() returns the enter arguments page number of the page that contains the poke for the argument that was not specified:

page number 1 = Enter arguments page 1.

page number 2 = Enter arguments page 2.

The appropriate enter arguments page is displayed depending on the return value from checkargs so that the missing argument can be specified. Checkargs returned a bad page number and therefore the appropriate enter arguments page cannot be displayed. Make sure that all of the mandatory enter option line arguments have been specified then type the poke 753 to return to the system update menu page.

413 = When formatting the enter input option line, the bootdisk specified was searched for in the enter arguments structure. It could not be found. Since it is mandatory for a bootdisk to be specified on the enter option line, the enter input option line could not be formatted and therefore could not be displayed in the display area of the system update menu page. Display enter arguments page 2 and make sure that a bootdisk has been specified.

414 = When formatting the enter input option line, a sequence option specified was searched for in the Entry arguments structure. It could not be found. Display enter arguments page 2 again and re-specify sequence options for all the disks specified.

415 = When formatting the enter input option line that is to be displayed in the display area of the system update menu page, too many lines were used for the option. The display area only contains 12 lines and more than 12 lines were used to format the enter input option line.

416 = After formatting the enter input option line, not all of the disks specified were included in the option line (the number of disks formatted into the option line did not match the number of disks that were specified). The counter that contains the number of disks specified may be damaged. Terminate the menu page using poke 750, bring up the menu page again using poke 107, and re-specify all of the enter option line arguments.

417 = When the enter input option line was being formatted in order to be displayed in the display area of the system update menu page, the variable containing the input mode of the system was found to be damaged (it contained something other than MML). Since the menu page does not know which format to use, it cannot display the enter input option line. Terminate the menu page, bring up the menu page again, and re-specify all of the enter option line arguments.

418 = When deleting a specified disk, an invalid poke number corresponding to the disk being deleted was found. Try to type in the poke again for the disk being deleted, and then hit (return) to delete the previously specified disk. If that still does not work, terminate the menu page, bring up the menu page again, and re-specify all of the enter option line arguments.

419 = When specifying a disk, an invalid poke number corresponding to the disk being specified was found. Try to type in the poke again for the disk being specified, and then type in the full pathname of the desired disk. If that still does not work, terminate the menu page, bring up the menu page again, and re-specify all of the enter option line arguments.

420 = A specified tape sequence option was being added to the enter arguments structure when a bad tape sequence option poke was found in the variable that saves the poke last specified. Try to specify the tape sequence option poke again and then re-specify the tape sequence option argument.

421 = A previously specified tape sequence option was being deleted from the enter arguments structure when a bad tape sequence option poke was found in the variable that saves the poke past specified. Try to specify the tape sequence option poke again and then try to delete the previously specified tape sequence option.

422 = A bad poke number was specified on one of the enter arguments pages. Specify only a poke number that is on the page currently being displayed.

423 = The system update menu page process received a SIGCLD signal. When the function qwait() was executed to find the process ID (PID) of the child that terminated, the qwait() function returned a PID of zero which indicates that no child process terminated. If the rest of the system update cannot be performed using the menu page because of this error, finish the update manually using input messages.

424 = The system update menu page process received a SIGCLD signal. When the function qwait() was executed to find the PID of the child that terminated, the qwait() function returned a PID of -1 which indicates that no child existed that could terminate. If the rest of the system update cannot be performed using the menu page because of this error, finish the update manually using input messages.

425 = The enter poke was specified and the menu page process executed the checkargs() function to make sure that all of the mandatory enter option line arguments have been specified. If at least one of these arguments have not been specified, checkargs() returns the page number of the enter arguments page that needs to be displayed so that the missing argument can be specified. In this case, checkargs returned an invalid enter arguments page number. Valid page numbers are:

page number 1 = Enter arguments page 1.

page number 2 = Enter arguments page 2.

Try to specify the enter poke again.

426 = The application process terminated unsuccessfully with an error code (a value other than one).

Fix the error and then execute the application process again.

427 = The backout process terminated unsuccessfully with an error code (a value other than one). To determine the exact system update error that occurred, look at the UPD:GEN-BACKOUT error message that was printed on the ROP by the backout process. This message contains a system update error code. Look up this error code in the APP:SUPR appendix in the Appendixes section of the Output Messages manuals to find the exact cause of the error. Fix the error and then continue the backout process using the continue poke.

428 = The commit process terminated unsuccessfully with an error code (a value other than one). To determine the exact system update error that occurred, look at the UPD:GEN-COMMIT error message that was printed on the ROP by the commit process. This message contains a system update error code. Look up this error code in the APP:SUPR appendix in the Appendixes section of the Output Messages manual to find the exact cause of the error. Fix the error and then continue the commit process using the continue poke.

429 = The continue process terminated unsuccessfully with an error code (a value other than one). To determine the exact system update error that occurred, look at the UPD:GEN-CONTINUE error message that was printed on the ROP by the continue process. This message contains a system update error code. Look up this error code in the APP:SUPR appendix in the Appendixes section of the Output Messages manual to find the exact cause of the error. Fix the error and then re-execute the continue process.

430 = The enter process terminated unsuccessfully with an error code (a value other than one). To determine the exact system update error that occurred, look at the UPD:GEN-ENTER error message that was printed on the ROP by the enter process. This message contains a system update error code. Look up this error code in the APP:SUPR appendix in the Appendixes section of the Output Messages manual to find the exact cause of the error. Fix the error and then continue the enter process using the continue poke.

431 = The proceed process terminated unsuccessfully with an error code (a value other than one). To determine the exact system update error that occurred, look at the UPD:GEN-PROCEED error message that was printed on the ROP by the proceed process. This message contains a system update error code. Look up this error code in the APP:SUPR appendix in the Appendixes section of the Output Messages manual to find the exact cause of the error. Fix the error and then continue the proceed process using the continue poke.

432 = The readlog process terminated unsuccessfully with an error code (a value other than one). To determine the exact system update error that occurred, look at the OP:GEN-READLOG error message that was printed on the ROP by the readlog process. This message contains a system update error code. Look up this error code in the APP:SUPR appendix in the Appendixes section of the Output Messages manual to find the exact cause of the error. Fix the error and then re-execute the readlog process.

433 = The restore process terminated unsuccessfully with an error code (a value other than one). To determine the exact system update error that occurred, look at the UPD:GEN-RESTORE error message that was printed on the ROP by the restore process. This message contains a system update error code. Look up this error code in the APP:SUPR appendix in the Appendixes section of the Output Messages manual to find the exact cause of the error. Fix the error and then continue the restore process using the continue poke.

434 = The stop process terminated unsuccessfully with an error code (a value other than one). The process that was attempted to be stopped is still executing. To determine the exact system update error that occurred, look at the STP:GEN error message that was printed on the ROP by the stop process. This message contains a system update error code. Look up this error code in the

APP:SUPR appendix in the Appendixes section of the Output Messages manual to find the exact cause of the error. Fix the error if possible and then try to re-execute the stop process.

435 = A child process terminated, but the PID of the terminated child that was obtained using the qwait() function does not match any of the PIDs that were saved when each child was executed. If the update cannot be finished using the menu page because of this error, finish the update manually using input messages.

436 = The backout option was being formatted in order to be displayed when a bad value was found in the variable that saves the mode on which the system is running (MML = 1). Try to request the backout option again. If this error still occurs, finish the update procedures manually using input messages.

437 = The backout option was being formatted in order to be displayed when a bad value was found in the unconditional (UCL) flag variable. Try to request the backout option again. If this error still occurs, finish the update procedures manually using input messages.

438 = The commit option was being formatted in order to be displayed when a bad value was found in the variable that saves the mode on which the system is running (MML = 1). Try to request the commit option again. If this error still occurs, finish the update procedures manually using input messages.

439 = The commit option was being formatted in order to be displayed when a bad value was found in the UCL flag variable. Try to request the commit option again. If this error still occurs, finish the update procedures manually using input messages.

440 = The continue option was being formatted in order to be displayed when a bad value was found in the variable that saves the mode on which the system is running (MML = 1). Try to request the continue option again. If this error still occurs, finish the update procedures manually using input messages.

441 = An option is being continued. When the option begins execution, a message indicating that this option is executing is printed on the messages line of the menu page and its input option line is displayed in the display area of the system update menu page. The appropriate message and option line are printed depending on the option that was continued. The menu poke number for the continued option is saved in an internal variable which appears to be damaged because an invalid menu poke number was found. Therefore, the execution message and the input option cannot be displayed. This may not disrupt the rest of the update. The system update option is still executing. If problems arise, finish the update manually using input messages.

442 = The proceed option was being formatted in order to be displayed when a bad value was found in the variable that saves the mode on which the system is running (MML = 1). Try to request the proceed option again. If this error still occurs, finish the update procedures manually using input messages.

443 = The UCL flag (an internal variable) contains an invalid value. This flag indicates whether or not the UCL argument was requested for the last option specified (which in this case is the proceed option). Valid value(s):

0 = UCL argument was not requested.

1 = UCL argument was requested.

Try to specify the proceed option first without any arguments. If arguments are desired, specify

them next. If this error still occurs, finish the update manually using input messages.

444 = The retro flag (an internal variable) contains an invalid value. This flag indicates whether or not the retro argument was requested for the proceed option. Valid value(s):

0 = Retro argument was not requested.

1 = Retro argument was requested.

Try to specify the proceed option first without any arguments. If arguments are desired, specify them next. If this error still occurs, finish the update manually using input messages.

445 = The readlog option was being formatted in order to be displayed when a bad value was found in the variable that saves the mode on which the system is running (MML = 1). Try to request the readlog option again. If this error still occurs, execute the readlog option manually using the input message.

446 = The restore option was being formatted in order to be displayed when a bad value was found in the variable that saves the mode on which the system is running (MML = 1). Try to request the restore option again.

447 = The UCL flag (an internal variable) contains an invalid value. This flag indicates whether or not the UCL argument was requested for the last option specified (which in this case is the restore option). Valid value(s):

0 = UCL argument was not requested.

1 = UCL argument was requested.

Try to specify the restore option first without any arguments. If arguments are desired, specify them next. If problems still arise, finish the update manually using input messages.

448 = The proceed option was being formatted with the retro argument in order to be displayed when a bad value was found in the variable that saves the mode on which the system is running (MML = 1). Try to request the proceed option without any arguments. Then, if arguments (such as retro) are desired, specify them next. If this error still occurs, finish the update procedures manually using input messages.

449 = The proceed option was being formatted with the retro argument in order to be displayed when a bad value was found in the UCL flag (internal variable) which indicates whether or not the UCL argument was requested for the last option specified (which in this case is the proceed option). Valid value(s):

0 = UCL argument was not requested.

1 = UCL argument was requested.

Try to specify the proceed option first without any arguments. If arguments are desired, specify them next. If this error still occurs, finish the update manually using input messages.

450 = The stop option was being formatted in order to be displayed when a bad value was found in the variable that saves the mode on which the system is running (MML = 1). Try to request the stop option again. If this error still occurs, execute the stop option manually using the input message.

451 = The UCL flag (an internal variable) contains an invalid value. This flag indicates whether or not the UCL argument was requested for the last option specified (which in this case is the stop option). Valid value(s):

0 = UCL argument was not requested.

1 = UCL argument was requested.

Try to specify the stop option first without any arguments. If arguments are desired, specify them next. If this error still occurs, execute the stop option manually using the input message.

452 = After the menu page poke (107) was requested while on one of the enter arguments pages which displayed the system update menu page, a poke was requested from the system update menu page. In order to process this poke, the poke number must be converted to its corresponding literal string name using the internal getname() function which could not find the corresponding literal string name. Try to request the desired poke number again.

453 = When a system update process is continued, the continue option executes the system update process and returns the PID and the process type of the continued process to the menu page. The menu page saves the PID in one of the PID variables depending on the process being continued (indicated by the process type). In this case, a bad process type was received from the continue option. Valid process types are:

b = Backout process.

c = Commit process.

e = Enter process.

p = Proceed process.

r = Restore process.

Therefore, the PID of the continued process could not be saved. Since the menu page determines when a process terminates using the saved PIDs of executed processes, the completion message for the continued process cannot be printed and the menu page will never know when a process terminates. This may or may not be a problem depending on how far the update has gotten. If the enter option was continued, the proceed option will fail since the menu page does not know that the enter option has completed. In all other cases, the update should still work except that the completion message for the continued option will not be displayed on the menu page (but, system update does display the completion message on the ROP).

454 = The menu page determined the system update option that was last successfully completed in order to visually display the appropriate options that have completed in reverse video on the system update menu page and to keep track internally of which system update options have already been executed. But, the variable containing the menu number corresponding to the last successfully completed option contains an invalid menu number. Valid menu numbers of successfully completed system update processes are:

701 = Enter process.

702 = Proceed process.

703 = Commit process.

707 = Restore process.

708 = Backout process.

Since the menu page has no way of knowing which system update processes have been successfully executed and which have not, the menu page cannot continue with the update and therefore terminates with an error. Try to bring up the system update menu page again.

455 = The system update menu page terminated itself due to an error occurring. The error code that corresponds to the error that occurred can be found printed on the ROP. Fix the error, bring up the system update menu page again, and try to finish the update.

456 = The lastcmd variable which contains the menu number of the last option that was specified, contains an invalid menu number. When the execute poke is requested, the option to be executed is obtained from the lastcmd variable. Since the lastcmd variable contains an invalid menu number, no process can be executed. Re-specify the desired option that is to be executed, and then type in the execute poke again.

457 = The unconditional flag for the restore option contains an invalid value. Valid value(s):

0 = The restore option is to be executed conditionally.

1 = The restore option is to be executed unconditionally.

The restore option cannot be executed since it cannot be determined if it is to be executed conditionally or unconditionally. Try to specify and execute the restore option again.

458 = The unconditional flag for the stop option contains an invalid value. Valid value(s):

0 = The stop option is to be executed conditionally.

1 = The stop option is to be executed unconditionally.

The stop option cannot be executed since it cannot be determined if it is to be executed conditionally or unconditionally. Try to specify and execute the stop option again.

459 = The unconditional flag for the backout option contains an invalid value. Valid value(s):

0 = The backout option is to be executed conditionally.

1 = The backout option is to be executed unconditionally.

The backout option cannot be executed since it cannot be determined if it is to be executed conditionally or unconditionally. Try to specify and execute the backout option again.

460 = The unconditional flag for the commit option contains an invalid value. Valid value(s):

0 = The commit option is to be executed conditionally.

1 = The commit option is to be executed unconditionally.

The commit option cannot be executed since it cannot be determined if it is to be executed conditionally or unconditionally. Try to specify and execute the commit option again.

461 = The enter option cannot be executed because the UCL variable in the enter arguments structure contains an invalid value. Valid value(s):

`UCL` = The enter option is to be executed conditionally.

`NOTSET` = The enter option is to be executed unconditionally.

Re-specify YES or NO for the UCL argument on enter arguments page 1. Then, try to execute the enter option again.

462 = The enter option cannot be executed because the DFC preference variable in the enter arguments structure contains an invalid value. Valid value(s):

`0` = DFC 0.

`1` = DFC 1.

`NOTSET` = No preference.

Re-specify the DFC preference on enter arguments page 1. Then, try to execute the enter option again.

463 = The enter option cannot be executed because the variable in the enter arguments structure that indicates whether or not backup partitions are to be updated contains an invalid value. Valid value(s):

`NOBKUPD` = Do not update the backup partitions.

`NOTSET` = Update backup partitions.

Re-specify whether or not backup partitions are to be updated on enter arguments page 1. Then, try to execute the enter option again.

464 = The enter option cannot be executed because the update method variable in the enter arguments structure contains an invalid value. Valid value(s):

`BKPRT` = Backup partition update method.

`OFLDISK` = Off-line disk update method.

Re-specify the update method on enter arguments page 1. Then, try to execute the enter option again.

465 = The enter option cannot be executed because the tape sequence option variable for the bootdisk in the enter arguments structure contains an invalid value. Valid value(s):

`SGLSEQ` = Single tape sequence.

`DBLSEQ` = Double tape sequence.

TPLSEQ = Triple tape sequence.

Re-specify the tape sequence option on enter arguments page 2. Then, try to execute the enter option again.

466 = The enter option cannot be executed because the bootdisk could not be found in the enter arguments structure (system update will not work unless a bootdisk is being updated in addition to the other disks). Make sure a bootdisk was specified. If not, specify the bootdisk on enter arguments page 2 and attempt to execute the enter option again.

467 = The unconditional flag for the proceed option contains an invalid value. Valid value(s):

0 = The proceed option is to be executed conditionally.

1 = The proceed option is to be executed unconditionally.

The proceed option cannot be executed since it cannot be determined if it is to be executed conditionally or unconditionally. Try to specify and execute the proceed option again.

468 = The retrofit flag for the proceed option contains an invalid value. Valid value(s):

0 = Execute the proceed option without the retro argument.

1 = Execute the proceed option with the retro argument.

The proceed option cannot be executed since it cannot be determined if it is to be executed with or without the retro argument. Try to specify and execute the proceed option again.

469 = When the system update menu page is first displayed, the system update log file is read in order to determine which system update process last completed successfully. The menu number corresponding to that process is saved in the lastcmd variable. In this case, the lastcmd variable was found to contain an invalid menu number. Since the last system update process that last completed successfully could not be determined, the system update menu page terminated because it needs this information to run properly. Try to bring up the system update menu page again. If errors still persist, finish the update manually using input messages. If this still does not work, the system update log file may be damaged. Return the system to its original sane state, remove the system update log file, and then start the update from the very beginning (the enter option).

470 = If the system update menu page is terminated while a system update process is still executing and the menu page is brought back up before the system update process completes, the menu page reads the last entry written to the log file and sets an internal variable to indicate which process is executing. The currently executing process is determined by the value in the process type field in the last log entry. In this case, an invalid process type was found. Valid process types are:

b = Backout process.

c = Commit process.

e = Enter process.

p = Proceed process.

r = Restore process.

The menu page terminates when this error occurs since this may be an indication that the log file is damaged. Try to bring up the menu page again. If the error persists, read the log file using the OP:G-READLOG input message. Look at the begin enter log entry and make sure that the process type for the last entry is correct. If not, remove the log file and start the update over from the beginning of the enter step. If the process type is correct, try to finish the update manually using input messages.

471 = When the menu page is first brought up, it reads the begin entries in the system update log file to determine the option line arguments that were previously specified for various system update processes that either were executing or are executing. In this case, a begin log entry was read which contains an invalid process type. Valid process types are:

b = Backout process.

c = Commit process.

e = Enter process.

p = Proceed process.

r = Restore process.

The menu page terminates when this error occurs since this may be an indication that the log file is damaged. Try to bring up the menu page again. If the error persists, read the log file using the OP:G-READLOG input message. Look at the begin log entries and make sure that the process types for the entries are correct. If not, remove the log file and start the update over from the beginning of the enter step. If the process types are correct, try to finish the update manually using input messages.

472 = If the system update menu page was terminated while the system update enter process was executing and the menu page was brought back up before the enter process terminated, the menu page reads the system update log file to determine the enter option line arguments that were previously specified. In this case, not all of the mandatory enter option line arguments could be determined. Try to bring up the menu page again. If the error persists, read the log file using the OP:G-READLOG input message. Look at the begin enter log entry and make sure that the mandatory option line arguments are correct. If not, remove the log file and start the update over from the beginning of the enter step. If the process types are correct, try to finish the update manually using input messages.

473 = If the system update menu page was terminated while the system update enter process was executing and the menu page was brought back up before the enter process terminated, the menu page reads the system update log file to determine the enter option line arguments that were previously specified. In this case, the begin enter log entry, which contains the enter option line arguments, could not be found in the log file. Try to bring up the menu page again. If the error persists, read the log file using the OP:G-READLOG input message. Look at the begin enter log entry and make sure that the option line arguments were specified correctly. If not, remove the log file and start the update over from the beginning of the enter step. If the option line arguments were specified correctly, try to finish the update manually using input messages.

474 = If the system update menu page was terminated while a system update process was executing and the menu page was brought back up before the process terminated, the menu page determines

which option is currently executing and sets an internal variable to the PID of the currently executing process. In this case, a process is executing, but the menu page cannot figure out which one since all of the internal variables containing the PIDs of the system update process all indicate that there is no process executing. Try to bring up the menu page again. If the error persists, wait until the currently executing system update process terminates. Then, try to bring up the menu page.

1.5 User Errors

These error conditions occur when the error may have been caused by the user.

600 = The poke to terminate the system update menu page was requested when one of the system update processes or the application process was executing. The menu page can only be terminated if there are no processes currently executing. Wait until the executing process terminates and then try to terminate the menu page again using the term page poke.

601 = More than three pokes were specified on the CMD< line of the system update menu page. Specify the correct number of pokes (one, two, or three) separated by commas.

602 = The retro poke was specified on the CMD< line of the system update menu page.

603 = The first poke that was specified on the CMD< line of the system update menu page is invalid. It must be one of the pokes that are displayed on that page. Pokes from the two enter arguments pages cannot be specified from the system update menu page.

604 = The enter option was requested when it has already successfully completed. The enter option cannot be executed more than once in one update. Either execute the proceed and/or commit option or execute the backout and/or restore options. If the update needs to be started from the very beginning of the update procedures, remove the system update log file (/etc/log/suprlog) and then execute the enter option.

605 = The commit option was requested when it has already successfully completed. The commit option cannot be executed more than once in one update. If the update needs to be started from the very beginning of the update procedures, remove the system update log file (/etc/log/suprlog) and then execute the enter option.

606 = The stop option can be used to stop only the following system update processes: backout, commit, continue, enter, proceed, and restore. The stop option was erroneously executed to stop either the readlog process or the stop process itself which are not allowed to be stopped by the stop option.

607 = The stop option was requested when no system update processes that can be stopped are executing.

608 = For the following options, only one or two pokes are allowed to be specified on the CMD< line of the system update menu page at one time (the option poke and the UCL flag if desired): backout, commit, enter, restore, and stop. A third poke was specified which is not allowed. Re-request the desired option specifying only the option poke and the UCL flag if desired.

609 = Two pokes were specified on the CMD< line of the system update menu page for one of the following options: backout, commit, enter, restore, or stop. The first poke was the poke for the option itself. The only poke value allowed for the second poke for these options is the UCL poke (using either the UCL poke number 710 or the "UCL" or "ucl" literal string) since this is the only argument allowed on these option lines. In this case, something other than the UCL poke or the "UCL" or "ucl" literal string was specified. Re-request the desired option.

610 = The proceed option was requested when it has already successfully completed. The proceed option cannot be executed more than once in one update. Either execute the commit option or execute the restore option. If the update needs to be started from the very beginning of the update procedures, remove the system update log file (/etc/log/suprlog) and then execute the enter option.

611 = The retro poke or the "RETRO" or "retro" literal string was specified as the second poke on the CMD< line of the system update menu page when the proceed option was specified as the first poke. The menu page does not allow this flag since system update does not handle it yet.

612 = The proceed option was specified with an argument on the CMD< line of the system update menu page. The only argument proceed allows is the UCL poke or the "UCL" or "ucl" literal string. The argument specified was something other than UCL.

613 = Three pokes were specified on the CMD< line of the system update menu page when only two are allowed at one time.

614 = The third poke specified on the CMD< line of the system update menu page was found to be invalid. Since the first poke specified corresponded to the proceed option, the other two pokes have to correspond with the UCL or retro arguments since these are the only arguments that the proceed option allows. In this case, the third poke was something other than the UCL or the retro argument.

615 = Three pokes are not allowed to be specified on the CMD< line of the system update menu page at the same time when the first poke corresponds to the application process.

616 = Only one poke is allowed to be specified on the CMD< line of the system update menu page when that poke corresponds to one of the following: enter args1, enter args2, continue, execute, readlog, and termpage. In this case, more than one poke was specified.

617 = The retro poke was specified on the CMD< line of the system update menu page, but the last option specified was not the proceed option. The retro poke is only allowed to be specified for the proceed option.

618 = Two pokes were specified on the CMD< line of the system update menu page. The first corresponded to the retro flag for the proceed option. The only other poke that is allowed to be specified for the proceed option corresponds to the UCL flag. In this case the second poke did not correspond to the UCL poke or literal string.

619 = Three pokes are not allowed to be specified on the CMD< line of the system update menu page when the first poke corresponds to the UCL poke. Only two pokes are allowed: the UCL poke and the poke or literal string corresponding to the retro flag (only if the last option currently being displayed in the display area is the proceed option).

620 = Until system update is changed to handle the retro flag on the proceed option line, the system update menu page will not allow the user to specify the retro poke. In this case, the UCL poke was specified on the CMD< line of the system update menu page. A second poke was also specified on the CMD< line. A second poke is not allowed to be specified since the only valid value allowed with the UCL poke is the retro poke and system update does not handle it yet.

621 = When system update is changed to handle the retro flag on the proceed option line and the UCL poke is specified on the CMD< line of the system update menu page along with a second poke, the second poke must correspond to the retro flag since that is the only argument that can be specified with the UCL argument.

622 = The UCL and retro flags were specified on the CMD< line of the system update menu page, but the last option specified was not the proceed option. The retro argument is only allowed to be

specified for the proceed option.

623 = The UCL poke was specified on the CMD< line of the system update menu page, but the last option specified does not accept the UCL argument on its option line.

624 = The number `0` was specified for the update method on the enter option line. Zero does not correspond to a valid update method argument. If the off-line disk method is desired, type the letter `O`. If the backup partition method is desired, type the letter `B`.

625 = An invalid update method was specified for the enter option line. Specify the letter `O` for the off-line disk method and the letter `B` for the backup partition method.

626 = An invalid tape device was specified. Either the full pathname or `mt0`, `MT0`, `mt1`, or `MT1` may be used to specify the tape device.

627 = The specified tape device either does not exist or cannot be accessed for reading.

628 = A disk file controller (DFC) preference cannot be specified until an update method has been specified. This is done for error checking since a DFC preference can only be made if using the off-line disk update method.

629 = A DFC preference was specified when the update method specified was not the off-line disk method. A DFC preference can only be specified when using the off-line disk update method.

630 = An invalid DFC preference was specified. Type `0` for DFC 0, `1` for DFC 1, or `2` to specify no preference.

631 = It cannot be specified whether or not the backup partitions will be updated until an update method has been specified. In this case, an update method has not yet been specified. This is done for error checking since it can be specified that the backup partitions will or will not be updated only when using the off-line disk update method.

632 = It was specified that the backup partitions will or will not be specified when the update method specified was not the off-line disk method. It can be specified that the backup partitions will or will not be updated only when using the off-line disk update method.

633 = When requesting that the backup partitions will or will not be updated, an invalid argument value was specified. Type `N` if the backup partitions are not to be updated, type `Y` if the backup partitions are to be updated.

634 = When specifying whether or not the enter option is to be executed unconditionally, an invalid argument value was specified. To execute the enter option unconditionally, type `Y`. To execute the enter option conditionally, type `N`.

635 = All of the mandatory enter option line arguments were being checked to make sure that they were all specified (update method, tape device, and bootdisk to be updated). It was found that the update method has not yet been specified.

636 = All of the mandatory enter option line arguments were being checked to make sure that they were all specified (update method, tape device, and bootdisk to be updated). It was found that the tape device has not yet been specified.

637 = All of the mandatory enter option line arguments were being checked to make sure that they were all specified (update method, tape device, and bootdisk to be updated). It was found that a tape sequence option was specified for a disk that was not specified. Either remove all tape sequence

option specifications, or specify the corresponding disks to be updated.

638 = When the tape sequence option becomes a mandatory enter option line argument, this error message will be printed when a disk to be updated has been specified, but its corresponding tape sequence option has not been specified. Either remove the disk to be updated specification or specify its corresponding tape sequence option.

639 = A disk to be updated was not specified. It is mandatory that at least one disk is specified. This disk must be a bootdisk.

640 = It is a system update requirement that one of the specified disks to be updated has to be the bootdisk (currently called /dev/vtoc). The bootdisk could not be found and therefore is assumed to have not yet been specified.

641 = A full pathname was not specified for the specified disk to be updated.

642 = The specified disk to be updated does not exist, cannot be accessed for reading, or cannot be accessed for writing. Make sure the correct disk has been specified.

643 = A bad tape sequence option was specified. The only valid tape sequence options are:

`S` = Single tape sequence option.

`D` = Double tape sequence option.

`T` = Triple tape sequence option.

Specify the tape sequence option again using a correct value.

644 = The commit option was specified before the enter option was executed. First execute the enter and proceed options and then execute the commit option.

645 = The commit option was specified before the proceed option was executed. Execute the proceed option and then execute the commit option.

646 = The proceed option was specified before the enter option was executed. Execute the enter option and then execute the proceed option.

647 = The first poke that was specified on the CMD< line of the system update menu page was invalid. The only pokes allowed are the pokes that are being displayed on the current page. Try to specify the desired poke again.

648 = A system update process was attempted to be continued when the continue flag in the system update log file for that process indicates that this process is not continuable. Make sure that the last option executed really needs to be continued.

649 = The UCL argument was specified. But, a option that the UCL argument is for has not yet been specified. Specify the option that is to be executed. If the UCL argument is desired, specify it next.

650 = The UCL argument was specified. But, the last option specified that the UCL argument is for does not allow the UCL argument on its option line. Specify the desired option and the UCL argument again.

651 = The commit option cannot be executed because it has already been successfully executed. If the commit option was not really executed previously, try to execute the commit option manually using

the input message. If this error still occurs, terminate the system update menu page, remove the system update log file, return the system to a sane state, and start the entire update over again from the very beginning of the enter option.

652 = The enter option cannot be executed because it has already been successfully executed. If the enter option was not really executed previously, try to execute the enter option manually using the input message. If this error still occurs, terminate the system update menu page, remove the system update log file, return the system to a sane state, and start the entire update over again from the very beginning of the enter option.

653 = The proceed option cannot be executed because it has already been successfully executed. If the proceed option was not really executed previously, try to execute the proceed option manually using the input message. If this error still occurs, terminate the system update menu page, remove the system update log file, return the system to a sane state, and start the entire update over again from the very beginning of the enter option.

654 = The execute menu poke was requested before the system update or application option that is to be executed was specified. Type the menu poke that corresponds to the process to be executed, and then type the execute menu poke.

655 = The application process was requested while a previous call to the application process is still executing. Only one application process can be executing at a time. Wait for the first application process to terminate. Then execute the next application process call.

656 = The backout option was attempted to be executed while another system update option (commit, continue, enter, proceed, or restore) was executing that would conflict with the backout option. Wait for the executing system update option to terminate or terminate it manually using the stop option, and then try to execute the backout option again.

657 = The commit option was attempted to be executed while another system update option (backout, continue, enter, proceed, or restore) was executing that would conflict with the commit option. Wait for the executing system update option to terminate or terminate it manually using the stop option, and then try to execute the commit option again.

658 = The continue option was attempted to be executed while another system update option (backout, commit, enter, proceed, or restore) was executing that would conflict with the continue option. Wait for the executing system update option to terminate or terminate it manually using the stop option, and then try to execute the continue option again.

659 = The enter option was attempted to be executed while another system update option (backout, commit, continue, proceed, or restore) was executing that would conflict with the enter option. Wait for the executing system update option to terminate or terminate it manually using the stop option, and then try to execute the enter option again.

660 = The proceed option was attempted to be executed while another system update option (backout, commit, continue, enter, or restore) was executing that would conflict with the proceed option. Wait for the executing system update option to terminate or terminate it manually using the stop option, and then try to execute the proceed option again.

661 = The restore option was attempted to be executed while another system update option (backout, commit, continue, enter, or proceed) was executing that would conflict with the restore option. Wait for the executing system update option to terminate or terminate it manually using the stop option, and then try to execute the restore option again.

662 = Enter arguments page 1 was attempted to be displayed while the enter option was executing.

Since arguments for the enter option cannot be changed, added, or deleted after the enter option has begun its execution, the system update menu page prevents the user from going to enter arguments page 1 in case the user tries to change, add, or deleted enter option line arguments.

663 = Enter arguments page 2 was attempted to be displayed while the enter option was executing. Since arguments for the enter option cannot be changed, added, or deleted after the enter option has begun its execution, the system update menu page prevents the user from going to enter arguments page 2 in case the user add, or deleted enter option line arguments.

664 = A double tape sequence was specified on enter arguments page 2. But, a corresponding disk to be updated was not previously specified for this sequence option. A disk must first be specified, then its corresponding tape sequence option may be specified.

665 = After formatting the enter input option line, not all the sequence options specified were included in the option line (the number of sequence options formatted into the option line did not match the number of sequence options that were specified). The counter that contains the number of sequence options specified may be damaged. Terminate the menu page using poke 750, bring up the menu page again using poke 107, and re-specify all the enter option line arguments.

666 = A triple tape sequence was specified on enter arguments page 2. But, a corresponding disk to be updated was not previously specified for this sequence option. A disk must first be specified, then its corresponding tape sequence option may be specified.

668 = The backup partition method was attempting to be specified using the poke on enter arguments page 1. But, a DFC preference was previously specified which is valid only for the off-line disk method. If the backup partition method is still desired, delete the DFC preference that was specified and then re-specify the backup partition method.

669 = The backup partition method was attempting to be specified using the poke on enter arguments page 1. But, the update backup partition option was previously specified which is valid only for the off-line disk method. If the backup partition method is still desired, delete the update backup partition option that was specified and then re-specify the backup partition method.

670 = A single tape sequence was specified on enter arguments page 2. But, a corresponding disk to be updated was not previously specified for this sequence option. A disk must first be specified, then its corresponding tape sequence option may be specified.

671 = When executing the system update enter option using pokes on the system update menu page, the log file must be either empty or non-existent. It may not contain log entries from a previous update session. In this case, the log file contains entries. Remove the log file and terminate the menu page. Bring up the menu page again and re-execute the enter option.

1.6 Warning Messages

These warning messages are printed when an error occurs that may not affect the outcome of the update.

800 = The function sendpw() failed when the menu page was sending DAP a message to display a message on the messages line of one of the menu page screens:

SUPRPG = System update menu page.

ARGSPG1 = Enter arguments page 1.

ARGSPG2 = Enter arguments page 2.

Look for the message on the ROP. The message was also printed there.

801 = The menu page was trying to change a portion of a page either from normal video to reverse video or from reverse video to normal video. A bad video flag (VFLAG) specifying how to display the page (normal video or reverse video) was passed to the internal function chgvideo().

802 = The menu page was trying to send a message to DAP to change a portion of a page from normal video to reverse video when the sendpw() function failed.

803 = The menu page was trying to send a message to DAP to change a portion of a page from reverse video to normal video when the sendpw() function failed.

804 = The sendpw() function failed when a message was sent to DAP to blank out the messages line on one of the three system update pages.

SUPRPG = System update menu page.

ARGSPG1 = Enter arguments page 1.

ARGSPG2 = Enter arguments page 2.

805 = One of the enter arguments pages was displayed. The menu page found that the UCL argument was previously specified and tried to send a message to DAP to display a "Y" next to the UCL argument poke on enter arguments page 1 to indicate that this argument has previously been specified. The sendpw() function failed when sending DAP this message. Try to specify the UCL argument using the poke on enter arguments page 1.

806 = A attempt was made to blank out the messages line of the enter arguments page that is currently being displayed in order to erase a message that may have previously been displayed. The variable that saves the page that is currently being displayed contains a bad value. The messages line of the current enter arguments page cannot be blanked out since it is unknown which enter arguments page is being displayed.

807 = The application process completed and the variable Execcmd indicated that a system update option is currently executing. The internal function chkexec() was executed to find the name of the system update process that is currently executing. But, chkexec could not find the name of the process currently executing. Therefore, the execution message of the currently executing system update process could not be re-displayed on the messages line of the system update menu page.

808 = The sendpw() function failed when sending a message to DAP to display the "mount tape and continue" message on the messages line of the system update menu page. After mounting the tape, try to continue the update using the continue poke on the menu page.

809 = The sendpw() function failed when sending a message to DAP to blank out a line in the display area of the system update menu page.

810 = The sendpw() function failed when sending a message to DAP to either blank out a previously specified invalid enter option line argument from one of the enter arguments pages or draw an underline on one of the enter arguments pages to indicate where an argument is to be specified. If an argument was being blanked out, try to correct the invalid argument using the pokes on the appropriate enter arguments page. If an argument poke was specified, but the underline was not drawn where the argument is to be specified, type in the argument where the underline should have been drawn (the cursor should appear in the correct input area). The menu page should accept it.

811 = When the poke corresponding to the enter argument that indicates whether or not backup partitions are to be updated is specified, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. This is done by sending a message to DAP to move the cursor. This error occurred when the sendpw() function failed when sending the message to DAP. Move the cursor to this input field manually using the arrow keys and then input the desired argument value.

812 = When the poke corresponding to the enter argument that indicates whether or not backup partitions are to be updated is specified, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. After the enter argument is specified, the cursor is moved back up to the CMD< line so that the next enter argument poke may be specified. This is done by sending a message to DAP to move the cursor. This error occurred when the sendpw() function failed when sending the message to DAP. Move the cursor back up to the CMD< line manually using the arrow keys. Update procedures should continue normally.

813 = The readlog option or the application option was executed while there may have been another system update executing at the same time, or the stop option was executed but completed unsuccessfully. When one of these three conditions occur, the execution message and the option line of the option that is currently executing is re-displayed since it was overwritten by the readlog, stop, or application message and option line. The internal variable execcmd contains the poke menu number that corresponds to the executing option. In this case, execcmd contained an invalid menu number. Therefore, the currently executing option and its execution message could not be displayed. This may not affect the outcome of the update (just the display on the menu page).

814 = The enter input option line was attempting to be re-displayed for one of three reasons:

- The readlog option was executed while the enter option was executing at the same time (when the readlog process completes, the option line for the enter option is re-displayed since the readlog option line overwrote the enter option line),
- The stop option was executed but completed unsuccessfully (since the stop option line overwrote the enter option line, the enter option line is re-displayed since it is still executing), or
- The application process was executed while the enter option was executing at the same time (since the application option line overwrote the enter option line, the enter option line is re-displayed since it is still executing).

But, the enter option line cannot be displayed because not all of the mandatory arguments can be found in the enter arguments structure. This may not affect the outcome of the update (just the display on the menu page).

815 = After opening and reading the contents of the system update log file, the log file is closed. But, the close failed. This should not affect the outcome of the update.

816 = When the poke corresponding to the enter argument that specifies a DFC, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. This is done by sending a message to DAP to move the cursor. This error occurred when the sendpw() function failed when sending the message to DAP. Move the cursor to this input field manually using the arrow keys and then input the desired argument value.

817 = When the poke corresponding to the enter argument that specified a DFC, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. After the enter argument is specified, the cursor is moved back up to the CMD< line so that the next enter argument poke may be specified. This is done by sending a message to DAP to move the cursor. This error occurred when the sendpw() function failed when sending the message to DAP. Move the cursor back up to the CMD< line manually using the arrow keys. Update procedures should continue normally.

818 = When the poke corresponding to the enter argument that specifies a disk to be updated is requested, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. This is done by sending a message to DAP to move the cursor. This error occurred when the sendpw() function failed when sending the message to DAP. Move the cursor to this input field manually using the arrow keys and then input the desired argument value.

819 = When the poke corresponding to the enter argument that specified a disk to be updated is requested, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. After the enter argument is specified, the cursor is moved back up to the CMD< line so that the next enter argument poke may be specified. This is done by sending a message to DAP to move the cursor. This error occurred when the sendpw() function failed when sending the message to DAP. Move the cursor back up to the CMD< line manually using the arrow keys. Update procedures should continue normally.

820 = If a disk to be updated was not specified using a full pathname (starting with a slash '/'), the invalid disk pathname specified is blanked from the page. In order to do this, the indicator name corresponding to the disk menu number specified is needed (the menu page sends a message to DAP with this information and then DAP blanks out the appropriate argument). In this case, the indicator name corresponding to the disk menu number specified cannot be obtained and therefore the invalid disk pathname cannot be blanked out. Specify the valid disk pathname by typing the desired disk poke again and then typing the correct disk pathname in the input field indicated by the blinking cursor. If it is desired to not correct the invalid disk pathname, the invalid pathname displayed should not affect the update (the invalid disk pathname remains on the screen but is ignored by the menu page).

821 = The specified disk to be updated either does not exist or cannot be accessed for reading and/or writing, therefore, it is an invalid argument. The invalid disk specified was attempted to be blanked from the page. In order to do this, the indicator name corresponding to the disk menu number specified is needed (the menu page sends a message to DAP with this information and then DAP blanks out the appropriate argument). In this case, the indicator name corresponding to the disk menu number specified cannot be obtained and therefore the invalid disk pathname cannot be blanked out. Specify the valid disk pathname by typing the desired disk poke again and then typing the correct disk pathname in the input field indicated by the blinking cursor. If it is desired to not correct the invalid disk pathname, the invalid pathname displayed should not affect the update (the invalid disk pathname remains on the screen but is ignored by the menu page).

822 = When the poke corresponding to the enter argument that specifies a disk to be updated is requested, an underline (the maximum length that the disk pathname can be) is drawn immediately after the poke number and its description to indicate where the disk argument is to be typed. The cursor is positioned at the beginning of the underline. Because of an internal error, this underline cannot be drawn. The cursor should still be positioned where the underline should have been drawn. This should not affect the outcome of the update. Go ahead and type in the disk pathname where the cursor is positioned.

823 = When the poke corresponding to the enter argument that specifies a sequence option is requested, an underline (the maximum length that the sequence option input can be) is drawn immediately after the poke number and its description to indicate where the sequence option argument is to be typed. The cursor is positioned at the beginning of the underline. Because of an internal error, this underline cannot be drawn. The cursor should still be positioned where the underline should have been drawn. This should not affect the outcome of the update. Go ahead and type in the sequence option argument where the cursor is positioned.

824 = When the poke corresponding to the immediately following the poke and its description. An internal error prohibited the movement of the cursor. Use the arrow keys to move the cursor to the desired disk input field. An underline may have been drawn to indicate the appropriate input field. Then type the desired disk pathname.

825 = When the poke corresponding to the enter argument that specifies a sequence option is requested, the cursor is moved to the input field for that sequence option immediately following the poke and its description. An internal error prohibited the movement of the cursor. Use the arrow keys to move the cursor to the desired sequence option input field. An underline may have been drawn to indicate the appropriate input field. Then type the desired sequence option argument.

826 = When the poke corresponding to the enter argument that specifies an update method is requested, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. This is done by sending a message to DAP to move the cursor. This error occurred when the sendpw() function failed when sending the message to DAP. Move the cursor to this input field manually using the arrow keys and then input the desired argument value.

827 = When the poke corresponding to the enter argument that specified an update method is requested, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. After the enter argument is specified, the cursor is moved back up to the CMD< line so that the next enter argument poke may be specified. This is done by sending a message to DAP to move the cursor. This error occurred when the sendpw() function failed when sending the message to DAP. Move the cursor back up to the CMD< line manually using the arrow keys. Update procedures should continue normally.

828 = When the poke corresponding to the enter argument that specifies a sequence option is requested, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. This is done by sending a message to DAP to move the cursor. This error occurred when the sendpw() function failed when sending a cursor down message to DAP. Move the cursor to this input field manually using the arrow keys and then input the desired argument value.

829 = When the poke corresponding to the enter argument that specifies a sequence option is requested, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. This is done by sending a message to DAP to move the cursor. This error occurred when the sendpw() function failed when sending a cursor right message to DAP. Move the cursor to this input field manually using the arrow keys and then input the desired argument value.

830 = When the poke corresponding to the enter argument that specifies a sequence option is requested, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. After the enter argument is specified, the cursor is moved back up to the CMD< line so that the next enter argument poke may be specified. This is done by sending a message to DAP to

move the cursor. This error occurred when the sendpw() function failed when sending the message to DAP. Move the cursor back up to the CMD< line manually using the arrow keys. Update procedures should continue normally.

831 = When the poke corresponding to the enter argument that specifies a tape device is requested, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. This is done by sending a message to DAP to move the cursor. This error occurred when the sendpw() function failed when sending the message to DAP. Move the cursor to this input field manually using the arrow keys and then input the desired argument value.

832 = When the poke corresponding to the enter argument that specifies a tape device is requested, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. After the enter argument is specified, the cursor is moved back up to the CMD< line so that the next enter argument poke may be specified. This is done by sending a message to DAP to move the cursor. This error occurred when the sendpw() function failed when sending the message to DAP. Move the cursor back up to the CMD< line manually using the arrow keys. Update procedures should continue normally.

833 = When the poke corresponding to the enter argument that specifies conditional or unconditional execution is requested, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. This is done by sending a message to DAP to move the cursor. This error occurred when the sendpw() function failed when sending the message to DAP. Move the cursor to this input field manually using the arrow keys and then input the desired argument value.

834 = When the poke corresponding to the enter argument that specifies conditional or unconditional execution is requested, the cursor is placed at the beginning of the input field immediately after the poke number and its description so that the user can input the desired argument value in the appropriate place on the page. After the enter argument is specified, the cursor is moved back up to the CMD< line so that the next enter argument poke may be specified. This is done by sending a message to DAP to move the cursor. This error occurred when the sendpw() function failed when sending the message to DAP. Move the cursor back up to the CMD< line manually using the arrow keys. Update procedures should continue normally.

835 = When the enter option is executed, the enter option line is formatted to a form that is suitable for printing on the ROP. While formatting the enter option line, the malloc() function is used to allocate space needed for the formatting procedures. The malloc() function failed. This should not affect the outcome of the update (the enter option line that is executing just will not be displayed on the ROP).

836 = When the enter option is executed, the enter option line is formatted to a form that is suitable for printing on the ROP. While formatting the enter option line, the realloc() function is used to allocate space needed for the formatting procedures. The realloc() function failed. This should not affect the outcome of the update (the enter option line that is executing just will not be displayed on the ROP).

837 = The internal buffer array buffer contains the input option line for the option that was last specified on the system update menu page. In this case, the enter option line should reside in the buffer array since it was the last option specified. But, when the enter option line was being formatted to a form that is suitable for displaying on the ROP, the buffer array was found to contain all blanks. Since the enter option cannot be found in the buffer array, it cannot be formatted, and therefore cannot be displayed on the ROP. This should not affect the outcome of the update (the enter option that is executing just will not be displayed on the ROP).

APP:SYSERR

Software Release: 5E10 and later
Message Class: N/A
Application: 5,3B
Type: Output

1. System Error Code Numbers

Note: Some of the system error codes from 60 to 87 may be generated from either the process manager or fault recovery.

Code(s)	Definition
1	Not super-user.
2	No such file or directory.
3	No such process.
4	Interrupted system call.
5	I/O error.
6	No such device or address.
7	Argument list too long.
8	EXEC file format error.
9	Bad file number.
10	No children.
11	No more processes.
12	Not enough core.
13	Permission denied.
14	Bad address.
15	Block device required.
16	Mount device busy.
17	File exists.
18	Cross-device link.
19	No such device.
20	Not a directory.
21	Is a directory.
22	Invalid argument.
23	File table overflow.
24	Too many open files.
25	Not a typewriter.
26	Text file busy.
27	File too large.
28	No space left on device.
29	Illegal seek.
30	Read-only file system.
31	Too many links.
32	Broken pipe.
33	File is "temped."
34	Trap to lower execution level kernel process.
35	No message.
36	Not allocated.
37	Mount audit failure.
38	Mount umount failed due to current audit.
39	First access of logical block.
40	Fmove failed.
41	No extents.
42	Pathname too long.
43	No entries left.
44	Invalid operation.
45	Failure as a result of an audit.
46	Disk limp mode indication.
47	Unable to open /dev/ecd.
48	Conflict with current system status.
49-50	Are not used at present.
51	Message type not recognized.
53	Library file doesn't exist.
54	All process slots in use (pstart fail).
55	Insufficient memory for kernel process.
56	All SDEs allocated or no swap space left.

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57	Unable to read a pfile or a library file.
58	Segment too big for address space.
59	Cannot add shared segment to process.
60	FLTRCV: Invalid emt value for this driver. PMGR: Incarnation count too big for one process.
61	FLTRCV: Iomap error.
62	FLTRCV: Hardware not OOS or reserved. PMGR: Cannot acquire PCB of terminating process.
63	FLTRCV: Not pseudo unit. PMGR: PMGR faulted, entered fault routine.
64	FLTRCV: Pointer not valid. PMGR: NUB faulted, entered fault routine.
65	FLTRCV: No mate unit.
66	FLTRCV: Not a legitimate start UCB.
67	FLTRCV: Bad eqid entry. PMGR: Bad ACK resulting from copyseg OST.
68	FLTRCV: Bad search level entry. PMGR: Pfile (LDP output) doesn't exist.
69	FLTRCV: Could not find eqid unit.
70	FLTRCV: Unit not out of service. PMGR: Cannot open dump file.
71	FLTRCV: Unit already reserved.
72	FLTRCV: No idle MDCT entry. PMGR: Cannot get capability of working directory.
73	FLTRCV: Backup not available. PMGR: Unable to close a file.
74	FLTRCV: UCB type incorrect.
75	FLTRCV: Not a "cu" UCB.
76	FLTRCV: Invalid MCH order. PMGR: Message from unauthorized process.
77	FLTRCV: Pcpmd driver busy. Try again later. PMGR: Created process has segment index overlay.
78	FLTRCV: Micro-assist code in offline slave failed. PMGR: Unable to lock shared library in memory.
79	FLTRCV: Pointer not pointing to a UCB. PMGR: Shared library already locked in memory.
80	FLTRCV: Invalid pcpmd driver message. PMGR: The term has already taken place (by proad).
81	FLTRCV: Cannot fault the driver. PMGR: Pfile calls for PAS, no PAS in system.
82	FLTRCV: CONFIG fail return. PMGR: The fork request failed pcreat - super.
83	FLTRCV: ProCannot not duplexed. PMGR: Cannot create because in disk limp mode.
84	FLTRCV: Mate processor not active. PMGR: Segid and index do not specify same module.
85	FLTRCV: Invalid argument. PMGR: Bad pcb index - when EMM index must be less than partition boundary.
86	FLTRCV: MCH hardware error. PMGR: Pfile does not specify pcb segment.
87	FLTRCV: Execmch function didn't process expected number of bytes. PMGR: An ack message was lost or delayed.
88	Kernel function returned fail.
89	Timeout on reading offline.
90	Error in online processor.
91	Failure in offline processor.
92	Is not same in both processors.
93	On-line master processor was specified.
94	Stop DMA routine failed.
95	Start DMA routine failed.

96	Unequipped UCB specified or accessed.
97	Not a top UCB.
98	No match found.
99	Bad tag value.
100	Offline CU MRFed.
101-119	Not used at present.
120	lla_nsqrid error.
121	lla_rdget error.
122	lla_uprid error.
123	lla_opnsq error.
124	lla_attrid error.
125	lla_delete error.
126	lla_sinfo error.
127	lla_get error.
128	lla_gtrid error.
129	Update bit not set.
248	Tried to write in a file manager's protected file system.
249	Corresponding fields of an I/O message with duplication do not match.
250	Device being accessed is currently not active, but is equipped.
251	Device being accessed is in disk independent operation.
252	An I/O message type not recognized by the I/O driver.
253	Driver has temporarily failed to process this message, it will be retrieved.
254	Device has failed to perform the requested I/O. Retrying the I/O request will probably not succeed.

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APP:TAPE-LIB

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. TAPE LIBRARY ERROR APPENDIX

This appendix contains the error codes returned by the functions in the tape library.

`-1 E_CLOSE` = The close() system call failed. Could not close the tape special device file.

`-2 E_INVALTP` = Invalid tape special device file input argument.

`-3 E_INVALSES` = Invalid session input argument.

`-4 E_INVALVOL` = Invalid volume input argument.

`-5 E_LSEEK` = The lseek() system call failed.

`-6 E_MKNOD` = The mknod() system call failed. Could not create a temporary tape special device file.

`-7 E_NOMULVOL` = Data read is not in multi-volume format.

`-8 E_NOSESSION` = Specified session is not on tape.

`-9 E_NOVOLUME` = Specified volume is not on tape.

`-10 E_OPENNORWD` = The open() system call failed. Could not open the no-rewind tape special device file.

`-11 E_OPENRWD` = The open() system call failed. Could not open the rewind tape special device file.

`-12 E_READ` = The read() system call failed. Could not read tape header.

`-13 E_SESORDER` = Multi-volume tape sessions are not sequential.

`-14 E_SETIO` = The setio() system call failed.

`-15 E_STAT` = The stat() system call failed for the tape special device file.

`-16 E_UNLINK` = The unlink() system call failed. Could not remove the temporary tape special device file.

`-17 E_VOLORDER` = Multi-volume tape volumes are not in ascending order.

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APP:TLP-NOTE

Software Release: 5E10 and later
Message Class: N/A
Application: 5
Type: Output

1. TROUBLE LOCATING PROCEDURE (TLP) NOTE APPENDIX

SM/CM TLP NOTE TLPNOTEs for the SM/CM diagnostics are 0.

Note - 1 Check the restore-to-service (RST)/ request out-of-service (ROS) switch on board SN412 (or SN516). It should be in the RST position.

Note - 2 Check the fuses and fuse panel wiring of the SN412, SN516, UN516, TN1424, or UN589 boards, in the MCTU, depending on the MCTU model installed. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Note - 3 This failure may have been triggered by a fuse failure anywhere in the switching module (SM). Check all peripheral unit fuses before proceeding with the diagnosis of the module controller time-slot interchanger (MCTSI).

Note - 4 Diagnose both of the dual link interfaces (DLI0 and DLI1) in the interface or SM, verify ATP.

Note - 5 Procedure:

- After replacing a TN117, TN119 or UN71, verify that the MCTSI diagnoses ATP and restores to active (ACT) without causing interrupts.
- If the board was replaced to fix a peripheral unit failure, verify that the peripheral unit now diagnoses ATP.
- If the board replacement does not clear the problem, check the peripheral interface control bus (PICB) cable between the MCTSI and the affected peripheral unit.

Note - 6 After replacing a data interface (DI) board, verify MCTSI diagnoses ATP and restores to standby (STBY). Also, verify the peripheral interface data buses (PIDBs) associated with the DI board by diagnosing the affected peripheral unit(s).

If the board replacement does not clear the problem, check the PIDB cable between the MCTSI and the affected peripheral unit.

Note - 7 After replacing a TN118 or TN837, repeat the procedure in TLP Note 6 to verify PIDBs5-15.

Note - 8 CAUTION: The first three steps must be done in the exact order shown when a TN340 or TN340B board is to be replaced.

- Pull both TN338 boards in the affected GRID.
- Replace the TN340 or TN340B board.
- Reinsert both TN338 boards.
- Enter input message RST:GRID and verify ATP.

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- Enter input message TST:GRID and verify ATP.

If following the previous steps does not clear the problem, then there is a high probability that the problem exists on the outside plant. Changing circuit packs is not likely to clear a FOREIGN POTENTIAL or POWER CROSS failure.

Note - 9 Procedure:
- Replace board TN338.
- Enter input message RST:GRID and verify the grid restores ATP.
- Enter input message TST:GRID and verify the grid test completes ATP.

Note - 10 Ignore this note (no longer used).

Note - 11 Ignore this note (no longer used).

Note - 12 Incorrect setting of the control message timeslot dual in-line package (DIP) switch on the backplane for this DLI could cause failure.

Note - 13 Incorrect setting of the DIP switch on the trunk unit channel board could cause failure.

Note - 14 Incorrect setting of the DIP switch on the TN304B could cause failure.

Note - 15 CAUTION: The next three steps must be performed in the exact order as shown when a TN332/TN332B or TN832/TN832B board is to be replaced.
- Pull out the TN331 or TN831 board in the affected gated diode crosspoint access (GDXACC) service group.
- Replace the TN332/TN332B or TN832/TN832B board.
- Reinsert the TN331 or TN831 board.

Note - 16 The board code is not consistent with the office-dependent database (ODD).

Note - 17 CAUTION: The following three steps must be performed in the exact order as shown when a TN332B board is to be replaced.
- Pull the TN331B in the affected GDXACC.
- Replace the TN332B board.
- Reinsert the TN331B.

Note - 18 CAUTION: The following four steps must be performed in the exact order as shown when a TN340B board is to be replaced.
- Pull both TN338B boards in the affected GRID.
- Replace the TN340B.
- Reinsert both TN338B boards.
- After RST:GRID is ATP, enter input message TST:GRID and verify ATP.

Note - 19 Board series may not be consistent with circuit's change level indicator (CLI) in the CKTDATA relation in the switching module database.

Note - 20 If all trunk equipment numbers (TENs) in the trunk unit (TU) service group are failing, pull trunk unit channel boards (TUCHBDs) 1-7. Diagnose TUCHBD0 and

replace it if it fails. If it is ATP, reinsert the other TUCHBDs, one at a time, until the faulty one causes diagnosis of TUCHBD0 to fail again.

Note - 21 As a last resort, replace remaining boards, one at a time, in the transmission test facility (TTF) which are not on the TLP.

Note - 22 If replacement of boards on the TLP does not clear the failure, check the fiber optic link transmitter at the time-multiplexed switch (TMS) end and receiver at the DLI end. The failure indicates either loss of clocks on the TMS-DLI link or out-of-phase (drifting) clocks from the two sides of the on-line network timing and control common (ONTCCOM). Before replacing an optic transceiver, follow the power down procedure which follows and reverse the order upon powering it back up.

- If at the TMS, remove TMS/ONTCCOM power and unseat the associated link board (TN243 for CM1 or TN888 or TN883 for CM2).
- If at a DLI, remove DLI power and unseat the DLI board (TN877 or TN1077).
- If at an RLI, remove RLI power and unseat the DLI board (TN834 or TN1510).

Note - 23 A TN887 is a compatible replacement for the TN147.

Note - 24 If replacement of boards on the TLP does not clear the failure, check the fiber optic link transmitters and receivers at the link interface circuit (DLI, RLI, NLI, NLI1, or ENLI) under test and at the TMS.

Before replacing an optic transceiver, follow the power down procedure for the appropriate link interface circuit:

- If at an DLI, remove DLI power and unseat the DLI board (TN877 or TN1077 series).
- If at an RLI, remove RLI power and unseat the DLI board (TN877, TN1510, or TN1077 series).
- If at an NLI, NLI1, or ENLI, unseat the BKD series board from the backplane. Use the reverse order upon powering it back up.

If replacing the fiber optic equipment does not clear the failure, it may indicate an out-of-phase (drifting) clock from the ONTCCOM. Diagnose the ONTCCOM side relative to the failing link interface circuit.

Note - 25 If board replacements do not clear the problem, check the bootstrapper (BTSR) cable connections.

Note - 26 Verify circuit's microcode series is consistent with its change level indicator (CLI) value. Microcode series 5D045A1 CLI value should be 0; microcode series 5D045A2 CLI value should be 1.

Note - 27 Metallic test bus (MTB) diagnostics start with phase 2 segment 2 test X. To find the failing MTBs number: segment number - 2 = MTB number.

For an unassigned MTB there are 4 tests performed.

TEST	TEST RAN	DESCRIPTION OF TEST
1	ACTEST	Alternating current (AC) power cross detector self test of protocol circuit.
2	DCTEST	Direct current (DC) power, ground, and continuity self test of protocol.
3	STKRLY	Stuck relay in metallic service unit (MSU)/ modular metallic service unit

		(MMSU).
4	DIOPRES	Test for diode presence (continuity).

For a line unit (LU), trunk unit (TU), directly connected test unit (DCTU), trunk and line work station (TLWS), and so forth, 12 tests are performed.

TEST	TEST RAN	DESCRIPTION OF TEST
5	ACTEST	AC power cross detector self test of protocol circuit.
6	DCTEST	DC power, ground, and continuity self test of protocol circuit.
7	PXTG	AC power cross test tip to ground.
8	PXRG	AC power cross test ring to ground.
9	PXTR	AC power cross test tip to ring.
10	DCTIP	DC power cross test tip.
11	STKRLY	Stuck relay in MSU/MMSU.
12	DCRING	DC power cross test ring.
13	GRDTIP	Test for ground on tip.
14	GRDRNG	Test for ground on ring.
15	TRREV	Tip and ring reversal test.
16	DIOPRES	Test for diode presence (continuity).

The following tests are performed only on the trunk bus control unit (TBCU) and only up to the TBCU. Remote terminal (RT) metallic test pairs are not tested here.

TEST	TEST RAN	DESCRIPTION OF TEST
17	ACTEST	AC power cross detector self test of protocol circuit.
18	DCTEST	DC power, ground, and continuity self test of protocol circuit.
19	PXTG	AC power cross test tip to ground.
20	PXRG	AC power cross test ring to ground.
21	PXTR	AC power cross test tip to ring.
22	DCTIP	DC power cross test tip.
23	STKRLY	Stuck relay in MSU/MMSU.
24	DCRING	DC power cross test tip.
25	GRDTIP	Test for ground on tip.
26	GRDRNG	Test for ground on ring.
27	TRREV	Tip and ring reversal test.
28	DIOPRES	Test for diode presence (continuity).

Note - 28 Try replacing the grid boards for the line unit (LU) (TN338s and TN340s). Grids should be in out-of-service (OOS) status before removing.

CAUTION: Boards in a grid must be removed and inserted as follows:
- Pull the TN338 boards before pulling the TN340 board.
- Insert the TN340 board before reinstating the TN338 boards.

Note - 29 Verify that the memory boards equipped are consistent with the office-dependent database.

If a TN875B is listed in the TLP, the office-dependent database should indicate that TN56 memory boards are equipped.

If a TN875 is listed, then the database should indicate that TN28 memory boards are equipped in which case either a TN875 or TN875B may be used.

Note - 30 Phase 6 segment 4 of the message interface (MI) diagnostic involves time-multiplexed switch (TMS) initialization. This is used by the MI to loop around data in the TMS. The initialization sends a no-operation message (NOP) message to make sure the TMS can be initialized. If the message does not come back, a test will fail and some TMS boards will be listed in the TLP. Before changing those boards, run the TMS diagnostic since it has a thorough test of the unit. If the TMS diagnostics pass, check the fiber optic cables and the optic transceiver. Also run the network clock (NC) diagnostic.

Note - 31 If the office is not equipped with a compact CM2 (CM2C), verify that the single/dual fabric configuration backplane strap is consistent with office dependent data (ODD) in relation RLSCORE. If the office is equipped with CM2C, the ODD relation SCORE must be populated as a single fabric time multiplexed switch (TMS).

Note - 32 If replacement of boards on the TLP does not clear the problem, run the ONTC diagnostics (TMS boards are involved in the message interface bus (MIB) data loopback test). Check the MIB cable connected to the peripheral controller (PC) being tested. Check 4MHz and sync clock on both sides of MIB.

Note - 33 If replacement of boards on the TLP does not clear the problem, check UN33 in the input-output processor (IOP) and wiring of scan and distribute points to the failing unit. Check both IOP0 and IOP1.

Note - 34 The power monitor test failure could be caused by any of the power converters or SN516 boards in the unit. The UN33 (and scan/distribute point wiring) in the input/output processor (IOPs) are also involved (refer to Note 33). If a visual alarm indication is present on the power converter, a circuit pack in the associated unit may be causing the problem.

If the unit being diagnosed is part of the office network and timing complex (ONTCCOM) (which includes the network clock (NC), the time multiplex switch (TMS), and the message interface (MI)), the problem could lie in any one (or more) of the power converters and/or SN516's of the communication module control unit (CMCU) and/or the TMS switch unit (TMSU) shelves. In the case of the TMSU, a circuit pack in the E bus unit (EBU) may be causing the power converter to alarm.

Note - 35 WARNING: First pull the SM250 (MC2P002-C), then pull the SM257 before pulling the SM264 in the precision measurement unit (PMU). Insert the replacement SM264 before reinserting the SM257 and finally insert the SM250 (MC2P002-C).

Note - 36 The E-bus boards (UN197, UN198, UN310, UN311, UN312, UN313, UN500, UN501, UN503, UN504) participate in the signal exchanges and should not be overlooked as a last resort suspect. To isolate E-bus faults, run the TMS2 demand phase 14 with the RAW and UCL (unconditional) options specified.

Note - 37 If fault persists after replacement of all packs listed on the TLP, executing all office network and timing clock (ONTCCOM) diagnostics is suggested.

Note - 38 If the fault persists after replacement of all packs on the TLP list, check the sync signal from the DFI, D4 channel bank, or sync distributor.

For 30 channel systems, MCC page 1211 will identify the location of the DFI that provides the T1 reference.

Note - 39 Failure may also be caused by the equalizer pack. The following packs may exist in the digital line and trunk unit host (DLTURH) and DLTU remote (DLTURR). The packs should be checked if problems persist.

SN549	E5DT30BC
SN550	E5DT40BC
SN551	E5DT50BC
SN552	E5DT60BC
SN553	E5DT70BC

Note - 40 When a TLP for the line unit high level service circuit (LUHLSC), GDXACC or line unit channel (LUCHAN) implicates a faulty TN838 circuit board, any one of the line unit half-grids can affect this portion of the diagnostic. It may be necessary to diagnose each of the half-grids associated with this line unit. The grid board diagnostic can be invoked with the RST:GRIDBD input message.

It should be possible to locate the failing half-grid within half the possible combinations. If the TLP of the failing LUHLSC diagnostic indicates an equipment location (EQL) position of xx-112 (where xx represents the vertical position) the failing half-grid should be located by running the GRIDBD diagnostic on each of the even (0) half-grid board numbers. If the EQL board position is xx-120, then the failing half-grid should be located by running the GRIDBD diagnostic on each of the odd (1) half-grid board numbers.

Note - 41 Any one of the half-grid boards may affect this portion of the diagnostic. However, this is low priority, so exhaust the TLP list before checking the grid boards. If the faulty pack is not found on the TLP list, run DGN and FABEX on the half-grid boards to determine if one of them is the cause.

Note - 42 The detected fault is associated with link 0.

Note - 43 The detected fault is associated with link 1.

Note - 44 The detected fault is associated with link 2.

Note - 45 The detected fault is associated with link 3.

Note - 46 The tests of phase 12 proper have not started yet. This failure is associated with initialization tests.

Note - 47 Ignore the TLP. Only this board note is meaningful here. To decode the fault indications that are encoded in the 'mask' and 'expected' bytes, read the comment at the beginning of file 'DNC2ftms12.C', or call the Product Engineering Control Center (PECC). This phase gives better insight, when run with the RAW and UCL (unconditional) options.

Note - 48 This phase is only for the factory, and not to be used in the field.

This phase assumes scan point cabling is disconnected and no scan points are in the closed state.

This phase will fail because of any of the following problems on a TN220 or TN220B:

- Cables connected to the scan pack.
- Fault in backplane wiring to the scan points.
- Fault in internal registers in the scan pack.

Note - 49 If the replacement of boards on the TLP does not clear the failure, check the transmission facility. The test involves sending data from a dual link interface (DLI) to a quad link interface (QLI) and back to the same DLI. Before replacing an optic transceiver, follow the power down procedures which follow and reverse the order upon powering it back up.

- If at the TMS, remove TMS/ONTCCOM power and unseat the associated link board (TN243 for CM1 or TN888 or TN883 for CM2).

- If at a DLI, remove DLI power and unseat the DLI board (TN877 or TN1077).
- If at an RLI, remove RLI power and unseat the DLI board (TN834 or TN1510).

Note - 50 The switching module (SM) is equipped with the processor speed-up enhancement, that is, the SMP is running at 10MHz and not at 9MHz. This requires that a TN871B circuit pack be equipped in the SMP and not a TN871.

Note - 51 The switching module (SM) is equipped with the processor speed-up enhancement, that is, the SMP is running at 10MHz and not at 9MHz. This requires that a TN875C circuit pack be equipped in the SMP and not a TN875 or a TN875B.

Note - 52 Present failure cannot be handled by phase 14. Run phase 14 with the "UCL" and "RAW" options, and analyze the "failing key", according to the instructions in the comment appearing right before the beginning of function DNC2ftms14 in file DNC2ftms14.C. The 4 bytes of the "failing key" (byte 0/1/2/3) are given by the ACTL result associated with failing tests 1/2/3/4 of segment 2.

Note - 53 If Phase 1 has failed, the probable cause is that a pack/board other than the type being tested is plugged in. Verify that the actual pack/board type is correct.

If the failure is in any other phase, look for an incorrect change level indicator (CLI) in the ODD for this pack/board. Verify that this pack/board has the correct CLI in the ODD.

If the type and the CLI are both correct, the pack/board under test is probably defective.

Note - 54 Customer may have gone off-hook during the critical part of the diagnostic. Repeat the diagnostic. If the failure persists, then replace the pack/board.

Note - 55 Diagnostic has detected a high current of false cross to ground.

This failure can be caused by any one of the following:
- Metallic access network pack/board operated incorrectly.
- Defective circuit under test.
- Defective high level service circuit.
- High voltage on tip/ring of the line under test.

Note - 56 The secondary KCB8 pack is bolted together with KCB9 pack to form the 6A interface unit for phase 1 U-card development.

Note - 57 The network termination type 1 (NT1) is part of the U-DSL and resides at the customer's premise. The NT1 needs to be hooked up in order for phase 4 to run and could be a possible cause of diagnostic failure.

Note - 58 The main purpose of phase 5, segment 1, is to detect external loads and/or foreign potentials on the line group bus (lgbus) and/or spare bus (sprbus) of the metallic access network (MAN) pack under diagnosis. A failure in segment 1 will most likely be a result of the following condition:
Testno 11 = Bad MAN pack.
Testno 12 = Bad line card. Refer to the table.
Testno 13 = Bad line card. Refer to the table.

Testno 14 = Bad spare card.

The MM (mismatch) data from the failure message will be needed to determine where the fault is at. This data will be in hex format and will need to be converted to a binary format, so that the failing bits (those set to 1) can be identified. When determining the failing bit number from the binary format, begin counting from right to left starting with bit 0. For example: if MM=31 (h'31) then the binary equivalent is 0000000000110001 and so the failing bits are 0, 4, and 5.

For test 14 bits 0 or 1 failures, an external load was detected on the spare bus; therefore, any spare card could be at fault.

The following table will indicate which line group controller (LGC) and group of line cards (LCs) in the LGC could be causing the trouble for the appropriate MAN test number 12 and/or 13 test failures.

MAN 00 = SG 0 , MAN pack 0
MAN 10 = SG 1 , MAN pack 0
MAN 01 = SG 0 , MAN pack 1
MAN 11 = SG 1 , MAN pack 1

FAILING BIT IN TEST 12/13	MAN PACK 00 & 10	MAN PACK 01 & 11
0	LGC 0 - LC 00-15	LGC 8 - LC 00-15
1	LGC 0 - LC 16-31	LGC 8 - LC 16-31
2	LGC 1 - LC 00-15	LGC 9 - LC 00-15
3	LGC 1 - LC 16-31	LGC 9 - LC 16-31
4	LGC 2 - LC 00-15	LGC 10 - LC 00-15
5	LGC 2 - LC 16-31	LGC 10 - LC 16-31
6	LGC 3 - LC 00-15	LGC 11 - LC 00-15
7	LGC 3 - LC 16-31	LGC 11 - LC 16-31
8	LGC 4 - LC 00-15	LGC 12 - LC 00-15
9	LGC 4 - LC 16-31	LGC 12 - LC 16-31
10	LGC 5 - LC 00-15	LGC 13 - LC 00-15
11	LGC 5 - LC 16-31	LGC 13 - LC 16-31
12	LGC 6 - LC 00-15	LGC 14 - LC 00-15
13	LGC 6 - LC 16-31	LGC 14 - LC 16-31
14	LGC 7 - LC 00-15	LGC 15 - LC 00-15
15	LGC 7 - LC 16-31	LGC 15 - LC 16-31

Note - 59 Check that both digital facilities interface (DFI) -H1(E) packs [TN1306(07)], both DFI-R1(E) packs [TN1304(05)] and the other remote clock (RCLK) pack (TN1319) are present in order to get valid results. If not present, insert missing board and run diagnostic again.

Note - 60 There are several versions of the TN495 power converter unit, such as, TN495G1 and TN495FB. These are all backward compatible, however, the TN495FB is the later version. If an older version of the TN495 is suspected of being faulty, it is recommended that it be replaced with the TN495FB.

Note - 61 High probability of problem exists in the outside plant. Changing circuit packs is not likely to clear a FOREIGN POTENTIAL or POWER CROSS failure.

Note - 62 The equipment configuration database (ECD) and ODD equipage for the input and output message interface (IOMI) specified on the TLP do not match. If the EXPECTED test value returned from a diagnostic output message equals 0, then the IOMI is equipped in the ECD, but not in the ODD. A value of 1 implies equipage

in the ODD, but not in the ECD.

Up to four IOMI's (A-D) may be equipped as shown in the following chart.

MSCU2 IOMI A, UN25, Always
B, UN25, If Populated
C, UN25, If Populated
D, UN25, If Populated

MSCU3 IOMI A, KBN10, Always
B, UN25, If Populated
C, UN25, If Populated
D, UN25, If Populated

Note - 63 If replacing circuit packs as defined by the TLP doesn't solve the problem, try running demand phase 5. If phase 5, segment 1 fails, then refer to board note indicated by phase 5 failure.

Note - 64 A loss of communication between the foundation peripheral controller (FPC) and the TMS caused the current test failure. The failure is not necessarily related to the diagnostic test being run. Message switch control unit (MSCU), FPC, and TMS diagnostics should be run to fully isolate the problem.

Note - 65 Ignore this note (no longer used).

Note - 66 Ignore this note (no longer used).

Note - 67 If replacing all packs on the TLP does not fix the problem, the cause could be a bad line card/circuit connected to the MAN pack that is being used as a helper circuit. To determine the cause, run the following diagnostic phase on the helper MAN pack depending on the unit type.

Unit	RG Pack #	MAN Pack Diagnostic to run
ISLU	TN1347 TN1384	Phase 5
ISLU2	TN1374B TN1384B	Phase 6

Note - 68 If, after replacing the LC under test, the failure has not been corrected, there is a possibility that the fault may be caused by a tip/ring short, open, or ground on the line. Go to page 5600 on the TLWS or MCC and run the appropriate metallic tests.

If the previous steps do not resolve the failure, continue to exhaust the TLP list as the failure may be caused by a resource circuit.

Note - 69 Ignore this note (no longer used).

Note - 70 This note is valid for 5E2(2) and later software releases. The phase 1 segment 3 test 3 can be caused by any of the SM248/SM248B circuit packs in this directly connected test unit (DCTU). If replacing the circuit packs on the TLP does not resolve the problem, verify that at least two other DCTUPORTs are failing with the same failure. Then try the following method to find the defective circuit pack.

- In the specific DCTU, take all the DCTUPORTs OOS, and physically unplug all the SM248/SM248Bs.
- Then insert one SM248/SM248B at a time and diagnostics should each ATP.
- Then do the same with each DCTUPORT until the insertion of a

specific circuit pack causes the same failure.

Note - 71 If replacing the boards on the TLP does not clear the failure, run the dual link interface (DLI) diagnostics. The diagnostic tests that run in phase 25 of TMS model 1 and phase 15 of TMS model 2 test a loop to the host transmission rate converter unit (TRCU) only, but the remote TRCU can also cause failures.

Note - 72 If there is a power converter shut down or power alarm or fuse alarm indication at the MCC or the failing unit, refer to the Power Alarm procedure in the Maintenance Procedures manual to clear the problem in the unit.

Note - 73 Additional steps may be necessary for this failure of the MCTSI diagnostic depending on the pack at the EQL:

- If the pack at this location is a TN833 with 5D085A1 firmware or a TN1637, the pack may not have been initialized properly prior to running the MCTSI diagnostic. Initialize the pack using a digital service unit (DSU) diagnostic (or if appropriate, by requesting an unconditional restoration) and then re-diagnose the MCTSI.
- If the pack at this EQL is a TN128 or a TN833 with 5D073A1 firmware, or if the procedures in Step 1 have been done and the circuit still fails diagnostics, the fault could be due to the pack or the connecting peripheral interface data bus (PIDB) cables. Inspect the cables and/or replace the pack as appropriate, then repeat the diagnostic tests.

Note: If the pack is a TN833 or TN1637 and it is replaced, press the switch on the faceplate of the replacement pack after it is installed in the slot to apply power to the pack.

Note - 74 This failure is due to a special test which checks the memory of the switch module processor (SMP). It can be reliably reproduced only if phase 1 of the diagnostic is requested again without having either executed any other phase, or power cycled the MCTSI, or restored the MCTSI to service.

It is VERY important that the failing phase, segment, and test number be included on the trouble ticket. Otherwise, repair is difficult and this board will likely be returned no trouble found (NTF). If the diagnostic is requested again and the failing test changes, record all test failures on the trouble ticket.

Other hardware failures can exhibit symptoms similar to this failure. Determine if the failure has been corrected by the replacement of this board before sending the suspect pack in for repair. A three-day waiting period is suggested.

Note - 75 The switch on the optical line interface (OLI) circuit packs (16E or 16F or 16G) or strap on the AKM3 circuit packs must be set properly during installation. The setting is based on the light-wave signal loss between the transmit and receive plugs. When replacing the OLI or AKM3 circuit packs on TLP, refer to the NOTE that is on the plastic cover panel of the TRCU2 housing to determine the proper switch or strap setting.

Note - 76 The diagnostic failure may be caused by a faulty DMA controller (3B20 UN46 or 3B21 KBN15) or channel board (3B20 UN9 or 3B21 KBN15). The UN46, UN9 and the KBN15 reside in the AM.

Note - 77 Check that the NT1 and the LC are of the same type.

A KCB17 cannot be mixed with an AMI NT1. A KCB10 cannot be mixed with an *ANSI*® NT1. If the LCs and NT1s are mixed, a failure will occur in phase 4 of the diagnostics.

To verify the type of error, run the diagnostics using the RAW option in the DGN:ISLULC input message. Check the "actual" data to find what type of mismatch occurred.

ACTUAL	EQUIPMENT MISMATCH
0xffce	A mismatch was detected at the NT1 or the first CU.
0xffcd	A mismatch was detected between the LC installed and the LC in the ODD.
0xffcc	Tip and ring polarity reversed.
0xffcb	Both the LC and the NT1 differ from the ODD.

Note - 78 Remove and restore remote ISLU common control (RISLU CC) parent circuit, DFIH.

The RISLU CC diagnostic failure "PH 1 SEG 10 TEST 3 MM H'ff" implies that the control link between the RISLU H1/R1 DFI pair has silently gone down with the DFI's remaining active. This condition is monitored by the switch on 5-minute intervals and, if detected, automatic recovery action occurs.

Before replacing packs on this TLP, verify the failure by the following sequence:
- Remove and restore the failing RISLU CC's parent DFI.
- Restore the RISLU CC when the DFI restoration completes.

If failure persists, attempt pack replacement.

Note - 79 The number of equipped recorded announcement function (RAF) memory packs in the database should match the number of RAF memory packs physically inserted. Refer to the recent change/verify (RC/V) field for PACK NUM.

Check the microcode number entries in the database; they should match the microcode for each RAF memory pack physically inserted. The RC/V field for reference is MICRO CODE.

Check the RAF service entries in the database; the unit must have valid services defined in order to diagnose/restore it properly. The RC/V views for reference are the RAF SERVICES and RAF PACK.

Note - 80 To be sure of correcting this failure, the UN516 boards equipped in the SM must be a minimum of series 7.

Note - 81 This failure may be due to any problems in the fan alarm circuit, including the fan alarm cabling and the 233A board. For more detailed information refer to:

SD5D012-2 Switching Module Application Schematic

Note - 82 If the SM is equipped with a TN1370 board in the last slot of the memory expansion unit (MEU) and all other boards on the TLP have been replaced without clearing the failure, replace the TN1370.

If the TN1370 board is not equipped, paddle boards (terminating resistors) should have been placed on the backplane instead:

EQL: 101-013 (6122 111 09331)
EQL: 103-013 (6122 111 09331)
EQL: 103-032 (6122 111 09321)

Note - 83 For an SM installed in an SM cabinet:

This failure may be due to the 272A or 298A board (depends on the vintage of the alarm and status unit), which is part of the alarm and status unit located in the cabinet bezel cover, or the cable connecting that board to the SMP. For more detailed information refer to:

SD5D160 SM Cabinet Schematic Drawing

SD5D017 ASU (272A) Schematic Drawing

SD5D148 ASU2 (298A) Schematic Drawing

For an SM or SM-2000 installed in an SM-2000 cabinet:

This failure may be due to the 298A board which is part of the alarm and status unit located on the cable rack, or the cable connecting that board to the SMP. For a classic SM, the cable connects the 298A to the SMP backplane. For an SM-2000, the cable connects the 298A to the 9822DU paddle board. For more detailed information refer to:

SD5D160 SM Cabinet Schematic Drawing

SD5D195 SMPU4 Unit Schematic Drawing

SD5D148 ASU2 (298A) Schematic Drawing

Note - 84 The alarm and status circuit (ASC) is wired to the distribution frame (DF) and then from the DF to scan and distribute points (SP) in the modular metallic service unit (MMSU). In some special cases, the ASC is wired directly to the scan and distribute points in the MMSU. To locate a wiring problem, use the diagnostic failure phase, segment, and test numbers in the table below to identify the alarm point number. Then, using the alarm point number in the ODD RCV 8.0 view (OFFICE MISC & ALARM), subview 8.11 (REMOTE ALARM ASSIGNMENT), find the scan point or distribute point on the DF and trace the wires connected to the point.

Additional steps may be necessary to replace the 215A or 299A boards (depending upon the vintage of the ASC unit):

- Replace 215A if ED5D586-10 is stamped on the upper right corner of the opened bezel cover.
- Replace 299A if ED5D678-10 is stamped on the upper right corner of the opened bezel cover. For the *5ESS*®-2000 switch, the ASC circuit is mounted in the alarm and status unit (ASU) on the cable rack.

TEST FAILING IN PHASE 1

SEGMENT	TEST	EXPLANATION	ALARM POINT NUMBER (RLRBP_SC)

2	1	Checks power for Service Group 0 (SG0)	52 (HMASC_PWR)
	2	Checks power for Service Group 1 (SG1)	52 (HMASC_PWR)
3	1	Clears all alarms for SG0	50 (HMASC_ACT)
	2	Clears all alarms for SG1	50 (HMASC_ACT)
4	1-4	Tests other SM abnormal alarm and audible critical alarm (SG0)	108 (HMASC_OSMAB) 110 (HMASCACR)
5	1-4	Tests System Cycle alarm (SG0)	113 (HMASC_TIMINH)
6	1-4	Tests System Stand-alone alarm (SG0)	105 (HMASC_ST)
7	1-4	Tests SM trouble alarm (SG0)	101 (HMASC_SMTB)
8	1-4	Tests building power alarm (SG0)	102 (HMASC_BPW)
9	1-4	Tests critical alarm (SG0)	104 (HMASC_CR)
10	1-4	Tests major alarm and audible major alarm (SG0)	106 (HMASC_MJ) 111 (HMASCAMJ)
11	1-4	Tests minor alarm (SG0) and audible minor alarm (SG0)	107 (HMASC_MN) 112 (HMASCAMN)
12	1-4	Tests manual mode alarm (SG0)	109 (HMASC_MOD)
13	1	Clears all alarms for SG1	50 (HMASC_ACT)
	2	Tests other SM abnormal alarm (SG1)	108 (HMASC_OSMAB)
	3	Tests System Cycle alarm (SG1)	113 (HMASC_TIMINH)
	4	Tests System Stand-alone alarm (SG1)	105 (HMASC_ST)
	5	Tests SM trouble alarm (SG1)	101 (HMASC_SMTB)
	6	Tests building power alarm (SG1)	102 (HMASC_BPW)
	7	Tests critical alarm (SG1)	104 (HMASC_CR)
	8	Tests major alarm (SG1)	106 (HMASC_MJ)
	9	Tests minor alarm (SG1)	107 (HMASC_MN)
	10	Tests manual mode alarm (SG1)	109 (HMASC_MOD)
	11	Clears all alarms for SG1	50 (HMASC_ACT)

Note - 85 Verify that the remote/local jumper P1 is installed on the SN560. If present, continue with TLP for probable cause of fault. If jumper P1 is not present, install the jumper and rerun diagnostic.

Note - 86 This problem may be caused by a faulty SN516 or power converter pack. If this is the suspected problem, prior to replacing any packs on the TLP, refer to the Power Alarm procedure in the Maintenance Procedures manual to clear the problem.

Note - 87 This note applies to dual message interface (DMI) phase 7 failures.

If the MI phase 7 fails on only one ONTCCOM side, check the MIB cable connection on the DMI side of the failing peripheral pump controller (PPC)/module message processor (MMP). If no MIB cable-related problem is found, run the MI phase 7 diagnostic UCL. If more than one PPC and MMP fail, the most likely problem is in the ONTCCOM being diagnosed.

If the failing ONTCCOM can be restored UCL, run MI phase 7 on the mate ONTCCOM. If MI phase 7 fails on both sides and the TLP points to the same PPC or MMP, then the most likely problem is in the PPC/MMP itself or in the MIB cable connection on the PPC/MMP side.

If the failure is on an MMP that belongs to a multiple MMP community and if replacing boards in the TLP does not fix the problem, check the sync pulses of the failing MMP community. If they are not in phase, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Note - 88 When there is a power loss to the MCTSI of an remote switching module (RSM) equipped with a DLTU-2, the straps on the TN619 circuit packs of the FIU must be properly set to re-establish communication links after restoring power to the MCTSI. Determine the art master and series of the TN619 circuit packs. Perform the following steps and set the straps on all the TN619 circuit packs. The component side of the TN619 circuit pack is described in the diagram. For more

information on setting the straps on TN619 circuit packs refer to the *5ESS*®-2000 Switch Equipment Facilities Interface Unit Model 3 Circuit-SD5D401-02 drawing in the Common Switch Module Equipment for Remote Switching Module 3 manual (235-990-107).

- If the TN619 is art master 5, and series is 5, 5-6:
  - -- Set the strap at J3 to [2] and [3] for DLTU-2.
  - -- Set the strap at J3 to [1] and [2] for DLTU-1.

- If the TN619 is art master 6, and series is 7 use:
  - -- Set the strap at X3 to [2] and [3] for DLTU-2.
  - -- Set the strap at X3 to [1] and [2] for DLTU-1.

```
-------------------------------------------------------
|                    ------------------------------    |
|        J1 / X1     |  [1] [2] [3] [4] [5] [6]  |    |
|                    ------------------------------    |
|                    ------------------------------    |
|        J2 / X3     |  [1] [2] [3] [4] [5] [6]  |    |
|                    ------------------------------    |
|                    ------------------------------    |
|        J3 / X2     |  [1] [2] [3] [4] [5] [6]  |    |
|                    ------------------------------    |
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Note - 89 This failure may be due to an interaction problem between the SM253 and the SM258(B) circuit packs. A procedure for use by repair personnel to correctly identify the specific circuit packs that are out of tolerance (defective) as well as those that are within tolerance (good and marginal) is included in the Corrective Maintenance Procedures Manual (235-105-220), Hardware Maintenance (Trouble Clearing) Procedures Section.

Note - 90 This memory circuit pack is actually a TN1409.

Note - 91 This failure may result from a discrepancy between the office-dependent database (ODD) and the equipage present in the circuit under test. Verify that the ODD agrees with the installed circuit. Items to examine include (but are not limited to) change level indicator (CLI) value(s) for the circuit under test, missing, extra, or incorrect tuples related to the circuit under test, and so forth. Unseat any circuit pack in the unit which is not equipped using the ODD. If the problem persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Note - 92 This failure may also be caused by an inhibited sanity timer. Before replacing any circuit packs, determine that the sanity timer is not inhibited. Check Master Control Center (MCC) page 1800,X where "X" is the affected switching module (SM) number. The sanity timer should normally be allowed. If it is inhibited, determine the reason and correct it. Then rerun the diagnostic with the sanity timer allowed and act on the results.

Note - 93 The demand phase 3 metallic access (MA) diagnostic tests between the MA using metallic access bus (MAB) 0 to remote terminal (RT) 1 using the trunk bus control unit (TBCU) are as follows:

TEST	TEST RAN	DESCRIPTION OF TEST
1	TRREV	Test tip and ring reversal on metallic test pair (No continuity).
2	DIOABS	Tests for absence of diode on metallic test pair from all RTs.
3	ACTEST	Alternating current (AC) power cross detector self test of protocol circuit.
4	DCTEST	Direct current (DC) power, ground and continuity self test of protocol circuit.
5	PXTG	AC power cross test tip to ground.
6	PXRG	AC power cross test ring to ground.
7	PXTR	AC power cross test tip to ring.
8	DCTIP	DC power cross test tip.
9	STKRLY	Stuck relay in metallic service unit (MSU)/ modular metallic service unit (MMSU).
10	DCRING	DC power cross test ring.
11	GRDTIP	Test for ground on tip.
12	GRDRNG	Test for ground on ring.
13	TRREV	Tip and ring reversal test.
14	DIOPRES	Test for diode presence (diode termination from RT channel test unit (CTU).
15	TRREV	Tip and ring reversal test (Expects no continuity).
16	DIOABS	Test for absence of diode from RT CTU (no continuity).

These same tests are repeated for the other 3 MABs (1-3) for a total of 4 MABs. Also the same tests are repeated for each RT that is sharing the same metallic test pair. The maximum number of RTs on the same metallic test pair is 20.

The new test numbers for phase 3 of the MA diagnostics tests are laid out as follows:

	MAB 0 TESTS	MAB 1 TESTS	MAB 2 TESTS	MAB 3 TESTS
	1	283	565	847
	2	284	566	848
RT 1	3 - 16	285 - 298	567 - 580	849 - 862
RT 2	17 - 30	299 - 312	581 - 594	863 - 876
RT 3	31 - 44	313 - 326	595 - 608	877 - 890
RT 4	45 - 58	327 - 340	609 - 622	891 - 904
RT 5	59 - 72	341 - 354	623 - 636	905 - 918
RT 6	73 - 86	355 - 368	637 - 650	919 - 932
RT 7	87 - 100	369 - 382	651 - 664	933 - 946
RT 8	101 - 114	383 - 396	665 - 678	947 - 960
RT 9	115 - 128	397 - 410	679 - 692	961 - 974
RT 10	129 - 142	411 - 424	693 - 706	975 - 988
RT 11	143 - 156	425 - 438	707 - 720	989 - 1002
RT 12	157 - 170	439 - 452	721 - 734	1003 - 1016
RT 13	171 - 184	453 - 466	735 - 748	1017 - 1030
RT 14	185 - 198	467 - 480	749 - 762	1031 - 1044
RT 15	199 - 212	481 - 494	763 - 776	1045 - 1058
RT 16	213 - 226	495 - 508	777 - 790	1059 - 1072
RT 17	227 - 240	509 - 522	791 - 804	1073 - 1086
RT 18	241 - 254	523 - 536	805 - 818	1087 - 1100
RT 19	255 - 268	537 - 550	819 - 832	1101 - 1114
RT 20	269 - 282	551 - 564	833 - 846	1115 - 1128

FAILING IN Phase 1	Segment Test	Explanation	ODD Scan Point (RLRBP_SC)
2	1	Checks power for service group 0 (SG0)	HMASC_PWR
2	2	Checks power for service group 1 (SG1)	HMASC_PWR
3	1	Clears all alarms for SG0	HMASC_ACT
3	2	Clears all alarms for SG1	HMASC_ACT
4	1-4	Tests other SM abnormal alarm (SG0)	HMASC_OSMAB
5	1-4	Tests system cycle alarm (SG0)	HMASC_TIMINH
6	1-4	Tests system stand-alone alarm (SG0)	HMASC_ST
7	1-4	Tests SM trouble alarm (SG0)	HMASC_SMTB
8	1-4	Tests building power alarm (SG0)	HMASC_BPW
9	1-4	Tests critical alarm (SG0)	HMASC_CR
10	1-4	Tests major alarm (SG0)	HMASC_MJ
11	1-4	Tests minor alarm (SG0)	HMASC_MN
12	1-4	Tests manual mode alarm	HMASC_MOD
13	1	Clears all alarms for SG1	HMASC_ACT
13	2	Tests other SM abnormal alarm (SG1)	HMASC_OSMAB

13	3	Tests system cycle alarm (SG1)	HMASC_TIMINH
13	4	Tests system stand-alone alarm (SG1)	HMASC_ST
13	5	Tests SM trouble alarm (SG1)	HMASC_SMTB
13	6	Tests building power alarm (SG1)	HMASC_BPW
13	7	Tests critical alarm (SG1)	HMASC_CR
13	8	Tests major alarm (SG1)	HMASC_MJ
13	9	Tests minor alarm (SG1)	HMASC_MN
13	10	Tests manual mode alarm (SG1)	HMASC_MOD
13	11	Clears all alarms for SG1	HMASC_ACT

Note - 95 Phases 29 and 30 of the IDCU diagnostic are intended for factory and installation applications only. All 20 DS1 signals associated with this LSI must be physically looped back (transmit to receive) on itself for these phases. The loopback can be done either at the backplane (using a special loopback cable) or at the DSX.

Note - 96 This ISLU2 line board diagnostic failure may have just caused some form of failure on other line boards, 0-7, that are on the same LIDB. Correct failures on the line board being diagnosed before investigating any other failure related to these line boards.

Note - 97 If replacing the circuit packs as defined by the TLP does not solve the problem, then run demand phase 6. This diagnoses all line boards. If the problem persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Note - 99 If replacement of boards on the TLP does not clear problem, it could be caused by a defective DFI circuit pack (ANN3B, ANN5) located in the DLTU shelf. The defective DFI pack generates noise on the -48V power bus that feeds it, causing problems with other sensitive hardware fed from that same bus.

Excessive AC noise and ripple between -48V RTN and FRAME GRND indicates a defective DFI pack. These voltages can be observed with an oscilloscope and will be in the approximate range of 1-15 volts peak-to-peak.

To locate the defective pack:

- Identify which power bus the troubled DLI is powered from (either A or B).
- Locate and identify all DFI packs powered from that same bus. (SEE SD-5D201-01 NOTE 311C FOR SPECIFIC DETAILS ON POWER BUS DISTRIBUTION for the DLTU or RSM FIU.)
- Remove each DFI pack from service one at a time and physically unseat the pack, observe if the DLI alarm LED is still lit, then run diagnostic on the troubled DLI.
- If the DFI pack removed does not clear alarm condition and the DLI still fails diagnostic, reseat the DFI pack and restore it to service unconditionally. Follow the same procedure for all remaining packs identified until the defective one can be found. If all DFI packs have been removed and the DLI still fails diagnostic, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Note - 100 The circuit under test failed the abbreviated functionality diagnostic. If replacing this pack does not clear the problem, request a manual diagnosis for a complete set of tests.

Note - 101 If replacing the pack(s) on the TLP list doesn't correct the failure, it may be caused

by a problem on the customer loop.

Note - 102 This failure may be caused by an inconsistency between the installed hardware and the office-dependent data (ODD).

Use the recent change and verify (RC/V) terminal to verify the time multiplexed switch (TMS) fabric type is consistent with the dual message interface (DMI) equipage. Access the RC/V view that supports the CM MODULE and then go to the CMCU SHELF sub view.

Note - 103 The office dependent data (ODD) does not agree with the dip switch settings on the two switches of the BKD4 board located on the backplane of the time slot interface unit (TSIU4). The control time slot (CTS) settings on the dip switch must match the data in relation MODATT, attributes cts_even and cts_odd, or the links to the SM-2000 equipment will fail.

Note - 104 Investigate the source of the problem according to the TLP list in the normal manner.

If the diagnostic still fails after exhausting the TLP list, the problem may be caused by a subtending circuit pack of the circuit under test (LC in a line group LG) or a sister member pack in units having multiple members (grid board in a LU). To identify the defective pack apply this procedure.

- Remove all subtending/sister member packs from service, if not already in that state, and electrically disconnect them by unplugging them from their sockets.
- Repeat the diagnosing of the circuit under test and verify that it ATPs.
- Re-insert the subtending/sister member circuits one at a time, repeating the diagnosing of the circuit under test until the diagnostic fails. Replace the subtending/sister member which caused the failure with a new one.
- Re-insert the remaining unplugged circuits.
- Repeat the diagnosing of the circuit under test and verify it ATPs.

Note - 105 Either the board connected to a time slot interchange (TSI) link appears to be faulty or is of an incorrect type or the office-dependent data (ODD) is incorrect.

Each of the four ports on the back of a TSI slice board has two sub-ports (simplex TSI links). For the following analysis, "near" indicates sub-port 0 of each TSI link on side 0 or sub-port 1 link on side 1; "far" indicates the opposite cross-connection.

The "expected" and "actual" values are defined in the values table:

Data	Board type	Definition
0	No board	
1	APC	Application controller
2	DI	Data interface (expansion)
3	NLI	Network link interface - 64 megabit
4	PLI	Peripheral link interface
5	ENLI	Electrical Network link interface - 32 megabit
15	NLI1	Network link interface - 32 megabit
others	unknown type	

Some types of boards should have a simplex connection to a TSI link using only the "near" connection. Other board types should be cross-connected with the "near"

connected to one MCTSI side and the "far" connected to the opposite MCTSI side.

The test number may be used to determine the problem. TSI slice boards and port numbers are both numbered starting with 0. First, divide the test number by 40. The whole number indicates the TSI slice number. The TSI slice board appears on the TLP list. The remainder divided by 10 indicates the port number. Look up the right-most digit in the test number in the description table for a description of what is wrong. As an example, assume test number 65 failed with actual data of 5 and expected data of 2. The TSI slice board is 1 (65 / 40 = 1 remainder 25). The port number is 2 (25 / 10 = 2 with a remainder 5). Look up 5 (the right-most digit in the test number) in the description table. The actual data of 2 means that a DI is connected (refer to the preceding table) while the expected data of 5 means that a NLI should be connected.

Digit	Meaning
1	"near" connection should be an APC.
2	"far" connection for APC should not be equipped.
3	"near" connection should be a DI.
4	"far" connection for DI should not be equipped.
5	"near" connection should be a NLI/NLI1/ENLI.
6	"far" connection should be a NLI/NLI1/ENLI.
7	MCTSI side 0 connection should be a PLI.
8	MCTSI side 1 connection should be a PLI.
9	An unsupported "use" field was found in relation LNK_USE for the applicable switch module. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Note - 106 The failure may be due to problems in the fan alarm circuit of the switch module processor model 40 (SMP40), including the fan alarm cabling and the 233A board attached to a fan. For more detailed information, refer to the switching module interconnect diagrams. The actual value from the diagnostic failure message may be compared with the following table to determine the failing hardware.

Actual	Hardware implicated
80 to BF	Active fan alarm scan point and/or driver on fan alarm
40 to 7F	Out of Service fan alarm scan point and/or alarm ckt
C0 to FF	Fan alarm ckt (any frame in SM-2000), fan alarm wiring
00 to 0F	Either SMP40, any fan alarm circuit in the SM
20 to 2F	Out of Service SMP40, fan alarm ckt
10 to 1F	Active SMP40, fan alarm ckt
3C	Out of Service SMP40, fan alarm ckt
33	Active SMP40, fan alarm ckt

Note - 107 If the problem persists after replacing all of the packs on the trouble locating procedure (TLP) list,

- Check if the unit is manually powered down. If it is, the failure is not necessarily an indication of any hardware fault.
- Check the fuse alarm & test cables between the switch module processor unit 4 (SMPU4) and the fuse unit

  Side 0 EQLs: 19-023-004 to 68-098-003, and 68-102-103

  Side 1 EQLs: 28-023-004 to 68-098-006, and 68-102-106
- Check the control & display cables between the SMPU4 and the time slot interchange Unit 4 (TSIU4) shelves.

  Side 0 EQLs: 19-023-045 to 62-018-032

  Side 1 EQLs: 28-023-045 to 62-114-032

- Check whether the second power pack (486AA) in the TSIU4 shelf is missing. It is necessary to have the additional power pack on each side of the TSIU4 shelf if:
  -- there are four or more TSI slice (TSIS) (KLU1) packs equipped per side, OR
  -- there are six data expansion (UM73) packs equipped per side.

- If the second TSIU4 power pack is not equipped and not required, then a power interlock board (PIB) paddle board (982AAE) must be equipped on the TSIU4 backplane. Without the paddle board, the MCTSI will not power up.

  Side 0 EQL: 62-084-132

  Side 1 EQL: 62-180-132
- Check for a short from power to ground on any board in the unit. To isolate the faulty pack(s) causing the short, pull each pack on the unavailable power (UNVP) side, except the power pack, one at a time, and see if the power can be restored on that side.

Note - 108 If replacing the packs on the trouble locating procedure (TLP) list does not clear the failure, then the error may be the result of a packet bus cable problem. The following information may be used to localize packet bus cable problems:

Failing Unit	Failing Phase	Failing Segment	Explanation of Fault
MCTSI	87	7	The packet bus cables between either the active or the out-of-service test (OOST) packet interface (PI) and the standby packet switch unit (PSU) control fanout may be faulty or mis-positioned.
MCTSI	87	6	The packet bus cables between either the active or the OOST PI and the active PSU control fanout may be faulty or mis-positioned.
PSUCOM	6	600	The packet bus cables between either the active or the standby PI and the active PSU control fanout may be faulty or mis-positioned.
PSUCOM	10	600	The packet bus cables between either the active or the standby PI and the active PSU control fanout may be faulty or mis-positioned.
PSUCOM	6	650	The packet bus cables between either the active or the standby PI and the OOST PSU control fanout may be faulty or mis-positioned.
PSUCOM	6	675	The packet bus cables between either the active or the standby PI and the OOST PSU control fanout may be faulty or mis-positioned.
PSUCOM	6	700	The packet bus cables between either the active or the standby PI and the OOST PSU control fanout may be faulty or mis-positioned.
PSUCOM	0	650	The packet bus cables between either the active or the standby PI and the OOST PSU control fanout may be faulty or mis-positioned.
PSUCOM	10	675	The packet bus cables between either the active or the standby PI and the OOST PSU control fanout may be faulty or mis-positioned.
PSUCOM	10	700	The packet bus cables between either the active or the standby PI and the OOST PSU control fanout may be faulty or mis-positioned.

Note - 109 Check the switching module 2000 (SM-2000) cross coupled MCTSI backplane cables for disconnected or broken wires or incorrect cable location before replacing any packs listed on the trouble locating procedure (TLP).

Side 0 EQLs: 19-076-032

Side 1 EQLs: 28-076-032

CAUTION: An SM initialization starts if the mate side is powered down and a pack is changed without first fixing a defective cable connection.

Note - 110 This failure may result from a discrepancy between the office-dependent data (ODD) and the control fanout and/or packet fanout circuits installed in the packet switch unit (PSU).

Use the recent change and verify (RC/V) terminal to verify the circuit type is consistent with the PSU equipage. This information is given in field PSU TYPE on RC/V view 22.2.

The following table shows the pack to PSU type equipage.

PSU type	control fanout	packet fanout
PSU1	TN1082 series	TN1083 series
PSU2	TN1843 series	UN396 series

Note - 111 If replacing the pack(s) on the trouble location procedure (TLP) does not correct the problem, the failure could be caused by a defective Ethernet interface (EIB) coaxial paddle board 982YD, EIB address paddle board 9822BY or EIB paddle board 982AAH. If the failure is on side 0, the cause may be the Ethernet connectorized (coaxial) cable between side 1 and side 0.

To replace the paddle boards, refer to the MCTSI section of the Corrective Maintenance (235-105-220) manual.

Note - 112 If replacing all the circuit packs on the TLP list does not correct the failure, the problem may be caused by a missing or a partially extracted or a incorrectly inserted cable going from the application specific controller (APC) board (UN539) to the time slot interchange common (TSICOM) board (UM74/UM74B).

Note - 113 If replacement of boards on the suspect equipment list does not clear the problem, the failure may be caused by a defective or incorrectly installed cross-connect cable between the two clock boards.

Note - 114 The TN2518 clock synchronization circuit (CSC) board provides a remote clock source for the dual link interface (DLI) units in this optical remote (ORM) application. This CSC board resides in the module controller and time slot interchanger unit (MCTU2) shelf, equipment location (EQL) 19-120 for MCTU2 side 0, and EQL 28-120 for MCTU2 side 1. In the event of a DLI diagnostic failure, perform pack replacements as outlined on the TLP list; if the same failure persists, check the following for the CSC equipped ORM:

- Verify the CSC board is supplying power to the DLI by analyzing the respective fuses.
- Verify the fiber optic link transmitter at the transmission rate converter unit (TRCU) end and receiver at the DLI.
- Verify the cable connected between the CSC board and the DLI. For cabling EQL information, refer to ED 5D793-30
- Verify the building integrated timing supply (BITS) clock cable from the BITS box to the MCTU2 backplane behind the CSC board. For cabling EQL information, refer to ED 5D793-30.
- If possible, verify good clock signal from the BITS box.

If these checks pass and the failure persists, remove the MCTSI from service in which the CSC is equipped and replace the TN2518 CSC board and restore the

MCTSI to service.

Note - 115 The module controller time-slot interchanger (MCTSI) diagnostics "retro" option is used ONLY during some procedures when the microcode is expected to be different between the two sides of the MCTSI. Check for correct usage of the "retro" option before changing the suggested pack(s).

Note - 116 This note intentionally left blank.

Note - 117 This note intentionally left blank.

Note - 118 If this problem is intermittent on a model 3 LU (LU3) with a series 1 UN322B, it only affects diagnostics and does not interfere with normal operational performance of the channel pack. In this case, replacement of the common data and control (COMDAC) pack with a UN322B (series 2) or higher level pack is recommended.

Note - 119 Review the TLP list for the ENLI failure. An LTP number of 99 indicates that the wrong ENLI port was connected to the EXM TRCU2 unit. Refer to cable drawing ED5D618-40, equipment drawing J5D003NB-1, and TSIU4 wiring side designation label comcode number 847004413 for proper ENLI - TRCU2 equipage.

Prior to the replacement of the BKD3 circuit pack, the mate NLI associated with the optical link interface Unit (OLIU - 16E2 or 16F2) or AKM3 must be removed from service.

Prior to the replacement of the TN1345, OLIU, or AKM3 circuit packs, or the 494AA power pack, all DLIs or ENLIs routed through the corresponding transmission rate converter unit (TRCU) side must be removed from service prior to any TRCU board replacement.

Note - 120 It has been found in actual field experience that this diagnostic failure may be caused by multiple faults. Therefore, it may be necessary to replace a combination of the packs/components indicated on the TLP list.

Note - 121 A peripheral control and timing facility interface (PCTFI) version mismatch between the switch and the synchronous digital hierarchy transport equipment (SDH-TE) has been detected and could be related to the test failure. Execute a manual diagnostic with the UCL option to determine the specific problem.

Note - 122 This note intentionally left blank.

Note - 123 This note intentionally left blank.

Note - 124 This note intentionally left blank.

Note - 125 After replacing all of the packs on the TLP list, if the diagnostic still fails, verify that the host central office is providing battery and that proper tip/ring polarity is observed.

Note - 126 ODD data is inconsistent with the hardware. Either the data in the ODD for the trace ID is incorrect or the cable is connected to the wrong pack at the terminating equipment.

Note - 127 This note intentionally left blank.

Note -128 This note intentionally left blank.

Note - 129 This note intentionally left blank.

Note - 130 If replacement of boards on the trouble location procedure (TLP) list does not clear the problem,

- Check the cable connecting the 982YPA to the hub or far-end system.
- Inspect hub or far-end system hardware.
- Check RC/V views ETHERNET PIPE ASSIGNMENT and ETHERNET LINK ASSIGNMENT. Verify ETHERNET specification, IP addresses and HW addresses.

Note - 131 This note intentionally left blank.

Note - 132 This failure may result from a discrepancy between the office-dependent database (ODD) and the equipage present in the circuit under test. Verify that the ODD agrees with the installed circuit. Items to examine include (but are not limited to) change level indicator (CLI) value(s) for the circuit under test, missing, extra, or incorrect tuples related to the circuit under test, and so forth. Unseat any circuit pack in the unit which is not equipped by the ODD. If the problem persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Note - 133 If replacing the packs on Trouble Locating Procedure(TLP) does not clear the problem, the diagnostic failure may be the result of a mis-connected Control Interconnection Bus (CIB) cable between the Control Fanout circuit pack (CF) and Packet Fanout circuit packs (PFs).

In the case of the DF2, verify the Packet Control and Timing Link (PCT) cable and the Peripheral Link Interface (PLI) paddleboard on the Data Fanout (DF2) backplane.

Note - 134 The cause of the diagnostic failure may be due to incorrect initialization of the TMSU2/3 hardware. If replacing the circuit packs listed on the TLP does not clear the problem then:

- Power down the CMCU shelf and all TMSU2/3 shelves of the side that failed TMS diagnostics.
- Power the CMCU shelf back up.
- Power up the TMSU2/3 shelves in the following sequence:

For Single Fabric CM2:

(TMSU2/3 Shelf EQLs.:POWER UP SEQUENCE BY NO. SHELVES EQUIPPED)

side 0	side 1	1 shelf	2 shelves	3 shelves	4 shelves	5 shelves	6 shelves
536	636	1st	1st	1st	1st	1st	1st
519	619	-	2nd	3rd	4th	5th	6th
436	736	-	-	2nd	2nd	2nd	2nd
419	719	-	-	-	3rd	4th	5th
336	836	-	-	-	-	3rd	3rd
319	819	-	-	-	-	-	4th

For Dual Fabric CM2:

(TMSU2/3 Shelf EQLs.:POWER UP SEQUENCE BY NO. BAYS EQUIPPED)

side 0	side 1	1 shelf	2 shelves	3 shelves	4 shelves	5 shelves	6 shelves

536/519	636/619	1st	1st	1st	1st	1st	1st
436/419	736/719	-	2nd	3rd	4th	5th	6th
336/319	836/819	-	-	2nd	2nd	2nd	2nd
236/219	936/919	-	-	-	3rd	4th	5th
136/119	1036/1019	-	-	-	-	3rd	3rd
036/019	1136/1119	-	-	-	-	-	4th

Note - 135 If replacement of boards on the TLP does not clear the failure, check the fiber optic link transmitters and receivers at the remote switch's TRCU3 under test. Execute MCTSI diagnostics to verify the integrity of the switch hardware. Before replacing an optic transceiver, refer to the Routine Operations and Maintenance (235-105-210) and Corrective Maintenance Procedures (235-105-220) Manuals.

Note - 136 If replacement of boards on the TLP does not clear the failure, check the fiber optic link transmitters and receivers at the remote switch's TRCU3 under test. Execute ONTCCOM diagnostics to verify the integrity of the TMS hardware. Before replacing an optic transceiver, refer to the Routine Operations and Maintenance (235-105-210) and Corrective Maintenance Procedures (235-105-220) Manuals.

Note - 137 The circuit under test may be affected by a fault on another line board. If changing the packs on the TLP list does not correct the problem, replace the other line packs in this line group starting with those that are on the same shelf as the circuit under test.

Note - 138 This failure may have been caused by one or more of the other assigned MTB's connected to the same (one-to-four) cable as the MTB under test. To verify the failure is due to the MTB under test, do the following:

Remove OOS each of the other MTB's attached to same cable as the MTB under test, and physically remove the cable connector from the MMSU for those MTB's. Keep the MTB under test connected.

Run diagnostics again on the MTB under test.

If diagnostics still STF, follow normal TLP procedures.

If diagnostics ATP, individually test the other MTB's in the same manner.

AM TLP NOTES The following tables explain TLP notes for the administrative module (AM).

Unit - ACHI

Note:	Explanation:
01	Suspect any channel or direct memory access (DMA).

Unit - CC"

Note:	Explanation:
01	Do not remove power or equipment from an active or in-service unit.
02	Cable to the maintenance channel of the control unit (CU).
03	CU could be held stopped by micro level test set (MLTS) or bus display unit (BDU).
05	MLTS, TN16, or UN16, if equipped.
06	CU could be powered down.
07	TN05 power pack or one of the power converters may be bad. If the power alarm is lighted on TN05, power cycle the CU. If the light stays on in one of the power converters, that converter may be bad. If the OFF lights go out on all converters and the

	CU fails to power up, then TN05 may be bad.
10	Board is in input/output processor (IOP) 0.
11	Board is in IOP 1.
50	Channel board in the channel 0 position.
51	Channel board in the channel 1 position.
52	Channel board in the channel 2 position.
53	Channel board in the channel 3 position.
54	Channel board in the channel 4 position.
55	Channel board in the channel 5 position.
56	Channel board in the channel 6 position.
57	UN36 board in the DMA0 position (Model 1 - UN36).
58	UN36 board in the DMA1 position (Model 1 - UN36).
59	A channel address lead is being held active by CU, channel, or DMA.
60	A channel or DMA may be responding and/or acknowledging falsely.
61	A channel or DMA is holding channel error (ER bit 16) active low.

Unit - CSU

Note:	Explanation:
01	Verify hardware for the kernel stack in interrupt stack cache memory feature corresponds with the cache store units (CSU)s unit control block (UCB) hardware version (HV) field. A "1" in bit 0 of this field indicates the feature is present. The hardware for this feature is a UN45C store address translation (SAT), with pins 149 and 047 wired together on the SAT backplane to enable the feature. Discrepancy between HV value and hardware should be corrected.

Unit - DFC

Note:	Explanation:
01	The disk file controller (DFC) could be powered down.

Unit - DMA

Note:	Explanation:
01	Suspect any channel or DMA.

Unit - DSCH

Note:	Explanation:
01	Suspect any channel or DMA.
02	Unterminated or defective cable on port under test.

Unit - DUIC

Note:	Explanation:
01	Part of the IOP controller, the IOP must be removed from service and powered down before this equipment can be replaced.
02	Replacement equipment must have same microcode (MC) number.

Unit - IOP

Note:	Explanation:
01	The IOP could be powered down.

Unit - MASC

Note:	Explanation:
01	Do not remove power or equipment from an active or in-service unit.
09	Array identified by MEMORY FAILURE RESULTS output message from failing phase.
10	Other units on the store bus: central control (CC), other main store controllers (MASC) in CU under test (in CUs with 2 UN39-UN40 MASCs), DMA(s), CSU (if equipped), SAT.
12	Any array in MASC.
13	Suspect other MASC (in CUs with 2 UN39-UN40 MASCs) or any one of its arrays.

Unit - MHD

Note:	Explanation:
01	The implicated pack is part of the DFC the DFC must be removed from service and powered down before this equipment can be replaced.
09	Refer to the Maintenance Instruction Manual for KS-22707, L2 memory.
10	These circuit cards are located in the logic card cage of the KS-22707, L2 memory unit. Refer also to moving head disk (MHD) Note 09.
11	The power amplifier, VP58, is located behind the logic card cage. Refer also to MHD Note 09.
12	Codes for all circuit cards in the KS-22707, L1 memory are a 4-character string of alphanumeric or alpha characters. The first character in the string determines the revision level, and the last three characters determine the circuit card code. Identification of the circuit card, therefore, is based on the last three characters.
13	Read MHD Note 12, then proceed. These circuit cards are located in the logic chassis. Refer to Maintenance Instruction Manual for KS-22707, L1 memory.
14	Read MHD Note 12 then proceed. These circuit cards are located on the deck plate of the memory unit. Refer to Maintenance Instruction Manual for KS-22707, L1 memory.
16	MHD could be spun down.
17	The MHD could be powered down. Check power inverter for alarm or no power. Check MHD power cord, power switch, and power indicator.

Unit - MTC

Note:	Explanation:
01	Part of the IOP controller, the IOP must be removed from service and powered down before this equipment can be replaced.
02	The indicated faulty equipment is in the transport.

Unit - MTTYC

Note:	Explanation:
01	Part of the IOP controller, the IOP must be removed from service and powered down before this equipment can be replaced.

Unit - SCH

Note:	Explanation:

01	Suspect any channel or DMA.

Unit - SCSDC

Note:	Explanation:
01	Part of the IOP controller, the IOP must be removed from service and powered down before this equipment can be replaced.

Unit - SDLC

Note:	Explanation:
01	Part of the IOP controller, the IOP must be removed from service and powered down before this equipment can be replaced.

Unit - TTYC

Note:	Explanation:
01	Part of the IOP controller, the IOP must be removed from service and powered down before this equipment can be replaced.

Unit - UC

Note:	Explanation:
01	Field test set (FTS) may have control of the utility circuit (UC).

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APP:TLWS-A

Software Release: 5E10 only
Message Class: N/A
Application: 5
Type: Output

1. TRUNK AND LINE WORK STATION (TLWS) PROGRESS AND ERROR REPORTS APPENDIX

`ABORTED - REMOVE OSPS PORT TO OOS FIRST [1]` = The TLWS cannot seize an in-service OSPS port. Remove the port from service before seizing.

`ALREADY SEIZED BY ANOTHER TP [2]` = Tried to seize a port already seized by another test position. Release the port from the other test position before seizing.

`BLOCKED AT TALK/MNTR PHONE [3]` = Could not complete the connection to the talk and monitor (T&M) line because of network blocking. Try again later.

`CAMPED ON TO PUT [4]` = The TLWS is camped-on to the port under test. The requested test is not allowed while the port is camped-on. Wait until the port becomes idle and the TLWS seizes it before requesting this test.

`NOT ALLOWED ON CCS TRUNKS [5]` = Cannot request some supervision testing on a CCS trunk.

`FAILED TO DEACTIVATE DIGIT RECEIVER [6]` = An attempt to play an announcement on a DTA port failed because the digit receiver could not be de-activated. This is valid for either a RAF or SAS.

`COMMAND UNKNOWN [7]` = Command is unknown and could not be processed.

`CMP UNAVAILABLE [8]` = Cannot perform the desired operation because the CMP is not available.

`CONNECTING PORT [9]` = The TLWS will not allow subsequent pokes while obtaining a port. The exception is the 'test position release' poke.

`CONNECTING TEST PATH [10]` = The TLWS will not allow subsequent pokes while connecting a test path. The exception is the 'test position release' poke.

`DATA BASE READ FAILURE ON RLRT_TRKG [11]` = Failed when trying to read the database relation RLrt_trkg to obtain the signaling type for CCS trunk.

`DENIED DUE TO ODD PROVISIONING [12]` = The loopback test is denied because of provisioning in the ODD to deny OCU and/or CSU loopback testing.

`DENIED DUE TO PERMANENT VIRTUAL CIRCUIT ACTIVE [13]` = The loopback test is denied due to an active permanent virtual circuit (PVC) on this trunk.

`NOT ALLOWED ON DSL PORT [14]` = Attempted a non digital test on a DSL or digital trunk.

`EXPECT CU1 TO CU4 FOR AMI CARD TYPE [15]` = Attempted to run a digital test on an AMI U-DSL with a channel unit termination 5 or 6. For AMI U-DSLs only channel units 1 through 4 are valid.

`FAILED AT TALK/MNTR LINE [16]` = A failure occurred at the T&M line. This may be due to bad ODD, the T&M line may be out of service or on an audit list, or an activate of the T&M line failed. Check ROP for possible additional data.

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FAILED INTERNAL ERROR ON MODE REQUESTED [17] = Failed at the T&M phone due to an invalid mode that was requested. The error is internal in the system and does not cause the connection to be released.

FAILED TO DELETE STATUS FROM OSPS PRI B-CHANNEL [18] = Upon release of an OSPS PRI B-channel, the OOS/MTCE/LKDO could not be deleted from the OSPS PRI B-channel.

FAILURE TO OBTAIN D-CHANNEL [19] = Unable to obtain the D-channel for a DSL -- seize fails.

FTTH 3-TERMINAL RESISTANCE VALUES DISPLAYED [20] = The results of a metallic test performed on a FTTH line have been displayed on the screen. The resistance values displayed for "R1", "R2" and "R3" are three terminal resistance values instead of the two terminal resistance values that are normally displayed for metallic tests.

CURRENTLY IN MONITORED CONNECTION [21] = Can NOT request a test while in monitor busy connection.

TP CURRENTLY IN USE [22] = Test position requested is currently in use at another TLWS. This TLWS can not view the test position. Select another test position.

INVALID REQUEST FOR XAT PORT [23] = Attempt an invalid request on an XAT port.

INVALID TERMINATION POINT [24] = Attempt a digital test with a termination point that is not valid for the current port.

INVALID CHANNEL SELECTION IGNORED [25] = Channel selection is not valid on this type of port.

INVALID PORT TYPE [26] = Request for digital test on a NON-DIG port.

LINE OFFHOOK [27] = Cannot request a ring test when the phone is offhook.

LOST TALK/MNTR CONNECTION [28] = Lost the link to the callback (T&M) phone. Connection has been torn down, so user must reenter an access type to proceed.

MFS TEAR DOWN MAY TAKE UP TO 1.5 MINUTES [29] = Measure for short tear down in progress.

MLHG ACCESS DN, USE MLHG POKE [30] = Cannot access a specific port from the TLWS using the UCD MLHG main DN or the MUPH MLHG subgroup DN since this DN does not map directly to a port in any ODD relation. Using recent change and/or office records find the MLHG group that is mapped to by this DN, then access the port using MLHG group and member. Linear hunt MLHGs DNs has the same limitations as UCD and MUPH MLHG DNs.

MONITOR CONNECTION [31] = The connection will be set up for MONITOR BUSY.

MODEM POOL ACCESS DN [32] = A match for the given DN was found but there is no gport because it is a modem pool (MP) access DN.

MUST SPECIFY CHANNEL FOR PACKET TEST [33] = A packet switched test cannot be run on all channels at the same time.

NOT AVAILABLE ON STANDARD CPE [34] = The CPE specified does not support loop-back testing. (standard interface CPE)

CAN ONLY APPLY OPEN TO ANALOG TRUNK [35] = Failed due to an invalid type of trunk in the connection. The connection must be to an ANALOG trunk for an open termination to continue.

CAN ONLY DIAGNOSE ANALOG TRUNK [36] = Failed due to an invalid type of trunk in the connection. We only

allow analog trunks to be diagnosed since diagnosing a digital trunk causes the associated DFI to be removed from service. When a DFI goes OOS, 24 trunks go OOS.

`CAN ONLY DIAGNOSE ISLU LINE [37]` = Failed due to an invalid type of line in the connection. We only allow ISLU lines to be diagnosed since diagnosing LU1 (LU2) lines causes a grid (grid board) to be removed from service causing 64 (32) lines to go OOS.

`DENIED, EXCESSIVE FEMF ON TRUNK/LINE [38]` = An excessive voltage is present at trunk/line. Connection denied in order to protect test equipment.

`DENIED, FAILED STATUS SCREENING [39]` = JACK, T&M line, or TRK/LINE failed status screening test. The following may be the cause:

- JACK is out-of-service,
- JACK or TRK/LINE is on an audit list,
- T&M line is out-of-service,
- T&M line or TRK/LINE is on an audit list.

`DENIED, SLC-96 INVALID CHANNEL [40]` = Unable to make metallic connection to *SLC*® 96 line because *SLC*® 96 channel is of incorrect type (PCFXS or PCFXSL).

`FAILURE IN DIAL_THROUGH ANNOUNCEMENT [41]` = An attempt to play an announcement on a RAF or SAS DTA port failed because of a failure in the DTA announcement.

`FAILED AT TEST BUS CONTROL UNIT [42]` = Unable to make a metallic connection to a *SLC*® 96 line because of the test bus control unit (TBCU).

`FAILED TO STOP THE TEST [43]` = An attempt to stop a test on a RAF or SAS port failed.

`FAILED TO ADD PGTC [44]` = When attempting to add the pair gain test controller into the metallic path, a failure occurred. Check the metallic resources.

`INVALID STATE FOR OSPS PRI B CHANNEL TEST [45]` = OSPS PRI B-channels are not testable in certain states.

`INVALID REQUEST FOR CONNECTION [46]` = Invalid type of request made for the type of connection up.

`INVALID ROUTING REQUEST [47]` = Received an invalid type of test request message for routing.

`INVALID SIGNAL FOR SEIZED TRUNK [48]` = Signaling mode for coin control signal test screened out in SM. Test was not executed.

`INVALID STOP TEST REQUEST [49]` = Request to stop a test which can not be stopped or a request to stop test in progress when there is not one.

`INVALID TYPE OF SUPERVISION REQUEST [50]` = Request type for supervision test is invalid.

`INVALID TYPE OF TEST REQUEST [51]` = Invalid type of input test request, reenter the request.

`ECHO CANCELER ALREADY ON [52]` = Invalid request to turn on the echo canceler (EC) since the EC is already on.

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ECHO CANCELER ALREADY OFF [53] = Invalid request to turn off the EC since the EC is already off.

NO RESOURCES [54] = No tuple for the device, NG since no resources specified for this TLWS.

NO ECHO CANCELER AVAILABLE [55] = Invalid request since there is no EC available for this port.

NO TALK/MNTR PHONE AVAILABLE [56] = Test request for T&M phone, but there is not one available for use by this test position.

FAILED TO ESTABLISH TALK/MNTR PATH [57] = While routing to the T&M phone, a failure occurred which prevented the digital path through the switch to be established.

58 Reserved for future use

59 Reserved for future use

PORT BUSY, CAMP-ON NOT ALLOWED [60] = Camp on not allowed for this type of port. This is because if this type of port is busy, it will always be busy. The only way to get control of this type of port is to remove it from service unconditionally.

PRI D CHANNEL NOT TESTABLE [61] = PRI D channels are not testable from the TLWS.

REENTER POSITION DATA, CHECK FAILED AT TTF|GDSF [62] = Data input failed a check by the transmission test facility (TTF) or global digital services function (GDSF). Make sure the position data is correct and try again. If failure repeats, the data has been distorted in transfer to the TTF or GDSF. Start from access type and try again.

SEMI POST PAID COIN LINE [63] = Special (that is, semi-postpay) coin lines that do not perform the coin tests used with conventional coin first and dial tone first coin lines. No coin collect/return, detect or home totalizer tests are allowed on these particular coin lines.

SOFTWARE PACKAGE NOT LOADED [64] = The software package needed to run this test has not been loaded.

TERMINATING OSPS PRI B CHANNEL NOT TESTABLE [65] = Terminating OSPS PRI B-channels (servclass = OA_IFTERM) are not testable.

TRUNK/LINE NOT ACCESSIBLE VIA METALLIC NETWORK [66] = It is not possible to make a connection to the requested line or trunk through the metallic network.

UNASSIGNED PORT [67] = The port requested was either unassigned, unequipped, on intercept, or an illegal port was received.

OUTPULSING PREVIOUSLY REQUESTED [68] = The request for outpulsing can only be done once on each port that is connected in the TLWS.

69 Reserved for future use

NO CPE [70] = The CPE number that was requested to test does not exist.

NO DATA [71] = No data was entered for this request.

NO DATA BASE MATCH [72] = Cannot find a database match when reading the RT_TRKG relation.

NO DCTU ROUTE INDEX [73] = Not allowed because the database does not contain information in the RLMODATT relation that is needed to connect to the PORT.

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`NO INCOMING TEST CALL [74]` = This TLWS should not be requesting data about the incoming test call because the T&M phone associated with this TLWS is not being used in the connection with an incoming test call.

`NO JACKS POPULATED [75]` = Cannot test with JACK because this TLWS does not have the jacks populated in the TLWSR.

`NO LINE/TRUNK DATA [76]` = No line/trunk data has been entered.

`NO NEXT MEMBER [77]` = No next member for trunk group.

`NO OUTPULSE DIGITS [78]` = No outpulse digits were specified on the "outpulse digits" message.

`NO T&M PHONE DEFINED FOR TEST POSITION [79]` = Not allowed because requester's TLWS does not have a T&M line. The feature requested requires a phone.

`NO TEST - NO ANSWER FROM FAR END [80]` = Loopback and inverted loopback tests for non-PRI digital trunks not allowed if outpulsing is complete and the far-end is on-hook.

`NO TEST [81]` = No test is in progress when the request to stop the test was entered.

`NO TESTING ALLOWED ON SCAN BUSY TRUNKS [82]` = Cannot request a test when trunk is camped. When the trunk is of type FC_PFCPE, and it is sleeve-lead scan-point busy, no tests (includes MONITOR BUSY) are allowed.

`NO TLWSR [83]` = No TLWSR relation has been defined for this TLWS. This will cause many test to fail because the equipment locations (such as, AC/DC jacks, T&M phone) are not defined for this TLWS.

`NO TONE W/REQUESTED MEASUREMENT [84]` = The TLWS will not allow an attempt to send a tone simultaneously with a measurement when the measurement requested is one of: MEASURE, ERL, SRL, or SRLHI.

`NON-PRIMARY DN [85]` = Cannot access a specific port from the TLWS using a non-primary DN since this DN does not have a port. The primary DN should be used to test the port associated with the ISDN BRCS DSL.

`NOT ALLOWED [86]` = Command is not allowed in current test position state. Or message does not apply to current position data.

`NOT ALLOWED ON AN IDCU ANSI U-DSL [87]` = Mismatch test not allowed for IDCU *ANSI*® U-DSL.

`NOT ALLOWED ON CAMA KEY/TALK TRUNK [88]` = The test is not allowed on CAMA keying and talking trunk.

`NOT AVAILABLE [89]` = Capability is not available in this generic.

`NOT A COIN PORT [90]` = Not allowed because office data indicates that port is not a coin line or because requested operation is not defined for this type (lp_type in RLFC_PORTTYP) of port.

`NOT A DSL PORT [91]` = Attempt digital test on a non DSL or digital trunk; test fails.

`NOT A DTA TRUNK [92]` = Cannot request dial-through announcement tests on port unless it is a dial-through announcement port.

93 Reserved for future use

`NOT AN INCOMING OPERATOR TRUNK [94]` = Ringback test only valid for incoming operator trunks.

NOT A LINE [95] = Not allowed because PORT is not a line.

NOT OWNER [96] = The test position entering the message is not the owner of this test position. Command will no bt accepted.

NOT A ANNC TRUNK [97] = An request was made to perform a test which is only valid on recorded announcement facility or service announcement system trunks.

NOT A TRUNK [98] = Port under test was not a trunk.

NOT A U-DSL [99] = The test requested is only valid on a U-DSL.

PACKET PIPE NOT SEIZABLE [100] = A packet pipe (PP) can not be seized from the TLWS.

IN SERVICE PACKET PIPE MEMBER NOT TESTABLE [101] = An in service packet pipe member (PPM) can not be seized from the TLWS.

NOT VALID ON U-DSL [102] = Attempt test that is invalid for U-DSL.

NOT ALLOWED ON PACKET PIPE MEMBER [103] = Attempted a test that is not allowed on a PPM.

NOT ALLOWED ON SPEECH HANDLER TRUNK [104] = Attempted a test that is not allowed on a speech handler trunk (SHT).

QUEUEING FOR TTF|GDSF HARDWARE [105] = Are starting to queue for TTF or GDSF resources.

SPEECH HANDLER TRUNK LOOPBACK/UN-LOOPBACK FAILURE [106] = Received a failure acknowledgement for a request to loopback or un-loopback an SHT.

TTF|GDSF HARDWARE ALLOCATED [107] = Stopped queuing for TTF or GDSF resources - TTF or GDSF resource has been allocated.

ONLY CPE TESTS ARE VALID [108] = Only CPE tests are valid when the CPE tests menu is invoked.

ONLY VALID ON U-DSL [109] = Attempt test that is only valid for U-DSL.

OUTPULSING ALLOWED ON TRUNKS ONLY [110] = No good; not allowed because can only do outpulsing on trunks not on lines.

OUT OF RANGE [111] = Input value (freq or level) is out of range.

OUTPULSING NOT VALID ON INCOMING TRUNKS [112] = Cannot outpulse over an incoming trunk. Outpulsing can be run on outgoing and two way trunks only.

OVERWRITING NT/CU TEST MODE [113] = The NT or channel unit indicates that it is in test mode. Any testing done in NT/CU test mode is unreliable, the results may be invalid. Testing is allowed in case the test mode indicators being returned by the NT or channel units are incorrect. Refer to the TST:DSL output message for a description of the test mode.

PACKET SWITCHING TRK [114] = Attempt an invalid test on a packet switching trunk.

PROCESSING PREVIOUS REQUEST [115] = The TLWS will not allow subsequent messages while another TLWS message is in progress. The exception is the 'test position release' message.

QUEUING [116] = Cannot request a test while queuing.

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`ANNC TRUNK [117]` = Cannot request any supervision testing besides playing an announcement OR the phrases on a DSU2-RAF or SAS announcement PORT.

118 Reserved for future use

`RESULTS INVALID DUE TO MTP TG OR RG VOLTAGE [119]` = The results of a metallic test performed on a FTTH line have been displayed on the screen. The resistance values displayed for "R1", "R2" and "R3" are three terminal resistance values instead of the two terminal resistance values that are normally displayed for metallic tests.

The results of this test are invalid because the Metallic Test Pair tip-to-ground and/or ring-to-ground voltages are not in the range from -4VDC to 4VDC.

`BLOCKED AT ISLU BY SPARED LINE CARD [120]` = Metallic access to an ISLU line failed because there is an active sparing configuration in the ISLU. This response will allow the TLWS user to decide whether to abandon the test, or temporarily un-spare the line which is blocking the test.

`BLOCKED IN METALLIC NETWORK [121]` = Required MSU resources (such as, junctors or MTB) are not currently available. Retry later.

`BLOCKED [122]` = Unable to find a path through the switch. Retry later.

`COULD NOT REMOVE/RESTORE CPE [123]` = The removal/restore of the CPE failed for an unknown reason.

124 Reserved for future use

`COULD NOT ACTIVATE TEST EQUIPMENT AT TTF|GDSF [125]` = Could not successfully activate the logical test port. Retry request. If failure repeats, a diagnostic should be run on the test port. To obtain its trunk group, member name first find its internal port name in the rt_fixedri relation. The ritype = TMINTTF. Then use the route index to find the port group in the rt_routing relation. Then use as the key value into the PORT_GROUP relation. These relations can be accessed at the recent change/verify terminal using the "odbe" tool.

`CPE BUSY [126]` = The CPE was busy, so the test could not complete.

`DATA BASE READ FAILURE ON DSLEQUIP [127]` = A database read failure occurred on port under test. The DSLEQUIP relation is missing tuple for this DSL, or AM to SM communication is down.

`DATA BASE READ FAILURE ON RLFC_TRUNK [128]` = Failed when trying to read the database relation RLfc_trunk to obtain the port type.

129 Reserved for future use

`DENIED, MTB TO LINE IS BUSY [130]` = MTB is currently being used by a universal or integrated *SLC*® 96 remote terminal.

`DENIED, PORT IS BUSY [131]` = Could not access trunk/line because it is busy.

`FAILED AT JACK [132]` = A network or port control operation involving the JACK failed. Check for further failure data printed at the ROP.

`FAILED CAMP ON PROCESS [133]` = The PUT received a MGCO_FAIL message while camped onto the PUT in control of the port under test.

`FAILED COMMUNICATION WITH FAR END OSPS [134]` = A failure occurred in communication with the far-end OSPS.

FAILED COMPLETION OF OUTPULSING [135] = Failed to complete outpulsing.

FAILED IN METALLIC NETWORK [136] = A failure occurred in MSU. Check ROP for possible further information.

FAILED PORT MAINTENANCE STATE CHANGE [137] = Failed to change the port status request at the port under test.

FAILED ROUTING TO TRUNK/LINE [138] = Received reorder from the PUT during the routing stage.

FAILED, TALK/MNTR CAN ONLY BE A LINE [139] = Failed because the T&M phone is defined as a trunk in the database. There is a problem with the database definition for the T&M phone.

FAILED TO GET PSML DATA [140] = A failure occurred when checking to see if the packet switching maintenance limit has been reached.

FAILED TO OBTAIN BUSY PORT [141] = Timeout while camped onto the busy port, the timeout occurs after camping onto the port for a maximum of five minutes.

FAILED TO OBTAIN HARDWARE DURING SETUP [142] = Failed to obtain both the tone generator and the responder during setup when both initially request at routing time, because the equipment was already in use. Retry request. If failure occurs again, check the hardware circuits.

FAILED TO REROUTE EXISTING PACKET TRAFFIC [143] = Failed to reroute the existing packet switching traffic onto another trunk.

FAILED TO ROUTE TO TALK/MNTR PHONE [144] = Failed in routing to the T&M phone due to reorder received from the callback process or the screening for the T&M process failed--RT_DENIED received from RTA with routing to callback.

145 Reserved for future use

FAILED, COULD NOT ACTIVATE TRUNK/LINE [146] = Could not successfully activate the trunk/line. Retry request. If failure repeats, a diagnostic should be run on the trunk/line.

FAILED, COULD NOT ACTIVATE JACK [147] = Could not successfully activate the AC or DC jack. Retry request. If failure repeats, a diagnostic should be run on the JACK. To obtain its trunk group, member name first find its internal port name in the TLWSR relation. Then use it as the key value into the PORT_GROUP relation. These relations can be accessed at the recent change/verify terminal using the "odbe" tool.

FAILURE AT TEST EQUIPMENT [148] = A failure occurred at the test equipment. Check ROP for additional information. Test equipment includes: AC jack, DC jack, TTF, GDSF, DCTU.

HARDWARE FAILURE IN THE TAC [149] = Failed to open the path to the TAC circuit or failed to write to the registers in the TAC to provide the OPEN.

HARDWARE FAILURE IN THE TRUNK CIRCUIT [150] = Failed due to obtaining hardware in the trunk circuit or else may have failed to release the hardware in the trunk circuit. This fault occurs from failure to operate the relays in the trunk circuit.

HARDWARE FAILURE - MAKE NEW REQUEST [151] = The TTF, integrated services test function (ISTF) or GDSF hardware has failed in some manner. This is a fatal error. User must reenter request starting with a new access mode and request for transmission test.

INTERRUPT - ACCESS DROPPED [152] = Access dropped and trunk/line released due to interrupt. Request access again if desired.

ISLU LINE CARD OOS [153] = A DSL cannot be seized if its linecard is out-of-service.

154 Reserved for future use

LOST COMMUNICATION WITH TRUNK/LINE [155] = Failed due to communication linkage between the message interpreter and the process which controls the trunk/line. Linkage is checked every 5 minutes.

METALLIC NETWORK IS BUSY OR OOS [156] = Failed because the metallic network is busy or else it is out of service. This fails when trying to request the hardware necessary for an open termination.

MONITOR SESSION TIMED OUT [157] = The one-hour timer for the T&M session has timed out.

NT TEST MODE CHANGE INTERRUPT [158] = An *ANSI*® NT had a state change which resulted in the PUT receiving an MGINTERRUPT message.

OUTPULSING FAILURE [159] = Failed to complete outpulsing due to not sending the digits.

PKT. SWITCHING MAIN. LIMIT EXCEEDED [160] = Packet switching maintenance limit will be exceeded if testing is allowed on this trunk. Only six packet switching trunks may be tested at a time.

RESOURCES BUSY [161] = The TTF or GDSF hardware resources are busy. This failure is due to a timeout in the queue. Retry the request.

ROUTE FAILURE [162] = Unable to successfully complete requested connection. Check for further failure data printed at the ROP.

RSM USED DOES NOT SUPPORT 64KBPS [163] = Failed because there is no 64 kbps clear channel path between the ISTF or GDSF and the port under test (PUT). Either the ISTF, GDSF or the trunk is in an remote switching module (RSM) which does not support 64 kbps clear channel connection.

SM UNAVAILABLE [164] = Failed because the SM that the port is in that is trying to be connected to is not available for use.

FAILED TO GET STATUS OF PORT [165] = Failure received when trying to get the port status for a PPM.

SUPERVISION TEST FAILURE [166] = Received a failure acknowledgement for a supervision request (ring, ROH, onhook, offhook, ringback).

SYSTEM BUSY, DATABASE READ FAILURE [167] = The system had DB read failure do to time constraints retry later when load diminishes.

SYSTEM ERROR [168] = Unable to maintain access to trunk/line or unable to complete request due to system error. Retry later.

SYSTEM FAILURE AT TEST EQUIPMENT [169] = A network or port control operation involving the port associated with the TTF or GDSF has failed. Check for further data of the failure by reading output from the ROP Reenter the access mode.

SYSTEM FAILURE AT TRUNK/LINE [170] = A network or port control operation involving the trunk/line failed. Check for further failure data printed at the ROP.

TEST EQUIPMENT UNAVAILABLE [171] = Connection could not be established because the required test

equipment is unavailable (busy or out of service). Retry later. The equipment includes port under test without hardware, AC jack, DC jack, TTF, GDSF, and DCTU.

`TEST SETUP IN PROGRESS [172]` = The test was not even set up when the request to stop the test was entered.

`TIMEOUT FOR AC JACK RESPONSE [173]` = Failed to receive an acknowledgement for an AC jack test (supervision type requests and callback changes).

`TIMEOUT FOR DC JACK RESPONSE [174]` = Failed to receive an acknowledgement for a DC jack test, (setting up the connection).

`TIMEOUT FOR METALLIC RESPONSE [175]` = Failed to receive a test acknowledgement for a metallic connection request with the DCTU (metallic measure, voltage capacitance, coin, and so forth).

`TIMEOUT FOR SUPERVISION RESPONSE [176]` = Failed to receive an acknowledgement for a supervision request (ring, ROH, onhook, offhook).

`TIMEOUT FOR TERMINATIONS RESPONSE [177]` = Failed to receive a terminations acknowledgement in the allotted amount of time (open and quiet termination).

`TIMEOUT FOR TEST REQUEST TO TRUNK/LINE [178]` = The line/trunk in the connection at the PUT was dropped because no request was not made within the allotted amount of time, 5 minutes.

`TIMEOUT FOR TRANSMISSION RESPONSE [179]` = Failed to receive a send or measure acknowledgement for a manual transmission testing connection with the TTF or GDSF.

`TIMEOUT FOR WINK RESPONSES [180]` = Failed to receive the wink results within the allotted amount of time, 15 seconds.

`UNKNOWN TRUNK/LINE TYPE [181]` = Failed due to communication linkage between the message interpreter and the process which determines know trunk/line type.

`WINK SIGNAL FAILURE ON TRUNK [182]` = Failed to receive a wink signal on the trunk so that outpulsing could send the digits.

`RMV/RST NOT SUPPORTED FOR THIS CPE [183]` = CPE remove/restore is not supported on this CPE.

`PREVIOUS POKE REQUEST IN PROGRESS [184]` = Cannot release this test position because of one of the following: (1) the test position is in transition of setting up a test request, (2) a continuous-update metallic test is running on this test position, or (3) the test position is in transition of stopping a metallic test. If the test is still running, stop the test then repeat the request later. The UCL option of RLS:WSPOS can override this restriction.

`SYSTEM ERROR [185]` = Unable to process request due to system error. Repeat request later.

`SYSTEM ERROR -- RLS TEST POS [186]` = A system error has occurred which requires that the test position be dropped.

`SYSTEM OVERLOAD [187]` = The TLWS will not allow a test position to be acquired or a port to be seized while the system is in an overload condition. Limits based on global parameters GLTPMAJOR and GLTPMINOR.

`T&M IN USE AT ANOTHER TP [188]` = Cannot add T&M phone because it is already it this test position's testing configuration. Remote T&M phones are not subject to this check. It is assumed that a remote T&M will have multiple call appearances at the test position CPE phone set, or else the remote T&M

(RT&M) phone number has been overridden.

`T&M NOT ALLOWED AFTER OPD ON OUTGOING BLV [189]` = Adding T&M phone after outpulsing digits invalid for outgoing BLV trunks.

`T&M NOT AVAILABLE [190]` = Cannot add T&M phone because it is in use in other test configuration.

`T-DSL PORT [191]` = Attempt test that is invalid for T-DSL.

`TALK CONNECTION [192]` = Line/Trunk was idle when MNTR BUSY was requested, so a talk connection was established.

`TALK/MNTR BLOCKED - WIDEBAND [193]` = T&M blocked for wideband calls.

`TALK/MNTR LINE BUSY - NOT AVAILABLE FOR USE [194]` = T&M line is busy at another test position, therefore it is not in the connection.

`TALK/MNTR ROUTED TO ANNOUNCEMENT - CHECK DATA [195]` = The remote T&M phone ended up routing to a recorded announcement. A office data problem exists.

`TEI INVALID, UPDATING SCREEN [196]` = The CPE test has returned with an error indicating the TEI supplied was invalid. A screen update has been initiated to correct the incorrect information on the TLWS display.

`TEST CALL SETUP FAILURE [197]` = PRI test call set up (from Q.931 messages) has failed.

`TEST IN PROGRESS [198]` = Cannot request a test while another test is in progress.

`TEST NOT ALLOWED ON HAIRPIN [199]` = The test is not allowed on an IDCU hairpin connection.

`TEST NOT ALLOWED ON PUB43801 [200]` = The test is not allowed on an IDCU PUB43801 connection.

`TEST NOT VALID FOR PORT UNDER TEST [201]` = A test was requested that is not valid for the type of port that is currently seized at this test position.

`TP IDLE [202]` = The test position has not been selected yet. Must go to page 160 to select it.

`TP RELEASED DUE TO INACTIVITY [203]` = After the TMau_tlws() function is called to audit the test position table, any TPs that have been inactive for 1 hour or more will be torn down.

`UNKNOWN TP [204]` = Test position is not marked IN USE at TLWS of requester. Repeat message after reentering test position from page 160.

`CCS TRUNK RESET IN PROGRESS [205]` = TLWS can not seize a CCS7 trunk that is undergoing a reset procedure.

206 Reserved for future use

207 Reserved for future use

`UNDEFINED LINE/TRUNK [208]` = Line/trunk data could not be translated into a valid gport.

`TIMEOUT FOR 1-HOUR TEST DURATION LIMIT [209]` = All TLWS continuous tests are limited to one-hour duration.

`WINK TEST NOT VALID ON INCOMING TRUNKS [210]` = Cannot run a wink or a quick wink test on an

incoming trunk. These tests can be run on outgoing and two way trunks only.

`NO AVAILABLE TP [211]` = All available test positions are currently in use. Was unable to select a test position.

`NOT BUSY; TALKING CONNECTION IN PROGRESS [212]` = An attempt was made to monitor a busy port but the port is idle. The request will continue as if it were to add T&M in the TALK mode.

`TOO MANY DIGITS [213]` = When providing digit strings for outpulsing and RT&M directory number, the maximum number of digits allowed is 15.

`DC JACK TESTING IN PROGRESS [214]` = Cannot perform supervision tests while there is a DC jack test in progress. Also, cannot add T&M while a DC jack test is in progress.

`CPE ALREADY IN SERVICE [215]` = An attempt to restore the CPE was requested when the CPE was already in service.

`CPE ALREADY OUT OF SERVICE [216]` = An attempt to remove the CPE was requested when the CPE was already out of service.

`TIMEOUT FOR CPE TEST RESPONSE [217]` = Failed to receive a test response from the CPE.

`INVALID TESTEQ DISPLAY REQUEST [218]` = An attempt to display the test equipment ID of a specific channel was rejected. This kind of request is only valid if:

- The port seized is a DSL.
- There is a digital loopback test in progress on this port.
- The scope of the digital loopback test is the whole DSL, that is, all three channels.
- No other option (such as BLKSZ, CHAN...) is specified.

`WRONG TP NUMBER [219]` = The test position number specified in message is not owned by this TLWS.

`USER DEFAULTS NOT SET, USING SYSTEM DEFAULTS [220]` = The user request to run digital loopback test with user pre-set defaults, however, these defaults were not set, so TLWS is going to use system defaults.

`OPTIONS ARE SET, USERDEF FLAG IGNORED [221]` = If any one of the digital loopback test option (CHAN, TERM, BLKSZ) is set. The USERDEF flag will be ignored.

`FAILED PORT CONDITIONING FOR METALLIC TEST [222]` = Failed to condition the port to a metallic test configuration.

`FAILED PORT CONDITIONING FOR DIGITAL TEST [223]` = Failed to condition the port to a digital test configuration.

`INVALID MSU OPEN REQUEST RECEIVED [224]` = While configuring the metallic resources needed for a metallic test and invalid MSU open diode request was received.

`NO VALID TLWSR ID FOUND [225]` = No ID was provided when acquiring a test position. A TLWSR tuple was searched for which has the same device ID as the input device you are using but there was no match.

`INVALID B CHANNEL [226]` = The B-channel specified for this operation is an invalid B-channel for this DSL.

`RESOURCE FAILURE - COULD NOT CREATE TP [227]` = Failed when attempting to create the TLWS AM process for this test position. Try again later when resources free up.

`REQUESTED TP GREATER THAN GLTPMAX [228]` = The requested test position is greater than the maximum test position number as specified by the global parameter GLTPMAX.

`DIRECT INPUT NOT ALLOWED, USE TST:DSL [229]` = Interactive testing is not available using the input message TST:WSCPE. Use the input message TST:DSL to perform the desired testing.

`CANNOT OVERRIDE LOCAL OR NULL T&M PHONE [230]` = The TLWSR relation identified with the test position (using `ID=` with the SET:WSPOS input message) has a T&M resource which is NULL or defines a LOCAL T&M port. Overriding the T&M phone number is allowed only on REMOTE T&M ports.

`COULD NOT COMMUNICATE WITH THE DCTU [231]` = While testing with a metallic connection to a port under test, a failure occurred while attempting to communicate with the DCTU.

`DCTU FAILED TO RESPOND [232]` = While testing with a metallic connection to a port under test, the DCTU failed to respond.

`DCTU ACCESS EQUIPMENT FAILURE, SEE PFR [233]` = While attempting to route to a DC jack connection, a failure at the equipment occurred.

`MSU BUSY [234]` = While attempting to setup a metallic connection to the port under test, the MSU needed for the metallic path was busy.

`FAILED ROUTE FOR SEIZURE OF PUT [235]` = Failed while attempting to route for seizure of the requested port under test.

`FAILED TO GET STATUS OF OSPS PRI B-CHANNEL [236]` = While attempting to add OOS MTCE DSBLD TEST port status to an OSPS PRI B-channel a failure occurred on the port status read.

`FAILED TO FORWARD AUTOMATIC REQUEST [237]` = While executing a request for an automatic test the TLWS was unable to communicate with the responsible system to request the testing.

`FAILED TO SEND MESSAGE FOR TEST REQUEST [238]` = When executing a request, an internal system resource failure prevented a message from being sent.

`DATA BASE READ FAILURE ON RLTLWSR [239]` = A database read failure occurred while attempting to read the database relation RLTLWSR.

`FAILED ROUTE FOR SEIZURE OF TEC [240]` = Failed while attempting to route for seizure of the test equipment requested for testing.

`TIMEOUT FOR TEST CONNECTION SETUP [241]` = While setting up a test configuration, no setup complete indication was received from the test logic within the required setup interval.

`DATA BASE READ FAILURE ON RLFC_PORTTYP [242]` = A database read failure occurred while attempting to read the database relation RLFC_PORTTYP.

`INVALID - TP ALREADY SEIZED VIA POKE [243]` = An input message reseizure message is entered while the test position was already seized through POKE message.

`INVALID - TP ALREADY SEIZED VIA MML [244]` = A POKE reseizure message is entered while the test position was already seized through an input message.

`NO T&M PHONE IN CONNECTION [245]` = Not allowed because the T&M phone is not in the connection.

`ADD PGTC ONLY VALID ON USLC LINES [246]` = Can only add pair gain test controller into metallic connections which could be universal *SLC*® lines.

`ADD PGTC ONLY ALLOWED AFTER METALLIC ESTABLISHED [247]` = A metallic connection to the port under test must already be established before attempting to add in a pair gain test controller.

`ACCEPT IC FAILED - NO T&M DEFINED [248]` = An attempt to connect to an incoming 101 test call failed. The test position has no talk and monitor phone associated with it which could terminate 101 test calls.

`FAILED DIGIT ZERO SECURITY [249]` = While adding the T&M phone, failed digit zero security.

`BAD ANNOUNCEMENT HEADER ID [250]` = An attempt to play an announcement on a RAF or SAS port failed because the header identifier provided was incorrect.

`BAD ANNOUNCEMENT TRAILER ID [251]` = An attempt to play an announcement on a RAF or SAS port failed because the trailer identifier provided was incorrect.

`BAD ANNOUNCEMENT INFLECTION ID [252]` = An attempt to play an announcement on a RAF or SAS port failed because the inflection identifier provided was incorrect.

`ANNOUNCEMENT DATABASE PROBLEM [253]` = An attempt to play an announcement on a RAF or SAS port failed because of an announcement database problem.

`FAILED TO COMPLETE ANNOUNCEMENT/PHRASE [254]` = An attempt to play an announcement on a RAF or SAS port failed because the playing of the announcement or phrase failed to complete.

`FAILED TO ACTIVATE DIGIT RECEIVER [255]` = An attempt to play an announcement on a RAF or SAS DTA port failed because the digit receiver could not be activated.

`POSSIBLE ROUTINE OR HARDWARE PROBLEM WITH MSU [256]` = Failure at MSU - probably one of the following problems:

- Could not route to MSU because the port chosen in the CP(Central Process) was busy in the IM
- Could not activate the MSU logical test port
- Failure allocating some MSU resource
- Routing from TEC to the MSU process is denied

`LINE IS BUSY DURING SLIM TEST [257]` = Port under test becomes busy during a SLIM TEST.

`CONGESTION OR ROUTINE FAIL [258]` = Line termination failure; routing is denied.

`PROBLEM WITH PORT [259]` = Cannot activate Port Under Test:

- Routing from the PUT to the callback process is denied
- Routing from MSU to the PUT process is denied

`FPPMU FAILED TO CHANGE STATE [260]` = The FPPMU circuit has failed to respond a message operation to switch in/out of the by-pass state.

`INTERNAL SLIM SYSTEM FAILURE [261]` = Internal SLIM System Failure

`METALLIC/AUDIO PATH ERROR [262]` = Failure at metallic/audio path

`ERROR ADDING/DROPPING T&M PHONE [263]` = Failed adding or dropping the T&M phone

`ERROR IN COMPENSATION DATABASE READ [264]` = Failed to obtain the compensation value from base relation

`LINE UNIT TYPE IS NOT TESTABLE BY SLIM [265]` = The line seized is not testable by SLIM:

- Only allows to test analog line, U, & Z card, or 2-wire analog trunk if it is on-hook test.
- Only allows to test analog line, and Z-card if it is off-hook test.

`COULD NOT COMPLETE TASK - REPEAT COMMAND [266]` = System failure due to resource failure, try to repeat the message after a short delay if desired.

`ERROR SENDING METER PULSES - REPEAT COMMAND [267]` = Failed to send meter pulses to Line Under Test

`RL - NO SLIMS AVAILABLE [268]` = Failed to obtain a free SLIM device indicated by the relation RLSL_LOC

`TIMED OUT WAITING FOR A SLIM [269]` = Failure ack from mgSLLOCUPDT:

- Timeout waiting for ack to mgSLLOCUPDT

`PERFORM BELL TEST FIRST [270]` = No Bell test has been done

`NO SERVICEABLE SLIM UNIT AVAILABLE [271]` = All free SLIM devices are out of service

`T&M PHONE MUST BE ADDED FOR OFF-HOOK TESTS [272]` = No Talk & Monitor phone added

`DANGEROUS LINE CONDITION - LINE RELEASED [273]` = Dangerous line condition found during the insulation test

`DATA BASE ERROR [274]` = Unable to get the data from relation RLMODATT, RLPORTLA RLRC_EQLOC, RLTLWSR, or RLSL_LO

`ERROR TRYING TO CONNECT LINE [275]` = Failure to connect line

`COMMUNICATION LOST - SLIM PATH RELEASED [276]` = One of the following can generate this error message:

- Time out waiting for ack to struct mgPTHMODE
- Time out waiting for ack to set up compensation message
- Time out waiting for ack to set threshold and test
- Timed out waiting for ack to send TMslim2driver process id to AM controlling process

`ROUTE FAIL DUE TO POWER CROSS [277]` = The metallic path was not established to the Integrated SLC-96 line for LIT because a Power Cross was encountered on the line.

`NO SLIM TEC PROCESS ACTIVE [278]` = The SLIM TEC process is not activate, this is a system error.

`NOT ANALOG LINES [279]` = The SLIM off-hook test is only executable on analog lines.

`FAILURE IN SLIM OFF HOOK TEST [280]` = Failure in SLIM Off Hook Test result other than out of range.

`WARNING: TEST RESULT OUT OF RANGE [281]` = The SLIM Off Hook Test result is out of the allowed range. This is a warning only.

`SLIM ONHOOK TEST FAILURE [282]` = Received a failure acknowledgement for a SLIM onhook test.

`NO SLIM ROUTE INDEX [283]` = Not allowed because the data base does not contain information in the RLMODATT relation that is needed to connect the PORT to the SLIM device.

`WARNING: CIRCUIT WILL BE LEFT OOS AFTER DGN [284]` = Since the TST:WSAUTO,TP=Z,DGN is considered a manual circuit diagnosis, after the request completed the circuit will be left in the Out Of Service state. To put the circuit back to service, another manual restore request will be needed.

`NOT ALLOWED ON RAF [285]` = Playing a range of phrases on the RAF is not supported. This is only supported on the SAS.

`WARNING: DUPLICATED SLIM RING REQUEST IGNORED [286]` = SLIM ring test (poke 5716) can only be done once per SLIM metallic connection, the subsequent request will be ignored.

`WARNING: OPTIONAL TLWSR ID IGNORED [287]` = Warning, you are already using this TLWS with another Database ID that owns a port. Your request to change your ID is being ignored. You must release the port before you can change the ID.

`CCS SDL PORTS NOT TESTABLE [288]` = CCS Signalling Data Link (SDL) ports are not testable from TLWS.

`NT1 MISMATCH TEST NOT SUPPORTED FOR THE LINE BEING USED [289]` = An attempt to perform the NT1 Mismatch Test is denied because it is not supported for the line being used:

- AIU doesn't support the NT1 Mismatch test.

`REENTER DN WITH NPA [290]` = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.

APP:TLWS-B

Software Release: 5E11 only
Message Class: N/A
Application: 5
Type: Output

1. TRUNK AND LINE WORK STATION (TLWS) PROGRESS AND ERROR REPORTS APPENDIX

`ABORTED - REMOVE OSPS PORT TO OOS FIRST [1]` = The TLWS cannot seize an in-service OSPS port. Remove the port from service before seizing.

`ALREADY SEIZED BY ANOTHER TP [2]` = Tried to seize a port already seized by another test position. Release the port from the other test position before seizing.

`BLOCKED AT TALK/MNTR PHONE [3]` = Could not complete the connection to the talk and monitor (T&M) line because of network blocking. Try again later.

`CAMPED ON TO PUT [4]` = The TLWS is camped-on to the port under test. The requested test is not allowed while the port is camped-on. Wait until the port becomes idle and the TLWS seizes it before requesting this test.

`NOT ALLOWED ON CCS TRUNKS [5]` = Cannot request some supervision testing on a CCS trunk.

`FAILED TO DEACTIVATE DIGIT RECEIVER [6]` = An attempt to play an announcement on a DTA port failed because the digit receiver could not be de-activated. This is valid for either a RAF or SAS.

`COMMAND UNKNOWN [7]` = Command is unknown and could not be processed.

`CMP UNAVAILABLE [8]` = Cannot perform the desired operation because the CMP is not available.

`CONNECTING PORT [9]` = The TLWS will not allow subsequent pokes while obtaining a port. The exception is the 'test position release' poke.

`CONNECTING TEST PATH [10]` = The TLWS will not allow subsequent pokes while connecting a test path. The exception is the 'test position release' poke.

`DATA BASE READ FAILURE ON RLRT_TRKG [11]` = Failed when trying to read the database relation RLrt_trkg to obtain the signaling type for CCS trunk.

`DENIED DUE TO ODD PROVISIONING [12]` = The loopback test is denied because of provisioning in the ODD to deny OCU and/or CSU loopback testing.

`DENIED DUE TO PERMANENT VIRTUAL CIRCUIT ACTIVE [13]` = The loopback test is denied due to an active permanent virtual circuit (PVC) on this trunk.

`NOT ALLOWED ON DSL PORT [14]` = Attempted a non digital test on a DSL or digital trunk.

`EXPECT CU1 TO CU4 FOR AMI CARD TYPE [15]` = Attempted to run a digital test on an AMI U-DSL with a channel unit termination 5 or 6. For AMI U-DSLs only channel units 1 through 4 are valid.

`FAILED AT TALK/MNTR LINE [16]` = A failure occurred at the T&M line. This may be due to bad ODD, the T&M line may be out of service or on an audit list, or an activate of the T&M line failed. Check ROP for possible additional data.

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FAILED INTERNAL ERROR ON MODE REQUESTED [17] = Failed at the T&M phone due to an invalid mode that was requested. The error is internal in the system and does not cause the connection to be released.

FAILED TO DELETE STATUS FROM OSPS PRI B-CHANNEL [18] = Upon release of an OSPS PRI B-channel, the OOS/MTCE/LKDO could not be deleted from the OSPS PRI B-channel.

FAILURE TO OBTAIN D-CHANNEL [19] = Unable to obtain the D-channel for a DSL -- seize fails.

FTTH 3-TERMINAL RESISTANCE VALUES DISPLAYED [20] = The results of a metallic test performed on a FTTH line have been displayed on the screen. The resistance values displayed for "R1", "R2" and "R3" are three terminal resistance values instead of the two terminal resistance values that are normally displayed for metallic tests.

CURRENTLY IN MONITORED CONNECTION [21] = Can NOT request a test while in monitor busy connection.

TP CURRENTLY IN USE [22] = Test position requested is currently in use at another TLWS. This TLWS can not view the test position. Select another test position.

INVALID REQUEST FOR XAT PORT [23] = Attempt an invalid request on an XAT port.

INVALID TERMINATION POINT [24] = Attempt a digital test with a termination point that is not valid for the current port.

INVALID CHANNEL SELECTION IGNORED [25] = Channel selection is not valid on this type of port.

INVALID PORT TYPE [26] = Request for digital test on a NON-DIG port.

LINE OFFHOOK [27] = Cannot request a ring test when the phone is offhook.

LOST TALK/MNTR CONNECTION [28] = Lost the link to the callback (T&M) phone. Connection has been torn down, so user must reenter an access type to proceed.

MFS TEAR DOWN MAY TAKE UP TO 1.5 MINUTES [29] = Measure for short tear down in progress.

MLHG ACCESS DN, USE MLHG POKE [30] = Cannot access a specific port from the TLWS using the UCD MLHG main DN or the MUPH MLHG subgroup DN since this DN does not map directly to a port in any ODD relation. Using recent change and/or office records find the MLHG group that is mapped to by this DN, then access the port using MLHG group and member. Linear hunt MLHGs DNs has the same limitations as UCD and MUPH MLHG DNs.

MONITOR CONNECTION [31] = The connection will be set up for MONITOR BUSY.

MODEM POOL ACCESS DN [32] = A match for the given DN was found but there is no gport because it is a modem pool (MP) access DN.

MUST SPECIFY CHANNEL FOR PACKET TEST [33] = A packet switched test cannot be run on all channels at the same time.

NOT AVAILABLE ON STANDARD CPE [34] = The CPE specified does not support loop-back testing. (standard interface CPE)

CAN ONLY APPLY OPEN TO ANALOG TRUNK [35] = Failed due to an invalid type of trunk in the connection. The connection must be to an ANALOG trunk for an open termination to continue.

CAN ONLY DIAGNOSE ANALOG TRUNK [36] = Failed due to an invalid type of trunk in the connection. We only

allow analog trunks to be diagnosed since diagnosing a digital trunk causes the associated DFI to be removed from service. When a DFI goes OOS, 24 trunks go OOS.

`DIAGNOSTIC NOT ALLOWED [37]` = Diagnostic is not allowed for this line type. Only switch terminated lines that correspond to a single circuit can be diagnosed. The following are a few examples:

- DSL and analog lines on ISLU/AIU can be diagnosed.
- An analog line unit (LU1/LU2/LU3) has grid circuits that terminate (64/32) lines and diagnosing this creates a larger group of customer outage, thus it should not be diagnosed.
- An IDCU U-DSL is terminated remotely from transmission hardware and not at the switch and therefore cannot be diagnosed.

`DENIED, EXCESSIVE FEMF ON TRUNK/LINE [38]` = An excessive voltage is present at trunk/line. Connection denied in order to protect test equipment.

`DENIED, FAILED STATUS SCREENING [39]` = JACK, T&M line, or TRK/LINE failed status screening test. The following may be the cause:

- JACK is out-of-service,
- JACK or TRK/LINE is on an audit list,
- T&M line is out-of-service,
- T&M line or TRK/LINE is on an audit list.

`DENIED, SLC-96 INVALID CHANNEL [40]` = Unable to make metallic connection to *SLC*® 96 line because *SLC*® 96 channel is of incorrect type (PCFXS or PCFXSL).

`FAILURE IN DIAL_THROUGH ANNOUNCEMENT [41]` = An attempt to play an announcement on a RAF or SAS DTA port failed because of a failure in the DTA announcement.

`FAILED AT TEST BUS CONTROL UNIT [42]` = Unable to make a metallic connection to a *SLC*® 96 line because of the test bus control unit (TBCU).

`FAILED TO STOP THE TEST [43]` = An attempt to stop a test on a RAF or SAS port failed.

`FAILED TO ADD PGTC [44]` = When attempting to add the pair gain test controller into the metallic path, a failure occurred. Check the metallic resources.

`INVALID STATE FOR OSPS PRI B CHANNEL TEST [45]` = OSPS PRI B-channels are not testable in certain states.

`INVALID REQUEST FOR CONNECTION [46]` = Invalid type of request made for the type of connection up.

`INVALID ROUTING REQUEST [47]` = Received an invalid type of test request message for routing.

`INVALID SIGNAL FOR SEIZED TRUNK [48]` = Signaling mode for coin control signal test screened out in SM. Test was not executed.

`INVALID STOP TEST REQUEST [49]` = Request to stop a test which can not be stopped or a request to stop

test in progress when there is not one.

`INVALID TYPE OF SUPERVISION REQUEST [50]` = Request type for supervision test is invalid.

`INVALID TYPE OF TEST REQUEST [51]` = Invalid type of input test request, reenter the request.

`ECHO CANCELER ALREADY ON [52]` = Invalid request to turn on the echo canceler (EC) since the EC is already on.

`ECHO CANCELER ALREADY OFF [53]` = Invalid request to turn off the EC since the EC is already off.

`NO RESOURCES [54]` = No tuple for the device, NG since no resources specified for this TLWS.

`NO ECHO CANCELER AVAILABLE [55]` = Invalid request since there is no EC available for this port.

`NO TALK/MNTR PHONE AVAILABLE [56]` = Test request for T&M phone, but there is not one available for use by this test position.

`FAILED TO ESTABLISH TALK/MNTR PATH [57]` = While routing to the T&M phone, a failure occurred which prevented the digital path through the switch to be established.

58 Reserved for future use

59 Reserved for future use

`PORT BUSY, CAMP-ON NOT ALLOWED [60]` = Camp on not allowed for this type of port. This is because if this type of port is busy, it will always be busy. The only way to get control of this type of port is to remove it from service unconditionally.

`PRI D CHANNEL NOT TESTABLE [61]` = PRI D channels are not testable from the TLWS.

`REENTER POSITION DATA, CHECK FAILED AT TTF|GDSF [62]` = Data input failed a check by the transmission test facility (TTF) or global digital services function (GDSF). Make sure the position data is correct and try again. If failure repeats, the data has been distorted in transfer to the TTF or GDSF. Start from access type and try again.

`SEMI POST PAID COIN LINE [63]` = Special (that is, semi-postpay) coin lines that do not perform the coin tests used with conventional coin first and dial tone first coin lines. No coin collect/return, detect or home totalizer tests are allowed on these particular coin lines.

`SOFTWARE PACKAGE NOT LOADED [64]` = The software package needed to run this test has not been loaded.

`TERMINATING OSPS PRI B CHANNEL NOT TESTABLE [65]` = Terminating OSPS PRI B-channels (servclass = OA_IFTERM) are not testable.

`TRUNK/LINE NOT ACCESSIBLE VIA METALLIC NETWORK [66]` = It is not possible to make a connection to the requested line or trunk through the metallic network.

`UNASSIGNED PORT [67]` = The port requested was either unassigned, unequipped, on intercept, or an illegal port was received.

`OUTPULSING PREVIOUSLY REQUESTED [68]` = The request for outpulsing can only be done once on each port that is connected in the TLWS.

69 Reserved for future use

`NO CPE [70]` = The CPE number that was requested to test does not exist.

`NO DATA [71]` = No data was entered for this request.

`NO DATA BASE MATCH [72]` = Cannot find a database match when reading the RT_TRKG relation.

`NO DCTU ROUTE INDEX [73]` = Not allowed because the database does not contain information in the RLMODATT relation that is needed to connect to the PORT.

`NO INCOMING TEST CALL [74]` = This TLWS should not be requesting data about the incoming test call because the T&M phone associated with this TLWS is not being used in the connection with an incoming test call.

`NO JACKS POPULATED [75]` = Cannot test with JACK because this TLWS does not have the jacks populated in the TLWSR.

`NO LINE/TRUNK DATA [76]` = No line/trunk data has been entered.

`NO NEXT MEMBER [77]` = No next member for trunk group.

`NO OUTPULSE DIGITS [78]` = No outpulse digits were specified on the "outpulse digits" message.

`NO T&M PHONE DEFINED FOR TEST POSITION [79]` = Not allowed because requester's TLWS does not have a T&M line. The feature requested requires a phone.

`NO TEST - NO ANSWER FROM FAR END [80]` = Loopback and inverted loopback tests for non-PRI digital trunks not allowed if outpulsing is complete and the far-end is on-hook.

`NO TEST [81]` = No test is in progress when the request to stop the test was entered.

`NO TESTING ALLOWED ON SCAN BUSY TRUNKS [82]` = Cannot request a test when trunk is camped. When the trunk is of type FC_PFCPE, and it is sleeve-lead scan-point busy, no tests (includes MONITOR BUSY) are allowed.

`NO TLWSR [83]` = No TLWSR relation has been defined for this TLWS. This will cause many test to fail because the equipment locations (such as, AC/DC jacks, T&M phone) are not defined for this TLWS.

`NO TONE W/REQUESTED MEASUREMENT [84]` = The TLWS will not allow an attempt to send a tone simultaneously with a measurement when the measurement requested is one of: MEASURE, ERL, SRL, or SRLHI.

`NON-PRIMARY DN [85]` = Cannot access a specific port from the TLWS using a non-primary DN since this DN does not have a port. The primary DN should be used to test the port associated with the ISDN BRCS DSL.

`NOT ALLOWED [86]` = Command is not allowed in current test position state. Or message does not apply to current position data.

`NOT ALLOWED ON AN IDCU ANSI U-DSL [87]` = Mismatch test not allowed for IDCU *ANSI*® U-DSL.

`NOT ALLOWED ON CAMA KEY/TALK TRUNK [88]` = The test is not allowed on CAMA keying and talking trunk.

`NOT AVAILABLE [89]` = Capability is not available in this generic.

`NOT A COIN PORT [90]` = Not allowed because office data indicates that port is not a coin line or because requested operation is not defined for this type (lp_type in RLFC_PORTTYP) of port.

NOT A DSL PORT [91] = Attempt digital test on a non DSL or digital trunk; test fails.

NOT A DTA TRUNK [92] = Cannot request dial-through announcement tests on port unless it is a dial-through announcement port.

93 Reserved for future use

NOT AN INCOMING OPERATOR TRUNK [94] = Ringback test only valid for incoming operator trunks.

NOT A LINE [95] = Not allowed because PORT is not a line.

NOT OWNER [96] = The test position entering the message is not the owner of this test position. Command will no bt accepted.

NOT A ANNC TRUNK [97] = An request was made to perform a test which is only valid on recorded announcement facility or service announcement system trunks.

NOT A TRUNK [98] = Port under test was not a trunk.

NOT A U-DSL [99] = The test requested is only valid on a U-DSL.

PACKET PIPE NOT SEIZABLE [100] = A packet pipe (PP) can not be seized from the TLWS.

IN SERVICE PACKET PIPE MEMBER NOT TESTABLE [101] = An in service packet pipe member (PPM) can not be seized from the TLWS.

NOT VALID ON U-DSL [102] = Attempt test that is invalid for U-DSL.

NOT ALLOWED ON PACKET PIPE MEMBER [103] = Attempted a test that is not allowed on a PPM.

NOT ALLOWED ON SPEECH HANDLER TRUNK [104] = Attempted a test that is not allowed on a speech handler trunk (SHT).

QUEUEING FOR TTF|GDSF HARDWARE [105] = Are starting to queue for TTF or GDSF resources.

SPEECH HANDLER TRUNK LOOPBACK/UN-LOOPBACK FAILURE [106] = Received a failure acknowledgement for a request to loopback or un-loopback an SHT.

TTF|GDSF HARDWARE ALLOCATED [107] = Stopped queuing for TTF or GDSF resources - TTF or GDSF resource has been allocated.

ONLY CPE TESTS ARE VALID [108] = Only CPE tests are valid when the CPE tests menu is invoked.

ONLY VALID ON U-DSL [109] = Attempt test that is only valid for U-DSL.

OUTPULSING ALLOWED ON TRUNKS ONLY [110] = No good; not allowed because can only do outpulsing on trunks not on lines.

OUT OF RANGE [111] = Input value (freq or level) is out of range.

OUTPULSING NOT VALID ON INCOMING TRUNKS [112] = Cannot outpulse over an incoming trunk. Outpulsing can be run on outgoing and two way trunks only.

OVERWRITING NT/CU TEST MODE [113] = The NT or channel unit indicates that it is in test mode. Any testing done in NT/CU test mode is unreliable, the results may be invalid. Testing is allowed in case the test mode indicators being returned by the NT or channel units are incorrect. Refer to the TST:DSL

output message for a description of the test mode.

`PACKET SWITCHING TRK [114]` = Attempt an invalid test on a packet switching trunk.

`PROCESSING PREVIOUS REQUEST [115]` = The TLWS will not allow subsequent messages while another TLWS message is in progress. The exception is the 'test position release' message.

`QUEUING [116]` = Cannot request a test while queuing.

`ANNC TRUNK [117]` = Cannot request any supervision testing besides playing an announcement OR the phrases on a DSU2-RAF or SAS announcement PORT.

118 Reserved for future use

`RESULTS INVALID DUE TO MTP TG OR RG VOLTAGE [119]` = The results of a metallic test performed on a FTTH line have been displayed on the screen. The resistance values displayed for "R1", "R2" and "R3" are three terminal resistance values instead of the two terminal resistance values that are normally displayed for metallic tests.

The results of this test are invalid because the Metallic Test Pair tip-to-ground and/or ring-to-ground voltages are not in the range from -4VDC to 4VDC.

`BLOCKED AT ISLU BY SPARED LINE CARD [120]` = Metallic access to an ISLU line failed because there is an active sparing configuration in the ISLU. This response will allow the TLWS user to decide whether to abandon the test, or temporarily un-spare the line which is blocking the test.

`BLOCKED IN METALLIC NETWORK [121]` = Required MSU resources (such as, junctors or MTB) are not currently available. Retry later.

`BLOCKED [122]` = Unable to find a path through the switch. Retry later.

`COULD NOT REMOVE/RESTORE CPE [123]` = The removal/restore of the CPE failed for an unknown reason.

124 Reserved for future use

`COULD NOT ACTIVATE TEST EQUIPMENT AT TTF|GDSF [125]` = Could not successfully activate the logical test port. Retry request. If failure repeats, a diagnostic should be run on the test port. To obtain its trunk group, member name first find its internal port name in the rt_fixedri relation. The ritype = TMINTTF. Then use the route index to find the port group in the rt_routing relation. Then use as the key value into the PORT_GROUP relation. These relations can be accessed at the recent change/verify terminal using the "odbe" tool.

`CPE BUSY [126]` = The CPE was busy, so the test could not complete.

`DATA BASE READ FAILURE ON DSLEQUIP [127]` = A database read failure occurred on port under test. The DSLEQUIP relation is missing tuple for this DSL, or AM to SM communication is down.

`DATA BASE READ FAILURE ON RLFC_TRUNK [128]` = Failed when trying to read the database relation RLfc_trunk to obtain the port type.

129 Reserved for future use

`DENIED, MTB TO LINE IS BUSY [130]` = MTB is currently being used by a universal or integrated *SLC*® 96 remote terminal.

`DENIED, PORT IS BUSY [131]` = Could not access trunk/line because it is busy.

FAILED AT JACK [132] = A network or port control operation involving the JACK failed. Check for further failure data printed at the ROP.

FAILED CAMP ON PROCESS [133] = The PUT received a MGCO_FAIL message while camped onto the PUT in control of the port under test.

FAILED COMMUNICATION WITH FAR END OSPS [134] = A failure occurred in communication with the far-end OSPS.

FAILED COMPLETION OF OUTPULSING [135] = Failed to complete outpulsing.

FAILED IN METALLIC NETWORK [136] = A failure occurred in MSU. Check ROP for possible further information.

FAILED PORT MAINTENANCE STATE CHANGE [137] = Failed to change the port status request at the port under test.

FAILED ROUTING TO TRUNK/LINE [138] = Received reorder from the PUT during the routing stage.

FAILED, TALK/MNTR CAN ONLY BE A LINE [139] = Failed because the T&M phone is defined as a trunk in the database. There is a problem with the database definition for the T&M phone.

FAILED TO GET PSML DATA [140] = A failure occurred when checking to see if the packet switching maintenance limit has been reached.

FAILED TO OBTAIN BUSY PORT [141] = Timeout while camped onto the busy port, the timeout occurs after camping onto the port for a maximum of five minutes.

FAILED TO OBTAIN HARDWARE DURING SETUP [142] = Failed to obtain both the tone generator and the responder during setup when both initially request at routing time, because the equipment was already in use. Retry request. If failure occurs again, check the hardware circuits.

FAILED TO REROUTE EXISTING PACKET TRAFFIC [143] = Failed to reroute the existing packet switching traffic onto another trunk.

FAILED TO ROUTE TO TALK/MNTR PHONE [144] = Failed in routing to the T&M phone due to reorder received from the callback process or the screening for the T&M process failed--RT_DENIED received from RTA with routing to callback.

145 Reserved for future use

FAILED, COULD NOT ACTIVATE TRUNK/LINE [146] = Could not successfully activate the trunk/line. Retry request. If failure repeats, a diagnostic should be run on the trunk/line.

FAILED, COULD NOT ACTIVATE JACK [147] = Could not successfully activate the AC or DC jack. Retry request. If failure repeats, a diagnostic should be run on the JACK. To obtain its trunk group, member name first find its internal port name in the TLWSR relation. Then use it as the key value into the PORT_GROUP relation. These relations can be accessed at the recent change/verify terminal using the "odbe" tool.

FAILURE AT TEST EQUIPMENT [148] = A failure occurred at the test equipment. Check ROP for additional information. Test equipment includes: AC jack, DC jack, TTF, GDSF, DCTU.

HARDWARE FAILURE IN THE TAC [149] = Failed to open the path to the TAC circuit or failed to write to the registers in the TAC to provide the OPEN.

`HARDWARE FAILURE IN THE TRUNK CIRCUIT [150]` = Failed due to obtaining hardware in the trunk circuit or else may have failed to release the hardware in the trunk circuit. This fault occurs from failure to operate the relays in the trunk circuit.

`HARDWARE FAILURE - MAKE NEW REQUEST [151]` = The TTF, integrated services test function (ISTF) or GDSF hardware has failed in some manner. This is a fatal error. User must reenter request starting with a new access mode and request for transmission test.

`INTERRUPT - ACCESS DROPPED [152]` = Access dropped and trunk/line released due to interrupt. Request access again if desired.

`ISLU LINE CARD OOS [153]` = A DSL cannot be seized if its linecard is out-of-service.

154 Reserved for future use

`LOST COMMUNICATION WITH TRUNK/LINE [155]` = Failed due to communication linkage between the message interpreter and the process which controls the trunk/line. Linkage is checked every 5 minutes.

`METALLIC NETWORK IS BUSY OR OOS [156]` = Failed because the metallic network is busy or else it is out of service. This fails when trying to request the hardware necessary for an open termination.

`MONITOR SESSION TIMED OUT [157]` = The one-hour timer for the T&M session has timed out.

`NT TEST MODE CHANGE INTERRUPT [158]` = An *ANSI*® NT had a state change which resulted in the PUT receiving an MGINTERRUPT message.

`OUTPULSING FAILURE [159]` = Failed to complete outpulsing due to not sending the digits.

`PKT. SWITCHING MAIN. LIMIT EXCEEDED [160]` = Packet switching maintenance limit will be exceeded if testing is allowed on this trunk. Only six packet switching trunks may be tested at a time.

`RESOURCES BUSY [161]` = The TTF or GDSF hardware resources are busy. This failure is due to a timeout in the queue. Retry the request.

`ROUTE FAILURE [162]` = Unable to successfully complete requested connection. Check for further failure data printed at the ROP.

`RSM USED DOES NOT SUPPORT 64KBPS [163]` = Failed because there is no 64 kbps clear channel path between the ISTF or GDSF and the port under test (PUT). Either the ISTF, GDSF or the trunk is in an remote switching module (RSM) which does not support 64 kbps clear channel connection.

`SM UNAVAILABLE [164]` = Failed because the SM that the port is in that is trying to be connected to is not available for use.

`FAILED TO GET STATUS OF PORT [165]` = Failure received when trying to get the port status for a PPM.

`SUPERVISION TEST FAILURE [166]` = Received a failure acknowledgement for a supervision request (ring, ROH, onhook, offhook, ringback).

`SYSTEM BUSY, DATABASE READ FAILURE [167]` = The system had DB read failure do to time constraints retry later when load diminishes.

`SYSTEM ERROR [168]` = Unable to maintain access to trunk/line or unable to complete request due to system error. Retry later.

`SYSTEM FAILURE AT TEST EQUIPMENT [169]` = A network or port control operation involving the port associated with the TTF or GDSF has failed. Check for further data of the failure by reading output from the ROP Reenter the access mode.

`SYSTEM FAILURE AT TRUNK/LINE [170]` = A network or port control operation involving the trunk/line failed. Check for further failure data printed at the ROP.

`TEST EQUIPMENT UNAVAILABLE [171]` = Connection could not be established because the required test equipment is unavailable (busy or out of service). Retry later. The equipment includes port under test without hardware, AC jack, DC jack, TTF, GDSF, and DCTU.

`TEST SETUP IN PROGRESS [172]` = The test was not even set up when the request to stop the test was entered.

`TIMEOUT FOR AC JACK RESPONSE [173]` = Failed to receive an acknowledgement for an AC jack test (supervision type requests and callback changes).

`TIMEOUT FOR DC JACK RESPONSE [174]` = Failed to receive an acknowledgement for a DC jack test, (setting up the connection).

`TIMEOUT FOR METALLIC RESPONSE [175]` = Failed to receive a test acknowledgement for a metallic connection request with the DCTU (metallic measure, voltage capacitance, coin, and so forth).

`TIMEOUT FOR SUPERVISION RESPONSE [176]` = Failed to receive an acknowledgement for a supervision request (ring, ROH, onhook, offhook).

`TIMEOUT FOR TERMINATIONS RESPONSE [177]` = Failed to receive a terminations acknowledgement in the allotted amount of time (open and quiet termination).

`TIMEOUT FOR TEST REQUEST TO TRUNK/LINE [178]` = The line/trunk in the connection at the PUT was dropped because no request was not made within the allotted amount of time, 5 minutes.

`TIMEOUT FOR TRANSMISSION RESPONSE [179]` = Failed to receive a send or measure acknowledgement for a manual transmission testing connection with the TTF or GDSF.

`TIMEOUT FOR WINK RESPONSES [180]` = Failed to receive the wink results within the allotted amount of time, 15 seconds.

`UNKNOWN TRUNK/LINE TYPE [181]` = Failed due to communication linkage between the message interpreter and the process which determines know trunk/line type.

`WINK SIGNAL FAILURE ON TRUNK [182]` = Failed to receive a wink signal on the trunk so that outpulsing could send the digits.

`RMV/RST NOT SUPPORTED FOR THIS CPE [183]` = CPE remove/restore is not supported on this CPE.

`PREVIOUS POKE REQUEST IN PROGRESS [184]` = Cannot release this test position because of one of the following: (1) the test position is in transition of setting up a test request, (2) a continuous-update metallic test is running on this test position, or (3) the test position is in transition of stopping a metallic test. If the test is still running, stop the test then repeat the request later. The UCL option of RLS:WSPOS can override this restriction.

`SYSTEM ERROR [185]` = Unable to process request due to system error. Repeat request later.

`SYSTEM ERROR -- RLS TEST POS [186]` = A system error has occurred which requires that the test position be dropped.

SYSTEM OVERLOAD [187] = The TLWS will not allow a test position to be acquired or a port to be seized while the system is in an overload condition. Limits based on global parameters GLTPMAJOR and GLTPMINOR.

T&M IN USE AT ANOTHER TP [188] = Cannot add T&M phone because it is already it this test position's testing configuration. Remote T&M phones are not subject to this check. It is assumed that a remote T&M will have multiple call appearances at the test position CPE phone set, or else the remote T&M (RT&M) phone number has been overridden.

T&M NOT ALLOWED AFTER OPD ON OUTGOING BLV [189] = Adding T&M phone after outpulsing digits invalid for outgoing BLV trunks.

T&M NOT AVAILABLE [190] = Cannot add T&M phone because it is in use in other test configuration.

T-DSL PORT [191] = Attempt test that is invalid for T-DSL.

TALK CONNECTION [192] = Line/Trunk was idle when MNTR BUSY was requested, so a talk connection was established.

TALK/MNTR BLOCKED - WIDEBAND [193] = T&M blocked for wideband calls.

TALK/MNTR LINE BUSY - NOT AVAILABLE FOR USE [194] = T&M line is busy at another test position, therefore it is not in the connection.

TALK/MNTR ROUTED TO ANNOUNCEMENT - CHECK DATA [195] = The remote T&M phone ended up routing to a recorded announcement. A office data problem exists.

TEI INVALID, UPDATING SCREEN [196] = The CPE test has returned with an error indicating the TEI supplied was invalid. A screen update has been initiated to correct the incorrect information on the TLWS display.

TEST CALL SETUP FAILURE [197] = PRI test call set up (from Q.931 messages) has failed.

TEST IN PROGRESS [198] = Cannot request a test while another test is in progress.

TEST NOT ALLOWED ON HAIRPIN [199] = The test is not allowed on an IDCU hairpin connection.

TEST NOT ALLOWED ON PUB43801 [200] = The test is not allowed on an IDCU PUB43801 connection.

TEST NOT VALID FOR PORT UNDER TEST [201] = A test was requested that is not valid for the type of port that is currently seized at this test position.

TP IDLE [202] = The test position has not been selected yet. Must go to page 160 to select it.

TP RELEASED DUE TO INACTIVITY [203] = After the TMau_tlws() function is called to audit the test position table, any TPs that have been inactive for 1 hour or more will be torn down.

UNKNOWN TP [204] = Test position is not marked IN USE at TLWS of requester. Repeat message after reentering test position from page 160.

CCS TRUNK RESET IN PROGRESS [205] = TLWS can not seize a CCS7 trunk that is undergoing a reset procedure.

206 Reserved for future use

207 Reserved for future use

`UNDEFINED LINE/TRUNK [208]` = Line/trunk data could not be translated into a valid gport.

`TIMEOUT FOR 1-HOUR TEST DURATION LIMIT [209]` = All TLWS continuous tests are limited to one-hour duration.

`WINK TEST NOT VALID ON INCOMING TRUNKS [210]` = Cannot run a wink or a quick wink test on an incoming trunk. These tests can be run on outgoing and two way trunks only.

`NO AVAILABLE TP [211]` = All available test positions are currently in use. Was unable to select a test position.

`NOT BUSY; TALKING CONNECTION IN PROGRESS [212]` = An attempt was made to monitor a busy port but the port is idle. The request will continue as if it were to add T&M in the TALK mode.

`TOO MANY DIGITS [213]` = When providing digit strings for outpulsing and RT&M directory number, the maximum number of digits allowed is 15.

`DC JACK TESTING IN PROGRESS [214]` = Cannot perform supervision tests while there is a DC jack test in progress. Also, cannot add T&M while a DC jack test is in progress.

`CPE ALREADY IN SERVICE [215]` = An attempt to restore the CPE was requested when the CPE was already in service.

`CPE ALREADY OUT OF SERVICE [216]` = An attempt to remove the CPE was requested when the CPE was already out of service.

`TIMEOUT FOR CPE TEST RESPONSE [217]` = Failed to receive a test response from the CPE.

`INVALID TESTEQ DISPLAY REQUEST [218]` = An attempt to display the test equipment ID of a specific channel was rejected. This kind of request is only valid if:

- The port seized is a DSL.
- There is a digital loopback test in progress on this port.
- The scope of the digital loopback test is the whole DSL, that is, all three channels.
- No other option (such as BLKSZ, CHAN...) is specified.

`WRONG TP NUMBER [219]` = The test position number specified in message is not owned by this TLWS.

`USER DEFAULTS NOT SET, USING SYSTEM DEFAULTS [220]` = The user request to run digital loopback test with user pre-set defaults, however, these defaults were not set, so TLWS is going to use system defaults.

`OPTIONS ARE SET, USERDEF FLAG IGNORED [221]` = If any one of the digital loopback test option (CHAN, TERM, BLKSZ) is set. The USERDEF flag will be ignored.

`FAILED PORT CONDITIONING FOR METALLIC TEST [222]` = Failed to condition the port to a metallic test configuration.

`FAILED PORT CONDITIONING FOR DIGITAL TEST [223]` = Failed to condition the port to a digital test configuration.

`INVALID MSU OPEN REQUEST RECEIVED [224]` = While configuring the metallic resources needed for a metallic test and invalid MSU open diode request was received.

`NO VALID TLWSR ID FOUND [225]` = No ID was provided when acquiring a test position. A TLWSR tuple was searched for which has the same device ID as the input device you are using but there was no match.

`INVALID B CHANNEL [226]` = The B-channel specified for this operation is an invalid B-channel for this DSL.

`RESOURCE FAILURE - COULD NOT CREATE TP [227]` = Failed when attempting to create the TLWS AM process for this test position. Try again later when resources free up.

`REQUESTED TP GREATER THAN GLTPMAX [228]` = The requested test position is greater than the maximum test position number as specified by the global parameter GLTPMAX.

`DIRECT INPUT NOT ALLOWED, USE TST:DSL [229]` = Interactive testing is not available using the input message TST:WSCPE. Use the input message TST:DSL to perform the desired testing.

`CANNOT OVERRIDE LOCAL OR NULL T&M PHONE [230]` = The TLWSR relation identified with the test position (using `ID=` with the SET:WSPOS input message) has a T&M resource which is NULL or defines a LOCAL T&M port. Overriding the T&M phone number is allowed only on REMOTE T&M ports.

`COULD NOT COMMUNICATE WITH THE DCTU [231]` = While testing with a metallic connection to a port under test, a failure occurred while attempting to communicate with the DCTU.

`DCTU FAILED TO RESPOND [232]` = While testing with a metallic connection to a port under test, the DCTU failed to respond.

`DCTU ACCESS EQUIPMENT FAILURE, SEE PFR [233]` = While attempting to route to a DC jack connection, a failure at the equipment occurred.

`MSU BUSY [234]` = While attempting to setup a metallic connection to the port under test, the MSU needed for the metallic path was busy.

`FAILED ROUTE FOR SEIZURE OF PUT [235]` = Failed while attempting to route for seizure of the requested port under test.

`FAILED TO GET STATUS OF OSPS PRI B-CHANNEL [236]` = While attempting to add OOS MTCE DSBLD TEST port status to an OSPS PRI B-channel a failure occurred on the port status read.

`FAILED TO FORWARD AUTOMATIC REQUEST [237]` = While executing a request for an automatic test the TLWS was unable to communicate with the responsible system to request the testing.

`FAILED TO SEND MESSAGE FOR TEST REQUEST [238]` = When executing a request, an internal system resource failure prevented a message from being sent.

`DATA BASE READ FAILURE ON RLTLWSR [239]` = A database read failure occurred while attempting to read the database relation RLTLWSR.

`FAILED ROUTE FOR SEIZURE OF TEC [240]` = Failed while attempting to route for seizure of the test equipment requested for testing.

`TIMEOUT FOR TEST CONNECTION SETUP [241]` = While setting up a test configuration, no setup complete indication was received from the test logic within the required setup interval.

`DATA BASE READ FAILURE ON RLFC_PORTTYP [242]` = A database read failure occurred while attempting to

read the database relation RLFC_PORTTYP.

`INVALID - TP ALREADY SEIZED VIA POKE [243]` = An input message reseizure message is entered while the test position was already seized through POKE message.

`INVALID - TP ALREADY SEIZED VIA MML [244]` = A POKE reseizure message is entered while the test position was already seized through an input message.

`NO T&M PHONE IN CONNECTION [245]` = Not allowed because the T&M phone is not in the connection.

`ADD PGTC ONLY VALID ON USLC LINES [246]` = Can only add pair gain test controller into metallic connections which could be universal *SLC*® lines.

`ADD PGTC ONLY ALLOWED AFTER METALLIC ESTABLISHED [247]` = A metallic connection to the port under test must already be established before attempting to add in a pair gain test controller.

`ACCEPT IC FAILED - NO T&M DEFINED [248]` = An attempt to connect to an incoming 101 test call failed. The test position has no talk and monitor phone associated with it which could terminate 101 test calls.

`FAILED DIGIT ZERO SECURITY [249]` = While adding the T&M phone, failed digit zero security.

`BAD ANNOUNCEMENT HEADER ID [250]` = An attempt to play an announcement on a RAF or SAS port failed because the header identifier provided was incorrect.

`BAD ANNOUNCEMENT TRAILER ID [251]` = An attempt to play an announcement on a RAF or SAS port failed because the trailer identifier provided was incorrect.

`BAD ANNOUNCEMENT INFLECTION ID [252]` = An attempt to play an announcement on a RAF or SAS port failed because the inflection identifier provided was incorrect.

`ANNOUNCEMENT DATABASE PROBLEM [253]` = An attempt to play an announcement on a RAF or SAS port failed because of an announcement database problem.

`FAILED TO COMPLETE ANNOUNCEMENT/PHRASE [254]` = An attempt to play an announcement on a RAF or SAS port failed because the playing of the announcement or phrase failed to complete.

`FAILED TO ACTIVATE DIGIT RECEIVER [255]` = An attempt to play an announcement on a RAF or SAS DTA port failed because the digit receiver could not be activated.

`POSSIBLE ROUTINE OR HARDWARE PROBLEM WITH MSU [256]` = Failure at MSU - probably one of the following problems:

- Could not route to MSU because the port chosen in the CP(Central Process) was busy in the IM
- Could not activate the MSU logical test port
- Failure allocating some MSU resource
- Routing from TEC to the MSU process is denied

`LINE IS BUSY DURING SLIM TEST [257]` = Port under test becomes busy during a SLIM TEST.

`CONGESTION OR ROUTINE FAIL [258]` = Line termination failure; routing is denied.

`PROBLEM WITH PORT [259]` = Cannot activate Port Under Test:

- Routing from the PUT to the callback process is denied
- Routing from MSU to the PUT process is denied

`FPPMU FAILED TO CHANGE STATE [260]` = The FPPMU circuit has failed to respond a message operation to switch in/out of the by-pass state.

`INTERNAL SLIM SYSTEM FAILURE [261]` = Internal SLIM System Failure

`METALLIC/AUDIO PATH ERROR [262]` = Failure at metallic/audio path

`ERROR ADDING/DROPPING T&M PHONE [263]` = Failed adding or dropping the T&M phone

`ERROR IN COMPENSATION DATABASE READ [264]` = Failed to obtain the compensation value from base relation

`LINE UNIT TYPE IS NOT TESTABLE BY SLIM [265]` = The line seized is not testable by SLIM:

- Only allows to test analog line, U, & Z card, or 2-wire analog trunk if it is on-hook test.
- Only allows to test analog line, and Z-card if it is off-hook test.

`COULD NOT COMPLETE TASK - REPEAT COMMAND [266]` = System failure due to resource failure, try to repeat the message after a short delay if desired.

`ERROR SENDING METER PULSES - REPEAT COMMAND [267]` = Failed to send meter pulses to Line Under Test

`RL - NO SLIMS AVAILABLE [268]` = Failed to obtain a free SLIM device indicated by the relation RLSL_LOC

`TIMED OUT WAITING FOR A SLIM [269]` = Failure ack from mgSLLOCUPDT:

- Timeout waiting for ack to mgSLLOCUPDT

`PERFORM BELL TEST FIRST [270]` = No Bell test has been done

`NO SERVICEABLE SLIM UNIT AVAILABLE [271]` = All free SLIM devices are out of service

`T&M PHONE MUST BE ADDED FOR OFF-HOOK TESTS [272]` = No Talk & Monitor phone added

`DANGEROUS LINE CONDITION - LINE RELEASED [273]` = Dangerous line condition found during the insulation test

`DATA BASE ERROR [274]` = Unable to get the data from relation RLMODATT, RLPORTLA RLRC_EQLOC, RLTLWSR, or RLSL_LO

`ERROR TRYING TO CONNECT LINE [275]` = Failure to connect line

`COMMUNICATION LOST - SLIM PATH RELEASED [276]` = One of the following can generate this error message:

- Time out waiting for ack to struct mgPTHMODE
- Time out waiting for ack to set up compensation message
- Time out waiting for ack to set threshold and test
- Timed out waiting for ack to send TMslim2driver process id to AM controlling process

`ROUTE FAIL DUE TO POWER CROSS [277]` = The metallic path was not established to the Integrated SLC-96 line for LIT because a Power Cross was encountered on the line.

`NO SLIM TEC PROCESS ACTIVE [278]` = The SLIM TEC process is not activate, this is a system error.

`NOT ANALOG LINES [279]` = The SLIM off-hook test is only executable on analog lines.

`FAILURE IN SLIM OFF HOOK TEST [280]` = Failure in SLIM Off Hook Test result other than out of range.

`WARNING: TEST RESULT OUT OF RANGE [281]` = The SLIM Off Hook Test result is out of the allowed range. This is a warning only.

`SLIM ONHOOK TEST FAILURE [282]` = Received a failure acknowledgement for a SLIM onhook test.

`NO SLIM ROUTE INDEX [283]` = Not allowed because the data base does not contain information in the RLMODATT relation that is needed to connect the PORT to the SLIM device.

`WARNING: CIRCUIT WILL BE LEFT OOS AFTER DGN [284]` = Since the TST:WSAUTO,TP=Z,DGN is considered a manual circuit diagnosis, after the request completed the circuit will be left in the Out Of Service state. To put the circuit back to service, another manual restore request will be needed.

`NOT ALLOWED ON RAF [285]` = Playing a range of phrases on the RAF is not supported. This is only supported on the SAS.

`WARNING: DUPLICATED SLIM RING REQUEST IGNORED [286]` = SLIM ring test (poke 5716) can only be done once per SLIM metallic connection, the subsequent request will be ignored.

`WARNING: OPTIONAL TLWSR ID IGNORED [287]` = Warning, you are already using this TLWS with another Database ID that owns a port. Your request to change your ID is being ignored. You must release the port before you can change the ID.

`CCS SDL PORTS NOT TESTABLE [288]` = CCS Signalling Data Link (SDL) ports are not testable from TLWS.

`NT1 MISMATCH TEST NOT SUPPORTED FOR THE LINE BEING USED [289]` = An attempt to perform the NT1 Mismatch Test is denied because it is not supported for the line being used:

- AIU doesn't support the NT1 Mismatch test.

`REENTER DN WITH NPA [290]` = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.

`APPLICATION NOT OSPSTA FOR ALTERNATE ANNOUNCEMENT SET [291]` = A request for an alternate announcement set is invalid unless the Application entered is OSPSTA. The request is denied.

APP:TLWS-C

Software Release: 5E12 and later
Message Class: N/A
Application: 5
Type: Output

1. TRUNK AND LINE WORK STATION (TLWS) PROGRESS AND ERROR REPORTS APPENDIX

`ABORTED - REMOVE OSPS PORT TO OOS FIRST [1]` = The TLWS cannot seize an in-service OSPS port. Remove the port from service before seizing.

`ALREADY SEIZED BY ANOTHER TP [2]` = Tried to seize a port already seized by another test position. Release the port from the other test position before seizing.

`BLOCKED AT TALK/MNTR PHONE [3]` = Could not complete the connection to the talk and monitor (T&M) line because of network blocking. Try again later.

`CAMPED ON TO PUT [4]` = The TLWS is camped-on to the port under test. The requested test is not allowed while the port is camped-on. Wait until the port becomes idle and the TLWS seizes it before requesting this test.

`NOT ALLOWED ON CCS TRUNKS [5]` = Cannot request some supervision testing on a CCS trunk.

`FAILED TO DEACTIVATE DIGIT RECEIVER [6]` = An attempt to play an announcement on a DTA port failed because the digit receiver could not be de-activated. This is valid for either a RAF or SAS.

`COMMAND UNKNOWN [7]` = Command is unknown and could not be processed.

`CMP UNAVAILABLE [8]` = Cannot perform the desired operation because the CMP is not available.

`CONNECTING PORT [9]` = The TLWS will not allow subsequent pokes while obtaining a port. The exception is the 'test position release' poke.

`CONNECTING TEST PATH [10]` = The TLWS will not allow subsequent pokes while connecting a test path. The exception is the 'test position release' poke.

`DATA BASE READ FAILURE ON RLRT_TRKG [11]` = Failed when trying to read the database relation RLrt_trkg to obtain the signaling type for CCS trunk.

`DENIED DUE TO ODD PROVISIONING [12]` = The loopback test is denied because of provisioning in the ODD to deny OCU and/or CSU loopback testing.

`DENIED DUE TO PERMANENT VIRTUAL CIRCUIT ACTIVE [13]` = The loopback test is denied due to an active permanent virtual circuit (PVC) on this trunk.

`NOT ALLOWED ON DSL PORT [14]` = Attempted a non digital test on a DSL or digital trunk.

`EXPECT CU1 TO CU4 FOR AMI CARD TYPE [15]` = Attempted to run a digital test on an AMI U-DSL with a channel unit termination 5 or 6. For AMI U-DSLs only channel units 1 through 4 are valid.

`FAILED AT TALK/MNTR LINE [16]` = A failure occurred at the T&M line. This may be due to bad ODD, the T&M line may be out of service or on an audit list, or an activate of the T&M line failed. Check ROP for possible additional data.

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FAILED INTERNAL ERROR ON MODE REQUESTED [17] = Failed at the T&M phone due to an invalid mode that was requested. The error is internal in the system and does not cause the connection to be released.

FAILED TO DELETE STATUS FROM OSPS PRI B-CHANNEL [18] = Upon release of an OSPS PRI B-channel, the OOS/MTCE/LKDO could not be deleted from the OSPS PRI B-channel.

FAILURE TO OBTAIN D-CHANNEL [19] = Unable to obtain the D-channel for a DSL -- seize fails.

FTTH 3-TERMINAL RESISTANCE VALUES DISPLAYED [20] = The results of a metallic test performed on a FTTH line have been displayed on the screen. The resistance values displayed for "R1", "R2" and "R3" are three terminal resistance values instead of the two terminal resistance values that are normally displayed for metallic tests.

CURRENTLY IN MONITORED CONNECTION [21] = Can NOT request a test while in monitor busy connection.

TP CURRENTLY IN USE [22] = Test position requested is currently in use at another TLWS. This TLWS can not view the test position. Select another test position.

INVALID REQUEST FOR XAT PORT [23] = Attempt an invalid request on an XAT port.

INVALID TERMINATION POINT [24] = Attempt a digital test with a termination point that is not valid for the current port.

INVALID CHANNEL SELECTION IGNORED [25] = Channel selection is not valid on this type of port.

INVALID PORT TYPE [26] = Request for digital test on a NON-DIG port.

LINE OFFHOOK [27] = Cannot request a ring test when the phone is offhook.

LOST TALK/MNTR CONNECTION [28] = Lost the link to the callback (T&M) phone. Connection has been torn down, so user must reenter an access type to proceed.

MFS TEAR DOWN MAY TAKE UP TO 1.5 MINUTES [29] = Measure for short tear down in progress.

MLHG ACCESS DN, USE MLHG POKE [30] = Cannot access a specific port from the TLWS using the UCD MLHG main DN or the MUPH MLHG subgroup DN since this DN does not map directly to a port in any ODD relation. Using recent change and/or office records find the MLHG group that is mapped to by this DN, then access the port using MLHG group and member. Linear hunt MLHGs DNs has the same limitations as UCD and MUPH MLHG DNs.

MONITOR CONNECTION [31] = The connection will be set up for MONITOR BUSY.

MODEM POOL ACCESS DN [32] = A match for the given DN was found but there is no gport because it is a modem pool (MP) access DN.

MUST SPECIFY CHANNEL FOR PACKET TEST [33] = A packet switched test cannot be run on all channels at the same time.

NOT AVAILABLE ON STANDARD CPE [34] = The CPE specified does not support loop-back testing. (standard interface CPE)

CAN ONLY APPLY OPEN TO ANALOG TRUNK [35] = Failed due to an invalid type of trunk in the connection. The connection must be to an ANALOG trunk for an open termination to continue.

CAN ONLY DIAGNOSE ANALOG TRUNK [36] = Failed due to an invalid type of trunk in the connection. We only

allow analog trunks to be diagnosed since diagnosing a digital trunk causes the associated DFI to be removed from service. When a DFI goes OOS, 24 trunks go OOS.

`DIAGNOSTIC NOT ALLOWED [37]` = Diagnostic is not allowed for this line type. Only switch terminated lines that correspond to a single circuit can be diagnosed. The following are a few examples:

- DSL and analog lines on ISLU/AIU can be diagnosed.
- An analog line unit (LU1/LU2/LU3) has grid circuits that terminate (64/32) lines and diagnosing this creates a larger group of customer outage, thus it should not be diagnosed.
- An IDCU U-DSL is terminated remotely from transmission hardware and not at the switch and therefore cannot be diagnosed.

`DENIED, EXCESSIVE FEMF ON TRUNK/LINE [38]` = An excessive voltage is present at trunk/line. Connection denied in order to protect test equipment.

`DENIED, FAILED STATUS SCREENING [39]` = JACK, T&M line, or TRK/LINE failed status screening test. The following may be the cause:

- JACK is out-of-service,
- JACK or TRK/LINE is on an audit list,
- T&M line is out-of-service,
- T&M line or TRK/LINE is on an audit list.

`DENIED, SLC-96 INVALID CHANNEL [40]` = Unable to make metallic connection to *SLC*® 96 line because *SLC*® 96 channel is of incorrect type (PCFXS or PCFXSL).

`FAILURE IN DIAL_THROUGH ANNOUNCEMENT [41]` = An attempt to play an announcement on a RAF or SAS DTA port failed because of a failure in the DTA announcement.

`FAILED AT TEST BUS CONTROL UNIT [42]` = Unable to make a metallic connection to a *SLC*® 96 line because of the test bus control unit (TBCU).

`FAILED TO STOP THE TEST [43]` = An attempt to stop a test on a RAF or SAS port failed.

`FAILED TO ADD PGTC [44]` = When attempting to add the pair gain test controller into the metallic path, a failure occurred. Check the metallic resources.

`INVALID STATE FOR OSPS PRI B CHANNEL TEST [45]` = OSPS PRI B-channels are not testable in certain states.

`INVALID REQUEST FOR CONNECTION [46]` = Invalid type of request made for the type of connection up.

`INVALID ROUTING REQUEST [47]` = Received an invalid type of test request message for routing.

`INVALID SIGNAL FOR SEIZED TRUNK [48]` = Signaling mode for coin control signal test screened out in SM. Test was not executed.

`INVALID STOP TEST REQUEST [49]` = Request to stop a test which can not be stopped or a request to stop

test in progress when there is not one.

`INVALID TYPE OF SUPERVISION REQUEST [50]` = Request type for supervision test is invalid.

`INVALID TYPE OF TEST REQUEST [51]` = Invalid type of input test request, reenter the request.

`ECHO CANCELER ALREADY ON [52]` = Invalid request to turn on the echo canceler (EC) since the EC is already on.

`ECHO CANCELER ALREADY OFF [53]` = Invalid request to turn off the EC since the EC is already off.

`NO RESOURCES [54]` = No tuple for the device, NG since no resources specified for this TLWS.

`NO ECHO CANCELER AVAILABLE [55]` = Invalid request since there is no EC available for this port.

`NO TALK/MNTR PHONE AVAILABLE [56]` = Test request for T&M phone, but there is not one available for use by this test position.

`FAILED TO ESTABLISH TALK/MNTR PATH [57]` = While routing to the T&M phone, a failure occurred which prevented the digital path through the switch to be established.

58 Reserved for future use

59 Reserved for future use

`PORT BUSY, CAMP-ON NOT ALLOWED [60]` = Camp on not allowed for this type of port. This is because if this type of port is busy, it will always be busy. The only way to get control of this type of port is to remove it from service unconditionally.

`PRI D CHANNEL NOT TESTABLE [61]` = PRI D channels are not testable from the TLWS.

`REENTER POSITION DATA, CHECK FAILED AT TTF|GDSF [62]` = Data input failed a check by the transmission test facility (TTF) or global digital services function (GDSF). Make sure the position data is correct and try again. If failure repeats, the data has been distorted in transfer to the TTF or GDSF. Start from access type and try again.

`SEMI POST PAID COIN LINE [63]` = Special (that is, semi-postpay) coin lines that do not perform the coin tests used with conventional coin first and dial tone first coin lines. No coin collect/return, detect or home totalizer tests are allowed on these particular coin lines.

`SOFTWARE PACKAGE NOT LOADED [64]` = The software package needed to run this test has not been loaded.

`TERMINATING OSPS PRI B CHANNEL NOT TESTABLE [65]` = Terminating OSPS PRI B-channels (servclass = OA_IFTERM) are not testable.

`TRUNK/LINE NOT ACCESSIBLE VIA METALLIC NETWORK [66]` = It is not possible to make a connection to the requested line or trunk through the metallic network.

`UNASSIGNED PORT [67]` = The port requested was either unassigned, unequipped, on intercept, or an illegal port was received.

`OUTPULSING PREVIOUSLY REQUESTED [68]` = The request for outpulsing can only be done once on each port that is connected in the TLWS.

69 Reserved for future use

NO CPE [70] = The CPE number that was requested to test does not exist.

NO DATA [71] = No data was entered for this request.

NO DATA BASE MATCH [72] = Cannot find a database match when reading the RT_TRKG relation.

NO DCTU ROUTE INDEX [73] = Not allowed because the database does not contain information in the RLMODATT relation that is needed to connect to the PORT.

NO INCOMING TEST CALL [74] = This TLWS should not be requesting data about the incoming test call because the T&M phone associated with this TLWS is not being used in the connection with an incoming test call.

NO JACKS POPULATED [75] = Cannot test with JACK because this TLWS does not have the jacks populated in the TLWSR.

NO LINE/TRUNK DATA [76] = No line/trunk data has been entered.

NO NEXT MEMBER [77] = No next member for trunk group.

NO OUTPULSE DIGITS [78] = No outpulse digits were specified on the "outpulse digits" message.

NO T&M PHONE DEFINED FOR TEST POSITION [79] = Not allowed because requester's TLWS does not have a T&M line. The feature requested requires a phone.

NO TEST - NO ANSWER FROM FAR END [80] = Loopback and inverted loopback tests for non-PRI digital trunks not allowed if outpulsing is complete and the far-end is on-hook.

NO TEST [81] = No test is in progress when the request to stop the test was entered.

NO TESTING ALLOWED ON SCAN BUSY TRUNKS [82] = Cannot request a test when trunk is camped. When the trunk is of type FC_PFCPE, and it is sleeve-lead scan-point busy, no tests (includes MONITOR BUSY) are allowed.

NO TLWSR [83] = No TLWSR relation has been defined for this TLWS. This will cause many test to fail because the equipment locations (such as, AC/DC jacks, T&M phone) are not defined for this TLWS.

NO TONE W/REQUESTED MEASUREMENT [84] = The TLWS will not allow an attempt to send a tone simultaneously with a measurement when the measurement requested is one of: MEASURE, ERL, SRL, or SRLHI.

NON-PRIMARY DN [85] = Cannot access a specific port from the TLWS using a non-primary DN since this DN does not have a port. The primary DN should be used to test the port associated with the ISDN BRCS DSL.

NOT ALLOWED [86] = Command is not allowed in current test position state. Or message does not apply to current position data.

87 Reserved for future use

NOT ALLOWED ON CAMA KEY/TALK TRUNK [88] = The test is not allowed on CAMA keying and talking trunk.

NOT AVAILABLE [89] = Capability is not available in this generic.

NOT A COIN PORT [90] = Not allowed because office data indicates that port is not a coin line or because requested operation is not defined for this type (lp_type in RLFC_PORTTYP) of port.

NOT A DSL PORT [91] = Attempt digital test on a non DSL or digital trunk; test fails.

NOT A DTA TRUNK [92] = Cannot request dial-through announcement tests on port unless it is a dial-through announcement port.

93 Reserved for future use

NOT AN INCOMING OPERATOR TRUNK [94] = Ringback test only valid for incoming operator trunks.

NOT A LINE [95] = Not allowed because PORT is not a line.

NOT OWNER [96] = The test position entering the message is not the owner of this test position. Command will no bt accepted.

NOT A ANNC TRUNK [97] = An request was made to perform a test which is only valid on recorded announcement facility or service announcement system trunks.

NOT A TRUNK [98] = Port under test was not a trunk.

NOT A U-DSL [99] = The test requested is only valid on a U-DSL.

PACKET PIPE NOT SEIZABLE [100] = A packet pipe (PP) can not be seized from the TLWS.

IN SERVICE PACKET PIPE MEMBER NOT TESTABLE [101] = An in service packet pipe member (PPM) can not be seized from the TLWS.

NOT VALID ON U-DSL [102] = Attempt test that is invalid for U-DSL.

NOT ALLOWED ON PACKET PIPE MEMBER [103] = Attempted a test that is not allowed on a PPM.

NOT ALLOWED ON SPEECH HANDLER TRUNK [104] = Attempted a test that is not allowed on a speech handler trunk (SHT).

QUEUEING FOR TTF|GDSF HARDWARE [105] = Are starting to queue for TTF or GDSF resources.

SPEECH HANDLER TRUNK LOOPBACK/UN-LOOPBACK FAILURE [106] = Received a failure acknowledgement for a request to loopback or un-loopback an SHT.

TTF|GDSF HARDWARE ALLOCATED [107] = Stopped queuing for TTF or GDSF resources - TTF or GDSF resource has been allocated.

ONLY CPE TESTS ARE VALID [108] = Only CPE tests are valid when the CPE tests menu is invoked.

ONLY VALID ON U-DSL [109] = Attempt test that is only valid for U-DSL.

OUTPULSING ALLOWED ON TRUNKS ONLY [110] = No good; not allowed because can only do outpulsing on trunks not on lines.

OUT OF RANGE [111] = Input value (freq or level) is out of range.

OUTPULSING NOT VALID ON INCOMING TRUNKS [112] = Cannot outpulse over an incoming trunk. Outpulsing can be run on outgoing and two way trunks only.

OVERWRITING NT/CU TEST MODE [113] = The NT or channel unit indicates that it is in test mode. Any testing done in NT/CU test mode is unreliable, the results may be invalid. Testing is allowed in case the test mode indicators being returned by the NT or channel units are incorrect. Refer to the TST:DSL

output message for a description of the test mode.

`PACKET SWITCHING TRK [114]` = Attempt an invalid test on a packet switching trunk.

`PROCESSING PREVIOUS REQUEST [115]` = The TLWS will not allow subsequent messages while another TLWS message is in progress. The exception is the 'test position release' message.

`QUEUING [116]` = Cannot request a test while queuing.

`ANNC TRUNK [117]` = Cannot request any supervision testing besides playing an announcement OR the phrases on a DSU2-RAF or SAS announcement PORT.

118 Reserved for future use

`RESULTS INVALID DUE TO MTP TG OR RG VOLTAGE [119]` = The results of a metallic test performed on a FTTH line have been displayed on the screen. The resistance values displayed for "R1", "R2" and "R3" are three terminal resistance values instead of the two terminal resistance values that are normally displayed for metallic tests.

The results of this test are invalid because the Metallic Test Pair tip-to-ground and/or ring-to-ground voltages are not in the range from -4VDC to 4VDC.

`BLOCKED AT ISLU BY SPARED LINE CARD [120]` = Metallic access to an ISLU line failed because there is an active sparing configuration in the ISLU. This response will allow the TLWS user to decide whether to abandon the test, or temporarily un-spare the line which is blocking the test.

`BLOCKED IN METALLIC NETWORK [121]` = Required MSU resources (such as, junctors or MTB) are not currently available. Retry later.

`BLOCKED [122]` = Unable to find a path through the switch. Retry later.

`COULD NOT REMOVE/RESTORE CPE [123]` = The removal/restore of the CPE failed for an unknown reason.

124 Reserved for future use

`COULD NOT ACTIVATE TEST EQUIPMENT AT TTF|GDSF [125]` = Could not successfully activate the logical test port. Retry request. If failure repeats, a diagnostic should be run on the test port. To obtain its trunk group, member name first find its internal port name in the rt_fixedri relation. The ritype = TMINTTF. Then use the route index to find the port group in the rt_routing relation. Then use as the key value into the PORT_GROUP relation. These relations can be accessed at the recent change/verify terminal using the "odbe" tool.

`CPE BUSY [126]` = The CPE was busy, so the test could not complete.

`DATA BASE READ FAILURE ON DSLEQUIP [127]` = A database read failure occurred on port under test. The DSLEQUIP relation is missing tuple for this DSL, or AM to SM communication is down.

`DATA BASE READ FAILURE ON RLFC_TRUNK [128]` = Failed when trying to read the database relation RLfc_trunk to obtain the port type.

129 Reserved for future use

`DENIED, MTB TO LINE IS BUSY [130]` = MTB is currently being used by a universal or integrated *SLC*® 96 remote terminal.

`DENIED, PORT IS BUSY [131]` = Could not access trunk/line because it is busy.

FAILED AT JACK [132] = A network or port control operation involving the JACK failed. Check for further failure data printed at the ROP.

FAILED CAMP ON PROCESS [133] = The PUT received a MGCO_FAIL message while camped onto the PUT in control of the port under test.

FAILED COMMUNICATION WITH FAR END OSPS [134] = A failure occurred in communication with the far-end OSPS.

FAILED COMPLETION OF OUTPULSING [135] = Failed to complete outpulsing.

FAILED IN METALLIC NETWORK [136] = A failure occurred in MSU. Check ROP for possible further information.

FAILED PORT MAINTENANCE STATE CHANGE [137] = Failed to change the port status request at the port under test.

FAILED ROUTING TO TRUNK/LINE [138] = Received reorder from the PUT during the routing stage.

FAILED, TALK/MNTR CAN ONLY BE A LINE [139] = Failed because the T&M phone is defined as a trunk in the database. There is a problem with the database definition for the T&M phone.

FAILED TO GET PSML DATA [140] = A failure occurred when checking to see if the packet switching maintenance limit has been reached.

FAILED TO OBTAIN BUSY PORT [141] = Timeout while camped onto the busy port, the timeout occurs after camping onto the port for a maximum of five minutes.

FAILED TO OBTAIN HARDWARE DURING SETUP [142] = Failed to obtain both the tone generator and the responder during setup when both initially request at routing time, because the equipment was already in use. Retry request. If failure occurs again, check the hardware circuits.

FAILED TO REROUTE EXISTING PACKET TRAFFIC [143] = Failed to reroute the existing packet switching traffic onto another trunk.

FAILED TO ROUTE TO TALK/MNTR PHONE [144] = Failed in routing to the T&M phone due to reorder received from the callback process or the screening for the T&M process failed--RT_DENIED received from RTA with routing to callback.

145 Reserved for future use

FAILED, COULD NOT ACTIVATE TRUNK/LINE [146] = Could not successfully activate the trunk/line. Retry request. If failure repeats, a diagnostic should be run on the trunk/line.

FAILED, COULD NOT ACTIVATE JACK [147] = Could not successfully activate the AC or DC jack. Retry request. If failure repeats, a diagnostic should be run on the JACK. To obtain its trunk group, member name first find its internal port name in the TLWSR relation. Then use it as the key value into the PORT_GROUP relation. These relations can be accessed at the recent change/verify terminal using the "odbe" tool.

FAILURE AT TEST EQUIPMENT [148] = A failure occurred at the test equipment. Check ROP for additional information. Test equipment includes: AC jack, DC jack, TTF, GDSF, DCTU.

HARDWARE FAILURE IN THE TAC [149] = Failed to open the path to the TAC circuit or failed to write to the registers in the TAC to provide the OPEN.

`HARDWARE FAILURE IN THE TRUNK CIRCUIT [150]` = Failed due to obtaining hardware in the trunk circuit or else may have failed to release the hardware in the trunk circuit. This fault occurs from failure to operate the relays in the trunk circuit.

`HARDWARE FAILURE - MAKE NEW REQUEST [151]` = The TTF, integrated services test function (ISTF) or GDSF hardware has failed in some manner. This is a fatal error. User must reenter request starting with a new access mode and request for transmission test.

`INTERRUPT - ACCESS DROPPED [152]` = Access dropped and trunk/line released due to interrupt. Request access again if desired.

`ISLU LINE CARD OOS [153]` = A DSL cannot be seized if its linecard is out-of-service.

154 Reserved for future use

`LOST COMMUNICATION WITH TRUNK/LINE [155]` = Failed due to communication linkage between the message interpreter and the process which controls the trunk/line. Linkage is checked every 5 minutes.

`METALLIC NETWORK IS BUSY OR OOS [156]` = Failed because the metallic network is busy or else it is out of service. This fails when trying to request the hardware necessary for an open termination.

`MONITOR SESSION TIMED OUT [157]` = The one-hour timer for the T&M session has timed out.

`NT TEST MODE CHANGE INTERRUPT [158]` = An *ANSI*® NT had a state change which resulted in the PUT receiving an MGINTERRUPT message.

`OUTPULSING FAILURE [159]` = Failed to complete outpulsing due to not sending the digits.

`PKT. SWITCHING MAIN. LIMIT EXCEEDED [160]` = Packet switching maintenance limit will be exceeded if testing is allowed on this trunk. Only six packet switching trunks may be tested at a time.

`RESOURCES BUSY [161]` = The TTF or GDSF hardware resources are busy. This failure is due to a timeout in the queue. Retry the request.

`ROUTE FAILURE [162]` = Unable to successfully complete requested connection. Check for further failure data printed at the ROP.

`RSM USED DOES NOT SUPPORT 64KBPS [163]` = Failed because there is no 64 kbps clear channel path between the ISTF or GDSF and the port under test (PUT). Either the ISTF, GDSF or the trunk is in an remote switching module (RSM) which does not support 64 kbps clear channel connection.

`SM UNAVAILABLE [164]` = Failed because the SM that the port is in that is trying to be connected to is not available for use.

`FAILED TO GET STATUS OF PORT [165]` = Failure received when trying to get the port status for a PPM.

`SUPERVISION TEST FAILURE [166]` = Received a failure acknowledgement for a supervision request (ring, ROH, onhook, offhook, ringback).

`SYSTEM BUSY, DATABASE READ FAILURE [167]` = The system had DB read failure do to time constraints retry later when load diminishes.

`SYSTEM ERROR [168]` = Unable to maintain access to trunk/line or unable to complete request due to system error. Retry later.

`SYSTEM FAILURE AT TEST EQUIPMENT [169]` = A network or port control operation involving the port associated with the TTF or GDSF has failed. Check for further data of the failure by reading output from the ROP Reenter the access mode.

`SYSTEM FAILURE AT TRUNK/LINE [170]` = A network or port control operation involving the trunk/line failed. Check for further failure data printed at the ROP.

`TEST EQUIPMENT UNAVAILABLE [171]` = Connection could not be established because the required test equipment is unavailable (busy or out of service). Retry later. The equipment includes port under test without hardware, AC jack, DC jack, TTF, GDSF, and DCTU.

`TEST SETUP IN PROGRESS [172]` = The test was not even set up when the request to stop the test was entered.

`TIMEOUT FOR AC JACK RESPONSE [173]` = Failed to receive an acknowledgement for an AC jack test (supervision type requests and callback changes).

`TIMEOUT FOR DC JACK RESPONSE [174]` = Failed to receive an acknowledgement for a DC jack test, (setting up the connection).

`TIMEOUT FOR METALLIC RESPONSE [175]` = Failed to receive a test acknowledgement for a metallic connection request with the DCTU (metallic measure, voltage capacitance, coin, and so forth).

`TIMEOUT FOR SUPERVISION RESPONSE [176]` = Failed to receive an acknowledgement for a supervision request (ring, ROH, onhook, offhook).

`TIMEOUT FOR TERMINATIONS RESPONSE [177]` = Failed to receive a terminations acknowledgement in the allotted amount of time (open and quiet termination).

`TIMEOUT FOR TEST REQUEST TO TRUNK/LINE [178]` = The line/trunk in the connection at the PUT was dropped because no request was not made within the allotted amount of time, 5 minutes.

`TIMEOUT FOR TRANSMISSION RESPONSE [179]` = Failed to receive a send or measure acknowledgement for a manual transmission testing connection with the TTF or GDSF.

`TIMEOUT FOR WINK RESPONSES [180]` = Failed to receive the wink results within the allotted amount of time, 15 seconds.

`UNKNOWN TRUNK/LINE TYPE [181]` = Failed due to communication linkage between the message interpreter and the process which determines know trunk/line type.

`WINK SIGNAL FAILURE ON TRUNK [182]` = Failed to receive a wink signal on the trunk so that outpulsing could send the digits.

`RMV/RST NOT SUPPORTED FOR THIS CPE [183]` = CPE remove/restore is not supported on this CPE.

`PREVIOUS POKE REQUEST IN PROGRESS [184]` = Cannot release this test position because of one of the following: (1) the test position is in transition of setting up a test request, (2) a continuous-update metallic test is running on this test position, or (3) the test position is in transition of stopping a metallic test. If the test is still running, stop the test then repeat the request later. The UCL option of RLS:WSPOS can override this restriction.

`SYSTEM ERROR [185]` = Unable to process request due to system error. Repeat request later.

`SYSTEM ERROR -- RLS TEST POS [186]` = A system error has occurred which requires that the test position be dropped.

SYSTEM OVERLOAD [187] = The TLWS will not allow a test position to be acquired or a port to be seized while the system is in an overload condition. Limits based on global parameters GLTPMAJOR and GLTPMINOR.

T&M IN USE AT ANOTHER TP [188] = Cannot add T&M phone because it is already it this test position's testing configuration. Remote T&M phones are not subject to this check. It is assumed that a remote T&M will have multiple call appearances at the test position CPE phone set, or else the remote T&M (RT&M) phone number has been overridden.

T&M NOT ALLOWED AFTER OPD ON OUTGOING BLV [189] = Adding T&M phone after outpulsing digits invalid for outgoing BLV trunks.

T&M NOT AVAILABLE [190] = Cannot add T&M phone because it is in use in other test configuration.

T-DSL PORT [191] = Attempt test that is invalid for T-DSL.

TALK CONNECTION [192] = Line/Trunk was idle when MNTR BUSY was requested, so a talk connection was established.

TALK/MNTR BLOCKED - WIDEBAND [193] = T&M blocked for wideband calls.

TALK/MNTR LINE BUSY - NOT AVAILABLE FOR USE [194] = T&M line is busy at another test position, therefore it is not in the connection.

TALK/MNTR ROUTED TO ANNOUNCEMENT - CHECK DATA [195] = The remote T&M phone ended up routing to a recorded announcement. A office data problem exists.

TEI INVALID, UPDATING SCREEN [196] = The CPE test has returned with an error indicating the TEI supplied was invalid. A screen update has been initiated to correct the incorrect information on the TLWS display.

TEST CALL SETUP FAILURE [197] = PRI test call set up (from Q.931 messages) has failed.

TEST IN PROGRESS [198] = Cannot request a test while another test is in progress.

TEST NOT ALLOWED ON HAIRPIN [199] = The test is not allowed on an IDCU hairpin connection.

TEST NOT ALLOWED ON PUB43801 [200] = The test is not allowed on an IDCU PUB43801 connection.

TEST NOT VALID FOR PORT UNDER TEST [201] = A test was requested that is not valid for the type of port that is currently seized at this test position.

TP IDLE [202] = The test position has not been selected yet. Must go to page 160 to select it.

TP RELEASED DUE TO INACTIVITY [203] = After the TMau_tlws() function is called to audit the test position table, any TPs that have been inactive for 1 hour or more will be torn down.

UNKNOWN TP [204] = Test position is not marked IN USE at TLWS of requester. Repeat message after reentering test position from page 160.

CCS TRUNK RESET IN PROGRESS [205] = TLWS can not seize a CCS7 trunk that is undergoing a reset procedure.

206 Reserved for future use

207 Reserved for future use

`UNDEFINED LINE/TRUNK [208]` = Line/trunk data could not be translated into a valid gport.

`TIMEOUT FOR 1-HOUR TEST DURATION LIMIT [209]` = All TLWS continuous tests are limited to one-hour duration.

`WINK TEST NOT VALID ON INCOMING TRUNKS [210]` = Cannot run a wink or a quick wink test on an incoming trunk. These tests can be run on outgoing and two way trunks only.

`NO AVAILABLE TP [211]` = All available test positions are currently in use. Was unable to select a test position.

`NOT BUSY; TALKING CONNECTION IN PROGRESS [212]` = An attempt was made to monitor a busy port but the port is idle. The request will continue as if it were to add T&M in the TALK mode.

`TOO MANY DIGITS [213]` = When providing digit strings for outpulsing and RT&M directory number, the maximum number of digits allowed is 15.

`DC JACK TESTING IN PROGRESS [214]` = Cannot perform supervision tests while there is a DC jack test in progress. Also, cannot add T&M while a DC jack test is in progress.

`CPE ALREADY IN SERVICE [215]` = An attempt to restore the CPE was requested when the CPE was already in service.

`CPE ALREADY OUT OF SERVICE [216]` = An attempt to remove the CPE was requested when the CPE was already out of service.

`TIMEOUT FOR CPE TEST RESPONSE [217]` = Failed to receive a test response from the CPE.

`INVALID TESTEQ DISPLAY REQUEST [218]` = An attempt to display the test equipment ID of a specific channel was rejected. This kind of request is only valid if:

- The port seized is a DSL.
- There is a digital loopback test in progress on this port.
- The scope of the digital loopback test is the whole DSL, that is, all three channels.
- No other option (such as BLKSZ, CHAN...) is specified.

`WRONG TP NUMBER [219]` = The test position number specified in message is not owned by this TLWS.

`USER DEFAULTS NOT SET, USING SYSTEM DEFAULTS [220]` = The user request to run digital loopback test with user pre-set defaults, however, these defaults were not set, so TLWS is going to use system defaults.

`OPTIONS ARE SET, USERDEF FLAG IGNORED [221]` = If any one of the digital loopback test option (CHAN, TERM, BLKSZ) is set. The USERDEF flag will be ignored.

`FAILED PORT CONDITIONING FOR METALLIC TEST [222]` = Failed to condition the port to a metallic test configuration.

`FAILED PORT CONDITIONING FOR DIGITAL TEST [223]` = Failed to condition the port to a digital test configuration.

`INVALID MSU OPEN REQUEST RECEIVED [224]` = While configuring the metallic resources needed for a metallic test and invalid MSU open diode request was received.

`NO VALID TLWSR ID FOUND [225]` = No ID was provided when acquiring a test position. A TLWSR tuple was searched for which has the same device ID as the input device you are using but there was no match.

`INVALID B CHANNEL [226]` = The B-channel specified for this operation is an invalid B-channel for this DSL.

`RESOURCE FAILURE - COULD NOT CREATE TP [227]` = Failed when attempting to create the TLWS AM process for this test position. Try again later when resources free up.

`REQUESTED TP GREATER THAN GLTPMAX [228]` = The requested test position is greater than the maximum test position number as specified by the global parameter GLTPMAX.

`DIRECT INPUT NOT ALLOWED, USE TST:DSL [229]` = Interactive testing is not available using the input message TST:WSCPE. Use the input message TST:DSL to perform the desired testing.

`CANNOT OVERRIDE LOCAL OR NULL T&M PHONE [230]` = The TLWSR relation identified with the test position (using `ID=` with the SET:WSPOS input message) has a T&M resource which is NULL or defines a LOCAL T&M port. Overriding the T&M phone number is allowed only on REMOTE T&M ports.

`COULD NOT COMMUNICATE WITH THE DCTU [231]` = While testing with a metallic connection to a port under test, a failure occurred while attempting to communicate with the DCTU.

`DCTU FAILED TO RESPOND [232]` = While testing with a metallic connection to a port under test, the DCTU failed to respond.

`DCTU ACCESS EQUIPMENT FAILURE, SEE PFR [233]` = While attempting to route to a DC jack connection, a failure at the equipment occurred.

`MSU BUSY [234]` = While attempting to setup a metallic connection to the port under test, the MSU needed for the metallic path was busy.

`FAILED ROUTE FOR SEIZURE OF PUT [235]` = Failed while attempting to route for seizure of the requested port under test.

`FAILED TO GET STATUS OF OSPS PRI B-CHANNEL [236]` = While attempting to add OOS MTCE DSBLD TEST port status to an OSPS PRI B-channel a failure occurred on the port status read.

`FAILED TO FORWARD AUTOMATIC REQUEST [237]` = While executing a request for an automatic test the TLWS was unable to communicate with the responsible system to request the testing.

`FAILED TO SEND MESSAGE FOR TEST REQUEST [238]` = When executing a request, an internal system resource failure prevented a message from being sent.

`DATA BASE READ FAILURE ON RLTLWSR [239]` = A database read failure occurred while attempting to read the database relation RLTLWSR.

`FAILED ROUTE FOR SEIZURE OF TEC [240]` = Failed while attempting to route for seizure of the test equipment requested for testing.

`TIMEOUT FOR TEST CONNECTION SETUP [241]` = While setting up a test configuration, no setup complete indication was received from the test logic within the required setup interval.

`DATA BASE READ FAILURE ON RLFC_PORTTYP [242]` = A database read failure occurred while attempting to

read the database relation RLFC_PORTTYP.

`INVALID - TP ALREADY SEIZED VIA POKE [243]` = An input message reseizure message is entered while the test position was already seized through POKE message.

`INVALID - TP ALREADY SEIZED VIA MML [244]` = A POKE reseizure message is entered while the test position was already seized through an input message.

`NO T&M PHONE IN CONNECTION [245]` = Not allowed because the T&M phone is not in the connection.

`ADD PGTC ONLY VALID ON USLC LINES [246]` = Can only add pair gain test controller into metallic connections which could be universal *SLC*® lines.

`ADD PGTC ONLY ALLOWED AFTER METALLIC ESTABLISHED [247]` = A metallic connection to the port under test must already be established before attempting to add in a pair gain test controller.

`ACCEPT IC FAILED - NO T&M DEFINED [248]` = An attempt to connect to an incoming 101 test call failed. The test position has no talk and monitor phone associated with it which could terminate 101 test calls.

`FAILED DIGIT ZERO SECURITY [249]` = While adding the T&M phone, failed digit zero security.

`BAD ANNOUNCEMENT HEADER ID [250]` = An attempt to play an announcement on a RAF or SAS port failed because the header identifier provided was incorrect.

`BAD ANNOUNCEMENT TRAILER ID [251]` = An attempt to play an announcement on a RAF or SAS port failed because the trailer identifier provided was incorrect.

`BAD ANNOUNCEMENT INFLECTION ID [252]` = An attempt to play an announcement on a RAF or SAS port failed because the inflection identifier provided was incorrect.

`ANNOUNCEMENT DATABASE PROBLEM [253]` = An attempt to play an announcement on a RAF or SAS port failed because of an announcement database problem.

`FAILED TO COMPLETE ANNOUNCEMENT/PHRASE [254]` = An attempt to play an announcement on a RAF or SAS port failed because the playing of the announcement or phrase failed to complete.

`FAILED TO ACTIVATE DIGIT RECEIVER [255]` = An attempt to play an announcement on a RAF or SAS DTA port failed because the digit receiver could not be activated.

`POSSIBLE ROUTINE OR HARDWARE PROBLEM WITH MSU [256]` = Failure at MSU - probably one of the following problems:

- Could not route to MSU because the port chosen in the CP(Central Process) was busy in the IM
- Could not activate the MSU logical test port
- Failure allocating some MSU resource
- Routing from TEC to the MSU process is denied

`LINE IS BUSY DURING SLIM TEST [257]` = Port under test becomes busy during a SLIM TEST.

`CONGESTION OR ROUTINE FAIL [258]` = Line termination failure; routing is denied.

`PROBLEM WITH PORT [259]` = Cannot activate Port Under Test:

- Routing from the PUT to the callback process is denied
- Routing from MSU to the PUT process is denied

`FPPMU FAILED TO CHANGE STATE [260]` = The FPPMU circuit has failed to respond a message operation to switch in/out of the by-pass state.

`INTERNAL SLIM SYSTEM FAILURE [261]` = Internal SLIM System Failure

`METALLIC/AUDIO PATH ERROR [262]` = Failure at metallic/audio path

`ERROR ADDING/DROPPING T&M PHONE [263]` = Failed adding or dropping the T&M phone

`ERROR IN COMPENSATION DATABASE READ [264]` = Failed to obtain the compensation value from base relation

`LINE UNIT TYPE IS NOT TESTABLE BY SLIM [265]` = The line seized is not testable by SLIM:

- Only allows to test analog line, U, & Z card, or 2-wire analog trunk if it is on-hook test.
- Only allows to test analog line, and Z-card if it is off-hook test.

`COULD NOT COMPLETE TASK - REPEAT COMMAND [266]` = System failure due to resource failure, try to repeat the message after a short delay if desired.

`ERROR SENDING METER PULSES - REPEAT COMMAND [267]` = Failed to send meter pulses to Line Under Test

`RL - NO SLIMS AVAILABLE [268]` = Failed to obtain a free SLIM device indicated by the relation RLSL_LOC

`TIMED OUT WAITING FOR A SLIM [269]` = Failure ack from mgSLLOCUPDT:

- Timeout waiting for ack to mgSLLOCUPDT

`PERFORM BELL TEST FIRST [270]` = No Bell test has been done

`NO SERVICEABLE SLIM UNIT AVAILABLE [271]` = All free SLIM devices are out of service

`T&M PHONE MUST BE ADDED FOR OFF-HOOK TESTS [272]` = No Talk & Monitor phone added

`DANGEROUS LINE CONDITION - LINE RELEASED [273]` = Dangerous line condition found during the insulation test

`DATA BASE ERROR [274]` = Unable to get the data from relation RLMODATT, RLPORTLA RLRC_EQLOC, RLTLWSR, or RLSL_LO

`ERROR TRYING TO CONNECT LINE [275]` = Failure to connect line

`COMMUNICATION LOST - SLIM PATH RELEASED [276]` = One of the following can generate this error message:

- Time out waiting for ack to struct mgPTHMODE
- Time out waiting for ack to set up compensation message
- Time out waiting for ack to set threshold and test
- Timed out waiting for ack to send TMslim2driver process id to AM controlling process

`ROUTE FAIL DUE TO POWER CROSS [277]` = The metallic path was not established to the Integrated SLC-96 line for LIT because a Power Cross was encountered on the line.

`NO SLIM TEC PROCESS ACTIVE [278]` = The SLIM TEC process is not activate, this is a system error.

`NOT ANALOG LINES [279]` = The SLIM off-hook test is only executable on analog lines.

`FAILURE IN SLIM OFF HOOK TEST [280]` = Failure in SLIM Off Hook Test result other than out of range.

`WARNING: TEST RESULT OUT OF RANGE [281]` = The SLIM Off Hook Test result is out of the allowed range. This is a warning only.

`SLIM ONHOOK TEST FAILURE [282]` = Received a failure acknowledgement for a SLIM onhook test.

`NO SLIM ROUTE INDEX [283]` = Not allowed because the data base does not contain information in the RLMODATT relation that is needed to connect the PORT to the SLIM device.

`WARNING: CIRCUIT WILL BE LEFT OOS AFTER DGN [284]` = Since the TST:WSAUTO,TP=Z,DGN is considered a manual circuit diagnosis, after the request completed the circuit will be left in the Out Of Service state. To put the circuit back to service, another manual restore request will be needed.

`NOT ALLOWED ON RAF [285]` = Playing a range of phrases on the RAF is not supported. This is only supported on the SAS.

`WARNING: DUPLICATED SLIM RING REQUEST IGNORED [286]` = SLIM ring test (poke 5716) can only be done once per SLIM metallic connection, the subsequent request will be ignored.

`WARNING: OPTIONAL TLWSR ID IGNORED [287]` = Warning, you are already using this TLWS with another Database ID that owns a port. Your request to change your ID is being ignored. You must release the port before you can change the ID.

`CCS SDL PORTS NOT TESTABLE [288]` = CCS Signalling Data Link (SDL) ports are not testable from TLWS.

`NT1 MISMATCH TEST NOT SUPPORTED FOR THE LINE BEING USED [289]` = An attempt to perform the NT1 Mismatch Test is denied because it is not supported for the line being used:

- AIU ANSI U-DSL
- IDCU ANSI U-DSL
- DNU-S TR303 ANSI U-DSL

`REENTER DN WITH NPA [290]` = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.

`APPLICATION NOT OSPSTA FOR ALTERNATE ANNOUNCEMENT SET [291]` = A request for an alternate

announcement set is invalid unless the Application entered is OSPSTA. The request is denied.

APP:TRFC-SECTION

Software Release: 5E10 and later
Message Class: N/A
Application: 5
Type: Output

1. TRAFFIC SECTIONS APPENDIX

This appendix identifies the sections of the 30-minute traffic report by section number and ID.

Section Number	Section Name	Contents
ACDBRCS	182	Automatic call distributor (ACD)/business and residential customer services (BRCS) measures.
ACSR	108	Automatic customer station rearrangement (ACSR) measures.
AIU	216	Access interface unit (AIU) counts [5E11+]
ADPIDB	229	AIU Directly-Connected Peripheral Data Bus (ADPIDB) counts [5E12+]
AIULC	218	AIU counts input from a specific SM and AIU number [5E11+].
AIULN	217	AIU line counts input from switching module (SM), AIU, application processor (AP), and line circuit (LC) [5E11+]
ANNC	46	Announcement services measures.
APDL	59	Application processor data link (APDL) measures.
APSODB	228	AIU Packet-Switching On-Demand B-Channel (APSODB) counts [5E12+]
ARS	35	Automatic route selection (ARS) measures.
ASP	117	Advanced service platform part a basic access office counts. [5E11 only]
ASP	118	Advanced service platform part b basic access office counts. [5E11 only]
ASP	231	Advanced service platform non toll free. [5E12+]
ASPLG	117	Advanced service platform large. [5E12+]
ASPTF	232	Advanced service platform toll free. [5E12+]
ATTG	33	Attendant group (ATTG) measures.
BCHNEG	80	B-Channel Negotiation. [5E14+]
BCLID	147	Bulk calling line identification (BCLID) measures.
BRCF	29	Business residential customer service feature (BRCF) measures.
BRCS	26	Business residential customer services (BRCS) office totals.
CDN	128	Customer directory number (CDN) counts reported on an analog directory number (DN) basis. Where applicable, output messages containing DNs also list the terminating SM number to the right of the DN.
CMP	126	Communication module processor (CMP).
CORC	27	Customer-originated recent change (CORC) traffic measures.
CT	5	Call type (CT) information.
CTS	125	Control time slot (CTS) link occupancy measurements.
DASC	45	Operator Services Position System (OSPS) Directory Assistance System/computer (DASC) measurements.
DCLU	21	Digital carrier line unit (DCLU).
DLINE	222	Digital networking unit - synchronous optical network (SONET) (DNU-S) - LINE counts input from a switching module (SM), DNUS, remote digital terminal (RDT), and RDT line. [5E12+]
DLN	66	Direct link node (DLN) office totals.
DLTU	16	Digital line/trunk unit (DLTU).
DNUS	189	Digital Networking unit-SONET (DNU-S).
DODB	223	Digital network unit - synchronous optical network (SONET) (DNU-S) - ODB counts reported on a switching module (SM), DNU-S, packet switching unit (PSU), and PSU shelf basis. [5E12+]
DPIDB	106	Integrated services digital network (ISDN) packet switching directly connected peripheral interface data bus (DPIDB) counts.
DSNMLHG	65	Defense-switched network/automatic voice network (DSN/AUTOVON) multi-line hunt group.
DSIG	36	Direct signaling (DSIG).
DSL	77	Integrated services digital network (ISDN) digital subscriber line (DSL) [5E10(1)+].
DSLG	52	ISDN digital subscriber line group (DSLG) [5E10-5E11]. Channel group measurements [5E12+].
DSNOFC	47	DSN/AUTOVON office (DSNOFC) totals.
DSNTG	48	DSN/AUTOVON trunk group (DSNTG) data.
E911	148	Enhanced 911 (E911) measurements.
ECDN	235	Expanded Customer Directory Number [5E12(1)+].
ECPSRVT	247	Executive cellular processor service type (ECPSRVT) measurements [5e13+].
EDSC	73	ISDN BRCS electronic directory customer (EDSC) counts.
EPCS	236	Expanded personal communications services Number [5E12(1)+].
FRBC	248	Frame relay bearer channel (FRBC) counts [5E13+].

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FRPH	193	Frame relay protocol handler (FRPH) counts [5E10-5e12].
GETSHPC	17	High Probability Call Completion total office measurements
HLSC	8	High-level service circuits (HLSC).
IBROFC	72	ISDN BRCS and analog office totals.
IA	6	Ineffective attempts (IA).
IC	164	InterLATA/international carrier (IC) measurements.
ICL	37	Intra-remote switching module (RSM) communication link (ICL) measures.
IDP	31	Individual dialing plan (IDP) measures.
IDPIDB	140	Integrated digital carrier unit (IDCU) directly connected peripheral interface data bus (DPIDB) counts.
ILINE	141	IDCU lines counts.
IODB	142	IDCU on-demand B-channel (ODB) counts.
IPIDB	139	IDCU peripheral interface data bus (PIDB) counts.
IRT	143	IDCU per remote digital terminal (RT) counts.
ISLU	49	Integrated services line unit (ISLU).
ISM	53	ISDN switching module.
ISOFC	50	ISDN office (ISOFC) totals.
ISPI	51	ISDN packet interface (PI) (ISPI) [5E10-5E11]. Packet interface (PI) measurements [5E12+].
IPT	198	Intelligent Peripheral Trunks [5E10+].
LASS	76	Local area signaling services (LASS) office totals.
LGC	145	Line group controller (LGC) measurements.
LINE	90	Per LINE measurements on a concentrator basis. Only lines with non-zero counts will be printed on the ROP.
LN	121	Leased network action point.
LU	11	Line unit (LU) measures.
MBG	192	Multiswitch business group (MBG) measurements.
MGSC	74	ISDN BRCS message service customer (MGSC) counts.
MGSG	75	ISDN BRCS message service multi-line hunt group (MGSG) counts.
MH	185	Message Handler measurements per each SM2000 SM.
MHPIPE	177	MH-QLPS pipe occupancy.
MLHG	34	Multi-line hunt group (MLHG) measures.
MMP	18	Module message processor (MMP).
MMSUJMTB	78	Junctors and MTBS activities of MMSU [5E12(1)+].
MMSUGMTIB	79	GDX-ES and MTIBS activities of MMSU [5E12(1)+].
MOD1	122	Miscellaneous traffic measurements.
MSGS	19	Message switch (MSGS) controller.
NODE	146	Leased Network node-to-node traffic measurements for selective service trunk reservation (SSTR). In an FTS2000 office this section always be allowed for CLCT (that is, cannot be inhibited). This section will be sent to the Network Servicing System (ANSER) using the EADAS link. However, in a non-FTS2000 office this section will always be inhibited for CLCT (that is, cannot be allowed). This section is inhibited for ROP (that is, cannot be allowed) in every office.
NP	241	Number portability (NP) [5E12(1)+].
NS	91	Number services (NS) measures.
O800A	196	OSPS 800 Access (O800A) measures.
OATQ	91	OSPS *ANSI*® transaction capabilities application part (TCAP) query and reply measurements.
OCAS	110	OSPS customer account services (OCAS) measures.
OCAS7	135	OSPS customer account services common channel signaling System 7/international credit card validation signaling measures.
OCOIN	100	OSPS toll and assistance coin (OCOIN) measures.
OCTD	103	OSPS centralized automated message accounting (CAMA) tone decoder (OCTD) measures.
ODACCIN	134	OSPS directory assistance (DA) call completion and intercept measures.
ODBPSU	221	Digital network unit - synchronous optical network (SONET) (DNU-S) - PSU SHELF counts input from a switching module (SM), packet switching unit (PSU), and PSU shelf basis. [5E12+]
OEIS x	124	OSPS External Information System (OEIS) data links measures. One measurement per EIS link with a maximum of 320 links.
OFA	61	OSPS facility administration (OFA) measures.
OFC	3	Office (OFC) totals.
OFF	127	OSPS "fast features".
OINTA	97	OSPS interflow listing services/commercial-automatic call distributor (C-ACD) measures (OINTA). This section was formerly titled: OSPS interflow non-toll and assistance (T&A) calls sent (OINTA) measures.

OIRCV	96	OSPS interflow T&A calls received (OIRCV) measures.
OISNT	95	OSPS interflow T&A calls sent (OISNT) measures.
OLAC	195	OSPS line applications for consumers (OLAC) Signaling Measures.
OMISC	123	OSPS miscellaneous calls measures.
ORTR	63	OSPS real-time rating (ORTR) query measures.
OSPS	44	Operator Services Position System (OSPS) measurements.
OTA	64	OSPS toll assistance (OTA) measures.
OTAP	102	OSPS toll assistance performance (OTAP) measures.
OVMS	168	OSPS voice messaging service (OVMS) measures.
OVOEQ	101	OSPS toll assistance call volume and equipment usage (OVOEQ) measures.
PBG	119	Packet business group (PBG) counts.
PC	234	Message transfer part point code (PC) measurement reported on point code basis. The counts reported on global switching module (GSM), network indicator number (NETWORK), cluster number (CLUSTER) and cluster member (MEMBER) basis. [5E12+]
PCSDN	199	ISDN personal communications services directory number (PCSDN) special study [5E10+].
PCSOFC	200	Personal communications services office (PCSOFC) total measurements.
PRIGRP	243	Primary Rate Interface Group (PRIGRP) counts reported on per primary rate interfaces group (PRIGRP) basis.[5E14+]
PROC	15	Processor performance (PROC).
PSGRP	71	ISDN packet switching groups (PSGRP) for modem pooling and multi-line hunt groups.
PSODB	105	ISDN packet switching on-demand B-channel (ODB) counts.
PSOFC	69	ISDN packet switching office (PSOFC) totals.
PSPH	68	ISDN packet switching PH/DSLG (PSPH) counts.
PSPORT	67	ISDN packet switching protocol handler (PH) port (PSPORT) counts.
PSSM	132	Packet-switching per switching module (PSSM).
PSTG	92	ISDN packet switching trunk group counts.
PSUCHAN	193	Packet switch unit channel measurements (PSUCHAN) [5e13+].
PSULNK	197	Protocol handler for asynchronous transfer mode (ATM) link counts [5E10+].
QANN	42	Announcements for queuing (QANN) multi-line hunt groups.
QGP	175	QGP processor performance.
QMLHG	40	Queuing for multi-line hunt group (QMLHG).
QPIPE	176	QLPS-QGP pipe occupancy.
QSF	57	Queuing for simulated facility groups (QSF).
QTG	55	Queuing for trunk groups (QTG).
RAS	93	Remote access services (RAS) measurements.
RDT	224	Digital network unit - synchronous optical network (SONET) (DNU-S) - RDT counts input from a switching module (SM), DNU-S, and remote digital terminal (RDT). [5E12+]
RDTDNU	225	Digital network unit - synchronous optical network (SONET) (DNU-S) - RDT DNU-S counts reported on a switching module (SM), DNU-S, and remote digital terminal (RDT) basis. All RDTs on 2 DNU-S's (total 198) may be studied at one time. [5E12+]
RSIT	39	Remote site (RSIT) stand-alone measures.
RT	20	Remote terminal - DCLU.
RVPT	25	Revertive pulsing transceivers (RVPT).
SAD	4	System access delay (SAD).
SCCP	233	Signalling connection control part (SCCP) measurement reported on SCCP basis. The counts reported on global switching module (GSM). [5E12+]
SDN	94	Action control point for software defined networks.
SFG	32	Simulated facility group (SFG) measures.
SG	144	Switch group (SG) measurements.
SH	194	Speech handler (SH) measurements [5E10-5e12].
SL	230	Message Transfer Part Signaling Link (LS) Measurement reported on signaling link basis. The counts reported on global switching module (GSM), link set number (LSNUM), and link set member (MEMBER) number basis. [5E12+]
SMS	22	Switching Module System (SMS).
SPA	98	Special access measurement counts.
SQA	58	Simulated facility group (SFG) queuing announcement (SQA).
TD	9	Tone decoders (TD).
TBCT	243	Two B-Channel Transfer (TBCT) network counts reported on per primary rate interfaces group (PRIGRP) basis.[5E13]
TG	12	Trunk group (TG) measures.
TQA	56	Trunk group queuing announcements (TQA).
TRMG	30	Terminal group (TRMG) measures for ROP/OP.
TU	14	Trunk unit (TU) measures.
TX	60	Tone transceivers (TX).
UCONF	10	Universal conference (UCONF) circuits.
UTS	23	Umbilical time slot (UTS).
VLD	1	Validity (VLD) measures.
VOCODER	246	Voice Coder (VOCODER) measures [5E13(1)+].

APP:UT-OM-REASON

Software Release: 5E10 and later
Message Class: N/A
Application: 5
Type: Output

1. EXPLANATION OF RESPONSES APPENDIX

The following is a list of 'responses' strings that are used in many of the switch generic utilities (UT) output messages. The 'response' is additional information on the completion status of the requested UT action. This information is helpful in understanding why an action could not complete as requested. Not all responses apply to all messages. The responses starting with STOPPED imply that the input message or entire message clause was not entered or executed, unless otherwise specified.

ACCEPTED - STATUS INH The WHEN clause has been accepted and marked as inhibited. Use the ALW:UT message to activate the clause.

COMPLETED The requested (UT) operation has completed successfully.

COMPLETED - NO WHENS The operation was performed, but no WHEN message clauses were found in memory.

COMPLETED - NO WHENS TO ALLOW The operation was performed, but no WHEN message clauses were found to allow in specified processor.

COMPLETED - NO WHENS TO CLEAR The operation was performed, but no WHEN message clauses were found to clear in specified processor.

COMPLETED - NO WHENS TO INHIBIT The operation was performed, but no WHEN message clauses were found to inhibit in specified processor.

COMPLETED - SOME UNITS IN RANGE ISOLATED The specified operation was performed on all the ACTIVE processors within the given range. The input message was not executed on the isolated units within the given range.

COMPLETED - SOME WHENS NOT MODIFIED The operation was performed, but not all WHEN message clauses were found to be modified (that is, allowed, cleared or inhibited).

IN PROGRESS More data will follow.

PARTIAL RESULT - MORE THAN 40 MATCHES Too many matches have been found to print a complete list. The 40 matches found have been printed, but this informs the user that more matches exist for the symbol name provided. If the desired information is not present, the user needs to provide more characters of the symbol name to enable UT to resolve the matches.

STARTED Requested operation has started. More data will follow.

STATUS - ALW

- The specified breakpoint is allowed and will execute if the address in the WHEN input message is executed.
- The specified TIMED WHEN breakpoint is allowed and will execute when timer expires.

STATUS - INH The specified breakpoint is inhibited and will not be executed.

STOPPED - ADDR AND LENGTH MUST BE EVEN FOR OOS MATE PI The length and address specified in the input message must be even for out-of-service (OOS) mate peripheral interface (PI).

STOPPED - ALL UNITS IN RANGE ISOLATED All units specified in the input message range are isolated.

STOPPED - ALL UNITS IN RANGE UNEQUIPPED All units specified in the input message range are unequipped.

STOPPED - BUFFER OVERFLOW The internal output message buffer overflowed. The output data is incomplete.

STOPPED - BYTES DO NOT MATCH

- The entire WHEN clause was removed because the specified value of the opcode (OPC) parameter in the input message does not match the value of the address specified.
- ALW could not be performed on the WHEN clause because the specified value of the opcode parameter does not match the value of the address specified by the WHEN clause.

STOPPED - CANNOT OPEN FILE NAME The specified information can not be determined because the required file could not be opened.

STOPPED - CANNOT SEEK TO SYMBOL TABLE The symbol table could not be found in the symbol file for the given processor.

STOPPED - CANNOT DISASSEMBLE MULTIPLE REGISTER DUMPS The disassembly option can not be specified with multiple register dump.

STOPPED - CLAUSES NOT ALLOWED FOR THIS PROCESSOR The WHEN clause is only supported on PSUPH(s) of the PH3 hardware type.

STOPPED - COMMAND MUST BE PART OF A CLAUSE The specified input message must be part of a clause.

STOPPED - COMMAND NOT ALLOWED FOR SPECIFIED PROCESSOR The input message is not supported for the specified processor.

STOPPED - COMMUNICATION FAILURE There was a communication failure in sending the input message clause to the target processor. The entire input message clause was removed. The input message clause will need to be re-entered after communication has been established.

STOPPED - COMMUNICATION FAULT BETWEEN SM & PERIPHERAL There was a communication failure in sending the input message clause to the target peripheral. The entire input message clause was removed. The input message clause will need to be re-entered after communication has been established.

STOPPED - CONDITIONAL COMMANDS DO NOT MATCH

- The number of IF:UT-ENDIF input messages can not exceed the number of corresponding IF:UT in a WHEN clause for a given processor.
- The number of IF:UT input messages can not exceed the number of ELSE:UT in a single WHEN clause for a given processor.

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STOPPED - COULD NOT RECEIVE UT MESSAGE A message could not be received by the UT system process because of an internal error.

STOPPED - DATA BASE READ FAILURE The input clause was not executed because a failure occurred while accessing the database. The input message will need to be re-entered after the problem is resolved.

STOPPED - DUPLEX FAILURE OF THE CCs The input clause was not executed because both of the common controllers (CC) in the unit are not active. The input message should be re-entered after the problem is resolved.

STOPPED - ERROR SENDING UT COMMAND A message could not be sent to the UT target processor for execution because of an internal error.

STOPPED - FAILURE TO TAKE OWNERSHIP OF THE MATE The input clause was not executed because a failure occurred in obtaining ownership of the mate processor. The input message will need to be re-entered after the problem is resolved.

STOPPED - FILE READ FAILURE The symbol file could not be read to resolve the requested symbol information.

STOPPED - FILE TYPE NOT SUPPORTED BY UT UT can find, open and read the provided or determined file, but the MAGIC value is either not supported by UT or is not recognized. The user needs to correct or change the file being used in order to use this input message.

STOPPED - GOTO OPTION NOT ALLOWED FOR SPECIFIED UNIT The GOTO option is not supported for the specified unit.

STOPPED - GOTO OPTION ONLY VALID IN A BREAKPOINT COMMAND The GOTO option is only valid when entered inside of a clause.

STOPPED - ILLEGAL ADDRESS An invalid address was specified in the input message.

STOPPED - INDIRECTION NOT ALLOWED WITH UCI REGISTERS Indirection is not allowed with unified control interface (UCI) registers.

STOPPED - INPUT CLAUSE TIME OUT The UT input message clause being installed in the indicated processor has timed out. The entire clause was removed. The time-out occurred between two input messages of a clause and not on an overall time for the entire clause.

STOPPED - INTERNAL ERROR An error occurred while trying to get the PH image and hardware type.

STOPPED - INVALID IMAGE TYPE RETURNED FOR PH An invalid PH image type was received by UT.

STOPPED - INVALID INDIRECTION SPECIFIED The offsets can not be specified without an indirection or the number of offsets has to be less than or equal to the number of indirections in an input message.

STOPPED - INVALID LENGTH The length specified in the input message is invalid.

STOPPED - INVALID SIZE The size specified in the input message is invalid.

STOPPED - INVALID UNIT SPECIFIED The unit specified in the input message is invalid.

STOPPED - INVALID UNITS MIXED IN A CLAUSE An input clause can not mix a PH3 unit with a non-PH3 unit in the same clause.

STOPPED - INVALID USE OF OPTIONS The specified options are syntactically correct for the specified processor

but the combination of the options do not make sense together.

STOPPED - MATE CANNOT BE PUT IN HOLD STATE The mate processor could not be put in the hold state. The input message will need to be re-entered after the problem is resolved.

STOPPED - MATE PI IS NOT VALID The specified input message is not valid for the mate PI.

STOPPED - MATE REG IS INVALID

- The REG option with mate is only valid when indirection is specified on the input message.
- The REGS option with mate is invalid.

STOPPED - MATE UVAR IS INVALID

- The UVAR option with mate is only valid when indirection is specified on the input message.
- The UVAR option is not valid with OOS mate PI.

STOPPED - MATE/INDIRECTION INCONSISTENCIES MATE/INDIRECTION are not valid when VAL option is specified with IF:UT and COPY:UT input messages.

STOPPED - MODIFYING STATUS OF NON-EXISTENT WHEN The WHEN message specified by the input message does not exist. Perform OP:UT input message to determine what WHEN messages are in the processor.

STOPPED - NESTED WHEN A WHEN clause can not be nested within a WHEN clause.

STOPPED - NO GOOD MESSAGE RECEIVED An unexpected message type is received by UT system process.

STOPPED - NO PATHNAME EXISTS The path to the symbol file for the specified processor could not be determined.

STOPPED - NO SYMBOL ENTERED The input message did not provide the name of the symbol to be resolved.

STOPPED - OPTION NOT VALID WITH SPECIFIED PROCESSOR The option specified in the input message is invalid with the specified processor.

STOPPED - OUT OF SEQUENCE COMMAND RECEIVED The specified processor received a clause message out of sequence.

STOPPED - OVERLAP OF THE UCI REGISTERS The UCI registers have a specific memory range allocated. Overlap with the UCI register range is not allowed.

STOPPED - PATHNAME TOO BIG The path to the symbol file has been determined, but it is too big to store in the cache.

STOPPED - PROCESSOR IS ISOLATED The processor specified in the input message is isolated.

STOPPED - PROCESSOR IS UNEQUIPPED The processor specified in the input message is unequipped.

STOPPED - RANGES NOT ALLOWED IN CLAUSES The range option is invalid in a clause.

STOPPED - SPECIFIED PERIPHERAL DOES NOT EXIST The peripheral specified in the input message does not exist.

STOPPED - SPECIFIED RANGE INCLUDES THE PROCESSOR IN A CLAUSE The range specified in the input message includes the processor currently in a clause.

STOPPED - STANDBY PH IS NOT VALID The EXC input message can not be performed on a standby PH.

STOPPED - SYMBOL INDEX INVALID The symbol index provided was found, but it provides a reference to either an auxiliary symbol entry or a symbol entry type which is not valid for UT to handle (such as, ".file", ".eb", ".fb", ".bss", ".data", or ".text"). The user needs to correct the symbol index value in order to use this input message.

STOPPED - SYMBOL INDEX NOT FOUND The symbol index value provided in the input message is out of range for the COFF file. The user must correct the symbol index value or change the PATH to the symbol file in order to use the input message.

STOPPED - SYMBOL IS NOT A FUNCTION The specified symbol must be a function in order to execute it.

STOPPED - SYMBOL NAME AMBIGUOUS The given symbol name matched more than one symbol in the symbol file. The user needs to provide more characters of the symbol name or use the DUMP:UT-SYMID input message to determine which symbol index should be used in place of the symbol name.

STOPPED - SYMBOL NOT FOUND The specified symbol was not found in the specified processor's symbol file.

STOPPED - TABLE OVERFLOW The user exceeded the maximum number of utility messages. The user can store a maximum of 45 input messages as part of WHEN clauses in the UT table buffer. The user can still perform immediate UT input messages.

STOPPED - TIMED OUT WAITING FOR PARENT SM TO RESPOND Parent SM did not return the PH image within the required time.

STOPPED - UNIT DOES NOT EXIST The specified unit does not exist.

STOPPED - UNIT IS OUT OF SERVICE The specified unit is out of service.

STOPPED - UNIT NOT ACCESSIBLE The specified unit is not accessible.

STOPPED - UNIT NOT SUPPORTED ON SM The peripheral specified in the input message is not supported on this SM.

STOPPED - UNIT WENT ISOLATED DURING CLAUSE INPUT The specified unit went isolated during clause input.

STOPPED - UNSUCCESSFUL DMA TRANSFER An error has occurred in the direct memory access (DMA) process between the administrative module (AM) and the specified processor.

STOPPED - UT TIMED WHEN COMMANDS INHIBITED DUE TO UT PROCESS PURGE The UT TIMED WHEN messages in the indicated processor have been inhibited due to a single-process purge (SPP). The TIMED WHEN messages must be reallowed manually if needed by the user.

STOPPED - UTPH BREAKPOINTS INHIBITED DUE TO SELECTIVE INIT The UT WHEN messages in the indicated processor have been inhibited due to a selective initialization. The WHEN messages must be reallowed manually if needed by the user.

STOPPED - UVAR OUT OF RANGE The utility variable specified was not in the valid range for the specified

processor.

STOPPED - VALUE WILL NOT FIT The value to be loaded would not fit in the space specified in the input message.

STOPPED - WHEN ALREADY ALLOWED The specified WHEN clause is already allowed.

STOPPED - WHEN ALREADY AT THAT LOCATION A WHEN message already exists at the specified location. Multiple WHEN clauses can not be installed at one memory location.

STOPPED - WHEN ALREADY INHIBITED The specified WHEN clause was already inhibited.

STOPPED - WHEN DOES NOT EXIST The WHEN message specified in the input message does not exist.

STOPPED - WHEN INHIBITED The specified WHEN clause is already inhibited.

STOPPED - WHEN NOT VALID INSIDE OF CLAUSE A WHEN message is invalid inside of a WHEN clause.

SYMBOLIC LOOK-UP COMPLETED The symbolic reference of the input message was resolved. The user can continue input.

SYMBOLIC LOOK-UP IP - WAIT FOR COMPLETION REPORT The symbolic reference of the input message is being resolved. No new input messages will proceed until the completion report (SYMBOLIC LOOK-UP COMPLETED) is printed.

WHEN DOES NOT EXIST The WHEN message specified in the input message does not exist. Use the OP:UT input message to determine what WHEN messages are in the processor.

APP:UTIL-ID

Software Release: 5E10 and later
Message Class: N/A
Application: 3B
Type: Output

1. UTILITY ID

Note These utility IDs (UIDs) are in hexadecimal notation.

UID	3B NAME	DESCRIPTION
0x0004	/bootfiles/fmprc	File manager.
0x0005	/bootfiles/3bpmgr	*UNIX*® RTR process manager.
0x0008	/bootfiles/3bnub	The kernel.
0x000f	/prc/cdi	Memory driver.
0x0010	/bin/getty	Set terminal type, modes, speed, and line.
0x0011	/prc/unix	*UNIX*® RTR initialization process.
0x0012	/etc/login	Sign on.
0x0013	/bin/sh	Shell, the standard message.
0x0014	/etc/update	Updates file system every 5 minutes.
0x0015	/etc/cron	Task scheduler.
0x0016	/prc/pkillp	Supervisor process to kill other processes.
0x0017	/prc/fda	First in, first out (FIFO) driver.
0x0018	/etc/clrfs	Constructs file system.
0x0019	/etc/clri	Clear inodes.
0x001a	/bin/df	Report number of free disk blocks.
0x001b	/etc/dgnnm	Assigns diagnostic file name.
0x001c	/etc/fsdb	File system debugger.
0x001d	/etc/ichk	File system consistency check.
0x001f	/etc/mknod	Builds a special file.
0x0020	/mount	Mounts file system.
0x0021	/bin/ps	Report process status.
0x0022	/etc/udgnnm	Generates the file set up by 'dgnnm'.
0x0023	/etc/umount	Unmounts file system.
0x0024	/etc/vcp	Volume disk copy process.
0x0041	/prc/cdn	Equipment configuration database (ECD) manager.
0x0042	/diag/dgnc/mira	Maintenance input request administrator.
0x0043	/cft/shl/cmds/STOP/DMQ	Stop diagnostics.
0x0044	/cft/shl/cmds/ALW/DMQ	Allow diagnostics.
0x0045	/cft/shl/cmds/DGN	Diagnose hardware unit.
0x0046	/cft/shl/cmds1/EX	Program documentation standards (PDS) interactive diagnostic.
0x0047	/cft/shl/cmds/INH/DMQ	Inhibit diagnostic maintenance.
0x0048	/cft/shl/cmds /EX/LDPARM	PDS interactive diagnostic control message.
0x0049	/cft/shl/cmds/EX/LOOP	PDS interactive diagnostic control message.
0x004a	/cft/shl/cmds/EX/PAUSE	PDS interactive diagnostic control message.
0x004b	/cft/shl/cmds/RMV	Remove hardware unit.
0x004c	/cft/shl/cmds/RST	Restore hardware unit.
0x004d	/cft/shl/cmds/OP/DMQ	Status of diagnostic maintenance.
0x004e	/cft/shl/cmds/EX/STEP	PDS interactive diagnostic control message.
0x004f	/cft/shl/cmds/EX/STOP	PDS interactive diagnostic control message.
0x005f	/diag/dgnc/inhtimer	Inhibit diagnostic timer.
0x0060	/diag/dgnc/ppdiamon	Peripheral diagnostic monitor.
0x0062	/diag/dgnc/tlp	Trouble location procedure.
0x0063	/diag/dgnc/dfdiag	Disk file controller (DFC) diagnostics control.
0x0064	/diag/dgnc/iodiag	Input/output (I/O) diagnostics control.
0x0065	/diag/dgnc/iormv	I/O diagnostics remove process.
0x0066	/diag/dgnc/dfrmv	Remove process for DFC.
0x0067	/diag/dgnc/cudiagc	Control unit diagnostics.
0x006c	/diag/dgnc/dgntimer	Diagnostic timer.
0x0082	/prc/cdm	Kernel interface hardware-user processes.
0x0083	/bootfiles/eih	Error interrupt handler.
0x0084	/cft/misc/rmf	Prints error messages and postmortem dumps.
0x0085	/bootfiles/pcpaud.g	Process control process (PCP) audit.
0x0086	/bootfiles/inhadm	Inhibit administration process.

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0x0087	/etc/adp.af	Automatic diagnostic process-after fault process.
0x0088	/cft/shl/cmds /OP/CFGSTAT	Output device status/configuration status.
0x008a	/etc/fsmon	File system overflow monitor.
0x008b	/prc/ularp	*UNIX*®-level automatic restart process.
0x008f	/etc/adp.ab	Automatic diagnostic process-after boot branch.
0x0090	/cft/shl/cmds/ALW/REX	Allow routine exerciser.
0x0091	/cft/shl/cmds/INH/REX	Inhibit routine exerciser (REX) on a specified unit.
0x0092	/cft/shl/cmds /OP/REXINH	Output REX inhibited units.
0x0093	/cft/shl/cmds /ALW/CONFLOG	Allow configuration log.
0x0094	/cft/shl/cmds /INH/ERRCHK	Inhibit errint, errsrc, hdwchk and sftchk.
0x0095	/cft/shl/cmds /INH/CONFLOG	Inhibit configuration log.
0x0096	/cft/shl/cmds/SW/CU	Switch control units (CUs)
0x0097	/unixutil/cu/curstrmv	CU restore or remove process.
0x0098	/cft/shl/cmds /DUMP/CACHE	Dump off-line cache into memory.
0x0099	/cft/shl/cmds /OP/MEMERRS	Formatted memory error summary.
0x00c0	/prc/bdf	Input/output processor (IOP) driver process.
0x00c0	/prc/bdf	IOP driver process.
0x00c0	/prc/bdf	IOP driver process.
0x00c1	/bootfiles/dkdrv	Disk driver.
0x00c2	/prc/scsd	Scanner and signal distributor (SCSD) driver.
0x00c4	/prc/s_update	Disk restore.
0x00c9	/cft/shl/cmds/CMPR/MHD	Compare moving head disks.
0x00ca	/prc/s_dskutil	Disk compare.
0x00cd	/cft/shl/cmds /OP/MHD/INFO	Display moving head disk information.
0x00ce	/cft/shl/cmds/INIT/MHD	Initialize a moving head driver.
0x00ce	/cft/shl/cmds /LOAD/DFC/PUMP	Download pumpcode to DFC random access memory (RAM).
0x00cf	/cft/shl/cmds /OP/DFCELOG	Dump error log.
0x00d0	/cft/shl/cmds /SET/IODRV	Sets I/O driver options.
0x00d1	/cft/shl/cmds/OP/IODRV	Display active I/O driver options.
0x00d2	/cft/shl/cmds /SW/PORTSW	Port switch
0x00d3	/cft/shl/cmds/ALW/SCSD	Allows SCSD points and signal.
0x00d3	/cft/shl/cmds /RESET/FANALM	Reset fan alarm.
0x00d4	/cft/shl/cmds/INH/SCSD	Inhibits SCSD function.
0x00d5	/cft/shl/cmds/OP/SCSD	Display SCSD points.
0x00d6	/cft/shl/cmds/ORD/SCSD	Set, clear, or flash points.
0x00d7	/cft/shl/cmds /DUMP/MHD/VTOC	Dumps volume table of contents (VTOC).
0x00d8	/cft/shl/cmds /DUMP/MHD/DEFECT	Dumps defect tables.
0x00d8	/cft/shl/cmds /LOAD/MHD/DEFECT	Loads a defect table.
0x00d9	/cft/shl/cmds /DUMP/MHD/BLOCK	Dumps a disk block.
0x00da	/cft/dap/dkdip	Display disk configuration and status.
0x0102	/usr/bin/perform	A parser for ucm.
0x0102	/cft/shl/cmds1/UPD	Invokes a field update action.
0x0103	/prc/prchk	Tests whether the target process can be reclaimed.
0x0104	/prc/dufr	Overwrites memory image of non-killable process.
0x0105	/prc/kop	Overwrites the TV segment.
0x0106	/usr/bin/idump	Displays information of common object file format (COFF) and tracking problems.
0x0106	/prc/oild	Creates a new updateable object file.
0x0107	/prc/ogen	Creates a file to be used by oild and dufr.
0x0109	/prc/bldboot	Creates boot image.
0x010b	/prc/cdcmpr	Compares text segments of disk and core image.
0x0111	/prc/gspovmon	Overload monitor for generic access package (GRASP).
0x0112	/prc/gspac	Controls execution of GRASP.
0x0113	/cft/shl/cmds/OP/UTIL	Lists GRASP breakpoints, status and trace.
0x0114	/prc/gspop	Outputs GRASP messages.
0x0117	/prc/pldmon	Updates maintenance times in all process message data block (PMDB) maintenance records.
0x011d	/etc/mkdsk	Make disk.
0x011e	/bin/isgen	Builds boot image on disk.
0x011f	/usr/bin/browse	Tool for examining database.
0x0121	/usr/bin/sdpcopy	Copies database files.
0x0124	/prc/kopf	Times for automatic backout using kop.
0x0125	/cft/shl/cmds /IN/REMOTE	Monitors Software Change Administration and Notification System (SCANS-2) file receive process.
0x012b	/prc/bwmint	Interface for field update session.
0x012d	/prc/filerecv	Receives and assembles transmitted files.
0x012e	/prc/bwmclr	Clear broadcast warning message (BWM) from the field update directory.
0x012f	/prc/bwmvfy	Verifies check sums.
0x0132	/usr/bin/pl_aux	Data dictionary for the plant measurements database.

0x0133	/usr/bin/ibrowse	Active process debugger.
0x0134	/usr/bin/lla_audits	Audits ECD.
0x0162	/cft/shl/cmds/VFY/TAPE	Invoke tape verification process.
0x0163	/audprc/pmsaud	Audits plant measurements database.
0x0185	/cft/shl/cmds/OP/FNAME	Audit message process.
0x0186	/prc/klmon	Kernel monitoring process.
0x0187	/bootfiles/simprc	System integrity monitor.
0x0188	/prc/suovprc	Supervisor/user lockout monitor.
0x0190	/etc/sdlrtc	Synchronous data link restore tool.
0x0191	/etc/sdlrtn	Synchronous data link restore tool.
0x0192	/prc/fsaudit	File system audit.
0x01a2	/audprc/ecdaud	ECD audits.
0x01c4	/prc/cdq	Communicates with spy processes.
0x01c5	/bin/cmpr	Compares text segments of disk and core image.
0x01c6	/prc/ftrc	Function trace.
0x01c7	/prc/ucm	Field update controller.
0x01da	/prc/fudisplay	Displays specified update or BWM records.
0x01db	/prc/fupurge	Removes records of official and reclaimed BWMs.
0x01dc	/prc/fuomit	Omits incomplete update records.
0x01dd	/usr/bin/fu_aux	Field update database generator.
0x0200	/bin/errport	Errport user process.
0x0202	/cft/dap/cia	Critical indicators administrator.
0x0203	/cft/dap/dap	Display administration process (DAP).
0x0204	/cft/dap/poker	DAP input process.
0x0206	/cft/rts	Initialize real-time states (RTS) and receive messages.
0x0207	/bin/shlgetty	Starts shells.
0x0208	/cft/bin/cftshl	Craftshell.
0x0208	/cft/bin/cftshlA	Craftshell (without initialization message).
0x0209	/cft/spl/csop	Craft spooler out process.
0x020b	/cft/spl/sop	Spooler output process.
0x020d	/bin/cdgetty	Starts poker.
0x020f	/bin/splgetty	Starts spooler.
0x0210	/cft/dap/inph	Test process for DAP.
0x0211	/cft/dap/msgh	Test process for DAP.
0x0211	/etc/rex	Routine diagnostic exerciser.
0x0212	/etc/ccdate	Identify source version of code.
0x0214	/cft/shl/cmds/OP/LOG	Prints log file entries.
0x0216	/cft/dap/starter	Start reader on control/display (C/D) input.
0x0217	/cft/shl/cmds1/TST	Test message for pdshl.
0x0218	/prc/bdg	DAP driver.
0x0218	/cft/bin/csdip	Craft spooler dialog input process.
0x0219	/cft/dap/fmctrl	Runs 105 and 106 pages.
0x021b	/bin/ciagetty	Starts cia process.
0x021d	/cft/misc/rpttime	Time stamp for log files.
0x021e	/cft/shl/cmds /CLR/IMCAT	Clears imcatlog from core.
0x0220	/bin/dlggetty	Starts dialog shell.
0x0221	/cft/shl/cmds/DLGAUTH	Dialog authority file messages.
0x0222	/cft/shl/cmds/VFYAUTH	Checks authority file.
0x0223	/cft/bin/Adlgshl	Asynchronous dialog shell.
0x0224	/cft/bin/Sdlgshl	Synchronous dialog shell.
0x0226	/cft/shl/cmds/CLK	Sets or prints system clock.
0x0227	/cft/shl/cmds/UPD/OMDB	Output messages database.
0x0228	/cft/shl/cmds /CLR/ACKDB	Acknowledgements database.
0x0241	/bin/banner	Prints a banner.
0x0242	/bin/pkill	Creates a process to kill others.
0x0243	/bin/pkillp	Kills processes executing under pathname.
0x0245	/bin/cat	Lists and concatenates *UNIX*® files.
0x0246	/bin/chgrp	Change group.
0x0247	/bin/chmod	Change mode of file.
0x0248	/bin/chown	Change owner of file.
0x0249	/bin/cmp	Compare two files.
0x024b	/bin/cpio	Format of cpio archive.
0x024c	/bin/cx	Core image debugger.
0x024d	/bin/crypt	Generate encryption file.
0x024e	/bin/date	Print and set the date.
0x024f	/bin/dd	Convert and copy a file.
0x0250	/bin/diff	Differential file comparator.
0x0251	/bin/dlsum	Sum bytes in field mode.
0x0252	/bin/du	Summarize disk usage.
0x0253	/bin/echo	Repeat string.
0x0254	/bin/ed	Line editor.

0x0255	/bin/env	Set environment for message execution.
0x0256	/bin/expr	Evaluate arguments as an expression.
0x0257	/bin/falloc	Allocate space for an external file.
0x0258	/bin/fgrep	Search a file for a pattern.
0x0259	/bin/find	Find files.
0x025a	/bin/fmove	Move file into contiguous space.
0x025b	/bin/fsize	Prints size of files.
0x025c	/bin/grep	Search a file for a pattern.
0x025e	/bin/id	Print user, group, fair share group IDs and names.
0x025f	/bin/kill	Send a signal to a process or a group of processes.
0x0260	/bin/killp	Kill user processes using a full pathname.
0x0263	/bin/line	Read one line.
0x0264	/bin/ln	Link files.
0x0265	/bin/logdir	Get login directory.
0x0266	/bin/ls	List contents of directory.
0x0267	/bin/cp	Copy files.
0x0267	/bin/mv	Move a file.
0x0268	/bin/mail	Send mail to users or read mail.
0x0269	/usr/lib/makekey	Generates encryption key.
0x026a	/bin/mesg	Permit or deny messages.
0x026b	/bin/mkdir	Make a directory.
0x026c	/usr/bin/mop	Mount off-line partition.
0x026d	/bin/closewd	Close window.
0x026d	/bin/newgrp	Log in to a new group.
0x026e	/bin/news	Print news items.
0x026e	/bin/openwd	Open window.
0x026f	/bin/nice	Change priority of a process.
0x0270	/bin/nohup	Run a message immune to hangups and quits.
0x0271	/bin/od	Octal dump.
0x0272	/bin/passwd	User information file.
0x0273	/bin/pio	I/O to a traced process image.
0x0274	/bin/pr	Print files.
0x027a	/bin/pwd	Print working directory name/path.
0x027b	/bin/rm	Remove files.
0x027c	/bin/rmdir	Remove directories.
0x027e	/bin/run	Run kernel processes.
0x027f	/bin/sdiff	Side-by-side difference program.
0x0280	/bin/sleep	Suspend execution for interval.
0x0281	/bin/sort	Sort and/or merge files.
0x0282	/bin/split	Split a file into pieces.
0x0283	/bin/stat	Get file status.
0x0284	/bin/stty	Set the options for a terminal.
0x0285	/bin/su	Change user ID.
0x0286	/bin/sum	Print checksum and block count of a file.
0x0288	/bin/sync	Update super-block.
0x0289	/bin/tail	Deliver the last part of a file.
0x028a	/bin/tee	Pipe fitting.
0x028b	/bin/time	Get time.
0x028c	/bin/touch	Update access and modification times of a file.
0x028d	/bin/tty	Terminal device interface.
0x028e	/bin/uname	Print name of current system.
0x028f	/bin/wc	Word count.
0x0290	/bin/who	Who is on the system.
0x0291	/bin/write	Write on a terminal.
0x0292	/bin/sed	Stream editor.
0x0293	/usr/bin/asa	Interpret the asa control character.
0x02c0	/cft/shl/cmds /COPY/ACTDISK	Copies a file to an out-of-service (OOS) disk.
0x02c1	/prc/mntfs	Mounts file systems in an OOS disk.
0x02c3	/usr/bin/PDSed	PDS editor.
0x02c4	/cft/shl/cmds /ALW/FILESYS	File system maintenance.
0x02c5	/prc/pmdbcopy	Copies plant measurements database from core to disk.
0x02c6	/cft/shl/cmds/OP/PMCR	Invokes pmcrman.
0x02c7	/prc/pmcrcol	Updates common records.
0x02c8	/prc/pmcrrep	Generates plant measurements system (PMS) reports.
0x02c9	/prc/pmcrman	Process that controls execution of pmcrcol and pmcrrep.
0x02ca	/prc/cpspdisk	Copies a file to a spool disk.
0x02cb	/prc/cpoosf	Copies a file from an OOS disk.
0x02cc	/cft/shl/cmds /COPY/CPSPDISK	Invokes cpspdisk.
0x02cd	/cft/shl/cmds /COPY/CPOOSF	Invokes cpoosf.
0x02ce	/cft/shl/cmds/CLR/PTN	Invokes clearptn.
0x02cf		Clears out a partition.
0x02d0	/usr/bin/chk_pmdb	Checks plant measurements database against ECD database.

0x02d1	/cft/shl/cmds /COPY/BKTAPE	Copies a multi-volume DAT.
0x02d1	/cft/shl/cmds /DUMP/BKTAPE	Dumps the first header of the logical volumes on a multi-volume DAT.
0x02d5	/bin/urun	Run user process.
0x02d6	/prc/3btpwrt	Writes disk image to tape in load disk from tape (LDFT) format.
0x02d7	/cft/shl/cmds /COPY/BKDSK/ACK	Invokes tpack.
0x02d8	/cft/shl/cmds /STOP/BKDISK	Stops the physical disk to tape writer.
0x02d9	/cft/shl/cmds /COPY/BKDSK/START	Invokes 3btpwrt
0x02da	/prc/tpack	Acknowledge 3btpwrt that a tape is mounted.
0x02db	/prc/tpstop	Stop execution of 3btpwrt.
0x02dc	/prc/supr/continue	Restarts execution of a system update.
0x02dc	/cft/shl/cmds /UPD/GEN/CONTINUE	Invoke continue process.
0x02dd	/prc/supr/applhook	Application process used during system update.
0x02de	/prc/supr/readlog	Requests output of system update event log.
0x02e0	/cft/shl/cmds /UPD/GEN/BACKOUT	Invoke backout process.
0x02e1	/cft/shl/cmds /UPD/GEN/COMMIT	Invoke commit process.
0x02e2	/cft/shl/cmds /UPD/GEN/ENTER	Invoke enter process.
0x02e3	/cft/shl/cmds /UPD/GEN/PROCEED	Invoke proceed process.
0x02e4	/cft/shl/cmds /OP/GEN/READLOG	Invokes readlog.
0x02e5	/cft/shl/cmds /UPD/GEN/RESTORE	Invoke restore process.
0x02e6	/cft/shl/cmds/STOP/GEN	Invokes stop process.
0x02e	/prc/supr/stop	Stops the system update message in process.
0x02e8	/prc/supr/commit	Overwrites old release with new release.
0x02e9	/prc/supr/restore	Restores the old release to the system.
0x02e9	/etc/mkstart	Make disk acknowledgement program.
0x02ea	/prc/supr/backout	Backs out of new generic to old generic.
0x02eb	/prc/supr/enter	System update process.
0x02ec	/prc/supr/proceed	Prepares system for booting from the new generic.
0x02ed	/bin/prtcp	Copies primary/backup partition.
0x02ee	/prc/supr/suprint	Invoke a system update process.
0x02ef	/prc/supr/applproc	Application process.
0x02f0	/cft/shl/cmds /UPD/GEN/APPLPROC	Invoke an application process.
0x0301	/usr/bin/loadf3b	Creates a flatfile from a system file.
0x0302	/bin/sdfinfo	Special device file information.
0x0303	/prc/psm	Power switch monitor.
0x0304	/bin/sdfrel	Special device file release.
0x0307	/cft/shl/cmds/RCV/MENU	Database recent change menu.
0x0309	/usr/bin/createecd	Creates skeleton of ECD database.
0x030a	/usr/bin/rcvecd	Recent change and verify (ECD) from *UNIX*® terminal .
0x030b	/bin/ducb	Display unit control block (UCB) in ECD.
0x030f	/usr/bin/comparedb	Compare databases.
0x0310	/usr/bin/fdiff	File differences.
0x0311	/usr/bin/keycmp	Key compare.
0x0312	/usr/bin/keycomm	Key common program.
0x0313	/usr/bin/keys	Keys program.
0x0314	/usr/bin/newdb	Create a new database.
0x0315	/usr/bin/printdb	Print database.
0x0316	/usr/bin/printfrm	Print forms.
0x031e	/cft/shl/cmds /RCV/DMTECD	Recent change and verify interface for ECD.
0x0320	/cft/shl/cmds/OP/ULARP	Ularp request processor.
0x0322	/cft/shl/cmds/STOP/AUD	Audit stop process.
0x0323	/cft/shl/cmds/ALW/AUD	Allow audit.
0x0324	/cft/shl/cmds/AUD	Begin audit process.
0x0325	/etc/siof	System integrity output formatter.
0x0326	/cft/shl/cmds/INH/AUD	Audit inhibitor.
0x0327	/cft/shl/cmds/OP/AUD	Audit report generator.
0x032a	/cft/shl/cmds /CLR/EMERDMP	Emergency dump.
0x032b	/cft/shl/cmds /OP/EMERSTAT	Emergency status.
0x032c	/etc/op_stat	Audit status process.
0x032d	/cft/shl/cmds /OP/AUDERR	Audit error process.
0x032e	/cft/shl/cmds /INIT/ULARP	Craft initialization to system integrity monitor (SIM).
0x0334	/cft/shl/cmds/VFY/FILE	Verify file.
0x0360	/usr/bin/createsg	Creates skeleton of SG database.
0x0361	/usr/bin/rcvsg	Recent change and verify (SG subsystem) from *UNIX*® terminal.
0x0362	/usr/bin/rcvecdmcrt	Recent change and verify (ECD subsystem) from maintenance terminal (MCRT).
0x0363	/usr/bin/rcvsgmcrt	Recent change and verify (SG subsystem) from MCRT.
0x0364	/cft/shl/cmds /RCV/DMTSG	Recent change and verify interface for SG.
0x0365	/usr/bin/vfydflt	Perform default file verification.

0x0366	/usr/bin/iopadd.p	Addition of IOP.
0x0366	/usr/bin/iopdel.p	Deletion of IOP.
0x0366	/usr/bin/links.p	Review linkage orders.
0x0366	/usr/bin/mtadd.p	Addition of maintenance terminal.
0x0366	/usr/bin/mtcadd.p	Addition of maintenance terminal controller.
0x0366	/usr/bin/mtcdel.p	Deletion of maintenance terminal controller.
0x0366	/usr/bin/mtdel.p	Deletion of maintenance terminal controller.
0x0366	/usr/bin/sdladd.p	Addition of SCANS distributor linkage.
0x0366	/usr/bin/sdlcadd.p	Addition of SCANS distributor linkage controller.
0x0366	/usr/bin/sdlcdel.p	Deletion of SCANS distributor linkage controller.
0x0366	/usr/bin/sdldel.p	Deletion of SCANS distributor linkage.
0x0366	/usr/bin/slots.p	Review slot assignments on UCB.
0x0366	/usr/bin/ttyadd.p	Addition of tty.
0x0366	/usr/bin/ttycadd.p	Addition of ttyc.
0x0366	/usr/bin/ttycdel.p	Deletion of ttyc.
0x0366	/usr/bin/ttydel.p	Deletion of tty.
0x0366	/usr/bin/vfydflt.p	Perform default file verification process.
0x0379	/bin/rmtgetty	Remote dialog shell.

5. ABT

ABT:AIUCOM

Software Release: 5E11 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] AIUCOM=b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:AIUCOM input message to abort the current action on the access interface unit common data and control controller (COMDAC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. Valid value(s):
- `DGN` = Diagnose.
- `RMV` = Remove.
- `RST` = Restore.
- `SW` = Switch.

`b` = Switching module (SM) number.

`c` = AIU number.

`d` = COMDAC number.

`e` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:AIUCOM
```

Output Message(s):

```
DGN:AIUCOM
RMV:AIUCOM
RST:AIUCOM
SW:AIUCOM
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1320,y,x (AIU SUMMARY)

ABT:AIULC

Software Release: 5E11 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] AIULC=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:AIULC input message to abort the current action on the access interface unit (AIU) line circuit (LC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. Valid value(s):
- `DGN` = Diagnose.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Access interface unit (AIU) number.

`d` = Line pack (LP) number.

`e` = Line circuit (LC) number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination report.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:AIULC
```

Output Message(s):

```
DGN:AIULC
RMV:AIULC
RST:AIULC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1323,y,z,x (AIU AP STATUS)

ABT:AIULP

Software Release: 5E11 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] AIULP=b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:AIULP input message to abort the current action on the access interface unit (AIU) line pack (ULP).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. Valid value(s):
- `DGN` = Diagnose.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = AIU number.

`d` = LP number.

`e` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ABT:AIULP`

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Output Message(s):

```
DGN:AIULP
RMV:AIULP
RST:AIULP
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1320,y,x (AIU SUMMARY)
1323,y,z,x (AIU AP STATUS)

ABT:AIURG

Software Release: 5E11 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] AIURG=b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:AIURG input message to abort the current action on the access interface unit (AIU) ring generator (URG).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. Valid value(s):
- `DGN` = Diagnose.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = AIU number.

`d` = RG number.

`e` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ABT:AIURG`

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Output Message(s):

```
DGN:AIURG
RMV:AIURG
RST:AIURG
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1320,y,x (AIU SUMMARY)
1322,y,x (AIU RG STATUS)

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ABT:AIUTSGRP

Software Release: 5E11 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] AIUTSGRP=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:AIUTSGRP input message to abort the current action on the access interface unit (AIU) timeslot group (TSGRP).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. Valid value(s):
- `DGN` = Diagnose.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = AIU number.

`d` = Common data and control controller (COMDAC) number.

`e` = TSGRP number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
ABT:AIUPIDB
```

Output Message(s):

```
DGN:AIUTSGRP
RMV:AIUTSGRP
RST:AIUTSGRP
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1321,y,x (AIU TSGRP SUMMARY)

ABT:ALIT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] ALIT=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the automatic line insulation test (ALIT) circuit at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the ALIT). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Metallic service unit number.

`d` = Service group number.

`e` = Metallic service unit board number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`g` = Additional data qualifying the termination report (variable '`g`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ABT:ALIT
```

Output Message(s):

```
DGN:ALIT
EX:ALIT
RMV:ALIT
RST:ALIT
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:ASC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] ASC=b c [d]
```

2. REASON FOR OUTPUT

Indicates the result of an abort of the current action on the remote switching module (RSM), optical remote switching module (ORM), or two-mile remote switching module (TRM) alarm and status circuit (ASC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted, default is the action currently executing on the ASC. Valid value(s):

- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was complete.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action had not begun.
- `STOPPED` = Requested action was terminated before normal completion.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:ASC
```

Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

ABT:BTSR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT BTSR=a b [c]
```

2. REASON FOR OUTPUT

To report the results of an attempt to abort (ABT) the current action on the bootstrapper (BTSR) board at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Termination status. Valid value(s):

- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`c` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ABT:BTSR`

Output Appendix(es):

`APP:MAINT-RESP`

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ABT:CDFI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] CDFI=b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the result of an ABT:CDFI input message to abort the current action on an inter-remote switching module (RSM) communication link digital facilities interface (CDFI) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted, default is the action currently executing on the CDFI. Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Digital line and trunk unit (DLTU) number.

`d` = CDFI number.

`e` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action had not begun.
- `STOPPED` = Requested action was terminated before normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:CDFI
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:CDI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] CDI=b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the control data interface (CDI) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the CDI). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Trunk unit number.

`d` = Service group number.

`e` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`f` = Additional data qualifying the termination report (variable '`e`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:CDI
```

Output Message(s):

```
DGN:CDI
EX:CDI
RMV:CDI
RST:CDI
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:DCLU

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] DCLU=b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the *SLC*® 96 digital carrier line unit (DCLU).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the DCLU). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = DCLU number.

`d` = Service group number.

`e` = Termination status. Valid value(s):
- `ABORTED` = The action requested was unsuccessful and the termination was not graceful. Hardware states are not reliable.
- `COMPLETED` = The action completed successfully.
- `NOT STARTED` = The action to be aborted has not yet started.
- `STOPPED` = The action terminated before a normal completion but the termination was graceful. Hardware states are reliable.

`f` = Additional data qualifying the termination report (variable '`e`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the termination status is ABORTED, purge the MRA process using input message INIT:SM-SPP. Otherwise, no action is necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:DCLU
INIT:SM-SPP
```

Output Message(s):

```
DGN:DCLU
EX:DCLU
RMV:DCLU
RST:DCLU
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:DCTUCOM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] DCTUCOM=b-c g [h]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the directly connected test unit common board (DCTUCOM) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the DCTUCOM). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Directly connected test unit number.

`g` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`h` = Additional data qualifying the termination report (variable '`g`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:DCTUCOM
```

Output Message(s):

```
DGN:DCTUCOM
EX:DCTUCOM
RMV:DCTUCOM
RST:DCTUCOM
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:DCTUPORT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] DCTUPORT=b-c-d g [h]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the directly connected test unit port (DCTUPORT) circuit at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the DCTUPORT). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Directly connected test unit number.

`d` = Circuit number.

`g` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`h` = Additional data qualifying the termination report (variable '`g`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
ABT:DCTUPORT
```

Output Message(s):

```
DGN:DCTUPORT
EX:DCTUPORT
RMV:DCTUPORT
RST:DCTUPORT
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:DFI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] DFI=b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the digital facility interface (DFI) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the DFI). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Digital line/trunk unit number.

`d` = DFI number.

`e` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`f` = Additional data qualifying the termination report (variable '`e`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:DFI
```

Output Message(s):

```
DGN:DFI
EX:DFI
RMV:DFI
RST:DFI
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:DFIH

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] DFIH=b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:DFIH input message to abort the current maintenance action on the remote integrated services line unit (RISLU) host/remote digital facility interface circuit pair (DFIH).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = RISLU digital line and trunk unit (DLTU) number.

`d` = DFIH number.

`e` = Termination report. Valid value(s):
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action has not begun.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ABT:DFIH`

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Output Message(s):

```
DGN:DFIH
EX:DFIH
RMV:DFIH
RST:DFIH
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

ABT:DFTAC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT g DFTAC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the distributing frame test access circuit (DFTAC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group.

`d` = Circuit number.

`e` = Termination status. Valid value(s):

`ABORTED`	= The aborting process was purged.
`COMPLETED`	= Successful completion. Previous request was aborted.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion. The process gracefully terminated.

`f` = Reason for termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

`g` = The action to be aborted.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ABT:DFTAC`

Output Appendix(es):

APP:MAINT-RESP

ABT:DIST

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] DIST=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the distribute (DIST) point board at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the distribute point board). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Metallic service unit (MSU) number.

`d` = Service group number.

`e` = Distribute point board number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`g` = Additional data qualifying the termination report (variable '`f`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ABT:DIST
```

Output Message(s):

```
DGN:DIST
EX:DIST
RMV:DIST
RST:DIST
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:DNUSCC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] DNUSCC=b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:DNUSCC input request to abort maintenance actions on a digital networking unit - synchronous optical network (DNU-S) common controller (DNUSCC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. Valid value(s):
- `DGN` = Diagnose.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = DNU-S number.

`d` = Common controller number.

`e` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
ABT:DNUSCC
```

Output Message(s):

```
DGN:DNUSCC
RMV:DNUSCC
RST:DNUSCC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

ABT:DNUSCD

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] DNUSCD=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:DNUSCD input request to abort maintenance actions on a digital networking unit - synchronous optical network (DNU-S) common data (DNUSCD).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. Valid value(s):
- `DGN` = Diagnose.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = DNU-S number.

`d` = Data group number.

`e` = Common data number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
ABT:DNUSCD
```

Output Message(s):

```
DGN:DNUSCD
RMV:DNUSCD
RST:DNUSCD
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

ABT:DNUSEOC

Software Release: 5E12 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
ABT [a] DNUSEOC=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To report the result of an ABT:DNUSEOC input message that aborts the current action on a TR303 remote terminal (RT) embedded operations channel (EOC) circuit.

Note: A TR303 RT includes the AT&T Series 5 Feature Package 303G RT.

3. VARIABLE FIELD DEFINITIONS

`a` = Action to be aborted. Valid values are:
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = digital networking unit - synchronous optical network (DNU-S) number.

`d` = RT number.

`e` = EOC number.

`f` = Termination report. Valid values are:
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.

`g` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:DNUSEOC
```

Output Message(s):

```
RMV:DNUSEOC
RST:DNUSEOC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

MCC Display Page(s):

1660,xxxx (TR303 REMOTE TERMINAL)

ABT:DNUSTMC

Software Release: 5E12 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
ABT [a] DNUSTMC=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To report the result of an ABT:DNUSTMC input message that aborts the current action on a TR303 remote terminal (RT) timeslot management channel (TMC) circuit.

Note: A TR303 RT includes the AT&T Series 5 Feature Package 303G RT.

3. VARIABLE FIELD DEFINITIONS

`a` = Action to be aborted. Valid values are:
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = DNU-S number.

`d` = RT number.

`e` = TMC number.

`f` = Termination report. Valid values are:
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.

`g` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
ABT:DNUSTMC
```

Output Message(s):

```
RMV:DNUSTMC
RST:DNUSTMC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1660,xxxx (TR303 REMOTE TERMINAL)

ABT:DS1SFAC-A

Software Release: 5E10 - 5E11
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] DS1SFAC=b-c-d-e-f g [h]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:DS1SFAC input request to abort maintenance actions on a digital networking unit - synchronous optical network (SONET) (DNU-S) digital signal level 1 facility (DS1SFAC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = DNU-S number.

`d` = Data group (DG) number.

`e` = Synchronous transport signal (STS) facility number.

`f` = Virtual tributary level 1 (VT1) facility number.

`g` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`h` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
ABT:DS1SFAC
```

Output Message(s):

```
RMV:DS1SFAC
RST:DS1SFAC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1511 (DNUS STS)

ABT:DS1SFAC-B

Software Release: 5E12 only
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] DS1SFAC=b-c-d-e-f g [h]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:DS1SFAC input request to abort maintenance actions on a digital networking unit - synchronous optical network (SONET) (DNU-S) digital signal level 1 facility (DS1SFAC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = DNU-S number.

`d` = Data group (DG) number.

`e` = Synchronous transport signal (STS) facility number.

`f` = Virtual tributary level 1 (VT1) facility number.

`g` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`h` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
ABT:DS1SFAC
```

Output Message(s):

```
RMV:DS1SFAC
RST:DS1SFAC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1511 (DNUS STS MAINTENANCE)

ABT:DS1SFAC-C

Software Release: 5E13 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] DS1SFAC=b-c-d-e-f-g-h i [j]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:DS1SFAC input request to abort maintenance actions on a digital networking unit - synchronous optical network (SONET) (DNU-S) digital signal level 1 facility (DS1SFAC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Digital Networking Unit - SONET (DNU-S) number.

`d` = Data group (DG) number.

`e` = SONET Termination Equipment (STE) facility number.

`f` = Synchronous Transport Signal (STS) facility number.

`g` = Virtual tributary group (VTG) number.

`h` = Virtual tributary member (VTM) number.

`i` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`j` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTIONS TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

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None.

6. REFERENCES

Input Message(s):

```
ABT:DS1SFAC
```

Output Message(s):

```
RMV:DS1SFAC
RST:DS1SFAC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1511 (DNUS STS MAINTENANCE)

ABT:EAN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] EAN=b-c d [e]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the equipment access network (EAN) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the EAN). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Directly connected test unit number.

`d` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`e` = Additional data qualifying the termination report (variable '`d`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:EAN
```

Output Message(s):

```
DGN:EAN
EX:EAN
RMV:EAN
RST:EAN
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:EC1STE

Software Release: 5E13 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] EC1STE=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:EC1STE input request to abort maintenance actions on a digital networking unit - Electrical Carrier Level 1 SONET Termination equipment facility (EC1STE).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Digital Networking Unit - SONET (DNU-S) number.

`d` = Data group (DG) number.

`e` = SONET Termination Equipment (STE) facility number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTIONS TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
ABT:EC1STE
```

Output Message(s):

```
RMV:EC1STE
RST:EC1STE
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

ABT:EOC

Software Release: 5E10 - 5E11
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
ABT [a] EOC=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To report the result of an ABT:EOC input message that aborts the current action on a TR303 remote terminal (RT) embedded operations channel (EOC) circuit.

Note: A TR303 RT includes the Series 5 feature package 303G RT.

3. VARIABLE FIELD DEFINITIONS

`a` = Action to be aborted. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Integrated digital carrier unit (IDCU) number.

`d` = RT number.

`e` = EOC number.

`f` = Termination report. Valid value(s):
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.

`g` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:EOC
```

Output Message(s):

```
RMV:EOC
RST:EOC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

MCC Display Page(s):

188xyy (IDCU REMOTE TERMINAL)

ABT:FAC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] FAC=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To report the result of an ABT:FAC input message to abort the current action on a remote switching module (RSM) facility (FAC) or a trunk FAC.

An RSM FAC can be a host-remote facility between a host switching module (HSM) and an RSM, or a remote facility between two RSMs. A trunk FAC is an inter-office trunk.

3. VARIABLE FIELD DEFINITIONS

`a` Action being aborted. Valid value(s):

`RMV`	= Remove.
`RST`	= Restore.
`TST`	= Test.

Default is the action currently executing on the FAC.

`b` = Switching module (SM) number.

`c` = Digital line and trunk unit (DLTU) number.

`d` = RSM digital facilities interface (RDFI), RSM communication link digital facilities interface (CFI), or inter-office trunk digital facilities interface (DFI) number.

`e` = FAC number. The FAC number is the T1 facility number on a RDFI, CDFI, or DFI.

`f` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action had not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

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None.

6. REFERENCES

Input Message(s):

```
ABT:FAC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-250 *System Recovery*

ABT:GDSF

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] GDSF=b-c d [e]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the global digital services function (GDSF) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the GDSF circuit). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = GDSF number.

`d` = Termination status. Valid value(s):
- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`e` = Additional data qualifying the terminating report (variable '`d`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:GDSF
```

Output Message(s):

```
DGN:GDSF
EX:GDSF
RMV:GDSF
RST:GDSF
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:GDSUCOM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] GDSUCOM=b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the global digital service unit common (GDSUCOM) board at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the GDSUCOM board). Valid value(s):

- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Global digital service unit number.

`d` = Service group number.

`e` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`f` = Additional data qualifying the termination report (variable '`e`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ABT:GDSUCOM
```

Output Message(s):

```
DGN:GDSUCOM
EX:GDSUCOM
RMV:GDSUCOM
RST:GDSUCOM
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:GDXACC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] GDXACC=b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the gated diode crosspoint access (GDXACC) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` =Action being aborted (default is the action currently executing on the GDXACC). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Line unit number.

`d` = Service group number.

`e` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`f` Additional data qualifying the termination report (variable '`e`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:GDXACC
```

Output Message(s):

```
DGN:GDXACC
EX:GDXACC
RMV:GDXACC
RST:GDXACC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:GDXC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] GDXC=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the gated diode crosspoint compensator (GDXC) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the GDXC). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Metallic service unit number.

`d` = Service group number.

`e` = Metallic service unit board position number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`g` = Additional data qualifying the termination report (variable '`f`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ABT:GDXC
```

Output Message(s):

```
DGN:GDXC
EX:GDXC
RMV:GDXC
RST:GDXC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:GDXCON

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] GDXCON=b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the gated diode crosspoint control (GDXCON) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the GDXCON). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Line unit number.

`d` = Service group number.

`e` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`f` = Additional data qualifying the termination report (variable '`e`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:GDXCON
```

Output Message(s):

```
DGN:GDXCON
EX:GDXCON
RMV:GDXCON
RST:GDXCON
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:GKCCR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT GKCCR {SM=a|CMP=b-c {PRIM|MATE}|AM} - d
```

2. REASON FOR OUTPUT

To report the status of a request to abort a generated key collection and compression routine (GKCCR). The abort request was requested using the ABT:GKCCR input message. The message is repeated for each processor that was requested in the ABT:GKCCR input message.

ABT:GKCCR aborts an executing GKCCR whether it is an automatic or manual GKCCR. Automatic GKCCR runs periodically unless GKCCR is inhibited using the INH:GKCCR input message. Manual GKCCR runs as a result of the EXC:GKCCR input message.

3. VARIABLE FIELD DEFINITIONS

`AM` = The GKCCR abort was requested on the administrative module.

`MATE` = The GKCCR abort was requested on the mate communication module processor (CMP).

`PRIM` = The GKCCR abort was requested on the primary CMP.

`a` = Number of the switching module for which the GKCCR abort was requested.

`b` = Message switch side for the desired CMP.

`c` = CMP number for which the GKCCR abort was requested.

`d` = Output message termination report. Valid value(s):
`ABORT COMPLETED` = The GKCCR was aborted on the requested processor. Any queued GKCCR requests are de-queued.
`NO RUNNING GKCCR PROCESS FOUND` = No GKCCR process was running on the requested processor. Any queued GKCCR requests are de-queued.

4. ACTION TO BE TAKEN

None. If the "ABORT COMPLETED" output termination occurs, all processes are terminated immediately. No data corruption occurs as a result of the abort. Any queued GKCCR requests are de-queued.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:GKCCR
ALW:GKCCR
EXC:GKCCR
INH:GKCCR
```

Output Message(s):

```
REPT:GKCCR
EXC:GKCCR
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

ABT:GRID

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] GRID=b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the gated diode crosspoint (GDX) grid at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the GDX grid). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Line unit number.

`d` = Grid number.

`e` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`f` = Additional data qualifying the termination report (variable '`e`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:GRID
```

Output Message(s):

```
DGN:GRID
EX:GRID
RMV:GRID
RST:GRID
TST:GRID
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:GRIDBD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT GRIDBD=a-b-c-d     e  [f]
```

2. REASON FOR OUTPUT

To report the results of an attempt to abort (ABT) the current action on a line unit model 2; (LU2) or line unit model 3; (LU3) grid board (GRIDBD).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Grid number.

`d` = Board number.

`e` = Termination status. Valid value(s):

- `ABORTED` = Requested action was terminated before completion and the termination is immediate. Consistency of hardware and data is questionable.
- `COMPLETED` = The request was successfully completed.
- `NOT STARTED-` = Processing did not begin because the system was unable to service the request.
- `STOPPED` = The request terminated after processing was begun. The termination was graceful.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ABT:GRIDBD`

Output Appendix(es):

APP:MAINT-RESP

ABT:HDFI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] HDFI=b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the result of an abort (ABT) of the current action on the host switching module (HSM) digital facilities interface (HDFI) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the HDFI). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Digital line and trunk unit (DLTU) number.

`d` = HDFI number.

`e` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was complete.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of the resulting hardware status was made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
ABT:HDFI
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:IDCU

Software Release: 5E10 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
ABT [a] IDCU=b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of an ABT:IDCU input message that aborts the current action on an integrated digital carrier unit (IDCU) service group circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action to be aborted. Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = IDCU number.

`d` = IDCU service group number.

`e` = Termination report. Valid value(s):
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.

`f` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ABT:IDCU`

Output Message(s):

```
DGN:IDCU
EX:IDCU
RMV:IDCU
RST:IDCU
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

MCC Display Page(s):

186x (IDCU CIRCUIT)

ABT:IDCUELI

Software Release: 5E10 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
ABT [a] IDCUELI=b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of an ABT:IDCUELI input message that aborts the current action on the integrated digital carrier unit (IDCU) electrical line interface (ELI) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action to be aborted. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = IDCU number.

`d` = ELI number.

`e` = Termination report. Valid value(s):
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.

`f` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:IDCUELI
```

Output Message(s):

```
RMV:IDCUELI
```

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RST:IDCUELI

Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

MCC Display Page(s):

186x (IDCU CIRCUIT)

ABT:IDCUEOC

Software Release: 5E12 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
ABT [a] IDCUEOC=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To report the result of an ABT:IDCUEOC input message that aborts the current action on a TR303 remote terminal (RT) embedded operations channel (EOC) circuit.

Note: A TR303 RT includes the AT&T Series 5 Feature Package 303G RT.

3. VARIABLE FIELD DEFINITIONS

`a` = Action to be aborted. Valid values are:
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Integrated digital carrier unit (IDCU) number.

`d` = RT number.

`e` = EOC number.

`f` = Termination report. Valid values are:
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.

`g` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
ABT:IDCUEOC
```

Output Message(s):

```
RMV:IDCUEOC
RST:IDCUEOC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

MCC Display Page(s):

1880,x,yy (IDCU REMOTE TERMINAL)

ABT:IDCUPIDB

Software Release: 5E10 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
ABT [a] IDCUPIDB=b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of an ABT:IDCUPIDB input message that aborts the current action on an integrated digital carrier unit (IDCU) peripheral interface data bus (PIDB) or direct PIDB (DPIDB) pair.

3. VARIABLE FIELD DEFINITIONS

`a` = Action to be aborted.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = IDCU number.

`d` = PIDB or DPIDB pair number.

`e` = Termination report. Valid value(s):
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.

`f` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ABT:IDCUPIDB`

Output Message(s):

`RMV:IDCUPIDB`

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```
RST:IDCUPIDB
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

ABT:IDCUTMC

Software Release: 5E12 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
ABT [a] IDCUTMC=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To report the result of an ABT:IDCUTMC input message that aborts the current action on a TR303 remote terminal (RT) timeslot management channel (TMC) circuit.

Note: A TR303 RT includes the AT&T Series 5 Feature Package 303G RT.

3. VARIABLE FIELD DEFINITIONS

`a` = Action to be aborted. Valid values are:
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = IDCU number.

`d` = RT number.

`e` = TMC number.

`f` = Termination report. Valid values are:
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.

`g` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
ABT:IDCUTMC
```

Output Message(s):

```
RMV:IDCUTMC
RST:IDCUTMC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1880,x,yy (IDCU REMOTE TERMINAL)

ABT:IFAC

Software Release: 5E10 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
ABT [a] IFAC=b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of an ABT:IFAC input message that aborts the current action on an integrated digital carrier unit (IDCU) digital signal level one (DS1) facility (IFAC) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action to be aborted. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = IDCU number.

`d` = IFAC number.

`e` = Termination report. Valid value(s):
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ABT:IFAC`

Output Message(s):

`RMV:IFAC`

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```
RST:IFAC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

MCC Display Page(s):

187x (IDCU FACILITY)
188xyy (IDCU REMOTE TERMINAL)

ABT:ISLUCC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] ISLUCC=b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:ISLUCC input message to abort the current action on the integrated services line unit common controller (ISLUCC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. Valid value(s):

`DGN`	= Diagnose.
`EX`	= Exercise.
`RMV`	= Remove.
`RST`	= Restore.

`b` = Switching module (SM) number.

`c` = Integrated services line unit (ISLU) number.

`d` = Common controller number.

`e` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was not graceful.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
ABT:ISLUCC
```

Output Message(s):

```
DGN:ISLUCC
EX:ISLUCC
RMV:ISLUCC
RST:ISLUCC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

170x (ISLU NETWORK)
170xy (ISLU LINE GROUP)

ABT:ISLUCD

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] ISLUCD=b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:ISLUCD input message to abort the current action on the integrated services line unit common data (ISLUCD).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. Valid value(s):

`DGN`	= Diagnose.
`EX`	= Exercise.
`RMV`	= Remove.
`RST`	= Restore.

`b` = Switching module (SM) number.

`c` = Integrated services line unit (ISLU) number.

`d` = Common data number.

`e` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was not graceful.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of this manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:ISLUCD
```

Output Message(s):

```
DGN:ISLUCD
EX:ISLUCD
RMV:ISLUCD
RST:ISLUCD
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x (ISLU NETWORK)
170xy (ISLU LINE GROUP)

ABT:ISLUHLSC

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
ABT [a] ISLUHLSC=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To describe the result of an attempt to abort an action (diagnose, exercise, remove, or restore) on an integrated services line unit (ISLU) high level service circuit (HLSC).

3. VARIABLE FIELD DEFINITIONS

`a` = The action for which the abort was attempted. The default is the action that is currently executing on the indicated HLSC. Valid value(s):

- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = ISLU number.

`d` = ISLU service group number.

`e` = High level service circuit number.

`f` = Termination report. Valid value(s):

- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`g` = Information that qualifies the above termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance manual.

Note: If the requested circuit was removed from service prior to the abort request's being honored, the circuit will remain out of service.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:ISLUHLSC
DGN:ISLUHLSC
EX:ISLUHLSC
RMV:ISLUHLSC
RST:ISLUHLSC
```

Output Message(s):

```
DGN:ISLUHLSC
EX:ISLUHLSC
RMV:ISLUHLSC
RST:ISLUHLSC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x, 171x (ISLU)

ABT:ISLULBD

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] ISLULBD=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:ISLULBD input message to abort the current action on the integrated services line unit line board (ISLULBD).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Integrated services line unit (ISLU) number.

`d` = Line group number.

`e` = Line board number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
ABT:ISLULBD
```

Output Message(s):

```
DGN:ISLULBD
EX:ISLULBD
RMV:ISLULBD
RST:ISLULBD
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

ABT:ISLULC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] ISLULC=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:ISLULC input message to abort the current action on the integrated services line unit line card (ISLULC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Integrated services line unit (ISLU) number.

`d` = Line group controller number.

`e` = Line card number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
ABT:ISLULC
```

Output Message(s):

```
DGN:ISLULC
EX:ISLULC
RMV:ISLULC
RST:ISLULC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x (ISLU NETWORK)
170xy (ISLU LINE GROUP)

ABT:ISLULCKT

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] ISLULCKT=b-c-d-e-f g [h]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:ISLULCKT input message to abort the current action on the integrated services line unit line circuit (ISLULCKT).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Integrated services line unit (ISLU) number.

`d` = Line group number.

`e` = Line board number.

`f` = Line circuit number.

`g` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`h` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ABT:ISLULCKT
```

Output Message(s):

```
DGN:ISLULCKT
EX:ISLULCKT
RMV:ISLULCKT
RST:ISLULCKT
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

ABT:ISLULG

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] ISLULG=b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:ISLULG input message to abort the current action on the integrated services line unit group (ISLULG).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. Valid value(s):
- `DGN` = Diagnose.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Integrated services line unit (ISLU) number.

`d` = Line group number.

`e` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ABT:ISLULG`

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Output Message(s):

```
DGN:ISLULG
RMV:ISLULG
RST:ISLULG
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

ABT:ISLULGC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] ISLULGC=b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:ISLULGC input message to abort the current action on the integrated services line unit group controller (ISLULGC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. Valid value(s):

`DGN`	= Diagnose.
`EX`	= Exercise.
`RMV`	= Remove.
`RST`	= Restore.

`b` = Switching module (SM) number.

`c` = Integrated services line unit (ISLU) number.

`d` = Line group controller number.

`e` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was not graceful.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:ISLULGC
```

Output Message(s):

```
DGN:ISLULGC
EX:ISLULGC
RMV:ISLULGC
RST:ISLULGC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x (ISLU NETWORK)
170xy (ISLU LINE GROUP)

ABT:ISLUMAN

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
ABT [a] ISLUMAN=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To describe the result of an attempt to abort an action (diagnose, exercise, remove, or restore) on an integrated services line unit (ISLU) metallic access network pack.

3. VARIABLE FIELD DEFINITIONS

`a` = The action for which the abort was attempted. The default is the action that is currently executing on the indicated metallic access network pack. Valid value(s):

`DGN`	= Diagnose.
`EX`	= Exercise.
`RMV`	= Remove.
`RST`	= Restore.

`b` = Switching module (SM) number.

`c` = ISLU number.

`d` = ISLU service group number.

`e` = Metallic access network pack number.

`f` = Termination report. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`g` = Information that qualifies the above termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance manual.

Note: If the requested circuit was removed from service prior to the abort request's being honored, the circuit will remain out of service.

5. ALARMS

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None.

6. REFERENCES

Input Message(s):

```
ABT:ISLUMAN
DGN:ISLUMAN
EX:ISLUMAN
RMV:ISLUMAN
RST:ISLUMAN
```

Output Message(s):

```
DGN:ISLUMAN
EX:ISLUMAN
RMV:ISLUMAN
RST:ISLUMAN
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x, 171x (ISLU)

ABT:ISLUPIDB

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] ISLUPIDB=b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:ISLUPIDB input message to abort the current action on the integrated services line unit (ISLU) peripheral interface data bus (PIDB) pair (both service groups).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = ISLU number.

`d` = PIDB pair number.

`e` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ABT:ISLUPIDB`

Output Message(s):

```
RMV:ISLUPIDB
RST:ISLUPIDB
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x (ISLU NETWORK)
170xy (ISLU LINE GROUP)

ABT:ISLURG

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
ABT [a] ISLURG=b-c-d e [f]
```

2. REASON FOR OUTPUT

To describe the result of an attempt to abort an action (diagnose, exercise, remove, or restore) on an integrated services line unit (ISLU) ringing generator circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = The action for which the abort was attempted. The default is the action that is currently executing on the indicated ringing generator circuit. Valid value(s):

`DGN`	= Diagnose.
`EX`	= Exercise.
`RMV`	= Remove.
`RST`	= Restore.

`b` = Switching module (SM) number.

`c` = ISLU number.

`d` = ISLU service group number.

`e` = Termination report. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`f` = Information that qualifies the above termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance manual.

Note: If the requested circuit was removed from service prior to the abort request's being honored, the circuit will remain out of service.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ABT:ISLURG
DGN:ISLURG
EX:ISLURG
RMV:ISLURG
RST:ISLURG
```

Output Message(s):

```
DGN:ISLURG
EX:ISLURG
RMV:ISLURG
RST:ISLURG
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x, 171x (ISLU)

ABT:ISTF

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] ISTF=b-c d [e]
```

2. REASON FOR OUTPUT

This message is in response to an ABT:ISTF input message that aborts the current action on the integrated services test function (ISTF) unit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. Valid value(s):

`DGN`	= Diagnose.
`EX`	= Exercise.
`RMV`	= Remove.
`RST`	= Restore.

Note: The default is the action currently executing on the ISTF unit.

`b` = Switching module (SM) number.

`c` = ISTF unit number.

`d` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was immediate and was not graceful.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated gracefully before a normal completion.

`e` = Additional data qualifying the termination report (variable '`d`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:ISTF
```

Output Message(s):

```
DGN:ISTF
EX:ISTF
RMV:ISTF
RST:ISTF
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:LDSF

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] LDSF=b-c d [e]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the local digital service function (LDSF) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the LDSF circuit). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = LDSF number.

`d` = Termination status. Valid value(s):
- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:ISTF
```

Output Message(s):

```
DGN:ISTF
```

```
EX:ISTF
RMV:ISTF
RST:ISTF
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:LDSU

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] LDSU=b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the local digital service unit- model 2; (LDSU2) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the LDSU2 board). Valid value(s):

- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Local digital service unit number.

`d` = Service group number.

`e` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action has not begun.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

`APP:MAINT-RESP`

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ABT:LDSUCOM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] LDSUCOM=b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the local digital service unit common (LDSUCOM) board at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the LDSUCOM board). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Local digital service unit number.

`d` = Service group number.

`e` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`f` = Additional data qualifying the termination report (variable '`e`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ABT:LDSUCOM
```

Output Message(s):

```
DGN:LDSUCOM
EX:LDSUCOM
RMV:LDSUCOM
RST:LDSUCOM
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:LIB

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT LIB TEAM  a    b    c    d
```

2. REASON FOR OUTPUT

To report the completion status of a manually issued ABT:LIB input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Team number.

`b` = Administrative module (AM) flag. Valid value(s):
- `N` = AM is not reporting.
- `Y` = AM is reporting.

`c` = Switching module (SM) number. Default is that SM is not reporting.

`d` = Results. Valid value(s):

```
COMPLETED
STOPPED - PROGRAM IS NOT STARTED
STOPPED - PROCESSOR LOADED BY A DIFFERENT TEAM
STOPPED - NO PROGRAM LOADED
```

4. ACTION TO BE TAKEN

Since this is a response to a manual request, no action is required. Normally, testing would proceed from this point.

5. ALARMS

None.

6. REFERENCES

None.

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ABT:LUCHAN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] LUCHAN=b-c-d-e-f g [h]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the line unit channel (LUCHAN) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the LUCHAN). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Line unit number.

`d` = Service group number.

`e` = Channel board number.

`f` = Channel number.

`g` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`h` = Additional data qualifying the termination report (variable '`g`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

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None.

6. REFERENCES

Input Message(s):

```
ABT:LUCHAN
```

Output Message(s):

```
EX:LUCHAN
RMV:LUCHAN
RST:LUCHAN
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:LUCHBD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] LUCHBD=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the line unit channel board (LUCHBD) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the LUCHBD). Valid value(s):
- `DGN` = Diagnose.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Line unit number.

`d` = Service group number.

`e` = Channel board number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`g` = Additional data qualifying the termination report (variable '`f`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:LUCHBD
```

Output Message(s):

```
DGN:LUCHBD
RMV:LUCHBD
RST:LUCHBD
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:LUCOMC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] LUCOMC=b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the line unit common control (LUCOMC) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the LUCOMC). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Line unit number.

`d` = Service group number.

`e` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`f` = Additional data qualifying the termination report (variable '`e`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:LUCOMC
```

Output Message(s):

```
DGN:LUCOMC
EX:LUCOMC
RMV:LUCOMC
RST:LUCOMC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:LUHLSC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] LUHLSC=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the line unit high level service circuit (LUHLSC) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the LUHLSC). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Line unit number.

`d` = Service group number.

`e` = High-level service circuit number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`g` = Additional data qualifying the termination report (variable '`f`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ABT:LUHLSC
```

Output Message(s):

```
DGN:LUHLSC
EX:LUHLSC
RMV:LUHLSC
RST:LUHLSC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:MA

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] MA=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the metallic access (MA) board at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the MA board). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Metallic service unit number.

`d` = Service group number.

`e` = Metallic access board number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`g` = Additional data qualifying the termination report (variable '`f`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ABT:MA
```

Output Message(s):

```
DGN:MA
EX:MA
RMV:MA
RST:MA
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:MAB

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT MAB=a-b-c-d e f
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the metallic access bus (MAB) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Unit number.

`c` = Service group number.

`d` = Board number.

`e` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED-CERTIFIED` = Successful completion. Independent certification of resulting hardware.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ABT:MAB`

Output Appendix(es):

`APP:MAINT-RESP`

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ABT:MCTSI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] MCTSI=b-c d [e]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the module controller/time slot interchange (MCTSI) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the MCTSI). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Module control unit number.

`d` = Termination report.
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`e` = Additional data qualifying the termination report (variable '`d`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:MCTSI
```

Output Message(s):

```
DGN:MCTSI
EX:MCTSI
RMV:MCTSI
RST:MCTSI
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:MSUCOM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] MSUCOM=b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the metallic service unit common (MSUCOM) board at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the MSUCOM board). Valid value(s):

- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Metallic service unit number.

`d` = Service group number.

`e` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`f` = Additional data qualifying the termination report (variable '`e`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:MSUCOM
```

Output Message(s):

```
DGN:MSUCOM
EX:MSUCOM
RMV:MSUCOM
RST:MSUCOM
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:MTB

Software Release: 5E12 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] MTB=b-c-d-e-f g [h]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the metallic access test bus (MTB) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the MTB board). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Metallic service unit number.

`d` = Service group number.

`e` = Metallic access board number.

`f` = Metallic access test bus number.

`g` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`h` = Additional data qualifying the termination report (variable '`g`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ABT:MTB
```

Output Message(s):

```
DGN:MTB
EX:MTB
RMV:MTB
RST:MTB
```

Output Appendix(es):

```
APP:MAINT-RESP
```

MCC Display Page(s):

1135/1145 (MSU MA STATUS)

ABT:MTIB

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT MTIB=a b c
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the metallic test interconnect bus (MTIB) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = MTIB number.

`b` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED-CERTIFIED` = Successful completion. Independent certification of resulting hardware.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`c` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ABT:MTIB`

Output Appendix(es):

`APP:MAINT-RESP`

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ABT:MTIBAX

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT MTIBAX=a-b-c-d e f
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the metallic test interconnect bus access (MTIBAX) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Unit number.

`c` = Service group number.

`d` = Board number.

`e` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED-CERTIFIED` = Successful completion. Independent certification of resulting hardware.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ABT:MTIBAX`

Output Appendix(es):

`APP:MAINT-RESP`

ABT:ODDBU

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT ODDBU a
```

2. REASON FOR OUTPUT

To report the status of ABT:ODDBKUP input requests to abort (ABT) office-dependent data (ODD) backups.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination report. Valid value(s):

- `COMPLETED` = The requested action terminated after completion.
- `NOT STARTED` = The requested action could not begin.
- `STOPPED` = The requested action terminated before a normal completion and termination was graceful.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:ODDBKUP
BKUP:ODD
CLR:ODDBKUP
OP:BKUPSTAT
```

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ABT:OFR

Software Release: 5E10 and later
Message Class: OFR
Application: 5
Type: Output

1. FORMAT

```
ABT OFR STATUS=a
```

2. REASON FOR OUTPUT

To report the status of the ABT:OFR input message which aborts the processing of on-line office records (OFR) printing.

3. VARIABLE FIELD DEFINITIONS

`a` = Input message status. Valid value(s):
`SUCCESSFUL OFR ABORT` = The processing was aborted.
`INVALID REQUEST` = No records were processing at the time of the request.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:OFR
STP:OFR
```

Output Message(s):

```
STOP:OFR
```

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ABT:PMU

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] PMU=b-c-d g [h]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the precision measurement unit (PMU) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the PMU). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Directly connected test unit number.

`d` = Circuit number.

`g` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`h` = Additional data qualifying the termination report (variable '`g`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
ABT:PMU
```

Output Message(s):

```
DGN:PMU
EX:PMU
RMV:PMU
RST:PMU
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:PROTO

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT PROTO=a-b-c d e
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the protocol circuit (PROTO) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED-CERTIFIED` = Successful completion. Independent certification of resulting hardware.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ABT:PROTO`

Output Appendix(es):

`APP:MAINT-RESP`

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ABT:PSU

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] PSU{b}=c-d-e[-f] g [h]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:PSU input message to abort the current action on the packet switch unit (PSU) common controller (COM) or protocol handler (PH).

3. VARIABLE FIELD DEFINITIONS

a = Action being aborted. Valid value(s):
- DGN = Diagnose.
- EX = Exercise.
- RMV = Remove.
- RST = Restore.

b = Circuit name. Valid value(s):
- COM = Common controller.
- PH = Protocol handler.

c = Switching module (SM) number.

d = PSU number.

e = Valid value(s):

If 'b' =	'e' =
COM	Service group number.
PH	Shelf number.

f = Protocol handler number.

g = Termination report. Valid value(s):
- ABORTED = Requested action was terminated before completion, and the termination was not graceful.
- COMPLETED = Request has successfully completed.
- NOT STARTED = Requested action has not begun.
- STOPPED = Requested action was terminated before a normal completion. Termination was graceful.

h = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

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If unexpected results occur, refer to the Corrective Maintenance and System Recovery Manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:PSU
```

Output Message(s):

```
DGN:PSU
EX:PSU
RMV:PSU
RST:PSU
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

118x (PSU SHELF)
1186 (PSU NETWORK)

ABT:PSUPIDB

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] PSUPIDB=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Indicates the results of an ABT:PSUPIDB input message that aborts the current action on a packet switch unit (PSU) peripheral interface data bus (PIDB).

3. VARIABLE FIELD DEFINITIONS

`a` = Action to be aborted. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = PSU number.

`d` = PSU shelf number.

`e` = PIDB number.

`f` = Termination status. Valid value(s):
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action has not be begun.

`g` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the status is `COMPLETED`, no action is required. If the status is not `COMPLETED`, then additional information should give some indication of why the request failed. Verify that the system was in a valid state to perform the request.

If unexpected result occur, refer to the Routine Operations and Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ABT:PSUPIDB`

Output Message(s):

```
RST:PSUPIDB
RMV:PSUPIDB
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

ABT:RAF

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] RAF=b-c d [e]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort the current action on the recorded announcement function (RAF) unit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the RAF unit). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = RAF unit number.

`d` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate and was not graceful.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated gracefully before a normal completion.

`e` = Additional data qualifying the termination report (variable '`d`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:RAF
```

Output Message(s):

```
DGN:RAF
EX:RAF
RMV:RAF
RST:RAF
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:RAU

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] RAU=b c [d]
```

2. REASON FOR OUTPUT

To indicate the result of an abort (ABT) of the current action on the remote switching module alarm unit (RAU) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the RAU). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was complete.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed, and independent certification of the resulting hardware status was made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ABT:RAU`

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:RCL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT a RCL=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To indicate the result of an ABT:RCL input request to abort a maintenance action on a remote communication link (RCL) between inter-remote switching module (RSM) communication link digital facilities interface (CDFI) circuits.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. The default is the action currently executing on the RCL.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Digital line and trunk unit (DLTU) number.

`d` = CDFI number.

`e` = Facility (FAC) number. The FAC number is the T1 facility number on a CDFI.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action had not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:RCL
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

ABT:RCLK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT a RCLK=b-c d  [e]
```

2. REASON FOR OUTPUT

To show system response to abort (ABT) maintenance action on the remote clock (RCLK) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the RCLK). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = RCLK side.

`d` = Termination report. Valid value(s):
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action had not begun.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ABT:RCLK`

Output Appendix(es):

`APP:MAINT-RESP`

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MCC Display Page(s):

(RSM RCU)

ABT:RCOSC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT a RCOSC=b-c d  [e]
```

2. REASON FOR OUTPUT

To show system response to abort (ABT) maintenance action on the remote clock oscillator (RCOSC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the RCOSC). Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = RCOSC side.

`d` = Termination report. Valid value(s):
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action had not begun.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ABT:RCOSC`

Output Appendix(es):

`APP:MAINT-RESP`

MCC Display Page(s):

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ABT:RCOXC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT a RCOXC=b-c d  [e]
```

2. REASON FOR OUTPUT

To show system response to abort (ABT) maintenance action on the remote clock oscillator cross couple (RCOXC) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the RCOXC). Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = RCOXC side.

`d` = Termination report. Valid value(s):
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action had not begun.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ABT:RCOXC`

Output Appendix(es):

`APP:MAINT-RESP`

MCC Display Page(s):

(RSM RCU)

ABT:RCREF

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT a RCREF=b-c d  [e]
```

2. REASON FOR OUTPUT

To show system response to abort (ABT) maintenance action on the remote clock reference (RCREF).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the RCREF). Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Reference number.

`d` = Termination report. Valid value(s):
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action had not begun.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ABT:RCREF`

Output Appendix(es):

`APP:MAINT-RESP`

MCC Display Page(s):

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ABT:RCXC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT a RCXC=b-c d  [e]
```

2. REASON FOR OUTPUT

To show system response to abort (ABT) maintenance action on the remote clock cross couple (RCXC) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the RCXC). Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = RCXC side.

`d` = Termination report. Valid value(s):
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action had not begun.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ABT:RCXC`

Output Appendix(es):

`APP:MAINT-RESP`

MCC Display Page(s):

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(RSM RCU)

ABT:RDFI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] RDFI=b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the result of an abort (ABT) of the current action on the remote switching module digital facilities interface (RDFI) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the RDFI). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Digital line and trunk unit (DLTU) number.

`d` = RDFI number.

`e` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was complete.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of the resulting hardware status was made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
ABT:RDFI
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:RLI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] RLI=b-c d [e]
```

2. REASON FOR OUTPUT

To indicate the result of an abort (ABT) of the current action on the remote switching module remote link interface (RLI) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the RLI). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = RLI number.

`d` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was complete.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of the resulting hardware status was made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:RLI
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:RRCLK

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] RRCLK=b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:RRCLK input message to abort the current maintenance action on the remote integrated services line unit remote clock (RRCLK) circuit pack.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.
- `SW` = Switch.

`b` = Switching module (SM) number.

`c` = Remote integrated services line unit (RISLU) number.

`d` = RRCLK side.

`e` = Termination report. Valid value(s):
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action had not begun.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance Manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ABT:RRCLK`

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Output Message(s):

```
DGN:RRCLK
EX:RRCLK
RMV:RRCLK
RST:RRCLK
SW:RRCLK
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

ABT:RT-EOC-A

Software Release: 5E10 - 5E11
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
ABT [a] RT EOC=b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of an ABT:RT-EOC input message that aborts the current action on a TR303 remote terminal (RT) embedded operations channel (EOC) circuit.

Note: A TR303 RT includes the Series 5 feature package 303G RT.

3. VARIABLE FIELD DEFINITIONS

`a` = Action to be aborted. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Site identification number.

`c` = EOC number.

`d` = Termination report. Valid value(s):
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.

`e` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ABT:RT-EOC`

Output Message(s):

`RMV:RT-EOC`

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RST:RT-EOC

Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

ABT:RT-EOC-B

Software Release: 5E12 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
ABT [a] RT EOC=b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of an ABT:RT-EOC input message that aborts the current action on a TR303 remote terminal (RT) embedded operations channel (EOC) circuit.

Note: A TR303 RT includes the Series 5 feature package 303G RT.

3. VARIABLE FIELD DEFINITIONS

`a` = Action to be aborted. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Site identification number.

`c` = EOC number.

`d` = Termination report. Valid value(s):
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.

`e` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ABT:RT-EOC`

Output Message(s):

`RMV:RT-EOC`

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RST:RT-EOC

Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1880,x,yy (IDCU REMOTE TERMINAL)
1660,xxxx (TR303 REMOTE TERMINAL)

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ABT:RT-TMC-A

Software Release: 5E10 - 5E11
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
ABT [a] RT TMC=b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:RT-TMC input message that aborts the current action on a TR303 remote terminal (RT) timeslot management channel (TMC) circuit.

Note: A TR303 RT includes the Series 5 feature package 303G RT.

3. VARIABLE FIELD DEFINITIONS

`a` = Action to be aborted. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Site identification number.

`c` = TMC number.

`d` = Termination report. Valid value(s):
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.

`e` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:RT-TMC
```

Output Message(s):

```
RMV:RT-TMC
```

RST:RT-TMC

Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

188xyy (IDCU REMOTE TERMINAL)

ABT:RT-TMC-B

Software Release: 5E12 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
ABT [a] RT TMC=b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:RT-TMC input message that aborts the current action on a TR303 remote terminal (RT) timeslot management channel (TMC) circuit.

Note: A TR303 RT includes the Series 5 feature package 303G RT.

3. VARIABLE FIELD DEFINITIONS

`a` = Action to be aborted. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Site identification number.

`c` = TMC number.

`d` = Termination report. Valid value(s):
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.

`e` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ABT:RT-TMC`

Output Message(s):

`RMV:RT-TMC`

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RST:RT-TMC

Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1880,x,yy (IDCU REMOTE TERMINAL)
1660,xxxx (TR303 REMOTE TERMINAL)

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ABT:RTFAC

Software Release: 5E12 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
ABT [a] RTFAC=b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:RTFAC input message that aborts the current action on a TR303 remote terminal (RT) facility (FAC) circuit.

Note: A TR303 RT includes the feature package 303G RT.

3. VARIABLE FIELD DEFINITIONS

`a` = Action to be aborted. Valid values are:
- `RMV` = Remove.
- `RST` = Restore.

`b` = Site identification number.

`c` = TMC number.

`d` = Termination report. Valid values are:
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.

`e` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:RTFAC
```

Output Message(s):

```
RMV:RTFAC
```

RST:RTFAC

Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1660,xxxx (TR303 REMOTE TERMINAL)

ABT:RVPT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT g RVPT=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the revertive pulsing transceiver (RVPT) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Unit number.

`c` = Service group.

`d` = Circuit number.

`e` = Termination status. Valid value(s):

`ABORTED`	= The aborting process was purged.
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`f` = Data qualifying the termination status.

`g` = The action to be aborted.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:RVPT
STP:RVPT
```

Output Appendix(es):

APP:MAINT-RESP

ABT:SAS

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] SAS=b-c d [e]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the service announcement system (SAS) unit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the SAS unit). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = SAS unit number.

`d` = Termination status. Valid value(s):
- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`e` = Additional data qualifying the termination report (variable '`d`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:SAS
```

Output Message(s):

```
DGN:SAS
EX:SAS
RMV:SAS
RST:SAS
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:SCAN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] SCAN=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the scan point board at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the scan point board). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Metallic service unit number.

`d` = Service group number.

`e` = Scan point board number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`g` = Additional data qualifying the termination report (variable '`f`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ABT:SCAN
```

Output Message(s):

```
DGN:SCAN
EX:SCAN
RMV:SCAN
RST:SCAN
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:SDFI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] SDFI=a-b-c d e [f]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the *SLC*®96 digital facility interface (SDFI).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the SDFI). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Digital carrier line unit (DCLU) number.

`d` = SDFI number.

`e` = Termination status. Valid value(s):
- `ABORTED` = The action requested was unsuccessful and the termination was not graceful. Hardware states are not reliable.
- `COMPLETED` = The action completed successfully.
- `NOT STARTED` = The action to be aborted has not yet started.
- `STOPPED` = The action terminated before a normal completion but the termination was graceful. Hardware states are reliable.

`f` = Additional data qualifying the termination report (variable '`e`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the termination status is ABORTED, purge the MRA process using input message INIT:SM-SPP. Otherwise, no action is necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
ABT:SDFI
INIT:SM-SPP
```

Output Message(s):

```
DGN:SDFI
EX:SDFI
RMV:SDFI
RST:SDFI
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:SFI

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] SFI=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:SFI input request to abort maintenance actions on a digital networking unit - synchronous optical network (DNU-S) synchronous transport signal electrical interface (STSX-1) facility interface (SFI).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. Valid value(s):
- `DGN` = Diagnose.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = DNU-S number.

`d` = Data group number.

`e` = STSX-1 facility interface number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
ABT:SFI
```

Output Message(s):

```
DGN:SFI
RMV:SFI
RST:SFI
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

ABT:SLIM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] SLIM=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the subscriber line instrument measurement (SLIM) board at a specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. Default is the action currently executing on the SLIM board. Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Metallic service unit number. of the Output Messages manual.

`d` = Service group number.

`e` = SLIM board number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`g` = Additional data qualifying the termination report (variable '`f`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ABT:SLIM
```

Output Message(s):

```
DGN:SLIM
EX:SLIM
RMV:SLIM
RST:SLIM
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:STEFAC

Software Release: 5E10 - 5E12
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] STEFAC=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:STEFAC input request to abort maintenance actions on a digital networking unit - synchronous optical network (SONET) (DNU-S) signaling terminal equipment facility (STEFAC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = DNU-S number.

`d` = Data group (DG) number.

`e` = STE facility number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
ABT:STEFAC
```

Output Message(s):

```
RMV:STEFAC
RST:STEFAC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

ABT:STSFAC-A

Software Release: 5E10 - 5E11
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] STSFAC=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:STSFAC input request to abort maintenance actions on a digital networking unit - synchronous optical network (SONET) (DNU-S) synchronous transport signal facility (STSFAC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = DNU-S number.

`d` = Data group (DG) number.

`e` = Synchronous transport signal (STS) number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
ABT:STSFAC
```

Output Message(s):

```
RMV:STSFAC
RST:STSFAC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1511 (DNUS STS)

ABT:STSFAC-B

Software Release: 5E12 only
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] STSFAC=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:STSFAC input request to abort maintenance actions on a digital networking unit - synchronous optical network (SONET) (DNU-S) synchronous transport signal facility (STSFAC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = DNU-S number.

`d` = Data group (DG) number.

`e` = Synchronous transport signal (STS) number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
ABT:STSFAC
```

Output Message(s):

```
RMV:STSFAC
RST:STSFAC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1511 (DNUS STS MAINTENANCE)

ABT:STSFAC-C

Software Release: 5E13 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] STSFAC=b-c-d-e-f g [h]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:STSFAC input request to abort maintenance actions on a digital networking unit - synchronous optical network (SONET) (DNU-S) synchronous transport signal facility (STSFAC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Digital Networking Unit - SONET (DNU-S) number.

`d` = Data group (DG) number.

`e` = SONET Termination Equipment (STE) facility number.

`f` = Synchronous Transport Signal (STS) facility number.

`g` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`h` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTIONS TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
ABT:STSFAC
```

Output Message(s):

```
RMV:STSFAC
RST:STSFAC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1511 (DNUS STS MAINTENANCE)

ABT:TAC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] TAC=b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the test and access circuit (TAC) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default = the action currently executing on the TAC). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Trunk unit number.

`d` = Service group number.

`e` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`f` = Additional data qualifying the termination report (variable '`e`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:TAC
```

Output Message(s):

```
DGN:TAC
EX:TAC
RMV:TAC
RST:TAC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:TASK

Software Release: 5E10 and later
Message Class: TLWS
Application: 5
Type: Output

1. FORMAT

```
ABT TASK a PID=b UNIQ=c d
```

2. REASON FOR OUTPUT

To report the outcome of a manual request to abort (ABT) an active trunk and line work station (TLWS) maintenance activity or an active *Autoplex*® automatic task administrator (AATA) task. This message is in direct response to the ABT:TASK input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Job type. Valid value(s):
- `AATA` = AATA maintenance task.
- `TLWS` = TLWS maintenance task.

`b` = Task process number given by an OP:JOBSTATUS output message.

`c` = Unique number given by an OP:JOBSTATUS output message.

`d` = Termination report. Valid value(s):
- `COMPLETED` = The specified task was aborted as requested. An assert (TMABTTSK) has occurred.
- `DEAD PROCESS` = The process was no longer active.
- `NO MATCH` = The specified task did not exist.
- `SYSTEM ERROR` = The specified task was not aborted due to a software problem.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:TASK
OP:JOBSTATUS
```

Output Message(s):

```
OP:JOBSTATUS
```

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ABT:TASK-TLWS

Software Release: 5E10 and later
Message Class: TLWS
Application: 5
Type: Output

1. FORMAT

```
ABT TASK TLWS a b
```

2. REASON FOR OUTPUT

To report the outcome of a manual request to abort (ABT) an active trunk and line work station (TLWS) maintenance activity. This message is in direct response to the ABT:TASK-TLWS input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Task identifier for the TLWS task. This is the task identifier given by an OP:JOBSTATUS output message.

`b` = Termination report. Valid value(s):

- `COMPLETED` = The specified task was aborted as requested. An assert (TMABTTSK) has occurred.
- `NO MATCH` = The specified task did not exist.
- `SYSTEM ERROR` = The specified task was not aborted due to a software problem.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:TASK-TLWS
OP:JOBSTATUS
```

Output Message(s):

```
OP:JOBSTATUS
```

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ABT:TEN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] TEN=b-c-d-e-f g [h]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the trunk equipment number (TEN) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default = the action currently executing on the TEN). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = TEN unit number.

`d` = Service group number.

`e` = TEN board number.

`f` = TEN circuit number.

`g` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`h` = Additional data qualifying the termination report (variable '`g`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ABT:TEN
```

Output Message(s):

```
DGN:TEN
EX:TEN
RMV:TEN
RST:TEN
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:TMC

Software Release: 5E10 - 5E11
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
ABT [a] TMC=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To report the result of an ABT:TMC input message that aborts the current action on a TR303 remote terminal (RT) timeslot management channel (TMC) circuit.

Note: A TR303 RT includes the Series 5 feature package 303G RT.

3. VARIABLE FIELD DEFINITIONS

`a` = Action to be aborted. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = IDCU number.

`d` = RT number.

`e` = TMC number.

`f` = Termination report. Valid value(s):
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.

`g` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ABT:TMC`

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Output Message(s):

```
RMV:TMC
RST:TMC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

188xyy (IDCU REMOTE TERMINAL)

ABT:TMUX

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] TMUX=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:TMUX input request to abort maintenance actions on a digital networking unit - synchronous optical network (DNU-S) transmission multiplexer (TMUX).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. Valid value(s):
- `DGN` = Diagnose.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = DNU-S number.

`d` = Data group number.

`e` = TMUX number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
ABT:TMUX
```

Output Message(s):

```
DGN:TMUX
RMV:TMUX
RST:TMUX
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

ABT:TST-LEN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT TST LEN=a-b-c-d-e-f g [h]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the line equipment number (LEN) unit at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Grid number.

`d` = Grid board number.

`e` = Grid board switch number.

`f` = Grid board switch level number.

`g` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was immediate.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion.

`h` = Additional data qualifying the termination report (variable '`g`').

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:TST-LEN
STP:TST-LEN
TST:LEN
```

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Output Message(s):

```
STP:TST-LEN
TST:LEN
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

ABT:TTFCOM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] TTFCOM=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the transmission test facility common (TTFCOM) board at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. The default is the action currently executing on the TTFCOM board). Valid value(s):

- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Global digital service unit number.

`d` = Service group number.

`e` = Board number.

`f` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`g` = Additional data qualifying the termination report (variable '`f`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ABT:TTFCOM
```

Output Message(s):

```
DGN:TTFCOM
EX:TTFCOM
RMV:TTFCOM
RST:TTFCOM
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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ABT:TUCHBD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] TUCHBD=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the trunk unit channel board (TUCHBD) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. The default is the action currently executing on the TUCHBD). Valid value(s):

- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Trunk unit number.

`d` = Service group number.

`e` = Channel board number.

`f` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`g` = Additional data qualifying the termination report (variable '`f`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ABT:TUCHBD
```

Output Message(s):

```
DGN:TUCHBD
RMV:TUCHBD
RST:TUCHBD
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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ABT:UCONF

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] UCONF=b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the universal conference (UCONF) circuit board at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. The default is the action currently executing on the UCONF circuit board. Valid value(s):

- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Global digital service unit number.

`d` = Service group number.

`e` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action had not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`f` = Additional data qualifying the termination report (variable '`e`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
ABT:UCONF
```

Output Message(s):

```
DGN:UCONF
EX:UCONF
RMV:UCONF
RST:UCONF
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:UMBIL

Software Release: 5E13 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
ABT [a] UMBIL=b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:UMBIL input message that aborts the current action on a host umbilical (UMBIL) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action to be aborted. Valid values are:
- `RMV` = Remove.
- `RST` = Restore.

`b` = Host Switch Module (HSM) number.

`c` = Remote Switch Module (RSM) number.

`d` = UMBIL number.

`e` = Termination report. Valid values are:
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has been denied.

`f` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ABT:UMBIL`

Output Message(s):

`RMV:UMBIL`

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RST:UMBIL

Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1740,xxx,yyy (HOST UMBILICALS (1 - 10))
1741,xxx,yyy (HOST UMBILICALS (11 - 20))

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ABT:UTD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] UTD=b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the universal tone decoder (UTD) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. The default is the action currently executing on the UTD. Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Local digital service unit number.

`d` = Service group number.

`e` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action had not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`f` = Additional data qualifying the termination report (variable '`e`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:UTD
```

Output Message(s):

```
DGN:UTD
EX:UTD
RMV:UTD
RST:UTD
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:UTG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ABT [a] UTG=b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to abort (ABT) the current action on the universal tone generator (UTG) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. The default si the action currently executing on the UTG. Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Local digital service unit number.

`d` = Service group number.

`e` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action had not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`f` = Additional data qualifying the termination report (variable '`e`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
ABT:UTG
```

Output Message(s):

```
DGN:UTG
EX:UTG
RMV:UTG
RST:UTG
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ABT:VT1FAC-A

Software Release: 5E10 - 5E11
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] VT1FAC=b-c-d-e-f g [h]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:VT1FAC input request to abort maintenance actions on a digital networking unit - synchronous optical network (SONET) (DNU-S) virtual tributary level 1 facility (VT1FAC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = DNU-S number.

`d` = Data group (DG) number.

`e` = Synchronous transport signal (STS) facility number.

`f` = Virtual tributary level 1 (VT1) number.

`g` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`h` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
ABT:VT1FAC
```

Output Message(s):

```
RMV:VT1FAC
RST:VT1FAC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1511 (DNUS STS)

ABT:VT1FAC-B

Software Release: 5E12 only
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] VT1FAC=b-c-d-e-f g [h]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:VT1FAC input request to abort maintenance actions on a digital networking unit - synchronous optical network (SONET) (DNU-S) virtual tributary level 1 facility (VT1FAC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = DNU-S number.

`d` = Data group (DG) number.

`e` = Synchronous transport signal (STS) facility number.

`f` = Virtual tributary level 1 (VT1) number.

`g` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`h` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
ABT:VT1FAC
```

Output Message(s):

```
RMV:VT1FAC
RST:VT1FAC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1511 (DNUS STS MAINTENANCE)

ABT:VT1FAC-C

Software Release: 5E13 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ABT [a] VT1FAC=b-c-d-e-f-g-h i [j]
```

2. REASON FOR OUTPUT

Indicates the result of an ABT:VT1FAC input request to abort maintenance actions on a digital networking unit - synchronous optical network (SONET) (DNU-S) virtual tributary level 1 facility (VT1FAC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Digital Networking Unit - SONET (DNU-S) number.

`d` = Data group (DG) number.

`e` = SONET Termination Equipment (STE) facility number.

`f` = Synchronous Transport Signal (STS) facility number.

`g` = Virtual tributary group (VTG) number.

`h` = Virtual tributary member (VTM) number.

`i` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`j` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTIONS TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

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None.

6. REFERENCES

Input Message(s):

```
ABT:VT1FAC
```

Output Message(s):

```
RMV:VT1FAC
RST:VT1FAC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1511 (DNUS STS MAINTENANCE)

6. ACTV

ACTV:OMDB

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    ACTV OMDB COMPLETED
         OMDB SEGMENTS.
         TOTAL         ACTIVE
         a              b
       ____________________________________________________________________________
       _
[2]    ACTV OMDB FAILED
       ____________________________________________________________________________
       _
[3]    ACTV OMDB ABORTED
         UNABLE TO SEND REQUEST TO CSOP
       ____________________________________________________________________________
       _
```

2. REASON FOR OUTPUT

To report the completion of processing an ACTV:OMDB input message to refresh the active (incore) output message database (OMDB).

3. VARIABLE FIELD DEFINITIONS

a = Total number of segments that the OMDB requires.

b = Number of segments that are active (incore).

4. ACTION TO BE TAKEN

For Format 2, refer to the REPT:CSOP output message(s) found in the receive-only printer (ROP) output preceding this message. They should give more information about the nature of the error. If they indicate that the file /cft/spl/omdb is not accessible, determine if the disk is available. If the disk is available, verify the status of the OMDB disk file by using the OP:ST-LISTDIR input message for /cft/spl/omdb. If neither of these actions determines a probable cause, there may be insufficient memory available to bring a fresh copy of the OMDB incore.

For Format 3, verify that the coordinator of spooler output processes (CSOP) output spooler is running.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):

1	1
3	118

Input Message(s):

```
ACTV:OMDB
APPLY:OMDB
OP:OMDB
OP:ST-LISTDIR
UPD:OMDB
```

Output Message(s):

```
REPT:CSOP
REPT:CSOP-PRIM
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

7. ALW

ALW:ALE-A

Software Release: 5E10 - 5E11
Message Class: PRFM,PRFMRSP
Application: 5
Type: Output

1. FORMAT

```
[1]    ALW ALE a
       ____________________________________________________________________________________
       _
[2]    ALW ALE SM INHIBITS - SEGMENT b
         SM     INHIBITS
         c   [NOT AVAILABLE] [L1-PM] [PER-GEN]
         .          .           .        .
         .          .           .        .
         .          .           .        .
       ____________________________________________________________________________________
       _
[3]    ALW ALE INHIBIT REPORT - SEGMENT b
         SM=c  STATUS: d e
                                                  -------LEVEL 1-------
                                                  ALERTS   REPORTS  PER
         EQUIPMENT NUMBER  DSLGM      CH TY   PM  HOUR DAY  INT DAY  GEN
         ----------------  ---------- -- --   --  ---- ---  --- ---  ---
                 f          c-q-r     [s] t  [INH][INH][INH][INH][INH][INH]
                 .          . . .      .  .     .   .    .    .   .    .
                 .          . . .      .  .     .   .    .    .   .    .
                 .          . . .      .  .     .   .    .    .   .    .
       ____________________________________________________________________________________
       _
[4]    ALW ALE u: TOTAL OF v SEGMENTS PRINTED
       ____________________________________________________________________________________
       _
```

2. REASON FOR OUTPUT

To acknowledge the ALW:ALE input message indicating the status of ALE control parameters. The parameters reported in this message are grouped into two classes.

A Switching module (SM) controls:

The SM parameters control the behavior of the level 1 performance monitoring and protocol error record (PER) generation. Refer to the Protocol Error Record Descriptions manual for additional information about a specific PER.

If the level 1 parameter is inhibited, then level 1 performance monitoring is not active for all the U-interface digital subscriber lines (DSLs) on the SM. If allowed, then level 1 performance monitoring status for a U-interface DSL is determined by the level 1 performance monitoring group assigned to the DSL.

If the PER generation parameter is inhibited, then no PERs will be recorded for any integrated

services digital network (ISDN) protocol channels on the SM. If the parameter is allowed, then the PER generation parameter for the individual ISDN protocol channel determines if PERs are recorded for that channel.

B Line/trunk controls:

Line/trunk ALE controls consist of a set of level 1 parameters and the PER generation parameter. The level 1 parameters only apply to U-interface DSLs. The PER generation parameter applies to all ISDN protocol channels whether supported on lines or trunks. Only the PER generation control parameter may be manipulated by the ALW:ALE input message. The level 1 parameters are manipulated using RC/V View 22.15 (PERFORMANCE MONITORING THRESHOLD GROUP) for performance monitoring groups. The level 1 parameters are reported for completeness.

The level 1 control parameters consist of an overall level 1 inhibit, hourly alert generation, daily alert generation, interval report generation, and daily report generation. If the overall level 1 inhibit is active, then all level 1 performance monitoring activities for the U-interface are disabled. If the hourly alert generation inhibit is active, then the reporting of hourly alerts to the ROP will be suppressed for the interface. If the daily alert generation inhibit is active, then the reporting of daily alerts to the ROP will be suppressed for the interface. If the interval report generation inhibit is active, then the interface will not contribute to the interval report, if applicable. If the daily report generation inhibit is active, then the interface will not contribute to the daily report, if applicable. One or more of the level 1 controls may be active.

If the PER generation inhibit is active, then no PERs will be recorded for the ISDN protocol channel.

Format 1 provides a status message for the progress of the allow request.

Format 2 acknowledges manipulation of the SM control parameters. Up to 24 SMs may be reported in a single message.

Format 3 acknowledges manipulation of the line/trunk control parameters. Up to 6 ISDN protocol channels may be reported in a single message.

Format 4 provides a completion message indicating the number of segments printed for the session.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`INH` = Inhibited. Otherwise allowed.

`L1-PM` = Level 1 protocol monitoring is inhibited for this SM.

`NOT AVAILABLE` = Inhibit status information cannot be obtained for this SM.

`PER-GEN` = PER generation is inhibited for this SM.

`a` = Status message. Valid value(s):
`ABORTED-COMMUNICATION FAILURE` = The current allow request was stopped because of failures in inter-process message transmission.
`ABORTED-DATA BASE ERROR` = The current allow request was stopped due to database access failure in the administrative module (AM).
`ABORTED-INVALID SM` = The requested SM was invalid.
`COMPLETED` = The allow request was completed.

`COMPLETED-NO DSL EQUIPPED/ASSIGNED` = The SM to effect the PER generation allow does not have any ISDN protocol channels assigned.
`NOT STARTED-INVALID PORT` = A single ISDN protocol channel PER generation allow request was made for a non-existent channel.
`NOT STARTED-SM UNAVAILABLE` = A single ISDN protocol channel PER generation allow request was made where the channel was on an SM that was not fully operational.
`NOT STARTED-NON-PRIMARY DN SPECIFIED` = A PER generation allow request was made for a DN that was not a primary DN.
`STARTED` = The allow ALE request has begun processing.

`b` = Segment number.

`c` = SM number.

`d` = Level 1 performance monitoring status. Valid value(s):
`L1PM-ALW` = Level 1 performance monitoring is allowed.
`L1PM-INH` = Level 1 performance monitoring is inhibited.

`e` = PER generation status. Valid value(s):
`PER-ALW` = PER generation is allowed.
`PER-INH` = PER generation is inhibited.

`f` = Equipment number. Valid value(s):

```
DEN=c-g-h-i
EOC=c-m-n-p
ILEN=c-m-n-o
LCEN=c-j-k-l
LCKEN=c-z-h1-a1-b1
NEN=c-c1-d1-e1-f1-g1
PSUEN=c-w-x-y-r
TMC=c-m-n-p
```

`g` = Digital line and trunk unit (DLTU) number.

`h` = Digital facility interface number.

`i` = Digital channel number.

`j` = Integrated services line unit number.

`k` = Line group controller number.

`l` = Line card number.

`m` = Integrated digital carrier unit number.

`n` = Remote terminal number.

`o` = Channel unit number.

`p` = Primary/protection identifier. equipment number.

`q` = Protocol handler (PH) channel group number.

`r` = PH channel group member number.

`s` = Channel type. Valid value(s):

`B1`	= Channel B1.
`B2`	= Channel B2.
`D`	= D-channel.

`t` = Interface type. Valid value(s):

`FD`	= EOC or TMC facility data link.
`SH`	= Speech handler trunk.
`SU`	= *ANSI*® U-interface.
`T`	= T-interface.
`TK`	= Digital trunk.
`U`	= Alternate mark inversion (AMI) U-interface.
`XT`	= X.25 link over T1 trunk.

`u` = Completion status. Valid value(s):

`COMPLETED`	= Operation successfully completed.
`STOPPED`	= Operation stopped.

`v` = Number of segments printed.

`w` = Packet switching unit (PSU) number.

`x` = PSU shelf number.

`y` = PSU channel group number.

`z` = Integrated service line unit 2 (ISLU2) number.

`a`[1] = Line board number.

`b`[1] = Line circuit number.

`c`[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

`d`[1] = Data group (DG) number.

`e`[1] = Synchronous transport signal (STS) number.

`f`[1] = Virtual tributary (VT1.5) number.

`g`[1] = Digital signal level 0 (DS0) number.

`h`[1] = Line group number.

4. ACTION TO BE TAKEN

Inspect the output. If the status of the indicated parameters is incorrect, use the INH:ALE and ALW:ALE input

messages or RC/V to correct the status of the incorrect parameters.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:ALE
EXC:ALE
INH:ALE
OP:ALE
```

Output Message(s):

```
INH:ALE
OP:ALE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-600-755 *Protocol Error Record Descriptions*

ALW:ALE-B

Software Release: 5E12 only
Message Class: PRFM,PRFMRSP
Application: 5
Type: Output

1. FORMAT

```
[1]    ALW ALE a
       ____________________________________________________________________________________
       _
[2]    ALW ALE SM INHIBITS - SEGMENT b
         SM     INHIBITS
         c   [NOT AVAILABLE] [L1-PM] [PER-GEN]
         .          .           .        .
         .          .           .        .
         .          .           .        .
       ____________________________________________________________________________________
       _
[3]    ALW ALE INHIBIT REPORT - SEGMENT b
         SM=c  STATUS: d e
                                                  -------LEVEL 1-------
                                                  ALERTS   REPORTS  PER
         EQUIPMENT NUMBER  DSLGM      CH TY   PM  HOUR DAY  INT DAY  GEN
         ----------------  ---------- -- --   --  ---- ---  --- ---  ---
                 f          c-q-r     [s] t  [INH][INH][INH][INH][INH][INH]
                 .          . . .      .  .     .   .    .    .   .    .
                 .          . . .      .  .     .   .    .    .   .    .
                 .          . . .      .  .     .   .    .    .   .    .
       ____________________________________________________________________________________
       _
[4]    ALW ALE u: TOTAL OF v SEGMENTS PRINTED
       ____________________________________________________________________________________
       _
```

2. REASON FOR OUTPUT

To acknowledge the ALW:ALE input message indicating the status of ALE control parameters. The parameters reported in this message are grouped into two classes.

A Switching module (SM) controls:

The SM parameters control the behavior of the level 1 performance monitoring and protocol error record (PER) generation. Refer to the Protocol Error Record Descriptions manual for additional information about a specific PER.

If the level 1 parameter is inhibited, then level 1 performance monitoring is not active for all the U-interface digital subscriber lines (DSLs) on the SM. If allowed, then level 1 performance monitoring status for a U-interface DSL is determined by the level 1 performance monitoring group assigned to the DSL.

If the PER generation parameter is inhibited, then no PERs will be recorded for any ISDN protocol

channels on the SM. If the parameter is allowed, then the PER generation parameter for the individual integrated services digital network (ISDN) protocol channel determines if PERs are recorded for that channel.

B Line/trunk controls:

Line/trunk ALE controls consist of a set of level 1 parameters and the PER generation parameter. The level 1 parameters only apply to U-interface DSLs. The PER generation parameter applies to all ISDN protocol channels whether supported on lines or trunks. Only the PER generation control parameter may be manipulated by the ALW:ALE input message. The level 1 parameters are manipulated using RC/V View 22.15 (PERFORMANCE MONITORING THRESHOLD GROUP) for performance monitoring groups. The level 1 parameters are reported for completeness.

The level 1 control parameters consist of an overall level 1 inhibit, hourly alert generation, daily alert generation, interval report generation, and daily report generation. If the overall level 1 inhibit is active, then all level 1 performance monitoring activities for the U-interface are disabled. If the hourly alert generation inhibit is active, then the reporting of hourly alerts to the ROP will be suppressed for the interface. If the daily alert generation inhibit is active, then the reporting of daily alerts to the ROP will be suppressed for the interface. If the interval report generation inhibit is active, then the interface will not contribute to the interval report, if applicable. If the daily report generation inhibit is active, then the interface will not contribute to the daily report, if applicable. One or more of the level 1 controls may be active.

If the PER generation inhibit is active, then no PERs will be recorded for the ISDN protocol channel.

Format 1 provides a status message for the progress of the allow request.

Format 2 acknowledges manipulation of the SM control parameters. Up to 24 SMs may be reported in a single message.

Format 3 acknowledges manipulation of the line/trunk control parameters. Up to 6 ISDN protocol channels may be reported in a single message.

Format 4 provides a completion message indicating the number of segments printed for the session.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`INH` = Inhibited. Otherwise allowed.

`L1-PM` = Level 1 protocol monitoring is inhibited for this SM.

`NOT AVAILABLE` = Inhibit status information cannot be obtained for this SM.

`PER-GEN` = PER generation is inhibited for this SM.

`a` = Status message. Valid value(s):
`ABORTED-COMMUNICATION FAILURE` = The current allow request was stopped because of failures in inter-process message transmission.
`ABORTED-DATA BASE ERROR` = The current allow request was stopped due to database access failure in the administrative module (AM).
`ABORTED-INVALID SM` = The requested SM was invalid.
`COMPLETED` = The allow request was completed.

`COMPLETED-NO DSL EQUIPPED/ASSIGNED` = The SM to effect the PER generation allow does not have any ISDN protocol channels assigned.
`NOT STARTED-INVALID PORT` = A single ISDN protocol channel PER generation allow request was made for a non-existent channel.
`NOT STARTED-SM UNAVAILABLE` = A single ISDN protocol channel PER generation allow request was made where the channel was on an SM that was not fully operational.
`NOT STARTED-NON-PRIMARY DN SPECIFIED` = A PER generation allow request was made for a DN that was not a primary DN.
`NOT STARTED-NON-UNIQUE NXX DN` = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.
`STARTED` = The allow ALE request has begun processing.

`b` = Segment number.

`c` = SM number.

`d` = Level 1 performance monitoring status. Valid value(s):
`L1PM-ALW` = Level 1 performance monitoring is allowed.
`L1PM-INH` = Level 1 performance monitoring is inhibited.

`e` = PER generation status. Valid value(s):
`PER-ALW` = PER generation is allowed.
`PER-INH` = PER generation is inhibited.

`f` = Equipment number. Valid value(s):

$AIUEN=c-i^1-j^1-k^1$
$DEN=c-g-h-i$
$DNUSEOC=c-c^1-n-p$
$DNUSTMC=c-c^1-n-p$
$IDCUEOC=c-m-n-p$
$IDCUTMC=c-m-n-p$
$ILEN=c-m-n-o$
$INEN=c-c^1-n-o$
$LCEN=c-j-k-l$
$LCKEN=c-z-h^1-a^1-b^1$
$NEN=c-c^1-d^1-e^1-f^1-g^1$
$PSUEN=c-w-x-y-r$

`g` = Digital line and trunk unit (DLTU) number.

`h` = Digital facility interface number.

`i` = Digital channel number.

`j` = Integrated services line unit number.

`k` = Line group controller number.

`l` = Line card number.

`m` = Integrated digital carrier unit number.

`n` = Remote terminal (RT) number.

`o` = RT line number.

`p` = Primary/protection identifier.

`q` = Protocol handler (PH) channel group number.

`r` = PH channel group member number.

`s` = Channel type. Valid value(s):

`B1`	= Channel B1.
`B2`	= Channel B2.
`D`	= D-channel.

`t` = Interface type. Valid value(s):

`AD`	= Autoplex data trunk.
`BC`	= Frame relay bearer channel.
`FD`	= EOC or TMC facility data link.
`SH`	= Speech handler trunk.
`SU`	= *ANSI*® U-Interface.
`T`	= T-interface.
`TK`	= Digital trunk.
`U`	= Alternate mark inversion (AMI) U-interface.
`XT`	= X.25 link over T1 trunk.

`u` = Completion status. Valid value(s):

`COMPLETED`	= Operation successfully completed.
`STOPPED`	= Operation stopped.

`v` = Number of segments printed.

`w` = Packet switching unit (PSU) number.

`x` = PSU shelf number.

`y` = PSU channel group number.

`z` = Integrated service line unit 2 (ISLU2) number.

`a`[1] = Line board number.

`b`[1] = Line circuit number.

`c`[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

`d`[1] = Data group (DG) number.

`e`[1] = Synchronous transport signal (STS) number.

`f`[1] = Virtual tributary (VT1.5) number.

`g`[1] = Digital signal level 0 (DS0) number.

`h`[1] = Line group number.

`i`[1] = Access interface unit (AIU) number.

`j`[1] = AIU pack number.

`k`[1] = AIU circuit number.

4. ACTION TO BE TAKEN

Inspect the output. If the status of the indicated parameters is incorrect, use the INH:ALE and ALW:ALE input messages or RC/V to correct the status of the incorrect parameters.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:ALE
EXC:ALE
INH:ALE
OP:ALE
```

Output Message(s):

```
INH:ALE
OP:ALE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-600-755 *Protocol Error Record Descriptions*

ALW:ALE-C

Software Release: 5E13 and later
Message Class: PRFM,PRFMRSP
Application: 5
Type: Output

1. FORMAT

```
[1]    ALW ALE a
       ____________________________________________________________________________________
       _
[2]    ALW ALE SM INHIBITS - SEGMENT b
         SM     INHIBITS
         c   [NOT AVAILABLE] [L1-PM] [PER-GEN]
         .          .           .        .
         .          .           .        .
         .          .           .        .
       ____________________________________________________________________________________
       _
[3]    ALW ALE INHIBIT REPORT - SEGMENT b
         SM=c  STATUS: d e
                                                  -------LEVEL 1-------
                                                  ALERTS   REPORTS  PER
         EQUIPMENT NUMBER  DSLGM      CH TY   PM  HOUR DAY  INT DAY  GEN
         ----------------  ---------- -- --   --  ---- ---  --- ---  ---
                 f          c-q-r     [s] t  [INH][INH][INH][INH][INH][INH]
                 .          . . .      .  .     .   .    .    .   .    .
                 .          . . .      .  .     .   .    .    .   .    .
                 .          . . .      .  .     .   .    .    .   .    .
       ____________________________________________________________________________________
       _
[4]    ALW ALE u: TOTAL OF v SEGMENTS PRINTED
       ____________________________________________________________________________________
       _
```

2. REASON FOR OUTPUT

To acknowledge the ALW:ALE input message indicating the status of ALE control parameters. The parameters reported in this message are grouped into two classes.

A Switching module (SM) controls:

The SM parameters control the behavior of the level 1 performance monitoring and protocol error record (PER) generation. Refer to the Protocol Error Record Descriptions manual for additional information about a specific PER.

If the level 1 parameter is inhibited, then level 1 performance monitoring is not active for all the U-interface digital subscriber lines (DSLs) on the SM. If allowed, then level 1 performance monitoring status for a U-interface DSL is determined by the level 1 performance monitoring group assigned to the DSL.

If the PER generation parameter is inhibited, then no PERs will be recorded for any ISDN protocol

channels on the SM. If the parameter is allowed, then the PER generation parameter for the individual integrated services digital network (ISDN) protocol channel determines if PERs are recorded for that channel.

B Line/trunk controls:

Line/trunk ALE controls consist of a set of level 1 parameters and the PER generation parameter. The level 1 parameters only apply to U-interface DSLs. The PER generation parameter applies to all ISDN protocol channels whether supported on lines or trunks. Only the PER generation control parameter may be manipulated by the ALW:ALE input message. The level 1 parameters are manipulated using RC/V View 22.15 (PERFORMANCE MONITORING THRESHOLD GROUP) for performance monitoring groups. The level 1 parameters are reported for completeness.

The level 1 control parameters consist of an overall level 1 inhibit, hourly alert generation, daily alert generation, interval report generation, and daily report generation. If the overall level 1 inhibit is active, then all level 1 performance monitoring activities for the U-interface are disabled. If the hourly alert generation inhibit is active, then the reporting of hourly alerts to the ROP will be suppressed for the interface. If the daily alert generation inhibit is active, then the reporting of daily alerts to the ROP will be suppressed for the interface. If the interval report generation inhibit is active, then the interface will not contribute to the interval report, if applicable. If the daily report generation inhibit is active, then the interface will not contribute to the daily report, if applicable. One or more of the level 1 controls may be active.

If the PER generation inhibit is active, then no PERs will be recorded for the ISDN protocol channel.

Format 1 provides a status message for the progress of the allow request.

Format 2 acknowledges manipulation of the SM control parameters. Up to 24 SMs may be reported in a single message.

Format 3 acknowledges manipulation of the line/trunk control parameters. Up to 6 ISDN protocol channels may be reported in a single message.

Format 4 provides a completion message indicating the number of segments printed for the session.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`INH` = Inhibited. Otherwise allowed.

`L1-PM` = Level 1 protocol monitoring is inhibited for this SM.

`NOT AVAILABLE` = Inhibit status information cannot be obtained for this SM.

`PER-GEN` = PER generation is inhibited for this SM.

`a` = Status message. Valid value(s):

`ABORTED-COMMUNICATION FAILURE` = The current allow request was stopped because of failures in inter-process message transmission.

`ABORTED-DATA BASE ERROR` = The current allow request was stopped due to database access failure in the administrative module (AM).

`ABORTED-INVALID SM` = The requested SM was invalid.

`COMPLETED` = The allow request was completed.

`COMPLETED-NO DSL EQUIPPED/ASSIGNED` = The SM to effect the PER generation allow does not have any ISDN protocol channels assigned.
`NOT STARTED-INVALID PORT` = A single ISDN protocol channel PER generation allow request was made for a non-existent channel.
`NOT STARTED-SM UNAVAILABLE` = A single ISDN protocol channel PER generation allow request was made where the channel was on an SM that was not fully operational.
`NOT STARTED-NON-PRIMARY DN SPECIFIED` = A PER generation allow request was made for a DN that was not a primary DN.
`NOT STARTED-NON-UNIQUE NXX DN` = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.
`STARTED` = The allow ALE request has begun processing.

`b` = Segment number.

`c` = SM number.

`d` = Level 1 performance monitoring status. Valid value(s):
`L1PM-ALW` = Level 1 performance monitoring is allowed.
`L1PM-INH` = Level 1 performance monitoring is inhibited.

`e` = PER generation status. Valid value(s):
`PER-ALW` = PER generation is allowed.
`PER-INH` = PER generation is inhibited.

`f` = Equipment number. Valid value(s):

`g`

AIUEN=c-i^1-j^1-k^1	ILEN=c-m-n-o
DEN=c-g-h-i	INEN=c-c^1-n-o
DNUSEOC=c-c^1-n-p	LCEN=c-j-k-l
DNUSTMC=c-c^1-n-p	LCKEN=c-z-h^1-a^1-b^1
IDCUEOC=c-m-n-p	NEN=c-c^1-d^1-l^1-e^1-f^1-m^1-g^1
IDCUTMC=c-m-n-p	PSUEN=c-w-x-y-r

= Digital line and trunk unit (DLTU) number.

`h` = Digital facility interface number.

`i` = Digital channel number.

`j` = Integrated services line unit number.

`k` = Line group controller number.

`l` = Line card number.

`m` = Integrated digital carrier unit number.

`n` = Remote terminal (RT) number.

`o` = RT line number.

`p` = Primary/protection identifier.

`q` = Protocol handler (PH) channel group number.

`r` = PH channel group member number.

`s` = Channel type. Valid value(s):

`B1`	= Channel B1.
`B2`	= Channel B2.
`D`	= D-channel.

`t` = Interface type. Valid value(s):

`AD`	= Autoplex data trunk.
`BC`	= Frame relay bearer channel.
`FD`	= EOC or TMC facility data link.
`SH`	= Speech handler trunk.
`SU`	= *ANSI*® U-Interface.
`T`	= T-interface.
`TK`	= Digital trunk.
`U`	= Alternate mark inversion (AMI) U-interface.
`XT`	= X.25 link over T1 trunk.

`u` = Completion status. Valid value(s):

`COMPLETED`	= Operation successfully completed.
`STOPPED`	= Operation stopped.

`v` = Number of segments printed.

`w` = Packet switching unit (PSU) number.

`x` = PSU shelf number.

`y` = PSU channel group number.

`z` = Integrated service line unit 2 (ISLU2) number.

`a`[1] = Line board number.

`b`[1] = Line circuit number.

`c`[1] = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

`d`[1] = Data group (DG) number.

`e`[1] = Synchronous transport signal (STS) facility number.

`f`[1] = Virtual tributary (VTG) group number.

`g`[1] = Digital signal level 0 (DS0) number.

`h`[1] = Line group number.

`i`[1] = Access interface unit (AIU) number.

`j`[1] = AIU pack number.

`k`[1] = AIU circuit number.

`l`[1] = SONET termination equipment (STE) facility number.

`m`[1] = Virtual tributary member (VTM) number.

4. ACTIONS TO BE TAKEN

Inspect the output. If the status of the indicated parameters is incorrect, use the INH:ALE and ALW:ALE input messages or RC/V to correct the status of the incorrect parameters.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:ALE
EXC:ALE
INH:ALE
OP:ALE
```

Output Message(s):

```
INH:ALE
OP:ALE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-600-755 *Protocol Error Record Descriptions*

ALW:ALM-A

Software Release: 5E10 - 5E11
Message Class: BPSC
Application: 5
Type: Output

1. FORMAT

```
[1]    ALW ALM a [b] [c] d [e]
       ____________________________________________________________________________________
       _
[2]    ALW ALM RBPSC=f SM=g h d
        [i]
       ____________________________________________________________________________________
       _
[3]    ALW ALM RIBMSC=f SITE=j h d [k]
       ____________________________________________________________________________________
       _
```

2. REASON FOR OUTPUT

To give a termination report of a request to allow alarm reporting on scan points. Format 1 is for alarms assigned to input/output processor (IOP) scan points. Format 2 is for those assigned to remote switching module (RSM), optical remote module (ORM), or two-mile remote module (TRM) metallic service unit (MSU) scan points and is available only in a multimodule RSM, ORM or TRM that has the alarm input option. Format 3 is for those assigned to the remote integrated services line unit (RISLU) building/miscellaneous alarm scan points.

3. VARIABLE FIELD DEFINITIONS

a = Alarm scan point. Valid value(s):

BPSC	= Building power MSU scan point.
CNI	= Common network interface.
ESM	= External sanity monitor.
MFFUSE	= Miscellaneous frame fuse.
MFFAN	= Miscellaneous frame fan -- CM2 offices only.
MISC	= Miscellaneous.
MSGS	= Message switch -- communications module 1 (CM1) offices only.
ONTC	= Office network and timing complex -- CM2 offices only.
TMS	= Time-multiplexed switch -- CM1 offices only.

b = Scan point number or unit number.

If 'a' =	**'b' =**
CNI, MFFAN, or ESM	null

c = Alarm type. Valid value(s):

FANALM	= Fan alarm.
FRMFUSE	= Frame fuse alarm.
PWR	= Power alarm.

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d = Termination report. Valid value(s):

ABORTED
COMPLETED
NOT STARTED

e = Explanation of termination report. Valid value(s):

INCONSISTENT DATA
INVALID OPERATION
SCPT OUT OF RANGE
VALID IN CM1 ONLY
VALID IN CM2 ONLY

f = Remote building/power MSU scan point number (RBPSC) or RISLU building/miscellaneous alarm scan point number (RIBMSC).

g = Switching module (SM) number.

h = Name of scan point.

i = Explanation of termination report for type RBPSC for one of the following termination reports. Valid value(s):

If 'd' =	**'i' =**
ABORTED	POINT ALREADY ALLOWED = The point is already allowed.
	POINT NOT ASSIGNED = The point is shown as not in service in the database.
	POINT OUT OF PERMITTED RANGE = The specified point is not within the range of the remote bldg/pwr group.
	ALARM PROCESS NOT ACTIVE = The switching module number specified does not have remote alarms associated with it.
	DATA BASE ERROR = A database error has been found.
	SOFTWARE FAILURE = A software failure has been found.
COMPLETED	BOTH MSU SG OOS = Both MSU service groups (SG) are out of service (OOS) however, the software copy of the allow state was changed, so when the service groups are put back into service, the point will be allowed.
	ONE MSU SG OOS = One MSU service group (SG) is out of service (OOS). The point was successfully allowed in the active service group. The software copy of the allow state was changed in the other service group, so when it is put back into service, the point will be allowed there also. If no explanation prints, then the requested allow was invoked. Both metallic service unit (MSU) service groups are in service.

j = RISLU site number.

k = Explanation of completion status for type RIBMSC. For one of the following termination reports. Valid value(s):

If 'd' =	'k' =
ABORTED	AUDIT IN PROGRESS = The remote alarm section (RAS) data is being verified, so the requested allow cannot be performed. Since the audit takes at most two minutes (and often completes much sooner), the allow request can be resubmitted in a short time.
	POINT ALREADY ALLOWED = The point is already allowed.
	POINT NOT ASSIGNED = The point is shown as not in service in the database.
COMPLETED	RAS ISOLATED FROM SM = The RAS did not acknowledge the SM's order. However, the SM's software copy of the allow state was changed, so when the RAS's data link digital subscriber line (DSL) returns to service the point will be allowed. If no explanation prints, then the requested allow was invoked. The RAS at the RISLU site acknowledged the request.

4. ACTION TO BE TAKEN

The purpose of this message is to report the result of the action requested by the corresponding manually requested input message. No specific action is indicated.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:ALM
OP:ALM
```

Output Message(s):

```
INH:ALM
REPT:ALM
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

105/106 (BLDG/POWER & ALARM CONTROLS)
1010 (SM STATUS)
1400 (RSM BLDG/POWER ALARMS)
1420 (RISLU BLDG/POWER ALARMS)
1460 (DATA LINK DSLS)
1630 (RISLU SITE INDEX)

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ALW:ALM-B

Software Release: 5E12 and later
Message Class: BPSC
Application: 5
Type: Output

1. FORMAT

```
[1]    ALW ALM a [b] [c] d [e]
       ____________________________________________________________________________________
       _
[2]    ALW ALM RBPSC=f SM=g h d
        [i]
       ____________________________________________________________________________________
       _
[3]    ALW ALM RAS SCPT=f SITE=j h d [k]
       ____________________________________________________________________________________
       _
[4]    ALW ALM EAIU=g-l SCPT=f h d [m]
       ____________________________________________________________________________________
       _
```

2. REASON FOR OUTPUT

To give a termination report of a request to allow alarm reporting on scan points. Format 1 is for alarms assigned to input/output processor (IOP) scan points. Format 2 is for alarms assigned to remote switching modules (RSM), optical remote modules (ORM), or two-mile remote modules (TRM) which are equipped with metallic service unit (MSU) scan points and have the alarm input option on. Format 3 is for alarms assigned to remote alarm section (RAS) scan points. Format 4 is for alarms assigned to expansion access interface unit (EAIU) scan points.

3. VARIABLE FIELD DEFINITIONS

a = Alarm scan point. Valid value(s):

BPSC	= Building/power IOP scan point.
CNI	= Common network interface.
ESM	= External sanity monitor.
MFFUSE	= Miscellaneous frame fuse.
MFFAN	= Miscellaneous frame fan -- CM2 offices only.
MISC	= Miscellaneous IOP scan point.
MSGS	= Message switch -- CM1 offices only.
ONTC	= Office network and timing complex -- CM2 offices only.
TMS	= Time-multiplexed switch -- CM1 offices only.

b = Scan point number or unit number.

If 'a' =	**'b' =**
CNI, MFFAN, or ESM	null.

c = Alarm type. Valid value(s):

FANALM	= Fan alarm.

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FRMFUSE = Frame fuse alarm.
PWR = Power alarm.

d = Termination report. Valid values include:

ABORTED
COMPLETED
NOT STARTED

e = Explanation of termination report. Valid value(s):

INCONSISTENT DATA
INVALID OPERATION
SCPT OUT OF RANGE
VALID IN CM1 ONLY
VALID IN CM2 ONLY

f = Remote building/power MSU scan point (RBPSC) number, RAS scan point number, or EAIU scan point number.

g = Switching module (SM) number.

h = Name of scan point.

i = Explanation of termination report for type RBPSC for one of the following termination reports. Valid value(s):

If 'd' =	**'i' =**
ABORTED	POINT ALREADY ALLOWED = The point is already allowed.
ABORTED	POINT NOT ASSIGNED = The point is shown as not in service in the database.
ABORTED	POINT OUT OF PERMITTED RANGE = The specified point is not within the range of the remote building/power group.
ABORTED	ALARM PROCESS NOT ACTIVE = The switching module number specified does not have remote alarms associated with it.
ABORTED	DATA BASE ERROR = A database error has been found.
ABORTED	SOFTWARE FAILURE = A software failure has been found.
COMPLETED	BOTH MSU SG OOS = Both MSU service groups (SG) are out-of-service (OOS) however, the software copy of the allow state was changed, so when the service groups are put back into service, the point will be allowed.
COMPLETED	ONE MSU SG OOS = One MSU SG is OOS. The point was successfully allowed in the active service group. The software copy of the allow state was changed in the other service group, so when it is put back into service, the point will be allowed there also. If no explanation prints, then the requested allow was invoked. Both metallic service unit (MSU) service groups are in service.

j = Remote peripheral site number.

k = Explanation of completion status for type remote alarm section (RAS) for one of the following termination reports. Valid value(s):

If 'd' =	**'k' =**
ABORTED	
AUDIT IN PROGRESS	= The RAS data is being verified, so the requested allow cannot be performed. Since the audit takes at most two minutes (and often completes much sooner), the allow request can be resubmitted in a short

	time.
POINT ALREADY ALLOWED	= The point is already allowed.
POINT NOT ASSIGNED	= The point is shown as not in service in the database.
COMPLETED	
RAS ISOLATED FROM SM	= The RAS did not acknowledge the SM's order. However, the SM's software copy of the allow state was changed, so when the RAS's data link digital subscriber line (DSL) returns to service the point will be allowed. If no explanation prints, then the requested allow was invoked. The RAS at the remote peripheral site acknowledged the request.

`l` = EAIU unit number.

`m` = Explanation of termination report for type EAIU. Valid value(s):
`FAILED MASK UPDATE` = Failed to write hardware inhibit/allow mask.
`POINT ALREADY ALLOWED` = Point is already allowed.
`POINT NOT ASSIGNED` = Point is not assigned in the database.
`POINT NOT IN USE` = Point is shown as not in use in the database.
`POINT OUT OF RANGE` = Point is not within the range of valid scan points.

4. ACTION TO BE TAKEN

The purpose of this message is to report the result of the action requested by the corresponding manually requested input message. No specific action is indicated.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:ALM
OP:ALM
```

Output Message(s):

```
INH:ALM
REPT:ALM
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

105/106 (BLDG/POWER & ALARM CNTRLS)
119 (MISCELLANEOUS ALARMS)
1400 (RSM BLDG/POWER ALARMS)
1420 (RAS ALARMS)

1640 (REMOTE PERPH MISC ALARMS)

ALW:AUD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    ALW AUD COMPLETED
       ____________________________________________________________________________
       _
[2]    ALW AUD NOT STARTED
         a
       ____________________________________________________________________________
       _
```

2. REASON FOR OUTPUT

To report the termination status of the ALW:AUD input message.

3. VARIABLE FIELD DEFINITIONS

a = Reason. Valid value(s):
CONFLICT WITH CURRENT SYSTEM STATUS b
RETRY LATER c
UNABLE TO IDENTIFY ERROR INPUT ERROR

b = Explanation of error. Refer to the APP:AUD-C appendix in the Appendixes section of the Output Messages manual.

c = Explanation of error. Refer to the APP:AUD-D appendix in the Appendixes section of the Output Messages manual.

Note: Refer to the APP:AUD-A and APP:AUD-B appendixes in the Appendixes section of the Output Messages manual for assorted parsing errors when the define catalog is not active.

4. ACTION TO BE TAKEN

In case of failure (Format 2), use the OP:AUD input message to determine the current system status.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

ALW:AUD
OP:AUD

Output Message(s):

```
OP:AUD
```

Output Appendix(es):

```
APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D
```

Other Manual(s):
235-600-400 *Audits Manual*

ALW:CAMAONI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW CAMAONI COMPLETED
```

2. REASON FOR OUTPUT

To print in response to the ALW:CAMAONI input message.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

None.

5. ALARMS

Minor.

6. REFERENCES

Input Message(s):

```
ALW:CAMAONI
INH:CAMAONI
```

Output Message(s):

```
INH:CAMAONI
```

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ALW:CLNORM

Software Release: 5E10 and later
Message Class: CLNK
Application: 5
Type: Output

1. FORMAT

```
ALW CLNORM COMPLETED
```

2. REASON FOR OUTPUT

To report that the communication link normalization (CLNORM) process has been allowed in response to an ALW:CLNORM input message. Automatic communication link, foundation peripheral controller (FPC), and communication module processor (CMP) reconfiguration actions will be performed by CLNORM.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:CLNORM
INH:CLNORM
```

Output Message(s):

```
INH:CLNORM
```

Other Manual(s):
235-105-250 *System Recovery*

ALW:CONFLOG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    ALW CONFLOG COMPLETED
       ____________________________________________________________________________________
       _
[2]    ALW CONFLOG NOT STARTED
         a
       ____________________________________________________________________________________
       _
```

2. REASON FOR OUTPUT

To report the termination status of the ALW:CONFLOG input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Reason. Valid value(s):
`INVALID ID FIELD`
`RETRY LATER`

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:CONFLOG
INH:CONFLOG
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

ALW:CORC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW CORC a
```

2. REASON FOR OUTPUT

To report the status of an ALW:CORC input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination report. Valid value(s):
- `COMPLETED` = The requested action was terminated after completion.
- `STOPPED` = The requested action was terminated before a normal completion.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Generic Retrofit Procedures manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:CORC
INH:CORC
```

Output Message(s):

```
INH:CORC
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-240 *Generic Retrofit Procedures*

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ALW:CPUQADM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW:CPUQADM a;
```

2. REASON FOR OUTPUT

To report the results of the ALW:CPUQADM input message.

3. VARIABLE FIELD DEFINITIONS

`a` = One of the following. Valid value(s):

`CPU QUEUE ADMINISTRATION SUCCESSFULLY COMPLETED` = All processing in determining CPU queue redistribution has been completed along with redistributing the queues to another SM if needed.

`REDISTRIBUTION OF CPU QUEUES NOT NECESSARY AT THIS TIME` = The read of certain data has indicated that there is no reason to redistribute the CPU queues.

`UNABLE TO REDISTRIBUTE CPU QUEUES AT THIS TIME` = The read or update of certain static relations has failed due to data base inconsistency or inability to perform cross processor reads or updates. A check to see if any SM is not linked to the administration module (AM) will determine if the redistribution of CPU queues should be tried again at a time when all SMs are linked.

4. ACTION TO BE TAKEN

When '`a`' is "`UNABLE TO REDISTRIBUTE CPU QUEUES AT THIS TIME`" retry the ALW:CPUQADM input message when all resources are available.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:CPUQADM
OP:TRFC30
```

Output Message(s):

```
OP:TRFC30-BRCS
```

Output Appendix(es):

```
APP:TRFC-SECTION
```

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Other Manual(s):
235-070-100 *Switch Administration and Engineering Guidelines*

ALW:DEBUG-A

Software Release: 5E10 - 5E11
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]    ALW DEBUG a SM[=b[&&c]] d
       ____________________________________________________________________________________
       _
[2]    ALW DEBUG a AM d
       ____________________________________________________________________________________
       _
```

2. REASON FOR OUTPUT

To report the results of an ALW:DEBUG input message.

Format 1 is for ALE, DIGITAL, METALLIC and CCS7MTCE SM only cases. Format 2 is for CCS7MTCE AM only cases.

3. VARIABLE FIELD DEFINITIONS

`a` = Feature with additional debugging messages. Valid value(s):
- `ALE` = Automatic line evaluation.
- `CCS7MTCE` = Common channel signal maintenance activity.
- `DIGITAL` = Digital testing of lines (TST:DSL) and trunks (TST:TRK)
- `METALLIC` = Metallic path setup.

`b` = Switching module (SM) number or the lower limit of a range of SM numbers.

`c` = The upper limit or a range of SM numbers.

`d` = The result of the request. Valid value(s):
- `COMPLETED` = The debug messages were allowed on the specified SM(s).
- `SM UNAVAILABLE` = The request could not be completed because the specified SM(s) was/were not able to communicate with the administrative module (AM).
- `SM UNEQUIPPED` = The request could not be completed because the specified SM(s) did not exist.

4. ACTION TO BE TAKEN

When the report indicates `SM UNAVAILABLE`, retry the input request once the SM(s) becomes available. Otherwise, no action is required.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
ALW:DEBUG
INH:DEBUG
TST:DSL
TST:TRK
```

Output Message(s):

```
INH:DEBUG
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

ALW:DEBUG-B

Software Release: 5E12 - 5E13
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]    ALW DEBUG a SM[=b[&&c]] d
       ____________________________________________________________________________________
       _
[2]    ALW DEBUG a AM d
       ____________________________________________________________________________________
       _
```

2. REASON FOR OUTPUT

To report the results of an ALW:DEBUG input message.

Format 1 is for ALE, DIGITAL, METALLIC, METPTRACE, METALLMSG, METRESBLK, METSWBLK, METHWFAIL, and CCS7MTCE SM only cases. Format 2 is for CCS7MTCE AM only cases.

3. VARIABLE FIELD DEFINITIONS

`a` = Feature with additional debugging messages. Valid value(s):

- `ALE` = Automatic line evaluation.
- `CCS7MTCE` = Common channel signal maintenance activity.
- `DIGITAL` = Digital testing of lines (TST:DSL) and trunks (TST:TRK)
- `METALLIC` = Metallic path setup.
- `METPTRACE` = Metallic related PTRACEs.
- `METALLMSG` = Metallic path setup blockage and failure (REPT:METALLIC).
- `METRESBLK` = Metallic path setup resource blockage (REPT:METALLIC).
- `METSWBLK` = Metallic path setup software blockage (REPT:METALLIC).
- `METHWFAIL` = Metallic path setup hardware failure (REPT:METALLIC).

`b` = Switching module (SM) number or the lower limit of a range of SM numbers.

`c` = The upper limit or a range of SM numbers.

`d` = The result of the request. Valid value(s):

- `COMPLETED` = The debug messages were allowed on the specified SM(s).
- `SM UNAVAILABLE` = The request could not be completed because the specified SM(s) was/were not able to communicate with the administrative module (AM).

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`SM UNEQUIPPED` = The request could not be completed because the specified SM(s) did not exist.

4. ACTIONS TO BE TAKEN

When the report indicates `SM UNAVAILABLE`, retry the input request once the SM(s) becomes available. Otherwise, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:DEBUG
INH:DEBUG
OP:DEBUG
TST:DSL
TST:TRK
```

Output Message(s):

```
INH:DEBUG
OP:DEBUG
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

ALW:DEBUG-C

Software Release: 5E14 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]    ALW DEBUG a SM[=b[&&c]] d
       ____________________________________________________________________________________
       _
[2]    ALW DEBUG a AM d
       ____________________________________________________________________________________
       _
```

2. REASON FOR OUTPUT

To report the results of an ALW:DEBUG input message.

Format 1 is for ALE, DIGITAL, METALLIC, METPTRACE, METALLMSG, METRESBLK, METSWBLK, METHWFAIL, METSUCCESS, and CCS7MTCE SM only cases. Format 2 is for CCS7MTCE AM only cases.

3. VARIABLE FIELD DEFINITIONS

`a` = Feature with additional debugging messages. Valid value(s):

- `ALE` = Automatic line evaluation.
- `CCS7MTCE` = Common channel signal maintenance activity.
- `DIGITAL` = Digital testing of lines (TST:DSL) and trunks (TST:TRK)
- `METALLIC` = Metallic path setup ASSERT and PTRACE messages with low-level unformatted information, not intended for general customer use.
- `METPTRACE` = Metallic related PTRACE messages.
- `METALLMSG` = Metallic path setup blockage and failure (REPT:METALLIC).
- `METRESBLK` = Metallic path setup resource blockage (REPT:METALLIC).
- `METSWBLK` = Metallic path setup software blockage (REPT:METALLIC).
- `METHWFAIL` = Metallic path setup hardware failure (REPT:METALLIC).
- `METSUCCESS` = Metallic path setup completed successfully (REPT:METALLIC).

`b` = Switching module (SM) number or the lower limit of a range of SM numbers.

`c` = The upper limit or a range of SM numbers.

`d` = The result of the request. Valid value(s):

- `COMPLETED` = The debug messages were allowed on the specified SM(s).

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`SM UNAVAILABLE` = The request could not be completed because the specified SM(s) was/were not able to communicate with the administrative module (AM).

`SM UNEQUIPPED` = The request could not be completed because the specified SM(s) did not exist.

4. ACTIONS TO BE TAKEN

When the report indicates `SM UNAVAILABLE`, retry the input request once the SM(s) becomes available. Otherwise, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:DEBUG
INH:DEBUG
OP:DEBUG
TST:DSL
TST:TRK
```

Output Message(s):

```
INH:DEBUG
```

Other Manual(s):

235-105-220 *Corrective Maintenance*

ALW:DMQ

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B,CNI
Type: Output

1. FORMAT

```
[1]    ALW DMQ COMPLETED
       ____________________________________________________________________________________
       _
[2]    ALW DMQ SOURCE IS NOT INHIBITED
       ____________________________________________________________________________________
       _
[3]    ALW DMQ ENABLED a
       ____________________________________________________________________________________
       _
```

2. REASON FOR OUTPUT

To indicate the status of the ALW:DMQ input message.

Format 1 an ALW:DMQ input message has completed.

Format 2 an ALW:DMQ input message was entered for a noninhibited source.

Format 3 reports that a specific source of automatic maintenance requests is no longer inhibited. It is now allowed to send requests to the maintenance input request administrator (MIRA).

3. VARIABLE FIELD DEFINITIONS

`a` = Three-character name of the source now allowed to make automatic maintenance requests. Valid value(s):

- `ADP` = Automatic diagnostic process.
- `ALL` = Allows all automatic maintenance requests by clearing the inhibited sources.
- `ARR` = Automatic ring recovery.
- `REX` = Routine exercises.

4. ACTION TO BE TAKEN

Use the OP:DMQ input message to determine which diagnostic sources are inhibited.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:DMQ`

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```
INH:DMQ
OP:DMQ
```

Output Message(s):

```
OP:DMQ
REPT:DMQ
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

ALW:DOC

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
ALW DOC TG=a b
```

2. REASON FOR OUTPUT

To report the allowing of dynamic overload controls (DOCs) on a per trunk group basis.

3. VARIABLE FIELD DEFINITIONS

`a` = Trunk group number.

`b` = Termination status. Valid value(s):
`ABORTED` = Command failed.
`COMPLETED` = Command successfully completed.
`FAILED-PARAMETER` = Command failed due to bad input. The trunk group specified does not have a DOC assigned.

4. ACTION TO BE TAKEN

No action is needed for an automatically generated request from the engineering and administrative data acquisition system network management (EADAS/NM). For manually generated requests, the following actions will apply. Valid value(s):

If 'b' =	Action:
ABORTED	Reinitiate the request.
COMPLETED	The message is a confirmation of a request from an input message or with EADAS/NM.
FAILED-PARAMETER	Check for the validity of input parameters and reinitiate the corrected request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:DOC
OP:DOC
```

Other Manual(s):
235-070-100 *Switch Administration and Engineering Guidelines*

MCC Display Page(s):

130 (NM EXCEPTION)

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ALW:DSILC

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
ALW DSILC a
```

2. REASON FOR OUTPUT

To report the allowing of the transmission of dynamic overload control (DOC) and the application of selective incoming load control (SILC) on a total office basis.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination status. Valid value(s):
`ABORTED` = Command failed.
`COMPLETED` = Command successfully completed.

4. ACTION TO BE TAKEN

No action is needed for an automatically generated request from the engineering and administrative data acquisition system/network management (EADAS/NM). For manually generated requests, the following actions will apply.

If 'b' =	Action:
ABORTED	Reinitiate the request.
COMPLETED	The message is a confirmation of a request from an input message or EADAS/NM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:DSILC
OP:DOC
OP:SILC
```

Output Message(s):

```
ALW:DSILC
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services*

MCC Display Page(s):

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130 (NM EXCEPTION)

ALW:EAIINT

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    ALW EAIINT a COMPLETED
       ____________________________________________________________________________________
       _
[2]    ALW EAIINT a COMPLETED WITH c
       ____________________________________________________________________________________
       _
[3]    ALW EAIINT a ABORTED  b
       ____________________________________________________________________________________
       _
```

2. REASON FOR OUTPUT

To indicate the result of a request to allow emergency action interface (EAI) error interrupts on a specified 3B21D computer control unit (CU), or on both 3B21D computer CUs.

Note: The 3B20D computer CUs do not have EAI error interrupts.

Format 1 indicates successful completion.

Format 2 indicates successful completion with a message port problem.

Format 3 indicates an error.

3. VARIABLE FIELD DEFINITIONS

a = Unit type. Valid value(s):

```
CU 0
CU 1
CU 0 AND CU 1
```

b = Error code. Valid value(s):

50	= Message could not be sent to a driver or real time status (RTS) report.
51	= Equipment configuration database (ECD) access function completed unsuccessfully.
52	= Error in message communication.
53	= Error internal to the inhibit administrator.

c = Port problem. Valid value(s):

```
AN INVALID SYSTEM PORT SPECIFIED
```

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```
AN INVALID SYSTEM PORT SPECIFIED FOR AIM
NO PROCESS ATTACHED TO THE SPECIFIED PORT
NO PROCESS ATTACHED TO THE AIM PORT
```

4. ACTION TO BE TAKEN

For Format 1 no action is necessary.

For Format 2, if the process completes with a port problem, Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 3, if an error was reported, use the OP:ERRCHK input message to find out the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a computer technical representative.

5. ALARMS

For Format 1, none. This report is a manually-requested report.

For Formats 2 and 3, none. This is an automatically-generated report.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	406
2	658
3	414

Input Message(s):

```
ALW:EAIINT
ALW:ERRCHK
INH:EAIINT
INH:ERRCHK
OP:ERRCHK
```

Output Message(s):

```
ALW:ERRCHK
INH:EAIINT
INH:ERRCHK
OP:ERRCHK
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

ALW:ECDAUD

Software Release: 5E10 and later
Message Class: AUDIT
Application: 5
Type: Output

1. FORMAT

```
[1]    ALW ECDAUD COMPLETED
       ____________________________________________________________________________________
       _
[2]    ALW ECDAUD ABORTED - SYSTEM ERROR a
       ____________________________________________________________________________________
       _
```

2. REASON FOR OUTPUT

To report the termination status of the ALW:ECDAUD input message.

Format 1 indicates successful execution. No action is necessary.

Format 2 indicates that an internal error has occurred. Refer to variable '`a`' for more information.

3. VARIABLE FIELD DEFINITIONS

`a` = System error number. Valid value(s):

- `1` = Cannot open audit rule file - /lla/ECDAUD/ecdaud.rules.
- `2` = Cannot attach to ECD database.
- `3` = Unable to kill running audit, check PID in /lla/ECDAUD/.ecdaud.pid.
- `4` = Bad rule in rule file (/lla/ECDAUD/ecdaud.rules).
- `5` = Unable to audit data (/lla/ECDAUD/ecdaud.rules).
- `6` = Failure in reading ECD database.
- `7` = Cannot open audit rule file - /lla/ECDAUD/hwchk.rules.
- `8` = Failed to obtain current status.
- `9` = Internal system error.
- `10` = Database partition greater than 80% full, remove unused files.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual request of the ALW:ECDAUD input message. No further action is necessary.

5. ALARMS

Minor if system error encountered.

6. REFERENCES

Input Message(s):

`EXC:ECDAUD`

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```
STOP:ECDAUD
INH:ECDAUD
ALW:ECDAUD
OP:ECDAUD
SCHED:ECDAUD
```

Other Manual(s):
235-100-125 *System Description*
235-105-210 *Routine Operations and Maintenance Procedures*

ALW:ERRCHK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    ALW ERRCHK COMPLETED
       ____________________________________________________________________________________
       _
[2]    ALW ERRCHK COMPLETED WITH b
       ____________________________________________________________________________________
       _
[3]    ALW ERRCHK ABORTED  a
       ____________________________________________________________________________________
       _
[4]    ALW ERRCHK NOT STARTED
         INVALID ID FIELD
       ____________________________________________________________________________________
       _
```

2. REASON FOR OUTPUT

To indicate the result of a request to allow all administrative module (AM) error sources.

3. VARIABLE FIELD DEFINITIONS

a = Error code. Valid value(s):

- 50 = A message could not be sent to a driver or real time status report (RTS).
- 51 = An equipment configuration database (ECD) access function completed unsuccessfully.
- 52 = An error in message communication.
- 53 = An error internal to the inhibit administrator.

b = Port problem. Valid value(s):

- \- An invalid system port specified.
- \- An invalid system port specified for application integrity monitor (AIM).
- \- No process attached to the specified port.
- \- No process attached to the AIM port.

4. ACTION TO BE TAKEN

If an error was reported, use the OP:ERRCHK input message to find out the resulting status of AM inhibits. All error codes associated with this activity are significant and should be reported to the next highest level of assistance.

If the process completes with a port problem, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

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5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	406
2	658
3	414

Input Message(s):

```
ALW:ERRCHK
INH:ERRCHK
OP:ERRCHK
```

Output Message(s):

```
INH:ERRCHK
OP:ERRCHK
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

ALW:ERRINT

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      ALW ERRINT COMPLETED

[2]   ____________________________________________________________
      ALW ERRCHK COMPLETED WITH b

[3]   ____________________________________________________________
      ALW ERRINT ABORTED  a

[4]   ____________________________________________________________
      ALW ERRINT NOT STARTED
        INVALID ID FIELD - INPUT ERROR

[5]   ____________________________________________________________
      ALW ERRINT NOT STARTED
        CONFLICT WITH CURRENT SYSTEM STATUS - UNEQUIPPED UNIT
```

2. REASON FOR OUTPUT

To indicate the result of a request to allow error interrupts on a particular administrative module (AM) hardware unit/complex, or on all AM hardware units.

Format 1 indicates successful completion.

Format 2 indicates completion with a message port problem.

Format 3 indicates an error.

Format 4 indicates an error in the identification field of the input. Possibly, the unit name and number specified cannot be found in the database.

Format 5 indicates that the unit name and number specified was found in the database but is unequipped.

3. VARIABLE FIELD DEFINITIONS

`a` = Error code. Valid value(s):

- `50` = A message could not be sent to a driver or real time status (RTS) report.
- `51` = An equipment configuration database (ECD) access function completed unsuccessfully.
- `52` = An error in message communication.
- `53` = An error internal to the inhibit administrator.

`b` = Port problem. Valid value(s):

```
AN INVALID SYSTEM PORT SPECIFIED
AN INVALID SYSTEM PORT SPECIFIED FOR AIM
```

```
NO PROCESS ATTACHED TO THE SPECIFIED PORT
NO PROCESS ATTACHED TO THE AIM PORT
```

4. ACTION TO BE TAKEN

For Formats 1, 4 and 5, no action is necessary. The purpose of this message is to report the result of the action requested by the corresponding manually executed input message.

For Format 2, if the process completes with a port problem, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 3, if an error was reported, use the OP:ERRCHK input message to find out the resulting status of AM inhibits. All error codes associated with this activity are significant and should be reported to the next highest level of assistance.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	406
2	658
3	414

Input Message(s):

```
ALW:ERRINT
INH:ERRINT
OP:ERRCHK
```

Output Message(s):

```
INH:ERRINT
OP:ERRCHK
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

ALW:ERRSRC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      ALW ERRSRC COMPLETED

[2]   ____________________________________________________________
      ALW ERRCHK COMPLETED WITH b

[3]   ____________________________________________________________
      ALW ERRSRC ABORTED  a

[4]   ____________________________________________________________
      ALW ERRSRC NOT STARTED
        INVALID ID FIELD
```

2. REASON FOR OUTPUT

To indicate the result of a request to allow the processing of errors under an administrative module (AM) control unit (CU) pseudo-node.

3. VARIABLE FIELD DEFINITIONS

a = Error code. Valid value(s):

50	= A message could not be sent to a driver or real time status report (RTS).
51	= An equipment configuration data base (ECD) access function completed unsuccessfully.
52	= An error in message communication.
53	= An error internal to the inhibit administrator.

b = Port problem. Valid value(s):

-	An invalid system port specified.
-	An invalid system port specified for application integrity monitor (AIM).
-	No process attached to the specified port.
-	No process attached to the AIM port.

4. ACTION TO BE TAKEN

If an error was reported, use the OP:ERRCHK input message to find out the resulting status of AM inhibits. All error codes associated with this activity are significant and should be reported to the next highest level of assistance.

If the process completes with a port problem, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

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6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	406
2	414

Input Message(s):

```
ALW:ERRSRC
INH:ERRSRC
OP:ERRCHK
```

Output Message(s):

```
INH:ERRSRC
OP:ERRCHK
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

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ALW:ESP

Software Release: 5E10 and later
Message Class: OVLD
Application: 5
Type: Output

1. FORMAT

```
ALW ESP a
```

2. REASON FOR OUTPUT

To acknowledge a request to allow essential service protection (ESP).

3. VARIABLE FIELD DEFINITIONS

`a`	= Acceptance indication. Valid value(s):
	`ABTD` = ESP is not available.
	`COMP` = ESP is allowed.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

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ALW:FAC-A

Software Release: 5E10 - 5E11
Message Class: PRFM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      ALW FAC FAC=a-b-c-d e f

[2]   ____________________________________________________________
      ALW FAC DFI=a-b-c e f

[3]   ____________________________________________________________
      ALW FAC DLTU=a-b e f

[4]   ____________________________________________________________
      ALW FAC IDCU=a-g e f

[5]   ____________________________________________________________
      ALW FAC IFAC=a-g-i e f

[6]   ____________________________________________________________
      ALW FAC RT=a-g-h e f

[7]   ____________________________________________________________
      ALW FAC SM=a f

[8]   ____________________________________________________________
      ALW FAC DNUS=a-j e f

[9]   ____________________________________________________________
      ALW FAC STEFAC=a-j-k-l e f

[10]  ____________________________________________________________
      ALW FAC VT1FAC=a-j-k-m-n e f

[11]  ____________________________________________________________
      ALW FAC DS1SFAC=a-j-k-m-n e f
```

2. REASON FOR OUTPUT

To output the results of executing an ALW:FAC input request to allow alert reports of transmission facility 15-minute and daily performance monitoring count threshold crossings (REPT:FAC output message) to be output.

Format 1 appears after the ALW:FAC input message was used to allow threshold crossing alert output message generation for a digital facility interface model 2 (DFI-2) facility.

Format 2 appears after the ALW:FAC input message was used to allow threshold crossing alert output message generation for all facilities terminated on a DFI-2.

Format 3 appears after the ALW:FAC input message was used to allow threshold crossing alert output message generation for all facilities terminated on a digital line and trunk unit (DLTU) model 2 (DLTU2).

Format 4 appears after the ALW:FAC input message was used to allow threshold crossing alert output message

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generation for all facilities terminated on an integrated digital carrier unit (IDCU).

Format 5 appears after the ALW:FAC input message was used to allow threshold crossing alert output message generation for a IDCU facility (IFAC).

Format 6 appears after the ALW:FAC input message was used to allow threshold crossing alert output message generation for all facilities terminated on an IDCU-supported TR303 remote terminal (RT).

Format 7 appears after the ALW:FAC input message was used to allow all threshold crossing alert output message generation for all DFI-2, digital networking unit - synchronous optical network (SONET) (DNU-S), and IDCU facilities on a switching module (SM). The individual facilities' INH/ALW state is not changed by this command.

Format 8 appears after the ALW:FAC input message was used to allow threshold crossing alert output message generation for all facilities terminated on a DNU-S.

Format 9 appears after the ALW:FAC input message was used to allow threshold crossing alert output message generation for a given DNU-S section terminating equipment (STE) facility, and its subtending virtual tributary 1.5 (VT1.5) and digital signal level-1 (DS1) facilities.

Format 10 appears after the ALW:FAC input message was used to allow threshold crossing alert output message generation for a given DNU-S VT1.5 facility and its subtending DS1 facility.

Format 11 appears after the ALW:FAC input message was used to allow threshold crossing alert output message generation for a given DNU-S DS1 facility.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = DLTU number.

`c` = DFI-2 number.

`d` = Facility number.

`e` = Type of alerts allowed. Valid value(s):
- `ALL` = Both interval and daily alerts.
- `DAY` = 24 hour alerts.
- `INT` = 15-minute interval alerts.

`f` = Status of command. Valid value(s):
- `COMPLETED` = Request has been successfully completed.
- `COMPLETED RC INH ACTIVE` = Request has been completed, but some facilities are inhibited through RC/V.
- `FAILED` = Failed to allow performance monitoring alerts for the specified facility or unit. This may also mean the switch was able to allow the requested facilities' alert reports, but unable to send that information to the transmission facility. Retry the request later.
- `FAILED RC INH ACTIVE` = Performance monitoring alerts were turned off by RC/V for the requested intervals.
- `FAILED SM INHIBITED` = Performance monitoring alerts were turned off by INH:FAC command for this SM.
- `FAILED SWITCH INHIBITED` = Performance monitoring alerts were turned off by RC/V View 8.1 for the entire switch.

`NO MATCH` = The specified facility or unit does not exist. If the unit type selected was SM, then `NO MATCH` means the SM is not equipped with any unit or facility.
`NOT ALLOWED` = The requested action is not allowed for the given facility or unit.
`SM UNAVAILABLE` = The input request could not be processed because communication with the associated SM is not possible.
`SYSTEM BUSY` = The system's processing capability has been reached or a system resource is unavailable. Retry the request later.

`g` = IDCU number.

`h` = IFAC number.

`i` = RT number.

`j` = DNU-S number.

`k` = Data group number.

`l` = STE facility number.

`m` = Synchronous transport signal (STS) facility number.

`n` = VT1.5 facility number.

4. ACTION TO BE TAKEN

Retry ALW:FAC input message when variable '`f`' equals `SYSTEM BUSY` or `FAILED`. Use the INH:FAC input message to re-inhibit alerts if needed or change the alerting thresholds using RC/V View 8.1 for the entire office, 20.23 for IDCU, 20.25 for DNU-S or 22.15 for DLTU.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:FAC
INH:FAC
INIT:FAC
OP:FAC
```

Output Message(s):

```
INH:FAC
INIT:FAC
OP:FAC
REPT:FAC
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
20.23 [IDCU FACILITY EQUIPMENT (IFAC)]
20.25 (DNU-S PERFORMANCE MONITORING THRESHOLD GROUP)
22.15 (PERFORMANCE MONITORING)

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ALW:FAC-B

Software Release: 5E12 only
Message Class: PRFM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      ALW FAC FAC=a-b-c-d e f

[2]   ____________________________________________________________
      ALW FAC DFI=a-b-c e f

[3]   ____________________________________________________________
      ALW FAC DLTU=a-b e f

[4]   ____________________________________________________________
      ALW FAC IDCU=a-g e f

[5]   ____________________________________________________________
      ALW FAC IFAC=a-g-i e f

[6]   ____________________________________________________________
      ALW FAC {DNUSRT=a-j-h|IDCURT=a-g-h} e f

[7]   ____________________________________________________________
      ALW FAC SM=a f

[8]   ____________________________________________________________
      ALW FAC DNUS=a-j e f

[9]   ____________________________________________________________
      ALW FAC STEFAC=a-j-k-l e f

[10]  ____________________________________________________________
      ALW FAC VT1FAC=a-j-k-m-n e f

[11]  ____________________________________________________________
      ALW FAC DS1SFAC=a-j-k-m-n e f
```

2. REASON FOR OUTPUT

To output the results of executing an ALW:FAC input request to allow alert reports of transmission facility 15-minute and daily performance monitoring count threshold crossings (REPT:FAC output message) to be output.

Format 1 appears after the ALW:FAC input message was used to allow threshold crossing alert output message generation for a digital facility interface model 2 (DFI-2) facility. Format 2 appears after the ALW:FAC input message was used to allow threshold crossing alert output message generation for all facilities terminated on a DFI-2. Format 3 appears after the ALW:FAC input message was used to allow threshold crossing alert output message generation for all facilities terminated on a digital line and trunk unit (DLTU) model 2 (DLTU2). Format 4 appears after the ALW:FAC input message was used to allow threshold crossing alert output message generation for all facilities terminated on an integrated digital carrier unit (IDCU). Format 5 appears after the ALW:FAC input message was used to allow threshold crossing alert output message generation for a IDCU facility (IFAC). Format 6 appears after the ALW:FAC input message was used to allow threshold crossing alert output message generation for all facilities

terminated on an IDCU-supported or digital networking unit - synchronous optical network (SONET) (DNU-S) supported TR303 remote terminal (RT). Format 7 appears after the ALW:FAC input message was used to allow all threshold crossing alert output message generation for all DFI-2, DNU-S and IDCU facilities on a switching module (SM). The individual facilities' INH/ALW state is not changed by this command. Format 8 appears after the ALW:FAC input message was used to allow threshold crossing alert output message generation for all facilities terminated on a DNU-S. Format 9 appears after the ALW:FAC input message was used to allow threshold crossing alert output message generation for a given DNU-S section terminating equipment (STE) facility, and its subtending virtual tributary 1.5 (VT1.5) and digital signal level-1 (DS1) facilities. Format 10 appears after the ALW:FAC input message was used to allow threshold crossing alert output message generation for a given DNU-S VT1.5 facility and its subtending DS1 facility. Format 11 appears after the ALW:FAC input message was used to allow threshold crossing alert output message generation for a given DNU-S DS1 facility.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = DLTU number.

`c` = DFI-2 number.

`d` = Facility number.

`e` = Type of alerts allowed. Valid value(s):

- `ALL` = Both interval and daily alerts.
- `DAY` = 24 hour alerts.
- `INT` = 15-minute interval alerts.

`f` = Status of command. Valid value(s):

- `COMPLETED` = Request has been successfully completed.
- `COMPLETED RC INH ACTIVE` = Request has been completed, but some facilities are inhibited through RC/V.
- `FAILED` = Failed to allow performance monitoring alerts for the specified facility or unit. This may also mean the switch was able to allow the requested facilities' alert reports, but unable to send that information to the transmission facility. Retry the request later.
- `FAILED RC INH ACTIVE` = Performance monitoring alerts were turned off by RC/V for the requested intervals.
- `FAILED SM INHIBITED` = Performance monitoring alerts were turned off by INH:FAC command for this SM.
- `FAILED SWITCH INHIBITED` = Performance monitoring alerts were turned off by RC/V View 8.1 for the entire switch.
- `NO MATCH` = The specified facility or unit does not exist. If the unit type selected was SM, then `NO MATCH` means the SM is not equipped with any unit or facility.
- `NOT ALLOWED` = The requested action is not allowed for the given facility or unit.
- `SM UNAVAILABLE` = The input request could not be processed because communication with the associated SM is not possible.
- `SYSTEM BUSY` = The system's processing capability has been reached or a system resource is unavailable. Retry the request later.

`g` = IDCU number.

`h` = IFAC number.

`i` = RT number.

`j` = DNU-S number.

`k` = Data group number.

`l` = STE facility number.

`m` = Synchronous transport signal (STS) facility number.

`n` = VT1.5 facility number.

4. ACTION TO BE TAKEN

Retry ALW:FAC input message when variable '`f`' equals `SYSTEM BUSY` or `FAILED`. Use the INH:FAC input message to re-inhibit alerts if needed or change the alerting thresholds using RC/V View 8.1 for the entire office, 20.23 for IDCU, 20.25 for DNU-S or 22.15 for DLTU.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:FAC
INH:FAC
INIT:FAC
OP:FAC
```

Output Message(s):

```
INH:FAC
INIT:FAC
OP:FAC
REPT:FAC
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
20.23 [IDCU FACILITY EQUIPMENT (IFAC)]
20.25 (DNU-S PERFORMANCE MONITORING THRESHOLD GROUP)
22.15 (PERFORMANCE MONITORING)

ALW:FAC-C

Software Release: 5E13 and later
Message Class: PRFM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      ALW FAC FAC=a-b-c-d e f

[2]   ____________________________________________________________
      ALW FAC DFI=a-b-c e f

[3]   ____________________________________________________________
      ALW FAC DLTU=a-b e f

[4]   ____________________________________________________________
      ALW FAC IDCU=a-g e f

[5]   ____________________________________________________________
      ALW FAC IFAC=a-g-i e f

[6]   ____________________________________________________________
      ALW FAC {DNUSRT=a-j-h|IDCURT=a-g-h} e f

[7]   ____________________________________________________________
      ALW FAC SM=a f

[8]   ____________________________________________________________
      ALW FAC DNUS=a-j e f

[9]   ____________________________________________________________
      ALW FAC EC1STE=a-j-k-l e f

[10]  ____________________________________________________________
      ALW FAC VT1FAC=a-j-k-l-m-n-o e f

[11]  ____________________________________________________________
      ALW FAC DS1SFAC=a-j-k-l-m-n-o e f
```

2. REASON FOR OUTPUT

To output the results of executing an ALW:FAC input request to allow alert reports of transmission facility 15-minute and daily performance monitoring count threshold crossings (REPT:FAC output message) to be output.

Format 1 appears after the ALW:FAC input message was used to allow threshold crossing alert output message generation for a digital facility interface model 2 (DFI-2) facility. Format 2 appears after the ALW:FAC input message was used to allow threshold crossing alert output message generation for all facilities terminated on a DFI-2. Format 3 appears after the ALW:FAC input message was used to allow threshold crossing alert output message generation for all facilities terminated on a digital line and trunk unit (DLTU) model 2 (DLTU2). Format 4 appears after the ALW:FAC input message was used to allow threshold crossing alert output message generation for all facilities terminated on an integrated digital carrier unit (IDCU). Format 5 appears after the ALW:FAC input message was used to allow threshold crossing alert output message generation for a IDCU facility (IFAC). Format 6 appears after the ALW:FAC input message was used to allow threshold crossing alert output message generation for all facilities

terminated on an IDCU-supported or digital networking unit - synchronous optical network (SONET) (DNU-S) supported TR303 remote terminal (RT). Format 7 appears after the ALW:FAC input message was used to allow all threshold crossing alert output message generation for all DFI-2, DNU-S and IDCU facilities on a switching module (SM). The individual facilities' INH/ALW state is not changed by this command. Format 8 appears after the ALW:FAC input message was used to allow threshold crossing alert output message generation for all facilities terminated on a DNU-S. Format 9 appears after the ALW:FAC input message was used to allow threshold crossing alert output message generation for a given DNU-S SONET termination equipment (STE) facility, and its subtending virtual tributary 1.5 (VT1.5) and digital signal level-1 (DS1) facilities. Format 10 appears after the ALW:FAC input message was used to allow threshold crossing alert output message generation for a given DNU-S VT1.5 facility and its subtending DS1 facility. Format 11 appears after the ALW:FAC input message was used to allow threshold crossing alert output message generation for a given DNU-S DS1 facility.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = DLTU number.

`c` = DFI-2 number.

`d` = Facility number.

`e` = Type of alerts allowed. Valid value(s):

- `ALL` = Both interval and daily alerts.
- `DAY` = 24 hour alerts.
- `INT` = 15-minute interval alerts.

`f` = Status of command. Valid value(s):

- `COMPLETED` = Request has been successfully completed.
- `COMPLETED RC INH ACTIVE` = Request has been completed, but some facilities are inhibited through RC/V.
- `FAILED` = Failed to allow performance monitoring alerts for the specified facility or unit. This may also mean the switch was able to allow the requested facilities' alert reports, but unable to send that information to the transmission facility. Retry the request later.
- `FAILED RC INH ACTIVE` = Performance monitoring alerts were turned off by RC/V for the requested intervals.
- `FAILED SM INHIBITED` = Performance monitoring alerts were turned off by INH:FAC command for this SM.
- `FAILED SWITCH INHIBITED` = Performance monitoring alerts were turned off by RC/V View 8.1 for the entire switch.
- `NO MATCH` = The specified facility or unit does not exist. If the unit type selected was SM, then `NO MATCH` means the SM is not equipped with any unit or facility.
- `NOT ALLOWED` = The requested action is not allowed for the given facility or unit.
- `SM UNAVAILABLE` = The input request could not be processed because communication with the associated SM is not possible.
- `SYSTEM BUSY` = The system's processing capability has been reached or a system resource is unavailable. Retry the request later.

`g` = IDCU number.

`h` = IFAC number.

`i` = RT number.

`j` = DNU-S number.

`k` = Data group (DG) number.

`l` = STE facility number.

`m` = Synchronous transport signal (STS) facility number.

`n` = Virtual tributary group (VTG) number.

`o` = Virtual tributary member (VTM) number.

4. ACTIONS TO BE TAKEN

Retry ALW:FAC input message when variable '`f`' equals `SYSTEM BUSY` or `FAILED`. Use the INH:FAC input message to re-inhibit alerts if needed or change the alerting thresholds using RC/V View 8.1 for the entire office, 20.23 for IDCU, 20.25 for DNU-S or 22.15 for DLTU.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:FAC
INH:FAC
INIT:FAC
OP:FAC
```

Output Message(s):

```
INH:FAC
INIT:FAC
OP:FAC
REPT:FAC
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
20.23 [IDCU FACILITY EQUIPMENT (IFAC)]
20.25 (DNU-S PERFORMANCE MONITORING THRESHOLD GROUP)
22.15 (PERFORMANCE MONITORING)

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ALW:FSYS-ACCESS

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      ALW FILESYS ACCESS COMPLETED

[2]   ____________________________________________________________
      ALW FILESYS ACCESS STOPPED
        a
```

2. REASON FOR OUTPUT

To report the result of an ALW:FSYS-ACCESS input message to change the mode of a file.

3. VARIABLE FIELD DEFINITIONS

`a` = Text explaining why the command was stopped.

4. ACTION TO BE TAKEN

Format 1 indicates success, and no action is necessary.

Format 2 indicates the command has failed. The explanatory text indicates the error encountered. Refer to the Input Message manual for the correct format and re-enter the message, or check the status of the file using the OP:ST-LSTDIR input message.

If any other error message is printed, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	282
2	288

Input Message(s):

```
ALW:FSYS-ACCESS
OP:ST-LISTDIR
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

ALW:FSYS-MOUNT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      ALW FILESYS MOUNT COMPLETED

[2]   ____________________________________________________________
      ALW FILESYS MOUNT STOPPED
        a

[3]   ____________________________________________________________
      ALW FILESYS MOUNT STOPPED FMC SYNTAX ERROR b
```

2. REASON FOR OUTPUT

To report the result of executing an ALW:FSYS-MOUNT input message to mount a file system.

Format 1 is printed when the input message has been completed.

Formats 2 and 3 are printed when the execution has been stopped.

3. VARIABLE FIELD DEFINITIONS

a = Text explaining why the command stopped.

4. ACTION TO BE TAKEN

Format 1 indicates success, and no action is necessary.

For Format 2, refer to the input message manual and correct any command line errors. The existence of a file can be confirmed using the OP:ST-LISTDIR input message. If the text is not self-explanatory, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1,2	282
2	288

Input Message(s):

```
ALW:FSYS-MOUNT
OP:ST-LISTDIR
```

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Output Appendix(es):

```
APP:FMC
APP:OMDB-X-REF
```

Other Manual(s):

235-105-210 Routine Operations and Maintenance
235-600-601 Process Recovery Messages

ALW:FSYS-OWNER

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      ALW FILESYS OWNER COMPLETED

[2]   ____________________________________________________________
      ALW FILESYS OWNER STOPPED
        a
```

2. REASON FOR OUTPUT

To report the result of an ALW:FSYS-OWNER input message to change the owner and group of a file.

3. VARIABLE FIELD DEFINITIONS

a = The description of the error encountered.

4. ACTION TO BE TAKEN

Format 1 indicates success, and no action is necessary.

Format 2 indicates the command failed. The explanatory text will indicate the error encountered. Refer to the Input Message manual for the correct format and reenter the message, or check the status of the file using the OP:ST-LISTDIR input message if the message indicates that the file or directory is missing.

If any other error message is printed, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	282
2	288

Input Message(s):

ALW:FSYS-OWNER
OP:ST-LISTDIR

Output Appendix(es):

APP:OMDB-X-REF

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ALW:HDW-AIU

Software Release: 5E11 and later
Message Class: SM,HW_MON
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK AIU=a-b c [d]
```

2. REASON FOR OUTPUT

Indicates the result of an ALW:HDW-AIU input message to allow hardware checks on an access interface unit (AIU).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = AIU number.

`c` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance or the System Recovery Procedures manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

Input Message(s):
`ALW:HDW-AIU`
`INH:HDW-AIU`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1320,y,x (AIU SUMMARY)

ALW:HDW-CDFI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK CDFI=a-b-c d [e]
```

2. REASON FOR OUTPUT

To indicate the result of an ALW:HDWCHK,CDFI input message to allow interrupts on an inter-remote switching module (RSM) communication link digital facilities interface (CDFI) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line and trunk unit (DLTU) number.

`c` = CDFI number.

`d` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action had not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:HDW-CDFI
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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ALW:HDW-CDI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK CDI=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing an ALW:HDW-CDI input message to allow hardware error checks on the control data interface (CDI).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Trunk unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`COMPLETED-CERTIFIED`	= Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-CDI`

Output Appendix(es):

`APP:MAINT-RESP`

ALW:HDW-CLNK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK CLNK{=a-b-c-d| ALL} e [f]
```

2. REASON FOR OUTPUT

To report on an attempt to allow level 2; and level 3; hardware checks (errors) on one or all communication links (CLNKs). (Refer to the Corrective Maintenance manual.)

3. VARIABLE FIELD DEFINITIONS

`ALL` = Attempt was to allow errors on all CLNKs.

`a` = Switching module (SM) number.

`b` = Office network and timing complex (ONTC) side.

`c` = Module message processor (MMP) type. Valid value(s):
- `0` = Alpha.
- `1` = Beta.

`d` = Message switch (MSGS) side.

`e` = Termination report. Valid value(s):
- `ABORTED` = The requested action was terminated abnormally. Hardware and software status is questionable.
- `COMPLETED` = Completed normally.
- `NOT STARTED` = Requested action was not attempted.
- `STOPPED` = The requested action was terminated before a normal completion. Hardware and software status is consistent.

`f` = Optional additional qualifying information.

4. ACTION TO BE TAKEN

Refer to the Corrective Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-CLNK`

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Other Manual(s):

235-105-220 Corrective Maintenance

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ALW:HDW-CM

Software Release: 5E10 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK CM a [b]
```

2. REASON FOR OUTPUT

To acknowledge a manual request from the ALW:HDW-CM input message to allow hardware error checks on all communication module (CM) units. This includes the message switch control unit (MSCU) (for communication module model 2; hardware only), foundation peripheral controller (FPC), pump peripheral controller (PPC), module message processor (MMP), office network and timing complex (ONTC), and communication links (CLNKs).

3. VARIABLE FIELD DEFINITIONS

`a` = Termination report. Valid value(s):

- `COMPLETED` = Request completed successfully.
- `STOPPED` = Request was terminated before a normal completion. Variable '`b`' will be printed to explain why the request was stopped.

`b` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual request. No further action is necessary if the request completed successfully. If the termination report is not COMPLETED, the '`b`' field should give some indication as to why the request failed.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-CM
INH:HDW-CM
```

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ALW:HDW-CMP

Software Release: 5E10 and later
Message Class: MSGS
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK CMP=a-b c [d]
```

2. REASON FOR OUTPUT

To report the results of a request to allow hardware error checks on the specified communication module processor (CMP).

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch side number.

`b` = CMP number.

`c` = Termination status. Valid value(s):

`ABORTED`	= The requested action was terminated before a normal completion and the termination was not graceful.
`COMPLETED`	= The requested action was completed successfully.
`NOT STARTED`	= Requested action could not begin.
`STOPPED`	= The requested action was terminated before a normal completion but the termination was graceful.

`d` = Additional information qualifying the termination status.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the System Recovery Procedures manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-CMP
INH:HDW-CMP
OP:HDWCHK
```

Output Message(s):

```
OP:HDWCHK
```

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Other Manual(s):

235-105-110 System Maintenance Requirements and Tools
235-105-250 System Recovery

MCC Display Page(s):

1241/51 (MSGS COMMUNITIES 0-1, 8-9)

ALW:HDW-DCLU

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK DCLU=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing an ALW:HDW-DCLU input message to allow hardware error checks on the *SLC*®96 digital carrier line unit (DCLU).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DCLU number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

`ABORTED`	= The action requested was unsuccessful, and the termination was not graceful.
`COMPLETED`	= The action completed successfully.
`NOT STARTED`	= The allow has not started yet.
`STOPPED`	= The action terminated before a normal completion but the termination was graceful. Hardware states are reliable.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-DCLU`

Output Appendix(es):

`APP:MAINT-RESP`

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ALW:HDW-DFIH

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK DFIH=a-b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of an ALW:HDW-DFIH input message to allow hardware checks on a remote integrated services line unit (RISLU) host/remote digital facility interface (DFIH) circuit pair.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RISLU digital line and trunk unit (DLTU) number.

`c` = DFIH number.

`d` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-DFIH`
`INH:HDW-DFIH`

Output Appendix(es):

`APP:MAINT-RESP` APP:MAINT-RESP

Copyright © 1999

Other Manual(s):

235-105-220 Corrective Maintenance

ALW:HDW-DFTAC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK DFTAC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing an ALW:HDW-DFTAC input message to allow hardware error checks on the distributing frame test access circuit (DFTAC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group.

`d` = Circuit number.

`e` = Termination status. Valid value(s):

`ABORTED`	= The allowing process was purged.
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion (process gracefully terminated).

`f` = Reason for termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:HDW-DFTAC
```

Output Message(s):

```
INH:HDW-DFTAC
```

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Output Appendix(es):

```
APP:MAINT-RESP
```

ALW:HDW-DNUSCC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK DNUSCC=a-b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of an ALW:HDW-DNUSCC input message to allow hardware checks on a digital networking unit - synchronous optical network (DNU-S) common controller (DNUSCC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Common controller number.

`d` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Request was successfully completed.
`NOT STARTED`	= Requested action was not started.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-DNUSCC
INH:HDW-DNUSCC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

ALW:HDW DNUSCD

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK DNUSCD=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an ALW:HDW-DNUSCD input message to allow hardware checks on a digital networking unit - synchronous optical network (DNU-S) common data (DNUSCD).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = Common data number.

`e` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Request was successfully completed.
- `NOT STARTED` = Requested action was not started.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-DNUSCD
INH:HDW-DNUSCD
```

Output Appendix(es):

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APP:MAINT-RESP

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

ALW:HDW-FPC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK FPC=a b [c]
```

2. REASON FOR OUTPUT

To acknowledge a request which allows hardware error checks performed on the specified foundation peripheral controller (FPC).

3. VARIABLE FIELD DEFINITIONS

`a` = FPC number.

`b` = Termination report. Valid value(s):

- `ABORTED` = The requested action is terminated before a normal completion and the consistency of hardware states or data is questionable.
- `COMPLETED` = The requested action is terminated after completion.
- `STOPPED` = The requested action is terminated before a normal completion but consistency of hardware states and data is reliable.

`c` = Additional information qualifying the termination report.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-FPC`

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ALW:HDW-GDSF

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK GDSF=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of executing an ALW:HDW-GDSF input message to allow interrupts on the global digital services function (GDSF) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = GDSF number.

`c` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`d` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-GDSF`

Output Appendix(es):

`APP:MAINT-RESP`

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ALW:HDW-GDSUCOM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK GDSUCOM=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing an ALW:HDW-GDSUCOM input message to allow hardware error checks on the global digital service unit common (GDSUCOM) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Digital service unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED-CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-GDSUCOM`

Output Appendix(es):

`APP:MAINT-RESP`

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ALW:HDW-GDXACC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK GDXACC=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing an ALW:HDW-GDXACC input message to allow hardware error checks on the gated diode crosspoint access (GDXACC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED-CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-GDXACC`

Output Appendix(es):

`APP:MAINT-RESP`

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ALW:HDW-GDXC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK GDXC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing an input message to allow hardware error checks on the metallic service unit (MSU) gated diode crosspoint compensator (GDXC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit number.

`c` = Service group number.

`d` = MSU board position number.

`e` = Termination status. Valid value(s):

`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED-CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

`APP:MAINT-RESP`

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ALW:HDW-GDXCON

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK GDXCON=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing an ALW:HDW-GDXCON input message to allow hardware error checks on the gated diode crosspoint control (GDXCON).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED-CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

`APP:MAINT-RESP`

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ALW:HDW-GRID

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK GRID=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing an ALW:HDW-GRID input message to allow hardware error checks on the gated diode crosspoint grid (GRID).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Grid number.

`d` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED-CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-GRID`

Output Appendix(es):

`APP:MAINT-RESP`

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ALW:HDW-GRIDBD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK GRIDBD=a-b-c-d      e    [f]
```

2. REASON FOR OUTPUT

To report the results of executing an ALW:HDW-GRIDBD input message to allow hardware error checks on a line unit model 2; (LU2) or line unit model 3; (LU3) grid board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Grid number.

`d` = Board number.

`e` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was immediate. Consistency of hardware and data is questionable.
`COMPLETED`	= The request was successfully completed.
`NOT STARTED`	= Processing did not begin because the system was unable to service the request.
`STOPPED`	= The request terminated after processing was begun. The termination was graceful.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-GRIDBD
INH:HDW-GRIDBD
```

Output Appendix(es):

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APP:MAINT-RESP

ALW:HDW-HDFI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK HDFI=a-b-c d [e]
```

2. REASON FOR OUTPUT

To indicate the result of an ALW:HDW-HDFI input message to allow interrupts on an host switching module (HSM) digital facilities interface (HDFI) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line and trunk unit (DLTU) number.

`c` = HDFI number.

`d` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action had not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-HDFI
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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ALW:HDW-IDCU

Software Release: 5E10 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK IDCU=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing an ALW:HDW-IDCU input message that allows error sources on an integrated digital carrier unit (IDCU) service group circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = IDCU service group.

`d` = Termination report. Valid value(s):

- `ABORTED` = Immediate termination. A process has been purged and cleanup will be done by audits.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-IDCU`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):

235-105-110 System Maintenance Requirements and Tools
235-105-220 Corrective Maintenance Procedures
235-105-250 System Recovery

MCC Display Page(s):

186x (IDCU CIRCUIT)

ALW:HDW-IDCUELI

Software Release: 5E10 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK IDCUELI=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing an ALW:HDW-IDCUELI input message that allows error sources on an integrated digital carrier unit (IDCU) electrical line interface (ELI) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = ELI number.

`d` = Termination report. Valid value(s):

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-IDCUELI
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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Other Manual(s):

235-105-110 System Maintenance Requirements and Tools
235-105-220 Corrective Maintenance Procedures
235-105-250 System Recovery

MCC Display Page(s):

186x (IDCU CIRCUIT)

ALW:HDW-IFAC

Software Release: 5E10 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK IFAC=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing an ALW:HDW-IFAC input message that allows error sources on an integrated digital carrier unit (IDCU) facility (IFAC) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = IFAC number.

`d` = Termination report. Valid value(s):

- `ABORTED` = Immediate termination. A process has been purged and cleanup will be done by audits.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-IFAC`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):

235-105-110 System Maintenance Requirements and Tools
235-105-220 Corrective Maintenance Procedures
235-105-250 System Recovery

MCC Display Page(s):

187x (IFAC CIRCUIT)

188xyy (IDCU REMOTE TERMINAL)

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ALW:HDW-ISLU

Software Release: 5E10 and later
Message Class: SM,HW_MON
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK ISLU{a}=b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an ALW:HDW-ISLU input message to allow hardware checks on an integrated services line unit (ISLU) common controller (CC) or common data (CD).

3. VARIABLE FIELD DEFINITIONS

a = Circuit name. Valid value(s):
- CC = Common controller.
- CD = Common data.

b = Switching module (SM) number.

c = Integrated services line unit number.

d = Number type. Valid value(s):

If 'a' =	**'d' =**
CC	Common controller number.
CD	Common data number.

e = Termination report. Valid value(s):
- ABORTED = Requested action was terminated before completion, and the termination was not graceful.
- COMPLETED = Request has successfully completed.
- NOT STARTED = Requested action has not begun.
- STOPPED = Requested action was terminated before a normal completion. Termination was graceful.

f = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance or the System Recovery Procedures manuals.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
ALW:HDW-ISLU
INH:HDW-ISLU
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):

235-105-220 Corrective Maintenance
235-105-250 System Recovery

MCC Display Page(s):

170x (ISLU NETWORK)
170xy (ISLU LINE GROUP)

ALW:HDW-ISLUCC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK ISLUCC=a-b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of an ALW:HDW-ISLUCC input message to allow hardware checks on an integrated services line unit common data (ISLUCC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Integrated services line unit (ISLU) number.

`c` = Common data number.

`d` = Termination report. Valid value(s):
- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED-CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance or the System Recovery manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-ISLUCC
INH:HDW-ISLUCC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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Other Manual(s):

235-105-220 Corrective Maintenance Procedure
235-105-250 System Recovery

MCC Display Page(s):

170x (ISLU NETWORK)

170xy (ISLU LINE GROUP)

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ALW:HDW-ISLUCD

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK ISLUCD=a-b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of an ALW:HDW-ISLUCD input message to allow hardware checks on an integrated services line unit common data (ISLUCD).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Integrated services line unit (ISLU) number.

`c` = Common data number.

`d` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before a completion, and the termination was not graceful.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of this manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance manual or the System Recovery Procedures manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-ISLUCD
INH:HDW-ISLUCD
```

Output Appendix(es):

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```
APP:MAINT-RESP
```

Other Manual(s):

235-105-220 Corrective Maintenance Procedures
235-105-250 System Recovery

MCC Display Page(s):

170x (ISLU NETWORK)

170xy (ISLU LINE GROUP)

ALW:HDW-ISLUHLSC

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK ISLUHLSC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing an ALW:HDW-ISLUHLSC input message to allow error sources on the integrated services line unit (ISLU) high level service circuit (HLSC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = HLSC number.

`e` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Completed successfully.
`NOT STARTED`	= Action was not begun.
`STOPPED`	= Terminated before normal completion.

`f` = Additional information qualifying above termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected problems occur, refer to the Corrective Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-ISLUHLSC
INH:HDW-ISLUHLSC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

ALW:HDW-ISLUMAN

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK ISLUMAN=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing an ALW:HDW-ISLUMAN input message to allow error sources on the integrated services line unit (ISLU) metallic access network (MAN).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Line unit number.

`c` = Service group number.

`d` = MAN number.

`e` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Completed successfully.
`NOT STARTED`	= Action was not begun.
`STOPPED`	= Terminated before normal completion.

`f` = Additional information qualifying above termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-ISLUMAN
INH:HDW-ISLUMAN
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

ALW:HDW-ISLURG

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK ISLURG=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing an ALW:HDW-ISLURG input message to allow error sources on the integrated services line unit (ISLU) ringing generator (RG).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Completed successfully.
`NOT STARTED`	= Action was not begun.
`STOPPED`	= Terminated before normal completion.

`e` = Additional information qualifying above termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-ISLURG`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-220 *Corrective Maintenance*

ALW:HDW-ISTF

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK ISTF=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of executing an ALW:HDW-ISTF input message to allow hardware checks on the integrated services test function (ISTF) unit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = ISTF unit number.

`c` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion and the termination was immediate and was not graceful.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED-` = Requested action has not begun.
- `STOPPED` = Requested action was terminated gracefully before a normal completion.

`d` = Additional data qualifying the termination report (variable '`c`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

`ALW:HDW-ISTF`

Output Appendix(es):

`APP:MAINT-RESP`

ALW:HDW-LDSF

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK LDSF=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of executing an ALW:HDW-LDSF input message to allow interrupts on the local digital service function (LDSF) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = LDSF number.

`c` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`d` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-LDSF`

Output Appendix(es):

`APP:MAINT-RESP`

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ALW:HDW-LDSU

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK LDSU=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing an ALW:HDW-LDSU input message to allow interrupts on the local digital service unit- model 2; common (LDSU2) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local digital service unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-LDSU`

Output Appendix(es):

`APP:MAINT-RESP`

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ALW:HDW-LDSUCOM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK LDSUCOM=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing an ALW:HDW-LDSUCOM input message to allow hardware error checks on the local digital service unit common (LDSUCOM) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital service unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-LDSUCOM`

Output Appendix(es):

`APP:MAINT-RESP`

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ALW:HDW-LUCHAN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK LUCHAN=a-b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To report the result of executing an ALW:HDW-LUCHAN input message to allow hardware error checks on the line unit channel (LUCHAN).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Channel board number.

`e` = Channel number.

`f` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED-CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`g` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-LUCHAN`

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Output Appendix(es):

```
APP:MAINT-RESP
```

ALW:HDW-LUCOMC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK LUCOMC=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing an ALW:HDW-LUCOMC input message to allow hardware error checks on the line unit common control (LUCOMC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED-CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-LUCOMC`

Output Appendix(es):

`APP:MAINT-RESP`

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ALW:HDW-LUHLSC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK LUHLSC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing an ALW:HDW-LUHLSC input message to allow hardware error checks on the line unit high level service circuit (LUHLSC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = High level service circuit.

`e` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`COMPLETED-CERTIFIED`	= Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-LUHLSC`

Output Appendix(es):

APP:MAINT-RESP

ALW:HDW-MCTSI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK MCTSI=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of executing an ALW:HDW-MCTSI input message to allow hardware error checks on the module controller/time slot interchange unit (MCTSI).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Module control unit number.

`c` = Termination status. Valid value(s):

- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED-CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`d` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-MCTSI`

Output Appendix(es):

`APP:MAINT-RESP`

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ALW:HDW-MMP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK MMP=a-b c [d]
```

2. REASON FOR OUTPUT

To acknowledge a request to allow hardware error checks on the specified module message processor (MMP).

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch side.

`b` = MMP identification number.

`c` = Termination report. Valid value(s):

`ABORTED`	= The requested action was terminated before a normal completion and the consistency of hardware states or data is questionable.
`COMPLETED`	= The requested action was terminated after completion.
`STOPPED`	= The requested action was terminated before a normal completion but consistency of hardware states and data is reliable.

`d` = Additional information qualifying the termination report.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-MMP`

Other Manual(s):

235-105-250 System Recovery

ALW:HDW-MSCU

Software Release: 5E10 and later
Message Class: MSGS
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK MSCU=a b [c]
```

2. REASON FOR OUTPUT

To report on an attempt to allow hardware checks (errors) on a message switch control unit (MSCU).

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch (MSGS) side.

`b` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated abnormally. Hardware and software status is questionable.
`COMPLETED`	= Normal completion.
`NOT STARTED`	Requested action not attempted.
`STOPPED`	= Requested action was terminated normally before completion. Hardware and software status is consistent.

`c` = Optional additional qualifying information.

4. ACTION TO BE TAKEN

Refer to the Corrective Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-MSCU
```

Other Manual(s):

235-105-220 Corrective Maintenance

ALW:HDW-MSUCOM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK MSUCOM=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing an ALW:HDW-MSUCOM input message to allow hardware error checks on the metallic service unit common (MSUCOM) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED-CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-MSUCOM`

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ALW:HDW-NCREF

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK NCREF,a=b c [d]
```

2. REASON FOR OUTPUT

This message is in response to the ALW:HDW-NCREF input message. The request is to allow hardware errors to be reported on network clock references (NCREF).

3. VARIABLE FIELD DEFINITIONS

a = Network clock reference (NCREF). Valid value(s):

NC1	NC2
PRIM = Primary reference. SEC = Secondary reference. XC = Cross-couple reference.	REFn = Reference number n (1-8). XC = Cross-couple reference.

b = Network clock side.

c = Termination report. Valid value(s):

- ABORTED = Requested action was terminated before completion and the termination was immediate (no cleanup was done).
- COMPLETED = Requested action completed successfully.
- STOPPED = Request was terminated before it completed normally due to hardware failure, data inconsistency, or another problem.

d = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

No action is necessary if the request completed successfully. If the request failed, the variable 'd' should give some indication as to why the request failed. Check network clock Master Control Center (MCC) pages or the OP:CFGSTAT output message to verify that the NC was in a valid state to perform the request. Also, check the receive-only printer (ROP) for error messages using the REPT:NC output messages. These may indicate problems or system reconfigurations.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-NCREF
INH:HDW-NCREF
```

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Output Message(s):

```
INH:HDW-NCREF
OP:CFGSTAT
REPT:NC
```

Other Manual(s):

235-105-110 System Maintenance Requirements and Tools
235-105-220 Corrective Maintenance

MCC Display Page(s):

1210 (MI/LI/NC)

1211 (NETWORK CLOCK)

ALW:HDW-ONTC

Software Release: 5E10 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK ONTC=a b [c]
```

2. REASON FOR OUTPUT

To acknowledge a request to allow hardware checks on the specified office network and timing complex (ONTC).

3. VARIABLE FIELD DEFINITIONS

`a` = ONTC side.

`b` = Termination report. Valid value(s):
`COMPLETED` = Request completed successfully.
`NOT STARTED` = Requested action could not begin.
`STOPPED` = Request was terminated before a normal completion due to a failure.

`c` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual request. No further action is necessary if the request completed successfully. If the termination report is not COMPLETED, variable '`c`' should give some indication as to why the request failed. Check ONTC MCC pages or OP:CFGSTAT output to verify that the ONTC was in a valid state to perform the request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-ONTC
OP:CFGSTAT
```

Output Message(s):

```
OP:CFGSTAT
```

MCC Display Page(s):

(ONTC)

ALW:HDW-PPC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK PPC=a b [c]
```

2. REASON FOR OUTPUT

To acknowledge a request which allows hardware error checks performed on the specified pump peripheral controller (PPC).

3. VARIABLE FIELD DEFINITIONS

`a` = PPC number.

`b` = Termination report. Valid value(s):

`ABORTED`	= The requested action is terminated before a normal completion and the consistency of hardware states or data is questionable.
`COMPLETED`	= The requested action is terminated after completion.
`STOPPED`	= The requested action is terminated before a normal completion but consistency of hardware states and data is reliable.

`c` = Additional information qualifying the termination report.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-PPC`

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ALW:HDW-PSU

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK PSU{a}=b-c-d[-e] f [g]
```

2. REASON FOR OUTPUT

Indicates the result of an ALW:HDW-PSU input message to allow hardware checks on a packet switch unit (PSU) common controller (COM) or protocol handler (PH).

3. VARIABLE FIELD DEFINITIONS

a = Circuit name. Valid value(s):
- COM = Common controller.
- PH = Protocol handler.

b = Switching module (SM) number.

c = PSU number.

d = Valid value(s):

If 'a' =	**'d' =**
COM	Service group number.
PH	Shelf number.

e = Protocol handler number.

f = Termination report. Valid value(s):
- ABORTED = Requested action was terminated before completion, and the termination was not graceful.
- COMPLETED = Request has successfully completed.
- NOT STARTED = Requested action has not begun.
- STOPPED = Requested action was not terminated before a normal completion. Termination was graceful.

g = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and the System Recovery Procedures manuals.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ALW:HDW-PSU
INH:HDW-PSU
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):

235-105-220 Corrective Maintenance
235-105-250 System Recovery Procedures

MCC Display Page(s):

118x (PSU SHELF)
1186 (PSU NETWORK)

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ALW:HDW-QGP

Software Release: 5E10 and later
Message Class: MSGS
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK QGP=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of a request to allow hardware error checks on the specified quad-link gateway processor (QGP).

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch side number.

`b` = QGP number.

`c` = Termination status. Valid value(s):

- `ABORTED` = Requested action was terminated before a normal completion and the termination was not graceful.
- `COMPLETED` = Request completed successfully.
- `NOT STARTED` = Requested action could not begin.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`d` = Additional data qualifying the report status. Refer to the APP:CM-OM-REASON appendix in the Appendixes section of this manual for further explanation of this field.

4. ACTIONS TO BE TAKEN

If unexpected results occur, refer to the System Maintenance Requirements and Tools and the System Recovery Procedures manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-QGP
INH:HDW-QGP
OP:HDWCHK
```

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Output Message(s):

```
OP:HDWCHK
```

Output Appendix(es):

```
APP:CM-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-250 *System Recovery Procedures*

MCC Display Page(s):

1241/51 (MSGS COMMUNITIES 0-1, 8-9)
1240/50 (MSGS STATUS for CM3)
1380/1 (QLPS NETWORK 0/1 STATUS)

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ALW:HDW-RAF

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK RAF=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of executing an ALW:HDW-RAF input message to allow hardware checks on the recorded announcement function (RAF) unit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RAF unit number.

`c` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was immediate and was not graceful.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated gracefully before a normal completion.

`d` = Additional data qualifying the termination report (variable '`c`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-RAF
INH:HDW-RAF
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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ALW:HDW-RCL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK RCL=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing an ALW:HDW-RCL input command to allow hardware error checks on the remote communication link (RCL) between inter-remote switching module (RSM) communication link digital facility interface (CDFI) circuits.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line and trunk unit (DLTU) number.

`c` = CDFI number.

`d` = Facility (FAC) number. The FAC number is the T1 facility number on a CDFI.

`e` = Termination report. Valid value(s):

`ABORTED`	= Immediate termination (process not gracefully terminated).
`COMPLETED`	= Successful completion (desired action has been completed).
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before a normal completion (process gracefully terminated).

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-RCL
INH:HDW-RCL
```

Output Appendix(es):

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APP:MAINT-RESP

ALW:HDW-RCLK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK RCLK=a-b c [d]
```

2. REASON FOR OUTPUT

To indicate the result of an ALW:HDW-RCLK input message to allow hardware checks on a remote clock (RCLK) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RCLK side.

`c` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination is immediate. Consistency of hardware and data is questionable.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action had not begun.
`STOPPED`	= Requested action was terminated before a normal completion.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the termination report (variable '`c`') is `COMPLETED` or `NOT STARTED`, no action is required. If the termination report is `STOPPED`, check for reference error reports on the receive only printer (ROP).

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-RCLK`

Output Appendix(es):

`APP:MAINT-RESP`

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ALW:HDW-RCOSC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK RCOSC=a-b c [d]
```

2. REASON FOR OUTPUT

To indicate the result of an ALW:HDW-RCOSC input message to allow hardware checks on a remote clock oscillator (RCOSC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RCOSC side.

`c` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination is immediate. Consistency of hardware and data is questionable.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action had not begun.
`STOPPED`	= Requested action was terminated before a normal completion.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the termination report (variable '`c`') is `COMPLETED` or `NOT STARTED`, no action is required. If the termination report is `STOPPED`, check for reference error reports on the receive only printer (ROP).

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-RCOSC`

Output Appendix(es):

`APP:MAINT-RESP`

MCC Display Page(s):

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RSM RCU

ALW:HDW-RCOXC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK RCOXC=a-b c [d]
```

2. REASON FOR OUTPUT

To indicate the result of an ALW:HDW-RCOXC input message to allow hardware checks on a remote clock oscillator cross couple (RCOXC) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RCOXC side.

`c` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination is immediate. Consistency of hardware and data is questionable.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action had not begun.
`STOPPED`	= Requested action was terminated before a normal completion.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the termination report (variable '`c`') is `COMPLETED` or `NOT STARTED`, no action is required. If the termination report is `STOPPED`, check for reference error reports on the receive only printer (ROP).

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-RCOXC`

Output Appendix(es):

`APP:MAINT-RESP`

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ALW:HDW-RCREF

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK RCREF=a-b c [d]
```

2. REASON FOR OUTPUT

To indicate the result of an ALW:HDW-RCREF input message to allow hardware checks on a remote clock reference (RCREF).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Reference number.

`c` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination is immediate. Consistency of hardware and data is questionable.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action had not begun.
`STOPPED`	= Requested action was terminated before a normal completion.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the termination report (variable '`c`') is `COMPLETED` or `NOT STARTED`, no action is required. If the termination report is `STOPPED`, check for reference error reports on the receive only printer (ROP).

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-RCREF`

Output Appendix(es):

`APP:MAINT-RESP`

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ALW:HDW-RCXC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK RCXC=a-b c [d]
```

2. REASON FOR OUTPUT

To indicate the result of an ALW:HDW-RCXC input message to allow hardware checks on a remote clock cross couple (RCXC) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RCXC side.

`c` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination is immediate. Consistency of hardware and data is questionable.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action had not begun.
`STOPPED`	= Requested action was terminated before a normal completion.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the termination report (variable '`c`') is `COMPLETED` or `NOT STARTED`, no action is required. If the termination report is `STOPPED`, check for reference error reports on the receive only printer (ROP).

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-RCXC`

Output Appendix(es):

`APP:MAINT-RESP`

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ALW:HDW-RDFI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK RDFI=a-b-c d [e]
```

2. REASON FOR OUTPUT

To indicate the result of an ALW:HDW-RDFI input message to allow interrupts on an remote switching module (RSM) digital facilities interface (RDFI) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line and trunk unit (DLTU) number.

`c` = RDFI number.

`d` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action had not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-RDFI`

Output Appendix(es):

`APP:MAINT-RESP`

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ALW:HDW-RRCLK

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK RRCLK=a-b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of an ALW:HDW-RRCLK input message to allow hardware checks on a remote integrated services line unit (RISLU) remote clock circuit pack (RRCLK).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RISLU number.

`c` = RRCLK side.

`d` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-RRCLK
INH:HDW-RRCLK
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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Other Manual(s):

235-105-220 Corrective Maintenance

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ALW:HDW-RVPT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK RVPT=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing an ALW:HDW-RVPT input message to allow hardware error checks on the revertive pulsing transceiver (RVPT).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Unit number.

`c` = Service group.

`d` = Circuit number.

`e` = Termination status. Valid value(s):

`ABORTED`	= The allowing process was purged.
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion. (Process gracefully terminated.)

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-RVPT
INH:HDW-RVPT
```

Output Message(s):

```
INH:HDW-RVPT
```

Output Appendix(es):

```
APP:MAINT-RESP
```

ALW:HDW-SAS

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK SAS=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of executing an ALW:HDW-SAS input message to allow interrupts on the service announcement system (SAS) unit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = SAS unit number.

`c` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`d` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-SAS`

Output Appendix(es):

`APP:MAINT-RESP`

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ALW:HDW-SDFI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK SDFI=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing an ALW:HDW-SDFI input message to allow hardware error checks on the *SLC*®96 digital facility interface (SDFI).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital carrier line unit (DCLU) number.

`c` = SDFI number.

`d` = Termination status. Valid value(s):

`ABORTED`	= The action requested was unsuccessful, and the termination was not graceful. Hardware states are not reliable.
`COMPLETED`	= The action completed successfully.
`NOT STARTED`	= The allow has not yet started.
`STOPPED`	= The action terminated before a normal completion but the termination was graceful. Hardware states are reliable.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-SDFI`

Output Appendix(es):

`APP:MAINT-RESP`

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ALW:HDW-SFI

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK SFI=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an ALW:HDW-SFI input message to allow hardware checks on a digital networking unit - synchronous optical network (DNU-S) synchronous transport signal electrical interface (STSX-1) facility interface (SFI).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = STSX-1 facility interface.

`e` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Request was successfully completed.
`NOT STARTED`	= Requested action was not started.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-SFI
INH:HDW-SFI
```

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Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

ALW:HDW-SM

Software Release: 5E10 and later
Message Class: INT
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK SM=a COMPLETED
```

2. REASON FOR OUTPUT

To acknowledge an ALW:HDW-SM input message to allow hardware error checks on the specified switching module (SM).

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-SM
INH:HDW-SM
```

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ALW:HDW-TAC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK TAC=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing an ALW:HDW-TAC input message to allow hardware error checks on the test and access (TAC) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Trunk unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):
- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-TAC`

Output Appendix(es):

`APP:MAINT-RESP`

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ALW:HDW-TMUX

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK TMUX=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an ALW:HDW-TMUX input message to allow hardware checks on a digital networking unit - synchronous optical network (DNU-S) transmission multiplexer (TMUX).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = TMUX number.

`e` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Request was successfully completed.
- `NOT STARTED` = Requested action was not started.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-TMUX
INH:HDW-TMUX
```

Output Appendix(es):

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APP:MAINT-RESP

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

ALW:HDW-TTFCOM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK TTFCOM=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing an ALW:HDW-TTFCOM input message to allow hardware error checks on the transmission test facility common (TTFCOM) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital service unit number.

`c` = Service group number.

`d` = Digital service circuit board number.

`e` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-TTFCOM`

Output Appendix(es):

APP:MAINT-RESP

ALW:HDW-UCONF

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK UCONF=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing an ALW:HDW-UCONF input message to allow hardware error checks on the universal conference (UCONF) circuit board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital service unit number.

`c` = Service group number.

`d` = Digital service circuit unit board number.

`e` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-UCONF`

Output Appendix(es):

APP:MAINT-RESP

ALW:HDW-UTD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK UTD=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing an ALW:HDW-UTD input message to allow hardware error checks on the universal tone decoder (UTD) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital service unit (DSU) number.

`c` = Service group number.

`d` = DSU board position number.

`d` = DSU board position number.

`e` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED-CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-UTD`

Output Appendix(es):

```
APP:MAINT-RESP
```

ALW:HDW-UTG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HDWCHK UTG=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing an ALW:HDW-UTG input message to allow hardware error checks on the universal tone generator (UTG) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital service unit (DSU) number.

`c` = Service group number.

`d` = DSU board position number.

`d` = DSU board position number.

`e` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED-CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:HDW-UTG`

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Output Appendix(es):

```
APP:MAINT-RESP
```

ALW:HDWCHK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      ALW HDWCHK COMPLETED

[2]   ____________________________________________________________________
      ALW ERRCHK COMPLETED WITH b

[3]   ____________________________________________________________________
      ALW HDWCHK ABORTED  a

[4]   ____________________________________________________________________
      ALW HDWCHK NOT STARTED
        INVALID ID FIELD
```

2. REASON FOR OUTPUT

To indicate the result of a request to allow administrative module (AM) hardware checks.

3. VARIABLE FIELD DEFINITIONS

`a` = One of the following error codes. Valid value(s):

- `50` = A message could not be sent to a driver or real time status (RTS) report.
- `51` = An equipment configuration database (ECD) access function completed unsuccessfully.
- `52` = An error in message communication.
- `53` = An error internal to the inhibit administrator.

`b` = One of the following port problems. Valid value(s):

- \- An invalid system port specified.
- \- An invalid system port specified for application integrity monitor (AIM).
- \- No process attached to the specified port.
- \- No process attached to the AIM port.

4. ACTION TO BE TAKEN

If an error was reported, use the OP:ERRCHK input message to find out the resulting status of AM inhibits. All error codes associated with this activity are significant and should be reported to next highest level of assistance.

If the process completes with a port problem, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

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6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	406
2	658
3	414

Input Message(s):

```
ALW:HDWCHK
INH:HDWCHK
OP:ERRCHK
```

Output Message(s):

```
INH:HDWCHK
OP:ERRCHK
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

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ALW:HWGRD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW HWGRD [SM=a[&&b]] c
```

2. REASON FOR OUTPUT

To report the results of the ALW:HWGRD input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number or the lower limit of a range of SMs.

`b` = The upper limit of a range of SMs.

`c` = The result of the request. Valid value(s):
`COMPLETED` = ALW HWGRD was enabled for the specified SM or range of SMs.
`SM UNAVAILABLE` = ALW HWGRD could not be completed because the specified SM or range of SMs are not able to communicate with the administrative module (AM).
`SM UNEQUIPPED` = ALW HWGRD could not be completed because the specified SM or range of SMs do not exist.

4. ACTION TO BE TAKEN

When the report indicates `SM UNAVAILABLE`, retry the input request once the SM(s) becomes available. Otherwise, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:HWGRD
ALW:HWGRD
```

Output Message(s):

```
INH:HWGRD
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:PORT-STATUS
```

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ALW:MDII-A

Software Release: 5E10 - 5E11
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW MDII a TG b c d
```

2. REASON FOR OUTPUT

To report the result of an ALW:MDII input request to remove the selective suppression of a trunk group with a certain machine-detected interoffice irregularity (MDII).

3. VARIABLE FIELD DEFINITIONS

`a` = The MDII suppressed on a trunk group. Refer to the APP:MDII appendix in the Appendixes section of the Output Messages manual for a list of MDIIs.

`b` = Trunk group (TG) being suppressed.

`c` = Suppression indicator for the MDII. Valid value(s):
`NOT SUPPRESSED` = MDII and TG are not suppressed.
`SUPPRESSED` = MDII and TG are suppressed.

`d` = Output message termination report. Valid value(s):
`COMPLETED` = MDII and TG are not suppressed.
`NO MATCH` = MDII and TG are not found.
`SYSTEM ERROR` = System processing error.

4. ACTION TO BE TAKEN

If the ALW:MDII input message has failed, try the message once again. Also try the OP:MDII input message to verify that the trunk group is not being suppressed by the MDII requested.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:MDII
OP:MDII
```

Output Appendix(es):

```
APP:MDII
```

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Other Manual(s):

235-070-100 Switch Administration Guidelines

ALW:MDII-B

Software Release: 5E12 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW MDII a TG b c d
```

2. REASON FOR OUTPUT

To report the result of an ALW:MDII input request to remove the selective suppression of a trunk group with a certain machine-detected interoffice irregularity (MDII).

3. VARIABLE FIELD DEFINITIONS

`a` = The MDII suppressed on a trunk group. Refer to the APP:MDII appendix in the Appendixes section of the Output Messages manual for a list of MDIIs.

`b` = Trunk group (TG) being suppressed.

`c` = Suppression indicator for the MDII. Valid value(s):
`NOT SUPPRESSED` = MDII specified TG is not suppressed.
`SUPPRESSED` = MDII specified TG is suppressed.

`d` = Output message termination report. Valid value(s):
`COMPLETED` = MDII and TG are not suppressed.
`NO MATCH` = MDII and TG are not found.
`SYSTEM ERROR` = System processing error.

4. ACTION TO BE TAKEN

If the ALW:MDII input message has failed, try the message once again. Also try the OP:MDII input message to verify that the trunk group is not being suppressed by the MDII requested.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:MDII
OP:MDII
```

Output Appendix(es):

```
APP:MDII
```

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Other Manual(s):

235-070-100 Switch Administration Guidelines

ALW:MEASTAT

Software Release: 5E10 and later
Message Class: TRFM
Application: 5
Type: Output

1. FORMAT

```
ALW MEASTAT TRFC30 a ALLOWED
  ELEMENTS ALLOWED: b [c] [d] [e]
```

2. REASON FOR OUTPUT

To respond to an OP:MEASTAT-CLCT input message for 30-minute traffic sections which require group identifiers for collection.

When allowing a section of the 30-minute traffic report (TRFC30) for collection (`ALW:TRFC30,CLCT:a`), some sections require identifiers [for example, switching module (SM), line unit and concentrator] which effectively select what is collected. This message reports the collect status for those sections and is output after the OP:MEASTAT-CLCT output message.

3. VARIABLE FIELD DEFINITIONS

`a`	= Section name. Refer to the APP:TRFC-SECTION appendix in the Appendixes section of the Output Messages manual.
`b-e`	= Identifier. Refer to the APP:TRFC-SECTION appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:TRFC30
OP:ST-TRFC30
```

Output Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
```

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```
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration and Engineering Guidelines*

ALW:MISMATCH

Software Release: 5E10 and later
Message Class: LINE
Application: 5
Type: Output

1. FORMAT

```
ALW MISMATCH [REPT][SM=a[&&b]] c
```

2. REASON FOR OUTPUT

To report the results of the ALW:MISMATCH input message.

3. VARIABLE FIELD DEFINITIONS

`REPT` = Reporting was allowed.

`a` = Switching module (SM) number or the lower limit of a range of SMs.

`b` = The upper limit of a range of SMs.

`c` = The result of the request. Valid value(s):
- `COMPLETED` = ALW MISMATCH was enabled for the specified SM(s).
- `SM UNAVAILABLE` = ALW MISMATCH could not be completed because the specified SM(s) were not able to communicate with the administrative module (AM).
- `SM UNEQUIPPED` = ALW MISMATCH could not be completed because the specified SM(s) did not exist.

4. ACTION TO BE TAKEN

When the report indicates `SM UNAVAILABLE`, retry the input request once the SM(s) become(s) available. Otherwise, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:MISMATCH
ALW:MISMATCH
```

Output Message(s):

```
INH:MISMATCH
```

Output Appendix(es):

```
APP:PORT-STATUS
```

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Other Manual(s):

235-105-220 Corrective Maintenance

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ALW:MON

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW MON {AM|SM=a|CMP=b-c}{ABORTED|COMPLETED}
```

2. REASON FOR OUTPUT

To respond to an ALW:MON input message which allowed the Operating System for Distributed Switching (OSDS) monitor.

3. VARIABLE FIELD DEFINITIONS

AM	= Administrative module (AM).
a	= Switching module (SM) number.
b	= Message switch side.
c	= Communications module processor (CMP) number.

4. ACTION TO BE TAKEN

If appropriate, correct the ALW:MON input message. If there are subsequent failures, contact appropriate technical support.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:MON
INH:MON
OP:MON-CTL
OP:MON-DSP
OP:MON-PID
SET:MON-DATA
SET:MON-FCN
SET:MON-SPEC
SET:MON-WTD
```

Output Message(s):

```
INH:MON
OP:MON-CTL
OP:MON-DSP
```

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```
OP:MON-PID
REPT:SIMON-FILE
SET:MON
```

ALW:PCTF

Software Release: 5E10 and later
Message Class: PCTF
Application: 5
Type: Output

1. FORMAT

```
ALW PCTF VERBOSE [SM=a[&&b]] c
```

2. REASON FOR OUTPUT

To report the results of an ALW:PCTF input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number or the lower limit of a range of SM numbers.

`b` = The upper limit of a range of SM numbers.

`c` = The result of the request. Valid value(s):
- `COMPLETED` = The per-call test failure (PCTF) verbose mode was allowed on the specified SM(s).
- `SM UNAVAILABLE` = The request could not be completed because the specified SM(s) was/were not able to communicate with the AM.
- `SM UNEQUIPPED` = The request could not be completed because the specified SM(s) did not exist.

4. ACTION TO BE TAKEN

When the report indicates SM UNAVAILABLE, retry the input request once the SM(s) becomes available. Otherwise, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PCTF
INH:PCTF
```

Output Message(s):

```
INH:PCTF
REPT:PCTF
```

Other Manual(s):

235-105-220 Corrective Maintenance

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ALW:PSLT

Software Release: 5E13 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

[1]
```
ALW CCS PSLT SM=a d e
```

[2]
```
ALW CCS PSLT SM=a SET=b d e
```

[3]
```
ALW CCS PSLT SM=a SET=b MEMBER=c d e
```

2. REASON FOR OUTPUT

To report the success or failure of the allow request.

3. VARIABLE FIELD DEFINITIONS

`a` = CCS GSM number (SM).

`b` = Link set number (SET).

`c` = Link set member (MEMBER).

`d` = Termination status. Valid value(s):
`SUCCESS` = Request was processed successfully.
`PARTIAL SUCCESS` = Some link(s) in the linkset fails the request. (Only apply to linksets)
`STOPPED` = Request was terminated before normal completion.

`e` = Reason for failure of the allow request. Valid value(s):
`UNEQUIPPED` = The linkset or link is unequipped.
`SYSTEM ERROR` = An internal error occurred which prevented further processing.
`RESOURCE EXHAUSTION` =Processing stops due to PI FIFO full.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-190-120 *Common Channel Signaling Services*

ALW:RBPSC-SM

Software Release: 5E10 and later
Message Class: BPSC
Application: 5
Type: Output

1. FORMAT

```
ALW RBPSC a SM b c d
[e]
```

2. REASON FOR OUTPUT

To report the results of an ALW:ALM input message with the RBPSC option, which allows alarming from a single REMOTE building or miscellaneous alarm scan point.

3. VARIABLE FIELD DEFINITIONS

a = Scan point number in bldg/misc group as shown on the Master Control Center (MCC) remote alarms page.

b = Module number.

c = Name of scan point.

d = Termination report. Valid value(s):

ABORTED
COMPLETED

e = Explanation of termination report. Valid value(s):

If 'd' =	**'e' =**
ABORTED	REMOTE ALARM PROCESS NOT ACTIVE IN DESIGNATED MODULE = The switching module (SM) number specified does not have remote alarms associated with it.
ABORTED	POINT OUT OF RANGE = The specified point is not within the range of the bldg/misc group (2-31).
ABORTED	POINT NOT ASSIGNED = The point is shown as not in service in the database.
ABORTED	POINT ALREADY ALLOWED = The point is already allowed.
COMPLETED	No explanation = The requested allow was invoked both metallic service unit (MSU) service groups are in service.
COMPLETED	ONE MSU SG OOS = One MSU service group (SG) is out-of-service (OOS). The point was successfully allowed in the active service group. The software copy of the inhibit state was changed in the other service group, so when it is put back into service, the point will be allowed there also.
COMPLETED	BOTH MSU SERVICE GROUPS OOS = Both MSU service groups are OOS however, the software copy of the inhibit state was changed, so when the service groups are put back into service, the point will be allowed.

4. ACTION TO BE TAKEN

The purpose of this message is to report the result of the action requested by the corresponding manually requested input message. No specific action is indicated.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ALW:ALM
INH:RBPSC-SM
```

ALW:RC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW RC a
```

2. REASON FOR OUTPUT

To report the status of an ALW:RC input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination report. Valid value(s):
- `COMPLETED` = The requested action was terminated after completion.
- `STOPPED` = The requested action was terminated before a normal completion.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Generic Retrofit Procedures manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:RC
INH:RC
```

Output Message(s):

```
INH:RC
```

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-105-24x Generic Retrofit Procedures

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ALW:REX

Software Release: 5E10 and later
Message Class: MAINT
Application: 3B
Type: Output

1. FORMAT

```
[1]    ____________________________________________________________________
       ALW REX COMPLETED

[2]    ____________________________________________________________________
       ALW REX NOT STARTED
         a
```

2. REASON FOR OUTPUT

To report the termination status of the ALW:REX input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Status. Valid value(s):

`CONFLICT WITH CURRENT SYSTEM STATUS` = Temporary routine exercise (REX) inhibits are not available for the unit specified, or all the units specified due to active permanent REX inhibit(s). Use the OP:REXINH input message with the PERM option to determine the current permanent REX inhibits.

`RETRY LATER` = The database manager or a database record could not be opened; try again at a later time. If this persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

4. ACTION TO BE TAKEN

For Format 1, no action is needed.

5. ALARMS

None.

6. REFERENCES

Input Message(s):
`ALW:REX`
`OP:REXINH`

Output Message(s):

`OP:REXINH`

ALW:RLI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW RLI=a-b c [d]
```

2. REASON FOR OUTPUT

To indicate the result of an ALW:HDW-RLI input message to allow interrupts on a remote switching module (RSM) remote link interface (RLI) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RLI number.

`c` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed, and independent certification of the resulting hardware status was made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before normal completion.

`d` = Additional information qualifying the termination report.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-RLI
INH:HDW-RLI
```

Output Message(s):

```
INH:HDW-RLI
```

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ALW:RPC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW RPC [SM=a[&&b]] c
```

2. REASON FOR OUTPUT

To report the results of the ALW:RPC input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number or the lower limit of a range a SMs.

`b` = Upper limit of a range of SMs.

`c` = The result of the request. Valid value(s):
`COMPLETED` = Routine port conditioning was allowed for the specified SM or range of SMs.
`SM UNAVAILABLE` = Routine port conditioning could not be allowed because the specified SM or range of SMs are not able to communicate with the administrative module (AM).
`SM UNEQUIPPED` = Routine port conditioning could not be completed because the specified SM or range of SMs do not exist.

4. ACTION TO BE TAKEN

When the report indicates SM UNAVAILABLE, retry the command again once the SM(s) become available. Otherwise, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Manual(s):

ALW:RPC

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ALW:RT-FAC

Software Release: 5E10 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
ALW RT FAC=a-b PROT|RELEASE c [d]
```

2. REASON FOR OUTPUT

To respond to an ALW:RT-FAC input message that allows protection line switch requests to be performed on a specified remote terminal (RT) digital signal level one (DS1) facility (FAC) circuit or allows a DS1 to be released from protection.

3. VARIABLE FIELD DEFINITIONS

`a` = Site identification number.

`b` = DS1 FAC number.

`c` = Termination status. Valid value(s):

- `ABORTED` = The action requested was unsuccessful and the termination was not graceful. Hardware states are not reliable.
- `COMPLETED` = The action completed successfully.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = The action was terminated before a normal completion but the termination was graceful. Hardware states are reliable.

`d` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ALW:RT-FAC`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):

235-105-110 System Maintenance Requirements and Tools
235-105-220 Corrective Maintenance

MCC Display Page(s):

187x (IDCU FACILITY)

ALW:RT-PROV-REPT

Software Release: 5E10 and later
Message Class: RT
Application: 5
Type: Output

1. FORMAT

```
ALW RT PROV REPT {SM=a|SID=b|LRT=a-c-d} e
```

2. REASON FOR OUTPUT

To report the result of an ALW:RT-REPT input message that requests the enabling of diagnostic receive-only printer (ROP) reporting of provisioning failures for the provisioning of an integrated digital carrier unit (IDCU) terminated TR303 remote terminal (RT), an analog or digital line on an RT, or a digital signal level 1 (DS1) facility on an RT.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Site identification (SID) number of the RT.

`c` = IDCU number.

`d` = Local RT (LRT) number.

`e` = Completion status. Valid value(s):
`COMPLETED` = The request to allow ROP reporting of provisioning failures has completed.
`INVALID REQUEST` = The request contained invalid data.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:RT-PROV
ALW:RT-REPT
```

Output Message(s):

```
OP:RT-PROV
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

ALW:RTMTBOVR

Software Release: 5E10 and later
Message Class: SLC
Application: 5
Type: Output

1. FORMAT

```
ALW RTMTBOVR [SM=a[&&b]] c
```

2. REASON FOR OUTPUT

To report the results of executing an ALW:RTMTBOVR input message.

3. VARIABLE FIELD DEFINITIONS

`SM` = Switching module. If no SM number or range is listed, all equipped and operational SMs will be allowed.

`a` = SM number, or the lower limit of a range of SM numbers.

`b` = The upper limit of a range of SM numbers.

`c` = Termination report. Valid value(s):
`COMPLETED` = Request has successfully completed.
`SM UNAVAILABLE` = The administrative module (AM) could not communicate with the specified SM.
`SM UNEQUIPPED` = An SM specified is unequipped.
`SYSTEM BUSY REPEAT LATER` = Request not completed, retry later.
`SYSTEM ERROR` = Abnormal termination.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:RTMTBOVR
ALW:RTMTBPRT
INH:RTMTBOVR
INH:RTMTBPRT
```

Output Message(s):

```
ALW:RTMTBPRT
INH:RTMTBOVR
```

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```
INH:RTMTBPRT
REPT:RTMTB-SID
```

ALW:RTMTBPRT

Software Release: 5E10 and later
Message Class: SLC
Application: 5
Type: Output

1. FORMAT

```
ALW RTMTBPRT [SM=a[&&b]] c
```

2. REASON FOR OUTPUT

To report the results of executing an ALW:RTMTBPRT input message.

3. VARIABLE FIELD DEFINITIONS

`SM` = Switching module. If no SM number or range is listed, all equipped and operational SMs are allowed.

`a` = SM number, or the lower limit of a range of SM numbers.

`b` = The upper limit of a range of SM numbers.

`c` = Termination report. Valid value(s):
`COMPLETED` = Request has successfully completed.
`SM UNAVAILABLE` = The administrative module (AM) could not communicate with the specified SM.
`SM UNEQUIPPED` = An SM specified is unequipped.
`SYSTEM BUSY REPEAT LATER` = Request not completed, retry later.
`SYSTEM ERROR` = Abnormal termination.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:RTMTBOVR
ALW:RTMTBPRT
INH:RTMTBOVR
INH:RTMTBPRT
```

Output Message(s):

```
ALW:RTMTBOVR
INH:RTMTBOVR
```

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```
INH:RTMTBPRT
REPT:RTMTB-SID
```

ALW:RTRACK

Software Release: 5E11 and later
Message Class: SWM01
Application: CNI
Type: Output

1. FORMAT

```
ALW RTRACK a
  b
```

2. REASON FOR OUTPUT

To print a response to the ALW:RTRACK input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination status of the input message. Valid value(s):

```
COMPL
NOT STARTED
STOPPED
```

`b` = Reason input message did not complete. Valid value(s):

If 'a'	'b' =
NOT STARTED	INVALID REQUEST RESPONSE FOR ALW RTRACK
STOPPED	INVALID RESPONSE ACKNOWLEDGEMENT FOR ALW RTRACK

4. ACTION TO BE TAKEN

No action is necessary.

If 'a' is `COMPL`, the process of allowing entry into the ring tracker mode, after it was previously inhibited by a INH:RTRACK input message has completed.

If 'b' is `RTRACK ALREADY ALLOWED`, an ALW:RTRACK input message has been entered but the ring tracker mode is already active.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:RTRACK
EXC:RTRACK
INH:RTRACK
OP:RTRACK
STOP:RTRACK
```

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Output Message(s):

```
EXC:RTRACK
INH:RTRACK
OP:RTRACK
REPT:RING-CFR
STOP:RTRACK
```

ALW:RUTIL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      ALW RUTIL COMPL
        LNa b

[2]   ____________________________________________________________
      ALW RUTIL ABT
        SEND2KERN MKNODE() FAILED c

[3]   ____________________________________________________________
      ALW RUTIL ABT
        SEND2KERN OPEN() FAILED c

[4]   ____________________________________________________________
      ALW RUTIL ABT
        SEND2KERN KERNEL RETURNED ERROR c

[5]   ____________________________________________________________
      ALW RUTIL ABT
        KERNEL RESPONSE TIMEOUT c
```

2. REASON FOR OUTPUT

Prints in response to a ALW:RUTIL input message.

Format 1 indicates a successful completion of the ALW:RUTIL input message.

Format 2 indicates that creating the special file for the kernel has failed.

Format 3 indicates that attempting to open the file for kernel processing has failed.

Format 4 indicates that the kernel has returned a failing return code.

Format 5 indicates that the kernel has not responded to the process.

3. VARIABLE FIELD DEFINITIONS

`a` = The group number of the concerned node.

`b` = The member number of the concerned node.

`c` = The value of the global variable errno.

4. ACTION TO BE TAKEN

For Formats 2 through 5, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:RUTIL
ALW:RUTILFLAG
CLR:RUTIL
CLR:RUTILFLAG
DUMP:RUTIL
INH:RUTIL
INH:RUTILFLAG
LOAD:RUTIL
OP:RUTIL
OP:RUTILFLAG
WHEN:RUTIL
```

Output Message(s):

```
ALW:RUTILFLAG
CLR:RUTIL
CLR:RUTILFLAG
DUMP:RUTIL
INH:RUTIL
INH:RUTILFLAG
LOAD:RUTIL
OP:RUTIL
OP:RUTILFLAG
REPT:RUTIL
WHEN:RUTIL
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

ALW:RUTILFLAG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      ALW RUTILFLAG COMPL
        LN a b BP = c

[2]   ____________________________________________________________________
      ALW RUTILFLAG COMPL
        LN a b INVALID BP = c

[3]   ____________________________________________________________________
      ALW RUTILFLAG COMPL
        LN a b BP = c
        NOT SETUP COMPL

[4]   ____________________________________________________________________
      ALW RUTILFLAG COMPL
        LN a b  BP  = c
        ILLEGAL BP STATUS = e

[5]   ____________________________________________________________________
      ALW RUTILFLAG COMPL
        LN a b BP =
        c MEMORY PROTECTION ERROR = f

[6]   ____________________________________________________________________
      ALW RUTILFLAG ABT
        SEND2KERN MKNODE() FAILED d

[7]   ____________________________________________________________________
      ALW RUTILFLAG ABT
        SEND2KERN OPEN() FAILED d

[8]   ____________________________________________________________________
      ALW RUTILFLAG ABT
        SEND2KERN KERNEL RETURNED ERROR d

[9]   ____________________________________________________________________
      ALW RUTILFLAG ABT
        KERNEL RESPONSE TIMEOUT d
```

2. REASON FOR OUTPUT

Prints in response to a ALW:RUTILFLAG input message.

Format 1 indicates a successful completion of the ALW:RUTILFLAG input message.

Format 2 indicates that the break point specified is invalid.

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Format 3 indicates that the specified break point is not set up.

Format 4 indicates that the break point has an illegal status.

Format 5 indicates that a memory protection error has occurred.

Format 6 indicates that creating the special file for the kernel has failed.

Format 7 indicates that attempting to open the file for kernel processing has failed.

Format 8 indicates that the kernel has returned a failing return code.

Format 9 indicate that the kernel has not responded to the process.

3. VARIABLE FIELD DEFINITIONS

a	= The group number of the concerned node.
b	= The member number of the concerned node.
c	= The specified break point number.
d	= The value of the global variable 'errno'.
e	= Illegal break point status value.
f	= Memory protection error return.

4. ACTION TO BE TAKEN

For Formats 2 and 3, check the specified break point number. Otherwise for Formats 4 through 9, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:RUTIL
ALW:RUTILFLAG
CLR:RUTIL
CLR:RUTILFLAG
DUMP:RUTIL
INH:RUTIL
INH:RUTILFLAG
LOAD:RUTIL
OP:RUTIL
OP:RUTILFLAG
WHEN:RUTIL
```

Output Message(s):

```
ALW:RUTIL
CLR:RUTIL
CLR:RUTILFLAG
DUMP:RUTIL
INH:RUTIL
INH:RUTILFLAG
LOAD:RUTIL
OP:RUTIL
OP:RUTILFLAG
REPT:RUTIL
WHEN:RUTIL
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

ALW:SCSD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      ALW SCSD UNIT a PT b[bbbbbbb] f

[2]   ____________________________________________________________
      ALW SCSD GRPN c DUPID d PT e[eeeee] f

[3]   ____________________________________________________________
      ALW SCSD NOT STARTED
        CONFLICT WITH CURRENT SYSTEM STATUS
```

2. REASON FOR OUTPUT

To indicate whether a scan point has been enabled as a result of executing an ALW:SCSD input message. This allows a scan point transition to be reported.

Format 1 is used when a scan point was identified by physical location.

Format 2 is used when a scan point was identified by logical address.

Format 3 is used when the scanner and signal distributor (SCSD) administration process is not active. No communication with SCSD points is possible.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number of SCSD unit.

`b` = Physical scan point number on an SCSD.

`c` = Name of the logical group.

`d` = Duplex group ID.

`e` = Number of a point within a logical group.

`f` = Termination status. Valid value(s):

- `FAILED` = Action could not be completed by SCSD administrator. Possible reasons for failure are:
  - SCSD unit number is invalid.
  - Point number is invalid for the logical group.
  - Logical group name is invalid and either the SCSD unit is out-of-service (OOS) or is in an inactive state to the SCSD administrator.
- `COMPLETED` = Action completed.

4. ACTION TO BE TAKEN

Issue the OP:OOS input message to determine if the SCSD unit is listed as OOS. Otherwise enter in recent change and verify (RCV) to verify input message arguments.

If logical addressing is used, check that the logical group name exists and/or the point number is contained in the logical group. If physical addressing is used, verify that the SCSD unit is equipped.

If the results of the above actions are negative, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1,2	229

Input Message(s):

```
ALW:SCSD
OP:OOS
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-600-31x ECD/SG Manual

ALW:SFTCHK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      ALW SFTCHK COMPLETED

[2]   ____________________________________________________________________
      ALW ERRCHK COMPLETED WITH b

[3]   ____________________________________________________________________
      ALW SFTCHK ABORTED  a

[4]   ____________________________________________________________________
      ALW SFTCHK NOT STARTED
        INVALID ID FIELD
```

2. REASON FOR OUTPUT

To indicate the result of a request to allow administrative module (AM) software checks.

3. VARIABLE FIELD DEFINITIONS

`a` = Error codes. Valid value(s):

- `50` = A message could not be sent to a driver or real time status (RTS) report.
- `51` = An equipment configuration database (ECD) access function completed unsuccessfully.
- `52` = An error in message communication.
- `53` = An error internal to the inhibit administrator.

`b` = One of the following port problems. Valid value(s):

- An invalid system port specified.
- An invalid system port specified for application integrity monitor (AIM).
- No process attached to the specified port.
- No process attached to the AIM port.

4. ACTION TO BE TAKEN

If an error was reported, use the OP:ERRCHK input message to find out the resulting status of AM inhibits. All error codes associated with this activity are significant and should be reported. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

If the process completes with a port problem, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ALW:SFTCHK
INH:SFTCHK
OP:ERRCHK
```

Output Message(s):

```
INH:SFTCHK
OP:ERRCHK
```

ALW:SSTR

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
ALW SSTR TG=a b
```

2. REASON FOR OUTPUT

To report the allowing of the service selective trunk reservation (SSTR) control. This is a response to an ALW:SSTR input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Trunk group (TG) number.

`b` = Termination status. Valid value(s):
`ABORTED` = Message failed.
`COMPLETED` = SSTR control is in effect for TG '`a`'.
`FAILED-PARAMETER` = Message failed due to bad input. The trunk group specified is invalid.

4. ACTION TO BE TAKEN

No action is needed for an automatically generated request from the Remote Network Management Center (RNMC). For manually generated requests, the following actions will apply:

If '`c`'	**Action:**
`ABORTED`	Reinitiate the request.
`COMPLETED`	The message is a confirmation of a request from an input message.
`FAILED-PARAMETER`	Check for the validity of input parameters and reinitiate the corrected request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ASGN:SSTR
INH:SSTR
OP:SSTR
```

Other Manual(s):
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

130 (NM EXCEPTION)

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ALW:ST-TRFC30

Software Release: 5E10 and later
Message Class: TRFM
Application: 5
Type: Output

1. FORMAT

```
ALW STATUS TRFC30 a       s areWED [b]

  c ALLOWED:

  d      [e]      [f]      [g]
  .       .        .        .
  .       .        .        .
  .       .        .        .
```

2. REASON FOR OUTPUT

To respond to an OP:ST-TRFC30 input message for 30-minute traffic sections that require group identifiers. The APP:TRFC-SECTION input appendix indicates which sections require identifiers.

When allowing a section of the 30-minute traffic report (TRFC30) for reporting at the receive-only printer (ROP) (ALW:TRFC30,ROP:a), some sections require identifiers (such as groups, units) which effectively select what is printed at the ROP. Some sections require single identifiers (such as trunk group number) while other sections require multiple identifiers [such as switching module (SM), protocol handler and shelf numbers]. Some sections can be allowed for reporting a specified count.

Each line of output represents either one element (such as group or unit; identified by one or multiple identifiers) or one count (refer to variables '`d-g`').

3. VARIABLE FIELD DEFINITIONS

`a` = Section name. Refer to the APP:TRFC-SECTION appendix in the Appendixes section of the Output Messages manual.

`b` = If a count was allowed, type of count screening. Valid value(s):

```
HIGH
HILO
LOW
```

`c` = Indicates what was allowed. Valid value(s):

`COUNT`	= A specific count within the indicated section.
`ELEMENTS`	= Unit(s).

`d-g` = Identifier. Valid value(s):

If '`c`' =	'`d`'-' `g`' =
`COUNT`	Refer to the OP:TRFC30 message for count identifiers.
`ELEMENTS`	Refer to the APP:TRFC-SECTION appendix in the Appendixes section of the Output Messages manual.

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4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration and Engineering Guidelines*

ALW:TR

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
ALW TR TG=a b
```

2. REASON FOR OUTPUT

To report the allowing of a trunk reservation (TR) control. This is a response to an ALW:TR input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Trunk group (TG) number.

`b` = Termination status. Valid value(s):
`ABORTED` = Message failed.
`COMPLETED` = TR control is in effect for TG, variable '`a`'.
`FAILED PARAMETER` = Message failed due to bad input. The trunk group specified is invalid.

4. ACTION TO BE TAKEN

No action is needed for an automatically generated request from the remote network management center (RNMC). These messages are to be treated as information-only messages. For manually generated requests, the following actions will apply.

If '`b`' =	**Action:**
`ABORTED`	Reinitiate the request.
`COMPLETED`	The message is a confirmation of a request from an input message.
`FAILED PARAMETER`	Check for the validity of input parameters and reinitiate the corrected request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ASGN:TR
INH:TR
OP:TR
```

Other Manual(s):
235-190-103 *Business and Residence Feature Description*
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

130 (NM EXCEPTION)

ALW:TRACE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW TRACE a
 [b]
```

2. REASON FOR OUTPUT

To report the termination status of ALW:TRACE input message.

3. VARIABLE FIELD DEFINITIONS

a = Termination status. Valid value(s):

- ABT = The request was terminated before completion, and the termination was complete.
- COMPL = The request was successfully completed.
- STOPPED = The request was terminated before normal completion.

b = Signal status. Valid value(s):

If 'a' =	'b' =
ABT	TIMEOUT SIGNAL RECEIVED SOFTWARE TERMINATION SIGNAL RECEIVED HANGUP SIGNAL RECEIVED INTERRUPT SIGNAL RECEIVED UNEXPECTED SIGNAL RECEIVED
STOPPED	IMS SUBSYSTEM DOWN (Interprocessor Message Switch - IMS) IMS MESSAGE SWITCH CHANNEL BUSY IMS SUBSYSTEM OVERLOAD PROGRAM MALFUNCTION

4. ACTION TO BE TAKEN

If 'a' =	Action: =
ABT or STOPPED	Try the ALW:TRACE input message again.
COMPL	No action is required.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
ALW:TRACE
INH:TRACE
OP:TRACE
SET:TRACE
```

Output Message(s):

```
INH:TRACE
OP:TRACE
REPT:TRACE
SET:TRACE
```

ALW:TRAP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      ALW TRAP
        MTRP: ALW TRAP ID ALL COMPL; NO INH OR PND TRAP

[2]   ____________________________________________________________________
      ALW TRAP
        MTRP: ALW TRAP ID ALL COMPL; ID(S) = a[a[a]]

[3]   ____________________________________________________________________
      ALW TRAP
        MTRP: ALW TRAP ID ALL FAILED; b

[4]   ____________________________________________________________________
      ALW TRAP
        MTRP: ALW TRAP ID COMPL; ID = a

[5]   ____________________________________________________________________
      ALW TRAP
        MTRP: ALW TRAP ID COMPL; ABT/CMP TRAP; OID = a NID = a

[6]   ____________________________________________________________________
      ALW TRAP
        MTRP: ALW TRAP ID FAILED;{b|c}; ID = a

[7]   ____________________________________________________________________
      ALW TRAP
        MTRP: ALW TRAP ID FAILED; NO RESRC (MT_TBL ENTRY UNAVAIL)
```

2. REASON FOR OUTPUT

This output message is in response to an ALW:TRAP input message.

Format 1 prints when ID ALL is specified and there are no inhibited or pending traps in the message trap system.

Format 2 prints when ID ALL is specified and there is one or more inhibited or pending traps to be allowed. A list of the trap IDs that have been allowed will be displayed.

Format 3 prints when ID ALL is specified and there is one or more inhibited or pending traps to be allowed. However, the processing of the ALW:TRAP input message has failed due to the reason being printed.

Format 4 prints when one or a list of trap IDs is given. Each trap specified will be allowed in the given order. This format will be printed for the traps that have been successfully allowed. One message per trap ID allowed will be printed.

Format 5 prints when one or a list of trap IDs is given. Each trap specified will be allowed in the given order. In this case, one of the trap IDs given belongs to a trap that has aborted or has completed. A new trap is started with the same trap information as the one specified and a new trap ID is assigned. OID denotes the old trap ID, whereas NID

denotes the new trap ID. One message per ID allowed will be printed. Note that the "old" trap will remain intact.

Format 6 prints when one or a list of trap IDs is given. Each trap specified will be allowed in the given order. This format results when the processing of a trap has failed due to the reason being printed. One message per ID failed will be printed.

Format 7 prints when trying to overindex the monitor trap table entry. The maximum traps allowed in the monitor trap table is 32.

3. VARIABLE FIELD DEFINITIONS

`a` = Trap identification number.

`b` = Reason ALW:TRAP input message failed (internal error condition). Valid value(s):

```
CAN'T GET INDEX
INVALID TRAP STATE
NO TRAP ALLOWED
```

`c` = Reason ALW:TRAP input message failed. Valid value(s):

`ACT TRAP` = Cannot allow active traps.
`INVALID ID` = ID does not belong to any trap.
`MAX_SIMTRP REACHED` = Maximum number of simultaneous traps that are allowed on the message trap system is reached.
`TRM TRAP` = Cannot allow terminated traps.

4. ACTION TO BE TAKEN

For Formats 1, 2, 4, 5 and 7, none.

For Format 3, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 6, if any of the reasons in variable '`b`' are printed, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. Otherwise, the reasons in variable '`c`' are self-explanatory. Correct the error and try again.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRAP
INH:TRAP
OP:TRAP
SET:TRAP
STOP:TRAP
```

Output Message(s):

```
ALW:TRAP
INH:TRAP
OP:TRAP
SET:TRAP
STOP:TRAP
REPT:MON-TRAP
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services*

ALW:TRFC30

Software Release: 5E10 and later
Message Class: TRFM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      ALW TRFC30 a      [b]
        ELEMENTS ALLOWED:
            c      [d]      [e]      [f]
            .       .        .        .
            .       .        .        .
            .       .        .        .
        INVALID ELEMENTS:
            c      [d]      [e]      [f]
            .       .        .        .
            .       .        .        .
            .       .        .        .
        ALLOWED ELEMENT COUNT: g       (LIMIT = h)

[2]   ____________________________________________________________________
      ALW TRFC30 a      b
        ELEMENTS ALLOWED:
            c
            .
            .
            .
        INVALID ELEMENTS:
            c       i      [j]
            .       .       .
            .       .       .
            .       .       .
        ALLOWED ELEMENT COUNT: g       (LIMIT = h)

[3]   ____________________________________________________________________
      OK - ALLOWED ELEMENTS COUNT : g (LIMIT=h)
```

2. REASON FOR OUTPUT

To respond to a request to allow a 30-minute traffic report (TRFC30) section that requires group identifiers to be collected (CLCT) or output to the read-only printer (ROP). The APP:TRFC-SECTION appendix in the Appendixes section of the Input Messages manual indicates which sections require identifiers.

Some sections require single identifiers (for example, trunk group number) while other sections require multiple identifiers [for example, switching module (SM), protocol handler (PH) and shelf numbers]. Each line of output represents one element (for example, unit or group) identified by one or multiple identifiers. Format 2 is used by section 128, customer directory number (CDN) and section 199, personal communications services directory number (PCSDN) counts. Format 3 is used by command alw:trfc30,clct,irt,all in section 143 (IRT). All other sections that use this message use Format 1. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Section name. Refer to the APP:TRFC-SECTION appendix in the Appendixes section of the Output Messages manual.

b = Status of the section following the ALW request. Valid value(s):

`ALLOW LIMIT REACHED` = The maximum number of elements allowable for this section have been allowed.

`ALLOW LIMIT REACHED - ROP INHIBITED` = The maximum number of elements allowable for this section has been allowed. Because the PRINT budget has been exceeded, the section has been inhibited for ROP.

`ALLOWED FOR CLCT - ROP INHIBITED` = Some elements have been allowed. The section was allowed for collection. Because the PRINT budget has been exceeded, the section has been inhibited for ROP.

`ALLOWED FOR CLCT - STUDY UNCHANGED` = Some studies have been allowed for collection. The memory budget would be exceeded due to the status change of switch groups (SG)/line group controllers (LGC) to operational, since the last allow request. All previously allowed studies in this request have been allowed, without including the new operational SGs/LGCs (that is, study is unchanged since last ALW).

`ALLOWED FOR COLLECTION` = Some elements have been allowed. The section was allowed for collection.

`ALLOWED FOR ROP` = Some elements have been allowed. The section was allowed for printing on the ROP.

`DATABASE ERROR` = A database error prevented the request from being successfully processed. The requested action failed.

`INHIBITED` = All elements have been inhibited. The section remains inhibited.

`MEMORY ALLOCATION EXCEEDED` = None of the requested units were allowed. Buffer allocation would be exceeded if they were allowed.

c-f = Element identifier. Refer to the APP:TRFC-SECTION appendix in the Appendixes section of the Output Messages manual.

g = Number of elements allowed.

h = Maximum number of elements allowable for this section.

i = Reason that element is invalid (applies only to sections 128 and 199). Valid value(s):

Note: Reason messages with "(#)" will include an SM number.

`ALLOW LIMIT REACHED IN SM(#)` = The specified directory number (DN) was not allowed because the per-SM maximum of studied DNs has been reached.

`DEPENDENT DN OF MDNL(#)` = The specified DN was not allowed because it is a dependent DN of a multiple DN line (MDNL).

`DN CANNOT BE STUDIED(#)` = This reason is provided by the switch when a DN is removed from the CDN study set by some automatic operation in response to some administrator action that resulted in a status change to a DN, currently under study, which makes the DN invalid for study. This automatic operation may be the CDN audit run during the 30-minute report cycle, or an instantaneous request, to remove the DN, by an existing relational trigger.

`DN DOES NOT EXIST IN OFFICE` = The specified DN was not allowed because relational data for the specified DN could not be located, even though the database reads were successful.

`DN IS NOT PCS DN(#)` = The specified DN was not allowed because it is not a PCS DN.

`FC_PORTTYP DATA READ FAILED(#)` = The specified DN was not allowed because the read of the FC_PORTTYP database relation failed.

`IS_TERM DATA READ FAILED(#)` = The specified DN was not allowed because the read of the IS_TERM database relation failed to obtain the DN's PCS status.

`ISDN OR SHARED LINE NOT ALLOWED(#)` = The specified DN was not allowed because it is either assigned to a digital subscriber line (DSL), or to an analog line whose DN is shared with integrated services digital network (ISDN) terminals. Section 128 studies only analog lines (except for analog shared DNs).

`NOCCODE DATA READ FAILED` = The specified DN was not allowed because the read of the NOCCODE database relation failed.

`OFFICE ALLOW LIMIT REACHED` = The specified DN was not allowed because the office maximum of studied DNs has been reached. Only those DNs from the Input Message up to the point where the study set is filled will be accepted.

`RT_DNTRAN DATA READ FAILED` = The specified DN was not allowed because the read of the RT_DNTRAN database relation failed to obtain the DN's terminating module.

`RTDNMOD DATA READ FAILED` = The specified DN was not allowed because the read of the RTDNMOD database relation failed to obtain the DN's routing module.

`SERVICE CLASS NOT INDIVIDUAL(#)` = The specified DN was not allowed because the DN's service class was not INDIVIDUAL.

`TERMINATING CLASS NOT INDIVIDUAL(#)` = The specified DN was not allowed because it is either assigned to a multi-line hunt group (MLHG) line, which can be studied in section 34 of the TRFC30 report, or to a private branch exchange (PBX) line. Section 128 studies only individual lines.

`UNAVAILABLE ROUTING SM` = The specified DN was not allowed because its routing SM was unavailable.

`UNAVAILABLE TERMINATING SM(#)` = The specified DN was not allowed because its terminating SM was unavailable.

`j` = SM number for invalid element messages that are marked with "(#)."

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:TRFC-SECTION
```

Other Manual(s):

Where (x) is the release-specific version of the specified manual.
235-070-100 *Administration and Engineering Guidelines*
235-118-251 *Recent Change Procedures*
235-118-25x *Recent Change Reference*

ALW:TRFC30-TG

Software Release: 5E10 and later
Message Class: TRFM
Application: 5
Type: Output

1. FORMAT

```
ALW TRFC30 TG CHANGE
  TRUNK GROUPS ALLOWED:   a       b       c       d       e
  INVALID TRUNK GROUPS:   f       g       h       i       j
  ALLOWED TRUNK GROUP COUNT:      k       (LIMIT = 5)
```

2. REASON FOR OUTPUT

To respond to an ALW:TRFC30 input message request to allow the output of up to five trunk groups when one or more of the trunk group identifiers requested is invalid.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

`a-e` = Trunk group identifiers currently allowed for output.

`f-j` = Invalid trunk group identifiers requested.

`k` = Current number of trunk groups allowed for output.

4. ACTION TO BE TAKEN

A trunk group can be allowed for output again if it was flagged as invalid because of a typing error.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:TRFC-SECTION
```

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Other Manual(s):
235-070-100 *Switch Administration Guidelines*

ALW:UMEM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
ALW UMEM a WAS b NOW c #d
```

2. REASON FOR OUTPUT

To report the disposition of an ALW:UMEM input message.

3. VARIABLE FIELD DEFINITIONS

a = Status of the operation. Valid value(s):
- COMPLETED = The trace has begun monitoring the flow of execution.
- NOT STARTED = The operation was ignored because data loss might have resulted.
- STOPPED UCERR = The operation could not be completed because the utility circuit either does not respond or does not match the circuit present when the trace was defined.

b = The state of the trace before the operation was attempted. Valid value(s):
- DUMPED = The trace was not running and its data had already been dumped.
- NEW = The trace was not running and did not have data.
- RUNNING = The trace was collecting data.
- STOPPED = The trace was not running and did have data.
- UNDEF = No trace was defined.

c = The state of the trace after the operation was attempted. Valid value(s):
- RUNNING = The trace is collecting data.
- STOPPED = The trace is stopped and does contain data.
- UNDEF = No trace is defined.

d = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If 'a' =	Action:
NOT STARTED	The trace must be in the NEW or DUMPED state in order to be started. Use the INH:UMEM and/or the OP:UMEM input messages before reissuing the ALW:UMEM input message.
STOPPED UCERR	Check the utility circuit hardware. After it is fixed, use the INIT:UC input message to reinitialize the circuit.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

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Format(s):	Key(s):
all	496

Input Message(s):

```
ALW:UMEM
INH:UMEM
INIT:UC
OP:UMEM
OP:UTIL
```

Output Message(s):

```
OP:UTIL
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

ALW:UT-CMP

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
ALW UT CMP=a-b {MATE|PRIM} {UTIL|UTILFLAG [c]} d
```

2. REASON FOR OUTPUT

To report the status of the ALW:UT-CMP input message used to activate the specified communication module processor (CMP) WHEN breakpoint clause(s).

3. VARIABLE FIELD DEFINITIONS

`MATE`	= Message was executed on the standby CMP.
`PRIM`	= Message was executed on the active CMP.
`UTIL`	= Message was run on all UT WHEN clauses in the processor.
`UTILFLAG`	= Designates one specific WHEN clause.
`a`	= Message switch side.
`b`	= CMP number.
`c`	= WHEN message identification number, in decimal.
`d`	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:UT-CMP
WHEN:UT-CMP
```

Output Message(s):

```
WHEN:UT-CMP
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements And Tools*

ALW:UT-MCTSI-PI

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
ALW UT MCTSI=a-b PI {UTIL|UTILFLAG c} d
```

2. REASON FOR OUTPUT

To report the status of the ALW:UT-MCTSI-PI input message used to activate the specified WHEN clause(s) in the packet interface (PI).

3. VARIABLE FIELD DEFINITIONS

`UTIL`	= Message was run on all UT WHEN clauses in the processor.
`UTILFLAG`	= Designates one specific WHEN clause.
`a`	= Switching module (SM) number
`b`	= Side of the module controller/time-slot interchange (MCTSI).
`c`	= WHEN message identification number, in decimal.
`d`	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:UT-MCTSI-PI
WHEN:UT-MCTSI-PI
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements And Tools*
235-600-400 *Audits Manual*

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ALW:UT-PSUPH

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
ALW UT PSUPH=a-b-c-d {UTIL|UTILFLAG e} f
```

2. REASON FOR OUTPUT

To report the status of the ALW:UT-PSUPH input message used to activate the specified communication module processor WHEN breakpoint clause(s).

3. VARIABLE FIELD DEFINITIONS

UTIL	= Message was run on all UT WHEN clauses in the processor.
UTILFLAG	= Designates one specific WHEN clause.
a	= Switching module (SM) number.
b	= Unit number.
c	= Shelf number.
d	= Slot number.
e	= WHEN message identification number, in decimal.
f	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:UT-PSUPH
WHEN:UT-PSUPH
```

Output Message(s):

```
WHEN:UT-PSUPH
```

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Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements And Tools*

ALW:UT-SM

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
ALW UT SM a d [b] c
```

2. REASON FOR OUTPUT

To report the status of the ALW:UT-SM input message to activate the specified WHEN clause.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = WHEN message identification number, in decimal.

`c` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

`d` = WHEN clause designated.
- `UTIL` = Specifies all WHEN clauses.
- `UTILFLAG` = Designates one specific WHEN clause.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:UT-SM
WHEN:UT-SM
```

Output Message(s):

```
APP:UT-OM-REASON
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):

235-105-220 *Corrective Maintenance*

ALW:UTIL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
ALW UTIL a #b
```

2. REASON FOR OUTPUT

To report the disposition of an ALW:UTIL input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination status. Valid value(s):

- `COMPLETED` = The actions associated with any breakpoint will be executed when the breakpoint conditions occur.
- `STOPPED UCERR` = The operation was completed successfully for all software breakpoints, but the utility circuit does not respond or does not match the circuit present when the hardware breakpoints were defined.

`b` = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If '`a`' is STOPPED UCERR, check the utility circuit hardware. After it is fixed, use the INIT:UC input message to reinitialize the circuit.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	494

Input Message(s):

```
ALW:UTIL
INH:UTIL
INH:UTILFLAG
INIT:UC
OP:UTIL
```

Output Message(s):

```
OP:UTIL
```

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Output Appendix(es):

APP:OMDB-X-REF

ALW:UTILFLAG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
ALW UTILFLAG a b #c
```

2. REASON FOR OUTPUT

To report the disposition of an ALW:UTILFLAG input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Numeric identifier (one or more decimal digits) for the breakpoint that was enabled.

`b` = Termination status. Valid value(s):
`COMPLETED` = The associated actions will be executed when the breakpoint conditions occur.
`STOPPED UCERR` = The operations could not be performed because the utility circuit either does not respond or does not match the circuit present when the breakpoint was defined.

`c` = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If '`b`' is STOPPED UCERR, check the utility circuit hardware. After it is fixed, use the INIT:UC input message to reinitialize the circuit.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	494

Input Message(s):

```
ALW:UTILFLAG
INH:UTIL
INH:UTILFLAG
INIT:UC
OP:UTIL
```

Output Message(s):

```
OP:UTIL
```

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Output Appendix(es):

APP:OMDB-X-REF

ALW:UTILFLG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ALW UTILFLG a b
```

2. REASON FOR OUTPUT

To acknowledge a request to allow a breakpoint.

3. VARIABLE FIELD DEFINITIONS

`a` = A decimal number identifying the breakpoint ID allowed.

`b` = Data field which provides additional information qualifying the termination report.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

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8. ANALY

ANALY:TLPFILE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B,CNI
Type: Output

WARNING: INAPPROPRIATE USE OF THIS MESSAGE MAY INTERRUPT OR DEGRADE SERVICE. READ PURPOSE CAREFULLY.

1. FORMAT

```
[1]   ____________________________________________________________________
      ANALY TLPFILE a SUMMARY DATA MSG STARTED
        TLP: a PH=b K1=0Xc K2=0Xd FFK=e
           .    .      .      .     .
           .    .      .      .     .
           .    .      .      .     .
        TLPFILE COMPLETED

[2]   ____________________________________________________________________
      ANALY TLPFILE  a       MSG IP
        TLPFILE # f

[3]   ____________________________________________________________________
      ANALY TLPFILE a  SUSPECTED FAULTY EQUIPMENT  MSG COMPL
        UNIT MV VALUE = o
        CODE   EQL   FS   SYM   SD   UNIT   WT   NOTE
       [g]    [h]   [i]  [j]   [k]  [l]     m   [n]

[4]   ____________________________________________________________________
      ANALY TLPFILE a  SUSPECTED FAULTY EQUIPMENT  MSG COMPL
        CODE   EQL   FS   SYM   SD   UNIT   WT   NOTE
       [g]    [h]   [i]  [j]   [k]  [l]     m   [n]
```

2. REASON FOR OUTPUT

To print trouble location information for a failing diagnostic.

Format 1 is always printed after diagnostic failures have occurred. This message summarizes the failing trouble locating procedure (TLP) key information for each failing phase.

Formats 2 through 4 are printed only when diagnostic failures have occurred on the common network interface (CNI) ring and the TLP option was specified in the input message. The information in these messages is used to repair the failing unit.

3. VARIABLE FIELD DEFINITIONS

`a` = Unit and side that failed diagnostic (for example, CU 0).

`b` = Failing diagnostic phase number.

`c` = Failing TLP keys - word 1. One bit set for each failing TLP key, 0-31.

d = Failing TLP keys - word 2. One bit set for each failing TLP key, 32-63.

e = First failing TLP key number.

f = Unique decimal number identifying the TLP process.

g = Equipment code.

h = Equipment location.

i = Functional schematic number for the equipment.

j = Functional schematic symbol number for the equipment.

k = Schematic diagram number for the unit.

l = Unit(s) containing the equipment when not the same as the unit being diagnosed. Do not remove power or equipment from an active or in-service unit.

"ONL" in the unit column means on-line or active unit. "PU" in the unit column means peripheral unit such as disk file controller (DFC) or input/output processor (IOP).

m = Weight on a scale from 1 to 10 with the equipment most probably to be faulty having the highest number.

n = Note number. If note is nonzero, refer to Exhibit A. Note zero is not used.

o = Model version (mv) of the unit being diagnosed.

Exhibit A

Note Number:	Definition:
CC NOTE 01	Do not remove power or equipment from an active or in-service unit.
CC NOTE 02	Cable to the maintenance channel of the CU.
CC NOTE 03	CU could be held stopped by micro level test set (MLTS) or bus display unit (BDU).
CC NOTE 05	MLTS, TN16, or UN16 if equipped.
CC NOTE 06	CU could be powered down.
CC NOTE 07	Power switch board or one of the power converters, that converter may be bad. If alarm is lighted on power switch board, power cycle the CU. If light remains on in one of the power converters, that converter may be bad. If lights go out on all converters and CU fails to power up, power switch board may be bad. (AM CU power switch circuitry includes EAI board, TN11.)
CC NOTE 10	Board is in input output process (IOP) 0.
CC NOTE 11	Board is in IOP 1.
CC NOTE 50	Channel board in the channel 0 position.
CC NOTE 51	Channel board in the channel 1 position.
CC NOTE 52	Channel board in the channel 2 position.
CC NOTE 53	Channel board in the channel 3 position.
CC NOTE 54	Channel board in the channel 4 position.
CC NOTE 55	Channel board in the channel 5 position.
CC NOTE 56	Channel board in the channel 6 position.
CC NOTE 57	Board in the DMA 0 position (Model 1-UN36).
CC NOTE 58	Board in the DMA 1 position (Model 1-UN36).
CC NOTE 59	A channel address lead is being held active by CU, channel, or DMA.
CC NOTE 60	A channel or DMA bus may be responding and/or acknowledging falsely.
CC NOTE 61	A channel or DMA is holding channel error (ER bit 16) active (low).
CH NOTE 01	Suspect any channel (CH) or direct memory access (DMA).
CH NOTE 02	Unterminated or defective cable on port under test.
CSU NOTE 01	Verify hardware for the kernel stack in interrupt stack cache memory feature corresponds with the cache store unit's (CSU's) unit control block (UCB) hardware version (HV) field. A "1" in bit

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	0 of this field indicates the feature is present. The hardware for this feature is a UN45C store address translation (SAT), with pins 149 and 047 wired together on the SAT backplane to enable the feature. Discrepancy between HV value and hardware should be corrected.
DMA NOTE 01	Suspect any channel or DMA.
DUIC NOTE 01	Part of the IOP controller, the IOP must be removed from service and powered down before this equipment can be replaced.
DUIC NOTE 02	Replacement equipment must have same microcode (MC) number.
DCI NOTE 01	The dual serial channel/computer interconnect (DCI) could be powered down. This board is located in the attached processor.
DCI NOTE 02	The attached processor or its software may be the cause of this phase failing.
DFC NOTE 01	The disk file controller or disk file control frame (DFC) could be powered down.
DFC NOTE 02	Do not remove power or equipment from an active or in-service unit.
IOP NOTE 01	The input output processor (IOP) could be powered down.
IOP NOTE 02	Do not remove power or equipment from an active or in-service unit.
MASC NOTE 01	Do not remove power or equipment from an active or in-service unit.
MASC NOTE 09	Array identified by DGN CU_ MASC_PH_ MEMORY FAILURE RESULTS output message.
MASC NOTE 10	Other units on the store bus. Valid value(s): CC, other MASC in CU under test (in CUs with two UN39-UN40 MASCs), DMA(s), CSU (if equipped), SAT.
MASC NOTE 12	Any array in main store controller (MASC).
MASC NOTE 13	Other MASC (in CUs with 2 UN39-UN40 MASCs) may have error(s) active in CC ER.
MHD NOTE 01	Part of the DFC. The DFC must be removed from service and powered down before this equipment can be replaced.
MHD NOTE 09	Refer to the Maintenance Instruction Manual for KS-21995,L2 and KS-22707,L2 Memory available from Century Data System, part number 76261-3xx.
MHD NOTE 10	These circuit cards are located in the logic card cage of the KS-22707,L2 Memory unit. Also refer to MHD NOTE 09.
MHD NOTE 11	The Power Amplifier, VP58 is located behind the logic card cage. Also refer to MHD NOTE 09.
MHD NOTE 12	Codes for all circuit cards in the KS-22707,L1 Memory are a four-character string of alpha-numeric or alpha characters. The first character in the string determines the revision level and the last three characters determine the circuit card code. Identification of the circuit card, therefore, is based on the last three characters.
MHD NOTE 13	Read MHD NOTE 12 then proceed. These circuit cards are located in the logic chassis. Refer to Section 3 of 300 Mega-byte Moving Head Disk Drives General Description 3B20 Model 2 Processor manual part number 83323430 available from Control Data Corporation and Maintenance Instruction Manual for KS-22707, L1 memory.
MHD NOTE 14	Read MHD NOTE 12 then proceed. These circuit cards are located on the deck plate of the memory unit. Refer to Section 3 of vendor manual part number 83323430 available from Control Data Corporation and Maintenance Instruction manual for KS-22707,L1 memory.
MHD NOTE 16	MHD could be spun down.
MHD NOTE 17	MHD could be powered down. Check power inverter for alarm or no power. Check MHD power cord, power switch, and power indicator. On KS-22875 340MB MHD, check the diagnostics mode switch behind the front panel to insure it is not in the diagnostic mode and the diagnostic mode indicator light is extinguished.
MHD NOTE 18	Incorrect ID setting could be the cause of this failure.
MTC NOTE 01	Part of the IOP controller, the IOP must be removed from service and powered down before this equipment can be replaced.
MTC NOTE 02	The indicated faulty equipment is in the transport.
MTTYC NOTE 01	Part of the IOP controller, the IOP must be removed from service and powered down before this equipment can be replaced.
RPCN or LN NOTE 0	A null note.
RPCN or LN NOTE 01	The power converter supplying any of the nodes identified in the TLP output may be faulty or powered down.
RPCN or LN NOTE 02	The UN9 board at the DSCH may also be faulty.
RPCN or LN NOTE 03	If a ring bus cable is associated with any of the above listed nodes, that cable is also implicated as a possible cause of the diagnostic failure.
RPCN or LN NOTE 04	CAUTION: This node is either the BISO or EISO node and so is in the active ring. The node must be removed from service, and if an IRN it must be isolated, before replacing this circuit pack.
RPCN or LN NOTE 05	Any of the equipped memory controller (MASC) packs may be faulty.
RPCN or LN NOTE 06	The ring related hardware in the other nodes in the isolated segment, especially the neighbor nodes, may also be suspect of replacement of the other boards on the suspect board list fails to correct the problem. Ring hardware includes IRN, RI0, RT1, and IFB circuit packs and

	cabling.
RPCN or LN NOTE 07	The failure may be due to a bus fault caused by a backplane short or by any of the other packs on the node processor bus. NODE TYPE = Other packs. DLN = 3BI (TN914), AP(TN1340, or TN1641) RPC = 3BI (TN914) LINK = LI (TN916, TN917, TN917B, TN1315, or TN1316) SMART NODE = NPI (TN1349) DXE = MDL (TN1317B or TN1640)
RPCN or LN NOTE 41	One or more of the following may be faulty. Valid value(s): Interface between LI and Facility Interface, Facility Interface equipment, Associated cabling, Data set or VFLA if applicable.
SCSDC NOTE 01	Part of the IOP controller, the IOP must be removed from service and powered down before this equipment can be replaced.
SDLC NOTE 01	Part of the IOP controller, the IOP must be removed from service and powered down before this equipment can be replaced.
TTYC NOTE 01	Part of the IOP controller, the IOP must be removed from service and powered down before this equipment can be replaced.
UC NOTE 01	Field test set (FTS) may have control of the utility circuit (UC).

4. ACTION TO BE TAKEN

Format 1 is failing TLP key summary information. If the failing diagnostic did not have the TLP option specified, request the diagnostic again with the TLP option. The failing TLP key summary information can be used to monitor changes in failing TLP keys. No actions based on the contents of this message are required.

Format 2 provides the ID of the TLP process which is running. No actions based on the contents of this message are required.

Formats 3 and 4 are used to repair the faulty unit using the suspected faulty equipment list. The most likely equipment is at the top of the list.

If the NOTE column '`n`' has non-zero entries, first read the identified TLP notes for the failing unit from Exhibit A. TLP notes may contain information regarding the cause of the trouble. Check for any specific trouble identified by the TLP notes. In some cases, the trouble can be resolved without replacing equipment.

If the UNIT column '`l`' has non-blank entries, the suspected faulty equipment is not in the unit that failed diagnostics. Defer replacing equipment in other units until all suspected equipment in the failing unit has been tried. It may be necessary to reconfigure the system to allow the other unit(s) to be removed from service. It will be necessary to remove from service and power down the other unit(s) before replacing equipment in the other unit(s).

Replace the equipment at the top of the list with a spare, and retest the unit with the diagnostics. If the unit still fails, restore the original equipment to the unit and replace the next equipment on the list with a spare. Continue until faulty equipment found or list exhausted.

When faulty equipment is found, verify it causes the diagnostic failure by restoring it to the unit and rerunning diagnostics. If the diagnostics do not fail as before, suspect the faulty equipment is intermittent or temperature sensitive. Occasionally, removing and restoring power to the unit or reseating equipment clears the trouble. Note the equipment involved in clearing the trouble. If the diagnostic failure returns and the same equipment is involved in clearing the trouble, replace the equipment.

If asterisks (*) are printed in the equipment location field '`h`', TLP cannot directly determine the location of the

equipment from the failing diagnostic 'a'. If the UNIT column 'l' is blank, all equipment of the code identified in 'g' are implicated in the failing unit. If the UNIT column 'l' identifies another unit (or units), all equipment of the code identified in 'g' are implicated in the unit (or units) identified by 'l'. In some cases, further resolution is possible; refer to the following:

If 'g'	= Action:
UN09	TLP may not be able to directly determine the channel based on the unit under test. Channel diagnostics should be run to more accurately determine the faulty equipment. For example, if the DMA 0 diagnostic failed and TLP implicated the UN09, run DMA 0 Channel diagnostics (CH 11-14).
UN19	Indicates that TLP cannot directly determine the channel based on the unit under test. Channel diagnostics (CH 0-9) should be run to more accurately determine the faulty equipment.
TN69, TN70	The TN69 or TN70 equipment in the peripheral device being used as a helper unit is being implicated. Refer to the diagnostic listing for further information on the peripheral device involved with the phase which failed. Exhibit B translates some of the channel diagnostic phases to the subchannel being tested.
TN14, TN28, TN56, or TN2012	Indicates TLP may not be able to determine the failing mainstore array (MASA) based on the unit under test. Some MASC diagnostic phases have a histogram output message that identifies the failing MASA. If the MASC diagnostic was not run, the MASC diagnostic should be run to more accurately determine the faulty equipment.

Exhibit B

Failing CH Phase	Subchannel Under Test
8 or 24	0
9 or 25	1
10 or 26	2
11 or 27	3
12 or 28	4
13 or 29	5
14 or 30	6
15 or 31	7
16 or 32	8
17 or 33	9
18 or 34	10
19 or 35	11
20 or 36	12
21 or 37	13
22 or 38	14
23 or 39	15

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	16
2	17, 18

Input Message(s):

```
DGN:CU
DGN:DCI
DGN:DFC
DGN:DUIC
DGN:HSDC
DGN:MHD
DGN:MTC
```

```
DGN:MTTYC
DGN:SCSDC
DGN:SDLC
DGN:TTYC
EX:CU
EX:DCI
EX:DFC
EX:DUIC
EX:HSDC
EX:IOP
EX:LDPARM
EX:LOOP
EX:MHD
EX:MTC
EX:MTTYC
EX:PAUSE
EX:SCSDC
EX:SDLC
EX:STEP
EX:STOP
EX:TTYC
RST:CU
RST:DCI
RST:DFC
RST:DUI
RST:DUIC
RST:HSD
RST:HSDC
RST:IOP
RST:MHD
RST:MT
RST:MTC
RST:MTTY
RST:MTTYC
RST:ROP
RST:SBUS
RST:SCC
RST:SCSDC
RST:SDL
RST:SDLC
RST:TTY
RST:TTYC
```

Output Message(s):

```
DGN:CU
DGN:CU-MASC
DGN:DCI
DGN:DFC
DGN:DUIC
DGN:HSDC
DGN:IOP
DGN:MHD
DGN:MTC
DGN:MTTYC
```

```
DGN:SCSDC
DGN:SDLC
DGN:TTYC
EX:CU
EX:DCI
EX:DFC
EX:DUIC
EX:HSDC
EX:IOP
EX:LDPARM
EX:LOOP
EX:MHD
EX:MTC
EX:MTTYC
EX:PAUSE
EX:SCSDC
EX:SDLC
EX:STEP
EX:TTYC
RST:CU
RST:DCI
RST:DFC
RST:DUI
RST:DUIC
RST:HSD
RST:HSDC
RST:IOP
RST:MHD
RST:MT
RST:MTC
RST:MTTY
RST:MTTYC
RST:ROP
RST:SBUS
RST:SCC
RST:SCSDC
RST:SDL
RST:SDLC
RST:TTY
RST:TTYC
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-100-125 *System Description*
235-105-220 *Corrective Maintenance*

9. APPLY

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APPLY:OMDB

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

[1]
```
APPLY OMDB COMPLETED
```

[2]
```
APPLY OMDB COMPLETED
  OMDB LOG FILE FOUND
```

[3]
```
APPLY OMDB NO DATA BASE ENTRY FOUND FOR THE
  FOLLOWING KEYS:
     a
```

[4]
```
APPLY OMDB FAILED
  UNABLE TO ACCESS /cft/spl/omdb
```

[5]
```
APPLY OMDB LOGFILE ERROR
  ENTRY SKIPPED
  b
```

[6]
```
APPLY OMDB CANNOT OPEN OR CREATE LOGFILE
  UPDATE NOT LOGGED
```

[7]
```
APPLY OMDB ABORTED
  UNABLE TO CREATE TEMP FILE
```

[8]
```
APPLY OMDB ABORTED
  UNABLE TO SEND REQUEST TO CSOP
```

[9]
```
APPLY OMDB ABORTED
  CANNOT ALLOCATE DISK SPACE FOR OMDB
```

[10]
```
APPLY OMDB ABORTED
  CANNOT CREATE TEMPORARY OMDB
```

[11]
```
APPLY OMDB ABORTED
  OMDB COPY FAILED
```

[12]
```
APPLY OMDB ABORTED
```

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```
CANNOT SWITCH COPIES OF OMDB
```

2. REASON FOR OUTPUT

To report the result of executing an APPLY:OMDB input message. Format 1 indicates successful execution of the message. Formats 2, 3, 5, and 6 are warning messages. In some cases, updates may have taken place. All other formats indicate complete failure.

3. VARIABLE FIELD DEFINITIONS

a = List of message keys for which the APPLY:OMDB failed, that is, these keys no longer exist in the OMDB disk file.

b = Logfile entry containing the syntax error.

4. ACTION TO BE TAKEN

Format 1 indicates success. No action is required. However, the list of successful updates can be found in the file /cft/spl/OMDB_LOG.

Format 2 indicates that no record of previous updates could be found. If no updates have been made to the OMDB previously, this message can be ignored. If previous updates have been made to the OMDB, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

Format 3 indicates that some of the updates failed. This generally indicates that keys have been removed from the OMDB. Verify that the keys no longer exist by executing the UPD:OMDB input message, which allows the user to examine the DISK copy of the OMDB. If the keys do not exist, the message can be ignored. If the keys do exist, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

Format 4 indicates that the OMDB disk file could not be accessed. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

Format 5 most likely results from direct manipulation of the logfile. The entry in error should be examined for the cause of the error, and, if appropriate, the UPD:OMDB input message can be used to reapply that update with the corrected data. The format of each logfile entry is: a keyword indicating that type of update (either ALARM or MSGCLS), the new value for either the alarm level or the message class, and a list of keys for which the update had been performed.

Formats 6 and 7 indicate a possible file system problem. Use the OP:ST-FREEDISK input message to check if the root file system is out of space. If the file system is out of space, clean up unused files and retry the message. If the file system is not out of space, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

Format 8 indicates that the message could not send a message to CSOP. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

Formats 9 - 12 indicate that CSOP could not make a new temporary copy of the OMDB for applying updates while the OMDB is in the temporary state. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	5
2	2
3	3
5	8
6	9
7	10
8	118
9-12	642

Input Message(s):

```
ACTV:OMDB
APPLY:OMDB
OP:OMDB
OP:ST-FREEDISK
UPD:OMDB
```

Output Message(s):

```
ACTV:OMDB
APPLY:OMDB
OP:OMDB
OP:ST-FREEDISK
UPD:OMDB
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

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10. ASGN

ASGN:DOC

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
ASGN DOC TG=a RESP=b CNTL=c d
```

2. REASON FOR OUTPUT

To report the adding or changing of a dynamic overload control (DOC).

3. VARIABLE FIELD DEFINITIONS

a = Trunk group number.

b = Response categories A through F determine the percentage of calls on which to apply DOC. The actual percentage depends not only on the response category assigned, but also on the traffic type and the level of DOC received.

DOC Response Category

DOC LEVEL RECEIVED	TRAFFIC TYPE	A	B	C	D	E	F
DOC1	Alternate route	0%	0%	75%	0%	0%	100%
DOC1	Direct route	0%	0%	50%	0%	0%	0%
DOC2	Alternate route	0%	0%	75%	100%	100%	100%
DOC2	Direct route	0%	0%	75%	0%	75%	75%
DOC3	All traffic	100%	100%	100%	100%	100%	100%

NOTE: For example, the office receives a DOC2 level. If the user assigns DOC and the response category chosen is E, DOC will be applied to 100% of the alternate route traffic and 75% of the direct route traffic.

c = Control option. Valid value(s):
CANT = DOC control.
SKIP = DOC control.

d = Termination status. Valid value(s):
ABORTED = Command failed. System error encountered.
COMPLETED = Command successfully completed.
FAILED-OVERFLOW = Command failed. Maximum control limit reached.
FAILED-PARAMETER = Command failed. Invalid trunk group.

4. ACTION TO BE TAKEN

No action is needed for an automatically generated request from the engineering and administrative data acquisition system network management (EADAS/NM). For manually generated requests, the following actions will apply.

If 'd' =	Action:
ABORTED	Reinitiate request.
COMPLETED	The message is confirmation of a request from an input message.

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FAILED-OVERFLOW	Refer to the Feature Description manual for maximum allowable controls.
FAILED-PARAMETER	Check for the validity of input parameters and reinitiate the corrected request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

ASGN:DOC
OP:DOC

Other Manual(s):

235-190-100 *Feature Description*

MCC Display Page(s):

130 (NM EXCEPTION)

ASGN:DPSCH

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
ASGN DPSCH a
  ROW=b COLUMN=c
  TG=d .. d
  for up to 8 trunk groups
```

2. REASON FOR OUTPUT

To report the assignment of trunk groups (TGs) to the network management (NM) schedule and the trunk group display block (the TRUNK block) if requested on the ASGN:DPSCH input message.

3. VARIABLE FIELD DEFINITIONS

a = Termination status. Valid value(s):
- ABORTED = Command aborted. System error encountered.
- COMPLETED = Command successfully completed.
- FAILED-OVERFLOW = Command failed. Maximum control limit reached.
- FAILED-PARAMETER = Command failed. Input parameter error.
- PARTIAL-COMPLETE = Command partially successful.

b = Row number or "0" if not applicable.

c = Column number or "0" if not applicable.

d = List of trunk group numbers successfully assigned to the NM schedule and the trunk group display block.

4. ACTION TO BE TAKEN

If 'a' =	Action: =
ABORTED	Reinitiate the request after the system error has been recovered.
COMPLETED	The message is confirmation of a request from an input message. If the trunk groups are also to be displayed, they should appear in the TRUNK block at the specified row/column.
FAILED-OVERFLOW	Refer to the Business and Residence Modular Features manual for maximum allowable controls and reinitiate the request when resources become available.
FAILED-PARAMETER	Check for the validity of input parameters (in particular the trunk group numbers) and reinitiate the request.
PARTIAL-COMPLETE	Refer to the ASGN input message to identify which TGs did not get assigned. Those TGs listed in the output have been assigned. Also, input message OP:NMSCH can be used to list all trunk groups assigned to the NM schedule.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
ASGN:DPSCH
CLR:NMSCH
CLR:TRKDP
```

Other Manual(s):

235-190-103 *Business and Residence Feature Description*

MCC Display Page(s):

129 (DSN NM EXCEPTION)
109 (OVERLOAD)

ASGN:NMNODES

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
ASGN NMNODES a
  CLLI          V/D
 [b            c]
  .             .
  .             .
  .             .
```

2. REASON FOR OUTPUT

To report the assignment of up to 4 node identifiers to the five-minute network management node schedule (NMNODES). A node is identified by a CLLI code and the voice/data indicator. This is a response to an ASGN:NMNODES input message.

3. VARIABLE FIELD DEFINITIONS

a = Termination status. Valid value(s):
- ABORTED = Command aborted. System error encountered.
- COMPLETED = Command successfully completed.
- FAILED-OVERFLOW = Command failed. Maximum node limit reached.
- FAILED-PARAMETER = Command failed. Input parameter error.
- PARTIAL-COMPLETE = Command partially successful.

b = Common language location ID (CLLI) code.

c = Voice/data indicator. Valid value(s):
- V = Voice indicator.
- D = Data indicator.

Note: The presence of parameters 'b' and 'c' indicates the node has been successfully added to the node schedule. If a requested node failed to be added to the node schedule the node will not be displayed.

4. ACTION TO BE TAKEN

If 'a' =	Action:
ABORTED	Reinitiate the request after the system error has been recovered.
FAILED-OVERFLOW	Refer to the Local and Toll System Features manual for the maximum allowable nodes and reinitiate the request when resources become available.
FAILED-PARAMETER	Check for the validity of the input parameters and reinitiate the corrected request.
PARTIAL-COMPLETE	Refer back to the ASGN input message to identify which nodes did not get assigned. Those nodes listed in the output have been assigned.

5. ALARMS

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None.

6. REFERENCES

Input Message(s):

```
ASGN:NMNODES
OP:NMNODES
```

Other Manual(s):

235-070-100 *Switch Administration Guidelines*

235-190-115 *Local and Toll System Features*

MCC Display Page(s):

130 (NM EXCEPTION)

ASGN:NMSCH

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
ASGN NMSCH a
  TG   b ... b
  for up to 8 trunk groups
```

2. REASON FOR OUTPUT

To report the assignment of 1 to 8 trunk groups to the network management schedule (NMSCH).

3. VARIABLE FIELD DEFINITIONS

`a` = Termination status. Valid value(s):
- `ABORTED` = Command aborted. System error encountered.
- `COMPLETED` = Command successfully completed.
- `FAILED-OVERFLOW` = Command failed. Maximum control limit reached.
- `FAILED-PARAMETER` = Command failed. Input parameter error.
- `PARTIAL-COMPLETE` = Command partially successful.

`b` = List of trunk group numbers successfully assigned to the NMSCH.

4. ACTION TO BE TAKEN

No action is needed for an automatically generated request from the engineering and administrative data acquisition system/network (EADAS/NM). For manually generated requests, the following actions will apply.

If 'a' =	**Action:**
ABORTED	Reinitiate the request after the system error has been recovered.
COMPLETED	The message is confirmation of a request from an input message or from the EADAS/NM.
FAILED-OVERFLOW	Refer to the Business and Residential Modular Features manual for the maximum allowable controls and reinitiate the request when resources become available.
FAILED-PARAMETER	Check for the validity of the input parameters and reinitiate the corrected request.
PARTIAL-COMPLETE	Refer back to the ASGN input message to identify which TGs did not get assigned. Those TGs listed in the output have been assigned.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ASGN:NMSCH
OP:NMSCH
```

Other Manual(s):

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235-190-103 *Business and Residence Feature Description*

MCC Display Page(s):

130 (NM EXCEPTION)
109 (OVERLOAD)

ASGN:SILC

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
ASGN SILC TG=a b
```

2. REASON FOR OUTPUT

To report the assignment of a specified trunk group to the selective incoming load control (SILC) list.

3. VARIABLE FIELD DEFINITIONS

`a` = Trunk group number.

`b` = Termination status. Valid value(s):
`ABORTED` = Command aborted. System error occurred.
`COMPLETED` = Command successfully completed.
`FAILED-OVERFLOW` = Command failed. Maximum control limit reached.
`FAILED-PARAMETER` = Command failed. Input parameter error.

4. ACTION TO BE TAKEN

No action is needed for an automatically generated request from the engineering and administrative data acquisition system/network management (EADAS/NM). For manually generated requests, the following actions will apply.

If 'b' =	**Action:**
ABORTED	Reinitiate the request after the system error has been recovered.
COMPLETED	The message is confirmation of a request from an input message or from the EADAS/NM.
FAILED-OVERFLOW	Refer to the Local and Toll System Features manual for maximum allowable controls, and reinitiate request when resources are available.
FAILED-PARAMETER	Check for the validity of input parameters and reinitiate the corrected request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ASGN:SILC
OP:SILC
```

Other Manual(s):

235-190-115 *Local and Toll System Features*

MCC Display Page(s):

130 (NM EXCEPTION)
109 (OVERLOAD)

ASGN:SSTR

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
ASGN SSTR TG=a RL=b INH=c d
```

2. REASON FOR OUTPUT

To report the assignment of a service selective trunk reservation (SSTR) control to a trunk group. This is a response to an ASGN:SSTR input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Trunk group (TG) number.

`b` = Reservation level (RL). The number of circuits per trunk group to be reserved.

`c` = Control status. Valid value(s):
- `N` = Control is inhibited until allowed by the ALW:SSTR input message.
- `Y` = The control is in effect.

`d` = Termination status. Valid value(s):
- `ABORTED` = Message failed. System error encountered.
- `COMPLETED` = Message successfully completed.
- `FAILED-OVERFLOW` = Message failed. Maximum control limit reached.
- `FAILED-PARAMETER` = Message failed due to bad input.

4. ACTION TO BE TAKEN

No action is needed for an automatically generated request from the Remote Network Management Center (RNMC). For manually generated requests, the following actions will apply.

If 'd' =	**Action: =**
ABORTED	Reinitiate the request.
COMPLETED	The message is a confirmation of a request from an input message.
FAILED-OVERFLOW	Refer to the Local and Toll System Features manual for maximum allowable controls.
FAILED-PARAMETER	Check for the validity of input parameters and reinitiate the corrected request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ASGN:SSTR
ASGN:TR
OP:SSTR
```

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Other Manual(s):
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

130 (NM EXCEPTION)

ASGN:TESTSET

Software Release: 5E11 and later
Message Class: LINE
Application: AEWNC
Type: Output

1. FORMAT

```
ASGN:TESTSET {TSDN=a USERDN=b | UCL} g
```

2. REASON FOR OUTPUT

To report the result of the ASGN:TESTSET input message.

3. VARIABLE FIELD DEFINITIONS

`a` = 10 digit DN of the test set to be used.

`b` = 10 digit DN of the analog phone to be tested.

`g` = Status. Valid value(s):
`UNASSIGNED USERDN` = The analog line DN is not valid.
`DATA BASE ERROR` = Database error occurred.
`SYSTEM ERROR` = System error occurred.
`SM UNAVAILABLE` = SM is not available.
`INPUT ERROR` = The TSDN or USERDN is less than 10 digits.
`INVALID USERDN` = The analog DN is not associated with W-card.
`COMPLETED` = The test set assignment is successful.
`PROCESS TIMEOUT` = Process time out.
`UNKNOWN TSDN` = Invalid TESTSET DN entered.
`ERROR-TESTSET IN USE` = The test set DN is being used by an analog port.
`ERROR-USER UNDER TEST` = A test set is already assigned to the analog port.
`ERROR-USER'S LINE OOS` = The analog port being assigned is out of service.
`PORT BUSY` = The analog line is busy.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ASGN:TESTSET
```

Other Manual(s):

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230-701-100 *Air Extension^{SM} Reference Guide*

230-701-120 *Air Extension^{SM} User Guide*

ASGN:TR

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
ASGN TR TG=a RL1=b RL2=c RESP=d CNTL=e ARA=f INH=g h
```

2. REASON FOR OUTPUT

To report the adding or changing of a trunk reservation (TR) control. This is a response to an ASGN:TR input message.

3. VARIABLE FIELD DEFINITIONS

a = Trunk group (TG) number.

b = Reservation level 1 (RL1). The number of idle circuits per trunk group to be reserved.

c = Reservation level 2 (RL2). The number of idle circuits per trunk group to be reserved.

d = Response category (RESP). These categories, designated 'A' through 'E', along with the reservation level triggered determine the percentage of calls on which to apply TR.

TR Response Category

RESER- VATION LEVEL	TRAFFIC TYPE	A	B	C	D	E
RL1	Alternate route	0%	0%	0%	100%	0%
RL1	Direct route	0%	0%	0%	0%	0%
RL2	Alternate route	0%	100%	100%	100%	0%
RL2	Direct route	0%	0%	0%	100%	0%

For example, if the RL2 reservation level is triggered and the response category chosen is 'C', TR will be applied to 100% of the alternate route traffic and 0% of the direct route traffic.

e = Control (CNTL) action. Valid value(s):
CANT = TR cancel-to control.
SKIP = TR skip control.

f = Automatic reservation adjustment (ARA) option adjusts the reservation levels on a per-call basis according to the traffic load on the trunk group. Valid value(s):
N = ARA is in effect.
Y = ARA is not in effect.

g = TR control status. Valid value(s):
N = TR control is inhibited.
Y = TR control is allowed.

h = Termination status. Valid value(s):
ABORTED = Message failed. System error encountered.

COMPLETED = Message successfully completed.
FAILED-OVERFLOW = Message failed. Maximum control limit reached.
FAILED-PARAMETER = Message failed due to bad input.

4. ACTION TO BE TAKEN

No action is needed for an automatically generated request from the remote network management center (RNMC). For manually generated requests, the following actions will apply.

If 'h' =	Action:
ABORTED	Reinitiate request.
COMPLETED	The message is confirmation of a request from an input message.
FAILED-OVERFLOW	Refer to the Feature Descriptions manual for maximum allowable controls.
FAILED-PARAMETER	Check for the validity of input parameters and reinitiate the corrected request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

ASGN:SSTR
ASGN:TR
OP:TR

Output Message(s):

ASGN:SSTR

Other Manual(s):
235-190-103 *Business and Residence Feature Description*
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

130 (NM EXCEPTION)

11. AUD

AUD:CCSTQ-A

Software Release: 5E10 only
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      AUD CCSTQ TKGMN=a-b c

[2]   ____________________________________________________________________
      AUD CCSTQ TKGMN=a-b d
```

2. REASON FOR OUTPUT

To report the results from either an automatic trunk query or a manual trunk query request originating in this office.

Format 1 reports the results of a manual common channel signaling (CCS) trunk query interoffice audit (AUD:CCSTQ) on CCS6 and CCS7 trunks. If discrepancies between near-end and far-end trunk states are found, the errors are corrected by the system.

Format 2 reports near-end trunk state corrections on CCS6 and CCS7 trunks made during the CCS trunk query interoffice audit. The trunk query interoffice audit runs routinely and by request. Output occurs only after a manual or automatic trunk query audit detects and corrects trunk state inconsistencies between the near-end and far-end offices.

3. VARIABLE FIELD DEFINITIONS

`a` = Trunk group number.

`b` = Trunk member number.

`c` = The result of the CCS trunk query test. Valid value(s):

```
COMPLETED
NO RESPONSE FROM FAR END OFFICE
```

`d` = The result of the CCS trunk query audit. Valid value(s):

`BLOCKED` = Near-end state of the trunk is marked blocked. The trunk is disabled at the far-end.

`DISABLED` = Near-end state of the trunk is marked disabled. The trunk is unequipped at the far-end.

`UNABLE TO CORRECT` = The ownership of the port could not be granted. Unable to do the requested update.

`UNBLOCKED` = Near-end state of the trunk is marked unblocked. The trunk is not disabled at the far-end.

4. ACTION TO BE TAKEN

If the result of the trunk query audit is `COMPLETED`, no action is required. If the result of the trunk query audit is `NO`

RESPONSE, retry the test at a later time. The far-end office is not responding at this time.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:CCSTQ
AUD:CCSTQ
INH:CCSTQ
OP:CCSTQ
```

Output Message(s):

```
RMV:TRK
RST:TRK
```

AUD:CCSTQ-B

Software Release: 5E11 only
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      AUD CCSTQ TKGMN=a-b c

[2]   ____________________________________________________________________
      AUD CCSTQ TKGMN=a-b d
```

2. REASON FOR OUTPUT

To report the results from either an automatic trunk query or a manual trunk query request originating in this office.

Format 1 reports the results of a manual common channel signaling (CCS) trunk query interoffice audit (AUD:CCSTQ) on CCS7 trunks. If discrepancies between near-end and far-end trunk states are found, the errors are corrected by the system.

Format 2 reports near-end trunk state corrections CCS7 trunks made during the CCS trunk query interoffice audit. The trunk query interoffice audit runs routinely and by request. Output occurs only after a manual or automatic trunk query audit detects and corrects trunk state inconsistencies between the near-end and far-end offices.

3. VARIABLE FIELD DEFINITIONS

`a` = Trunk group number.

`b` = Trunk member number.

`c` = The result of the CCS trunk query test. Valid value(s):

```
COMPLETED
NO RESPONSE FROM FAR END OFFICE
```

`d` = The result of the CCS trunk query audit. Valid value(s):

- `BLOCKED` = Near-end state of the trunk is marked blocked. The trunk is disabled at the far-end.
- `DISABLED` = Near-end state of the trunk is marked disabled. The trunk is unequipped at the far-end.
- `UNABLE TO CORRECT` = The ownership of the port could not be granted. Unable to do the requested update.
- `UNBLOCKED` = Near-end state of the trunk is marked unblocked. The trunk is not disabled at the far-end.

4. ACTION TO BE TAKEN

If the result of the trunk query audit is `COMPLETED`, no action is required. If the result of the trunk query audit is `NO RESPONSE`, retry the test at a later time. The far-end office is not responding at this time.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:CCSTQ
AUD:CCSTQ
INH:CCSTQ
OP:CCSTQ
```

Output Message(s):

```
RMV:TRK
RST:TRK
```

AUD:CCSXLATE

Software Release: 5E10 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      AUD CCSXLATE TKGMN=a-b ATP

[2]   ____________________________________________________________
      AUD CCSXLATE TKGMN=a-b NEAR END XLATE FAILURE
        RELATION=d

[3]   ____________________________________________________________
      AUD CCSXLATE TKGMN a-b NO RESPONSE FAILURE
       {SLGRP=e SLMEM=f SLVLINK=g BAND=h MEMBER=i|DPC=j CIC=k}
        NE CIN=l

[4]   ____________________________________________________________
      AUD CCSXLATE TKGMN=a-b c
       {SLGRP=e SLMEM=f SLVLINK=g BAND=h MEMBER=i|DPC=j CIC=k}
        NE CIN=l {FE CLLI=m|STPCLLI=n}

[5]   ____________________________________________________________
      AUD CCSXLATE TKGMN=a-b TRUNK DATA MISMATCH FAILURE
       {SLGRP=e SLMEM=f SLVLINK=g BAND=h MEMBER=i|DPC=j CIC=k}
        NE CIN=l FE CIN=o
        MISMATCH=p [p [p [p]]]
```

2. REASON FOR OUTPUT

To report the results of a manual request for a common channel signaling (CCS) translation test for CCS6 and CCS7 trunks.

Format 1 reports all translation tests pass.

Format 2 reports near-end office translation test failure.

Format 3 reports no response from the far-end office translation test failure.

Format 4 reports translation test failure as indicated in variable field definition 'c'.

Format 5 reports trunk data mismatch translation test failure.

3. VARIABLE FIELD DEFINITIONS

`a` = Trunk group number.

`b` = Trunk member number.

`c` = The result of the CCS translation test. Valid value(s):
`FE XLATE FAILURE` = Far-end translations failure.
`STP C-LINK FAILURE` = Signal transfer point (STP) C-link failure.

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`STP PBC FAILURE` = STP peripheral bus computer failure.
`STP XLATE FAILURE` = STP translations failure.

`d` = Name of relation failure or SM TIMOUT for SM timeout failure.

`e` = Signaling link group number.

`f` = Signaling link member number.

`g` = Signaling link virtual link number.

`h` = Band number.

`i` = Member number.

`j` = Destination point code.

`k` = Circuit identification code.

`l` = Near-end circuit identification number.

`m` = Far-end CLLI code.

`n` = STP CLLI code.

`o` = Far-end circuit identification number.

`p` = Types of trunk data mismatch failures. Valid value(s):
`CGA` = Carrier group alarm (CGA) software or hardware mismatch.
`CIN` = Near-end circuit identification number does not match far-end circuit identification number.
`GLARE CNTL` = Control of trunk during glare is inconsistent.
`TRK TYPE` = Digital and/or analog trunk type mismatch.

4. ACTION TO BE TAKEN

Proceed according to local practices for trunk turn-up procedures.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
AUD:CCSXLATE
```

AUD:CMP-ABORTED

Software Release: 5E10 and later
Message Class: AUDTFST,AUDTMON, AUDT
Application: 5
Type: Output

1. FORMAT

```
AUD  CMP=a-f {PRIM|MATE}  b  ABORTED  ERRORS=c  EVENT=d
```

2. REASON FOR OUTPUT

To report that an audit in the communication module processor (CMP) was aborted because a higher priority audit ran. All messages related to a problem use the same event number (variable '`d`').

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch side.

`b` = Application audit ID. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual.

`c` = Total number of errors found.

`d` = Event number.

`f` = CMP where application audit resides.

4. ACTION TO BE TAKEN

If this message has been automatically generated, retrieve the output messages related to the audit ID '`b`'. If this message is in response to a manual request, all output messages related to the audit ID '`b`' will have been printed. These messages include: AUD:CMP-DUMP, AUD:CMP-ERROR, and AUD:CMP-FAILURE. Refer to the Audits manual for a description of actions.

This message uses variable message classes. AUDTFST indicates that this message caused a new event number to be allocated. AUDTMON indicates that this message does not describe a new event; look for previous messages with the same event number. Previous messages could include audit messages with the AUDTFST message class, defensive check failures, or single process purge messages. AUDT indicates this message occurred as a response to a manual request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
AUD:CMP
```

Output Message(s):

```
AUD:CMP-DUMP
AUD:CMP-ERROR
AUD:CMP-FAILURE
```

Output Appendix(es):

```
APP:AUDITS
```

Other Manual(s):

235-600-400 *Audits*

AUD:CMP-COMPL

Software Release: 5E10 and later
Message Class: AUDTFST,AUDTMON, AUDT
Application: 5
Type: Output

1. FORMAT

```
AUD  CMP=a-b {PRIM|MATE}  c  COMPLETED  ERRORS=d  EVENT=e
```

2. REASON FOR OUTPUT

To report the number of errors found at audit completion in the communication module processor (CMP). All messages related to a problem use the same event number (variable 'e').

3. VARIABLE FIELD DEFINITIONS

a = Message switch side.

b = CMP number.
- MATE = Mate CMP.
- PRIM = Primary CMP.

c = Application audit ID. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual.

d = Total number of errors found.

e = Event number.

4. ACTION TO BE TAKEN

If this message has been automatically generated, retrieve the output messages related to the audit ID 'c'. If this message is in response to a manual request, all output messages related to the audit ID 'c' will have been printed. These messages include: AUD:CMP-DUMP, AUD:CMP-ERROR, and AUD:CMP-FAILURE. Refer to the Audits manual for a description of actions.

This message uses variable message classes. AUDTFST indicates that this message caused a new event number to be allocated. AUDTMON indicates that this message does not describe a new event; look for previous messages with the same event number. Previous messages could include audit messages with the AUDTFST message class, defensive check failures, or single process purge messages. AUDT indicates this message occurred as a response to a manual request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

AUD:CMP

Output Message(s):

```
AUD:CMP-DUMP
AUD:CMP-ERROR
AUD:CMP-FAILURE
```

Output Appendix(es):

```
APP:AUDITS
```

Other Manual(s):

235-600-400 *Audits*

AUD:CMP-DUMP-A

Software Release: 5E10 - 5E12
Message Class: AUDTFST,AUDTMON, AUDT
Application: 5
Type: Output

1. FORMAT

```
AUD  CMP=a-i {PRIM|MATE}  b  DUMP    EVENT=c
  ERROR-ADDR=d
  KEY=[e] f
  BLOCK-ADDR=g
  h
  .
  .
  .
```

2. REASON FOR OUTPUT

To dump data from an audit which detected errors in a communication module processor (CMP). This message will always be preceded by the AUD:CMP-ERROR output message. A given audit ID '`b`' could have many different error messages with corresponding dump messages. The field that ties the dump message to the error message is the ERROR-ADDR field '`d`'. All dump messages related to a single problem use the same event number (variable '`c`').

3. VARIABLE FIELD DEFINITIONS

`MATE`	= Mate CMP.
`PRIM`	= Primary CMP.
`a`	= Message switch side.
`b`	= Application audit ID. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual.
`c`	= Event number.
`d`	= Error address in hexadecimal.
`e`	= Key name.
`f`	= Key number in hexadecimal.
`g`	= Block address in hexadecimal.
`h`	= Hexadecimal dump of a block of up to 199 bytes with up to eight groups of four bytes per line.
`i`	= Communications module processor where application audit resides.

4. ACTION TO BE TAKEN

Refer to the Audits manual to interpret information given. Use the audit ID '`b`' and the error code from the corresponding error message (AUD:CMP-ERROR) to find the interpretation in the "Audits Description" section.

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Each audit may use variables '`c`' through '`h`' differently. Refer to the Audits manual for additional information. The reporting audit will contain information on how each field should be interpreted.

This message uses variable message classes. AUDTFST indicates that this message caused a new event number to be allocated. AUDTMON indicates that this message does not describe a new event; look for previous messages with the same event number. Previous messages could include audit messages with the AUDTFST message class, defensive check failures, or single process purge messages. AUDT indicates this message occurred as a response to a manual request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
AUD:CMP
```

Output Message(s):

```
AUD:CMP-ERROR
```

Output Appendix(es):

```
APP:AUDITS
```

Other Manual(s):

235-600-400 *Audits*

AUD:CMP-DUMP-B

Software Release: 5E13 and later
Message Class: AUDTFST,AUDTMON, AUDT
Application: 5
Type: Output

1. FORMAT

```
AUD  CMP=a-i {j}  b  DUMP PART d OF e EVENT=c
  KEY=f
  BLOCK-ADDR=g
  h
  .
  .
  .
```

2. REASON FOR OUTPUT

To dump data from an audit which detected errors in a communication module processor (CMP).

This message will always be preceded by the AUD:CMP-ERROR output message. A given audit ID '`b`' could have many different error messages with corresponding dump messages. The field that ties the dump message to the error message is the ERROR-ADDR field '`d`'. All dump messages related to a single problem use the same event number (variable '`c`').

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch side.

`b` = Application audit ID. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual.

`c` = Event number.

`d` = Part indicator to identify related dumps when there is too much data for a single report.

`e` = Total number of related dump messages when there is too much data for a single report.

`f` = Dump identifying information. There are three lines. The first has the dump data type identifier or NOT_APPLICABLE. The second line has the names of the data keys or KEYS_ARE_NOT_APPLICABLE or KEYS_ARE_IN_THE_DATA_DUMP. The third line has the key values where H'0 is used as a default for the cases where keys do not apply.

`g` = Block address in hexadecimal.

`h` = Hexadecimal dump of a block of up to 199 bytes with up to eight groups of four bytes per line.

`i` = Communications module processor where application audit resides.

`j` = CMP number. Valid value(s):

- `MATE` = Mate CMP.
- `PRIM` = Primary CMP.

4. ACTIONS TO BE TAKEN

Refer to the Audits manual to interpret information given. Use the audit ID '`b`' and the error code from the corresponding error message (AUD:CMP-ERROR) to find the interpretation in the "Audits Description" section.

This message uses variable message classes. AUDTFST indicates that this message caused a new event number to be allocated. AUDTMON indicates that this message does not describe a new event; look for previous messages with the same event number. Previous messages could include audit messages with the AUDTFST message class, defensive check failures, or single process purge messages. AUDT indicates this message occurred as a response to a manual request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
AUD:CMP
```

Output Message(s):

```
AUD:CMP-ERROR
```

Output Appendix(es):

```
APP:AUDITS
```

Other Manual(s):
235-600-400 *Audits*

AUD:CMP-ERROR

Software Release: 5E10 and later
Message Class: AUDTFST,AUDTMON, AUDT
Application: 5
Type: Output

1. FORMAT

```
AUD  CMP=a-i {PRIM|MATE}  b  ERROR-CODE=c  EVENT=d
  ERROR-ADDR=e  BAD-DATA=f
  LOG-KEY=g  GOOD-DATA=h
```

2. REASON FOR OUTPUT

To report that an audit detected an error in a communication module processor (CMP). There may be one or more optional AUD:CMP-DUMP output messages corresponding to this message.

The ERROR-ADDR field '`e`' can be used to determine corresponding messages. All the errors reported during an invocation of an audit will be summarized by the AUD:CMP-ABORTED or AUD:CMP-COMPLETED output messages. All error messages related to a problem use the same event number (variable '`d`'). This message uses variable message classes. AUDTFST indicates that this message caused a new event number to be allocated (and is the most significant message in the event). AUDTMON indicates that this message does not describe a new event; look for previous messages with the same event number. Previous messages could include audit messages with the AUDTFST message class, defensive check failures, or single process purge messages. AUDT indicates this message occurred as a response to a manual request.

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch side.

`b` = Application audit ID. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual.

`c` = Error code. Refer to the Audits manual.

`d` = Event number.

`e` = Error address.

`f` = Bad (incorrect) data in hexadecimal.

`g` = Logical key in hexadecimal.

`h` = Good (correct) data in hexadecimal.

`i` = CMP where application audit resides.

4. ACTION TO BE TAKEN

Refer to the Audits manual to interpret information given. Use the audit ID '`b`' and the error code '`c`' to find the interpretation in the "Audit Descriptions" section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
AUD:CMP
```

Output Message(s):

```
AUD:CMP-ABORTED
AUD:CMP-COMPL
AUD:CMP-DUMP
```

Output Appendix(es):

```
APP:AUDITS
```

Other Manual(s):

235-600-400 *Audits*

AUD:CMP-FAILURE

Software Release: 5E10 and later
Message Class: AUDTFST,AUDTMON, AUDT
Application: 5
Type: Output

1. FORMAT

```
AUD  CMP=a-b {PRIM|MATE}  c  FAILURE-CODE=d  EVENT=e
```

2. REASON FOR OUTPUT

To report a failure that has been encountered by an audit in a communication module processor (CMP). A failure indicates that the audit could not proceed due to some problem it has detected, and it has triggered escalation or other audit actions. All failure messages related to a problem use the same event number (variable '`e`').

This message uses variable message classes. AUDTFST indicates that this message caused a new event number to be allocated. AUDTMON indicates that this message does not describe a new event; look for previous messages with the same event number. Previous messages could include audit messages with the AUDTFST message class, defensive check failures, or single process purge messages. AUDT indicates this message occurred as a response to a manual request.

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch side.

`b` = CMP number. Valid value(s):
- `MATE` = Mate CMP.
- `PRIM` = Primary CMP.

`c` = Application audit ID. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual.

`d` = Failure code. Refer to the Audits manual.

`e` = Event number.

4. ACTION TO BE TAKEN

Refer to the Audits manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`AUD:CMP`

Output Appendix(es):

```
APP:AUDITS
```

Other Manual(s):

235-600-400 *Audits*

AUD:CMP-NOT-RUN

Software Release: 5E10 and later
Message Class: AUDTFST,AUDT
Application: 5
Type: Output

1. FORMAT

```
AUD  CMP=a-f {PRIM|MATE}  b  NOT_RUN  ERRORS=c  EVENT=d
```

2. REASON FOR OUTPUT

To report that an audit in the communication module processor (CMP) was not run as requested (due to CM isolation being detected, a relation in transaction update mode, and so forth).

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch side.

`b` = Application audit ID. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual.

`c` = Total number of errors found (zero).

`d` = Event number.

`f` = CMP where application audit resides.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
AUD:CMP
```

Output Appendix(es):

```
APP:AUDITS
```

Other Manual(s):

235-600-400 *Audits*

AUD:CUMEM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

[1]
```
AUD ENV=RTR CUMEM 1 COMPLETED
  a ERRORS FOUND
  b ERRORS CORRECTED
```

[2]
```
AUD ENV=RTR CUMEM 1 STOPPED
```

[3]
```
AUD ENV=RTR CUMEM 1 ABORTED CODE c
```

[4]
```
AUD ENV=RTR CUMEM 1 ERROR d {CORR | NON CORR}
     REPORT {STARTED | IN PROGRESS | COMPLETED}
  DATA1  X'e    DATA2  X'f
  DATA3  X'g    DATA4  X'h

     [NO SUPPLEMENTARY DATA]
```

[5]
```
AUD CUMEM NOT STARTED
 {CONFLICT WITH CURRENT SYSTEM STATUS  i
 |RETRY LATER  j
 |UNABLE TO IDENTIFY ERROR - INVALID DATA  ERROR k}
```

[6]
```
AUD ENV=RTR CUMEM 1 AUTOMATICALLY l
```

2. REASON FOR OUTPUT

To report the termination status of the cumem audit and/or any error found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Valid value(s):
- 3 = Audit was aborted without completing its work.
- 4 = Audit was faulted while correcting errors.
- 5 = System integrity monitor (SIM) could not start or dispatch the audit.
- 6 = An error was encountered in the audit control/audit library interface.
- 7 = Audit exceeded its timeout or segment limit.
- 8 = SIM aborted an executing routine audit because of a blocking request.
- 9 = Transient process that was running the process terminated.

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10 = A segmented audit exceeded an error threshold.

d = Error code, in decimal notation. Valid value(s):

2 = Bad data in the equipment configuration database (ECD) for a control unit (CU) unit or subunit.
4 = Could not access the ECD. Possibly a bad record identification number (RID).
6 = Maintenance channel failed.
8 = Could not read the offline mainstore.
10 = Call to the kconfig library failed.
12 = Erroneous major state for a CU unit or subunit.
14 = Bad online system status register (SSR) value.
16 = Bad offline SSR value.
18 = Bad online hardware status register (HSR) value.
20 = Bad offline HSR value.
22 = Cache hit/miss ratio is unacceptable.
24 = Plant measurements library call failed.
26 = Audit control library call failed.
28 = Internal custat error.
30 = Offline store access failed.
32 = Internal error during memory compare.
34 = Memory mismatch mainstore error.
36 = Memory mismatch cache error.
38 = Control unit memory (CUMEM) tried to run, CUs not in active standby.

e = Valid value(s):

If 'd' =	**'e' =**
30, 34, or 36	Physical mainstore address at which test failed.
Anything other than 30, 34, or 36.	Audit test number that failed.

Test Number	**Description:**
0x2000	Memory audit did not complete its entire memory block comparison.
0x2001	Call to kconfig rpterr unsuccessful.
0x2002	Call to kconfig rpterr unsuccessful.
0x2003	Call to kconfig fltdrvr to remove other CU unsuccessful.
0x2004	CUMEM called when offline CU was not standby.

f" = Indicates if error was corrected. Valid value(s):

1 = Yes.
15 = No.

g = Valid value(s):

If 'd' =	**'g' =**
30, 34, or 36	0
Anything other than 30, 34, or 36.	Complimented offline SSR value.

h = Valid value(s):

If 'd' =	**'h' =**
30, 34, or 36	0
Anything other than 30, 34, or 36.	Complimented online SSR value.

i = Explanation of error. Refer to the APP:AUD-C appendix in the Appendixes section of the Output

Messages manual.

`j` = Explanation of error. Refer to the APP:AUD-D appendix in the Appendixes section of the Output Messages manual.

`k` = Explanation of error. Refer to the APP:AUD-B appendix in the Appendixes section of the Output Messages manual.

`l` = Inhibit status. Possible values are:
`ALLOWED` = Audit has been automatically allowed by SIM.
`INHIBITED` = Audit has been automatically inhibited by SIM.

NOTE: Refer to the APP:AUD-A and APP:AUD-B appendixes in the Appendixes section of the Output Messages manual for assorted parsing errors when the input message (IM) catalog is not active.

4. ACTION TO BE TAKEN

Error number:	Action:
4	Run the ECD 1 audit.
6	If the offline CU was not taken out of service, remove it. Diagnose it, repair it if necessary, and restore it. Then switch CUs and remove, diagnose, repair and restore the other CU.
8	The offline CU should have been removed automatically. Diagnose it, repair it if necessary, and restore it. Then switch CUs and remove, diagnose, repair, and restore the other CU.
24	Run the PMS 1 audit.
30	The offline CU should have been removed automatically. Diagnose it, repair it if necessary, and restore it. Then switch CUs and remove, diagnose, repair, and restore the other CU.
34	If the offline CU was not taken out of service, remove it. Diagnose it, repair it if necessary, and restore it.
36	If the online CU was not taken out of service, switch CUs and remove it. Diagnose it, repair it if necessary, and restore it.

For any other error number, contact your next level of technical assistance.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	78
2, 3	76
4	52

Input Message(s):

```
AUD:CUMEM
OP:AUD
STOP:AUD
STP:AUD
```

Output Message(s):

```
OP:AUD
```

Output Appendix(es):

```
APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D
APP:OMDB-X-REF
```

Other Manual(s):

235-600-400 *Audits*

AUD:CUSTAT

Software Release: 5E10 and later
Message Class: AUDL
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      AUD ENV=RTR CUSTAT 1 COMPLETED
        a ERRORS FOUND
        b ERRORS CORRECTED

[2]   ____________________________________________________________________
      AUD ENV=RTR CUSTAT 1 STOPPED

[3]   ____________________________________________________________________
      AUD ENV=RTR CUSTAT 1 ABORTED CODE c

[4]   ____________________________________________________________________
      AUD ENV=RTR CUSTAT 1 ERROR d {CORR | NON CORR}
        REPORT {STARTED | IN PROGRESS | COMPLETED}
        DATA1
        X'e
        DATA2
        X'f
        DATA3
        X'g
        DATA4
        X'h
       [NO SUPPLEMENTARY DATA]

[5]   ____________________________________________________________________
      AUD CUSTAT NOT STARTED
       {CONFLICT WITH CURRENT SYSTEM STATUS  i
       |RETRY LATER  j
       |UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR k}

[6]   ____________________________________________________________________
      AUD ENV=RTR CUSTAT 1 AUTOMATICALLY l
```

2. REASON FOR OUTPUT

To report the termination status of the custat audit and/or any error found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Valid value(s):
- 3 = Audit was aborted without completing its work.
- 4 = Audit was faulted while correcting errors.

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5 = System integrity monitor (SIM) could not start or dispatch the audit.
6 = An error was encountered in the audit control/audit library interface.
7 = Audit exceeded its timeout or segment limit.
8 = SIM aborted an executing routine audit because of a blocking request.
9 = Transient process that was running the process terminated.
0 = A segmented audit exceeded an error threshold.
2 = Audit rejected the request to run from SIM.
3 = SIM aborted an executing audit because the audit system is being reinitialized.

d = Error code in decimal notation. Valid value(s):
2 = Bad data in the equipment configuration database (ECD) for a CU unit or subunit.
4 = Could not access the ECD. Possibly a bad process identification (PID).
6 = Maintenance channel failed.
8 = Could not read the offline mainstore.
10 = Call to the kconfig library failed.
12 = Erroneous major state for a CU unit or subunit.
14 = Bad online system status resister (SSR) value.
16 = Bad offline SSR value.
18 = Bad online hardware status resister (HSR) value.
20 = Bad offline HSR value.
22 = Cache hit/miss ratio is unacceptable.
24 = Plant measurements library call failed.
26 = Audit control library call failed.
28 = Internal custat error.
30 = Offline store access failed.
32 = Internal error during memory compare.
34 = Memory mismatch mainstore error.
36 = Memory mismatch cache error.
38 = CUMEM tried to run, CUS not in active standby.
42 = Emergency action interface (EAI) buffers mismatched.

e = Valid value(s):

If 'd' =	**'e' =**
30, 34, or 36	Physical mainstore address at which the test failed.
all other error codes	Audit test number that failed.

Test Number:	**Description:**
0x1000	RID for on-line CU is IDNULL.
0x1001	Call to ECD ll_rdget to get on-line CU UCB unsuccessful.
0x1002	ON-line CU UCB u_dtype (device type) not DEV_CU.
0x1003	RID for off-line CU is same as RID for on-line CU.
0x1004	Call to ECD lla_rdget to get off-line CU UCB unsuccessful.
0x1005	Off-line CU UCB u_dtype (device type) not DEV_CU.
0x1006	Call to ECD lla_rdget to get on-line CU minor device chain table (MDCT) unsuccessful.
0x1007	MDCT for the on-line CU has too many m_minxt entries. This would indicate that there are more than two CUs.
0x1008	MDCT for the on-line CU has too many m_minxt entries. This would indicate that there are more than two CUs.
0x1009	MDCT m_minxt[0] equals m_minxt[1] indicating that CU0 and CU1 have same RIDs.
0x100a	MDCT m_minxt[0] does not equal RID for on-line or off-line CU.
0x100b	MDCT m_minxt[1] does not equal RID for on-line or off-line CU.
0x1100	Maintenance channel (MCH) not functional.
0x1101	Off-line CU memory access failure; update circuit not functional.
0x1102	Call to kconfig fltdrvr to remove other CU unsuccessful.

0x1103	Call to kconfig fltdrvr to remove other CU unsuccessful.
0x1105	Maintenance channel (MCH) and update circuit not functional; but other CU UCB u_stat is standby (STBY).
0x1106	Call to kconfig fltdrvr to remove other CU unsuccessful.
0x1107	Call to kconfig chgstate to change off-line CU UCB u_stat to UNAV unsuccessful.
0x1108	Call to kconfig chgstate to change off-line CU UCB u_stat to UNAV unsuccessful.
0x1109	Call to ECD lla_rdget to get off-line CU UCB unsuccessful.
0x110b	Call to ECD chucb to change off-line CU UCBs u_manrqst to ON unsuccessful.
0x110c	Call to kconfig chgstate to change off-line CU UCB u_stat to OOS unsuccessful.
0x110d	Call to ECD chucb to change off-line CU UCBs u_manrqst to OFF unsuccessful.
0x110e	Call to ECD lla_rdget to getoff-line CU UCB unsuccessful.
0x1200	On-line CU UCB u_stat not active (ACT) or initializing (INIT).
0x1201	Call to kconfig chgstate to change on-line CU UCB u_stat to ACT unsuccessful.
0x1202	Off-line CU SSR (SSR_CC bit 19) indicated it is the on-line CU.
0x1203	Call to PCPAUD initofl to initialize off-line CU unsuccessful.
0x1204	Call to kconfig fltdrvr to remove other CU unsuccessful.
0x1205	Off-line CU UCB u_stat is ACT.
0x1206	Call to kconfig fltdrvr to remove other CU unsuccessful. Other CU UCB u_stat is ACT.
0x1207	Simplex mode on-line CU SSR has force off-line (SSR_FOFL bit 9) asserted.
0x1208	On-line CU HSR bit 8 (backup maintenance channel bit) asserted.
0x1209	On-line CU HSR bit 8 or bit 9 (backup maintenance channel bits) asserted.
0x120a	Call to kconfig fltdrvr to remove other CU unsuccessful.
0x120b	On-line CU SSR IO disable (SSR_DSAB bit 10) asserted.
0x120c	On-line CU SSR isolate DMA from MAS bus (SSR_ISOD bit 20) asserted.
0x120d	Off-line CU SSR initialization sequence control bits (SSR_ISCO or SSR_ISC1 bits 4 and 5) asserted.
0x1300	On-line CU SSR is in enable update mode (SSR_UPD bit 19 asserted) but off-line CU SSR has isolate other (on-line) CU from main store bus (SSR_ISOU bit 21) asserted.
0x1301	Call to kconfig fltdrvr to remove other CU unsuccessful.
0x1302	Off-line CU SSR is in enable update mode (SSR_UPD bit 19 asserted) or off-line CU SSR has isolate other (on-line) CU form main store bus (SSR_ISOU bit 21) asserted.
0x1303	Call to PCPAUD initofl to initialize off-line CU unsuccessful.
0x1304	Call to kconfig fltdrvr to remove other CU unsuccessful.
0x1305	Simplex on-line CU SSR in enable update mode (SSR_UPD bit 19 asserted).
0x1306	On-line CU SSR not isolating other (off-line) CU from its main store bus (SSR_ISOU bit 21 not asserted).
0x1307	3B21D CUs only: On-line CU SSR not isolating its expansion slots from its main store bus (SSR_ISOE bit 22 not asserted).
0x1308	3B21D CUs only: Off-line CU SSR not isolating its expansion slots from its main store bus (SSR_ISOE bit 22 not asserted).
0x1309	Call to PCPAUD initofl to initialize off-line CU unsuccessful.
0x1400	On-line CU UCB u_update is OFF (not updated).
0x1401	Call to EXC lla_rdget to get on-line CU UCB unsuccessful.
0x1402	Call to ECD lla_uprid to change on-line CU UCB u_update to ON unsuccessful.
0x1403	Off-line CU UCB u_stat is STBY but off-line CU UCB u_update is OFF (not updated) or on-line CU SSR is not in enable update mode (SSR_UPD bit 19 not asserted).
0x1404	Call to kconfig fltdrv to remove other CU unsuccessful.
0x1405	On-line CU SSR not in enable update mode (SSR_UPD bit no asserted), but off-line CU UCB u_update is ON (updated).
0x1406	Call to ECD chucb to change off-line CU UCBs u_update to OFF unsuccessful.
0x1500	3B20D CUs only: Duplex configuration, but on-line CU SSR indicating simlex (SSR_SIDU bit 2 not asserted).
0x1501	3B20D CUs only: Same as 0x1500 except off-line CU SSR indicating simplex (SSR_SIDU bit 2 not asserted).
0x1502	Simplex configuration but on-line CU indicating duplex (SSR_SIDU bit 2 asserted).
0x1503	Off-line CU SSR has force on-line (SSR_FONL bit 10) asserted.
0x1504	On-line CU SSR forced on-line (SSR_FONL bit 10) asserted, off-line but off-line CU UCB u_update is ON (updated).
0x1406	Call to ECD chucb to change off-line CU UCBs u_update to OFF unsuccessful.
0x1500	3B20D CUs only: Duplex configuration, but on-line CU SSR indicating simlex (SSR_SIDU bit 2 not asserted).
0x1501	3B20D CUs only: Same as 0x1500 except off-line CU SSR indicating simplex (SSR_SIDU bit 2 not asserted).
0x1502	Simplex configuration but on-line CU indicating duplex (SSR_SIDU bit 2 asserted).
0x1503	Off-line CU SSR has force on-line (SSR_FONL bit 10) asserted.
0x1504	On-line CU SSR forced on-line (SSR_FONL bit 10) asserted, off-line CU SSR forced off-line (SSR_FONL bit 9) not asserted.

0x1505	On-line CU SSR forced on-line (SSR_FONL bit 10) not asserted, off-line CU SSR forced off-line (SSR_FOFL bit 9) asserted.
0x1506	Both CU SSRs indicate they are CU 1 (SSR_CCID bit 0 asserted).
0x1507	Both CU SSRs indicate they are CU 0 (SSR_CCID bit 0 not asserted).
0x1508	Off-line CU SSR has power clear (SSR_PCLR bit 15) asserted.
0x1509	Call to PCPAUD initofl to initialize off-line CU unsuccessful.
0x150a	Off-line CU has HSR bit 8, 9 or 31 asserted.
0x150b	Call to PCPAUD initofl to initialize off-line CU unsuccessful.
0x150c	Call to ECD gnxt unsuccessful in on-line CU UCB chain.
0x150d	Calls to ECD gnxt did not find a CC UCB (u_dtype=DEV_CC) in the on-line CU UCB chain.
0x150e	Call to ECD gnxt unsuccessful in off-line CU UCB chain.
0x150f	Calls to ECD gnxt did not find a CC UCB (u_dtype=DEV_CC) in the off-line CU UCB chain.
0x1510	On-line CU 1 CC 0 UCB does not have u_opccid (bit 4) asserted in u_equip.
0x1511	On-line CU 0 CC 0 UCB has u_opccid (bit 4) asserted in u_equip.
0x1512	Off-line CU 0 CC 0 UCB has u_opccid (bit 4) asserted in u_equip.
0x1513	Off-line CU 1 CC 0 UCB does not have u_opccid (bit 4) asserted in u_equip.
0x1514	3B20D CUs only: Duplex configuration, but on-line CU CC 0 UCB specifying simplex (u_opsimdup bit 6 not asserted in u_equip).
0x1515	3B20D CUs only: Duplex configuration, but off-line CU CC 0 UCB specifying simplex (u_opsimdup bit 6 not asserted in u_equip).
0x1516	3B20D CUs only: Simplex configuration, but CU CC 0 UCB specifying duplex (u_opsimdup bit 6 asserted in u_equip).
0x1517	On-line CU SSR has power clear (SSR_PCLR bit 15) asserted.
0x1518	Call to ECD lla_rdget to get on-line CU MASC UCB unsuccessful.
0x1519	Call to ECD lla_rdget to get off-line CU MASC UCB unsuccessful.
0x151a	3B20D CUs only: On-line CU memory controller type indicators inconsistent between the SSR (SSR_VLMAS bit 1) and the MASC UCB.
0x151b	3B20D CUs only: Off-line CU memory controller type indicators inconsistent between the SSR (SSR_VLMAS bit 1) and the MASC UCB.
0x151c	Call to kconfig fltdrvr to remove other CU unsuccessful.
0x151d	Call to ECD lla_rdget to get off-line CU UCB unsuccessful.
0x1600	CU 0 and CU 1 EAI data buffers mismatch.
0x1601	Call to PCPAUD getoflipb to read off-line CU EAI IPB unsuccessful.
0x2000	Memory comparison did not complete its entire memory block comparison.
0x2001	Call to kconfig rptrerr unsuccessful.
0x2002	Call to kconfig rptrerr unsuccessful.
0x2003	Call to kconfig fltdrvr to remove other CU unsuccessful.

`f` = Indicates if error was corrected.

`1` = Yes.

`15` = No.

`g` = Valid value(s):

If '`d`' =	**'`g`' =**
30, 34, or 36	0
all other error codes	Complimented offline SSR value.

`h` = Valid value(s):

If '`d`' =	**'`h`' =**
30, 34, or 36	0
all other error codes	Complimented online SSR value.

`i` = Explanation of error. Refer to the APP:AUD-C appendix in the Appendixes section of the Output Messages manual.

`j` = Explanation of error. Refer to the APP:AUD-D appendix in the Appendixes section of the Output Messages manual.

Note: Refer to the APP:AUD-A and APP:AUD-B appendixes in the Appendixes section of the Output Messages manual for assorted parsing errors when the input message (IM) catalog is not active.

`k` = Explanation of error. Refer to the APP:AUD-B appendix in the Appendixes section of the Output Messages manual.

`l` = Inhibit status. Valid value(s):
`ALLOWED` = Audit has been automatically allowed by SIM.
`INHIBITED` = Audit has been automatically inhibited by SIM.

4. ACTION TO BE TAKEN

Some of the faults reported will be corrected by PCPAUD. For others, there is no readily available means for correcting the problem. If the message persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual. Some possible actions to specific error types are listed in the following exhibit.

Fault Type	Action =
0x4	Run ECD 1 audit.
0x6	Check maintenance channel cable. Run CC diagnostics. The problem could also be in the online maintenance channel. The problem is serious and should be taken care of as soon as possible.
0x8	Run CU diagnostics, switch CUs, run CU diagnostics.
0xe	Take action on this error only if it occurs repeatedly. Switch CUs, run CU diagnostics.
0x10	Take action on this error only if it occurs repeatedly. Run CU diagnostics.
0x12	Take action on this error only if it occurs repeatedly. Either CU could cause bad value in the audited on-line HSR bits. Run CU diagnostics, switch CUs, run CU diagnostics.
0x14	Take action on this error only if it occurs repeatedly. Either CU could cause bad value in the audited off-line HSR bits. Run CU diagnostics, switch CUs, run CU diagnostics.
0x18	Run plant measurements system (PMS) 1 audit.
0x1e	Run CU diagnostics, switch CUs, run CU diagnostics.
0x2a	Clear EAIs with a poke 14 on the EAI page of the MTTY. Take further action on this error only if it occurs repeatedly. Run CU diagnostics, switch CUs, run CU diagnostics.
0x2c	Take action on this error only if it occurs repeatedly. Either CU could cause inconsistent values between the SSRs. Run CU diagnostics, switch CUs, run CU diagnostics.

5. ALARMS

There is no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	78
2, 3	76
4	52
6	558

Input Message(s):

```
AUD:CUMEM
OP:AUD
STOP:AUD
STP:AUD
UPD:OMDB
```

Output Message(s):

```
OP:AUD
```

Output Appendix(es):

```
APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D
APP:OMDB-X-REF
```

Other Manual(s):

235-600-400 *Audits*

AUD:ECD

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      AUD ENV=RTR ECD a [b] COMPLETED
        c ERRORS FOUND
        d ERRORS CORRECTED

[2]   ____________________________________________________________________
      AUD ENV=RTR ECD a [b] STOPPED

[3]   ____________________________________________________________________
      AUD ENV=RTR ECD a [b] ABORTED CODE e

[4]   ____________________________________________________________________
      AUD ENV=RTR ECD a [b] ERROR f {CORR | NON CORR}
        REPORT {STARTED | IN PROGRESS | COMPLETED}
        DATA1  X'00000000      DATA2  X'00000000
        DATA3  X'00000000      DATA4  X'00000000
       [NO SUPPLEMENTARY DATA]

[5]   ____________________________________________________________________
      AUD ENV=RTR ECD a [b] ERROR f {CORR | NON CORR}
        REPORT {STARTED | IN PROGRESS | COMPLETED}
       {SUPPLEMENTARY DATA BLOCK NUMBER 1 |
        SUPPLEMENTARY DATA FILE}
        g

[6]   ____________________________________________________________________
      AUD ECD NOT STARTED
       {CONFLICT WITH CURRENT SYSTEM STATUS  h
       |RETRY LATER  i
       |UNABLE TO IDENTIFY ERROR - INVALID DATA ERROR s}

[7]   ____________________________________________________________________
      AUD ENV=RTR a AUTOMATICALLY j

[8]   ____________________________________________________________________
      AUD ENV=RTR ECD ERROR f - g
```

2. REASON FOR OUTPUT

To report the termination status of the equipment configuration database (ECD) audit and/or any errors found.

3. VARIABLE FIELD DEFINITIONS

a = Audit member. Valid value(s):
- 1 = Structural incore ECD audit.
- 2 = Structural disk ECD audit.

3 = Raw data incore ECD audit.

b = Instance name (appears when 'a' = 2). Valid value(s):
APPECD = Application ECD.
ECD = *UNIX*® RTR only ECD.

c = Total number of errors found.

d = Total number of errors corrected.

e = Abort code. Valid value(s):
3 = Audit was aborted without completing its work.
4 = Audit was faulted while correcting errors.
5 = System integrity monitor (SIM) could not start or dispatch the audit.
6 = An error was encountered in the audit control/audit library interface.
7 = Audit exceeded its timeout or segment limit.
8 = SIM aborted an executing routine audit because of a blocking request.
9 = Transient process that was running the process terminated.
10 = A segmented audit exceeded an error threshold.

f = Error code. Valid value(s):
(1-2999) = LLA structural error.
(3000-3999) = Fatal error.
(4000-4999) = Error.
(5000-5999) = Correction.

g = Explanation of error identified by error code. If error code is 1-2999, refer to the APP:LLA appendix in the Appendixes section of the Output Messages manual.

If 'f' =	**'g' =**
3000	Cannot open incore ECD, errno = p.
3001	'malloc' failure, errno = p.
3001	'malloc' failure.
3002	Read failure for r, errno = p.
3002	Read failure for r.
3003	Audit ECD r has more records than incore ECD.
3004	Incore ECD has more records than audit ECD r.
3005	'lla_rdget' failure for incore ECD to check RCV semaphore.
3006	Audits blocked during RCV session - try later.
3007	'lla_ainit' failure for structural audit.
3008	'lla_irel' failure for incore ECD.
3009	'lla_dbrel' failure for r.
3010	Cannot open disk ECD r, errno = p.
3010	Cannot open disk ECD, r.
3011	'lla_nsqrid' failure for r.
3012	'getport' failure, errno = p.
3013	'getseg' failure, errno = p.
3014	'lla_iatt' failure for incore ECD.
3015	'lla_opensq' failure for incore ECD.
3016	Audit copy r corrupted.
3017	fopen failure for r, errno = p.
3017	fopen failure for r.
3018	fread failure for r, errno = p.
3018	fread failure for r.
3019	fseek failure for r, errno = p.
3019	fseek failure for r.

3020	fwrite failure for r, errno = p.
3020	fwrite failure for r.
3021	The incore ECD does not match the disk ECD r.
3022	Driver PID notification table out of space, entries = p.
3023	'makeseg' failure - cannot create new segment.
3024	Audits blocked during offline boot - try later.
4000	'lla_rinfo' failure for r, RID = q.
4001	Incore RID does not match audit (r) RID (q).
4002	'lla_rdget' failure for r, RID = q.
4003	Record size of incore ECD does not match record size of audit r.
4004	Record type of incore does not match audit, r, RID = q.
4005	'lla_uprid' failure for r, RID = q.
4006	Unable to notify driver (PID = p) of local copy record changes.
4007	Possible disk ECD r inconsistency (structure corrected).
4008	Structural audit cannot continue without previous corrections.
4009	UCB k l m n points down to a UCB which does not point back up for r.
4010	UCB k l m n has incorrect UP0 pointer for its side chain for r.
4011	UCB k l m n has incorrect UP1 pointer for its side chain for r.
4012	UCB k l m n points down to the beginning of a side chain loop for r.
4013	UCB k l m n should not have a side pointer for r.
4014	UCB k l m n points down to itself for r.
5000	Record corrected, RID = q, record = r. Incore record data will be followed by audit record data.
5001	Record needs correction, RID = q, record = r. Incore record data will be followed by audit record data. For LLA audit error messages reference file o.

h = Explanation of error. Refer to the APP:AUD-C appendix in the Appendixes section of the Output Messages manual.

i = Explanation of error. Refer to the APP:AUD-D appendix in the Appendixes section of the Output Messages manual.

j = Inhibit status. Valid value(s):
ALLOWED = Audit has been automatically allowed by SIM.
INHIBITED = Audit has been automatically inhibited by SIM.

Note: Refer to the APP:AUD-A and APP:AUD-B appendixes in the Appendixes section of the Output Messages manual for assorted parsing errors when the input message (IM) catalog is not active.

k = UCB complex unit.

l = UCB unit.

m = UCB complex unit.

n = UCB name.

o = File name. Valid value(s):
/etc/log/ecdaud-disk = For disk audit.
/etc/log/ecdaud-struc = For structural incore audit.
/etc/log/ecdaud-raw = For raw audit.

p = Integer.

q = Hexadecimal integer.

r = Database name.

4. ACTION TO BE TAKEN

If the audit was manually run in the noncorrecting mode and the output indicates that corrections are needed, rerun the audit in correcting mode.

Note: Recent changes should not be applied while an audit that uses the ECD is running.

5. ALARMS

There is no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	78
2, 3	76
4	52
5	64
8	720

Input Message(s):

```
AUD:ECD
OP:AUD
STOP:AUD
STP:AUD
```

Output Message(s):

```
OP:AUD
```

Output Appendix(es):

```
APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D
APP:OMDB-X-REF
```

Other Manual(s):

235-600-400 *Audits*

AUD:ECDOWN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      AUD ENV=RTR ECDOWN 1 COMPLETED
        a ERRORS FOUND
        b ERRORS CORRECTED

[2]   ____________________________________________________________________
      AUD ENV=RTR ECDOWN 1 STOPPED

[3]   ____________________________________________________________________
      AUD ENV=RTR ECDOWN 1 ABORTED CODE c

[4]   ____________________________________________________________________
      AUD ENV=RTR ECDOWN 1 ERROR d {CORR | NON CORR}
        REPORT {STARTED | IN PROGRESS | COMPLETED}
        DATA1  X'00000000    DATA2  X'00000000
        DATA3  X'00000000    DATA4  X'00000000
       [NO SUPPLEMENTARY DATA]

[5]   ____________________________________________________________________
      AUD ENV=RTR ECDOWN 1 ERROR d {CORR | NON CORR}
        REPORT {STARTED | IN PROGRESS | COMPLETED}
       {SUPPLEMENTARY DATA BLOCK NUMBER e |
        SUPPLEMENTARY DATA FILE}
        f

[6]   ____________________________________________________________________
      AUD ECDOWN NOT STARTED
       {CONFLICT WITH CURRENT SYSTEM STATUS  g
       |RETRY LATER  h
       |UNABLE TO IDENTIFY ERROR - INVALI DATA  ERROR i}

[7]   ____________________________________________________________________
      AUD ENV=RTR ECDOWN 1 AUTOMATICALLY j
```

2. REASON FOR OUTPUT

To report the termination status of the ECDOWN audit and/or any errors found.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Valid value(s):
- 3 = Audit was aborted without completing its work.
- 4 = Audit was faulted while correcting errors.

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5 = System integrity monitor (SIM) could not start or dispatch the audit.
6 = An error was encountered in the audit control/audit library interface.
7 = Audit exceeded its timeout or segment limit.
8 = SIM aborted an executing routine audit because of a blocking request.
9 = Transient process that was running the process terminated.
10 = A segmented audit exceeded an error threshold.
12 = Audit rejected the request to run from SIM.
13 = SIM aborted an executing audit because the audit system is being reinitialized.

d = Error code. Possible errors codes are:
(100-199) = Error.
(200-200) = Correction.

e = Supplementary data block number.

f = An explanation of the error identified by the error code.

If 'd' =	**'f' =**
100	Unable to release special device file, RID = k.
101	Unable to release Unit Control Block (UCB), RID = k.
102	Improper reserved entity - not SDF or UCB.
200	Special device file released, RID = k.
201	UCB released, RID = k.
202	Special device file should be released, RID = k.
203	UCB should be released, RID = k.

g = Explanation of error. Refer to the APP:AUD-C appendix in the Appendixes section of the Output Messages manual.

h = Explanation of error. Refer to the APP:AUD-D appendix in the Appendixes section of the Output Messages manual.

i = Explanation of error. Refer to the APP:AUD-B appendix in the Appendixes section of the Output Messages manual.

j = Inhibited status. Valid value(s):
ALLOWED = Audit has been automatically allowed by SIM.
INHIBITED = Audit has been automatically inhibited by SIM.

Note: Refer to the APP:AUD-A and the APP:AUD-B appendix in the Appendixes section of the Output Messages manual for assorted parsing errors when the input message (IM) catalog is not active.

k = Hexadecimal integer.

4. ACTION TO BE TAKEN

If the audit was manually run in the noncorrecting mode and the output indicates that corrections are needed, rerun the audit in correcting mode.

Note: Recent changes should not be applied while an audit that uses the ECD is running.

Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	78
2,3	76
4	52
5	64
7	558

Input Message(s):

```
AUD:ECDOWN
OP:AUD
STOP:AUD
STP:AUD
```

Output Message(s):

```
OP:AUD
```

Output Appendix(es):

```
APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D
APP:OMDB-X-REF
```

Other Manual(s):

235-600-400 *Audits*

AUD:ENV-ABORTED

Software Release: 5E10 and later
Message Class: AUDTFST,AUDTMON, AUDT
Application: 5
Type: Output

1. FORMAT

```
AUD  ENV=a   b  ABORTED  ERRORS=c  EVENT=d
```

2. REASON FOR OUTPUT

To report that a kernel process environment (OKP or SMKP) audit in the administrative module (AM) was aborted because a higher priority audit ran. This message is also used to report that an application interprocessor audit could not communicate with an SM. All messages related to a problem use the same event number (variable 'd').

3. VARIABLE FIELD DEFINITIONS

a = Kernel process where the application audit resides. Valid value(s):
- OKP = Operation kernel process.
- SMKP = Switch maintenance kernel process.

b = Application audit ID. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual.

c = Total number of errors found.

d = Event number.

4. ACTION TO BE TAKEN

If this message has been automatically generated, retrieve the output messages related to the audit ID 'b'. If this message is in response to a manual request, all output messages related to the audit ID 'b' will have been printed. These messages include: AUD:ENV-DUMP, AUD:ENV-ERROR, and AUD:ENV-FAILURE. Refer to the Audits manual for a description of actions.

This message uses variable message classes. AUDTFST indicates that this message caused a new event number to be allocated. AUDTMON indicates that this message does not describe a new event; look for previous messages with the same event number. Previous messages could include other audits messages with the AUDTFST message class, defensive check failure, or single process purge messages. AUDT indicates this message occurred as a response to a manual request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

AUD:ENV

Output Appendix(es):

```
APP:AUDITS
```

Output Message(s):

```
AUD:ENV-DUMP
AUD:ENV-ERROR
AUD:ENV-FAILURE
```

Other Manual(s):

235-600-400 Audits
235-600-500 Asserts

AUD:ENV-CNC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      AUD ENV=RTR CNC 1 COMPLETED
        a ERRORS FOUND
        b ERRORS CORRECTED

[2]   ____________________________________________________________
      AUD ENV=RTR CNC 1 STOPPED

[3]   ____________________________________________________________
      AUD ENV=RTR CNC 1 ABORTED CODE c

[4]   ____________________________________________________________
      AUD ENV=RTR CNC 1 ERROR d REPORT
        DATA1   X'e     DATA2    X'f
        DATA3   X'g     DATA4    X'h
        NO SUPPLEMENTARY DATA
```

2. REASON FOR OUTPUT

To report the termination status of the central node control (CNC) audit and/or any errors found.

This audit may have been executed due to routine schedule, manual request, or interprocess message switch (IMS) initialization (level 0 or 1A).

When the audit finds no errors, termination status is printed only for manual requests.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected. Non-zero values indicate that error correction has been attempted, not that it has been verified.

c = Abort code. Valid value(s):

- 3 = Audit was aborted without completing its work.
- 4 = Audit was faulted while correcting errors.
- 5 = System integrity monitor (SIM) could not start or dispatch the audit.
- 6 = An error was encountered in the audit control/audit library interface.
- 7 = Audit exceeded its timeout or segment limit.
- 8 = SIM aborted an executing routine audit because of a blocking request.
- 9 = Transient process that was running the process terminated.
- 10 = A segmented audit exceeded an error threshold.
- 11 = An audit was blocking a needed demand audit.
- 12 = Audit rejected a request to run from SIM.
- 13 = SIM aborted audit, audit subsystem was reinitialized.

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d = Error code. Valid value(s):

0 = Illegal restoration job state ('e' or 'g').
1 = Restore job states ('e' and ' g') inconsistent about CNC abort.
2 = Restore job states ('e' and 'g') indicate too many active jobs.
3 = Restore job states ('e' and 'g') indicate queued job with none active.
4 = Job or CNC abort time limit exceeded.
5 = CNC and automatic ring recovery (ARR) inconsistent.
6 = CNC has job from dead IMSRMVRST.
7 = CNC inconsistent with RST.IUN.
8 = 3BWRT.NP inconsistent with IUN.PUMP.

e = Valid value(s):

If 'd' =	**'e' =**
0-5	CNC's automatic ring recovery (ARR) restoration job state. Valid value(s): 0 = Idle. 1 = Queued. 2 = Active. 3 = CNC aborting jobs. 4 = CNC aborting jobs and job queued.
6	CNC's maintenance input request administrator (MIRA) restoration job state. Valid value(s): 0 = Idle. 1 = Queued. 2 = Active. 3 = CNC aborting jobs. 4 = CNC aborting jobs and job queued.
7	Indicates source of CNC's active restoration job. Valid value(s): 0 = ARR. 1 = MIRA (using IMSRMVRST). Other = No active restoration job.
8	3BWRT.NP's current work: physical node address (X'C00-X'FFF) or no work (X'1000) or otherwise busy (X'1001).

f = Valid value(s):

If 'd' =	**'f' =**
0-5	CNC's ARR restoration job physical node address (X'C00-X'FFF), when job queued or active.
6	CNC's MIRA restoration job physical node address (X'C00-X'FFF), when job queued or active.
7	If 'e' = 0-1, CNC's active restoration job state. Valid value(s): 0 = Idle. 1 = Queued. 2 = Active.

	3 = CNC aborting jobs. 4 = CNC aborting jobs and job queued.
8	IUN.PUMP's current work: physical node address (X'C00-X'FFF), no work (X'1000) or otherwise busy (X'1001).

g = Valid value(s):

If 'd' =	**'g' =**
0-4	CNC's MIRA restoration job state. Valid value(s): 0 = Idle. 1 = Queued. 2 = Active. 3 = CNC aborting jobs. 4 = CNC aborting jobs and job queued.
5	NODE.RMON's view of CNC ARR work: physical node address (X'C00-XFFF), no work (X'1000) or otherwise busy (X'1001).
6	Not used.
7	If 'e' = 0-1, CNC's active restoration job physical node address (X'C00-X'FFF).
8	CNC's ARR work: physical node address (X'C00-X'FFF) or no work (X'1000).

h = Valid value(s):

If 'd' =	**'g' =**
0-4	CNC's MIRA restoration job physical node address (X'C00-X'FFF), When job queued or active.
5-6	Not used.
7	RST.IUN's current restoration work: physical node address (X'C00-X'FFF), no work (X'1000) or otherwise busy (X'1001).
8	For 'd' = 8 CNC: MIRA work: physical node address (X'C00-X'FFF) or no work (X'1000).

4. ACTION TO BE TAKEN

Format 1 should appear alone only when the audit is manually requested with the summary option or detected no errors. Error analysis must be based on Format 4 messages.

Format 2 is printed when an execution of the audit is stopped with the STOP:AUD input message or by an initialization of the IMS subsystem.

Format 3 should occur only during outages and initializations of the IMS subsystem. If it occurs when IMS is operational, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Format 4 reports errors detected by the audit. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

All of the errors reported by this audit indicate mutilated internal data or other software problems. Such errors can occur as a side effect of other problems, such as those reported with the REPT:IMSDRV-FLT output message.

If error correction was indicated ('b' > 0), then the audit attempted to clear the trouble by canceling the maintenance jobs associated with the errors.

To verify that error correction was successful, run the audit again with the AUD:CNC 1 input message.

5. ALARMS

Formats 1, 2 and 3 sound no alarms.

Format 4 sounds a minor alarm unless the audit was manually requested.

6. REFERENCES

Input Message(s):

```
AUD:CNC
OP:AUD
STOP:AUD
```

Output Message(s):

```
OP:AUD
REPT:IMSDRV-FLT
```

Output Appendix(es):

```
APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D
```

Other Manual(s):

235-600-400 *Audits*

AUD:ENV-COMPL

Software Release: 5E10 and later
Message Class: AUDTFST,AUDTMON, AUDT
Application: 5
Type: Output

1. FORMAT

```
AUD  ENV=a   b  COMPLETED  ERRORS=c  EVENT=d
```

2. REASON FOR OUTPUT

To report the number of errors found at kernel process environment (OKP or SMKP) audit completion in the administrative module (AM). All messages related to a problem use the same event number (variable 'd').

3. VARIABLE FIELD DEFINITIONS

`a` = Kernel process where the application audit resides.

- `OKP` = Operational kernel process.
- `SMKP` = Switch maintenance kernel process.

`b` = Application audit ID. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual.

`c` = Total number of errors found.

`d` = Event number.

4. ACTION TO BE TAKEN

If this message has been automatically generated, retrieve the output messages related to the audit ID `'b'`. If this message is in response to a manual request, all output messages related to the audit ID `'b'` will have been printed. These messages include: AUD:ENV-DUMP, AUD:ENV-ERROR, and AUD:ENV-FAILURE. Refer to the Audits manual for a description of actions.

This message uses variable message classes. AUDTFST indicates that this message caused a new event number to be allocated. AUDTMON indicates that this message does not describe a new event; look for previous messages with the same event number. Previous messages could include other audits messages with the AUDTFST message class, defensive check failure, or single process purge messages. AUDT indicates this message occurred as a response to a manual request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`AUD:ENV`

Output Message(s):

```
AUD:ENV-DUMP
AUD:ENV-ERROR
AUD:ENV-FAILURE
```

Output Appendix(es):

```
APP:AUDITS
```

Other Manual(s):

235-600-400 Audits
235-600-500 Asserts

AUD:ENV-DUMP-A

Software Release: 5E10 - 5E12
Message Class: AUDTFST,AUDTMON, AUDT
Application: 5
Type: Output

1. FORMAT

```
AUD  ENV=a   b  DUMP    EVENT=c
  ERROR-ADDR=d
  KEY=e f
  BLOCK-ADDR=g
  h
  .
  .
  .
```

2. REASON FOR OUTPUT

To dump data from a kernel process environment (OKP or SMKP) audit which detected errors in the administrative module (AM). This message will always be preceded by the AUD:ENV-ERROR output message. A given audit ID 'b' could have many different error messages with corresponding dump messages. The field which ties the dump message to the error message is the field ERROR-ADDR 'd'. All dump messages related to a single problem use the same event number (variable 'c').

3. VARIABLE FIELD DEFINITIONS

a = Kernel process where the application audit resides.
- OKP = Operational kernel process.
- SMKP = Switch maintenance kernel process.

b = Application audit ID. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual.

c = Event number.

d = Error address in hexadecimal.

e = Key name.

f = Key number.

g = Block address in hexadecimal.

h = Hexadecimal dump of a block of up to 199 bytes with up to 8 groups of 4 bytes per line.

4. ACTION TO BE TAKEN

Refer to the Audits manual to interpret information given. Use the audit ID 'b' and the error code from the corresponding error message (AUD ERROR) to find the interpretation.

Each audit may use other variables, such a 'd' through 'g' differently. Refer to the Audits manual for additional information. The reporting audit will contain on how each field should be interpreted.

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This message uses variable message classes. AUDTFST indicates that this message caused a new event number to be allocated. AUDTMON indicates that this message does not describe a new event; look for previous messages with the same event number. Previous messages could include other audits messages with the AUDTFST message class, defensive check failure, or single process purge messages. AUDT indicates this message occurred as a response to a manual request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
AUD:ENV
```

Output Appendix(es):

```
APP:AUDITS
```

Output Message(s):

```
AUD:ENV-ERROR
```

Other Manual(s):

235-600-400 Audits
235-600-500 Asserts

AUD:ENV-DUMP-B

Software Release: 5E13 and later
Message Class: AUDTFST,AUDTMON, AUDT
Application: 5
Type: Output

1. FORMAT

```
AUD  ENV=a   b  DUMP PART d OF e EVENT=c
  KEY=f
  BLOCK-ADDR=g
  h
  .
  .
  .
```

2. REASON FOR OUTPUT

To dump data from a kernel process environment (OKP or SMKP) audit which detected errors in the administrative module (AM). This message will always be preceded by the AUD:ENV-ERROR output message. A given audit ID 'b' could have many different error messages with corresponding dump messages. The field which ties the dump message to the error message is the field ERROR-ADDR 'd'. All dump messages related to a single problem use the same event number (variable 'c').

3. VARIABLE FIELD DEFINITIONS

a = Kernel process where the application audit resides.

- OKP = Operational kernel process.
- SMKP = Switch maintenance kernel process.

b = Application audit ID. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual.

c = Event number.

d = Part indicator to identify related dumps when there is too much data for a single report.

e = Total number of related dump messages when there is too much data for a single report.

f = Dump identifying information. There are three lines. The first has the dump data type identifier or NOT_APPLICABLE. The second line has the names of the data keys or KEYS_ARE_NOT_APPLICABLE or KEYS_ARE_IN_THE_DATA_DUMP. The third line has the key values where H'0 is used as a default for the cases where keys do not apply.

g = Block address in hexadecimal.

h = Hexadecimal dump of a block of up to 199 bytes with up to 8 groups of 4 bytes per line.

4. ACTIONS TO BE TAKEN

Refer to the Audits manual to interpret information given. Use the audit ID 'b' and the error code from the

corresponding error message (AUD ERROR) to find the interpretation.

This message uses variable message classes. AUDTFST indicates that this message caused a new event number to be allocated. AUDTMON indicates that this message does not describe a new event; look for previous messages with the same event number. Previous messages could include other audits messages with the AUDTFST message class, defensive check failure, or single process purge messages. AUDT indicates this message occurred as a response to a manual request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
AUD:ENV
```

Output Message(s):

```
AUD:ENV-ERROR
```

Output Appendix(es):

```
APP:AUDITS
```

Other Manual(s):
235-600-400 *Audits*
235-600-500 *Asserts*

AUD:ENV-ERROR

Software Release: 5E10 and later
Message Class: AUDTFST,AUDTMON, AUDT
Application: 5
Type: Output

1. FORMAT

```
AUD  ENV=a   b  ERROR-CODE=c  EVENT=d
  ERROR-ADDR=e  BAD-DATA=f
  LOG-KEY=g  GOOD-DATA=h
```

2. REASON FOR OUTPUT

To report that a audit detected an error in the kernel process environment (OKP or SMKP) audit or administrative module (AM). There may be an optional dump message AUD:ENV-DUMP corresponding to this message. The ERROR-ADDR field '`e`' should be used to determine corresponding messages. All the errors reported during an invocation of an audit will be summarized by the AUD:ENV-ABORTED or AUD:ENV-COMPL output messages. All error messages related to a problem use the same event number (variable '`d`').

3. VARIABLE FIELD DEFINITIONS

`a` = Kernel process where the application audit resides. Valid value(s):
- `OKP` = Operational kernel process.
- `SMKP` = Switch maintenance kernel process.

`b` = Application audit ID. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual.

`c` = Error code. Refer to the Audits manual.

`d` = Event number of related reports.

`e` = Error address in hexadecimal.

`f` = Bad (incorrect) data in hexadecimal.

`g` = Logical key in hexadecimal.

`h` = Good (correct) data.

4. ACTION TO BE TAKEN

Refer to the Audits manual to interpret information given. Use the audit ID '`b`' and the error code '`c`' to find the interpretation of data.

Variables '`e`' through '`h`' contain information relating to the data which is in error. The Audits manual should be referred to interpret the data.

This message uses variable message classes. AUDTFST indicates that this message caused a new event number to be allocated and is always the most significant message in the event. AUDTMON indicates that this message does not describe a new event; look for previous messages with the same event number. Previous messages could include other audits messages with the AUDTFST message class, defensive check failure, or single process purge

messages. AUDT indicates this message occurred as a response to a manual request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
AUD:ENV
```

Output Appendix(es):

```
APP:AUDITS
```

Output Message(s):

```
AUD:ENV-ABORTED
AUD:ENV-COMPL
AUD:ENV-DUMP
```

Other Manual(s):

235-600-400 Audits

AUD:ENV-FAILURE

Software Release: 5E10 and later
Message Class: AUDTFST,AUDTMON, AUDT
Application: 5
Type: Output

1. FORMAT

```
AUD  ENV=a   b  FAILURE-CODE=c  EVENT=d;
```

2. REASON FOR OUTPUT

To report a failure that has been encountered by a kernel process environment (OKP or SMKP) audit in the administrative module (AM). A failure indicates that the audit could not proceed due to some problem it has detected, and it has triggered escalation or other audit actions. All failure messages related to a problem use the same event number (variable 'd').

This message uses variable message classes. AUDTFST indicates that this message caused a new event number to be allocated. AUDTMON indicates that this message does not describe a new event; look for previous messages with the same event number. Previous messages could include other audits messages with the AUDTFST message class, defensive check failure, or single process purge messages. AUDT indicates this message occurred as a response to a manual request.

3. VARIABLE FIELD DEFINITIONS

a = Kernel process where the application audit resides. Valid value(s):
- OKP = Operational kernel process.
- SMKP = Switch maintenance kernel process.

b = Application audit ID. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual.

c = Failure code ID. Refer to the Audits manual.

d = Event number.

4. ACTION TO BE TAKEN

Refer to the Audits manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

Input Message(s):
AUD:ENV

Output Appendix(es):

APP:AUDITS

Other Manual(s):

235-600-400 *Audits*

AUD:ENV-LKBDST

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      AUD ENV=RTR LKBDST 1 COMPLETED
        a ERRORS FOUND
        b ERRORS CORRECTED

[2]   ____________________________________________________________
      AUD ENV=RTR LKBDST 1 STOPPED

[3]   ____________________________________________________________
      AUD ENV=RTR LKBDST 1 ABORTED CODE c

[4]   ____________________________________________________________
      AUD ENV=RTR LKBDST 1 ERROR d REPORT
        DATA1   H'e     DATA2   H'f
        DATA3   H'g     DATA4   H'h
        NO SUPPLEMENTARY DATA
```

2. REASON FOR OUTPUT

To report the results of an audit of the consistency of basic link and band status information in the administrative module (AM) and the interprocess message switch user node (IUN). Unless the abort code indicates otherwise, any errors found have been corrected and no other action is needed.

Format 1 is printed when the audit completed.

Format 2 is printed when the audit was stopped (such as, STOP:AUD).

Format 3 is printed when the audit aborted.

Format 4 provides details of the audit results.

If Formats 1 and 4 both are printed, other messages may be interposed between them.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found (maximum 16).

b = Total number of errors corrected (maximum 16).

c = Abort code. Valid value(s):

- 3 = Audit was aborted without completing its work.
- 4 = Audit was faulted while correcting errors.
- 5 = System integrity monitor (SIM) could not start or dispatch the audit.
- 6 = An error was encountered in the audit control/audit library interface.
- 7 = Audit exceeded its timeout or segment limit.
- 8 = SIM aborted an executing routine audit because of a blocking request.
- 9 = Transient process that was running the process terminated.

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10 = A segmented audit exceeded an error threshold.

d = Error code for each detected error. This is followed by the appropriate block of raw data. This output is printed for up to 16 errors per audit; if more than 16 errors are found, a 17th block (variable 'd' = 200) is added to indicate the number of detected errors. Valid value(s):

-5 = Node number from input request no good.
-4 = Member number on input request no good.
-3 = Comma missing, possible other syntax problem on input request.
-2 = Group number specified on input request too big.
-1 = Syntax error in PARAM field of input request.
0 = Mismatch of internal link status in the AM.
1 = Mismatch of internal mate link status in the AM.
2 = Mismatch of internal mate link status in IUN.
3 = Mismatch of the link prove-in state.
4 = Route switch table entry for this link, kept in IUN, reflects received TFP, TFR, TFA signals; used to route banded message traffic.
100-161 = CCS7 and CCS6 error codes. Refer to the following explanation of variable fields 'e','f','g','h'.
200 = Overflow indicator (over the threshold of 16); indicates total number of errors detected by this audit.
201 = Node audit timeout. Indicates that one or more of the audit response messages from the node was not received. This may occur due to previously reported errors on the node, or due to transient node overload conditions. The ring node address (RNA) of the node is contained in field 'e'.

e = Valid value(s):

If 'd' =	**'e' =**
0	-
4	RNA of link node being audited.
100	RNA of link node being audited.
101	RNA of link node being audited.
102	RNA of link node being audited.
103	RNA of link node being audited.
104	RNA of link node being audited.
105	RNA of link node being audited.
106	RNA of link node being audited.
107	RNA of link node being audited.
108	RNA of link node being audited.
109	RNA of link node being audited.
110	RNA of link node being audited.
111	RNA of link node being audited.
112	RNA of link node being audited.
113	RNA of link node being audited.
114	RNA of link node being audited.
115	RNA of link node being audited.
116	RNA of link node being audited.
117	RNA of link node being audited.
118	RNA of link node being audited.
119	RNA of link node being audited.
120	RNA of link node being audited.
121	RNA of link node being audited.
122	RNA of link node being audited.
123	RNA of link node being audited.
124	RNA of link node being audited.
125	RNA of link node being audited.
150	RNA of link node being audited.
151	RNA of link node being audited.
152	RNA of link node being audited.
153	RNA of link node being audited.

154	RNA of link node being audited.
156	RNA of link node being audited.
157	RNA of link node being audited.
158	RNA of link node being audited.
159	RNA of link node being audited.
160	RNA of link node being audited.
161	RNA of link node being audited.
200	Total number of errors detected during entire audit (all nodes).
201	Link node address of link node being audited.

f = Valid value(s):

If 'd' =	**'f' =**
0	-
4	Observed (incorrect) value.
100	Protocol value found in AM.
101	Link type found in AM.
102	Link speed found in AM.
103	Encryption indicator found in AM.
104	Major link state found in AM.
105	Identity of mate link found in AM.
106	Far-end stp even/odd indicator found in AM.
107	Far-end function number found in AM computer.
108	Normal prove-in threshold found in AM.
109	Emergency prove-in threshold found in AM
110	Leaky bucket threshold found in AM.
111	Far-end region found in AM.
112	Far-end point code found in AM.
113	'syu' code found in AM.
114	VFL type found in AM.
115	Changeover limit found in AM.
116	Receive buffer threshold found in AM.
117	Break-in indicator found in AM.
118	Pool number found in AM.
119	Combined pool number found in AM.
120	Link layer assignment found in AM.
121	Voice access test quadrant found in AM.
122	Attempt to audit unequipped link.
123	Minor state found in AM.
124	Minor state found in AM.
125	Major state found in AM.
150	Leaky bucket threshold found in link interface of RNA.
151	Break-in indicator found in link interface of RNA.
152	Changeover limit found in link interface of RNA.
153	Receive buffer threshold found in link interface of ring node interface.
154	'syu' code found in link interface of RNA.
156	Own-link switch found in RNA.
157	Faulty link mode found in link interface of RNA.
158	Pro mode found in link interface of RNA.
159	Own-link switch found in node.
160	Faulty link mode found in link interface of RNA.
161	Own-link switch found in node.
200	0
201	0

g = Valid value(s):

If 'd' =	**'g' =**
0	-
4	Band number (nearest lower multiple of 4) if applicable, else 0.
100	Protocol value found in RNA.
101	Link type found in RNA.
102	Link speed found in RNA.
103	Encryption indicator found in RNA.
104	Major link state found in RNA.
105	Identity of mate link found in RNA.
106	Far-end stp even/odd indicator found in RNA.
107	Far-end function number found in RNA.
108	Normal prove-in threshold found in RNA.
109	Emergency prove-in threshold found in RNA.

110	Leaky bucket threshold found in RNA.
111	Far-end region found in RNA.
112	Far-end point code found in RNA.
113	'syu' code found in RNA.
114	VFL type found in RNA.
115	Changeover limit found in RNA.
116	Receive buffer threshold found in RNA.
117	Break-in indicator found in RNA.
118	Pool number found in RNA.
119	Combined pool number found in RNA.
120	Link layer assignment found in RNA.
121	Voice access test quadrant found in RNA.
122	0
123	New minor state GROW.
124	New minor state out of service (OOS).
125	New major state unavailable (UNA).
150	Expected value.
151	Expected value.
152	Expected value.
153	Expected value.
154	Expected value.
156	Old minor state.
157	Old minor state.
158	Old minor state.
159	Corrected minor state.
160	Pro mode found in link interface of RNA.
161	Corrected minor state.
200	0
201	0

h = Valid value(s):

If 'd' =	**'h' =**
0	-
4	Reference (correct) value.
100	0
101	0
102	0
103	0
104	0
105	0
106	0
107	0
108	0
109	0
110	0
111	0
112	0
113	0
114	0
115	0
116	0
117	0
118	0
119	0
120	0
121	0
122	0
123	0
124	0
125	0
150	0
151	0
152	0
153	0
154	0
156	Corrected minor state.
157	Corrected minor state.
158	Corrected minor state.
159	0
160	Link status indicators.

161	0
200	0
201	0

4. ACTION TO BE TAKEN

Format 1 requires no action.

Format 2 is printed when an execution of the audit is stopped using the AUD:STOP input message or by an initialization of the CNI subsystem.

Format 3 should occur only during outages or initializations of the CNI subsystem. If it occurs when the CNI is operational, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Format 4 reports non-fatal errors detected by the audit. To determine the cause of the trouble, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

All of the errors reported by this audit indicate mutilated internal data or other software problems. Such errors can occur as a side effect of other problems such as hardware faults.

If error correction was indicated ('b' > 0), then the audit attempted to clear the trouble, where possible, either by data correction or by other action. To verify that either action was successful, run the audit again using the AUD:LKBDST input message.

5. ALARMS

Formats 1, 2 and 3 sound no alarm.

Format 4 sounds a minor alarm unless the audit was manually requested.

6. REFERENCES

Input Message(s):

```
ALW:AUD
INH:AUD
AUD:LKBDST
OP:AUD
OP:AUDERR
STOP:AUD
```

Output Message(s):

```
OP:AUD
```

Other Manual(s):

235-190-120 *Common Channel Signaling Services*

235-600-400 *Audits*

AUD:ENV-LKNODE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5, CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      AUD ENV=RTR LKNODE 1 COMPLETED
        a ERRORS FOUND
        b ERRORS CORRECTED

[2]   ____________________________________________________________________
      AUD ENV=RTR LKNODE 1 STOPPED

[3]   ____________________________________________________________________
      AUD ENV=RTR LKNODE 1 ABORTED CODE c

[4]   ____________________________________________________________________
      AUD ENV=RTR LKNODE 1 ERROR d REPORT
        DATA 1 H'00000000     DATA 2 H'00000000
        DATA 3 H'00000000     DATA 4 H'00000000
        SUPPLEMENTARY DATA FILE
        e
```

2. REASON FOR OUTPUT

To report errors encountered while auditing the data for the link node so that the appropriate action can be taken to correct the table(s).

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Valid value(s):

- 3 = Audit was aborted without completing its work.
- 4 = Audit was faulted while correcting errors.
- 5 = The system integrity monitor (SIM) could not start or dispatch the audit.
- 6 = An error was encountered in the audit control/audit library interface.
- 7 = Audit exceeded its timeout or segment limit.
- 8 = SIM aborted an executing routine audit because of a blocking request.
- 9 = The transient process that was running the process terminated.
- 10 = A segmented audit exceeded an error threshold.
- 11 = An audit was blocking a needed demand audit.
- 12 = Audit rejected a request to run from SIM.
- 13 = SIM aborted audit, audit subsystem was reinitialized.

d = Error code. Valid value(s):

- 100 = Unable to open the office data disk file.
- 101 = Read error encountered with the office data disk file.

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102 = The local CLLI code on disk does not match the administrative module (AM) copy.
103 = Invalid local CLLI code.
104 = Links cannot use the local CLLI code.
105 = The region number on disk does not match the AM copy.
106 = Invalid region number.
107 = The function number on disk does not match the AM copy.
108 = Invalid function number.
109 = Links cannot use the local function number as their far-end function number.
110 = The point code on disk does not match the AM copy.
111 = Invalid point code.
112 = The region number contained in the point code does not match the local region number.
113 = Links cannot use the local point code as their far-end point code.
114 = The LIS destination on disk does not match the AM copy.
115 = Invalid LIS destination.
119 = Cannot write or create the office data disk file.
120 = Invalid version number on disk file.
121 = Unable to open the link set to multiple point code disk file.
122 = Read error encountered with the link set to multiple point code data disk.
123 = The point code on disk does not match AM computer copy.
124 = Invalid point code in the link set to multiple point code table.
125 = Up to 8 different point codes are allowed in the link set to multiple point code table.
126 = At least one of the point codes in the table should be equal to a local point code from the office data disk file.
200 = Unable to open the link data disk file.
201 = Read error encountered in the link data disk file.
202 = Link data exists for a ring peripheral control (RPC).
203 = Disk file exists but no data in the AM.
204 = Invalid protocol.
205 = Invalid encryption field.
206 = Invalid link type.
207 = Invalid far-end signal transfer point (STP).
208 = Inappropriate syu code.
209 = Inappropriate break-in.
210 = Invalid combined link set.
211 = Invalid mate link.
212 = Mate link is an RPC.
213 = Invalid mate relationship.
214 = Mate links are going to same far-end STP.
215 = Invalid CLLI code (first 6 characters or last 5 characters).
216 = A/E/B/D-link has local/mate CLLI code.
217 = A/E/B/D-link has an invalid far-end function.
218 = A/E/B/D-link has local/mate function.
219 = Invalid major state.
220 = Available links cannot be self-looped.
221 = Available CCS6 links must have signaling links (SLKs) assigned.
222 = Invalid speed (that is, does not match protocol).
223 = Invalid voice frequency link (VFL) field.
224 = Invalid voice access test (VAT) quadrant.

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225 = B/D-link has an invalid far-end region.
226 = Invalid pool number.
227 = No pool but there is a combined pool.
228 = The pool-link table is not consistent with the link data.
229 = Invalid layer number.
230 = Invalid signaling link code.
231 = Invalid link set.
232 = No link set but there is a combined link set.
233 = A/E/B/D-link has an invalid far-end point code.
234 = A/E/B/D-link has local/mate point code.
235 = The link data in the AM does not match the copy on disk.
236 = Links going to the same destination needed to have consistent data.
237 = The derived data items are incorrect.
238 = The linkset-link table is not consistent with the link data.
239 = The linkset relation table is not consistent with the link data.
240 = There are files in the link data directory which do not conform to the naming convention.
241 = The virtual link (VL) assignments as shown in the link data do not match the logical-physical tables.
242 = Mate link should be a CCS link.
243 = For SADC node, facility access type (FACIL) must be MODEM.
244 = Invalid LI4 equipage.
245 = Invalid mate link field.
246 = Invalid link speed.
247 = Invalid link facility ID.
248 = Invalid circuit ID number (CIN).
249 = Invalid user.
250 = Invalid ring node address (RNA) or RNA out-of-range.
251 = For SADC node with MODEM facility, T1FA control node (TCN) field must be unassigned.
253 = Invalid mate link major field.
254 = Mated mate DCHN link should not be in the same node.
255 = Inconsistent PRIM/SEC field and mate link field.
256 = Invalid logical link ID (LACID).
257 = LACID provisioned for link does not match the LACID provisioned on the mate link.
258 = Mate link must be SECONDARY, since link is provisioned as PRIMARY.
259 = Mate link must be PRIMARY, since link is provisioned as SECONDARY.
260 = Invalid primary/secondary field.
261 = Invalid mate link RNA.
262 = Invalid mate link node type.
273 = Invalid screen field.
274 = Invalid far-end region.
300 = The user has not provided these tables to the common network interface (CNI).
301 = Open/read error encountered with the lxp_tab disk file.
302 = Open/read error encountered with the px1_tab disk file.
303 = Open/read error encountered with the vl_tab disk file.
304 = Open/read error encountered with the ln7slots disk file.
305 = The logical-physical data on disk does not match the AM copy.
306 = The physical-logical data on disk does not match the AM copy.
307 = All CCS6 links in the available (AVL) major state must have an SLK assigned.

308 = A link has an SLK assigned but there is no link data for the link.
309 = Physical-logical table indicates that the link is CCS7 but the link data is CCS6.
310 = The index into the virtual link table is invalid.
311 = A link is using an entry in the virtual link table which is marked as unused.
312 = The virtual link data on disk does not match the AM copy.
313 = A link is using an invalid SLK.
314 = An RNA/VL translates to an SLK but the reverse translation does not hold true.
315 = A CCS7 link has an entry in the VL table but it doesn't have any VLs assigned.
316 = Physical-logical table indicates that the link is CCS6 but the link data is CCS7.
317 = An SLK translates to an invalid RNA/VL.
318 = An SLK translates to a link that is unequipped (that is, no link data).
319 = An SLK translates to an CCS6 link but the virtual link is not 0.
320 = An SLK translates to an RNA/VL but the reverse translation does not hold true.
321 = An SLK translates to a CCS7 link but has no index into virtual link table.
322 = An SLK translates to a CCS7 link but the virtual link is invalid.
323 = The ln7slots data on disk does not match the AM copy.
324 = Invalid value in the ln7slots table.
325 = A virtual link entry is marked used but no link is using this entry.
326 = A virtual link entry is marked unused but there is a virtual link assigned.
327 = The virtual link assignments in the logical-physical tables are inconsistent with the link data.
328 = An SLK translates to a link that is equipped but is not a common channel signaling (CCS) link.
329 = Invalid version numbers on disk files.
400 = Unable to open the cluster disk file.
401 = Read error encountered in the cluster disk file.
402 = Cluster level only populated cluster is not allowed for local network.
403 = The member level preferred field is not assigned properly.
404 = Small network populated cluster is for nonlocal network only.
405 = The number of static members in a small network is incorrect.
406 = The cluster flag in the administrative module (AM) does not match the cluster flag on disk.
407 = Invalid cluster flag.
408 = Invalid linkset in the cluster or member table(s).
409 = Point code cannot be equal to local point code.
410 = The linkset in the AM cluster table does not match the linkset on disk.
411 = Invalid flag for network ID (NID) cluster in the meminfo table.
412 = An unused member index should not have a point code.
413 = Unable to open the nonlocal member disk file.
414 = Read error encountered in the nonlocal member disk file.
415 = Cannot create disk file.
416 = Inconsistency between the cluster level flag and the unpopulated bit for the nonlocal network.
417 = The cluster is marked as unassigned but routing information exists.
418 = The member index in the AM cluster table does not match the member index on disk.
419 = Invalid member index in the cluster table.
420 = The member flag in the AM table does not match the member flag on disk.
421 = Invalid flag in the member table.
422 = The linkset in the AM member table does not match the linkset on disk.
423 = Unused.

424 = The member is marked as unassigned but routing information exists.
425 = The cluster is using a member index that is unused.
426 = The cluster is using a member index that is using a different cluster.
427 = The meminfo table in the AM does not match the meminfo table on disk.
428 = The member index is using a cluster that is either not populated or has a different member index.
429 = Members in an unused member table should be unassigned.
430 = The cNmem_cls entry does not match the cluster table.
500 = Unable to open the subsystem distribution disk file.
501 = Read error encountered in the subsystem distribution disk file.
502 = Unable to open the local subsystem information disk file.
503 = Read error encountered in the local subsystem information disk file.
504 = The data in the AM does not match the copy on disk.
505 = The subsystem should be equipped.
506 = Invalid equipped indicator.
507 = For an equipped subsystem: Invalid channel to receive signaling messages.
508 = For a subsystem which is equipped by default: Invalid local function index.
509 = For a subsystem which is not equipped by default: Invalid local function index.
510 = For an equipped subsystem: Invalid want pause indicator.
511 = For an equipped subsystem: Invalid channel to receive management indications.
512 = Invalid simplex/duplex indicator.
513 = For an unequipped subsystem: Invalid address to receive signaling messages.
514 = For an unequipped subsystem: Invalid channel to receive signaling messages.
515 = For an unequipped subsystem: Invalid local function index.
516 = For an unequipped subsystem: Invalid want pause indicator.
517 = For an unequipped subsystem: Invalid simplex/duplex indicator.
518 = For an unequipped subsystem: Invalid channel to receive management indications.
519 = For an unequipped subsystem: Invalid mate subsystem number.
520 = For an unequipped subsystem: Invalid mate point code.
521 = For an unequipped subsystem: Invalid address to receive management indications.
522 = For an equipped subsystem: Invalid address to receive signaling messages, or invalid address to receive management indications.
523 = For an equipped subsystem: The address to receive signaling messages or the address to receive management indications is an RPC.
524 = For an equipped subsystem: The address to receive signaling messages or the address to receive management indications should be an equipped CCS7 link.
525 = For a simplex subsystem: Should have a null mate subsystem number.
526 = For a simplex subsystem: Should have a null mate point code.
527 = For a duplex subsystem: Invalid mate subsystem number.
528 = For a duplex subsystem: Invalid mate point code.
529 = For a subsystem which is not equipped by default: Invalid outgoing local function index.
530 = For an unequipped subsystem: Invalid outgoing local function index.
531 = Subsystem manager has an invalid field.
532 = Invalid version numbers on disk files.
600 = Read error encountered with the permanent relations disk file.
601 = Unable to open the permanent relations disk file.
602 = The other clock node does not appear in the permanent relations table.
603 = The permanent relations table should be empty.

604 = Even home STP missing from the permanent relations table.
605 = Odd home STP missing from the permanent relations table.
606 = Mated point code and subsystem(s) missing from the permanent relations table.
607 = Multiple appearances of a point code in the permanent relations table.
608 = Permanent relations table or disk contain embedded zeros within the table.
609 = Subsystem(s) associated with the point code from disk does not match the subsystem(s) from the AM.
610 = Point code on disk does not match point code in AM.
611 = Subsystem(s) associated with the point code from the AM does not match the subsystem(s) on disk.
612 = Point code in AM does not match point code on disk.
613 = Network identifier of the point code out of range.
614 = Invalid version number on disk file.

e = Text string describing the error encountered.

4. ACTION TO BE TAKEN

If "d" =	Action to be taken is:
100, 101, 121, 122	The audit is having difficulty in opening and/or reading the office data disk file. This will be corrected during the audit by creating a new disk file and populating it with the data in the AM. Re-run the audit to verify that this condition no longer exists.
102, 105, 107, 110, 114, 123	The data on disk does not match the data in the AM. If the data in the AM is correct, then doing a recent change that copies AM to disk will remedy the problem. If, however, the disk version is correct, then the data in the AM must be changed using an office data recent change.
103, 106, 108, 111, 112, 115, 124, 125, 126	One of the data items is invalid. These can be corrected by doing a recent change of the office data and modifying the data item in question.
104, 109, 113	These are discrepancies between the office data and the link data. If the link data is in error, then doing link data recent changes on the appropriate links should clear up the problems. If, however, the office data is wrong, then a recent change of the office data can be done to modify the item(s) in error.
119	The audit is having difficulty in creating or writing the new office data disk file. The audit should be re-run and if the error message appears again, the user should consult the system administrator to find out the cause of the error.
120	The version number on the disk does not match the version number the audit expects. The user should check whether the disk file was retrofitted or whether it is in the proper format.
200, 201	Problems were encountered in opening/reading the link data disk file. These will be corrected in the audit by creating a new file and populating it based on the data in the AM. Re-run the audit to ensure that this condition no longer exists.
202	A link data disk file exists for a RPC. This can be verified by going into the /database/cni/lndata (using the *UNIX*® shell) directory and looking for a ln00-00 file. If this file exists, call you local support organization and inform them you have invalid CNI database file.
203	If the disk file is not needed, remove it. If, however, this link is supposed to have data, then do a link data recent change and add appropriate information (the old disk file will be over-written with the new data).
204-218, 220, 222-227, or 229-234, 242	There are some invalid data items in the link data. Correct by doing a link data recent change and modifying the appropriate field.

221	Available CCS6 links must have a logical link assigned if the logical/physical tables are to be used. Assign the SLK using a logical/physical recent change.
235	The data in the AM does not match the data on disk. If the data in the AM is deemed correct, then do a recent change that copies the AM to disk. If, however, the data on disk is correct, then do a link data recent change and modify the appropriate fields.
236	Links going to the same far-end function have inconsistent data. The link(s) that are incorrect can be fixed using a link data recent change.
237	Certain items stored in the link data do not appear on the recent change (RC) form because these items can be derived based on the speed of the link. If these items should become inconsistent with the current speed of the link, then doing a link data recent change without really changing anything should cause the items to be derived correctly.
239	While scanning through the link data, a linkset relation table will be generated. If the current linkset relation table does NOT match the table just generated, then the existing table will be corrected accordingly. Running the audit again will verify that the table was indeed updated correctly.
240	There are files in the link data directory that do not fit the 'lnXX-X' format. Inspect and correct these files accordingly.
241	Correct these errors by doing a recent change that copies the logical/physical tables to disk. When the logical/physical tables are updated on disk, the virtual link (VL) assignments in the link data will be updated at the same time.
249	Correct these errors by doing a recent change that copies the logical/physical tables to disk. When the logical/physical tables are updated on disk, the VL assignments in the link data will be updated at the same time.
301, 302, 303, 304	These errors indicate problems in opening/reading the disk files associated with the logical/physical translation tables. These will be corrected in the audit by creating a new disk file and populating it based on the data in the AM. Re-run the audit in order to ensure that this condition no longer exists.
307, 308, 309, 310, 311, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 324, 325, 326, 327, 328	These errors are not corrected. User should do recent change to remove the incorrect entry, and another recent change to add the logical-to-physical and physical-to-logical data.
329	The version number on the disk does not match the version number the audit expects. The user should check whether the disk file was retrofitted or whether it is in the proper format.
400, 401, 402, 403, 404, 405	These errors will be corrected during the audit. A new disk file will be created and populated from the table in the AM computer. Re-running the audit will verify that this condition no longer exists.
406, 410, 420, 422, 423, 427	The data in the AM computer does not match the data on disk. If the AM computer is correct, then do a recent change that copies the AM computer to disk. If however, the disk is correct, do a recent change which updates the tables with the correct data.
407, 421	Invalid data in the cluster/member table can be corrected by doing a recent change that updates the tables that the correct data.
408	This error represents a problem with the linkset that appears in either the cluster or member table. The linkset should be changed to a valid linkset.
412, 413	These errors represent problems with a link that appears in either the cluster or member table. In either case, the link should be changed to a valid link.
414, 415	These errors are discrepancies between the cluster/member table and the link data. They can be corrected by either changing the link data (must be a CCS7 AVL link with the correct point code) or the link specified in the cluster/member table can be changed to a more appropriate link.
416	This error indicates that a point code is using RNA routing when it should be using linkset routing. To correct this, the routing can be changed from RNA to linkset or the extraneous links on the linkset may be removed.

417, 424	Delete the routing information with a recent change which updates the tables.
418	Correct mismatch by doing a recent change that copies the AM memory to disk. If the audit is rerun, the mismatch will no longer exist; there probably will be either a 425 or 428 error.
419	This error is corrected during the audit by finding the appropriate index for this cluster.
425	Delete the cluster and add it back.
426	This error will always occur with a 428. The correction made with the 428 error will also correct this problem.
428	This error is corrected during the audit in the following way. If the member index 'x' has point code 'B' but 'B' is either not a populated cluster or it has an index other than 'x', and if there is a point code 'A' that has index 'x', 'x' will be updated to used point code 'A'. If however, there is no point code using 'x', 'x' will be marked unused.
429	This error is corrected during the audit by marking the member as unused.
430	This error is corrected during the audit by updating the cNmem_cls entry appropriately.
500-503	This error is corrected during the audit. A new disk file will be created and populated from the table in the AM. Re-running the audit will verify that the condition no longer exists.
504	Error messages of this type reflect the fact that the data in the AM does not match the data on disk. If the data in the AM is deemed correct, then do a recent change that copies AM to disk. If however, the data on disk is correct, then do a subsystem information recent change and modify the appropriate fields.
505	Certain subsystems must be equipped by default. The "equipped indicator" does not appear on the RC form, but is handled automatically. This error is corrected by doing a "define subsystem information" recent change, followed by a recent change that copies AM to disk. The "equipped indicator" will be set automatically.
506	The "equipped indicator" does not appear on the RC form, but is handled automatically. This error is corrected by doing a "define subsystem information" or "delete subsystem information" recent change, followed by a recent change that copies AM to disk. The "equipped indicator" will automatically be set or cleared appropriately.
507-512, 522-529	These error messages all indicate that there is some invalid data items for an equipped subsystem. These can all be corrected by doing a "define subsystem information" recent change which modifies the appropriate field(s), followed by a recent change that copies AM to disk.
513-521, 530	These error messages all indicate that there is some invalid data items for an unequipped subsystem. These errors are corrected during the audit. The invalid data items are replaced by the proper default data items for an unequipped subsystem. Re-running the audit will verify that the condition no longer exists.
531	This error message indicates that there is an invalid field for the subsystem manager. This error is corrected during the audit. The invalid fields are replaced by the proper default values for subsystem manager and the table entry is copied from the AM to disk. Re-running the audit will verify that the condition no longer exists.
532	The version number on the disk does not match the version number the audit expects. The user should check whether the file was retrofitted or whether it is in the proper format.
600, 601	These errors indicate problems in opening/reading the disk file associated with the permanent relations table. These will be corrected in the audit by creating a new disk file and populating it based on the data in the AM. Re-run the audit to verify that this condition no longer exists.
602	These errors indicate that the office is one of the clock nodes, but a

	permanent relations has not been established with the other clock node. The audit will automatically add the clock node to the permanent relations table if this situation exists.
603	Invalid data was detected in the permanent relations table, the audit automatically clears it by zeroing out the contents. This error is only detected in a signal transfer point (STP) that is not a clock node.
604, 605	Even/odd home STPs are missing from the permanent relations table. Once detected, the audit automatically adds them to the existing table.
606	A permanent relation should be established with each mated subsystem. If the relation does not exist, the audit automatically adds it.
607	The permanent relations table contains multiple occurrences of the same point code. The audit automatically replaces the excess point code(s) with zeros to prevent their duplication.
608	This error indicates that the permanent relations table and disk copy contain embedded zeros. The audit automatically moves the empty slots to the bottom creating a proper dense list.
609	The subsystem numbers associated with a point code on disk do not match the subsystem numbers in the AM. If the subsystems that are in the AM are correct, then do a RC to copy AM to disk. If the disk file is correct, then do a RC to add the subsystems to the AM.
610	The disk point code does not match any of the point code in the AM. This can be corrected by adding the point code to the AM with a RC, or copying from AM to disk.
611	The subsystem numbers associated with a point code in the AM do not match the subsystem numbers on disk. If the subsystems that are in the disk are correct, then do an RC to copy disk to AM. If the AM file is correct, then do an RC to add the subsystems to disk.
612	The AM point code does not match any of the point codes on disk. Corrections are done by removing the point code from the AM by means of an RC, or with an RC to copy AM to disk.
613	Network identifier of the point code out of range.
614	Invalid version number on disk file.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
AUD:LKBDST
```

Output Message(s):

```
AUD:ENV-NIDATA01
AUD:ENV-NIDATA02
AUD:ENV-NIDATA03
AUD:ENV-NIDATA04
AUD:ENV-NIDATA05
AUD:ENV-NIDATA06
```

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-118-25x *Recent Change Procedures*

235-118-25x *Recent Change Reference*

235-600-400 *Audits*

AUD:ENV-NIDATA1-A

Software Release: 5E10 only
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      AUD ENV=RTR NIDATA 1 COMPLETED
        a ERRORS FOUND
        b ERRORS CORRECTED

[2]   ____________________________________________________________
      AUD ENV=RTR NIDATA 1 STOPPED

[3]   ____________________________________________________________
      AUD ENV=RTR NIDATA 1 ABORTED CODE c

[4]   ____________________________________________________________
      AUD ENV=RTR NIDATA 1 ERROR d REPORT
        DATA 1 H'00000000     DATA 2 H'00000000
        DATA 3 H'00000000     DATA 4 H'00000000
        SUPPLEMENTARY DATA FILE
        e
```

2. REASON FOR OUTPUT

To report any errors encountered while auditing the office identification data so that the appropriate action can be taken to correct the table(s).

Format 1 is printed when the audit completed, and indicates the number of errors found and corrected.

Format 2 is printed when the audit has stopped before its completion.

Format 3 is printed because audit failed (variable 'c').

Format 4 is printed when the audit is having trouble completing (variables 'd' and 'e').

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Valid value(s):

- 3 = Audit was aborted without completing its work.
- 4 = Audit was faulted while correcting errors.
- 5 = System integrity monitor (SIM) could not start or dispatch the audit.
- 6 = An error was encountered in the audit control/audit library interface.
- 7 = Audit exceeded its timeout or segment limit.
- 8 = SIM aborted an executing routine audit because of a blocking request.
- 9 = Transient process that was running the process terminated.
- 10 = A segmented audit exceeded an error threshold.

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11 = An audit was blocking a needed demand audit.
12 = Audit rejected a request to run from SIM.
13 = SIM aborted audit, audit subsystem was reinitialized.

d = Error code. Valid value(s):
100 = Unable to open the office data disk file.
101 = Read error encountered with the office data disk file.
102 = The local CLLI code on disk does not match the administrative module (AM) copy.
103 = Invalid local CLLI code.
104 = Links cannot use the local CLLI code.
105 = The region number on disk does not match the AM copy.
106 = Invalid region number.
107 = The function number on disk does not match the AM copy.
108 = Invalid function number.
109 = Links cannot use the local function number as their far-end function number.
110 = The point code on disk does not match the AM copy.
111 = Invalid point code.
112 = The region number contained in the point code does not match the local region number.
113 = Links cannot use the local point code as their far-end point code.
114 = The link integrity status (LIS) destination on disk does not match the AM copy.
115 = Invalid LIS destination.
119 = Cannot write or create the office data disk file.
120 = Invalid version number on disk file.
121 = Unable to open the link set to multiple point code disk file.
122 = Read error encountered with the link set to multiple point code data disk.
123 = The point code on disk does not match AM copy.
124 = Invalid point code in the link set to multiple point code table.
125 = Up to 8 different point codes are allowed in the link set to multiple point code table.
126 = At least one of the point codes in the table should be equal to a local point code from the office data disk file.
127 = The signal transfer point (STP) indicator flag is not 0.
128 = The *ANSI*® standard point code flag on disk does not match the AM copy.
129 = The *ANSI*® standard point code flag is invalid.
130 = The critical event throttling parameter "ce_num" on disk does not match the AM copy.
131 = The critical event throttling parameter "ce_num" is out of range.
132 = The critical event throttling parameter "ce_time" on disk does not match the AM copy.
133 = The critical event throttling parameter "ce_time" is out of range.
134 = The signaling route set test low priority timer "Srs_low_timer" on disk does not match the AM copy.
135 = The signaling route set test low priority timer "Srs_low_timer" is out of range.
136 = The signaling route set test low priority timer "Srs_low_timer" is not a multiple of 30.

e = Text string describing the error encountered.

4. ACTION TO BE TAKEN

If "d" =	Action to be taken is:
100, 101, 121, 122	The audit is having difficulty in opening and/or reading the office or link set to multiple point code data disk file. This will be corrected during the audit by creating a new disk file and populating it with the data in the AM. Re-run the audit to verify that this condition no longer exists.
102, 105, 107, 110, 114, 123	The data on disk does not match the data in the AM. If the data in the AM is correct, then doing a recent change that copies AM to disk will remedy the problem. If, however, the disk version is correct, then the data in the AM must be changed using an office data or link set multiple point code data recent change.
103, 106, 108, 111, 112, 115, 124, 125, 126	One of the data items is invalid. These can be corrected by doing a recent change of the office data or link set to multiple point code data and modifying the data item in question.
104, 109, 113	These are discrepancies between the office data and the link data. If the link data is in error, then doing link data recent changes on the appropriate links should clear up the problems. If, however, the office data is wrong, then a recent change of the office data can be done to modify the item(s) in error.
119	The audit is having difficulty in creating or writing the new office data disk file. The audit should be re-run and if the error message appears again, the user should consult with his system administrator to find out the cause of the error.
120	The version number on the disk does not match the version number the audit expects. The user should check whether the disk file was retrofitted or whether it is in the proper format.
127	The STP indicator flag is not 0. The value 0 indicates that the office is not an STP. This can be corrected by performing a common network interface (CNI) level 3 initialization.
128, 129	The *ANSI*® standard point code flag is invalid. If the flag in the AM is correct, then doing a recent change that copies AM office data to disk will remedy the problem. If the flag in the AM is not correct, then use cnidboc's "U" option for office data to change the flag, cDstdpc, to the correct value. A value of 0 means that the office has the AT&T point code format. A value of 1 means that the office has the *ANSI*® point code format. After correcting the AM flag, perform a recent change that copies AM office data to disk.
130, 132, 134	These errors indicate that the data on disk does not match the data in the AM. If the data in the AM is correct, then doing a recent change that copies AM to disk will remedy the problem. If the disk version is correct, then the data in the AM must be changed using an office data recent change.
131, 133, 135, 136	These errors indicate that one of the data items is out of range. These can be corrected by doing a recent change of the office data and modifying the data item in question.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
AUD:NIDATA
```

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-118-25x *Recent Change Procedures*

235-118-25x *Recent Change Reference*

235-190-120 *Common Channel Signaling Services*

235-600-400 *Audits*

AUD:ENV-NIDATA1-B

Software Release: 5E11 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      AUD ENV=RTR NIDATA 1 COMPLETED
        a ERRORS FOUND
        b ERRORS CORRECTED

[2]   ____________________________________________________________
      AUD ENV=RTR NIDATA 1 STOPPED

[3]   ____________________________________________________________
      AUD ENV=RTR NIDATA 1 ABORTED CODE c

[4]   ____________________________________________________________
      AUD ENV=RTR NIDATA 1 ERROR d REPORT
        DATA 1 H'00000000     DATA 2 H'00000000
        DATA 3 H'00000000     DATA 4 H'00000000
        SUPPLEMENTARY DATA FILE
        e
```

2. REASON FOR OUTPUT

To report any errors encountered while auditing the office identification data so that the appropriate action can be taken to correct the table(s).

Format 1 is printed when the audit completed, and indicates the number of errors found and corrected.

Format 2 is printed when the audit has stopped before its completion.

Format 3 is printed because audit failed. Refer to variable 'c' for explanation.

Format 4 is printed when the audit is having trouble completing. Refer to fields 'd' and 'e' for explanations.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Valid value(s):

- 3 = Audit was aborted without completing its work.
- 4 = Audit was faulted while correcting errors.
- 5 = System integrity monitor (SIM) could not start or dispatch the audit.
- 6 = An error was encountered in the audit control/audit library interface.
- 7 = Audit exceeded its timeout or segment limit.
- 8 = SIM aborted an executing routine audit because of a blocking request.
- 9 = Transient process that was running the process terminated.
- 10 = A segmented audit exceeded an error threshold.

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11 = An audit was blocking a needed demand audit.
12 = Audit rejected a request to run from SIM.
13 = SIM aborted audit, audit subsystem was reinitialized.

d = Error code. Valid value(s):
100 = Unable to open the office data disk file.
101 = Read error encountered with the office data disk file.
102 = The local CLLI code on disk does not match the administrative module (AM) copy.
103 = Invalid local CLLI code.
104 = Links cannot use the local CLLI code.
105 = The region number on disk does not match the AM copy.
106 = Invalid region number.
107 = The function number on disk does not match the AM copy.
108 = Invalid function number.
109 = Links cannot use the local function number as their far-end function number.
110 = The point code on disk does not match the AM copy.
111 = Invalid point code.
112 = The region number contained in the point code does not match the local region number.
113 = Links cannot use the local point code as their far-end point code.
119 = Cannot write or create the office data disk file.
120 = Invalid version number on disk file.
127 = The signal transfer point (STP) indicator flag is not 0.
128 = The *ANSI*® standard point code flag on disk does not match the AM copy.
129 = The *ANSI*® standard point code flag is invalid.
130 = The critical event throttling parameter "ce_num" on disk does not match the AM copy.
131 = The critical event throttling parameter "ce_num" is out of range.
132 = The critical event throttling parameter "ce_time" on disk does not match the AM copy.
133 = The critical event throttling parameter "ce_time" is out of range.
134 = The signaling route set test low priority timer "Srs_low_timer" on disk does not match the AM copy.
135 = The signaling route set test low priority timer "Srs_low_timer" is out of range.
136 = The signaling route set test low priority timer "Srs_low_timer" is not a multiple of 30.
137 = The MTP restart ON/OFF value on disk does not match the AM copy.
138 = The MTP restart ON/OFF value is invalid.
139 = The feature status value on disk does not match the AM memory copy.
140 = An unused bit of the secured feature status value should be 0 instead of 1.

e = Text string describing the error encountered.

4. ACTION TO BE TAKEN

If "d" =	Action to be taken is:
100, 101	The audit is having difficulty in opening and/or reading the office or link set to multiple point code data disk file. This will be corrected during the audit by creating a new disk file and populating it with the data in the AM. Re-run the audit to verify that this condition no longer

	exists.
102, 105, 107, 110	The data on disk does not match the data in the AM. If the data in the AM is correct, then doing a recent change that copies AM to disk will remedy the problem. If, however, the disk version is correct, then the data in the AM must be changed using an office data or link set multiple point code data recent change.
103, 106, 108, 111, 112	One of the data items is invalid. These can be corrected by doing a recent change of the office data or link set to multiple point code data and modifying the data item in question.
104, 109, 113	These are discrepancies between the office data and the link data. If the link data is in error, then doing link data recent changes on the appropriate links should clear up the problems. If, however, the office data is wrong, then a recent change of the office data can be done to modify the item(s) in error.
119	The audit is having difficulty in creating or writing the new office data disk file. The audit should be re-run and if the error message appears again, the user should consult with his system administrator to find out the cause of the error.
120	The version number on the disk does not match the version number the audit expects. The user should check whether the disk file was retrofitted or whether it is in the proper format.
127	The STP indicator flag is not 0. The value 0 indicates that the office is not an STP. This can be corrected by performing a common network interface (CNI) level 3 initialization.
128, 129	The *ANSI*® standard point code flag is invalid. If the flag in the AM is correct, then doing a recent change that copies AM office data to disk will remedy the problem. If the flag in the AM is not correct, then use cnidboc's "U" option for office data to change the flag, cDstdpc, to the correct value. A value of 0 means that the office has the AT&T point code format. A value of 1 means that the office has the *ANSI*® point code format. After correcting the AM flag, perform a recent change that copies AM office data to disk.
130, 132, 134, 137, 139	These errors indicate that the data on disk does not match the data in the AM. If the data in the AM is correct, then doing a recent change that copies AM to disk will remedy the problem. If the disk version is correct, then the data in the AM must be changed using an office data recent change.
131, 133, 135, 136, 138, 140	These errors indicate that one of the data items is out of range. These can be corrected by doing a recent change of the office data and modifying the data item in question.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
AUD:NIDATA
```

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-118-25x *Recent Change Procedures*

235-118-25x *Recent Change Reference*

235-190-120 *Common Channel Signaling Services*

235-600-400 *Audits*

AUD:ENV-NIDATA2-A

Software Release: 5E10 - 5E11
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

[1]
```
AUD ENV=RTR NIDATA 2 COMPLETED
  a ERRORS FOUND
  b ERRORS CORRECTED
```

[2]
```
AUD ENV=RTR NIDATA 2 STOPPED
```

[3]
```
AUD ENV=RTR NIDATA 2 ABORTED CODE c
```

[4]
```
AUD ENV=RTR NIDATA 2 ERROR d REPORT
  DATA 1 H'00000000     DATA 2 H'00000000
  DATA 3 H'00000000     DATA 4 H'00000000
  SUPPLEMENTARY DATA FILE
  e
```

2. REASON FOR OUTPUT

To report errors encountered while auditing the link data tables so that appropriate action can be taken to correct the table(s).

Format 1 is printed when the audit completed, and indicates the number of errors found and corrected. Format 2 is printed when the audit has stopped before its completion. Format 3 is printed because audit failed (variable 'c'). Format 4 is printed when the audit is having trouble completing (variables 'd' and 'e').

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Valid value(s):

- 3 = Audit was aborted without completing its work.
- 4 = Audit was faulted while correcting errors.
- 5 = The system integrity monitor (SIM) could not start or dispatch the audit.
- 6 = An error was encountered in the audit control/audit library interface.
- 7 = Audit exceeded its timeout or segment limit.
- 8 = SIM aborted an executing routine audit because of a blocking request.
- 9 = Transient process that was running the process terminated.
- 10 = A segmented audit exceeded an error threshold.
- 11 = An audit was blocking a needed demand audit.
- 12 = Audit rejected a request to run from SIM.
- 13 = SIM aborted audit, audit subsystem was reinitialized.

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d = Error code. Valid value(s):

- 200 = Unable to open the link data disk file.
- 201 = Read error encountered in the link data disk file.
- 202 = Link data exists for an ring process controller (RPC).
- 203 = Disk file exists but no data in the administrative module (AM).
- 204 = Invalid protocol.
- 205 = Invalid encryption field.
- 206 = Invalid link type.
- 207 = Invalid far-end signal transfer point (STP).
- 208 = Inappropriate synchronized signal unit (SYU) code.
- 209 = Inappropriate break-in.
- 210 = Invalid combined link set.
- 211 = Invalid mate link.
- 212 = Mate link is a RPC.
- 213 = Invalid mate relationship.
- 214 = Mate links are going to same far-end STP.
- 215 = Invalid CLLI code (first 6 characters or last 5 characters).
- 216 = A/E/B/D-link has local/mate CLLI code.
- 217 = A/E/B/D-link has an invalid far-end function.
- 218 = A/E/B/D-link has local/mate function.
- 219 = Invalid major state.
- 220 = Available links cannot be self-looped.
- 221 = Available CCS6 links must have signaling links (SLK)s assigned.
- 222 = Invalid speed (does not match protocol).
- 223 = Invalid voice frequency link (VFL) field.
- 224 = Invalid voice access test (VAT) quadrant.
- 225 = B/D-link has an invalid far-end region.
- 226 = Invalid pool number.
- 227 = No pool but there is a combined pool.
- 228 = The pool-link table is not consistent with the link data.
- 229 = Invalid layer number.
- 230 = Invalid signaling link code.
- 231 = Invalid link set.
- 232 = No link set but there is a combined link set.
- 233 = A/E/B/D-link has an invalid far-end point code.
- 234 = A/E/B/D-link has local/mate point code.
- 235 = The link data in the AM does not match the copy on disk.
- 236 = Links going to the same destination needed to have consistent data.
- 237 = The derived data items are incorrect.
- 238 = The linkset-link table is not consistent with the link data.
- 239 = The linkset relation table is not consistent with the link data.
- 240 = There are files in the link data directory which do not conform to the naming convention.
- 241 = The virtual link (VL) assignments as shown in the link data do not match the logical/physical tables.
- 242 = Mate link should be a CCS link.
- 243 = For special access data channel (SADC) node, facility access type (FACIL) must be MODEM.
- 244 = Invalid LI4 equipage.
- 245 = Invalid mate link field.
- 246 = Invalid link speed.

247 = Invalid link facility ID.
248 = Invalid circuit identification number (CIN).
249 = Invalid user.
250 = Invalid ring node address (RNA) or RNA out of range.
251 = For SADC node with MODEM facility, TCN (T1FA control node) field must be unassigned.
252 = Invalid version number on disk file.
253 = Invalid mate link major field.
254 = Mated D-channel (DCHN) link should not be in the same node.
255 = Inconsistent primary/secondary field and mate link field.
256 = Invalid logical link ID (LACID).
257 = LACID provisioned for link does not match the LACID provisioned on the mate link.
258 = Mate link must be SECONDARY, since link is provisioned as PRIMARY.
259 = Mate link must be PRIMARY, since link is provisioned as SECONDARY.
260 = Invalid primary/secondary field.
261 = Invalid mate link RNA.
262 = Invalid mate link node type.
263 = Invalid facility field.
264 = Invalid medium field (must be SATELLITE or TERRESTRIAL).
265 = Invalid error correction mode (ec_mode) field.
266 = Invalid receive queue (rqlen) and/or transmit queue (xqlen) fields.
267 = Invalid congestion onset threshold field.
268 = Invalid congestion abatement threshold field.
269 = Invalid normal alignment error rate monitor (AERM) signal unit (SU) error rate threshold (tin_val) field.
270 = Invalid emergency AERM SU error rate threshold (tie_val) field.
271 = Invalid ts_val field.
272 = Invalid re-transmit queue (rxqlen) field.
273 = Invalid screen field.
274 = Invalid far-end region.
275 = Invalid link interface (LI) type field.

e = Text string describing the error encountered.

4. ACTION TO BE TAKEN

If 'd' =	Action:
200, 201:	Problems were encountered in opening/reading the link data disk file. These will be corrected in the audit by creating a new file and populating it based on the data in the AM. Re-run the audit to ensure that this condition no longer exists.
202:f1	A link data disk file exists for a RPC. This can be verified by going into the /database/cni/lndata (using the *UNIX*® shell) directory and looking for a ln00-00 file. If this file exists, call you local support organization and inform them you have invalid CNI database file.
203:	If the disk file is not needed, remove it. If, however, this link is supposed to have data, then do a link data recent change and add appropriate information (the old disk file will be over-written with the new data).
204-218, 220, 222-227, or 229-234, 242-251, 253-275:	There are some invalid data items in the link data. Correct by doing a link data recent change and modifying the appropriate field.
221:	Available CCS6 links must have a logical link assigned if the logical/physical tables are to be used. Assign the SLK using a logical/physical add recent change.

235:	The data in the AM does not match the data on disk. If the data in the AM is deemed correct, then do a recent change that copies the AM to disk. If, however, the data on disk is correct, then do a link data recent change and modify the appropriate fields.
236:	Links going to the same far-end function have inconsistent data. The link(s) that are incorrect can be fixed using a link data recent change.
237:	Certain items stored in the link data do not appear on the recent change (RC) form because these items can be derived based on the speed of the link. If these items should become inconsistent with the current speed of the link, then doing a link data recent change without really changing anything should cause the items to be derived correctly.
239:	While scanning through the link data, a linkset relation table will be generated. If the current linkset relation table does NOT match the table just generated, then the existing table will be corrected accordingly. Running the audit again will verify that the table was indeed updated correctly.
240:	There are files in the link data directory that do not fit the 'lnXX-X' format. Inspect and correct these files accordingly.
241:	Correct these errors by doing a recent change that copies the logical/physical tables to disk. When the logical/physical tables are updated on disk, the VL assignments in the link data will be updated at the same time.
249:	This error message indicates that there is an invalid data item in the link data. Doing a link data recent change without changing anything should cause the item to be derived correctly.
252:	The version number on the disk does not match the version number the audit expects. The user should check whether the disk file was retrofitted or whether it is in the proper format.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
AUD:NIDATA
```

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-118-25x *Recent Change Procedures*

235-118-25x *Recent Change Reference*

235-190-120 *Common Channel Signaling Service Features*

235-600-400 *Audits*

AUD:ENV-NIDATA2-B

Software Release: 5E12 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      AUD ENV=RTR NIDATA 2 COMPLETED
        a ERRORS FOUND
        b ERRORS CORRECTED

[2]   ____________________________________________________________________
      AUD ENV=RTR NIDATA 2 STOPPED

[3]   ____________________________________________________________________
      AUD ENV=RTR NIDATA 2 ABORTED CODE c

[4]   ____________________________________________________________________
      AUD ENV=RTR NIDATA 2 ERROR d REPORT
        DATA 1 H'00000000     DATA 2 H'00000000
        DATA 3 H'00000000     DATA 4 H'00000000
        SUPPLEMENTARY DATA FILE
        e
```

2. REASON FOR OUTPUT

To report errors encountered while auditing the link data tables so that appropriate action can be taken to correct the table(s).

Format 1 is printed when the audit completed, and indicates the number of errors found and corrected. Format 2 is printed when the audit has stopped before its completion. Format 3 is printed because audit failed (variable '`c`'). Format 4 is printed when the audit is having trouble completing (variables '`d`' and '`e`').

3. VARIABLE FIELD DEFINITIONS

`a` = Total number of errors found.

`b` = Total number of errors corrected.

`c` = Abort code. Valid value(s):

- `3` = Audit was aborted without completing its work.
- `4` = Audit was faulted while correcting errors.
- `5` = The system integrity monitor (SIM) could not start or dispatch the audit.
- `6` = An error was encountered in the audit control/audit library interface.
- `7` = Audit exceeded its timeout or segment limit.
- `8` = SIM aborted an executing routine audit because of a blocking request.
- `9` = Transient process that was running the process terminated.
- `10` = A segmented audit exceeded an error threshold.
- `11` = An audit was blocking a needed demand audit.
- `12` = Audit rejected a request to run from SIM.
- `13` = SIM aborted audit, audit subsystem was reinitialized.

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d = Error code. Valid value(s):

200 = Unable to open the link data disk file.
201 = Read error encountered in the link data disk file.
202 = Link data exists for an ring process controller (RPC).
203 = Disk file exists but no data in the administrative module (AM).
204 = Invalid protocol.
205 = Invalid encryption field.
206 = Invalid link type.
207 = Invalid far-end signal transfer point (STP).
208 = Inappropriate synchronized signal unit (SYU) code.
209 = Inappropriate break-in.
210 = Invalid combined link set.
211 = Invalid mate link.
212 = Mate link is a RPC.
213 = Invalid mate relationship.
214 = Mate links are going to same far-end STP.
215 = Invalid CLLI code (first 6 characters or last 5 characters).
216 = A/E/F-link has local/mate CLLI code.
217 = A/E/F-link has an invalid far-end function.
218 = A/E/F-link has local/mate function.
219 = Invalid major state.
220 = Available links cannot be self-looped.
221 = Available CCS6 links must have signaling links (SLK)s assigned.
222 = Invalid speed (does not match protocol).
223 = Invalid voice frequency link (VFL) field.
224 = Invalid voice access test (VAT) quadrant.
226 = Invalid pool number.
227 = No pool but there is a combined pool.
228 = The pool-link table is not consistent with the link data.
229 = Invalid layer number.
230 = Invalid signaling link code.
231 = Invalid link set.
232 = No link set but there is a combined link set.
233 = A/E/F-link has an invalid far-end point code.
234 = A/E/F-link has local/mate point code.
235 = The link data in the AM does not match the copy on disk.
236 = Links going to the same destination needed to have consistent data.
237 = The derived data items are incorrect.
238 = The linkset-link table is not consistent with the link data.
239 = The linkset relation table is not consistent with the link data.
240 = There are files in the link data directory which do not conform to the naming convention.
241 = The virtual link (VL) assignments as shown in the link data do not match the logical/physical tables.
242 = Mate link should be a CCS link.
243 = For special access data channel (SADC) node, facility access type (FACIL) must be MODEM.
244 = Invalid LI4 equipage.
245 = Invalid mate link field.
246 = Invalid link speed.
247 = Invalid link facility ID.

248 = Invalid circuit identification number (CIN).
249 = Invalid user.
250 = Invalid ring node address (RNA) or RNA out of range.
251 = For SADC node with MODEM facility, TCN (T1FA control node) field must be unassigned.
252 = Invalid version number on disk file.
253 = Invalid mate link major field.
254 = Mated D-channel (DCHN) link should not be in the same node.
255 = Inconsistent primary/secondary field and mate link field.
256 = Invalid logical link ID (LACID).
257 = LACID provisioned for link does not match the LACID provisioned on the mate link.
258 = Mate link must be SECONDARY, since link is provisioned as PRIMARY.
259 = Mate link must be PRIMARY, since link is provisioned as SECONDARY.
260 = Invalid primary/secondary field.
261 = Invalid mate link RNA.
262 = Invalid mate link node type.
263 = Invalid facility field.
264 = Invalid medium field (must be SATELLITE or TERRESTRIAL).
265 = Invalid error correction mode (ec_mode) field.
266 = Invalid receive queue (rqlen) and/or transmit queue (xqlen) fields.
267 = Invalid congestion onset threshold field.
268 = Invalid congestion abatement threshold field.
269 = Invalid normal alignment error rate monitor (AERM) signal unit (SU) error rate threshold (tin_val) field.
270 = Invalid emergency AERM SU error rate threshold (tie_val) field.
271 = Invalid ts_val field.
272 = Invalid re-transmit queue (rxqlen) field.
273 = Invalid screen field.
274 = Invalid far-end region.
275 = Invalid link interface (LI) type field.

e = Text string describing the error encountered.

4. ACTION TO BE TAKEN

If 'd' =	Action:
200, 201:	Problems were encountered in opening/reading the link data disk file. These will be corrected in the audit by creating a new file and populating it based on the data in the AM. Re-run the audit to ensure that this condition no longer exists.
202:	A link data disk file exists for a RPC. This can be verified by going into the /database/cni/lndata (using the *UNIX*® shell) directory and looking for a ln00-00 file. If this file exists, call you local support organization and inform them you have invalid CNI database file.
203:	If the disk file is not needed, remove it. If, however, this link is supposed to have data, then do a link data recent change and add appropriate information (the old disk file will be over-written with the new data).
204-218, 220, 222-227, or 229-234, 242-251, 253-275:	There are some invalid data items in the link data. Correct by doing a link data recent change and modifying the appropriate field.
221:	Available CCS6 links must have a logical link assigned if the logical/physical tables are to be used. Assign the SLK using a logical/physical add recent change.
235:	The data in the AM does not match the data on disk. If the data in the AM is deemed correct, then

	do a recent change that copies the AM to disk. If, however, the data on disk is correct, then do a link data recent change and modify the appropriate fields.
236:	Links going to the same far-end function have inconsistent data. The link(s) that are incorrect can be fixed using a link data recent change.
237:	Certain items stored in the link data do not appear on the recent change (RC) form because these items can be derived based on the speed of the link. If these items should become inconsistent with the current speed of the link, then doing a link data recent change without really changing anything should cause the items to be derived correctly.
239:	While scanning through the link data, a linkset relation table will be generated. If the current linkset relation table does NOT match the table just generated, then the existing table will be corrected accordingly. Running the audit again will verify that the table was indeed updated correctly.
240:	There are files in the link data directory that do not fit the 'lnXX-X' format. Inspect and correct these files accordingly.
241:	Correct these errors by doing a recent change that copies the logical/physical tables to disk. When the logical/physical tables are updated on disk, the VL assignments in the link data will be updated at the same time.
249:	This error message indicates that there is an invalid data item in the link data. Doing a link data recent change without changing anything should cause the item to be derived correctly.
252:	The version number on the disk does not match the version number the audit expects. The user should check whether the disk file was retrofitted or whether it is in the proper format.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
AUD:NIDATA
```

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-118-25x *Recent Change Procedures*

235-118-25x *Recent Change Reference*

235-190-120 *Common Channel Signaling Services*

235-600-400 *Audits*

AUD:ENV-NIDATA3

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      AUD ENV=RTR NIDATA 3 COMPLETED
        a ERRORS FOUND
        b ERRORS CORRECTED

[2]   ____________________________________________________________
      AUD ENV=RTR NIDATA 3 STOPPED

[3]   ____________________________________________________________
      AUD ENV=RTR NIDATA 3 ABORTED CODE c

[4]   ____________________________________________________________
      AUD ENV=RTR NIDATA 3 ERROR d REPORT
        DATA 1 H'00000000     DATA 2 H'00000000
        DATA 3 H'00000000     DATA 4 H'00000000
        SUPPLEMENTARY DATA FILE
        e
```

2. REASON FOR OUTPUT

To report any errors encountered while auditing the logical/physical translation data so that the appropriate action can be taken to correct the table(s).

Format 1 is printed when the audit completed and indicates the number of errors found and corrected.

Format 2 is printed when the audit stopped before its completion.

Format 3 is printed because audit failed (variable 'c').

Format 4 is printed when the audit had trouble completing (variables 'd' and 'e').

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of error corrected.

c = Abort code. Valid value(s):

- 3 = Audit was aborted without completing its work.
- 4 = Audit was faulted while correcting errors.
- 5 = The system integrity monitor (SIM) could not start or dispatch the audit.
- 6 = An error was encountered in the audit control/audit library interface.
- 7 = Audit exceeded its timeout or segment limit.
- 8 = SIM aborted an executing routine audit because of a blocking request.
- 9 = Transient process that was running the process terminated.
- 10 = A segmented audit exceeded an error threshold.

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11 = An audit was blocking a needed demand audit.
12 = Audit rejected a request to run from SIM.
13 = SIM aborted audit, audit subsystem was reinitialized.

d = Error code. Valid value(s):
300 = The user has not provided these tables to the common network interface (CNI).
301 = Open/read error encountered with the lxp_tab disk file.
302 = Open/read error encountered with the px1_tab disk file.
303 = Open/read error encountered with the vl_tab disk file.
304 = Open/read error encountered with the ln7slots disk file.
305 = The logical/physical data on disk does not match the administrative module (AM) copy.
306 = The logical/physical data on disk does not match the AM copy.
307 = All Common Channel Signaling System 6 (CCS6) links in the available (AVL) major state must have a signaling link (SLK) assigned.
308 = A link has an SLK assigned but there is no link data for the link.
309 = Logical/physical table indicates that the link is Common Channel Signaling System 7 (CCS7) but the link data is CCS6.
310 = The index into the virtual link (VL) table is invalid.
311 = A link is using an entry in the virtual link table which is marked as unused.
312 = The VL data on disk does not match the AM copy.
313 = A link is using an invalid SLK.
314 = A ring node address (RNA)/VL translates to an SLK but the reverse translation does not hold true.
315 = A CCS7 link has an entry in the VL table but it doesn't have any VLs assigned.
316 = Logical/physical table indicates that the link is CCS6 but the link data is CCS7.
317 = An SLK translates to an invalid RNA/VL.
318 = An SLK translates to a link which is unequipped (that is, no link data).
319 = An SLK translates to an CCS6 link but the virtual link is not 0.
320 = An SLK translates to an RNA/VL but the reverse translation does not hold true.
321 = An SLK translates to a CCS7 link but has no index into virtual link table.
322 = An SLK translates to a CCS7 link but the virtual link is invalid.
323 = The ln7slots data on disk does not match the AM copy.
324 = Invalid value in the ln7slots table.
325 = A virtual link entry is marked used but no link is using this entry.
326 = A virtual link entry is marked unused but there is a virtual link assigned.
327 = The virtual link assignments in the logical/physical tables are inconsistent with the link data.
328 = An SLK translates to a link that is equipped but is not a CCS link.
329 = Invalid version numbers on disk files.

e = Text string describing the error encountered.

4. ACTION TO BE TAKEN

If 'd' =	Action:
301, 302, 303, 304	These errors indicate problems in opening/reading the disk files associated with the logical/physical translation tables. These will be corrected in the audit by creating a new disk file and populating it based on the data in the AM. Re-run the audit in order to ensure that this condition no longer exists.

305, 306, 312, 323	The data in the AM does not match the data on disk. If the AM is correct, then do a recent change that copies the AM to disk. If however, the disk is correct, do a recent change which updates the tables with the correct data.
307, 308, 309, 310, 311, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 324, 325, 326, 327, 328	These errors are not corrected. User should do recent change to remove the incorrect entry, and another recent change to add the logical-to-physical and physical-to-logical data.
329	The version number on the disk does not match the version number the audit expects. The user should check whether the disk file was retrofitted or whether it is in the proper format.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
AUD:NIDATA
```

AUD:ENV-NIDATA4

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      AUD ENV=RTR NIDATA 4 COMPLETED
        a ERRORS FOUND
        b ERRORS CORRECTED

[2]   ____________________________________________________________
      AUD ENV=RTR NIDATA 4 STOPPED

[3]   ____________________________________________________________
      AUD ENV=RTR NIDATA 4 ABORTED CODE c

[4]   ____________________________________________________________
      AUD ENV=RTR NIDATA 4 ERROR d REPORT
        DATA 1 H'00000000     DATA 2 H'00000000
        DATA 3 H'00000000     DATA 4 H'00000000
        SUPPLEMENTARY DATA FILE
        e
```

2. REASON FOR OUTPUT

To report any errors encountered while auditing the common channel signaling system 7 (CCS7) routing data so that the appropriate action can be taken to correct the table(s).

Format 1 is printed when the audit completed and indicates the number of errors found and corrected.

Format 2 is printed when the audit stopped before its completion.

Format 3 is printed because audit failed. Refer to variable 'c' for explanation.

Format 4 is printed when the audit had trouble completing. Refer to variables 'd' and 'e' for reasons why.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Valid value(s):

- 3 = Audit was aborted without completing its work.
- 4 = Audit was faulted while correcting errors.
- 5 = System integrity monitor (SIM) could not start or dispatch the audit.
- 6 = An error was encountered in the audit control/audit library interface.
- 7 = Audit exceeded its timeout or segment limit.
- 8 = SIM aborted an executing routine audit because of a blocking request.
- 9 = Name of the transient process that was running the process terminated.
- 10 = A segmented audit exceeded an error threshold.

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11 = An audit was blocking a needed demand audit.
12 = Audit rejected a request to run from SIM.
13 = SIM aborted audit, audit subsystem was reinitialized.

d = Error code. Valid value(s):
400 = Unable to open the ccs7_pc routing data disk file.
401 = Unable to open the rtg_patterns data disk file.
402 = Read error was encountered with the ccs7_pc routing data disk file.
403 = Read error was encountered with the rtg_patterns data disk file.
404 = Invalid version number was encountered on disk file.
405 = Data on disk is not in sequential order, NIDATA is attempting to sort the disk file.
406 = Inconsistent prim, alt1, and alt2 routes were encountered between the rtg_patterns table on disk and the routing priority table in the administrative module (AM) memory.
407 = Missing prim, alt1, and alt2 routes were encountered from the rtg_patterns table on disk.
408 = Missing prim, alt1, and alt2 routes were encountered from the routing priority table in the AM.
409 = Invalid items on ccs7_pc disk file. Found duplicate point code and routing flag, but different priority routes and/or director index.
410 = Invalid items on ccs7_pc disk file. Duplicate point code and conflicting routing flag were found.
411 = Fatal errors 409, 410, or 431 were found; NIDATA 4 is terminated.
412 = Invalid prim/alt1/alt2 routes were found on ccs7_pc routing data disk file.
413 = Invalid director index was found on ccs7_pc routing data disk file.
414 = Point code has invalid cluster number on ccs7_pc routing data disk file.
415 = Point code has invalid member number on ccs7_pc routing data disk file.
416 = Prim/alt1/alt2 routes are not active on ccs7_pc routing data disk file.
417 = Local network has invalid director index on ccs7_pc routing data disk file.
418 = Point code with cluster or member flag has no network data on ccs7_pc routing data disk file.
419 = Point code with member flag has no cluster data on ccs7_pc routing data disk file.
420 = Unable to create a new file.
421 = Mismatch between the routing flags on disk and in the AM.
422 = Mismatch between the prim/alt1/alt2 routes on disk and in the AM.
423 = Mismatch between the director index on disk and in the AM.
424 = Missing routing data on ccs7_pc routing data disk file.
425 = Missing routing data in the AM.
426 = Invalid routing flag on ccs7_pc routing data disk file.
428 = Duplicate routing information on ccs7_pc routing data disk file.
429 = Too many error messages, NIDATA 4 terminated.
430 = Unable to write a file.
431 = Not enough room on disk for all the AM routing data while updating the disk from the AM.
432 = Invalid routing flag found in the AM while in the process of updating the disk from the AM.

e = Text string describing the error encountered.

4. ACTION TO BE TAKEN

If 'd' =	Action:
400, 401, 402, 403	These errors are corrected during the audit. A new disk file is created and populated from the table in the AM. Rerunning the audit verifies that the condition no longer exists.
404	The version number on the disk does not match the version number the audit expects. Check whether or not the file was retrofitted. If the file has been retrofitted, then verify the routing data in the AM is correct and do a disk update.
405	This error is not corrected during the audit. The memory buffer that contains the disk data is sorted by point code as the first key and the routing flag as the second key, so that the audit can continue testing. After the audit is complete, do the recent change and update the disk.
406	Audit found a mismatch between the prim/alt1/alt2 routes in the rtg_patterns table on the disk and the routing priority table in the AM. Manually check all the ccs7 point code data in the AM. If any ccs7 point code has an incorrect prim/alt1/alt2, do a recent change to correct the routes for the point codes. Once all the ccs7 point codes in the AM are correct, do a disk update.
407, 408, 424	Audit found missing information during comparison of the disk and the AM. Do a recent change or disk update accordingly. If error 408 is found, run AUD:NMDATA-1 in order to have a complete correction.
409, 410, 412, 413, 414, 415, 416, 417, 418, 419, 426	These errors are found when AUD:NIDATA-4 validates the routing information on disk. The data is invalid. Do the correction by doing recent change on the point code and update the disk. Then rerun AUD:NIDATA-4.
411	Fatal error, the audit terminates. According to the error messages, do the recent change fix and rerun the audit.
420, 430	The audit is having difficulty in creating or writing a new file. It is suggested that the audit be rerun and if the error message appears again, consult with the system administrator to find out the cause of the error.
421, 422, 423	During the comparison of the disk and the AM, the audit found the data in the AM memory does not match the data on the disk. Analyze which data is correct, do the recent change, and update the disk.
425	Verify the routing data on disk is correct, then recent change the missing point code and rerun AUD:NIDATA-4.
428	This error is automatically corrected by deleting the duplicated point code in the routing data table.
429	Too many errors occurred during the audit. It is suggested that all reported errors be fixed and then rerun AUD:NIDATA-4.
431, 432	These errors were found during the disk update from AM memory. Check the data in the AM, make the correction, and rerun AUD:NIDATA-4.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
AUD:NIDATA
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-190-120 *Common Channel Signaling Services*

235-600-400 *Audits Manual*

235-118-25x *Recent Change Procedures Manual*

235-118-25x *Recent Change Reference Manual*

AUD:ENV-NIDATA5

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      AUD ENV=RTR NIDATA 5 COMPLETED
        a ERRORS FOUND
        b ERRORS CORRECTED

[2]   ____________________________________________________________
      AUD ENV=RTR NIDATA 5 STOPPED

[3]   ____________________________________________________________
      AUD ENV=RTR NIDATA 5 ABORTED CODE c

[4]   ____________________________________________________________
      AUD ENV=RTR NIDATA 5 ERROR d REPORT
        DATA 1 H'00000000     DATA 2 H'00000000
        DATA 3 H'00000000     DATA 4 H'00000000
        SUPPLEMENTARY DATA FILE
        e
```

2. REASON FOR OUTPUT

To report any errors encountered while auditing the subsystem information data so that the appropriate action can be taken to correct the table(s).

Format 1 is printed when the audit completed and indicates the number of errors found and corrected.

Format 2 is printed when the audit has stopped before its completion.

Format 3 is printed because audit failed. Refer to parameter '`c`' for explanation.

Format 4 is printed when the audit is having trouble completing (variables '`d`' and '`e`').

3. VARIABLE FIELD DEFINITIONS

`a` = Total number of errors found.

`b` = Total number of errors corrected.

`c` = Abort code. Valid value(s):

- `3` = Audit was aborted without completing its work.
- `4` = Audit was faulted while correcting errors.
- `5` = System integrity monitor (SIM) could not start or dispatch the audit.
- `6` = An error was encountered in the audit control/audit library interface.
- `7` = Audit exceeded its timeout or segment limit.
- `8` = SIM aborted an executing routine audit because of a blocking request.
- `9` = Transient process that was running the process terminated.
- `10` = A segmented audit exceeded an error threshold.

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11 = An audit was blocking a needed demand audit.
12 = Audit rejected a request to run from SIM.
13 = SIM aborted audit, audit subsystem was reinitialized.

d Error code. Valid value(s):
500 = Unable to open the subsystem distribution disk file.
501 = Read error encountered in the subsystem distribution disk file.
502 = Unable to open the local subsystem information disk file.
503 = Read error encountered in the local subsystem information disk file.
504 = The data in the administrative module (AM) does not match the copy on disk.
505 = The subsystem should be equipped.
506 = Invalid equipped indicator.
507 = For an equipped subsystem: Invalid channel to receive signaling messages.
508 = For a subsystem that is equipped by default: Invalid local function index.
509 = For a subsystem that is not equipped by default: Invalid local function index.
510 = For an equipped subsystem: Invalid want pause indicator.
511 = For an equipped subsystem: Invalid channel to receive management indications.
512 = Invalid simplex/duplex indicator.
513 = For an unequipped subsystem: Invalid address to receive signaling messages.
514 = For an unequipped subsystem: Invalid channel to receive signaling messages.
515 = For an unequipped subsystem: Invalid local function index.
516 = For an unequipped subsystem: Invalid want pause indicator.
517 = For an unequipped subsystem: Invalid simplex/duplex indicator.
518 = For an unequipped subsystem: Invalid channel to receive management indications.
519 = For an unequipped subsystem: Invalid mate subsystem number.
520 = For an unequipped subsystem: Invalid mate point code.
521 = For an unequipped subsystem: Invalid address to receive management indications.
522 = For an equipped subsystem: Invalid address to receive signaling messages, or invalid address to receive management indications.
523 = For an equipped subsystem: The address to receive signaling messages or the address to receive management indications is an RPC.
524 = For an equipped subsystem: The address to receive signaling messages or the address to receive management indications should be an equipped CCS7 link.
525 = For a simplex subsystem: Should have a null mate subsystem number.
526 = For a simplex subsystem: Should have a null mate point code.
527 = For a duplex subsystem: Invalid mate subsystem number.
528 = For a duplex subsystem: Invalid mate point code.
529 = For a subsystem which is not equipped by default: Invalid outgoing local function index.
530 = For an unequipped subsystem: Invalid outgoing local function index.
531 = Subsystem manager has an invalid field.
532 = Invalid version numbers on disk files.

e = Text string describing the error encountered.

4. ACTION TO BE TAKEN

If 'd' =	Action:

500-503	This error is corrected during the audit. A new disk file will be created and populated from the table in the AM. Re-running the audit will verify that the condition no longer exists.
504	Error messages of this type reflect the fact that the data in the AM does not match the data on disk. If the data in the AM is deemed correct, then do a recent change that copies AM to disk. If however, the data on disk is correct, then do a subsystem information recent change and modify the appropriate fields.
505	Certain subsystems must be equipped by default. The "equipped indicator" does not appear on the RC form, but is handled automatically. This error is corrected by doing a "define subsystem information" recent change, followed by a recent change that copies AM to disk. The "equipped indicator" will be set automatically.
506	The "equipped indicator" does not appear on the RC form, but is handled automatically. This error is corrected by doing a "define subsystem information" or "delete subsystem information" recent change, followed by a recent change that copies AM to disk. The "equipped indicator" will automatically be set or cleared appropriately.
507-512, 522-529	These error messages all indicate that there is some invalid data items for an equipped subsystem. These can all be corrected by doing a "define subsystem information" recent change which modifies the appropriate field(s), followed by a recent change that copies AM to disk.
513-521, 530	These error messages all indicate that there is some invalid data items for an unequipped subsystem. These errors are corrected during the audit. The invalid data items are replaced by the proper default data items for an unequipped subsystem. Re-running the audit will verify that the condition no longer exists.
531	This error message indicates that there is an invalid field for the subsystem manager. This error is corrected during the audit. The invalid fields are replaced by the proper default values for subsystem manager and the table entry is copied from the AM to disk. Re-running the audit will verify that the condition no longer exists.
532	The version number on the disk does not match the version number the audit expects. The user should check whether the file was retrofitted or whether it is in the proper format.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

AUD:NIDATA

AUD:ENV-NIDATA8

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]    AUD ENV=RTR NIDATA 8 COMPLETED
         a ERRORS FOUND
         b ERRORS CORRECTED
       ____________________________________________________________________

[2]    AUD ENV=RTR NIDATA 8 STOPPED
       ____________________________________________________________________

[3]    AUD ENV=RTR NIDATA 8 ABORTED CODE c
       ____________________________________________________________________

[4]    AUD ENV=RTR NIDATA 8 ERROR d REPORT
         DATA 1 H'00000000     DATA 2 H'00000000
         DATA 3 H'00000000     DATA 4 H'00000000
         SUPPLEMENTARY DATA FILE
         e
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report any errors encountered while auditing the global title translator so that the appropriate action can be taken to correct the table(s).

Format 1 is printed when the audit completed, and indicates the number of errors found and corrected.

Format 2 is printed when the audit stopped before its completion.

Format 3 is printed because audit failed. Refer to variable 'c' for explanation.

Format 4 is printed when the audit had trouble completing. Refer to variables 'd' and 'e' for reasons why.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Valid value(s):

- 3 = Audit was aborted without completing its work.
- 4 = Audit was faulted while correcting errors.
- 5 = System integrity monitor (SIM) could not start or dispatch the audit.
- 6 = An error was encountered in the audit control/audit library interface.
- 7 = Audit exceeded its timeout or segment limit.
- 8 = SIM aborted an executing routine audit because of a blocking request.
- 9 = Transient process that was running the process terminated.
- 10 = A segmented audit exceeded an error threshold.

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11 = An audit was blocking a needed demand audit.
12 = Audit rejected a request to run from SIM.
13 = SIM aborted audit, audit subsystem was reinitialized.

d = Error code. Valid value(s):
800 = Unable to open the global title translator disk file.
801 = Read error encountered with the global title translator data disk file.
802 = Unable to create or write the global title translator data disk file.
803 = The administrative module (AM) global translator pair and cSadjstp table do not match.
804 = The AM copy and disk do not match.
805 = The global title translator pair is zero.
806 = Invalid network identifier.
807 = Member should be zero for a signal transfer point (STP) point code.
808 = If an STP, the global translator pair must equal to the local point code.
809 = No routing data exists for the point code.
810 = Invalid version number on disk file.

e = Text string describing the error encountered.

4. ACTION TO BE TAKEN

If 'd' =	Action:
800, 801	The audit is having problems in opening or reading the disk file associated with the global title translator. These will be corrected during the audit by creating a new disk file and populating it with the data in the AM. Re-run the audit to verify that this condition no longer exists.
802	The audit is having difficulty in creating or writing the new global title translator data disk file. The audit should be re-run. If the error message appears again, the user should consult with his system administrator to find out the error.
803	This error indicates that the data in the AM for the general translator pair does not match the cSadjstp table. The audit will correct the general translator pair according to the cSadjstp table.
804	The data on disk does not match the data in the AM. If the data in the AM is correct, then doing a recent change that copies AM to disk will remedy the problem. If, however, the disk version is correct, then the data in the AM must be changed using a global title translator data recent change.
805	This error indicates that the general translator pair is zero and different from the cSadjstp table (the cSadjstp point codes are not zero). The audit will correct the general translator pair according to the cSadjstp table.
806, 807	These errors indicate that one of the data items in the table is invalid. These can be corrected by doing a recent change of the global title translator data and modifying the data item in question (refer to RC/V View 15.11). One of the data items in the table is invalid. These can be corrected by doing a recent change of the global title translator data and modifying the data item in question.
808	This error indicates that the general translator pair for an STP office is incorrect. The audit will correct the general translator pair to contain the local point code.
809	This error indicates that no routing data exists for the point code in the table. The user will have to enter routing data by doing a recent change.
810	The version number on the disk does not match the version number the audit expects. The user should check whether the file was retrofitted or whether it is in the proper format.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
AUD:NIDATA
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-190-120 *Common Channel Signaling Services*

235-600-400 *Audits Manual*

RC/V View(s):

15.11 (GLOBAL TITLE TRANSLATION)

AUD:ENV-NIDATA10

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]    AUD ENV=RTR NIDATA 10 COMPLETED
         a  ERRORS FOUND
         b ERRORS CORRECTED
       ____________________________________________________________________

[2]    AUD ENV=RTR NIDATA 10 STOPPED
       ____________________________________________________________________

[3]    AUD ENV=RTR NIDATA 10 ABORTED CODE  c
       ____________________________________________________________________

[4]    AUD ENV=RTR NIDATA 10 ERROR  d  REPORT
         DATA 1 H'00000000       DATA 2 H'00000000
         DATA 3 H'00000000       DATA 4 H'00000000
         SUPPLEMENTARY DATA FILE
         e
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report any errors encountered while auditing the protocol timers/parameters data will be output so that the appropriate action can be taken to correct the data.

Format 1 is printed when the audit completed, and indicates the number of errors found and corrected.

Format 2 is printed when the audit stopped before its completion.

Format 3 is printed because audit failed. Refer to variable '`c`' for explanation.

Format 4 is printed when the audit had trouble completing. Refer to variables '`d`' and '`e`' for reasons why.

3. VARIABLE FIELD DEFINITIONS

`a` = Total number of errors found.

`b` = Total number of errors corrected.

`c` = Abort code. Valid value(s):

- `3` = Audit was aborted without completing its work.
- `4` = Audit was faulted while correcting errors.
- `5` = System integrity monitor (SIM) could not start or dispatch the audit.
- `6` = An error was encountered in the audit control/audit library interface.
- `7` = Audit exceeded its timeout or segment limit.
- `8` = SIM aborted an executing routine audit because of a blocking request.
- `9` = Transient process that was running the process terminated.
- `10` = A segmented audit exceeded an error threshold.

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11 = An audit was blocking a needed demand audit.
12 = Audit rejected a request to run from SIM.
13 = SIM aborted audit, audit subsystem was reinitialized.

d = Error code. Valid value(s):
000 = Unable to open the protocol timer/parameter disk file.
001 = Read error encountered in the protocol timer/parameter disk file.
002 = Unable to create/write protocol timer/parameter disk file.
003 = Office timer data in administrative module (AM) memory differs from that in the disk file.
004 = Office timer data in AM memory is invalid.
005 = Link set timer data in AM memory differs from that in the disk file.
006 = Link set timer data in AM memory is invalid.
007 = Link set threshold data in AM memory differs from that in the disk file.
008 = Link set threshold data in AM memory is invalid.
009 = Link timer data in AM memory differs from that in the disk file.
010 = Link timer data in AM memory is invalid.
011 = Signal unit error rate monitor (SUERM) threshold data in AM memory differs from that in the disk file.
012 = SUERM threshold data in AM memory is invalid.
013 = Invalid version number in disk file.
014 = Too many bytes in the protocol timer/parameter disk file.

e = Text string describing the error encountered.

4. ACTION TO BE TAKEN

If 'd' =	Action:
1000, 1001	These errors are corrected during the audit. A new disk file will be created and populated from the data in the AM. Re-running the audit will verify that the condition no longer exists.
1002	This error indicates that the operating system prevented the audit from creating/writing a new disk file. The reason should be determined and corrected before re-running the audit.
1003	Error messages of this type reflect the fact that the office timer data in the AM does not match the data on the disk. If the data in the AM is deemed correct, then do an office timer recent change that copies the AM memory office timers to disk. If the data on disk is correct, then do an office timer recent change for AM memory and modify the appropriate timer(s).
1004	These error messages indicate that there are invalid office timer data items in AM memory. These can be corrected by doing an office timer recent change for AM memory. Consider following this with an office timer recent change that copies the AM memory office timers to disk.
1005	Error messages of this type reflect the fact that the link set timer data in the AM does not match the data on the disk. If the data in the AM is deemed correct, then do a link set timer recent change that copies the AM memory link set timers to disk. If the data on disk is correct, then do a link set timer recent change for AM memory and modify the appropriate timer(s).
1006	These error messages indicate that there are invalid link set timer data items in AM memory. These can be corrected by doing a link set timer recent change for AM memory. Consider following this with a link set timer recent change that copies the AM memory link set timers to disk.
1007	Error messages of this type reflect the fact that the link set threshold data in the AM does not match the data on the disk. If the data in the AM is deemed correct, then do a link set threshold recent change that copies the AM memory link set thresholds to disk. If the data on disk is correct, then do a link set threshold recent change for AM memory and modify the

	appropriate threshold(s).
1008	These error messages indicate that there are invalid link set threshold data items in AM memory. These can be corrected by doing a link set threshold recent change for AM memory. Consider following this with a link set threshold recent change that copies the AM memory link set thresholds to disk.
1009	Error messages of this type reflect the fact that the link timer data in the AM does not match the data on the disk. If the data in the AM is deemed correct, then do a link parameter (not link node data) recent change that copies the AM memory link parameters to disk. If the data on disk is correct, then do a link parameter (not link node data) recent change for AM memory and modify the appropriate timer(s).
1010	These error messages indicate that there are invalid link timer data items in AM memory. These can be corrected by doing a link parameter (not link node data) recent change for AM memory. Consider following this with a link parameter recent change that copies the AM memory link parameters to disk.
1011	Error messages of this type reflect the fact that the SUERM threshold data in the AM does not match the data on the disk. If the data in the AM is deemed correct, then do a link parameter (not link node data) recent change that copies the AM memory link parameters to disk. If the data on disk is correct, then do a link parameter (not link node data) recent change for AM memory and modify the SUERM threshold(s) accordingly.
1012	These error messages indicate that there are invalid SUERM threshold data items in AM memory. These can be corrected by doing a link parameter (not link node data) recent change for AM memory. Consider following this with a link parameter recent change that copies the AM memory link parameters to disk.
1013	The version number on the disk does not match the version number the audit expects. The user should check whether the disk file was created or retrofitted, and whether it is in the proper format.
1014	This error is corrected during the audit. A new disk file will be created and populated from the data in the AM. Re-running the audit will verify that the condition no longer exists.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
AUD:NIDATA
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-118-25x *Recent Change Procedures*

235-118-25x *Recent Change Reference*

235-190-120 *Common Channel Signaling Services*

235-600-400 *Audits*

AUD:ENV-NMDATA1

Software Release: 5E10 and later
Message Class: MTCE
Application: 5, CNI
Type: Output

1. FORMAT

```
[1]    AUD ENV=RTR NMDATA 1   COMPLETED
         a ERRORS FOUND
         b ERRORS CORRECTED
       ____________________________________________________________________

[2]    AUD ENV=RTR NMDATA 1 STOPPED
       ____________________________________________________________________

[3]    AUD ENV=RTR NMDATA 1 ABORTED CODE c
       ____________________________________________________________________

[4]    AUD ENV=RTR NMDATA 1 ERROR de   f  REPORT COMPLETED
         DATA1 X'00000000    DATA2 X'00000000
         DATA3 X'00000000    DATA4 X'00000000
         NO SUPPLEMENTARY DATA
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To respond to the AUD:NMDATA input message.

Format 1 contains the summary report when the audit runs to completion (with or without errors).

Format 2 is in response to the STOP:AUD,NMDATA input message.

Format 3 is in response to a problem that the system integrity monitor (SIM) encountered with the audit.

When errors are detected by the audit, Format 4 is used to report the errors.

3. VARIABLE FIELD DEFINITIONS

`DATA1` = The address of the error.

`DATA2` = The erroneous data value.

`DATA3` = The index into the table (variable '`d`' determines which table).

`DATA4` = The correct data value.

`a` = Total number of errors found.

`b` = Total number of errors corrected.

`c` = Abort code. Valid value(s):
- `3` = Audit was aborted without completing its work.
- `4` = Audit was faulted while correcting errors.
- `5` = SIM could not start or dispatch the audit.

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6 = An error was encountered in the audit control/audit library interface.
7 = Audit exceeded its timeout or segment limit.
8 = SIM aborted an executing routine audit because of a blocking request.
9 = Transient process that was running the process terminated.
10 = A segmented audit exceeded an error threshold.
11 = An audit was blocking a needed demand audit.
12 = Audit rejected a request to run from SIM.
13 = SIM aborted audit, audit subsystem was reinitialized.

d = Table that the error occurred in. Valid value(s):
10 = Network table.
11 = Cluster table.
12 = Page access table.
13 = Member table.
14 = Free list header table.
15 = Link set translation table.
16 = Routing priority index (RPI) Status table.
18 = Director index to network table.
19 = Page access count.

e = Error code. Valid value(s):
00 = Invalid free list header.
01 = Infinite free list (loop in free list).
02 = Multiple pointers point to the next table entry.
03 = No pointer exists.
04 = Index error.
05 = Invalid flag value.
06 = Invalid/inconsistent route status.
07 = Error in count of exceptional page access data.
08 = An unused data field has an invalid value.
09 = An entry in the director index to network table is inconsistent with data in the network table.
10 = The link set translation table is inconsistent with the link set relation or routing priority tables.
11 = The RPI status table is inconsistent with the link set status table.
12 = Signaling connection control part (SCCP) index field inconsistency.
13 = Maximum errors threshold reached.
14 = Invalid internal audit data.

NOTE: Errors 13 and 14 are not associated with any tables. Therefore, variable field 'd' will not be printed.

f = Error status. Valid value(s):
CORR = Correct.
NOT CORR = Not correct.

4. ACTION TO BE TAKEN

Common network interface (CNI) customer support should always be notified in the event of an error. CNI does not recommend running this audit in error correction mode. Error correction mode should only be used under the guidance of CNI Customer Support.

NOTE: When the audit is run in error correction mode, the applications are not notified of the updates to the AM routing data.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:AUD
AUD:NMDATA
INH:AUD
OP:AUD
OP:AUDERR
STOP:AUD
```

Output Message(s):

```
AUD:ENV-NMDATA2
```

AUD:ENV-NMDATA2-A

Software Release: 5E10 only
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]    AUD ENV=RTR NMDATA 2   COMPLETED
         a ERRORS FOUND
         b ERRORS CORRECTED
       ____________________________________________________________________

[2]    AUD ENV=RTR NMDATA 2 STOPPED
       ____________________________________________________________________

[3]    AUD ENV=RTR NMDATA 2 ABORTED CODE c
       ____________________________________________________________________

[4]    AUD ENV=RTR NMDATA 2 ERROR d   f  REPORT COMPLETED
         DATA1 X'00000000       DATA2 X'00000000
         DATA3 X'00000000       DATA4 X'00000000
         NO SUPPLEMENTARY DATA
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To respond to the AUD:NMDATA input message.

Format 1 contains the summary report when the audit runs to completion (with or without errors).

Format 2 is in response to the STOP:AUD,NMDATA input command.

Format 3 is in response to a problem that the system integrity monitor (SIM) encountered with the audit.

When errors are detected by the audit, Format 4 is used to report the errors.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Valid value(s):

- 3 = Audit was aborted without completing its work.
- 4 = Audit was faulted while correcting errors.
- 5 = SIM could not start or dispatch the audit.
- 6 = An error was encountered in the audit control/audit library interface.
- 7 = Audit exceeded its timeout or segment limit.
- 8 = SIM aborted an executing routine audit because of a blocking request.
- 9 = Transient process that was running the process terminated.
- 10 = A segmented audit exceeded an error threshold.
- 11 = An audit was blocking a needed demand audit.
- 12 = Audit rejected a request to run from SIM.

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13 = SIM aborted audit, audit subsystem was reinitialized.

d = Error code. Valid value(s):
15 = Invalid internal audit data.
20 = Bad ring node address (RNA) value in loadshare table.
21 = RNA in loadshare table is inconsistent with link node data.
22 = RNA found in loadshare table but should not be in the table.
23 = RNA was not found in loadshare table, but should be.
24 = Link state for RNA indicates that the linkset status should be NORMAL.

f = CORR or NOT CORR. Indicates whether the error was corrected or not.

If 'd' =	**'f' =**
20, 21, 22	DATA1 = The address of the error in the loadshare table. DATA2 = The erroneous data value. For error 21, DATA2 contains the value of the RNA which has the inconsistency with the link node data. For error 22, DATA2 contains the value of the RNA which is in the table, but should not be. DATA3 = The linkset number which is used to access the specific loadshare table. DATA4 = The correct data value from a newly-created copy of the loadshare table. The correct data value from the copy of the loadshare table is associated with the same signaling link selection (SLS) code as the incorrect data value.
23, 24	DATA1 = The address of the RNA in the linkset-to-RNA table. DATA2 = The erroneous data value. For error 23, DATA2 contains the value of the RNA which is not in the table but should be. For error 24, DATA2 contains the value of the RNA for which the link state indicates the linkset status should be NORMAL. DATA3 = The linkset number used to access the specific loadshare table. DATA4 = 0 for these errors.

4. ACTION TO BE TAKEN

Common network interface (CNI) Customer Support should always be notified in the event of an error. This audit is normally run in error correcting mode. Any changes in the AM data are also reflected in direct link nodes (DLNs) and D-channel nodes (DCHNs). The user is notified of loadshare table updates when this audit is run in error correction mode.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:AUD
AUD:NMDATA
INH:AUD
OP:AUD
OP:AUDERR
STOP:AUD
```

Output Message(s):

```
AUD:ENV-NMDATA1
```

AUD:ENV-NMDATA2-B

Software Release: 5E11 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]    AUD ENV=RTR NMDATA 2   COMPLETED
         a ERRORS FOUND
         b ERRORS CORRECTED
       ____________________________________________________________________

[2]    AUD ENV=RTR NMDATA 2 STOPPED
       ____________________________________________________________________

[3]    AUD ENV=RTR NMDATA 2 ABORTED CODE c
       ____________________________________________________________________

[4]    AUD ENV=RTR NMDATA 2 ERROR de  f  REPORT COMPLETED
         DATA1 X'gggggggg       DATA2 X'gggggggg
         DATA3 X'gggggggg       DATA4 X'gggggggg
         NO SUPPLEMENTARY DATA
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To respond to the AUD:NMDATA input message.

Format 1 contains the summary report when the audit runs to completion (with or without errors).

Format 2 is in response to the STOP:AUD input message with the `NMDATA=2` option.

Format 3 is in response to a problem that the system integrity monitor (SIM) encountered with the audit.

When errors are detected by the audit, Format 4 is used to report the errors.

3. VARIABLE FIELD DEFINITIONS

`a` = Total number of errors found.

`b` = Total number of errors corrected.

`c` = Abort code. Valid value(s):

- `3` = Audit was aborted without completing its work.
- `4` = Audit was faulted while correcting errors.
- `5` = SIM could not start or dispatch the audit.
- `6` = An error was encountered in the audit control/audit library interface.
- `7` = Audit exceeded its timeout or segment limit.
- `8` = SIM aborted an executing routine audit because of a blocking request.
- `9` = Transient process that was running the process terminated.
- `10` = A segmented audit exceeded an error threshold.

`d` = Table that the error occurred in. Valid value(s):

17 = Loadshare table.

e = Error code. Valid value(s):

13 = Maximum errors threshold reached.
15 = Invalid internal audit data.

Note: Errors 13 and 15 are not associated with any tables. Therefore, variable field 'd' will not be printed.

20 = Bad ring node address (RNA) value in loadshare table.
21 = RNA in loadshare table is inconsistent with link node data.
22 = RNA found in loadshare table but should not be in the table.
23 = RNA was not found in loadshare table, but should be.
24 = Link state for RNA indicates that the linkset status should be NORMAL.

f = Correction status. Valid value(s):

CORR
NOT CORR

g = Valid value(s):

If 'e' =	'g' =
20, 21, 22	DATA1 = The address of the error in the loadshare table. DATA2 = The erroneous data value. For error 21, DATA2 contains the value of the RNA which has the inconsistency with the link node data. For error 22, DATA2 contains the value of the RNA which is in the table, but should not be. DATA3 = The linkset number which is used to access the specific loadshare table. DATA4 = The correct data value from a newly-created copy of the loadshare table. The correct data value from the copy of the loadshare table is associated with the same signaling link selection (SLS) code as the incorrect data value.
23, 24	DATA1 = The address of the RNA in the linkset-to-RNA table. DATA2 = The erroneous data value. For error 23, DATA2 contains the value of the RNA which is not in the table but should be. For error 24, DATA2 contains the value of the RNA for which the link state indicates the linkset status should be NORMAL. DATA3 = The linkset number used to access the specific loadshare table. DATA4 = 0 for these errors.

4. ACTION TO BE TAKEN

Common network interface (CNI) customer support should always be notified in the event of an error. This audit is normally run in error correcting mode. Any changes in the AM data are also reflected in direct link nodes (DLNs). The user is notified of loadshare table updates when this audit is run in error correction mode.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:AUD
AUD:NMDATA
INH:AUD
OP:AUD
OP:AUDERR
STOP:AUD
```

Output Message(s):

```
AUD:ENV-NMDATA1
```

AUD:ENV-NODEST

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]    AUD ENV=RTR NODEST 1 COMPLETED
         b ERRORS FOUND
         c ERRORS CORRECTED
       ____________________________________________________________________

[2]    AUD ENV=RTR NODEST 1 STOPPED
       ____________________________________________________________________

[3]    AUD ENV=RTR NODEST 1 ABORTED CODE d
       ____________________________________________________________________

[4]    AUD ENV=RTR NODEST 1 ERROR e REPORT
         DATA 1 H'f            DATA 2 H'g
         DATA 3 H'h            DATA 4 H'i
         NO SUPPLEMENTARY DATA
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the termination status of the ring node state (NODEST) audits and/or any errors found.

These audits may be executed due to routine schedule, manual request, or interprocess message switch (IMS) initialization (level 0 or 1A).

When the audit finds no errors termination status is printed only for manual requests.

3. VARIABLE FIELD DEFINITIONS

a = The node availability map audit. (Refer to the AUD:NODEST input message for a description.)

b = Total number of errors found.

c = Total number of errors corrected.

d = Abort code. Valid value(s):

- 3 = Audit was aborted without completing its work.
- 4 = Audit was faulted while correcting errors.
- 5 = The system integrity monitor (SIM) could not start or dispatch the audit.
- 6 = An error was encountered in the audit control/audit library interface.
- 7 = Audit exceeded its timeout or segment limit.
- 8 = SIM aborted an executing routine audit because of a blocking request.

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9 = Transient process that was running the audit terminated.

10 = A segmented audit exceeded an error threshold.

11 = An audit was blocking a needed demand audit.

12 = Audit rejected a request to run from SIM.

13 = SIM aborted audit, audit subsystem was reinitialized.

e = Error code. For 'a'=1, the error code is always 0.

f = For 'a'=1, the bit position in the node availability map (0-X'3FF). When this is expressed as three hexadecimal digits, the left two digits identify the ring node group and the right digit identifies the ring node position in the group. Thus X'3FF corresponds to ring node group 63, position 15.

g = For 'a'=1, the expected value of the map bit corresponding to the ring node 'f'. Valid value(s):

0 = Ring node is a ring processor node (RPCN) or is an IMS user node (IUN) which is not in the ACT major state.

1 = Ring node is an IUN in the ACT major state.

h = For 'a'=1, the major state of ring node 'f', as recorded within the IMS driver process. Refer to the OP:RING output message. Valid value(s):

0 = Active.

1 = Standby.

2 = Unavailable.

3 = Off-line.

4 = Out-of-service.

5 = Unequipped.

6 = Initialize.

7 = Grow.

i = For 'a'=1, should always be 0.

4. ACTION TO BE TAKEN

Format 1 should appear alone only when the audit is manually requested with the summary option or detected no errors. Error analysis must be based on Format 4 messages.

Format 2 is printed when an execution of the audit is stopped using the STOP:AUD input message or by an initialization of the IMS subsystem.

Format 3 should occur only during outages and initializations of the IMS subsystem. If it occurs when IMS is

operational, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Format 4 reports errors detected by the audit. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For '`a`'= 1 (the node availability map audit), all of the errors indicate mutilated internal data or other software problems. These errors can occur as a side effect of other problems, such as those reported using the REPT:IMSDRV-FLT output message.

Correction should be made by the audit. If error correction was indicated ('`c`' > 0) then the audit corrected the errors.

To verify that error correction was successful, run the audit again using the AUD:NODEST input message.

5. ALARMS

For Formats 1, 2, and 3, none.

Format 4 sounds a minor alarm unless the audit was manually requested.

6. REFERENCES

Input Message(s):

```
AUD:NODEST
OP:AUD
STOP:AUD
```

Input Appendix(es):

```
APP:AUD
```

Output Message(s):

```
OP:AUD
OP:RING
REPT:IMSDRV-FLT
```

Other Manual(s):

235-600-400 *Audits*

AUD:ENV-NOT-RUN

Software Release: 5E10 and later
Message Class: AUDTFST,AUDT
Application: 5
Type: Output

1. FORMAT

```
AUD  ENV=a  b  NOT_RUN  ERRORS=c  EVENT=d
```

2. REASON FOR OUTPUT

To report that a kernel process environment (OKP or SMKP) audit in the administrative module (AM) was not run as requested (due to CM isolation being detected, a relation in transaction update mode, and so forth).

3. VARIABLE FIELD DEFINITIONS

`a` = Kernel process where the application audit resides. Valid value(s):

- `OKP` = Operation kernel process.
- `SMKP` = Switch maintenance kernel process.

`b` = Application audit ID. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual.

`c` = Total number of errors found (zero).

`d` = Event number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`AUD:ENV`

Output Appendix(es):

`APP:AUDITS`

Other Manual(s):

235-600-400 *Audits*

AUD:EST

Software Release: 5E10 and later
Message Class: AUDIT,AUDT
Application: 5
Type: Output

1. FORMAT

```
[1]    AUD EST SM a
         b
         c d
         e f
```

```
[2]    AUD EST AM
         b
         c d
         e f
```

---

2. REASON FOR OUTPUT

To report ongoing audit errors for the switching module (Format 1;) or the administrative module (Format 2;).

3. VARIABLE FIELD DEFINITIONS

a = Switching module number.

b = Error code. Valid value(s):

- BUSYIDLE
- VERB

c = Error address.

d = Bad (incorrect) data.

e = Logical key.

f = Good (correct) data.

4. ACTION TO BE TAKEN

Refer to the Audits manual.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):

235-600-400 Audits

AUD:FILES

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

WARNING: INAPPROPRIATE USE OF THIS MESSAGE MAY INTERRUPT OR DEGRADE SERVICE. READ PURPOSE CAREFULLY.

1. FORMAT

```
[1]    AUD FILES
          [ FILE - >a<- b ]
        c MATCHING ENTRIES, d MISMATCHING ENTRIES
      ____________________________________________________________________

[2]    AUD FILES ASSERTION FAILED FROM FILE e LINE f
        g
      ____________________________________________________________________
```

2. REASON FOR OUTPUT

Format 1 reports that the file audit has completed. A summary of the results is shown on the last line. Details of the errors, if any, are shown on the intervening lines.

Format 2 reports that the file audit aborted due to a non-continuable condition.

3. VARIABLE FIELD DEFINITIONS

`a` = Name of file in error. Any non-printing character in the name is shown as a question mark (?).

`b` = Type of error. Valid value(s):

`EXTRA`	= No such file should be on the disk.
`MISSING`	= A required file is not on the disk.
`TOO OLD`	= A file has existed or has remained unchanged for a longer than expected period.
`WRONG TYPE`	= A file is not of the expected type (such as, directory, contiguous, device).

`c` = The number of files found not in error.

`d` = Total number of files that where EXTRA, MISSING, TOO OLD, or WRONG TYPE.

`e` = The base name of the source file detecting the error.

`f` = Line number within the source file where the error was detected.

`g` = The actual C source expression that detected the error.

4. ACTION TO BE TAKEN

WARNING: This feature is intended to be used as an aid for filesystem maintenance. Improper corrective action could result in missing system files and could lead to system degradation and/or loss of call processing.

If 'b' =	Action:
No errors.	
MISSING or WRONG TYPE	You may not have the resources to interpret the data. To get replacement files or corrective procedures, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
EXTRA	Investigate why these files are on the disk. These are files which are not on the list of expected files, and are located in filesystems which are only intended for system files. Files that are known to be left over from some previous activity, delete them. If you cannot find any reason for these files to exist, and you have consulted through the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual, then save a copy of them to tape and delete them.
TOO OLD	Investigate why these files are on the disk. These files can be: - An older than expected site-specific file in a temporary location (such as, files in /unixa/users). - A temporary system file that has existed for longer than expected (such as, /rclog/RCEVL.postrcr). - A system status file that has not been updated in an expected interval (such as, /no5text/bkup/.GBcpyptn). Files that are known to be left over from some previous activity, delete them. If you cannot find any reason for these files to exist, and you have consulted through the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual, then save a copy of them to tape and delete them.

If 'g' =	Action:
access (getfiles, 01) ==0	Check that the file /no5text/bkup/findfiles exists and is executable.
access (mlist,4) ==0	Check that the file /no5text/bkup/expected.files exists and is readable.
access (tmpdir,7) ==0	Check that the /dev/tmp filesystem is mounted with read-write permissions.
Any other message.	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None or minor.

6. REFERENCES

Input Message(s):

```
AUD:FILES
CLR:FSYS-FILE
CLR:FSYS-DIR
COPY:TAPE-OUT
OP:ST-FILESYS
```

AUD:FMGR1

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    AUD ENV=RTR FMGR 1 COMPLETED
         a ERRORS FOUND
         b ERRORS CORRECTED
       ____________________________________________________________________

[2]    AUD ENV=RTR FMGR 1 STOPPED
       ____________________________________________________________________

[3]    AUD ENV=RTR FMGR 1 ABORTED CODE c
       ____________________________________________________________________

[4]    AUD ENV=RTR FMGR 1 ERROR d {CORR | NON CORR}
            REPORT {STARTED | IN PROGRESS | COMPLETED}
         DATA1  X'e   DATA2  X'f
         DATA3  X'g   DATA4  X'h
         [NO SUPPLEMENTARY DATA]
       ____________________________________________________________________

[5]    AUD FMGR 1 NOT STARTED
        {CONFLICT WITH CURRENT SYSTEM STATUS  i
        |RETRY LATER  j
        |UNABLE TO IDENTIFY ERROR - INVALID DATA  ERROR k}
       ____________________________________________________________________

[6]    AUD ENV=RTR FMGR 1 AUTOMATICALLY l
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the termination status of the task queue audit (FMGR 1) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Valid value(s):

- 3 = Audit was aborted without completing its work.
- 4 = Audit was faulted while correcting errors.
- 5 = System integrity monitor (SIM) could not start or dispatch the audit.
- 6 = An error was encountered in the audit control/audit library interface.
- 7 = Audit exceeded its timeout or segment limit.
- 8 = SIM aborted an executing routine audit because of a blocking request.
- 9 = Transient process that was running the process terminated.
- 10 = A segmented audit exceeded an error threshold.

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12 = Audit rejected the request to run from SIM.
13 = SIM aborted an executing audit because the audit system is being reinitialized.

d = Error code. Valid value(s):
2 = Invalid taskid field.
3 = Invalid sleep address.
4 = Invalid task stack pointer.
5 = Invalid message pointer.
6 = Task too old.
7 = Invalid task time stamp.

e = Address of the error: pointer to the task header information.

f = Erroneous data value.

g = Error index: used to identify the error.

h = Corrected data value.

i = Explanation of error. Refer to the APP:AUD-C appendix in the Appendixes section of the Output Messages manual.

j = Explanation of error. Refer to the APP:AUD-D appendix in the Appendixes section of the Output Messages manual.

k = Explanation of error. Refer to the APP:AUD-B appendix in the Appendixes section of the Output Messages manual.

l = Inhibit status. Valid value(s):
ALLOWED = Audit has been automatically allowed by SIM.
INHIBITED = Audit has been automatically inhibited by SIM.

Note: Refer to the APP:AUD-A and APP:AUD-B appendixes in the Appendixes section of the Output Messages manual for assorted parsing errors when the input message (IM) catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode. If the messages continue to appear (rolling audit messages) after the audit is run in correcting mode, contact your next level of technical support.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):

1	78
2, 3	76
4	52
6	558

Input Message(s):

```
AUD:FMGR
OP:AUD
STOP:AUD
STP:AUD
```

Output Message(s):

```
OP:AUD
```

Output Appendix(es):

```
APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D
APP:OMDB-X-REF
```

Other Manual(s):

235-600-400 *Audits*

AUD:FMGR2

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    AUD ENV=RTR FMGR 2 COMPLETED
         a ERRORS FOUND
         b ERRORS CORRECTED
       ____________________________________________________________________

[2]    AUD ENV=RTR FMGR 2 STOPPED
       ____________________________________________________________________

[3]    AUD ENV=RTR FMGR 2 ABORTED CODE c
       ____________________________________________________________________

[4]    AUD ENV=RTR FMGR 2 ERROR d {CORR | NON CORR}
            REPORT {STARTED | IN PROGRESS | COMPLETED}
         DATA1  X'e   DATA2  X'f
         DATA3  X'g   DATA4  X'h
        [NO SUPPLEMENTARY DATA]
       ____________________________________________________________________

[5]    AUD FMGR 2 NOT STARTED
        {CONFLICT WITH CURRENT SYSTEM STATUS  i
        |RETRY LATER  j
        |UNABLE TO IDENTIFY ERROR - INVALID DATA  ERROR k}
       ____________________________________________________________________

[6]    AUD ENV=RTR FMGR 2 AUTOMATICALLY l
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the termination status of the internal inode table audit (FMGR 2) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Valid value(s):
- 3 = Audit was aborted without completing its work.
- 4 = Audit was faulted while correcting errors.
- 5 = System integrity monitor (SIM) could not start or dispatch the audit.
- 6 = An error was encountered in the audit control/audit library interface.
- 7 = Audit exceeded its timeout or segment limit.
- 8 = SIM aborted an executing routine audit because of a blocking request.
- 9 = Transient process that was running the process terminated.

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10 = A segmented audit exceeded an error threshold.
12 = Audit rejected the request to run from SIM.
13 = SIM aborted an executing audit because the audit system is being reinitialized.

d = Error code. Valid value(s):
12 = Invalid reference count.
13 = Invalid write count.
14 = Invalid taskid.
15 = Invalid time stamp.
16 = DISK/INCORE inode mismatch.
17 = Invalid file table pointer.
19 = Invalid mount table pointer or invalid inode flag.
25 = Incorrect inode in use count.
26 = Invalid table size value.
27 = Bad degrow page start pointer.
28 = Invalid mount table or mount table pointer.
92 = Open count for driver is incorrect.

e = Address of the error: pointer to the inode table, block device table or character device table.

f = Valid value(s):

If 'd' =	**'f' =**
16	Minor device chain table record ID (MDCT-RID).
otherwise	Erroneous data.

g = Error index. Valid value(s):

If 'd' =	**'g' =**
12	1 = Incorrect inode open count. 2 = Inode open count nonzero, but no corresponding file table exists.
16	m = 1, size field mismatch. n = 1, group ID field mismatch. o = 1, user ID field mismatch. p = 1, link field mismatch. q = 1, mode field mismatch. r = 0, not used. s = 1-13, s address mismatch (1 - d in hex).
19	0 = Invalid inode flag (i-flag). 1 = Invalid mount table pointer.
28	1 = Invalid device pointer field inode. 2 = Device pointer field in inode does not point to start of mount table. 3 = Invalid mount table entry.
92	0 = The block device table is incorrect. 1 = The character device table is incorrect.

The variable 'g' is unused for all other values of 'd'.

h = Corrected data value. Valid value(s):

If 'd' =	'h' =
12	Open count for the file table entry corresponding to the inode.
13	Inode reference count.
14	NULL.
15	Current system time.
16	Partition number inode number.
17	Correct file table pointer.
19	If g=0, valid inode flag (i-flag). If g=1, valid mount table pointer (if one exists).
25 - 28	NULL.
92	Correct open count for driver.

`i` = Explanation of error. Refer to the APP:AUD-C appendix in the Appendixes section of the Output Messages manual.

`j` = Explanation of error. Refer to the APP:AUD-D appendix in the Appendixes section of the Output Messages manual.

`k` = Explanation of error. Refer to the APP:AUD-B appendix in the Appendixes section of the Output Messages manual.

`l` = Inhibit status. Valid value(s):

`ALLOWED` = Audit has been automatically allowed by SIM.
`INHIBITED` = Audit has been automatically inhibited by SIM.

Note: Refer to the APP:AUD-A and APP:AUD-B appendixes in the Appendixes section of the Output Messages manual for assorted parsing errors when the input message (IM) catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode. If the messages continue to appear (rolling audit messages) after the audit is run in correcting mode, contact your next level of technical support.

5. ALARMS

None.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	78
2, 3	76
4	52
6	558

Input Message(s):

```
AUD:FMGR
OP:AUD
STOP:AUD
STP:AUD
```

Output Message(s):

```
OP:AUD
```

Output Appendix(es):

```
APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D
APP:OMDB-X-REF
```

Other Manual(s):

235-600-400 *Audits*

AUD:FMGR3

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    AUD ENV=RTR FMGR 3 COMPLETED
         a ERRORS FOUND
         b ERRORS CORRECTED
       ____________________________________________________________________

[2]    AUD ENV=RTR FMGR 3 STOPPED
       ____________________________________________________________________

[3]    AUD ENV=RTR FMGR 3 ABORTED CODE c
       ____________________________________________________________________

[4]    AUD ENV=RTR FMGR 3 ERROR d {CORR | NON CORR}
            REPORT {STARTED | IN PROGRESS | COMPLETED}
         DATA1  X'e   DATA2  X'f
         DATA3  X'g   DATA4  X'h
        [NO SUPPLEMENTARY DATA]
       ____________________________________________________________________

[5]    AUD FMGR 3 NOT STARTED
        {CONFLICT WITH CURRENT SYSTEM STATUS  i
        |RETRY LATER  j
        |UNABLE TO IDENTIFY ERROR - INVALID DATA  ERROR k}
       ____________________________________________________________________

[6]    AUD ENV=RTR FMGR 3 AUTOMATICALLY l
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the termination status of the hash table and internal pointer table audit (FMGR 3) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Valid value(s):
- 3 = Audit was aborted without completing its work.
- 4 = Audit was faulted while correcting errors.
- 5 = System integrity monitor (SIM) could not start or dispatch the audit.
- 6 = An error was encountered in the audit control/audit library interface.
- 7 = Audit exceeded its timeout or segment limit.
- 8 = SIM aborted an executing routine audit because of a blocking request.
- 9 = Transient process that was running the process terminated.

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10 = A segmented audit exceeded an error threshold.
12 = Audit rejected the request to run from SIM.
13 = SIM aborted an executing audit because the

d = Error code. Valid value(s):
21 = Invalid hash table entry.
22 = Invalid forward or backward ilist pointer.
24 = Invalid chain pointer.

e = Address of the error: pointer to the ilist table.

f = Erroneous data value.

g = Error index. Used to identify the error.

If 'd' =	**'g' =**
22	Valid value(s): 1 = Invalid free list forward chain. 2 = Invalid free list tail pointer. 3 = Invalid forward collision chain. 5 = Ilist entry not on any chain.

h = Corrected data value. Valid value(s):

If 'd' =	**'h' =**
21	Correct hash table entry.
22	Correct tail pointer.
24	NULL.

i = Explanation of error. Refer to the APP:AUD-C appendix in the Appendixes section of the Output Messages manual.

j = Explanation of error. Refer to the APP:AUD-D appendix in the Appendixes section of the Output Messages manual.

k = Explanation of error. Refer to the APP:AUD-B appendix in the Appendixes section of the Output Messages manual.

l = Inhibit status. Valid value(s):
ALLOWED = Audit has been automatically allowed by SIM.
INHIBITED = Audit has been automatically inhibited by SIM.

Note: Refer to the APP:AUD-A and APP:AUD-B appendixes in the Appendixes section of the Output Messages manual for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode. If the messages continue to appear (rolling audit messages) after the audit is run in correcting mode, contact your next level of technical support.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	78
2, 3	76
4	52
6	558

Input Message(s):

```
AUD:FMGR
OP:AUD
STOP:AUD
STP:AUD
```

Output Message(s):

```
OP:AUD
```

Output Appendix(es):

```
APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D
APP:OMDB-X-REF
```

Other Manual(s):

235-600-400 *Audits*

AUD:FMGR4

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    AUD ENV=RTR FMGR 4 COMPLETED
         a ERRORS FOUND
         b ERRORS CORRECTED
       ____________________________________________________________________

[2]    AUD ENV=RTR FMGR 4 STOPPED
       ____________________________________________________________________

[3]    AUD ENV=RTR FMGR 4 ABORTED CODE c
       ____________________________________________________________________

[4]    AUD ENV=RTR FMGR 4 ERROR d {CORR | NON CORR}
            REPORT {STARTED | IN PROGRESS | COMPLETED}
         DATA1  X'e   DATA2  X'f
         DATA3  X'g   DATA4  X'h
        [NO SUPPLEMENTARY DATA]
       ____________________________________________________________________

[5]    AUD FMGR 4 NOT STARTED
        {CONFLICT WITH CURRENT SYSTEM STATUS  i
        |RETRY LATER  j
        |UNABLE TO IDENTIFY ERROR - INVALID DATA  ERROR k}
       ____________________________________________________________________

[6]    AUD ENV=RTR FMGR 4 AUTOMATICALLY l
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the termination status of the file table audit (FMGR 4) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Valid value(s):

- 3 = Audit was aborted without completing its work.
- 4 = Audit was faulted while correcting errors.
- 5 = System integrity monitor (SIM) could not start or dispatch the audit.
- 6 = An error was encountered in the audit control/audit library interface.
- 7 = Audit exceeded its timeout or segment limit.
- 8 = SIM aborted an executing routine audit because of a blocking request.
- 9 = Transient process that was running the process terminated.
- 10 = A segmented audit exceeded an error threshold.

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12 = Audit rejected the request to run from SIM.
13 = SIM aborted an executing audit because the audit system is being initialized.

d = Error code. Valid value(s):
31 = Invalid flag field.
32 = Invalid pointer to associated incore inode table entry.
33 = Invalid pointer to associated internal capability table entry.
34 = Invalid pointer to the next file table entry on the chain.
35 = Invalid taskid.
36 = Use count of open files does not match the number of associated capabilities.
39 = Incorrect count of file table entries currently in use - Nfile.
40 = Invalid free list.
90 = Invalid file table size - Filtabsz.
91 = Invalid degrowth page marker.

e = Address of the error: pointer to the file table entry.

f = Erroneous data value.

g = Error index. Used to identify the error.

If 'd' =	**'g' =**
36	1 = Associated capability table chain is bad. 2 = Use count is incorrect.
40	1 = Free chain broken or looped. 2 = Non-free entry on free chain. 3 = Free entry not on chain. 4 = Invalid tail pointer.

h = Corrected data value.

If 'd' =	**'h' =**
31	Flag field.
32	Valid inode pointer (if one exists).
33	Valid capability table entry (if one exists).
34	Pointer to the next file table entry on its chain.
35	NULL.
36	If 'g' = 1, the capability table must be audited and then the file table re-audited.
39	Correct number of file table slots in use.
40	NULL.
90	Correct file table size.
91	Correct start of degrowth page.

If 'g' =	**'h' =**
2	The correct use count.

i = Explanation of error. Refer to the APP:AUD-C appendix in the Appendixes section of the Output Messages manual.

j = Explanation of error. Refer to the APP:AUD-D appendix in the Appendixes section of the Output Messages manual.

k = Explanation of error. Refer to the APP:AUD-B appendix in the Appendixes section of the Output Messages manual.

`l` = Inhibit status. Valid value(s):

`ALLOWED` = Audit has been automatically allowed by SIM.

`INHIBITED` = Audit has been automatically inhibited by SIM.

Note: Refer to the APP:AUD-A and APP:AUD-B appendixes in the Appendixes section of the Output Messages manual for assorted parsing errors when the input message (IM) catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode. If the messages continue to appear (rolling audit messages) after the audit is run in correcting mode, contact your next level of technical support.

If '`d`' = `33` or `36`, run the capability table audit.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	78
2, 3	76
4	52
6	558

Input Message(s):

```
AUD:FMGR
OP:AUD
STOP:AUD
STP:AUD
```

Output Message(s):

```
OP:AUD
```

Output Appendix(es):

```
APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D
APP:OMDB-X-REF
```

Other Manual(s):

235-600-400 *Audits*

AUD:FMGR5

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    AUD ENV=RTR FMGR 5 COMPLETED
         a ERRORS FOUND
         b ERRORS CORRECTED
       ____________________________________________________________________

[2]    AUD ENV=RTR FMGR 5 STOPPED
       ____________________________________________________________________

[3]    AUD ENV=RTR FMGR 5 ABORTED CODE c
       ____________________________________________________________________

[4]    AUD ENV=RTR FMGR 5 ERROR d {CORR | NON CORR}
            REPORT {STARTED | IN PROGRESS | COMPLETED}
         DATA1  X'e   DATA2  X'f
         DATA3  X'g   DATA4  X'h
        [NO SUPPLEMENTARY DATA]
       ____________________________________________________________________

[5]    AUD FMGR 5 NOT STARTED
        {CONFLICT WITH CURRENT SYSTEM STATUS  i
        |RETRY LATER  j
        |UNABLE TO IDENTIFY ERROR - INVALID DATA  ERROR k}
       ____________________________________________________________________

[6]    AUD ENV=RTR FMGR 5 AUTOMATICALLY l
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the termination status of the internal capability table audit (FMGR 5) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Valid value(s):
- 3 = Audit was aborted without completing its work.
- 4 = Audit was faulted while correcting errors.
- 5 = System integrity monitor (SIM) could not start or dispatch the audit.
- 6 = An error was encountered in the audit control/audit library interface.
- 7 = Audit exceeded its timeout or segment limit.
- 8 = SIM aborted an executing routine audit because of a blocking request.
- 9 = Transient process that was running the process terminated.

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10 = A segmented audit exceeded an error threshold.
12 = Audit rejected the request to run from SIM.
13 = SIM aborted the executing audit because the audit system is being reinitialized.

d = Error code. Valid error codes are:
41 = Nonexistent process.
42 = Invalid file table pointer.
43 = Invalid pointer to the next capability table entry on the chain.
44 = Invalid capability pointer in file table entry.
45 = Invalid capability chain.
46 = Incorrect count of capability table entries currently in use - Ncap.
47 = Invalid free list.
48 = Incorrect capability table size.
49 = Incorrect degrowth page marker.

e = Address of the error: pointer to the file table entry.

f = Erroneous data value.

g = Error index used to identify the error. Index is zero unless listed.

If 'd' =	**'g' =**
44	1 = V 2 = F 3 = F
47	1 = F 2 = N 3 = F 4 = Ir

h = Corrected data value if correcting audit.

If 'd' =	**'h' =**
41	NULL.
42	Pointer to the file table entry associated with this capability.
43	Pointer to the next capability table entry on the chain.
44	Current value of file table entry's capability pointer.
45	Next entry on capability chain.
46	Correct number of capability entries currently in use.
47	NULL
48	Correct capability table size.
49	Correct start of degrowth page.

i = Explanation of error. Refer to the APP:AUD-C appendix in the Appendixes section of the Output Messages manual.

j = Explanation of error. Refer to the APP:AUD-D appendix in the Appendixes section of the Output Messages manual.

k = Explanation of error. Refer to the APP:AUD-B appendix in the Appendixes section of the Output Messages manual.

l = Inhibit status. Valid value(s):
ALLOWED = Audit has been automatically allowed by SIM.

`INHIBITED` = Audit has been automatically inhibited by SIM.

Note: Refer to the APP:AUD-A and APP:AUD-B appendixes in the Appendixes section of the Output Messages manual for assorted parsing errors when the input message (IM) catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode. If the messages continue to appear (rolling audit messages) after the audit is run in correcting mode, contact your next level of technical support.

In addition, run the file table audit.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	78
2, 3	76
4	52
6	558

Input Message(s):

```
AUD:FMGR
OP:AUD
STOP:AUD
STP:AUD
```

Output Message(s):

```
OP:AUD
```

Output Appendix(es):

```
APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D
APP:OMDB-X-REF
```

Other Manual(s):

235-600-400 *Audits*

AUD:FMGR6-A

Software Release: 5E10 - 5E12
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    AUD ENV=RTR FMGR 6 COMPLETED
         a ERRORS FOUND
         b ERRORS CORRECTED
       ____________________________________________________________________

[2]    AUD ENV=RTR FMGR 6 STOPPED
       ____________________________________________________________________

[3]    AUD ENV=RTR FMGR 6 ABORTED CODE c
       ____________________________________________________________________

[4]    AUD ENV=RTR FMGR 6 ERROR d {CORR | NON CORR}
         REPORT {STARTED | IN PROGRESS | COMPLETED}
         DATA1  X'e   DATA2  X'f
         DATA3  X'g   DATA4  X'h
        [NO SUPPLEMENTARY DATA]
       ____________________________________________________________________

[5]    AUD FMGR 6 NOT STARTED
        {CONFLICT WITH CURRENT SYSTEM STATUS  i
        |RETRY LATER  j
        |UNABLE TO IDENTIFY ERROR - INVALID DATA  ERROR k}
       ____________________________________________________________________

[6]    AUD ENV=RTR FMGR 6 AUTOMATICALLY l
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the termination status of the buffer audit (FMGR 6) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Valid value(s):

- 3 = Audit was aborted without completing its work.
- 4 = Audit was faulted while correcting errors.
- 5 = System integrity monitor (SIM) could not start or dispatch the audit.
- 6 = An error was encountered in the audit control/audit library interface.
- 7 = Audit exceeded its timeout or segment limit.
- 8 = SIM aborted an executing routine audit because of a blocking request.
- 9 = Transient process that was running the process terminated.
- 10 = A segmented audit exceeded an error threshold.

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12 = Audit rejected the request to run from SIM.
13 = SIM aborted an executing audit because the audit system is being reinitialized.

d = Error code. Valid value(s):
51 = Free list chain is broken.
52 = Device chain is broken.
54 = Invalid free list chain pointer.
55 = Invalid device chain pointer.
56 = Invalid buffer pointer.
57 = Invalid mount table pointer.
58 = Invalid taskid.
59 = Buffer is too old.
60 = Invalid time stamp.
61 = Invalid taskid/ilock combination.
62 = Invalid taskid/flock combination.

e = Address of the error. Pointer to the file table entry.

f = Erroneous data value.

g = Error index. Used to identify the error.

If 'd' =	**'g' =**
51	1 = Forward chain is bad. 2 = Backward chain is bad.
52	1 = Buf's forward device chain is broken. 2 = Buf's backward device chain is broken. 3 = Bdevtab's forward device chain is broken. 4 = Bdevtab's backward device chain is broken.
54	1 = Forward chain pointer is bad. 2 = Backward chain pointer is bad. 3 = Both chain pointers are bad.
55	4 = Forward chain pointer is bad. 8 = Backward chain pointer is bad. c = Both chain pointers are bad. Any value greater than X'c reflects the number of forward or backward chain errors.
57	1 = Mount chain is bad. 2 = Invalid flag/mount pointer combination.

h = Corrected data value. Possible values depend on the value of 'd'.

4. ACTIONS TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode. If the messages continue to appear (rolling audit messages) after the audit is run in correcting mode, contact your next level of technical support.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s): is run in correcting mode, contact your next level of technical support.

Format(s):	Key(s):
1	78
2, 3	76
4	52
6	558

Input Message(s):

```
AUD:FMGR
OP:AUD
STOP:AUD
STP:AUD
```

Output Message(s):

```
OP:AUD
```

Output Appendix(es):

```
APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D
APP:OMDB-X-REF
```

Other Manual(s):
235-600-400 *Audits*

AUD:FMGR6-B

Software Release: 5E13 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    AUD ENV=RTR FMGR 6 COMPLETED
         a ERRORS FOUND
         b ERRORS CORRECTED
       ____________________________________________________________________

[2]    AUD ENV=RTR FMGR 6 STOPPED
       ____________________________________________________________________

[3]    AUD ENV=RTR FMGR 6 ABORTED CODE c
       ____________________________________________________________________

[4]    AUD ENV=RTR FMGR 6 ERROR d {CORR | NON CORR}
            REPORT {STARTED | IN PROGRESS | COMPLETED}
         DATA1  X'e   DATA2  X'f
         DATA3  X'g   DATA4  X'h
        [NO SUPPLEMENTARY DATA]
       ____________________________________________________________________

[5]    AUD FMGR 6 NOT STARTED
        {CONFLICT WITH CURRENT SYSTEM STATUS  i
        |RETRY LATER  j
        |UNABLE TO IDENTIFY ERROR - INVALID DATA  ERROR k}
       ____________________________________________________________________

[6]    AUD ENV=RTR FMGR 6 AUTOMATICALLY l
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the termination status of the buffer audit (FMGR 6) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Valid value(s):

- 3 = Audit was aborted without completing its work.
- 4 = Audit was faulted while correcting errors.
- 5 = System integrity monitor (SIM) could not start or dispatch the audit.
- 6 = An error was encountered in the audit control/audit library interface.
- 7 = Audit exceeded its timeout or segment limit.
- 8 = SIM aborted an executing routine audit because of a blocking request.
- 9 = Transient process that was running the process terminated.
- 10 = A segmented audit exceeded an error threshold.

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12 = Audit rejected the request to run from SIM.
13 = SIM aborted an executing audit because the audit system is being reinitialized.

d = Error code. Valid value(s):
51 = Free list chain is broken.
52 = Device chain is broken.
54 = Invalid free list chain pointer.
55 = Invalid device chain pointer.
56 = Invalid buffer pointer.
57 = Invalid mount table pointer.
58 = Invalid taskid.
59 = Buffer is too old.
60 = Invalid time stamp.
61 = Invalid taskid/ilock combination.
62 = Invalid taskid/flock combination.
64 = Invalid total number of free inodes.

e = Address of the error.

f = Erroneous data value.

g = Error index. Used to identify the error.

If 'd' =	**'e' =**
51	1 = Forward chain is bad. 2 = Backward chain is bad.
52	1 = Buf's forward device chain is broken. 2 = Buf's backward device chain is broken. 3 = Bdevtab's forward device chain is broken. 4 = Bdevtab's backward device chain is broken.
54	1 = Forward chain pointer is bad. 2 = Backward chain pointer is bad. 3 = Both chain pointers are bad.
55	4 = Forward chain pointer is bad. 8 = Backward chain pointer is bad. c = Both chain pointers are bad. .P Any value greater than X'c reflects the number of forward or backward chain errors.
57	1 = Mount chain is bad. 2 = Invalid flag/mount pointer combination.
64	Offset in superblock to s_tinode.

h = Corrected data value. Possible values depend on the value of 'd'.

4. ACTIONS TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode. If the messages continue to appear (rolling audit messages) after the audit is run in correcting mode, contact your next level of technical support.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s): is run in correcting mode, contact your next level of technical support.

Format(s):	Key(s):
1	78
2, 3	76
4	52
6	558

Input Message(s):

```
AUD:FMGR
OP:AUD
STOP:AUD
STP:AUD
```

Output Message(s):

```
OP:AUD
```

Output Appendix(es):

```
APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D
APP:OMDB-X-REF
```

Other Manual(s):
235-600-400 *Audits*

AUD:FMGR7

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    AUD ENV=RTR FMGR 7 COMPLETED
         a ERRORS FOUND
         b ERRORS CORRECTED
       ____________________________________________________________________

[2]    AUD ENV=RTR FMGR 7 STOPPED
       ____________________________________________________________________

[3]    AUD ENV=RTR FMGR 7 ABORTED CODE c
       ____________________________________________________________________

[4]    AUD ENV=RTR FMGR 7 ERROR d {CORR | NON CORR}
            REPORT {STARTED | IN PROGRESS | COMPLETED}
         DATA1  X'e   DATA2  X'f
         DATA3  X'g   DATA4  X'h
        [NO SUPPLEMENTARY DATA]
       ____________________________________________________________________

[5]    AUD FMGR 7 NOT STARTED
        {CONFLICT WITH CURRENT SYSTEM STATUS  i
        |RETRY LATER  j
        |UNABLE TO IDENTIFY ERROR - INVALID DATA  ERROR k}
       ____________________________________________________________________

[6]    AUD ENV=RTR FMGR 7 AUTOMATICALLY l
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the termination status of the mount table audit (FMGR 7) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Valid value(s):
- 3 = Audit was aborted without completing its work.
- 4 = Audit was faulted while correcting errors.
- 5 = System integrity monitor (SIM) could not start or dispatch the audit.
- 6 = An error was encountered in the audit control/audit library interface.
- 7 = Audit exceeded its timeout or segment limit.
- 8 = SIM aborted an executing routine audit because of a blocking request.
- 9 = Transient process that was running the process terminated.

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10 = A segmented audit exceeded an error threshold.
12 = Audit rejected the request to run from SIM.
13 = SIM aborted an executing audit because the audit system is being reinitialized.

d = Error code. Valid value(s):
72 = Buffer error.
74 = Inode error.
75 = Invalid inode.
77 = Invalid taskid.

e = Address of the error: pointer to the mount table entry.

f = Erroneous data value.

g = Error index. Used to identify the error.

If 'd' =	'g' =
72	1 = Buf table entry associated with the mount table does not have the B_MOUNT flag set. 2 = Invalid buf pointer.
74	1 = Inode table entry associated with the mount table does not have the I_MOUNT flag set. 2 = Invalid inode pointer.

h = Corrected data value.

If 'd' =	'h' =
72	If 'g' = 1, 'h' = flags field of the associated buf table entry. If 'g' = 2, 'h' = pointer to the associated buf table entry.
74	If 'g' = 1, ' h' = flags field of the associated inode table entry. If 'g' = 2, 'h' = pointer to the associated inode table entry.
75	Pointer to the root inode.
77	NULL.

i = Explanation of error. Refer to the APP:AUD-C appendix in the Appendixes section of the Output Messages manual.

j = Explanation of error. Refer to the APP:AUD-D appendix in the Appendixes section of the Output Messages manual.

k = Explanation of error. Refer to the APP:AUD-B appendix in the Appendixes section of the Output Messages manual.

l = Inhibit status. Valid value(s):
ALLOWED = Audit has been automatically allowed by SIM.
INHIBITED = Audit has been automatically inhibited by SIM.

Note: Refer to the APP:AUD-A and APP:AUD-B appendix in the Appendixes section of the Output Messages manual for assorted parsing errors when the input message (IM) catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode. If the messages continue to appear (rolling audit messages) after the audit is run in correcting mode, contact your next level of technical support.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	78
2, 3	76
4	52
6	558

Input Message(s):

```
AUD:FMGR
OP:AUD
STOP:AUD
STP:AUD
```

Output Message(s):

```
OP:AUD
```

Output Appendix(es):

```
APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D
APP:OMDB-X-REF
```

Other Manual(s):

235-600-400 *Audits*

AUD:FMGR8

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    AUD ENV=RTR FMGR 8 COMPLETED
         a ERRORS FOUND
         b ERRORS CORRECTED
       ____________________________________________________________________

[2]    AUD ENV=RTR FMGR 8 STOPPED
       ____________________________________________________________________

[3]    AUD ENV=RTR FMGR 8 ABORTED CODE c
       ____________________________________________________________________

[4]    AUD ENV=RTR FMGR 8 ERROR d {CORR | NON CORR}
            REPORT {STARTED | IN PROGRESS | COMPLETED}
         DATA1  X'e   DATA2  X'f
         DATA3  X'g   DATA4  X'h
        [NO SUPPLEMENTARY DATA]
       ____________________________________________________________________

[5]    AUD FMGR 8 NOT STARTED
        {CONFLICT WITH CURRENT SYSTEM STATUS  i
        |RETRY LATER  j
        |UNABLE TO IDENTIFY ERROR - INVALID ERROR  ERROR k}
       ____________________________________________________________________

[6]    AUD ENV=RTR FMGR 8 AUTOMATICALLY l
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the termination status of the delayed queue audit (FMGR 8) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Total number of errors found.

b = Total number of errors corrected.

c = Abort code. Valid value(s):
- 3 = Audit was aborted without completing its work.
- 4 = Audit was faulted while correcting errors.
- 5 = System integrity monitor (SIM) could not start or dispatch the audit.
- 6 = An error was encountered in the audit control/audit library interface.
- 7 = Audit exceeded its timeout or segment limit.
- 8 = SIM aborted an executing routine audit because of a blocking request.
- 9 = Transient process that was running the process terminated.

10 = A segmented audit exceeded an error threshold.
12 = Audit rejected the request to run from SIM.
13 = SIM aborted an executing audit because the audit system is being reinitialized.

d = Error code. Valid value(s):
82 = The number of delayed open requests is bad.
83 = The number of delayed mount requests is bad.

e = Address of the error: pointer to the mount_q table or the open_q table.

f = Erroneous data value.

g = Error index: used to identify the error.

h = Corrected data value. Valid value(s):

If 'd' =	'h' =
82	Correct number of delayed open requests.
83	Correct number of delayed mount requests.

i = Explanation of error. Refer to the APP:AUD-C appendix in the Appendixes section of the Output Messages manual.

j = Explanation of error. Refer to the APP:AUD-D appendix in the Appendixes section of the Output Messages manual.

k = Explanation of error. Refer to the APP:AUD-B appendix in the Appendixes section of the Output Messages manual.

l = Inhibit status. Valid value(s):
ALLOWED = Audit has been automatically allowed by SIM.
INHIBITED = Audit has been automatically inhibited by SIM.

Note: Refer to the APP:AUD-A and APP:AUD-B appendix in the Appendixes section of the Output Messages manual for assorted parsing errors when the input message (IM) catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode. If the messages continue to appear (rolling audit messages) after the audit is run in correcting mode, contact your next level of technical support.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):

1	78
2, 3	76
4	52
6	558

Input Message(s):

```
AUD:FMGR
OP:AUD
STOP:AUD
STP:AUD
```

Output Message(s):

```
OP:AUD
```

Output Appendix(es):

```
APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D
APP:OMDB-X-REF
```

Other Manual(s):

235-600-400 *Audits*

AUD:FMGR9

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    AUD ENV=RTR FMGR 9 COMPLETED
         a ERRORS FOUND
         b ERRORS CORRECTED
       ____________________________________________________________________

[2]    AUD ENV=RTR FMGR 9 STOPPED
       ____________________________________________________________________

[3]    AUD ENV=RTR FMGR 9 ABORTED CODE c
       ____________________________________________________________________

[4]    AUD ENV=RTR FMGR 9 ERROR d {CORR | NON CORR}
            REPORT {STARTED | IN PROGRESS | COMPLETED}
         DATA1  X'e   DATA2  X'f
         DATA3  X'g   DATA4  X'h
        [NO SUPPLEMENTARY DATA]
       ____________________________________________________________________

[5]    AUD FMGR 9 NOT STARTED
        {CONFLICT WITH CURRENT SYSTEM STATUS  i
        |RETRY LATER  j
        |UNABLE TO IDENTIFY ERROR - INVALID DATA  ERROR k}
       ____________________________________________________________________

[6]    AUD ENV=RTR FMGR 9 AUTOMATICALLY l
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the termination status of the message queue audit (FMGR 9) and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

`a` = Total number of errors found.

`b` = Total number of errors corrected.

`c` = Abort code. Valid value(s):

- `3` = Audit was aborted without completing its work.
- `4` = Audit was faulted while correcting errors.
- `5` = System integrity monitor (SIM) could not start or dispatch the audit.
- `6` = An error was encountered in the audit control/audit library interface.
- `7` = Audit exceeded its timeout or segment limit.
- `8` = SIM aborted an executing routine audit because of a blocking request.
- `9` = Transient process that was running the process terminated.

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10 = A segmented audit exceeded an error threshold.
12 = Audit rejected the request to run from SIM.
13 = SIM aborted an executing audit because the audit system is being reinitialized.

d = Error code. Valid value(s):
81 = There are too many messages (message blocks) on the file manager's queue.

e = NULL.

f = Erroneous data value.

g = Error index. Used to identify the error.

h = Corrected data value. Ten times the number of tasks.

i = Explanation of error. Refer to the APP:AUD-C appendix in the Appendixes section of the Output Messages manual.

j = Explanation of error. Refer to the APP:AUD-D appendix in the Appendixes section of the Output Messages manual.

k = Explanation of error. Refer to the APP:AUD-B appendix in the Appendixes section of the Output Messages manual.

l = Inhibit status. Valid value(s):
ALLOWED = Audit has been automatically allowed by SIM.
INHIBITED = Audit has been automatically inhibited by SIM.

Note: Refer to the APP:AUD-A and APP:AUD-B appendixes in the Appendixes section of the Output Messages manual for assorted parsing errors when the input message (IM) catalog is not active.

4. ACTION TO BE TAKEN

If failure occurs, run the file manager's task queue audit in noncorrecting mode. If the messages continue to appear (rolling audit messages) after the audit is run in correcting mode, contact your next level of technical support.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	78
2, 3	76
4	52
6	558

Input Message(s):

```
AUD:FMGR
OP:AUD
STOP:AUD
STP:AUD
```

Output Message(s):

```
OP:AUD
```

Output Appendix(es):

```
APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D
APP:OMDB-X-REF
```

Other Manual(s):

235-600-400 *Audits*

AUD:FSBLK

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    AUD ENV=RTR FSBLK a b COMPLETED
         c ERRORS FOUND
         d ERRORS CORRECTED
       ____________________________________________________________________

[2]    AUD ENV=RTR FSBLK a b STOPPED
       ____________________________________________________________________

[3]    AUD ENV=RTR FSBLK a b ABORTED CODE e
       ____________________________________________________________________

[4]    AUD ENV=RTR FSBLK a b ERROR f {CORR | NOT CORR}
           REPORT {STARTED | IN PROGRESS | COMPLETED}
         DATA1  X'g     DATA2  X'h
         DATA3  X'i     DATA4  X'j
        [NO SUPPLEMENTARY DATA]
       ____________________________________________________________________

[5]    AUD FSBLK NOT STARTED
        {CONFLICT WITH CURRENT SYSTEM STATUS  k
        |RETRY LATER  l
        |UNABLE TO IDENTIFY ERROR - INVALID DATA  ERROR m}
       ____________________________________________________________________

[6]    AUD ENV=RTR FSBLK a AUTOMATICALLY n
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the termination status of the file system block audit and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Audit member. *UNIX*® RTR audits have the value 1, but application audits may be greater than 1.

b = Name of the file system that was audited.

c = Total number of errors found.

d = Total number of errors corrected.

e = Abort code. Valid value(s):
- 3 = Audit was aborted without completing its work.
- 4 = Audit was faulted while correcting errors.
- 5 = System integrity monitor (SIM) could not start or dispatch the audit.
- 6 = An error was encountered in the audit control/audit library interface.

7 = Audit exceeded its timeout or segment limit.
8 = SIM aborted an executing routine audit because of a blocking request.
9 = Transient process that was running the process terminated.
10 = A segmented audit exceeded an error threshold.
12 = Audit rejected the request to run from SIM.
13 = SIM aborted an executing audit because the audit system is being reinitialized.

f = Error code. Valid value(s):

1 = Bad superblock label:
- g = Not used.
- h = File system label.
- i = Not used.
- j = Not used.

2 = Bad file mode:
- g = Inode number (index into inode table).
- h = File mode.
- i = Index used to locate error.
- j = Not used.

3 = Bad file size:
- g = Inode number (index into inode table).
- h = Incorrect file size.
- i = File type. Valid value(s):
  - 1 = Regular file direct block.
  - 2 = Single indirect file.
  - 3 = Double indirect file.
  - 4 = Triple indirect file.
  - 5 = Extent file.
- j = New file size, if corrected; otherwise, old file size.

4 = Bad block (block out of file system block range):
- g = Inode number (index into inode table).
- h = Bad block number.
- i = Block or file type. Valid value(s):
  - 1 = Regular file direct block.
  - 2 = Single indirect file.
  - 3 = Double indirect file.
  - 4 = Triple indirect file.
  - 5 = Extent file.
- j = New block number if corrected; otherwise, old block number.

5 = Duplicate block number:
- g = Inode number.
- h = Duplicate block number.
- i = Block or file type. Valid value(s):
  - 1 = Regular file direct block.
  - 2 = Single indirect block.

3 = Double indirect block.

4 = Triple indirect block.

5 = Extent file.

j = New block number if corrected; otherwise, old block number.

6 = Bad address block (address block contains invalid block addresses).
g = Inode number.
h = Bad or duplicate block number.
i = 0x000000AB indicating block or file type. A and B may have the following values: <

Variable:	Value:	Explanation:
A	0	The block is a data block.
A	1	The block is an address block.
B	1	Regular file direct block.
B	2	Single indirect block.
B	3	Double indirect block.
B	4	Triple indirect block.
B	5	Extent file.

j = New block number if corrected; otherwise, old block number.

7 = Temp file found in file system when audit invoked with PARM="BACKUP". This condition does not represent an actual file system error, but if a backup tape is made with this condition present, the backup tape could contain file system errors. There is no corrective action possible or needed for this condition.
g = Inode number.
h = Not used.
i = Not used.
j = Not used.

8 = Audit library initialization failed.
g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

9 = Unable to open device file.
g = Not used.
h = Error returned from attempt to open.
i = Index used to locate error.
j = Not used.

10 = Unable to start device file.
g = Not used.
h = Error returned from attempt to get status.
i = Index used to locate error.
j = Not used.

11 = Device file not a block device.
g = Not used.
h = File type.
i = Index used to locate error.
j = Not used.

12 = Unable to open device file.
- g = Not used.
- h = Not used.
- i = Index used to locate error.
- j = Not used.

13 = Unable to queue a message.
- g = Not used.
- h = Not used.
- i = Index used to locate error.
- j = Not used.

14 = Unable to add segments.
- g = Segment index into file manager's segment table.
- h = Error returned from attempt to add segment.
- i = Size in bytes of the segment to be added.
- j = Not used.

15 = Unable to read superblock.

16 = Unable to access block (or get buffer to read block).
- g = Block number.
- h = Error returned.
- i = Index used to locate error.
- j = Inode number of current inode.

17 = Unable to get a free block.
- g = Inode number of current inode.
- h = Not used.
- i = Index used to locate error.
- j = Not used.

18 = Unable to access inode.
- g = Inode number.
- h = Error returned on attempt to access.
- i = Index used to locate error.
- j = Not used.

19 = Unable to remove a segment.
- g = Index in file manager's segment list.
- h = Zero or error returned from attempt to remove the segment.
- i = Indicates reason for failure. Valid value(s):
  - 000c = Failed to allocate a message.
  - 000d = Failed to queue the message.
  - 0013 = Request to remove the segment failed, error returned is found in "h".
- j = Not used.

20 = Cannot mount the device.
- g = Not used.
- h = Not used.
- i = Index with the following values:

000a = No free mount table entry.
000b = Unable to read superblock.

j = Not used.

21 = Unable to get bitmap segment ID.
g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

22 = Bitmap I/O failed.
g = Not used.
h = Error returned from I/O attempt.
i = Index used to locate error.
j = Not used.

26 = The device file is open for writing.
g = Inode number of device file.
h = Number of opens for writing on the device.
i = Record ID (RID) of the major device chain table (MDCT) for the file system on which the device file resides.
j = Partition for the file system on which the device file resides.

35 = File manager segment list is full.
g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

k = Explanation of error. Refer to the APP:AUD-C appendix in the Appendixes section of the Output Messages manual.

l = Explanation of error. Refer to the APP:AUD-D appendix in the Appendixes section of the Output Messages manual.

m = Explanation of error. Refer to the APP:AUD-B appendix in the Appendixes section of the Output Messages manual.

n = Inhibit status. Valid value(s):
ALLOWED = Audit has been automatically allowed by SIM.
INHIBITED = Audit has been automatically inhibited by SIM.

Note: Refer to the APP:AUD-A and APP:AUD-B appendixes in the Appendixes section of the Output Messages manual for assorted parsing errors when the input message (IM) catalog is not active.

4. ACTION TO BE TAKEN

1, 2, 3, 5, and 6, no action is necessary.

For Format 4, take the following action.

Error code:	Action:

1, 2	They are not correctable. Back up the file system from backup source.
3, 4, 5, 6	Use the input message OP:FNAME to print the full pathname of the file then rerun the audit in the CORR mode to correct those errors.
7	No action is required.
8 - 26	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
35	This will occur when the maximum number of file manger tasks are running and using the available file manager segment table slots. Rerun the audit at different times during the day when there are no other file system audits running. If the problem persists, execute a level 3 initialization. If the problem still persists, then create an off-line memory dump tape and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

There is no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	78
2, 3	76
4	52
5	314
6	558

Input Message(s):

```
AUD:FSBLK
OP:FNAME
STOP:AUD
STP:AUD
UPD:OMDB
```

Output Appendix(es):

```
APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D
APP:OMDB-X-REF
```

Other Manual(s):
235-600-400 *Audits*

AUD:FSCMPT

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    AUD ENV=RTR FSCMPT a b COMPLETED
         c ERRORS FOUND
         d ERRORS CORRECTED
       ____________________________________________________________________

[2]    AUD ENV=RTR FSCMPT a b STOPPED
       ____________________________________________________________________

[3]    AUD ENV=RTR FSCMPT a b ABORTED CODE e
       ____________________________________________________________________

[4]    AUD ENV=RTR FSCMPT a b ERROR f {CORR | NOT CORR}
            REPORT {STARTED | IN PROGRESS | COMPLETED}
         DATA1  X'g     DATA2  X'h
         DATA3  X'i     DATA4  X'j
        [NO SUPPLEMENTARY DATA]
       ____________________________________________________________________

[5]    AUD ENV=RTR FSCMPT a b DATA k
            REPORT {STARTED | IN PROGRESS | COMPLETED}
         DATA1  X'g     DATA2  X'h
         DATA3  X'i     DATA4  X'j
        [NO SUPPLEMENTARY DATA]
       ____________________________________________________________________

[6]    AUD FSCMPT NOT STARTED
        {CONFLICT WITH SYSTEM STATUS  l
        |RETRY LATER  m
        |UNABLE TO IDENTIFY ERROR - INVALID DATA  ERROR n}
       ____________________________________________________________________

[7]    AUD ENV=RTR FSCMPT a AUTOMATICALLY o
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the termination status of the file system compaction audit and/or errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Audit application. *UNIX*® RTR audits have the value 1, but application audits may be greater than 1.

b = Name of the file system that was audited.

c = Total number of error or report messages.

d = Total number of reports for corrected errors and for compaction completed.

e = Abort code. Valid value(s):

- 3 = Audit was aborted without completing its work.
- 4 = Audit was faulted while correcting errors.
- 5 = System integrity monitor (SIM) could not start or dispatch the audit.
- 6 = An error was encountered in the audit control/audit library interface.
- 7 = Audit exceeded its timeout limit.
- 8 = SIM aborted an executing routine audit because of a blocking request.
- 12 = Audit rejected the request to run from SIM.
- 13 = SIM aborted an executing audit because the audit system is being reinitialized.

f = Error code. Valid value(s):

1 = Bad superblock label. Valid value(s):

- g = Not used.
- h = File system label.
- i = Not used.
- j = Not used.

4 = Bad block (block out of file system block range). Valid value(s):

- g = Inode number.
- h = Bad or duplicate block number.
- i = 0x000000AB indicating block and file type, or 0x000000C0 indicating the block usage change that was occurring when the error was detected.

Variable:	Value:	Explanation:
A	0	The block is a data block.
A	1	The block is an address block.
B	1	Regular file direct block.
B	2	Single indirect block.
B	3	Double indirect block.
B	4	Triple indirect block.
B	5	Extent file.
C	3	A block was being added to a regular file.
C	4	A block was being removed from a regular file.
C	5	Blocks were being added to a multi-extent or contiguous file.
C	6	Blocks were being removed from a multi-extent or contiguous file.

- j = Valid value(s):

If 'i' =	'j' =
0x000000AB	The new block number if corrected otherwise, old block number.
0x000000C0	The number of block usage errors found before termination of the audit.

5 = Duplicate block number. Valid value(s):

- g = Inode number.
- h = Bad or duplicate block number.
- i = 0x000000AB indicating block and file type, or 0x000000C0 indicating the block usage change that was occurring when the error was detected.

Variable:	Value:	Explanation:
A	0	The block is a data block.
A	1	The block is an address block.
B	1	Regular file direct block.
B	2	Single indirect block.
B	3	Double indirect block.
B	4	Triple indirect block.

B	5	Extent file.
C	3	A block was being added to a regular file.
C	4	A block was being removed from a regular file.
C	5	Blocks were being added to a multi-extent or contiguous file.
C	6	Blocks were being removed from a multi-extent or contiguous file.

j = Valid value(s):

If 'i' =	'j' =
0x000000AB	The new block number if corrected otherwise, old block number.
0x000000C0	The number of block usage errors found before termination of the audit.

6 = Bad address block (address block contains invalid block addresses).

g = Not used.

h = Not used.

i = Index used to locate error.

Variable:	Value:	Explanation:
A	0	The block is a data block.
A	1	The block is an address block.
B	1	Regular file direct block.
B	2	Single indirect block.
B	3	Double indirect block.
B	4	Triple indirect block.
B	5	Extent file.
C	3	A block was being added to a regular file.
C	4	A block was being removed from a regular file.
C	5	Blocks were being added to a multi-extent or contiguous file.
C	6	Blocks were being removed from a multi-extent or contiguous file.

j = Not used.

If 'i' =	'j' =
0x000000AB	The new block number if corrected otherwise, old block number.
0x000000C0	The number of block usage errors found before termination of the audit.

8 = Audit library initialization failed.

g = Not used.

h = Not used.

i = Index used to locate error.

j = Not used.

9 = Unable to open device file.

g = Not used.

h = Error returned from attempt to open.

i = Index used to locate error.

j = Not used.

10 = Unable to stat device file.

g = Not used.

h = Error returned from attempt to get status.

i = Index used to locate error.

j = Not used.

11 = Device file not a block device.

g = Not used.

h = File type.

i = Index used to locate error.
j = Not used.

12 = Unable to allocate a message.
g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

13 = Unable to queue a message.
g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

14 = Unable to add segments.
g = Segment index into file manager's segment table.
h = Error returned from attempt to add segment.
i = Size in bytes of the segment to be added.
j = Not used.

16 = Unable to access block (or get buffer to read block).
g = Block number.
h = Error returned.
i = Index used to locate error.
j = Inode number of current inode.

17 = Unable to get a free block.
g = Inode number of current inode.
h = Not used.
i = Index used to locate error.
j = Not used.

18 = Unable to access inode.
g = Inode number.
h = Error returned on attempt to access.
i = Index used to locate error.
j = Not used.

19 = Unable to remove a segment.
g = Index in file manager's segment list.
h = Zero or error returned from attempt to remove the segment.
i = Indicates reason for failure. Valid value(s)

000c = Failed to allocate a message.

000d = Failed to queue the message.

0013 = Request to remove the segment failed, error returned is found in 'h'.

j = Not used.

20 = Cannot mount the device.
g = Not used.
h = Not used.
i = Index with the following values:
000a = No free mount table entry.
000b = Unable to read superblock.

j = Not used.

21 = Unable to get bitmap segment ID.
g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

22 = Bitmap I/O failed.
g = Not used.
h = Error returned from I/O attempt.
i = Index used to locate error.
j = Not used.

23 = No available structures for mapping allocated blocks for the compaction.
g = Inode number.
h = First block number to be mapped.
i = 0x000000AB indicating block or file type, or 0x000000C0 indicating the block usage change that was occurring when the error was detected.

Variable:	Value:	Explanation:
A	0	The block is a data block.
A	1	The block is an address block.
B	1	Regular file direct block.
B	2	Single indirect block.
B	3	Double indirect block.
B	4	Triple indirect block.
B	5	Extent file.
C	3	A block was being added to a regular file.
C	4	A block was being removed from a regular file.
C	5	Blocks were being added to a multi-extent or contiguous file.
C	6	Blocks were being removed from a multi-extent or contiguous file.

j = Valid value(s):

If 'i' =	'j' =
0x000000AB	It is the first block number to be mapped.
0x000000C0	The number of errors found before termination of the audit.

24 = Concurrent file system activity is interfering with the compaction effort.
g = Number of relocations needed at the beginning of an interval.
h = Number of relocations needed at the end of the interval.

i = Number of I/O read/write jobs already executed to achieve compaction.
j = Number of errors found before termination of the audit.

25 = I/O attempt failed.
g = Type of I/O. Valid value(s):
1 = Attempt to read file system blocks failed.
2 = Attempt to write file system blocks failed.
3 = Attempt to update inodes failed.

h = Error returned on read or write attempt.
i = Valid value(s):

If 'g' =	**'i' =**
1 or 2	The starting block address.
3	The inode number.

j = Valid value(s):

4. ACTION TO BE TAKEN

For Formats 1, 2, 3, 5, 6, and 7, no action is necessary.

For Format 4, take the following action.

Error code:	**Action:**
1	It is not correctable. Back up the file system from backup source.
4, 5, 6	Run the block audit in noncorrecting mode. If it finds errors, run the block audit in correcting mode. Then this audit may be tried again.
8 - 23, 25, 26	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
24	Run this audit with reduced file system activity.
35	This will occur when the maximum number of file manger tasks are running and using the available file manager segment table slots. Rerun the audit at different times during the day when there are no other file system audits running. If the problem persists, execute a level 3 initialization. If the problem still persists, then create an off-line memory dump tape and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

There is no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report. .P Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	**Key(s):**
1	78
2, 3	76
4	52
5	693
6	314
7	558

Input Message(s):

```
AUD:FSCMPT
OP:FNAME
UPD:OMDB
```

Output Appendix(es):

```
APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D
APP:OMDB-X-REF
```

Other Manual(s):

235-600-400 *Audits*

AUD:FSLINK

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    AUD ENV=RTR FSLINK a b COMPLETED
         c ERRORS FOUND
         d ERRORS CORRECTED
       ____________________________________________________________________

[2]    AUD ENV=RTR FSLINK a b STOPPED
       ____________________________________________________________________

[3]    AUD ENV=RTR FSLINK a ABORTED CODE e
       ____________________________________________________________________

[4]    AUD ENV=RTR FSLINK a b ERROR f {CORR | NOT CORR}
            REPORT {STARTED | IN PROGRESS | COMPLETED}
         DATA1  X'g      DATA2  X'h
         DATA3  X'i      DATA4  X'j
        [NO SUPPLEMENTARY DATA]
       ____________________________________________________________________

[5]    AUD FSLINK NOT STARTED
        {CONFLICT WITH CURRENT SYSTEM STATUS  k
        |RETRY LATER  l
        |UNABLE TO IDENTIFY ERROR - INVALID DATA  ERROR m}
       ____________________________________________________________________

[6]    AUD ENV=RTR FSLINK a AUTOMATICALLY n
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the termination status of file system link audit and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

a = Audit member. *UNIX*® RTR audits have the value 1, but application audits may be greater than 1.

b = Name of the file system that was audited.

c = Total number of errors.

d = Total number of reports for corrected errors and for compaction completed.

e = Abort code. Valid value(s):
- 3 = Audit was aborted without completing its work.
- 4 = Audit was faulted while correcting errors.
- 5 = System integrity monitor (SIM) could not start or dispatch the audit.
- 6 = An error was encountered in the audit control/audit library interface.

7 = Audit exceeded its timeout or segment limit.
8 = SIM aborted an executing routine audit because of a blocking request.
9 = Transient process that was running the audit terminated.
10 = A segmented audit exceeded an error threshold.
12 = Audit rejected the request to run from SIM.
13 = SIM aborted an executing audit because the audit system is being reinitialized.

f = Error code. Valid value(s):

1 = Bad superblock label:
- g = Not used.
- h = File system label.
- i = Not used.
- j = Not used.

2 = Trashed inode in the inode table:
- g = Inode number (index into inode table).
- h = Inode number from inode table entry.
- i = Not used.
- j = Not used.

3 = Bad directory entry:
- g = Inode number (index into inode table).
- h = Inode number in the directory entry.
- i = File type of directory. Valid value(s):
  - 1 = Regular file direct block.
  - 2 = Single indirect block.
  - 3 = Double indirect block.
  - 4 = Triple indirect block.
  - 5 = Extent file.
- j = Corrected directory inode number, if corrected; otherwise, inode number is the directory entry.

4= Bad directory block (block out of file system block range):
- g = Inode number (index into inode table).
- h = Bad block number.
- i = Not used.
- j = Not used.

5= Bad link count (link count in inode not same as number of references in directories).
- g = Inode number.
- h = Bad link count of the inode.
- i = Not used.
- j = CORRECTED (if correcting audit); otherwise, CORRECT link count.

6= Unreferenced inode:
- g = Inode number.
- h = Bad link count of the inode.
- i = For non-correcting audits, not used. For correcting audit, correction type. Valid

value(s):
0 = The unreferenced inode was zeroed out.
1 = The unreferenced inode was written into a lost+found directory.

j = If non-correcting mode, the number of links from the file system.

If correcting mode and the file was zero length, the file is removed and this value is zero. Otherwise, the file is linked into the lost+found directory and this value will be the number of corrected links from the file system.

7= Link count of the director inode is less than 2:
g = Inode number.
h = Link count in inode.
i = Not used.
j = Not used.

8= Audit library initialization failed.
g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

9= Unable to open device file.
g = Not used.
h = Error returned from attempt to open.
i = Index used to locate error.
j = Not used.

10= Unable to stat device file.
g = Not used.
h = Error returned from attempt to get status.
i = Index used to locate error.
j = Not used.

11= Device file not block device.
g = Not used.
h = File type.
i = Index used locate error.
j = Not used.

12= Unable to allocate a message.
g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

13= Unable to queue a message.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

14= Unable to add segments.
g = Segment index into file manager's segment table.
h = Error returned from attempt to add segment.
i = Size in bytes of the segment to be added.
j = Not used.

16= Unable to access block (or get buffer to read block).
g = Block number.
h = Error returned.
i = Index used to locate error.
j = Inode number of current inode.

18= Unable to access inode.
g = Inode number.
h = Error returned on attempt to access.
i = Index used to locate error.
j = Not used.

19= Unable to remove a segment.
g = Index in file manager's segment list.
h = Zero or error returned from attempt to remove the segment.
i = Indicates reason for failure. Valid value(s):
000c = Failed to allocate a message.
000d = Failed to queue the message.
0013 = Request to remove the segment failed, error returned is found in 'h'.

j = Not used.

20= Cannot mount the device.
g = Not used.
h = Not used.
i = Index with the following values:
000a = No free mount table entry.
000b = Unable to read superblock.

j = Not used.

26= The device file is open for writing.
g = Inode number of device file.
h = Number of opens for writing on the device.
i = Record ID (RID) of the monitor device chain table (MDCT) for the file system on which the device file resides.

j = Partition for the file system on which the device file resides.

27= Current directory entry could not be referenced from the parent directory.
g = Inode number.
h = Bad link count of the inode.
i = Correction type. Valid value(s):
1 = Not corrected - aborted. Parent inode should be two but it is not.
2 = Corrected. Parent inode should be two but it is not.
3 = Not corrected - aborted. Parent inode is not a directory.
4 = Corrected. Parent inode is not a directory, but all files under the parent inode have written into the lost+found directory.
5 = Unable to make the correction. Unable to write into the lost+found directory.
6 = Corrected. Corrupted inode has been written into the lost+found directory.

j = Zero if unknown, otherwise the bad inode number.

28= Current directory entry cannot reference its parent directory.
g = Current directory inode number.
h = Bad link count of the inode.
i = Not used.
j = Parent directory inode number.

29= Current directory entry has a bad inode.
g = Inode number.
h = Bad link count of the inode.
i = Not used.
j = Bad inode number.

30= References to a free inode.
g = Inode number with invalid reference.
h = Not used.
i = Not used.
j = Zero if corrected; otherwise, number of invalid references.

31= Current directory has more than one parent directory.
g = Inode number.
h = Parent inode originally specified by ".." in current directory.
i = Not used.
j = Not used.

32= Current directory is not reachable from file system root.
g = Inode number.
h = Parent inode originally specified by ".." in current directory.
i = Not used.
j = Not used.

33= Active but unreferenced file in file system when audit invoked with

PARAM="BACKUP". This condition does not represent an actual file system error, but if a backup tape is made with this condition present, the backup tape could contain file system errors. There is no corrective action for this condition.

g = Inode number.
h = Number of active opens on this inode.
i = Not used.
j = Process ID (PID) of a process (there may be others) with the inode open.

35= File manger segment list is full.

g = Not used.
h = Not used.
i = Index used to locate error.
j = Not used.

k = Explanation of error. Refer to the APP:AUD-C appendix in the Appendixes section of the Output Messages manual.

l = Explanation of error. Refer to the APP:AUD-D appendix in the Appendixes section of the Output Messages manual.

m = Explanation of error. Refer to the APP:AUD-B appendix in the Appendixes section of the Output Messages manual.

n = Inhibit status. Valid value(s):

ALLOWED = Audit has been automatically allowed by SIM.
INHIBITED = Audit has been automatically inhibited by SIM.

NOTE: Refer to the APP:AUD-A and APP:AUD-B appendixes in the Appendixes section of the Output Messages manual for assorted parsing errors when the input message (IM) catalog is not active.

4. ACTION TO BE TAKEN

For Formats 1, 2, 3, 5, and 6, no action is necessary.

For Format 4, the action to be taken depends on the error code.

5. ALARMS

There is no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):

1	78
2,3	76
4	52
5	314
6	558

Input Message(s):

```
AUD:FSLINK
OP:FNAME
STOP:AUD
STP:AUD
UPD:OMDB
```

Output Appendix(es):

```
APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D
APP:OMDB-X-REF
```

Other Manual(s):

235-600-400 *Audits*

AUD:MMGR

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    AUD ENV=RTR MMGR a COMPLETED
         b ERRORS FOUND
         c ERRORS CORRECTED
```

```
[2]    AUD ENV=RTR  MMGR a STOPPED
```

```
[3]    AUD ENV=RTR MMGR a ABORTED CODE  d
```

```
[4]    AUD ENV=RTR MMGR a ERROR e {CORR|NOT CORR}
           REPORT {STARTED|IN PROGRESS|COMPLETED}
         DATA1  X'f   DATA2  X'g
         DATA3  X'h   DATA4  X'i
        [NO SUPPLEMENTARY DATA]
```

```
[5]    AUD ENV=RTR MMGR a ERROR e {CORR|NOT CORR}
           REPORT {STARTED|IN PROGRESS|COMPLETED}
         SUPPLEMENTARY DATA BLOCK NUMBER 1
                                  HEXADECIMAL DATA
                        +X'0      +X'4    +X'8   +X'c
         X'000000         j         k       l      m
                          .         .       .      .
                          .         .       .      .
                          .         .       .      .
         AUD ENV=RTR MMGR a ERROR e {CORR|NOT CORR}
           REPORT {STARTED|IN PROGRESS|COMPLETED

         SUPPLEMENTARY DATA BLOCK NUMBER 2

                                     HEXADECIMAL DATA

                          +X'0     +X'4     +X'8     +X'c
         X'000000      RRRRRRRR 000STTTT RRRRRRRR 000STTTT
                          .        .        .        .
                          .        .        .        .
                          .        .        .        .
```

```
[6]    AUD ENV=RTR MMGR a DATA n
            REPORT {STARTED | IN PROGRESS | COMPLETED}
         DATA1  X'f   DATA2  X'g
         DATA3  X'h   DATA4  X'i
        [NO SUPPLEMENTARY DATA]
```

```
[7]    AUD MMGR NOT STARTED
        {CONFLICT WITH CURRENT SYSTEM STATUS  o
        |RETRY LATER  p
        |UNABLE TO IDENTIFY ERROR - INVALD DATA  ERROR q}
```

```
[8]    AUD ENV=RTR MMGR a  AUTOMATICALLY r
```

2. REASON FOR OUTPUT

To report the termination status of the memory manager audits and/or any errors found.

3. VARIABLE FIELD DEFINITIONS

a = Audit member. Valid value(s):
- 1 = Segment descriptor table audit.
- 2 = Page table audit.
- 3 = Page descriptor table audit.
- 4 = Segment release audit.
- 5 = Segment unlock audit.
- 9 = Swap space compaction audit.

b = Total number of errors found.

c = Total number of errors corrected.

d = Abort code. Valid value(s):
- 3 = Audit was aborted without completing its work.
- 4 = Audit was faulted while correcting errors.
- 5 = System integrity monitor (SIM) could not start or dispatch the audit.
- 6 = An error was encountered in the audit control/audit library interface.
- 7 = Audit exceeded its timeout or segment limit.
- 8 = SIM aborted an executing routine audit.
- 9 = Transient process that was running the audit terminated.
- 10 = A segmented audit exceeded an error threshold.

e-i = Error code and error data. Possible error codes and corresponding error data are. Valid value(s):
- 1 = Not a real error. Swap space has been compacted.
  - f = Number of holes after compaction.
  - g = Size of the largest hole after compaction.
  - h = Number of segments "moved" on the swap disk.
  - i = Number of segments swapped into memory by the compaction function.
- 2 = The swap space compaction audit was requested to run in a non-correcting mode, which is meaningless for this audit. If 'd' = 2, fields 'f' through 'i' will be 0, field 'b' will be 1 (1 error found) and 'c' will be 0 (no errors corrected).
- 3 = The swap space compaction audit was unable to "move" a particular segment.
  - f = Disk address (block number) of the segment.

g = Segment size in blocks.
h,i = 0 - Not used.

10 = Incorrect values in one or more of the following: pointer to first segment descriptor, pointer to last segment descriptor, number of segment descriptors.
f = Value in pointer to first segment descriptor.
g = Value in pointer to last segment descriptor.
h = Value in number of segment descriptors.
i = 0-Not used.

20 = Incorrect values in one or more of the following; pointer to first page table, pointer to last page table, number of page tables.
f = Value in pointer to first page table.
g = Value in pointer to last page table.
h = Value in number of page tables.
i = 0-Not used.

30 = Incorrect values in one or more of the following; pointer to first page descriptor, pointer to last page descriptor, number of page descriptors.
f = Value in pointer to first page descriptor.
g = Value in pointer to last page descriptor.
h = Value in number of page descriptors.
i = 0-Not used.

101 = Invalid link in the segment descriptor free list.
f = Invalid segment descriptors.
g,h,i = 0-Not used.

102 = Segment descriptor on the free list is allocated.
f = Pointer to the allocated segment descriptor.
g,h,i = 0-Not used.

103 = Incorrect value in the number of free segment descriptors.
f = Correct number of free segment descriptors.
g = Incorrect value in the number of free segment descriptors.
h,i = 0-Not used.

104 = Segment descriptor free list is circular.
f = Pointer to the segment descriptor at which error was found.
g,h,i = 0-Not used.

105 = Segment descriptor on free list not marked on-free-list.

CORR mode:
f = Pointer to the segment descriptor.
g,h,i = 0-Not used.

NOT CORR mode:
f = Pointer to the segment descriptor
g = Pointer to first free segment descriptor.
h,i = 0 - Not used.

106 = Free segment descriptor not on the free list.

f = Pointer to the segment descriptor.
g = Pointer to first free segment descriptor.
h,i = 0-Not used.

107 = Segment descriptor with a valid page table pointer and/or non-zero status not marked allocated.
f = Pointer to the segment descriptor.
g = Uncorrected value of the status word in the segment descriptor.
h,i = 0-Not used.

108 = Empty page table linked to a segment descriptor that is not page-protected.
f = Pointer to the segment descriptor.
g = Pointer to the page table.
h,i = 0-Not used.

109 = Page table linked to a segment descriptor not marked allocated.
f = Pointer to the segment descriptor.
g = Pointer to the page table.
h,i = 0-Not used.

110 = Invalid page table pointer in a segment descriptor.
f = Pointer to the segment descriptor.
g = Invalid page table pointer.
h,i = 0-Not used.

112 = Incorrect segment index in a page descriptor for a page linked to a segment descriptor.
f = Pointer to the segment descriptor.
g = Index into the segment's page table for the page.
h = Page number.
i = Incorrect segment index.

113 = Incorrect page index in a page descriptor for a page linked to a segment descriptor.
f = Pointer to the segment descriptor.
g = Index into the segment's page table for the page.
h = Page number.
i = Incorrect page index.

114 = Incorrect in-memory-page-count in segment descriptor.
f = Pointer to the segment descriptor.
g = Correct in-memory-page-count.
h = Incorrect in-memory-page-count in segment descriptor.
i = 0-Not used.

115 = Page descriptor for a page linked to a segment descriptor not marked allocated.
f = Pointer to the segment descriptor.
g = Index into the segment's page table for the page.
h = Page number.
i = 0-Not used.

(116 - 122) Serious errors involving segment corruptions.

For these errors, the information reported differs depending on the mode of the audit. In NOT CORR mode, no supplementary data is provided. In CORR mode, one or two blocks of supplementary data is provided. The data field descriptions for NOT CORR mode will be listed for each error code individually. The data field descriptions for CORR mode, which are identical for all these errors, will follow. The SUPPLEMENTARY DATA BLOCK descriptions for these errors are given last.

(116 - 122) NOT CORR mode:

116 = Invalid page address in page table entry for a segment.
- f = Pointer to the segment descriptor.
- g = Index into the segment's page table for the page.
- h = The invalid page address.
- i = 0 - not used.

118 = Segment has pages that overlap.
- f = Pointer to the segment descriptor.
- g = Index of one entry in the page table for the page.
- h = Index of the other entry in the page for the page.
- i = Page number.

120 = Two segments overlap in a page.
- f = Pointer to the segment descriptor for the first segment.
- g = Pointer to the segment descriptor for the second segment.
- h = 00PP00QQ, where PP (00 - 3F) is the index in the page table of the first segment for the common page, and QQ (00 -3F) is the index in the page table of the second segment for the common page.
- i = Page number.

122 = Two segments have the same page table.
- f = Pointer to the segment descriptor for the first segment.
- g = Pointer to the segment descriptor for the second segment.
- h = Pointer to the common page table.
- i = 0 - not used.

(116 - 122) CORR mode:

Data field descriptions:
- f = Number of segments with error.
- g = Number of non-killable processes that have any of these segments in their address spaces.
- h = Number of killable processes that have any of these segments in their address spaces.
- i = Number of killable processes that have been terminated.

In SUPPLEMENTARY DATA BLOCK NUMBER 1, each line of four data words describes a serious error.

j = Error code. Possible error codes and corresponding error data are:

00000074 (decimal 116)-invalid page address in an entry of the

page table for a segment.
k = Pointer to the segment descriptor.
l = 000000NN, where NN (00-3F) is the index of the entry in the page table.
m = The invalid page address.

00000076 (decimal 118)-overlap of pages within a segment.
k = Pointer to the segment descriptor.
l = 000000NN, where NN (00-3F) is the index of one entry in the page table for the page.
m = 000000PP, where PP (00-3F) is the index of the other entry in the page table for the page.

00000078 (decimal 120)-Two segments overlap in a page.
k = Pointer to the segment descriptor for the first segment.
l = Pointer to the segment descriptor for the second segment.
m = 00PP00QQ, where PP (00-3F) is the index in the page table of the first segment for the common page, and QQ (00-3F) is the index in the page table of the second segment for the common page.

0000007a (decimal 122)-two segments have the same page table.
k = Pointer to the segment descriptor for the first segment.
l = Pointer to the segment descriptor for the second segment.
m = Pointer to the common page table.

In SUPPLEMENTARY DATA BLOCK NUMBER 2, each pair of data words describes a process that contains in its address space one or more of the segments with serious errors.
RRRRRRRR = Process number of the process.
S = Flags describing the process. Valid value(s):
8 = The process is a special kernel process.
4 = The process is non-killable.
3 = The process is killable and a termination message has been sent.
2 = The process is killable, but no termination message was sent by this audit of the process.

TTTT = The pcode portion of the utility ID.

201 = Invalid link in the page table free list.
f = Invalid page table pointer.
g = 0-not used.
h = 0-not used.
i = 0-not used.

202 = Page table on the free list has non-free entries.
f = Pointer to the page table.

g = 0-not used.
h = 0-not used.
i = 0-not used.

203 = Incorrect value in the number of free page tables.
f = Correct number of free page tables.
g = Incorrect value in the number of free page tables.
h = 0-Not used.
i = 0-Not used.

204 = Page table free list is circular.
f = Pointer to the page table at which error was found.
g = 0-Not used.
h = 0-Not used.
i = 0-Not used.

205 = Page table on free list not marked on-free-list.
f = Pointer to the page table.
g = 0-Not used.
h = 0-Not used.
i = 0-Not used.

206 = Page table lost; not on the free list and not linked to a segment descriptor.
f = Pointer to the page table.
g = Pointer to first free page table.
h = 0-Not used.
i = 0-Not used.

301 = Invalid link index in the list of free pages.
f = Invalid link index.
g = 0-Not used.
h = 0-Not used.
i = 0-Not used.

302 = Page on the free list is allocated.
f = Page number of the page.
g = 0-Not used.
h = 0-Not used.
i = 0-Not used.

303 = Incorrect value in the number of free pages.
f = Correct number of free pages.
g = Incorrect value in the number of free pages.
h = 0-Not used.
i = 0-Not used.

304 = Free page list is circular.
f = Page number at which error was found.
g = 0-Not used.
h = 0-Not used.
i = 0-Not used.

305 = Page descriptor for a page on free list not marked on-free-list.
f = Page number of the page.
g = 0-Not used.
h = 0-Not used.
i = 0-Not used.

306 = Lost page; page not on free list and not linked to a segment descriptor.
f = Page number of the page.
g = Page number of first free page.
h = 0-Not used.
i = 0-Not used.

401 = Breakdown of a segment interrupted.
f = Pointer to a segment descriptor.
g = Status word in segment descriptor.
h = Index into segment descriptor table.
i = 0-Not used.

501 = Old iolocked segment.
f = Pointer to segment descriptor.
g = Age of segment in minutes.
h = Index into segment descriptor table.
i = Utility ID of segment's last owner (not necessarily the process that left the segment locked). Zero indicates the utility ID is not available.

n = Data report code. Possible date codes and corresponding data values are:
1 = Swap space has been compacted.
f = Number of holes after compaction.
g = Size of largest hole after compaction.
h = Number of segments "moved" on the swap disk.
i = Number of segments swapped into memory by the compaction function.

o= Explanation of error. Refer to the APP:AUD-C appendix in the Appendixes section of the Output Messages manual.

p= Explanation of error. Refer to the APP:AUD-D appendix in the Appendixes section of the Output Messages manual.

q= Explanation of error. Refer to the APP:AUD-B appendix in the Appendixes

section of the Output Messages manual.

`r`= Inhibit status. Valid value(s):
`ALLOWED` = Audit status has been automatically allowed by SIM.
`INHIBITED` = Audit status has been automatically inhibited by SIM.

NOTE: Refer to the APP:AUD-A and APP:AUD-B appendixes in the Appendixes section of the Output Messages manual for assorted parsing errors when the input message (IM) catalog is not active.

4. ACTION TO BE TAKEN

If the audit was run in non-correcting mode and reported errors, rerun it in correcting mode.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	78
2, 3	76
4	52
5	71
6	693
7	558

Input Message(s):

```
AUD:MMGR
OP:AUD
STOP:AUD
STP:AUD
```

Output Message(s):

```
OP:AUD
```

Output Appendix(es):

```
APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D
APP:OMDB-X-REF
```

Other Manual(s):
235-600-400 *Audits*

AUD:MSGBUF

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    AUD ENV=RTR MSGBUF a COMPLETED
         b ERRORS FOUND
         c ERRORS CORRECTED
```

```
[2]    AUD ENV=RTR MSGBUF a STOPPED
```

```
[3]    AUD ENV=RTR MSGBUF a ABORTED CODE X'd
```

```
[4]    AUD ENV=RTR MSGBUF a ERROR e {CORR|NOT CORR}
         REPORT {STARTED|IN PROGRESS|COMPLETED}
             DATA1  X'f    DATA2  X'g
             DATA3  X'h    DATA4  X'i
             [NO SUPPLEMENTARY DATA]
```

```
[5]    AUD ENV=RTR MSGBUF a ERROR e {CORR|NOT CORR}
         REPORT {STARTED|IN PROGRESS|COMPLETED}
             SUPPLEMENTARY DATA BLOCK NUMBER 1
                            MESSAGE HEADER
             X'j                LINK
             X'k                FROM
             X'l                TO
             X'm                NBLKS
             X'n                FLAGS
             X'o                TYPE
             X'p                STAT
             X'q                SIZE
             X'r                OTYPE
             X's                SEQNUM
             X't                IDENT
```

```
[6]    AUD ENV=RTR MSGBUF a ERROR e {CORR|NOT CORR}
         REPORT {STARTED|IN PROGRESS|COMPLETED}
          SUPPLEMENTARY DATA BLOCK NUMBER 2
            MESSAGE BUFFER EXTENDER BLOCK
          X'u                LINK
          X'v                OWNER
          X'w                TSTAMP
          X'x                BLKS
          X'y                FLAGS
          X'z                TYPE
          X'a[1]              UNUSED
```

```
[7]    AUD MSGBUF NOT STARTED
        {CONFLICT WITH CURRENT SYSTEM STATUS  b[1]
        |RETRY LATER  c[1]
        |UNABLE TO IDENTIFY ERROR - INVALID DATA  ERROR d[1]}
```

```
[8]    AUD ENV=RTR MSGBUF a AUTOMATICALLY  e[1]
```

2. REASON FOR OUTPUT

To report the termination status of the message buffer (MSGBUF) resources audit and/or any errors found.

3. VARIABLE FIELD DEFINITIONS

a = Audit member. Valid value(s):
- 1 = Message buffer queue audit.
- 2 = Message buffer extender block audit.

b = Total number of errors found.

c = Total number of errors corrected.

d = Abort code. Valid value(s):
- 3 = Audit was aborted without completing its work.
- 4 = Audit was faulted while correcting errors.
- 5 = System integrity monitor (SIM) could not start or dispatch the audit.
- 6 = An error was encountered in the audit control/audit library interface.
- 7 = Audit exceeded its timeout or segment limit.
- 8 = SIM aborted an executing routine audit because of a blocking request.
- 9 = Transient process that was running the audit terminated.
- 10 = A segmented audit exceeded an error threshold.
- 12 = Audit rejected the request to run from SIM.
- 13 = SIM aborted an executing audit because the audit system is being reinitialized.

e = Error code. Valid value(s):

NOTE: The utility ID contains the following information:

bits 31-16	Process dct index
bits 15-0	Process code (utility from process .bfile)

NOTE: A NULL utility ID for a queued/dequeued message indicates that the associated process has died.

110 = Bad message queue head pointer
- f = Address of the queue head pointer.
- g = Bad queue head pointer.
- h = Utility ID of process owning queue.
- i = Corrected queue head pointer if the error was corrected, 0 if it was not. (0 is also a valid queue head pointer).

111 = Bad message queue link pointer.
- f = Address of the message extender.
- g = Bad queue link pointer.
- h = Utility ID of process owning queue.
- i = Corrected queue link pointer if the error was corrected, 0 if it was not. (0 is also a valid queue link pointer).

  If the corrected queue link pointer is the same as the bad queue link pointer, then the message extender with the bad link pointer was either marked unallocated or unqueued, and was not put onto the rebuilt message queue.

112 = Allocation bit not set in message extender of queued message.
- f = Address of the message extender.
- g = Bad extender flags field.
- h = Utility ID of process owning queue.
- i = 0 - not used.

113 = Bad on-queue indicator in message extender of queued message.
- f = Address of the message extender.
- g = Bad extender flags field.
- h = Utility ID of process owning queue.
- i = Correct extender flags field.

114 = Allocation bit not set in message header of queued message.
- f = Address of the message.
- g = Bad message flags field.
- h = Utility ID of process owning the queue.
- i = Correct message flags field.

115 = Bad message-to field in message and bad message owner field in message extender.
- f = Address of the message.
- g = Process ID in message to field.
- h = Process ID in message owner field.
- i = Process ID of process owning queue.

116 = Bad message owner in message extender.
- f = Address of the message extender.
- g = Process ID in message owner field.
- h = Utility ID of process owning queue.
- i = Process ID of process owning queue.

117 = Bad message to field in message.
- f = Address of the message.
- g = Process ID in message to field.
- h = Utility ID of process owning queue.
- i = Process ID of process owning queue.

118 = Message queue out of order.
- f = Address of the message.
- g = Receiver's utility ID.
- h = Message type.

i = Sender's utility ID.

119 = Old audit fault message queued to a non-killable process.
f = Address of the message.
g = Receiver's utility ID.
h = Message type.
i = Sender's utility ID.

120 = Old audit fault message queued to a killable process.
f = Address of the message.
g = Receiver's utility ID.
h = Message type.
i = Sender's utility ID.

121 = Old queued message (except an old queued audit fault message).
f = Address of the message.
g = Receiver's utility ID.
h = Message type.
i = Sender's utility ID.

122 = Process has a circular message queue.
f = Address of the message extender.
g = Queue link pointer.
h = Utility ID of process owning queue.
i = Corrected queue link pointer if the error was corrected, 0 if it was not. (0 is also a valid queue link pointer).

123 = Bad message queue tail pointer.
f = Address of the queue tail pointer.
g = Bad queue tail pointer.
h = Utility ID of process owning queue.
i = Corrected queue tail pointer if the error was corrected, 0 if it was not. (0 is also a valid queue tail pointer).

124 = Bad message queue block count.
e = Address of message queue count.
f = Bad message queue block count.
g = Utility ID of process owning queue.
h = Correct message queue block count.

125 = Old acknowledgment message queued to a non-killable supervisor process.
f = Address of the message.
g = Receiver's utility ID.
h = Message type.
i = Sender's utility ID.

126 = Old acknowledgment message queued to a killable supervisor process.
f = Address of the message.
g = Receiver's utility ID.
h = Message type.
i = Sender's utility ID.

200 = Allocated message with an invalid owner field.

f = Address of the message.
g = Process ID in message owner field.
h = Message type.
i = Sender's utility ID.

201 = Old allocated message.
f = Address of the message.
g = Owner's utility ID.
h = Message type.
i = Sender's utility ID.

214 = Allocated bit not set in message header of allocated message.
f = Address of the message.
g = Bad message flags field.
h = Utility ID of process owning queue.
i = Correct message flags field.

216 = Queued message with an invalid owner.
f = Address of the message.
g = Process ID in message owner field.
h = Message type.
i = Sender's utility ID.

219 = Old audit fault message queued to a non-killable process.
f = Address of the message.
g = Receiver's utility ID.
h = Message type.
i = Sender's utility ID.

220 = Old audit fault message queued to a killable process.
f = Address of the message.
g = Receiver's utility ID.
h = Message type.
i = Sender's utility ID.

221 = Old queued message (except an old queued audit fault message).
f = Address of the message.
g = Receiver's utility ID.
h = Message type.
i = Sender's utility ID.

270 = Dequeued message with an invalid owner field.
f = Address of the message.
g = Process ID in message owner field.
h = Message type.
i = Sender's utility ID.

271 = Old dequeued audit fault message owned by a non-killable process.
f = Address of the message.
g = Receiver's utility ID.
h = Message type.
i = Sender's utility ID.

272 = Old dequeued audit fault message owned by a killable process.
- f = Address of the message.
- g = Receiver's utility ID.
- h = Message type.
- i = Sender's utility ID.

273 = Old dequeued message (except an audit fault message).
- f = Address of the message.
- g = Receiver's utility ID.
- h = Message type.
- i = Sender's utility ID.

274 = Over nine old non-queued messages (excluding audit fault messages) owned by a killable process.
- f = Owner's process ID.
- g = Owner's utility ID.
- h = 0 - not used.
- i = 0 - not used.

290 = Audit fault message response has an invalid message status.
- f = Address of the audit fault message.
- g = Invalid message status.
- h = Sender's process ID.
- i = 0 - not used.

291 = Invalid status for a message pointer in an audit fault message response.
- f = Address of the audit fault message.
- g = Invalid message pointer status.
- h = Sender's process ID.
- i = Message pointer.

j = Message link.

k = Process ID of message sender.

l = Process ID of message receiver.

m = Size of message in blocks.

n = Message flags.

o = Message type.

p = Message status.

q = Message size in bytes.

r = Old message type.

s = Sequence number.

t = Message identification.

u = Message queue link.

v = Process ID of message owner.

w = Time stamp.

x = Size of message in blocks.

y = Message extender flags.

z = Message type.

a[1] = Unused.

b[1] = Explanation of error. Refer to the APP:AUD-C appendix in the Appendixes section of the Output Messages manual.

c[1] = Explanation of error. Refer to the APP:AUD-D appendix in the Appendixes section of the Output Messages manual.

Note: Refer to APP:AUD-A and APP:AUD-B appendixes in the Appendixes section of the Output Messages manual for assorted parsing errors when the input message (IM) catalog is not active.

d[1] = Explanation of error. Refer to the APP:AUD-B appendix in the Appendixes section of the Output Messages manual.

e[1] = Inhibit status. Valid value(s):
ALLOWED = Audit has been automatically allowed by SIM.
INHIBITED = Audit has been automatically inhibited by SIM.

4. ACTION TO BE TAKEN

Error:	Action:
119, 120, 219, 220, 271, 272, 290, and 291	Indicate that a process has probably mishandled an audit fault message, notify your next level of technical assistance. It is likely that errors 201 and 273 will not be corrected if any of these errors occur.
121, 125, 126, 201, 221, 273, and 274	Indicate that a process may be having problems in processing its messages. Notify your next level of technical assistance.
219, 220, and 221	Indicate an error in a queued message found by the message extender audit. Run the message queue audit (MSGBUF1) and if the error is not found and corrected, then run the message extender audit (MSGBUF2) again.
200, 216, and 270	Indicate a problem in the ownership of a message. This may occur if a breakdown happens in a process termination. Run the process administration audit (PROAD1) to complete the process termination.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	78
2, 3	76
4	52
6	75
8	558

Input Message(s):

```
AUD:MSGBUF
OP:AUD
STOP:AUD
STP:AUD
```

Output Message(s):

```
OP:AUD
REPT:KAUDPRC
```

Output Appendix(es):

```
APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D
APP:OMDB-X-REF
```

Other Manual(s):
235-600-400 *Audits*

AUD:PMS

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    AUD ENV=RTR PMS a COMPLETED
         b ERRORS FOUND
         c ERRORS CORRECTED
       ____________________________________________________________________

[2]    AUD ENV=RTR PMS a STOPPED
       ____________________________________________________________________

[3]    AUD ENV=RTR PMS a ABORTED CODE d
       ____________________________________________________________________

[4]    AUD ENV=RTR PMS a ERROR e {CORR | NOT CORR}
            REPORT {STARTED | IN PROGRESS | COMPLETED}
         DATA1  X'00000000     DATA2  X'00000000
         DATA3  X'00000000     DATA4  X'00000000
              [NO SUPPLEMENTARY DATA]
       ____________________________________________________________________

[5]    AUD ENV=RTR PMS a ERROR e {CORR | NOT CORR}
            REPORT {STARTED | IN PROGRESS | COMPLETED}
              {SUPPLEMENTARY DATA BLOCK NUMBER f
              | SUPPLEMENTARY DATA FILE}
         g
       ____________________________________________________________________

[6]    AUD ENV=RTR PMS a ERROR e {CORR|NOT CORR} REPORT
        {STARTED | IN PROGRESS | COMPLETED}
         SUPPLEMENTARY DATA FROM OMDB
         g
       ____________________________________________________________________

[7]    AUD PMS NOT STARTED
        {CONFLICT WITH CURRENT SYSTEM STATUS h
        |RETRY LATER i
        |UNABLE TO IDENTIFY ERROR - INVALID DATA  ERROR j}
       ____________________________________________________________________

[8]    AUD ENV=RTR PMS a AUTOMATICALLY k
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

Format 1 indicates the input message completed, how many errors were found, and how many were corrected. Format 2 indicates the audit stopped. Format 3 indicates the audit aborted. Formats 4, 5, and 6 indicate that an error has been found in the audit of the plant measurement database (PMS). Format 7 indicates that the audit can not be started at this time. Format 8 indicates the inhibit status of the PMS audit.

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3. VARIABLE FIELD DEFINITIONS

a = Audit member number. Valid value(s):
- 1 = Manual, routine, or demand audit.
- 2 = Create the database.

b = Total number of errors found.

c = Total number of errors corrected.

d = Abort code. Valid value(s):
- 3 = Audit was aborted without completing its work.
- 4 = Audit was faulted while correcting errors.
- 5 = System integrity monitor (SIM) could not start or dispatch the audit.
- 6 = An error was encountered in the audit control/audit library interface.
- 7 = Audit exceeded its timeout or segment limit.
- 8 = SIM aborted an executing routine audit because of a blocking request.
- 9 = Transient process that was running the process terminated.
- 10 = A segmented audit exceeded an error threshold.
- 12 = Audit rejected the request to run from SIM.
- 13 = SIM aborted an executing audit because the audit system is being reinitialized.

e = Error code (0-5034). If the error code is 0-3, 1000, 1001, or 2000-5034, refer to the Audits manual. If the error code is 100-1301, refer to the APP:LLA appendix in the Appendixes section of the Output Messages manual.

f = Supplementary data block number.

g = An explanation of the error identified by the error code. If the error code is 100-1301 refer to the APP:LLA appendix in the Appendixes section of the Output Messages manual. If the error code is 0-3, 1000, 1001, or 2000-5034, valid values are:

```
CAN'T ATTACH TO INCORE DATA BASE.
CAN'T ATTACH TO PRIMARY DISK DATA BASE.
CAN'T GET setid_rec.
CAN'T LOCK THE INCORE DATA BASE.
CAN'T OPEN /etc/pmdb
CAN'T OPEN /etc/pmdb.aud
CAN'T RECEIVE THE MESSAGE FROM SIM.
CAN'T RELEASE THE INCORE DATA BASE.
CAN'T RELEASE THE DISK DATA BASE.
CAN'T UNLINK DISK DATABASE.
CAN'T UNLOCK INCORE DATA BASE.
CANNOT ATTACH TO SECONDARY DISK DATABASE
CANNOT falloc DISK DATABASE
FAIL TO WRITE DISK DATA BASE TO INCORE.
FAIL TO WRITE INCORE DATA BASE TO DISK.
FATAL, CAN'T COPY NEW DISK DATA BASE TO INCORE.
FATAL, CAN'T CREATE NEW DATA BASE.
FATAL, INCORE AND DISK DATA BASES MUTILATED, NEW DATA BASE WILL BE
CREATED.
```

```
INVALID AUDIT MEMBER NUMBER.
INVALID AUDIT TYPE.
INVALID DISK NAME.
INVALID DISPATCHED MESSAGE.
INVALID EXECUTION MODE.
INVALID RETURN VALUE FROM lla_audit.
INVALID SET TYPE.
INTERNAL STRUCTURE CORRECTED.  See /etc/log/pmsaud.
NEW DATA BASE CREATED.
NONCORRECTABLE INTERNAL STRUCTURE.
PRIMARY DISK DATABASE IS BAD
RESTORED INCORE DATABASE FROM DISK
RESTORED PRIMARY DISK DATABASE
RESTORED SECONDARY DISK DATABASE
REQUESTING DEMAND AUDIT TO RECOVER
SECONDARY DISK DATABASE IS BAD
fstat FAILURE.
lcall FAILURE.
lla_ainit FAILURE.
lla_gtrid FAILURE.
lla_opensq FAILURE.
lla_opnset FAILURE.
lla_rdget FAILURE.
lla_seqset FAILURE.
lla_uprid FAILURE.
makeseg FAILURE.
msgenab FAILURE.
plib FAILURE.
setid_rec CORRECTED.
setid_rec MUTILATED.
```

`h` = Explanation of error. Refer to the APP:AUD-C appendix in the Appendixes section of the Output Messages manual.

`i` = Explanation of error. Refer to the APP:AUD-D appendix in the Appendixes section of the Output Messages manual.

`j` = Explanation of error. Refer to the APP:AUD-B appendix in the Appendixes section of the Output Messages manual.

`k` = Inhibit status. Valid value(s):

`ALLOWED` = Audit has been automatically allowed by SIM.
`INHIBITED` = Audit has been automatically inhibited by SIM.

Note: Refer to the APP:AUD-A and APP:AUD-B appendixes in the Appendixes section of the Output Messages manual for assorted parsing errors when the input message (IM) catalog is not active.

4. ACTION TO BE TAKEN

Format 1 indicates success. Take no action.

Format 2 is an informational message that the audit has stopped. Take no action.

Format 3 indicates that the audit aborted. The action to be taken varies from retrying the audit to seeking technical advice, depending on the abort code. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Formats 4, 5, and 6 indicate that and error has been found in the audit of the PMS. Look up the error code as described in the variable field description section. Action to be taken varies depending on the error code.

Format 7 indicates that the audit can not be started at this time. Action to be taken varies from retrying the audit to seeking technical advice, depending on the reason for failure. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. Refer to the APP:AUD-C and APP:AUD-D appendixes in the Appendixes section of the Output Messages manual.

Format 8 indicates the inhibit status of the PMS audit. Take no action.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	78
2, 3	76
4	52
5	64
6	210
8	558

Input Message(s):

```
AUD:PMS
OP:AUD
STOP:AUD
STP:AUD
```

Output Message(s):

```
OP:AUD
```

Output Appendix(es):

```
APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D
APP:LLA
APP:OMDB-X-REF
```

Other Manual(s):
235-600-400 *Audits*

AUD:PROAD

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    AUD ENV=RTR PROAD 1 COMPLETED
         a ERRORS FOUND
         b ERRORS CORRECTED
       ____________________________________________________________________

[2]    AUD ENV=RTR PROAD 1 STOPPED
       ____________________________________________________________________

[3]    AUD ENV=RTR PROAD 1 ABORTED CODE c
       ____________________________________________________________________

[4]    AUD ENV=RTR PROAD 1 ERROR d {CORR | NON CORR}
            REPORT {STARTED | IN PROGRESS | COMPLETED}
         DATA1  X'e    DATA2  X'f
         DATA3  X'g    DATA4  X'h
        [NO SUPPLEMENTARY DATA]
       ____________________________________________________________________

[5]    AUD PROAD NOT STARTED
        {CONFLICT WITH CURRENT SYSTEM STATUS  i
        |RETRY LATER  j
        |UNABLE TO IDENTIFY ERROR - INVALID DATA  ERROR k}
       ____________________________________________________________________

[6]    AUD ENV=RTR PROAD 1 AUTOMATICALLY l
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the termination status of the process administration audit and/or any errors found while executing the audit.

3. VARIABLE FIELD DEFINITIONS

`a` = Total number of errors found.

`b` = Total number of errors corrected.

`c` = Abort code. Valid value(s):

- `3` = Audit was aborted without completing its work.
- `4` = Audit was faulted while correcting errors.
- `5` = System integrity monitor (SIM) could not start or dispatch the audit.
- `6` = An error was encountered between the audit control and audit library interface.
- `7` = Audit exceeded its timeout or segment limit.
- `8` = SIM aborted an executing routine audit because of a blocking request.
- `12` = Audit rejected the request to run from SIM.

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13 = SIM aborted an executing audit because the audit system is being reinitialized.

d = Error code. Values 100-399 represent errors which occur during process termination. In particular, values 100-199 occur in the scheduler, 200-299 in the capability manager, 300-399 in the process manager. Values 500-799 represent errors which occur during process creation. In particular, values 500-599 represent errors during pcreat of kernel processes, 600-699 represent errors during pcreat of supervisor processes, and 700-799 represent errors during process fork. Value 800 indicates that the process has been suspended from execution for over 30 minutes.

A problem occurred during or after:

100 = The use count was decremented.
110 = term_dct was called.
120 = GRASP/DART was informed.
130 = The DCTE was unlinked from its dispatch chain.
140 = The address translation buffers (ATBs) were flushed.
150 = The acknowledgement message was allocated and copied.
160 = The dispatch control table entry (DCTE) was unlinked from the ready/not ready list.
170 = The incarnation count was bumped.
180 = The message has (or should have) gone to the capability manager.
190 = The message has (or should have) gone to the process manager.
200 = The capabilities were removed.
210 = The segments were removed (supervisor process).
220 = The segments were removed (kernel process).
300 = The core dump has started.
310 = The message was sent to the capability manager.
500 = pcreat has started (kernel process).
510 = DCTE was linked.
520 = Initialization event sent.
600 = pcreat has started (supervisor process).
610 = DCTE was linked.
620 = The pstart has completed.
630 = Execute started.
700 = fork started (pfork1).
710 = DUPCAPS message sent to the file manager.
720 = pfork2 started.
730 = Sending the wake up event to the child.
800 = Process has been suspended from execution.

e = Process's utility ID.

f = The amount of time, in milliseconds, that the process has been stuck.

g = Process number.

h = Correction completion code. Valid value(s):

00000000 = The error was corrected, or the audit was run in non-correcting mode.
00000010 = The dispatcher control table (DCT) pointer failed fault retry validation when trying to send a DUPCAPS message.
00000020 = The DCT extender pointer failed fault retry validation when trying to send DUPCAPS message.

`00000030` = The PCB segid in the process' DCT entry was found to be invalid when trying to send a DUPCAPS message.
`00000040` = The audit could not attach to the process' PCB when trying to send a DUPCAPS message.
`00000050` = The audit could not allocate a DUPCAPS message.
`00000060` = The audit could not queue a DUPCAPS message.
`00000070` = The DCT pointer failed fault retry validation when trying to send a terminate message.
`00000080` = The DCT extender pointer failed fault retry validation when trying to send a terminate message.
`00000090` = The audit could not allocate a terminate message to kill a suspended process.
`000000a0` = The audit could not queue a terminate message to kill a suspended process.
`000000b0` = The PCB segid in the process' DCT entry was found to be invalid when trying to fake a pcreat acknowledgement message.
`000000c0` = The audit could not attach to the process' PCB when trying to fake a pcreat acknowledgement message.
`000000d0` = The audit could not allocate a pcreat message to fake a pcreat acknowledgement message.
`000000e0` = The audit could not queue a pcreat message to fake a pcreat acknowledgement message.
`000000f0` = The audit could not allocate a terminate message to kill a process.
`00000100` = The audit could not queue a terminate message to kill a process.

`i` = Explanation of error. Refer to the APP:AUD-C appendix in the Appendixes section of the Output Messages manual.

`j` = Explanation of error. Refer to the APP:AUD-D appendix in the Appendixes section of the Output Messages manual.

`k` = Explanation of error. Refer to the APP:AUD-B appendix in the Appendixes section of the Output Messages manual.

`l` = Inhibit status. Valid value(s):
`ALLOWED` = Audit has been automatically allowed by SIM.
`INHIBITED` = Audit has been automatically inhibited by SIM.

Note: Refer to the APP:AUD-A and APP:AUD-B appendixes in the Appendixes section of the Output Messages manual for assorted parsing errors when the input message (IM) catalog is not active.

4. ACTION TO BE TAKEN

If the audit is run in noncorrecting mode and failures occur, rerun the audit in correcting mode.

5. ALARMS

There is no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, default is a report.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	78
2, 3	76
4	52
6	558

Input Message(s):

```
AUD:PROAD
OP:AUD
UPD:OMDB
```

Output Message(s):

```
OP:AUD
```

Output Appendix(es):

```
APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D
APP:OMDB-X-REF
```

Other Manual(s):
235-600-400 *Audits*

AUD:PSUPH-CD-A

Software Release: 5E10 - 5E12
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
AUD  {PSUPH=a-b-c-d  CHNG=a-b-c-d|MCTSI=a-b,PI}  e  DUMP  EVENT=f
  ERROR-ADDR=g      MESSAGE-NO=h
  KEY=i  j
  BLOCK-ADDR=k
  l
  .
  .
  .
```

2. REASON FOR OUTPUT

To dump data from an audit which detected errors in a packet switching unit protocol handler (PH) or packet interface (PI).

3. VARIABLE FIELD DEFINITIONS

`CHNG` = Channel group.

`MCTSI` = Module controller time slot interchange.

`a` = Switching module (SM) number.

`b` = Unit number.

`c` = Shelf number.

`d` = Slot number.

`e` = Application audit ID. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual.

`f` = Event number.

`g` = Error address in hexadecimal.

`h` = Message number.

`i` = Key name.

`j` = Key number (in hexadecimal).

`k` = Block address (in hexadecimal).

`l` = Hexadecimal dump of a block of up to 199 bytes with up to 8 groups of 4 bytes per line.

4. ACTION TO BE TAKEN

This message will always be preceded by the AUD:PSUPH-CEC output message. A given audit ID '`k`' could have many different error messages with corresponding dump messages. The field which ties the dump message to the error message is the ERROR-ADDR field '`m`'. Refer to the Audits manual to interpret information given. Use the audit ID '`k`' and the error code from the corresponding error message (AUD:PSUPH-CEC) to find the interpretation in the "Audits Description" section of the manual.

When inhibiting or allowing PHs or PIs, use the INH or ALW input message with AUPSUPH for switching module processor (SMP) PH audit ID or AUPI for SMP PI audit ID. Individual PH or PI audits cannot be inhibited or allowed. Refer to the INH:UT-SM or ALW:UT-SM input message for more information.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:UT-SM
AUD:SM
INH:UT-SM
```

Output Message(s):

```
AUD:PSUPH-CEC
```

Output Appendix(es):

```
APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D
```

Output Appendix(es):

```
APP:AUDITS
```

Other Manual(s):

235-600-400 *Audits*

AUD:PSUPH-CD-B

Software Release: 5E13 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
AUD  {PSUPH=a-b-c-d  CHNG=a-b-c-d|MCTSI=a-b,PI}  e  DUMP PART g OF I EVENT=f
  MESSAGE-NO=h
  KEY=j
  BLOCK-ADDR=k
  l
  .
  .
  .
```

2. REASON FOR OUTPUT

To dump data from an audit which detected errors in a packet switching unit protocol handler (PH) or packet interface (PI).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Unit number.

`c` = Shelf number.

`d` = Slot number.

`e` = Application audit ID. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual.

`f` = Event number.

`g` = Part indicator to identify related dumps when there is too much data for a single report.

`h` = Message number.

`i` = Total number of related dump messages when there is too much data for a single report.

`j` = Dump identifying information. There are three lines. The first has the dump data type identifier or NOT_APPLICABLE. The second line has the names of the data keys or KEYS_ARE_NOT_APPLICABLE or KEYS_ARE_IN_THE_DATA_DUMP. The third line has the key values where H'0 is used as a default for the cases where keys do not apply.

`k` = Block address (in hexadecimal).

`l` = Hexadecimal dump of a block of up to 199 bytes with up to 8 groups of 4 bytes per line.

4. ACTIONS TO BE TAKEN

This message will always be preceded by the AUD:PSUPH-CEC output message. Refer to the Audits manual to interpret information given. Use the audit ID '`k`' and the error code from the corresponding error message (AUD:PSUPH-CEC) to find the interpretation in the "Audits Description" section of the manual.

When inhibiting or allowing PHs or PIs, use the INH or ALW input message with PSIUPH for switching module processor (SMP) PH audit ID or PI for SMP PI audit ID. Individual PH or PI audits cannot be inhibited or allowed. Refer to the INH:UT-SM or ALW:UT-SM input message for more information.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:UT-SM
AUD:SM
INH:UT-SM
```

Output Message(s):

```
AUD:PSUPH-CEC
```

Output Appendix(es):

```
APP:AUD
```

Other Manual(s):
235-600-400 *Audits*

AUD:PSUPH-CE

Software Release: 5E10 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
AUD  {PSUPH=a-b-c-d  CHNG=e-f-g-h|MCTSI=i-j,PI}  k  l ERRORS=m  EVENT=n
MESSAGE-NO=o
```

2. REASON FOR OUTPUT

To report the status (aborted or completed) of an audit in the packet switching unit (PSU) protocol handler (PH) or the packet interface (PI). This message is also used to report that an application interprocessor audit could not communicate with a PH or PI.

3. VARIABLE FIELD DEFINITIONS

`CHNG` = Channel group.

`MCTSI` = Module controller time slot interchange.

`a` = Switching module (SM) number where PH audit resides.

`b` = Unit number (side 0 or 1).

`c` = Shelf number.

`d` = Slot number (PH number 0-15).

`e` = SM number where PH audit resides.

`f` = Unit number (side 0 or 1).

`g` = Shelf number.

`h` = Slot number (channel group number).

`i` = SM number where PI audit resides.

`j` = Unit number (side 0 or 1).

`k` = Application audit ID. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual.

`l` = Status (`ABORTED`|`COMPLETED`).

`m` = Total number of errors found.

`n` = Event number.

`o` = Message number.

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4. ACTION TO BE TAKEN

If this message has been automatically generated, retrieve the output messages related to the audit ID '`k`'. These messages include: AUD:PSUPH and AUD:PSUPH-ERROR. Refer to the Audits manual for a description of actions.

When inhibiting or allowing PHs or PIs, you must use the INH or ALW input message with AUPSUPH for switching module processor (SMP) PH audit ID or AUPI for SMP PI audit ID. Individual PH or PI audits cannot be inhibited or allowed. Refer to the INH or ALW Input Message manual page for more information.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:UT-SM
AUD:SM
INH:UT-SM
```

Output Message(s):

```
AUD:PSUPH-CEC
```

Output Appendix(es):

```
APP:AUDITS
```

Other Manual(s):

235-600-400 *Audits*

AUD:PSUPH-CEC

Software Release: 5E10 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
AUD  {PSUPH=a-b-c-d CHNG=e-f-g-h|MCTSI=i-j,PI} k ERROR-CODE=l  EVENT=m
  ERROR-ADDR=n  BAD-DATA=o
  LOG-KEY=p  GOOD-DATA=q  MESSAGE-NO=r
  IMAGE=s
```

2. REASON FOR OUTPUT

To report that an audit detected an error in a packet switching unit (PSU) protocol handler (PH) or packet interface (PI).

3. VARIABLE FIELD DEFINITIONS

`CHNG` = Channel group.

`MCTSI` = Module controller time slot interchange.

`a` = Switching module (SM) number where PH audit resides.

`b` = Unit number.

`c` = Shelf number.

`d` = Slot number.

`e` = SM number where PH audit resides.

`f` = Unit number.

`g` = Shelf number.

`h` = Slot number (channel group number).

`i` = SM number where PI audit resides.

`j` = Unit number (side 0 or 1).

`k` = Application audit ID. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual.

`l` = Error code. Refer to the Audits manual.

`m` = Event number.

`n` = Error address in hexadecimal.

`o` = Bad (incorrect) data in hexadecimal.

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`p` = Logical key in hexadecimal.

`q` = Good (correct) data in hexadecimal.

`r` = Message number.

`s` = Image type in the PH/PI. Valid value(s):
`ERROR IMAGE` = The image contained an error.
`NULL IMAGE` = No image was loaded.
`PH1 GATEWAY IMAGE` = Image used for all features on a PH1 was loaded.
`PH2 ACCESS IMAGE` = All features (other than X.75' or X.75) on a PH2 were loaded.
`PH2 GATEWAY IMAGE` = X.75' or X.75 features on a PH2 were loaded.
`PH3 COMMON IMAGE` = All features on a PH3 were loaded. This image contains both access and gateway.
`PI IMAGE` = Image used for PI was loaded.

4. ACTION TO BE TAKEN

There may be an optional AUD:PSUPH-CD message corresponding to this message. The error address field '`n`' can be used to determine corresponding messages. All the errors reported during an invocation of an audit will be summarized by the AUD:PSUPH-CE output message. Refer to the Audits manual to interpret information given. Use the audit ID '`k`' and the error code '`l`' to find the interpretation in the "Error Code Comment Blocks" section of the manual.

When inhibiting or allowing PHs or PIs, you must use the INH or ALW input message with AUPSUPH for switching module processor (SMP) PH audit ID or AUPI for SMP PI audit ID. You cannot inhibit or allow individual PH or PI audits. Refer to the INH or ALW input message for more information.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:UT-SM
AUD:SM
INH:UT-SM
```

Output Appendix(es):

```
APP:AUDITS
```

Output Message(s):

```
AUD:PSUPH-CD
AUD:PSUPH-CE
```

Other Manual(s):

235-600-400 Audits

AUD:SM-ABORTED

Software Release: 5E10 and later
Message Class: AUDTFST,AUDTMON, AUDT
Application: 5
Type: Output

1. FORMAT

```
AUD  SM=a [SVC-GP=b]  c  ABORTED  ERRORS=d  EVENT=e
```

2. REASON FOR OUTPUT

To report that an audit in the switching module (SM) was aborted because a higher priority audit ran. This message is also used to report that an application interprocessor audit could not communicate with an SM. All messages related to a problem use the same event number (variable 'e').

3. VARIABLE FIELD DEFINITIONS

a = SM number. This number is either 1) where the application audit resides; or 2) where the interprocessor audit portion aborted.

b = Service group where the portion aborted.

c = Application audit ID. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual.

d = Total number of errors found.

e = Event number.

4. ACTION TO BE TAKEN

If this message has been automatically generated, retrieve the output messages related to the audit ID 'c'. If this message is in response to a manual request, all output messages related to the audit ID 'c' will have been printed. These messages include: AUD:SM-DUMP, AUD:SM-ERROR, and AUD:SM-FAILURE. Refer to the Audits manual for a description of actions.

This message uses variable message classes. AUDTFST indicates that this message caused a new event number to be allocated. AUDTMON indicates that this message does not describe a new event; look for previous messages with the same event number. Previous messages could include other audits messages with the AUDTFST message class, defensive check failure, or single process purge messages. AUDT indicates this message occurred as a response to a manual request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

Input Message(s):
AUD:SM AUD:SM

Output Appendix(es):

```
APP:AUDITS
```

Output Message(s):

```
AUD:SM-DUMP
AUD:SM-ERROR
AUD:SM-FAILURE
```

Other Manual(s):

235-600-400 Audits

AUD:SM-COMPLETED

Software Release: 5E10 and later
Message Class: AUDTFST,AUDTMON, AUDT
Application: 5
Type: Output

1. FORMAT

```
AUD  SM=a [SVC-GP=b]  c  COMPLETED  ERRORS=d  EVENT=e
```

2. REASON FOR OUTPUT

To report the number of errors found at audit completion or at an intermediate break in an interprocessor audit in the switching module (SM). All messages related to a problem use the same event number (variable 'e').

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number. This number is either 1) where the application audit resides; or 2) where the interprocessor audit portion was completed.

b = Service group where the audit was completed.

c = Application audit ID. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual.

d = Total number of errors found.

e = Event number.

4. ACTION TO BE TAKEN

If this message has been automatically generated, retrieve the output messages related to the audit ID 'c'. If this message is in response to a manual request, all output messages related to the audit ID 'c' will have been printed. These messages include: AUD:SM-DUMP, AUD:SM-ERROR, and AUD:SM-FAILURE. Refer to the Audits manual for a description of actions.

This message uses variable message classes. AUDTFST indicates that this message caused a new event number to be allocated. AUDTMON indicates that this message does not describe a new event; look for previous messages with the same event number. Previous messages could include other audits messages with the AUDTFST message class, defensive check failure, or single process purge messages. AUDT indicates this message occurred as a response to a manual request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
AUD:SM
```

Output Message(s):

```
AUD:SM-DUMP
AUD:SM-ERROR
AUD:SM-FAILURE
AUD:SM-DUMP
AUD:SM-ERROR
AUD:SM-FAILURE
```

Output Appendix(es):

```
APP:AUDITS
```

Other Manual(s):

235-600-400 Audits 235-600-500 Asserts

AUD:SM-DUMP-A

Software Release: 5E10 - 5E12
Message Class: AUDTFST,AUDTMON, AUDT
Application: 5
Type: Output

1. FORMAT

```
AUD  SM=a [SVC-GP=b]  c  DUMP    EVENT=d
  ERROR-ADDR=e
  KEY=f g
  BLOCK-ADDR=h
  i
  .
  .
  .
```

2. REASON FOR OUTPUT

To dump data from an audit which detected errors in a switching module (SM). This message will always be preceded by the AUD:SM-ERROR output message. A given audit ID '`c`' could have many different error messages with corresponding dump messages. The field which ties the dump message to the error message is the ERROR-ADDR field '`e`'. All dump messages related to a single problem use the same event number (variable '`d`').

3. VARIABLE FIELD DEFINITIONS

`a` = SM number. This can be either 1) where the application audit resides; or 2) where the interprocessor audit portion is executing.

`b` = Service group where the portion is executing.

`c` = Application audit ID. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual.

`d` = Event number.

`e` = Error address in hexadecimal.

`f` = Key name.

`g` = Key number.

`h` = Block address.

`i` = Hexadecimal dump of a block of up to 199 bytes with up to 8 groups of 4 bytes per line.

4. ACTION TO BE TAKEN

Refer to the Audits manual to interpret information given. Use the audit ID '`c`' and the error code from the corresponding error message (AUD:SM-ERROR) to find the interpretation of data.

Each audit may use variables '`d`' through '`i`' differently. Refer to the Audits manual for the reporting audit will contain information on how each field should be interpreted.

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This message uses variable message classes. AUDTFST indicates that this message caused a new event number to be allocated. AUDTMON indicates that this message does not describe a new event; look for previous messages with the same event number. Previous messages could include other audits messages with the AUDTFST message class, defensive check failure, or single process purge messages. AUDT indicates this message occurred as a response to a manual request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
AUD:SM
```

Output Message(s):

```
AUD:SM-ERROR
```

Output Appendix(es):

```
APP:AUDITS
```

AUD:SM-DUMP-B

Software Release: 5E13 and later
Message Class: AUDTFST,AUDTMON, AUDT
Application: 5
Type: Output

1. FORMAT

```
AUD  SM=a [SVC-GP=b]  c  DUMP PART e OF f EVENT=d
  KEY=g
  BLOCK-ADDR=h
  i
  .
  .
  .
```

2. REASON FOR OUTPUT

To dump data from an audit which detected errors in a switching module (SM). This message will always be preceded by the AUD:SM-ERROR output message.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number. This can be either 1) where the application audit resides; or 2) where the interprocessor audit portion is executing. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual which indicates the audits that are interprocessor audits.

`b` = Service group where the portion is executing.

`c` = Application audit ID. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual.

`d` = Event number.

`e` = Part indicator to identify related dumps when there is too much data for a single report.

`f` = Total number of related dump messages when there is too much data for a single report.

`g` = Dump identifying information. There are three lines. The first has the dump data type identifier or NOT_APPLICABLE. The second line has the names of the data keys or KEYS_ARE_NOT_APPLICABLE or KEYS_ARE_IN_THE_DATA_DUMP. The third line has the key values where H'0 is used as a default for the cases where keys do not apply.

`h` = Block address.

`i` = Hexadecimal dump of a block of up to 199 bytes with up to 8 groups of 4 bytes per line.

4. ACTIONS TO BE TAKEN

Refer to the Audits manual to interpret information given. Use the audit ID '`c`' and the error code from the corresponding error message (AUD:SM-ERROR) to find the interpretation of data.

This message uses variable message classes. AUDTFST indicates that this message caused a new event number to be allocated. AUDTMON indicates that this message does not describe a new event; look for previous messages

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with the same event number. Previous messages could include other audits messages with the AUDTFST message class, defensive check failure, or single process purge messages. AUDT indicates this message occurred as a response to a manual request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
AUD:SM
```

Output Message(s):

```
AUD:SM-ERROR
```

AUD:SM-ERROR

Software Release: 5E10 and later
Message Class: AUDTFST,AUDTMON, AUDT
Application: 5
Type: Output

1. FORMAT

```
AUD  SM=a [SVC-GP=b]  c  ERROR-CODE=d  EVENT=e
  ERROR-ADDR=f  BAD-DATA=g
  LOG-KEY=h  GOOD-DATA=i
```

2. REASON FOR OUTPUT

To report that an audit detected an error in a switching module (SM). There may be an optional AUD:SM-DUMP message corresponding to this message. The ERROR-ADDR field '`f`' can be used to determine corresponding messages. All the errors reported during an invocation of an audit will be summarized by the AUD:SM-ABORTED or AUD:SM-COMPLETED output messages. All error messages related to a problem use the same event number (variable '`e`').

3. VARIABLE FIELD DEFINITIONS

`a` = SM number. This can be either 1) where the application audit resides; or 2) where the interprocessor audit portion executed.

`b` = Service group where the portion executed.

`c` = Application audit ID. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual.

`d` = Error code. Refer to the Audits manual.

`e` = Event number.

`f` = Error address.

`g` = Bad (incorrect) data in hexadecimal.

`h` = Logical key in hexadecimal.

`i` = Good (correct) data in hexadecimal.

4. ACTION TO BE TAKEN

Refer to the Audits manual to interpret information given. Use the audit ID '`c`' and the error code '`d`' to find the interpretation.

This message uses variable message classes. AUDTFST indicates that this message caused a new event number to be allocated. AUDTMON indicates that this message does not describe a new event; look for previous messages with the same event number. Previous messages could include other audits messages with the AUDTFST message class, defensive check failure, or single process purge messages. AUDT indicates this message occurred as a response to a manual request.

5. ALARMS

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None.

6. REFERENCES

Input Message(s):

```
AUD:SM
```

Output Message(s):

```
AUD:SM-ABORTED
AUD:SM-COMPLETED
AUD:SM-DUMP
```

Output Appendix(es):

```
APP:AUDITS
```

Other Manual(s):

235-600-400 Audits

AUD:SM-FAILURE

Software Release: 5E10 and later
Message Class: AUDTFST,AUDTMON, AUDT
Application: 5
Type: Output

1. FORMAT

```
AUD  SM=a [SVC-GP=b]  c  FAILURE-CODE=d  EVENT=e
```

2. REASON FOR OUTPUT

To report a failure that has been encountered by an audit in an switching module (SM). A failure indicates that the audit could not proceed due to some problem it has detected, and it has triggered escalation or other audit actions. All failure messages related to a problem use the same event number (variable '`e`').

3. VARIABLE FIELD DEFINITIONS

`a` = SM number. This can be either 1) where the application audit resides; or 2) where the interprocessor audit portion is executing.

`b` = Service group where the portion executed. The application audit is the CONFC interprocessor audit.

`c` = Application audit ID. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual.

`d` = Failure code. Refer to the Audits manual.

`e` = Event number of related reports.

4. ACTION TO BE TAKEN

This message uses variable message classes. AUDTFST indicates that this message caused a new event number to be allocated. AUDTMON indicates that this message does not describe a new event; look for previous messages with the same event number. Previous messages could include other audits messages with the AUDTFST message class, defensive check failure, or single process purge messages. AUDT indicates this message occurred as a response to a manual request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`AUD:SM`

Output Appendix(es):

`APP:AUDITS`

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Other Manual(s):

235-600-400 Audits
235-600-500 Asserts

AUD:SM-NOT-RUN

Software Release: 5E10 and later
Message Class: AUDTFST,AUDT
Application: 5
Type: Output

1. FORMAT

```
AUD SM=a c NOT_RUN ERRORS=d EVENT=e
```

2. REASON FOR OUTPUT

To report that an audit in the switching module (SM) was not run as requested (due to CM isolation being detected, a relation in transaction update mode, and so forth).

3. VARIABLE FIELD DEFINITIONS

`a` = SM number. This number is either:
- where the application audit resides
- where the interprocessor audit portion aborted.

`c` = Application audit ID. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual.

`d` = Total number of errors found (zero).

`e` = Event number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

Input Message(s):
`AUD:SM` AUD:SM

Output Appendix(es):

`APP:AUDITS`

Other Manual(s):

235-600-400 *Audits*

AUD:SODD

Software Release: 5E10 and later
Message Class: AUDT
Application: 5
Type: Output

1. FORMAT

```
[1]    AUD SODD a b {STARTED|STOPPED|ABORTED|INVALID RELATION [c]
         IN PROGRESS [c]}
       ____________________________________________________________________

[2]    AUD SODD a b COMPLETED d ERRORS THE OUTPUT WAS SENT TO FILE e
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

Format 1 reports that the static ODD audit has either started, stopped, aborted, has found the input relation to be invalid or is in progress.

Format 2 reports that the static ODD audit is completed auditing what was requested. It also gives the number of errors it detected, and where the output of the errors can be found.

3. VARIABLE FIELD DEFINITIONS

`a` = Form of the audit that is running, either LINE, TRUNK, or redundant (RED).

`b` = Type of the audit which is running either office equipment (OE), directory number (DN), business and residence customer services (BRCS), multi-line hunt (MLH), or trunk group (TG).

`c` = The number of the last switching module (SM), DN, multi-line hunt group (MLHG), or trunk group number (TGN) the audit was working on or the name of the last relation (REL) the audit was working on.

`d` = Number of errors found with the static ODD audit.

`e` = The path name for the file containing the errors found by static ODD audit.

4. ACTION TO BE TAKEN

For Format 1, no action is required.

For Format 2, look at the errors found by the audit, if there are any. Verify and correct any legitimate errors found with the data base.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`EXC:SODD-BRCS`

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```
EXC:SODD-MLHG
EXC:SODD-TRUNK
```

Other Manual(s):

Where (x) is the release-specific version of the specified manual.
235-118-2xx *Recent Change Menu Mode/Text Interface*

12. BKUP

BKUP:ODD

Software Release: 5E10 and later
Message Class: ODD
Application: 5
Type: Output

1. FORMAT

```
BKUP ODD [FULL][ODDEVOL][NRODD=a|RODD=a|AM|CMP=b|CI OF SM]c[d][KBYTES=e]
```

2. REASON FOR OUTPUT

To report the status of input requests to back up the office dependent data (ODD) from memory to disk with either a full or differential dump of the entire system. A full dump of the ODD dumps all blocks of the ODD. A differential dump of the ODD dumps only blocks that have changed since the last backup.

3. VARIABLE FIELD DEFINITIONS

`AM` = The report is for the AM.

`CMP` = The report is for the CMP.

`FULL` = A full dump was performed. If the administrative module (AM) ODD is being backed up the default is FULL. Differential dump is the default for switching module (SM), for redundant and non-redundant ODD and communications module processors (CMPs).

`NRODD` = The report is for non-redundant ODD (NRODD).

`ODDEVOL` = Marks the beginning of ODD evolution stage during a retrofit.

`RODD` = The report is for redundant ODD (RODD).

`a` = Switching module (SM) number.

`b` = CMP number.

`c` = Termination report. Valid value(s):

- `ABORTED` = The requested action was terminated before completion and the termination was immediate, with consistency of hardware states or data questionable.
- `COMPLETED` = The requested action terminated after completion.
- `IN PROGRESS` = The requested action is currently in progress.
- `NOT STARTED` = The requested action could not begin. Probable cause is that a previously requested input message to backup the ODD is still in progress.
- `STOPPED` = The requested action terminated before a normal completion, and the termination was graceful.

`d` = Reason for failure. Valid value(s):

- `AM BACKOUT RC` = Recent changes (RCs) are backed out of the AM.
- `AM OVERLOAD` = AM is in overload condition.
- `BST IN PROGRESS` = The bitmap salvage technique (BST) process is in progress.
- `CANNOT MOUNT ODD PARTITION` = Possible causes: /no5odd/cpdata or /no5odd/cidata is busy, the device associated with the no5aodd or no5codd1 does not exist, or there are no more mount table entries.

`CMP ABNORMAL` = Possible causes: CMP is down, communications link is lost, or the SMP is in overload.
`CMP BACKOUT CORC` = Customer-originated recent changes (CORCs) are backed out of a CMP.
`CMP BACKOUT RC` = RCs are backed out of the CMP.
`CMP OVERLOAD` = CMP is in overload condition.
`DBM CANNOT ACCESS DISK ODD` = Database manager (DBM) has a bad logical device number for the disk ODD partition.
`DBM INTERNAL ERROR` = Data base manager cannot begin a transaction for ODD backup.
`GLOBAL PARAMETERS ERROR` = An inconsistency occurred between the global parameters and the calculated ones in the SM.
`HASH SUM ERROR` = Hash sum check on the backed-up NRODD/RODD failed.
`MEMMAN IN PROGRESS` = The memory management bitmap data base audit (MEMMAN) is in progress after the BST.
`NO OPERATIONAL CMPs` = There are no operational CMPs to backup.
`NO OPERATIONAL SMs` = An RODD SM is not specified, and there are no operational SMs to use for an RODD backup.
`NRODD GROWTH ABORTED` = ODD Growth has occurred and aborted. Wait for Growth to recover itself before request another BKUP:ODD on this SM.
`NRODD IS NOT BACKED UP` = A non-redundant growth (NRODD) occurred on this SM and RODD back up cannot be done from this SM until NRODD is backed up. Use a different SM to back up the RODD or back up NRODD and then RODD.
`ODD DISK PARTITION OFFNORMAL` = ODD disk partition not accessible.
`ODD GROWTH IN PROGRESS` = ODD Growth is currently in progress. Wait for it to complete before request another BKUP:ODD on this SM.
`PROCESS TIME OUT` = A process has taken too much time to perform a function. Lost messages may be the cause.
`SM ABNORMAL` = Possible causes: SM is down, communication link is lost, or the SM is in overload.
`SM BACKOUT CORC` = CORCS are backed out of an SM.
`SM BACKOUT RC` = RCs are backed out of an SM.
`SM MOD GROW OCCURRED` = SM core growth occurred on this SM and it is not pumped yet.

`e` = The number of kilobytes backed up. Applies to NRODD, RODD and CMP ODD backup.

4. ACTION TO BE TAKEN

If ODD backup does not complete, check the reason of failure described on variable field '`d`'. If the failure is caused by a temporary system resource shortages such as CMP OVERLOAD, DBM INTERNAL ERROR and etc., retry the ODD backup later; otherwise, correct the problem and retry the ODD backup. If the problem is beyond being correctable by the user, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

5. ALARMS

Minor.

6. REFERENCES

Input Message(s):

```
ABT:ODDBKUP
BKUP:ODD
```

```
CLR:ODDBKUP
OP:BKUPSTAT
STP:ODDEVOL
```

Other Manual(s):

235-105-210 Routine Operations and Maintenance

13. CFR

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CFR:DUPLEXDISKS-A

Software Release: 5E11 - 5E12
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    CFR DUPLEXDISKS STOPPED WITH ERROR a
       ____________________________________________________________________

[2]    CFR DUPLEXDISKS COMPLETED
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the result of executing the CFR:DUPLEXDISKS input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Error type. Valid value(s):

- `X'C000` = ABD is not active. The system is not booted with an alternate boot disk selected. MHD0 and MHD1 are the current duplexed boot disk pair.
- `X'C001` = Failed to get UCB for the current duplexed boot disk pair. An internal error occurred trying to read the in-core ECD. Additional information is provided by PRMs generated by EIH.
- `X'C002` = An invalid state was detected.
  - If MHD0 is one of the current duplexed boot disks, its state must be ACT. MHD1 and the alternate boot disk must not be in the ACT, STBY, or INIT states.
  - If MHD1 is one of the current duplexed boot disks, its state must be ACT. MHD0 and the alternate boot disk must not be in the ACT, STBY, or INIT states.
- `X'C003` = A failure occurred trying to configure the duplex boot disk pair to the system default. An internal error occurrred ttying to configure the duplex boot disk pair to MHD0 and MHD1. Additional information is provided by PRMs generated by EIH.
- `X'C004` = Disk driver not notified of change. The 120 status page will not show the correct disk status.
- `X'C005` = RTS not notified of change. The 102 status page will not show the correct disk configuration.
- `X'C006` = This is only support on the 3B21D Hardware Platform.

4. ACTIONS TO BE TAKEN

For Format 1, resolve the error condition described. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

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6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	774
2	773

Input Message(s):

```
CFR:DUPLEXDISKS
```

CFR:DUPLEXDISKS-B

Software Release: 5E13 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    CFR DUPLEXDISKS STOPPED WITH ERROR a
       ____________________________________________________________________

[2]    CFR DUPLEXDISKS COMPLETED
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the result of executing the CFR:DUPLEXDISKS input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Error type. Valid value(s):

- `X'C000` = ABD is not active. The system is not booted with an alternate boot disk selected. MHD0 and MHD1 are the current duplexed boot disk pair.
- `X'C001` = Failed to get UCB for the current duplexed boot disk pair. An internal error occurred trying to read the in-core ECD. Additional information is provided by PRMs generated by EIH.
- `X'C002` = An invalid state was detected.
  - If MHD0 is one of the current duplexed boot disks, its state must be ACT. MHD1 and the alternate boot disk must not be in the ACT, STBY, or INIT states.
  - If MHD1 is one of the current duplexed boot disks, its state must be ACT. MHD0 and the alternate boot disk must not be in the ACT, STBY, or INIT states.
- `X'C003` = A failure occurred trying to configure the duplex boot disk pair to the system default. An internal error occurrred ttying to configure the duplex boot disk pair to MHD0 and MHD1. Additional information is provided by PRMs generated by EIH.
- `X'C004` = Disk driver not notified of change. The 120 status page will not show the correct disk status.
- `X'C005` = RTS not notified of change. The 102 status page will not show the correct disk configuration.
- `X'C006` = This is only support on the 3B21D Hardware Platform.
- `X'C007` = At least one of MHD 0, MHD 1, or the ABD is reserved by another process.

4. ACTIONS TO BE TAKEN

For Format 1, resolve the error condition described. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

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6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	774
2	773

Input Message(s):

```
CFR:DUPLEXDISKS
```

CFR:PMEM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
CFR PMEM SM=a TYPE=GROW b
  c
```

2. REASON FOR OUTPUT

To confirm the configuration of physical memory on a switching module.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Status. Valid value(s):
- `COMPLETED` = Request has been successfully executed.
- `FAILED` = Request did not complete successfully.

`c` = Reason. Valid value(s):
- `MEMORY POINTERS UPDATED - ODD BACKUP REQUIRED` = Memory consolidation was successful and updates were made to the memory pointers. ODD backup is required to save the critical information changes to disk.
- `UNABLE TO LOCK IMAGE FOR RELOCATION` = A peripheral image was locked by another process and the configuration request timed out waiting for the lock to free. A lock of the image must be acquired prior to moving the image.
- `ZERO OR NEGATIVE MEMORY GROWTH` = No memory configuration was needed since the peripheral images were already packed into highest memory.

4. ACTION TO BE TAKEN

Resolve errors as indicated and retry the message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CFR:PMEM
DUMP:SMMAP
```

Output Message(s):

```
DUMP:SMMAP
```

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CFR:RING

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]    CFR RING a b c
        [d]
```

```
[2]    CFR RING a c
        [d]
```

```
[3]    CFR RING c
        [d]
```

---

2. REASON FOR OUTPUT

To report the completion of a change in the configuration of the common network interface (CNI) ring. This message prints in response to a CFR:RING input message.

3. VARIABLE FIELD DEFINITIONS

`a` = First ring node (RN) name specified in the CFR:RING input message (for example, RPCN000).

`b` = Second ring node name specified in the CFR:RING input message (for example, RPCN000).

`c` = Termination status. Valid value(s):
`COMPL` = Completed.
`NOT STARTED` = Not started.
`STOPPED` = Stopped.

`d` = Reason input message was not completed. Valid value(s):

`ACTIVE RING SEGMENT NOT LONG ENOUGH`
`ACTIVE RING SEGMENT NOT LONG ENOUGH`
`BISO AND/OR EISO NODE OOS, MUST BE RESTORED FIRST`= BISO stands for begin isolation, and EISO stands for end isolation.
`CAN'T FRAGMENT EXISTING ISOLATED SEGMENT`
`CAN'T INCLUDE GROW OR FAULTY NODES`
`CAN'T ISOLATE ACT OR INIT NODE(S)`
`CAN'T ISOLATE ADDITIONAL NODES`
`CAN'T ISOLATE ENTIRE RING`
`CANDIDATE BISO AND/OR EISO NODE NOT AVAILABLE`
`CANDIDATE CONTROLLING RPC NODE NOT AVAILABLE`
`DMA FAILURE AT RPC NODE`
`FORCED READ OPERATION FAILED`
`ILLEGAL REQUEST`
`IMPROPER USE OF CFR:RING IN RING DOWN STATE`
`IMPROPER USE OF MOVFLT OPTION`

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```
IMS RING CONFIGURATION PROGRAM ERROR
IMS RING CONFIGURATION PROGRAM ERROR
IMS RING INITIALIZATION PROGRAM ERROR
INSUFFICIENT HARDWARE TO ESTABLISH A RING
JOB ABORTED, GUARD TIMER FIRED
NO STANDBY RPCS AVAILABLE
NODE [a|b] NOT FOUND IN ECD
OPERATION TO CLEAR ISOLATION FAILED
OPERATION TO ESTABLISH ISOLATED SEGMENT FAILED
OPERATION TO QUARANTINE ISOLATED NODE FAILED
OPERATION TO QUARANTINE NODE FAILED
OPERATION TO SHRINK/REMOVE ISOLATED SEGMENT FAILED
PREPARATION FOR RING CONFIGURATION ATTEMPT FAILED
RAC CONTROL OPERATION AT RPC NODE FAILED
REQUESTED RING CONFIGURATION ALREADY EXISTS
RESTORAL OF BISO AND/OR EISO NODE IN PROGRESS
RING ERRORS REPORTED AFTER CONFIGURATION WAS ESTABLISHED
RING INITIALIZATION FAILED, RING IS DOWN
RING SILENCE OPERATION FAILED
RING TEST FAILED
RING TEST FAILED, DETECTED ISOLATION SET
RING TEST FAILED, DETECTED NORMAL CONFIGURATION
RPC CONFIG COMPLETION MESSAGE NOT RECEIVED
RPC NODE FAILED TO ACKNOWLEDGE RAC CONTROL OPERATION
RPC NODE FAILED TO ACKNOWLEDGE RELAY TO RING
RPC NODE RELAY TO RING FAILED
SYSTEM ABORT IN PROGRESS
SYSTEM FAILED TO RESTORE AFTER CONFIGURATION WAS ESTABLISHED
SYSTEM INITIALIZATION IN PROGRESS
WRITING OF TOKENS FAILED
```

4. ACTION TO BE TAKEN

If '`c`' = `NOT STARTED` or `STOPPED`, determine why the request was not honored. The '`d`' variable indicates the nature of the problem and the OP:RING input message will output the current ring configuration. The states of individual nodes can be verified by the OP:RING input message with various options.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CFR:RING
OP:RING
```

Output Message(s):

```
OP:RING
```

Other Manual(s):

235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

118 (CNI RING STATUS PAGE)
1520 (RING NODE STATUS PAGE)

CFR:RTBM-A

Software Release: 5E10 - 5E13
Message Class: OFR_MON
Application: 5
Type: Output

1. FORMAT

```
CFR RTBM a b REAL TIME BILLING MEMORY SIZE:c, PREVIOUS SIZE:d
```

2. REASON FOR OUTPUT

To confirm the configuration and amount of Real Time Billing Memory (RTBM) on a switching module.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module type. Valid value(s):

`HSM`	= Host switching module.
`LSM`	= Local switching module.
`ORM`	= Optical remote switching module.
`RSM`	= Remote switching module.
`TRM`	= Two-mile optical remote switching module.

`b` = Switching module number.

`c` = Number of bytes (in kilobytes) configured for RTBMemory usage.

`d` = Previous size (number of bytes, in kilobytes) of memory configured for RTBM usage.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CFR:RTBM
VFY:RTBM
```

Output Message(s):

```
VFY:RTBM
```

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-190-103 *Business and Residence Feature Description*
235-190-115 *Local and Toll System Features*
235-190-130 *Local Area Signaling Services Features*
235-900-113 *Product Specification*

CFR:RTBM-B

Software Release: 5E14 and later
Message Class: OFR_MON
Application: 5
Type: Output

1. FORMAT

```
CFR RTBM a b REAL TIME BILLING MEMORY SIZE:c, PREVIOUS SIZE:d
```

2. REASON FOR OUTPUT

To confirm the configuration and amount of Real Time Billing Memory (RTBM) on a switching module.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module type. Valid value(s):

`HSM`	= Host switching module.
`LSM`	= Local switching module.
`ORM`	= Optical remote switching module.
`RSM`	= Remote switching module.
`TRM`	= Two-mile optical remote switching module.

`b` = Switching module number.

`c` = Number of bytes (in kilobytes) configured for RTBMemory usage.

`d` = Previous size (number of bytes, in kilobytes) of memory configured for RTBM usage.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CFR:RTBM
VFY:RTBM
```

Output Message(s):

```
VFY:RTBM
```

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-190-103 *Business and Residence Feature Description*
235-190-115 *Local and Toll System Features*
235-190-130 *Local Area Signaling Services*
235-900-113 *Product Specification*

CFR:SAMEM-A

Software Release: 5E10 - 5E13
Message Class: OFR
Application: 5
Type: Output

1. FORMAT

```
CFR SAMEM a b STANDALONE MEMORY SIZE:H'c, PREVIOUS SIZE:H'd
```

2. REASON FOR OUTPUT

To confirm the configuration and amount of stand-alone billing memory (SAMEM) on a switching module.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module type. Valid value(s):
- `HSM` = Host switching module.
- `LSM` = Local switching module.
- `ORM` = Optical remote switching module.
- `RSM` = Remote switching module.
- `TRM` = Two-mile optical remote switching module.

`b` = Switching module number.

`c` = Number of bytes (in hexadecimal) configured for stand-alone billing usage.

`d` = Previous size (number of bytes, in hexadecimal) of memory configured for stand-alone billing usage.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CFR:SAMEM
VFY:SAMEM
```

Output Message(s):

```
VFY:SAMEM
```

Other Manual(s):

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Where 'x' is the release-specific version of the document.

235-190-103 Business and Residence Feature Description
235-190-115 Local and Toll System Features
235-190-130 Local Area Signaling Services
235-900-113 Product Specification

CFR:SAMEM-B

Software Release: 5E14 and later
Message Class: OFR
Application: 5
Type: Output

1. FORMAT

```
CFR SAMEM a b STANDALONE MEMORY SIZE:H'c, PREVIOUS SIZE:H'd
```

2. REASON FOR OUTPUT

To confirm the configuration and amount of stand-alone billing memory (SAMEM) on a switching module.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module type. Valid value(s):

`HSM`	= Host switching module.
`LSM`	= Local switching module.
`ORM`	= Optical remote switching module.
`RSM`	= Remote switching module.
`TRM`	= Two-mile optical remote switching module.

`b` = Switching module number.

`c` = Number of bytes (in hexadecimal) configured for stand-alone billing usage.

`d` = Previous size (number of bytes, in hexadecimal) of memory configured for stand-alone billing usage.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CFR:SAMEM
VFY:SAMEM
```

Output Message(s):

```
VFY:SAMEM
```

Other Manual(s):

235-190-103 Business and Residence Feature Description
235-190-115 Local and Toll System Features
235-190-130 Local Area Signaling Services
235-900-113 Product Specification

CFR:SPRMEM-A

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
CFR SPRMEM IMAGE=a SM=b TYPE=c d
  e
```

2. REASON FOR OUTPUT

To confirm the configuration of spare memory for the addition or deletion of peripheral images to a switching module's memory layout.

3. VARIABLE FIELD DEFINITIONS

`a` = Peripheral image name when performing growth or degrowth. The phrase, SPAREMEM, when performing memory consolidation.

`b` = Switching module (SM) number.

`c` = Request type. Valid value(s):

```
DEGROW
GROW
```

`d` = Status. Valid value(s):

`COMPLETED` = Request has been successfully executed.
`FAILED` = Request did not complete successfully.

`e` = Reason. Valid value(s):

`IMAGE ALREADY IN REQUESTED STATE` = The peripheral image was either already included in the SM's memory layout when a request to grow it was issued or already deleted from the SM's memory layout when a request to degrow it was issued.
`IMAGE BEING PUMPED` = The image to be degrown is currently being pumped. The pump must complete before the image can be degrown.
`INSUFFICIENT SPARE SM MEMORY` = The amount of spare memory available to allocate for the peripheral image requested was not enough. Degrowth of Standalone Billing Memory (SABM), Real Time Billing Memory (RTBM), or memory board growth may be necessary.
`INVALID IMAGE` = The unit specified in the input message did not map to a valid peripheral image.
`MEMORY ALREADY CONTIGUOUS - MEMORY POINTERS NOT UPDATED` = There were no fragmented holes in memory to consolidate. No updates to the memory pointers were needed. This makes the ODD backup unnecessary.
`MEMORY POINTERS UPDATED - ODD BACKUP REQUIRED` = Memory consolidation was successful and updates were made to the memory pointers. ODD backup is required to save the critical information changes to disk.
`RELATED CIRCUIT EXISTS IN ODD` = The circuit specified was found in the ODD. RC/V work must first be done to delete the tuples for the unit being degrown.
`RELATED CIRCUIT NOT EQUIPPED IN ODD` = The circuit specified was not found in the ODD.

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RC/V work must first be done to insert the tuples for the unit being grown.

`UNABLE TO LOCK IMAGE TO CONSOLIDATE MEMORY` = After deletion of an image, the memory growth process was unable to lock another image that was to be moved to consolidate memory holes.

4. ACTION TO BE TAKEN

Resolve errors as indicated and retry the message. If errors continue, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CFR:SPRMEM
DUMP:SMMAP
```

Output Message(s):

```
DUMP:SMMAP
```

CFR:SPRMEM-B

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
CFR SPRMEM IMAGE=a SM=b TYPE=c d
  e
```

2. REASON FOR OUTPUT

To confirm the configuration of spare memory for the addition or deletion of peripheral images to a switching module's memory layout.

3. VARIABLE FIELD DEFINITIONS

`a` = Peripheral image name when performing growth or degrowth. The phrase, SPAREMEM, when performing memory consolidation.

`b` = Switching module (SM) number.

`c` = Request type. Valid value(s):

```
DEGROW
GROW
```

`d` = Status. Valid value(s):

`COMPLETED` = Request has been successfully executed.
`FAILED` = Request did not complete successfully.

`e` = Reason. Valid value(s):

`IMAGE ALREADY IN REQUESTED STATE` = The peripheral image was either already included in the SM's memory layout when a request to grow it was issued or already deleted from the SM's memory layout when a request to degrow it was issued.
`IMAGE BEING PUMPED` = The image to be degrown is currently being pumped. The pump must complete before the image can be degrown.
`INSUFFICIENT SPARE SM MEMORY` = The amount of spare memory available to allocate for the peripheral image requested was not enough. Degrowth of Standalone Billing Memory (SABM), Real Time Billing Memory (RTBM), or memory board growth may be necessary.
`INVALID IMAGE` = The unit specified in the input message did not map to a valid peripheral image.
`MEMORY ALREADY CONTIGUOUS - MEMORY POINTERS NOT UPDATED` = There were no fragmented holes in memory to consolidate. No updates to the memory pointers were needed. This makes the ODD backup unnecessary.
`MEMORY POINTERS UPDATED - ODD BACKUP REQUIRED` = Memory consolidation was successful and updates were made to the memory pointers. ODD backup is required to save the critical information changes to disk.
`RELATED CIRCUIT EXISTS IN ODD` = The circuit specified was found in the ODD. RC/V work must first be done to delete the tuples for the unit being degrown.
`RELATED CIRCUIT NOT EQUIPPED IN ODD` = The circuit specified was not found in the ODD.

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RC/V work must first be done to insert the tuples for the unit being grown.

`UNABLE TO LOCK IMAGE TO CONSOLIDATE MEMORY` = After deletion of an image, the memory growth process was unable to lock another image that was to be moved to consolidate memory holes.

4. ACTION TO BE TAKEN

Resolve errors as indicated and retry the message. If errors continue, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CFR:SPRMEM
DUMP:SMMAP
```

Output Message(s):

```
DUMP:SMMAP
```

14. CHG

CHG:ALM

Software Release: 5E10 and later
Message Class: BPSC
Application: 5
Type: Output

1. FORMAT

```
CHG ALM a b c [d]
  OLD:  TAG = e    LVL = f    REPEAT = g
  NEW:  TAG = h    LVL = i    REPEAT = j
```

2. REASON FOR OUTPUT

To acknowledge a user request to change or add alarm labels, levels, or repeatability status of office assignable building/power or miscellaneous alarms.

3. VARIABLE FIELD DEFINITIONS

a = Alarm type. Valid value(s):
- BPSC = Building/power scan point.
- MISC = Miscellaneous.

b = Scan point number. Valid value(s):

If 'a' =	**'b' =**
BPSC	2 - 27
MISC	0 - 47

c = Termination report. Valid value(s):

```
ABORTED
COMPLETED
```

d = Reason for aborting request. Valid value(s):

```
INCONSISTENT DATA
INVALID ALARM LEVEL
INVALID REPEAT
INVALID SCAN POINT NUMBER
MORE THAN 9 CHARACTERS IN LABEL
```

e = Previous alarm label.

f = Previous alarm level. Valid value(s):
- CR = Critical.
- IF = Informational.
- MJ = Major.
- MN = Minor.

g = Previous alarm repeatability status. Valid value(s):
- N = No (non-repeating).

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	Y	= Yes (15-minute repeating).
h	= New alarm label (if no change, same as 'e').	
i	= New alarm level (if no change, same as 'f').	
	CR	= Critical.
	IF	= Informational.
	MJ	= Major.
	MN	= Minor.
j	= New alarm repeatability status (if no change, same as 'g').	
	N	= No (non-repeating).
	Y	= Yes (15-minute repeating).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CHG:ALM
```

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

CHG:GEN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
CHG GEN COMPL
```

2. REASON FOR OUTPUT

To respond to a CHG:GEN input request.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CHG:GEN
```

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CHG:MRVT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]    CHG:MRVT DELAY PARAMETER SET TO a SECONDS
       ____________________________________________________________________

[2]    CHG:MRVT REQUESTED DELAY PARAMETER, a, OUT OF RANGE
         DELAY PARAMETER RANGE IS 8 - 15 SECONDS INCLUSIVE
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To respond to a CHG:MRVT input request for modifying the value of the time parameter. The output will be directed to the standard output associated with the initiator of the message, and also to the MTCE message class. If they are the same device, only one printout will occur.

Format 1 is used when a valid input message is entered, with or without the optional delay parameter specified. Format 2 is used when the range of the input is outside the permissible limits (8 - 15 seconds).

3. VARIABLE FIELD DEFINITIONS

`a` = The requested or current value of the message transfer part (MTP) route verification test (MRVT) delay parameter in seconds.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CHG:MRVT
EXC:MRVT-PC
```

Output Message(s):

```
EXC:MRVT-PC-STPS
REPT:MRVR
```

Other Manual(s):

235-190-120 *Common Channel Signaling Services*

CHG:SLK-A

Software Release: 5E11 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
CHG SLK a b
  c
```

2. REASON FOR OUTPUT

To respond to a request to change the minor state of a signaling link (SLK), to respond to a request to transfer from the active to the standby voice frequency link (VFL) for common channel interoffice signaling system 6 (CCIS6) signaling links.

3. VARIABLE FIELD DEFINITIONS

a = Ring node (RN) group number.

b = Member number.

c = Response to request. Valid value(s):

```
SLK a b CHANGE ACCEPTED, NEAR END MCO RMVD, MINOR STATE = d
SLK a b CHANGE ACCEPTED, NEW MINOR STATE = d
SLK a b CHANGE DENIED, ALREADY IN MINOR STATE = d
SLK a b CHANGE DENIED, CCS7:LST LNK IN LS, ALT LS FLD
SLK a b CHANGE DENIED, CCS7:LST LNK IN LS, ALT LS FLD, C LS TFP
SLK a b CHANGE DENIED, CCS7:LST LNK IN LS, ALT LS TFP
SLK a b CHANGE DENIED, CCS7:LST LNK IN LS, ALT LS TFP, C LS FLD
SLK a b CHANGE DENIED, CCS7:LST LNK IN LS, ALT LS TFP, C LS TFP
SLK a b CHANGE DENIED, CURRENT MINOR STATE = d
SLK a b CHANGE DENIED, ECIS:EXCESS C LINK POOL TRAFFIC
SLK a b CHANGE DENIED, ECIS:EXCESS COMBINED LINK POOL TRAFFIC
SLK a b CHANGE DENIED, ECIS:EXCESS DIRECT LINK POOL TRAFFIC
SLK a b CHANGE DENIED, ECIS:MATE BAND TFR LIMIT
SLK a b CHANGE DENIED, ECIS:MATE BAND BLOCKED
SLK a b CHANGE DENIED, ECIS:MATE LINK OOS
SLK a b CHANGE DENIED, FAR END MCO ACTIVE
SLK a b CHANGE DENIED, FAR END REFUSED MCO REQUEST
SLK a b CHANGE DENIED, INSUFFICIENT BACKUP FOR MCO, AV
SLK a b CHANGE DENIED, INSUFFICIENT BACKUP FOR MCO, CV
SLK a b CHANGE DENIED, RETRY LATER
SLK a b CHANGE DENIED, VALID CHANGES FOR UNA LINK = GROW TEST
SLK a b CHANGE DENIED, VALID CHANGES FOR AVL LINK = IS MOOS FIS XFR
SLK a b CHANGE DENIED, CHANNEL IN USE, RETRY LATER
SLK a b CHANGE REQUEST FAILED, INTERNAL ERROR
SLK a b CHANGE REQUEST TIMEOUT, VERIFY SLK STATE
SLK a b RESPONSE UNKNOWN, VERIFY SLK STATE
```

The following output messages relate to VFL transfer requests:

```
SLK a b LINK MAJOR STATE INVALID FOR VFL TRANSFER REQUEST
```

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```
SLK a b LINK MINOR STATE NOT TEST, VFL TRANSFER DENIED
SLK a b NOT A DUPLEX LINK, VERIFY SLK TYPE
SLK a b VFL TRANSFER REQUEST COMPLETE
SLK a b VFL TRANSFER REQUEST DENIED, NOT A CCS6 LINK
SLK a b VFL TRANSFER REQUEST DENIED, VERIFY SLK STATE
d           = Minor state. Valid value(s):
            GROW        = Unavailable growth.
            IS          = Available in-service.
            MOOS        = Manually out-of-service.
            OOS         = Out-of-service.
            TEST        = Test.
```

On the "`CHANGE ACCEPTED, NEW MINOR STATE = d`" output message, `'d'` is the "externally visible" minor state that existed when the INITIAL state change processing completed. Total processing to change minor states begins with this INITIAL state change processing, which initiates a concurrent sequence of protocol actions and associated additional processing that usually complete very quickly, and usually are completed by the time INITIAL state change processing ends. In this case the value of `'d'` is the final minor state requested in the CHG:SLK Input Message. But the initiated sequence of protocol actions may complete with some delay, or be obstructed and not complete at all, in which case `'d'` is an intermediate minor state or even the minor state that existed when the CHG:SLK message was entered.

For an example that involves protocol action delays, the input message "CHG:SLK( );ARST" requests the change from the MOOS state to the IS state. This message actually sequences the link through the MOOS, OOS, and IS states. If link protocol actions are delayed or obstructed, the link may be reported as being OOS instead of IS when the "`CHANGE ACCEPTED, NEW MINOR STATE = d`" message is printed.

When the "`CHANGE ACCEPTED`" message is printed, the value of `'d'` is the externally visible minor state value that actually existed when INITIAL STATE CHANGE PROCESSING ended. If, in the rare occurrence of protocol delay or obstruction, the value of 'd' is not the final minor state being requested, then per-link displays (if available) should be monitored for progress toward the final requested minor state, or the OP:SLK input message should be used to check for progress toward that requested state. The OP:SLK input message with the RAW option can be used to display the numerical values of some internal states.

4. ACTIONS TO BE TAKEN

If a change request is denied, the output message will indicate what kind of a problem was encountered.

A common reason for denied change requests is incompatibility between the request and the current minor state of the link. The current minor state of the link is printed in the output message in some cases, or it can be determined using the OP:SLK message or other status displays. The CHG:SLK Input Message manual page should be used to determine the valid change requests for a given link minor state.

If a change request is denied with the message `CHANNEL IN USE, RETRY LATER`, the most likely reason is that a previously issued CHG:SLK message is currently executing. Only one CHG:SLK request can be in-progress at any one time.

If c = `SLK a b CHANGE DENIED, FAR END REFUSED MCO REQUEST` The far end has refused the manual change over (MCO) request, and there is no data at the near end to indicate why the MOOS was denied. To determine the reason for refusal, a MOOS can be requested from the far end and the reason for refusal will be

output there.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CHG:SLK
OP:SLK
```

Other Manual(s):

235-190-120 Common Channel Signaling Services

MCC Display Page(s):

118 (CNI RING STATUS PAGE)
1521 (SIGNALING LINK SUMMARY PAGE)
1522 (SIGNALING LINK PAGE)

CHG:SLK-B

Software Release: 5E12 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
CHG SLK a b
  c
```

2. REASON FOR OUTPUT

To respond to a request to change the minor state of a signaling link (SLK).

3. VARIABLE FIELD DEFINITIONS

`a` = Ring node (RN) group number.

`b` = Member number.

`c` = Response to request. Valid value(s):

```
SLK a b CHANGE ACCEPTED, NEAR END MCO RMVD, MINOR STATE = d
SLK a b CHANGE ACCEPTED, NEW MINOR STATE = d
SLK a b CHANGE DENIED, ALREADY IN MINOR STATE = d
SLK a b CHANGE DENIED, CCS7:LST LNK IN LS, ALT LS FLD
SLK a b CHANGE DENIED, CCS7:LST LNK IN LS, ALT LS FLD, C LS TFP
SLK a b CHANGE DENIED, CCS7:LST LNK IN LS, ALT LS TFP
SLK a b CHANGE DENIED, CCS7:LST LNK IN LS, ALT LS TFP, C LS FLD
SLK a b CHANGE DENIED, CCS7:LST LNK IN LS, ALT LS TFP, C LS TFP
SLK a b CHANGE DENIED, CURRENT MINOR STATE = d
SLK a b CHANGE DENIED, FAR END MCO ACTIVE
SLK a b CHANGE DENIED, FAR END REFUSED MCO REQUEST
SLK a b CHANGE DENIED, INSUFFICIENT BACKUP FOR MCO, AV
SLK a b CHANGE DENIED, INSUFFICIENT BACKUP FOR MCO, CV
SLK a b CHANGE DENIED, RETRY LATER
SLK a b CHANGE DENIED, VALID CHANGES FOR UNA LINK = GROW TEST
SLK a b CHANGE DENIED, VALID CHANGES FOR AVL LINK = IS MOOS FIS XFR
SLK a b CHANGE DENIED, CHANNEL IN USE, RETRY LATER
SLK a b CHANGE REQUEST FAILED, INTERNAL ERROR
SLK a b CHANGE REQUEST TIMEOUT, VERIFY SLK STATE
SLK a b RESPONSE UNKNOWN, VERIFY SLK STATE
```

`d` = Minor state. Valid value(s):

`GROW`	= Unavailable growth.
`IS`	= Available in-service.
`MOOS`	= Manually out-of-service.
`OOS`	= Out-of-service.
`TEST`	= Test.

On the "`CHANGE ACCEPTED, NEW MINOR STATE = d`" output message, `'d'` is the "externally visible" minor state that existed when the INITIAL state change processing completed. Total processing to change minor states

begins with this INITIAL state change processing, which initiates a concurrent sequence of protocol actions and associated additional processing that usually complete very quickly, and usually are completed by the time INITIAL state change processing ends. In this case the value of `'d'` is the final minor state requested in the CHG:SLK Input Message. But the initiated sequence of protocol actions may complete with some delay, or be obstructed and not complete at all, in which case `'d'` is an intermediate minor state or even the minor state that existed when the CHG:SLK message was entered.

For an example that involves protocol action delays, the input message "CHG:SLK=a-b:IS" requests the change from the MOOS state to the IS state. This message actually sequences the link through the MOOS, OOS, and IS states. If link protocol actions are delayed or obstructed, the link may be reported as being OOS instead of IS when the `"CHANGE ACCEPTED, NEW MINOR STATE = d"` message is printed.

When the `"CHANGE ACCEPTED"` message is printed, the value of `'d'` is the externally visible minor state value that actually existed when INITIAL STATE CHANGE PROCESSING ended. If, in the rare occurrence of protocol delay or obstruction, the value of 'd' is not the final minor state being requested, then per-link displays (if available) should be monitored for progress toward the final requested minor state, or the OP:SLK input message should be used to check for progress toward that requested state. The OP:SLK input message with the RAW option can be used to display the numerical values of some internal states.

4. ACTIONS TO BE TAKEN

If a change request is denied, the output message will indicate what kind of a problem was encountered.

Any requested action that would disrupt network signaling capability will result in a change denied response. Input message OP:C7NET,ABNORMAL should be used to identify point codes that may be blocked, resulting in a denied request.

A common reason for denied change requests is incompatibility between the request and the current minor state of the link. The current minor state of the link is printed in the output message in some cases, or it can be determined using the OP:SLK message or other status displays. The CHG:SLK Input Message manual page should be used to determine the valid change requests for a given link minor state.

If a change request is denied with the message `CHANNEL IN USE, RETRY LATER`, the most likely reason is that a previously issued CHG:SLK message is currently executing. Only one CHG:SLK request can be in-progress at any one time.

If c = `SLK a b CHANGE DENIED, FAR END REFUSED MCO REQUEST` The far end has refused the manual change over (MCO) request, and there is no data at the near end to indicate why the MOOS was denied. To determine the reason for refusal, a MOOS can be requested from the far end and the reason for refusal will be output there.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CHG:SLK
OP:SLK
OP:C7NET
```

Other Manual(s):

235-190-120 Common Channel Signaling Services

MCC Display Page(s):

118 (CNI RING STATUS PAGE)
1521 (SIGNALING LINK SUMMARY PAGE)
1522 (SIGNALING LINK PAGE)

CHG:SRVT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]    CHG:SRVT DELAY PARAMETER SET TO a SECONDS
       ____________________________________________________________________

[2]    CHG:SRVT REQUESTED DELAY PARAMETER, a, OUT OF RANGE
         DELAY PARAMETER RANGE IS 8 - 16 SECONDS INCLUSIVE
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

Format 1 is printed when a valid CHG:SRVT message is entered, with or without the optional delay parameter specified.

Format 2 is printed when the range of the input is outside the permissible limits (8 - 16 seconds).

3. VARIABLE FIELD DEFINITIONS

`a` = The requested or current value of the signaling connection control part (SCCP) routing verification test (SRVT) delay parameter, in seconds.

4. ACTION TO BE TAKEN

For Format 1, no action is required.

For Format 2, try entering the CHG:SRVT input message again with a valid number (8-16).

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CHG:SRVT
EXC:SRVT
OP:TPC
```

Output Message(s):

```
EXC:SRVT
OP:TPC
```

Other Manual(s):

235-190-120 *Common Channel Signaling Services*

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15. CLEAR

CLEAR:MCCSTAT-SM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
CLEAR:MCCSTAT; SM a!{OK|NG}
```

2. REASON FOR OUTPUT

To inform the user that the system is clearing the status kept on the switching module (SM) specified by variable '`a`'.

3. VARIABLE FIELD DEFINITIONS

`OK`	= Status cleared.
`NG`	= No status to be cleared.
`a`	= SM number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

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16. CLR

CLR:AMA-MAPS

Software Release: 5E10 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
CLR AMA MAPS
  a
```

2. REASON FOR OUTPUT

To report on the status of the processing of the CLR:AMA-MAPS input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Text phrase indicating the outcome of the operation requested by the CLR:AMA-MAPS input message:

`CLEARING OF AMA MAPS AND CREATION OF AMA FILES HAS COMPLETED` = The CLR:AMA:MAPS input message has processed all moving head disks (MHDs) and created all automatic message accounting (AMA) files (AMA control, AMA global map, and AMA configuration) and is now complete.

`COULD NOT ASSIGN SPECIAL DIAGNOSTIC FILE NAME FOR MHD x` = Where '`x`' is the MHD number. /etc/dgnnm failed.

`COULD NOT CLEAR AMA MAPS FOR PARTITION x ON MHD y` = Where '`x`' is the MHD number and '`y`' is the *UNIX*® process error number. The AMA maps could not be cleared for the partition on the specified MHD.

`COULD NOT CLOSE AMA CONFIGURATION FILE FOR STREAM x` = Where '`x`' is the data stream number. The configuration file for this stream could not be closed.

`COULD NOT CLOSE AMA CONTROL FILE FOR STREAM x` = Where '`x`' is the data stream number. The AMA control file for this stream could not be closed.

`COULD NOT CLOSE AMA GLOBAL MAP FILE FOR STREAM x` = Where '`x`' is the data stream number. The AMA global map file for this stream could not be closed.

`COULD NOT CLOSE OFFLINE MHD x` = Where '`x`' is the MHD number.

`COULD NOT CREATE AMA CONFIGURATION FILE FOR STREAM x` = Where '`x`' is the data stream number. The AMA configuration file for this stream could not be created.

`COULD NOT CREATE AMA CONTROL FILE FOR STREAM x` = Where '`x`' is the data stream number. The AMA control file for this stream could not be created.

`COULD NOT CREATE AMA GLOBAL MAP FILE FOR STREAM x` = Where '`x`' is the data stream number. The AMA global map file for this stream could not be created.

`COULD NOT INITIATE PIPE TO DGNNM FOR MHD x  ERROR NUMBER = y` = Where '`x`' is the MHD number and '`y`' is the *UNIX*® process error number. /etc/dgnnm failed for this MHD because a pipe to the process could not be initiated.

`COULD NOT INITIATE PIPE TO UDGNNM FOR MHD x  ERROR NUMBER = y` = Where '`x`' is the MHD number and '`y`' is the *UNIX*® process error number. /etc/udgnnm failed for this MHD because a pipe to the process could not be initiated.

`COULD NOT LSEEK TO VTOC ON MHD x` = Where '`x`' is the MHD number. The lseek() to the volume table of contents (VTOC) for this MHD failed.

`COULD NOT OPEN AMA CONFIGURATION FILE FOR STREAM x` = Where '`x`' is the data stream number. The configuration file for this stream could not be opened.

`COULD NOT OPEN OFFLINE MHD x` = Where '`x`' is the MHD number.

`COULD NOT READ AMA CONFIGURATION FILE FOR STREAM x` = Where '`x`' is the data stream number. The configuration file for this stream could not be read.

`COULD NOT READ FROM THE PIPE FOR DGNNM FOR MHD x ERROR NUMBER = y` = Where '`x`' is the MHD number and '`y`' is the *UNIX*® process error number. /etc/dgnnm failed for this MHD because the pipe for the process could not be read from.

`COULD NOT READ VTOC ON MHD x` = Where '`x`' is the MHD number.

`COULD NOT RELEASE SPECIAL DIAGNOSTIC FILE FOR MHD x` = Where '`x`' is the MHD number. /etc/udgnnm failed.

`COULD NOT WRITE AMA CONFIGURATION FILE FOR STREAM x` = Where '`x`' is the data stream number. The configuration file for this stream could not be written.

`COULD NOT WRITE AMA CONTROL FILE FOR STREAM x` = Where '`x`' is the data stream number. The AMA control file for this stream could not be written.

`COULD NOT WRITE AMA GLOBAL MAP FILE FOR STREAM x` = Where '`x`' is the data stream number. The AMA global map file for this stream could not be written.

`COULD NOT WRITE CLEARED AMA PARTITION x TO MHD y` = Where '`x`' is the MHD number and '`y`' is the *UNIX*® process error number.

`MHD x IS NOT OFFLINE  CANNOT CLEAR AMA MAPS` = Where '`x`' is the MHD number.

`PARTITION x ON OFFLINE MHD y HAS BEEN CLEARED` = Where '`x`' is the partition number and '`y`' is the MHD number. This simply indicates that the AMA partition on the offline MHD was successfully cleared.

`PCLOSE OF DGNNM FILE FAILED FOR MHD x  ERROR NUMBER = y` = Where '`x`' is the MHD number and '`y`' is the *UNIX*® process error number. /etc/dgnnm failed for this MHD because the pipe to the process could not be closed.

`PCLOSE OF UDGNNM FILE FAILED FOR MHD x  ERROR NUMBER = y` = Where '`x`' is the MHD number and '`y`' is the *UNIX*® process error number. /etc/udgnnm failed for this MHD because the pipe to the process could not be closed.

`VTOC ENTRY FOR PARTITION x ON MHD y IS CORRUPT` = Where '`x`' is the AMA disk partition number and '`y`' is the MHD number.

`DEVICE NOT EQUIPPED  CANNOT CLEAR AMA MAPS` = An MHD is not equipped.

`CANNOT FIND RID  CANNOT CLEAR AMA MAPS` = The disks are improperly split, or there is ECD corruption.

`CAN NOT CREATE SDF  CANNOT CLEAR AMA MAPS` = There are permissions problems or filesystem corruption in the /tmp filesystem, or an ECD corruption.

`CAN NOT ACCESS SG DATABASE  CANNOT CLEAR AMA MAPS` = There may be corruption of the new-release /database filesystem or of the new-release ECD/SG databases.

`CAN NOT LOAD RCL MODULE  CANNOT CLEAR AMA MAPS` = This is an internal error due to missing files. The AUD:FILES input message can be run to determine what the missing files are.

`DISK TO PREPARE MUST BE SPECIFIED` Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`NUMERIC MHD NUMBER REQUIRED` Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`MHDS NOT SPLIT  CANNOT CLEAR AMA MAPS` = The MHD that needs to be cleared is not in the required state after completion of the ENTER stage.

`MHD x IS NOT ACTIVE  CANNOT CLEAR AMA MAPS` = The MHD that needs to be cleared is not active.

4. ACTION TO BE TAKEN

If the AMA disk partitions have been successfully cleared and the AMA control, global map and configuration files

have been successfully created, no action is necessary; otherwise, consult the transitions procedures in the Software Release Retrofit Procedures manual or refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Note: If the CLR:AMA-MAPS input message is entered at any time other than during a transition, it will fail and several output messages will be printed.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:AMA-MAPS
```

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-105-24x *Software Release Retrofit Procedures*

CLR:ARC

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
[1]    CLR ARC OFFICE a TYPE b c
```

```
[2]    CLR ARC TYPE b c
```

2. REASON FOR OUTPUT

To report the clearing of one or all alternate route cancellation (ARC) control(s).

Format 1 is for the removal of one ARC control of a given type.

Format 2 is for the removal of all ARC controls of a given type.

3. VARIABLE FIELD DEFINITIONS

`a` = Office name.

`b` = Control type. Valid value(s):
- `CANF` = Cancel from. Refer to the CLR:ARC input message.
- `CANT` = Cancel to. Refer to the CLR:ARC input message.

`c` = Termination status. Valid value(s):
- `ABORTED` = Command aborted.
- `COMPLETED` = Command successfully completed.
- `FAILED-PARAMETER` = Command failed. Input parameter error. System error encountered.

4. ACTION TO BE TAKEN

If '`c`' =	Action:
`COMPLETED`	Message is confirmation of a request from an input message.
`FAILED-PARAMETER`	Check for the validity of input parameters and reinitiate the corrected request.
`ABORTED`	Reinitiate the request after the system error has been recovered. This termination could result either due to system errors or the system audits have found errors on the ARC control and correction action is in progress.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`CLR:ARC`

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OP:ARC

Other Manual(s):
235-900-113 *Product Specifications*

MCC Display Page(s):

109 (OVERLOAD)
129 (DSN EXCEPTION)
170x, 171x (ISLU)

CLR:CGAP

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
[1]    CLR CGAP [CODE=a PREFIX=b DOM={ALL|d}] c
       ________________________________________________________________

[2]    CLR CGAP [CODE=a PREFIX=b DOM={ALL|d}] c
       ________________________________________________________________

[3]    CLR CGAP CODE=a PREFIX=b DOM={ALL|d} c
       ________________________________________________________________

[4]    CLR CGAP c
       ________________________________________________________________
```

2. REASON FOR OUTPUT

To report the clearing of one or all code control(s).

Format 1 is for removal of one code control on all calls to both a destination code and access prefix.

Format 2 is for removal of one code control on all calls to a destination code regardless of access prefix.

Format 3 is for removal of one code control on calls to an access prefix regardless of destination code.

Format 4 is for removal of all code controls in the office.

3. VARIABLE FIELD DEFINITIONS

`ALL` = Reports clearing of code control for all domains.

`a` = Destination code gapped, or "-" if not applicable.

`b` = Access prefix gapped. The prefix field will contain a blank or "-" if the access prefix is not specified. The access prefix only applies to feature group D carriers.

`c` = Termination status. Valid value(s):
`ABORTED` = Message aborted. System error occurred.
`COMPLETED` = Message successfully completed.
`FAILED-PARAMETER` = Message failed. Input parameter error.

`d` = Switching domain list.

4. ACTION TO BE TAKEN

If 'c' =	Action:
ABORTED	Reinitiate the request after the system error has been recovered.
COMPLETED	The message is confirmation of a request from an input message or from the RNMC.
FAILED-PARAMETER	Check for the validity of input parameters and reinitiate the corrected request.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:CGAP
OP:CGAP
```

Other Manual(s):
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

130 (NM EXCEPTION)
109 (OVERLOAD)

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CLR:DCC

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
[1]    CLR DCC CODE=a b
```

```
[2]    CLR DCC b
```

---

2. REASON FOR OUTPUT

To report the clearing of one or all destination code cancellation (DCC) control(s).

Format 1 is for the removal of one DCC control in this office.

Format 2 is for the removal of all DCC controls in this office.

3. VARIABLE FIELD DEFINITIONS

For removal of all DCC controls, the keyword 'CODE' and variable 'a' will be absent. For removal of one destination code cancellation (DCC) control to a destination code.

a = One to ten digit destination code.

b = Termination status. Valid value(s):
ABORTED = Command aborted. System error encountered.
COMPLETED = Command successfully completed.
FAILED-PARAMETER = Command failed. Input parameter error.

4. ACTION TO BE TAKEN

If 'b' =	Action:
ABORTED	Reinitiate the request after the system error have been recovered.
COMPLETED	The message is confirmation of a request from an input message.
FAILED-PARAMETER	Check for the validity of input parameters and reinitiate the corrected request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

CLR:DCC
OP:DCC

Other Manual(s):

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235-100-125 *System Description*
235-900-113 *Product Specification*

MCC Display Page(s):

129 (DSN NM EXCEPTION)
109 (OVERLOAD)

CLR:DOC

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
CLR DOC TG=a b
```

2. REASON FOR OUTPUT

To report the clearing of one dynamic overload control (DOC).

3. VARIABLE FIELD DEFINITIONS

`a` = Trunk group number.

`b` = Termination status. Valid value(s):
`ABORTED` = Command aborted. System error encountered.
`COMPLETED` = Command successfully completed.
`FAILED-PARAMETER` = Command failed. Input parameter error.

4. ACTION TO BE TAKEN

No action is needed for an automatically generated request from the engineering and administrative data acquisition system network management (EADAS/NM). For manually generated requests, the following actions will apply.

If 'b' =	**Action:**
ABORTED	Reinitiate the request.
COMPLETED	The message is confirmation of a request from an input message.
FAILED-PARAMETER	Check for the validity of input parameters and reinitiate the corrected request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`CLR:DOC`

Other Manual(s):
235-190-120 *Common Channel Signaling Services*

MCC Display Page(s):

130 (NM EXCEPTION)

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CLR:DSNM5-A

Software Release: 5E10 - 5E11
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
CLR DSNM5 PKG=a b
```

2. REASON FOR OUTPUT

To report the deletion of a package from the package list. This message only appears in defense switched network (DSN) switches.

3. VARIABLE FIELD DEFINITIONS

a = Package name. Valid value(s):
- ARC = Alternate route cancellation control.
- CLCT = Network management control count.
- CLDIR = Call direction.
- DCC = Destination code cancellation control.
- DLYR = Delayed readiness.
- IMA = Additional ineffective machine attempts.
- MLNC = Failure to match and no circuit.
- OVRLD = Overload or congestion control.
- SVC = Critical service circuit.
- TGMEAS = Basic trunk group measurements.

b = Termination status. Valid value(s):
- ABORTED = Command aborted. System error encountered.
- COMPLETED = Command successfully completed.
- FAILED-PARAMETER = Command failed. Input parameter error.

4. ACTIONS TO BE TAKEN

If 'b' =	Action:
ABORTED	Reinitiate the request after the system error has been recovered.
COMPLETED	The message is confirmation of a request for an input message.
FAILED-PARAMETER	Check for the validity of input parameters and reinitiate the corrected request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

CLR:DSNM5
OP:M5PKG

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Other Manual(s):
235-100-125 *System Description*
235-900-113 *Product Specification*

MCC Display Page(s):

109 (OVERLOAD)
129 (DSN EXCEPTION)

CLR:DSNM5-B

Software Release: 5E12 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
CLR DSNM5 PKG=a b
```

2. REASON FOR OUTPUT

To report the deletion of a package from the package list. This message only appears in defense switched network (DSN) switches.

3. VARIABLE FIELD DEFINITIONS

a = Package name. Valid value(s):
- ARC = Alternate route cancellation control.
- CLCT = Network management control count.
- CLDIR = Call direction.
- DCC = Destination code cancellation control.
- DLYR = Delayed readiness.
- IMA = Additional ineffective machine attempts.
- OVRLD = Overload or congestion control.
- RRC = Manual reroute trunk group controls.
- SVC = Critical service circuit.
- TGFLAG = Trunk group flags.
- TGMEAS = Basic trunk group measurements.

b = Termination status. Valid value(s):
- ABORTED = Command aborted. System error encountered.
- COMPLETED = Command successfully completed.
- FAILED-PARAMETER = Command failed. Input parameter error.

4. ACTIONS TO BE TAKEN

If 'b' =	Action:
ABORTED	Reinitiate the request after the system error has been recovered.
COMPLETED	The message is confirmation of a request for an input message.
FAILED-PARAMETER	Check for the validity of input parameters and reinitiate the corrected request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

CLR:DSNM5

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OP:M5PKG

Other Manual(s):
235-100-125 *System Description*
235-900-113 *Product Specification*

MCC Display Page(s):

109 (OVERLOAD)
129 (DSN EXCEPTION)

CLR:EMERDMP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
CLR EMERDMP COMPLETED
```

2. REASON FOR OUTPUT

To report the termination status of the CLR:EMERDMP input message.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:EMERDMP
COPY:TAPE-EMERDMP
OP:EMERSTAT
```

Output Message(s):

```
REPT:EMER-DUMP
```

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CLR:ESA

Software Release: 5E10 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
CLR ESA
  a
 [PRIMARY ESA:     APID=b STATE=c HEALTH=d]
 [SECONDARY ESA:   APID=b STATE=c HEALTH=d]
```

2. REASON FOR OUTPUT

Response to the CLR:ESA input message that clears the force active state and reports current status of the primary and secondary enhanced 911 service adjuncts (ESAs). This message could also indicate that the request has timed out.

3. VARIABLE FIELD DEFINITIONS

`a` = Informational text describing results of clearing the force active state. Valid value(s):

- `FORCED ACTIVE CLEARED` = The force was cleared and the active ESA was healthier, or as healthy than the inactive, so a switch was not needed. The current status will be printed.
- `FORCED ACTIVE CLEARED AND SWITCH COMPLETED` = The force was cleared and the inactive ESA was healthier than the active so a switch was done. The current status will be printed.
- `NO FORCED ACTIVE TO CLEAR` = There is no force to clear since no ESA was forced active. The current status will be printed.
- `NO INFORMATION TEXT` = The informational text was not set correctly in the message. This should be reported as a problem.
- `REQUEST HAS TIMED OUT` = The request for information has timed out and no information will be printed.

`b` = Applications processor identifier (APID) of the ESA. If the APID for the ESA (GLE911APID or GLE911SECID office parameter) is 0, no data for that ESA will be printed.

`c` = Current state of the ESA. Valid value(s):

- `ACTIVE` = The ESA is active and receiving queries.
- `FORCED` = The ESA is in the forced active state and is receiving queries and cannot be switched to inactive until the force has been removed.
- `INACTIVE` = The ESA is not active and is not currently receiving queries.

`d` = Current health value of the ESA. Valid value(s):

- `COMM LOST` = The switch is not currently able to send queries to the ESA.
- `CRITICAL` = The ESA has a critical alarm.
- `MAJOR` = The ESA has a major alarm.
- `MINOR` = The ESA has a minor alarm.
- `NORMAL` = The ESA is functioning normally with no alarms.
- `UNKNOWN` = The health status of the ESA is unknown.

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4. ACTION TO BE TAKEN

This message is printed in response to a CLR:ESA input message. If the message indicates that REQUEST HAS TIMED OUT, retry the CLR:ESA input message. If the message has NO INFORMATION TEXT, this should be reported as a problem.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:ESA
OP:ESA
SET:ESA
```

Output Message(s):

```
OP:ESA
REPT:ESA
SET:ESA
```

Other Manual(s):
235-900-303 *ISDN Applications Processor Interface Specification*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
24.7 [DSL APPLICATIONS PROCESSOR COMMUNICATION DATA]

CLR:FANALM

Software Release: 5E10 and later
Message Class: BPSC
Application: 5
Type: Output

1. FORMAT

```
CLR FANALM a b c [d]
```

2. REASON FOR OUTPUT

To acknowledge a user request to clear a fan alarm.

3. VARIABLE FIELD DEFINITIONS

a = Alarm type. Valid value(s):

- CNI = Common network interface.
- MFFAN = Miscellaneous frame.
- MSGS = Message switch.
- ONTC = Office network and timing complex.
- SM = Switching module.
- TMS = Time-multiplexed switch.

b = Unit number. Valid value(s):

If 'a' =	**'b' =**
TMS, ONTC, or MSDGS	0 or 1
SM	SM number
CNI or MFFAN	null

c = Termination report. Valid value(s):

ABORTED
COMPLETED

d = Explanation of termination report. Valid value(s):

SCSDC UNAVAL (scanner and signal distributor controller)
SEND FAILURE
VALID WITH CM1 ONLY
VALID WITH CM2 ONLY
FAILED SD OPERATION = Failed to set and/or clear one or more signal distributor points associated with the fan unit(s) (SM case only). If the SM has peripheral control and timing (PCT)-based peripheral units [such as, a digital network unit-synchronous optical network (SONET) (DNU-S)], each of these units must have at least one common control (CC) active in order to write to the unit's signal distributor points for clearing fan alarms.

4. ACTION TO BE TAKEN

If the operation fails, a manual reset of the fan unit(s) may be necessary.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:FANALM
```

Output Message(s):

```
REPT:ALM
REPT:FAN-FAIL-AS
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

CLR:FANALM-3B

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    CLR FANALM UNIT a PT b[bbb] f
       ____________________________________________________________________

[2]    CLR FANALM GRPN c DUPID d DATA PT e[eee]f
       ____________________________________________________________________

[3]    CLR FANALM NOT STARTED
         CONFLICT WITH CURRENT SYSTEM STATUS
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To indicate the result of a fan alarm reset operation requested by a CLR:FANALM input message.

Format 1 reports a distribute point by physical location.

Format reports a distribute point by a logical address.

Format 2 reports the SCSD administration process is not active. No communication with SDSD points is possible.

Format 3 reports the SCSD administration process is not active. No communication with SDSD points is possible.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number of scanner and signal distributor (SCSD) unit.

`b` = Physical scan point number on an SCSD.

`c` = Logical group name.

`d` = Duplex group ID.

`e` = Number of a point within a logical group.

`f` = Termination status. Valid value(s):

- `FAILED` = Action could not be completed by SCSD administrator. Possible reasons for failure are:
  - SCSD unit number is invalid.
  - Point number is invalid for the logical group.
  - Logical group name is invalid and either the SCSD unit is out-of-service (OOS) or is in an inactive state to the SCSD administrator.
- `COMPLETED` = Action completed.

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4. ACTION TO BE TAKEN

Issue the OP:OOS input message to determine if the SC/SD unit is listed as out-of-service. Otherwise, enter recent change and verify (RC/V) to verify input message arguments.

If logical addressing is used, check that the logical group name exists, and/or that the point number is contained in the logical group. If physical addressing is used, verify that the SCSD unit is equipped.

If the above results are negative, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1 and 2	229

Input Message(s):

```
CLR:FANALM
OP:OOS
```

Output Message(s):

```
REPT:FAN-MULTI
REPT:FAN-SINGLE
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-600-31x *ECD/SG Manual*

CLR:FRC-MSCU

Software Release: 5E10 and later
Message Class: MSGS
Application: 5
Type: Output

1. FORMAT

```
CLR FRC MSCU a [b]
```

2. REASON FOR OUTPUT

To acknowledge a request to clear the forced configuration of the message switch control unit (MSCU).

3. VARIABLE FIELD DEFINITIONS

`a` = Termination report. Valid value(s):
- `COMPLETED` = Request completed successfully.
- `NOT STARTED` = Requested action could not begin.
- `STOPPED` = Request was terminated before a normal completion due to a failure.

`b` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual request. No further action is necessary if the request completed successfully. If the termination report is not `COMPLETED`, variable '`b`' should give some indication as to why the request failed. Check MSCU MCC pages or the OP:CFGSTAT output message to verify that the MSCU was in a valid state to perform the request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:FRC-MSCU
OP:CFGSTAT
```

Output Message(s):

```
OP:CFGSTAT
```

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CLR:FRC-NCOSC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
CLR FRC NCOSC a [b]
```

2. REASON FOR OUTPUT

This message is in response to the SET:FRC-NCOSC input message.

3. VARIABLE FIELD DEFINITIONS

`NCOSC` = Network clock oscillator.

`a` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion and the termination was immediate (no cleanup was done).
- `COMPLETED` = Request completed successfully.
- `IN PROGRESS` = Request was received and action is in progress.
- `STOPPED` = Request was terminated before a normal completion due to hardware failure, data inconsistency, or another system problem.

`b` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

No action is necessary if the request completed successfully. If the request failed, the variable '`c`' should give some indication as to why the request failed. Check network clock MCC pages or the OP:CFGSTAT output message to verify that the NC was in a valid state to perform the request. Also, check the receive-only printer (ROP) for error messages using the REPT:NC output messages that may indicate problems or system reconfigurations.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:FRC-NCOSC
SET:FRC-NCOSC
```

Output Message(s):

```
OP:CFGSTAT
REPT:NC
```

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MCC Display Page(s):

(NETWORK CLOCK)

CLR:FRC-ONTCCOM

Software Release: 5E10 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

```
CLR FRC ONTCCOM  a [b]
```

2. REASON FOR OUTPUT

To acknowledge a request to clear the forced configuration of the office network and timing complex common unit (ONTCCOM).

3. VARIABLE FIELD DEFINITIONS

`a` = Termination report. Valid value(s):
- `COMPLETED` = Request completed successfully.
- `NOT STARTED` = Requested action could not begin.
- `STOPPED` = Request was terminated before a normal completion due to a failure.

`b` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual request. No further action is necessary if the request completed successfully. If the termination report is not `COMPLETED`, the variable '`b`' field should give some indication as to why the request failed. Check the ONTCCOM MCC pages or the OP:CFGSTAT output message to verify that the ONTC was in a valid state to perform the request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:FRC-ONTCCOM
OP:CFGSTAT
```

Output Message(s):

```
OP:CFGSTAT
```

Other Manual(s):

235-105-210 Routine Operations and Maintenance

MCC Display Page(s):

(ONTCCOM)

CLR:FRC-TRCU3

Software Release: 5E12 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
CLR FRC TRCU3=a-b-c {HOST|REMOTE} d [e]
```

2. REASON FOR OUTPUT

To acknowledge a request to clear the forced configuration of the transmission rate conversion unit - model III (TRCU3).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = TRCU3 Path (TRCUPATH). This is the TRCUPATH connecting a host and remote TRCU3 circuits.

`c` = Side. This is the side of the communications module (CM), which the function pack is connected, that is desired to clear the force active.

`d` = Termination report. Valid value(s):
`COMPLETED` = Request completed successfully.
`NOT STARTED` = Requested action could not begin.
`STOPPED` = Request was terminated before a normal completion due to a failure.

e = Additional data qualifying the termination field. Refer to the APP:CM-OM-REASON appendix in the Appendixes section of the Output Messages manual for a list of these reasons and their meanings.

`HOST` "HOST" refers to the TRCU3 at the host location which is connected to the communications module (CM).

`REMOTE` "REMOTE" refers to the TRCU3 at the remote location which is connected to the optically remoted (switching) module (ORM).

4. ACTIONS TO BE TAKEN

This message is printed out in response to a manual request. No further action is necessary if the request completed successfully. If the termination report is not `COMPLETED`, the variable '`d`' field should give some indication as to why the request failed.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
SET:FRC-TRCU3
```

Output Message(s):

```
CLR:FRC-TRCU3
SET:FRC-TRCU3
```

Output Appendix(es):

```
APP:CM-OM-REASON
```

CLR:FSYS-DIR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    CLR FILESYS DIR COMPLETED
       ____________________________________________________________________

[2]    CLR FILESYS DIR STOPPED
         a
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the result of executing the CLR:FSYS-DIR input message to remove a directory.

3. VARIABLE FIELD DEFINITIONS

`a` = The description of the error encountered.

4. ACTION TO BE TAKEN

Format 1 indicates success. If this format is printed, no action is necessary.

If Format 2 is printed, the explanatory text will indicate the error encountered. Verify that the message which was input is consistent with the CLR:FSYS-FILE input message manual page and, using the OP:ST-LISTDIR input message, verify that the file exists with the appropriate permissions. If both of these checks fail to uncover the problem, or the description of the error encountered is not self-explanatory, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	282
2	288

Input Message(s):

```
CLR:FSYS-DIR
CLR:FSYS-FILE
OP:ST-LISTDIR
```

Output Message(s):

```
OP:ST-LISTDIR
```

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Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

(ONTCCOM)

CLR:FSYS-FILE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    CLR FILESYS FILE COMPLETED
       ____________________________________________________________________

[2]    CLR FILESYS FILE STOPPED
         a
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the result of executing the CLR:FSYS-FILE input message to remove a file from a directory.

3. VARIABLE FIELD DEFINITIONS

`a` = The description of the error encountered.

4. ACTION TO BE TAKEN

Format 1 indicates success. If this format is printed, no action is necessary.

If Format 2 is printed, the explanatory text will indicate the error encountered. Verify that the message which was input is consistent with the CLR:FSYS-DIR input message manual page and, using the OP:ST-LISTDIR input message, verify that the directory exists with the appropriate permissions. If both of these checks fail to uncover the problem, or the description of the error encountered is not self-explanatory, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	282
2	288

Input Message(s):

```
ALW:FSYS-ACCESS
ALW:FSYS-MOUNT
CLR:FSYS-DIR
CLR:FSYS-FILE
INH:FSYS-UMOUNT
OP:ST-LISTDIR
```

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Output Message(s):

```
OP:ST-LISTDIR
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

CLR:HPRI

Software Release: 5E12 and later
Message Class: MAINT
Application: 5
Type: Output

1. FORMAT

```
[1]    CLR HPRI - HIGH PRIORITY TERMINAL FEATURE HAS BEEN DEACTIVATED
       ____________________________________________________________________

[2]    CLR HPRI - HIGH PRIORITY TERMINAL FEATURE IS NOT ACTIVE
       ____________________________________________________________________

[3]    CLR HPRI - TERMINAL NOT AUTHORIZED FOR DEACTIVATING
         HIGH PRIORITY TERMINAL FEATURE
       ____________________________________________________________________

[4]    CLR HPRI - HIGH PRIORITY TERMINAL FEATURE DEACTIVATION FAILED WITH a
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To respond to CLR:HPRI input command.

Format 1 is printed when the feature is successfully deactivated.

Format 2 is printed when the feature is currently not active.

Format 3 is printed when the feature could not be deactivated because the terminal is not authorized to deactivate. The feature can only be deactivated from the high priority terminal itself or the maintenance class terminal(s).

Format 4 is printed when the feature could not be deactivated because of an internal error code. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

3. VARIABLE FIELD DEFINITIONS

`a` = Internal error code. Possible values are:
- `3` = An invalid terminal name was received.
- `4` = Unable to successfully deactivate feature. Message failed.

4. ACTION TO BE TAKEN

For Format 3 try deactivating from the high priority terminal or a maintenance class terminal. The high priority terminal can be found with the OP:HPRI input command.

For Format 4, if the input command has failed, try it again later.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
CLR:HPRI
```

Output Message(s):

```
OP:HPRI
SET:HPRI
```

Other Manual(s):
235-100-125 *System Description*

CLR:IMCAT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    CLR IMCAT COMPLETED
       ____________________________________________________________________

[2]    CLR IMCAT NOT STARTED
         CONFLICT WITH CURRENT SYSTEM STATUS
            FILE1SEGMENT
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the termination status of the CLR:IMCAT input message.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

Format 1 indicates success and requires no action.

For Format 2, check the status of the file /cft/shl/imcatlg using the OP:STATUS-LISTDIR input message. If the file exists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:IMCAT
```

CLR:IODRV

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    CLR IODRV {COMPLETED|ABORTED}
       ____________________________________________________________________

[2]    CLR IODRV NOT STARTED
         CONFLICT WITH CURRENT SYSTEM STATUS  a
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the result of executing a CLR:IODRV input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Conflict with system status.

4. ACTION TO BE TAKEN

If the message reads ABORTED, the message could not be processed due to a conflict with the system status. The message will not be successfully processed until the system status changes. Check system status to determine why message aborted.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	159

Input Message(s):

`CLR:IODRV`

Output Appendix(es):

`APP:OMDB-X-REF`

CLR:IOMEM

Software Release: 5E11 and later
Message Class: DSKUTL
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    CLR IOMEM STARTED
       ____________________________________________________________________

[2]    CLR IOMEM ABORTED a
       ____________________________________________________________________

[3]    CLR IOMEM COMPLETED b
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the result of executing the CLR:IOMEM input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Reason for abort. Valid value(s):
- `7` = Message to IODRV port failure.
- `8` = Message reception failure from IODRV.
- `9` = Message to IODRV timed out.

`b` = Action taken by the IODRV. Valid value(s):
- `0` = Specified file was found and released by the IODRV.
- `1` = Specified file has already been released by the IODRV or was never cached by the IODRV.
- `2` = Specified file was found and unlocked and will be released by the IODRV.

4. ACTIONS TO BE TAKEN

For Format 2, messages usually indicate that a system resource was not available or became unavailable to perform the requested task. The problem causing the resource limitation should be cleared and the input requesst retried.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

Input Message(s):

`CLR:IOMEM`

CLR:ISOL-CM

Software Release: 5E10 and later
Message Class: MSGS
Application: 5
Type: Output

1. FORMAT

```
CLR ISOL CM a
```

2. REASON FOR OUTPUT

To acknowledge a manual request to re-synchronize the administrative module (AM) with the communication module (CM).

3. VARIABLE FIELD DEFINITIONS

`a` = Termination report. Valid value(s):

- `ABORTED` = Requested action is terminated before a normal completion and the consistency of hardware states or data is questionable. The reason for the abnormal termination can be found in the REPT:CM-RE-SYNC output message.
- `COMPLETED` = Requested action is terminated after completion.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:ISOL-CM
```

Output Message(s):

```
REPT:CM-RE-SYNC
```

Other Manual(s):

235-105-250 System Recovery Procedures

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CLR:ISOL-SM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
CLR ISOL SM={a|a&&b} c [d]
```

2. REASON FOR OUTPUT

To acknowledge a manual request to take one or more switching module(s) (SM) out of isolation.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = Last SM in the range starting with '`a`'.

`c` = Termination report. Valid value(s):

- `ABORTED` = Requested action is terminated before a normal completion and the consistency of hardware states or data is questionable.
- `COMPLETED` = Requested action is terminated after completion. If the host switching module (HSM) for a remote switching module (RSM) was isolated prior to the latest request, then the RSM will not be fully unisolated (T1 link only) until the HSM is cleared from isolation.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action is terminated before a normal completion but consistency of hardware states and data is reliable.

`d` = Additional information qualifying the termination report.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:ISOL-SM
```

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CLR:LAMPS

Software Release: 5E10 and later
Message Class: BPSC
Application: 5
Type: Output

1. FORMAT

```
CLR LAMPS a [b]
```

2. REASON FOR OUTPUT

To acknowledge a user request to extinguish exit pilot lamps (alarms).

3. VARIABLE FIELD DEFINITIONS

`a` = Termination report. Valid value(s):

```
ABORTED
COMPLETED
```

`b` = Explanation of termination failure (if needed). Valid value(s):

```
SEND FAILURE
SCSDC UNAVAILABLE
```

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:LAMPS
```

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CLR:LIB

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
CLR LIB TEAM  a    b    c    d
```

2. REASON FOR OUTPUT

To report the completion status of a manually issued CLR:LIB input message.

3. VARIABLE FIELD DEFINITIONS

a = Team number.

b = Central processor (CP) or administrative module (AM) flag. Valid value(s):
N = CP or AM is reporting.
Y = CP or AM is not reporting.

c = Switching module (SM) number. Default is that SM is not reporting.

d = Results. Valid value(s):

```
COMPLETED
STOPPED - NO PROGRAM LOADED
STOPPED - PROCESSOR LOADED BY A DIFFERENT TEAM
STOPPED - PROGRAM STARTED
```

4. ACTION TO BE TAKEN

Since this is a response to a manual request, no action is required. Normally, testing would proceed from this point.

5. ALARMS

None. .ta 59

6. REFERENCES

Input Message(s):

```
CLR:LIB
```

CLR:M5-A

Software Release: 5E10 only
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
CLR M5 PKG=a b
```

2. REASON FOR OUTPUT

To report the clearing of a package from the five-minute surveillance data set of packages for the on-site network management channel.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

`a` = Package. Valid value(s):

`CCS`	= Common channel signaling general service measurements.
`CCSP`	= Common channel signaling special service measurements.
`CGAP`	= Code control.
`CLCT`	= Network management control counts.
`CLDIR`	= Call direction.
`DLYR`	= Delayed readiness.
`IECSST`	= Inter-exchange carrier start signal timeout counts.
`IECSTG`	= Inter-exchange carrier shared trunk group counts.
`IMA`	= Additional ineffective machine attempts.
`LN`	= Leased network action point.
`LNCU`	= Leased network office-wide measurements for critical users.
`LNNODE`	= Leased network node-to-node measurements.
`MLNC`	= Failure to match and no circuit.
`NS`	= Number services.
`OVRLD`	= Overload or congestion.
`RRC`	= Manual reroute trunk group controls.
`SDN`	= Action control point for software defined networks.
`SVC`	= Critical service circuits.
`TGFLAG`	= Trunk group flags.
`TGMEAS`	= Basic trunk group.
`WBTGMEAS`	= Wideband trunk group.

`b` = Termination status. Valid value(s):

`ABORTED`	= Command aborted. System error encountered.
`COMPLETED`	= Command successfully completed.
`FAILED-PARAMETER`	= Command failed. Input parameter error.

4. ACTION TO BE TAKEN

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These messages are to be treated as information only messages.

If 'b' =	Action:
ABORTED	Reinitiate request.
COMPLETED	No action is needed. The message is confirmation of a request from an input message.
FAILED-PARAMETER	Check for the validity of input parameters and reinitiate the corrected request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:M5
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):
235-190-115 *Local and Toll System Features*

CLR:M5-B

Software Release: 5E11 only
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
CLR M5 PKG=a b
```

2. REASON FOR OUTPUT

To report the clearing of a package from the five-minute surveillance data set of packages for the on-site network management channel.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

`a` = Package. Valid value(s):

`ASPTF`	= Advanced services platform toll free counts.
`CCS`	= Common channel signaling general service measurements.
`CCSP`	= Common channel signaling special service measurements.
`CGAP`	= Code control.
`CLCT`	= Network management control counts.
`CLDIR`	= Call direction.
`DLYR`	= Delayed readiness.
`IECSST`	= Inter-exchange carrier start signal timeout counts.
`IECSTG`	= Inter-exchange carrier shared trunk group counts.
`IMA`	= Additional ineffective machine attempts.
`LN`	= Leased network action point.
`LNCU`	= Leased network office-wide measurements for critical users.
`LNNODE`	= Leased network node-to-node measurements.
`MLNC`	= Failure to match and no circuit.
`NS`	= Number services.
`OVRLD`	= Overload or congestion.
`RRC`	= Manual reroute trunk group controls.
`SDN`	= Action control point for software defined networks.
`SVC`	= Critical service circuits.
`TGFLAG`	= Trunk group flags.
`TGMEAS`	= Basic trunk group.
`WBTGMEAS`	= Wideband trunk group.

`b` = Termination status. Valid value(s):

`ABORTED`	= Command aborted. System error encountered.
`COMPLETED`	= Command successfully completed.
`FAILED-PARAMETER`	= Command failed. Input parameter error.

4. ACTION TO BE TAKEN

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If 'b' =	Action:
ABORTED	Reinitiate request.
COMPLETED	No action is needed. The message is confirmation of a request from an input message.
FAILED-PARAMETER	Check for the validity of input parameters and reinitiate the corrected request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:M5
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):
235-190-115 *Local and Toll System Features*

CLR:M5-C

Software Release: 5E12 only
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
CLR M5 PKG=a b
```

2. REASON FOR OUTPUT

To report the clearing of a package from the five-minute surveillance data set of packages for the on-site network management channel.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Package. Valid value(s):

ASPTF	= Advanced services platform toll free counts.
BNP	= Basic number portability measurements.
CCS	= Common channel signaling general service measurements.
CCSP	= Common channel signaling special service measurements.
CGAP	= Code control.
CLCT	= Network management control counts.
CLDIR	= Call direction.
DLYR	= Delayed readiness.
IECSST	= Inter-exchange carrier start signal timeout counts.
IECSTG	= Inter-exchange carrier shared trunk group counts.
IMA	= Additional ineffective machine attempts.
LN	= Leased network action point.
LNCU	= Leased network office-wide measurements for critical users.
LNNODE	= Leased network node-to-node measurements.
MLNC	= Failure to match and no circuit.
NS	= Number services.
OVRLD	= Overload or congestion.
RRC	= Manual reroute trunk group controls.
SDN	= Action control point for software defined networks.
SVC	= Critical service circuits.
TGFLAG	= Trunk group flags.
TGMEAS	= Basic trunk group.
WBTGMEAS	= Wideband trunk group.

b = Termination status. Valid value(s):

ABORTED	= Command aborted. System error encountered.
COMPLETED	= Command successfully completed.
FAILED-PARAMETER	= Command failed. Input parameter error.

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4. ACTIONS TO BE TAKEN

If 'b' =	Action:
ABORTED	Reinitiate request.
COMPLETED	No action is needed. The message is confirmation of a request from an input message.
FAILED-PARAMETER	Check for the validity of input parameters and reinitiate the corrected request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:M5
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):
235-190-115 *Local and Toll System Features*

CLR:M5-D

Software Release: 5E13 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
CLR M5 PKG=a b
```

2. REASON FOR OUTPUT

To report the clearing of a package from the five-minute surveillance data set of packages for the on-site network management channel.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

`a` = Package. Valid value(s):

`ASPTF`	= Advanced services platform toll free counts.
`BNP`	= Basic number portability measurements.
`CCS`	= Common channel signaling general service measurements.
`CCSP`	= Common channel signaling special service measurements.
`CGAP`	= Code control.
`CLCT`	= Network management control counts.
`CLDIR`	= Call direction.
`DLYR`	= Delayed readiness.
`GETSHPC`	= Government emergency telecommunications service high probability of call completion.
`HPCTG`	= High probability of call completion trunk group.
`IECSST`	= Inter-exchange carrier start signal timeout counts.
`IECSTG`	= Inter-exchange carrier shared trunk group counts.
`IMA`	= Additional ineffective machine attempts.
`LN`	= Leased network action point.
`LNCU`	= Leased network office-wide measurements for critical users.
`LNNODE`	= Leased network node-to-node measurements.
`MLNC`	= Failure to match and no circuit.
`NS`	= Number services.
`OVRLD`	= Overload or congestion.
`RRC`	= Manual reroute trunk group controls.
`SDN`	= Action control point for software defined networks.
`SVC`	= Critical service circuits.
`TGFLAG`	= Trunk group flags.
`TGMEAS`	= Basic trunk group.
`WBTGMEAS`	= Wideband trunk group.

`b` = Termination status. Valid value(s):

`ABORTED`	= Command aborted. System error encountered.
`COMPLETED`	= Command successfully completed.
`FAILED-PARAMETER`	= Command failed. Input parameter error.

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4. ACTIONS TO BE TAKEN

If 'b' =	Action:
ABORTED	Reinitiate request.
COMPLETED	No action is needed. The message is confirmation of a request from an input message.
FAILED-PARAMETER	Check for the validity of input parameters and reinitiate the corrected request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:M5
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):
235-190-115 *Local and Toll System Features*

CLR:MCTSI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
CLR MCTSI=a b
```

2. REASON FOR OUTPUT

To provide the result of the CLR:MCTSI input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Results of the input message. Valid value(s):
`COMPLETED` = Force was removed or no force was in effect.
`STOPPED STATUS UNKNOWN` = The message was sent to the SM and no response was received.
`STOPPED FAULT-STATUS UNKNOWN` = Error detected during central processor intervention (CPI) transmission.
`STOPPED TIMEOUT` = The message interface (MI) was unable to process the request.
`STOPPED MATE IS POWERED OFF` = Not all forces cleared. The power force is still in effect.

4. ACTION TO BE TAKEN

If 'b' =	Action: =
STOPPED FAULT-STATUS UNKNOWN	Refer to the Master Control Center (MCC) pages listed in the references to determine the status. If repeating the message fails to help, then run diagnostics on the office network and timing complex (ONTC) and module controller time slot interchange (MCTSI) to determine the problem.
STOPPED MATE IS POWERED OFF	Restore power to mate MCTSI.
STOPPED STATUS UNKNOWN	Refer to MCC pages listed in the references to determine status. Repeat the input message if necessary.
STOPPED TIMEOUT	Refer to MCC pages listed in the references to determine status. Repeat the input message if necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

CLR:MCTSI

MCC Display Page(s):

(INHIBIT AND RECOVERY CONTROL)

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(MCTSI/DLI)
(MCTSI/RLI)

CLR:MHD-MAEC

Software Release: 5E10 and later
Message Class:
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    CLR MHD a MAEC STARTED
       ____________________________________________________________________

[2]    CLR MHD a MAEC IN PROGRESS
       ____________________________________________________________________

[3]    CLR MHD a MAEC NOT STARTED b c
       ____________________________________________________________________

[4]    CLR MHD a MAEC STOPPED b c
       ____________________________________________________________________

[5]    CLR MHD a MAEC ERROR b c
       ____________________________________________________________________

[6]    CLR MHD a MAEC ABORTED b
       ____________________________________________________________________

[7]    CLR MHD a MAEC COMPLETED
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the result of executing a CLR:MHD-MAEC input message.

Format 1 indicates the message was started successfully.

Format 2 indicates message execution is in progress.

Format 3 indicates a system resource was not available and message execution was discontinued.

Formats 4, 5, and 6 indicate the message encountered an error condition of some type and message execution was halted.

Format 7 indicates the message completed successfully.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Process step or reason code. Valid value(s):

`f03`	= Cannot open equipment configuration database (ECD).
`f06`	= Cannot get unit control block (UCB) of unit by name.
`f09`	= Cannot reserve UCB.
`f0c`	= Cannot assign special device file name.
`f0f`	= Cannot open special device file.
`f12`	= Cannot set input/output (I/O) mode of special device file.

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`f15`	= Cannot enable message reception.
`f18`	= Refer to the disk driver (DKDRV) error report on the receive-only printer (ROP).
`f1b`	= Message to port failure.
`f1e`	= Message reception failure.
`f21`	= Process timed out.
`f24`	= Failed to close special device file.
`f27`	= Failed to release special device file.
`f2a`	= Failed to unreserve UCB of unit.
`f2d`	= Failed to close ECD.
`f30`	= Terminated externally with signal.

`c` = System error code number. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

A termination report specifying noncompletion with an error code, usually indicates a system resource was not available, or became unavailable to perform the requested task. The problem causing the resource limitation should be cleared and the input request retried.

Format 6 indicates that the message was aborted either because the process timed out or because the disk driver could not clear the media access error counter (MAEC) for the specified moving head disk (MHD). In either case, the input request should be retried. If the error condition continues, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	621

Output Message(s):

```
REPT:DKDRV
```

Output Appendix(es):

```
APP:SYSERR
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

CLR:MSGS

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
CLR MSGS FRC a [b]
```

2. REASON FOR OUTPUT

To acknowledge a request to clear the forced configuration on the message switch complex (MSGS).

3. VARIABLE FIELD DEFINITIONS

`a` = Termination report. Valid value(s):

- `ABORTED` = Requested action is terminated before a normal completion and the consistency of hardware states or data is questionable.
- `COMPLETED` = Requested action is terminated after completion.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action is terminated before a normal completion but consistency of hardware states and data is reliable.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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CLR:MWI

Software Release: 5E10 and later
Message Class: CP_RSP
Application: 5
Type: Output

1. FORMAT

```
CLR MWI DN=a FNAME=b c
```

2. REASON FOR OUTPUT

To report the result of a message waiting indicator (MWI) deactivation request in response to a CLR:MWI input message. If the request could not be processed, the message should be tried again later.

3. VARIABLE FIELD DEFINITIONS

`a` = Seven-digit directory number.

`b` = Message Service System (MSS) feature name.

`c` = Result of the MWI deactivation request. Valid value(s):

`MWI DEACTIVATED` = The MWI has been successfully deactivated.

`INVALID DN` = The directory number (DN) entered was not found in the office dialing plan.

`INVALID FEATURE` = The feature name entered or defaulted is one of the following error cases:

- No MSS feature on DN entered.
- MSS feature not active.
- MSS feature does not have MWI option.
- Feature name entered is not an MSS feature.

`UNASSIGNED VISUAL MWI` = A visual MWI indicator was not assigned for the DN that is requesting MWI activation or deactivation.

`RETRY LATER: ODD BACKUP IN PROGRESS` = Office-dependent data (ODD) backup is in progress. No MWI activations or deactivations are allowed during an ODD backup.

`RETRY LATER: RESOURCES UNAVAILABLE` = Switch resources were not available to allow processing of the request.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`CLR:MWI`

CLR:NMNODES

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
CLR NMNODES a
  CLLI          V/D
  [b            c]
  .             .
  .             .
  .             .
```

2. REASON FOR OUTPUT

To report the deletion of node(s) from the five-minute network management node schedule (NMNODES). A node is identified by a CLLI code and the voice/data indicator. This is a response to a CLR:NMNODES input message.

3. VARIABLE FIELD DEFINITIONS

a = Termination status. Valid value(s):
- ABORTED = Message failed. System error encountered.
- COMPLETED = Nodes specified in the CLR:NMNODES input message have been successfully cleared from the node schedule.
- FAILED-PARAMETER = Message failed due to bad input. The node identifiers specified are invalid.

b = Common language location ID (CLLI) code.

c = Voice/data indicator. Valid value(s):
- D = Data indicator.
- V = Voice indicator.

Note: Variables 'b' and 'c' will be displayed only when the node has been successfully removed from the node schedule. If a CLR:NMNODES input message requests to delete all nodes on the node schedule, the nodes being deleted will not be displayed.

4. ACTION TO BE TAKEN

If 'a' =	Action:
ABORTED	Reinitiate the request.
COMPLETED	The message is a confirmation of a request from an input message.
FAILED-PARAMETER	Check for the validity of input parameters and reinitiate the corrected request.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
CLR:NMNODES
ASGN:NMNODES
OP:NMNODES
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

130 (NM EXCEPTION)

CLR:NMSCH

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
CLR NMSCH a
  TG = b ... b
```

2. REASON FOR OUTPUT

To report the deletion of 1 to 8 trunk groups from the network management schedule (NMSCH).

3. VARIABLE FIELD DEFINITIONS

`a` = Trunk group number.

`b` = Termination status. Valid value(s):
`ABORTED` = Command aborted. System error encountered.
`COMPLETED` = Command successfully completed.
`FAILED-PARAMETER` = Command failed. Input parameter error.

4. ACTION TO BE TAKEN

No action is needed for an automatically generated request from the engineering and administrative data acquisition system/network management (EADAS/NM). These messages are to be treated as information-only messages. For manually generated requests, the following actions will apply.

If 'b' =	Action:
ABORTED	Reinitiate the request after the system error has been recovered.
COMPLETED	The message is confirmation of a request from an input message or from the EADAS/NM.
FAILED-PARAMETER	Check for the validity of input parameters and reinitiate the corrected request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

ASGN:NMSCH
OP:NMSCH

Other Manual(s):
235-190-103 *Business and Residence Feature Description*

MCC Display Page(s):

130 (NM EXCEPTION)

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109 (OVERLOAD)

CLR:ODDBKUP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
CLR ODDBKUP [AM] [CMP= a[ TO b]] [NRODD= c[ TO d]] [RODD[= c]] e!
```

2. REASON FOR OUTPUT

To report the status of a CLR:ODDBKUP input request.

3. VARIABLE FIELD DEFINITIONS

`AM` = The report is for administrative module (AM).

`CMP` = The report is for the communications module processor (CMP).

`NRODD` = The report is for non-redundant ODD.

`RODD` = The report is for the redundant ODD.

`a` = CMP number or the lower limit of a range of CMP numbers.

`b` = Upper limit of range of CMP numbers.

`c` = Switching module (SM) number or the lower limit of a range of SM numbers.

`d` = Upper limit of range of SM numbers.

`e` = Termination report. Valid value(s):

- `ABORTED` = The requested action terminated before completion and the termination was immediate, with consistency of hardware states or data questionable. Probable cause is the non-matching of the module range.
- `COMPLETED` = The requested action was completed.
- `STOPPED` = The requested action terminated before a normal completion and the termination was graceful.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`CLR:ODDBKUP`

```
OP:BKUPSTAT
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

CLR:PB

Software Release: 5E10 and later
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
CLR PB
  ID TYPE     STATUS
  a  b        c
```

2. REASON FOR OUTPUT

To print the results of the CLR:PB input message requesting that 101 test line calls can now terminate at this trunk work station.

3. VARIABLE FIELD DEFINITIONS

`a` = Trunk work station (TWS) ID number.

`b` = Type of trunk work station. Valid value(s):
- `CTTU` = Centralized trunk test unit (CTTU).
- `LOCAL` = Trunk and line work station (TLWS) with local talk and monitor phone.
- `REMOTE` = TLWS with remote phone.

`c` = Action taken. Valid value(s):
- `INVALID ID NUMBER` = The TWS ID number is not known to the system. For TLWS positions, this means there is no TLWSR tuple for the position. For CTTU, there is no CTTU position.
- `NOT POSITION BUSY` = The TWS position has been marked as not busy.
- `RETRY LATER` = Try again later, unable to process the request.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:PB
OP:PB
SET:PB
```

Output Appendix(es):

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APP:TLWS

Other Manual(s):
235-100-125 System Description
235-105-110 System Maintenance Requirements and Tools
235-105-220 Corrective Maintenance

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
14.0 (VERIFY 101 TEST LINE)

CLR:PSLNK

Software Release: 5E11 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
CLR PSLNK=a-b   [c] [d]
```

2. REASON FOR OUTPUT

To report the result of a CLR:PSLNK input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Near end community address of the packet switch unit (PSU) link (PSLNK).

`b` = Far end community address of the PSU link.

`c` = Termination status. Valid value(s):

`ABORTED`	= Requested action has aborted.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action has not been started.
`STOPPED`	= Requested action has stopped.

`d` = Additional information qualifying the termination status. Refer to the APP:PSU-RESP appendix in the Appendixes section of this Output Messages manual.

4. ACTION TO BE TAKEN

Try again later if response is other than `COMPLETED`.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:ST-PSLNK
CLR:PSLNK
```

Output Appendix(es):

```
APP:PSU-RESP
```

MCC Display Page(s):

1187 (PSU LINKS STATUS)

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CLR:PTN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    CLR PTN CLEARING a ON MHD b
```

```
[2]    CLR PTN ON MHD b COMPLETED
```

```
[3]    CLR PTN STOPPED WITH ERROR CODE c ERRNO d[,(e)]
```

---

2. REASON FOR OUTPUT

To report the result of executing a CLR:PTN input message, and to provide status information.

3. VARIABLE FIELD DEFINITIONS

`a` = Path name of partition being initialized with zeroes.

`b` = Specifies disk unit containing backup disk copy with application partitions cleared.

`c` = Error code indicating error that caused process to terminate. The first three digits indicate the nature of the error. The last two digits (represented as `xx`) indicate which module the error occurred in. Valid value(s):

- `01xx` = Missing arguments.
- `02xx` = Destination disk does not exist.
- `03xx` = Destination disk is not active.
- `04xx` = Mate of destination disk does not exist.
- `05xx` = Mate of destination disk is not active.
- `06xx` = Specification file (variable '`e`') does not exist.
- `07xx` = Duplicate partitions in specification file.
- `08xx` = File name (variable '`e`') in specification file is not a partition.
- `09xx` = File name (variable '`e`') in specification file does not exist.
- `10xx` = Partition specified (variable '`e`') does not exist in destination disk.
- `11xx` = File name (variable '`e`') in specification file does not have any entry in the volume table of contents (VTOC) (it may be a block device but not a partition).
- `12xx` = Specification file (variable '`e`') is empty.
- `13xx` = Process was stopped by a termination (SIGTERM) signal.
- `14xx` = Partition (variable '`e`') is not an application partition. This partition needs to be set with correct flag in the VTOC.

Errors associated with system calls. Valid value(s):

- `201xx` = The "open()" failed to open '`e`'.
- `202xx` = "mknod()" failed to create special device file '`e`' (temporary file to read VTOC from disk).
- `203xx` = "read()" failed to read file '`e`'.

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204xx = "mkseg()" failed to allocate one segment of memory.
205xx = "lseek()" failed to change offset (variable 'e') in out of service disk.
206xx = "setio()" failed to set physical IO for 'e'.
207xx = "write()" failed on segment 'e' (on partition being cleared).
208xx = "ugucbn()" failed to get unit control block (UCB) information for moving head disk (MHD) 'e'.
209xx = "ugucb()" failed to get UCB information for MHD 'e'.
210xx = "unlink()" failed to unlink file 'e'.
211xx = "ursvucb()" failed to reserve MHD 'e'.
212xx = "ugsdf()" failed to access out of service (OOS) disk MHD 'e'.
213xx = "sendpw()" failed to send message to 'e'.
214xx = "recvw()" failed to receive message from 'e'.
215xx = "msgenab()" failed.
216xx = Bad message received from maintenance input request administrator (MIRA).
217xx = After MIRA removed disk from service, data base does not have disk as OOS.
218xx = "ugmamirids()" failed to get UCB record.
219xx = "close()" failed to close file 'e'.
220xx = "stat()" failed on 'e'.

d = Indicates system error code. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

e = Supplementary data.

4. ACTION TO BE TAKEN

Correct user execution errors by examining the procedures used for execution of the message. If any other errors occur, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	191
2	190
3	189

Input Message(s):

```
CLR:PTN
```

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

CLR:RT-FAC

Software Release: 5E10 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
CLR RT FAC=a-b {PROT|FELP} c [d]
```

2. REASON FOR OUTPUT

To respond to the CLR:RT-FAC input message that requested either a switch to the protection (PROT) line or a far end loop (FELP) around be cleared for a particular remote terminal (RT) digital signal level one (DS1) facility (FAC).

3. VARIABLE FIELD DEFINITIONS

`a` = Site identification (SID) number.

`b` = RT DS1 FAC number [A, B, C, D, or P for TR008 or 1-28 for TR303].

`c` = Termination status. Valid value(s):

`COMPLETED`	= The requested action has completed successfully.
`IN PROGRESS`	= The message is in progress.
`STOPPED`	= The action terminated before a normal completion but the termination was graceful.

`d` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:RT-ALM-ALL
CLR:RT-FAC
```

Output Message(s):

```
OP:RT-FAC-OFF
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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Other Manual(s):
235-105-110 System Maintenance Requirements and Tools
235-105-220 Corrective Maintenance

MCC Display Page(s):

187x (IDCU FACILITY)
188xyy (IDCU REMOTE TERMINAL)

CLR:RUTIL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]    CLR RUTIL COMPL
         LN a b
       ____________________________________________________________________

[2]    CLR RUTIL ABT
         SEND2KERN MKNODE() FAILED c
       ____________________________________________________________________

[3]    CLR RUTIL ABT
         SEND2KERN OPEN() FAILED c
       ____________________________________________________________________

[4]    CLR RUTIL ABT
         SEND2KERN KERNEL RETURNED ERROR c
       ____________________________________________________________________

[5]    CLR RUTIL ABT
         KERNEL RESPONSE TIMEOUT c
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

Response to a CLR:RUTIL input message.

Format 1 indicate a successful completion of the CLR:RUTIL input message.

Format 2 indicate the creating the special file for the kernel has failed.

Format 3 indicate that attempting to open the file for kernel processing has failed.

Format 4 indicate that the kernel has returned a failing return code.

Format 5 indicate that the kernel has not responded to the process.

3. VARIABLE FIELD DEFINITIONS

a = The group number of the concerned node.

b = The member number of the concerned node.

c = The value of the global variable 'errno'.

4. ACTION TO BE TAKEN

For Formats 2 through 5, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:RUTIL
ALW:RUTILFLAG
CLR:RUTIL
CLR:RUTILFLAG
DUMP:RUTIL
INH:RUTIL
INH:RUTILFLAG
LOAD:RUTIL
OP:RUTIL
OP:RUTILFLAG
WHEN:RUTIL
```

Output Message(s):

```
ALW:RUTIL
ALW:RUTILFLAG
CLR:RUTILFLAG
DUMP:RUTIL
INH:RUTIL
INH:RUTILFLAG
LOAD:RUTIL
OP:RUTIL
OP:RUTILFLAG
REPT:RUTIL
WHEN:RUTIL
```

Other Manual(s):

235-105-110 System Maintenance Requirements and Tools

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CLR:RUTILFLAG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]    CLR RUTILFLAG COMPL
         LN aa b BP = c
       ____________________________________________________________________

[2]    CLR RUTILFLAG COMPL
         LN aa b INVALID BP = c
       ____________________________________________________________________

[3]    CLR RUTILFLAG COMPL
         LN aa b BP = c NOT SETUP COMPL
       ____________________________________________________________________

[4]    CLR RUTILFLAG COMPL
         LNa b BP = c ILLEGAL BP
         STATUS = e
       ____________________________________________________________________

[5]    CLR RUTILFLAG COMPL
         LN aa b BP = c MEMORY PROTECTION
         ERROR = f
       ____________________________________________________________________

[6]    CLR RUTILFLAG COMPL
         LN aa b VECTOR MEMORY PROTECTION ERROR = f
       ____________________________________________________________________

[7]    CLR RUTILFLAG ABT
         SEND2KERN MKNODE() FAILED d
       ____________________________________________________________________

[8]    CLR RUTILFLAG ABT
         SEND2KERN OPEN() FAILED d
       ____________________________________________________________________

[9]    CLR RUTILFLAG ABT
         SEND2KERN KERNEL RETURNED ERROR d
       ____________________________________________________________________

[10]   CLR RUTILFLAG ABT
         KERNEL RESPONSE TIMEOUT d
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

Response to a CLR:RUTILFLAG input message.

Format 1 indicate a successful completion of the CLR:RUTILFLAG input message.

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Format 2 indicates that the break point specified is invalid.

Format 3 indicates that the specified break point is not setup.

Format 4 indicates that the break point has an illegal status.

Format 5 indicates that a memory protection error has occurred.

Format 6 indicates that a memory protection error has occurred.

Format 7 indicate the creating the special file for the kernel has failed.

Format 8 indicate that attempting to open the file for kernel processing has failed.

Format 9 indicate that the kernel has returned a failing return code.

Format 10 indicate that the kernel has not responded to the process.

3. VARIABLE FIELD DEFINITIONS

a	= The group number of the concerned node.
b	= The member number of the concerned node.
c	= The specified break point number.
d	= The value of the global variable 'errno'.
e	= Illegal break point status value.
f	= Memory protection error return.

4. ACTION TO BE TAKEN

For Formats 2 and 3, check the specified break point number. Otherwise, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual for Formats 4 through 10.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:RUTIL
ALW:RUTILFLAG
CLR:RUTIL
CLR:RUTILFLAG
DUMP:RUTIL
INH:RUTIL
INH:RUTILFLAG
LOAD:RUTIL
OP:RUTIL
OP:RUTILFLAG
```

```
WHEN:RUTIL
```

Output Message(s):

```
ALW:RUTIL
ALW:RUTILFLAG
CLR:RUTIL
DUMP:RUTIL
INH:RUTIL
INH:RUTILFLAG
LOAD:RUTIL
OP:RUTIL
OP:RUTILFLAG
REPT:RUTIL
WHEN:RUTIL
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

CLR:SILC

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
[1]    CLR SILC TG=a b
```

```
[2]    CLR SILC b
```

---

2. REASON FOR OUTPUT

To report the clearing of a specified trunk group or all trunk groups from the SILC list.

Format 1 is for removal of one trunk group from the selective incoming load control (SILC) list.

Format 2 is for removal of all trunk groups from the SILC list.

3. VARIABLE FIELD DEFINITIONS

`a` = Trunk group number.

`b` = Termination status. Valid value(s):
`ABORTED` = Command aborted. System error encountered.
`COMPLETED` = Command successfully completed.
`FAILED-PARAMETER` = Command failed. Input parameter error.

4. ACTION TO BE TAKEN

No action is needed for an automatically generated request from the engineering and administrative data acquisition system/network management (EADAS/NM). These messages are to be treated as information-only messages. For manually generated requests, the following actions will apply.

If 'b' =	Action:
ABORTED	Reinitiate the request after the system error has been recovered.
COMPLETED	The message is confirmation of a request from an input message or from the EADAS/NM.
FAILED-PARAMETER	Check for the validity of input parameters and reinitiate the corrected request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

CLR:SILC
OP:SILC

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Other Manual(s):
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

130 (NM EXCEPTION)
109 (OVERLOAD)

CLR:SRST

Software Release: 5E10 and later
Message Class:
Application: 5,CNI
Type: Output

1. FORMAT

```
CLR SRST DPC a b[ c] [LS d] e
```

2. REASON FOR OUTPUT

To report that the message transfer part (MTP) signaling route set test (SRST) procedure is stopped for the specified destination point code's (DPC) route(s), and the routing status is cleared to available.

3. VARIABLE FIELD DEFINITIONS

`a` = Destination point code (DPC) network identifier.

`b` = DPC network cluster for *ANSI*® standard format or for AT&T format `b = h i`.

`c` = DPC member.

`d` = Link set/route.

`e` = Restoration status. Valid value(s):

```
IN PROGRESS
COMPLETED
```

`f` = Text message. Valid value(s):

```
LINK SET d CLEARED FOR g a b [c]
ROUTING DATA FOR DPC a b [c] DOES NOT EXIST
LINK SET d IS NOT A VALID ROUTE FOR g a b [c]
LINK SET d IS ALREADY CLEARED FOR g a b [c]
NO ABNORMAL ROUTES FOR g a b [c]
INTERNAL ERROR error-code: ROUTE d NOT CLEARED FOR g a b [c]
ROUTE FOR g a b [c] CORRUPTED. RUN AUD:NMDATA 1
INTERNAL ERROR error-code: COMMAND ABORTED DUE TO CHANNEL PROBLEM
```

`g` = The routing type for `DPC a b [c]`. Valid value(s):

```
CLU_O
DMEMBER
POPCLU
SMEMBER
UPOPCLU
```

`h` = Region number.

`i` = Cluster identifier.

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4. ACTION TO BE TAKEN

If '`f`' =	Action:
An `INTERNAL ERROR` message	Retry the message. If it fails, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`ROUTE FOR g a b [c] CORRUPTED`	Run AUD:NMDATA 1 audit then refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
AUD:NMDATA
CLR:SRST-DPC
OP:C7NET
```

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CLR:SSTR

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
CLR SSTR TG=a b
```

2. REASON FOR OUTPUT

To report the clearing of the service selective trunk reservation (SSTR) control. This is a response to a CLR:SSTR input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Trunk group (TG) number.

`b` = Termination status. Valid value(s):
`ABORTED` = Message failed. System error encountered.
`COMPLETED` = SSTR control has been cleared on TG '`a`'.
`FAILED-PARAMETER` = Message failed due to bad input. The trunk group specified is invalid.

4. ACTION TO BE TAKEN

No action is needed for an automatically generated request from the Remote Network Management Center (RNMC). These messages are to be treated as information-only messages. For manually generated requests, the following actions will apply.

If '`b`' =	**Action:**
`ABORTED`	Reinitiate the request.
`COMPLETED`	The message is a confirmation of a request from an input message.
`FAILED-PARAMETER`	Check for the validity of input parameters and reinitiate the corrected request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`CLR:SSTR`

Other Manual(s):
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

130 (NM EXCEPTION)

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CLR:SSTROVRD

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
CLR SSTROVRD a
```

2. REASON FOR OUTPUT

To report the clearing of the override of service selective trunk reservation (SSTR) per-trunk-group inhibits. This is a response to a CLR:SSTROVRD input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination status. Valid value(s):
`ABORTED` = Message failed. System error encountered.
`COMPLETED` = SSTR inhibits are no longer overridden.

4. ACTION TO BE TAKEN

No action is needed for an automatically generated request from the Remote Network Management Center (RNMC). These messages are to be treated as information-only messages. For manually generated requests, the following actions will apply.

If 'a' =	**Action:**
ABORTED	Reinitiate the request.
COMPLETED	The message is a confirmation of a request from an input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:SSTROVRD
SET:SSTROVRD
```

Other Manual(s):
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

130 (NM EXCEPTION)

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CLR:TGC

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
CLR TGC TG=a CNTL=b c
```

2. REASON FOR OUTPUT

To report the removal of either one or all trunk group control (TGC) of a given control type.

3. VARIABLE FIELD DEFINITIONS

`a` = Trunk group number. The default is all trunk groups if variable '`a`' was not specified.

`b` = Control type. Valid value(s):
- `CANF` = Manual cancel-from control.
- `CANT` = Manual cancel-to control.
- `CRO` = Manual cancel reroute overflow control.
- `RR` = Manual reroute control.
- `SKIP` = Manual skip control.

`c` = Termination status. Valid value(s):
- `ABORTED` = Command aborted. System error encountered.
- `COMPLETED` = Command successfully completed.
- `FAILED-PARAMETER` = Command failed. Input parameter error.

4. ACTION TO BE TAKEN

No action is needed for an automatically generated request from the engineering and administrative data acquisition system/network management (EADAS/NM). For manually generated requests, the following actions will apply.

If '`c`' =	**Action:**
`ABORTED`	Reinitiate the request.
`COMPLETED`	The message is confirmation of a request from an input message.
`FAILED-PARAMETER`	Check for the validity of input parameters and reinitiate the corrected request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`CLR:TGC`

Other Manual(s):
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

130 (NM EXCEPTION)

CLR:TR

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
CLR TR TG=a b
```

2. REASON FOR OUTPUT

To report the clearing of a trunk reservation (TR) control. This is a response to the CLR:TR input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Trunk group (TG) number.

`b` = Termination status. Valid value(s):
`ABORTED` = Message aborted. System error encountered.
`COMPLETED` = TR control has been cleared on TG '`a`'.
`FAILED-PARAMETER` = Message failed due to bad input. The trunk group number is invalid.

4. ACTION TO BE TAKEN

No action is needed for an automatically generated request from the remote network management center (RNMC). For manually generated requests, the following actions will apply.

If `'b'` **=**	**Action:**
`ABORTED`	Reinitiate the request.
`COMPLETED`	The message is confirmation of a request from an input message.
`FAILED-PARAMETER`	Check for the validity of input parameters and reinitiate the corrected request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`CLR:TR`

Other Manual(s):
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

130 (NM EXCEPTION)

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CLR:TRN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
CLR TRN {AM|CMP|SM=a} COMPLETED
```

2. REASON FOR OUTPUT

To report that all active transactions in the administrative module (AM), the communication module processor (CMP), or in the switching module(s) (SM) have been cleared, in response to input message CLR:TRN. This message is repeated for each SM for which action was requested.

3. VARIABLE FIELD DEFINITIONS

`AM` = The administrative module's transactions were cleared.

`CMP` = The communication module processor's transactions were cleared.

`a` = SM number for which transactions were cleared.

4. ACTION TO BE TAKEN

Refer to the "Data Base Maintenance and Repair" section of the Corrective Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`CLR:TRN`

Other Manual(s):

235-190-103 Business and Residence Feature Description
235-190-115 Local and Toll System Features

MCC Display Page(s):

130 (NM EXCEPTION)

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CLR:TROVRD

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
CLR TROVRD a
```

2. REASON FOR OUTPUT

To report the clearing of the trunk reservation (TR) inhibit override. This is a response to the CLR:TROVRD input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination status. Valid value(s):
- `ABORTED` = Message aborted. System error encountered.
- `COMPLETED` = TR inhibit override has been cleared.

4. ACTION TO BE TAKEN

No action is needed for an automatically-generated request from the remote network management center (RNMC). For manually generated requests, the following actions will apply.

If 'a' =	**Action:**
ABORTED	Reinitiate the request.
COMPLETED	The message is confirmation of a request from an input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:TROVRD
SET:TROVRD
```

Other Manual(s):
235-190-103 *Business and Residence Feature Description*
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

130 (NM EXCEPTION)

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CLR:TRUNK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
CLR TRUNK TGRP a b
```

2. REASON FOR OUTPUT

To respond to a CLR:TRUNK input request to stop the monitoring of a trunk group (TG).

3. VARIABLE FIELD DEFINITIONS

`a` = Trunk group being cleared.

`b` = Output message termination report. Valid value(s):
`COMPLETED` = Trunk group was cleared.
`NO MATCH` = Trunk group is not being monitored.
`SYSTEM BUSY` = System is busy, repeat later.
`SYSTEM ERROR` = System processing error.

4. ACTION TO BE TAKEN

If input message CLR:TRUNK has failed, try the message once again. Also try input message OP:TRUNK to verify that the trunk group is not being monitored.

If these attempts are not successful, check the office dependent data (ODD) for errors in the data base.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:TRUNK
OP:TRUNK
```

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CLR:UMEM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    CLR UMEM [UCL] a WAS b NOW c #d
       ____________________________________________________________________

[2]    CLR UMEM COMPLETED CKT FAILURE #d
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the disposition of a CLR:UMEM input message or to report that the process identification (PID) listed on the INIT:UMEM message aborted.

3. VARIABLE FIELD DEFINITIONS

`UCL` = Unconditional execution.

`a` = Status of the operation. Valid value(s):
- `COMPLETED` = The trace definition has been cleared.
- `NOT STARTED` = The operation was ignored because data loss might have resulted.
- `STOPPED UCERR` = The utility circuit either does not respond or does not match the circuit present when the trace was defined.

`b` = State of the trace before the operation was attempted. Valid value(s):
- `DUMPED` = The trace was not running and its data had already been dumped.
- `NEW` = The trace was not running and did not have data.
- `RUNNING` = The trace was collecting data.
- `STOPPED` = The trace was not running and did have data.

`c` = State of the trace after the operation was attempted. Valid value(s):
- `RUNNING` = The trace is collecting data.
- `STOPPED` = The trace is stopped and does contain data.
- `UNDEF` = No trace is defined.

`d` = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If 'a' =	Action:
NOT STARTED	The trace must be in the NEW or DUMPED state in order to be cleared. Use the INH:UMEM and or the OP:UMEM input messages before reissuing the CLR:UMEM input message.
STOPPED UCERR	Check the utility circuit hardware. After it is fixed, use the INIT:UC input message to reinitialize the circuit.

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5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	496
2	504

Input Message(s):

```
CLR:UMEM
INH:UMEM
INIT:UC
INIT:UMEM
OP:UMEM
OP:UTIL
```

Output Message(s):

```
OP:UTIL
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

CLR:UT-CMP

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
CLR UT CMP=a-b {MATE|PRIM}{UTIL|UTILFLAG c} d
```

2. REASON FOR OUTPUT

To report the status of the CLR:UT-CMP input message to remove one or all WHEN breakpoint clause(s) from the application program and memory of the communication module processor (CMP).

3. VARIABLE FIELD DEFINITIONS

MATE	= Message was executed on the standby CMP.
PRIM	= Message was executed on the active CMP.
UTIL	= Message was run on all UT WHEN clauses in the processor.
UTILFLAG	= Designates one specific WHEN clause.
a	= Message switch side.
b	= CMP number.
c	= WHEN message identification number, in decimal.
d	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages Manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:UT-CMP
WHEN:UT-CMP
```

Output Message(s):

```
WHEN:UT-CMP
```

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Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):

235-105-110 System Maintenance Requirements and Tools

CLR:UT-MCTSI-PI

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
CLR UT MCTSI=a-b PI {UTIL|UTILFLAG c} d
```

2. REASON FOR OUTPUT

To report the status of the CLR:UT-MCTSI-PI input message used to remove the specified WHEN clause(s) from the application program and the memory of the packet interface (PI).

3. VARIABLE FIELD DEFINITIONS

`UTIL`	= Message was run on all UT WHEN clauses in the processor.
`UTILFLAG`	= Designates one specific WHEN clause.
`a`	= Switching module (SM) number
`b`	= Side of the module controller/time-slot interchange (MCTSI).
`c`	= WHEN message identification number, in decimal.
`d`	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:UT-MCTSI-PI
WHEN:UT-MCTSI-PI
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements And Tools*
235-600-400 *Audits Manual*

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CLR:UT-PSUPH

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
CLR UT PSUPH=a-b-c-d {UTIL|UTILFLAG e} f
```

2. REASON FOR OUTPUT

To report the status of the CLR:UT-PSUPH input message to remove one or all WHEN breakpoint clause(s) from the application program and memory of the packet switch unit protocol handler (PSUPH).

3. VARIABLE FIELD DEFINITIONS

`UTIL` = Message was run on all UT WHEN clauses in the processor.

`UTILFLAG` = Designates one specific WHEN clause.

`a` = Switching module (SM) number.

`b` = Unit number.

`c` = Shelf number.

`d` = Slot number.

`e` = WHEN message identification number, in decimal.

`f` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:UT-PSUPH
WHEN:UT-PSUPH
```

Output Message(s):

```
WHEN:UT-PSUPH
```

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Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

CLR:UT-SM

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
CLR UT SM a {UTIL|UTILFLAG} [b] c
```

2. REASON FOR OUTPUT

To report the status of the CLR:UT-SM input message to remove the specified WHEN clause(s) from the application program and memory of the switching module (SM).

3. VARIABLE FIELD DEFINITIONS

`UTIL`	= Specifies all WHEN clauses.
`UTILFLAG`	= Designates one specific WHEN clause.
`a`	= Switching module number.
`b`	= WHEN message identification number, in decimal.
`c`	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:UT-SM
WHEN:UT-SM
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

CLR:UTIL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
CLR UTIL [a] b #c
```

2. REASON FOR OUTPUT

To report the status of a CLR:UTIL input message to remove all breakpoints and their definitions.

3. VARIABLE FIELD DEFINITIONS

`a` = Numeric identifier (one or more decimal digits) for a breakpoint being removed. Only printed if '`b`' is `STOPPED NGINST`.

`b` = Status of the operation. Valid value(s):
`COMPLETED` = Printed to indicate the termination of the message.
`STOPPED NGINST` = A software breakpoint instruction was not found at the breakpoint address as expected. The breakpoint definition was removed.
`STOPPED UCERR` = The operation was completed for software breakpoints, but the utility circuit either does not respond or does not match the circuit present when the hardware breakpoints were defined.

`c` = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If '`b`' is `STOPPED UCERR`, check the utility circuit hardware. After it is fixed, use the INIT:UC input message to reinitialize the circuit.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	494
2	502

Input Message(s):

```
ALW:UTIL
CLR:UTIL
INIT:UC
OP:UTIL
WHEN:PID
```

```
WHEN:UID
```

Output Message(s):

```
OP:UTIL
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

CLR:UTILFLAG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    CLR UTILFLAG a b #c
```

```
[2]    CLR UTILFLAG a COMPLETED CKT FAILURE
```

---

2. REASON FOR OUTPUT

To report the status of a CLR:UTILFLAG input message to remove a specific generic access package (GRASP) breakpoint and its definition, or report the removal of a breakpoint as required by system conditions.

3. VARIABLE FIELD DEFINITIONS

`a` = Numeric identifier (one or more decimal digits) for the breakpoint being removed.

`b` = Status of the operation. Valid value(s):
`COMPLETED` = The action was successfully completed.
`STOPPED NGINST` = A software breakpoint instruction was not found at the breakpoint address as expected. The breakpoint definition was removed.
`STOPPED UCERR` = The utility circuit either does not respond, or does not match the circuit present when the breakpoint was defined.

`c` = GRASP execution sequence number.

4. ACTION TO BE TAKEN

If '`b`' is STOPPED UCERR, check the utility circuit hardware. After it is fixed, use the INIT:UC input message to reinitialize the circuit.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	494
2	505

Input Message(s):

```
CLR:UTILFLAG
INIT:UC
OP:UTIL
```

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```
WHEN:PID
WHEN:UID
```

Output Message(s):

```
OP:UTIL
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

17. CMPR

CMPR:DISK-CORE

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    CMPR DISK CORE COMPLETED
        {a |
        [b|c]}
       ____________________________________________________________________

[2]    CMPR DISK CORE STOPPED
         d
        [b|c]
       ____________________________________________________________________

[3]    CMPR ERR e
        [b|c]
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the result of a CMPR:DISK-CORE input message to compare the text (.text, .patch, and .tv) portions of the disk and core images.

Format 1 reports a successful comparison of the disk and core images.

Format 2 reports an error that occurred within the cmpr process.

Format 3 reports an error that occurred within the cdcmpr process.

3. VARIABLE FIELD DEFINITIONS

a = [BP NUMBER g AT h] DISK AND CORE ARE EQUAL FOR i

b = UNABLE TO UNMOUNT FILE PARTITION k

c = UNABLE TO UNMOUNT FILE PARTITION k CANNOT EXEC MOP TO UNMOUNT PARTITION: ERRNO = j

d = Valid value(s):

- CALL TO ALARM FAILED: ERRNO = j
- CALL TO FORK FAILED: ERRNO = j
- CALL TO KILL TIMED OUT
- CALL TO SIGNAL FAILED: ERRNO = j
- CALL TO WAIT TIMED OUT
- CANNOT ATTACH TO FLDUPDPORT
- CANNOT EXEC MOP: ERRNO = j
- CANNOT EXEC MOP...A MOP PROCESS ALREADY EXISTS
- CANNOT EXEC MOP TO UNMOUNT PARTITION: ERRNO = j
- CANNOT PERFORM THE COMPARISON ON A PROCESS WITH NO TEXT
- CMPR COMPARES PFILE, KERNEL AND SHARED LIBRARIES

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```
-           CMPR RECEIVED BUS ERROR SIGNAL
-           CMPR RECEIVED DEATH OF CHILD SIGNAL
-           CMPR RECEIVED ILLEGAL INSTRUCTION SIGNAL
-           CMPR RECEIVED SEGMENTATION VIOLATION SIGNAL
-           CMPR RECEIVED TOO MANY SIGNALS
-           CORE AND DISK MISMATCH FOR i
-           FILE FAILED TO OPEN: i
-           FILE REQUESTED MUST BE A NON-KILLABLE OR KPUPDATE TYPE
-           FM_OPEN I/O REQUEST FAILED
-           FM_SEGCODE I/O REQUEST FAILED
-           GETTYPE CALL FAILED
-           INVALID PATHNAME
-           KILL FAILED: ERRNO = j
-           LOCKLIB FAILED EVEN AFTER FREELIB
-           MAIN...FREELIB FAILED: p
-           MAIN...LOCKLIB FAILED: m
-           MESSAGE FAILED TO RECEIVE: o
-           MESSAGE FAILED TO SEND: n
-           MNTSTAT FAILED: UNABLE TO READ MOUNT TABLE: ERRNO = j
-           MOP PROCESS STILL ALIVE
-           NO PROCESS TO WAIT ON
-           READ ERROR ON DISK COPY
-           SEEK ERROR ON DISK COPY
-           SIGNAL FAILED: SIG = l
-           UNABLE TO CREATE COMPARE PROCESS
-           UNABLE TO UNMOUNT FILE PARTITION 1
-           UNEXPECTED SIGNAL 1 RECEIVED
-           WARNING: PROCESS INSTANCE DIED AFTER CMPR ATTACHED TO ITS
            SEGMENTS: i
-           WARNING: PROCESS INSTANCE DOES NOT EXIST OR DIED BEFORE CMPR
            COULD ATTACH TO ITS SEGMENTS: i
```

e = Error code. Valid value(s):

- 2 = Unable to 'lock out' field update.
- 3 = Process failed to end.
- 4 = Unable to read disk copy.
- 5 = File failed to open.
- 6 = File requested is killable.
- 7 = Specified file is too large.
- 8 = Cannot locate core image of the process.
- 10 = No segments available in user address space.
- 11 = Unable to share an in core segment.
- 12 = Failure to change to read only permissions.
- 13 = Could not lock disk copy in core.
- 14 = Read error on disk copy.
- 15 = File not swabbed.
- 16 = Unable to allocate a segment.
- 17 = Failure freeing a shared segment.
- 18 = Library specified is invalid.
- 19 = Pfile specified has an invalid magic number.
- 20 = Unable to create compare process.

21 = Start message failed to be sent.
22 = Compare process still alive. Refer to manual 235-105-210, Routine Operations and Maintenance.
23 = Disk and core mismatch.
24 = File manager open request failed.
25 = File manager segcode I/O message failed.
26 = Call to gettype() failed.
27 = Bad core size in the segment map.
28 = KPUPDATE process died before or during segment attach.
29 = KPUPDATE process died after segment attach.

f = MISMATCH AT q IN SECTION r
CORE CONTENTS s
DISK CONTENTS t

g = Number of the breakpoint.

h = Address where breakpoint was found.

i = Pathname of file compared.

j = Number of errno.

k = Name of the offline partition.

l = Signal number.

m = Return code of locklib call.

n = Return code of sendw call.

o = Return code of recvw call.

p = Return code of freelib call.

q = Address where the mismatch between disk and core was found.

r = Name of section where mismatch is found.

s = Sixteen bytes of the contents of core, taken from the address of the mismatch.

t = Sixteen bytes of the contents of disk, taken from the address of the mismatch.

4. ACTION TO BE TAKEN

None if normal termination occurs. Otherwise, determine the type of CMPR:ERR or the reason for the disk and core mismatch.

5. ALARMS

None. This alarm is either a manually-requested report, or an automatically-generated report.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1-3	22

Input Message(s):

```
CMPR:DISK-CORE
```

Output Message(s):

```
UPD:SYSERR
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

CMPR:MHD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    CMPR MHD a STARTED
       ____________________________________________________________________

[2]    CMPR MHD a NOT STARTED b c
       ____________________________________________________________________

[3]    CMPR MHD a STOPPED b c
       ____________________________________________________________________

[4]    CMPR MHD a ABORTED b
       ____________________________________________________________________

[5]    CMPR MHD a ERROR b c
       ____________________________________________________________________

[6]    CMPR MHD a COMPLETED
       ____________________________________________________________________

[7]    CMPR MHD a {RO} IN PROGRESS
         MHD a SINGLE BLOCK READ RETRY {WORKED|FAILED}
         START DISK BLOCK = g {FAILING|END}DISK BLOCK = h
       ____________________________________________________________________

[8]    CMPR MHD a [RO] PARTITION MISMATCH
         MHD a PARTITION e OFFSET f BLOCKS g - h
         MHD q PARTITION e OFFSET f BLOCKS g - h
       ____________________________________________________________________

[9]    CMPR MHD a [RO] PARTITION SUMMARY
         MHD a PARTITION e
         MHD q PARTITION e
         MISMATCHES i IO JOBS k IO ERRORS m
         STIME r ETIME s
       ____________________________________________________________________

[10]   CMPR MHD a {RO} EARLY TERMINATED
         MHD a PARTITION e
         MHD q PARTITION e
         MISMATCHES i IO JOBS k IO ERRORS m
         STIME r ETIME s
       ____________________________________________________________________

[11]   CMPR MHD a {RO} FINAL SUMMARY
         MHD a
         MHD q
         MISMATCHES i IO JOBS k IO ERRORS m
         STIME r ETIME s
```

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```
[12]   CMPR MHD a {RO} PARTITION BYPASSED
         MHD a PARTITION e SIZE n
         MHD q PARTITION e SIZE n
         PARTITION SIZES NOT EQUAL
         STIME r ETIME s
```

```
[13]   CMPR MHD {a|q} {RO} PARTITION ACCESS FAILURE
         MHD {a|q} {READ} FAILED
         PARTITION e OFFSET f BLOCK p
```

2. REASON FOR OUTPUT

To report the result of executing an CMPR:MHD input message. The [RO] is output to indicate that the READ ONLY option was used. STIME is the time the message was started. ETIME is used to indicate the elapsed time for a particular partition. The ETIME for the FINAL message is the total elapsed time.

3. VARIABLE FIELD DEFINITIONS

`RO` = Indicates that the READ ONLY option was selected.

`a` = Member number of the first unit of the moving head disk (MHD) drive.

`b` = Process step or reason code. Valid value(s):

- `bxx` = Where '`xx`' are hexadecimal digits. Refer to the APP:DFC-A appendix in the Appendixes section of the Output Messages manual.
- `f03` = Cannot open equipment configuration database (ECD).
- `f06` = Cannot get unit control block (UCB) of first unit by name.
- `f09` = Cannot get UCB of second unit by name.
- `f12` = Cannot get UCB of first unit's mate.
- `f15` = Cannot get UCB of first unit's mate.
- `f18` = Cannot reserve UCB of second unit.
- `f21` = Cannot assign special device file name of second unit.
- `f24` = Cannot open special device file of second unit.
- `f27` = Cannot enable message reception.
- `f30` = Refer to the accompanying DKDRV error report on the ROP.
- `f36` = Failed to close special device file of second unit.
- `f39` = Failed to release special device file of second unit.
- `f42` = Message to port failure.
- `f45` = Message reception failure.
- `f48` = Message to port failure.
- `f51` = Message reception failure.
- `f54` = Process timed out.
- `f57` = Failed to close special device file of second unit.
- `f60` = Failed to release special device file of second unit.
- `f63` = Failed to unreserve UCB of second unit.
- `f66` = Failed to close ECD.

`c` = System error code number. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

`e` = Partition number in use when a mismatch was encountered.

`f` = Offset within partition when mismatch was detected.

`g` = First disk block number (of a range) that mismatched or retried while being compared.

`h` = Last disk block number (of a range) that mismatched, failed or successfully retried while being compared.

`i` = Number of mismatches that were detected.

`k` = Number of Input/Output jobs done.

`m` = Number of errors detected doing I/O.

`n` = Size of the partition given in disk blocks.

`p` = Disk block number that failed to read or write.

`q` = Member number of the second unit of the moving head disk (MHD) drive.

`s` = Elapsed time for a partition to compare. For the FINAL SUMMARY report, the ETIME is the total elapsed time of all the partitions.

`r` = The time the compare of the partition was started. For the FINAL SUMMARY report, STIME indicates the start time of the input message.

4. ACTION TO BE TAKEN

Noncompletion termination reports that provide an error code usually indicate a system resource was not available or became unavailable to perform the requested task. The problem causing the resource limitation should be cleared and the input request retried.

Appropriate mismatch messages will be generated indicating the range of disk blocks where the mismatch occurred. A maximum of eight mismatch error messages will be output per partition. More than eight mismatch messages will result in an early termination.

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1, 2, 3, 4, 5, 6	119, 120, 121
7	122
8	124, 125
9, 10	126, 127
11	130, 131
12	128, 129
13	132, 133

Input Message(s):

```
CMPR:MHD
DUMP:MHD-BLOCK
STOP:CMPR-MHD
STP:CMPR-MHD
```

Output Appendix(es):

```
APP:DFC-A
APP:OMDB-X-REF
APP:SYSERR
```

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

18. CNVT

CNVT:AMA-CONFIG

Software Release: 5E10 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
CNVT AMA CONFIG
  a
```

2. REASON FOR OUTPUT

To report on the status of the processing of the CNVT:AMA-CONFIG input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Text phrase indicating the outcome of the operation requested by the CNVT:AMA-CONFIG input message. Valid value(s):

`CONFIGURATION FILE FOR STREAM x FOR MHD y HAS BEEN CONVERTED` = Where '`x`' is the data stream number and '`y`' is the MHD number. This simply indicates that the configuration file for the specified data stream was successfully converted.

`CONVERSION OF AMA CONFIGURATION FILES HAS COMPLETED` = The CNVT:AMA:CONFIG input message has processed all MHD's and is now complete.

`COULD NOT ASSIGN SPECIAL DIAGNOSTIC FILE NAME FOR MHD x` = Where '`x`' is the MHD number. /etc/dgnnm failed.

`COULD NOT CREATE CONVERTED CONFIGURATION FILE FOR STREAM x` = Where '`x`' is the data stream number. The new, converted configuration file for this stream could not be created.

`COULD NOT CLOSE CONFIGURATION FILE FOR STREAM x` = Where '`x`' is the data stream number. The online configuration file for this stream could not be closed.

`COULD NOT CLOSE CONVERTED CONFIGURATION FILE FOR STREAM x` = Where '`x`' is the data stream number. The new, converted configuration file for this stream could not be closed.

`COULD NOT CLOSE OFFLINE MHD x` = Where '`x`' is the MHD number.

`COULD NOT CONVERT CONFIGURATION FILE FOR PARTITION x ON MHD y` = Where '`x`' is the AMA disk partition number and '`y`' is the MHD number. The AMA disk partition's entry in the configuration file could not be converted.

`COULD NOT INITIATE PIPE TO DGNNM FOR MHD x  ERROR NUMBER = y` = Where '`x`' is the MHD number and '`y`' is the *UNIX*® process error number. /etc/dgnnm failed for this MHD because a pipe to the process could not be initiated.

`COULD NOT INITIATE PIPE TO UDGNNM FOR MHD x  ERROR NUMBER = y` = Where '`x`' is the MHD number and '`y`' is the *UNIX*® process error number. /etc/udgnnm failed for this MHD because a pipe to the process could not be initiated.

`COULD NOT LSEEK TO VTOC ON MHD x` = Where '`x`' is the MHD number. The lseek() to the volume table of contents (VTOC) for this MHD failed.

`COULD NOT OPEN CONFIGURATION FILE FOR STREAM x` = Where '`x`' is the data stream number. The online configuration file for this stream could not be opened.

`COULD NOT OPEN OFFLINE MHD x` = Where '`x`' is the MHD number.

`COULD NOT OPEN VTOC FILE ON MHD x` = Where '`x`' is the MHD number.

`COULD NOT READ CONFIGURATION FILE FOR STREAM x` = Where '`x`' is the data stream number. The online configuration file for this stream could not be read.

`COULD NOT READ FROM THE PIPE FOR DGNNM FOR MHD x ERROR NUMBER = y` = Where '`x`' is the MHD number and '`y`' is the *UNIX*® process error number. /etc/dgnnm failed for this MHD because the pipe for the process could not be read from.

`COULD NOT READ VTOC FILE ON MHD x` = Where '`x`' is the MHD number.

`COULD NOT RELEASE SPECIAL DIAGNOSTIC FILE FOR MHD x` = Where '`x`' is the MHD number. /etc/udgnnm failed.

`COULD NOT WRITE CONVERTED CONFIGURATION FILE FOR STREAM x` = Where '`x`' is the data stream number. The new, converted configuration file for this stream could not be written.

`MHD x IS NOT OFFLINE  CANNOT CONVERT CONFIGURATION FILE` = Where '`x`' is the moving head disk (MHD) number.

`PCLOSE OF DGNNM FILE FAILED FOR MHD x  ERROR NUMBER = y` = Where '`x`' is the MHD number and '`y`' is the *UNIX*® process error number. /etc/dgnnm failed for this MHD because the pipe to the process could not be closed.

`PCLOSE OF UDGNNM FILE FAILED FOR MHD x  ERROR NUMBER = y` = Where '`x`' is the MHD number and '`y`' is the *UNIX*® process error number. /etc/udgnnm failed for this MHD because the pipe to the process could not be closed.

`VTOC ENTRY FOR PARTITION x ON MHD y IS CORRUPT` = Where '`x`' is the automatic message accounting (AMA) disk partition number and '`y`' is the MHD number.

4. ACTION TO BE TAKEN

If the AMA configuration files have been successfully converted, no action is necessary; otherwise, consult the Generic Retrofit Procedures manual or refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Note: If the CNVT:AMA-CONFIG input message is entered at any time other than during a retrofit, disk growth, or update, it will fail and several output messages will be printed.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CNVT:AMA-CONFIG
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-105-24x *Generic Retrofit Procedures*

CNVT:CORCLOG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
CNVT CORCLOG [EVOL | LOAD] a
```

2. REASON FOR OUTPUT

To report the status of the customer originated recent changes (CORC) logfile evolution.

3. VARIABLE FIELD DEFINITIONS

`EVOL` = Evolves the CORC logfiles from the binary format of the current software release to the binary plus format of the target software release.

`LOAD` = Reapplies binary plus CORC logfile to target software release.

`a` = Termination report. Valid value(s):
- `COMPLETED` = The requested action was terminated after completion.
- `STOPPED` = The requested action was terminated before a normal completion.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CNVT:CORCLOG
```

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-105-24x *Generic Retrofit Procedures*

CNVT:RCLOG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
CNVT RCLOG [EVOL | LOAD] a
```

2. REASON FOR OUTPUT

To report the status of the recent change (RC) log evolution.

3. VARIABLE FIELD DEFINITIONS

`EVOL` = Evolves the RC ASCII logfiles from the format of the current software release to the format of the target software release.

`LOAD` = Converts the RC ASCII logfiles to binary format.

`a` = Termination report. Valid value(s):
- `COMPLETE` = The requested action was terminated after completion.
- `STOPPED` = The requested action was terminated before a normal completion.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CNVT:RCLOG
```

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-105-24x Generic Retrofit Procedures

CNVT:RT-SID-LRT-A

Software Release: 5E10 - 5E11
Message Class: PFR
Application: 5
Type: Output

1. FORMAT

```
CNVT RT SID=a LRT=b-{c|d}-e
 {IFAC=b-c-f RTFAC=g|SDFI-h=i}
```

2. REASON FOR OUTPUT

To respond to the CNVT:RT input message that reports the remote terminal (RT) site identification number (SID) and the corresponding local remote terminal (LRT) number associated with an integrated digital carrier unit (IDCU) or a digital carrier line unit (DCLU). Also listed are the equipped RT digital signal level one (DS1) facility (IFAC) circuits for the IDCU or the *SLC*®96 digital facility interface (SDFI) circuits for the DCLU.

3. VARIABLE FIELD DEFINITIONS

a	= Site identification number.
b	= Switching module (SM) number.
c	= IDCU number.
e	= Local RT number.
f	= IFAC number.
g	= RT DS1 FAC number.
h	= *SLC*®96 T1 Facility ID.
i	= SDFI number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CNVT:RT
```

Other Manual(s):

235-105-110 System Maintenance Requirements and Tools

235-105-220 Corrective Maintenance

MCC Display Page(s):

187x (IDCU FACILITY)
188xyy (IDCU REMOTE TERMINAL)

CNVT:RT-SID-LRT-B

Software Release: 5E12 and later
Message Class: PFR
Application: 5
Type: Output

1. FORMAT

```
CNVT RT SID=a {IDCURT=b-c-e|DCLURT=b-d-e|DNUSRT=b-j-e}       [LAST RECORD]
 {IFAC=b-c-f RTFAC=g|SDFI-h=i|DS1SFAC=b-j-k-l-m-n RTFAC=g}
  .
  .
  .
```

2. REASON FOR OUTPUT

To respond to the CNVT:RT input message that reports the remote terminal (RT) site identification number (SID) and the corresponding local remote terminal (LRT) number associated with an integrated digital carrier unit (IDCU) or a digital carrier line unit (DCLU) or a digital networking unit - synchronous optical network (SONET) (DNU-S). Also listed are the equipped RT digital signal level one (DS1) facility (IFAC) circuits for the IDCU or the *SLC*® 96 digital facility interface (SDFI) circuits for the DCLU or the digital signal level 1 facility (DS1SFAC) circuits for the DNU-S.

3. VARIABLE FIELD DEFINITIONS

a	= Site identification number.
b	= Switching module (SM) number.
c	= IDCU number.
d	= DCLU number.
e	= Local RT number.
f	= IFAC number.
g	= RT DS1 FAC number.
h	= *SLC*®96 T1 Facility ID.
i	= SDFI number.
j	= Digital Networking Unit - SONET (DNU-S) number.
k	= Data Group (DG) number.
l	= SONET termination equipment (STE) facility number.
m	= Synchronous transport signal (STS) facility number.
n	= Virtual tributary level 1 (VT1) facility number.

4. ACTIONS TO BE TAKEN

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None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CNVT:RT
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1870,x (IDCU FACILITY)
1880,x,yy (IDCU REMOTE TERMINAL)
1511,x,yy (DNUS STS MAINTENANCE)
1512,x,yy (DNUS STS DS1 APPLICATION)
1660,xxxx (TR303 REMOTE TERMINAL)

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CNVT:STANDALONE

Software Release: 5E10 and later
Message Class: ODD
Application: 5
Type: Output

1. FORMAT

```
CNVT STANDALONE SM=a b
 [c]
 [ADDITIONAL SPACE REQUIRED IS 'd' BLOCKS]
```

2. REASON FOR OUTPUT

To indicate the result of a CNVT:STANDALONE input message request to update the office dependent data (ODD) of a specified switching module (SM) to support stand-alone operation. This activity is related to the SM stand-alone installation procedure, which is a function of SM growth.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number of the module to be converted to stand-alone.

`b` = Operation completion status. Valid value(s):

`ABORTED`	= Operation terminated. Data was changed.
`COMPLETED`	= Operation completed successfully. Data is updated.
`IN-PROG`	= Operation is not yet completed. This is the five-minute-interval status report.
`NOT STARTED`	= Operation never started.
`STOPPED`	= Operation terminated. No data was changed.

`c` = If the operation status is not COMPLETED this field will supply supplemental information. Valid value(s):

```
CANNOT SETUP COMMUNICATION PORT WITH OKP
CANNOT READ RELATION MODATT IN AM
INVALID MODULE NUMBER
INVALID PASSWORD FOR GIVEN MODULE NUMBER
MODULE ALREADY CONVERTED TO STAND ALONE
INSUFFICIENT OS RESOURCES IN OKP FOR CONVERSION
CANNOT READ RELATION DB_AMGPD
CANNOT READ OFFICE SERIAL NUMBER-GLOSN FROM THE AM
INSUFFICIENT ODD SPACE FOR CONVERSION
CANNOT BEGIN UPDATE TRANSACTION
CANNOT OPEN RELATIONS FOR UPDATE TRANSACTION
CANNOT UPDATE DB_AMGPD CONTROL RELATION
CANNOT COMMIT UPDATE TRANSACTION
CANNOT BEGIN READONLY TRANSACTION
CANNOT BEGIN NORCLOG TRANSACTION
CANNOT OPEN RELATIONS FOR READONLY TRANSACTION
CANNOT OPEN RELATIONS FOR NORCLOG TRANSACTION
CANNOT COMPLETE DATA TRANSFER FOR CONVERSION
CANNOT UPDATE GLOBAL PARAMETERS
CANNOT COMMIT NORCLOG TRANSACTION
CANNOT COMPLETE UNDO OPERATION
```

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d = Number of blocks of memory.

4. ACTION TO BE TAKEN

If 'b' =	Action:
ABORTED, NOT STARTED, or STOPPED	The 'c' field indicates the reason for termination. If the failure is due to lack of memory, the 'd' variable prints the additional memory requirement. Refer to the SM growth procedures in the Hardware Change Procedures - Growth manual to check for a possible procedural problem.
ABORTED	Rerun the conversion routine immediately with the UNDO option to prevent data splits. The CNVT:STANDALONE input message may have to be used to reinitiate the stand-alone conversion routine.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CNVT:STANDALONE
```

Other Manual(s):
235-105-230 *Hardware Change Procedures - Growth*

19. CONN

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CONN:WSIC-A

Software Release: 5E10 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]    CONN WSIC TEST POSITION a-h
         ACCESS=g                          T&M=i
         DN=b[-c]   d     [MLHG=e-f]
         [E=q]
       ____________________________________________________________________

[2]    CONN WSIC TEST POSITION a-h
         ACCESS=g                          T&M=i
            TKGMN=i1-j1  k1
         [E=h1]
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To indicate that the port over which an incoming 101 test call arrived has been seized (connected to) by a TLWS test position (TP) in preparation for testing.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`E` = Error.

`a` = Test position number.

`b` = Telephone number entered.

`c` = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

`d` = Valid value(s): `AP=l1-m`
`ILEN=n-j-k-l`
`LCEN=n-o-p-q`
`LCKEN=n-o-p-v1-w1`
`LEN=n-o-r-s-t-u`
`SLEN=n-v-w-x`

`e` = Multi-line hunt group number.

`f` = Hunt group member number.

`g` = Valid value(s):
`AC1 JACK` = Connection to the AC jack number 1.
`AC2 JACK` = Connection to the AC jack number 2.
`CAMPED ON` = Line or trunk is camped on.

CPE TESTS = Test customer premises equipment.
DC1 JACK = Connection to the DC jack number 1.
DC2 JACK = Connection to the DC jack number 2.
DIG TRANS = Connection to digital transmission equipment.
IN PROGRESS = Test or test setup is in progress.
METALLIC = Connection to metallic measurement equipment.
MONITOR B&I = Monitor a busy or idle line/trunk.
MONITOR BUSY = Monitor a busy line/trunk.
SEIZED = Line or trunk is seized.
SUPERVISION = Supervisory test running.
TRANSMISSION = Connection to transmission equipment.

h = TLWSR tuple identification.

i = The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):
H = The T&M phone is ON-HOLD (metallic connections).
M = The T&M phone is in the MONITOR mode (listen-only).
N = No T&M phone in the connection.
T = The T&M phone is in the TALK mode (listen and talk).

j = IDCU number.

k = Remote terminal (RT) number, or IDCU digital signal level 1 (DS1) serving PUB43801 number.

l = RT line number, or PUB43801 channel.

m = Relative link (member) number of the AP.

n = Switching module (SM) number.

o = Line unit number.

p = Line group number.

q = Line card number.

r = Grid number.

s = Switch board number (LU1, LU2, or LU3).

t = Switch number.

u = Level number.

v = Digital carrier line unit number.

w = Remote terminal (RT) number.

x = RT line number.

y = Digital line and trunk unit (DLTU) number.

z = Digital facility interface (DFI) number.

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a^1 = Channel number.

b^1 = RAF unit number.

c^1 = RAF channel number.

d^1 = Trunk unit number.

e^1 = Service group number.

f^1 = Channel board number.

g^1 = Circuit number.

h^1 = Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

i^1 = Trunk group number.

j^1 = Trunk member number.

k^1 = Valid value(s): `DEN=n-y-z-a`
`NEN=n-`m^1`-`n^1`-`o^1`-`p^1`-`q^1
`PSUEN=n-`r^1`-`s^1`-`t^1`-`u^1
`RAF PORT n-b-c`
`TEN=n-d-e-f-g`

l^1 = Data link (group) number of the AP.

m^1 = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

n^1 = Data group (DG) number.

o^1 = Synchronous transport signal (STS) number.

p^1 = Virtual tributary 1.5 (VT1.5) number.

q^1 = DS0 number.

r^1 = PSU unit number.

s^1 = PSU shelf number.

t^1 = PSU channel group number.

u^1 = PSU channel group member number.

v^1 = Line board number.

w^1 = Line circuit number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CONN:WSLINE
CONN:WSTRK
SET:WSPOS
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):

235-105-110	*System Maintenance Requirements and Tools*
235-100-125	*System Description*
235-105-220	*Corrective Maintenance*
235-600-750	*Output Messages*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

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CONN:WSIC-B

Software Release: 5E11 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]    CONN WSIC TEST POSITION a-h
         ACCESS=g                          T&M=i
         DN=b[-c]   d     [MLHG=e-f]
        [E=q]
```

```
[2]    CONN WSIC TEST POSITION a-h
         ACCESS=g                          T&M=i
            TKGMN=i1-j1  k1
        [E=h1]
```

---

2. REASON FOR OUTPUT

To indicate that the port over which an incoming 101 test call arrived has been seized (connected to) by a TLWS test position (TP) in preparation for testing.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`E` = Error.

`a` = Test position number.

`b` = Telephone number entered.

`c` = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

`d` = Valid value(s):
`AIUEN=n-x1-y1-z1`
`AP=l1-m`
`ILEN=n-j-k-l`
`LCEN=n-o-p-q`
`LCKEN=n-o-p-v1-w1`
`LEN=n-o-r-s-t-u`
`SLEN=n-v-w-x`

`e` = Multi-line hunt group number.

`f` = Hunt group member number.

`g` = Valid value(s):
`AC1 JACK` = Connection to the AC jack number 1.

AC2 JACK = Connection to the AC jack number 2.
CAMPED ON = Line or trunk is camped on.
CPE TESTS = Test customer premises equipment.
DC1 JACK = Connection to the DC jack number 1.
DC2 JACK = Connection to the DC jack number 2.
DIG TRANS = Connection to digital transmission equipment.
IN PROGRESS = Test or test setup is in progress.
METALLIC = Connection to metallic measurement equipment.
MONITOR B&I = Monitor a busy or idle line/trunk.
MONITOR BUSY = Monitor a busy line/trunk.
SEIZED = Line or trunk is seized.
SUPERVISION = Supervisory test running.
TRANSMISSION = Connection to transmission equipment.

h = TLWSR tuple identification.

i = The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):
H = The T&M phone is ON-HOLD (metallic connections).
M = The T&M phone is in the MONITOR mode (listen-only).
N = No T&M phone in the connection.
T = The T&M phone is in the TALK mode (listen and talk).

j = IDCU number.

k = Remote terminal (RT) number, or IDCU digital signal level 1 (DS1) serving PUB43801 number.

l = RT line number, or PUB43801 channel.

m = Relative link (member) number of the AP.

n = Switching module (SM) number.

o = Line unit number.

p = Line group number.

q = Line card number.

r = Grid number.

s = Switch board number (LU1, LU2, or LU3).

t = Switch number.

u = Level number.

v = Digital carrier line unit number.

w = Remote terminal (RT) number.

x = RT line number.

y = Digital line and trunk unit (DLTU) number.

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z = Digital facility interface (DFI) number.

a^1 = Channel number.

b^1 = RAF unit number.

c^1 = RAF channel number.

d^1 = Trunk unit number.

e^1 = Service group number.

f^1 = Channel board number.

g^1 = Circuit number.

h^1 = Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

i^1 = Trunk group number.

j^1 = Trunk member number.

k^1 = Valid value(s):
DEN=n-y-z-a
NEN=n-m^1-n^1-o^1-p^1-q^1
PSUEN=n-r^1-s^1-t^1-u^1
RAF PORT n-b-c
TEN=n-d-e-f-g

l^1 = Data link (group) number of the AP.

m^1 = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

n^1 = Data group (DG) number.

o^1 = Synchronous transport signal (STS) number.

p^1 = Virtual tributary 1.5 (VT1.5) number.

q^1 = DS0 number.

r^1 = PSU unit number.

s^1 = PSU shelf number.

t^1 = PSU channel group number.

u^1 = PSU channel group member number.

v^1 = Line board number.

w^1 = Line circuit number.

x^1 = Access interface unit (AIU) number.

y[1] = AIU line pack number.

z[1] = AIU line circuit number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CONN:WSLINE
CONN:WSTRK
SET:WSPOS
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-100-125 *System Description*
235-105-220 *Corrective Maintenance*
235-600-750 *Output Messages*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

CONN:WSIC-C

Software Release: 5E12 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]    CONN WSIC TEST POSITION a-h
         ACCESS=g                          T&M=i
         DN=b[-c]   d     [MLHG=e-f]
        [E=q]
       ____________________________________________________________________

[2]    CONN WSIC TEST POSITION a-h
         ACCESS=g                          T&M=i
            TKGMN=i1-j1  k1
        [E=h1]
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To indicate that the port over which an incoming 101 test call arrived has been seized (connected to) by a TLWS test position (TP) in preparation for testing.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

E = Error.

a = Test position number.

b = Telephone number entered.

c = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

d = Line equipment number. Valid value(s):
AIUEN=n-x^1-y^1-z^1
AP=l^1-m
ILEN=n-j-k-l
INEN=n-a^2-k-l
LCEN=n-o-p-q
LCKEN=n-o-p-v^1-w^1
LEN=n-o-r-s-t-u
SLEN=n-v-w-x

e = Multi-line hunt group number.

f = Hunt group member number.

g = Valid value(s):

`AC1 JACK` = Connection to the AC jack number 1.
`AC2 JACK` = Connection to the AC jack number 2.
`CAMPED ON` = Line or trunk is camped on.
`CPE TESTS` = Test customer premises equipment.
`DC1 JACK` = Connection to the DC jack number 1.
`DC2 JACK` = Connection to the DC jack number 2.
`DIG TRANS` = Connection to digital transmission equipment.
`IN PROGRESS` = Test or test setup is in progress.
`METALLIC` = Connection to metallic measurement equipment.
`MONITOR B&I` = Monitor a busy or idle line/trunk.
`MONITOR BUSY` = Monitor a busy line/trunk.
`SEIZED` = Line or trunk is seized.
`SUPERVISION` = Supervisory test running.
`TRANSMISSION` = Connection to transmission equipment.

`h` = TLWSR tuple identification.

`i` = The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):
`H` = The T&M phone is ON-HOLD (metallic connections).
`M` = The T&M phone is in the MONITOR mode (listen-only).
`N` = No T&M phone in the connection.
`T` = The T&M phone is in the TALK mode (listen and talk).

`j` = IDCU number.

`k` = Remote terminal (RT) number, or IDCU digital signal level 1 (DS1) serving PUB43801 number.

`l` = RT line number, or PUB43801 channel.

`m` = Relative link (member) number of the AP.

`n` = Switching module (SM) number.

`o` = Line unit number.

`p` = Line group number.

`q` = Line card number.

`r` = Grid number.

`s` = Switch board number (LU1, LU2, or LU3).

`t` = Switch number.

`u` = Level number.

`v` = Digital carrier line unit number.

`w` = Remote terminal (RT) number.

`x` = RT line number.

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y = Digital line and trunk unit (DLTU) number.

z = Digital facility interface (DFI) number.

a^1 = Channel number.

b^1 = RAF unit number.

c^1 = RAF channel number. of the Output Messages manual.

d^1 = Trunk unit number.

e^1 = Service group number.

f^1 = Channel board number.

g^1 = Circuit number.

h^1 = Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

i^1 = Trunk group number.

j^1 = Trunk member number.

k^1 = Trunk equipment number. Valid value(s):
DEN=n-y-z-a
INEN=n-a^2-k-l
NEN=n-m^1-n^1-o^1-p^1-q^1 PSUEN=n-r^1-s^1-t^1-u^1
RAF PORT n-b-c
TEN=n-d-e-f-g

l^1 = Data link (group) number of the AP.

m^1 = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

n^1 = Data group (DG) number.

o^1 = Synchronous transport signal (STS) number.

p^1 = Virtual tributary 1.5 (VT1.5) number.

q^1 = DS0 number.

r^1 = PSU unit number.

s^1 = PSU shelf number.

t^1 = PSU channel group number.

u^1 = PSU channel group member number.

v^1 = Line board number.

w^1 = Line circuit number.

x^1 = Access interface unit (AIU) number.

y[1] = AIU line pack number.

z[1] = AIU line circuit number.

a[2] = DNU number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CONN:WSLINE
CONN:WSTRK
SET:WSPOS
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-100-125 *System Description*
235-105-220 *Corrective Maintenance*
235-600-750 *Output Messages*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

CONN:WSIC-D

Software Release: 5E13 and later
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]    CONN WSIC TEST POSITION a-h
         ACCESS=g                          T&M=i
         DN=b[-c]   d     [MLHG=e-f]
        [E=q]
       ____________________________________________________________________

[2]    CONN WSIC TEST POSITION a-h
         ACCESS=g                          T&M=i
            TKGMN=l1-j1  k1
        [E=h1]
       ____________________________________________________________________

[3]    CONN WSIC TEST POSITION a-h
         ACCESS=g                          T&M=i
         DN=b[-c]         c2
        [E=q]
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To indicate that the port over which an incoming 101 test call arrived has been seized (connected to) by a TLWS test position (TP) in preparation for testing.

3. VARIABLE FIELD DEFINITIONS

E = Error.

a = Test position number.

b = Telephone number entered.

c = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

d = Line equipment number. Valid value(s):

```
AP=l1-m
 ILEN=n-j-k-l
 INEN=n-m1-k-l
 LCEN=n-o-p-q
 LCKEN=n-o-p-v1-w1
 LEN=n-o-r-s-t-u
 SLEN=n-v-w-x
 AIUEN=n-x1-y1-z1
```

e = Multi-line hunt group number.

f = Hunt group member number.

g = Valid value(s):

AC1 JACK	= Connection to the AC jack number 1.
AC2 JACK	= Connection to the AC jack number 2.
CAMPED ON	= Line or trunk is camped on.
CPE TESTS	= Test customer premises equipment.
DC1 JACK	= Connection to the DC jack number 1.
DC2 JACK	= Connection to the DC jack number 2.
DIG TRANS	= Connection to digital transmission equipment.
IN PROGRESS	= Test or test setup is in progress.
METALLIC	= Connection to metallic measurement equipment.
MONITOR B&I	= Monitor a busy or idle line/trunk.
MONITOR BUSY	= Monitor a busy line/trunk.
SEIZED	= Line or trunk is seized.
SUPERVISION	= Supervisory test running.
TRANSMISSION	= Connection to transmission equipment.

h = TLWSR tuple identification.

i = The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):

H	= The T&M phone is ON-HOLD (metallic connections).
M	= The T&M phone is in the MONITOR mode (listen-only).
N	= No T&M phone in the connection.
T	= The T&M phone is in the TALK mode (listen and talk).

j = IDCU number.

k = Remote terminal (RT) number, or IDCU digital signal level 1 (DS1) serving PUB43801 number.

l = RT line number, or PUB43801 channel.

m = Relative link (member) number of the AP.

n = Switching module (SM) number.

o = Line unit number.

p = Line group number.

q = Line card number.

r = Grid number.

s = Switch board number (LU1, LU2, or LU3).

t = Switch number.

u = Level number.

v = Digital carrier line unit number.

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w = Remote terminal (RT) number.

x = RT line number.

y = Digital line and trunk unit (DLTU) number.

z = Digital facility interface (DFI) number.

a^1 = Channel number.

b^1 = RAF unit number.

c^1 = RAF channel number. of the Output Messages manual.

d^1 = Trunk unit number.

e^1 = Service group number.

f^1 = Channel board number.

g^1 = Circuit number.

h^1 = Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

i^1 = Trunk group number.

j^1 = Trunk member number.

k^1 = Trunk equipment number. Valid value(s):

```
DEN=n-y-z-a
 INEN=n-m1-k-l
 NEN=n-m1-n1-p1-o1-a2-b2-q1
 PSUEN=n-r1-s1-t1-u1
 RAF PORT n-b-c TEN=n-d-e-f-g
```

l^1 = Data link (group) number of the AP.

m^1 = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

n^1 = Data group (DG) number.

o^1 = Synchronous transport signal (STS) facility number.

p^1 = SONET termination equipment (STE) facility number.

q^1 = Digital signal level 0 (DS0) number.

r^1 = PSU unit number.

s^1 = PSU shelf number.

t^1 = PSU channel group number.

u^1 = PSU channel group member number.

v^1 = Line board number.

w^1 = Line circuit number.

x^1 = Access interface unit (AIU) number.

y^1 = AIU line pack number.

z^1 = AIU line circuit number.

a^2 = Virtual tributary group (VTG) number.

b^2 = Virtual tributary member (VTM)number.

c^2 = Line equipment number. Valid value(s):

NEN=n-m^1-n^1-p^1-o^1-a^2-b^2-q^1

4. ACTIONS TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CONN:WSLINE
CONN:WSTRK
SET:WSPOS
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-100-125 *System Description*
235-105-220 *Corrective Maintenance*
235-600-750 *Output Messages*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

CONN:WSJACK-A

Software Release: 5E10 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]    CONN WSJACK TEST POSITION a-h
         ACCESS=g                          T&M=i
         DN=b[-c]   d     [MLHG=e-f]
        [E=j1]
```

```
[2]    CONN WSJACK TEST POSITION a-h
         ACCESS=g                          T&M=i
            TKGMN=l1-h1  i1
        [E=j1]
```

---

2. REASON FOR OUTPUT

To display the results of a request to add trunk access unit (TAU) jacks to a port seized at the TLWS test position (TP).

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

E = Error.

a = TP number.

b = Telephone number entered.

c = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

d = Valid value(s): AP=k^1-m
ILEN=n-j-k-l
LCEN=n-o-p-q
LCKEN=n-o-p-v^1-w^1
LEN=n-o-r-s-t-u
SLEN=n-v-w-x

e = Multi-line hunt group number.

f = Hunt group member number.

g = Valid value(s):
AC1 JACK = Connection to the AC jack number 1.
AC2 JACK = Connection to the AC jack number 2.
CAMPED ON = Line or trunk is camped on.

`CPE TESTS` = Test customer premises equipment.
`DC1 JACK` = Connection to the DC jack number 1.
`DC2 JACK` = Connection to the DC jack number 2.
`DIG TRANS` = Connection to digital transmission equipment.
`IN PROGRESS` = Test or test setup is in progress.
`METALLIC` = Connection to metallic measurement equipment.
`MONITOR B&I` = Monitor a busy or idle line/trunk.
`MONITOR BUSY` = Monitor a busy line/trunk.
`SEIZED` = Line or trunk is seized.
`SUPERVISION` = Supervisory test running.
`TRANSMISSION` = Connection to transmission equipment.

`h` = TLWSR tuple identification.

`i` The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):
`H` = The T&M phone is ON-HOLD (metallic connections).
`M` = The T&M phone is in the MONITOR mode (listen-only).
`N` = No T&M phone in the connection.
`T` = The T&M phone is in the TALK mode (listen and talk).

`j` = IDCU number.

`k` = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

`l` = RT line number or PUB43801 channel.

`m` = Relative link (member) number of the AP.

`n` = Switching module (SM) number.

`o` = Line unit number.

`p` = Line group number.

`q` = Line card number.

`r` = Grid number.

`s` = Switch board number (LU1, LU2, LU3).

`t` = Switch number.

`u` = Level number.

`v` = Digital carrier line unit number.

`w` = RT number.

`x` = RT line number.

`y` = Digital line and trunk unit (DLTU) number.

`z` = Digital facility interface (DFI) number.

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a^1 = Channel number.

b^1 = RAF unit number.

c^1 = RAF channel number.

d^1 = Trunk unit number.

e^1 = Service group number.

f^1 = Channel board number.

g^1 = Circuit number.

h^1 = Trunk member number.

i^1 = Valid value(s):
DEN=n-y-z-a^1
NEN=n-m^1-n^1-o^1-p^1-q^1
PSUEN=n-r^1-s^1-t^1-u^1
RAF PORT n-b^1-c^1
TEN=n-d^1-e^1-f^1-g^1

j^1 = Error Type. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

k^1 = Data link (group) number of the AP.

l^1 = Trunk group number.

m^1 = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

n^1 = Data group (DG) number.

o^1 = Synchronous transport signal (STS) number.

p^1 = Virtual tributary 1.5 (VT1.5) number.

q^1 = Digital signal level 0 (DS0) number.

r^1 = PSU unit number.

s^1 = PSU shelf number.

t^1 = PSU channel group number.

u^1 = PSU channel group member number.

v^1 = Line board number.

w^1 = Line circuit number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CONN:WSJACK
OP:WSSTAT
SET:WSPOS
```

Output Message(s):

```
CONN:WSJACK
```

Other Manual(s):

235-100-125	*System Description*
235-105-110	*System Maintenance Requirements and Tools*
235-105-220	*Corrective Maintenance*
235-600-750	*Output Messages*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

RC/V View(s):

14.3 (TRUNK AND LINE WORK STATION)

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CONN:WSJACK-B

Software Release: 5E11 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]    CONN WSJACK TEST POSITION a-h
         ACCESS=g                          T&M=i
         DN=b[-c]   d     [MLHG=e-f]
        [E=j1]
       ____________________________________________________________________

[2]    CONN WSJACK TEST POSITION a-h
         ACCESS=g                          T&M=i
            TKGMN=l1-h1  i1
        [E=j1]
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To display the results of a request to add trunk access unit (TAU) jacks to a port seized at the TLWS test position (TP).

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`E` = Error.

`a` = TP number.

`b` = Telephone number entered.

`c` = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

`d` = Valid value(s):
`AIUEN=n-x1-y1-z1`
`AP=k1-m`
`ILEN=n-j-k-l`
`LCEN=n-o-p-q`
`LCKEN=n-o-p-v1-w1`
`LEN=n-o-r-s-t-u`
`SLEN=n-v-w-x`

`e` = Multi-line hunt group number.

`f` = Hunt group member number.

`g` = Valid value(s):
`AC1 JACK` = Connection to the AC jack number 1.

`AC2 JACK` = Connection to the AC jack number 2.
`CAMPED ON` = Line or trunk is camped on.
`CPE TESTS` = Test customer premises equipment.
`DC1 JACK` = Connection to the DC jack number 1.
`DC2 JACK` = Connection to the DC jack number 2.
`DIG TRANS` = Connection to digital transmission equipment.
`IN PROGRESS` = Test or test setup is in progress.
`METALLIC` = Connection to metallic measurement equipment.
`MONITOR B&I` = Monitor a busy or idle line/trunk.
`MONITOR BUSY` = Monitor a busy line/trunk.
`SEIZED` = Line or trunk is seized.
`SUPERVISION` = Supervisory test running.
`TRANSMISSION` = Connection to transmission equipment.

`h` = TLWSR tuple identification.

`i` The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):
`H` = The T&M phone is ON-HOLD (metallic connections).
`M` = The T&M phone is in the MONITOR mode (listen-only).
`N` = No T&M phone in the connection.
`T` = The T&M phone is in the TALK mode (listen and talk).

`j` = IDCU number.

`k` = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

`l` = RT line number or PUB43801 channel.

`m` = Relative link (member) number of the AP.

`n` = Switching module (SM) number.

`o` = Line unit number.

`p` = Line group number.

`q` = Line card number.

`r` = Grid number.

`s` = Switch board number (LU1, LU2, or LU3).

`t` = Switch number.

`u` = Level number.

`v` = Digital carrier line unit number.

`w` = RT number.

`x` = RT line number.

`y` = Digital line and trunk unit (DLTU) number.

z = Digital facility interface (DFI) number.

a^1 = Channel number.

b^1 = RAF unit number.

c^1 = RAF channel number.

d^1 = Trunk unit number.

e^1 = Service group number.

f^1 = Channel board number.

g^1 = Circuit number.

h^1 = Trunk member number.

i^1 = Valid value(s):
DEN=n-y-z-a^1
NEN=n-m^1-n^1-o^1-p^1-q^1
PSUEN=n-r^1-s^1-t^1-u^1
RAF PORT n-b^1-c^1
TEN=n-d^1-e^1-f^1-g^1

j^1 = Error Type. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

k^1 = Data link (group) number of the AP.

l^1 = Trunk group number.

m^1 = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

n^1 = Data group (DG) number.

o^1 = Synchronous transport signal (STS) number.

p^1 = Virtual tributary 1.5 (VT1.5) number.

q^1 = Digital signal level 0 (DS0) number.

r^1 = PSU unit number.

s^1 = PSU shelf number.

t^1 = PSU channel group number.

u^1 = PSU channel group member number.

v^1 = Line board number.

w^1 = Line circuit number.

x^1 = Access interface unit (AIU) number.

y[1] = AIU line pack number.

z[1] = AIU line circuit number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CONN:WSJACK
OP:WSSTAT
SET:WSPOS
```

Output Message(s):

```
CONN:WSJACK
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-600-750 *Output Messages*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

RC/V View(s):

14.3 (TRUNK AND LINE WORK STATION)

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CONN:WSJACK-C

Software Release: 5E12 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]    CONN WSJACK TEST POSITION a-h
         ACCESS=g                          T&M=i
         DN=b[-c]   d     [MLHG=e-f]
        [E=j1]
       ____________________________________________________________________

[2]    CONN WSJACK TEST POSITION a-h
         ACCESS=g                          T&M=i
            TKGMN=l1-h1  i1
        [E=j1]
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To display the results of a request to add trunk access unit (TAU) jacks to a port seized at the TLWS test position (TP).

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

E = Error.

a = TP number.

b = Telephone number entered.

c = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

d = Line equipment number. Valid value(s):
AIUEN=n-x^1-y^1-z^1
AP=k^1-m
ILEN=n-j-k-l
INEN=n-a^2-k-l
LCEN=n-o-p-q
LCKEN=n-o-p-v^1-w^1
LEN=n-o-r-s-t-u
SLEN=n-v-w-x

e = Multi-line hunt group number.

f = Hunt group member number.

g = Valid value(s):

`AC1 JACK` = Connection to the AC jack number 1.
`AC2 JACK` = Connection to the AC jack number 2.
`CAMPED ON` = Line or trunk is camped on.
`CPE TESTS` = Test customer premises equipment.
`DC1 JACK` = Connection to the DC jack number 1.
`DC2 JACK` = Connection to the DC jack number 2.
`DIG TRANS` = Connection to digital transmission equipment.
`IN PROGRESS` = Test or test setup is in progress.
`METALLIC` = Connection to metallic measurement equipment.
`MONITOR B&I` = Monitor a busy or idle line/trunk.
`MONITOR BUSY` = Monitor a busy line/trunk.
`SEIZED` = Line or trunk is seized.
`SUPERVISION` = Supervisory test running.
`TRANSMISSION` = Connection to transmission equipment.

`h` = TLWSR tuple identification.

`i` The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):
`H` = The T&M phone is ON-HOLD (metallic connections).
`M` = The T&M phone is in the MONITOR mode (listen-only).
`N` = No T&M phone in the connection.
`T` = The T&M phone is in the TALK mode (listen and talk).

`j` = IDCU number.

`k` = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

`l` = RT line number or PUB43801 channel.

`m` = Relative link (member) number of the AP.

`n` = Switching module (SM) number.

`o` = Line unit number.

`p` = Line group number.

`q` = Line card number.

`r` = Grid number.

`s` = Switch board number (LU1, LU2, or LU3).

`t` = Switch number.

`u` = Level number.

`v` = Digital carrier line unit number.

`w` = RT number.

`x` = RT line number.

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y = Digital line and trunk unit (DLTU) number.

z = Digital facility interface (DFI) number.

a^1 = Channel number.

b^1 = RAF unit number.

c^1 = RAF channel number.

d^1 = Trunk unit number.

e^1 = Service group number.

f^1 = Channel board number.

g^1 = Circuit number.

h^1 = Trunk member number.

i^1 = Trunk equipment number. Valid value(s):
DEN=n-y-z-a^1
INEN=n-a^2-k-l
NEN=n-m^1-n^1-o^1-p^1-q^1
PSUEN=n-r^1-s^1-t^1-u^1
RAF PORT n-b^1-c^1
TEN=n-d^1-e^1-f^1-g^1

j^1 = Error type. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

k^1 = Data link (group) number of the AP.

l^1 = Trunk group number.

m^1 = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

n^1 = Data group (DG) number.

o^1 = Synchronous transport signal (STS) number.

p^1 = Virtual tributary 1.5 (VT1.5) number.

q^1 = Digital signal level 0 (DS0) number.

r^1 = PSU unit number.

s^1 = PSU shelf number.

t^1 = PSU channel group number.

u^1 = PSU channel group member number.

v^1 = Line board number.

w^1 = Line circuit number.

x[1] = Access interface unit (AIU) number.

y[1] = AIU line pack number.

z[1] = AIU line circuit number.

a[2] = DNU number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CONN:WSJACK
OP:WSSTAT
SET:WSPOS
```

Output Message(s):

```
CONN:WSJACK
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-600-750 *Output Messages*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

RC/V View(s):

14.3 (TRUNK AND LINE WORK STATION)

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CONN:WSJACK-D

Software Release: 5E13 and later
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]    CONN WSJACK TEST POSITION a-h
         ACCESS=g                          T&M=i
         DN=b[-c]   d     [MLHG=e-f]
        [E=j1]
       ____________________________________________________________________

[2]    CONN WSJACK TEST POSITION a-h
         ACCESS=g                          T&M=i
            TKGMN=l1-h1  i1
        [E=j1]
       ____________________________________________________________________

[3]    CONN WSJACK TEST POSITION a-h
         ACCESS=g                          T&M=i
         DN=b[-c]         c2
        [E=j1]
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To display the results of a request to add trunk access unit (TAU) jacks to a port seized at the TLWS test position (TP).

3. VARIABLE FIELD DEFINITIONS

E

a = TP number.

b = Telephone number entered.

c = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

d = Line equipment number. Valid value(s):

```
AIUEN=n-x1-y1-z1
 AP=k1-m
 ILEN=n-j-k-l
 INEN=n-m1-k-l
 LCEN=n-o-p-q
 LCKEN=n-o-p-v1-w1
 LEN=n-o-r-s-t-u
 SLEN=n-v-w-x
```

e = Multi-line hunt group number.

f = Hunt group member number.

g = Valid value(s):

AC1 JACK	= Connection to the AC jack number 1.
AC2 JACK	= Connection to the AC jack number 2.
CAMPED ON	= Line or trunk is camped on.
CPE TESTS	= Test customer premises equipment.
DC1 JACK	= Connection to the DC jack number 1.
DC2 JACK	= Connection to the DC jack number 2.
DIG TRANS	= Connection to digital transmission equipment.
IN PROGRESS	= Test or test setup is in progress.
METALLIC	= Connection to metallic measurement equipment.
MONITOR B&I	= Monitor a busy or idle line/trunk.
MONITOR BUSY	= Monitor a busy line/trunk.
SEIZED	= Line or trunk is seized.
SUPERVISION	= Supervisory test running.
TRANSMISSION	= Connection to transmission equipment.

h = TLWSR tuple identification.

i The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):

H	= The T&M phone is ON-HOLD (metallic connections).
M	= The T&M phone is in the MONITOR mode (listen-only).
N	= No T&M phone in the connection.
T	= The T&M phone is in the TALK mode (listen and talk).

j = IDCU number.

k = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

l = RT line number or PUB43801 channel.

m = Relative link (member) number of the AP.

n = Switching module (SM) number.

o = Line unit number.

p = Line group number.

q = Line card number.

r = Grid number.

s = Switch board number (LU1, LU2, or LU3).

t = Switch number.

u = Level number.

v = Digital carrier line unit number.

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w = RT number.

x = RT line number.

y = Digital line and trunk unit (DLTU) number.

z = Digital facility interface (DFI) number.

a^1 = Channel number.

b^1 = RAF unit number.

c^1 = RAF channel number.

d^1 = Trunk unit number.

e^1 = Service group number.

f^1 = Channel board number.

g^1 = Circuit number.

h^1 = Trunk member number.

i^1 = Trunk equipment number. Valid value(s):

```
DEN=n-y-z-a1
 INEN=n-m1-k-l
 NEN=n-m1-n1-p1-o1-a2-b2-q1
 PSUEN=n-r1-s1-t1-u1
 RAF PORT n-b1-c1
 TEN=n-d1-e1-f1-g1
```

j^1 = Error type. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

k^1 = Data link (group) number of the AP.

l^1 = Trunk group number.

m^1 = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

n^1 = Data group (DG) number.

o^1 = Synchronous transport signal (STS) facility number.

p^1 = SONET termination equipment (STE) facility number.

q^1 = Digital signal level 0 (DS0) number.

r^1 = PSU unit number.

s^1 = PSU shelf number.

t^1 = PSU channel group number.

u^1 = PSU channel group member number.

v^1 = Line board number.

w^1 = Line circuit number.

x^1 = Access interface unit (AIU) number.

y^1 = AIU line pack number.

z^1 = AIU line circuit number.

a^2 = Virtual tributary group (VTG) number.

b^2 = Virtual tributary member (VTM) number.

c^2 = Line equipment number. Valid value(s):

NEN=n-m^1-n^1-p^1-o^1-a^2-b^2-q^1

4. ACTIONS TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CONN:WSJACK
OP:WSSTAT
SET:WSPOS
```

Output Message(s):

```
CONN:WSJACK
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-600-750 *Output Messages*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

RC/V View(s):

14.3 (TRUNK AND LINE WORK STATION)

CONN:WSLINE-A

Software Release: 5E10 only
Message Class: TLWSRSP,TLWS
Application: 5
Type: Output

1. FORMAT

```
CONN WSLINE TEST POSITION a-h
  ACCESS=g                              T&Mi
  DN=b[-c]   d     [MLHG=e-f]
  [Ez error]
```

2. REASON FOR OUTPUT

To indicate that the port has been seized (connected to) by a trunk and line work station (TLWS) test position (TP) in preparation for testing.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`E` = Error.

`a` = TP number.

`b` = Telephone number entered.

`c` = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

`d` = Valid value(s):
`AP=y-m`
`ILEN=n-j-k-l`
`LCEN=n-o-p-q`
`LCKEN=n-o-p-a`^{1}`-b`^{1}
`LEN=n-o-r-s-t-u`
`SLEN=n-v-w-x`

`e` = Multi-line hunt group number.

`f` = Hunt group member number.

`g` = Valid value(s):

`AC1 JACK`	= Connection to the AC jack number 1.
`AC2 JACK`	= Connection to the AC jack number 2.
`CAMPED ON`	= Line or trunk is camped on.
`CPE TESTS`	= Test customer premises equipment.
`DC1 JACK`	= Connection to the DC jack number 1.
`DC2 JACK`	= Connection to the DC jack number 2.
`DIG TRANS`	= Connection to digital transmission equipment.
`IN PROGRESS`	= Test or test setup is in progress.
`METALLIC`	= Connection to metallic measurement equipment.

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`MONITOR B&I` = Monitor a busy or idle line/trunk.
`MONITOR BUSY` = Monitor a busy line/trunk.
`SEIZED` = Line or trunk is seized.
`SUPERVISION` = Supervisory test running.
`TRANSMISSION` = Connection to transmission equipment.

`h` = TLWSR tuple identification.

`i` = The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):
`H` = The T&M phone is ON-HOLD (metallic connections).
`M` = The T&M phone is in the MONITOR mode (listen-only).
`N` = No T&M phone in the connection.
`T` = The T&M phone is in the TALK mode (listen and talk).

`j` = IDCU number.

`k` = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

`l` = RT line number or PUB43801 channel.

`m` = Relative link (member) number of the AP.

`n` = Switching module (SM) number.

`o` = Line unit number.

`p` = Line group number.

`q` = Line card number.

`r` = Grid number.

`s` = Switch board number (LU1, LU2, LU3).

`t` = Switch number.

`u` = Level number.

`v` = Digital carrier line unit number.

`w` = RT number.

`x` = RT line number.

`y` = Data link (group) number of the AP.

`z` = Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

`a`[1] = Line board number.

`b`[1] = Line circuit number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CONN:WSLINE
SET:WSPOS
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
236-600-750 *Switch Output Message TLWS Progress and Error Reports Appendix*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

CONN:WSLINE-B

Software Release: 5E11 only
Message Class: TLWSRSP,TLWS
Application: 5
Type: Output

1. FORMAT

```
CONN WSLINE TEST POSITION a-h
  ACCESS=g                              T&Mi
  DN=b[-c]   d     [MLHG=e-f]
  [Ez error]
```

2. REASON FOR OUTPUT

To indicate that the port has been seized (connected to) by a trunk and line work station (TLWS) test position (TP) in preparation for testing.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`E` = Error.

`a` = TP number.

`b` = Telephone number entered.

`c` = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

`d` = Valid value(s):

```
AP=y-m
ILEN=n-j-k-l
LCEN=n-o-p-q
LCKEN=n-o-p-a1-b1
LEN=n-o-r-s-t-u
SLEN=n-v-w-x
AIUEN=n-c1-d1-e1
```

`e` = Multi-line hunt group number.

`f` = Hunt group member number.

`g` = Valid value(s):

`AC1 JACK`	= Connection to the AC jack number 1.
`AC2 JACK`	= Connection to the AC jack number 2.
`CAMPED ON`	= Line or trunk is camped on.
`CPE TESTS`	= Test customer premises equipment.
`DC1 JACK`	= Connection to the DC jack number 1.
`DC2 JACK`	= Connection to the DC jack number 2.
`DIG TRANS`	= Connection to digital transmission equipment.
`IN PROGRESS`	= Test or test setup is in progress.

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`METALLIC` = Connection to metallic measurement equipment.
`MONITOR B&I` = Monitor a busy or idle line/trunk.
`MONITOR BUSY` = Monitor a busy line/trunk.
`SEIZED` = Line or trunk is seized.
`SUPERVISION` = Supervisory test running.
`TRANSMISSION` = Connection to transmission equipment.

`h` = TLWSR tuple identification.

`i` = The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):
`H` = The T&M phone is ON-HOLD (metallic connections).
`M` = The T&M phone is in the MONITOR mode (listen-only).
`N` = No T&M phone in the connection.
`T` = The T&M phone is in the TALK mode (listen and talk).

`j` = IDCU number.

`k` = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

`l` = RT line number or PUB43801 channel.

`m` = Relative link (member) number of the AP.

`n` = Switching module (SM) number.

`o` = Line unit number.

`p` = Line group number.

`q` = Line card number.

`r` = Grid number.

`s` = Switch board number (LU1, LU2, or LU3).

`t` = Switch number.

`u` = Level number.

`v` = Digital carrier line unit number.

`w` = RT number.

`x` = RT line number.

`y` = Data link (group) number of the AP.

`z` = Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

`a`[1] = Line board number.

`b`[1] = Line circuit number.

c[1] = Access interface unit (AIU) number.

d[1] = AIU line pack number.

e[1] = AIU line circuit number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CONN:WSLINE
SET:WSPOS
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
236-600-750 *Switch Output Message TLWS Progress and Error Reports Appendix*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

CONN:WSLINE-C

Software Release: 5E12 only
Message Class: TLWSRSP,TLWS
Application: 5
Type: Output

1. FORMAT

```
CONN WSLINE TEST POSITION a-h
  ACCESS=g                          T&Mi
  DN=b[-c]   d     [MLHG=e-f]
  [Ez error]
```

2. REASON FOR OUTPUT

To indicate that the port has been seized (connected to) by a trunk and line work station (TLWS) test position (TP) in preparation for testing.

3. VARIABLE FIELD DEFINITIONS

E

a = TP number.

b = Telephone number entered.

c = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

d = Equipment number. Valid value(s):

AIUEN=n-c[1]-d[1]-e[1]
AP=y-m
ILEN=n-j-k-l
INEN=n-f[1]-k-l
LCEN=n-o-p-q
LCKEN=n-o-p-a[1]-b[1]
LEN=n-o-r-s-t-u
SLEN=n-v-w-x

e = Multi-line hunt group number.

f = Hunt group member number.

g = Valid value(s):

AC1 JACK	= Connection to the AC jack number 1.
AC2 JACK	= Connection to the AC jack number 2.
CAMPED ON	= Line or trunk is camped on.
CPE TESTS	= Test customer premises equipment.
DC1 JACK	= Connection to the DC jack number 1.
DC2 JACK	= Connection to the DC jack number 2.
DIG TRANS	= Connection to digital transmission equipment.
IN PROGRESS	= Test or test setup is in progress.

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`METALLIC` = Connection to metallic measurement equipment.
`MONITOR B&I` = Monitor a busy or idle line/trunk.
`MONITOR BUSY` = Monitor a busy line/trunk.
`SEIZED` = Line or trunk is seized.
`SUPERVISION` = Supervisory test running.
`TRANSMISSION` = Connection to transmission equipment.

`h` = TLWSR tuple identification.

`i` = The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):
`H` = The T&M phone is ON-HOLD (metallic connections).
`M` = The T&M phone is in the MONITOR mode (listen-only).
`N` = No T&M phone in the connection.
`T` = The T&M phone is in the TALK mode (listen and talk).

`j` = IDCU number.

`k` = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

`l` = RT line number or PUB43801 channel.

`m` = Relative link (member) number of the AP.

`n` = Switching module (SM) number.

`o` = Line unit number.

`p` = Line group number.

`q` = Line card number.

`r` = Grid number.

`s` = Switch board number (LU1, LU2, or LU3).

`t` = Switch number.

`u` = Level number.

`v` = Digital carrier line unit number.

`w` = RT number.

`x` = RT line number.

`y` = Data link (group) number of the AP.

`z` = Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

`a`[1] = Line board number.

`b`[1] = Line circuit number.

c[1] = Access interface unit (AIU) number.

d[1] = AIU line pack number.

e[1] = AIU line circuit number.

f[1] = DNU-S Number.

4. ACTIONS TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CONN:WSLINE
SET:WSPOS
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
236-600-750 *Switch Output Message TLWS Progress and Error Reports Appendix*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

CONN:WSLINE-D

Software Release: 5E13 and later
Message Class: TLWSRSP,TLWS
Application: 5
Type: Output

1. FORMAT

```
[1]    CONN WSLINE TEST POSITION a-h
         ACCESS=g                          T&Mi
         DN=b[-c]   d     [MLHG=e-f]
        [Ez error]
```

```
[2]    CONN WSLINE TEST POSITION a-h
         ACCESS=g                          T&Mi
         DN=b[-c]         g1
        [Ez error]
```

---

2. REASON FOR OUTPUT

To indicate that the port has been seized (connected to) by a trunk and line work station (TLWS) test position (TP) in preparation for testing.

3. VARIABLE FIELD DEFINITIONS

E = Error.

a = TP number.

b = Telephone number entered.

c = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

d = Equipment number. Valid value(s):

AIUEN=n-c^1-d^1-e^1
AP=y-m
ILEN=n-j-k-l
INEN=n-f^1-k-l
LCEN=n-o-p-q
LCKEN=n-o-p-a^1-b^1
LEN=n-o-r-s-t-u
SLEN=n-v-w-x

e = Multi-line hunt group number.

f = Hunt group member number.

g = Valid value(s):
AC1 JACK = Connection to the AC jack number 1.
AC2 JACK = Connection to the AC jack number 2.

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CAMPED ON = Line or trunk is camped on.
CPE TESTS = Test customer premises equipment.
DC1 JACK = Connection to the DC jack number 1.
DC2 JACK = Connection to the DC jack number 2.
DIG TRANS = Connection to digital transmission equipment.
IN PROGRESS = Test or test setup is in progress.
METALLIC = Connection to metallic measurement equipment.
MONITOR B&I = Monitor a busy or idle line/trunk.
MONITOR BUSY = Monitor a busy line/trunk.
SEIZED = Line or trunk is seized.
SUPERVISION = Supervisory test running.
TRANSMISSION = Connection to transmission equipment.

h = TLWSR tuple identification.

i = The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):
H = The T&M phone is ON-HOLD (metallic connections).
M = The T&M phone is in the MONITOR mode (listen-only).
N = No T&M phone in the connection.
T = The T&M phone is in the TALK mode (listen and talk).

j = IDCU number.

k = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

l = RT line number or PUB43801 channel.

m = Relative link (member) number of the AP.

n = Switching module (SM) number.

o = Line unit number.

p = Line group number.

q = Line card number.

r = Grid number.

s = Switch board number (LU1, LU2, or LU3).

t = Switch number.

u = Level number.

v = Digital carrier line unit number.

w = RT number.

x = RT line number.

y = Data link (group) number of the AP.

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z = Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

a^1 = Line board number.

b^1 = Line circuit number.

c^1 = Access interface unit (AIU) number.

d^1 = AIU line pack number.

e^1 = AIU line circuit number.

f^1 = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

g^1 = Line equipment number. Valid value(s):

NEN=n-f^1-h^1-i^1-j^1-k^1-l^1-m^1

h^1 = Data group (DG) number.

i^1 = SONET termination equipment (STE) facility number.

j^1 = Synchronous transport signal (STS) facility number.

k^1 = Virtual tributary group (VTG) number.

l^1 = Virtual tributary member (VTM) number.

m^1 = Digital signal level 0 (DS0) number.

4. ACTIONS TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CONN:WSLINE
SET:WSPOS
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

236-600-750 *Switch Output Message TLWS Progress and Error Reports Appendix*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

CONN:WSPHONE-A

Software Release: 5E10 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]    CONN WSPHONE TEST POSITION a-h
         ACCESS=g                            T&M=i
         DN=b[-c]   d     [MLHG=e-f]
         j1[=k1]
        [E=l1]
```

```
[2]    CONN WSPHONE TEST POSITION a-h
         ACCESS=g                            T&M=i
            TKGMN=n1-h1  i1
         j1[=k1]
        [E=l1]
```

---

2. REASON FOR OUTPUT

To indicate that the talk and monitor (T&M) phone has been added into the current testing configuration at the trunk and line work station (TLWS) test position (TP).

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

E = Error.

a = TP number.

b = Telephone number entered.

c = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

d = Valid value(s):
AP=m1-m
ILEN=n-j-k-l
LCEN=n-o-p-q
LCKEN=n-o-p-x1-y1
LEN=n-o-r-s-t-u
SLEN=n-v-w-x

e = Multi-line hunt group number.

f = Hunt group member number.

g = Valid value(s):

AC1 JACK = Connection to the AC jack number 1.
AC2 JACK = Connection to the AC jack number 2.
CAMPED ON = Line or trunk is camped on.
CPE TESTS = Test customer premises equipment.
DC1 JACK = Connection to the DC jack number 1.
DC2 JACK = Connection to the DC jack number 2.
DIG TRANS = Connection to digital transmission equipment.
IN PROGRESS = Test or test setup is in progress.
METALLIC = Connection to metallic measurement equipment.
MONITOR B&I = Monitor a busy or idle line/trunk.
MONITOR BUSY = Monitor a busy line/trunk.
SEIZED = Line or trunk is seized.
SUPERVISION = Supervisory test running.
TRANSMISSION = Connection to transmission equipment.

h = TLWSR tuple identification.

i = The mode of the T&M phone in the test connection. Valid value(s):
H = The T&M phone is ON-HOLD (metallic connections).
N = No T&M phone in the connection.
M = The T&M phone is in the MONITOR mode (listen-only).
T = The T&M phone is in the TALK mode (listen and talk).

j = IDCU number.

k = Remote terminal (RT) number or IDCU digital signal level (DS1)l serving PUB43801 number.

l = RT line number or PUB43801 channel.

m = Relative link (member) number of the AP.

n = Switching module (SM) number.

o = Line unit number.

p = Line group number.

q = Line card number.

r = Grid number.

s = Switch board number (LU1, LU2, LU3).

t = Switch number.

u = Level number.

v = Digital carrier line unit number.

w = RT number.

x = RT line number.

y = Digital line and trunk unit (DLTU) number.

z = Digital facility interface (DFI) number.

a^1 = Channel number.

b^1 = RAF unit number.

c^1 = RAF channel number.

d^1 = Trunk unit number.

e^1 = Service group number.

f^1 = Channel board number.

g^1 = Circuit number.

h^1 = Trunk member number.

i^1 = Valid value(s):
DEN=n-y-z-a^1
NEN=n-o^1-p^1-q^1-r^1-s^1
PSUEN=n-t^1-u^1-v^1-w^1 RAF PORT n-b^1-c^1
TEN=n-d^1-e^1-f^1-g^1

j^1 = Type of T&M phone. Valid value(s):
NO T&M PHONE = There is no T&M phone populated for this ID in the database (TLWSR tuple).
REMOTE T&M PHONE = The T&M phone populated for this ID in the database is remote.
LOCAL T&MPHONE = The T&M phone populated for this ID in the database is local.

k^1 = Phone number of the T&M phone when the phone is remote.

l^1 = Error Type. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

m^1 = Data link (group) number of the AP.

n^1 = Trunk group number.

o^1 = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

p^1 = Data group (DG) number.

q^1 = Synchronous transport signal (STS) number.

r^1 = Virtual tributary 1.5 (VT1.5) number.

s^1 = Digital signal level 0 (DS0) number.

t^1 = PSU unit number.

u^1 = PSU shelf number.

v^1 = PSU channel group number.

w[1] = PSU channel group member number.

x[1] = Line board number.

y[1] = Line circuit number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CONN:WSLINE
CONN:WSPHONE
CONN:WSTRK
SET:WSPOS
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-600-750 *Output Messages*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

RC/V View(s):

14.3 (TRUNK AND LINE WORK STATION)

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CONN:WSPHONE-B

Software Release: 5E11 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]    CONN WSPHONE TEST POSITION a-h
         ACCESS=g                            T&M=i
         DN=b[-c]   d     [MLHG=e-f]
         j1[=k1]
        [E=l1]
```

```
[2]    CONN WSPHONE TEST POSITION a-h
         ACCESS=g                            T&M=i
            TKGMN=n1-h1  i1
         j1[=k1]
        [E=l1]
```

---

2. REASON FOR OUTPUT

To indicate that the talk and monitor (T&M) phone has been added into the current testing configuration at the trunk and line work station (TLWS) test position (TP).

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

E = Error.

a = TP number.

b = Telephone number entered.

c = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

d = Valid value(s):
AP=m^1-m
ILEN=n-j-k-l
LCEN=n-o-p-q
LCKEN=n-o-p-x^1-y^1
LEN=n-o-r-s-t-u
SLEN=n-v-w-x
AIUEN=n-z^1-a^2-b^2

e = Multi-line hunt group number.

f = Hunt group member number.

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g = Valid value(s):

AC1 JACK	= Connection to the AC jack number 1.
AC2 JACK	= Connection to the AC jack number 2.
CAMPED ON	= Line or trunk is camped on.
CPE TESTS	= Test customer premises equipment.
DC1 JACK	= Connection to the DC jack number 1.
DC2 JACK	= Connection to the DC jack number 2.
DIG TRANS	= Connection to digital transmission equipment.
IN PROGRESS	= Test or test setup is in progress.
METALLIC	= Connection to metallic measurement equipment.
MONITOR B&I	= Monitor a busy or idle line/trunk.
MONITOR BUSY	= Monitor a busy line/trunk.
SEIZED	= Line or trunk is seized.
SUPERVISION	= Supervisory test running.
TRANSMISSION	= Connection to transmission equipment.

h = TLWSR tuple identification.

i = The mode of the T&M phone in the test connection. Valid value(s):

H	= The T&M phone is ON-HOLD (metallic connections).
N	= No T&M phone in the connection.
M	= The T&M phone is in the MONITOR mode (listen-only).
T	= The T&M phone is in the TALK mode (listen and talk).

j = IDCU number.

k = Remote terminal (RT) number or IDCU digital signal level (DS1)l serving PUB43801 number.

l = RT line number or PUB43801 channel.

m = Relative link (member) number of the AP.

n = Switching module (SM) number.

o = Line unit number.

p = Line group number.

q = Line card number.

r = Grid number.

s = Switch board number (LU1, LU2, or LU3).

t = Switch number.

u = Level number.

v = Digital carrier line unit number.

w = RT number.

x = RT line number.

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y = Digital line and trunk unit (DLTU) number.

z = Digital facility interface (DFI) number.

a^1 = Channel number.

b^1 = RAF unit number.

c^1 = RAF channel number.

d^1 = Trunk unit number.

e^1 = Service group number.

f^1 = Channel board number.

g^1 = Circuit number.

h^1 = Trunk member number.

i^1 = Valid value(s):
DEN=n-y-z-a^1
NEN=n-o^1-p^1-q^1-r^1-s^1
PSUEN=n-t^1-u^1-v^1-w^1
RAF PORT n-b^1-c^1
TEN=n-d^1-e^1-f^1-g^1

j^1 = Type of T&M phone. Valid value(s):
NO T&M PHONE = There is no T&M phone populated for this ID in the database (TLWSR tuple).
REMOTE T&M PHONE = The T&M phone populated for this ID in the database is remote.
LOCAL T&M PHONE = The T&M phone populated for this ID in the database is local.

k^1 = Phone number of the T&M phone when the phone is remote.

l^1 = Error Type. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

m^1 = Data link (group) number of the AP.

n^1 = Trunk group number.

o^1 = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

p^1 = Data group (DG) number.

q^1 = Synchronous transport signal (STS) number.

r^1 = Virtual tributary 1.5 (VT1.5) number.

s^1 = Digital signal level 0 (DS0) number.

t^1 = PSU unit number.

u^1 = PSU shelf number.

v[1] = PSU channel group number.

w[1] = PSU channel group member number.

x[1] = Line board number.

y[1] = Line circuit number.

z[1] = Access interface unit (AIU) number.

a[2] = AIU line pack number.

b[2] = AIU line circuit number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CONN:WSLINE
CONN:WSPHONE
CONN:WSTRK
SET:WSPOS
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-600-750 *Output Messages*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

RC/V View(s):

14.3 (TRUNK AND LINE WORK STATION)

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CONN:WSPHONE-C

Software Release: 5E12 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]    CONN WSPHONE TEST POSITION a-h
         ACCESS=g                            T&M=i
         DN=b[-c]   d     [MLHG=e-f]
         j1[=k1]
        [E=l1]
```

```
[2]    CONN WSPHONE TEST POSITION a-h
         ACCESS=g                            T&M=i
            TKGMN=n1-h1  i1
         j1[=k1]
        [E=l1]
```

---

2. REASON FOR OUTPUT

To indicate that the talk and monitor (T&M) phone has been added into the current testing configuration at the trunk and line work station (TLWS) test position (TP).

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

E = Error.

a = TP number.

b = Telephone number entered.

c = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

d = Line equipment number. Valid value(s):

AIUEN=n-z1-a2-b2
AP=m1-m
ILEN=n-j-k-l
INEN=n-c2-k-l
LCEN=n-o-p-q
LCKEN=n-o-p-x1-y1
LEN=n-o-r-s-t-u
SLEN=n-v-w-x

e = Multi-line hunt group number.

f = Hunt group member number.

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g = Access type. Valid value(s):

AC1 JACK	= Connection to the AC jack number 1.
AC2 JACK	= Connection to the AC jack number 2.
CAMPED ON	= Line or trunk is camped on.
CPE TESTS	= Test customer premises equipment.
DC1 JACK	= Connection to the DC jack number 1.
DC2 JACK	= Connection to the DC jack number 2.
DIG TRANS	= Connection to digital transmission equipment.
IN PROGRESS	= Test or test setup is in progress.
METALLIC	= Connection to metallic measurement equipment.
MONITOR B&I	= Monitor a busy or idle line/trunk.
MONITOR BUSY	= Monitor a busy line/trunk.
SEIZED	= Line or trunk is seized.
SUPERVISION	= Supervisory test running.
TRANSMISSION	= Connection to transmission equipment.

h = TLWSR tuple identification.

i = The mode of the T&M phone in the test connection. Valid value(s):

H	= The T&M phone is ON-HOLD (metallic connections).
N	= No T&M phone in the connection.
M	= The T&M phone is in the MONITOR mode (listen-only).
T	= The T&M phone is in the TALK mode (listen and talk).

j = IDCU number.

k = Remote terminal (RT) number or IDCU digital signal level (DS1)l serving PUB43801 number.

l = RT line number or PUB43801 channel.

m = Relative link (member) number of the AP.

n = Switching module (SM) number.

o = Line unit number.

p = Line group number.

q = Line card number.

r = Grid number.

s = Switch board number (LU1, LU2, or LU3).

t = Switch number.

u = Level number.

v = Digital carrier line unit number.

w = RT number.

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x = RT line number.

y = Digital line and trunk unit (DLTU) number.

z = Digital facility interface (DFI) number.

a^1 = Channel number.

b^1 = RAF unit number.

c^1 = RAF channel number.

d^1 = Trunk unit number.

e^1 = Service group number.

f^1 = Channel board number.

g^1 = Circuit number.

h^1 = Trunk member number.

i^1 = Trunk equipment number. Valid value(s):
DEN=n-y-z-a^1
INEN=n-c^2-k-l
NEN=n-o^1-p^1-q^1-r^1-s^1
PSUEN=n-t^1-u^1-v^1-w^1
RAF PORT n-b^1-c^1
TEN=n-d^1-e^1-f^1-g^1

j^1 = Type of T&M phone. Valid value(s):
NO T&M PHONE = There is no T&M phone populated for this ID in the database (TLWSR tuple).
REMOTE T&M PHONE = The T&M phone populated for this ID in the database is remote.
LOCAL T&M PHONE = The T&M phone populated for this ID in the database is local.

k^1 = Phone number of the T&M phone when the phone is remote.

l^1 = Error Type. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

m^1 = Data link (group) number of the AP.

n^1 = Trunk group number.

o^1 = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

p^1 = Data group (DG) number.

q^1 = Synchronous transport signal (STS) number.

r^1 = Virtual tributary 1.5 (VT1.5) number.

s^1 = Digital signal level 0 (DS0) number.

t^1 = PSU unit number.

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u[1] = PSU shelf number.

v[1] = PSU channel group number.

w[1] = PSU channel group member number.

x[1] = Line board number.

y[1] = Line circuit number.

z[1] = Access interface unit (AIU) number.

a[2] = AIU line pack number.

b[2] = AIU line circuit number.

c[2] = DNU number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CONN:WSLINE
CONN:WSPHONE
CONN:WSTRK
SET:WSPOS
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-600-750 *Output Messages*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

RC/V View(s):

14.3 (TRUNK AND LINE WORK STATION)

CONN:WSPHONE-D

Software Release: 5E13 and later
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]    CONN WSPHONE TEST POSITION a-h
         ACCESS=g                            T&M=i
         DN=b[-c]   d     [MLHG=e-f]
         j1[=k1]
        [E=l1]
       ____________________________________________________________________

[2]    CONN WSPHONE TEST POSITION a-h
         ACCESS=g                            T&M=i
            TKGMN=n1-h1  i1
         j1[=k1]
        [E=l1]
       ____________________________________________________________________

[3]    CONN WSPHONE TEST POSITION a-h
         ACCESS=g
         DN=b[-c]         e2
         j1[=k1]
        [E=l1]
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To indicate that the talk and monitor (T&M) phone has been added into the current testing configuration at the trunk and line work station (TLWS) test position (TP).

3. VARIABLE FIELD DEFINITIONS

E = Error.

a = TP number.

b = Telephone number entered.

c = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

d = Line equipment number. Valid value(s):

```
AIUEN=n-z1-a2-b2
 AP=m1-m
 ILEN=n-j-k-l
 INEN=n-o1-k-l
 LCEN=n-o-p-q
 LCKEN=n-o-p-x1-y1
```

```
LEN=n-o-r-s-t-u
SLEN=n-v-w-x
```

e = Multi-line hunt group number.

f = Hunt group member number.

g = Access type. Valid value(s):

- AC1 JACK = Connection to the AC jack number 1.
- AC2 JACK = Connection to the AC jack number 2.
- CAMPED ON = Line or trunk is camped on.
- CPE TESTS = Test customer premises equipment.
- DC1 JACK = Connection to the DC jack number 1.
- DC2 JACK = Connection to the DC jack number 2.
- DIG TRANS = Connection to digital transmission equipment.
- IN PROGRESS = Test or test setup is in progress.
- METALLIC = Connection to metallic measurement equipment.
- MONITOR B&I = Monitor a busy or idle line/trunk.
- MONITOR BUSY = Monitor a busy line/trunk.
- SEIZED = Line or trunk is seized.
- SUPERVISION = Supervisory test running.
- TRANSMISSION = Connection to transmission equipment.

h = TLWSR tuple identification.

i = The mode of the T&M phone in the test connection. Valid value(s):

- H = The T&M phone is ON-HOLD (metallic connections).
- N = No T&M phone in the connection.
- M = The T&M phone is in the MONITOR mode (listen-only).
- T = The T&M phone is in the TALK mode (listen and talk).

j = IDCU number.

k = Remote terminal (RT) number or IDCU digital signal level (DS1)l serving PUB43801 number.

l = RT line number or PUB43801 channel.

m = Relative link (member) number of the AP.

n = Switching module (SM) number.

o = Line unit number.

p = Line group number.

q = Line card number.

r = Grid number.

s = Switch board number (LU1, LU2, or LU3).

t = Switch number.

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u = Level number.

v = Digital carrier line unit number.

w = RT number.

x = RT line number.

y = Digital line and trunk unit (DLTU) number.

z = Digital facility interface (DFI) number.

a^1 = Channel number.

b^1 = RAF unit number.

c^1 = RAF channel number.

d^1 = Trunk unit number.

e^1 = Service group number.

f^1 = Channel board number.

g^1 = Circuit number.

h^1 = Trunk member number.

i^1 = Trunk equipment number. Valid value(s):

```
DEN=n-y-z-a1
 INEN=n-o1-k-l
 NEN=n-o1-p1-r1-q1-c2-d2-s1
 PSUEN=n-t1-u1-v1-w1
 RAF PORT n-b1-c1
 TEN=n-d1-e1-f1-g1
```

j^1 = Type of T&M phone. Valid value(s):
NO T&M PHONE = There is no T&M phone populated for this ID in the database (TLWSR tuple).
REMOTE T&M PHONE = The T&M phone populated for this ID in the database is remote.
LOCAL T&M PHONE = The T&M phone populated for this ID in the database is local.

k^1 = Phone number of the T&M phone when the phone is remote.

l^1 = Error Type. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

m^1 = Data link (group) number of the AP.

n^1 = Trunk group number.

o^1 = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

p^1 = Data group (DG) number.

q^1 = Synchronous transport signal (STS) facility number.

r^1 = SONET termination equipment (STE) facility number.

s^1 = Digital signal level 0 (DS0) number.

t^1 = PSU unit number.

u^1 = PSU shelf number.

v^1 = PSU channel group number.

w^1 = PSU channel group member number.

x^1 = Line board number.

y^1 = Line circuit number.

z^1 = Access interface unit (AIU) number.

a^2 = AIU line pack number.

b^2 = AIU line circuit number.

c^2 = Virtual tributary group (VTG) number.

d^2 = Virtual tributary member (VTM) number.

e^2 = Line equipment number. Valid value(s):

```
NEN=n-o1-p1-r1-q1-c2-d2-s1
```

4. ACTIONS TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CONN:WSLINE
CONN:WSPHONE
CONN:WSTRK
SET:WSPOS
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):

235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-600-750 *Output Messages*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

RC/V View(s):

14.3 (TRUNK AND LINE WORK STATION)

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CONN:WSTRK-A

Software Release: 5E10 - 5E11
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
CONN WSTRK TEST POSITION a-b
  ACCESS=c                          T&M=g
     TKGMN=d-e  f
  [E=h]
```

2. REASON FOR OUTPUT

To indicate that the port has been seized (connected to) by a trunk and line work station (TLWS) test position (TP) in preparation for testing.

3. VARIABLE FIELD DEFINITIONS

`ACCESS` = Type of access at TP.

`DEN` = Digital equipment number of the digital trunk or line.

`E` = Error.

`NEN` = Network equipment number of the trunk.

`PSUEN` = Packet switching unit (PSU) equipment number of the trunk.

`RAF` = Recorded announcement facility.

`TEN` = Trunk equipment number of the analog trunk.

`TKGMN` = Trunk group member number.

`T&M` = Talk and monitor phone.

`a` = TP number.

`b` = TLWSR tuple identification.

`c` = Valid value(s):

- `AC1 JACK` = Connection to the AC jack number 1.
- `AC2 JACK` = Connection to the AC jack number 2.
- `CAMPED ON` = Line or trunk is camped on.
- `CPE TESTS` = Test customer premises equipment.
- `DC1 JACK` = Connection to the DC jack number 1.
- `DC2 JACK` = Connection to the DC jack number 2.
- `DIG TRANS` = Connection to digital transmission equipment.
- `IN PROGRESS` = Test or test setup is in progress.
- `METALLIC` = Connection to metallic measurement equipment.
- `MONITOR B&I` = Monitor a busy or idle line/trunk.
- `MONITOR BUSY` = Monitor a busy line/trunk.

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SEIZED = Line or trunk is seized.
SUPERVISION = Supervisory test running.
TRANSMISSION = Connection to transmission equipment.

d = Trunk group number.

e = Trunk member number.

f = Valid value(s): DEN=h-i-j-k
NEN=h-r-s-t-u-v
PSUEN=h-w-x-y-z
RAF PORT h-l-m
TEN=h-n-o-p-q

g = The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):
H = The T&M phone is ON-HOLD (metallic connections).
M = The T&M phone is in the MONITOR mode (listen-only).
N = No T&M phone in the connection.
T = The T&M phone is in the TALK mode (listen and talk).

h = Switching module (SM) number.

i = Digital line and trunk unit (DLTU) number.

j = Digital facility interface (DFI) number.

k = Channel number.

l = RAF unit number.

m = RAF channel number.

n = Trunk unit number.

o = Service group number.

p = Channel board number.

q = Circuit number.

r = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

s = Data group (DG) number.

t = Synchronous transport signal (STS) number.

u = Virtual tributary 1.5 (VT1.5) number.

v = Digital signal level 0 (DS0) number.

w = PSU unit number.

x = PSU shelf number.

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`y` = PSU channel group number.

`z` = PSU channel group member number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CONN:WSTRK
SET:WSPOS
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):

235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-600-750 *Output Messages*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

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CONN:WSTRK-B

Software Release: 5E12 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
CONN WSTRK TEST POSITION a-b
  ACCESS=c                          T&M=g
     TKGMN=d-e  f
  [E=h]
```

2. REASON FOR OUTPUT

To indicate that the port has been seized (connected to) by a trunk and line work station (TLWS) test position (TP) in preparation for testing.

3. VARIABLE FIELD DEFINITIONS

`E` = Error.

`a` = TP number.

`b` = TLWSR tuple identification.

`c` = Access type. Valid value(s):

`AC1 JACK`	= Connection to the AC jack number 1.
`AC2 JACK`	= Connection to the AC jack number 2.
`CAMPED ON`	= Line or trunk is camped on.
`CPE TESTS`	= Test customer premises equipment.
`DC1 JACK`	= Connection to the DC jack number 1.
`DC2 JACK`	= Connection to the DC jack number 2.
`DIG TRANS`	= Connection to digital transmission equipment.
`IN PROGRESS`	= Test or test setup is in progress.
`METALLIC`	= Connection to metallic measurement equipment.
`MONITOR B&I`	= Monitor a busy or idle line/trunk.
`MONITOR BUSY`	= Monitor a busy line/trunk.
`SEIZED`	= Line or trunk is seized.
`SUPERVISION`	= Supervisory test running.
`TRANSMISSION`	= Connection to transmission equipment.

`d` = Trunk group number.

`e` = Trunk member number.

`f` = Trunk equipment number. Valid value(s):

`DEN=h-i-j-k`
`INEN=h-b`^{1}`-c`^{1}`-d`^{1}
`NEN=h-r-s-t-u-v`
`PSUEN=h-w-x-y-z`
`RAF PORT h-l-m`
`TEN=h-n-o-p-q`

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g = The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):
- H = The T&M phone is ON-HOLD (metallic connections).
- M = The T&M phone is in the MONITOR mode (listen-only).
- N = No T&M phone in the connection.
- T = The T&M phone is in the TALK mode (listen and talk).

h = Switching module (SM) number.

i = Digital line and trunk unit (DLTU) number.

j = Digital facility interface (DFI) number.

k = Channel number.

l = RAF unit number.

m = RAF channel number.

n = Trunk unit number.

o = Service group number.

p = Channel board number.

q = Circuit number.

r = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

s = Data group (DG) number.

t = Synchronous transport signal (STS) number.

u = Virtual tributary 1.5 (VT1.5) number.

v = Digital signal level 0 (DS0) number.

w = PSU unit number.

x = PSU shelf number.

y = PSU channel group number.

z = PSU channel group member number.

a[1] = Digital network unit-synchronous optical network (SONET) (DNU-S) number.

b[1] = DNU number.

c[1] = Remote terminal (RT) number.

d[1] = RT line number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CONN:WSTRK
SET:WSPOS
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):

235-100-125	*System Description*
235-105-110	*System Maintenance Requirements and Tools*
235-105-220	*Corrective Maintenance*
235-600-750	*Output Messages*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

CONN:WSTRK-C

Software Release: 5E13 and later
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
CONN WSTRK TEST POSITION a-b
  ACCESS=c                          T&M=g
     TKGMN=d-e  f
  [E=h]
```

2. REASON FOR OUTPUT

To indicate that the port has been seized (connected to) by a trunk and line work station (TLWS) test position (TP) in preparation for testing.

3. VARIABLE FIELD DEFINITIONS

E

a = TP number.

b = TLWSR tuple identification.

c = Access type. Valid value(s):

AC1 JACK	= Connection to the AC jack number 1.
AC2 JACK	= Connection to the AC jack number 2.
CAMPED ON	= Line or trunk is camped on.
CPE TESTS	= Test customer premises equipment.
DC1 JACK	= Connection to the DC jack number 1.
DC2 JACK	= Connection to the DC jack number 2.
DIG TRANS	= Connection to digital transmission equipment.
IN PROGRESS	= Test or test setup is in progress.
METALLIC	= Connection to metallic measurement equipment.
MONITOR B&I	= Monitor a busy or idle line/trunk.
MONITOR BUSY	= Monitor a busy line/trunk.
SEIZED	= Line or trunk is seized.
SUPERVISION	= Supervisory test running.
TRANSMISSION	= Connection to transmission equipment.

d = Trunk group number.

e = Trunk member number.

f = Trunk equipment number. Valid value(s):

DEN=h-i-j-k
INEN=h-r-c^1-d^1
NEN=h-r-s-u-t-a^1-b^1-v
PSUEN=h-w-x-y-z
RAF PORT h-l-m

```
TEN=h-n-o-p-q
```

g = The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):
- H = The T&M phone is ON-HOLD (metallic connections).
- M = The T&M phone is in the MONITOR mode (listen-only).
- N = No T&M phone in the connection.
- T = The T&M phone is in the TALK mode (listen and talk).

h = Switching module (SM) number.

i = Digital line and trunk unit (DLTU) number.

j = Digital facility interface (DFI) number.

k = Channel number.

l = RAF unit number.

m = RAF channel number.

n = Trunk unit number.

o = Service group number.

p = Channel board number.

q = Circuit number.

r = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

s = Data group (DG) number.

t = Synchronous transport signal (STS) facility number.

u = SONET termination equipment (STE) facility number.

v = Digital signal level 0 (DS0) number.

w = PSU unit number.

x = PSU shelf number.

y = PSU channel group number.

z = PSU channel group member number.

a[1] = Virtual tributary group (VTG) number.

b[1] = Virtual tributary member (VTM) number.

c[1] = Remote terminal (RT) number.

d[1] = RT line number.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CONN:WSTRK
SET:WSPOS
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):

235-100-125	*System Description*
235-105-110	*System Maintenance Requirements and Tools*
235-105-220	*Corrective Maintenance*
235-600-750	*Output Messages*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

20. COPY

COPY:ACTDISK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    COPY ACTDISK ON MHD a COMPLETED
       ____________________________________________________________________

[2]    COPY ACTDISK STOPPED WITH ERROR CODE b ERRNO c[, (d)]
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the result of executing a COPY:ACTDISK input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Disk unit where file was copied to.

`b` = Error code indicating error that caused process to terminate. The first three digits indicate the nature of the error; the last two (represented as xx) indicate which module the error occurred in (the information is not provided here).

- `01xx` = Missing arguments. This error is related with the usage of the /prc/mntfs process. The arguments expected by this process are: /prc/mntfs -d a -p b -, c -x d. Where '`a`' specifies the non-active disk, '`b`' the target file system, '`c`' the directory to mount the file system, '`d`' the name of the process, plus arguments, to be executed. The arguments should consist of files or directory path names, including the mount directory specified in '`c`'.
- `02xx` = The partition number that corresponds to the mount point of the destination file, is not the same as the destination partition number. To by pass this check, don't include the mount point in destination file name. For example, to copy "/etc/ularp" to the root file system on the non-active disk, don't specify "/etc/ularp" as the destination file; instead the name "ularp" or "/ularp" should be specified.
- `03xx` = The source specified is not a regular file, a contiguous file (type "C" or '`x`'), or a block device (type '`b`', a partition or file system).
- `04xx` = Cannot find mount point for destination file. To avoid the error, exclude the mount point from the destination file path name.
- `05xx` = The destination disk specified is not in the out-of-service (OOS) or offline (OFL) state.
- `06xx` = Cannot find an entry for the destination partition, in the destination disk volume table of contents (VTOC). Make sure that the partition number specified exists in the destination disk.
- `07xx` = Bad mount directory specified. This error results from the execution of the /prc/mntfs process.
- `08xx` = The VTOC in the destination disk is bad or does not exist.
- `09xx` = Bad destination file specified.
- `10xx` = Process stopped due to SIGTERM signal.
- `11xx` = The source file specified does not exist.
- `12xx` = Cannot find entry for the source partition on the active disk VTOC.
- `13xx` = The destination partition is smaller than the source partition.

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14xx = The partition number specified is greater than the maximum number of partitions on disk.

15xx = The destination partition does not exist in the destination disk.

ERRORS ASSOCIATED WITH SYSTEM CALLS

201xx = The "open()" failed to open 'd'.

202xx = "mknod()" failed to create 'd'.

203xx = "read()" failed to read file 'd'.

204xx = "mkseg()" failed to allocate one segment of memory.

205xx = "lseek()" failed to change offset (variable 'd') in out of service disk.

206xx = "setio()" failed to set physical IO for 'd'.

207xx = "write()" failed on segment 'd'.

208xx = "ugucbn()" failed to get unit control block (UCB) information for moving head disk (MHD) 'd'. This error occurs when disk unit specified does not exist.

209xx = "mount()" failed to mount partition 'd'. This error occurs when partition is not a file system, or mount directory is busy.

201xx = "unlink()" failed to unlink file 'd'.

211xx = "ursvucb()" failed to reserve MHD 'd'. This error occurs when the disk is reserved by other process (for example, diagnostics).

212xx = "udsdf()" failed to get special device file to access MHD 'd'. This error occurs when another process failed to release the special device file.

213xx = "msgport()" failed to send message to the disk driver.

214xx = "recvw()" failed to receive message from the disk driver.

215xx = "msgenab()" failed.

216xx = Bad message received from the disk driver.

217xx = Bad return code received from the disk driver. This error occurs when the entry in destination disk VTOC does not have all the fields properly set (such as, the address for the partition may be bad).

218xx = "chown()" failed to change "owner" for destination file.

219xx = "close()" failed to close 'd'.

220xx = "stat()" failed on 'd'.

221xx = "plock()" failed to lock "/prc/mntfs" process in core.

222xx = "chmod()" failed to change mode of destination file.

223xx = "system()" call returned with an error code 'd'.

224xx = "create()" failed to create the destination file, on file system in the destination disk. This error occurs when there is no more space in the file system.

225xx = "falloc()" failed to allocate contiguous space for a contiguous file, on the file system in the destination disk. This error occurs when the file system does not have enough contiguous space for the file to be created.

226xx = "ugetrec()" failed to get UCB record for destination disk MHD 'a' in the ECD database.

c = Indicates system error code (refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

d = Supplementary data.

4. ACTION TO BE TAKEN

User execution errors can be corrected by examining the procedures used for execution of the message. If any other errors occur, refer to the TECHNICAL ASSISTANCE refer to the TECHNICAL ASSISTANCE portion of the

INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	187
2	186

Input Message(s):

```
COPY:ACTDISK
```

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

COPY:ADDR

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
COPY ADDR a b #c
```

2. REASON FOR OUTPUT

To report the completion of a COPY:ADDR input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Virtual address.

`b` = Termination status of the operation. Valid value(s):
`COMPLETED` = Request successfully completed.
`NOT STARTED NGPID` = The COPY was stopped because the process does not exist.
`NOT STARTED NGUID` = The COPY was stopped because no copies of the process exist.
`STOPPED NGADDR` = The COPY was stopped because the address specified is not valid for the process, or invalid address values were encountered in the address chain if offsets were specified.
`STOPPED NGPROT` = The COPY was stopped because the destination address does not have write permission granted.
`STOPPED NGCOPY` = The COPY was stopped because some other error occurred in moving the data.

`c` = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If 'b' =	Action: =
NOT STARTED NGPID	The process did not exist at the time the COPY was attempted. Consider using the process UID instead of the PID.
NOT STARTED NGUID	The process did not exist at the time the COPY was attempted. If this happens repeatedly, a breakpoint could be defined and enabled for the process while no copies of the process exist. At the time a copy is created, the breakpoint would be planted in the enabled state.
STOPPED NGADDR	Recheck the program listings. If offsets were specified, try breaking the chain into several parts and printing the intermediate addresses. Another possibility is to define a breakpoint for that process and use the COPY message in the action list. This will help control the exact circumstances under which the operation is performed.
STOPPED NGPROT	Recheck the destination to verify that it indicates a writable area.

5. ALARMS

None. This is a manually-requested report. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

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6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
All	494

Input Message(s):

```
COPY:PID
COPY:REG
COPY:UID
COPY:UVAR
DUMP:ADDR
LOAD:ADDR
OP:ST-PROC
WHEN:PID
WHEN:UID
```

Output Message(s):

```
COPY:PID
COPY:REG
COPY:UID
COPY:UVAR
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

COPY:BKDISK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    COPY BKDISK a [b]
       ____________________________________________________________________

[2]    COPY BKDISK NOT STARTED
         CONFLICT WITH CURRENT SYSTEM STATUS
       ____________________________________________________________________

[3]    COPY BKDISK { ABORTED | STOPPED }
         [CANNOT OVERWRITE PREVIOUS SESSION |
         END OF TAPE ENCOUNTERED |
         HARDWARE PLATFORM NOT VALID FOR MULTI VOLUME TAPE |
         INVALID POSITIONING SESSION |
         INVALID POSITIONING VOLUME |
         INVALID TAPE DEVICE TYPE |
         LOGICAL VOLUME NOT IN ASCENDING ORDER |
         MRG OPTION REQUIRED |
         REQUESTED SESSION TO UPDATE IS NOT MOST RECENT SESSION ON TAPE |
         SESSION IS NOT IN SEQUENTIAL ORDER
         TAPE DEVICE NOT VALID FOR MULTI VOLUME TAPE |
         TAPE LIBRARY ERROR c|
         TAPE WRITE ERROR d
       ____________________________________________________________________

[4]    COPY BKDISK STOPPED
         CANNOT EXECUTE CHILD PROCESS
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the progress of the COPY:BKDISK input message or to indicate a problem.

3. VARIABLE FIELD DEFINITIONS

`a` = Status message. Valid value(s):

`CANNOT LOCK PROCESS IN CORE` = Cannot lock physical disk-to-tape (PDT) writer process program in core. This may slow down the system processing.

`COM OPTION MISUSED. ISSUE COMMAND AGAIN.` = The COM option was used on *UNIX*® RTR boot disks that do not have a common volume table of contents (VTOC). A common *UNIX*® RTR VTOC includes both the 3B20D very large main memory (VLMM) and the 3B21D lboot partitions. Issue the input message again without the COM option.

`COM OPTION NEEDED. ISSUE COMMAND AGAIN.` = The COM option is needed, since the *UNIX*® RTR boot disk disk image being created has a VTOC including both the 3B20D VLMM and the 3B21D lboot partitions. Issue the input message again with the COM option.

`COMPLETED. DISMOUNT DATABASE TAPE AND LABEL` = Dismount the tape and label it as required by local procedures.

`COMPLETED. DISMOUNT GENERIC TAPE AND LABEL` = Dismount the tape and label it as required by local procedures.

`COMPLETED. DISMOUNT TAPE AND LABEL` = Dismount the tape and label it as required by local procedures.

`DISMOUNT DATABASE TAPE LABEL AND MOUNT NEXT TAPE` = End of tape has been reached. There are 10 minutes in which to dismount the tape, label it, and mount a new tape. COPY:BKDISK input message must be entered with the ACK option to continue the process (refer to COPY:BKDISK, Format 2).

`DISMOUNT DATABASE TAPE LABEL AND MOUNT NEXT TAPE LAST CHANCE` = If the previous message was not executed within the prescribed time limit, a new limit of 20 minutes is set.

`DISMOUNT TAPE LABEL AND MOUNT NEXT TAPE` = End of tape has been reached. There are 10 minutes in which to dismount the tape, label it, and mount a new tape. COPY:BKDISK input message must be entered with the ACK option to continue the process (refer to COPY:BKDISK, Format 2).

`DISMOUNT GENERIC TAPE LABEL AND MOUNT NEXT TAPE LAST CHANCE` = If the previous message was not executed within the prescribed time limit, a new limit of 20 minutes is set.

`DISMOUNT GENERIC TAPE, LABEL AND MOUNT NEXT TAPE` = End of tape has been reached. There are 10 minutes in which to dismount the tape, label it, and mount a new tape. COPY:BKDISK input message must be entered with the ACK option to continue the process (refer to COPY:BKDISK, Format 2).

`IN PROGRESS` = Procedure is proceeding normally.

`STOPPED` = Physical disk-to-tape writer has been stopped.

`COMMON TAPE - BOTH LBOOTS WILL BE WRITTEN` = For administrative modules (AMs) with a common VTOC, if one lboot partition is specified in the specfile, both lboot partitions will be written to tape.

`b` = Error message. Valid value(s):

`CAN'T OPEN DISK. CHECK DATA FIELD AND TRY AGAIN` = The disk name given could not be opened. There may be an error in the arguments to the DISK keyword.

`CAN'T OPEN TAPE. CHECK DATA FIELD AND TRY AGAIN` = The tape name given could not be opened. There may be an error in the arguments to the TAPE keyword, or possibly the tape drive is not on-line.

`CAN'T OPEN TAPE. NEED TO RE-WRITE ENTIRE SEQUENCE` = The tape name given could not be opened. There may be an error in the arguments to the TAPE keyword, or possibly the tape drive is not on-line.

`CANNOT OPEN TAPE DATA` = This message indicates that the "open" to the tape device failed. This may be due to the tape drive being "off-line" or the tape being write protected. A message will follow indicating to mount tape and acknowledge. There will be four chances given to mount a tape.

`CANNOT RUN WITH SYSTEM OR FIELD UPDATE, OR ANOTHER COPY BKDISK` = The COPY:BKDISK message cannot run simultaneously with a field update or system update message (any UPD input message), and cannot run while another COPY:BKDISK message is in progress.

`COPY:BKDISK;START WAS NOT ISSUED` = A COPY:BKDISK input message with the ACK option was issued before a COPY:BKDISK message with the START option.

`ERROR CODE xx` = The procedure has been terminated for one of the reasons listed. Valid value(s):

`1` = A read of the VTOC indicated zero bytes read.

2 = Error on read of VTOC.
3 = Second VTOC entry is not for 'VTOC' itself (the VTOC partitions may not be valid).
4 = Failed on "setio" system call for tape.
5 = Unable to open device directory "/dev".
6 = The "stat()" *UNIX*® function failed to get device information for the diskname specified.
7 = The "stat()" *UNIX*® function failed to get device information for a partition name in the "/dev" directory.
8 = Two partition names specified in the specification file are duplicate (map into the same partition on disk). Remove one partition name and try again.
9 = Error in reading /dev device directory entries.
10 = Did not find "stat()" function information for all partition names specified in specification file. One or more partition names specified may reside in a different disk. Remove these partition names and try again.
11 = Failed on open of partition.
12 = Failed on 'setio' system call for disk.
13 = Error on read of partition.
14 = Unable to add data segment to address space.
15 = Can't open specification file. This file may not exist, or may be zero length. Add required partition names and try again.
16 = The COPY:BKDISK input message with the ACK option can not open /tmp/pdt to get the process ID of the COPY:BKDISK message with the START option.
17 = Too many partitions specified in the specification file.
18 = The "stat()" function failed to get device information for a partition name in the "/etc/pdtspec" file (this partition may not exist); or the "stat()" function could not find the name of the disk device or tape entered on the message line. The name entered is not a special device name. Replace the name and try again.
19 = Name specified in the specification file is not a partition (file is not a block device). Replace with proper partition name and try again.
20 = The "lla_dbatt" function failed to attach to the system generation database (SG) (to get the SG time stamp that is included in the first header of a tape sequence).
21 = The "lla_rdget" function failed to get the "sghdr_rec" record from the SG.
22 = Failed on "lla_dbrel" call.
23 = The "getdbseg()" function failed to attach to the equipment configuration database (ECD) (to get the generic version to be included in the first header of a tape sequence).
24 = The "lla_iatt()" function failed trying to attach to the incore database.
25 = A tape sequence was not effective for a generic or database (internal error in the COPY:BKDISK message with the START option). Try the entire procedure again.
26 = The system call "close()" failed when trying to close the partition that was opened to read the data.
27 = The system call "unlink()" failed when trying to unlink the partition already written to tape.

`28` = The system call "mknod()" failed when trying to create a special device file or a partition.

`29` = The system call "lseek()" failed when trying to find the disk offset to rewrite the tape.

`30` = The "lla_rdget" function failed to get the ecdorg, ucb, or mdct records from the ECD.

`31` = The "lla_get" function failed to get the logdev record from the ECD

`32` = The tape device being used is not compatible with the EXT option. The EXT option is always compatible with a 3B20D or an administrative work station (AWS) tape device, since data to be written is broken up into 6K-size records by default. On the 3B21D, data is not broken up into 6K-size records by default. This error occurs if you are on the 3B21D and the logdev record for the tape device specified:

- is of type IOP
- has a fixed blocking factor
- has a blocking factor not equal to 6K

If necessary, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`INVALID SPECFILE` = Make sure that partition names were specified in the specification file.

`MOUNT TAPE AND ACKNOWLEDGE` = This message is printed after a previous request to mount a tape failed (for example, the "open()" of the tape failed), or if the COPY:BKDISK input message with the ACK option was not entered to continue the process. There are seven chances to mount a tape successfully, before the COPY:BKDISK input message with the START option aborts.

`MOUNT TAPE AGAIN AND ACKNOWLEDGE LAST CHANCE` = This message will be output as the last warning for mounting a tape successfully. The COPY:BKDISK message will abort after 20 minutes.

`MRG OPTION INCORRECTLY USED` = Specification file does not have database and generic partitions. This option should be used when there is a need to create one sequence for generic and database partitions.

`RE-INITIALIZE ENTIRE SEQUENCE` = This message indicates that the entire tape writing procedure must be re-initiated using the COPY:BKDISK input message with the START option.

`TAPE CHANGE ACTION INCORRECT` = The action taken to change the tape was incorrect. This can occur if the time limits were exceeded, an invalid tape size was entered, or no tape size was entered. This message is immediately followed by RE-INITIATE ENTIRE SEQUENCE.

`TAPE SIZE OUT OF RANGE RE-ENTER MESSAGE` = An incorrect tape size was entered for the tape device specified. The acceptable range for a 9-track tape is 600 to 2400 feet and the acceptable range for a digital audio tape (DAT) is 30-90 meters.

`TAPE WRITE ERROR MOUNT NEW TAPE AND TRY AGAIN` = A physical write error was encountered while writing to the tape. It may be necessary to mount a new tape, since write errors occur due to "bad spots" on tape. COPY:BKDISK input message must be entered with the ACK option to rewrite the tape.

`TAPE WRITE ERROR.  NEED TO RE-WRITE ENTIRE SEQUENCE` = A physical error was encountered while writing to the tape. This error may also appear if an incorrect device name was specified for 'EXT' (extended) format. Mount tape on proper device if necessary and enter COPY:BKDISK input message with the START

option.

`c` = System error code number. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

`d` = Tape library error code number. Refer to the APP:TAPE-LIB appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

Format 1 execution errors (error codes 8, 10, 15, and 17 - 19) can be corrected by examining the procedures used for execution of the message.

Format 3 errors pertain to multi-volume digital audio tapes and will be accompanied by explanatory text. If the message indicates that there is a problem with the tape, verify that the correct tape is loaded in the specified tape drive. If the message indicates that there is a problem accessing the tape drive, verify that the tape is loaded and that the tape drive is active. If these checks fail to uncover the problem, or if the description of the error is not self-explanatory, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Format 4 indicates that there is a problem invoking the /prc/3btpwrt process. Verify that the process exists and is executable. If these checks fail to uncover the problem, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. This alarm is a manually-requested report. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1, 2	185
3, 4	748

Input Message(s):

```
COPY:BKDISK
```

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
APP:TAPE-LIB
```

COPY-BKTAPE

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
COPY BKTAPE a
  [ CANNOT ALLOCATE SEGMENT, ERROR b |
  CANNOT OPEN INPUT DEVICE, ERROR b |
  CANNOT OPEN OUTPUT DEVICE, ERROR b |
  ECD ERROR c |
  HARDWARE PLATFORM NOT VALID FOR MULTI VOLUME TAPE |
  INCOMPLETE READ FROM INPUT DEVICE |
  INPUT AND OUTPUT DEVICES ARE IDENTICAL |
  INVALID MULTI VOLUME TAPE HEADER |
  NO DATA ON TAPE |
  OUTPUT DEVICE HAS FIXED RECORD SIZE |
  READ FAILED FROM INPUT DEVICE, ERROR b |
  SETIO FAILED ON INPUT DEVICE, ERROR b |
  SETIO FAILED ON OUTPUT DEVICE, ERROR b |
  STAT FAILED ON INPUT DEVICE, ERROR b |
  TAPE CONTAINS NONSEQUENTIAL SESSIONS |
  TAPE CONTAINS VOLUMES NOT IN ASCENDING ORDER |
  TAPE DEVICE IS NOT ACTIVE |
  TAPE DEVICE DOES NOT SUPPORT LDFT RECORD SIZE |
  TAPE DEVICE NOT VALID FOR MULTI VOLUME TAPE |
  TAPE HEADER CONTAINS INVALID SESSION |
  TAPE HEADER CONTAINS INVALID VOLUME |
  TAPE LIBRARY ERROR d |
  TOO MANY TOP FILES ON INPUT TAPE |
  UNEXPECTED END OF DATA DETECTED |
  WRITE FAILED TO OUTPUT DEVICE, ERROR b ]
```

2. REASON FOR OUTPUT

To report the status of a request to copy the contents of a multi-volume digital audio tape (DAT) to a destination DAT.

3. VARIABLE FIELD DEFINITIONS

`a` = Request status. Valid value(s):

`ABORTED`	= The copy failed and was aborted.
`COMPLETED`	= The copy completed with no errors.
`IN PROGRESS`	= The copy is in progress.
`STARTED`	= The copy started.
`STOPPED`	= The copy failed and was stopped.

`b` = System error code number. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

`c` = Internal error code for failure of an equipment configuration database (ECD) access function.

Valid value(s):

1	= getdbseg failed, could not attach to the ECD.
2	= lla_iatt failed, could not attach to the incore database.
3	= lla_rdget failed, could not get the ecdorg record from the ECD.
4	= lla_get failed, could not get the logdev record for the source tape device from the ECD.
5	= lla_rdget failed, could not get the mdct record for the source tape device from the ECD.
6	= lla_rdget failed, could not get the ucb record for the source tape device from the ECD.
7	= lla_get failed, could not get the logdev record for the destination tape device from the ECD.
8	= lla_rdget failed, could not get the mdct record for the destination tape device from the ECD.
9	= lla_rdget failed, could not the ucb record for the destination tape device from the ECD.
10	= rmovdbseg failed, could not remove incore database segments.

d = Tape library error code number. Refer to the APP:TAPE-LIB appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

Errors will be accompanied by explanatory text. Verify that the message that was input is consistent with the COPY-BKTAPE input message manual page. If the message indicates that there is a problem with a tape, verify that the correct tape is loaded in the specified tape drive. If the message indicates that there is a problem accessing a tape drive, verify that a tape is loaded and that the tape drive is active. If these checks fail to uncover the problem, or if the description of the error is not self-explanatory, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. This alarm is either a manually-requested report or an automatically-generated report.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	760, 761

Input Message(s):

```
COPY:BKTAPE
```

Output Appendix(es):

```
APP:SYSERR
APP:TAPE-LIB
```

COPY:DIFF-SRC-MHD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    COPY DIFF SRC MHD a STARTED
       ____________________________________________________________________

[2]    COPY DIFF SRC MHD a NOT STARTED b c
       ____________________________________________________________________

[3]    COPY DIFF SRC MHD a STOPPED b c
       ____________________________________________________________________

[4]    COPY DIFF SRC MHD a ABORTED b
       ____________________________________________________________________

[5]    COPY DIFF SRC MHD a ERROR b c
       ____________________________________________________________________

[6]    COPY DIFF SRC MHD a COMPLETED
       ____________________________________________________________________

[7]    COPY DIFF SRC MHD IN PROGRESS
         MHD a SINGLE BLOCK READ RETRY {WORKED|FAILED}
         START DISK BLOCK = d {FAILING|END} DISK BLOCK = e
       ____________________________________________________________________

[8]    COPY DIFF SRC MHD a PARTITION MISMATCH
         MHD a PARTITION f OFFSET g BLOCKS d - e
         MHD aa PARTITION f OFFSET g BLOCKS d - e
       ____________________________________________________________________

[9]    COPY DIFF SRC MHD a PARTITION SUMMARY
         MHD a PARTITION f
         MHD p PARTITION f
         MISMATCHES h CORRECTIONS i IO JOBS j IO ERRORS k
         STIME n ETIME o
       ____________________________________________________________________

[10]   COPY DIFF SRC MHD a PARTITION EARLY TERMINATED
         MHD a PARTITION f
         MHD p PARTITION f
         MISMATCHES h CORRECTIONS i IO JOBS j IO ERRORS k
         STIME n ETIME o
       ____________________________________________________________________

[11]   COPY DIFF SRC MHD {a|p} PARTITION ACCESS FAILURE
         MHD {a READ|aa WRITE} FAILED
         PARTITION f OFFSET g BLOCK l
       ____________________________________________________________________
```

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```
[12]   COPY DIFF SRC MHD a FINAL SUMMARY
         MHD a
         MHD p
         MISMATCHES h CORRECTIONS i IO JOBS j IO ERRORS k
         STIME n ETIME o
```

```
[13]   COPY DIFF SRC MHD a PARTITION BYPASSED
         MHD a PARTITION f SIZE m
         MHD p PARTITION f SIZE m
         PARTITION SIZES NOT EQUAL
         STIME n ETIME o
```

---

2. REASON FOR OUTPUT

To report the result of executing a COPY:DIFF-SRC-MHD input message. STIME is the time the message was started. ETIME is used to indicate the elapsed time for a particular partition. The ETIME for the FINAL message is the total elapsed time.

3. VARIABLE FIELD DEFINITIONS

a = Member number of the source disk of the moving head disk (MHD) drive.

b = Process step or reason code. Valid value(s):

- f03 = Can't open equipment configuration database (ECD).
- f06 = Can't get unit control block (UCB) of first unit by name.
- f09 = Can't get UCB of second unit by name.
- f12 = Can't get UCB of first unit's mate.
- f15 = Can't get UCB of first unit's mate.
- f18 = Can't reserve UCB of second unit.
- f21 = Can't assign special device file name of second unit.
- f24 = Can't open special device file of second unit.
- f27 = Can't enable message reception.
- f30 = Refer to the accompanying DKDRV error report on the receive-only printer.
- f36 = Failed to close special device file of second unit.
- f39 = Failed to release special device file of second unit.
- f42 = Message to port failure.
- f45 = Message reception failure.
- f48 = Message to port failure.
- f51 = Message reception failure.
- f54 = Process timed out.
- f57 = Failed to close special device file of second unit.
- f60 = Failed to release special device file of second unit.
- f63 = Failed to unreserve UCB of second unit.
- f66 = Failed to close ECD.

c = System error code number. Refer to the APP:SYSERR appendix in the Appendixes section of this manual.

d = First disk block number (of a range) that mismatched while being compared.

e = Last disk block number (of a range) that mismatched while being compared.

`f` = Partition number in use when a mismatch was encountered.

`g` = Offset within partition when mismatch was detected.

`h` = Number of mismatches that were detected.

`i` = Number of corrections that were made.

`j` = Number of Input/Output jobs done.

`k` = Number of errors detected doing I/O.

`l` = Disk block number that failed to read or write.

`m` = Size of the partition given in disk blocks.

`n` = The time the compare of the partition was started. For the FINAL SUMMARY report, STIME indicates the start time of the input message.

`o` = Elapsed time for a partition to compare. For the FINAL SUMMARY report, the ETIME is the total elapsed time of all the partitions.

4. ACTION TO BE TAKEN

Noncompletion termination reports that provide an error code usually indicate a system resource was not available or became unavailable to perform the requested task. The problem causing the resource limitation should be cleared and the input request retried.

Appropriate mismatch messages is generated indicating the range of disk blocks where the mismatch occurred. A maximum of eight mismatch error messages is output per partition. More than eight mismatch messages results in an early termination.

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1, 2, 3, 4, 5, 6	119, 120, 121
7	122
8	124, 125
9, 10	126, 127
11	132, 133
12	130, 131
13	128, 129

Input Message(s):

```
COPY:DIFF-SRC-MHD
DUMP:MHD-DEFECT
```

```
STOP:CMPR-MHD
```

Output Message(s):

```
CMPR:MHD
```

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

COPY:ECD-TAPE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]    COPY ECD TAPE BEGINNING: PROCESS PID = a
       ____________________________________________________________________

[2]    COPY ECD TAPE b CONTINUING [WITH ERROR CODE c] AT STEP d
       ____________________________________________________________________

[3]    COPY ECD TAPE b [STEP d] COMPLETED [- EXECUTING STEPS d[d]]
       ____________________________________________________________________

[4]    COPY ECD TAPE LABEL
       ____________________________________________________________________

[5]    COPY ECD TAPE b STOPPED e
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report progress of a request to copy the equipment configuration database (ECD) and system generation (SG) databases to tape. These messages are printed only in response to COPY:ECD-TAPE input message.

Format 1 reports that the input was accepted and the process has started.

Format 2 reports that the program is still in progress. If ERROR CODE is present, the program encountered a non-fatal error.

Format 3 reports that a certain step has been completed or the process has completed.

Format 4 is the header for the label which is to be cut out and attached to the tape just completed.

Format 5 reports that the program was stopped before completion due to a fatal error.

3. VARIABLE FIELD DEFINITIONS

`a` = Process identification number (PID). PID is used to stop the process if needed (use input message STOP:EXC-USER).

`b` = Tape sequence number. Since the process only produces one tape, ignore the tape number. Tape number is 0 during the most of the processing but will be 1 in the label.

`c` = Numeric code for errors that cause the program to stop (Format 5) or print a warning (Format 2).
Valid value(s):

`104`	= Unknown step code (program error).
`109`	= Cannot generate checksum file for the data.
`110`	= Cannot write to magnetic tape.
`111`	= Cannot dump data base in ASCII format.
`127`	= Cannot read results of "pwd" (present working directory) message.
`129`	= Initial tape verification failed.

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142 = Cannot initialize work area on disk.
144 = Cannot create file for site identification (nonfatal).
164 = Cannot create ("fork/exec") child process.
166 = Cannot generate lsfile (nonfatal).
167 = Cannot create sumfile or lsfile. Both are internal files used for verification of the contents when the tape is processed.
190 = Cannot execute "ls" (list) message.
191 = Lsfile is not consistent.
1099 = Ran out of buffer area for strings (program error).

d = Alphabetic code indicating a certain step in the process.
A = Initialization of temporary work area on disk.
B = Dumping ECD/SG data bases in ASCII format.
C = Writing ECD/SG data base files to tape.
Z = Initialization of the process such as decoding the input.

e = Reason for stopping. It is either a short self-explanatory phrase or a numeric error code (in the form of WITH ERROR CODEc). Refer to variable 'c' for the explanation of error codes.

4. ACTION TO BE TAKEN

When tape copy completes successfully, unmount the tape, cut out the label, attach the label to the tape and send it to the designated central location for processing.

Error codes 104 and 1099 indicate programming error or corruption of the program. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

When a tape write or read error is indicated, take one or more of the following corrective steps and re-enter the input message.

- Verify that the tape has a write ring.
- Retry with a clean fresh tape.
- Try the other tape unit if available.
- If the error persists, diagnose the magnetic tape (MT) and magnetic tape controller (MTC).
- Reset the tape drive and try in low density mode using the input option of TU=L0 or L1.

The remaining error codes indicate that the "/updtmp" file system is full or one of the ECD evolution programs is not executable. The following is an ordered list of possible corrections:

- Verify that "/updtmp" is empty and has write permission.
- Verify that any program update software update processing is not running.
- Verify that the retrofit software update is installed and that the program update processing has been completed.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
COPY:ECD-TAPE
DGN:MTC
STOP:EXC-USER
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-105-24x *Generic Retrofit Procedures*
235-105-34x *Generic Update Procedures*

COPY:FSYS-CFILE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    COPY FILESYS CFILE COMPLETED
       ____________________________________________________________________

[2]    COPY FILESYS CFILE STOPPED
         a
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the result of executing a COPY:FSYS-CFILE input message to move a file to a contiguous area.

3. VARIABLE FIELD DEFINITIONS

`a` = The description of the error encountered.

4. ACTION TO BE TAKEN

Format 1 indicates success, and no action is necessary.

If Format 2 is printed, the explanatory text will indicate the error encountered. Verify that the message that was input is consistent with the COPY:FSYS-CFILE input message manual page. Use the OP:ST-LISTDIR input message to verify that the file exists with the appropriate permissions. If the message indicates that there is not enough space on the file system, use the CLR:FSYS-FILE input message to remove some files to create the file space.

If these checks fail to uncover the problem, or if the description of the error is not self-explanatory, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1,2	282

Input Message(s):

```
CLR:FSYS-FILE
COPY:FSYS-CFILE
OP:ST-LISTDIR
```

Output Appendix(es):

APP:OMDB-X-REF

COPY:FSYS-FILE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    COPY FILESYS FILE COMPLETED
       ____________________________________________________________________

[2]    COPY FILESYS FILE STOPPED
         {Cannot access a |
         a and b are identical}
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the result of executing a COPY:FSYS-FILE input message to copy a file to another place.

3. VARIABLE FIELD DEFINITIONS

`a` = Pathname specified in the input message as the source file.

`b` = Pathname specified in the input message as the destination file.

4. ACTION TO BE TAKEN

Refer to the Input Messages manual for the correct format and reenter the message or check the status of the file using the OP:ST-LISTDIR input message if a Format 2 message is printed.

If any other error message is printed, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1,2	282

Input Message(s):

```
ALW:FSYS-ACCESS
CLR:FSYS-FILE
COPY:FSYS-FILE
OP:ST-LISTDIR
```

Output Message(s):

OP:ST-LISTDIR

Output Appendix(es):

APP:OMDB-X-REF

COPY:LOG-TAPE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]    COPY LOG TAPE SUCCESSFULLY COMPLETED FOR a
       ____________________________________________________________________

[2]    COPY LOG TAPE STOPPED, NONEXISTENT OR EMPTY FILE a
       ____________________________________________________________________

[3]    COPY LOG TAPE STOPPED, COULD NOT CREATE TEMPORARY FILE
       ____________________________________________________________________

[4]    COPY LOG TAPE STOPPED, COULD NOT CREATE SITE FILE
       ____________________________________________________________________

[5]    COPY LOG TAPE STOPPED, COULD NOT CREATE SUM FILE
       ____________________________________________________________________

[6]    COPY LOG TAPE STOPPED, TAPE WRITE FAILED ON a
       ____________________________________________________________________

[7]    COPY LOG TAPE STOPPED, COULD NOT CHANGE ROOT DIRECTORY
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the completion of a request to copy the named file from disk to magnetic tape, or to indicate problems that were encountered.

Format 1 indicates successful completion of the copying.

Format 2 indicates that the requested file does not exist or is empty.

Format 3 indicates that the temporary status indicator file "/tmp/copylog" could not be created.

Format 4 indicates that the file identifying the site could not be created.

Format 5 indicates that the file containing the hash sum of the requested file could not be created.

Format 6 indicates that a problem was encountered while trying to write the requested file to tape.

Format 7 indicates that the root directory of the process could not be changed.

3. VARIABLE FIELD DEFINITIONS

`a` = Name of the requested file as entered in the input message.

4. ACTION TO BE TAKEN

For Format 1, unmount the tape and label it as the recent change log file tape. Send the tape to the designated

central location for office dependent data processing.

For Format 2, re-enter the filename correctly, or insure that the named file is non-zero in length. Refer to the associated input manual page for more information.

For Format 3, insure that the /tmp file system is mounted and is not full. If necessary, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 4, insure that the /tmp file system is mounted and is not full, and that the file /no5text/rcv/oddinfo exists and is executable. If necessary, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 5, insure that the /tmp file system is mounted and is not full, and that the file /bin/sum exists and is executable. If necessary, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 6, insure that the tape is mounted with a write ring, and that the tape drive is on-line. Use a new tape, and/or clean the tape drive head unit if necessary.

Format 7 indicates an unstable operating environment; retry the input message again later refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
COPY:LOG-TAPE
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-105-24x *Generic Retrofit Procedures*

COPY:ODD-TAPE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]    COPY ODD [ALL] TAPE BEGINNING: PROCESS PID = a
       ____________________________________________________________________

[2]    COPY ODD [ALL] TAPE b CONTINUING [WITH ERROR CODE c] AT STEP d
       ____________________________________________________________________

[3]    COPY ODD [ALL] TAPE b [STEP d] COMPLETED [- EXECUTING STEPS d[d]]
       ____________________________________________________________________

[4]    COPY ODD [ALL] TAPE LABEL
       ____________________________________________________________________

[5]    COPY ODD [ALL] TAPE b STOPPED e
       ____________________________________________________________________

[6]    COPY ODD [ALL] TAPE b COMPLETED MOUNT TAPE b AND CONTINUE
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report progress of a request to copy the office-dependent data (ODD) to tape. These messages are printed only in response to COPY:ODD-TAPE input message.

Format 1 reports that the input was accepted and the process has started.

Format 2 reports that the program is still in progress. If ERROR CODE is present, the program encountered a non-fatal error.

Format 3 reports that a certain step has been completed or the process has completed.

Format 4 is the header for the label which is to be cut out and attached to the tape just completed.

Format 5 reports that the program was stopped before completion due to a fatal error.

Format 6 reports completion of one tape and instructs the user to mount the next tape.

3. VARIABLE FIELD DEFINITIONS

`ALL` = The input message was entered with "ALL" keyword (for example, COPY:ODD:TAPE:ALL).

`a` = Process identification number (PID). PID is used to stop the process if needed (use input message STOP:EXC-USER).

`b` = Sequence number of the tape.

`c` = Numeric code for errors that cause the program to stop (Format 5) or print a warning (Format 2).
Valid value(s):
`104` = Unknown step code (program error).

109	= Cannot generate checksum file for the data.
110	= Cannot write to magnetic tape.
111	= Cannot dump data base in ASCII format.
127	=Cannot read results of "pwd" (present working directory) message.
129	= Initial tape verification failed.
142	= Cannot initialize work area on disk.
144	= Cannot create file for site identification (nonfatal).
164	= Cannot create ("fork/exec") child process.
166	= Cannot generate lsfile (nonfatal).
167	= Cannot create sumfile or lsfile. Both are internal files used for verification of the contents when the tape is processed.
190	= Cannot execute "ls" (list) message.
191	= Lsfile is not consistent.
194	= DBRETROCHK function failed.
1099	= Ran out of buffer area for strings (program error).

d = Alphabetic code indicating a certain step in the process. Valid value(s):

A	= Initialization of temporary work area on disk.
P	= Writing ODD files to magnetic tape.
W	= Waiting for a new tape to be mounted.
Z	= Initialization of the process.

e = Reason for stopping. It is either a short self-explanatory phrase or a numeric error code (in the form of `WITH ERROR CODEc`). Refer to variable '`c`' for the explanation of error codes.

4. ACTION TO BE TAKEN

When copy of a tape completes successfully, unmount the tape, cut out the label printed on the receive-only printer (ROP) and attach the label to the tape. When the output message indicates a need for another tape (Format 6), mount a new tape and enter input message COPY:ODD-TAPE using the `CONTINUE` option. Make sure the new tape is mounted on the same tape unit as the previous one. After the process is complete, send all the tapes to the designated central location for processing.

Error codes 104 and 1099 indicate programming error or corruption of the program. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

When a tape write or read error is indicated, take one or more of the following corrective steps and re-enter the input message.

- Verify that the tape has a write ring.
- Retry with a clean fresh tape.
- Try the other tape unit if available.
- If the error persists, diagnose the magnetic tape (MT) and magnetic tape controller (MTC).
- Reset the tape drive and try in low density mode using the input option of TU=L0 or L1.

The remaining error codes indicate that the "/updtmp" file system is full or one of the internal messages is not executable. The following is an ordered list of possible corrections:

- Verify that "/updtmp" is empty and has write permission.
- Verify that any program update software update processing is not running.
- Verify that the retrofit software update is installed and that the program update processing has been completed.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
COPY:ODD-TAPE
DGN:MTC
STOP:EXC-USER
```

COPY:OOSDISK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    COPY OOSDISK STOPPED WITH ERROR CODE a
       ____________________________________________________________________

[2]    COPY OOSDISK COMPLETED
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the result of executing a COPY:OOSDISK input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Numeric code for the error that caused the process to terminate. The least significant digit (represented as '`x`') indicates the module in which the error occurred. '`x`' is not provided.

Errors associated with *UNIX*® system calls. Valid value(s):

`01x`	= mkseg error.
`02x`	= Open error.
`03x`	= Read error.
`04x`	= Stat error.
`05x`	= Write error.
`06x`	= Close error.
`07x`	= Unlink error.
`08x`	= setio error.
`09x`	= mknod error.
`0x`	= msgenab error.
`1x`	= Send error.
`2x`	= msgport error.
`3x`	= Mount error.
`4x`	= umount error.
`5x`	= cp error.

Errors associated with input message format. Valid value(s):

`20x`	= Invalid arguments. The source or destination filename may not exist.
`22x`	= Process stopped by an interrupt or termination signal.
`25x`	= Bad pathname specified for source file.
`26x`	= Disk containing source file is active.

Errors associated with the system integrity monitor (SIM), the maintenance input request administrator (MIRA), and the disk driver. Valid value(s):

`30x`	= Message not what was expected.
`31x`	= Tried to reserve two disks.
`32x`	= Tried to release unreserved disk.

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33x = New disk state bad.
36x = Timeout for MIRA message.
37x = Timeout for disk driver message.
38x = Bad MIRA return on message.
39x = Bad disk driver return on message.
40x = State result bad.
41x = Timeout for SIM message.

Errors associated with equipment configuration data base manager (ECDMAN) user functions.
50x = ugetucb error.
51x = ugmamirids error.
52x = ursvucb error.
53x = ugsdf error.
54x = urelucb error.
55x = ursdf error.
56x = usettnum error.
57x = usetucb error.

4. ACTION TO BE TAKEN

User execution errors can be corrected by examining the procedures used for execution of the message. If any other errors occur, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1, 2	188

Input Message(s):

COPY:OOSDISK

Output Appendix(es):

APP:OMDB-X-REF

COPY:PID

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    COPY PID a ADDR b c #d
       ____________________________________________________________________

[2]    COPY PID NOT STARTED
         CONFLICT WITH CURRENT SYSTEM STATUS BAD PID
       ____________________________________________________________________

[3]    COPY PID NOT STARTED
         INVALID ID FIELD  e
       ____________________________________________________________________

[4]    COPY PID NOT STARTED
         RETRY LATER  f
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the completion of a COPY:PID input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Process ID.

`b` = Virtual address.

`c` = Termination status of the operation. Valid value(s):

- `COMPLETED` = Request successfully completed.
- `NOT STARTED NGPID` = The COPY was stopped because the process does not exist.
- `NOT STARTED NGUID` = The COPY was stopped because no copies of the process exist.
- `STOPPED NGADDR` = The COPY was stopped because the address specified is not valid for the process, or invalid address values were encountered in the address chain if offsets were specified.
- `STOPPED NGCOPY` = The COPY was stopped because some other error occurred in moving the data.
- `STOPPED NGPROT` = The COPY was stopped because the destination address does not have write permission granted.

`d` = Generic access package (GRASP) execution sequence number.

`e` = Test phrase. Valid value(s):

```
EXTRA KEYWORD (PID)
INCONSISTENT KEYWORDS (NL-OFF)
INPUT ERROR (OFF COUNT)
INVALID KEYWORD
RANGE ERROR (L or NL)
```

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```
RANGE ERROR (PID)
RANGE ERROR (UVAR)
```

f = The system is in an overload condition.

4. ACTION TO BE TAKEN

If 'c' =	Action:
NOT STARTED NGPID	The process did not exist at the time the COPY was attempted. Consider using the process UID instead of the PID.
NOT STARTED NGUID	The process did not exist at the time the COPY was attempted. If this happens repeatedly, a breakpoint could be defined and enabled for the process while no copies of the process exist. At the time a copy is created, the breakpoint would be planted in the enabled state.
STOPPED NGADDR	Recheck the program listings. If offsets were specified, try breaking the chain into several parts and printing the intermediate addresses. Another possibility is to define a breakpoint for that process and use the COPY message in the action list. This will help control the exact circumstances under which the operation is performed.
STOPPED NGPROT	Recheck the destination to verify that it indicates a writable area.

5. ALARMS

None. This is a manually-requested report. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
All	494

Input Message(s):

```
COPY:ADDR
COPY:PID
COPY:REG
COPY:UID
COPY:UVAR
DUMP:ADDR
DUMP:PID
DUMP:REG
DUMP:UID
DUMP:UVAR
OP:ST-PROC
WHEN:PID
WHEN:UID
```

Output Message(s):

```
COPY:ADDR
COPY:REG
COPY:UID
COPY:UVAR
Output Appendix(es):
```

Output Appendix(es):

```
APP:OMDB-X-REF
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

COPY:PTN-ALL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    COPY PTN ALL COMPLETED
         a  BLOCKS COPIED
         .
         .
         .
       ____________________________________________________________________

[2]    COPY PTN ALL STOPPED
         {INVALID SOURCE/DESTINATION SPECIFIED b |
         PROCESS STOPPED b |
         DISK ACCESS PROCEDURE ABORTED b |
         CANNOT COPY PARTITION b |
         DISK RESTORAL PROCEDURE ABORTED b |
         CANNOT CONNECT TO SYSTEM UPDATE PORT}
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

Format 1 indicates the input message completed and successfully invoked the process that copies partions. For each partition, the number of blocks copied is output.

Format 2 indicates the process that copies partitions did not complete successfully. The reason for stopping is indicated.

3. VARIABLE FIELD DEFINITIONS

`a` = Number of blocks copied (for each partition copied).

`b` = Numeric code for the error that caused the process to terminate. The least significant digit (represented as '`x`') indicates the module in which the error occurred. '`x`' is not provided.

Errors associated with *UNIX*® operating system calls. Valid value(s):

`01x`	= mkseg error.
`02x`	= Open error.
`03x`	= Read error.
`04x`	= Stat error.
`05x`	= Write error.
`06x`	= Close error.
`07x`	= unlink error.
`08x`	= setio error.
`09x`	= mknod error.
`0x`	= msgenab error.
`1x`	= Send error.
`2x`	= msgport error.

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Errors associated with execution. Valid value(s):

`20x` = Invalid arguments. The source or destination filename may not exist, or does not contain a valid list of partition names. The source/destination partition names specified may not be special devices, or they do not exist in the disk. Make sure that valid source/destination partition names are used.

`21x` = Destination is small. Cannot copy to a partition that is smaller than the source partition. Make sure that the destination partition specified is not smaller than the source partition.

`22x` = Process stopped by an interrupt or termination signal.

`23x` = Cannot overwrite destination partition. The destination specified may be an active partition or currently in use. For example, if the system is running on primary, /dev/root is an active partition. A partition with no backup is considered an active partition. Make sure that the destination partition specified is not an active partition.

`24x` = Disk is not duplexed. Need both disks active before attempting to do a partition copy.

Errors associated with the system integrity monitor (SIM), the maintenance input request administrator (MIRA), and the disk driver. Valid value(s):

`30x` = Message not what was expected.
`31x` = Tried to reserve two disks.
`32x` = Tried to release unreserved disk.
`33x` = New disk state bad.
`36x` = Timeout for MIRA message.
`37x` = Timeout for disk driver message.
`38x` = Bad MIRA return on message.
`39x` = Bad disk driver return on message.
`40x` = State result bad.
`41x` = Timeout for SIM message.

Errors associated with the equipment configuration database manager (ECDMAN) user functions. Valid value(s):

`50x` = ugetucb error.
`51x` = ugmamirids error.
`52x` = ursvucb error.
`53x` = ugsdf error.
`54x` = urelucb error.
`55x` = ursdf error.
`56x` = usettnum error.
`57x` = usetucb error.
`58x` = ugetrec error.

4. ACTION TO BE TAKEN

For codes `20x-24x`, correct the problem and re-enter the input message. If any other error message is printed, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

Manual alarm. This alarm is a manually-requested report.

None. This is an automatically-generated report.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1, 2	288

Input Message(s):

```
COPY:PTN-ALL
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

COPY:REG

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
COPY REG a b #c
```

2. REASON FOR OUTPUT

To report the completion of a COPY:REG input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Valid register name (valid register names are listed in the COPY:REG input manual page).

`b` = Termination status of the operation. Valid value(s):
`COMPLETED` = Request successfully completed.
`NOT STARTED NGPID` = The COPY was stopped because the process does not exist.
`NOT STARTED NGUID` = The COPY was stopped because no copies of the process exist.
`STOPPED NGADDR` = The COPY was stopped because the address specified is not valid for the process, or invalid address values were encountered in the address chain if offsets were specified.
`STOPPED NGCOPY` = The COPY was stopped because some other error occurred in moving the data.
`STOPPED NGPROT` = The COPY was stopped because the destination address does not have write permission granted.

`c` = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If 'b' =	Action:
NOT STARTED NGPID	The process did not exist at the time the COPY was attempted. Consider using the process UID instead of the PID.
NOT STARTED NGUID	The process did not exist at the time the COPY was attempted. If this happens repeatedly, a breakpoint could be defined and enabled for the process while no copies of the process exist. At the time a copy is created, the breakpoint would be planted in the enabled state.
STOPPED NGADDR	Recheck the program listings. If offsets were specified, try breaking the chain into several parts and printing the intermediate addresses. Another possibility is to define a breakpoint for that process and use the COPY message in the action list. This will help control the exact circumstances under which the operation is performed.
STOPPED NGPROT	Recheck the destination to verify that it indicates a writable area.

5. ALARMS

None. This is a manually-requested report. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
All	494

Input Message(s):

```
COPY:ADDR
COPY:PID
COPY:REG
COPY:UID
COPY:UVAR
DUMP:ADDR
DUMP:PID
DUMP:REG
DUMP:UID
DUMP:UVAR
OP:ST-PROC
WHEN:PID
WHEN:UID
```

Output Message(s):

```
COPY:ADDR
COPY:PID
COPY:UID
COPY:UVAR
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

COPY:SPDISK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    COPY SPDISK COPIED a BLOCKS
       ____________________________________________________________________

[2]    COPY SPDISK COMPLETED
       ____________________________________________________________________

[3]    COPY SPDISK STOPPED WITH ERROR CODE b
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the result of executing a COPY:SPDISK input message, and to provide status information.

3. VARIABLE FIELD DEFINITIONS

`a` = Number of blocks written for each partition copied.

`b` = Numeric code for the error that caused the process to terminate. The least significant digit (represented as '`x`') indicates the module in which the error occurred. '`x`' is not provided.

Errors associated with *UNIX*® system calls. Valid value(s):

- `01x` = mkseg error.
- `02x` = Open error.
- `03x` = Read error.
- `04x` = Stat error.
- `05x` = Write error.
- `06x` = Close error.
- `07x` = unlink error.
- `08x` = setio error.
- `09x` = mknod error.
- `10x` = msgenab error.
- `11x` = send error.
- `12x` = msgport error.

Errors associated with input message format.

- `20x` = Invalid arguments. The source or destination filename may not exist, or does not contain a valid list of partition names. The source/destination partition names specified may not be special devices, or they do not exist in the disk. Make sure that valid source/destination partition names are used.
- `21x` = Destination is small. Cannot copy to a partition that is smaller than the source partition. Make sure that the destination partition specified is not smaller than the source partition.
- `22x` = Process stopped by an interrupt or termination signal.
- `24x` = Disk is not duplexed. Need both disks active before attempting to do a cpspdisk.

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Errors associated with the system integrity monitor (SIM), the maintenance input request administrator (MIRA), and the disk driver. Valid value(s):

`30x` = Message not what was expected.
`31x` = Tried to reserve two disks.
`32x` = Tried to release unreserved disk.
`33x` = New disk state bad.
`36x` = Timeout for MIRA message.
`37x` = Timeout for disk driver message.
`38x` = Bad MIRA return on message.
`39x` = Bad disk driver return on message.
`40x` = State result bad.
`41x` = Timeout for SIM message.

Errors associated with equipment configuration data base manager (ECDMAN) user functions. Valid value(s):

`50x` = ugetucb error.
`51x` = ugmamirids error.
`52x` = ursvucb error.
`53x` = ugsdf error.
`54x` = urelucb error.
`55x` = ursdf error.
`56x` = usettnum error.
`57x` = usetucb error.

4. ACTION TO BE TAKEN

User execution errors can be corrected by examining the procedures used for execution of the message. If any other errors occur, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1,2,3	188

Input Message(s):

```
COPY:SPDISK
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

COPY:TAPE-EMERDMP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    COPY TAPE EMERDMP COMPLETED
         a
       ____________________________________________________________________

[2]    COPY TAPE EMERDMP STOPPED
         b
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the result of executing a COPY:TAPE-EMERDMP input message to copy emergency dump data from a disk partition to a magnetic tape with a header block.

Format 1 is printed when the input message executes successfully. Format 2 is printed when errors are encountered.

3. VARIABLE FIELD DEFINITIONS

`a` = Record counts.

`b` = Text explaining why the message was stopped.

4. ACTION TO BE TAKEN

Format 1 indicates success and requires no action.

For Format 2, refer to the Input Messages manual and correct any message line errors. If the text is not self-explanatory,

5. ALARMS

refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	282
2	288

Input Message(s):

```
CLR:EMERDMP
COPY:TAPE-EMERDMP
OP:EMERSTAT
```

Output Message(s):

```
OP:EMERSTAT
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

COPY:TAPE-IN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    COPY TAPE IN {STARTED | IN PROGRESS SEGMENT a |
         COMPLETED SEGMENT a }
         b
       ____________________________________________________________

[2]    COPY TAPE IN STOPPED CAN NOT OPEN c FOR INPUT
       ____________________________________________________________

[3]    COPY TAPE IN STOPPED CAN NOT CHANGE DIRECTORY
         TO BSDIR c
       ____________________________________________________________

[4]    COPY TAPE IN STOPPED
         d
       ____________________________________________________________
```

2. REASON FOR OUTPUT

To report the result of executing a COPY:TAPE-IN input message to files from a magnetic tape.

Format 1 indicates successful execution.

Formats 2 through 4 indicate failure.

3. VARIABLE FIELD DEFINITIONS

`a` = Output segment number.

`b` = List of files and/or the number of blocks read from the tape.

`c` = Pathname specified in the input message.

`d` = Explanation of the error encountered while reading the tape.

4. ACTION TO BE TAKEN

Format 1 indicates success. Take no action.

If Formats 2 or 3 are printed, correct any input message line errors. The existence of a directory can be confirmed using the OP:ST-LISTDIR input message.

If Format 4 is printed and the text is not self-explanatory, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

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None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	282
2,3	286
4	288

Input Message(s):

```
COPY:TAPE-IN
COPY:TAPE-OUT
OP:ST-LISTDIR
```

Output Message(s):

```
COPY:TAPE-OUT
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

COPY:TAPE-OUT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    COPY TAPE OUT {STARTED | IN PROGRESS SEGMENT a |
            COMPLETED SEGMENT a }
         b
       ____________________________________________________________________

[2]    COPY TAPE OUT STOPPED CAN NOT OPEN c FOR INPUT
       ____________________________________________________________________

[3]    COPY TAPE OUT STOPPED CAN NOT CHANGE DIRECTORY
         TO BSDIR c
       ____________________________________________________________________

[4]    COPY TAPE OUT STOPPED
         d
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the result of executing a COPY:TAPE-OUT input message to write one or more files on a magnetic tape.

Format 1 indicates successful execution.

Formats 2 through 4 indicate failure.

3. VARIABLE FIELD DEFINITIONS

`a` = Output segment number.

`b` = List of files and/or the number of blocks written to the tape.

`c` = Pathname specified in the input message.

`d` = Explanation of the error encountered while writing the tape.

4. ACTION TO BE TAKEN

Format 1 indicates success. Take no action.

If Formats 2 or 3 are printed, correct any input message line errors. The existence of a file or directory can be confirmed using the OP:ST-LISTDIR input message.

If Format 4 is printed and the text is not self-explanatory, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

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None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	282
2, 3	286
4	288

Input Message(s):

```
COPY:TAPE-IN
COPY:TAPE-OUT
OP:ST-LISTDIR
```

Output Message(s):

```
COPY:TAPE-IN
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

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COPY:TAPE-TEST

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    COPY TAPE TEST COMPLETED
         a
       ____________________________________________________________________

[2]    COPY TAPE TEST STOPPED
         b
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the result of executing a COPY:TAPE-TEST input message to write a header block on a magnetic tape.

3. VARIABLE FIELD DEFINITIONS

a = Record counts.

b = Text explaining why the input message was stopped.

4. ACTION TO BE TAKEN

Format 1 indicates success and requires no action.

For Format 2, refer to the COPY:TAPE-TEST input message and correct any input message line errors. If the text is not self-explanatory, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

Manual alarm. This alarm is a manually-requested report.

None. This is an automatically-generated report. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	282
2	288

Input Message(s):

COPY:TAPE-TEST

Output Appendix(es):

APP:OMDB-X-REF

COPY:TAPE-TOP

Software Release: 5E14 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    COPY TAPE TOP COMPLETED
         a + a records in
         a + a records out
        [a + a records in]
        [a + a records out]
       ____________________________________________________________________

[2]    COPY TAPE TOP STOPPED
         b
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the result of executing a COPY:TAPE-TOP input message to copy a tape-only program (TOP) file from disk to tape.

Format 1 prints whent he input message executes successfully, and the `COM` option is not used. This output prints when copying the standard main membory (SMM) or extended main memory (EMM) TOP file, the very large main memory (VLMM) TOP file, or the 3B21D TOP file, based on the hardware-platform type.

The optional lines print when copying both the VLMM TOP file and the 3B21D TOP file and are displayed in that order.

Format 2 prints when errors are encountered.

3. VARIABLE FIELD DEFINITIONS

`a` = Record counts.

`b` = The pathname of a TOP file.

`c` = The pathname of the specified tape drive.

`d` = Error message. Valid value(s):

`NO TOPFILE EXISTS`

`UNKNOWN HARDWARE PLATFORM`

`dd: cannot open b`

`dd: cannot create c`

`dd: not enough memory`

`dd read error`

```
dd write error
```

4. ACTIONS TO BE TAKEN

If 'd' =	Action:
NO TOPFILE EXISTS	Verify the correct topfile is present in the /etc directory.
dd: cannot create c	Refer to the COPY:TAPE-TOP input message for the correct format and try entering the message again.
any other error message	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. This alarm is a manualy-requested report. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1,2	288

Input Message(s):

```
COPY:TAPE-TOP
```

COPY:UID

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    COPY UID a ADDR b c #d
       ____________________________________________________________________

[2]    COPY UID NOT STARTED
         CONFLICT WITH CURRENT SYSTEM STATUS BAD PID
       ____________________________________________________________________

[3]    COPY UID NOT STARTED
         INVALID ID FIELD  e
       ____________________________________________________________________

[4]    COPY UID NOT STARTED
         RETRY LATER  f
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the completion of a COPY:UID input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Utility ID of process.

`b` = Virtual address.

`c` = Termination status of the operation. Valid value(s):

- `COMPLETED` = Request successfully completed.
- `NOT STARTED NGPID` = The COPY was stopped because the process does not exist.
- `NOT STARTED NGUID` = The COPY was stopped because no copies of the process exist.
- `STOPPED NGADDR` = The COPY was stopped because the address specified is not valid for the process, or invalid address values were encountered in the address chain if offsets were specified.
- `STOPPED NGCOPY` = The COPY was stopped because some other error occurred in moving the data.
- `STOPPED NGPROT` = The COPY was stopped because the destination address does not have write permission granted.

`d` = Generic access package (GRASP) execution sequence number.

`e` = Test phrase. Valid value(s):

```
EXTRA KEYWORD (PID).
INCONSISTENT KEYWORDS (NL-OFF).
INPUT ERROR (OFF COUNT).
INVALID KEYWORD.
RANGE ERROR (L or NL).
```

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```
RANGE ERROR (PID).
RANGE ERROR (UVAR).
```

f = The system is in an overload condition.

4. ACTION TO BE TAKEN

If 'c' =	Action:
NOT STARTED NGPID	The process did not exist at the time the COPY was attempted. Consider using the process UID instead of the PID.
NOT STARTED NGUID	The process did not exist at the time the COPY was attempted. If this happens repeatedly, a breakpoint could be defined and enabled for the process while no copies of the process exist. At the time a copy is created, the breakpoint would be planted in the enabled state.
STOPPED NGADDR	Recheck the program listings. If offsets were specified, try breaking the chain into several parts and printing the intermediate addresses. Another possibility is to define a breakpoint for that process and use the COPY message in the action list. This will help control the exact circumstances under which the operation is performed.
STOPPED NGPROT	Recheck the destination to verify that it indicates a writable area.

5. ALARMS

None. This is a manually-requested report. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	494

Input Message(s):

```
COPY:ADDR
COPY:PID
COPY:REG
COPY:UID
COPY:UVAR
DUMP:ADDR
DUMP:PID
DUMP:REG
DUMP:UID
DUMP:UVAR
OP:ST-PROC
WHEN:PID
WHEN:UID
```

Output Message(s):

```
COPY:ADDR
COPY:PID
COPY:REG
COPY:UVAR
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

COPY:UT-CMP-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
COPY UT CMP=a-b {MATE|PRIM} {ADDR c|GVAR d|REG e|UVAR f} g
```

2. REASON FOR OUTPUT

To report error conditions in response to the COPY:UT-CMP input message.

3. VARIABLE FIELD DEFINITIONS

`MATE` = Message was executed in the standby CMP.

`PRIM` = Message was executed on the active CMP.

`a` = Message switch side.

`b` = Communications module processor (CMP) number.

`c` = Absolute physical address. This can be the destination address, the source address, or the offset of an address to be added to or subtracted from the source. This varies with where in the message the error was found.

`d` = Symbolic name of global variable used in the section of the input message where the error was found.

`e` = Register name used in the section of the input message where the error was found.

`f` = Utility variable used in the section of the input message where the error was found.

`g` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`COPY:UT-CMP`

Output Appendix(es):

APP:UT-OM-REASON

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

COPY:UT-CMP-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]    COPY UT CMP=a-b {MATE|PRIM} {ADDR c|REG d|UVAR e|VAL f} i
       ____________________________________________________________________

[2]    COPY UT CMP=a-b {MATE|PRIM} i
         SYMIDX g GVAR h
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the status of the response to the COPY:UT-CMP input message. This output uses the information from field one of the input message for COMPLETED message responses. When an error occurs the information will be from the field of the input message found to be in error.

Format 1 reports the status of a COPY:UT-CMP input message defined by a physical address, microprocessor register, utility variable, or a constant value.

Format 2 reports the status of a COPY:UT-CMP input message defined by a symbolic reference.

3. VARIABLE FIELD DEFINITIONS

`MATE` = Message was executed in the standby communications module processor (CMP).

`PRIM` = Message was executed on the active CMP.

`a` = Message switch side.

`b` = CMP number.

`c` = Absolute physical address. This can be the destination address, the source address, or the offset of an address to be added to or subtracted from the source. This varies with where in the message the error was found.

`d` = Register name used in the section of the input message where the error was found.

`e` = Utility variable used in the section of the input message where the error was found.

`f` = Value used in the section of the input message where the error was found.

`g` = Symbol index number of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`h`'. If an invalid input message is entered, the symbol index number will be "-1".

`h` = Symbolic name specified in the input message or determined by the UT code based on the symbol index number '`g`'. The symbol name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

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`i` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
COPY:UT-CMP
DUMP:UT-SYMID
WHEN:UT-CMP
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

COPY:UT-MCTSI-PI

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]    COPY UT MCTSI=a-b PI {ADDR c|REG d|UVAR e|VAL f} i
       ____________________________________________________________________

[2]    COPY UT MCTSI=a-b PI i
         SYMIDX g GVAR h
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the status of the response to the COPY:UT-MCTSI-PI input message. This output uses the information from field one of the input message for COMPLETED message responses. When an error occurs the information will be from the field of the input message found to be in error.

Format 1 reports the status of a COPY:UT-MCTSI-PI input message defined by a physical address, microprocessor register, utility variable, or a constant value.

Format 2 reports the status of a COPY:UT-MCTSI-PI input message defined by a symbolic reference.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number

`b` = Side of the module controller/time-slot interchange (MCTSI).

`c` = Absolute physical address (ADDR). This can be the destination address, the source address, or the offset of an address to be added to or subtracted from the source. This varies with where in the message the error was found.

`d` = Register name (REG) used in the section of the input message where the error was found.

`e` = Utility variable (UVAR) used in the section of the input message where the error was found.

`f` = Input value (VAL) used in the section of the input message where the error was found.

`g` = Symbol index number of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`h`'. If an invalid input message is entered, the symbol index number will be "-1".

`h` = Symbolic name specified in the input message or determined by the UT code based on the symbol index number '`g`'. The symbol name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`i` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

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4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
COPY:UT-MCTSI-PI
DUMP:UT-SYMID
WHEN:UT-MCTSI-PI
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements And Tools*

COPY:UT-PSUPH-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
COPY UT PSUPH=a-b-c-d {ADDR e|GVAR f|REG g|UVAR h} i
```

2. REASON FOR OUTPUT

To report error conditions in response to the COPY:UT-PSUPH input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number

`b` = Unit number.

`c` = Shelf number.

`d` = Slot number.

`e` = Absolute physical address (ADDR). This can be the destination address, the source address, or the offset of an address to be added to or subtracted from the source. This varies with where in the message the error was found.

`f` = Symbolic name of global variable (GVAR) used in the section of the input message where the error was found.

`g` = Register (REG) name used in the section of the input message where the error was found.

`h` = Utility variable (UVAR) used in the section of the input message where the error was found.

`i` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
COPY:UT-PSUPH
```

Output Appendix(es):

APP:UT-OM-REASON

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-600-400 *Audits*

COPY:UT-PSUPH-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]    COPY UT PSUPH=a-b-c-d {ADDR e|REG f|UVAR g|VAL h} k
       ____________________________________________________________________

[2]    COPY UT PSUPH=a-b-c-d k
         SYMIDX i GVAR j
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the status of the response to the COPY:UT-PSUPH input message. Format 1 reports the status of a COPY:UT-PSUPH input message defined by a physical address, microprocessor register, utility variable, or a constant value.

Format 2 reports the status of a COPY:UT-PSUPH input message defined by a symbolic reference.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number

`b` = Unit number.

`c` = Shelf number.

`d` = Slot number.

`e` = Absolute physical address (ADDR). This can be the destination address, the source address, or the offset of an address to be added to or subtracted from the source. This varies with where in the message the error was found.

`f` = Register (REG) name used in the section of the input message where the error was found.

`g` = Utility variable (UVAR) used in the section of the input message where the error was found.

`h` = Input value (VAL) used in the section of the input message where the error was found.

`i` = Symbol index number of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`j`'. If an invalid input message is entered, the symbol index number will be "-1".

`j` = Symbolic name specified in the input message or determined by the UT code based on the symbol index number '`i`'. The symbol name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`k` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

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4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
COPY:UT-PSUPH
DUMP:UT-SYMID
WHEN:UT-PSUPH
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

COPY:UT-SM-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
COPY UT SM a {ADDR b|GVAR c|REG d|UVAR e} f
```

2. REASON FOR OUTPUT

To report error conditions to the user in response to the COPY:UT-SM input message.

3. VARIABLE FIELD DEFINITIONS

a	= Switching module number.
b	= Absolute physical address.
c	= Symbolic address of global variable.
d	= Register name.
e	= Utility variable.
f	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
COPY:UT-SM
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):

235-105-220 Corrective Maintenance

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COPY:UT-SM-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]    COPY UT SM=a [MATE] {ADDR b|REG c|UVAR d|VAL e} h
```

```
[2]    COPY UT SM=a [MATE] h
         SYMIDX f GVAR g
```

---

2. REASON FOR OUTPUT

To report the status of the response to the COPY:UT-SM input message. This output uses the information from field one of the input message for COMPLETED message responses. When an error occurs the information will be from the field of the input message found to be in error.

Format 1 reports the status of a COPY:UT-SM input message defined by a physical address, microprocessor register, utility variable, or a constant value.

Format 2 reports the status of a COPY:UT-SM input message defined by a symbolic reference.

3. VARIABLE FIELD DEFINITIONS

`MATE` = Operation was performed on the mate side of the processor.

`a` = Switching module number.

`b` = Absolute physical address. This can be the destination address, the source address, or the offset of an address to be added to or subtracted from the source. This varies with where in the message the error was found.

`c` = Register name used in the section of the input message where the error was found.

`d` = Utility variable used in the section of the input message where the error was found.

`e` = Value used in the section of the input message where the error was found.

`f` = Symbol index number of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`g`'. If an invalid input message is entered, the symbol index number will be "-1".

`g` = Symbolic name specified in the input message or determined by the UT code based on the symbol index number '`f`'. The symbol name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`h` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

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4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
COPY:UT-SM
DUMP:UT-SYMID
WHEN:UT-SM
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

COPY:UVAR

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
COPY UVAR a b #c
```

2. REASON FOR OUTPUT

To report the completion of a COPY:UVAR input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Source of the data copied. Utility variable number.

`b` = Termination status of the operation. Valid values are:
`COMPLETED` = Request successfully completed.
`NOT STARTED NGPID` = The COPY was stopped because the process does not exist.
`NOT STARTED NGUID` = The COPY was stopped because no copies of the process exist.
`STOPPED NGADDR` = The COPY was stopped because the address specified is not valid for the process, or invalid address values were encountered in the address chain if offsets were specified.
`STOPPED NGPROT` = The COPY was stopped because the destination address does not have write permission granted.
`STOPPED NGCOPY` = The COPY was stopped because some other error occurred in moving the data.

`c` = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If 'b' =	**Action:**
`NOT STARTED NGPID`	The process did not exist at the time the time the COPY was attempted. Consider using the process UID instead of the PID.
`NOT STARTED NGUID`	The process did not exist at the time the COPY was attempted. If this happens repeatedly, a breakpoint could be defined and enabled for the process while no copies of the process exist. At the time a copy is created, the breakpoint would be planted in the enabled state.
`STOPPED NGADDR`	Recheck the program listings. If offsets were specified, try breaking the chain into several parts and printing the intermediate addresses. Another possibility is to define a breakpoint for that process and use the COPY message in the action list. This will help control the exact circumstances under which the operation is performed.
`STOPPED NGPROT`	Recheck the destination to verify that it indicates a writable area.

5. ALARMS

None. This is a manually-requested report. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

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OMDB Key(s):

Format(s):	Key(s):
1	494

Input Message(s):

```
COPY:ADDR
COPY:PID
COPY:REG
COPY:UID
COPY:UVAR
DUMP:ADDR
DUMP:PID
DUMP:REG
DUMP:UID
DUMP:UVAR
LOAD:UVAR
OP:ST-PROC
WHEN:PID
WHEN:UID
```

Output Message(s):

```
COPY:ADDR
COPY:PID
COPY:REG
COPY:UID
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

21. CTS

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CTS:PUMP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
CTS PUMP IS ACTIVE
```

2. REASON FOR OUTPUT

To report that the switching module (SM) is undergoing a control time slot (CTS) pump and that program updates are inhibited until the pump is complete.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:APPLY-BYTER

UPD:APPLY-FILER

UPD:APPLY-FUNCR

UPD:BKOUT
```

Output Message(s):

```
UPD:APPLY
UPD:BKOUT
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

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22. CUST

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CUST:ORIG-TRC-A

Software Release: 5E10 - 5E11
Message Class: TRCERSP
Application: 5
Type: Output

1. FORMAT

```
CUST ORG TRC aa:aa:aa bbb-bbb-bbbb cc:cc dd/dd e f ggg-gggg hhhhhhhhhh
  i j k
```

2. REASON FOR OUTPUT

To report that a customer-originated trace has been sent to an authorized agency. If the data link between the authorized agency and the *5ESS*®-2000 switch is inoperable, the customer-originated trace will be sent to the authorized agency when the link is restored.

3. VARIABLE FIELD DEFINITIONS

a Time of the customer-originated trace (COT) request, in the form hour:minute:second.

b = Directory number (DN) of calling line.

c = Time of the call, in the form hour:minute.

d = Date of the call, in the form month/day.

e = Calling line uniqueness indicator. Valid value(s):
- N = The calling DN is nonunique.
- U = The calling DN is unique.
- ? = Unknown.

f = Multiple call indicator. Valid value(s):
- M = A call was already active when this call updated the incoming line history block (ILHB).
- S = No call was active when this call updated the ILHB.

g = DN of the customer who originated the trace.

h = Line equipment number (LEN) of the customer who originated the trace.

i = Screening indicator. Valid value(s):
- F = User provided, screened and failed.
- N = Network-provided DN.
- P = User provided, screened and passed.
- U = User-provided, not screened.
- ? = Unknown provider.

j = Type of address. Valid value(s):
- I = International.
- L = Local.

	N	= National.
	?	= Unknown.

k	= Numbering plan. Valid value(s):	
	I	= Intergrated services digital network (ISDN).
	P	= Private.
	T	= Telephony.
	?	= Unknown.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-190-130 *Local Area Signaling Services*

CUST:ORIG-TRC-B

Software Release: 5E12 and later
Message Class: TRCERSP
Application: 5
Type: Output

1. FORMAT

```
CUST OT aa:aa:aa bbb-bbb-bbbb cc:cc dd/dd e f [ggg-]ggg-gggg hhhhhhhh[hhh]
  i j k
```

2. REASON FOR OUTPUT

To report that a customer-originated trace has been sent to an authorized agency. If the data link between the authorized agency and the switch is inoperable, the customer-originated trace will be sent to the authorized agency when the link is restored.

3. VARIABLE FIELD DEFINITIONS

a = Time of the customer-originated trace (COT) request, in the form hour:minute:second.

b = Directory number (DN) of calling line.

c = Time of the call, in the form hour:minute.

d = Date of the call, in the form month/day.

e = Calling line uniqueness indicator. Valid value(s):
- N = The calling DN is nonunique. This indicates the sharing of an address between two or more terminals.
- U = The calling DN is unique. This indicates that the calling address identifies a specific station.
- ? = Unknown.

f = Multiple call indicator. Valid value(s):
- M = A call was already active when this call updated the incoming line history block (ILHB).
- S = No call was active when this call updated the ILHB.

g = DN of the customer who originated the trace.

h = Line equipment number (LEN) of the customer who originated the trace.

i = Screening indicator. Valid value(s):
- F = User provided, screened and failed.
- N = Network-provided DN.
- P = User provided, screened and passed.
- U = User-provided, not screened.
- ? = Unknown provider.

j = Type of address. Valid value(s):

	`I`	= International.
	`L`	= Local.
	`N`	= National.
	`?`	= Unknown.

`k`	= Numbering plan. Valid value(s):	
	`I`	= Integrated services digital network (ISDN).
	`P`	= Private.
	`T`	= Telephony.
	`?`	= Unknown.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-190-130 *Local Area Signaling Services*

23. CUTCORC

CUTCORC:0

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]    CUTCORC NOT STARTED
         NO ARGUMENTS SHOULD BE PROVIDED |
         COULD NOT CHANGE TO DIRECTORY a |
         COULD NOT OPEN FILE b FOR WRITING |
         COULD NOT OPEN FILE b FOR READING |
         COULD NOT COMMUNICATE WITH OSDS |
         COULD NOT BEGIN TRANSACTION |
         COULD NOT OPEN RELATION c
       ____________________________________________________________________

[2]    CUTCORC STOPPED
         COULD NOT CREATE FILE b |
         COULD NOT SEEK TO END OF FILE b |
         COULD NOT WRITE TO FILE b |
         COULD NOT BEGIN TRANSACTION |
         COULD NOT OPEN RELATION c |
         COULD NOT COMMIT TRANSACTION
       ____________________________________________________________________

[3]    CUTCORC ABORTED
         INTERRUPTED BY SIGNAL
       ____________________________________________________________________

[4]    CUTCORC IN PROGRESS
         d INPUT LINES PROCESSED
         e ERRORS
       ____________________________________________________________________

[5]    CUTCORC COMPLETED
         d TOTAL INPUT LINES PROCESSED
         e TOTAL ERRORS
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report the status of executing the "/no5text/rcv/cutcorc" program with the EXC:ENVIR-UPROC input message. The cutcorc program is used to apply customer originated recent changes (CORCs) into the data base of a new switch during switch cutover.

3. VARIABLE FIELD DEFINITIONS

`a` = Pathname of the work directory.

`b` = Pathname of a file.

`c` = Relation name.

`d` = Number of input lines for which processing was attempted.

`e` = Number of input lines that could not be processed.

4. ACTION TO BE TAKEN

If a message with Format 1, 2, or 3 is received, correct the cause of the failure, remove the output files, and issue the EXC:E-UPROC input message to restart the "/no5text/rcv/cutcorc" program.

Format 4 indicates that the program is still running and requires no action.

Format 5 indicates that the program has completed. The file "/rclog/cutcorc.ok" contains the data that was successfully processed and loaded into the data base. If any errors occurred in the CUTCORC processing, the file "/rclog/cutcorc.bad" will contain the data that could not be processed, and the file "/rclog/cutcorc.err" will describe the reasons why any input lines could not be processed. The user may issue the DUMP:F-ALL input message to list any of these files.

After correcting the cause of the failures, copy the file "/rclog/cutcorc.bad" to "/rclog/cutcorc.in" using the COPY:FSYS-FILE input message. Then issue the EXC:ENVIR-UPROC input message to restart the "/no5text/rcv/cutcorc" program to process the lines that encountered errors.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:FSYS-FILE
COPY:FSYS-FILE
DUMP:F-ALL
EXC:ENVIR-UPROC
```

Output Message(s):

```
DUMP:F-ALL
EXC:ENVIR-UPROC
```

Other Manual(s):

235-105-200 Precutover and Cutover Procedures

24. DEL

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DEL:ACSR

Software Release: 5E10 and later
Message Class: ACSR
Application: 5
Type: Output

1. FORMAT

```
[1]    DEL ACSR COMPLETED
       ____________________________________________________________________

[2]    DEL ACSR DATA ERROR, AUDIT SCHEDULED
       ____________________________________________________________________

[3]    DEL ACSR DB FAILED
       ____________________________________________________________________

[4]    DEL ACSR PDN NOT FOUND
       ____________________________________________________________________

[5]    DEL ACSR TRANS NOT COMPLETED
       ____________________________________________________________________

[6]    DEL ACSR DN_LOCDN FAILED, NON UNIQUE NXX
       ____________________________________________________________________

[7]    DEL ACSR DN_LOCDN FAILED, INVALID TN
       ____________________________________________________________________

[8]    DEL ACSR DN_LOCDN FAILED, BAD DIGIT COUNT
       ____________________________________________________________________

[9]    DEL ACSR DN_LOCDN FAILED, DB FAILED
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report completion status of the DEL:ACSR input message.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

If Format 1 is printed, user action is not required.

If Format 2 is printed, an audit is scheduled to correct data inconsistency. User action is not required.

If Format 3, repeat the DEL:ACSR input message.

If Format 4 is printed, the request for a given primary directory number (PDN) was not found in the automatic customer station rearrangement (ACSR) queue. Use the OP:ACSR input message to determine whether any ACSR requests are present in the ACSR queue.

If Format 5 is printed, the data base manager was unable to close a data base transaction. Re-enter the DEL:ACSR

input message.

If Format 6, re-enter the DEL:ACSR input message using a 10 digit Directory Number/TN.

If Format 7, re-enter the DEL:ACSR input message using a valid Directory Number/TN.

If Format 8, re-enter the DEL:ACSR input message using a valid 7 or 10 digit Directory Number/TN.

If Format 9, re-enter the DEL:ACSR input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DEL:ACSR

OP:ACSR
```

Output Message(s):

```
OP:ACSR
```

Other Manual(s):
235-190-105 *ISDN Features and Applications*

DEL:FACR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]    DEL FACR COMPLETED
         REQUEST ID a HAS BEEN REMOVED
       ____________________________________________________________________

[2]    DEL FACR NOT COMPLETED
         REQUEST ID a NOT FOUND
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

To report that a scheduled feature activation counting and reconciliation (FACR) audit entry with the specified request id has been removed.

3. VARIABLE FIELD DEFINITIONS

`a` = Request ID of the FACR scheduled entry.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual request of the DEL:FACR input message. No further action is necessary if the request completed successfully.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DEL:FACR
OP:FACR
SCHED:FACR
```

Other Manual(s):
235-040-100 *OA&M Planning Guide*
235-100-125 *System Description*

DEL:LOG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    DEL LOG a b DELETED CORRUPT SEGMENT AT c
         d
       ____________________________________________________________________

[2]    DEL LOG a CAN NOT OPEN LOGFILE
       ____________________________________________________________________

[3]    DEL LOG FILE a DELETION COMPLETE e DELETED
       ____________________________________________________________________

[4]    DEL LOG CAN NOT OPEN WORKFILE
       ____________________________________________________________________

[5]    DEL LOG a CAN NOT OPEN TEMPORARY FILE
       ____________________________________________________________________

[6]    DEL LOG a PORT CONNECTION FAILURE
       ____________________________________________________________________
```

2. REASON FOR OUTPUT

Formats 1, 2, 4, 5, and 6 are to report that an error occurred when executing the DEL:LOG input message.

3. VARIABLE FIELD DEFINITIONS

a = Name of logfile.

b = Pathname of the file in which corruption was discovered.

c = Position in file where corruption was discovered, expressed in characters.

d = Text containing the corrupted information which has been deleted.

e = Number of messages deleted.

4. ACTION TO BE TAKEN

If Format 1 is printed, the contents of the corrupt log file must be SAVED on paper for later reference.

If Format 2 is printed, check to see if the log file exists under the pathname specified in the device record.

If Format 5 is printed, check the /tmp file system to see if all the space is used up.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

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6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1, 5, 6	277
3	14
4	13

Input Message(s):

```
DEL:LOG
OP:LOG
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

25. DGN

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DGN:AIUCOM

Software Release: 5E11 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN AIUCOM=a-b-c STF PH d SEG e TEST f MM g
       [ACTL h MASK i EXPR j]

[2]   ____________________________________________________________________
      DGN AIUCOM=a-b-c SUSPECTED FAULTY EQUIPMENT a[1] RECORD
        AISLE  MODULE  CABINET  CODE  FORM     EQL    TYPE NOTE
          k      l  [m]    n  o     p    [q]   r s [-t]   u   [v]
        [ .      .   .    .  .     .     .    . .   .    .    . ]
        [ .      .   .    .  .     .     .    . .   .    .    . ]
        [ .      .   .    .  .     .     .    . .   .    .    . ]

[3]   ____________________________________________________________________
      DGN AIUCOM=a-b-c w [x]

[4]   ____________________________________________________________________
      DGN AIUCOM=a-b-c COMPLETED y [PH z]
```

2. REASON FOR OUTPUT

To report the results of executing a DGN:AIUCOM input message to diagnose an access interface unit common data and control controller (COMDAC).

Format 1 is printed when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of suspected faulty equipment is provided.

Format 3 prints when the specified phase(s) terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase(s) has completed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = AIU number.

c = COMDAC number.

d = Number of the phase in which the failure occurred.

e = Number of the segment in which the failure occurred.

f = Number of the test that failed.

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g = Mismatch results for the specified test in hexadecimal.

h = Actual result in hexadecimal for the specified test.

i = Mask in hexadecimal used to determine test failure.

j = Actual result in hexadecimal for the specified test.

k = Floor and aisle number.

l = Module type.

m = Module number.

n = Cabinet type.

o = Cabinet number.

p = Replacement equipment code(s).

q = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE                    FORM A[:B]...[:C] [-] D[:E]...[:F]
:          = Intra-field delimiter.
-          = Inter-field delimiter if necessary.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code 'A').
C          = Additional compatible equipment code(s) (added as space permits).
D          = Current minimal approved operating level for equipment code 'A'.
E          = Current minimal approved operating level for equipment code 'B'.
F          = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

r = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

s = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

t = Depth location in the cabinet.

u = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

___ = Equipment is part of the circuit under test.

v = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages

manual.

`w` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was completed successfully.
- `NOT STARTED` = Requested action was not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`x` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

`y` = Phase result.

`z` = Phase number completed.

`a`[1] = Text identifier showing order of record. Valid value(s):

- `FIRST` = First record of continuing list.
- `LAST` = Last record of list.
- `NEXT` = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

4. ACTION TO BE TAKEN

For Format 1, analyze failure data to determine reason for failure or run the diagnostic using the TLP option to generate a suspected faulty equipment list.

For Format 2, replace the suspected equipment, one at a time in the order specified. Rerun the diagnostic after each substitution until the fault is repaired or until the diagnostic result changes.

For Formats 3 and 4, no action required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:AIUCOM
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1320,y,x (AIU SUMMARY)

DGN:AIULC

Software Release: 5E11 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN AIULC=a-b-c-d STF PH e SEG f TEST g MM h
       [EXPR k MASK j ACTL i]

[2]   ____________________________________________________________________
      DGN AIULC=a-b-c-d SUSPECTED FAULTY EQUIPMENT b1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM     EQL    TYPE NOTE
          l     m [n]    o  p     q    [r]   s t [-u]   v   [w]
          .     .  .     .  .     .     .    . .   .    .    .
          .     .  .     .  .     .     .    . .   .    .    .
          .     .  .     .  .     .     .    . .   .    .    .

[3]   ____________________________________________________________________
      DGN AIULC=a-b-c-d x [y]

[4]   ____________________________________________________________________
      DGN AIULC=a-b-c-d COMPLETED z [PH a1]
```

2. REASON FOR OUTPUT

To report the results of executing a DGN:AIULC input message to diagnose an access interface unit (AIU) line circuit (LC).

Format 1 is printed when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of suspected faulty equipment is provided.

Format 3 prints when the specified phase(s) terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase(s) has completed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = AIU number.

c = Line pack (LP) number.

d = LC number.

e = Number of the phase in which the failure occurred.

f = Number of the segment in which the failure occurred.

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g = Number of the test that failed.

h = Mismatch results for the specified test in hexadecimal.

i = Actual result in hexadecimal for the specified test.

j = Mask in hexadecimal used to determine test failure.

k = Actual result in hexadecimal for the specified test.

l = Floor and aisle number.

m = Module type.

n = Module number.

o = Cabinet type.

p = Cabinet number.

q = Replacement equipment code(s).

r = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE  FORM
A[:B]...[:C] [-] D[:E]...[:F]
:          = Intra-field delimiter.
-          = Inter-field delimiter if necessary.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code 'A').
C          = Additional compatible equipment code(s) (added as space permits).
D          = Current minimal approved operating level for equipment code 'A'.
E          = Current minimal approved operating level for equipment code 'B'.
F          = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

s = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

t = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

u = Depth location in tenths of an inch in the cabinet.

v = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

___ = Equipment is part of the circuit under test.

w = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual for definition of TLP note.

x = Action status report. Valid value(s):

ABORTED	= Requested action was terminated before completion, and the termination was not graceful.
COMPLETED	= Requested action was completed successfully.
IN PROGRESS	= Requested action is in progress.
NOT STARTED	= Requested action was not begun.
STOPPED	= Requested action was terminated before a normal completion. Termination was graceful.

y = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

z = Phase result.

a[1] = Phase number completed.

b[1] = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

4. ACTION TO BE TAKEN

For Format 1, analyze failure data to determine reason for failure or run the diagnostic using the TLP option to generate a suspected faulty equipment list.

For Format 2, replace the suspected equipment, one at a time in the order specified. Rerun the diagnostic after each substitution until the fault is repaired or until the diagnostic result changes.

For Formats 3 and 4, no action required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

DGN:AIULC

Output Appendix(es):

APP:MAINT-RESP

APP:TLP-NOTE

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

DGN:AIULP

Software Release: 5E11 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN AIULP=a-b-c STF PH d SEG e TEST f MM g
       [EXPR j MASK i ACTL h]

[2]   ____________________________________________________________________
      DGN AIULP=a-b-c SUSPECTED FAULTY EQUIPMENT a1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM     EQL    TYPE NOTE
          k     l [m]    n  o     p    [q]   r s [-t]   u   [v]
          .     .  .     .  .     .     .    . .   .    .    .
          .     .  .     .  .     .     .    . .   .    .    .
          .     .  .     .  .     .     .    . .   .    .    .

[3]   ____________________________________________________________________
      DGN AIULP=a-b-c w [x]

[4]   ____________________________________________________________________
      DGN AIULP=a-b-c COMPLETED y [PH z]
```

2. REASON FOR OUTPUT

To report the results of executing a DGN:AIULP input message to diagnose an access interface unit (AIU) line pack (LP).

Format 1 is printed when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of suspected faulty equipment is provided.

Format 3 prints when the specified phase(s) terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase(s) has completed.

3. VARIABLE FIELD DEFINITIONS

a = SM number.

b = AIU number.

c = LP number.

d = Number of the phase in which the failure occurred.

e = Number of the segment in which the failure occurred.

f = Number of the test that failed.

g = Mismatch results for the specified test in hexadecimal.

h = Actual result in hexadecimal for the specified test.

i = Mask in hexadecimal used to determine test failure.

j = Actual result in hexadecimal for the specified test.

k = Floor and aisle number.

l = Module type.

m = Module number.

n = Cabinet type.

o = Cabinet number.

p = Replacement equipment code(s).

q = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content: `CODE FORM A[:B]...[:C] [-] D[:E]...[:F]`

:	= Intra-field delimiter.
-	= Inter-field delimiter if necessary.
A	= Current minimal accepted equipment code.
B	= Current production equipment code (substitutable equipment for code 'A').
C	= Additional compatible equipment code(s) (added as space permits).
D	= Current minimal approved operating level for equipment code 'A'.
E	= Current minimal approved operating level for equipment code 'B'.
F	= Current minimal approved operating level(s) for equipment code(s) 'C'.

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

r = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

s = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

t = Depth location in tenths of an inch in the cabinet.

u = Circuit type. Valid value(s):

HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
___	= Equipment is part of the circuit under test.

v = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual for definition of TLP note.

`w` = Action status report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was completed successfully.
- `IN PROGRESS` = Requested action is in progress.
- `NOT STARTED` = Requested action was not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`x` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

Note: The AIULP diagnostic runs AIULP and access interface unit line circuit (AIULC) phases. If all of the AIULP phases pass, but one or more of the AIULC phases fail, the AIULP diagnostic will still output an ATP result. In this case, failing the entire AIULP diagnostic would leave too much circuitry out of service (OOS). Instead, only the AIULC will be left OOS.

`y` = Phase result.

`z` = Phase number completed.

`a`[1] = Text identifier showing order of record. Valid value(s):

- `FIRST` = First record of continuing list.
- `LAST` = Last record of list.
- `NEXT` = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

4. ACTION TO BE TAKEN

For Format 1, analyze failure data to determine reason for failure or run the diagnostic using the TLP option to generate a suspected faulty equipment list.

For Format 2, replace the suspected equipment, one at a time in the order specified. Rerun the diagnostic after each substitution until the fault is repaired or until the diagnostic result changes.

For Formats 3 and 4, no action required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:AIULP
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

DGN:AIURG

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN AIURG=a-b-c STF PH d SEG e TEST f MM g
       [EXPR h MASK i ACTL j]

[2]   ____________________________________________________________________
      DGN AIURG=a-b-c SUSPECTED FAULTY EQUIPMENT k RECORD
        AISLE  MODULE  CABINET  CODE  FORM EQL  TYPE NOTE
        l       m  n    o  p     q     r   s t   u    v
        .       .  .    .  .     .     .   . .   .    .
        .       .  .    .  .     .     .   . .   .    .
        .       .  .    .  .     .     .   . .   .    .

[3]   ____________________________________________________________________
      DGN AIURG=a-b-c w x

[4]   ____________________________________________________________________
      DGN AIURG=a-b-c COMPLETED y [PH z]
```

2. REASON FOR OUTPUT

To describe the result of the DGN:AIURG input message that is issued to diagnose an access interface unit (AIU) ringing generator (RG) circuit.

Both Formats 1 and 2 print when one or more tests have failed. Format 2 provides an ordered list of suspected faulty circuit packs.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue. If the termination report is '`NOT STARTED`', an incorrect phase number was specified in the input message.

Format 4 prints when the specified phase has completed. Execution of the diagnostic will not continue if some test has failed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = AIU number.

`c` = RG number.

`d` = Number of the phase in which the error occurred.

`e` = Number of the segment in which the error occurred.

`f` = Number of the test that failed.

g = Mismatch results for the specified test.

h = Expected result for the specified test (in hexadecimal).

i = Mask used to determine the test failure (in hexadecimal).

j = Actual result of the specified test (in hexadecimal).

k = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

l = Floor and aisle number.

m = Switching module type.

n = Switching module number.

o = Cabinet type.

p = Cabinet number.

q = Circuit pack code number.

r = Equipment form. The equipment form represents the minimal operating level of replacement equipment.

s = Vertical location in the cabinet.

t = Horizontal location in the cabinet.

u = Circuit type.

v = Note number. Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

w = Type of termination. Valid value(s):

ABORTED	= Immediate termination.
NOT STARTED	= Action has not begun.
STOPPED	= Terminated before normal completion.

x = Information the qualifies the previous termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

y = Phase result. Valid value(s):

ATP	= All tests were performed and all passed.
CATP	= Some tests were skipped because supporting hardware was not available, but all tests that were run passed.
NTR	= No tests were run.
STF	= Some tests failed.

z = Number of the phase that has completed.

4. ACTION TO BE TAKEN

For Format 1, analyze the failure data to determine the reason for failure.

For Format 2, replace the suspect packs one at a time in the order specified. Rerun the diagnostic after each replacement until the fault is repaired or the diagnostic result changes.

For Format 3, if the termination report is '`NOT STARTED`', an incorrect phase number was specified in the input message. Determine the correct phase number and reissue the exercise message.

If unexpected results occur, refer to the Corrective Maintenance manual.

For Format 4, if the phase result is `STF`, take action indicated by Formats 1 and 2.

5. ALARMS

Alarms may be triggered because:

- The switch is sending a response message that is reporting that a fault recovery (FR) restore request was purged by system integrity. The verb is DGN, the source is AUTO, and the return response is ABORTED. This is the only time that these three parameters are equal to the stated values.
- A routine exercise requested diagnostic fails and, if requested, an alarm is sounded. The verb is RTN exercise, the source is AUTO, and the return response is STF.
- A routine exercise was requested and it failed. It failed because the diagnostic was ATP but the circuit failed hardware initialization.
- The request originated from a program update or retrofit and the request was not successfully completed. The alarm is sounded only if an "alarm" was requested on failures. These callers have the option of not alarming failures.

6. REFERENCES

Input Message(s):

```
DGN:AIURG
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1320,y,x (AIU SUMMARY)
1322,y,x (AIU RG STATUS)

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DGN:AIUTSGRP

Software Release: 5E11 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      DGN AIUTSGRP=a-b-c STF PH d SEG e TEST f MM g
       [EXPR j MASK i ACTL h]

[2]   ____________________________________________________________
      DGN AIUTSGRP=a-b-c SUSPECTED FAULTY EQUIPMENT a1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM     EQL    TYPE NOTE
          k     l [m]    n  o     p    [q]   r s [-t]   u   [v]
          .     .  .     .  .     .     .    . .   .    .    .
          .     .  .     .  .     .     .    . .   .    .    .
          .     .  .     .  .     .     .    . .   .    .    .

[3]   ____________________________________________________________
      DGN AIUTSGRP=a-b-c w [x]

[4]   ____________________________________________________________
      DGN AIUTSGRP=a-b-c COMPLETED y [PH z]
```

2. REASON FOR OUTPUT

To report the results of executing a DGN:AIUTSGRP input message to diagnose an access interface unit (AIU) timeslot group (TSGRP).

Format 1 is printed when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of suspected faulty equipment is provided.

Format 3 prints when the specified phase(s) terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase(s) has completed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = AIU number.

c = TSGRP number.

d = Number of the phase in which the failure occurred.

e = Number of the segment in which the failure occurred.

f = Number of the test that failed.

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g = Mismatch results for the specified test in hexadecimal.

h = Actual result in hexadecimal for the specified test.

i = Mask in hexadecimal used to determine test failure.

j = Actual result in hexadecimal for the specified test.

k = Floor and aisle number.

l = Module type.

m = Module number.

n = Cabinet type.

o = Cabinet number.

p = Replacement equipment code(s).

q = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content: `CODE FORM A[:B]...[:C] [-] D[:E]...[:F]`

:	= Intra-field delimiter.
-	= Inter-field delimiter if necessary.
A	= Current minimal accepted equipment code.
B	= Current production equipment code (substitutable equipment for code 'A').
C	= Additional compatible equipment code(s) (added as space permits).
D	= Current minimal approved operating level for equipment code 'A'.
E	= Current minimal approved operating level for equipment code 'B'.
F	= Current minimal approved operating level(s) for equipment code(s) 'C'.

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

r = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

s = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

t = Depth location in tenths of an inch in the cabinet.

u = Circuit type. Valid value(s):

HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
___	= Equipment is part of the circuit under test.

v = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual for definition of TLP note.

`w` = Action status report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was completed successfully.
- `IN PROGRESS` = Requested action is in progress.
- `NOT STARTED` = Requested action was not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`x` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

Note: The AIUTSGRP diagnostic runs AIUTSGRP and access interface unit line circuit (AIULC) phases. If all of the AIUTSGRP phases pass, but one or more of the AIULC phases fail, the AIUTSGRP diagnostic will still output an ATP result. In this case, failing the entire AIUTSGRP diagnostic would leave too much circuitry out of service (OOS). Instead, only the AIULC will be left OOS.

`y` = Phase result.

`z` = Phase number completed.

`a`[1] = Text identifier showing order of record. Valid value(s):

- `FIRST` = First record of continuing list.
- `LAST` = Last record of list.
- `NEXT` = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

4. ACTION TO BE TAKEN

For Format 1, analyze failure data to determine reason for failure or run the diagnostic using the TLP option to generate a suspected faulty equipment list.

For Format 2, replace the suspected equipment, one at a time in the order specified. Rerun the diagnostic after each substitution until the fault is repaired or until the diagnostic result changes.

For Formats 3 and 4, no action required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:AIUPIDB
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

DGN:ALIT

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      DGN ALIT=a-b-c-d STF PH e SEG f TEST g MM h
       [EXP i MASK j ACTL k]

[2]   ____________________________________________________________
      DGN ALIT=a-b-c-d SUSPECTED FAULTY EQUIPMENT b1 RECORD
        AISLE  MODULE     CABINET  CODE     FORM   EQL     TYPE NOTE
        l       m [n]      o  p     q       [r]  s-t[-u]     v  [a1]

[3]   ____________________________________________________________
      DGN ALIT=a-b-c-d w x

[4]   ____________________________________________________________
      DGN ALIT=a-b-c-d COMPLETED y [PH z]

[5]   ____________________________________________________________
      DGN ALIT=a-b-c-d PH e SEG f STMT c1 d1
       [EXP i MASK j ACTL k]
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:ALIT input message to diagnose the automatic line insulation test (ALIT).

Format 1 prints when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Metallic service unit (MSU) number.

c = Service group number.

d = MSU board number.

e = Phase number.

f = Segment number.

g = Test number.

h = Mismatch results for the specified test in hexadecimal.

i = Expected result in hexadecimal.

j = Mask used to determine test failure in hexadecimal.

k = Actual result in hexadecimal.

l = Identification number of floor and aisle.

m = Module type.

n = Module number.

o = Cabinet type.

p = Cabinet number.

q = Replacement equipment code(s).

r = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to subsequent example.

Example of Code FORM content: `CODE FORM A[:B]...[:C] [-] D[:E]...[:F]`

`:` = Intra-field delimiter.
`-` = Inter-field delimiter if necessary.
`A` = Current minimal accepted equipment code.
`B` = Current production equipment code (substitutable equipment for code '`A`').
`C` = Additional compatible equipment code(s) (added as space permits).
`D` = Current minimal approved operating level for equipment code '`A`'.
`E` = Current minimal approved operating level for equipment code '`B`'.
`F` = Current minimal approved operating level(s) for equipment code(s) '`C`'.

Codes '`A`', '`B`', and '`C`' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms '`D`', '`E`', and '`F`' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

s = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

t = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

u = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

v = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
___ = Equipment is part of the circuit under test.

w = Type of termination. Valid value(s):
ABORTED = The process was terminated (process not gracefully terminated).
NOT STARTED = Action was not begun.
STOPPED = Terminated before normal completion (process gracefully terminated).

x = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

y = Phase result.

z = Phase number completed.

a[1] = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

b[1] = Text identifier showing order of record. Valid value(s):
FIRST = First record of continuing list.
LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

c[1] = Statement number.

d[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4, and 5, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

DGN:ALIT

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:ASC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]
DGN ASC=a STF PH b SEG c TEST d MM e
 [EXP f MASK g ACTL h]

[2]
DGN ASC=a SUSPECTED FAULTY EQUIPMENT x RECORD
  AISLE  MODULE CABINET CODE FORM   EQL   TYPE NOTE
   i      j [k]  l  m    n   [o]  p-q[-r]   s   [a1]
   .      .  .   .  .    .    .   .  .  .    .    .
   .      .  .   .  .    .    .   .  .  .    .    .
   .      .  .   .  .    .    .   .  .  .    .    .

[3]
DGN ASC=a t [u]

[4]
DGN ASC=a COMPLETED v [PH w]

[5]
DGN ASC=a PH b SEG c STMT b1 c1
[EXP f MASK g ACTL h]
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:ASC input message to diagnose a remote switching module (RSM), optical remote switching module (ORM), or two-mile remote switching module (TRM) alarm and status circuit (ASC).

Format 1 is printed when a test has failed.

Format 2 is printed when a test fails and the trouble locating procedure (TLP) option was specified in the input message. An ordered list of suspected faulty equipment is provided.

Format 3 is printed when the specified phase(s) terminated before completion. Execution of the diagnostic will not continue.

Format 4 is printed when the specified phase(s) completed. Execution of the diagnostic will continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Number of the phase in which the failure occurred.

c = Number of the segment in which the failure occurred.

d = Number of the test that failed.

e = Mismatch results for the specified test in hexadecimal.

f = Expected result for the specified test in hexadecimal.

g = Mask used to determine test failure in hexadecimal.

h = Actual result for the specified test in hexadecimal.

i = Aisle.

j = Module type.

k = Module number.

l = Cabinet type.

m = Cabinet number.

n = Replacement equipment code(s).

o = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to subsequent example.

Example of Code FORM content: `CODE FORM A[:B]...[:C] [-] D[:E]...[:F]`

`:` = Intra-field delimiter.
`-` = Inter-field delimiter if necessary.
`A` = Current minimal accepted equipment code.
`B` = Current production equipment code (substitutable equipment for code '`A`').
`C` = Additional compatible equipment code(s) (added as space permits).
`D` = Current minimal approved operating level for equipment code '`A`'.
`E` = Current minimal approved operating level for equipment code '`B`'.
`F` = Current minimal approved operating level(s) for equipment code(s) '`C`'.

Codes '`A`', '`B`', and '`C`' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms '`D`', '`E`', and '`F`' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

p = Vertical location in inches from the floor to center of the implicated shelf.

q = Horizontal location in eighths of an inch from the left-hand corner of the implicated shelf.

r = Depth location in the bay in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

s = Circuit type. Valid value(s):
`HPR` = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
`ONL` = Equipment is part of the on-line member of a duplex pair. The on-line member

must be removed, and the mate made on-line, before replacement is attempted.
___ = Equipment is part of the circuit under test.

t = Termination report. Valid value(s):
ABORTED = The process was terminated (process not gracefully terminated).
NOT STARTED = Action was not begun.
STOPPED = Terminated before normal completion (process gracefully terminated).

u = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

v = Phase result.

w = Phase number completed.

x = Text identifier showing order of record. Valid value(s):
FIRST = First record of continuing list.
LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

a[1] = Refer to output appendix APP:TLP-NOTE in the Appendixes section of the Output Messages manual.

b[1] = Statement number.

c[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty alarm status circuit.

For Format 2, replace the suspected circuit packs, one at a time in the order specified. Rerun the diagnostic after each substitution until the fault is repaired or until the diagnostic result changes.

For Formats 3, 4, and 5, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

DGN:ASC

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:AUDIT-RING

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      DGN AUDIT RING
        R = a
        SYSTEM DATA:
        D = b
        PHASE DATA:
        T = c A = d S = e I = f PH = h

[2]   ____________________________________________________________
      DGN AUDIT RING
        R = a
        DRIVER DATA:
        D = g
        PHASE DATA:
        T = c A = d S = e I = f PH = h
```

2. REASON FOR OUTPUT

To print the results of interprocess message switch (IMS) diagnostic programs.

Format 1 reports an error encountered by the IMS diagnostic programs. The diagnostic has been aborted.

Format 2 reports an IMS driver error encountered by the IMS diagnostic programs. The diagnostic has been aborted.

3. VARIABLE FIELD DEFINITIONS

a = Reason for the audit, in hexadecimal.

b = Error code returned on a failing system call or a failing function call, in decimal.

c = Last test executed, in decimal.

d = Data table address, in hexadecimal.

e = Data table statement number, in decimal.

f = Task routine index, in hexadecimal.

g = IMS driver error code, in hexadecimal.

h = Phase number of data table, in decimal notation.

EXHIBIT A: REASONS FOR AUDITS AND ERROR CODES

Erro	Field 'a' Value (Reason for Abort)	Field 'b' or 'g' Value (Supplemental Data)

r Code		
30 =	Node under test is not isolated.	Has no significance.
31 =	Function call to _rgcntl() failed.	Return code from _rgcntl().
32 =	File handling failed in writeifb().	0 = Call to fopen() failed. 1 = Call to fgets() failed. 2 = Call to fclose() failed. 3 = Call to creat() failed. 4 = Call to write() failed. 5 = Call to close() failed. 6 = First call to fputs() failed. 7 = Second call to fputs() failed. 8 = Third call to fputs() failed. 9 = Fourth call to fputs() failed.
33 =	The ring is down. (Diagnostic of LN not possible in this ring state.)	Has no significance.
34 =	After write of RAC control message, received a message from node not being controlled.	The NODE_ID of the source node in the received message.
35 =	_nplreset function call failed.	Return code from _nplreset.
36 =	Received message of imm_type IM_NPDAT that was not control type _ONLY.	Control code in reply message to read np memory request.
37 =	Received abort from ring.chng indicating the ring is being configured.	Has no significance.
38 =	RAC control was not effective.	The following specify which RAC control failed. 1 = Set inhibit input. 2 = Clear inhibit input. 3 = Set force read. 4 = Clear force read. 5 = Set force propagate. 6 = Clear force propagate. 7 = Program rac reset. 8 = Clear blockage. 9 = Disable error interrupt. 10 = Enable error interrupt.
39 =	Function call to _rgrelay() failed.	Return code from _rgrelay().
41 =	Open special device file failed.	Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.
42 =	SETIO failed.	Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.
43 =	Makeseg failed.	Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.
44 =	Sendpw failed.	Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.
45 =	Execute diagnostic failed.	Return code from _nplexec.
46 =	IMS driver operation failed in msgtoport() function call.	Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.
48 =	Msgenab failure.	Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.
49 =	Msgdisab failure.	Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.
4A =	_nplread function call failed.	Return code from _nplread.
4B =	_npltest function call failed.	Return code from _npltest.
4C =	Excofl timed out.	Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.
4D =	Open equipment configuration data base (ECD) manager failed.	Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.

4E =	Function "ugucbn" failed.	Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.
4F =	Peripheral interface controller (PIC) microstore size not in ucb.	Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.
50 =	Receive wait failed.	Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.
51 =	LEXEC function failed.	Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.
52 =	E_host of ucb not initialized.	Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.
53 =	Lseek function failure.	Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.
54 =	Call to _rglcont failed.	Return code from _rglcont.
55 =	Write hardware message to begin isolation (BISO) or end isolation (EISO) denied because of an illegal hardware message.	Has no significance. This is a data table problem.
56 =	Write/read segment too small.	Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.
57 =	Function ugetucb failed.	Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.
58 =	Received maintenance message of unexpected type.	imm_type in received message.
59 =	NP after np reset.	Return code from driver.
61 =	Timeout awaiting reply to recvw() function call.	No significance.
64 =	Cannot open data table file.	Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.
65 =	Cannot share diagnostic control block (DCB) from DIAMON.	Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.
66 =	Error in the data table.	Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.
67 =	Invalid number of parameters from DIAMON.	Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.
68 =	Open spooler failed.	Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.
6A =	Invalid interactive mode message.	Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.
6C =	Open tlpfile failed.	Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.
6D =	Signal: illegal instruction.	Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.
6E =	Signal: bus error.	Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.
6F =	Signal: segment violation.	Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.
70 =	Signal: software termination.	Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.
71 =	Open message switch failed.	Return code from _ims_open.
72 =	ims_ioctl message switch failed.	Return code from _IMS_IOCTL.
73 =	ims_write message switch failed.	Return code from _ims_write.
74 =	ims_hdr message switch failed.	Return code from _ims_hdr.
75 =	get_mbuf message switch failed.	Return code from _get_mbuf.
76 =	ims_read message switch did not return _SUCCESS.	Return code from _ims_read.
77 =	Timeout occurred. No reply message from message switch in event mode.	Has no significance.
78 =	UCB name to node ID translation failed or data returned from ring_cnfg indicates more than DB_MAXNODE nodes in isolated segment.	0 = Bad node name to node ID translation. 1 = Ring.cnfg indicates too many ring nodes.
79 =	Open driver for RPC diagnostics failed.	Return code from driver.
7A =	Lock process in memory from dgndmawt() left insufficient memory for swapping.	Has no significance.
7B =	Least significant byte in ucb HV field is out of range, that is, at least one nibble >= DBIFBMAX (refer to db_arrays.h).	The NODE_ID corresponding to the ucb containing data that is out of range.
7C =	Imsdiag time out while awaiting a GO event from DIAMON.	Has no significance.

7D =	The node being diagnosed is an iun type and is neither isolated nor does it have an RI minor state of USBL.	The nodes RI minor state. 0 = UNTSTD. 1 = FLTY. 2 = USBL. 3 = QUSBL.
7E =	An excessive number of messages were queued for the _DIAGC channel immediately after the channel was opened.	Has no significance.
80 =	Reply messages to rg_query() were received out of sequence.	Next expected sequence number.
81 =	Argument passed to qktst_qu() was out of range. Allowable are 1(BISO) and 2(EISO).	Argument actually passed.
82 =	Request to update an RI minor state was not successful.	Node ID where update was not successful.
83 =	An 8-byte message relayed from imsdiag to itself using a double relay through the isolated segment was received from the proper relay node but the message was not the proper length.	Number of bytes in received message.
84 =	Imsdiag received an unexpected node type from the driver in response to a node type query message.	Node type received. Valid value(s): 128 = RPC Node. 0 = UNEQP node or unknown type.
85 =	The driver rejected the diagnostic test job of the DLN dma.	The "result" field in the message returned from the driver. Valid value(s): 4 = Error found in request message. 8 = The software that handles the test DLN DMA is busy.
86 =	The message sequence number of the message for which the 2 bits pattern is going to be built exceeds the allowed limit.	Message sequence number of the message for which the 2 bits pattern is going to be built.
87 =	The home RPC node ID for the home RPC of the relay node is not valid.	The home RPC node ID for the home RPC of the relay node.
88 =	The capacity test is absorbed by the home RPC of the relay node.	The why_abt code in the reply message from the home RPC of the relay node for the diagnostic capacity test.
89 =	The dg_rcont function was passed an invalid 'cntlcode' argument.	The actual 'cntlcode' argument passed to the dg_rcont() function.
90 =	The dg_rcont function was passed an invalid 'racarst' argument.	The actual 'racrst' argument passed to the dg_rcont() function.
91 =	The dg_rcont function was passed an invalid 'ring' argument.	The actual 'ring' argument passed to the dg_rcont() function.
92 =	The dg_rcont function was passed an invalid 'wrtcode' argument.	The actual 'wrtcode' argument passed to the dg_rcont() function.
93 =	The _nplspatch routine returned a failure code.	The return code from the call to _nplspatch.
94 =	The reply message received by the pmppatch routine contained other than _SUCCESS in the 'status' field.	The value of the 'status' field in the pmppatch reply message.
95 =	The reply message received by the pmppatch routine contained other than NPPH_RPY in the 'type' field.	The value of the 'type' field in the pmppatch reply message.
96 =	IMS is undergoing system initialization.	The return value of the IMS driver function _it_what().

4. ACTION TO BE TAKEN

If 'a' =	Action:
33, 37, 61, 76, 7C	Refer to the Input Message manual and reenter the associated input message.
7D	Correct any problems in the isolated segment, include the isolated nodes into the active ring, and re-enter the diagnostic request.
77, 85, 88	Retry the diagnostic request. If the diagnostic repeatedly aborts with 'b' = 85, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. if any other value for '`a`' is output.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:LN
DGN:RPCN
```

Output Message(s):

```
DGN:LN
DGN:RPCN
```

Output Appendix(es):

```
APP:CNI
```

DGN:BTSR

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN BTSR=a ATP

[2]   ____________________________________________________________________
      DGN BTSR=a CATP

[3]   ____________________________________________________________________
      DGN BTSR=a NTR

[4]   ____________________________________________________________________
      DGN BTSR=a STF PH b SEG c TEST d MM e
       [EXP f MASK g ACTL h]

[5]   ____________________________________________________________________
      DGN BTSR=a SUSPECTED FAULTY EQUIPMENT z RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL    TYPE  NOTE
         i      j [k]    l  m     n    [o]   p-q[-r]   s    [a1]
        [.      .  .     .  .     .     .    . .  .    .     .]
        [.      .  .     .  .     .     .    . .  .    .     .]
        [.      .  .     .  .     .     .    . .  .    .     .]

[6]   ____________________________________________________________________
      DGN BTSR=a PH b SEG c STMT b1 c1
       [EXP f MASK g ACTL h]
```

2. REASON FOR OUTPUT

To report the result of executing Master Control Center (MCC) diagnostic/restore request or DGN:BTSR input message to diagnose the bootstrapper board (BTSR).

Format 1 is printed when the specified phase(s) have been completely executed and all tests passed. Execution of the diagnostic will continue for any remaining iterations.

Format 2 is printed when the specified phase(s) have been completed but some tests were not run because the mate MCTSI is not available. All tests that ran were ATP so the final result is 'conditionally' ATP. Execution of the diagnostic will continue for any remaining iterations.

Format 3 is printed when the specified phase(s) have been completed but no tests were run. Execution of the diagnostic will continue for any remaining iterations. An NTR results from Phase 2 when the mate MCTSI is not available.

Format 4 is printed when a test has failed.

Format 5 is printed when the trouble location procedure (TLP) was specified in the input message and a test has failed. An ordered list of equipment where a fault might be located is provided. Refer to the APP:STD-REPAIR appendix in the Appendixes section of the Output Messages manual.

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Format 6 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Number of the phase in which the failure occurred.

c = Number of the segment in which the failure occurs.

d = Number of the test that failed.

e = Mismatch results for the specified test in hexadecimal.

f = Expected results for the specified test in hexadecimal.

g = Mask used before determining test failure in hexadecimal.

h = Actual result for the specified test in hexadecimal before mask and compare operations.

i = Identification number of floor and aisle.

j = Module type.

k = Module number.

l = Cabinet type.

m = Cabinet number.

n = Replacement equipment code(s).

o = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of Code FORM content: `CODE FORM A[:B]...[:C] [-] D[:E]...[:F]`

`:` = Intra-field delimiter.
`-` = Inter-field delimiter if necessary.
`A` = Current minimal accepted equipment code.
`B` = Current production equipment code (substitutable equipment for code '`A`').
`C` = Additional compatible equipment code(s) (added as space permits).
`D` = Current minimal approved operating level for equipment code '`A`'.
`E` = Current minimal approved operating level for equipment code '`B`'.
`F` = Current minimal approved operating level(s) for equipment code(s) '`C`'.

Codes '`A`', '`B`', and '`C`' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms '`D`', '`E`', and '`F`' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

p = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

q = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

r = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

s = Circuit type. Valid value(s):

HELPER	= Suspect pack is in another unit/circuit which is probably not removed from service.
HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ON-LINE	= Suspect pack is in another unit/circuit which is probably not removed from service.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
___	= Equipment is part of the circuit under test.

z = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
NEXT	= Next record of continuing list.
LAST	= Last record of list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

a[1] = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

b[1] = Statement number.

c[1] = Reason why some tests were not performed. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

For Format 1, bootstrapper circuit apparently working and should be restored to service.

For Format 2, request BTSR diagnosis again after the mate MCTSI is restored to service.

For Format 3, request the BTSR diagnosis again after the mate MCTSI is restored to service.

For Format 4 or 5, refer to the APP:STD-REPAIR appendix in the Appendixes section of the Output Messages manual.

oFor Format 6, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:BTSR
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:STD-REPAIR
APP:TLP-NOTE
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

DGN:CDFI

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN CDFI=a-b-c STF PH d SEG e TEST f MM g
       [EXP h MASK i ACTL j]

[2]   ____________________________________________________________________
      DGN CDFI=a-b-c SUSPECTED FAULTY EQUIPMENT z RECORD
        AISLE  MODULE  CABINET CODE  FORM    EQL     TYPE  NOTE
          k     l [m]   n  o    p    [q]   r s[-a1]   t    [u]
         [.     .  .    .  .    .     .    . .  .     .     .]
         [.     .  .    .  .    .     .    . .  .     .     .]
         [.     .  .    .  .    .     .    . .  .     .     .]

[3]   ____________________________________________________________________
      DGN CDFI=a-b-c v [w]

[4]   ____________________________________________________________________
      DGN CDFI=a-b-c COMPLETED x [PH y]

[5]   ____________________________________________________________________
      DGN CDFI=a-b-c PH d SEG e STMT b1 c1
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:CDFI input message to diagnose an inter-remote switching module (RSM) communication link digital facilities interface (CDFI) circuit.

Format 1 is printed when a test has failed.

Format 2 is printed when a test fails and the trouble locating procedure (TLP) option was specified in the input message. An ordered list of suspected faulty equipment is provided.

Format 3 is printed when the specified phase(s) terminated before completion. Execution of the diagnostic will not continue.

Format 4 is printed when the specified phase(s) completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Digital line and trunk unit (DLTU) number.

c = CDFI number.

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d = Number of the phase in which the failure occurred.

e = Number of the segment in which the failure occurred.

f = Number of the tests that failed.

g = Mismatch results for the specified test in hexadecimal.

h = Expected result for the specified test in hexadecimal.

i = Mask used to determine test failure in hexadecimal.

j = Actual result for the specified test in hexadecimal.

k = Floor and aisle number.

l = Module type.

m = Module number.

n = Cabinet type.

o = Cabinet number.

p = Replacement equipment code(s).

q = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content: `CODE FORM A [:B]...[:C] [-] D[:E]...[:F]`

: = Intra-field delimiter.
- = Inter-field delimiter if necessary.
A = Current minimal accepted equipment code.
B = Current production equipment code (substitutable equipment for code 'A').
C = Additional compatible equipment code(s) (added as space permits)
D = Current minimal approved operating level for equipment code 'A'.
E = Current minimal approved operating level for equipment code 'B'.
F = Current minimal approved operating level(s) for equipment code(s) 'C'.

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

r = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

s = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

t = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

___ = Equipment is part of the circuit under test.

u = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

v = Termination report. Valid value(s):

ABORTED = Requested action was terminated before completion, and the termination was not graceful.

COMPLETED = Request has successfully completed.

NOT STARTED = Requested action had not begun.

STOPPED = Requested action was terminated before a normal completion. Termination was graceful.

w = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

x = Phase result.

y = Phase number completed.

z = Text identifier showing order of record. Valid value(s):

FIRST = First record of continuing list.

LAST = Last record of list.

NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

a[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

b[1] = Statement number.

c[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty circuit.

For Format 2, replace the suspected circuit packs, one at a time in the order specified. Rerun the diagnostic after each substitution until the fault is repaired or until the diagnostic result changes.

For Formats 3, 4, and 5, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:CDFI
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:CDI

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

[1]
```
DGN CDI=a-b-c STF PH d SEG e TEST f MM g
 [EXP h MASK i ACTL j]
```

[2]
```
DGN CDI=a-b-c SUSPECTED FAULTY EQUIPMENT z RECORD
  AISLE  MODULE  CABINET  CODE  FORM    EQL     TYPE  NOTE
   k      l [m]   n  o     p    [q]   r-s[-a1]   t    [u]
  [.      .  .    .  .     .     .    . .  .     .     .]
  [.      .  .    .  .     .     .    . .  .     .     .]
  [.      .  .    .  .     .     .    . .  .     .     .]
```

[3]
```
DGN CDI=a-b-c v [w]
```

[4]
```
DGN CDI=a-b-c COMPLETED x [PH y]
```

[5]
```
DGN CDI=a-b-c PH d SEG e STMT b1 c1
 [EXP h MASK i ACTL j]
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:CDI input message to diagnose the control data interface (CDI).

Format 1 prints when a test has failed.

Format 2 prints when a test fails the trouble location procedure (TLP) was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Trunk unit number.

c = Service group number.

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d = Phase number.

e = Segment number.

f = Test number.

g = Mismatch results for the specified test in hexadecimal.

h = Expected result in hexadecimal.

i = Mask used to determine test failure in hexadecimal.

j = Expected result in hexadecimal.

k = Identification number of floor and aisle.

l = Module type.

m = Module number.

n = Cabinet type.

o = Cabinet number.

p = Replacement equipment code(s).

q = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content: `CODE FORM A [:B]...[:C] [-] D[:E]...[:F]`

A = Current minimal accepted equipment code.
: = Intra-field delimiter.
B = Current production equipment code (substitutable equipment for code 'A').
C = Additional compatible equipment code(s) (added as space permits)
- = Inter-field delimiter if necessary.
D = Current minimal approved operating level for equipment code 'A'.
E = Current minimal approved operating level for equipment code 'B'.
F = Current minimal approved operating level(s) for equipment code(s) 'C'.

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

r = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

s = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

t = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
___ = Equipment is part of the circuit under test.

u = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

v = Termination status. Valid value(s):
ABORTED = The process was terminated (process not gracefully terminated).
NOT STARTED = Action was not begun.
STOPPED = Terminated before normal completion (process gracefully terminated).

w = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

x = Phase result.

y = Phase number completed.

z = Text identifier showing order of record. Valid value(s):
FIRST = First record of continuing list.
LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

a[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

b[1] = Statement number.

c[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4, and 5, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

DGN:CDI

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:CMP

Software Release: 5E10 and later
Message Class: SM,MSGS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN CMP=a-b STF PH c SEG d TEST e MM f [EXP g MASK h ACTL i]

[2]   ____________________________________________________________________
      DGN CMP=a-b SUSPECTED FAULTY EQUIPMENT j RECORD
        AISLE  MODULE  CABINET CODE   FORM   EQL       TYPE NOTE
         k     l [m]   n   o   p         q   r-s        u   [v]
         .     .  .    .   .   .         .   . .        .    .
         .     .  .    .   .   .         .   . .        .    .
         .     .  .    .   .   .         .   . .        .    .

[3]   ____________________________________________________________________
      DGN CMP=a-b y [z]

[4]   ____________________________________________________________________
      DGN CMP=a-b COMPLETED a1 [PH b1]
```

2. REASON FOR OUTPUT

To report the results of executing a DGN:CMP input message to diagnose a communication module processor.

Format 1 is printed when a test has failed.

Format 2 is printed when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 is printed when the specified phase(s) terminated before completion. Execution of the diagnostic will not continue.

Format 4 is printed when the specified phase(s) has completed. Execution of the diagnostic will continue until all requested phases are completed.

Formats 3 and 4 (without phase number) belong to the MSGS message class.

3. VARIABLE FIELD DEFINITIONS

a = Message switch side number.

b = Communication module processor (CMP) number.

c = Number of the phase in which the failure occurred.

d = Number of the segment in which the failure occurred.

e = Number of the test that failed.

f = Mismatch results for the specified test in hexadecimal.

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g = Expected result for the specified test in hexadecimal.

h = Mask used to determine test failure in hexadecimal.

i = Actual result for the specified test in hexadecimal.

j = Text identifier showing order of trouble location procedure (TLP) record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

A maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of one to four entries. Each record will have a new header.

k = Identification number of floor and aisle.

l = Module type. Valid value(s):

CM	= Communication module.
HSM	= Host switching module.
RSM	= Remote switching module.
SM	= Switching module.

m = Module number.

n = Cabinet type. Valid value(s):

CM2	= Communication module 2 cabinet.
M	= Miscellaneous cabinet.
MSG	= Message switch cabinet.
SMC	= Switching module controller cabinet.
TMS	= Time multiplexed switch cabinet.

o = Cabinet number.

p = Replacement equipment code(s). Refer to subsequent example.

q = Equipment form(s). Equipment form represents the minimal operating level of replacement equipment.

Example of CODE FORM content: CODE FORM A [:B]...[:C] [-] D[:E]...[:F]

:	= Intra-field delimiter.
-	= Inter-field delimiter.
A	= Current minimal accepted equipment code.
B	= Current production equipment code (substitutable equipment for code 'A').
C	= Additional compatible equipment code(s) (added as space permits)
D	= Current minimal approved operating level for equipment code 'A'.
E	= Current minimal approved operating level for equipment code 'B'.
F	= Current minimal approved operating level(s) for equipment code(s) 'C'.

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

r = Vertical location in the cabinet, in inches above the floor to the center of the implicated shelf.

s = Horizontal location in the cabinet, in eighths of an inch from the left corner of the implicated shelf.

u = Circuit type. Valid value(s):

- HPR = Equipment is part of a helper circuit. The helper must be removed from service before replacement is attempted.
- ONL = Equipment is part of the online member of a duplex pair. The online member must be removed, and the mate made online, before replacement is attempted.
- ___ = Equipment is part of the circuit under test.

v = Number of the TLP note containing supplementary information related to the specified suspected faulty equipment. Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

y = Termination status. Valid value(s):

- ABORTED = Requested action was terminated before completion, and the termination was not graceful.
- NOT STARTED = Requested action was not begun.
- STOPPED = Requested action was terminated before a normal completion. Termination was graceful.

z = Reason for the termination.

a[1] = Phase or diagnostic result. Valid value(s):

- ATP = All tests were performed and passed.
- CATP = Some tests were not performed, but all tests that were performed passed.
- NTR = No tests were performed.
- STF = Some test(s) failed.

b[1] = Number of the phase completed.

4. ACTION TO BE TAKEN

For Format 1, none. It indicates that one or more faults exist in the system and provides data for manual analysis if necessary. Normally, a message of Format 2 should be obtained by rerunning the diagnostic with the TLP option if necessary, to begin to locate and repair the fault.

For Format 2, replace the indicated circuit packs, one at a time in the order specified. Rerun the diagnostic after each substitution until the fault is repaired or until the diagnostic result changes.

For Formats 3 and 4, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:CMP
```

Output Appendix(es):

```
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

DGN:CU

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN CU a [b] [COMPLETED] d [(e)] {MESSAGE|MSG} {m}

[2]   ____________________________________________________________________
      DGN CU a [b] PH c d [(e)] {MESSAGE IN PROGRESS|MSG IP}

[3]   ____________________________________________________________________
      DGN CU a [b] PH c STF (e) MSG IP
        TEST   MISMATCH   ACTUAL   MASK    EXPECTED
         f        g         h       i         j

[4]   ____________________________________________________________________
      DGN CU a [b] ABORTED AT PH c STMNT k d [(e)]  MSG IP

[5]   ____________________________________________________________________
      DGN CU a [b]
        TERMINATED AT PH c STMNT k AFTER TEST l

[6]   ____________________________________________________________________
      DGN CU a [b] TASK n {MESSAGE STARTED|QUEUED|ABORTED}
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:CU input message to diagnose the control unit or one of its subunits.

Format 1 specifies the overall diagnostic results and the termination status.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention [no openings in the active deferred maintenance queue (DMQ) and the request is in the waiting DMQ], or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Unit type and member number of the subunit under the CU (for example: CC 0, MASC 0, MASC

1, SAT 0, and so forth).

`c` = Phase number.

`d` = The result of the diagnostic. Valid value(s):

`ATP`	= All tests pass.
`CATP`	= All tests were ATP; some were not executed due to the unavailability of a system resource needed to perform the test.
`NTR`	= No tests were run.
`STF`	= Some tests failed.

`e` = Valid value(s):

If 'd' =	**'e' =**
`CATP or NTR`	Identifies the reasons tests were skipped by their bit position in a 16-digit hexadecimal number. For example, if `'e'` = (0000000000000018), tests were skipped for reasons 3 and 4.
`STF`	Identifies the number of test failures in addition to the reasons that tests were skipped. For example, if `'e'` = (7 0000000000000018), seven tests failed, plus tests were skipped for reasons 3 and 4. The reasons are: Bit 0 = Unused. Bit 1 = Unit under test is forced on-line. Bit 2 = Sanity timers are disabled. Bit 3 = EAI forces on CU, disk, sanity timer are active. Bit 4 = Peripheral unit controller is out of service. Bit 5 = Helper unit not specified or invalid. Bit 6 = Helper unit unavailable. Bit 7 = Unit under test is forced off-line. Bit 8 = EAI initialization parameter buffer data pending; EAI must be cleared. Bit 9 = Helper unit not connected to sub-unit under test. Bits 10-63 = Unused.

`m` = Status of the request. Valid value(s):

`COMPLETE`	= The request has completed.
`IN PROGRESS`	= The request is in progress.

`f` = Test number of the failing test.

`g` = The bits that were in error. A '1' in a bit position indicates the response from the unit did not match the expected response in that bit.

Note: For Format 3, the values for '`h`', '`i`' and '`j`' may be set to N/A. This means that this data is not available for the specified device.

`h` = The bits which were actually received from the hardware device.

`i` = Determines which bits in variable '`h`' are included in this test.

`j` = The value which the test expected.

`k` = Last statement successfully executed before the diagnostic terminated.

`l` = Current test number when diagnostic terminated.

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`n` = Task number assigned to the request.

4. ACTION TO BE TAKEN

If 'd' =	Action:
CATP	The needed system resource should be made available if possible, so that all tests may be executed.
STF	The unit should be repaired as quickly as possible. Refer to the Corrective Maintenance manual for the repair procedures.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	96, 103
2	99, 103
3	109, 110
4	106, 109-111
5	217
6	70, 99

Input Message(s):

```
ALW:DMQ
DGN:CU
INH:DMQ
OP:DMQ
RMV:CU
RST:CU
STOP:DMQ
STP:DMQ
```

Output Message(s):

```
ANALY:TLPFILE
OP:DMQ
REPT:DGN-AUDIT
REPT:DIAMON
RMV:CU
RST:CU
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

DGN:CU-MASC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
DGN  CU a MASC b PH c MEMORY FAILURE RESULTS
     FIRST FAULT DATA
     FAILING ARRAY = d AT EQL e
     FAILING ADDRESS = f
     DATA MISMATCH = g
     ACTUAL DATA = h
     EXPECTED DATA = i
     PARITY MISMATCH = j
     ACTUAL PARITY = k
     EXPECTED PARITY = l
     MAS ERROR REG 2 = m
     RAPPED ADDRESS REG = n
     MAS ERROR REG = o
     CC ERROR REG = y
     NUMBER OF FAILING ADDRESSES = p
     FIRST q FAILING ADDRESSES
             r
     MEMORY FAILURE HISTOGRAM
  DATA/ADR    DATA FAIL COUNT   ADDRESS FAIL COUNT
    BITS      EXP=1    EXP=0    AS 0      AS 1
              RTN=0    RTN=1
     00         s        t       u         v
     .          s        t       u         v
     .          s        t       u         v
     25         s        t       u         v
     26         s        t
     .          s        t
     .          s        t
     H0         s        t
     .          s        t
     .          s        t
     H3         s        t
     PX         s        t
     PY         s        t
     PZ         s        t
     PA         s        t
   MULTI        w
   LOGIC        x
```

2. REASON FOR OUTPUT

To provide failure information when memory failures are detected by the main store controller (MASC) diagnostic. The output contains detailed data on the first memory fault detected and histogram style summary data on all the faults in the sample, which is typically the first 100 faults detected. This information can be used to determine the faulty circuit pack and the faulty device on that circuit pack.

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3. VARIABLE FIELD DEFINITIONS

a = Control unit.

b = Main store controller.

c = Phase number, in decimal notation.

d = Type of failing memory array.

e = Equipment location (EQL) of the failing memory array, in decimal notation. EQL equals distance from floor - distance from frame left.

f = Address of the first memory location to fail as a result of a mismatch between the expected memory contents and the actual memory contents or memory location under test when a mystore error became active (refer to the address trapped indicator in 'n', in hexadecimal notation.

g = Data bit mismatch (bits 0-31) first failing memory location, in hexadecimal notation.

h = Actual data in memory, in hexadecimal notation.

i = Expected data (data that was written), in hexadecimal notation.

j = Parity bit mismatches in bits 31-24, and 2 error indicators in bits 23-22.

Bit 31 = H0.
Bit 30 = H1.
Bit 29 = H2.
Bit 28 = H3.
Bit 27 = PX.
Bit 26 = PY.
Bit 25 = PZ.
Bit 24 = PA.
Bit 23 = Multi-bit error is set when an error:

- Causes an address trap (TRAPPED ADDRESS REG bit 27 set) and an error C or D (bits 28 or 29 set) but the correctable parity failure (bit 0) is not set and the noncorrectable parity failure (bit 1) is set.
- Causes an address trap (bit 27 set) and error C or D active (bits 28 or 29 set) and the correctable parity failure (bit 0) is set, but more than one data and parity bits are mismatching.

Bit 22 = Logic error is set when an error:

- Does not cause an address trap (TRAPPED ADDRESS REG bit 27 not set) but there are data or parity mismatches.
- Causes an address trap (bit 27 set) but error C or D not active (bits 28 or 29 set).
- Causes an address trap (bit 27 set) and error C or D active (bit 28 or 29 not set) and correctable (single) bit error indicated (bit 0 set) but group failure bits (MAS ERROR REG2 bits 6-0) contain a code not recognized as a single bit error.

k = Actual parity in memory, bits 31-24, same format as 'j'.

l = Parity expected for the data written to memory in bits 31-24, same format as 'j'.

m = Main store error register 2 after a read of the first failing memory location, in hexadecimal notation.

Bit 28	= HA parity group failure - (not available on UN39 type MASC).
Bit 23	= Trapped address bit 25 (UN618 type MASC). Refer to the main store trapped address error register.
Bit 21	= Trapped address parity byte 0 (UN59C and UN618 type MASC). Refer to the main store trapped address error register.
Bit 6	= PX parity group failure.
Bit 5	= PY parity group failure.
Bit 4	= PZ parity group failure.
Bit 3	= H0 parity group failure.
Bit 2	= H1 parity group failure.
Bit 1	= H2 parity group failure.
Bit 0	= H3 parity group failure.

n = Main store trapped address error register after a read of the first failing memory location, in hexadecimal notation. Trapped address parity for byte 0 (UN59C and UN618 type MASC) and trapped address bit 25 (UN618 type MASC) appear in main store error register 2.

Bit 31	= Trapped address bit 24 (UN59C type and UN618 type MASC).
Bit 30	= Trapped address bit 23 (not available on UN39 type MASC).
Bit 29	= Error C.
Bit 28	= Error D.
Bit 27	= Address trapped indicator.
Bit 23	= Read-write (1) or refresh (0) data parity error.
Bit 1	= Noncorrectable parity failure.
Bit 0	= Correctable (single-bit) parity failure.

o = Main store error register after a read of the first failing memory location in hexadecimal notation.

Bit 22	= Block store go error A.
Bit 11	= No row select on refresh error A.
Bit 10	= Row or column selects on maint op error A.
Bit 9	= Double half plane select row error A.
Bit 8	= Double half plane select column error A.
Bit 7	= Select row and column error A.
Bit 6	= Array address parity error A.
Bit 5	= Command bit parity error A.
Bit 4	= Busy clear F/F state error A.
Bit 3	= Latched normal address parity error A.
Bit 2	= Refresh address counter mismatch error A.
Bit 1	= Write data parity error A.
Bit 0	= Address loop - around F/F error A.

Usually the under test CU CC ER with byte parities in bits 31-28 from the failing address.

For MASC phases 39, 41, and 96, the ACTIVE CU CC ER with byte parities in bits 31-28 from a read of the under test CU MASC at the failing address.

p = Number of failing locations for which histogram information was collected, in decimal notation. The upper limit is usually 100.

q = Number of addresses listed in 'r', in decimal notation.

r = List of the first 'q' failing addresses, in hexadecimal notation.

s = Number of times the specified data bit (0-31) or parity bit (H0, H1, H2, H3, PX, PY, PZ, PA) was read as 0 when it was expected to be 1, in decimal notation.

t = Number of times the specified data or parity bit was read as 1 when it was expected to be 0, in decimal notation.

u = Number of times the address bit was 0 when a memory failure was detected, in decimal notation.

v = Number of times the address bit was 1 when a memory failure was detected, in decimal notation.

w = Number of times a multi-bit error occurred, in decimal notation (variable 'j', bit 23).

x = Number of times a logic error occurred, in decimal notion (variable 'j', bit 22).

y = Central control error register (CC ER) after a read of the first failing memory location or after a store error is detected, in hexadecimal notation.

4. ACTION TO BE TAKEN

Replace the memory array identified by the failing array information in the first fault data.

5. ALARMS

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	53

Input Message(s):

```
ALW:DMQ
DGN:CU
INH:DMQ
OP:DMQ
RMV:CU
RST:CU
STOP:DMQ
STP:DMQ
```

Output Message(s):

```
ANALY:TLPFILE
DGN:CU
OP:DMQ
REPT:DGN-AUDIT
REPT:DIAMON
RMV:CU
```

```
RST:CU
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

DGN:DCI

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      DGN DCI a [COMPLETED] b [(c)]
       {MESSAGE|MSG} {IN PROGRESS|COMPLETE}

[2]   ____________________________________________________________
      DGN DCI a PH d b [(c)] {MESSAGE IN PROGRESS|MSG IP}

[3]   ____________________________________________________________
      DGN DCI a PH d STF (c)          MSG IP
        TEST    MISMATCH    ACTUAL  MASK    EXPECTED
         e         f          g      h         i

[4]   ____________________________________________________________
      DGN DCI a ABORTED AT PH d STMNT j b [(c)]       MSG IP

[5]   ____________________________________________________________
      DGN DCI a TERMINATED AT PH d STMNT j AFTER TEST k

[6]   ____________________________________________________________
      DGN DCI a TASK l {MESSAGE STARTED|QUEUED|ABORTED}
```

2. REASON FOR OUTPUT

To print results of a diagnostic run on the dual serial channel/computer interconnect (DCI).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination status.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or `RAW` data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention [no openings in the active deferred maintenance queue (DMQ) and the request is in the waiting DMQ], or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

b = The result of the diagnostic. Valid value(s):

ATP = All tests passed.

CATP = All tests that were executed were ATP; some were not executed due to the unavailability of a system resource that was needed to perform the test.

NTR = No tests were run.

STF = Some tests failed.

c = Valid value(s):

If 'b' =	'c' =
CATP, NTR	Identifies the reasons tests were skipped by their position in a 16-digit hexadecimal number. For example, if 'c' = (00000000 00000018), tests were skipped for reasons 3 and 4.
STF	Identifies the reasons tests were skipped in this phase by their bit position in a 16-digit hexadecimal number. For example, if 'c' = (00000000 00000006), tests were skipped for reasons 1 and 2. The reason codes are as follows: Bits 0 - 63 = Unused.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A 1 in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines what bits in 'g' are of interest to this test.

i = The value which the test expected.

Note: For Format 3 the values for 'g', 'h' and 'i' may be set to 'N/A'. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

If 'b' =	Action:
CATP	The needed system resource should be made available if possible, so that all tests may be executed.
STF	The unit should be repaired as quickly as possible. Refer to the Corrective Maintenance manual for repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	96, 103
2	99, 111
3	109, 110
4	106, 109, 110, 111
5	217
6	70, 99

Input Message(s):

```
ALW:DMQ
DGN:DCI
INH:DMQ
OP:DMQ
RMV:DCI
RST:DCI
STOP:DMQ
STP:DMQ
```

Output Message(s):

```
ANALY:TLPFILE
OP:DMQ
REPT:DGN-AUDIT
REPT:DIAMON
RMV:DCI
RST:DCI
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

DGN:DCLU

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN DCLU=a-b-c STF PH=d SEG=e TEST=f MM=g
       [EXP h MASK i ACTL j]

[2]   ____________________________________________________________________
      DGN DCLU=a-b-c SUSPECTED FAULTY EQUIPMENT z RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL     TYPE  NOTE
         k      l [m]   n  o     p    [q]   r-s[-a1]   t    [u]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]

[3]   ____________________________________________________________________
      DGN DCLU=a-b-c v [w]

[4]   ____________________________________________________________________
      DGN DCLU=a-b-c COMPLETED x [PH y]

[5]   ____________________________________________________________________
      DGN DCLU=a-b-c PH d SEG e STMT b1 c1
       [EXP h MASK i ACTL j]
```

2. REASON FOR OUTPUT

To report the results of the *SLC*®96 digital carrier line unit (DCLU) diagnostics.

Format 1 prints when some test failed (STF).

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase(s) have been completed. Execution of the diagnostic will not continue until all phases are completed.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital carrier line unit (DCLU) number.

`c` = Service group number.

d = Number of the phase in which the failure occurred.

e = Number of the segment in which the failure occurred.

f = Number of the test that failed.

g = Mismatch results for the specified test in hexadecimal.

h = Expected result for the specified test in hexadecimal.

i = Mask used to determine test failure in hexadecimal.

j = Actual result for the specified test in hexadecimal.

k = Identification number of floor and aisle.

l = Module type.

m = Module number.

n = Cabinet type.

o = Cabinet number.

p = Replacement equipment code(s).

q = Equipment form(s). Equipment form represents minimal operating level of replacement equipment.
Example of CODE FORM content:

```
CODE FORM A[:B]...[:C] [-] D[:E]...[:F]
```

A = Current minimal accepted equipment code.
: = Intra-field delimiter.
B = Current production equipment code (substitutable equipment for code A).
C = Additional compatible equipment code(s) (added as space permits)
- = Inter-field delimiter if necessary.
D = Current minimal approved operating level for equipment code A.
E = Current minimal approved operating level for equipment code B.
F = Current minimal approved operating level(s) for equipment code(s) C.

Codes A, B, and C may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms D, E, and F may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

r = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

s = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

t = Circuit type. Valid value(s):
___ = Equipment is part of the circuit under test.
HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

u = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

v = Termination status. Valid value(s):
ABORTED = The process was terminated (process not gracefully terminated).
NOT STARTED = Action was not begun.
STOPPED = Terminated before normal completion (process gracefully terminated).

w = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

x = Phase result.

y = Phase number completed.

z = Text identifier showing order of record. Valid value(s):
FIRST = First record of continuing list.
LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

a[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

b[1] = Statement number.

c[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, analyze failure data to determine reason for failure or run the diagnostic using the 'TLP' option to generate a suspected faulty circuit pack list.

For Format 2, replace the suspected circuit packs, one at a time in the order specified. Rerun the diagnostic after each substitution until the fault is repaired or until the diagnostic result changes. If, after replacing each circuit pack listed, the problem still is not resolved, rerun the diagnostic with the 'RAW' and 'UCL' options. If this does not assist in solving the problem, then contact the appropriate organization for technical assistance.

For Formats 3, 4, and 5, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:DCLU
EX:DCLU
RMV:DCLU
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

MCC Display Page(s):

170y, x (IMx - DCLU y)

DGN:DCTUCOM

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN DCTUCOM=a-b STF PH f SEG g TEST h MM i
       [EXP j MASK k ACTL l]

[2]   ____________________________________________________________________
      DGN DCTUCOM=a-b SUSPECTED FAULTY EQUIPMENT y RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL    TYPE  NOTE
         j      k [l]   m  n     o    [p]   q-r[-z]   s    [t]
        [.      .  .    .  .     .     .    . .  .    .     .]
        [.      .  .    .  .     .     .    . .  .    .     .]
        [.      .  .    .  .     .     .    . .  .    .     .]

[3]   ____________________________________________________________________
      DGN DCTUCOM=a-b u [v]

[4]   ____________________________________________________________________
      DGN DCTUCOM=a-b COMPLETED w x

[5]   ____________________________________________________________________
      DGN DCTUCOM=a-b PH f SEG g STMT a1 b1
       [EXP j MASK k ACTL l]
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:DCTUCOM input message to diagnose the directly connected test unit common board (DCTUCOM). Phase 90 is a demand-only phase; it is run only when specifically requested.

Format 1 prints when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Directly connected test unit (DCTU) number.

c = Number of the phase in which the failure occurred.

d = Number of the segment in which the failure occurred.

e = Number of the test that failed.

f = Mismatch results for the specified test in hexadecimal.

g = Expected result for the specified test in hexadecimal.

h = Mask used to determine test failure in hexadecimal.

i = Actual result for the specified test in hexadecimal.

j = Identification number of floor and aisle.

k = Module type.

l = Module number.

m = Cabinet type.

n = Cabinet number.

o = Replacement equipment code(s).

p = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to subsequent example.

Example of CODE FORM content:

```
CODE  FORM
A[:B]...[:C] [-] D[:E]...[:F]
:            = Intra-field delimiter.
-            = Inter-field delimiter if necessary.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits)
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

q = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

r = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

s = Circuit type. Valid value(s):
HPR = Equipment is part of a helper circuit. The helper must be removed before

replacement is attempted.

`ONL` = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

`___` = Equipment is part of the circuit under test.

`t` = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

`u` = Termination status. Valid value(s):

`ABORTED` = The process was terminated (process not gracefully terminated).
`NOT STARTED` = Action was not begun.
`STOPPED` = Terminated before normal completion (process gracefully terminated).

`v` = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

`w` = Phase result.

`x` = Phase number completed.

`y` = Text identifier showing order of record. Valid value(s):

`FIRST` = First record of continuing list.
`LAST` = Last record of list.
`NEXT` = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

`z` = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

`a`[1] = Statement number.

`b`[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4, and 5, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

DGN:DCTUCOM

Output Appendix(es):

APP:MAINT-RESP
APP:TLP-NOTE

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:DCTUPORT

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN DCTUPORT=a-b-c STF PH d SEG e TEST f MM g
       [EXP h MASK i ACTL j]

[2]   ____________________________________________________________________
      DGN DCTUPORT=a-b-c SUSPECTED FAULTY EQUIPMENT z RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL     TYPE  NOTE
         k      l [m]   n  o     p    [q]   r-s[-a1]   t    [u]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]

[3]   ____________________________________________________________________
      DGN DCTUPORT=a-b-c v [w]

[4]   ____________________________________________________________________
      DGN DCTUPORT=a-b-c COMPLETED x y

[5]   ____________________________________________________________________
      DGN DCTUPORT=a-b-c PH d SEG e STMT b1 c1
       [EXP h MASK i ACTL j]
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:DCTUPORT input message to diagnose the directly connected test unit port circuit (DCTUPORT). Phase 90 is a demand-only phase; it is run only when specifically requested.

Format 1 prints when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Directly connected test unit (DCTU) number.

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c = Circuit number.

d = Number of the phase in which the failure occurred.

e = Number of the segment in which the failure occurred.

f = Number of the test that failed.

g = Mismatch results for the specified test in hexadecimal.

h = Expected result for the specified test in hexadecimal.

i = Mask used to determine test failure in hexadecimal.

j = Actual result for the specified test in hexadecimal.

k = Identification number of floor and aisle.

l = Module type.

m = Module number.

n = Cabinet type.

o = Cabinet number.

p = Replacement equipment code(s).

q = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to subsequent example.

Example of CODE FORM content: `CODE FORM A [:B]...[:C] [-] D[:E]...[:F]`

`:` = Intra-field delimiter.
`-` = Inter-field delimiter if necessary.
`A` = Current minimal accepted equipment code.
`B` = Current production equipment code (substitutable equipment for code '`A)`'.
`C` = Additional compatible equipment code(s) (added as space permits).
`D` = Current minimal approved operating level for equipment code '`A.`'
`E` = Current minimal approved operating level for equipment code '`B.`'
`F` = Current minimal approved operating level(s) for equipment code(s) '`C.`'

Codes '`A,`' '`B,`' and '`C` 'may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms '`D,`' '`E,`' and '`F`' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

r = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

s = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

t = Circuit type. Valid value(s):
`HPR` = Equipment is part of a helper circuit. The helper must be removed before

replacement is attempted.

`ONL` = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

`___` = Equipment is part of the circuit under test.

`u` = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

`v` = Termination status. Valid value(s):

`ABORTED` = The process was terminated (process not gracefully terminated).
`NOT STARTED` = Action was not begun.
`STOPPED` = Terminated before normal completion (process gracefully terminated).

`w` = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

`x` = Phase result.

`y` = Phase number completed.

`z` = Text identifier showing order of record. Valid value(s):

`FIRST` = First record of continuing list.
`LAST` = Last record of list.
`NEXT` = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

`a`[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

`b`[1] = Statement number.

`c`[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4, and 5, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:DCTUPORT
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:DFC-A

Software Release: 5E10 - 5E12
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      DGN DFC a [COMPLETED] b [(c)]
       {MESSAGE|MSG} {IN PROGRESS|COMPLETE}

[2]   ____________________________________________________________
      DGN DFC a PH d b [(c)] {MESSAGE IN PROGRESS|MSG IP}

[3]   ____________________________________________________________
      DGN DFC a PH d STF (c)            MSG IP
        TEST    MISMATCH    ACTUAL    MASK    EXPECTED
         e         f          g        h         i

[4]   ____________________________________________________________
      DGN DFC a ABORTED AT PH d STMNT j b [(c)]        MSG IP

[5]   ____________________________________________________________
      DGN DFC a TERMINATED AT PH d STMNT j AFTER TEST k

[6]   ____________________________________________________________
      DGN DFC a TASK l {MESSAGE STARTED|QUEUED|ABORTED}
```

2. REASON FOR OUTPUT

To print results of a diagnostic run on the disk file controller (DFC).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination status. Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request. Format 3 indicates failing diagnostic results for an individual phase. Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request. Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution. Format 6 indicates that the request was started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = The result of the diagnostic. Valid value(s):

`ATP`	= All tests passed.
`CATP`	= All tests that were executed were ATP; some were not executed due to the unavailability of a system resource that was needed to perform the test.
`NTR`	= No tests were executed.
`STF`	= Some tests failed.

`c` = Valid value(s):

If 'b' =	'c' =
CATP or NTR	Identifies the reasons tests were skipped in this phase by their bit position in a 16-digit hexadecimal number. For example, if 'c'= (0000000000000018), tests were skipped for reasons 3 and 4.
STF	Identifies the number of test failures in addition to the reasons that tests were skipped. For example, if 'c' = (70000000000000006), seven tests failed, plus tests were skipped for reasons 1 and 2. The reason codes are as follows: Bit 0 = Helper unit invalid or not specified. Bit 1 = Helper unit cannot be reserved. Bit 2 = Helper unit is not out-of-service. Bit 3 = Helper control unit (CU) is not ATP. Bit 4 = Helper unit not connected to controller being diagnosed. Bits 5-63 = Unused. Note: To interpret CATP bits 32-46, the structure of the system must be understood. All device references are relative to the DFC under test, and may not correspond to "real" unit numbers. The down pointer of the DFC will point to the first SBUS. The side pointer of the first SBUS points to the second SBUS. Similarly, the down pointer of an SBUS points to the first MHD beneath it. The side pointer of an MHD points to the next MHD in the chain. These concepts are displayed graphically on display pages 120 and 122. The leftmost SBUS under a DFC is considered first SBUS, with the rightmost SBUS being second. MHD relative numbering for each SBUS is top-down, with the top MHD being first and the bottom being last. Currently only four MHDs per SBUS are supported. Bit 32 = First MHD on first SBUS of DFC did not respond correctly. Bit 33 = Second MHD on first SBUS of DFC did not respond correctly. Bit 34 = Third MHD on first SBUS of DFC did not respond correctly. Bit 35 = Fourth MHD on first SBUS of DFC did not respond correctly. Bit 36 = Reserved for fifth MHD on first SBUS of DFC. Bit 37 = Reserved for sixth MHD on first SBUS of DFC. Bit 38 = Reserved for seventh MHD on first SBUS of DFC. Bit 40 = First MHD on second SBUS of DFC did not respond correctly. Bit 41 = Second MHD on second SBUS of DFC did not respond correctly. Bit 42 = Third MHD on second SBUS of DFC did not respond correctly. Bit 43 = Fourth MHD on second SBUS of DFC did not respond correctly. Bit 44 = Reserved for fifth MHD on second SBUS of DFC. Bit 45 = Reserved for sixth MHD on second SBUS of DFC. Bit 46 = Reserved for seventh MHD on second SBUS of DFC.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A '1' in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits that were actually received from the hardware device.

h = Determines what bits in 'g' are of interest to this test.

i = The value which the test expected.

Note: For Format 3, the values for 'g', 'h' and 'i' may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

`l` = Task number assigned to the request.

4. ACTIONS TO BE TAKEN

If 'b' =	Action:
CATP	The needed system resource should be made available if possible, so that all tests may be executed.
STF	The unit should be repaired as quickly as possible. Refer to the Corrective Maintenance manual for the repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	96, 103
2	99, 103
3	109, 110
4	106, 109-111
5	217
6	70, 99

Input Message(s):

```
ALW:DMQ
DGN:DFC
INH:DMQ
OP:DMQ
RMV:DFC
RST:DFC
STOP:DMQ
STP:DMQ
```

Output Message(s):

```
ANALY:TLPFILE
OP:DMQ
REPT:DGN-AUDIT
REPT:DIAMON
RMV:DFC
RST:DFC
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

DGN:DFC-B

Software Release: 5E13 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      DGN DFC a [COMPLETED] b [(c)]
       {MESSAGE|MSG} {IN PROGRESS|COMPLETE}

[2]   ____________________________________________________________
      DGN DFC a PH d b [(c)] {MESSAGE IN PROGRESS|MSG IP}

[3]   ____________________________________________________________
      DGN DFC a PH d STF (c)            MSG IP
        TEST    MISMATCH    ACTUAL    MASK    EXPECTED
         e         f          g        h         i

[4]   ____________________________________________________________
      DGN DFC a ABORTED AT PH d STMNT j b [(c)]        MSG IP

[5]   ____________________________________________________________
      DGN DFC a TERMINATED AT PH d STMNT j AFTER TEST k

[6]   ____________________________________________________________
      DGN DFC a TASK l {MESSAGE STARTED|QUEUED|ABORTED}

[7]   ____________________________________________________________
      DFN DFC a -FLASH MEMORY UPDATE PROCESS IN PROGRESS
        DO NOT STOP THIS DIAGNOSTIC DURING FLASH MEMORY UPDATE
        THIS PROCESS SHOULD RUN NO LONGER THAN 15 MINUTES
        AND MAY RUN ONLY A FEW SECONDS IF NO UPDATE IS REQUIRED

[8]   ____________________________________________________________
      DGN DFC a -FLASH MEMORY UPDATE PROCESS COMPLETE
```

2. REASON FOR OUTPUT

To print results of a diagnostic run on the disk file controller (DFC).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination status. Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request. Format 3 indicates failing diagnostic results for an individual phase. Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request. Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution. Format 6 indicates that the request was started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted. Format 7 indicates that the flash update process has started, warning the user against stopping the diagnostic until the flash update process has completed.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = The result of the diagnostic. Valid value(s):

ATP = All tests passed.
CATP = All tests that were executed were ATP; some were not executed due to the unavailability of a system resource that was needed to perform the test.
NTR = No tests were executed.
STF = Some tests failed.

c = Valid value(s):

If 'b' =	'c' =
CATP or NTR	Identifies the reasons tests were skipped in this phase by their bit position in a 16-digit hexadecimal number. For example, if 'c'= (0000000000000018), tests were skipped for reasons 3 and 4.
STF	Identifies the number of test failures in addition to the reasons that tests were skipped. For example, if 'c' = (70000000000000006), seven tests failed, plus tests were skipped for reasons 1 and 2. The reason codes are as follows: Bit 0 = Helper unit invalid or not specified. Bit 1 = Helper unit cannot be reserved. Bit 2 = Helper unit is not out-of-service. Bit 3 = Helper control unit (CU) is not ATP. Bit 4 = Helper unit not connected to controller being diagnosed. Bits 5-63 = Unused. Note: To interpret CATP bits 32-46, the structure of the system must be understood. All device references are relative to the DFC under test, and may not correspond to "real" unit numbers. The down pointer of the DFC will point to the first SBUS. The side pointer of the first SBUS points to the second SBUS. Similarly, the down pointer of an SBUS points to the first MHD beneath it. The side pointer of an MHD points to the next MHD in the chain. These concepts are displayed graphically on display pages 120 and 122. The leftmost SBUS under a DFC is considered first SBUS, with the rightmost SBUS being second. MHD relative numbering for each SBUS is top-down, with the top MHD being first and the bottom being last. Currently only four MHDs per SBUS are supported. Bit 32 = First MHD on first SBUS of DFC did not respond correctly. Bit 33 = Second MHD on first SBUS of DFC did not respond correctly. Bit 34 = Third MHD on first SBUS of DFC did not respond correctly. Bit 35 = Fourth MHD on first SBUS of DFC did not respond correctly. Bit 36 = Reserved for fifth MHD on first SBUS of DFC. Bit 37 = Reserved for sixth MHD on first SBUS of DFC. Bit 38 = Reserved for seventh MHD on first SBUS of DFC. Bit 40 = First MHD on second SBUS of DFC did not respond correctly. Bit 41 = Second MHD on second SBUS of DFC did not respond correctly. Bit 42 = Third MHD on second SBUS of DFC did not respond correctly. Bit 43 = Fourth MHD on second SBUS of DFC did not respond correctly. Bit 44 = Reserved for fifth MHD on second SBUS of DFC. Bit 45 = Reserved for sixth MHD on second SBUS of DFC. Bit 46 = Reserved for seventh MHD on second SBUS of DFC.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A '1' in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits that were actually received from the hardware device.

h = Determines what bits in 'g' are of interest to this test.

i = The value which the test expected.
Note: For Format 3, the values for 'g', 'h' and 'i' may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTIONS TO BE TAKEN

If 'b' =	Action:
CATP	The needed system resource should be made available if possible, so that all tests may be executed.
STF	The unit should be repaired as quickly as possible. Refer to the Corrective Maintenance manual for the repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	96, 103
2	99, 103
3	109, 110
4	106, 109-111
5	217
6	70, 99
7	23
8	61

Input Message(s):

```
ALW:DMQ
DGN:DFC
INH:DMQ
OP:DMQ
RMV:DFC
RST:DFC
STOP:DMQ
STP:DMQ
```

Output Message(s):

```
ANALY:TLPFILE
OP:DMQ
REPT:DGN-AUDIT
REPT:DIAMON
RMV:DFC
RST:DFC
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

DGN:DFI

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN DFI=a-b-c STF PH d SEG e TEST f MM g
       [EXP h MASK i ACTL j]

[2]   ____________________________________________________________________
      DGN DFI=a-b-c SUSPECTED FAULTY EQUIPMENT z RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL     TYPE  NOTE
         k      l [m]   n  o     p    [q]   r-s[-a1]   t    [u]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]

[3]   ____________________________________________________________________
      DGN DFI=a-b-c v [w]

[4]   ____________________________________________________________________
      DGN DFI=a-b-c COMPLETED x [PH y]

[5]   ____________________________________________________________________
      DGN DFI=a-b-c PH d SEG e STMT b1 c1
       [EXP h MASK i ACTL j]
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:DFI input message to diagnose the digital facility interface (DFI).

Format 1 prints when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase(s) has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Digital line/trunk unit number.

c = DFI number.

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d = Number of the phase in which the failure occurred.

e = Number of the segment in which the failure occurred.

f = Number of the test that failed.

g = Mismatch results for the specified test in hexadecimal.

h = Expected result for the specified test in hexadecimal.

i = Mask used to determine test failure in hexadecimal.

j = Actual result for the specified test in hexadecimal.

k = Identification number of floor and aisle.

l = Module type.

m = Module number.

n = Cabinet type.

o = Cabinet number.

p = Replacement equipment code(s).

q = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content: `CODE FORM A[:B]...[:C] [-] D[:E]...[:F]`

- `:` = Intra-field delimiter.
- `-` = Inter-field delimiter if necessary.
- `A` = Current minimal accepted equipment code.
- `B` = Current production equipment code (substitutable equipment for code '`A`').
- `C` = Additional compatible equipment code(s) (added as space permits)
- `D` = Current minimal approved operating level for equipment code '`A`'.
- `E` = Current minimal approved operating level for equipment code '`B`'.
- `F` = Current minimal approved operating level(s) for equipment code(s) '`C`'.

Codes '`A`', '`B`', and '`C`' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms '`D`', '`E`', and '`F`' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

r = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

s = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

t = Circuit type. Valid value(s):

- `HPR` = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
___ = Equipment is part of the circuit under test.

u = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

v = Termination status. Valid value(s):
ABORTED = The process was terminated (process not gracefully terminated).
NOT STARTED = Action was not begun.
STOPPED = Terminated before normal completion (process gracefully terminated).

w = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

x = Phase result.

y = Phase number completed.

z = Text identifier showing order of record. Valid value(s):
FIRST = First record of continuing list.
LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

a[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

b[1] = Statement number.

c[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4, and 5, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

DGN:DFI

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:DFIH

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN DFIH=a-b-c STF PH d SEG e TEST f MM g
       [EXP h MASK i ACTL j]

[2]   ____________________________________________________________________
      DGN DFIH=a-b-c SUSPECTED FAULTY EQUIPMENT z RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL    TYPE  NOTE
          k     l [m]   n  o     p    [q]   r s[-a1]  t    [u]
         [.     .  .    .  .     .     .    . .  .    .     .]
         [.     .  .    .  .     .     .    . .  .    .     .]
         [.     .  .    .  .     .     .    . .  .    .     .]

[3]   ____________________________________________________________________
      DGN DFIH=a-b-c v [w]

[4]   ____________________________________________________________________
      DGN DFIH=a-b-c COMPLETED x [PH y]

[5]   ____________________________________________________________________
      DGN DFIH=a-b-c PH d SEG e STMT b1 c1
       [EXP h MASK i ACTL j]
```

2. REASON FOR OUTPUT

To report the results of a DGN:DFIH input message to diagnose a remote integrated services line unit (RISLU) host/remote digital facility interface circuit pair (DFIH). This message also reports the results of automatic diagnostics run by the system in response to DFIH faults. Format 1 is printed when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of suspected faulty equipment is provided.

Format 3 prints when the specified phase(s) terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase(s) has completed.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = RISLU digital line and trunk unit (DLTU) number.

c = DFIH number.

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d = Number of the phase in which the failure occurred.

e = Number of the segment in which the failure occurred.

f = Number of the test that failed.

g = Mismatch results for the specified test in hexadecimal.

h = Expected result for the specified test in hexadecimal.

i = Mask used to determine test failure in hexadecimal.

j = Actual result for the specified test in hexadecimal.

k = Floor and aisle number.

l = Module type.

m = Module number.

n = Cabinet type.

o = Cabinet number.

p = Replacement equipment code(s).

q = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to subsequent example.

Example of CODE FORM content: `CODE FORM A[:B]...[:C] [-] D[:E]...[:F]`

`:` = Intra-field delimiter.
`-` = Inter-field delimiter if necessary.
`A` = Current minimal accepted equipment code.
`B` = Current production equipment code (substitutable equipment for code '`A`').
`C` = Additional compatible equipment code(s) (added as space permits)
`D` = Current minimal approved operating level for equipment code '`A`'.
`E` = Current minimal approved operating level for equipment code '`B`'.
`F` = Current minimal approved operating level(s) for equipment code(s) '`C`'.

Codes '`A`', '`B`', and '`C`' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms '`D`', '`E`', and '`F`' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

r = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

s = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

t = Circuit type. Valid value(s):
`HPR` = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
`ONL` = Equipment is part of the on-line member of a duplex pair. The on-line member

must be removed, and the mate made on-line, before replacement is attempted.
___ = Equipment is part of the circuit under test.

u = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

v = Termination report. Valid value(s):
ABORTED = Requested action was terminated before completion, and the termination was not graceful.
COMPLETED = Request has successfully completed.
NOT STARTED = Requested action has not begun.
STOPPED = Requested action was terminated before a normal completion. Termination was graceful.

w = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

x = Phase result.

y = Phase number completed.

z = Text identifier showing order of record:
FIRST = First record of continuing list.
LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

a[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

b[1] = Statement number.

c[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, analyze failure data to determine reason for failure or run the diagnostic using the 'TLP' option to generate a suspected faulty circuit pack list.

For Format 2, replace the suspected circuit packs, one at a time in the order specified. Rerun the diagnostic after each substitution until the fault is repaired or until the diagnostic result changes. If, after replacing each circuit pack listed, the problem still is not resolved, rerun the diagnostic with the 'RAW' and 'UCL' options. If this does not assist in solving the problem, then refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 3, 4, and 5, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:DFIH
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

DGN:DFTAC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN DFTAC=a-b-c-d e f PH g

[2]   ____________________________________________________________________
      DGN DFTAC=a-b-c-d h [i]

[3]   ____________________________________________________________________
      DGN DFTAC=a-b-c-d STF PH j SEG k TEST l MM m
       [EXP n MASK o ACTL p]

[4]   ____________________________________________________________________
      DGN DFTAC=a-b-c-d SUSPECTED FAULTY EQUIPMENT b1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM     EQL     TYPE  NOTE
          q     r [s]     t u     v    [w]   x-y[-c1]   z    [a1]
         [.     .  .      . .     .     .    . .  .     .     .]
         [.     .  .      . .     .     .    . .  .     .     .]
         [.     .  .      . .     .     .    . .  .     .     .]

[5]   ____________________________________________________________________
      DGN DFTAC=a-b-c-d PH j SEG k STMT d1 e1
       [ECP n MASK o ACTL p]
```

2. REASON FOR OUTPUT

To report the result of executing DGN:DFTAC input message to diagnose the distributing frame test access circuit (DFTAC), to report the diagnostic outcome as the result of a RST:DFTAC input message, or to report the diagnostic outcome as the result of a recovery action that removed the circuit from service.

Format 1 is printed when a specified phase(s) has been completed and either a phase range or RAW was specified on a manual request. Execution of the diagnostic will continue for any remaining phases.

Format 2 is printed to report the final results when diagnostic execution has been completed.

Format 3 is printed when a test has failed.

Format 4 is printed when the trouble location procedure (TLP) was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = MSU number.

`c` = Service group.

`d` = Circuit number.

`e` = Completion status. Valid value(s):

`ABORTED` = The diagnostic phase was unable to clean up or remove hardware or software resources. Further output showing data or hardware recovery by audits may follow. A message of Format 2 will follow giving the reason for the abort.

`COMPLETED` = Successful completion.

`STOPPED` = The diagnostic phase terminated prematurely but cleanly. A message in Format 2 will follow giving the reason for termination.

`f` = Diagnostic phase result. Valid value(s):

```
ATP
CATP
NTR
STR
```

`h` = Termination status. Valid value(s):

`ABORTED` = The diagnostic process was purged or terminated without cleaning up. Further output showing data or hardware recovery by audits may follow.

`COMPLETED` = Successful completion.

`NOT STARTED` = The diagnostic was not started.

`STOPPED` = Terminated before normal completion.

`i` = Reason for termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

`j` = Number of the phase in which the failure occurred.

`k` = Number of the segment in which the failure occurred.

`l` = Number of the test that failed.

`m` = Mismatched results for the specified test in hexadecimal.

`n` = Expected results for the specified test in hexadecimal.

`o` = Mask used to determine test failure in hexadecimal.

`p` = Actual result for the specified test in hexadecimal.

`q` = Aisle.

`r` = Module type, CM or SM.

`s` = Switching module number.

`t` = Cabinet type.

`u` = Cabinet number.

v = Replacement equipment code(s).

w = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content: CODE FORM A[:B]...[:C] [-] D[:E]...[:F]

:	= Intra-field delimiter.
-	= Inter-field delimiter if necessary.
A	= Current minimal accepted equipment code.
B	= Current production equipment code (substitutable equipment for code 'A').
C	= Additional compatible equipment code(s) (added as space permits).
D	= Current minimal approved operating level for equipment code 'A'.
E	= Current minimal approved operating level for equipment code 'B'.
F	= Current minimal approved operating level(s) for equipment code(s) 'C'.

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

x = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

y = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

z = Circuit type. Valid value(s):

HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
___	= Equipment is part of the circuit under test.

a[1] = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

b[1] = Text identifier showing order of record:

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

c[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

d[1] = Statement number.

e[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Formats 1 and 2,

If 'f' =	Action:
ATP	No action is required. The circuit is not automatically restored.
CATP	Find the suspected resource by checking diagnostic listing.
NTR	Find the suspected resource by checking diagnostic listing.
STF	Repair the faulty circuit and rerun the diagnostic.

For Format 3, replace the faulty unit.

For Format 4, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Format 5, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:DFTAC
EX:DFTAC
RMV:DFTAC
RST:DFTAC
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:DIST

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN DIST=a-b-c-d STF PH e SEG f TEST g MM h
       [EXP i MASK j ACTL k]

[2]   ____________________________________________________________________
      DGN DIST=a-b-c-d SUSPECTED FAULTY EQUIPMENT a1 RECORD
        AISLE   MODULE     CABINET CODE           FORM   EQL     TYPE NOTE
        l    m [n]     o  p     q   [r]   s-t[-b1]     u  [v]
       [.    .  .      .  .     .    .    . .  .     .              .]
       [.    .  .      .  .     .    .    . .  .     .              .]
       [.    .  .      .  .     .    .    . .  .     .              .]

[3]   ____________________________________________________________________
      DGN DIST=a-b-c-d w x

[4]   ____________________________________________________________________
      DGN DIST=a-b-c-d COMPLETED y [PH z]

[5]   ____________________________________________________________________
      DGN DIST=a-b-c-d PH e SEG f STMT c1 d1
       [EXP i MASK j ACTL k]
```

2. REASON FOR OUTPUT

To report the result of executing the corresponding input message to diagnose the distribute point board (DIST).

Format 1 prints when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Metallic service unit (MSU) number.

c = Service group number.

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d = DIST number.

e = Number of the phase in which the failure occurred.

f = Number of the segment in which the failure occurred.

g = Number of the test that failed.

h = Mismatch results for the specified test in hexadecimal.

i = Expected result for the specified test in hexadecimal.

j = Mask used to determine test failure in hexadecimal.

k = Actual result for the specified test in hexadecimal.

l = Identification number of floor and aisle.

m = Module type.

n = Module number.

o = Cabinet type.

p = Cabinet number.

q = Replacement equipment code(s).

r = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to subsequent example.

Example of CODE FORM content: `CODE FORM A [:B]...[:C] [-] D[:E]...[:F]`

:	= Intra-field delimiter.
-	= Inter-field delimiter if necessary.
A	= Current minimal accepted equipment code.
B	= Current production equipment code (substitutable equipment for code 'A').
C	= Additional compatible equipment code(s) (added as space permits)
D	= Current minimal approved operating level for equipment code 'A'.
E	= Current minimal approved operating level for equipment code 'B'.
F	= Current minimal approved operating level(s) for equipment code(s) 'C'.

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

s = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

t = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

u = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
___ = Equipment is part of the circuit under test.

v = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

w = Termination status. Valid value(s):
ABORTED = The process was terminated (process not gracefully terminated).
NOT STARTED = Action was not begun.
STOPPED = Terminated before normal completion (process gracefully terminated).

x = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

y = Phase result.

z = Phase number completed.

a[1] = Text identifier showing order of record. Valid value(s):
FIRST = First record of continuing list.
LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

b[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

c[1] = Statement number.

d[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4, and 5, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:DIST
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:DLI

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN DLI=a-c STF PH d SEG e TEST f MM g
       [EXP h MASK i ACTL j]

[2]   ____________________________________________________________________
      DGN DLI=a-c SUSPECTED FAULTY EQUIPMENT x RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL     TYPE  NOTE
          k     l [y]      m z    n    [o]  p-q[-a1]    r    [s]
         [.     .  .       . .    .     .   . .  .      .     .]
         [.     .  .       . .    .     .   . .  .      .     .]
         [.     .  .       . .    .     .   . .  .      .     .]

[3]   ____________________________________________________________________
      DGN DLI=a-c COMPLETED t [PH u]

[4]   ____________________________________________________________________
      DGN DLI={a|a&&b}-c v [w]

[5]   ____________________________________________________________________
      DGN DLI=a-c PH d SEG e STMT b1 c1
       [EXP h MASK i ACTL j]
```

2. REASON FOR OUTPUT

To acknowledge a manual or automatic request to remove and diagnose a specific dual link interface (DLI) or range of DLIs. This message is also printed when DLI diagnostics are run as part of a DGN:ONTC request.

Format 1 prints when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase has completed. Execution of the diagnostic will continue until all phases are complete.

Format 4 prints when the specified phase(s) have been terminated before completion and the execution of the diagnostic will not continue; or to acknowledge that the diagnostic request that was input from the master control center (MCC) has completed.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number that the DLI(s) has (have) been diagnosed in. This can also be the lower limit for a range of DLIs that were diagnosed. (The DLI number and the SM number are the same).

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b = Upper limit of a range of DLIs that were diagnosed.

c = ONTC side the DLI is on.

d = Number of the phase in which the failure occurred.

e = Number of the segment in which the failure occurred.

f = Number of the test that failed.

g = Mismatch results for the specified test in hexadecimal.

h = Expected result for the specified test in hexadecimal.

i = Mask used before determining test failure in hexadecimal.

j = Actual result for the specified test in hexadecimal before mask and compare operation.

k = Aisle.

l = Module type.

y = Communication or switching module (CM or SM) number.

m = Cabinet in which the pack is located.

z = Cabinet number.

n = Replacement equipment code(s).

o = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Example of CODE

FORM content: `CODE` `FORM A [:B]...[:C] [-] D[:E]...[:F]`

:	= Intra-field delimiter.
-	= Inter-field delimiter if necessary.
A	= Current minimal accepted equipment code.
B	= Current production equipment code (substitutable equipment for code 'A) .
C	= Additional compatible equipment code(s) (added as space permits)
D	= Current minimal approved operating level for equipment code 'A'.
E	= Current minimal approved operating level for equipment code 'B'.
F	= Current minimal approved operating level(s) for equipment code(s) 'C'.

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

p = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

q = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

r = Circuit type. Valid value(s):

- HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
- ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
- ___ = Equipment is part of the circuit under test.

s = Refer to output appendix APP:TLP-NOTE in the Appendixes volume of the Output Messages manual.

t = Phase result.

u = Phase number completed.

v = Termination report. Valid value(s):

- ABORTED = Requested action was terminated before completion and the termination was immediate (no cleanup was done).
- COMPLETED = Request completed successfully.
- NOT STARTED = Requested action could not begin.
- STOPPED = Request was terminated before a normal completion. Attempts were made to leave everything in a sane state.

w = Additional data qualifying the termination report (variable 'v') field.

x = Text identifier showing order of record. Valid value(s):

- FIRST = First record of continuing list.
- LAST = Last record of list.
- NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

a[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

b[1] = Statement number.

c[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Formats 1 and 2, refer to the APP:STD-REPAIR appendix in the Appendixes section of the Output Messages manual.

For Format 3, if 't' = CATP or NTR, re-enter the diagnostic request (DLI) after the mate MCTSI is restored (phase 3 CATP) or the TMS is powered up and verified ATP (phase 4 CATP). If 't'= STF, refer to the APP:STD-REPAIR appendix in the Appendixes section of the Output Messages manual.

For Format 4, if 'v' = ABORTED or NOT STARTED, check the validity of the original request (assuming the request was not manually aborted). Look at field 'w' for information as to why the request was not started. Then clear the condition preventing the request from running. If the DGN request continues to give abnormal responses, request

assistance.

For Format 5, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:DLI
DGN:ONTC
RST:ONTC
```

Output Message(s):

```
DGN:ONTC
RST:DLI
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:STD-REPAIR
APP:TLP-NOTE
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

DGN:DNUSCC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN DNUSCC=a-b-c STF PH d SEG e TEST f MM g
       [ACTL h MASK i EXPR j]

[2]   ____________________________________________________________________
      DGN DNUSCC=a-b-c SUSPECTED FAULTY EQUIPMENT a[1] RECORD
        AISLE  MODULE  CABINET  CODE  FORM     EQL    TYPE NOTE
          k      l  [m]    n  o     p    [q]   r s [-t]   u   [v]
        [ .      .   .     .  .     .     .    . .   .    .    . ]
        [ .      .   .     .  .     .     .    . .   .    .    . ]
        [ .      .   .     .  .     .     .    . .   .    .    . ]

[3]   ____________________________________________________________________
      DGN DNUSCC=a-b-c w [x]

[4]   ____________________________________________________________________
      DGN DNUSCC=a-b-c COMPLETED y [PH z]
```

2. REASON FOR OUTPUT

To report the results of diagnosing a digital networking unit - synchronous optical network (DNU-S) common controller (DNUSCC).

Format 1 is printed when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified for the request. An ordered list of suspected faulty equipment is provided.

Format 3 prints when the specified phase(s) terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase(s) has completed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = DNU-S number.

c = Common controller number.

d = Number of the phase in which the failure occurred.

e = Number of the segment in which the failure occurred.

f = Number of the test that failed.

g = Mismatch results for the specified test in hexadecimal.

h = Actual result in hexadecimal for the specified test.

i = Mask in hexadecimal used to determine test failure.

j = Actual result in hexadecimal for the specified test.

k = Floor and aisle number.

l = Module type.

m = Module number.

n = Cabinet type.

o = Cabinet number.

p = Replacement equipment code(s).

q = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the following example.

Example of CODE FORM content:

```
CODE                    FORM A[:B]...[:C] [-] D[:E]...[:F]
```

- = Inter-field delimiter if necessary.
  - : = Intra-field delimiter.
  - A = Current minimal accepted equipment code.
  - B = Current production equipment code (substitutable equipment for code 'A').
  - C = Additional compatible equipment code(s) (added as space permits)
  - D = Current minimal approved operating level for equipment code 'A'.
  - E = Current minimal approved operating level for equipment code 'B'.
  - F = Current minimal approved operating level(s) for equipment code(s) 'C'.

  Codes 'A', 'B' and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

  Forms 'D', 'E' and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

r = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

s = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

t = Depth location in the cabinet.

u = Circuit type. Valid value(s):
  - HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
  - ONL = Equipment is part of the online member of a duplex pair. The online member must be removed, and the mate made online,

before replacement is attempted.
___ = Equipment is part of the circuit under test.

v = Refer to output appendix APP:TLP-NOTE in the Appendixes volume of the Output Messages manual.

w = Termination report. Valid value(s):

ABORTED	= Requested action was terminated before completion, and the termination was not graceful.
COMPLETED	= Requested action was completed successfully.
IN PROGRESS	= Requested action is in progress.
NOT STARTED	= Requested action was not begun.
STOPPED	= Requested action was terminated before a normal completion. Termination was graceful.

x = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

y = Phase result.

z = Phase number completed.

a[1] Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

4. ACTION TO BE TAKEN

For Format 1, analyze failure data to determine reason for failure or run the diagnostic using the TLP option to generate a suspected faulty equipment list.

For Format 2, replace the suspected equipment, one at a time in the order specified. Rerun the diagnostic after each substitution until the fault is repaired or until the diagnostic result changes.

For Formats 3 and 4, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:DNUSCC
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

DGN:DNUSCD

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN DNUSCD=a-b-c-d STF PH e SEG f TEST g MM h
       [ACTL i MASK j EXPR k]

[2]   ____________________________________________________________________
      DGN DNUSCD=a-b-c-d SUSPECTED FAULTY EQUIPMENT a1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM     EQL    TYPE NOTE
          l      m   [n]    o   p     q    [r]    s t [-u]   v    [w]
        [ .      .    .     .   .     .     .     . .   .    .     . ]
        [ .      .    .     .   .     .     .     . .   .    .     . ]
        [ .      .    .     .   .     .     .     . .   .    .     . ]

[3]   ____________________________________________________________________
      DGN DNUSCD=a-b-c-d x [y]

[4]   ____________________________________________________________________
      DGN DNUSCD=a-b-c-d COMPLETED z [PH b1]
```

2. REASON FOR OUTPUT

To report the results of diagnosing a digital networking unit - synchronous optical network (DNU-S) common data (DNUSCD).

Format 1 is printed when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified for the request. An ordered list of suspected faulty equipment is provided.

Format 3 prints when the specified phase(s) terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase(s) has completed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = DNU-S number.

c = Data group number.

d = Common data number.

e = Number of the phase in which the failure occurred.

f = Number of the segment in which the failure occurred.

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g = Number of the test that failed.

h = Mismatch results for the specified test in hexadecimal.

i = Actual result in hexadecimal for the specified test.

j = Mask in hexadecimal used to determine test failure.

k = Actual result in hexadecimal for the specified test.

l = Floor and aisle number.

m = Module type.

n = Module number.

o = Cabinet type.

p = Cabinet number.

q = Replacement equipment code(s).

r = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the following example.

Example of CODE FORM content:

```
CODE                        FORM
A[:B]...[:C] [-] D[:E]...[:F]
-            = Inter-field delimiter if necessary.
:            = Intra-field delimiter.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits)
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B' and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E' and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

s = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

t = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

u = Depth location in the cabinet.

v Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the online member of a duplex pair. The online member must be removed, and the mate made online, before replacement is attempted.

___ = Equipment is part of the circuit under test.

w = Refer to output appendix APP:TLP-NOTE in the Appendixes volume of the Output Messages manual.

x = Termination report. Valid value(s):

ABORTED = Requested action was terminated before completion, and the termination was not graceful.

COMPLETED = Requested action was completed successfully.

IN PROGRESS = Requested action is in progress.

NOT STARTED = Requested action was not begun.

STOPPED = Requested action was terminated before a normal completion. Termination was graceful.

y = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

z = Phase result.

a[1] = Text identifier showing order of record. Valid value(s):

FIRST = First record of continuing list.

LAST = Last record of list.

NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

b[1] = Phase number completed.

4. ACTION TO BE TAKEN

For Format 1, analyze failure data to determine reason for failure or run the diagnostic using the TLP option to generate a suspected faulty equipment list.

For Format 2, replace the suspected equipment, one at a time in the order specified. Rerun the diagnostic after each substitution until the fault is repaired or until the diagnostic result changes.

For Formats 3 and 4, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

DGN:DNUSCD

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

DGN:DUIC

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN DUIC a [COMPLETED] b [(c)]
       {MESSAGE|MSG} {IN PROGRESS|COMPLETE}

[2]   ____________________________________________________________________
      DGN DUIC A PH d b [(c)] {MESSAGE IN PROGRESS|MSG IP}

[3]   ____________________________________________________________________
      DGN DUIC a PH d STF (c)            MSG IP
        TEST    MISMATCH    ACTUAL    MASK    EXPECTED


[4]   ____________________________________________________________________
      DGN DUIC a ABORTED AT PH d STMNT j b [(c)]       MSG IP

[5]   ____________________________________________________________________
      DGN DUIC a TERMINATED AT PH d STMNT j AFTER TEST k

[6]   ____________________________________________________________________
      DGN DUIC a TASK l {MESSAGE STARTED|QUEUED|ABORTED}
```

2. REASON FOR OUTPUT

To print results of a diagnostic run on the direct user interface controller (DUIC).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination status.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination) since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention [no openings in the active deferred maintenance queue (DMQ) and the request is in the waiting DMQ], or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = The result of the diagnostic.

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ATP = All tests passed.
NTR = No tests were run.
STF = Some tests failed.

c = Identifies the number of test failures in addition to the reasons that tests were skipped. For example, if 'c' = (7 00000000 00000000), seven tests failed, and no tests were skipped.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A '1' in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits that were actually received from the hardware device.

h = Determines what bits in 'g' are of interest to this test.

i = The value that the test expected.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

If 'b' = STF, the unit should be repaired as quickly as possible. Refer to the Corrective Maintenance manual for repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	96, 103
2	99, 103
3	109, 110
4	106, 109-111
5	217
6	70, 99

Input Message(s):

```
DGN:DUIC
INH:DMQ
OP:DMQ
RMV:DUIC
RMV:IOP
RST:DUIC
```

```
RST:IOP
STOP:DMQ
STP:DMQ
```

Output Message(s):

```
ANALY:TLPFILE
OP:DMQ
REPT:DGN-AUDIT
REPT:DIAMON
RMV:DUIC
RMV:IOP
RST:DUIC
RST:IOP
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

DGN:EAN

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN EAN=a-b STF PH f SEG g TEST h MM i
       [EXP j MASK k ACTL l]

[2]   ____________________________________________________________________
      DGN EAN=a-b SUSPECTED FAULTY EQUIPMENT y RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL    TYPE  NOTE
         j      k [l]   m  n     o    [p]   q-r[-z]   s    [t]
        [.      .  .    .  .     .     .    . .  .    .     .]
        [.      .  .    .  .     .     .    . .  .    .     .]
        [.      .  .    .  .     .     .    . .  .    .     .]

[3]   ____________________________________________________________________
      DGN EAN=a-b u [v]

[4]   ____________________________________________________________________
      DGN EAN=a-b COMPLETED w x

[5]   ____________________________________________________________________
      DGN EAN=a-b PH f SEG g STMT a1 b1
       [EXP j MASK k ACTL l]
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:EAN input message to diagnose the equipment access network (EAN). Phase 90 is a demand-only phase; it is run only when specifically requested.

Format 1 prints when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Directly connected test unit (DCTU) number.

c = Number of the phase in which the failure occurred.

d = Number of the segment in which the failure occurred.

e = Number of the test that failed.

f = Mismatch results for the specified test in hexadecimal.

g = Expected result for the specified test in hexadecimal.

h = Mask used to determine test failure in hexadecimal.

i = Actual result for the specified test in hexadecimal.

j = Identification number of floor and aisle.

k = Module type.

l = Module number.

m = Cabinet type.

n = Cabinet number.

o = Replacement equipment code(s).

p = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content: `CODE FORM A [:B]...[:C] [-] D[:E]...[:F]`

`:` = Intra-field delimiter.
`-` = Inter-field delimiter if necessary.
`A` = Current minimal accepted equipment code.
`B` = Current production equipment code (substitutable equipment for code '`A`').
`C` = Additional compatible equipment code(s) (added as space permits).
`D` = Current minimal approved operating level for equipment code '`A`'.
`E` = Current minimal approved operating level for equipment code '`B`'.
`F` = Current minimal approved operating level(s) for equipment code(s) '`C`'.

Codes '`A`', '`B`', and '`C`' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms '`D`', '`E`', and '`F`' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

q = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

r = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

s = Circuit type. Valid value(s):
`HPR` = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
`ONL` = Equipment is part of the on-line member of a duplex pair. The on-line member

must be removed, and the mate made on-line, before replacement is attempted.
___ = Equipment is part of the circuit under test.

t = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

u = Termination status. Valid value(s):
ABORTED = The process was terminated (process not gracefully terminated).
NOT STARTED = Action was not begun.
STOPPED = Terminated before normal completion (process gracefully terminated).

v = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

w = Phase result.

x = Phase number completed.

y = Text identifier showing order of record. Valid value(s):
FIRST = First record of continuing list.
LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

z = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

a[1] = Statement number.

b[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4, and 5, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

DGN:EAN

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:FPC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
DGN FPC=a b [c]
```

2. REASON FOR OUTPUT

To respond to a manual or automatic request to diagnose a specific foundation peripheral controller (FPC).

3. VARIABLE FIELD DEFINITIONS

`a` = FPC side.

`b` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before a normal completion and the consistency of hardware states is questionable.
- `COMPLETED` = Requested action was completed successfully.
- `NOT STARTED` = Requested action was not begun.
- `STOPPED` = Requested action was terminated before a normal completion, but consistency of hardware states and data is reliable.

`c` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual or automatic request. No further action is necessary if the requested action completed successfully. If the termination report is not COMPLETED, the variable '`c`' field should give some indication as to why the request failed. The table below explains the cause of a conditional all tests passed (CATP) termination code. Check the appropriate Master Control Center (MCC) pages or OP:CFGSTAT output messages to verify that the associated units were in a valid state to perform the request.

Causes of CATP

Vintage	Phase	Cause
CM2	1	An input/output processor (IOP) in the AM is unavailable.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:FPC
RST:FPC
OP:CFGSTAT
```

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Output Message(s):

```
OP:CFGSTAT
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

111 (IOP)
1240 1250 (MSGS SUMMARY)

DGN:GDSF

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN GDSF=a-b STF PH c SEG d TEST e MM f
       [EXP g MASK h ACTL i]

[2]   ____________________________________________________________________
      DGN GDSF=a-b SUSPECTED FAULTY EQUIPMENT x RECORD
        AISLE  MODULE  CABINET  CODE  FORM     EQL     TYPE  NOTE
         j      k [l]  m    n   o     [p]    q-r[-s]   t     [u]
        [.      .  .   .    .   .      .     . .  .    .      .]
        [.      .  .   .    .   .      .     . .  .    .      .]
        [.      .  .   .    .   .      .     . .  .    .      .]

[3]   ____________________________________________________________________
      DGN GDSF=a-b v [w]

[4]   ____________________________________________________________________
      DGN GDSF=a-b COMPLETED y [PH z]

[5]   ____________________________________________________________________
      DGN GDSF=a-b PH c SEG d STMT a1 b1
       [EXP g MASK h ACTL i]
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:GDSF input message to diagnose the global digital services function (GDSF) circuit.

Format 1 prints when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase(s) has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = GDSF number.

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c = Number of the phase in which the failure occurred.

d = Number of the segment in which the failure occurred.

e = Number of the test that failed.

f = Mismatch results for the specified test.

g = Expected result for the specified test in hexadecimal.

h = Mask used to determine test failure in hexadecimal.

i = Actual result for the specified test in hexadecimal.

j = Identification number of floor and aisle.

k = Module type.

l = Module number.

m = Cabinet type.

n = Cabinet number.

o = Replacement equipment code(s).

p = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to subsequent example.

Example of CODE FORM content:

```
CODE                        FORM
A[:B]...[:C] [-] D[:E]...[:F]
```

Valid value(s):

- = Inter-field delimiter if necessary.
: = Intra-field delimiter.
A = Current minimal accepted equipment code.
B = Current production equipment code (substitutable equipment for code 'A').
C = Additional compatible equipment code(s) (added as space permits).
D = Current minimal approved operating level for equipment code 'A'.
E = Current minimal approved operating level for equipment code 'B'.
F = Current minimal approved operating level(s) for equipment code(s) 'C'.

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

q = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

r = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

s = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

t = Circuit type. Valid value(s):

HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
___	= Equipment is part of the circuit under test.

u = Refer to output appendix APP:TLP-NOTE in the Appendixes section of the Output Messages manual.

v = Termination status. Valid value(s):

ABORTED	= Immediate termination.
COMPLETED	= Successful completion.
NOT STARTED	= Action has not begun.
STOPPED	= Terminated before normal completion.

w = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the output Messages manual.

x = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

y = Phase result.

z = Phase number completed.

a[1] = Statement number.

b[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Format 3, 4, and 5, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:GDSF
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:GDSUCOM

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN GDSUCOM=a-b-c STF PH d SEG e TEST f MM g
       [EXP h MASK i ACTL j]

[2]   ____________________________________________________________________
      DGN GDSUCOM=a-b-c SUSPECTED FAULTY EQUIPMENT z RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL     TYPE  NOTE
         k      l [m]   n  o     p    [q]   r-s[-a1]   t    [u]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]

[3]   ____________________________________________________________________
      DGN GDSUCOM=a-b-c v [w]

[4]   ____________________________________________________________________
      DGN GDSUCOM=a-b-c COMPLETED x [PH y]

[5]   ____________________________________________________________________
      DGN GDSUCOM=a-b-c PH d SEG e STMT b1 c1
       [EXP h MASK i ACTL j]
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:GDSUCOM input message to diagnose the global digital service unit (DSU) common (GDSUCOM) board.

Format 1 prints when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase(s) has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Global digital service unit (GDSU) number.

c = Service group number.

d = Number of the phase in which the failure occurred.

e = Number of the segment in which the failure occurred.

f = Number of the test that failed.

g = Mismatch results for the specified test in hexadecimal.

h = Expected result for the specified test in hexadecimal.

i = Mask used to determine test failure in hexadecimal.

j = Actual result for the specified test in hexadecimal.

k = Identification number of floor and aisle.

l = Module type.

m = Module number.

n = Cabinet type.

o = Cabinet number.

p = Replacement equipment code(s).

q = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE                        FORM
A [:B]...[:C] [-] D[:E]...[:F]
:            = Intra-field delimiter.
-            = Inter-field delimiter if necessary.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits).
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

r = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

s = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

t = Circuit type. Valid value(s):

- HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
- ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
- ___ = Equipment is part of the circuit under test.

u = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

v = Termination status. Valid value(s):

- ABORTED = The process was terminated (process not gracefully terminated).
- NOT STARTED = Action was not begun.
- STOPPED = Terminated before normal completion (process gracefully terminated).

w = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

x = Phase result.

y = Phase number completed.

z = Text identifier showing order of record. Valid value(s):

- FIRST = First record of continuing list.
- LAST = Last record of list.
- NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

a[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

b[1] = Statement number.

c[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4, and 5, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:GDSUCOM
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:GDXACC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

[1]
```
DGN GDXACC=a-b-c STF PH d SEG e TEST f MM g
 [EXP h MASK i ACTL j]
```

[2]
```
DGN GDXACC=a-b-c SUSPECTED FAULTY EQUIPMENT z RECORD
  AISLE  MODULE  CABINET  CODE  FORM    EQL     TYPE  NOTE
   k      l [m]   n  o     p    [q]   r-s[-a1]   t    [u]
  [.      .  .    .  .     .     .    . .  .     .     .]
  [.      .  .    .  .     .     .    . .  .     .     .]
  [.      .  .    .  .     .     .    . .  .     .     .]
```

[3]
```
DGN GDXACC=a-b-c v [w]
```

[4]
```
DGN GDXACC=a-b-c COMPLETED x [PH y]
```

[5]
```
DGN GDXACC=a-b-c PH d SEG e STMT b1 c1
 [EXP h MASK i ACTL j]
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:GDXACC input message to diagnose the gated diode crosspoint access (GDXACC).

Format 1 prints when a test has failed.

Format 2 prints when the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue until all phases are complete.

Format 4 prints when the specified phase has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Line unit number.

c = Service group number.

d = Number of the phase in which the failure occurred.

e = Number of the segment in which the failure occurred.

f = Number of the test that failed.

g = Mismatch results for the specified test in hexadecimal.

h = Expected result for the specified test in hexadecimal.

i = Mask used to determine test failure in hexadecimal.

j = Actual result for the specified test in hexadecimal.

k = Identification number of floor and aisle.

l = Module type.

m = Module number.

n = Cabinet type.

o = Cabinet number.

p = Replacement equipment code(s).

q = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE                        FORM
A [:B]...[:C] [-] D[:E]...[:F]
:            = Intra-field delimiter.
-            = Inter-field delimiter if necessary.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits)
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

r = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

s = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

t = Circuit type. Valid value(s):

- HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
- ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
- ___ = Equipment is part of the circuit under test.

u = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

v = Termination status. Valid value(s):

- ABORTED = The process was terminated (process not gracefully terminated).
- NOT STARTED = Action was not begun.
- STOPPED = Terminated before normal completion The process gracefully terminated.

w = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

x = Phase result.

y = Phase number completed.

z = Text identifier showing order of record. Valid value(s):

- FIRST = First record of continuing list.
- LAST = Last record of list.
- NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

a[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

b[1] = Statement number.

c[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4, and 5, none.

5. ALARMS

Alarms may be triggered because:

(1) The switch is sending a response message that is reporting that a fault recovery (FR) restore request was purged by system integrity. The verb is DGN, the source is AUTO, and the return response is ABORTED.

This is the only time that these three parameters are equal to the stated values.

(2) A routine exercise requested diagnostic fails and, if requested, an alarm is sounded. The verb is RTN exercise, the source is AUTO, and the return response is STF.

(3) A routine exercise was requested and it failed. It failed because the diagnostic was ATP but the circuit failed hardware initialization.

(4) The request originated from a program update or retrofit and the request was not successfully completed. The alarm is sounded only if an "alarm" was requested on failures. These callers have the option of not alarming failures.

6. REFERENCES

Input Message(s):

```
DGN:GDXACC
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:GDXC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN GDXC=a-b-c-d STF PH e SEG f TEST g MM h
       [EXP i MASK j ACTL k]

[2]   ____________________________________________________________________
      DGN GDXC=a-b-c-d SUSPECTED FAULTY EQUIPMENT a1 RECORD
        AISLE  MODULE     CABINET  CODE     FORM   EQL     TYPE NOTE
        l      m [n]      o  p  q  [r]  s-t[-b1]      u  [v]
       [.      .  .       .  .  .   .   . .  .                .    .]
       [.      .  .       .  .  .   .   . .  .                .    .]
       [.      .  .       .  .  .   .   . .  .                .    .]

[3]   ____________________________________________________________________
      DGN GDXC=a-b-c-d w [x]

[4]   ____________________________________________________________________
      DGN GDXC=a-b-c-d COMPLETED y [PH z]

[5]   ____________________________________________________________________
      DGN GDXC=a-b-c-d PH e SEG f STMT c1 d1
       [EXP j MASK k ACTL l]
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:GDXC input message to diagnose the gated diode crosspoint compensator (GDXC).

Format 1 prints when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

c = Service group number.

d = MSU board position number.

e = Number of the phase in which the failure occurred.

f = Number of the segment in which the failure occurred.

g = Number of the test that failed.

h = Mismatch results for the specified test in hexadecimal.

i = Expected result for the specified test in hexadecimal.

j = Mask used to determine test failure in hexadecimal.

k = Actual result for the specified test in hexadecimal.

l = Identification number of floor and aisle.

m = Module type.

n = Module number.

o = Cabinet type.

p = Cabinet number.

q = Replacement equipment code(s).

r = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE     FORM
A[:B]...[:C] [-] D[:E]...[:F]
:            = Intra-field delimiter.
-            = Inter-field delimiter if necessary.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits).
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

s = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

t = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the

implicated shelf.

u = Circuit type. Valid value(s):

- HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
- ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
- ___ = Equipment is part of the circuit under test.

v = Refer to output appendix APP:TLP-NOTE in the Appendixes section of the Output Messages manual.

w = Termination status. Valid value(s):

- ABORTED = The process was terminated (process not gracefully terminated).
- NOT STARTED = Action was not begun.
- STOPPED = Terminated before normal completion (process gracefully terminated).

x = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

y = Phase result.

z = Phase number completed.

a[1] = Text identifier showing order of record. Valid value(s):

- FIRST = First record of continuing list.
- LAST = Last record of list.
- NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

b[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

c[1] = Statement number.

d[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4, and 5, none.

5. ALARMS

Alarms may be triggered because:

(1) The switch is sending a response message that is reporting that a fault recovery (FR) restore request was purged by system integrity. The verb is DGN, the source is AUTO, and the return response is ABORTED. This is the only time that these three parameters are equal to the stated values.

(2) A routine exercise requested diagnostic fails and, if requested, an alarm is sounded. The verb is RTN exercise, the source is AUTO, and the return response is STF.

(3) A routine exercise was requested and it failed. It failed because the diagnostic was ATP but the circuit failed hardware initialization.

(4) The request originated from a program update or retrofit and the request was not successfully completed. The alarm is sounded only if an "alarm" was requested on failures. These callers have the option of not alarming failures.

6. REFERENCES

Input Message(s):

```
DGN:GDXC
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:GDXCON

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN GDXCON=a-b-c STF PH d SEG e TEST f MM g
       [EXP h MASK i ACTL j]

[2]   ____________________________________________________________________
      DGN GDXCON=a-b-c SUSPECTED FAULTY EQUIPMENT z RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL     TYPE  NOTE
         k      l [m]    n  o     p    [q]   r-s[-a1]   t    [u]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]

[3]   ____________________________________________________________________
      DGN GDXCON=a-b-c v [w]

[4]   ____________________________________________________________________
      DGN GDXCON=a-b-c COMPLETED x [PH y]

[5]   ____________________________________________________________________
      DGN GDXCON=a-b-c PH d SEG e STMT b1 c1
       [EXP h MASK i ACTL j]
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:GDXCON input message to diagnose the gated diode crosspoint control (GDXCON).

Format 1 prints when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Line unit number.

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c = Service group number.

d = Number of the phase in which the failure occurred.

e = Number of the segment in which the failure occurred.

f = Number of the test that failed.

g = Mismatch results for the specified test in hexadecimal.

h = Expected result for the specified test in hexadecimal.

i = Mask used to determine test failure in hexadecimal.

j = Actual result for the specified test in hexadecimal.

k = Identification number of floor and aisle.

l = Module type.

m = Module number.

n = Cabinet type.

o = Cabinet number.

p = Replacement equipment code(s).

q = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE  FORM
A[:B]...[:C] [-] D[:E]...[:F]
:            = Intra-field delimiter.
-            = Inter-field delimiter if necessary.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits).
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

r = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

s = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

t = Circuit type. Valid value(s):

- HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
- ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
- ___ = Equipment is part of the circuit under test.

u = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

v = Termination status. Valid value(s):

- ABORTED = The process was terminated (process not gracefully terminated).
- NOT STARTED = Action was not begun.
- STOPPED = Terminated before normal completion (process gracefully terminated).

w = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

x = Phase result.

y = Phase number completed.

z = Text identifier showing order of record. Valid value(s):

- FIRST = First record of continuing list.
- LAST = Last record of list.
- NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

a[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

b[1] = Statement number.

c[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4, and 5, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:GDXCON
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:GRID

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN GRID=a-b-c STF PH d SEG e TEST f MM g
       [EXP h MASK i ACTL j]

[2]   ____________________________________________________________________
      DGN GRID=a-b-c SUSPECTED FAULTY EQUIPMENT z RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL    TYPE  NOTE
         k      l [m]   n  o     p    [q]   r-s[-u]   t    [a1]
         .      .  .    .  .     .     .    .  .  .    .     .
         .      .  .    .  .     .     .    .  .  .    .     .
         .      .  .    .  .     .     .    .  .  .    .     .

[3]   ____________________________________________________________________
      DGN GRID=a-b-c v [w]

[4]   ____________________________________________________________________
      DGN GRID=a-b-c COMPLETED x [PH y]

[5]   ____________________________________________________________________
      DGN GRID=a-b-c PH d SEG e STMT b1 c1
       [EXP h MASK i ACTL j]
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:GRID input message to diagnose the gated diode crosspoint grid (GRID) for a line unit.

Format 1 prints when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Line unit number.

c = Grid number.

d = Number of the phase in which the failure occurred.

e = Number of the segment in which the failure occurred.

f = Number of the test that failed.

g = Mismatch results for the specified test in hexadecimal.

h = Expected result for the specified test in hexadecimal.

i = Mask used to determine test failure in hexadecimal.

j = Actual result for the specified test in hexadecimal.

k = Identification number of floor and aisle.

l = Module type.

m = Module number.

n = Cabinet type.

o = Cabinet number.

p = Replacement equipment code(s).

q = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. For example:

Example of Code FORM content:

```
CODE                        FORM
A [:B]...[:C] [-] D[:E]...[:F]
-            = Inter-field delimiter if necessary.
:            = Intra-field delimiter.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits).
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

r = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

s = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

`t` = Depth location in the bay computed in tenths of an inch, measured left to right in the drawer on the implicated shelf.

`u` = Circuit type. Valid value(s):

- `HPR` = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
- `ONL` = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
- `___` = Equipment is part of the circuit under test.

`v` = Type of termination. Valid value(s):

- `ABORTED` = The process was terminated (process not terminated gracefully).
- `NOT STARTED` = Action was not begun.
- `STOPPED` = Terminated before normal completion (process terminated gracefully).

`w` = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

`x` = Phase result.

`y` = Phase number completed.

`z` = Text identifier showing order of record. Valid value(s):

- `FIRST` = First record of continuing list.
- `LAST` = Last record of list.
- `NEXT` = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

`a`[1] = TLP note number. Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

`b`[1] = Statement number.

`c`[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4, and 5, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:GRID
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:GRIDBD

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN GRIDBD=a-b-c-d STF PH e SEG f TEST g MM h
       [EXP i MASK j ACTL k]

[2]   ____________________________________________________________________
      DGN GRIDBD=a-b-c-d SUSPECTED FAULTY EQUIPMENT a1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL     TYPE  NOTE
          l     m [n]    o  p     q    [r]   s-t[-b1]   u    [v]
         [.     .  .     .  .     .     .    . .  .     .     .]
         [.     .  .     .  .     .     .    . .  .     .     .]
         [.     .  .     .  .     .     .    . .  .     .     .]

[3]   ____________________________________________________________________
      DGN GRIDBD=a-b-c-d w [x]

[4]   ____________________________________________________________________
      DGN GRIDBD=a-b-c-d COMPLETED y [PH z]

[5]   ____________________________________________________________________
      DGN GRIDBD=a-b-c PH e SEG f STMT c1 d1
       [EXP i MASK j ACTL k]
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:GRIDBD input message to diagnose a line unit model 2 (LU2) or line unit model 3 (LU3) grid board.

Format 1 prints when a test has failed.

Format 2 prints when a test failed and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module number.

b = Line unit number.

c = Grid number (LU2).

c = Grid number (LU3).

d = Board number.

e = Number of the phase in which the failure occurred.

f = Number of the segment in which the failure occurred.

g = Number of the test that failed.

h = Mismatch results for the specified test in hexadecimal.

i = Expected results for the specified test, in hexadecimal.

j = Mask used to determine test failure, in hexadecimal.

k = Actual result for the specified test, in hexadecimal.

l = Identification number of floor and aisle.

m = Module type.

n = Module number.

o = Cabinet type.

p = Cabinet number.

q = Replacement equipment code(s).

r = Equipment form(s). Equipment form represents minimal operating level of replacement equipment.

Example of CODE FORM content:

```
CODE        FORM
A [:B]...[:C] [-] D[:E]...[:F]
:             = Intra-field delimiter.
A             = Current minimal accepted equipment code.
-             = Inter-field delimiter if necessary.
B             = Current production equipment code (substitutable equipment for code 'A').
C             = Additional compatible equipment code(s) (added as space permits).
D             = Current minimal approved operating level for equipment code 'A'.
E             = Current minimal approved operating level for equipment code 'B'.
F             = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

s = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

`t` = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

`u` = Circuit type. Valid value(s):

- `HPR` = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
- `ONL` = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
- `___` = Equipment is part of the circuit under test.

`v` = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

`w` Termination status. Valid value(s):

- `ABORTED` = The process was terminated (process not gracefully terminated).
- `NOT STARTED` = Action was not begun.
- `STOPPED` = Terminated before normal completion (process gracefully terminated).

`x` = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

`y` = Phase result.

`z` = Phase number completed.

`a`[1] = Text identifier showing order of record. Valid value(s):

- `FIRST` = First record of continuing list.
- `LAST` = Last record of list.
- `NEXT` = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

`b`[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

`c`[1] = Statement number.

`d`[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs one at a time, in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4, and 5, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:GRIDBD
RST:GRIDBD
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:HDFI

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN HDFI=a-b-c STF PH d SEG e TEST f MM g
       [EXP h MASK i ACTL j]

[2]   ____________________________________________________________________
      DGN HDFI=a-b-c SUSPECTED FAULTY EQUIPMENT x RECORD
        AISLE  MODULE  CABINET  CODE  FORM   EQL     TYPE  NOTE
         k     l  [y]  m   z    n     [o]  p-q[-a1]  r     [s]
        [.     .   .   .   .    .      .   . .  .    .      .]
        [.     .   .   .   .    .      .   . .  .    .      .]
        [.     .   .   .   .    .      .   . .  .    .      .]

[3]   ____________________________________________________________________
      DGN HDFI=a-b-c t [u]

[4]   ____________________________________________________________________
      DGN HDFI=a-b-c COMPLETED v [PH w]

[5]   ____________________________________________________________________
      DGN HDFI=a-b-c PH d SEG e STMT b1 c1
       [EXP h MASK i ACTL j]
```

2. REASON FOR OUTPUT

To report the result of a DGN:HDFI input message to diagnose a host switching module (HSM) digital facilities interface (HDFI) circuit.

Format 1 prints when a test has failed.

Format 2 is printed when a test fails and the trouble locating procedure (TLP) option was specified in the input message. An ordered list of suspected faulty equipment is provided.

Format 3 is printed when the specified phase(s) terminated before completion. Execution of the diagnostic will not continue.

Format 4 is printed when the specified phase(s) completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Digital line and trunk unit (DLTU) number.

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c = HDFI number.

d = Number of the phase in which the failure occurred.

e = Number of the segment in which the failure occurred.

f = Number of the test that failed.

g = Mismatch results for the specified test in hexadecimal.

h = Expected result for the specified test in hexadecimal.

i = Mask used to determine test failure in hexadecimal.

j = Actual result for the specified test in hexadecimal.

k = Identification number of floor and aisle.

l = Module type.

y = Module number.

m = Cabinet type.

z = Cabinet number.

n = Replacement equipment code(s).

o = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE          FORM
A[:B]...[:C] [-] D[:E]...[:F]
:             = Intra-field delimiter.
-             = Inter-field delimiter if necessary.
A             = Current minimal accepted equipment code.
B             = Current production equipment code (substitutable equipment for code 'A').
C             = Additional compatible equipment code(s) (added as space permits).
D             = Current minimal approved operating level for equipment code 'A'.
E             = Current minimal approved operating level for equipment code 'B'.
F             = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

p = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

q = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

r = Circuit type. Valid value(s):

- HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
- ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
- ___ = Equipment is part of the circuit under test.

s = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

t = Termination report. Valid value(s):

- ABORTED = Requested action was terminated before completion, and the termination was complete.
- COMPLETED = Request has successfully completed.
- NOT STARTED = Requested action had not begun.
- STOPPED = Requested action was terminated before a normal completion.

u = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

v = Phase result.

w = Phase number completed.

x = Text identifier showing order of record:

- FIRST = First record of continuing list.
- LAST = Last record of list.
- NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

a[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

b[1] = Statement number.

c[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic after each substitution until the fault is repaired or until the diagnostic result changes.

For Formats 3, 4, and 5, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:HDFI
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:HSDC

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN HSDC a [COMPLETED] b [(c)]
       {MESSAGE|MSG} {IN PROGRESS|COMPLETE}

[2]   ____________________________________________________________________
      DGN HSDC a PH d b [(c)] {MESSAGE IN PROGRESS|MSG IP}

[3]   ____________________________________________________________________
      DGN HSDC a PH d STF (c)            MSG IP
        TEST    MISMATCH    ACTUAL    MASK    EXPECTED
          e        f          g        h         i

[4]   ____________________________________________________________________
      DGN HSDC a ABORTED AT PH d STMNT j b [(c)]       MSG IP

[5]   ____________________________________________________________________
      DGN HSDC a TERMINATED AT PH d STMNT j AFTER TEST k

[6]   ____________________________________________________________________
      DGN HSDC a TASK l {MESSAGE STARTED|QUEUED|ABORTED}
```

2. REASON FOR OUTPUT

To print results of a diagnostic run on the high speed data-link controller (HSDC).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination status.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention [no openings in the active deferred maintenance queue (DMQ) and the request is in the waiting DMQ], or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

b = The result of the diagnostic. Valid value(s):
- ATP = All tests passed.
- NTR = No tests were run.
- STF = Some tests failed.

c = If 'b'=STF, 'c' identifies the number of test failures in addition to the reasons that tests were skipped. For example, if 'd' = (7 00000000 00000000), seven tests failed, and no tests were skipped.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A '1' in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines what bits in 'g' are of interest to this test.

i = The value that the test expected.
Note: For Format 3, the values for 'g', 'h', and 'i' may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

If 'b' = STF, the unit should be repaired as quickly as possible. Refer to the Corrective Maintenance manual for repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	96, 103
2	99, 103
3	109, 110
4	106, 109-111
5	217
6	70, 99

Input Message(s):

```
ALW:DMQ
DGN:HSDC
INH:DMQ
OP:DMQ
RMV:HSDC
RST:HSDC
STOP:DMQ
STP:DMQ
```

Output Message(s):

```
ANALY:TLPFILE
OP:DMQ
REPT:DGN-AUDIT
REPT:DIAMON
RMV:HSDC
RST:HSDC
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

DGN:IDCU

Software Release: 5E10 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN IDCU=a-b-c STF PH d SEG e TEST f MM g
       [EXPR h MASK i ACTL j]

[2]   ____________________________________________________________________
      DGN IDCU=a-b-c SUSPECTED FAULTY EQUIPMENT k REPORT
        AISLE  MODULE  CABINET CODE   FORM   EQL       TYPE NOTE
         l     m [n]   o   p   q       [r]  s-t[-u]     v   [w]
         .     .  .    .   .   .        .   . .         .    .
         .     .  .    .   .   .        .   . .         .    .
         .     .  .    .   .   .        .   . .         .    .

[3]   ____________________________________________________________________
      DGN IDCU=a-b-c x [y]

[4]   ____________________________________________________________________
      DGN IDCU=a-b-c COMPLETED z [PH a1]

[5]   ____________________________________________________________________
      DGN IDCU=a-b-c PH d SEG e STMT b1 c1
       [EXPR h MASK i ACTL j]
```

2. REASON FOR OUTPUT

To report the results of a DGN:IDCU input message to diagnose an integrated digital carrier unit (IDCU) service group circuit.

Format 1 is printed when a test has failed.

Format 2 is printed when a test fails and the trouble locating procedure (TLP) option was specified in the input message. An ordered list of suspected faulty equipment is provided.

Format 3 is printed when the specified phase(s) terminated before completion. Execution of the diagnostic request will not continue.

Format 4 is printed when the specified phase(s) has completed.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = SM number.

b = IDCU number.

c = IDCU service group number.

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d = Number of the phase that failed.

e = Number of the segment that failed.

f = Number of the test that failed.

g = Mismatch results for the specified test in hexadecimal.

h = Expected result for the specified test in hexadecimal.

i = Mask used to determine test failure in hexadecimal.

j = Actual result for the specified test in hexadecimal.

k = Text identifier. Valid value(s):

FIRST	= The first record of continuing list.
LAST	= The last record of list.
NEXT	= The next record of continuing list.

Up to 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

l = Floor an aisle number.

m = Module type.

n = Module number.

o = Cabinet type.

p = Cabinet number.

q = Replacement equipment code(s).

r = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE          FORM
A[:B] ... [:C] [-] D[:E] ... [:F]
```

:	= Intra-field delimiter.
-	= Inter-field delimiter, if necessary.
A	= Current minimal accepted equipment code.
B	= Current production equipment code (replaceable equipment for code 'A').
C	= Additional compatible equipment code(s) (added as space permits).
D	= Current minimal approved operating level for equipment code 'A'.
E	= Current minimal approved operating level for equipment code 'B'.
F	= Current minimal approved operating level(s) for equipment code(s) 'C'.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier, or text identifier(s) as applicable.

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s), or text identifier(s) as applicable.

s = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

t = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

u = Depth location in the bay computed in tenths of an inch, measured left to right in the drawer on the implicated shelf.

v = Circuit type. Valid value(s):

- HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
- ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
- ___ = Equipment is part of the circuit under test.

w = Note number and refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

x = Termination report. Valid value(s):

- ABORTED = Requested action was terminated before completion, and the termination was not graceful.
- COMPLETED = Request action has successfully completed.
- NOT STARTED = Requested action has not begun.
- STOPPED = Requested action was terminated before a normal completion. Termination was graceful.

y = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

z = Phase result.

a[1] = Phase number completed.

b[1] = Statement number.

c[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, analyze failure data to determine reason for failure or run the diagnostic using the TLP option to generate a suspected faulty circuit pack list.

For Format 2, replace the suspected circuit packs, one at a time in the order specified. Rerun the diagnostic after each substitution until the fault is repaired or until the diagnostic result changes. If, after replacing each circuit pack listed, the problem still is not resolved, rerun the diagnostic with the RAW and UCL options. If this does not assist in solving the problem, then refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Formats 3, 4, and 5, no action required.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:IDCU
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-250 *System Recovery*

MCC Display Page(s):

186x (IDCU CIRCUIT)

DGN:IOP

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      DGN IOP a [COMPLETED] b [(c)]
       {MESSAGE|MSG} {IN PROGRESS|COMPLETE}

[2]   ____________________________________________________________
      DGN IOP a PH d b [(c)] {MESSAGE IN PROGRESS|MSG IP}

[3]   ____________________________________________________________
      DGN IOP a PH d STF (c)            MSG IP
        TEST    MISMATCH    ACTUAL    MASK    EXPECTED
         e        f           g        h         i

[4]   ____________________________________________________________
      DGN IOP a ABORTED AT PH d STMNT j b [(c)]        MSG IP

[5]   ____________________________________________________________
      DGN IOP a TERMINATED AT PH d STMNT j AFTER TEST k

[6]   ____________________________________________________________
      DGN IOP A TASK l {MESSAGE STARTED|QUEUED|ABORTED}
```

2. REASON FOR OUTPUT

To print results of a diagnostic run on the input/output processor (IOP).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination status.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention [no openings in the active deferred maintenance queue (DMQ) and the request is in the waiting DMQ], or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

b = The result of the diagnostic.

- ATP = All tests passed.
- CATP = All tests that were executed were ATP; some were not executed due to the unavailability of a system resource that was needed to perform the test.
- NTR = No tests were run.
- STF = Some tests failed.

c = Valid value(s):

If 'b' =	'c' =
CATP or NTR	The reasons tests were skipped in this phase by their bit position in a 16-digit hexadecimal number. For example, if 'd' = (00000000 00000018), tests were skipped for reasons 3 and 4.
STF	The reasons tests were skipped in this phase by their bit position in a 16-digit hexadecimal number. For example, if 'd' = (00000000 00000006), tests were skipped for reasons 1 and 2. The reason codes are as follows: Bit 0 = Helper unit not specified or invalid. Bit 1 = Helper unit cannot be reserved. Bit 2 = Helper unit not out-of-service. Bit 3 = Helper control unit (CU) is not ATP. Bit 4 = Helper unit not connected to controller being diagnosed. Bit 5 to 63 = Unused.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A '1' in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines what bits in 'g' are of interest to this test.

i = The value that the test expected.

Note: For Format 3, the values for 'g', 'h' and 'i' may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

If 'b' =	Action:
CATP	The needed system resource should be made available if possible, so that all tests may be executed.
STF	The unit should be repaired as quickly as possible. Refer to the Corrective Maintenance manual for the repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required. Refer to the APP:OMDB-X-REF appendix

in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	96, 103
2	99, 103
3	109, 110
4	106, 109-111
5	217
6	70, 99

Input Message(s):

```
ALW:DMQ
DGN:IOP
INH:DMQ
OP:DMQ
RMV:IOP
RST:IOP
STOP:DMQ
STP:DMQ
```

Output Message(s):

```
ANALY:TLPFILE
OP:DMQ
REPT:DGN-AUDIT
REPT:DIAMON
RMV:IOP
RST:IOP
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

DGN:ISLUCC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN ISLUCC=a-b-c STF PH d SEG e TEST f MM g
       [ACTL h MASK i EXPR j]

[2]   ____________________________________________________________________
      DGN ISLUCC=a-b-c SUSPECTED FAULTY EQUIPMENT a[1] RECORD
        AISLE  MODULE  CABINET  CODE  FORM     EQL    TYPE NOTE
          k      l  [m]    n  o     p    [q]   r s [-t]   u   [v]
        [ .      .   .     .  .     .     .    . .   .    .    . ]
        [ .      .   .     .  .     .     .    . .   .    .    . ]
        [ .      .   .     .  .     .     .    . .   .    .    . ]

[3]   ____________________________________________________________________
      DGN ISLUCC=a-b-c w [x]

[4]   ____________________________________________________________________
      DGN ISLUCC=a-b-c COMPLETED y [PH z]
```

2. REASON FOR OUTPUT

To report the results of executing a DGN:ISLUCC input message to diagnose an integrated services line unit common controller (ISLUCC).

Format 1 is printed when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of suspected faulty equipment is provided.

Format 3 prints when the specified phase(s) terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase(s) has completed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Integrated services line unit (ISLU) number.

c = Common controller number.

d = Number of the phase in which the failure occurred.

e = Number of the segment in which the failure occurred.

f = Number of the test that failed.

g = Mismatch results for the specified test in hexadecimal.

h = Actual result in hexadecimal for the specified test.

i = Mask in hexadecimal used to determine test failure.

j = Actual result in hexadecimal for the specified test.

k = Floor and aisle number.

l = Module type.

m = Module number.

n = Cabinet type.

o = Cabinet number.

p = Replacement equipment code(s).

q = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE                        FORM
A[:B]...[:C] [-] D[:E]...[:F]
:            = Intra-field delimiter.
-            = Inter-field delimiter if necessary.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits).
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

r = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

s = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

t = Depth location in the cabinet.

u = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the online member of a duplex pair. The online member must be removed, and the mate made online, before replacement is attempted.

___ = Equipment is part of the circuit under test.

v = Refer to output appendix APP:TLP-NOTE in the Appendixes volume of the Output Messages manual.

w = Termination report. Valid value(s):

ABORTED	= Requested action was terminated before completion, and the termination was not graceful.
COMPLETED	= Requested action was completed successfully.
NOT STARTED	= Requested action was not begun.
STOPPED	= Requested action was terminated before a normal completion. Termination was graceful.

x = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

y = Phase result.

z = Phase number completed.

a[1] = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

4. ACTION TO BE TAKEN

For Format 1, analyze failure data to determine reason for failure or run the diagnostic using the TLP option to generate a suspected faulty equipment list.

For Format 2, replace the suspected equipment, one at a time in the order specified. Rerun the diagnostic after each substitution until the fault is repaired or until the diagnostic result changes.

For Formats 3 and 4, no action required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

DGN:ISLUCC

Output Appendix(es):

APP:MAINT-RESP

APP:TLP-NOTE

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x (ISLU NETWORK)
170xy (ISLU LINE GROUP)

DGN:ISLUCD

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN ISLUCD=a-b-c STF PH d SEG e TEST f MM g
       [ACTL h MASK i EXPR j]

[2]   ____________________________________________________________________
      DGN ISLUCD=a-b-c SUSPECTED FAULTY EQUIPMENT a[1] RECORD
        AISLE  MODULE  CABINET  CODE  FORM     EQL    TYPE  NOTE
          k     l [m]    n  o     p    [q]   r s [-t]   u    [v]
        [ .     .  .     .  .     .     .    . .   .    .     . ]
        [ .     .  .     .  .     .     .    . .   .    .     . ]
        [ .     .  .     .  .     .     .    . .   .    .     . ]

[3]   ____________________________________________________________________
      DGN ISLUCD=a-b-c w [x]

[4]   ____________________________________________________________________
      DGN ISLUCD=a-b-c COMPLETED y [PH z]
```

2. REASON FOR OUTPUT

To report the results of executing a DGN:ISLUCD input message to diagnose an integrated services line unit common data (ISLUCD).

Format 1 prints when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of suspected faulty equipment is provided.

Format 3 prints when the specified phase(s) terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase(s) has completed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Integrated services line unit (ISLU) number.

c = Common data number (0 or 1).

d = Number of the phase in which the failure occurred.

e = Number of the segment in which the failure occurred.

f = Number of the test that failed.

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g = Mismatch results for the specified test in hexadecimal.

h = Actual result in hexadecimal for the specified test.

i = Mask in hexadecimal used to determine test failure.

j = Actual result in hexadecimal for the specified test.

k = Floor and aisle number.

l = Module type.

m = Module number.

n = Cabinet type.

o = Cabinet number.

p = Replacement equipment code(s).

q = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE        FORM
A[:B]...[:C] [-] D[:E]...[:F]
:              = Intra-field delimiter.
-              = Inter-field delimiter if necessary.
A              = Current minimal accepted equipment code.
B              = Current production equipment code (substitutable equipment for code 'A').
C              = Additional compatible equipment code(s) (added as space permits).
D              = Current minimal approved operating level for equipment code 'A'.
E              = Current minimal approved operating level for equipment code 'B'.
F              = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

r = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

s = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

t = Depth location in the cabinet.

u = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the online member of a duplex pair. The online member must be removed, and the mate made online, before replacement is attempted.

___ = Equipment is part of the circuit under test.

v = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

w = Termination report. Valid value(s):

ABORTED	= Requested action was terminated before completion, and the termination was not graceful.
COMPLETED	= Requested action was completed successfully.
NOT STARTED	= Requested action was not begun.
STOPPED	= Requested action was terminated before a normal completion. Termination was graceful.

x = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

y = Phase result.

z = Phase number completed.

a[1] = Test identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

4. ACTION TO BE TAKEN

For Format 1, analyze failure data to determine reason for failure or run the diagnostic using the TLP option to generate a suspected faulty equipment list.

For Format 2, replace the suspected equipment, one at a time in the order specified. Rerun the diagnostic after each substitution until the fault is repaired or until the diagnostic result changes.

For Formats 3 and 4, no action required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

DGN:ISLUCD

Output Appendix(es):

APP:MAINT-RESP

APP:TLP-NOTE

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x (ISLU NETWORK)
170xy (ISLU LINE GROUP)

DGN:ISLUHLSC

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      DGN ISLUHLSC=a-b-c-d STF PH e SEG f TEST g MM h
       [EXPR i MASK j ACTL k]

[2]   ____________________________________________________________
      DGN ISLUHLSC=a-b-c-d SUSPECTED FAULTY EQUIPMENT l RECORD
        AISLE  MODULE  CABINET  CODE  FORM EQL  TYPE NOTE
        m       n  o    p  q     r     s   t u   v    w
        .       .  .    .  .     .     .   . .   .    .
        .       .  .    .  .     .     .   . .   .    .
        .       .  .    .  .     .     .   . .   .    .

[3]   ____________________________________________________________
      DGN ISLUHLSC=a-b-c-d x y

[4]   ____________________________________________________________
      DGN ISLUHLSC=a-b-c-d COMPLETED z [PH a1]
```

2. REASON FOR OUTPUT

To describe the result of the DGN:ISLUHLSC input message that is issued to diagnose an integrated services line unit (ISLU) high level service circuit.

Both Formats 1 and 2 print when one or more tests have failed.

Format 2 provides an ordered list of suspected faulty circuit packs.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue. If the termination report is NOT STARTED, an incorrect phase number was specified in the input message.

Format 4 prints when the specified phase has completed. Execution of the diagnostic will not continue if some test has failed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = ISLU number.

c = ISLU service group number.

d = High level service circuit number.

e = Number of the phase in which the error occurred.

f = Number of the segment in which the error occurred.

`g` = Number of the test that failed.

`h` = Mismatch results for the specified test.

`i` = Expected result for the specified test (in hexadecimal).

`j` = Mask used to determine the test failure (in hexadecimal).

`k` = Actual result of the specified test (in hexadecimal).

`l` = Text identifier showing order of record. Valid value(s):

`FIRST`	= First record of continuing list.
`LAST`	= Last record of list.
`NEXT`	= Next record of continuing list.

`m` = Floor and aisle number.

`n` = Module type.

`o` = Module number.

`p` = Cabinet type.

`q` = Cabinet number.

`r` = Circuit pack code number.

`s` = Equipment form. The equipment form represents the minimal operating level of replacement equipment.

`t` = Vertical location in the cabinet.

`u` = Horizontal location in the cabinet.

`v` = Circuit type.

`w` = Note number. Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

`x` = Type of termination. Valid value(s):

`ABORTED`	= Immediate termination.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`y` = Information the qualifies the previous termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

`z` = Phase result. Valid value(s):

`ATP`	= All tests were performed and all passed.
`CATP`	= Some tests were skipped because supporting hardware was not available, but all tests that were run passed.
`NTR`	= No tests were run.
`STF`	= Some tests failed.

a^1 = Number of the phase that has completed.

4. ACTION TO BE TAKEN

For Format 1, analyze the failure data to determine the reason for failure.

For Format 2, replace the suspected packs one at a time in the order specified. Rerun the diagnostic after each replacement until the fault is repaired or the diagnostic result changes.

For Format 3, if the termination report is `NOT STARTED`, an incorrect phase number was specified in the input message. Determine the correct phase number and reissue the exercise message.

If unexpected results occur, refer to the manual Corrective Maintenance manual.

For Format 4, if the phase result is `STF`, take action indicated by Formats 1 and 2.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:ISLUHLSC
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x, 171x (ISLU)

DGN:ISLULBD

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN ISLULBD=a-b-c-d STF PH e SEG f TEST g MM h
       [EXPR k MASK j ACTL i]

[2]   ____________________________________________________________________
      DGN ISLULBD=a-b-c-d SUSPECTED FAULTY EQUIPMENT b1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM     EQL    TYPE NOTE
          l     m [n]    o  p     q    [r]   s t [-u]   v   [w]
          .     .  .     .  .     .     .    . .   .    .    .
          .     .  .     .  .     .     .    . .   .    .    .
          .     .  .     .  .     .     .    . .   .    .    .

[3]   ____________________________________________________________________
      DGN ISLULBD=a-b-c-d x [y]

[4]   ____________________________________________________________________
      DGN ISLULBD=a-b-c-d COMPLETED z [PH a1]
```

2. REASON FOR OUTPUT

To report the results of executing a DGN:ISLULBD input message to diagnose an integrated services line unit line board (ISLULBD).

Format 1 is printed when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of suspected faulty equipment is provided.

Format 3 prints when the specified phase(s) terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase(s) has completed.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = Integrated services line unit (ISLU) number.

`c` = Line group number.

`d` = Line board number.

`e` = Number of the phase in which the failure occurred.

`f` = Number of the segment in which the failure occurred.

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g = Number of the test that failed.

h = Mismatch results for the specified test in hexadecimal.

i = Actual result in hexadecimal for the specified test.

j = Mask in hexadecimal used to determine test failure.

k = Actual result in hexadecimal for the specified test.

l = Floor and aisle number.

m = Module type.

n = Module number.

o = Cabinet type.

p = Cabinet number.

q = Replacement equipment code(s).

r = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE          FORM
A[:B]...[:C] [-] D[:E]...[:F]
:            = Intra-field delimiter.
-            = Inter-field delimiter if necessary.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits).
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

s = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

t = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

u = Depth location in tenths of an inch in the cabinet.

v = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the online member of a duplex pair. The online member

must be removed, and the mate made online, before replacement is attempted.
___ = Equipment is part of the circuit under test.

w = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual for definition of TLP note.

x = Action status report. Valid value(s):

ABORTED	= Requested action was terminated before completion, and the termination was not graceful.
COMPLETED	= Requested action was completed successfully.
IN PROGRESS	= Requested action is in progress.
NOT STARTED	= Requested action was not begun.
STOPPED	= Requested action was terminated before a normal completion. Termination was graceful.

y = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

Note: The ISLUBD diagnostic runs ISLULBD and integrated services line unit line circuit (ISLULCKT) phases. If all of the SISLULBD phases pass, but one or more of the ISLUCKT phases fail, the ISLULBD diagnostic will still output an ATP result. In this case, failing the entire ISLULBD diagnostic would leave too much circuitry out-of-service (OOS). Instead, only the ISLULCKT will be left OOS.

z = Phase result.

a[1] = Phase number completed.

b[1] = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

4. ACTION TO BE TAKEN

For Format 1, analyze failure data to determine reason for failure or run the diagnostic using the TLP option to generate a suspected faulty equipment list.

For Format 2, replace the suspected equipment, one at a time in the order specified. Rerun the diagnostic after each substitution until the fault is repaired or until the diagnostic result changes.

For Formats 3 and 4, no action required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:ISLULBD
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

DGN:ISLULC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN ISLULC=a-b-c-d STF PH e SEG f TEST g MM h
       [EXPR k MASK j ACTL i]

[2]   ____________________________________________________________________
      DGN ISLULC=a-b-c-d SUSPECTED FAULTY EQUIPMENT b1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM     EQL    TYPE NOTE
          l     m [n]    o  p     q    [r]   s t [-u]   v   [w]
          .     .  .     .  .     .     .    . .   .    .    .
          .     .  .     .  .     .     .    . .   .    .    .
          .     .  .     .  .     .     .    . .   .    .    .

[3]   ____________________________________________________________________
      DGN ISLULC=a-b-c-d x [y]

[4]   ____________________________________________________________________
      DGN ISLULC=a-b-c-d COMPLETED z [PH a1]
```

2. REASON FOR OUTPUT

To report the results of executing a DGN:ISLULC input message to diagnose an integrated services line unit line card (ISLULC).

Format 1 is printed when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of suspected faulty equipment is provided.

Format 3 prints when the specified phase(s) terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase(s) has completed.

3. VARIABLE FIELD DEFINITIONS

a = SM number.

b = Integrated services line unit (ISLU) number.

c = Line group controller number.

d = Line card number.

e = Number of the phase in which the failure occurred.

f = Number of the segment in which the failure occurred.

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g = Number of the test that failed.

h = Mismatch results for the specified test in hexadecimal.

i = Actual result in hexadecimal for the specified test.

j = Mask in hexadecimal used to determine test failure.

k = Actual result in hexadecimal for the specified test.

l = Floor and aisle number.

m = Module type.

n = Module number.

o = Cabinet type.

p = Cabinet number.

q = Replacement equipment code(s).

r = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE            FORM
A[:B]...[:C] [-] D[:E]...[:F]
```

- = Inter-field delimiter if necessary.
: = Intra-field delimiter.
A = Current minimal accepted equipment code.
B = Current production equipment code (substitutable equipment for code 'A').
C = Additional compatible equipment code(s) (added as space permits)
D = Current minimal approved operating level for equipment code 'A'.
E = Current minimal approved operating level for equipment code 'B'.
F = Current minimal approved operating level(s) for equipment code(s) 'C'.

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

s = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.
t = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.
u = Depth location in tenths of an inch in the cabinet.
v = Circuit type. Valid value(s):
___ = Equipment is part of the circuit under test.
HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL = Equipment is part of the online member of a duplex pair. The online member must be removed, and the mate made online,

before replacement is attempted.

w = Refer to output appendix APP:TLP-NOTE for definition of TLP note.

x = Action status report. Valid value(s):

- ABORTED = Requested action was terminated before completion, and the termination was not graceful.
- COMPLETED = Requested action was completed successfully.
- IN PROGRESS = Requested action is in progress.
- NOT STARTED = Requested action was not begun.
- STOPPED = Requested action was terminated before a normal completion. Termination was graceful.

y = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

Note: Diagnostics may not be started due to a line card sparing conflict. This condition exists when trying to gain metallic access to a line card that is in the same half of a line group drawer as an actively spared faulty card. "Same half of a line group drawer" refers to those line groups that are vertically adjacent (such as, LG0 and LG1 or LG2 and LG3).

z = Phase result.

a[1] = Phase number completed.

b[1] = Text identifier showing order of record. Valid value(s):

- FIRST = First record of continuing list.
- LAST = Last record of list.
- NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

4. ACTION TO BE TAKEN

For Format 1, analyze failure data to determine reason for failure or run the diagnostic using the TLP option to generate a suspected faulty equipment list.

For Format 2, replace the suspected equipment, one at a time in the order specified. Rerun the diagnostic after each substitution until the fault is repaired or until the diagnostic result changes.

For Formats 3 and 4, no action required.

5. ALARMS

Alarms may be triggered because:

(1) The switch is sending a response message that is reporting that a fault recovery (FR) restore request was purged by system integrity. The verb is DGN, the source is AUTO, and the return response is ABORTED. This is the only time that these three parameters are equal to the stated values.

(2) A routine exercise requested diagnostic fails and, if requested, an alarm is sounded. The verb is RTN exercise, the source is AUTO, and the return response is STF.

(3) A routine exercise was requested and it failed. It failed because the diagnostic was ATP but the circuit failed hardware initialization.

(4) The request originated from a program update or retrofit and the request was not successfully completed. The alarm is sounded only if an "alarm" was requested on failures. These callers have the option of not alarming failures.

6. REFERENCES

Input Message(s):

```
DGN:ISLULC
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x (ISLU NETWORK)
170xy (ISLU LINE GROUP)

DGN:ISLULCKT

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN ISLULCKT=a-b-c-d-e STF PH f SEG g TEST h MM i
       [EXPR l MASK k ACTL j]

[2]   ____________________________________________________________________
      DGN ISLULCKT=a-b-c-d-e SUSPECTED FAULTY EQUIPMENT c1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM     EQL    TYPE NOTE
          m     n [o]    p  q     r    [s]   t u [-v]   w   [x]
          .     .  .     .  .     .     .    . .   .    .    .
          .     .  .     .  .     .     .    . .   .    .    .
          .     .  .     .  .     .     .    . .   .    .    .

[3]   ____________________________________________________________________
      DGN ISLULCKT=a-b-c-d-e y [z]

[4]   ____________________________________________________________________
      DGN ISLULCKT=a-b-c-d-e COMPLETED a1 [PH b1]
```

2. REASON FOR OUTPUT

To report the results of executing a DGN:ISLULCKT input message to diagnose an integrated services line unit line circuit (ISLULCKT).

Format 1 is printed when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of suspected faulty equipment is provided.

Format 3 prints when the specified phase(s) terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase(s) has completed.

3. VARIABLE FIELD DEFINITIONS

a = SM number.

b = Integrated services line unit (ISLU) number.

c = Line group number.

d = Line board number.

e = Line circuit number.

f = Number of the phase in which the failure occurred.

g = Number of the segment in which the failure occurred.

h = Number of the test that failed.

i = Mismatch results for the specified test in hexadecimal.

j = Actual result in hexadecimal for the specified test.

k = Mask in hexadecimal used to determine test failure.

l = Actual result in hexadecimal for the specified test.

m = Floor and aisle number.

n = Module type.

o = Module number.

p = Cabinet type.

q = Cabinet number.

r = Replacement equipment code(s).

s = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE  FORM
A[:B]...[:C] [-] D[:E]...[:F]
:            = Intra-field delimiter.
-            = Inter-field delimiter if necessary.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits).
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

t = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

u = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

v = Depth location in tenths of an inch in the cabinet.

w = Circuit type. Valid value(s):
HPR = Equipment is part of a helper circuit. The helper must be removed before

replacement is attempted.

ONL = Equipment is part of the online member of a duplex pair. The online member must be removed, and the mate made online, before replacement is attempted.

___ = Equipment is part of the circuit under test.

x = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual for definition of TLP note.

y = Action status report. Valid value(s):

ABORTED = Requested action was terminated before completion, and the termination was not graceful.

COMPLETED = Requested action was completed successfully.

IN PROGRESS = Requested action is in progress.

NOT STARTED = Requested action was not begun.

STOPPED = Requested action was terminated before a normal completion. Termination was graceful.

z = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

Note: Diagnostics may not be started due to a line circuit sparing conflict. This condition exists when trying to gain metallic access to a line circuit that is in the same half of a line group drawer as an actively spared faulty circuit. "Same half of a line group drawer" refers to those line groups that are vertically adjacent (such as, LG0 and LG1 or LG2 and LG3).

a[1] = Phase result.

b[1] = Phase number completed.

c[1] = Text identifier showing order of record. Valid value(s):

FIRST = First record of continuing list.

LAST = Last record of list.

NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

4. ACTION TO BE TAKEN

For Format 1, analyze failure data to determine reason for failure or run the diagnostic using the TLP option to generate a suspected faulty equipment list.

For Format 2, replace the suspected equipment, one at a time in the order specified. Rerun the diagnostic after each substitution until the fault is repaired or until the diagnostic result changes.

For Formats 3 and 4, no action required.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
DGN:ISLULCKT
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

DGN:ISLULG

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN ISLULG=a-b-c STF PH d SEG e TEST f MM g
       [EXPR j MASK i ACTL h]

[2]   ____________________________________________________________________
      DGN ISLULG=a-b-c SUSPECTED FAULTY EQUIPMENT a[1] RECORD
       AISLE  MODULE  CABINET  CODE  FORM     EQL    TYPE NOTE
         k     l  [m]   n  o     p    [q]   r s [-t]   u   [v]
         .     .   .    .  .     .     .    . .   .    .    .
         .     .   .    .  .     .     .    . .   .    .    .
         .     .   .    .  .     .     .    . .   .    .    .

[3]   ____________________________________________________________________
      DGN ISLULG=a-b-c w [x]

[4]   ____________________________________________________________________
      DGN ISLULG=a-b-c COMPLETED y [PH z]
```

2. REASON FOR OUTPUT

To report the results of executing a DGN:ISLULG input message to diagnose an integrated services line unit line group (ISLULG).

Format 1 is printed when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of suspected faulty equipment is provided.

Format 3 prints when the specified phase(s) terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase(s) has completed.

3. VARIABLE FIELD DEFINITIONS

a = SM number.

b = Integrated services line unit (ISLU) number.

c = Line group number.

d = Number of the phase in which the failure occurred.

e = Number of the segment in which the failure occurred.

f = Number of the test that failed.

g = Mismatch results for the specified test in hexadecimal.

h = Actual result in hexadecimal for the specified test.

i = Mask in hexadecimal used to determine test failure.

j = Actual result in hexadecimal for the specified test.

k = Floor and aisle number.

l = Module type.

m = Module number.

n = Cabinet type.

o = Cabinet number.

p = Replacement equipment code(s).

q = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE  FORM A[:B]...[:C] [-] D[:E]...[:F]
:          = Intra-field delimiter.
-          = Inter-field delimiter if necessary.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code 'A').
C          = Additional compatible equipment code(s) (added as space permits).
D          = Current minimal approved operating level for equipment code 'A'.
E          = Current minimal approved operating level for equipment code 'B'.
F          = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

r = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

s = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

t = Depth location in tenths of an inch in the cabinet.

u = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the online member of a duplex pair. The online member must be removed, and the mate made online, before replacement is attempted.

--- = Equipment is part of the circuit under test.

v = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

w = Action status report. Valid value(s):

ABORTED	= Requested action was terminated before completion, and the termination was not graceful.
COMPLETED	= Requested action was completed successfully.
IN PROGRESS	= Requested action is in progress.
NOT STARTED	= Requested action was not begun.
STOPPED	= Requested action was terminated before a normal completion. Termination was graceful.

x = Additional information qualifying the termination report.

Note: Diagnostics will not be started if there is a line card sparing conflict. This condition occurs if either a spared faulty card or designated spare card is involved in an active spare connection in the LG to be diagnosed.

Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

y = Phase result.

z = Phase number completed.

a[1] = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

4. ACTION TO BE TAKEN

For Format 1, analyze failure data to determine reason for failure or run the diagnostic using the TLP option to generate a suspected faulty equipment list.

For Format 2, replace the suspected equipment, one at a time in the order specified. Rerun the diagnostic after each substitution until the fault is repaired or until the diagnostic result changes.

For Formats 3 and 4, no action required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:ISLULG
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

DGN:ISLULGC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN ISLULGC=a-b-c STF PH d SEG e TEST f MM g
       [EXPR j MASK i ACTL h]

[2]   ____________________________________________________________________
      DGN ISLULGC=a-b-c SUSPECTED FAULTY EQUIPMENT a[1] RECORD
        AISLE  MODULE  CABINET  CODE  FORM     EQL    TYPE NOTE
          k      l   [m]    n   o     p    [q]    r s [-t]   u    [v]
          .      .    .     .   .     .     .     . .  .    .     .
          .      .    .     .   .     .     .     . .  .    .     .
          .      .    .     .   .     .     .     . .  .    .     .

[3]   ____________________________________________________________________
      DGN ISLULGC=a-b-c w [x]

[4]   ____________________________________________________________________
      DGN ISLULGC=a-b-c COMPLETED y [PH z]
```

2. REASON FOR OUTPUT

To report the results of executing a DGN:ISLULGC input message to diagnose an integrated services line unit line group controller (ISLULGC).

Format 1 is printed when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of suspected faulty equipment is provided.

Format 3 prints when the specified phase(s) terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase(s) has completed.

3. VARIABLE FIELD DEFINITIONS

a = SM number.

b = Integrated services line unit (ISLU) number.

c = Line group controller number.

d = Number of the phase in which the failure occurred.

e = Number of the segment in which the failure occurred.

f = Number of the test that failed.

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g = Mismatch results for the specified test in hexadecimal.

h = Actual result in hexadecimal for the specified test.

i = Mask in hexadecimal used to determine test failure.

j = Actual result in hexadecimal for the specified test.

k = Floor and aisle number.

l = Module type.

m = Module number.

n = Cabinet type.

o = Cabinet number.

p = Replacement equipment code(s).

q = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE  FORM
A[:B]...[:C] [-] D[:E]...[:F]
:            = Intra-field delimiter.
-            = Inter-field delimiter if necessary.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits).
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

r = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

s = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

t = Depth location in tenths of an inch in the cabinet.

u = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the online member of a duplex pair. The online member must be removed, and the mate made online, before replacement is attempted.

`---` = Equipment is part of the circuit under test.

`v` = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

`w` = Action status report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was completed successfully.
- `IN PROGRESS` = Requested action is in progress.
- `NOT STARTED` = Requested action was not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`x` = Additional information qualifying the termination report.

Note: Diagnostics will not be started if there is a line card sparing conflict. This condition occurs if either a spared faulty card or designated spare card is involved in an active spare connection in the LGC to be diagnosed.

Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

`y` = Phase result.

`z` = Phase number completed.

`a`[1] = Text identifier showing order of record. Valid value(s):

- `FIRST` = First record of continuing list.
- `LAST` = Last record of list.
- `NEXT` = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

4. ACTION TO BE TAKEN

For Format 1, analyze failure data to determine reason for failure or run the diagnostic using the TLP option to generate a suspected faulty equipment list.

For Format 2, replace the suspected equipment, one at a time in the order specified. Rerun the diagnostic after each substitution until the fault is repaired or until the diagnostic result changes.

For Formats 3 and 4, no action required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

DGN:ISLULGC

Output Appendix(es):

APP:MAINT-RESP
APP:TLP-NOTE

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x (ISLU NETWORK)
170xy (ISLU LINE GROUP)

DGN:ISLUMAN

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN ISLUMAN=a-b-c-d STF PH e SEG f TEST g MM h
       [EXPR i MASK j ACTL k]

[2]   ____________________________________________________________________
      DGN ISLUMAN=a-b-c-d SUSPECTED FAULTY EQUIPMENT l RECORD
        AISLE  MODULE  CABINET  CODE  FORM EQL  TYPE NOTE
        m       n  o    p  q     r     s   t u   v    w
        .       .  .    .  .     .     .   . .   .    .
        .       .  .    .  .     .     .   . .   .    .
        .       .  .    .  .     .     .   . .   .    .

[3]   ____________________________________________________________________
      DGN ISLUMAN=a-b-c-d x y

[4]   ____________________________________________________________________
      DGN ISLUMAN=a-b-c-d COMPLETED z [PH a1]
```

2. REASON FOR OUTPUT

To describe the result of the DGN:ISLUMAN input message that is issued to diagnose an integrated services line unit (ISLU) metallic access network pack.

Both Formats 1 and 2 print when one or more tests have failed.

Format 2 provides an ordered list of suspected faulty circuit packs.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue. If the termination report is '`NOT STARTED`', an incorrect phase number was specified in the input message.

Format 4 prints when the specified phase has completed. Execution of the diagnostic will not continue if some test has failed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = ISLU number.

`c` = ISLU service group number.

`d` = Metallic access network pack number.

`e` = Number of the phase in which the error occurred.

`f` = Number of the segment in which the error occurred.

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`g` = Number of the test that failed.

`h` = Mismatch results for the specified test.

`i` = Expected result for the specified test (in hexadecimal).

`j` = Mask used to determine the test failure (in hexadecimal).

`k` = Actual result of the specified test (in hexadecimal).

`l` = Text identifier showing order of record. Valid value(s):

`FIRST`	= First record of continuing list.
`LAST`	= Last record of list.
`NEXT`	= Next record of continuing list.

`m` = Floor and aisle number.

`n` = Module type.

`o` = Module number.

`p` = Cabinet type.

`q` = Cabinet number.

`r` = Circuit pack code number.

`s` = Equipment form. The equipment form represents the minimal operating level of replacement equipment.

`t` = Vertical location in the cabinet.

`u` = Horizontal location in the cabinet.

`v` = Circuit type.

`w` = Note number. Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

`x` = Type of termination. Valid value(s):

`ABORTED`	= Immediate termination.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`y` = Information the qualifies the previous termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

`z` = Phase result. Valid value(s):

`ATP`	= All tests were performed and all passed.
`CATP`	= Some tests were skipped because supporting hardware was not available, but all tests that were run passed.
`NTR`	= No tests were run.
`STF`	= Some tests failed.

a^1 = Number of the phase that has completed.

4. ACTION TO BE TAKEN

For Format 1, analyze the failure data to determine the reason for failure.

For Format 2, replace the suspected packs one at a time in the order specified. Rerun the diagnostic after each replacement until the fault is repaired or the diagnostic result changes.

For Format 3, if the termination report is '`NOT STARTED`', an incorrect phase number was specified in the input message. Determine the correct phase number and reissue the exercise message.

Note: Diagnostics will not start if there is a line card sparing conflict. This condition occurs when an attempt is made to diagnose an ISLU metallic access network pack that is servicing an ISLU line group controller that contains either a spared faulty card or a designated spare card involved in an active spare connection. ISLU metallic access network 0 serves line group controllers 0 through 7, and metallic access network 1 serves line group controllers 8 through 15.

If unexpected results occur, refer to the Corrective Maintenance manual.

For Format 4, if the phase result is `STF`, take action indicated by Formats 1 and 2.

5. ALARMS

Alarms may be triggered because:

- The switch is sending a response message that is reporting that a fault recovery (FR) restore request was purged by system integrity. The verb is DGN, the source is AUTO, and the return response is ABORTED. This is the only time that these three parameters are equal to the stated values.
- A routine exercise requested diagnostic fails and, if requested, an alarm is sounded. The verb is RTN exercise, the source is AUTO, and the return response is STF.
- A routine exercise was requested and it failed. It failed because the diagnostic was ATP but the circuit failed hardware initialization.
- The request originated from a program update or retrofit and the request was not successfully completed. The alarm is sounded only if an "alarm" was requested on failures. These callers have the option of not alarming failures.

6. REFERENCES

Input Message(s):

```
DGN:ISLUMAN
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):

235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x, 171x (ISLU)

DGN:ISLURG

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN ISLURG=a-b-c STF PH d SEG e TEST f MM g
       [EXPR h MASK i ACTL j]

[2]   ____________________________________________________________________
      DGN ISLURG=a-b-c SUSPECTED FAULTY EQUIPMENT k RECORD
        AISLE  MODULE  CABINET  CODE  FORM EQL  TYPE NOTE
        l       m  n    o  p     q     r   s t   u    v
        .       .  .    .  .     .     .   . .   .    .
        .       .  .    .  .     .     .   . .   .    .
        .       .  .    .  .     .     .   . .   .    .

[3]   ____________________________________________________________________
      DGN ISLURG=a-b-c w x

[4]   ____________________________________________________________________
      DGN ISLURG=a-b-c COMPLETED y [PH z]
```

2. REASON FOR OUTPUT

To describe the result of the DGN:ISLURG input message that is issued to diagnose an integrated services line unit (ISLU) ringing generator circuit.

Both Formats 1 and 2 print when one or more tests have failed.

Format 2 provides an ordered list of suspected faulty circuit packs.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue. If the termination report is '`NOT STARTED`', an incorrect phase number was specified in the input message.

Format 4 prints when the specified phase has completed. Execution of the diagnostic will not continue if some test has failed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = ISLU number.

`c` = ISLU service group number.

`d` = Number of the phase in which the error occurred.

`e` = Number of the segment in which the error occurred.

`f` = Number of the test that failed.

g = Mismatch results for the specified test.

h = Expected result for the specified test (in hexadecimal).

i = Mask used to determine the test failure (in hexadecimal).

j = Actual result of the specified test (in hexadecimal).

k = Text identifier showing order of record. Valid value(s):
- FIRST = First record of continuing list.
- LAST = Last record of list.
- NEXT = Next record of continuing list.

l = Floor and aisle number.

m = Switching module type.

n = Switching module number.

o = Cabinet type.

p = Cabinet number.

q = Circuit pack code number.

r = Equipment form. The equipment form represents the minimal operating level of replacement equipment.

s = Vertical location in the cabinet.

t = Horizontal location in the cabinet.

u = Circuit type.

v = Note number. Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

w = Type of termination. Valid value(s):
- ABORTED = Immediate termination.
- NOT STARTED = Action has not begun.
- STOPPED = Terminated before normal completion.

x = Information the qualifies the previous termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

y = Phase result. Valid value(s):
- ATP = All tests were performed and all passed.
- CATP = Some tests were skipped because supporting hardware was not available, but all tests that were run passed.
- NTR = No tests were run.
- STF = Some tests failed.

z = Number of the phase that has completed.

4. ACTION TO BE TAKEN

For Format 1, analyze the failure data to determine the reason for failure.

For Format 2, replace the suspect packs one at a time in the order specified. Rerun the diagnostic after each replacement until the fault is repaired or the diagnostic result changes.

For Format 3, if the termination report is '`NOT STARTED`', an incorrect phase number was specified in the input message. Determine the correct phase number and reissue the exercise message.

If unexpected results occur, refer to the Corrective Maintenance manual.

For Format 4, if the phase result is `STF`, take action indicated by Formats 1 and 2.

5. ALARMS

Alarms may be triggered because:

- The switch is sending a response message that is reporting that a fault recovery (FR) restore request was purged by system integrity. The verb is DGN, the source is AUTO, and the return response is ABORTED. This is the only time that these three parameters are equal to the stated values.
- A routine exercise requested diagnostic fails and, if requested, an alarm is sounded. The verb is RTN exercise, the source is AUTO, and the return response is STF.
- A routine exercise was requested and it failed. It failed because the diagnostic was ATP but the circuit failed hardware initialization.
- The request originated from a program update or retrofit and the request was not successfully completed. The alarm is sounded only if an "alarm" was requested on failures. These callers have the option of not alarming failures.

6. REFERENCES

Input Message(s):

```
DGN:ISLURG
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):

235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x, 171x (ISLU)

DGN:ISTF

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN ISTF=a-b STF PH c SEG d TEST e MM f
       [EXP g MASK h ACTL i]

[2]   ____________________________________________________________________
      DGN ISTF=a-b SUSPECTED FAULTY EQUIPMENT n RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL    TYPE  NOTE
         j      k [l]    m n     o     [p]  q-r[-s]   t    [u]
        [.      .  .     . .     .      .   . .  .    .     .]
        [.      .  .     . .     .      .   . .  .    .     .]
        [.      .  .     . .     .      .   . .  .    .     .]

[3]   ____________________________________________________________________
      DGN ISTF=a-b v [w]

[4]   ____________________________________________________________________
      DGN ISTF=a-b COMPLETED x [PH y]

[5]   ____________________________________________________________________
      DGN ISTF=a-b PH c SEG d STMT z a[1]
       [EXP g MASK h ACTL i]
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:ISTF input message to diagnose the integrated services test function (ISTF) unit.

Format 1 prints when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase(s) has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = ISTF unit number.

c = Number of the phase in which the failure occurred. Valid value(s):
STF = Some tests failed.

d = Number of the segment in which the failure occurred.

e = Number of the test that failed.

f = Mismatch results for the specified test in hexadecimal.

g = Expected results for the specified test, in hexadecimal.

h = Mask used to determine test failure, in hexadecimal.

i = Actual result for the specified test in hexadecimal.

j = Identification number of floor and aisle.

k = Module type.

l = Module number.

m = Cabinet type.

n = Cabinet number.

o = Replacement equipment code(s).

p = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE            FORM
A[:B]...[:C] [-] D[:E]...[:F]
:              = Intra-field delimiter.
-              = Inter-field delimiter if necessary.
A              = Current minimal accepted equipment code.
B              = Current production equipment code (substitutable equipment for code 'A').
C              = Additional compatible equipment code(s) (added as space permits).
D              = Current minimal approved operating level for equipment code 'A'.
E              = Current minimal approved operating level for equipment code 'B'.
F              = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

q = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

r = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

s = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

t = Circuit type. Valid value(s):

HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
___	= Equipment is part of the circuit under test.

u = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

v = Termination status. Valid value(s):

ABORTED	= The process was terminated (process not gracefully terminated).
NOT STARTED	= Action was not begun.
STOPPED	= Terminated before normal completion (process gracefully terminated).

w = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

x = Phase result.

y = Phase number completed. Format 5 - circuit unavailable.

z = Statement number.

a[1] = Reason why some tests were not performed.

b[1] = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

4. ACTION TO BE TAKEN

For Format 1, if fields 'g' and 'i' of Format 1 do not match, refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual. If this does not assist in solving the problem, rerun the diagnostic with the 'RAW' and 'UCL' options. Give the resulting output to a diagnostician for interpretation.

For Format 2, replace the suspected packs, one at a time, in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Format 3, 4, and 5, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:ISTF
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:LDSF

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN LDSF=a-b STF PH c SEG d TEST e MM f
       [EXP g MASK h ACTL i]

[2]   ____________________________________________________________________
      DGN LDSF=a-b SUSPECTED FAULTY EQUIPMENT x RECORD
        AISLE  MODULE  CABINET  CODE  FORM     EQL     TYPE  NOTE
         j      k [l]  m    n   o     [p]    q-r[-s]   t     [u]
        [.      .  .   .    .   .      .     . .  .    .      .]
        [.      .  .   .    .   .      .     . .  .    .      .]
        [.      .  .   .    .   .      .     . .  .    .      .]

[3]   ____________________________________________________________________
      DGN LDSF=a-b v [w]

[4]   ____________________________________________________________________
      DGN LDSF=a-b COMPLETED y [PH z]

[5]   ____________________________________________________________________
      DGN LDSF=a-b PH c SEG d STMT a1 b1
       [EXP g MASK h ACTL i]
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:LDSF input message to diagnose the local digital service function (LDSF) circuit.

Format 1 prints when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase(s) has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = LDSF number.

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c = Number of the phase in which the failure occurred.

d = Number of the segment in which the failure occurred.

e = Number of the test that failed.

f = Mismatch results for the specified test.

g = Expected result for the specified test in hexadecimal.

h = Mask used to determine test failure in hexadecimal.

i = Actual result for the specified test in hexadecimal.

j = Identification number of floor and aisle.

k = Module type.

l = Module number.

m = Cabinet type.

n = Cabinet number.

o = Replacement equipment code(s).

p = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example. Example of CODE FORM content:

```
CODE                        FORM
A[:B]...[:C] [-] D[:E]...[:F]
:            = Intra-field delimiter.
-            = Inter-field delimiter if necessary.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits).
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

q = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

r = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

s = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

t = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
___ = Equipment is part of the circuit under test.

u = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

v = Termination status. Valid value(s):
ABORTED = Immediate termination.
COMPLETED = Successful completion.
NOT STARTED = Action has not begun.
STOPPED = Terminated before normal completion.

w = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the output Messages manual.

x = Text identifier showing order of record. Valid value(s):
FIRST = First record of continuing list.
NEXT = Next record of continuing list.
LAST = Last record of list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

y = Phase result.

z = Phase number completed.

a[1] = Statement number.

b[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Format 3, 4, and 5, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

DGN:LDSF

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:LDSU

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN LDSU=a-b-c STF PH d SEG e TEST f MM g
       [EXP h MASK i ACTL j]

[2]   ____________________________________________________________________
      DGN LDSU=a-b-c SUSPECTED FAULTY EQUIPMENT x RECORD
        AISLE  MODULE  CABINET  CODE  FORM     EQL     TYPE  NOTE
         k      l [y]  m    z   n     [o]    p-q[-a1]  r     [s]
        [.      .  .   .    .   .      .     . .  .    .      .]
        [.      .  .   .    .   .      .     . .  .    .      .]
        [.      .  .   .    .   .      .     . .  .    .      .]

[3]   ____________________________________________________________________
      DGN LDSU=a-b-c t [u]

[4]   ____________________________________________________________________
      DGN LDSU=a-b-c COMPLETED v [PH w]

[5]   ____________________________________________________________________
      DGN LDSU=a-b-c PH d SEG e STMT b1 c1
       [EXP h MASK i ACTL j]
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:LDSU input message to diagnose the local digital service unit - model 2 (LDSU2) board.

Format 1 prints when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase(s) has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Local digital service unit (LDSU) number.

c = Service group number.

d = Number of the phase in which the failure occurred.

e = Number of the segment in which the failure occurred.

f = Number of the test that failed.

g = Mismatch results for the specified test.

h = Expected result for the specified test in hexadecimal.

i = Mask used to determine test failure in hexadecimal.

j = Actual result for the specified test in hexadecimal.

k = Identification number of floor and aisle.

l = Module type.

y = Module number.

m = Cabinet type.

z = Cabinet number.

n = Replacement equipment code(s).

o = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE                        FORM
A[:B]...[:C] [-] D[:E]...[:F]
-            = Inter-field delimiter if necessary.
:            = Intra-field delimiter.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits).
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

p = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

q = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

r = Circuit type. Valid value(s):

___	= Equipment is part of the circuit under test.
HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

s = Refer to output appendix APP:TLP-NOTE in the Appendixes section of the Output Messages manual.

t = Termination status. Valid value(s):

ABORTED	= The process was terminated (process not gracefully terminated).
NOT STARTED	= Action was not begun.
STOPPED	= Terminated before normal completion (process gracefully terminated).

u = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the output Messages manual.

v = Phase result.

w = Phase number completed.

x = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

a[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

b[1] = Statement number.

c[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4, and 5, none.

5. ALARMS

Alarms may be triggered because:

(1) The switch is sending a response message that is reporting that a fault recovery (FR) restore request was

purged by system integrity. The verb is DGN, the source is AUTO, and the return response is ABORTED. This is the only time that these three parameters are equal to the stated values.

(2) A routine exercise requested diagnostic fails and, if requested, an alarm is sounded. The verb is RTN exercise, the source is AUTO, and the return response is STF.

(3) A routine exercise was requested and it failed. It failed because the diagnostic was ATP but the circuit failed hardware initialization.

(4) The request originated from a program update or retrofit and the request was not successfully completed. The alarm is sounded only if an "alarm" was requested on failures. These callers have the option of not alarming failures.

6. REFERENCES

Input Message(s):

```
DGN:LDSU
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:LDSUCOM

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN LDSUCOM=a-b-c STF PH d SEG e TEST f MM g
       [EXP h MASK i ACTL j]

[2]   ____________________________________________________________________
      DGN LDSUCOM=a-b-c SUSPECTED FAULTY EQUIPMENT z RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL     TYPE  NOTE
         k      l [m]   n  o     p    [q]   r-s[-a1]   t    [u]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]

[3]   ____________________________________________________________________
      DGN LDSUCOM=a-b-c v [w]

[4]   ____________________________________________________________________
      DGN LDSUCOM=a-b-c COMPLETED x [PH y]

[5]   ____________________________________________________________________
      DGN LDSUCOM=a-b-c PH d SEG e STMT b1 c1
       [EXP h MASK i ACTL j]
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:LDSUCOM input message to diagnose the local digital service unit common (LDSUCOM) board.

Format 1 prints when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase(s) has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Local digital service unit (LDSU) number.

c = Service group number.

d = Number of the phase in which the failure occurred.

e = Number of the segment in which the failure occurred.

f = Number of the test that failed.

g = Mismatch results for the specified test in hexadecimal.

h = Expected result for the specified test in hexadecimal.

i = Mask used to determine test failure in hexadecimal.

j = Actual result for the specified test in hexadecimal.

k = Identification number of floor and aisle.

l = Module type.

m = Module number.

n = Cabinet type.

o = Cabinet number.

p = Replacement equipment code(s).

q = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE                        FORM
A[:B]...[:C] [-] D[:E]...[:F]
:            = Intra-field delimiter.
-            = Inter-field delimiter if necessary.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits).
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

r = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

s = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

`t` = Circuit type. Valid value(s):

- `HPR` = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
- `ONL` = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
- `___` = Equipment is part of the circuit under test.

`u` = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

`v` = Termination status. Valid value(s):

- `ABORTED` = The process was terminated (process not gracefully terminated).
- `NOT STARTED` = Action was not begun.
- `STOPPED` = Terminated before normal completion (process gracefully terminated).

`w` = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the output Messages manual.

`x` = Phase result.

`y` = Phase number completed.

`z` = Text identifier showing order of record. Valid value(s):

- `FIRST` = First record of continuing list.
- `LAST` = Last record of list.
- `NEXT` = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

`a`[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

`b`[1] = Statement number.

`c`[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4, and 5, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:LDSUCOM
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:LI

Software Release: 5E10 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

```
DGN LI=a b  [c]
```

2. REASON FOR OUTPUT

To acknowledge a manual or automatic request to remove and diagnose a specific link interface (LI).

3. VARIABLE FIELD DEFINITIONS

`a` = The office network and timing complex (ONTC) side the LI is on.

`b` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was immediate (no cleanup was done).
`COMPLETED`	= Request completed successfully.
`NOT STARTED`	= Requested action could not begin.
`STOPPED`	= Request was terminated before a normal completion. Attempts were made to leave everything in a sane state.

`c` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual or automatic request. No further action is necessary if the request completed successfully. If the termination report is not COMPLETED, the variable '`c`' field should give some indication as to why the request failed. Check the ONTC MCC pages or the OP:CFGSTAT output message to verify that the LI was in a valid state to perform the request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:LI
OP:CFGSTAT
```

Output Message(s):

```
OP:CFGSTAT
```

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

ONTC 0 and 1

DGN:LN

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN LNa b c d [e]

[2]   ____________________________________________________________________
      DGN LNa b PH f g [h]
        TEST    MISMATCH
         i          j
```

2. REASON FOR OUTPUT

To print the results of a diagnostic run on a link node (LN).

Format 1 prints at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode. Format 2 prints whenever the diagnostic results are printed for an individual phase. This occurs in the case of partial diagnosis, a test failure, or whenever RAW was specified in the input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Ring node (RN) group number.

`b` = Ring node member number.

`c` = Termination mode of diagnostic. Valid value(s):

- `ABORTED` = Diagnostic was abnormally stopped due to an external or internal error in execution, or a STOP:DMQ input request.
- `COMPLETED` = Diagnostic completed normally.
- `TERMINATED` = Diagnostic terminated under program control (early termination), since further testing would not improve diagnostic resolution.

`d` = Result of the diagnostic. Valid value(s):

- `ATP` = All tests passed.
- `CATP` = All tests that were executed were ATP. Some tests were not executed due to the inability to isolate, or to singly isolate, the node under test.
- `NTR` = No tests run.
- `STF` = Some tests failed.

`e` = Valid value(s):

If 'd' =	**'e' =**
`CATP` or `NTR`	Identifies the reason that tests were skipped in this phase by their bit position in a 16-character hexadecimal number. For example, if 'e' = 0000000080000000, tests were skipped for reason 31. Valid value(s): `Bits 0 to 24` = Not used. `Bit 25` = The phase was not run because the unit control block (UCB) indicates that the node is not equipped with an enhanced message sampling board (EMSB). `Bit 26` = Could not get the 'RPCD' UCB for the 'RPCD' - 'DLN' UCB pair at a DLN.

	Bit 27 = Smart node memory board is not equipped. Bit 28 = Attached processor state variable indicates that this phase need not be run. Bit 29 = Node under test is neither isolated nor in the ring interface usable (RIUSBL) minor state. Bit 30 = Node under test was not the only isolated node. Bit 31 = Node under test was not isolated. Bits 32 to 63 = Not used.
STF	Number of test failures in addition to the reasons that tests were skipped. For example, if 'e'=70000000080000000, seven tests failed, plus tests were skipped for reason 31.

f = Phase number.

g = Result of the phase. Valid value(s):

- ATP = All tests passed.
- CATP = All tests that were executed were ATP. Some tests were not executed due to the inability to isolate, or to singly isolate, the node under test.
- NTR = No tests run.
- STF = Some tests failed.

h = Identifies the reason that some tests were skipped. This field is the same as the 'e' field in Format 1 except that the result of only one phase is reflected.

i = Test number of the failing test.

j = An 8-digit hexadecimal number that indicates the bits that were in error. A '1' in a bit position indicates that the response from the unit did not match the expected response in that bit.

4. ACTION TO BE TAKEN

If 'd' or 'g'	Action:
CATP	= The needed system resource should be made available if possible, so that all tests may be executed.
STF	= The unit should be repaired as quickly as possible.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:LN
RMV:LN
RST:LN
STOP:DMQ
```

Output Message(s):

```
ANALY:TLPFILE
DGN:AUDIT-RING
REPT:DIAMON
RMV:LN
RST:LN
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-190-120 *Common Channel Signaling Services*

MCC Display Page(s):

118 (CNI RING STATUS)
1520 (RING NODE STATUS)

DGN:LUCHBD

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN LUCHBD=a-b-c-d e [f]

[2]   ____________________________________________________________________
      DGN LUCHBD=a-b-c-d COMPLETED g [PH h]
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:LUCHBD input message to diagnose the line unit channel board (LUCHBD).

Format 1 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 2 prints when the specified phase has completed. Execution of the diagnostic will not continue until all phases are complete.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Channel board number.

`e` = Termination status. Valid value(s):
- `ABORTED` = The process was terminated (process not gracefully terminated).
- `NOT STARTED` = Action was not begun.
- `STOPPED` = Terminated before normal completion (process gracefully terminated).

`f` = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the output Messages manual.

`g` = Phase result.

`h` = Phase number completed.

4. ACTION TO BE TAKEN

For Formats 1 and 2, no action is required.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
DGN:LUCHBD
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:LUCOMC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN LUCOMC=a-b-c STF PH d SEG e TEST f MM g
       [EXP h MASK i ACTL j]

[2]   ____________________________________________________________________
      DGN LUCOMC=a-b-c SUSPECTED FAULTY EQUIPMENT z RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL     TYPE  NOTE
         k      l [m]   n  o     p    [q]   r-s[-a1]   t    [u]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]

[3]   ____________________________________________________________________
      DGN LUCOMC=a-b-c v [w]

[4]   ____________________________________________________________________
      DGN LUCOMC=a-b-c COMPLETED x [PH y]

[5]   ____________________________________________________________________
      DGN LUCOMC=a-b-c PH d SEG e STMT c1 d1
       [EXP h MASK i ACTL j]
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:LUCOMC input message to diagnose the line unit common control (LUCOMC).

Format 1 prints when a test has failed.

Format 2 prints when the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase(s) has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Line unit number.

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c = Service group number.

d = Number of the phase in which the failure occurred.

e = Number of the segment in which the failure occurred.

f = Number of the test that failed.

g = Mismatch results for the specified test in hexadecimal.

h = Expected result for the specified test in hexadecimal.

i = Mask used to determine test failure in hexadecimal.

j = Actual result for the specified test in hexadecimal.

k = Identification number of floor and aisle.

l = Module type.

m = Module number.

n = Cabinet type.

o = Cabinet number.

p = Replacement equipment code(s).

q = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE                        FORM
A[:B]...[:C] [-] D[:E]...[:F]
:            = Intra-field delimiter.
-            = Inter-field delimiter if necessary.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits).
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

r = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

s = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

t = Circuit type. Valid value(s):

- HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
- ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
- ___ = Equipment is part of the circuit under test.

u = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

v = Termination status. Valid value(s):

- ABORTED = The process was terminated (process not gracefully terminated).
- NOT STARTED = Action was not begun.
- STOPPED = Terminated before normal completion (process gracefully terminated).

w = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the output Messages manual.

x = Phase result.

y = Phase number completed.

z = Text identifier showing order of record. Valid value(s):

- FIRST = First record of continuing list.
- LAST = Last record of list.
- NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

a[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

c[1] = Statement number.

d[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4, and 5, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:LUCOMC
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:LUHLSC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN LUHLSC=a-b-c-d STF PH e SEG f TEST g MM h
       [EXP i MASK j ACTL k]

[2]   ____________________________________________________________________
      DGN LUHLSC=a-b-c-d SUSPECTED FAULTY EQUIPMENT a1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL     TYPE  NOTE
         l      m [n]    o  p     q    [r]   s-t[-b1]   u    [v]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]

[3]   ____________________________________________________________________
      DGN LUHLSC=a-b-c-d w [x]

[4]   ____________________________________________________________________
      DGN LUHLSC=a-b-c-d COMPLETED y [PH z]

[5]   ____________________________________________________________________
      DGN LUHLSC=a-b-c-d PH e SEG f STMT c1 d1
       [EXP i MASK j ACTL k]
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:LUHLSC input message to diagnose the high level service circuit (LUHLSC). Phases 3, 4, and 5 are demand-only phases; they are run only when specifically requested.

Format 1 prints when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Line unit number.

c = Service group number.

d = High level service circuit.

e = Number of the phase in which the failure occurred.

f = Number of the segment in which the failure occurred.

g = Number of the test that failed.

h = Mismatch results for the specified test in hexadecimal.

i = Expected result for the specified test in hexadecimal.

j = Mask used to determine test failure in hexadecimal.

k = Actual result for the specified test in hexadecimal.

l = Identification number of floor and aisle.

m = Module type.

n = Module number.

o = Cabinet type.

p = Cabinet number.

q = Replacement equipment code(s).

r = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE                        FORM
A[:B]...[:C] [-] D[:E]...[:F]
-            = Inter-field delimiter if necessary.
:            = Intra-field delimiter.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits)
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

s = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

t = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

u = Circuit type. Valid value(s):

___	= Equipment is part of the circuit under test.
HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

v = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

w = Termination status. Valid value(s):

ABORTED	= The process was terminated (process not gracefully terminated).
NOT STARTED	= Action was not begun.
STOPPED	= Terminated before normal completion (process gracefully terminated).

x = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

y = Phase result.

z = Phase number completed.

a[1] = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

b[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

c[1] = Statement number.

d[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4, and 5, none.

5. ALARMS

Alarms may be triggered because:

(1) The switch is sending a response message that is reporting that a fault recovery (FR) restore request was purged by system integrity. The verb is DGN, the source is AUTO, and the return response is ABORTED. This is the only time that these three parameters are equal to the stated values.

(2) A routine exercise requested diagnostic fails and, if requested, an alarm is sounded. The verb is RTN exercise, the source is AUTO, and the return response is STF.

(3) A routine exercise was requested and it failed. It failed because the diagnostic was ATP but the circuit failed hardware initialization.

(4) The request originated from a program update or retrofit and the request was not successfully completed. The alarm is sounded only if an "alarm" was requested on failures. These callers have the option of not alarming failures.

6. REFERENCES

Input Message(s):

```
DGN:LUHLSC
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:MA

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN MA=a-b-c-d STF PH e SEG f TEST g MM h
       [EXP i MASK j ACTL k]

[2]   ____________________________________________________________________
      DGN MA=a-b-c-d SUSPECTED FAULTY EQUIPMENT a1 RECORD
        AISLE  MODULE     CABINET  CODE     FORM   EQL     TYPE NOTE
        l    m [n]     o  p     q  [r]  s-t[-b1]     u  [v]
       [.    .  .      .  .     .   .   . .  .              .     .]
       [.    .  .      .  .     .   .   . .  .              .     .]
       [.    .  .      .  .     .   .   . .  .              .     .]

[3]   ____________________________________________________________________
      DGN MA=a-b-c-d w [x]

[4]   ____________________________________________________________________
      DGN MA=a-b-c-d COMPLETED y [PH z]

[5]   ____________________________________________________________________
      DGN MA=a-b-c-d PH e SEG f STMT c1 d1
       [EXP i MASK j ACTL k]
```

2. REASON FOR OUTPUT

To report the result of executing the corresponding input message to diagnose the metallic access (MA) board.

Format 1 prints when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Metallic service unit (MSU) number.

c = Service group number.

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d = MSU board number.

e = Number of the phase in which the failure occurred.

f = Number of the segment in which the failure occurred.

g = Number of the test that failed.

h = Mismatch results for the specified test in hexadecimal.

i = Expected result for the specified test in hexadecimal.

j = Mask used to determine test failure in hexadecimal.

k = Actual result for the specified test in hexadecimal.

l = Identification number of floor and aisle.

m = Module type.

n = Module number.

o = Cabinet type.

p = Cabinet number.

q = Replacement equipment code(s).

r = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE                        FORM
A[:B]...[:C] [-] D[:E]...[:F]
-            = Inter-field delimiter if necessary.
:            = Intra-field delimiter.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits).
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

s = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

t = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the

implicated shelf.

u = Circuit type. Valid value(s):

___	= Equipment is part of the circuit under test.
HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

v = Refer to output appendix APP:TLP-NOTE in the Appendixes section of the Output Messages manual.

w = Termination status. Valid value(s):

ABORTED	= The process was terminated (process not gracefully terminated).
NOT STARTED	= Action was not begun.
STOPPED	= Terminated before normal completion (process gracefully terminated).

x = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

y = Phase result.

z = Phase number completed.

a[1] = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

b[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

c[1] = Statement number.

d[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4, and 5, none.

5. ALARMS

Alarms may be triggered because:

(1) The switch is sending a response message that is reporting that a fault recovery (FR) restore request was purged by system integrity. The verb is DGN, the source is AUTO, and the return response is ABORTED. This is the only time that these three parameters are equal to the stated values.

(2) A routine exercise requested diagnostic fails and, if requested, an alarm is sounded. The verb is RTN exercise, the source is AUTO, and the return response is STF.

(3) A routine exercise was requested and it failed. It failed because the diagnostic was ATP but the circuit failed hardware initialization.

(4) The request originated from a program update or retrofit and the request was not successfully completed. The alarm is sounded only if an "alarm" was requested on failures. These callers have the option of not alarming failures.

6. REFERENCES

Input Message(s):

```
DGN:MA
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:MAB

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN MAB=a-b-c-d STF PH e SEG f TEST g MM h
       [EXP i MASK j ACTL k]

[2]   ____________________________________________________________________
      DGN MAB=a-b-c-d SUSPECTED FAULTY EQUIPMENT a1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL     TYPE  NOTE
         l      m [n]   o  p     q    [r]   s-t[-b1]   u    [v]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]

[3]   ____________________________________________________________________
      DGN MAB=a-b-c-d w [x]

[4]   ____________________________________________________________________
      DGN MAB=a-b-c-d COMPLETED y [PH z]

[5]   ____________________________________________________________________
      DGN MAB=a-b-c-d PH e SEG f STMT c1 d1
       [EXP i MASK j ACTL k]
```

2. REASON FOR OUTPUT

To report the result of executing the DGN:MAB input message to diagnose the metallic access bus (MAB); to report the diagnostic outcome as the result of a RST:MAB input message, or to report the diagnostic outcome as the result of a recovery action that removed the MAB from service.

Format 1 is printed when a test has failed.

Format 2 is printed when the trouble location procedure (TLP) was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Unit number.

c = Service group number.

d = Board number.

e = Number of the phase in which the failure occurred.

f = Number of the segment in which the failure occurred.

g = Number of the test that failed.

h = Mismatch results for the specified test in hexadecimal.

i = Expected result for the specified test in hexadecimal.

j = Mask used to determine test failure in hexadecimal.

k = Actual result for the specified test in hexadecimal.

l = Identification number of floor and aisle.

m = Module type.

n = Module number.

o = Cabinet type.

p = Cabinet number.

q = Replacement equipment code(s).

r = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE  FORM
A[:B]...[:C] [-] D[:E]...[:F]
A            = Current minimal accepted equipment code.
:            = Intra-field delimiter.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits).
-            = Inter-field delimiter if necessary.
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

s = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

`t` = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

`u` = Circuit type. Valid value(s):

- `HPR` = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
- `ONL` = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
- `___` = Equipment is part of the circuit under test.

`v` = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

`w` = Termination status. Valid value(s):

- `ABORTED` = The process was terminated (process not gracefully terminated).
- `NOT STARTED` = Action was not begun.
- `STOPPED` = Terminated before normal completion (process gracefully terminated).

`x` = Reason for termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the output Messages manual.

`y` = Phase result.

`z` = Phase number completed.

`a`[1] = Text identifier showing order of record. Valid value(s):

- `FIRST` = First record of continuing list.
- `LAST` = Last record of list.
- `NEXT` = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

`b`[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

`c`[1] = Statement number.

`d`[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, replace the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4, and 5, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:MAB
RST:MAB
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:MCTSI

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN MCTSI=a-b STF PH c SEG d TEST e MM f [EXP g MASK h ACTL i]

[2]   ____________________________________________________________________
      DGN MCTSI=a-b SUSPECTED FAULTY EQUIPMENT y RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL    TYPE  NOTE
         j      k [l]   m  n     o    [p]   q-r[-z]   s    [t]
        [.      .  .    .  .     .     .    . .  .    .     .]
        [.      .  .    .  .     .     .    . .  .    .     .]
        [.      .  .    .  .     .     .    . .  .    .     .]

[3]   ____________________________________________________________________
      DGN MCTSI=a-b u [v]

[4]   ____________________________________________________________________
      DGN MCTSI=a-b COMPLETED w [PH x]

[5]   ____________________________________________________________________
      DGN MCTSI=a-b PH c SEG d STMT a1 b1
       [EXP g MASK h ACTL i]
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:MCTSI input message to diagnose the module control/time slot interchange unit (MCTSI).

Format 1 prints when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Module control unit (MCU) number.

c = Number of the phase in which the failure occurred.

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d = Number of the segment in which the failure occurred.

e = Number of the test that failed.

f = Mismatch results for the specified test in hexadecimal.

g = Expected result for the specified test in hexadecimal.

h = Mask used to determine test failure in hexadecimal.

i = Actual result for the specified test in hexadecimal.

j = Identification number of floor and aisle.

k = Module type.

l = Module number.

m = Cabinet type.

n = Cabinet number.

o = Replacement equipment code(s).

p = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE                        FORM
A[:B]...[:C] [-] D[:E]...[:F]
-            = inter-field delimiter if necessary.
:            = intra-field delimiter.
A            = current minimal accepted equipment code.
B            = current production equipment code (substitutable equipment for code 'A').
C            = additional compatible equipment code(s) (added as space permits)
D            = current minimal approved operating level for equipment code 'A'.
E            = current minimal approved operating level for equipment code 'B'.
F            = current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

q = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

r = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

s = Circuit type. Valid value(s):
___ = Equipment is part of the circuit under test.

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

t = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

u = Termination status. Valid value(s):
ABORTED = The process was terminated (process not gracefully terminated).
NOT STARTED = Action was not begun.
STOPPED = Terminated before normal completion (process gracefully terminated).

v = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the output Messages manual.

w = Phase result.

x = Phase number completed.

y = Text identifier showing order of record. Valid value(s):
FIRST = First record of continuing list.
LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

z = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

a[1] = Statement number.

b[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4, and 5, none.

5. ALARMS

Alarms may be triggered because:

(1) The switch is sending a response message that is reporting that a fault recovery (FR) restore request was purged by system integrity. The verb is DGN, the source is AUTO, and the return response is ABORTED. This is the only time that these three parameters are equal to the stated values.

(2) A routine exercise requested diagnostic fails and, if requested, an alarm is sounded. The verb is RTN exercise, the source is AUTO, and the return response is STF.

(3) A routine exercise was requested and it failed. It failed because the diagnostic was ATP but the circuit failed hardware initialization.

(4) The request originated from a program update or retrofit and the request was not successfully completed. The alarm is sounded only if an "alarm" was requested on failures. These callers have the option of not alarming failures.

6. REFERENCES

Input Message(s):

```
DGN:MCTSI
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

DGN:MHD

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN MHD a [COMPLETED] b [(c)]
       {MESSAGE|MSG} {IN PROGRESS|COMPLETE}

[2]   ____________________________________________________________________
      DGN MHD a PH d b [(c)]
       {MESSAGE IN PROGRESS|MSG IP}

[3]   ____________________________________________________________________
      DGN MHD a PH d STF (c)        MSG IP
        TEST    MISMATCH    ACTUAL    MASK    EXPECTED
         e         f          g        h          i

[4]   ____________________________________________________________________
      DGN MHD a ABORTED AT PH d STMNT j b [(c)]    MSG IP

[5]   ____________________________________________________________________
      DGN MHD a TERMINATED AT PH d STMNT j AFTER TEST k

[6]   ____________________________________________________________________
      DGN MHD A PH 6 DISK READ/WRITE FAILURES
        ERROR CODE    JOB TYPE    SECTOR    HEAD
            l             m         n         o

[7]   ____________________________________________________________________
      DGN MHD a TASK p {MESSAGE STARTED|QUEUED|ABORTED}
```

2. REASON FOR OUTPUT

To print results of a diagnostic run on the moving head disk (MHD).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input message.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6, a histogram-type printout of disk read/write test failures, is printed if MHD phase 6 fails the read/write tests.

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Format 7 indicates that the request has started, that the request could not be started due to resource contention [no openings in the active deferred maintenance queue (DMQ) and the request is in the waiting DMQ], or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = The result of the diagnostic. Valid value(s):
- ATP = All tests passed.
- NTR = No tests were executed.
- STF = Some tests failed.

c = Identifies the number of test failures in addition to the reasons that tests were skipped. For example, if 'c' = (7 00000000 00000000), seven tests failed, and no tests were skipped.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A '1' in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines what bits in the actual value are of interest to this test.

i = The value which the test expected.

Note: For Format 3 the values for 'g', 'h' and 'i' may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Error code, in hexadecimal notation. Valid value(s):
- 02 = Disk read data all zeros.
- 04 = Disk read data mismatch.
- 08 = Disk read parity mismatch.

For other error codes, Refer to the APP:DFC-B appendix in the Appendixes section of the Output Messages manual.

m = Numeric code for the job in progress at the time of the error. Valid value(s):
- 1 = Maintenance sector write worst case data.
- 2 = Maintenance sector read worst case data.
- 3 = Maintenance sector write inverted worst case data.
- 4 = Maintenance sector read inverted worst case data.
- 5 = Maintenance sector ECC test write.
- 6 = Maintenance sector ECC test read.
- 41 = Head selection error for maintenance sector write worst case data.

42 = Head selection error for maintenance sector read worst case data.
43 = Head selection error for maintenance sector write inverted worst case data.
44 = Head selection error for maintenance sector read inverted worst data case.
45 = Head selection error for maintenance sector ECC test write.
46 = Head selection error for maintenance sector ECC test read.
81 = "Seek" error for maintenance sector write worst case data.
82 = "Seek" error for maintenance sector read worst case data.
83 = "Seek" error for maintenance sector write inverted worst case data.
84 = "Seek" error for maintenance sector read inverted worst case data.
85 = "Seek" error for maintenance sector ECC test write.
86 = "Seek" error for maintenance sector ECC test read.

n = Sector number where the error occurred.

o = Head number where the error occurred.

p = Task number assigned to the request.

4. ACTION TO BE TAKEN

For Formats 1, 5, and 7, take no action.

For Formats 2 - 4, if 'b' = STF, the unit should be repaired as quickly as possible. Refer to the Corrective Maintenance manual for repair procedures.

For Format 6, repair the unit as quickly as possible. Refer to the Routine Operations and Maintenance manual for repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	96, 103
2	99, 103
3	109, 110
4	106, 109-111
5	217
6	57
7	70, 99

Input Message(s):

```
ALW:DMQ
DGN:MHD
INH:DMQ
OP:DMQ
RMV:DFC
RMV:MHD
RST:DFC
```

```
RST:MHD
STOP:DMQ
STP:DMQ
```

Output Message(s):

```
ANALY:TLPFILE
OP:DMQ
REPT:DGN-AUDIT
REPT:DIAMON
RMV:DFC
RMV:MHD
RST:DFC
RST:MHD
```

Output Appendix(es):

```
APP:DFC-B
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

DGN:MI

Software Release: 5E10 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

```
DGN MI=a b  [c]
```

2. REASON FOR OUTPUT

To respond to a manual or automatic request to diagnose a specific message interface unit (MI).

3. VARIABLE FIELD DEFINITIONS

`a` = Office network and timing complex (ONTC) identification.

`b` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before a normal completion and the consistency of hardware states is questionable.
- `COMPLETED` = Requested action was completed successfully.
- `NOT STARTED` = Requested action was not begun.
- `STOPPED` = Requested action was terminated before a normal completion, but consistency of hardware states and data is reliable.

`c` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual or automatic request. No further action is necessary if the requested action completed successfully. If the termination report is not COMPLETED, the variable '`c`' field should give some indication as to why the request failed. The table below explains the cause of a conditional all tests passed (CATP) termination code. Check the appropriate MCC pages or OP:CFGSTAT output messages to verify that the associated units were in a valid state to perform the request.

Causes of CATP

Vintage	Phase	Cause
CM1	6	All module message processors (MMPs) or the pump peripheral controller (PPC) are out-of-service (OOS) or unavailable.
CM2	1	An input/output processor (IOP) in the AM is unavailable.
CM2	3	All MMPs or the PPC are OOS in a particular community.
CM2	7	Same as CM1 phase 6.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`DGN:MI`

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```
OP:CFGSTAT
RST:ONTC
RST:ONTCCOM
```

Output Message(s):

```
OP:CFGSTAT
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1209 (ONTC)
1240, 1250 (MSGS SUMMARY)

DGN:MMP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
DGN MMP=a-b c [d]
```

2. REASON FOR OUTPUT

To respond to a manual or automatic request to diagnose a specific module message processor (MMP).

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch identification.

`b` = MMP unit number.

`c` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before a normal completion and the consistency of hardware states is questionable.
- `COMPLETED` = Requested action was completed successfully.
- `NOT STARTED` = Requested action was not begun.
- `STOPPED` = Requested action was terminated before a normal completion, but consistency of hardware states and data is reliable.

`d` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual or automatic request. No further action is necessary if the requested action completed successfully. If the termination report is not `COMPLETED`, the variable '`d`' field should give some indication as to why the request failed. The table below explains the cause of a conditional all tests passed (CATP) termination code. Check the appropriate MCC pages or OP:CFGSTAT output messages to verify that the associated units were in a valid state to perform the request.

Causes of CATP

Vintage	Phase	Cause
CM2	1	An input/output processor (IOP) in the AM is unavailable.
CM2	3 or 4	The office network and timing complex (ONTC) is either out of service (OOS) or degraded (DGR).

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
DGN:MMP
OP:CFGSTAT
RST:MMP
```

Output Message(s):

```
OP:CFGSTAT
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

111 (IOP)
1209 (ONTC)
1241,1242,1251,1252 (MSGS-COMMUNITIES)

DGN:MSCU

Software Release: 5E10 and later
Message Class: MSGS
Application: 5
Type: Output

1. FORMAT

```
DGN MSCU=a b  [c]
```

2. REASON FOR OUTPUT

To respond to a manual or automatic request to diagnose a specific message switch control unit (MSCU).

3. VARIABLE FIELD DEFINITIONS

`a` = MSCU side.

`b` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before a normal completion and the consistency of hardware states is questionable.
- `COMPLETED` = Requested action was completed successfully.
- `NOT STARTED` = Requested action was not begun.
- `STOPPED` = Requested action was terminated before a normal completion, but consistency of hardware states and data is reliable.

`c` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual or automatic request. No further action is necessary if the requested action completed successfully. If the termination report is not `COMPLETED`, the variable '`c`' field should give some indication as to why the request failed. The table below explains the cause of a conditional all tests passed (CATP) termination code. Check the appropriate MCC pages or OP:CFGSTAT output messages to verify that the associated units were in a valid state to perform the request.

Causes of CATP

Vintage	Phase	Cause
CM1	6	A foundation peripheral controller (FPC), pump peripheral controller (PPC), or module message processor (MMP) is out-of-service (OOS).
CM2	1	An input/output processor (IOP) in the AM is unavailable.
CM2	7	Same as CM1 phase 6.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:MSCU
RST:MSCU
```

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```
OP:CFGSTAT
```

Output Message(s):

```
OP:CFGSTAT
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

111 (IOP)
1240,1250 (MSGS SUMMARY)
1241,1242,1251,1252 (MSGS-COMMUNITIES)

DGN:MSGS

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
DGN MSGS=a b
```

2. REASON FOR OUTPUT

To respond to a request to diagnose the specific message switch (MSGS) and also to report what action was taken.

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch controller unit identification.

`b` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was immediate.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`DGN:MSGS`

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DGN:MSUCOM

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN MSUCOM=a-b-c STF PH d SEG e TEST f MM g
       [EXP h MASK i ACTL j]

[2]   ____________________________________________________________________
      DGN MSUCOM=a-b-c SUSPECTED FAULTY EQUIPMENT z RECORD
        AISLE  MODULE     CABINET CODE     FORM   EQL     TYPE NOTE
        k    l [m]     n  o     p  [q]   r-s[-a1]     t  [u]
       [.    .  .      .  .     .   .    . .  .                .   .]
       [.    .  .      .  .     .   .    . .  .                .   .]
       [.    .  .      .  .     .   .    . .  .                .   .]

[3]   ____________________________________________________________________
      DGN MSUCOM=a-b-c v [w]

[4]   ____________________________________________________________________
      DGN MSUCOM=a-b-c COMPLETED x [PH y]

[5]   ____________________________________________________________________
      DGN MSUCOM=a-b-c PH d SEG e STMT c1 d1
       [EXP h MASK i ACTL j]
```

2. REASON FOR OUTPUT

To report the result of executing the corresponding input message to diagnose the metallic service unit common (MSUCOM) board.

Format 1 prints when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Metallic service unit (MSU) number.

c = Service group number.

d = Number of the phase in which the failure occurred.

e = Number of the segment in which the failure occurred.

f = Number of the test that failed.

g = Mismatch results for the specified test in hexadecimal.

h = Expected result for the specified test in hexadecimal.

i = Mask used to determine test failure in hexadecimal.

j = Actual result for the specified test in hexadecimal.

k = Identification number of floor and aisle.

l = Module type.

m = Module number.

n = Cabinet type.

o = Cabinet number.

p = Replacement equipment code(s).

q = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE  FORM
A[:B]...[:C] [-] D[:E]...[:F]
:            = Intra-field delimiter.
-            = Inter-field delimiter if necessary.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits).
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

r = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

s = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

`t` = Circuit type. Valid value(s):

- `HPR` = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
- `ONL` = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
- `___` = Equipment is part of the circuit under test.

`u` = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

`v` = Termination status. Valid value(s):

- `ABORTED` = The process was terminated (process not gracefully terminated).
- `NOT STARTED` = Action was not begun.
- `STOPPED` = Terminated before normal completion (process gracefully terminated).

`w` = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

`x` = Phase result.

`y` = Phase number completed.

`z` = Text identifier showing order of record. Valid value(s):

- `FIRST` = First record of continuing list.
- `NEXT` = Next record of continuing list.
- `LAST` = Last record of list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

`a`[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

`c`[1] = Statement number.

`d`[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4, and 5, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:MSUCOM
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:MT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN MT a [COMPLETED] b [(c)]
       {MESSAGE|MSG} {IN PROGRESS|COMPLETE}

[2]   ____________________________________________________________________
      DGN MT a PH d b [(c)]
       {MESSAGE IN PROGRESS|MSG IP}

[3]   ____________________________________________________________________
      DGN MT a PH d STF (c)      MSG IP
        TEST    MISMATCH    ACTUAL  MASK    EXPECTED
         e         f          g      h         i

[4]   ____________________________________________________________________
      DGN MT a ABORTED AT PH d STMNT j b [(c)]   MSG IP

[5]   ____________________________________________________________________
      DGN MT a TERMINATED AT PH d STMNT j AFTER TEST k

[6]   ____________________________________________________________________
      DGN MT a TASK l {MESSAGE STARTED|QUEUED|ABORTED}
```

2. REASON FOR OUTPUT

To print results of a diagnostic run on the magnetic tape (MT).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates that non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates that failing diagnostic results for an individual phase.

Format 4 indicates that the diagnostic was stopped due to an external or internal error in execution, or an input message.

Format 5 indicates that the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, the request could not be started due to resource contention [no openings in the active deferred maintenance queue (DMQ) and the request is in the waiting DMQ], or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

b = The result of the diagnostic. Valid value(s):
ATP = All tests passed.
NTR = No tests were executed.
STF = Some tests failed.

c = Identifies the number of test failures in addition to the number of tests that were skipped. For example, if 'c' = (7 00000000 00000000), seven tests failed, and no tests were skipped.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A '1' in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits that were received from the hardware device.

h = Determines what bits in the actual value are of interest to this test.

i = The value that the test expected.
Note: For Format 3 the values for 'g', 'h' and 'i' may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when the diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

For Formats 1 and 5, no action is needed.

For Formats 2, 3, and 4, if b= STF, the unit should be repaired as quickly as possible; refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 6, repair the unit as quickly as possible; refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

This alarm is automatically generated. Action may or may not be required. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	96, 103
2	99, 111
3	109, 110
4	106, 109-111
5	217

6	70, 99

Input Message(s):

```
ALW:DMQ
DGN:MT
INH:DMQ
OP:DMQ
RMV:DFC
RMV:MT
RST:DFC
RST:MT
STOP:DMQ
STP:DMQ
```

Output Message(s):

```
ANALY:TLPFILE
OP:DMQ
REPT:DGN-AUDIT
REPT:DIAMON
RMV:DFC
RMV:MT
RST:DFC
RST:MT
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

DGN:MTB

Software Release: 5E12 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN MTB=a-b-c-d-e1 STF PH e SEG f TEST g MM h
       [EXP i MASK j ACTL k]

[2]   ____________________________________________________________________
      DGN MTB=a-b-c-d-e1 SUSPECTED FAULTY EQUIPMENT a1 RECORD
        AISLE  MODULE     CABINET  CODE     FORM   EQL     TYPE NOTE
        l    m [n]     o  p     q  [r]  s-t[-b1]     u  [v]
       [.    .  .      .  .     .   .   . .  .              .     .]
       [.    .  .      .  .     .   .   . .  .              .     .]
       [.    .  .      .  .     .   .   . .  .              .     .]

[3]   ____________________________________________________________________
      DGN MTB=a-b-c-d-e1 w [x]

[4]   ____________________________________________________________________
      DGN MTB=a-b-c-d-e1 COMPLETED y [PH z]

[5]   ____________________________________________________________________
      DGN MTB=a-b-c-d-e1 PH e SEG f STMT c1 d1
       [EXP i MASK j ACTL k]
```

2. REASON FOR OUTPUT

To report the result of executing the corresponding input message to diagnose the metallic access test bus (MTB).

Format 1 prints when a test has failed. Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided. Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue. Format 4 prints when the specified phase has completed. Execution of the diagnostic will not continue until all phases are complete. Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = MSU board number.

`e` = Number of the phase in which the failure occurred.

`f` = Number of the segment in which the failure occurred.

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g = Number of the test that failed.

h = Mismatch results for the specified test in hexadecimal.

i = Expected result for the specified test in hexadecimal.

j = Mask used to determine test failure in hexadecimal.

k = Actual result for the specified test in hexadecimal.

l = Identification number of floor and aisle.

m = Module type.

n = Module number.

o = Cabinet type.

p = Cabinet number.

q = Replacement equipment code(s).

r = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE                    FORM A[:B]...[:C] [-] D[:E]...[:F]
-          = Inter-field delimiter if necessary.
:          = Intra-field delimiter.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code 'A').
C          = Additional compatible equipment code(s) (added as space permits).
D          = Current minimal approved operating level for equipment code 'A'.
E          = Current minimal approved operating level for equipment code 'B'.
F          = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

s = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

t = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

u = Circuit type. Valid value(s):

___ = Equipment is part of the circuit under test.

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

v = Refer to output appendix APP:TLP-NOTE in the Appendixes section of the Output Messages manual.

w = Termination status. Valid value(s):
- ABORTED = The process was terminated (process not gracefully terminated).
- NOT STARTED = Action was not begun.
- STOPPED = Terminated before normal completion (process gracefully terminated).

x = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

y = Phase result.

z = Phase number completed.

a[1] = Text identifier showing order of record. Valid value(s):
- FIRST = First record of continuing list.
- LAST = Last record of list.
- NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

b[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

c[1] = Statement number.

d[1] = Reason why some tests were not performed.

e[1] = MTB number.

4. ACTIONS TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4, and 5, none.

5. ALARMS

Alarms may be triggered because:

1 The switch is sending a response message that is reporting that a fault recovery (FR) restore request was purged by system integrity. The verb is DGN, the source is AUTO, and the return response is ABORTED. This is the only time that these three parameters are equal to the stated values.

2 A routine exercise requested diagnostic fails and, if requested, an alarm is sounded. The verb is RTN exercise, the source is AUTO, and the return response is STF.

3 A routine exercise was requested and it failed. It failed because the diagnostic was ATP but the circuit failed hardware initialization.

1 The request originated from a program update or retrofit and the request was not successfully completed. The alarm is sounded only if an "alarm" was requested on failures. These callers have the option of not alarming failures.

6. REFERENCES

Input Message(s):

```
DGN:MTB
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

MCC Display Page(s):

1135/1145 (MSU MA STATUS)

DGN:MTC

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      DGN MTC a [COMPLETED] b [(c)]
       {MESSAGE|MSG} {IN PROGRESS|COMPLETE}

[2]   ____________________________________________________________
      DGN MTC a PH d b [(c)] {MESSAGE IN PROGRESS|MSG IP}

[3]   ____________________________________________________________
      DGN MTC a PH d STF (c)          MSG IP
        TEST    MISMATCH    ACTUAL  MASK    EXPECTED
         e         f          g      h         i

[4]   ____________________________________________________________
      DGN MTC a ABORTED AT PH d STMNT j b [(c)]        MSG IP

[5]   ____________________________________________________________
      DGN MTC a TERMINATED AT PH d STMNT j AFTER TEST k

[6]   ____________________________________________________________
      DGN MTC a TASK l {MESSAGE STARTED|QUEUED|ABORTED}
```

2. REASON FOR OUTPUT

To print results of a diagnostic run on the magnetic tape controller (MTC). Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode. Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request. Format 3 indicates failing diagnostic results for an individual phase. Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request. Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution. Format 6 indicates that the request has started, that the request could not be started due to resource contention [no openings in the active deferred maintenance queue (DMQ) and the request is in the waiting DMQ], or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = The result of the diagnostic. Valid value(s):

`ATP`	= All tests passed.
`CATP`	= All tests that were executed were ATP; some were not executed due to the unavailability of a system resource that was needed to perform the test.
`NTR`	= No tests were run.
`STF`	= Some tests failed.

`c` = Valid value(s):

If 'b' =	'c' =
CATP or NTR	The reasons tests were skipped in this phase by their bit position in a 16-digit hexadecimal number. For example, if 'c'=(000000000000018), tests were skipped for reasons 3 and 4.
STF	The number of test failures in addition to the reasons that tests were skipped. For example, if 'c' = (70000000000000006), seven tests failed, plus tests were skipped for reasons 1 and 2. The reason codes are as follows: Bit 0 = Helper unit not specified or invalid. Bit 1 = Helper unit cannot be reserved. Bit 2 = Helper unit not out-of-service. Bit 3 = Helper unit is not ATP. Bit 4 = Helper unit not connected to controller being under test. Bit 17 = Helper MT tape not mounted and/or transport door open. Bit 18 = Helper MT transport not in "on-line" mode. Bit 19 = Helper MT tape reel has no write enable ring (WER). Bit 20 = Helper MT tape too long for diagnostic test tape. Bit 21 = Helper MT tape has no header block at BOT or header block indicates not diagnostic test tape.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A '1' in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines what bits in the actual value are of interest to this test.

i = The value which the test expected.
Note: For Format 3 the values for 'g', 'h' and 'i' may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

If 'b' =	Action:
CATP	The needed system resource should be made available if possible, so that all tests may be executed.
STF	The unit should be repaired as quickly as possible. Refer to the Corrective Maintenance manual for the repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	96, 103
2	99, 103
3	109, 110
4	106, 109-111
5	217
6	70, 99

Input Message(s):

```
ALW:DMQ
DGN:MTC
INH:DMQ
OP:DMQ
RMV:IOP
RMV:MTC
RST:IOP
RST:MTC
STOP:DMQ
STP:DMQ
```

Output Message(s):

```
OP:DMQ
REPT:DGN-AUDIT
REPT:DIAMON
RMV:IOP
RMV:MTC
RST:IOP
RST:MTC
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

DGN:MTIB

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN MTIB=a STF PH b SEG c TEST d MM e
       [EXP f MASK g ACTL h]

[2]   ____________________________________________________________________
      DGN MTIB=a SUSPECTED FAULTY EQUIPMENT x RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL    TYPE  NOTE
         i      j [k]   l  m     n    [o]   p-q[-y]   r    [s]
        [.      .  .    .  .     .     .    . .  .    .     .]
        [.      .  .    .  .     .     .    . .  .    .     .]
        [.      .  .    .  .     .     .    . .  .    .     .]

[3]   ____________________________________________________________________
      DGN MTIB=a t [u]

[4]   ____________________________________________________________________
      DGN MTIB=a COMPLETED v [PH w]

[5]   ____________________________________________________________________
      DGN MTIB=a PH b SEG c STMT z a[1]
       [EXP f MASK g ACTL h]
```

2. REASON FOR OUTPUT

To report the result of executing the DGN:MTIB input message to diagnose the metallic test interconnect bus (MTIB), to report the diagnostic outcome as the result of a RST:MTIB input message, or to report the diagnostic outcome as the result of a recovery action that removed the MTIB from service.

Format 1 is printed when a test has failed.

Format 2 is printed when the trouble location procedure (TLP) was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = MTIB number.

b = Number of the phase in which the failure occurred.

c = Number of the segment in which the failure occurred.

d = Number of the test that failed.

e = Mismatch results for the specified test in hexadecimal.

f = Expected result for the specified test in hexadecimal.

g = Mask used to determine test failure in hexadecimal.

h = Actual result for the specified test in hexadecimal.

i = Identification number of floor and aisle.

j = Module type.

k = Module number.

l = Cabinet type.

m = Cabinet number.

n = Replacement equipment code(s).

o = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE                        FORM
A[:B]...[:C] [-] D[:E]...[:F]
:            = Intra-field delimiter.
-            = Inter-field delimiter if necessary.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits).
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

p = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

q = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

r = Circuit type. Valid value(s):
HPR = Equipment is part of a helper circuit. The helper must be removed before

replacement is attempted.

`ONL` = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

`___` = Equipment is part of the circuit under test.

`s` = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

`t` = Termination status. Valid value(s):

`ABORTED` = The process was terminated (process not gracefully terminated).
`NOT STARTED` = Action was not begun.
`STOPPED` = Terminated before normal completion (process gracefully terminated).

`u` = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

`v` = Phase result.

`w` = Phase number completed.

`x` = Text identifier showing order of record. Valid value(s):

`FIRST` = First record of continuing list.
`NEXT` = Next record of continuing list.
`LAST` = Last record of list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

`y` = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

`z` = Statement number.

`a`[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, replace the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4, and 5, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:MTIB
RST:MTIB
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:MTIBAX

Software Release: 5E10 and later
Message Class: SMCONFG,SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN MTIBAX=a-b-c-d STF PH e SEG f TEST g MM h
       [EXP i MASK j ACTL k]

[2]   ____________________________________________________________________
      DGN MTIBAX=a-b-c-d SUSPECTED FAULTY EQUIPMENT a1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL     TYPE  NOTE
         l      m [n]    o  p     q    [r]   s-t[-b1]   u    [v]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]

[3]   ____________________________________________________________________
      DGN MTIBAX=a-b-c-d w [x]

[4]   ____________________________________________________________________
      DGN MTIBAX=a-b-c-d COMPLETED y [PH z]

[5]   ____________________________________________________________________
      DGN MTIBAX=a-b-c-d PH e SEG f STMT c1 d1
       [EXP i MASK j ACTL k]
```

2. REASON FOR OUTPUT

To report the result of executing the DGN:MTIBAX input message to diagnose the metallic test interconnect bus access (MTIBAX), to report the diagnostic outcome as the result of a RST:MTIBAX input message, or to report the diagnostic outcome as the result of a recovery action that removed the MTIBAX from service.

Format 1 is printed when a test has failed.

Format 2 is printed when the trouble locating procedure (TLP) was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Unit number.

c = Service group number.

d = Board number.

e = Number of the phase in which the failure occurred.

f = Number of the segment in which the failure occurred.

g = Number of the test that failed.

h = Mismatch results for the specified test in hexadecimal.

i = Expected result for the specified test in hexadecimal.

j = Mask used to determine test failure in hexadecimal.

k = Actual result for the specified test in hexadecimal.

l = Identification number of floor and aisle.

m = Module type.

n = Module number.

o = Cabinet type.

p = Cabinet number.

q = Replacement equipment code(s).

r = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE                        FORM
A[:B]...[:C] [-] D[:E]...[:F]
-            = Inter-field delimiter if necessary.
:            = Intra-field delimiter.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits)
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

s = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

t = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

u = Circuit type. Valid value(s):

___	= Equipment is part of the circuit under test.
HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

v = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

w = Termination status. Valid value(s):

ABORTED	= The process was terminated (process not gracefully terminated).
NOT STARTED	= Action was not begun.
STOPPED	= Terminated before normal completion (process gracefully terminated).

x = Reason for termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of this manual.

y = Phase result.

z = Phase number completed.

a[1] = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

b[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

c[1] = Statement number.

d[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, replace the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4, and 5, no action is required.

5. ALARMS

Alarms may be triggered because:

(1) The switch is sending a response message that is reporting that a fault recovery (FR) restore request was purged by system integrity. The verb is DGN, the source is AUTO, and the return response is ABORTED. This is the only time that these three parameters are equal to the stated values.

(2) A routine exercise requested diagnostic fails and, if requested, an alarm is sounded. The verb is RTN exercise, the source is AUTO, and the return response is STF.

(3) A routine exercise was requested and it failed. It failed because the diagnostic was ATP but the circuit failed hardware initialization.

(4) The request originated from a program update or retrofit and the request was not successfully completed. The alarm is sounded only if an "alarm" was requested on failures. These callers have the option of not alarming failures.

6. REFERENCES

Input Message(s):

```
DGN:MTIBAX
RST:MTIBAX
```

DGN:MTTYC-A

Software Release: 5E10 - 5E12
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN MTTYC a [COMPLETED] b [(c)]
       {MESSAGE|MSG} {IN PROGRESS|COMPLETE}

[2]   ____________________________________________________________________
      DGN MTTYC a PH d b [(c)] {MESSAGE IN PROGRESS|MSG IP}

[3]   ____________________________________________________________________
      DGN MTTYC a PH d STF (c)          MSG IP
       TEST    MISMATCH    ACTUAL  MASK    EXPECTED
        e         f          g      h         i

[4]   ____________________________________________________________________
      DGN MTTYC a ABORTED AT PH d STMNT j b [(c)]        MSG IP

[5]   ____________________________________________________________________
      DGN MTTYC a TERMINATED AT PH d STMNT j AFTER TEST k

[6]   ____________________________________________________________________
      DGN MTTYC a TASK l {MESSAGE STARTED|QUEUED|ABORTED}
```

2. REASON FOR OUTPUT

To print results of a diagnostic run on the maintenance teletypewriter controller (MTTYC). Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode. Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request. Format 3 indicates failing diagnostic results for an individual phase. Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request. Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution. Format 6 indicates that the request has started, that the request could not be started due to resource contention [no openings in the active deferred maintenance queue (DMQ) and the request is in the waiting DMQ], or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = The result of the diagnostic. Valid value(s):

`ATP`	= All tests passed.
`NTR`	= No tests were run.
`STF`	= Some tests failed.

`c` = Identifies the number of test failures in addition to the reasons that tests were skipped. For example, if '`c`' = (7 00000000 00000000), seven tests failed, and no tests were skipped.

`d` = Phase number.

`e` = Test number of the failing test.

`f` = The bits that were in error. A '1' in a bit position indicates that the response from the unit did not match the expected response in that bit.

`g` = The bits which were actually received from the hardware device.

`h` = Determines what bits in the actual value are of interest to this test.

`i` = The value which the test expected.
Note: For Format 3 the values for '`g`', '`h`' and '`i`' may be set to N/A. This means that this data is not available for the specified device.

`j` = Last statement successfully executed before the diagnostic terminated.

`k` = Current test number when diagnostic terminated.

`l` = Task number assigned to the request.

4. ACTIONS TO BE TAKEN

Formats 1, 5, and 6 are informational reports and require no action.

For Formats 2 - 4, if '`b`' = `STF`, the unit should be repaired as quickly as possible. Refer to the Corrective Maintenance manual for the repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	96, 103
2	99, 103
3	109, 110
4	106, 109-111
5	217
6	70, 99

Input Message(s):

```
ALW:DMQ
DGN:MTTYC
INH:DMQ
OP:DMQ
RMV:MTTYC
RST:MTTYC
STOP:DMQ
STP:DMQ
```

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Output Message(s):

```
ANALY:TLPFILE
OP:DMQ
REPT:DGN-AUDIT
REPT:DIAMON
RMV:MTTYC
RST:MTTYC
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-210 *Routine Operations and Maintenance*

DGN:MTTYC-B

Software Release: 5E13 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      DGN MTTYC a [COMPLETED] b [(c)]
       {MESSAGE|MSG} {IN PROGRESS|COMPLETE}

[2]   ____________________________________________________________
      DGN MTTYC a PH d b [(c)] {MESSAGE IN PROGRESS|MSG IP}

[3]   ____________________________________________________________
      DGN MTTYC a PH d STF (c)          MSG IP
        TEST    MISMATCH    ACTUAL  MASK    EXPECTED
         e         f          g      h         i

[4]   ____________________________________________________________
      DGN MTTYC a ABORTED AT PH d STMNT j b [(c)]        MSG IP

[5]   ____________________________________________________________
      DGN MTTYC a TERMINATED AT PH d STMNT j AFTER TEST k

[6]   ____________________________________________________________
      DGN MTTYC a TASK l {MESSAGE STARTED|QUEUED|ABORTED}

[7]   ____________________________________________________________
      DGN MTTYC a - FLASH MEMORY UPDATE PROCESS IN PROGRESS
        DO NOT STOP THIS DIAGNOSTIC DURING FLASH MEMORY UPDATE
        THIS PROCESS SHOULD RUN NO LONGER THAN 15 MINUTES
        AND MAY RUN ONLY A FEW SECONDS IF NO UPDATE IS REQUIRED

[8]   ____________________________________________________________
      DGN MTTYC a - FLASH MEMORY UPDATE PROCESS COMPLETE
```

2. REASON FOR OUTPUT

To print results of a diagnostic run on the maintenance teletypewriter controller (MTTYC). Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode. Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request. Format 3 indicates failing diagnostic results for an individual phase. Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request. Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution. Format 6 indicates that the request has started, that the request could not be started due to resource contention [no openings in the active deferred maintenance queue (DMQ) and the request is in the waiting DMQ], or that the request has aborted. Format 7 indicates taht the flash update process has started, warning the user against stopping the diagnostic until the flash update process has completed. Format 8 indicates that the flash update process has completed.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

b = The result of the diagnostic. Valid value(s):
ATP = All tests passed.
NTR = No tests were run.
STF = Some tests failed.

c = Identifies the number of test failures in addition to the reasons that tests were skipped. For example, if 'c' = (7 00000000 00000000), seven tests failed, and no tests were skipped.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A '1' in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines what bits in the actual value are of interest to this test.

i = The value which the test expected.
Note: For Format 3 the values for 'g', 'h' and 'i' may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTIONS TO BE TAKEN

Formats 1, 5, and 6 are informational reports and require no action.

For Formats 2 - 4, if 'b' = STF, the unit should be repaired as quickly as possible. Refer to the Corrective Maintenance manual for the repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	96, 103
2	99, 103
3	109, 110
4	106, 109-111
5	217
6	70, 99
7	23
8	61

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Input Message(s):

```
ALW:DMQ
DGN:MTTYC
INH:DMQ
OP:DMQ
RMV:MTTYC
RST:MTTYC
STOP:DMQ
STP:DMQ
```

Output Message(s):

```
ANALY:TLPFILE
OP:DMQ
REPT:DGN-AUDIT
REPT:DIAMON
RMV:MTTYC
RST:MTTYC
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-210 *Routine Operations and Maintenance*

DGN:NC

Software Release: 5E10 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

```
DGN NC=a b  [c]
```

2. REASON FOR OUTPUT

To respond to a manual or automatic request to diagnose a specific network clock (NC).

3. VARIABLE FIELD DEFINITIONS

`a` = The office network timing complex (ONTC) side the NC is on.

`b` = Termination status. Valid value(s):

- `ABORTED` = Requested action was terminated before a normal completion and the consistency of hardware states is questionable.
- `COMPLETED` = Requested action was completed successfully.
- `NOT STARTED` = Requested action was not begun.
- `STOPPED` = Requested action was terminated before a normal completion, but consistency of hardware states and data is reliable.

`c` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual or automatic request. No further action is necessary if the requested action was completed successfully.

If the termination report is not `COMPLETED`, the variable '`c`' field should give some indication as to why the request failed. The table below explains the cause of a conditional all tests passed (CATP) termination code. Check the appropriate MCC Display pages or OP:CFGSTAT output messages to verify that the associated units were in a valid state to perform the request.

Causes of CATP

Vintage	Phase	Cause
CM1	4,5	One of the external references is out-of-service (OOS).
CM2	1	An input/output processor (IOP) in the AM is unavailable.
CM2	3,5	The oscillator circuit (NCOSC) on the side under test or the mate side is forced unavailable (UNAV).
CM2	4	One of the external references is OOS or the oscillator circuit (NCOSC) on the side under test or the mate side is forced unavailable (UNAV). (Run demand phase 6 for further resolution.)

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
DGN:NC
RST:ONTC
RST:ONTCCOM
OP:CFGSTAT
```

Output Message(s):

```
OP:CFGSTAT
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

111 (IOP)
1209 (ONTC)

DGN:NLI

Software Release: 5E10 and later
Message Class: SM,ONTC
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN NLI=a-b-c STF PH d SEG e TEST f MM g
       [EXP h MASK i ACTL j]

[2]   ____________________________________________________________________
      DGN NLI=a-b-c SUSPECTED FAULTY EQUIPMENT k RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL     TYPE  NOTE
          l     m [n]      o p    q     r     s-t       u    [v]
          .     .  .       . .    .     .     . .       .     .
          .     .  .       . .    .     .     . .       .     .
          .     .  .       . .    .     .     . .       .     .

[3]   ____________________________________________________________________
      DGN NLI=a-b-c w [x]

[4]   ____________________________________________________________________
      DGN NLI=a-b-c COMPLETED y [PH z]
```

2. REASON FOR OUTPUT

To report the executing of DGN:NLI input message to diagnose a network link interface (NLI).

Format 1 prints when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) terminated before completion. Execution of the diagnostic does not continue.

Format 4 prints when the specified phase(s) has completed. Execution of the diagnostic continues until all phases are complete.

Formats 1, 2, and 4 (with phase number) belong to the SM message class, while formats 3 and 4 (without phase number) belong to the ONTC message class.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = NLI number.

c = Office network and timing complex (ONTC) side the NLI is on.

d = Number of the phase in which the failure occurred.

e = Number of the segment in which the failure occurred.

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f = Number of the test that failed.

g = Mismatch results for the specified test in hexadecimal.

h = Expected result for the specified test in hexadecimal.

i = Mask used to determine test failure in hexadecimal.

j = Actual result for the specified test in hexadecimal.

k = Text identifier showing TLP record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of one to four entries. Each record has a new header.

l = Identification number of floor and aisle.

m = Module type. Valid value(s):

CM	= Communication module.
HSM	= Host switching module.
RSM	= Remote switching module.
SM	= Switching module.

n = Module number.

o = Cabinet type. Valid value(s):

CM2	= Communication module 2 cabinet.
M	= Miscellaneous cabinet.
MSG	= Message switch cabinet.
SMC	= Switching module controller cabinet.
TMS	= Time multiplexed switch cabinet.

p = Cabinet number.

q = Replacement equipment code(s). Refer to the following example.

r = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the following example.

Example of CODE FORM content:

```
CODE  FORM
A[:B]...[:C] [-] D[:E]...[:F]
```

A	= Current minimal accepted equipment code.
B	= Current production equipment code (substitutable equipment for code 'A').
C	= Additional compatible equipment code(s) (added as space permits)
D	= Current minimal approved operating level for equipment code 'A'.
E	= Current minimal approved operating level for equipment code 'B'.
F	= Current minimal approved operating level(s) for equipment code(s) 'C'.

: = Intra-field delimiter.
- = Inter-field delimiter if necessary.

Codes 'A', 'B' and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E' and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

s = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

t = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

u = Circuit type. Valid value(s):
- HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
- ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
- ___ = Equipment is part of the circuit under test.

v = Number of the TLP note containing supplementary information related to the specified suspected faulty equipment. Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

w = Termination report. Valid value(s):
- ABORTED = Requested action was terminated before completion and the termination was immediate (no cleanup was done).
- COMPLETED = Request completed successfully.
- NOT STARTED = Requested action could not begin.
- STOPPED = Request was terminated before a normal completion. Attempts were made to leave everything in a correct state.

x = Reason for the termination.

y = Phase or diagnostic result. Valid value(s):
- ATP = All tests were performed and passed.
- CATP = Some tests were not performed, but all tests that were performed passed.
- NTR = No tests were performed.
- STF = Some test(s) failed.

z = Phase number completed.

4. ACTION TO BE TAKEN

For Format 1, no action is required. It indicates that one or more faults exist in the system and provides data for manual analysis if necessary. Normally, a message of Format 2 should be obtained by rerunning the diagnostic with the TLP option if necessary, to begin to locate and repair the fault.

For Format 2, replace the indicated circuit packs, one at a time in the order specified. Rerun the diagnostic after

each substitution until the fault is repaired or until the diagnostic result changes.

For Formats 3 and 4, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:NLI
DGN:ONTC
OP:DMQ-CM-SM
RST:NLI
RST:ONTC
```

Output Message(s):

```
DGN:ONTC
OP:DMQ-CM
OP:DMQ-SM
RST:NLI
```

Output Appendix(es):

```
APP:STD-REPAIR
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1190 (MCTSI)
1200 (DLI/NLI)

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DGN:ONTC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
DGN ONTC a b [c]
```

2. REASON FOR OUTPUT

To respond to a request to diagnose a specific office network and timing complex (ONTC).

3. VARIABLE FIELD DEFINITIONS

`a` = ONTC identification number.

`b` = Termination report. Valid value(s):

`ABORTED`	= Requested action is terminated before a normal completion and the consistency of hardware states or data is questionable.
`COMPLETED`	= Requested action is terminated after completion.
`NOT STARTED`	= Requested action has not begun
`STOPPED`	= Requested action is terminated before a normal completion but consistency of hardware states and data is reliable.

`c` = Additional data qualifying the termination report.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:ONTC
RST:ONTC
```

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DGN:ONTCCOM

Software Release: 5E10 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

```
DGN ONTCCOM=a b  [c]
```

2. REASON FOR OUTPUT

To respond to a manual or automatic request to diagnose a specific office network and timing complex common unit (ONTCCOM).

3. VARIABLE FIELD DEFINITIONS

`a` = The ONTCCOM side.

`b` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was immediate (no cleanup was done).
`COMPLETED`	= Request completed successfully.
`NOT STARTED`	= Requested action could not begin.
`STOPPED`	= Request was terminated before a normal completion. Attempts were made to leave everything in a sane state.

`c` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual or automatic request. No further action is necessary if the request completed successfully. If the termination report is not `COMPLETED`, variable '`c`' should give some indication as to why the request failed. Check the ONTC MCC pages or the OP:CFGSTAT output message to verify that the ONTCCOM unit was in a valid state to perform the request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:ONTCCOM
OP:CFGSTAT
```

Output Message(s):

```
OP:CFGSTAT
```

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Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

120 (ONTC 0 & 1)

DGN:PH-HELPER

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
DGN a=b-c-d-e-f PH g HELPER h=[b-c-d-e-f | i] UNAVAILABLE
```

2. REASON FOR OUTPUT

To print only in response to manually requested diagnostic action where raw data or a phase range has been specified. This message occurs when a helper circuit requested by the diagnostic program was unavailable and the attempt to seize control of this circuit has failed. This message accompanies and precedes the `COMPLETED CATP` message.

3. VARIABLE FIELD DEFINITIONS

`a` = Global name of the circuit under diagnosis.

`b` = Switching module (SM) number.

`c` = Unit number.

`d` = Service group number.

`e` = Board number.

`f` = Circuit number.

`g` = Phase number.

`h` = Global name of the unavailable helper circuit.

`i` = Appears in place of above five variable `'b'` through `'f'` if no circuit of this type was available and no specific member was requested. Valid value(s):
`ANY_MEMBER` = Any circuit of this type in the office.
`ANY_IN_SG` = Any in the service group under test.
`ANY_IN_UNIT` = Any in the unit under test.
`ANY_IN_CIRCUIT` = Any in the circuit under test.
`ACT_IN_UNIT` = The active member of a duplex unit.
`MATE_IN_UNIT` = The standby member of a duplex unit.
`ANY_IN_MATE` = Any circuit in the standby member of a duplex unit.

4. ACTION TO BE TAKEN

Restore to service the helper circuit named by this message or make the helper circuit available for the diagnostic to complete normally. Re-enter the original diagnostic message.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
DGN:[unit]
RST:[unit]
STP:[unit]
```

Output Message(s):

```
DGN:[unit]
```

Output Appendix(es):

```
APP:MAINT-RESP
```

DGN:PMU

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

[1]
```
DGN PMU=a-b-c STF PH d SEG e TEST f MM g
 [EXP h MASK i ACTL j]
```

[2]
```
DGN PMU=a-b-c SUSPECTED FAULTY EQUIPMENT z RECORD
  AISLE  MODULE  CABINET  CODE  FORM    EQL     TYPE  NOTE
   k      l [m]   n  o     p    [q]   r-s[-a1]   t    [u]
   .      .  .    .  .     .     .    . .  .     .     .
   .      .  .    .  .     .     .    . .  .     .     .
   .      .  .    .  .     .     .    . .  .     .     .
```

[3]
```
DGN PMU=a-b-c v [w]
```

[4]
```
DGN PMU=a-b-c COMPLETED x y
```

[5]
```
DGN PMU=a-b-c PH d SEG e STMT b1 c1
 [EXP h MASK i ACTL j]
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:PMU input message to diagnose the precision measurement unit (PMU).

Format 1 prints when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Directly connected test unit (DCTU) number.

c = Circuit number.

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d = Number of the phase in which the failure occurred.

e = Number of the segment in which the failure occurred.

f = Number of the test that failed.

g = Mismatch results for the specified test in hexadecimal.

h = Expected result for the specified test in hexadecimal.

i = Mask used to determine test failure in hexadecimal.

j = Actual result for the specified test in hexadecimal.

k = Identification number of floor and aisle.

l = Module type.

m = Module number.

n = Cabinet type.

o = Cabinet number.

p = Replacement equipment code(s).

q = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE                        FORM
A[:B]...[:C] [-] D[:E]...[:F]
:            = Intra-field delimiter.
-            = Inter-field delimiter if necessary.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits).
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

r = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

s = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

t = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
___ = Equipment is part of the circuit under test.

u = TLPNOTE number. Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Message manual.

v = Termination status. Valid value(s):
ABORTED = The process was terminated (process not gracefully terminated).
NOT STARTED = Action was not begun.
STOPPED = Terminated before normal completion (process gracefully terminated).

w = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Message manual.

x = Phase result.

y = Phase number completed.

z = Text identifier showing order of record. Valid value(s):
FIRST = First record of continuing list.
LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

a[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

b[1] = Statement number.

c[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4, and 5, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:PMU
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:PPC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
DGN PPC=a b [c]
```

2. REASON FOR OUTPUT

To respond to a manual or automatic request to diagnose a specific pump peripheral controller (PPC).

3. VARIABLE FIELD DEFINITIONS

`a` = PPC side.

`b` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before a normal completion and the consistency of hardware states is questionable.
- `COMPLETED` = Requested action was completed successfully.
- `NOT STARTED` = Requested action was not begun.
- `STOPPED` = Requested action was terminated before a normal completion, but consistency of hardware states and data is reliable.

`c` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual or automatic request. No further action is necessary if the requested action completed successfully. If the termination report is not `COMPLETED`, the variable `'c'` field should give some indication as to why the request failed. The following exhibit explains the cause of a conditional all tests passed (CATP) termination code. Check the appropriate MCC pages or OP:CFGSTAT output messages to verify that the associated units were in a valid state to perform the request.

Causes of CATP

Vintage	Phase	Cause
CM1	4	The office network and timing complex (ONTC) is either out-of-service (OOS) or degraded (DGR).
CM2	1	An input/output processor (IOP) in the AM is unavailable.
CM2	4	Same as CM1 phase 4.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:PPC
RST:PPC
```

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```
OP:CFGSTAT
```

Output Message(s):

```
OP:CFGSTAT
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

111 (IOP)
1209 (ONTC)
1240, 1250 (MSGS SUMMARY)

DGN:PROTO

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN PROTO=a-b-c STF PH d SEG e TEST f MM g
       [EXP h MASK i ACTL j]

[2]   ____________________________________________________________________
      DGN PROTO=a-b-c SUSPECTED FAULTY EQUIPMENT z RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL     TYPE  NOTE
         k      l [m]   n  o     p    [q]   r-s[-a1]   t    [u]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]

[3]   ____________________________________________________________________
      DGN PROTO=a-b-c v [w]

[4]   ____________________________________________________________________
      DGN PROTO=a-b-c COMPLETED x [PH y]

[5]   ____________________________________________________________________
      DGN PROTO=a-b-c PH d SEG e STMT b1 c1
       [EXP h MASK i ACTL j]
```

2. REASON FOR OUTPUT

To report the result of executing the corresponding input message to diagnose the protocol circuit (PROTO), to report the diagnostic outcome as the result of an input message to restore the PROTO, or to report the diagnostic outcome as the result of a recovery action that removed the PROTO from service.

Format 1 is printed when a test has failed.

Format 2 is printed when the trouble location procedure (TLP) was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Unit number.

c = Service group number.

d = Number of the phase in which the failure occurred.

e = Number of the segment in which the failure occurred.

f = Number of the test that failed.

g = Mismatch results for the specified test in hexadecimal.

h = Expected result for the specified test in hexadecimal.

i = Mask used to determine test failure in hexadecimal.

j = Actual result for the specified test in hexadecimal.

k = Identification number of floor and aisle.

l = Module type.

m = Module number.

n = Cabinet type.

o = Cabinet number.

p = Replacement equipment code(s).

q = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE                        FORM
A[:B]...[:C] [-] D[:E]...[:F]
:            = Intra-field delimiter.
-            = Inter-field delimiter if necessary.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits).
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

r = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

s = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the

implicated shelf.

t = Circuit type. Valid value(s):

- HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
- ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
- ___ = Equipment is part of the circuit under test.

u = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Message manual.

v = Termination status. Valid value(s):

- ABORTED = The process was terminated (process not gracefully terminated).
- NOT STARTED = Action was not begun.
- STOPPED = Terminated before normal completion (process gracefully terminated).

w = Reason for termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Message manual.

x = Phase result.

y = Phase number completed.

z = Text identifier showing order of record. Valid value(s):

- FIRST = First record of continuing list.
- LAST = Last record of list.
- NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

a[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

b[1] = Statement number.

c[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, replace the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4, and 5, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:PROTO
RST:PROTO
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:PSU

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN PSU{a}=b-c-d[-e] STF PH f SEG g TEST h MM i
       [ACTL j MASK k EXPR l]

[2]   ____________________________________________________________________
      DGN PSU{a}=b-c-d[-e] SUSPECTED FAULTY EQUIPMENT c1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL    TYPE  NOTE
          m     n [o]    p  q     r    [s]   t-u[-v]   w    [x]
         [.     .  .     .  .     .     .    . .  .    .     .]
         [.     .  .     .  .     .     .    . .  .    .     .]
         [.     .  .     .  .     .     .    . .  .    .     .]

[3]   ____________________________________________________________________
      DGN PSU{a}=b-c-d[-e] y [z]

[4]   ____________________________________________________________________
      DGN PSU{a}=b-c-d[-e] COMPLETED a1 [PH b1]

[5]   ____________________________________________________________________
      DGN PSU{a}=b-c-d[-e] PH f SEG g STMT d1 e1
       [EXP j MASK k ACTL l]
```

2. REASON FOR OUTPUT

To report the results of executing a DGN:PSU input message to diagnose a packet switch unit (PSU) common controller (COM) or protocol handler (PH).

Format 1 is printed when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of suspected faulty equipment is provided.

Format 3 prints when the specified phase(s) terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase(s) has completed.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Circuit name. Valid value(s):

`COM`	= Common controller.
`PH`	= Protocol handler.

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b = Switching module (SM) number.

c = PSU number.

d-e = Valid value(s):

If 'a' =	'd' =	'e' =
COM	Service group number.	
PH	Shelf number.	Portocol handler number.

f = Number of the phase in which the failure occurred.

g = Number of the segment in which the failure occurred.

h = Number of the test that failed.

i = Mismatch results for the specified test in hexadecimal.

j = Actual result for the specified test in hexadecimal.

k = Mask used to determine test failure in hexadecimal.

l = Expected result for the specified test in hexadecimal.

m = Floor and aisle number.

n = Module type.

o = Module number.

p = Cabinet type.

q = Cabinet number.

r = Replacement equipment code(s).

s = Equipment form(s). Equipment form represents minimal operating level of replacement equipment.

Example of CODE FORM content:

```
CODE  FORM
A[:B]...[:C] [-] D[:E]...[:F]
-            = Inter-field delimiter if necessary.
:            = Intra-field delimiter.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits).
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B' and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E' and 'F' may represent the series number for a corresponding apparatus code, or the

issue level for a corresponding microcode identifier or text identifier(s) as applicable.

t = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

u = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

v = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

w = Circuit type. Valid value(s):

HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
___	= Equipment is part of the circuit under test.

x = Refer to output appendix APP:TLP-NOTE in the Appendixes volume of the Output Messages manual.

y = Termination report. Valid value(s):

ABORTED	= Requested action was terminated before completion, and the termination was not graceful.
COMPLETED	= Request has successfully completed.
NOT STARTED	= Requested action has not begun.
STOPPED	= Requested action was terminated before a normal completion. Termination was graceful.

z = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Message manual.

a[1] = Phase result.

b[1] = Phase number completed.

c[1] = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

d[1] = Statement number.

e[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, analyze failure data to determine reason for failure or run the diagnostic using the TLP option to generate a suspected faulty circuit pack list.

For Format 2, replace the suspected circuit packs, one at a time in the order specified. Rerun the diagnostic after each substitution until the fault is repaired or until the diagnostic result changes. If, after replacing each circuit pack listed, the problem still is not resolved, rerun the diagnostic with the RAW and UCL options. If this does not assist in solving the problem, then contact the appropriate organization for technical assistance.

For Formats 3, 4, and 5, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:PSU
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-250 *System Recovery*

MCC Display Page(s):

118x (PSU SHELF)
1186 (PSU NETWORK)

DGN:QGP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN QGP=a-b STF PH c SEG d TEST e MM f [EXP g MASK h ACTL i]

[2]   ____________________________________________________________________
      DGN QGP=a-b SUSPECTED FAULTY EQUIPMENT j RECORD

        AISLE  MODULE      CABINET CODE           FORM   EQL       TYPE NOTE
        k      CM          l   m   n                 o   p-q       r    [s]
        .      .           .   .   .                 .   . .       .     .
        .      .           .   .   .                 .   . .       .     .
        .      .           .   .   .                 .   . .       .     .

[3]   ____________________________________________________________________
      DGN QGP=a-b t [u]

[4]   ____________________________________________________________________
      DGN QGP=a-b COMPLETED v [PH w]
```

2. REASON FOR OUTPUT

To report the results of executing a DGN:QGP input message to diagnose a quad-link gateway processor (QGP). The report may also be produced from DGN:MSGS, RST:QLPS, or RST:MSGS input messages.

Format 1 is printed when a test has failed. The text in the square bracket will be printed if the RAW option is used with the diagnostic request.

Format 2 is printed when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 is printed when the specified phase(s) terminated before completion. Execution of the diagnostic will not continue.

Format 4 is printed when the specified phase(s) has completed. Execution of the diagnostic will continue until all requested phases are completed.

Formats 1, 2, and 4 (with phase number) belong to the SMCONFG message class, while Formats 3 and 4 (without phase number) belong to the MSGS message class.

3. VARIABLE FIELD DEFINITIONS

a = Message switch (MSGS) number.

b = QGP number.

c = Number of the phase in which the failure occurred.

d = Number of the segment in which the failure occurred.

e = Number of the test that failed.

f = Mismatch results for the specified test in hexadecimal.

g = Expected result for the specified test in hexadecimal.

h = Mask used to determine test failure in hexadecimal.

i = Actual result for the specified test in hexadecimal.

j = Text identifier showing order of TLP record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

A maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of one to four entries. Each record will have a new header.

k = Identification number of floor and aisle.

l = Cabinet type. Valid value(s):

CM2	= Communication module 2 cabinet.
M	= Miscellaneous cabinet.
MSG	= Message switch cabinet.
SMC	= Switching module controller cabinet.
TMS	= Time multiplexed switch cabinet.

m = Cabinet number.

n = Replacement equipment code(s). Refer to the following example.

o = Equipment form(s). Equipment form represents the minimal operating level of replacement equipment. Refer to the following example.

Example of CODE FORM content:

```
CODE  FORM
A[:B]...[:C] [-] D[:E]...[:F]
```

A	= Current minimal accepted equipment code.
B	= Current production equipment code (substitutable equipment for code 'A').
C	= Additional compatible equipment code(s) (added as space permits).
D	= Current minimal approved operating level for equipment code 'A'.
E	= Current minimal approved operating level for equipment code 'B'.
F	= Current minimal approved operating level(s) for equipment code(s) 'C'.
-	= Inter-field delimiter.
:	= Intra-field delimited.

Codes 'A', 'B' and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifiers(s) as applicable.

Forms 'D', 'E' and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

p = Vertical location in the cabinet, in inches above the floor to the center of the implicated shelf.

q = Horizontal location in the cabinet, in eighths of an inch from the left corner of the implicated shelf.

r = Circuit type. Valid value(s):

HPR	= Equipment is part of a helper circuit. The helper must be removed from service before replacement is attempted.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
---	= Equipment is part of the circuit under test.
Note:	The equipment may be in a unit (such as QLPS) which shares a power service group with a related unit (such as ONTCCOM). The related unit must also be removed from service, and the related unit's mate made on-line before replacement is attempted.

s = Number of the TLP note containing supplementary information related to the specified suspected faulty equipment. Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

t Termination status. Valid value(s):

ABORTED	= Requested action was terminated before completion, and the termination was not graceful.
NOT STARTED	= Requested action was not begun.
STOPPED	= Requested action was terminated before a normal completion.

u = Reason for the termination.

v = Phase or diagnostic result. Valid value(s):

ATP	= All tests were performed and passed.
CATP	= Some tests were not performed, but all tests that were performed passed.
NTR	= No tests were performed.
STF	= Some test(s) failed.

w = Number of the phase completed.

4. ACTION TO BE TAKEN

For Format 1, no action is required. It indicates that one or more faults exist in the system and provides data for manual analysis if necessary. Normally, a message of Format 2 should be obtained by rerunning the diagnostic with the TLP option if necessary, to begin to locate and repair the fault.

For Format 2, replace the indicated circuit packs, refer to the Corrective Maintenance Manual for specific instructions. Rerun the diagnostic after each substitution until the fault is repaired or until the diagnostic result changes.

For Formats 3 and 4, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:QGP
```

Output Appendix(es):

```
APP:TLP-NOTE
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1241/1251 (MSGS COMMUNITIES)
1380/1381 (QLPS NETWORK)

DGN:QLPS

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN QLPS=a-b STF PH c SEG d TEST e MM f [EXP g MASK h ACTL i]

[2]   ____________________________________________________________________
      DGN QLSP=a-b SUSPECTED FAULTY EQUIPMENT j RECORD

        AISLE  MODULE      CABINET CODE           FORM   EQL       TYPE NOTE
        k      CM          l   m   n                 o   p-q       r    [s]
        .      .           .   .   .                 .   . .       .     .
        .      .           .   .   .                 .   . .       .     .
        .      .           .   .   .                 .   . .       .     .

[3]   ____________________________________________________________________
      DGN QLPS=a-b t [u]

[4]   ____________________________________________________________________
      DGN QLPS=a-b COMPLETED v [PH w]
```

2. REASON FOR OUTPUT

To report the results of executing a DGN:QLPS input message to diagnose a quad-link packet switch (QLPS) processor. The report may also be produced from the DGN:ONTC, RST:QLPS, or RST:ONTC input messages.

Format 1 is printed when a test has failed. The text in the square bracket will be printed if the RAW option is used with the diagnostic request.

Format 2 is printed when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 is printed when the specified phase(s) terminated before completion. Execution of the diagnostic will not continue.

Format 4 is printed when the specified phase(s) has completed. Execution of the diagnostic will continue until all requested phases are completed.

Formats 1, 2, and 4 (with phase number) belong to the SMCONFG message class, while Formats 3 and 4 (without phase number) belong to the MSGS message class.

3. VARIABLE FIELD DEFINITIONS

`a` = Office network timing and control (ONTC) side number.

`b` = Quad-link packet switch (QLPS) network number.

`c` = Number of the phase in which the failure occurred.

`d` = Number of the segment in which the failure occurred.

e = Number of the test that failed.

f = Mismatch results for the specified test in hexadecimal.

g = Expected result for the specified test in hexadecimal.

h = Mask used to determine test failure in hexadecimal.

i = Actual result for the specified test in hexadecimal.

j = Text identifier showing order of TLP record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

A maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of one to four entries. Each record will have a new header.

k = Identification number of floor and aisle.

l = Cabinet type. Valid value(s):

CM2	= Communication module 2 cabinet.
M	= Miscellaneous cabinet.
MSG	= Message switch cabinet.
SMC	= Switching module controller cabinet.
TMS	= Time multiplexed switch cabinet.

m = Cabinet number.

n = Replacement equipment code(s). Refer to the following example.

o = Equipment form(s). Equipment form represents the minimal operating level of replacement equipment. Refer to the following example.

Example of CODE FORM content:

```
CODE  FORM
A[:B]...[:C] [-] D[:E]...[:F]
```

A	= Current minimal accepted equipment code.
B	= Current production equipment code (substitutable equipment for code 'A').
C	= Additional compatible equipment code(s) (added as space permits).
D	= Current minimal approved operating level for equipment code 'A'.
E	= Current minimal approved operating level for equipment code 'B'.
F	= Current minimal approved operating level(s) for equipment code(s) 'C'.
:	= Intra-field delimited.
-	= Inter-field delimiter.

Codes 'A', 'B' and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifiers(s) as applicable.

Forms 'D', 'E' and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

`p` = Vertical location in the cabinet, in inches above the floor to the center of the implicated shelf.

`q` = Horizontal location in the cabinet, in eighths of an inch from the left corner of the implicated shelf.

`r` = Circuit type. Valid value(s):

`HPR`	= Equipment is part of a helper circuit. The helper must be removed from service before replacement is attempted.
`ONL`	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
`---`	= Equipment is part of the circuit under test.
Note:	The equipment may be in a unit (such as QLPS 0-0) which shares a power service group with a related unit (such as QLPS 0-1). The related unit must also be removed from service, and the related unit's mate made on-line before replacement is attempted.

`s` = Number of the TLP note containing supplementary information related to the specified suspected faulty equipment. Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

`t` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`NOT STARTED`	= Requested action was not begun.
`STOPPED`	= Requested action was terminated before a normal completion.

`u` = Reason for the termination.

`v` = Phase or diagnostic result. Valid value(s):

`ATP`	= All tests were performed and passed.
`CATP`	= Some tests were not performed, but all tests that were performed passed.
`NTR`	= No tests were performed.
`STF`	= Some test(s) failed.

`w` = Number of the phase completed.

4. ACTION TO BE TAKEN

For Format 1, no action is required. It indicates that one or more faults exist in the system and provides data for manual analysis if necessary. Normally, a message of Format 2 should be obtained by rerunning the diagnostic with the TLP option if necessary, to begin to locate and repair the fault.

For Format 2, replace the indicated circuit packs, refer to the Corrective Maintenance Manual for specific instructions. Rerun the diagnostic after each substitution until the fault is repaired or until the diagnostic result changes.

For Formats 3 and 4, no action is required.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
DGN:ONTC
DGN:QLPS
RST:ONTC
RST:QLPS
```

Output Appendix(es):

```
APP:TLP-NOTE
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1241/1251 (MSGS COMMUNITIES)
1380/1381 (QLPS NETWORK)

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DGN:RAF

Software Release: 5E10 and later
Message Class: SMCONFG,SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN RAF=a-b STF PH c SEG d TEST e MM f
       [EXP g MASK h ACTL i]

[2]   ____________________________________________________________________
      DGN RAF=a-b SUSPECTED FAULTY EQUIPMENT n RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL    TYPE  NOTE
         c      d [e]    f g     h     [i]  j-k[-o]   l    [m]
        [.      .  .     . .     .      .   . .  .    .     .]
        [.      .  .     . .     .      .   . .  .    .     .]
        [.      .  .     . .     .      .   . .  .    .     .]

[3]   ____________________________________________________________________
      DGN RAF=a-b p [q]

[4]   ____________________________________________________________________
      DGN RAF=a-b COMPLETED r [PH s]

[5]   ____________________________________________________________________
      DGN RAF=a-b PH c SEG d STMT t u
       [EXP g MASK h ACTL i]
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:RAF input message to diagnose the recorded announcement function (RAF) unit.

Format 1 prints when a test fails.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) has been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase(s) has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = RAF unit number.

c = Number of the phase in which the failure occurred.

d = Number of the segment in which the failure occurred.

e = Number of the test that failed.

f = Mismatch results for the specified test.

g = Expected result for the specified test, in hexadecimal.

h = Replacement equipment code(s).

i = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE                        FORM
A[:B]...[:C] [-] D[:E]...[:F]
:           = Intra-field delimiter.
-           = Inter-field delimiter if necessary.
A           = Current minimal accepted equipment code.
B           = Current production equipment code (substitutable equipment for code 'A').
C           = Additional compatible equipment code(s) (added as space permits).
D           = Current minimal approved operating level for equipment code 'A'.
E           = Current minimal approved operating level for equipment code 'B'.
F           = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

j = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

k = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

l = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

___ = Equipment is part of the circuit under test.

m = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

n = Text identifier showing order of record. Valid value(s):

FIRST = First record of continuing list.

NEXT = Next record of continuing list.

`LAST` = Last record of list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

`o` = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

`p` = Termination status. Valid value(s):
`ABORTED` = The process was terminated (process not gracefully terminated).
`NOT STARTED` = Action was not begun.
`STOPPED` = Terminated before normal completion (process gracefully terminated).

`q` = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

`r` = Phase result.

`s` = Phase number completed.

`t` = Statement number.

`u` = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, if variables '`g`' and '`i`' do not match, refer to TLP. If this does not assist in solving the problem, rerun the diagnostic with the 'RAW' and 'UCL' options. Give the resulting output to a diagnostician for interpretation.

For Format 2, replace the suspected packs, one at a time, in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Format 3, 4, and 5, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:RAF
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:RAU

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN RAU=a STF PH b SEG c TEST d MM e
       [EXP f MASK g ACTL h]

[2]   ____________________________________________________________________
      DGN RAU=a SUSPECTED FAULTY EQUIPMENT v RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL    TYPE  NOTE
          i      j [w]    k  x     l    [m]   n-o[-y]   p    [q]
         [.      .  .     .  .     .     .    . .  .    .     .]
         [.      .  .     .  .     .     .    . .  .    .     .]
         [.      .  .     .  .     .     .    . .  .    .     .]

[3]   ____________________________________________________________________
      DGN RAU=a r [s]

[4]   ____________________________________________________________________
      DGN RAU=a COMPLETED t [PH u]

[5]   ____________________________________________________________________
      DGN RAU=a PH b SEG c STMT z a[1]
       [EXP f MASK g ACTL h]
```

2. REASON FOR OUTPUT

To report the result of a DGN:RAU input message to diagnose a remote switching module (RSM) alarm (RAU) circuit.

Format 1 is printed when a test has failed.

Format 2 is printed when a test fails and the trouble locating procedure (TLP) option was specified in the input message. An ordered list of suspected faulty equipment is provided.

Format 3 is printed when the specified phase(s) terminated before completion. Execution of the diagnostic will not continue.

Format 4 is printed when the specified phase(s) completed. Execution of the diagnostic will continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Number of the phase in which the failure occurred.

c = Number of the segment in which the failure occurred.

d = Number of the test that failed.

e = Mismatch results for the specified test.

f = Expected result for the specified test in hexadecimal.

g = Mask used to determine test failure in hexadecimal.

h = Actual result for the specified test in hexadecimal.

i = Aisle.

j = Module type.

w = Module number.

k = Cabinet type.

x = Cabinet number.

l = Replacement equipment code(s).

m = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE                        FORM
A[:B]...[:C] [-] D[:E]...[:F]
-            = Inter-field delimiter if necessary.
:            = Intra-field delimiter.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits)
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

n = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

o = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

p = Circuit type. Valid value(s):

___ = Equipment is part of the circuit under test.

HPR = Equipment is part of a helper circuit. The helper must be removed before

replacement is attempted.

`ONL` = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

`q` = Refer to output appendix APP:TLP-NOTE in the Appendixes volume of the Output Messages manual.

`r` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was complete.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action had not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`s` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

`t` = Phase result.

`u` = Phase number completed.

`v` = Text identifier showing order of record. Valid value(s):

- `FIRST` = First record of continuing list.
- `NEXT` = Next record of continuing list.
- `LAST` = Last record of list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

`y` = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

`z` = Statement number.

`a`[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic after each substitution until the fault is repaired or until the diagnostic result changes.

For Formats 3, 4, and 5, none.

5. ALARMS

Alarms may be triggered because:

(1) The switch is sending a response message that is reporting that a fault recovery (FR) restore request was purged by system integrity. The verb is DGN, the source is AUTO, and the return response is ABORTED. This is the only time that these three parameters are equal to the stated values.

(2) A routine exercise requested diagnostic fails and, if requested, an alarm is sounded. The verb is RTN exercise, the source is AUTO, and the return response is STF.

(3) A routine exercise was requested and it failed. It failed because the diagnostic was ATP but the circuit failed hardware initialization.

(4) The request originated from a program update or retrofit and the request was not successfully completed. The alarm is sounded only if an "alarm" was requested on failures. These callers have the option of not alarming failures.

6. REFERENCES

Input Message(s):

```
DGN:RAU
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:RCLK

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN RCLK=a-b STF PH c SEG d TEST e MM f
       [EXP g MASK h ACTL i]

[2]   ____________________________________________________________________
      DGN RCLK=a-b SUSPECTED FAULTY EQUIPMENT w RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL    TYPE   NOTE
          j     k [x]    l  y     m    [n]   o-p[-z]   q     [r]
         [.     .  .     .  .     .     .    . .  .    .      .]
         [.     .  .     .  .     .     .    . .  .    .      .]
         [.     .  .     .  .     .     .    . .  .    .      .]

[3]   ____________________________________________________________________
      DGN RCLK=a-b s [t]

[4]   ____________________________________________________________________
      DGN RCLK=a-b COMPLETED u [PH v]

[5]   ____________________________________________________________________
      DGN RCLK=a-b PH c SEG d STMT a1 b1
       [EXP g MASK h ACTL i]
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:RCLK input message to diagnose a remote clock (RCLK) circuit.

Format 1 is printed when a test has failed.

Format 2 is printed when a test fails and the trouble locating procedure (TLP) option was specified in the input message. An ordered list of suspected faulty equipment is provided.

Format 3 is printed when the specified phase(s) terminated before completion. Execution of the diagnostic will not continue.

Format 4 is printed when the specified phase(s) completed. Execution of the diagnostic will continue until all the requested phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = RCLK side.

c = Number of the phase in which the failure occurred.

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d = Number of the segment in which the failure occurred.

e = Number of the test that failed.

f = Mismatch results for the specified test in hexadecimal.

g = Expected result for the specified test in hexadecimal.

h = Mask used to determine test failure in hexadecimal.

i = Actual result for the specified test in hexadecimal.

j = Aisle.

k = Module type.

x = Module number.

l = Cabinet type.

y = Cabinet number.

m = Replacement equipment code(s).

n = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE                        FORM
A[:B]...[:C] [-] D[:E]...[:F]
:            = Intra-field delimiter.
-            = Inter-field delimiter if necessary.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A) .
C            = Additional compatible equipment code(s) (added as space permits).
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

o = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

p = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

q = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
___ = Equipment is part of the circuit under test.

r = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

s = Termination report. Valid value(s):
ABORTED = Requested action was terminated before completion, and the termination is immediate. Consistency of hardware and data is questionable.
COMPLETED = Request has successfully completed.
NOT STARTED = Requested action had not begun.
STOPPED = Requested action was terminated before a normal completion.

t = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

u = Phase result.

v = Phase number completed.

w = Text identifier showing order of record. Valid value(s):
FIRST = First record of continuing list.
NEXT = Next record of continuing list.
LAST = Last record of list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

z = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

a[1] = Statement number.

b[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty circuit.

For Format 2, replace the suspected circuit packs, one at a time, in the order specified. Rerun the diagnostic after each substitution until the fault is repaired or until the diagnostic result changes.

For Formats 3, 4, and 5, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:RCLK
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:RDFI

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN RDFI=a-b-c STF PH d SEG e TEST f MM g
       [EXP h MASK i ACTL j]

[2]   ____________________________________________________________________
      DGN RDFI=a-b-c SUSPECTED FAULTY EQUIPMENT x RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL     TYPE  NOTE
          k     l [y]    m  z     n    [o]   p-q[-a1]   r    [s]
         [.     .  .     .  .     .     .    . .  .     .     .]
         [.     .  .     .  .     .     .    . .  .     .     .]
         [.     .  .     .  .     .     .    . .  .     .     .]

[3]   ____________________________________________________________________
      DGN RDFI=a-b-c t [u]

[4]   ____________________________________________________________________
      DGN RDFI=a-b-c COMPLETED v [PH w]

[5]   ____________________________________________________________________
      DGN RDFI=a-b-c PH d SEG e STMT b1 c1
       [EXP h MASK i ACTL j]
```

2. REASON FOR OUTPUT

To report the result of a DGN:RDFI input message to diagnose a remote switching module (RSM) digital facilities interface (RDFI) circuit.

Format 1 is printed when a test has failed.

Format 2 is printed when a test fails and the trouble locating procedure (TLP) option was specified in the input message. An ordered list of suspected faulty equipment is provided.

Format 3 is printed when the specified phase(s) terminated before completion. Execution of the diagnostic will not continue.

Format 4 is printed when the specified phase(s) completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Digital line and trunk unit (DLTU) number.

c = RDFI number.

d = Number of the phase in which the failure occurred.

e = Number of the segment in which the failure occurred.

f = Number of the test that failed.

g = Mismatch results for the specified test in hexadecimal.

h = Expected result for the specified test in hexadecimal.

i = Mask used to determine test failure in hexadecimal.

j = Actual result for the specified test in hexadecimal.

k = Aisle.

l = Module type.

y = Module number.

m = Cabinet type.

z = Cabinet number.

n = Replacement equipment code(s).

o = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE  FORM
A[:B]...[:C] [-] D[:E]...[:F]
:            = Intra-field delimiter.
A            = Current minimal accepted equipment code.
-            = Inter-field delimiter if necessary.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits).
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

p = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

q = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

r = Circuit type. Valid value(s):

HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
___	= Equipment is part of the circuit under test.

s = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

t = Termination report. Valid value(s):

ABORTED	= Requested action was terminated before completion, and the termination was complete.
COMPLETED	= Request has successfully completed.
NOT STARTED	= Requested action had not begun.
STOPPED	= Requested action was terminated before a normal completion.

u = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

v = Phase result.

w = Phase number completed.

x = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
NEXT	= Next record of continuing list.
LAST	= Last record of list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

a[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

b[1] = Statement number.

c[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected circuit packs, one at a time in the order specified. Rerun the diagnostic after each substitution until the fault is repaired or until the diagnostic result changes.

For Formats 3, 4, and 5, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:RDFI
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:RLI

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN RLI=a-b STF PH c SEG d TEST e MM f
       [EXP g MASK h ACTL i]

[2]   ____________________________________________________________________
      DGN RLI=a-b SUSPECTED FAULTY EQUIPMENT w RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL    TYPE  NOTE
          j     k [x]    l  y     m    [n]   o-p[-z]   q    [r]
         [.     .  .     .  .     .     .    . .  .    .     .]
         [.     .  .     .  .     .     .    . .  .    .     .]
         [.     .  .     .  .     .     .    . .  .    .     .]

[3]   ____________________________________________________________________
      DGN RLI=a-b s [t]

[4]   ____________________________________________________________________
      DGN RLI=a-b COMPLETED u [PH v]

[5]   ____________________________________________________________________
      DGN RLI=a-b PH c SEG d STMT a1 b1
        [EXP g MASK h ACTL i]
```

2. REASON FOR OUTPUT

To report the result of a DGN:RLI input message to diagnose a remote switching module (RSM) remote link interface (RLI) circuit.

Format 1 is printed when a test has failed.

Format 2 is printed when a test fails and the trouble locating procedure (TLP) option was specified in the input message. An ordered list of suspected faulty equipment is provided.

Format 3 is printed when the specified phase(s) terminated before completion. Execution of the diagnostic will not continue.

Format 4 is printed when the specified phase(s) completed. Execution of the diagnostic will continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = RLI number.

c = Number of the phase in which the failure occurred.

d = Number of the segment in which the failure occurred.

e = Number of the test that failed.

f = Mismatch results for the specified test.

g = Expected result for the specified test in hexadecimal.

h = Mask used to determine test failure in hexadecimal.

i = Actual result for the specified test in hexadecimal.

j = Aisle.

k = Module type.

x = Module number.

l = Cabinet type.

y = Cabinet number.

m = Replacement equipment code(s).

n = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE                        FORM
A[:B]...[:C] [-] D[:E]...[:F]
-            = Inter-field delimiter if necessary.
:            = Intra-field delimiter.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits)
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B' and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E' and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

o = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

p = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

q = Circuit type. Valid value(s):

___ = Equipment is part of the circuit under test.
HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

r = Refer to output appendix APP:TLP-NOTE in the Appendixes volume of the Output Messages manual.

s = Termination report. Valid value(s):
ABORTED = Requested action was terminated before completion, and the termination was complete.
COMPLETED = Request has successfully completed.
NOT STARTED = Requested action had not begun.
STOPPED = Requested action was terminated before a normal completion.

t = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

u = Phase result.

v = Phase number completed.

w = Text identifier showing order of record. Valid value(s):
FIRST = First record of continuing list.
LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

z = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

a[1] = Statement number

b[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit. For Format 2, replace the suspected circuit packs, one at a time in the order specified. Rerun the

diagnostic after each substitution until the fault is repaired or until the diagnostic result changes.

For Formats 3, 4, and 5, none.

5. ALARMS

Alarms may be triggered because:

(1) The switch is sending a response message that is reporting that a fault recovery (FR) restore request was

purged by system integrity. The verb is DGN, the source is AUTO, and the return response is ABORTED. This is the only time that these three parameters are equal to the stated values.

(2) A routine exercise requested diagnostic fails and, if requested, an alarm is sounded. The verb is RTN exercise, the source is AUTO, and the return response is STF.

(3) A routine exercise was requested and it failed. It failed because the diagnostic was ATP but the circuit failed hardware initialization.

(4) The request originated from a program update or retrofit and the request was not successfully completed. The alarm is sounded only if an "alarm" was requested on failures. These callers have the option of not alarming failures.

6. REFERENCES

Input Message(s):

```
DGN:RLI
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:RPCN

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN RPCNa 0 b c [d]

[2]   ____________________________________________________________________
      DGN RPCNa 0 PH e f [g]
        TEST    MISMATCH
         h          i
```

2. REASON FOR OUTPUT

To print the results of a diagnostic run on a ring peripheral controller node (RPCN). Format 1 prints at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode. Format 2 prints whenever the diagnostic results are printed for an individual phase. This occurs in the case of partial diagnosis, a test failure, or whenever RAW was specified in the input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Ring node (RN) group number.

`b` = Termination mode of diagnostic. Valid value(s):

- `ABORTED` = Diagnostic was abnormally stopped due to an external or internal error in execution, or a STOP:DMQ input request.
- `COMPLETED` = Diagnostic completed normally.
- `TERMINATED` = Diagnostic terminated under program control (early termination), since further testing would not improve diagnostic resolution.

`c` = Result of the diagnostic. Valid value(s):

- `ATP` = All tests passed.
- `CATP` = All tests that were executed were ATP. Some tests were not executed due to the unavailability of a system resource that was needed to perform the test, or due to the inability to isolate, or to singly isolate, the node under test.
- `NTR` = No tests run.
- `STF` = Some tests failed.

`d` = Valid value(s):

If '`c`' =	**'`d`' =**
`CATP` or `NTR`	Identifies the reason that tests were skipped in this phase by their bit position in a 16-character hexadecimal number. For example, if '`d`' = 00000000 00000006, tests were skipped for reasons 1 and 2. The reason codes are as follows: `Bit 0` = Helper unit invalid or not specified. `Bit 1` = Helper unit cannot be reserved. `Bit 2` = Helper unit not out-of-service. `Bit 3` = Helper control unit (CU) is not ATP.

	Bits 4 to 29 = Unused. Bit 30 = Node under test was not the only isolated node. Bit 31 = Node under test was not isolated. Bits 32 to 63 = Unused.
STF	Number of test failures in addition to the reasons that tests were skipped. For example, if 'd' = 7 00000000 00000006, seven tests failed, plus tests were skipped for reasons 1 and 2.

e = Phase number.

f = Result of the phase. Valid value(s):

- ATP = All tests passed.
- CATP = All tests that were executed were ATP. Some tests were not executed due to the unavailability of a system resource that was needed to perform the test, or due to the inability to isolate, or to singly isolate, the node under test.
- NTR = No tests run.
- STF = Some tests failed.

g = Identifies the reason that some tests were skipped. This field is the same as the 'd' field in Format 1 except that the result of only one phase is reflected.

h = Test number of the failing test.

i = An 8-digit hexadecimal number that indicates the bits that were in error. A '1' in a bit position indicates that the response from the unit did not match the expected response in that bit.

4. ACTION TO BE TAKEN

If 'c' or 'f' =	Action:
CATP	The needed system resource should be made available if possible, so that all tests may be executed.
STF	The unit should be repaired as quickly as possible.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:RPCN
RMV:RPCN
RST:RPCN
STOP:DMQ
```

Output Message(s):

```
ANALY:TLPFILE
DGN:AUDIT-RING
REPT:DIAMON
RMV:RPCN
RST:RPCN
```

Other Manual(s):
235-190-220 *Corrective Maintenance*

MCC Display Page(s):

118 (CNI FRAME AND CCS LINK STATUS)

DGN:RRCLK

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

[1]
```
DGN RRCLK=a-b-c STF PH d SEG e TEST f MM g
 [EXP h MASK i ACTL j]
```

[2]
```
DGN RRCLK=a-b-c SUSPECTED FAULTY EQUIPMENT z RECORD
  AISLE  MODULE  CABINET  CODE  FORM    EQL    TYPE  NOTE
    k     l [m]    n  o     p    [q]   r-s[-a1]  t    [u]
   [.     .  .    .  .     .     .    . .  .    .     .]
   [.     .  .    .  .     .     .    . .  .    .     .]
   [.     .  .    .  .     .     .    . .  .    .     .]
```

[3]
```
DGN RRCLK=a-b-c v [w]
```

[4]
```
DGN RRCLK=a-b-c COMPLETED x [PH y]
```

[5]
```
DGN RRCLK=a-b-c PH d SEG e STMT b1 c1
 [EXP h MASK i ACTL j]
```

2. REASON FOR OUTPUT

To report the results of a DGN:RRCLK input message to diagnose a remote integrated services line unit (RISLU) remote clock circuit pack (RRCLK). This message also reports the results of automatic diagnostics run by the system in response to RRCLK faults.

Format 1 is printed when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of suspected faulty equipment is provided.

Format 3 prints when the specified phase(s) terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase(s) has completed.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = RISLU number.

c = RRCLK side.

d = Number of the phase in which the failure occurred.

e = Number of the segment in which the failure occurred.

f = Number of the test that failed.

g = Mismatch results for the specified test in hexadecimal.

h = Expected result for the specified test in hexadecimal.

i = Mask used to determine test failure in hexadecimal.

j = Actual result for the specified test in hexadecimal.

k = Floor and aisle number.

l = Module type.

m = Module number.

n = Cabinet type.

o = Cabinet number.

p = Replacement equipment code(s).

q = Equipment form(s). Equipment form represents minimal operating level of replacement equipment.

Example of CODE FORM content:

```
CODE                        FORM
A[:B]...[:C] [-] D[:E]...[:F]
:            = Intra-field delimiter.
-            = Inter-field delimiter if necessary.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits)
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

r = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

s = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

t = Circuit type. Valid value(s):

- HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
- ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
- ___ = Equipment is part of the circuit under test.

u = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

v = Termination report. Valid value(s):

- ABORTED = Requested action was terminated before completion, and the termination was not graceful.
- COMPLETED = Request has successfully completed.
- NOT STARTED = Requested action has not begun.
- STOPPED = Requested action was terminated before a normal completion. Termination was graceful.

w = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

x = Phase result.

y = Phase number completed.

z = Text identifier showing order of record:

- FIRST = First record of continuing list.
- LAST = Last record of list.
- NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

a[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

b[1] = Statement number.

c[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, analyze failure data to determine reason for failure or run the diagnostic using the 'TLP' option to generate a suspected faulty circuit pack list.

For Format 2, replace the suspected circuit packs, one at a time in the order specified. Rerun the diagnostic after each substitution until the fault is repaired or until the diagnostic result changes. If, after replacing each circuit pack listed, the problem still is not resolved, rerun the diagnostic with the 'RAW' and 'UCL' options. If this does not assist in solving the problem, then contact the appropriate organization for technical assistance.

For Format 3, 4, and 5, none.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:RRCLK
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

DGN:RVPT

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN RVPT=a-b-c-d e f PH g

[2]   ____________________________________________________________________
      DGN RVPT=a-b-c-d h [i]

[3]   ____________________________________________________________________
      DGN RVPT=a-b-c-d STF PH j SEG k TEST l MM m
       [EXP n MASK o ACTL p]

[4]   ____________________________________________________________________
      DGN RVPT=a-b-c-d SUSPECTED FAULTY EQUIPMENT b1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM     EQL     TYPE  NOTE
          q     r [s]     t u     v    [w]   x-y[-c1]   z    [a1]
         [.     .  .      . .     .     .    . .  .     .     .]
         [.     .  .      . .     .     .    . .  .     .     .]
         [.     .  .      . .     .     .    . .  .     .     .]

[5]   ____________________________________________________________________
      DGN RVPT=a-b-c-d PH j SEG k STMT d1 e1
       [EXP n MASK o ACTL p]
```

2. REASON FOR OUTPUT

To report the result of executing DGN:RVPT input message to diagnose the revertive pulsing transceiver (RVPT), to report the diagnostic outcome as the result of a RST:RVPT input message, or to report the diagnostic outcome as the result of a recovery action that removed the circuit from service.

Format 1 is printed when a specified phase(s) has been completed and either a phase range or RAW was specified on a manual request. Execution of the diagnostic will continue for any remaining phases.

Format 2 is printed to report the final results when diagnostic execution has been completed.

Format 3 is printed when a test has failed.

Format 4 is printed when the trouble location procedure (TLP) was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Unit number.

`c` = Service group.

`d` = Circuit number.

`e` = Completion status. Valid value(s):

- `ABORTED` = The diagnostic phase was unable to clean up or remove hardware or software resources. Further output showing data or hardware recovery by audits may follow. A message of Format 2 will follow giving the reason for the abort.
- `COMPLETED` = Successful completion.
- `STOPPED` = The diagnostic phase terminated prematurely but cleanly. A message of Format 2 will follow giving the reason for termination.

`f` = Diagnostic phase result. Valid value(s):

- `ATP` = All tests were performed and passed.
- `CATP` = Some tests were not performed, but all tests that were performed passed.
- `NTR` = No tests were performed.
- `STF` = Some test(s) failed.

`h` = Termination status. Valid value(s):

- `ABORTED` = The diagnostic process was purged or terminated without cleaning up. Further output showing data or hardware recovery by audits may follow.
- `COMPLETED` = Successful completion.
- `NOT STARTED` = The diagnostic was not started.
- `STOPPED` = Terminated before normal completion.

`i` = Reason for termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

`j` = Number of the phase in which the failure occurred.

`k` = Number of the segment in which the failure occurred.

`l` = Number of the test that failed.

`m` = Mismatched results for the specified test in hexadecimal.

`n` = Expected results for the specified test in hexadecimal.

`o` = Mask used to determine test failure in hexadecimal.

`p` = Actual result for the specified test in hexadecimal.

`q` = Aisle.

`r` = Module type.

`s` = Switching module number.

`t` = Cabinet type.

`u` = Cabinet number.

`v` = Replacement equipment code(s).

w = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. refer to the following example.

Example of CODE FORM content:

```
CODE  FORM
A[:B]...[:C] [-] D[:E]...[:F]
:          = Intra-field delimiter.
-          = Inter-field delimiter if necessary.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code 'A').
C          = Additional compatible equipment code(s) (added as space permits)
D          = Current minimal approved operating level for equipment code 'A'.
E          = Current minimal approved operating level for equipment code 'B'.
F          = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

x = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

y = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

z = Circuit type. Valid value(s):

HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
___	= Equipment is part of the circuit under test.

a[1] = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

b[1] = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

c[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

d[1] = Statement number.

e[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Formats 1 and 2,

If 'f' =	Action
ATP	No act
CATP	Find th
NTR	Find th
STF	Repair

For Format 3, replace the faulty unit.

For Format 4, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Format 5, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:RVPT
DGN:RVPT
RMV:RVPT
RST:RVPT
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:SAS

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN SAS=a-b STF PH c SEG d TEST e MM f
       [EXP g MASK h ACTL i]

[2]   ____________________________________________________________________
      DGN SAS=a-b SUSPECTED FAULTY EQUIPMENT x RECORD
        AISLE  MODULE  CABINET  CODE  FORM     EQL     TYPE  NOTE
         j      k [l]  m    n   o     [p]    q-r[-s]   t     [u]
        [.      .  .   .    .   .      .     . .  .    .      .]
        [.      .  .   .    .   .      .     . .  .    .      .]
        [.      .  .   .    .   .      .     . .  .    .      .]

[3]   ____________________________________________________________________
      DGN SAS=a-b v [w]

[4]   ____________________________________________________________________
      DGN SAS=a-b COMPLETED y [PH z]

[5]   ____________________________________________________________________
      DGN SAS=a-b PH c SEG d STMT a1 b1
       [EXP g MASK h ACTL i]
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:SAS input message to diagnose the service announcement system (SAS) unit.

Format 1 prints when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase(s) has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = SAS unit number.

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c = Number of the phase in which the failure occurred.

d = Number of the segment in which the failure occurred.

e = Number of the test that failed.

f = Mismatch results for the specified test.

g = Expected result for the specified test in hexadecimal.

h = Mask used to determine test failure in hexadecimal.

i = Actual result for the specified test in hexadecimal.

j = Identification number of floor and aisle.

k = Module type.

l = Module number.

m = Cabinet type.

n = Cabinet number.

o = Replacement equipment code(s).

p = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the following example.

Example of CODE FORM content:

```
CODE FORM
A[:B]...[:C] [-] D[:E]...[:F]
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code 'A').
C          = Additional compatible equipment code(s) (added as space permits).
D          = Current minimal approved operating level for equipment code 'A'.
E          = Current minimal approved operating level for equipment code 'B'.
F          = Current minimal approved operating level(s) for equipment code(s) 'C'.
:          = Intra-field delimiter.
-          = Inter-field delimiter if necessary.
```

Codes 'A', 'B' and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E' and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

q = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

r = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

s = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the

implicated shelf.

t = Circuit type. Valid value(s):

- HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
- ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
- ___ = Equipment is part of the circuit under test.

u = Refer to output appendix APP:TLP-NOTE in the Appendixes section of the Output Messages manual.

v = Termination status. Valid value(s):

- ABORTED = Immediate termination.
- COMPLETED = Successful completion.
- NOT STARTED = Action has not begun.
- STOPPED = Terminated before normal completion.

w = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

x = Text identifier showing order of record. Valid value(s):

- FIRST = First record of continuing list.
- LAST = Last record of list.
- NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

y = Phase result.

z = Phase number completed.

a[1] = Statement number.

b[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4 and 5, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:SAS
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

DGN:SCAN

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN SCAN=a-b-c-d STF PH e SEG f TEST g MM h
       [EXP i MASK j ACTL k]

[2]   ____________________________________________________________________
      DGN SCAN=a-b-c-d SUSPECTED FAULTY EQUIPMENT a1 RECORD
        AISLE  MODULE     CABINET CODE     FORM   EQL     TYPE NOTE
        l    m [n]     o  p     q  [r]   s-t[-b1]     u  [v]
       [.    .  .      .  .     .   .    . .  .                .   .]
       [.    .  .      .  .     .   .    . .  .                .   .]
       [.    .  .      .  .     .   .    . .  .                .   .]

[3]   ____________________________________________________________________
      DGN SCAN=a-b-c-d w [x]

[4]   ____________________________________________________________________
      DGN SCAN=a-b-c-d COMPLETED y [PH z]

[5]   ____________________________________________________________________
      DGN SCAN=a-b-c-d PH e SEG f STMT c1 d1
       [EXP i MASK j ACTL k]
```

2. REASON FOR OUTPUT

To report the result of executing the corresponding input message to diagnose the scan point board (SCAN).

Format 1 prints when a test has failed.

Format 2 prints when a test fails and the trouble locating procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Metallic service unit (MSU) number.

c = Service group number.

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d = SCAN number.

e = Number of the phase in which the failure occurred.

f = Number of the segment in which the failure occurred.

g = Number of the test that failed.

h = Mismatch results for the specified test in hexadecimal.

i = Expected result for the specified test in hexadecimal.

j = Mask used to determine test failure in hexadecimal.

k = Actual result for the specified test in hexadecimal.

l = Identification number of floor and aisle.

m = Module type.

n = Module number.

o = Cabinet type.

p = Cabinet number.

q = Replacement equipment code(s).

r = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE                        FORM
A[:B]...[:C] [-] D[:E]...[:F]
-            = Inter-field delimiter if necessary.
:            = Intra-field delimiter.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits).
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

s = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

t = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the

implicated shelf.

u = Circuit type. Valid value(s):

___	= Equipment is part of the circuit under test.
HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

v = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

w = Termination status. Valid value(s):

ABORTED	= The process was terminated (process not gracefully terminated).
NOT STARTED	= Action was not begun.
STOPPED	= Terminated before normal completion (process gracefully terminated).

x = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

y = Phase result.

z = Phase number completed.

a[1] = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

b[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

c[1] = Statement number.

d[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4, and 5, none.

5. ALARMS

Alarms may be triggered because:

(1) The switch is sending a response message that is reporting that a fault recovery (FR) restore request was purged by system integrity. The verb is DGN, the source is AUTO, and the return response is ABORTED. This is the only time that these three parameters are equal to the stated values.

(2) A routine exercise requested diagnostic fails and, if requested, an alarm is sounded. The verb is RTN exercise, the source is AUTO, and the return response is STF.

(3) A routine exercise was requested and it failed. It failed because the diagnostic was ATP but the circuit failed hardware initialization.

(4) The request originated from a program update or retrofit and the request was not successfully completed. The alarm is sounded only if an "alarm" was requested on failures. These callers have the option of not alarming failures.

6. REFERENCES

Input Message(s):

```
DGN:SCAN
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:SCSDC

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN SCSDC a [COMPLETED] b [(c)]
       {MESSAGE|MSG} {IN PROGRESS|COMPLETE}

[2]   ____________________________________________________________________
      DGN SCSDC a PH d b [(c)] {MESSAGE IN PROGRESS|MSG IP}

[3]   ____________________________________________________________________
      DGN SCSDC a PH d STF (c)          MSG IP
        TEST    MISMATCH    ACTUAL  MASK    EXPECTED


[4]   ____________________________________________________________________
      DGN SCSDC a ABORTED AT PH d STMNT j b [(c)]        MSG IP

[5]   ____________________________________________________________________
      DGN SCSDC a TERMINATED AT PH d STMNT j AFTER TEST k

[6]   ____________________________________________________________________
      DGN SCSDC a TASK l {MESSAGE STARTED|QUEUED|ABORTED}
```

2. REASON FOR OUTPUT

To print results of a diagnostic run on the scanner and signal distributor controller (SCSDC).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention [no openings in the active deferred maintenance queue (DMQ) and the request is in the waiting DMQ], or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = The result of the diagnostic. Valid value(s):

ATP = All tests passed.
NTR = No tests were run.
STF = Some tests failed.

c = If 'b'=STF, 'c' identifies the number of test failures in addition to the reasons that tests were skipped. For example, if 'c' = (70000000000000000), seven tests failed, and no tests were skipped.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A '1' in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines what bits in the actual value are of interest to this test.

i = The value which the test expected.
Note: For Format 3 the values for 'g', 'h' and 'i' may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

If 'b' = STF, the unit should be repaired as quickly as possible. Refer to the Corrective Maintenance manual for repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	96, 103
2	99, 103
3	109, 110
4	106, 109, 110, 111
5	217
6	70, 99

Input Message(s):

```
ALW:DMQ
DGN:SCSDC
DGN:SDLC
```

```
INH:DMQ
OP:DMQ
RMV:SCSDC
RST:SCSDC
STOP:DMQ
STP:DMQ
```

Output Message(s):

```
ANALY:TLPFILE
OP:DMQ
REPT:DGN-AUDIT
REPT:DIAMON
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

DGN:SDFI

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN SDFI=a-b-c STF PH d SEG e TEST f MM g
       [EXP h MASK i ACTL j]

[2]   ____________________________________________________________________
      DGN SDFI=a-b-c SUSPECTED FAULTY EQUIPMENT z RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL     TYPE  NOTE
         k      l [m]   n  o     p    [q]   r-s[-a1]   t    [u]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]

[3]   ____________________________________________________________________
      DGN SDFI=a-b-c v [w]

[4]   ____________________________________________________________________
      DGN SDFI=a-b-c COMPLETED x [PH y]

[5]   ____________________________________________________________________
      DGN SDFI=a-b-c PH d SEG e STMT b1 c1
       [EXP h MASK i ACTL j]
```

2. REASON FOR OUTPUT

To report the results of the *SLC*® 96 digital facility interface (SDFI) diagnostics.

Format 1 prints when a test have been failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase(s) have been completed. Execution of the diagnostic will not continue until all phases are completed.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Digital carrier line unit (DCLU) number.

c = SDFI number.

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d = Number of the phase in which the failure occurred.

e = Number of the segment in which the failure occurred.

f = Number of the test that failed.

g = Mismatch results for the specified test in hexadecimal.

h = Expected result for the specified test in hexadecimal.

i = Mask used to determine test failure in hexadecimal.

j = Actual result for the specified test in hexadecimal.

k = Identification number of floor and aisle.

l = Module type.

m = Module number.

n = Cabinet type.

o = Cabinet number.

p = Replacement equipment code(s).

q = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE                        FORM
A[:B]...[:C] [-] D[:E]...[:F]
:            = Intra-field delimiter.
-            = Inter-field delimiter if necessary.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits).
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

r = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

s = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

t = Circuit type. Valid value(s):

- HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
- ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
- ___ = Equipment is part of the circuit under test.

u = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

v = Termination status. Valid value(s):

- ABORTED = The process was terminated (process not gracefully terminated).
- NOT STARTED = Action was not begun.
- STOPPED = Terminated before normal completion (process gracefully terminated).

w = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

x = Phase result.

y = Phase number completed.

z = Text identifier showing order of record. Valid value(s):

- FIRST = First record of continuing list.
- LAST = Last record of list.
- NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

a[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

b[1] = Statement number.

c[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4, and 5, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:SDFI
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:SDLC

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN SDLC a [COMPLETED] b [(c)]
       {MESSAGE|MSG} {IN PROGRESS|COMPLETE}

[2]   ____________________________________________________________________
      DGN SDLC a PH d b [(c)] {MESSAGE IN PROGRESS|MSG IP}

[3]   ____________________________________________________________________
      DGN SDLC a PH d STF (c)          MSG IP
        TEST    MISMATCH    ACTUAL   MASK   EXPECTED
         e         f          g       h        i

[4]   ____________________________________________________________________
      DGN SDLC a ABORTED AT PH d STMNT j b [(c)]        MSG IP

[5]   ____________________________________________________________________
      DGN SDLC a TERMINATED AT PH d STMNT j AFTER TEST k

[6]   ____________________________________________________________________
      DGN SDLC a TASK l {MESSAGE STARTED|QUEUED|ABORTED}
```

2. REASON FOR OUTPUT

To print results of a diagnostic run on the synchronous data link controller (SDLC).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention [no openings in the active deferred maintenance queue (DMQ) and the request is in the waiting DMQ], or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

b = The result of the diagnostic. Valid value(s):
- ATP = All tests passed.
- NTR = No tests were run.
- STF = Some tests failed.

c = Identifies the number of test failures in addition to the reasons that tests were skipped. For example, if 'c' = (70000000000000000), seven tests failed, and no tests were skipped.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A '1' in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines what bits in the actual value are of interest to this test.

i = The value which the test expected.
Note: For Format 3 the values for 'g', 'h' and 'i' may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

If 'b' = STF, the unit should be repaired as quickly as possible. Refer to the Corrective Maintenance manual for repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required

6. REFERENCES

Input Message(s):

```
ALW:DMQ
INH:DMQ
OP:DMQ
RMV:SDLC
RST:SDLC
STOP:DMQ
STP:DMQ
```

Output Message(s):

```
ANALY:TLPFILE
OP:DMQ
REPT:DIAMON
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

DGN:SFI

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN SFI=a-b-c-d STF PH e SEG f TEST g MM h
       [ACTL i MASK j EXPR k]

[2]   ____________________________________________________________________
      DGN SFI=a-b-c-d SUSPECTED FAULTY EQUIPMENT a1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM     EQL    TYPE NOTE
          l      m   [n]    o  p     q    [r]    s t [-u]   v    [w]
        [ .      .    .     .  .     .     .     . .   .    .     . ]
        [ .      .    .     .  .     .     .     . .   .    .     . ]
        [ .      .    .     .  .     .     .     . .   .    .     . ]

[3]   ____________________________________________________________________
      DGN SFI=a-b-c-d x [y]

[4]   ____________________________________________________________________
      DGN SFI=a-b-c-d COMPLETED z [PH b1]
```

2. REASON FOR OUTPUT

To report the results of diagnosing a digital networking unit - synchronous optical network (SONET) (DNU-S) synchronous transport signal electrical interface (STSX-1) facility interface (SFI).

Format 1 is printed when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified for the request. An ordered list of suspected faulty equipment is provided.

Format 3 prints when the specified phase(s) terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase(s) has completed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = DNU-S number.

c = Data group number.

d = STSX-1 facility interface number.

e = Number of the phase in which the failure occurred.

f = Number of the segment in which the failure occurred.

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g = Number of the test that failed.

h = Mismatch results for the specified test in hexadecimal.

i = Actual result in hexadecimal for the specified test.

j = Mask in hexadecimal used to determine test failure.

k = Actual result in hexadecimal for the specified test.

l = Floor and aisle number.

m = Module type.

n = Module number.

o = Cabinet type.

p = Cabinet number.

q = Replacement equipment code(s).

r = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the following example.

Example of CODE FORM content:

```
CODE                        FORM
A[:B]...[:C] [-] D[:E]...[:F]
-            = Inter-field delimiter if necessary.
:            = Intra-field delimiter.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits).
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B' and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E' and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

s = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

t = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

u = Depth location in the cabinet.

v = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the online member of a duplex pair. The online member must be removed, and the mate made online, before replacement is attempted.
___ = Equipment is part of the circuit under test.

w = Refer to output appendix APP:TLP-NOTE in the Appendixes volume of the Output Messages manual.

x = Termination report. Valid value(s):
ABORTED = Requested action was terminated before completion, and the termination was not graceful.
COMPLETED = Requested action was completed successfully.
IN PROGRESS = Requested action is in progress.
NOT STARTED = Requested action was not begun.
STOPPED = Requested action was terminated before a normal completion. Termination was graceful.

y = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

z = Phase result.

a[1] Text identifier showing order of record. Valid value(s):
FIRST = First record of continuing list.
LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

b[1] = Phase number completed.

4. ACTION TO BE TAKEN

For Format 1, analyze failure data to determine reason for failure or run the diagnostic using the TLP option to generate a suspected faulty equipment list.

For Format 2, replace the suspected equipment, one at a time in the order specified. Rerun the diagnostic after each substitution until the fault is repaired or until the diagnostic result changes.

For Formats 3 and 4, no action required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

DGN:SFI

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

DGN:SLIM

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN SLIM=a-b-c-d STF PH e SEG f TEST g MM h
       [EXP i MASK j ACTL k]

[2]   ____________________________________________________________________
      DGN SLIM=a-b-c-d SUSPECTED FAULTY EQUIPMENT a1 RECORD
        AISLE  MODULE     CABINET CODE     FORM   EQL     TYPE NOTE
        l    m [n]     o  p     q  [r]   s-t[-b1]     u  [v]
       [.    .  .      .  .     .   .    . .  .                .   .]
       [.    .  .      .  .     .   .    . .  .                .   .]
       [.    .  .      .  .     .   .    . .  .                .   .]

[3]   ____________________________________________________________________
      DGN SLIM=a-b-c-d w [x]

[4]   ____________________________________________________________________
      DGN SLIM=a-b-c-d COMPLETED y [PH z]

[5]   ____________________________________________________________________
      DGN SLIM=a-b-c-d PH e SEG f STMT c1 d1
       [EXP i MASK j ACTL k]
```

2. REASON FOR OUTPUT

To report the result of executing the corresponding input message to diagnose the subscriber line instrument measurement (SLIM) board.

Format 1 prints when a test has failed.

Format 2 prints when a test fails and the trouble locating procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phases is terminated before completion. Execution of any later diagnostic phases(s) will not continue.

Format 4 prints when each phase of a diagnostic has completed, and when the full diagnostic has completed. Completion is denoted by no phase number specified after the result.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Metallic service unit (MSU) number.

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c = Service group number.

d = SLIM number.

e = Number of the phase in which the failure occurred.

f = Number of the segment in which the failure occurred.

g = Number of the test that failed.

h = Mismatch results for the specified test in hexadecimal.

i = Expected result for the specified test in hexadecimal.

j = Mask used to determine test failure in hexadecimal.

k = Actual result for the specified test in hexadecimal.

l = Identification number of floor and aisle.

m = Module type.

n = Module number.

o = Cabinet type.

p = Cabinet number.

q = Replacement equipment code(s).

r = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE                        FORM
A[:B]...[:C] [-] D[:E]...[:F]
-            = Inter-field delimiter if necessary.
:            = Intra-field delimiter.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits).
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

s = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

t = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

u = Circuit type. Valid value(s):

HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
___	= Equipment is part of the circuit under test.

v = Number of the TLP note containing supplementary information related to the suspected faulty equipment. Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

w = Termination status. Valid value(s):

ABORTED	= The process was terminated (process not gracefully terminated).
NOT STARTED	= Action was not begun.
STOPPED	= Terminated before normal completion (process gracefully terminated).

x = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

y = Phase result.

z = Phase number completed.

a[1] = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

b[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

c[1] = Statement number.

d[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4, and 5, none.

5. ALARMS

Alarms may be triggered because:

(1) The switch is sending a response message that is reporting that a fault recovery (FR) restore request was purged by system integrity. The verb is DGN, the source is AUTO, and the return response is ABORTED. This is the only time that these three parameters are equal to the stated values.

(2) A routine exercise requested diagnostic fails and, if requested, an alarm is sounded. The verb is RTN exercise, the source is AUTO, and the return response is STF.

(3) A routine exercise was requested and it failed. It failed because the diagnostic was ATP but the circuit failed hardware initialization.

(4) The request originated from a program update or retrofit and the request was not successfully completed. The alarm is sounded only if an "alarm" was requested on failures. These callers have the option of not alarming failures.

6. REFERENCES

Input Message(s):

```
DGN:SLIM
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:TAC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

[1]
```
DGN TAC=a-b-c STF PH d SEG e TEST f MM g
 [EXP h MASK i ACTL j]
```

[2]
```
DGN TAC=a-b-c SUSPECTED FAULTY EQUIPMENT z RECORD
  AISLE  MODULE  CABINET  CODE  FORM    EQL     TYPE  NOTE
   k      l [m]   n  o     p    [q]   r-s[-a1]   t    [u]
  [.      .  .    .  .     .     .    . .  .     .     .]
  [.      .  .    .  .     .     .    . .  .     .     .]
  [.      .  .    .  .     .     .    . .  .     .     .]
```

[3]
```
DGN TAC=a-b-c v [w]
```

[4]
```
DGN TAC=a-b-c COMPLETED x [PH y]
```

[5]
```
DGN TAC=a-b-c PH d SEG e STMT b1 c1
 [EXP h MASK i ACTL j]
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:TAC input message to diagnose the test and access (TAC) circuit.

Format 1 prints when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specific circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Trunk unit number.

c = Service group number.

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d = Number of the phase in which the failure occurred.

e = Number of the segment in which the failure occurred.

f = Number of the test that failed.

g = Mismatch results for the specified test in hexadecimal.

h = Expected result for the specified test in hexadecimal.

i = Mask used to determine test failure in hexadecimal.

j = Actual result for the specified test in hexadecimal.

k = Identification number of floor and aisle.

l = Module type.

m = Module number.

n = Cabinet type.

o = Cabinet number.

p = Replacement equipment code(s).

q = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE                        FORM
A[:B]...[:C] [-] D[:E]...[:F]
:            = Intra-field delimiter.
-            = Inter-field delimiter if necessary.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits).
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

r = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

s = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

t = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
___ = Equipment is part of the circuit under test.

u = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

v = Termination status. Valid value(s):
ABORTED = The process was terminated (process not gracefully terminated).
NOT STARTED = Action was not begun.
STOPPED = Terminated before normal completion (process gracefully terminated).

w = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

x = Phase result.

y = Phase number completed.

z = Text identifier showing order of record. Valid value(s):
FIRST = First record of continuing list.
LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

a[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

b[1] = Statement number.

c[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

Format 1, repair the faulty unit.

Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

Formats 3, 4, and 5, none.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:TEN

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN TEN=a-b-c-d-e STF PH f SEG g TEST h MM i
       [EXP j MASK k ACTL l]

[2]   ____________________________________________________________________
      DGN TEN=a-b-c-d-e    SUSPECTED FAULTY   EQUIPMENT b1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL     TYPE  NOTE
         m      n [o]   p  q     r    [s]   t-u[-c1]   v    [w]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]

[3]   ____________________________________________________________________
      DGN TEN=a-b-c-d-e x [y]

[4]   ____________________________________________________________________
      DGN TEN=a-b-c-d-e COMPLETED z [PH a1]

[5]   ____________________________________________________________________
      DGN TEN=a-b-c-d-e PH f SEG g STMT d1 e1
       [EXP j MASK k ACTL l]
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:TEN input message to diagnose the trunk equipment number (TEN).

Format 1 prints when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 is printed when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 is printed when the specified phase has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specific circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = TEN unit number.

c = Service group number.

d = TEN board number.

e = TEN circuit number.

f = Phase number.

g = Segment number.

h = Test number.

i = Mismatch results for the specified test in hexadecimal.

j = Expected result in hexadecimal.

k = Mask used to determine test failure in hexadecimal.

l = Actual result in hexadecimal.

m = Identification number of floor and aisle.

n = Module type.

o = Module number.

p = Cabinet type.

q = Cabinet number.

r = Replacement equipment code(s).

s = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE                        FORM
A[:B]...[:C] [-] D[:E]...[:F]
-            = Inter-field delimiter if necessary.
:            = Intra-field delimiter.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits)
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

t = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

u = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

v = Circuit type. Valid value(s):

HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
___	= Equipment is part of the circuit under test.

w = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

x = Termination status. Valid value(s):

ABORTED	= The process was terminated (process not gracefully terminated).
NOT STARTED	= Action was not begun.
STOPPED	= Terminated before normal completion (process gracefully terminated).

y = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

z = Phase result.

a[1] = Phase number completed.

b[1] = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

c[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

d[1] = Statement number.

e[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4 and 5, none.

5. ALARMS

Alarms may be triggered because:

(1) The switch is sending a response message that is reporting that a fault recovery (FR) restore request was purged by system integrity. The verb is DGN, the source is AUTO, and the return response is ABORTED. This is the only time that these three parameters are equal to the stated values.

(2) A routine exercise requested diagnostic fails and, if requested, an alarm is sounded. The verb is RTN exercise, the source is AUTO, and the return response is STF.

(3) A routine exercise was requested and it failed. It failed because the diagnostic was ATP but the circuit failed hardware initialization.

(4) The request originated from a program update or retrofit and the request was not successfully completed. The alarm is sounded only if an "alarm" was requested on failures. These callers have the option of not alarming failures.

6. REFERENCES

Input Message(s):

```
DGN:TEN
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:TMS

Software Release: 5E10 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

```
DGN TMS=a b  [c]
```

2. REASON FOR OUTPUT

To respond to a manual or automatic request to diagnose a specific time multiplexed switch (TMS).

3. VARIABLE FIELD DEFINITIONS

`a` = Office network and timing complex (ONTC) identification.

`b` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before a normal completion and the consistency of hardware states is questionable.
- `COMPLETED` = Request action was completed successfully.
- `NOT STARTED` = Requested action was not begun.
- `STOPPED` = Requested action was terminated before a normal completion, but consistency of hardware states and data is reliable.

`c` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual or automatic request. No further action is necessary if the requested action completed successfully. If the termination report is not `COMPLETED`, the variable '`c`' field should give some indication as to why the request failed. The table below explains the cause of a conditional all tests passed (CATP) termination code. Check the appropriate MCC pages or OP:CFGSTAT output messages to verify that the associated units were in a valid state to perform the request.

Causes of CATP

Vintage	Phase	Cause
CM2	1	An input/output processor (IOP) in the AM is unavailable.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:TMS
RST:ONTC
RST:ONTCCOM
OP:CFGSTAT
```

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Output Message(s):

```
OP:CFGSTAT
```

MCC Display Page(s):

111 (IOP)
1209 (ONTC)
1220 (TMS)

DGN:TMUX

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN TMUX=a-b-c-d STF PH e SEG f TEST g MM h
       [ACTL i MASK j EXPR k]

[2]   ____________________________________________________________________
      DGN TMUX=a-b-c-d SUSPECTED FAULTY EQUIPMENT a1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM     EQL    TYPE NOTE
          l     m  [n]   o  p     q    [r]   s t [-u]   v   [w]
        [ .     .   .    .  .     .     .    . .   .    .    . ]
        [ .     .   .    .  .     .     .    . .   .    .    . ]
        [ .     .   .    .  .     .     .    . .   .    .    . ]

[3]   ____________________________________________________________________
      DGN TMUX=a-b-c-d x [y]

[4]   ____________________________________________________________________
      DGN TMUX=a-b-c-d COMPLETED z [PH b1]
```

2. REASON FOR OUTPUT

To report the results of diagnosing a digital networking unit - synchronous optical network (SONET) (DNU-S) transmission multiplexer (TMUX).

Format 1 is printed when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified for the request. An ordered list of suspected faulty equipment is provided.

Format 3 prints when the specified phase(s) terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase(s) has completed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = TMUX number.

`e` = Number of the phase in which the failure occurred.

`f` = Number of the segment in which the failure occurred.

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g = Number of the test that failed.

h = Mismatch results for the specified test in hexadecimal.

i = Actual result in hexadecimal for the specified test.

j = Mask in hexadecimal used to determine test failure.

k = Actual result in hexadecimal for the specified test.

l = Floor and aisle number.

m = Module type.

n = Module number.

o = Cabinet type.

p = Cabinet number.

q = Replacement equipment code(s).

r = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the following example.

Example of CODE FORM content:

```
CODE                        FORM
A[:B]...[:C] [-] D[:E]...[:F]
-            = Inter-field delimiter if necessary.
:            = Intra-field delimiter.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits)
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B' and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E' and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

s = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

t = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

u = Depth location in the cabinet.

v = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the online member of a duplex pair. The online member must be removed, and the mate made online, before replacement is attempted.

___ = Equipment is part of the circuit under test.

w = Refer to output appendix APP:TLP-NOTE in the Appendixes volume of the Output Messages manual.

x = Termination report. Valid value(s):

ABORTED = Requested action was terminated before completion, and the termination was not graceful.

COMPLETED = Requested action was completed successfully.

IN PROGRESS = Requested action is in progress.

NOT STARTED = Requested action was not begun.

STOPPED = Requested action was terminated before a normal completion. Termination was graceful.

y = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

z = Phase result.

a[1] = Text identifier showing order of record. Valid value(s):

FIRST = First record of continuing list.

LAST = Last record of list.

NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

b[1] = Phase number completed.

4. ACTION TO BE TAKEN

For Format 1, analyze failure data to determine reason for failure or run the diagnostic using the TLP option to generate a suspected faulty equipment list.

For Format 2, replace the suspected equipment, one at a time in the order specified. Rerun the diagnostic after each substitution until the fault is repaired or until the diagnostic result changes.

For Formats 3 and 4, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

DGN:TMUX

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

DGN:TTFCOM

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN TTFCOM=a-b-c-d STF PH e SEG f TEST g MM h
       [EXP i MASK j ACTL k]

[2]   ____________________________________________________________________
      DGN TTFCOM=a-b-c-d SUSPECTED FAULTY EQUIPMENT a1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL     TYPE  NOTE
         l      m [n]    o  p     q    [r]   s-t[-b1]   u    [v]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]

[3]   ____________________________________________________________________
      DGN TTFCOM=a-b-c-d w [x]

[4]   ____________________________________________________________________
      DGN TTFCOM=a-b-c-d COMPLETED y [PH z]

[5]   ____________________________________________________________________
      DGN TTFCOM=a-b-c-d PH e SEG f STMT c1 d1
       [EXP i MASK j ACTL k]
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:TTFCOM input message to diagnose the transmission test facility common (TTFCOM) circuit.

Format 1 prints when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Global digital service unit (GDSU) number.

c = Service group number.

d = Board number.

e = Number of the phase in which the failure occurred.

f = Number of the segment in which the failure occurred.

g = Number of the test that failed.

h = Mismatch results for the specified test in hexadecimal.

i = Expected result for the specified test in hexadecimal.

j = Mask used to determine test failure in hexadecimal.

k = Actual result for the specified test in hexadecimal.

l = Identification number of floor and aisle.

m = Module type.

n = Module number.

o = Cabinet type.

p = Cabinet number.

q = Replacement equipment code(s).

r = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Example of CODE FORM content:

```
CODE FORM
A[:B]...[:C] [-] D[:E]...[:F]
A          = Current minimal accepted equipment code.
:          = Intra-field delimiter.
B          = Current production equipment code (substitutable equipment for code A).
C          = Additional compatible equipment code(s) (added as space permits)
-          = Inter-field delimiter if necessary.
D          = Current minimal approved operating level for equipment code A.
E          = Current minimal approved operating level for equipment code B.
F          = Current minimal approved operating level(s) for equipment code(s) C.
```

Codes A, B and C may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms D, E and F may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

s = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

t = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

u = Circuit type:

___	= Equipment is part of the circuit under test.
HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

v = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

w = Termination status. Valid value(s):

ABORTED	= The process was terminated (process not gracefully terminated).
NOT STARTED	= Action was not begun.
STOPPED	= Terminated before normal completion (process gracefully terminated).

x = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

y = Phase result.

z = Phase number completed.

a[1] = Text identifier showing order of record:

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

b[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

c[1] = Statement number.

d[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4, and 5, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:TTFCOM
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:TTYC

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      DGN TTYC a [COMPLETED] b [(c)]
       {MESSAGE|MSG} {IN PROGRESS|COMPLETE}

[2]   ____________________________________________________________
      DGN TTYC a PH d b [(c)] {MESSAGE IN PROGRESS|MSG IP}

[3]   ____________________________________________________________
      DGN TTYC a PH d STF (c)          MSG IP
        TEST    MISMATCH    ACTUAL   MASK   EXPECTED
         e         f          g       h        i

[4]   ____________________________________________________________
      DGN TTYC a ABORTED AT PH d STMNT j b [(c)]       MSG IP

[5]   ____________________________________________________________
      DGN TTYC a TERMINATED AT PH d STMNT j AFTER TEST k

[6]   ____________________________________________________________
      DGN TTYC a TASK l {MESSAGE STARTED|QUEUED|ABORTED}
```

2. REASON FOR OUTPUT

To print results of a diagnostic run on the teletypewriter controller (TTYC).

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

b = The result of the diagnostic. Valid value(s):
- ATP = All tests passed.
- NTR = No tests were executed.
- STF = Some tests failed.

c = If 'b' = STF, 'c' identifies the number of test failures in addition to the reasons that tests were skipped. For example, if 'c' = (7 00000000 00000000), seven tests failed, and no tests were skipped.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A '1' in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines what bits in the actual value are of interest to this test.

i = The value which the test expected.

Note: For Format 3 the values for 'g', 'h' and 'i' may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the report.

4. ACTION TO BE TAKEN

If 'b' = STF, the unit should be repaired as quickly as possible. Refer to the Corrective Maintenance manual for repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	96, 103
2	99, 103
3	109, 110
4	106, 109, 110, 111
5	217
6	70, 99

Input Message(s):

ALW:DMQ

```
INH:DMQ
OP:DMQ
RMV:IOP
RMV:TTYC
RST:IOP
RST:TTYC
STOP:DMQ
STP:DMQ
```

Output Message(s):

```
ANALY:TLPFILE
OP:DMQ
REPT:DIAMON
RMV:IOP
RMV:TTYC
RST:IOP
RST:TTYC
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

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DGN:TUCHBD

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN TUCHBD=a-b-c-d STF PH e SEG f TEST g MM h
       [EXP i MASK j ACTL k]

[2]   ____________________________________________________________________
      DGN TUCHBD=a-b-c-d SUSPECTED FAULTY EQUIPMENT a1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL     TYPE  NOTE
         l      m [n]    o  p     q    [r]   s-t[-b1]   u    [v]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]

[3]   ____________________________________________________________________
      DGN TUCHBD=a-b-c-d w [x]

[4]   ____________________________________________________________________
      DGN TUCHBD=a-b-c-d COMPLETED y [PH z]

[5]   ____________________________________________________________________
      DGN TUCHBD=a-b-c-d PH e SEG f STMT c1 d1
       [EXP i MASK j ACTL k]
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:TUCHBD input message to diagnose the trunk unit channel board (TUCHBD).

Format 1 prints when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase(s) have been abnormally terminated. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Trunk unit number.

c = Service group number.

d = Channel board number.

e = Number of the phase in which the failure occurred.

f = Number of the segment in which the failure occurred.

g = Number of the test that failed.

h = Mismatch results for the specified test in hexadecimal.

i = Expected result for the specified test in hexadecimal.

j = Mask used to determine test failure in hexadecimal.

k = Actual result for the specified test in hexadecimal.

l = Identification number of floor and aisle.

m = Module type.

n = Module number.

o = Cabinet type.

p = Cabinet number.

q = Replacement equipment code(s).

r = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE                        FORM
A[:B]...[:C] [-] D[:E]...[:F]
:            = Intra-field delimiter.
-            = Inter-field delimiter if necessary.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits).
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

s = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

`t` = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

`u` = Circuit type. Valid value(s):

- `HPR` = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
- `ONL` = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
- `___` = Equipment is part of the circuit under test.

`v` = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

`w` = Termination status. Valid value(s):

- `ABORTED` = The process was terminated (process not gracefully terminated).
- `NOT STARTED` = Action was not begun.
- `STOPPED` = Terminated before normal completion (process gracefully terminated).

`x` = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

`y` = Phase result.

`z` = Phase number completed.

`a`[1] = Text identifier showing order of record:

- `FIRST` = First record of continuing list.
- `LAST` = Last record of list.
- `NEXT` = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

`b`[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

`c`[1] = Statement number.

`d`[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4, and 5, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:TUCHBD
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:UCONF

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN UCONF=a-b-c-d STF PH e SEG f TEST g MM h
       [EXP i MASK j ACTL k]

[2]   ____________________________________________________________________
      DGN UCONF=a-b-c-d SUSPECTED FAULTY EQUIPMENT a1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL     TYPE  NOTE
         l      m [n]   o  p     q    [r]   s-t[-b1]   u    [v]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]

[3]   ____________________________________________________________________
      DGN UCONF=a-b-c-d w [x]

[4]   ____________________________________________________________________
      DGN UCONF=a-b-c-d COMPLETED y [PH z]

[5]   ____________________________________________________________________
      DGN UCONF=a-b-c-d PH e SEG f STMT c1 d1
       [EXP i MASK j ACTL k]
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:UCONF input message to diagnose the universal conference (UCONF) circuit board.

Format 1 prints when a test has failed.

Format 2 prints when the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase(s) has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Global digital service unit (GDSU) number.

c = Service group number.

d = Digital service unit (DSU) board position number.

e = Number of the phase in which the failure occurred.

f = Number of the segment in which the failure occurred.

g = Number of the test that failed.

h = Mismatch results for the specified test in hexadecimal.

i = Expected result for the specified test in hexadecimal.

j = Mask used to determine test failure in hexadecimal.

k = Actual result for the specified test in hexadecimal.

l = Identification number of floor and aisle.

m = Module type.

n = Module number.

o = Cabinet type.

p = Cabinet number.

q = Replacement equipment code(s).

r = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE                        FORM
A[:B]...[:C] [-] D[:E]...[:F]
:            = Intra-field delimiter.
-            = Inter-field delimiter if necessary.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits).
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

s = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

t = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

u = Circuit type. Valid value(s):

- HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
- ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
- ___ = Equipment is part of the circuit under test.

v = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

w = Termination status. Valid value(s):

- ABORTED = The process was terminated (process not gracefully terminated).
- NOT STARTED = Action was not begun.
- STOPPED = Terminated before normal completion (process gracefully terminated).

x = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

y = Phase result.

z = Phase number completed.

a[1] = Text identifier showing order of record. Valid value(s):

- FIRST = First record of continuing list.
- NEXT = Next record of continuing list.
- LAST = Last record of list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

b[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

c[1] = Statement number.

d[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4, and 5, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:UCONF
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:UTD

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN UTD=a-b-c-d STF PH e SEG f TEST g MM h
       [EXP i MASK j ACTL k]

[2]   ____________________________________________________________________
      DGN UTD=a-b-c-d SUSPECTED FAULTY EQUIPMENT a1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL     TYPE  NOTE
         l      m [n]    o  p     q    [r]   s-t[-b1]   u    [v]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]

[3]   ____________________________________________________________________
      DGN UTD=a-b-c-d w [x]

[4]   ____________________________________________________________________
      DGN UTD=a-b-c-d COMPLETED y [PH z]

[5]   ____________________________________________________________________
      DGN UTD=a-b-c-d PH e SEG f STMT c1 d1
       [EXP i MASK j ACTL k]
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:UTD input message to diagnose the universal tone decoder (UTD) board.

Format 1 prints when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Local digital service unit (LDSU) number.

c = Service group number.

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d = DSU board position number.

e = Number of the phase in which the failure occurred.

f = Number of the segment in which the failure occurred.

g = Number of the test that failed.

h = Mismatch results for the specified test in hexadecimal.

i = Expected result for the specified test in hexadecimal.

j = Mask used to determine test failure in hexadecimal.

k = Actual result for the specified test in hexadecimal.

l = Identification number of floor and aisle.

m = Module type.

n = Module number.

o = Cabinet type.

p = Cabinet number.

q = Replacement equipment code(s).

r = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM content:

```
CODE                        FORM
A[:B]...[:C] [-] D[:E]...[:F]
:            = Intra-field delimiter.
-            = Inter-field delimiter if necessary.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits).
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

s = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

t = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the

implicated shelf.

u = Circuit type. Valid value(s):

- HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
- ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
- ___ = Equipment is part of the circuit under test.

v = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

w = Termination status. Valid value(s):

- ABORTED = The process was terminated (process not gracefully terminated).
- NOT STARTED = Action was not begun.
- STOPPED = Terminated before normal completion (process gracefully terminated).

x = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

y = Phase result.

z = Phase number completed.

a[1] = Text identifier showing order of record. Valid value(s):

- FIRST = First record of continuing list.
- NEXT = Next record of continuing list.
- LAST = Last record of list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

b[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

c[1] = Statement number.

d[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4, and 5, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:UTD
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DGN:UTG

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DGN UTG=a-b-c-d STF PH e SEG f TEST g MM h
       [EXP i MASK j ACTL k]

[2]   ____________________________________________________________________
      DGN UTG=a-b-c-d SUSPECTED FAULTY EQUIPMENT a1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL     TYPE  NOTE
         l      m [n]   o  p     q    [r]   s-t[-b1]   u    [v]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]
        [.      .  .    .  .     .     .    . .  .     .     .]

[3]   ____________________________________________________________________
      DGN UTG=a-b-c-d w [x]

[4]   ____________________________________________________________________
      DGN UTG=a-b-c-d COMPLETED y [PH z]

[5]   ____________________________________________________________________
      DGN UTG=a-b-c-d PH e SEF f STMT c1 d1
       [EXP i MASK j ACTL k]
```

2. REASON FOR OUTPUT

To report the result of executing a DGN:UTG input message to diagnose the universal tone generator (UTG) board.

Format 1 prints when a test has failed.

Format 2 prints when a test fails and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 3 prints when the specified phase(s) have been terminated before completion. Execution of the diagnostic will not continue.

Format 4 prints when the specified phase has completed. Execution of the diagnostic will not continue until all phases are complete.

Format 5 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Local digital service unit (LDSU) number.

c = Service group number.

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d = Digital service unit (DSU) board position number.

e = Number of the phase in which the failure occurred.

f = Number of the segment in which the failure occurred.

g = Number of the test that failed.

h = Mismatch results for the specified test in hexadecimal.

i = Expected result for the specified test in hexadecimal.

j = Mask used to determine test failure in hexadecimal.

k = Actual result for the specified test in hexadecimal.

l = Identification number of floor and aisle.

m = Module type.

n = Module number.

o = Cabinet type.

p = Cabinet number.

q = Replacement equipment code(s).

r = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to subsequent example.

Example of CODE FORM content:

```
CODE                        FORM
A[:B]...[:C] [-] D[:E]...[:F]
-            = Inter-field delimiter if necessary.
:            = Intra-field delimiter.
A            = Current minimal accepted equipment code.
B            = Current production equipment code (substitutable equipment for code 'A').
C            = Additional compatible equipment code(s) (added as space permits).
D            = Current minimal approved operating level for equipment code 'A'.
E            = Current minimal approved operating level for equipment code 'B'.
F            = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B' and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E' and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

s = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

t = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the

implicated shelf.

u = Circuit type. Valid value(s):

- HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
- ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
- ___ = Equipment is part of the circuit under test.

v = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

w = Termination status. Valid value(s):

- ABORTED = The process was terminated (process not gracefully terminated).
- NOT STARTED = Action was not begun.
- STOPPED = Terminated before normal completion (process gracefully terminated).

x = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

y = Phase result.

z Phase number completed.

a[1] = Text identifier showing order of record. Valid value(s):

- FIRST = First record of continuing list.
- NEXT = Next record of continuing list.
- LAST = Last record of list.

b[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

c[1] = Statement number.

d[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, repair the faulty unit.

For Format 2, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 3, 4, and 5, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

DGN:UTG

Output Appendix(es):

APP:MAINT-RESP
APP:TLP-NOTE

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

26. DISC

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DISC:WSPHONE-A

Software Release: 5E10 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DISC WSPHONE TEST POSITION a-b
        ACCESS=c                            T&M=d
        DN=e[-f]   g     [MLHG=h-i]
        j[=k]
        [E=l]

[2]   ____________________________________________________________________
      DISC WSPHONE TEST POSITION a-b
        ACCESS=c                            T&M=d
           TKGMN=m-n  o
        j[=k]
        [E=l]
```

2. REASON FOR OUTPUT

To indicate that the talk and monitor (T&M) phone has been released from the current testing configuration at the trunk and line work station (TLWS) test position (TP).

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`E` = Error.

`a` = TP number.

`b` = TLWSR tuple identification.

`c` = Valid value(s):

- `AC1 JACK` = Connection to the AC jack number 1.
- `AC2 JACK` = Connection to the AC jack number 2.
- `CAMPED ON` = Line or trunk is camped on.
- `CPE TESTS` = Test customer premises equipment.
- `DC1 JACK` = Connection to the DC jack number 1.
- `DC2 JACK` = Connection to the DC jack number 2.
- `DIG TRANS` = Connection to digital transmission equipment.
- `IN PROGRESS` = Test or test setup is in progress.
- `METALLIC` = Connection to metallic measurement equipment.
- `MONITOR B&I` = Monitor a busy or idle line/trunk.
- `MONITOR BUSY` = Monitor a busy line/trunk.
- `SEIZED` = Line or trunk is seized.
- `SUPERVISION` = Supervisory test running.
- `TRANSMISSION` = Connection to transmission equipment.

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d = The mode of the T&M phone in the test connection. Valid value(s):

- H = The T&M phone is ON-HOLD (metallic connections).
- N = No T&M phone in the connection.
- M = The T&M phone is in the MONITOR mode (listen-only).
- T = The T&M phone is in the TALK mode (listen and talk).

e = Telephone number entered.

f = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

g = Valid value(s):

```
AP=p-q
 ILEN=r-y-z-a1
 LCEN=r-s-b1-c1
 LCKEN=r-s-b1-y1-z1
 LEN=r-s-t-u-v-w
 SLEN=r-d1-e1-f1
```

h = Multi-line hunt group number.

i = Hunt group member number.

j = Type of T&M phone. Valid value(s):

- LOCAL T&M PHONE = The T&M phone populated for this ID in the database is local.
- NO T&M PHONE = There is no T&M phone populated for this ID in the database (TLWSR tuple).
- REMOTE T&M PHONE = The T&M phone populated for this ID in the database is remote.

k = Phone number of the T&M phone when the phone is remote.

l = Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages Manual for an explanation of TLWS error responses.

m = Trunk group number.

n = Trunk member number.

o = Valid value(s):

```
DEN=r-g1-h1-i1
 NEN=r-p1-q1-r1-s1-t1
 PSUEN=r-u1-v1-w1-x1
 RAF PORT r n1o1
 TEN=r-j1-k1-l1-m1
```

p = Data link (group) number of the AP.

q = Relative link (member) number of the AP.

r = Switching module (SM) number.

s = Line unit number.

t = Grid number.

u = Switch board number (LU1, LU2, LU3).

v = Switch number.

w = Level number.

y = IDCU number.

z = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

a[1] = RT line number or PUB43801 channel.

b[1] = Line group number.

c[1] = Line card number.

d[1] = Digital carrier line unit number.

e[1] = RT number.

f[1] = RT line number.

g[1] = Digital line and trunk unit (DLTU) number.

h[1] = Digital facility interface (DFI) number.

i[1] = Channel number.

j[1] = Trunk unit number.

k[1] = Service group number.

l[1] = Channel board number.

m[1] = Circuit number.

n[1] = RAF unit number.

o[1] = RAF channel number.

p[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

q[1] = Data group (DG) number.

r[1] = Synchronous transport signal (STS) number.

s[1] = Virtual tributary 1.5 (VT1.5) number.

t[1] = Digital signal level 0 (DS0) number.

u[1] = PSU unit number.

v[1] = PSU shelf number.

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w[1] = PSU channel group number.

x[1] = PSU channel group member number.

y[1] = Line board number.

z[1] = Line circuit number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CONN:WSLINE
CONN:WSTRK
DISC:WSPHONE
SET:WSPOS
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

RC/V View(s):

14.3 (TRUNK AND LINE WORK STATION)

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DISC:WSPHONE-B

Software Release: 5E11 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DISC WSPHONE TEST POSITION a-b
        ACCESS=c                            T&M=d
        DN=e[-f]   g     [MLHG=h-i]
        j[=k]
        [E=l]

[2]   ____________________________________________________________________
      DISC WSPHONE TEST POSITION a-b
        ACCESS=c                            T&M=d
           TKGMN=m-n  o
        j[=k]
        [E=l]
```

2. REASON FOR OUTPUT

To indicate that the talk and monitor (T&M) phone has been released from the current testing configuration at the trunk and line work station (TLWS) test position (TP).

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`E` = Error.

`a` = TP number.

`b` = TLWSR tuple identification.

`c` = Valid value(s):

- `AC1 JACK` = Connection to the AC jack number 1.
- `AC2 JACK` = Connection to the AC jack number 2.
- `CAMPED ON` = Line or trunk is camped on.
- `CPE TESTS` = Test customer premises equipment.
- `DC1 JACK` = Connection to the DC jack number 1.
- `DC2 JACK` = Connection to the DC jack number 2.
- `DIG TRANS` = Connection to digital transmission equipment.
- `IN PROGRESS` = Test or test setup is in progress.
- `METALLIC` = Connection to metallic measurement equipment.
- `MONITOR B&I` = Monitor a busy or idle line/trunk.
- `MONITOR BUSY` = Monitor a busy line/trunk.
- `SEIZED` = Line or trunk is seized.
- `SUPERVISION` = Supervisory test running.
- `TRANSMISSION` = Connection to transmission equipment.

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d = The mode of the T&M phone in the test connection. Valid value(s):

- H = The T&M phone is ON-HOLD (metallic connections).
- N = No T&M phone in the connection.
- M = The T&M phone is in the MONITOR mode (listen-only).
- T = The T&M phone is in the TALK mode (listen and talk).

e = Telephone number entered.

f = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

g = Valid value(s):

```
AP=p-q
 ILEN=r-y-z-a1
 LCEN=r-s-b1-c1
 LCKEN=r-s-b1-y1-z1
 LEN=r-s-t-u-v-w
 SLEN=r-d1-e1-f1
 AIUEN=r-a2-b2-c2
```

h = Multi-line hunt group number.

i = Hunt group member number.

j = Type of T&M phone. Valid value(s):

- LOCAL T&M PHONE = The T&M phone populated for this ID in the database is local.
- NO T&M PHONE = There is no T&M phone populated for this ID in the database (TLWSR tuple).
- REMOTE T&M PHONE = The T&M phone populated for this ID in the database is remote.

k = Phone number of the T&M phone when the phone is remote.

l = Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages Manual for an explanation of TLWS error responses.

m = Trunk group number.

n = Trunk member number.

o = Valid value(s):

```
DEN=r-g1-h1-i1
 NEN=r-p1-q1-r1-s1-t1
 PSUEN=r-u1-v1-w1-x1
 RAF PORT r n1o1
 TEN=r-j1-k1-l1-m1
```

p = Data link (group) number of the AP.

q = Relative link (member) number of the AP.

r = Switching module (SM) number.

s = Line unit number.

t = Grid number.

u = Switch board number (LU1, LU2, or LU3).

v = Switch number.

w = Level number.

y = IDCU number.

z = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

a[1] = RT line number or PUB43801 channel.

b[1] = Line group number.

c[1] = Line card number.

d[1] = Digital carrier line unit number.

e[1] = RT number.

f[1] = RT line number.

g[1] = Digital line and trunk unit (DLTU) number.

h[1] = Digital facility interface (DFI) number.

i[1] = Channel number.

j[1] = Trunk unit number.

k[1] = Service group number.

l[1] = Channel board number.

m[1] = Circuit number.

n[1] = RAF unit number.

o[1] = RAF channel number.

p[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

q[1] = Data group (DG) number.

r[1] = Synchronous transport signal (STS) number.

s[1] = Virtual tributary 1.5 (VT1.5) number.

t[1] = Digital signal level 0 (DS0) number.

u[1] = PSU unit number.

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v[1] = PSU shelf number.

w[1] = PSU channel group number.

x[1] = PSU channel group member number.

y[1] = Line board number.

z[1] = Line circuit number.

a[2] = Access interface unit (AIU) number.

b[2] = AIU line pack number.

c[2] = AIU line circuit number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CONN:WSLINE
CONN:WSTRK
DISC:WSPHONE
SET:WSPOS
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

RC/V View(s):

14.3 (TRUNK AND LINE WORK STATION)

DISC:WSPHONE-C

Software Release: 5E12 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DISC WSPHONE TEST POSITION a-b
        ACCESS=c                            T&M=d
        DN=e[-f]   g     [MLHG=h-i]
        j[=k]
        [E=l]

[2]   ____________________________________________________________________
      DISC WSPHONE TEST POSITION a-b
        ACCESS=c                            T&M=d
           TKGMN=m-n  o
        j[=k]
        [E=l]
```

2. REASON FOR OUTPUT

To indicate that the talk and monitor (T&M) phone has been released from the current testing configuration at the trunk and line work station (TLWS) test position (TP).

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`E` = Error.

`a` = TP number.

`b` = TLWSR tuple identification.

`c` = Valid value(s):

- `AC1 JACK` = Connection to the AC jack number 1.
- `AC2 JACK` = Connection to the AC jack number 2.
- `CAMPED ON` = Line or trunk is camped on.
- `CPE TESTS` = Test customer premises equipment.
- `DC1 JACK` = Connection to the DC jack number 1.
- `DC2 JACK` = Connection to the DC jack number 2.
- `DIG TRANS` = Connection to digital transmission equipment.
- `IN PROGRESS` = Test or test setup is in progress.
- `METALLIC` = Connection to metallic measurement equipment.
- `MONITOR B&I` = Monitor a busy or idle line/trunk.
- `MONITOR BUSY` = Monitor a busy line/trunk.
- `SEIZED` = Line or trunk is seized.
- `SUPERVISION` = Supervisory test running.
- `TRANSMISSION` = Connection to transmission equipment.

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d = The mode of the T&M phone in the test connection. Valid value(s):

- H = The T&M phone is ON-HOLD (metallic connections).
- N = No T&M phone in the connection.
- M = The T&M phone is in the MONITOR mode (listen-only).
- T = The T&M phone is in the TALK mode (listen and talk).

e = Telephone number entered.

f = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

g = Valid value(s):

```
AP=p-q
 ILEN=r-y-z-a1
 LCEN=r-s-b1-c1
 LCKEN=r-s-b1-y1-z1
 LEN=r-s-t-u-v-w
 SLEN=r-d1-e1-f1
 AIUEN=r-a2-b2-c2
```

h = Multi-line hunt group number.

i = Hunt group member number.

j = Type of T&M phone. Valid value(s):

- LOCAL T&M PHONE = The T&M phone populated for this ID in the database is local.
- NO T&M PHONE = There is no T&M phone populated for this ID in the database (TLWSR tuple).
- REMOTE T&M PHONE = The T&M phone populated for this ID in the database is remote.

k = Phone number of the T&M phone when the phone is remote.

l = Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages Manual for an explanation of TLWS error responses.

m = Trunk group number.

n = Trunk member number.

o = Valid value(s):

```
DEN=r-g1-h1-i1
 NEN=r-p1-q1-r1-s1-t1
 PSUEN=r-u1-v1-w1-x1
 RAF PORT r n1o1
 TEN=r-j1-k1-l1-m1
```

p = Data link (group) number of the AP.

q = Relative link (member) number of the AP.

r = Switching module (SM) number.

s = Line unit number.

t = Grid number.

u = Switch board number (LU1, LU2, or LU3).

v = Switch number.

w = Level number.

y = IDCU number.

z = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

a[1] = RT line number or PUB43801 channel.

b[1] = Line group number.

c[1] = Line card number.

d[1] = Digital carrier line unit number.

e[1] = RT number.

f[1] = RT line number.

g[1] = Digital line and trunk unit (DLTU) number.

h[1] = Digital facility interface (DFI) number.

i[1] = Channel number.

j[1] = Trunk unit number.

k[1] = Service group number.

l[1] = Channel board number.

m[1] = Circuit number.

n[1] = RAF unit number.

o[1] = RAF channel number.

p[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

q[1] = Data group (DG) number.

r[1] = Synchronous transport signal (STS) number.

s[1] = Virtual tributary 1.5 (VT1.5) number.

t[1] = Digital signal level 0 (DS0) number.

u[1] = PSU unit number.

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v[1] = PSU shelf number.

w[1] = PSU channel group number.

x[1] = PSU channel group member number.

y[1] = Line board number.

z[1] = Line circuit number.

a[2] = Access interface unit (AIU) number.

b[2] = AIU line pack number.

c[2] = AIU line circuit number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CONN:WSLINE
CONN:WSTRK
DISC:WSPHONE
SET:WSPOS
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

RC/V View(s):

14.3 (TRUNK AND LINE WORK STATION)

DISC:WSPHONE-D

Software Release: 5E13 and later
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DISC WSPHONE TEST POSITION a-b
        ACCESS=c                              T&M=d
        DN=e[-f]   g     [MLHG=h-i]
        j[=k]
        [E=l]

[2]   ____________________________________________________________________
      DISC WSPHONE TEST POSITION a-b
        ACCESS=c                              T&M=d
           TKGMN=m-n  o
        j[=k]
        [E=l]

[3]   ____________________________________________________________________
      DISC WSPHONE TEST POSITION a-b
        ACCESS=c                              T&M=d
        DN=e[-f]         f2
        j[=k]
        [E=l]
```

2. REASON FOR OUTPUT

To indicate that the talk and monitor (T&M) phone has been released from the current testing configuration at the trunk and line work station (TLWS) test position (TP).

3. VARIABLE FIELD DEFINITIONS

`E` = Error.

`a` = TP number.

`b` = TLWSR tuple identification.

`c` = Valid value(s):

`AC1 JACK`	= Connection to the AC jack number 1.
`AC2 JACK`	= Connection to the AC jack number 2.
`CAMPED ON`	= Line or trunk is camped on.
`CPE TESTS`	= Test customer premises equipment.
`DC1 JACK`	= Connection to the DC jack number 1.
`DC2 JACK`	= Connection to the DC jack number 2.
`DIG TRANS`	= Connection to digital transmission equipment.
`IN PROGRESS`	= Test or test setup is in progress.
`METALLIC`	= Connection to metallic measurement equipment.
`MONITOR B&I`	= Monitor a busy or idle line/trunk.

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MONITOR BUSY = Monitor a busy line/trunk.
SEIZED = Line or trunk is seized.
SUPERVISION = Supervisory test running.
TRANSMISSION = Connection to transmission equipment.

d = The mode of the T&M phone in the test connection. Valid value(s):
H = The T&M phone is ON-HOLD (metallic connections).
N = No T&M phone in the connection.
M = The T&M phone is in the MONITOR mode (listen-only).
T = The T&M phone is in the TALK mode (listen and talk).

e = Telephone number entered.

f = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

g = Valid value(s):

```
AIUEN=r-a2-b2-c2
 AP=p-q
 ILEN=r-y-z-a1
 LCEN=r-s-b1-c1
 LCKEN=r-s-b1-y1-z1
 LEN=r-s-t-u-v-w
 SLEN=r-d1-e1-f1
```

h = Multi-line hunt group number.

i = Hunt group member number.

j = Type of T&M phone. Valid value(s):
LOCAL T&M PHONE = The T&M phone populated for this ID in the database is local.
NO T&M PHONE = There is no T&M phone populated for this ID in the database (TLWSR tuple).
REMOTE T&M PHONE = The T&M phone populated for this ID in the database is remote.

k = Phone number of the T&M phone when the phone is remote.

l = Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages Manual for an explanation of TLWS error responses.

m = Trunk group number.

n = Trunk member number.

o = Valid value(s):

```
DEN=r-g1-h1-i1
 NEN=r-p1-q1-s1-r1-d2-e2-t1
 PSUEN=r-u1-v1-w1-x1
 RAF PORT r n1 o1
```

```
TEN=r-j1-k1-l1-m1
```

p = Data link (group) number of the AP.

q = Relative link (member) number of the AP.

r = Switching module (SM) number.

s = Line unit number.

t = Grid number.

u = Switch board number (LU1, LU2, or LU3).

v = Switch number.

w = Level number.

y = IDCU number.

z = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

a^1 = RT line number or PUB43801 channel.

b^1 = Line group number.

c^1 = Line card number.

d^1 = Digital carrier line unit number.

e^1 = RT number.

f^1 = RT line number.

g^1 = Digital line and trunk unit (DLTU) number.

h^1 = Digital facility interface (DFI) number.

i^1 = Channel number.

j^1 = Trunk unit number.

k^1 = Service group number.

l^1 = Channel board number.

m^1 = Circuit number.

n^1 = RAF unit number.

o^1 = RAF channel number.

p^1 = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

q^1 = Data group (DG) number.

r^1 = Synchronous transport signal (STS) facility number.

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s^1 = SONET termination equipment (STE) facility number.

t^1 = Digital signal level 0 (DS0) number.

u^1 = PSU unit number.

v^1 = PSU shelf number.

w^1 = PSU channel group number.

x^1 = PSU channel group member number.

y^1 = Line board number.

z^1 = Line circuit number.

a^2 = Access interface unit (AIU) number.

b^2 = AIU line pack number.

c^2 = AIU line circuit number.

d^2 = Virtual tributary group (VTG) number.

e^2 = Virtual tributary member (VTM) number.

f^2 = Valid value(s):

NEN=r-p^1-q^1-s^1-r^1-d^2-e^2-t^1

4. ACTIONS TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CONN:WSLINE
CONN:WSTRK
DISC:WSPHONE
SET:WSPOS
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

RC/V View(s):

14.3 (TRUNK AND LINE WORK STATION)

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27. DUMP

DUMP:ACSR

Software Release: 5E10 and later
Message Class: ACSR
Application: 5
Type: Output

1. FORMAT

[1]
```
DUMP ACSR DATA LOG
  FILE DN      LCEN      IN DATE        OUT DATE
  a    bbbbbbb cccccccc dd/dd/dd ee:ee ff/ff/ff gg:gg
  .
  .
  .

  DUMP ACSR COMPLETED, RECORDS PRINTED = h
```

[2]
```
DUMP ACSR DATA ERR
  FILE DN        DATE
  i    jjjjjjj   kk/kk/kk ll:ll
  ---> m
  .
  .
  .
 [i]  [jjjjjjj] [kk/kk/kk ll:ll]
  --->[m]

  DUMP ACSR COMPLETED, RECORDS PRINTED = h
```

[3]
```
DUMP ACSR BAD ERROR FILE
```

[4]
```
DUMP ACSR BAD LOG FILE
```

[5]
```
DUMP ACSR BAD FILE TYPE
```

[6]
```
DUMP ACSR CAN NOT OPEN n
```

[7]
```
DUMP ACSR BAD OUTPUT DEVICE
```

[8]
```
DUMP ACSR DATA LOG
    FILE DN       OE         IN DATE        OUT DATE
    a     bbbbbbb o pppppppp dd/dd/dd ee:ee ff/ff/ff gg:gg
    .
    .
    .

    DUMP ACSR COMPLETED, RECORDS PRINTED = h
```

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```
[9]    ____________________________________________________________________
       DUMP ACSR DATA ERR
           FILE DN      OE         DATE
           i    jjjjjjj o pppppppp kk/kk/kk ll:ll
           ---> m
           .
           .
           .
           [i   jjjjjjj o pppppppp kk/kk/kk ll:ll]
           [---> m]
           .
           .
           .

           DUMP ACSR COMPLETED, RECORDS PRINTED = h
```

2. REASON FOR OUTPUT

To print the contents of one or all automatic customer station rearrangement (ACSR) recent change log files or error data files.

3. VARIABLE FIELD DEFINITIONS

a = File that was dumped. Valid value(s):
- 1 = Today's log file.
- 2 = Yesterday's log file.
- 3 = Log file from two days ago.

b = Primary directory number of ACSR request.

c = Line equipment number (where equipment type is assumed to be 'I').

d = Date ACSR request was made.

e = Time ACSR request was made, in the form hours:minutes.

f = Date ACSR request was completed.

g = Time ACSR request was completed, in the form hours:minutes.

h = Number of records printed.

i = File that was dumped. Valid value(s):
- 1 = Today's error data file.
- 2 = Yesterday's error data file.
- 3 = Error data file from 2 days ago.

j = Primary directory number of failed ACSR request.

k = Date that ACSR request failed.

l = Time that ACSR request failed.

`m` = Recent change error messages associated with the failed ACSR request.

`n` = File name.

`o` = Office equipment (OE) equipment type.

`p` = OE equipment number. The number of digits comprising the equipment number depends on the equipment type.

4. ACTION TO BE TAKEN

For Formats 1, 2, 8, or 9, no action is required.

For Format 3, check the syntax of the input message and re-enter input message.

For Format 4, check the syntax of the input message and re-enter input message.

For Format 5, check the syntax of the input message and re-enter input message.

For Format 6, verify whether the file exists or not. Also, verify if there are sufficient inodes or blocks in the directory.

For Format 7, using ECD recent change and form classdef, verify the output message class 172 exists.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:ACSR
OP:ACSR
```

Output Message(s):

```
OP:ACSR
```

Other Manual(s):
235-190-105 *Custom ISDN Features*

DUMP:ADDR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
DUMP ADDR a [OFF b] c
  [d: e]
  #f
```

2. REASON FOR OUTPUT

To report the result of executing the DUMP:ADDR input message to dump out the contents of an address or address range in main memory.

3. VARIABLE FIELD DEFINITIONS

`a` = Virtual address specified in input message.

`b` = Offset(s) used on input message line.

`c` = Termination status. Valid value(s):
`COMPLETED` = Output follows this message.
`STOPPED NGADDR` = The DUMP was stopped because the address specified is not valid for the process; or if offsets were specified, invalid address values were encountered in the address chain.

`d` = Address label for line of data.

`e` = Data as dumped from memory.

`f` = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If 'b' = `STOPPED NGADDR`, recheck the program listings. If an indirection chain was specified, try breaking the chain into several parts and printing the intermediate addresses.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`DUMP:ADDR`

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DUMP:ATDTA

Software Release: 5E10 and later
Message Class: APT,ATL
Application: 5
Type: Output

1. FORMAT

```
DUMP ATDTA [SCHED=a] [WEEK=e] [DAY=f] [TGID=o] b RECORD
  TYPE=c
  S  W  D START STOP LNK SKP MEMBERS  ORD  TGID
  ---------------------------------------------------
  d  e  f   g    h    i   j     m      n    o
```

2. REASON FOR OUTPUT

To report the manually requested dump of test session entries in the automatic trunk test scheduler (ATTS) schedule database.

3. VARIABLE FIELD DEFINITIONS

a = The number of the ATTS test schedule whose test session entries were requested to be dumped.

b = Label for the output report block being dumped. Valid value(s):
`FIRST RECORD` = Additional output report blocks will follow.
`LAST RECORD` = This is the last output report block to be dumped.
`NEXT RECORD` = Additional output report blocks will follow.
`ONLY RECORD` = This is the only output report block to be dumped.

c = The type of test performed during the schedule's sessions.

d = The ATTS test schedule number.

e = The ATTS test schedule week.

f = The day in the ATTS test schedule week.

g = The session's scheduled starting time.

h = The session's scheduled stopping time.

i = Flag indicating whether or not the test session is to be started early if the previous test session finishes ahead of schedule (Y/N).

j = Flag indicating whether or not the test session is to be skipped when its scheduled starting time arrives (Y/N).

m = Identity of the trunk group member(s) to be tested.

n = Flag indicating the order in which the range of members are to be tested. Valid value(s):
`A` = Ascending (low-to-high order).
`D` = Descending (high-to-low order).

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○ = Identity of the trunk group whose members are to be tested.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:ATDTA
DUMP:ATLOG
DUMP:ATPRM
OP:ATTS
ST:ATTS
STP:ATTS
```

Output Message(s):

```
DUMP:ATDTA
DUMP:ATLOG
DUMP:ATPRM
OP:ATTS
REPT:ATTS
ST:ATTS
STP:ATTS
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-100-125 *System Description*
235-105-210 *Routine Operations and Maintenance*
235-118-25x *Recent Change Procedures*
235-118-25x *Recent Change Reference*

RC/V View(s):

14.9 (ATTS TEST SESSION SCHEDULE DATA)
14.10 (ATTS TEST SCHEDULE PARAMETER)

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DUMP:ATLOG

Software Release: 5E10 and later
Message Class: APT,ATL
Application: 5
Type: Output

1. FORMAT

```
DUMP ATLOG [SCHED=a][WEEK=b][DAY=c][TGID=d][STAT=e]
  TYPE=f
    S W D   UTC/      TGID/
            DATE      MEMBER/                                STAT
                      DEN
    ------------------------------------------------------------
    g h i   j:k:l     p                                        t
            m-n-o     q
                      r
                      s
    SUMMARY: TEST=u PASS=v FAIL=w ABT=x TRKBSY=y RSPBSY=z
```

2. REASON FOR OUTPUT

Displays, in tabular form, logged operational test data from scheduled operational trunk tests executed by automatic trunk test scheduler (ATTS) retrieved with the execution of the input message DUMP:ATLOG.

3. VARIABLE FIELD DEFINITIONS

`a` = Schedule number.

`b` = Schedule week number.

`c` = Schedule day number.

`d` = Trunk group number.

`e` = Status type. Valid value(s):

`A`	= Print ABORTED trunk test results only.
`F`	= Print FAILED trunk test results only. This is the default value.
`FA`	= Print FAILED or ABORTED (that is, non-passing) trunk test results only.
`FU`	= Print FAILED and/or UNAVAILABLE trunk test results only.
`P`	= Print PASSED trunk tests results only.
`PFA`	= Print all trunk test results.

`f` = Type of operational test executed.

`g` = Schedule number of logged test result.

`h` = Schedule week number of logged test result.

`i` = Schedule day number of logged test result.

`j` = Time of test, hours.

`k` = Time of test, minutes.

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`l` = Time of test, seconds.

`m` = Date of test, year.

`n` = Date of test, month.

`o` = Date of test, day of month.

`p` = Trunk group number of logged test result.

`q` = Trunk member number of logged test result.

`r` = Data equipment number (DEN) of logged test result.

`s` = Status information.

`t` = Overall test status. Valid value(s):

- `ABT` = The attempted operations were aborted because of a busy resource or error detected during the setup or execution of the operational test sequence, not related to the operational test result analysis of the trunk under test.
- `ATP` = All tests passed. The requested operational test completed and all expected signals were received.
- `FAIL` = The test completed, resulting in a failure detected in one or more parts or the requested operational test sequence. Failures include, one or more of the requested test signals not received.

`u` = The total number of completed tests performed during the session (passed and/or failed).

`v` = The number of tests performed during the session which passed.

`w` = The number of tests performed during the session which failed.

`x` = The number of tests performed during the session which aborted.

`y` = The number of tests which were aborted during the session because the trunk under test was busy.

`z` = The number of tests which were aborted during the session because the responder at the far end of the trunk under test was busy.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:ATDTA
```

```
DUMP:ATLOG
DUMP:ATPRM
OP:ATTS
ST:ATTS
STP:ATTS
```

Output Message(s):

```
DUMP:ATDTA
DUMP:ATLOG
DUMP:ATPRM
OP:ATTS
REPT:ATTS
ST:ATTS
STP:ATTS
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-118-25x	*Recent Change Procedures*
235-118-25x	*Recent Change Reference*
235-105-210	*Routine Operations and Maintenance*
235-100-125	*System Description*

RC/V View(s):

14.9 (ATTS TEST SESSION SCHEDULE DATA)
14.10 (ATTS TEST SCHEDULE PARAMETER)

DUMP:ATPRM

Software Release: 5E10 and later
Message Class: APT,ATL
Application: 5
Type: Output

1. FORMAT

```
DUMP ATPRM SCHED=a
  TYPE:                  b
  MAX MISC ABORTS:       c
  MAX CONGESTION:        d
  MAX ANS TO:            e
  MAX DIR TO:            f
  MAX LOOPS:             g
  RETRY ON ABORT:        h
  RETEST ON FAILURE:     i
  COUNT BUSY ABORTS:     j
  PRINT:                 k
```

2. REASON FOR OUTPUT

Reports the manually requested dumping of the automatic trunk test scheduler (ATTS) parameters database for a specified ATTS test schedule.

3. VARIABLE FIELD DEFINITIONS

a = The number of the ATTS test schedule whose parameters were requested to be dumped.

b = The type of test to be performed by the specified ATTS test schedule's sessions.

c = The maximum number of successive test calls per test session which abort.

d = The maximum number of successive test calls per test session which abort due to congestion.

e = The maximum number of successive test calls per test session in which the director times out waiting for an answer signal.

f = The maximum number of successive test calls per test session in which the director times out waiting for an event other than answer.

g = The maximum number of loops allowed to be made per test session through a list of trunks associated with aborted tests.

h = Flag indicating whether or not an immediate attempt to repeat an aborted test should be made (Y/N).

i = Flag indicating whether or not an immediate attempt to repeat a failed test should be made (Y/N).

j = Flag indicating whether or not to count busy-trunk aborted tests with miscellaneous aborts (Y/N).

k = Flag to control real-time printing of test results. Valid value(s):
- A = Print aborting test results only.
- F = Print failing test results only.
- FA = Print failing or aborting (that is, non-passing) test results only.

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NONE	= Do not print test results in real-time.
P	= Print passing test results only.
PFA	= Print passing, failing, or aborting (that is, all) test results.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:ATDTA
DUMP:ATLOG
DUMP:ATPRM
OP:ATTS
ST:ATTS
STP:ATTS
```

Output Message(s):

```
DUMP:ATDTA
DUMP:ATLOG
DUMP:ATPRM
OP:ATTS
REPT:ATTS
ST:ATTS
STP:ATTS
```

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-100-125	*System Description*
235-105-210	*Routine Operations and Maintenance*
235-118-25x	*Recent Change Procedures*
235-118-25x	*Recent Change Reference*

RC/V View(s):

14.9 (ATTS TEST SESSION SCHEDULE DATA)
14.10 (ATTS TEST SCHEDULE PARAMETER)

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DUMP:BKTAPE

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DUMP BKTAPE TD a b [ c ]
        [ CANNOT CREATE TEMPORARY FILE FOR REPORT |
        CANNOT OPEN INPUT DEVICE, ERROR d |
        ECD ERROR e |
        HARDWARE PLATFORM NOT VALID FOR MULTI VOLUME TAPE |
        INCOMPLETE READ FROM INPUT DEVICE |
        INVALID MULTI VOLUME TAPE HEADER |
        NO DATA ON TAPE |
        READ FAILED FROM INPUT DEVICE, ERROR d |
        SETIO FAILED ON INPUT DEVICE, ERROR d |
        TAPE CONTAINS NONSEQUENTIAL SESSIONS |
        TAPE CONTAINS VOLUMES NOT IN ASCENDING ORDER |
        TAPE DEVICE IS NOT ACTIVE |
        TAPE DEVICE NOT VALID FOR MULTI VOLUME TAPE |
        TAPE HEADER CONTAINS INVALID SESSION |
        TAPE HEADER CONTAINS INVALID VOLUME |
        TAPE LIBRARY ERROR f |
        TOO MANY TOP FILES ON INPUT TAPE ]

[2]   ____________________________________________________________________
      DUMP BKTAPE TD a IN PROGRESS
        SESSION  VOLUME  NAME    BLOCKS   SOURCE       DATE
        g         h       i       j         k            l
        .
        .
        .
        [ CUMULATIVE BLOCKS m ]
        [ ESTIMATE n METER TAPE IS o% FULL ]

[3]   ____________________________________________________________________
      DUMP BKTAPE TD a IN PROGRESS
        SESSION  VOLUME  NAME    BLOCKS   SOURCE       DATE
        g         h       i       j         k            l

[4]   ____________________________________________________________________
      DUMP BKTAPE TD a IN PROGRESS
        [ CUMULATIVE BLOCKS m ]
```

2. REASON FOR OUTPUT

To display logical volume information for the multi-volume digital audio tape (DAT) loaded in the user-specified tape drive. The logical volume information consists of the backup session number, logical volume number, logical volume name, size, source disk, and date written. The logical volume information will be displayed as a result of executing either the DUMP:BKTAPE input message or the DUMP BKTAPE command poke on the DFC Status Page. If the command was invoked using a command poke, a REPT:DKDIP message will precede the output message.

3. VARIABLE FIELD DEFINITIONS

a = Pathname of the tape special device file.

b = Request status. Valid value(s):

ABORTED = The dump failed and aborted .
COMPLETED = The dump completed with no errors.
IN PROGRESS = The dump is processing logical volume headers.
STARTED = The dump started processing logical volume headers.
STOPPED = The dump failed and stopped.

c = Error code output by the DUMP BKTAPE command poke on the DFC Status Page. Valid value(s):

Error code:	Explanation:
f01	Failed to get ECD information for tape device.
f05	Special device file is not for a DAT.
f09	Tape device is not active.
f0d	Failed to allocate data buffer.
f11	Invalid buffer address.
f15	entry() call failed.
f19	Failed to rewind tape.
f1d	Failed to open no-rewind tape device.
f21	Failed to get tape header information.
f25	Failed to close no-rewind tape device.
f29	Failed to rewind tape.
f2d	Failed to get ECD logdev record for tape special device file.
f31	Failed to get mdct record for tape special device file.
f35	Invalid partition value for tape special device file.
f39	Failed to get ucb record for tape device.
f3d	Failed to get tape device driver PID.
f41	Failed to open rewind tape device.
f45	Failed to close rewind tape device.
f49	send_rcv() call failed.
f4d	Failed to open tape device.
f51	send_rcv() call failed.
f55	Failed to close tape device.
f59	send_rcv() call failed.
f5d	Tape header read failed.
f61	Invalid multi-volume tape.
f65	Tape header read failed.
f69	Tape header contains invalid session number.
f6d	Tape header contains invalid volume number.
f71	Invalid multi-volume tape.
f75	Sessions are not sequential.
f79	Volumes are not in ascending order.
f7d	ioqueuem() call failed.
f81	tio_ack() call failed.
f85	Tape I/O message timed out.

d = System error code number. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

e = Internal error code for failure of an equipment configuration database (ECD) access function. Valid value(s):

1 = getdbseg() failed, could not attach to the ECD.
2 = lla_iatt() failed, could not attach to the incore database.
3 = lla_rdget() failed, could not get the ecdorg record from the ECD.
4 = lla_get() failed, could not get the logdev record from the ECD.
5 = lla_rdget() failed, could not get the mdct record from the ECD.
6 = lla_rdget() failed, could not get the ucb record from the ECD.
10 = rmovdbseg() failed, could not remove incore database segments.

`f` = Error code returned by a failed tape library function. Refer to the APP:TAPE-LIB appendix in the Appendixes section of the Output Messages manual.

`g` = Session number (1-9).

`h` = Logical volume number (0-9).

`i` = Logical volume name. Valid value(s):

```
AMODD
AMTEXT
SMODD1
SMODD2
SMODD3
SMODD4
SMODD5
SMODD6
SMTEXT
TOP
```

`j` = Size, in 512 byte blocks, of the logical volume. NAV (not available) is output if the logical volume is a TOP volume.

`k` = Name of the source disk(s). NAV (not available) is output if the logical volume is a TOP volume.

`l` = Date (mm/dd/yy) on which the logical volume was written. NAV (not available) is output if the logical volume is a TOP volume.

`m` = Total size, in 512 byte blocks, of the data on the DAT. The total size does not include the TOP volume.

`n` = Length, in meters, of the DAT.

`o` = Estimated percentage of the DAT that is being used.

4. ACTION TO BE TAKEN

Errors will be accompanied by explanatory text or an error code. Verify that the command that was input is consistent with the DUMP:BKTAPE input message manual page. If the message indicates that there is a problem with the tape, verify that the correct tape is loaded in the specified tape drive. If the message indicates that there is a problem accessing the tape drive, verify that the tape is loaded and the tape drive is active. If these checks fail to uncover the problem, or if the description of the error is not self-explanatory, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. This alarm is either a manually-requested report or an automatically-generated report.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	749, 760, 761

2	762, 763
3	750
4	751

Input Message(s):

```
DUMP:BKTAPE
```

Output Appendix(es):

```
APP:SYSERR
APP:TAPE-LIB
```

MCC Display Page(s):

(DFC STATUS PAGE)

DUMP:CACHE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

[1]
```
DUMP CACHE a b
```

[2]
```
DUMP CACHE NOT STARTED
  CONFLICT WITH CURRENT SYSTEM STATUS c
```

2. REASON FOR OUTPUT

To report the status of a request to dump the contents of cache in the offline processor.

3. VARIABLE FIELD DEFINITIONS

a = Request status. Valid value(s):
- COMPLETED = The offline cache was dumped successfully.
- STOPPED = The cache dump could not be completed because of an error.

b = Reason the cache dump was stopped. Valid value(s):
- 1 = Process maintenance driver (PCPMD) could not open physical memory (/dev/pmem).
- 2 = PCPMD could not set the position of the input stream after opening physical memory.
- 3 = PCPMD reached an end-of-file (EOF) when it tried to search for information located in physical memory.
- 4 = PCPMD encountered an error in reading the contents of physical memory.
- 5 = PCPMD could not set the contents of a register in the offline processor.
- 6 = PCPMD failed when it tried to copy data to the memory of the offline processor.
- 7 = PCMPD could not execute a program in the offline processor.
- 8 = The DUMP:CACHE message could not reserve the unit control block (UCB) of the offline processor.

c = Could not access or reserve the UCB record of the mate CU, or the mate CU was not out-of-service.

4. ACTION TO BE TAKEN

If 'b' =	Action:
1-4	The indication is that a software error occurred. Collect all relevant read-only printer (ROP) data and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
5-7	The problem is most likely with the maintenance channel or the offline processor. Diagnose the offline processor.
8	Make sure that another process does not have control of the offline processor (that is, diagnostics or a CU restore) since these reserve the offline processor's UCB. If it appears that a diagnostic or CU restore was in progress, wait for its completion and try again. If the message still fails in the same manner, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

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5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	416

Input Message(s):

```
DUMP:CACHE
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

DUMP:D

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
DUMP D a...a a..a ...
```

2. REASON FOR OUTPUT

To respond to a manual request or an automatic DUMP requested from within a breakpoint.

3. VARIABLE FIELD DEFINITIONS

`a` = Decimal dump of the requested data.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

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DUMP:F-ALL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DUMP FILE ALL {STARTED | IN PROGRESS | COMPLETED}
        a

[2]   ____________________________________________________________________
      DUMP FILE ALL STOPPED
        b
```

2. REASON FOR OUTPUT

To report the result of executing a DUMP:F-ALL input message to dump the contents of an ASCII file.

Format 1 indicates successful execution of the input message.

Format 2 indicates failure.

Note: `STARTED`, `IN PROGRESS`, and `COMPLETED` messages appear when three or more output segments are printed. `STARTED` and `COMPLETED` messages appear when two output segments are printed. `A COMPLETED` message appears when only one output segment is printed.

3. VARIABLE FIELD DEFINITIONS

`a` = Contents of the file.
`b` = Text explaining why the input message was stopped.

4. ACTION TO BE TAKEN

Format 1 indicates success. No action is required.

If Format 2 is printed, refer to the input message manual for the correct input message format, and correct any input message line errors. If the explanatory text indicates that the file cannot be accessed, verify the file's existence using the OP:ST-LISTDIR input message. If the text is not self-explanatory, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	282
2	288

Input Message(s):

```
DUMP:F-ALL
DUMP:F-PARTL
OP:ST-LISTDIR
```

Output Message(s):

```
DUMP:F-PARTL
OP:ST-LISTDIR
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

DUMP:F-FORMAT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DUMP FILE FORMAT {STARTED | IN PROGRESS | COMPLETED}
        a

[2]   ____________________________________________________________________
      DUMP FILE FORMAT STOPPED
        b
```

2. REASON FOR OUTPUT

To report the execution of a DUMP:F-FORMAT input message to dump the contents of a file. Format 1 indicates successful execution of the command. Format 2 indicates failure.

Note: `STARTED`, `IN PROGRESS`, and `COMPLETED` messages appear when three or more output segments are printed. `STARTED` and `COMPLETED` messages appear when two output segments are printed. `A COMPLETED` message appears when only one output segment is printed.

3. VARIABLE FIELD DEFINITIONS

`a` = Contents of the file in ASCII, decimal, octal, or hexadecimal notation. Default is octal notation. If the dump is in ASCII notation, the following special symbols are used to express nongraphic characters:

`[0]`	= Null.
`[b]`	= Backspace.
`[f]`	= Form-feed.
`[n]`	= New-line.
`[r]`	= Return.
`[t]`	= Tab.

Other nongraphic characters appear as three-digit octal numbers.

`b` = Pathname specified in the input message.

4. ACTION TO BE TAKEN

Format 1 indicates success. Take no action.

For Format 2, refer to the input message manual for the correct command format, and correct any command line errors. If the explanatory text indicates that the file cannot be accessed, verify the file's existence using the OP:ST-LISTDIR input message. If the text is not self-explanatory, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

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6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	282
2	288

Input Message(s):

```
DUMP:F-ALL
DUMP:F-FORMAT
DUMP:F-PARTL
OP:ST-LISTDIR
```

Output Message(s):

```
DUMP:F-ALL
DUMP:F-PARTL
OP:ST-LISTDIR
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

DUMP:F-PARTL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DUMP FILE PARTL {STARTED | IN PROGRESS | COMPLETED}
        a

[2]   ____________________________________________________________________
      DUMP FILE PARTL STOPPED
        b
```

2. REASON FOR OUTPUT

To print one or more lines of an ASCII file as the result of executing a DUMP:F-PARTL input message.

Note: `STARTED`, `IN PROGRESS` and `COMPLETED` messages appear when three or more output segments are printed. `STARTED` and `COMPLETED` messages appear when two output segments are printed. A `COMPLETED` message appears when only one output segment is printed.

3. VARIABLE FIELD DEFINITIONS

`a` = Content of specified line(s).
`b` = Text explaining why the command was stopped.

4. ACTION TO BE TAKEN

Format 1 indicates that the command executed successfully.

Format 2 can be printed due to several errors which the system may encounter. If the explanatory text indicates that the file cannot be accessed, use the OP:ST-LISTDIR input message to verify the existence of the file. If the explanatory test indicates that there is insufficient disk space to execute the command, use the OP:ST-FREEDISK input message to verify that there is free space in the file system under which the file being edited resides.

If the message is not self-explanatory, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	282
2	288

Input Message(s):

```
DUMP:F-ALL
DUMP:F-PARTL
OP:ST-FREEDISK
OP:ST-LISTDIR
```

Output Message(s):

```
DUMP:F-ALL
OP:ST-LISTDIR
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

DUMP:KERN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    ____________________________________________________________________
       DUMP KERN a [OFF b] #e
         ADDRESS (HEX):   CONTENTS OF MEMORY (HEX):
               c              d

[2]    ____________________________________________________________________
       DUMP KERN a [OFF b] STOPPED NGADDR #e
```

2. REASON FOR OUTPUT

To report the result of executing a DUMP:KERN input message to dump out the contents of an address or address range in the kernel.

Format 2 indicates the address specified is not valid for the process, or invalid address values were encountered in the address chain if offsets were used.

3. VARIABLE FIELD DEFINITIONS

a = Virtual address specified in input message.

b = Offset(s) used on input message line.

c = Address label for line of data.

d = Data as dumped from memory.

e = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If Format 2 is printed, recheck the program listings. If an indirection chain was specified, try breaking the chain into several parts and printing the intermediate addresses.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	494, 514

Input Message(s):

DUMP:KERN

Output Appendix(es):

APP:OMDB-X-REF

DUMP:MHD-BLOCK

Software Release: 5E10 and later
Message Class: DSKUTL
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DUMP MHD a BLOCK { STARTED | IN PROGRESS }
       [DATA FOR DISK BLOCK d
          e]

[2]   ____________________________________________________________________
      DUMP MHD a BLOCK COMPLETED

[3]   ____________________________________________________________________
      DUMP MHD a BLOCK NOT STARTED b c

[4]   ____________________________________________________________________
      DUMP MHD a BLOCK STOPPED b c

[5]   ____________________________________________________________________
      DUMP MHD a BLOCK ERROR b c

[6]   ____________________________________________________________________
      DUMP MHD a BLOCK ABORTED b

[7]   ____________________________________________________________________
      DUMP MHD a BLOCK ABORTED b
        ERROR DATA f g h i j
```

2. REASON FOR OUTPUT

To report the current status or result of executing a DUMP:MHD input message, which requests that the contents of the disk block be displayed.

Format 7 provides additional error information when an explicit small computer system interface (SCSI) command fails. The additional error data is necessary to determine the exact cause of the error condition.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number of the moving head disk (MHD).

`b` = Process step or reason code. Valid value(s):

Code:	Explanation:
f03	Failed to open equipment configuration database (ECD).
f06	Failed to get unit control block (UCB) by name.
f08	Failed to get UCP of controlling unit.
f0a	Controlling unit is not active.
f12	Failed to reserve UCB.
f15	Failed to assign special device file name.
f18	Failed to open special device file.
f20	Failed to set input/output (I/O) mode of device file.
f21	Failed to enable message reception.
f22	Starting disk block exceeds disk boundary.
f23	Ending disk block exceeds disk boundary.

f24	Failed to fopen() output file.
f25	fseek() failed on output file.
f27	lseek() to start block failed.
f30	Disk read failed.
f33	Process timed out.
f36	Failed to close special device file.
f39	Failed to release special device file.
f42	Failed to unreserve UCB.
f45	Failed to close ECD.
f48	Terminated externally with signal.
f50	diskinfo() library call failed.
f53	lseek() to "comb" defect table failed.
f56	Read of "comb" defect table failed.
f60	Failed to get the segment number.
f63	Refer to the disk driver (DKDRV) report on the receive-only printer (ROP).
f69	Small computer system interface (SCSI) "read capacity" command failed.
f70	Message to port failure.
f73	Message reception failure.

c = System error code. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

d = Identifies the disk block which is being dumped.

e = Data contained in the specified disk block. Printed in row major order, hexadecimal notation.

f = Command completion word. The command completion word is eight hexadecimal digits in the form AAAABBCC.

- AAAA = SCSI job block (SJB) completion code. Refer to the APP:DFC-K appendix in the Appendixes section of the Output Messages manual.
- BB = Status byte. Refer to the APP:DFC-K appendix in the Appendixes section of the Output Messages manual.
- CC = Fill. Not used.

g = First word of extended sense data (ESD). Refer to the APP:DFC-J appendix in the Appendixes section of the Output Messages manual. This word is eight hexadecimal digits in the form AABBCCDD.

- AA = Byte 0 of ESD.
- BB = Byte 1 of ESD.
- CC = Byte 2 of ESD.
- DD = Byte 3 of ESD.

h = Second word of ESD. Refer to the APP:DFC-J appendix in the Appendixes section of the Output Messages manual. This word is eight hexadecimal digits in the form AABBCCDD.

- AA = Byte 4 of ESD.
- BB = Byte 5 of ESD.
- CC = Byte 6 of ESD.
- DD = Byte 7 of ESD.

i = Third word of ESD. Refer to the APP:DFC-J appendix in the Appendixes section of the Output Messages manual. This word is eight hexadecimal digits in the form AABBCCDD.

- AA = Byte 8 of ESD.
- BB = Byte 9 of ESD.
- CC = Byte 10 of ESD.
- DD = Byte 11 of ESD.

j = Fourth word of ESD. Refer to the APP:DFC-J appendix in the Appendixes section of the Output Messages manual. This word is eight hexadecimal digits in the form AABBCCDD.

- AA = Byte 12 of ESD.
- BB = Byte 13 of ESD.
- CC = Byte 14 of ESD.
- DD = Byte 15 of ESD.

4. ACTION TO BE TAKEN

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

Noncompletion termination reports which provide an error code usually indicate that a system resource was not available or became unavailable to perform the task. Clear the problem causing the resource limitation and retry the input request.

In some instances, other error messages may be printed which may provide information pertaining to the failure encountered.

If Format 7 prints, the SCSI disk drive encountered an internal drive error. Retain a copy of the error data, then contact the next level of technical support to aid in determining the cause of the error condition.

5. ALARMS

This alarm is a manually-requested report. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	247
2-6	246
7	666

Input Message(s):

```
DUMP:MHD-BLOCK
```

Output Message(s):

```
UPD:OMDB
```

Output Appendix(es):

```
APP:DFC-K
APP:DFC-J
APP:OMDB-X-REF
APP:SYSERR
```

DUMP:MHD-DEFECT

Software Release: 5E10 and later
Message Class: DSKUTL
Application: 5,3B
Type: Output

1. FORMAT

[1]
```
DUMP MHD a DEFECT TABLE b [c d]
 [COMBINED DEFECT TABLE        ]
 [CORRUPTED (NO FLAG WORD)     ]
 [e ORIGINAL DEFECTS           ]
 [f TOTAL DEFECTS              ]
 [ g MAXIMUM DEFECTS ALLOWED    ]
 [ CYL  HEAD TYPE  FAILS TRIES  ]
 [  h    i    j      k     l    ]
 [ MANUFACTURER'S DEFECT TABLE  ]
 [ e ORIGINAL DEFECTS           ]
 [ CYL  HEAD  SECT  CYL  HEAD  SECT ]
 [  h    i     m    [h    i    m ]  ]
 [ COMBINED (GROWN) DEFECT TABLE ]
 [ e DEFECTS       ]
 [ CYL  HEAD  SECT ]
 [  h    i     m   ]
 [ MANUFACTURER'S (PRIMARY) DEFECT TABLE ]
 [ e DEFECTS       ]
 [ CYL  HEAD  SECT ]
 [  h    i     m   ]
```

[2]
```
DUMP MHD a DEFECT TABLE COMPLETED
```

[3]
```
DUMP MHD a DEFECT TABLE COMPLETED
  SCSI DEFECT COUNT CHECK { COMPLETED | ERROR [b c] }
 [ WARNING: NUMBER OF GROWN DEFECTS EXCEEDS THE AT&T
   RECOMMENDATION ]
 [ WARNING: TOTAL NUMBER OF DEFECTS EXCEEDS THE AT&T
   RECOMMENDATION ]
 [ WARNING: NUMBER OF DEFECTS ON A CYLINDER EXCEEDS THE
   AT&T RECOMMENDATION ]
```

[4]
```
DUMP MHD a DEFECT TABLE ABORTED c
  ERROR DATA o p q r s
```

[5]
```
DUMP MHD a DEFECT TABLE COMPLETED
  SCSI DEFECT COUNT CHECK ABORTED c
  ERROR DATA o p q r s
```

2. REASON FOR OUTPUT

To report the execution of a DUMP:MHD-DEFECT input message, from either the DUMP:MHD-DEFECT command or from the DUMP DEFECT poke on the DFSA display page. If the input message was invoked using the poke, a REPT:DKDIP message will precede the output message.

The output data represents defect management information pertaining to the specified moving head disk (MHD). For a small computer system interface (SCSI) drive type, the GROWN defect list is output as the COMBINED defect table, and similarly, the PRIMARY defect list is the MANUFACTURER's defect table.

Formats 4 and 5 provide additional error information when an explicit SCSI command fails. The additional error data is necessary to determine the exact cause of the error condition.

3. VARIABLE FIELD DEFINITIONS

a = MHD member number.

b = Message status. Valid value(s):

```
ABORTED
ERROR
IN PROGRESS
NOT STARTED
STARTED
STOPPED
```

c = Process step or reason code. Valid value(s):

Code:	Explanation:
f03	Failed to fopen() /tmp file.
f05	fseek() failed on the output file.
f08	Failed to fopen() specfile.
f0b	Failed to open equipment configuration database (ECD).
f0d	Failed to get unit control block (UCB) by name.
f0e	Failed to get top UCB.
f0f	Top UCB is not a DFC.
f10	Failed to get UCB of controlling unit.
f11	Controlling unit is not active.
f12	Unknown DFC type.
f13	MHD size not recognized.
f14	Drive size not supported by defect management.
f16	Failed to reserve the UCB.
f21	Failed to assign special device filename.
f23	Failed to open device file.
f25	Failed to set input output (I/O) mode of device file.
f28	Failed to enable message reception.
f39	lseek() to "mfgr" disk address failed.
f40	DKDIP virtual address translation failure.
f42	Read of the "mfgr" defect table failed.
f45	lseek() to "comb" disk address failed.
f46	DKDIP virtual address translation failure.
f48	First read of "comb" defect table failed.
f50	DKDIP virtual address translation failure.
f51	lseek() to "comb" disk address failed.
f54	Second read of the "comb" defect table failed.
f57	Refer to the disk driver (DKDRV) report on the receive-only printer (ROP).
f5a	Read of the SCSI defect list header failed.
f5c	Refer to the DKDRV report on the ROP.
f5e	Read of the SCSI defect list failed.
f61	Failed to get the segment number.
f63	Message to port failure.
f65	Message reception failure.
f68	Process timed out.
f6a	Failed to close special device file.
f6c	Failed to release special device file.
f72	Failed to unreserve UCB.

f75	Failed to close ECD.
f78	Terminated externally with signal.
f82	Refer to the DKDRV report on the ROP.
f84	Read of the SCSI defect list header failed.
f86	Refer to the DKDRV report on ROP.
f88	Read of the SCSI defect list failed.
f92	Message to port failure.
f93	Process timed out.
f94	Message reception failure.
f96	Failed to get the segment number.
f98	Refer to the DKDRV report on ROP.
f99	SCSI "inquiry" command failed.
f9a	SCSI "inquiry" command data underflow.
f9b	Drive not formatted with 512 bytes per logical block.
f9c	Data overflow - too many block descriptors.
f9e	Data overflow - too many block descriptors.
fa2	Failed to get the segment number.
fa4	Refer to the DKDRV report on the ROP.
fa6	SCSI "read capacity" command failed.
fb2	Failed to get the segment number.
fb4	Refer to the DKDRV report on the ROP.
fb6	SCSI "mode sense" command failed.
fc2	Failed to get the segment number.
fc4	Refer to the DKDRV report on the ROP.
fc6	SCSI "mode sense" command failed.
fc9	diskinfo() library call failed.
fcb	Unknown defect limit type.
fce	Unexpected UCB equipage value.
ffe	Aborted due to phase 1.

d = System error code number. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

e = Number of defects on disk drive up to the recommended limit. For a SCSI disk drive, the total number of defects in the table could exceed the recommended limit. However, no more than the recommended limit of defects will be displayed.

f = Total number of defects in "combined" defect table.

g = Maximum number of defects allowed. This variable field only applies for storage module driver (SMD) disk drives.

h = Cylinder number of defect.

i = Head number of defect.

j = Type of defect. Valid value(s):
- M = Manufacturer specified.
- N = New; found by DFC.

k = For new defects, the number of tests failed.

l = For new defects, the number of tests run.

m = Sector number of defect.

o = Command completion word. Eight hexadecimal digits, in the form AAAABBCC. Valid value(s):
- AAAA = SCSI job block(SJB) completion code. Refer to the APP:DFC-K appendix in the Appendixes section of the Output Messages manual.
- BB = Status byte. Refer to the APP:DFC-K appendix in the Appendixes section of the Output Messages manual.

CC = Not used.

p = First word of extended sense data (ESD), eight hexadecimal digits in the form AABBCCDD. Refer to the APP:DFC-J appendix in the Appendixes section of the Output Messages manual. Valid value(s):
AA = Byte 0 of ESD.
BB = Byte 1 of ESD.
CC = Byte 2 of ESD.
DD = Byte 3 of ESD.

q = Second word of ESD, eight hexadecimal digits in the form AABBCCDD. Refer to the APP:DFC-J appendix in the Appendixes section of the Output Messages manual. Valid value(s):
AA = Byte 4 of ESD.
BB = Byte 5 of ESD.
CC = Byte 6 of ESD.
DD = Byte 7 of ESD.

r = Third word of ESD, eight hexadecimal digits in the form AABBCCDD. Refer to the APP:DFC-J appendix in the Appendixes section of the Output Messages manual. Valid value(s):
AA = Byte 8 of ESD.
BB = Byte 9 of ESD.
CC = Byte 10 of ESD.
DD = Byte 11 of ESD.

s = Fourth word of ESD, eight hexadecimal digits in the form AABBCCDD. Refer to the APP:DFC-J appendix in the Appendixes section of the Output Messages manual. Valid value(s):
AA = Byte 12 of ESD.
BB = Byte 13 of ESD.
CC = Byte 14 of ESD.
DD = Byte 15 of ESD.

4. ACTION TO BE TAKEN

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

Noncompletion termination reports that provide an error code usually indicate a system resource was not available, or became unavailable to perform the requested task. Clear the problem causing the resource limitation and input the request again.

For a SCSI disk drive, the completion message may also include warnings as a result of checking the media defect count of the disk against the following:

- The number of GROWN defects should be no more than a recommended limit over the useful life of the disk. If the recommended limit is exceeded, the disk drive could become unreliable.
- The total number of defects (PRIMARY and GROWN) on a disk drive should not exceed the recommended limit. If the disk has more than the number of defects allowed, the disk drive could become unreliable.
- The total number of defects (PRIMARY and GROWN) on a cylinder should not exceed the

recommended limit. If the number of defects on a cylinder is larger than the limit, the performance of the disk drive may degrade to the point that the disk drive may not be able to be used as a boot device in the administrative module (AM).

It is recommended that the SCSI disk drive should be replaced if there is any warning output related to the above recommendations.

If Formats 4 and 5 print, the SCSI disk drive encountered an internal drive error. Retain a copy of the error data and contact the next level of technical support to aid in determining the cause of the error condition.

5. ALARMS

None. This alarm is a manually-requested report. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1, 2	144, 145, 250, 251, 252, 573
3	612
4	666
5	665

Input Message(s):

```
DUMP:MHD-DEFECT
```

Output Message(s):

```
REPT:DKDIP
UPD:OMDB
```

Output Appendix(es):

```
APP:DFC-K
APP:DFC-J
APP:OMDB-X-REF
APP:SYSERR
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DUMP:MHD-VTOC

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      DUMP MHD a VTOC STARTED

[2]   ____________________________________________________________
      DUMP MHD a VTOC IN PROGRESS

[3]   ____________________________________________________________
      DUMP MHD a VTOC COMPLETED

[4]   ____________________________________________________________
      DUMP MHD a VTOC NOT STARTED b c

[5]   ____________________________________________________________
      DUMP MHD a VTOC STOPPED b c

[6]   ____________________________________________________________
      DUMP MHD a VTOC ERROR b c

[7]   ____________________________________________________________
      DUMP MHD a VTOC ABORTED b

[8]   ____________________________________________________________
      DUMP MHD a VTOC SEGMENT d OF e
       [ PTN START  END    SIZE   DESCRIPTION
          f    g     h       i     j [+k] ]
```

2. REASON FOR OUTPUT

To report the result of executing a DUMP:MHD-VTOC input message. The output data represents information contained in the volume table of contents (VTOC) of the specified moving head disk (MHD).

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Process step or reason code. Valid value(s):

`f03`	= Failed to open ECD.
`f06`	= Failed to get unit UCB by name.
`f07`	= Failed to get UCP of controlling unit.
`f08`	= Controlling unit is not active.
`f09`	= Failed to reserve UCB.
`f12`	= Failed to assign special device file name.
`f15`	= Failed to open special device file.
`f18`	= Failed to set I/O mode of the device.
`f24`	= Disk read failed.
`f28`	= Too many partitions in VTOC.

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`f29` = No VTOC partition found; VTOC invalid.
`f30` = Process time out.
`f31` = Failed to close special device file.
`f33` = Failed to release special device file.
`f36` = Failed to unreserve UCB.
`f39` = Failed to close ECD.
`f42` = Terminated externally with signal.

`c` = System error code. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

`d` = Segment number (32 partitions per segment).

`e` = Total number of segments.

`f` = Disk logical partition number.

`g` = Starting disk block number of the indicated partition.

`h` = Ending (inclusive) disk block number of the indicated partition.

`i` = Size, in 512-byte blocks, of the indicated partition.

`j` = Describes the partition. Unresolved values are printed in hexadecimal and indicate whether the partition is a *UNIX*®RTR-defined value or an application-defined value.

`k` = Indicates the modifier(s) applied to the specific partition definition.

4. ACTION TO BE TAKEN

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

Noncompletion termination reports that provide an error code usually indicate that a system resource was not available or became unavailable to perform the task. Clear the problem causing the resource limitation and retry the input message.

In some instances, other *UNIX*®RTR error messages may be printed which may provide information pertaining to the failure encountered.

5. ALARMS

This alarm is a manually-requested report. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1 - 7	248
8	249

Input Message(s):

```
DUMP:MHD-VTOC
```

Output Message(s):

```
UPD:OMDB
```

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

DUMP:NC

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
DUMP NC a b [c] EVENT=ev
NETWORK CLOCK a CCB/CLRT REGISTERS X'
0000ddee  ffgghh00  iijjkkll  mmnnoopp  qqrrsstt  uuvvwwxx
00000000  00000000 yyzza1b1  00000000  c1d1e1f1  g1h10000
i100j1k1  00000000  l1l1m1m1  n1o10000
p1000000  00000000  q1r10000  0000s1s1  00000000  00000000
00000000 0000t1t1 u1v1w100  00000000  x1y1z1a2  00000000
b200c200 00000000  d200e200  f2g2h200 i2000000  00000000
j2000000  0000k2k2  00000000  0000l200  00000000  m2m2n2n2
NETWORK CLOCK a STATUS X'
o2p2q2r2  00000000  s2t2u2v2  w2x2y2z2
00000000  00000000  00000000  00000000
NETWORK CLOCK a STATUS X'
o2p2q2r2  00000000  s2t2u2v2  w2x2y2z2
00000000  00000000  00000000  00000000
```

2. REASON FOR OUTPUT

To dump the specified network clock (NC) communication control buffer and communication link receiver/transmitter (CCB/CLRT) registers and status data in response to a manual or automatic request.

When this message is automatically generated, the values of the specific CCB and CLRT registers depend on the values of the summary flags (variables 'g' through 'h') and the flag vectors (variables 'j' through 'x'). In the following matrix, identify the variable field ('y' through 'n^2') at the intersection of the row of the summary flag value printed in the dump (01,02,...,80) and the flag vector. Then look up the variable field definition in the following Exhibit.

Field Value (bit set):

Flag	01	02	04	08	10	20	40	80
Field	**(b0**	**b1**	**b2**	**b3**	**b4**	**b5**	**b6**	**b7)**
01	yy	zz	a^1	b^1	00	00	00	00
02	c^1	d^1	e^1	f^1	g^1	h^1	00	00
04	i^1	00	j^1	k^1	00	00	00	00
08	l^1	l^1	m^1	m^1	n^1	o^1	00	00
10	p^1	00	00	00	00	00	00	00
20	r^1	r^1	00	00	00	00	s^1	s^1
40	00	00	00	00	00	00	00	00
80	00	00	00	00	00	00	t^1	t^1

For example, the following message prints:

```
DUMP ONTC  1  NC  COMPLETED  REFERENCE FAULT
NETWORK CLOCK  0  CCB/CLRT REGISTERS X'
00003F01 01020000  00020000 . . .
 .
 .
```

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.

Field 'd' is 3F, field 'e' is 01, and field 'f' is 01. Field 'g', the NC to FPC summary flag byte, is 02. Field 'j', the NC to FPC flag vector 1 byte, is also 02. The intersection of flag vector column 02 and summary flag row 02 is variable field 'd^1'. Field 'd^1' indicates a frequency difference in the TMS/LI return signal. If an error caused this message to print, more information about the error is found in the REPT:ONTC output message printed after the dump. If the dump message is requested manually, no report message prints.

Note that the variable fields are documented as hexadecimal bytes. In some fields, specific masks and alarms are indicated at the bit level. In these cases, transform the hexadecimal value printed into binary and interpret the bits appropriately. For example, field 'd', the PSR mask set during an initialization, is 3F. Expanded into binary, this byte is 0011 1111. Bits are interpreted from right to left. Therefore, the initialization enables the CCB activity flag (bit 0), the VCXO energy detector alarm (bit 1), etc.

Note also that some fields in this message print zeros. These fields are currently not used.

3. VARIABLE FIELD DEFINITIONS

a = Side (0 or 1) of the office network and timing complex (ONTC).

b = Termination report. Valid value(s):
ABORTED
COMPLETED
STOPPED

c = Additional failure information. A character string in this field indicates the type of REPT:ONTC message that will print after the dump is completed.
CONFIGURATION/MODE FAULT
INTERRUPT DATA
PHASE LOCK LOOP FAULT
PROCESSOR FAULT
REFERENCE FAULT
THRESHOLD EXCEEDED
UNIT FAULT

d = Peripheral service request (PSR) mask, indicating which NC scan points are enabled (0 = disabled; 1 = enabled) by the last initialization. Valid value(s):
2F = DS1 NC simplex.
3F = DS1 NC duplex.
6F = Stand-alone NC simplex.
7F = Stand-alone NC duplex.

The bit fields indicate the following scan points. Valid value(s):
7 = Configuration of the NC (0 = active major; 1 = active minor).
6 = Reference configuration if the PSR mask is for a DS1 NC (0 = primary; 1 = secondary).

Stand-alone oscillator energy detector alarm if the PSR mask is for a stand-alone NC.
5 = TMS/LI energy detector alarm.
4 = Cross-couple energy detector alarm.
3 = 2 KHz reference energy detector alarm.

2 = Microprocessor sanity timer alarm.
1 = Voltage controlled oscillator (VCXO) energy detector alarm.
0 = CCB activity flag indicating an error in the CCB registers. Check the summary and vector flags for the error location.

e = First reading of the NC scan points. (Refer to variable 'd'.) Valid value(s):
0 = No alarm.
1 = Alarm.

f = Second reading of the NC scan points. (Refer to variable'd'.) Valid value(s):
0 = No alarm.
1 = Alarm.

g = NC to FPC summary flags.

h = FPC to NC summary flags.

i = NC to FPC flag vector 0.

j = NC to FPC flag vector 1.

k = NC to FPC flag vector 2.

l = NC to FPC flag vector 3.

m = NC to FPC flag vector 4.

n = NC to FPC flag vector 5.

o = NC to FPC flag vector 6.

p = NC to FPC flag vector 7.

q = FPC to NC flag vector 0.

r = FPC to NC flag vector 1.

s = FPC to NC flag vector 2.

t = FPC to NC flag vector 3.

u = FPC to NC flag vector 4.

v = FPC to NC flag vector 5.

w = FPC to NC flag vector 6.

x = FPC to NC flag vector 7.

y-t[1] = CCB locations X'80 through X'BF. This data is written by the NC microprocessor.

y = Configuration bits. Valid value(s):

Bit:	Explanation:

7, 6, 5	No significance.
4	0 = DS1 NC. 1 = Stand-alone NC.
3	0 = Old phase. 1 = New phase.
2	0 = LI. 1 = TMS.
1	0 = Active. 1 = Standby.
0	0 = Primary DS1. 1 = Secondary DS1.

z = Mode. Valid value(s):
00 = Fast mode.
FF = Normal.

a^1 = Digital phase lock loop (DPLL) status. Valid value(s):
00 = Locked.
FF = Holdover.

b^1 = Inverted talkback (AA should always be present).

c^1 = Phase jitter of reference NC is locked to. Valid value(s):
00 = No calculation.
55 = Less than threshold.
AA = Exceeds threshold. Summary and vector flags are set.

d^1 = Frequency difference TMS/LI return signal. (Refer to variable 'c^1'.)

e^1 = Frequency difference default active/standby reference. (Refer to variable 'c^1'.)

f^1 = Frequency difference of alternate DS1. (Refer to variable 'c^1'.)

g^1 = Phase build-out register, upper byte. Ignore.

h^1 = Phase build-out register, lower byte. Ignore.

i^1 = NC error source register (ESR) bit field (0 = no alarm; 1 = alarm). Valid value(s):

Bit	Explanation
7	No significance.
6	D/A register error.
5	Phase detector error.
4	Phase error controller unit.
3	No significance.
2	Secondary DS1 local alarm.
1	Phase shift/phase difference.
0	Primary DS1 local alarm.

j^1 = Invalid command address (the CCB address illegally written to).

k^1 = Invalid command data (the data written to the illegal CCB address).

l^1 = Primary reference out-of-frame count.

m^1 = Secondary reference out-of-frame count.

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n^1 = Primary reference error rate. Valid value(s):
00 = No calculation.
55 = Rate < 106.
AA = Rate > 106.
FF = Rate > 103.

o^1 = Secondary reference error rate. (Refer to variable 'n^1'.)

p^1 = NC diagnostic results.

q^1 = Upper byte of phase detector output.

r^1 = Lower byte of phase detector output.

s^1 = Input value to the digital-to-analog converter (DAC).

t^1 = Ignore.

u^1-n^2 = CCB locations 0xC0 through 0xFF. This data is written by the CP or AM.

u^1 = Configuration bits (same as variable 'y'). Valid value(s):

Bit:	Explanation:
7, 6, 5	No significance.
4	0 = DS1 NC. 1 = Stand-alone NC.
3	0 = Old phase. 1 = New phase.
2	0 = LI. 1 = TMS.
1	0 = Active. 1 = Standby.
0	0 = Primary DS1. 1 = Secondary DS1.

v^1 = Mode (same as variable 'z'). Valid value(s):
00 = Fast.
FF = Normal.

w^1 = DPLL status. (Same as variable 'a^1'). Valid value(s):
00 = Locked.
FF = Holdover.

x^1 = Pest of the phase jitter of the reference NCLK is locked to. A pest means the error register is prevented (inhibited) from interrupting. Valid value(s):
0 = Not pested.
FF = Pested.

y^1 = Pest of the frequency difference TMS/LI return signal. (Refer to variable 'x^1'.)

z^1 = Pest of the frequency difference default active/standby reference. (Refer to variable 'x^1'.)

a^2 = Pest of the frequency difference of the alternate DS1 line. (Refer to variable 'x^1'.)

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b[2] = NC ESR pest bit field. Valid value(s):
0 = Not pested.
1 = Pested.

Bit	Explanation
7	No significance.
6	D/A register error.
5	Phase detector error.
4	Phase error controller unit.
3	No significance.
2	Secondary DS1 local alarm.
1	Phase shift/phase difference.
0	Primary DS1 local alarm.

c[2] = Pest of the invalid command address. (Refer to variable 'x[1]'.)

d[2] = Pest of the primary reference out-of-frame count. (Refer to variable 'x[1]'.)

e[2] = Pest of the secondary reference out-of-frame count. (Refer to variable 'x[1]'.)

f[2] = Pest of the primary reference error rate. (Refer to variable 'x[1]'.)

g[2] = Pest of the secondary reference error rate. (Refer to variable 'x[1]'.)

h[2] = Reset of the primary and secondary out-of-frame counts (FF=reset).

i[2] = Run diagnostic command.

j[2] = Pest trace.

k[2] = Value loaded into the DAC.

l[2] = Pest of the 3/4 range alarm. (Refer to variable 'x[1]'.)

m[2] = Talkback (5555).

n[2] = Ignore.

o[2] = Network clock signal is going to the TMS or the LI. Valid value(s):
00 = LI.
01 = TMS.

p[2] = Network clock is stand-alone or receives a DS1 signal. Valid value(s):
64 = DS1 NC.
65 = Stand-alone.

q[2] = Network clock PSR mask. (Same as variable'd'.) Valid value(s):

Bits:	Explanation:
7	Configuration of the NC. Valid value(s): 0 = Active major. 1 = Active minor.
6	Reference configuration if the PSR mask is for a DS1 NC. Valid value(s): 0 = Primary.

	1 = Secondary. Stand-alone oscillator energy detector alarm if the PSR mask is for a stand-alone NC.
5	TMS/LI energy detector alarm.
4	Cross-couple energy detector alarm.
3	2KHz reference energy detector alarm.
2	Microprocessor sanity timer alarm.
1	Voltage controlled oscillator (VCXO) energy detector alarm.
0	CCB activity flag indicating an error in the CCB registers. Check the summary and vector flags for the error location.

r^2 = Network clock ESR mask. (Same as variable 'i^1'.) Valid value(s):

0 = No alarm.
1 = Alarm.

Bit	Explanation
7	No significance.
6	D/A register error.
5	Phase detector error.
4	Phase error controller unit.
3	No significance.
2	Secondary DS1 local alarm.
1	Phase shift/phase difference.
0	Primary DS1 local alarm.

s^2 = Clock is active, pested, or out of service. Valid value(s):

00 = Active.
02 = Pested.
07 = Out-of-service manual.
08 = Out-of-service fault.
0A = Out-of-service removed.

t^2 = Primary reference is active, pested, or out of service. (Refer to variable 's^2'.)

u^2 = Secondary reference is active, pested, or out of service. (Refer to variable 's^2'.)

v^2 = Cross-couple reference is active, pested, or out of service. (Refer to variable 's^2'.)

w^2 = The CCB location monitoring the primary reference jitter or frequency difference.

x^2 = The CCB location monitoring the secondary reference jitter or frequency difference.

y^2 = The CCB location monitoring the cross-couple reference jitter or frequency difference.

z^2 = Network clock ESR that has bit fields changing states (ignore).

a^3 = Event number for the requested action.

4. ACTION TO BE TAKEN

When an error triggers this message, a REPT:ONTC output message related to the error type specified by variable 'c' prints. Consult the appropriate REPT:ONTC message for additional information about the error.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
SET:NC
```

Output Message(s):

```
REPT:ONTC-NEREE
REPT:ONTC-NOE
```

DUMP:NC-2

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
DUMP NC a [b] [c] Event=j
NETWORK CLOCK a CCB/CLRT REGISTERS X'
ddeeffgg hhii0000 llmmnnoo ppqqrrss 00000000 00000000 00000000 00000000
ttuuvvww xx000000 yyzza1b1 c1d10000 e1f1g1h1 i1j1k1l1 m1n1o1p1 q1r1s1t1
u1v1w1x1 y1z1a2b2 c2d2e2f2 g2h2i2j2 k2l2m2n2 o2p2q2r2 s2t2u2v2 w2x2b5b5
y2z2a300  b3000000 c3d3e3f3 g3h30000 i3j3k3l3 m3n3o3p3 q3r3s3t3 u3v3w3x3
y3z3a4b4 c4d4e4f4 g4h4i4j4 k4l4m4n4 o4p4q4w4 s4t4u4v4 w4x4y4z4 00a5c5c5
NETWORK CLOCK a STATUS X'
d5e5f5g5 h5i5j5k5 l5m5n5o5 p500q5r5 00000000 00000000 00000000 00000000
```

2. REASON FOR OUTPUT

To dump the specified network clock 2 (NC2) communication control buffer and communication link receiver/transmitter (CCB/CLRT) registers and status data in response to a manual (DUMP:NC) or automatic request. This message will appear with many types of REPT:NC error reports on the receive-only printer (ROP). It can be used to help identify the exact problem according to the bits that are set as shown in the format description.

The various fields within the dump format give the configuration and status of the network clock hardware and its subunits (NC references and NC oscillators). In the format, there are '0's present to hold places and make the format a little more readable. The first 5 fields in the dump message deal with the CLRT subaddresses and status.

The rest of the dump message concerns the contents of the CCB. The CCB stores both input and output data. The input buffer contains messages to the NC. The output buffer contains responses to the input messages (as well as the messages themselves). Both the input and output CCB buffers are dumped by this message. Fields 't' through 'x^2' are the inputs to the CCB. Fields 'y^2' through 'b^5' are the outputs from the CCB.

The data in the fields contain information about location and cause of errors, as well as data on on the configuration of the network clock. Fields 'i' and 'l' through 's' will indicate if there are errors reported by the NC to the foundation peripheral controller (FPC). Field 'i' contains a summary of the flag vectors (fields 'l' through 's'). If the value in 'i' is '00', then there are no errors reported from the NC hardware to the FPC. If the field is non-zero, then there are errors and further investigation is required. The flag vectors, 'l' through 's', tell which location of the CCB is reporting the error. The bits set in 'i' point to a specific flag vector:

Value (bit set)	->	flag field
01	b0	l
02	b1	m
04	b2	n
08	b3	o
10	b4	p
20	b5	q
40	b6	r
80	b7	s

By examining the flag fields specified by the summary vector, 'i', you may determine the exact location of the error. The combination of the location and the hexadecimal value in the flag vector will point to the field which contains the error report. The bits set serve as flags to the locations; therefore, there may be more than one bit set in any flag field. The values shown below assume only one bit is set at a time in the flag vector. If more than one bit is set,

investigate the field pointed to by each flag. The report location is found by intersecting the row corresponding to the flag vector location ('l' through 's') with the value or bit set in that field.

Field Value (bit set)

Flag Field	01 b0	02 b1	04 b2	08 b3	10 b4	20 b5	40 b6	80 b7
l	tt	uu	vv	ww	xx	--	--	--
m	yy	zz	a^1	b^1	c^1	d^1	--	--
n	e^1	f^1	g^1	h^1	i^1	j^1	k^1	l^1
o	m^1	n^1	o^1	p^1	q^1	r^1	s^1	t^1
p	u^1	v^1	w^1	x^1	y^1	z^1	a^2	b^2
q	c^2	d^2	e^2	f^2	g^2	h^2	i^2	j^2
r	k^2	l^2	m^2	n^2	o^2	p^2	q^2	r^2
s	s^2	t^2	u^2	v^2	w^2	x^2	--	--

Example: Assume field 'i' contains the value '02' and field 'm' contains the value '08'. Field 'i' has bit 2 set, which points to flag vector 'm'. By intersecting row 'm' of the above table with the value of field 'm' ('08'), you will find report location 'b^1'. Variable 'b^1' contains reference summary ESR (refer to description for field 'b^1'). Note that this field points to other fields, which contain detailed reference data. Therefore, depending on the bit(s) set in field 'b^1', one would examine other fields (that is, 'n^1', 'r^1', 'v^1', etc.) to get the detailed information.

The values in the information bytes of the dump are keyed off of bit position in the data. A byte has its most significant bit (left-most position) as b7, and least significant (right most position) as b0. In order to decipher the dumped data, the hexadecimal values must be investigated on a bit-by-bit basic.

Note: Not every bit in each defined field is significant. If one or more bits are not defined within a field, those bits should be ignored. They may have a value of 0 or 1 (not guaranteed).

3. VARIABLE FIELD DEFINITIONS

a = Network clock side.

b = Fault type identifier printed as a result of NC unit error report or manual DUMP command. Valid value(s):
IN PROGRESS = DUMP:NC command.
OSCILLATOR FAULT = NC oscillator unit fault.
PROCESSOR FAULT = Sanity timeout on the NC microprocessor.
REFERENCE FAULT = NC reference error report.
UNIT FAULT = Other NC hardware error.

c = Additional data qualifying the termination field.

d = CLRT subaddress 0.

e = CLRT subaddress 1.

f = CLRT subaddress 2.

g = CLRT status upper byte.

h = CLRT status lower byte.

j = Event number.

t = Network clock configuration. Valid value(s):

b0 = Valid value(s):
- 0 = Active major clock side.
- 1 = Active minor clock side.

b1 = Valid value(s):
- 0 = Cross couple out of service.
- 1 = Cross couple in service.

b3,b4 = Valid value(s):
- 0 = Using MMRSM local return.
- 1 = Using MMRSM remote return.
- 2 = Using TMS return (set in AM application).

b5-b7 = Valid value(s):
- 0 = 24 channel (T1 trunk) synchronization.
- 1 = 30 channel synchronization.
- 2 = Stand alone clock.

u= Clock mode and stratum (oscillator type and stability). Valid value(s):

b0-b2 = Valid value(s):
- 1 = Side locked in normal mode.
- 3 = Side locked in fast mode.
- 5 = Side in holdover mode.
- 7 = Side in free run mode.

b3-b4 = Valid value(s):
- 0 = Foreign high stability oscillator.
- 1 = Foreign low stability oscillator.
- 2 = Stratum 2 (U.S. high stability).
- 3 = Stratum 3 (U.S. medium stability).

b5 = Valid value(s):
- 0 = Single-ended mutual synchronization.
- 1 = Master/slave synchronization.

v = Local and remote oscillator status. Valid value(s):

b0,b1 = Give status of local (same side) oscillator.

b4,b5 = Give status of remote (other side) oscillator.

b0 = Out of service.

1 = In warmup state.

2 = Active.

3 = Standby.

w = Inverted talkback location. The value in this location should have the logically inverted value from field

a[5] This indicates that the communications to and from the clock are operating properly.

x = Active reference byte. The active reference(s) for the clock side are indicated by a set bit in this field. b0 set means REF1 is active, b1 set means REF2 is active, etc. for all eight references.

y = Hardware error source register (ESR). A set bit means an error of the noted type has occurred. These errors are detected from the network clock controller (CNTL) or synchronization (SYNC) circuit pack. Valid value(s):

- b0 = Digital/analog converter (DAC) or voltage-controlled oscillator (VCO) register error (CNTL).
- b1 = Memory error/firmware fault (CNTL).
- b2 = Local oscillator energy detector error (SYNC0).
- b3 = Remote oscillator energy detector error (SYNC0).
- b4 = Local oscillator energy detector error (SYNC1).
- b5 = Remote oscillator energy detector error (SYNC1).
- b6 = Local oscillator phase register error (CNTL).
- b7 = Remote oscillator phase register error (CNTL).

z = Oscillator ESR. A set bit means that an error of the noted type has occurred. These errors are detected on the network clock oscillator circuit pack. Valid value(s):

- b0 = Local oscillator energy detector.
- b1 = Local oscillator frequency.
- b2 = Local oscillator inner oven bit (loss of temperature stability on high stability oscillator).
- b3 = Local oscillator outer oven bit (loss of temperature stability on high stability oscillator).
- b4 = Remote oscillator energy detector.
- b5 = Remote oscillator frequency.

a^1 = Source ESR. A set bit means that an error of the noted type has occurred. These errors are detected on the network clock controller circuit pack. Valid value(s):

- b0 = 8 Khz return signal frequency difference.
- b1 = 8 Khz return signal jitter.
- b2 = 8 Khz return signal energy detector.
- b3 = Cross couple energy detector.
- b4 = Cross couple frequency difference.

b^1 = Reference summary ESR. A set bit means that there is an error on the corresponding reference. For more information refer to the following fields. Valid value(s):

- b0 = REF1 (refer to 'n^1').
- b1 = REF2 (refer to 'r^1').
- b2 = REF3 (refer to 'v^1').
- b3 = REF4 (refer to 'z^1').
- b4 = REF5 (refer to 'd^2').
- b5 = REF6 (refer to 'h^2').
- b6 = REF7 (refer to 'l^2').
- b7 = REF8 (refer to 'p^2').

c^1 = Invalid message address. Indicates that an internal error has occurred and the firmware has received an invalid request. The location is an internal CCB address (refer to d^1).

d^1 = Invalid message data. This is the data that was passed to the firmware in the invalid address (c^1).

e^1 = Time base offset calculation status. This byte indicates what action is taken on the time base offset for the local and remote side. Valid value(s):

- b1,b2 = Local side.
- b5,b6 = Remote side. Valid value(s):
  - 0 = No action taken.
  - 1 = Calculate.
  - 2 = Load existing value from memory.
  - 3 = No calculation.

f^1-i^1 = Value of the time base offset. This value is loaded into system memory to be used in the event that an initialization must be done without external references.

j^1-k^1 = (Upper byte and lower byte) counts taken of reference errors.

l^1 = Diagnostic result return value.

m^1 = Reference 1 configuration.

n^1 = Reference 1 ESR.

o^1 = Reference 1 parameter.

p^1 = Reference 1 data.

q^1 = Reference 2 configuration.

r^1 = Reference 2 ESR.

s^1 = Reference 2 parameter.

t^1 = Reference 2 data.

u^1 = Reference 3 configuration.

v^1 = Reference 3 ESR.

w^1 = Reference 3 parameter.

x^1 = Reference 3 data.

y^1 = Reference 4 configuration.

z^1 = Reference 4 ESR.

a^2 = Reference 4 parameter.

b^2 = Reference 4 data.

c^2 = Reference 5 configuration.

d^2 = Reference 5 ESR.

e^2 = Reference 5 parameter.

f[2] = Reference 5 data.

g[2] = Reference 6 configuration.

h[2] = Reference 6 ESR.

i[2] = Reference 6 parameter.

j[2] = Reference 6 data.

k[2] = Reference 7 configuration.

l[2] = Reference 7 ESR.

m[2] = Reference 7 parameter.

n[2] = Reference 7 data.

o[2] = Reference 8 configuration. Gives configuration data for each reference. Valid value(s):

- b0 = Equipage state. Valid value(s):
  - 0 = Digital reference.
  - 1 = Equipped reference.
- b1 = Reference type. Valid value(s):
  - 0 = Digital reference.
  - 1 = Analog reference.
- b2-b5 = Reference format. Valid value(s):
  - 0 = Foreign AMI/U.S. D4 no zero code suppression (ZCS).
  - 2 = Foreign HDB3/U.S. D$ with B8ZC format.
  - 4 = U.S. D4 with ZCS.
  - 8 = U.S. FE no ZCS.
  - a = U.S. FE B8ZS.
  - c = U.S. FE with ZCS.
- b6 = Service status. Valid value(s):
  - 0 = Out of service.
  - 1 = In service.

p[2] = Reference 8 ESR. Individual reference error source registers (ESRs). A set bit in the field means that an error of this type was reported on this reference. Valid value(s):

- b0 = Out of range of allowed frequency.
- b1 = Phase step.
- b2 = Excess jitter on the reference.
- b3 = Local alarm (loss of reference).
- b4 = Low error rate threshold exceeded.
- b5 = High error rate threshold exceeded.
- b6 = Low out of frame threshold exceeded.
- b7 = High out of frame threshold exceeded.

q[2] = Reference 8 parameter.

Variables 'o^1-q^2'. You may not have the resources to interpret the data. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

r^2 = Reference 8 data.

Used in double-ended mutual synchronization only. No meaning for master/slave or single-ended mutual synchronization schemes.

s^2,t^2 = Phase buildout value (upper and lower bytes, respectively). Used to quickly lock the active major side to the external reference. You may not have the resources to interpret the data. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

u^2,v^2 = Digital/analog converter (DAC) value (upper and lower bytes, respectively). Used to give an analog value to run the voltage-controlled oscillator. You may not have the resources to interpret the data. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

w^2,x^2 = Phase detector output. Detects phase difference between the reference signal and the clock output signal. You may not have the resources to interpret the data. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

The following locations are information passed to the network clock hardware from the maintenance software through the foundation peripheral controller (FPC) to tell it configuration and pass messages. There is no flag vector manipulation as for the previous information.

y^2 = Network clock configuration. Valid value(s):

b0 = Valid value(s):
- 0 = Active major clock side.
- 1 = Active minor clock side.

b1 = Valid value(s):
- 0 = Cross couple out of service.
- 1 = Cross couple in service.

b3,b4 = Valid value(s):
- 0 = Using MMRSM local return.
- 1 = Using MMRSM remote return.
- 2 = Using TMS return (set in AM application).

b5-b7 = Valid value(s):
- 0 = 24 channel (T1 trunk) synchronization.
- 1 = 30 channel synchronization.
- 2 = Stand alone clock.

z^2 = Clock mode and stratum (oscillator type and stability). Valid value(s):

b0-b2 = Valid value(s):
- 1 = Lock side in normal mode.
- 3 = Lock side in fast mode.
- 5 = Put side in holdover mode.
- 7 = Put side in free run mode.

b3-b4 = Valid value(s):
- 0 = Foreign high stability oscillator.

1 = Foreign low stability oscillator.
2 = Stratum 2 (U.S. high stability).
3 = Stratum 3 (U.S. medium stability).

b5 = Valid value(s):
0 = Synchronize in master/slave synchronization.
1 = Synchronize in single-ended mutual synchronization.

a[3] = Local and remote oscillator status. Valid value(s):
b0,b1,b2 = Give status of local (same side) oscillator.
b4,b5,b6 = Give status of remote (other side) oscillator. Valid value(s):
0 = Out of service.
1 = In warmup state.
2 = Active.
3 = Standby.
4 = Active forced.

b[3] = Active reference byte. The active reference(s) for the clock side are indicated by a set bit in this field. b0 set means REF1 is active, b1 set means REF2 is active, and so on for all eight references.

c[3] = Hardware error source register (ESR) pests. A set bit means an error of the noted type is pested. These errors are detected from the network clock controller (CNTL) or synchronization (SYNC) circuit pack. Valid value(s):
b0 = Digital/analog converter (DAC) or voltage-controlled oscillator (VCO) register error (CNTL).
b1 = Memory error/firmware fault (CNTL).
b2 = Local oscillator energy detector error (SYNC0).
b3 = Remote oscillator energy detector error (SYNC0).
b4 = Local oscillator energy detector error (SYNC1).
b5 = Remote oscillator energy detector error (SYNC1).
b6 = Local oscillator phase register error (CNTL).
b7 = Remote oscillator phase register error (CNTL).

d[3] = Oscillator ESR pests. A set bit means that an error of the noted type is pested. These errors are detected on the network clock oscillator circuit pack. Valid value(s):
b0 = Local oscillator energy detector.
b1 = Local oscillator frequency.
b2 = Local oscillator inner oven bit (loss of temperature stability on high stability oscillator).
b3 = Local oscillator outer oven bit (loss of temperature stability on high stability oscillator).
b4 = Remote oscillator energy detector.
b5 = Remote oscillator frequency.

e[3] = Source ESR pests. A set bit means that an error of the noted type is pested. These errors are detected on the network clock controller circuit pack. Valid value(s):
b0 = 8 Khz return signal frequency difference.
b1 = 8 Khz return signal jitter.

b2 = 8 Khz return signal energy detector.
b3 = Cross couple energy detector.
b4 = Cross couple frequency difference.

f[3] = Reference summary ESR pests. A set bit means that all errors on the corresponding reference are pested. For more information refer to the following fields. Valid value(s):
b0 = REF1 (refer to 'r[3]').
b1 = REF2 (refer to 'v[3]').
b2 = REF3 (refer to 'z[3]').
b3 = REF4 (refer to 'd[4]').
b4 = REF5 (refer to 'h[4]').
b5 = REF6 (refer to 'l[4]').
b6 = REF7 (refer to 'p[4]').
b7 = REF8 (refer to 't[4]').

g[3] = Pest invalid command. Refer to 'c[1]'.
00 = Unpested.
FF = Pested.

h[3] = Pest trace. You may not have the resources to interpret the data. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

i[3] = Time base offset calculation status. This byte indicates what action is taken on the time base offset for the local and remote side. Valid value(s):
b1,b2 = Local side.
b5,b6 = Remote side. Valid value(s):
0 = No action taken.
1 = Calculate.
2 = Load existing value from memory.

j[3]-m[3] = Value of the time base offset. This value is loaded into system memory to be used in the event that an initialization must be done without external references.

n[3] = Requests that internal reference counts be taken on a reference for specific errors.

o[3] = Specifies the type of reference count to be taken. Valid value(s):
b0 = Out of frame count.
b1 = CRC-6 count (U.S. Fe format only).
b6 = Clear OOF count for all references.
b7 = Clear OOF count for a specific reference.

p[3] = Order to run hardware diagnostics phases. You may not have the resources to interpret the data. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

q[3] = Reference 1 configuration.

r[3] = Reference 1 ESR pests.

s^3 = Reference 1 coefficient.

t^3 = Reference 1 data.

u^3 = Reference 2 configuration.

v^3 = Reference 2 ESR pests.

w^3 = Reference 2 coefficient.

x^3 = Reference 2 data.

y^3 = Reference 3 configuration.

z^3 = Reference 3 ESR pests.

a^4 = Reference 3 coefficient.

b^4 = Reference 3 data.

c^4 = Reference 4 configuration.

d^4 = Reference 4 ESR pests.

e^4 = Reference 4 coefficient.

f^4 = Reference 4 data.

g^4 = Reference 5 configuration.

h^4 = Reference 5 ESR pests.

i^4 = Reference 5 coefficient.

j^4 = Reference 5 data.

k^4 = Reference 6 configuration.

l^4 = Reference 6 ESR pests.

m^4 = Reference 6 coefficient.

n^4 = Reference 6 data.

o^4 = Reference 7 configuration.

p^4 = Reference 7 ESR pests.

q^4 = Reference 7 coefficient.

r^4 = Reference 7 data.

s^4 = Reference 8 configuration. Gives configuration data for each reference.

b0 = Equipage state. Valid value(s):

0 = Unequipped reference.

1 = Equipped reference.

b1 = Reference type. Valid value(s):
- 0 = Digital reference.
- 1 = Analog reference.

b2-b5 = Reference format. Valid value(s):
- 0 = Foreign AMI/U.S. D4 no zero code suppression (ZCS).
- 2 = Foreign HDB3/U.S. D$ with B8ZC format.
- 4 = U.S. D4 with ZCS.
- 8 = U.S. FE no ZCS.
- a = U.S. FE B8ZS.
- c = U.S. FE with ZCS.

b6 = Service status. Valid value(s):
- 0 = Out of service.
- 1 = In service.

t^4 = Reference 8 ESR pests. Individual reference error source registers (ESRs) pests. A set bit in the field means that an error of this type is pested on this reference.
- b0 = Out of range of allowed frequency.
- b1 = Phase step.
- b2 = Excess jitter on the reference.
- b3 = Local alarm (loss of reference).
- b4 = Low error rate threshold.
- b5 = High error rate threshold.
- b6 = Low out of frame threshold.
- b7 = High out of frame threshold.

u^4 = Reference 8 coefficient.

Used to provide the "reference priority". In master/slave synchronization this means that the order of preference from 1 to 'n' (with 'n' the number of equipped references) should be in the appropriate reference coefficient. The most preferred reference should be '1' and the least preferred should be 'n'. Automatic actions will switch from reference '1' to reference '2' on detection of errors, and so on through all equipped references.

In mutual synchronization this value is a weighting parameter, where the larger the value, the more a reference is taken into consideration when calculating a phase to lock to.

v^4 = Reference 8 data. Used in double-ended mutual synchronization only. No meaning for master/slave or single-ended mutual synchronization schemes.

w^4,x^4 = Phase buildout value (upper and lower bytes, respectively). Used to quickly lock the active major side to the external reference. Can be loaded as a desired value for testing. You may not have the resources to interpret the data. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

y^4,z^4 = Digital/analog converter (DAC) value (upper and lower bytes, respectively). Used to give an analog value to run the voltage-controlled oscillator. You may not have the resources to interpret the data. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

a[5] = Data written to test communications from FPC to NC. Should have the inverted value from field 'w'.

b[5] = Phase detector stage. You may not have the resources to interpret the data. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

c[5] = Not used.

d[5] = Local time base offset (TBO) bits 24 through 31.

e[5] = Local TBO, bits 16 through 23.

f[5] = Local TBO, bits 8 through 15.

g[5] = Local TBO, bits 0 through 7.

h[5] = Remote TBO, bits 24 through 31.

i[5] = Remote TBO, bits 16 through 23.

j[5] = Remote TBO, bits 8 through 15.

k[5] = Remote TBO, bits 0 through 7.

l[5] = Oscillator year value.

m[5] = Oscillator day value, bits 8 through 15.

n[5] = Oscillator day value, bits 0 through 7.

o[5] = Oscillator hour value.

p[5] = Oscillator minute value.

q[5] = Network clock type. Valid value(s):
0 = 24-channel (T1 trunk) synchronization
1 = 30-channel synchronization
2 = Stand alone clock

r[5] = Oscillator type. Valid value(s):
0 = Foreign high stability oscillator.
1 = Foreign low stability oscillator.
2 = Stratum 2 (U.S. high stability).
3 = Stratum 3 (U.S. medium stability).

4. ACTION TO BE TAKEN

When an error condition triggers this message, a REPT:NC output message related to the error type specified by the variable 'c' prints to the receive-only printer (ROP). Consult the appropriate REPT:NC error message and the explanation for the dumped registers for additional information. The dump can be used along with the information gained from diagnostics (DGN:NC) to analyze the problems in the network clock hardware.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:NC
DUMP:NC
```

Output Message(s):

```
REPT:NC
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:OMDB-X-REF
APP:TLP-NOTE
```

Other Manual(s):
235-105-250 *System Recovery*

DUMP:PID

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DUMP PID a ADDR b [OFF c] COMPLETED  #g
        ADDRESS (HEX):  CONTENTS OF MEMORY (HEX):
            d                   e

[2]   ____________________________________________________________________
      DUMP PID a ADDR b [OFF c] f #g
```

2. REASON FOR OUTPUT

To report the result of executing the DUMP:PID input message to dump out the contents of an address or address range in main memory.

3. VARIABLE FIELD DEFINITIONS

`a` = Process ID of the target process.

`b` = Virtual address specified in input message.

`c` = Offset(s) used on input message line.

`d` = Address label for line of data.

`e` = Data as dumped from memory.

`f` = Termination status. Valid value(s):
`NOT STARTED NGPID` = The DUMP was stopped because the specified process does not exist.
`STOPPED NGADDR` = The DUMP was stopped because the address specified is not valid for the process; or invalid address values were encountered in the address chain, if offsets were specified.

`g` = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If '`f`' is `NOT STARTED NGPID`, the process did not exist at the time the DUMP was attempted. If this happens repeatedly with the process IDs used because the process has a short lifetime, consider using the process utility identification (UID) instead of process identification (PID).

If '`f`' is `STOPPED NGADDR`, recheck the program listings. If offsets were specified, try breaking the chain into several parts and printing the intermediate addresses. Another possibility is to define a breakpoint for that process and use the DUMP message in the action list.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	494, 514

Input Message(s):

```
DUMP:ADDR
DUMP:PID
DUMP:UID
OP:ST-PROC
WHEN:PID
WHEN:UID
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

DUMP:PMEM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DUMP PMEM a COMPLETED #d
        ADDRESS (HEX):   CONTENTS OF MEMORY (HEX):
                b                       c

[2]   ____________________________________________________________________
      DUMP PMEM a STOPPED NGADDR #d
```

2. REASON FOR OUTPUT

To report the result of executing the DUMP:PMEM input message to dump out the contents of a physical address or address range in main memory.

3. VARIABLE FIELD DEFINITIONS

a = Physical address specified in input message.

b = Address label for line of data.

c = Data as dumped from memory.

d = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If Format 2 is printed, verify that the desired address is correct.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
All	494, 514

Input Message(s):

DUMP:PMEM

Output Appendix(es):

APP:OMDB-X-REF

DUMP:REG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DUMP REG a COMPLETED #g
        REGISTER:     CONTENTs>
           b             c

[2]   ____________________________________________________________________
      DUMP REG a OFF d COMPLETED #g
        ADDRESS (HEX):  CONTENTS OF MEMORY (HEX):
           e                 f

[3]   ____________________________________________________________________
      DUMP REG a OFF d STOPPED NGADDR #g

[4]   ____________________________________________________________________
      DUMP REG a
        DUMP INV REG/UVAR VALUE
```

2. REASON FOR OUTPUT

To report the result of executing a DUMP:REG input message to dump the contents of a register or area of main memory.

Format 3 indicates an error was encountered in the indirection addressing chain.

Format 4 indicates that this action-list has been aborted. The register or UVAR name is invalid. Refer to the WHEN:RUTIL input message for valid register or UVAR names.

3. VARIABLE FIELD DEFINITIONS

a = Name of register to be dumped.

b = Name of register for line of data.

c = Data dumped from register.

d = Offset(s) used in input message line.

e = Address label for line of data.

f = Data dumped from memory.

g = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If Format 3 is printed, recheck the program listings. Try printing the register contents and break the indirection chain

into several parts, printing the intermediate results.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	510

Input Message(s):

```
DUMP:REG
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

DUMP:RUTIL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
DUMP RUTIL ABT
  LENGTH a INVALID
  DUMP RUTIL ABT
  MKNOD() FAILURE b
  DUMP RUTIL ABT
  OPEN() FAILURE b
  DUMP RUTIL ABT
  READ() FAILURE c (ERRNO = b)
  DUMP RUTIL STARTED
  RNA H' ddd
  ADDRESS CONTENTS
  eeeeeeee: ffffffff ffffffff ffffffff ... ffffffff
  :
  :
  :
  eeeeeeee: ffffffff ffffffff ffffffff ... ffffffff
  DUMP RUTIL INPROG
  RNA H' ddd
  ADDRESS CONTENTS
  eeeeeeee: ffffffff ffffffff ffffffff ... ffffffff
  :
  :
  :
  eeeeeeee: ffffffff ffffffff ffffffff ... ffffffff
  DUMP RUTIL COMPL
```

2. REASON FOR OUTPUT

Formats 1, 2, 3, and 4 indicate error conditions. Formats 5, 6, and 7 indicate successful DUMP:RUTIL outputs.

3. VARIABLE FIELD DEFINITIONS

a	= Invalid length provided by user.
b	= Value of the global variable 'errno'.
c	= Return code from the ring generic access package (RGRASP) kernel.
d	= Node identifier of the concerned common network interface (CNI) ring node.
e	= Address in hexadecimal of data being dumped.
f	= Contents in hexadecimal of data being dumped.

4. ACTION TO BE TAKEN

For error conditions, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:RUTIL
ALW:RUTILFLAG
CLR:RUTIL
CLR:RUTILFLAG
DUMP:RUTIL
INH:RUTIL
INH:RUTILFLAG
LOAD:RUTIL
OP:RUTIL
OP:RUTILFLAG
WHEN:RUTIL
```

Output Message(s):

```
ALW:RUTIL
ALW:RUTILFLAG
CLR:RUTIL
CLR:RUTILFLAG
INH:RUTIL
INH:RUTILFLAG
LOAD:RUTIL
OP:RUTIL
OP:RUTILFLAG
REPT:RUTIL
WHEN:RUTIL
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DUMP:SMEAS

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

[1]
```
DUMP SMEAS COMPL
  a b
   .
   .
   .
```

[2]
```
DUMP SMEAS COMPL
  id=c-d
  sys=f
  a b
   .
   .
   .
```

[3]
```
DUMP SMEAS COMPL
  rpc=c-d
  a b
   .
   .
   .
  iun=c-d
  a b
   .
   .
   .
```

[4]
```
DUMP SMEAS COMPL
  channel=e
  a b
   .
   .
   .
```

[5]
```
DUMP SMEAS COMPL
  linkset=g
   a b
    .
    .
    .
```

[6]

```
        DUMP SMEAS COMPL
          cluster=h
           a b
            .
            .
            .

[7]     ____________________________________________________________________
        DUMP SMEAS COMPL
          NO MEASUREMENT INFORMATION WAS GENERATED

[8]     ____________________________________________________________________
        DUMP SMEAS ABT
          i

[9]     ____________________________________________________________________
        DUMP SMEAS COMPL
          Periodic Data Collection in Progress. Request denied.
```

2. REASON FOR OUTPUT

To print the values of the specified measurements from a history file in response to the input message DUMP:SMEAS. The first six formats correspond to no option, the signaling link (SLK) option, the NODE option, the channel (CHN) option, the linkset (LS) option, and the CLUSTER option respectively. Non-zero measurement data is not output. Any option having zero measurement counts are not output.

Format 7 is output if no non-zero measurements are encountered.

Format 8 prints in response to invalid input.

Format 9 prints when the dump is requested when the LPM data is being updated. Retry the input message later.

3. VARIABLE FIELD DEFINITIONS

a = Name of measurement specified.

b = Measurement value.

c = Ring node (RN) group number.

d = Member number.

e = Channel number.

f = Type of node 6 (CCS6) or 7 (CCS7).

g = Link set number.

h = Cluster number.

i = Valid value(s):

```
Measurement ID j is duplicated in the view.
Cannot specify IDS j and j in the same view.
Must provide SLK number.
Must provide cluster number.
```

```
Must provide LS number.
Must provide CHN number.
Must provide node number.
```

`j` = Measurement ID. For a complete listing can be found in the Recent Change Attribute Definitions manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:SMEAS
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Feature*
235-118-254 *Recent Change Reference*

DUMP:SMMAP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
DUMP SMMAP SM=a

  MSG b of c
  IMAGE      TYPE        START ADDR  END ADDR    STATUS
  ----------------------------------------------------
  d          e           f           g           h
  .          .           .           .           .
  .          .           .           .           .
  .          .           .           .           .
```

2. REASON FOR OUTPUT

To output the status and the start and end addresses of Office-Dependent Data (ODD) sections, Real Time Billing Memory (RTBM), Stand Alone Billing Memory (SABM), and peripheral images in a Switching Module's (SM's) memory.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Message number sequence for this message.

`c` = Total number of messages to be outputted.

`d` = Image name, if memory section is a peripheral image, blank otherwise.

`e` = Type of image indicating the contents of the memory section.

`f` = Start address of memory section in hexadecimal.

`g` = End address of memory section in hexadecimal.

`h` = The status of the memory section for the image. Valid value(s):

- `EMPTY` = The peripheral image has been allocated but not yet pumped.
- `LOCKED` = The peripheral image is locked for use by a process.
- `NORMAL` = The peripheral image is pumped and not locked.
- `PUMPING` = The peripheral image is currently being pumped from administrative module (AM) disk.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:SMMAP
```

DUMP:TMS

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

[1]
```
_____________________________________________________________
DUMP TMS a ERROR SOURCE REGISTERS EVENTNO b
  PAGE c OF d
  CONTROLLER SHELF BOARDS
  eeffgg0000 eehhii0000 eejjkk0000 eellmmnn00 eellmmnn10

  ACTIVE AND SPECIAL GROW TMSLNK BOARDS
  eellmmnnop eellmmnnop eellmmnnop eellmmnnop eellmmnnop
                              .
                              .
                              .
  eellmmnnop eellmmnnop eellmmnnop eellmmnnop eellmmnnop
```

[2]
```
_____________________________________________________________
DUMP TMS=a ERROR SOURCE REGISTERS EVENT=b
  PAGE d OF d
  CONTROLLER SHELF BOARDS
  eeffgg0000 eehhii0000 eejjkk0000 eellmmnn00 eellmmnn10

  ACTIVE QLPS, QTMSLNK, AND COUNTERS
  eeqqrrsstu eevvwwxxyz eea1a1b1b1c1c1d1e1 eea1a1b1b1c1c1d1e1 eea1a1b1b1c1c1d1
e1
  eea1a1b1b1c1c1d1e1 eef1f1f1f1f1f1f1f1 eeg1g1g1g1g1g1g1g1 eeh1h1h1h1h1h1h1h1.
..
  ...eei1i1i1i1i1i1i1i1
  eej1j1j1j1j1j1j1j1 eek1k1k1k1k1k1k1k1 eel1l1l1l1l1l1l1l1 0000000000 00000000
00
  eeqqrrsstu eevvwwxxyz eea1a1b1b1c1c1d1e1 eea1a1b1b1c1c1d1e1 eea1a1b1b1c1c1d1
e1
  eea1a1b1b1c1c1d1e1 eef1f1f1f1f1f1f1f1 eeg1g1g1g1g1g1g1g1 eeh1h1h1h1h1h1h1h1.
..
  ...eei1i1i1i1i1i1i1i1
  eej1j1j1j1j1j1j1j1 eek1k1k1k1k1k1k1k1 eel1l1l1l1l1l1l1l1 0000000000 00000000
00
```

2. REASON FOR OUTPUT

To read the contents of time multiplexed switch (TMS) error source registers (ESR) in response to a DUMP-TMS input message.

Format 1 dumps the `CONTROLLER SHELF BOARDS` (always 5 messages), and the `ACTIVE AND SPECIAL GROW TMSLNK BOARDS` (up to 40 messages per page). There may be several pages with this format depending on the number of SMs in the office.

Format 2 dumps the `CONTROLLER SHELF BOARDS` (always 5 messages), and the `ACTIVE QLPS, QTMSLNK, AND COUNTERS` (always 30 messages). This is always the last page in the dump.

3. VARIABLE FIELD DEFINITIONS

`a` = Unit side.

`b` = Event number.

`c` = Page number.

`d` = Total number of pages in report.

`e` = Opcode. Valid value(s):

- `db` = Read the TMS2 summary error report.
- `df` = Read the control error source register.
- `fb` = Read the switch unit error source register.
- `11` = Read the NCT link error source register.
- `49` = QLPS global summary ESR report. The first 3 lines of this part of the dump deals with QLPS network 0, the last three lines are for QLPS network 1.
- `4d` = QLPS Rx Pfc/L2&ov/gateway ESR error report.
- `51` = QLPS receiver/transmitter link error report.
- `83` = Read the level 2 error counters for QLPS.

`f` = Low byte (bits 0-7) TMS2 summary error report.

7	6	5	4	3	2	1	0

- bit 0 = Microprocessor bus parity or sanity timeout error.
- bit 1 = Nonreadable controller error.
- bit 2 = Cross couple clock input (energy detect) error.
- bit 3 = Cross couple clock output (slip detect) error.
- bit 4 = Clock input (energy detect) error (network clock reference).
- bit 5 = Clock output (slip detect) error (network clock reference).
- bit 6 = Odd switch unit MLI (message link interface) circuit error.
- bit 7 = Even switch unit MLI circuit error.

`g` = High byte (bits 8-15) TMS2 summary error report.

15	14	13	12	11	10	9	8

- bit 8 = Readable controller critical error.
- bit 9 = Even switch unit summary ESR error.
- bit 10 = Odd switch unit summary ESR error.
- bit 11 = One or more links reported as affected because fabric parity error propagation was found.
- bit 12 = QLPS critical error.
- bit 13 = Write fabric error.
- bit 14 = Invalid request error.
- bit 15 = Not used.

h = Low byte (bits 0-7) of the control error source register.

7	6	5	4	3	2	1	0

bit 0 = Micro bus parity error.
bit 1 = Sanity timer error.
bit 2 = Micro busy time out error.
bit 3 = TMS2 interface board bus parity error.
bit 4 = Not used.
bit 5 = Invalid opcode received from FPC.
bit 6 = Controller CIC parity error on parallel data from CIC.
bit 7 = Controller CIC BERR error indicating serial parity or CIC time out error.

i = High byte (bits 8-15) of the control error source register.

15	14	13	12	11	10	9	8

bit 8 = Invalid request received from the FPC.
bit 9 = Write fabric error during call processing routine.
bit 10 = Parity error detected on CDAL message from FPC.
bit 11 = Error detected on clock interface input reference multiplexer.
bit 12 = Energy detector error on NCLK reference input.
bit 13 = Slip error of clock output frequency with regards to NCLK reference input.
bit 14 = Energy error detector error on cross couple reference input.
bit 15 = Slip error of clock output frequency with regards to cross couple reference input.

j = Low byte (bits 0-7) of the switch unit error source register. This byte represents the even switch unit.

7	6	5	4	3	2	1	0

bit 0 = Shelf 0 summary error bit.
bit 1 = Shelf 2 summary error bit.
bit 2 = Shelf 4 summary error bit.
bit 3 = Shelf 6 summary error bit.
bit 4 = Shelf 8 summary error bit.
bit 5 = Shelf 10 summary error bit.
bit 6 = Shelf 12 summary error bit.
bit 7 = Shelf 14 summary error bit error.

k = High byte (bits 8-15) of the switch unit error source register. This byte represents the odd switch unit.

15	14	13	12	11	10	9	8

bit 8 = Shelf 1 summary error bit.
bit 9 = Shelf 3 summary error bit.

bit 10 = Shelf 5 summary error bit.
bit 11 = Shelf 7 summary error bit.
bit 12 = Shelf 9 summary error bit.
bit 13 = Shelf 11 summary error bit.
bit 14 = Shelf 13 summary error bit.
bit 15 = Shelf 15 summary error bit.

l = QLI summary error source register.

7	6	5	4	3	2	1	0

bit 0 = Bus error form CIC (timeout or serial data parity).
bit 1 = Bus parity error on parallel data from CIC.
bit 2 = QLT summary bit error.
bit 3 = Fabric control data parity error.
bit 4 = LIR 0 summary bit error.
bit 5 = LIR 1 summary bit error.
bit 6 = LIR 2 summary bit error.
bit 7 = LIR 3 summary bit error.

m = QLT summary error source register.

7	6	5	4	3	2	1	0

bit 0 = Link 0 fabric data parity error.
bit 1 = Link 1 fabric data parity error.
bit 2 = Link 2 fabric data parity error.
bit 3 = Link 3 fabric data parity error.
bit 4 = Time slot parity error.
bit 5 = Not used.
bit 6 = Not used.
bit 7 = Not used.

n = QLI LIR error source register.

7	6	5	4	3	2	1	0

bit 0 = Out of frame error.
bit 1 = Parity threshold error.
bit 2 = Buffer error (F of G bit error).
bit 3 = AUTISS bit detected.
bit 4 = F bit error detected.
bit 5 = G bit error detected.
bits 6 and 7 = LIR ID (0 to 3).

o = Shelf ID (0 to 15).

p = Board ID (0 to 7). On shelf 0 and 1, board 0 is the MLI.

q = QLPS summary ESR.

```
-----------------------------------------------------------------
|  7   |   6   |   5   |   4   |   3  |    2   |   1   |   0  |
-----------------------------------------------------------------
```

bit 0 = Bus error form CIC (timeout or serial data parity).
bit 1 = Bus parity error on parallel data from CIC.
bit 2 = Global ESR summary bit.
bit 3 = Circuit ESR summary bit.
bit 4 = Rx_0 gate array ESR summary bit.
bit 5 = Tx_0 gate array ESR summary bit.
bit 6 = Rx_1 gate array ESR summary bit.
bit 7 = Tx_1 gate array ESR summary bit.

r = QLPS global ESR.

```
-----------------------------------------------------------------
|  7   |   6   |   5   |   4   |   3  |    2   |   1   |   0  |
-----------------------------------------------------------------
```

bit 0 = Tx FIFO controller detected bus parity error.
bit 1 = FIFO status RAM parity error detected by the TX FIFO pointer circuit.
bit 2 = Parity error detected on the routing RAM data read by the routing RAM controller.
bit 3 = Time slot channel map parity error.
bit 4 = QGP ESR summary error bit.
bit 5 = Rx pointer FIFO ESR 1 summary error bit.
bit 6 = Rx pointer FIFO ESR 2 summary error bit.
bit 7 = Level 2 and overload summary error bit.

s = QLPS circuit ESR.

```
-----------------------------------------------------------------
|  7   |   6   |   5   |   4   |   3  |    2   |   1   |   0  |
-----------------------------------------------------------------
```

bit 0 = Time slot parity error.
bit 1 = Fabric control parity error.
bit 2 = Link 0 fabric data parity error.
bit 3 = Link 1 fabric data parity error.
bit 4 = Link 2 fabric data parity error.
bit 5 = Link 3 fabric data parity error.
bit 6 = Not used.
bit 7 = Not used.

t = Shelf ID (0 to 15).

u = Board ID (0 to 7).

v = Rx pointer FIFO controller ESR1.

```
-----------------------------------------------------------------
|  7   |   6   |   5   |   4   |   3  |    2   |   1   |   0  |
-----------------------------------------------------------------
```

bit 0 = Lost Rx FIFO pointer.

bit 1 = Duplicated Rx FIFO pointer.
bit 2 = Rx pointer FIFO overrun.
bit 3 = Rx pointer FIFO underrun.
bit 4 = Shunt pointer parity.
bit 5 = Shunt pointer out-of-range.
bit 6 = Invalid load/init request.
bit 7 = FIFO full (not an error).

w = Rx pointer FIFO controller ESR2.

7	6	5	4	3	2	1	0

bit 0 = RX_0 pointer parity.
bit 1 = TX_0 return pointer parity.
bit 2 = RX_1 pointer parity.
bit 3 = TX_1 return pointer parity.
bit 4 = TX_0 return pointer out-of-range.
bit 5 = TX_1 return pointer out-of-range.
bit 6 = Not used.
bit 7 = Not used.

x = QGP ESR bits and L2&Ovl bits.

7	6	5	4	3	2	1	0

bit 0 = QGP link 0 parity error.
bit 1 = QGP link 1 parity error.
bit 2 = QGP link 2 parity error.
bit 3 = QGP link 3 parity error.
bit 4 = Unroutable packet.
bit 5 = Tx pointer FIFO overflow.
bit 6 = Not used.
bit 7 = Not used.

y = Shelf ID (0 to 15).

z = Board ID (0 to 7).

a^1 = Tx ESR.

7	6	5	4	3	2	1	0

bit 0 = Transmit channel status RAM parity error.
bit 1 = Transmitter long frame detected.
bit 2 = Transmit packet data RAM parity error.
bit 3 = Transmit pointer FIFO RAM parity error.
bit 4 = Transmit pointer out-of-range.
bit 5 = Transmit detected channel bus parity error.
bit 6 = RAM BIST flag.

bit 7 = Not used.

b[1] = Rx ESR1.

7	6	5	4	3	2	1	0

bit 0 = Rx pointer parity error.
bit 1 = Rx pointer out-of-range.
bit 2 = Channel status ERAM parity error.
bit 3 = Channel bus parity error.
bit 4 = Channel status LRAM parity error.
bit 5 = Early RAM BIST test failed.
bit 6 = Late RAM BIST test failed.
bit 7 = Parity RAM BIST test failed.

c[1] = Rx ESR2 and Rx L2 error.

7	6	5	4	3	2	1	0

bit 0 = CRC error.
bit 1 = Abort sequence detected.
bit 2 = Bad bit count.
bit 3 = Long receive frame.
bit 4 = Short receive frame.
bit 5 = Rx L2 error.
bit 6 and 7 = Link number (0 to 3).

d[1] = Shelf ID (0 to 15).

e[1] = Board ID (0 to 7).

f[1] = Rx link 0 level 2 error counter.

g[1] = Rx link 1 level 2 error counter.

h[1] = Rx link 2 level 2 error counter.

i[1] = Rx link 3 level 2 error counter.

j[1] = Unroutable packet error counter.

k[1] = Tx pointer FIFO overrun error counter.

l[1] = Rx pointer FIFO underrun error counter.

4. ACTION TO BE TAKEN

None. Output is in response to the TMS dump input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:TMS
```

MCC Display Page(s):

1221 - 1228 (TMS0)
1231 - 1238 (TMS1)

DUMP:TTY-ERROR

Software Release: 5E10 and later
Message Class: IOC
Application: 5
Type: Output

1. FORMAT

```
DUMP TTY ERROR:  [NUMBER=a]  [SUBSYSTEM=h]
  TYPE=b MSGID=c PARAM=d LENGTH=e PID=f
  'H' g
```

2. REASON FOR OUTPUT

To report an error in the output message or that an attempt to translate data for output was unsuccessful.

3. VARIABLE FIELD DEFINITIONS

a = Error number. Valid value(s):

612 = Alarm level used is illegal.

618 = The message identified by the MSGID is not in the output message database and therefore cannot be translated.

621 = Valid value(s):

If 'd' **=**	621 **=**
1	A string is non-NULL terminated. A "NULL" is inserted in the last byte of the corrupt field to complete the translation. The string of the printed message may be truncated.
Not 1	Retrieving a format line of a message failed. The message is not processed and is not printed.

622 = Valid value(s):

If 'd' **=**	622 **=**
1	An enumeration value in the output message is undefined. The message causing the error contains '?H'(xx)?' in the place where the undefined enumeration value is used, where (xx) is the undefined enumeration value.
Not 1	The message, when translated into printable format, exceeded the internal buffer size; therefore translation effort was abandoned.

625 = A field of type str4bit could not be translated.

If 'd' **=**	625 **=**
1	An invalid 4 bit combination was found and that set of bits is translated into a '$' in the output message.
2	The size of the field is too large and the field is not translated.

631 = The message class used is illegal. The number indicated for variable 'd' is the illegal message class.

641 = The translated message length exceeds the maximum size (992 characters) allowed. On Switching Control Center (SCC) terminals, the message causing the error is truncated. On other terminals, the message causing the error is unaffected. The number indicated for variable 'd' is the length in bytes of the translated message.

Variable 'a' is not printed if an internal error (such as, buffer allocation or file opening) or an output message database error occurs.

b = Type of the message causing the error. Valid value(s):

5 = Operating system for distributed switching (OSDS) type message of high priority

(IOCMDHP; alarmed or manual).

`6` = OSDS type message of base priority (IOCMDBP).

`119` = *UNIX*® type message of high priority (HMHITTY).

`120` = *UNIX*® type message of base priority (HMTTYMSG).

`c` = ID number of the message causing the error.

`d` = Parameter value. Valid value(s):

If '`a`' =	`d` **=**
622	If `PARAM=1`, '`d`' is an undefined enumeration value; otherwise message exceeds buffer size.
`625`	Valid value(s): `1` = A str4bit field had an invalid combination of 4 bits and this set of bits is translated to a '`$`. `2` = A str4bit field is too large and is not translated.
`641`	The length in bytes of the translated message.
`631`	The illegal message class being used.

`e` = Size in bytes of the inter-process message structure.

`f` = ID number of the process sending the message.

`g` = The content of the inter-process message in hex.

`h` = The abbreviation of a subsystem that owns the dumped message.

The `SUBSYSTEM=h` string is not printed if an internal error (such as, buffer allocation or file opening) or output message database error occurs.

4. ACTION TO BE TAKEN

This indicates a software problem. Retain the ROP output of this message and at least one preceding page to assist in resolving the problem. Refer to the TECHNCIAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

None.

DUMP:UID

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DUMP UID a ADDR b [OFF c] COMPLETED #g
        ADDRESS (HEX):      CONTENTS OF MEMORY (HEX):
              d                        e

[2]   ____________________________________________________________________
      DUMP UID a ADDR b [OFFc] f #g
```

2. REASON FOR OUTPUT

To report the result of executing the DUMP:UID input message to dump out the contents of an address or address range in main memory.

3. VARIABLE FIELD DEFINITIONS

`a` = Utility ID of the target process.

`b` = Virtual address specified in input message.

`c` = Offset(s) used on input message line.

`d` = Address label for line of data.

`e` = Data as dumped from memory.

`f` = Termination status. Valid value(s):
`NOT STARTED NGUID` = The DUMP was stopped because no copies of the specified process exist.
`STOPPED NGADDR` = The DUMP was stopped because the address specified is not valid for the process, or invalid address values were encountered in address chain, if offsets were specified.

`g` = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If '`f`' =	Action:
`NOT STARTED NGUID`	The process did not exist at the time the DUMP was attempted. If this happens repeatedly, a breakpoint could be defined and enabled for the process while no copies of the process exist. At the time a copy is created, the breakpoint would be planted in the enabled state.
`STOPPED NGADDR`	Recheck the program listings. If offsets were specified, try breaking the chain into several parts and printing the intermediate addresses. Another possibility is to define a breakpoint for that process and use the DUMP message in the action list.

5. ALARMS

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None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	514

Input Message(s):

```
DUMP:UID
WHEN:UID
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

DUMP:UT-CMP-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
DUMP UT CMP=a-b {MATE|PRIM} {ADDR c|GVAR d|REG e|UVAR f} [g] h
 [i]
```

2. REASON FOR OUTPUT

To report the status of the DUMP:UT-CMP input message which dumps the memory of a specified communication module processor (CMP).

3. VARIABLE FIELD DEFINITIONS

`MATE` = Message was executed on the standby CMP.

`PRIM` = Message was executed on the active CMP.

`a` = Message switch side.

`b` = CMP number.

`c` = Absolute physical address, as specified in the input message. Actual address may differ if indirection was specified.

`d` = Symbolic name of a global variable.

`e` = Register name that was requested in the input message.

`f` = Utility variable that was requested in the input message.

`g` = Output data in long word form when the length is defined to be less than four bytes, or the default length was indicated.

`h` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

`i` = Multiple lines of output data when the length was defined to be greater than four bytes. This data will be in a disassembled format if the disassembly (DIS) flag was set or defaulted to hexadecimal output.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
DUMP:UT-CMP
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):

235-105-110 System Maintenance Requirements and Tools

DUMP:UT-CMP-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]
DUMP UT CMP=a-b {MATE|PRIM} {ADDR c|REG e|UVAR f} [EA g] [h] i
 [j]

[2]
DUMP UT CMP=a-b {MATE|PRIM}  i
  SYMIDX k GVAR d [h]
 [j]
```

2. REASON FOR OUTPUT

To report the status of the DUMP:UT-CMP input message which dumps the memory of a specified communication module processor (CMP).

Format 1 reports the status of the DUMP:UT-CMP input message which has been defined with an address, a register or utility variable.

Format 2 reports the status of the DUMP:UT-CMP input message which has been defined with a symbolic access.

3. VARIABLE FIELD DEFINITIONS

`MATE` = Message was executed on the standby CMP.

`PRIM` = Message was executed on the active CMP.

`a` = Message switch side.

`b` = CMP number.

`c` = Absolute physical address, as specified in the input message. Actual address may differ if indirection was specified.

`d` = Symbolic name specified in the input message or determined by the UT code based on the symbol index number '`k`'. The symbol name is limited to 15 characters in length. If the symbol is longer than 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`e` = Register name that was requested in the input message.

`f` = Utility variable that was requested in the input message.

`g` = Effective starting address of dump.

`h` = Output data in long word form when the length is defined to be less than four bytes, or the default length was indicated.

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`i` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

`j` = Multiple lines of output data when the length was defined to be greater than four bytes. This data will be in a disassembled format if the disassembly (DIS) flag was set or defaulted to hexadecimal output.

`k` = Symbol index number of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`d`'. If an invalid input message is entered, the symbol index number will be "-1".

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-CMP
DUMP:UT-SYMID
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DUMP:UT-CMP-REGS

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
DUMP CMP=a-b {MATE|PRIM} REGS [d]
  D0=c    D1=c    D2=c    D3=c    D4=c
  D5=c    D6=c    D7=c    A0=c    A1=c
  A2=c    A3=c    A4=c    A5=c    A6=c
  A7=c    PC=c    SR=c
```

2. REASON FOR OUTPUT

To respond to the DUMP:UT-CMP input message which dumps the contents of the microprocessor registers of a specified communication module processor (CMP).

3. VARIABLE FIELD DEFINITIONS

`MATE` = Message was executed in the standby CMP.

`PRIM` = Message was executed in the active CMP.

`a` = Message switch side.

`b` = CMP number.

`c` = Contents of the register.

`d` = Termination report. Valid value(s):
`STOPPED - TABLE OVERFLOW` =The maximum number of utility commands that can be entered was exceeded. The command clause was not entered.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`DUMP:UT-CMP`

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DUMP:UT-CMPMSG-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
DUMP UT CMPMSG=a-b {ADDR c,|GVAR d,} e
 [f]
```

2. REASON FOR OUTPUT

To report the status of the DUMP:UT-CMPMSG input message to dump the memory or global variables in a specified communication module processor message handler (CMPMSG).

3. VARIABLE FIELD DEFINITIONS

a	= The side of the message switch.
b	= The number of the CMPMSG.
c	= Absolute physical address.
d	= Symbolic address of global variable.
e	= Termination status. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.
f	= Data as dumped from memory in hexadecimal format.

4. ACTION TO BE TAKEN

If appropriate, correct the specified message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-CMPMSG
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):

235-105-110 System Maintenance Requirements and Tools

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DUMP:UT-CMPMSG-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]
DUMP UT CMPMSG=a-b {ADDR c} [EA e] [f] g
 [h]

[2]
DUMP UT CMPMSG=a-b  g
  SYMIDX i GVAR d [f]
 [h]
```

2. REASON FOR OUTPUT

To report the status of the DUMP:UT-CMPMSG input message to dump the memory or global variables in a specified communication module processor message handler (CMPMSG).

Format 1 reports the status of the DUMP:UT-CMPMSG input message which has been defined with an address.

Format 2 reports the status of the DUMP:UT-CMPMSG input message which has been defined with a symbolic access.

3. VARIABLE FIELD DEFINITIONS

a = The side of the message switch.

b = The number of the CMPMSG.

c = Absolute physical address.

d = Symbolic name specified in the input message or determined by the UT code based on the symbol index number 'i'. The symbol name is limited to 15 characters in length. If the symbol is longer than 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '*' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

e = Effective starting address of dump.

f = Data as dumped from memory in hexadecimal format.

g = Termination status. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

h = Data that was requested. The data is multiple lines when the length was defined to be greater than four bytes. This data is in a disassembled format if the disassembly (DIS) flag was set on the input message, otherwise the output is hexadecimal.

i = Symbol index number of the specified symbol either specified in the input message or determined by the UT code based on the symbol name 'd'. If an invalid input message is entered, the symbol index number will be "-1".

4. ACTION TO BE TAKEN

If appropriate, correct the specified message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-CMPMSG
DUMP:UT-SYMID
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):

235-105-110 System Maintenance Requirements and Tools

DUMP:UT-DNUS-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
DUMP UT DNUS=a-b [MATE] {ADDR c|GVAR d|UVAR e} [f] g
 [h]
```

2. REASON FOR OUTPUT

To report the status of the DUMP:UT-DNUS input message to dump the memory of the digital networking unit - SONET (DNU-S) common controller (CC).

3. VARIABLE FIELD DEFINITIONS

`MATE` = Mate memory was dumped.

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Absolute physical address, as specified in the input message, with all specified offsets applied.

`d` = Symbolic name of global variable.

`e` = Utility variable name.

`f` = Output data of up to 4 bytes in hexadecimal.
Note: If output data is longer than 4 bytes, it will print at variable '`h`' instead of at variable '`f`'.

`g` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of this manual.

`h` = Data that was requested. The default is hexadecimal. However, the user may specify assembler in the input message.

4. ACTION TO BE TAKEN

If appropriate, correct the DUMP:UT-DNUS message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`DUMP:UT-DNUS`

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Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DUMP:UT-DNUS-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]
DUMP UT DNUS=a-b [MATE] {ADDR c|UVAR e} [EA i] [f] g
 [h]

[2]
DUMP UT DNUS=a-b [MATE] g
  SYMIDX j GVAR d [f]
 [h]
```

2. REASON FOR OUTPUT

To report the status of the DUMP:UT-DNUS input message to dump the memory of the digital networking unit - synchronous optical network (SONET) (DNU-S) common controller (CC).

Format 1 Reports the status of the DUMP:UT-DNUS input message which has been defined with an address or utility variable.

Format 2 Reports the status of the DUMP:UT-DNUS input message which has been defined with a symbolic access.

3. VARIABLE FIELD DEFINITIONS

`MATE` = Mate memory was dumped.

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Absolute physical address, as specified in the input message, with all specified offsets applied.

`d` = Symbolic name specified in the input message or determined by the UT code based on the symbol index number '`j`'. The symbol name is limited to 15 characters in length. If the symbol is longer than 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`e` = Utility variable name.

`f` = Output data of up to 4 bytes in hexadecimal.
Note: If output data is longer than 4 bytes, it will print at variable '`h`' instead of at variable '`f`'.

`g` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of this manual.

`h` = Data that was requested. The data is multiple lines when the length was defined to be greater

than four bytes. This data is in a disassembled format if the disassembly (DIS) flag was set on the input message, otherwise the output is hexadecimal.

`i` = Effective starting address of dump.

`j` = Symbol index number of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`d`'. If an invalid input message is entered, the symbol index number will be "-1".

4. ACTION TO BE TAKEN

If appropriate, correct the DUMP:UT-DNUS message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-DNUS
DUMP:UT-SYMID
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DUMP:UT-FPC-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
DUMP UT FPC a {ADDR b, | IO c, | GVAR d,} e
 [f]
```

2. REASON FOR OUTPUT

To report the status of the DUMP:UT-FPC input message to dump the memory, I/O register, or global variables in a specified foundation peripheral controller (FPC).

3. VARIABLE FIELD DEFINITIONS

a	= FPC unit number.
b	= Absolute physical address.
c	= I/O register number.
d	= Symbolic address of global variable.
e	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.
f	= Data in hexadecimal format as dumped from memory or an I/O register.

4. ACTION TO BE TAKEN

If appropriate, correct the specified message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

DUMP:UT-FPC

Output Appendix(es):

APP:UT-OM-REASON

Other Manual(s):

235-105-110 System Maintenance Requirements and Tools

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DUMP:UT-FPC-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DUMP UT FPC a  {ADDR b, | IO c,}  [EA g] [f] e
       [i]

[2]   ____________________________________________________________________
      DUMP UT FPC a  e
        SYMIDX h GVAR d [f]
```

2. REASON FOR OUTPUT

To report the status of the DUMP:UT-FPC input message to dump the memory, I/O register, or global variables in a specified foundation peripheral controller (FPC).

Format 1 reports the status of the DUMP:UT-FPC input message which has been defined with an address or I/O register.

Format 2 reports the status of the DUMP:UT-FPC input message which has been defined with a symbolic access.

3. VARIABLE FIELD DEFINITIONS

a = FPC unit number.

b = Absolute physical address.

c = I/O register number.

d = Symbolic name specified in the input message or determined by the UT code based on the symbol index number 'h'. The symbol name is limited to 15 characters in length. If the symbol is longer than 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '*' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

e = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

f = Data in hexadecimal format as dumped from memory or an I/O register.

g = Effective starting address.

h = Symbol index number of the specified symbol either specified in the input message or determined by the UT code based on the symbol name 'd'. If an invalid input message is entered, the symbol index number will be "-1".

i = Data that was requested. The data is multiple lines when the length was defined to be greater than four bytes. This data is in disassembled format if the disassembly (DIS) flag was set on the input message, otherwise the output is hexadecimal.

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4. ACTION TO BE TAKEN

If appropriate, correct the specified message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-FPC
DUMP:UT-SYMID
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DUMP:UT-IDCU-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
DUMP UT IDCU a b [MATE] {ADDR c|GVAR d|UVAR e} [f] g
 [h]
```

2. REASON FOR OUTPUT

To report the status of the DUMP:UT-IDCU input message to dump the memory of the integrated digital carrier unit (IDCU).

3. VARIABLE FIELD DEFINITIONS

`MATE` = Mate memory was dumped.

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = Absolute physical address, as specified in the input message, with all specified offsets applied.

`d` = Symbolic name of global variable.

`e` = Utility variable name.

`f` = Output data of up to 4 bytes, in hexadecimal.
Note: If output data is longer than 4 bytes, it will print at variable '`h`' instead of at variable '`f`'.

`g` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the DUMP:UT-IDCU message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`DUMP:UT-IDCU`

Output Appendix(es):

APP:UT-OM-REASON

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DUMP:UT-IDCU-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]    ____________________________________________________________________
       DUMP UT IDCU a b [MATE] {ADDR c|UVAR e} [EA f] [g] h
        [i]

[2]    ____________________________________________________________________
       DUMP UT IDCU a b [MATE]  h
         SYMIDX j GVAR d [g]
        [i]
```

2. REASON FOR OUTPUT

To report the status of the DUMP:UT-IDCU input message to dump the memory of the integrated digital carrier unit (IDCU).

Format 1 reports the status of the DUMP:UT-IDCU input message which has been defined with an address or utility variable.

Format 2 reports the status of the DUMP:UT-IDCU input message which has been defined with a symbolic access.

3. VARIABLE FIELD DEFINITIONS

`MATE` = Mate memory was dumped.

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = Absolute physical address, as specified in the input message, with all specified offsets applied.

`d` = Symbolic name specified in the input message or determined by the UT code based on the symbol index number '`j`'. The symbol name is limited to 15 characters in length. If the symbol is longer than 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`e` = Utility variable name.

`f` = Effective starting address.

`g` = Output data of up to 4 bytes, in hexadecimal.
Note: If output data is longer than 4 bytes, it will print at variable '`i`' instead of at variable '`g`'.

`h` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

`i` = Data that was requested. The data is multiple lines when the length was defined to be greater than four bytes. This data is in a disassembled format if disassembly (DIS) flag was set on the input message, otherwise the output is hexadecimal.

`j` = Symbol index number of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`d`'. If an invalid input message is entered, the symbol index number will be "-1".

4. ACTION TO BE TAKEN

If appropriate, correct the DUMP:UT-IDCU message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-IDCU
DUMP:UT-SYMID
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DUMP:UT-IDCULSI-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
DUMP UT IDCULSI a b c [MATE] {ADDR d|GVAR e|UVAR f} [g] h
 [i]
```

2. REASON FOR OUTPUT

To report the status of the DUMP:UT-IDCULSI input message to dump the memory of the integrated digital carrier unit (IDCU) loop side interface (LSI).

3. VARIABLE FIELD DEFINITIONS

`MATE` = Mate memory was dumped.

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = LSI number.

`d` = Absolute physical address, as specified in the input message, with all specified offsets applied.

`e` = Symbolic name of global variable.

`f` = Utility variable name.

`g` = Output data of up to 4 bytes, in hexadecimal.
Note: If output data is longer than 4 bytes, it will print at variable '`i`' instead of at variable '`g`'.

`h` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the DUMP:UT-IDCULSI message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`DUMP:UT-IDCULSI`

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Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DUMP:UT-IDCULSI-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]
DUMP UT IDCULSI a b c [MATE] {ADDR d|UVAR f} [EA g] [h] i
 [k]

[2]
DUMP UT IDCULSI a b c [MATE] i
  SYMIDX j GVAR e [h]
 [k]
```

2. REASON FOR OUTPUT

To report the status of the DUMP:UT-IDCULSI input message to dump the memory of the integrated digital carrier unit (IDCU) loop side interface (LSI).

Format 1 reports the status of the DUMP:UT-IDCULSI input message which has been defined with an address or utility variable.

Format 2 reports the status of the DUMP:UT-IDCULSI input message which has been defined with a symbolic access.

3. VARIABLE FIELD DEFINITIONS

`MATE` = Mate memory was dumped.

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = LSI number.

`d` = Absolute physical address, as specified in the input message, with all specified offsets applied.

`e` = Symbolic name specified in the input message or determined by the UT code based on the symbol index number '`j`'. The symbol name is limited to 15 characters in length. If the symbol is longer than 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`f` = Utility variable name.

`g` = Effective starting address.

`h` = Output data of up to 4 bytes, in hexadecimal.
Note: If output data is longer than 4 bytes, it will print at variable '`k`' instead of at variable '`h`'.

`i` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

`j` = Symbol index number of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`e`'. If an invalid input message is entered, the symbol index number will be "-1".

`k` = Data that was requested. The data is multiple lines when the length was defined to be greater than four bytes. This data is in a disassembled format if the disassembly (DIS) flag was set on the input message, otherwise the output is hexadecimal.

4. ACTION TO BE TAKEN

If appropriate, correct the DUMP:UT-IDCULSI message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-IDCULSI
DUMP:UT-SYMID
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DUMP:UT-ISLUCC-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
DUMP UT ISLUCC a b [MATE] {ADDR c|GVAR d|UVAR e} [f] g
 [h]
```

2. REASON FOR OUTPUT

To report the status of the DUMP:UT-ISLUCC input message to dump the memory of the integrated service line unit common controller (ISLUCC).

3. VARIABLE FIELD DEFINITIONS

`MATE` = Memory dumped in MATE memory.

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Absolute physical address, as specified in the input message, with all specified offsets applied.

`d` = Symbolic name of global variable.

`e` = Utility variable name.

`f` = Output data of up to 4 bytes, in hexadecimal.
Note: If output data is longer than 4 bytes, it will print at variable '`h`' instead of at variable '`f`'.

`g` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

`h` = Data that was requested. The default is hexadecimal. However, the user may specify assembler in the input message.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`DUMP:UT-ISLUCC`

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Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):

235-105-110 System Maintenance Requirements and Tools

DUMP:UT-ISLUCC-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]
DUMP UT ISLUCC a b [MATE] {ADDR c|UVAR e} [EA f] [g] h
 [i]

[2]
DUMP UT ISLUCC a b [MATE]  h
  SYMIDX j GVAR d [g]
 [i]
```

2. REASON FOR OUTPUT

To report the status of the DUMP:UT-ISLUCC input message to dump the memory of the integrated service line unit common controller (ISLUCC).

Format 1 reports the status of the DUMP:UT-ISLUCC input message which has been defined with an address or utility variable.

Format 2 reports the status of the DUMP:UT-ISLUCC input message which has been defined with a symbolic access.

3. VARIABLE FIELD DEFINITIONS

`MATE` = Memory dumped in MATE memory.

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Absolute physical address, as specified in the input message, with all specified offsets applied.

`d` = Symbolic name specified in the input message or determined by the UT code based on the symbol index number '`j`'. The symbol name is limited to 15 characters in length. If the symbol is longer than 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`e` = Utility variable name.

`f` = Effective starting address of dump.

`g` = Output data of up to 4 bytes, in hexadecimal.
Note: If output data is longer than 4 bytes, it will print at variable '`i`' instead of at variable '`g`'.

`h` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

`i` = Data that was requested. The data is multiple lines when the length was defined to be greater than four bytes. This data is in a disassembled format if the disassembly (DIS) flag was set on the input message, otherwise the output is hexadecimal.

`j` = Symbol index number of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`d`'. If an invalid input message is entered, the symbol index number will be "-1".

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-ISLUCC
DUMP:UT-SYMID
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):

235-105-110 System Maintenance Requirements and Tools

DUMP:UT-MCTSI-PI-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
DUMP UT MCTSI= a-b PI {ADDR c|GVAR d|REG e|UVAR f} [EA g] [h] i
 [j]
```

2. REASON FOR OUTPUT

To report the status of the DUMP:UT-MCTSI-PI input message to dump the memory of a specified packet interface (PI) unit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Side of the module controller/time-slot interchange (MCTSI).

`c` = Absolute physical address, as specified in the input message, with all specified offsets applied.

`d` = Symbolic name of global variable.

`e` = Register name.

`f` = Utility variable name.

`g` = Effective starting address of dump.

`h` = Output data of up to 4 bytes, in hexadecimal.
Note: If output data is longer than 4 bytes, it will print at variable '`j`' instead of at variable '`h`'.

`i` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

`j` = Data that was requested. The default is hexadecimal. However, the user may specify assembler in the input message.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
DUMP:UT-MCTSI-PI
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DUMP:UT-MCTSI-PI-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DUMP UT MCTSI= a-b PI {ADDR c|REG e|UVAR f} [EA g] [h] i
       [j]

[2]   ____________________________________________________________________
      DUMP UT MCTSI= a-b PI  i
        SYMIDX k GVAR d [h]
       [j]
```

2. REASON FOR OUTPUT

To report the status of the DUMP:UT-MCTSI-PI input message to dump the memory of a specified packet interface (PI) unit.

Format 1 reports the status of the DUMP:UT-MCTSI-PI input message which has been defined with an address, a register or utility variable.

Format 2 reports the status of the DUMP:UT-MCTSI-PI input message which has been defined with a symbolic access.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Side of the module controller/time-slot interchange (MCTSI).

`c` = Absolute physical address, as specified in the input message, with all specified offsets applied.

`d` = Symbolic name specified in the input message or determined by the UT code based on the symbol index number '`k`'. The symbol name is limited to 15 characters in length. If the symbol is longer than 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`e` = Register name.

`f` = Utility variable name.

`g` = Effective starting address of dump.

`h` = Output data of up to 4 bytes, in hexadecimal.
Note: If output data is longer than 4 bytes, it will print at variable '`j`' instead of at variable '`h`'.

`i` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

`j` = Data that was requested. The data is multiple lines when the length was defined to be greater than four bytes. This data is in a disassembled format if the disassembly (DIS) flag was set on the input message, otherwise the output is hexadecimal.

`k` = Symbol index number of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`d`'. If an invalid input message is entered, the symbol index number will be "-1".

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-MCTSI-PI
DUMP:UT-SYMID
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DUMP:UT-MMP-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
DUMP UT MMP=a-b {ADDR c|IO d|GVAR e} f
 [g]
```

2. REASON FOR OUTPUT

To report the status of the DUMP:UT-MMP input message to dump the memory, I/O register, or global variables in a specified module message processor (MMP).

3. VARIABLE FIELD DEFINITIONS

a	= Message switch side.
b	= MMP unit number.
c	= Absolute physical address.
d	= I/O register number.
e	= Symbolic address of global variable.
f	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.
g	= Data in hexadecimal format as dumped from memory or an I/O register.

4. ACTION TO BE TAKEN

If appropriate, correct the input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

DUMP:UT-MMP

Output Appendix(es):

APP:UT-OM-REASON

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DUMP:UT-MMP-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DUMP UT MMP=a-b {ADDR c|IO d} [EA f] [g] h
       [i]

[2]   ____________________________________________________________________
      DUMP UT MMP=a-b   h
        SYMIDX j GVAR e [g]
       [i]
```

2. REASON FOR OUTPUT

To report the status of the DUMP:UT-MMP input message to dump the memory, I/O register, or global variables in a specified module message processor (MMP).

Format 1 Reports the status of the DUMP:UT-MMP input message which has been defined with an address or an I/O register.

Format 2 Reports the status of the DUMP:UT-MMP input message which has been defined with a symbolic access.

3. VARIABLE FIELD DEFINITIONS

a = Message switch side.

b = MMP unit number.

c = Absolute physical address.

d = I/O register number.

e = Symbolic name specified in the input message or determined by the UT code based on the symbol index number 'j'. The symbol name is limited to 15 characters in length. If the symbol is longer than 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '*' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

f = Effective starting address of dump.

g = Data in hexadecimal format as dumped from memory or an I/O register.

h = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

i = Data that was requested. The data is multiple lines when the length was defined to be greater than four bytes. This data is in a disassembled format if the disassembly (DIS) flag was set on the input message, otherwise the output is hexadecimal.

j = Symbol index number of the specified symbol either specified in the input message or determined

by the UT code based on the symbol name 'e'. If an invalid input message is entered, the symbol index number will be "-1".

4. ACTION TO BE TAKEN

If appropriate, correct the input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-MMP
DUMP:UT-SYMID
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DUMP:UT-PPC-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
DUMP UT PPC a {ADDR b, | IO c, | GVAR d,} e
 [f]
```

2. REASON FOR OUTPUT

To report the status of the DUMP:UT-PPC input message to dump the memory, I/O register, or global variables in a specified pump peripheral controller (PPC).

3. VARIABLE FIELD DEFINITIONS

`a` = PPC unit number.

`b` = Absolute physical address.

`c` = I/O register number.

`d` = Symbolic address of global variable.

`e` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

`f` = Data as dumped from memory or an I/O register in hexadecimal format.

4. ACTION TO BE TAKEN

If appropriate, correct the specified message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`DUMP:UT-PPC`

Output Appendix(es):

`APP:UT-OM-REASON`

Other Manual(s):

235-105-110 System Maintenance Requirements and Tools

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DUMP:UT-PPC-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DUMP UT PPC a {ADDR b, | IO c,} [EA e] [f] g
       [h]

[2]   ____________________________________________________________________
      DUMP UT PPC a g
        SYMIDX i GVAR d [f]
       [h]
```

2. REASON FOR OUTPUT

To report the status of the DUMP:UT-PPC input message to dump the memory, I/O register, or global variables in a specified pump peripheral controller (PPC).

Format 1 reports the status of the DUMP:UT-PPC input message which has been defined with an address or an I/O register.

Format 2 reports the status of the DUMP:UT-PPC input message which has been defined with a symbolic access.

3. VARIABLE FIELD DEFINITIONS

`a` = PPC unit number.

`b` = Absolute physical address.

`c` = I/O register number.

`d` = Symbolic name specified in the input message or determined by the UT code based on the symbol index number '`i`'. The symbol name is limited to 15 characters in length. If the symbol is longer than 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`e` = Effective starting address of dump.

`f` = Data as dumped from memory or an I/O register in hexadecimal format.

`g` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

`h` = Data that was requested. The data is multiple lines when the length was defined to be greater than four bytes. This data is in a disassembled format if the disassembly (DIS) flag was set on the input message, otherwise the output is hexadecimal.

`i` = Symbol index number of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`d`'. If an invalid input message is entered, the symbol index number will be "-1".

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4. ACTION TO BE TAKEN

If appropriate, correct the specified message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-PPC
DUMP:UT-SYMID
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):

235-105-110 System Maintenance Requirements and Tools

DUMP:UT-PSUPH-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
DUMP UT PSUPH=a-b-c-d {ADDR e|GVAR f|REG g|UVAR h} [i] j
 [k]
```

2. REASON FOR OUTPUT

To report the status of the DUMP:UT-PSUPH input message which dumps the memory of a specified packet switch unit protocol handler (PSUPH).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number

`b` = Unit number.

`c` = Shelf number.

`d` = Slot number.

`e` = Absolute physical address, as specified in the input message. Actual address may differ if indirection was specified.

`f` = Symbolic name of a global variable (GVAR).

`g` = Register name that was requested in the input message.

`h` = Utility variable (UVAR) that was requested in the input message.

`i` = Output data in long word form when the length is defined to be less than four bytes, or the default length was indicated.

`j` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

`k` = Multiple lines of output data when the length was defined to be greater than four bytes. This data will be in a disassembled format if the disassembly (DIS) flag was set or defaulted to hexadecimal output.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
DUMP:UT-PSUPH
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-600-400 *Audits*

DUMP:UT-PSUPH-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]
DUMP UT PSUPH=a-b-c-d {ADDR e|REG g|UVAR h} [EA i] [j] k
 [l]

[2]
DUMP UT PSUPH=a-b-c-d  k
  SYMIDX m GVAR f [j]
 [l]
```

2. REASON FOR OUTPUT

To report the status of the DUMP:UT-PSUPH input message which dumps the memory of a specified packet switch unit protocol handler (PSUPH).

Format 1 reports the status of the DUMP:UT-PSUPH input message which has been defined with an address, a register or utility variable.

Format 2 reports the status of the DUMP:UT-PSUPH input message which has been defined with a symbolic access.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number

b = Unit number.

c = Shelf number.

d = Slot number.

e = Absolute physical address, as specified in the input message. Actual address may differ if indirection was specified.

f = Symbolic name specified in the input message or determined by the UT code based on the symbol index number 'm'. The symbol name is limited to 15 characters in length. If the symbol is longer than 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '*' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

g = Register name that was requested in the input message.

h = Utility variable (UVAR) that was requested in the input message.

i = Effective starting address of dump.

j = Output data in long word form when the length is defined to be less than four bytes, or the default length was indicated.

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`k` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

`l` = Multiple lines of output data when the length was defined to be greater than four bytes. This data will be in a disassembled format if the disassembly (DIS) flag was set or defaulted to hexadecimal output.

`m` = Symbol index number of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`f`'. If an invalid input message is entered, the symbol index number will be "-1".

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-PSUPH
DUMP:UT-SYMID
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-600-400 *Audits*

DUMP:UT-PSUPH-REG

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
DUMP UT PSUPH=a-b-c-d REGS [f]
  D0=e    D1=e    D2=e    D3=e    D4=e
  D5=e    D6=e    D7=e    A0=e    A1=e
  A2=e    A3=e    A4=e    A5=e    A6=e
  A7=e    PC=e    SR=e
```

2. REASON FOR OUTPUT

To report the status of the DUMP:UT-PSUPH input message which dumps the contents of the registers memory of a specified packet switch unit protocol handler (PSUPH).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number

`b` = Unit number.

`c` = Shelf number.

`d` = Slot number.

`e` = Contents of the register.

`f` = Termination report. Valid value(s):
`STOPPED - TABLE OVERFLOW` = The maximum number of utility commands that can be entered was exceeded. The command clause was not entered.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`DUMP:UT-PSUPH`

Output Appendix(es):

`APP:UT-OM-REASON`

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Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-600-400 *Audits*

DUMP:UT-QGP-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
DUMP UT QGP=a-b {AP|MSGH}{ADDR c,|GVAR d,} e
 [f]
```

2. REASON FOR OUTPUT

To report the status of the DUMP:UT-QGP input message to dump the memory or global variables in a specified quad-link gateway processor (QGP).

3. VARIABLE FIELD DEFINITIONS

`AP` = Message was executed in the QGP's application processor.

`MSGH` = Message was executed in the QGP's message handler processor.

`a` = Message switch (MSGS) side number.

`b` = QGP number.

`c` = Absolute physical address.

`d` = Symbolic address of global variable.

`e` = Termination status. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

`f` = Multiple lines of output data when the length was defined to be greater than four bytes. This data will be in a disassembled format if the disassembly (DIS) flag was set or defaulted to hexadecimal output.

4. ACTION TO BE TAKEN

If appropriate, correct the specified message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`DUMP:UT-QGP`

Output Appendix(es):

APP:UT-OM-REASON

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DUMP:UT-QGP-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DUMP UT QGP=a-b {AP|MSGH} {ADDR c,} [EA e] [f] g
       [h]

[2]   ____________________________________________________________________
      DUMP UT QGP=a-b {AP|MSGH}  g
        SYMIDX i GVAR d [f]
       [h]
```

2. REASON FOR OUTPUT

To report the status of the DUMP:UT-QGP input message to dump the memory or global variables in a specified quad-link gateway processor (QGP).

Format 1 reports the status of the DUMP:UT-QGP input message which has been defined with an address.

Format 2 reports the status of the DUMP:UT-QGP input message which has been defined with a symbolic access.

3. VARIABLE FIELD DEFINITIONS

`AP` = Message was executed in the QGP's application processor.

`MSGH` = Message was executed in the QGP's message handler processor.

`a` = Message switch (MSGS) side number.

`b` = QGP number.

`c` = Absolute physical address.

`d` = Symbolic name specified in the input message or determined by the UT code based on the symbol index number '`i`'. The symbol name is limited to 15 characters in length. If the symbol is longer than 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`e` = Effective starting address of dump.

`f` = Output data of up to 4 bytes, in hexadecimal.
Note: If output data is longer than 4 bytes, it will print at variable '`h`' instead of at variable '`f`'.

`g` = Termination status. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

`h` = Data that was requested. The data is multiple lines when the length was defined to be greater

than four bytes. This data is in a disassembled format if the disassembly (DIS) flag was set on the input message, otherwise the output is hexadecimal.

`i` = Symbol index number of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`d`'. If an invalid input message is entered, the symbol index number will be "-1".

4. ACTION TO BE TAKEN

If appropriate, correct the specified message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-QGP
DUMP:UT-SYMID
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DUMP:UT-SM-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
DUMP UT SM a [MATE] {ADDR b|GVAR c|REG d|UVAR e} [f] g
 [h]
```

2. REASON FOR OUTPUT

To report the status of the DUMP:UT-SM input message to dump the memory of a specified switching module (SM).

3. VARIABLE FIELD DEFINITIONS

`MATE` = The memory that was dumped to MATE memory.

`a` = Switching module number.

`b` = Absolute physical address, as specified in the input message, with all specified offset applied.

`c` = Symbolic name of global variable.

`d` = Register name.

`e` = Utility variable name.

`f` = Output data of up to 4 bytes, in hexadecimal.
Note: If output data is longer than 4 bytes, it will print at variable 'h' instead of at variable 'f'.

`g` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

`h` = Formatted or unformatted data that was requested. The default is hexadecimal. However, the user may specify assembler in the input message.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`DUMP:UT-SM`

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Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

DUMP:UT-SM-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DUMP UT SM a [MATE] {ADDR b|REG d|UVAR e} [EA f] [g] h
       [i]

[2]   ____________________________________________________________________
      DUMP UT SM a [MATE]  h
        SYMIDX j GVAR c [g]
       [i]
```

2. REASON FOR OUTPUT

To report the status of the DUMP:UT-SM input message to dump the memory of a specified switching module (SM).

Format 1 Reports the status of the DUMP:UT-SM input message which has been defined with an address, a register or utility variable.

Format 2 Reports the status of the DUMP:UT-SM input message which has been defined with a symbolic access.

3. VARIABLE FIELD DEFINITIONS

`MATE` = Mate memory was dumped.

`a` = Switching module number.

`b` = Absolute physical address, as specified in the input message, with all specified offset applied.

`c` = Symbolic name specified in the input message or determined by the UT code based on the symbol index number '`j`'. The symbol name is limited to 15 characters in length. If the symbol is longer than 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`d` = Register name.

`e` = Utility variable name.

`f` = Effective starting address of dump.

`g` = Output data of up to 4 bytes, in hexadecimal.
Note: If output data is longer than 4 bytes, it will print at variable '`i`' instead of at variable '`g`'.

`h` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

`i` = Data that was requested. The data is multiple lines when the length was defined to be greater

than four bytes. This data is in a disassembled format if the disassembly (DIS) flag was set on the input message, otherwise the output is hexadecimal.

`j` = Symbol index number of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`c`'. If an invalid input message is entered, the symbol index number will be "-1".

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-SM
DUMP:UT-SYMID
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

DUMP:UT-SM-REGS

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
DUMP SM=a REGS [c]
  D0=b    D1=b    D2=b    D3=b    D4=b
  D5=b    D6=b    D7=b    A0=b    A1=b
  A2=b    A3=b    A4=b    A5=b    A6=b
  A7=b    PC=b    SR=b
```

2. REASON FOR OUTPUT

To respond to the DUMP:UT-SM input message to dump the contents of the registers of a specified switching module (SM).

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = Contents of the register.

`c` = Termination report. Valid value(s):
`STOPPED - TABLE OVERFLOW` = The maximum number of utility commands that can be entered was exceeded. The command clause was not entered.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`DUMP:UT-SM`

Other Manual(s):
235-105-220 *Corrective Maintenance*

DUMP:UT-SYMINFO

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
DUMP UT SYMINFO [a] [b] c
  PATH d
  SYMINFO GVAR
  [e]     [f]
   .       .
   .       .
```

2. REASON FOR OUTPUT

To report the status of the DUMP:UT-SYMID input message which is used to dump symbol table information from a common object file format (COFF) file.

3. VARIABLE FIELD DEFINITIONS

`a` = Processor name and numbers. If no processor was provided on the input message line this field will print NOUNIT.

`b` = Processor qualifier information (that is, for a quad-link packet switch gateway processor this field maybe AP or MSGH). If the provided processor does not need a qualifier this field will be blank.

`c` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

`d` = Path from "root" on the AM disk to the COFF file being accessed by this input message. If no path was provided on the input message line and an error occurred prior to path determination the field will be blank.

`e` = Symbol index value(s) for its corresponding global variable name '`f`'. This can be a list of up to 40 symbol indices.

`f` = Global variable name(s) for its corresponding symbol index value '`e`'. This can be a list of up to 40 symbol names.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`DUMP:UT-SYMID`

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Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DUMP:UT-TMS

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
DUMP UT TMS=a ADDR 0 EA 0 [b]
 [c]
```

2. REASON FOR OUTPUT

To report the status of the LOAD:UT:TMS input message which is used to dump or load the memory of a specified time multiplex switch (TMS). Note that the input message was a LOAD, while the output is from a DUMP input message. This is due to the nature of the interface to the TMS.

3. VARIABLE FIELD DEFINITIONS

`a` = TMS number.

`b` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

`c` = Data that was requested.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`LOAD:UT-TMS`

Output Appendix(es):

`APP:UT-OM-REASON`

Other Manual(s):

235-105-110 System Maintenance Requirements and Tools

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DUMP:UT-TMUX-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
DUMP UT TMUX=a-b-c-d {ADDR e|GVAR f|UVAR g} [h] i
 [j]
```

2. REASON FOR OUTPUT

To report the status of the DUMP:UT-TMUX input message to dump the memory of the digital networking unit - synchronous optical network (SONET) (DNU-S) transmission multiplexer (TMUX).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = TMUX number.

`e` = Absolute physical address, as specified in the input message with all specified indirections and offsets applied.

`f` = Symbolic name of global variable.

`g` = Utility variable name.

`h` = Output data of up to 4 bytes in hexadecimal.
Note: If output data is longer than 4 bytes, it will print at variable '`i`' instead of at variable '`g`'.

`i` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

`j` = Data that was requested. The default is hexadecimal. However, the user may specify assembler in the input message.

4. ACTION TO BE TAKEN

If appropriate, correct the DUMP:UT-TMUX message and repeat.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
DUMP:UT-TMUX
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DUMP:UT-TMUX-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]
DUMP UT TMUX=a-b-c-d {ADDR e|UVAR g} [EA h] [i] j
 [k]

[2]
DUMP UT TMUX=a-b-c-d  j
  SYMIDX l GVAR f [i]
 [k]
```

2. REASON FOR OUTPUT

To report the status of the DUMP:UT-TMUX input message to dump the memory of the digital networking unit - synchronous optical network (SONET) (DNU-S) transmission multiplexer (TMUX).

Format 1 reports the status of the DUMP:UT-TMUX input message which has been defined with an address or utility variable.

Format 2 reports the status of the DUMP:UT-TMUX input message which has been defined with a symbolic access.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = DNU-S number.

c = Data group number.

d = TMUX number.

e = Absolute physical address, as specified in the input message with all specified indirections and offsets applied.

f = Symbolic name specified in the input message or determined by the UT code based on the symbol index number 'l'. The symbol name is limited to 15 characters in length. If the symbol is longer than 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '*' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

g = Utility variable name.

h = Effective starting address of dump.

i = Output data of up to 4 bytes in hexadecimal.
Note: If output data is longer than 4 bytes, it will print at variable 'k' instead of at variable 'i'.

`j` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

`k` = Data that was requested. The data is multiple lines when the length was defined to be greater than four bytes. This data is in a disassembled format if the disassembly (DIS) flag was set on the input message, otherwise the output is hexadecimal.

`l` = Symbol index number of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`f`'. If an invalid input message is entered, the symbol index number will be "-1".

4. ACTION TO BE TAKEN

If appropriate, correct the DUMP:UT-TMUX message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-TMUX
DUMP:UT-SYMID
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

DUMP:UVAR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      DUMP UVAR a COMPLETED #g
        UVAR:    CONTENTS:
          b          c

[2]   ____________________________________________________________________
      DUMP UVAR a OFF d COMPLETED #g
        ADDRESS (HEX):  CONTENTS OF MEMORY (HEX):
               e                  f

[3]   ____________________________________________________________________
      DUMP UVAR a STOPPED NGADDR #g
```

2. REASON FOR OUTPUT

To report the disposition of a DUMP:UVAR input message.

Format 3 indicates an error was encountered in the indirection addressing chain.

3. VARIABLE FIELD DEFINITIONS

a = Utility variable to be dumped.

b = Name of utility variable for line of data.

c = Data as dumped from utility variable.

d = Offset(s) used on input message line.

e = Address label for line of data.

f = Data dumped from memory.

g = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If Format 3 is printed, recheck the program listings. Try printing the utility variable contents and breaking the addressing chain into several parts, printing the intermediate results.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	511

Input Message(s):

```
DUMP:UVAR
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

DUMP:X

Software Release: 5E10 and later
Message Class: HM
Application: 5
Type: Output

1. FORMAT

```
DUMP X a...a a...a
```

2. REASON FOR OUTPUT

To respond to a manual request or an automatic DUMP requested from within a breakpoint.

3. VARIABLE FIELD DEFINITIONS

`a` = Hexadecimal dump of the requested data.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

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28. ELSE

ELSE:UT-CMP

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
ELSE UT CMP=a-b {MATE|PRIM} c
```

2. REASON FOR OUTPUT

To report error conditions in the communication module processor (CMP) in response to the ELSE:UT-CMP input message.

3. VARIABLE FIELD DEFINITIONS

MATE	= Message was executed in the standby CMP.
PRIM	= Message was executed in the active CMP.
a	= Message switch side.
b	= CMP number.
c	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ELSE:UT-CMP
IF:UT-CMP
```

Output Message(s):

```
IF:UT-CMP
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):

235-105-110 System Maintenance Requirements and Tools

ELSE:UT-MCTSI

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
ELSE UT MCTSI=a-b PI c
```

2. REASON FOR OUTPUT

This message reports error conditions in the packet interface (PI) in response to the ELSE:UT-PI input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number

`b` = Side of the module controller/time-slot interchange (MCTSI).

`c` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ELSE:UT-PI
WHEN:UT-PI
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements And Tools*
235-600-400 *Audits Manual*

ELSE:UT-MCTSI-PI

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
ELSE UT MCTSI=a-b PI c
```

2. REASON FOR OUTPUT

This message reports error conditions in the packet interface (PI) in response to the ELSE:UT-MCTSI-PI input message.

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number
b	= Side of the module controller/time-slot interchange (MCTSI).
c	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ELSE:UT-MCTSI-PI
WHEN:UT-MCTSI-PI
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements And Tools*
235-600-400 *Audits Manual*

ELSE:UT-PSUPH

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
ELSE UT PSUPH=a-b-c-d e
```

2. REASON FOR OUTPUT

To report error conditions in the packet switch unit protocol handler (PSUPH) in response to the ELSE:UT-PSUPH input message.

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number
b	= Unit number.
c	= Shelf number.
d	= Slot number.
e	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ELSE:UT-PSUPH
IF:UT-PSUPH
```

Output Message(s):

```
IF:UT-PSUPH
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):

235-105-110 System Maintenance Requirements and Tools
235-600-400 Audits

ELSE:UT-SM

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
ELSE UT SM a b
```

2. REASON FOR OUTPUT

To report error conditions in response to the ELSE:UT-SM input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ELSE:UT-SM
```

Output Message(s):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

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29. END

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END:UT-CMP

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
END UT CMP=a-b {MATE|PRIM} c
```

2. REASON FOR OUTPUT

To report error conditions in response to the END:UT-CMP input message in the communication module processor (CMP).

3. VARIABLE FIELD DEFINITIONS

`MATE`	= Message was executed in the standby CMP.
`PRIM`	= Message was executed in the active CMP.
`a`	= Message switch side.
`b`	= CMP number.
`c`	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
END:UT-CMP
```

Output Message(s):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

END:UT-MCTSI-PI

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
END UT MCTSI=a-b PI c
```

2. REASON FOR OUTPUT

This message reports error conditions in the packet interface (PI) in response to the END:UT-MCTSI-PI input message.

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number
b	= Side of the module controller/time-slot interchange (MCTSI).
c	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
END:UT-MCTSI-PI
WHEN:UT-MCTSI-PI
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements And Tools*
235-600-400 *Audits Manual*

END:UT-PSUPH

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
END UT PSUPH=a-b-c-d e
```

2. REASON FOR OUTPUT

To report error conditions in response to the END:UT-PSUPH input message in the packet switch unit protocol handler (PSUPH).

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number
b	= Unit number.
c	= Shelf number.
d	= Slot number.
e	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
END:UT-PSUPH
IF:UT-PSUPH
```

Output Message(s):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-600-400 *Audits Manual*

END:UT-SM

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
END UT SM a b
```

2. REASON FOR OUTPUT

To report error conditions in response to the END:UT-SM input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
END:UT-SM
```

Output Message(s):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

30. EX

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EX:ALIT

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX ALIT=a-b-c-d e

[2]   ____________________________________________________________________
      EX ALIT=a-b-c-d NOT STARTED f

[3]   ____________________________________________________________________
      EX ALIT=a-b-c-d STF PH g SEG h TEST i MM j
       [EXP k MASK l ACTL m]

[4]   ____________________________________________________________________
      EX ALIT=a-b-c-d SUSPENDED n[ PH o [SEG p]]

[5]   ____________________________________________________________________
      EX ALIT=a-b-c-d SUSPECTED FAULTY EQUIPMENT d1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL      TYPE  NOTE
         q       r [s]   t  u     v     [w]  x-y[-e1]   z    [a1]
        [.       .  .    .  .     .      .   . .  .     .     .]
        [.       .  .    .  .     .      .   . .  .     .     .]
        [.       .  .    .  .     .      .   . .  .     .     .]

[6]   ____________________________________________________________________
      EX ALIT=a-b-c-d b1 [c1]

[7]   ____________________________________________________________________
      EX ALIT=a-b-c-d PH g SEG h STMT f1 g1
       [EXP k MASK l ACTL m]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:ALIT input message to diagnose the automatic line insulation test (ALIT).

Format 1 indicates that the specified segments have been completed and all tests passed. It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the specified input message was invalid.

Format 3 indicates that a test has failed and specifies which test.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous input message may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble locating procedure (TLP) option was specified in the input message.

Format 6 indicates that the diagnostic execution has terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Metallic service unit (MSU) number.

c = Service group number.

d = MSU board number.

e = Loop result. Valid value(s):

ATP	= All test were performed and all passed.
CATP	= Some tests were not performed, but all that were passed.
STF	= Some tests failed.
NTR	= No tests run.

f = Reason the input message was rejected. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

g = Phase in which the failure occurred.

h = Segment in which the failure occurred.

i = Test number that failed.

j = Mismatch results for the specified test in hexadecimal.

k = Raw data expected result for the specified test in hexadecimal.

l = Raw data mask used to determine the test failure in hexadecimal.

m = Raw data actual result for the specified test in hexadecimal.

n = Result of previous input message. Valid value(s):

ATP	= The specified segment(s) were completed and all tests passed.
CATP	= Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
NTR	= No tests were run since the last completion message.
STF	= The diagnostic has completed and some tests failed.

o = Phase number in which execution is suspended.

p = Segment number in which execution is suspended.

q = Identification number of floor and aisle.

r = Module type, communication module (CM), SM, host switching module (HSM), remote switching module (RSM).

s = Module number.

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t = Cabinet type.

u = Cabinet number.

v = Replacement equipment code(s).

w = Equipment form(s). Equipment form represents minimal operating level of replacement equipment.

Example of CODE FORM contents.

```
CODE A[:B]...[:C] [-] D[:E]...[:F]
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code A).
C          = Additional compatible equipment code(s) (added as space permits)
D          = Current minimal approved operating level for equipment code A.
E          = Current minimal approved operating level for equipment code B.
F          = Current minimal approved operating level(s) for equipment code(s) C.
:          = Intra-field delimiter.
-          = Inter-field delimiter if necessary.
```

Codes A, B, and C may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms D, E, and F may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

x = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

y = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

z = Circuit type. Valid value(s):

----	= Equipment is part of the circuit under test.
HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the online member of a duplex pair. The online member must be removed, and the mate made online, before replacement is attempted.

a[1] = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

b[1] = Termination status. Valid value(s):

ABORTED	= The process was terminated (process not gracefully terminated).
NOT STARTED	= Action was not begun.
STOPPED	= Terminated before normal completion (process gracefully terminated).

c[1] = Termination reason. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

d[1] = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.

LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

e[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

f[1] = Statement number.

g[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1 no action is required.

For Format 2, determine the correct input message and reenter the diagnostic exercise request.

For Format 3, repair the faulty unit.

For Format 4,

If output includes:	Action:
SUSPENDED ATP PH o SEG p	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
SUSPENDED CATP PH o SEG p	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous input message.
SUSPENDED NTR PH o SEG p, and the RPT option was specified.	This message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
SUSPENDED STF PH o SEG p	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

For Formats 6 and 7, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

EX:ALIT

Output Appendix(es):

APP:MAINT-RESP

EX:ASC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EX ASC=a b

[2]   ____________________________________________________________
      EX ASC=a NOT STARTED c

[3]   ____________________________________________________________
      EX ASC=a STF PH d SEG e TEST f MM g
       [EXP h MASK i ACTL j]

[4]   ____________________________________________________________
      EX ASC=a SUSPENDED k[ PH l [SEG m]]

[5]   ____________________________________________________________
      EX ASC=a SUSPECTED FAULTY EQUIPMENT y RECORD
        AISLE   MODULE   CABINET CODE  FORM  EQL     TYPE  NOTE
          n      o [p]     q r    s     [t]  u-v[-z]   w    [x]
          .      .  .      . .    .      .   . .  .    .     .
          .      .  .      . .    .      .   . .  .    .     .
          .      .  .      . .    .      .   . .  .    .     .

[6]   ____________________________________________________________
      EX ASC=a a1 [b1]

[7]   ____________________________________________________________
      EX ASC=a PH d SEG e STMT c1 d1
       [EXP h MASK i ACTL j]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:ASC input message to exercise a remote switching module (RSM), optical remote switching module (ORM), or two-mile switching module (TRM) alarm and status circuit (ASC).

Format 1 indicates that the specified segments completed and all tests passed. It applies only when the RPT option is specified in the input message. Execution of the exercise will continue for the remaining iterations.

Format 2 indicates that an option specified in the input message was invalid.

Format 3 indicates which test failed.

Format 4 indicates execution of the exercise is suspended. The phase and segment in which the suspension occurs, and a summary of the results of the previous input message may also be printed.

Format 5 provides an ordered list of suspected faulty equipment. It applies only when the TLP option is specified in the input message.

Format 6 indicates execution of the exercise is terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Loop result. Valid value(s):
- ATP = All tests performed and passed.
- CATP = Some tests were skipped because supporting hardware was not available, but all tests which were run passed.
- STF = Some tests failed.
- NTP = No tests performed.

c = Reason the input message was rejected.

d = Phase in which the failure occurred.

e = Segment in which the failure occurred.

f = Test that failed.

g = Mismatch results for the specified test in hexadecimal.

h = Expected result for the specified test in hexadecimal.

i = Mask used to determine test failure in hexadecimal.

j = Actual result for the specified test in hexadecimal.

k = Type of suspension. Valid value(s):
- ATP = The specified segment(s) were completed and all tests were performed and passed.
- CATP = Some tests in the specified segment were skipped because supporting hardware was not available, but all tests which were run passed.
- STF = Some tests in the segment failed.
- NTP = No tests performed.

l = Phase where execution is suspended.

m = Segment where execution is suspended.

n = Aisle.

o = Module type.

p = Module number.

q = Cabinet type.

r = Cabinet number.

s = Replacement equipment code(s).

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t = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM contents:

```
CODE A[:B]...[:C] [-] D[:E]...[:F]
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code A).
C          = Additional compatible equipment code(s) (added as space permits)
D          = Current minimal approved operating level for equipment code A.
E          = Current minimal approved operating level for equipment code B.
F          = current minimal approved operating level(s) for equipment code(s) C.
:          = Intra-field delimiter.
-          = Inter-field delimiter if necessary.
```

Codes A, B, and C may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms D, E, and F may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

u = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

v = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

w = Circuit type. Valid value(s):

HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
____	= Equipment is part of the circuit under test.

x = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages.

y = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

z = Depth location in the bay in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

a[1] = Termination status. Valid value(s):

ABORTED	= The process was terminated (process not terminated gracefully).
NOT STARTED	= Action was not begun.
STOPPED	= Terminated before normal completion (process terminated gracefully).

b[1] = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages.

c[1] = Statement number.

d[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Formats 1, 6, and 7, no action is required.

For Format 2, determine the correct phase numbers and reenter the exercise request.

For Format 3, repair the faulty alarm status circuit.

For Format 4:

If output includes:	Action:
`EX ASC a SUSPENDED NTP`	Enter the first exercise input message for the purpose of manual troubleshooting.
`EX ASC a SUSPENDED ATP PH d SEG e`	The fault may have been repaired. Rerun the entire diagnostic.
`EX ASC a SUSPENDED CATP PH d SEG e`	This indicates a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the exercise request.
`EX ASC a SUSPENDED NTR PH d SEG e` and the RPT option was specified.	Normal completion of the exercise is indicated. Proceed to troubleshoot the circuit. If this message occurs when the RPT option was not specified, no tests were run. Determine the reason and reenter the exercise request.
`EX ASC a SUSPENDED STF PH d SEG e`	Analyze the test failure data. Repair the faulty circuit or enter another exercise request to continue troubleshooting.
`SUSPENDED x PH o`	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected faulty circuit packs one at a time. Rerun the exercise for each replaced circuit pack until the fault is repaired or the exercise results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`EX:ASC`

Output Appendix(es):

`APP:MAINT-RESP`

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

EX:BTSR

Software Release: 5E10 and later
Message Class: SMCONFG,SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX BTSR=a ATP

[2]   ____________________________________________________________________
      EX BTSR=a CATP

[3]   ____________________________________________________________________
      EX BTSR=a [SYNCH b, SEG c, STMT d]
       [PAUSE e, SEG f][PH g[SEG h[,i]] INVLD

[4]   ____________________________________________________________________
      EX BTSR=a NTR

[5]   ____________________________________________________________________
      EX BTSR=a STF PH j SEG k TEST l MM m
       [EXP n MASK o ACTL p]

[6]   ____________________________________________________________________
      EX BTSR=a SUSPENDED [q PH r SEG s]

[7]   ____________________________________________________________________
      EX BTSR=a SUSPECTED FAULTY EQUIPMENT e1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL        TYPE  NOTE
         t       u [v]   w  x     y     [z]  a1-b1[-f1]  c1    [d1]
        [.       .  .    .  .     .      .   .  .   .    .      .]
        [.       .  .    .  .     .      .   .  .   .    .      .]
        [.       .  .    .  .     .      .   .  .   .    .      .]

[8]   ____________________________________________________________________
      EX BTSR=a PH j SEG k STMT g1 h1
       [EXP n MASK o ACTL p]
```

2. REASON FOR OUTPUT

To provide information about a recent exercise on the bootstrapper board (BTSR), as requested by input message EX:BTSR.

Format 1 indicates that the specified segments have been completed and all tests passed. It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates a conditional all tests passed (CATP): the specified segments have been completed but some portion was skipped. It applies only when the RPT option was specified in the input message. All tests that were performed passed. Execution of the diagnostic will continue for the remaining iterations.

Format 3 indicates that the specified options in the input message referred to an invalid diagnostic phase.

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Format 4 indicates that the specified segments have been completed but no tests were performed. It applies only when the RPT option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 5 indicates that a test has failed and specifies which test.

Format 6 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and other diagnostic information, may also be specified.

Format 7 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble location procedure (TLP) option was specified in the input message.

Format 8 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Illegal synch phase number.

`c` = Synch segment number.

`d` = Synch statement number.

`e` = Illegal pause phase number.

`f` = Pause segment number.

`g` = Illegal phase to execute.

`h` = First segment to execute.

`i` = Last segment to execute.

`j` = Phase in which the failure occurred.

`k` = Segment in which the failure occurred.

`l` = Test number that failed.

`m` = Mismatch results for the specified test in hexadecimal.

`n` = Raw data expected result for the specified test in hexadecimal.

`o` = Raw data mask used to determine the test failure in hexadecimal.

`p` = Raw data actual result for the specified test in hexadecimal.

`q` = Result of previous input message. Valid value(s):

- `CATP` = Conditional all test passed. The specified phases were completed but some portion was skipped.
- `NTR` = No tests run since the last completion message.
- `STF` = The specified segment(s) has completed and some tests failed.
- `(blank)` = The system is suspended and is waiting for an input message. No phase ans segment (variables '`r`' and '`d`') are specified.

r = Phase number in which execution is suspended.

s = Segment number in which execution is suspended.

t = Identification number of floor and aisle.

u = Module type.

v = Module number.

w = Cabinet type.

x = Cabinet number.

y = Replacement equipment code(s).

z = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
A          = Current minimal accepted equipment code.
:          = Intra-field delimiter.
B          = Current production equipment code (substitutable equipment for code A).
C          = Additional compatible equipment code(s) (added as space permits)
-          = Inter-field delimiter if necessary.
D          = Current minimal approved operating level for equipment code A.
E          = Current minimal approved operating level for equipment code B.
F          = Current minimal approved operating level(s) for equipment code(s) C.
```

Codes A, B, and C may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable. Forms D, E, and F may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

a[1] = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

b[1] = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

c[1] = Circuit type. Valid value(s):

____ = Equipment is part of the circuit under test.

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

d[1] = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

e[1] = Text identifier showing order of record. Valid value(s):

FIRST = First record of continuing list.

LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

f[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

g[1] = Statement number.

h[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1 (ATP), no action is required.

For Format 2, the execution of the diagnostic for the specified phases was inhibited by a lack of resources. Idle the suspected resources and reenter the diagnostic exercise request.

For Format 3, determine the correct input message and reenter the diagnostic exercise request.

For Format 4, the execution of the diagnostic for the specified segments was inhibited by a lack of resources. Idle the suspected resources and reenter the diagnostic exercise request.

For Format 5, repair the faulty unit.

For Format 6:

If output includes:	Action:
only SUSPENDED NTR	Enter the first exercise input message for the purpose of manual troubleshooting.
SUSPENDED CATP PH r SEG s	This message indicates that a lack of resources for the previously specified phase inhibited the execution of some segments. Idle the suspected resources and reenter the previous input message.
SUSPENDED NTR PH r SEG s and the RPT option was specified	This message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no test were run. Determine the reason and reenter the diagnostic exercise request.
SUSPENDED STF PH r SEG s	analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	the specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 7, replace the suspected circuit packs one at a time. Return the diagnostic exercise for each replaced pack until the fault is repaired or the diagnostic results change.

For Format 8, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:BTSR
```

Output Appendix(es):

```
APP:TLP-NOTE
```

EX:CDFI

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EX CDFI=a-b-c d

[2]   ____________________________________________________________
      EX CDFI=a-b-c NOT STARTED e

[3]   ____________________________________________________________
      EX CDFI=a-b-c STF PH f SEG g TEST h MM i
       [EXP j  MASK   K   ACTL  l]

[4]   ____________________________________________________________
      EX CDFI=a-b-c SUSPENDED m[ PH n [SEG o]]

[5]   ____________________________________________________________
      EX CDFI=a-b-c SUSPECTED FAULTY EQUIPMENT c1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL      TYPE  NOTE
          p     q [r]   s [t]    u     [v]  w-x[-d1]   y    [z]
         [.     .  .    .  .     .      .   . .  .     .     .]
         [.     .  .    .  .     .      .   . .  .     .     .]
         [.     .  .    .  .     .      .   . .  .     .     .]

[6]   ____________________________________________________________
      EX CDFI = a-b-c a1 [b1]

[7]   ____________________________________________________________
      EX CDFI=a-b-c PH f SEG g STMT e1 f1
       [EXP j MASK k ACTL l]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:CDFI input message to exercise an inter-remote switching module (RSM) communication link digital facilities interface (CDFI) circuit.

Format 1 indicates that the specified segments completed and all tests passed. It applies only when the RPT option is specified in the input message. Execution of the exercise will continue for the remaining iterations.

Format 2 indicates that an option specified in the input message was invalid.

Format 3 indicates which test failed.

Format 4 indicates execution of the exercise is suspended. The phase and segment in which the suspension occurs, and a summary of the results of the previous message may also be printed.

Format 5 provides an ordered list of suspected faulty equipment. It applies only when the TLP option is specified in the input message.

Format 6 indicates execution of the exercise is terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line and trunk unit.

`c` = CDFI number.

`d` = Loop result. Valid value(s):

- `ATP` = All tests performed and passed.
- `CATP` = Some tests were skipped because supporting hardware was not available, but all tests which were run passed.
- `STF` = Some tests failed.
- `NTP` = No tests performed.

`e` = Reason the message was rejected.

`f` = Phase in which the failure occurred.

`g` = Segment in which the failure occurred.

`h` = Test that failed.

`i` = Mismatch results for the specified test in hexadecimal.

`j` = Expected result for the specified test in hexadecimal.

`k` = Mask used to determine test failure in hexadecimal.

`l` = Actual result for the specified test in hexadecimal.

`m` = Type of suspension. Valid value(s):

- `ATP` = The specified segment(s) were completed and all tests were performed and passed.
- `CATP` = Some tests in the specified segment were skipped because supporting hardware was not available, but all tests which were run passed.
- `NTP` = No tests performed since the last completion message.
- `STF` = Some tests in the segment failed.

`n` = Phase where execution is suspended.

`o` = Segment where execution is suspended.

`p` = Floor and aisle number.

`q` = Module type.

`r` = Module number.

`s` = Cabinet type.

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`t` = Cabinet number.

`u` = Replacement equipment code(s).

`v` = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Example of CODE FORM contents: `CODE A[:B]...[:C] [-] D[:E]...[:F]`

- `A` = Current minimal accepted equipment code.
- `:` = Intra-field delimiter.
- `B` = Current production equipment code (substitutable equipment for code A).
- `C` = Additional compatible equipment code(s) (added as space permits)
- `-` = Inter-field delimiter if necessary.
- `D` = Current minimal approved operating level for equipment code A.
- `E` = Current minimal approved operating level for equipment code B.
- `F` = Current minimal approved operating level(s) for equipment code(s) C.

Codes `A, B,` and `C` may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms `D, E,` and `F` may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

`w` = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

`x` = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

`y` = Circuit type. Valid value(s):

- `____` = Equipment is part of the circuit under test.
- `HPR` = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
- `ONL` = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

`z` = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages.

`a`[1] = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action had not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`b`[1] = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages.

`c`[1] = Text identifier showing order of record:

- `FIRST` = First record of continuing list.
- `LAST` = Last record of list.
- `NEXT` = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

d[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

e[1] = Statement number.

f[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, no action is required.

For Format 2, determine the correct phase numbers and reenter the exercise request.

For Format 3, repair the fault circuit.

For Format 4:

If output includes:	Action:
EX CDFI (a,b,c) SUSPENDED NTP	Enter the first exercise message for the purpose of manual troubleshooting.
EX CDFI (a,b,c) SUSPENDED ATP PH n SEG o	The fault may have been repaired. Rerun the entire diagnostic.
EX CDFI (a,b,c) SUSPENDED CATP PH n SEG o	This indicates a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected sources and reenter the exercise request.
EX CDFI (a,b,c) SUSPENDED NTR PH n SEG o and the RPT option was specified.	Normal completion of the exercise is indicated. Proceed to troubleshoot the circuit. If this message occurs when the RPT option was not specified, no tests were run. Determine the reason and reenter the exercise request.
EX CDFI (a,b,c) SUSPENDED STF PH n SEG o	Analyze the test failure data. Repair the faulty circuit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected faulty circuit packs one at a time. Rerun the exercise for each replaced circuit pack until the fault is repaired or the exercise results change.

For Formats 6 and 7, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

EX:CDFI

Output Appendix(es):

APP:MAINT-RESP

EX:CDI

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX CDI=a-b-c d

[2]   ____________________________________________________________________
      EX CDI=a-b-c NOT STARTED e

[3]   ____________________________________________________________________
      EX CDI=a-b-c STF PH f SEG g TEST h MM i
       [EXP j MASK k ACTL l]

[4]   ____________________________________________________________________
      EX CDI=a-b-c SUSPENDED m[ PH n [SEG o]]

[5]   ____________________________________________________________________
      EX CDI=a-b-c SUSPECTED FAULTY EQUIPMENT c1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL      TYPE  NOTE
         p       q [r]   s  t     u     [v]  w-x[-d1]   y    [z]
        [.       .  .    .  .     .      .   . .  .     .     .]
        [.       .  .    .  .     .      .   . .  .     .     .]
        [.       .  .    .  .     .      .   . .  .     .     .]

[6]   ____________________________________________________________________
      EX CDI=a-b-c a1 [b1]

[7]   ____________________________________________________________________
      EX CDI=a-b-c PH f SEG g STMT e1 f1
       [EXP j MASK k ACTL l]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:CDI input command to diagnose the control data interface (CDI).

Format 1 indicates that the specified segments have been completed and all tests passed. It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the specified input message was invalid.

Format 3 indicates that a test has failed and specifies which test.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous command may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble location procedure (TLP) option was specified in the input message.

Format 6 indicates that the diagnostic execution has terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Trunk unit number.

`c` = Service group number.

`d` = Loop result. Valid value(s):

`ATP`	= All test were performed and all passed.
`CATP`	= Some tests were not performed, but all that were passed.
`NTR`	= No tests run.
`STF`	= Some tests failed.

`e` = Reason the command was rejected.

`f` = Phase in which the failure occurred.

`g` = Segment in which the failure occurred.

`h` = Test number that failed.

`i` = Mismatch results for the specified test in hexadecimal.

`j` = Raw data expected result for the specified test in hexadecimal.

`k` = Raw data mask used to determine the test failure in hexadecimal.

`l` = Raw data actual result for the specified test in hexadecimal.

`m` = Result of previous command. Valid value(s):

`ATP`	= The specified segment(s) were completed and all tests passed.
`CATP`	= Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
`NTR`	= No tests were run since the last completion message.
`STF`	= The diagnostic has completed and some tests failed.

`n` = Phase number in which execution is suspended.

`o` = Segment number in which execution is suspended.

`p` = Identification number of floor and aisle.

`q` = Module type.

`r` = Module number.

`s` = Cabinet type.

`t` = Cabinet number.

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u = Replacement equipment code(s).

v = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Example of CODE FORM contents: `CODE A[:B]...[:C] [-] D[:E]...[:F]`

A	= Current minimal accepted equipment code.
:	= Intra-field delimiter.
B	= Current production equipment code (substitutable equipment for code A).
C	= Additional compatible equipment code(s) (added as space permits)
-	= Inter-field delimiter if necessary.
D	= Current minimal approved operating level for equipment code A.
E	= Current minimal approved operating level for equipment code B.
F	= Current minimal approved operating level(s) for equipment code(s) C.

Codes `A, B,` and `C` may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms `D, E,` and `F` may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

w = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

x = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

y = Circuit type. Valid value(s):

____	= Equipment is part of the circuit under test.
HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

z = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

a[1] = Termination status. Valid value(s):

ABORTED	= The process was terminated (process not gracefully terminated).
NOT STARTED	= Action was not begun.
STOPPED	= Terminated before normal completion (process gracefully terminated).

b[1] = Termination reason. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

c[1] = Text identifier showing order of record:

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

d[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the

implicated shelf.

e[1] = Statement number.

f[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, no action is required.

For Format 2, determine the correct input message and reenter the diagnostic exercise request.

For Format 3, repair the faulty unit.

For Format 4:

If output includes:	Action:
SUSPENDED NTR	Enter the first exercise command for the purpose of manual troubleshooting.
SUSPENDED ATP PH n SEG o	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
SUSPENDED CATP PH n SEG o	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous command.
SUSPENDED NTR PH n SEG o	Printed and the RPT option was specified, this message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
SUSPENDED STF PH n SEG o	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

For Formats 6 and 7, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

EX:CDI

Output Appendix(es):

APP:MAINT-RESP

EX:CMP

Software Release: 5E10 and later
Message Class: SM,MSGS
Application: 5
Type: Output

1. FORMAT

[1]
```
EX CMP=a-b c
```

[2]
```
EX CMP=a-b NOT STARTED d
```

[3]
```
EX CMP=a-b STF PH e SEG f TEST g MM h [EXP i MASK j ACTL k]
```

[4]
```
EX CMP=a-b SUSPENDED l [PH m [SEG n]]
```

[5]
```
EX CMP=a-b SUSPECTED FAULTY EQUIPMENT o RECORD

  AISLE  MODULE  CABINET CODE   FORM   EQL       TYPE NOTE
   p     q [r]   s   t   u        v   w-x        z   [a1]
   .     .  .    .   .   .        .   . .        .    .
   .     .  .    .   .   .        .   . .        .    .
   .     .  .    .   .   .        .   . .        .    .
```

[6]
```
EX CMP=a-b b1 [c1]
```

2. REASON FOR OUTPUT

To report the results of executing an EX:CMP input message to diagnose a communication module processor (CMP).

Format 1 indicates the completed segments and reports the overall result. It applies only when the repeat (RPT) option is specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the input message was invalid.

Format 3 indicates and specifies that a test failed.

Format 4 indicates that diagnostic execution is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous message, may also be specified.

Format 5 is printed when a test failed and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 6 indicates that the diagnostic execution has terminated.

Formats 1, 3, 4 and 5 belong to the SM message class, while Formats 2 and 6 belong to the MSGS message class.

3. VARIABLE FIELD DEFINITIONS

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a = Message switch side number.

b = CMP number.

c = Loop result. Valid value(s):
- ATP = All tests were performed and passed.
- CATP = Some tests were not performed, but all tests that were performed passed.
- NTR = No tests were performed.
- STF = Some test(s) failed.

d = Reason the message was rejected. Valid value(s):
- EXECUTE PHASE NOT DEFINED = The phase number containing the segments to be executed was invalid.
- PAUSE PHASE NOT DEFINED = The phase number at which suspension was desired was invalid.
- PREVIOUS EX IN PROGRESS = An earlier exercise message was still in progress; the rejected message is valid only if the diagnostic is suspended.

e = Number of the phase in which the failure occurred.

f = Number of the segment in which the failure occurred.

g = Number of the test that failed.

h = Mismatch results for the specified test, in hexadecimal.

i = Expected result for the specified test, in hexadecimal.

j = Mask used to determine test failure, in hexadecimal.

k = Actual result for the specified test, in hexadecimal.

l = Result of previous message. Valid value(s):
- ATP = The specified segment(s) were completed and all tests were performed and passed.
- CATP = Some tests in the specified segment(s) were not performed, but all tests that were performed passed.
- NTR = No tests were performed since the last completion message.
- REQUEST NOT ALLOWED = The invert or transfer input message was invalid.
- STF = The specified segment(s) were completed, and some test(s) failed.

m = Phase number where execution was suspended.

n = Segment number where execution was suspended.

o = Text identifier showing order of TLP record. Valid value(s):
- FIRST = First record of continuing list.
- LAST = Last record of list.
- NEXT = Next record of continuing list.

A maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of one to four entries. Each record will have a new header.

p = Identification number of floor and aisle.

q = Module type. Valid value(s):

CM	= Communication module.
HSM	= Host switching module.
RSM	= Remote switching module.
SM	= Switching module.

r = Module number.

s = Cabinet type. Valid value(s):

CM2	= Communication module 2 cabinet.
M	= Miscellaneous cabinet.
MSG	= Message switch cabinet.
SMC	= Switching module controller cabinet.
TMS	= Time multiplexed switch cabinet.

t = Cabinet number.

u = Replacement equipment code(s).

v = Equipment form(s). Equipment form represents the minimal operating level of replacement equipment. Example of CODE FORM content: `CODE FORM A[:B]...[:C] [-] D[:E]...[:F]`

A	= Current minimal accepted equipment code.
:	= Intra-field delimiter.
B	= Current production equipment code (substitutable equipment for code A).
C	= Additional compatible equipment code(s) (added as space permits)
-	= Inter-field delimiter.
D	= Current minimal approved operating level for equipment code A.
E	= Current minimal approved operating level for equipment code B.
F	= Current minimal approved operating level(s) for equipment code(s) C.

Codes `A, B,` and `C` may independently represent apparatus code(s), microcode identifier(s) or text identifier(s), as applicable.

Forms `D, E,` and `F` may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s), as applicable.

w = Vertical location in the cabinet, in inches above the floor to the center of the implicated shelf.

x = Horizontal location in the cabinet, in eighths of an inch from the left corner of the implicated shelf.

z = Circuit type. Valid value(s):

----	= Equipment is part of the circuit under test.
HPR	= Equipment is part of a helper circuit. The helper must be removed from service before replacement is attempted.
ONL	= Equipment is part of the online member of a duplex pair. The online member must be removed, and the mate made online, before replacement is attempted.

a[1] = Number of the TLP note containing supplementary information related to the specified-suspected faulty equipment. Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages.

b[1] = Termination status. Valid value(s):

- ABORTED = Requested action was terminated before completion, and the termination was not graceful.
- COMPLETED = Request was successfully completed.
- NOT STARTED = Requested action was not begun.
- STOPPED = Requested action was terminated before a normal completion. Termination was graceful.

c[1] = Reason for the termination, or status of the completed request.

4. ACTION TO BE TAKEN

For Format 1, no action is required.

For Format 2, determine the correct input message and reenter the exercise request.

For Format 3, no action is required.

For Format 4:

If output includes:	Action:
SUSPENDED NTR	Enter the first exercise message for the purpose of manual troubleshooting.
only SUSPENDED l PH m	The specified phase was terminated. Complete phase and segment specification must be provided on the next exercise request.
SUSPENDED ATP PH m SEG n	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
SUSPENDED CATP PH m SEG n	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous message.
SUSPENDED NTR PH m SEG n and the repeat (RPT) option was specified	This message indicates completion of the exercise. Proceed to troubleshoot the circuit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the exercise request.
SUSPENDED STF PH m SEG n	Analyze the test failure data. Repair the faulty circuit or enter another exercise request to continue troubleshooting.

For Format 5, replace the indicated circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

For Format 6, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

EX:CMP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

EX:CU

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EX CU a [b] [COMPLETED] d [(e)] {MESSAGE|MSG} {m}

[2]   ____________________________________________________________
      EX CU a [b] PH c d [(e)] {MESSAGE IN PROGRESS|MSG IP}

[3]   ____________________________________________________________
      EX CU a [b] PH c STF (e) MSG IP
        TEST    MISMATCH  ACTUAL   MASK    EXPECTED
         f         g        h       i         j

[4]   ____________________________________________________________
      EX CU a [b] ABORTED AT PH c STMNT k d [(e)]  MSG IP

[5]   ____________________________________________________________
      EX CU a [b] TERMINATED AT PH c STMNT k
        AFTER TEST l

[6]   ____________________________________________________________
      EX CU a [b] TASK n {MESSAGE STARTED|QUEUED|ABORTED}
```

2. REASON FOR OUTPUT

To report the result of executing an EX:CU input message to diagnose the control unit (CU) or one of its subunits in the interactive mode.

Format 1 specifies the overall diagnostic results and the termination status.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

b = Unit type and member number of the subunit under the CU which has been diagnosed; for example: CC 0, MASC 0, MASC 1, SAT 0, etc.

c = Phase number.

d = The result of the diagnostic. Valid value(s):

ATP = All tests pass.
CATP = All tests run were ATP; some were not executed due to the unavailability of a system resource needed to perform the test.
NTR = No tests were run.
STF = Some tests fail.

e = Identifies the reasons tests were skipped in this phase by their bit position in a 16-digit hexadecimal number. For example, if 'e' = (00000000 00000018), tests were skipped for reasons 3 and 4.

Bits:	Explanation:
0	Unused.
1	Unit under test is forced on-line.
2	Sanity timers are disabled.
3	Emergency action interface (EAI) forces on CU, disk, sanity timer are active.
4	Peripheral unit controller is out of service.
5	Helper unit not specified or invalid.
6	Helper unit unavailable.
7	Unit under test is forced off-line.
8	EAI initialization parameter buffer data pending; EAI must be cleared.
9	Helper unit not connected to sub-unit under test.
10	Unused.

f = Test number of the failing test.

g = The bits that were in error. A '1' in a bit position indicates that the response from the unit did not match the expected response in that bit.

h = The bits which were actually received from the hardware device.

i = Determines which bits in 'h' are included in this test.

j = The value which the test expected.

Note: For Format 3 the values for 'h', 'i' and 'j' may be set to N/A. This means that this data is not available for the specified device.

k = Last statement successfully executed before the diagnostic terminated.

l = Current test number when diagnostic terminated.

m = Status of the report. Valid value(s):

COMPLETE = The request has been completed.
IN PROGRESS = The request is in progress.

n = Task number assigned to the request.

4. ACTION TO BE TAKEN

If 'd' =	Action:

CATP	The needed system resource should be made available if possible, so that all tests may be executed.
STF	The unit should be repaired as quickly as possible. Refer to the Corrective Maintenance manual for the repair procedures.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:CU
STOP:DMQ
STP:DMQ
```

Output Message(s):

```
DGN:CU
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

EX:DCI

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EX DCI a [COMPLETED] b [(c)]
       {MESSAGE|MSG} {IN PROGRESS|COMPLETE}

[2]   ____________________________________________________________
      EX DCI a PH d b [(c)] {MESSAGE IN PROGRESS|MSG IP}

[3]   ____________________________________________________________
      EX DCI a PH d STF (c)          MSG IP
        TEST    MISMATCH    ACTUAL  MASK    EXPECTED
         e         f          g      h         i

[4]   ____________________________________________________________
      EX DCI a ABORTED AT PH d STMNT j b [(c)]       MSG IP

[5]   ____________________________________________________________
      EX DCI a TERMINATED AT PH d STMNT j AFTER TEST k

[6]   ____________________________________________________________
      EX DCI a TASK l {MESSAGE STARTED|QUEUED|ABORTED}
```

2. REASON FOR OUTPUT

To print results of a diagnostic run on the dual serial channel/computer interconnect (DCI) in the interactive mode.

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or `RAW` data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention [no openings in the active deferred maintenance queue (DMQ) and the request is in the waiting DMQ], or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

b = The result of the diagnostic. Valid value(s):

ATP = All tests passed.

CATP = All tests that were executed were ATP; some were not executed due to the unavailability of a system resource that was needed to perform the test.

NTR = No tests were executed.

STF = Some tests failed.

c = Valid value(s):

If 'b' =	'c' =
CATP, NTR	Identifies the reasons tests were skipped in this phase by their bit position in a 16-digit hexadecimal number. For example, if 'c' = (00000000 00000018), tests were skipped for reasons 3 and 4.
STF	Identifies the number of test failures in addition to the reasons that tests were skipped. For example, if 'c' = (7 00000000 00000006), seven tests failed, plus tests were skipped for reasons 1 and 2. Bits 0 - 63 are unused.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A 1 in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines which bits in 'g' are included in this test.

i = The value which the test expected.

Note: For Format 3 the values for 'g', 'h' and 'i' may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

If 'b' =	Action:
CATP	The needed system resource should be made available if possible, so that all tests may be executed.
STF	The unit should be repaired as quickly as possible.

5. ALARMS

This alarm is automatically generated. Action may or may not be required. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):

1	96, 103
2	99, 111
3	109, 110
4	106, 109, 110, 111
5	217
6	70, 99

Input Message(s):

```
EX:DCI
STOP:DMQ
STP:DMQ
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

EX:DCLU

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX DCLU=a-b-c d

[2]   ____________________________________________________________________
      EX DCLU=a-b-c NOT STARTED e

[3]   ____________________________________________________________________
      EX DCLU=a-b-c STF PH f SEG g TEST h MM i
       [EXP j MASK k ACTL l]

[4]   ____________________________________________________________________
      EX DCLU=a-b-c SUSPENDED m[PH n [SEG o]]

[5]   ____________________________________________________________________
      EX DCLU=a-b-c SUSPECTED FAULTY EQUIPMENT c1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL      TYPE  NOTE
         p       q [r]    s  t     u    [v]    w-x[-d1]   y    [z]
        [.       .  .     .  .     .     .     . .  .     .     .]
        [.       .  .     .  .     .     .     . .  .     .     .]
        [.       .  .     .  .     .     .     . .  .     .     .]

[6]   ____________________________________________________________________
      EX DCLU=a-b-c a1 [b1]

[7]   ____________________________________________________________________
      EX DCLU=a-b-c PH d SEG e STMT e1 f1
       [EXP j MASK k ACTL l]
```

2. REASON FOR OUTPUT

To report the results of executing the EX:DCLU input message to diagnose the *SLC*® 96 digital carrier line unit (DCLU).

Format 1 indicates that the specified segments have been completed and all tests passed. It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic continues for the remaining iterations.

Format 2 indicates that the specified options in the input message was invalid.

Format 3 indicates that a test has failed and specifies that test.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous command, may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble location procedure (TLP) option was specified in the input message.

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Format 6 indicates that the diagnostic execution terminated.

Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital carrier line unit (DCLU) number.

`c` = *SLC*®96 DCLU number.

`d` = Loop result. Valid value(s):

`ATP`	= All tests were performed and passed.
`CATP`	= Some tests were not performed, but all performed tests passed.
`NTR`	= No tests run.
`STF`	= Some tests failed.

`e` = Reason the command was rejected.

`f` = Phase in which the failure occurred.

`g` = Segment in which the failure occurred.

`h` = Test number that failed.

`i` = Results for the specified test were mismatched in hexadecimal.

`j` = Raw data expected result for the specified test in hexadecimal.

`k` = Raw data mask used to determine the test failure in hexadecimal.

`l` = Raw data actual result for the specified test in hexadecimal.

`m` = Result of previous command. Valid value(s):

`ATP`	= The specified segment(s) were completed and all tests passed.
`CATP`	= Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
`NTR`	= No tests were run since the last completion message.
`STF`	= The diagnostic has completed and some tests failed.

`n` = Phase number in which execution is suspended.

`o` = Segment number in which execution is suspended.

`p` = Identification number of floor and aisle.

`q` = Module type.

`r` = Module number.

`s` = Cabinet type.

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t = Cabinet number.

u = Replacement equipment code(s).

v = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code A).
C          = Additional compatible equipment code(s) (added as space permits)
D          = Current minimal approved operating level for equipment code A.
E          = Current minimal approved operating level for equipment code B.
F          = Current minimal approved operating level(s) for equipment code(s) C.
:          = Intra-field delimiter.
-          = Inter-field delimiter if necessary.
```

Codes A, B, and C may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms D, E, and F may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

w = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

x = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

y = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

____ = Equipment is part of the circuit under test.

z = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

a[1] = Termination status. Valid value(s):

ABORTED = The process was terminated (process not gracefully terminated).

NOT STARTED = Action was not begun.

STOPPED = Terminated before normal completion (process gracefully terminated).

b[1] = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

c[1] = Text identifier showing order of record. Valid value(s):

FIRST = First record of continuing list.

LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

d[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

e[1] = Statement number.

f[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, 6, and 7, no action is required.

For Format 2, determine the correct phase number and reenter the diagnostic exercise request.

For Format 3, repair the faulty unit.

For Format 4:

If output includes:	Action:
SUSPENDED NTR	Enter the first exercise command for the purpose of manual troubleshooting.
SUSPENDED ATP PH n SEG o	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
SUSPENDED NTR PH n SEG o	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous command.
SUSPENDED NTR PH n SEG o and the RPT option was specified	This message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RP option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
SUSPENDED STF PH n SEG o	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:DCLU
```

EX:DCTUCOM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX DCTUCOM=a-b c

[2]   ____________________________________________________________________
      EX DCTUCOM=a-b NOT STARTED d

[3]   ____________________________________________________________________
      EX DCTUCOM=a-b STF PH e SEG f TEST g MM h
       [EXP i MASK j ACTL k]

[4]   ____________________________________________________________________
      EX DCTUCOM=a-b SUSPENDED l[ PH m [SEG n]]

[5]   ____________________________________________________________________
      EX DCTUCOM=a-b SUSPECTED FAULTY EQUIPMENT b1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL      TYPE  NOTE
         o       p [q]   r  s     t     [u]  v-w[-c1]   x    [y]
        [.       .  .    .  .     .      .   . .  .     .     .]
        [.       .  .    .  .     .      .   . .  .     .     .]
        [.       .  .    .  .     .      .   . .  .     .     .]

[6]   ____________________________________________________________________
      EX DCTUCOM=a-b z [a1]

[7]   ____________________________________________________________________
      EX DCTUCOM=a-b PH e SEG f STMT d1 e1
       [EXP i MASK j ACTL k]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:DCTUCOM input message to diagnose the directly connected test unit common board (DCTUCOM).

Format 1 indicates that the specified segments have been completed, and reports the overall result It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the specified input message was invalid.

Format 3 indicates that a test has failed and specifies which test.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous command, may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble locating procedure (TLP) option was specified in the input message.

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Format 6 indicates that the diagnostic execution has terminated.

Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Directly connected test unit (DCTU) number.

`c` = Loop result. Valid value(s):

- `ATP` = All test were performed and all passed.
- `CATP` = Some tests were not performed, but all that were passed.
- `NTR` = No tests run.
- `STF` = Some tests failed.

`d` = Reason the command was rejected.

`e` = Phase in which the failure occurred.

`f` = Segment in which the failure occurred.

`g` = Test number that failed.

`h` = Mismatch results for the specified test in hexadecimal..

`i` = Raw data expected result for the specified test in hexadecimal.

`j` = Raw data mask used to determine the test failure in hexadecimal.

`k` = Raw data actual result for the specified test in hexadecimal.

`l` = Result of previous command. Valid value(s):

- `ATP` = The specified segment(s) were completed and all tests passed.
- `CATP` = Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
- `NTR` = No tests were run since the last completion message.
- `STF` = The diagnostic has completed and some tests failed.

`m` = Phase number in which execution is suspended.

`n` = Segment number in which execution is suspended.

`o` = Identification number of floor and aisle.

`p` = Module type.

`q` = Module number.

`r` = Cabinet type.

`s` = Cabinet number.

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t = Replacement equipment code(s).

u = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code A).
C          = Additional compatible equipment code(s) (added as space permits)
D          = Current minimal approved operating level for equipment code A.
E          = Current minimal approved operating level for equipment code B.
F          = Current minimal approved operating level(s) for equipment code(s) C.
:          = Intra-field delimiter.
-          = Inter-field delimiter if necessary.
```

Codes A, B, and C may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms D, E, and F may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

v = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

w = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

x = Circuit type. Valid value(s):

HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
____	= Equipment is part of the circuit under test.

y = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

z = Termination status. Valid value(s):

ABORTED	= The process was terminated (process not gracefully terminated).
NOT STARTED	= Action was not begun.
STOPPED	= Terminated before normal completion (process gracefully terminated).

a[1] = Termination reason. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

b[1] = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

c[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

d[1] = Statement number.

e[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, 6, and 7, no action is required.

For Format 2, determine the correct input message and reenter the diagnostic exercise request.

For Format 3, repair the faulty unit.

For Format 4,

If output includes:	Action:
only `SUSPENDED NTR`	enter the first exercise command for the purpose of manual troubleshooting.
`SUSPENDED ATP PH m SEG n`	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
`SUSPENDED CATP PH m SEG n`	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous command.
`SUSPENDED NTR PH m SEG n` and the RPT option was specified	This message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
`SUSPENDED STF PH m SEG n`	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
`SUSPENDED x PH o`	the specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:DCTUCOM
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

EX:DCTUPORT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX DCTUPORT=a-b-c d

[2]   ____________________________________________________________________
      EX DCTUPORT=a-b-c NOT STARTED e

[3]   ____________________________________________________________________
      EX DCTUPORT=a-b-c STF PH f SEG g TEST h MM i
       [EXP j MASK k ACTL l]

[4]   ____________________________________________________________________
      EX DCTUPORT=a-b-c SUSPENDED m[PH n [SEG o]]

[5]   ____________________________________________________________________
      EX DCTUPORT=a-b-c SUSPECTED FAULTY EQUIPMENT c1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL       TYPE  NOTE
         p       q [r]   s  t     u     [v]  w-x[-d1]   y    [z]
        [.       .  .    .  .     .      .   . .  .     .     .]
        [.       .  .    .  .     .      .   . .  .     .     .]
        [.       .  .    .  .     .      .   . .  .     .     .]

[6]   ____________________________________________________________________
      EX DCTUPORT=a-b-c a1 [b1]

[7]   ____________________________________________________________________
      EX DCTUPORT=a-b-c PH f SEG g STMT e1 f1
       [EXP i MASK j ACTL k]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:DCTUPORT input message to diagnose the directly connected test unit port circuit (DCTUPORT).

Format 1 indicates that the specified segments have been completed, and reports the overall result It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the specified input message was invalid.

Format 3 indicates that a test has failed and specifies which test.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous command, may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble location procedure (TLP) option was specified in the input message.

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Format 6 indicates that the diagnostic execution has terminated.

Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Directly connected test unit (DCTU) number.

`c` = Circuit number.

`d` = Loop result. Valid value(s):

`ATP`	= All test were performed and all passed.
`CATP`	= Some tests were not performed, but all that were passed.
`NTR`	= No tests run.
`STF`	= Some tests failed.

`e` = Reason the command was rejected.

`f` = Phase in which the failure occurred.

`g` = Segment in which the failure occurred.

`h` = Test number that failed.

`i` = Mismatch results for the specified test in hexadecimal.

`j` = Raw data expected result for the specified test in hexadecimal.

`k` = Raw data mask used to determine the test failure in hexadecimal.

`l` = Raw data actual result for the specified test in hexadecimal.

`m` = Result of previous command. Valid value(s):

`ATP`	= The specified segment(s) were completed and all tests passed.
`CATP`	= Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
`NTR`	= No tests were run since the last completion message.
`STF`	= The diagnostic has completed and some tests failed.

`n` = Phase number in which execution is suspended.

`o` = Segment number in which execution is suspended.

`p` = Identification number of floor and aisle.

`q` = Module type.

`r` = Module number.

`s` = Cabinet type.

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t = Cabinet number.

u = Replacement equipment code(s).

v = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code A).
C          = Additional compatible equipment code(s) (added as space permits)
D          = Current minimal approved operating level for equipment code A.
E          = Current minimal approved operating level for equipment code B.
F          = Current minimal approved operating level(s) for equipment code(s) C.
:          = Intra-field delimiter.
-          = Inter-field delimiter if necessary.
```

Codes A, B, and C may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms D, E, and F may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

w = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

x = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

y = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

____ = Equipment is part of the circuit under test.

z = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

a[1] = Termination status. Valid value(s):

ABORTED = The process was terminated (process not gracefully terminated).

NOT STARTED = Action was not begun.

STOPPED = Terminated before normal completion (process gracefully terminated).

b[1] = Termination reason. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

c[1] = Text identifier showing order of record. Valid value(s):

FIRST = First record of continuing list.

LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

d[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

e[1] = Statement number.

f[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, 6, and 7, no action is required.

For Format 2, determine the correct input message and reenter the diagnostic exercise request.

For Format 3, repair the faulty unit.

For Format 4:

If output includes:	Action:
only SUSPENDED NTR	Enter the first exercise command for the purpose of manual troubleshooting.
SUSPENDED ATP PH n SEG o	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
SUSPENDED CATP PH n SEG o	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous command.
SUSPENDED NTR PH n SEG o and the RPT option was specified	This message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
SUSPENDED STF PH n SEG o	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

EX:DCTUPORT

Output Appendix(es):

APP:MAINT-RESP

EX:DFC

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EX DFC a [COMPLETED] b [(c)]
       {MESSAGE|MSG} {IN PROGRESS|COMPLETE}

[2]   ____________________________________________________________
      EX DFC a PH d b [(c)] {MESSAGE IN PROGRESS|MSG IP}

[3]   ____________________________________________________________
      EX DFC a PH d STF (c)          MSG IP
        TEST    MISMATCH    ACTUAL  MASK    EXPECTED
         e         f          g      h         i

[4]   ____________________________________________________________
      EX DFC a ABORTED AT PH d STMNT j b [(c)]       MSG IP

[5]   ____________________________________________________________
      EX DFC a TERMINATED AT PH d STMNT j AFTER TEST k

[6]   ____________________________________________________________
      EX DFC a TASK l {MESSAGE STARTED|QUEUED|ABORTED}
```

2. REASON FOR OUTPUT

To print results of a diagnostic run on the disk file controller (DFC) in the interactive mode.

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

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b = The result of the diagnostic. Valid value(s):

ATP = All tests passed.

CATP = All tests that were executed were ATP; some were not executed due to the unavailability of a system resource that was needed to perform the test.

NTR = No tests were executed.

STF = Some tests failed.

c = If 'b' = CATP or NTR, 'c' identifies the reasons tests were skipped in this phase by their bit position in a 16-digit hexadecimal number. For example, if 'c' = (00000000 00000018), tests were skipped for reasons 3 and 4.

If 'b' = STF, 'c' identifies the number of test failures in addition to the reasons that tests were skipped. For example, if 'c' = (7 00000000 00000006), seven tests failed, plus tests were skipped for reasons 1 and 2. The reason codes are as follows:

Bit:	Reason:
0	Helper unit not specified or invalid.
1	Helper unit cannot be reserved.
2	Helper unit is not out-of-service.
3	Helper unit is not ATP.
4	Helper unit not connected to controller being diagnosed.

NOTE: To interpret CATP bits 32-46, the structure of the system must be understood. All device references are relative to the DFC under test, and may not correspond to "real" unit numbers. The down pointer of the DFC will point to the first SBUS. The side pointer of the first SBUS points to the second SBUS. Similarly, the down pointer of an SBUS points to the first MHD beneath it. The side pointer of an MHD points to the next MHD in the chain. These concepts are displayed graphically on display pages 120 and 122. The leftmost SBUS under a DFC is considered first SBUS, with the rightmost SBUS being second. MHD relative numbering for each SBUS is top-down, with the top MHD being first and the bottom being last. Currently only four MHDs per SBUS are supported.

Bit:	Reason:
32	First MHD on first SBUS of DFC did not respond correctly.
33	Second MHD on first SBUS of DFC did not respond correctly.
34	Third MHD on first SBUS of DFC did not respond correctly.
35	Fourth MHD on first SBUS of DFC did not respond correctly.
36	Reserved for fifth MHD on first SBUS of DFC.
37	Reserved for sixth MHD on first SBUS of DFC.
38	Reserved for seventh MHD on first SBUS of DFC.
40	First MHD on second SBUS of DFC did not respond correctly.
41	Second MHD on second SBUS of DFC did not respond correctly.
42	Third MHD on second SBUS of DFC did not respond correctly.
43	Fourth MHD on second SBUS of DFC did not respond correctly.
44	Reserved for fifth MHD on second SBUS of DFC.
45	Reserved for sixth MHD on second SBUS of DFC.
46	Reserved for seventh MHD on second SBUS of DFC.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A '1' in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits that were received from the device.

h = The mask that determines which bits in 'g are of interest to this test.

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`i` = The value that the test expected.
Note: For Format 3, the values for '`g`', '`h`', and '`i`' may be set to N/A. This means that this data is not available for the specified device.

`j` = Last statement successfully executed before the diagnostic terminated.

`k` = Current test number when diagnostic terminated.

`l` = Task number assigned to the request.

4. ACTION TO BE TAKEN

Formats 1, 5, and 6 are informational reports and require no action.

For Formats 2 - 4, if '`b`' = `CATP`, the needed system resource should be made available if possible, so that all tests may be executed. If '`b`' = `STF`, the unit should be repaired as quickly as possible. Refer to the Corrective Maintenance manual for the repair procedures.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

Input Message(s):

```
EX:DFC
STOP:DMQ
STP:DMQ
```

Output Message(s):

```
DGN:DFC
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

EX:DFI

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX DFI=a-b-c d

[2]   ____________________________________________________________________
      EX DFI=a-b-c NOT STARTED e

[3]   ____________________________________________________________________
      EX DFI=a-b-c STF PH f SEG g TEST h MM i
       [EXP j MASK k ACTL l]

[4]   ____________________________________________________________________
      EX DFI=a-b-c SUSPENDED m[ PH n [SEG o]]

[5]   ____________________________________________________________________
      EX DFI=a-b-c SUSPECTED FAULTY EQUIPMENT c1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL       TYPE  NOTE
         p       q [r]   s  t     u    [v]   w-x[-d1]   y     [z]
        [.       .  .    .  .     .     .    . .  .     .      .]
        [.       .  .    .  .     .     .    . .  .     .      .]
        [.       .  .    .  .     .     .    . .  .     .      .]

[6]   ____________________________________________________________________
      EX DFI=a-b-c a1 [b1]

[7]   ____________________________________________________________________
      EX DFI=a-b-c PH f SEG g STMT e1 f1
       [EXP j MASK k ACTL l]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:DFI input message to diagnose the digital facilities interface (DFI).

Format 1 indicates that the specified segments have been completed and all tests passed. It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the specified input message was invalid.

Format 3 indicates that a test has failed and specifies which test.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous input message may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble locating procedure (TLP) option was specified in the input message.

Format 6 indicates that the diagnostic execution has terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line/trunk unit.

`c` = Service group number.

`d` = Loop result. Valid value(s):

`ATP`	= All test were performed and all passed.
`CATP`	= Some tests were not performed, but all that were passed.
`NTR`	= No tests run.
`STF`	= Some tests failed.

`e` = Reason the input message was rejected.

`f` = Phase in which the failure occurred.

`g` = Segment in which the failure occurred.

`h` = Test number that failed.

`i` = Mismatch results for the specified test in hexadecimal.

`j` = Raw data expected result for the specified test in hexadecimal.

`k` = Raw data mask used to determine the test failure in hexadecimal.

`l` = Raw data actual result for the specified test in hexadecimal.

`m` = Result of previous input message. Valid value(s):

`ATP`	= The specified segment(s) were completed and all tests passed.
`CATP`	= Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
`NTR`	= No tests were run since the last completion message.
`STF`	= The diagnostic has completed and some tests failed.

`n` = Phase number in which execution is suspended.

`o` = Segment number in which execution is suspended.

`p` = Identification number of floor and aisle.

`q` = Module type.

`r` = Module number.

`s` = Cabinet type.

`t` = Cabinet number.

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u = Replacement equipment code(s).

v = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
```

:	= Intra-field delimiter.
-	= Inter-field delimiter if necessary.
A	= Current minimal accepted equipment code.
B	= Current production equipment code (substitutable equipment for code 'A').
C	= Additional compatible equipment code(s) (added as space permits)
D	= Current minimal approved operating level for equipment code 'A'.
E	= Current minimal approved operating level for equipment code 'B'.
F	= Current minimal approved operating level(s) for equipment code(s) 'C'.

Codes A, B, and C may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms D, E, and F may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

w = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

x = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

y = Circuit type. Valid value(s):

HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
____	= Equipment is part of the circuit under test.

z = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

a[1] = Termination status. Valid value(s):

ABORTED	= The process was terminated (process not gracefully terminated).
NOT STARTED	= Action was not begun.
STOPPED	= Terminated before normal completion (process gracefully terminated).

b[1] = Termination reason. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

c[1] = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

d[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

e[1] = Statement number.

f[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Formats 1, 6, and 7, no action is required.

For Format 2, determine the correct input message and reenter the diagnostic exercise request.

For Format 3, repair the faulty unit.

For Format 4:

If output includes:	Action:
only `SUSPENDED NTR`	Enter the first exercise input message for the purpose of manual troubleshooting.
`SUSPENDED ATP PHE SEG o`	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
`SUSPENDED CATP PH n SEG o`	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous input message.
`SUSPENDED NTR PH n SEG o` and the RPT option was specified	This message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
`SUSPENDED STF PH n SEG o`	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
`SUSPENDED x PH o`	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:DFI
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

EX:DFIH

Software Release: 5E10 and later
Message Class: SMCONFG,SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX DFIH=a-b-c d

[2]   ____________________________________________________________________
      EX DFIH=a-b-c NOT STARTED e

[3]   ____________________________________________________________________
      EX DFIH=a-b-c STF PH f SEG g TEST h MM i
       [EXP j MASK k ACTL l]

[4]   ____________________________________________________________________
      EX DFIH=a-b-c SUSPENDED m[ PH n [SEG o]]

[5]   ____________________________________________________________________
      EX DFIH=a-b-c SUSPECTED FAULTY EQUIPMENT c1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL      TYPE  NOTE
          p     q [r]    s  t     u     [v]  w-x[-d1]   y    [z]
         [.     .  .    .  .     .      .   . .  .     .     .]
         [.     .  .    .  .     .      .   . .  .     .     .]
         [.     .  .    .  .     .      .   . .  .     .     .]

[6]   ____________________________________________________________________
      EX DFIH=a-b-c a1 [b1]

[7]   ____________________________________________________________________
      EX DFIH=a-b-c PH f SEG g STMT e1 f1
       [EXP j MASK k ACTL l]
```

2. REASON FOR OUTPUT

To report the results of an EX:DFIH input message to exercise a remote integrated services line unit (RISLU) host/remote digital facility interface circuit pair (DFIH).

Format 1 indicates that the specified segments completed and all tests passed. It applies only when the RPT option is specified in the input messages. Execution of the exercise will continue for the remaining iterations.

Format 2 indicates that an option specified in the input message was invalid.

Format 3 indicates which test failed.

Format 4 indicates that execution of the exercise is suspended. The phase and segment in which the suspension occurs, and a summary of the results of the previous message may also be printed.

Format 5 provides an ordered list of suspected faulty equipment. It applies only when the TLP option is specified in the input message.

Format 6 indicates that the diagnostic execution has terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RISLU digital line trunk unit number.

`c` = DFIH number.

`d` = Loop result. Valid value(s):

- `ATP` = All tests were performed and passed.
- `CATP` = Some tests were skipped because supporting hardware was not available, but all tests which were run passed.
- `NTP` = No tests performed.
- `STF` = Some tests failed.

`e` = Reason the message was rejected.

`f` = Phase in which the failure occurred.

`g` = Segment in which the failure occurred.

`h` = Test that failed.

`i` = Mismatch results for the specified test in hexadecimal.

`j` = Expected result for the specified test in hexadecimal.

`k` = Mask used to determine test failure in hexadecimal.

`l` = Actual result for the specified test in hexadecimal.

`m` = Type of suspension. Valid value(s):

- `ATP` = The specified segment(s) were completed and all tests were performed and passed.
- `CATP` = Some tests in the specified segment were skipped because supporting hardware was not available, but all tests which were run passed.
- `NTP` = No tests performed since the last completion message.
- `STF` = Some tests in the segment failed.

`n` = Phase where execution is suspended.

`o` = Segment where execution is suspended.

`p` = Floor and aisle number.

`q` = Module type.

`r` = Module number.

`s` = Cabinet type.

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t = Cabinet number.

u = Replacement equipment code(s).

v = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code A).
C          = Additional compatible equipment code(s) (added as space permits)
D          = Current minimal approved operating level for equipment code A.
E          = Current minimal approved operating level for equipment code B.
F          = Current minimal approved operating level(s) for equipment code(s) C.
:          = Intra-field delimiter.
-          = Inter-field delimiter if necessary.
```

Codes A, B, and C may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms D, E, and F may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

w = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

x = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

y = Circuit type. Valid value(s):

HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
____	= Equipment is part of the circuit under test.

z = Refer to the APP:TLP-NOTE appendix in the Appendix section of the Output Messages.

a[1] = Termination report. Valid value(s):

ABORTED	= Requested action was terminated before completion, and the termination was not graceful.
COMPLETED	= Request has successfully completed.
NOT STARTED	= Requested action has not begun.
STOPPED	= Requested action was terminated before a normal completion. Termination was graceful.

b[1] = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages.

c[1] = Text identifier showing order of record. Valid value(s):

FIRST = First record of continuing list.
LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

d[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

e[1] = Statement number.

f[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Formats 1, 6, and 7, no action is required.

For Format 2, determine the correct phase number and reenter the exercise request.

For Format 3, analyze failure data to determine reason for failure or run the exercise using the 'TLP' option to generate a suspected faulty circuit pack list.

For Format 4:

If output includes:	Action:
only SUSPENDED NTP	Enter the first exercise message for the purpose of manual troubleshooting.
SUSPENDED ATP PH n SEG o	The fault may have been repaired. Run the entire diagnostic by using the DGN:DFIH input message.
SUSPENDED CATP PH n SEG o	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the exercise request.
SUSPENDED NTP PH n SEG o and the RPT option was specified	Normal completion of the exercise is indicated. Proceed to troubleshoot the circuit. If this message occurs when the RPT option was not specified, no tests were run. Determine the reason and reenter the exercise request.
SUSPENDED STF PH n SEG o	Analyze the test failure data. Repair the faulty circuit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the diagnostic exercise for each replaced pack until the fault is repaired or the diagnostic results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:DFIH
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

EX:DFTAC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX DFTAC=a-b-c-d e

[2]   ____________________________________________________________________
      EX DFTAC=a-b-c-d NOT STARTED f

[3]   ____________________________________________________________________
      EX DFTAC=a-b-c-d STF PH g SEG h TEST i MM j
       [EXP k MASK l ACTL m]

[4]   ____________________________________________________________________
      EX DFTAC=a-b-c-d SUSPENDED n[ PH o [SEG p]]

[5]   ____________________________________________________________________
      EX DFTAC=a-b-c-d SUSPECTED FAULTY EQUIPMENT c1 RECORD
        AISLE  MODULE CABINET  CODE  FORM  EQL      TYPE  NOTE
         q     r [s]    t u    v     [w]  x-y[-d1]   z    [a1]
        [.     .  .     . .    .      .   . .  .     .     .]
        [.     .  .     . .    .      .   . .  .     .     .]
        [.     .  .     . .    .      .   . .  .     .     .]

[6]   ____________________________________________________________________
      EX DFTAC=a-b-c-d b1 [e1]

[7]   ____________________________________________________________________
      EX DFTAC=a-b-c-d PH g SEG h STMT f1 g1
       [EXP k MASK l ACTL m]
```

2. REASON FOR OUTPUT

To report the result of executing EX:DFTAC input message to exercise the distributing frame test access circuit (DFTAC).

Format 1 is printed when the specified segment(s) have been completely executed. Execution of the diagnostic will continue for any remaining iterations.

Format 2 indicates that the previous EX:DFTAC input message was invalid.

Format 3 is printed when a test has failed.

Format 4 is printed when the execution of the diagnostic is suspended. The phase and segment in which the suspension occurs, and a summary of the results of the previous message, may also be specified.

Format 5 is printed when the trouble locating procedure (TLP) was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 6 indicates that the diagnostic execution has terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Unit number.

`c` = Service group number.

`d` = Board number.

`e` = Loop result. Valid value(s):

`ATP`	= All tests were performed and all passed.
`CATP`	= Some tests were not performed, but all that were passed.
`NTR`	= No tests were run.
`STF`	= Some tests failed.

`f` = Reason the message was rejected.

`g` = Number of the phase in which the failure occurred.

`h` = Number of the segment in which the failure occurred.

`i` = Number of the test that failed.

`j` = Mismatch results for the specified test in hexadecimal.

`k` = Expected result for the specified test in hexadecimal.

`l` = Mask used to determine test failure in hexadecimal.

`m` = Actual result for the specified test in hexadecimal.

`n` = Type of suspension. Valid value(s):

`ATP`	= All tests were performed and all passed.
`CATP`	= Some tests were not performed, but all that were passed.
`NTR`	= No tests were run.
`STF`	= Some tests failed.

`o` = Phase number in which execution suspended.

`p` = Segment number in which execution suspended.

`q` = Aisle.

`r` = Module type, communication module (CM) or SM.

`s` = Switching module number.

`t` = Cabinet type.

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u = Cabinet number.

v = Replacement equipment code(s).

w = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM contents:

```
CODE A[:B]...[:C] [-] D[:E]...[:F]
:          = Intra-field delimiter.
-          = Inter-field delimiter if necessary.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code 'A').
C          = Additional compatible equipment code(s) (added as space permits).
D          = Current minimal approved operating level for equipment code 'A'.
E          = Current minimal approved operating level for equipment code 'B'.
F          = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

x = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

y = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

z = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the online member of a duplex pair. The online member must be removed, and the mate made online, before replacement is attempted.

____ = Equipment is part of the circuit under test.

a[1] = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

b[1] = Termination status. Valid value(s):

ABORTED = The process was terminated (process not gracefully terminated).

NOT STARTED = Action was not begun.

STOPPED = Terminated before normal completion (process gracefully terminated).

c[1] = Text identifier showing order of record. Valid value(s):

FIRST = First record of continuing list.

LAST = Last record of list.

NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4

entries. Each record will have a new header.

d[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

e[1] = Termination reason. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

f[1] = Statement number.

g[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, 6, and 7, no action is required.

For Format 2, determine the correct phase number and reenter the diagnostic exercise request, or wait until the previous message is completed.

For Format 3, replace the faulty unit.

For Format 4:

If output includes:	Action:
only `SUSPENDED NTR`	Enter the first exercise message for the purpose of manual trouble shooting.
`SUSPENDED ATP PH f SEG g`	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
`SUSPENDED CATP PH f SEG g`	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous message.
`SUSPENDED STF PH f SEG g`	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
`SUSPENDED x PH o`	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:DFTAC
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

EX:DIST

Software Release: 5E10 and later
Message Class: SM,ATL
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX DIST=a-b-c-d e

[2]   ____________________________________________________________________
      EX DIST=a-b-c-d NOT STARTED f

[3]   ____________________________________________________________________
      EX DIST=a-b-c-d STF PH g SEG h TEST i MM j
       [EXP k MASK l ACTL m]

[4]   ____________________________________________________________________
      EX DIST=a-b-c-d SUSPENDED n[ PH o [SEG p]]

[5]   ____________________________________________________________________
      EX DIST=a-b-c-d SUSPECTED FAULTY EQUIPMENT d1 RECORD
        AISLE  MODULE     CABINET  CODE     FORM   EQL     TYPE  NOTE
        q    r [s]     t  u  v  [w]  x-y[-e1]     z    [a1]
       [.    .  .      .  .  .   .   . .  .                .     .]
       [.    .  .      .  .  .   .   . .  .                .     .]
       [.    .  .      .  .  .   .   . .  .                .     .]

[6]   ____________________________________________________________________
      EX DIST=a-b-c-d b1 [c1]

[7]   ____________________________________________________________________
      EX DIST=a-b-c-d PH g SEG h STMT f1 g1
       [EXP k MASK l ACTL m]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:DIST input message to diagnose the distribute point board.

Format 1 indicates that the specified segments have been completed, and reports the overall result. It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the specified input message was invalid.

Format 3 indicates that a test has failed and specifies which test.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous command, may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble location procedure (TLP) option was specified in the input message.

Format 6 indicates that the diagnostic execution has terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = Board number.

`e` = Loop result. Valid value(s):

- `ATP` = All tests were performed and all passed.
- `CATP` = Some tests were not performed, but all that were performed have passed.
- `NTR` = No tests were run.
- `STF` = Some tests failed.

`f` = Reason the command was rejected.

`g` = Phase in which the failure occurred.

`h` = Segment in which the failure occurred.

`i` = Test number that failed.

`j` = Mismatch results for the specified test in hexadecimal.

`k` = Raw data expected result for the specified test in hexadecimal.

`l` = Raw data mask used to determine the test failure in hexadecimal.

`m` = Raw data actual result for the specified test in hexadecimal.

`n` = Result of previous command. Valid value(s):

- `ATP` = The specified segment(s) completed and all tests passed.
- `CATP` = Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
- `NTR` = No tests were run since the last completion message.
- `STF` = The specified segment(s) completed and some tests failed.

`o` = Phase number in which execution is suspended.

`p` = Segment number in which execution is suspended.

`q` = Identification number of floor and aisle.

`r` = Module type.

`s` = Module number.

`t` = Cabinet type.

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u = Cabinet number.

v = Replacement equipment code(s).

w = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
:          = Intra-field delimiter.
-          = Inter-field delimiter if necessary.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code 'A').
C          = Additional compatible equipment code(s) (added as space permits).
D          = Current minimal approved operating level for equipment code 'A'.
E          = Current minimal approved operating level for equipment code 'B'.
F          = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

x = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

y = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

z = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

____ = Equipment is part of the circuit under test.

a[1] = Refer to APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

b[1] = Termination status. Valid value(s):

ABORTED = The process was terminated (process not gracefully terminated).

NOT STARTED = Action was not begun.

STOPPED = Terminated before normal completion (process gracefully terminated).

c[1] = Termination reason. Refer to APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

d[1] = Text identifier showing order of record. Valid value(s):

FIRST = First record of continuing list.

LAST = Last record of list.

NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

e[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

f[1] = Statement number.

g[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, no action is required.

For Format 2, determine the correct input message and reenter the diagnostic exercise request.

For Format 3, repair the faulty unit.

For Format 4:

If output includes:	Action:
only SUSPENDED NTR	Enter the first exercise command for the purpose of manual troubleshooting.
SUSPENDED ATP PH o SEG p	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
SUSPENDED CATP PH o SEG p	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous command.
SUSPENDED NTR PH o SEG p and the RPT option was specified	This message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
SUSPENDED STF PH o SEG p	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

For Formats 6 and 7, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

EX:DIST

Output Appendix(es):

APP:MAINT-RESP

APP:TLP-NOTE

EX:DISTPT

Software Release: 5E10 and later
Message Class: ATL
Application: 5
Type: Output

1. FORMAT

```
EX DISTPT=a-b-c-d-e f
```

2. REASON FOR OUTPUT

To provide information about a recent operation on a signal-distribute point, as requested by input message EX:DISTPT.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = Board number.

`e` = Distribute point number.

`f` = Status of the request. Valid value(s):
`REQUEST ACCEPTED` = Indicates that the request has been accepted and the requested operation has been performed.
`REQUEST INVALID` = Indicates an invalid request. In this case the input parameters do not satisfy the variable field definitions as given in the next section.
`REQUEST REJECTED` = Indicates that the request has been rejected. The possible reasons for this include signal-distribute board not in-service, or the input parameters may not correspond to a signal-distribute board in the MSU.

4. ACTION TO BE TAKEN

If 'f' =	**Action:**
REQUEST ACCEPTED	Take no action.
REQUEST REJECTED	Recheck the input parameters to make sure that there is a signal-distribute board with the specified distribute point. Make sure that the board is in-service.
REQUEST INVALID	Recheck the input parameters to make sure that they obey the bounds specified in variable 'a' through 'e'.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

EX:DISTPT

EX:DLI

Software Release: 5E10 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

```
EX DLI=a-b c [d]
```

2. REASON FOR OUTPUT

To acknowledge that a manual request to exercise a dual link interface (DLI) is complete.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number that the DLI that was exercised was in.

`b` = Side of the office network and timing complex (ONTC) that the DLI is on.

`c` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was immediate (no cleanup was done).
`COMPLETED`	= Request completed successfully.
`NOT STARTED`	= Requested action could not begin.
`STOPPED`	= Request was terminated before a normal completion. Attempts were made to leave everything in a sane state.

`d` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual request. No further action is necessary if the request completed successfully. If the termination report is not `COMPLETED`, variable '`d`' should give some indication as to why the request failed. Check the SM/DLI MCC pages or the OP:CFGSTAT output message to verify that the DLI was in a valid state to perform the request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:DLI
OP:CFGSTAT
```

Output Message(s):

```
OP:CFGSTAT
```

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EX:DUIC

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EX DUIC a [COMPLETED] b [(c)]
       {MESSAGE|MSG} {IN PROGRESS|COMPLETE}

[2]   ____________________________________________________________
      EX DUIC a PH d b [(c)] {MESSAGE IN PROGRESS|MSG IP}

[3]   ____________________________________________________________
      EX DUIC a PH d STF (c)          MSG IP
        TEST    MISMATCH    ACTUAL  MASK    EXPECTED
         e         f          g      h         i

[4]   ____________________________________________________________
      EX DUIC a ABORTED AT PH d STMNT j b [(c)]       MSG IP

[5]   ____________________________________________________________
      EX DUIC a TERMINATED AT PH d STMNT j AFTER TEST k

[6]   ____________________________________________________________
      EX DUIC a TASK l {MESSAGE STARTED|QUEUED|ABORTED}
```

2. REASON FOR OUTPUT

To print results of a diagnostic run on the direct user interface controller (DUIC) in the interactive mode.

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention [no openings in the active deferred maintenance queue (DMQ) and the request is in the waiting DMQ], or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

b = The result of the diagnostic. Valid value(s):
- ATP = All tests passed.
- NTR = No tests were executed.
- STF = Some tests failed.

c = If 'b'=STF, 'c' identifies the number of test failures in addition to the reasons that tests were skipped. For example, if 'c' = (7 00000000 00000000), seven tests failed, and no tests were skipped.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A 'l' in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines which bits in 'g' are included in this test.

i = The value which the test expected.
Note: For Format 3, the values for 'g', 'h' and 'i' may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

If 'b' = STF, the unit should be repaired as quickly as possible. Refer to the Corrective Maintenance manual for the repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required. Refer to the APP:OMDB-X-REF appendix.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	96, 103
2	99, 103
3	109, 110
4	106, 109, 110, 111
5	217
6	70, 99

Input Message(s):

```
EX:DUIC
STOP:DMQ
STP:DMQ
```

Output Message(s):

```
DGN:DUIC
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

EX:EAN

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX EAN=a-b c

[2]   ____________________________________________________________________
      EX EAN=a-b NOT STARTED d

[3]   ____________________________________________________________________
      EX EAN=a-b STF PH e SEG f TEST g MM h
       [EXP i MASK j ACTL k]

[4]   ____________________________________________________________________
      EX EAN=a-b SUSPENDED l[ PH m [SEG n]]

[5]   ____________________________________________________________________
      EX EAN=a-b SUSPECTED FAULTY EQUIPMENT b1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL      TYPE  NOTE
         o       p [q]   r  s     t    [u]   v-w[-e1]   x    [y]
        [.       .  .    .  .     .     .    . .  .     .     .]
        [.       .  .    .  .     .     .    . .  .     .     .]
        [.       .  .    .  .     .     .    . .  .     .     .]

[6]   ____________________________________________________________________
      EX EAN=a-b z [a1]

[7]   ____________________________________________________________________
      EX EAN=a-b PH e SEG f STMT d1 e1
       [EXP i MASK j ACTL k]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:EAN input message to diagnose the equipment access network (EAN).

Format 1 indicates that the specified segments have been completed, and reports the overall result It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the specified input message was invalid.

Format 3 indicates that a test has failed and specifies which test.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous command, may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble location procedure (TLP) option was specified in the input message.

Format 6 indicates that the diagnostic execution has terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Directly connected test unit (DCTU) number.

c = Loop result. Valid value(s):
- ATP = All test were performed and all passed.
- CATP = Some tests were not performed, but all that were passed.
- NTR = No tests run.
- STF = Some tests failed.

d = Reason the command was rejected.

e = Phase in which the failure occurred.

f = Segment in which the failure occurred.

g = Test number that failed.

h = Mismatch results for the specified test in hexadecimal.

i = Raw data expected result for the specified test in hexadecimal.

j = Raw data mask used to determine the test failure in hexadecimal.

k = Raw data actual result for the specified test in hexadecimal.

l = Result of previous command. Valid value(s):
- ATP = The specified segment(s) were completed and all tests passed.
- CATP = Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
- NTR = No tests were run since the last completion message.
- STF = The diagnostic has completed and some tests failed.

m = Phase number in which execution is suspended.

n = Segment number in which execution is suspended.

o = Identification number of floor and aisle.

p = Module type.

q = Module number.

r = Cabinet type.

s = Cabinet number.

t = Replacement equipment code(s).

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u = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
:          = Intra-field delimiter.
-          = Inter-field delimiter if necessary.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code 'A').
C          = Additional compatible equipment code(s) (added as space permits).
D          = Current minimal approved operating level for equipment code 'A'.
E          = Current minimal approved operating level for equipment code 'B'.
F          = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

v = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

w = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

x = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

____ = Equipment is part of the circuit under test.

y = Refer to APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

z = Termination status. Valid value(s):

ABORTED = The process was terminated (process not gracefully terminated).

NOT STARTED = Action was not begun.

STOPPED = Terminated before normal completion (process gracefully terminated).

a[1] = Termination reason. Refer to APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

b[1] = Text identifier showing order of record. Valid value(s):

FIRST = First record of continuing list.

LAST = Last record of list.

NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4

entries. Each record will have a new header.

c[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

d[1] = Statement number.

e[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Formats 1, 6, and 7, no action is required.

For Format 2, determine the correct input message and reenter the diagnostic exercise request.

For Format 3, repair the faulty unit.

For Format 4:

If output includes:	Action:
only `SUSPENDED NTR`	Enter the first exercise command for the purpose of manual troubleshooting.
`SUSPENDED ATP PH m SEG n`	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
`SUSPENDED CATP PH m SEG n`	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous command.
`SUSPENDED NTR PH m SEG n` and the RPT option was specified	This message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
`SUSPENDED STF PH m SEG n`	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
`SUSPENDED x PH o`	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:EAN
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

EX:FPC

Software Release: 5E10 and later
Message Class: MSGS
Application: 5
Type: Output

1. FORMAT

```
EX FPC=a b [c]
```

2. REASON FOR OUTPUT

To acknowledge that a manual request to exercise a foundation peripheral controller (FPC) is complete.

3. VARIABLE FIELD DEFINITIONS

`a` = FPC side.

`b` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was immediate (no cleanup was done).
`COMPLETED`	= Request completed successfully.
`NOT STARTED`	= Requested action could not begin.
`STOPPED`	= Requested action was terminated before a normal completion. Attempts were made to leave everything in a sane state.

`c` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual request. No further action is necessary if the request completed successfully. If the termination report is not `COMPLETED`, variable '`c`' should give some indication as to why the request failed. Check MSGS MCC pages or OP:CFGSTAT output message to verify that the FPC was in a valid state to perform the request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:FPC
OP:CFGSTAT
```

Output Message(s):

```
OP:CFGSTAT
```

EX:GDSF

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX GDSF=a-b c

[2]   ____________________________________________________________________
      EX GDSF=a-b NOT STARTED d

[3]   ____________________________________________________________________
      EX GDSF=a-b STF PHe SEGf TESTg MMh
       [EXPi MASKj ACTLk]

[4]   ____________________________________________________________________
      EX GDSF=a-b SUSPENDED l[PHm [SEGn]]

[5]   ____________________________________________________________________
      EX GDSF=a-b SUSPECTED FAULTY EQUIPMENT c1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL      TYPE  NOTE
         o       p [q]    r  s     t     [u]  v-w[-x]   y    [z]
        [.       .  .    .  .     .      .   . .  .    .     .]
        [.       .  .    .  .     .      .   . .  .    .     .]
        [.       .  .    .  .     .      .   . .  .    .     .]

[6]   ____________________________________________________________________
      EX GDSF=a-b a1 [b1]

[7]   ____________________________________________________________________
      EX GDSF=a-b PH e SEG f STMT d1 e1
       [EXP i MASK j ACTL k]
```

2. REASON FOR OUTPUT

To report the result of executing a EX:GDSF input message to diagnose the global digital services function (GDSF) circuit.

Format 1 indicates that the specified segments have been completed. It applies only when the RPT option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the specified options in the input message was invalid.

Format 3 indicates that a test has failed and specifies which test.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurs, and a summary of the results of the previous message, may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble location procedures (TLPs) option was specified in the input message.

Format 6 indicates that the diagnostic execution has terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = GDSF number.

c = Loop result. Valid value(s):
- ATP = All test were performed and all passed.
- CATP = Some tests were not performed, but all that were passed.
- NTR = No tests run.
- STF = Some tests failed.

d = Reason the message was rejected.

e = Phase in which the failure occurred.

f = Segment in which the failure occurred.

g = Test number that failed.

h = Mismatch results for the specified test in hexadecimal.

i = Raw data expected result for the specified test in hexadecimal.

j = Raw data mask used to determine the test failure in hexadecimal.

k = Raw data actual result for the specified test in hexadecimal.

l = Type of suspension. Valid value(s):
- ATP = The specified segment(s) were completed and all tests passed.
- CATP = Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
- NTR = No tests were run since the last completion message.
- STF = The diagnostic has completed and some tests failed.

m = Phase number in which execution is suspended.

n = Segment number in which execution is suspended.

o = Identification number of floor and aisle.

p = Module type.

q = Module number.

r = Cabinet type.

s = Cabinet number.

t = Replacement equipment code(s).

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u = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the following example.

Example of CODE FORM content:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
-          = Inter-field delimiter if necessary.
:          = Intra-field delimiter.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code 'A').
C          = Additional compatible equipment code(s) (added as space permits)
D          = Current minimal approved operating level for equipment code 'A'.
E          = Current minimal approved operating level for equipment code 'B'.
F          = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B' and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

v = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

w = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

x = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

y = Circuit type. Valid value(s):

```
HPR        = Equipment is part of a helper circuit. The helper must be removed before
             replacement is attempted.
ONL        = Equipment is part of the on-line member of a duplex pair. The on-line member
             must be removed, and the mate made on-line, before replacement is attempted.
____       = Equipment is part of the circuit under test.
```

z = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

a[1] = Termination status. Valid value(s):

```
ABORTED      = Immediate termination.
COMPLETED    = Successful completion.
NOT STARTED  = Action has not begun.
STOPPED      = Terminated before normal completion.
```

b[1] = Termination reason. Refer to the APP:MAINT-RESP appendix in the Appendixes section of this section.

c[1] = Text identifier showing order of record. Valid value(s):

```
FIRST      = First record of continuing list.
```

LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

d[1] = Statement number.

4. ACTION TO BE TAKEN

For Formats 1, 6, and 7, none.

For Format 2, determine the correct phase numbers and reenter the diagnostic exercise request.

For Format 3, repair the faulty unit.

For Format 4,

If output includes:	Action:
EX GDSF=a-b SUSPENDED NTR	Enter the first exercise message for the purpose of manual troubleshooting.
EX GDSF=a-b SUSPENDED ATP PHm SEGn	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
EX GDSF=a-b SUSPENDED CATP PHm SEGn	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous message.
EX GDSF=a-b SUSPENDED NTR PHm SEGn and the RPT option was specified	This message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
EX GDSF=a-b SUSPENDED STF PHm SEGn	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
SUSPENDED l PHm	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

EX:GDSF

Output Appendix(es):

APP:MAINT-RESP
APP:TLP-NOTE

EX:GDSUCOM

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX GDSUCOM=a-b-c d

[2]   ____________________________________________________________________
      EX GDSUCOM=a-b-c NOT STARTED e

[3]   ____________________________________________________________________
      EX GDSUCOM=a-b-c STF PH f SEG g TEST h MM i
       [EXP j MASK k ACTL l]

[4]   ____________________________________________________________________
      EX GDSUCOM=a-b-c SUSPENDED m[ PH n SEG o]]

[5]   ____________________________________________________________________
      EX GDSUCOM=a-b-c SUSPECTED FAULTY EQUIPMENT c1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL       TYPE  NOTE
         p       q [r]   s  t     u     [v]  w-x[-d1]   y    [z]
        [.       .  .    .  .     .      .   . .  .     .     .]
        [.       .  .    .  .     .      .   . .  .     .     .]
        [.       .  .    .  .     .      .   . .  .     .     .]

[6]   ____________________________________________________________________
      EX GDSUCOM=a-b-c a1 [b1]

[7]   ____________________________________________________________________
      EX GDSUCOM=a-b-c PH f SEG g STMT e1 f1
       [EXP j MASK k ACTL l]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:GDSUCOM input message to diagnose the global digital service unit common (GDSUCOM) board.

Format 1 indicates that the specified segments have been completed, and reports the overall result. It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the specified input message was invalid.

Format 3 indicates that a test has failed and specifies which test.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous message, may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble location procedure (TLP) option was specified in the input message.

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Format 6 indicates that the diagnostic execution has terminated.

Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = GDSU number.

`c` = Service group number. Valid value(s):

`d` = Loop result. Valid value(s):

- `ATP` = All test were performed and all passed.
- `CATP` = Some tests were not performed, but all that were passed.
- `NTR` = No tests run.
- `STF` = Some tests failed.

`e` = Reason the message was rejected.

`f` = Phase in which the failure occurred.

`g` = Segment in which the failure occurred.

`h` = Test number that failed.

`i` = Mismatch results for the specified test in hexadecimal.

`j` = Raw data expected result for the specified test in hexadecimal.

`k` = Raw data mask used to determine the test failure in hexadecimal.

`l` = Raw data actual result for the specified test in hexadecimal.

`m` = Result of previous message. Valid value(s):

- `ATP` = The specified segment(s) were completed and all tests passed.
- `CATP` = Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
- `NTR` = No tests were run since the last completion message.
- `STF` = The diagnostic has completed and some tests failed.

`n` = Phase number in which execution is suspended.

`o` = Segment number in which execution is suspended.

`p` = Identification number of floor and aisle.

`q` = Module type.

`r` = Module number.

`s` = Cabinet type.

t = Cabinet number.

u = Replacement equipment code(s).

v = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
:          = Intra-field delimiter.
-          = Inter-field delimiter if necessary.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code 'A').
C          = Additional compatible equipment code(s) (added as space permits).
D          = Current minimal approved operating level for equipment code 'A'.
E          = Current minimal approved operating level for equipment code 'B'.
F          = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

w = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

x = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

y = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

____ = Equipment is part of the circuit under test.

z = Refer to APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

a[1] = Termination code.

b[1] = Termination reason. Refer to APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

c[1] = Text identifier showing order of record. Valid value(s):

FIRST = First record of continuing list.

LAST = Last record of list.

NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4

entries. Each record will have a new header.

d[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

e[1] = Statement number.

f[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Formats 1, 6, and 7, no action is required.

For Format 2, determine the correct input message and reenter the diagnostic exercise request.

For Format 3, repair the faulty unit.

For Format 4:

If output includes:	Action:
only `SUSPENDED NTR`	Enter the first exercise message for the purpose of manual troubleshooting.
`SUSPENDED ATP PH n SEG o`	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
`SUSPENDED CATP PH n SEG o`	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous message.
`SUSPENDED NTR PH n SEG o` and the RPT option was specified	This message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
`SUSPENDED STF PH n SEG o`	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
`SUSPENDED x PH o`	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:GDSUCOM
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

EX:GDXACC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX GDXACC=a-b-c d

[2]   ____________________________________________________________________
      EX GDXACC=a-b-c NOT STARTED e

[3]   ____________________________________________________________________
      EX GDXACC=a-b-c STF PH f SEG g TEST h MM i
       [EXP j MASK k ACTL l]

[4]   ____________________________________________________________________
      EX GDXACC=a-b-c SUSPENDED m[ PH n [SEG o]]

[5]   ____________________________________________________________________
      EX GDXACC=a-b-c SUSPECTED FAULTY EQUIPMENT c1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL       TYPE  NOTE
         p       q [r]   s  t     u     [v]  w-x[-d1]   y     [z]
        [.       .  .    .  .     .      .   . .  .     .      .]
        [.       .  .    .  .     .      .   . .  .     .      .]
        [.       .  .    .  .     .      .   . .  .     .      .]

[6]   ____________________________________________________________________
      EX GDXACC=a-b-c a1 [b1]

[7]   ____________________________________________________________________
      EX GDXACC=a-b-c PH f SEG g STMT e1 f1
       [EXP j MASK k ACTL l]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:GDXACC input message to diagnose the gated diode crosspoint access (GDXACC).

Format 1 indicates that the specified segments have been completed, and reports the overall result It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the specified input message was invalid.

Format 3 indicates that a test has failed and specifies which test.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous command, may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble location procedure (TLP) option was specified in the input message.

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Format 6 indicates that the diagnostic execution has terminated.

Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM).

`b` = Line unit number.

`c` = Service group number.

`d` = Loop result. Valid value(s):

- `ATP` = All test were performed and all passed.
- `CATP` = Some tests were not performed, but all that were passed.
- `NTR` = No tests run.
- `STF` = Some tests failed.

`e` = Reason the command was rejected.

`f` = Phase in which the failure occurred.

`g` = Segment in which the failure occurred.

`h` = Test number that failed.

`i` = Mismatch results for the specified test in hexadecimal.

`j` = Raw data expected result for the specified test in hexadecimal.

`k` = Raw data mask used to determine the test failure in hexadecimal.

`l` = Raw data actual result for the specified test in hexadecimal.

`m` = Result of previous command. Valid value(s):

- `ATP` = The specified segment(s) were completed and all tests passed.
- `CATP` = Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
- `NTR` = No tests were run since the last completion message.
- `STF` = The diagnostic has completed and some tests failed.

`n` = Phase number in which execution is suspended.

`o` = Segment number in which execution is suspended.

`p` = Identification number of floor and aisle.

`q` = Module type.

`r` = Module number.

`s` = Cabinet type.

t = Cabinet number.

u = Replacement equipment code(s).

v = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
:          = Intra-field delimiter.
-          = Inter-field delimiter if necessary.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code 'A').
C          = Additional compatible equipment code(s) (added as space permits).
D          = Current minimal approved operating level for equipment code 'A'.
E          = Current minimal approved operating level for equipment code 'B'.
F          = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

w = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

x = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

y = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

____ = Equipment is part of the circuit under test.

z = Refer to APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

a[1] = Termination status. Valid value(s):

ABORTED = The process was terminated (process not gracefully terminated).

NOT STARTED = Action was not begun.

STOPPED = Terminated before normal completion (process gracefully terminated).

b[1] = Termination reason. Refer to APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

c[1] = Text identifier showing order of record. Valid value(s):

FIRST = First record of continuing list.

LAST = Last record of list.

NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

d[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

e[1] = Statement number.

f[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, no action is required.

For Format 2, determine the correct input message and reenter the diagnostic exercise request.

For Format 3, repair the faulty unit.

For Format 4,

If output includes:	Action:
only SUSPENDED NTR	Enter the first exercise command for the purpose of manual troubleshooting.
SUSPENDED ATP PH n SEG o	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
SUSPENDED CATP PH n SEG o	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous command.
SUSPENDED NTR PH n SEG o and the RPT option was specified	This message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
SUSPENDED STF PH n SEG o	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

For Formats 6 and 7, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

EX:GDXACC

Output Appendix(es):

APP:MAINT-RESP

APP:TLP-NOTE

EX:GDXC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX GDXC=a-b-c-d e

[2]   ____________________________________________________________________
      EX GDXC=a-b-c-d NOT STARTED f

[3]   ____________________________________________________________________
      EX GDXC=a-b-c-d STF PH g SEG h TEST i MM j
       [EXP k MASK l ACTL m]

[4]   ____________________________________________________________________
      EX GDXC=a-b-c-d SUSPENDED n[ PH o [SEG p]]

[5]   ____________________________________________________________________
      EX GDXC=a-b-c-d SUSPECTED FAULTY EQUIPMENT d1 RECORD
        AISLE  MODULE     CABINET  CODE     FORM   EQL     TYPE  NOTE
        q    r [s]     t  u     v   [w]  x-y[-e1]     z  [a1]
       [.    .  .      .  .     .    .   . .  .                .   .]
       [.    .  .      .  .     .    .   . .  .                .   .]
       [.    .  .      .  .     .    .   . .  .                .   .]

[6]   ____________________________________________________________________
      EX GDXC=a-b-c-d b1 [c1]

[7]   ____________________________________________________________________
      EX GDXC=a-b-c-d PH g SEG h STMT f1 g1
       [EXP k MASK l ACTL m]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:GDXC input message to diagnose the gated diode cross point compensator (GDXC).

Format 1 indicates that the specified segments have been completed, and reports the overall result. It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the specified input message was invalid.

Format 3 indicates that a test has failed and specifies which test.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous command, may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble location procedure (TLP) option was specified in the input message.

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Format 6 indicates that the diagnostic execution has terminated.

Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = MSU board position number.

`e` = Loop result. Valid value(s):

- `ATP` = All tests were performed and all passed.
- `CATP` = Some tests were not performed, but all that were passed.
- `NTR` = No tests were run.
- `STF` = Some tests failed.

`f` = Reason the command was not started.

`g` = Phase in which the failure occurred.

`h` = Segment in which the failure occurred.

`i` = Test number that failed.

`j` = Mismatch results for the specified test in hexadecimal.

`k` = Raw data expected result for the specified test in hexadecimal.

`l` = Raw data mask used to determine the test failure in hexadecimal.

`m` = Raw data actual result for the specified test in hexadecimal.

`n` = Result of previous command. Valid value(s):

- `ATP` = The specified segment(s) completed and all tests passed.
- `CATP` = Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
- `NTR` = No tests were run since the last completion message.
- `STF` = The specified segment(s) completed and some tests failed.

`o` = Phase number in which execution is suspended.

`p` = Segment number in which execution is suspended.

`q` = Identification number of floor and aisle.

`r` = Module type.

`s` = Module number.

t = Cabinet type.

u = Cabinet number.

v = Replacement equipment code(s).

w = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
:          = Intra-field delimiter.
-          = Inter-field delimiter if necessary.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code 'A').
C          = Additional compatible equipment code(s) (added as space permits).
D          = Current minimal approved operating level for equipment code 'A'.
E          = Current minimal approved operating level for equipment code 'B'.
F          = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

x = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

y = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

z = Circuit type. Valid value(s):

```
HPR        = Equipment is part of a helper circuit. The helper must be removed before
             replacement is attempted.
ONL        = Equipment is part of the on-line member of a duplex pair. The on-line member
             must be removed, and the mate made on-line, before replacement is attempted.
____       = Equipment is part of the circuit under test.
```

a[1] = Refer to APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

b[1] = Termination status. Valid value(s):

```
ABORTED     = The process was terminated (process not gracefully terminated).
NOT STARTED = Action was not begun.
STOPPED     = Terminated before normal completion (process gracefully terminated).
```

c[1] = Termination reason. Refer to APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

d[1] = Text identifier showing order of record. Valid value(s):

FIRST = First record of continuing list.
NEXT = Next record of continuing list.
LAST = Last record of list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

e[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

f[1] = Statement number.

g[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Formats 1, 6 and 7, no action is required.

For Format 2, determine the correct input message and reenter the diagnostic exercise request.

For Format 3, repair the faulty unit.

For Format 4:

If output includes:	Action:
only SUSPENDED NTR	Enter the first exercise command for the purpose of manual troubleshooting.
SUSPENDED ATP PH o SEG p	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
SUSPENDED CATP PH o SEG p	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous command.
SUSPENDED NTR PH o SEG p and the RPT option was specified	This message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
SUSPENDED STF PH o SEG p	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

EX:GDXC

Output Appendix(es):

APP:MAINT-RESP

APP:TLP-NOTE

EX:GDXCON

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX GDXCON=a-b-c d

[2]   ____________________________________________________________________
      EX GDXCON=a-b-c NOT STARTED e

[3]   ____________________________________________________________________
      EX GDXCON=a-b-c STF PH f SEG g TEST h MM i
       [EXP j MASK k ACTL l]

[4]   ____________________________________________________________________
      EX GDXCON=a-b-c SUSPENDED m[ PH n [SEG o]]

[5]   ____________________________________________________________________
      EX GDXCON=a-b-c SUSPECTED FAULTY EQUIPMENT c1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL       TYPE  NOTE
         p       q [r]   s  t     u    [v]   w-x[-d1]   y     [z]
        [.       .  .    .  .     .     .    . .  .     .      .]
        [.       .  .    .  .     .     .    . .  .     .      .]
        [.       .  .    .  .     .     .    . .  .     .      .]

[6]   ____________________________________________________________________
      EX GDXCON=a-b-c a1 [b1]

[7]   ____________________________________________________________________
      EX GDXCON=a-b-c PH f SEG g STMT e1 f1
       [EXP j MASK k ACTL l]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:GDXCON input message to diagnose the gated diode crosspoint control (GDXCON).

Format 1 indicates that the specified segments have been completed, and reports the overall result It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the specified input message was invalid.

Format 3 indicates that a test has failed and specifies which test.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous command, may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble location procedure (TLP) option was specified in the input message.

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Format 6 indicates that the diagnostic execution has terminated.

Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Loop result. Valid value(s):

- `ATP` = All test were performed and all passed.
- `CATP` = Some tests were not performed, but all that were passed.
- `NTR` = No tests run.
- `STF` = Some tests failed.

`e` = Reason the command was rejected.

`f` = Phase in which the failure occurred.

`g` = Segment in which the failure occurred.

`h` = Test number that failed.

`i` = Mismatch results for the specified test in hexadecimal.

`j` = Raw data expected result for the specified test in hexadecimal.

`k` = Raw data mask used to determine the test failure in hexadecimal.

`l` = Raw data actual result for the specified test in hexadecimal.

`m` = Result of previous command. Valid value(s):

- `ATP` = The specified segment(s) were completed and all tests passed.
- `CATP` = Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
- `NTR` = No tests were run since the last completion message.
- `STF` = The diagnostic has completed and some tests failed.

`n` = Phase number in which execution is suspended.

`o` = Segment number in which execution is suspended.

`p` = Identification number of floor and aisle.

`q` = Module type.

`r` = Module number.

`s` = Cabinet type.

t = Cabinet number.

u = Replacement equipment code(s).

v = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
:          = Intra-field delimiter.
-          = Inter-field delimiter if necessary.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code 'A').
C          = Additional compatible equipment code(s) (added as space permits).
D          = Current minimal approved operating level for equipment code 'A'.
E          = Current minimal approved operating level for equipment code 'B'.
F          = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

w = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

x = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

y = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

____ = Equipment is part of the circuit under test.

z = Refer to APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

a[1] = Termination status. Valid value(s):

ABORTED = The process was terminated (process not gracefully terminated).

NOT STARTED = Action was not begun.

STOPPED = Terminated before normal completion (process gracefully terminated).

b[1] = Termination reason. Refer to APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

c[1] = Text identifier showing order of record. Valid value(s):

FIRST = First record of continuing list.

LAST = Last record of list.

NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

d[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

e[1] = Statement number.

f[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Formats 1, 6 and 7, no action is required.

For Format 2, determine the correct input message and reenter the diagnostic exercise request.

For Format 3, repair the faulty unit.

For Format 4:

If output includes:	Action:
only SUSPENDED NTR	Enter the first exercise command for the purpose of manual troubleshooting.
SUSPENDED ATP PH n SEG o	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
SUSPENDED CATP PH n SEG o	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous command.
SUSPENDED NTR PH n SEG o	and the RPT option was specified This message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
SUSPENDED STF PH n SEG o	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	the specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

EX:GDXCON

Output Appendix(es):

APP:MAINT-RESP
APP:TLP-NOTE

EX:GRID

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX GRID=a-b-c-d e

[2]   ____________________________________________________________________
      EX GRID=a-b-c-d NOT STARTED f

[3]   ____________________________________________________________________
      EX GRID=a-b-c-d STF PH g SEG h TEST i MM j
       [EXP k MASK l ACTL m]

[4]   ____________________________________________________________________
      EX GRID=a-b-c-d SUSPENDED n[ PH o [SEG p]]

[5]   ____________________________________________________________________
      EX GRID=a-b-c-d SUSPECTED FAULTY EQUIPMENT d1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL       TYPE  NOTE
         q      r [s]   t  u     v     [w]  x-y[-e1]   z    [a1]
        [.      .  .    .  .     .      .   . .  .     .     .]
        [.      .  .    .  .     .      .   . .  .     .     .]
        [.      .  .    .  .     .      .   . .  .     .     .]

[6]   ____________________________________________________________________
      EX GRID=a-b-c-d  b1 [c1]

[7]   ____________________________________________________________________
      EX GRID=a-b-c PH g SEG h STMT f1 g1
       [EXP k MASK l ACTL m]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:GRID input message to diagnose the gated diode crosspoint grid.

Format 1 indicates that the specified segments have been completed, and reports the overall result It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the specified input message was invalid.

Format 3 indicates that a test has failed and specifies which test.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous command, may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble location procedure (TLP) option was specified in the input message.

Format 6 indicates that the diagnostic execution has terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Grid number.

`e` = Loop result. Valid value(s):

`ATP`	= All test were performed and all passed.
`CATP`	= Some tests were not performed, but all that were passed.
`NTR`	= No tests run.
`STF`	= Some tests failed.

`f` = Reason the command was rejected.

`g` = Phase in which the failure occurred.

`h` = Segment in which the failure occurred.

`i` = Test number that failed.

`j` = Mismatch results for the specified test in hexadecimal.

`k` = Raw data expected result for the specified test in hexadecimal.

`l` = Raw data mask used to determine the test failure in hexadecimal.

`m` = Raw data actual result for the specified test in hexadecimal.

`n` = Result of previous command. Valid value(s):

`ATP`	= The specified segment(s) were completed and all tests passed.
`CATP`	= Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
`NTR`	= No tests were run since the last completion message.
`STF`	= The diagnostic has completed and some tests failed.

`o` = Phase number in which execution is suspended.

`p` = Segment number in which execution is suspended.

`q` = Identification number of floor and aisle.

`r` = Module type.

`s` = Module number.

`t` = Cabinet type.

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u = Cabinet number.

v = Replacement equipment code(s).

w = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM contents:

```
CODE A[:B]...[:C] [-] D[:E]...[:F]
:          = Intra-field delimiter.
-          = Inter-field delimiter if necessary.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code 'A').
C          = Additional compatible equipment code(s) (added as space permits).
D          = Current minimal approved operating level for equipment code 'A'.
E          = Current minimal approved operating level for equipment code 'B'.
F          = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

x = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

y = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

z = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

____ = Equipment is part of the circuit under test.

a[1] = Refer to APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

b[1] = Termination status. Valid value(s):

ABORTED = The process was terminated (process not gracefully terminated).

NOT STARTED = Action was not begun.

STOPPED = Terminated before normal completion (process gracefully terminated).

c[1] = Termination reason.

d[1] = Text identifier showing order of record. Valid value(s):

FIRST = First record of continuing list.

LAST = Last record of list.

NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

e[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

f[1] = Statement number.

g[1] = Reason why some tests were not performed. Refer to APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

For Formats 1, 6, and 7, no action is required.

For Format 2, determine the correct input message and reenter the diagnostic exercise request.

For Format 3, repair the faulty unit.

For Format 4:

If output includes:	Action:
only `SUSPENDED NTR`	Enter the first exercise command for the purpose of manual troubleshooting.
`SUSPENDED ATP PH o SEG p`	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
`SUSPENDED CATP PH o SEG p`	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous command.
`SUSPENDED NTR PH o SEG p` and the RPT option was specified	This message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
`SUSPENDED STF PH o SEG p`	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
`SUSPENDED x PH o`	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.
`SUSPENDED x PH o`	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:GRID
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

EX:GRIDBD

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX GRIDBD=a-b-c-d e

[2]   ____________________________________________________________________
      EX GRIDBD=a-b-c-d NOT STARTED f

[3]   ____________________________________________________________________
      EX GRIDBD=a-b-c-d STF PH g SEG h TEST i MM j
       [EXP k MASK l ACTL m]

[4]   ____________________________________________________________________
      EX GRIDBD=a-b-c-d SUSPENDED n[ PH o [SEG p]]

[5]   ____________________________________________________________________
      EX GRIDBD=a-b-c-d SUSPECTED FAULTY EQUIPMENT d1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL      TYPE  NOTE
         q       r [s]   t  u     v     [w]  x-y[-e1]   z    [a1]
        [.       .  .    .  .     .      .   . .  .     .     .]
        [.       .  .    .  .     .      .   . .  .     .     .]
        [.       .  .    .  .     .      .   . .  .     .     .]

[6]   ____________________________________________________________________
      EX GRIDBD=a-b-c-d b1 [c1]

[7]   ____________________________________________________________________
      EX GRIDBD=a-b-c-d PH g SEG h STMT f1 g1
       [EXP k MASK l ACTL m]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:GRIDBD input message to exercise the line unit model 2 (LU2) or line unit model 3 (LU3) grid board.

Format 1 indicates that the specified segments have been completed, and reports the overall result. It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the specified input message was invalid.

Format 3 indicates that a test has failed and specifies which test.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous input message, may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble location procedure (TLP) option was specified in the input message.

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Format 6 indicates that the diagnostic execution has terminated.

Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Line unit number.

`c` = Grid number.

`d` = Board number.

`e` = Loop result. Valid value(s):

- `ATP` = All tests were performed and all passed.
- `CATP` = Some tests were not performed, but all tests that were performed passed.
- `NTR` = No tests were run.
- `STF` = Some tests failed.

`f` = Reason the input message was not started.

`g` = Number of the phase in which the failure occurred.

`h` = Number of the segment in which the failure occurred.

`i` = Number of the test that failed.

`j` = Mismatch results for the specified test in hexadecimal.

`k` = Expected results for the specified test, in hexadecimal.

`l` = Mask used to determine test failure, in hexadecimal.

`m` = Actual result for the specified test, in hexadecimal.

`n` = Result of previous input message. Valid value(s):

- `ATP` = The specified segment(s) completed and all tests passed.
- `CATP` = Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
- `NTR` = No tests were run since the last completion message.
- `STF` = The specified segment(s) completed and some tests failed.

`o` = Phase number in which execution was suspended.

`p` = Segment number in which execution was suspended.

`q` = Identification number of floor and aisle.

`r` = Module type.

`s` = Module number.

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t = Cabinet type.

u = Cabinet number.

v = Replacement equipment code(s).

w = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
:          = Intra-field delimiter.
-          = Inter-field delimiter if necessary.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code 'A').
C          = Additional compatible equipment code(s) (added as space permits).
D          = Current minimal approved operating level for equipment code 'A'.
E          = Current minimal approved operating level for equipment code 'B'.
F          = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

x = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

y = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

z = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

____ = Equipment is part of the circuit under test.

a[1] = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

b[1] = Termination status. Valid value(s):

ABORTED = The process was terminated (process not gracefully terminated).

NOT STARTED = Action was not begun.

STOPPED = Terminated before normal completion (process gracefully terminated).

c[1] = Termination reason. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

d[1] = Text identifier showing order of record. Valid value(s):

FIRST = First record of continuing list.
LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

e[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

f[1] = Statement number.

g[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Formats 1, 6, and 7, no action is required.

For Format 2, determine the correct input message and reenter the diagnostic exercise request.

For Format 3, repair the faulty unit.

For Format 4:

If output includes:	Action:
only SUSPENDED NTR	Enter the first input exercise input message for the purpose of manual troubleshooting.
SUSPENDED ATP PH o SEG p	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
SUSPENDED CATP PH o SEG p	This message indicates that a lack of resources for the previously specified segments(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous input message.
SUSPENDED NTR PH o SEG p and the RPT option was specified	This message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
SUSPENDED STF PH o SEG p	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected packs one at a time in the order specified. Rerun the entire diagnostic after each substitution until the fault is repaired or the diagnostic results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:GRIDBD
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

EX:HDFI

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EX HDFI=a-b-c d

[2]   ____________________________________________________________
      EX HDFI=a-b-c NOT STARTED e

[3]   ____________________________________________________________
      EX HDFI=a-b-c STF PH f SEG g TEST h MM i
       [EXP j MASK k ACTL l]

[4]   ____________________________________________________________
      EX HDFI=a-b-c SUSPENDED m[ PH n [SEG o]]

[5]   ____________________________________________________________
      EX HDFI=a-b-c SUSPECTED FAULTY EQUIPMENT a1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL      TYPE  NOTE
          p    q [b1]   r [c1]   s     [t]  u-v[-d1]   w    [x]
         [.    .  .     .  .     .      .   . .  .     .     .]
         [.    .  .     .  .     .      .   . .  .     .     .]
         [.    .  .     .  .     .      .   . .  .     .     .]

[6]   ____________________________________________________________
      EX HDFI=a-b-c y [z]

[7]   ____________________________________________________________
      EX HDFI=a-b-c PH f SEG g STMT e1 f1
       [EXP j MASK k ACTL l]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:HDFI input message to exercise a host switching module (HSM) digital facilities interface (HDFI) circuit.

Format 1 indicates that the specified segments completed and all tests passed. It applies only when the repeat (RPT) option is specified in the input message. Execution of the exercise will continue for the remaining iterations.

Format 2 indicates that an option specified in the input message was invalid.

Format 3 indicates which test failed.

Format 4 indicates execution of the exercise is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous input message may also be printed.

Format 5 provides an ordered list of suspected faulty equipment. It applies only when the trouble locating procedure (TLP) option is specified in the input message.

Format 6 indicates execution of the exercise is terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Digital line and trunk unit (DLTU) number.

c = HDFI number.

d = Loop result. Valid value(s):

- ATP = All tests performed and passed.
- CATP = Some tests were skipped because supporting hardware was not available, but all tests which were run passed.
- NTP = No tests performed.
- STF = Some tests failed.

e = Reason the input message was rejected.

f = Phase in which the failure occurred.

g = Segment in which the failure occurred.

h = Test that failed.

i = Mismatch results for the specified test in hexadecimal.

j = Expected result for the specified test in hexadecimal.

k = Mask used to determine test failure in hexadecimal.

l = Actual result for the specified test in hexadecimal.

m = Result of previous input message. Valid value(s):

- ATP = The specified segment(s) were completed and all tests were performed and passed.
- CATP = Some tests in the specified segment were skipped because supporting hardware was not available, but all tests which were run passed.
- NTP = No tests performed.
- STF = Some tests in the segment failed.

n = Phase where execution is suspended.

o = Segment where execution is suspended.

p = Floor and aisle.

q = Module type.

r = Cabinet type.

s = Replacement equipment code(s).

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t = Equipment form(s). Equipment form represents minimal operating level of replacement equipment.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code A).
C          = Additional compatible equipment code(s) (added as space permits).
D          = Current minimal approved operating Level for equipment code A.
E          = Current minimal approved operating Level for equipment code B.
F          = Current minimal approved operating level(s) for equipment code(s) C.
:          = Intra-field delimiter.
-          = Inter-field delimiter if necessary.
```

Codes A, B, and C may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms D, E, and F may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

u = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

v = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

w = Circuit type. Valid value(s):

____ = Equipment is part of the circuit under test.

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

x = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

y = Termination report. Valid value(s):

ABORTED = Requested action was terminated before completion, and the termination was complete.

COMPLETED = Request has successfully completed, and reports the overall result.

NOT STARTED = Requested action had not begun.

STOPPED = Requested action was terminated before a normal completion.

z = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

a[1] = Text identifier showing order of record. Valid value(s):

FIRST = First record of continuing list.

LAST = Last record of list.

NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

b[1] = Module number.

c[1] = Cabinet number.

d[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

e[1] = Statement number.

f[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 2, determine the correct phase numbers and reenter the exercise request.

For Format 3, repair the faulty circuit.

For Format 4:

If output includes:	Action:
SUSPENDED NTP	Enter the first exercise input message for the purpose of manual troubleshooting.
SUSPENDED ATP PH n SEG o	The fault may have been repaired. Rerun the entire diagnostic.
SUSPENDED CATP PH n SEG o	This indicates a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the exercise request.
SUSPENDED NTR PH n SEG o and the RPT option was specified	Normal completion of the exercise is indicated. Proceed to troubleshoot the circuit. If this message occurs when the RPT option was not specified, no tests were run. Determine the reason and reenter the exercise request.
SUSPENDED STF PH n SEG o	Analyze the test failure data. Repair the faulty circuit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected faulty circuit packs one at a time. Rerun the exercise for each replaced circuit pack until the fault is repaired or the diagnostic results change.

For Formats 1, 6 and 7, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:HDFI
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

EX:HSDC

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EX HSDC a [COMPLETED] b [(c)]
       {MESSAGE|MSG} {IN PROGRESS|COMPLETE}

[2]   ____________________________________________________________
      EX HSDC a PH d b [(c)] {MESSAGE IN PROGRESS|MSG IP}

[3]   ____________________________________________________________
      EX HSDC a PH d STF (c)          MSG IP
        TEST    MISMATCH    ACTUAL  MASK    EXPECTED
         e         f          g      h         i

[4]   ____________________________________________________________
      EX HSDC a ABORTED AT PH d STMNT j b [(c)]       MSG IP

[5]   ____________________________________________________________
      EX HSDC a TERMINATED AT PH d STMNT j AFTER TEST k

[6]   ____________________________________________________________
      EX HSDC a TASK l {MESSAGE STARTED|QUEUED|ABORTED}
```

2. REASON FOR OUTPUT

To print results of a diagnostic run on the high speed data-link controller (HSDC) in the interactive mode.

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention [no openings in the active deferred maintenance queue (DMQ) and the request is in the waiting DMQ], or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

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b = The result of the diagnostic. Valid value(s):
- ATP = All tests passed.
- NTR = No tests were executed.
- STF = Some tests failed.

c = If 'b' = STF, 'c' identifies the number of test failures in addition to the reasons that tests were skipped. For example, if 'c' = (7 00000000 00000000), seven tests failed, and no tests were skipped.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A '1' in a bit position indicates that the response from the unit did not match the expected response in that bit.
Note: For Format 3 the values for 'g', 'h' and 'i' may be set to N/A. This means that this data is not available for the specified device.

g = The bits which were actually received from the hardware device.

h = Determines which bits in 'g' are included in this test.

i = The value which the test expected.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

If 'b' = STF, the unit should be repaired as quickly as possible. Refer to the Corrective Maintenance manual for the repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	96, 103
2	99, 103
3	109, 110
4	106, 109, 110, 111
5	217
6	70, 99

Input Message(s):

```
EX:HSDC
STOP:DMQ
STP:DMQ
```

Output Message(s):

```
DGN:SDLC
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

EX:IDCU

Software Release: 5E10 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EX:IDCU=a-b-c d

[2]   ____________________________________________________________
      EX:IDCU=a-b-c NOT STARTED e

[3]   ____________________________________________________________
      EX:IDCU=a-b-c STF PH f SEG g TEST h MM i
       [EXP j MASK k ACTL l]

[4]   ____________________________________________________________
      EX:IDCU=a-b-c SUSPENDED m [PH n [SEG o]]

[5]   ____________________________________________________________
      EX:IDCU=a-b-c SUSPECTED FAULTY EQUIPMENT p RECORD
        AISLE  MODULE  CABINET CODE   FORM   EQL       TYPE NOTE
         q     r [s]   t   u   v        [w]  x-y[-z]    a1    b1
         .     .  .    .   .   .         .    .         .     .
         .     .  .    .   .   .         .    .         .     .
         .     .  .    .   .   .         .    .         .     .

[6]   ____________________________________________________________
      EX IDCU=a-b-c c1 [d1]
```

2. REASON FOR OUTPUT

To report the results of executing the EX:IDCU input message that diagnoses an integrated digital carrier unit (IDCU) service group circuit.

Format 1 indicates that the specified segments have been completed and all tests have passed. It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic continues for the remaining iterations.

Format 2 indicates that the specified options in the input message was invalid.

Format 3 indicates that a specific test has failed.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous command, may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble locating procedure (TLP) option was specified in the input message.

Format 6 indicates that the diagnostic execution terminated.

3. VARIABLE FIELD DEFINITIONS

a = Switching module number.

b = IDCU number.

c = IDCU service group number.

d = Loop results. Valid value(s):

ATP	= All tests were performed and passed.
CATP	= Some tests were not performed, but all performed tests passed.
NTR	= No tests run.
STF	= Some tests failed.

e = Reason the command was rejected.

f = Phase in which the failure occurred.

g = Segment in which the failure occurred.

h = Test number that failed.

i = Mismatched results for the specified test in hexadecimal.

j = Expected result for the specified test in hexadecimal.

k = Mask used to determine the test failure in hexadecimal.

l = Actual result for the specified test in hexadecimal.

m = Result of previous command. Valid value(s):

ATP	= The specified segment(s) were completed and all tests passed.
CATP	= Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
NTR	= No tests were run since the last completion message.
STF	= The diagnostic has completed and some tests failed.

n = Phase number in which execution is suspended.

o = Segment number in which execution is suspended.

p = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

Up to 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

q = Identification number of floor and aisle.

r = Module type.

s = Module number.

t = Cabinet type.

u = Cabinet number.

v = Replacement equipment code(s).

w = Equipment form(s). Equipment form represents minimal operating level of replacement equipment.

Example of CODE FORM content:

```
CODE
A[:B] ... [:C] [-] D[:E] ... [:F]
```

Codes A, B, and C may independently represent apparatus code(s), microcode identifier(s), or text identifier(s) as applicable.

:	= Intra-field delimiter.
-	= Inter-field delimiter, if necessary.
A	= Current minimal accepted equipment code.
B	= Current production equipment code (replaceable equipment for code 'A').
C	= Additional compatible equipment code(s) (added as space permits).
D	= Current minimal approved operating level for equipment code 'A'.
E	= Current minimal approved operating level for equipment code 'B'.
F	= Current minimal approved operating level(s) for equipment code(s) 'C'.

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s), or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier, or text identifier(s) as applicable.

x = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

y = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

z = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

a[1] = Circuit type. Valid value(s):

HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
_	= Equipment is part of the circuit under test.

b[1] = Note number refers to the APP:TLP-NOTE appendix.

c[1] = Termination report. Valid value(s):

ABORTED	= Requested action was terminated before completion, and the termination was not graceful.
COMPLETED	= Request action has successfully completed.

`NOT STARTED` = Requested action has not begun.
`STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`d`[1] = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

For Format 1 no action is required.

For Format 2 determine the correct phase number and reenter the exercise request.

For Format 3 analyze failure data to determine reason for failure or run the exercise using the TLP option to generate a suspected faulty circuit pack list.

For Format 4:

If output includes:	Action:
only `EX:IDCU=a-b-c SUSPENDED NTR`	Enter the first exercise command for the purpose of manual troubleshooting.
`EX:IDCU=a-b-c SUSPENDED ATP PH n SEG o`	The fault may have been repaired. Rerun the entire diagnostic.
`EX:IDCU=a-b-c SUSPENDED CATP PH n SEG o`	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the exercise request.
`EX:IDCU=a-b-c SUSPENDED NTR PH n SEG o` printed and the RPT option was specified	Normal completion of the exercise is indicated. Proceed to troubleshoot the circuit. If this message occurs when the RPT option was not specified, no tests were run. Determine the reason and reenter the exercise request.
`EX:IDCU=a-b-c SUSPENDED STF PH n SEG o`	Analyze the test failure data. Repair the faulty circuit or enter another exercise request to continue troubleshooting.
`EX:IDCU=a-b-c SUSPENDED - PH o`	The specific phase was terminated. Complete PH and SEG specification must be provided on the next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the diagnostic exercise for each replaced pack until the fault is repaired or the diagnostic results change.

For Format 6, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:IDCU
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

186x (IDCU CIRCUIT)

EX:IOP

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EX IOP a [COMPLETED] b [(c)]
       {MESSAGE|MSG} {IN PROGRESS|COMPLETE}

[2]   ____________________________________________________________
      EX IOP a PH d b [(c)] {MESSAGE IN PROGRESS|MSG IP}

[3]   ____________________________________________________________
      EX IOP a PH d STF (c)          MSG IP
        TEST    MISMATCH    ACTUAL  MASK    EXPECTED
         e         f          g      h         i

[4]   ____________________________________________________________
      EX IOP a ABORTED AT PH d STMNT j b [(c)]       MSG IP

[5]   ____________________________________________________________
      EX IOP a TERMINATED AT PH d STMNT j AFTER TEST k

[6]   ____________________________________________________________
      EX IOP a TASK l {MESSAGE STARTED|QUEUED|ABORTED}
```

2. REASON FOR OUTPUT

To print results of a diagnostic run on the input/output processor (IOP) in the interactive mode.

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

b = The result of the diagnostic. Valid value(s):

ATP = All tests passed.

CATP = All tests that were executed were ATP; some were not executed due to the unavailability of a system resource that was needed to perform the test.

NTR = No tests were executed.

STF = Some tests failed.

c = If 'b' = CATP or NTR, 'c' identifies the reasons tests were skipped in this phase by their bit position in a 16-digit hexadecimal number. For example, if 'c' = (00000000 00000018), tests were skipped for reasons 3 and 4.

If 'b' = STF, 'c' identifies the number of test failures in addition to the resons that tests were skipped. For example, if 'c' = (7 00000000 00000006), seven tests failed, plus tests were skipped for reasons 1 and 2. The reason codes are as follows:

Bits	Reason
0	Helper unit not specified or invalid.
1	Helper unit cannot be reserved.
2	Helper unit not out-of-service.
3	Helper unit is not ATP.
4	Helper unit not connected to controller being diagnosed.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A '1' in a bit position indicates that the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines which bits in 'g' are included in this test.

i = The value which the test expected.

Note: For Format 3 the values for 'g', 'h,' and 'i' may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

If 'b' =	Action:
CATP	The needed system resource should be made available if possible, so that all tests may be executed.
STF	The unit should be repaired as quickly as possible. Refer to the Corrective Maintenance manual for the repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

Input Message(s):

```
EX:IOP
STOP:DMQ
STP:DMQ
```

Output Message(s):

```
DGN:IOP
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

EX:ISLUCC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EX ISLUCC=a-b-c d

[2]   ____________________________________________________________
      EX ISLUCC=a-b-c NOT STARTED e

[3]   ____________________________________________________________
      EX ISLUCC=a-b-c STF PH f SEG g TEST h MM i
       [ACTL j MASK k EXPR l]

[4]   ____________________________________________________________
      EX ISLUCC=a-b-c SUSPENDED m[ PH n [SEG o]]

[5]   ____________________________________________________________
      EX ISLUCC=a-b-c SUSPECTED FAULTY EQUIPMENT d1 RECORD
        AISLE  MODULE CABINET  CODE  FORM      EQL    TYPE   NOTE
          p     q [r]   s  t     u    [v]    w x [-y]   z    [a1]
        [ .     .  .    .  .     .     .     . .   .    .     . ]
        [ .     .  .    .  .     .     .     . .   .    .     . ]
        [ .     .  .    .  .     .     .     . .   .    .     . ]

[6]   ____________________________________________________________
      EX ISLUCC=a-b-c b1 [c1]
```

2. REASON FOR OUTPUT

To report the results of executing an EX:ISLUCC input message to exercise an integrated services line unit common controller (ISLUCC).

Format 1 indicates that the specified segments completed and all tests passed. It applies only when the RPT option is specified in the input messages. Execution of the exercise will continue for the remaining iterations.

Format 2 indicates that an option specified in the input message was invalid.

Format 3 indicates which test failed.

Format 4 indicates that execution of the exercise is suspended. The phase and segment in which the suspension occurs, and a summary of the results of the previous command may also be printed.

Format 5 provides an ordered list of suspected faulty equipment. It applies only when the TLP option is specified in the input message.

Format 6 indicates that the diagnostic execution has terminated.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

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b = Integrated services line unit (ISLU) number.

c = Common controller number.

d = Loop result. Valid value(s):

ATP	= All tests performed and passed.
CATP	= Conditionally ATP. Some tests were skipped because supporting hardware was not available, but all tests passed which were run.
NTR	= No tests run.
STF	= Some tests failed.

e = Reason the command was rejected.

f = Phase in which the failure occurred.

g = Segment in which the failure occurred.

h = Test that failed.

i = Mismatch results for the specified test in hexadecimal.

j = Espected result in hexadecimal for the specified test in hexadecimal.

k = Mask in hexadecimal used to determine test failure in hexadecimal.

l = Actual result in hexadecimal for the specified test in hexadecimal.

m = Type of suspension. Valid value(s):

ATP	= All tests were performed and passed.
CATP	= Conditionally ATP. Some test were skipped because supporting hardware was not available, but all tests passed which were run.
NTR	= No tests run.
STF	= Some tests failed.

n = Phase where execution is suspended.

o = Segment where execution is suspended.

p = Floor and aisle number.

q = Module type.

r = Module number.

w = Cabinet type.

t = Cabinet number.

u = Replacement equipment code(s).

v = Equipment form(s). Equipment form represents minimal operating level of replacement equipment.

Example of CODE FORM content:

CODE
A[:B]...[:C] [-] D[:E]...[:F]

A	= Current minimal accepted equipment code.
B	= Current production equipment code (substitutable equipment for code A).
C	= Additional compatible equipment code(s) (added as space permits)
D	= Current minimal approved operating level for equipment code A.
E	= Current minimal approved operating level for equipment code B.
F	= Current minimal approved operating level(s) for equipment code(s) C.
:	= Intra-field delimiter.
-	= Inter-field delimiter if necessary.

Codes A, B, and C may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms D, E, and F may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

w = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

x = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

y = Depth location in the cabinet.

z = Circuit type. Valid value(s):

___	= Equipment is part of the circuit under test.
HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the online member of a duplex pair. The online member must be removed, and the mate made online, before replacement is attempted.

a[1] = Refer to appendix APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

b[1] = Termination status. Valid value(s):

ABORTED	= Requested action was terminated before completion, and the termination was not graceful.
COMPLETED	= Requested action has successfully completed.
NOT STARTED	= Requested action has not begun.
STOPPED	= Requested action was terminated before a normal completion. Termination was graceful.

c[1] = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Message manual.

d[1] = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

4. ACTION TO BE TAKEN

For Format 1, none.

For Format 2, determine the correct phase number and reenter the exercise request.

For Format 3, repair the faulty unit.

For Format 4:

If output includes:	Action:
only `EX ISLUCC (a,b,c) SUSPENDED NTR`	Enter the first exercise message for the purpose of manual troubleshooting.
`EX ISLUCC (a,b,c) SUSPENDED ATP PH n SEG o`	The fault may have been repaired. Rerun the entire diagnostic.
`EX ISLUCC (a,b,c) SUSPENDED CATP PH n SEG o`	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the exercise request.
`EX ISLUCC (a,b,c) SUSPENDED NTR PH n SEG o` and the RPT option was specified	Normal completion of the exercise is indicated. Proceed to troubleshoot the circuit. If this message occurs when the RPT option was not specified, no tests were run. Determine the reason and reenter the exercise request.
`EX ISLUCC (a,b,c) SUSPENDED STF PH n SEG o`	Analyze the test failure data. Repair the faulty circuit or enter another exercise request to continue troubleshooting.
`EX ISLUCC (a,b,c) SUSPENDED x PH o`	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected equipment one at a time. Rerun the diagnostic exercise for each replacement until the fault is repaired or the diagnostic results change.

For Format 6, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:ISLUCC
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x (ISLU NETWORK)
170xy (ISLU LINE GROUP)

EX:ISLUCD

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EX ISLUCD=a-b-c d

[2]   ____________________________________________________________
      EX ISLUCD=a-b-c NOT STARTED e

[3]   ____________________________________________________________
      EX ISLUCD=a-b-c STF PH f SEG g TEST h MM i
       [ACTL j MASK k EXPR l]

[4]   ____________________________________________________________
      EX ISLUCD=a-b-c SUSPENDED m[ PH n [SEG o]]

[5]   ____________________________________________________________
      EX ISLUCD=a-b-c SUSPECTED FAULTY EQUIPMENT d1 RECORD
        AISLE  MODULE CABINET  CODE  FORM      EQL    TYPE   NOTE
          p     q [r]   s  t     u    [v]    w x [-y]   z    [a1]
        [ .     .  .    .  .     .     .     . .   .    .     . ]
        [ .     .  .    .  .     .     .     . .   .    .     . ]
        [ .     .  .    .  .     .     .     . .   .    .     . ]

[6]   ____________________________________________________________
      EX ISLUCD=a-b-c b1 [c1]
```

2. REASON FOR OUTPUT

To report the results of executing an EX:ISLUCD input message to exercise an integrated services line unit common data (ISLUCD).

Format 1 indicates that the specified segments completed and all tests passed. It applies only when the RPT option is specified in the input messages. Execution of the exercise will continue for the remaining iterations.

Format 2 indicates that an option specified in the input message was invalid.

Format 3 indicates which test failed.

Format 4 indicates that execution of the exercise is suspended. The phase and segment in which the suspension occurs, and a summary of the results of the previous command may also be printed.

Format 5 provides an ordered list of suspected faulty equipment. It applies only when the TLP option is specified in the input message.

Format 6 indicates that the diagnostic execution has terminated.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

b = Integrated services line unit (ISLU) number.

c = Common data number.

d = Loop result. Valid value(s):

ATP	= All tests performed and passed.
CATP	= Conditionally ATP. Some tests were skipped because supporting hardware was not available, but all tests passed which were run.
NTR	= No tests run.
STF	= Some tests failed.

e = Reason the command was rejected.

f = Phase in which the failure occurred.

g = Segment in which the failure occurred.

h = Test that failed.

i = Mismatch results for the specified test in hexadecimal.

j = Expected result in hexadecimal for the specified test in hexadecimal.

k = Mask in hexadecimal used to determine test failure in hexadecimal.

l = Actual result in hexadecimal for the specified test in hexadecimal.

m = Type of suspension. Valid value(s):

ATP	= All tests were performed and passed.
CATP	= Conditionally ATP. Some tests were skipped because supporting hardware was not available, but all tests passed which were run.
NTR	= No tests run.
STF	= Some tests failed.

n = Phase where execution is suspended.

o = Segment where execution is suspended.

p = Floor and aisle number.

q = Module type.

r = Module number.

s = Cabinet type.

t = Cabinet number.

u = Replacement equipment code(s).

v = Equipment form(s). Equipment form represents minimal operating level of replacement equipment.

Example of CODE FORM content:

CODE
A[:B]...[:C] [-] D[:E]...[:F]

A	= Current minimal accepted equipment code.
B	= Current production equipment code (substitutable equipment for code A).
C	= Additional compatible equipment code(s) (added as space permits).
D	= Current minimal approved operating level for equipment code A.
E	= Current minimal approved operating level for equipment code B.
F	= Current minimal approved operating level(s) for equipment code(s) C.
:	= Intra-field delimiter.
-	= Inter-field delimiter if necessary.

Codes A, B, and C may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms D, E, and F may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

w = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

x = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

y = Depth location in the cabinet.

z = Circuit type. Valid value(s):

___	= Equipment is part of the circuit under test.
HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the online member of a duplex pair. The online member must be removed, and the mate made online, before replacement is attempted.

a[1] = Refer to APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

b[1] = Termination status. Valid value(s):

ABORTED	= Requested action was terminated before completion, and the termination was not graceful.
COMPLETED	= Requested action has successfully completed.
NOT STARTED	= Requested action has not begun.
STOPPED	= Requested action was terminated before a normal completion. Termination was graceful.

c[1] = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Message manual.

d[1] = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

4. ACTION TO BE TAKEN

For Format 1, none.

For Format 2, determine the correct phase number and reenter the exercise request.

For Format 3, repair the faulty unit.

For Format 4:

If output includes:	Action:
only `EX ISLUCD (a,b,c) SUSPENDED NTR`	Enter the first exercise message for the purpose of manual troubleshooting.
`EX ISLUCD (a,b,c) SUSPENDED ATP PH n SEG o`	The fault may have been repaired. Rerun the entire diagnostic.
`EX ISLUCD (a,b,c) SUSPENDED CATP PH n SEG o`	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the exercise request.
`EX ISLUCD (a,b,c) SUSPENDED NTR PH n SEG o` and the RPT option was specified	Normal completion of the exercise is indicated. Proceed to troubleshoot the circuit. If this message occurs when the RPT option was not specified, no tests were run. Determine the reason and reenter the exercise request.
`EX ISLUCD (a,b,c) SUSPENDED STF PH n SEG o`	Analyze the test failure data. Repair the faulty circuit or enter another exercise request to continue troubleshooting.
`EX ISLUCD (a,b,c) SUSPENDED x PH o`	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected equipment one at a time. Rerun the diagnostic exercise for each replacement until the fault is repaired or the diagnostic results change.

For Format 6, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:ISLUCD
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x (ISLU NETWORK)
170xy (ISLU LINE GROUP)

EX:ISLUHLSC

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EX ISLUHLSC=a-b-c-d e

[2]   ____________________________________________________________
      EX ISLUHLSC=a-b-c-d f g

[3]   ____________________________________________________________
      EX ISLUHLSC=a-b-c-d SUSPENDED h [PH i [SEG j]]

[4]   ____________________________________________________________
      EX ISLUHLSC=a-b-c-d STF PH k SEG l TEST m MM n
       [EXPR o MASK p ACTL q]

[5]   ____________________________________________________________
      EX ISLUHLSC=a-b-c-d SUSPECTED FAULTY EQUIPMENT r RECORD
        AISLE  MODULE  CABINET  CODE  FORM   EQL    TYPE  NOTE
        s       t  u    v  w     x     y     z-a1    b1   [c1]
        .       .  .    .  .     .     .     . .     .      .
        .       .  .    .  .     .     .     . .     .      .
        .       .  .    .  .     .     .     . .     .      .
```

2. REASON FOR OUTPUT

To describe the result of the EX:ISLUHLSC input message that is issued to interactively diagnose an integrated services line unit (ISLU) high level service circuit. Format 1 prints when the specified segments have completed and all tests passed. This applies only when the RPT option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations. Format 2 prints when the diagnostic execution has completed, stopped, not started, or aborted. If the termination report is NOT STARTED, an incorrect phase number was specified in the input message. Format 3 indicates that execution of the diagnostic has been suspended. Both Formats 4 and 5 print when one or more tests have failed. Format 5 provides an ordered list of suspected faulty circuit packs.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = ISLU number.

`c` = ISLU service group number.

`d` = High level service circuit number.

`e` = Phase result. Valid value(s):

- `ATP` = All tests were performed and all passed.
- `CATP` = Some tests were skipped because supporting hardware was not available, but all tests that were run passed.

NTR = No tests were run.
STF = Some tests failed.

f = Termination report. Valid value(s):
ABORTED = Immediate termination
COMPLETED = Successful completion
NOT STARTED = Action has not begun
STOPPED = Terminated before normal completion

g = Information that qualifies the above termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Message manual.

h = Phase result. Valid value(s):
ATP = All tests were performed and all passed.
CATP = Some tests were skipped because supporting hardware was not available, but all tests that were run passed.
NTR = No tests were run.
STF = Some tests failed.

i = Number of the phase in which execution was suspended.

j = Number of the segment in which execution was suspended.

k = Number of the phase in which the error occurred.

l = Number of the segment in which the error occurred.

m = Number of the test that failed.

n = Mismatch results for the specified test.

o = Expected result for the specified test (in hexadecimal).

p = Mask used to determine the test failure (in hexadecimal).

q = Actual result of the specified test (in hexadecimal).

r = Text identifier showing order of record. Valid value(s):
FIRST = First record of continuing list
LAST = Last record of list
NEXT = Next record of continuing list

s = Floor and aisle number.

t = Module type.

u = Module number.

v = Cabinet type.

w = Cabinet number.

x = Circuit pack code number.

y = Equipment form. The equipment form represents the minimal operating level of replacement equipment.

z = Vertical location in the cabinet.

a[1] = Horizontal location in the cabinet.

b[1] = Circuit type.

c[1] = Note number. Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

For Format 1, none.

For Format 2, if the termination report is NOT STARTED, an incorrect phase number was specified in the input message. Determine the correct phase number and reissue the exercise input message.

If unexpected results occur, refer to the Corrective Maintenance manual.

For Format 3:

If the phase result is:	Action:
NTR and no phase number or segment number is given	Reissue the EX:ISLUHLSC input message for the purpose of troubleshooting.
NTR and phase and segment numbers are given, and the RPT option was specified in the input message	The exercise has completed normally. If the RPT option was not specified in the input message, determine the reason that no tests were run and reissue the exercise input message.
ATP	A lack of resources for the previously specified segments inhibited some of the tests. Idle the suspected resources and reissue the input message.
STF	Analyze the test failure data. Repair the faulty unit and issue another exercise input message to continue troubleshooting.

For Format 4, analyze the failure data to determine the reason for failure.

For Format 5, replace the suspected circuit packs one at a time in the order specified. Rerun the diagnostic exercise after each replacement until the fault is repaired or the diagnostic results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:ISLUHLSC
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x, 171x (ISLU)

EX:ISLULBD

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EX ISLULBD=a-b-c-d e

[2]   ____________________________________________________________
      EX ISLULBD=a-b-c-d NOT STARTED f

[3]   ____________________________________________________________
      EX ISLULBD=a-b-c-d STF PH g SEG h TEST i MM j
       [ACTL k MASK l EXPR m]

[4]   ____________________________________________________________
      EX ISLULBD=a-b-c-d SUSPENDED n[ PH p [SEG p]]

[5]   ____________________________________________________________
      EX ISLULBD=a-b-c-d SUSPECTED FAULTY EQUIPMENT e1 RECORD
        AISLE  MODULE CABINET  CODE  FORM      EQL    TYPE    NOTE
          q     r [s]   t u      v    [w]    x y [-z]   a1    [b1]
        [ .     .  .    . .      .     .     . .   .    .     . ]
        [ .     .  .    . .      .     .     . .   .    .     . ]
        [ .     .  .    . .      .     .     . .   .    .     . ]

[6]   ____________________________________________________________
      EX ISLULBD=a-b-c-d c1 [d1]
```

2. REASON FOR OUTPUT

To report the results of executing an EX:ISLULBD input message to exercise an integrated services line unit line board (ISLULBD).

Format 1 indicates that the specified segments completed and all tests passed. It applies only when the RPT option is specified in the input messages. Execution of the exercise will continue for the remaining iterations.

Format 2 indicates that an option specified in the input message was invalid.

Format 3 indicates which test failed.

Format 4 indicates that execution of the exercise is suspended. The phase and segment in which the suspension occurs, and a summary of the results of the previous command may also be printed.

Format 5 provides an ordered list of suspected faulty equipment. It applies only when the TLP option is specified in the input message.

Format 6 indicates that the diagnostic execution has terminated.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

b = Integrated services line unit (ISLU) number.

c = Line group number.

d = Line board number.

e = Loop result. Valid value(s):

ATP	= All tests performed and passed.
CATP	= Conditionally ATP. Some tests were skipped because supporting hardware was not available, but all tests passed which were run.
NTR	= No tests run.
STF	= Some tests failed.

f = Reason the command was rejected.

g = Phase in which the failure occurred.

h = Segment in which the failure occurred.

i = Test that failed.

j = Mismatch results for the specified test in hexadecimal.

k = Expected result in hexadecimal for the specified test in hexadecimal.

l = Mask in hexadecimal used to determine test failure in hexadecimal.

m = Actual result in hexadecimal for the specified test in hexadecimal.

n = Type of suspension. Valid value(s):

ATP	= All tests were performed and passed.
CATP	= Conditionally ATP. Some tests were skipped because supporting hardware was not available, but all tests passed which were run.
NTR	= No tests run.
STF	= Some tests failed.

o = Phase where execution is suspended.

p = Segment where execution is suspended.

q = Floor and aisle number.

r = Module type.

s = Module number.

t = Cabinet type.

u = Cabinet number.

v = Replacement equipment code(s).

w = Equipment form(s). Equipment form represents minimal operating level of replacement equipment.

Example of CODE FORM content:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
```

A = Current minimal accepted equipment code.
B = Current production equipment code (substitutable equipment for code A).
C = Additional compatible equipment code(s) (added as space permits).
D = Current minimal approved operating level for equipment code A.
E = Current minimal approved operating level for equipment code B.
F = Current minimal approved operating level(s) for equipment code(s) C.
: = Intra-field delimiter.
- = Inter-field delimiter if necessary.

Codes A, B, and C may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms D, E, and F may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

x = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

y = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

z = Depth location in the cabinet.

a[1] = Circuit type. Valid value(s):
HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL = Equipment is part of the online member of a duplex pair. The online member must be removed, and the mate made online, before replacement is attempted.
___ = Equipment is part of the circuit under test.

b[1] = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

c[1] = Termination status. Valid value(s):
ABORTED = Requested action was terminated before completion, and the termination was not graceful.
COMPLETED = Requested action has successfully completed.
NOT STARTED = Requested action has not begun.
STOPPED = Requested action was terminated before a normal completion. Termination was graceful.

d[1] = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Message manual.

e[1] = Text identifier showing order of record. Valid value(s):
FIRST = First record of continuing list.
LAST = Last record of list.

`NEXT` = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

4. ACTION TO BE TAKEN

For Format 1, none.

For Format 2, determine the correct phase number and reenter the exercise request.

For Format 3, repair the faulty unit.

For Format 4:

If output includes:	Action: =
only `EX ISLULBD (a,b,c,d) SUSPENDED NTR`	Enter the first exercise command for the purpose of manual troubleshooting.
`EX ISLULBD (a,b,c,d) SUSPENDED ATP PH o SEG p`	The fault may have been repaired. Rerun the entire diagnostic.
`EX ISLULBD (a,b,c,d) SUSPENDED CATP PH o SEG p`	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the exercise request.
`EX ISLULBD (a,b,c,d) SUSPENDED NTR PH o SEG p` and the RPT option was specified	Normal completion of the exercise is indicated. Proceed to troubleshoot the circuit. If this message occurs when the RPT option was not specified, no tests were run. Determine the reason and reenter the exercise request.
`EX ISLULBD (a,b,c,d) SUSPENDED STF PH o SEG p`	Analyze the test failure data. Repair the faulty circuit or enter another exercise request to continue troubleshooting.
`EX ISLULBD (a,b,c,d) SUSPENDED x PH o`	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected equipment one at a time. Rerun the diagnostic exercise for each replacement until the fault is repaired or the diagnostic results change.

For Format 6, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:ISLULBD
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

EX:ISLULC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EX ISLULC=a-b-c-d e

[2]   ____________________________________________________________
      EX ISLULC=a-b-c-d NOT STARTED f

[3]   ____________________________________________________________
      EX ISLULC=a-b-c-d STF PH g SEG h TEST i MM j
       [ACTL k MASK l EXPR m]

[4]   ____________________________________________________________
      EX ISLULC=a-b-c-d SUSPENDED n[ PH p [SEG p]]

[5]   ____________________________________________________________
      EX ISLULC=a-b-c-d SUSPECTED FAULTY EQUIPMENT e1 RECORD
        AISLE  MODULE CABINET  CODE  FORM      EQL    TYPE    NOTE
          q     r [s]   t u      v    [w]    x y [-z]   a1    [b1]
        [ .     .  .    . .      .     .     . .   .    .     . ]
        [ .     .  .    . .      .     .     . .   .    .     . ]
        [ .     .  .    . .      .     .     . .   .    .     . ]

[6]   ____________________________________________________________
      EX ISLULC=a-b-c-d c1 [d1]
```

2. REASON FOR OUTPUT

To report the results of executing an EX:ISLULC input message to exercise an integrated services line unit line card (ISLULC).

Format 1 indicates that the specified segments completed and all tests passed. It applies only when the RPT option is specified in the input messages. Execution of the exercise will continue for the remaining iterations.

Format 2 indicates that an option specified in the input message was invalid.

Format 3 indicates which test failed.

Format 4 indicates that execution of the exercise is suspended. The phase and segment in which the suspension occurs, and a summary of the results of the previous command may also be printed.

Format 5 provides an ordered list of suspected faulty equipment. It applies only when the TLP option is specified in the input message.

Format 6 indicates that the diagnostic execution has terminated.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

b = Integrated services line unit (ISLU) number.

c = Line group controller number.

d = Line card number.

e = Loop result. Valid value(s):

ATP	= All tests performed and passed.
CATP	= Conditionally ATP. Some tests were skipped because supporting hardware was not available, but all tests passed which were run.
NTR	= No tests run.
STF	= Some tests failed.

f = Reason the command was rejected.

g = Phase in which the failure occurred.

h = Segment in which the failure occurred.

i = Test that failed.

j = Mismatch results for the specified test in hexadecimal.

k = Expected result in hexadecimal for the specified test in hexadecimal.

l = Mask in hexadecimal used to determine test failure in hexadecimal.

m = Actual result in hexadecimal for the specified test in hexadecimal.

n = Type of suspension. Valid value(s):

ATP	= All tests were performed and passed.
CATP	= Conditionally ATP. Some tests were skipped because supporting hardware was not available, but all tests passed which were run.
NTR	= No tests run.
STF	= Some tests failed.

o = Phase where execution is suspended.

p = Segment where execution is suspended.

q = Floor and aisle number.

r = Module type.

s = Module number.

t = Cabinet type.

u = Cabinet number.

v = Replacement equipment code(s).

w = Equipment form(s). Equipment form represents minimal operating level of replacement equipment.

Example of CODE FORM content:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
```

A = Current minimal accepted equipment code.
B = Current production equipment code (substitutable equipment for code A).
C = Additional compatible equipment code(s) (added as space permits).
D = Current minimal approved operating level for equipment code A.
E = Current minimal approved operating level for equipment code B.
F = Current minimal approved operating level(s) for equipment code(s) C.
: = Intra-field delimiter.
- = Inter-field delimiter if necessary.

Codes A, B, and C may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms D, E, and F may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

x = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

y = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

z = Depth location in the cabinet.

a[1] = Circuit type. Valid value(s):
HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL = Equipment is part of the online member of a duplex pair. The online member must be removed, and the mate made online, before replacement is attempted.
___ = Equipment is part of the circuit under test.

b[1] = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

c[1] = Termination status. Valid value(s):
ABORTED = Requested action was terminated before completion, and the termination was not graceful.
COMPLETED = Requested action has successfully completed.
NOT STARTED = Requested action has not begun.
STOPPED = Requested action was terminated before a normal completion. Termination was graceful.

d[1] = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Message manual.

e[1] = Text identifier showing order of record. Valid value(s):
FIRST = First record of continuing list.
LAST = Last record of list.

`NEXT` = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

4. ACTION TO BE TAKEN

For Format 1, none.

For Format 2, determine the correct phase number and reenter the exercise request.

For Format 3, repair the faulty unit.

For Format 4:

If output includes:	Action:
only `EX ISLULC (a,b,c,d) SUSPENDED NTR`	Enter the first exercise command for the purpose of manual troubleshooting.
`EX ISLULC (a,b,c,d) SUSPENDED ATP PH o SEG p`	The fault may have been repaired. Rerun the entire diagnostic.
`EX ISLULC (a,b,c,d) SUSPENDED CATP PH o SEG p`	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the exercise request.
`EX ISLULC (a,b,c,d) SUSPENDED NTR PH o SEG p` and the RPT option was specified	Normal completion of the exercise is indicated. Proceed to troubleshoot the circuit. If this message occurs when the RPT option was not specified, no tests were run. Determine the reason and reenter the exercise request.
`EX ISLULC (a,b,c,d) SUSPENDED STF PH o SEG p`	Analyze the test failure data. Repair the faulty circuit or enter another exercise request to continue troubleshooting.
`EX ISLULC (a,b,c,d) SUSPENDED x PH o`	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected equipment one at a time. Rerun the diagnostic exercise for each replacement until the fault is repaired or the diagnostic results change.

For Format 6, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:ISLULC
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x (ISLU NETWORK)
170xy (ISLU LINE GROUP)

EX:ISLULCKT

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EX ISLULCKT=a-b-c-d-e f

[2]   ____________________________________________________________
      EX ISLULCKT=a-b-c-d-e NOT STARTED g

[3]   ____________________________________________________________
      EX ISLULCKT=a-b-c-d-e STF PH h SEG i TEST j MM k
       [ACTL l MASK m EXPR n]

[4]   ____________________________________________________________
      EX ISLULCKT=a-b-c-d-e SUSPENDED o[ PH q [SEG p]]

[5]   ____________________________________________________________
      EX ISLULCKT=a-b-c-d-e SUSPECTED FAULTY EQUIPMENT f1 RECORD
        AISLE  MODULE CABINET  CODE  FORM      EQL    TYPE    NOTE
          r     s [t]   u v      w    [x]    y z [-a1]   b1   [c1]
        [ .     .  .    . .      .     .     . .   .    .     . ]
        [ .     .  .    . .      .     .     . .   .    .     . ]
        [ .     .  .    . .      .     .     . .   .    .     . ]

[6]   ____________________________________________________________
      EX ISLULCKT=a-b-c-d-e d1 [e1]
```

2. REASON FOR OUTPUT

To report the results of executing an EX:ISLULCKT input message to exercise an integrated services line unit line circuit (ISLULCKT).

Format 1 indicates that the specified segments completed and all tests passed. It applies only when the RPT option is specified in the input messages. Execution of the exercise will continue for the remaining iterations.

Format 2 indicates that an option specified in the input message was invalid.

Format 3 indicates which test failed.

Format 4 indicates that execution of the exercise is suspended. The phase and segment in which the suspension occurs, and a summary of the results of the previous command may also be printed.

Format 5 provides an ordered list of suspected faulty equipment. It applies only when the TLP option is specified in the input message.

Format 6 indicates that the diagnostic execution has terminated.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

b = Integrated services line unit (ISLU) number.

c = Line group number.

d = Line board number.

e = Line circuit number.

f = Loop result. Valid value(s):

ATP	= All tests performed and passed.
CATP	= Conditionally ATP. Some tests were skipped because supporting hardware was not available, but all tests passed which were run.
NTR	= No tests run.
STF	= Some tests failed.

g = Reason the command was rejected.

h = Phase in which the failure occurred.

i = Segment in which the failure occurred.

j = Test that failed.

k = Mismatch results for the specified test in hexadecimal.

l = Expected result in hexadecimal for the specified test in hexadecimal.

m = Mask in hexadecimal used to determine test failure in hexadecimal.

n = Actual result in hexadecimal for the specified test in hexadecimal.

o = Type of suspension. Valid value(s):

ATP	= All tests were performed and passed.
CATP	= Conditionally ATP. Some tests were skipped because supporting hardware was not available, but all tests passed which were run.
NTR	= No tests run.
STF	= Some tests failed.

p = Phase where execution is suspended.

q = Segment where execution is suspended.

r = Floor and aisle number.

s = Module type.

t = Module number.

u = Cabinet type.

v = Cabinet number.

w = Replacement equipment code(s).

x = Equipment form(s). Equipment form represents minimal operating level of replacement equipment.

Example of CODE FORM content:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code A).
C          = Additional compatible equipment code(s) (added as space permits).
D          = Current minimal approved operating level for equipment code A.
E          = Current minimal approved operating level for equipment code B.
F          = Current minimal approved operating level(s) for equipment code(s) C.
:          = Intra-field delimiter.
-          = Inter-field delimiter if necessary.
```

Codes A, B, and C may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms D, E, and F may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

y = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

z = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

a[1] = Depth location in the cabinet.

b[1] = Circuit type. Valid value(s):

HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the online member of a duplex pair. The online member must be removed, and the mate made online, before replacement is attempted.
___	= Equipment is part of the circuit under test.

c[1] = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

d[1] = Termination status. Valid value(s):

ABORTED	= Requested action was terminated before completion, and the termination was not graceful.
COMPLETED	= Requested action has successfully completed.
NOT STARTED	= Requested action has not begun.
STOPPED	= Requested action was terminated before a normal completion. Termination was graceful.

e[1] = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Message manual.

e[1] = Text identifier showing order of record. Valid value(s):

FIRST = First record of continuing list.
LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

4. ACTION TO BE TAKEN

For Format 1, none.

For Format 2, determine the correct phase number and reenter the exercise request.

For Format 3, repair the faulty unit.

For Format 4:

If output includes:	Action: =
only EX ISLULCKT (a,b,c,d,e) SUSPENDED NTR	Enter the first exercise command for the purpose of manual troubleshooting.
EX ISLULCKT (a,b,c,d,e) SUSPENDED ATP PH p SEG q	The fault may have been repaired. Rerun the entire diagnostic.
EX ISLULCKT (a,b,c,d,e) SUSPENDED CATP PH p SEG q	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the exercise request.
EX ISLULCKT (a,b,c,d,e) SUSPENDED NTR PH p SEG q and the RPT option was specified	Normal completion of the exercise is indicated. Proceed to troubleshoot the circuit. If this message occurs when the RPT option was not specified, no tests were run. Determine the reason and reenter the exercise request.
EX ISLULCKT (a,b,c,d,e) SUSPENDED STF PH p SEG q	Analyze the test failure data. Repair the faulty circuit or enter another exercise request to continue troubleshooting.
EX ISLULCKT (a,b,c,d,e) SUSPENDED y PH p	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected equipment one at a time. Rerun the diagnostic exercise for each replacement until the fault is repaired or the diagnostic results change.

For Format 6, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

EX:ISLULCKT

Output Appendix(es):

APP:MAINT-RESP
APP:TLP-NOTE

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

EX:ISLULGC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EX ISLULGC=a-b-c d

[2]   ____________________________________________________________
      EX ISLULGC=a-b-c NOT STARTED e

[3]   ____________________________________________________________
      EX ISLULGC=a-b-c STF PH f SEG g TEST h MM i
       [ACTL j MASK k EXPR l]

[4]   ____________________________________________________________
      EX ISLULGC=a-b-c SUSPENDED m[ PH n [SEG o]]

[5]   ____________________________________________________________
      EX ISLULGC=a-b-c SUSPECTED FAULTY EQUIPMENT d1 RECORD
        AISLE  MODULE CABINET  CODE  FORM     EQL    TYPE NOTE
          p     q [r]   s  t     u    [v]   w x [-y]   z  [a1]
        [ .     .  .    .  .     .     .    . .   .    .   .  ]
        [ .     .  .    .  .     .     .    . .   .    .   .  ]
        [ .     .  .    .  .     .     .    . .   .    .   .  ]

[6]   ____________________________________________________________
      EX ISLULGC=a-b-c b1 [c1]
```

2. REASON FOR OUTPUT

To report the results of executing an EX:ISLULGC input message to exercise an integrated services line unit line group controller (ISLULGC).

Format 1 indicates that the specified segments completed and all tests passed. It applies only when the RPT option is specified in the input messages. Execution of the exercise will continue for the remaining iterations.

Format 2 indicates that an option specified in the input message was invalid.

Format 3 indicates which test failed.

Format 4 indicates that execution of the exercise is suspended. The phase and segment in which the suspension occurs, and a summary of the results of the previous command may also be printed.

Format 5 provides an ordered list of suspected faulty equipment. It applies only when the TLP option is specified in the input message.

Format 6 indicates that the diagnostic execution has terminated.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

b = Integrated services line unit (ISLU) number.

c = Line group controller number.

d = Loop result. Valid value(s):

ATP	= All tests performed and passed.
CATP	= Conditionally ATP. Some tests were skipped because supporting hardware was not available, but all tests passed which were run.
NTR	= No tests run.
STF	= Some tests failed.

e = Reason the command was rejected.

f = Phase in which the failure occurred.

g = Segment in which the failure occurred.

h = Test that failed.

i = Mismatch results for the specified test in hexadecimal.

j = Expected result in hexadecimal for the specified test in hexadecimal.

k = Mask in hexadecimal used to determine test failure in hexadecimal.

l = Actual result in hexadecimal for the specified test in hexadecimal.

m = Type of suspension. Valid value(s):

ATP	= All tests performed and passed.
CATP	= Conditionally ATP. Some tests in the specified segment were skipped because supporting hardware was not available, but all tests passed which were run.
NTR	= No tests run.
STF	= Some tests failed.

n = Phase where execution is suspended.

o = Segment where execution is suspended.

p = Floor and aisle number.

q = Module type.

r = Module number.

s = Cabinet type.

t = Cabinet number.

u = Replacement equipment code(s).

v = Equipment form(s). Equipment form represents minimal operating level of replacement equipment.

Example of CODE FORM content:

CODE
A[:B]...[:C] [-] D[:E]...[:F]

A	= Current minimal accepted equipment code.
B	= Current production equipment code (substitutable equipment for code A).
C	= Additional compatible equipment code(s) (added as space permits).
D	= Current minimal approved operating level for equipment code A.
E	= Current minimal approved operating level for equipment code B.
F	= Current minimal approved operating level(s) for equipment code(s) C.
:	= Intra-field delimiter.
_	= Inter-field delimiter if necessary.

Codes A, B, and C may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms D, E, and F may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

w = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

x = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

y = Depth location in the cabinet.

z = Circuit type. Valid value(s):

___	= Equipment is part of the circuit under test.
HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the online member of a duplex pair. The online member must be removed, and the mate made online, before replacement is attempted.

a[1] = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

b[1] = Termination status. Valid value(s):

ABORTED	= Requested action was terminated before completion, and the termination was not graceful.
COMPLETED	= Requested action has successfully completed.
NOT STARTED	= Requested action has not begun.
STOPPED	= Requested action was terminated before a normal completion. Termination was graceful.

c[1] = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Message manual.

d[1] = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
NEXT	= Next record of continuing list.
LAST	= Last record of list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

4. ACTION TO BE TAKEN

For Format 1, none.

For Format 2, determine the correct phase number and reenter the exercise request.

For Format 3, repair faulty unit.

For Format 4:

If output includes:	Action:
only `EX ISLULGC (a,b,c) SUSPENDED NTR`	Enter the first exercise command for the purpose of manual troubleshooting.
`EX ISLULGC (a,b,c) SUSPENDED ATP PH n SEG o`	The fault may have been repaired. Rerun the entire diagnostic.
`EX ISLULGC (a,b,c) SUSPENDED CATP PH n SEG o`	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the exercise request.
`EX ISLULGC (a,b,c) SUSPENDED NTR PH n SEG o` and the RPT option was specified	Normal completion of the exercise is indicated. Proceed to troubleshoot the circuit. If this message occurs when the RPT option was not specified, no tests were run. Determine the reason and reenter the exercise request.
`EX ISLULGC (a,b,c) SUSPENDED STF PH n SEG o`	Analyze the test failure data. Repair the faulty circuit or enter another exercise request to continue troubleshooting.
`EX ISLULGC (a,b,c) SUSPENDED x PH o`	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected equipment one at a time. Rerun the diagnostic exercise for each replacement until the fault is repaired or the diagnostic results change.

For Format 6, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:ISLULGC
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x (ISLU NETWORK)
170xy (ISLU LINE GROUP)

EX:ISLUMAN

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EX ISLUMAN=a-b-c-d e

[2]   ____________________________________________________________
      EX ISLUMAN=a-b-c-d f g

[3]   ____________________________________________________________
      EX ISLUMAN=a-b-c-d SUSPENDED h [PH i [SEG j]]

[4]   ____________________________________________________________
      EX ISLUMAN=a-b-c-d STF PH k SEG l TEST m MM n
       [EXPR o MASK p ACTL q]

[5]   ____________________________________________________________
      EX ISLUMAN=a-b-c-d SUSPECTED FAULTY EQUIPMENT r RECORD
        AISLE  MODULE  CABINET  CODE  FORM   EQL    TYPE  NOTE
        s       t  u    v  w     x     y     z-a1    b1   [c1]
        .       .  .    .  .     .     .     . .     .      .
        .       .  .    .  .     .     .     . .     .      .
        .       .  .    .  .     .     .     . .     .      .
```

2. REASON FOR OUTPUT

To describe the result of the EX:ISLUMAN input message that is issued to interactively diagnose an integrated services line unit (ISLU) metallic access network pack.

Format 1 prints when the specified segments have completed and all tests passed. This applies only when the RPT option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 prints when the diagnostic execution has completed, stopped, not started, or aborted. If the termination report is NOT STARTED, an incorrect phase number was specified in the input message.

Format 3 indicates that execution of the diagnostic has been suspended.

Both Formats 4 and 5 print when one or more tests have failed.

Format 5 provides an ordered list of suspected faulty circuit packs.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = ISLU number.

`c` = ISLU service group number.

`d` = Metallic access network pack number.

e = Phase result. Valid value(s):

ATP	= All tests were performed and all passed.
CATP	= Some tests were skipped because supporting hardware was not available, but all tests that were run passed.
NTR	= No tests were run.
STF	= Some tests failed.

f = Termination report. Valid value(s):

ABORTED	= Immediate termination.
COMPLETED	= Successful completion.
NOT STARTED	= Action has not begun.
STOPPED	= Terminated before normal completion.

g = Information that qualifies the above termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Message manual.

h = Phase result. Valid value(s):

ATP	= All tests were performed and all passed.
CATP	= Some tests were skipped because supporting hardware was not available, but all tests that were run passed.
NTR	= No tests were run.
STF	= Some tests failed.

i = Number of the phase in which execution was suspended.

j = Number of the segment in which execution was suspended.

k = Number of the phase in which the error occurred.

l = Number of the segment in which the error occurred.

m = Number of the test that failed.

n = Mismatch results for the specified test.

o = Expected result for the specified test (in hexadecimal).

p = Mask used to determine the test failure (in hexadecimal).

q = Actual result of the specified test (in hexadecimal).

r = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

s = Floor and aisle number.

t = Module type.

u = Module number.

v	= Cabinet type.
w	= Cabinet number.
x	= Circuit pack code number.
y	= Equipment form. The equipment form represents the minimal operating level of replacement equipment.
z	= Vertical location in the cabinet.
a[1]	= Horizontal location in the cabinet.
b[1]	= Circuit type.
c[1]	= Note number. Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

For Format 1, none.

For Format 2, if the termination report is `NOT STARTED`, an incorrect phase number was specified in the input message. Determine the correct phase number and reissue the exercise message. If unexpected results occur, refer to the Corrective Maintenance manual.

For Format 3, if the phase result is `NTR` and no phase number or segment number is given, reissue the EX:ISLUMAN message for the purpose of troubleshooting.

If the phase result is `NTR` and phase and segment numbers are given, and the RPT option was specified in the input message, then the exercise has completed normally. If the RPT option was not specified in the input message, determine the reason that no tests were run and reissue the exercise message.

If the phase result is `ATP`, then a lack of resources for the previously specified segments inhibited some of the tests. Idle the suspected resources and reissue the message.

If the phase result is `STF`, analyze the test failure data. Repair the faulty unit and issue another exercise message to continue troubleshooting.

For Format 4, analyze the failure data to determine the reason for failure.

For Format 5, replace the suspected circuit packs one at a time in the order specified. Rerun the diagnostic exercise after each replacement until the fault is repaired or the diagnostic results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:ISLUMAN
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x, 171x (ISLU)

EX:ISLURG

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EX ISLURG=a-b-c d

[2]   ____________________________________________________________
      EX ISLURG=a-b-c e f

[3]   ____________________________________________________________
      EX ISLURG=a-b-c SUSPENDED g [PH h [SEG i]]

[4]   ____________________________________________________________
      EX ISLURG=a-b-c STF PH j SEG k TEST l MM m
       [EXPR n MASK o ACTL p]

[5]   ____________________________________________________________
      EX ISLURG=a-b-c SUSPECTED FAULTY EQUIPMENT q RECORD
        AISLE  MODULE  CABINET  CODE  FORM   EQL    TYPE  NOTE
        r       s  t    u  v     w     x     y-z     a1   [b1]
        .       .  .    .  .     .     .     . .     .      .
        .       .  .    .  .     .     .     . .     .      .
        .       .  .    .  .     .     .     . .     .      .
```

2. REASON FOR OUTPUT

To describe the result of the EX:ISLURG input message that is issued to interactively diagnose an integrated services line unit (ISLU) ringing generator circuit.

Format 1 prints when the specified segments have completed and all tests passed. This applies only when the RPT option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 prints when the diagnostic execution has completed, stopped, not started, or aborted. If the termination report is NOT STARTED, an incorrect phase number was specified in the input message.

Format 3 indicates that execution of the diagnostic has been suspended.

Both Formats 4 and 5 print when one or more tests have failed.

Format 5 provides an ordered list of suspected faulty circuit packs.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = ISLU number.

`c` = ISLU service group number.

`d` = Phase result. Valid value(s):

ATP	= All tests were performed and all passed.
CATP	= Some tests were skipped because supporting hardware was not available, but all tests that were run passed.
NTR	= No tests were run.
STF	= Some tests failed.

e = Termination report. Valid value(s):

ABORTED	= Immediate termination
COMPLETED	= Successful completion
NOT STARTED	= Action has not begun
STOPPED	= Terminated before normal completion

f = Information that qualifies the above termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Message manual.

g = Phase result. Valid value(s):

ATP	= All tests were performed and all passed.
CATP	= Some tests were skipped because supporting hardware was not available, but all tests that were run passed.
NTR	= No tests were run.
STF	= Some tests failed.

h = Number of the phase in which execution was suspended.

i = Number of the segment in which execution was suspended.

j = Number of the phase in which the error occurred.

k = Number of the segment in which the error occurred.

l = Number of the test that failed.

m = Mismatch results for the specified test.

n = Expected result for the specified test (in hexadecimal).

o = Mask used to determine the test failure (in hexadecimal).

p = Actual result of the specified test (in hexadecimal).

q = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

r = Floor and aisle number.

s = Module type.

t = Module number.

u = Cabinet type.

v = Cabinet number.

w = Circuit pack code number.

x = Equipment form. The equipment form represents the minimal operating level of replacement equipment.

y = Vertical location in the cabinet.

z = Horizontal location in the cabinet.

a[1] = Circuit type.

b[1] = Note number. Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

For Format 1, none.

For Format 2, if the termination report is NOT STARTED, an incorrect phase number was specified in the input message. Determine the correct phase number and reissue the exercise message.

If unexpected results occur, refer to Corrective Maintenance manual.

For Format 3:

If 'g' =	Action:
NTR	No phase number or segment number is given, reissue the EX:ISLURG message for the purpose of troubleshooting. Phase and segment numbers are given, and the RPT option was specified in the input message, then the exercise has completed normally. If the RPT option was not specified in the input message, determine the reason that no tests were run and reissue the exercise message.
ATP	A lack of resources for the previously specified segments inhibited some of the tests. Idle the suspected resources and reissue the message.
STF	Analyze the test failure data. Repair the faulty unit and issue another exercise message to continue troubleshooting.

For Format 4, analyze the failure data to determine the reason for failure.

For Format 5, replace the suspected circuit packs one at a time in the order specified. Rerun the diagnostic exercise after each replacement until the fault is repaired or the diagnostic results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

EX:ISLURG

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x, 171x (ISLU)

EX:ISTF

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX ISTF=a-b c

[2]   ____________________________________________________________________
      EX ISTF=a-b NOT STARTED d

[3]   ____________________________________________________________________
      EX ISTF=a-b STF PH e SEG f TEST g MM h
       [EXP i MASK j ACTL k]

[4]   ____________________________________________________________________
      EX ISTF=a-b SUSPENDED l[PH m [SEG n]]

[5]   ____________________________________________________________________
      EX ISTF=a-b SUSPECTED FAULTY EQUIPMENT b1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL      TYPE  NOTE
         o       p [q]   r  s     t     [u]  v-w[-c1]   x    [y1]
        [.       .  .    .  .     .      .   . .  .     .     .]
        [.       .  .    .  .     .      .   . .  .     .     .]
        [.       .  .    .  .     .      .   . .  .     .     .]

[6]   ____________________________________________________________________
      EX ISTF=a-b z [a1]

[7]   ____________________________________________________________________
      EX ISTF=a-b PH e SEG f STMT d1 e1
       [EXP j MASK k ACTL l]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:ISTF input message to diagnose the integrated services test function (ISTF) unit.

Format 1 indicates that the specified segments have been completed. It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the specified options in the input message were invalid.

Format 3 indicates that a test has failed and specifies which test.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurs, and a summary of the results of the previous command, may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble location procedures (TLPs) option was specified in the input message.

Format 6 indicates that the diagnostic execution has terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = ISTF unit number.

`c` = Loop result. Valid value(s):

- `ATP` = All tests pass. All tests were performed and passed.
- `CATP` = Conditional all tests pass. Some tests were not performed, but all that were passed.
- `NTR` = No tests run.
- `STF` = Some tests failed.

`d` = Reason the command was rejected.

`e` = Phase in which the failure occurred.

`f` = Segment in which the failure occurred.

`g` = Test number that failed.

`h` = Mismatch results for the specified test in hexadecimal.

`i` = Raw data expected result for the specified test in hexadecimal.

`j` = Raw data mask used to determine the test failure in hexadecimal.

`k` = Raw data actual result for the specified test in hexadecimal.

`l` = Type of suspension. Valid value(s):

- `ATP` = The specified segment(s) were completed and all tests passed.
- `CATP` = Conditional all tests passed. The specified segment completed but some portion was skipped.
- `NTR` = No tests were run since the last completion message.
- `STF` = The diagnostic has completed and some tests failed.

`m` = Phase number in which execution is suspended.

`n` = Segment number in which execution is suspended.

`o` = Identification number of floor and aisle.

`p` = Module type.

`q` = Module number.

`r` = Cabinet type.

`s` = Cabinet number.

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t = Replacement equipment code(s).

u = Equipment form(s). Equipment form represents minimal operating level of replacement equipment.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code A).
C          = Additional compatible equipment code(s) (added as space permits)
D          = Current minimal approved operating level for equipment code A.
E          = Current minimal approved operating level for equipment code B.
F          = Current minimal approved operating level(s) for equipment code(s) C.
:          = Intra-field delimiter.
-          = Inter-field delimiter if necessary.
```

Codes `A, B,` and `C` may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms `D, E,` and `F` may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

v = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

w = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

x = Circuit type. Valid value(s):

____	= Equipment is part of the circuit under test.
HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

y = Board note. Refer to the APP:TLP-NOTE appendix is the appendixes section of the Output Message manual.

z = Termination status. Valid value(s):

ABORTED	= The process was terminated (process not gracefully terminated).
NOT STARTED	= Action was not begun.
STOPPED	= Terminated before normal completion (process gracefully terminated).

a[1] = Termination reason. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Message manual.

b[1] = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

`c`[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

`d`[1] = Statement number.

`e`[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, none.

For Format 2, determine the correct phase numbers and reenter the diagnostic exercise request.

For Format 3, if fields '`i`' and '`k`' of Format 1 do not match, refer to the APP:TLP-NOTE appendix in the Appendixes section in the Output Message manual. If this does not assist in solving the problem, rerun the diagnostic with the '`RAW`' and '`UCL`' options. Give the resulting output to a diagnostician for interpretation.

For Format 4:

If output includes:	Action:
only `EX ISTF(a,b) SUSPENDED NTR`	enter the first exercise command for the purpose of manual troubleshooting.
`EX ISTF(a,b) SUSPENDED ATP PH m SEG`	The fault may have been repaired. Rerun the entire exercise to determine the condition of the circuit.
`EX ISTF(a,b) SUSPENDED CATP PH m SEG`	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous command.
`EX ISTF(a,b) SUSPENDED NTR PH m SEG` and the RPT option was specified	This message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
`EX ISTF(a,b) SUSPENDED STF PH m SEG`	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
`SUSPENDED x PH o`	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the diagnostic exercise for each replaced pack until the fault is repaired or the diagnostic results change.

For Formats 6 and 7, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`EX:ISTF`

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

EX:LDPARM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

[1]
```
EX LDPARM MASC MEM TEST INPUT VALUES
  START ADDRESS = a
  [ERROR: b]
  END ADDRESS = c
  [ERROR: b]
  REFRESH RATE = d MS
  [ERROR: b]
  NUMBER OF FAILURES = e
  [DATA PATTERN = f]
  [ERROR: b]
```

[2]
```
EX LDPARM MASC UPD TEST INPUT VALUES
  START ADDRESS = a
  [ERROR: b]
  END ADDRESS = c
  [ERROR: b]
  REFRESH RATE = d MS
  [ERROR: b]
  NUMBER OF FAILURES = e
  WORDS PER ARRAY TO COPY = g
  [ERROR: b]
  REFRESH DATA PARITY CHECK TIME = h SEC
```

2. REASON FOR OUTPUT

To echo the memory test parameters input manually as part of the control unit (CU) interactive diagnostic mode using the EX:CU input message in conjunction with EX:LDPARM input message. This output comes from main store diagnostic phases 95 or 96.

Format 1 is printed when mainstore controller (MASC) phase 95 is executed. Format 2 is printed when MASC phase 96 is executed.

3. VARIABLE FIELD DEFINITIONS

a = First or lowest address in the address range of memory to be tested, in hexadecimal notation.

b = Error message explaining why previous line was not accepted. Valid value(s):
ADDRESS MUST BE GREATER THAN 0
ADDRESS MUST BE ON FULLWORD BOUNDARY
START ADDRESS GREATER THAN END ADDRESS
END ADDRESS TOO LARGE
NOT POSSIBLE REFRESH RATE
ERROR VALID REFRESH RATES ARE 2, 4, 6, 8, 10, 12, 14, 16, 32, 36, 40, 44, 48, 52, 56, 60 (3B20D)

`ERROR VALID REFRESH RATES ARE 16, 18, 20, 22, 24, 26, 28, 30` (3B21D

`c` = Last or highest address in the address range of memory to be tested, in hexadecimal notation.

`d` = Rate at which the memory is refreshed by the main store controller, in decimal notation. The possible refresh rate values are:

`e` = Number of addresses for which failing information is to be collected, in decimal notation.

`f` = Data to be written into each memory location in the address range under test, in hexadecimal notation. (MASC phase 95.)

`g` = Words per memory array to copy from the online to the off-line memory, in hexadecimal notation. (MASC phase 96.)

`h` = Valid value(s):

Unit:	Explanation:
3B20D	Duration of time, in seconds, for which refresh data parity checks are allowed as a mechanism to scan for errors, in decimal notation. (MASC phase 96.)
3B21D	This field is always 0.

4. ACTION TO BE TAKEN

Reenter the memory test parameters using the EX:CU and then the EX:LDPARM input message if the values are not as desired.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	39, 40, 41, 42
2	39, 40, 41, 43, 44

Input Message(s):

```
EX:CU
EX:LDPARM
```

Output Message(s):

```
DGN:CU
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:OMDB-X-REF
APP:TLP-NOTE
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

EX:LDSF

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX LDSF=a-b c

[2]   ____________________________________________________________________
      EX LDSF=a-b NOT STARTED d

[3]   ____________________________________________________________________
      EX LDSF=a-b STF PHe SEGf TESTg MMh
       [EXPi MASKj ACTLk]

[4]   ____________________________________________________________________
      EX LDSF=a-b SUSPENDED l[PHm [SEGn]]

[5]   ____________________________________________________________________
      EX LDSF=a-b SUSPECTED FAULTY EQUIPMENT c1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL      TYPE  NOTE
         o       p [q]    r  s     t     [u]  v-w[-x]   y    [z]
        [.       .  .    .  .     .      .   . .  .    .     .]
        [.       .  .    .  .     .      .   . .  .    .     .]
        [.       .  .    .  .     .      .   . .  .    .     .]

[6]   ____________________________________________________________________
      EX LDSF=a-b a1 [b1]

[7]   ____________________________________________________________________
      EX LDSF=a-b PH e SEG f STMT d1 e1
       [EXP i MASK j ACTL k]
```

2. REASON FOR OUTPUT

To report the result of executing a EX:LDSF input message to diagnose the local digital service function (LDSF) circuit.

Format 1 indicates that the specified segments have been completed. It applies only when the RPT option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the specified options in the input message was invalid.

Format 3 indicates that a test has failed and specifies which test.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurs, and a summary of the results of the previous message, may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble location procedures (TLPs) option was specified in the input message.

Format 6 indicates that the diagnostic execution has terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = LDSF number.

c = Loop result. Valid value(s):
- ATP = All test were performed and all passed.
- CATP = Some tests were not performed, but all that were passed.
- NTR = No tests run.
- STF = Some tests failed.

d = Reason the message was rejected.

e = Phase in which the failure occurred.

f = Segment in which the failure occurred.

g = Test number that failed.

h = Mismatch results for the specified test in hexadecimal.

i = Raw data expected result for the specified test in hexadecimal.

j = Raw data mask used to determine the test failure in hexadecimal.

k = Raw data actual result for the specified test in hexadecimal.

l = Type of suspension. Valid value(s):
- ATP = The specified segment(s) were completed and all tests passed.
- CATP = Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
- NTR = No tests were run since the last completion message.
- STF = The diagnostic has completed and some tests failed.

m = Phase number in which execution is suspended.

n = Segment number in which execution is suspended.

o = Identification number of floor and aisle.

p = Module type.

q = Module number.

r = Cabinet type.

s = Cabinet number.

t = Replacement equipment code(s).

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u = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the following example.

Example of CODE FORM content:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
-          = Inter-field delimiter if necessary.
:          = Intra-field delimiter.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code 'A').
C          = Additional compatible equipment code(s) (added as space permits)
D          = Current minimal approved operating level for equipment code 'A'.
E          = Current minimal approved operating level for equipment code 'B'.
F          = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B' and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

v = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

w = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

x = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

y = Circuit type. Valid value(s):

```
HPR        = Equipment is part of a helper circuit. The helper must be removed before
             replacement is attempted.
ONL        = Equipment is part of the on-line member of a duplex pair. The on-line member
             must be removed, and the mate made on-line, before replacement is attempted.
____       = Equipment is part of the circuit under test.
```

z = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

a[1] = Termination status. Valid value(s):

```
ABORTED      = Immediate termination.
COMPLETED    = Successful completion.
NOT STARTED  = Action has not begun.
STOPPED      = Terminated before normal completion.
```

b[1] = Termination reason. Refer to the APP:MAINT-RESP appendix in the Appendixes section of this section.

c[1] = Text identifier showing order of record. Valid value(s):

```
FIRST      = First record of continuing list.
```

LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

d[1] = Statement number.

4. ACTION TO BE TAKEN

For Formats 1, 6, and 7, none.

For Format 2, determine the correct phase numbers and reenter the diagnostic exercise request.

For Format 3, repair the faulty unit.

For Format 4,

If output includes:	Action:
EX LDSF=a-b SUSPENDED NTR	Enter the first exercise message for the purpose of manual troubleshooting.
EX LDSF=a-b SUSPENDED ATP PHm SEGn	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
EX LDSF=a-b SUSPENDED CATP PHm SEGn	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous message.
EX LDSF=a-b SUSPENDED NTR PHm SEGn and the RPT option was specified	This message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
EX LDSF=a-b SUSPENDED STF PHm SEGn	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
SUSPENDED l PHm	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

EX:LDSF

Output Appendix(es):

APP:MAINT-RESP
APP:TLP-NOTE

EX:LDSU

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX LDSU=a-b-c d

[2]   ____________________________________________________________________
      EX LDSU=a-b-c NOT STARTED e

[3]   ____________________________________________________________________
      EX LDSU=a-b-c STF PH f SEG g TEST h MM i
       [EXP j MASK k ACTL l]

[4]   ____________________________________________________________________
      EX LDSU=a-b-c SUSPENDED m[PH n [SEG o]]

[5]   ____________________________________________________________________
      EX LDSU=a-b-c SUSPECTED FAULTY EQUIPMENT c1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL      TYPE  NOTE
         q       r [s]   t  u     v     [v]  w-x[-d1]   y    [z1]
        [.       .  .    .  .     .      .   . .  .     .     .]
        [.       .  .    .  .     .      .   . .  .     .     .]
        [.       .  .    .  .     .      .   . .  .     .     .]

[6]   ____________________________________________________________________
      EX LDSU=a-b-c a1 [b1]

[7]   ____________________________________________________________________
      EX LDSU=a-b-c PH f SEG g STMT e1 f1
       [EXP j MASK k ACTL l]
```

2. REASON FOR OUTPUT

To report the result of executing a EX:LDSU input message to diagnose the local digital service unit - model 2 (LDSU2) board.

Format 1 indicates that the specified segments have been completed. It applies only when the RPT option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the specified options in the input message was invalid.

Format 3 indicates that a test has failed and specifies which test.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurs, and a summary of the results of the previous message, may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble location procedures (TLPs) option was specified in the input message.

Format 6 indicates that the diagnostic execution has terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local digital service unit (LDSU) number.

`c` = Service group number.

`d` = Loop result. Valid value(s):

- `ATP` = All test were performed and all passed.
- `CATP` = Some tests were not performed, but all that were passed.
- `NTR` = No tests run.
- `STF` = Some tests failed.

`e` = Reason the message was rejected.

`f` = Phase in which the failure occurred.

`g` = Segment in which the failure occurred.

`h` = Test number that failed.

`i` = Mismatch results for the specified test in hexadecimal.

`j` = Raw data expected result for the specified test in hexadecimal.

`k` = Raw data mask used to determine the test failure in hexadecimal.

`l` = Raw data actual result for the specified test in hexadecimal.

`m` = Type of suspension. Valid value(s):

- `ATP` = The specified segment(s) were completed and all tests passed.
- `CATP` = Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
- `NTR` = No tests were run since the last completion message.
- `STF` = The diagnostic has completed and some tests failed.

`n` = Phase number in which execution is suspended.

`o` = Segment number in which execution is suspended.

`p` = Identification number of floor and aisle.

`q` = Module type.

`r` = Module number.

`s` = Cabinet type.

`t` = Cabinet number.

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u = Replacement equipment code(s).

v = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to subsequent example.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
-          = Inter-field delimiter if necessary.
:          = Intra-field delimiter.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code 'A').
C          = Additional compatible equipment code(s) (added as space permits).
D          = Current minimal approved operating level for equipment code 'A'.
E          = Current minimal approved operating level for equipment code 'B'.
F          = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

w = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

x = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

y = Circuit type. Valid value(s):

____	= Equipment is part of the circuit under test.
HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

z = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

a[1] = Termination status. Valid value(s):

ABORTED	= The process was terminated (process not gracefully terminated).
NOT STARTED	= Action was not begun.
STOPPED	= Terminated before normal completion (process gracefully terminated).

b[1] = Termination reason. Refer to the APP:MAINT-RESP appendix in the Appendixes section of this section.

c[1] = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

`d`[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

`e`[1] = Statement number.

`f`[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, none.

For Format 2, determine the correct phase numbers and reenter the diagnostic exercise request.

For Format 3, repair the faulty unit.

For Format 4:

If output includes:	Action:
only `EX LDSU(a,b,c) SUSPENDED NTR`	Enter the first exercise message for the purpose of manual troubleshooting.
`EX LDSU(a,b,c) SUSPENDED ATP PH n SEG`	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
`EX LDSU(a,b,c) SUSPENDED CATP PH n SEG`	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous message.
`EX LDSU(a,b,c) SUSPENDED NTR PH n SEG` and the RPT option was specified	This message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
`EX LDSU(a,b,c) SUSPENDED STF PH n SEG`	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
`SUSPENDED x PH o`	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

For Formats 6 and 7, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`EX:LDSU`

Output Appendix(es):

`APP:MAINT-RESP`

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APP:TLP-NOTE

EX:LDSUCOM

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX LDSUCOM=a-b-c d

[2]   ____________________________________________________________________
      EX LDSUCOM=a-b-c NOT STARTED e

[3]   ____________________________________________________________________
      EX LDSUCOM=a-b-c STF PH f SEG g TEST h MM i
       [EXP j MASK k ACTL l]

[4]   ____________________________________________________________________
      EX LDSUCOM=a-b-c SUSPENDED m[PH n [SEG o]]

[5]   ____________________________________________________________________
      EX LDSUCOM=a-b-c SUSPECTED FAULTY EQUIPMENT c1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL      TYPE  NOTE
         p      q [r]   s  t     u     [v]  w-x[-d1]   y    [z1]
        [.      .  .    .  .     .      .   . .  .     .     .]
        [.      .  .    .  .     .      .   . .  .     .     .]
        [.      .  .    .  .     .      .   . .  .     .     .]

[6]   ____________________________________________________________________
      EX LDSUCOM=a-b-c a1 [b1]

[7]   ____________________________________________________________________
      EX LDSUCOM=a-b-c PH f SEG g STMT e1 f1
       [EXP j MASK k ACTL l]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:LDSUCOM input message to diagnose the local digital service circuit unit common (LDSCUCOM) board.

Format 1 indicates that the specified segments have been completed, and reports the overall result It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the specified input message was invalid.

Format 3 indicates that a test has failed and specifies which test.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous input messages, may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble location procedures (TLP) option was specified in the input message.

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Format 6 indicates that the diagnostic execution has terminated.

Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local digital service unit (LDSU) number.

`c` = Service group number.

`d` = Loop result. Valid value(s):

- `ATP` = All test were performed and all passed.
- `CATP` = Some tests were not performed, but all that were passed.
- `NTR` = No tests run.
- `STF` = Some tests failed.

`e` = Reason the input messages was rejected.

`f` = Phase in which the failure occurred.

`g` = Segment in which the failure occurred.

`h` = Test number that failed.

`i` = Mismatch results for the specified test in hexadecimal.

`j` = Raw data expected result for the specified test in hexadecimal.

`k` = Raw data mask used to determine the test failure in hexadecimal.

`l` = Raw data actual result for the specified test in hexadecimal.

`m` = Result of previous input messages. Valid value(s):

- `ATP` = The specified segment(s) were completed and all tests passed.
- `CATP` = Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
- `NTR` = No tests were run since the last completion message.
- `STF` = The diagnostic has completed and some tests failed.

`n` = Phase number in which execution is suspended.

`o` = Segment number in which execution is suspended.

`p` = Identification number of floor and aisle.

`q` = Module type.

`r` = Module number.

`s` = Cabinet type.

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t = Cabinet number.

u = Replacement equipment code(s).

v = Equipment form(s). Equipment form represents minimal operating level of replacement equipment.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
-          = Inter-field delimiter if necessary.
:          = Intra-field delimiter.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code 'A').
C          = Additional compatible equipment code(s) (added as space permits).
D          = Current minimal approved operating level for equipment code 'A'.
E          = Current minimal approved operating level for equipment code 'B'.
F          = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

w = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

x = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

y = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

____ = Equipment is part of the circuit under test.

z = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

a[1] = Termination status. Valid value(s):

ABORTED = The process was terminated (process not gracefully terminated).

NOT STARTED = Action was not begun.

STOPPED = Terminated before normal completion (process gracefully terminated).

b[1] = Termination reason. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

c[1] = Text identifier showing order of record. Valid value(s):

FIRST = First record of continuing list.

LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

d[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

e[1] = Statement number.

f[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Formats 1, 6, and 7, no action is required.

For Format 2 determine the correct input message and reenter the diagnostic exercise request.

For Format 3, repair the faulty unit.

For Format 4:

If output includes:	Action:
only SUSPENDED NTR	Enter the first exercise input messages for the purpose of manual troubleshooting.
SUSPENDED ATP PH n SEG o	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
SUSPENDED CATP PH n SEG o	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous input messages.
SUSPENDED NTR PH n SEG o and the RPT option was specified	This message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
SUSPENDED STF PH n SEG o	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

EX:LDSUCOM

Output Appendix(es):

APP:MAINT-RESP
APP:TLP-NOTE

EX:LI

Software Release: 5E10 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

```
EX LI=a b  [c]
```

2. REASON FOR OUTPUT

To acknowledge that a manual request to exercise a link interface (LI) is complete.

3. VARIABLE FIELD DEFINITIONS

`a` = The office network and timing complex(ONTC) side the LI is on.

`b` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was immediate (no cleanup was done).
`COMPLETED`	= Request completed successfully.
`NOT STARTED`	= Requested action could not begin.
`STOPPED`	= Request was terminated before a normal completion. Attempts were made to leave everything in a sane state.

`c` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual request. No further action is necessary if the request completed successfully. If the termination report is not `COMPLETED`, the variable '`c`' field should give some indication as to why the request failed.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:LI
OP:CFGSTAT
```

Output Message(s):

```
OP:CFGSTAT
```

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EX:LN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX LNa b c d [e]

[2]   ____________________________________________________________________
      EX LNa b PH f g [h]
        TEST    MISMATCH
         i          j
```

2. REASON FOR OUTPUT

To print the results of a diagnostic run on a link node (LN) in the interactive mode.

Format 1 prints at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 prints whenever the diagnostic results are printed for an individual phase.

3. VARIABLE FIELD DEFINITIONS

`a` = Ring node (RN) group number.

`b` = Ring node member number.

`c` = Termination mode of diagnostic. Valid value(s):

`ABORTED`	= Diagnostic was abnormally stopped due to an external or internal error in execution.
`COMPLETED`	= Diagnostic passed normally.
`TERMINATED`	= Diagnostic terminated under program control (early termination).

`d` = Result of the diagnostic. Valid value(s):

`ATP`	= All tests passed.
`CATP`	= All tests that were executed were ATP. Some tests were not executed due to the inability to isolate, or to singly isolate, the node under test.
`NTR`	= No tests run.
`STF`	= Some tests failed.

`e` = Valid value(s):

`CATP` or `NTR`	Identifies the reason that tests were skipped in this phase by their bit position in a 16-character hexadecimal number. For example, if '`e`' = 00000000 80000000, tests were skipped for reason 31. The reason codes are as follows: `0` to `29` = Not used. `30` = Node under test was not the only isolated node. `31` = Node under test was not isolated. `32` to `63` = Not used.

STF	Number of test failures in addition to the reasons that tests were skipped. For example, if 'e' = 7 00000000 80000000, seven tests failed, plus tests were skipped for reason 31.

f = Phase number.

g = Result of the phase. Valid value(s):

- ATP = All tests passed.
- CATP = All tests that were executed were ATP. Some tests were not executed due to the inability to isolate, or to singly isolate, the node under test.
- NTR = No tests run.
- STF = Some tests failed.

h = If 'g' = STF, identifies the reason that some tests were skipped. This field is the same as the 'e' field in Format 1 except that the result of only one phase is reflected.

i = Test number of the failing test.

j = An 8-digit hexadecimal number that indicates the bits that were in error. A '1' in a bit position indicates that the response from the unit did not match the expected response in that bit.

4. ACTION TO BE TAKEN

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:LN
```

Output Message(s):

```
RMV:LN
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

118 (CNI RING STATUS PAGE)
1520 (RING NODE STATUS PAGE)

EX:LOOP

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EX LOOP a [b] INVALID BEGIN

[2]   ____________________________________________________________
      EX LOOP a [b] INVALID END d

[3]   ____________________________________________________________
      EX LOOP a [b] BETWEEN ST c-d

[4]   ____________________________________________________________
      EX LOOP REQUEST NOT YET ACTIVE

[5]   ____________________________________________________________
      EX LOOP REQUEST NOT IN INTERACTIVE MODE

[6]   ____________________________________________________________
      EX LOOP ILLEGAL REQUEST TYPE
```

2. REASON FOR OUTPUT

To report the result of executing an EX:LOOP interactive diagnostic input message as part of an EX:LN or EX:RPCN input message.

Format 1 prints if the specified loop start data table statement number cannot be found.

Format 2 prints if the specified loop end data table statement number cannot be found by searching forward in the data table from the loop start statement.

Format 3 prints if a diagnostic program loop has been established as specified in the input message.

Format 4 prints if the unit (and subunit) specified by the interactive diagnostic input message is not in the active queue.

Format 5 prints if the unit (and subunit) specified by the interactive diagnostic input message is in the active queue but not an active request.

Format 6 prints if the unit (and subunit) specified by the interactive diagnostic input message could not be found in either the waiting or active queues.

3. VARIABLE FIELD DEFINITIONS

a = Unit type and member number of unit under test.

b = Unit type and member number of the subunit under the unit under test.

c = Starting data table statement number.

`d` = Ending data table statement number.

4. ACTION TO BE TAKEN

For Formats 1 and 2, reenter the input message using a valid start or end statement number.

For Format 3, no action is needed.

For Formats 4, 5, and 6, reenter the input message after an interactive diagnostic request for the specified unit (and subunit) becomes active. Check that the correct unit (and subunit) was specified in the input message. Use the OP:DMQ input message to display the requests in the queue. Enter the desired interactive diagnostic request if it is not in the queue. Wait until the desired interactive diagnostic request becomes active, or use the STOP:DMQ or STP:DMQ input message to remove other request(s) from the queue until the desired interactive diagnostic request becomes active.

5. ALARMS

None. This alarm is a manually-requested report. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Input Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1, 2, 3	46
4, 5, 6	77

Input Message(s):

```
EX:CU
EX:DCI
EX:DFC
EX:DUIC
EX:IOP
EX:LN
EX:LOOP
EX:MHD
EX:MTC
EX:MTTYC
EX:PAUSE
EX:RPCN
EX:SCSDC
EX:SDLC
EX:STEP
EX:STOP
EX:TTYC
OP:DMQ
STOP:DMQ
STP:DMQ
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

EX:LUCHAN

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EX LUCHAN=a-b-c-d-e f

[2]   ____________________________________________________________
      EX LUCHAN=a-b-c-d-e NOT STARTED g

[3]   ____________________________________________________________
      EX LUCHAN=a-b-c-d-e STF PH h SEG i TEST j MM k
       [EXP l MASK m ACTL n]

[4]   ____________________________________________________________
      EX LUCHAN=a-b-c-d-e SUSPENDED o[PH p [SEG q]]

[5]   ____________________________________________________________
      EX LUCHAN=a-b-c-d-e SUSPECTED FAULTY EQUIPMENT e1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL      TYPE  NOTE
         r      s [t]   u  v     w     [x]  y-z[-f1]   a1   [b1]
        [.      .  .    .  .     .      .   . .  .     .     .]
        [.      .  .    .  .     .      .   . .  .     .     .]
        [.      .  .    .  .     .      .   . .  .     .     .]

[6]   ____________________________________________________________
      EX LUCHAN=a-b-c-d-e c1 [d1]

[7]   ____________________________________________________________
      EX LUCHAN=a-b-c-d-e PH h SEG i STMT g1 h1
       [ACTL l MASK m EXPR n]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:LUCHAN input message to diagnose the line unit channel (LUCHAN).

Format 1; indicates that the specified segments have been completed, and reports the overall result It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2; indicates that the specified input message was invalid.

Format 3; indicates that a test has failed and specifies which test.

Format 4; indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous command, may also be specified.

Format 5; provides an ordered list of equipment packs on which a fault that could cause a test failure may be located. It applies only when the trouble location procedure (TLP) option was specified in the input message.

Format 6; indicates that the diagnostic execution has terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Channel board number.

`e` = Channel number.

`f` = Loop result. Valid value(s):

- `ATP` = All test were performed and all passed.
- `CATP` = Some tests were not performed, but all that were passed.
- `NTR` = No tests run.
- `STF` = Some tests failed.

`g` = Reason the input message was rejected.

`h` = Phase in which the failure occurred.

`i` = Segment in which the failure occurred.

`j` = Test number that failed.

`k` = Mismatch results for the specified test in hexadecimal.

`l` = Raw data expected result for the specified test in hexadecimal.

`m` = Raw data mask used to determine the test failure in hexadecimal.

`n` = Raw data actual result for the specified test in hexadecimal.

`o` = Result of previous command. Valid value(s):

- `ATP` = The specified segment(s) were completed and all tests passed.
- `CATP` = Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
- `NTR` = No tests were run since the last completion message.
- `STF` = The diagnostic has completed and some tests failed.

`p` = Phase number in which execution is suspended.

`q` = Segment number in which execution is suspended.

`r` = Identification number of floor and aisle.

`s` = Module type.

`t` = Module number.

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u = Cabinet type.

v = Cabinet number.

w = Replacement equipment code(s).

x = Equipment form(s). Equipment form represents minimal operating level of replacement equipment.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
-          = Inter-field delimiter if necessary.
:          = Intra-field delimiter.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code 'A').
C          = Additional compatible equipment code(s) (added as space permits)
D          = Current minimal approved operating level for equipment code 'A'.
E          = Current minimal approved operating level for equipment code 'B'.
F          = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

y = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

z = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

a[1] = Circuit type. Valid value(s):

____ = Equipment is part of the circuit under test.

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

b[1] = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

c[1] = Termination status. Valid value(s):

ABORTED = The process was terminated (process not gracefully terminated).

NOT STARTED = Action was not begun.

STOPPED = Terminated before normal completion (process gracefully terminated).

d[1] = Termination reason. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

e[1] = Text identifier showing order of record:
FIRST = First record of continuing list.
LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

f[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

g[1] = Statement number.

h[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, no action is required.

For Format 2, determine the correct input message and reenter the diagnostic exercise request.

For Format 3, repair the faulty unit.

For Format 4:

If output includes:	Action:
only SUSPENDED NTR	Enter the first exercise message for the purpose of manual troubleshooting.
SUSPENDED ATP PH p SEG q	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
SUSPENDED CATP PH p SEG q	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous message.
SUSPENDED NTR PH p SEG q	and the RPT option was specified This message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
SUSPENDED STF PH p SEG q	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

For Formats 6 and 7, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

EX:LUCHAN

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

EX:LUCOMC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EX LUCOMC=a-b-c d

[2]   ____________________________________________________________
      EX LUCOMC=a-b-c NOT STARTED e

[3]   ____________________________________________________________
      EX LUCOMC=a-b-c STF PH f SEG g TEST h MM i
       [EXP j MASK k ACTL l]

[4]   ____________________________________________________________
      EX LUCOMC=a-b-c SUSPENDED m[PH n [SEG o]]

[5]   ____________________________________________________________
      EX LUCOMC=a-b-c SUSPECTED FAULTY EQUIPMENT c1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL       TYPE  NOTE
         p      q [r]   s  t     u     [v]  w-x[-d1]   y    [z1]
        [.      .  .    .  .     .      .   . .  .     .     .]
        [.      .  .    .  .     .      .   . .  .     .     .]
        [.      .  .    .  .     .      .   . .  .     .     .]

[6]   ____________________________________________________________
      EX LUCOMC=a-b-c a1 [b1]

[7]   ____________________________________________________________
      EX LUCOMC=a-b-c PH f SEG g STMT e1 f1
       [EXP j MASK k ACTL l]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:LUCOMC input message to diagnose the line unit common control (LUCOMC).

Format 1 indicates that the specified segments have been completed and all tests passed. It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the specified input message was invalid.

Format 3 indicates that a test has failed and specifies which test.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous input message, may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble location procedure (TLP) option was specified in the input message.

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Format 6 indicates that the diagnostic execution has terminated.

Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Loop result. Valid value(s):

- `ATP` = All test were performed and all passed.
- `CATP` = Some tests were not performed, but all that were passed.
- `NTR` = No tests run.
- `STF` = Some tests failed.

`e` = Reason the input message was rejected.

`f` = Phase in which the failure occurred.

`g` = Segment in which the failure occurred.

`h` = Test number that failed.

`i` = Mismatch results for the specified test in hexadecimal.

`j` = Raw data expected result for the specified test in hexadecimal.

`k` = Raw data mask used to determine the test failure in hexadecimal.

`l` = Raw data actual result for the specified test in hexadecimal.

`m` = Result of previous input message. Valid value(s):

- `ATP` = The specified segment(s) were completed and all tests passed.
- `CATP` = Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
- `NTR` = No tests were run since the last completion message.
- `STF` = The diagnostic has completed and some tests failed.

`n` = Phase number in which execution is suspended.

`o` = Segment number in which execution is suspended.

`p` = Identification number of floor and aisle.

`q` = Module type.

`r` = Module number.

`s` = Cabinet type.

t = Cabinet number.

u = Replacement equipment code(s).

v = Equipment form(s). Equipment form represents minimal operating level of replacement equipment.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
-          = Inter-field delimiter if necessary.
:          = Intra-field delimiter.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code 'A').
C          = Additional compatible equipment code(s) (added as space permits)
D          = Current minimal approved operating level for equipment code 'A'.
E          = Current minimal approved operating level for equipment code 'B'.
F          = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

w = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

x = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

y = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

____ = Equipment is part of the circuit under test.

z = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

a[1] = Termination status. Valid value(s):

ABORTED = The process was terminated (process not gracefully terminated).

NOT STARTED = Action was not begun.

STOPPED = Terminated before normal completion (process gracefully terminated).

b[1] = Termination reason. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

c[1] = Text identifier showing order of record. Valid value(s):

FIRST = First record of continuing list.

LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

d[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

e[1] = Statement number.

f[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, no action is required.

For Format 2, determine the correct input message and reenter the diagnostic exercise request.

For Format 3, repair the faulty unit.

For Format 4:

If output includes:	Action:
only SUSPENDED NTR	Enter the first exercise input message for the purpose of manual troubleshooting.
SUSPENDED ATP PH n SEG o	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
SUSPENDED CATP PH n SEG o	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous input message.
SUSPENDED NTR PH n SEG o and the RPT option was specified	This message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
SUSPENDED STF PH n SEG o	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

For Formats 6 and 7, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:LUCOMC
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

EX:LUHLSC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX LUHLSC=a-b-c-d e

[2]   ____________________________________________________________________
      EX LUHLSC=a-b-c-d NOT STARTED f

[3]   ____________________________________________________________________
      EX LUHLSC=a-b-c-d STF PH g SEG h TEST i MM j
       [EXP k MASK l ACTL m]

[4]   ____________________________________________________________________
      EX LUHLSC=a-b-c-d SUSPENDED n[PH o [SEG p]]

[5]   ____________________________________________________________________
      EX LUHLSC=a-b-c-d SUSPECTED FAULTY EQUIPMENT d1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL      TYPE  NOTE
         q       r [s]   t  u     v     [w]  x-y[-e1]   z    [a1]
        [.       .  .    .  .     .      .   . .  .     .     .]
        [.       .  .    .  .     .      .   . .  .     .     .]
        [.       .  .    .  .     .      .   . .  .     .     .]

[6]   ____________________________________________________________________
      EX LUHLSC=a-b-c-d b1 [c1]

[7]   ____________________________________________________________________
      EX LUHLSC=a-b-c-d PH g SEG h STMT f1 g1
       [EXP k MASK l ACTL m]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:LUHLSC input message to diagnose the line unit high level service circuit (LUHLSC).

Format 1 indicates that the specified segments have been completed and all tests passed. It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the specified input message was invalid.

Format 3 indicates that a test has failed and specifies which test.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous input message, may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble location procedure (TLP) option was specified in the input message.

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Format 6 indicates that the diagnostic execution has terminated.

Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = High level service circuit number.

`e` = Loop result. Valid value(s):

`ATP`	= All test were performed and all passed.
`CATP`	= Some tests were not performed, but all that were passed.
`NTR`	= No tests run.
`STF`	= Some tests failed.

`f` = Reason the input message was rejected.

`g` = Phase in which the failure occurred.

`h` = Segment in which the failure occurred.

`i` = Test number that failed.

`j` = Mismatch results for the specified test in hexadecimal.

`k` = Raw data expected result for the specified test in hexadecimal.

`l` = Raw data mask used to determine the test failure in hexadecimal.

`m` = Raw data actual result for the specified test in hexadecimal.

`n` = Result of previous input message. Valid value(s):

`ATP`	= The specified segment(s) were completed and all tests passed.
`CATP`	= Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
`NTR`	= No tests were run since the last completion message.
`STF`	= The diagnostic has completed and some tests failed.

`o` = Phase number in which execution is suspended.

`p` = Segment number in which execution is suspended.

`q` = Identification number of floor and aisle.

`r` = Module type.

`s` = Module number.

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t = Cabinet type.

u = Cabinet number.

v = Replacement equipment code(s).

w = Equipment form(s). Equipment form represents minimal operating level of replacement equipment.

Example of CODE FORM contents:

```
CODE
 A[:B]...[:C] [-] D[:E]...[:F]
```

- = Inter-field delimiter if necessary.
: = Intra-field delimiter.
A = Current minimal accepted equipment code.
B = Current production equipment code (substitutable equipment for code 'A').
C = Additional compatible equipment code(s) (added as space permits)
D = Current minimal approved operating level for equipment code 'A'.
E = Current minimal approved operating level for equipment code 'B'.
F = Current minimal approved operating level(s) for equipment code(s) 'C'.

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

x = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

y = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

z = Circuit type.

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
____ = Equipment is part of the circuit under test.

a[1] = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

b[1] = Termination status. Valid value(s):

ABORTED = The process was terminated (process not gracefully terminated).
NOT STARTED = Action was not begun.
STOPPED = Terminated before normal completion (process gracefully terminated).

c[1] = Termination reason. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

d[1] = Text identifier showing order of record.

FIRST = First record of continuing list.
LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

e[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

f[1] = Statement number.

g[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, no action is required.

For Format 2, determine the correct input message and reenter the diagnostic exercise request.

For Format 3, repair the faulty unit.

For Format 4:

If output includes:	Action:
only SUSPENDED NTR	Enter the first exercise input message for the purpose of manual troubleshooting.
SUSPENDED ATP PH o SEG p	the fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
SUSPENDED CATP PH o SEG p	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous input message.
SUSPENDED NTR PH o SEG p and the RPT option was specified	This message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
SUSPENDED STF PH o SEG p	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

For Formats 6 and 7, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

EX:LUHLSC

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

EX:MA

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX MA=a-b-c-d e

[2]   ____________________________________________________________________
      EX MA=a-b-c-d NOT STARTED f

[3]   ____________________________________________________________________
      EX MA=a-b-c-d STF PH g SEG h TEST i MM j
       [EXP k MASK l ACTL m]

[4]   ____________________________________________________________________
      EX MA=a-b-c-d SUSPENDED n[PH o [SEG p]]

[5]   ____________________________________________________________________
      EX MA=a-b-c-d SUSPECTED FAULTY EQUIPMENT d1 RECORD
        AISLE  MODULE     CABINET  CODE     FORM   EQL     TYPE  NOTE
        q    r [s]     t  u     v  [w]  x-y[-e1]     z  [a1]
       [.    .  .      .  .     .   .   . .  .                .     .]
       [.    .  .      .  .     .   .   . .  .                .     .]
       [.    .  .      .  .     .   .   . .  .                .     .]

[6]   ____________________________________________________________________
      EX MA=a-b-c-d b1 [c1]

[7]   ____________________________________________________________________
      EX MA=a-b-c-d PH g SEG h STMT f1 g1
       [EXP k MASK l ACTL m]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:MA input message to diagnose the metallic access (MA) board.

Format 1 indicates that the specified segments have been completed and all tests passed. It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the specified input message was invalid.

Format 3 indicates that a test has failed and specifies which test.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous input message, may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble location procedure (TLP) option was specified in the input message.

Format 6 indicates that the diagnostic execution has terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Metallic service unit (MSU) number.

c = Service group number.

d = MSU board number.

e = Loop result. Valid value(s):

ATP	= All test were performed and all passed.
CATP	= Some tests were not performed, but all that were passed.
NTR	= No tests run.
STF	= Some tests failed.

f = Reason the input message was rejected.

g = Phase in which the failure occurred.

h = Segment in which the failure occurred.

i = Test number that failed.

j = Mismatch results for the specified test in hexadecimal.

k = Raw data expected result for the specified test in hexadecimal.

l = Raw data mask used to determine the test failure in hexadecimal.

m = Raw data actual result for the specified test in hexadecimal.

n = Result of previous input message. Valid value(s):

ATP	= The specified segment(s) were completed and all tests passed.
CATP	= Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
NTR	= No tests were run since the last completion message.
STF	= The diagnostic has completed and some tests failed.

o = Phase number in which execution is suspended.

p = Segment number in which execution is suspended.

q = Identification number of floor and aisle.

r = Module type.

s = Module number.

t = Cabinet type.

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u = Cabinet number.

v = Replacement equipment code(s).

w = Equipment form(s). Equipment form represents minimal operating level of replacement equipment.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
:          = Intra-field delimiter.
-          = Inter-field delimiter if necessary.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code 'A').
C          = Additional compatible equipment code(s) (added as space permits)
D          = Current minimal approved operating level for equipment code 'A'.
E          = Current minimal approved operating level for equipment code 'B'.
F          = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

x = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

y = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

z = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

____ = Equipment is part of the circuit under test.

a[1] = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

b[1] = Termination status. Valid value(s):

ABORTED = The process was terminated (process not gracefully terminated).

NOT STARTED = Action was not begun.

STOPPED = Terminated before normal completion (process gracefully terminated).

c[1] = Termination reason. Refer to the APP:MAINT-RESP appendix in the Appendix section of the Output Messages manual.

d[1] = Text identifier showing order of record:

FIRST = First record of continuing list.
NEXT = Next record of continuing list.
LAST = Last record of list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

e[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

f[1] = Statement number.

g[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, no action is required.

For Format 2, determine the correct input message and reenter the diagnostic exercise request.

For Format 3, repair the faulty unit.

For Format 4:

If output includes:	Action:
only SUSPENDED NTR	Enter the first exercise input message for the purpose of manual troubleshooting.
SUSPENDED ATP PH o SEG p	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
SUSPENDED CATP PH o SEG p	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous input message.
SUSPENDED NTR PH o SEG p and the RPT option was specified	This message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
SUSPENDED STF PH o SEG p	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

For Formats 6 and 7, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

EX:MA

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

EX:MAB

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX MAB=a-b-c-d e

[2]   ____________________________________________________________________
      EX MAB=a-b-c-d NOT STARTED f

[3]   ____________________________________________________________________
      EX MAB=a-b-c-d STF PH g SEG h TEST i MM j
       [EXP k MASK l ACTL m]

[4]   ____________________________________________________________________
      EX MAB=a-b-c-d SUSPENDED n[PH o [SEG p]]

[5]   ____________________________________________________________________
      EX MAB=a-b-c-d SUSPECTED FAULTY EQUIPMENT d1 RECORD
        AISLE  MODULE     CABINET  CODE     FORM   EQL     TYPE NOTE
        q    r [s]     t  u     v  [w]  x-y[-e1]     z  [a1]
       [.    .  .      .  .     .   .   . .  .                .   .
       [.    .  .      .  .     .   .   . .  .                .   .
       [.    .  .      .  .     .   .   . .  .                .   .

[6]   ____________________________________________________________________
      EX MAB=a-b-c-d b1 [c1]

[7]   ____________________________________________________________________
      EX MAB=a-b-c-d PH g SEG h STMT f1 g1
       [EXP k MASK l ACTL m]
```

2. REASON FOR OUTPUT

To report the result of executing the EX:MAB input message to exercise the metallic access bus (MAB).

Format 1 is printed when the specified phase(s) have been completely executed, and reports the overall result. Execution of the diagnostic will continue for any remaining iterations.

Format 2 indicates that the specified input message was invalid.

Format 3 is printed when a test has failed.

Format 4 is printed when the execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous message may also be specified.

Format 5 is printed when the trouble location procedure (TLP) was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 6 indicates that the diagnostic execution has terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Unit number.

c = Service group number.

d = Bus number.

e = Loop result. Valid value(s):

ATP	= All tests were performed and all passed.
CATP	= Some tests were not performed, but all that were performed have passed.
NTR	= No tests were run.
STF	= Some tests failed.

f = Reason the command was rejected.

g = Number of the phase in which the failure occurred.

h = Number of the segment in which the failure occurred.

i = Number of the test that failed.

j = Mismatch results for the specified test in hexadecimal.

k = Expected result for the specified test in hexadecimal.

l = Mask used to determine test failure in hexadecimal.

m = Actual result for the specified test in hexadecimal.

n = Result of previous command (variable 'e' for expected responses).

o = Phase number in which execution suspended.

p = Segment number in which execution suspended.

q = Identification number of floor and aisle.

r = Module type.

s = Module number.

t = Cabinet type.

u = Cabinet number.

v = Replacement equipment code(s).

w = Equipment form(s). Equipment form represents minimal operating level of replacement equipment.

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Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
-          = Inter-field delimiter if necessary.
:          = Intra-field delimiter.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for  code 'A').
C          = Additional compatible equipment code(s) (added as space permits)
D          = Current minimal approved operating level for equipment code 'A'.
E          = Current minimal approved operating level for equipment code 'B'.
F          = Current minimal approved operating level(s) for equipment  code(s) 'C'.
```

Codes 'A', ' B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', ' E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

x = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

y = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

z = Circuit type. Valid value(s):

HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
_____	= Equipment is part of the circuit under test.

a[1] = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

b[1] = Termination status. Valid value(s):

ABORTED	= The process was terminated (process not gracefully terminated).
NOT STARTED	= Action was not begun.
STOPPED	= Terminated before normal completion (process gracefully terminated).

c[1] = Termination reason. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

d[1] = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

e[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

f[1] = Statement number.

g[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, no action is required.

For Format 2, determine the correct input message and reenter the diagnostic exercise request.

For Format 3, replace the faulty unit.

For Format 4:

If output includes:	Action:
only `SUSPENDED NTR`	Enter the first exercise message for the purpose of manual troubleshooting.
`SUSPENDED ATP PH o SEG p`	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
`SUSPENDED CATP PH o SEG p`	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and re-enter the previous message.
`SUSPECTED STF PH o SEG p`	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
`SUSPENDED x PH o`	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected packs, one at a time in the order specified. Rerun the entire diagnostic after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 6 and 7, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:MAB
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

EX:MCTSI

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX MCTSI=a-b-c-d e

[2]   ____________________________________________________________________
      EX MCTSI=a-b-c-d NOT STARTED f

[3]   ____________________________________________________________________
      EX MCTSI=a-b-c-d STF PH g SEG h TEST i MM j
       [EXP k MASK l ACTL m]

[4]   ____________________________________________________________________
      EX MCTSI=a-b-c-d SUSPENDED n[PH o [SEG p]]

[5]   ____________________________________________________________________
      EX MCTSI=a-b-c-d SUSPECTED FAULTY EQUIPMENT d1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL      TYPE  NOTE
        q       r [s]   t  u     v     [w]  x-y[-e1]   z    [a1]
       [.       .  .    .  .     .      .   . .  .     .     .]
       [.       .  .    .  .     .      .   . .  .     .     .]
       [.       .  .    .  .     .      .   . .  .     .     .]

[6]   ____________________________________________________________________
      EX MCTSI=a-b-c-d b1 [c1]

[7]   ____________________________________________________________________
      EX MCTSI=a-b-c-d PH g SEG h STMT f1 g1
       [EXP k MASK ACTL m]
```

2. REASON FOR OUTPUT

To report the result of executing the EX:MCTSI input message to exercise the module controller/timeslot interchange (MCTSI).

Format 1 is printed when the specified phase(s) have been completely executed, and reports the overall result. Execution of the diagnostic will continue for any remaining iterations.

Format 2 indicates that the specified input message was invalid.

Format 3 is printed when a test has failed.

Format 4 is printed when the execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous message may also be specified.

Format 5 is printed when the trouble location procedure (TLP) was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 6 indicates that the diagnostic execution has terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Unit number.

c = Service group number.

d = Bus number.

e = Loop result. Valid value(s):

ATP	= All tests were performed and all passed.
CATP	= Some tests were not performed, but all that were performed have passed.
NTR	= No tests were run.
STF	= Some tests failed.

f = Reason the message was rejected.

g = Number of the phase in which the failure occurred.

h = Number of the segment in which the failure occurred.

i = Number of the test that failed.

j = Mismatch results for the specified test in hexadecimal.

k = Expected result for the specified test in hexadecimal.

l = Mask used to determine test failure in hexadecimal.

m = Actual result for the specified test in hexadecimal.

n = Result of previous input message (refer to variable 'e' for expected responses).

o = Phase number in which execution suspended.

p = Segment number in which execution suspended.

q = Identification number of floor and aisle.

r = Module type.

s = Module number.

t = Cabinet type.

u = Cabinet number.

v = Replacement equipment code(s).

w = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to subsequent example.

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Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
:          = Intra-field delimiter.
-          = Inter-field delimiter if necessary.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code 'A').
C          = Additional compatible equipment code(s) (added as space permits)
D          = Current minimal approved operating level for equipment code 'A'.
E          = Current minimal approved operating level for equipment code 'B'.
F          = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

x = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

y = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

z = Circuit type. Valid value(s):

HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
____	= Equipment is part of the circuit under test.

a[1] = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

b[1] = Termination status. Valid value(s):

ABORTED	= The process was terminated (process not gracefully terminated).
NOT STARTED	= Action was not begun.
STOPPED	= Terminated before normal completion (process gracefully terminated).

c[1] = Termination reason. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

d[1] = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

e[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

f[1] = Statement number.

g[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, none.

For Format 2, determine the correct input message and reenter the diagnostic exercise request.

For Format 3, replace the faulty unit.

For Format 4:

If output includes:	Action:
only `SUSPENDED NTR`	Enter the first exercise message for the purpose of manual troubleshooting.
`SUSPENDED ATP PH o SEG p`	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
`SUSPENDED CATP PH o SEG p`	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and re-enter the previous message.
`SUSPECTED STF PH o SEG p`	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
`SUSPENDED x PH o`	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected packs, one at a time in the order specified. Rerun the entire diagnostic after each substitution until the fault is repaired or the diagnostic result changes.

For Formats 6 and 7, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:MCTSI
OP:DMQ
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

EX:MHD

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX MHD a [COMPLETED] b [(c)]
       {MESSAGE|MSG} {IN PROGRESS|COMPLETE}

[2]   ____________________________________________________________________
      EX MHD a PH d b [(c)]
       {MESSAGE IN PROGRESS|MSG IP}

[3]   ____________________________________________________________________
      EX MHD a PH d STF (c)       MSG IP
        TEST    MISMATCH    ACTUAL  MASK    EXPECTED
         e         f          g      h         i

[4]   ____________________________________________________________________
      EX MHD a ABORTED AT PH d STMNT j b [(c)]   MSG IP

[5]   ____________________________________________________________________
      EX MHD a TERMINATED AT PH d STMNT j AFTER TEST k

[6]   ____________________________________________________________________
      EX MHD a TASK l {MESSAGE STARTED|QUEUED|ABORTED}
```

2. REASON FOR OUTPUT

To print results of a diagnostic run on the moving head disk (MHD) in the interactive mode.

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

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b = The result of the diagnostic. Valid value(s):
- ATP = All tests passed.
- NTR = No tests were executed.
- STF = Some tests failed.

c = If 'b'=STF, 'c' identifies the number of test failures in addition to the reasons that tests were skipped. For example, if 'c' = (70000000000000000), seven tests failed and no tests were skipped.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A '1' in a bit position indicates that the response from the unit did not match the expected response in that bit.
Note: For Format 3 the values for 'g', 'h' and 'i' may be set to N/A. This means that this data is not available for the specified device.

g = The bits which were actually received from the hardware device.

h = Determines which bits in 'g' are included in this test.

i = The value which the test expected.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

Formats 1, 5, and 6 are informational reports and require no action.

For Formats 2 - 4, if 'b' = STF, the unit should be repaired as quickly as possible. Refer to the Corrective Maintenance manual for the repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

Input Message(s):

```
EX:MHD
STOP:DMQ
STP:DMQ
```

Output Message(s):

```
DGN:MHD
```

Output Appendix(es):

```
APP:DFC-B
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-210 *Routine Operations and Maintenance*

EX:MI

Software Release: 5E10 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

```
EX MI=a b  [c]
```

2. REASON FOR OUTPUT

To acknowledge that a manual request to exercise a message interface (MI) is complete.

3. VARIABLE FIELD DEFINITIONS

`a` = The office network and timing complex (ONTC) side the MI is on.

`b` = Termination report. Valid value(s):

`ABORTED`	Requested action was terminated before completion and the termination was immediate (no cleanup was done).
`COMPLETED`	Request completed successfully.
`NOT STARTED`	Requested action could not begin.
`STOPPED`	Request was terminated before a normal completion. Attempts were made to leave everything in a sane state.

`c` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual request. No further action is necessary if the request completed successfully. If the termination report is not `COMPLETED`, the variable '`c`' field should give some indication as to why the request failed.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:MI
OP:CFGSTAT
```

Output Message(s):

```
OP:CFGSTAT
```

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EX:MMP

Software Release: 5E10 and later
Message Class: MSGS
Application: 5
Type: Output

1. FORMAT

```
EX MMP=a-b c [d]
```

2. REASON FOR OUTPUT

To acknowledge that a manual request, from EX:MMP, to exercise a module message processor (MMP) is complete.

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch control unit (MSCU) side.

`b` = MMP number.

`c` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was immediate (no cleanup was done).
`COMPLETED`	= Request completed successfully.
`NOT STARTED`	= Requested action could not begin.
`STOPPED`	= Request was terminated before a normal completion.

`d` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual request. No further action is necessary if the request completed successfully. If the termination report is not `COMPLETED`, the '`d`' field should give some indication as to why the request failed. Check MMP MCC pages or OP:CFGSTAT output message to verify that the MMP was in a valid state to perform the request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:MMP
OP:CFGSTAT
RST:MMP
```

Output Message(s):

```
OP:CFGSTAT
```

Other Manual(s):
235-105-250 *System Recovery Procedures*

EX:MSCU

Software Release: 5E10 and later
Message Class: MSGS
Application: 5
Type: Output

1. FORMAT

```
EX MSCU=a b  [c]
```

2. REASON FOR OUTPUT

To acknowledge that a manual request to exercise a message switch control unit (MSCU) is complete.

3. VARIABLE FIELD DEFINITIONS

`a` = MSCU side.

`b` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was immediate (no cleanup was done).
`COMPLETED`	= Request completed successfully.
`NOT STARTED`	= Requested action could not begin.
`STOPPED`	= Request was terminated before a normal completion. Attempts were made to leave everything in a sane state.

`c` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual request. No further action is necessary if the request completed successfully. If the termination report is not `COMPLETED`, the variable '`c`' field should give some indication as to why the request failed.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:MSCU
OP:CFGSTAT
```

Output Message(s):

```
OP:CFGSTAT
```

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EX:MSUCOM

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX MSUCOM=a-b-c d

[2]   ____________________________________________________________________
      EX MSUCOM=a-b-c NOT STARTED e

[3]   ____________________________________________________________________
      EX MSUCOM=a-b-c STF PH f SEG g TEST h MM i
       [EXP j MASK k ACTL l]

[4]   ____________________________________________________________________
      EX MSUCOM=a-b-c SUSPENDED m[PH n [SEG o]]

[5]   ____________________________________________________________________
      EX MSUCOM=a-b-c SUSPECTED FAULTY EQUIPMENT c2 RECORD
        AISLE  MODULE     CABINET CODE     FORM   EQL     TYPE NOTE
        p    q [r]     s  t     u  [v]  w-x[-d1]     y  [z]
       [.    .  .      .  .     .   .   . .  .                .   .]
       [.    .  .      .  .     .   .   . .  .                .   .]
       [.    .  .      .  .     .   .   . .  .                .   .]

[6]   ____________________________________________________________________
      EX MSUCOM=a-b-c a1 [b1]

[7]   ____________________________________________________________________
      EX MSUCOM=a-b-c PH f SEG g STMT e1 f1
       [EXP i MASK j ACTL k]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:MSUCOM input message to diagnose the metallic service unit common (MSUCOM) board.

Format 1 indicates that the specified segments have been completed and all tests passed. It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the specified input message was invalid.

Format 3 indicates that a test has failed and specifies which test.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous command, may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble location procedure (TLP) option was specified in the input message.

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Format 6 indicates that the diagnostic execution has terminated.

Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = Loop result. Valid value(s):

- `ATP` = All test were performed and all passed.
- `CATP` = Some tests were not performed, but all that were passed.
- `NTR` = No tests run.
- `STF` = Some tests failed.

`e` = Reason the command was rejected.

`f` = Phase in which the failure occurred.

`g` = Segment in which the failure occurred.

`h` = Test number that failed.

`i` = Mismatch results for the specified test in hexadecimal.

`j` = Raw data expected result for the specified test in hexadecimal.

`k` = Raw data mask used to determine the test failure in hexadecimal.

`l` = Raw data actual result for the specified test in hexadecimal.

`m` = Result of previous command. Valid value(s):

- `ATP` = The specified segment(s) were completed and all tests passed.
- `CATP` = Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
- `NTR` = No tests were run since the last completion message.
- `STF` = The diagnostic has completed and some tests failed.

`n` = Phase number in which execution is suspended.

`o` = Segment number in which execution is suspended.

`p` = Identification number of floor and aisle.

`q` = Module type.

`r` = Module number.

`s` = Cabinet type.

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t = Cabinet number.

u = Replacement equipment code(s).

v = Equipment form(s). Equipment form represents minimal operating level of replacement equipment.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
-          = Inter-field delimiter if necessary.
:          = Intra-field delimiter.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code 'A').
C          = Additional compatible equipment code(s) (added as space permits)
D          = Current minimal approved operating level for equipment code 'A'.
E          = Current minimal approved operating level for equipment code 'B'.
F          = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

w = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

x = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

y = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

____ = Equipment is part of the circuit under test.

z = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

a[1] = Termination status. Valid value(s):

ABORTED = The process was terminated (process not gracefully terminated).

NOT STARTED = Action was not begun.

STOPPED = Terminated before normal completion (process gracefully terminated).

b[1] = Termination reason. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

c[1] = Text identifier showing order of record. Valid value(s):

FIRST = First record of continuing list.

LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

d[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

e[1] = Statement number.

f[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Formats 1, 6 and 7, no action is required.

For Format 2, determine the correct input message and reenter the diagnostic exercise request.

For Format 3, repair the faulty unit.

For Format 4:

If output includes:	Action:
SUSPENDED NTR	Enter the first exercise command for the purpose of manual troubleshooting.
SUSPENDED ATP PH n SEG o	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
SUSPENDED CATP PH n SEG o	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous command.
SUSPENDED NTR PH n SEG o	If the RPT option was specified, this message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
SUSPENDED STF PH n SEG o	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

EX:MSUCOM

Output Appendix(es):

APP:MAINT-RESP

APP:TLP-NOTE

EX:MT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX MT a [COMPLETED] b [(c)]
       {MESSAGE|MSG} {IN PROGRESS|COMPLETE}

[2]   ____________________________________________________________________
      EX MT a PH d b [(c)]
       {MESSAGE IN PROGRESS|MSG IP}

[3]   ____________________________________________________________________
      EX MT a PH d STF (c)       MSG IP
        TEST    MISMATCH    ACTUAL  MASK    EXPECTED
         e         f          g      h         i

[4]   ____________________________________________________________________
      EX MT a ABORTED AT PH d STMNT j b [(c)]    MSG IP

[5]   ____________________________________________________________________
      EX MT a TERMINATED AT PH d STMNT j AFTER TEST k

[6]   ____________________________________________________________________
      EX MT a TASK l {MESSAGE STARTED|QUEUED|ABORTED}
```

2. REASON FOR OUTPUT

Prints the results of the diagnostic executed on the magnetic tape (MT) in interactive mode.

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates that non-failing diagnostic results for an individual phase. This occurs if a partial diagnostic or RAW data was specified on the diagnostic request.

Format 3 indicates that the diagnostic results for an individual failing phase.

Format 4 indicates that the diagnostic was stopped due to an external or internal error in execution, or an input request.

Format 5 indicates that the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, the request could not be started due to resource contention [no openings in the active deferred maintenance queue (DMQ) and the request is in the waiting DMQ], or the request has aborted.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

b = The result of the diagnostic. Valid value(s):
- ATP = All tests passed.
- NTR = No tests were executed.
- STF = Some tests failed.

c = If 'b' = STF, 'c' identifies the number of test failures in addition to the number of tests that were skipped. For example, if 'c' = (70000000000000000), seven tests failed and no tests were skipped.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A '1' in a bit position indicates that the response from the unit did not match the expected response in that bit.
Note: For Format 3, the values for 'g', 'h', and 'i' may be set to N/A. This means that this data is not available for the specified device.

g = The bits that were actually received from the hardware device.

h = Determines bits in 'g' that are included in this test.

i = The value that the test expected.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when the diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

Formats 1, 5, and 6 are informational reports and require no action.

For Formats 2, 3, and 4, if 'b' = STF, the unit should be repaired as quickly as possible; refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

Input Message(s):

```
EX:MT
STOP:DMQ
STP:DMQ
```

Output Message(s):

```
DGN:MT
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

EX:MTB

Software Release: 5E12 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EX MTB=a-b-c-d-h1 e

[2]   ____________________________________________________________
      EX MTB=a-b-c-d-h1 NOT STARTED f

[3]   ____________________________________________________________
      EX MTB=a-b-c-d-h1 STF PH g SEG h TEST i MM j
       [EXP k MASK l ACTL m]

[4]   ____________________________________________________________
      EX MTB=a-b-c-d-h1 SUSPENDED n[PH o [SEG p]]

[5]   ____________________________________________________________
      EX MTB=a-b-c-d-h1 SUSPECTED FAULTY EQUIPMENT d1 RECORD
        AISLE  MODULE     CABINET  CODE     FORM   EQL     TYPE  NOTE
        q    r [s]     t  u     v  [w]  x-y[-e1]     z  [a1]
       [.    .  .      .  .     .   .   . .  .                .     .]
       [.    .  .      .  .     .   .   . .  .                .     .]
       [.    .  .      .  .     .   .   . .  .                .     .]

[6]   ____________________________________________________________
      EX MTB=a-b-c-d-h1 b1 [c1]

[7]   ____________________________________________________________
      EX MTB=a-b-c-d-h1 PH g SEG h STMT f1 g1
       [EXP k MASK l ACTL m]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:MTB input message to diagnose the metallic access test bus(MTB). Format 1 indicates that the specified segments have been completed and all tests passed. It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations. Format 2 indicates that the specified input message was invalid. Format 3 indicates that a test has failed and specifies which test. Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous input message, may also be specified. Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble location procedure (TLP) option was specified in the input message. Format 6 indicates that the diagnostic execution has terminated. Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Metallic service unit (MSU) number.

c = Service group number.

d = MSU board number.

e = Loop result. Valid value(s):

ATP	= All test were performed and all passed.
CATP	= Some tests were not performed, but all that were passed.
NTR	= No tests run.
STF	= Some tests failed.

f = Reason the input message was rejected.

g = Phase in which the failure occurred.

h = Segment in which the failure occurred.

i = Test number that failed.

j = Mismatch results for the specified test in hexadecimal.

k = Raw data expected result for the specified test in hexadecimal.

l = Raw data mask used to determine the test failure in hexadecimal.

m = Raw data actual result for the specified test in hexadecimal.

n = Result of previous input message. Valid value(s):

ATP	= The specified segment(s) were completed and all tests passed.
CATP	= Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
NTR	= No tests were run since the last completion message.
STF	= The diagnostic has completed and some tests failed.

o = Phase number in which execution is suspended.

p = Segment number in which execution is suspended.

q = Identification number of floor and aisle.

r = Module type.

s = Module number.

t = Cabinet type.

u = Cabinet number.

v = Replacement equipment code(s).

w = Equipment form(s). Equipment form represents minimal operating level of replacement equipment.

Example of CODE FORM contents:

CODE A[:B]...[:C] [-] D[:E]...[:F]

:	= Intra-field delimiter.
-	= Inter-field delimiter if necessary.
A	= Current minimal accepted equipment code.
B	= Current production equipment code (substitutable equipment for code 'A').
C	= Additional compatible equipment code(s) (added as space permits)
D	= Current minimal approved operating level for equipment code 'A'.
E	= Current minimal approved operating level for equipment code 'B'.
F	= Current minimal approved operating level(s) for equipment code(s) 'C'.

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

x = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

y = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

z = Circuit type. Valid value(s):

HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

____ = Equipment is part of the circuit under test.

a[1] = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

b[1] = Termination status. Valid value(s):

ABORTED	= The process was terminated (process not gracefully terminated).
NOT STARTED	= Action was not begun.
STOPPED	= Terminated before normal completion (process gracefully terminated).

c[1] = Termination reason. Refer to the APP:MAINT-RESP appendix in the Appendix section of the Output Messages manual.

d[1] = Text identifier showing order of record:

FIRST	= First record of continuing list.
NEXT	= Next record of continuing list.
LAST	= Last record of list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

e[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

f[1] = Statement number.

g[1] = Reason why some tests were not performed.

h[1] = MTB number.

4. ACTIONS TO BE TAKEN

For Format 1, no action is required.

For Format 2, determine the correct input message and reenter the diagnostic exercise request.

For Format 3, repair the faulty unit.

For Format 4:

If output includes:	Action:
only `SUSPENDED NTR`	Enter the first exercise input message for the purpose of manual troubleshooting.
`SUSPENDED ATP PH o SEG p`	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
`SUSPENDED CATP PH o SEG p`	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous input message.
`SUSPENDED NTR PH o SEG p` and the RPT option was specified	This message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
`SUSPENDED STF PH o SEG p`	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
`SUSPENDED x PH o`	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

For Formats 6 and 7, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:MTB
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

EX:MTC

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX MTC a [COMPLETED] b [(c)]
       {MESSAGE|MSG} {IN PROGRESS|COMPLETE}

[2]   ____________________________________________________________________
      EX MTC a PH d b [(c)] {MESSAGE IN PROGRESS|MSG IP}

[3]   ____________________________________________________________________
      EX MTC a PH d STF (c)          MSG IP
        TEST    MISMATCH    ACTUAL  MASK    EXPECTED
         e         f          g      h         i

[4]   ____________________________________________________________________
      EX MTC a ABORTED AT PH d STMNT j b [(c)]       MSG IP

[5]   ____________________________________________________________________
      EX MTC a TERMINATED AT PH d STMNT j AFTER TEST k

[6]   ____________________________________________________________________
      EX MTC a TASK l {MESSAGE STARTED|QUEUED|ABORTED}
```

2. REASON FOR OUTPUT

To print results of a diagnostic run on the magnetic tape controller (MTC) in the interactive mode.

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention [no openings in the active deferred maintenance queue (DMQ) and the request is in the waiting DMQ], or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

b = The result of the diagnostic. Valid value(s):

ATP = All tests passed.

CATP = All tests that were executed were ATP; some were not executed due to the unavailability of a system resource that was needed to perform the test.

NTR = No tests were run.

STF = Some tests failed.

c = Valid value(s):

If 'b' =	'c' =
CATP or NTR	Identifies the reasons tests were skipped in this phase by their bit position in a 16-digit hexadecimal number. For example, if 'c' = (00000000 0000018), tests were skipped for reasons 3 and 4.
STF	Identifies the number of test failures in addition to the reasons tests were skipped. For example, if 'c' = (7 00000000 00000006), seven tests failed, plus tests were skipped for reasons 1 and 2.

The reason codes are:

Bit #	Explanation:
1	Helper unit cannot be reserved.
2	Helper unit not out-of-service.
3	Helper unit is not ATP.
4	Helper unit not connected to controller under test.
17	Helper MT tape not mounted and/or transport door open.
18	Helper MT transport not in on-line mode.
19	Helper MT tape reel has no write enable ring (WER).
20	Helper MT tape too long for diagnostic test tape.
21	Helper MT tape has no header block at BOT or header block indicates not diagnostic test tape.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A '1' in a bit position indicates that the response from the unit did not match the expected response in that bit.

Note: For Format 3 the values for 'g', 'h' and 'i' may be set to N/A. This means that this data is not available for the specified device.

g = The bits which were actually received from the hardware device.

h = Determines which bits in 'g' are included in this test.

i = The value which the test expected.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

If 'b' =	Action:
CATP	The needed system resource should be made available if possible, so that all tests may be executed.
STF	The unit should be repaired as quickly as possible. Refer to the Corrective Maintenance manual for the repair procedures.

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5. ALARMS

This alarm is automatically generated. Action may or may not be required. Refer to the APP:OMDB-X-REF appendix in the Appendixes section in the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	96, 103
2	99, 103
3	109, 110
4	106, 109, 110, 111
5	217
6	70, 99

Input Message(s):

```
EX:MTC
STOP:DMQ
STP:DMQ
```

Output Message(s):

```
DGN:MTC
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-210 *Routine Operations and Maintenance*

EX:MTIB

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX MTIB=a b

[2]   ____________________________________________________________________
      EX MTIB=a NOT STARTED c

[3]   ____________________________________________________________________
      EX MTIB=a STF PH d SEG e TEST f MM g
       [EXP h MASK i ACTL j]

[4]   ____________________________________________________________________
      EX MTIB=a SUSPENDED k[PH l [SEG m]]

[5]   ____________________________________________________________________
      EX MTIB=a SUSPECTED FAULTY EQUIPMENT a1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL      TYPE  NOTE
        n       o [p]    q  r     s    [t]  u-v[-b1]   w    [x]
       [.       .  .     .  .     .     .   . .  .     .     .]
       [.       .  .     .  .     .     .   . .  .     .     .]
       [.       .  .     .  .     .     .   . .  .     .     .]

[6]   ____________________________________________________________________
      EX MTIB=a y [z]
```

2. REASON FOR OUTPUT

To report the result of executing the EX:MTIB input message to exercise the metallic test interconnect bus (MTIB).

Format 1 is printed when the specified phase(s) have been completely executed, and reports the overall result. Execution of the diagnostic will continue for any remaining iterations.

Format 2 indicates that the specified input message was invalid.

Format 3 is printed when a test has failed.

Format 4 is printed when the execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous message may also be specified.

Format 5 is printed when the trouble location procedure (TLP) was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 6 indicates that the diagnostic execution has terminated.

3. VARIABLE FIELD DEFINITIONS

`a` = MTIB number.

b = Loop result. Valid value(s):

ATP	= All tests were performed and all passed.
CATP	= Some tests were not performed, but all that were performed have passed.
NTR	= No tests were run.
STF	= Some tests failed.

c = Reason the command was rejected.

d = Number of the phase in which the failure occurred.

e = Number of the segment in which the failure occurred.

f = Number of the test that failed.

g = Mismatch results for the specified test in hexadecimal..

h = Expected result for the specified test in hexadecimal.

i = Mask used to determine test failure in hexadecimal.

j = Actual result for the specified test in hexadecimal.

k = Result of previous command (variable 'b' for expected responses).

l = Phase number in which execution suspended.

m = Segment number in which execution suspended.

n = Identification number of floor and aisle.

o = Module type.

p = Module number.

q = Cabinet type.

r = Cabinet number.

s = Replacement equipment code(s).

t = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
```

:	= Intra-field delimiter.
-	= Inter-field delimiter if necessary.
A	= Current minimal accepted equipment code.
B	= Current production equipment code (substitutable equipment for code 'A').
C	= Additional compatible equipment code(s) (added as space permits)
D	= Current minimal approved operating level for equipment code 'A'.
E	= Current minimal approved operating level for equipment code 'B'.

F = Current minimal approved operating level(s) for equipment code(s) 'C'.

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

u = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

v = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

w = Circuit type. Valid value(s):

- HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
- ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
- ____ = Equipment is part of the circuit under test.

x = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

y = Termination status. Valid value(s):

- ABORTED = The process was terminated (process not gracefully terminated).
- NOT STARTED = Action was not begun.
- STOPPED = Terminated before normal completion (process gracefully terminated).

z = Termination reason. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

a[1] = Text identifier showing order of record. Valid value(s):

- FIRST = First record of continuing list.
- LAST = Last record of list.
- NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

b[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

4. ACTION TO BE TAKEN

For Formats 1 and 6, no action is required.

For Format 2, determine the correct input message and reenter the diagnostic exercise request.

For Format 3, replace the faulty unit.

For Format 4:

If output =	Action
SUSPENDED NTR	Enter the first exercise message for the purpose of manual troubleshooting.
SUSPENDED ATP PH l SEG m	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
SUSPENDED CATP PH l SEG m	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and re-enter the previous message.
SUSPECTED STF PH l SEG m	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected packs, one at a time in the order specified. Rerun the entire diagnostic after each substitution until the fault is repaired or the diagnostic result changes.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:MTIB
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

EX:MTIBAX

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EX MTIBAX=a-b-c-d e

[2]   ____________________________________________________________
      EX MTIBAX=a-b-c-d NOT STARTED f

[3]   ____________________________________________________________
      EX MTIBAX=a-b-c-d STF PH g SEG h TEST i MM j
       [EXP k MASK l ACTL m]

[4]   ____________________________________________________________
      EX MTIBAX=a-b-c-d SUSPENDED n[PH o [SEG p]]

[5]   ____________________________________________________________
      EX MTIBAX=a-b-c-d SUSPECTED FAULTY EQUIPMENT d1 RECORD
        AISLE  MODULE     CABINET CODE     FORM   EQL     TYPE NOTE
        q    r [s]     t  u     v  [w]   x-y[-e1]     z  [a1]
       [.    .  .      .  .     .   .    . .  .                .   .]
       [.    .  .      .  .     .   .    . .  .                .   .]
       [.    .  .      .  .     .   .    . .  .                .   .]

[6]   ____________________________________________________________
      EX MTIBAX=a-b-c-d b1 [c1]

[7]   ____________________________________________________________
      EX MTIBAX=a-b-c-d PH g SEG h STMT f1 g1
       [EXP k MASK l ACTL m]
```

2. REASON FOR OUTPUT

To report the result of executing the EX:MTIBAX input message to exercise the metallic test interconnect bus access (MTIBAX).

Format 1 is printed when the specified phase(s) have been completely executed, and reports the overall result. Execution of the diagnostic will continue for any remaining iterations.

Format 2 indicates that the specified input message was invalid.

Format 3 is printed when a test has failed.

Format 4 is printed when the execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous message may also be specified.

Format 5 is printed when the trouble location procedure (TLP) was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 6 indicates that the diagnostic execution has terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Unit number.

c = Service group number.

d = Shelf number.

e = Loop result. Valid value(s):

ATP	= All tests were performed and all passed.
CATP	= Some tests were not performed, but all that were performed have passed.
NTR	= No tests were run.
STF	= Some tests failed.

f = Reason the command was rejected.

g = Number of the phase in which the failure occurred.

h = Number of the segment in which the failure occurred.

i = Number of the test that failed.

j = Mismatch results for the specified test in hexadecimal.

k = Expected result for the specified test in hexadecimal.

l = Mask used to determine test failure in hexadecimal.

m = Actual result for the specified test in hexadecimal.

n = Result of previous command (variable 'e' for expected responses).

o = Phase number in which execution suspended.

p = Segment number in which execution suspended.

q = Identification number of floor and aisle.

r = Module type.

s = Module number.

t = Cabinet type.

u = Cabinet number.

v = Replacement equipment code(s).

w = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

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Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
:          = Intra-field delimiter.
-          = Inter-field delimiter if necessary.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code 'A').
C          = Additional compatible equipment code(s) (added as space permits).
D          = Current minimal approved operating level for equipment code 'A'.
E          = Current minimal approved operating level for equipment code 'B'.
F          = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

x = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

y = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

z = Circuit type. Valid value(s):

HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
____	= Equipment is part of the circuit under test.

a[1] = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

b[1] = Termination status. Valid value(s):

ABORTED	= The process was terminated (process not gracefully terminated).
NOT STARTED	= Action was not begun.
STOPPED	= Terminated before normal completion (process gracefully terminated).

c[1] = Termination reason. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

d[1] = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

e[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

f[1] = Statement number.

g[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Formats 1, 6, and 7, no action is required.

For Format 2, determine the correct input message and reenter the diagnostic exercise request.

For Format 3, replace the faulty unit.

For Format 4:

If output includes:	Action:
SUSPENDED NTR	Enter the first exercise message for the purpose of manual troubleshooting.
SUSPENDED ATP PH o SEG p	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
SUSPENDED CATP PH o SEG p	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous message.
SUSPECTED STF PH o SEG p	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected packs, one at a time in the order specified. Rerun the entire diagnostic after each substitution until the fault is repaired or the diagnostic result changes.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:MTIBAX
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

EX:MTTYC

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EX MTTYC a [COMPLETED] b [(c)]
       {MESSAGE|MSG} {IN PROGRESS|COMPLETE}

[2]   ____________________________________________________________
      EX MTTYC a PH d b [(c)] {MESSAGE IN PROGRESS|MSG IP}

[3]   ____________________________________________________________
      EX MTTYC a PH d STF (c)          MSG IP
        TEST    MISMATCH    ACTUAL  MASK    EXPECTED
         e         f          g      h         i

[4]   ____________________________________________________________
      EX MTTYC a ABORTED AT PH d STMNT j b [(c)]        MSG IP

[5]   ____________________________________________________________
      EX MTTYC a TERMINATED AT PH d STMNT j AFTER TEST k

[6]   ____________________________________________________________
      EX MTTYC a TASK l {MESSAGE STARTED|QUEUED|ABORTED}
```

2. REASON FOR OUTPUT

To print results of a diagnostic run on the maintenance teletypewriter controller (MTTYC) in the interactive mode.

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention [no openings in the active deferred maintenance queue (DMQ) and the request is in the waiting DMQ], or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

b = The result of the diagnostic. Valid value(s):
- ATP = All tests passed.
- NTR = No tests were executed.
- STF = Some tests failed.

c = If 'b' = STF, 'c' identifies the number of test failures in addition to the reasons that tests were skipped. For example, if 'c' = (7 00000000 00000000), seven tests failed, and no tests were skipped.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A '1' in a bit position indicates that the response from the unit did not match the expected response in that bit.
Note: For Format 3, the values for 'g', 'h' and 'i' may be set to N/A. This means that this data is not available for the specified device.

g = The bits which were actually received from the hardware device.

h = Determines which bits in 'g' are included in this test.

i = The value which the test expected.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

If 'b' = STF, the unit should be repaired as quickly as possible. Refer to the Corrective Maintenance manual for the repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	96, 103
2	99, 103
3	109, 110
4	106, 109, 110, 111
5	217
6	70, 99

Input Message(s):

```
EX:MTTYC
STOP:DMQ
STP:DMQ
```

Output Message(s):

```
DGN:MTTYC
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
234-105-210 *Routine Operations and Maintenance*

EX:NLI

Software Release: 5E10 and later
Message Class: SM,ONTC
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EX NLI=a-b-c d

[2]   ____________________________________________________________
      EX NLI=a-b-c NOT STARTED e

[3]   ____________________________________________________________
      EX NLI=a-b-c STF PH f SEG g TEST h MM i
       [EXP j MASK k ACTL l]

[4]   ____________________________________________________________
      EX NLI a-b-c SUSPENDED m [PH n [SEG o]]

[5]   ____________________________________________________________
      EX NLI=a-b-c SUSPECTED FAULTY EQUIPMENT p RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL     TYPE  NOTE
          q     r [s]      t u    v     w     x-y       z    [a1]
          .     .  .       . .    .     .     . .       .     .
          .     .  .       . .    .     .     . .       .     .
          .     .  .       . .    .     .     . .       .     .

[6]   ____________________________________________________________
      EX NLI=a-b-c b1 [c1]
```

2. REASON FOR OUTPUT

To report the executing of EX:NLI input message to diagnose a network link interface (NLI).

Format 1 indicates the completed segments and reports the overall result. It applies only when the repeat (RPT) option is specified in the input message. Execution of the diagnostic continues for the remaining iterations.

Format 2 indicates that the input message was invalid.

Format 3 indicates and specifies that a test failed.

Format 4 indicates that diagnostic execution is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous message, may also be specified.

Format 5 is printed when a test failed and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 6 indicates that the diagnostic execution has terminated.

Formats 1, 3, 4 and 5 belong to the switching module (SM) message class, while Formats 2 and 6 belong to the office network and timing complex (ONTC) message class.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = NLI number.

c = ONTC side the NLI is on.

d = Loop result. Valid value(s):
- ATP = All tests were performed and passed.
- CATP = Some tests were not performed, but all tests that were performed passed.
- NTR = No tests were performed.
- STF = Some test(s) failed.

e = Error messages. Valid value(s):
- EXECUTE PHASE NOT DEFINED = The phase number containing the segments to be executed was invalid.
- PAUSE PHASE NOT DEFINED = The phase number at which suspension was desired was invalid.
- PREVIOUS EX IN PROGRESS = An earlier exercise message was still in progress; the rejected message is valid only if the diagnostic is suspended.

f = Number of the phase in which the failure occurred.

g = Number of the segment in which the failure occurred.

h = Number of the test that failed.

i = Mismatch results for the specified test in hexadecimal.

j = Expected result for the specified test in hexadecimal.

k = Mask used to determine test failure in hexadecimal.

l = Actual result for the specified test in hexadecimal.

m = Result of previous message. Valid value(s):
- ATP = The specified segment(s) were completed and all tests were performed and passed.
- CATP = Some tests in the specified segment(s) were not performed, but all tests that were performed passed.
- NTR = No tests were performed since the last completion message.
- REQUEST NOT ALLOWED = The invert or transfer input message was invalid.
- STF = The specified segment(s) were completed, and some test(s) failed.

n = Phase number were execution was suspended.

o = Segment number where execution was suspended.

p = Text identifier showing trouble location procedure (TLP) record. Valid value(s):
- FIRST = First record of continuing list.
- LAST = Last record of list.
- NEXT = Next record of continuing list.

A maximum of 12 list entries may be reported on a TLP list. They print in groups (records) of one to four entries. Each record has a new header.

q = Identification number of floor and aisle.

r = Module type. Valid value(s):

CM	= Communication module.
HSM	= Host switching module.
RSM	= Remote switching module.
SM	= Switching module.

s = Module number.

t = Cabinet type. Valid value(s):

CM2	= Communication module 2 cabinet.
M	= Miscellaneous cabinet.
MSG	= Message switch cabinet.
SMC	= Switching module controller cabinet.
TMS	= Time multiplexed switch cabinet.

u = Cabinet number.

v = Replacement equipment code(s). Refer to the following example.

w = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the following example.

Example of CODE FORM content:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
```

A	= Current minimal accepted equipment code.
B	= Current production equipment code (substitutable equipment for code A).
C	= Additional compatible equipment code(s) (added as space permits)
D	= Current minimal approved operating level for equipment code A.
E	= Current minimal approved operating level for equipment code B.
F	= Current minimal approved operating level(s) for equipment code(s) C.
:	= Intra-field delimiter.
-	= Inter-field delimiter if necessary.

Codes A, B and C may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms D, E and F may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

x = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

y = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

z = Circuit type. Valid value(s):

- HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
- ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
- ___ = Equipment is part of the circuit under test.

a[1] = Number of the TLP note containing supplementary information related to the specified suspected faulty equipment. Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

b[1] = Termination report. Valid value(s):

- ABORTED = Requested action was terminated before completion and the termination was immediate (no cleanup was done).
- COMPLETED = Request completed successfully.
- NOT STARTED = Requested action could not begin.
- STOPPED = Request was terminated before a normal completion. Attempts were made to leave everything in a sane state.

c[1] = Reason for the termination, or status of the completed request.

4. ACTION TO BE TAKEN

For Formats 1, 3, and 6, no action is needed.

For Format 2, determine the correct input message and reenter the exercise request.

For Format 4,

If output includes:	Action:
SUSPENDED NTR	Enter the first exercise message for the purpose of manual troubleshooting.
SUSPENDED m PH n	The specified phase was terminated. Complete phase and segment specification must be provided on the next exercise request.
SUSPENDED ATP PH n SEG o	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
SUSPENDED CATP PH n SEG o	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspended resources and reenter the previous message.
SUSPENDED NTR PH n SEG o	If the repeat (RPT) option was specified, this message indicates completion of the exercise. Proceed to troubleshoot the circuit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the exercise request.
SUSPENDED STF PH n SEG o	Analyze the test failure data. Repair the faulty circuit or enter another exercise request to continue troubleshooting.

For Format 5, replace the indicated circuit packs, one at a time in the order specified. Rerun the diagnostic after each substitution until the fault is repaired or until the diagnostic result changes.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:NLI
OP:CFGSTAT
OP:DMQ-CM-SM
```

Output Message(s):

```
OP:CFGSTAT-CM
OP:DMQ-CM
OP:DMQ-SM
```

Output Appendix(es):

```
APP:TLP-NOTE
```

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance Procedures*
235-105-250 *System Recovery Procedures*

MCC Display Page(s):

1190 (MCTSI)
1200 (DLI/NLI)

EX:OTO-A

Software Release: 5E10 only
Message Class: TM
Application: 5
Type: Output

1. FORMAT

```
[1]    ____________________________________________________________
       EX OTO a=b DN=c [d] REQ=e

[2]    ____________________________________________________________
       EX OTO SUMMARY {DN=f&&g|SLEN=h&&i|ILEN=j&&k} TKGMN=q-r REQ=m PAGE n OF o
         STATUS=p
         [LAST-LINE-UNDER-TEST DN=q r]
         [LINE-IN-RETEST-QUEUE DN=s t]
         [COUNTS:]
           [ATP=u]
           [ERRORS=v]
           [TESTED=w]
           [BUSY=x]
           [UNASSIGNED-LINES=y]
           [UNTESTABLE-LINES=z]
```

2. REASON FOR OUTPUT

To report the results of an office-to-office (OTO) task initiated by an EX:OTO input message.

Format 1 reflects the output for an individual line.

Format 2 reflects the summary output which is printed at 15-minute intervals during active testing, and upon completion or termination of the task.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

a = Status of the test. Valid value(s):
- ABORT = OTO task was aborted prior to completion.
- ERROR = An error was detected.
- REPORT = Report of test result.

b = Explanation of status.

If 'a'=	'b' =
ABORT	Reason for abort. Refer to variable 'v[1]'. ***NOTE:*** Additional data on reason for ABORT may be obtained by enabling the PTC message class and examining REPT:PTRACE output messages.
ERROR	Type of error. Refer to variable 'w[1]'.
REPORT	Result of line test. Refer to variable 'x[1]'.

c = Directory number.

d = Equipment number. Valid value(s):

```
ILEN=a1-b1-c1-d1
 LEN=a1-j1-k1-l1-m1-n1
 LCEN=a1-f1-g1-h1
 LCKEN=a1-s1-g1-t1-u1
 SLEN=a1-p1-c1-d1
```

e = Request number associated with the task.

f = The starting directory number of the task being summarized.

g = The ending directory number of the task being summarized.

h = The starting SLEN of the task being summarized.

i = The ending RT line number of the task being summarized.

j = The starting ILEN of the task being summarized.

k = The ending RT line number of the task being summarized.

m = The request number associated with the task.

n = The current summary page number.

o = The total number of pages in this summary.

p = Status of the office to office task. Valid value(s):
ABORT:MANUAL = User-requested abort of an office-to-office task prior to completion with the ABT:OTO input message.
ABORT:SOFTWARE-BLOCKAGE = Abort of an office-to-office task due to a software resource blockage.
COMPLETED = Completion of an office-to-office task.
PERIODIC-REPORT = Progress report given at approximately 15-minute intervals.
QUERY JOB STATUS = Response to OP:JOBSTATUS input message which prints the status of the current OTO task.

q = The DN of the line currently under test (not printed for completion summaries).

r = The equipment number (ILEN, LCEN, LCKEN, LEN or SLEN) of the line currently under test (refer to variable 'd') (not printed for completion summaries).

s = The DN in the retest queue at the time of the periodic summary or abort (not printed for completion summaries).

t = The equipment number (ILEN, LCEN, LCKEN, LEN or SLEN) of lines in the retest queue at the time of the periodic summary or abort (refer to variable 'd') (not printed for completion summaries).

u = Total number of lines passed.

v = Total number of lines with error.
Note: The sum of the values for 'w', 'x', 'y', and 'z' should equal the total number of lines

specified in the EX:OTO input message.

`w` = Total number of lines tested. (Does not include busy, unassigned, or untestable lines.)

`x` = Total number of lines busy.

`y` = Total number of lines unassigned.

`z` = Total number of lines untestable.

`a`[1] = SM number.

`b`[1] = IDCU number.

`c`[1] = Remote terminal (RT) number.

`d`[1] = RT line number.

`f`[1] = ISLU number.

`g`[1] = Line group number.

`h`[1] = Line card number.

`j`[1] = Line unit number.

`k`[1] = Grid number.

`l`[1] = Grid board number (LU1, LU2, LU3) or half-grid number (LU4).

`m`[1] = Switch number.

`n`[1] = Level number.

`p`[1] = Digital carrier line unit (DCLU) number.

`q`[1] = Trunk group number.

`r`[1] = Trunk member number.

`s`[1] = ISLU2 number.

`t`[1] = Line board number.

`u`[1] = Line circuit number.

`v`[1] = Explanation of variable b.

`COMPLETED` = The ABT:OTO request completed successfully.

`DISTRIBUTE-POINTS` = All necessary distribute points are not assigned to this trunk or unable to initialize distribute points. Check switching module (SM) relation BTBPG.

`INVALID-INPUT` = Invalid directory number (DN), *SLC*® line equipment number (SLEN), or integrated digital carrier unit line equipment number (ILEN) specified, or office code (OC) option incorrectly used with DN; possible data or procedure error.

`INVALID-TRUNK` = Incorrect far end office type parameter specified or trunk data assignment error, or route index (RTI) not for OTO trunk.

MANUAL = The EX:OTO request was aborted by manual request.
NO-TRUNK = Route index not specified, or no idle in-service trunk available. Refer to output message REPT:RTA-DCF-RE.
NOT-PRECUT = Office not in precut state. (Refer to the recent change and verify (RC/V) office parameters view - field=CUTTRANS)
PAGING-MEMORY = Insufficient paging memory in the switching module for the trunk process. This may require temporary termination of other paged programs (such as DGN).
ROUTE-FAILURE = Unassigned RTI specified, or routing failure in creation of trunk process to switching module with OTO trunk.
SOFTWARE-BLOCKAGE = The most likely case is a timeout within the controlling process, but it could be due to any software resource blockage such as messages or stacks.
TASKLIMIT = Attempt to exceed the maximum number of OTO tasks allowed.

w[1] = Explanation of variable b.
FALSE-CROSS-GROUND = False cross and ground failure.
GRID-SCAN-HDW-FAIL = Test of tip/ring crosspoints and scan detector circuitry failed.
GROUND-LOOP = Far end office line is ground start; Translations show loop start.
LOOP-GROUND = Far end office line is loop start; Translations show ground start.
NO-CONTINUITY = Verification of wiring continuity failed. Verify cross-connect to old line using trunk and line work station (TLWS) to measure battery from old switch on the line.
OUTPULSE = Outpulsing failure or failure to receive acknowledgment from existing office.
POLARITY = Incorrect party affiliation or reversal.
POWER-CROSS = Power cross failure.
SHORT = Presence of wiring short- one of the following cases:
- Ring to battery short.
- Ring to ground short.
- Tip to battery short.
- Tip to ground short.
- Tip to ring short.

It could also indicate:
- Incorrect outpulsing of DN.
- Reversed scan-distribute point.

TIP-RING-REVERSAL = Tip and ring reversal.

x[1] = Explanation of variable b.
ATP = Line passed all tests.
BLKD-ACT-SPARE = The line could not be tested because a line card was being spared in its ISLU.
BLKD-IN-LINE-UNIT = The line could not be tested because of a metallic blockage between the high-level service circuit (HLSC) and the line.
BUSY-OFFHOOK = This result is valid only for testing of *SLC*® or IDCU lines. The switch port state indicated line to be offhook. If line is served by line unit in existing office, consistent result of BUSY-OFFHOOK indicates a short circuit, foreign EMF, or abnormal resistance condition on the customer loop beyond the remote terminal. If intermittent, or if line is served by Universal carrier system in existing office, indicates that the line has gone offhook subsequent to the initial verification that the line was idle. No automatic retesting is performed.
BUSY-VOICE/TONE = Line found to be traffic busy during two successive test attempts- no tests were performed. Detection of traffic busy condition based on voice or tone (for

step-by-step offices, based on battery reversal) returned from existing office.

`CHANNEL-UNIT-UNEQ` = *SLC*® or IDCU line channel unit unequipped. Possible office data or procedure error.

`CUT-THRU-FAILURE` = Unable to operate distribute points to cut through the connection to existing office line.

`DIR-SCAN-FAILURE` = Directed scan of the *SLC*® or IDCU line port state failed. Possible data error.

`HARDWARE-BLOCKAGE` = Hardware blockage in the existing office.

`HLSC-FAILURE` = High-level service circuit failure.

`NOT-PRECUT` = Line not designated inactive. Possible data or procedure error.

`NO-TRUNK-ACT` = Failure to activate the far end office test trunk or failure to receive start signal for outpulsing.

`OC-NOT-IN-RANGE` = The office code of the current *SLC*® or IDCU line is different from that specified in the OC parameter; or if OC parameter omitted, this line has a different office code from that of the first assigned line in the SLEN or ILEN range.

`PAGING-MEMORY` = Insufficient paging memory in the switching module for the line process. May require temporary termination of other paged programs (such as DGN).

`ROUTE-FAILURE` = Routing failure in the creation of the line process or TTF process. Verify RC/V fixed routing view and trunk group and member views for the TTF logical test ports used by OTO.

`SOFTWARE-BLOCKAGE` = Software blockage.

`TONE-DETECTOR` = Transmission test facility (TTF) tone detector unavailable for busy detection.

`UNASSIGNED-LINE` = Unassigned line. Possible data or procedure error.

`UNTESTABLE-LINE` = Untestable line. For analog tasks this includes *SLC*® lines, IDCU lines aging lines, PBXDID, TDSL, UDSL, series completion lines, and lines designated as test ports. For *SLC*® and IDCU tasks this includes D4 channels, analog lines, TR303 RT lines, PUB43801 channels, and lines designated as test ports.

`117-VOLT-SIGNATURE` = Unable to apply 117 volt signature toward existing office *SLC*® system.

4. ACTION TO BE TAKEN

Correct any wiring or database errors detected and re-run the office-to-office test.

5. ALARMS

If the printing priority option on the EX:OTO input message was changed from the default, the corresponding alarm of that printing priority will fire.

6. REFERENCES

Input Message(s):

```
ABT:OTO
EX:OTO
OP:JOBSTATUS
```

Output Message(s):

```
REPT:PTRACE
REPT:RTA-DCF-RE
```

Other Manual(s):
235-105-200 *Precutover and Cutover Procedures*

EX:OTO-B

Software Release: 5E11 only
Message Class: TM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EX OTO a=b DN=c [d] REQ=e

[2]   ____________________________________________________________
      EX OTO SUMMARY b2 TKGMN=q-r REQ=m PAGE n OF o
        STATUS=p
        [LAST-LINE-UNDER-TEST DN=q r]
        [LINE-IN-RETEST-QUEUE DN=s t]
        [COUNTS:]
          [ATP=u]
          [ERRORS=v]
          [TESTED=w]
          [BUSY=x]
          [UNASSIGNED-LINES=y]
          [UNTESTABLE-LINES=z]
```

2. REASON FOR OUTPUT

To report the results of an office-to-office (OTO) task initiated by an EX:OTO input message.

Format 1 reflects the output for an individual line.

Format 2 reflects the summary output which is printed at 15-minute intervals during active testing, and upon completion or termination of the task.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

a = Status of the test. Valid value(s):
- ABORT = OTO task was aborted prior to completion.
- ERROR = An error was detected.
- REPORT = Report of test result.

b = Explanation of status.

If 'a'=	'b' =
ABORT	Reason for abort. Refer to variable 'c2'. ***NOTE:*** Additional data on reason for ABORT may be obtained by enabling the PTC message class and examining REPT:PTRACE output messages.
ERROR	Type of error. Refer to variable 'd2'.
REPORT	Result of line test. Refer to variable 'e2'.

c = Directory number.

d = Equipment number. Valid value(s):

AIUEN=a^1-v^1-w^1-x^1
ILEN=a^1-b^1-c^1-d^1
LCEN=a^1-f^1-g^1-h^1
LCKEN=a^1-s^1-g^1-t^1-u^1
LEN=a^1-j^1-k^1-l^1-m^1-n^1
SLEN=a^1-p^1-c^1-d^1

e = Request number associated with the task.

f = The starting directory number of the task being summarized.

g = The ending directory number of the task being summarized.

h = The starting SLEN of the task being summarized.

i = The ending RT line number of the task being summarized.

j = The starting ILEN of the task being summarized.

k = The ending RT line number of the task being summarized.

m = The request number associated with the task.

n = The current summary page number.

o = The total number of pages in this summary.

p = Status of the office to office task. Valid value(s):
ABORT:MANUAL = User-requested abort of an office-to-office task prior to completion with the ABT:OTO input message.
ABORT:SOFTWARE-BLOCKAGE = Abort of an office-to-office task due to a software resource blockage.
COMPLETED = Completion of an office-to-office task.
PERIODIC-REPORT = Progress report given at approximately 15-minute intervals.
QUERY JOB STATUS = Response to OP:JOBSTATUS input message which prints the status of the current OTO task.

q = The DN of the line currently under test (not printed for completion summaries).

r = The equipment number (ILEN, LCEN, LCKEN, LEN ,SLEN or AIUEN) of the line currently under test (refer to variable 'd') (not printed for completion summaries).

s = The DN in the retest queue at the time of the periodic summary or abort (not printed for completion summaries).

t = The equipment number (ILEN, LCEN, LCKEN, LEN, SLEN or AIUEN) of lines in the retest queue at the time of the periodic summary or abort (refer to variable 'd') (not printed for completion summaries).

u = Total number of lines passed.

v = Total number of lines with error.

Note: The sum of the values for 'w', 'x', 'y', and 'z' should equal the total number of lines specified in the EX:OTO input message.

w = Total number of lines tested. (Does not include busy, unassigned, or untestable lines.)

x = Total number of lines busy.

y = Total number of lines unassigned.

z = Total number of lines untestable.

a[1] = SM number.

b[1] = IDCU number.

c[1] = Remote terminal (RT) number.

d[1] = RT line number.

f[1] = ISLU number.

g[1] = Line group number.

h[1] = Line card number.

j[1] = Line unit number.

k[1] = Grid number.

l[1] = Grid board number (LU1, LU2, or LU3).

m[1] = Switch number.

n[1] = Level number.

p[1] = Digital carrier line unit (DCLU) number.

q[1] = Trunk group number.

r[1] = Trunk member number.

s[1] = ISLU2 number.

t[1] = Line board number.

u[1] = Line circuit number.

v[1] = Access interface unit equipment number.

w[1] = AIU pack number.

x[1] = AIU circuit number.

y[1] = Remote terminal (RT) number.

z[1] = RT line number.

a[2] = Digital network unit (DNU) number.

b[2] = Valid value(s):

```
DN=f&g
 ILEN=j&k
 SLEN=h&i
```

c[2] = Explanation of variable b.

COMPLETED = The ABT:OTO request completed successfully.

DISTRIBUTE-POINTS = All necessary distribute points are not assigned to this trunk or unable to initialize distribute points. Check switching module (SM) relation BTBPG.

INVALID-INPUT = Invalid directory number (DN), *SLC*® line equipment number (SLEN), or integrat ed digital carrier unit line equipment number (ILEN) specified, or office code (OC) option incorrectly used with DN; possible data or procedure error.

INVALID-TRUNK = Incorrect far end office type parameter specified or trunk data assignme nt error, or route index (RTI) not for OTO trunk.

MANUAL = The EX:OTO request was aborted by manual request.

NO-TRUNK = Route index not specified, or no idle in-service trunk available. Refer to output message REPT:RTA-DCF-RE.

NOT-PRECUT = Office not in precut state. (Refer to the recent change and verify (RC/V) office parameters view - field=CUTTRANS)

PAGING-MEMORY = Insufficient paging memory in the switching module for the trunk process. This may require temporary termination of other paged programs (such as DGN).

ROUTE-FAILURE = Unassigned RTI specified, or routing failure in creation of trunk process to switching module with OTO trunk.

SOFTWARE-BLOCKAGE = The most likely case is a timeout within the controlling process, but it could be due to any software resource blockage such as messages or stacks.

TASKLIMIT = Attempt to exceed the maximum number of OTO tasks allowed.

d[2] = Explanation of variable b.

FALSE-CROSS-GROUND = False cross and ground failure.

GRID-SCAN-HDW-FAIL = Test of tip/ring crosspoints and scan detector circuitry failed.

GROUND-LOOP = Far end office line is ground start; Translations show loop start.

LOOP-GROUND = Far end office line is loop start; Translations show ground start.

NO-CONTINUITY = Verification of wiring continuity failed. Verify cross-connect to old line using trunk and line work station (TLWS) to measure battery from old switch on the line.

OUTPULSE = Outpulsing failure or failure to receive acknowledgment from existing office.

POLARITY = Incorrect party affiliation or reversal.

POWER-CROSS = Power cross failure.

SHORT = Presence of wiring short- one of the following cases:

- Ring to battery short.
- Ring to ground short.
- Tip to battery short.
- Tip to ground short.
- Tip to ring short.

It could also indicate:

- Incorrect outpulsing of DN.
- Reversed scan-distribute point.

TIP-RING-REVERSAL = Tip and ring reversal.

e^2 = Explanation of variable b.

ATP = Line passed all tests.

BLKD-ACT-SPARE = The line could not be tested because a line card was being spared in its ISLU.

BLKD-IN-LINE-UNIT = The line could not be tested because of a metallic blockage between the high-level service circuit (HLSC) and the line.

BUSY-OFFHOOK = This result is valid only for testing of *SLC*® or IDCU lines. The switch port state indicated line to be offhook. If line is served by line unit in existing office, consistent result of BUSY-OFFHOOK indicat es a short circuit, foreign EMF, or abnormal resistance condition on the customer loop beyond the remote terminal. If intermittent, or if line is served by Universal carrier system in existing office, indicates that the line has gone offhook subsequent to the initial verification that the line was idle. No automatic retesting is performed.

BUSY-VOICE/TONE = Line found to be traffic busy during two successive test attempts- no tests were performed. Detection of traffic busy condition based on voice or tone (for step-by-step offices, based on battery reversal) returned from existing office.

CHANNEL-UNIT-UNEQ = *SLC*® or IDCU line channel unit unequipped. Possible office data or procedure error.

CUT-THRU-FAILURE = Unable to operate distribute points to cut through the connection to existing office line.

DIR-SCAN-FAILURE = Directed scan of the *SLC*® or IDCU line port state failed. Possible data error.

HARDWARE-BLOCKAGE = Hardware blockage in the existing office.

HLSC-FAILURE = High-level service circuit failure.

NOT-PRECUT = Line not designated inactive. Possible data or procedure error.

NO-TRUNK-ACT = Failure to activate the far end office test trunk or failure to receive start signal for outpulsing.

OC-NOT-IN-RANGE = The office code of the current *SLC*® or IDCU line is different from that specified in the OC parameter; or if OC parameter omitted, this line has a different office code from that of the first assigned line in the SLEN or ILEN range.

PAGING-MEMORY = Insufficient paging memory in the switching module for the line process. May require temporary termination of other paged programs (such as DGN).

ROUTE-FAILURE = Routing failure in the creation of the line process or TTF process. Verify RC/V fixed routing view and trunk group and member views for the TTF logical test ports used by OTO.

SOFTWARE-BLOCKAGE = Software blockage.

TONE-DETECTOR = Transmission test facility (TTF) tone detector unavailable for busy detection.

UNASSIGNED-LINE = Unassigned line. Possible data or procedure error.

UNTESTABLE-LINE = Untestable line. For analog tasks this includes *SLC*® lines, IDCU lines aging lines, PBXDID, TDSL, UDSL, series completion lines, and lines designated as test ports. For *SLC*® and IDCU tasks this includes D4 channels, analog lines, TR303 RT lines, PUB43801 channels, and lines designated as test ports.

117-VOLT-SIGNATURE = Unable to apply 117 volt signature toward existing office *SLC*® system.

4. ACTION TO BE TAKEN

Correct any wiring or database errors detected and re-run the office-to-office test.

5. ALARMS

If the printing priority option on the EX:OTO input message was changed from the default, the corresponding alarm of that printing priority will fire.

6. REFERENCES

Input Message(s):

```
ABT:OTO
EX:OTO
OP:JOBSTATUS
```

Output Message(s):

```
REPT:PTRACE
REPT:RTA-DCF-RE
```

Other Manual(s):
235-105-200 *Precutover and Cutover Procedures*

EX:OTO-C

Software Release: 5E12 and later
Message Class: TM
Application: 5
Type: Output

1. FORMAT

[1]
```
EX OTO a=b NPA=h2 [DN=c] [d] REQ=e
```

[2]
```
EX OTO SUMMARY NPA=h2 g2 TKGMN=q-r REQ=m PAGE n OF o
  STATUS=p
  [LAST-LINE-UNDER-TEST DN=q r]
  [LINE-IN-RETEST-QUEUE DN=s t]
  [COUNTS:]
    [ATP=u]
    [ERRORS=v]
    [TESTED=w]
    [BUSY=x]
    [UNASSIGNED-LINES=y]
    [UNTESTABLE-LINES=z]
```

2. REASON FOR OUTPUT

To report the results of an office-to-office (OTO) task initiated by an EX:OTO input message.

Format 1 reflects the output for an individual line.

Format 2 reflects the summary output which is printed at 15-minute intervals during active testing, and upon completion or termination of the task.

3. VARIABLE FIELD DEFINITIONS

Note:

a = Status of the test. Valid value(s):
- ABORT = OTO task was aborted prior to completion.
- ERROR = An error was detected.
- REPORT = Report of test result.

b = Explanation of status.

If 'a'=	'b' =
ABORT	Reason for abort. Refer to variable 'i2'. ***NOTE:*** Additional data on reason for ABORT may be obtained by enabling the PTC message class and examining REPT:PTRACE output messages.
ERROR	Type of error. Refer to variable 'j2'.
REPORT	Result of line test. Refer to variable 'k2'.

c = Directory number.

d = Equipment number. Valid value(s):

AIUEN=a^1-v^1-w^1-x^1
ILEN=a^1-b^1-c^1-d^1
INEN=a^1-d^2-e^2-f^2
LCEN=a^1-f^1-g^1-h^1
LCKEN=a^1-s^1-g^1-t^1-u^1
LEN=a^1-j^1-k^1-l^1-m^1-n^1
SLEN=a^1-p^1-c^1-d^1

e = Request number associated with the task.

f = The starting directory number of the task being summarized.

g = The ending directory number of the task being summarized.

h = The starting SLEN of the task being summarized.

i = The ending RT line number of the task being summarized.

j = The starting ILEN of the task being summarized.

k = The ending RT line number of the task being summarized.

m = The request number associated with the task.

n = The current summary page number.

o = The total number of pages in this summary.

p = Status of the office to office task. Valid value(s):
ABORT:MANUAL = User-requested abort of an office-to-office task prior to completion with the ABT:OTO input message.
ABORT:SOFTWARE-BLOCKAGE = Abort of an office-to-office task due to a software resource blockage.
COMPLETED = Completion of an office-to-office task.
PERIODIC-REPORT = Progress report given at approximately 15-minute intervals.
QUERY JOB STATUS = Response to OP:JOBSTATUS input message which prints the status of the current OTO task.

q = The DN of the line currently under test (not printed for completion summaries).

r = The equipment number (ILEN, LCEN, LCKEN, LEN ,SLEN or AIUEN) of the line currently under test (refer to variable 'd') (not printed for completion summaries).

s = The DN in the retest queue at the time of the periodic summary or abort (not printed for completion summaries).

t = The equipment number (ILEN, LCEN, LCKEN, LEN, SLEN or AIUEN) of lines in the retest queue at the time of the periodic summary or abort (refer to variable 'd') (not printed for completion summaries).

u = Total number of lines passed.

v = Total number of lines with error.

Note: The sum of the values for 'w', 'x', 'y', and 'z' should equal the total number of lines specified in the EX:OTO input message.

w = Total number of lines tested. (Does not include busy, unassigned, or untestable lines.)

x = Total number of lines busy.

y = Total number of lines unassigned.

z = Total number of lines untestable.

a[1] = SM number.

b[1] = IDCU number.

c[1] = Remote terminal (RT) number.

d[1] = RT line number.

f[1] = ISLU number.

g[1] = Line group number.

h[1] = Line card number.

j[1] = Line unit number.

k[1] = Grid number.

l[1] = Grid board number (LU1, LU2, or LU3).

m[1] = Switch number.

n[1] = Level number.

p[1] = Digital carrier line unit (DCLU) number.

q[1] = Trunk group number.

r[1] = Trunk member number.

s[1] = ISLU2 number.

t[1] = Line board number.

u[1] = Line circuit number.

v[1] = Access interface unit equipment number.

w[1] = AIU pack number.

x[1] = AIU circuit number.

y[1] = Remote terminal (RT) number.

z[1] = RT line number.

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a[2] = Digital network unit (DNU) number.

b[2] = The starting INEN of the task being summarized.

c[2] = The ending RT line number of the task being summarized.

d[2] = DNU number.

e[2] = Remote terminal (RT) number.

f[2] = RT line number.

g[2] = Valid value(s):

```
DN=f&g
 ILEN=j&k
 INEN=b2&c2
 SLEN=h&i
```

h[2] = Numbering Plan Area or Area Code of the DN.

i[2] = Explanation of variable b.

COMPLETED = The ABT:OTO request completed successfully.

DISTRIBUTE-POINTS = All necessary distribute points are not assigned to this trunk or unable to initialize distribute points. Check switching module (SM) relation BTBPG.

INVALID-INPUT = Invalid directory number (DN), *SLC*® line equipment number (SLEN), or integrat ed digital carrier unit line equipment number (ILEN) specified, or office code (OC) option incorrectly used with DN; possible data or procedure error.

INVALID-TRUNK = Incorrect far end office type parameter specified or trunk data assignme nt error, or route index (RTI) not for OTO trunk.

MANUAL = The EX:OTO request was aborted by manual request.

NO-TRUNK = Route index not specified, or no idle in-service trunk available. Refer to output message REPT:RTA-DCF-RE.

NOT-PRECUT = Office not in precut state. (Refer to the recent change and verify (RC/V) office parameters view - field=CUTTRANS)

PAGING-MEMORY = Insufficient paging memory in the switching module for the trunk process. This may require temporary termination of other paged programs (such as DGN).

ROUTE-FAILURE = Unassigned RTI specified, or routing failure in creation of trunk process to switching module with OTO trunk.

SOFTWARE-BLOCKAGE = The most likely case is a timeout within the controlling process, but it could be due to any software resource blockage such as messages or stacks.

TASKLIMIT = Attempt to exceed the maximum number of OTO tasks allowed.

j[2] = Explanation of variable b.

FALSE-CROSS-GROUND = False cross and ground failure.

GRID-SCAN-HDW-FAIL = Test of tip/ring crosspoints and scan detector circuitry failed.

GROUND-LOOP = Far end office line is ground start; Translations show loop start.

LOOP-GROUND = Far end office line is loop start; Translations show ground start.

NO-CONTINUITY = Verification of wiring continuity failed. Verify cross-connect to old line using trunk and line work station (TLWS) to measure battery from old switch on the line.

OUTPULSE = Outpulsing failure or failure to receive acknowledgment from existing office.

POLARITY = Incorrect party affiliation or reversal.

POWER-CROSS = Power cross failure.

SHORT = Presence of wiring short- one of the following cases:
- Ring to battery short.
- Ring to ground short.
- Tip to battery short.
- Tip to ground short.
- Tip to ring short.

It could also indicate:
- Incorrect outpulsing of DN.
- Reversed scan-distribute point.

TIP-RING-REVERSAL = Tip and ring reversal.

k^2 = Explanation of variable b.

ATP = Line passed all tests.

BLKD-ACT-SPARE = The line could not be tested because a line card was being spared in its ISLU.

BLKD-IN-LINE-UNIT = The line could not be tested because of a metallic blockage between the high-level service circuit (HLSC) and the line.

BUSY-OFFHOOK = This result is valid only for testing of *SLC*® or IDCU lines. The switch port state indicated line to be offhook. If line is served by line unit in existing office, consistent result of BUSY-OFFHOOK indicates a short circuit, foreign EMF, or abnormal resistance condition on the customer loop beyond the remote terminal. If intermittent, or if line is served by Universal carrier system in existing office, indicates that the line has gone offhook subsequent to the initial verification that the line was idle. No automatic retesting is performed.

BUSY-VOICE/TONE = Line found to be traffic busy during two successive test attempts- no tests were performed. Detection of traffic busy condition based on voice or tone (for step-by-step offices, based on battery reversal) returned from existing office.

CHANNEL-UNIT-UNEQ = *SLC*® or IDCU line channel unit unequipped. Possible office data or procedure error.

CUT-THRU-FAILURE = Unable to operate distribute points to cut through the connection to existing office line.

DIR-SCAN-FAILURE = Directed scan of the *SLC*® or IDCU line port state failed. Possible data error.

HARDWARE-BLOCKAGE = Hardware blockage in the existing office.

HLSC-FAILURE = High-level service circuit failure.

NOT-PRECUT = Line not designated inactive. Possible data or procedure error.

NO-TRUNK-ACT = Failure to activate the far end office test trunk or failure to receive start signal for outpulsing.

OC-NOT-IN-RANGE = The office code of the current *SLC*® or IDCU line is different from that specified in the OC parameter; or if OC parameter omitted, this line has a different office code from that of the first assigned line in the SLEN or ILEN range.

PAGING-MEMORY = Insufficient paging memory in the switching module for the line process. May require temporary termination of other paged programs (such as DGN).

ROUTE-FAILURE = Routing failure in the creation of the line process or TTF process. Verify RC/V fixed routing view and trunk group and member views for the TTF logical test ports used by OTO.

SOFTWARE-BLOCKAGE = Software blockage.

TONE-DETECTOR = Transmission test facility (TTF) tone detector unavailable for busy detection.

UNASSIGNED-LINE = Unassigned line. Possible data or procedure error.

UNTESTABLE-LINE = Untestable line. For analog tasks this includes *SLC*® lines, IDCU lines aging

lines, PBXDID, TDSL, UDSL, series completion lines, and lines designated as test ports. For *SLC*® and IDCU tasks this includes D4 channels, analog lines, TR303 RT lines, PUB43801 channels, and lines designated as test ports.

`117-VOLT-SIGNATURE` = Unable to apply 117 volt signature toward existing office *SLC*® system.

4. ACTION TO BE TAKEN

Correct any wiring or database errors detected and re-run the office-to-office test.

5. ALARMS

If the printing priority option on the EX:OTO input message was changed from the default, the corresponding alarm of that printing priority will fire.

6. REFERENCES

Input Message(s):

```
ABT:OTO
EX:OTO
OP:JOBSTATUS
```

Output Message(s):

```
REPT:PTRACE
REPT:RTA-DCF-RE
```

Other Manual(s):
235-105-200 *Precutover and Cutover Procedures*

EX:PAUSE

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX PAUSE a [b] SUSPENDED AT ST c

[2]   ____________________________________________________________________
      EX PAUSE REQUEST NOT YET ACTIVE

[3]   ____________________________________________________________________
      EX PAUSE REQUEST NOT IN INTERACTIVE MODE

[4]   ____________________________________________________________________
      EX PAUSE ILLEGAL REQUEST TYPE
```

2. REASON FOR OUTPUT

To report the result of executing an EX:PAUSE interactive diagnostic input message as part of an interactive diagnostic procedure.

Format 1 prints when the interactive diagnostic is suspended.

Format 2 prints if the unit (and subunit) specified by the interactive diagnostic input message is not in the active queue.

Format 3 prints if the unit (and subunit) specified by the interactive diagnostic input message is in the active queue but not an interactive request.

Format 4 prints if the unit (and subunit) specified by the interactive diagnostic input message could not be found in either the waiting or active queues.

3. VARIABLE FIELD DEFINITIONS

a = Unit type and member number of unit under test.

b = Unit type and member number of the subunit under the unit under test.

c = Data table statement number.

4. ACTION TO BE TAKEN

For Format 1, after the possible hardware troubleshooting, advance through the data table by issuing the EX:PAUSE input message again or by issuing the EX:STEP input message.

For Formats 2, 3, and 4, reenter the input message after an interactive diagnostic request for the specified unit (and subunit) becomes active. Check that the correct unit (and subunit) was specified in the input message. Use the OP:DMQ input message to display the requests in the queue. Enter the desired interactive diagnostic request if it is not in the queue. Wait until the desired interactive diagnostic request becomes active, or use the STOP:DMQ or STP:DMQ input message to remove other request(s) from the queue until the desired interactive diagnostic request

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becomes active.

5. ALARMS

None. This alarm is a manually-requested report. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	46
2, 3, 4	77

Input Message(s):

```
EX:CU
EX:DCI
EX:DFC
EX:DUIC
EX:IOP
EX:LN
EX:MHD
EX:MTC
EX:MTTYC
EX:PAUSE
EX:RPCN
EX:SDLC
EX:SCSDC
EX:STEP
EX:TTYC
OP:DMQ
STOP:DMQ
STP:DMQ
```

Output Message(s):

```
EX:STEP
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

EX:PMU

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX PMU=a-b-c d

[2]   ____________________________________________________________________
      EX PMU=a-b-c NOT STARTED e

[3]   ____________________________________________________________________
      EX PMU=a-b-c STF PH f SEG g TEST h MM i
       [EXP j MASK k ACTL l]

[4]   ____________________________________________________________________
      EX PMU=a-b-c SUSPENDED m[PH n [SEG o]]

[5]   ____________________________________________________________________
      EX PMU=a-b-c SUSPECTED FAULTY EQUIPMENT c1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL       TYPE  NOTE
         p       q [r]    s  t     u    [v]   w-x[-d1]  y    [z]
        [.       .  .     .  .     .     .    . .  .    .     .]
        [.       .  .     .  .     .     .    . .  .    .     .]
        [.       .  .     .  .     .     .    . .  .    .     .]

[6]   ____________________________________________________________________
      EX PMU=a-b-c a1 [b1]

[7]   ____________________________________________________________________
      EX PMU=a-b-c PH f SEG g STMT e1 f1
       [EXP i MASK j ACTL k]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:PMU input message to diagnose the precision measurement unit (PMU).

Format 1 indicates that the specified segments have been completed, and reports the overall result. It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the specified input message was invalid.

Format 3 indicates that a test has failed and specifies which test.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous command, may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble location procedure (TLP) option was specified in the input message.

Format 6 indicates that the diagnostic execution has terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Directly connected test unit (DCTU) number.

`c` = Circuit number.

`d` = Loop result. Valid value(s):

`ATP`	= All test were performed and all passed.
`CATP`	= Some tests were not performed, but all that were passed.
`NTR`	= No tests run.
`STF`	= Some tests failed.

`e` = Reason the command was rejected.

`f` = Phase in which the failure occurred.

`g` = Segment in which the failure occurred.

`h` = Test number that failed.

`i` = Mismatch results for the specified test in hexadecimal.

`j` = Raw data expected result for the specified test in hexadecimal.

`k` = Raw data mask used to determine the test failure in hexadecimal.

`l` = Raw data actual result for the specified test in hexadecimal.

`m` = Result of previous command. Valid value(s):

`ATP`	= The specified segment(s) were completed and all tests passed.
`CATP`	= Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
`NTR`	= No tests were run since the last completion message.
`STF`	= The diagnostic has completed and some tests failed.

`n` = Phase number in which execution is suspended.

`o` = Segment number in which execution is suspended.

`p` = Identification number of floor and aisle.

`q` = Module type.

`r` = Module number.

`s` = Cabinet type.

`t` = Cabinet number.

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u = Replacement equipment code(s).

v = Equipment form(s). Equipment form represents minimal operating level of replacement equipment.

Example of CODE FORM contents:

```
CODE A[:B]...[:C] [-] D[:E]...[:F]
-          = Inter-field delimiter if necessary.
:          = Intra-field delimiter.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code 'A').
C          = Additional compatible equipment code(s) (added as space permits)
D          = Current minimal approved operating level for equipment code 'A'.
E          = Current minimal approved operating level for equipment code 'B'.
F          = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

w = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

x = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

y = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

____ = Equipment is part of the circuit under test.

z = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

a[1] = Termination status. Valid value(s):

ABORTED = The process was terminated (process not gracefully terminated).

NOT STARTED = Action was not begun.

STOPPED = Terminated before normal completion (process gracefully terminated).

b[1] = Termination reason. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

c[1] = Text identifier showing order of record. Valid value(s):

FIRST = First record of continuing list.

LAST = Last record of list.

NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

d[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

e[1] = Statement number.

f[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Formats 1, 6, and 7, no action is required.

For Format 2, determine the correct input message and reenter the diagnostic exercise request.

For Format 3, repair the faulty unit.

For Format 4,

If output includes:	Action:
SUSPENDED NTR	Enter the first exercise command for the purpose of manual troubleshooting.
SUSPENDED ATP PH n SEG o	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
SUSPENDED CATP PH n SEG o	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous command.
SUSPENDED NTR PH n SEG o	If the RPT option was specified, this message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
SUSPENDED STF PH n SEG o	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:PMU
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

EX:PPC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
EX PPC a b [c]
```

2. REASON FOR OUTPUT

To acknowledge a manual request to exercise a specific pump peripheral controller (PPC).

3. VARIABLE FIELD DEFINITIONS

`a` = PPC identification number.

`b` = Termination report. Valid value(s):

`ABORTED`	= Requested action is terminated before a normal completion and the consistency of hardware states or data is questionable.
`COMPLETED`	= Requested action is terminated after completion.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action is terminated before a normal completion but consistency of hardware states and data is reliable.

`c` = Additional data qualifying the termination report.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`EX:PPC`

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EX:PROTO

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX PROTO=a-b-c d

[2]   ____________________________________________________________________
      EX PROTO=a-b-c NOT STARTED e

[3]   ____________________________________________________________________
      EX PROTO=a-b-c STF PH f SEG g TEST h MM i
       [EXP j MASK k ACTL l]

[4]   ____________________________________________________________________
      EX PROTO=a-b-c SUSPENDED m[PH n [SEG o]]

[5]   ____________________________________________________________________
      EX PROTO=a-b-c SUSPECTED FAULTY EQUIPMENT c1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL      TYPE  NOTE
         p       q [r]    s  t     u    [v]  w-x[-d1]   y    [z]
        [.       .  .     .  .     .     .   . .  .     .     .]
        [.       .  .     .  .     .     .   . .  .     .     .]
        [.       .  .     .  .     .     .   . .  .     .     .]

[6]   ____________________________________________________________________
      EX PROTO=a-b-c a1 [b1]

[7]   ____________________________________________________________________
      EX PROTO=a-b-c PH f SEG g STMT e1 f1
       [EXP i MASK j ACTL k]
```

2. REASON FOR OUTPUT

To report the result of executing the EX:PROTO input message to exercise the protocol circuit (PROTO).

Format 1 is printed when the specified phase(s) have been completely executed, and reports the overall result. Execution of the diagnostic will continue for any remaining iterations.

Format 2 indicates that the specified input message was invalid.

Format 3 is printed when a test has failed.

Format 4 is printed when the execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous message may also be specified.

Format 5 is printed when the trouble location procedure (TLP) was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 6 indicates that the diagnostic execution has terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Unit number.

c = Service group number.

d = Loop result. Valid value(s):

- ATP = All tests were performed and all passed.
- CATP = Some tests were not performed, but all that were performed have passed.
- NTR = No tests were run.
- STF = Some tests failed.

e = Reason the command was rejected.

f = Number of the phase in which the failure occurred.

g = Number of the segment in which the failure occurred.

h = Number of the test that failed.

i = Mismatch results for the specified test in hexadecimal.

j = Expected result for the specified test in hexadecimal.

k = Mask used to determine test failure in hexadecimal.

l = Actual result for the specified test in hexadecimal.

m = Result of previous command (variable 'd' for expected responses).

n = Phase number in which execution suspended.

o = Segment number in which execution suspended.

p = Identification number of floor and aisle.

q = Module type.

r = Module number.

s = Cabinet type.

t = Cabinet number.

u = Replacement equipment code(s).

v = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM contents:

CODE
A[:B]...[:C] [-] D[:E]...[:F]

:	= Intra-field delimiter.
-	= Inter-field delimiter if necessary.
A	= Current minimal accepted equipment code.
B	= Current production equipment code (substitutable equipment for code 'A').
C	= Additional compatible equipment code(s) (added as space permits)
D	= Current minimal approved operating level for equipment code 'A'.
E	= Current minimal approved operating level for equipment code 'B'.
F	= Current minimal approved operating level(s) for equipment code(s) 'C'.

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

w = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

x = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

y = Circuit type. Valid value(s):

HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
_____	= Equipment is part of the circuit under test.

z = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

a[1] = Termination status. Valid value(s):

ABORTED	= The process was terminated (process not gracefully terminated).
NOT STARTED	= Action was not begun.
STOPPED	= Terminated before normal completion (process gracefully terminated).

b[1] = Termination reason. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

c[1] = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

d[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

e[1] = Statement number.

f[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Formats 1, 6, and 7, no action is required.

For Format 2, determine the correct input message and reenter the diagnostic exercise request.

For Format 3, replace the faulty unit.

For Format 4:

If output includes:	Action
SUSPENDED NTR	Enter the first exercise message for the purpose of manual troubleshooting.
SUSPENDED ATP PH n SEG o	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
SUSPENDED CATP PH n SEG o	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and re-enter the previous message.
SUSPENDED STF PH n SEG o	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected packs, one at a time in the order specified. Rerun the entire diagnostic after each substitution until the fault is repaired or the diagnostic result changes.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:PROTO
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

EX:PSU

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX PSU{a}=b-c-d[-e] f

[2]   ____________________________________________________________________
      EX PSU{a}=b-c-d[-e] NOT STARTED g

[3]   ____________________________________________________________________
      EX PSU{a}=b-c-d[-e] STF PH h SEG i TEST j MM k
       [ACTL l MASK m EXPR n]

[4]   ____________________________________________________________________
      EX PSU{a}=b-c-d[-e] SUSPENDED o[ PH p [SEG q]]

[5]   ____________________________________________________________________
      EX PSU{a}=b-c-d[-e] SUSPECTED FAULTY EQUIPMENT f1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM    EQL     TYPE  NOTE
          r     s [t]    u  v     w    [x]   y-z[-a1]  b1   [c1]
         [.     .  .     .  .     .     .    . .  .    .     .]
         [.     .  .     .  .     .     .    . .  .    .     .]
         [.     .  .     .  .     .     .    . .  .    .     .]

[6]   ____________________________________________________________________
      EX PSU{a}=b-c-d[-e] d1 [e1]

[7]   ____________________________________________________________________
      EX PSU{a}=b-c-d[-e] PH h SEG i STMT g1 h1
       [ACTL l MASK m EXPR n]
```

2. REASON FOR OUTPUT

To report the results of executing an EX:PSU input message to exercise a packet switch unit (PSU) common controller (COM) or protocol handler (PH).

Format 1 indicates that the specified segments completed and all tests passed. It applies only when the RPT option is specified in the input messages. Execution of the exercise will continue for the remaining iterations.

Format 2 indicates that an option specified in the input message was invalid.

Format 3 indicates which test failed.

Format 4 indicates that execution of the exercise is suspended. The phase and segment in which the suspension occurs, and a summary of the results of the previous command may also be printed.

Format 5 provides an ordered list of suspected faulty equipment. It applies only when the TLP option is specified in the input message.

Format 6 indicates that the diagnostic execution has terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Circuit name. Valid value(s):
- COM = Common controller.
- PH = Protocol handler.

b = Switching module (SM) number.

c = PSU number.

d-e = Valid value(s):

If 'a =	**'d' =**	**'e' =**
COM	Service group number	
PH	Shelf number.	Protocol handler number.

f = Loop result. Valid value(s):
- ATP = All tests performed and passed.
- CATP = Conditionally ATP. Some tests were skipped because supporting hardware was not available, but all tests which were run passed.
- NTR = No tests run.
- STF = Some tests failed.

g = Reason the command was rejected.

h = Number of the phase in which the failure occurred.

i = Number of the segment in which the failure occurred.

j = Number of the test that failed.

k = Mismatch results for the specified test.

l = Actual result for the specified test in hexadecimal.

m = Mask used to determine test failure in hexadecimal.

n = Expected result for the specified test in hexadecimal.

o = Type of suspension. Valid value(s):
- ATP = The specified segment(s) were completed and all tests were performed and passed.
- CATP = Some tests in the specified segment were skipped because supporting hardware was not available, but all tests which were run passed.
- NTR = No tests performed since the last completion message.
- STF = Some tests in the segment failed.

p = Phase number where execution is suspended.

q = Segment number where execution is suspended.

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r = Floor and aisle number.

s = Module type.

t = Module number.

u = Cabinet type.

v = Cabinet number.

w = Replacement equipment code(s).

x = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
:          = Intra-field delimiter.
-          = Inter-field delimiter if necessary.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code 'A').
C          = Additional compatible equipment code(s) (added as space permits)
D          = Current minimal approved operating level for equipment code 'A'.
E          = Current minimal approved operating level for equipment code B.
F          = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

y = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

z = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

a[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

b[1] = Circuit type. Valid value(s):

```
HPR        = Equipment is part of a helper circuit. The helper must be removed before
             replacement is attempted.
ONL        = Equipment is part of the on-line member of a duplex pair. The on-line member
             must be removed, and the mate made on-line, before replacement is attempted.
____       = Equipment is part of the circuit under test.
```

c[1] = Refer to in the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

d[1] = Termination report. Valid value(s):

- ABORTED = Requested action was terminated before completion, and the termination was not graceful.
- COMPLETED = Request has successfully completed.
- NOT STARTED = Requested action has not begun.
- STOPPED = Requested action was terminated before a normal completion. Termination was graceful.

e[1] = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

f[1] = Text identifier showing order of record. Valid value(s):

- FIRST = First record of continuing list.
- LAST = Last record of list.
- NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

g[1] = Statement number.

h[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Formats 1, 6, and 7, no action is required.

For Format 2, determine the correct phase number and reenter the exercise request.

For Format 3, analyze failure data to determine reason for failure or run the exercise using the TLP option to generate a suspected faulty circuit pack list.

For Format 4:

If output includes:	Action:
SUSPENDED NTR	Enter the first exercise command for the purpose of manual troubleshooting.
SUSPENDED ATP PH p SEG q	The fault may have been repaired. Rerun the entire diagnostic.
SUSPENDED CATP PH p SEG q	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the exercise request.
SUSPENDED NTR PH p SEG q	If the RPT option was specified, normal completion of the exercise is indicated. Proceed to troubleshoot the circuit. If this message occurs when the RPT option was not specified, no tests were run. Determine the reason and reenter the exercise request.
SUSPENDED STF PH p SEG q	Analyze the test failure data. Repair the faulty circuit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the diagnostic exercise for each replaced pack until the fault is repaired or the diagnostic results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:PSU
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-221 *Diagnostics and Trouble Clearing Procedures*
235-105-250 *System Recovery Procedures*

MCC Display Page(s):

118x (PSU SHELF)
1186 (PSU NETWORK)

EX:QGP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX QGP=a-b c

[2]   ____________________________________________________________________
      EX QGP=a-b NOT STARTED d

[3]   ____________________________________________________________________
      EX QGP=a-b STF PH e SEG f TEST g MM h [EXP i MASK j ACTL k]

[4]   ____________________________________________________________________
      EX QGP=a-b SUSPENDED l [PH m [SEG n]]

[5]   ____________________________________________________________________
      EX QGP=a-b SUSPECTED FAULTY EQUIPMENT o RECORD

        AISLE  MODULE      CABINET CODE           FORM   EQL       TYPE NOTE
        p      CM          q   r   s                t    u-v       w    [x]
        .      .           .   .   .                .    . .       .     .
        .      .           .   .   .                .    . .       .     .
        .      .           .   .   .                .    . .       .     .

[6]   ____________________________________________________________________
      EX QGP=a-b y [z]
```

2. REASON FOR OUTPUT

To report the results of executing an EX:QGP input message to diagnose a quad-link gateway processor (QGP).

Format 1 indicates the completed segments and reports the overall result. It applies only when the repeat (RPT) option is specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the input message was invalid.

Format 3 indicates and specifies that a test failed. The text in the square bracket will be printed if the RAW option is used with the input request.

Format 4 indicates that diagnostic execution is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous message, may also be specified.

Format 5 is printed when a test failed and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 6 indicates that the diagnostic execution has terminated.

Formats 1, 3, 4 and 5 belong to the SM message class, while formats 2 and 6 belong to the MSGS message class.

3. VARIABLE FIELD DEFINITIONS

a = Message switch (MSGS) number.

b = QGP number.

c = Loop result. Valid value(s):

ATP	= All tests were performed and passed.
CATP	= Some tests were not performed, but all tests that were performed passed.
NTR	= No tests were performed.
STF	= Some test(s) failed.

d = Reason the message was rejected. Valid value(s):

EXECUTE PHASE NOT DEFINED	= The phase number containing the segments to be executed was invalid.
PAUSE PHASE NOT DEFINED	= The phase number at which suspension was desired was invalid.
PREVIOUS EX IN PROGRESS	= An earlier exercise message was still in progress; the rejected message is valid only if the diagnostic is suspended.

e = Number of the phase in which the failure occurred.

f = Number of segment in which the failure occurred.

g = Number of the test that failed.

h = Mismatch results for the specified test in hexadecimal.

i = Expected result for the specified test in hexadecimal.

j = Mask used to determine test failure in hexadecimal.

k = Actual result for the specified test in hexadecimal.

l = Result of previous message. Valid value(s):

ATP	= The specified segment(s) were completed and all tests were performed and passed.
CATP	= Some tests in the specified segment(s) were not performed, but all tests that were performed passed.
NTR	= No tests were performed.
STF	= The specified segment(s) were completed, and some test(s) failed.
REQUEST NOT ALLOWED	= The invert or transfer input message was invalid.

m = Phase number where execution was suspended.

n = Segment number where execution was suspended.

o = Text identifier showing order of TLP record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

A maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of one to four entries. Each record will have a new header.

p = Identification number of floor and aisle.

q = Cabinet type. Valid value(s):

CM2	= Communication module 2 cabinet.
M	= Miscellaneous cabinet.
MSG	= Message switch cabinet.
SMC	= Switching module controller cabinet.
TMS	= Time multiplexed switch cabinet.

r = Cabinet number.

s = Replacement equipment code(s). Refer to the following example.

t = Equipment form(s). Equipment form represents the minimal operating level of replacement equipment. Refer to the following example.

Example of CODE FORM content:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
```

:	= Intra-field delimited.
-	= Inter-field delimiter.
A	= Current minimal accepted equipment code.
B	= Current production equipment code (substitutable equipment for code 'A').
C	= Additional compatible equipment code(s) (added as space permits).
D	= Current minimal approved operating level for equipment code 'A'.
E	= Current minimal approved operating level for equipment code 'B'.
F	= Current minimal approved operating level(s) for equipment code(s) 'C'.

Codes 'A', 'B' and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifiers(s) as applicable.

Forms 'D', 'E' and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

u = Vertical location in the cabinet, in inches above the floor to the center of the implicated shelf.

v = Horizontal location in the cabinet, in eighths of an inch from the left corner of the implicated shelf.

w = Circuit type. Valid value(s):

HPR	= Equipment is part of a helper circuit. The helper must be removed from service before replacement is attempted.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
---	= Equipment is part of the circuit under test.

x = Number of the TLP note containing supplementary information related to the specified suspected faulty equipment. Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

y = Termination status. Valid value(s):

ABORTED	= Requested action was terminated before completion, and the termination was not graceful.
COMPLETED	= Request was successfully completed.
NOT STARTED	= Requested action was not begun.
STOPPED	= Requested action was terminated before a normal completion.

z = Reason for the termination.

4. ACTION TO BE TAKEN

For Formats 1, 3 and 6, no action is required.

For Format 2, determine the correct input message and reenter the exercise request.

For Format 4,

If output includes:	Action:
SUSPENDED NTR	Enter the first exercise message for the purpose of manual troubleshooting.
SUSPENDED l PH m	The specified phase was terminated. Complete phase and segment specification must be provided on the next exercise request.
SUSPENDED ATP PH m SEG n	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
SUSPENDED CATP PH m SEG n	This message indicates that one of two conditions occurred which inhibited the execution of some tests. If the message is printed for phase 1, an anomaly with the scan and distribute points caused the CATP condition. If the message is printed for phase 4, the QGP was unable to communicate with any one of the QLPS's physically connected (using the QGLs) to it.
SUSPENDED NTR PH m SEG n	This message indicates completion of the exercise. Proceed to troubleshoot the circuit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the exercise request.
SUSPENDED STF PH m SEG n	Analyze the test failure data. Repair the faulty circuit or enter another exercise request to continue troubleshooting.

For Format 5, replace the indicated circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

APP:TLP-NOTE

EX:QLPS

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EX QLPS=a-b c

[2]   ____________________________________________________________
      EX QLPS=a-b NOT STARTED d

[3]   ____________________________________________________________
      EX QLPS=a-b STF PH e SEG f TEST g MM h [EXP i MASK j ACTL k]

[4]   ____________________________________________________________
      EX QLPS=a-b SUSPENDED l [PH m [SEG n]]

[5]   ____________________________________________________________
      EX QLPS=a-b SUSPECTED FAULTY EQUIPMENT o RECORD

        AISLE  MODULE      CABINET CODE           FORM   EQL       TYPE NOTE
        p      CM          q   r   s                t    u-v       w    [x]
        .      .           .   .   .                .    . .       .     .
        .      .           .   .   .                .    . .       .     .
        .      .           .   .   .                .    . .       .     .

[6]   ____________________________________________________________
      EX QLPS=a-b y [z]
```

2. REASON FOR OUTPUT

To report the results of executing an EX:QLPS input message to diagnose a quad-link packet switch (QLPS).

Format 1 indicates the completed segments and reports the overall result. It applies only when the repeat (RPT) option is specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the input message was invalid.

Format 3 indicates and specifies that a test failed. The text in the square bracket will be printed if the RAW option is used with the input request.

Format 4 indicates that diagnostic execution is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous message, may also be specified.

Format 5 is printed when a test failed and the trouble location procedure (TLP) option was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 6 indicates that the diagnostic execution has terminated.

Formats 1, 3, 4 and 5 belong to the SM message class, while formats 2 and 6 belong to the MSGS message class.

3. VARIABLE FIELD DEFINITIONS

a = Office network timing and control (ONTC) side number.

b = QLPS network number.

c = Loop result. Valid value(s):

ATP	= All tests were performed and passed.
CATP	= Some tests were not performed, but all tests that were performed passed.
NTR	= No tests were performed.
STF	= Some test(s) failed.

d = Reason the message was rejected. Valid value(s):

EXECUTE PHASE NOT DEFINED	= The phase number containing the segments to be executed was invalid.
PAUSE PHASE NOT DEFINED	= The phase number at which suspension was desired was invalid.
PREVIOUS EX IN PROGRESS	= An earlier exercise message was still in progress; the rejected message is valid only if the diagnostic is suspended.

e = Number of the phase in which the failure occurred.

f = Number of segment in which the failure occurred.

g = Number of the test that failed.

h = Mismatch results for the specified test in hexadecimal.

i = Expected result for the specified test in hexadecimal.

j = Mask used to determine test failure in hexadecimal.

k = Actual result for the specified test in hexadecimal.

l = Result of previous message. Valid value(s):

ATP	= The specified segment(s) were completed and all tests were performed and passed.
CATP	= Some tests in the specified segment(s) were not performed, but all tests that were performed passed.
NTR	= Not tests were performed.
REQUEST NOT ALLOWED	= The invert or transfer input message was invalid.
STF	= The specified segment(s) were completed, and some test(s) failed.

m = Phase number where execution was suspended.

n = Segment number where execution was suspended.

o = Text identifier showing order of TLP record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

A maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of one to four entries. Each record will have a new header.

p = Identification number of floor and aisle.

q = Cabinet type. Valid value(s):

CM2	= Communication module 2 cabinet.
M	= Miscellaneous cabinet.
MSG	= Message switch cabinet.
SMC	= Switching module controller cabinet.
TMS	= Time multiplexed switch cabinet.

r = Cabinet number.

s = Replacement equipment code(s). Refer to the following example.

t = Equipment form(s). Equipment form represents the minimal operating level of replacement equipment. Refer to the following example.

Example of CODE FORM content:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
```

:	= Intra-field delimited.
-	= Inter-field delimiter.
A	= Current minimal accepted equipment code.
B	= Current production equipment code (substitutable equipment for code 'A').
C	= Additional compatible equipment code(s) (added as space permits).
D	= Current minimal approved operating level for equipment code 'A'.
E	= Current minimal approved operating level for equipment code 'B'.
F	= Current minimal approved operating level(s) for equipment code(s) 'C'.

Codes 'A', 'B' and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifiers(s) as applicable.

Forms 'D', 'E' and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

u = Vertical location in the cabinet, in inches above the floor to the center of the implicated shelf.

v = Horizontal location in the cabinet, in eighths of an inch from the left corner of the implicated shelf.

w = Circuit type. Valid value(s):

HPR	= Equipment is part of a helper circuit. The helper must be removed from service before replacement is attempted.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
---	= Equipment is part of the circuit under test.

x = Number of the TLP note containing supplementary information related to the specified suspected faulty equipment. Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

y = Termination status. Valid value(s):

ABORTED	= Requested action was terminated before completion, and the termination was not graceful.
COMPLETED	= Request was successfully completed.
NOT STARTED	= Requested action was not begun.
STOPPED	= Requested action was terminated before a normal completion.

z = Reason for the termination.

4. ACTION TO BE TAKEN

For Formats 1, 3 and 6, no action is required.

For Format 2, determine the correct input message and reenter the exercise request.

For Format 4,

If output includes:	Action:
SUSPENDED NTR	Enter the first exercise message for the purpose of manual troubleshooting.
SUSPENDED l PH m	The specified phase was terminated. Complete phase and segment specification must be provided on the next exercise request.
SUSPENDED ATP PH m SEG n	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
SUSPENDED CATP PH m SEG n	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous message. If the message is printed for phase 3, the QLPS was unable to communicate with any one of the QGPs physically connected (using the QBLs) to it.
SUSPENDED NTR PH m SEG n and the repeat (RPT) option was specified.	This message indicates completion of the exercise. Proceed to troubleshoot the circuit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the exercise request.
SUSPENDED STF PH m SEG n	Analyze the test failure data. Repair the faulty circuit or enter another exercise request to continue troubleshooting.

For Format 5, replace the indicated circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

APP:TLP-NOTE

EX:RAF

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX RAF=a-b c

[2]   ____________________________________________________________________
      EX RAF=a-b NOT STARTED d

[3]   ____________________________________________________________________
      EX RAF=a-b STF PH e SEG f TEST g MM h
       [EXP i MASK j ACTL k]

[4]   ____________________________________________________________________
      EX RAF=a-b SUSPENDED l[PH m [SEG n]]

[5]   ____________________________________________________________________
      EX RAF=a-b SUSPECTED FAULTY EQUIPMENT b1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL       TYPE  NOTE
         o       p [q]    r  s     t    [u]  v-w[-c1]   x   [y]
        [.       .  .     .  .     .     .   . .  .     .    .]
        [.       .  .     .  .     .     .   . .  .     .    .]
        [.       .  .     .  .     .     .   . .  .     .    .]

[6]   ____________________________________________________________________
      EX RAF=a-b z a1

[7]   ____________________________________________________________________
      EX RAF=a-b PH e SEG f STMT e1 f1
       [EXP i MASK j ACTL k]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:RAF input message to diagnose the recorded announcement function (RAF) unit.

Format 1 indicates that the specified segments have been completed. It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the specified options in the input message were invalid.

Format 3 indicates that a test has failed and specifies which test.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurs, and a summary of the results of the previous command, may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble location procedures (TLP) option was specified in the input message.

Format 6 indicates that the diagnostic execution has terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = RAF unit number.

c = Loop result. Valid value(s):
- ATP = All tests were performed and passed.
- CATP = Some tests were not performed, but all performed tests passed.
- NTR = No tests run.
- STF = Some tests failed.

d = Reason the command was rejected.

e = Phase in which the failure occurred.

f = Segment in which the failure occurred.

g = Test number that failed.

h = Mismatch results for the specified test in hexadecimal.

i = Raw data expected result for the specified test in hexadecimal.

j = Raw data mask used to determine the test failure in hexadecimal.

k = Raw data actual result for the specified test in hexadecimal.

l = Type of suspension. Valid value(s):
- ATP = The specified segment(s) was completed and all tests passed.
- CATP = Conditional all tests passed. The specified segment completed but some portion was skipped.
- NTR = No tests were run since the last completion message.
- STF = The diagnostic has completed and some tests failed.

m = Phase number in which execution is suspended.

n = Segment number in which execution is suspended.

o = Identification number of floor and aisle.

p = Module type.

q = Module number.

r = Cabinet type.

s = Cabinet number.

t = Replacement equipment code(s).

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u = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
:          = Intra-field delimiter.
-          = Inter-field delimiter if necessary.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code 'A').
C          = Additional compatible equipment code(s) (added as space permits)
D          = Current minimal approved operating level for equipment code 'A'.
E          = Current minimal approved operating level for equipment code 'B'.
F          = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

v = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

w = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

x = Circuit type. Valid value(s):

HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
____	= Equipment is part of the circuit under test.

y = Board. Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

z = Termination status. Valid value(s):

ABORTED	= The process was terminated (process not gracefully terminated).
NOT STARTED	= Action was not begun.
STOPPED	= Terminated before normal completion (process gracefully terminated).

a[1] = Termination reason. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

c[1] = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

d[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

e[1] = Statement number.

f[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Formats 1, 6, and 7, no action is required.

For Format 2, determine the correct phase numbers and reenter the diagnostic exercise request.

For Format 3, if fields 'g' and 'i' do not match, refer to TLP. If this does not assist in solving the problem, rerun the diagnostic with the 'RAW' and 'UCL' options. Give the resulting output to a diagnostician for interpretation.

For Format 4,

If output includes:	Action:
SUSPENDED NTR	Enter the first exercise command and proceed with manual troubleshooting.
SUSPENDED ATP PH m SEG	The fault may have been repaired. Rerun the entire exercise to determine the condition of the circuit.
SUSPENDED CATP PH m SEG	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous command.
SUSPENDED NTR PH m SEG	If the RPT option was specified, this message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
SUSPENDED STF PH m SEG	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the diagnostic exercise for each replaced pack until the fault is repaired or the diagnostic results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:RAF
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

EX:RAU

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX RAU=a b

[2]   ____________________________________________________________________
      EX RAU=a NOT STARTED c

[3]   ____________________________________________________________________
      EX RAU=a STF PH d SEG e TEST f MM g
       [EXP h MASK i ACTL j]

[4]   ____________________________________________________________________
      EX RAU=a SUSPENDED k[ PH l [SEG m]]

[5]   ____________________________________________________________________
      EX RAU=a SUSPECTED FAULTY EQUIPMENT a1 REPORT
        AISLE  MODULE  CABINET  CODE  FORM  EQL      TYPE  NOTE
          n     o  [y]    p    z    q     [r]  s-t[-b1]   u    [v]
         [.     .   .     .    .    .      .   . .  .     .     .]
         [.     .   .     .    .    .      .   . .  .     .     .]
         [.     .   .     .    .    .      .   . .  .     .     .]

[6]   ____________________________________________________________________
      EX RAU=a w [x]

[7]   ____________________________________________________________________
      EX RAU=a PH d SEG e STMT c1 d1
       [EXP h MASK i ACTL j]
```

2. REASON FOR OUTPUT

To report the result of executing a EX:RAU input message to exercise a remote switching module (RSM) alarm (RAU) circuit.

Format 1 indicates that the specified segments completed and all tests passed. It applies only when the repeat (RPT) option is specified in the input message. Execution of the exercise will continue for the remaining iterations.

Format 2 indicates that an option specified in the input message was invalid.

Format 3 indicates which test failed.

Format 4 indicates execution of the exercise is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous input message may also be printed.

Format 5 provides an ordered list of suspected faulty equipment. It applies only when the trouble locating procedure (TLP) option is specified in the input message.

Format 6 indicates execution of the exercise is terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Loop result. Valid value(s):
- ATP = All tests performed and passed.
- CATP = Some tests were skipped because supporting hardware was not available, but all tests which were run passed.
- NTP = No tests performed.
- STF = Some tests failed.

c = Reason the input message was rejected.

d = Phase in which the failure occurred.

e = Segment in which the failure occurred.

f = Test that failed.

g = Mismatch results for the specified test in hexadecimal.

h = Expected result for the specified test in hexadecimal.

i = Mask used to determine test failure in hexadecimal.

j = Actual result for the specified test in hexadecimal.

k = Result of previous input message. Valid value(s):
- ATP = The specified segment(s) were completed and all tests were performed and passed.
- CATP = Some tests in the specified segment were skipped because supporting hardware was not available, but all tests which were run passed.
- NTP = No tests performed.
- STF = Some tests in the segment failed.

l = Phase where execution is suspended.

m = Segment where execution is suspended.

n = Floor and aisle.

o = Module type.

y = Module number.

p = Cabinet type.

z = Cabinet number.

q = Replacement equipment code(s).

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r = Equipment form(s). Equipment form represents minimal operating level of replacement equipment.

Example of CODE FORM contents:

```
CODE A[:B]...[:C] [-] D[:E]...[:F]
A          = Current minimal accepted equipment code.
:          = Intra-field delimiter.
B          = Current production equipment code (substitutable equipment for code A).
C          = Additional compatible equipment code(s) (added as space permits).
-          = Inter-field delimiter if necessary.
D          = Current minimal approved operating level for equipment code A.
E          = Current minimal approved operating level for equipment code B.
F          = Current minimal approved operating level(s) for equipment code(s) C.
```

Codes A, B, and C may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms D, E, and F may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

s = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

t = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

u = Circuit type. Valid value(s):

____ = Equipment is part of the circuit under test.

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

v = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

w = Termination report. Valid value(s):

ABORTED = Requested action was terminated before completion, and the termination was complete.

COMPLETED = Request has successfully completed, and reports the overall result.

NOT STARTED = Requested action had not begun.

STOPPED = Requested action was terminated before a normal completion.

x = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

a[1] = Text identifier showing order of record. Valid value(s):

FIRST = First record of continuing list.

LAST = Last record of list.

NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

b[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

c[1] = Statement number.

d[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Formats 1, 6 and 7, no action is required.

For Format 2, determine the correct phase numbers and reenter the exercise request.

For Format 3, repair the faulty circuit.

For Format 4,

If output includes:	Action:
SUSPENDED NTP	Enter the first exercise input message for the purpose of manual troubleshooting.
SUSPENDED ATP PH l SEG m	The fault may have been repaired. Rerun the entire diagnostic.
SUSPENDED CATP PH l SEG m	This indicates a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the exercise request.
SUSPENDED NTR PH l SEG m	If the RPT option was specified, normal completion of the exercise is indicated. Proceed to troubleshoot the circuit. If this message occurs when the RPT option was not specified, no tests were run. Determine the reason and reenter the exercise request.
SUSPENDED STF PH l SEG m	Analyze the test failure data. Repair the faulty circuit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected faulty circuit packs one at a time. Rerun the exercise for each replaced circuit pack until the fault is repaired or the exercise results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:RAU
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

EX:RCDDP

Software Release: 5E12 and later
Message Class: ATL
Application: 5
Type: Output

1. FORMAT

```
EX RCDDP=a-b-c d e
```

2. REASON FOR OUTPUT

To report information about a specified operation on a signal distribute point.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Remote access interface unit (RAIU) number.

`c` = Distribute point number.

`d` = Status of the request. Valid value(s):
`REQUEST COMPLETED` = Indicates that the request has been completed and the requested operation has been performed.
`REQUEST INVALID` = Indicates an invalid request. The input parameters do not fall within the range for a remote COMDAC in the RAIU.
`REQUEST REJECTED` = Indicates that the request has been rejected. The possible reasons for this are the remote common data and control (COMDAC) is not in service or the input parameters may not correspond to a remote COMDAC in the RAIU.

`e` = Distribute point status.

4. ACTION TO BE TAKEN

If 'd' =	**Action:**
REQUEST COMPLETED	Take no action.
REQUEST INVALID	Recheck the input parameters. Refer to the EX:RCDDP input message.
REQUEST REJECTED	Recheck the input parameters to make sure that there is a remote COMDAC with the specified distribute point. Make sure that the remote COMDAC is in-service.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

EX:RCDDP

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EX:RCLK

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX RCLK=a-b c

[2]   ____________________________________________________________________
      EX RCLK=a-b NOT STARTED d

[3]   ____________________________________________________________________
      EX RCLK=a-b STF PH e SEG f TEST g MM h
       [EXP i MASK j ACTL k]

[4]   ____________________________________________________________________
      EX RCLK=a-b SUSPENDED l[ PH m [SEG n]]

[5]   ____________________________________________________________________
      EX RCLK=a-b SUSPECTED FAULTY EQUIPMENT z RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL      TYPE  NOTE
         o    p [a1]  q  b1      r    [s]  t-u[-c1]   v    [w]
        [.    .  .    .  .       .     .   . .  .     .     .]
        [.    .  .    .  .       .     .   . .  .     .     .]
        [.    .  .    .  .       .     .   . .  .     .     .]

[6]   ____________________________________________________________________
      EX RCLK=a-b x [y]

[7]   ____________________________________________________________________
      EX RCLK=a-b PH e SEG f STMT d1 e1
       [EXP i MASK j ACTL k]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:RCLK input message to exercise a remote clock (RCLK) circuit.

Format 1 indicates that the specified segments completed and all tests passed. It applies only when the RPT option is specified in the input message. Execution of the exercise will continue for the remaining iterations.

Format 2 indicates that an option specified in the input message was invalid.

Format 3 indicates which test failed.

Format 4 indicates execution of the exercise is suspended. The phase and segment in which the suspension occurs, and a summary of the results of the previous message may also be printed.

Format 5 provides an ordered list of suspected faulty equipment. It applies only when the TLP option is specified in the input message.

Format 6 indicates execution of the exercise is terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = RCLK side.

c = Loop result. Valid value(s):
- ATP = All tests performed and passed.
- CATP = Some tests were skipped because supporting hardware was not available, but all tests which were run passed.
- NTP = No tests performed.
- STF = Some tests failed.

d = Reason the message was rejected.

e = Phase in which the failure occurred.

f = Segment in which the failure occurred.

g = Test that failed.

h = Mismatch results for the specified test in hexadecimal.

i = Expected result for the specified test in hexadecimal.

j = Mask used to determine test failure in hexadecimal.

k = Actual result for the specified test in hexadecimal.

l = Type of suspension. Valid value(s):
- ATP = The specified segment(s) were completed and all tests were performed and passed.
- CATP = Some tests in the specified segment were skipped because supporting hardware was not available, but all tests which were run passed.
- NTP = No tests performed.
- STF = Some tests in the segment failed.

m = Phase where execution is suspended.

n = Segment where execution is suspended.

o = Floor and aisle.

p = Module type.

a^1 = Module number.

q = Cabinet Type.

b^1 = Cabinet number.

r = Replacement equipment code(s).

s = Equipment form(s). Equipment form represents minimal operating level of replacement equipment.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
```

A = Current minimal accepted equipment code.
: = Intra-field delimiter.
B = Current production equipment code (substitutable equipment for code A).
C = Additional compatible equipment code(s) (added as space permits)
- = Inter-field delimiter if necessary.
D = Current minimal approved operating level for equipment code A.
E = Current minimal approved operating level for equipment code B.
F = Current minimal approved operating level(s) for equipment code(s) C.

Codes A, B, and C may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms D, E, and F may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

t = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

u = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

v = Circuit type. Valid value(s):
____ = Equipment is part of the circuit under test.
HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

w = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

x = Termination report. Valid value(s):
ABORTED = Requested action was terminated before completion, and the termination is immediate. Consistency of hardware and data is questionable.
COMPLETED = Request has successfully completed.
NOT STARTED = Requested action had not begun.
STOPPED = Requested action was terminated before a normal completion.

y = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

z = Text identifier showing order of record. Valid value(s):
FIRST = First record of continuing list.

LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

c[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

d[1] = Statement number.

e[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Formats 1, 6, and 7, no action required.

For Format 2, determine the correct phase numbers and reenter the exercise request.

For Format 3, repair the faulty circuit.

For Format 4,

If output includes:	Action:
SUSPENDED ATP PH m SEG n	The fault may have been repaired. Rerun the entire diagnostic.
SUSPENDED CAT PH m SEG n	This indicates a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the exercise request.
SUSPENDED NTP	Enter the first exercise message for the purpose of manual troubleshooting.
SUSPENDED NTR PH m SEG n	If the RPT option was specified, normal completion of the exercise is indicated. Proceed to troubleshoot the circuit. If this message occurs when the RPT option was not specified, no tests were run. Determine the reason and reenter the exercise request
SUSPENDED STF PH m SEG n	Analyze the test failure data. Repair the faulty circuit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected faulty circuit packs one at a time. Rerun the exercise for each replaced circuit pack until the fault is repaired or the exercise results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

EX:RCLK

Output Appendix(es):

APP:MAINT-RESP
APP:TLP-NOTE

EX:RDFI

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EX RDFI=a-b-c d

[2]   ____________________________________________________________
      EX RDFI=a-b-c NOT STARTED e

[3]   ____________________________________________________________
      EX RDFI=a-b-c STF PH f SEG g TEST h MM i
       [EXP j MASK k ACTL l]

[4]   ____________________________________________________________
      EX RDFI=a-b-c SUSPENDED m[ PH n [SEG o]]

[5]   ____________________________________________________________
      EX RDFI=a-b-c SUSPECTED FAULTY EQUIPMENT a1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL      TYPE  NOTE
          p    q [b1]  r   c1     s    [t]  u-v[-d1]   w   [x]
         [.    .  .    .    .     .     .   . .  .     .    .]
         [.    .  .    .    .     .     .   . .  .     .    .]
         [.    .  .    .    .     .     .   . .  .     .    .]

[6]   ____________________________________________________________
      EX RDFI=a-b-c y [z]

[7]   ____________________________________________________________
      EX RDFI=a-b-c PH f SEG g STMT e1 f1
       [EXP j MASK k ACTL l]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:RDFI input message to exercise a remote switching module (RSM) digital facilities interface (RDFI) circuit.

Format 1 indicates that the specified segments completed and all tests passed. It applies only when the repeat (RPT) option is specified in the input message. Execution of the exercise will continue for the remaining iterations.

Format 2 indicates that an option specified in the input message was invalid.

Format 3 indicates which test failed.

Format 4 indicates execution of the exercise is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous command may also be printed.

Format 5 provides an ordered list of suspected faulty equipment. It applies only when the trouble locating procedure (TLP) option is specified in the input message.

Format 6 indicates execution of the exercise is terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Digital line and trunk unit (DLTU) number.

c = RDFI number.

d = Loop result. Valid value(s):

- ATP = All tests performed and passed.
- CATP = Some tests were skipped because supporting hardware was not available, but all tests which were run passed.
- NTP = No tests performed.
- STF = Some tests failed.

e = Reason the command was rejected.

f = Phase in which the failure occurred.

g = Segment in which the failure occurred.

h = Test that failed.

i = Mismatch results for the specified test.

j = Expected result for the specified test in hexadecimal.

k = Mask used to determine test failure in hexadecimal.

l = Actual result for the specified test in hexadecimal.

m = Result of previous command. Valid value(s):

- ATP = The specified segment(s) were completed and all tests were performed and passed.
- CATP = Some tests in the specified segment were skipped because supporting hardware was not available, but all tests which were run passed. failed.
- NTP = No tests performed.
- STF = Some tests in the segment

n = Phase where execution is suspended.

o = Segment where execution is suspended.

p = Floor and aisle.

q = Module type.

r = Cabinet type.

s = Replacement equipment code(s).

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t = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the subsequent example.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
:          = Intra-field delimiter.
-          = Inter-field delimiter if necessary.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code 'A').
C          = Additional compatible equipment code(s) (added as space permits)
D          = Current minimal approved operating level for equipment code 'A'.
E          = Current minimal approved operating level for equipment code 'B'.
F          = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

u = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

v = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

w = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the on-line member of a duplex pair. The online member must be removed, and the mate made online, before replacement is attempted.

____ = Equipment is part of the circuit under test.

x = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

y = Termination report. Valid value(s):

ABORTED = Requested action was terminated before completion, and the termination was complete.

COMPLETED = Request has successfully completed, and reports the overall result

NOT STARTED = Requested action had not begun.

STOPPED = Requested action was terminated before a normal completion.

z = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix of the Appendixes section of the Output Messages manual.

a^1 = Text identifier showing order of record. Valid value(s):

FIRST = First record of continuing list.

LAST = Last record of list.

NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

b[1] = Module number.

c[1] = Cabinet number.

d[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

e[1] = Statement number.

f[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Formats 1, 6 and 7, no action is required.

For Format 2, determine the correct phase numbers and reenter the exercise request.

For Format 3, repair the faulty circuit.

For Format 4,

If output includes:	Action:
SUSPENDED NTP	Enter the first exercise command for the purpose of manual troubleshooting.
SUSPENDED ATP PH n SEG o	The fault may have been repaired. Rerun the entire diagnostic.
SUSPENDED CATP PH n SEG o	This indicates a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the exercise request.
SUSPENDED NTR PH n SEG o	If the RPT option was specified, normal completion of the exercise is indicated. Proceed to troubleshoot the circuit. If this message occurs when the RPT option was not specified, no tests were run. Determine the reason and reenter the exercise request.
SUSPENDED STF PH n SEG o	Analyze the test failure data. Repair the faulty circuit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected faulty circuit packs one at a time. Rerun the exercise for each replaced circuit pack until the fault is repaired or the exercise results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:RDFI
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

EX:RLI

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EX RLI=a-b c

[2]   ____________________________________________________________
      EX RLI=a-b NOT STARTED d

[3]   ____________________________________________________________
      EX RLI=a-b STF PH e SEG f TEST g MM h
       [EXP i MASK j ACTL k]

[4]   ____________________________________________________________
      EX RLI=a-b SUSPENDED l[ PH m [SEG n]]

[5]   ____________________________________________________________
      EX RLI=a-b SUSPECTED FAULTY EQUIPMENT z REPORT
        AISLE  MODULE  CABINET  CODE  FORM  EQL      TYPE  NOTE
          o    p [a1]   q  b1     r    [s]  t-u[-c1]   v    [w]
         [.    .  .     .  .      .     .   . .  .     .     .]
         [.    .  .     .  .      .     .   . .  .     .     .]
         [.    .  .     .  .      .     .   . .  .     .     .]

[6]   ____________________________________________________________
      EX RLI=a-b x [y]

[7]   ____________________________________________________________
      EX RLI=a-b PH f SEG g STMT d1 e1
       [EXP j MASK k ACTL l]
```

2. REASON FOR OUTPUT

To report the result of an EX:RLI input message to exercise a remote switching module (RSM) remote link interface (RLI) circuit.

Format 1 indicates that the specified segments completed and all tests passed. It applies only when the repeat (RPT) option is specified in the input message. Execution of the exercise will continue for the remaining iterations.

Format 2 indicates that an option specified in the input message was invalid.

Format 3 indicates which test failed.

Format 4 indicates execution of the exercise is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous input message may also be printed.

Format 5 provides an ordered list of suspected faulty equipment. It applies only when the trouble locating procedure (TLP) option is specified in the input message.

Format 6 indicates execution of the exercise is terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = RLI number.

c = Loop result. Valid value(s):
- ATP = All tests performed and passed.
- CATP = Some tests were skipped because supporting hardware was not available, but all tests which were run passed.
- NTP = No tests performed.
- STF = Some tests failed.

d = Reason the input message was rejected.

e = Phase in which the failure occurred.

f = Segment in which the failure occurred.

g = Test that failed.

h = Mismatch results for the specified test in hexadecimal.

i = Expected result for the specified test in hexadecimal.

j = Mask used to determine test failure in hexadecimal.

k = Actual result for the specified test in hexadecimal.

l = Result of previous input message. Valid value(s):
- ATP = The specified segment(s) were completed and all tests were performed and passed.
- CATP = Some tests in the specified segment were skipped because supporting hardware was not available, but all tests which were run passed.
- NTP = No tests performed.
- STF = Some tests in the segment failed.

m = Phase where execution is suspended.

n = Segment where execution is suspended.

o = Floor and aisle.

p = Module type.

q = Cabinet type.

r = Replacement equipment code(s).

s = Equipment form(s). Equipment form represents minimal operating level of replacement equipment.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
```

A = Current minimal accepted equipment code.
: = Intra-field delimiter.
B = Current production equipment code (substitutable equipment for code A).
C = Additional compatible equipment code(s) (added as space permits).
- = Inter-field delimiter if necessary.
D = Current minimal approved operating level for equipment code A.
E = Current minimal approved operating level for equipment code B.
F = Current minimal approved operating level(s) for equipment code(s) C.

Codes A, B, and C may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms D, E, and F may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

t = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

u = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

v = Circuit type. Valid value(s):
____ = Equipment is part of the circuit under test.
HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

w = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

x = Termination report. Valid value(s):
ABORTED = Requested action was terminated before completion, and the termination was complete.
COMPLETED = Request has successfully completed, and reports the overall result.
NOT STARTED = Requested action had not begun.
STOPPED = Requested action was terminated before a normal completion.

y = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix of the Appendixes section of the Output Messages manual.

z = Text identifier showing order of record. Valid value(s):
FIRST = First record of continuing list.
NEXT = Next record of continuing list.
LAST = Last record of list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

a[1] = Module number.

b[1] = Cabinet number.

c[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

d[1] = Statement number.

e[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Formats 1, 6 and 7, no action is required.

For Format 2, determine the correct phase numbers and reenter the exercise request.

For Format 3, repair the faulty circuit.

For Format 4,

If output includes:	Action:
SUSPENDED NTP	Enter the first exercise input message for the purpose of manual troubleshooting.
SUSPENDED ATP PH m SEG n	The fault may have been repaired. Rerun the entire diagnostic.
SUSPENDED CATP PH m SEG n	This indicates a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the exercise request.
SUSPENDED NTR PH m SEG n	If the RPT option was specified, normal completion of the exercise is indicated. Proceed to troubleshoot the circuit. If this message occurs when the RPT option was not specified, no tests were run. Determine the reason and reenter the exercise request.
SUSPENDED STF PH m SEG n	Analyze the test failure data. Repair the faulty circuit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected faulty circuit packs one at a time. Rerun the exercise for each replaced circuit pack until the fault is repaired or the exercise results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:RLI
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

EX:RPCN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX RPCNa 0 b c [d]

[2]   ____________________________________________________________________
      EX RPCNa 0 PH e f [g]
        TEST    MISMATCH
         h         i
```

2. REASON FOR OUTPUT

To print the results of a diagnostic run on a ring peripheral controller node (RPCN) in the interactive mode.

Format 1 prints at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 prints whenever the diagnostic results are printed for an individual phase.

3. VARIABLE FIELD DEFINITIONS

`a` = Ring node (RN) group number.

`b` = Termination mode of diagnostic. Valid value(s):

- `ABORTED` = Diagnostic was abnormally stopped due to an external or internal error in execution.
- `COMPLETED` = Diagnostic completed normally.
- `TERMINATED` = Diagnostic terminated under program control (early termination), since further testing would not improve diagnostic resolution.

`c` = Result of the diagnostic. Valid value(s):

- `ATP` = All tests passed.
- `CATP` = All tests that were executed were ATP. Some tests were not executed due to the unavailability of a system resource that was needed to perform the test, or due to the inability to isolate, or to singly isolate, the node under test.
- `NTR` = No tests run.
- `STF` = Some tests failed.

`d` = Valid value(s):

If 'c' =	**'d' =**
`CATP or NTR`	Identifies the reason that tests were skipped in this phase by their bit position in a 16-character hexadecimal number. For example, if 'd'=00000000 00000006, tests were skipped for reasons 1 and 2.
`STF`	Number of test failures in addition to the reasons that tests were skipped.For example, if 'd'=7 00000000 00000006, seven tests failed, plus tests were skipped for reasons 1 and 2.

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The reason codes are as follows:

Bit #	Explanation:
0	Helper unit invalid or not specified.
1	Helper unit cannot be reserved.
2	Helper unit not out-of-service.
3	Helper control unit (CU) is not ATP.
4 to 29	
Unused.	
30	Node under test was the only isolated node.
31	Node under test was not isolated.
32 to 63	Unused.

e = Phase number.

f = Result of the phase. Valid value(s):

- ATP = All tests passed.
- CATP = All tests that were executed were ATP. Some tests were not executed due to the unavailability of a system resource that was needed to perform the test, or due to the inability to isolate, or to singly isolate, the node under test.
- NTR = No tests run.
- STF = Some tests failed.

g = If 'f' = STF, identifies the reason that some tests were skipped. This field is the same as the 'd' field in Format 1 except that the result of only one phase is reflected.

h = Test number of the failing test.

i = An 8-digit hexadecimal number that indicates the bits that were in error. A '1' in a bit position indicates that the response from the unit did not match the expected response in that bit.

4. ACTION TO BE TAKEN

If 'c' or 'f' =	Action:
CATP	The needed system resource should be made available if possible, so that all tests may be executed.
STF	The unit should be repaired as quickly as possible.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:RPCN
```

Output Message(s):

```
RMV:RPCN
```

EX:RRCLK

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX RRCLK=a-b-c d

[2]   ____________________________________________________________________
      EX RRCLK=a-b-c NOT STARTED e

[3]   ____________________________________________________________________
      EX RRCLK=a-b-c STF PH f SEG g TEST h MM i
       [EXP j MASK k ACTL l]

[4]   ____________________________________________________________________
      EX RRCLK=a-b-c SUSPENDED m[ PH n [SEG o]]

[5]   ____________________________________________________________________
      EX RRCLK=a-b-c SUSPECTED FAULTY EQUIPMENT c1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL      TYPE  NOTE
          p     q [r]    s  t     u    [v]   w-x[-d1f1]   y    [z]
         [.     .  .    .  .     .     .    . .  .     .     .]
         [.     .  .    .  .     .     .    . .  .     .     .]
         [.     .  .    .  .     .     .    . .  .     .     .]

[6]   ____________________________________________________________________
      EX RRCLK=a-b-c a1 [b1]

[7]   ____________________________________________________________________
      EX RRCLK=a-b-c PH f SEG g STMT e1 f1
       [EXP j MASK k ACTL l]
```

2. REASON FOR OUTPUT

To report the results of executing an EX:RRCLK input message to exercise a remote integrated services line unit (RISLU) remote circuit pack (RRCLK).

Format 1 indicates that the specified segments completed and all tests passed. It applies only when the RPT option is specified in the input messages. Execution of the exercise will continue for the remaining iterations.

Format 2 indicates that an option specified in the input message was invalid.

Format 3 indicates which test failed.

Format 4 indicates that execution of the exercise is suspended. The phase and segment in which the suspension occurs, and a summary of the results of the previous message may also be printed.

Format 5 provides an ordered list of suspected faulty equipment. It applies only when the TLP option is specified in the input message.

Format 6 indicates that the diagnostic execution has terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RISLU number.

`c` = RRCLK side.

`d` = Loop result. Valid value(s):

- `ATP` = All tests were performed and passed.
- `CATP` = Some tests were skipped because supporting hardware was not available, but all tests which were run passed.
- `NTP` = No tests performed.
- `STF` = Some tests failed.

`e` = Reason the message was rejected.

`f` = Phase in which the failure occurred.

`g` = Segment in which the failure occurred.

`h` = Test that failed.

`i` = Mismatch results for the specified test in hexadecimal.

`j` = Expected result for the specified test in hexadecimal.

`k` = Mask used to determine test failure in hexadecimal.

`l` = Actual result for the specified test in hexadecimal.

`m` = Type of suspension. Valid value(s):

- `ATP` = The specified segment(s) were completed and all tests were performed and passed.
- `CATP` = Some tests in the specified segment were skipped because supporting hardware was not available, but all tests which were run passed.
- `NTP` = No tests performed since the last completion message.
- `STF` = Some tests in the segment failed.

`n` = Phase where execution is suspended.

`o` = Segment where execution is suspended.

`p` = Floor and aisle number.

`q` = Module type.

`r` = Module number.

`s` = Cabinet type.

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t = Cabinet number.

u = Replacement equipment code(s).

v = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
```

A = Current minimal accepted equipment code.
: = Intra-field delimiter.
B = Current production equipment code (substitutable equipment for code A).
C = Additional compatible equipment code(s) (added as space permits).
- = Inter-field delimiter if necessary.
D = Current minimal approved operating level for equipment code A.
E = Current minimal approved operating level for equipment code B.
F = Current minimal approved operating level(s) for equipment code(s) C.

Codes A, B, and C may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms D, E, and F may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

w = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

x = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

y = Circuit type. Valid value(s):
____ = Equipment is part of the circuit under test.
HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

z = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

a[1] = Termination report. Valid value(s):
ABORTED = Requested action was terminated before completion, and the termination was not graceful.
COMPLETED = Request has successfully completed.
NOT STARTED = Requested action has not begun.
STOPPED = Requested action was terminated before a normal completion. Termination was graceful.

b[1] = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

c[1] = Text identifier showing order of record. Valid value(s):
FIRST = First record of continuing list.

LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

d[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

e[1] = Statement number.

f[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Formats 1, 6, and 7, no action is required.

For Format 2, determine the correct phase number and reenter the exercise request.

For Format 3, analyze failure data to determine reason for failure or run the exercise using the 'TLP' option to generate a suspected faulty circuit pack list.

For Format 4,

If output includes:	Action:
SUSPENDED NTP	Enter the first exercise message for the purpose of manual troubleshooting.
SUSPENDED ATP PH n SEG o	The fault may have been repaired. Run the entire diagnostic by using the DGN:RRCLK input message.
SUSPENDED CATP PH n SEG o	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the exercise request.
SUSPENDED NTP PH n SEG o	If the RPT option was specified, normal completion of the exercise is indicated. Proceed to troubleshoot the circuit. If this message occurs when the RPT option was not specified, no tests were run. Determine the reason and reenter the exercise request.
SUSPENDED STF PH n SEG o	Analyze the test failure data. Repair the faulty circuit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the diagnostic exercise for each replaced pack until the fault is repaired or the diagnostic results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

EX:RRCLK

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

Other Manual(s):
235-105-250 *System Recovery Procedures*

EX:RVPT

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX RVPT=a-b-c-d e

[2]   ____________________________________________________________________
      EX RVPT=a-b-c-d NOT STARTED f

[3]   ____________________________________________________________________
      EX RVPT=a-b-c-d STF PH g SEG h TEST i MM j
       [EXP k MASK l ACTL m]

[4]   ____________________________________________________________________
      EX RVPT=a-b-c-d SUSPENDED n[PH o [SEG p]]

[5]   ____________________________________________________________________
      EX RVPT=a-b-c-d SUSPECTED FAULTY EQUIPMENT d1 RECORD
        AISLE  MODULE CABINET  CODE  FORM   EQL      TYPE   NOTE
          q     r [s]   t u      v   [w]    x-y[-e1]   z    [a1]
         [.     .  .    . .      .    .     . .  .     .     .]
         [.     .  .    . .      .    .     . .  .     .     .]
         [.     .  .    . .      .    .     . .  .     .     .]

[6]   ____________________________________________________________________
      EX RVPT=a-b-c-d b1 [c1]

[7]   ____________________________________________________________________
      EX RVPT=a-b-c-d PH f SEG g STMT f1 g1
       [EXP k MASK l ACTL m]
```

2. REASON FOR OUTPUT

To report the result of executing EX:RVPT input message to exercise the revertive pulsing transceiver (RVPT).

Format 1 is printed when the specified segment(s) have been completely executed. Execution of the diagnostic will continue for any remaining iterations.

Format 2 indicates that the previous EX:RVPT input message was invalid.

Format 3 is printed when a test has failed.

Format 4 is printed when the execution of the diagnostic is suspended. The phase and segment in which the suspension occurs, and a summary of the results of the previous input message, may also be specified.

Format 5 is printed when the trouble location procedure (TLP) was specified in the input message. An ordered list of equipment where a fault might be located is provided.

Format 6 indicates that the diagnostic execution has terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Unit number.

c = Service group number.

d = Board number.

e = Loop result. Valid value(s):
- ATP = All tests were performed and all passed.
- CATP = Some tests were not performed, but all that were passed.
- NTR = No tests were run.
- STF = Some tests failed.

f = Reason the input message was rejected.

g = Number of the phase in which the failure occurred.

h = Number of the segment in which the failure occurred.

i = Number of the test that failed.

j = Mismatch results for the specified test in hexadecimal.

k = Expected result for the specified test in hexadecimal.

l = Mask used to determine test failure in hexadecimal.

m = Actual result for the specified test in hexadecimal.

n = Type of suspension. Valid value(s):
- ATP = All tests were performed and all passed.
- CATP = Some tests were not performed, but all that were passed. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.
- NTR = No tests were run.
- STF = Some tests failed.

o = Phase number in which execution suspended.

p = Segment number in which execution suspended.

q = Aisle.

r = Module type, communication module (CM) or SM.

s = Switching module number.

t = Cabinet type.

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u = Cabinet number.

v = Replacement equipment code(s).

w = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
A          = Current minimal accepted equipment code.
:          = Intra-field delimiter.
B          = Current production equipment code (substitutable equipment for code A).
C          = Additional compatible equipment code(s) (added as space permits).
-          = Inter-field delimiter if necessary.
D          = Current minimal approved operating level for equipment code A.
E          = Current minimal approved operating level for equipment code B.
F          = Current minimal approved operating level(s) for equipment code(s) C.
```

Codes A, B, and C may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms D, E, and F may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

x = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

y = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

z = Circuit type. Valid value(s):

____ = Equipment is part of the circuit under test.

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

a[1] = Refer to the APP:TLP-NOTE appendix in the Appendix section of the Output Messages manual.

b[1] = Termination status. Valid value(s):

ABORTED = The process was terminated (process not gracefully terminated).

NOT STARTED = Action was not begun.

STOPPED = Terminated before normal completion (process gracefully terminated).

c[1] = Termination reason.

d[1] = Text identifier showing order of record. Valid value(s):

FIRST = First record of continuing list.

LAST = Last record of list.

NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

e[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

f[1] = Statement number.

g[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Formats 1, 6, and 7, no action is required.

For Format 2, determine the correct phase number and reenter the diagnostic exercise request, or wait until the previous input message is completed.

For Format 3, replace the faulty unit.

For Format 4,

If output includes:	Action:
`SUSPENDED NTR`	Enter the first exercise input message for the purpose of manual trouble shooting.
`SUSPENDED ATP PH f SEG g`	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
`SUSPENDED CATP PH f SEG g`	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous input message.
`SUSPENDED STF PH f SEG g`	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
`SUSPENDED x PH o`	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected packs, one at a time in the order specified. Rerun the diagnostic program after each substitution until the fault is repaired or the diagnostic result changes.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:RVPT
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

EX:SAS

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX SAS=a-b c

[2]   ____________________________________________________________________
      EX SAS=a-b NOT STARTED d

[3]   ____________________________________________________________________
      EX SAS=a-b STF PHe SEGf TESTg MMh
       [EXPi MASKj ACTLk]

[4]   ____________________________________________________________________
      EX SAS=a-b SUSPENDED l[PHm [SEGn]]

[5]   ____________________________________________________________________
      EX SAS=a-b SUSPECTED FAULTY EQUIPMENT c1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL      TYPE  NOTE
         o       p [q]    r  s     t     [u]  v-w[-x]   y    [z]
        [.       .  .    .  .     .      .   . .  .    .     .]
        [.       .  .    .  .     .      .   . .  .    .     .]
        [.       .  .    .  .     .      .   . .  .    .     .]

[6]   ____________________________________________________________________
      EX SAS=a-b a1 [b1]

[7]   ____________________________________________________________________
      EX SAS=a-b PH e SEG f STMT d1 e1
       [EXP i MASK j ACTL k]
```

2. REASON FOR OUTPUT

To report the result of executing a EX:SAS input message to diagnose the service announcement system (SAS) unit.

Format 1 indicates that the specified segments have been completed. It applies only when the RPT option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the specified options in the input message was invalid.

Format 3 indicates that a test has failed and specifies which test.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurs, and a summary of the results of the previous message, may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble location procedures (TLPs) option was specified in the input message.

Format 6 indicates that the diagnostic execution has terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = SAS unit number.

c = Loop result. Valid value(s):
- ATP = All test were performed and all passed.
- CATP = Some tests were not performed, but all that were passed.
- NTR = No tests run.
- STF = Some tests failed.

d = Reason the message was rejected.

e = Phase in which the failure occurred.

f = Segment in which the failure occurred.

g = Test number that failed.

h = Mismatch results for the specified test in hexadecimal.

i = Raw data expected result for the specified test in hexadecimal.

j = Raw data mask used to determine the test failure in hexadecimal.

k = Raw data actual result for the specified test in hexadecimal.

l = Type of suspension. Valid value(s):
- ATP = The specified segment(s) were completed and all tests passed.
- CATP = Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
- NTR = No tests were run since the last completion message.
- STF = The diagnostic has completed and some tests failed.

m = Phase number in which execution is suspended.

n = Segment number in which execution is suspended.

o = Identification number of floor and aisle.

p = Module type.

q = Module number.

r = Cabinet type.

s = Cabinet number.

t = Replacement equipment code(s).

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u = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the following example.

Example of CODE FORM contents:

```
CODE A[:B]...[:C] [-] D[:E]...[:F]
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code 'A').
C          = Additional compatible equipment code(s) (added as space permits)
D          = Current minimal approved operating level for equipment code 'A'.
E          = Current minimal approved operating level for equipment code 'B'.
F          = Current minimal approved operating level(s) for equipment code(s) 'C'.
:          = Intra-field delimiter.
-          = Inter-field delimiter if necessary.
```

Codes 'A', 'B' and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

v = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

w = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

x = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

y = Circuit type. Valid value(s):

HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
____	= Equipment is part of the circuit under test.

z = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

a[1] = Termination status. Valid value(s):

ABORTED	= Immediate termination.
COMPLETED	= Successful completion.
NOT STARTED	= Action has not begun.
STOPPED	= Terminated before normal completion.

b[1] = Termination reason. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

c[1] = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.

NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

d^1 = Statement number.

e^1 = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Formats 1, 6 and y, no action is required.

For Format 2, determine the correct phase numbers and reenter the diagnostic exercise request.

For Format 3, repair the faulty unit.

For Format 4,

If output includes:	Action:
EX SAS(a,b) SUSPENDED NTR	Enter the first exercise message for the purpose of manual troubleshooting.
EX SAS(a,b) SUSPENDED ATP PH n SEG	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
EX SAS(a,b) SUSPENDED CATP PHn SEG	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous message.
EX SAS(a,b) SUSPENDED NTR PHn SEG and the RPT option was specified	This message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
EX SAS(a,b) SUSPENDED STF PHn SEG	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

EX:SAS

Output Appendix(es):

APP:MAINT-RESP
APP:TLP-NOTE

EX:SCAN

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX SCAN=a-b-c-d e

[2]   ____________________________________________________________________
      EX SCAN=a-b-c-d NOT STARTED f

[3]   ____________________________________________________________________
      EX SCAN=a-b-c-d STF PH g SEG h TEST i MM j
       [EXP k MASK l ACTL m]

[4]   ____________________________________________________________________
      EX SCAN=a-b-c-d SUSPENDED n[PH o [SEG p]]

[5]   ____________________________________________________________________
      EX SCAN=a-b-c-d SUSPECTED FAULTY EQUIPMENT d1 RECORD
        AISLE  MODULE     CABINET CODE     FORM   EQL     TYPE NOTE
        q    r [s]     t  u     v  [w]  x-y[-e1]     z  [a1]
       [.    .  .      .  .     .   .   . .  .                .   .]
       [.    .  .      .  .     .   .   . .  .                .   .]
       [.    .  .      .  .     .   .   . .  .                .   .]

[6]   ____________________________________________________________________
      EX SCAN=a-b-c-d b1 [c1]

[7]   ____________________________________________________________________
      EX SCAN=a-b-c-d PH g SEG h STMT f1 g1
       [EXP k MASK l ACTL m]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:SCAN input message to diagnose the scan point board.

Format 1 indicates that the specified segments have been completed and all tests passed. It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the specified input message was invalid.

Format 3 indicates that a test has failed and specifies which test.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous command, may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble location procedure (TLP) option was specified in the input message.

Format 6 indicates that the diagnostic execution has terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Metallic service unit (MSU) number.

c = Service group number.

d = Board number.

e = Loop result. Valid value(s):

ATP	= All test were performed and all passed.
CATP	= Some tests were not performed, but all that were passed.
NTR	= No tests run.
STF	= Some tests failed.

f = Reason the command was rejected.

g = Phase in which the failure occurred.

h = Segment in which the failure occurred.

i = Test number that failed.

j = Mismatch results for the specified test in hexadecimal.

k = Raw data expected result for the specified test in hexadecimal.

l = Raw data mask used to determine the test failure in hexadecimal.

m = Raw data actual result for the specified test in hexadecimal.

n = Result of previous command. Valid value(s):

ATP	= The specified segment(s) were completed and all tests passed.
CATP	= Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
NTR	= No tests were run since the last completion message.
STF	= The diagnostic has completed and some tests failed.

o = Phase number in which execution is suspended.

p = Segment number in which execution is

q = Identification number of floor and aisle.

r = Module type.

s = Module number.

t = Cabinet type.

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u = Cabinet number.

v = Replacement equipment code(s).

w = Equipment form(s). Equipment form represents minimal operating level of replacement equipment.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
```

A	= Current minimal accepted equipment code.
:	= Intra-field delimiter.
-	= Inter-field delimiter if necessary.
B	= Current production equipment code (substitutable equipment for code 'A').
C	= Additional compatible equipment code(s) (added as space permits).
D	= Current minimal approved operating level for equipment code 'A'.
E	= Current minimal approved operating level for equipment code 'B'.
F	= Current minimal approved operating level(s) for equipment code(s) 'C'.

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

x = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

y = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

z = Circuit type. Valid value(s):

HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
____	= Equipment is part of the circuit under test.

a[1] = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

b[1] = Termination status. Valid value(s):

ABORTED	= The process was terminated (process not gracefully terminated).
NOT STARTED	= Action was not begun.
STOPPED	= Terminated before normal completion (process gracefully terminated).

c[1] = Termination reason. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

d[1] = Text identifier showing order of record. Valid value(s):

FIRST = First record of continuing list.
LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

e[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

f[1] = Statement number.

g[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Formats 1, 6, and 7, no action is required.

For Format 2, determine the correct input message and reenter the diagnostic exercise request.

For Format 3, repair the faulty unit.

For Format 4,

If output includes:	Action:
SUSPENDED NTR	Enter the first exercise command for the purpose of manual troubleshooting.
SUSPENDED ATP PH o SEG p	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
SUSPENDED CATP PH o SEG p	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous command.
SUSPENDED NTR PH o SEG p	If the RPT option was specified, this message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
SUSPENDED STF PH o SEG p	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

EX:SCAN

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

EX:SCSDC

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EX SCSDC a [COMPLETED] b [(c)]
       {MESSAGE|MSG} {IN PROGRESS|COMPLETE}

[2]   ____________________________________________________________
      EX SCSDC a PH d b [(c)] {MESSAGE IN PROGRESS|MSG IP}

[3]   ____________________________________________________________
      EX SCSDC a PH d STF (c)          MSG IP
        TEST    MISMATCH    ACTUAL  MASK    EXPECTED
         e         f          g      h         i

[4]   ____________________________________________________________
      EX SCSDC a ABORTED AT PH d STMNT j b [(c)]       MSG IP

[5]   ____________________________________________________________
      EX SCSDC a TERMINATED AT PH d STMNT j AFTER TEST k

[6]   ____________________________________________________________
      EX SCSDC a TASK l {MESSAGE STARTED|QUEUED|ABORTED}
```

2. REASON FOR OUTPUT

To report the results of an interactive mode diagnostic run on the scanner and signal distributor controller (SCSDC).

Format 1 specifies the overall diagnostic results and the termination status.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention [no openings in the active deferred maintenance queue (DMQ) and the request is in the waiting DMQ], or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = The result of the diagnostic. Valid value(s):

ATP = All tests pass.
NTR = No tests were run.
STF = Some tests failed.

c = If 'b' = STF, 'c' identifies the number of test failures in addition to the reasons that tests were skipped. For example, if 'c' = (700000000 00000000), seven tests failed and no tests were skipped.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A '1' in a bit position indicates the response from the unit did not match the expected response in that bit.

g = The bits which were actually received from the hardware device.

h = Determines which bits in 'g' are included in this test.

i = The value which the test expected.

Note: For Format 3 the values for 'g', 'h' and 'i' may be set to N/A. This means that this data is not available for the specified device.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

If 'b' = STF, the unit should be repaired as quickly as possible. Refer to the Corrective Maintenance manual for the repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	96, 103
2	99, 103
3	109, 110
4	106, 109, 110, 111
5	217
6	70, 99

Input Message(s):

```
EX:SCSDC
EX:TTYC
```

Output Message(s):

```
DGN:TTYC
STOP:DMQ
STP:DMQ
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-210 *Routine Operations and Maintenance*

EX:SDFI

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EX SDFI=a-b-c d

[2]   ____________________________________________________________
      EX SDFI=a-b-c NOT STARTED e

[3]   ____________________________________________________________
      EX SDFI=a-b-c STF PH f SEG g TEST g MM i
       [EXP j MASK k ACTL l]

[4]   ____________________________________________________________
      EX SDFI=a-b-c SUSPENDED m[PH n [SEG o]]

[5]   ____________________________________________________________
      EX SDFI=a-b-c SUSPECTED FAULTY EQUIPMENT c1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL       TYPE  NOTE
         p       q [r]   s  t     u     [v]  w-x[-d1]    y   [z]
        [.       .  .    .  .     .      .   . .  .      .    .]
        [.       .  .    .  .     .      .   . .  .      .    .]
        [.       .  .    .  .     .      .   . .  .      .    .]

[6]   ____________________________________________________________
      EX SDFI=a-b-c a1 [b1]

[7]   ____________________________________________________________
      EX SDFI=a-b-c PH f SEG g STMT e1 f1
       [EXP j MASK k ACTL l]
```

2. REASON FOR OUTPUT

To report the results of executing the EX:SDFI input message to diagnose the *SLC*® 96 digital facility interface (SDFI).

Format 1 indicates that the specified segments have been completed and all tests passed. It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the specified options in the input message was invalid.

Format 3 indicates that a test failed and specifies which test.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous command, may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble location procedure (TLP) option was specified in the input message.

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Format 6 indicates that the diagnostic execution terminated.

Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital carrier line unit (DCLU) number.

`c` = *SLC*®96 digital facility interface number (SDFI).

`d` = Loop result. Valid value(s):

`ATP`	= All tests were performed and passed.
`CATP`	= Some tests were not performed, but all performed tests passed.
`NTR`	= No tests were run.
`STF`	= Some tests failed.

`e` = Reason the command was rejected.

`f` = Phase in which the failure occurred.

`g` = Segment in which the failure occurred.

`h` = Test number that failed.

`i` = Results for the specified test were mismatched in hexadecimal.

`j` = Raw data expected result for the specified test in hexadecimal.

`k` = Raw data mask used to determine the test failure in hexadecimal.

`l` = Raw data actual result for the specified test in hexadecimal.

`m` = Result of previous command. Valid value(s):

`ATP`	= The specified segment(s) were completed and all tests passed.
`CATP`	= Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
`NTR`	= No tests were run since the last completion message.
`STF`	= The diagnostic has completed and some tests failed.

`n` = Phase number in which execution is suspended.

`o` = Segment number in which execution is suspended.

`p` = Identification number of floor and aisle.

`q` = Module type.

`r` = Module number.

`s` = Cabinet type.

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t = Cabinet number.

u = Replacement equipment code(s).

v = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the following example.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
:          = Intra-field delimiter.
-          = Inter-field delimiter if necessary.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code 'A').
C          = Additional compatible equipment code(s) (added as space permits).
D          = Current minimal approved operating level for equipment code 'A'.
E          = Current minimal approved operating level for equipment code 'B'.
F          = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

w = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

x = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

y = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

____ = Equipment is part of the circuit under test.

z = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

a[1] = Termination status. Valid value(s):

ABORTED = The process was terminated (process not gracefully terminated).

NOT STARTED = Action was not begun.

STOPPED = Terminated before normal completion (process gracefully terminated).

b[1] = Reason for the termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

c[1] = Text identifier showing order of record. Valid value(s):

FIRST = First record of continuing list.

LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

d[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

e[1] = Statement number.

f[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Format 1, 6, and 7, no action is required.

For Format 2, determine the correct phase number and reenter the diagnostic exercise request.

For Format 3, repair the faulty unit.

For Format 4,

If output includes:	Action:
SUSPENDED NTP	Enter the first exercise command for the purpose of manual troubleshooting.
SUSPENDED ATP PH n SEG o	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
SUSPENDED NTR PH n SEG o	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous command.
SUSPENDED NTR PH n SEG o	If the RPT option was specified, this message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
SUSPENDED STF PH n SEG o	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

EX:SDFI

Output Appendix(es):

APP:MAINT-RESP

APP:TLP-NOTE

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

EX:SDLC

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EX SDLC a [COMPLETED] b [(c)]
       {MESSAGE|MSG} {IN PROGRESS|COMPLETE}

[2]   ____________________________________________________________
      EX SDLC a PH d b [(c)] {MESSAGE IN PROGRESS|MSG IP}

[3]   ____________________________________________________________
      EX SDLC a PH d STF (c)          MSG IP
        TEST    MISMATCH    ACTUAL  MASK    EXPECTED
         e         f          g      h         i

[4]   ____________________________________________________________
      EX SDLC a ABORTED AT PH d STMNT j b [(c)]       MSG IP

[5]   ____________________________________________________________
      EX SDLC a TERMINATED AT PH d STMNT j AFTER TEST k

[6]   ____________________________________________________________
      EX SDLC a TASK l {MESSAGE STARTED|QUEUED|ABORTED}
```

2. REASON FOR OUTPUT

To report the results of an interactive mode diagnostic run on the synchronous data link controller (SDLC).

Format 1 specifies the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention [no openings in the active deferred maintenance queue (DMQ) and the request is in the waiting DMQ], or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = The result of the diagnostic. Valid value(s):

ATP = ALL tests pass.
NTR = No tests were run.
STF = Some tests failed.

c = If 'b' = STF, 'c' identifies the number of test failures in addition to the reasons that tests were skipped. For example, if 'c' = (7 00000000 00000000), seven tests failed and no tests were skipped.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A '1' in a bit position indicates that the response from the unit did not match the expected response in that bit.
Note: For Format 3, the values for 'g', 'h', and 'i' may be set to N/A. This means that this data is not available for the specified device.

g = The bits which were actually received from the hardware device.

h = Determines which bits in 'g' are included in this test.

i = The value which the test expected.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

If 'c' = STF, the unit should be repaired as quickly as possible. Refer to the Corrective Maintenance manual for the repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	96, 103
2	99, 111
3	109, 110
4	106, 109, 110, 111
5	217
6	70, 99

Input Message(s):

```
EX:SDLC
EX:TTYC
```

Output Message(s):

```
DGN:SDLC
DGN:TTYC
STOP:DGN
STP:DGN
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-210 *Routine Operations and Maintenance*

EX:SLIM

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX SLIM=a-b-c-d e

[2]   ____________________________________________________________________
      EX SLIM=a-b-c-d NOT STARTED f

[3]   ____________________________________________________________________
      EX SLIM=a-b-c-d STF PH g SEG h TEST i MM j
       [EXP k MASK l ACTL m]

[4]   ____________________________________________________________________
      EX SLIM=a-b-c-d SUSPENDED n[PH o [SEG p]]

[5]   ____________________________________________________________________
      EX SLIM=a-b-c-d SUSPECTED FAULTY EQUIPMENT d1 RECORD
        AISLE  MODULE     CABINET CODE     FORM   EQL     TYPE NOTE
        q    r [s]     t  u     v  [w]  x-y[-e1]     z  [a1]
       [.    .  .      .  .     .   .   . .  .                .   .]
       [.    .  .      .  .     .   .   . .  .                .   .]
       [.    .  .      .  .     .   .   . .  .                .   .]

[6]   ____________________________________________________________________
      EX SLIM=a-b-c-d b1 [c1]

[7]   ____________________________________________________________________
      EX SLIM=a-b-c-d PH g SEG h STMT f1 g1
       [EXP k MASK l ACTL m]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:SLIM input message to diagnose the subscriber line instrument measurement (SLIM) board.

Format 1 indicates that the specified segments have been completed and all tests passed. It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the specified input message was invalid.

Format 3 indicates that a test has failed and specifies which test.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous command, may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble location procedure (TLP) option was specified in the input message.

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Format 6 indicates that the diagnostic execution has terminated.

Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = SLIM Board number.

`e` = Loop result. Valid value(s):

`ATP`	= All test were performed and all passed.
`CATP`	= Some tests were not performed, but all that were passed.
`NTR`	= No tests run.
`STF`	= Some tests failed.

`f` = Reason the command was rejected.

`g` = Phase in which the failure occurred.

`h` = Segment in which the failure occurred.

`i` = Test number that failed.

`j` = Mismatch results for the specified test in hexadecimal.

`k` = Raw data expected result for the specified test in hexadecimal.

`l` = Raw data mask used to determine the test failure in hexadecimal.

`m` = Raw data actual result for the specified test in hexadecimal.

`n` = Result of previous command. Valid value(s):

`ATP`	= The specified segment(s) were completed and all tests passed.
`CATP`	= Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
`NTR`	= No tests were run since the last completion message.
`STF`	= The diagnostic has completed and some tests failed.

`o` = Phase number in which execution is suspended.

`p` = Segment number in which execution is suspended.

`q` = Identification number of floor and aisle.

`r` = Module type.

`s` = Module number.

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t = Cabinet type.

u = Cabinet number.

v = Replacement equipment code(s).

w = Equipment form(s). Equipment form represents minimal operating level of replacement equipment.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
:          = Intra-field delimiter.
-          = Inter-field delimiter if necessary.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code 'A').
C          = Additional compatible equipment code(s) (added as space permits).
D          = Current minimal approved operating level for equipment code 'A'.
E          = Current minimal approved operating level for equipment code 'B'.
F          = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

x = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

y = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

z = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

____ = Equipment is part of the circuit under test.

a[1] = Number of the TLP note containing supplementary information related to the suspected faulty equipment. Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

b[1] = Termination status. Valid value(s):

ABORTED = The process was terminated (process not gracefully terminated).

NOT STARTED = Action was not begun.

STOPPED = Terminated before normal completion (process gracefully terminated).

c[1] = Termination reason. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

d[1] = Text identifier showing order of record. Valid value(s):

FIRST = First record of continuing list.
LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

e[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

f[1] = Statement number.

g[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Formats 1, 6, and 7, no action is required.

For Format 2, determine the correct input message and reenter the diagnostic exercise request.

For Format 3, repair the faulty unit.

For Format 4,

If output includes:	Action:
SUSPENDED NTR	Enter the first exercise command for the purpose of manual troubleshooting.
SUSPENDED ATP PH o SEG p	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
SUSPENDED CATP PH o SEG p	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous command.
SUSPENDED NTR PH o SEG p	If the RPT option was specified, this message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
SUSPENDED STF PH o SEG p	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

EX:SLIM

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

EX:STARTED

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
EX:STARTED AT STATEMENT 1
```

2. REASON FOR OUTPUT

To report the system response to an initial EX:LN or EX:RPCN interactive diagnostic input request, and that the switch is ready to accept further interactive input requests.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

Advance through the data table by issuing the EX:PAUSE or the EX:STEP request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:LN

EX:RPCN
```

Output Message(s):

```
EX:PAUSE
EX:STEP
```

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EX:STEP

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX STEP a [b] SUSPENDED AT ST c

[2]   ____________________________________________________________________
      EX STEP REQUEST NOT YET ACTIVE

[3]   ____________________________________________________________________
      EX STEP REQUEST NOT IN INTERACTIVE MODE

[4]   ____________________________________________________________________
      EX STEP ILLEGAL REQUEST TYPE
```

2. REASON FOR OUTPUT

To report the result of executing an EX:STEP interactive diagnostic input message as part of an interactive diagnostic procedure.

Format 1 prints when the interactive diagnostic is suspended.

Format 2 prints if the unit (and subunit) specified by the interactive diagnostic input message is not in the active queue.

Format 3 prints if the unit (and subunit) specified by the interactive diagnostic input message in the active queue but not an interactive request.

Format 4 prints if the unit (and subunit) specified by the interactive diagnostic input message could not be found in either the waiting or active queues.

3. VARIABLE FIELD DEFINITIONS

a = Unit type and member number of unit under test.

b = Unit type and member number of the subunit under the unit under test.

c = Data table statement number.

4. ACTION TO BE TAKEN

For Format 1, after the possible hardware troubleshooting, advance through the data table by issuing the EX:STEP input message again or by issuing the EX:PAUSE input message.

For Formats 2, 3, and 4, reenter the input message after an interactive diagnostic request for the specified unit (and subunit) becomes active. Check that the correct unit (and subunit) was specified in the input message. Use the OP:DMQ input message to display requests in the queue. Enter the desired interactive request if it is not in the queue. Wait until the desired interactive diagnostic request becomes active, or use the STOP:DMQ or STP:DMQ input message to remove other request(s) from the queue until the desired interactive diagnostic request becomes

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active.

5. ALARMS

None. This alarm is a manually-requested report. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	46
2, 3, 4	77

Input Message(s):

```
EX:CU
EX:DCI
EX:DFC
EX:DUIC
EX:IOP
EX:LN
EX:MHD
EX:MTC
EX:MTTYC
EX:PAUSE
EX:RPCN
EX:SCSDC
EX:SDLC
EX:STEP
EX:TTYC
OP:DMQ
STOP:DMQ
STP:DMQ
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

EX:STOP

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX STOP REQUEST NOT YET ACTIVE NO ACTION TAKEN

[2]   ____________________________________________________________________
      EX STOP REQUEST NOT IN INTERACTIVE MODE NO ACTION TAKEN

[3]   ____________________________________________________________________
      EX STOP ILLEGAL REQUEST TYPE NO ACTION TAKEN
```

2. REASON FOR OUTPUT

To report the result of executing an EX:STOP interactive diagnostic input message but the appropriate interactive request could not be found.

Format 1 prints if the unit (and subunit) specified by the interactive diagnostic command is not in the active queue.

Format 2 prints if the unit (and subunit) specified by the interactive diagnostic command is in the active queue but not an interactive request.

Format 3 prints if the unit (and subunit) specified by the interactive diagnostic command could not be found in either the waiting or active queues.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

For Formats 1, 2, and 3, reenter the input message after an interactive diagnostic request for the specified unit (and subunit) becomes active. Check that the correct unit (and subunit) was specified in the input message. Use the OP:DMQ input message to display the requests in the queue. Enter the desired interactive diagnostic request if it is not in the queue. Wait until the desired interactive diagnostic request becomes active, or use the STOP:DMQ or STP:DMQ input message to remove other request(s) from the queue until the desired interactive diagnostic request becomes active.

5. ALARMS

None. This alarm is a manually-requested report. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

until the desired interactive diagnostic request becomes active.

Format(s):	Key(s):

1, 2, 3	77

Input Message(s):

```
EX:CU
EX:DCI
EX:DFC
EX:DUIC
EX:IOP
EX:LOOP
EX:MHD
EX:MTC
EX:MTTYC
EX:PAUSE
EX:SCSDC
EX:SDLC
EX:STEP
EX:STOP
EX:TTYC
OP:DMQ
STOP:DMQ
STP:DMQ
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

EX:TAC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX TAC=a-b-c d

[2]   ____________________________________________________________________
      EX TAC=a-b-c NOT STARTED e

[3]   ____________________________________________________________________
      EX TAC=a-b-c STF PH f SEG g TEST h MM i
       [EXP j MASK k ACTL l]

[4]   ____________________________________________________________________
      EX TAC=a-b-c SUSPENDED m[PH n [SEG o]]

[5]   ____________________________________________________________________
      EX TAC=a-b-c SUSPECTED FAULTY EQUIPMENT c1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL       TYPE  NOTE
         p       q [r]   s  t     u     [v]  w-x[-d1]    y   [z]
        [.       .  .    .  .     .      .   . .  .      .    .]
        [.       .  .    .  .     .      .   . .  .      .    .]
        [.       .  .    .  .     .      .   . .  .      .    .]

[6]   ____________________________________________________________________
      EX TAC=a-b-c a1 [b1]

[7]   ____________________________________________________________________
      EX TAC=a-b-c PH f SEG g STMT e1 f1
       [EXP j MASK k ACTL l]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:TAC input message to diagnose the test and access circuit (TAC).

Format 1 indicates that the specified segments have been completed and all tests passed. It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the specified input message was invalid.

Format 3 indicates that a test has failed and specifies which test.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous input message, may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble location procedure (TLP) option was specified in the input message.

Format 6 indicates that the diagnostic execution has terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Trunk unit number.

`c` = Service group number.

`d` = Loop result. Valid value(s):

`ATP`	= All test were performed and all passed.
`CATP`	= Some tests were not performed, but all that were passed.
`NTR`	= No tests run.
`STF`	= Some tests failed.

`e` = Reason the input message was rejected.

`f` = Phase in which the failure occurred.

`g` = Segment in which the failure occurred.

`h` = Test number that failed.

`i` = Mismatch results for the specified test in hexadecimal.

`j` = Raw data expected result for the specified test in hexadecimal.

`k` = Raw data mask used to determine the test failure in hexadecimal.

`l` = Raw data actual result for the specified test in hexadecimal.

`m` = Result of previous input message. Valid value(s):

`ATP`	= The specified segment(s) were completed and all tests passed.
`CATP`	= Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
`NTR`	= No tests were run since the last completion message.
`STF`	= The diagnostic has completed and some tests failed.

`n` = Phase number in which execution is suspended.

`o` = Segment number in which execution is suspended.

`p` = Identification number of floor and aisle.

`q` = Module type.

`r` = Module number.

`s` = Cabinet type.

`t` = Cabinet number.

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u = Replacement equipment code(s).

v = Equipment form(s). Equipment form represents minimal operating level of replacement equipment.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
```

- = Inter-field delimiter if necessary.
: = Intra-field delimiter.
A = Current minimal accepted equipment code.
B = Current production equipment code (substitutable equipment for code 'A').
C = Additional compatible equipment code(s) (added as space permits).
D = Current minimal approved operating level for equipment code 'A'.
E = Current minimal approved operating level for equipment code 'B'.
F = Current minimal approved operating level(s) for equipment code(s) 'C'.

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

w = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

x = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

y = Circuit type. Valid value(s):
HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
____ = Equipment is part of the circuit under test.

z = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

a[1] = Termination status. Valid value(s):
ABORTED = The process was terminated (process not gracefully terminated).
NOT STARTED = Action was not begun.
STOPPED = Terminated before normal completion (process gracefully terminated).

b[1] = Termination reason. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

c[1] = Text identifier showing order of record. Valid value(s):
FIRST = First record of continuing list.
LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

d[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

e[1] = Statement number.

f[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Formats 1, 6, and 7, no action is required.

For Format 2, determine the correct input message and reenter the diagnostic exercise request.

For Format 3, repair the faulty unit.

For Format 4:

If output includes:	Action:
SUSPENDED NTR	Enter the first exercise command for the purpose of manual troubleshooting.
SUSPENDED ATP PH n SEG o	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
SUSPENDED CATP PH n SEG o	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous command.
SUSPENDED NTR PH n SEG o	If the RPT option was specified, this message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
SUSPENDED STF PH n SEG o	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:TAC
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

EX:TEN

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX TEN=a-b-c-d-e f

[2]   ____________________________________________________________________
      EX TEN=a-b-c-d-e NOT STARTED g

[3]   ____________________________________________________________________
      EX TEN=a-b-c-d-e STF PH h SEG i TEST j MM k
       [EXP l MASK m ACTL n]

[4]   ____________________________________________________________________
      EX TEN=a-b-c-d-e SUSPENDED o[PH p [SEG q]]

[5]   ____________________________________________________________________
      EX TEN=a-b-c-d-e SUSPECTED FAULTY EQUIPMENT e1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL       TYPE  NOTE
         r       s [t]   u  v     w     [x]  y-z[-f1]    y1  [b1]
        [.       .  .    .  .     .      .   . .  .      .    .]
        [.       .  .    .  .     .      .   . .  .      .    .]
        [.       .  .    .  .     .      .   . .  .      .    .]

[6]   ____________________________________________________________________
      EX TEN=a-b-c-d-e c1 [d1]

[7]   ____________________________________________________________________
      EX TEN=a-b-c-d-e PH h SEG i STMT g1 h1
       [EXP l MASK m ACTL n]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:TEN input message to diagnose the trunk equipment network (TEN).

Format 1 indicates that the specified segments have been completed and all tests passed. It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the specified input message was invalid. to an invalid diagnostic phase.

Format 3 indicates that a test has failed and specifies which test.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous command, may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble location procedure (TLP) option was specified in the input message.

Format 6 indicates that the diagnostic execution has terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = TEN unit number.

`c` = Service group number.

`d` = TEN board number.

`e` = TEN circuit number.

`f` = Loop result. Valid value(s):

- `ATP` = All test were performed and all passed.
- `CATP` = Some tests were not performed, but all that were passed.
- `NTR` = No tests run.
- `STF` = Some tests failed.

`g` = Reason the command was rejected.

`h` = Phase in which the failure occurred.

`i` = Segment in which the failure occurred.

`j` = Test number that failed.

`k` = Mismatch results for the specified test in hexadecimal.

`l` = Raw data expected result for the specified test in hexadecimal.

`m` = Raw data mask used to determine the test failure in hexadecimal.

`n` = Raw data actual result for the specified test in hexadecimal.

`o` = Result of previous command. Valid value(s):

- `ATP` = The specified segment(s) were completed and all tests passed.
- `CATP` = Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
- `NTR` = No tests were run since the last completion message.
- `STF` = The diagnostic has completed and some tests failed.

`p` = Phase number in which execution is suspended.

`q` = Segment number in which execution is suspended.

`r` = Identification number of floor and aisle.

`s` = Module type.

`t` = Module number.

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u = Cabinet type.

v = Cabinet number.

w = Replacement equipment code(s).

x = Equipment form(s). Equipment form represents minimal operating level of replacement equipment.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
-          = Inter-field delimiter if necessary.
:          = Intra-field delimiter.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code 'A').
C          = Additional compatible equipment code(s) (added as space permits).
D          = Current minimal approved operating level for equipment code 'A'.
E          = Current minimal approved operating level for equipment code 'B'.
F          = Current minimal approved operating level(s) for equipment code(s) 'C'.
```

Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

y = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

z = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

a[1] = Circuit type. Valid value(s):

```
HPR        = Equipment is part of a helper circuit. The helper must be removed before
             replacement is attempted.
ONL        = Equipment is part of the on-line member of a duplex pair. The on-line member
             must be removed, and the mate made on-line, before replacement is attempted.
____       = Equipment is part of the circuit under test.
```

b[1] = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

c[1] = Termination status. Valid value(s):

```
ABORTED     = The process was terminated (process not gracefully terminated).
NOT STARTED = Action was not begun.
STOPPED     = Terminated before normal completion (process gracefully terminated).
```

d[1] = Termination reason. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

e[1] = Text identifier showing order of record. Valid value(s):

FIRST = First record of continuing list.
LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLF list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

f[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

g[1] = Statement number.

h[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Formats 1, 6, and 7, no action is required.

For Format 2, determine the correct input message and reenter the diagnostic exercise request.

For Format 3, repair the faulty unit.

For Format 4:

If output includes:	Action:
SUSPENDED NTR	Enter the first exercise command for the purpose of manual troubleshooting.
SUSPENDED ATP PH p SEG q	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
SUSPENDED CATP PH p SEG q	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous command.
SUSPENDED NTR PH p SEG q	If the RPT option was specified, this message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
SUSPENDED STF PH p SEG q	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:TEN
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

EX:TMS

Software Release: 5E10 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

```
EX TMS=a b  [c]
```

2. REASON FOR OUTPUT

To acknowledge that a manual request to exercise a time multiplexed switch (TMS) is complete.

3. VARIABLE FIELD DEFINITIONS

`a` = The office network and timing complex (ONTC) side the TMS is on.

`b` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was immediate (no cleanup was done).
`COMPLETED`	= Request completed successfully.
`NOT STARTED`	= Requested action could not begin.
`STOPPED`	= Request was terminated before a normal completion. Attempts were made to leave everything in a sane state.

`c` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual request. No further action is necessary if the request completed successfully. If the termination report is not `COMPLETED`, the variable '`c`' field should give some indication as to why the request failed.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:TMS
OP:CFGSTAT
```

Output Message(s):

```
OP:CFGSTAT
```

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EX:TTFCOM

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX TTFCOM=a-b-c-d e

[2]   ____________________________________________________________________
      EX TTFCOM=a-b-c-d NOT STARTED f

[3]   ____________________________________________________________________
      EX TTFCOM=a-b-c-d STF PH g SEG h TEST i MM j
       [EXP k MASK l ACTL m]

[4]   ____________________________________________________________________
      EX TTFCOM=a-b-c-d SUSPENDED n[PH o [SEG p]]

[5]   ____________________________________________________________________
      EX TTFCOM=a-b-c-d SUSPECTED FAULTY EQUIPMENT d1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL       TYPE  NOTE
         q       r [s]   t  u     v     [w]  x-y[-e1]    z   [a1]
        [.       .  .    .  .     .      .   . .  .      .    .]
        [.       .  .    .  .     .      .   . .  .      .    .]
        [.       .  .    .  .     .      .   . .  .      .    .]

[6]   ____________________________________________________________________
      EX TTFCOM=a-b-c-d b1 [c1]

[7]   ____________________________________________________________________
      EX TTFCOM=a-b-c-d PH g SEG h STMT f1 g1
       [EXP k MASK l ACTL m]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:TTFCOM input message to diagnose transmission test facility common (TTFCOM) unit.

Format 1 indicates that the specified segments have been completed and all tests passed. It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the specified input message was invalid.

Format 3 indicates that a test has failed and specifies which test.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous command, may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble location procedure (TLP) option was specified in the input message.

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Format 6 indicates that the diagnostic execution has terminated.

Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Global digital service unit (GDSU) number.

`c` = Service group number.

`d` = Board number.

`e` = Loop result. Valid value(s):

- `ATP` = All test were performed and all passed.
- `CATP` = Some tests were not performed, but all that were passed.
- `NTR` = No tests run.
- `STF` = Some tests failed.

`f` = Reason the command was rejected.

`g` = Phase in which the failure occurred.

`h` = Segment in which the failure occurred.

`i` = Test number that failed.

`j` = Mismatch results for the specified test in hexadecimal.

`k` = Raw data expected result for the specified test in hexadecimal.

`l` = Raw data mask used to determine the test failure in hexadecimal.

`m` = Raw data actual result for the specified test in hexadecimal.

`n` = Result of previous command. Valid value(s):

- `ATP` = The specified segment(s) were completed and all tests passed.
- `CATP` = Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
- `NTR` = No tests were run since the last completion message.
- `STF` = The diagnostic has completed and some tests failed.

`o` = Phase number in which execution is suspended.

`p` = Segment number in which execution is suspended.

`q` = Identification number of floor and aisle.

`r` = Module type.

`s` = Module number.

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t = Cabinet type.

u = Cabinet number.

v = Replacement equipment code(s).

w = Equipment form(s). Equipment form represents minimal operating level of replacement equipment.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
-          = Inter-field delimiter if necessary.
:          = Intra-field delimiter.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code A).
C          = Additional compatible equipment code(s) (added as space permits).
D          = Current minimal approved operating level for equipment code A.
E          = Current minimal approved operating level for equipment code B.
F          = Current minimal approved operating level(s) for equipment code(s) C.
```

Codes A, B, and C may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms D, E, and F may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

x = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

y = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

z = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

____ = Equipment is part of the circuit under test.

a[1] = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

b[1] = Termination status. Valid value(s):

ABORTED = The process was terminated (process not gracefully terminated).

NOT STARTED = Action was not begun.

STOPPED = Terminated before normal completion (process gracefully terminated).

c[1] = Termination reason. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

d[1] = Text identifier showing order of record. Valid value(s):

FIRST = First record of continuing list.
LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

e[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

f[1] = Statement number.

g[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Formats 1, 6, and 7, no action is required.

For Format 2, determine the correct input message and reenter the diagnostic exercise request.

For Format 3, repair the faulty unit.

For Format 4:

If output includes:	Action:
SUSPENDED NTR	Enter the first exercise command for the purpose of manual troubleshooting.
SUSPENDED ATP PH o SEG p	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
SUSPENDED CATP PH o SEG p	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous command.
SUSPENDED NTR PH o SEG p	If the RPT option was specified, this message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
SUSPENDED STF PH o SEG p	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

EX:TTFCOM

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

EX:TTYC

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EX TTYC a [COMPLETED] b [(c)]
       {MESSAGE|MSG} {IN PROGRESS|COMPLETE}

[2]   ____________________________________________________________
      EX TTYC a PH d b [(c)] {MESSAGE IN PROGRESS|MSG IP}

[3]   ____________________________________________________________
      EX TTYC a PH d STF (c)          MSG IP
        TEST    MISMATCH    ACTUAL  MASK    EXPECTED
         e         f          g      h         i

[4]   ____________________________________________________________
      EX TTYC a ABORTED AT PH d STMNT j b [(c)]       MSG IP

[5]   ____________________________________________________________
      EX TTYC a TERMINATED AT PH d STMNT j AFTER TEST k

[6]   ____________________________________________________________
      EX TTYC a TASK l {MESSAGE STARTED|QUEUED|ABORTED}
```

2. REASON FOR OUTPUT

To print results of a diagnostic run on the teletypewriter controller (TTYC) in the interactive mode.

Format 1 is printed at the conclusion of diagnostic execution to specify the overall diagnostic results and the termination mode.

Format 2 indicates non-failing diagnostic results for an individual phase. This occurs if a partial diagnosis or RAW data was specified on the diagnostic request.

Format 3 indicates failing diagnostic results for an individual phase.

Format 4 indicates the diagnostic was abnormally stopped due to an external or internal error in execution, or an input request.

Format 5 indicates the diagnostic was terminated under program control (early termination), since further testing would not improve diagnostic resolution.

Format 6 indicates that the request has started, that the request could not be started due to resource contention (no openings in the active deferred maintenance queue [DMQ] and the request is in the waiting DMQ), or that the request has aborted.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

b = The result of the diagnostic. Valid value(s):
- ATP = All tests passed.
- NTR = No tests were executed.
- STF = Some tests failed.

c = If 'b' = STF, 'c' identifies the number of test failures in addition to the reasons that tests were skipped. For example, if 'c' = (70000000000000000), seven tests failed, and no tests were skipped.

d = Phase number.

e = Test number of the failing test.

f = The bits that were in error. A '1' in a bit position indicates that the response from the unit did not match the expected response in that bit.
Note: For Format 3, the values for 'g', 'h' and 'i' may be set to N/A. This means that this data is not available for the specified device.

g = The bits which were actually received from the hardware device.

h = Determines which bits in 'g' are included in this test.

i = The value which the test expected.

j = Last statement successfully executed before the diagnostic terminated.

k = Current test number when diagnostic terminated.

l = Task number assigned to the request.

4. ACTION TO BE TAKEN

If 'b' = STF, the unit should be repaired as quickly as possible. Refer to the Corrective Maintenance manual for the repair procedures.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	96, 103
2	99, 103
3	109, 110
4	106, 109, 110, 111
5	217
6	70, 99

Input Message(s):

```
EX:TTYC
STOP:DMQ
STP:DMQ
```

Output Message(s):

```
DGN:TTYC
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-210 *Routine Operations and Maintenance*

EX:UCONF

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX UCONF=a-b-c-d ATP

[2]   ____________________________________________________________________
      EX UCONF=a-b-c-d CATP

[3]   ____________________________________________________________________
      EX UCONF=a-b-c-d [SYNCH e, SEG f, STMT g]
       [PAUSE h, SEG i][PH j[SEG k[,l]] INVLD

[4]   ____________________________________________________________________
      EX UCONF=a-b-c-d NTR

[5]   ____________________________________________________________________
      EX UCONF=a-b-c-d STF PH m SEG n TEST o MM p
       [EXP q MASK r ACTL s]

[6]   ____________________________________________________________________
      EX UCONF=a-b-c-d SUSPENDED [t PH u SEG v]

[7]   ____________________________________________________________________
      EX UCONF=a-b-c-d SUSPECTED FAULTY EQUIPMENT h1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL        TYPE  NOTE
          w     x [y]    z a1     b1   [c1]  d1-e1[-i1]  f1   [g1]
         [.     .  .     . .      .     .    . .    .    .     .]
         [.     .  .     . .      .     .    . .    .    .     .]
         [.     .  .     . .      .     .    . .    .    .     .]

[8]   ____________________________________________________________________
      EX UCONF=a-b-c-d PH m SEG n STMT j1 k1
       [EXP q MASK r ACTL s]
```

2. REASON FOR OUTPUT

To provide information about a recent exercise on the universal conference (UCONF) circuit board, as requested by input message EX:UCONF.

Format 1 indicates that the specified segments have been completed and all tests passed. It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates a conditional all tests passed (CATP): the specified segments have been completed but some portion was skipped. It applies only when the RPT option was specified in the input message. All tests that were performed passed. Execution of the diagnostic will continue for the remaining iterations.

Format 3 indicates that the specified input message referred to an invalid diagnostic phase.

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Format 4 indicates that the specified segments have been completed but no tests were performed. It applies only when the RPT option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 5 indicates that a test has failed and specifies which test.

Format 6 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and other diagnostic information, may also be specified.

Format 7 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble location procedure (TLP) option was specified in the input message.

Format 8 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Global digital service unit (DSU) number.

`c` = Service group number.

`d` = DSU board number.

`e` = Illegal synch phase number (SM units only).

`f` = Synch segment number (SM units only).

`g` = Synch statement number (SM units only).

`h` = Illegal pause phase number.

`i` = Pause segment number.

`j` = Illegal phase to execute.

`k` = First segment to execute.

`l` = Last segment to execute.

`m` = Phase in which the failure occurred.

`n` = Segment in which the failure occurred.

`o` = Test number that failed.

`p` = Mismatch results for the specified test in hexadecimal.

`q` = Raw data expected result for the specified test in hexadecimal.

`r` = Raw data mask used to determine the test failure in hexadecimal.

`s` = Raw data actual result for the specified test in hexadecimal.

`t` = Result of previous input message. Valid value(s):

`CATP` = Conditional all tests passed. The specified phases were completed but some

portion was skipped.

NTR = No tests were run since the last completion message.

STF = The diagnostic has completed and some tests failed.

(blank) = The system is suspended and is waiting for an input message. No phase and segment (variables 'u' and 'v') are specified.

u = Phase number in which execution is suspended.

v = Segment number in which execution is suspended.

w = Identification number of floor and aisle.

x = Module type.

y = Module number.

z = Cabinet type.

a[1] = Cabinet number.

b[1] = Replacement equipment code(s).

c[1] = Equipment form(s). Equipment form represents minimal operating level of replacement equipment.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
```

- = Inter-field delimiter if necessary.
: = Intra-field delimiter.
A = Current minimal accepted equipment code.
B = Current production equipment code (substitutable equipment for code A).
C = Additional compatible equipment code(s) (added as space permits).
D = Current minimal approved operating level for equipment code A.
E = current minimal approved operating level for equipment code B.
F = Current minimal approved operating level(s) for equipment code(s) C.

Codes A, B, and C may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms D, E, and F may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable. of CLEI.

d[1] = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

e[1] = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

f[1] = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
____ = Equipment is part of the circuit under test.

g[1] = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

h[1] = Text identifier showing order of record. Valid value(s):
FIRST = First record of continuing list.
LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

i[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

j[1] = Statement number.

k[1] = Reason why some tests were not performed. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

For Formats 1 and 8, no action is required.

For Format 2, the execution of the diagnostic for the specified phases was inhibited by a lack of resources. Idle the suspected resources and reenter the diagnostic exercise request.

For Format 3, determine the correct input message and reenter the diagnostic exercise request.

For Format 4, the execution of the diagnostic for the specified segments was inhibited by a lack of resources. Idle the suspected resources and reenter the diagnostic exercise request.

For Format 5, repair the faulty unit.

For Format 6:

If output includes:	Action:
SUSPENDED NTR	Enter the first exercise input message for the purpose of manual troubleshooting.
SUSPENDED CATP PH u SEG v	This message indicates that a lack of resources for the previously specified phase inhibited the execution of some segments. Idle the suspected resources and reenter the previous input message.
SUSPENDED NTR PH u SEG v	If the RPT option was specified, this message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
SUSPENDED STF PH u SEG v	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 7, replace the suspected circuit packs one at a time. Rerun the entire diagnostic for each replaced pack

until the fault is repaired or the diagnostic results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:UCONF
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:TLP-NOTE
```

EX:UTD

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX UTD=a-b-c-d e

[2]   ____________________________________________________________________
      EX UTD=a-b-c-d NOT STARTED f

[3]   ____________________________________________________________________
      EX UTD=a-b-c-d STF PH g SEG h TEST i MM j
       [EXP k MASK l ACTL m]

[4]   ____________________________________________________________________
      EX UTD=a-b-c-d SUSPENDED n[PH o [SEG p]]

[5]   ____________________________________________________________________
      EX UTD=a-b-c-d SUSPECTED FAULTY EQUIPMENT d1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL      TYPE  NOTE
         q       r [s]   t  u     v     [w]  x-y[-e1]   z    [a1]
        [.       .  .    .  .     .      .   . .  .     .     .]
        [.       .  .    .  .     .      .   . .  .     .     .]
        [.       .  .    .  .     .      .   . .  .     .     .]

[6]   ____________________________________________________________________
      EX UTD=a-b-c-d b1 [c1]

[7]   ____________________________________________________________________
      EX UTD=a-b-c-d PH g SEG h STMT f1 g1
       [EXP k MASK l ACTL m]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:UTD input message to diagnose the universal tone decoder (UTD) board.

Format 1 indicates that the specified segments have been completed and all tests passed. It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the specified input message was invalid.

Format 3 indicates that a test has failed and specifies which test.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous command, may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble location procedure (TLP) option was specified in the input message.

Format 6 indicates that the diagnostic execution has terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local digital service unit (DSU).

`c` = Service group number.

`d` = DSU board position number.

`e` = Loop result. Valid value(s):

`ATP`	= All tests were performed and all passed.
`CATP`	= Some tests were not performed, but all that were passed.
`NTR`	= No tests run.
`STF`	= Some tests failed.

`f` = Reason the command was rejected.

`g` = Phase in which the failure occurred.

`h` = Segment in which the failure occurred.

`i` = Test number that failed.

`j` = Mismatch results for the specified test in hexadecimal.

`k` = Raw data expected result for the specified test in hexadecimal.

`l` = Raw data mask used to determine the test failure in hexadecimal.

`m` = Raw data actual result for the specified test in hexadecimal.

`n` = Result of previous command. Valid value(s):

`ATP`	= The specified segment(s) were completed and all tests passed.
`CATP`	= Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
`NTR`	= No tests were run since the last completion message.
`STF`	= The diagnostic has completed and some tests failed.

`o` = Phase number in which execution is suspended.

`p` = Segment number in which execution is suspended.

`q` = Identification number of floor and aisle.

`r` = Module type.

`s` = Module number.

`t` = Cabinet type.

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u = Cabinet number.

v = Replacement equipment code(s).

w = Equipment form(s). Equipment form represents minimal operating level of replacement equipment.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
-          = Inter-field delimiter if necessary.
:          = Intra-field delimiter.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code A).
C          = Additional compatible equipment code(s) (added as space permits).
D          = Current minimal approved operating level for equipment code A.
E          = Current minimal approved operating level for equipment code B.
F          = Current minimal approved operating level(s) for equipment code(s) C.
```

Codes A, B, and C may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms D, E, and F may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

x = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

y = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

z = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

____ = Equipment is part of the circuit under test.

a[1] = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

b[1] = Termination status. Valid value(s):

ABORTED = The process was terminated (process not gracefully terminated).

NOT STARTED = Action was not begun.

STOPPED = Terminated before normal completion (process gracefully terminated).

c[1] = Termination reason. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

d[1] = Text identifier showing order of record. Valid value(s):

FIRST = First record of continuing list.

LAST = Last record of list.
NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

e[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

f[1] = Statement number.

g[1] = Reason why some tests were not performed.

4. ACTION TO BE TAKEN

For Formats 1, 6, and 7, no action is required.

For Format 2, determine the correct input message and reenter the diagnostic exercise request.

For Format 3, repair the faulty unit.

For Format 4:

If output includes:	Action:
SUSPENDED NTR	Enter the first exercise command for the purpose of manual troubleshooting.
SUSPENDED ATP PH o SEG p	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
SUSPENDED CATP PH o SEG p	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous command.
SUSPENDED NTR PH o SEG p	If the RPT option was specified, this message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
SUSPENDED STF PH o SEG p	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

EX:UTD

Output Appendix(es):

APP:MAINT-RESP

APP:TLP-NOTE

EX:UTG

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EX UTG=a-b-c-d e

[2]   ____________________________________________________________________
      EX UTG=a-b-c-d NOT STARTED f

[3]   ____________________________________________________________________
      EX UTG=a-b-c-d STF PH g SEG h TEST i MM j
       [EXP k MASK l ACTL m]

[4]   ____________________________________________________________________
      EX UTG=a-b-c-d SUSPENDED n[PH o [SEG p]]

[5]   ____________________________________________________________________
      EX UTG=a-b-c-d SUSPECTED FAULTY EQUIPMENT d1 RECORD
        AISLE  MODULE  CABINET  CODE  FORM  EQL      TYPE  NOTE
         q       r [s]   t  u     v     [w]  x-y[-e1]   z    [a1]
        [.       .  .    .  .     .      .   . .  .     .     .]
        [.       .  .    .  .     .      .   . .  .     .     .]
        [.       .  .    .  .     .      .   . .  .     .     .]

[6]   ____________________________________________________________________
      EX UTG=a-b-c-d b1 [c1]

[7]   ____________________________________________________________________
      EX UTG=a-b-c-d PH g SEG h STMT f1 g1
       [EXP k MASK l ACTL m]
```

2. REASON FOR OUTPUT

To report the result of executing an EX:UTG input message to diagnose the universal tone generator (UTG) board.

Format 1 indicates that the specified segments have been completed and all tests passed. It applies only when the repeat (RPT) option was specified in the input message. Execution of the diagnostic will continue for the remaining iterations.

Format 2 indicates that the specified input message was invalid.

Format 3 indicates that a test has failed and specifies which test.

Format 4 indicates that execution of the diagnostic is suspended. The phase and segment in which the suspension occurred, and a summary of the results of the previous command, may also be specified.

Format 5 provides an ordered list of equipment on which a fault that could cause a test failure may be located. It applies only when the trouble location procedure (TLP) option was specified in the input message.

Format 6 indicates that the diagnostic execution has terminated.

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Format 7 prints when the specified circuit is unavailable. Some tests were not performed, but all performed tests passed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local digital service unit (DSU) number.

`c` = Service group number.

`d` = DSU board position number.

`e` = Loop result. Valid value(s):

`ATP`	= All test were performed and all passed.
`CATP`	= Some tests were not performed, but all that were passed.
`NTR`	= No tests run.
`STF`	= Some tests failed.

`f` = Reason the command was rejected.

`g` = Phase in which the failure occurred.

`h` = Segment in which the failure occurred.

`i` = Test number that failed.

`j` = Mismatch results for the specified testing hexadecimal.

`k` = Raw data expected result for the specified testing hexadecimal.

`l` = Raw data mask used to determine the test failure in hexadecimal.

`m` = Raw data actual result for the specified test in hexadecimal.

`n` = Result of previous command. Valid value(s):

`ATP`	= The specified segment(s) were completed and all tests passed.
`CATP`	= Conditional all tests passed. The specified segment(s) completed but some portion was skipped.
`NTR`	= No tests were run since the last completion message.
`STF`	= The diagnostic has completed and some tests failed.

`o` = Phase number in which execution is suspended.

`p` = Segment number in which execution is suspended.

`q` = Identification number of floor and aisle.

`r` = Module type.

`s` = Module number.

`t` = Cabinet type.

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u = Cabinet number.

v = Replacement equipment code(s).

w = Equipment form(s). Equipment form represents minimal operating level of replacement equipment.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
-          = Inter-field delimiter if necessary.
:          = Intra-field delimiter.
A          = Current minimal accepted equipment code.
B          = Current production equipment code (substitutable equipment for code A).
C          = Additional compatible equipment code(s) (added as space permits).
D          = Current minimal approved operating level for equipment code A.
E          = Current minimal approved operating level for equipment code B.
F          = Current minimal approved operating level(s) for equipment code(s) C.
```

Codes A, B, and C may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms D, E, and F may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

x = Vertical location in the bay computed in inches from the floor to center of the implicated shelf.

y = Horizontal location in the bay computed in eighths of an inch from the left-hand corner of the implicated shelf.

z = Circuit type. Valid value(s):

HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.

ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

____ = Equipment is part of the circuit under test.

a[1] = Refer to the APP:TLP-NOTE appendix in the Appendixes section of the Output Messages manual.

b[1] = Termination status. Valid value(s):

ABORTED = The process was terminated (process not gracefully terminated).

NOT STARTED = Action was not begun.

STOPPED = Terminated before normal completion (process gracefully terminated).

c[1] = Termination reason.

d[1] = Text identifier showing order of record. Valid value(s):

FIRST = First record of continuing list.

LAST = Last record of list.

NEXT = Next record of continuing list.

Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

e[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

f[1] = Statement number.

g[1] = Reason why some tests were not performed. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

For Format 1, 6, and 7, no action is required.

For Format 2, determine the correct input message and reenter the diagnostic exercise request.

For Format 3, repair the faulty unit.

For Format 4:

If output includes:	Action:
SUSPENDED NTR	Enter the first exercise command for the purpose of manual troubleshooting.
SUSPENDED ATP PH o SEG p	The fault may have been repaired. Rerun the entire diagnostic to determine the condition of the circuit.
SUSPENDED CATP PH o SEG p	This message indicates that a lack of resources for the previously specified segment(s) inhibited the execution of some tests. Idle the suspected resources and reenter the previous command.
SUSPENDED NTR PH o SEG p	If the RPT option was specified, this message indicates the normal completion of the exercise. Proceed to troubleshoot the unit. If this message occurs when the RPT option was not specified, it indicates that no tests were run. Determine the reason and reenter the diagnostic exercise request.
SUSPENDED STF PH o SEG p	Analyze the test failure data. Repair the faulty unit or enter another exercise request to continue troubleshooting.
SUSPENDED x PH o	The specific phase was terminated. Complete PH and SEG specifications must be provided on next EX request.

For Format 5, replace the suspected circuit packs one at a time. Rerun the entire diagnostic for each replaced pack until the fault is repaired or the diagnostic results change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

EX:UTG

Output Appendix(es):

APP:MAINT-RESP

APP:TLP-NOTE

31. EXC

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EXC:ALE-A

Software Release: 5E10 - 5E11
Message Class: TLWS,RSB
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EXC ALE a

[2]   ____________________________________________________________
      EXC ALE - THE FOLLOWING SM'S DATA MAY BE INCOMPLETE OR UNAVAILABLE
        b    [b . . . b]
        .     .       .
        .     .       .
        .     .       .
```

2. REASON FOR OUTPUT

To respond to the EXC:ALE input message or to output results of the automatic line evaluation (ALE) session. Automatic line insulation testing requests the ALE session.

ALE reports data stored in line cards, protocol handlers (PHs), and switching modules (SMs) that record error events detected for digital subscriber lines (DSLs), extended digital subscriber lines (EDSLs), X.75'/X.75 packet gateway trunks, and internal protocol (IP) packet gateway trunks. ALE data is reported using three session types: level 1, level 2 and protocol error records (PER).

Level 1 sessions report the errored-frame seconds detected within the U-interface line cards. This session only generates reports for U-interface DSLs (U-DSL); all other line or trunk types are ignored. For more information, refer to the EXC:ALE-LVL1 output message.

Level 2 sessions report the quality of the transmission of layer 2 frames between the switch and the customer premises equipment (CPE). The quality measure is the ratio of the errored packets to the total number of packets received. For more information, refer to the EXC:ALE-LVL2 output message.

PER sessions report the protocol errors recorded for an integrated services digital network (ISDN) line or trunk. PERs provide detailed information regarding a detected failure in the layer 2 and layer 3 peer-to-peer protocols. For more information, refer to the EXC:ALE-PER output message.

Format 1 indicates the start and completion status of the ALE session.

Format 2 is used to indicate that some SMs did not execute the ALE session successfully. This message will be output to the same destination message class that the Format 1 message is sent to.

3. VARIABLE FIELD DEFINITIONS

`a` = ALE session start and finish messages. Valid value(s):

`ABORTED - COMMUNICATION FAILURE` = The current ALE session is stopped because of failures in inter-process message transmission.

`ABORTED - DATA BASE ERROR` = The current ALE session is stopped due to a data base access failure in the administrative module (AM).

`ABORTED - LOADABLE PACKAGE DOES NOT EXIST` = The request cannot link to the ISDN base package.

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`ABORTED - UNABLE TO CREATE PROCESS` = The current ALE request cannot start an AM terminal process to execute the session.

`COMPLETED` = Either an automatic ALE session or a manual request using the SRESET option has completed.

`COMPLETED - NO DSLS EQUIPPED/ASSIGNED` = Either an automatic ALE session or a manual request has completed without any output as no DSLs were found in the requested range. DSL logical groups must be assigned to a physical PH for ALE information to be collected.

`COMPLETED - NO DSL ERRORS` = Either an automatic ALE session or a manual request has completed without any output as no errors have been found.

`INHIBITED` = Neither level 1 nor level 2 is allowed for automatic ALE.

`NOT STARTED - ALE ACTIVE` = Automatic ALE is blocked by another ALE session in progress.

`NOT STARTED - CMP UNAVAILABLE` = The input request could not be completed because a needed communication module (CM) was unable to respond. Retry the request later.

`NOT STARTED - INVALID PORT` = A single DSL request has been made for a non-existent line, a non-existent trunk, or a DSL channel that does not support any protocols.

`NOT STARTED - INVALID REQUEST` = A single DSL request has been made with an invalid channel option. The channel option may only be used when the line identifier is the line card equipment number (LCEN) or the line circuit equipment number (LCKEN). Moreover, the channel option may not be used when only level 1 has been requested.

`NOT STARTED - NON-PRIMARY DN SPECIFIED` = A single DSL request has been made for a DN that is not a primary DN.

`NOT STARTED - NOT A U-DSL PORT` = A single DSL request that is only valid for U-DSLs, has been made with an equipment number (EN) or DSL group and member (DSLGM) identifier that does not identify a U-DSL port.

`NOT STARTED - SM UNAVAILABLE` = A single DSL request has been made where the DSL is on an SM that is not fully operational.

`STARTED` = An ALE session has begun.

`STOPPED` = An ALE session was stopped manually or due to an inability to report data.

`b` = Number of the SM that did not properly execute the ALE session.

4. ACTION TO BE TAKEN

If the problem indicates that an SM's ALE data is incomplete or unavailable, then determine if the SM is isolated from the AM. If the SM is not isolated from the AM, then attempt the request after several minutes.

If the problem is that ALE is not started, use the STP:ALE to terminate the current request, or wait for the session to complete.

Other ALE abort reasons indicate system resource shortages. Attempt the request after several minutes.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:ALE
EXC:ALE
INH:ALE
OP:ALE
STP:ALE
```

Output Message(s):

```
ALW:ALE
EXC:ALE-LVL1
EXC:ALE-LVL2
EXC:ALE-PER
INH:ALE
OP:ALE
REPT:ALE-LEVEL1
STP:ALE-COMPL
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-600-755 *Protocol Error Record Descriptions*

EXC:ALE-B

Software Release: 5E12 and later
Message Class: TLWS,RSB
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EXC ALE a

[2]   ____________________________________________________________
      EXC ALE - THE FOLLOWING SM'S DATA MAY BE INCOMPLETE OR UNAVAILABLE
        b    [b . . . b]
        .     .       .
        .     .       .
        .     .       .
```

2. REASON FOR OUTPUT

To respond to the EXC:ALE input message or to output results of the automatic line evaluation (ALE) session. Automatic line insulation testing requests the ALE session.

ALE reports data stored in line cards, protocol handlers (PHs), and switching modules (SMs) that record error events detected for digital subscriber lines (DSLs), extended digital subscriber lines (EDSLs), X.75'/X.75 packet gateway trunks, and internal protocol (IP) packet gateway trunks. ALE data is reported using three session types: level 1, level 2 and protocol error records (PER).

Level 1 sessions report the errored-frame seconds detected within the U-interface line cards. This session only generates reports for U-interface DSLs (U-DSL); all other line or trunk types are ignored. For more information, refer to the EXC:ALE-LVL1 output message.

Level 2 sessions report the quality of the transmission of layer 2 frames between the switch and the customer premises equipment (CPE). The quality measure is the ratio of the errored packets to the total number of packets received. For more information, refer to the EXC:ALE-LVL2 output message.

PER sessions report the protocol errors recorded for an integrated services digital network (ISDN) line or trunk. PERs provide detailed information regarding a detected failure in the layer 2 and layer 3 peer-to-peer protocols. For more information, refer to the EXC:ALE-PER output message.

Format 1 indicates the start and completion status of the ALE session.

Format 2 is used to indicate that some SMs did not execute the ALE session successfully. This message will be output to the same destination message class that the Format 1 message is sent to.

3. VARIABLE FIELD DEFINITIONS

`a` = ALE session start and finish messages. Valid value(s):

`ABORTED - COMMUNICATION FAILURE` = The current ALE session is stopped because of failures in inter-process message transmission.

`ABORTED - DATA BASE ERROR` = The current ALE session is stopped due to a data base access failure in the administrative module (AM).

`ABORTED - LOADABLE PACKAGE DOES NOT EXIST` = The request cannot link to the ISDN base package.

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`ABORTED - UNABLE TO CREATE PROCESS` = The current ALE request cannot start an AM terminal process to execute the session.

`COMPLETED` = Either an automatic ALE session or a manual request using the SRESET option has completed.

`COMPLETED - NO DSLS EQUIPPED/ASSIGNED` = Either an automatic ALE session or a manual request has completed without any output as no DSLs were found in the requested range. DSL logical groups must be assigned to a physical PH for ALE information to be collected.

`COMPLETED - NO DSL ERRORS` = Either an automatic ALE session or a manual request has completed without any output as no errors have been found.

`INHIBITED` = Neither level 1 nor level 2 is allowed for automatic ALE.

`NOT STARTED - ALE ACTIVE` = Automatic ALE is blocked by another ALE session in progress.

`NOT STARTED - CMP UNAVAILABLE` = The input request could not be completed because a needed communication module (CM) was unable to respond. Retry the request later.

`NOT STARTED - INVALID PORT` = A single DSL request has been made for a non-existent line, a non-existent trunk, or a DSL channel that does not support any protocols.

`NOT STARTED - INVALID REQUEST` = A single DSL request has been made with an invalid channel option. The channel option may only be used when the line identifier is the line card equipment number (LCEN) or the line circuit equipment number (LCKEN). Moreover, the channel option may not be used when only level 1 has been requested.

`NOT STARTED - NON-PRIMARY DN SPECIFIED` = A single DSL request has been made for a DN that is not a primary DN.

`NOT STARTED - NON-UNIQUE NXX DN` = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.

`NOT STARTED - NOT A U-DSL PORT` = A single DSL request that is only valid for U-DSLs, has been made with an equipment number (EN) or DSL group and member (DSLGM) identifier that does not identify a U-DSL port.

`NOT STARTED - SM UNAVAILABLE` = A single DSL request has been made where the DSL is on an SM that is not fully operational.

`STARTED` = An ALE session has begun.

`STOPPED` = An ALE session was stopped manually or due to an inability to report data.

`b` = Number of the SM that did not properly execute the ALE session.

4. ACTION TO BE TAKEN

If the problem indicates that an SM's ALE data is incomplete or unavailable, then determine if the SM is isolated from the AM. If the SM is not isolated from the AM, then attempt the request after several minutes.

If the problem is that ALE is not started, use the STP:ALE to terminate the current request, or wait for the session to complete.

Other ALE abort reasons indicate system resource shortages. Attempt the request after several minutes.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:ALE
EXC:ALE
INH:ALE
OP:ALE
STP:ALE
```

Output Message(s):

```
ALW:ALE
EXC:ALE-LVL1
EXC:ALE-LVL2
EXC:ALE-PER
INH:ALE
OP:ALE
REPT:ALE-LEVEL1
STP:ALE-COMPL
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-600-755 *Protocol Error Record Descriptions*

EXC:ALE-LVL1-A

Software Release: 5E10 - 5E11
Message Class: PRFM,PRFMMON, PRFMRSP,RSB
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EXC ALE LEVEL 1 STARTED

[2]   ____________________________________________________________________
      EXC ALE LEVEL 1 a - SEGMENT b:
       [INTERVAL DURATION=c START=d STOP=e]
                             ----ES----- ----SES----- [---BE---]
        EQUIPMENT NUMBER   CIF CNT  UP DWN THRS  UP DWN THRS [ UP  DWN]
        ---------------- - ------- --- --- ---- --- --- ---- [---  ---]
        f                n [*] o   p   q   [r]  [s] [t] [u]   [v]  [w]
        .                .  .  .   .   .    .    .   .   .     .    .
        .                .  .  .   .   .    .    .   .   .     .    .
        .                .  .  .   .   .    .    .   .   .     .    .

[3]   ____________________________________________________________________
      EXC ALE LEVEL 1 x: TOTAL OF y SEGMENTS PRINTED
```

2. REASON FOR OUTPUT

To respond to the EXC:ALE input message with the level 1 (LEVEL1) option specified or to output results of the automatic line evaluation (ALE) session if the LEVEL1 option was set using the ALW:ALE input message.

If the output is a response to a manual request, the scope of the report is those U-interface digital subscriber loops (DSLs) specified in the input message. If the request was automatic, the scope of the report is the entire office.

A response to a manual request uses the PRFMRSP message class except when the PRINT option is used to force it to the PRFM message class. Automatic sessions will output to the PRFM or RSB message classes depending on the option set using the INH:ALE input message or the ALW:ALE input message respectively.

Level 1 responses that immediately follow the inhibiting (INH:ALE) of ISDN protocol channels may give an erroneous indication that the level 1 error counts are increasing. The actual counting of level 1 errored seconds (ES), severely errored seconds (SES), and cyclic redundancy check (CRC) block errors (BEs), may not be inhibited for a period of up to 5 minutes. Level 1 responses that immediately follow the allowing (ALW:ALE) of integrated services digital network (ISDN) protocol channels may give an erroneous indication that the level 1 error counts are not incrementing. The actual counting of level 1 ES, SES, and CRC BEs, may not resume for a period of up to 5 minutes.

Counts for integrated digital carrier unit (IDCU) U-DSL line terminations may not be completely reported due to the need to support multiple vendor's remote terminals (RT) that may not be able to report the counts requested.

Format 1 indicates that the ALE level 1 session has begun.

Format 2 reports the level 1 ES, SES, and CRC BEs for the indicated DSLs. Each line of the output corresponds to a particular count set. A single DSL may report from 1 to 25 count sets. Up to 11 count sets may be reported in a single message.

Format 3 outputs the completion status of the ALE level 1 session indicating the number of ALE level 1 message

segments printed.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`*` = Corruption indication flag. When set, the counts may not be complete since this indicates that the counters have stopped because the line card was removed from service, a CRC test has been run, or layer 1 was not operational. This flag is not valid for basic rate interface transmission extension (BRITE) channel units (CU).

`a` = Type of level 1 report. Valid value(s):
`DAILY SUMMARY` = Message contains level 1 information for the current day event.
`DISK SUMMARY` = Message contains level 1 information obtained from a disk file demand query.
`SUMMARY` = Message contains level 1 information obtained from a DSL demand query.

`b` = Segment number of the message. Segments are numbered sequentially starting from 1.

`c` = Current (recorded) interval duration in hours.

`d` = Hour in which current (recorded) interval started.

`e` = Hour in which current (recorded) interval will be completed.

`f` = Equipment number. Valid value(s):

```
ILEN g-k-l-m
 LCEN g-h-i-j
 LCKEN g-z-a1-b1-c1
```

`g` = Switching module number.

`h` = Integrated services line unit number.

`i` = Line group controller number.

`j` = Line card number.

`k` = Integrated digital carrier unit number.

`l` = Remote terminal number.

`m` = Channel unit number.

`n` = The DSL interface type. Valid value(s):
`A` = *ANSI*® standard U-interface.
`U` = Alternate mark inversion (AMI) U-interface.

`o` = The count set being reported. Valid value(s):
`1C` = BRITE CU 1 current interval.
`1P` = BRITE CU 1 previous interval.
`2C` = BRITE CU 2 current interval.
`2P` = BRITE CU 2 previous interval.

`3C` = BRITE CU 3 current interval.
`3P` = BRITE CU 3 previous interval.
`4C` = BRITE CU 4 current interval.
`4P` = BRITE CU 4 previous interval.
`5C` = BRITE CU 5 current interval.
`5P` = BRITE CU 5 previous interval.
`6C` = BRITE CU 6 current interval.
`6P` = BRITE CU 6 previous interval.
`CD` = Current day.
`CH` = Current hour.
`CI` = Current interval.
`CU1 NOT EQUIPPED` = Channel unit 1 is not equipped.
`CU1 NOT RESPONDING` = Channel unit 1 is not responding.
`CU1 RESOURCE BUSY` = Channel unit 1 resources are busy.
`CU2 NOT EQUIPPED` = Channel unit 2 is not equipped.
`CU2 NOT RESPONDING` = Channel unit 2 is not responding.
`CU2 RESOURCE BUSY` = Channel unit 2 resources are busy.
`CU3 NOT EQUIPPED` = Channel unit 3 is not equipped.
`CU3 NOT RESPONDING` = Channel unit 3 is not responding.
`CU3 RESOURCE BUSY` = Channel unit 3 resources are busy.
`CU4 NOT EQUIPPED` = Channel unit 4 is not equipped.
`CU4 NOT RESPONDING` = Channel unit 4 is not responding.
`CU4 RESOURCE BUSY` = Channel unit 4 resources are busy.
`CU5 NOT EQUIPPED` = Channel unit 5 is not equipped.
`CU5 NOT RESPONDING` = Channel unit 5 is not responding.
`CU5 RESOURCE BUSY` = Channel unit 5 resources are busy.
`CU6 NOT EQUIPPED` = Channel unit 6 is not equipped.
`CU6 NOT RESPONDING` = Channel unit 6 is not responding.
`CU6 RESOURCE BUSY` = Channel unit 6 resources are busy.
`DSL RESOURCE BUSY` = DSL resources are busy
`H2` = Second history interval.
`H3` = Third history interval.
`H4` = Fourth history interval.
`H5` = Fifth history interval.
`H6` = Sixth history interval.
`H7` = Seventh history interval.
`H8` = Eighth history interval.
`LCEN NOT FOUND IN DATABASE` = Invalid line card equipment number.
`LINE CARD OUT-OF-SERVICE` = Line card is out of service.
`NOT A U-DSL PORT-` = Port is not a U-DSL port.
`PD` = Previous day.
`PH` = Previous hour.
`PI` = Previous interval.
`PM DATA READ TIMEOUT` = Performance monitoring data read has timed out.
`PM DATA UNSUPPORTED` = Performance monitoring data requested is unsupported by this type of U-DSL. AMI U-DSL ports do not support reports for HIST, HOUR, INT, or PREV counts.

`p` = Number of upstream [network termination equipment (NTE) to line card (LC) or line termination (LT)] errored seconds. An errored second occurs when at least one CRC block error occurs in a second. The AMI U-interface only keeps the count of errored seconds for the current day (CD).

q = Number of downstream (LC or LT to NTE) errored seconds.

r = Number of errored seconds reporting threshold. This value is only reported for the current hour (CH), current interval (CI), and CD count sets.

s = Number of upstream severely errored seconds. A severely errored second occurs when a fixed number of CRC block errors is exceeded in one second. The parameter defining a severely errored second is specified on RC/V View 8.1. This value is not reported for history interval (H2 - H8) count sets.

t = Number of downstream severely errored seconds.

u = Severely errored seconds reporting threshold. This value is only reported for the CH, CI, and CD count sets.

v = Number of upstream CRC block errors. This value is not reported for history interval (H2 - H8), CD, or previous day (PD) count sets.

w = Number of downstream CRC block errors.

x = Session completion status. Valid value(s):
`COMPLETED` = Session completed normally.
`STOPPED` = Session stopped due to abnormal condition or manual request.

y = Total number of segments printed.

z = Integrated service line unit 2 (ISLU2).

a[1] = Line group number.

b[1] = Line board number.

c[1] = Line circuit number.

4. ACTION TO BE TAKEN

Inspect the data for ALE information indicating DSL line problems.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:ALE
EXC:ALE
INH:ALE
OP:ALE
STP:ALE
```

Output Message(s):

```
ALW:ALE
EXC:ALE
EXC:ALE-LVL2
EXC:ALE-PER
INH:ALE
OP:ALE
STP:ALE-COMPL
```

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-105-220 *Corrective Maintenance*
235-900-3xx *National ISDN Basic Rate Interface Specification*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]

EXC:ALE-LVL1-B

Software Release: 5E12 and later
Message Class: PRFM,PRFMMON, PRFMRSP,RSB
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EXC ALE LEVEL 1 STARTED

[2]   ____________________________________________________________________
      EXC ALE LEVEL 1 a - SEGMENT b:
       [INTERVAL DURATION=c START=d STOP=e]
                             ----ES----- ----SES----- [---BE---]
        EQUIPMENT NUMBER   CIF CNT  UP DWN THRS  UP DWN THRS [ UP  DWN]
        ---------------- - ------- --- --- ---- --- --- ---- [---  ---]
        f                n [*] o   p   q   [r]  [s] [t] [u]   [v]  [w]
        .                .  .  .   .   .    .    .   .   .     .    .
        .                .  .  .   .   .    .    .   .   .     .    .
        .                .  .  .   .   .    .    .   .   .     .    .

[3]   ____________________________________________________________________
      EXC ALE LEVEL 1 x: TOTAL OF y SEGMENTS PRINTED
```

2. REASON FOR OUTPUT

To respond to the EXC:ALE input message with the level 1 (LEVEL1) option specified or to output results of the automatic line evaluation (ALE) session if the LEVEL1 option was set using the ALW:ALE input message.

If the output is a response to a manual request, the scope of the report is those U-interface digital subscriber loops (DSLs) specified in the input message. If the request was automatic, the scope of the report is the entire office.

A response to a manual request uses the PRFMRSP message class except when the PRINT option is used to force it to the PRFM message class. Automatic sessions will output to the PRFM or RSB message classes depending on the option set using the INH:ALE input message or the ALW:ALE input message respectively.

Level 1 responses that immediately follow the inhibiting (INH:ALE) of ISDN protocol channels may give an erroneous indication that the level 1 error counts are increasing. The actual counting of level 1 errored seconds (ES), severely errored seconds (SES), and cyclic redundancy check (CRC) block errors (BEs), may not be inhibited for a period of up to 5 minutes. Level 1 responses that immediately follow the allowing (ALW:ALE) of integrated services digital network (ISDN) protocol channels may give an erroneous indication that the level 1 error counts are not incrementing. The actual counting of level 1 ES, SES, and CRC BEs, may not resume for a period of up to 5 minutes.

Counts for integrated digital carrier unit (IDCU) U-DSL line terminations may not be completely reported due to the need to support multiple vendor's remote terminals (RT) that may not be able to report the counts requested.

Format 1 indicates that the ALE level 1 session has begun.

Format 2 reports the level 1 ES, SES, and CRC BEs for the indicated DSLs. Each line of the output corresponds to a particular count set. A single DSL may report from 1 to 25 count sets. Up to 11 count sets may be reported in a single message.

Format 3 outputs the completion status of the ALE level 1 session indicating the number of ALE level 1 message

segments printed.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`*` = Corruption indication flag. When set, the counts may not be complete since this indicates that the counters have stopped because the line card was removed from service, a CRC test has been run, or layer 1 was not operational. This flag is not valid for basic rate interface transmission extension (BRITE) channel units (CU).

`a` = Type of level 1 report. Valid value(s):
`DAILY SUMMARY` = Message contains level 1 information for the current day event.
`DISK SUMMARY` = Message contains level 1 information obtained from a disk file demand query.
`SUMMARY` = Message contains level 1 information obtained from a DSL demand query.

`b` = Segment number of the message. Segments are numbered sequentially starting from 1.

`c` = Current (recorded) interval duration in hours.

`d` = Hour in which current (recorded) interval started.

`e` = Hour in which current (recorded) interval will be completed.

`f` = Equipment number. Valid value(s):

ILEN g-k-l-m
INEN g-d[1]-l-m
LCEN g-h-i-j
LCKEN g-z-a[1]-b[1]-c[1]

`g` = Switching module number.

`h` = Integrated services line unit number.

`i` = Line group controller number.

`j` = Line card number.

`k` = Integrated digital carrier unit number.

`l` = Remote terminal (RT) number.

`m` = RT line number.

`n` = The DSL interface type. Valid value(s):
`A` = *ANSI*® standard U-interface.
`U` = Alternate mark inversion (AMI) U-interface.

`o` = The count set being reported. Valid value(s):
`1C` = BRITE CU 1 current interval.
`1P` = BRITE CU 1 previous interval.

2C = BRITE CU 2 current interval.
2P = BRITE CU 2 previous interval.
3C = BRITE CU 3 current interval.
3P = BRITE CU 3 previous interval.
4C = BRITE CU 4 current interval.
4P = BRITE CU 4 previous interval.
5C = BRITE CU 5 current interval.
5P = BRITE CU 5 previous interval.
6C = BRITE CU 6 current interval.
6P = BRITE CU 6 previous interval.
CD = Current day.
CH = Current hour.
CI = Current interval.
CU1 NOT EQUIPPED = Channel unit 1 is not equipped.
CU1 NOT RESPONDING = Channel unit 1 is not responding.
CU1 RESOURCE BUSY = Channel unit 1 resources are busy.
CU2 NOT EQUIPPED = Channel unit 2 is not equipped.
CU2 NOT RESPONDING = Channel unit 2 is not responding.
CU2 RESOURCE BUSY = Channel unit 2 resources are busy.
CU3 NOT EQUIPPED = Channel unit 3 is not equipped.
CU3 NOT RESPONDING = Channel unit 3 is not responding.
CU3 RESOURCE BUSY = Channel unit 3 resources are busy.
CU4 NOT EQUIPPED = Channel unit 4 is not equipped.
CU4 NOT RESPONDING = Channel unit 4 is not responding.
CU4 RESOURCE BUSY = Channel unit 4 resources are busy.
CU5 NOT EQUIPPED = Channel unit 5 is not equipped.
CU5 NOT RESPONDING = Channel unit 5 is not responding.
CU5 RESOURCE BUSY = Channel unit 5 resources are busy.
CU6 NOT EQUIPPED = Channel unit 6 is not equipped.
CU6 NOT RESPONDING = Channel unit 6 is not responding.
CU6 RESOURCE BUSY = Channel unit 6 resources are busy.
DSL RESOURCE BUSY = DSL resources are busy
H2 = Second history interval.
H3 = Third history interval.
H4 = Fourth history interval.
H5 = Fifth history interval.
H6 = Sixth history interval.
H7 = Seventh history interval.
H8 = Eighth history interval.
LCEN NOT FOUND IN DATABASE = Invalid line card equipment number.
LINE CARD OUT-OF-SERVICE = Line card is out of service.
NOT A U-DSL PORT- = Port is not a U-DSL port.
PD = Previous day.
PH = Previous hour.
PI = Previous interval.
PM DATA READ TIMEOUT = Performance monitoring data read has timed out.
PM DATA UNSUPPORTED = Performance monitoring data requested is unsupported by this type of U-DSL. AMI U-DSL ports do not support reports for HIST, HOUR, INT, or PREV counts.

p = Number of upstream [network termination equipment (NTE) to line card (LC) or line termination

(LT)] errored seconds. An errored second occurs when at least one CRC block error occurs in a second. The AMI U-interface only keeps the count of errored seconds for the current day (CD).

q = Number of downstream (LC or LT to NTE) errored seconds.

r = Number of errored seconds reporting threshold. This value is only reported for the current hour (CH), current interval (CI), and CD count sets.

s = Number of upstream severely errored seconds. A severely errored second occurs when a fixed number of CRC block errors is exceeded in one second. The parameter defining a severely errored second is specified on RC/V View 8.1. This value is not reported for history interval (H2 - H8) count sets.

t = Number of downstream severely errored seconds.

u = Severely errored seconds reporting threshold. This value is only reported for the CH, CI, and CD count sets.

v = Number of upstream CRC block errors. This value is not reported for history interval (H2 - H8), CD, or previous day (PD) count sets.

w = Number of downstream CRC block errors.

x = Session completion status. Valid value(s):
COMPLETED = Session completed normally.
STOPPED = Session stopped due to abnormal condition or manual request.

y = Total number of segments printed.

z = Integrated service line unit 2 (ISLU2).

a[1] = Line group number.

b[1] = Line board number.

c[1] = Line circuit number.

d[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

4. ACTION TO BE TAKEN

Inspect the data for ALE information indicating DSL line problems.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:ALE
EXC:ALE
INH:ALE
```

```
OP:ALE
STP:ALE
```

Output Message(s):

```
ALW:ALE
EXC:ALE
EXC:ALE-LVL2
EXC:ALE-PER
INH:ALE
OP:ALE
STP:ALE-COMPL
```

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-105-220 *Corrective Maintenance*
235-900-3xx *National ISDN Basic Rate Interface Specification*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]

EXC:ALE-LVL2-A

Software Release: 5E10 - 5E11
Message Class: PRFM,PRFFMON, RSB
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EXC ALE LEVEL 2 STARTED

[2]   ____________________________________________________________________
      EXC ALE LEVEL 2 SUMMARY - SEGMENT a:
        DSLGM=b-c-d [e] f [g] [r] [t] [c1] [d1] [e1]
              .  .  .  .  .  .   .   .   .   .   .
              .  .  .  .  .  .   .   .   .   .   .
              .  .  .  .  .  .   .   .   .   .   .

[3]   ____________________________________________________________________
      EXC ALE LEVEL 2 f1: TOTAL OF g1 SEGMENTS PRINTED
```

2. REASON FOR OUTPUT

To respond to the EXC:ALE input message with the level 2 (LEVEL2) option specified or to output results of the automatic line evaluation (ALE) session if the LEVEL2 option was set using the ALW:ALE input message.

If the output is a response to a manual request, the scope of the report is those integrated services digital network (ISDN) channels specified in the input message. If the request was automatic, the scope of the report is the entire office.

A response to a manual request will use the PRFMRSP message class except when the PRINT option is used to force it to the PRFM message class. Automatic sessions will output to the RSB or PRFM message classes when the PRINT option has been selected using the INH:ALE input message or the ALW:ALE input message, respectively.

Format 1 indicates that the ALE level 2 session has begun.

Format 2 reports the level 2 error indications for the indicated digital subscriber lines (DSLs). Up to six ISDN channels can be output in a single message.

Format 3 outputs the completion status of the ALE level 2 session indicating the number of level 2 message segments printed.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`+` = Assigned to a multipoint interface.

`a` = Segment number of the message. Segments are numbered sequentially starting from 1.

`b` = Switching module (SM) number.

`c` = Protocol handler (PH) channel group number.

d = PH channel member number.

e = Channel type. Valid value(s):

B1	= Channel B1.
B2	= Channel B2.
D	= D-channel.

f = Physical PH number.

g = Equipment number. Valid value(s):

```
DEN=b-h-i-j
 EOC=b-n-o-q
 ILEN=b-n-o-p
 LCEN=b-k-l-m
 LCKEN=b-h1-i1-j1-k1
 TMC=b-n-o-q
```

h = Digital line and trunk unit (DLTU) number.

i = Digital facility interface number.

j = Digital channel.

k = Integrated services line unit number.

l = Line group controller number.

m = Line card number.

n = Integrated digital carrier unit number.

o = Remote terminal number.

p = Channel unit number.

q = Primary/protection identifier.

r = Directory number. Valid value(s):

```
DN=s[+]
 PKTDN=s[+]
```

s = Seven-digit directory number.

t = Service group and member numbers. Valid value(s):

```
AP=u-v
 BST=w-x
 MLHG=y-z
 OAPO=w
 OPT=w-x
 RTRS=u-v
 TKGMN=a1-b1
```

`u` = Data link relative group number.

`v` = Data link relative member number.

`w` = Operator service center number.

`x` = Relative position number.

`y` = Multi-line hunt group number.

`z` = Multi-line hunt group member number.

`a`[1] = Trunk group number.

`b`[1] = Trunk group member number.

`c`[1] = Interface type. Valid value(s):

`AMI-U`	= Alternate mark inversion (AMI) U-interface.
`ANSI-U`	= *ANSI*® U-interface.
`FD`	= EOC or TMC facility data link.
`ISM`	= Inter-module trunk.
`ISW`	= Inter-switch trunk.
`T`	= T-interface.
`X25-T1`	= X.25 link over T1 trunk.

`d`[1] = Packet service capability. Valid value(s):

`ODP`	= On-demand packet service.
`PPB`	= Permanent packet B-channel service.
`PPD`	= Permanent packet D-channel service.

`e`[1] = Level 2 error indicator. Valid value(s):

`CRITICAL`	= Greater than six and up to and including eight percent of the frames transmitted were found to be in error.
`DEFECTIVE`	= Greater than eight percent of the frames transmitted were found to be in error.
`MAJOR`	= Greater than four and up to and including six percent of the frames transmitted were found to be in error.
`MINOR`	= Greater than two and up to and including four percent of the frames transmitted were found to be in error.
`NO-INFO`	= Fewer than 256 total frames have been transmitted.
`NORMAL`	= Two percent or fewer of the frames transmitted were found to be in error.
`PROBLEM`	= A problem occurred extracting the error information.

`f`[1] = Session completion status. Valid value(s):

`COMPLETED`	= Session completed normally.
`STOPPED`	= Session stopped due to abnormal condition or manual request.

`g`[1] = Total number of segments printed.

`h`[1] = Integrated service line unit 2 (ISLU2).

`i`[1] = Line group number.

j[1] = Line board number.

k[1] = Line circuit number.

4. ACTION TO BE TAKEN

Inspect the ALE information indicating ISDN channel problems.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:ALE
EXC:ALE
INH:ALE
OP:ALE
STP:ALE
```

Output Message(s):

```
ALW:ALE
EXC:ALE
EXC:ALE-LVL1
EXC:ALE-PER
INH:ALE
OP:ALE
REPT:ALE-LEVEL1
STP:ALE-COMPL
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-900-311 *ISDN Basic Rate Interface Specification*
235-900-312 *ISDN Primary Rate Interface Specification*

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EXC:ALE-LVL2-B

Software Release: 5E12 and later
Message Class: PRFM,PRFFMON, RSB
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EXC ALE LEVEL 2 STARTED

[2]   ____________________________________________________________
      EXC ALE LEVEL 2 SUMMARY - SEGMENT a:
        DSLGM=b-c-d [e] f [g] [r] [t] [c1] [d1] [e1]
              . . .  .  .  .   .   .   .   .   .
              . . .  .  .  .   .   .   .   .   .
              . . .  .  .  .   .   .   .   .   .

[3]   ____________________________________________________________
      EXC ALE LEVEL 2 f1: TOTAL OF g1 SEGMENTS PRINTED
```

2. REASON FOR OUTPUT

To respond to the EXC:ALE input message with the level 2 (LEVEL2) option specified or to output results of the automatic line evaluation (ALE) session if the LEVEL2 option was set using the ALW:ALE input message.

If the output is a response to a manual request, the scope of the report is those integrated services digital network (ISDN) channels specified in the input message. If the request was automatic, the scope of the report is the entire office.

A response to a manual request will use the PRFMRSP message class except when the PRINT option is used to force it to the PRFM message class. Automatic sessions will output to the RSB or PRFM message classes when the PRINT option has been selected using the INH:ALE input message or the ALW:ALE input message, respectively.

Format 1 indicates that the ALE level 2 session has begun.

Format 2 reports the level 2 error indications for the indicated digital subscriber lines (DSLs). Up to six ISDN channels can be output in a single message.

Format 3 outputs the completion status of the ALE level 2 session indicating the number of level 2 message segments printed.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`+` = Assigned to a multipoint interface.

`a` = Segment number of the message. Segments are numbered sequentially starting from 1.

`b` = Switching module (SM) number.

`c` = Protocol handler (PH) channel group number.

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d = PH channel member number.

e = Channel type. Valid value(s):

B1	= Channel B1.
B2	= Channel B2.
D	= D-channel.

f = Physical PH number.

g = Equipment number. Valid value(s):

```
DEN=b-h-i-j
 DNUSEOC=b-l1-o-q
 DNUSTMC=b-l1-o-q
 IDCUEOC=b-n-o-q
 IDCUTMC=b-n-o-q
 ILEN=b-n-o-p
 INEN=b-l1-o-p
 LCEN=b-k-l-m
 LCKEN=b-h1-i1-j1-k1
```

h = Digital line and trunk unit (DLTU) number.

i = Digital facility interface number.

j = Digital channel.

k = Integrated services line unit number.

l = Line group controller number.

m = Line card number.

n = Integrated digital carrier unit number.

o = Remote terminal (RT) number.

p = RT line number.

q = Primary/protection identifier.

r = Directory number. Valid value(s):

```
DN=s[+]
 PKTDN=s[+]
```

s = Directory number.

t = Service group and member numbers. Valid value(s):

```
AP=u-v
 BST=w-x
 MLHG=y-z
 OAPO=w
 OPT=w-x
```

```
RTRS=u-v
TKGMN=a1-b1
```

u = Data link relative group number.

v = Data link relative member number.

w = Operator service center number.

x = Relative position number.

y = Multi-line hunt group number.

z = Multi-line hunt group member number.

a^1 = Trunk group number.

b^1 = Trunk group member number.

c^1 = Interface type. Valid value(s):

AMI-U	= Alternate mark inversion (AMI) U-interface.
ANSI-U	= *ANSI*® U-interface.
FD	= EOC or TMC facility data link.
ISM	= Inter-module trunk.
ISW	= Inter-switch trunk.
T	= T-interface.
X25-T1	= X.25 link over T1 trunk.

d^1 = Packet service capability. Valid value(s):

ODP	= On-demand packet service.
PPB	= Permanent packet B-channel service.
PPD	= Permanent packet D-channel service.

e^1 = Level 2 error indicator. Valid value(s):

CRITICAL	= Greater than six and up to and including eight percent of the frames transmitted were found to be in error.
DEFECTIVE	= Greater than eight percent of the frames transmitted were found to be in error.
MAJOR	= Greater than four and up to and including six percent of the frames transmitted were found to be in error.
MINOR	= Greater than two and up to and including four percent of the frames transmitted were found to be in error.
NO-INFO	= Fewer than 256 total frames have been transmitted.
NORMAL	= Two percent or fewer of the frames transmitted were found to be in error.
PROBLEM	= A problem occurred extracting the error information.

f^1 = Session completion status. Valid value(s):

COMPLETED	= Session completed normally.
STOPPED	= Session stopped due to abnormal condition or manual request.

g^1 = Total number of segments printed.

h[1] = Integrated service line unit 2 (ISLU2).

i[1] = Line group number.

j[1] = Line board number.

k[1] = Line circuit number.

l[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

4. ACTION TO BE TAKEN

Inspect the ALE information indicating ISDN channel problems.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:ALE
EXC:ALE
INH:ALE
OP:ALE
STP:ALE
```

Output Message(s):

```
ALW:ALE
EXC:ALE
EXC:ALE-LVL1
EXC:ALE-PER
INH:ALE
OP:ALE
REPT:ALE-LEVEL1
STP:ALE-COMPL
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-900-311 *ISDN Basic Rate Interface Specification*
235-900-312 *ISDN Primary Rate Interface Specification*

EXC:ALE-PER-A

Software Release: 5E10 - 5E11
Message Class: PRFM,PRFMRSP, PRFMON,RSB
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EXC ALE PER REPORTING STARTED

[2]   ____________________________________________________________________
      EXC ALE PER REPT SUMMARY - SEGMENT a:
        DSLGM=b-c-d [e] f [g] [q] [s] [b1] [c1] [d1]
          PER e1/f1 g1:h1:i1 j1 k1 [l1] m1 n1 o1
                              [TEI=p1] q1 [CRF=v1][CAUS=w1][DIAG=x1][y1]...
                              ...[CNIC=z1][CSI=a2][b2] [c2] [d2] [LID=e2] KEY=w2
                              [CDADDR=t2] [CGADDR=u2]
                               .
                               .
                               .

[3]   ____________________________________________________________________
      EXC ALE PER REPORTING f2: TOTAL OF g2 SEGMENTS PRINTED
```

2. REASON FOR OUTPUT

To respond to the EXC:ALE input message with the protocol error record (PER) option specified or to output results of the automatic line evaluation (ALE) session if the PER option was set using the ALW:ALE input message. Automatic line insulation testing requests the ALE session. Refer to the Protocol Error Record Descriptions manual for specific information about an individual PER.

If the output is a response to a manual request, the scope of the report is the integrated services digital network (ISDN) channels specified in the input message. If the request was automatic, the scope of the report is the entire office.

A response to a manual request will use the PRFMRSP message class except when the PRINT option is used to force it to the PRFM message class. Automatic sessions will output to the PRFM or RSB message classes depending on the option set using the INH:ALE input message or the ALW:ALE input message respectively.

Format 1 indicates the ALE PER reporting session has begun.

Format 2 reports the PERs recorded for the indicated ISDN channels. Up to four PERs can be output in a single message. Each of the reported PERs will be for the same ISDN channel. A single ISDN channel may report up to fifteen PERs. In this case, the line identification information is repeated for each successive output message until a different ISDN channel is reported. The PER count, however, will only be printed for the first instance of the line identification information.

Format 3 reports the completion status of the ALE PER reporting session indicating the number of EXC:ALE-PER message segments printed.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms

shown in the format section.

`+` = Assigned to a multipoint interface.

`a` = Segment number of the message. Segments are numbered sequentially starting from 1.

`b` = Switching module (SM) number.

`c` = Protocol handler (PH) channel group number.

`d` = PH channel group member number.

`e` = Channel type. Valid value(s):

`B1`	= Channel B1.
`B2`	= Channel B2.
`D`	= D-channel.

`f` = Physical PH number.

`g` = Equipment number. Valid value(s):

```
DEN=b-h-i-j
EOC=b-n-o-h2
ILEN=b-n-o-p
LCEN=b-k-l-m
LCKEN=b-i2-v12-k2
NEN=b-l2-m2-n2-o2-p2
PSUEN=b-q2-r2-s2-d
TMC=b-n-o-h2
```

`h` = Digital line and trunk unit (DLTU) number.

`i` = Digital facility interface number.

`j` = Digital channel.

`k` = Integrated services line unit number.

`l` = Line group controller number.

`m` = Line card number.

`n` = Integrated digital carrier unit number.

`o` = Remote terminal number.

`p` = Channel unit number.

`q` = Directory number. Valid value(s):

```
DN=r[+]
 PKTDN=r[+]
```

`r` = Seven-digit directory number.

`s` = Service group and member numbers. Valid value(s):

```
AP=t-u
BST=v-w
MLHG=x-y
OAPO=v
OPT=v-w
RTRS=t-u
TKGMN=z-a[1]
```

`t` = Data link relative group number.

`u` = Data link relative member number.

`v` = Operator service center number.

`w` = Relative position number.

`x` = Multi-line hunt group number.

`y` = Multi-line hunt group member number.

`z` = Trunk group number.

`a`[1] = Trunk group member number.

`b`[1] = Interface type. Valid value(s):

`AMI-U`	= Alternate mark inversion (AMI) U-interface.
`ANSI-U`	= *ANSI*® U-interface.
`FD`	= EOC or TMC facility data link.
`ISM`	= Inter-module trunk.
`ISW`	= Inter-switch trunk.
`SH`	= Speech handler trunk.
`T`	= T-interface.
`X25-T1`	= X.25 link over T1 trunk.

`c`[1] = Packet service capability. Valid value(s):

`ODP`	= On-demand packet service.
`PPB`	= Permanent packet B-channel service.
`PPD`	= Permanent packet D-channel service.

`d`[1] = PER count since last reset. This count may not be consistent with the number of PERs retrieved from the SM history tables since some PERs may have been removed from the history tables due to storage limitations.

`e`[1] = Timestamp month.

`f`[1] = Timestamp day.

`g`[1] = Timestamp hour in 24-hour format.

`h`[1] = Timestamp minute.

i[1] = Timestamp seconds.

j[1] = Protocol detecting the error. Valid value(s):

ATS	= Automatic terminal setup protocol.
CESHL2	= Channel element speech handler level 2 protocol.
CESHL3	= Channel element speech handler level 3 protocol.
IDLC	= Integrated digital line carrier (IDLC) public data network gateway protocol.
LAPB/SLP	= Link access protocol type B.
LAPD	= Link access protocol type D.
Q.931	= Q.931 ISDN call control protocol.
TMC	= TMC public data network gateway protocol.
UNKNOWN	= Unknown protocol being used.
V.120	= V.120 public data network gateway protocol.
X.25	= X.25 public data network access protocol.
X.75	= X.75 public data network gateway protocol.
X.75P	= X.75' public data network gateway protocol.

k[1] = Protocol state for network side of the interface when error was detected. For the IDLC and ATS protocols, the state represents the common management information service element (CMISE) operation.

l[1] = Protocol state for the network side of the interface for the X.25 or X.75' or X.75 permanent virtual circuit or virtual circuit associated with the detected error.

m[1] = The frame/packet/message/segment/module type that was received or transmitted when the error was detected. For the IDLC and ATS protocols, the field represents the module type.

n[1] = The direction of the frame/packet/message when the error was detected. Valid value(s):

RCV	= Frame/packet/message was transmitted from the customer premises equipment (CPE) to the switch.
XMT	= Frame/packet/message was transmitted from the network to the CPE.

o[1] = Protocol error code (PEC) for the error detected. Refer to the Protocol Error Record Descriptions manual.

p[1] = Terminal endpoint identifier (TEI) (in decimal) of the CPE where the error was detected.

q[1] = Protocol address information (in decimal) for the protocol entity detecting the error. Valid value(s):

ADDR=r[1]
CRV=s[1]
LCN=t[1]
SAPI=u[1]

r[1] = Link address (in decimal). Valid for LAPB protocol.

s[1] = Call reference value (in decimal). Valid for Q.931, timeslot management channel (TMC), and ATS protocols.

t[1] = Logical channel number (in decimal). Valid for X.25, X.75' and X.75 protocols.

u[1] = Service access point identifier (SAPI) (in decimal). Valid for LAPD and V.120 protocols.

v[1] = Call reference flag. Valid for Q.931 and TMC protocols. Supplemental protocol address information for the protocol entity detecting the error.

w[1] = Cause code (in decimal) associated with the protocol error. Valid for X.25, X.75' and X.75 protocols. The cause code for the IDLC protocol represents application protocol data unit (APDU) status. The value of 0 represents unlinked APDU status and 1 represents linked APDU status.

x[1] = Diagnostic code (in decimal) associated with the protocol error. Valid for X.25, X.75' and X.75 protocols.

y[1] = Logical channel type information. Valid value(s):
PVC = Permanent virtual channel.
SVC = Switched virtual channel.

z[1] = Clearing network identification code.

a[2] = Clearing sub-network identification code.

b[2] = Object class identifier for the IDLC and ATS protocols.

c[2] = The IDLC protocol transaction ID, or the ATS protocol invoke ID (in hexadecimal) associated with the APDU.

d[2] = APDU type for the IDLC and ATS protocols.

e[2] = Linked ID (in hexadecimal) for the ATS protocol.

f[2] = Session completion status. Valid value(s):
COMPLETED = Session completed normally.
STOPPED = Session stopped due to abnormal condition or manual request.

g[2] = Total number of segments printed.

h[2] = Primary/protection identifier.

i[2] = Integrated service line unit 2 (ISLU2) number.

j[2] = Line board number.

k[2] = Line circuit number.

l[2] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

m[2] = Data group (DG) number.

n[2] = Synchronous transport signal (STS) number.

o[2] = Virtual tributary (VT1.5) number.

p[2] = Digital signal level 0 (DS0) number.

q[2] = Packet switching unit (PSU) number.

r[2] = PSU shelf number.

s[2] = PSU channel group number.

t[2] = Called address. Valid for X.25, X.75' and X.75 protocols.

u[2] = Calling address. Valid for X.25, X.75' and X.75 protocols.

v[2] = Line group number.

w[2] = PER key value. The PER KEY value is a tracing mechanism used to UNIQUELY identify a location in the switch software where a PER is logged. The KEY values are defined in the Protocol Error Record Descriptions documentation. The KEY value is printed on the ROP is used as an index into documentation.

4. ACTION TO BE TAKEN

Inspect the EXC:ALE-PER output message for ALE information indicating DSL line problems.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:ALE
EXC:ALE
INH:ALE
OP:ALE
STP:ALE
```

Output Message(s):

```
ALW:ALE
EXC:ALE
EXC:ALE-LVL1
EXC:ALE-LVL2
EXC:ALE-PER
INH:ALE
OP:ALE
REPT:ALE-LEVEL1
REPT:ALE-PER-LOG
REPT:ALE-PTE
STP:ALE-COMPL
```

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-600-755 *Protocol Error Record Descriptions*
235-900-341 *National ISDN BRI Interface Specification*
235-900-343 *Custom Basic Rate Interface Specification*

EXC:ALE-PER-B

Software Release: 5E12 only
Message Class: PRFM,PRFMRSP, PRFMON,RSB
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EXC ALE PER REPORTING STARTED

[2]   ____________________________________________________________________
      EXC ALE PER REPT SUMMARY - SEGMENT a:
        DSLGM=b-c-d [e] f [g] [q] [s] [b1] [c1] [d1]
          PER e1/f1 g1:h1:i1 j1 k1 [l1] m1 n1 o1
                              [TEI=p1] q1 [CRF=v1][CAUS=w1][DIAG=x1][y1]...
                              ...[CNIC=z1][CSI=a2][b2] [c2] [d2] [LID=e2] [RATE=x2]
                              ...[TYPE=y2] [RSET=z2]...
                              ...LINK=a3 [DLCI=b3] [CEDLCI=c3] KEY=d3>

                              [CDADDR=t2] [CGADDR=u2]
                               .
                               .
                               .

[3]   ____________________________________________________________________
      EXC ALE PER REPORTING f2: TOTAL OF g2 SEGMENTS PRINTED
```

2. REASON FOR OUTPUT

To respond to the EXC:ALE input message with the protocol error record (PER) option specified or to output results of the automatic line evaluation (ALE) session if the PER option was set using the ALW:ALE input message. Automatic line insulation testing requests the ALE session. Refer to the Protocol Error Record Descriptions manual for specific information about an individual PER.

If the output is a response to a manual request, the scope of the report is the integrated services digital network (ISDN) channels specified in the input message. If the request was automatic, the scope of the report is the entire office.

A response to a manual request will use the PRFMRSP message class except when the PRINT option is used to force it to the PRFM message class. Automatic sessions will output to the PRFM or RSB message classes depending on the option set using the INH:ALE input message or the ALW:ALE input message respectively.

Format 1 indicates the ALE PER reporting session has begun.

Format 2 reports the PERs recorded for the indicated ISDN channels. Up to four PERs can be output in a single message. Each of the reported PERs will be for the same ISDN channel. A single ISDN channel may report up to fifteen PERs. In this case, the line identification information is repeated for each successive output message until a different ISDN channel is reported. The PER count, however, will only be printed for the first instance of the line identification information.

Format 3 reports the completion status of the ALE PER reporting session indicating the number of EXC:ALE-PER message segments printed.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format section.

`+` = Assigned to a multipoint interface.

`a` = Segment number of the message. Segments are numbered sequentially starting from 1.

`b` = Switching module (SM) number.

`c` = Protocol handler (PH) channel group number.

`d` = PH channel group member number.

`e` = Channel type. Valid value(s):

`B1`	= Channel B1.
`B2`	= Channel B2.
`D`	= D-channel.

`f` = Physical PH number.

`g` = Equipment number. Valid value(s):

AIUEN=b-x^2-y^2-z^2
DEN=b-h-i-j
DNUSEOC=b-l^2-o-h^2
DNUSTMC=b-l^2-o-h^2
IDCUEOC=b-n-o-h^2
IDCUTMC=b-n-o-h^2
ILEN=b-n-o-p
INEN=b-l^2-o-p
LCEN=b-k-l-m
LCKEN=b-i^2-v^1-j^2-k^2
NEN=b-l^2-m^2-n^2-o^2-p^2
PSUEN=b-q^2-r^2-s^2-d

`h` = Digital line and trunk unit (DLTU) number.

`i` = Digital facility interface number.

`j` = Digital channel.

`k` = Integrated services line unit number.

`l` = Line group controller number.

`m` = Line card number.

`n` = Integrated digital carrier unit number.

`o` = Remote terminal (RT) number.

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p = RT line number.

q = Directory number. Valid value(s):

```
DN=r[+]
 PKTDN=r[+]
```

r = Directory number.

s = Service group and member numbers. Valid value(s):

```
AP=t-u
BST=v-w
MLHG=x-y
OAPO=v
OPT=v-w
RTRS=t-u
TKGMN=z-a[1]
```

t = Data link relative group number.

u = Data link relative member number.

v = Operator service center number.

w = Relative position number.

x = Multi-line hunt group number.

y = Multi-line hunt group member number.

z = Trunk group number.

a[1] = Trunk group member number.

b[1] = Interface type. Valid value(s):

ADT	= Autoplex data trunk.
AIU-U	= Access interface unit U-interface.
AMI-U	= Alternate mark inversion (AMI) U-interface.
ANSI-U	= *ANSI*® U-interface.
DNUS-TRK	= DNU-S Trunk.
DNUS-X25-T1	= DNU-S X.25 T1.
FD	= EOC or TMC facility data link.
FRBC	= Frame Relay Bearer Channel.
ISM	= Inter-module trunk.
ISW	= Inter-switch trunk.
PP-TRK	= Packet pipe trunk.
RAIU-U	= Remote access interface unit U-interface.
SH-TRK	= Speech handler trunk.
T	= T-interface.
X25-T1	= X.25 link over T1 trunk.

c[1] = Packet service capability. Valid value(s):

ODP = On-demand packet service.
PPB = Permanent packet B-channel service.
PPD = Permanent packet D-channel service.

d[1] = PER count since last reset. This count may not be consistent with the number of PERs retrieved from the SM history tables since some PERs may have been removed from the history tables due to storage limitations.

e[1] = Timestamp month.

f[1] = Timestamp day.

g[1] = Timestamp hour in 24-hour format.

h[1] = Timestamp minute.

i[1] = Timestamp seconds.

j[1] = Protocol detecting the error. Valid value(s):
CEP = Common element protocol.
CESHL2 = Channel element speech handler level 2 protocol.
CESHL3 = Channel element speech handler level 3 protocol.
IDLC = Integrated digital line carrier (IDLC) public data network gateway protocol.
IS99 = Radio link protocol (RLP).
LAPB/SLP = Link access protocol type B.
LAPD = Link access protocol type D.
Q.931 = Q.931 ISDN call control protocol.
TMC = TMC public data network gateway protocol.
UNKNOWN = Unknown protocol being used.
V.120 = V.120 public data network gateway protocol.
X.25 = X.25 public data network access protocol.
X.75 = X.75 public data network gateway protocol.
X.75P = X.75' public data network gateway protocol.

k[1] = Protocol state for network side of the interface when error was detected. For the IDLC and CEP protocols, the state represents the common management information service element (CMISE) operation or error.

l[1] = Protocol state for the network side of the interface for the X.25 or X.75' or X.75 permanent virtual circuit or virtual circuit associated with the detected error.

m[1] = The frame/packet/message/segment/module type that was received or transmitted when the error was detected. For the IDLC and CEP protocols, the field represents the module type.

n[1] = The direction of the frame/packet/message when the error was detected. Valid value(s):
RCV = Frame/packet/message was transmitted from the customer premises equipment (CPE) to the switch.
XMT = Frame/packet/message was transmitted from the network to the CPE.

o[1] = Protocol error code (PEC) for the error detected. Refer to the Protocol Error Record Descriptions manual.

p[1] = Terminal endpoint identifier (TEI) (in decimal) of the CPE where the error was detected.

q[1] = Protocol address information (in decimal) for the protocol entity detecting the error. Valid value(s):
ADDR=r[1]
CRV=s[1]
LCN=t[1]
SAPI=u[1]

r[1] = Link address (in decimal). Valid for LAPB protocol.

s[1] = Call reference value (in decimal). Valid for Q.931, timeslot management channel (TMC), and CEP protocols.

t[1] = Logical channel number (in decimal). Valid for X.25, X.75' and X.75 protocols.

u[1] = Service access point identifier (SAPI) (in decimal). Valid for LAPD and V.120 protocols.

v[1] = Call reference flag. Valid for Q.931 and TMC protocols. Supplemental protocol address information for the protocol entity detecting the error.

w[1] = Cause code (in decimal) associated with the protocol error. Valid for X.25, X.75' and X.75 protocols. The cause code for the IDLC protocol represents application protocol data unit (APDU) status. The value of 0 represents unlinked APDU status and 1 represents linked APDU status.

x[1] = Diagnostic code (in decimal) associated with the protocol error. Valid for X.25, X.75' and X.75 protocols.

y[1] = Logical channel type information. Valid value(s):
PVC = Permanent virtual channel.
SVC = Switched virtual channel.

z[1] = Clearing network identification code.

a[2] = Clearing sub-network identification code.

b[2] = Object class identifier for the IDLC and CEP protocols.

c[2] = The IDLC protocol transaction ID, or the CEP protocol invoke ID (in hexadecimal) associated with the APDU.

d[2] = APDU type for the IDLC and CEP protocols.

e[2] = Linked ID (in hexadecimal) for the CEP protocol.

f[2] = Session completion status. Valid value(s):
COMPLETED = Session completed normally.
STOPPED = Session stopped due to abnormal condition or manual request.

g[2] = Total number of segments printed.

h[2] = Primary/protection identifier.

i[2] = Integrated service line unit 2 (ISLU2) number.

j[2] = Line board number.

k[2] = Line circuit number.

l[2] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

m[2] = Data group (DG) number.

n[2] = Synchronous transport signal (STS) number.

o[2] = Virtual tributary (VT1.5) number.

p[2] = Digital signal level 0 (DS0) number.

q[2] = Packet switching unit (PSU) number.

r[2] = PSU shelf number.

s[2] = PSU channel group number.

t[2] = Called address. Valid for X.25, X.75' and X.75 protocols.

u[2] = Calling address. Valid for X.25, X.75' and X.75 protocols.

v[2] = Line group number.

w[2] = PER key value. The PER KEY value is a tracing mechanism used to UNIQUELY identify a location in the switch software where a PER is logged. The KEY values are defined in the Protocol Error Record Descriptions documentation. The KEY value is printed on the ROP is used as an index into documentation.

x[2] = Access interface unit (AIU) number.

y[2] = AIU pack number.

z[2] = AIU circuit number.

4. ACTION TO BE TAKEN

Inspect the EXC:ALE-PER output message for ALE information indicating DSL line problems.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:ALE
EXC:ALE
INH:ALE
OP:ALE
STP:ALE
```

Output Message(s):

```
ALW:ALE
EXC:ALE
EXC:ALE-LVL1
EXC:ALE-LVL2
EXC:ALE-PER
INH:ALE
OP:ALE
REPT:ALE-LEVEL1
REPT:ALE-PER-LOG
REPT:ALE-PTE
STP:ALE-COMPL
```

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-600-755 *Protocol Error Record Descriptions*
235-900-341 *National ISDN BRI Interface Specification*
235-900-343 *Custom Basic Rate Interface Specification*

EXC:ALE-PER-C

Software Release: 5E13 only
Message Class: PRFM,PRFMRSP, PRFMON,RSB
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EXC ALE PER REPORTING STARTED

[2]   ____________________________________________________________________
      EXC ALE PER REPT SUMMARY - SEGMENT a:
        DSLGM=b-c-d [e] f [g] [q] [s] [b1] [c1] [d1]
          PER e1/f1 g1:h1:i1 j1 k1 [l1] m1 n1 o1
                              [TEI=p1] q1 [CRF=v1][CAUS=w1][DIAG=x1][y1]...
                              ...[CNIC=z1][CSI=a2][b2] [c2] [d2] [LID=e2] [RATE=x2]
                              ...[TYPE=y2] [RSET=z2]...
                              ...LINK=a3 [DLCI=b3] [CEDLCI=c3] KEY=d3>

                              [CDADDR=t2] [CGADDR=u2]
                               .
                               .
                               .

[3]   ____________________________________________________________________
      EXC ALE PER REPORTING f2: TOTAL OF g2 SEGMENTS PRINTED
```

2. REASON FOR OUTPUT

To respond to the EXC:ALE input message with the protocol error record (PER) option specified or to output results of the automatic line evaluation (ALE) session if the PER option was set using the ALW:ALE input message. Automatic line insulation testing requests the ALE session. Refer to the Protocol Error Record Descriptions manual for specific information about an individual PER.

If the output is a response to a manual request, the scope of the report is the integrated services digital network (ISDN) channels specified in the input message. If the request was automatic, the scope of the report is the entire office. A response to a manual request will use the PRFMRSP message class except when the PRINT option is used to force it to the PRFM message class. Automatic sessions will output to the PRFM or RSB message classes depending on the option set using the INH:ALE input message or the ALW:ALE input message respectively. Format 1 indicates the ALE PER reporting session has begun. Format 2 reports the PERs recorded for the indicated ISDN channels. Up to four PERs can be output in a single message. Each of the reported PERs will be for the same ISDN channel. A single ISDN channel may report up to fifteen PERs. In this case, the line identification information is repeated for each successive output message until a different ISDN channel is reported. The PER count, however, will only be printed for the first instance of the line identification information. Format 3 reports the completion status of the ALE PER reporting session indicating the number of EXC:ALE-PER message segments printed.

3. VARIABLE FIELD DEFINITIONS

Note:

+ = Assigned to a multipoint interface.

a = Segment number of the message. Segments are numbered sequentially starting from 1.

b = Switching module (SM) number.

c = Protocol handler (PH) channel group number.

d = PH channel group member number.

e = Channel type. Valid value(s):

B1	= Channel B1.
B2	= Channel B2.
D	= D-channel.

f = Physical PH number.

g = Equipment number. Valid value(s):

AIUEN=b-x^2-y^2-z^2	ILEN=b-n-o-p
DEN=b-h-i-j	INEN=b-l^2-o-p
DNUSEOC=b-l^2-o-h^2	LCEN=b-k-l-m
DNUSTMC=b-l^2-o-h^2	LCKEN=b-i^2-v^1-j^2-k^2
IDCUEOC=b-n-o-h^2	NEN=b-l^2-m^2-a^3-n^2-o^2-b^3-p^2
IDCUTMC=b-n-o-h^2	PSUEN=b-q^2-r^2-s^2-d

h = Digital line and trunk unit (DLTU) number.

i = Digital facility interface number.

j = Digital channel.

k = Integrated services line unit number.

l = Line group controller number.

m = Line card number.

n = Integrated digital carrier unit number.

o = Remote terminal (RT) number.

p = RT line number.

q = Directory number. Valid value(s):

DN=r[+]
PKTDN=r[+]

r = Directory number.

s = Service group and member numbers. Valid value(s):

AP=t-u BST=v-w	AP=t-u OPT=v-w
MLHG=x-y	RTRS=t-u
OAPO=v	TKGMN=z-a^1

`t` = Data link relative group number.

`u` = Data link relative member number.

`v` = Operator service center number.

`w` = Relative position number.

`x` = Multi-line hunt group number.

`y` = Multi-line hunt group member number.

`z` = Trunk group number.

`a`[1] = Trunk group member number.

`b`[1] = Interface type. Valid value(s):

`ADT`	= Autoplex data trunk.
`AIU-U`	= Access interface unit U-interface.
`AMI-U`	= Alternate mark inversion (AMI) U-interface.
`ANSI-U`	= *ANSI*® U-interface.
`DNUS-TRK`	= DNU-S Trunk.
`DNUS-X25-T1`	= DNU-S X.25 T1.
`FD`	= EOC or TMC facility data link.
`FRBC`	= Frame Relay Bearer Channel.
`ISM`	= Inter-module trunk.
`ISW`	= Inter-switch trunk.
`PP-TRK`	= Packet pipe trunk.
`RAIU-U`	= Remote access interface unit U-interface.
`SH-TRK`	= Speech handler trunk.
`T`	= T-interface.
`X25-T1`	= X.25 link over T1 trunk.

`c`[1] = Packet service capability. Valid value(s):

`ODP`	= On-demand packet service.
`PPB`	= Permanent packet B-channel service.
`PPD`	= Permanent packet D-channel service.

`d`[1] = PER count since last reset. This count may not be consistent with the number of PERs retrieved from the SM history tables since some PERs may have been removed from the history tables due to storage limitations.

`e`[1] = Timestamp month.

`f`[1] = Timestamp day.

`g`[1] = Timestamp hour in 24-hour format.

`h`[1] = Timestamp minute.

`i`[1] = Timestamp seconds.

`j`[1] = Protocol detecting the error. Valid value(s):

CEP	= Common element protocol.
CESHL2	= Channel element speech handler level 2 protocol.
CESHL3	= Channel element speech handler level 3 protocol.
IDLC	= Integrated digital line carrier (IDLC) public data network gateway protocol.
IS99	= Radio link protocol (RLP).
LAPB/SLP	= Link access protocol type B.
LAPD	= Link access protocol type D.
Q.931	= Q.931 ISDN call control protocol.
TMC	= TMC public data network gateway protocol.
UNKNOWN	= Unknown protocol being used.
V.120	= V.120 public data network gateway protocol.
X.25	= X.25 public data network access protocol.
X.75	= X.75 public data network gateway protocol.
X.75P	= X.75' public data network gateway protocol.

k[1] = Protocol state for network side of the interface when error was detected. For the IDLC and CEP protocols, the state represents the common management information service element (CMISE) operation or error.

l[1] = Protocol state for the network side of the interface for the X.25 or X.75' or X.75 permanent virtual circuit or virtual circuit associated with the detected error.

m[1] = The frame/packet/message/segment/module type that was received or transmitted when the error was detected. For the IDLC and CEP protocols, the field represents the module type.

n[1] = The direction of the frame/packet/message when the error was detected. Valid value(s):

RCV	= Frame/packet/message was transmitted from the customer premises equipment (CPE) to the switch.
XMT	= Frame/packet/message was transmitted from the network to the CPE.

o[1] = Protocol error code (PEC) for the error detected. Refer to the APP:ALE-PER appendix in the Appendixes section of the Output Messages manual.

p[1] = Terminal endpoint identifier (TEI) (in decimal) of the CPE where the error was detected.

q[1] = Protocol address information (in decimal) for the protocol entity detecting the error. Valid value(s):

ADDR=r[1]
CRV=s[1]
LCN=t[1]
SAPI=u[1]

r[1] = Link address (in decimal). Valid for LAPB protocol.

s[1] = Call reference value (in decimal). Valid for Q.931, timeslot management channel (TMC), and CEP protocols.

t[1] = Logical channel number (in decimal). Valid for X.25, X.75' and X.75 protocols.

u[1] = Service access point identifier (SAPI) (in decimal). Valid for LAPD and V.120 protocols.

v[1] = Call reference flag. Valid for Q.931 and TMC protocols. Supplemental protocol address

information for the protocol entity detecting the error.

w[1] = Cause code (in decimal) associated with the protocol error. Valid for X.25, X.75' and X.75 protocols. The cause code for the IDLC protocol represents application protocol data unit (APDU) status. The value of 0 represents unlinked APDU status and 1 represents linked APDU status.

x[1] = Diagnostic code (in decimal) associated with the protocol error. Valid for X.25, X.75' and X.75 protocols.

y[1] = Logical channel type information. Valid value(s):
`PVC` = Permanent virtual channel.
`SVC` = Switched virtual channel.

z[1] = Clearing network identification code.

a[2] = Clearing sub-network identification code.

b[2] = Object class identifier for the IDLC and CEP protocols.

c[2] = The IDLC protocol transaction ID, or the CEP protocol invoke ID (in hexadecimal) associated with the APDU.

d[2] = APDU type for the IDLC and CEP protocols.

e[2] = Linked ID (in hexadecimal) for the CEP protocol.

f[2] = Session completion status. Valid value(s):
`COMPLETED` = Session completed normally.
`STOPPED` = Session stopped due to abnormal condition or manual request.

g[2] = Total number of segments printed.

h[2] = Primary/protection identifier.

i[2] = Integrated service line unit 2 (ISLU2) number.

j[2] = Line board number.

k[2] = Line circuit number.

l[2] = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

m[2] = Data group (DG) number.

n[2] = Synchronous transport signal (STS) facility number.

o[2] = Virtual tributary group (VTG) number.

p[2] = Digital signal level 0 (DS0) number.

q[2] = Packet switching unit (PSU) number.

r[2] = PSU shelf number.

s[2] = PSU channel group number.

t[2] = Called address. Valid for X.25, X.75' and X.75 protocols.

u[2] = Calling address. Valid for X.25, X.75' and X.75 protocols.

v[2] = Line group number.

w[2] = PER key value. The PER KEY value is a tracing mechanism used to UNIQUELY identify a location in the switch software where a PER is logged. The KEY values are defined in the Protocol Error Record Descriptions documentation. The KEY value is printed on the ROP is used as an index into documentation.

x[2] = Access interface unit (AIU) number.

y[2] = AIU pack number.

z[2] = AIU circuit number.

a[3] = SONET termination equipment (STE) facility number.

b[3] = Virtual tributary member (VTM) number.

4. ACTIONS TO BE TAKEN

Inspect the EXC:ALE-PER output message for ALE information indicating DSL line problems.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:ALE
EXC:ALE
INH:ALE
OP:ALE
STP:ALE
```

Output Message(s):

```
ALW:ALE
EXC:ALE
EXC:ALE-LVL1
EXC:ALE-LVL2
EXC:ALE-PER
INH:ALE
OP:ALE
REPT:ALE-LEVEL1
REPT:ALE-PER-LOG
REPT:ALE-PTE
STP:ALE-COMPL
```

Output Appendix(es):

```
APP:ALE-PER
```

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-600-755 *Protocol Error Record Descriptions*
235-900-341 *National ISDN BRI Interface Specification*
235-900-343 *Custom Basic Rate Interface Specification*

EXC:ALE-PER-D

Software Release: 5E14 and later
Message Class: PRFM,PRFMRSP, PRFMON,RSB
Application: 5
Type: Output

1. FORMAT

```
[1]    EXC ALE PER REPORTING STARTED

[2]    EXC ALE PER REPT SUMMARY - SEGMENT a:
         DSLGM=b-c-d [e] f [g] [q] [s] [b1] [c1] [d1]
           PER e1/f1 g1:h1:i1 j1 k1 [l1] m1 n1 o1
                                [TEI=p1] q1 [CRF=v1][CAUS=w1][DIAG=x1][y1]...
                                ...[CNIC=z1][CSI=a2][b2] [c2] [d2] [LID=e2] [RATE=x2] [
       TYPE=y2] [RSET=z2]...
                                ...LINK=a3 [DLCI=b3] [CEDLCI=c3] KEY=d3

                                [CDADDR=t2] [CGADDR=u2]
                                 .
                                 .
                                 .

[3]    EXC ALE PER REPORTING f2: TOTAL OF g2 SEGMENTS PRINTED
```

2. REASON FOR OUTPUT

To respond to the EXC:ALE input message with the protocol error record (PER) option specified or to output results of the automatic line evaluation (ALE) session if the PER option was set using the ALW:ALE input message. Automatic line insulation testing requests the ALE session. Refer to the Protocol Error Record Descriptions manual for specific information about an individual PER.

If the output is a response to a manual request, the scope of the report is the integrated services digital network (ISDN) channels specified in the input message. If the request was automatic, the scope of the report is the entire office. A response to a manual request will use the PRFMRSP message class except when the PRINT option is used to force it to the PRFM message class. Automatic sessions will output to the PRFM or RSB message classes depending on the option set using the INH:ALE input message or the ALW:ALE input message respectively. Format 1 indicates the ALE PER reporting session has begun. Format 2 reports the PERs recorded for the indicated ISDN channels. Up to four PERs can be output in a single message. Each of the reported PERs will be for the same ISDN channel. A single ISDN channel may report up to fifteen PERs. In this case, the line identification information is repeated for each successive output message until a different ISDN channel is reported. The PER count, however, will only be printed for the first instance of the line identification information. Format 3 reports the completion status of the ALE PER reporting session indicating the number of EXC:ALE-PER message segments printed.

3. VARIABLE FIELD DEFINITIONS

`+` = Assigned to a multipoint interface.

`a` = Segment number of the message. Segments are numbered sequentially starting from 1.

`b` = Switching module (SM) number.

`c` = Protocol handler (PH) channel group number.

d = PH channel group member number.

e = Channel type. Valid value(s):

B1	= Channel B1.
B2	= Channel B2.
D	= D-channel.

f = Physical PH number.

g = Equipment number. Valid value(s):

AIUEN=b-x^2-y^2-z^2	ILEN=b-n-o-p
DEN=b-h-i-j	INEN=b-l^2-o-p
DNUSEOC=b-l^2-o-h^2	LCEN=b-k-l-m
DNUSTMC=b-l^2-o-h^2	LCKEN=b-i^2-v^1-j^2-k^2
IDCUEOC=b-n-o-h^2	NEN=b-l^2-m^2-a^3-n^2-o^2-b^3-p^2
IDCUTMC=b-n-o-h^2	PSUEN=b-q^2-r^2-s^2-d

h = Digital line and trunk unit (DLTU) number.

i = Digital facility interface number.

j = Digital channel.

k = Integrated services line unit number.

l = Line group controller number.

m = Line card number.

n = Integrated digital carrier unit number.

o = Remote terminal (RT) number.

p = RT line number.

q = Directory number. Valid value(s):

DN=r[+]
PKTDN=r[+]

r = Directory number.

s = Service group and member numbers. Valid value(s):

AP=t-u	OPT=v-w
BST=v-w	RTRS=t-u
MLHG=x-y	TKGMN=z-a^1
OAPO=v	

t = Data link relative group number.

u = Data link relative member number.

v = Operator service center number.

w = Relative position number.

x = Multi-line hunt group number.

y = Multi-line hunt group member number.

z = Trunk group number.

a[1] = Trunk group member number.

b[1] = Interface type. Valid value(s):

ADT	= Autoplex data trunk.
AIU-U	= Access interface unit U-interface.
AMI-U	= Alternate mark inversion (AMI) U-interface.
ANSI-U	= American National Standards Institute (ANSI) U-interface.
DNUS-TRK	= DNU-S Trunk.
DNUS-X25-T1	= DNU-S X.25 T1.
FD	= EOC or TMC facility data link.
FRBC	= Frame Relay Bearer Channel.
ISM	= Inter-module trunk.
ISW	= Inter-switch trunk.
PP-TRK	= Packet pipe trunk.
RAIU-U	= Remote access interface unit U-interface.
SH-TRK	= Speech handler trunk.
T	= T-interface.
X25-T1	= X.25 link over T1 trunk.

c[1] = Packet service capability. Valid value(s):

ODP	= On-demand packet service.
PPB	= Permanent packet B-channel service.
PPD	= Permanent packet D-channel service.

d[1] = PER count since last reset. This count may not be consistent with the number of PERs retrieved from the SM history tables since some PERs may have been removed from the history tables due to storage limitations.

e[1] = Timestamp month.

f[1] = Timestamp day.

g[1] = Timestamp hour in 24-hour format.

h[1] = Timestamp minute.

i[1] = Timestamp seconds.

j[1] = Protocol detecting the error. Valid value(s):

CEP	= Common element protocol.
CESHL2	= Channel element speech handler level 2 protocol.
CESHL3	= Channel element speech handler level 3 protocol.
IDLC	= Integrated digital line carrier (IDLC) public data network gateway protocol.
ISLP	= Inter-System link protocol.

LAPB/SLP	= Link access protocol type B.
LAPD	= Link access protocol type D.
Q.931	= Q.931 ISDN call control protocol.
RLP	= Radio link protocol.
TMC	= TMC public data network gateway protocol.
UNKNOWN	= Unknown protocol being used.
V.120	= V.120 public data network gateway protocol.
X.25	= X.25 public data network access protocol.
X.75	= X.75 public data network gateway protocol.
X.75P	= X.75' public data network gateway protocol.

k[1] = Protocol state for network side of the interface when error was detected. For the IDLC and CEP protocols, the state represents the common management information service element (CMISE) operation or error.

l[1] = Protocol state for the network side of the interface for the X.25 or X.75' or X.75 permanent virtual circuit or virtual circuit associated with the detected error.

m[1] = The frame/packet/message/segment/module type that was received or transmitted when the error was detected. For the IDLC and CEP protocols, the field represents the module type.

n[1] = The direction of the frame/packet/message when the error was detected. Valid value(s):

RCV	= Frame/packet/message was transmitted from the customer premises equipment (CPE) to the switch.
XMT	= Frame/packet/message was transmitted from the network to the CPE.

o[1] = Protocol error code (PEC) for the error detected. Refer to the APP:ALE-PER appendix in the Appendixes section of the Output Messages manual.

p[1] = Terminal endpoint identifier (TEI) (in decimal) of the CPE where the error was detected.

q[1] = Protocol address information (in decimal) for the protocol entity detecting the error. Valid value(s):

ADDR=r[1]
CRV=s[1]
LCN=t[1]
SAPI=u[1]

r[1] = Link address (in decimal). Valid for LAPB protocol.

s[1] = Call reference value (in decimal). Valid for Q.931, timeslot management channel (TMC), and CEP protocols.

t[1] = Logical channel number (in decimal). Valid for X.25, X.75' and X.75 protocols.

u[1] = Service access point identifier (SAPI) (in decimal). Valid for LAPD and V.120 protocols.

v[1] = Call reference flag. Valid for Q.931 and TMC protocols. Supplemental protocol address information for the protocol entity detecting the error.

w[1] = Cause code (in decimal) associated with the protocol error. Valid for X.25, X.75' and X.75 protocols. The cause code for the IDLC protocol represents application protocol data unit (APDU) status. The value of 0 represents unlinked APDU status and 1 represents linked APDU status.

x[1] = Diagnostic code (in decimal) associated with the protocol error. Valid for X.25, X.75' and X.75 protocols.

y[1] = Logical channel type information. Valid value(s):
PVC = Permanent virtual channel.
SVC = Switched virtual channel.

z[1] = Clearing network identification code.

a[2] = Clearing sub-network identification code.

b[2] = Object class identifier for the IDLC and CEP protocols.

c[2] = The IDLC protocol transaction ID, or the CEP protocol invoke ID (in hexadecimal) associated with the APDU.

d[2] = APDU type for the IDLC and CEP protocols.

e[2] = Linked ID (in hexadecimal) for the CEP protocol.

f[2] = Session completion status. Valid value(s):
COMPLETED = Session completed normally.
STOPPED = Session stopped due to abnormal condition or manual request.

g[2] = Total number of segments printed.

h[2] = Primary/protection identifier.

i[2] = Integrated service line unit 2 (ISLU2) number.

j[2] = Line board number.

k[2] = Line circuit number.

l[2] = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

m[2] = Data group (DG) number.

n[2] = Synchronous transport signal (STS) facility number.

o[2] = Virtual tributary group (VTG) number.

p[2] = Digital signal level 0 (DS0) number.

q[2] = Packet switching unit (PSU) number.

r[2] = PSU shelf number.

s[2] = PSU channel group number.

t[2] = Called address. Valid for X.25, X.75' and X.75 protocols.

u[2] = Calling address. Valid for X.25, X.75' and X.75 protocols.

v[2] = Line group number.

w[2] = PER key value. The PER KEY value is a tracing mechanism used to UNIQUELY identify a location in the switch software where a PER is logged. The KEY values are defined in the Protocol Error Record Descriptions documentation. The KEY value is printed on the ROP is used as an index into documentation.

x[2] = Access interface unit (AIU) number.

y[2] = AIU pack number.

z[2] = AIU circuit number.

a[3] = SONET termination equipment (STE) facility number.

b[3] = Virtual tributary member (VTM) number.

4. ACTIONS TO BE TAKEN

Inspect the EXC:ALE-PER output message for ALE information indicating DSL line problems.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:ALE
EXC:ALE
INH:ALE
OP:ALE
STP:ALE
```

Output Message(s):

```
ALW:ALE
EXC:ALE
EXC:ALE-LVL1
EXC:ALE-LVL2
EXC:ALE-PER
INH:ALE
OP:ALE
REPT:ALE-LEVEL1
REPT:ALE-PER-LOG
REPT:ALE-PTE
STP:ALE-COMPL
```

Output Appendix(es):

```
APP:ALE-PER
```

Other Manual(s):

235-105-110	*System Maintenance Requirements and Tools*
235-600-755	*Protocol Error Record Descriptions*
235-900-341	*National ISDN Basic Rate Interface Specification*
235-900-343	*Custom ISDN Basic Rate Interface Specification*

EXC:CCS-MRVT

Software Release: 5E13 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

[1]
```
EXC CCS MRVT DPC=a OPC=b  TEST STARTED
  MAX STPS ALLOWED TO CROSS: c
  NO TRACE REQUESTED
```

[2]
```
EXC CCS MRVT DPC=a OPC=b  d
  MRVA RECEIVED FROM: e
  MRVA RESULT: f
  ERROR CODES:
  g [h]
  .
  .
  .
```

[3]
```
EXC CCS MRVT DPC=a OPC=b  d
  TRACE MRVR FROM: a
  NUMBER OF STPS CROSSED: i
  TRACE LIST:
  j j j j j
  .
  .
  .
```

[4]
```
EXC CCS MRVT DPC=a OPC=b  d
  k
  ERROR DETECTED: l
  POINT CODES AFFECTED:
  j j j j
  j j j
```

[5]
```
EXC CCS MRVT DPC=a OPC=b  d
  MRVR RECEIVED FROM: m
  ERROR DETECTED: g h
  SUPPLEMENTAL INFO:
  n n n n n
  .
  .
  .
```

[6]
```
EXC CCS MRVT DPC=a OPC=b  TEST ENDED
  MAX STPS ALLOWED TO CROSS: c
```

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```
        NO TRACE REQUESTED

[7]   ____________________________________________________________________
      EXC CCS MRVT DPC=a OPC=b  TEST NOT STARTED
        MAX STPS ALLOWED TO CROSS: c
        NO TRACE REQUESTED
        REASON: o
        j j j j
        j j j
```

2. REASON FOR OUTPUT

Format 2 reports the information contained in MRVA message(s). This report is returned in response to each MRVT message sent to an adjacent point code.

Format 3 reports information contained in trace MRVR message(s).

Format 4 reports the test results for an initiated MRVT, when an MRVT message could not be sent or no MRVA was received.

Format 5 reports the test results for an initiated MRVT, when an MRVR error message has been received.

Formats 1, 6, and 7 report the MRVT status for TEST STARTED, TEST ENDED, and TEST NOT STARTED.

3. VARIABLE FIELD DEFINITIONS

`NO TRACE REQUESTED` = The user did not request a trace of all the STPs crossed.

`TRACE REQUESTED` = The user requested a trace of all the STPs crossed.

`a` = Destination point code (DPC). See APP:POINT-CODE for formats.

`b` = Origination point code (OPC). See APP:POINT-CODE for formats.

`c` = Maximum number of point codes to cross.

`d` = Result of whole test. Valid value(s):
- `FAILURE` = If all expected MRVA messages are returned with a failure result.
- `PARTIAL SUCCESS` = If some expected MRVA messages are returned with a failure result and other expected MRVA messages return with a success result.
- `SUCCESS` = If all expected MRVA messages are returned with a success result.

`e` = Point code that sent the MRVA. See APP:POINT-CODE for formats.

`f` = Test result reported by MRVA message (FAILURE, PARTIAL SUCCESS, or SUCCESS).

`g` = Reason for failure. Valid value(s):
- `EXCESSIVE LENGTH ROUTE`
- `INACCESSIBLE ROUTE`
- `LOCAL CONDITIONS`
- `LOOP`
- `TIMER EXPIRED`
- `UNKNOWN DESTINATION`
- `UNKNOWN ERROR CODE`

UNKNOWN INITIATING POINT CODE
WRONG SP

ERROR	DEFINITION
LOOP	The point code of the intermediate signaling point (STP) to which an MRVT would be sent is already present in the STPs crossed list in the received MRVT message.
EXCESSIVE LENGTH ROUTE	The maximum number of STPs crossed has been reached and the signaling point is not the tested destination.
UNKNOWN DESTINATION	The signaling point does not have a signaling route defined to the MRVT test destination.
INACCESSIBLE ROUTE	The MRVT could not be sent due to network blockage or network congestion.
LOCAL CONDITIONS	The MRVT test cannot proceed due to local conditions (e.g., processor outage or overload) at the receiving signaling point.
UNKNOWN INITIATING POINT CODE	The signaling point cannot route an MRVR message back to the test initiator.
TIMER EXPIRED	Expected MRVAs were not received within the Failed Link Craft Referral Timer Expired (T1.116/T1).
WRONG SP	The MRVT message has arrived at a signaling point that does not have STP functionality and is not the tested destination.
UNKNOWN ERROR CODE	Failure codes above value 8 and higher are considered unknown by the switch.

Note: If multiple errors were detected, item 'g' will be printed for each error received.

h = The value "h" identifies the unknown failure code returned in item "g".

i = The number of STPs that were crossed.

j = List of point codes. See APP:POINT-CODE for formats.

k = MRVT/MRVA status. Valid value(s):
MRVT NOT SENT
MRVA NOT RECEIVED

l = Failure reasons if variable 'j' equals Any Of The Above. Valid value(s):
INACCESSIBLE APC = All links unavailable.
TIMER EXPIRED = When the Failed Link Craft Referral Timer Expired (T1.116/T1) expires for an initiated MRVT.
NETWORK ERROR = An SCCP error or TCAP error/reject/abort from the SS7 network.

m = Point code that sent the MRVR message. See APP:POINT-CODE for formats.

n = List of point codes in the MRVR message. See APP:POINT-CODE for formats.

ERROR	EXPLANATION
LOOP	The point codes of the STPs that are in the loop.
EXCESSIVE LENGTH ROUTE	The point codes of the STPs crossed.
UNKNOWN DESTINATION	The point codes of the STPs crossed.
INACCESSIBLE ROUTE	The point code of the inaccessible signaling point.
LOCAL CONDITIONS	The point code of the signaling point where the test cannot proceed.
UNKNOWN INITIATING POINT CODE	Point code of the SP that does not recognize the initiating SP.
TIMER EXPIRED	The point code of the signaling point(s) from which one or more expected MRVA messages are not received before the T1 timer expired.
WRONG SP	The point codes of the STPs crossed.
UNKNOWN ERROR CODE	The point code of the signaling point returning the unknown error code.

o = Failure reasons if TEST NOT STARTED. Valid value(s):

`DPC IS ALREADY UNDER TEST` = Test destination is already under test.
`INACCESSIBLE DPC` = No paths to DPC are accessible.
`INTERNAL DB ERROR` = Internal database error.
`INVALID DPC` = A member route set to the test destination (DPC) is not provisioned.
`LOCAL CONDITIONS-MESSAGE PATH INACCESSIBLE` = Intra-SM MD path is inaccessible.
`MAXIMUM TESTS ALREADY IN PROGRESS` = The maximum number of MRVT tests for the GSM are already in progress. (Provisioned by Recent Change.)

4. ACTIONS TO BE TAKEN

For Format 2, investigate the MTP routing data based on the errors given in the received MRVA message.

For Format 3, verify the route of this MRVT test in a responding MRVR success message after all expected MRVA messages have been received.

For Format 4, investigate the MTP routing data based on the error and point codes associated with the error, when an MRVT message could not be sent or no MRVA was received.

For Format 5, investigate the MTP routing data based on the error and point codes associated with the error.

For Formats 1, 6, and 7 verify the test has started, ended, and not started, respectively.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT:CCS-MRVR
EXC:CCS-SRVT
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services*

RC/V View(s):

16.4 (OMAP ROUTE VERIFICATION TEST TIMER PARAMETERS)

EXC:CCS-SRVT

Software Release: 5E13 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

[1]
```
EXC CCS SRVT TT=a DIGITS=b OPC=c  TEST STARTED

  TPC: d d

  MAX GTT ALLOWED: e

  NO TRACE REQUESTED
```

[2]
```
EXC CCS SRVT TT=a DIGITS=b OPC=c  f

  SRVA RECEIVED FROM: g

  SRVA RESULT: h

  ERRORS DETECTED:

  i [j]
  .
  .
  .
```

[3]
```
EXC CCS SRVT TT=a DIGITS=b OPC=c  f

  TRACE SRVR FROM: k

  NUMBER OF TSPS CROSSED: l

  TRACE LIST:

  m m m m
  .
  .
  .
```

[4]
```
EXC CCS SRVT TT=a DIGITS=b OPC=c  f

  n

  ERROR DETECTED: o

  POINT CODES AFFECTED:
```

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```
        m m

[5]     ____________________________________________________________________
        EXC CCS SRVT TT=a DIGITS=b OPC=c  f

          SRVR RECEIVED FROM: k

          ERROR DETECTED: i j

          SUPPLEMENTAL INFO:

          m m m m
          .
          .
          .

[6]     ____________________________________________________________________
        EXC CCS SRVT TT=a DIGITS=b OPC=c  TEST ENDED

          TPC = d d

          MAX GTT ALLOWED: e

          NO TRACE REQUESTED

[7]     ____________________________________________________________________
        EXC CCS SRVT TT=a DIGITS=b OPC=c  TEST NOT STARTED

           TPC = d d

           MAX GTT ALLOWED: e

           NO TRACE REQUESTED

           REASON: p

           d d
```

2. REASON FOR OUTPUT

Format 2 reports the test result when an SRVA message has been received in response to an SRVT request sent to a translation point code.

Format 3 reports information contained in a responding SRVR message from an initiated SRVT request. Note: If received SRVR messages contain more than eight PCs, duplicate messages may be output to complete point code lists (unless max GTTs in range [1-4]).

Format 4 reports the test result for an initiated SRVT, when an SRVT message can not be sent or no SRVA was received.

Format 5 reports the test result for an initiated SRVT, when an SRVR error message has been received. Note: If received SRVR messages contain more than eight PCs, duplicate messages may be output to complete point code lists (unless max GTTs in range [1-4]).

Formats 1, 6, and 7 report the SRVT status for TEST STARTED, TEST ENDED, and TEST NOT STARTED.

3. VARIABLE FIELD DEFINITIONS

NO TRACE REQUESTED = The user did not request a trace of all the STPs crossed.

TRACE REQUESTED = The user requested a trace of all the STPs crossed.

a = Translation type.

b = Global title digits.

c = Originating point code (OPC). See APP:POINT-CODE for formats.

d = Point codes to send SRVT (as specified by craft, or TPCs found in SCCP GTT data). See APP:POINT-CODE for formats.

e = Maximum number of global title translations allowed.
Note: Both members of mated STP pairs are included in the trace list.

f = Result of the test. Valid value(s):
FAILURE = If all expected SRVA messages are returned with a failure result.
PARTIAL SUCCESS = If some expected SRVA messages are returned with a failure result and other expected SRVA messages return with a success result.
SUCCESS = If all expected SRVA messages are returned with a success result.

g = Point code that sent the SRVA message.

h = Test result contained in the SRVA message (FAILURE, PARTIAL SUCCESS, SUCCESS).

i = Reason for failure. Valid value(s):
LOOP
EXCESSIVE LENGTH ROUTE
NO TRANSLATION FOR GLOBAL TITLE
INACCESSIBLE ROUTE
LOCAL CONDITIONS
UNKNOWN INITIATING POINT CODE
TIMER EXPIRED
WRONG SP
INCORRECT TRANSLATION FOR PRIMARY DEST
INCORRECT TRANSLATION FOR SECONDARY DEST
INCORRECT TRANSLATION FOR INTERMEDIATE TSP
NOT PRIMARY DESTINATION
NOT SECONDARY DESTINATION
PRIMARY DESTINATION NOT RECOGNIZED
SECONDARY DESTINATION NOT RECOGNIZED
ROUTING PROBLEM
SUCCESS TO GATEWAY
UNKNOWN ERROR CODE

ERROR	DEFINITION
LOOP	The point code of the intermediate translation signaling point (TSP) to which an SRVT would have been sent, is already present in the TSPs crossed list in the received SRVT message.
EXCESSIVE LENGTH ROUTE	The maximum number of GTTs has occurred and the signaling point is not the tested

	destination.
NO TRANSLATION FOR GLOBAL TITLE	No translation data exists for the GTI+GT.
INACCESSIBLE ROUTE	The SRVT could not be sent due to network blockage or network congestion.
LOCAL CONDITIONS	The SRVT test cannot proceed due to local conditions (e.g., processor outage or overload) at the receiving signaling point.
UNKNOWN INITIATING POINT CODE	The signaling point cannot route an SRVR message back to the test initiator.
TIMER EXPIRED	Expected SRVAs were not received within False Link Congestion Detected (T1.116/T2).
WRONG SP	The SRVT message has arrived at a signaling point that does not have TSP functionality and is not the final GT destination.
INCORRECT TRANSLATION FOR PRIMARY DEST	The mate TSP has received an SRVT Compare message and performs a translation of the GTT data. The resulting primary destination does not match the received primary destination in the SRVT Compare message.
INCORRECT TRANSLATION FOR SECONDARY DEST	The mate TSP has received an SRVT Compare message and performs a translation of the GTT data. The resulting secondary destination does not match the received secondary destination in the SRVT Compare message.
INCORRECT TRANSLATION FOR INTERMEDIATE TSP	The mate TSP has received an SRVT Compare message and performs a translation of the GTT data. GTT data at intermediate TSP mated pairs are different.
NOT PRIMARY DESTINATION	The tested primary destination has examined the Global Title in the received SRVT Verify message and concludes that it does not serve the Global Title.
NOT SECONDARY DESTINATION	The tested secondary destination has examined the Global Title in the received SRVT Verify message and concludes that it does not serve the Global Title.
PRIMARY DESTINATION NOT RECOGNIZED	The tested secondary destination does not recognize the primary destination as its mate.
SECONDARY DESTINATION NOT RECOGNIZED	The tested primary destination does not recognize the secondary destination as its mate.
ROUTING PROBLEM	The TSP is unable to send the SRVT message due to an unknown SCCP destination derived from GTT data.
SUCCESS TO GATEWAY	The SRVT message has successfully reached the gateway intermediate signaling point but is unable to continue the inter-network test.
UNKNOWN ERROR CODE	Failure codes above value 16 are considered unknown by the switch.

j = The value "j" identifies the unknown failure code returned in item "i".

k = Point code that sent SRVR message. See APP:POINT-CODE for formats.

l = Number of translation signaling points crossed (which includes mate TSPs in mated pairs).

m = List of point codes. See APP:POINT-CODE for formats.

ERROR	EXPLANATION
LOOP	The point codes of the TSPs which are in the loop.
EXCESSIVE LENGTH ROUTE	The point codes of crossed TSPs contained in the SRVT message.
NO TRANSLATION FOR GLOBAL TITLE	The point codes of crossed TSPs contained in the SRVT message.
INACCESSIBLE ROUTE	The point code of the inaccessible signaling point.
LOCAL CONDITIONS	The point code of the signaling point where the test cannot be run.
UNKNOWN INITIATING POINT CODE	The point code of the SP that does not recognize the initiating SP.
TIMER EXPIRED	The point code of the signaling point(s) from which one or more expected SRVA messages are not received before the T2 timer expires.
WRONG SP	The point codes of the crossed TSPs contained in the SRVT message.
INCORRECT TRANSLATION FOR PRIMARY DEST	The point codes of the crossed TSPs contained in the SRVT message.
INCORRECT TRANSLATION FOR SECONDARY DEST	The point codes of the crossed TSPs contained in the SRVT message.
INCORRECT TRANSLATION FOR INTERMEDIATE TSP	The point codes of the crossed TSPs contained in the SRVT message.
NOT PRIMARY DESTINATION	The point codes of the crossed TSPs contained in the SRVT message.
NOT SECONDARY DESTINATION	The point codes of the crossed TSPs contained in the SRVT message.
PRIMARY DESTINATION NOT RECOGNIZED	The point codes of the crossed TSPs contained in the SRVT message.

SECONDARY DESTINATION NOT RECOGNIZED	The point codes of the crossed TSPs contained in the SRVT message.
ROUTING PROBLEM	The point codes of the crossed TSPs contained in the SRVT message.
SUCCESS TO GATEWAY	The point codes of the TSPs crossed and the PC of the gateway TSP in the next network.
UNKNOWN ERROR CODE	The point code of the signaling point returning the unknown error code.

n = SRVT/SRVA status. Valid value(s):
SRVT NOT SENT
SRVA NOT RECEIVED

o = Failure reasons if variable 'n' equals Any Of The Above. Valid value(s):
INACCESSIBLE TPC = All links unavailable.
TIMER EXPIRED = When T1.116/T2 expires for an initiated SRVT.
NETWORK ERROR = An SCCP error or TCAP error/reject/abort from the SS7 network.

p = Failure reason if TEST NOT STARTED. Valid value(s):
GLOBAL TITLE IS ALREADY UNDER TEST = Test destination is already under test.
INACCESSIBLE TPC = All links to the TPCs are unavailable.
INVALID TPC = A member route set to the test destination is not provisioned.
LOCAL CONDITIONS-MESSAGE PATH INACCESSIBLE = Intra-SM MD path is inaccessible.
MAXIMUM TESTS ALREADY IN PROGRESS = The maximum number of SRVT tests for the GSM are already in progress.
NO TRANSLATION FOR GLOBAL TITLE = No translation data exists for GTI+GT.

4. ACTIONS TO BE TAKEN

For Format 2, investigate the SCCP routing data based on the error(s) given in the received SRVA message. Error detected message report may be generated which gives the point codes associated with the error.

For Format 3, verify the route of this SRVT test by checking the translation signaling point codes in the trace list.

For Format 4, investigate the SCCP routing data based on the error and point codes associated with the error, when an SRVT message can not be sent or no SRVA was received.

For Format 5, investigate the SCCP routing data based on the error and point codes associated with the error.

For Formats 1, 6, and 7 verify the test has started, ended, and not started, respectively.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

EXC:CCS-MRVT

Output Appendix(es):

APP:POINT-CODE

Other Manual(s):

235-190-120 Common Channel Signaling Services

RC/V View(s):

16.4 (OMAP ROUTE VERIFICATION TEST TIMER PARAMETERS)

EXC:CCSCQ

Software Release: 5E12 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EXC CCSCQ [OFFICE|OPC=a DPC=b|TG=c|TKGMN=c-d] STARTED

[2]   ____________________________________________________________________
      EXC CCSCQ OFFICE  LIST SEGMMENT=n
        OPC     DPC     MATCHED MISMATCHED      UNDETERMINED
        a       b         e        f                 g
       [a       b         e        f                 g]

[3]   ____________________________________________________________________
      EXC CCSCQ [OFFICE|OPC=a DPC=b|TG=c|TKGMN=c-d] h
        MATCHED   MISMATCHED   UNDETERMINED
        e             f               g

[4]   ____________________________________________________________________
      EXC CCSCQ  SM=m [OPC=a DPC=b|TG=c|TKGMN=c-d]
        OPC  a  DPC  b
        TKGMN  CIC  NESTATE  FESTATE  ACTIONS
        c-d    i     j         k       l-l[-l][-l]

[5]   ____________________________________________________________________
      EXC CCSCQ - DATA FROM THE FOLLOWING SMs MAY BE INCOMPLETE
        m     [m]     [m]     [m]     [m]     [m]     [m]     [m]
        MORE THAN 10 SMs INCOMPLETE

[6]   ____________________________________________________________________
      EXC CCSCQ [OFFICE|OPC=a DPC=b|TG=c|TKGMN=c-d] SKIPPED MTP [INACCESSIBLE]
        OPC=a

[7]   ____________________________________________________________________
      EXC CCSCQ [OFFICE|OPC=a DPC=b|TG=c|TKGMN=c-d] SKIPPED MTP [OVERLOAD]
        OPC=a

[8]   ____________________________________________________________________
      EXC CCSCQ [OFFICE|OPC=a DPC=b|TG=c|TKGMN=c-d] SKIPPED DPC INACCESSIBLE
        OPC=a DPC=b

[9]   ____________________________________________________________________
      EXC CCSCQ [OFFICE|OPC=a DPC=b] NOT PROVISIONED COUNT n

[10]  ____________________________________________________________________
      EXC CCSCQ [OFFICE|OPC=a DPC=b|TG=c|TKGMN=c-d] ABORTED o

[11]  ____________________________________________________________________
      EXC CCSCQ OFFICE NOT STARTED p
```

2. REASON FOR OUTPUT

To report the results from either an automatic circuit query (CQ) or a manual circuit query CQ request originating in this office.

Format 1 reports that the identified circuit query has been STARTED.

Format 2 reports the results of a common channel signaling (CCS) interoffice circuit query on all CCS7 trunks provisioned for query. The office-wide circuit query runs routinely or can be requested manually. This format includes a summary for each OPC/DPC pair, containing the count of the number of circuits in which the near and far end statuses either matched, mismatched, or could not be determined. This report is only valid for an office-wide CQ request. OPC/DPC pairs are printed in groups of 6.

Format 3 reports the accumulated results of a circuit query request. It is the last output report printed regardless of report option specified, and the only output when FORM=SHORT is selected. The format includes the accumulated number of matched, mismatched, and undetermined statuses for the corresponding query.

Format 4 optionally reports the results of OPC/DPC, TG, or TRKMN CQ. If selected, this format lists per circuit information as the trunk queried. This format lists circuits in groups of 6, all provisioned on the same SM and OPC-DPC, but possibly belonging to different trunk groups. If `FORM=EXPANDED`, then this format displays near-end and far-end circuit status no matter if there is a match or mismatch. If the `FORM=LONG` option was specified, then it this format will display the near-end and far-end circuit states only if there was a mismatch. If the `FORM=EXPANDED` option was specified, then this format will display the near-end and far-end circuit states regardless of their values. If the `CORRECT=INH` option is specified, then this format displays the action `INHIBITED`, if mismatches are detected.

Format 5 reports results only when a SM has incomplete data due to the SM being inaccessible, Min-Mode, or failing to respond in time. It will display the SM numbers that are failing if the number of SMs with incomplete data is less than 10. If more than 10 SMs are unresponsive the report will print the first 10 SMs and then a message will print stating there is incomplete data from more than 10 SMs.

Format 6 reports a problem accessing a CNI or GSM CCS signaling platform. The OPC is printed to identify the failing platform in multiple OPC offices.

Format 7 reports a problem accessing a DPC due to congestion and inaccessibility. The affected OPCs and DPCs are listed.

Format 8 reports how many trunks were not queried because trunk groups were not provisioned for CQ (5.1 RC/V view).

Format 9 reports a circuit query has been aborted for the reason cited.

Format 10 reports an automatic office-wide circuit query has not been started for the reason cited. These formats replace AUD:CCSTQ output in pre-5E12 releases.

3. VARIABLE FIELD DEFINITIONS

`a` = Origination point code number. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual.

`b` = Destination Point Code number. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual.

`c` = Trunk group number.

`d` = Trunk member number.

e = Number of circuits where near-end and far-end statuses matched.

Near-end and far-end status match (i.e. the statuses are consistent) if any of the following combinations occur.

```
ICB-ACT, OGB-ACT
ICB-LBO, OGB-RBO
ICB-LRB, OGB-LRB
ICB-RBO, OGB-LBO
IDL-ACT, IDL-ACT
IDL-LBO, IDL-RBO
IDL-RBO, IDL-BLO
IDL-LRB, IDL-LRB
OGB-ACT, ICB-ACT
OGB-LBO, ICB-RBO
OGB-LRB, ICB-LRB
OGB-RBO, ICB-LBO
```

See variable 'j' for a description of these acronyms.

f = Number of circuits where near-end and far-end statuses did not match.

Any near-end and far-end status combination that was not listed above is considered a mismatch, unless either end has a status of TRN (transient), as defined in variable 'j'.

g = Number of circuits where near-end and/or far-end statuses match could not be determined.

In these cases, status of one/both ends is TRN (transient), as defined in variable 'j'.

h = The reason for terminating a CQ request. Valid value(s) are:

COMPLETED	- normal termination.
STOPPED	- stopped by STP:CCSCQ request.

i = Circuit identification code (CIC).

j = Near-end circuit state prior to any action. Valid value(s):

ICB-ACT	= Incoming busy, active (that is, in service).
IDL-ACT	= Idle, active (that is, in service).
IDL-LBO	= Idle, local maintenance blocked.
IDL-LRB	= Idle, local/remote maintenance blocked.
IDL-RBO	= Idle, remote maintenance blocked.
OGB-ACT	= Outgoing busy, active (that is, in service).
TRN	= Transient.
UNQ	= Unequipped.

The following circuit statuses are not possible in the switch:

ICB-LBO	= Incoming circuit busy, local maintenance blocked.
ICB-LRB	= Incoming circuit busy, local/remote maintenance blocked.
ICB-RBO	= Incoming circuit busy, remote maintenance blocked.
OGB-LBO	= Outgoing circuit busy, local maintenance blocked.
OGB-LRB	= Outgoing circuit busy, local/remote maintenance blocked.
OGB-RBO	= Outgoing circuit busy, remote maintenance blocked.

Near-end trunks are considered transient if they are:

- Trunks involved in growth/degrowth procedures with an OOS, CADN, DSBLD port status.
- Trunks involved in audit type recovery, where the port status is IS, AUDIT, AUTO.
- Trunks pending reset, with an OOS, MTCE, CCSINIT port status.
- Trunks involved in continuity re-check, with an OOS, MTCE, COT port status.
- Trunks involved in non-CCS call related activities, such as TLWS scenarios or test calls.
- Trunks involved in transient CCS outgoing calls before ACM received.
- Trunks involved in transient CCS incoming calls before ACM sent.
- Trunks involved in transient CCS calls before RLC received after sending RSC or REL.
- Trunks involved in incoming BLO, UBL, CGB, CGU processing before BLA, UBA, CGBA, CGUA has been returned. These trunks are transitioning between IDL-LRB, IDL-ACT, and IDL-RBO states in the near-end office.
- Trunks involved in outgoing BLO, UBL, CGB, CGU sending before BLA, UBA, CGBA, CGUA has been received. These trunks are transitioning between IDL-LRB, IDL-ACT, and IDL-LBO states in the far-end office.
- Trunk's SM is unreliable or unavailable.

`k` = Far-end circuit state prior to any action. Valid value(s):

`ICB-ACT`	= Incoming circuit busy, active (that is, in service).
`ICB-LBO`	= Incoming circuit busy, local maintenance blocked.
`ICB-LRB`	= Incoming circuit busy, local/remote maintenance blocked.
`ICB-RBO`	= Incoming circuit busy, remote maintenance blocked.
`IDL-ACT`	= Idle, active (that is, in service).
`IDL-LBO`	= Idle, local maintenance blocked.
`IDL-RBO`	= Idle, remote maintenance blocked.
`IDL-LRB`	= Idle, local/remote maintenance blocked.
`OGB-ACT`	= Out going circuit busy, active (that is, in service).
`OGB-LBO`	= Out going circuit busy, local maintenance blocked.
`OGB-LRB`	= Out going circuit busy, local/remote maintenance blocked.
`OGB-RBO`	= Out going circuit busy, remote maintenance blocked.
`TRN`	= Transient.
`UNQ`	= Unequipped.

`l` = Action taken to correct a mismatch. Valid value(s):

`CLRRB`	= Clear remote blocked status. Delete the OOS, BLKD, AUTO status.
`IDLE`	= Idle trunk. Preempt current process associated with trunk.
`NONE`	= No corrective action needed.
`SETCADN`	= Set circuit administration status. Add OOS,CADN, DSBLD status.
`SETRB`	= Set remote blocked status. Add OOS, BLKD, AUTO status.
`SNDBLO`	= Send maintenance blocked message.
`SNDUBL`	= Send maintenance unblocked message.
`SNDREL`	= Send release message.
`INHIBITED`	= Corrective action is required but it is inhibited by the CORRECT=INH option.

`m` = Switching module number (1-192)

`n` = Number of trunks in the specified CQ that were not processed, as they are not provisioned as query candidates.

o = Reason for an aborted circuit query. Valid value(s) are:
`DATABASE ERROR` = Required information could not be obtained from the database.
`AM OVERLOAD` = AM overloaded during processing of CQ request.

p = Reason for not starting a scheduled automatic office-wide circuit query. Valid value(s) are:
`AUTOMATIC CQ INHIBITED` = It is time to start automatic office-wide CQ according to the provisioned schedule (RC/V view 8.15), but automatic queries are manually inhibited.
`OFFICE REQUEST ALREADY RUNNING` = Only one office-wide CQ request can be executed at any time.
`SYSTEM RESOURCE` = System Resources are not available to start the automatic office CQ. The switch will attempt to start it again at the beginning of the next hour.
`OPC/DPC or TG REQUEST ALREADY RUNNING` = An office-wide request can only be executed if no other CQ requests are running.

4. ACTION TO BE TAKEN

If the result of the circuit query is `COMPLETED`, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:CCSCQ
EXC:CCSCQ
INH:CCSCQ
OP:CCSCQ
STP:CCSCQ
OP:JOBSTATUS
```

Output Message(s):

```
RMV:TRK
RST:TRK
STP:CCSCQ
EXC:CCSCQ
OP:CCSCQ
OP:JOBSTATUS
```

Output Appendix(es):

```
APP:POINT-CODE
```

RC/V View(s):

5.1 (TRUNK GROUP)

Other Manual(s):
235-190-120 *Common Channel Signaling Services*

EXC:CCSXLATE

Software Release: 5E12 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EXC CCSXLATE TKGMN=a-b ATP
        OPC=g DPC=e CIC=f
             CGC DSC ACI CCI CIN   CLLI
        NE    h   j   l   n   p      r
        FE    h   j   l   n   p      r
        NE COPY OF FE CLLI: r

[2]   ____________________________________________________________________
      EXC CCSXLATE TKGMN=a-b NE TRANSLATION FAILURE
       [RELATION=d]

[3]   ____________________________________________________________________
      EXC CCSXLATE TKGMN=a-b c
        OPC=g DPC=e CIC=f
            CGC  DSC  ACI  CCI  CIN  CLLI
        NE   h    j    l    n    p     r

        NE COPY OF FE CLLI: r

       [FE CLLI r]

[4]   ____________________________________________________________________
      EXC CCSXLATE TKGMN=a-b TRUNK DATA MISMATCH FAILURE
        OPC=g DPC=e CIC=f
            CGC  DSC  ACI  CCI  CIN  CLLI
        NE   h    j    l    n    p     r
        FE   h    j    l    n    p     r
        MISMATCH(ES): t [t [t] ]
        NE COPY OF FE CLLI: r
```

2. REASON FOR OUTPUT

To report the results of a manual request for a common channel signaling (CCS) translation test for a specific trunk (EXC:CCSXLATE input message).

Format 1 reports all verified fields are consistent between offices, and near-end ODD is correct.

Format 2 reports near-end office translation test failure. This format specifies the first inconsistent ODD relation encountered. Each format 2 message is accompanied by a manual action assert directing the user to the ODD relation tuple in error.

Format 3 reports near-end data, when no response is received from far-end.

Format 4 reports when verified near-end data is not consistent with the far-end data.

3. VARIABLE FIELD DEFINITIONS

a = Trunk group number.

b = Trunk member number.

c = The problem encountered during a CCS translation test. Valid value(s):

`CVR TRANSLATION FAILURE` = CVR message received from far-end office could not be translated per protocol.
`DATABASE ERROR` = Required information could not be obtained from the database.
`DPC CONGESTION` = Destination point code is accessible but is experiencing congestion that prohibit CCS translation test execution at this time.
`DPC INACCESSIBLE` = Destination point code is inaccessible and cannot be used at the present time.
`FE XLATE FAILURE` = The far-end office responded to the circuit validation test (CVT) message with a circuit validation response (CVR) message indicating a failure occurred in the far-end office.
`MTP INACCESSIBLE` = The CCS message transfer part (MTP) transport on the CNI or PSU platform is inaccessible.
`MTP OVERLOAD` = Some portion of the CCS message transfer part (MTP) transport on the CNI or PSU platform is experiencing an overload situation.
`FE RESPONSE TIMEOUT` = The far-end office did not respond to the CVT message with a CVR message.
`SM INACCESSIBLE` = The target trunk's SM is inaccessible because it is in MIN-MODE, it has lost communication with the AM, or the SM is not operational.
`SM OVERLOAD` = The target trunk's SM is experiencing an overload situation on a CNI or PSU platform
`SM RESPONSE TIMEOUT` = AM process timed-out waiting for SM processing to complete.
`SYSTEM ERROR` = An unexpected error has occurred during processing.

e = Destination point code (DPC). Refer to the APP:POINT-CODE appendix.

f = Circuit identification code (CIC).

g = Origination point code (OPC). Refer to the APP:POINT-CODE appendix.

h = Circuit group carrier (CGC) indicator. Valid value(s):

`UNK` = Unknown.
`ANG` = Analog.
`DIG` = Digital.
`ANDI` = Analog and digital.

The CGC indicator must match for the trunk translation to pass. Since CGC indicator setting is not uniform between vendors, CGC indicator mismatches will not result in trunk translation failures. However, CGC indicator mismatches between offices, using the interpretation, could result in call handling failures. The CGC values between offices are:

```
UNK   ->   UNK, ANG, DIG, or ANDI
ANG   ->   ANG
DIG   ->   DIG
ANDI  ->   ANDI
```

j = Double seizing control (DSC) indicator (glare control). Valid value(s):

ALL = The office has all CIC control and will assume control of any call if placed over the trunk group.

EVEN = This office assumes control of calls placed over even CICs within the trunk group. If the CIC of the specific trunk is EVEN then it will assume control during double seizure situations. If the CIC is ODD then the trunk will back down in double seizure scenarios.

NONE = The office has no control and will always back down during dual seizure scenarios in the trunk group.

ODD = This office assumes control of calls placed over ODD CICs within the trunk group. If the CIC of the specific trunk is ODD then the trunk will assume control during double seizure situations. If the CIC is EVEN then the trunk will back down in double seizure scenarios.

The DSC indicator must be complementary for the trunk translation to pass for two-way trunks. DSC inconsistencies between offices can result in call handling failures. DSC mismatches will result in translation test failure. Valid value(s):

ALL -> NONE

NONE -> ALL

ODD -> EVEN

EVEN -> ODD

One-way trunks are not required to be complementary for the trunk translation to pass.

l = Alarm carrier indicator (ACI). Valid value(s):

HCG = Hardware carrier handling.
SCG = Software carrier handling.
SPR = Spare.
UNK = Unknown.

ACI information is displayed only, and need not match for calls to complete. ACI mismatches will not result in translation test failures.

n = Continuity check indicator (CCI). Valid value(s):

NO COT = Continuity test (COT) is not run on per-call basis for trunks in the trunk group.
PER CALL = Continuity test (COT) per-call test is run on all outgoing calls placed using the trunk group.
STATISTICAL = Continuity test (COT) is run on a percentage of all outgoing calls placed using the trunk group.
UNK = Unknown.

CCI information is displayed only and need not match for calls to complete. CCI mismatches will not result in translation test failures.

p = Circuit identification name (CIN). The CIN is constructed using the CIC, NE-CLLI, and FE-CLLI.

The first portion is the CIC. The second and third portions are the CLLIs from both offices For one-way trunks, the first CLLI given is the CLLI of the office that offers traffic to the trunk. For two-way trunks, CLLIs are given in alphanumeric order.

CINs are always constructed and displayed for the near-end trunk.

CIN is an optional field in the CVR message returned from the far-end office. If CIN is included, it is checked to ensure it matches. If the CIN is not returned from the far-end office then the string "`**NOT RETURNED**`" is displayed.

CIN mismatches will result in trunk translation failures. CIN inconsistencies between offices can result in call handling failures. Failures include:

- The CICs are not consistent between the offices. CIC inconsistency will cause call handling failures.
- Trunk groups routing types (incoming, outgoing or two-way) are inconsistent between the offices. Routing types are used to determine the order in which the CLLI fields are displayed in the CIN. Routing type inconsistencies can be inferred if the CLLIs are listed in different orders, in the FECIN and the NECIN.
- The CLLIs mismatch. If the CLLIs are inconsistent, then the CIN will also be inconsistent.

CIN fields are required by the ISUP protocol to be exactly 26 characters with the end-of-string character. If the far-end office returns a CIN with less than 26 characters, then '*' is used as padding.

CINs that contain the "`**UNKNOWN**` CLLIs will not cause a mismatch since the string is used to indicate that the CLLI is not provisioned. The only exception is if the first 4 characters (CIC) do not match. If the CICs do not match, the mismatch is reported regardless of the CLLI values.

`r` = CLLI identifier. The EXC CCSXLATE output messages can print up to 3 CLLIs:

- Near end CLLI. This field is always given.
- Far-end CLLI received in the CVR from the far-end office. The FE CLLI is optional and may not be sent. If it is not received, then "`**UNKNOWN**`" is displayed.
- Near-end copy of the FE CLLI. NE COPY OF FE CLLI is also optional. If the near-end copy of the FE CLLI is not provisioned, then "`**UNKNOWN**`" is displayed.

CLLI mismatch occurs when the near-end office's copy of the far-end office's CLLI does not match the CLLI returned from the far-end office in the CVR message.

If the far-end office has not returned a CLLI, then the CLLIs are not checked. CLLI mismatches will cause a translation test failure. However, CLLI mismatches can not result in call handling failures.

CLLI fields are required by the ISUP protocol to be exactly 11 characters with an end-of string character. If any CLLI is detected to be less than 11 characters, then '*' is used as padding.

Near-end CLLI and Near-end copy of FE CLLI that are less that 11 characters will result in a manual action assert.

CLLIs that contain the "`**UNKNOWN**`" string will not cause a mismatch.

`t` = Mismatched near-end versus far-end characteristics. Valid value(s):

`CIN` = Circuit identification name
`CLLI` = Common language location identifier.

`DSC` = Double seizing control indicator

4. ACTIONS TO BE TAKEN

To correct near-end ODD problems and inconsistencies between offices, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`EXC:CCSXLATE`

Other Manual(s):

235-190-120 *Common Channel Signaling Service Features*

EXC:CO-SM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
EXC CO SM=a b STATUS=c
```

2. REASON FOR OUTPUT

To report the switching module (SM) completion status of a particular cutover (CO) migration. Types of cutover migration include cutover, cutback, and abort.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = Type of migration completed. Valid value(s):

`ABORT`	= Abort sequence.
`CUT BACK`	= Cutback sequence.
`CUT OVER`	= Cutover sequence.

`c` = Migration completion code. Valid value(s):

`ABORT`	= Migration aborted.
`FATAL ERROR`	= Cutover program stopped. No lines migrated. Cutover program unable to retrieve office state.
`SUCCESS`	= Successful migration.
`SYSERR`	= System error encountered. Migration stopped.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:CO
```

Output Message(s):

```
EXC:CO-STATUS
```

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EXC:CO-STATUS

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
EXC CO=a STATUS=b TTYNAME=c
```

2. REASON FOR OUTPUT

To report the system completion status of a particular cutover (CO) migration after all equipped switching module (SM) processing is complete, or after a timeout event occurs. Types of cutover migrations include cutover, cutback, and abort.

3. VARIABLE FIELD DEFINITIONS

`a` = Type of migrations completed. Valid value(s):

`ABORT`	= Abort sequence.
`CUT BACK`	= Cutback sequence.
`CUT OVER`	= Cutover sequence.

`b` = Migration completion code. Valid value(s):

`ABORT`	= Migration aborted.
`FATAL ERROR`	= Cutover program stopped. Cutover program unable to retrieve office cutover state.
`SUCCESS`	= Successful migration.
`SYSERR`	= System error encountered. Migration stopped.
`TIMEOUT`	= Not all SMs have reported SM complete message to the administrative module (AM).

`c` = TTY identifier for the origin of the cutover commands.

4. ACTION TO BE TAKEN

As appropriate for the procedure being followed in section 7 of the Precutover and Cutover Procedure manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:CO
```

Output Message(s):

```
EXC:CO-SM
```

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Other Manual(s):
235-105-200 *Line Precutover and Cutover Procedures*

EXC:DSTT

Software Release: 5E10 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
EXC DSTT {INWATS=a|NCD=b|FUNC=c|BNS=d|CCRD=b|CAS=b} DURATION=e
  f     [g]     [h]
```

2. REASON FOR OUTPUT

To report the result of the manual request, EXC:DSTT, for a direct signaling translation test (DSTT).

3. VARIABLE FIELD DEFINITIONS

`a` = Inward wide area telecommunications service (INWATS) number that was tested, in the form 800NXX.

`b` = Network call denial (NCD) number, customer account services (CAS) number or calling card (CCRD) number that was tested, in the form NPANXX or RAO[0/1]XX. For CAS, this is the first six digits of the individual account number.

`c` = Function number that was tested.

`d` = Billed number screening (BNS) in the form NPANXX.

`e` = Duration of the test, in milliseconds. Timing starts when the *5ESS*®-2000 switch sends a test message and ends when the *5ESS*®-2000 switch receives a reply from the common channel signaling (CCS) network.

`f` = Results of the DSTT. Valid value(s):
`DESTINATION UNEQUIPPED` = Destination is unequipped.
`INCORRECT DESTINATION` = Test message was sent to an incorrect destination.
`INCORRECT ROUTING DATA` = Incorrect routing data.
`INVALID DSTT RESPONSE MESSAGE` = A response message received contained a field with invalid data.
`NETWORK BLOCKED` = Network blocked.
`NETWORK OVERLOAD` = Network overload.
`NO ROUTING DATA` = No routing data for the destination address.
`STP MISMATCH` = There was a mismatch in routing data at mate signaling transfer points.
`STP MISROUTED` = Test message was misrouted at a signaling transfer point.
`STP NON C-LINK` = An STP received a test message on other than a C-link.
`SUCCESS` = Translation test was a success.
`TIMEOUT WAITING FOR RESPONSE` = A timeout occurred waiting for a response (neither an RTT1 nor an RTT2 message was received).
`TIMEOUT WAITING FOR RTT1` = A timeout occurred waiting for first reply to translation test (RTT) message after second received.
`TIMEOUT WAITING FOR RTT2` = A timeout occurred waiting for second RTT message after first received.

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`g` = CLLI code. CLLI code is a string of eleven characters that identifies the node that replied to the *5ESS®*-2000 switch test message. A reply was received when field '`f`' does not indicate a `TIMEOUT`. For `SUCCESS`, the CLLI code indicates the intended destination as given by the address in fields '`a`', '`b`' and '`d`'. For all other reply cases, the CLLI code indicates where the reported error occurred in the CCS network.

`h` = Function number (FUNC) of the node that replied as described in '`f`'. The FUNC is a value from 1 to 32767 and will be reported for all cases in which fields '`f`' is output. For `SUCCESS`, the FUNC is the correct destination's function number. For all other reply cases, it is the function number of the point where the error occurred.

4. ACTION TO BE TAKEN

Wait ten minutes before requesting another test for cases of timeout or overload. Other non-success results suggest some routing problem within the network.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:DSTT
TST:BNS
TST:CAS
TST:CCRD
TST:INWATS
TST:NCD
TST:RATE
```

Output Message(s):

```
TST:BNS
TST:CAS
TST:CCRD
TST:INWATS
TST:NCD
TST:RATE
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

EXC:ECD-EVOL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EXC ECD EVOL STEP a COMPLETED

[2]   ____________________________________________________________
      EXC ECD EVOL COMPLETED

[3]   ____________________________________________________________
      EXC ECD EVOL STOPPED WITH ERROR CODE b AT STEP a
```

2. REASON FOR OUTPUT

Format 1 prints if only one step of the ECD evolution was requested. Format 2 prints if the procedure was completed. Format 3 prints if the procedure encountered problems.

3. VARIABLE FIELD DEFINITIONS

`a` = Execution step within the ECD/SG database evolution process.

`b` = Numeric code for the error that caused the process to terminate. Refer to the APP:RETRO-DBE appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the message reads `STOPPED`, obtain technical assistance.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

`APP:RETRO-DBE`

Other Manual(s):

Where (x) is the release-specific version of the specified manual.
235-105-24x *Generic Retrofit Procedures*

EXC:ECDAUD

Software Release: 5E10 and later
Message Class: AUDIT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EXC ECDAUD a

[2]   ____________________________________________________________
      EXC ECDAUD COMPLETED 0 ERRORS

[3]   ____________________________________________________________
      EXC ECDAUD COMPLETED b ERRORS, OUTPUT FILE c

[4]   ____________________________________________________________
      EXC ECDAUD NOT STARTED - AUDIT INHIBITED

[5]   ____________________________________________________________
      EXC ECDAUD ABORTED - SYSTEM ERROR d
```

2. REASON FOR OUTPUT

To respond to an EXC:ECDAUD input message and notify the user that the on-switch ECD audit has begun.

Format 1 reports the start of the ECD audit and progress messages. This request can come from either from an immediate or scheduled input message.

Format 2 reports that the ECD audit completed with no errors. No further action is required.

Format 3 reports that the ECD audit completed with errors. The output file specified should be analyzed and the ECD database corrected based on the errors specified in the file.

Format 4 specifies that the ECD audit was not started because it is currently inhibited.

Format 5 indicates that an internal error has occurred. Refer to variable '`d`' for more information.

3. VARIABLE FIELD DEFINITIONS

`a` = Progress message. Valid value(s):
`BEGINNING PROCESSING`
`IN PROGRESS 250 CHECKS COMPLETED`
`COMPLETED`

`b` = Number of errors encountered during the audit execution.

`c` = Path to output file that contains ECD error descriptions.

`d` = System error number. Valid value(s):
`1` = Cannot open audit rule file - /lla/ECDAUD/ecdaud.rules.
`2` = Cannot attach to ECD database.
`3` = Unable to kill running audit, check PID in /lla/ECDAUD/.ecdaud.pid.

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4	= Bad rule in rule file (/lla/ECDAUD/ecdaud.rules).
5	= Unable to audit data (/lla/ECDAUD/ecdaud.rules).
6	= Failure in reading ECD database.
7	= Cannot open audit rule file - /lla/ECDAUD/hwchk.rules.
8	= Failed to obtain current status.
9	= Internal system error.
10	= Database partition greater than 80% full, remove unused files.

4. ACTION TO BE TAKEN

This message is printed out in response to a request of the EXC:ECDAUD input message. No further action is necessary if the request completed successfully. If errors were found in the ECD, the error file should be analyzed and the errors corrected.

5. ALARMS

Minor if errors were detected or on a system error.

6. REFERENCES

Input Message(s):

```
EXC:ECDAUD
STOP:ECDAUD
INH:ECDAUD
ALW:ECDAUD
OP:ECDAUD
SCHED:ECDAUD
```

Other Manual(s):
235-100-125 *System Description*
235-105-210 *Routine Operations and Maintenance Procedures*

EXC:ENVIR-PROC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EXC ENVIR PROC a {STARTED|INPROGRESS|COMPLETED}
        b

[2]   ____________________________________________________________________
      EXC ENVIR PROC a STOPPED
        c
```

2. REASON FOR OUTPUT

To report the result of executing a kernel or supervisor process.

Note: `STARTED`, `IN PROGRESS` and `COMPLETED` messages appear when three or more output segments are printed.

`STARTED` and `COMPLETED` messages appear when two output segments are printed.

A `COMPLETED` message appears when only one output segment is printed.

3. VARIABLE FIELD DEFINITIONS

`a` = Pathname specified in the input message.
`b` = Result of the process executed.
`c` = Text explaining why the command was stopped.

4. ACTION TO BE TAKEN

Format 1 indicates success. Take no action.

If Format 2 is printed, refer to the input message manual for the correct command format, and correct any command line errors. If the explanatory text indicates that the process could not be executed, use the OP:ST-LISTDIR command to verify the existence of the process being run. If the text is not self-explanatory, seek technical assistance.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:FSYS-ACCESS
EXC:ENVIR-PROC
EXC:ENVIR-UPROC
OP:ST-LISTDIR
```

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Output Message(s):

```
OP:ST-LISTDIR
```

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

Other Manual(s):
235-100-125 *System Description*

EXC:ENVIR-UPROC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EXC ENVIR UPROC {STARTED|IN PROGRESS SEGMENT a |
        COMPLETED [SEGMENT a] |STOPPED}

[2]   ____________________________________________________________________
      EXC ENVIR UPROC a STOPPED {[b] |
          CANNOT EXEC c, ERRNO d |
        CANNOT CREATE A NEW PROCESS}

[3]   ____________________________________________________________________
      EXC ENVIR UPROC - PID = e
```

2. REASON FOR OUTPUT

Format 1 is printed to report the execution of a user process.

Format 2 is printed to report the reason the process was stopped.

Format 3 is printed to give the process identification (PID) if the process was executed in the background.

Note: `STARTED`, `IN PROGRESS`, and `COMPLETED` messages appear when three or more output segments are printed.

`STARTED` and `COMPLETED` messages appear when two output segments are printed.

A `COMPLETED` message appears when only one output segment is printed.

The `STOPPED` message appears when an error occurs in the executed pathname.

The `SEGMENT` information appears with `IN PROGRESS` and optionally with `COMPLETED` messages for segments 2 or greater.

3. VARIABLE FIELD DEFINITIONS

`a` = The number of segments output.
`b` = Result of the process executed. (Output will be zero, one, or multiple lines depending on the process executed.)
`c` = Pathname specified in the input message.
`d` = System error code. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.
`e` = User process ID.

4. ACTION TO BE TAKEN

Refer to the Input Messages manual for the correct format, and reenter the input message or check the status of the file using the OP:ST-LISTDIR input message if the '`CANNOT EXEC`' message is printed.

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Use the ALW:FSYS-ACCESS input message to make the file executable, if necessary.

If '`CANNOT CREATE`' or any other error message appears, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	282
2	280

Input Message(s):

```
ALW:FSYS-ACCESS
EXC:ENVIR-PROC
EXC:ENVIR-UPROC
OP:ST-LISTDIR
```

Output Message(s):

```
OP:ST-LISTDIR
```

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

Other Manual(s):
235-100-125 *System Description*

EXC:FACR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EXC FACR STARTED

[2]   ____________________________________________________________________
      EXC FACR NOT STARTED
        CURRENT TIME IS OUTSIDE FACR EXECUTION WINDOW
        SCHEDULING JOB FOR 6pm TODAY

[3]   ____________________________________________________________________
      EXC FACR NOT STARTED
        CURRENT TIME IS OUTSIDE FACR EXECUTION WINDOW
        FACR JOB ALL READY PENDING FOR 6pm TODAY

[4]   ____________________________________________________________________
      EXC FACR NOT STARTED
        AN EXISTING FACR JOB IN PROGRESS

[5]   ____________________________________________________________________
      EXC FACR EXCEEDED ITS EXECUTION WINDOW
        SCHEDULED TO CONTINUE AT a b

[6]   ____________________________________________________________________
      EXC FACR BEGIN PROCESSING SM c

[7]   ____________________________________________________________________
      EXC FACR COMPLETED PROCESSING SM c

[8]   ____________________________________________________________________
      EXC FACR BEGIN PROCESSING OFFICE FEATURES

[9]   ____________________________________________________________________
      EXC FACR COMPLETED PROCESSING OFFICE FEATURES

[10]  ____________________________________________________________________
      EXC FACR COMPLETED
        TOTAL LINES PROCESSED d
        TOTAL TRUNKS PROCESSED e
        TOTAL ERRORS f

[11]  ____________________________________________________________________
      EXC FACR NOT STARTED INVALID
        NSEP VALUE ENTERED

[12]  ____________________________________________________________________
      EXC FACR NOT STARTED
        DETAIL REPORT ON LASS NSEP VALUE
        g NOT PERMITTED.
```

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2. REASON FOR OUTPUT

To report the feature activation counting and reconciliation (FACR) audit has started or been scheduled to start.

Format 1 reports the start of the FACR audit to begin processing. This request can come from either from an immediate or scheduled input message.

Format 2 is the result of the FACR audit trying to be executed outside the permitted execution times. FACR will be scheduled for execution at 6 p.m.

Format 5 indicates that the FACR audit was outside the permitted execution window while beginning to process the next SM in the office. FACR will be scheduled to begin processing with the next SM at the specified time.

Formats 8 and 9 report that FACR has completed processing all lines and trunks an will now be processing features that are associated with an entire office.

Format 10 reports the total number of lines and trunks processed for the entire office along with the number of errors encountered. For information on how to handle errors refer to the Routine Operations and Maintenance Procedures manual.

Format 11 and 12 indicate that the national security emergency preparedness (NSEP) value entered is not supported by FACR. Refer to the Routine Operations and Maintenance Procedures manual further details.

3. VARIABLE FIELD DEFINITIONS

`a` = Hour of the current day FACR has been scheduled to continue.

`b` = Minute of the hour for the current day FACR has been scheduled to continue.

`c` = Switching module number being processed.

`d` = Total number of lines queried for features.

`e` = Total number of trunks queried for features.

`f` = Total number of errors encounted for a line or trunk while querying for features.

`g` = NSEP value entered on input message.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual request of the EXC:FACR input message. No further action is necessary if the request completed successfully.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:FACR
OP:FACR
STP:FACR
```

Other Manual(s):
235-040-100 *OA&M Planning Guide*
235-100-125 *System Description*
235-105-210 *Routine Operations and Maintenance Procedures*

EXC:GKCCR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
EXC GKCCR {SM=a|CMP=b-c {PRIM|MATE}|AM} d
```

2. REASON FOR OUTPUT

To report the status of a generated key collection and compression routine (GKCCR) request, which was requested using the EXC:GKCCR input message. The message is repeated for each processor that was requested in the EXC:GKCCR input message.

3. VARIABLE FIELD DEFINITIONS

`AM` = The GKCCR executed in the administrative module.

`MATE` = The GKCCR was requested on the mate CMP.

`PRIM` = The GKCCR was requested on the primary CMP.

`a` = Number of the switching module for which a GKCCR was requested.

`b` = Message switch side for the desired communication module processor (CMP).

`c` = CMP for which a GKCCR was requested.

`d` = Output message termination report. Valid value(s):

- `COMPLETED` = The GKCCR completed successfully.
- `IN PROGRESS` = A previously requested EXC:GKCCR is currently being executed. A EXC:GKCCR output message with `IN PROGRESS` status will appear every three minutes until the GKCCR is completed.
- `QUEUED` = The EXC:GKCCR request is queued behind another currently executing GKCCR. Only one GKCCR is queued at a time: multiple GKCCR requests while another is running result in a single GKCCR being executed after the currently running GKCCR completes.
- `STOPPED` = The GKCCR was unable to complete successfully.

4. ACTION TO BE TAKEN

None. If the '`STOPPED`' output terminations occur, all processes terminate gracefully. If during the execution of the GKCCR, data or system errors were discovered in generated key relations, REPT:GKCCR output messages are produced. Appropriate action to be taken for these messages is explained in the REPT:GKCCR output message description.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ALW:GKCCR
EXC:GKCCR
INH:GKCCR
```

Output Message(s):

```
EXC:GKCCR
REPT:GKCCR
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-210 *Routine Operations and Maintenance*

EXC:LIT-A

Software Release: 5E10 only
Message Class: ALITMON,NULLDEV, TLWS
Application: 5
Type: Output

1. FORMAT

```
EXC LIT TYPE=a TEST=b
  FEMF SRG TRG            DN          MEM    TYPE    EN
   c    d   e             [f][-g][+]  [h]    i       j
   .
   .
   .
   .
   c    d   e             [f][-g][+]  [h]    i       j
```

2. REASON FOR OUTPUT

To report the failing results of automatic line insulation testing (ALIT) or manually requested (demand) line insulation testing (DLIT). Passing results are printed only for single-line DLITs. A maximum of 5 lines will be reported in one entry.

3. VARIABLE FIELD DEFINITIONS

`+` = Indicates the line is a party line if the feature is assigned.

`a` = Type of test session. Valid value(s):
- `Q` = ALIT.
- `S` = DLIT.

`b` = Type of test. Valid value(s):
- `F` = Foreign potential (FEMF) test only.
- `G` = General. Performs tip and ring-to-ground (TRG), short circuit and ring-to-ground (SRG), and FEMF tests.
- `S` = SRG test only.
- `T` = TRG test only.

`c` = FEMF result from the general test (or result from non-general test). Valid value(s):
- `F` = Test passed at half-resistance range but failed at full-resistance range.
- `H` = Test passed at quarter-resistance range but failed at half-resistance range.
- `P` = Test passed.
- `Q` = Test failed at quarter-resistance range.

`d` = SRG result from the general test (or retest result from non-general test). Valid value(s):
- `F` = Test passed at half-resistance range but failed at full-resistance range.
- `H` = Test passed at quarter-resistance range but failed at half-resistance range.
- `N` = No retest performed.
- `P` = Test passed.
- `Q` = Test failed at quarter-resistance range.

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e = TRG result from the general test (otherwise N). Valid value(s):

- F = Test passed at half-resistance range but failed at full-resistance range.
- H = Test passed at quarter-resistance range but failed at half-resistance range.
- N = No test performed.
- P = Test passed.
- Q = Test failed at quarter-resistance range.

f = Directory number of the line, if a number is assigned.

g = Member number of the line time slot bridging (LTSB) line if the feature is assigned. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

h = MLHG member of the line if the line is a member of a multi-line hunt group.

i = Type of equipment which determines the equipment number (EN) field. Valid value(s):

- LEN = Line equipment number.
- LCEN = Line card equipment number.
- SLEN = *SLC*® line equipment number.
- ILEN = Integrated digital carrier unit equipment number.
- LCKEN = Line circuit equipment number.

j = Equipment number. Valid value(s):

If 'i' =	**'j' =**
LEN	k-l-m-n-o-p
LCEN	k-q-r-s
SLEN	k-t-u-v
ILEN	k-w-u-v
LCKEN	k-z-a[1]-x-y

k = SM (switching module) number.

l = Line unit number.

m = Grid number.

n = Board number (LU1, LU2, LU3) or half-grid number (LU4).

o = Switch number.

p = Level number.

q = Integrated services line unit (ISLU) number.

r = Line group controller number.

s = Line card number.

t = Digital carrier line unit number.

u = Remote terminal (RT) number.

v = RT line number.

w = Integrated digital carrier unit number.

x = Line board number.

y = Line circuit number.

z = Integrated service line unit 2 (ISLU2) number.

a[1] = Line group number.

4. ACTION TO BE TAKEN

If the line passed the LIT test, no action is required.

If the line failed the half-resistance range, or the full-resistance range, it should be monitored to verify that service quality is not impaired.

If the line failed the quarter-resistance range, the service quality of the line is in serious question. The distance to the short should be determined [using the trunk and line work station (TLWS)] and the outside plant associated with the line should be investigated and repaired if necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:LIT
OP:LIT
STP:LIT
```

Output Message(s):

```
EXC:LIT-SKIPPED
OP:LIT
STP:LIT-COMPL
```

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EXC:LIT-B

Software Release: 5E11 only
Message Class: ALITMON,NULLDEV, TLWS
Application: 5
Type: Output

1. FORMAT

```
EXC LIT TYPE=a TEST=b
  FEMF SRG TRG            DN          MEM    TYPE    EN
   c    d   e             [f][-g][+]  [h]    i       j
   .
   .
   .
   .
   c    d   e             [f][-g][+]  [h]    i       j
```

2. REASON FOR OUTPUT

To report the failing results of automatic line insulation testing (ALIT) or manually requested (demand) line insulation testing (DLIT). Passing results are printed only for single-line DLITs. A maximum of 5 lines will be reported in one entry.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`+` = Indicates the line is a party line if the feature is assigned.

`a` = Type of test session. Valid value(s):
- `Q` = ALIT.
- `S` = DLIT.

`b` = Type of test. Valid value(s):
- `F` = Foreign potential (FEMF) test only.
- `G` = General. Performs tip and ring-to-ground (TRG), short circuit and ring-to-ground (SRG), and FEMF tests.
- `S` = SRG test only.
- `T` = TRG test only.

`c` = FEMF result from the general test (or result from non-general test). Valid value(s):
- `F` = Test passed at half-resistance range but failed at full-resistance range.
- `H` = Test passed at quarter-resistance range but failed at half-resistance range.
- `P` = Test passed.
- `Q` = Test failed at quarter-resistance range.

`d` = SRG result from the general test (or retest result from non-general test). Valid value(s):
- `F` = Test passed at half-resistance range but failed at full-resistance range.
- `H` = Test passed at quarter-resistance range but failed at half-resistance range.
- `N` = No retest performed.

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P = Test passed.
Q = Test failed at quarter-resistance range.

e = TRG result from the general test (otherwise N). Valid value(s):
F = Test passed at half-resistance range but failed at full-resistance range.
H = Test passed at quarter-resistance range but failed at half-resistance range.
N = No test performed.
P = Test passed.
Q = Test failed at quarter-resistance range.

f = Directory number of the line, if a number is assigned.

g = Member number of the line time slot bridging (LTSB) line if the feature is assigned. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

h = MLHG member of the line if the line is a member of a multi-line hunt group.

i = Type of equipment which determines the equipment number (EN) field. Valid value(s):
AIUEN = Access interface unit equipment number.
ILEN = Integrated digital carrier unit equipment number.
LCEN = Line card equipment number.
LCKEN = Line circuit equipment number.
LEN = Line equipment number.
SLEN = *SLC*® line equipment number.

j = Equipment number. Valid value(s):

If 'i' =	**'j' =**
AIUEN	$k\text{-}b^1\text{-}c^1\text{-}d^1$
ILEN	k-w-u-v
LCEN	k-q-r-s
LCKEN	$k\text{-}z\text{-}a^1\text{-}x\text{-}y$
LEN	k-l-m-n-o-p
SLEN	k-t-u-v

k = SM (switching module) number.

l = Line unit number.

m = Grid number.

n = Board number (LU1, LU2, or LU3).

o = Switch number.

p = Level number.

q = Integrated services line unit (ISLU) number.

r = Line group controller number.

s = Line card number.

t	= Digital carrier line unit number.
u	= Remote terminal (RT) number.
v	= RT line number.
w	= Integrated digital carrier unit number.
x	= Line board number.
y	= Line circuit number.
z	= Integrated service line unit 2 (ISLU2) number.
a[1]	= Line group number.
b[1]	= Access interface unit equipment number (AIUEN).
c[1]	= Access interface unit (AIU) pack number.
d[1]	= AIU circuit number.

4. ACTION TO BE TAKEN

If the line passed the LIT test, no action is required.

If the line failed the half-resistance range, or the full-resistance range, it should be monitored to verify that service quality is not impaired.

If the line failed the quarter-resistance range, the service quality of the line is in serious question. The distance to the short should be determined [using the trunk and line work station (TLWS)] and the outside plant associated with the line should be investigated and repaired if necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:LIT
OP:LIT
STP:LIT
```

Output Message(s):

```
EXC:LIT-SKIPPED
OP:LIT
STP:LIT-COMPL
```

EXC:LIT-C

Software Release: 5E12 and later
Message Class: ALITMON,NULLDEV, TLWS
Application: 5
Type: Output

1. FORMAT

```
EXC LIT TYPE=a TEST=b
  FEMF SRG TRG            DN          MEM    TYPE    EN
   c    d   e             [f][-g][+]  [h]    i       j
   .
   .
   .
   .
   c    d   e             [f][-g][+]  [h]    i       j
```

2. REASON FOR OUTPUT

To report the failing results of automatic line insulation testing (ALIT) or manually requested (demand) line insulation testing (DLIT). Passing results are printed only for single-line DLITs. A maximum of 5 lines will be reported in one entry.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`+` = Indicates the line is a party line if the feature is assigned.

`a` = Type of test session. Valid value(s):
- `Q` = ALIT.
- `S` = DLIT.

`b` = Type of test. Valid value(s):
- `F` = Foreign potential (FEMF) test only.
- `G` = General. Performs tip and ring-to-ground (TRG), short circuit and ring-to-ground (SRG), and FEMF tests.
- `S` = SRG test only.
- `T` = TRG test only.

`c` = FEMF result from the general test (or result from non-general test). Valid value(s):
- `F` = Test passed at half-resistance range but failed at full-resistance range.
- `H` = Test passed at quarter-resistance range but failed at half-resistance range.
- `P` = Test passed.
- `Q` = Test failed at quarter-resistance range.

`d` = SRG result from the general test (or retest result from non-general test). Valid value(s):
- `F` = Test passed at half-resistance range but failed at full-resistance range.
- `H` = Test passed at quarter-resistance range but failed at half-resistance range.
- `N` = No retest performed.

P = Test passed.
Q = Test failed at quarter-resistance range.

e = TRG result from the general test (otherwise N). Valid value(s):
F = Test passed at half-resistance range but failed at full-resistance range.
H = Test passed at quarter-resistance range but failed at half-resistance range.
N = No test performed.
P = Test passed.
Q = Test failed at quarter-resistance range.

f = Directory number of the line, if a number is assigned.

g = Member number of the line time slot bridging (LTSB) line if the feature is assigned. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

h = MLHG member of the line if the line is a member of a multi-line hunt group.

i = Type of equipment which determines the equipment number (EN) field. Valid value(s):
AIUEN = Access interface unit equipment number.
ILEN = Integrated digital carrier unit equipment number.
INEN = Digital network equipment number.
LCEN = Line card equipment number.
LCKEN = Line circuit equipment number.
LEN = Line equipment number.
SLEN = *SLC*® line equipment number.

j = Equipment number. Valid value(s):

If 'i' =	**'j' =**
AIUEN	$k\text{-}b^1\text{-}c^1\text{-}d^1$
ILEN	k-w-u-v
INEN	$k\text{-}e^1\text{-}f^1\text{-}g^1$
LCEN	k-q-r-s
LCKEN	$k\text{-}z\text{-}a^1\text{-}x\text{-}y$
LEN	k-l-m-n-o-p
SLEN	k-t-u-v

k = SM (switching module) number.

l = Line unit number.

m = Grid number.

n = Board number (LU1, LU2, or LU3).

o = Switch number.

p = Level number.

q = Integrated services line unit (ISLU) number.

r = Line group controller number.

s = Line card number.

t = Digital carrier line unit number.

u = Remote terminal (RT) number.

v = RT line number.

w = Integrated digital carrier unit number.

x = Line board number.

y = Line circuit number.

z = Integrated service line unit 2 (ISLU2) number.

a[1] = Line group number.

b[1] = Access interface unit equipment number (AIUEN).

c[1] = Access interface unit (AIU) pack number.

d[1] = AIU circuit number.

e[1] = Digital network unit number.

f[1] = Remote terminal (RT) number.

g[1] = RT line number.

4. ACTION TO BE TAKEN

If the line passed the LIT test, no action is required.

If the line failed the half-resistance range, or the full-resistance range, it should be monitored to verify that service quality is not impaired.

If the line failed the quarter-resistance range, the service quality of the line is in serious question. The distance to the short should be determined [using the trunk and line work station (TLWS)] and the outside plant associated with the line should be investigated and repaired if necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:LIT
OP:LIT
STP:LIT
```

Output Message(s):

```
EXC:LIT-SKIPPED
OP:LIT
STP:LIT-COMPL
```

EXC:LIT-ABT

Software Release: 5E10 and later
Message Class: ALIT,NULLDEV
Application: 5
Type: Output

1. FORMAT

```
EXC LIT ABORTED a b [c] [d] [e] [f] [g]
```

2. REASON FOR OUTPUT

To report that an automatic line insulation testing (ALIT) session or manually requested (demand) line insulation testing (DLIT) session was forced to terminate abnormally.

3. VARIABLE FIELD DEFINITIONS

`a` = Type of testing that was aborted. Valid value(s):

- `Q` = ALIT.
- `S` = DLIT.

`b` = Reasons for the abort. Valid value(s):

`DATA BASE PROBLEM` = An internal database relation read error has occurred which prevents further processing of the request.

`DUE TO MIN MODE` = The administrative module (AM) or the switching module (SM) containing the line being demand-tested is in minimum (min) mode.

`DUE TO OVERLOAD` = The AM or SM involved in the DLIT is in overload.

`HARDWARE PROBLEM` = Hardware failures have occurred. Probable failures are:

- LIT is not able to acquire control of the ALIT circuit,
- The ALIT circuit is not responding to control commands, or
- Problems exist in the modular metallic service unit (MMSU) hardware used in the metallic connection.

`NO METALLIC PATH` = No metallic connections could be established between any ALIT circuits and LIT testable lines.

`NO TEST CKT` = The needed test circuits are inaccessible or out-of-service (OOS).

`NO UNITS APPEAR TESTABLE` = No units were found to be in a testable state and/or no units could be tested because of hardware problems in the MSU metallic access network.

`SOFTWARE PROBLEM` = Aborted due to unresolvable software problems such as an inability to read the database, send messages, or create processes.

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`c` = Processor name where LIT aborted (AM or SM).

`d` = SM number.

`e` = Total number of lines attempted to be tested.

`f` = Number of lines actually tested.

`g` = Number of lines that failed.

4. ACTIONS TO BE TAKEN

Determine the cause for the abort and the need for further testing.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:ALIT
DGN:MA
EX:ALIT
EX:MA
EXC:LIT
OP:LIT
```

Output Message(s):

```
DGN:ALIT
DGN:MA
EX:ALIT
EX:MA
OP:LIT
```

Other Manual(s):

235-100-125 *System Description*

235-190-115 *Local and Toll System Features*

EXC:LIT-COMPL

Software Release: 5E10 and later
Message Class: ALIT,NULLDEV, TLWS
Application: 5
Type: Output

1. FORMAT

```
EXC LIT COMPLETED a b c d
```

2. REASON FOR OUTPUT

To report the termination of a manually requested (demand) line insulation testing (DLIT) session or an automatic line insulation testing (ALIT) session and to report that testing of all available testable lines in the office has been completed.

3. VARIABLE FIELD DEFINITIONS

a	Type of session. Valid value(s): Q = ALIT. S = DLIT.
b	= Total number of lines attempted to be tested.
c	= Number of lines actually tested.
d	= Number of lines that failed.

4. ACTION TO BE TAKEN

This message could be in response to the action requested by the corresponding manually executed input message. No specific action is indicated.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:LIT
OP:LIT
OP:LIT-SM
```

Output Message(s):

```
OP:LIT
```

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EXC:LIT-NOT

Software Release: 5E10 and later
Message Class: ALIT
Application: 5
Type: Output

1. FORMAT

```
EXC LIT NOT STARTED Q a
```

2. REASON FOR OUTPUT

To report that automatic line insulation testing (ALIT) has not started executing for the given reason. Q is the defined symbol for ALIT.

3. VARIABLE FIELD DEFINITIONS

`a` = Reason for not starting. Valid value(s):

`COMMUNICATION FAILURE` = The LIT system process could not communicate with the newly created ALIT terminal process. Cause is unknown. An assert might accompany this reason.

`DURATION = 0` The duration for the ALIT session has been set to 0 hours. ALIT will only execute if the duration is set from 1 to 8 hours. This value can be changed in RC/V View 8.1.

`GENERIC RETROFIT IN PROGRESS` = ALIT can not execute when software release retrofit is in progress.

`INSUFFICIENT RESOURCES` = A system resource shortage prevented creation of the ALIT terminal process or prevented communication with the newly created ALIT terminal process.

`PREVIOUS SESSION EXECUTING` = An ALIT session is already executing. Can not start a second ALIT process.

`UNABLE TO CREATE PROCESS` = The LIT system process could not create the ALIT terminal process. Cause is unknown. An assert might accompany this reason.

4. ACTION TO BE TAKEN

No specific action is required. ALIT will attempt to start at the next scheduled start time. If the duration is incorrectly set, it can be changed with RC/V View 8.1. If ALIT fails to start after several scheduled sessions, the LIT system process should be purged with the input message INIT:AM-SPP.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:LIT
INIT:AM-SPP
OP:LIT
OP:LIT-SM
```

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Output Message(s):

```
EXC:LIT-VERIFY
OP:LIT
```

Other Manual(s):
235-600-500 *Asserts*

RC/V View(s):

8/1 [OFFICE PARAMETERS (MISCELLANEOUS)]

EXC:LIT-SINGLE-A

Software Release: 5E10 only
Message Class: ALITMON
Application: 5
Type: Output

1. FORMAT

```
EXC LIT SINGLE CIRCUIT ABORT - MMSU PROBLEM
  CIRCUITS INVOLVED: ALIT=a-b-c-d MTB=a-b-c-d-e
  LAST LINE  TESTED: DN=f[-g][+] h [MLHG=i-j]
```

2. REASON FOR OUTPUT

To report that a single automatic line insulation testing (ALIT) circuit aborted abnormally because of a modular metallic service unit (MMSU) hardware problem or improper wiring to the line.

For ALIT, testing will be suspended for the unit of the aborted line for the current session only. Routine office ALIT will continue and if possible will use the aborted ALIT circuit. In the next session ALIT will try to test the unit of the aborted line.

For demand line insulation testing (DLIT), testing will be suspended for the unit of the aborted line for that specific request only. DLIT testing will continue and if possible will use the aborted ALIT circuit.

3. VARIABLE FIELD DEFINITIONS

`+` = Indicates the line is a party line.

`a` = Switching module number.

`b` = MMSU number.

`c` = MMSU service group number.

`d` = MMSU board position number.

`e` = Metallic test bus number.

`f` = Directory number of the line being tested.

`g` = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

`h` = Equipment type and number. Valid value(s):

```
ILEN=a-k-l-m
 LCEN=a-n-o-p
 LEN=a-q-r-s-t-u
 SLEN=a-v-l-m
 LCKEN=a-w-x-y-z
```

`i` = Multi-line hunt group (MLHG).

`j` = MLHG member.

`k` = Integrated digital carrier unit number.

l	= Remote terminal (RT) number.
m	= RT line number.
n	= Integrated services line unit number.
o	= Line group controller number.
p	= Line card number.
q	= Line unit number.
r	= Grid number.
s	= Grid board number (LU1, LU2, or LU3).
t	= Switch number.
u	= Level number.
v	= Digital carrier line unit (DCLU) number.
w	= Integrated services line unit 2 (ISLU2) number.
x	= Line group number.
y	= Line board number.
z	= Line circuit number.

4. ACTION TO BE TAKEN

Determine if the cause of the abort is hardware related and correct the hardware problem. If the abort is not hardware related, and it re-occurs, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:ALIT
DGN:MA
EX:ALIT
EX:MA
EXC:LIT
OP:LIT
STP:LIT
```

Output Message(s):

```
DGN:ALIT
DGN:MA
EX:ALIT
EX:MA
OP:LIT
STP:LIT-COMPL
```

Other Manual(s):
235-600-500 *Asserts*

RC/V View(s):

8/1 [OFFICE PARAMETERS (MISCELLANEOUS)]

EXC:LIT-SINGLE-B

Software Release: 5E11 only
Message Class: ALITMON
Application: 5
Type: Output

1. FORMAT

```
EXC LIT SINGLE CIRCUIT ABORT - MMSU PROBLEM
  CIRCUITS INVOLVED: ALIT=a-b-c-d MTB=a-b-c-d-e
  LAST LINE  TESTED: DN=f[-g][+] h [MLHG=i-j]
```

2. REASON FOR OUTPUT

To report that a single automatic line insulation testing (ALIT) circuit aborted abnormally because of a modular metallic service unit (MMSU) hardware problem or improper wiring to the line.

For ALIT, testing will be suspended for the unit of the aborted line for the current session only. Routine office ALIT will continue and if possible will use the aborted ALIT circuit. In the next session ALIT will try to test the unit of the aborted line.

For demand line insulation testing (DLIT), testing will be suspended for the unit of the aborted line for that specific request only. DLIT testing will continue and if possible will use the aborted ALIT circuit.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`+` = Indicates the line is a party line.

`a` = Switching module number.

`b` = MMSU number.

`c` = MMSU service group number.

`d` = MMSU board position number.

`e` = Metallic test bus number.

`f` = Directory number of the line being tested.

`g` = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

`h` = Equipment type and number. Valid value(s):

AIUEN=a-a[1]-b[1]-c[1]
ILEN=a-k-l-m
LCEN=a-n-o-p
LCKEN=a-w-x-y-z
LEN=a-q-r-s-t-u
SLEN=a-v-l-m

`i` = Multi-line hunt group (MLHG).

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j = MLHG member.

k = Integrated digital carrier unit number.

l = Remote terminal (RT) number.

m = RT line number.

n = Integrated services line unit number.

o = Line group controller number.

p = Line card number.

q = Line unit number.

r = Grid number.

s = Grid board number (LU1, LU2, or LU3).

t = Switch number.

u = Level number.

v = Digital carrier line unit (DCLU) number.

w = Integrated services line unit 2 (ISLU2) number.

x = Line group number.

y = Line board number.

z = Line circuit number.

a[1] = Access interface unit equipment number.

b[1] = AIU pack number.

c[1] = AIU circuit number.

4. ACTION TO BE TAKEN

Determine if the cause of the abort is hardware related and correct the hardware problem. If the abort is not hardware related, and it re-occurs, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:ALIT
DGN:MA
```

```
EX:ALIT
EX:MA
EXC:LIT
OP:LIT
STP:LIT
```

Output Message(s):

```
DGN:ALIT
DGN:MA
EX:ALIT
EX:MA
OP:LIT
STP:LIT-COMPL
```

Other Manual(s):
235-600-500 *Asserts*

RC/V View(s):

8/1 [OFFICE PARAMETERS (MISCELLANEOUS)]

EXC:LIT-SINGLE-C

Software Release: 5E12 and later
Message Class: ALITMON
Application: 5
Type: Output

1. FORMAT

```
EXC LIT SINGLE CIRCUIT ABORT - MMSU PROBLEM
  CIRCUITS INVOLVED: ALIT=a-b-c-d MTB=a-b-c-d-e
  LAST LINE  TESTED: DN=f[-g][+] h [MLHG=i-j]
```

2. REASON FOR OUTPUT

To report that a single automatic line insulation testing (ALIT) circuit aborted abnormally because of a modular metallic service unit (MMSU) hardware problem or improper wiring to the line.

For ALIT, testing will be suspended for the unit of the aborted line for the current session only. Routine office ALIT will continue and if possible will use the aborted ALIT circuit. In the next session ALIT will try to test the unit of the aborted line.

For demand line insulation testing (DLIT), testing will be suspended for the unit of the aborted line for that specific request only. DLIT testing will continue and if possible will use the aborted ALIT circuit.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`+` = Indicates the line is a party line.

`a` = Switching module number.

`b` = MMSU number.

`c` = MMSU service group number.

`d` = MMSU board position number.

`e` = Metallic test bus number.

`f` = Directory number of the line being tested.

`g` = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

`h` = Equipment type and number. Valid value(s):

AIUEN=a-a[1]-b[1]-c[1]
ILEN=a-k-l-m
INEN=a-d[1]-e[1]-f[1]
LCEN=a-n-o-p
LCKEN=a-w-x-y-z
LEN=a-q-r-s-t-u
SLEN=a-v-l-m

`i` = Multi-line hunt group (MLHG).

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j = MLHG member.

k = Integrated digital carrier unit number.

l = Remote terminal (RT) number.

m = RT line number.

n = Integrated services line unit number.

o = Line group controller number.

p = Line card number.

q = Line unit number.

r = Grid number.

s = Grid board number (LU1, LU2, or LU3).

t = Switch number.

u = Level number.

v = Digital carrier line unit (DCLU) number.

w = Integrated services line unit 2 (ISLU2) number.

x = Line group number.

y = Line board number.

z = Line circuit number.

a[1] = Access interface unit equipment number.

b[1] = AIU pack number.

c[1] = AIU circuit number.

d[1] = Digital network unit (DNU) number.

e[1] = RT line number.

f[1] = Remote terminal (RT) number.

4. ACTION TO BE TAKEN

Determine if the cause of the abort is hardware related and correct the hardware problem. If the abort is not hardware related, and it re-occurs, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
DGN:ALIT
DGN:MA
EX:ALIT
EX:MA
EXC:LIT
OP:LIT
STP:LIT
```

Output Message(s):

```
DGN:ALIT
DGN:MA
EX:ALIT
EX:MA
OP:LIT
STP:LIT-COMPL
```

Other Manual(s):
235-600-500 *Asserts*

RC/V View(s):

8/1 [OFFICE PARAMETERS (MISCELLANEOUS)]

EXC:LIT-SKIPPED-A

Software Release: 5E10 only
Message Class: ALITMON, NULLDEV, TLWS
Application: 5
Type: Output

1. FORMAT

```
EXC LIT SKIPPED TYPE=a TEST=b
  REASON                    DN          MEM    TYPE    EN
  c                         [d][-e][+]  [f]    g       h
  .
  .
  .
  c                         [d][-e][+]  [f]    g       h
```

2. REASON FOR OUTPUT

To report that line insulation testing (LIT) on a line or group of lines could not be done and those lines were skipped by LIT. The LIT session is continuing.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`+` = Indicates the line is a party line if the feature is assigned.

`a` = Type of test session. Valid value(s):
- `Q` = A sequential automatic LIT (ALIT) session.
- `S` = A single manually requested (demand) LIT (DLIT) session.

`b` = Type of test. Valid value(s):
- `F` = Foreign potential (FEMF) test only.
- `G` = General. Performs tip and ring-to-ground (TRG), short circuit and ring-to-ground (SRG), and FEMF tests.
- `S` = SRG test only.
- `T` = TRG test only.

`c` = Reason line was skipped. Valid value(s):
- `ALIT CKT TIMEOUT` = The ALIT circuit failed to yield test results for this line before a software timeout occurred. If this occurs repeatedly, the ALIT circuit in use should be diagnosed and replaced if necessary.
- `ALIT CKT UNAVAILABLE` = The ALIT circuit in use has gone out of service (OOS); it will be tried again.
- `BLKD-SPARED LINE CARD` = The metallic connection from the ALIT circuit in the modular metallic service unit (MMSU) to the line was blocked in the integrated services line unit (ISLU) metallic access network because a line card (LC) was spared. This condition exists when trying to gain metallic access to a LC that is in the same half of a line group drawer as an actively spared faulty card. "Same half of a line group drawer" refers to those line groups that are vertically adjacent (such as, LG0 and LG1 or LG2 and LG3). The remaining lines in the affected ISLU line groups will also

be skipped.

`BUSY LINE` = The line is in use and cannot be tested.

`COMMUNICATION FAILURE` = Results for this line test are unavailable due to a damaged message or inability to receive a message.

`DATA BASE PROBLEM` = The unit type obtained from reading relation RL_PICB with the peripheral interface control bus (PICB) of the in-use ALIT circuit in MMSU was not an MMSU type.

`EQUIP TP INTERRUPTED` = The ALIT equipment test process has been interrupted by system integrity (SI) and can not complete this line test.

`EXEMPT LINE` = The line is marked exempt for LIT testing.

`FAILED TO CREATE TP` = System routing was unable to create the needed MMSU test process or the line test process. The affected SMs may be in overload or temporarily isolated.

`FAMILY OF EQUIP LINE` = The line terminates on a component of line unit (LU) hardware that is OOS.

`FAULTY ALIT CKT` = The ALIT circuit in use failed its sanity or calibration self-test, or repeatedly failed to complete a line test before software timeout occurs.

`GDXC CKT UNAVAILABLE` = To test this line type, the metallic path must include a GDXC compensator circuit. This resource was not available.

`INVALID LINE` = The line is invalid. It is probably unequipped or unassigned.

`INVALID RT CHAN TYPE` = ALIT is attempting to test an integrated subscriber loop carrier (ISLC) remote terminal (RT) channel unit (CU) that does not support metallic connections.

`LINE TEST INTERRUPTED` = This line test was interrupted by system software.

`LINE TP INTERRUPTED` = The line test process has been interrupted by SI and can not complete this line test.

`MET NETWORK FAILURE` = A failure has been encountered while setting up the metallic path between the ALIT circuit and the line. Most probable cause is a resource not available such as the line's MTB, junctors, MTIB, or a mate GDXC for the ALIT circuit. The most likely cause for this resource shortage is if other metallic test activity is in progress or there is REX activity on the required MMSU hardware.

`MMSU DATA BASE PROB` = A problem was found reading the RLCKTDATA relation.

`MMSU SG UNAVAILABLE` = The metallic service unit service group in use has gone OOS; a LIT test will be tried again.

`MMSU TP INTERRUPTED` = The MMSU test process has been interrupted by SI and can not complete this line test.

`NO EQUIP TP` = The logical test port for the ALIT equipment test process could not be activated or access was denied by switch software.

`NO LINE TP` = The port for the line test process could not be activated or access was denied by switch software.

`NO METALLIC AT LINE` = The final metallic connection of the line's tip-and-ring (T/R) to the metallic path failed.

`NO METALLIC PATH` = The metallic connection from the ALIT circuit in the MMSU to the line could not be set up.

`NO MMSU TP` = The logical test port for the MMSU test process could not be activated or access was denied by switch software.

`POWER CROSS LINE` = An external power source exists on the tip and ring.

`PRECUT LINE` = This line is in a pre-cutover state and cannot be tested by LIT since to do so could interfere with the old office.

`PROBLEM TESTING LINE` = A hardware or software problem occurred when the line was tested.

`RT METALLIC BUS BUSY` = The MTB out to an ISLC RT is busy.

`SOFTWARE-TIMEOUT PROB` = Results for this line test are unavailable because of a damaged or missing message between the ALIT equipment test process, the MMSU test process, or a line test process.

`TBCU SETUP FAILURE` = A problem was encountered with the test bus control unit (TBCU) when attempting to setup a metallic connection to an ISLC RT.
`TP KEEP ALIVE BROKEN` = The software keep alive mechanism between the ALIT equipment test process, MMSU test process, and line test process has detected a broken linkage.
`UNEQUIPPED DCLU` = This line belongs to an unequipped digital carrier line unit (DCLU). Therefore, the LIT software will silently skip over the rest of this unit.
`UNEQUIPPED GRID` = This line belongs to an unequipped LU grid; therefore, the LIT software will silently skip over the rest of this grid.
`UNEQUIPPED IDCU` = This line belongs to an unequipped integrated digital carrier unit (IDCU). Therefore, the LIT software will silently skip over the rest of this unit,
`UNEQUIPPED ISLU` = This line belongs to an unequipped ISLU. Therefore, the LIT software will silently skip over the rest of this unit.
`UNEQUIPPED LB` = This line belongs to an unequipped line board (LB) in an ISLU2. Therefore, the LIT software will silently skip over the rest of this LB.
`UNEQUIPPED LGC` = This line belongs to an unequipped line group controller (LGC) in an ISLU. Therefore, the LIT software will silently skip over the rest of this LGC.
`UNEQUIPPED LU` = This line belongs to an unequipped LU. Therefore, the LIT software will silently skip over the rest of this unit.
`UNEQUIPPED SLC RT` = This line belongs to an unequipped *SLC*® remote terminal (RT). Therefore, the LIT software will silently skip over the rest of this line group controller.

`d` = Directory number of the line being skipped, if a number is assigned.

`e` = Member number of the line time slot bridging (LTSB) line if the feature is assigned. For an LTSB line, a member number of 1 represents the lead line and a member number of 2 represents the associate line.

`f` = MLHG member of the line, if the line is member of a multi-line hunt group.

`g` = Type of equipment that determines the equipment number (EN) field. Valid value(s):
`AIUEN` = Access interface unit equipment number.
`ILEN` = Integrated digital carrier unit equipment number.
`LEN` = Line equipment number.
`LCEN` = Line card equipment number.
`LCKEN` = Line circuit equipment number.
`SLEN` = *SLC*® line equipment number.

`h` = Equipment number. Valid value(s):

If `g` **' =**	**'**`h`**' =**
`AIUEN`	`i-z-a`^{1}`-b`^{1}
`ILEN`	`i-u-s-t`
`LEN`	`i-j-k-l-m-n`
`LCEN`	`i-o-p-q`
`LCKEN`	`i-v-w-x-y`
`SLEN`	`i-r-s-t`

`i` = SM number.

`j` = LU number.

`k` = Grid number.

l = Grid board number (LU1, LU2, or LU3).

m = Switch number.

n = Level number.

o = ISLU number.

p = LGC number.

q = LC card number.

r = DCLU number.

s = RT number.

t = RT line number.

u = IDCU number.

v = ISLU2 number.

w = Line group number.

x = Line board number.

y = Line circuit number.

z = Access interface unit equipment number.

a[1] = AIU pack number.

b[1] = AIU circuit number.

4. ACTION TO BE TAKEN

If 'b' =	Action:
ALIT CKT TIMEOUT	If this occurs repeatedly, the ALIT circuit in use should be diagnosed and replaced if necessary.
ALIT CKT UNAVAILABLE	If this fault persists, identify all ALIT circuits in the same shelf as the line's MTB, and manually diagnose them.
EQUIP TP INTERRUPTED	The SM may be in an overload state or there is an unconditional request to remove from service the ALIT circuit being used for this test. Check for these conditions.
GDXC CKT UNAVAILABLE	If this fault persists, verify that there is at least 1 GDXC pack equipped for every ALIT pack equipped. Sometimes, GDXC packs are kept is reserve for other types of metallic testing and will not be available for ALIT testing. To avoid this, additional GDXC packs can added if desired. This fault will not stop all lines from being ALIT tested, but it may slow down ALIT testing to a small degree.
INVALID RT CHAN TYPE	Verify the CU for this line is of the proper type for metallic testing.
LINE TP INTERRUPTED	The SM supporting this line may be in overload or there is an unconditional request to remove this line from service. Check for these conditions.
MET NETWORK FAILURE	Make sure all hardware is in-service, other metallic test activity is held to a minimum during ALIT testing, REX is not scheduled during ALIT testing, all metallic access (MA) circuits pass diagnostics for all 3 phases, there is a mate GDXC circuit for every ALIT circuit, the protocol circuits for MMSU pass diagnostics and every shelf and service group, with metallic access to lines, have equipped ALIT circuit. Run a demand LIT test on the failing line (using each MMSU service group). If the demand test indicates failure and the MMSU diagnostics is that

	all tests passed (ATP), verify that metallic routing data is correctly populated.
MMSU DATA BASE PROB	Verify that the RLCKTDATA tuple exists for the ALIT circuit in use.
MMSU TP INTERRUPTED	The SM supporting this MMSU may be in an overload state or there is an unconditional request to remove from service hardware used in the metallic connection between the ALIT circuit and the line. Check for these conditions.
NO METALLIC AT LINE	Make sure diagnostics of the MA circuit that terminates this line unit or SLC RT passes all 3 phases. Make sure the line unit hardware passes diagnostics.
NO METALLIC PATH	Use trunk line work station (TLWS) to verify metallic connectivity to the line.
POWER CROSSED LINE	Notify the appropriate maintenance personnel.
RT METALLIC BUS BUSY	Most likely other metallic testing activity is in progress, using the bus. Hold other metallic test activity to a minimum during ALIT testing. Especially be aware of when IMLT and MLT testing is taking place and how this testing conflicts with ALIT testing.
SOFTWARE-TIMEOUT PROB	An overload in an affected SM may have occurred, an affected SM may have temporarily isolated, or a software error may have occurred. Check for these conditions.
TP KEEP ALIVE BROKEN	Most likely, an affected SM may have gone into an overload state or an affected SM may have temporarily been isolated. Check for these conditions.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:ALIT
DGN:MA
EX:ALIT
EX:MA
EXC:LIT
OP:LIT
STP:LIT
```

Output Message(s):

```
DGN:ALIT
DGN:MA
EX:ALIT
EX:MA
OP:LIT
STP:LIT-COMPL
```

EXC:LIT-SKIPPED-B

Software Release: 5E11 only
Message Class: ALITMON,NULLDEV, TLWS
Application: 5
Type: Output

1. FORMAT

```
EXC LIT SKIPPED TYPE=a TEST=b
  REASON                    DN          MEM    TYPE    EN
  c                         [d][-e][+]  [f]    g       h
  .
  .
  .
  c                         [d][-e][+]  [f]    g       h
```

2. REASON FOR OUTPUT

To report that line insulation testing (LIT) on a line or group of lines could not be done and those lines were skipped by LIT. The LIT session is continuing.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`+` = Indicates the line is a party line if the feature is assigned.

`a` = Type of test session. Valid value(s):
- `Q` = A sequential automatic LIT (ALIT) session.
- `S` = A single manually requested (demand) LIT (DLIT) session.

`b` = Type of test. Valid value(s):
- `F` = Foreign potential (FEMF) test only.
- `G` = General. Performs tip and ring-to-ground (TRG), short circuit and ring-to-ground (SRG), and FEMF tests.
- `S` = SRG test only.
- `T` = TRG test only.

`c` = Reason line was skipped. Valid value(s):
- `ALIT CKT TIMEOUT` = The ALIT circuit failed to yield test results for this line before a software timeout occurred. If this occurs repeatedly, the ALIT circuit in use should be diagnosed and replaced if necessary.
- `ALIT CKT UNAVAILABLE` = The ALIT circuit in use has gone out of service (OOS); it will be tried again.
- `BLKD-SPARED LINE CARD` = The metallic connection from the ALIT circuit in the modular metallic service unit (MMSU) to the line was blocked in the integrated services line unit (ISLU) metallic access network because a line card (LC) was spared. This condition exists when trying to gain metallic access to a LC that is in the same half of a line group drawer as an actively spared faulty card. "Same half of a line group drawer" refers to those line groups that are vertically adjacent (such as, LG0 and LG1 or LG2 and LG3). The remaining lines in the affected ISLU line groups will also

be skipped.

`BUSY LINE` = The line is in use and cannot be tested.

`COMMUNICATION FAILURE` = Results for this line test are unavailable due to a damaged message or inability to receive a message.

`DATA BASE PROBLEM` = The unit type obtained from reading relation RL_PICB with the peripheral interface control bus (PICB) of the in-use ALIT circuit in MMSU was not an MMSU type.

`EQUIP TP INTERRUPTED` = The ALIT equipment test process has been interrupted by system integrity (SI) and can not complete this line test.

`EXEMPT LINE` = The line is marked exempt for LIT testing.

`FAILED TO CREATE TP` = System routing was unable to create the needed MMSU test process or the line test process. The affected SMs may be in overload or temporarily isolated.

`FAMILY OF EQUIP LINE` = The line terminates on a component of line unit (LU) hardware that is OOS.

`FAULTY ALIT CKT` = The ALIT circuit in use failed its sanity or calibration self-test, or repeatedly failed to complete a line test before software timeout occurs.

`GDXC CKT UNAVAILABLE` = To test this line type, the metallic path must include a GDXC compensator circuit. This resource was not available.

`INVALID LINE` = The line is invalid. It is probably unequipped or unassigned.

`INVALID RT CHAN TYPE` = ALIT is attempting to test an integrated subscriber loop carrier (ISLC) remote terminal (RT) channel unit (CU) that does not support metallic connections.

`LINE TEST INTERRUPTED` = This line test was interrupted by system software.

`LINE TP INTERRUPTED` = The line test process has been interrupted by SI and can not complete this line test.

`MET NETWORK FAILURE` = A failure has been encountered while setting up the metallic path between the ALIT circuit and the line. Most probable cause is a resource not available such as the line's MTB, junctors, MTIB, or a mate GDXC for the ALIT circuit. The most likely cause for this resource shortage is if other metallic test activity is in progress or there is REX activity on the required MMSU hardware.

`MMSU DATA BASE PROB` = A problem was found reading the RLCKTDATA relation.

`MMSU SG UNAVAILABLE` = The metallic service unit service group in use has gone OOS; a LIT test will be tried again.

`MMSU TP INTERRUPTED` = The MMSU test process has been interrupted by SI and can not complete this line test.

`NO EQUIP TP` = The logical test port for the ALIT equipment test process could not be activated or access was denied by switch software.

`NO LINE TP` = The port for the line test process could not be activated or access was denied by switch software.

`NO METALLIC AT LINE` = The final metallic connection of the line's tip-and-ring (T/R) to the metallic path failed.

`NO METALLIC PATH` = The metallic connection from the ALIT circuit in the MMSU to the line could not be set up.

`NO MMSU TP` = The logical test port for the MMSU test process could not be activated or access was denied by switch software.

`POWER CROSS LINE` = An external power source exists on the tip and ring.

`PRECUT LINE` = This line is in a pre-cutover state and cannot be tested by LIT since to do so could interfere with the old office.

`PROBLEM TESTING LINE` = A hardware or software problem occurred when the line was tested.

`RT METALLIC BUS BUSY` = The MTB out to an ISLC RT is busy.

`SOFTWARE-TIMEOUT PROB` = Results for this line test are unavailable because of a damaged or missing message between the ALIT equipment test process, the MMSU test process, or a line test process.

`TBCU SETUP FAILURE` = A problem was encountered with the test bus control unit (TBCU) when attempting to setup a metallic connection to an ISLC RT.
`TP KEEP ALIVE BROKEN` = The software keep alive mechanism between the ALIT equipment test process, MMSU test process, and line test process has detected a broken linkage.
`UNEQUIPPED DCLU` = This line belongs to an unequipped digital carrier line unit (DCLU). Therefore, the LIT software will silently skip over the rest of this unit.
`UNEQUIPPED GRID` = This line belongs to an unequipped LU grid; therefore, the LIT software will silently skip over the rest of this grid.
`UNEQUIPPED IDCU` = This line belongs to an unequipped integrated digital carrier unit (IDCU). Therefore, the LIT software will silently skip over the rest of this unit,
`UNEQUIPPED ISLU` = This line belongs to an unequipped ISLU. Therefore, the LIT software will silently skip over the rest of this unit.
`UNEQUIPPED LB` = This line belongs to an unequipped line board (LB) in an ISLU2. Therefore, the LIT software will silently skip over the rest of this LB.
`UNEQUIPPED LGC` = This line belongs to an unequipped line group controller (LGC) in an ISLU. Therefore, the LIT software will silently skip over the rest of this LGC.
`UNEQUIPPED LU` = This line belongs to an unequipped LU. Therefore, the LIT software will silently skip over the rest of this unit.
`UNEQUIPPED SLC RT` = This line belongs to an unequipped *SLC*® remote terminal (RT). Therefore, the LIT software will silently skip over the rest of this line group controller.

`d` = Directory number of the line being skipped, if a number is assigned.

`e` = Member number of the line time slot bridging (LTSB) line if the feature is assigned. For an LTSB line, a member number of 1 represents the lead line and a member number of 2 represents the associate line.

`f` = MLHG member of the line, if the line is member of a multi-line hunt group.

`g` = Type of equipment that determines the equipment number (EN) field. Valid value(s):
`AIUEN` = Access interface unit equipment number.
`ILEN` = Integrated digital carrier unit equipment number.
`LEN` = Line equipment number.
`LCEN` = Line card equipment number.
`LCKEN` = Line circuit equipment number.
`SLEN` = *SLC*® line equipment number.

`h` = Equipment number. Valid value(s):

If `g` **' =**	**'**`h`**' =**
`AIUEN`	`i-z-a`^{1}`-b`^{1}
`ILEN`	`i-u-s-t`
`LEN`	`i-j-k-l-m-n`
`LCEN`	`i-o-p-q`
`LCKEN`	`i-v-w-x-y`
`SLEN`	`i-r-s-t`

`i` = SM number.

`j` = LU number.

`k` = Grid number.

l = Grid board number (LU1, LU2, or LU3).

m = Switch number.

n = Level number.

o = ISLU number.

p = LGC number.

q = LC card number.

r = DCLU number.

s = RT number.

t = RT line number.

u = IDCU number.

v = ISLU2 number.

w = Line group number.

x = Line board number.

y = Line circuit number.

z = Access interface unit equipment number.

a[1] = AIU pack number.

b[1] = AIU circuit number.

4. ACTION TO BE TAKEN

If 'b' =	Action:
ALIT CKT TIMEOUT	If this occurs repeatedly, the ALIT circuit in use should be diagnosed and replaced if necessary.
ALIT CKT UNAVAILABLE	If this fault persists, identify all ALIT circuits in the same shelf as the line's MTB, and manually diagnose them.
EQUIP TP INTERRUPTED	The SM may be in an overload state or there is an unconditional request to remove from service the ALIT circuit being used for this test. Check for these conditions.
GDXC CKT UNAVAILABLE	If this fault persists, verify that there is at least 1 GDXC pack equipped for every ALIT pack equipped. Sometimes, GDXC packs are kept is reserve for other types of metallic testing and will not be available for ALIT testing. To avoid this, additional GDXC packs can added if desired. This fault will not stop all lines from being ALIT tested, but it may slow down ALIT testing to a small degree.
INVALID RT CHAN TYPE	Verify the CU for this line is of the proper type for metallic testing.
LINE TP INTERRUPTED	The SM supporting this line may be in overload or there is an unconditional request to remove this line from service. Check for these conditions.
MET NETWORK FAILURE	Make sure all hardware is in-service, other metallic test activity is held to a minimum during ALIT testing, REX is not scheduled during ALIT testing, all metallic access (MA) circuits pass diagnostics for all 3 phases, there is a mate GDXC circuit for every ALIT circuit, the protocol circuits for MMSU pass diagnostics and every shelf and service group, with metallic access to lines, have equipped ALIT circuit. Run a demand LIT test on the failing line (using each MMSU service group). If the demand test indicates failure and the MMSU diagnostics is that

	all tests passed (ATP), verify that metallic routing data is correctly populated.
MMSU DATA BASE PROB	Verify that the RLCKTDATA tuple exists for the ALIT circuit in use.
MMSU TP INTERRUPTED	The SM supporting this MMSU may be in an overload state or there is an unconditional request to remove from service hardware used in the metallic connection between the ALIT circuit and the line. Check for these conditions.
NO METALLIC AT LINE	Make sure diagnostics of the MA circuit that terminates this line unit or SLC RT passes all 3 phases. Make sure the line unit hardware passes diagnostics.
NO METALLIC PATH	Use trunk line work station (TLWS) to verify metallic connectivity to the line.
POWER CROSSED LINE	Notify the appropriate maintenance personnel.
RT METALLIC BUS BUSY	Most likely other metallic testing activity is in progress, using the bus. Hold other metallic test activity to a minimum during ALIT testing. Especially be aware of when IMLT and MLT testing is taking place and how this testing conflicts with ALIT testing.
SOFTWARE-TIMEOUT PROB	An overload in an affected SM may have occurred, an affected SM may have temporarily isolated, or a software error may have occurred. Check for these conditions.
TP KEEP ALIVE BROKEN	Most likely, an affected SM may have gone into an overload state or an affected SM may have temporarily been isolated. Check for these conditions.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:ALIT
DGN:MA
EX:ALIT
EX:MA
EXC:LIT
OP:LIT
STP:LIT
```

Output Message(s):

```
DGN:ALIT
DGN:MA
EX:ALIT
EX:MA
OP:LIT
STP:LIT-COMPL
```

EXC:LIT-SKIPPED-C

Software Release: 5E12 and later
Message Class: ALITMON,NULLDEV, TLWS
Application: 5
Type: Output

1. FORMAT

```
EXC LIT SKIPPED TYPE=a TEST=b
  REASON                    DN          MEM    TYPE    EN
  c                         [d][-e][+]  [f]    g       h
  .
  .
  .
  c                         [d][-e][+]  [f]    g       h
```

2. REASON FOR OUTPUT

To report that line insulation testing (LIT) on a line or group of lines could not be done and those lines were skipped by LIT. The LIT session is continuing.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`+` = Indicates the line is a party line if the feature is assigned.

`a` = Type of test session. Valid value(s):
- `Q` = A sequential automatic LIT (ALIT) session.
- `S` = A single manually requested (demand) LIT (DLIT) session.

`b` = Type of test. Valid value(s):
- `F` = Foreign potential (FEMF) test only.
- `G` = General. Performs tip and ring-to-ground (TRG), short circuit and ring-to-ground (SRG), and FEMF tests.
- `S` = SRG test only.
- `T` = TRG test only.

`c` = Reason line was skipped. Valid value(s):
- `ALIT CKT TIMEOUT` = The ALIT circuit failed to yield test results for this line before a software timeout occurred. If this occurs repeatedly, the ALIT circuit in use should be diagnosed and replaced if necessary.
- `ALIT CKT UNAVAILABLE` = The ALIT circuit in use has gone out of service (OOS); it will be tried again.
- `BLKD-SPARED LINE CARD` = The metallic connection from the ALIT circuit in the modular metallic service unit (MMSU) to the line was blocked in the integrated services line unit (ISLU) metallic access network because a line card (LC) was spared. This condition exists when trying to gain metallic access to a LC that is in the same half of a line group drawer as an actively spared faulty card. "Same half of a line group drawer" refers to those line groups that are vertically adjacent (such as, LG0 and LG1 or LG2 and LG3). The remaining lines in the affected ISLU line groups will also

be skipped.

`BUSY LINE` = The line is in use and cannot be tested.

`COMMUNICATION FAILURE` = Results for this line test are unavailable due to a damaged message or inability to receive a message.

`DATA BASE PROBLEM` = The unit type obtained from reading relation RL_PICB with the peripheral interface control bus (PICB) of the in-use ALIT circuit in MMSU was not an MMSU type.

`EQUIP TP INTERRUPTED` = The ALIT equipment test process has been interrupted by system integrity (SI) and can not complete this line test.

`EXEMPT LINE` = The line is marked exempt for LIT testing.

`FAILED TO CREATE TP` = System routing was unable to create the needed MMSU test process or the line test process. The affected SMs may be in overload or temporarily isolated.

`FAMILY OF EQUIP LINE` = The line terminates on a component of line unit (LU) hardware that is OOS.

`FAULTY ALIT CKT` = The ALIT circuit in use failed its sanity or calibration self-test, or repeatedly failed to complete a line test before software timeout occurs.

`GDXC CKT UNAVAILABLE` = To test this line type, the metallic path must include a GDXC compensator circuit. This resource was not available.

`INVALID LINE` = The line is invalid. It is probably unequipped or unassigned.

`INVALID RT CHAN TYPE` = ALIT is attempting to test an integrated subscriber loop carrier (ISLC) remote terminal (RT) channel unit (CU) that does not support metallic connections.

`LINE TEST INTERRUPTED` = This line test was interrupted by system software.

`LINE TP INTERRUPTED` = The line test process has been interrupted by SI and can not complete this line test.

`MET NETWORK FAILURE` = A failure has been encountered while setting up the metallic path between the ALIT circuit and the line. Most probable cause is a resource not available such as the line's MTB, junctors, MTIB, or a mate GDXC for the ALIT circuit. The most likely cause for this resource shortage is if other metallic test activity is in progress or there is REX activity on the required MMSU hardware.

`MMSU DATA BASE PROB` = A problem was found reading the RLCKTDATA relation.

`MMSU SG UNAVAILABLE` = The metallic service unit service group in use has gone OOS; a LIT test will be tried again.

`MMSU TP INTERRUPTED` = The MMSU test process has been interrupted by SI and can not complete this line test.

`NO EQUIP TP` = The logical test port for the ALIT equipment test process could not be activated or access was denied by switch software.

`NO LINE TP` = The port for the line test process could not be activated or access was denied by switch software.

`NO METALLIC AT LINE` = The final metallic connection of the line's tip-and-ring (T/R) to the metallic path failed.

`NO METALLIC PATH` = The metallic connection from the ALIT circuit in the MMSU to the line could not be set up.

`NO MMSU TP` = The logical test port for the MMSU test process could not be activated or access was denied by switch software.

`POWER CROSS LINE` = An external power source exists on the tip and ring.

`PRECUT LINE` = This line is in a pre-cutover state and cannot be tested by LIT since to do so could interfere with the old office.

`PROBLEM TESTING LINE` = A hardware or software problem occurred when the line was tested.

`RT METALLIC BUS BUSY` = The MTB out to an ISLC RT is busy.

`SOFTWARE-TIMEOUT PROB` = Results for this line test are unavailable because of a damaged or missing message between the ALIT equipment test process, the MMSU test process, or a line test process.

`TBCU SETUP FAILURE` = A problem was encountered with the test bus control unit (TBCU) when attempting to setup a metallic connection to an ISLC RT.

`TP KEEP ALIVE BROKEN` = The software keep alive mechanism between the ALIT equipment test process, MMSU test process, and line test process has detected a broken linkage.

`UNEQUIPPED DCLU` = This line belongs to an unequipped digital carrier line unit (DCLU). Therefore, the LIT software will silently skip over the rest of this unit.

`UNEQUIPPED GRID` = This line belongs to an unequipped LU grid; therefore, the LIT software will silently skip over the rest of this grid.

`UNEQUIPPED IDCU` = This line belongs to an unequipped integrated digital carrier unit (IDCU). Therefore, the LIT software will silently skip over the rest of this unit,

`UNEQUIPPED ISLU` = This line belongs to an unequipped ISLU. Therefore, the LIT software will silently skip over the rest of this unit.

`UNEQUIPPED LB` = This line belongs to an unequipped line board (LB) in an ISLU2. Therefore, the LIT software will silently skip over the rest of this LB.

`UNEQUIPPED LGC` = This line belongs to an unequipped line group controller (LGC) in an ISLU. Therefore, the LIT software will silently skip over the rest of this LGC.

`UNEQUIPPED LU` = This line belongs to an unequipped LU. Therefore, the LIT software will silently skip over the rest of this unit.

`UNEQUIPPED SLC RT` = This line belongs to an unequipped *SLC*® remote terminal (RT). Therefore, the LIT software will silently skip over the rest of this line group controller.

`d` = Directory number of the line being skipped, if a number is assigned.

`e` = Member number of the line time slot bridging (LTSB) line if the feature is assigned. For an LTSB line, a member number of 1 represents the lead line and a member number of 2 represents the associate line.

`f` = MLHG member of the line, if the line is member of a multi-line hunt group.

`g` = Type of equipment that determines the equipment number (EN) field. Valid value(s):

`AIUEN` = Access interface unit equipment number.
`ILEN` = Integrated digital carrier unit equipment number.
`LEN` = Line equipment number.
`LCEN` = Line card equipment number.
`LCKEN` = Line circuit equipment number.
`SLEN` = *SLC*® line equipment number.
`INEN` =Digital network equipment number.

`h` = Equipment number. Valid value(s):

If `g` **' =**	**'**`h`**' =**
`AIUEN`	$i\text{-}z\text{-}a^1\text{-}b^1$
`ILEN`	`i-u-s-t`
`LEN`	`i-j-k-l-m-n`
`LCEN`	`i-o-p-q`
`LCKEN`	`i-v-w-x-y`
`SLEN`	`i-r-s-t`
`INEN`	$i\text{-}c^1\text{-}d^1\text{-}e^1$

`i` = SM number.

`j` = LU number.

k = Grid number.

l = Grid board number (LU1, LU2, or LU3).

m = Switch number.

n = Level number.

o = ISLU number.

p = LGC number.

q = LC card number.

r = DCLU number.

s = RT number.

t = RT line number.

u = IDCU number.

v = ISLU2 number.

w = Line group number.

x = Line board number.

y = Line circuit number.

z = Access interface unit equipment number.

a[1] = AIU pack number.

b[1] = AIU circuit number.

c[1] = DNU number.

d[1] = RT number.

e[1] = RT line number.

4. ACTION TO BE TAKEN

If 'b' =	Action:
ALIT CKT TIMEOUT	If this occurs repeatedly, the ALIT circuit in use should be diagnosed and replaced if necessary.
ALIT CKT UNAVAILABLE	If this fault persists, identify all ALIT circuits in the same shelf as the line's MTB, and manually diagnose them.
EQUIP TP INTERRUPTED	The SM may be in an overload state or there is an unconditional request to remove from service the ALIT circuit being used for this test. Check for these conditions.
GDXC CKT UNAVAILABLE	If this fault persists, verify that there is at least 1 GDXC pack equipped for every ALIT pack equipped. Sometimes, GDXC packs are kept is reserve for other types of metallic testing and will not be available for ALIT testing. To avoid this, additional GDXC packs can added if desired. This fault will not stop all lines from being ALIT tested, but it may slow down ALIT testing to a small degree.
INVALID RT CHAN TYPE	Verify the CU for this line is of the proper type for metallic testing.

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LINE TP INTERRUPTED	The SM supporting this line may be in overload or there is an unconditional request to remove this line from service. Check for these conditions.
MET NETWORK FAILURE	Make sure all hardware is in-service, other metallic test activity is held to a minimum during ALIT testing, REX is not scheduled during ALIT testing, all metallic access (MA) circuits pass diagnostics for all 3 phases, there is a mate GDXC circuit for every ALIT circuit, the protocol circuits for MMSU pass diagnostics and every shelf and service group, with metallic access to lines, have equipped ALIT circuit. Run a demand LIT test on the failing line (using each MMSU service group). If the demand test indicates failure and the MMSU diagnostics is that all tests passed (ATP), verify that metallic routing data is correctly populated.
MMSU DATA BASE PROB	Verify that the RLCKTDATA tuple exists for the ALIT circuit in use.
MMSU TP INTERRUPTED	The SM supporting this MMSU may be in an overload state or there is an unconditional request to remove from service hardware used in the metallic connection between the ALIT circuit and the line. Check for these conditions.
NO METALLIC AT LINE	Make sure diagnostics of the MA circuit that terminates this line unit or SLC RT passes all 3 phases. Make sure the line unit hardware passes diagnostics.
NO METALLIC PATH	Use trunk line work station (TLWS) to verify metallic connectivity to the line.
POWER CROSSED LINE	Notify the appropriate maintenance personnel.
RT METALLIC BUS BUSY	Most likely other metallic testing activity is in progress, using the bus. Hold other metallic test activity to a minimum during ALIT testing. Especially be aware of when IMLT and MLT testing is taking place and how this testing conflicts with ALIT testing.
SOFTWARE-TIMEOUT PROB	An overload in an affected SM may have occurred, an affected SM may have temporarily isolated, or a software error may have occurred. Check for these conditions.
TP KEEP ALIVE BROKEN	Most likely, an affected SM may have gone into an overload state or an affected SM may have temporarily been isolated. Check for these conditions.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:ALIT
DGN:MA
EX:ALIT
EX:MA
EXC:LIT
OP:LIT
STP:LIT
```

Output Message(s):

```
DGN:ALIT
DGN:MA
EX:ALIT
EX:MA
OP:LIT
STP:LIT-COMPL
```

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EXC:LIT-STARTED

Software Release: 5E10 and later
Message Class: ALIT,DEV,TLWS
Application: 5
Type: Output

1. FORMAT

```
EXC LIT STARTED a RG=b
```

2. REASON FOR OUTPUT

To report that a line insulation testing (LIT) session has started.

3. VARIABLE FIELD DEFINITIONS

a = Type of session. Valid value(s):
- Q = Automatic LIT (ALIT).
- S = Manually requested (demand) LIT (DLIT).

b = Threshold resistance that electrical leakage on the line will be compared to. The resistance for each range group depends on the ALIT pack (TN328, TN329, or TN330) to be used in the office.

	TN328	TN329	TN330
A	80 K ohms	80 K ohms	320 K ohms
B	160 K ohms	320 K ohms	1.25 M ohms
C	640 K ohms	1.25 M ohms	2.5 M ohms
D	2.5 M ohms	5 M ohms	5 M ohms

4. ACTION TO BE TAKEN

Inspect TTY output messages for line insulation test information indicating line problems.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:LIT
OP:LIT
OP:LIT-SM
STP:LIT
```

Output Message(s):

```
EXC:LIT-COMPL
OP:LIT
STP:LIT-COMPL
```

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EXC:LIT-STOPPED

Software Release: 5E10 and later
Message Class: ALIT
Application: 5
Type: Output

1. FORMAT

```
EXC LIT STOPPED Q DURATION TIMEOUT a b c
```

2. REASON FOR OUTPUT

To indicate that the allotted time for automatic line insulation testing (ALIT) ran out and that the testing was terminated gracefully.

3. VARIABLE FIELD DEFINITIONS

a	= Number of lines attempted to be tested.
b	= Number of lines actually tested.
c	= Number of lines that failed.

4. ACTION TO BE TAKEN

If it is important that all lines in the office be tested before the next day, restart ALIT by using the EXC:LIT input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:LIT
OP:LIT
OP:LIT-SM
```

Output Message(s):

```
OP:LIT
```

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EXC:LIT-VERIFY

Software Release: 5E10 and later
Message Class: ALIT
Application: 5
Type: Output

1. FORMAT

```
EXC LIT VERIFY TYP=a RG=b TMO=c TM=d-e
```

2. REASON FOR OUTPUT

To respond to the EXC:LIT input message (if OPT Q or OPT S is specified) to verify the parameters for the next automatic line insulation test (ALIT).

3. VARIABLE FIELD DEFINITIONS

`a` = Type of test being requested. Valid value(s):
- `F` = Foreign potential (FEMF) test.
- `G` = General. Performs tip and ring-to-ground (TRG), short circuit and ring-to-ground (SRG), and FEMF tests.
- `S` = SRG test.
- `T` = TRG test.

`b` = Threshold resistance that electrical leakage on the line will be compared to. The resistance for each range group depends on the ALIT pack (TN328, TN329, or TN330) to be used.

	TN328	TN329	TN330
A	80 K ohms	80 K ohms	320 K ohms
B	160 K ohms	320 K ohms	1.25 M ohms
C	640 K ohms	1.25 M ohms	2.5 M ohms
D	2.5 M ohms	5 M ohms	5 M ohms

`c` = Maximum hours duration for line insulation test. Valid value(s):
- `0` = Suppresses the next ALIT.
- `1-8` = Specifies the amount of hours the ALIT is to be performed.

`d-e` = 24-hour clock time to start ALIT in hours and minutes.

4. ACTION TO BE TAKEN

Confirm that the indicated parameters are the ones desired for the next ALIT session or change them as needed.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`EXC:LIT`

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EXC:MRVT-PC-STPS

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EXC:MRVT PC a STPS b NO TRACE SUCCESS

[2]   ____________________________________________________________________
      EXC:MRVT PC a STPS b TRACE SUCCESS
        STPS CROSSED
        c
        .
        .
        .

[3]   ____________________________________________________________________
      EXC:MRVT PC a STPS b {TRACE|NO TRACE} {PARTIAL SUCCEED|FAILURE}
        MRVA MESSAGES RECEIVED
        g h i
        STPS CROSSED
        [c]
        ERRORS DETECTED
        d e
        . .
        . .
        . .
        f
        .
        .
        .

[4]   ____________________________________________________________________
      EXC:MRVT PC a STPS b FAILURE, j
```

2. REASON FOR OUTPUT

To respond to a message transfer part (MTP) route verification test (MRVT) input message that verifies the network communication end to end. The output will be directed to the standard output associated with the initiator of the test, and also to the destination(s) specified for the MTCE message class. If they are the same device, only one printout will occur.

3. VARIABLE FIELD DEFINITIONS

`FAILURE` = Depending upon the responses received.

`NO TRACE` = The user did not request a trace of all the STPs crossed.

`PARTIAL SUCCESS` = Depending upon the responses received.

`TRACE` = The user requested a trace of all the STPs crossed.

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a = The point code of the terminating node for the test. Valid value(s):

`kkklllmmm` = *ANSI*® standard format.
`kkknnlmmm` = AT&T format.

Note: Non-local network point codes always use *ANSI*® standard format.

b = The maximum number of signaling transfer points (STPS) the MRVT is allowed to cross.

c = The list of STP point codes in the trace of a received MTP routing verification result (MRVR) message indicating success. If multiple success-indicating MRVR messages are received, this line will be printed for each such message (three success-indicating MRVR messages result in three lists of point codes).

Note: In Format 3, if `FAILURE` is printed, variable '`c`' will not be present in the output.

d = Text phrase describing the problem found. Valid value(s):

```
EXCESSIVE LENGTH ROUTE
INACCESSIBLE SIGNALING POINT
LOOP
TEST CANNOT BE RUN DUE TO LOCAL CONDITIONS
TIMER EXPIRED
UNKNOWN ERROR CODE
UNKNOWN INITIATOR POINT CODE
UNKNOWN TERMINATOR POINT CODE
```

e = Error number associated with error described in '`d`'. Valid value(s):

`1` = Detected loop.
`2` = Excessive length route.
`3` = Unknown resource instance.
`4` = Route inaccessible.
`5` = Processing failure.
`6` = Unknown initiating SP.
`7` = Timer expired.

f = Point code(s) associated with the failure being reported a nine digit number (such as, 254162371).

If '`d`' =	**'`f`' =**
`LOOP`	Point code of signaling point (SP) detecting the loop followed by the list of point codes in the loop.
`EXCESSIVE LENGTH ROUTE`	Point code of the SP detecting the excessive length route followed by the point codes that were in the route up to the detecting SP.
`UNKNOWN TERMINATOR POINT CODE`	Point code of the SP that doesn't know the terminator, followed by the unknown terminator point code.
`INACCESSIBLE SIGNALING POINT`	Point code of the SP that cannot access the inaccessible SP followed by the point code of the inaccessible SP.
`TIMER EXPIRED`	Point code of the SP where the timer expired followed by the list of point codes from which expected MTP routing verification acknowledgement (MRVA) messages were not received.
`UNKNOWN INITIATOR POINT CODE`	Point code of the reporting SP followed by the point code of the SP that does not know the initiator.
`TEST CANNOT BE RUN DUE TO LOCAL CONDITIONS`	Point code of the SP that cannot run the test.
`UNKNOWN ERROR CODE`	The error number received that is not on the above list.

Note: If multiple errors were detected, items 'd', 'e', and '1' will be printed for each error received.

g = Point code of the SP from which the MRVA message was received.

h = MRVT resolution. Valid value(s):
FAILURE = No network paths from origin to destination verified.
PARTIAL SUCCESS = One or more (but not all) network paths from origin to destination verified.
SUCCESS = All network paths from origin to destination verified.

i = The failure type in hexadecimal notation. At an intermediate SP, the failure types from the MRVAs received are logically OR'ed together. The initiating SP then prints the aggregate of failure types received in its MRVAs. Below are the MRVA failure types and the bits that represent them. Valid value(s):
10000000 = Detected loop
01000000 = Excessive length route
00100000 = Unknown resource instance
00010000 = Route inaccessible
00001000 = Processing failure
00000100 = Unknown initiating SP
00000010 = Timer expired
00000000 = Success
MRVA MESSAGES RECEIVED
254999000 FAILURE 0x82 The above MRVA had two errors.

0x80 = detected loop
0x02 = timer expired

j = The problem found. Valid value(s):
MAXIMUM MRVTS ALREADY IN PROGRESS
MRVT ALREADY IN PROGRESS WITH TERMINATOR
NO NEW TRANSACTIONS ALLOWED
STPS NOT IN 0 - 15 RANGE
TERMINATOR IS ALIAS FOR LOCAL PC
TERMINATOR IS DCIS6 POINT CODE
TERMINATOR IS UNKNOWN
TERMINATOR SAME AS ORIGINATOR

k = The network identifier.

l = The cluster identifier.

m = The member identifier.

n = The region identifier.

4. ACTION TO BE TAKEN

Format 1 is used when the MRVT is successful and the MRVT user did not request a trace.

Format 2 is used when the MRVT is successful and the user requested a trace.

Format 3 is used when either a partial success or failure occurs.

Format 4 is used by the initiating SP if the MRVT message cannot be sent due to local conditions.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CHG:MRVT
EXC:MRVT-PC
```

Output Message(s):

```
CHG:MRVT
REPT:MRVR
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services*

EXC:ODDRCVY

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
EXC ODDRCVY {CORC|ALL|SKIPLOG}{SM=a|CMP=b-c|AM|SM=a,CMP=b-c,AM}
 [NON-FATAL ERRORS=d] e
```

2. REASON FOR OUTPUT

To report the status of the reapplication of customer-originated and/or regular recent changes (RCs) to the office-dependent data (ODD).

3. VARIABLE FIELD DEFINITIONS

`ALL` = All RCs, including CORCs were reapplied.

`AM` = The customer-originated and/or regular recent changes were reapplied to the ODD in the administrative module.

`CORC` = Only customer-originated recent changes were reapplied to the ODD.

`SKIPLOG` = Clear RC backout status.

`a` = Number of the switching module for which customer-originated and/or regular recent changes were reapplied.

`b` = Message switch side for the desired communication module processor (CMP) (0,1).

`c` = CMP for which customer-originated and/or regular recent changes were reapplied.

`d` = Number of nonfatal errors that occurred and were corrected by the database manager during the ODD recovery. If they are not correctable, the ODD recovery will be aborted and the input message EXC:ODDRCVY must be reissued with the SKIPRC option to skip over the failing database transaction. Under normal operation the number of nonfatal errors should equal zero.

`e` = Termination report. Valid value(s):

- `ABORTED` = The requested action was terminated before a normal completion and the consistency of hardware states or data is questionable.
- `COMPLETED` = The requested action was terminated after completion.
- `NOT STARTED` = The requested action could not begin. Probable causes: a previously requested reapplication was still in progress or the disk log file had already been reapplied.
- `STOPPED` = The requested action was terminated before a normal completion but consistency of hardware states and data is reliable.

4. ACTION TO BE TAKEN

If the ODD recovery aborted, the failing transaction must be skipped by using the SKIPRC option in the input message EXC:ODDRCVY.

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If the ODD recovery stopped, then reissue the input message EXC:ODDRCVY.

All other cases mean that the ODD is up to date and no further action need be performed.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:ODDRCVY
EXC:RCDECODE
```

Output Message(s):

```
OP:CORCSTAT-SM
OP:RCSTAT
REPT:RCDECODE
```

Other Manual(s):
235-105-250 *System Recovery*
235-105-210 *Routine Operations and Maintenance*

EXC:OFLBOOT

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]
EXC OFLBOOT {STARTED | IN PROGRESS | ABORTED | STOPPED | TERMINATED}

[2]
EXC OFLBOOT a
  b
  OLBSTATE        LASTATE        FUNCTION        LINE
  c               d              e               f

[3]
EXC OFLBOOT a
  b g h
  OLBSTATE        LASTATE        FUNCTION        LINE
  c               d              e               f

[4]
EXC OFLBOOT a
  g h [j] b
  OLBSTATE        LASTATE        FUNCTION        LINE
  c               d              e               f

[5]
EXC OFLBOOT a
  b [i|k]
```

2. REASON FOR OUTPUT

These messages are output to report information regarding the execution of the offline boot feature.

3. VARIABLE FIELD DEFINITIONS

`a` = Message type. Valid value(s):

- `ABORTED` = Application request to stop the oflboot procedure; devices moved to the offline side will be restored.
- `COMPLETED` = Indicates offline side boot has completed.
- `INFO` = Informational output.
- `STOPPED` = Manual request to stop the oflboot procedure. If the RST option was specified, devices moved to the offline side will be restored.
- `TERMINATED` = Administrative module (AM) software-initiated termination of the oflboot procedure; devices moved to the offline side will not be restored.

`b` = Text line. Valid value(s):

- 1 `A CU IS FORCED` = Printed by EXC:OFLBOOT if either CU 0 or CU 1 is forced on-line.
- 2 `AIM REPORTED CHECKS FAILURE` = Application integrity monitor (AIM)

pre-oflboot checks have failed.

3 `AND NEITHER OOS NOR UCL WAS SPECIFIED` = The specified unit is out-of-service (OOS). For units in this state, either the OOS or UCL options must be specified on the command line.

4 `BOOT IN PROGRESS` = Indicates the offline side is booting.

5 `BOTH IOP 0 AND IOP 1 CANNOT BE MOVED TO OFFLINE SIDE` = Printed if both IOP 0 and IOP 1 were selected to move to the offline side.

6 `CANNOT ACCESS ECD` = EXC:OFLBOOT encountered problems accessing equipment configuration database (ECD) device information.

7 `CANNOT BOOT FROM THIS DEVICE` = It is not possible to boot from a device that is offline for initialization level 2.

8 `CANNOT SEND OLBPRECHK MESSAGE TO AIM ERROR i` = A message requesting AIM to perform offline boot prechecks cannot be sent to the AIM process. Reason for failure is given in variable '`i`'.

9 `CANNOT UPDATE ECD` = The RC/V ECD cannot be updated. The reason is dependent on the function '`e`' printed. Valid value(s):

`DFS` = Count not reserve a unit's UCB record as part of EXC:OFLBOOT pre-checks.

`UNRESERVE` = Could not unreserve a UCB record while stopping offline boot. Some units' UCB records may remain reserved.

10 `CANNOT VERIFY IF RC/V ECD SESSION IS IN PROGRESS` = The timer for verifying if a disk RC/V ECD session is in progress has expired before the process that checks this responds.

11 `CORRUPT ECD UCB RECORD FOR g h` = EXC:OFLBOOT encountered inconsistent information about a device from RC/V ECD. For example, EXC:OFLBOOT accessed the RC/V ECD unit control block (UCB) record for a DFC and the device type in the UCB record is not disk file controller (DFC).

12 `COULD NOT BUILD TABLE FOR UNKNOWN DEVICE` = Indicates an illegal instruction inside EIH. Offline boot will be terminated.

13 `DFC 2 OOS DFC 3 ACT AND UCL WAS NOT SPECIFIED` = When more than 2 disk file controllers (DFCs) are present, offline boot attempts to pair even and odd DFCs; that is, DFC 0 and DFC 2, and DFC 1 and DFC 3. If DFC 2 is in the out-of-service (OOS) state and DFC 3 is in the ACT state, the UCL option is required. Offline boot is terminated.

14 `DFC 2 OOS DFC 3 OOS AND UCL WAS NOT SPECIFIED` = When more than 2 DFCs are present, offline boot attempts to pair even and odd DFCs; that is, DFC 0 and DFC 2, and DFC 1 and DFC 3. If both DFC 2 and DFC 3 are in the OOS state, the UCL option is required. Offline boot is terminated.

15 `DFC 3 OOS DFC 2 ACT AND UCL WAS NOT SPECIFIED` = When more than 2 DFCs are present, offline boot attempts to pair even and odd DFCs; that is, DFC 0 and DFC 2, and DFC 1 and DFC 3. If DFC 3 is in the OOS state and DFC 2 is in the ACT state, the UCL option is required. Offline boot is terminated.

16 `DIAGNOSTICS IN PROGRESS` = Indicates the specified device's RC/V ECD UCB record is marked "reserved." Most often this is the case when diagnostics, or other type of maintenance work, are running on a device.

17 `EXCEEDED STORAGE CAPACITY FOR STORING DEVICE INFORMATION` = Indicates overflow in internal tables holding device information for offline boot.

18 `HAS CORRUPT UNIT NUMBER` = The unit number for the maintenance teletypewriter controller (MTTYC) is greater than or equal to 2 and this is invalid.

19 `HAS DEVICE TYPE ROP` = A UCB record with device type receive-only printer (ROP) was found whose parent controller was not MTTYC or teletypewriter controller (TTYC).

20 `IN DISK INDEPENDENT OPERATION MODE` = Printed if the system is in disk independent operation mode.

21 `INITLVL 2 INCOMPATIBLE WITH ANY MHD IN OFL STATE` = Invoking offline boot with initialization level 2 is rejected if any MHD is in the OFL state. Offline boot is terminated.

22 `MODE MUST BE OLBIDLE TO BOOT OFFLINE` = This message indicates that either offline boot is already in progress or offline boot is not supported.

23 `MUST BE ACT OR OOS FOR SPLITTING` = When more than two DFCs are present, offline boot will attempt to pair even and odd DFCs; that is, DFC 0 and DFC 2, and DFC 1 and DFC 3. If either DFC 2 or DFC 3 is in the UNEQIP, GROW, OFL, or STBY state, both DFC 2 and DFC 3 will remain in the on-line side. The offline boot will continue without splitting DFC 2 and DFC 3.

24 `MUST BE ACT FOR INITLEVEL 2` = The TTY device selected to be the offline pseudo-ROP is OOS. Also selected was an initialization level 2. Because devices are not automatically restored during this level of initialization, the TTY would have remained OOS in the offline side after the initialization, that is, there would not have been a pseudo-ROP in the offline side. This condition cannot be overridden with the OOS or UCL options.

25 `MUST BE STBY FOR INITLEVEL 2` = Boot level 2 was selected on the offline control unit (CU) is not in the STBY state. The incorrect state is given by '`j`'.

26 `NO DISK FORCED` = Indicates a DFC is not forced.

27 `NO EXC OFLBOOT IN PROGRESS MESSAGE WILL PRINT` = Printed when all internal timer slots have been used and a new timer cannot be obtained to print the `EXC OFLBOOT IN PROGRESS` messages.

28 `NO TIMER SLOTS AVAILABLE` = Printed when all internal timer slots have been used. Timer slots are freed at this point.

29 `NOT ACTIVE` = Printed if the specified device is not in the ACT state. The incorrect state is given by '`j`'.

30 `NOT SPLITTING - DFC 2 UNEQUIP` = When more than 2 DFCs are present, offline boot attempts to pair even and odd DFCs; that is, DFC 0 and DFC 2, and DFC 1 and DFC 3. If either DFC 2 or DFC 3 is in the UNEQUIP, GROW, OFL, or STBY state, both DFC 2 and DFC 3 remain in the on-line side. The offline boot continues without splitting

31 `NOT SPLITTING - DFC 3 UNEQUIP` = When more than 2 DFCs are present, offline boot attempts to pair even and odd DFCs; that is, DFC 0 and DFC 2, and DFC 1 and DFC 3. If either DFC 2 or DFC 3 is in the UNEQUIP, GROW, OFL, or STBY state, both DFC 2 and DFC 3 remain in the on-line side. The offline boot continues without splitting

32 `OFFLINE SIDE BOOT COMPLETE` = If function '`e`' is TIM_EXCCHK, the on-line side did not receive the results from the post-boot checks in time.

If the function is TIM_PRINT, AIM did not reply to the message to print post-boot or switch checks.

If the function is OLBMSGHDLR, the offline boot sequence completed all its steps.

33 `OLBSTATE c NOT EXC_LCKECD` = Printed if offline boot is not in the EXC_LCKECD state when EXC:OFLBOOT expects it to be. OLBSTATE is corrupt or an internal timer was not cleared correctly.

34 `OLBSTATE c NOT EXC_PRCK` = Printed if offline boot is not in the EXC_PRCK state when EXC:OFLBOOT expects it to be. OLBSTATE is corrupt or an internal timer was not cleared correctly.

35 `OLBSTATE MUST BE OLBIDLE TO BOOT OFFLINE` = This message indicates that either an offline boot is already in progress or the value stored in OLBSTATE is

corrupted.

36 `ONLY ONE BOOT DEVICE` = Only one boot device is installed. Minimally, both MHD 0 and MHD 1 need to be installed for a system to be considered fully duplex.

37 `SPECIFIED TTY DOES NOT EXIST` = The TTY device specified in the command line is invalid.

38 `STATE UNACCEPTABLE FOR OFFLINE BOOT` = The major state of a device is not in the state needed while attempting to boot offline. The incorrect state is given by '`j`'.

39 `SYSTEM STATUS INCONSISTENT WITH COMMAND LINE OPTIONS` = Printed if command line options do not match system status. This message will be output if any of the following conditions are true:

- Required unit is OOS and neither OOS nor UCL was specified.
- Specified teletypewriter (TTY) does not exist.
- Specified input/output processor (IOP) does not exist.
- Both IOP0 and IOP1 are selected for moving.
- A primary disk was not forced.
- A CU is forced.
- Only one bootable disk is available or one of the bootable disks is not equipped.
- Mate CU state is not STBY or OOS.
- If any RC/V ECD UCB record is reserved.

This list is not exhaustive. Additional information is provided in a previous output message. Refer to it for a description of the problem.

40 `TIME OUT -- AIM OFLBOOT PRECHECKS` = Printed when the timer for AIM offline boot prechecks expires.

41 `TIME OUT -- CANNOT SPAWN USER PROCESS` = Printed when a timer expires for creating a process to verify if a disk RC/V ECD session is in progress.

42 `UCL PASSWD FILE CANNOT BE OPENED FOR WRITING` = Refer to the 4ACTION TO BE TAKEN section.

43 `UCL PASSWD FILE DOES NOT EXIST, SET TO k` = The password file does not exist when the UCL option is used for the first time. A new encrypted password '`k`' is generated automatically.

44 `UCL PASSWD FILE HAD BAD FORMAT, RESET TO k` = Either the file was empty or its contents was damaged. A new encrypted password '`k`' is generated automatically.

45 `UCL PASSWD IS INVALID, RESET TO k` = The password supplied by the user is incorrect. A new encrypted password '`k`' is generated automatically.

46 `UNEXPECTED MESSAGE FROM AIM` = Indicates a message was received unexpectedly from AIM.

47 `UP POINTER IS INVALID` = Printed when the RC/V ECD UCB record for a device (containing the up pointer) has been corrupted.

48 `WILL BE MOVED TO OFFLINE SIDE` = Printed when an IOP has not been selected to be moved to the offline side, but offline boot selected it to be moved. It was selected because one of its TTYs was listed on the command line.

`c` = Current offline boot state.

`d` = Previous offline boot state.

`e` = Name of the function from which the output message originated. This field is used by the AM in diagnosing offline boot problems.

f = Line number in the function 'e' which the output message originated. This field is used by the AM, in conjunction with field 'e', to diagnose offline boot problems.

g = String giving device type information; CU, DFC, IOP, moving head disk (MHD), TTY, TTYC, and dual serial channel (DSCH), for example. Refer to the APP:MEM-NUM-UNIT Appendix in the Appendixes section of the Output Messages manual for unit names.

h = Device number. A value of zero, when used with 'g', could form DFC 0, for example.

i = Reason message could not be sent.

- 0 = Process is not attached to its port or port is invalid.
- 8192 = Process cannot queue more messages.
- -1 = Cannot allocate system message buffer.
- j = Device state.
- k = To obtain a legal password for using the UCL option, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual and provide the encrypted password 'k'. The value of variable 'k' will change every time the UCL option is entered. Using the UCL option always requires assistance. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

4. ACTION TO BE TAKEN

For Format 1, no action needs to be taken.

For Formats 2, 3, 4, and 5, the action to be taken depends on text line 'b'.

Textline:	Action to be Taken:
1	Clear the forced on-line CU and try offline boot again.
2	Clear problem with application; try offline boot again.
3	Either restore the device or add OOS or UCL to the EXC:OFLBOOT command line.
4	No action is needed.
5	Specify only one primary IOP (IOP 0 or IOP 1) in addition to any other IOPs (IOP 2, IOP 3, and so forth). Try offline boot again.
6	Run audits ECD 1 and ECD 3. If the audits pass, try offline boot again.
7	Restore boot device and try offline boot again. If device cannot be restored, then retry offline boot with initialization level 3 or 4.
8	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
9	The action to be taken depends on the function 'e' output with the message. DFS = Run RC/V ECD audits. It the audits pass, try offline boot again. UNRESERVE = If diagnostics are not running, then the RC/V ECD UCB record is corrupted; in this case, the UCB record needs to be unreserved manually or through the ECDOWN audit.
10	Try offline boot again.
11	Run audits ECD 1 and ECD 3. If the audits pass, try offline boot again.
12	Save the ROP output and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
13	Try offline boot again, specifying the UCL option. Note: The UCL option inhibits application initiated aborts during offline boot. Refer to the

EXC:OFLBOOT input message for more information on UCL.

14 Try offline boot again, specifying the UCL option.
Note: The UCL option inhibits application initiated aborts during offline boot. Refer to the EXC:OFLBOOT input message for more information on UCL.

15 Try offline boot again, specifying the UCL option.
Note: The UCL option inhibits application initiated aborts during offline boot. Refer to the EXC:OFLBOOT input message for more information on UCL.

16 Wait for diagnostics to complete, fix any problems, and then try offline boot again. If diagnostics are not running, the RC/V ECD UCB record is corrupt. In this case, the UCB needs to be unreserved manually or through the ECDOWN audit.

17 Save the ROP output and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

18 Run audits ECD 1 and ECD 3. If the audits pass, verify RC/V ECD UCB record for this MTTYC; the unit value should be 0 or 1. Try offline boot again.

19 Run audits ECD 1 and ECD 3. If the audits pass, verify RC/V ECD UCB record for this unit. The device type of the ROP controller must be MTTYC or TTYC. Try offline boot again.

20 No action is needed.

21 Either change the state of affected devices from OFL or specify INITLVL 3 or 4. Then try offline boot again.

22 Allow the existing offline boot process to complete or refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

23 No action is necessary.

24 Restore the specified TTY, or select another TTY that is ACT, or do not specify the TTY option, or use initialization level 3 or 4.

25 Change the state of this device to the state needed by EXC:OFLBOOT; try offline boot again.

26 Force a DFC; try offline boot again. no action is needed.

27 No action is needed.

28 No action is needed.

29 Change the state of this device to the state needed by EXC:OFLBOOT; try offline boot again.

30 No action is needed.

31 No action is needed.

32 The action to be taken is dependent on the function '`e`' output with the message:

`OLBMSGHDLR` = No action is needed.

`TIM_EXCCHK` = Check OLBLOG files on the offline side to determine if AIM has a problem. Do not start a side switch if it does. Also, recover OLBLOG files and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. If the message was part of a retrofit side switch, look for and verify correct operation on the new side since AIM was having problems and may not support call origination.

`TIM_PRINT` = Check AIM's operational status on the on-line side.

33 Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

34 Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

35 Allow the existing offline boot process to complete or refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

36 Add another boot disk; try offline boot again.

37 Choose a valid TTY and try the offline boot again.

38 Change the state of this device to the state needed by EXC:OFLBOOT; try offline boot again.

39 No action is needed.

40 Try offline boot again.
41 Try offline boot again.
42 The use of the UCL option is not recommended; try to reconfigure the system in such a way that the UCL option is not needed. Otherwise, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual to manually construct a valid password file.
43 The use of the UCL option is not recommended; try to reconfigure the system in such a way that the UCL option is not needed. Otherwise, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual, provide the encrypted password '`k`' to obtain a legal password and try offline boot again.
44 The use of the UCL option is not recommended; try to reconfigure the system in such a way that the UCL option is not needed. Otherwise, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual, provide the encrypted password '`k`' to obtain a legal password and try offline boot again.
45 The use of the UCL option is not recommended; try to reconfigure the system in such a way that the UCL option is not needed. Otherwise, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual, provide the encrypted password '`k`' to obtain a legal password and try offline boot again.
46 Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
47 Run audits ECD 1 and ECD 3. If the audits pass, try offline boot again.
48 No action is needed.

5. ALARMS

There is no fixed priority of action. The software process that generates the message can determine the alarm level.

For a minor alarm, take action as indicated in the report.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	690
2	704, 707
3	705
4	706
5	699, 708

Input Message(s):

```
EXC:OFLBOOT
STOP:OFLBOOT
SW:OFLBOOT
```

Output Message(s):

```
REPT:OFFLINE
REPT:OFLBOOT
STOP:OFLBOOT
SW:OFLBOOT
```

Output Appendix(es):

```
APP:MEM-NUM-UNIT
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

EXC:PM-A

Software Release: 5E10 - 5E11
Message Class: SPM
Application: 5
Type: Output

1. FORMAT

[1]
```
EXC PM a d2
 [DSLGM=b-c-d PORT=b-e f CH=q [r y]
 [SES=z a1a1/a1a1 b1 c1c1/c1c1 d1d1:d1d1:d1d1 OFFSET=e1 DUR=f1
 [PROT=g1 TRIGLVL=h1 {TRIGVAL=i1|PER[=j1} [DIR=k1] RECLVL=l1]
 {XLATE|NO XLATE} m1 EVENTS RECORDED [STATE=n1]
 [ATF=o1 [PMCFF=p1]
```

[2]
```
EXC PM DATA SES=z SEG=q1 r1r1/r1r1 s1s1:s1s1:s1s1 TEI=t1 [TEI_CHANGED]
  u1 BYTES OF FRAME NUMBER v1 FRAME LENGTH IS w1 DIR=x1 TRIG [CONT] [y1]
  z1 z1 z1 z1 z1 z1 z1 z1
  .
  .
  .
```

[3]
```
EXC PM a
 [SES=z a1a1/a1a1 b1 a2a2/a2a2 b2b2:b2b2:b2b2 m1 EVENTS REPORTED c2
```

2. REASON FOR OUTPUT

To report the information collected during a protocol monitoring (PM) session.

Format 1 provides an indication that a PM session has either successfully started, aborted, stopped, or failed to start. In addition, all pertinent information relating to the PM session is displayed. This format is also used as a prelude to the hexadecimal output or as notification that translation of the hexadecimal output into the American standard code for information interchange (ASCII) has begun.

Format 2 contains the raw data collected during the monitoring session. Additional information regarding the frame is also provided. The raw data is printed in a hexadecimal format. This message type is only used when hexadecimal data is being dumped to the receive-only printer (ROP). Translated sessions will not use this output format.

Note: The maximum amount of recorded data that can be output in one segment is 132 bytes. If the length of the recorded frame or packet or messages is larger than 132 bytes, then the frame or packet or message will require more than one segment to output. Incomplete frames will be noted with the CONT indicator.

Format 3 provides the status for the conclusion of a session (that is, successfully completed, stopped due to a manual request, or terminated abnormally).

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms

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shown in the format.

`CONT` = The recorded frame is continued in the next output segment.

`NO XLATE` = The hexadecimal output for this session will not be translated through the protocol monitoring translator.

`PER` = Trigger value that terminated the recording session was a protocol error record (PER) occurring on the channel being recorded. Refer to the Protocol Error Record Descriptions manual for additional information about a specific PER.

`PKTDN` = Directory number with packet-switched service.

`PORT` = Global port.

`TEI_CHANGED` = The TEI has changed since the protocol monitoring session began. Note that when the TEI change occurs, the trigger may not yet have been found. The TEI_CHANGED indicator will appear only for multipoint lines and only when user triggering.

Note: When triggering on a single user of a multipoint line, the TEI for that user is stored at the beginning of the monitoring session and its value is used to determine the triggering frame or message. If the TEI stored and used by the monitoring session changes before the session is triggered, then the TEI_CHANGED indicator will appear for each frame of that session. It is possible, when the offset value is set to be less than 10 and the trigger event occurs around the same time as the change in TEIs, that some EXC:PM DATA messages will display the new TEI number, but the TEI_CHANGED indicator will not appear.

`TRIG` = The recorded frame is associated with the triggering event.

`XLATE` = The protocol monitoring translator has been invoked for this session. The output will be translated into an ASCII file.

`a` = Status. Valid value(s):

`ABORTED - ATF CLOSE FAILURE` = The PM session was aborted because the ASCII translation file (ATF) could not be closed.

`ABORTED - ATF OPEN FAILURE` = The PM session was aborted because the ATF could not be opened.

`ABORTED - ATF WRITE FAILURE` = The PM session was aborted because the ATF could not be written to.

`ABORTED - COMMUNICATION FAILURE` = An unspecified communication error occurred between the administrative module (AM) and switching module (SM), between the SM and the protocol handler (PH), or between the AM and *UNIX*® operating system.

`ABORTED - DATABASE PROBLEM` = The request to start a PM session failed because an error occurred while reading the database.

`ABORTED - INVALID PMCFF FILE` = The PM session was aborted because the protocol monitoring common format file (PMCFF) contents were corrupted, or were missing.

`ABORTED - INVALID SESSION ID` = The PM session was aborted because the session identifier did not correspond to a valid session.

`ABORTED - PMCFF CLOSE FAILURE` = The PM session was aborted because the PMCFF could not be closed.

`ABORTED - PMCFF OPEN FAILURE` = The PM session was aborted because the PMCFF could not be opened.

`ABORTED - PMCFF READ FAILURE` = The PM session was aborted because the PMCFF could

not be read.

`ABORTED - PMCFF WRITE FAILURE` = The PM session was aborted because the PMCFF could not be written to.

`ABORTED - TEMPORARY FILE CLOSE FAILURE` = The PM session was aborted because the temporary file created for this session could not be closed.

`ABORTED - TEMPORARY FILE OPEN FAILURE` = The PM session was aborted because the temporary file created for this session

`ABORTED - TEMPORARY FILE READ FAILURE` = The PM session was aborted because the temporary file created for this session could not be read.

`ABORTED - TEMPORARY FILE WRITE FAILURE` = The PM session was aborted because the temporary file created for this session could not be written to.

`ABORTED - TRANSLATION FAILURE` = The PM session was aborted because the protocol translator was not able to translate this session.

`ABORTED - INTERNAL FAILURE` = The request to start a PM session failed because an internal failure was encounted.

`ABORTED - RECORDER FAILURE` = The request to start a PM session failed because a recorder failure was encounted.

`ABORTED - UNABLE TO CREATE PROCESS` = The request to start a PM session failed because of the inability to create the internal processes necessary for controlling the session.

`COMPLETED` = The protocol monitoring session has completed.

`CONTINUING - TRANSLATION NOT AVAILABLE` = The protocol monitoring session is continuing, but translation of the output into ASCII is not available.

`NOT STARTED - CHANNEL MISMATCH` = The channel (CH) specified on the input line is not valid for the protocol (PROT) specified on the input line. The CH specified on the input line is not a valid channel.

`NOT STARTED - CHANNEL REQUIRED` = CH option must be specified on the input line, since the directory number or multi-line hunt group (MLHG) is assigned to more than one channel.

`NOT STARTED - CMP UNAVAILABLE` = The request to start a PM session failed because the communication module (CM) is isolated from the AM.

`NOT STARTED - INVALID PORT` = The port identifier entered could not be translated and was considered to be invalid.

`NOT STARTED - INVALID PROTOCOL` = The protocol specified on the input message is not valid.

`NOT STARTED - INVALID PROTOCOL ERROR CODE` = The protocol error code specified on the input message is not valid. (Refer to the Protocol Error Record Descriptions manual.)

`NOT STARTED - MAX JOBS RUNNING` = A new PM session could not be started because the maximum number of PM sessions are currently active. The maximum number of sessions is 8 per office.

`NOT STARTED - MESSAGE MISMATCH` = The trigger value (TRIGVAL) specified on the input line is not valid for the PROT specified on the input line.

`NOT STARTED - MLHG DN SPECIFIED` = The request to verify a PM session failed because a directory number (DN) for a MLHG or uniform call distribution (UCD) group was specified. Repeat request using MLHG port services identifier option.

`NOT STARTED - NON-PRIMARY DN SPECIFIED` = The request to verify a PM session failed because the primary DN is required. Repeat request specifying the primary DN.

`NOT STARTED - PH UNAVAILABLE` = The request to start a PM session failed because the PH is isolated from the SM.

`NOT STARTED - PORT CONFLICT` = A PM session could not be started because a session is currently active on the port specified on the input line.

`NOT STARTED - PORT HAS NO PM CAPABILITY` = A PM session could not be started because

the port specified is either not an integrated services digital network (ISDN) line or does not support ISDN capabilities.

`NOT STARTED - PROCESSOR CONFLICT` = A PM session could not be started because the maximum number of sessions recording on a processor are currently active. The relationship between protocol and processor type is given in the list of protocols contained in this manual page. The maximum number of sessions recorded on a processor are:

- 8 per office.
- 2 per SM and 4 per SM 2000.
- 2 per PH and PH2.
- 3 per PH3 and PH4.

`NOT STARTED - PROTOCOL MISMATCH` = The PROT specified on the input line does not match the line identifier specified on the input line.

`NOT STARTED - PROTOCOL ERROR CODE MISMATCH` = The protocol error code (PER) specified on the input line is not a valid protocol error code for the PROT specified on the input line. (Refer to the Protocol Error Record Descriptions manual.)

`NOT STARTED - SM UNAVAILABLE` = The request to start a PM session failed because the SM is isolated from the AM.

`NOT STARTED - TRIGGER MISMATCH` = The TRIGLVL specified on the input line is not valid for the PROT specified on the input line.

`REPORTING - BEGINNING TRANSLATION` = The collection of data in this protocol monitoring session has completed and translation of that data into ASCII (the ATF file) is beginning.

`REPORTING - OUTPUT FOLLOWS` = The collection of data in this protocol monitoring session has completed and the hexadecimal data that was collected will now be output.

`STARTED` = A PM session was successfully started.

`STOPPED` = The PM session was stopped due to a manual request.

`STOPPED - DURATION TIMEOUT` = The PM session was stopped when the duration timer expired.

`b` = SM number.

`c` = PH channel group number.

`d` = PH channel member number.

`e` = Logical port number.

`f` = The equipment number identifier.

Note: If the port is associated with an X.75' trunk or an X.75 trunk or an extended digital subscriber line (EDSL), then the digital equipment number (DEN) is used. If the port is associated with a digital network unit - synchronous optical network (SONET) (DNU-S) then the networking equipment number (NEN) is used. If the port is associated with an embedded operation channel (EOC) or timeslot management channel (TMC), then the EOC or TMC equipment number is used. Otherwise, the line card equipment number (LCEN), line circuit equipment number (LCKEN), or integrated digital carrier unit line equipment number (ILEN) is used.

Valid value(s):

DEN=b-g-h-i
EOC=b-m-n-o

ILEN=b-m-n-p
LCEN=b-j-k-l
LCKEN=b-e^2-m^1-f^2-g^2
NEN=b-h^2-i^2-j^2-k^2-l^2
TMC=b-m-n-o

g = Digital line and trunk unit (DLTU) number.

h = Digital facility interface number.

i = Digital channel number.

j = Integrated services line unit number.

k = Line group controller number.

l = Line card number.

m = Integrated digital carrier unit number.

n = Remote terminal number.

o = Primary/protection identifier.

p = Channel unit number.

q = Channel being monitored. Valid value(s):
- B1 = Channel B1.
- B2 = Channel B2.
- D = D-channel.

r = Port services identifier. Note: This field will be blank if the port does not have a unique port services identifier. Valid value(s):

DN=s
MLHG=t-u
PKTDN=v
TKGMN=w-x

s = The primary DN associated with the digital subscriber line (DSL) channel. This DN may be either a circuit-switched or a packet-switched service DN.

t = Multi-line hunt group number.

u = Multi-line hunt group member number.

v = The DN associated with a packet-switched channel of a DSL.

w = Trunk group number.

x = Trunk group member number.

y = Service characteristic identifier of DSL channel. Valid value(s):
- ODP = On-demand packet.
- PPB = Permanent packet B.
- PPD = Permanent packet D.

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z = The value of the session identifier (SES) for this monitoring session.

a[1] = The date-stamp of the beginning of the monitoring session, in the form month/day.

b[1] = The time-stamp of the beginning of the monitoring session, in the form hours:minutes:seconds.

c[1] = The current date-stamp for the monitoring session, in the form month/day.

d[1] = The current time-stamp for the monitoring session, in the form hours:minutes:seconds.

e[1] = The offset (OFFSET) for the number of frames that was recorded after detection of the trigger event.

f[1] = The duration (DUR) of the recording session in seconds.

g[1] = Protocol (PROT) being monitored. Valid value(s):

- LAPB = The LAPB protocol (recorded on the PH).
- LAPD = The LAPD protocol (recorded on the PH).
- Q931 = The Q.931 protocol (recorded on the SM).
- TMC = The TMC protocol (recorded on the SM).
- V120 = The V.120 protocol (recorded on the SM).
- X25 = The X.25 protocol (B-channel packet recorded on the PH, D-channel packet recorded on the SM).
- X75 = The X.75 protocol (recorded on the PH).
- X75P = The X.75' protocol (recorded on the PH).

h[1] = Protocol's trigger level (TRIGLVL). Note: Trigger protocol level must be terminated on the same processor as the recording protocol. Valid value(s):

- ATS = The trigger level is the ATS protocol.
- IDLC = The trigger level is the IDLC protocol.
- LAPB = The trigger level is the LAPB protocol.
- LAPD = The trigger level is the LAPD protocol.
- Q931 = The trigger level is the Q.931 protocol.
- TMC = The trigger level is the TMC protocol.
- V120 = The trigger level is the V.120 protocol.
- X25 = The trigger level is the X.25 protocol.
- X75 = The trigger level is the X.75 protocol.
- X75P = The trigger level is the X.75' protocol.

i[1] = TRIGVAL that terminates the recording session. Refer to the EXC:PM input manual page for a complete list of trigger values.

j[1] = Specific PER that terminated the recording session.

k[1] = Direction (DIR) of frame or packet or message triggered on. Valid value(s):

- EITHER = Triggered on a frame or packet or message transmitted from the switch to the customer premises equipment (CPE) or received by the switch from the CPE.
- RCV = Triggered on a frame or packet or message received by the switch from the CPE.
- XMT = Triggered on a frame or packet or message transmitted from the switch to the CPE.

l[1] = The protocol level recorded (RECLVL). Valid value(s):
LEVEL2 = Recorded all layer 2 frames.
LEVEL3 = Recorded only the layer 3 packets or messages.

m[1] = The number of events recorded.

n[1] = State of the protocol monitoring session. Valid value(s):
ABORTED = The session has aborted.
DATA RETRIEVAL = The recording of data has completed and is being processed for output.
DURATION TIMEOUT = The duration timer has fired. Waiting for session output.
RECORD COMPLETED = The session has completed normally.
RECORDING = The session is recording data and the trigger has not yet fired.
STOP NO DUMP = The session has been manually terminated with neither translation nor dump of the output data.
STOP WITH DUMP = The session has been manually terminated with either translation or dump of the output data.
TRANSLATING = The hexadecimal data collected during the session is being translated into an ASCII format.
TRIGGER FIRED = The trigger of the session has fired.
WAIT DUMP ACK = A manual request has been made to terminate the session with translation or dump. Awaiting response from the switch.
WAIT STOP ACK = A manual request has been made to terminate the session without translation or dump. Awaiting response from the switch.

o[1] = The ATF file name. Contains the ASCII translation of the hexadecimal data output from the protocol monitoring session.

p[1] = The PMCFF file name. The intermediate binary file created during the translation of the hexadecimal output of the session into ASCII output. This file is used internally and is not generally available for inspection.

q[1] = The segment number (SEG) of the output data. The segments are in ascending order beginning at 1 for each session output. Note: The segment number is not necessarily the same as the frame number since frames may be continued over more than one segment.

r[1] = The date-stamp of the recorded frame, in the form month/day.

s[1] = The time-stamp of the recorded frame, in the form hours:minutes:seconds.

t[1] = Terminal endpoint identifier (TEI).

u[1] = Total bytes.

v[1] = The frame number relative to the first frame in the recording window.

w[1] = The length of the recorded frame in bytes.

x[1] = DIR of recorded frame. Valid value(s):
RCV = Frame or packet or message received by the switch from the CPE.
XMT = Frame or packet or message transmitted from the switch to the CPE.

y[1] = The protocol error code (PEC) associated with the recorded frame. Refer to the Protocol Error Record Descriptions manual. In the event that two PER's are reported against the same frame, the PEC of the second PER will overwrite the first. This situation could cause the output message to indicate a triggering event that shows a different PEC than the value that actually triggered the session.

z[1] = The four-byte hexadecimal representation from the recorded frame or packet or message.

a[2] = The date-stamp of the end of the monitoring session, in the form month/day.

b[2] = The time-stamp of the end of the monitoring session, in the form hours:minutes:seconds.

c[2] = The PEC which acted as the trigger. This is displayed only on the `EXC PM COMPLETED` message and only if PER triggering was chosen for the protocol monitoring session and only if the number of data segments was zero. Refer to the Protocol Error Record Descriptions manual.

d[2] = Internal error code to assist in locating reason for abort.

e[2] = Integrated service line unit 2 (ISLU2) number.

f[2] = Line board number.

g[2] = Line circuit number.

h[2] = SONET DNU-S number.

i[2] = Data group (DG) number.

j[2] = Synchronous transport signal (STS) number.

k[2] = Virtual tributary (VT1.5) number.

l[2] = DS0 number.

4. ACTION TO BE TAKEN

Inspect the EXC:PM output messages for the results of the monitoring session and analyze for protocol violations or other errors. If translation of the hexadecimal output into ASCII has been requested, examine the ATF. If variable 'd^2' is output, save the ROP printout and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:PM
OP:PM
STP:PM
```

Output Message(s):

```
OP:PM
STP:PM
```

Other Manual(s):

235-105-110	*Corrective Maintenance Manual*
235-190-105	*Custom ISDN Feature Descriptions*
235-190-110	*National ISDN Feature Descriptions*
235-190-120	*Common Channel Signaling Services*
235-600-755	*Protocol Error Record Descriptions*
235-900-341	*National ISDN BRI Interface Specification*

EXC:PM-B

Software Release: 5E12 only
Message Class: SPM
Application: 5
Type: Output

1. FORMAT

[1]

```
EXC PM a d2
 [DSLGM=b-c-d PORT=b-e f CH=q [r y]
 [SES=z a1a1/a1a1 b1 c1c1/c1c1 d1d1:d1d1:d1d1 OFFSET=e1 DUR=f1
 [PROT=g1 TRIGLVL=h1 {TRIGVAL=i1|PER[=j1} [DIR=k1] RECLVL=l1]
 {XLATE|NO XLATE} m1 EVENTS RECORDED [STATE=n1]
 [ATF=o1 [PMCFF=p1]
```

[2]

```
EXC PM DATA SES=z SEG=q1 r1r1/r1r1 s1s1:s1s1:s1s1 TEI=t1 [TEI_CHANGED]
  u1 BYTES OF FRAME NUMBER v1 FRAME LENGTH IS w1 DIR=x1 TRIG [CONT] [y1]
  z1 z1 z1 z1 z1 z1 z1 z1
  .
  .
  .
```

[3]

```
EXC PM a
 [SES=z a1a1/a1a1 b1 a2a2/a2a2 b2b2:b2b2:b2b2 m1 EVENTS REPORTED c2
```

2. REASON FOR OUTPUT

To report the information collected during a protocol monitoring (PM) session.

Format 1 provides an indication that a PM session has either successfully started, aborted, stopped, or failed to start. In addition, all pertinent information relating to the PM session is displayed. This format is also used as a prelude to the hexadecimal output or as notification that translation of the hexadecimal output into the American standard code for information interchange (ASCII) has begun.

Format 2 contains the raw data collected during the monitoring session. Additional information regarding the frame is also provided. The raw data is printed in a hexadecimal format. This message type is only used when hexadecimal data is being dumped to the receive-only printer (ROP). Translated sessions will not use this output format.

Note: The maximum amount of recorded data that can be output in one segment is 132 bytes. If the length of the recorded frame or packet or messages is larger than 132 bytes, then the frame or packet or message will require more than one segment to output. Incomplete frames will be noted with the CONT indicator.

Format 3 provides the status for the conclusion of a session (that is, successfully completed, stopped due to a manual request, or terminated abnormally).

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms

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shown in the format.

`CONT` = The recorded frame is continued in the next output segment.

`NO XLATE` = The hexadecimal output for this session will not be translated through the protocol monitoring translator.

`PER` = Trigger value that terminated the recording session was a protocol error record (PER) occurring on the channel being recorded. Refer to the Protocol Error Record Descriptions manual for additional information about a specific PER.

`PKTDN` = Directory number with packet-switched service.

`PORT` = Global port.

`TEI_CHANGED` = The TEI has changed since the protocol monitoring session began. Note that when the TEI change occurs, the trigger may not yet have been found. The TEI_CHANGED indicator will appear only for multipoint lines and only when user triggering.

Note: When triggering on a single user of a multipoint line, the TEI for that user is stored at the beginning of the monitoring session and its value is used to determine the triggering frame or message. If the TEI stored and used by the monitoring session changes before the session is triggered, then the TEI_CHANGED indicator will appear for each frame of that session. It is possible, when the offset value is set to be less than 10 and the trigger event occurs around the same time as the change in TEIs, that some EXC:PM DATA messages will display the new TEI number, but the TEI_CHANGED indicator will not appear.

`TRIG` = The recorded frame is associated with the triggering event.

`XLATE` = The protocol monitoring translator has been invoked for this session. The output will be translated into an ASCII file.

`a` = Status. Valid value(s):

`ABORTED - ATF CLOSE FAILURE` = The PM session was aborted because the ASCII translation file (ATF) could not be closed.

`ABORTED - ATF OPEN FAILURE` = The PM session was aborted because the ATF could not be opened.

`ABORTED - ATF WRITE FAILURE` = The PM session was aborted because the ATF could not be written to.

`ABORTED - COMMUNICATION FAILURE` = An unspecified communication error occurred between the administrative module (AM) and switching module (SM), between the SM and the protocol handler (PH), or between the AM and *UNIX*® operating system.

`ABORTED - DATABASE PROBLEM` = The request to start a PM session failed because an error occurred while reading the database.

`ABORTED - INVALID PMCFF FILE` = The PM session was aborted because the protocol monitoring common format file (PMCFF) contents were corrupted, or were missing.

`ABORTED - INVALID SESSION ID` = The PM session was aborted because the session identifier did not correspond to a valid session.

`ABORTED - PMCFF CLOSE FAILURE` = The PM session was aborted because the PMCFF could not be closed.

`ABORTED - PMCFF OPEN FAILURE` = The PM session was aborted because the PMCFF could not be opened.

`ABORTED - PMCFF READ FAILURE` = The PM session was aborted because the PMCFF could

not be read.

`ABORTED - PMCFF WRITE FAILURE` = The PM session was aborted because the PMCFF could not be written to.

`ABORTED - TEMPORARY FILE CLOSE FAILURE` = The PM session was aborted because the temporary file created for this session could not be closed.

`ABORTED - TEMPORARY FILE OPEN FAILURE` = The PM session was aborted because the temporary file created for this session

`ABORTED - TEMPORARY FILE READ FAILURE` = The PM session was aborted because the temporary file created for this session could not be read.

`ABORTED - TEMPORARY FILE WRITE FAILURE` = The PM session was aborted because the temporary file created for this session could not be written to.

`ABORTED - TRANSLATION FAILURE` = The PM session was aborted because the protocol translator was not able to translate this session.

`ABORTED - INTERNAL FAILURE` = The request to start a PM session failed because an internal failure was encounted.

`ABORTED - RECORDER FAILURE` = The request to start a PM session failed because a recorder failure was encounted.

`ABORTED - UNABLE TO CREATE PROCESS` = The request to start a PM session failed because of the inability to create the internal processes necessary for controlling the session.

`COMPLETED` = The protocol monitoring session has completed.

`CONTINUING - TRANSLATION NOT AVAILABLE` = The protocol monitoring session is continuing, but translation of the output into ASCII is not available.

`NOT STARTED - CHANNEL MISMATCH` = The channel (CH) specified on the input line is not valid for the protocol (PROT) specified on the input line. The CH specified on the input line is not a valid channel.

`NOT STARTED - CHANNEL REQUIRED` = CH option must be specified on the input line, since the directory number or multi-line hunt group (MLHG) is assigned to more than one channel.

`NOT STARTED - CMP UNAVAILABLE` = The request to start a PM session failed because the communication module (CM) is isolated from the AM.

`NOT STARTED - INVALID PORT` = The port identifier entered could not be translated and was considered to be invalid.

`NOT STARTED - INVALID PROTOCOL` = The protocol specified on the input message is not valid.

`NOT STARTED - INVALID PROTOCOL ERROR CODE` = The protocol error code specified on the input message is not valid. (Refer to the Protocol Error Record Descriptions manual.)

`NOT STARTED - MAX JOBS RUNNING` = A new PM session could not be started because the maximum number of PM sessions are currently active. The maximum number of sessions is 8 per office.

`NOT STARTED - MESSAGE MISMATCH` = The trigger value (TRIGVAL) specified on the input line is not valid for the PROT specified on the input line.

`NOT STARTED - MLHG DN SPECIFIED` = The request to verify a PM session failed because a directory number (DN) for a MLHG or uniform call distribution (UCD) group was specified. Repeat request using MLHG port services identifier option.

`NOT STARTED - NON-PRIMARY DN SPECIFIED` = The request to verify a PM session failed because the primary DN is required. Repeat request specifying the primary DN.

`NOT STARTED - NON-UNIQUE NXX DN` = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.

`NOT STARTED - PH UNAVAILABLE` = The request to start a PM session failed because the PH is isolated from the SM.

`NOT STARTED - PORT CONFLICT` = A PM session could not be started because a session is

currently active on the port specified on the input line.

`NOT STARTED - PORT HAS NO PM CAPABILITY` = A PM session could not be started because the port specified is either not an integrated services digital network (ISDN) line or does not support ISDN capabilities.

`NOT STARTED - PROCESSOR CONFLICT` = A PM session could not be started because the maximum number of sessions recording on a processor are currently active. The relationship between protocol and processor type is given in the list of protocols contained in this manual page. The maximum number of sessions recorded on a processor are:

- 8 per office.
- 2 per SM and 4 per SM 2000.
- 2 per PH and PH2.
- 3 per PH3 and PH4.

`NOT STARTED - PROTOCOL MISMATCH` = The PROT specified on the input line does not match the line identifier specified on the input line.

`NOT STARTED - PROTOCOL ERROR CODE MISMATCH` = The protocol error code (PER) specified on the input line is not a valid protocol error code for the PROT specified on the input line. (Refer to the Protocol Error Record Descriptions manual.)

`NOT STARTED - SM UNAVAILABLE` = The request to start a PM session failed because the SM is isolated from the AM.

`NOT STARTED - TRIGGER MISMATCH` = The TRIGLVL specified on the input line is not valid for the PROT specified on the input line.

`REPORTING - BEGINNING TRANSLATION` = The collection of data in this protocol monitoring session has completed and translation of that data into ASCII (the ATF file) is beginning.

`REPORTING - OUTPUT FOLLOWS` = The collection of data in this protocol monitoring session has completed and the hexadecimal data that was collected will now be output.

`STARTED` = A PM session was successfully started.

`STOPPED` = The PM session was stopped due to a manual request.

`STOPPED - DURATION TIMEOUT` = The PM session was stopped when the duration timer expired.

`b` = SM number.

`c` = PH channel group number.

`d` = PH channel member number.

`e` = Logical port number.

`f` = The equipment number identifier.

Note: If the port is associated with an X.75' trunk or an X.75 trunk or an extended digital subscriber line (EDSL), then the digital equipment number (DEN) is used. If the port is associated with a digital network unit - synchronous optical network (SONET) (DNU-S) then the networking equipment number (NEN) is used. If the port is associated with an embedded operation channel (EOC) or timeslot management channel (TMC), then the EOC or TMC equipment number is used. Otherwise, the line card equipment number (LCEN), line circuit equipment number (LCKEN), access interface unit number (AIUEN), integrated digital carrier unit line equipment number (ILEN) or IDLC network equipment number (INEN) is used.

Valid value(s):

```
AIUEN=b-m2-n2-o2
 DEN=b-g-h-i
 DNUSEOC=b-h2-n-o
 DNUSTMC=b-h2-n-o
 IDCUEOC=b-m-n-o
 IDCUTMC=b-m-n-o
 ILEN=b-m-n-p
 INEN=b-h2-n-p
 LCEN=b-j-k-l
 LCKEN=b-e2-m1-f2-g2
 NEN=b-h2-i2-j2-k2-l2
```

g = Digital line and trunk unit (DLTU) number.

h = Digital facility interface number.

i = Digital channel number.

j = Integrated services line unit number.

k = Line group controller number.

l = Line card number.

m = Integrated digital carrier unit number.

n = Remote terminal (RT) number.

o = Primary/protection identifier.

p = RT line number.

q = Channel being monitored. Valid value(s):

B1	= Channel B1.
B2	= Channel B2.
D	= D-channel.

r = Port services identifier. Note: This field will be blank if the port does not have a unique port services identifier. Valid value(s):

```
DN=s
 MLHG=t-u
 PKTDN=v
 TKGMN=w-x
```

s = The primary DN associated with the digital subscriber line (DSL) channel. This DN may be either a circuit-switched or a packet-switched service DN.

t = Multi-line hunt group number.

u = Multi-line hunt group member number.

v = The DN associated with a packet-switched channel of a DSL.

w = Trunk group number.

x = Trunk group member number.

y = Service characteristic identifier of DSL channel. Valid value(s):

ODP	= On-demand packet.
PPB	= Permanent packet B.
PPD	= Permanent packet D.

z = The value of the session identifier (SES) for this monitoring session.

a[1] = The date-stamp of the beginning of the monitoring session, in the form month/day.

b[1] = The time-stamp of the beginning of the monitoring session, in the form hours:minutes:seconds.

c[1] = The current date-stamp for the monitoring session, in the form month/day.

d[1] = The current time-stamp for the monitoring session, in the form hours:minutes:seconds.

e[1] = The offset (OFFSET) for the number of frames that was recorded after detection of the trigger event.

f[1] = The duration (DUR) of the recording session in seconds.

g[1] = Protocol (PROT) being monitored. Valid value(s):

LAPB	= The LAPB protocol (recorded on the PH).
LAPD	= The LAPD protocol (recorded on the PH).
Q931	= The Q.931 protocol (recorded on the SM).
TMC	= The TMC protocol (recorded on the SM).
V120	= The V.120 protocol (recorded on the SM).
X25	= The X.25 protocol (B-channel packet recorded on the PH, D-channel packet recorded on the SM).
X75	= The X.75 protocol (recorded on the PH).
X75P	= The X.75' protocol (recorded on the PH).

h[1] = Protocol's trigger level (TRIGLVL). Note: Trigger protocol level must be terminated on the same processor as the recording protocol. Valid value(s):

ATS	= The trigger level is the ATS protocol.
IDLC	= The trigger level is the IDLC protocol.
LAPB	= The trigger level is the LAPB protocol.
LAPD	= The trigger level is the LAPD protocol.
Q931	= The trigger level is the Q.931 protocol.
TMC	= The trigger level is the TMC protocol.
V120	= The trigger level is the V.120 protocol.
X25	= The trigger level is the X.25 protocol.
X75	= The trigger level is the X.75 protocol.
X75P	= The trigger level is the X.75' protocol.

i[1] = TRIGVAL that terminates the recording session. Refer to the EXC:PM input manual page for a

complete list of trigger values.

j[1] = Specific PER that terminated the recording session.

k[1] = Direction (DIR) of frame or packet or message triggered on. Valid value(s):

`EITHER` = Triggered on a frame or packet or message transmitted from the switch to the customer premises equipment (CPE) or received by the switch from the CPE.
`RCV` = Triggered on a frame or packet or message received by the switch from the CPE.
`XMT` = Triggered on a frame or packet or message transmitted from the switch to the CPE.

l[1] = The protocol level recorded (RECLVL). Valid value(s):

`LEVEL2` = Recorded all layer 2 frames.
`LEVEL3` = Recorded only the layer 3 packets or messages.

m[1] = The number of events recorded.

n[1] = State of the protocol monitoring session. Valid value(s):

`ABORTED` = The session has aborted.
`DATA RETRIEVAL` = The recording of data has completed and is being processed for output.
`DURATION TIMEOUT` = The duration timer has fired. Waiting for session output.
`RECORD COMPLETED` = The session has completed normally.
`RECORDING` = The session is recording data and the trigger has not yet fired.
`STOP NO DUMP` = The session has been manually terminated with neither translation nor dump of the output data.
`STOP WITH DUMP` = The session has been manually terminated with either translation or dump of the output data.
`TRANSLATING` = The hexadecimal data collected during the session is being translated into an ASCII format.
`TRIGGER FIRED` = The trigger of the session has fired.
`WAIT DUMP ACK` = A manual request has been made to terminate the session with translation or dump. Awaiting response from the switch.
`WAIT STOP ACK` = A manual request has been made to terminate the session without translation or dump. Awaiting response from the switch.

o[1] = The ATF file name. Contains the ASCII translation of the hexadecimal data output from the protocol monitoring session.

p[1] = The PMCFF file name. The intermediate binary file created during the translation of the hexadecimal output of the session into ASCII output. This file is used internally and is not generally available for inspection.

q[1] = The segment number (SEG) of the output data. The segments are in ascending order beginning at 1 for each session output. Note: The segment number is not necessarily the same as the frame number since frames may be continued over more than one segment.

r[1] = The date-stamp of the recorded frame, in the form month/day.

s[1] = The time-stamp of the recorded frame, in the form hours:minutes:seconds.

t[1] = Terminal endpoint identifier (TEI).

u[1] = Total bytes.

v[1] = The frame number relative to the first frame in the recording window.

w[1] = The length of the recorded frame in bytes.

x[1] = DIR of recorded frame. Valid value(s):
`RCV` = Frame or packet or message received by the switch from the CPE.
`XMT` = Frame or packet or message transmitted from the switch to the CPE.

y[1] = The protocol error code (PEC) associated with the recorded frame. Refer to the Protocol Error Record Descriptions manual. In the event that two PER's are reported against the same frame, the PEC of the second PER will overwrite the first. This situation could cause the output message to indicate a triggering event that shows a different PEC than the value that actually triggered the session.

z[1] = The four-byte hexadecimal representation from the recorded frame or packet or message.

a[2] = The date-stamp of the end of the monitoring session, in the form month/day.

b[2] = The time-stamp of the end of the monitoring session, in the form hours:minutes:seconds.

c[2] = The PEC which acted as the trigger. This is displayed only on the `EXC PM COMPLETED` message and only if PER triggering was chosen for the protocol monitoring session and only if the number of data segments was zero. Refer to the Protocol Error Record Descriptions manual.

d[2] = Internal error code to assist in locating reason for abort.

e[2] = Integrated service line unit 2 (ISLU2) number.

f[2] = Line board number.

g[2] = Line circuit number.

h[2] = DNU-S number.

i[2] = Data group (DG) number.

j[2] = Synchronous transport signal (STS) number.

k[2] = Virtual tributary (VT1.5) number.

l[2] = DS0 number.

m[2] = Access interface unit (AIU) number.

n[2] = AIU pack number.

o[2] = AIU circuit number.

4. ACTION TO BE TAKEN

Inspect the EXC:PM output messages for the results of the monitoring session and analyze for protocol violations or

other errors. If translation of the hexadecimal output into ASCII has been requested, examine the ATF. If variable 'd^2' is output, save the ROP printout and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:PM
OP:PM
STP:PM
```

Output Message(s):

```
OP:PM
STP:PM
```

Other Manual(s):

235-105-110	*Corrective Maintenance Manual*
235-190-105	*Custom ISDN Feature Descriptions*
235-190-110	*National ISDN Feature Descriptions*
235-190-120	*Common Channel Signaling Services*
235-600-755	*Protocol Error Record Descriptions*
235-900-341	*National ISDN BRI Interface Specification*

EXC:PM-C

Software Release: 5E13 only
Message Class: SPM
Application: 5
Type: Output

1. FORMAT

[1]

```
EXC PM a d2
  DSLGM=b-c-d PORT=b-e f CH=q [r y]
  SES=z a1a1/a1a1 b1 c1c1/c1c1 d1d1:d1d1:d1d1 OFFSET=e1 DUR=f1 [PLANE=p2|MSGGR
P=q2]
  PROT=g1 TRIGLVL=h1 {TRIGVAL=i1|PER[=j1} [DIR=k1] RECLVL=l1]
 {XLATE|NO XLATE} m1 EVENTS RECORDED [STATE=n1]
  ATF=o1 [PMCFF=p1]
```

[2]

```
EXC PM DATA SES=z SEG=q1 r1r1/r1r1 s1s1:s1s1:s1s1 TEI=t1 [TEI_CHANGED]
  u1 BYTES OF FRAME NUMBER v1 FRAME LENGTH IS w1 DIR=x1 TRIG [CONT] [y1]
  z1 z1 z1 z1 z1 z1 z1 z1
  .
  .
  .
```

[3]

```
EXC PM a
  SES=z a1a1/a1a1 b1 a2a2/a2a2 b2b2:b2b2:b2b2 m1 EVENTS REPORTED c2
```

2. REASON FOR OUTPUT

To report the information collected during a protocol monitoring (PM) session.

Format 1 provides an indication that a PM session has either successfully started, aborted, stopped, or failed to start. In addition, all pertinent information relating to the PM session is displayed. This format is also used as a prelude to the hexadecimal output or as notification that translation of the hexadecimal output into the American standard code for information interchange (ASCII) has begun. Format 2 contains the raw data collected during the monitoring session. Additional information regarding the frame is also provided. The raw data is printed in a hexadecimal format. This message type is only used when hexadecimal data is being dumped to the receive-only printer (ROP). Translated sessions will not use this output format.

Note: The maximum amount of recorded data that can be output in one segment is 132 bytes. If the length of the recorded frame or packet or messages is larger than 132 bytes, then the frame or packet or message will require more than one segment to output. Incomplete frames will be noted with the CONT indicator.

Format 3 provides the status for the conclusion of a session (that is, successfully completed, stopped due to a manual request, or terminated abnormally).

3. VARIABLE FIELD DEFINITIONS

`CONT` = The recorded frame is continued in the next output segment.

`NO XLATE` = The hexadecimal output for this session will not be translated through the protocol monitoring translator.

`PER` = Trigger value that terminated the recording session was a protocol error record (PER) occurring on the channel being recorded. Refer to the Protocol Error Record Descriptions manual for additional information about a specific PER.

`PKTDN` = Directory number with packet-switched service.

`PORT` = Global port.

`TEI_CHANGED` = The TEI has changed since the protocol monitoring session began. Note that when the TEI change occurs, the trigger may not yet have been found. The TEI_CHANGED indicator will appear only for multipoint lines and only when user triggering.

Note: When triggering on a single user of a multipoint line, the TEI for that user is stored at the beginning of the monitoring session and its value is used to determine the triggering frame or message. If the TEI stored and used by the monitoring session changes before the session is triggered, then the TEI_CHANGED indicator will appear for each frame of that session. It is possible, when the offset value is set to be less than 10 and the trigger event occurs around the same time as the change in TEIs, that some EXC:PM DATA messages will display the new TEI number, but the TEI_CHANGED indicator will not appear.

`TRIG` = The recorded frame is associated with the triggering event.

`XLATE` = The protocol monitoring translator has been invoked for this session. The output will be translated into an ASCII file.

`a` = Status. Valid value(s):

`ABORTED - ATF CLOSE FAILURE` = The PM session was aborted because the ASCII translation file (ATF) could not be closed.

`ABORTED - ATF OPEN FAILURE` = The PM session was aborted because the ATF could not be opened.

`ABORTED - ATF WRITE FAILURE` = The PM session was aborted because the ATF could not be written to.

`ABORTED - COMMUNICATION FAILURE` = An unspecified communication error occurred between the administrative module (AM) and switching module (SM), between the SM and the protocol handler (PH), or between the AM and *UNIX*® operating system.

`ABORTED - DATABASE PROBLEM` = The request to start a PM session failed because an error occurred while reading the database.

`ABORTED - INVALID PMCFF FILE` = The PM session was aborted because the protocol monitoring common format file (PMCFF) contents were corrupted, or were missing.

`ABORTED - INVALID SESSION ID` = The PM session was aborted because the session identifier did not correspond to a valid session.

`ABORTED - PMCFF CLOSE FAILURE` = The PM session was aborted because the PMCFF could not be closed.

`ABORTED - PMCFF OPEN FAILURE` = The PM session was aborted because the PMCFF could not be opened.

`ABORTED - PMCFF READ FAILURE` = The PM session was aborted because the PMCFF could not be read.

`ABORTED - PMCFF WRITE FAILURE` = The PM session was aborted because the PMCFF could

not be written to.

`ABORTED - TEMPORARY FILE CLOSE FAILURE` = The PM session was aborted because the temporary file created for this session could not be closed.

`ABORTED - TEMPORARY FILE OPEN FAILURE` = The PM session was aborted because the temporary file created for this session

`ABORTED - TEMPORARY FILE READ FAILURE` = The PM session was aborted because the temporary file created for this session could not be read.

`ABORTED - TEMPORARY FILE WRITE FAILURE` = The PM session was aborted because the temporary file created for this session could not be written to.

`ABORTED - TRANSLATION FAILURE` = The PM session was aborted because the protocol translator was not able to translate this session.

`ABORTED - INTERNAL FAILURE` = The request to start a PM session failed because an internal failure was encounted.

`ABORTED - RECORDER FAILURE` = The request to start a PM session failed because a recorder failure was encounted.

`ABORTED - UNABLE TO CREATE PROCESS` = The request to start a PM session failed because of the inability to create the internal processes necessary for controlling the session.

`COMPLETED` = The protocol monitoring session has completed.

`CONTINUING - TRANSLATION NOT AVAILABLE` = The protocol monitoring session is continuing, but translation of the output into ASCII is not available.

`NOT STARTED - CHANNEL MISMATCH` = The channel (CH) specified on the input line is not valid for the protocol (PROT) specified on the input line. The CH specified on the input line is not a valid channel.

`NOT STARTED - CHANNEL REQUIRED` = CH option must be specified on the input line, since the directory number or multi-line hunt group (MLHG) is assigned to more than one channel.

`NOT STARTED - CMP UNAVAILABLE` = The request to start a PM session failed because the communication module (CM) is isolated from the AM.

`NOT STARTED - INVALID PORT` = The port identifier entered could not be translated and was considered to be invalid.

`NOT STARTED - INVALID PROTOCOL` = The protocol specified on the input message is not valid.

`NOT STARTED - INVALID PROTOCOL ERROR CODE` = The protocol error code specified on the input message is not valid. (Refer to the APP:ALE-PER appendix in the Appendixes section of the Output Messages manual for a complete list of protocol error codes.)

`NOT STARTED - MAX JOBS RUNNING` = A new PM session could not be started because the maximum number of PM sessions are currently active. The maximum number of sessions is 8 per office.

`NOT STARTED - MESSAGE MISMATCH` = The trigger value (TRIGVAL) specified on the input line is not valid for the PROT specified on the input line.

`NOT STARTED - MLHG DN SPECIFIED` = The request to verify a PM session failed because a directory number (DN) for a MLHG or uniform call distribution (UCD) group was specified. Repeat request using MLHG port services identifier option.

`NOT STARTED - NON-PRIMARY DN SPECIFIED` = The request to verify a PM session failed because the primary DN is required. Repeat request specifying the primary DN.

`NOT STARTED - NON-UNIQUE NXX DN` = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.

`NOT STARTED - PH UNAVAILABLE` = The request to start a PM session failed because the PH is isolated from the SM.

`NOT STARTED - PORT CONFLICT` = A PM session could not be started because a session is currently active on the port specified on the input line.

`NOT STARTED - PORT HAS NO PM CAPABILITY` = A PM session could not be started because

the port specified is either not an integrated services digital network (ISDN) line or does not support ISDN capabilities.

`NOT STARTED - PROCESSOR CONFLICT` = A PM session could not be started because the maximum number of sessions recording on a processor are currently active. The relationship between protocol and processor type is given in the list of protocols contained in this manual page. The maximum number of sessions recorded on a processor are:

- 8 per office.
- 2 per SM and 4 per SM 2000.
- 2 per PH and PH2.
- 3 per PH3 and PH4.
- 2 per PHV1, PHV2, and PHV3.
- 1 per PH4 connected to Frame Relay Bearer Channels (FRBCs).

`NOT STARTED - PROTOCOL MISMATCH` = The PROT specified on the input line does not match the line identifier specified on the input line.

`NOT STARTED - PROTOCOL ERROR CODE MISMATCH` = The protocol error code (PER) specified on the input line is not a valid protocol error code for the PROT specified on the input line. (Refer to the APP:ALE-PER appendix in the Appendixes section of the Output Messages manual for a complete list of protocol error codes.)

`NOT STARTED - SM UNAVAILABLE` = The request to start a PM session failed because the SM is isolated from the AM.

`NOT STARTED - TRIGGER MISMATCH` = The TRIGLVL specified on the input line is not valid for the PROT specified on the input line.

`REPORTING - BEGINNING TRANSLATION` = The collection of data in this protocol monitoring session has completed and translation of that data into ASCII (the ATF file) is beginning.

`REPORTING - OUTPUT FOLLOWS` = The collection of data in this protocol monitoring session has completed and the hexadecimal data that was collected will now be output.

`STARTED` = A PM session was successfully started.

`STOPPED` = The PM session was stopped due to a manual request.

`STOPPED - DURATION TIMEOUT` = The PM session was stopped when the duration timer expired.

`b` = SM number.

`c` = PH channel group number.

`d` = PH channel member number.

`e` = Logical port number.

`f` = The equipment number identifier.

Note: If the port is associated with an X.75' trunk or an X.75 trunk or an extended digital subscriber line (EDSL), then the digital equipment number (DEN) is used. If the port is associated with a digital networking unit - synchronous optical network (SONET) (DNU-S) then the DNU-S networking equipment number (NEN) is used. If the port is associated with an embedded operation channel (EOC) or timeslot management channel (TMC), then the EOC or TMC equipment number is used. Otherwise, the line card equipment number (LCEN), line circuit equipment number (LCKEN), access interface unit number (AIUEN), packet switching unit equipment number (PSUEN), integrated digital carrier unit line equipment number (ILEN) or IDLC network equipment number (INEN) is used.

Valid value(s):

```
AIUEN=b-m2-n2-o2
 DEN=b-g-h-i
 DNUSEOC=b-h2-n-o
 DNUSTMC=b-h2-n-o
 IDCUEOC=b-m-n-o
 IDCUTMC=b-m-n-o
 ILEN=b-m-n-p
 INEN=b-h2-n-p
 LCEN=b-j-k-l
 LCKEN=b-e2-m1-f2-g2
 NEN=b-h2-i2-v2-j2-k2-w2-l2
 PSUEN=b-r2-t2-u2-d
```

g = Digital line and trunk unit (DLTU) number.

h = Digital facility interface number.

i = Digital channel number.

j = Integrated services line unit number.

k = Line group controller number.

l = Line card number.

m = Integrated digital carrier unit number.

n = Remote terminal (RT) number.

o = Primary/protection identifier.

p = RT line number.

q = Channel being monitored. Valid value(s):

B1	= Channel B1.
B2	= Channel B2.
D	= D-channel.

r = Port services identifier. Note: This field will be blank if the port does not have a unique port services identifier. Valid value(s):

```
DN=s
 MLHG=t-u
 PKTDN=v
 TKGMN=w-x
```

s = The primary DN associated with the digital subscriber line (DSL) channel. This DN may be either a circuit-switched or a packet-switched service DN.

t = Multi-line hunt group number.

`u` = Multi-line hunt group member number.

`v` = The DN associated with a packet-switched channel of a DSL.

`w` = Trunk group number.

`x` = Trunk group member number.

`y` = Service characteristic identifier of DSL channel. Valid value(s):

`ODP`	= On-demand packet.
`PPB`	= Permanent packet B.
`PPD`	= Permanent packet D.

`z` = The value of the session identifier (SES) for this monitoring session.

`a`[1] = The date-stamp of the beginning of the monitoring session, in the form month/day.

`b`[1] = The time-stamp of the beginning of the monitoring session, in the form hours:minutes:seconds.

`c`[1] = The current date-stamp for the monitoring session, in the form month/day.

`d`[1] = The current time-stamp for the monitoring session, in the form hours:minutes:seconds.

`e`[1] = The offset (OFFSET) for the number of frames that was recorded after detection of the trigger event.

`f`[1] = The duration (DUR) of the recording session in seconds.

`g`[1] = Protocol (PROT) being monitored. Valid value(s):

`LAPB`	= The LAPB protocol (recorded on the PH).
`LAPD`	= The LAPD protocol (recorded on the PH).
`Q931`	= The Q.931 protocol (recorded on the SM).
`TMC`	= The TMC protocol (recorded on the SM).
`V120`	= The V.120 protocol (recorded on the SM).
`X25`	= The X.25 protocol (B-channel packet recorded on the PH, D-channel packet recorded on the SM).
`X75`	= The X.75 protocol (recorded on the PH).
`X75P`	= The X.75' protocol (recorded on the PH).
`RLP`	= The RLP protocol (recorded on the PHV).
`CESHL2`	= The CESHL2 protocol (recorded on the PHV).
`CESHL3`	= The CESHL3 protocol (recorded on the PHV).

`h`[1] = Protocol's trigger level (TRIGLVL). Note: Trigger protocol level must be terminated on the same processor as the recording protocol. Valid value(s):

`ATS`	= The trigger level is the ATS protocol.
`IDLC`	= The trigger level is the IDLC protocol.
`LAPB`	= The trigger level is the LAPB protocol.
`LAPD`	= The trigger level is the LAPD protocol.
`Q931`	= The trigger level is the Q.931 protocol.
`TMC`	= The trigger level is the TMC protocol.
`V120`	= The trigger level is the V.120 protocol.
`X25`	= The trigger level is the X.25 protocol.

X75 = The trigger level is the X.75 protocol.
X75P = The trigger level is the X.75' protocol.
RLP = The trigger level is the RLP protocol.
CESHL2 = The trigger level is the CESHL2 protocol.
CESHL3 = The trigger level is the CESHL3 protocol.

i[1] = TRIGVAL that terminates the recording session. Refer to the EXC:PM input manual page for a complete list of trigger values.

j[1] = Specific PER that terminated the recording session.

k[1] = Direction (DIR) of frame or packet or message triggered on. Valid value(s):
EITHER = Triggered on a frame or packet or message transmitted from the switch to the customer premises equipment (CPE) or received by the switch from the CPE.
RCV = Triggered on a frame or packet or message received by the switch from the CPE.
XMT = Triggered on a frame or packet or message transmitted from the switch to the CPE.

l[1] = The protocol level recorded (RECLVL). Valid value(s):
LEVEL2 = Recorded all layer 2 frames.
LEVEL3 = Recorded only the layer 3 packets or messages.
LEVEL7 = Recorded only the layer 7 packets or messages.

m[1] = The number of events recorded.

n[1] = State of the protocol monitoring session. Valid value(s):
ABORTED = The session has aborted.
DATA RETRIEVAL = The recording of data has completed and is being processed for output.
DURATION TIMEOUT = The duration timer has fired. Waiting for session output.
RECORD COMPLETED = The session has completed normally.
RECORDING = The session is recording data and the trigger has not yet fired.
STOP NO DUMP = The session has been manually terminated with neither translation nor dump of the output data.
STOP WITH DUMP = The session has been manually terminated with either translation or dump of the output data.
TRANSLATING = The hexadecimal data collected during the session is being translated into an ASCII format.
TRIGGER FIRED = The trigger of the session has fired.
WAIT DUMP ACK = A manual request has been made to terminate the session with translation or dump. Awaiting response from the switch.
WAIT STOP ACK = A manual request has been made to terminate the session without translation or dump. Awaiting response from the switch.

o[1] = The ATF file name. Contains the ASCII translation of the hexadecimal data output from the protocol monitoring session.

p[1] = The PMCFF file name. The intermediate binary file created during the translation of the hexadecimal output of the session into ASCII output. This file is used internally and is not generally available for inspection.

q[1] = The segment number (SEG) of the output data. The segments are in ascending order beginning at 1 for each session output. Note: The segment number is not necessarily the same as the frame number since frames may be continued over more than one segment.

r[1] = The date-stamp of the recorded frame, in the form month/day.

s[1] = The time-stamp of the recorded frame, in the form hours:minutes:seconds.

t[1] = Terminal endpoint identifier (TEI).

u[1] = Total bytes.

v[1] = The frame number relative to the first frame in the recording window.

w[1] = The length of the recorded frame in bytes.

x[1] = DIR of recorded frame. Valid value(s):

`RCV` = Frame or packet or message received by the switch from the CPE.

`XMT` = Frame or packet or message transmitted from the switch to the CPE.

y[1] = The protocol error code (PEC) associated with the recorded frame. Refer to the APP:ALE-PER appendix in the Appendixes section of the Output Messages manual for a complete list of protocol error codes. In the event that two PER's are reported against the same frame, the PEC of the second PER will overwrite the first. This situation could cause the output message to indicate a triggering event that shows a different PEC than the value that actually triggered the session.

z[1] = The four-byte hexadecimal representation from the recorded frame or packet or message.

a[2] = The date-stamp of the end of the monitoring session, in the form month/day.

b[2] = The time-stamp of the end of the monitoring session, in the form hours:minutes:seconds.

c[2] = The PEC which acted as the trigger. This is displayed only on the `EXC PM COMPLETED` message and only if PER triggering was chosen for the protocol monitoring session and only if the number of data segments was zero. Refer to the APP:ALE-PER appendix in the Appendixes section of the Output Messages Manual for a complete list of the protocol error codes.

d[2] = Internal error code to assist in locating reason for abort.

e[2] = Integrated service line unit 2 (ISLU2) number.

f[2] = Line board number.

g[2] = Line circuit number.

h[2] = DNU-S number.

i[2] = Data group (DG) number.

j[2] = Synchronous transport signal (STS) facility number.

k[2] = Virtual tributary group (VTG) number.

l[2] = DS0 number.

m[2] = Access interface unit (AIU) number.

n[2] = AIU pack number.

o[2] = AIU circuit number.

p[2] = Type of messages recorded when monitoring LAP D protocol on a Frame Relay Bearer Channel. User can request specifically to monitor either control messages or user data. However, if user data recording is requested , only a summary of the user data frame will be recorded, due to the sheer volume of the user data. The summary of the user data frame will contain the address information and the length of the actual user data frame transmitted or received.

Valid values are as follows:

CTRL	= recorded only control messages. CTRL is the default value.
DATA	= recorded only a summary of the transmitted or received user data frame.
ALL	= recorded both control messages and a summary of the transmitted or received user data frame.

q[2] = Type of messages or frames recorded when protocol monitoring is on a Speech Handler or an Autoplex Data Trunk. This option can be used with CESHL2 or CESHL3 or RLP protocol.

Valid values are as follows:

CTRL	= recorded control frames (S and I) for CESHL2 protocol. Default value for CESHL2 protocol at level 2 recording.
TRAF	= recorded UI traffic messages for CESHL3 protocol.
IP	= recorded Inter-Processor messages for CESHL3 protocol. Default value for CESHL3 protocol at level 3 recording.
RLP	= recorded non-idle RLP frames for RLP protocol. Default value for RLP protocol at level 7 recording.
ALL	= recorded all messages for CESHL2 or CESHL3 or RLP protocol. This will result in recording S, I, XID, and, UI frames for CESHL2 protocol, or UI plus IP frames for CESHL3 protocol, or RLP plus idle frames for RLP protocol.

r[2] = Packet Switching Unit (PSU) number.

t[2] = PSU shelf number.

u[2] = PSU channel group number.

v[2] = SONET termination equipment (STE) facility number.

w[2] = Virtual tributary member (VTM) number.

4. ACTIONS TO BE TAKEN

Inspect the EXC:PM output messages for the results of the monitoring session and analyze for protocol violations or other errors. If translation of the hexadecimal output into ASCII has been requested, examine the ATF. If variable 'd[2]' is output, save the ROP printout and refer to the TECHNICAL ASSISTANCE section of the INTRODUCTION.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:PM
OP:PM
STP:PM
```

Output Message(s):

```
OP:PM
STP:PM
```

Output Appendix(es):

```
APP:ALE-PER
```

Other Manual(s):

235-105-110	*Corrective Maintenance Manual*
235-190-105	*Custom ISDN Feature Descriptions*
235-190-110	*National ISDN Feature Descriptions*
235-190-120	*Common Channel Signaling Services*
235-600-755	*Protocol Error Record Descriptions*
235-900-341	*National ISDN BRI Interface Specification*

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EXC:PM-D

Software Release: 5E14 and later
Message Class: SPM
Application: 5
Type: Output

1. FORMAT

```
[1]    EXC PM a d2

         DSLGM=b-c-d PORT=b-e f CH=q [r y]

         SES=z a1a1/a1a1 b1 c1c1/c1c1 d1d1:d1d1:d1d1 OFFSET=e1 DUR=f1 [PLANE=p2 | MSG
       GRP=q2]

         PROT=g1 TRIGLVL=h1 {TRIGVAL=i1|PER[=j1} [DIR=k1] RECLVL=l1]

        {XLATE|NO XLATE} m1 EVENTS RECORDED [STATE=n1]

        ATF=o1 [PMCFF=p1]

[2]    EXC PM DATA SES=z SEG=q1 r1r1/r1r1 s1s1:s1s1:s1s1 TEI=t1 [TEI_CHANGED]

         u1 BYTES OF FRAME NUMBER v1 FRAME LENGTH IS w1 DIR=x1 TRIG [CONT] [y1]

         z1 z1 z1 z1 z1 z1 z1 z1

         .
         .
         .

[3]    EXC PM a

         SES=z a1a1/a1a1 b1 a2a2/a2a2 b2b2:b2b2:b2b2 m1 EVENTS REPORTED c2
```

2. REASON FOR OUTPUT

To report the information collected during a protocol monitoring (PM) session.

Format 1 provides an indication that a PM session has either successfully started, aborted, stopped, or failed to start. In addition, all pertinent information relating to the PM session is displayed. This format is also used as a prelude to the hexadecimal output or as notification that translation of the hexadecimal output into the American standard code for information interchange (ASCII) has begun. Format 2 contains the raw data collected during the monitoring session. Additional information regarding the frame is also provided. The raw data is printed in a hexadecimal format. This message type is only used when hexadecimal data is being dumped to the read-only printer (ROP). Translated sessions will not use this output format.

Note: The maximum amount of recorded data that can be output in one segment is 132 bytes. If the length of the recorded frame or packet or messages is larger than 132 bytes, then the frame or packet or message will require more than one segment to output. Incomplete frames will be noted with the CONT indicator. Format 3 provides the status for the conclusion of a session (that is, successfully completed, stopped due to a manual request, or terminated abnormally).

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3. VARIABLE FIELD DEFINITIONS

`CONT` = The recorded frame is continued in the next output segment.

`NO XLATE` = The hexadecimal output for this session will not be translated through the protocol monitoring translator.

`PER` = Trigger value that terminated the recording session was a protocol error record (PER) occurring on the channel being recorded. Refer to the Protocol Error Record Descriptions manual for additional information about a specific PER.

`PKTDN` = Directory number with packet-switched service.

`PORT` = Global port.

`TEI_CHANGED` = The TEI has changed since the protocol monitoring session began. Note that when the TEI change occurs, the trigger may not yet have been found. The TEI_CHANGED indicator will appear only for multipoint lines and only when user triggering.

Note: When triggering on a single user of a multipoint line, the TEI for that user is stored at the beginning of the monitoring session and its value is used to determine the triggering frame or message. If the TEI stored and used by the monitoring session changes before the session is triggered, then the TEI_CHANGED indicator will appear for each frame of that session. It is possible, when the offset value is set to be less than 10 and the trigger event occurs around the same time as the change in TEIs, that some EXC:PM DATA messages will display the new TEI number, but the TEI_CHANGED indicator will not appear.

`TRIG` = The recorded frame is associated with the triggering event.

`XLATE` = The protocol monitoring translator has been invoked for this session. The output will be translated into an ASCII file.

`a` = Status. Valid value(s):

`ABORTED - ATF CLOSE FAILURE` = The PM session was aborted because the ASCII translation file (ATF) could not be closed.

`ABORTED - ATF OPEN FAILURE` = The PM session was aborted because the ATF could not be opened.

`ABORTED - ATF WRITE FAILURE` = The PM session was aborted because the ATF could not be written to.

`ABORTED - COMMUNICATION FAILURE` = An unspecified communication error occurred between the administrative module (AM) and switching module (SM), between the SM and the protocol handler (PH), or between the AM and *UNIX*® operating system.

`ABORTED - DATABASE PROBLEM` = The request to start a PM session failed because an error occurred while reading the database.

`ABORTED - INVALID PMCFF FILE` = The PM session was aborted because the protocol monitoring common format file (PMCFF) contents were corrupted, or were missing.

`ABORTED - INVALID SESSION ID` = The PM session was aborted because the session identifier did not correspond to a valid session.

`ABORTED - PMCFF CLOSE FAILURE` = The PM session was aborted because the PMCFF could not be closed.

`ABORTED - PMCFF OPEN FAILURE` = The PM session was aborted because the PMCFF could not be opened.

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`ABORTED - PMCFF READ FAILURE` = The PM session was aborted because the PMCFF could not be read.

`ABORTED - PMCFF WRITE FAILURE` = The PM session was aborted because the PMCFF could not be written to.

`ABORTED - TEMPORARY FILE CLOSE FAILURE` = The PM session was aborted because the temporary file created for this session could not be closed.

`ABORTED - TEMPORARY FILE OPEN FAILURE` = The PM session was aborted because the temporary file created for this session

`ABORTED - TEMPORARY FILE READ FAILURE` = The PM session was aborted because the temporary file created for this session could not be read.

`ABORTED - TEMPORARY FILE WRITE FAILURE` = The PM session was aborted because the temporary file created for this session could not be written to.

`ABORTED - TRANSLATION FAILURE` = The PM session was aborted because the protocol translator was not able to translate this session.

`ABORTED - INTERNAL FAILURE` = The request to start a PM session failed because an internal failure was encounted.

`ABORTED - RECORDER FAILURE` = The request to start a PM session failed because a recorder failure was encounted.

`ABORTED - UNABLE TO CREATE PROCESS` = The request to start a PM session failed because of the inability to create the internal processes necessary for controlling the session.

`COMPLETED` = The protocol monitoring session has completed.

`CONTINUING - TRANSLATION NOT AVAILABLE` = The protocol monitoring session is continuing, but translation of the output into ASCII is not available.

`NOT STARTED - CHANNEL MISMATCH` = The channel (CH) specified on the input line is not valid for the protocol (PROT) specified on the input line. The CH specified on the input line is not a valid channel.

`NOT STARTED - CHANNEL REQUIRED` = CH option must be specified on the input line, since the directory number or multi-line hunt group (MLHG) is assigned to more than one channel.

`NOT STARTED - CMP UNAVAILABLE` = The request to start a PM session failed because the communication module (CM) is isolated from the AM.

`NOT STARTED - INVALID PORT` = The port identifier entered could not be translated and was considered to be invalid.

`NOT STARTED - INVALID PROTOCOL` = The protocol specified on the input message is not valid.

`NOT STARTED - INVALID PROTOCOL ERROR CODE` = The protocol error code specified on the input message is not valid. (Refer to the APP:ALE-PER appendix in the Appendixes section of the Output Messages manual for a complete list of protocol error codes.)

`NOT STARTED - MAX JOBS RUNNING` = A new PM session could not be started because the maximum number of PM sessions are currently active. The maximum number of sessions is 8 per office.

`NOT STARTED - MESSAGE MISMATCH` = The trigger value (TRIGVAL) specified on the input line is not valid for the PROT specified on the input line.

`NOT STARTED - MLHG DN SPECIFIED` = The request to verify a PM session failed because a directory number (DN) for a MLHG or uniform call distribution (UCD) group was specified. Repeat request using MLHG port services identifier option.

`NOT STARTED - NON-PRIMARY DN SPECIFIED` = The request to verify a PM session failed because the primary DN is required. Repeat request specifying the primary DN.

`NOT STARTED - NON-UNIQUE NXX DN` = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.

`NOT STARTED - PH UNAVAILABLE` = The request to start a PM session failed because the PH is isolated from the SM.

`NOT STARTED - PORT CONFLICT` = A PM session could not be started because a session is currently active on the port specified on the input line.

`NOT STARTED - PORT HAS NO PM CAPABILITY` = A PM session could not be started because the port specified is either not an integrated services digital network (ISDN) line or does not support ISDN capabilities.

`NOT STARTED - PROCESSOR CONFLICT` = A PM session could not be started because the maximum number of sessions recording on a processor are currently active. The relationship between protocol and processor type is given in the list of protocols contained in this manual page. The maximum number of sessions recorded on a processor are:

- 8 per office.
- 2 per SM and 4 per SM 2000.
- 2 per PH and PH2.
- 3 per PH3 and PH4.
- 2 per PHV1, PHV2, and PHV3.
- 1 per PH4 connected to Frame Relay Bearer Channels (FRBCs).

`NOT STARTED - PROTOCOL MISMATCH` = The PROT specified on the input line does not match the line identifier specified on the input line.

`NOT STARTED - PROTOCOL ERROR CODE MISMATCH` = The protocol error code (PER) specified on the input line is not a valid protocol error code for the PROT specified on the input line. (Refer to the APP:ALE-PER appendix in the Appendixes section of the Output Messages manual for a complete list of protocol error codes.)

`NOT STARTED - SM UNAVAILABLE` = The request to start a PM session failed because the SM is isolated from the AM.

`NOT STARTED - TRIGGER MISMATCH` = The TRIGLVL specified on the input line is not valid for the PROT specified on the input line.

`REPORTING - BEGINNING TRANSLATION` = The collection of data in this protocol monitoring session has completed and translation of that data into ASCII (the ATF file) is beginning.

`REPORTING - OUTPUT FOLLOWS` = The collection of data in this protocol monitoring session has completed and the hexadecimal data that was collected will now be output.

`STARTED` = A PM session was successfully started.

`STOPPED` = The PM session was stopped due to a manual request.

`STOPPED - DURATION TIMEOUT` = The PM session was stopped when the duration timer expired.

`b` = SM number.

`c` = PH channel group number.

`d` = PH channel member number.

`e` = Logical port number.

`f` = The equipment number identifier.

Note: If the port is associated with an X.75' trunk or an X.75 trunk or an extended digital subscriber line (EDSL), then the digital equipment number (DEN) is used. If the port is associated with a digital networking unit - synchronous optical network (SONET) (DNU-S) then the DNU-S networking equipment number (NEN) is used. If the port is associated with an embedded operation channel (EOC) or timeslot management channel (TMC), then the EOC or TMC equipment number is used. Otherwise, the

line card equipment number (LCEN), line circuit equipment number (LCKEN), access interface unit number (AIUEN), packet switching unit equipment number (PSUEN), integrated digital carrier unit line equipment number (ILEN) or IDLC network equipment number (INEN) is used.

Valid value(s):

```
AIUEN=b-m2-n2-o2
 DEN=b-g-h-i
 DNUSEOC=b-h2-n-o
 DNUSTMC=b-h2-n-o
 IDCUEOC=b-m-n-o
 IDCUTMC=b-m-n-o
 ILEN=b-m-n-p
 INEN=b-h2-n-p
 LCEN=b-j-k-l
 LCKEN=b-e2-m1-f2-g2
 NEN=b-h2-i2-v2-j2-k2-w2-l2
 PSUEN=b-r2-t2-u2-d
```

g = Digital line and trunk unit (DLTU) number.

h = Digital facility interface number.

i = Digital channel number.

j = Integrated services line unit number.

k = Line group controller number.

l = Line card number.

m = Integrated digital carrier unit number.

n = Remote terminal (RT) number.

o = Primary/protection identifier.

p = RT line number.

q = Channel being monitored. Valid value(s):

- B1 = Channel B1.
- B2 = Channel B2.
- D = D-channel.

r = Port services identifier. Note: This field will be blank if the port does not have a unique port services identifier. Valid value(s):

```
DN=s
 MLHG=t-u
 PKTDN=v
 TKGMN=w-x
```

s = The primary DN associated with the digital subscriber line (DSL) channel. This DN may be either a circuit-switched or a packet-switched service DN.

t = Multi-line hunt group number.

u = Multi-line hunt group member number.

v = The DN associated with a packet-switched channel of a DSL.

w = Trunk group number.

x = Trunk group member number.

y = Service characteristic identifier of DSL channel. Valid value(s):

- ODP = On-demand packet.
- PPB = Permanent packet B.
- PPD = Permanent packet D.

z = The value of the session identifier (SES) for this monitoring session.

a[1] = The date-stamp of the beginning of the monitoring session, in the form month/day.

b[1] = The time-stamp of the beginning of the monitoring session, in the form hours:minutes:seconds.

c[1] = The current date-stamp for the monitoring session, in the form month/day.

d[1] = The current time-stamp for the monitoring session, in the form hours:minutes:seconds.

e[1] = The offset (OFFSET) for the number of frames that was recorded after detection of the trigger event.

f[1] = The duration (DUR) of the recording session in seconds.

g[1] = Protocol (PROT) being monitored. Valid value(s):

- LAPB = The LAPB protocol (recorded on the PH).
- LAPD = The LAPD protocol (recorded on the PH).
- Q931 = The Q.931 protocol (recorded on the SM).
- TMC = The TMC protocol (recorded on the SM).
- V120 = The V.120 protocol (recorded on the SM).
- X25 = The X.25 protocol (B-channel packet recorded on the PH, D-channel packet recorded on the SM).
- X75 = The X.75 protocol (recorded on the PH).
- X75P = The X.75' protocol (recorded on the PH).
- RLP = The RLP protocol (recorded on the PHV).
- CESHL2 = The CESHL2 protocol (recorded on the PHV).
- CESHL3 = The CESHL3 protocol (recorded on the PHV).
- ISLP = The ISLP protocol (recorded on the PHV).

h[1] = Protocol's trigger level (TRIGLVL). Note: Trigger protocol level must be terminated on the same processor as the recording protocol. Valid value(s):

- ATS = The trigger level is the ATS protocol.
- IDLC = The trigger level is the IDLC protocol.
- LAPB = The trigger level is the LAPB protocol.

LAPD = The trigger level is the LAPD protocol.
Q931 = The trigger level is the Q.931 protocol.
TMC = The trigger level is the TMC protocol.
V120 = The trigger level is the V.120 protocol.
X25 = The trigger level is the X.25 protocol.
X75 = The trigger level is the X.75 protocol.
X75P = The trigger level is the X.75' protocol.
RLP = The trigger level is the RLP protocol.
CESHL2 = The trigger level is the CESHL2 protocol.
CESHL3 = The trigger level is the CESHL3 protocol.
ISLP = The trigger level is the ISLP protocol.

i[1] = TRIGVAL that terminates the recording session. Refer to the EXC:PM input manual page for a complete list of trigger values.

j[1] = Specific PER that terminated the recording session.

k[1] = Direction (DIR) of frame or packet or message triggered on. Valid value(s):
EITHER = Triggered on a frame or packet or message transmitted from the switch to the customer premises equipment (CPE) or received by the switch from the CPE.
RCV = Triggered on a frame or packet or message received by the switch from the CPE.
XMT = Triggered on a frame or packet or message transmitted from the switch to the CPE.

l[1] = The protocol level recorded (RECLVL). Valid value(s):
LEVEL2 = Recorded all layer 2 frames.
LEVEL3 = Recorded only the layer 3 packets or messages.
LEVEL7 = Recorded only the layer 7 packets or messages.

m[1] = The number of events recorded.

n[1] = State of the protocol monitoring session. Valid value(s):
ABORTED = The session has aborted.
DATA RETRIEVAL = The recording of data has completed and is being processed for output.
DURATION TIMEOUT = The duration timer has fired. Waiting for session output.
RECORD COMPLETED = The session has completed normally.
RECORDING = The session is recording data and the trigger has not yet fired.
STOP NO DUMP = The session has been manually terminated with neither translation nor dump of the output data.
STOP WITH DUMP = The session has been manually terminated with either translation or dump of the output data.
TRANSLATING = The hexadecimal data collected during the session is being translated into an ASCII format.
TRIGGER FIRED = The trigger of the session has fired.
WAIT DUMP ACK = A manual request has been made to terminate the session with translation or dump. Awaiting response from the switch.
WAIT STOP ACK = A manual request has been made to terminate the session without translation or dump. Awaiting response from the switch.

o[1] = The ATF file name. Contains the ASCII translation of the hexadecimal data output from the

protocol monitoring session.

p[1] = The PMCFF file name. The intermediate binary file created during the translation of the hexadecimal output of the session into ASCII output. This file is used internally and is not generally available for inspection.

q[1] = The segment number (SEG) of the output data. The segments are in ascending order beginning at 1 for each session output. Note: The segment number is not necessarily the same as the frame number since frames may be continued over more than one segment.

r[1] = The date-stamp of the recorded frame, in the form month/day.

s[1] = The time-stamp of the recorded frame, in the form hours:minutes:seconds.

t[1] = Terminal endpoint identifier (TEI).

u[1] = Total bytes.

v[1] = The frame number relative to the first frame in the recording window.

w[1] = The length of the recorded frame in bytes.

x[1] = DIR of recorded frame. Valid value(s):

`RCV` = Frame or packet or message received by the switch from the CPE.
`XMT` = Frame or packet or message transmitted from the switch to the CPE.

y[1] = The protocol error code (PEC) associated with the recorded frame. Refer to the APP:ALE-PER appendix in the Appendixes section of the Output Messages manual for a complete list of protocol error codes. In the event that two PER's are reported against the same frame, the PEC of the second PER will overwrite the first. This situation could cause the output message to indicate a triggering event that shows a different PEC than the value that actually triggered the session.

z[1] = The four-byte hexadecimal representation from the recorded frame or packet or message.

a[2] = The date-stamp of the end of the monitoring session, in the form month/day.

b[2] = The time-stamp of the end of the monitoring session, in the form hours:minutes:seconds.

c[2] = The PEC which acted as the trigger. This is displayed only on the `EXC PM COMPLETED` message and only if PER triggering was chosen for the protocol monitoring session and only if the number of data segments was zero. Refer to the APP:ALE-PER appendix in the Appendixes section of the Output Messages Manual for a complete list of the protocol error codes.

d[2] = Internal error code to assist in locating reason for abort.

e[2] = Integrated service line unit 2 (ISLU2) number.

f[2] = Line board number.

g[2] = Line circuit number.

h[2] = DNU-S number.

i[2] = Data group (DG) number.

j[2] = Synchronous transport signal (STS) facility number.

k[2] = Virtual tributary group (VTG) number.

l[2] = DS0 number.

m[2] = Access interface unit (AIU) number.

n[2] = AIU pack number.

o[2] = AIU circuit number.

p[2] = Type of messages recorded when monitoring LAP D protocol on a Frame Relay Bearer Channel. User can request specifically to monitor either control messages or user data. However, if user data recording is requested, only a summary of the user data frame will be recorded, due to the sheer volume of the user data. The summary of the user data frame will contain the address information and the length of the actual user data frame transmitted or received.

Valid value(s):

CTRL	= recorded only control messages. CTRL is the default value.
DATA	= recorded only a summary of the transmitted or received user data frame.
ALL	= recorded both control messages and a summary of the transmitted or received user data frame.

q[2] = Type of messages or frames recorded when protocol monitoring is on a Speech Handler or an Autoplex Data Trunk. This option can be used with CESHL2 or CESHL3 or RLP protocol.

Valid value(s):

CTRL	= recorded control frames (S and I) for CESHL2 protocol. Default value for CESHL2 protocol at level 2 recording.
TRAF	= recorded UI traffic messages for CESHL3 protocol.
IP	= recorded Inter-Processor messages for CESHL3 protocol. Default value for CESHL3 protocol at level 3 recording.
RLP	= recorded non-idle RLP frames for RLP protocol. Default value for RLP protocol at level 7 recording.
ALL	= recorded all messages for CESHL2 or CESHL3 or RLP protocol. This will result in recording S, I, XID, and, UI frames for CESHL2 protocol, or UI plus IP frames for CESHL3 protocol, or RLP plus idle frames for RLP protocol.

r[2] = Packet Switching Unit (PSU) number.

t[2] = PSU shelf number

u[2] = PSU channel group number.

v[2] = SONET termination equipment (STE) facility number.

w[2] = Virtual tributary member (VTM) number.

4. ACTIONS TO BE TAKEN

Inspect the EXC:PM output messages for the results of the monitoring session and analyze for protocol violations or other errors. If translation of the hexadecimal output into ASCII has been requested, examine the ATF. If variable

'd^2' is output, save the ROP printout and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:PM
OP:PM
STP:PM
```

Output Message(s):

```
OP:PM
STP:PM
```

Output Appendix(es):

```
APP:ALE-PER
```

Other Manual(s):

235-105-110	*System Maintenance Requirements and Tools*
235-105-220	*Corrective Maintenance*
235-190-104	*ISDN Feature Description*
235-190-120	*Common Channel Signaling Service Features*
235-600-755	*Protocol Error Record Descriptions*
235-900-341	*National ISDN Basic Rate Interface Specification*

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EXC:PMCCS

Software Release: 5E12 and later
Message Class: SPM
Application: 5
Type: Output

1. FORMAT

[1]
```
EXC PMCCS a
 {CALLED=b|CALLING=c} TKGMN=d-e [CDTT=f|CGSN=g|CDSN=h] [LAYER=i] REPEAT=j
 SES=k ll/ll mm:mm:mm  nn/nn oo:oo:oo [DUR=p
 PROT=q DIR=r
 {XLATE|NO XLATE} s EVENTS RECORDED [STATE=t]
 ATF=u
```

[2]
```
EXC PMCCS DATA SES=k SEG=v ww/ww xx:xx:xx
  y BYTES OF FRAME NUMBER z FRAME LENGTH IS a1 DIR=b1 TRIG [CONT]
  c1 c1 c1 c1 c1 c1 c1 c1
  .
  .
  .
```

[3]
```
EXC PMCCS a
 SES=j ll/ll mm:mm:mm d1d1/d1d1 e1e1:e1e1:e1e1 [f1 SEGMENTS REPORTED] [g1]
 AM|DLN
 SM NUMBERS
   h1 h1 h1 h1 h1 h1 h1 h1
```

2. REASON FOR OUTPUT

To report the information collected during a CCS protocol monitoring (PM) session.

Format 1 provides an indication that a PM session has either successfully started, aborted, stopped, or failed to start. In addition, all pertinent information relating to the PM session is displayed. This format is also used as a prelude to the hexadecimal output or as notification that translation of the hexadecimal output into the American standard code for information interchange (ASCII) has begun. Format 2 contains the raw data collected during the monitoring session. Additional information regarding the frame is also provided. The raw data is printed in a hexadecimal format. This message type is only used when hexadecimal data is being reported to the receive-only printer (ROP). Translated sessions will not use this output format.

Note: The maximum amount of recorded data that can be output in one segment is 132 bytes. If the length of the recorded frame or packet or messages is larger than 132 bytes, then the frame or packet or message will require more than one segment to output. Incomplete frames will be noted with the CONT indicator.

Format 3 provides the status for the conclusion of a session (that is, successfully completed, stopped due to a manual request, or terminated abnormally). This format also provides information regarding the status of the processors involved in the PM session. (that is, it will report screening, recording, aborted or overloaded processors).

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3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`TRIG` = The recorded frame triggered the session to end.

`CONT` = The recorded frame is continued in the next output segment.

`NO XLATE` = The hexadecimal output for this session will not be translated through the protocol monitoring translator. The output will be reported in hexadecimal format on the ROP.

`XLATE` = The protocol monitoring translator has been invoked for this session. The output will be translated into an ASCII file.

`AM|DLN` = Signifies that the AM or DLN processor is associated with this PM session.

`SM NUMBERS` = Signifies that SM processors are associated with this PM session.

`a` = Status. Valid value(s):

`ABORTED - ATF CLOSE FAILURE` = The PM session was aborted because the ASCII translation file (ATF) could not be closed.

`ABORTED - ATF OPEN FAILURE` = The PM session was aborted because the ATF could not be opened.

`ABORTED - ATF WRITE FAILURE` = The PM session was aborted because the ATF could not be written to.

`ABORTED - COMMUNICATION FAILURE` = An unspecified communication error occurred between the administrative module (AM) and the recording processor (SM, DLN or AM) or the AM and *UNIX*® operating system.

`ABORTED - DATABASE PROBLEM` = The request to start a PM session failed because an error occurred while reading the database.

`ABORTED - INVALID PMCFF FILE` = The PM session was aborted because the protocol monitoring common format file (PMCFF) contents were corrupted, or were missing.

`ABORTED - PMCFF CLOSE FAILURE` = The PM session was aborted because the PMCFF could not be closed.

`ABORTED - PMCFF OPEN FAILURE` = The PM session was aborted because the PMCFF could not be opened.

`ABORTED - PMCFF READ FAILURE` = The PM session was aborted because the PMCFF could not be read.

`ABORTED - PMCFF WRITE FAILURE` = The PM session was aborted because the PMCFF could not be written to.

`ABORTED - TEMPORARY FILE CLOSE FAILURE` = The PM session was aborted because the temporary file created for this session could not be closed.

`ABORTED - TEMPORARY FILE OPEN FAILURE` = The PM session was aborted because the temporary file created for this session

`ABORTED - TEMPORARY FILE READ FAILURE` = The PM session was aborted because the temporary file created for this session could not be read.

`ABORTED - TEMPORARY FILE WRITE FAILURE` = The PM session was aborted because the temporary file created for this session could not be written to.

`ABORTED - TRANSLATION FAILURE` = The PM session was aborted because the protocol translator was not able to translate this session.

`ABORTED - INTERNAL FAILURE` = The PM session was aborted because an internal failure was encountered.

`ABORTED - UNABLE TO CREATE PROCESS` = The request to start a PM session on a particular processor failed because of the inability to create the internal processes necessary for controlling the session on that processor.

`RECORDER ABORTED - DLN OUT-OF-SERVICE` = The DLN PM recorder was aborted because the active DLN that was monitoring data became unavailable. This will occur when the DLN switches while the DLN is screening messages or recording data for a PM session.

`RECORDERS ABORTED` = List of PM processors that have aborted during a PM session.

`PROCESSORS SCREENING` = List of PM processors that are actively screening messages for this PM session.

`PROCESSOR RECORDING` = List the PM processor that is recording data for this PM session.

`RECORDERS INACTIVE DUE TO OVERLOAD` = List of PM processors that have aborted due to a detection of an overload condition.

`NOT STARTED - TCAP SESSION REPEAT FAILURE` = Repeating TCAP session could not be started due to an internal failure.

`NOT STARTED - ISUP SESSION REPEAT FAILURE` = Repeating ISUP session could not be started due to an internal failure.

`NOT STARTED - INVALID RANGE FOR DN` = The range specified for the CALLED or CALLING parameter is out of range.

`NOT STARTED - CALLING DN INVALID WHEN LAYER SET TO SCCP` = The CALLING parameter is invalid when the LAYER parameter is set to SCCP (default). Invalid combination of input parameters.

`NOT STARTED - CDSN INVALID WHEN DIR SET TO XMT` = The CDSN parameter is invalid when the DIR parameter is set to XMT. Invalid combination of input parameters.

`NOT STARTED - LAYER SET TO TCAP INVALID WHEN DIR SET TO RCV` = The LAYER parameter set to TCAP is invalid when DIR is set to RCV. Invalid combination of input parameters.

`NOT STARTED - CDSN INVALID WHEN LAYER SET TO TCAP` = The CDSN parameter is invalid when the LAYER parameter is set to TCAP. Invalid combination of input parameters.

`NOT STARTED - CCS NOT IN OFFICE` = The request to start a PM session failed because common channel signaling is not equipped in the office.

`NOT STARTED - INVALID CGSN` = The calling party subsystem number is invalid.

`PROCESSORS NOT STARTED DUE TO OVERLOAD` = A list of PM recorders that could not be started because the processor was experiencing an overload condition.

`NOT STARTED - CCS PM FEATURE NOT PURCHASED` = The CCS PM feature is a secured feature. This error indicates that the CCS PM feature has not been purchased in this office.

`RETRY LATER - MAXIMUM NUMBER OF ISUP SESSIONS IN PROGRESS` = The maximum number of concurrent ISUP sessions are in progress. Retry this command later.

`RETRY LATER - MAXIMUM NUMBER OF TCAP SESSIONS IN PROGRESS` = The maximum number of concurrent TCAP sessions are in progress. Retry this command later.

`STARTED` = The PM session was successfully started.

`STOPPED` = The PM session was stopped due to a manual request.

`STOPPED - DURATION TIMEOUT` = The PM session was stopped when the duration timer expired.

`STOPPED DUE TO OVERLOAD - SESSION OUTPUT FOLLOWS` = The PM session has been terminated due to an overload encountered on the recording processor. Data will be reported in subsequent messages provided the overloaded processor can service the request.

`COMPLETED` = The protocol monitoring session has completed.

`REPORTING - BEGINNING TRANSLATION` = The collection of data in this protocol monitoring

session has completed and translation of that data into ASCII (the ATF file) is beginning.

`REPORTING - OUTPUT FOLLOWS` = The collection of data in this protocol monitoring session has completed and the hexadecimal data that was collected will now be output.

`b` = Called party address directory number.

`c` = Calling party address directory number.

`d` = Trunk group number. Trunk group used to route the ISUP call associated with this PM session.

`e` = Trunk group member number. Trunk group member used to route the ISUP call associated with this PM session.

`f` = Called party translation type.

`g` = Calling party subsystem number.

`h` = Called party subsystem number.

`i` = Location in the TCAP message to match the CALLED/CALLING parameters (SCCP = SCCP Header; TCAP = TCAP data).

`j` = Number of times this session will be repeated.

`k` = The value of the session identifier (SES) for this monitoring session.

`l` = The date-stamp of the beginning of the monitoring session, in the form month/day.

`m` = The time-stamp of the beginning of the monitoring session, in the form hours:minutes:seconds.

`n` = The current date-stamp for the monitoring session, in the form month/day.

`o` = The current time-stamp for the monitoring session, in the form hours:minutes:seconds.

`p` = The duration (DUR) of the recording session in seconds.

`q` = Protocol requested for the session.

`r` = Direction of the first matching message.

`s` = Number of events recorded for the session.

`t` = State of the protocol monitoring session. Valid value(s):

`ABORTED` = The session has aborted.

`DATA RETRIEVAL` = The recording of data has completed and is being processed for output.

`DURATION TIMEOUT` = The duration timer has expired. Waiting for session output.

`RECORD COMPLETED` = The session has completed normally.

`RECORDING` = The session is screening messages (i.e. has not yet recorded the first matching message) or recording data and the termination message has not yet been recorded.

`STOP NO DUMP` = The session has been manually terminated with neither translation nor hexadecimal reporting of the output data.

`STOP WITH DUMP` = The session has been manually terminated with either translation or hexadecimal reporting of the output data.

`TRANSLATING` = The hexadecimal data collected during the session is being translated into an ASCII format.

`u` = The ATF file name. This file contains the ASCII translation of the hexadecimal data output from the protocol monitoring session. The naming convention for the file is atf.XXX, where XXX corresponds to the session number for the PM session.

`v` = The segment number (SEG) of the output data. The segments are in ascending order beginning at 1 for each session output. Note: The segment number is not necessarily the same as the frame number since frames may be continued over more than one segment.

`w` = The date-stamp of the recorded frame, in the form month/day.

`x` = The time-stamp of the recorded frame, in the form hours:minutes:seconds.

`y` = Total bytes.

`z` = The frame number relative to the first frame in the recording window.

`a`[1] = The length of the recorded frame in bytes.

`b`[1] = Direction of the recorded frame.

`c`[1] = The four-byte hexadecimal representation from the recorded frame or packet or message.

`d`[1] = The date-stamp of the end of the monitoring session, in the form month/day.

`e`[1] = The time-stamp of the end of the monitoring session, in the form hours:minutes:seconds.

`f`[1] = The number of PM segments reported.

`g`[1] = Indicates that the session will not repeat due to an abnormal termination.

`h`[1] = SM number(s) associated with the PM session.

4. ACTIONS TO BE TAKEN

Inspect the EXC:PMCCS output messages for the results of the monitoring session and analyze for protocol violations or other errors. If translation of the hexadecimal output into ASCII has been requested, examine the ATF file.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:PMCCS
OP:PMCCS
STP:PMCCS
```

Output Message(s):

```
OP:PMCCS
STP:PMCCS
```

Other Manual(s):
235-105-110 *Corrective Maintenance Manual*
235-190-120 *Common Channel Signaling Services*

EXC:RCRLS

Software Release: 5E10 and later
Message Class: RCVY
Application: 5
Type: Output

1. FORMAT

```
EXC:RCRLS {CLERK=a|ODDEVOL} b c
```

2. REASON FOR OUTPUT

To respond to the EXC:RCRLS input message.

3. VARIABLE FIELD DEFINITIONS

`ODDEVOL` = Previously evolved RC logfile was released.

`a` = Clerk name entered on request.

`b` = Completion code of EXC:RCRLS input message. Valid value(s):

- `ABORTED` = Input request was aborted after starting. Message-text provides reason.
- `COMPLETED` = Input message has completed and the recent changes have been applied.
- `NOT STARTED` = Input message was not started. Message-text provides reason that message was not started.
- `STARTED` = Input message was started and the requested application of recent changes is in progress.
- `STOPPED` = The input request was stopped by a STP:RCRLS input message. All recent changes applied before the STP:RCRLS input message was entered remain.

`c` = Message text. Expanded reason for completion reason code. Valid value(s):

- `APPLIED=n` = number of recent changes were successfully applied.
- `ERRORS=n` = number of recent changes were released in error.

4. ACTION TO BE TAKEN

The summary log of each recent change released is written to the receive only printer (ROP). The recent changes released can be validated against those intended to be released.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:RCRLS
OP:RCRLS
STP:RCRLS
```

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Output Message(s):

```
OP:RCRLS
STP:RCRLS
```

Other Manual(s):

Where (x) is the release-specific version of the specified manual.
235-105-24x *Generic Retrofit Procedures*

EXC:RCRMV

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
EXC:RCRMV CLERK=a b c
```

2. REASON FOR OUTPUT

To respond to a previously entered EXC:RCRMV command.

3. VARIABLE FIELD DEFINITIONS

`a` = Clerkname entered on request.

`b` = Completion code of EXC:RCRMV input message. Valid value(s):

`ABORTED`	= Input request was aborted after starting. Message-text provides reason.
`COMPLETED`	= Input command has completed and record removals have been made.
`NOT STARTED`	= Input message was not started. Message-text provides reason that command was not started.
`STARTED`	= Input command was started and requested record removals should be processed.
`STOPPED`	= Input request was stopped after starting. A STP:RCRMV command initiated stop. The contents of the clerkfile specified in the EXC:RCRMV input message are restored and no records are removed.

`c` = Message text. Expanded reason for completion code. Valid value(s):
`xxx RECORDS WERE REMOVED` = `xxx` is the count of records removed by the request.

4. ACTION TO BE TAKEN

The summary log of each record removed is written to the receive only printer (ROP). Validate the records removed against those intended to be removed.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:RCRMV
OP:RCRMV
STP:RCRMV
```

Output Message(s):

```
OP:RCRMV
STP:RCRMV
```

EXC:RDTA-A

Software Release: 5E10 - 5E11
Message Class: RDTA
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EXC RDTA SESSION=a b
        [c] [l] [w] [y]
        [DAS=z] [INDN=a1 ITAP=b1-c1] [OUTDN=d1 OTAP=e1-f1]
        MODE=g1 [QTS=h1]  TIME REMAINING=i1 i1i1:i1i1:i1i1
        [BDN=j1] [CUSTID=k1]

[2]   ____________________________________________________________________
      EXC RDTA b [FP=l1]
         INDN=a1 OUTDN=d1 QTS=h1

[3]   ____________________________________________________________________
      EXC RDTA b FP=l1
        [c] [l] [w] [y]
        [DAS=z] [INDN=a1] [OUTDN=d1]
            MODE=g1
```

2. REASON FOR OUTPUT

To respond to a manual request to set up or convert (to split) a remote digital test access (RDTA) connection between the port under test (PUT) and the protocol analysis equipment.

Format 1 is a response to a request to start a new session or convert an existing session. The first line shows the session number and the successful start or conversion of the session. The second line describes the PUT in the various port identifications which are applicable to the PUT. The third line shows the output facility information defining routing for the RDTA connection and where the protocol analysis equipment is located. Acronyms are as follows: incoming directory number (INDN), incoming test access port (ITAP), outgoing DN (OUTDN), and outgoing test access port (OTAP). The fourth line shows the type of connection and quarter time-slot, if applicable, along with the remaining session time. The fifth line shows the billing DN, if applicable.

Format 2 is a response to a request to select the quarter section of a 64kb time-slot for placement onto the pseudo BRI D-channel output facility. The first line shows success/failure status information and a failure point number to identify the point in software where failure occurred. The second line shows output facility location identification and quarter time-slot number verification.

Format 3 gives a failure response pertaining to the input message used to start or convert (to split) an RDTA session. Information from the message is shown to relate requested session input to this failure message. Again, as in Format 2, the failure message is supplemented with a failure point number to identify the point in software where failure occurred.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

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+ = Assigned to a multipoint interface.

a = Session number given to the requested session. Sessions are numbered sequentially from 1 through 99. At 99, the numbers will be recycled starting from 1 again.

b = Response to EXC:RDTA input message. Valid value(s):

ALREADY ACTIVE = An RDTA session of this type on the requested port is already active.

BRI D-CHANNEL QTS CONFLICT = Only one monitor of a basic rate interface (BRI) D-channel may be established per directly-connected peripheral interface data bus (DPIDB) timeslot on a particular shelf. A second BRI D-channel monitor has been requested that uses the same DPIDB timeslot and shelf as the existing BRI D-channel monitor. For this second monitor to exist the previous one must be removed.

BRI LIMIT EXCEEDED FOR THIS SM = Only a certain number recent changeable of BRI RDTA sessions are allowed per SM. This limit has already been reached and therefore, a new BRI session is not allowed for that SM. Refer to RC/V View 8.1.

CAMP-ON TIMEOUT ON PUT = One of two situations occurred. In the case of splitting a primary rate interface (PRI) D-channel, a camp-on failed to get ownership of the D-channel. In the case of splitting a packet trunk member, an attempt was made to camp onto this member for a small segment of time in order to wait for traffic to cease. The timeout occurred before the member was idle. The UCL option on EXC:RDTA input message will set up the connection unconditionally.

CMP UNAVAILABLE = The communication module (CM) required to set up the requested RDTA session is isolated.

COMPLETED = The EXC:RDTA input message was accepted and a successful RDTA session has been established or converted to split.

COMPLETED-QTS CHANGED = The request was accepted and successful for selecting the quarter section of a 64kb time-slot when placing the BRI D-channel PUT data on the pseudo BRI D-channel at the output facility.

CORRUPTED DYNAMIC DATA = Dynamic data has been corrupted. Look at receive-only printer (ROP) for a related assert to give assistance toward correcting the office dependent data (ODD) problem. Audits will correct any RDTA session/data inconsistency.

CORRUPTED STATIC DATA = Static data has been corrupted. Look at ROP for a related assert to give assistance toward correcting the ODD problem. Audits will correct any RDTA session/data inconsistency.

COULD NOT ACTIVATE PUT = Could not activate the PUT. This could be due to unavailable resources, hardware problems and/or the port's being out of service due to a diagnostic or facility failure.

COULD NOT ACTIVATE TAP = Could not activate the test access port (TAP). This could be due to unavailable resources, hardware problems and/or the port's being out of service due to a diagnostic or facility failure.

CUSTID PARAMETER REQUIRED = The CUSTID parameter must be specified on the EXC:RDTA input message in order to successfully route to the output facilities. It was determined that the INDN and/or OUTDN directory numbers route over leased network inter-switch trunks that require automatic route selection (ARS) type of routing.

DATA RATE MISMATCH - TAP = The data rate of the PUT does not match the data rate of the TAP.

DATA RATE MISMATCH - UMBILICAL = The data rate of the umbilical between the host switching module (HSM) and the remote switching module (RSM) does not match either the data rate of the PUT or the TAP.

DIGIT ANALYSIS FAILURE = This error occurred either because an invalid digit analysis selector (DAS) was given on input request, the RDTA default DAS and/or screening index

has been populated incorrectly (RC/V View 8.1), or the ODD is not set up correctly.

`FAILED CALL SETUP - TAP TO CPE` = The RDTA session could not be established because of a failure in setting up a call from an RDTA PRI to a PRI simulator, such as a PRISM.

`HARDWARE TROUBLE` = One or more peripherals responded in error. These include such peripherals as the (remote) integrated services line unit RISLU/ISLU and the packet switching unit (PSU). Investigate the problems seen in the RISLU/ISLU or PSU of the PUT or any problems in the RISLU/ISLU of the TAP(s).

`INDN/OUTDN TRANSLATION FAILURE` = The digits that were specified for the INDN and/or the OUTDN are not in the ODD. This is equivalent to having a call type of "vacant."

`INPUT ERROR` = Some data entered in the input message was invalid or incorrect.

`INTERRUPT RECEIVED` = The RDTA session has been preempted or interrupted due to an abnormal event. This abnormal event could be hardware out of service, carrier group alarm, and so forth.

`INVALID PUT` = The port could not be located in the database. The port identifier used in the input message was found to be invalid or incorrect.

`INVALID PUT STATE` = The state of the PUT is not acceptable to establish the requested RDTA connection. For a D-channel PRI provisioned with D-channel backup (DCBU), the requested D-channel was either not in-service (IS) or out-of-service blocked for automatic reasons (OOS-BLKD-AUTO), or the mate D-channel was not manually removed from service.

`LOCAL ROUTING FAILURE` = The switching module (SM) of the PUT could not route from the PUT to the TAP(s). Therefore, routing failed within the switch where the session was to take place.

`LOCAL ROUTING FAILURE - REORDER` = An attempt to route to the TAPs, the INDN or OUTDN routed to REORDER. There are several possible reasons why this failure could occur. The RPA screening index populated on RC/V View 8.1 may not be correct for routing to the INDN or OUTDN directory number specified. A call will be routed to REORDER when all members of an outgoing trunk group are busy or out-of-service.

`MISSING ODD DATA` = The necessary office dependent data is not populated to successfully route to the output facilities or set up the session. This failure reason will occur if data is not populated in one of the following relations: RLNET_GPID (RC/V Views 10.5 and 10.27).

`MISSING OUTPUT FACILITY DN` = One of the necessary output facility DN(s) was not found on the input request as demanded by the mode specified for the session. For example, the INDN was used instead of OUTDN to specify the output facility for a SPLITPH session.

`MODE NOT ALLOWED ON PUT` = This mode can not be used on this particular port. For example, splits can not be performed on a basic rate interface (BRI).

`MONITOR NOT ACTIVE` = An attempt was made to select the quarter section of a 64kb time-slot to place the BRI D-channel PUT data onto a pseudo BRI D-channel (Format 2 of EXC:RDTA input message). This attempt was made without having an active RDTA monitor connection established on the pseudo BRI D-channel.

`NETWORK ROUTING FAILURE` = The RDTA session could not be established because of a failure in setting up a call through the network over a CCS7 ISUP trunk or userside PRI.

`NO CUSTID ALLOWED - POTS ROUTING` = The customer ID must not be specified when routing to output facilities located in the same switch where the PUT resides. POTS routing is always used for intra-switch routing.

`NO MONITOR OR DN NOT PRESENT` = A request was made to set up an RDTA session where the mode was of a split type. The output facility DN(s) was/were not included. Since a monitor can be converted to split without need of entering the DN(s), the switch did not know whether a conversion was intended (in which case there was no monitor)

or the DN(s) was/were forgotten (in the case where a split was being started from scratch).

`NO NETWORK TIME SLOTS AVAIL` = The required network time-slots on the time-slot interchange unit (TSIU) are not available to set up the requested RDTA session.

`NO PERIPHERAL TIME SLOTS AVAIL` = The required peripheral time-slots on the TSIU are not available to set up the requested RDTA session. The necessary peripheral time-slots are either nailed-up or the free pool of time-slots have been completely exhausted.

`NO PIDB TIME SLOTS EQUIPPED` = Peripheral time-slots required to set up the RDTA session are not allocated in the ODD. Refer to RC/V Views 22.2 and 22.3 with respect to this equipage.

`NO PIDB TIME SLOTS AVAIL` = Peripheral timeslots needed to monitor BRI packet B-channel, on-demand B-channel (ODB), or BRI D-channels have not been sufficiently allocated. Two timeslots are needed for each monitoring session and are allocated on a per-shelf basis. Refer to RC/V Views 22.2 and 22.3 with respect to this equipage.

`NON-RDTA BRIDGE ALREADY EXISTS` = A bridge already exists on the PUT which was given. Therefore, an RDTA port under test bridge (PUTBRG) process, which is required to set up this RDTA connection, can not be established. The current bridge could involve a trunk and line workstation (TLWS) or busy verify connection.

`NON-UNIQUE NXX DN` = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.

`NOT A PSEUDO BRI D-CHANNEL` = An attempt was made to select the quarter section of a 64kb time-slot to place the BRI D-channel PUT data onto an output facility other than a pseudo BRI D-channel (Format 2 of EXC:RDTA input message). A quarter time-slot modification may only be made on a pseudo BRI D-channel.

`OFFICE LIMIT EXCEEDED` = There can be up to 24 active RDTA sessions running simultaneously in an office. This limit has been reached and therefore, the requested session cannot be established.

`OUTPUT FACILITY DN MISMATCH` = When the conversion to split was attempted, the output facility DN(s) given on the input request did not match those of the existing monitor.

`PATH EXISTS ON PUT` = This message applies only when a mode of DTAC is selected. The DTAC mode demands that there be no path set up on the PUT. The PUT currently has a path set up on it.

`PATH UNAVAIL FOR ACCESS` = All monitors and splits require that there be a path up on the PUT in order for a monitor or split to be established. Currently, there is no path up to monitor or split.

`PORT INVOLVED IN RDTA SESSION` = An attempt to set up an RDTA session on a port that is already involved in an RDTA session. Blocking of the requested session is done so the software data structures of the active session are on corrupted.

`PROCESS TIMEOUT` = An RDTA administrative module (AM) or SM process timed out after waiting for an SM process to respond. This condition occurred because of an SM overload condition, an SM isolation, or an internal software error.

`PUT OWNERSHIP FAILURE` = Could not get ownership of the specified PUT as given on the input request. This may occur when a DTAC or split type mode has been selected.

`PUT PATH FAILURE` = An attempt to set up a path to the PUT failed.

`QTS ALREADY SET` = The correct quarter time-slot has automatically been selected by the switch for placement onto the pseudo BRI D-channel output facilities with respect to this particular RDTA session.

`RESOURCE FAILURE` = Could not obtain the necessary path resources to set up this connection.

`SIGNALING LINK FAILURE` = The out-of-band signaling link is out of service. This signaling link is required to set up the requested DTAC on the given PUT.

`SM UNAVAILABLE` = One of the SMs required to set up the requested RDTA session is isolated.

`SYSTEM BUSY` = System resources are not available to set up the requested connection. The AM or SM may be in an overload condition.
`SYSTEM ERROR` = Internal system error occurred while establishing the requested RDTA session.
`TAP BUSY OR OOS` = The TAP which is needed for this RDTA connection is currently busy or it is out of service.
`TAP INVALID` = The TAP is not a valid TAP.
`TAP PATH FAILURE` = An attempt failed to set up a path either to the ITAP or the OTAP or both.
`TEST DENIED - PVC ACTIVE ON PUT` = The request has been rejected. A permanent virtual circuit is currently active on the PUT ST an RDTA split connection cannot be established on this PUT.
`TEST DENIED DUE TO PSML` = The request has been rejected because the packet switch maintenance limit has been exceeded. The requested RDTA split connection could not be honored because there are no other in service (IS) internal protocol (IP) trunks to which the PUT can dynamically route traffic.
`UNAUTHORIZED OUTPUT FACILITY DN` = The directory number (DN) specified for the output facility (INDN or OUTDN) is not in the database. RC/V Views 22.17 or 22.18 may be checked to get the list of authorized DNs.
`UCL OPTION REQUIRED` = In order to set up the requested RDTA session, the UCL option on the EXC:RDTA input message must be specified.
`UNSUPPORTED RDTA PUT TYPE` = The specified PUT is currently not supported by the RDTA feature.

`c` = Service group and member numbers. Valid value(s):

```
BST=d-e
MLHG=f-g
OAPO=d
OPT=d-e
RTRS=h-i
TKGMN=j-k
```

`d` = Operator service center number.

`e` = Relative position number.

`f` = Multi-line hunt group number.

`g` = Multi-line hunt group member number.

`h` = Data link relative group number.

`i` = Data link relative member number.

`j` = Trunk group number.

`k` = Trunk group member number.

`l` = Equipment number. Valid value(s):

DEN=m-n-o-p
ILEN=m-q-r-s
LCEN=m-t-u-v
LCKEN=m-t-t^1-m^1-n^1
NEN=m-o^1-p^1-q^1-r^1-s^1

`m` = SM number.

`n` = Digital line and trunk unit (DLTU) number.

`o` = Digital facility interface number.

`p` = Digital channel.

`q` = Integrated digital carrier unit number.

`r` = Remote terminal number.

`s` = Channel unit number.

`t` = Integrated services line unit number.

`u` = Line group controller number.

`v` = Line card number.

`w` = Directory number. Valid value(s):

```
DN=w[+]
PKTDN=w[+]
```

`y` = Channel type (for basic rate interface BRI). Valid value(s):

`B1`	= B1-Channel.
`B2`	= B2-Channel.
`D`	= D-Channel.

`z` = Digit analysis selector (routing domain) to be used to specify the correct set of digit analysis tables to translate INDN and OUTDN. This parameter will override the office's default DAS for RDTA.

`a`[1] = DN of the output facility where the protocol analyzer is connected to access the test data sent over the PUT to the switch. This direction will be known as incoming. Data sent from the analysis equipment for interaction with the PUT will therefore originate from INDN for all interactive mode connections excepting the SPLITPH connection.

`b`[1] = SM number of the port which corresponds to the INDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

`c`[1] = Logical port number of the port which corresponds to the INDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

`d`[1] = DN of the output facility where the protocol analyzer is connected to access the test data sent from the switch to the PUT. This direction will be known as outgoing. Data sent from the analysis equipment for interaction with the switch will therefore originate from OUTDN for the SPLIT and SPLITPH connections.

`e`[1] = SM number of the port which corresponds to the OUTDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

`f`[1] = Logical port number of the port which corresponds to the OUTDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

g[1] = Connection mode of the RDTA session. Valid value(s):

- DTAC = Direct test access connection (DTAC). This is an interactive connection on a port that does not have a path set up on it. The PUT is seized and directly connected to a outgoing port terminating at the protocol analysis equipment.
- MON = Monitor. This is a receive-only connection on a busy circuit. A copy of the transmit and receive data being passed over the PUT is transmitted to two individual outgoing ports that terminate at the protocol analysis equipment.
- SPLIT = Duplex split. This is an interactive connection on a busy circuit. The existing path on the PUT is broken and each half is connected to an outgoing port terminated at the protocol analysis equipment. This allows interactive testing of both sides of the original path.
- SPLITPH = Simplex split protocol handler (PH) side. This is an interactive connection on an integrated services digital network (ISDN) channel nailed-up to a PH. The existing path on the ISDN channel is torn down and the PH associated with the channel being tested is directly connected to an outgoing port terminating to the protocol analysis equipment.
- SPLITPUT = Simplex split PUT side. This is an interactive connection on a busy circuit. The existing path on the PUT is broken and the PUT is directly connected to an outgoing port terminating to the protocol analysis equipment.

h[1] = The quarter time-slot (QTS) (16 kb/s section) of a 64 kb/s unrestricted channel. This output facility pseudo BRI D-channel quarter time-slot corresponds to the quarter time-slot carrying the BRI D-channel data, the PUT data, to the PH.

i[1] = Remaining time for which the session will continue operating before the session will be automatically aborted, in the form days (with a space between) hours:minutes:seconds. If the session has been set for an infinite duration, the time field will be printed as INFINITE. The session may be extended by using the UPD:RDTA input message.

j[1] = The billing directory number that will be passed through the network when routing to the output facilities located in another LATA.

k[1] = The customer identification used to perform ARS type of routing when routing over leased network inter-switch trunks to output facilities located in a different switch from the PUT.

l[1] = Fail point number used to relay the specific point in the software at which a failure occurred. This is used purely for debugging purposes.

m[1] = Line board number.

n[1] = Line circuit number.

o[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

p[1] = Data group (DG) number.

q[1] = Synchronous transport signal (STS) number.

r[1] = Virtual tributary (VT1.5) number.

s[1] = Digital signal level 0 (DS0) number.

t[1] = Line group number.

4. ACTION TO BE TAKEN

If a successful RDTA session was established, then the output facility ports should give access to the monitor/interactive RDTA connection. If a BRI D-channel is being tested on a different switch than the output facility switch, then the correct quarter time-slot will have to be selected on the switch where the output facility is located using Format 2 of the EXC:RDTA input message.

If the completion code indicates a failure in establishing the requested RDTA connection, investigate the cause of the failure, eliminate the problem and re-attempt to set up or convert the connection.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:RDTA
OP:RDTA
STP:RDTA
UPD:RDTA
VFY:RDTA
```

Output Message(s):

```
OP:RDTA
STP:RDTA
UPD:RDTA
VFY:RDTA
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-190-105 *ISDN Feature Descriptions*
235-900-30x *ISDN Basic Rate Interface Specification*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
10.5 (AUTOMATIC ROUTE SELECTION GROUP PARAMETERS)
10.27 (LEASED NETWORK ARS GROUP DEFINITION)
22.2 (EQUIPMENT UNIT - PACKET SWITCH UNIT)
22.3 [EQUIPMENT UNIT - PACKET SWITCH UNIT SHELF (1-4)]
22.17 (REMOTE DIGITAL TEST ACCESS PORT/TN ASSIGNMENT)
22.18 (REMOTE DIGITAL TEST ACCESS TN REMARKS)

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EXC:RDTA-B

Software Release: 5E12 and later
Message Class: RDTA
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EXC RDTA SESSION=a b
        [c] [l] [w] [y]
        [DAS=z] [INDN=a1 ITAP=b1-c1] [OUTDN=d1 OTAP=e1-f1]
        MODE=g1 [QTS=h1]  TIME REMAINING=i1 i1i1:i1i1:i1i1
        [BDN=j1] [CUSTID=k1]

[2]   ____________________________________________________________________
      EXC RDTA b [FP=l1]
         INDN=a1 OUTDN=d1 QTS=h1

[3]   ____________________________________________________________________
      EXC RDTA b FP=l1
        [c] [l] [w] [y]
        [DAS=z] [INDN=a1] [OUTDN=d1]
            MODE=g1
```

2. REASON FOR OUTPUT

To respond to a manual request to set up or convert (to split) a remote digital test access (RDTA) connection between the port under test (PUT) and the protocol analysis equipment.

Format 1 is a response to a request to start a new session or convert an existing session. The first line shows the session number and the successful start or conversion of the session. The second line describes the PUT in the various port identifications which are applicable to the PUT. The third line shows the output facility information defining routing for the RDTA connection and where the protocol analysis equipment is located. Acronyms are as follows: incoming directory number (INDN), incoming test access port (ITAP), outgoing DN (OUTDN), and outgoing test access port (OTAP). The fourth line shows the type of connection and quarter time-slot, if applicable, along with the remaining session time. The fifth line shows the billing DN, if applicable. Format 2 is a response to a request to select the quarter section of a 64kb time-slot for placement onto the pseudo BRI D-channel output facility. The first line shows success/failure status information and a failure point number to identify the point in software where failure occurred. The second line shows output facility location identification and quarter time-slot number verification. Format 3 gives a failure response pertaining to the input message used to start or convert (to split) an RDTA session. Information from the message is shown to relate requested session input to this failure message. Again, as in Format 2, the failure message is supplemented with a failure point number to identify the point in software where failure occurred.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

+ = Assigned to a multipoint interface.

a = Session number given to the requested session. Sessions are numbered sequentially from 1

through 99. At 99, the numbers will be recycled starting from 1 again.

b = Response to EXC:RDTA input message. Valid value(s):

`ALREADY ACTIVE` = An RDTA session of this type on the requested port is already active.

`BRI D-CHANNEL QTS CONFLICT` = Only one monitor of a basic rate interface (BRI) D-channel may be established per directly-connected peripheral interface data bus (DPIDB) timeslot on a particular shelf. A second BRI D-channel monitor has been requested that uses the same DPIDB timeslot and shelf as the existing BRI D-channel monitor. For this second monitor to exist the previous one must be removed.

`BRI LIMIT EXCEEDED FOR THIS SM` = Only a certain number recent changeable of BRI RDTA sessions are allowed per SM. This limit has already been reached and therefore, a new BRI session is not allowed for that SM. Refer to RC/V View 8.1.

`CAMP-ON TIMEOUT ON PUT` = One of two situations occurred. In the case of splitting a primary rate interface (PRI) D-channel, a camp-on failed to get ownership of the D-channel. In the case of splitting a packet trunk member, an attempt was made to camp onto this member for a small segment of time in order to wait for traffic to cease. The timeout occurred before the member was idle. The UCL option on EXC:RDTA input message will set up the connection unconditionally.

`CMP UNAVAILABLE` = The communication module (CM) required to set up the requested RDTA session is isolated.

`COMPLETED` = The EXC:RDTA input message was accepted and a successful RDTA session has been established or converted to split.

`COMPLETED-QTS CHANGED` = The request was accepted and successful for selecting the quarter section of a 64kb time-slot when placing the BRI D-channel PUT data on the pseudo BRI D-channel at the output facility.

`CORRUPTED DYNAMIC DATA` = Dynamic data has been corrupted. Look at receive-only printer (ROP) for a related assert to give assistance toward correcting the office dependent data (ODD) problem. Audits will correct any RDTA session/data inconsistency.

`CORRUPTED STATIC DATA` = Static data has been corrupted. Look at ROP for a related assert to give assistance toward correcting the ODD problem. Audits will correct any RDTA session/data inconsistency.

`COULD NOT ACTIVATE PUT` = Could not activate the PUT. This could be due to unavailable resources, hardware problems and/or the port's being out of service due to a diagnostic or facility failure.

`COULD NOT ACTIVATE TAP` = Could not activate the test access port (TAP). This could be due to unavailable resources, hardware problems and/or the port's being out of service due to a diagnostic or facility failure.

`CUSTID PARAMETER REQUIRED` = The CUSTID parameter must be specified on the EXC:RDTA input message in order to successfully route to the output facilities. It was determined that the INDN and/or OUTDN directory numbers route over leased network inter-switch trunks that require automatic route selection (ARS) type of routing.

`DATA RATE MISMATCH - TAP` = The data rate of the PUT does not match the data rate of the TAP.

`DATA RATE MISMATCH - UMBILICAL` = The data rate of the umbilical between the host switching module (HSM) and the remote switching module (RSM) does not match either the data rate of the PUT or the TAP.

`DIGIT ANALYSIS FAILURE` = This error occurred either because an invalid digit analysis selector (DAS) was given on input request, the RDTA default DAS and/or screening index has been populated incorrectly (RC/V View 8.1), or the ODD is not set up correctly.

`FAILED CALL SETUP - TAP TO CPE` = The RDTA session could not be established because of a failure in setting up a call from an RDTA PRI to a PRI simulator, such as a

PRISM.

`HARDWARE TROUBLE` = One or more peripherals responded in error. These include such peripherals as the integrated services line unit (ISLU), remote integrated services line unit (RISLU), and the packet switching unit (PSU). Investigate the problems seen in the RISLU/ISLU or PSU of the PUT or any problems in the RISLU/ISLU of the TAP(s).

`INDN/OUTDN TRANSLATION FAILURE` = The digits that were specified for the INDN and/or the OUTDN are not in the ODD. This is equivalent to having a call type of "vacant."

`INPUT ERROR` = Some data entered in the input message was invalid or incorrect.

`INTERRUPT RECEIVED` = The RDTA session has been preempted or interrupted due to an abnormal event. This abnormal event could be hardware out of service, carrier group alarm, and so forth.

`INVALID PUT` = The port could not be located in the database. The port identifier used in the input message was found to be invalid or incorrect.

`INVALID PUT STATE` = The state of the PUT is not acceptable to establish the requested RDTA connection. For a D-channel PRI provisioned with D-channel backup (DCBU), the requested D-channel was either not in-service (IS) or out-of-service blocked for automatic reasons (OOS-BLKD-AUTO), or the mate D-channel was not manually removed from service.

`LOCAL ROUTING FAILURE` = The switching module (SM) of the PUT could not route from the PUT to the TAP(s). Therefore, routing failed within the switch where the session was to take place.

`LOCAL ROUTING FAILURE - REORDER` = An attempt to route to the TAPs, the INDN or OUTDN routed to REORDER. There are several possible reasons why this failure could occur. The RPA screening index populated on RC/V View 8.1 may not be correct for routing to the INDN or OUTDN directory number specified. A call will be routed to REORDER when all members of an outgoing trunk group are busy or out-of-service.

`MISSING ODD DATA` = The necessary office dependent data is not populated to successfully route to the output facilities or set up the session. This failure reason will occur if data is not populated in one of the following relations: RLNET_GPID (RC/V Views 10.5 and 10.27).

`MISSING OUTPUT FACILITY DN` = One of the necessary output facility DN(s) was not found on the input request as demanded by the mode specified for the session. For example, the INDN was used instead of OUTDN to specify the output facility for a SPLITPH session.

`MODE NOT ALLOWED ON PUT` = This mode can not be used on this particular port. For example, splits can not be performed on a BRI.

`MONITOR NOT ACTIVE` = An attempt was made to select the quarter section of a 64kb time-slot to place the BRI D-channel PUT data onto a pseudo BRI D-channel (Format 2 of EXC:RDTA input message). This attempt was made without having an active RDTA monitor connection established on the pseudo BRI D-channel.

`NETWORK ROUTING FAILURE` = The RDTA session could not be established because of a failure in setting up a call through the network over a CCS7 ISUP trunk or userside PRI.

`NO CUSTID ALLOWED - POTS ROUTING` = The customer ID must not be specified when routing to output facilities located in the same switch where the PUT resides. POTS routing is always used for intra-switch routing.

`NO MONITOR OR DN NOT PRESENT` = A request was made to set up an RDTA session where the mode was of a split type. The output facility DN(s) was/were not included. Since a monitor can be converted to split without need of entering the DN(s), the switch did not know whether a conversion was intended (in which case there was no monitor) or the DN(s) was/were forgotten (in the case where a split was being started from scratch).

`NO NETWORK TIME SLOTS AVAIL` = The required network time-slots on the time-slot interchange unit (TSIU) are not available to set up the requested RDTA session.

`NO PERIPHERAL TIME SLOTS AVAIL` = The required peripheral time-slots on the TSIU are not available to set up the requested RDTA session. The necessary peripheral time-slots are either nailed-up or the free pool of time-slots have been completely exhausted.

`NO PIDB TIME SLOTS EQUIPPED` = Peripheral time-slots required to set up the RDTA session are not allocated in the ODD. Refer to RC/V Views 22.2 and 22.3 with respect to this equipage.

`NO PIDB TIME SLOTS AVAIL` = Peripheral timeslots needed to monitor BRI packet B-channel, on-demand B-channel (ODB), or BRI D-channels have not been sufficiently allocated. Two timeslots are needed for each monitoring session and are allocated on a per-shelf basis. Refer to RC/V Views 22.2 and 22.3 with respect to this equipage.

`NON-RDTA BRIDGE ALREADY EXISTS` = A bridge already exists on the PUT which was given. Therefore, an RDTA port under test bridge (PUTBRG) process, which is required to set up this RDTA connection, can not be established. The current bridge could involve a trunk and line workstation (TLWS) or busy verify connection.

`NON-UNIQUE NXX DN` = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.

`NOT A PSEUDO BRI D-CHANNEL` = An attempt was made to select the quarter section of a 64kb time-slot to place the BRI D-channel PUT data onto an output facility other than a pseudo BRI D-channel (Format 2 of EXC:RDTA input message). A quarter time-slot modification may only be made on a pseudo BRI D-channel.

`OFFICE LIMIT EXCEEDED` = There can be up to 24 active RDTA sessions running simultaneously in an office. This limit has been reached and therefore, the requested session cannot be established.

`OUTPUT FACILITY DN MISMATCH` = When the conversion to split was attempted, the output facility DN(s) given on the input request did not match those of the existing monitor.

`PATH EXISTS ON PUT` = This message applies only when a mode of DTAC is selected. The DTAC mode demands that there be no path set up on the PUT. The PUT currently has a path set up on it.

`PATH UNAVAIL FOR ACCESS` = All monitors and splits require that there be a path up on the PUT in order for a monitor or split to be established. Currently, there is no path up to monitor or split.

`PORT INVOLVED IN RDTA SESSION` = An attempt to set up an RDTA session on a port that is already involved in an RDTA session. Blocking of the requested session is done so the software data structures of the active session are on corrupted.

`PROCESS TIMEOUT` = An RDTA administrative module (AM) or SM process timed out after waiting for an SM process to respond. This condition occurred because of an SM overload condition, an SM isolation, or an internal software error.

`PUT OWNERSHIP FAILURE` = Could not get ownership of the specified PUT as given on the input request. This may occur when a DTAC or split type mode has been selected.

`PUT PATH FAILURE` = An attempt to set up a path to the PUT failed.

`QTS ALREADY SET` = The correct quarter time-slot has automatically been selected by the switch for placement onto the pseudo BRI D-channel output facilities with respect to this particular RDTA session.

`RESOURCE FAILURE` = Could not obtain the necessary path resources to set up this connection.

`SIGNALING LINK FAILURE` = The out-of-band signaling link is out of service. This signaling link is required to set up the requested DTAC on the given PUT.

`SM UNAVAILABLE` = One of the SMs required to set up the requested RDTA session is isolated.

`SYSTEM BUSY` = System resources are not available to set up the requested connection. The AM or SM may be in an overload condition.

`SYSTEM ERROR` = Internal system error occurred while establishing the requested RDTA session.
`TAP BUSY OR OOS` = The TAP which is needed for this RDTA connection is currently busy or it is out of service.
`TAP INVALID` = The TAP is not a valid TAP.
`TAP PATH FAILURE` = An attempt failed to set up a path either to the ITAP or the OTAP or both.
`TEST DENIED - PVC ACTIVE ON PUT` = The request has been rejected. A permanent virtual circuit is currently active on the PUT ST an RDTA split connection cannot be established on this PUT.
`TEST DENIED DUE TO PSML` = The request has been rejected because the packet switch maintenance limit has been exceeded. The requested RDTA split connection could not be honored because there are no other in service (IS) internal protocol (IP) trunks to which the PUT can dynamically route traffic.
`UNAUTHORIZED OUTPUT FACILITY DN` = The directory number (DN) specified for the output facility (INDN or OUTDN) is not in the database. RC/V Views 22.17 or 22.18 may be checked to get the list of authorized DNs.
`UCL OPTION REQUIRED` = In order to set up the requested RDTA session, the UCL option on the EXC:RDTA input message must be specified.
`UNSUPPORTED RDTA PUT TYPE` = The specified PUT is currently not supported by the RDTA feature.

`c` = Service group and member numbers. Valid value(s):

BST=d-e
MLHG=f-g
OAPO=d
OPT=d-e
RTRS=h-i
TKGMN=j-k

`d` = Operator service center number.

`e` = Relative position number.

`f` = Multi-line hunt group number.

`g` = Multi-line hunt group member number.

`h` = Data link relative group number.

`i` = Data link relative member number.

`j` = Trunk group number.

`k` = Trunk group member number.

`l` = Equipment number. Valid value(s):

AIUEN=m-t-m^1-n^1
DEN=m-n-o-p
ILEN=m-q-r-s
LCEN=m-t-u-v
LCKEN=m-t-v^1-m^1-n^1
NEN=m-o^1-p^1-q^1-r^1-s^1-t^1-u^1
INEN=m-o^1-r-s

m = SM number.

n = Digital line and trunk unit (DLTU) number.

o = Digital facility interface number.

p = Digital channel.

q = Integrated digital carrier unit number.

r = Remote terminal number.

s = Channel unit number.

t = Integrated services line unit (ISLU) or access interface unit (AIU) number.

u = Line group controller number.

v = Line card number.

w = Directory number. Valid value(s):

DN=w[+]
PKTDN=w[+]

y = Channel type (for BRI). Valid value(s):

- B1 = B1-Channel.
- B2 = B2-Channel.
- D = D-Channel.

z = Digit analysis selector (routing domain) to be used to specify the correct set of digit analysis tables to translate INDN and OUTDN. This parameter will override the office's default DAS for RDTA.

a[1] = DN of the output facility where the protocol analyzer is connected to access the test data sent over the PUT to the switch. This direction will be known as incoming. Data sent from the analysis equipment for interaction with the PUT will therefore originate from INDN for all interactive mode connections excepting the SPLITPH connection.

b[1] = SM number of the port which corresponds to the INDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

c[1] = Logical port number of the port which corresponds to the INDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

d[1] = DN of the output facility where the protocol analyzer is connected to access the test data sent from the switch to the PUT. This direction will be known as outgoing. Data sent from the analysis equipment for interaction with the switch will therefore originate from OUTDN for the SPLIT and SPLITPH connections.

e[1] = SM number of the port which corresponds to the OUTDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

f[1] = Logical port number of the port which corresponds to the OUTDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

g[1] = Connection mode of the RDTA session. Valid value(s):

DTAC	= Direct test access connection (DTAC). This is an interactive connection on a port that does not have a path set up on it. The PUT is seized and directly connected to a outgoing port terminating at the protocol analysis equipment.
MON	= Monitor. This is a receive-only connection on a busy circuit. A copy of the transmit and receive data being passed over the PUT is transmitted to two individual outgoing ports that terminate at the protocol analysis equipment.
SPLIT	= Duplex split. This is an interactive connection on a busy circuit. The existing path on the PUT is broken and each half is connected to an outgoing port terminated at the protocol analysis equipment. This allows interactive testing of both sides of the original path.
SPLITPH	= Simplex split protocol handler (PH) side. This is an interactive connection on an integrated services digital network (ISDN) channel nailed-up to a PH. The existing path on the ISDN channel is torn down and the PH associated with the channel being tested is directly connected to an outgoing port terminating to the protocol analysis equipment.
SPLITPUT	= Simplex split PUT side. This is an interactive connection on a busy circuit. The existing path on the PUT is broken and the PUT is directly connected to an outgoing port terminating to the protocol analysis equipment.

h[1] = The quarter time-slot (QTS) (16 kb/s section) of a 64 kb/s unrestricted channel. This output facility pseudo BRI D-channel quarter time-slot corresponds to the quarter time-slot carrying the BRI D-channel data, the PUT data, to the PH.

i[1] = Remaining time for which the session will continue operating before the session will be automatically aborted, in the form days (with a space between) hours:minutes:seconds. If the session has been set for an infinite duration, the time field will be printed as INFINITE. The session may be extended by using the UPD:RDTA input message.

j[1] = The billing directory number that will be passed through the network when routing to the output facilities located in another LATA.

k[1] = The customer identification used to perform ARS type of routing when routing over leased network inter-switch trunks to output facilities located in a different switch from the PUT.

l[1] = Fail point number used to relay the specific point in the software at which a failure occurred. This is used purely for debugging purposes.

m[1] = Line board number.

n[1] = Line circuit number.

o[1] = Digital networking unit - sybnchronous optical network (SONET) (DNU-S) number.

p[1] = Data group (DG) number.

q[1] = SONET termination equipment (STE) facility number.

r[1] = Synchronous transport signal (STS) facility number.

s[1] = Virtual tributary group (VTG) number.

t[1] = Virtual tributary member (VTM) number.

u[1] = Digital signal level 0 (DS0) number.

v[1] = Line group number.

4. ACTIONS TO BE TAKEN

If a successful RDTA session was established, then the output facility ports should give access to the monitor/interactive RDTA connection. If a BRI D-channel is being tested on a different switch than the output facility switch, then the correct quarter time-slot will have to be selected on the switch where the output facility is located using Format 2 of the EXC:RDTA input message.

If the completion code indicates a failure in establishing the requested RDTA connection, investigate the cause of the failure, eliminate the problem and re-attempt to set up or convert the connection.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:RDTA
OP:RDTA
STP:RDTA
UPD:RDTA
VFY:RDTA
```

Output Message(s):

```
OP:RDTA
STP:RDTA
UPD:RDTA
VFY:RDTA
```

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-190-105 *ISDN Feature Descriptions*
235-900-301 *ISDN Basic Rate Interface Specification*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
10.5 (AUTOMATIC ROUTE SELECTION GROUP PARAMETERS)
10.27 (LEASED NETWORK ARS GROUP DEFINITION)
22.2 (EQUIPMENT UNIT - PACKET SWITCH UNIT)
22.3 [EQUIPMENT UNIT - PACKET SWITCH UNIT SHELF (1-4)]
22.17 (REMOTE DIGITAL TEST ACCESS PORT/TN ASSIGNMENT)
22.18 (REMOTE DIGITAL TEST ACCESS TN REMARKS)

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EXC:REMACS

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
EXC REMACS
  AUDIT IS a
  [CURRENT CYCLE COUNT IS b]
  FREQ IS ONCE PER c REMACS INVOCATIONS(S)
```

2. REASON FOR OUTPUT

Reports the result of the EXC:REMACS input request. It will indicate whether or not the input message was executed as requested and the reason for failure if required.

3. VARIABLE FIELD DEFINITIONS

`a` = State of the audit. Valid value(s):
`ALLOWED`
`INHIBITED`
`INHIBITED AND CYCLING`

`b` = Number of times the audit has cycled.

`c` = Period of invocation.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`EXC:REMACS`

Other Manual(s):
235-105-231 *Hardware Change Procedures - Growth*
235-190-120 *Common Channel Signaling and Associated Signaling Service Features*

EXC:REX

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
EXC REX {CM|SM=a} b c
```

2. REASON FOR OUTPUT

To inform the user that routine exercise (REX) for a valid test type has started, completed, or stopped in the switching module (SM) or the communication module (CM).

3. VARIABLE FIELD DEFINITIONS

`a` = Number of the SM for which REX is to start, complete, or stop.

`b` = The REX test type. Valid value(s):

`DGN`	= Diagnostic tests.
`ELS`	= Electronic loop segregation (ELS) tests.
`FAB`	= Fabric exercise tests of grids.
`SWITCH`	= Switch of administrative module hardware.

`c` = Completion code. Valid value(s):

`COMPLETED`	= Routine exercise tests in the hardware based in a given SM or the CM have completed.
`STARTED`	= Tests have started.
`STOPPED`	= Tests have stopped due to a manual stop message or time has expired for tests from recent change and verify (RCV).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`EXC:REX-CM-SM`

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EXC:RG1AUD

Software Release: 5E11 and later
Message Class: CCS
Application: 5,CNI
Type: Output

1. FORMAT

```
EXC:RG1AUD a
```

2. REASON FOR OUTPUT

Prints in response to a EXC:RG1AUD input message.

3. VARIABLE FIELD DEFINITIONS

a = Response for a successful input:

PF = The request was received and will be processed. A printout will follow giving either a termination report or termination report and results of the work initiated by the input message. Additional output that can accompany the PF output:

```
- EXC RG1AUD STARTED
- EXC RG1AUD STOPPED RG1AUD ALREADY RUNNING
- EXC RG1AUD STOPPED RING IS UNSTABLE
- EXC RG1AUD STOPPED INITIALIZATION IN PROGRESS
- EXC RG1AUD STOPPED INVALID REQUEST DATA SENT TO IMS DRIVER
- EXC RG1AUD STOPPED RPC IS BISO OR EISO
- EXC RG1AUD STOPPED PROBLEM WITH IMS DRIVER'S REPLY
ACKNOWLEDGEMENT
```

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None

6. REFERENCES

Input Message(s):

```
EXC:RG1AUD
```

Output Message(s):

```
OP:RG1AUD
REPT:RG1AUD
STOP:RG1AUD
```

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EXC:RT-PROV-A

Software Release: 5E10 - 5E11
Message Class: RT
Application: 5
Type: Output

1. FORMAT

```
EXC:RT,PROV,{TYPE={ALL|GLOBAL|IFAC},{SID=b|LRT=c-d-e}}|
 {TYPE=LINE,ILEN=c-d-e-f} h
```

2. REASON FOR OUTPUT

To report the result of an EXC:RT-PROV input message that requests provisioning of an Integrated Digital Carrier Unit (IDCU). terminated TR303 remote terminal (RT), an analog or digital line on an RT, or a digital signal level 1 (DS1) facility on an RT.

3. VARIABLE FIELD DEFINITIONS

`a` = Type of provisioning request. Valid value(s):

- `ALL` = All provisionable data on an RT.
- `GLOBAL` = Global RT data.
- `IFAC` = A DS1 facility on an IDCURT.
- `LINE` = Analog or digital line.

`b` = Site identification (SID) number of the RT.

`c` = Switching module (SM) number.

`d` = unit number.

`e` = Local RT number.

`f` = Line number on an RT.

`g` = DS1 facility number.

`h` = Completion status. Valid value(s):

- `15 MIN REFRESH ACTIVE - RL` = Retry later. 15 minute automatic refresh of provisioned data is in progress.
- `24 HOUR REFRESH ACTIVE - RL` = Retry later. 24 hour automatic refresh of provisioned data is in progress. Data for all TR303 RT's will be updated during this refresh.
- `ABORTED - EOC OOS` = Retry later. Unavailable system resources to communicate with the RT.
- `COMPLETE - NO TASKS PENDING` = The requested provisioning operation has completed.
- `COMPLETE - TASKS PENDING` = The requested provisioning operation has completed with some failures. Further attempts are made at regular intervals for the specific operations

that failed.

`DATABASE READ FAILURE` = A database read failed when attempting to complete this request.

`INHIBITED - RT MEMORY MISMATCH` = Provisioning is inhibited and cannot take place until the RT memory mismatch condition is corrected.

`INVALID PORT` = The line number requested is not a valid line number for this RT.

`INVALID REQUEST` = The request contained invalid data.

`MAN. REQ. REFRESH ACTIVE - RL` = Retry later. Another manual refresh of provisioned data for an RT associated with this SM is in progress.

`PREEMPTED` = The indicated manual request has been preempted by a higher priority provisioning request.

`PROV FAILURE` = Provisioning has failed. Further attempts will be made at regular intervals.

`RT NOT PROVISIONABLE` = Request failed because switch does not provision this RT as specified in RC/V View 18.15 PROVISIONRT field.

`STARTED` = Work on the requested provisioning operation has started.

`TR303 RT NOT FOUND` = Either the requested RT does not exist in the database or it is not a TR303 RT.

4. ACTIONS TO BE TAKEN

The purpose of this message is to report the result of the action requested by the corresponding input message. No specific action is indicated.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:RT-PROV
OP:RT-PROV
```

Output Message(s):

```
EXC:RT-PROV
OP:RT-PROV
REPT:RT-PROV
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

EXC:RT-PROV-B

Software Release: 5E10 and later
Message Class: RT
Application: 5
Type: Output

1. FORMAT

```
EXC:RT,PROV,{{{{ALL|GLOBAL|IFAC|DS1SFAC},{SID=b|{IDCURT|DNUSRT}=c-d-e}}}|
 {{LINE,{ILEN|INEN}=c-d-e-f}}} h
```

2. REASON FOR OUTPUT

To report the result of an EXC:RT-PROV input message that requests provisioning of an Integrated Digital Carrier Unit (IDCU) or a Digital Network Unit SONET (DNU-S) terminated TR303 remote terminal (RT), an analog or digital line on an RT, or a digital signal level 1 (DS1) facility on an RT.

3. VARIABLE FIELD DEFINITIONS

Type of provisioning request. Valid value(s):

ALL	= All provisionable data on an RT.
GLOBAL	= Global RT data.
IFAC	= A DS1 facility on an IDCURT.
DS1SFAC	= A DS1 facility on an DNUSRT.
LINE	= Analog or digital line data.

b = Site identification (SID) number of the RT.

c = Switching module (SM) number.

d = unit number.

e = Local RT number.

f = Line number on an RT.

g = DS1 facility number.

h = Completion status. Valid value(s):

15 MIN REFRESH ACTIVE - RL = Retry later. 15 minute automatic refresh of provisioned data is in progress.
24 HOUR REFRESH ACTIVE - RL = Retry later. 24 hour automatic refresh of provisioned data is in progress. Data for all TR303 RT's will be updated during this refresh.
ABORTED - EOC OOS = Retry later. Unavailable system resources to communicate with the RT.
COMPLETE - NO TASKS PENDING = The requested provisioning operation has completed.
COMPLETE - TASKS PENDING = The requested provisioning operation has completed with some failures. Further attempts are made at regular intervals for the specific operations that failed.
DATABASE READ FAILURE = A database read failed when attempting to complete this request.
INHIBITED - RT MEMORY MISMATCH = Provisioning is inhibited and cannot take place until the RT memory mismatch condition is corrected.
INVALID PORT = The line number requested is not a valid line number for this RT.
INVALID REQUEST = The request contained invalid data.

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`MAN. REQ. REFRESH ACTIVE - RL` = Retry later. Another manual refresh of provisioned data for an RT associated with this SM is in progress.
`PREEMPTED` = The indicated manual request has been preempted by a higher priority provisioning request.
`PROV FAILURE` = Provisioning has failed. Further attempts will be made at regular intervals.
`RT NOT PROVISIONABLE` = Request failed because switch does not provision this RT as specified in RC/V View 18.15 PROVISIONRT field.
`STARTED` = Work on the requested provisioning operation has started.
`TR303 RT NOT FOUND` = Either the requested RT does not exist in the database or it is not a TR303 RT.

4. ACTION TO BE TAKEN

The purpose of this message is to report the result of the action requested by the corresponding input message. No specific action is indicated.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:RT-PROV
OP:RT-PROV
```

Output Message(s):

```
EXC:RT-PROV
OP:RT-PROV
REPT:RT-PROV
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

EXC:RTRACK

Software Release: 5E11 and later
Message Class: SWM01
Application: CNI
Type: Output

1. FORMAT

```
EXC RTRACK a b
```

2. REASON FOR OUTPUT

To print a response to the EXC:RTRACK input message.

3. VARIABLE FIELD DEFINITIONS

a = Termination status of the input message. Valid value(s):
COMPL
NOT STARTED
STOPPED

b = Reason command did not complete. Valid value(s):

If 'a' =	'b' =
NOT STARTED	IMS INITIALIZATION IN PROGRESS INVALID NODE SPECIFIED LAST ACTIVE RPCN SPECIFIED NODE IN GROWTH STATE OFLBOOT IN PROGRESS RING IS DOWN RTRACK ALREADY RUNNING RTRACK IS CURRENTLY INHIBITED
STOPPED	INVALID REQUEST RESPONSE FOR EXC RTRACK INVALID RESPONSE ACKNOWLEDGEMENT FOR EXC

4. ACTION TO BE TAKEN

If 'a' = Action: = COMPL No action is necessary. This message prints when the ring tracker mode has begun to locate and isolate an intermittent ring hardware failure in response to the EXC:RTRACK input message. NOT STARTED A request to initiate the ring tracker mode, using the EXC:RTRACK input message, has been rejected for the reason specified in the variable field b. Take the action appropriate for the 'b' reason.

If 'a' =	Action:
COMPL	No action is necessary. This message prints when the ring tracker mode has begun to locate and isolate an intermittent ring hardware failure in response to the EXC:RTRACK input message.
NOT STARTED	A request to initiate the ring tracker mode, using the EXC:RTRACK input message, has been rejected for the reason specified in the variable field b. Take the action appropriate for the 'b' reason.

If 'b' =	Action:
RTRACK IS CURRENTLY INHIBITED	Determine whether entry into the ring tracker mode should still be inhibited. If an inhibit should still be in effect, wait until inhibit status has been cleared (as noted

	by the `ALW RTRACK COMPLETED` output message) and then try the EXC:RTRACK input message again.
`IMS INITIALIZATION IN PROGRESS`	Try again later when the system initialization is complete.
`INVALID NODE SPECIFIED`	Verify ring node group and member number specified with the EXC:RTRACK input message and then retry with the correct node identification.
`LAST ACTIVE RPCN SPECIFIED`	Wait until more than one ring peripheral controller node (RPCN) is active and then try the EXC:RTRACK input message again, or specify a link node (LN) with the EXC:RTRACK input message.
`OFLBOOT IN PROGRESS`	EXC:RTRACK is not permitted when OFLBOOT is in progress.
`NODE IN GROWTH STATE`	Growth procedure must be completed before EXC:RTRACK can be executed.

For other values of '`b`', no action is necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:RTRACK
EXC:RTRACK
INH:RTRACK
OP:RTRACK
STOP:RTRACK
```

Output Message(s):

```
ALW:RTRACK
INH:RTRACK
OP:RTRACK
REPT:RING-CFR
STOP:RTRACK
```

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EXC:SODD-RED

Software Release: 5E10 and later
Message Class: ODD
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EXC SODD RED d REL a

[2]   ____________________________________________________________
      EXC SODD RED d, b ERRORS, OUTPUT FILE c

[3]   ____________________________________________________________
      EXC SODD RED d [REL=a] [ERRORS=b]
       [OUTPUT FILE=c]
```

2. REASON FOR OUTPUT

Format 1 reports that the redundant static office-dependent data (SODD) audit has either started, has found the input relation to be invalid or is in progress.

Format 2 reports that the redundant SODD audit is completed or aborted. It also gives the number of errors it detected, and where the output of the errors can be found.

Format 3 reports that the redundant SODD audit is either in progress, stopped, completed, or aborted. A report of IN PROGRESS indicates a status request has been received.

3. VARIABLE FIELD DEFINITIONS

`a` = The name of the relation the audit was working on.

`b` = Number of errors found with the audit.

`c` = The path name for the file containing the errors found by the audit.

`d` = Status of the audit. Valid value(s):
`ABORTED` = The audit has aborted due to problems.
`ABORTED BAD-OUTPUT-NAME` = The audit has aborted due to the input of a bad outfile name.
`ABORTED BAD-RELATION-NAME` = The audit has aborted due to the input of a bad relation name.
`COMPLETED` = The audit has successfully completed.
`IN PROGRESS` = The audit is in progress.
`INVALID RELATION` = The audit has found the input relation to be invalid.
`STARTED` = The audit has started processing.
`STOPPED` = The audit has received a stop request.

4. ACTION TO BE TAKEN

For Format 1, no action is required.

If the audit has completed (Format 2 and Format 3) look at any errors found by the audit. Verify and correct any legitimate errors found within the database.

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If the audit aborted because of a bad relation name or bad outfile name, restart the audit with the correct information.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:SODD-RED
EXC:SODD-RED-OP
EXC:SODD-STP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

EXC:SODD-STP

Software Release: 5E10 and later
Message Class: ODD
Application: 5
Type: Output

1. FORMAT

```
EXC SODD a STOPPED, b ERRORS, OUTPUT FILE c
```

2. REASON FOR OUTPUT

To respond to an EXC:SODD-STP input message, and notify the user that the process has been stopped. A file is created listing the errors found.

3. VARIABLE FIELD DEFINITIONS

`a` = Stop completion message. Valid value(s):

`BRCS`	= The BRCS audit has been stopped.
`ISDN`	= The ISDN audit has been stopped.
`LINE`	= The LINE audit has been stopped.
`MLHG`	= The MLHG audit has been stopped.
`PSMHG`	= The PSMHG audit has been stopped.
`PSTRK`	= The PSTRK audit has been stopped.
`RED`	= The RED audit has been stopped.
`TRUNK`	= The TRUNK audit has been stopped.

`b` = Number of errors found by the audit.

`c` = The path name for the file containing the errors found by the audit.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`EXC:SODD-STP`

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EXC:SRVT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      EXC:SRVT TYPE a[,PLAN b,SCHEME c],DIGITS d[,TPC e],NTSP f,SUCCESS
        SRVA MESSAGES RECEIVED
        k m

[2]   ____________________________________________________________________
      EXC:SRVT TYPE a[,PLAN b,SCHEME c],DIGITS d[,TPC e],NTSP f,TRACE SUCCESS
        SRVA MESSAGES RECEIVED
        k m
        TSPs CROSSED
        h

[3]   ____________________________________________________________________
      EXC:SRVT TYPE a[,PLAN b,SCHEME c],DIGITS d[,TPC e],NTSP f,TRACE g
        SRVA MESSAGES RECEIVED
        k m
        i
        TSPs CROSSED
        h
        ERRORS DETECTED
        i j

[4]   ____________________________________________________________________
      EXC:SRVT1 TYPE a[,PLAN b,SCHEME c],DIGITS d[,TPC e],NTSP f,SUCCESS
        EXC:SRVT2 TYPE a[,PLAN b,SCHEME c],DIGITS d[,TPC e],NTSP f,SUCCESS
        SRVA MESSAGES RECEIVED
        k m

[5]   ____________________________________________________________________
      EXC:SRVT1 TYPE a[,PLAN b,SCHEME c],DIGITS d[,TPC e],NTSP f,TRACE SUCCESS
        EXC:SRVT2 TYPE a[,PLAN b,SCHEME c],DIGITS d[,TPC e],NTSP f,TRACE SUCCESS
        SRVA MESSAGES RECEIVED
        k m
        TSPs CROSSED
        h

[6]   ____________________________________________________________________
      EXC:SRVT1 TYPE a[,PLAN b,SCHEME c],DIGITS d[,TPC e],NTSP f,TRACE g
        EXC:SRVT2 TYPE a[,PLAN b,SCHEME c],DIGITS d[,TPC e],NTSP f,TRACE g
        SRVA MESSAGES RECEIVED
        k m
        i
        TSPs CROSSED
        h
        ERRORS DETECTED
        i j
```

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2. REASON FOR OUTPUT

If no translation point code (TPC) is specified in the initiation command and the initiating signaling point (SP) does not know how to obtain the global title translation (GTT) for the specified global title (GT), the SP responds with 'UNABLE TO DERIVE TPC' and (in case of error in data entered in the initiation command) followed by an appropriate indication identifying parameter(s) in the initiation command found to be in error by the SP. Otherwise one of the formats is possible. These formats are presented for two cases: when one SCCP routing verification test (SRVT) request or verify message was sent, Formats 1-3, and when two messages were sent for a single SRVT initiation request, Formats 4 through 6. Formats 1 and 4 are used when the SRVT was successful and the SRVT user did not request a trace. Formats 2 and 5 are used when the SRVT was successful and the user requested a trace. Formats 3 and 6 are used when either partial success or failure occurred.

3. VARIABLE FIELD DEFINITIONS

a = The translation type.

b = The numbering plan, from SCCP protocol, not included unless specified in the initiation command. Currently not used by the STP, may cause an error.

c = The encoding scheme, from SCCP protocol, not included unless specified in the initiation command. Currently not used by the STP, may cause an error.

d = The digits in global title, 19 digit maximum (such as, an 800 number).

e = The translation point code to which the initiator should address and send and SRVT message. Not include unless specified in the initiation command. Printed in decimal notation (for example, 254062001).

f = The maximum number of translation signaling points (TSPs) allowed to be crossed.

g = Result of SRVT. Valid value(s):
FAILURE
PARTIAL SUCCESS

h = The list of TSP point codes of a received SRVR message indicating success. If multiple success, indicating SRVR messages were received, this line would be printed for each such message. Note that in Format 3, if 'g' is FAILURE, item 'h' will not be present in the output.

i = Text phrases that describes the problem found. Valid value(s):
EXCESSIVE LENGTH ROUTE 2
INACCESSIBLE SIGNALING POINT 4
INACCESSIBLE SIGNALING POINT 4n
INCORRECT TRANSLATION FOR INTERMEDIATE TSP 11
INCORRECT TRANSLATION FOR PRIMARY DESTINATION 9
INCORRECT TRANSLATION FOR SECONDARY DESTINATION 10
LOOP 1
MESSAGE ARRIVED AT WRONG SIGNALING POINT 8
NO TRANSLATION FOR GLOBAL TITLE 3
NOT PRIMARY DESTINATION 12
NOT SECONDARY DESTINATION 13
PRIMARY DESTINATION NOT RECOGNIZED 14
SECONDARY DESTINATION NOT RECOGNIZED 15
TEST CANNOT BE RUN DUE TO LOCAL CONDITIONS 5
TEST CANNOT BE RUN DUE TO LOCAL CONDITIONS 5o

```
TIMER EXPIRED 7
UNKNOWN ERROR CODE p
UNKNOWN INITIATOR POINT CODE 6
UNRECOGNIZED POINT CODE FROM TRANSLATION 16
```

Valid values for `4n` are:

`4A`	= Congestion.
`4B`	= Blockage.
`4C`	= Crossing network boundaries.
`4D`	= Not SS7 equipped.
`4E`	= Subsystems prohibited.
`4F`	= Received unitdata service message.

Valid values for `5o` are:

`5A`	= Processor overload.
`5B`	= Test pertains to GT which is already under test.
`5C`	= Tests limit threshold exceeded.

The value of '`p`' can be any code not list above; '`p`' is an invalid error code.

`j` = Point code(s) associated with the failure being reported.

If '`i`' =	**'`j`' =**
`LOOP 1`	Point code of TSP detecting the loop followed by the list of point codes in the loop.
`EXCESSIVE LENGTH ROUTE 2`	Point code of the TSP detecting the excessive length route followed by the point codes that were in the route up to the detecting TSP.
`NO TRANSLATION FOR GLOBAL TITLE 3`	Point code of the TSP that does not recognize the global title. If the numbering plan or the encoding scheme were included, this error may occur.
`INACCESSIBLE SIGNALING POINT 4`	Point code of the SP that cannot access the inaccessible SP followed by the point code of the inaccessible SP.
`INACCESSIBLE SIGNALING POINT 4n`	Point code of the SP that cannot access the inaccessible SP followed by the point code of the inaccessible SP. Detected at initiating SP.
`TEST CANNOT BE RUN DUE TO LOCAL CONDITIONS 5`	Point code of the SP that cannot run the test.
`TEST CANNOT BE RUN DUE TO LOCAL CONDITIONS 5m`	Point code of the SP that cannot run the test. Detected at initiating SP.
`UNKNOWN INITIATOR POINT CODE 6`	Point code of the reporting SP followed by the point code of the SP that does not know the initiator.
`TIMER EXPIRED 7`	Point code of the SP where the timer expired followed by the list of point codes from which expected SRVAs were not received.
`MESSAGE ARRIVED AT WRONG SIGNALING POINT 8`	Point code of the wrong SP followed by a list of point codes that were in the route prior to the wrong SP.
`INCORRECT TRANSLATION FOR PRIMARY DESTINATION 9`	Point code of the TSP reporting the error in comparison followed by the complete list of TPCs traversed.
`INCORRECT TRANSLATION FOR SECONDARY DESTINATION 10`	Point code of the TSP reporting the error in comparison followed by the complete list of TPCs traversed.
`INCORRECT TRANSLATION FOR INTERMEDIATE TSP 11`	Point code of the TSP reporting the error in comparison followed by the complete list of TPCs traversed.
`NOT PRIMARY DESTINATION 12`	Point code of the incorrect primary destination followed by the list of point codes that were in the route prior to the error.
`NOT SECONDARY DESTINATION 13`	Point code of the incorrect secondary destination followed by the list of point codes that were in the route prior to the error.
`PRIMARY DESTINATION NOT RECOGNIZED 14`	Point code of the secondary destination that does not recognize the primary destination followed by the list of point codes that were in the route prior to the error.

SECONDARY DESTINATION NOT RECOGNIZED 15	Point code of the primary destination that does not recognize the secondary destination followed by the list of point codes that were in the route prior to the error.
UNRECOGNIZED POINT CODE FROM TRANSLATION 16	Point code of the TSP that does not recognize the translation result followed by the list of point codes that were in the route prior to the translating SP.
UNKNOWN ERROR CODE p	Point code of the signaling point reporting the error followed by the list of point codes that were in the route prior to the reporting SP.

Note: If multiple errors were detected, items '`i`' and '`j`' will be printed for each error received.

`k` = The point code from which the SRVA message was received. Printed in decimal notation.

`m` = Text as encoded in the message received. Valid value(s):
`FAILURE`
`PARTIAL SUCCESS`
`SUCCESS`

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CHG:SRVT
EXC:SRVT
OP:TPC
```

Output Message(s):

```
CHG:SRVT
OP:TPC
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services*

EXC:UT-CMP-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
EXC UT CMP=a-b {MATE|PRIM} {CALL c RETVAL d|GOTO e} f
```

2. REASON FOR OUTPUT

To report the status of the response to the EXC:UT-CMP input message to execute a function in the communication module processor (CMP) or to transfer control to a specified location.

3. VARIABLE FIELD DEFINITIONS

`MATE` = Message was executed in the standby CMP.

`PRIM` = Message was executed in the active CMP.

`a` = Message switch side.

`b` = CMP number.

`c` = Function name called (symbolic address).

`d` = Return value (RETVAL) of called function. The return value is stored in utility variable UVAR[10] and can be referenced by using the DUMP:UT-CMP input message. If the return value is a structure, the information is stored in an UT storage array, called UTstrct, which needs to be dumped for the data.

Note: One example of how to accomplish this is when a function returns a structure. The structure can be dumped with a dump message of `UVAR=10` with one level of indirection and the length of the structure specified.

`e` = The address to which control is transferred.

`f` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`DUMP:UT-CMP`

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```
EXC:UT-CMP
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

EXC:UT-CMP-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EXC UT CMP=a-b {MATE|PRIM} g
        SYMIDX c CALL d RETVAL e

[2]   ____________________________________________________________
      EXC UT CMP=a-b {MATE|PRIM} GOTO f g
```

2. REASON FOR OUTPUT

To report the status of the response to the EXC:UT-CMP input message to execute a function in the communication module processor (CMP) or to transfer control to a specified location.

Format 1 reports the status of a function call defined by a symbolic reference.

Format 2 reports the status of a transfer of control to the specified address.

3. VARIABLE FIELD DEFINITIONS

`MATE` = Message was executed in the standby CMP.

`PRIM` = Message was executed in the active CMP.

`a` = Message switch side.

`b` = CMP number.

`c` = Symbol index number of the specified function either specified in the input message or determined by the UT code based on the function name '`d`'. If an invalid input message is entered, the symbol index number will be "-1".

`d` = Symbolic name specified in the input message or determined by the UT code based on the symbol index number '`c`'. The function name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`e` = Return value (RETVAL) of called function. The return value is stored in utility variable UVAR[10] and can be referenced by using the DUMP:UT-CMP input message. If the return value is a structure, the information is stored in an UT storage array, called UTstrct, which needs to be dumped for the data.

Note: One example of how to accomplish this is when a function returns a structure. The structure can be dumped with a dump message of `UVAR=10` with one level of indirection and the length of the structure specified.

`f` = The address to which control is transferred.

`g` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-CMP
DUMP:UT-SYMID
EXC:UT-CMP
WHEN:UT-CMP
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

EXC:UT-CMPMSG-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
EXC UT CMPMSG=a-b CALL c RETVAL d e
```

2. REASON FOR OUTPUT

To report the status of the response to the EXC:UT-CMPMSG input message to execute an unconditional call to a function in the communication module processor (CMP) message handler (CMPMSG).

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch (MSGS) side number.

`b` = CMPMSG number.

`c` = Function name called.

`d` = Return value of function. If the return value is a structure, the returned data is stored in a UT storage array called UTstrct, which needs to be dumped to retrieve the data.

`e` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:UT-CMPMSG
```

Output Message(s):

```
EXC:UT-CMPMSG
```

Input Appendix(es):

```
APP:UT-IM-REASON
```

Output Appendix(es):

APP:UT-OM-REASON

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

EXC:UT-CMPMSG-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
EXC UT CMPMSG=a-b f
  SYMIDX c CALL d RETVAL e
```

2. REASON FOR OUTPUT

To report the status of the response to the EXC:UT-CMPMSG input message to execute an unconditional call to a function in the communication module processor (CMP) message handler (CMPMSG).

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch (MSGS) side number.

`b` = CMPMSG number.

`c` = Symbol index number of the specified function either specified in the input message or determined by the UT code based on the function name '`d`'. If an invalid input message is entered, the symbol index number will be "-1".

`d` = Symbolic name specified in the input message or determined by the UT code based on the symbol index number '`c`'. The function name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`e` = Return value of function. If the return value is a structure, the returned data is stored in a UT storage array called UTstrct, which needs to be dumped to retrieve the data.

`f` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-CMPMSG
DUMP:UT-SYMID
EXC:UT-CMPMSG
```

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Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

EXC:UT-DNUS-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
EXC UT DNUS=a-b CALL c RETVAL d e
```

2. REASON FOR OUTPUT

To report the status of the response to the EXC:UT-DNUS input message to execute a function in the digital networking unit - synchronous optical network (SONET) (DNU-S).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Function name called.

`d` = Return value (RETVAL) of called function. The return value is also stored in utility variable UVAR[10] and can be referenced by using the DUMP:UT-DNUS input message.

`e` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the EXC:UT-DNUS input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:UT-DNUS
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

EXC:UT-DNUS-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
EXC UT DNUS=a-b f
  SYMIDX c CALL d RETVAL e
```

2. REASON FOR OUTPUT

To report the status of the response to the EXC:UT-DNUS input message to execute a function in the digital networking unit - synchronous optical network (SONET) (DNU-S).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Symbol index number of the specified function either specified in the input message or determined by the UT code based on the function name '`d`'. If an invalid input message is entered, the symbol index number will be "-1".

`d` = Symbolic name specified in the input message or determined by the UT code based on the symbol index number '`c`'. The function name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`e` = Return value (RETVAL) of called function. The return value is also stored in utility variable UVAR[10] and can be referenced by using the DUMP:UT-DNUS input message.

`f` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the EXC:UT-DNUS input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-DNUS
DUMP:UT-SYMID
EXC:UT-DNUS
```

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Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

EXC:UT-FPC-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
EXC UT FPC a CALL b RETVAL c d
```

2. REASON FOR OUTPUT

To report the status of the response to the EXC:UT-FPC input message to execute an unconditional call to a function or transfer control to specified location in the foundation peripheral controller (FPC).

3. VARIABLE FIELD DEFINITIONS

a	= FPC number.
b	= Function name called.
c	= Return value of function.
d	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:UT-FPC
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-220 *Diagnostic, Trouble Clearing, and System Recovery*

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EXC:UT-FPC-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
EXC UT FPC=a e
  SYMIDX b CALL c RETVAL d
```

2. REASON FOR OUTPUT

To report the status of the response to the EXC:UT-FPC input message to execute an unconditional call to a function in the foundation peripheral controller (FPC).

3. VARIABLE FIELD DEFINITIONS

`a` = FPC number.

`b` = Symbol index number of the specified function either specified in the input message or determined by the UT code based on the function name '`c`'. If an invalid input message is entered, the symbol index number will be "-1".

`c` = Symbolic name specified in the input message or determined by the UT code based on the symbol index number '`b`'. The function name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`d` = Return value of function.

`e` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-FPC
DUMP:UT-SYMID
EXC:UT-FPC
```

Output Appendix(es):

APP:UT-OM-REASON

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Diagnostic, Trouble Clearing, and System Recovery*

EXC:UT-IDCU-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
EXC UT IDCU a b CALL c RETVAL d e
```

2. REASON FOR OUTPUT

To report the status of the response to the EXC:UT-IDCU input message to execute a function in the integrated digital carrier unit (IDCU).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = Function name called.

`d` = Return value (RETVAL) of called function. The return value is also stored in utility variable UVAR[10] and can be referenced by using the DUMP:UT-IDCU input message.

`e` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the EXC:UT-IDCU input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:UT-IDCU
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

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EXC:UT-IDCU-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
EXC UT IDCU=a-b f
  SYMIDX c CALL d RETVAL e
```

2. REASON FOR OUTPUT

To report the status of the response to the EXC:UT-IDCU input message to execute a function in the integrated digital carrier unit (IDCU).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = Symbol index number of the specified function either specified in the input message or determined by the UT code based on the function name '`d`'. If an invalid input message is entered, the symbol index number will be "-1".

`d` = Symbolic name specified in the input message or determined by the UT code based on the symbol index number '`c`'. The function name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`e` = Return value (RETVAL) of called function. The return value is also stored in utility variable UVAR[10] and can be referenced by using the DUMP:UT-IDCU input message.

`f` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the EXC:UT-IDCU input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-IDCU
DUMP:UT-SYMID
EXC:UT-IDCU
```

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Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

EXC:UT-IDCULSI-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
EXC UT IDCULSI=a-b-c  CALL d  RETVAL e f
```

2. REASON FOR OUTPUT

To report the status of the response to the EXC:UT-IDCULSI input message to execute a function in the integrated digital carrier unit (IDCU) loop side interface (LSI).

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number.
b	= IDCU number.
c	= LSI number.
d	= Function name called.
e	= Return value (RETVAL) of called function. The return value is also stored in utility variable LSUVAR[10] and can be referenced by using the DUMP:UT-IDCULSI input message.
f	Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the EXC:UT-IDCULSI message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:UT-IDCULSI
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

EXC:UT-IDCULSI-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
EXC UT IDCULSI=a-b-c g
  SYMIDX d CALL e RETVAL f
```

2. REASON FOR OUTPUT

To report the status of the response to the EXC:UT-IDCULSI input message to execute a function in the integrated digital carrier unit (IDCU) loop side interface (LSI).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = LSI number.

`d` = Symbol index number of the specified function either specified in the input message or determined by the UT code based on the function name '`e`'. If an invalid input message is entered, the symbol index number will be "-1".

`e` = Symbolic name specified in the input message or determined by the UT code based on the symbol index number '`d`'. The function name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`f` = Return value (RETVAL) of called function. The return value is also stored in utility variable LSUVAR[10] and can be referenced by using the DUMP:UT-IDCULSI input message.

`g` Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the EXC:UT-IDCULSI message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-IDCULSI
DUMP:UT-SYMID
```

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```
EXC:UT-IDCULSI
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

EXC:UT-ISLUCC-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
EXC UT ISLUCC a b CALL c RETVAL d e
```

2. REASON FOR OUTPUT

To report the status of the response to the EXC:UT-ISLUCC input message to execute a function in the integrated services line unit common controller (ISLUCC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Function name called.

`d` = Return value (RETVAL) of called function. The return value is also stored in utility variable UVAR[10] and can be referenced by using the DUMP:UT-ISLUCC input message.

`e` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-ISLUCC
EXC:UT-ISLUCC
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

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EXC:UT-ISLUCC-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
EXC UT ISLUCC=a-b f
  SYMIDX c CALL d RETVAL e
```

2. REASON FOR OUTPUT

To report the status of the response to the EXC:UT-ISLUCC input message to execute a function in the integrated services line unit common controller (ISLUCC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Symbol index number of the specified function either specified in the input message or determined by the UT code based on the function name '`d`'. If an invalid input message is entered, the symbol index number will be "-1".

`d` = Symbolic name specified in the input message or determined by the UT code based on the symbol index number '`c`'. The function name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`e` = Return value (RETVAL) of called function. The return value is also stored in utility variable UVAR[10] and can be referenced by using the DUMP:UT-ISLUCC input message.

`f` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-ISLUCC
DUMP:UT-SYMID
EXC:UT-ISLUCC
```

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Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

EXC:UT-MCTSI-MH-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
EXC UT MCTSI=a MH(b) CALL c RETVAL d e
```

2. REASON FOR OUTPUT

To report the response to the EXC:UT-MCTSI input message to execute a function in an switching module (SM) message handler (MH) unit.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = The MH unit number.

`c` = Function name called.

`d` = Return value of the called function. The return value is stored in utility variable UVAR 10 and can be referenced by using the DUMP:UT-MH input message. If the return value is a structure, the information is stored in an UT storage array, called UTstrct, which needs to be dumped for the data, and its address is in UVAR=10.

Note: When a function returns a structure the data can be accessed by using the DUMP:UT-MH input message. Dump the contents of UVAR=10 with one level of indirection and the length of the structure specified.

`e` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages Manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

`APP:UT-OM-REASON`

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

EXC:UT-MCTSI-MH-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
EXC UT MCTSI=a MH(b) CALL c RETVAL d e
```

2. REASON FOR OUTPUT

To report the response to the EXC:UT-MCTSI input message to execute a function in a switching module (SM) message handler (MH) unit.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = The MH unit number.

`c` = Function name called.

`d` = Return value of the called function. The return value is stored in utility variable UVAR 10 and can be referenced by using the DUMP:UT-MH input message. If the return value is a structure, the information is stored in an UT storage array, called UTstrct, which needs to be dumped for the data, and its address is in UVAR=10.

Note: When a function returns a structure the data can be accessed by using the DUMP:UT-MH input message. Dump the contents of UVAR=10 with one level of indirection and the length of the structure specified.

`e` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages Manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

`APP:UT-OM-REASON`

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

EXC:UT-MCTSI-PI-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
EXC UT MCTSI=a-b PI {CALL c RETVAL d|GOTO e} f
```

2. REASON FOR OUTPUT

To report the status of the response to the EXC:UT-MCTSI-PI input message to execute a function in the peripheral interface (PI) unit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Side of the module controller/time-slot interchange (MCTSI).

`c` = Function name called.

`d` = Return value (RETVAL) of called function. The return value is also stored in utility variable `UVAR[10]` and can be referenced by using the DUMP:UT-MCTSI-PI input message.

`e` = The address to which control is transferred.

`f` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-MCTSI-PI
EXC:UT-MCTSI-PI
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

EXC:UT-MCTSI-PI-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
EXC UT PI MCTSI=a-b {CALL c RETVAL d|GOTO e} f
```

2. REASON FOR OUTPUT

To report the status of the response to the EXC:UT-MCTSI-PI input message to execute a function in the peripheral interface (PI) unit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Side of the module controller/time-slot interchange (MCTSI).

`c` = Function name called.

`d` = Return value (RETVAL) of called function. The return value is also stored in utility variable `UVAR[10]` and can be referenced by using the DUMP:UT-PI input message.

`e` = The address to which control is transferred.

`f` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-MCTSI-PI
EXC:UT-MCTSI-PI
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

EXC:UT-MMP-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
EXC UT MMP=a-b CALL c RETVAL d e
```

2. REASON FOR OUTPUT

To report the status of the response to the EXC:UT-MMP input message to execute an unconditional call to a function in the module message processor (MMP).

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch side.

`b` = MMP unit number.

`c` = Function name called.

`d` = Return value of function. If the return value is a structure, the returned data is stored in a UT storage array called UTstrct, which needs to be dumped to retrieve the data.

`e` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:UT-MMP
```

Output Message(s):

```
DUMP:UT-MMP
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):

235-105-220 *Corrective Maintenance*

EXC:UT-MMP-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
EXC UT MMP=a-b f
  SYMIDX c CALL d RETVAL e
```

2. REASON FOR OUTPUT

To report the status of the response to the EXC:UT-MMP input message to execute an unconditional call to a function in the module message processor (MMP).

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch side.

`b` = MMP unit number.

`c` = Symbol index number of the specified function either specified in the input message or determined by the UT code based on the function name '`d`'. If an invalid input message is entered, the symbol index number will be "-1".

`d` = Symbolic name specified in the input message or determined by the UT code based on the symbol index number '`c`'. The function name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`e` = Return value of function. If the return value is a structure, the returned data is stored in a UT storage array called UTstrct, which needs to be dumped to retrieve the data.

`f` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-MMP
DUMP:UT-SYMID
EXC:UT-MMP
```

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Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

EXC:UT-PPC-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
EXC UT PPC a CALL b RETVAL c d
```

2. REASON FOR OUTPUT

To report the status of the response to the EXC:UT-PPC input message to execute an unconditional call to a function or transfer control to specified location in the pump peripheral controller (PPC).

3. VARIABLE FIELD DEFINITIONS

`a` = PPC number.

`b` = Function name called.

`c` = Return value of function.

`d` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`EXC:UT-PPC`

Output Appendix(es):

`APP:UT-OM-REASON`

Other Manual(s):
235-105-220 *Corrective Maintenance*

EXC:UT-PPC-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
EXC UT PPC=a e
  SYMIDX b CALL c RETVAL d
```

2. REASON FOR OUTPUT

To report the status of the response to the EXC:UT-PPC input message to execute an unconditional call to a function in the pump peripheral controller (PPC).

3. VARIABLE FIELD DEFINITIONS

`a` = PPC number.

`b` = Symbol index number of the specified function either specified in the input message or determined by the UT code based on the function name '`c`'. If an invalid input message is entered, the symbol index number will be "-1".

`c` = Symbolic name specified in the input message or determined by the UT code based on the symbol index number '`b`'. The function name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`d` = Return value of function.

`e` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-PPC
DUMP:UT-SYMID
EXC:UT-PPC
```

Output Appendix(es):

APP:UT-OM-REASON

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

EXC:UT-PSUPH-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
EXC UT PSUPH=a-b-c-d {CALL e RETVAL f|GOTO g} h
```

2. REASON FOR OUTPUT

To respond to the EXC:UT-PSUPH input message which executed a function in the packet switch unit protocol handler (PSUPH) or transferred control to a specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number

`b` = Unit number.

`c` = Shelf number.

`d` = Slot number.

`e` = Symbolic name of the function.

`f` = Return value (RETVAL) of called function. The return value is stored in utility variable UVAR[10] and can be referenced by using the DUMP:UT-PSUPH input message. If the return value is a structure, the information is stored in a UT storage array, called UTstrct, which needs to be dumped for the data.

Note: One example of how to accomplish this is when a function returns a structure. The structure can be dumped with a dump message of UVAR=10 with one level of indirection and the length of the structure specified.

`g` = The address to which control is transferred.

`h` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:UT-PSUPH
```

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Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-600-400 *Audits*

EXC:UT-PSUPH-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EXC UT PSUPH=a-b-c-d i
        SYMIDX e CALL f RETVAL g

[2]   ____________________________________________________________
      EXC UT PSUPH=a-b-c-d GOTO h i
```

2. REASON FOR OUTPUT

To respond to the EXC:UT-PSUPH input message which executed a function in the packet switch unit protocol handler (PSUPH) or transferred control to a specified location.

Format 1 reports the status of a function call defined by a symbolic reference.

Format 2 reports the status of a transfer of control to the specified address.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number

`b` = Unit number.

`c` = Shelf number.

`d` = Slot number.

`e` = Symbol index number of the specified function either specified in the input message or determined by the UT code based on the function name '`f`'. If an invalid input message is entered, the symbol index number will be "-1".

`f` = Symbolic name specified in the input message or determined by the UT code based on the symbol index number '`e`'. The function name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`g` = Return value (RETVAL) of called function. The return value is stored in utility variable UVAR[10] and can be referenced by using the DUMP:UT-PSUPH input message. If the return value is a structure, the information is stored in a UT storage array, called UTstrct, which needs to be dumped for the data.

Note: One example of how to accomplish this is when a function returns a structure. The structure can be dumped with a dump message of UVAR=10 with one level of indirection and the length of the structure specified.

`h` = The address to which control is transferred.

`i` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-PSUPH
DUMP:UT-SYMID
EXC:UT-PSUPH
WHEN:UT-PSUPH
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

EXC:UT-QGP-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
EXC UT QGP=a-b {AP|MSGH} CALL c RETVAL d e
```

2. REASON FOR OUTPUT

To report the status of the response to the EXC:UT-QGP input message to execute an unconditional call to a function in the quad-link gateway processor (QGP).

3. VARIABLE FIELD DEFINITIONS

`AP`	= Message was executed in the QGP's application processor.
`MSGH`	= Message was executed in the QGP's message handler processor.
`a`	= Message switch (MSGS) side number.
`b`	= QGP number.
`c`	= Function name called.
`d`	= Return value of function. If the return value is a structure, the returned data is stored in a UT storage array called UTstrct, which needs to be dumped to retrieve the data.
`e`	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`EXC:UT-QGP`

Output Appendix(es):

`APP:UT-OM-REASON`

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

EXC:UT-QGP-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
EXC UT QGP=a-b {AP|MSGH} f
  SYMIDX c CALL d RETVAL e
```

2. REASON FOR OUTPUT

To report the status of the response to the EXC:UT-QGP input message to execute an unconditional call to a function in the quad-link gateway processor (QGP).

3. VARIABLE FIELD DEFINITIONS

`AP` = Message was executed in the QGP's application processor.

`MSGH` = Message was executed in the QGP's message handler processor.

`a` = Message switch (MSGS) side number.

`b` = QGP number.

`c` = Symbol index number of the specified function either specified in the input message or determined by the UT code based on the function name '`d`'. If an invalid input message is entered, the symbol index number will be "-1".

`d` = Symbolic name specified in the input message or determined by the UT code based on the symbol index number '`c`'. The function name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`e` = Return value of function. If the return value is a structure, the returned data is stored in a UT storage array called UTstrct, which needs to be dumped to retrieve the data.

`f` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-QGP
DUMP:UT-SYMID
EXC:UT-QGP
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

EXC:UT-SM-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
EXC UT SM a {CALL b RETVAL c|GOTO d} e
```

2. REASON FOR OUTPUT

To report the status of the response to the EXC:UT-SM input message to execute a function in the switching module (SM) or to transfer control to a specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Function name called (symbolic address).

`c` = Return value (RETVAL) of called function. The return value is also stored in utility variable UVAR[10] and can be referenced by using the DUMP:UT-SM input message.

`d` = Address to which control is transferred.

`e` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-SM
EXC:UT-SM
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Diagnostic, Trouble Clearing, and System Recovery*

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EXC:UT-SM-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      EXC UT SM=a f
        SYMIDX b CALL c RETVAL d

[2]   ____________________________________________________________
      EXC UT SM=a GOTO e f
```

2. REASON FOR OUTPUT

To report the status of the response to the EXC:UT-SM input message to execute a function in the switching module (SM) or to transfer control to a specified location.

Format 1 reports the status of a function call defined by a symbolic reference.

Format 2 reports the status of a transfer of control to the specified address.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Symbol index number of the specified function either specified in the input message or determined by the UT code based on the function name '`c`'. If an invalid input message is entered, the symbol index number will be "-1".

`c` = Symbolic name specified in the input message or determined by the UT code based on the symbol index number '`d`'. The function name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`d` = Return value (RETVAL) of called function. The return value is also stored in utility variable UVAR[10] and can be referenced by using the DUMP:UT-SM input message.

`e` = Address to which control is transferred.

`f` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
DUMP:UT-SM
DUMP:UT-SYMID
EXC:UT-SM
WHEN:UT-SM
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Diagnostic, Trouble Clearing, and System Recovery*

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EXC:UT-TMUX-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
EXC UT TMUX=a-b-c-d  CALL e  RETVAL f g
```

2. REASON FOR OUTPUT

To report the status of the response to the EXC:UT-TMUX input message to execute a function in the digital networking unit - synchronous optical network (SONET) (DNU-S) transmission multiplexer (TMUX).

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number.
b	= DNU-S number.
c	= Data group number.
d	= TMUX number.
e	= Function that was called.
f	= Return value (RETVAL) of called function. The return value is also stored in utility variable UVAR[10] and can be referenced by using the DUMP:UT-TMUX input message.
g	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the EXC:UT-TMUX message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:UT-TMUX
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

EXC:UT-TMUX-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
EXC UT TMUX=a-b-c-d h
  SYMIDX e CALL f RETVAL g
```

2. REASON FOR OUTPUT

To report the status of the response to the EXC:UT-TMUX input message to execute a function in the digital networking unit - synchronous optical network (SONET) (DNU-S) transmission multiplexer (TMUX).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = TMUX number.

`e` = Symbol index number of the specified function either specified in the input message or determined by the UT code based on the function name '`f`'. If an invalid input message is entered, the symbol index number will be "-1".

`f` = Symbolic name specified in the input message or determined by the UT code based on the symbol index number '`e`'. The function name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`g` = Return value (RETVAL) of called function. The return value is also stored in utility variable UVAR[10] and can be referenced by using the DUMP:UT-TMUX input message.

`h` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the EXC:UT-TMUX message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
DUMP:UT-TMUX
DUMP:UT-SYMID
EXC:UT-TMUX
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

32. FRMV

FRMV:LN

Software Release: 5E10 and later
Message Class: SWM01
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      FRMV LNa b COMPL
        AT c

[2]   ____________________________________________________________________
      FRMV LNa b NOT STARTED
        AT c
        d

[3]   ____________________________________________________________________
      FRMV LNa b STOPPED
        AT c
```

2. REASON FOR OUTPUT

To report the results of an FRMV:LN input message, which requests the forced removal of a node from service.

3. VARIABLE FIELD DEFINITIONS

`a` = A ring node (RN) group number.

`b` = The node's position in the RN group.

`c` = The contents of the administrative module (AM) real-time clock register (in milliseconds) when the request was received by the interprocess message switch (IMS) driver process.

`d` = Reason the input message was not started. Valid value(s):

```
RING NODE NOT IN ACT STATE
RING CONFIGURATION NOT STABLE
CONFLICT WITH IMS SYSTEM INITIALIZATION
```

4. ACTION TO BE TAKEN

For Format 1, no action is required. The RMV:LN output message may also be printed.

For Format 2, if '`c`' indicates the node was not in the active (ACT) state, then either there is no action to be taken or the RMV:LN input message will remove the node from service. For other values of '`c`', wait until the condition indicated by '`c`' changes and try again, if appropriate.

For Format 3, this case is not expected. It indicates a failure return from the_unrmv_iun function in the imsdrv.p process.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
FRMV:LN
RMV:LN
```

Output Message(s):

```
RMV:LN
```

MCC Display Page(s):

118 (CNI RING STATUS PAGE)
1520 (RING NODE STATUS PAGE)

33. GENBKUP

GENBKUP:POKE

Software Release: 5E10 and later
Message Class: MAINT
Application: 5
Type: Output

1. FORMAT

```
GENBKUP POKE 195: [(a)] b
```

2. REASON FOR OUTPUT

To report progress of a request for software release backup. These messages are printed only in response to the input message poke of 195 from the Master Control Center (MCC) or other display type terminal.

3. VARIABLE FIELD DEFINITIONS

`a` = The name of the terminal from which the input message was entered (for example, ttya or ttyl).

`b` = A phrase reporting the progress or an error condition. It is usually self explanatory. Phrases are listed below in three groups:

- The first group is for those that need some action by the user.
- The second is for those that the user should refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
- The third is for those that need no action by the user.

1 = The following messages require the user to take some corrective action. Suggested action follows the message.

`BRAND NEW TAPE?` = Enter Y if this is a tape that has never been used, enter N if this is a tape that has been used.

`CRAFT QUIT TAPE WRITE PROCEDURE! POSSIBLE TAPE DRIVE PROBLEMS! CAN'T WRITE AT HIGH DENSITY` = Run a phase 5 diagnostics on magnetic tape drive (DGN:MT=x,PH=5;). Refer to the Corrective Maintenance manual 235-105-220, to run this phase.

`GENBKUP TIMED OUT - LAST COMMAND DID NOT COMPLETE` = The genbkup process was waiting for a message to complete but did not receive the completion message within a specified time. This could be caused due to the message taking longer than usual time in completing the task. Retry the RCV:M-GENBKUP input message later. If the same problem persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`MHD 0 MUST BE ACTIVE TO CONTINUE! PLEASE TYPE A ''RST:MHD=0'' COMMAND` = Enter the suggested input message.

`MHD 1 MUST BE ACTIVE TO CONTINUE! PLEASE TYPE A ''RST:MHD=1'' COMMAND` = Enter the suggested input message.

`MHD c IS NOT ACCESSIBLE AT THIS TIME` = Restore moving head disk (MHD) '`c`'.

`ODD BACKUP IN PROGRESS. GENBKUP ABORTING` = Retry when office-dependent data (ODD) backup is complete.

`ODD MEMORY GROWTH IN PROGRESS. GENBKUP ABORTING` = Retry when memory growth process is complete.

`RMV/RST OF MTC 0 RESULTED IN AN UNSTABLE MTC 0 STATE. HAVE CRAFT INVESTIGATE`
= Diagnose magnetic tape controller (MTC) and take corrective action accordingly.

`TAPE VFY FAILED! ENTIRE TAPE SEQ --> MAY <-- NEED TO BE REWRITTEN!`
IF THE CRAFT CONTINUES THIS TAPE SEQUENCE RE-VERIFY THIS FAILED TAPE LATER USING OPTION "p" FROM GENBKUP'S MAIN MENU" = Follow the suggestion in the message.

`THE RMV:MHD=c COMMAND FAILED FROM AN ABORTED/STOPPED ERROR CONDITION`
= Take corrective action on MHD '`c`'.

`THE RST:MHD=c COMMAND FAILED FROM AN ABORTED/STOPPED ERROR CONDITION`
= Take corrective action on MHD '`c`'.

`TAPE SEQ NOT STARTED! FIELD UPDATE ACTIVITY DETECTED!` = Genbkup cannot be run when field update activity is under way, so this tape sequence was not started. Wait until the field update is completed.

`TOP TAPE VERIFICATION FAILED` = Retry RCV:MENU:GENBKUP. If the same problem persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`USE POKE 195` = Instead of using the RCV:MENU-GENBKUP input message, use poke message 195.

`VFY:MHD=0 CMD FAILED! POSSIBLY SERIOUS DFC-0/MHD-0 HARDWARE PROBLEMS EXIST`
= Take corrective action on MHD 0.

`VFY:MHD=1 CMD FAILED! POSSIBLY SERIOUS DFC-1/MHD-1 HARDWARE PROBLEMS EXIST`
= Take corrective action on MHD 1.

2 = Following messages may indicate serious system problems. If the following messages appear, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`/dev/e IS MOUNTED BUT NOT POPULATED!` = The file system /dev/`e` is mounted but is empty.

`/dev/e MOUNTED ON A NON-STANDARD DIRECTORY MOUNT POINT!` = The file system /dev/`e` is mounted on an incorrect directory.

`/dev/e SHOULD HAVE BEEN AN ENTRY IN THE MOUNT TABLE BUT WAS NOT!`
= The file system /dev/`e` is not listed in the mount table (probably because it is not mounted).

`AM ODD DISK VERIFICATION ABORTED!`

`AN AM ODD FSBLK/FSLINK AUDIT FAILED!` = An audit of AM ODD file system blocks/links failed.

`AN SM ODD TAPE SEQ ABORTED! CHECK ROP!` = An SM tape sequence was

aborted, read ROP to see if you can find the possible cause.

`AN UNRECOGNIZED AUDIT OR CMPR:DISK TO CORE COMMAND WAS ENCOUNTERED! GENBKUP ABORTING!`
= An input message for audit or for compare disk to core was issued by genbkup but it was not recognized by the system for some reason.

`ATTEMPTED TAPE SEQUENCE ABORTED!`

`CAN NOT CREATE LINKFILE. GENBKUP ABORTING!` = Genbkup cannot create linkfile (/tmp/.genbkupLINK) which is used as a flag.

`CAN NOT CREATE LOCKFILE. GENBKUP ABORTING!` = Genbkup cannot create lockfile (/tmp/.genbkupLOCK) which is used as a flag. Linkfile and lockfile are linked together (same file with different names).

`CAN NOT FOPEN LOCKFILE FOR APPENDING! GENBKUP ABORTING!!` = Genbkup cannot open lockfile for append mode.

`CAN NOT FOPEN LOCKFILE FOR WRITING! GENBKUP ABORTING!!` = Genbkup cannot open lockfile for write mode.

`CAN'T BYTE SEEK IN CURRENT MTCLOG!` = Access to maintenance log failed. Maintenance log (named MTCLOG0 or MTCLOG1) are located in /etc/log or /log/log.

`CAN'T BYTE SEEK IN MTCLOG0!`

`CAN'T BYTE SEEK IN MTCLOG1!`

`CAN'T CHANGE DIRECTORY TO /cft/shl`

`CAN'T CLEAR RC INHIBIT BIT!` = Inhibit bit for recent change cannot be cleared for some reason .

`CAN'T CREATE TMP FILE FOR SCREEN DUMP!` = Genbkup cannot create a temporary file in /tmp.

`CAN'T CREATE TMP FILE FOR THE SOFTWARE BKUP DISK LABEL!`

`CAN'T CREATE TMP FILE FOR THE TAPE LABEL!`

`CAN'T DETERMINE IF AN LDFT TAPE IS MOUNTED!`

`CAN'T GET MOUNT TABLE STATUS FROM mntstat()! GENBKUP ABORTING`

`CAN'T SET RC INHIBIT BIT!` = Inhibit bit for recent change cannot be set for some reason.

`CAN'T STAT CURRENT MTCLOG!` = Stat() of the current maintenance log failed.

`COPY:ACTDISK:MHD=c CMD FAILED FROM AN ABORTED/STOPPED ERROR CONDITION!`
= The above input message issued by genbkup failed.

`COPY:SPDISK CMD FOR MHD c FAILED FROM AN ABORTED/STOPPED ERROR CONDITION!`

`COULD NOT EXEC LAST CMD FROM GBexec_row()!` = Genbkup failed to execute the last message (refer to the last message on screen).

`COULD NOT KILL CURRENT COPY:BKDISK RELIABLY!` = Genbkup attempted to kill currently running COPY:BKDISK, but is unsure of the result due to unclear return code.

`CURRENT MTCLOG SIZE LESS THAN ZERO BYTES!` = There is something wrong with the maintenance log.

`FILE SYSTEM MOUNT TABLE INCONSISTENCY(S)! CRAFT SHOULD INVESTIGATE AND SEEK APPROPRIATE TECHNICAL ASSISTANCE IMMEDIATELY!`
= There is something wrong with the mount table.

`GBgreplog() ABORTED DUE TO ILLEGAL GREP TYPE!` = Internal program error--genbkup is looking for a message type that is not in the program.

`GBmkdir: cannot access '.' !` = This and the following messages indicate that genbkup tried but could not make the directory "/genbkupDIR" which is used to mount broot file system.

`GBmkdir: cannot link /genbkupDIR/. !`

`GBmkdir: cannot link /genbkupDIR/.. !`

`GBmkdir: cannot make directory /genbkupDIR !`

`GBrmdir: /genbkupDIR is a mounted file system !`

`GBrmdir: /genbkupDIR no permission !`

`GBrmdir: /genbkupDIR non-existent !`

`GBrmdir: /genbkupDIR not a directory !`

`GBrmdir: /genbkupDIR not empty !`

`GBrmdir: /genbkupDIR not removed !`

`GBrmdir: /genbkupDIR unreadable !`

`GBrmdir: cannot remove current directory !`

`GBrmdir: cannot stat . !`

`GENBKUP INTERNAL ERROR EXPRESSION -><- RETURNED ERROR: n`

`ODD BACKUP PROCEDURE ABORTED!`

`PARTITION CHECK FUNCTION FAILED!`

`POSSIBLY CORRUPT PTN FILES!` = Files (with .ptn suffix) under /no5text/bkup used in partition checks may be corrupted or incorrect.

`POSSIBLY SERIOUS AUDIT/CMPR:DISK INCONSISTENCIES!` = There were inconsistencies in the results of audit and compare disk.

`SM ODD DISK VERIFICATION ABORTED!`

`SM ODD FSBLK/FSLINK AUDIT FAILED!` = An audit of SM ODD file system blocks/links failed.

`TAPE SEQ ABORTED DUE TO COPY:BKDISK ERROR!` = This tape sequence was aborted because COPY:BKDISK message failed.

`TEXT DISK VERIFICATION ABORTED!`

`THE COPY:PTN:ALL COMMAND FAILED FROM AN ABORTED/STOPPED ERROR CONDITION!`
= The above input message issued by genbkup failed.

`THE INIT:MHD=c,VFY COMMAND FAILED FROM AN ABORTED/STOPPED ERROR CONDITION!`
= The above input message issued by genbkup failed.

`THE PRIMARY no5sodd[1/2] FILE SYSTEM IS NOT POPULATED! SM INIT RECOVERY IMPOSSIBLE!`
= The switching module (SM) ODD file system does not have data in it.

`UNABLE TO DETERMINE ACTIVE MTCLOG!` = Genbkup cannot tell which MTCLOG (0 or 1) is active.

`UNABLE TO KILL THE PREVIOUS GENBKUP PROCESS.  ABORTING!!` = There can be only one genbkup running at one time. This genbkup tried to kill the already running genbkup but failed.

`UNABLE TO OPEN MTCLOG0!` = Cannot open the maintenance log (MTCLOG0). MTCLOG0 is in /etc/log or /log/log.

`UNABLE TO OPEN MTCLOG1!` = Cannot open the maintenance log (MTCLOG1). MTCLOG1 is in /etc/log or /log/log.

`UNABLE TO SET THE RC INHIBIT BIT!` = Inhibit bit for recent change cannot be set for some reason.

`UNINTERPRETABLE ODIN TPREAD RETURN!` = Possible internal program error.

`UNRECOVERABLE LOGIC ERROR IN GBsetlog()!` = Possible internal program error.

`WRITE AT END OF LOCKFILE FAILED!  GENBKUP ABORTING!!` = Genbkup cannot write to lockfile (/tmp/.genbkupLOCK) which is used as a flag.

`WRITE AT START OF LOCKFILE FAILED!  GENBKUP ABORTING!!` = Genbkup cannot write to lockfile (/tmp/.genbkupLOCK) which is

used as a flag.

3 = The following messages describe the action taken.

ABORTED = Before this message appears, a message explaining the cause will appear. Look for that message and check the list above.

```
COMPLETED
STARTING
A f DATABASE BACKUP TAPE DATED g WILL BE OVERWRITTEN!
A f LDFT FORMATTED TAPE DATED g WILL BE OVERWRITTEN!
A f TEXT BACKUP TAPE DATED g WILL BE OVERWRITTEN!
A f TOP TAPE DATED g WILL BE OVERWRITTEN!
ALLOWING OTHER GENBKUP PROCESS TO CONTINUE ( PID = d ON h )!
AUTO TAPE VFY -->NOT<-- CHOSEN FOR THIS TAPE SEQ!
AUTO TAPE VFY CHOSEN FOR THIS TAPE SEQ!
COPY:PTN:ALL COMMAND COMPLETED SUCCESSFULLY!
CRAFT CHOSE THE NO5SODDx TAPE SEQ VIA RESTART
CRAFT ELECTED TO ABORT THE i TAPE WRITE PROCEDURE! THIS QUIT
            OPTION WAS EXERCISED AFTER FINDING  AN LDFT TAPE
            MADE WITHIN THE LAST WEEK!
CRAFT HAS ELECTED TO ABORT CURRENT TAPE SEQ!
CRAFT HAS ELECTED TO RESTART CURRENT TAPE SEQ!
CRAFT HAS ELECTED TO TRY TO WRITE i TAPE SEQUENCE AT LOW
            DENSITY (1600 BPI)!
CRAFT HAS ELECTED TO USE RESTART TAPE OPTION!
CRAFT HAS ELECTED TO USE THE RESTART SOFTWARE BACKUP DISK
            OPTION!
CRAFT QUIT SINCE MOUNT TABLE NOT STABLE!
CRAFT QUIT SM ODD WRITE TAPE FUNC AT VFY QUES
CRAFT QUIT SM ODD WRITE TAPE FUNCTION EARLY.
CURRENTLY MOUNTED & TO BE VERIFIED AT j IS i
GENBKUP (pid = d) is ALREADY running on terminal h !!
IN MIN CONFIG, AIMRC POINTS TO NO5AODD2, GENBKUP PROCEEDING!
LABEL FOR SOFTWARE BACKUP DISK o,
LAST COMMAND ATTEMPTED WAS: k
LDFT TAPE VERIFICATION SUCCESSFUL!
NEW TAPE BEING TESTED. PREVIOUS TAPE COULD ONLY BE WRITTEN AT
            1600 BPI.
ODD BACKUP PROCEDURE FAILED! GENBKUP RETRYING.
ON BROOT - BROOT TO ROOT PTN CPY EXECUTING!
ON ROOT - ROOT TO BROOT PTN CPY EXECUTING!
PROCESSING - x
SCREEN DUMP l
SOFTWARE BACKUP DISK PROCEDURE FOR MHD c COMPLETED
            SUCCESSFULLY
TAPE LABEL
TAPE SEQUENCE COMPLETED SUCCESSFULLY!
TEXT, AM & SM ODD DISK VFY COMPLETED SUCCESSFULLY!
TOP TAPE VERIFICATION SUCCESSFUL!
USER HAS DECIDED TO CONTINUE!
```

c = MHD number.

`d` = Process identification (PID) number.

`e` = Name of the file system.

`f` = The software release (for example: 02.00).

`g` = The date (for example: Wed Mar 6 07:44:34 1996).

`h` = The tty name.

`i` = The tape name.

`j` = The tape drive.

`k` = The input message string.

`l` = A dump of the screen at the time.

`m` = Information on the message that failed (such as /cft/shl/cmds/COPY/BKDISK/START).

`n` = The error code returned by the message that failed.

`o` = The disk number used for backup, disk could be 14 or 15.

`p` = Information on date, generic, BWM level, and so forth.

`q` = Information on date, generic, density, and so forth.

4. ACTION TO BE TAKEN

When the process terminates normally, there is no action to be taken.

When the process terminates abnormally (for example, "`ABORTED`"), take the corrective action suggested in the list above for error state phrases or refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CMPR:DISK-CORE
COPY:ACTDISK
COPY:BKDISK
COPY:PTN-ALL
COPY:SPDISK
INIT:MHD
RCV:M-GENBKUP
RMV:MHD
RST:MHD
VFY:MHD
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

34. GRC

GRC:ERROR

Software Release: 5E10 and later
Message Class: GRCV
Application: 5
Type: Output

1. FORMAT

```
GRC  ERROR  [MODE = a  NAME = b  SECTION  = c]
  REASON  = d
  [e]
```

2. REASON FOR OUTPUT

To report errors generated by global recent change (GRC) processing. If the error can be directly correlated to a running GRC job or to a GRC input message, the MODE and NAME of the job will be printed. If the job has not been split into sections, SECTION number will be 0. If the error cannot be directly correlated to a GRC job or input message, MODE, NAME, and SECTION will not print.

3. VARIABLE FIELD DEFINITIONS

`a` = Mode during which error occurred. Valid value(s):

`BACKOUT`	= Backout operation.
`CLEANUP`	= Clean-up operation.
`N/A`	= Not applicable.
`TEST`	= Test operation.
`UPDATE`	= Update operation.

`b` = GRC name.

`c` = GRC section number, which is 0 unless the job has been split.

`d` = Reason for error.

`e` = Continuation of reason for error.

4. ACTION TO BE TAKEN

Correct error and continue accordingly.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
GRC:CANCEL
GRC:CONTINUE
GRC:HALT
GRC:RESCHED
```

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Output Message(s):

```
GRC:FAILURE
```

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-070-100 Switch Administration Guidelines
235-118-25x Recent Change Procedures
235-118-25x Recent Change Reference

GRC:FAILURE

Software Release: 5E10 and later
Message Class: GRCV
Application: 5
Type: Output

1. FORMAT

```
GRC FAILURE NAME = a SECTION = b REASON = c [d]
```

2. REASON FOR OUTPUT

To report that the processing of a global recent change (GRC) job has terminated due to a resource failure.

3. VARIABLE FIELD DEFINITIONS

a = GRC name.

b = GRC section number.

c = Reason for termination. Valid value(s):

```
RCgrcupd STOPPED, /log is out of free space.
RCgrcupd STOPPED, /log is at n% free space.
RCgrcupd STOPPED, /smlog is at n% free space.
RCgrcupd STOPPED, /rclog is at n% free space.
where n% is a percentage between 0 and 20.
```

d = Further explanation of reason.

4. ACTION TO BE TAKEN

Check the age of log files and delete unnecessary files, then reschedule the failed GRC.

5. ALARMS

Minor.

6. REFERENCES

Input Message(s):

```
GRC:CANCEL
GRC:REPORT
GRC:RESCHED
GRC:RMV
REPT:SPACE
```

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-070-100 Switch Administration Guidelines
235-118-25x Recent Change Procedures

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235-118-25x Recent Change Reference

GRC:QUERY

Software Release: 5E10 and later
Message Class: GRCV
Application: 5
Type: Output

1. FORMAT

```
GRC  QUERY  LINES_MATCHED = a
  SUMMARY_FILE = b
```

2. REASON FOR OUTPUT

To indicate that the global recent change (GRC) query operation has completed. The number of lines that match the query criteria and the name of the file that contains the query criteria are given.

3. VARIABLE FIELD DEFINITIONS

`a` = Number of lines that satisfy the query.

`b` = Full path name to the query.summary file. This file lists the query criteria selected by the user during a GRC query.

4. ACTION TO BE TAKEN

None. The DUMP:F-ALL input message can be used to dump the contents of the query criteria file to an output device.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:F-ALL
```

Other Manual(s):

Where 'x' is th3e release-specific version of the document.
235-070-100 Switch Administration Guidelines
235-118-25x Recent Change Procedures
235-118-25x Recent Change Reference

GRC:STATUS

Software Release: 5E10 and later
Message Class: GRCV
Application: 5
Type: Output

1. FORMAT

```
GRC  STATUS  NAME = a  SECTION = [b]  STATE = c
  REMARKS = d
  e
```

2. REASON FOR OUTPUT

To report the status of a global recent change (GRC) job when it starts and when it completes.

3. VARIABLE FIELD DEFINITIONS

a = GRC name.

b = GRC section number.

c = State of the global RC. Valid value(s):

```
ABORTED
CANCELED
COMPLETED
COMPLETED/WARNINGS
COMPLETED/ERRORS
HALTED
N/A
PENDING
REMOVED
RUNNING
```

d = Remarks. Valid value(s):

```
BACKOUT ABORTED
BACKOUT COMPLETED
BACKOUT COMPLETED WITH ERRORS
BACKOUT CONTINUED
BACKOUT HALTED
BACKOUT RE-SCHEDULED SUCCESSFULLY
BACKOUT SCHEDULED SUCCESSFULLY
BACKOUT STARTED
REMOVED
TEST ABORTED
TEST COMPLETED
TEST COMPLETED WITH WARNINGS
TEST COMPLETED WITH ERRORS
TEST STARTED
UPDATE ABORTED
UPDATE COMPLETED
UPDATE COMPLETED WITH ERRORS
UPDATE COMPLETED WITH WARNINGS
UPDATE CONTINUED
```

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```
UPDATE HALTED
UPDATE RE-SCHEDULED SUCCESSFULLY
UPDATE SCHEDULED SUCCESSFULLY
UPDATE STARTED
```

e = Extra remarks. Valid value(s):

`*WARNING TST GRC DOES UPDATE THE ODDS USE CLR:GRC` = Replaces GRC:CANCEL.
`*WARNING TST GRC DOES UPDATE THE ODDS USE EXC:GRC` = Replaces GRC:CONTINUE.
`*WARNING TST GRC DOES UPDATE THE ODDS USE RMV:GRC` = Replaces GRC:RMV.
`*WARNING TST GRC DOES UPDATE THE ODDS USE SCHED:GRC` = Replaces GRC:SCHED.
`*WARNING TST GRC DOES UPDATE THE ODDS USE TST:GRC` = Replaces GRC:TEST.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
GRC:CANCEL
GRC:CONTINUE
GRC:HALT
GRC:RESCHED
GRC:RMV
```

Output Message(s):

```
GRC:ERROR
GRC:FAILURE
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-070-100 Switch Administration Guidelines
235-118-25x Recent Change Procedures
235-118-25x Recent Change Reference

35. IF

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IF:UT-CMP-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
IF UT CMP=a-b {MATE|PRIM} {ADDR c|GVAR d|REG e|UVAR f| VAL g} h
```

2. REASON FOR OUTPUT

To report the status of the IF:UT-CMP input message in the communication module processor (CMP).

3. VARIABLE FIELD DEFINITIONS

MATE	= Message was executed in the standby CMP.
PRIM	= Message was executed in the active CMP.
a	= Message switch side.
b	= CMP number.
c	= Absolute address specified in the input message.
d	= Symbolic name of the global variable.
e	= Register name.
f	= Utility variable number.
g	= Value specified in the input message.
h	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

IF:UT-CMP

Output Appendix(es):

APP:UT-OM-REASON

Other Manual(s):

235-105-110 System Maintenance Requirements and Tools

IF:UT-CMP-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]
      IF UT CMP=a-b {MATE|PRIM} {ADDR c|REG d|UVAR e|VAL f} i

[2]
      IF UT CMP=a-b {MATE|PRIM} i
      SYMIDX g GVAR h
```

2. REASON FOR OUTPUT

To report the status of the IF:UT-CMP input message in the communication module processor (CMP). This output uses the information from the field of the input message found to be in error.

Format 1 reports the status of a IF:UT-CMP input message defined by a physical address, microprocessor register, utility variable, or a constant value.

Format 2 reports the status of a IF:UT-CMP input message defined by a symbolic reference.

3. VARIABLE FIELD DEFINITIONS

`MATE` = Message was executed in the standby CMP.

`PRIM` = Message was executed in the active CMP.

`a` = Message switch side.

`b` = CMP number.

`c` = Absolute physical address (ADDR) specified in the field of the input message where the error was found.

`d` = Register name (REG) specified in the field of the input message where the error was found.

`e` = Utility variable (UVAR) number specified in the field of the input message where the error was found.

`f` = Value (VAL) specified in the field of the input message where the error was found.

`g` = Symbol index number (SYMIDX) of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`h`'. If an invalid input message is entered, the symbol index number will be "-1".

`h` = Symbolic name (GVAR) specified in the input message or determined by the UT code based on the symbol index number '`g`'. The symbol name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

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`i` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-SYMID
IF:UT-CMP
WHEN:UT-CMP
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

IF:UT-CMP-ENDIF

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
IF UT CMP=a-b {MATE|PRIM} ENDIF c
```

2. REASON FOR OUTPUT

To report the status of the IF:UT-CMP-ENDIF input message in the communication module processor (CMP).

3. VARIABLE FIELD DEFINITIONS

ENDIF	= Defines the end of the IF block of messages.
MATE	= Message was executed in the standby CMP.
PRIM	= Message was executed in the active CMP.
a	= Message switch side.
b	= CMP number.
c	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
IF:UT-CMP-ENDIF
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):

235-105-110 System Maintenance Requirements and Tools

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IF:UT-MCTSI-PI-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
IF UT MCTSI=a-b PI {ADDR c|GVAR d|REG e|UVAR f|VAL g} h
```

2. REASON FOR OUTPUT

To report the status of the IF:UT-MCTSI-PI input message in the specified packet interface (PI).

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number.
b	= Side of the module controller/time-slot interchange (MCTSI).
c	= Absolute address.
d	= Symbolic name of global variable.
e	= Register name.
f	= Utility variable.
g	= Value specified in the command.
h	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
IF:UT-MCTSI-PI
WHEN:UT-MCTSI-PI
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):

235-105-110 *System Maintenance Requirements And Tools*
235-600-400 *Audits Manual*

IF:UT-MCTSI-PI-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]
      IF UT MCTSI=a-b PI {ADDR c|REG d|UVAR e|VAL f} i

[2]
      IF UT MCTSI=a-b PI i
      SYMIDX g GVAR h
```

2. REASON FOR OUTPUT

To report the status of the IF:UT-MCTSI-PI input message in the specified packet interface (PI). This output uses the information from the field of the input message found to be in error.

Format 1 reports the status of a IF:UT-CMP input message defined by a physical address, microprocessor register, utility variable, or a constant value.

Format 2 reports the status of a IF:UT-CMP input message defined by a symbolic reference.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Side of the module controller/time-slot interchange (MCTSI).

c = Absolute physical address (ADDR) specified in the field of the input message where the error was found.

d = Register name (REG) specified in the field of the input message where the error was found.

e = Utility variable (UVAR) number specified in the field of the input message where the error was found.

f = Value (VAL) specified in the field of the input message where the error was found.

g = Symbol index number (SYMIDX) of the specified symbol either specified in the input message or determined by the UT code based on the symbol name 'h'. If an invalid input message is entered, the symbol index number will be "-1".

h = Symbolic name (GVAR) specified in the input message or determined by the UT code based on the symbol index number 'g'. The symbol name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '*' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

i = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

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4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-SYMID
IF:UT-MCTSI-PI
WHEN:UT-MCTSI-PI
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements And Tools*

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IF:UT-PSUPH-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
IF UT PSUPH=a-b-c-d {ADDR e|GVAR f|REG g|UVAR h|VAL i} j
```

2. REASON FOR OUTPUT

To report the status of the IF:UT-PSUPH input message in the packet switch unit protocol handler (PSUPH).

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number
b	= Unit number.
c	= Shelf number.
d	= Slot number.
e	= Absolute address (ADDR) specified in the input message.
f	= Symbolic name of the global variable (GVAR).
g	= Register name (REG).
h	= Utility variable (UVAR) number.
i	= Value (VAL) specified in the input message.
j	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

IF:UT-PSUPH

Output Appendix(es):

APP:UT-OM-REASON

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Other Manual(s):

235-105-110 System Maintenance Requirements and Tools
235-600-400 Audits

IF:UT-PSUPH-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      IF UT PSUPH=a-b-c-d {ADDR e|REG f|UVAR g|VAL h} k

[2]   ____________________________________________________________________
      IF UT PSUPH=a-b-c-d k
        SYMIDX i GVAR j
```

2. REASON FOR OUTPUT

To report the status of the IF:UT-PSUPH input message in the packet switch unit protocol handler (PSUPH). This output uses the information from the field of the input message found to be in error.

Format 1 reports the status of a IF:UT-PSUPH input message defined by a physical address, microprocessor register, utility variable, or a constant value.

Format 2 reports the status of a IF:UT-PSUPH input message defined by a symbolic reference.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number

`b` = Unit number.

`c` = Shelf number.

`d` = Slot number.

`e` = Absolute physical address (ADDR) specified in the field of the input message where the error was found.

`f` = Register name (REG) specified in the field of the input message where the error was found.

`g` = Utility variable (UVAR) number specified in the field of the input message where the error was found.

`h` = Value (VAL) specified in the field of the input message where the error was found.

`i` = Symbol index number (SYMIDX) of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`j`'. If an invalid input message is entered, the symbol index number will be "-1".

`j` = Symbolic name (GVAR) specified in the input message or determined by the UT code based on the symbol index number '`i`'. The symbol name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

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`k` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-SYMID
IF:UT-PSUPH
WHEN:UT-PSUPH
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements And Tools*

IF:UT-PSUPH-END

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
IF UT PSUPH=a-b-c-d ENDIF e
```

2. REASON FOR OUTPUT

To report the status of the IF:UT-PSUPH-END input message in the packet switch unit protocol handler (PSUPH).

3. VARIABLE FIELD DEFINITIONS

`ENDIF` = Defines the end of the IF block of messages.

`a` = Switching module (SM) number

`b` = Unit number.

`c` = Shelf number.

`d` = Slot number.

`e` = Termination report: Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
IF:UT-PSUPH-END
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):

235-105-110 System Maintenance Requirements and Tools 235-600-400 Audits

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IF:UT-SM-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
IF UT SM a {ADDR b|GVAR c|REG d|UVAR e| VAL f} g
```

2. REASON FOR OUTPUT

To report the status of the response to the IF:UT-SM input message.

3. VARIABLE FIELD DEFINITIONS

a	= Switching module number.
b	= Absolute address.
c	= Symbolic address of global variable.
d	= Register name.
e	= Utility variable.
f	= Value specified in the input message.
g	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

IF:UT-SM

Output Appendix(es):

APP:UT-OM-REASON

Other Manual(s):

235-105-220 Corrective Maintenance

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IF:UT-SM-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

[1]
```
IF UT SM=a {ADDR b|REG c|UVAR d|VAL e} h
```

[2]
```
IF UT SM=a h
  SYMIDX f GVAR g
```

2. REASON FOR OUTPUT

To report the status of the response to the IF:UT-SM input message. This output uses the information from the field of the input message found to be in error.

Format 1 reports the status of a IF:UT-SM input message defined by a physical address, microprocessor register, utility variable, or a constant value.

Format 2 reports the status of a IF:UT-SM input message defined by a symbolic reference.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Absolute physical address (ADDR) specified in the field of the input message where the error was found.

`c` = Register name (REG) specified in the field of the input message where the error was found.

`d` = Utility variable (UVAR) number specified in the field of the input message where the error was found.

`e` = Value (VAL) specified in the field of the input message where the error was found.

`f` = Symbol index number (SYMIDX) of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`g`'. If an invalid input message is entered, the symbol index number will be "-1".

`g` = Symbolic name (GVAR) specified in the input message or determined by the UT code based on the symbol index number '`f`'. The symbol name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`h` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-SYMID
IF:UT-SM
WHEN:UT-SM
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements And Tools*

IF:UT-SM-ENDIF

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
IF UT SM a ENDIF b
```

2. REASON FOR OUTPUT

To report the status of the response to the IF:UT-SM-ENDIF input message.

3. VARIABLE FIELD DEFINITIONS

`ENDIF` = Defines the end of the IF block of commands.

`a` = Switching module number.

`b` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
IF:UT-SM-ENDIF
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

36. IN

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IN:F-APND

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      IN FILE APND COMPLETED
        a

[2]   ____________________________________________________________
      IN FILE APND STOPPED
        b
```

2. REASON FOR OUTPUT

To report the result of executing an IN:F-APND input message to read and append text to a specified line of a file.

3. VARIABLE FIELD DEFINITIONS

a = The lines above and below the line appended.

b = Text explaining why the message was stopped.

4. ACTION TO BE TAKEN

Format 1 indicates that the message executed successfully.

Format 2 can be printed due to several errors which the system may encounter. If the explanatory text indicates that the file cannot be accessed, use the OP:ST-LISTDIR input message to verify the existence of the file. If the explanatory text indicates that there is insufficient disk space to execute the message, use the OP:ST-FREEDISK input message to verify that there is free space in the file system under which the file being edited resides.

If the message is not self-explanatory, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	282
2	288

Input Message(s):

```
IN:F-APND
IN:F-DEL
IN:F-REPL
```

```
OP:ST-FREEDISK
OP:ST-LISTDIR
```

Output Appendix(es):

```
APP:FMC
APP:OMDB-X-REF
```

Other Manual(s):

235-105-210 Routine Operations and Maintenance

IN:F-DEL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      IN FILE DEL COMPLETED
        a

[2]   ____________________________________________________________
      IN FILE DEL STOPPED
        b
```

2. REASON FOR OUTPUT

To report the result of executing an IN:F-DEL input message to delete one or more lines of an ASCII file.

3. VARIABLE FIELD DEFINITIONS

a = The lines before and after the line deleted.

b = Text explaining why the message was stopped.

4. ACTION TO BE TAKEN

Format 1 indicates that the message executed successfully.

Format 2 can be printed due to several errors which the system may encounter. If the explanatory text indicates that the file cannot be accessed, use the OP:ST-LISTDIR input message to verify the existence of the file. If the explanatory text indicates that there is insufficient disk space to execute the message, use the OP:ST-FREEDISK input message to verify that there is free space in the file system under which the file being edited resides.

If the message is not self-explanatory, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	282
2	288

Input Message(s):

```
DUMP:F-PARTL
IN:F-APND
IN:F-DEL
```

```
IN:F-REPL
OP:ST-FREEDISK
OP:ST-LISTDIR
```

Output Appendix(es):

```
APP:FMC
APP:OMDB-X-REF
```

Other Manual(s):

235-105-210 Routine Operations and Maintenance

IN:F-REPL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      IN FILE REPL COMPLETED
        a

[2]   ____________________________________________________________
      IN FILE REPL STOPPED
        b
```

2. REASON FOR OUTPUT

To report the result of executing an IN:F-REPL input message to replace one or more lines of a file.

3. VARIABLE FIELD DEFINITIONS

a = The lines above and below the line replaced.

b = Text explaining why the message was stopped.

4. ACTION TO BE TAKEN

Format 1 indicates that the message executed successfully.

Format 2 can be printed due to several errors which the system may encounter. If the explanatory text indicates that the file cannot be accessed, use the OP:ST-LISTDIR input message to verify the existence of the file. If the explanatory text indicates that there is insufficient disk space to execute the message, use the OP:ST-FREEDISK input message to verify that there is free space in the file system under which the file being edited resides.

If the message is not self-explanatory, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	282
2	288

Input Message(s):

```
IN:F-APND
IN:F-DEL
IN:F-REPL
```

```
OP:ST-LISTDIR
```

Output Message(s):

```
OP:ST-LISTDIR
```

Output Appendix(es):

```
APP:FMC
APP:OMDB-X-REF
```

Other Manual(s):

235-105-210 Routine Operations and Maintenance

IN:FSYS-DIR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    ____________________________________________________________________
       IN FILESYS DIR COMPLETED

[2]    ____________________________________________________________________
       IN FILESYS DIR STOPPED
         {CANNOT ACCESS a|
         CANNOT MAKE DIRECTORY a|
         CANNOT LINK a|
         CANNOT CHANGE OWNER a}
```

2. REASON FOR OUTPUT

To report the result of executing an IN:FSYS-DIR input message to create a directory.

3. VARIABLE FIELD DEFINITIONS

`a` = Pathname specified in the message.

4. ACTION TO BE TAKEN

If '`cannot access`' is printed, the pathname is not valid. If '`cannot make directory`' is printed, there is a directory with that name. Use the OP:ST-LISTDIR input message to verify the situation.

'`cannot link`' and '`cannot change owner`' messages are system-related errors. If either of these two messages is printed, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	282
2	282

Input Message(s):

```
CLR:FSYS-DIR
CLR:FSYS-FILE
IN:FSYS-DIR
OP:ST-LISTDIR
```

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Output Message(s):

```
OP:ST-LISTDIR
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):

235-105-210 Routine Operations and Maintenance

IN:OFR-PARM

Software Release: 5E10 and later
Message Class: OFR
Application: 5
Type: Output

1. FORMAT

```
IN OFR PARM
  DATABASE UPDATE ERROR FOR PARAMETER a
```

2. REASON FOR OUTPUT

To acknowledge the input of any of the operating or scheduling parameters of the on-line office records capability if a database update error occurs as a result of the IN:OFR-PARM input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Name of affected parameter.

4. ACTION TO BE TAKEN

Check format on IN:OFR-PARM input message. If format was correct, reissue OP:OFR-FORM message for which data base update error occurred. Otherwise reissue IN:OFR-PARM input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
IN:OFR-PARM
OP:OFR-FORM
OP:OFR-STATUS
```

Output Message(s):

```
OP:OFR-STATUS
```

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IN:REMOTE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      IN REMOTE WAITING

[2]   ____________________________________________________________________
      IN REMOTE IN PROGRESS
        FILES RECEIVED: a IN PROGRESS
        ELAPSED TIME b SPACE REMAINING c [IN PROGRESS]
        INODES REMAINING d [IN PROGRESS]
        [e ERROR f [IN PROGRESS]]
        [CREAT ERRNO = g]
```

2. REASON FOR OUTPUT

Format 1 reports that the file receive process is waiting for a session connect message from a remote sending site.

Format 2 reports totals for files successfully and unsuccessfully received from the Software Change Administration and Notification System (SCANS-2).

3. VARIABLE FIELD DEFINITIONS

`a` = Number of successfully received files.

`b` = Elapsed time in the form hours:minutes.

`c` = Number of blocks (512 bytes) remaining in the base directory on the receiving machine.

`d` = Number of inodes remaining in the base directory on the receiving machine.

`e` = Pathname of a file issued by the sending end which was not received by the file receive process.

`f` = Error code specifying the reason why the file was not received by the file receive process:

- `01` = Insufficient space on disk to store the file.
- `02` = File length exceeds the maximum length permitted (2,500,000 bytes).
- `03` = The pathname being processed matches that of a file already on disk.
- `04` = Could not create incoming file on disk.
- `05` = File transmission was interrupted.
- `06` = The system message mkdir() failed.

`g` = If the system message creat() failed ('`f`' = `4`), then '`g`' is the value of errno set by creat(). For error definitions, refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

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5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1, 2	540

Input Message(s):

```
IN:REMOTE-REPT
IN:REMOTE-START
IN:REMOTE-STOP
UPD:CLR
UPD:VFY
```

Output Message(s):

```
IN:REMOTE-ERROR
IN:REMOTE-INIT
IN:REMOTE-START
IN:REMOTE-STOP
UPD:CLR
UPD:VFY
```

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

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IN:REMOTE-ERROR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
IN REMOTE ERROR a[b][, ERRNO = c]
 [INVALID TRANSACTION ID: "d"]
 [NO TRANSACTION ID]
 [READ FAILED]
```

2. REASON FOR OUTPUT

To report the termination of the file receive process due to an error that is unrelated to the actual transmission of files. This message may occur either before, during or after the transmission of files. "inremote" refers to the process created when IN:REMOTE-START is entered.

3. VARIABLE FIELD DEFINITIONS

`a` = Reason for termination. Valid value(s):

- `01` = The file receive process could not be executed.
- `02` = A bad argument was passed to the file receive process.
- `03` = Time limit to establish the dial-up link has expired.
- `04` = Non-positive number of blocks was specified on the message line.
- `05` = Failed to connect to system port.
- `06` = Failed stat call on base directory.
- `07` = Failed ustat call on base directory.
- `08` = Insufficient disk space in base directory.
- `09` = Failed to read connect message or received invalid connect message from the remote sending system. This message may be followed by a message indicating that `READ FAILED, NO TRANSACTION ID` was sent or an `INVALID TRANSACTION ID` was sent. The latter will include the invalid ID that was sent, as noted below.
- `10` = An error occurred in the printing of file receive output messages.
- `11` = An IN:REMOTE-START request was denied because a file receive process already exists. Retry the request later.
- `12` = An IN:REMOTE-REPT or IN:REMOTE-STOP request failed because a message could not be sent to inremote or file receive process.
- `13` = An IN:REMOTE-REPT or IN:REMOTE-STOP request failed because a message could not be sent to file receive process or inremote.
- `14` = Could not enable reception of messages.
- `15` = Could not send message from file receive process to inremote.
- `16` = Bad message received by inremote.
- `17` = Bad message received by file receive.
- `18` = Unable to open SCANS data link.
- `19` = Unable to open equipment configuration database (ECD).
- `20` = Unable to get unit control block (UCB) record for SDL0.

`b` = Error code indicating an ECD access problem or database inconsistencies. The following error numbers may be printed if '`a`' = `18`.

100 = SDL is not active.
101 = No unit name listed as active in mdct record.
102 = stat() failed.
103 = lla_rdget() failed.
104 = lla_get() failed.
105 = lla_iatt() failed.
106 = getdbseg() failed.

c = The system error number. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual. The system error number will be printed if 'a'= 1, 5, 6, 7, 10, 14 or 15.

d = The invalid transaction ID received by the file receive process.

4. ACTION TO BE TAKEN

Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. If required, cancel software update order and reorder later.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	23

Input Message(s):

```
IN:REMOTE-REPT
IN:REMOTE-START
IN:REMOTE-STOP
UPD:CLR
UPD:VFY
```

Output Message(s):

```
IN:REMOTE-INIT
IN:REMOTE-START
IN:REMOTE-STOP
UPD:CLR
UPD:VFY
```

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

IN:REMOTE-INIT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
IN REMOTE INITIALIZED IP
  TRANSACTION ID: a TIME: bb:bb
```

2. REASON FOR OUTPUT

To report initialization of the software change administration and notification system (SCANS-2) interface and to provide a transaction ID to be used when ordering software updates from SCANS-2 within the next 24 hours.

3. VARIABLE FIELD DEFINITIONS

`a` = A transaction ID, from one to ten decimal digits and upper case letters. This ID is supplied to SCANS-2 when software updates are ordered. It is valid only for the next dial-in transmission of files, at which time SCANS-2 must present the transaction ID. If the ID time limit (24 hours) expires, the caller presents an invalid ID, or no ID, an IN:REM-ERROR output message will be displayed.

`b` = The time at which a 24-hour timer began, in the form hours:minutes.

4. ACTION TO BE TAKEN

Provide the transaction ID to SCANS-2 when ordering the next delivery of software updates. The order must be placed and SCANS-2 must dial in to the administrative module (AM) within 24 hours of the appearance of this message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
IN:REMOTE-REPT
IN:REMOTE-START
IN:REMOTE-STOP
UPD:CLR
UPD:VFY
```

Output Message(s):

```
IN:REMOTE-ERROR
IN:REMOTE-START
IN:REMOTE-STOP
UPD:CLR
UPD:VFY
```

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IN:REMOTE-START

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
IN REMOTE STARTED IP
  FILES STORED IN a IP
  AVAILABLE SPACE b
```

2. REASON FOR OUTPUT

To report link establishment and the start of the receipt of remote-input files.

3. VARIABLE FIELD DEFINITIONS

`a` = The full pathname of the directory where the incoming files will be stored.

`b` = The current number of free blocks (512 bytes) of space in the directory on disk.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
IN:REMOTE-REPT
IN:REMOTE-START
IN:REMOTE-STOP
UPD:CLR
UPD:VFY
```

Output Message(s):

```
IN:REMOTE-ERROR
IN:REMOTE-INIT
IN:REMOTE-STOP
```

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IN:REMOTE-STOP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
IN REMOTE STOPPED a
 [FILES MAY BE LOST]
```

2. REASON FOR OUTPUT

To report the reason for termination of the file receiving process.

3. VARIABLE FIELD DEFINITIONS

`a` = One of the following codes indicating the reason for termination:

- `0` = Successful completion of the file transfer session.
- `1` = Time limit to receive messages from the remote system has expired.
- `2` = Unable to resynchronize messages with the remote sender.
- `3` = Unable to resynchronize files with the remote sender.
- `4` = Bad file sequence number.
- `5` = Insufficient disk space to store incoming files.
- `6` = Too many files interrupted.
- `7` = An internal error occurred in the process.
- `8` = The file receive process was terminated in response to the IN:REMOTE-STOP input message.
- `9` = An I/O error occurred in writing a file to disk.
- `10` = The remote sender aborted transmission.
- `11` = The file receive process terminated for an unknown reason. This message is followed by the FILES MAY BE LOST output message indicating that the file receive session died in an unknown state.
- `12` = A bad disconnect message was received from the sender.
- `13` = The system message mkdir() failed.

4. ACTION TO BE TAKEN

Verify that all files have been received. If '`a`'= `11`, this message may be ignored if preceded by an IN:REMOTE-STOP or IN:REMOTE-ERROR output message.

5. ALARMS

Manual.

6. REFERENCES

Input Message(s):

```
IN:REMOTE-REPT
IN:REMOTE-START
IN:REMOTE-STOP
```

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Output Message(s):

```
IN:REMOTE-ERROR
IN:REMOTE-INIT
IN:REMOTE-START
```

IN:XFER

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
IN XFER  - a
  b   [c]
```

2. REASON FOR OUTPUT

To respond to an IN:XFER input message. It reports the current state of the file transfer system.

3. VARIABLE FIELD DEFINITIONS

`a` = Status of file transfer system. Valid value(s):
- `COMPLETED` = The file transfer session has stopped.
- `IN PROGRESS` = The file transfer session is running.

`b` = Additional status information. Valid value(s):
- `DATA LINK ERRORS` = The file transfer session was stopped due to errors from the data link.
- `MANUALLY TERMINATED` = The file transfer session was stopped by an IN:XFER input message with the STOP option.
- `NO ERRORS` = The file transfer session was stopped by the normal end of the session.
- `NO PASSWORD` = A session was attempted from the remote end but the IN:XFER START message was not entered.
- `PASSWORD-NO GOOD` = The file transfer session was stopped due to an incorrect password from the remote end.
- `RECEIVING` = A session is in progress and is currently receiving the file '`c`'.
- `RUNNING SHELL` = A session is in progress and is currently executing shell messages.
- `SENDING` = A session is in progress and is currently sending the file '`c`'.
- `WAITING` = A session is in progress and is currently waiting for the support computer to respond.

`c` = File name.

4. ACTION TO BE TAKEN

Inform the support person who requested the IN:XFER input message that this output message occurred.

5. ALARMS

None.

6. REFERENCES

Input Messages

IN:XFER

37. INH

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INH:ALE-A

Software Release: 5E10 - 5E11
Message Class: PRFM,PRFMRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      INH ALE a

[2]   ____________________________________________________________________
      INH ALE SM INHIBITS - SEGMENT b
        SM     INHIBITS
        c   [NOT AVAILABLE] [L1-PM] [PER-GEN]
        .          .           .        .
        .          .           .        .
        .          .           .        .

[3]   ____________________________________________________________________
      INH ALE INHIBIT REPORT - SEGMENT b
        SM=c  STATUS: d e
                                                -------LEVEL 1-------
                                                     ALERTS   REPORTS  PER
         EQUIPMENT NUMBER  DSLGM      CH TY   PM  HOUR DAY  INT DAY  GEN
         ----------------  ---------- -- --   --  ---- ---  --- ---  ---
                f          c-q-r     [s] t  [INH][INH][INH][INH][INH][INH]
                .          . . .      .  .     .   .    .    .   .    .
                .          . . .      .  .     .   .    .    .   .    .
                .          . . .      .  .     .   .    .    .   .    .

[4]   ____________________________________________________________________
      INH ALE u: TOTAL OF v SEGMENTS PRINTED
```

2. REASON FOR OUTPUT

To acknowledge the INH:ALE input message and indicate the status of automatic line evaluation (ALE) control parameters. The parameters reported in this message are grouped into two classes:

A = Switching module (SM) controls:

The SM parameters control the behavior of the level 1 performance monitoring and protocol error record (PER) generation. Refer to the Protocol Error Record Descriptions manual for additional information about a specific PER.

If the level 1 parameter is inhibited, then level 1 performance monitoring is not active for any of the U-interface digital subscriber lines (DSLs) on the SM. If allowed, then level 1 performance monitoring status for a U-interface DSL is determined by the level 1 performance monitoring group assigned to the DSL.

If the PER generation parameter is inhibited, then no PERs will be recorded for any integrated services digital network (ISDN) protocol channels on the SM. If the parameter is allowed, then the PER generation parameter for the individual ISDN protocol channel determines if PERs are recorded for that channel.

B = Line/trunk controls:

Line/trunk ALE controls consist of a set of level 1 parameters and the PER generation parameter. The level 1 parameters only apply to U-interface DSLs. The PER generation parameter applies to all ISDN protocol channels, whether supported on lines or trunks. Only the PER generation control parameter may be manipulated by the INH:ALE input message. The level 1 parameters are manipulated using RC/V View 22.15 for performance monitoring groups. The level 1 parameters are reported for completeness.

The level 1 control parameters consist of an overall level 1 inhibit, hourly alert generation, daily alert generation, interval report generation, and daily report generation. If the overall level 1 inhibit is active, then all level 1 performance monitoring activities for the U-interface are disabled. If the hourly alert generation inhibit is active, then the reporting of hourly alerts to the receive-only printer (ROP) will be suppressed for the interface. If the daily alert generation inhibit is active, then the reporting of daily alerts to the ROP will be suppressed for the interface. If the interval report generation inhibit is active, then the interface will not contribute to the interval report, if applicable. If the daily report generation inhibit is active, then the interface will not contribute to the daily report, if applicable. One or more of the level 1 controls may be active. This information is only applicable to U-interface DSLs.

If the PER generation inhibit is active, then no PERs will be recorded for the ISDN protocol channel.

Format 1 provides a status message for the progress of the inhibit request.

Format 2 acknowledges manipulation of the SM control parameters. Up to 24 SMs may be reported in a single message.

Format 3 acknowledges manipulation of the line/trunk control parameters. Up to 6 ISDN protocol channels may be reported in a single message.

Format 4 provides a completion message indicating the number of segments printed for the session.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`INH` = Inhibited. Otherwise allowed.

`L1-PM` = Level 1 protocol monitoring is inhibited for this SM.

`NOT AVAILABLE` = Inhibit status information cannot be obtained for this SM.

`PER-GEN` = PER generation is inhibited for this SM.

`a` = Status message. Valid value(s):

`ABORTED-COMMUNICATION FAILURE` = The current inhibit request was stopped because of failures in inter-process message transmission.

`ABORTED-DATABASE ERROR` = The current inhibit request was stopped due to database access failure in the administrative module (AM).

`ABORTED-INVALID SM` = The requested SM was invalid.

`COMPLETED` = The inhibit request was completed.

`COMPLETED-NO DSLS EQUIPPED/ASSIGNED` = The SM to effect the PER generation inhibit does not have any ISDN protocol channels assigned.

`NOT STARTED-INVALID PORT` = A single ISDN protocol channel PER generation inhibit request was made for a non-existent channel.
`NOT STARTED-INVALID REQUEST` = A single ISDN protocol channel PER generation inhibit request was made where the channel option was specified in conjunction with a line identifier other than line card equipment number (LCEN) or line circuit equipment number (LCKEN).
`NOT STARTED-SM UNAVAILABLE` = A single ISDN protocol channel PER generation inhibit request was made where the channel was on an SM that was not fully operational.
`NOT STARTED-NON-PRIMARY DN SPECIFIED` = A PER generation inhibit request was made for a DN that was not a primary DN.
`STARTED` = The inhibit ALE request has begun processing.

`b` = Segment number.

`c` = SM number.

`d` = Level 1 performance monitoring status. Valid value(s):
`L1PM-ALW` = Level 1 performance monitoring is allowed.
`L1PM-INH` = Level 1 performance monitoring is inhibited.

`e` = PER generation status. Valid value(s):
`PER-ALW` = PER generation is allowed.
`PER-INH` = PER generation is inhibited.

`f` = Equipment number. Valid value(s):

DEN=c-g-h-i
EOC=c-m-n-p
ILEN=c-m-n-o
LCEN=c-j-k-l
LCKEN=c-z-h^1-a^1-b^1
NEN=c-c^1-d^1-e^1-f^1-g^1
PSUEN=c-w-x-y-r
TMC=c-m-n-p

`g` = Digital line and trunk unit (DLTU) number.

`h` = Digital facility interface number.

`i` = Digital channel number.

`j` = Integrated services line unit number.

`k` = Line group controller number.

`l` = Line card number.

`m` = Integrated digital carrier unit number.

`n` = Remote terminal number.

`o` = Channel unit number.

`p` = Primary/protection identifier.

`q` = Protocol handler (PH) channel group number.

`r` = PH channel group member number.

`s` = Channel type. Valid value(s):

`B1`	= Channel B1.
`B2`	= Channel B2.
`D`	= D-channel.

`t` = Interface type. Valid value(s):

`FD`	= EOC or TMC facility data link.
`SH`	= Speech handler trunk.
`SU`	= *ANSI*® U-Interface.
`T`	= T-interface.
`TK`	= Digital trunk.
`U`	= Alternate mark inversion (AMI) U-interface.
`XT`	= X.25 link over T1 trunk.

`u` = Completion status. Valid value(s):

`COMPLETED`	= Operation successfully completed.
`STOPPED`	= Operation stopped.

`v` = Number of segments printed.

`w` = Packet switching unit (PSU) number.

`x` = PSU shelf number.

`y` = PSU channel group number.

`z` = Integrated service line unit 2 (ISLU2) number.

`a`[1] = Line board number.

`b`[1] = Line circuit number.

`c`[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

`d`[1] = Data group (DG) number.

`e`[1] = Synchronous transport signal (STS) number.

`f`[1] = Virtual tributary (VT1.5) number.

`g`[1] = Digital signal level 0 (DS0) number.

`h`[1] = Line group number.

4. ACTION TO BE TAKEN

Inspect the INH:ALE output message. If the status of the indicated parameters is incorrect, use the INH:ALE and ALW:ALE input messages or RC/V Views to correct the status of the incorrect parameters.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:ALE
INH:ALE
EXC:ALE
OP:ALE
```

Output Message(s):

```
ALW:ALE
OP:ALE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-600-755 *Protocol Error Record Descriptions*

RC/V View(s):

22.15 (PERFORMANCE MONITORING THRESHOLD GROUP)

INH:ALE-B

Software Release: 5E12 only
Message Class: PRFM,PRFMRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      INH ALE a

[2]   ____________________________________________________________________
      INH ALE SM INHIBITS - SEGMENT b
        SM     INHIBITS
        c   [NOT AVAILABLE] [L1-PM] [PER-GEN]
        .          .           .        .
        .          .           .        .
        .          .           .        .

[3]   ____________________________________________________________________
      INH ALE INHIBIT REPORT - SEGMENT b
        SM=c  STATUS: d e
                                                -------LEVEL 1-------
                                                     ALERTS   REPORTS  PER
         EQUIPMENT NUMBER  DSLGM      CH TY   PM  HOUR DAY  INT DAY  GEN
         ----------------  ---------- -- --   --  ---- ---  --- ---  ---
                f          c-q-r     [s] t  [INH][INH][INH][INH][INH][INH]
                .          . . .      .  .     .   .    .    .   .    .
                .          . . .      .  .     .   .    .    .   .    .
                .          . . .      .  .     .   .    .    .   .    .

[4]   ____________________________________________________________________
      INH ALE u: TOTAL OF v SEGMENTS PRINTED
```

2. REASON FOR OUTPUT

To acknowledge the INH:ALE input message and indicate the status of automatic line evaluation (ALE) control parameters. The parameters reported in this message are grouped into two classes:

A = Switching module (SM) controls:

The SM parameters control the behavior of the level 1 performance monitoring and protocol error record (PER) generation. Refer to the Protocol Error Record Descriptions manual for additional information about a specific PER.

If the level 1 parameter is inhibited, then level 1 performance monitoring is not active for any of the U-interface digital subscriber lines (DSLs) on the SM. If allowed, then level 1 performance monitoring status for a U-interface DSL is determined by the level 1 performance monitoring group assigned to the DSL.

If the PER generation parameter is inhibited, then no PERs will be recorded for any integrated services digital network (ISDN) protocol channels on the SM. If the parameter is allowed, then the PER generation parameter for the individual ISDN protocol channel determines if PERs are recorded for that channel.

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B = Line/trunk controls:

Line/trunk ALE controls consist of a set of level 1 parameters and the PER generation parameter. The level 1 parameters only apply to U-interface DSLs. The PER generation parameter applies to all ISDN protocol channels, whether supported on lines or trunks. Only the PER generation control parameter may be manipulated by the INH:ALE input message. The level 1 parameters are manipulated using RC/V View 22.15 for performance monitoring groups. The level 1 parameters are reported for completeness.

The level 1 control parameters consist of an overall level 1 inhibit, hourly alert generation, daily alert generation, interval report generation, and daily report generation. If the overall level 1 inhibit is active, then all level 1 performance monitoring activities for the U-interface are disabled. If the hourly alert generation inhibit is active, then the reporting of hourly alerts to the receive-only printer (ROP) will be suppressed for the interface. If the daily alert generation inhibit is active, then the reporting of daily alerts to the ROP will be suppressed for the interface. If the interval report generation inhibit is active, then the interface will not contribute to the interval report, if applicable. If the daily report generation inhibit is active, then the interface will not contribute to the daily report, if applicable. One or more of the level 1 controls may be active. This information is only applicable to U-interface DSLs.

If the PER generation inhibit is active, then no PERs will be recorded for the ISDN protocol channel.

Format 1 provides a status message for the progress of the inhibit request.

Format 2 acknowledges manipulation of the SM control parameters. Up to 24 SMs may be reported in a single message.

Format 3 acknowledges manipulation of the line/trunk control parameters. Up to 6 ISDN protocol channels may be reported in a single message.

Format 4 provides a completion message indicating the number of segments printed for the session.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`INH` = Inhibited. Otherwise allowed.

`L1-PM` = Level 1 protocol monitoring is inhibited for this SM.

`NOT AVAILABLE` = Inhibit status information cannot be obtained for this SM.

`PER-GEN` = PER generation is inhibited for this SM.

`a` = Status message. Valid value(s):

`ABORTED-COMMUNICATION FAILURE` = The current inhibit request was stopped because of failures in inter-process message transmission.

`ABORTED-DATABASE ERROR` = The current inhibit request was stopped due to database access failure in the administrative module (AM).

`ABORTED-INVALID SM` = The requested SM was invalid.

`COMPLETED` = The inhibit request was completed.

`COMPLETED-NO DSLS EQUIPPED/ASSIGNED` = The SM to effect the PER generation inhibit does not have any ISDN protocol channels assigned.

`NOT STARTED-INVALID PORT` = A single ISDN protocol channel PER generation inhibit request was made for a non-existent channel.
`NOT STARTED-INVALID REQUEST` = A single ISDN protocol channel PER generation inhibit request was made where the channel option was specified in conjunction with a line identifier other than line card equipment number (LCEN) or line circuit equipment number (LCKEN).
`NOT STARTED-SM UNAVAILABLE` = A single ISDN protocol channel PER generation inhibit request was made where the channel was on an SM that was not fully operational.
`NOT STARTED-NON-PRIMARY DN SPECIFIED` = A PER generation inhibit request was made for a DN that was not a primary DN.
`NOT STARTED-NON-UNIQUE NXX DN` = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.
`STARTED` = The inhibit ALE request has begun processing.

`b` = Segment number.

`c` = SM number.

`d` = Level 1 performance monitoring status. Valid value(s):
`L1PM-ALW` = Level 1 performance monitoring is allowed.
`L1PM-INH` = Level 1 performance monitoring is inhibited.

`e` = PER generation status. Valid value(s):
`PER-ALW` = PER generation is allowed.
`PER-INH` = PER generation is inhibited.

`f` = Equipment number. Valid value(s):

$AIUEN=c-i^1-j^1-k^1$
$DEN=c-g-h-i$
$DNUSEOC=c-c^1-n-p$
$DNUSTMC=c-c^1-n-p$
$IDCUEOC=c-m-n-p$
$IDCUTMC=c-m-n-p$
$ILEN=c-m-n-o$
$INEN=c-c^1-n-o$
$LCEN=c-j-k-l$
$LCKEN=c-z-h^1-a^1-b^1$
$NEN=c-c^1-d^1-e^1-f^1-g^1$
$PSUEN=c-w-x-y-r$

`g` = Digital line and trunk unit (DLTU) number. section of the Output Messages manual.

`h` = Digital facility interface number.

`i` = Digital channel number.

`j` = Integrated services line unit number.

`k` = Line group controller number.

`l` = Line card number.

`m` = Integrated digital carrier unit number.

`n` = Remote terminal (RT) number.

`o` = RT line number.

`p` = Primary/protection identifier.

`q` = Protocol handler (PH) channel group number.

`r` = PH channel group member number.

`s` = Channel type. Valid value(s):

`B1`	= Channel B1.
`B2`	= Channel B2.
`D`	= D-channel.

`t` = Interface type. Valid value(s):

`FD`	= EOC or TMC facility data link.
`SH`	= Speech handler trunk.
`SU`	= *ANSI*® U-Interface.
`T`	= T-interface.
`TK`	= Digital trunk.
`U`	= Alternate mark inversion (AMI) U-interface.
`XT`	= X.25 link over T1 trunk.

`u` = Completion status. Valid value(s):

`COMPLETED`	= Operation successfully completed.
`STOPPED`	= Operation stopped.

`v` = Number of segments printed.

`w` = Packet switching unit (PSU) number.

`x` = PSU shelf number.

`y` = PSU channel group number.

`z` = Integrated service line unit 2 (ISLU2) number.

`a`[1] = Line board number.

`b`[1] = Line circuit number.

`c`[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

`d`[1] = Data group (DG) number.

`e`[1] = Synchronous transport signal (STS) number.

`f`[1] = Virtual tributary (VT1.5) number.

g[1] = Digital signal level 0 (DS0) number.

h[1] = Line group number.

i[1] = Access interface unit (AIU) number.

j[1] = AIU pack number.

k[1] = AIU circuit number.

4. ACTION TO BE TAKEN

Inspect the INH:ALE output message. If the status of the indicated parameters is incorrect, use the INH:ALE and ALW:ALE input messages or RC/V Views to correct the status of the incorrect parameters.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:ALE
INH:ALE
EXC:ALE
OP:ALE
```

Output Message(s):

```
ALW:ALE
OP:ALE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-600-755 *Protocol Error Record Descriptions*

RC/V View(s):

22.15 (PERFORMANCE MONITORING THRESHOLD GROUP)

INH:ALE-C

Software Release: 5E13 and later
Message Class: PRFM,PRFMRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      INH ALE a

[2]   ____________________________________________________________________
      INH ALE SM INHIBITS - SEGMENT b
        SM     INHIBITS
        c   [NOT AVAILABLE] [L1-PM] [PER-GEN]
        .          .           .        .
        .          .           .        .
        .          .           .        .

[3]   ____________________________________________________________________
      INH ALE INHIBIT REPORT - SEGMENT b
        SM=c  STATUS: d e
                                              -------LEVEL 1-------
                                                   ALERTS   REPORTS  PER
         EQUIPMENT NUMBER  DSLGM      CH TY   PM  HOUR DAY  INT DAY  GEN
         ----------------  ---------- -- --   --  ---- ---  --- ---  ---
                f          c-q-r     [s] t  [INH][INH][INH][INH][INH][INH]
                .          . . .      .  .     .   .    .    .   .    .
                .          . . .      .  .     .   .    .    .   .    .
                .          . . .      .  .     .   .    .    .   .    .

[4]   ____________________________________________________________________
      INH ALE u: TOTAL OF v SEGMENTS PRINTED
```

2. REASON FOR OUTPUT

To acknowledge the INH:ALE input message and indicate the status of automatic line evaluation (ALE) control parameters. The parameters reported in this message are grouped into two classes:

A = Switching module (SM) controls:

The SM parameters control the behavior of the level 1 performance monitoring and protocol error record (PER) generation. Refer to the Protocol Error Record Descriptions manual for additional information about a specific PER.

If the level 1 parameter is inhibited, then level 1 performance monitoring is not active for any of the U-interface digital subscriber lines (DSLs) on the SM. If allowed, then level 1 performance monitoring status for a U-interface DSL is determined by the level 1 performance monitoring group assigned to the DSL.

If the PER generation parameter is inhibited, then no PERs will be recorded for any integrated services digital network (ISDN) protocol channels on the SM. If the parameter is allowed, then the PER generation parameter for the individual ISDN protocol channel determines if PERs are recorded for that channel.

B = Line/trunk controls:

Line/trunk ALE controls consist of a set of level 1 parameters and the PER generation parameter. The level 1 parameters only apply to U-interface DSLs. The PER generation parameter applies to all ISDN protocol channels, whether supported on lines or trunks. Only the PER generation control parameter may be manipulated by the INH:ALE input message. The level 1 parameters are manipulated using RC/V View 22.15 for performance monitoring groups. The level 1 parameters are reported for completeness.

The level 1 control parameters consist of an overall level 1 inhibit, hourly alert generation, daily alert generation, interval report generation, and daily report generation. If the overall level 1 inhibit is active, then all level 1 performance monitoring activities for the U-interface are disabled. If the hourly alert generation inhibit is active, then the reporting of hourly alerts to the receive-only printer (ROP) will be suppressed for the interface. If the daily alert generation inhibit is active, then the reporting of daily alerts to the ROP will be suppressed for the interface. If the interval report generation inhibit is active, then the interface will not contribute to the interval report, if applicable. If the daily report generation inhibit is active, then the interface will not contribute to the daily report, if applicable. One or more of the level 1 controls may be active. This information is only applicable to U-interface DSLs.

If the PER generation inhibit is active, then no PERs will be recorded for the ISDN protocol channel.

Format 1 provides a status message for the progress of the inhibit request.

Format 2 acknowledges manipulation of the SM control parameters. Up to 24 SMs may be reported in a single message.

Format 3 acknowledges manipulation of the line/trunk control parameters. Up to 6 ISDN protocol channels may be reported in a single message.

Format 4 provides a completion message indicating the number of segments printed for the session.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`INH` = Inhibited. Otherwise allowed.

`L1-PM` = Level 1 protocol monitoring is inhibited for this SM.

`NOT AVAILABLE` = Inhibit status information cannot be obtained for this SM.

`PER-GEN` = PER generation is inhibited for this SM.

`a` = Status message. Valid value(s):

`ABORTED-COMMUNICATION FAILURE` = The current inhibit request was stopped because of failures in inter-process message transmission.

`ABORTED-DATABASE ERROR` = The current inhibit request was stopped due to database access failure in the administrative module (AM).

`ABORTED-INVALID SM` = The requested SM was invalid.

`COMPLETED` = The inhibit request was completed.

`COMPLETED-NO DSLS EQUIPPED/ASSIGNED` = The SM to effect the PER generation inhibit does not have any ISDN protocol channels assigned.

NOT STARTED-INVALID PORT = A single ISDN protocol channel PER generation inhibit request was made for a non-existent channel.
NOT STARTED-INVALID REQUEST = A single ISDN protocol channel PER generation inhibit request was made where the channel option was specified in conjunction with a line identifier other than line card equipment number (LCEN) or line circuit equipment number (LCKEN).
NOT STARTED-SM UNAVAILABLE = A single ISDN protocol channel PER generation inhibit request was made where the channel was on an SM that was not fully operational.
NOT STARTED-NON-PRIMARY DN SPECIFIED = A PER generation inhibit request was made for a DN that was not a primary DN.
NOT STARTED-NON-UNIQUE NXX DN = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.
STARTED = The inhibit ALE request has begun processing.

b = Segment number.

c = SM number.

d = Level 1 performance monitoring status. Valid value(s):
L1PM-ALW = Level 1 performance monitoring is allowed.
L1PM-INH = Level 1 performance monitoring is inhibited.

e = PER generation status. Valid value(s):
PER-ALW = PER generation is allowed.
PER-INH = PER generation is inhibited.

f = Equipment number. Valid value(s):

```
AIUEN=c-i1-j1-k1
 DEN=c-g-h-i
 DNUSEOC=c-c1-n-p
 DNUSTMC=c-c1-n-p
 IDCUEOC=c-m-n-p
 IDCUTMC=c-m-n-p
 ILEN=c-m-n-o
 INEN=c-c1-n-o
 LCEN=c-j-k-l
 LCKEN=c-z-h1-a1-b1
 NEN=c-c1-d1-l1-e1-f1-m1-g1
 PSUEN=c-w-x-y-r
```

g = Digital line and trunk unit (DLTU) number.

h = Digital facility interface number.

i = Digital channel number.

j = Integrated services line unit number.

k = Line group controller number.

`l` = Line card number.

`m` = Integrated digital carrier unit number.

`n` = Remote terminal (RT) number.

`o` = RT line number.

`p` = Primary/protection identifier.

`q` = Protocol handler (PH) channel group number.

`r` = PH channel group member number.

`s` = Channel type. Valid value(s):

`B1`	= Channel B1.
`B2`	= Channel B2.
`D`	= D-channel.

`t` = Interface type. Valid value(s):

`ADT`	= Autoplex Data Trunk.
`BC`	= Frame Relay Bearer Channel.
`FD`	= EOC or TMC facility data link.
`SH`	= Speech handler trunk.
`SU`	= *ANSI*® U-Interface.
`T`	= T-interface.
`TK`	= Digital trunk.
`U`	= Alternate mark inversion (AMI) U-interface.
`XT`	= X.25 link over T1 trunk.

`u` = Completion status. Valid value(s):

`COMPLETED`	= Operation successfully completed.
`STOPPED`	= Operation stopped.

`v` = Number of segments printed.

`w` = Packet switching unit (PSU) number.

`x` = PSU shelf number.

`y` = PSU channel group number.

`z` = Integrated service line unit 2 (ISLU2) number.

`a`[1] = Line board number.

`b`[1] = Line circuit number.

`c`[1] = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

`d`[1] = Data group (DG) number.

`e`[1] = Synchronous transport signal (STS) facility number.

`f`[1] = Virtual tributary group (VTG) number.

`g`[1] = Digital signal level 0 (DS0) number.

`h`[1] = Line group number.

`i`[1] = Access interface unit (AIU) number.

`j`[1] = AIU pack number.

`k`[1] = AIU circuit number.

`l`[1] = SONET termination equipment (STE) facility number.

`m`[1] = Virtual tributary member (VTM) number.

4. ACTIONS TO BE TAKEN

Inspect the INH:ALE output message. If the status of the indicated parameters is incorrect, use the INH:ALE and ALW:ALE input messages or RC/V Views to correct the status of the incorrect parameters.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:ALE
INH:ALE
EXC:ALE
OP:ALE
```

Output Message(s):

```
ALW:ALE
OP:ALE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-600-755 *Protocol Error Record Descriptions*

RC/V View(s):

22.15 (PERFORMANCE MONITORING THRESHOLD GROUP)

INH:ALM-A

Software Release: 5E10 - 5E11
Message Class: BPSC
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      INH ALM {BPSC a|MISC b|ESM} c [d]

[2]   ____________________________________________________________________
      INH ALM RBPSC=e SM=f g c
       [h]

[3]   ____________________________________________________________________
      INH ALM RIBMSC=e SITE=i g c [j]
```

2. REASON FOR OUTPUT

To give a termination report of a request to inhibit alarm reporting on scan points. Format 1 is for alarms associated with input/output processor (IOP) scan points. Format 2 is for those remote switching modules (RSM), optical remote modules (ORM), or two-mile remote modules (TRM), which are equipped with MMSU scan points (remote alarm input option) and the alarm status circuit (remote alarm output option). Format 3 is for alarms assigned to remote integrated services line unit (RISLU) building/miscellaneous alarm scan points.

3. VARIABLE FIELD DEFINITIONS

`ESM` = External sanity monitor.

`a` = Building/power scan point (BPSC) number.

`b` = AM miscellaneous (MISC) scan point number.

`c` = Termination report. Valid value(s):
`ABORTED`
`COMPLETED`
`NOT STARTED`

`d` = Explanation of termination report, if needed. Valid value(s):
`INCONSISTENT DATA`
`INVALID OPERATION`
`NOT INHIBITABLE`
`VALID WITH CM1 ONLY`
`VALID WITH CM2 ONLY`

`e` = Remote building/power scan point number (RBPSC) or RISLU building/miscellaneous alarm scan point number (RIBMSC).

`f` = Switching module (SM) number.

`g` = Name of scan point.

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h = Explanation of termination report for type RBPSC. Valid value(s):

ALARM PROCESS NOT ACTIVE = The switching module (SM) number specified does not have remote alarms associated with it.

BOTH MSU SG OOS = Both metallic service unit (MSU) service groups (SG) are out of service (OOS); however, the software copy of the inhibit state was changed, so when the service groups are put back into service, the point will be inhibited.

DATA BASE ERROR = A database error was found.

ONE MSU SG OOS = One metallic service unit (MSU) service group (SG) is out of service (OOS). The point was successfully inhibited in the active service group. The software copy of the inhibit state was changed in the other service group, so when it is put back into service, the point will be inhibited there also. If no explanation prints, then the requested inhibit was invoked. Both metallic service unit (MSU) service groups are in service.

POINT ALREADY INHIBITED = The point is already inhibited.

POINT NOT ASSIGNED = The point is shown as not in service in the data base.

POINT OUT OF PERMITTED RANGE = The specified point is not within the range of the remote bldg/pwr group.

SOFTWARE FAILURE = A software failure error was found.

i = RISLU site number.

j = Explanation of completion status for type RIBMSC.

If 'c' **=**	'j'
ABORTED	AUDIT IN PROGRESS = The removt alarm section (RAS) data is being verified, so the requested inhibit cannot be performed. Since the audit takes at most 2 minutes (at often completes much sooner), the inhibit request can be resubmitted in a short time. POINT ALREADY INHIBITED = The point is already inhibited. POINT NOT ASSIGNED = The point is shown as not in service in the database.
COMPLETED	RAS ISOLATED FROM SM = The RAS did not acknowledge the SM's order. However, the SM's software copy of the allow state was changed, so when the RAS's data link digital subscriber line (DSL) returns to service, the point will be inhibited. If no explanation prints, then the requested allow was invoked. The RAS at the RISLU site acknowledged the request.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:ALM
OP:ALM
```

Output Message(s):

```
ALW:ALM
REPT:ALM
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RC/V View(s):

105/106 (BLDG/POWER & ALARM CNTROLS)
1010 (SM STATUS)
1400 (RSM BLDG/PWR ALARMS)
1420 (RISLU BLDG/PWR ALARMS)
1460 (DATA LINK DSLS)
1630 (RISLU SITE INDEX)

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INH:ALM-B

Software Release: 5E12 and later
Message Class: BPSC
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      INH ALM {BPSC a|MISC b|ESM} c [d]

[2]   ____________________________________________________________________
      INH ALM RBPSC=e SM=f g c
       [h]

[3]   ____________________________________________________________________
      INH ALM RAS SCPT=e SITE=i g c [j]

[4]   ____________________________________________________________________
      INH ALM EAIU=f-k SCPT=e g c [l]
```

2. REASON FOR OUTPUT

To give a termination report of a request to inhibit alarm reporting on scan points. Format 1 is for alarms associated with input/output processor (IOP) scan points. Format 2 is for alarms assigned to remote switching modules (RSM), optical remote modules (ORM), or two-mile remote modules (TRM) which are equipped with metallic service unit (MSU) scan points and have the alarm input option on. Format 3 is for alarms assigned to remote alarm section (RAS) scan points. Format 4 is for alarms assigned to expansion access interface unit (EAIU) scan points.

3. VARIABLE FIELD DEFINITIONS

`ESM` = External sanity monitor.

`SCPT` = Scan point.

`a` = Building/power scan point (BPSC) number.

`b` = AM miscellaneous (MISC) scan point number.

`c` = Termination report. Valid value(s):
`ABORTED`
`COMPLETED`
`NOT STARTED`

`d` = Explanation of termination report, if needed. Valid values include:
`INCONSISTENT DATA`
`INVALID OPERATION`
`NOT INHIBITABLE`
`VALID WITH CM1 ONLY`
`VALID WITH CM2 ONLY`

`e` = Remote building/power scan point (RBPSC) number, RAS scan point number, or EAIU scan point number.

f = Switching module (SM) number.

g = Name of scan point.

h = Explanation of termination report for type RBPSC. Valid value(s):
ALARM PROCESS NOT ACTIVE = The switching module (SM) number specified does not have remote alarms associated with it.
BOTH MSU SG OOS = Both metallic service unit (MSU) service groups (SG) are out of service (OOS); however, the software copy of the inhibit state was changed, so when the service groups are put back into service, the point will be inhibited.
DATA BASE ERROR = A database error was found.
ONE MSU SG OOS = One metallic service unit (MSU) service group (SG) is out of service (OOS). The point was successfully inhibited in the active service group. The software copy of the inhibit state was changed in the other service group, so when it is put back into service, the point will be inhibited there also. If no explanation prints, then the requested inhibit was invoked. Both metallic service unit (MSU) service groups are in service.
POINT ALREADY INHIBITED = The point is already inhibited.
POINT NOT ASSIGNED = The point is shown as not in service in the data base.
POINT OUT OF PERMITTED RANGE = The specified point is not within the range of the remote building/power group.
SOFTWARE FAILURE = A software failure error was found.

i = Remote peripheral site number.

j = Explanation of termination report for RAS.

If 'c' **=**	'j'
ABORTED	AUDIT IN PROGRESS = The removt alarm section (RAS) data is being verified, so the requested inhibit cannot be performed. Since the audit takes at most 2 minutes (at often completes much sooner), the inhibit request can be resubmitted in a short time. POINT ALREADY INHIBITED = The point is already inhibited. POINT NOT ASSIGNED = The point is shown as not in service in the database.
COMPLETED	RAS ISOLATED FROM SM = The RAS did not acknowledge the SM's order. However, the SM's software copy of the allow state was changed, so when the RAS's data link digital subscriber line (DSL) returns to service, the point will be inhibited. If no explanation prints, then the requested allow was invoked. The RAS at the RISLU site acknowledged the request.

k = EAIU unit number.

l = Explanation of termination report for type EAIU (if needed). Valid value(s):
FAILED MASK UPDATE = Failed to write hardware inhibit/allow mask.
POINT ALREADY INHIBITED = Point is already inhibited.
POINT NOT ASSIGNED = Point is not assigned in the database.
POINT NOT IN USE = Point is shown as not in use in the database.
POINT OUT OF RANGE = Point is not within the range of valid scan points.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:ALM
OP:ALM
```

Output Message(s):

```
ALW:ALM
REPT:ALM
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RC/V View(s):

105/106 (BLDG/POWER & ALARM CNTRLS)
119 (MISCELLANEOUS ALARMS)
1400 (RSM BLDG/PWR ALARMS)
1420 (RAS ALARMS)
1640 (REMOTE PERPH MISC ALARMS)

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INH:AUD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    ____________________________________________________________________
       INH AUD COMPLETED

[2]    ____________________________________________________________________
       INH AUD NOT STARTED
         {CONFLICT WITH CURRENT SYSTEM STATUS  a|RETRY LATER  b|
         UNABLE TO IDENTIFY ERROR INPUT ERROR}
```

2. REASON FOR OUTPUT

To report the termination status of the INH:AUD input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Explanation of error. Refer to the APP:MEM-NUM-UNIT appendix in the Appendixes section of the Output Messages manual.

`b` = Explanation of error. Refer to the APP:MEM-NUM-CU appendix in the Appendixes section of the Output Messages manual.

Note: Refer to the APP:MEM-NUM-AUD appendix in the Appendixes section of the Output Messages manual for assorted parsing errors when the SM is not active.

4. ACTION TO BE TAKEN

For Format 2, use the OP:AUD input message to determine the current system status.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:AUD
OP:AUD
```

Input Appendix(es):

```
APP:MEM-NUM-AUD
APP:MEM-NUM-CU
APP:MEM-NUM-UNIT
```

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Output Appendix(es):

```
APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D
```

Other Manual(s):
235-600-400 *Audits*

INH:CAMAONI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH:CAMAONI COMPLETED
```

2. REASON FOR OUTPUT

To print in response to the INH:CAMAONI input message.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

None.

5. ALARMS

Minor.

6. REFERENCES

Input Message(s):

```
ALW:CAMAONI

INH:CAMAONI
```

Output Message(s):

```
ALW:CAMAONI
```

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INH:CLNORM

Software Release: 5E10 and later
Message Class: CLNK
Application: 5
Type: Output

1. FORMAT

```
INH CLNORM [{FPC|CMP}] COMPLETED
```

2. REASON FOR OUTPUT

To report that the communication link normalization (CLNORM) process has been inhibited in response to an INH:CLNORM input message. Automatic communication link, foundation peripheral controller (FPC), and communication module processor (CMP) reconfiguration actions will not be performed by CLNORM.

3. VARIABLE FIELD DEFINITIONS

`CMP` = Only CMP reconfiguration actions are inhibited. Automatic communication link and FPC reconfigurations can still occur.

`FPC` = Only FPC reconfiguration actions are inhibited. Automatic communication link and CMP reconfigurations can still occur.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:CLNORM
INH:CLNORM
```

Output Message(s):

```
ALW:CLNORM
```

Other Manual(s):

235-105-250 System Recovery

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INH:CONFLOG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    ____________________________________________________________________
       INH CONFLOG COMPLETED

[2]    ____________________________________________________________________
       INH CONFLOG NOT STARTED
         INVALID ID FIELD  a

[3]    ____________________________________________________________________
       INH CONFLOG NOT STARTED
         RETRY LATER
```

2. REASON FOR OUTPUT

To report the termination status of the INH:CONFLOG input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Message syntax is invalid or the unit name or number does not exist in the equipment configuration database (ECD).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:CONFLOG
INH:CONFLOG
```

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INH:CORC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH CORC a
```

2. REASON FOR OUTPUT

To report the status of the INH:CORC input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination report: Valid value(s):
`COMPLETED` = The requested action was terminated after completion.
`STOPPED` = The requested action was terminated before a normal completion.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Generic Retrofit Procedures manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:CORC
INH:RC
```

Output Message(s):

```
ALW:CORC
```

Other Manual(s):

Where ' 5x 1' is the release-specific version of the document. 235-105-24x Generic Retrofit Procedures

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INH:DEBUG-A

Software Release: 5E10 - 5E11
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

[1]
```
INH DEBUG a SM[=b[&&c]] d
```

[2]
```
INH DEBUG a AM d
```

2. REASON FOR OUTPUT

To report the results of an INH:DEBUG input message.

Format 1 is for ALE, DIGITAL, METALLIC and CCS7MTCE SM only cases. Format 2 is for CCS7MTCE AM only cases.

3. VARIABLE FIELD DEFINITIONS

`AM` = Administrative module.

`SM` = Switching module.

`a` = Feature with additional debugging messages. Valid value(s):
- `ALE` = Automatic line evaluation
- `CCS7MTCE` = Common channel signal maintenance activity.
- `DIGITAL` = Digital testing of lines (TST:DSL) and trunks (TST:TRK)
- `METALLIC` = Metallic testing of lines.

`b` = Switching module (SM) number or the lower limit of a range of SM numbers.

`c` = The upper limit of a range of SM numbers.

`d` = The result of the request. Valid value(s):
- `COMPLETED` = The debug messages were allowed on the specified SM(s).
- `SM UNAVAILABLE` = The request could not be completed because the specified SM(s) was/were not able to communicate with the administrative module (AM).
- `SM UNEQUIPPED` = The request could not be completed because the specified SM(s) did not exist.

4. ACTION TO BE TAKEN

When the report indicates `SM UNAVAILABLE`, retry the input request once the SM(s) becomes available. Otherwise no action is required.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ALW:DEBUG
INH:DEBUG
TST:DSL
TST:TRK
```

Output Message(s):

```
ALW:DEBUG
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

INH:DEBUG-B

Software Release: 5E12 - 5E13
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

[1]
```
INH DEBUG a SM[=b[&&c]] d
```

[2]
```
INH DEBUG a AM d
```

2. REASON FOR OUTPUT

To report the results of an INH:DEBUG input message.

Format 1 is for ALE, DIGITAL, METALLIC, METPTRACE, METALLMSG, METRESBLK, METSWBLK, METHWFAIL, and CCS7MTCE SM only cases. Format 2 is for CCS7MTCE AM only cases.

3. VARIABLE FIELD DEFINITIONS

`a` = Feature with additional debugging messages. Valid value(s):
- `ALE` = Automatic line evaluation
- `CCS7MTCE` = Common channel signal maintenance activity.
- `DIGITAL` = Digital testing of lines (TST:DSL) and trunks (TST:TRK)
- `METALLIC` = Metallic testing of lines.
- `METPTRACE` = Metallic related PTRACEs.
- `METALLMSG` = Metallic path setup blockage and failure (REPT:METALLIC).
- `METRESBLK` = Metallic path setup resource blockage (REPT:METALLIC).
- `METSWBLK` = Metallic path setup software blockage (REPT:METALLIC).
- `METHWFAIL` = Metallic path setup hardware failure (REPT:METALLIC).

`b` = Switching module (SM) number or the lower limit of a range of SM numbers.

`c` = The upper limit of a range of SM numbers.

`d` = The result of the request. Valid value(s):
- `COMPLETED` = The debug messages were allowed on the specified SM(s).
- `SM UNAVAILABLE` = The request could not be completed because the specified SM(s) was/were not able to communicate with the administrative module (AM).
- `SM UNEQUIPPED` = The request could not be completed because the specified SM(s) did not exist.

4. ACTIONS TO BE TAKEN

When the report indicates `SM UNAVAILABLE`, retry the input request once the SM(s) becomes available. Otherwise no action is required.

5. ALARMS

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None.

6. REFERENCES

Input Message(s):

```
ALW:DEBUG
INH:DEBUG
OP:DEBUG
TST:DSL
TST:TRK
```

Output Message(s):

```
ALW:DEBUG
OP:DEBUG
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

INH:DEBUG-C

Software Release: 5E14 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

[1]
```
INH DEBUG a SM[=b[&&c]] d
```

[2]
```
INH DEBUG a AM d
```

2. REASON FOR OUTPUT

To report the results of an INH:DEBUG input message.

Format 1 is for ALE, DIGITAL, METALLIC, METPTRACE, METALLMSG, METRESBLK, METSWBLK, METHWFAIL, METSUCCESS, and CCS7MTCE SM only cases. Format 2 is for CCS7MTCE AM only cases.

3. VARIABLE FIELD DEFINITIONS

`a` = Feature with additional debugging messages. Valid value(s):

- `ALE` = Automatic line evaluation
- `CCS7MTCE` = Common channel signal maintenance activity.
- `DIGITAL` = Digital testing of lines (TST:DSL) and trunks (TST:TRK)
- `METALLIC` = Metallic path setup ASSERT and PTRACE messages with low-level unformatted information, not intended for general customer use.
- `METPTRACE` = Metallic related PTRACE messages.
- `METALLMSG` = Metallic path setup blockage and failure (REPT:METALLIC).
- `METRESBLK` = Metallic path setup resource blockage (REPT:METALLIC).
- `METSWBLK` = Metallic path setup software blockage (REPT:METALLIC).
- `METHWFAIL` = Metallic path setup hardware failure (REPT:METALLIC).
- `METSUCCESS` = Metallic path setup completed successfully (REPT:METALLIC).

`b` = Switching module (SM) number or the lower limit of a range of SM numbers.

`c` = The upper limit of a range of SM numbers.

`d` = The result of the request. Valid value(s):

- `COMPLETED` = The debug messages were allowed on the specified SM(s).
- `SM UNAVAILABLE` = The request could not be completed because the specified SM(s) was/were not able to communicate with the administrative module (AM).
- `SM UNEQUIPPED` = The request could not be completed because the specified SM(s) did not exist.

4. ACTIONS TO BE TAKEN

When the report indicates `SM UNAVAILABLE`, retry the input request once the SM(s) becomes available. Otherwise no action is required.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:DEBUG
INH:DEBUG
OP:DEBUG
TST:DSL
TST:TRK
```

Output Message(s):

```
ALW:DEBUG
OP:DEBUG
```

Other Manual(s):

235-105-220 *Corrective Maintenance*

INH:DMQ

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      INH DMQ COMPLETED

[2]   ____________________________________________________________
      INH DMQ CANNOT INHIBIT A MANUAL SOURCE a

[3]   ____________________________________________________________
      INH DMQ SOURCE ALL IS ALREADY INHIBITED

[4]   ____________________________________________________________
      INH DMQ TOO MANY ACTIVE INHIBITS

[5]   ____________________________________________________________
      INH DMQ CANNOT LCALL INHTIMER PROCESS a
        FOR INHIBIT ERRNO = b
```

2. REASON FOR OUTPUT

Format 1 reports MIRA has completed a request to inhibit a source of automatic maintenance requests.

Format 2 indicates MIRA does not inhibit manual source of maintenance requests `a`.

Format 3 indicates source ALL is already inhibited.

Format 4 reports there are too many active inhibits. Cannot inhibit any more.

Format 5 reports MIRA could not start inhibit timer for automatic maintenance request source `a`.

3. VARIABLE FIELD DEFINITIONS

`a` = Three-character name of the source specified in the INH:DMQ input message. ALL indicates all automatic maintenance requests are inhibited.

`b` = System error number returned for the failing system call. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

Use the OP:DMQ input message to determine which maintenance sources are inhibited.

For Formats 1 and 3, no action is required.

For Format 2, check syntax of source `'a'`.

For Format 4, use ALW:DMQ to allow some of the inhibited sources and retry message.

For Format 5, retry the input message, if retry is unsuccessful an operating system function call is failing, obtain

technical assistance to clear the trouble.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:DMQ
INH:DMQ
OP:DMQ
```

Output Message(s):

```
ALW:DMQ
OP:DMQ
```

Other Manual(s):

235-105-220 Corrective Maintenance

INH:DOC

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
INH DOC TG=a b
```

2. REASON FOR OUTPUT

To report the inhibiting of dynamic overload controls (DOCs) on a per trunk group basis.

3. VARIABLE FIELD DEFINITIONS

`a` = Trunk group number.

`b` = Termination status. Valid value(s):
`COMPLETED` = Command successfully completed.
`ABORTED` = Command failed.

4. ACTION TO BE TAKEN

No action is needed for an automatically generated request from the engineering and administrative data acquisition system network management (EADAS/NM). These messages are to be treated as information-only messages. For manually generated requests, the following actions will apply.

If 'b' =	**Action:**
COMPLETED	The message is a confirmation of a request from an input message or from EADAS/NM.
ABORTED	Reinitiate the request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:DOC
OP:DOC
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services*

MCC Display Page(s):

130 (NM EXCEPTION)

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INH:DSILC

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
INH DSILC a
```

2. REASON FOR OUTPUT

To report the inhibiting of the transmission of dynamic overload control (DOC) and the application of selective incoming load control (SILC) on a total office basis.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination status. Valid value(s):
`ABORTED` = Command failed.
`COMPLETED` = Command successfully completed.

4. ACTION TO BE TAKEN

No action is needed for an automatically generated request from the engineering and administrative data acquisition system network management (EADAS/NM). These messages are to be treated as information-only messages. For manually generated requests, the following actions will apply.

If 'b' =	Action:
COMPLETED	The message is a confirmation of a request from an input message or from EADAS/NM.
ABORTED	Reinitiate the request.

If the termination status is `COMPLETED`, the message is a confirmation of a request from an input message or from the EADAS/NM.

If the termination status is `ABORTED`, reinitiate the request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:DSILC
OP:DOC
OP:SILC
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services*

MCC Display Page(s):

130 (NM EXCEPTION)

INH-EAIINT

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      INH EAIINT a COMPLETED

[2]   ____________________________________________________________
      INH EAIINT a COMPLETED WITH c

[3]   ____________________________________________________________
      INH EAIINT a ABORTED  b
```

2. REASON FOR OUTPUT

To indicate the result of a request to inhibit emergency action interface (EAI) error interrupts on a specified 3B21D computer control unit (CU), or on both 3B21D computer CUs.

Note: The 3B20D computer CUs do not have EAI error interrupts.

Format 1 indicates successful completion.

Format 2 indicates successful completion with a message port problem.

Format 3 indicates an error.

3. VARIABLE FIELD DEFINITIONS

`a` = One of the following: CU 0, CU 1, or CU 0 AND CU 1.

`b` = Error code. Valid value(s):

- `50` = Message could not be sent to a driver or real time status (RTS) report.
- `51` = Equipment configuration database (ECD) access function completed unsuccessfully.
- `52` = Error in message communication.
- `53` = Error internal to the inhibit administrator.

`c` = Port problem. Valid value(s):

- `AN INVALID SYSTEM PORT SPECIFIED`
- `AN INVALID SYSTEM PORT SPECIFIED FOR AIM` (application integrity monitor)
- `NO PROCESS ATTACHED TO THE SPECIFIED PORT`
- `NO PROCESS ATTACHED TO THE AIM PORT`

4. ACTION TO BE TAKEN

For Format 1, no action is necessary.

For Format 2, if the process completes with a port problem, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

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For Format 3, if an error was reported, use the OP:ERRCHK input message to find out the resulting status of computer inhibits. All error codes associated with this activity are significant and should be reported to a computer technical representative.

5. ALARMS

For Format 1, none. This report is a manually-requested report.

For Formats 2 and 3, none. This is an automatically-generated report.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	406
2	658
3	414

Input Message(s):

```
ALW:EAIINT
ALW:ERRCHK
INH:EAIINT
INH:ERRCHK
OP:ERRCHK
```

Output Message(s):

```
ALW:EAIINT
ALW:ERRCHK
INH:ERRCHK
OP:ERRCHK
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

INH:ECDAUD

Software Release: 5E10 and later
Message Class: AUDIT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      INH ECDAUD COMPLETED

[2]   ____________________________________________________________________
      INH ECDAUD NOT STARTED
        AUDIT RUNNING - RETRY LATER

[3]   ____________________________________________________________________
      INH ECDAUD ABORTED - SYSTEM ERROR a
```

2. REASON FOR OUTPUT

To report the termination status of the INH:ECDAUD input message.

Format 1 indicates successful execution. No action is necessary.

Format 2 reports that the ECD Audit was running at the time. The audit will be allowed to complete. The inhibit command should be re-executed after the audit is done or the audit can be stopped with the STOP:ECDAUD input message.

Format 3 indicates that an internal error has occurred. Refer to variable '`a`' for more information.

3. VARIABLE FIELD DEFINITIONS

`a` = System error number. Valid value(s):

- `1` = Cannot open audit rule file - /lla/ECDAUD/ecdaud.rules.
- `2` = Cannot attach to ECD database.
- `3` = Unable to kill running audit, check PID in /lla/ECDAUD/.ecdaud.pid.
- `4` = Bad rule in rule file (/lla/ECDAUD/ecdaud.rules).
- `5` = Unable to audit data (/lla/ECDAUD/ecdaud.rules).
- `6` = Failure in reading ECD database.
- `7` = Cannot open audit rule file - /lla/ECDAUD/hwchk.rules.
- `8` = Failed to obtain current status.
- `9` = Internal system error.
- `10` = Database partition greater than 80% full, remove unused files.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual request of the INH:ECDAUD input message. No further action is necessary.

5. ALARMS

Minor if system error encountered.

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6. REFERENCES

Input Message(s):

```
EXC:ECDAUD
STOP:ECDAUD
INH:ECDAUD
ALW:ECDAUD
OP:ECDAUD
SCHED:ECDAUD
```

Other Manual(s):
235-100-125 *System Description*
235-105-210 *Routine Operations and Maintenance Procedures*

INH:ERRCHK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      INH ERRCHK COMPLETED

[2]   ____________________________________________________________
      INH ERRCHK COMPLETED WITH b

[3]   ____________________________________________________________
      INH ERRCHK ABORTED  a

[4]   ____________________________________________________________
      INH ERRCHK NOT STARTED
        INVALID ID FIELD
```

2. REASON FOR OUTPUT

To indicate the result of a request to inhibit all administrative module (AM) error sources.

3. VARIABLE FIELD DEFINITIONS

`a` = Error codes. Valid value(s):

- `50` = A message could not be sent to a driver or real time status report (RTS).
- `51` = An equipment configuration data base (ECD) access function completed unsuccessfully.
- `52` = An error in message communication.
- `53` = An error internal to the inhibit administrator.

`b` = Port problems. Valid value(s):

- An invalid system port specified.
- An invalid system port specified for application integrity monitor (AIM).
- No process attached to the specified port.
- No process attached to the AIM port.

4. ACTION TO BE TAKEN

If an error was reported, use the OP:ERRCHK input message to find out the resulting status of AM inhibits. All error codes associated with this activity are significant and should be reported to an AM technical representative.

If the process completes with a port problem, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ALW:ERRCHK
INH:ERRCHK
OP:ERRCHK
```

Output Message(s):

```
ALW:ERRCHK
OP:ERRCHK
```

INH:ERRINT

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      INH ERRINT COMPLETED

[2]   ____________________________________________________________
      INH ERRCHK COMPLETED WITH b

[3]   ____________________________________________________________
      INH ERRINT ABORTED  a

[4]   ____________________________________________________________
      INH ERRINT NOT STARTED
        INVALID ID FIELD - INPUT ERROR

[5]   ____________________________________________________________
      INH ERRINT NOT STARTED
        CONFLICT WITH CURRENT SYSTEM STATUS - UNEQUIPPED UNIT
```

2. REASON FOR OUTPUT

To indicate the result of a request to inhibit error interrupts on a particular administrative module (AM) hardware unit/complex, or on all AM hardware units.

Format 1 indicates successful completion.

Format 2 indicates successful completion with a message port problem.

Format 3 indicates an error.

Format 4 indicates an error in the identification field of the input. Possibly, the unit name and number specified cannot be found in the database.

Format 5 indicates that the unit name and number specified was found in the database but is unequipped.

3. VARIABLE FIELD DEFINITIONS

`a` = Error codes. Valid value(s):

- `50` = A message could not be sent to a driver or real time status (RTS) report.
- `51` = An equipment configuration database (ECD) access function completed unsuccessfully.
- `52` = An error in message communication.
- `53` = An error internal to the inhibit administrator.

`b` = Port problems. Valid value(s):

```
AN INVALID SYSTEM PORT SPECIFIED
AN INVALID SYSTEM PORT SPECIFIED FOR AIM
NO PROCESS ATTACHED TO THE SPECIFIED PORT
```

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```
NO PROCESS ATTACHED TO THE AIM PORT
```

4. ACTION TO BE TAKEN

For Formats 1, 4, and 5, no action is necessary. The purpose of these messages is to report the result of the action requested in the corresponding manually executed input message.

For Format 2, if the process completes with a port problem, Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 3, if an error was reported, use the OP:ERRCHK input message to find out the resulting status of AM inhibits. All error codes associated with this activity are significant and should be reported to an AM technical representative.

5. ALARMS

None. This is either a manually-requested report or is automatically generated.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	406
2	658
3	414

Input Message(s):

```
ALW:ERRINT
INH:ERRINT
OP:ERRCHK
```

Output Message(s):

```
ALW:ERRINT
OP:ERRCHK
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

INH:ERRSRC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      INH ERRSRC COMPLETED

[2]   ____________________________________________________________
      INH ERRCHK COMPLETED WITH b

[3]   ____________________________________________________________
      INH ERRSRC ABORTED  a

[4]   ____________________________________________________________
      INH ERRSRC NOT STARTED
        INVALID ID FIELD
```

2. REASON FOR OUTPUT

To indicate the result of a request to inhibit the processing of errors under a control unit (CU) pseudo-node.

3. VARIABLE FIELD DEFINITIONS

`a` = Error codes. Valid value(s):

- `50` = A message could not be sent to a driver or real time status report (RTS).
- `51` = An equipment configuration data base (ECD) access function completed unsuccessfully.
- `52` = An error in message communication.
- `53` = An error internal to the inhibit administrator.

`b` = Port problems. Valid value(s):

- An invalid system port specified.
- An invalid system port specified for application integrity monitor (AIM).
- No process attached to the specified port.
- No process attached to the AIM port.

4. ACTION TO BE TAKEN

If an error was reported, use the OP:ERRCHK input message to find out the resulting status of administrative module (AM) inhibits. All error codes associated with this activity are significant and should be reported to an AM technical representative.

If the process completes with a port problem, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ALW:ERRSRC
INH:ERRSRC
OP:ERRCHK
```

Output Message(s):

```
ALW:ERRSRC
OP:ERRCHK
```

INH:ESP

Software Release: 5E10 and later
Message Class: OVLD
Application: 5
Type: Output

1. FORMAT

```
INH ESP a
```

2. REASON FOR OUTPUT

To acknowledge a request to inhibit essential service protection (ESP).

3. VARIABLE FIELD DEFINITIONS

`a` = Acceptance indication. Valid value(s):
- `ABTD` = ESP is not available.
- `COMP` = ESP is inhibited.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

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INH:FAC-A

Software Release: 5E10 - 5E11
Message Class: PRFM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      INH FAC FAC=a-b-c-d e f

[2]   ____________________________________________________________
      INH FAC DFI=a-b-c e f

[3]   ____________________________________________________________
      INH FAC DLTU=a-b e f

[4]   ____________________________________________________________
      INH FAC IDCU=a-g e f

[5]   ____________________________________________________________
      INH FAC IFAC=a-g-h e f

[6]   ____________________________________________________________
      INH FAC RT=a-g-i e f

[7]   ____________________________________________________________
      INH FAC SM=a f

[8]   ____________________________________________________________
      INH FAC DNUS=a-j e f

[9]   ____________________________________________________________
      INH FAC STEFAC=a-j-k-l e f

[10]  ____________________________________________________________
      INH FAC VT1FAC=a-j-k-m-n e f

[11]  ____________________________________________________________
      INH FAC DS1SFAC=a-j-k-m-n e f
```

2. REASON FOR OUTPUT

To output the results of executing an INH:FAC input request to inhibit reports of transmission facility 15-minute interval and daily performance monitoring count threshold crossings (REPT:FAC output messages) from being output.

Format 1 appears after the INH:FAC input message was used to inhibit threshold crossing alert output messages from being generated by a digital facility interface (DFI) model 2 (DFI-2) facility.

Format 2 appears after the INH:FAC input message was used to inhibit threshold crossing alert output messages from being generated by all DFI-2 facilities.

Format 3 appears after the INH:FAC input message was used to inhibit threshold crossing alert output messages from being generated by all digital line and trunk unit (DLTU) model 2 (DLTU2) facilities.

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Format 4 appears after the INH:FAC input message was used to inhibit threshold crossing alert output messages from being generated by all facilities on an integrated digital carrier unit (IDCU).

Format 5 appears after the INH:FAC input message was used to inhibit threshold crossing alert output messages from being generated by a single IDCU facility (IFAC).

Format 6 appears after the INH:FAC input message was used to inhibit threshold crossing alert output messages from being generated by all facilities an IDCU-supported TR303 remote terminal (RT).

Format 7 appears after the INH:FAC input message was used to inhibit all threshold crossing alert output messages from being generated by all facilities on an switching module (SM). The individual facilities' INH/ALW state is not changed by this command.

Format 8 appears after the INH:FAC input message was used to inhibit threshold crossing alert output messages from being generated by all facilities on a digital networking unit - synchronous optical network (SONET) (DNU-S).

Format 9 appears after the INH:FAC input message was used to inhibit threshold crossing alert output messages from being generated on a DNU-S section terminating equipment (STE) facility, and all the subtending virtual tributary 1.5 (VT1.5) and digital signal level-1 (DS1) facilities.

Format 10 appears after the INH:FAC input message was used to inhibit threshold crossing alert output messages from being generated on a DNU-S VT1.5 facility and the subtending DS1 facility.

Format 11 appears after the INH:FAC input message was used to inhibit threshold crossing alert output messages from being generated on a DNU-S DS1 facility.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = DLTU number.

`c` = DFI number.

`d` = Facility number.

`e` = Type of alerts inhibited. Valid value(s):

- `ALL` = Both interval and daily alerts.
- `DAY` = Daily alerts.
- `INT` = 15-minute interval alerts.

`f` = Status of command. Valid value(s):

- `COMPLETED` = Request has been successfully completed.
- `FAILED` = Failed to inhibit performance monitoring alerts for the specified facility or unit. This may also mean the switch was able to inhibit the alert reports, but failed to send that information to the specified facility or unit. Retry the request later.
- `NO MATCH` = The specified facility or unit does not exist. If the unit type selected was SM, then the `NO MATCH` means the SM is not equipped with any unit or facility.
- `NOT ALLOWED` = The specified action is not allowed on the given facility or unit.
- `SM UNAVAILABLE` = The input request could not be processed because communication with the SM is not possible.
- `SYSTEM BUSY` = The system's processing capability has been reached or a system resource is unavailable. Retry the request later.

`g` = IDCU number.

`h` = IFAC number.

`i` = TR303 RT number.

`j` = DNU-S number.

`k` = Data group number.

`l` = STE facility number.

`m` = Synchronous transport signal (STS) facility number.

`n` = VT1.5 facility number.

4. ACTION TO BE TAKEN

Retry INH:FAC input message when variable '`h`' = `SYSTEM BUSY` or `FAILED`. Alerts can be re-allowed by using the ALW:FAC input messages. Alert thresholds can be changed by using RC/V View 8.1 for the entire office, 20.23 for IDCU, 20.25 for DNU-S, or 22.15 for DLTU.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:FAC
INH:FAC
INIT:FAC
OP:FAC
```

Output Message(s):

```
ALW:FAC
INIT:FAC
OP:FAC
REPT:FAC
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
20.23 [IDCU FACILITY EQUIPMENT (IFAC)]
20.25 (DNU-S PERFORMANCE MONITORING THRESHOLD GROUP)
22.15 (PERFORMANCE MONITORING)

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INH:FAC-B

Software Release: 5E12 only
Message Class: PRFM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      INH FAC FAC=a-b-c-d e f

[2]   ____________________________________________________________
      INH FAC DFI=a-b-c e f

[3]   ____________________________________________________________
      INH FAC DLTU=a-b e f

[4]   ____________________________________________________________
      INH FAC IDCU=a-g e f

[5]   ____________________________________________________________
      INH FAC IFAC=a-g-h e f

[6]   ____________________________________________________________
      INH FAC {DNUSRT=a-j-i|IDCURT=a-g-i} e f

[7]   ____________________________________________________________
      INH FAC SM=a f

[8]   ____________________________________________________________
      INH FAC DNUS=a-j e f

[9]   ____________________________________________________________
      INH FAC STEFAC=a-j-k-l e f

[10]  ____________________________________________________________
      INH FAC VT1FAC=a-j-k-m-n e f

[11]  ____________________________________________________________
      INH FAC DS1SFAC=a-j-k-m-n e f
```

2. REASON FOR OUTPUT

To output the results of executing an INH:FAC input request to inhibit reports of transmission facility 15-minute interval and daily performance monitoring count threshold crossings (REPT:FAC output messages) from being output.

Format 1 appears after the INH:FAC input message was used to inhibit threshold crossing alert output messages from being generated by a digital facility interface (DFI) model 2 (DFI-2) facility.

Format 2 appears after the INH:FAC input message was used to inhibit threshold crossing alert output messages from being generated by all DFI-2 facilities.

Format 3 appears after the INH:FAC input message was used to inhibit threshold crossing alert output messages from being generated by all digital line and trunk unit (DLTU) model 2 (DLTU2) facilities.

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Format 4 appears after the INH:FAC input message was used to inhibit threshold crossing alert output messages from being generated by all facilities on an integrated digital carrier unit (IDCU).

Format 5 appears after the INH:FAC input message was used to inhibit threshold crossing alert output messages from being generated by a single IDCU facility (IFAC).

Format 6 appears after the INH:FAC input message was used to inhibit threshold crossing alert output messages from being generated by all facilities an IDCU-supported or a digital networking unit - synchronous optical network (SONET) (DNU-S) supported TR303 remote terminal (RT).

Format 7 appears after the INH:FAC input message was used to inhibit all threshold crossing alert output messages from being generated by all facilities on an switching module (SM). The individual facilities' INH/ALW state is not changed by this command.

Format 8 appears after the INH:FAC input message was used to inhibit threshold crossing alert output messages from being generated by all facilities on a DNU-S.

Format 9 appears after the INH:FAC input message was used to inhibit threshold crossing alert output messages from being generated on a DNU-S section terminating equipment (STE) facility, and all the subtending virtual tributary 1.5 (VT1.5) and digital signal level-1 (DS1) facilities.

Format 10 appears after the INH:FAC input message was used to inhibit threshold crossing alert output messages from being generated on a DNU-S VT1.5 facility and the subtending DS1 facility.

Format 11 appears after the INH:FAC input message was used to inhibit threshold crossing alert output messages from being generated on a DNU-S DS1 facility.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = DLTU number.

`c` = DFI number.

`d` = Facility number.

`e` = Type of alerts inhibited. Valid value(s):

- `ALL` = Both interval and daily alerts.
- `DAY` = Daily alerts.
- `INT` = 15-minute interval alerts.

`f` = Status of command. Valid value(s):

- `COMPLETED` = Request has been successfully completed.
- `FAILED` = Failed to inhibit performance monitoring alerts for the specified facility or unit. This may also mean the switch was able to inhibit the alert reports, but failed to send that information to the specified facility or unit. Retry the request later.
- `NO MATCH` = The specified facility or unit does not exist. If the unit type selected was SM, then the `NO MATCH` means the SM is not equipped with any unit or facility.
- `NOT ALLOWED` = The specified action is not allowed on the given facility or unit.
- `SM UNAVAILABLE` = The input request could not be processed because communication with the SM is not possible.
- `SYSTEM BUSY` = The system's processing capability has been reached or a system resource is unavailable. Retry the request later.

`g` = IDCU number.

`h` = IFAC number.

`i` = TR303 RT number.

`j` = DNU-S number.

`k` = Data group number.

`l` = STE facility number.

`m` = Synchronous transport signal (STS) facility number.

`n` = VT1.5 facility number.

4. ACTION TO BE TAKEN

Retry INH:FAC input message when variable '`h`' = `SYSTEM BUSY` or `FAILED`. Alerts can be re-allowed by using the ALW:FAC input messages. Alert thresholds can be changed by using RC/V View 8.1 for the entire office, 20.23 for IDCU, 20.25 for DNU-S, or 22.15 for DLTU.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:FAC
INH:FAC
INIT:FAC
OP:FAC
```

Output Message(s):

```
ALW:FAC
INIT:FAC
OP:FAC
REPT:FAC
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
20.23 [IDCU FACILITY EQUIPMENT (IFAC)]
20.25 (DNU-S PERFORMANCE MONITORING THRESHOLD GROUP)
22.15 (PERFORMANCE MONITORING)

INH:FAC-C

Software Release: 5E13 and later
Message Class: PRFM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      INH FAC FAC=a-b-c-d e f

[2]   ____________________________________________________________
      INH FAC DFI=a-b-c e f

[3]   ____________________________________________________________
      INH FAC DLTU=a-b e f

[4]   ____________________________________________________________
      INH FAC IDCU=a-g e f

[5]   ____________________________________________________________
      INH FAC IFAC=a-g-h e f

[6]   ____________________________________________________________
      INH FAC {DNUSRT=a-j-i|IDCURT=a-g-i} e f

[7]   ____________________________________________________________
      INH FAC SM=a f

[8]   ____________________________________________________________
      INH FAC DNUS=a-j e f

[9]   ____________________________________________________________
      INH FAC EC1STE=a-j-k-l e f

[10]  ____________________________________________________________
      INH FAC VT1FAC=a-j-k-l-m-n-o e f

[11]  ____________________________________________________________
      INH FAC DS1SFAC=a-j-k-l-m-n-o e f
```

2. REASON FOR OUTPUT

To output the results of executing an INH:FAC input request to inhibit reports of transmission facility 15-minute interval and daily performance monitoring count threshold crossings (REPT:FAC output messages) from being output.

Format 1 appears after the INH:FAC input message was used to inhibit threshold crossing alert output messages from being generated by a digital facility interface (DFI) model 2 (DFI-2) facility. Format 2 appears after the INH:FAC input message was used to inhibit threshold crossing alert output messages from being generated by all DFI-2 facilities. Format 3 appears after the INH:FAC input message was used to inhibit threshold crossing alert output messages from being generated by all digital line and trunk unit (DLTU) model 2 (DLTU2) facilities. Format 4 appears after the INH:FAC input message was used to inhibit threshold crossing alert output messages from being generated by all facilities on an integrated digital carrier unit (IDCU). Format 5 appears after the INH:FAC input message was used to inhibit threshold crossing alert output messages from being generated by a single IDCU

facility (IFAC). Format 6 appears after the INH:FAC input message was used to inhibit threshold crossing alert output messages from being generated by all facilities an IDCU-supported or a digital networking unit - synchronous optical network (SONET) (DNU-S) supported TR303 remote terminal (RT). Format 7 appears after the INH:FAC input message was used to inhibit all threshold crossing alert output messages from being generated by all facilities on an switching module (SM). The individual facilities' INH/ALW state is not changed by this command. Format 8 appears after the INH:FAC input message was used to inhibit threshold crossing alert output messages from being generated by all facilities on a DNU-S. Format 9 appears after the INH:FAC input message was used to inhibit threshold crossing alert output messages from being generated on a DNU-S SONET termination equipment (STE) facility number, and all the subtending virtual tributary 1.5 (VT1.5) and digital signal level-1 (DS1) facilities. Format 10 appears after the INH:FAC input message was used to inhibit threshold crossing alert output messages from being generated on a DNU-S VT1.5 facility and the subtending DS1 facility. Format 11 appears after the INH:FAC input message was used to inhibit threshold crossing alert output messages from being generated on a DNU-S DS1 facility.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = DLTU number.

`c` = DFI number.

`d` = Facility number.

`e` = Type of alerts inhibited. Valid value(s):

- `ALL` = Both interval and daily alerts.
- `DAY` = Daily alerts.
- `INT` = 15-minute interval alerts.

`f` = Status of command. Valid value(s):

- `COMPLETED` = Request has been successfully completed.
- `FAILED` = Failed to inhibit performance monitoring alerts for the specified facility or unit. This may also mean the switch was able to inhibit the alert reports, but failed to send that information to the specified facility or unit. Retry the request later.
- `NO MATCH` = The specified facility or unit does not exist. If the unit type selected was SM, then the `NO MATCH` means the SM is not equipped with any unit or facility.
- `NOT ALLOWED` = The specified action is not allowed on the given facility or unit.
- `SM UNAVAILABLE` = The input request could not be processed because communication with the SM is not possible.
- `SYSTEM BUSY` = The system's processing capability has been reached or a system resource is unavailable. Retry the request later.

`g` = IDCU number.

`h` = IFAC number.

`i` = TR303 RT number.

`j` = DNU-S number.

`k` = Data group (DG) number.

`l` = STE facility number.

`m` = Synchronous transport signal (STS) facility number.

`n` = Virtual tributary group (VTG) number.

`o` = Virtual tributary member (VTM) number.

4. ACTIONS TO BE TAKEN

Retry INH:FAC input message when variable '`h`' = `SYSTEM BUSY` or `FAILED`. Alerts can be re-allowed by using the ALW:FAC input messages. Alert thresholds can be changed by using RC/V View 8.1 for the entire office, 20.23 for IDCU, 20.25 for DNU-S, or 22.15 for DLTU.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:FAC
INH:FAC
INIT:FAC
OP:FAC
```

Output Message(s):

```
ALW:FAC
INIT:FAC
OP:FAC
REPT:FAC
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
20.23 [IDCU FACILITY EQUIPMENT (IFAC)]
20.25 (DNU-S PERFORMANCE MONITORING THRESHOLD GROUP)
22.15 (PERFORMANCE MONITORING)

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INH:FSYS-UMOUNT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      INH FILESYS UMOUNT COMPLETED

[2]   ____________________________________________________________________
      INH FILESYS UMOUNT STOPPED
        a
```

2. REASON FOR OUTPUT

To report the result of executing an INH:FSYS-UMOUNT input message to unmount a previously mounted file system.

Format 1 indicates that the action was completed.

Format 2 indicates that the action was terminated.

3. VARIABLE FIELD DEFINITIONS

`a` = Description of the error encountered.

4. ACTION TO BE TAKEN

Format 1 indicates success, and requires no action.

Format 2 indicates the command has failed. The explanatory text will indicate the error encountered. Refer to the input message manual for the correct format and reenter the command, or check the status of the file using the OP:ST-LISTDIR input message.

If any other error message is printed, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:FYS-MOUNT
INH:FSYS-UMOUNT
OP:ST-FILESYS
OP:ST-LISTDIR
```

Output Message(s):

```
OP:ST-FILESYS
OP:ST-LISTDIR
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

INH:HDW-AIU

Software Release: 5E11 and later
Message Class: SM,HW_MON
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK AIU=a-b c [d]
```

2. REASON FOR OUTPUT

Indicates the result of an INH:HDW-AIU input message to inhibit hardware checks on an access interface unit (AIU).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = AIU number.

`c` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`d` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-AIU
INH:HDW-AIU
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):

235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1320,x,y (AIU SUMMARY)

INH:HDW-CDFI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK CDFI=a-b-c d [e]
```

2. REASON FOR OUTPUT

To indicate the result of an INH:HDWCHK-CDFI input message to inhibit interrupts on an inter-remote switching module (RSM) communication link digital facilities interface (CDFI) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line and trunk unit (DLTU) number.

`c` = CDFI number.

`d` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action had not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-CDFI
INH:HDW-CDFI
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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INH:HDW-CDI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK CDI=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing an INH:HDW-CDI input message to inhibit hardware error checks on the control data interface (CDI).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Trunk unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`COMPLETED CERTIFIED`	= Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-CDI`

Output Appendix(es):

`APP:MAINT-RESP`

INH:HDW-CLNK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK CLNK{=a-b-c-d|ALL} e [f]
```

2. REASON FOR OUTPUT

To report on an attempt to inhibit level 2; and level 3; hardware checks (errors) on one or all communication links (CLNKs). Refer to the Corrective Maintenance manual for an explanation of level 2; and level 3; errors.

3. VARIABLE FIELD DEFINITIONS

`ALL` = Attempt was to inhibit errors on all CLNKs.

`a` = Switching module (SM) number.

`b` = Office network and timing complex (ONTC) side.

`c` = Module message processor (MMP) type. Valid value(s):
- `0` = Alpha.
- `1` = Beta.

`d` = Message switch (MSGS) side.

`e` = Termination report. Valid value(s):
- `ABORTED` = The requested action was terminated abnormally. Hardware and software status is questionable.
- `COMPLETED` = Completed normally.
- `NOT STARTED` = Requested action not attempted.
- `STOPPED` = Requested action was terminated normally before completion. Hardware and software status is consistent.

`f` = Optional additional qualifying data.

4. ACTION TO BE TAKEN

Refer to the Corrective Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-CLNK`

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Other Manual(s):
235-105-220 *Corrective Maintenance*

INH:HDW-CM

Software Release: 5E10 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK CM a [b]
```

2. REASON FOR OUTPUT

To acknowledge a manual request from the INH:HDW-CM input message to inhibit hardware error checks on all communication module (CM) units. This includes the message switch control unit (MSCU) (for communication module model 2; hardware only), foundation peripheral controller (FPC), pump peripheral controller (PPC), module message processor (MMP), office network and timing complex (ONTC), and communication links (CLNKs).

3. VARIABLE FIELD DEFINITIONS

`a` = Termination report. Valid value(s):

- `COMPLETED` = Request completed successfully.
- `STOPPED` = Request was terminated before a normal completion. Variable '`b`' will be printed to explain why the request was stopped.

`b` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual request. No further action is necessary if the request completed successfully. If the termination report is not `COMPLETED`, the variable '`b`' should give some indication as to why the request failed.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-CM
INH:HDW-CM
```

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INH:HDW-CMP

Software Release: 5E10 and later
Message Class: MSGS
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK CMP=a-b c [d]
```

2. REASON FOR OUTPUT

To report the results of a request to inhibit hardware error checks on the specified communication module processor (CMP).

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch side number.

`b` = CMP number.

`c` = Termination status. Valid value(s):

`ABORTED`	= The requested action was terminated before a normal completion and the termination was not graceful.
`COMPLETED`	= Request completed successfully.
`NOT STARTED`	= Requested action could not begin.
`STOPPED`	= Request was terminated before a normal completion. The termination was graceful.

`d` = Additional data qualifying the report status.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the System Recovery Procedures manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-CMP
INH:HDW-CMP
OP:HDWCHK
```

Output Message(s):

```
OP:HDWCHK
```

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Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-250 *System Recovery*

MCC Display Page(s):

1241/51 (MSGS COMMUNITIES 0-1, 8-9)

INH:HDW-DCLU

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK DCLU=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing an INH:HDW-DCLU input command to inhibit hardware error checks on the *SLC*®96 digital carrier line unit (DCLU).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DCLU number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

`ABORTED`	= The action requested was unsuccessful, and the termination was not graceful. Hardware states are not reliable.
`COMPLETED`	= The action completed successfully.
`NOT STARTED`	= The inhibit was not started.
`STOPPED`	= The action terminated before a normal completion, and the termination was not graceful.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-DCLU`

Output Appendix(es):

`APP:MAINT-RESP`

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INH:HDW-DFI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK DFI=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing an INH:HDW-DFI input message to inhibit hardware error checks on the digital facility interface (DFI).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Digital line/trunk unit number.

`c` = DFI number.

`d` = Termination status. Valid value(s):

- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-DFI`

Output Appendix(es):

`APP:MAINT-RESP`

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INH:HDW-DFIH

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK DFIH=a-b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of an INH:HDW-DFIH input message to inhibit hardware checks on a remote integrated services line unit (RISLU) host/remote digital facility interface circuit pair (DFIH).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RISLU digital line and trunk unit (DLTU) number.

`c` = DFIH number.

`d` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-DFIH
INH:HDW-DFIH
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Copyright © 1999

Other Manual(s):
235-105-220 *Corrective Maintenance*

INH:HDW-DFTAC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK DFTAC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing an INH:HDW-DFTAC input message to inhibit hardware error checks on the distributing frame test access circuit (DFTAC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Metallic switch unit (MSU) number.

`c` = Service group.

`d` = Circuit number.

`e` = Termination status. Valid value(s):

`ABORTED`	= The inhibiting process was purged.
`COMPLETED`	= Successful completion
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion (process gracefully terminated).

`f` = Reason for termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:HDW-DFTAC
```

Output Message(s):

```
ALW:HDW-DFTAC
```

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Output Appendix(es):

```
APP:MAINT-RESP
```

INH:HDW-DNUSCC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK DNUSCC=a-b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of an INH:HDW-DNUSCC input request to inhibit hardware checks on a digital networking unit - synchronous optical network (DNU-S) common controller (DNUSCC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Common controller number.

`d` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action was not started.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-DNUSCC
INH:HDW-DNUSCC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Copyright © 1999

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

INH:HDW-DNUSCD

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK DNUSCD=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an INH:HDW-DNUSCD input request to inhibit hardware checks on a digital networking unit - synchronous optical network (DNU-S) common data (DNUSCD).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = Common data number.

`e` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action was not started.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-DNUSCD
INH:HDW-DNUSCD
```

Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

INH:HDW-FPC

Software Release: 5E10 and later
Message Class: MSGS
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK FPC=a b [c]
```

2. REASON FOR OUTPUT

To acknowledge a request to inhibit hardware checks on the specified office foundation peripheral controller (FPC).

3. VARIABLE FIELD DEFINITIONS

`a` = FPC side.

`b` = Termination report. Valid value(s):
`COMPLETED` = Request completed successfully.
`STOPPED` = Request was terminated before a normal completion due to a failure.

`c` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual request. No further action is necessary if the request completed successfully. If the termination report is not `COMPLETED`, variable '`c`' should give some indication as to why the request failed. Check MSGS MCC pages or the OP:CFGSTAT output message to verify that the FPC was in a valid state to perform the request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:HDW-FPC
OP:CFGSTAT
```

Output Message(s):

```
OP:CFGSTAT
```

MCC Display Page(s):

MSGS SUMMARY
MSGS COMMUNITIES

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INH:HDW-GDSF

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK GDSF=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of executing an INH:HDW-GDSF input message to inhibit maintenance interrupts on the global digital services function (GDSF) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = GDSF number.

`c` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`d` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-GDSF`

Output Appendix(es):

`APP:MAINT-RESP`

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INH:HDW-GDSUCOM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK GDSUCOM=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing an INH:HDW-GDSUCOM input message to inhibit hardware error checks on the global digital service unit common (GDSUCOM) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Global digital service unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-GDSUCOM`

Output Appendix(es):

`APP:MAINT-RESP`

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INH:HDW-GDXACC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK GDXACC =a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing an INH:HDW-GDXACC input message to inhibit hardware error checks on the gated diode crosspoint access (GDXACC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Line unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-GDXACC`

Output Appendix(es):

`APP:MAINT-RESP`

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INH:HDW-GDXC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK GDXC=a-b-c-d e
 [f]
```

2. REASON FOR OUTPUT

To report the result of executing an INH:HDW-GDXC input message to inhibit hardware error checks on the gated diode crosspoint compensator (GDXC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Metallic service unit number.

`c` = Service group number.

`d` = Metallic service unit board position number.

`e` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-GDXC`

Output Appendix(es):

APP:MAINT-RESP

INH:HDW-GDXCON

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK GDXCON=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing an INH:HDW-GDXCON input message to inhibit hardware error checks on the gated diode crosspoint control (GDXCON).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Line unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-GDXCON`

Output Appendix(es):

`APP:MAINT-RESP`

INH:HDW-GRID

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK GRID=a-b-c d
 [e]
```

2. REASON FOR OUTPUT

To report the result of executing an INH:HDW-GRID input message to inhibit hardware error checks on the gated diode crosspoint grid (GRID).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Line unit number.

`c` = Grid number.

`d` = Termination status. Valid value(s):

- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-GRID`

Output Appendix(es):

`APP:MAINT-RESP`

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INH:HDW-GRIDBD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK GRIDBD=a-b-c-d     e  [f]
```

2. REASON FOR OUTPUT

To report the result of executing an INH:HDW-GRIDBD input message to inhibit hardware error checks on a line unit model 2 (LU2) or line unit model 3 (LU3) grid board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Line unit number.

`c` = Grid number.

`d` = Board number.

`e` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was immediate. Consistency of hardware and data is questionable.
`COMPLETED`	= The request was successfully completed.
`NOT STARTED`	= Processing did not begin because the system was unable to service the request.
`STOPPED`	= The request terminated after processing was begun. The termination was graceful.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-GRIDBD`

Output Appendix(es):

APP:MAINT-RESP

INH:HDW-HDFI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK HDFI=a-b-c d [e]
```

2. REASON FOR OUTPUT

To indicate the result of an INH:HDW-HDFI input message that inhibits interrupts on a host switching module (HSM) digital facilities interface (HDFI) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line and trunk unit (DLTU) number.

`c` = HDFI number.

`d` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was complete.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed, and independent certification of the resulting hardware status was made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-HDFI`

Output Appendix(es):

`APP:MAINT-RESP`

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INH:HDW-IDCU

Software Release: 5E10 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK IDCU=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of an INH:HDW-IDCU input message that prevents error sources on an integrated digital carrier unit (IDCU) service group circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = IDCU service group.

`d` = Termination report. Valid value(s):

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:HDW-IDCU
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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Other Manual(s):

235-105-110 System Maintenance Requirements and Tools 235-105-220 Corrective Maintenance 235-105-250 System Recovery

MCC Display Page(s):

186x (IDCU CIRCUIT)

INH:HDW-IDCUELI

Software Release: 5E10 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK IDCUELI=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of an INH:HDW-IDCUELI input message that prevents error sources on an integrated digital carrier unit (IDCU) electrical line interface (ELI) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = ELI number.

`d` = Termination report. Valid value(s):

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-IDCUELI`

Output Appendix(es):

`APP:MAINT-RESP`

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

186x (IDCU CIRCUIT)

INH:HDW-IFAC

Software Release: 5E10 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK IFAC=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of an INH:HDW-IFAC input message that prevents error sources on an integrated digital carrier unit (IDCU) facility (IFAC) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = IFAC number.

`d` = Termination report. Valid value(s):

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-IFAC`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

187X (IFAC CIRCUIT)
188XYY (IDUC REMOTE TERMINAL)

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INH:HDW-ISLUCC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK ISLUCC=a-b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of an INH:HDW-ISLUCC input request to inhibit hardware checks on an integrated services line unit common controller (ISLUCC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Integrated services line unit (ISLU) number.

`c` = Common controller number.

`d` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-ISLUCC
INH:HDW-ISLUCC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x (ISLU NETWORK)
170xy (ISLU LINE GROUP)

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INH:HDW-ISLUCD

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK ISLUCD=a-b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of an INH:HDW-ISLUCD input request to inhibit hardware checks on an integrated services line unit common data (ISLUCD).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Integrated services line unit (ISLU) number.

`c` = Common data number.

`d` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-ISLUCD
INH:HDW-ISLUCD
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x (ISLU NETWORK)
170xy (ISLU LINE GROUP)

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INH:HDW-ISLUHLSC

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK ISLUHLSC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing an INH:HDW-ISLUHLSC input command to inhibit ring trip interrupts on the integrated services line unit (ISLU) high level service circuit (HLSC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = HLSC number.

`e` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Completed successfully.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`f` = Additional information qualifying above termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected problems occur, refer to the Corrective Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:HDW-ISLUHLSC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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Other Manual(s):
235-105-220 *Corrective Maintenance*

INH:HDW-ISLUMAN

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK ISLUMAN=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing an INH:HDW-ISLUMAN input message to inhibit interrupts on the integrated services line unit (ISLU) metallic access network (MAN).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Line unit number.

`c` = Service group number.

`d` = MAN number.

`e` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Completed successfully.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`f` = Additional information qualifying above termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected problems occur, refer to the Corrective Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-ISLUMAN`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-220 *Corrective Maintenance*

INH:HDW-ISLURG

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK ISLURG=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing an INH:HDW-ISLURG input command to inhibit error sources on the integrated services line unit (ISLU) ringing generator (RG).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action was not begun.
`STOPPED`	= Terminated before normal completion.

`e` = Additional information qualifying above termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected problems occur, refer to the Corrective Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:HDW-ISLURG
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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Other Manual(s):
235-105-220 *Corrective Maintenance*

INH:HDW-ISTF

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK ISTF=a-b c [d]
```

2. REASON FOR OUTPUT

To report the results of executing an INH:HDW-ISTF input message to inhibit hardware checks on the integrated services test function (ISTF) unit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = ISTF unit number.

`c` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was immediate and was not graceful.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated gracefully before a normal completion.

`d` = Additional data qualifying the termination report (variable '`c`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-ISTF
```

Output Message(s):

```
INH:HDW-ISTF
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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INH:HDW-LDSF

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK LDSF=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of executing an INH:HDW-LDSF input message to inhibit maintenance interrupts on the local digital service function (LDSF) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = LDSF number.

`c` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`d` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-LDSF`

Output Appendix(es):

`APP:MAINT-RESP`

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INH:HDW-LDSU

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK LDSU=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing an INH:HDW-LDSU input message to inhibit maintenance interrupts on the local digital service unit - model 2 (LDSU2) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local digital service unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:HDW-LDSU
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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INH:HDW-LDSUCOM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK LDSUCOM=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing an INH:HDW-LDSUCOM input message to inhibit hardware error checks on the local digital service unit common (LDSUCOM) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Local digital service unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-LDSUCOM`

Output Appendix(es):

`APP:MAINT-RESP`

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INH:HDW-LUCHAN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK LUCHAN=a-b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To report the result of executing an INH:HDW-LUCHAN input message to inhibit hardware error checks on the line unit channel (LUCHAN).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Line unit number.

`c` = Service group number.

`d` = Channel board number.

`e` = Channel number.

`f` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`g` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-LUCHAN`

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Output Appendix(es):

```
APP:MAINT-RESP
```

INH:HDW-LUCOMC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK LUCOMC=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing an INH:HDW-LUCOMC input message to inhibit hardware error checks on the line unit common control (LUCOMC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Line unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-LUCOMC`

Output Appendix(es):

`APP:MAINT-RESP`

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INH:HDW-LUHLSC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK LUHLSC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing an INH:HDW-LUHLSC input message to inhibit hardware error checks on the high level service circuit (LUHLSC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Line unit number.

`c` = Service group number.

`d` = High level service circuit.

`e` = Termination status. Valid value(s):

- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-LUHLSC`

Output Appendix(es):

APP:MAINT-RESP

INH:HDW-MCTSI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK MCTSI=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of executing an INH:HDW-MCTSI input message to inhibit hardware error checks on the module control/time slot interchange unit (MCTSI).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Module control unit number.

`c` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`d` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-MCTSI`

Output Appendix(es):

`APP:MAINT-RESP`

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INH:HDW-MMP

Software Release: 5E10 and later
Message Class: MSGS
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK MMP=a-b c [d]
```

2. REASON FOR OUTPUT

To acknowledge a manual request to inhibit hardware checks on the specified office module message processor (MMP).

3. VARIABLE FIELD DEFINITIONS

`a` = The message switch (MSGS) side that the MMP is on.

`b` = MMP identification number.

`c` = Termination status. Valid value(s):
`COMPLETED` = Request completed successfully.
`NOT STARTED` = Requested action could not begin.
`STOPPED` = Request was terminated before a normal completion due to a failure.

`d` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual request. No further action is necessary if the request completed successfully. If the termination report is not `COMPLETED`, variable '`d`' should give some indication as to why the request failed. Check MSGS/MMP MCC display pages or the OP:CFGSTAT output message to verify that the MMP was in a valid state to perform the request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:HDW-ONTC
OP:CFGSTAT
```

Output Message(s):

```
OP:CFGSTAT
```

Other Manual(s):

235-105-250 *System Recovery*

MCC Display Page(s):

(MSGS/MMP)

INH:HDW-MSCU

Software Release: 5E10 and later
Message Class: MSGS
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK MSCU=a b [c]
```

2. REASON FOR OUTPUT

To acknowledge a request to inhibit hardware checks on the specified message switch control unit (MSCU).

3. VARIABLE FIELD DEFINITIONS

`a` = MSCU side.

`b` = Termination report. Valid value(s):
`COMPLETED` = Request completed successfully.
`NOT STARTED` = Requested action could not begin.
`STOPPED` = Request was terminated before a normal completion due to a failure.

`c` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual request. No further action is necessary if the request completed successfully. If the termination report is not `COMPLETED`, variable '`c`' should give some indication as to why the request failed. Check MSGS MCC pages or the OP:CFGSTAT output message to verify that the MSCU was in a valid state to perform the request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:HDW-MSCU
OP:CFGSTAT
```

Output Message(s):

```
OP:CFGSTAT
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

(MSGS)

INH:HDW-MSUCOM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK MSUCOM=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing an INH:HDW-MSUCOM input message to inhibit hardware error checks on the metallic service unit common (MSUCOM) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Metallic service unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOTS TARTED` = Action hs not begun.
- `STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-MSUCOM`

Output Appendix(es):

`APP:MAINT-RESP`

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INH:HDW-NCREF

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK NCREF,a=b c [d]
```

2. REASON FOR OUTPUT

To inhibit hardware error reports on network clock references (NCREF). This message is in response to the INH:HDW-NCREF input message.

3. VARIABLE FIELD DEFINITIONS

a = Network clock reference (NCREF). Valid value(s):

NC type:	Explanation:
NC1	PRIM = Primary. SEC = Secondary. XC = Cross-couple reference 0.
NC2	REFn = Reference number. XC = Cross-couple reference 0.

b = Network clock side.

c = Termination status. Valid value(s):

ABORTED = Requested action was terminated before completion and the termination was immediate (no cleanup was done).
COMPLETED = Requested action completed successfully.
STOPPED = Request was terminated before it completed normally due to hardware failure, data inconsistency, or other system problems.

d = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

No action is necessary if the request completed successfully. If the request failed, the variable 'd' should give some indication as to why the request failed. Check network clock Master Control Center (MCC) pages or the OP:CFGSTAT output message to verify that the NC was in a valid state to perform the request. Also, check the receive-only printer (ROP) for error messages, using the REPT:NC output messages that may indicate problems or system reconfigurations.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-NCREF
INH:HDW-NCREF
```

Output Message(s):

```
ALW:HDW-NCREF
OP:CFGSTAT
REPT:NC
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1210 (MI/LI/NC)
1211 (NETWORK CLOCK)

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INH:HDW-ONTC

Software Release: 5E10 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK ONTC=a b [c]
```

2. REASON FOR OUTPUT

To acknowledge a request to inhibit hardware checks on the specified office network and timing complex (ONTC).

3. VARIABLE FIELD DEFINITIONS

`a` = ONTC side.

`b` = Termination status. Valid value(s):
`COMPLETED` = Request completed successfully.
`NOT STARTED` = Requested action could not begin.
`STOPPED` = Request was terminated before a normal completion due to a failure.

`c` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual request. No further action is necessary if the request completed successfully. If the termination report is not `COMPLETED`, variable '`c`' should give some indication as to why the request failed. Check ONTC MCC display pages or the OP:CFGSTAT output message to verify that the system was in a valid state to perform the request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:HDW-ONTC
OP:CFGSTAT
```

Output Message(s):

```
OP:CFGSTAT
```

MCC Display Page(s):

(ONTC 0 & 1)

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INH:HDW-PPC

Software Release: 5E10 and later
Message Class: MSGS
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK PPC=a b [c]
```

2. REASON FOR OUTPUT

To acknowledge a manual request to inhibit hardware checks on the specified office pump peripheral controller (PPC).

3. VARIABLE FIELD DEFINITIONS

`a` = PPC side.

`b` = Termination status. Valid value(s):
`COMPLETED` = Request completed successfully.
`STOPPED` = Request was terminated before a normal completion due to a failure.

`c` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual request. No further action is necessary if the request completed successfully. If the termination report is not `COMPLETED`, variable '`c`' should give some indication as to why the request failed. Check MSGS MCC display pages or the OP:CFGSTAT output message to verify that the PPC was in a valid state to perform the request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:HDW-PPC
OP:CFGSTAT
```

Output Message(s):

```
OP:CFGSTAT
```

MCC Display Page(s):

(MSGS COMMUNITIES)
1240, 1250 (MSGS SUMMARY)

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INH:HDW-PSU

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK PSU{a}=b-c-d[-e] f [g]
```

2. REASON FOR OUTPUT

Indicates the result of an INH:HDW-PSU input message to inhibit hardware checks on a packet switch unit (PSU) common controller (COM) or protocol handler (PH).

3. VARIABLE FIELD DEFINITIONS

a = Circuit name. Valid value(s):
- COM = Common controller.
- PH = Protocol handler.

b = Switching module (SM) number.

c = PSU number.

d = Valid value(s):

If 'a' =	**'d' =**
'COM'	Service group number.
'PH'	Shelf number.

e = Protocol handler number.

f = Termination status. Valid value(s):
- ABORTED = Requested action was terminated before completion and the termination was not graceful.
- COMPLETED = Request has successfully completed.
- NOT STARTED = Requested action has not begun.
- STOPPED = Requested action was terminated before a normal completion. Termination was graceful.

g = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ALW:HDW-PSU
INH:HDW-PSU
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

118x (PSU SHELF)
1186 (PSU NETWORK)

INH:HDW-QGP

Software Release: 5E10 and later
Message Class: MSGS
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK QGP=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of a request to inhibit hardware error checks on the specified quad-link gateway processor (QGP).

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch side number.

`b` = QGP number.

`c` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before a normal completion and the termination was not graceful.
`COMPLETED`	= Request completed successfully.
`NOT STARTED`	= Requested action could not begin.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`d` = Additional data qualifying the report status. Refer to the APP:CM-OM-REASON appendix in the Appendixes section of the Output Messages manual for further explanation.

4. ACTIONS TO BE TAKEN

If unexpected results occur, refer to the System Maintenance Requirements and Tools manual and the System Recovery Procedure manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-QGP
INH:HDW-QGP
OP:HDWCHK
```

Output Message(s):

```
OP:HDWCHK
```

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Output Appendix(es):

```
APP:CM-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-250 *System Recovery Procedures*

MCC Display Page(s):

1241/51 (MSGS COMMUNITIES 0-1, 8-9)
1240/50 (MSGS STATUS for CM3)
1380/1 (QLPS NETWORK 0/1 STATUS)

INH:HDW-RAF

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK RAF=a-b c [d]
```

2. REASON FOR OUTPUT

To report the results of executing an INH:HDW-RAF input message to inhibit hardware checks on the recorded announcement function (RAF) unit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RAF unit number.

`c` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was immediate and was not graceful.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated gracefully before a normal completion.

`d` = Additional data qualifying the termination report (variable '`c`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-RAF
INH:HDW-RAF
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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INH:HDW-RCLK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK RCLK=a-b c [d]
```

2. REASON FOR OUTPUT

To indicate the result of an INH:HDW-RCLK input message to inhibit hardware checks on a remote clock (RCLK) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RCLK side.

`c` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination is immediate. Consistency of hardware and data is questionable.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action had not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If 'c' =	**Action:**
`COMPLETED` or `NOT STARTED`	No action required.
`STOPPED`	Check for reference error reports on the ROP.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-RCLK`

Output Appendix(es):

`APP:MAINT-RESP`

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INH:HDW-RCOSC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK RCOSC=a-b c [d]
```

2. REASON FOR OUTPUT

To indicate the result of an INH:HDW-RCOSC input message to inhibit hardware checks on a remote clock oscillator (RCOSC) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RCOSC side.

`c` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination is immediate. Consistency of hardware and data is questionable.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action had not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If 'c' =	**Action:**
`COMPLETED` or `NOT STARTED`	No action required.
`STOPPED`	Check for reference error reports on the ROP.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-RCOSC`

Output Appendix(es):

`APP:MAINT-RESP`

INH:HDW-RCOXC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK RCOXC=a-b c [d]
```

2. REASON FOR OUTPUT

To indicate the result of an INH:HDW-RCOXC input message to inhibit hardware checks on a remote clock oscillator cross couple (RCOXC) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RCOXC side.

`c` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination is immediate. Consistency of hardware and data is questionable.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action had not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If 'c' =	**Action:**
`COMPLETED` or `NOT STARTED`	No action required.
`STOPPED`	Check for reference error reports on the ROP.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-RCOXC`

Output Appendix(es):

`APP:MAINT-RESP`

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INH:HDW-RCREF

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK RCREF=a-b c [d]
```

2. REASON FOR OUTPUT

To indicate the result of an INH:HDW-RCREF input message to inhibit hardware checks on remote clock reference (RCREF).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Reference number.

`c` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination is immediate. Consistency of hardware and data is questionable.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action had not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If '`c`' =	**Action:**
`COMPLETED` or `NOT STARTED`	No action required.
`STOPPED`	Check for reference error reports on the ROP.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-RCREF`

Output Appendix(es):

`APP:MAINT-RESP`

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INH:HDW-RCXC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK RCXC=a-b c [d]
```

2. REASON FOR OUTPUT

To indicate the result of an INH:HDW-RCXC input message to inhibit hardware checks on a remote clock cross couple (RCXC) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RCXC side.

`c` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination is immediate. Consistency of hardware and data is questionable.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action had not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If 'c' =	**Action:**
`COMPLETED` or `NOT STARTED`	No action required.
`STOPPED`	Check for reference error reports on the ROP.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-RCXC`

Output Appendix(es):

`APP:MAINT-RESP`

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INH:HDW-RDFI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK RDFI=a-b-c d [e]
```

2. REASON FOR OUTPUT

To indicate the result of an INH:HDW-RDFI input message that inhibits interrupts on a remote switching module (RSM) digital facilities interface (RDFI) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line and trunk unit (DLTU) number.

`c` = RDFI number.

`d` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was complete.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed, and independent certification of the resulting hardware status was made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-RDFI`

Output Appendix(es):

`APP:MAINT-RESP`

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INH:HDW-RLI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK RLI=a-b c [d]
```

2. REASON FOR OUTPUT

To indicate the result of an INH:HDW-RLI input message that inhibits interrupts on a remote switching module (RSM) remote link interface (RLI) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RLI number.

`c` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was complete.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed, and independent certification of the resulting hardware status was made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-RLI`

Output Appendix(es):

`APP:MAINT-RESP`

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INH:HDW-RRCLK

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK RRCLK=a-b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of an INH:HDW-RRCLK input message to inhibit hardware checks on a remote integrated services line unit (RISLU) remote clock circuit pack (RRCLK).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RISLU number.

`c` = RRCLK side.

`d` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-RRCLK
INH:HDW-RRCLK
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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Other Manual(s):
235-105-220 *Corrective Maintenance*

INH:HDW-RVPT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK RVPT=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing an INH:HDW-RVPT input message to inhibit hardware error checks on the revertive pulsing transceiver (RVPT).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Unit number.

`c` = Service group.

`d` = Circuit number.

`e` = Termination status. Valid value(s):

`ABORTED`	= The inhibiting process was purged.
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion. (Process gracefully terminated.)

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:HDW-RVPT
ALW:HDW-RVPT
```

Output Message(s):

```
ALW:HDW-RVPT
```

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Output Appendix(es):

```
APP:MAINT-RESP
```

INH:HDW-SAS

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK SAS=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of executing an INH:HDW-SAS input message to inhibit maintenance interrupts on the service announcement system (SAS) unit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = SAS unit number.

`c` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`d` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-SAS`

Output Appendix(es):

`APP:MAINT-RESP`

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INH:HDW-SDFI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK SDFI=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing an INH:HDW-SDFI input message to inhibit hardware error checks on the *SLC*® 96 digital facility interface (SDFI).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital carrier line unit (DCLU) number.

`c` = SDFI number.

`d` = Termination status. Valid value(s):

`ABORTED`	= The action requested was unsuccessful, and the termination was not graceful. Hardware states are not reliable.
`COMPLETED`	= The action completed successfully.
`NOT STARTED`	= The inhibit was not started.
`STOPPED`	= The action terminated before a normal completion but the termination was graceful. Hardware states are reliable.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-SDFI`

Output Appendix(es):

`APP:MAINT-RESP`

INH:HDW-SFI

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK SFI=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an INH:HDW-SFI input request to inhibit hardware checks on a digital networking unit - synchronous optical network (DNU-S) synchronous transport signal electrical interface (STSX-1) facility interface (SFI).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = STSX-1 facility interface number.

`e` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action was not started.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-SFI
INH:HDW-SFI
```

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Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

INH:HDW-SM

Software Release: 5E10 and later
Message Class: INT
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK SM=a COMPLETED
```

2. REASON FOR OUTPUT

To report that all hardware error checks have been inhibited on the specified switching module (SM). This message may be printed automatically, or as a result of the INH:HDW-SM input message.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

4. ACTION TO BE TAKEN

If this message is in response to an input message, proceed in accordance with local practice.

If this message was generated automatically, it will be accompanied by output from a full initialization. Analyze and resolve the problems that led to the full initialization. After the problem is resolved, use input message ALW:HDW-SM to allow all the hardware error checks.

Note: When all hardware checks are inhibited, allowing each error source individually will not clear the MCC indicator. To clear the indicator use input message ALW:HDW-SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-SM
INH:HDW-SM
```

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INH:HDW-TAC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK TAC=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing an INH:HDW-TAC input message to inhibit hardware error checks on the test and access (TAC) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Trunk unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-TAC`

Output Appendix(es):

`APP:MAINT-RESP`

INH:HDW-TMUX

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK TMUX=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an INH:HDW-TMUX input request to inhibit hardware checks on a digital networking unit - synchronous optical network (DNU-S) transmission multiplexer (TMUX).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = TMUX number.

`e` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action was not started.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-TMUX
INH:HDW-TMUX
```

Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

INH:HDW-TTFCOM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK TTFCOM=a-b-c-d e [f]
 [e]
```

2. REASON FOR OUTPUT

To report the result of executing an INH:HDW-TTFCOM input message to inhibit hardware error checks on the transmission test facility common (TTFCOM) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Global digital service unit number.

`c` = Service group number.

`d` = Digital service circuit board number.

`e` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`COMPLETED CERTIFIED`	= Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-TTFCOM`

Output Appendix(es):

APP:MAINT-RESP

INH:HDW-UCONF

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK UCONF=a-b-c-d e
 [f]
```

2. REASON FOR OUTPUT

To report the result of executing an INH:HDW-UCONF input message to inhibit hardware error checks on the universal conference (UCONF) circuit board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Global digital service unit number.

`c` = Service group number.

`d` = Digital service circuit unit board number.

`e` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-UCONF`

Output Appendix(es):

APP:MAINT-RESP

INH:HDW-UTD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK UTD=a-b-c-d e
 [f]
```

2. REASON FOR OUTPUT

To report the result of executing an INH:HDW-UTD input message to inhibit hardware error checks on the universal tone decoder (UTD) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local digital service unit (LDSU) number.

`c` = Service group number.

`d` = Digital service unit board position number.

`e` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-UTD`

Output Appendix(es):

APP:MAINT-RESP

INH:HDW-UTG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH HDWCHK UTG=a-b-c-d e
 [f]
```

2. REASON FOR OUTPUT

To report the result of executing an INH:HDW-UTG input message to inhibit hardware error checks on the universal tone generator (UTG) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local digital service unit (LDSU) number.

`c` = Service group number.

`d` = Digital service unit board position number.

`e` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:HDW-UTG`

Output Appendix(es):

APP:MAINT-RESP

INH:HDWCHK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      INH HDWCHK COMPLETED

[2]   ____________________________________________________________________
      INH ERRCHK COMPLETED WITH b

[3]   ____________________________________________________________________
      INH HDWCHK ABORTED  a

[4]   ____________________________________________________________________
      INH HDWCHK NOT STARTED
        INVALID ID FIELD
```

2. REASON FOR OUTPUT

To indicate the result of a request to inhibit administrative module (AM) hardware checks.

3. VARIABLE FIELD DEFINITIONS

`a` = Error codes. Valid value(s):

- `50` = A message could not be sent to a driver or real time status report (RTS).
- `51` = An equipment configuration database (ECD) access function completed unsuccessfully.
- `52` = An error in message communication.
- `53` = An error internal to the inhibit administrator.

`b` = Port problems. Valid value(s):

- \- An invalid system port specified.
- \- An invalid system port specified for application integrity monitor (AIM).
- \- No process attached to the specified port.
- \- No process attached to the AIM port.

4. ACTION TO BE TAKEN

If an error was reported, use the OP:ERRCHK input message to find out the resulting status of AM inhibits. All error codes associated with this activity are significant and should be reported to an AM technical representative.

If the process completes with a port problem, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ALW:HDWCHK
INH:HDWCHK
OP:ERRCHK
```

Output Message(s):

```
ALW:HDWCHK
OP:ERRCHK
```

INH:HWGRD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH HWGRD [SM=a[&&b]] c
```

2. REASON FOR OUTPUT

To report the results of the INH:HWGRD input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number or the lower limit of a range of SMs.

`b` = The upper limit of a range of SMs.

`c` = The result of the request. Valid value(s):
`COMPLETED` = INH:HWGRD was enabled for the specified SM or range of SMs.
`SM UNAVAILABLE` = INH:HWGRD could not be completed because the specified SM or range of SMs are not able to communicate with the administrative module (AM).
`SM UNEQUIPPED` = INH:HWGRD could not be completed because the specified SM or range of SMs do not exist.

4. ACTION TO BE TAKEN

When the report indicates `SM UNAVAILABLE`, retry the input request once the SM(s) becomes available. Otherwise, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:HWGRD
ALW:HWGRD
```

Output Message(s):

```
ALW:HWGRD
```

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INH:IMSMEAS

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH IMSMEAS COMPL
  IMS MEASUREMENTS INHIBIT a
```

2. REASON FOR OUTPUT

To report the status of the IMS measurements flag.

3. VARIABLE FIELD DEFINITIONS

a	= Inhibit state. Valid value(s):	
	OFF	= Collection and accumulation of all IMS measurements are allowed.
	ON	= Collection and accumulation of certain IMS measurements are not allowed at this time.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

INH:IMSMEAS

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INH:INTR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

[1]
```
INH INTR MICU  a b c
```

[2]
```
INH INTR NCREF  d b c
```

2. REASON FOR OUTPUT

To acknowledge a request to inhibit interrupts from a message interface/clock unit (MICU) or a network clock reference (NCREF) and report what action was taken.

3. VARIABLE FIELD DEFINITIONS

`a` = Unit number.

`b` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`c` = Additional data qualifying the termination report.

`d` = Network clock reference to be inhibited. Valid value(s):
- `PRIM` = Primary.
- `SEC` = Secondary.
- `XC0` = Cross-couple reference 0.
- `XC1` = Cross-couple reference 1.

4. ACTION TO BE TAKEN

Check for successful completion.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

INH:MCTSI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH MCTSI=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of executing an INH:INTR-MCTSI input message to inhibit interrupts on the module control/time slot interchange unit (MCTSI).

3. VARIABLE FIELD DEFINITIONS

`a` = Interface or switching module number.

`b` = Module control unit number.

`c` = Termination status. Valid value(s):

- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`d` = Data qualifying the termination status.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:HDW-MCTSI
```

INH:MDII-A

Software Release: 5E10 - 5E11
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH MDII a TG b c d
```

2. REASON FOR OUTPUT

To report the result of an INH:MDII input request to selectively suppress a trunk group with a certain machine-detected interoffice irregularity (MDII).

3. VARIABLE FIELD DEFINITIONS

`a` = The MDII suppressed on a trunk group. Refer to the APP:MDII appendix in the Appendixes section of the Output Messages manual for a list of MDIIs.

`b` = Trunk group (TG) being suppressed.

`c` = Suppression indicator for the MDII. Valid value(s):
`NOT SUPPRESSED` = MDII and TG are not suppressed.
`SUPPRESSED` = MDII and TG are suppressed.

`d` = Output message termination report. Valid value(s):
`COMPLETED` = MDII and TG are suppressed.
`SYSTEM ERROR` = System processing error.

4. ACTION TO BE TAKEN

If the INH:MDII input message has failed, try the message once again. Also try the OP:MDII input message to verify that the trunk group is not already being suppressed by the MDII request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:MDII
OP:MDII
```

Output Appendix(es):

```
APP:MDII
```

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Other Manual(s):

235-070-100 Switch Administration Guidelines

INH:MDII-B

Software Release: 5E12 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH MDII a TG b c d
```

2. REASON FOR OUTPUT

To report the result of an INH:MDII input request to selectively suppress a trunk group with a certain machine-detected interoffice irregularity (MDII).

3. VARIABLE FIELD DEFINITIONS

`a` = The MDII suppressed on a trunk group. Refer to the APP:MDII appendix in the Appendixes section of the Output Messages manual for a list of MDIIs.

`b` = Trunk group (TG) being suppressed.

`c` = Suppression indicator for the MDII. Valid value(s):
`NOT SUPPRESSED` = MDII specified for TG is not suppressed.
`SUPPRESSED` = MDII specified for TG is suppressed.

`d` = Output message termination report. Valid value(s):
`COMPLETED` = MDII and TG are suppressed.
`SYSTEM ERROR` = System processing error.

4. ACTION TO BE TAKEN

If the INH:MDII input message has failed, try the message once again. Also try the OP:MDII input message to verify that the trunk group is not already being suppressed by the MDII request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:MDII
OP:MDII
```

Output Appendix(es):

```
APP:MDII
```

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Other Manual(s):

235-070-100 Switch Administration Guidelines
235-190-120 Common Channel Signaling Services

INH:MISMATCH

Software Release: 5E10 and later
Message Class: LINE
Application: 5
Type: Output

1. FORMAT

```
INH MISMATCH [REPT][SM=a[&&b]] c
```

2. REASON FOR OUTPUT

To report the results of the INH:MISMATCH input message.

3. VARIABLE FIELD DEFINITIONS

`REPT` = Reporting was inhibited.

`a` = Switching module (SM) number or the lower limit of a range of SMs.

`b` = The upper limit of a range of SMs.

`c` = The result of the request. Valid value(s):
- `COMPLETED` = INH:MISMATCH was enabled for the specified SM(s).
- `SM UNAVAILABLE` = INH:MISMATCH could not be completed because the specified SM(s) were not able to communicate with the administrative module (AM).
- `SM UNEQUIPPED` = INH:MISMATCH could not be completed because the specified SM(s) did not exist.

4. ACTION TO BE TAKEN

When the report indicates `SM UNAVAILABLE`, retry the input request once the SM(s) becomes available. Otherwise, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:MISMATCH
ALW:MISMATCH
```

Output Message(s):

```
ALW:MISMATCH
```

Other Manual(s):

235-105-220 Corrective Maintenance

INH:MON

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH MON {AM|SM=a|CMP=b-c}{ABORTED|COMPLETED}
```

2. REASON FOR OUTPUT

To respond to an INH:MON input message which deactivates the operating system for distributed switching (OSDS) monitor.

3. VARIABLE FIELD DEFINITIONS

AM	= Administrative module.
a	= Switching module (SM) number.
b	= Message switch side.
c	= Communications module processor (CMP) number.

4. ACTION TO BE TAKEN

If appropriate, correct the INH:MON input message; If there are subsequent failures, contact appropriated technical support.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:MON
INH:MON
OP:MON-CTL
OP:MON-DSP
OP:MON-PID
SET:MON-DATA
SET:MON-FCN
SET:MON-SPEC
SET:MON-WTD
```

Output Message(s):

```
ALW:MON
OP:MON-CTL
OP:MON-DSP
```

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```
OP:MON-PID
REPT:SIMON-FILE
SET:MON
```

INH:PCTF

Software Release: 5E10 and later
Message Class: PCTF
Application: 5
Type: Output

1. FORMAT

```
INH PCTF VERBOSE [SM=a[&&b]] c
```

2. REASON FOR OUTPUT

To report the results of a INH:PCTF input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number or the lower limit of a range of SM numbers.

`b` = The upper limit of a range of SM numbers.

`c` = The result of the request. Valid value(s):
- `COMPLETED` = The per-call test failure (PCTF) verbose mode was inhibited for the specified SM(s).
- `SM UNAVAILABLE` = The request could not be completed because the specified SM(s) was/were not able to communicate with the administrative module (AM).
- `SM UNEQUIPPED` = The request could not be completed because the specified SM(s) did not exist.

4. ACTIONS TO BE TAKEN

When the report indicates `SM UNAVAILABLE`, retry the input request once the SM(s) becomes available. Otherwise, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:PCTF
ALW:PCTF
```

Output Message(s):

```
ALW:PCTF
REPT:PCTF
```

Other Manual(s):

235-105-220 Corrective Maintenance

INH:PSLT-A

Software Release: 5E10 - 5E12
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      INH PSLT [ALL|a-b] COMPL
        PSLT FOR NODE a-b IS [NOT] INHIBITED

[2]   ____________________________________________________________________
      INH PSLT [ALL|a-b] COMPL
        NONE ARE INHIBITED

[3]   ____________________________________________________________________
      INH PSLT [ALL|a-b] COMPL
        a-b [a-b] [a-b] [a-b] [a-b] [a-b] [a-b] [a-b] [a-b] [a-b]
        .
        .
        .
```

2. REASON FOR OUTPUT

To respond to an INH:PSLT input request.

Note: For Format 3, the maximum number printed on a line is ten group and member sets for as many lines as needed.

3. VARIABLE FIELD DEFINITIONS

`ALL` = All links.

`a` = Group number.

`b` = Member number.

4. ACTIONS TO BE TAKEN

If the status of the periodic signaling link test (PSLT) for and given node is not in the expected state use the INH:PSLT input command to change its state.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:PSLT`

Other Manual(s):

235-190-120 Common Channel Signaling Services

MCC Display Page(s):

118 (CNI RING STATUS)
1521 (SIGNALING LINK SUMMARY)
1522 (SIGNALING LINK)

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INH:PSLT-B

Software Release: 5E13 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]  ____________________________________________________________________
     INH CCS PSLT SM=a d e

[2]  ____________________________________________________________________
     INH CCS PSLT SM=a SET=b d e

[3]  ____________________________________________________________________
     INH CCS PSLT SM=a SET=b MEMBER=c d e
```

2. REASON FOR OUTPUT

To report the success or failure of the inhibit request.

3. VARIABLE FIELD DEFINITIONS

`a` = CCS GSM number (SM).

`b` = Link set number (SET).

`c` = Link set member (MEMBER).

`d` = Termination status. Valid value(s):
`SUCCESS` = Request was processed successfully.
`PARTIAL SUCCESS` = Some link(s) in the linkset fails the request. (Only apply to linksets)
`STOPPED` = Request was terminated before normal completion.

`e` = Reason for failure of the inhibit request. Valid value(s):
`UNEQUIPPED` = The linkset or link is unequipped.
`SYSTEM ERROR` = An internal error occurred which prevented further processing.
`RESOURCE EXHAUSTION` = Processing stops due to PI FIFO full.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-190-120 *Common Channel Signaling Services*

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INH:RBPSC-SM

Software Release: 5E10 and later
Message Class: BPSC
Application: 5
Type: Output

1. FORMAT

```
INH RBPSC a SM b c d
 [e]
```

2. REASON FOR OUTPUT

To report the results of an INH:RBPSC-SM input message, which inhibits a remote building or miscellaneous alarm scan point.

3. VARIABLE FIELD DEFINITIONS

`a` = Scan point number in bldg/misc group as shown on the Master Control Center (MCC) remote alarms page.

`b` = Module number.

`c` = Name of scan point.

`d` = Termination report. Valid value(s):

`ABORTED`
`REMOTE ALARM PROCESS NOT ACTIVE IN DESIGNATED MODULE` The switching module (SM) number specified does not have remote alarms associated with it.
`POINT OUT OF RANGE` The specified point is not within the range of the bldg/misc group (2-31).
`POINT NOT ASSIGNED` The point is shown as not in service in the data base.
`POINT ALREADY INHIBITED` The point is already inhibited.
`COMPLETED`
`NO EXPLANATION` The requested inhibit was invoked, both metallic service unit (MSU) service groups are in service.
`ONE MSU SG OOS` One MSU service group (SG) is out of service (OOS). The point was successfully inhibited in the active service group. The software copy of the inhibit state was changed in the other service group, so when it is put back into service, the point will be inhibited there also.
`BOTH MSU SERVICE GROUPS OOS` Both MSU service groups are OOS; however, the software copy of the inhibit state was changed, so when the service groups are put back into service, the point will be inhibited.

`e` = Explanation of termination report. Valid value(s):

For ABORTED:
`REMOTE ALARM PROCESS NOT ACTIVE IN DESIGNATED MODULE` The switching module (SM) number specified does not have remote alarms associated with it.
`POINT OUT OF RANGE` The specified point is not within the range of the bldg/misc group (2-31).
`POINT NOT ASSIGNED` The point is shown as not in service in the data base.
`POINT ALREADY INHIBITED` The point is already inhibited.

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For COMPLETED:

`NO EXPLANATION` The requested inhibit was invoked, both metallic service unit (MSU) service groups are in service.

`ONE MSU SG OOS` One MSU service group (SG) is out-of-service (OOS). The point was successfully inhibited in the active service group. The software copy of the inhibit state was changed in the other service group, so when it is put back into service, the point will be inhibited there also.

`BOTH MSU SERVICE GROUPS OOS` Both MSU service groups are OOS; however, the software copy of the inhibit state was changed, so when the service groups are put back into service, the point will be inhibited.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:RBPSC-SM
```

INH:RC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH RC a
```

2. REASON FOR OUTPUT

To report the status of the INH:RC input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination report. Valid value(s):
`COMPLETED` = The requested action was terminated after completion.
`STOPPED` = The requested action was terminated before a normal completion.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Generic Retrofit Procedures manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:RC
INH:RC
```

Output Message(s):

```
ALW:RC
```

Other Manual(s):

235-105-240 Generic Retrofit Procedures

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INH:REPORT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH REPORT COMPL
  REPORT INHIBIT {ON|OFF}
```

2. REASON FOR OUTPUT

To respond to an INH:REPORT input request.

3. VARIABLE FIELD DEFINITIONS

`OFF` = Measurement reports allowed.

`ON` = Measurement reports not allowed at this time.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
  INH:REPORT
```

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-118-25x Recent Change Procedures Text Interface
235-190-120 Common Channel Signaling and Associated Signaling Service Feature

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INH:REX

Software Release: 5E10 and later
Message Class: MAINT
Application: 3B
Type: Output

1. FORMAT

```
[1]    ____________________________________________________________________
       INH REX COMPLETED

[2]    ____________________________________________________________________
       INH REX NOT STARTED
       { CONFLICT WITH CURRENT SYSTEM STATUS
       | RETRY LATER }
```

2. REASON FOR OUTPUT

To report the termination status of the INH:REX input message.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

For Format 1, no action is needed.

For Format 2:

`CONFLICT WITH CURRENT SYSTEM STATUS` = Indicates that temporary routine exercise (REX) inhibits are not available for the unit specified, or all the units specified due to active permanent REX inhibit(s). Use the OP:REXINH input message with the PERM option to determine the current permanent REX inhibits.

`RETRY LATER` = Indicates that the database manager or a database record could not be opened; try again at a later time. If this persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:REX
OP:REXINH
```

Output Message(s):

```
OP:REXINH
```

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INH:RMV

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH RMV COMPL
  LINK REMOVAL INHIBIT a
```

2. REASON FOR OUTPUT

To respond to an INH:RMV input request.

3. VARIABLE FIELD DEFINITIONS

a	= Inhibit state. Valid value(s):	
	OFF	= Node removal for diagnostics due to link failure is allowed.
	ON	= Node removal for diagnostics after link failure is not allowed at this time.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

INH:RMV

INH:RPC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH RPC [SM=a[&&b]] c
```

2. REASON FOR OUTPUT

To report the results of the INH:RPC input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number or the lower limit of a range a SMs.

`b` = Upper limit of a range of SMs.

`c` = The result of the request. Valid value(s):
`COMPLETED` = Routine port conditioning was inhibited for the specified SM or range of SMs.
`SM UNAVAILABLE` = Routine port conditioning could not be inhibited because the specified SM or range of SMs are not able to communicate with the administrative module (AM).
`SM UNEQUIPPED` = Routine port conditioning could not be completed because the specified SM or range of SMs do not exist.

4. ACTION TO BE TAKEN

When the report indicates `SM UNAVAILABLE`, retry the command again once the SM(s) become available. Otherwise, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Manual(s):

`INH:RPC`

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INH:RT-FAC

Software Release: 5E10 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
INH RT FAC=a-b PROT|RELEASE c [d]
```

2. REASON FOR OUTPUT

To respond to an INH:RT-FAC input message that inhibited protection (PROT) line switching for the indicated remote terminal (RT) digital signal level one (DS1) facility (FAC) circuit or inhibited the release of a DS1 from protection.

3. VARIABLE FIELD DEFINITIONS

`a` = Site identification number.

`b` = DS1 FAC number.

`c` = Termination report. Valid value(s):

- `ABORTED` = Immediate termination. A process has been purged and cleanup will be done by audits.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:RT-FAC`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

187x (IDCU FACILITY)

INH:RT-PROV-REPT

Software Release: 5E10 and later
Message Class: RT
Application: 5
Type: Output

1. FORMAT

```
INH RT PROV REPT {SM=a|SID=b|LRT=a-c-d} e
```

2. REASON FOR OUTPUT

To report the result of an INH:RT-REPT input message that requests the disabling of diagnostic receive only printer (ROP) reporting:

- Provisioning failures for the provisioning of an integrated digital carrier unit (IDCU) terminated TR303 remote terminal (RT).
- An analog or digital line on an RT.
- A digital signal level 1 (DS1) facility on an RT.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Site identification (SID) number of the RT.

`c` = IDCU number.

`d` = Local RT (LRT) number.

`e` = Completion status. Valid value(s):
`COMPLETED` = The request to disable ROP reporting of provisioning failures has completed.
`INVALID REQUEST` = The request contained invalid data.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:RT-PROV
INH:RT-REPT
```

Output Message(s):

OP:RT-PROV

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

INH:RTMTBOVR

Software Release: 5E10 and later
Message Class: SLC
Application: 5
Type: Output

1. FORMAT

```
INH RTMTBOVR [SM=a[&&b]] c
```

2. REASON FOR OUTPUT

To report the results of executing an INH:RTMTBOVR input message.

3. VARIABLE FIELD DEFINITIONS

`SM` = Switching module. If no SM number or range is listed, all equipped and operational SMs will be inhibited.

`a` = SM number, or the lower limit of a range of SM numbers.

`b` = The upper limit of a range of SM numbers.

`c` = Termination report. Valid value(s):
`COMPLETED` = Request has successfully completed.
`SM UNAVAILABLE` = The administrative module (AM) could not communicate with the specified SM.
`SM UNEQUIPPED` = An SM specified is unequipped.
`SYSTEM BUSY REPEAT LATER` = Request not completed, retry later.
`SYSTEM ERROR` = Abnormal termination.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:RTMTBOVR
ALW:RTMTBPRT
INH:RTMTBOVR
INH:RTMTBPRT
```

Output Message(s):

```
ALW:RTMTBOVR
ALW:RTMTBPRT
```

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```
INH:RTMTBPRT
REPT:RTMTB-SID
```

INH:RTMTBPRT

Software Release: 5E10 and later
Message Class: SLC
Application: 5
Type: Output

1. FORMAT

```
INH RTMTBPRT [SM=a[&&b]] c
```

2. REASON FOR OUTPUT

To report the results of executing an INH:RTMTBPRT input message.

3. VARIABLE FIELD DEFINITIONS

`SM` = Switching module. If no SM number or range is listed, all equipped and operational SMs will be inhibited.

`a` = SM number, or the lower limit of a range of SM numbers.

`b` = The upper limit of a range of SM numbers.

`c` = Termination report. Valid value(s):
`COMPLETED` = Request has successfully completed.
`SM UNAVAILABLE` = The administrative module (AM) could not communicate with the specified SM.
`SM UNEQUIPPED` = An SM specified is unequipped.
`SYSTEM BUSY REPEAT LATER` = Request not completed, retry later.
`SYSTEM ERROR` = Abnormal termination.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:RTMTBPRT
ALW:RTMTBOVR
INH:RTMTBOVR
INH:RTMTBPRT
```

Output Message(s):

```
ALW:RTMTBOVR
ALW:RTMTBPRT
```

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```
INH:RTMTBOVR
REPT:RTMTB-SID
```

INH:RTRACK

Software Release: 5E11 and later
Message Class: SWM01
Application: CNI
Type: Output

1. FORMAT

```
INH RTRACK a
  b
```

2. REASON FOR OUTPUT

To print a response to the INH:RTRACK input message.

3. VARIABLE FIELD DEFINITIONS

a = Termination status of the input message. Valid value(s):
COMPL
NOT STARTED
STOPPED

b = Reason command did not complete.

Valid value(s): If 'a' = 'b' = NOT STARTED
RTRACK IS ALREADY INHIBITED
RTRACK IS CURRENTLY RUNNING
STOPPED
INVALID REQUEST RESPONSE FOR INH RTRACK
INVALID RESPONSE ACKNOWLEDGEMENT FOR INH RTRACK

4. ACTION TO BE TAKEN

If 'a' is COMPL, no action is necessary. This message prints when the process of inhibiting entry into the ring tracker mode has completed.

If 'b' =	Action:
RTRACK IS ALREADY INHIBITED	This message prints when an INH:RTRACK input message has been entered, but the ring tracker mode has already been inhibited by a prior INH:RTRACK input message.
RTRACK IS CURRENTLY RUNNING	An INH:RTRACK input message has been entered, but the ring tracker mode is already running as a result of a prior EXC:RTRACK input message or the invoking/initiating of ring tracker mode by an internal process. To terminate the currently running ring tracker mode, use the STOP:RTRACK input message. When the ring tracker mode has been terminated try the INH:RTRACK input message again.

For other values of 'b', no action is necessary.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ALW:RTRACK
EXC:RTRACK
INH:RTRACK
OP:RTRACK
STOP:RTRACK
```

Output Message(s):

```
ALW RTRACK
EXC RTRACK
OP RTRACK
REPT RING CFR
STOP RTRACK
```

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INH:RUTIL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      INH RUTIL COMPL
        LN a b

[2]   ____________________________________________________________
      INH RUTIL ABT
        SEND2KERN MKNODE() FAILED c

[3]   ____________________________________________________________
      INH RUTIL ABT
        SEND2KERN OPEN() FAILED c

[4]   ____________________________________________________________
      INH RUTIL ABT
        SEND2KERN KERNEL RETURNED ERROR c

[5]   ____________________________________________________________
      INH RUTIL ABT
        KERNEL RESPONSE TIMEOUT c
```

2. REASON FOR OUTPUT

Format 1 indicates a successful completion of the INH:RUTIL input message.

Format 2 indicates that creating the special file for the kernel has failed.

Format 3 indicates that attempting to open the file for kernel processing has failed.

Format 4 indicates that the kernel has returned a failing return code.

Format 5 indicates that the kernel has not responded to the process.

3. VARIABLE FIELD DEFINITIONS

`a` = Group number of the concerned node.

`b` = Member number of the concerned node.

`c` = Value of the global variable "errno".

4. ACTION TO BE TAKEN

For Formats 2 through 5, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

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None.

6. REFERENCES

Input Message(s):

```
ALW:RUTIL
ALW:RUTILFLAG
CLR:RUTIL
CLR:RUTILFLAG
DUMP:RUTIL
INH:RUTIL
INH:RUTILFLAG
LOAD:RUTIL
OP:RUTIL
OP:RUTILFLAG
WHEN:RUTIL
```

Output Message(s):

```
ALW:RUTIL
ALW:RUTILFLAG
CLR:RUTIL
CLR:RUTILFLAG
DUMP:RUTIL
INH:RUTILFLAG
LOAD:RUTIL
OP:RUTIL
OP:RUTILFLAG
REPT:RUTIL
WHEN:RUTIL
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

INH:RUTILFLAG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      INH RUTILFLAG COMPL
        LN aa b BP = c

[2]   ____________________________________________________________
      INH RUTILFLAG COMPL
        LN aa b INVALID BP = c

[3]   ____________________________________________________________
      INH RUTILFLAG COMPL
        LN aa b BP = c NOT SETUP COMPL

[4]   ____________________________________________________________
      INH RUTILFLAG COMPL
        LN aa b BP = c ILLEGAL BP STATUS = e

[5]   ____________________________________________________________
      INH RUTILFLAG COMPL
        LN aa b BP = c MEMORY PROTECTION ERROR
        = f

[6]   ____________________________________________________________
      INH RUTILFLAG ABT
        SEND2KERN MKNODE() FAILED d

[7]   ____________________________________________________________
      INH RUTILFLAG ABT
        SEND2KERN OPEN() FAILED d

[8]   ____________________________________________________________
      INH RUTILFLAG ABT
        SEND2KERN KERNEL RETURNED ERROR d

[9]   ____________________________________________________________
      INH RUTILFLAG ABT
        KERNEL RESPONSE TIMEOUT d
```

2. REASON FOR OUTPUT

Response to a INH:RUTILFLAG input message.

Format 1 indicates a successful completion of the INH:RUTILFLAG input message.

Format 2 indicates that the break point specified is invalid.

Format 3 indicates that the specified break point is not setup.

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Format 4 indicates that the break point has an illegal status.

Format 5 indicates that a memory protection error has occurred.

Format 6 indicates that creating the special file for the kernel has failed.

Format 7 indicates that attempting to open the file for kernel processing has failed.

Format 8 indicates that the kernel has returned a failing return code.

Format 9 indicates that the kernel has not responded to the process.

3. VARIABLE FIELD DEFINITIONS

a	= Group number of the concerned node.
b	= Member number of the concerned node.
c	= Specified break point number.
d	= Value of the global variable "errno".
e	= Illegal break point status value.
f	= Memory protection error return.

4. ACTION TO BE TAKEN

For Formats 2 and 3, check the specified break point number. For Formats 4 through 9, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:RUTIL
ALW:RUTILFLAG
CLR:RUTIL
CLR:RUTILFLAG
DUMP:RUTIL
INH:RUTIL
INH:RUTILFLAG
LOAD:RUTIL
OP:RUTIL
OP:RUTILFLAG
WHEN:RUTIL
```

Output Message(s):

```
ALW:RUTIL
ALW:RUTILFLAG
```

```
CLR:RUTIL
CLR:RUTILFLAG
DUMP:RUTIL
INH:RUTIL
LOAD:RUTIL
OP:RUTIL
OP:RUTILFLAG
REPT:RUTIL
WHEN:RUTIL
```

Other Manual(s):

235-105-110 System Maintenance Requirements and Tools

INH:SCSD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      INH SCSD UNIT a PT b[bbbbbbb] f

[2]   ____________________________________________________________
      INH SCSD GRPN c DUPID d PT e[eeeee] f
        INH SCSD NOT STARTED

[3]   ____________________________________________________________
      INH SCSD NOT STARTED
        CONFLICT WITH CURRENT SYSTEM STATUS
```

2. REASON FOR OUTPUT

To indicate whether a scan point was disabled as a result of executing an INH:SCSD input message. This prevents the reporting of a scan point's transitions.

Format 1 is used when a scan point is identified by physical location.

Format 2 is used when a scan point is identified by logical address.

Format 3 indicates the scanner and signal distributor (SCSD) administration process is not active. No communication with SCSD points is possible.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number of SCSD unit.

`b` = Physical scan point number on an SCSD.

`c` = Name of the logical group.

`d` = Duplex group ID.

`e` = Number of a point within a logical group.

`f` = Termination status. Valid value(s):

`COMPLETED` = Action completed.

`FAILED` = Action could not be completed by the SCSD Administrator. Possible reasons for failure are:

- SCSD unit number is invalid. - Point number is invalid for the logical group. - Logical group name is invalid and either the SCSD unit is out-of-service (OOS), or is in an inactive state to the SCSD Administrator.

4. ACTION TO BE TAKEN

Issue the OP:OOS input message to determine if the SCSD unit is listed as OOS. Otherwise, enter recent change and verify (RCV) to verify input message arguments.

If logical addressing is used, check that the logical group name exists and/or the point number is contained in the logical group. If physical addressing is used, verify that the SCSD unit is equipped.

If the above results are negative, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:SCSD
OP:OOS
```

Output Message(s):

```
REPT:PSM
```

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-600-31x ECD/SG

INH:SFTCHK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      INH SFTCHK COMPLETED

[2]   ____________________________________________________________________
      INH ERRCHK COMPLETED WITH b

[3]   ____________________________________________________________________
      INH SFTCHK ABORTED  a

[4]   ____________________________________________________________________
      INH SFTCHK NOT STARTED
        INVALID ID FIELD
```

2. REASON FOR OUTPUT

To indicate the result of a request to inhibit administrative module (AM) software checks.

3. VARIABLE FIELD DEFINITIONS

`a` = Error code. Valid value(s):

- `50` = A message could not be sent to a driver or real time status report (RTS).
- `51` = An equipment configuration database (ECD) access function completed unsuccessfully.
- `52` = An error in message communication.
- `53` = An error internal to the inhibit administrator.

`b` = Port problem. Valid value(s):

- \- An invalid system port specified.
- \- An invalid system port specified for application integrity monitor (AIM).
- \- No process attached to the specified port.
- \- No process attached to the AIM port.

4. ACTION TO BE TAKEN

If an error was reported, use the OP:ERRCHK input message to find out the resulting status of AM inhibits. All error codes associated with this activity are significant and should be reported to an AM technical representative.

If the process completes with a port problem, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

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6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	406
2	658
3	416

Input Message(s):

```
ALW:SFTCHK
INH:SFTCHK
OP:ERRCHK
```

Output Message(s):

```
ALW:SFTCHK
OP:ERRCHK
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

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INH:SLK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

[1]
```
INH SLK a b COMPLETED
  SLK a b c ALARM INHIBIT = {ON|OFF}
```

[2]
```
INH SLK a b COMPLETED
  SLK a b c ALARM INHIBIT {SET(ON)|RESET(OFF)}
```

2. REASON FOR OUTPUT

To print information about the alarm inhibit flag of a signaling link (SLK).

Format 1 prints in response to a request to set or reset the alarm inhibit flag of a SLK.

Format 2 prints in response to a request for the current status of the alarm inhibit flag of a SLK.

3. VARIABLE FIELD DEFINITIONS

`a` = Ring node (RN) group number.

`b` = Member number.

`c` = Far end CLLI code.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:SLK`

Other Manual(s):

235-190-120 Common Channel Signaling Services

MCC Display Page(s):

118 (CNI RING STATUS)
1521 (SIGNALING LINK SUMMARY)

1522 (SIGNALING LINK)

INH:SSTR

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
INH SSTR TG=a b
```

2. REASON FOR OUTPUT

To report the inhibiting of a service selective trunk reservation (SSTR) control. This is a response to an INH:SSTR input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Trunk group (TG) number.

`b` = Termination status. Valid value(s):
`COMPLETED` = SSTR control has been inhibited on TG '`a`'.
`ABORTED` = Message failed. System error encountered.
`FAILED-PARAMETER` = Message failed due to bad input. The trunk group specified does not have an SSTR control assigned.

4. ACTION TO BE TAKEN

No action is needed for an automatically generated request from the remote network management center (RNMC). These messages are to be treated as information-only messages. For manually generated requests, the following actions will apply.

If '`b`' =	**Action:**
`ABORTED`	Reinitiate the request.
`COMPLETED`	The message is a confirmation of a request from an input message.
`FAILED-PARAMETER`	Check for the validity of input parameters and reinitiate the corrected request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:SSTR
ASGN:SSTR
CLR:SSTR
OP:SSTR
```

Other Manual(s):
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

130 (NM EXCEPTION)

INH:TR

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
INH TR TG=a b
```

2. REASON FOR OUTPUT

To report the inhibiting of a trunk reservation (TR) control. This is a response to the INH:TR input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Trunk group (TG) number.

`b` = Termination status. Valid value(s):
`ABORTED` = Message failed.
`COMPLETED` = Message successfully completed.
`FAILED PARAMETER` = Message failed due to bad input. The trunk group specified does not have TR control assigned.

4. ACTION TO BE TAKEN

No action is needed for an automatically generated request from the remote network management center (RNMC). These messages are to be treated as information-only messages. For manually generated requests, the following actions will apply.

If 'b' =	**Action:**
ABORTED	Reinitiate the request.
COMPLETED	The message is a confirmation of a request form an input message.
FAILED PARAMETER	Check for the validity of input parameters and reinitiate the corrected request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TR
OP:TR
```

Other Manual(s):
235-190-103 *Business and Residence Feature Description*
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

130 (NM EXCEPTION)

INH:TRACE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INH TRACE a
 [b]
```

2. REASON FOR OUTPUT

To report the termination status of the INH:TRACE input message.

3. VARIABLE FIELD DEFINITIONS

a = Termination status. Valid value(s):
- COMPL = The request was successfully completed.
- ABT = The request was terminated before completion, and the termination was complete.
- STOPPED = The request was terminated before normal completion.

b = Termination status.

If 'a' =	'b' =
ABT	Valid value(s): TIMEOUT SIGNAL RECIEVED SOFTWARE TERMINATION SIGNAL RECEIVED HANGUP SIGNAL RECEIVED INTERRUPT SIGNAL RECEIVED UNEXPECTED SIGNAL RECEIVED
STOPPED	Valid value(s): IMS SUBSYSTEM DOEN IMS MESSAGE SWITCH CHANNEL BUSY IMS SUBSYSTEM OVERLOAD PROGRAM MALFUNCTION

4. ACTION TO BE TAKEN

If 'a' =	Action:
ABT or STOPPED	Try the INH:TRACE input message again.
COMPL	No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

ALW:TRACE
INH:TRACE
OP:TRACE

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```
SET:TRACE
```

Output Message(s):

```
ALW:TRACE
OP:TRACE
REPT:TRACE
SET:TRACE
```

INH:TRAP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      INH TRAP
        MTRP: INH TRAP ID ALL COMPL; NO ACT TRAP

[2]   ____________________________________________________________________
      INH TRAP
        MTRP: INH TRAP ID ALL COMPL;   ID(S) = a[a[a]]

[3]   ____________________________________________________________________
      INH TRAP
        MTRP: INH TRAP ID ALL FAILED; b

[4]   ____________________________________________________________________
      INH TRAP
        MTRP: INH TRAP ID COMPL; ID = a

[5]   ____________________________________________________________________
      INH TRAP
        MTRP: INH TRAP ID FAILED;{b|c}; ID = a
```

2. REASON FOR OUTPUT

This output message is in response to an INH:TRAP input message.

Format 1 is printed when ID ALL is specified and there are no active traps in the message trap system.

Format 2 is printed when ID ALL is specified and there is one or more active traps to be inhibited. A list of the trap IDs that have been inhibited will be displayed.

Format 3 is printed when ID ALL is specified and there is one or more active traps to be inhibited. However, the processing of the INH:TRAP input message has failed due to the reason being printed.

Format 4 prints for the traps that have been successfully inhibited. When one or a list of trap IDs is given, each trap specified will be inhibited in the given order. One message per trap ID inhibited will be printed.

Format 5 is printed when the processing of a trap has failed due to the reason being printed. When one or a list of trap IDs is given, each trap specified will be inhibited in the given order. One message per ID failed will be printed.

3. VARIABLE FIELD DEFINITIONS

`a` = Trap identification number.

`b` = Reason INH:TRAP input message failed (internal error condition). Valid value(s):

```
CAN'T GET INDEX
NO TRAP INHIBITED
INVALID TRAP STATE
```

`c` = Reason INH:TRAP input message failed. Valid value(s):
`NOT ACT TRAP` = Can only inhibit active traps.
`INVALID ID` = ID does not belong to any trap.

4. ACTION TO BE TAKEN

For Formats 1, 2, and 4, none.

For Format 3, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 5, if any of the reasons in variable '`b`' are printed, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. The reasons in variable '`c`' are self-explanatory. Correct the error and try again.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRAP
INH:TRAP
OP:TRAP
SET:TRAP
STOP:TRAP
```

Output Message(s):

```
ALW:TRAP
OP:TRAP
SET:TRAP
STOP:TRAP
REPT:MON-TRAP
```

Other Manual(s):

235-190-120 Common Channel Signaling Services

INH:TRFC30

Software Release: 5E10 and later
Message Class: TRFM
Application: 5
Type: Output

1. FORMAT

```
INH TRFC30 a        b
  ELEMENTS ALLOWED:
      c      [d]      [e]      [f]
      .       .        .        .
      .       .        .        .
      .       .        .        .
  INVALID ELEMENTS:
      c      [d]      [e]      [f]
      .       .        .        .
      .       .        .        .
      .       .        .        .
  ALLOWED ELEMENT COUNT: g            (LIMIT = h)
```

2. REASON FOR OUTPUT

To respond to a request to inhibit for collection (CLCT) or for output to the receive-only printer (ROP) a 30-minute traffic report (TRFC30) section that requires group identifiers. Refer to the APP:TRFC-SECTION input appendix in the Appendixes section of the Input Messages manual to indicate which sections require identifiers.

Some sections require single identifiers (for example, trunk group number) while other sections require multiple identifiers (for example, switching module (SM), protocol handler, and shelf numbers).

Each line of output represents one element (for example, unit or group) identified by one or multiple identifiers.

3. VARIABLE FIELD DEFINITIONS

`a` = Section name. Refer to the APP:TRFC-SECTION appendix in the Appendixes section of the Output Messages manual.

`b` = Status of the section following the INH request. Valid value(s):
- `ALLOWED` = Some elements remain allowed. The section is allowed.
- `INHIBITED` = All elements are inhibited. The section is inhibited.

`c-f` = Element identifier. Refer to the APP:TRFC-SECTION appendix in the Appendixes section of the Output Messages manual.

`g` = Number of elements allowed.

`h` = Maximum number of elements allowable for this section.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:TRFC-SECTION
```

Other Manual(s):

235-070-100 Switch Administration Guidelines

INH:TRFC30-TG

Software Release: 5E10 and later
Message Class: TRFM
Application: 5
Type: Output

1. FORMAT

```
INH TRFC30 TG CHANGE
  TRUNK GROUPS ALLOWED:   a       b       c       d       e
  INVALID TRUNK GROUPS:   f       g       h       i       j
  ALLOWED TRUNK GROUP COUNT:      k       (LIMIT = 5)
```

2. REASON FOR OUTPUT

To respond to an INH:TRFC30 input message request to inhibit the output of up to five trunk groups when one or more of the trunk group identifiers requested is invalid.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

`a-e` = Trunk group identifiers currently allowed for output.

`f-j` = Invalid trunk group identifiers requested.

`k` = Current number of trunk groups allowed for output.

4. ACTION TO BE TAKEN

A trunk group can be inhibited for output again if it was flagged as invalid because of a typing error.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:TRFC30
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

INH:UMEM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
INH UMEM a WAS b NOW c #d
```

2. REASON FOR OUTPUT

To report that the transfer trace entered the STOPPED state either as the result of an INH:UMEM input message or the STOP FULL directive of the INIT:UMEM input message. The two cases can be distinguished by the 'priority of action' field which will be either 'M' or 'A', respectively.

3. VARIABLE FIELD DEFINITIONS

`a` = Status of the operation. Valid value(s):
- `COMPLETED` = The trace has stopped monitoring the flow of execution.
- `NOT STARTED` = The operation was ignored because the trace was not running.
- `STOPPED UCERR` = The utility circuit either does not respond or does not match the circuit present when the trace was defined.

`b` = State of the trace before the operation was attempted. Valid value(s):
- `DUMPED` = The trace was not running and its data had already been dumped.
- `NEW` = The trace was not running and did not have data.
- `RUNNING` = The trace was collecting data.
- `STOPPED` = The trace was not running and did have data.
- `UNDEF` = No trace was defined.

`c` = State of the trace after the operation was attempted. Valid value(s):
- `DUMPED` = The trace is not running and its data had already been dumped.
- `NEW` = The trace is not running and does not contain data.
- `STOPPED` = The trace is stopped and does contain data.
- `UNDEF` = No trace is defined.

`d` = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If '`a`' is `STOPPED UCERR` check the utility circuit hardware. After it is fixed, use the INIT:UC input message to reinitialize the circuit.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

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OMDB Key(s):

Format(s):	Key(s):
all	498

Input Message(s):

```
ALW:UMEM
INH:UMEM
INIT:UC
INIT:UMEM
OP:UTIL
```

Output Message(s):

```
OP:UTIL
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

INH:UT-CMP

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
INH UT CMP=a-b {MATE|PRIM}{UTIL|UTILFLAG c} d
```

2. REASON FOR OUTPUT

To report the status of the INH:UT-CMP input request to inhibit an active WHEN clause in the communication module processor (CMP).

3. VARIABLE FIELD DEFINITIONS

MATE	= Message was executed in the standby CMP.
PRIM	= Message was executed in the active CMP.
UTIL	= Report on all WHEN clauses.
UTILFLAG	= Report on one specific WHEN clause.
a	= Message switch side.
b	= CMP number.
c	= WHEN message identification number, in decimal.
d	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:UT-CMP
WHEN:UT-CMP
```

Output Message(s):

```
WHEN:UT-CMP
```

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Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

INH:UT-MCTSI-PI

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
INH UT MCTSI=a-b PI {UTIL|UTILFLAG c} d
```

2. REASON FOR OUTPUT

To report the status of the INH:UT-MCTSI-PI input message used to inhibit the specified WHEN command clause(s) from the application program and the memory of the packet interface (PI).

3. VARIABLE FIELD DEFINITIONS

`UTIL`	= Message was run on all UT WHEN clauses in the processor.
`UTILFLAG`	= Designates one specific WHEN clause.
`a`	= Switching module (SM) number
`b`	= Side of the module controller/time-slot interchange (MCTSI).
`c`	= WHEN message identification number, in decimal.
`d`	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:UT-MCTSI-PI
WHEN:UT-MCTSI-PI
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements And Tools*
235-600-400 *Audits Manual*

INH:UT-PSUPH

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
INH UT PSUPH=a-b-c-d {UTIL|UTILFLAG e} f
```

2. REASON FOR OUTPUT

To report the status of the INH:UT-PSUPH input request to inhibit an active WHEN clause in the packet switch unit protocol handler (PSUPH).

3. VARIABLE FIELD DEFINITIONS

`UTIL`	= Report on all WHEN clauses.
`UTILFLAG`	= Report on one specific WHEN clause.
`a`	= Switching module (SM) number.
`b`	= Unit number.
`c`	= Shelf number.
`d`	= Slot number.
`e`	= WHEN message identification number, in decimal.
`f`	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:UT-PSUPH
WHEN:UT-PSUPH
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

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Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-600-400 *Audits*

INH:UT-SM

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
INH UT SM a {UTIL|UTILFLAG b} c
```

2. REASON FOR OUTPUT

To report the status of the response to the INH:UT-SM input message to inhibit an active WHEN clause.

3. VARIABLE FIELD DEFINITIONS

`UTIL`	= Specifies all WHEN clauses.
`UTILFLAG`	= Designates one specific WHEN clause.
`a`	= Switching module (SM) number.
`b`	= WHEN command identification number, in decimal.
`c`	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:UT-SM
WHEN:UT-SM
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):

235-105-220 Corrective Maintenance

INH:UTIL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
INH UTIL a #b
```

2. REASON FOR OUTPUT

To indicate the disposition of an INH:UTIL input message or report generic access package (GRASP) dynamic time overload.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination status. Valid value(s):

- `COMPLETED` = The action associated with breakpoints will not be executed when the breakpoint conditions occur.
- `COMPLETED EAI` = All defined breakpoints were inhibited by a request from AIM.
- `COMPLETED OVERLOAD` = All defined breakpoints were automatically inhibited because of GRASP overload (due to breakpoints or trace processing). This message will appear when an overload condition occurs, even if no breakpoints are currently defined.
- `STOPPED UCERR` = The operation was completed successfully for software breakpoints but the utility circuit either does not respond or does not match the circuit present when the hardware breakpoints were defined.

`b` = GRASP execution sequence number.

4. ACTION TO BE TAKEN

If '`a`' =	Action:
`COMPLETED OVERLOAD`	Re-enable selected breakpoints and clear the others, or increase the dynamic time limit.
`STOPPED UCERR`	Check the utility circuit hardware. After it is fixed, use the INIT:UC input message to reinitialize the circuit.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	497

Input Message(s):

```
ALW:UTIL
ALW:UTILFLAG
CLR:UTILFLAG
```

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```
IN:DTIME
INH:UTIL
INH:UTILFLAG
INIT:UC
OP:UTIL
```

Output Message(s):

```
OP:UTIL
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

INH:UTILFLAG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
INH UTILFLAG a b #c
```

2. REASON FOR OUTPUT

To indicate the disposition of an INH:UTILFLAG input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Numeric identifier (one or more decimal digits) for the breakpoint that was inhibited.

`b` = Termination status. Valid value(s):
- `COMPLETED` = The actions associated with the breakpoint will not be executed when the breakpoint conditions occur.
- `STOPPED UCERR` = The utility circuit either does not match the circuit present or does not respond when the breakpoint is defined.

`c` = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If '`a`' is `STOPPED UCERR`, check the utility circuit hardware. After it is fixed, use the INIT:UC input message to reinitialize the circuit.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	497

Input Message(s):

```
ALW:UTIL
ALW:UTILFLAG
INH:UTILFLAG
INIT:UC
OP:UTIL
```

Output Message(s):

```
OP:UTIL
```

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Output Appendix(es):

APP:OMDB-X-REF

38. INIT

INIT:AM-LVL

Software Release: 5E10 and later
Message Class: ASRT,INT
Application: 5
Type: Output

1. FORMAT

```
INIT AM LVL=a  b  c EVENT=d  e
  SW-ERR FAIL-ADDR=[f] AM-MODE=g CU=h TIME=ii:ii.i
  PROCESS: OSDS=j,k CALL-INTJ=l DMERT=m  EVENT-FLAGS=[n]
  FCODE=o REQ-PROC=p HDW-LVL=q  [OOS-HDW-RESTORED]   SPP-COUNTS=s,t
  [u]  [v]
```

2. REASON FOR OUTPUT

To indicate that a software stimulus occurred that resulted in a software recovery action in the administrative module (AM).

The ASRT message class is used for defensive check failure errors, otherwise the INT message class is used.

3. VARIABLE FIELD DEFINITIONS

`OOS-HDW-RESTORED` = Hardware was returned to service as a part of the level of initialization.

`a` = Level of AM initialization begun. Valid value(s):
- `FI` = Full initialization.
- `FPI` = Full process initialization.
- `RPI` = Return to point of interrupt.
- `SI` = Selective initialization.
- `SPP` = Single process purge.
- `UNK` = Unknown level of initialization.

`b` = Name of the application kernel, supervisor, or user process in which this recovery was triggered. Refer to the APP:ENVIR appendix in the Appendixes section of the Output Messages manual for a list of environments and their definitions.

`c` = Triggering event type. Valid value(s):
- `ACTIVITY-FAILURE` = Lack of activity in the operational kernel process (OKP).
- `APPL-SW-ERROR` = Application software error.
- `BAD-ALIGN-MEM-REF` = Bad alignment was found during a memory reference.
- `BAD-OST-PARAM` = Illegal operating system trap (OST) parameter.
- `CONFIG-MGR-LIMP-MODE{-C|-D}` = Configuration manager limp mode.
- `CONFIG-MGR-RMV-REQ{-A|-B}` = Configuration manager removed request.
- `CONFIG-MGR-INIT-REQ-I` = Configuration manager initialization request.
- `DCF-DEFERRED-SPP` = A specified non-running process was purged by an ASSERT-C.
- `DEF-CHK-FAIL=n` = Defensive check failure (assert) error followed by the software error code ('n'). Refer to the Assert manual for specific code information.
- `DUPLEX-DIO` = Direct memory access I/O bus (DIO) state is duplex.
- `FAULT-CONFIG-MGR-RMV` = Configuration manager remove under fault conditions.
- `FLT-ADDR-ERR-PIO` = Addressing error in peripheral I/O (PIO) in progress. No message associated with fault.

FLT-ADDR-KP-DMA = Direct memory access (DMA) addressing fault for DMA I/O.
FLT-CRAFT-INIT = Craft initialization fault.
FLT-DEV-REPT-DMA = Device reported error for DMA I/O.
FLT-DEV-REPT-KP-PIO = Device reported error for peripheral I/O (PIO).
FLT-DEV-REPT-PIO = Device reported error PIO. No message associated with fault.
FLT-MSG-BUF-AU-NON-QUEUED = Message buffer audit for nonqueued error messages.
FLT-MSG-BUF-AU-QUEUED = Message buffer audit for queued error messages.
FLT-PIC-KP-DMA = Peripheral interface controller (PIC) fault for DMA I/O.
FLT-PIC-KP-PIO = PIC fault for peripheral I/O.
FLT-PIC-PIO = PIC implicated with PIO in progress. No message associated with fault.
FLT-PROC-KP-DMA = Processor fault for DMA I/O.
FLT-PROC-KP-PIO = Processor fault for peripheral I/O.
FROM-AUDIT = The stimulus for this initialization was from errors discovered by the 'name' audit. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual for a list of audit names, or to the Audits manual for more detail.
FULL-DISK-LIMP-DIO = DIO state is full disk limp mode.
FULL-INITIALIZATION = Processor-wide full initialization.
INVALID-OPCODE = Invalid opcode.
INVLD-PAGE-TBL-ENT = Invalid entry in the page table.
INVLD-SEG-TBL-ENTRY = Invalid entry in the page table.
MANUAL-REQ = A user initiated initialization request.
NON-CORR-PARITY-ERR = Noncorrectable memory parity error.
PG-INDX-OUT-OF-RANGE = Out-of-range page index.
PRIV-INSTRUCTION = Illegal attempt to execute privileged instruction.
PROCESSOR-RCVY = Software recovery and initialization.
RCVY-SW-COMPL = Recovery switch of processors is complete.
ROUTINE-RMV = Configuration manager manual automatic diagnostic process or routine remove.
ROUTINE-SOFT-SWITCH = Routine soft switch.
SEGINDX-OUTOF-RANGE = Out-of-range segment index.
SIMPLEX-DIO = DIO state is simplex.
SOFT-SW-COMPL = Soft switch is complete.
SOFT-SWITCH-REQ = Request that a soft switch be done.
STACK-OVERFLOW = Overflow of the process stack.
STACK-SWITCH = Illegal stack manipulation.
SYS-INIT-CRIT = System initialization critical.
SYS-INIT-NON-CRIT = System initialization non-critical.
UNCOND-RMV = Unconditional removal.
UNKNOWN = Unknown event type.
WRITE-PROT-VIOL = Write protect violation.

d = Event number.

e = Termination report. Valid value(s):
ABORTED = The job did not complete before being interrupted.
COMPLETED = The indicated or requested action has completed.

f = Virtual address at the time of the triggered event.

g = Administrative module mode of operation. Valid value(s):
ESSENTIAL = All essential jobs operational.

MIN-MODE = Automatic recovery disabled.
NORMAL = Normal operation.
POST_RCVY = Post recovery.
SW-RCVY = Start of software initialization.
UNKNOWN = Mode unknown.

h = The side on which the stimulus occurred.

i = Time the triggering event occurred, in the form minutes:seconds.tenths of second.

j = Process number of the running operating system for distributed switching (OSDS) process.

k = Uniqueness field of the running OSDS process.

l = Operational kernel process (OKP) interject work. Valid value(s):
AMA = Automatic message accounting.
AML = Automatic maintenance limit.
BASE = Communication package.
BCST = Message broadcast.
CLFR = Communication link fault recovery.
CCS = Common channel signaling.
CTST = Communication test processing.
DD = Data delivery.
INTMON = Integrity monitor.
NONE = Interject was not running.
PC = Peripheral network control.
PR = Packet routing.
PS = Packet switching.
QLFR = Quad-link fault recovery.
RTA = Routing and terminal allocation.
TIME = Operating System time synchronization.

m = Process ID of AM process in which the event occurred.

n = Hex string indicating the events pending for this kernel process at the time of the software fault.

o = The AM fault code that initiated recovery action in SIkfault.

p = The number of the process in switch maintenance kernel process (SMKP) that requested a demand single process purge of the process in SMKP that is indicated in the PID field above.

q = The hardware level of initialization being performed.

s = The number of single process purge jobs that would be equivalent to the amount of call processing real time being taken by audits.

t = The number of single process purges that have occurred.

u = For defensive check failure errors, the audit that was scheduled. Valid value(s):
AUD-SCHED=name = The 'name' audit was scheduled. Refer to the Audit manuals for more detailed information or the APP:AUDITS appendix in the Appendixes section of the Output Messages manual for a list of audit names.

`NO-AUD-SCHED` = No audit was scheduled from this error.

`v` = Mode in which audit is being run. Valid value(s):

`DEM-MODE`	= Demand or nonsegmented mode, takes no real time breaks.
`ELEV-MODE`	= Elevated audit execution mode.
`ROUT-MODE`	= Routine audit execution mode.

4. ACTION TO BE TAKEN

Monitor the progress of the software recovery. Initiate the appropriate manual actions if the recovery does not proceed as expected.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:AUD
INH:AUD
```

Output Appendix(es):

```
APP:ENVIR
APP:AUDITS
```

Other Manual(s):

235-105-250 System Recovery
235-600-400 Audits Manual
235-600-500 Asserts Manual

INIT:AM-LVL-DOWN

Software Release: 5E10 and later
Message Class: INT
Application: 5
Type: Output

1. FORMAT

```
INIT  AM  LVL=a  SUMMARY  EVENT=b
  AM DOWNTIME=cc:cc:cc
  [RC-BACKOUT=d  UPD-BACKOUT=e]
```

2. REASON FOR OUTPUT

To report the results of a recovery in the administrative module (AM).

Note: Outages less than 30seconds are not reported by this mechanism, but are included in the 24-hour plant report.

3. VARIABLE FIELD DEFINITIONS

`a` = Level of AM initialization. Valid value(s):
- `DA` = Directed audit.
- `FGI` = Foreground initialization.
- `FI` = Full initialization.
- `RPI` = Return to point of interrupt.
- `SA` = Stitched audit.
- `SI` = Selective initialization.
- `SPP` = Single process purge.

`b` = Event number.

`c` = Amount of downtime in the AM, in the form hours:minutes:seconds.

`d` = Indicates whether backout of recent changes occurred. Valid value(s):
- `NO` = Backout of recent changes did not occur.
- `YES` = Backout of recent change occurred.

`e` = Indicates whether backout of program updates occurred. Valid value(s):
- `NO` = Backout of program updates did not occur.
- `YES` = Backout of program updates occurred.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages

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None.

Other Manual(s):

235-105-250 System Recovery

INIT:AM-SUMMARY-A

Software Release: 5E10 - 5E11
Message Class: SINIT
Application: 5
Type: Output

1. FORMAT

```
INIT AM SUMMARY DLVL=a SLVL=b HLVL=c CLVL=d  EVENT=e
  INIT SCOPE=f     PROCESS SCOPE=g
  MODE=h     RC-BACKOUT=i
  INIT TRIGGER=j   INIT TIME =k SECONDS
  PROCESS            CREATED            INITIALIZED
  l                  m                  n
```

2. REASON FOR OUTPUT

To report on the final status of the switch after an administrative module (AM) initialization.

3. VARIABLE FIELD DEFINITIONS

`a` = Level of *UNIX*® RTR initialization in the AM.

`b` = Level of software initialization in the AM.

`c` = Level of hardware initialization in the AM.

`d` = Level of common network interface (CNI) initialization in the AM.

`e` = Event number.

`f` = Initialization scope. Valid value(s):
- `AM-FPI` = Full process initialization (S5) of a single-kernel process.
- `AM-WIDE` = Full initialization of the AM only.
- `CNI-WIDE` = Full initialization of the AM and CNI ring.
- `SYS-WIDEFI` = Full initialization of the system.
- `SYS-WIDEPUMP` = Full initialization, full pump of the system.

`g` = Process scope. Valid value(s):
- `AIM ESSENTIAL PROCESSES` = Initialization status of all application integrity monitor (AIM) essential processes.
- `AIM NON-ESSENTIAL PROCESSES` = Initialization status of all non-essential processes.
- `AIM CNI PROCESS` = Initialization status of all CNI processes.
- `AIM PROCESS` = Initialization status of all application processes.

`h` = AM mode. Valid value(s):
- `5ESS MIN MODE` = AM is in min-mode.
- `CNI MIN MODE` = CNI is in min-mode.
- `OPERATIONAL` = AM is in application mode.

`i` = Recent changes are backed out. Valid value(s):

`NO` = AM changes were not backed out.
`YES` = AM changes were backed out.

`j` = Initialization trigger. Valid value(s):
`AUTO HARDWARE` = Hardware initiated autonomous initialization.
`AUTO SOFTWARE` = Software initiated autonomous initialization.
`GENERIC RETROFIT` = Retrofit initialization.
`MANUAL` = Manually requested initialization.
`UNKNOWN` = Cause of the initialization can not be determined.

`k` = Amount of time required for the initialization in seconds.

`l` = Process name.

`m` = Process creation status. Valid value(s):
`ABORTING` = The creation of the process is being aborted.
`DEAD` = The creation of this process is stopped.
`IN-PROGRESS` = The creation of this process is in-progress.
`SUCCESS` = The creation of this process was successful.

`n` = Process initialization status. Valid value(s):
`FAILED` = The initialization of this process failed.
`IN-PROGRESS` = The initialization of this process is in-progress.
`NO ATTEMPT` = The initialization of the process has not been attempted.
`SUCCESS` = The initialization of this process was successful.
`TIMED OUT` = The initialization of this process timed out.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-105-250 *System Recovery*

INIT:AM-SUMMARY-B

Software Release: 5E12 and later
Message Class: SINIT
Application: 5
Type: Output

1. FORMAT

```
INIT AM SUMMARY DLVL=a SLVL=b HLVL=c CLVL=d  EVENT=e
  INIT SCOPE=f     PROCESS SCOPE=g
  MODE=h     RC-BACKOUT=i
  INIT TRIGGER=j   INIT TIME =k SECONDS
  PROCESS            CREATED            INITIALIZED
  l                  m                  n
```

2. REASON FOR OUTPUT

To report on the final status of the switch after an administrative module (AM) initialization.

3. VARIABLE FIELD DEFINITIONS

`a` = Level of *UNIX*® RTR initialization in the AM.

`b` = Level of software initialization in the AM.

`c` = Level of hardware initialization in the AM.

`d` = Level of common network interface (CNI) initialization in the AM.

`e` = Event number.

`f` = Initialization scope. Valid value(s):
- `AM-FPI` = Full process initialization (S5) of a single-kernel process.
- `AM-WIDE` = Full initialization of the AM only.
- `CNI-WIDE` = Full initialization of the AM and CNI ring.
- `SYS-WIDEFI` = Full initialization of the system.
- `SYS-WIDEPUMP` = Full initialization, full pump of the system.

`g` = Process scope. Valid value(s):
- `AIM ESSENTIAL PROCESSES` = Initialization status of all application integrity monitor (AIM) essential processes.
- `AIM NON-ESSENTIAL PROCESSES` = Initialization status of all non-essential processes.
- `AIM CNI PROCESS` = Initialization status of all CNI processes.
- `AIM PROCESS` = Initialization status of all application processes.

`h` = AM mode. Valid value(s):
- `5ESS MIN MODE` = AM is in min-mode.
- `CNI MIN MODE` = CNI is in min-mode.
- `OPERATIONAL` = AM is in application mode.

`i` = Recent changes are backed out. Valid value(s):

`NO` = AM changes were not backed out.
`YES` = AM changes were backed out.

`j` = Initialization trigger. Valid value(s):
`AUTO HARDWARE` = Hardware initiated autonomous initialization.
`AUTO SOFTWARE` = Software initiated autonomous initialization.
`GENERIC RETROFIT` = Retrofit initialization.
`MANUAL` = Manually requested initialization.
`UNKNOWN` = Cause of the initialization can not be determined.

`k` = Amount of time required for the initialization in seconds.

`l` = Process name.

`m` = Process creation status. Valid value(s):
`ABORTING` = The creation of the process is being aborted.
`DEAD` = The creation of this process is stopped.
`IN-PROGRESS` = The creation of this process is in-progress.
`SUCCESS` = The creation of this process was successful.

`n` = Process initialization status. Valid value(s):
`FAILED` = The initialization of this process failed.
`IN-PROGRESS` = The initialization of this process is in-progress.
`NO ATTEMPT` = The initialization of the process has not been attempted.
`SUCCESS` = The initialization of this process was successful.
`TIMED OUT` = The initialization of this process timed out.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-105-250 *System Recovery*

INIT:CMP

Software Release: 5E10 and later
Message Class: INT,ASRT
Application: 5
Type: Output

1. FORMAT

```
INIT  CMP=a-b c LVL=d EVENT=e f
  {g|h}[AUD-SCHED=i][j][AM-EVENT=k]
  FAILING-ADDR=[l]  CMP-MODE=m  TIME=nn:nn.n
  PROCESS: BG=o,p,q[,r]  INTJ=s  FG=t[,u]
```

2. REASON FOR OUTPUT

To indicate that a stimulus was received that resulted in a software recovery action in the specified communication module processor (CMP). This message describes the state of the CMP at the time of the recovery, the reason for the recovery, and the level of recovery action that was taken.

The ASRT message class is used for defensive check failure errors; otherwise the INT message class is used.

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch side (MSGS).

`b` = Physical CMP number.

`c` Processor being reported upon. Valid value(s):
- `MATE` = Mate CMP.
- `PRIM` = Primary CMP.

`d` = Level of CMP initialization. Valid value(s):
- `FI` = Full initialization.
- `FI,PUMP` = Full initialization with full pump.
- `PGI` = Purging initialization.
- `REL` = Raise the error" = lead request.
- `RPI` = Return to point of interrupt.
- `SI` = Selective initialization.
- `SPP` = Single process purge.
- `UNK` = Unknown level of initialization.

`e` = Event number.

`f` = Termination report. Valid value(s):
- `ABORTED` = The indicated job did not complete before being interrupted by another stimulus.
- `COMPLETED` = The indicated or requested action has completed.
- `IN PROGRESS` = The indicated action has started.
- `NOT STARTED` = The indicated or requested action was not started.

`g` = Triggering event type. Valid value(s):
- `DCF-DEFERRED-SPP` = A specified non-running process was purged by an ASSERT-C.

DEF-CHK-FAIL=error-code = Defensive check failure (Assert) error followed by the software error code. Refer to the Assert manual for specific code information.
FROM-AUDIT-name = The stimulus for this initialization was from errors discovered by the 'name' audit. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual for a list of audit names, or to the Audits manual for more detail.
MANUAL-REQ = A user-initiated initialization request has occurred.

h = Description of the software stimulus reason. Valid value(s):
AM-REQ-POWER-UP = An administrative-module requested power up initialization.
AM-REQUEST = An administrative-module requested initialization.
AP-REL = Request to raise the error-lead as a result of a CMP application processor (AP) error.
ASRT-C-SPP = A count of Assert-C requested deferred single process purge initializations has exceeded the threshold.
ASRT-ERR = An error occurred while handling an Assert.
ASRT-SI = Assert requested selective initialization.
EX-AUD-SPP = A count of audit requested single process purge initializations has exceeded the threshold.
EX-DCF-SPP = A count of defensive check failure (Assert) requested single process purge initializations has exceeded the threshold.
EX-DIR-AUD = Excessive directed audits occurred, forcing a higher level initialization.
EX-DMD-SPP = An excessive amount of demand single process purges (SPP) has been requested.
EX-ERR = A count of returning interrupts has exceeded the threshold.
EX-ERR-50 = 50 stimuli occurred, forcing a higher level initialization.
EX-ERR-100 = 100 stimuli occurred, forcing a higher level initialization.
EX-FR-SPP = A count of switch maintenance requested single process purge initializations has exceeded the threshold.
EX-RPI = A count of return-to-the-point of interrupt initializations has exceeded the threshold.
EX-SELINIT = A count of excessive selective initializations has exceeded the threshold.
EX-SPP = A count of single process purge initializations has exceeded the threshold.
FR-SELINIT = Switch maintenance requested selective initialization.
HPQ-REL = Fault taken during handling of a high priority queue (HPQ) interrupt.
LOCK-OUT = Call processing lock-out.
MANUAL-REQ-POWER-UP = A user-initiated power up initialization.
MANUAL-REQUEST = A user-initiated initialization.
MCB-EXHST = Message control block resource exhaustion.
MSGH-REL = Request to raise the error lead as a result of CMP message handler (MSGH) excessive return to the point of interrupt (RPI) errors.
NEG-PROG = Negative progress was detected during an initialization.
NESTD-ASRT = Nested Asserts occurred.
NO-PROGRESS = No progress was detected during an initialization.
PCB-EXHST = Process control block resource exhaustion.
PRC-TIMOUT = Process initialization time-out.
PROG-LOOP = A program loop was not allowing the integrity monitor to run its background progress.
PURGE-FAIL = Purging initialization failed; the CMP is in an initialization.
REX-REQUEST = Routine exercises (REX) requested initialization.
RSRC-EXHST = Resource shortage error occurred.
SCB-EXHST = Stack control block resource exhaustion.

SCB32EXHST = Big stack control block resource exhaustion.
SFTSW-FAIL = An attempt to soft switch has failed.
SW-REQUEST = CMP switch requested initialization.
TCB-EXHST = Timer control block resource exhaustion.

i = For defensive check failure errors, the audit that was scheduled. Valid value(s):
AUD-SCHED=NONE = No audit was scheduled from this error.
AUD-SCHED=name = The 'name' audit was scheduled. Refer to Audits manual for more detailed information or the APP:AUDITS appendix in the Appendixes section of the Output Messages manual for a list of audit names.

j = Mode in which audit is being run. Valid value(s):
DEM-MODE = Demand or nonsegmented mode takes no real-time breaks.
ELEV-MODE = Elevated audit execution mode.
ROUT-MODE = Routine audit execution mode.

k = AM event number.

l = Failing address.

m = Mode of the communication module processor operation (in the order of occurrence). Valid value(s):
CONSISTENT = Hardware consistent with software.
ESSENTIAL = Essential jobs operational.
NORMAL = Normal operation.
OPFULL = All jobs are operational.
RAMDYN = Dynamic memory consistent.
RAMTXT = Text and data consistent.
RAMWP = Write protection has been restored.
SYSPROC = All system processes initialized.
UNKNOWN = Mode unknown.

n = Time that the event occurred in the form minutes:seconds.tenths of a second.

o = Process number of the running background (BG) process.

p = Uniqueness of the running background process.

q = The running background process address.

r = The recovery action taken. Valid value(s):
PURGED = The single target job or process was purged.
RPI = Return to the point of interrupt.
blank = No recovery action taken because the target was not active.

s = The interject state. Valid value(s):
AMA = Automatic message accounting.
AML = Automatic maintenance limit.
BASE = Communication package.
BCST = Message broadcast.

CCS	= Common channel signaling.
CTST	= Communication test processing.
DD	= Data delivery.
INTMON	= Integrity monitor.
NONE	= Interject was not running.
PC	= Peripheral network control.
PR	= Packet routing.
PS	= Packet switching.
RTA	= Routing and terminal allocation.
TIME	= Operating System time synchronization.

t = Source of foreground (FG) activity. Valid value(s):

CM	= Communication package.
CM_INTMON	= Communication package and integrity monitor.
FAILURE	= Unable to determine foreground activity.
INTMON	= Integrity monitor.
NONE	= Foreground was not being served.
UNK	= Unknown foreground activity.

u = Foreground recovery action. Valid value(s):

PURGED	= The indicated process is being purged.
RPI	= Return to the point of interrupt.

4. ACTION TO BE TAKEN

Monitor the progress of the software recovery. Initiate manual actions if the recovery does not proceed as expected.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:AUD-CMP
INH:AUD-CMP
```

Output Appendix(es):

```
APP:AUDITS
```

Other Manual(s):

235-105-250 System Recovery 235-600-400 Audits 235-600-500 Asserts

MCC Display Page(s):

1850, 1851 (CMP INHIBIT AND RECOVERY CONTROL)

INIT:CMP-LVL

Software Release: 5E10 and later
Message Class: VAR
Application: 5
Type: Output

1. FORMAT

```
INIT CMP=a-b c LVL=d [PUMP] e  EVENT=f
 [g]
```

2. REASON FOR OUTPUT

To report the completion of an initialization of the communication module processor (CMP).

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch side.

`b` = CMP number.

`c` = Processor being reported on. Valid value(s):
- `MATE` = Standby CMP.
- `PRIM` = Active CMP.

`d` = Initialization level. Valid value(s):
- `FI` = Full initialization.
- `PGI` = Purging initialization.
- `PUMP` = An initialization with pump was requested.
- `SI` = Selective initialization.

`e` = Result. Valid value(s):
- `ABORTED` = The initialization was aborted.
- `COMPLETED` = The initialization completed successfully.
- `FAILED` = The initialization failed.

`f` = Event number.

`g` = Reason for the failure or abort of the initialization.

4. ACTION TO BE TAKEN

If the CMP initialization request has failed, the reason field will indicate the reason for the failure. Correct the cause of the failure and try the initialization again.

5. ALARMS

None.

6. REFERENCES

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Other Manual(s):

235-105-250 System Recovery

INIT:CNI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INIT CNI a    REPORT=b    EVENT=c
  STIMULUS=d   [e]
  INIT SOURCE=MANUAL CNI ONLY     CNI MODE=g
  [ASSOC CHILD PROCESS i]
```

2. REASON FOR OUTPUT

To give information about the manual CNI-only initialization requested by input message INIT:CNI. This message is output by the CCSINIT process during a manual common network interface (CNI)-only initialization. The CCSINIT process is responsible for bringing up the CNIINIT process and any other child process, (for example, CCringmon). The CNIINIT process in turn brings up the rest of the CNI system. This message indicates the initialization level in progress, the completion report, the event number, the stimulus for this message, the process manager creation failure code, if any, the source of initialization, the CNI mode, and the child process of the CCSINIT, if any, associated with this message.

3. VARIABLE FIELD DEFINITIONS

`a` = Level of CNI initialization.

Valid value(s):

`AUD`	= Audit level (CNI level 0). The audits are run on the CNI system during this level.
`FI`	= Full initialization (CNI level 4). This level is equivalent to the FPI and all the memory being cleared.
`FPI`	= Full process initialization (CNI level 3). The CCSINIT and its child processes are recreated during this level and initialized.
`RCVRY`	= Recovery level (CNI level 1). This level indicates the restart of the interprocess message switch (IMS) driver and cleaning of the IMS buffers. The IMS is part of the CNI system.

`b` = Completion report.

Valid value(s):

```
CCSINIT ABORT FAILED
CCSINIT ABORTING
CCSINIT CRATION FAILED
CCSINIT FULLY OP STATE FAILED
CCSINIT INIT FAILED
CCSINIT INIT SUCCESSFUL
CNI AUDITS COMPLETED
CNI AUDITS STARTING
CNI RCVRY STARTING
ESCALATING TO RCVRY
NO ESCALATION
SINGLE PROCESS ABORT
```

Note: The report `'NO ESCALATION'`" appears when the CNI is in minmode, and internal

escalation requests from AUD level to RCVRY are inhibited.

Note: The report `'CNI AUDITS COMPLETED'` does not necessarily mean that all the audits ran or that all audits ran successfully. Look for possible PRMs and/or audit messages to detect problems.

`c` = Event number associated with this message.

`d` = Stimulus for this output message.

Valid value(s):

```
CAN NOT INFORM AIM STATE COMPL
CCSINIT INTERNAL ESCALATION
CHILD PORT CAN NOT BE CLEARED
CHILD PROCESS ABORTING
CHILD PROCESS CREATION ACK FAILED
CHILD PROCESS CREATION FAILED
CHILD PROCESS INIT ACK FAILED
CHILD PROCESS TERMINATED
CHILD PROCESS TERMINATION FAILED
CNI AUDITS COMPLETED
FAULT SINIT RECEIVED
FAULT THRESHOLD EXCEEDED
FULLY OP EVENT SENDING FAILED
INIT SEQUENCE FAILED
INTERNAL INIT REQUEST
MESSAGE SENDING TO CNIINIT FAILED
NO INTERNAL TIMER AVAIL
NO TERMINATION MESG BUF AVAILABLE
NO UNIX RTR MESG BUF AVAILABLE
SUCCESSFUL INIT
TERMINATION MESG SENDING FAILED
TIME OUT FOR CHILD CREATION ACK
TIME OUT FOR CHILD INIT
TIME OUT ON PMGR ACK
TOO MANY INTERNAL INIT REQUESTS
UNIX RTR EVENT SENDING FAILED
UNIX RTR FAULT RECEIVED
UNIX RTR FAULT SENDING FAILED
UNIX RTR PORT CONNECT FAILED
```

`e` = The process manager creation failure code in decimal, if applicable. Refer to the REPT:PMGR-ERROR output message for an explanation of the error code.

`g` = CNI mode.

Valid value(s):

`MIN` = In min mode the automatic fault recovery activities of the CNI system are inhibited and the common channel signaling (CCS) traffic is stopped.

`OPERATIONAL` = This is the normal mode for the CNI. The CNI system is handling the CCS traffic.

`i` = The child process of the CCSINIT associated with this message, if any.

Valid value(s):

`CNIINIT` = CNI initialization process.
`RINGMON` = Ring monitor process.

4. ACTION TO BE TAKEN

This output message will always be displayed in response to a manually initiated CNI initialization. If this message is accompanied with a critical alarm, the CCSINIT system can not recover on its own. The critical alarm will accompany creation failure, init failure at FPI or FI levels, abort failures, etc. In these cases, user intervention is required to initialize CNI at a higher level. Refer to the input messages in the References section for this. The *UNIX*® RTR phase 52, 53 or 54 might be necessary if manual CNI-only initialization keeps on failing repeatedly.

5. ALARMS

Critical or none.

6. REFERENCES

Input Message(s):

```
CLR:MINMODE-CNI
INIT:CNI
SET:MINMODE-CNI
```

Output Message(s):

```
REPT:CCSINIT
REPT:PMGR-ERROR
```

MCC Display Page(s):

118 (CNI FRAME AND CCS LINK STATUS)

INIT:CNI-LVL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
INIT CNI LEVEL=a  STIMULUS=b
  PROCESS=d   REPORT=e   EVENT=c
  INIT TRIGGER=f    MODE=g
```

2. REASON FOR OUTPUT

To give information about the manual common network interface (CNI) initialization in progress. This message is output by the AIM process during the manual CNI initialization. It indicates the initialization level in progress, the completion report, the initialization source, any child process of CCSINIT which is responsible for or associated with this message in some way, the CNI mode, and the process manager creation failure code in case of child process creation failure.

3. VARIABLE FIELD DEFINITIONS

`a` = Level of CNI initialization initiated. Valid value(s):

- `DLNTBL` = Initialize direct link node (DLN) table. Creates dynamic routing tables in the DLN. This is only used during DLN growth procedures.
- `FPI` = Full process abort of the CNI RINGMON when starting an FPI of that process.
- `LVL0` = Audit level (CNI level 0). The audits are run on the CNI system during this level.
- `LVL1` = Recovery level (CNI level 1). This level indicates the restart of the interprocess message switch (IMS) driver and cleaning of the IMS buffers. The IMS is part of the CNI system.
- `LVL2` = Recovery level CCSINIT (CNI level 2). Re-initializes all global CNI data and restarts all noncritical processes.
- `LVL3` = (CNI level 3). The CCSINIT and its child processes are recreated during this level and initialized.
- `LVL4` = Full initialization (CNI level 4). This level is equivalent to the LVL3 and all the memory being cleared.
- `NOINIT` = Full process initialization (FPI) of the CNI RING monitor process (RINGMON) with no accompanying CNI initialization (also possible when the CNI RING is not equipped in an office).

`b` = Stimulus for this message. Valid value(s):

```
ABORT
CNI AUDIT COMPLETION
CNI INIT COMPLETION
CNI INIT REQUEST
CNI INIT SEQUENCE FAILED
CREATION TIMEOUT
FULLY OPERATIONAL TIMEOUT
NO RTR MSG BUF AVAILABLE
PMGR DEATH OF CHILD RECEIVED
RTR EVENT SENDING FAILURE
RTR MESSAGE SENDING FAILED
RTR PORT CONNECTION FAILED
```

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```
SOFTINIT TIMEOUT
TOO MUCH PROGRESS
UNKNOWN
```

c = Event number used to correlate messages associated with a single stimulus.

d = Child process which is associated with outputting of this message, if any. Valid value(s):

```
CNIINIT
NONE
RINGMON
```

e = Status report. Valid value(s):

```
ABORTING ALL CNI PROCESSES
CNI AUDITS REQUESTED
CNI INIT BEGUN
CNI INIT SUCCESS
INIT REQUESTED
MANUAL-CNI_ONLY
REQUESTING ESCALATION
SINGLE PROCESS INIT REQUESTED
SUCCESS
UNKNOWN
```

f = Source of initialization. Valid value(s):

```
AUTO HARDWARE
AUTO SOFTWARE
GENERIC RETROFIT
MANUAL
UNKNOWN
```

g = CNI mode. Valid value(s):

```
5ESS MIN MODE
CNI MIN MODE
OPERATIONAL
```

4. ACTION TO BE TAKEN

In case of creation failure, use the process manager error code and the process identity to check that the files necessary for creation are in their correct directory location and that they have the correct header information in them. This output message will always be displayed in response to a manually-initiated CNI initialization. If this message is accompanied with a critical alarm, the CNI system can not recover on its own. This could signal creation failures, initialization failure at FPI or FI levels, abort failures, etc. In such cases, user intervention is required to initialize the CNI at a higher level, or possibly take a *UNIX*® RTR phase. No particular action on the part of user will be required in such cases.

5. ALARMS

All the failure messages which require user intervention will be accompanied with a critical alarm.

6. REFERENCES

Input Message(s):

```
CLR:MINMODE-CNI
INIT:CNI
SET:MINMODE-CNI
```

Other Manual(s):
235-600-601 *Processor Recovery Messages*

MCC Display Page(s):

(CNI STATUS)

INIT:DLN

Software Release: 5E10 and later
Message Class: LSWRPIN,LSPPIN, LHLIN
Application: 5
Type: Output

1. FORMAT

```
INIT  DLN=a,b   LVL=c  EVENT=d e
  f  g [h]
  FAILING ADDR=i  DLN-MODE=j   TIME=kk:kk:kk
  PROCESS: BG=l,m    FG=n
```

2. REASON FOR OUTPUT

To indicate that a stimulus was received that resulted in a software recovery action in the specified direct link node (DLN).

3. VARIABLE FIELD DEFINITIONS

`a` = The ring node (RN) group number of the reporting DLN.

`b` = The ring node member number of the reporting DLN.

`c` = DLN recovery action initiated. Valid value(s):
- `RPI` = Return to point of interrupt.
- `SPP` = Single process purge.
- `SW` = Switch to standby DLN.

`d` = Event number.

`e` = Termination report. Valid value(s):
- `ABORTED` = The indicated job did not complete before being interrupted by another stimulus.
- `COMPLETED` = The indicated or requested action has completed.

`f` = Type of error stimulus. Valid value(s):
- `HDW-ERR` = Suspected cause of error is hardware.
- `SW-ERR` = Suspected cause of error is software.

`g` = Triggering event type. Valid value(s):
- `DEF-CHK-FAIL=o` = Defensive check failure error followed by (o), the software error code. Refer to the Asserts manual for specific code information.
- `PE=name` = Processor exception error followed by (name), the name of the exception that occurred. The processor exception names are:
  - `ADDRESSING-ERR` = Word access was attempted on an odd-byte boundary.
  - `BUS-ERRA` = 68000 bus error exception occurred.
  - `ILLEGAL-INSTR` = The processor detected an illegal opcode.
  - `PARITY-ERR` = Bad parity was detected by the hardware on a read or write of memory.
  - `PRIVILEGE-VIOL` = A privileged instruction was attempted while not in the supervisor mode.

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SANITY-TIMER = A program sanity timer expired before the program was able to reset the timer. It usually indicates that a program is executing in an infinite loop.
TRAP = A single byte interrupt, a single step, or an unimplemented software interrupt was executed. It usually indicates a software problem.
UNUSED-EXCEPTION = A processor exception that is not used by the software release occurred.
WRITE-PROT-ERR = A write was attempted to a write protected address. It usually indicates a software problem.
ZERO-DIVIDE = An attempt to divide by zero was detected.

h = If escalation occurred, reason for escalating to a higher level of recovery. Valid value(s):
EXCESSIVE-ASSERTS = A count of asserts has exceeded the threshold.
EXCESSIVE-INTERRUPTS = A count of returning interrupts has exceeded the threshold.
EXCESSIVE-RPI = Excessive return to the point of interrupt.
EXCESSIVE-SPP = A count of single process purges has exceeded the threshold.
INIT-ERR = A fatal software error occurred during initialization or recovery.

i = Address, in hexadecimal, immediately following the defensive check failure or exception (otherwise blank).

j = Mode of the direct link node's operation. Valid value(s):
INIT-DLN-SI = The system integrity monitor in the DLN is in Initialization.
INIT-ODD = Initializing (pumping) office dependent data (ODD) in the DLN.
INIT-PROC = Initializing system processes.
INIT-PSDS = The operating system for distributed switching (OSDS) is starting DLN initialization. No processes are running in the DLN yet.
NORM = Normal operation.

k = Time the event occurred, in the form minute:second:tenth of second.

l = Process ID of the running background process in OSDS.

m = Unique field of the running background process in OSDS.

n = State of foreground activity. Valid value(s):
CCSMSG = The foreground common channel signaling (CCS) message processing software was executing.
NONE = Foreground (10 ms. interrupt) was not being served.
SIMON = The foreground system integrity monitor was executing.

4. ACTION TO BE TAKEN

Initiate manual actions if the recovery does not proceed as expected. If hardware is suspected (HDW-ERR) then diagnostics should be performed on the faulty node using either the 118 page pokes or DGN:LN message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:LN
```

Output Message(s):

```
REPT:DLN-DATA
REPT:DLN-STACK-FS
REPT:DLN-STACK-TS
```

Other Manual(s):

235-600-500 Asserts

INIT:FAC-A

Software Release: 5E10 - 5E11
Message Class: PRFM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      INIT FAC FAC=a-b-c-d ALL e

[2]   ____________________________________________________________
      INIT FAC FAC=a-b-c-d ALL e

[3]   ____________________________________________________________
      INIT FAC DFI=a-b-c ALL e

[4]   ____________________________________________________________
      INIT FAC DLTU=a-b ALL e

[5]   ____________________________________________________________
      INIT FAC IDCU=a-f g h e

[6]   ____________________________________________________________
      INIT FAC IFAC=a-f-i g h e

[7]   ____________________________________________________________
      INIT FAC RT=a-f-j g h e

[8]   ____________________________________________________________
      INIT FAC DNUS=a-k g e

[9]   ____________________________________________________________
      INIT FAC STEFAC=a-k-l-m g e

[10]  ____________________________________________________________
      INIT FAC STSFAC=a-k-l-n g h VT1|DS1 e

[11]  ____________________________________________________________
      INIT FAC VT1FAC=a-k-l-n-o g h e

[12]  ____________________________________________________________
      INIT FAC DS1SFAC=a-k-l-n-o g e
```

2. REASON FOR OUTPUT

To output the results of executing an INIT:FAC input request to initialize performance monitoring (PM) counts for specified digital facility interface (DFI), DFI model 2 (DFI-2), integrated digital carrier unit (IDCU) facilities, or digital networking unit - synchronous optical network (SONET) (DNU-S) facilities.

Format 1 appears after the INIT:FAC input message was used to initialize performance monitoring error counts for a specific DFI facility. This format is used to support early model DFIs such as ANN1, ANN3(B), and so forth. (Such a DFI is sometimes known as DFI-1.)

Format 2 appears after the INIT:FAC input message was used to initialize performance monitoring error counts for an individual DFI-2 facility.

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Format 3 appears after the INIT:FAC input message was used to initialize performance monitoring error counts for all facilities terminated on a DFI-2.

Format 4 appears after the INIT:FAC input message was used to initialize performance monitoring error counts for all facilities terminated on a digital line and trunk unit (DLTU) model 2 (DLTU2).

Format 5 appears after the INIT:FAC input message was used to initialize performance monitoring error counts for all facilities terminated on an IDCU.

Format 6 appears after the INIT:FAC input message was used to initialize performance monitoring error counts for an IDCU facility (IFAC).

Format 7 appears after the INIT:FAC input message was used to initialize performance monitoring error counts for all facilities terminated on an IDCU-supported TR303 remote terminal (RT).

Format 8 appears after the INIT:FAC input message was used to initialize performance monitoring counts of all section terminating equipment (STE) facilities terminated on a DNU-S. The PM counts associated with any subtending virtual tributary 1.5 (VT1.5) or digital signal level-1 (DS1) facilities are not initialized.

Format 9 appears after the INIT:FAC input message was used to initialize performance monitoring counts on a single DNU-S STE facility. The PM counts associated with any subtending VT1.5 or DS1 facilities are not initialized.

Format 10 appears after the INIT:FAC input message was used to initialize performance monitoring counts for all VT1.5 facilities or all DS1 facilities on a DNU-S synchronous transport signal-1 (STS-1) facility. The input option used (VT1 or DS1) will be displayed in the output message. If the VT1 option was used, then the PM counts associated with all the VT1.5 facilities on the specified STS-1 facility are initialized. Note that, with the VT1 option, the PM counts associated with each subtending DS1 facility are not initialized. If the DS1 option was used, then the PM counts associated with all the DS1 facilities on the specified STS-1 facility are initialized.

Format 11 appears after the INIT:FAC input message was used to initialize performance monitoring counts on a DNU-S VT1.5 facility. The PM counts associated with the subtending DS1 facility are not initialized.

Format 12 appears after the INIT:FAC input message was used to initialize performance monitoring counts on a DNU-S DS1 facility.

3. VARIABLE FIELD DEFINITIONS

`ALL` = All (current, previous, and history) 15-minute and day PM data has been initialized for the requested facility or unit.

`VT1` = The request was to initialize PM counts on all VT1.5s on an STS-1 facility.

`DS1` = The request was to initialize PM counts on all DS1s on an STS-1 facility.

`a` = Switching module (SM) number.

`b` = DLTU number.

`c` = DFI-2 number.

`d` = Facility number.

`e` = Status of command. Valid value(s):
`COMPLETED` = Request has been successfully completed.
`COMPLETED EOC OOS` = The request completed successfully for the IDCU end, but TR303 counts

were not reset because the RT's embedded operations channel (EOC) was out-of-service (OOS).

`COMPLETED FACS OOS` = The request completed successfully but out-of-service facilities were encountered.

`FAILED` = Failed to initialize performance monitoring counts for the specified facility or unit. Retry the request later.

`FAILED DNUS CC OOS` The request failed because the DNU-S common control (CC) was out-of-service. DNU-S duplex failure.

`FAILED EOC OOS` = The request to reset counts at the TR303 RT failed because the EOC was out-of-service.

`FAILED IDCU OOS` = The request failed because the IDCU was out-of-service

`NO MATCH` = The specified facility or unit does not exist. If the unit type requested is SM, then `NO MATCH` means the SM is not equipped with any unit or facility.

`NOT ALLOWED` = The requested initialization is not allowed for the given facility or unit.

`OUT OF SERVICE` = The requested unit is out-of-service.

`SM UNAVAILABLE` = The input request could not be processed because communication with the associated SM is not possible.

`SYSTEM BUSY` = The system's processing capability has been reached or a system resource is unavailable. Retry the request later.

`f` = IDCU number.

`g` = Set of counts zeroed. Valid value(s):

`ALL` = All (current, previous, and history) PM data, for both 15-minute and day intervals, has been initialized for the requested facility or unit.

`CURR` = Current PM data, for both 15-minute and day intervals, has been initialized for the requested facility or unit.

`h` = End of the facility that was initialized. Valid value(s):

`BOTH` = Both ends. Both ends of the facility were initialized.

`FE` = Far end. Far end of the facility was initialized.

`NE` = Near end. Switch end of the facility was initialized.

`i` = IFAC number.

`j` = TR303 RT number.

`k` = DNU-S number.

`l` = Data group number.

`m` = STE facility number.

`n` = STS facility number.

`o` = VT1.5 facility number.

4. ACTION TO BE TAKEN

Retry INIT:FAC input message when variable `f` = `SYSTEM BUSY` or `FAILED`. The initialized counts can be read by executing an OP:FAC input request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:FAC
INH:FAC
INIT:FAC
OP:FAC
RST:DNUSCC
```

Output Message(s):

```
ALW:FAC
INH:FAC
OP:FAC
REPT:FAC
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
20.23 [IDCU FACILITY EQUIPMENT (IFAC)]
20.25 (DNU-S PERFORMANCE MONITORING THRESHOLD GROUP)
22.15 (PERFORMANCE MONITORING)

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INIT:FAC-B

Software Release: 5E12 only
Message Class: PRFM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      INIT FAC FAC=a-b-c-d ALL e

[2]   ____________________________________________________________
      INIT FAC FAC=a-b-c-d ALL e

[3]   ____________________________________________________________
      INIT FAC DFI=a-b-c ALL e

[4]   ____________________________________________________________
      INIT FAC DLTU=a-b ALL e

[5]   ____________________________________________________________
      INIT FAC IDCU=a-f g h e

[6]   ____________________________________________________________
      INIT FAC IFAC=a-f-i g h e

[7]   ____________________________________________________________
      INIT FAC {DNUSRT=a-k-j|IDCURT=a-f-j} g h e

[8]   ____________________________________________________________
      INIT FAC DNUS=a-k g e

[9]   ____________________________________________________________
      INIT FAC STEFAC=a-k-l-m g e

[10]  ____________________________________________________________
      INIT FAC STSFAC=a-k-l-n g h VT1|DS1 e

[11]  ____________________________________________________________
      INIT FAC VT1FAC=a-k-l-n-o g h e

[12]  ____________________________________________________________
      INIT FAC DS1SFAC=a-k-l-n-o g h e
```

2. REASON FOR OUTPUT

To output the results of executing an INIT:FAC input request to initialize performance monitoring (PM) counts for specified digital facility interface (DFI), DFI model 2 (DFI-2), integrated digital carrier unit (IDCU) facilities, or digital networking unit - synchronous optical network (SONET) (DNU-S) facilities.

Format 1 appears after the INIT:FAC input message was used to initialize performance monitoring error counts for a specific DFI facility. This format is used to support early model DFIs such as ANN1, ANN3(B), and so forth. (Such a DFI is sometimes known as DFI-1.)

Format 2 appears after the INIT:FAC input message was used to initialize performance monitoring error counts for an individual DFI-2 facility.

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Format 3 appears after the INIT:FAC input message was used to initialize performance monitoring error counts for all facilities terminated on a DFI-2.

Format 4 appears after the INIT:FAC input message was used to initialize performance monitoring error counts for all facilities terminated on a digital line and trunk unit (DLTU) model 2 (DLTU2).

Format 5 appears after the INIT:FAC input message was used to initialize performance monitoring error counts for all facilities terminated on an IDCU.

Format 6 appears after the INIT:FAC input message was used to initialize performance monitoring error counts for an IDCU facility (IFAC).

Format 7 appears after the INIT:FAC input message was used to initialize performance monitoring error counts for all facilities terminated on an IDCU-supported or a DNU-S supported TR303 remote terminal (RT).

Format 8 appears after the INIT:FAC input message was used to initialize performance monitoring counts of all section terminating equipment (STE) facilities terminated on a DNU-S. The PM counts associated with any subtending virtual tributary 1.5 (VT1.5) or digital signal level-1 (DS1) facilities are not initialized.

Format 9 appears after the INIT:FAC input message was used to initialize performance monitoring counts on a single DNU-S STE facility. The PM counts associated with any subtending VT1.5 or DS1 facilities are not initialized.

Format 10 appears after the INIT:FAC input message was used to initialize performance monitoring counts for all VT1.5 facilities or all DS1 facilities on a DNU-S synchronous transport signal-1 (STS-1) facility. The input option used (VT1 or DS1) will be displayed in the output message. If the VT1 option was used, then the PM counts associated with all the VT1.5 facilities on the specified STS-1 facility are initialized. Note that, with the VT1 option, the PM counts associated with each subtending DS1 facility are not initialized. If the DS1 option was used, then the PM counts associated with all the DS1 facilities on the specified STS-1 facility are initialized.

Format 11 appears after the INIT:FAC input message was used to initialize performance monitoring counts on a DNU-S VT1.5 facility. The PM counts associated with the subtending DS1 facility are not initialized.

Format 12 appears after the INIT:FAC input message was used to initialize performance monitoring counts on a DNU-S DS1 facility.

3. VARIABLE FIELD DEFINITIONS

`ALL` = All (current, previous, and history) 15-minute and day PM data has been initialized for the requested facility or unit.

`VT1` = The request was to initialize PM counts on all VT1.5s on an STS-1 facility.

`DS1` = The request was to initialize PM counts on all DS1s on an STS-1 facility.

`a` = Switching module (SM) number.

`b` = DLTU number.

`c` = DFI-2 number.

`d` = Facility number.

`e` = Status of command. Valid value(s):
`COMPLETED` = Request has been successfully completed.
`COMPLETED EOC OOS` = The request completed successfully for the IDCU end, but TR303 counts

were not reset because the RT's embedded operations channel (EOC) was out-of-service (OOS).

`COMPLETED FACS OOS` = The request completed successfully but out-of-service facilities were encountered.

`FAILED` = Failed to initialize performance monitoring counts for the specified facility or unit. Retry the request later.

`FAILED DNUS CC OOS` The request failed because the DNU-S common control (CC) was out-of-service. DNU-S duplex failure.

`FAILED EOC OOS` = The request to reset counts at the TR303 RT failed because the EOC was out-of-service.

`FAILED IDCU OOS` = The request failed because the IDCU was out-of-service

`NO MATCH` = The specified facility or unit does not exist. If the unit type requested is SM, then `NO MATCH` means the SM is not equipped with any unit or facility.

`NOT ALLOWED` = The requested initialization is not allowed for the given facility or unit.

`OUT OF SERVICE` = The requested unit is out-of-service.

`SM UNAVAILABLE` = The input request could not be processed because communication with the associated SM is not possible.

`SYSTEM BUSY` = The system's processing capability has been reached or a system resource is unavailable. Retry the request later.

`f` = IDCU number.

`g` = Set of counts zeroed. Valid value(s):

`ALL` = All (current, previous, and history) PM data, for both 15-minute and day intervals, has been initialized for the requested facility or unit.

`CURR` = Current PM data, for both 15-minute and day intervals, has been initialized for the requested facility or unit.

`h` = End of the facility that was initialized. Valid value(s):

`BOTH` = Both ends. Both ends of the facility were initialized.

`FE` = Far end. Far end of the facility was initialized.

`NE` = Near end. Switch end of the facility was initialized.

`i` = IFAC number.

`j` = TR303 RT number.

`k` = DNU-S number.

`l` = Data group number.

`m` = STE facility number.

`n` = STS facility number.

`o` = VT1.5 facility number.

4. ACTIONS TO BE TAKEN

Retry INIT:FAC input message when variable `f` = `SYSTEM BUSY` or `FAILED`. The initialized counts can be read by executing an OP:FAC input request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:FAC
INH:FAC
INIT:FAC
OP:FAC
RST:DNUSCC
```

Output Message(s):

```
ALW:FAC
INH:FAC
OP:FAC
REPT:FAC
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
20.23 [IDCU FACILITY EQUIPMENT (IFAC)]
20.25 (DNU-S PERFORMANCE MONITORING THRESHOLD GROUP)
22.15 (PERFORMANCE MONITORING)

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INIT:FAC-C

Software Release: 5E13 and later
Message Class: PRFM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      INIT FAC FAC=a-b-c-d ALL e

[2]   ____________________________________________________________
      INIT FAC FAC=a-b-c-d ALL e

[3]   ____________________________________________________________
      INIT FAC DFI=a-b-c ALL e

[4]   ____________________________________________________________
      INIT FAC DLTU=a-b ALL e

[5]   ____________________________________________________________
      INIT FAC IDCU=a-f g h e

[6]   ____________________________________________________________
      INIT FAC IFAC=a-f-i g h e

[7]   ____________________________________________________________
      INIT FAC {DNUSRT=a-k-j|IDCURT=a-f-j} g h e

[8]   ____________________________________________________________
      INIT FAC DNUS=a-k g e

[9]   ____________________________________________________________
      INIT FAC EC1STE=a-k-l-m g e

[10]  ____________________________________________________________
      INIT FAC STSFAC=a-k-l-m-n g h VT1|DS1 e

[11]  ____________________________________________________________
      INIT FAC VT1FAC=a-k-l-m-n-o-p g h e

[12]  ____________________________________________________________
      INIT FAC DS1SFAC=a-k-l-m-n-o-p g h e
```

2. REASON FOR OUTPUT

To output the results of executing an INIT:FAC input request to initialize performance monitoring (PM) counts for specified digital facility interface (DFI), DFI model 2 (DFI-2), integrated digital carrier unit (IDCU) facilities, or digital networking unit - synchronous optical network (SONET) (DNU-S) facilities.

Format 1 appears after the INIT:FAC input message was used to initialize performance monitoring error counts for a specific DFI facility. This format is used to support early model DFIs such as ANN1, ANN3(B), and so forth. (Such a DFI is sometimes known as DFI-1.)

Format 2 appears after the INIT:FAC input message was used to initialize performance monitoring error counts for an individual DFI-2 facility.

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Format 3 appears after the INIT:FAC input message was used to initialize performance monitoring error counts for all facilities terminated on a DFI-2.

Format 4 appears after the INIT:FAC input message was used to initialize performance monitoring error counts for all facilities terminated on a digital line and trunk unit (DLTU) model 2 (DLTU2).

Format 5 appears after the INIT:FAC input message was used to initialize performance monitoring error counts for all facilities terminated on an IDCU.

Format 6 appears after the INIT:FAC input message was used to initialize performance monitoring error counts for an IDCU facility (IFAC).

Format 7 appears after the INIT:FAC input message was used to initialize performance monitoring error counts for all facilities terminated on an IDCU-supported or a DNU-S supported TR303 remote terminal (RT).

Format 8 appears after the INIT:FAC input message was used to initialize performance monitoring counts of all section terminating equipment (STE) facilities terminated on a DNU-S. The PM counts associated with any subtending virtual tributary 1.5 (VT1.5) or digital signal level-1 (DS1) facilities are not initialized.

Format 9 appears after the INIT:FAC input message was used to initialize performance monitoring counts on a single DNU-S STE facility. The PM counts associated with any subtending VT1.5 or DS1 facilities are not initialized.

Format 10 appears after the INIT:FAC input message was used to initialize performance monitoring counts for all VT1.5 facilities or all DS1 facilities on a DNU-S synchronous transport signal-1 (STS-1) facility. The input option used (VT1 or DS1) will be displayed in the output message. If the VT1 option was used, then the PM counts associated with all the VT1.5 facilities on the specified STS-1 facility are initialized. Note that, with the VT1 option, the PM counts associated with each subtending DS1 facility are not initialized. If the DS1 option was used, then the PM counts associated with all the DS1 facilities on the specified STS-1 facility are initialized.

Format 11 appears after the INIT:FAC input message was used to initialize performance monitoring counts on a DNU-S VT1.5 facility. The PM counts associated with the subtending DS1 facility are not initialized.

Format 12 appears after the INIT:FAC input message was used to initialize performance monitoring counts on a DNU-S DS1 facility.

3. VARIABLE FIELD DEFINITIONS

`ALL` = All (current, previous, and history) 15-minute and day PM data has been initialized for the requested facility or unit.

`VT1` = The request was to initialize PM counts on all VT1.5s on an STS-1 facility.

`DS1` = The request was to initialize PM counts on all DS1s on an STS-1 facility.

`a` = Switching module (SM) number.

`b` = DLTU number.

`c` = DFI-2 number.

`d` = Facility number.

`e` = Status of command. Valid value(s):
`COMPLETED` = Request has been successfully completed.
`COMPLETED EOC OOS` = The request completed successfully for the IDCU end, but TR303 counts

were not reset because the RT's embedded operations channel (EOC) was out-of-service (OOS).

`COMPLETED FACS OOS` = The request completed successfully but out-of-service facilities were encountered.

`FAILED` = Failed to initialize performance monitoring counts for the specified facility or unit. Retry the request later.

`FAILED DNUS CC OOS` The request failed because the DNU-S common control (CC) was out-of-service. DNU-S duplex failure.

`FAILED EOC OOS` = The request to reset counts at the TR303 RT failed because the EOC was out-of-service.

`FAILED IDCU OOS` = The request failed because the IDCU was out-of-service

`NO MATCH` = The specified facility or unit does not exist. If the unit type requested is SM, then `NO MATCH` means the SM is not equipped with any unit or facility.

`NOT ALLOWED` = The requested initialization is not allowed for the given facility or unit.

`OUT OF SERVICE` = The requested unit is out-of-service.

`SM UNAVAILABLE` = The input request could not be processed because communication with the associated SM is not possible.

`SYSTEM BUSY` = The system's processing capability has been reached or a system resource is unavailable. Retry the request later.

`f` = IDCU number.

`g` = Set of counts zeroed. Valid value(s):

`ALL` = All (current, previous, and history) PM data, for both 15-minute and day intervals, has been initialized for the requested facility or unit.

`CURR` = Current PM data, for both 15-minute and day intervals, has been initialized for the requested facility or unit.

`h` = End of the facility that was initialized. Valid value(s):

`BOTH` = Both ends. Both ends of the facility were initialized.

`FE` = Far end. Far end of the facility was initialized.

`NE` = Near end. Switch end of the facility was initialized.

`i` = IFAC number.

`j` = TR303 RT number.

`k` = DNU-S number.

`l` = Data group number.

`m` = STE facility number.

`n` = STS facility number.

`o` = VT1.5 facility group number.

`p` = VT1.5 facility member number.

4. ACTIONS TO BE TAKEN

Retry INIT:FAC input message when variable `f` = `SYSTEM BUSY` or `FAILED`. The initialized counts can be read by executing an OP:FAC input request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:FAC
INH:FAC
INIT:FAC
OP:FAC
RST:DNUSCC
```

Output Message(s):

```
ALW:FAC
INH:FAC
OP:FAC
REPT:FAC
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
20.23 [IDCU FACILITY EQUIPMENT (IFAC)]
20.25 (DNU-S PERFORMANCE MONITORING THRESHOLD GROUP)
22.15 (PERFORMANCE MONITORING)

INIT:FACR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      INIT FACR  COMPLETED
        FACR PASSWORD HAS BEEN INITIALIZED

[2]   ____________________________________________________________
      INIT FACR INVALID
        PASSWORD MUST BE 8 DIGITS

[3]   ____________________________________________________________
      INIT FACR INVALID
        PASSWORD MUST CONTAIN ONLY THE DIGITS 0-9

[4]   ____________________________________________________________
      INIT FACR INVALID
        KEY MUST CONTAIN ALL CHARACTERS

[5]   ____________________________________________________________
      INIT FACR COMPLETED
        INHIBIT DETAIL OPTION {DEACTIVATED|ACTIVATED}
```

2. REASON FOR OUTPUT

To report that the feature activation counting and reconciliation (FACR) password has been initialized or the detail option has been `DEACTIVATED` or `ACTIVATED`.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual request of the INIT:FACR input message. No further action is necessary if the request completed successfully.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INIT:FACR
```

Other Manual(s):

235-040-100 *OA&M Planning Guide*
235-100-125 *System Description*
235-105-210 *Routine Operations and Maintenance Procedures*

INIT:LN

Software Release: 5E10 and later
Message Class: SWM01
Application: 5,CNI
Type: Output

1. FORMAT

[1]
```
INIT LNa b COMPL
  START c END d
```

[2]
```
INIT LNa b NOT STARTED
  START c END d
  e
```

[3]
```
INIT LNa b STOPPED
  START c END d
  f
```

2. REASON FOR OUTPUT

To report the results of an INIT:LN input message, which requests removal from service and restart of a node.

3. VARIABLE FIELD DEFINITIONS

a = A ring node (RN) group number.

b = The node's position in the RN group.

c = The contents of the administrative module (AM) real-time clock register in milliseconds (ms) when the request was received by the interprocess message switch (IMS) driver process.

d = The contents of the AM real-time clock register (ms) when the request was completed or stopped by the IMS driver process.

e = Reason the input message was not started. Valid value(s):
```
ANOTHER MANUAL RESTART IS IN PROGRESS
CONFLICT WITH IMS SYSTEM INITIALIZATION
RING CONFIGURATION NOT STABLE
RING NODE ALREADY BEING RESTARTED
RING NODE NOT IN ACT STATE
SOFTWARE IN THIS RING NODE NOT RESTARTABLE
```

f = Reason the input message was stopped. Valid value(s):
```
ABORTED -- DETAILS IN REPT IUN RESTRT
FAILED -- DETAILS IN REPT IUN RESTRT
FAILED, NO FAULT -- DETAILS IN REPT IUN RESTRT
PROGRAM ERROR -- FAILED TO CHANGE RING NODE STATE TO OOS
PROGRAM ERROR -- _UNRESTRT RETURNED _DENIED
PROGRAM ERROR -- _UNRESTRT RETURNED _RETRY
RESOURCE PROBLEM-- FAILED TO SEND NP RESTART MESSAGE TO RING NODE
```

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```
RESOURCE PROBLEM -- _UNRESTRT RETURNED _FAIL
```

4. ACTION TO BE TAKEN

For Format 1, no action is required. The RMV:LN and RST:LN output messages may also be printed.

For Format 2, if '`e`' indicates the node was not in the ACT state, then it cannot be restarted. If '`e`' indicates the software is not restartable, then the software in the node reported that it was not designed to be restartable when it last entered the ACT state. For these cases, if manual recovery is necessary, use the RST:LN input message. For other values of '`e`', wait until the condition indicated by '`e`' changes and, if appropriate, try again.

For Format 3, the ring node was removed from service but not successfully restarted, so it is no longer eligible to be restarted. The user should use the RST:LN input message to recover it. The RMV:LN and REPT:IUN-RESTRT output messages may also be printed. Usually, '`f`' will be `FAILED -- DETAILS IN REPT IUN RESTRT`. The node will have been marked faulty, and the separately printed REPT:IUN-RESTRT output message will provide more details. The `FAILED, NO FAULT -- DETAILS IN REPT IUN RESTRT` case indicates the node was not marked faulty, but this case is not known to occur in the initial release of this input message. A restart can be aborted by some system-wide initializations, by AM direct memory access (DMA) faults, or by automatic recovery. Values of '`e`' containing RESOURCE PROBLEM should seldom occur. Values of '`f`' containing PROGRAM ERROR should never occur; they indicate software bugs.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INIT:LN
RST:LN
```

Output Message(s):

```
RMV:LN
REPT:IUN-RESTRT
```

INIT:LVL-SM

Software Release: 5E10 and later
Message Class: RCVY
Application: 5
Type: Output

1. FORMAT

```
INIT LVL a SM b c EVENT NO.=d
  PEST= e OUTAGE= f
  ERR HIST: g h i j k l m n
  CALLS LOST: STABLE - o
  TRANSIENT - p
  BACKOUT:q
```

2. REASON FOR OUTPUT

To report the results of a manually-initiated recovery in the specified switching module (SM) and the error history at the time of the recovery.

3. VARIABLE FIELD DEFINITIONS

`a` = Level of software recovery completed. Valid value(s):
- `0` = Return to point of interrupt.
- `1` = Single process purge.
- `2` = Transient clear.
- `3` = Transient clear with boot.
- `4` = Transient clear with boot ignoring errors.
- `5` = Stable clear.
- `6` = Stable clear with boot.
- `7` = Stable clear with boot ignoring errors.

`b` = Switching module number.

`c` = Trouble indicator. Valid value(s):
- `TROUBLE` = Output results from system action.
- blank = Output results from manual action.

`d` = Event number, which is used to correlate messages to a single event.

`e` = Status of the interrupts currently being tested (`NONE`, `PARTIAL`, or `FULL`).

`f` = Total outage time because of the software recovery (minutes:seconds:tenths of a second).

`g` = Amount of call processing real time being preempted by audits (in hexadecimal).

`h` = Number of single process purges that have recently occurred (in hexadecimal).

`i` = Number of software stimuli that have recently occurred (in hexadecimal).

`j` = Number of hardware stimuli that have recently occurred (in hexadecimal).

`k-n` = Hexadecimal dump of additional error counters used for debugging.

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`o` = Number of stable calls lost because of the recovery.

`p` = Number of transient calls lost because of the recovery.

`q` = Indicates if ODD was booted. Valid value(s):
`0` = No.
`1` = Yes.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

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INIT:MCTSI

Software Release: 5E10 and later
Message Class: VAR
Application: 5
Type: Output

1. FORMAT

```
INIT MCTSI=a-b c LVL=d EVENT=e f
  [g] DEF-CHK-FAIL=h [AUD-SCHED=i] [j] SM-EVENT=k
  FAILING-ADDR=l OSJ=m
  CM=n[,CLNK] [NETWORK=o] [LLCB-INDEX=p][,q] [ENDPOINT=r]
```

2. REASON FOR OUTPUT

To indicate that a stimulus was received that resulted in a software recovery action in the SMP MH (message handler). This message describes the state of the processor at the time of the recovery, the reason for the recovery, and the level of recovery action that was taken.

3. VARIABLE FIELD DEFINITIONS

`MCTSI` = Module controller/time slot interchange unit.

`a` = Switch module (SM) number.

`b` = MCTSI side.

`c` = Reporting message handler identifier. Valid value(s):
- `MH0` = Message handler 0.
- `MH1` = Message handler 1.
- `MH2` = Message handler 2.

`d` = Recovery action. Valid value(s):
- `CEI` = Critical error interrupt.
- `OSR` = Operational software restart.
- `RPI` = Return to point of interrupt.
- `UNK` = Unknown recovery action requested.

`e` = Event number.

`f` = Termination report. Valid value(s):
- `ABORTED` = The indicated recovery action did not complete before being interrupted by another stimulus.
- `COMPLETED` = The indicated or requested action has completed.

`g` = Critical error trigger reason. Valid value(s):
- `EX-DCF-ERR` = Excessive defensive check failure requested OSRs.
- `EX-FR-ERR` = Fault recovery critical error request.
- `EX-OSR-ERR` = Excessive error stimulus.

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`h` = The software error code triggering the event. Refer to the Asserts manual for specific code information.

`i` = For defensive check failure errors, the audit that was scheduled. Valid value(s):

- `name` = The 'name' audit was scheduled. Refer to the APP:AUDITS appendix in the Appendices section of the this manual.
- `NONE` = No audit was scheduled from this error.

`j` = Mode in which audit is being run. Valid value(s):

- `DEM-MODE` = Demand or nonsegmented mode takes no real-time breaks.

`k` = SM event number.

`l` = Failing address.

`m` = Operational software job executing when the error occurred. Valid value(s):

- `AU` = Routine audits.
- `CM` = Communication package.
- `INIT` = Processor initialization.
- `MTUP` = Mate update.
- `OE` = Operating environment.
- `PLNK` = Peripheral link for MH1 or MH2.
- `QL` = Quad-link layer 2 manager.
- `RHS` = Routine hashsum checks.
- `SI` = System integrity.
- `UNK` = Unknown or indeterminable running job.

`n` = State of the communication package for communication links if CLNK is shown, else state of quad-link packet switch (QLPS) link. Valid value(s):

- `A-RECV` = Communication link A was receiving.
- `A-TRANS` = Communication link A was transmitting.
- `ACTIVE` = Communication package was active but the link and action cannot be determined.
- `B-RECV` = Communication link B was receiving.
- `B-TRANS` = Communication link B was transmitting.
- `BASE` = CM was called from the base level environment.
- `INACTIVE` = Communication package was not active.

`o` = The QLPS network number.

`p` = The logical link control block being used at the time of this stimulus.

`q` = Specifies the direction of the message being processed at the time of the assert or fault.

- `RCV` = In the state of processing a message received from the network.
- `SND` = In the state of sending a message to the network.

`r` = The far end network address or endpoint specified during this stimulus.

4. ACTION TO BE TAKEN

Monitor the progress of the software recovery. Initiate manual actions if the recovery does not proceed as expected.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

```
APP:AUDITS
```

Other Manual(s):
235-105-220 *System Recovery*
235-600-400 *Audits*
235-600-500 *Asserts*

INIT:MHD

Software Release: 5E10 and later
Message Class: DSKUTL
Application: 5,3B
Type: Output

1. FORMAT

[1]
```
INIT MHD a { NOT STARTED b c |
  STOPPED b c |
  ERROR b c  |
  ABORTED b c |
  STARTED  |
  COMPLETED |
  IN PROGRESS }
```

[2]
```
INIT MHD a EARLY TERM VFY FAILED d
  TRACK/CYL/HD/SC TRACK/CYL/HD/SC TRACK/CYL/HD/SC TRACK/CYL/HD/SC
    e    f  g  h   [e    f  g  h]  [e    f  g  h]  [e    f  g  h]
```

[3]
```
INIT MHD a EARLY TERM VFY FAILED d
  BLOCKS   BLOCKS   BLOCKS   BLOCKS
    i       [i]      [i]      [i]
```

[4]
```
INIT MHD a ABORTED b
  ERROR DATA j k l m n
```

2. REASON FOR OUTPUT

To report the status of a request to format a moving head disk (MHD). This report may be invoked by either executing an INIT:MHD input message or by the INIT MHD poke.

If the format process was invoked using the INIT MHD poke on the DFSA display page during disk independent operation (DIOP) mode, a REPT:DKDIP message will precede the output message.

Format 4 provides additional error information when an explicit small computer system interface (SCSI) command fails. The additional error data is necessary to determine the exact cause of the error condition.

3. VARIABLE FIELD DEFINITIONS

a = Member number of the moving head disk (MHD) drive.

b Process step or reason code. Valid value(s):

Code:	Explanation:
f01	Failed to fopen() /tmp file.
f03	fseek() failed on the output file.
f04	Failed to open equipment configuration database (ECD).
f05	Failed to get unit control block (UCB) by name.
f06	Failed to get UCB of controlling unit.
f07	Controlling unit is not active.
f09	MHD size not recognized.
f0a	"TRACK", "BLOCK", or "NEW" are not valid for SCSI MHD.

f0c	"TRACK" is not valid for SCSI MHD.
f12	"BLOCK" is not valid for storage module drive (SMD) MHD.
f13	Failed to get top UCB.
f14	Top UCB is not a disk file controller (DFC).
f15	Unknown DFC type.
f18	Failed to reserve UCB.
f1b	Failed to assign special device file name.
f1d	Failed to open special device file.
f21	Failed to set I/O mode of device file.
f24	Failed to enable message reception.
f27	Refer to the disk driver (DKDRV) report on the receive-only printer (ROP).
f30	Head universal pointer table (UPT) address is not available.
f36	Refer to the DKDRV report on the ROP.
f37	DKDIP virtual address translation failure.
f39	Refer to the DKDRV report on the ROP.
f42	DFC random access memory (RAM) read failed.
f45	VFY data overwritten repeat input request starting from track number.
f46	Start block greater on the LBA.
f47	Refer to the DKDRV report on the ROP.
f48	DKDIP virtual address translation failure.
f49	Refer to the DKDRV report on the ROP.
f4c	Read of the DFC head UPT failed.
f4e	Refer to the DKDRV report on the ROP.
f52	Read of the DFC firmware UPT failed.
f55	
f58	Refer to the DKDRV report on the ROP.
f5b	Read of the verify failure data failed.
f5e	Invalid verify data.
f63	lseek() to "comb" defect table failed.
f64	DKDIP virtual address translation failure.
f66	First read of defect table failed.
f69	lseek() to "comb" defect table failed.
f6a	DKDIP virtual address translation failure.
f6c	Second read of defect table failed.
f6e	Message to port failure.
f71	Message reception failure.
f72	Manual abort request.
f73	Manual abort request.
f74	Process timed out.
f78	Failed to close special device file.
f7c	Failed to release special device file.
f7f	Failed to unreserve UCB.
f83	Failed to close ECD.
f86	Terminated externally with signal.
f93	Failed to get the segment number.
f96	SCSI "format" command failed.
f99	Message to port failure.
f9c	Message reception failure.
f9f	Refer to the DKDRV report on ROP.
fa1	Failed to get the segment number.
fa5	SCSI "inquiry" command failed.
fa7	SCSI "inquiry" command data underflow.
fa9	Failed to get the segment number.
fb1	SCSI "mode sense" command failed.
fb2	Data overflow - too many block descriptors.
fb5	Failed to get the segment number.
fb9	SCSI "mode select" command failed.
fc1	Refer to the DKDRV report on ROP.
fc6	Failed to get the segment number.
fc9	SCSI "read capacity" command failed.
ffe	Aborted due to phase 1.

c = System error code. Refer to APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

d = Number of failures (bad sectors for SMD MHD or bad disk blocks for SCSI disk) found during the verify step.

e = Relative track number of the indicated bad sector. The track number is relative to the beginning of

the disk. It is calculated using all tracks of the disk excluding those tracks mapped out by defect management. This variable field only applies to an SMD MHD.

f = Physical cylinder number of the indicated bad sector. This number is calculated using all tracks of the disk including those mapped out by defect management. This variable field only applies to an SMD MHD.

g = Physical head number of the indicated bad sector. This number is calculated using all tracks of the disk including those mapped out by defect management. This variable field only applies to an SMD MHD.

h = Sector number in use when the failure occurred. It is a relative number (0 to 31). This variable only applies to an SMD MHD.

i = Logical disk block number of the bad disk block found on the SCSI disk driver during the verify stage.

j = Command completion word; eight hexadecimal digits in the form: AAAABBCC.

- AAAA = SCSI job block(SJB) completion code. Refer to the APP:DFC-K appendix in the Appendixes section of the Output Messages manual.
- BB = Status byte. Refer to the APP:DFC-K appendix in the Appendixes section of the Output Messages manual.
- CC = Not used.

k = First word of extended sense data (ESD); eight hexadecimal digits in the form: AABBCCDD. Refer to the APP:DFC-J appendix in the Appendixes section of the Output Messages manual.

- AA = Byte 0 of ESD.
- BB = Byte 1 of ESD.
- CC = Byte 2 of ESD.
- DD = Byte 3 of ESD.

l = Second word of ESD; eight hexadecimal digits in the form: AABBCCDD. Refer to the APP:DFC-J appendix in the Appendixes section of the Output Messages manual.

- AA = Byte 4 of ESD.
- BB = Byte 5 of ESD.
- CC = Byte 6 of ESD.
- DD = Byte 7 of ESD.

m = Third word of ESD; eight hexadecimal digits in the form: AABBCCDD. Refer to the APP:DFC-J appendix in the Appendixes section of the Output Messages manual.

- AA = Byte 8 of ESD.
- BB = Byte 9 of ESD.
- CC = Byte 10 of ESD.
- DD = Byte 11 of ESD.

n = Fourth word of ESD; eight hexadecimal digits in the form: AABBCCDD. Refer to the APP:DFC-J appendix in the Appendixes section of the Output Messages manual.

- AA = Byte 12 of ESD.
- BB = Byte 13 of ESD.
- CC = Byte 14 of ESD.

`DD` = Byte 15 of ESD.

4. ACTION TO BE TAKEN

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

Noncompletion termination reports that provide an error code usually indicate a system resource was not available or became unavailable to perform the requested task. Clear the problem causing the resource limitation and retry the input request.

A termination report specifying a verification failure indicates that format information on the disk media could not be read, or is incorrect and could not be corrected. This disk media should not be used until the problem is corrected. For an SMD MHD, the HEAD and TRACK information is output to help determine if the problem is with the MHD (head alignment) or in the disk media (bad surface).

If Format 4 prints, the SCSI disk drive encountered an internal drive error. Retain a copy of the error data and contact the next level of technical support to aid in determining the cause of the error condition.

5. ALARMS

This alarm may be a manually-requested report or an automatically-generated report.

Key:	Alarm:
146	Major.
147	Manual.
148	Information.
149	Major.
569	Major.
666	Manual.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

Refer to the APP:OMBD-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	147, 148, 149
2	146
3	569
4	666

Input Message(s):

```
INIT:MHD
LOAD:MHD
VFY:MHD
```

Output Message(s):

```
REPT:DKDIP
UPD:OMDB
VFY:MHD
```

Output Appendix(es):

```
APP:DFC-J
APP:DFC-K
APP:OMDB-X-REF
APP:SYSERR
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

MCC Display Page(s):

123 (DFSA DFC0-1 STATUS)
125 (DFSA DFC2-3 STATUS)
126 (DFSA DFC0-1 PERF)
128 (DFSA DFC2-3 PERF)

INIT:QGP

Software Release: 5E10 and later
Message Class: VAR
Application: 5
Type: Output

1. FORMAT

```
INIT QGP=a-b LVL=c EVENT=d e
 [f] DEF-CHK-FAIL=g [AUD-SCHED=h] [i]
  FAILING-ADDR=j OSJ=k
  CM=l [NETWORK=m] [LLCB-INDEX=n][,o] [ENDPOINT=p]
```

2. REASON FOR OUTPUT

To indicate that a stimulus was received that resulted in a software recovery action in the quad-link gateway processor (QGP). This message describes the state of the processor at the time of the recovery, the reason for the recovery, and the level of recovery action that was taken.

3. VARIABLE FIELD DEFINITIONS

`a` = The message switch (MSGS) side.

`b` = QGP number.

`c` = Recovery action. Valid value(s):
- `CEI` = Critical error interrupt.
- `OSR` = Operational software restart.
- `RPI` = Return to point of interrupt.
- `UNK` = Unknown recovery action requested.

`d` = Event number.

`e` = Termination report. Valid value(s):
- `ABORTED` = The indicated recovery action did not complete before being interrupted by another stimulus.
- `COMPLETED` = The indicated or requested action has completed.

`f` = Critical error trigger reason. Valid value(s):
- `AP-REL` = QGP application processor requested raise error lead.
- `EX-DCF-ERR` = Excessive defensive check failure requested OSRs.
- `EX-FR-ERR` = Fault recovery critical error request.
- `EX-OSR-ERR` = Excessive error stimulus.
- `MSGH-REL` = QGP message handler requested raise error lead.

`g` = Triggering event type. Defensive check failure (assert) error followed by the software error code. Refer to the Asserts manual for specific code information.

`h` = For defensive check failure errors, the audit that was scheduled. Valid value(s):
- `name` = The 'name' audit was scheduled. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual.

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NONE = No audit was scheduled from this error.

i = Mode in which audit is being run. Valid value(s):
DEM-MODE = Demand or nonsegmented mode takes no real-time breaks.

j = Failing address.

k = Operational software job executing when the error occurred. Valid value(s):
AU = Routine audits.
CM = Communication package.
INIT = Processor initialization.
OE = Operating environment.
QGLDG = Quad-link packet switch gateway link (QGL) diagnostics.
QGLPT = QGL packet test diagnostic.
QGLSW = QGL switch.
QL = Quad-link layer 2 manager.
QL0GP = Network 0 QLFR (quad-link fault recovery) general purpose work.
QL1GP = Network 1 QLFR general purpose work.
QLLUD = Quad-link packet switch logical link (QLL) up/down.
QP0IN = Network 0 QPIPE (quad-link packet switch pipe) initialization.
QP0LB = Network 0 QPIPE loop back.
QP1IN = Network 1 QPIPE initialization.
QP1LB = Network 1 QPIPE loop back.
SI = System integrity.
UNK = Unknown or indeterminable running job.

l = State of the communication package for quad-link packet switch (QLPS) link. Valid value(s):
ACTIVE = Communication package was active.
INACTIVE = Communication package was not active.

m = The QLPS network number.

n = The logical link control block being used at the time of this stimulus.

o = Specifies the direction of the message being processed at the time of the assert or fault. Valid value(s):
RCV = In the state of processing a message received from the network.
SND = In the state of sending a message to the network.

p = The far end network address or endpoint specified during this stimulus.

4. ACTION TO BE TAKEN

Monitor the progress of the software recovery. Initiate manual actions if the recovery does not proceed as expected.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

```
APP:AUDITS
```

Other Manual(s):
235-105-220 *System Recovery*
235-600-400 *Audits*
235-600-500 *Asserts*

INIT:REG

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
INIT REG {a=b-c-d|SDFI=b-e-f|DFIH=b-c-g} FAC h i
```

2. REASON FOR OUTPUT

To report the result of executing an INIT:REG input message to initialize the registers of the specified hardware unit.

3. VARIABLE FIELD DEFINITIONS

`DFIH` = Remote integrated services line unit (RISLU) digital facility interface.

`a` = DFI hardware unit type. Valid value(s):
- `DFI` = Digital facility interface.
- `HDFI` = Host digital facility interface.
- `RDFI` = Remote digital facility interface.

`b` = Switching module (SM) number.

`c` = Digital line and trunk unit (DLTU) number.

`d` = DFI number.

`e` = Digital carrier line unit (DCLU) number.

`f` = SDFI number.

`g` = DFIH number.

`h` = Facility number.

`i` = Termination status. Valid value(s):
- `ANN DFI TYPE INVALID` = Announcement circuit pack invalid.
- `COMPLETED` = Successful completion.
- `DFI DOES NOT EXIST` = DFI number specified does not exist.
- `DFI STATE INVALID` = DFI must be active or out of service. RISLU DFIH must be active or standby.
- `SOFTWARE ERROR` = Software error.
- `UNABLE TO INITIALIZE ALL REGISTERS` = Error encountered during initialization.

`SDFI` = *SLC*® digital facility interface.

4. ACTION TO BE TAKEN

Retry INIT:REG input message when variable `'i'` = `SOFTWARE ERROR` or `UNABLE TO INITIALIZE ALL REGISTERS`.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INIT:REG
OP:REG
```

INIT:SCCP-A

Software Release: 5E11 only
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

[1]
```
INIT SCCP SM=a b
  LEVEL = c
```

[2]
```
INIT SCCP SM=a FAILURE
  d e f g h
```

2. REASON FOR OUTPUT

To print the status of the common channel signaling (CCS) global switching module (GSM) after a signaling connection control part (SCCP) audit initialization request or the execution of INIT:SCCP input message.

Format 1 is the output message associated with normal SCCP initialization.

Format 2 is printed to report the failure of INIT:SCCP input message, an SCCP audit initialization request, or an SCCP validation initialization request. The report explains why the command or request was not processed completely.

3. VARIABLE FIELD DEFINITIONS

a = CCS GSM number.

b = Status of the initialization. Valid value(s):
COMPLETED
STARTED

c = Initialization level. Valid value(s):

FULLINIT	= Full initialization.
GTTFIXED	= Global title translation (GTT) fixed digit table.
GTTINFO	= GTT information table.
GTTINIT	= All GTT tables (GTTINFO,GTTFIXED,GTTT and GTTTRAN).
GTTTBL	= GTT table.
GTTTRAN	= GTT area table.
GTTTT	= GTT type table.
NETGSM	= Network global switching module.
SCCPINIT	= Signaling connection control part.
SCMGINIT	= All SCCP network management (NM) tables (static and dynamic).
SCMGSTAT	= SCCP NM static table.
SELINIT	= Selective initialization.

d = Reason for failure. Valid value(s):

0	= Memory allocation.
2	= Building global title translation (GTT) tables.

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3 = Building SCCP NM tables.
7 = Generating SCCP hashsums.
8 = Downloading protocol handlers (PHs).
9 = Hashsums.

e = Source of SCCP. Valid value(s):
0 = From SCCP terminal process.
1 = From PHDA system process.

f = Type of initialization. Valid value(s):
0 = Full SCCP initialization.
1 = Full SM initialization.
2 = Selective SM initialization.
3 = All GTT tables initialization.
4 = GTT information table initialization.
5 = GTT fixed digit table initialization.
6 = GTT type table initialization.
7 = GTT translation table initialization.
8 = GTT table initialization.
10 = All SCCP NM tables initialization.
12 = SCCP NM static table initialization.
17 = Network to GSM table initialization.

g = Data values. Valid value(s):
0 = All SCCP data.
1 = GTT data.
2 = SCCP NM data.

h = Failed relation ID.

4. ACTION TO BE TAKEN

If SCCP initialization failure occurred, notify the next level of technical support.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INIT:SCCP
```

INIT:SCCP-B

Software Release: 5E12 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
[1]
      INIT SCCP SM=a b
        LEVEL = c

[2]
      INIT SCCP SM=a FAILURE
        d e f g h
```

2. REASON FOR OUTPUT

To print the status of the common channel signaling (CCS) global switching module (GSM) after a signaling connection control part (SCCP) audit initialization request or the execution of INIT:SCCP input message.

Format 1 is the output message associated with normal SCCP initialization.

Format 2 is printed to report the failure of INIT:SCCP input message, an SCCP audit initialization request, or an SCCP validation initialization request. The report explains why the command or request was not processed completely.

3. VARIABLE FIELD DEFINITIONS

a = CCS GSM number.

b = Status of the initialization. Valid value(s):
COMPLETED
STARTED

c = Initialization level. Valid value(s):

FULLINIT	= Full initialization.
GTTFIXED	= Global title translation (GTT) fixed digit table.
GTTINFO	= GTT information table.
GTTINIT	= All GTT tables (GTTINFO,GTTFIXED,GTTTBL and GTTTRAN).
GTTTBL	= GTT table.
GTTTRAN	= GTT area table.
GTTTT	= GTT type table.
NETGSM	= Network global switching module.
SCCPINIT	= Signaling connection control part.
SCMGINIT	= All SCCP network management (NM) tables (static and dynamic).
SCMGSTAT	= SCCP NM static table.
SELINIT	= Selective initialization.

d = Reason for failure. Valid value(s):

0	= Memory allocation.
2	= Building global title translation (GTT) tables.

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3 = Building SCCP NM tables.
7 = Generating SCCP hashsums.
8 = Downloading protocol handlers (PHs).
9 = Hashsums.

e = Source of SCCP. Valid value(s):
0 = From SCCP terminal process.
1 = From PHDA system process.

f = Type of initialization. Valid value(s):
0 = Full SCCP initialization.
1 = Full SM initialization.
2 = Selective SM initialization.
3 = All GTT tables initialization.
4 = GTT information table initialization.
5 = GTT fixed digit table initialization.
6 = GTT type table initialization.
7 = GTT translation table initialization.
8 = GTT table initialization.
10 = All SCCP NM tables initialization.
12 = SCCP NM static table initialization.
17 = Network to GSM table initialization.

g = Data values. Valid value(s):
0 = All SCCP data.
1 = GTT data.
2 = SCCP NM data.

h = Failed relation ID.

4. ACTION TO BE TAKEN

If SCCP initialization failure occurred, notify the next level of technical support.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INIT:SCCP
```

INIT:SM-LVL-EVENT

Software Release: 5E9(1) and later
Message Class: ASRT,INT
Application: 5
Type: Output

1. FORMAT

```
INIT SM=a,b LVL=c EVENT=d e
  f  [g]  [h]
  FAILING-ADDR=[i]  SM-MODE=j  TIME=kk:kk.k
  PROCESS: BG=l,m,n,[o]  CM=p,[q]  FG=r,[s],[t]
```

2. REASON FOR OUTPUT

To indicate that a stimulus was received that resulted in a software recovery action in the specified switching module (SM). This message describes the state of the SM at the time of the recovery, the reason for the recovery, and the level of recovery action that was taken.

The ASRT message class is used for defensive check failure errors, otherwise the INT message class is used.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = The side on which the stimulus occurred (0 or 1).

`c` = Level of SM initialization. Valid value(s):
- `RPI` = Return to point of interrupt.
- `SPP` = Single process purge.
- `UNK` = Unknown level of initialization

`d` = Event number.

`e` = Termination report. Valid value(s):
- `ABORTED` = The indicated job did not complete before being interrupted by another stimulus.
- `COMPLETED` = The indicated or requested action has completed.

`f` = Triggering event type. Valid value(s):
- `DCF-DEFERRED-SPP` = A specified non-running process was purged by an ASSERT-C.
- `DEF-CHK-FAIL=error-code` = Defensive check failure (Assert) error followed by the software error code. Refer to the Assert manual for specific code information.
- `FROM-AUDIT-name` = The stimulus for this initialization was from errors discovered by the 'name' audit. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual for a list of audit names, or the Audits manual for more detail.
- `MANUAL-REQ` = A user-initiated initialization request has occurred.
- `UNKNOWN` = Unknown event type.

`g` = For defensive check failure errors, the audit that was scheduled. Valid value(s):
- `AUD-SCHED=name` = The 'name' audit was scheduled. Refer to Audits manual for more detailed information or the APP:AUDITS appendix in the Appendixes section of this manual

for a list of audit names.
NO-AUD-SCHED = No audit was scheduled from this error.

h = Mode in which audit is being run. Valid value(s):
DEM-MODE = Demand or nonsegmented mode, takes no real time breaks.
ELEV-MODE = Elevated audit execution mode.
ROUT-MODE = Routine audit execution mode.

i = Failing address.

j = Mode of the switching module operation (in order of occurrence). Valid value(s):
CONSISTENT = Hardware consistent with software.
ESSENTIAL = Essential jobs operational.
NORMAL = Normal operation.
OPFULL = All jobs are operational.
RAMDYN = Dynamic memory consistent.
RAMTXT = Text and data consistent.
RAMWP = Write protection has been restored.
SYSPROC = All system processes initialized.
UNKNOWN = Mode unknown.

k = Time when the event occurred, in the form minutes: seconds.tenths of a second.

l = Process number of the running background (BG) process in Operating System for Distributive Switching (EVENT).

m = Uniqueness field of the running background process in OSDS.

n = The running background process address.

o = The recovery action taken. Valid value(s):
PURGED = The single target job or process was purged.
RPI = Return to the point of interrupt.
blank = No recovery action taken because the target was not active.

p = State of communication package (CM) foreground. Valid value(s):
A-CR = Synchronous data link controller (SDLC) combined receive interrupt handler was active on SDLC-A.
ACR-ARECV = SDLC-A receive interrupt handler was interrupted by the SDLC-A combined receive interrupt handler, and the SDLC-A combined receive interrupt handler was active at the time of the error.
ACR-ATRANS = SDLC-A transmit interrupt handler was interrupted by the SDLC-A combined receive interrupt handler, and the SDLC-A combined receive interrupt handler was active at the time of the error.
ACR-BRECV = SDLC-B receive interrupt handler was interrupted by the SDLC-A combined receive interrupt handler, and the SDLC-A combined receive interrupt handler was active at the time of the error.
ACR-BTRANS = SDLC-B transmit interrupt handler was interrupted by the SDLC-A combined receive interrupt handler, and the SDLC-A combined receive interrupt handler was active at the time of the error.

A-RECV = SDLC-A receive interrupt handler was active.
A-TRANS = SDLC-A transmit interrupt handler was active.
ACTIVE = CM is active but which action on which link can not be determined.
B-CR = SDLC combined receive interrupt handler was active on SDLC-B.
BCR-ARECV = SDLC-A receive interrupt handler was interrupted by the SDLC-B combined receive interrupt handler, and the SDLC-B combined receive interrupt handler was active at the time of the error.
BCR-ATRANS = SDLC-A transmit interrupt handler was interrupted by the SDLC-B combined receive interrupt handler, and the SDLC-B combined receive interrupt handler was active at the time of the error.
BCR-BRECV = SDLC-B receive interrupt handler was interrupted by the SDLC-B combined receive interrupt handler, and the SDLC-B combined receive interrupt handler was active at the time of the error.
BCR-BTRANS = SDLC-B transmit interrupt handler was interrupted by the SDLC-B combined receive interrupt handler, and the SDLC-B combined receive interrupt handler was active at the time of the error.
B-RECV = SDLC-B was receiving.
B-TRANS = SDLC-B was transmitting.
BASE = CM was sending ethernet messages.
EL-TRANS = CM was receiving ethernet messages.
EL-RECV = CM was called from the base level environment.
HP-RECV = CM was unloading messages from the high priority peripheral MH FIFO.
HP-TRANS = CM was sending messages to the high priority peripheral MH FIFO.
LP-RECV = CM was unloading messages from the low priority peripheral MH FIFO.
LP-TRANS = CM was sending messages to the low priority peripheral MH FIFO.
MTCE-RECV = CM was unloading messages from the MTCE MH FIFO.
MTCE-TRANS = CM was sending messages to the MTCE MH FIFO.
NONE = CM was not active.
OSDS-RECV = CM was unloading messages from the OSDS MH FIFO.
OSDS-TRANS = CM was sending messages to the OSDS MH FIFO.

q = CM foreground recovery action. Valid value(s):
PURGED = The single target job or process was purged.
RPI = Return to the point of interrupt.

r = State of foreground activity. Valid value(s):
CM = Communication package.
INTMON = The system integrity monitor was executing
NONE = Foreground (10 millisecond interrupt) was not being served.
NONPC = Foreground was being served for an indeterminable job other than PC.
OSDS = OSDS work for 10 millisecond interrupt was executing.
PC = Peripheral control foreground was executing.

s = The type of PC foreground activity that was being performed. Default is that no PC foreground jobs were active. Valid value(s):
CCB10T = Channel control buffer (CCB) 10 millisecond timer (1 second clock).
CCB50T = CCB 50 millisecond timer (6 second clock).
CHDB10T = Channel data block (CHDB) 10 millisecond timer (1 second clock).
CHDB50T = CHDB 50 millisecond timer (6 second clock).
CISCAN = Control interface (CI) scanning.

DPOUT	= Dial pulse outpulsing.
EBTSCAN	= E-bit scanning.
FGCADTL1	= Tone cadencing, timing list 1.
FGCADTL2	= Tone cadencing, timing list 2.
ISLURING	= Integrated services line unit analog (ISLU-Z) ringing cadencing.
IQUNLD	= Immediate sequence queue unloader.
LCNSCAN	= Line concentrator summary scanning.
LUSEQJB	= Line unit sequenced job.
MFTTOUT	= Multi-frequency (MF) MDR1 outpulsing.
MFMDR1OUT	= MH1 and MH2 scanning.
MHSCAN	= Multi-frequency (MF) and TOUCH-TONE (TT) outpulsing.
PISCAN	= Packet interface scanning.
RINGC	= Ringing cycles.
ROHCAD	= Receiver off hook (ROH) cadencing.
SD-PULSING	= Metallic service unit signal-distribute pulsing.
SPFUNLD	= Signal processor queue unloading.
SQUNLD	= Sequence queue unloader.
TONECAD	= Tone cadencing.
ETONE-NET	= Enhanced tone cadencing in the network direction.
ETONE-PER	= Enhanced tone cadencing in the peripheral direction.

t = Recovery action for PC foreground. Valid value(s):

CLEAR	= All scheduled jobs were aborted.
PURGED	= The single target job or process was purged.
RPI	= Return to the point of interrupt.
blank	= No recovery action taken because the target was not active.

4. ACTIONS TO BE TAKEN

Monitor the progress of the software recovery.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:AUD
INH:AUD
```

Output Appendix(es):

```
APP:AUDITS
```

Other Manual(s):

235-600-500 Asserts 235-600-400 Audits 235-105-250 System Recovery

INIT:SM-LVL-SUM

Software Release: 5E10 and later
Message Class: INT
Application: 5
Type: Output

1. FORMAT

```
INIT SM=a  LVL=b  SUMMARY  EVENT=c
  CALL PROCESSING DOWNTIME=dd:dd:dd
  CALLS LOST:STABLE=e TRANSIENT=f
  [POWER UP - TIME MAY BE INVALID]
```

2. REASON FOR OUTPUT

To report the impact of a recovery in the specified switching module (SM).

Note: Outages of less than 30seconds duration are not reported by this mechanism but are included in the 24-hour plant report (OP:PLNT24).

3. VARIABLE FIELD DEFINITIONS

`a` = SM number reporting recovery action.

`b` = Level of SM initialization. Valid value(s):
- `FI` = Full initialization.
- `SI` = Selective initialization.

`c` = Event number.

`d` = Call processing downtime in this SM, in the form hours:minutes:seconds. If this initialization is part of a power up of the SM, or immediately follows a power up, the time reported may be invalid.

`e` = Number of stable calls lost due to this recovery. This count is accurate as a count of stable calls lost on selective initialization. For full initializations, this count is an approximation of the effect the recovery had on stable calls, and includes nailed-up connections, etc., that are used for packet and general communication between processors, and may be used by one or more calls.

`f` = Number of transient calls lost due to this recovery. This count is used only for selective initialization level of recovery, and is set to zero on SM full initialization.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INIT:SM-SPP
```

Output Message(s):

```
OP:PLNT24-PT03
```

Other Manual(s):

235-105-250 System Recovery

INIT:SM-PC

Software Release: 5E10 and later
Message Class: INT_MON
Application: 5
Type: Output

1. FORMAT

```
INIT   SM=a,b   PC-FG-RCVY   ACT-GP=c   JOB-NO=d   EVENT=e
  ERR-CNT=f   RCVY-LVL=g   RCVY-ACT=h   NO-WORD=i
  j j j j j j j j
```

2. REASON FOR OUTPUT

To print a summary of the status of peripheral controller (PC) foreground at the time of recovery, as well as the recovery action taken for fault location and correction.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Processor side (0 or 1).

c = PC foreground activity group:

CCB10T	= Channel control buffer (CCB) 10 ms. timer (1 sec clock).
CCB50T	= CCB 50 ms. timer (6 sec clock).
CHDB10T	= Channel data block (CHDB) 10 ms. timer (1 sec clock).
CHDB50T	= CHDB 50 ms. timer (6 sec clock).
CISCAN	= Control interface (CI) scanning.
DPOUT	= Dial pulse outpulsing.
EBTSCAN	= E-bit scanning.
ETONE-NET	= Enhanced tone cadencing in the network direction.
ETONE-PER	= Enhanced tone cadencing in the peripheral direction.
FGCADTL1	= Tone cadencing, timing list 1.
FGCADTL2	= Tone cadencing, timing list 2.
ISLURING	= Integrated services line unit analog (ISLU-Z) ringing cadencing.
IQUNLD	= Immediate sequence queue unloader.
LCNSCAN	= Line concentrator summary scanning.
LUSEQJB	= Line unit sequenced job.
MFTTOUT	= Multi-frequency (MF) and touch-tone (TT) outpulsing.
PISCAN	= Packet interface scanning.
RINGC	= Ringing cycles.
ROHCAD	= Receiver off hook (ROH) cadencing.
SD-PULSING	= Metallic service unit signal-distribute pulsing.
SPFUNLD	= Signal processor queue unloading.
SQUNLD	= Sequence queue unloader.
TONECAD	= Tone cadencing.

d = Job number identification. Valid value(s):

- CCB number (0-511) for CCB activity errors.
- CHDB number (0-511) for CHDB activity errors.
- Line unit number (0-7) for line unit activity errors.

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- Default (0) for any other activity errors.

`e` = Event number.

`f` = Accumulated error count.

`g` = Recovery level. Valid value(s):

`PURGED`	= Job was purged.
`CLEAR`	= Purged all scheduled jobs of PC foreground.

`h` = Return code of PC foreground recovery. Valid value(s):

`NULL`	= No recovery action.
`RCC1`	= Job was successfully removed.
`RCC2`	= Job doesn't exist.
`RCC3`	= Job was already idled.
`RCC4`	= PFR was invoked and SMactbase[JOB-NO] was corrected.
`RCC5`	= PFR was invoked but SMactbase[JOB-NO] was not changed.
`RCC6`	= CIlcsmsk[] was corrected.
`RCC7`	= CIscnmsk[] was corrected.
`RCC8`	= Error was found and RLtonech demand audit was invoked.
`RCC9`	= No error was found but RLtonech audit was invoked.
`RCC10`	= Neither SMactbase[] nor CIlcsmsk[] were changed.

`i` = Number of 32-bit words printed.

`j` = Hexadecimal data.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

INIT:ULARP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    ____________________________________________________________
       INIT ULARP COMPLETED

[2]    ____________________________________________________________
       INIT ULARP NOT STARTED
         RETRY LATER
```

2. REASON FOR OUTPUT

To report the termination status of the INIT:ULARP input message.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INIT:ULARP
```

Other Manual(s):
235-600-601 *Processor Recovery Messages*

INIT:UMEM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

[1]
```
INIT UMEM a WAS UNDEF NOW b #c
```

[2]
```
INIT UMEM NOT STARTED
  CONFLICT WITH CURRENT SYSTEM STATUS
```

[3]
```
INIT UMEM NOT STARTED
  INVALID ACTION FIELD
```

[4]
```
INIT UMEM NOT STARTED
  INVALID ID FIELD
```

[5]
```
INIT UMEM NOT STARTED
  RETRY LATER
```

[6]
```
INIT UMEM COULD NOT CREATE d e FILE f #c
```

2. REASON FOR OUTPUT

To report the disposition of an INIT:UMEM input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Status of the operation. Valid value(s):
- `COMPLETED` = The trace is ready as specified.
- `STOPPED UCERR` = The utility circuit either does not respond or does not match the circuit present at the beginning of the debugging session.

`b` = The state of the trace after the operation was attempted. Valid value(s):
- `NEW` = The trace is ready to be used.
- `UNDEF` = No trace is defined.

`c` = Generic access package (GRASP) execution sequence number.

`d` = Indicates which file operation failed. Valid value(s):
- `CREATE`
- `OPEN`
- `READ`

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`e` = Indicates which type of file operations failed. Valid value(s):
`DIAGNOSTICS`
`TRACE INFORMATION`

`f` = File name.

4. ACTION TO BE TAKEN

If '`a`' is `STOPPED UCERR`, check the utility circuit hardware. After it is fixed, use the INIT:UC input message to reinitialize the circuit.

5. ALARMS

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	498

Input Message(s):

```
CLR:UMEM
INIT:UC
INIT:UMEM
OP:UTIL
```

Output Message(s):

```
OP:UTIL
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

39. LB

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LB:PUMP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
LB PUMP IS ACTIVE
```

2. REASON FOR OUTPUT

To report that the switching module (SM) is undergoing a little boot (LB) pump and that program updates are inhibited until the pump is complete.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:APPLY-BYTER

UPD:APPLY-FILER

UPD:APPLY-FUNCR

UPD:BKOUT
```

Output Message(s):

```
UPD:APPLY
UPD:BKOUT
```

Other Manual(s):

235-105-210 Routine Operations and Maintenance

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40. LNUPD

LNUPD:LN

Software Release: 5E12 and later
Message Class: SWM01
Application: CNI
Type: Output

1. FORMAT

```
[1]    LNUPD LN STOPPED

         UPDATE ALL SS7 NODES FAILED

         c

[2]    LNUPD LNa b STOPPED

         UPDATE LNa b SS7 NODE FAILED

         c
```

2. REASON FOR OUTPUT

Prints in response to a LNUPD:LN input message.

Format 1 prints when ALL is specified in the input message and the message failed. Format 2 prints when a-b is specified in the input message and the message failed.

3. VARIABLE FIELD DEFINITIONS

a = Ring node group number.

b = Ring node member number.

c = Reason the update request stopped. Valid values are:

- UPDATE REQUEST REJECTED, UPDATE ALREADY IN PROGRESS
- UPDATE REQUEST REJECTED, THE RING IS UNAVAILABLE
- UPDATE REQUEST REJECTED, IMS INITIALIZATION IN PROGRESS

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
LNUPD:LN
OP:LNUPD
STOP:LNUPD
```

Output Message(s):

```
OP:LNUPD
REPT:LNUPD
STOP:LNUPD
```

41. LOAD

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LOAD:ADDR

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
LOAD ADDR a [,OFF b] c #d
```

2. REASON FOR OUTPUT

To report the completion status of a LOAD:ADDR input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Virtual address, in hexadecimal notation (destination of the load).

`b` = Offset information from input message.

`c` = Termination report. Valid value(s):
`COMPLETED` = LOAD operation has been successfully completed.
`STOPPED NGADDR` = The LOAD message was stopped because the address specified is not valid.
`STOPPED NGLOAD` = The LOAD message was stopped because some other error occurred.
`STOPPED NGPROT` = The LOAD operation was stopped because the destination address does not have write permission granted.

`d` = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If `c` is `STOPPED NGADDR`, recheck the program listings.

If `c` is `STOPPED NGPROT`, recheck the destination to verify that it indicates a writable area.

5. ALARMS

None. This is a manually-requested report. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	494

Input Message(s):

```
LOAD:ADDR
LOAD:PMEM
LOAD:REG
LOAD:UVAR
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

LOAD:DFC-PUMP

Software Release: 5E10 and later
Message Class: DSKUTL
Application: 5,3B
Type: Output

1. FORMAT

[1]
```
LOAD DFC a PUMP [CHECKSUM] NOT STARTED b c
```

[2]
```
LOAD DFC a PUMP [CHECKSUM] STOPPED b c
```

[3]
```
LOAD DFC a PUMP [CHECKSUM] ERROR b c
```

[4]
```
LOAD DFC a PUMP [CHECKSUM] ABORTED b
```

[5]
```
LOAD DFC a PUMP [CHECKSUM] COMPLETED d
```

2. REASON FOR OUTPUT

To report the result of executing a LOAD:DFC-PUMP input message.

3. VARIABLE FIELD DEFINITIONS

a = Member number of the disk file controller (DFC).

b = Process step or reason code. Valid value(s):

Code:	Explanation:
f03	Failed to open ECD.
f06	Failed to get UCB by name.
f07	DFC is not a SCSI device.
f09	Failed to open the pump file.
f0a	Pump file is zero length (bytes) in size.
f0c	Failed to allocate buffer.
f0e	Failed to read pump file header.
f13	Failed to reserve UCB.
f16	Failed to assign special device file name for DFC.
f1a	Failed to open special device file for DFC.
f1b	Failed to enable message reception.
f1d	Refer to the DKDRV report on the ROP.
f1f	DFC is not active.
f22	Refer to the DKDRV report on the ROP.
f25	Failed to close the special device file.
f28	Failed to re-open the special device file for DFC.
f2a	DFC auto pump failed.
f2c	Failed to allocate a segment for buffer.
f2e	DFC pump failed.
f31	Failed to notify DKDRV of the pump procedure completion .
f34	Process timed out.
f37	Failed to close special device file.
f3a	Failed to release special device file.
f3c	Failed to unreserve UCB.
f3e	Failed to close ECD.
f3f	Failed to close the pump file.
f41	Read of the pump file failed.
f44	Message to port failure.

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f47	Message reception failure.
f4c	Terminated externally with signal.
f4e	Invalid magic number in pump file header .
f51	Invalid pump file header.
f54	Unused portion of the pump file header is not zero.

c = System error code number. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

d = There are two formats for this field. Valid value(s):
INVALID PUMPCODE = Pumpcode failed the hashsum check.
VALID PUMPCODE = Pumpcode has passed the hashsum check.

4. ACTION TO BE TAKEN

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available or became unavailable to perform the requested task. The problem causing the resource limitation should be cleared and the input request retried. The pump failure can also be caused by the incompatibility between the pumpcode and firmware. The pump can also fail due to a corrupted pump file. A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

5. ALARMS

Manual alarm. This alarm is a manually-requested report.

6. REFERENCES

Input Message(s):

```
LOAD:DFC-PUMP
LOAD:DFC-RAM
```

Output Message(s):

```
LOAD:DFC-RAM
REPT:DFC-PUMP
```

Output Appendix(es):

```
APP:SYSERR
```

LOAD:DFC-RAM

Software Release: 5E10 and later
Message Class: DSKUTL
Application: 5,3B
Type: Output

1. FORMAT

[1]
```
LOAD DFC a RAM [CHECKSUM] NOT STARTED b c
```

[2]
```
LOAD DFC a RAM [CHECKSUM] STOPPED b c
```

[3]
```
LOAD DFC a RAM [CHECKSUM] ERROR b c
```

[4]
```
LOAD DFC a RAM [CHECKSUM] ABORTED b
```

[5]
```
LOAD DFC a RAM [CHECKSUM] COMPLETED d
```

2. REASON FOR OUTPUT

To report the result of executing a LOAD:DFC-RAM input message.

3. VARIABLE FIELD DEFINITIONS

a = Member number of the disk file controller (DFC).

b = Process step or reason code. Valid value(s):

Code	Explanation
f03	Failed to open ECD.
f06	Failed to get UCB by name.
f07	DFC is not a SCSI device.
f09	Failed to open the pump file.
f0a	Pump file is zero length (bytes) in size.
f0c	Failed to allocate buffer.
f0e	Failed to read pump file header.
f13	Failed to reserve UCB.
f16	Failed to assign special device file name for DFC.
f1a	Failed to open special device file for DFC.
f1b	Failed to enable message reception.
f1d	Refer to the DKDRV report on the ROP.
f1f	DFC is not active.
f22	Refer to the DKDRV report on the ROP.
f25	Failed to close the special device file.
f28	Failed to re-open the special device file for DFC.
f2a	DFC auto pump failed.
f2c	Failed to allocate a segment for buffer.
f2e	DFC pump failed.
f31	Failed to notify DKDRV of the pump procedure completion .
f34	Process timed out.
f37	Failed to close special device file.
f3a	Failed to release special device file.
f3c	Failed to unreserve UCB.
f3e	Failed to close ECD.
f3f	Failed to close the pump file.
f41	Read of the pump file failed.
f44	Message to port failure.

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f47	Message reception failure.
f4c	Terminated externally with signal.
f4e	Invalid magic number in pump file header .
f51	Invalid pump file header.
f54	Unused portion of the pump file header is not zero.

c = System error code number. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

d = There are two formats for this field. Valid value(s):
INVALID PUMPCODE = Pumpcode failed the hashsum check.
VALID PUMPCODE = Pumpcode has passed the hashsum check.

4. ACTION TO BE TAKEN

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available or became unavailable to perform the requested task. The problem causing the resource limitation should be cleared and the input request retried. A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

5. ALARMS

Manual alarm. This alarm is a manually-requested report.

6. REFERENCES

Input Message(s):

```
LOAD:DFC-PUMP
LOAD:DFC-RAM
```

Output Message(s):

```
LOAD:DFC-PUMP
```

Output Appendix(es):

```
APP:SYSERR
```

LOAD:LIB

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
LOAD LIB TEAM  a    b    [c]    d
```

2. REASON FOR OUTPUT

To report the completion status of a manually issued LOAD:LIB input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Team number.

`b` = Administrative module (AM) flag. Valid value(s):
- `Y` = AM is reporting.
- `N` = AM is not reporting.

`c` = Switching module (SM) number. Default is that SM is not reporting.

`d` = Results. Valid value(s):

```
COMPLETED
STOPPED - BAD/MISSING INFO FILE
STOPPED - NO BUFFER SPACE AVAILABLE
STOPPED - PROGRAM NAME NOT ON THE DISK
STOPPED - PROCESSOR LOADED BY A DIFFERENT TEAM
STOPPED - LOAD STILL IN PROGRESS
STOPPED - PROGRAM STARTED
STOPPED - PAGING ABORTED BY PAGING SUPERVISOR
STOPPED - UNABLE TO LOAD PROGRAM
```

4. ACTION TO BE TAKEN

Since this is a response to a manual request, no action is required. Normally, testing would proceed from this point.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
LOAD:LIB
```

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LOAD:MHD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

[1]
```
LOAD MHD a FROM TD b c [d]
```

[2]
```
LOAD MHD a FROM TD b c [d]
   SESSION e VOLUME f
```

2. REASON FOR OUTPUT

To indicate status of restoring a disk from tape during DISK INDEPENDENT OPERATION in response to the LOAD MHD poke on the data file system access (DFSA) page.

3. VARIABLE FIELD DEFINITIONS

a = MHD unit number to be restored.

b = Logical tape unit name from which a disk will be restored, for example /dev/mt18.

c = Status. Valid value(s):

- ABORTED = The message aborted due to error(s).
- COMPLETED = The message completed successfully.
- ERROR = The message aborted due to tape error.
- IN PROGRESS = Periodic message indicating normal progress.
- STARTED = Poke parameters accepted from the DFSA page.
- STOPPED = The process stopped in response to a poke request.

d = Error codes. Valid value(s):

Code:	Explanation:
f08	Special device file is not for a DAT.
f09	Tape device is not active.
f0a	Failed to open the disk unit.
f11	Invalid segsize or buffer address.
f12	vol_openrd() call failed.
f13	Failed to open the tape device.
f14	Failed to close the tape device.
f15	Failed to open the tape device.
f16	Read of tape header failed.
f17	Failed to close the tape device.
f18	Header read failed.
f19	Tape header check failed.
f20	Failed to close the tape device.
f21	Tape header check failed.
f22	Wrong tape mounted.
f23	Failed to close the tape device.
f24	Wrong tape mounted.
f25	Tape is out of sequence.
f26	Failed to close the tape device.
f27	Tape is out of sequence.
f28	Tape sequence ID is incorrect.
f29	Failed to close the tape device.

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f30	Tape sequence ID is incorrect.
f31	Tape sequence ID is incorrect.
f32	Failed to close the tape device.
f33	Tape sequence ID is incorrect.
f34	Boot flags do not match.
f35	Failed to close the tape device.
f36	Boot flags do not match.
f37	tape sequence ID is incorrect.
f38	Failed to close the tape device.
f39	Tape sequence ID is incorrect.
f40	GENERIC and DB tapes not made with same software release.
f41	Failed to close the tape device.
f42	GENERIC and DB tapes not made with same software release.
f43	SG DB IDs do not match.
f45	First tape read failed.
f48	First disk "seek" failed.
f51	First disk "seek" failed.
f54	Second tape read failed.
f57	Second disk "seek" failed.
f60	Second disk write failed.
f63	Tape block size invalid.
f66	Read of tape header failed.
f69	Tape header check failed.
f72	Tape close failed.
f75	Tape header is inconsistent.
f81	Mount tape timeout.
f85	opcltape() called with invalid flag.
f89	ioqueuem() call failed.
f8d	waitack() call failed.
f91	Failed to open tape device.
f95	Failed to close tape device.
f99	ioqueuem() call failed.
f9d	waitack() call failed.
fa1	Tape header read failed.
fa5	Read of tape header exceeded retry count.
fa9	bufsize or tpblksize invalid.
fad	ioqueuem() call failed.
fb1	waitack() call failed.
fb5	Data read failed.
fb9	Read of tape exceeded retry count.
fbd	readtape() tpblocks problem.
fc1	Tape I/O message timed out.
fc3	Failed to close tape device.
fc5	Failed to close disk device.
fc7	Failed to open rewind tape device.
fc9	Failed to close rewind tape device.
fca	Tape header session number does not match message line parameter.
fcb	Tape header session number does not match message line parameter.
fcc	Invalid common generic tape syncword.
fcd	Tape syncword invalid for 3B21D platform.
fce	Tape syncword invalid for 3B20D platform.
fcf	Invalid ecdorg model field.
fd1	Header hash sum check failed.
fd5	Data hash sum check failed.
fd9	Failed to get tape logdev record.
fdd	Failed to get tape MDCT record.
fde	Invalid partition value for tape special device file.
fe1	Failed to get tape UCB record.
fe5	Failed to get tape device driver PID.
fe9	Failed to get MHD UCB record by name.
fea	Failed to open the tape device.
feb	Read of tape header failed.
fec	Invalid multi-volume tape.
fed	Failed to close no-rewind tape device.
fee	Failed to open rewind tape device.
fef	Failed to close rewind tape device.
ff0	Failed to open no-rewind tape device.
ff1	Failed to close no-rewind tape device.
ff2	Valid logical volume did not precede EOD.
ff3	Specified logical volume not found on tape.
ff4	Specified logical volume not found on tape.
ff5	Specified session not found on tape.

ff6	Read of tape header failed.
ff7	Invalid multi-volume tape.
ff8	Sessions are not sequential.
ff9	Volumes are not in ascending order.
ffa	Specified logical volume not found on tape.
ffb	Specified logical volume not found on tape.
ffc	Failed to close no-rewind tape device.
ffe	Aborted due to phase 1.

e = Multi-volume DAT session number.

f = Multi-volume DAT volume number.

4. ACTION TO BE TAKEN

If the message indicates that there is a problem with the tape, verify that the correct tape is loaded in the specified tape drive. If the message indicates that there is a problem accessing the tape drive, verify that the tape is loaded and the tape drive is active. If these checks fail to uncover the problem, or if the description of the error is not self-explanatory, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	270

Output Appendix(es):

APP:OMDB-X-REF

MCC Display Page(s):

(DFC STATUS PAGE)

LOAD:MHD-DEFECT-A

Software Release: 5E10 - 5E12
Message Class: DSKUTL
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      LOAD MHD a DEFECT TABLE NOT STARTED  b c

[2]   ____________________________________________________________________
      LOAD MHD a DEFECT TABLE STOPPED  b c

[3]   ____________________________________________________________________
      LOAD MHD a DEFECT TABLE ERROR  b c

[4]   ____________________________________________________________________
      LOAD MHD a DEFECT TABLE ABORTED  b

[5]   ____________________________________________________________________
      LOAD MHD a DEFECT TABLE COMPLETED
        d DEFECTS LOADED

[6]   ____________________________________________________________________
      LOAD MHD a DEFECT TABLE COMPLETED
        d DEFECTS LOADED
        SCSI DEFECT COUNT CHECK {COMPLETED | ERROR [b c] }
       [WARNING: NUMBER OF GROWTH DEFECTS EXCEEDS THE AT&T
        RECOMMENDATION ]
       [WARNING: TOTAL NUMBER OF DEFECTS EXCEEDS THE AT&T
        RECOMMENDATION ]
       [WARNING: NUMBER OF DEFECTS ON A CYLINDER EXCEEDS THE
        AT&T RECOMMENDATION ]

[7]   ____________________________________________________________________
      LOAD MHD a DEFECT TABLE ABORTED b
        ERROR DATA e f g h i

[8]   ____________________________________________________________________
      LOAD MHD a DEFECT TABLE COMPLETED
        d DEFECTS LOADED
        SCSI DEFECT COUNT CHECK ABORTED b
        ERROR DATA e f g h i
```

2. REASON FOR OUTPUT

To report the result of executing a LOAD:MHD input message.

Formats 7 and 8 provide additional error information when an explicit small computer system interface (SCSI) command fails. The additional error data is necessary to determine the exact cause of the error condition.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number of the moving head disk (MHD).

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b = Process step or reason code. Valid value(s):

Code:	Explanation:
f03	Failed to fopen() input file.
f06	Failed to open equipment configuration database (ECD).
f09	Failed to get unit control block (UCB) by name.
f0a	Failed to get top UCB.
f0b	Failed to get UCB of controlling unit.
f0c	Controlling unit is not active.
f10	Top UCB is not a disk file controller (DFC).
f12	Unknown DFC type.
f13	MHD size not recognized.
f14	Drive size not supported by defect management.
f15	Failed to reserve UCB.
f16	Failed to assign special device file name.
f18	Failed to open special device file.
f21	Failed to set I/O mode of device file.
f24	Failed to enable message reception.
f26	Clear of MHD media access error counter failed.
f27	Refer to the disk driver (DKDRV) report on the receive-only printer (ROP).
f30	Firmware version is not available.
f33	Drive size not supported by defect management.
f36	MHD size not recognized.
f39	lseek() to storage module device (SMD) "mfgr" disk address failed.
f42	Disk write failed.
f44	Clear of MHD media access error counter failed.
f46	Too many defect blocks specified.
f48	Incorrect defect spec file format.
f4a	Block number not sorted in ascending order.
f4b	Block number out of range.
f4c	Failed to get the segment number.
f53	Refer to the DKDRV report on the ROP.
f56	SCSI "reassign block" command failed.
f59	Too many defects specified.
f6c	Incorrect defect spec file format.
f6e	Cylinder number out of range.
f71	Head number out of range.
f73	Sector number out of range.
f76	Head number not sorted in ascending order.
f79	Cylinder number not sorted in ascending order.
f82	Message to port failure.
f85	Message reception failure.
f88	Process timed out.
f8c	Failed to close special device file.
f8e	Failed to release special device file.
f91	Failed to unreserve UCB.
f93	Failed to close ECD.
f96	Terminated externally with signal.
f99	Refer to the DKDRV report on the ROP.
f9c	Read of the SCSI defect list header failed.
f9f	Refer to the DKDRV report on the ROP.
fa2	Read of SCSI defect list failed.
fa5	Failed to get the segment number.
fa8	Message to port failure.
fab	Message reception failure.
fae	Failed to get the segment number.
fb1	Refer to the DKDRV report on the ROP.
fb3	SCSI "inquiry" command failed.
fb5	SCSI "inquiry" command data underflow.
fb9	Drive not formatted with 512 bytes per logical block.
fba	Data overflow, too many block descriptors.
fbd	Data overflow, too many block descriptors.
fc2	Failed to get the segment number.
fc4	Refer to the DKDRV report on the ROP.
fc6	SCSI "read capacity" command failed.
fc9	Failed to get the segment number.
fcb	Refer to the DKDRV report on the ROP.
fce	SCSI "mode sense" command failed.
fd2	Failed to get the segment number.
fd4	Refer to the DKDRV report on the ROP.

fd6	SCSI "mode sense" command failed.
fd9	diskinfo() library call failed.
fdb	Unknown defect limit type.
fde	Unexpected UCB equipage value.

c = System error code number. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

d = Number of defects written.

e = Command completion word; eight hexadecimal digits in the form: AAAABBCC. Valid value(s):

- AAAA = SCSI job block (SJB) completion code. Refer to the APP:DFC-K appendix in the Appendixes section of the Output Messages manual.
- BB = Status byte. Refer to the APP:DFC-K appendix in the Appendixes section of the Output Messages manual.
- CC = Not used.

f = First word of extended sense data (ESD); eight hexadecimal digits in the form: AABBCCDD. Refer to the APP:DFC-J appendix in the Appendixes section of the Output Messages manual. Valid value(s):

- AA = Byte 0 of ESD.
- BB = Byte 1 of ESD.
- CC = Byte 2 of ESD.
- DD = Byte 3 of ESD.

g = Second word of ESD; eight hexadecimal digits in the form: AABBCCDD. Refer to the APP:DFC-J appendix in the Appendixes section of the Output Messages manual. Valid value(s):

- AA = Byte 4 of ESD.
- BB = Byte 5 of ESD.
- CC = Byte 6 of ESD.
- DD = Byte 7 of ESD.

h = Third word of ESD; eight hexadecimal digits in the form: AABBCCDD. Refer to the APP:DFC-J appendix in the Appendixes section of the Output Messages manual. Valid value(s):

- AA = Byte 8 of ESD.
- BB = Byte 9 of ESD.
- CC = Byte 10 of ESD.
- DD = Byte 11 of ESD.

i = Fourth word of ESD; eight hexadecimal digits in the form: AABBCCDD. Refer to the APP:DFC-J appendix in the Appendixes section of the Output Messages manual. Valid value(s):

- AA = Byte 12 of ESD.
- BB = Byte 13 of ESD.
- CC = Byte 14 of ESD.
- DD = Byte 15 of ESD.

4. ACTIONS TO BE TAKEN

A termination report that specifies noncompletion provides an error code that usually indicates a system resource

was not available or became unavailable to perform the requested task. Clear the problem causing the resource limitation and retry the input request.

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

For a SCSI disk drive, the completion message may also include warnings as a result of checking the media defect count of the disk against the following.

The number of GROWN defects should be no more than a recommended limit over the useful life of the disk. If the recommended limit is exceeded, the disk drive could become unreliable.

The total number of defects (PRIMARY and GROWN) should not exceed the specification for the disk drive. If the disk has more than the number of defects allowed, the disk drive could become unreliable.

The total number of defects (PRIMARY and GROWN) on a cylinder should not exceed the recommended limit. If the number of defects on a cylinder is larger than the limit, the performance of the disk drive may degrade to the point that the disk drive may not be able to be used as a boot device in the administrative module (AM).

The SCSI disk should be replaced if there is any warning output related to the above recommendations.

Note: For SCSI disk, after new defect blocks are loaded, all the previous information about bad blocks (defects) becomes invalid. For example, bad logical block number 3 is not physically the same block after being loaded; in fact, it is now a good block number 3. Therefore, only a new defect (or defects) detected since the previous LOAD:MHD command should be included in the specfile used for loading new defects into the GROWN defect list.

If Formats 7 or 8 print, the SCSI disk drive encountered an internal drive error. Retain a copy of the error data and contact the next level of technical support to aid in determining the cause of the error condition.

5. ALARMS

This alarm is a manually-requested report. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1-5	123
6	610, 611
7	666
8	663

Input Message(s):

```
LOAD:MHD
```

Output Message(s):

```
DUMP:MHD-DEFECT
UPD:OMDB
```

Output Appendix(es):

```
APP:DFC-J
APP:DFC-K
APP:OMDB-X-REF
APP:SYSERR
```

LOAD:MHD-DEFECT-B

Software Release: 5E13 and later
Message Class: DSKUTL
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      LOAD MHD a DEFECT TABLE NOT STARTED  b c

[2]   ____________________________________________________________________
      LOAD MHD a DEFECT TABLE STOPPED  b c

[3]   ____________________________________________________________________
      LOAD MHD a DEFECT TABLE ERROR  b c

[4]   ____________________________________________________________________
      LOAD MHD a DEFECT TABLE ABORTED  b

[5]   ____________________________________________________________________
      LOAD MHD a DEFECT TABLE COMPLETED
         d DEFECTS LOADED

[6]   ____________________________________________________________________
      LOAD MHD a DEFECT TABLE COMPLETED
         d DEFECTS LOADED
         SCSI DEFECT COUNT CHECK {COMPLETED | ERROR [b c] }
       [ WARNING: NUMBER OF GROWTH DEFECTS EXCEEDS THE AT&T
         RECOMMENDATION ]
       [ WARNING: TOTAL NUMBER OF DEFECTS EXCEEDS THE AT&T
         RECOMMENDATION ]
       [ WARNING: NUMBER OF DEFECTS ON A CYLINDER EXCEEDS THE
         AT&T RECOMMENDATION ]

[7]   ____________________________________________________________________
      LOAD MHD a DEFECT TABLE ABORTED b
         ERROR DATA e f g h i

[8]   ____________________________________________________________________
      LOAD MHD a DEFECT TABLE COMPLETED
         d DEFECTS LOADED
         SCSI DEFECT COUNT CHECK ABORTED b
         ERROR DATA e f g h i
```

2. REASON FOR OUTPUT

To report the result of executing a LOAD:MHD input message.

Formats 7 and 8 provide additional error information when an explicit small computer system interface (SCSI) command fails. The additional error data is necessary to determine the exact cause of the error condition.

3. VARIABLE FIELD DEFINITIONS

a = Member number of the moving head disk (MHD).

b = Process step or reason code. Valid value(s):

Code:	Explanation:
f03	Failed to fopen() input file.
f06	Failed to open equipment configuration database (ECD).
f09	Failed to get unit control block (UCB) by name.
f0a	Failed to get top UCB.
f0b	Failed to get UCB of controlling unit.
f0c	Controlling unit is not active.
f10	Top UCB is not a disk file controller (DFC).
f12	Unknown DFC type.
f13	MHD size not recognized.
f14	Drive size not supported by defect management.
f15	Failed to reserve UCB.
f16	Failed to assign special device file name.
f18	Failed to open special device file.
f21	Failed to set I/O mode of device file.
f24	Failed to enable message reception.
f25	Loading of defects is not supported on this drive.
f26	Clear of MHD media access error counter failed.
f27	Refer to the disk driver (DKDRV) report on the receive-only printer (ROP).
f30	Firmware version is not available.
f33	Drive size not supported by defect management.
f36	MHD size not recognized.
f39	lseek() to storage module device (SMD) "mfgr" disk address failed.
f42	Disk write failed.
f44	Clear of MHD media access error counter failed.
f46	Too many defect blocks specified.
f48	Incorrect defect spec file format.
f4a	Block number not sorted in ascending order.
f4b	Block number out of range.
f4c	Failed to get the segment number.
f53	Refer to the DKDRV report on the ROP.
f56	SCSI "reassign block" command failed.
f59	Too many defects specified.
f6c	Incorrect defect spec file format.
f6e	Cylinder number out of range.
f71	Head number out of range.
f73	Sector number out of range.
f76	Head number not sorted in ascending order.
f79	Cylinder number not sorted in ascending order.
f82	Message to port failure.
f85	Message reception failure.
f88	Process timed out.
f8c	Failed to close special device file.
f8e	Failed to release special device file.
f91	Failed to unreserve UCB.
f93	Failed to close ECD.
f96	Terminated externally with signal.
f99	Refer to the DKDRV report on the ROP.
f9c	Read of the SCSI defect list header failed.
f9f	Refer to the DKDRV report on the ROP.
fa2	Read of SCSI defect list failed.
fa5	Failed to get the segment number.
fa8	Message to port failure.
fab	Message reception failure.
fae	Failed to get the segment number.
fb1	Refer to the DKDRV report on the ROP.
fb3	SCSI "inquiry" command failed.
fb5	SCSI "inquiry" command data underflow.
fb9	Drive not formatted with 512 bytes per logical block.
fba	Data overflow, too many block descriptors.
fbd	Data overflow, too many block descriptors.
fc2	Failed to get the segment number.
fc4	Refer to the DKDRV report on the ROP.
fc6	SCSI "read capacity" command failed.
fc9	Failed to get the segment number.
fcb	Refer to the DKDRV report on the ROP.
fce	SCSI "mode sense" command failed.

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fd2	Failed to get the segment number.
fd4	Refer to the DKDRV report on the ROP.
fd6	SCSI "mode sense" command failed.
fd9	diskinfo() library call failed.
fdb	Unknown defect limit type.
fde	Unexpected UCB equipage value.

c = System error code number. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

d = Number of defects written.

e = Command completion word; eight hexadecimal digits in the form: AAAABBCC. Valid value(s):

- AAAA = SCSI job block (SJB) completion code. Refer to the APP:DFC-K appendix in the Appendixes section of the Output Messages manual.
- BB = Status byte. Refer to the APP:DFC-K appendix in the Appendixes section of the Output Messages manual.
- CC = Not used.

f = First word of extended sense data (ESD); eight hexadecimal digits in the form: AABBCCDD. Refer to the APP:DFC-J appendix in the Appendixes section of the Output Messages manual. Valid value(s):

- AA = Byte 0 of ESD.
- BB = Byte 1 of ESD.
- CC = Byte 2 of ESD.
- DD = Byte 3 of ESD.

g = Second word of ESD; eight hexadecimal digits in the form: AABBCCDD. Refer to the APP:DFC-J appendix in the Appendixes section of the Output Messages manual. Valid value(s):

- AA = Byte 4 of ESD.
- BB = Byte 5 of ESD.
- CC = Byte 6 of ESD.
- DD = Byte 7 of ESD.

h = Third word of ESD; eight hexadecimal digits in the form: AABBCCDD. Refer to the APP:DFC-J appendix in the Appendixes section of the Output Messages manual. Valid value(s):

- AA = Byte 8 of ESD.
- BB = Byte 9 of ESD.
- CC = Byte 10 of ESD.
- DD = Byte 11 of ESD.

i = Fourth word of ESD; eight hexadecimal digits in the form: AABBCCDD. Refer to the APP:DFC-J appendix in the Appendixes section of the Output Messages manual. Valid value(s):

- AA = Byte 12 of ESD.
- BB = Byte 13 of ESD.
- CC = Byte 14 of ESD.
- DD = Byte 15 of ESD.

4. ACTIONS TO BE TAKEN

A termination report that specifies noncompletion provides an error code that usually indicates a system resource was not available or became unavailable to perform the requested task. Clear the problem causing the resource limitation and retry the input request.

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

For a SCSI disk drive, the completion message may also include warnings as a result of checking the media defect count of the disk against the following.

The number of GROWN defects should be no more than a recommended limit over the useful life of the disk. If the recommended limit is exceeded, the disk drive could become unreliable.

The total number of defects (PRIMARY and GROWN) should not exceed the specification for the disk drive. If the disk has more than the number of defects allowed, the disk drive could become unreliable.

The total number of defects (PRIMARY and GROWN) on a cylinder should not exceed the recommended limit. If the number of defects on a cylinder is larger than the limit, the performance of the disk drive may degrade to the point that the disk drive may not be able to be used as a boot device in the administrative module (AM).

The SCSI disk should be replaced if there is any warning output related to the above recommendations.

Note: For SCSI disk, after new defect blocks are loaded, all the previous information about bad blocks (defects) becomes invalid. For example, bad logical block number 3 is not physically the same block after being loaded; in fact, it is now a good block number 3. Therefore, only a new defect (or defects) detected since the previous LOAD:MHD command should be included in the specfile used for loading new defects into the GROWN defect list.

If Formats 7 or 8 print, the SCSI disk drive encountered an internal drive error. Retain a copy of the error data and contact the next level of technical support to aid in determining the cause of the error condition.

5. ALARMS

This alarm is a manually-requested report. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1-5	123
6	610, 611
7	666
8	663

Input Message(s):

```
LOAD:MHD
```

Output Message(s):

```
DUMP:MHD-DEFECT
UPD:OMDB
```

Output Appendix(es):

```
APP:DFC-J
APP:DFC-K
APP:OMDB-X-REF
APP:SYSERR
```

LOAD:MHD-FIRMWARE

Software Release: 5E10 and later
Message Class: DSKUTL
Application: 3B
Type: Output

1. FORMAT

```
[1]  ____________________________________________________________
     LOAD MHD a FIRMWARE STARTED

[2]  ____________________________________________________________
     LOAD MHD a FIRMWARE NOT STARTED b c

[3]  ____________________________________________________________
     LOAD MHD a FIRMWARE STOPPED b c

[4]  ____________________________________________________________
     LOAD MHD a FIRMWARE ERROR b c

[5]  ____________________________________________________________
     LOAD MHD a FIRMWARE ABORTED b

[6]  ____________________________________________________________
     LOAD MHD a FIRMWARE IN PROGRESS

[7]  ____________________________________________________________
     LOAD MHD a FIRMWARE COMPLETED
```

2. REASON FOR OUTPUT

To report the result of executing a LOAD:MHD-FIRMWARE input message.

3. VARIABLE FIELD DEFINITIONS

a = Moving head disk (MHD) member number.

b = Process step or reason code. Valid value(s):

Code:	Explanation:
f03	Failed to open ECD.
f06	Failed to get UCB by name.
f07	DFC is not a SCSI device.
f09	Failed to open the pump file.
f0a	Pump file is zero length (bytes) in size.
f0c	Failed to allocate buffer.
f0e	Failed to read pump file header.
f13	Failed to reserve UCB.
f16	Failed to assign special device file name for DFC.
f1a	Failed to open special device file for DFC.
f1b	Failed to enable message reception.
f1d	Refer to the DKDRV report on the ROP.
f1f	DFC is not active.
f22	Refer to the DKDRV report on the ROP.
f25	Failed to close the special device file.
f28	Failed to re-open the special device file for DFC.
f2a	DFC auto pump failed.
f2c	Failed to allocate a segment for buffer.
f2e	DFC pump failed.
f31	Failed to notify DKDRV of the pump procedure completion .

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f34	Process timed out.
f37	Failed to close special device file.
f3a	Failed to release special device file.
f3c	Failed to unreserve UCB.
f3e	Failed to close ECD.
f3f	Failed to close the pump file.
f41	Read of the pump file failed.
f44	Message to port failure.
f47	Message reception failure.
f4c	Terminated externally with signal.
f4e	Invalid magic number in pump file header .
f51	Invalid pump file header.
f54	Unused portion of the pump file header is not zero.

c = System error code number. Refer to the APP:DFC-A appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

A termination report that specifies noncompletion provides an error code that usually indicates a system resource was not available or became unavailable to perform the requested task. Clear the problem causing the resource limitation and retry the input request.

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

5. ALARMS

None. This alarm is a manually-requested report. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1-5	694

Input Message(s):

```
LOAD:MHD-FIRMWARE
```

Output Appendix(es):

```
APP:DFC-A
APP:OMDB-X-REF
APP:SYSERR
```

LOAD:PMEM

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
LOAD PMEM a #b
  ADDRESS (HEX)   OLD VALUE (HEX)  <-  NEW VALUE (HEX)
    [c      d                      <-      e]
```

2. REASON FOR OUTPUT

To report the completion status of a LOAD:PMEM input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination report. Valid value(s):
`COMPLETED` = LOAD operation has been successfully completed.
`STOPPED NGADDR` = The LOAD message was stopped because the address specified is not valid.
`STOPPED NGLOAD` = The LOAD message was stopped because some other error occurred.
`STOPPED NGPROT` = The LOAD operation was stopped because the destination address does not have write permission granted.

`b` = Generic access package (GRASP) execution sequence number.

`c` = Address of word of physical memory that was modified.

`d` = Original value of specified word of physical memory.

`e` = New value of specified word of physical memory.

4. ACTION TO BE TAKEN

If '`a`' =	Action:
`STOPPED NGADDR`	Recheck the program listtings.
`STOPPED NGPROT`	Recheck the destination to verify that it indicates a writable area.

5. ALARMS

None. This is a manually-requested report.

6. REFERENCES

Input Message(s):

```
LOAD:ADDR
LOAD:PMEM
LOAD:REG
LOAD:UVAR
```

Other Manual(s):

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235-105-210 *Routine Operations and Maintenance*

LOAD:REG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

[1]
```
LOAD REG a [,OFF b] c #d
```

[2]
```
LOAD REG ABT
  LOAD INV REG/UVAR VALUE
```

2. REASON FOR OUTPUT

To report the completion status of a LOAD:REG input message.

Format 2 indicates that this action-list has been aborted. The register or utility variable (UVAR) name is invalid. Refer to the WHEN:RUTIL input message for valid register or UVAR names.

3. VARIABLE FIELD DEFINITIONS

`a` = Register (destination of the load).

`b` = Offset information from input message.

`c` = Termination report. Valid value(s):
`COMPLETED` = LOAD operation has been successfully completed.
`STOPPED NGADDR` = The LOAD message was stopped because the address specified is not valid.
`STOPPED NGLOAD` = The LOAD message was stopped because some other error occurred.
`STOPPED NGPROT` = The LOAD operation was stopped because the destination address does not have write permission granted.

`d` = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If 'c' =	Action:
STOPPED NGADDR	Recheck to program listings.
STOPPED NGPROT	Recheck the destination to verify that it indicates a writable area.

5. ALARMS

None. This is a manually-requested report.

6. REFERENCES

Input Message(s):

LOAD:ADDR
LOAD:PMEM
LOAD:REG

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```
LOAD:UVAR
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

LOAD:RUTIL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      LOAD RUTIL ABT
        LENGTH a NUM DATA BYTES b MISMATCH

[2]   ____________________________________________________________
      LOAD RUTIL ABT
        MKNOD() FAILURE c

[3]   ____________________________________________________________
      LOAD RUTIL ABT
        OPEN() FAILURE c

[4]   ____________________________________________________________
      LOAD RUTIL ABT
        READ() FAILURE d (ERRNO = c)

[5]   ____________________________________________________________
      LOAD RUTIL ABT
        LOAD LENGTH a INVALID

[6]   ____________________________________________________________
      LOAD RUTIL COMPL
        RNA H' eee
```

2. REASON FOR OUTPUT

To show the status of the requested load. Formats 1 through 5 indicate an error condition. Format 6 indicates a successful LOAD:RUTIL input message has been performed.

3. VARIABLE FIELD DEFINITIONS

a = Length specified.

b = Number of data items provided.

c = Value of the global variable errno.

d = Return code from the ring generic access package (RGRASP) kernel.

e = Node identifier of the concerned common network interface (CNI) ring node.

4. ACTION TO BE TAKEN

On error conditions, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:RUTIL
ALW:RUTILFLAG
CLR:RUTIL
CLR:RUTILFLAG
DUMP:RUTIL
INH:RUTIL
INH:RUTILFLAG
LOAD:RUTIL
OP:RUTIL
OP:RUTILFLAG
WHEN:RUTIL
```

Output Message(s):

```
ALW:RUTIL
ALW:RUTILFLAG
CLR:RUTIL
CLR:RUTILFLAG
DUMP:RUTIL
INH:RUTIL
INH:RUTILFLAG
OP:RUTIL
OP:RUTILFLAG
REPT:RUTIL
WHEN:RUTIL
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

LOAD:UT-CMP-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
LOAD UT CMP=a-b {MATE|PRIM} [ADDR c|GVAR d] e
```

2. REASON FOR OUTPUT

To report the status of the response to the LOAD:UT-CMP input message to load a value into the memory of a specified communication module processor (CMP).

3. VARIABLE FIELD DEFINITIONS

`MATE`	= Message was executed in the standby CMP.
`PRIM`	= Message was executed in the active CMP.
`a`	= Message switch side.
`b`	= CMP number.
`c`	= Absolute address specified in the input message.
`d`	= Symbolic name of the specified global variable.
`e`	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`LOAD:UT-CMP`

Output Message(s):

`APP:UT-OM-REASON`

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

LOAD:UT-CMP-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      LOAD UT CMP=a-b {MATE|PRIM} ADDR c f

[2]   ____________________________________________________________________
      LOAD UT CMP=a-b {MATE|PRIM} f
        SYMIDX d GVAR e
```

2. REASON FOR OUTPUT

To report the status of the response to the LOAD:UT-CMP input message to load a value into the memory of a specified communication module processor (CMP).

Format 1 reports the status of a LOAD:UT-CMP input message defined by a physical address.

Format 2 reports the status of a LOAD:UT-CMP input message defined by a symbolic reference.

3. VARIABLE FIELD DEFINITIONS

`MATE` = Message was executed in the standby CMP.

`PRIM` = Message was executed in the active CMP.

`a` = Message switch side.

`b` = CMP number.

`c` = Absolute address (ADDR) specified in the input message.

`d` = Symbol index number (SYMIDX) of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`e`'. If an invalid input message is entered, the symbol index number will be "-1".

`e` = Symbolic name (GVAR) specified in the input message or determined by the UT code based on the symbol index number '`d`'. The symbol name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`f` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

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None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-SYMID
LOAD:UT-CMP
```

Output Message(s):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

LOAD:UT-CMPMSG-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
LOAD UT CMPMSG=a-b {ADDR=c|GVAR=d} e
```

2. REASON FOR OUTPUT

To report the status of an error condition in the specified communication module processor message handler (CMPMSG) in response to the LOAD:UT-CMPMSG input message.

3. VARIABLE FIELD DEFINITIONS

a	= The side of the message switch.
b	= CMPMSG number.
c	= Memory address to load.
d	= Global symbol to load.
e	= Termination status. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
LOAD:UT-CMPMSG
```

Output Message(s):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

LOAD:UT-CMPMSG-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      LOAD UT CMPMSG=a-b ADDR c f

[2]   ____________________________________________________________________
      LOAD UT CMPMSG=a-b f
        SYMIDX d GVAR e
```

2. REASON FOR OUTPUT

To report the status of an error condition in the specified communication module processor message handler (CMPMSG) in response to the LOAD:UT-CMPMSG input message.

Format 1 reports the status of a LOAD:UT-CMPMSG input message defined by a physical address.

Format 2 reports the status of a LOAD:UT-CMPMSG input message defined by a symbolic reference.

3. VARIABLE FIELD DEFINITIONS

`a` = The side of the message switch.

`b` = CMPMSG number.

`c` = Absolute address (ADDR) specified in the input message.

`d` = Symbol index number (SYMIDX) of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`e`'. If an invalid input message is entered, the symbol index number will be "-1".

`e` = Symbolic name (GVAR) specified in the input message or determined by the UT code based on the symbol index number '`d`'. The symbol name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`f` = Termination status. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-SYMID
LOAD:UT-CMPMSG
```

Output Message(s):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

LOAD:UT-DNUS-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
LOAD UT DNUS=a-b [ADDR c|GVAR d] e
```

2. REASON FOR OUTPUT

To report the status of the response to the LOAD:UT-DNUS input message to load a value into the memory of the digital networking unit - synchronous optical network (SONET) (DNU-S).

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number.
b	= DNU-S number.
c	= Absolute address that was loaded.
d	= Symbolic name of global variable.
e	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the LOAD:UT-DNUS message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
LOAD:UT-DNUS
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

LOAD:UT-DNUS-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      LOAD UT DNUS=a-b ADDR c f

[2]   ____________________________________________________________________
      LOAD UT DNUS=a-b f
        SYMIDX d GVAR e
```

2. REASON FOR OUTPUT

To report the status of the response to the LOAD:UT-DNUS input message to load a value into the memory of the digital networking unit - synchronous optical network (SONET) (DNU-S).

Format 1 reports the status of a LOAD:UT-DNUS input message defined by a physical address.

Format 2 reports the status of a LOAD:UT-DNUS input message defined by a symbolic reference.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Absolute address (ADDR) specified in the input message.

`d` = Symbol index number (SYMIDX) of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`e`'. If an invalid input message is entered, the symbol index number will be "-1".

`e` = Symbolic name (GVAR) specified in the input message or determined by the UT code based on the symbol index number '`d`'. The symbol name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`f` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the LOAD:UT-DNUS message and repeat.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
DUMP:UT-SYMID
LOAD:UT-DNUS
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

LOAD:UT-FPC-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
LOAD UT FPC a {ADDR b|IO c|GVAR d} e
```

2. REASON FOR OUTPUT

To report the status of the LOAD:UT-FPC input message to overwrite the memory, I/O register, or global variables in a specified foundation peripheral controller (FPC).

3. VARIABLE FIELD DEFINITIONS

a	= FPC unit number.
b	= Absolute physical address.
c	= I/O register number.
d	= Symbolic address of global variable.
e	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
LOAD:UT-FPC
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

LOAD:UT-FPC-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      LOAD UT FPC=a {ADDR b|IO c} f

[2]   ____________________________________________________________________
      LOAD UT FPC=a f
        SYMIDX d GVAR e
```

2. REASON FOR OUTPUT

To report the status of the LOAD:UT-FPC input message to overwrite the memory or an I/O register in a specified foundation peripheral controller (FPC).

Format 1 reports the status of a LOAD:UT-CMP input message defined by a physical address or I/O register.

Format 2 reports the status of a LOAD:UT-CMP input message defined by a symbolic reference.

3. VARIABLE FIELD DEFINITIONS

`a` = FPC unit number.

`b` = Absolute address (ADDR) specified in the input message.

`c` = I/O register number specified in the input message.

`d` = Symbol index number (SYMIDX) of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`e`'. If an invalid input message is entered, the symbol index number will be "-1".

`e` = Symbolic name (GVAR) specified in the input message or determined by the UT code based on the symbol index number '`d`'. The symbol name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`f` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the input message and repeat.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
DUMP:UT-SYMID
LOAD:UT-FPC
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

LOAD:UT-IDCU-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
LOAD UT IDCU a b [ADDR c|GVAR d] e
```

2. REASON FOR OUTPUT

To report the status of the response to the LOAD:UT-IDCU input message to load a value into the memory of the integrated digital carrier unit (IDCU).

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number.
b	= IDCU number.
c	= Absolute address that was loaded.
d	= Symbolic name of global variable.
e	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the LOAD:UT-IDCU message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
LOAD:UT-IDCU
```

Output Message(s):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

LOAD:UT-IDCU-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      LOAD UT IDCU=a-b ADDR c f

[2]   ____________________________________________________________________
      LOAD UT IDCU=a-b f
        SYMIDX d GVAR e
```

2. REASON FOR OUTPUT

To report the status of the response to the LOAD:UT-IDCU input message to load a value into the memory of the integrated digital carrier unit (IDCU).

Format 1 reports the status of a LOAD:UT-IDCU input message defined by a physical address.

Format 2 reports the status of a LOAD:UT-IDCU input message defined by a symbolic reference.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = Absolute address (ADDR) specified in the input message.

`d` = Symbol index number (SYMIDX) of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`e`'. If an invalid input message is entered, the symbol index number will be "-1".

`e` = Symbolic name (GVAR) specified in the input message or determined by the UT code based on the symbol index number '`d`'. The symbol name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`f` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the LOAD:UT-IDCU message and repeat.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
DUMP:UT-SYMID
LOAD:UT-IDCU
```

Output Message(s):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

LOAD:UT-IDCULSI-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
LOAD UT IDCULSI=a-b-c [ADDR d|GVAR e] f
```

2. REASON FOR OUTPUT

To report the status of the response to the LOAD:UT-IDCULSI input message to load a value into the memory of the integrated digital carrier unit (IDCU) loop side interface (LSI).

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number.
b	= IDCU number.
c	= LSI number.
d	= Absolute address that was loaded.
e	= Symbolic name of global variable.
f	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the LOAD:UT-IDCULSI message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
LOAD:UT-IDCULSI
```

Output Message(s):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

LOAD:UT-IDCULSI-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      LOAD UT IDCULSI=a-b-c ADDR d g

[2]   ____________________________________________________________________
      LOAD UT IDCULSI=a-b-c g
        SYMIDX e GVAR f
```

2. REASON FOR OUTPUT

To report the status of the response to the LOAD:UT-IDCULSI input message to load a value into the memory of the integrated digital carrier unit (IDCU) loop side interface (LSI).

Format 1 reports the status of a LOAD:UT-IDCULSI input message defined by a physical address.

Format 2 reports the status of a LOAD:UT-IDCULSI input message defined by a symbolic reference.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = LSI number.

`d` = Absolute address (ADDR) specified in the input message.

`e` = Symbol index number (SYMIDX) of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`f`'. If an invalid input message is entered, the symbol index number will be "-1".

`f` = Symbolic name (GVAR) specified in the input message or determined by the UT code based on the symbol index number '`e`'. The symbol name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`g` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the LOAD:UT-IDCULSI message and repeat.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
DUMP:UT-SYMID
LOAD:UT-IDCULSI
```

Output Message(s):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

LOAD:UT-ISLUCC-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
LOAD UT ISLUCC a b [ADDR c|GVAR d] e
```

2. REASON FOR OUTPUT

To report the status of the response to the LOAD:UT-ISLUCC input message to load a value into the memory of the integrated services line unit common controller (ISLUCC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Absolute address that was loaded.

`d` = Symbolic name of global variable.

`e` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
LOAD:UT-ISLUCC
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

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LOAD:UT-ISLUCC-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      LOAD UT ISLUCC=a-b ADDR c f

[2]   ____________________________________________________________________
      LOAD UT ISLUCC=a-b f
        SYMIDX d GVAR e
```

2. REASON FOR OUTPUT

To report the status of the response to the LOAD:UT-ISLUCC input message to load a value into the memory of the integrated services line unit common controller (ISLUCC).

Format 1 reports the status of a LOAD:UT-ISLUCC input message defined by a physical address.

Format 2 reports the status of a LOAD:UT-ISLUCC input message defined by a symbolic reference.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Absolute address (ADDR) specified in the input message.

`d` = Symbol index number (SYMIDX) of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`e`'. If an invalid input message is entered, the symbol index number will be "-1".

`e` = Symbolic name (GVAR) specified in the input message or determined by the UT code based on the symbol index number '`d`'. The symbol name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`f` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
DUMP:UT-SYMID
LOAD:UT-ISLUCC
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

LOAD:UT-MCTSI-MH-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
LOAD UT MCTSI=a MH(b) [ADDR c|GVAR d] e
```

2. REASON FOR OUTPUT

To report the status of the response to the LOAD:UT-MH input message to load a value into the memory of the message handler (MH) unit.

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number.
b	= The MH unit number.
c	= Absolute address specified in the input message.
d	= Symbolic name of the specified global variable.
e	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages Manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

LOAD:UT-MCTSI-MH-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      LOAD UT MCTSI=a MH(b) ADDR c f

[2]   ____________________________________________________________________
      LOAD UT MCTSI=a MH(b) f
        SYMIDX d GVAR e
```

2. REASON FOR OUTPUT

To report the status of the response to the LOAD:UT-MH input message to load a value into the memory of the message handler (MH) unit.

Format 1 reports the status of a LOAD:UT-MCTSI input message defined by a physical address. Format 2 reports the status of a LOAD:UT-MCTSI input message defined by a symbolic reference.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = The MH unit number.

`c` = Absolute address (ADDR) specified in the input message.

`d` = Symbol index number (SYMIDX) of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`e`'. If an invalid input message is entered, the symbol index number will be "-1".

`e` = Symbolic name (GVAR) specified in the input message or determined by the UT code based on the symbol index number '`d`'. The symbol name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`f` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages Manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
DUMP:UT-SYMID
LOAD:UT-MCTSI-MH
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

LOAD:UT-MCTSI-PI-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
LOAD UT MCTSI a b PI [ADDR c|GVAR d] e
```

2. REASON FOR OUTPUT

To report the status of the response to the LOAD:UT-MCTSI-PI input message to load a value into the memory of the peripheral interface (PI) unit.

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number.
b	= Side of the module controller/time-slot interchange (MCTSI).
c	= Absolute address that was loaded.
d	= Symbolic name of global variable.
e	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
LOAD:UT-MCTSI-PI
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

LOAD:UT-MCTSI-PI-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      LOAD UT MCTSI=a-b PI ADDR c f

[2]   ____________________________________________________________________
      LOAD UT MCTSI=a-b PI f
        SYMIDX d GVAR e
```

2. REASON FOR OUTPUT

To report the status of the response to the LOAD:UT-MCTSI-PI input message to load a value into the memory of the peripheral interface (PI) unit.

Format 1 reports the status of a LOAD:UT-MCTSI-PI input message defined by a physical address. Format 2 reports the status of a LOAD:UT-MCTSI-PI input message defined by a symbolic reference.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Side of the module controller/time-slot interchange (MCTSI).

`c` = Absolute address (ADDR) specified in the input message.

`d` = Symbol index number (SYMIDX) of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`e`'. If an invalid input message is entered, the symbol index number will be "-1".

`e` = Symbolic name (GVAR) specified in the input message or determined by the UT code based on the symbol index number '`d`'. The symbol name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`f` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
DUMP:UT-SYMID
LOAD:UT-MCTSI-PI
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

LOAD:UT-MMP-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
LOAD UT MMP=a-b {ADDR c|IO d|GVAR e} f
```

2. REASON FOR OUTPUT

To report the status of the LOAD:UT-MMP input message to overwrite the memory, I/O register, or global variables in a specified module message processor (MMP).

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch side (0 or 1).

`b` = MMP unit number.

`c` = Absolute physical address.

`d` = I/O register number.

`e` = Symbolic address of global variable.

`f` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
LOAD:UT-MMP
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

LOAD:UT-MMP-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      LOAD UT MMP=a-b {ADDR c|IO d} g

[2]   ____________________________________________________________________
      LOAD UT MMP=a-b g
        SYMIDX e GVAR f
```

2. REASON FOR OUTPUT

To report the status of the LOAD:UT-MMP input message to overwrite the memory or an I/O register in a specified module message processor (MMP).

Format 1 reports the status of a LOAD:UT-MMP input message defined by a physical address or I/O register.

Format 2 reports the status of a LOAD:UT-MMP input message defined by a symbolic reference.

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch side (0 or 1).

`b` = MMP unit number.

`c` = Absolute address (ADDR) specified in the input message.

`d` = I/O register number specified in the input message.

`e` = Symbol index number (SYMIDX) of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`f`'. If an invalid input message is entered, the symbol index number will be "-1".

`f` = Symbolic name (GVAR) specified in the input message or determined by the UT code based on the symbol index number '`e`'. The symbol name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`g` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the input message and repeat.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
DUMP:UT-SYMID
LOAD:UT-MMP
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

LOAD:UT-MCTSI-PI-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
LOAD UT MCTSI a b PI [ADDR c|GVAR d] e
```

2. REASON FOR OUTPUT

To report the status of the response to the LOAD:UT-PI input message to load a value into the memory of the peripheral interface (PI) unit.

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number.
b	= Side of the module controller/time-slot interchange (MCTSI).
c	= Absolute address that was loaded.
d	= Symbolic name of global variable.
e	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
LOAD:UT-PI
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

LOAD:UT-MCTSI-PI-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      LOAD UT MCTSI=a-b PI ADDR c f

[2]   ____________________________________________________________________
      LOAD UT MCTSI=a-b PI f
        SYMIDX d GVAR e
```

2. REASON FOR OUTPUT

To report the status of the response to the LOAD:UT-PI input message to load a value into the memory of the peripheral interface (PI) unit.

Format 1 reports the status of a LOAD:UT-PI command defined by a physical address. Format 2 reports the status of a LOAD:UT-PI command defined by a symbolic reference.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Side of the module controller/time-slot interchange (MCTSI).

`c` = Absolute address (ADDR) specified in the input message.

`d` = Symbol index number (SYMIDX) of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`e`'. If an invalid input message is entered, the symbol index number will be "-1".

`e` = Symbolic name (GVAR) specified in the input message or determined by the UT code based on the symbol index number '`d`'. The symbol name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input command.

`f` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
DUMP:UT-SYMID
LOAD:UT-PI
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

LOAD:UT-PPC-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
LOAD UT PPC a {ADDR b|IO c|GVAR d} e
```

2. REASON FOR OUTPUT

To report the status of the LOAD:UT-PPC input message to overwrite the memory, I/O register, or global variables in a specified pump peripheral controller (PPC).

3. VARIABLE FIELD DEFINITIONS

a	= PPC unit number.
b	= Absolute physical address.
c	= I/O register number.
d	= Symbolic address of global variable.
e	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
LOAD:UT-PPC
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

LOAD:UT-PPC-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      LOAD UT PPC=a {ADDR b|IO c} f

[2]   ____________________________________________________________________
      LOAD UT PPC=a f
        SYMIDX d GVAR e
```

2. REASON FOR OUTPUT

To report the status of the LOAD:UT-PPC input message to overwrite the memory or an I/O register in a specified pump peripheral controller (PPC).

Format 1 reports the status of a LOAD:UT-CMP input message defined by a physical address or I/O register.

Format 2 reports the status of a LOAD:UT-CMP input message defined by a symbolic reference.

3. VARIABLE FIELD DEFINITIONS

`a` = PPC unit number.

`b` = Absolute address (ADDR) specified in the input message.

`c` = I/O register number specified in the input message.

`d` = Symbol index number (SYMIDX) of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`e`'. If an invalid input message is entered, the symbol index number will be "-1".

`e` = Symbolic name (GVAR) specified in the input message or determined by the UT code based on the symbol index number '`d`'. The symbol name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`f` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the input message and repeat.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
DUMP:UT-SYMID
LOAD:UT-PPC
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

LOAD:UT-PSUPH-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
LOAD UT PSUPH=a-b-c-d [ADDR e|GVAR f] g
```

2. REASON FOR OUTPUT

To report the status of the response to the LOAD:UT-PSUPH input message to load a value into the memory of a specified packet switch unit protocol handler (PSUPH).

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number
b	= Unit number.
c	= Shelf number.
d	= Slot number.
e	= Absolute address (ADDR) specified in the input message.
f	= Symbolic name of the specified global variable (GVAR).
g	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
LOAD:UT-PSUPH
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-600-400 *Audits*

LOAD:UT-PSUPH-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      LOAD UT PSUPH=a-b-c-d ADDR e h

[2]   ____________________________________________________________________
      LOAD UT PSUPH=a-b-c-d h
        SYMIDX f GVAR g
```

2. REASON FOR OUTPUT

To report the status of the response to the LOAD:UT-PSUPH input message to load a value into the memory of a specified packet switch unit protocol handler (PSUPH).

Format 1 reports the status of a LOAD:UT-PSUPH input message defined by a physical address.

Format 2 reports the status of a LOAD:UT-PSUPH input message defined by a symbolic reference.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number

`b` = Unit number.

`c` = Shelf number.

`d` = Slot number.

`e` = Absolute address (ADDR) specified in the input message.

`f` = Symbol index number (SYMIDX) of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`g`'. If an invalid input message is entered, the symbol index number will be "-1".

`g` = Symbolic name (GVAR) specified in the input message or determined by the UT code based on the symbol index number '`f`'. The symbol name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`h` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-SYMID
LOAD:UT-PSUPH
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

LOAD:UT-QGP-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
LOAD UT QGP=a-b {AP|MSGH} {ADDR=c|GVAR=d} e
```

2. REASON FOR OUTPUT

To report the status of the LOAD:UT-QGP input message to overwrite the memory, global variables in a specified quad-link gateway processor (QGP).

3. VARIABLE FIELD DEFINITIONS

AP	= Message was executed in the QGP's application processor.
MSGH	= Message was executed in the QGP's message handler processor.
a	= Message switch (MSGS) side number.
b	= QGP unit number.
c	= Absolute address specified in the input message..
d	= Symbolic name of the specified global variable.
e	= Termination status. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

LOAD:UT-QGP

Output Appendix(es):

APP:UT-OM-REASON

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

LOAD:UT-QGP-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      LOAD UT QGP=a-b {AP|MSGH} ADDR c f

[2]   ____________________________________________________________________
      LOAD UT QGP=a-b {AP|MSGH} f
        SYMIDX d GVAR e
```

2. REASON FOR OUTPUT

To report the status of the LOAD:UT-QGP input message to overwrite the memory in a specified quad-link gateway processor (QGP).

Format 1 reports the status of a LOAD:UT-QGP input message defined by a physical address.

Format 2 reports the status of a LOAD:UT-QGP input message defined by a symbolic reference.

3. VARIABLE FIELD DEFINITIONS

`AP` = Message was executed in the QGP's application processor.

`MSGH` = Message was executed in the QGP's message handler processor.

`a` = Message switch (MSGS) side number.

`b` = QGP unit number.

`c` = Absolute address (ADDR) specified in the input message.

`d` = Symbol index number (SYMIDX) of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`e`'. If an invalid input message is entered, the symbol index number will be "-1".

`e` = Symbolic name (GVAR) specified in the input message or determined by the UT code based on the symbol index number '`d`'. The symbol name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`f` = Termination status. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

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None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-SYMID
LOAD:UT-QGP
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

LOAD:UT-SM-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
LOAD UT SM a, [ADDR b|GVAR c] d
```

2. REASON FOR OUTPUT

To report the status of the response to the LOAD:UT-SM input message to load a value into the memory of a specified switching module (SM).

3. VARIABLE FIELD DEFINITIONS

a	= Switching module number.
b	= Absolute address that was loaded.
c	= Symbolic address of global variable.
d	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
LOAD:UT-SM
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

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LOAD:UT-SM-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      LOAD UT SM=a ADDR b e

[2]   ____________________________________________________________________
      LOAD UT SM=a e
        SYMIDX c GVAR d
```

2. REASON FOR OUTPUT

To report the status of the response to the LOAD:UT-SM input message to load a value into the memory of a specified switching module (SM).

Format 1 reports the status of a LOAD:UT-SM input message defined by a physical address.

Format 2 reports the status of a LOAD:UT-SM input message defined by a symbolic reference.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Absolute address (ADDR) specified in the input message.

`c` = Symbol index number (SYMIDX) of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`d`'. If an invalid input message is entered, the symbol index number will be "-1".

`d` = Symbolic name (GVAR) specified in the input message or determined by the UT code based on the symbol index number '`c`'. The symbol name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`e` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-SYMID
LOAD:UT-SM
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

LOAD:UT-TMUX-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
LOAD UT TMUX=a-b-c-d [ADDR e|GVAR f] g
```

2. REASON FOR OUTPUT

To report the status of the response to the LOAD:UT-TMUX input message to load a value into the memory of the digital networking unit - synchronous optical network (SONET) (DNU-S) transmission multiplexer (TMUX).

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number.
b	= DNU-S number.
c	= Data group number.
d	= TMUX number.
e	= Absolute address that was loaded.
f	= Symbolic name of global variable.
g	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the LOAD:UT-TMUX message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
LOAD:UT-TMUX
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

LOAD:UT-TMUX-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      LOAD UT TMUX=a-b-c-d ADDR e h

[2]   ____________________________________________________________________
      LOAD UT TMUX=a-b-c-d h
        SYMIDX f GVAR g
```

2. REASON FOR OUTPUT

To report the status of the response to the LOAD:UT-TMUX input message to load a value into the memory of the digital networking unit - synchronous optical network (SONET) (DNU-S) transmission multiplexer (TMUX).

Format 1 reports the status of a LOAD:UT-TMUX input message defined by a physical address.

Format 2 reports the status of a LOAD:UT-TMUX input message defined by a symbolic reference.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = TMUX number.

`e` = Absolute address (ADDR) specified in the input message.

`f` = Symbol index number (SYMIDX) of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`g`'. If an invalid input message is entered, the symbol index number will be "-1".

`g` = Symbolic name (GVAR) specified in the input message or determined by the UT code based on the symbol index number '`f`'. The symbol name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`h` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the LOAD:UT-TMUX message and repeat.

5. ALARMS

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None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-SYMID
LOAD:UT-TMUX
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

LOAD:UVAR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
LOAD UVAR a [,OFF b] c #d
```

2. REASON FOR OUTPUT

To report the completion status of a LOAD:UVAR input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Utility variable (destination of the load).

`b` = Offset information from input message.

`c` = Termination report. Valid value(s):
`COMPLETED` = LOAD operation has been successfully completed.
`STOPPED NGADDR` = The LOAD message was stopped because the address specified is not valid.
`STOPPED NGLOAD` = The LOAD message was stopped because some other error occurred.
`STOPPED NGPROT` = The LOAD operation was stopped because the destination address does not have write permission granted.

`d` = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If 'c' =	Action:
STOPPED NGADDR	Recheck the program listings.
STOPPED NGPROT	Recheck the destination to verify that it indicates a writable area.

5. ALARMS

None. This is a manually-requested report. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	494

Input Message(s):

```
LOAD:ADDR
LOAD:PMEM
LOAD:REG
LOAD:UVAR
```

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Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

42. MON

MON:SLK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      MON SLK a b COMPL
        LINK a b c MONITOR d, EVENTS e

[2]   ____________________________________________________________
      MON SLK ALL COMPL
        ALL MONITORS OFF

[3]   ____________________________________________________________
      MON SLK ALL COMPL
        MONITORS ON:
        a-b
         .
         .
         .

[4]   ____________________________________________________________
      MON SLK a b COMPL
        DLN a b MONITOR d, EVENTS e
```

2. REASON FOR OUTPUT

To provide the monitor state of a signaling link (SLK) in response to a MON:SLK input message.

Format 1 prints when a single SLK is requested.

Formats 2 and 3 print when all SLKs are requested.

Format 4 prints when a direct link node (DLN) is requested.

3. VARIABLE FIELD DEFINITIONS

a	= Ring node (RN) group number.
b	= Member number.
c	= Far end CLLI code of this link.
d	= Monitor state (ON or OFF).
e	= Events mask. Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the monitor state is inappropriate, use the MON:SLK input message to change the state.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
MON:SLK
```

Output Message(s):

```
REPT:MON-SLK
```

Output Appendix(es):

```
APP:CNI
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services*

MCC Display Page(s):

118 (CNI RING STATUS)
1521 (SIGNALING LINK SUMMARY)
1522 (SIGNALING LINK PAGE)

MON:TRUNK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
MON TRUNK TGRP a b
```

2. REASON FOR OUTPUT

To respond to a MON:TRUNK input request to monitor a trunk group (TG).

3. VARIABLE FIELD DEFINITIONS

`a` = Trunk group being monitored.

`b` = Output message termination report. Valid value(s):
`COMPLETED` = Trunk group is being monitored.
`NO MATCH` = Trunk group does not exist.
`SYSTEM ERROR` = System processing error.

4. ACTION TO BE TAKEN

If input message MON:TRUNK has failed, try the message once again. Also try input message OP:TRUNK to verify that the trunk group is not already being monitored.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
MON:TRUNK
OP:TRUNK
```

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43. OP:A

OP:ABD

Software Release: 5E11 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP ABD STOPPED
        a

[2]   ____________________________________________________________________
      OP ABD IN PROGRESS

[3]   ____________________________________________________________________
      OP ABD COMPLETED
        MHD  STATUS  REASON   DATE
         b      c    [d[e]]    [f]
```

2. REASON FOR OUTPUT

To display a list of available alternate boot disk units and specify whether or not the unit may be used as a boot disk. If a unit is determined to be a valid boot disk, the date of the last update to the disk will be output if applicable. Otherwise, a special code will be output to explain why the unit cannot be used as a boot disk or why a determination could not be made.

Note: Only data from the primary partitions is used to determine if a unit is a valid boot disk. No checking is done on the backup partitions.

3. VARIABLE FIELD DEFINITIONS

a = Error message. Valid value(s):

```
ALTERNATE BOOT DISK FEATURE UNAVAILABLE
BOOTDISKCHK PROCESS TERMINATED WITH EXIT VALUE g
CANNOT ATTACH TO ECD DATA SEGMENTS
CANNOT CREATE BOOTDISKCHK PROCESS
CANNOT CREATE DATA FILE FOR REPORT
CANNOT GET ECD DATA SEGMENTS
CANNOT GET ECDORG RID
CANNOT SEND MESSAGE TO BOOTDISKCHK PROCESS
DID NOT RECEIVE MESSAGE FROM BOOTDISKCHK PROCESS
DID NOT RECEIVE USER EVENT FROM BOOTDISKCHK PROCESS
HARDWARE PLATFORM NOT VALID FOR ALTERNATE BOOT DISK
NO UCB RID FOUND FOR DEVICE WITHIN THE ECD
```

b = Unit number. Refer to the APP:MEM-NUM-UNIT appendix in the Appendixes section of the Input Messages manual for additional information.

c = Boot status. Valid value(s):

- NO = The unit may not be used as a a boot disk.
- YES = The unit may be used as a a boot disk.

`d` = A code to indicate why the unit was not marked as a valid boot disk. Refer to the APP:BOOTDISKCHK appendix in the Appendixes section of the Output Messages manual for additional information.

`e` = System error code number. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual for additional information.

`f` = Date when the boot disk was last updated.

`g` = Exit value of the /unitutil/disk/bootdiskchk process. Refer to the APP:BOOTDISKCHK appendix in the Appendixes section of the Output Messages manual for additional information.

4. ACTIONS TO BE TAKEN

If the description of the error is not self-explanatory, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. This alarm is either a manually-requested report or an automatically-generated report. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1, 2	769
3	770

Input Message(s):

```
OP:ABD
```

Output Appendix(es):

```
APP:BOOTDISKCHK
APP:MEM-NUM-UNIT
APP:OMDB-X-REF
APP:SYSERR
```

OP:ACCH

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP ACCH a
  TRUNK GROUP b
  ACH  c  . . . . . c
  CCH  d  . . . . . d
```

2. REASON FOR OUTPUT

To display a two hour history of attempts per circuit per hour (ACH) and connection per circuit per hour (CCH) taken every five minutes for the specified trunk group.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination report. Valid value(s):
`COMPLETED` = Command successfully completed.
`ABORTED` = System error.

`b` = Trunk group number.

`c` = A five minute display of ACH for this trunk group. Each ACH value ranges from 0 to 254. ACH values in excess of 254 are indicated by 255.

`d` = A five minute display of CCH for this trunk group. Each CCH value ranges from 0 to 254. CCH values in excess of 254 are indicated by 255.

A maximum of 24 values is reported from both ACH and CCH, starting from the most recent five minute in reverse chronological order up to two hours.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:ACCH`

Other Manual(s):
235-100-125 *System Description*
235-900-113 *Product Specification*

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MCC Display Page(s):

129 (DSN EXCEPTION)
109 (OVERLOAD)

OP:ACG-A

Software Release: 5E10 only
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP ACG a
  APPLICATION: ASP R0.1
  CURRENT TIME: b
  DIGITS          TRANS-TYPE  CAUSE    GAP     DURATION
  c               d           e        f       g
  .               .           .        .       .
  .               .           .        .       .
  .               .           .        .       .
```

2. REASON FOR OUTPUT

To display the status of automatic call gapping (ACG) controls for advanced services platform (ASP) R0.1 application. This is a response to the OP:ACG input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination status. Valid value(s):
- `COMPLETED` = This is the only or last of a series of messages.
- `CONTINUED` = This is the next of a series of messages.
- `STARTED` = This is the first of a series of messages.

`b` = The current time in milliseconds. The format being displayed is the same as in duration (variable '`g`').

`c` = The digits of the ASP R0.1 ACG controls.

`d` = Translation type.

`e` = Cause of the ACG controls. Valid value(s):
- `OVLD` = SCP overload control
- `SOCC` = SMS originated code control

`f` = Gap interval in milliseconds. For infinite gap, INF is printed.

`g` = Duration of the control in milliseconds. The format being displayed is the same as in current time (variable '`b`'). For infinite duration, INF is printed. The expired controls are displayed and can be identified by comparing the duration (variable '`g`') with the current time (variable '`b`').

4. ACTION TO BE TAKEN

The message is a response to a request from an input message. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:ACG
```

OP:ACG-B

Software Release: 5E11 only
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP ACG a
  APPLICATION: ASP R0.1
  CURRENT TIME: b
  INPUT CONTROL ID: c
  TOTAL ACTIVE CONTROLS: d
     CONTROL-ID  DIGITS         TRANS-TYPE  CAUSE    GAP     DURATION
         e       f                 g        h        i       j
         .       .                 .        .        .       .
         .       .                 .        .        .       .
         .       .                 .        .        .       .
```

2. REASON FOR OUTPUT

To display the status of automatic call gapping (ACG) controls for the advanced services platform (ASP). Up to 64 active controls will be printed starting from the input control ID (variable '`b`'). If the end of the list is reached before this output's maximum is reached, the search stops. This is a response to the OP:ACG input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination status. Valid value(s):
- `COMPLETED` = This is the only or last of a series of messages.
- `CONTINUED` = This is the next of a series of messages.
- `STARTED` = This is the first of a series of messages.

`b` = The current time in milliseconds. The format being displayed is the same as in duration (variable '`j`').

`c` = The input control identifier.

`d` = The total number of active controls in the list.

`e` = The control identifier.

`f` = The digits of the ASP ACG controls.

`g` = Translation type.

`h` = Cause of the ACG controls. Valid value(s):
- `OVLD` = SCP overload control.
- `SOCC` = SMS originated code control.

`i` = Gap interval in milliseconds. For infinite gap, `INF` is printed.

`j` = Duration of the control in milliseconds. The format being displayed is the same as in current time

(variable 'b'). For infinite duration, INF is printed. The expired controls are displayed and can be identified by comparing the duration (variable 'j') with the current time (variable 'b').

4. ACTION TO BE TAKEN

The message is a response to a request from an input message. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

OP:ACG

OP:ACG-C

Software Release: 5E12 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP ACG a
  APPLICATION: b
  CURRENT TIME: c
  INPUT CONTROL ID: d              PROCESSOR: e
  TOTAL ACTIVE CONTROLS: f
     CTRLID  DIGITS      TTYPE  CAUSE    GAP    DURATION  TID
         g     h           i      j       k       l        m
         .     .           .      .       .       .        .
         .     .           .      .       .       .        .
         .     .           .      .       .       .        .
```

2. REASON FOR OUTPUT

To display the status of automatic call gapping (ACG) controls for the requested application. Up to 64 active controls will be printed starting from the input control ID (variable '`d`'). If the end of the list is reached before this output's maximum is reached, the search stops. This is a response to the OP:ACG input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination status. Valid value(s):
- `COMPLETED` = This is the only or last of a series of messages.
- `CONTINUED` = This is the next of a series of messages.
- `STARTED` = This is the first of a series of messages.

`b` = Application type. Valid value(s):
- `ASP` = Advanced services platform release 0.1 application.
- `NS800` = Number services 800 application.

`c` = The current time in milliseconds. The format being displayed is the same as in duration (variable '`l`').

`d` = The input control identifier.

`e` = The processor from which the list comes (1 to 192 for GSMs; 0 for AM/DLN)

`f` = The total number of controls in the whole list.

`g` = The control identifier.

`h` = The digits of the ACG control.

`i` = Translation type (for ASP controls only).

`j` = Cause of the ACG control. Valid value(s):

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MASS	= Mass calling control.
OUTBND	= Out of band control.
OVLD	= SCP overload control.
SOCC	= SMS originated code control.
VACCD	= Vacant code control.

k = Gap interval in milliseconds. For infinite gap, INF is printed.

l = Duration of the control in milliseconds. The format being displayed is the same as in current time (variable 'c'). For infinite duration, INF is printed. The expired controls are displayed and can be identified by comparing the duration (variable 'l') with the current time (variable 'c'). If 'c' < 'l' then the control is expired and no longer having any effect.

m = Transaction identifier (for NS800 controls only).

4. ACTION TO BE TAKEN

The message is a response to a request from an input message. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

OP:ACG

OP:ACSR-A

Software Release: 5E10 - 5E11
Message Class: ACSR
Application: 5
Type: Output

1. FORMAT

[1]
```
OP ACSR
  DN      STATUS  OE          DATE
  aaaaaaa b      h    c     dd/dd/dd ee:ee
  .
  .
  .

  OP ACSR COMPLETED, RECORDS PRINTED = f
```

[2]
```
OP ACSR DB FAILED
```

[3]
```
OP ACSR PDN NOT FOUND
```

[4]
```
OP ACSR DATA ERROR, AUDIT SCHEDULED
```

[5]
```
OP ACSR CAN NOT OPEN g
```

[6]
```
OP ACSR NO JOBS IN QUEUE
```

2. REASON FOR OUTPUT

To report the status of one or all automatic customer station rearrangement (ACSR) requests.

3. VARIABLE FIELD DEFINITIONS

a = Directory number.

b = Status of request. Valid value(s):

CANCEL	= Request has been canceled.
FAIL	= Request has failed.
NORMAL	= Request is in the ACSR queue waiting for action.
PURGE	= Request has been purged from the ACSR queue.
UNKNOWN	= Request status is unknown.

c = Line equipment number.

If 'h' =	**'c' =**
G	iiimnnoooo
I	iiijkkll
M	iiimnnoo

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d = Date the request was entered into the ACSR queue.

e = Time the request was entered into the ACSR queue, in the form hours:minutes.

f = Number of records printed, one record for each request.

g = File name.

h = Office equipment (OE) type. Valid value(s):
- G = GEN, GAMA IDCU OE type.
- I = LCEN, ISLU OE type.
- K = LCKEN, ISLU2 OE type.

i = Switching module (SM) number.

j = ISLU number.

k = LGC number.

l = Line card number.

m = IDCU number.

n = RT number.

o = Line number.

p = ISLU2 number.

q = Line group number.

r = Line board number.

s = Line circuit number.

4. ACTION TO BE TAKEN

For Formats 1, 2, or 3, no action is required.

For Format 4, repeat the OP:ACSR input message.

For Format 5, no action is required, an audit has been scheduled to correct any data inconsistency.

For Format 6, verify why the file could not be created. Check the number of blocks and number of inodes available in the directory.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:ACSR
```

```
DEL:ACSR
```

Output Message(s):

```
DEL:ACSR
```

Other Manual(s):
235-190-105 *Custom ISDN Features*

OP:ACSR-B

Software Release: 5E12 and later
Message Class: ACSR
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP ACSR
        DN      STATUS  OE          DATE
        aaaaaaa b      h    c     dd/dd/dd ee:ee
        .
        .
        .

        OP ACSR COMPLETED, RECORDS PRINTED = f

[2]   ____________________________________________________________________
      OP ACSR DB FAILED

[3]   ____________________________________________________________________
      OP ACSR PDN NOT FOUND

[4]   ____________________________________________________________________
      OP ACSR DATA ERROR, AUDIT SCHEDULED

[5]   ____________________________________________________________________
      OP ACSR CAN NOT OPEN g

[6]   ____________________________________________________________________
      OP ACSR NO JOBS IN QUEUE

[7]   ____________________________________________________________________
      OP ACSR DN_LOCDN FAILED, NON UNIQUE NXX

[8]   ____________________________________________________________________
      OP ACSR DN_LOCDN FAILED, INVALID TN

[9]   ____________________________________________________________________
      OP ACSR DN_LOCDN FAILED, BAD DIGIT COUNT

[10]  ____________________________________________________________________
      OP ACSR DN_LOCDN FAILED, DB FAILED
```

2. REASON FOR OUTPUT

To report the status of one or all automatic customer station rearrangement (ACSR) requests.

3. VARIABLE FIELD DEFINITIONS

`a` = Directory number or telephone number (TN).

`b` = Status of request. Valid value(s):
`CANCEL` = Request has been canceled.

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FAIL = Request has failed.
NORMAL = Request is in the ACSR queue waiting for action.
PURGE = Request has been purged from the ACSR queue.
UNKNOWN = Request status is unknown.

c = Line equipment number.

If 'h' =	'c' =
G	iiimnnoooo
I	iiijkkll
M	iiimnnoo

d = Date the request was entered into the ACSR queue.

e = Time the request was entered into the ACSR queue, in the form hours:minutes.

f = Number of records printed, one record for each request.

g = File name.

h = Office equipment (OE) type. Valid value(s):
G = GEN, GAMA IDCU OE type.
I = LCEN, ISLU OE type.
K = LCKEN, ISLU2 OE type.

i = Switching module (SM) number.

j = ISLU number.

k = LGC number.

l = Line card number.

m = IDCU number.

n = RT number.

o = Line number.

p = ISLU2 number.

q = Line group number.

r = Line board number.

s = Line circuit number.

4. ACTION TO BE TAKEN

For Formats 1, or 2, no action is required.

For Format 3, re-enter the OP:ACSR input message using a valid Directory Number/TN.

For Format 4, no action is required. An audit has been scheduled to correct any data inconsistency.

For Format 5, determine why the file could not be created. Check the number of blocks and number of inodes available in the directory.

For Format 6, no action is required.

For Format 7, re-enter the OP:ACSR input message using a 10 digit Directory Number/TN.

For Format 8, re-enter the OP:ACSR input message using a valid Directory Number/TN.

For Format 9, re-enter the OP:ACSR input message using a valid 7 or 10 digit Directory Number/TN.

For Format 10, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:ACSR
DEL:ACSR
```

Output Message(s):

```
DEL:ACSR
```

Other Manual(s):
235-190-105 *Custom ISDN Features*

OP:ACT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP ACT MESSAGE STARTED
        UNIT        MTCE   INH   DGN
        a b [ c d ] e       f     g

[2]   ____________________________________________________________________
      OP ACT COMPLETED

[3]   ____________________________________________________________________
      OP ACT INTERFACE ERROR, ERRNO=h

[4]   ____________________________________________________________________
      OP ACT NOT STARTED
        INVALID DATA FIELD

[5]   ____________________________________________________________________
      OP ACT NOT STARTED
        RETRY LATER

[6]   ____________________________________________________________________
      OP ACT IN PROGRESS
        a b [ c d ]  e      f     g

[7]   ____________________________________________________________________
      OP ACT RETRY LATER i

[8]   ____________________________________________________________________
      OP ACT WRITE TO j
        FAILED ON KEY #k
```

2. REASON FOR OUTPUT

To respond to the OP:ACT input message and give device information specific to administrative module (AM) hardware units on requested communities. The format is consistent with related maintenance messages.

The exit status of this report is indicated by either the successful COMPLETED message or the unsuccessful INTERFACE ERROR message.

3. VARIABLE FIELD DEFINITIONS

`a` = Unit name. AM unit names are listed in the APP:MEM-NUM-UNIT appendix in the Appendixes section of the Output Messages manual.

`b` = Unit number. Refer to the APP:MEM-NUM-UNIT appendix in the Appendixes of the Output Messages manual.

`c` = Subunit name, if `a` = `CU`. AM control unit (CU) subunit names are listed in the APP:MEM-NUM-CU

appendix in the Appendixes section of the Output Messages manual.

`d` = Subunit number. Refer to the APP:MEM-NUM-CU appendix in the Appendixes section of the Output Messages manual.

`e` = The current maintenance state of the unit is indicated by the following identifiers. Valid value(s):

`ACT`	= Active units.
`GROW`	= Units being grown.
`INIT`	= Initializing units.
`OFL`	= Offline units.
`OOS`	= Out-of-service units.
`STBY`	= Standby units. Units being grown.
`UNAV`	= Unavailable units.
`UNEQIP`	= Unequipped units.

`f` = Current inhibit status of the associated error source. Valid value(s):

`ALW`	= Allowed.
`INH`	= Inhibited.

`g` = The results of the last diagnostic on the unit. Valid value(s):

`ABT`	= Aborted diagnostics.
`ATP`	= All tests passed.
`CATP`	= Conditional all tests passed.
`NTR`	= No tests were run.
`STF`	= Some tests failed.

`h` = Error number. Valid value(s):

`9`	= Cannot attach to plant measurement library.
`1`	= Cannot open equipment configuration database (ECD) sequence.
`2`	= Cannot sequence unit control blocks (UCBs).

`i` = Retry the message later because:

```
CAN'T CREATE FILE IN /tmp
CAN'T GET DATABASE RECORD ID
CAN'T SEQUENCE DATABASE
```

`j` = Temporary output file name.

`k` = Key associated with write failure.

4. ACTION TO BE TAKEN

If error numbers 11 or 12 are indicated, the system is still initializing and the input message should be retried.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	49, 477
2	50, 478
3	51, 479
6	580, 582
7	588, 589
8	656

Input Message(s):

```
OP:ACT
OP:CFGSTAT
OP:GROW
OP:INIT
OP:OFL
OP:OOS
OP:STBY
OP:UNAV
OP:UNEQIP
```

Input Appendix(es):

```
APP:MEM-NUM-CU
APP:MEM-NUM-UNIT
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

OP:ALE-A

Software Release: 5E10 - 5E11
Message Class: NULLDEV
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP ALE SESSION REPORT
        LEVEL1=a  LEVEL2=a  PER REPT=a  PRINT=a

[2]   ____________________________________________________________________
      OP ALE b

[3]   ____________________________________________________________________
      OP ALE SM INHIBITS - SEGMENT c
        SM     INHIBITS
        d   [NOT AVAILABLE] [L1-PM] [PER-GEN]
        .          .           .        .
        .          .           .        .
        .          .           .        .

[4]   ____________________________________________________________________
      OP ALE INHIBIT REPORT [- SEGMENT c]
        SM=d  STATUS: e f
                                          -------LEVEL 1-------
                                               ALERTS   REPORTS  PER
        EQUIPMENT NUMBER  DSLGM      CH TY   PM  HOUR DAY  INT DAY  GEN
        ----------------  ---------- -- --   --  ---- ---  --- ---  ---
               g          d-r-s     [t] u  [INH][INH][INH][INH][INH][INH]
               .          . . .      .  .     .   .    .    .   .    .
               .          . . .      .  .     .   .    .    .   .    .
               .          . . .      .  .     .   .    .    .   .    .

[5]   ____________________________________________________________________
      OP ALE PER LOG CAPACITY - SEGMENT d
        SM      USAGE(%)        INDICATOR     TIME
        d       v               [w]           [xx/xx yy:yy:yy]

[6]   ____________________________________________________________________
      OP ALE z a1: TOTAL OF b1 SEGMENTS PRINTED
```

2. REASON FOR OUTPUT

To provide the status of automatic line evaluation (ALE) system control parameters and resource usage.

The control parameters are grouped into three classes:

A = Automatic ALE session output controls:

The parameters LEVEL1, LEVEL2, PRINT, and PER=REPT allow the controls used for generating output information for the automatically requested ALE sessions. These options determine which counts are to be used for the session and where the output is to be directed. These controls have no bearing on the output of information due to a manually requested ALE session.

The default values for these options are restored on an administrative module (AM) full initialization. No other type of initialization will change the requested settings.

B = Switching module (SM) controls:

The SM parameters control the behavior of the level 1 performance monitoring and protocol error record (PER) generation. Refer to the Protocol Error Record Descriptions manual for additional information about a specific PER.

If the level 1 parameter is inhibited, then level 1 performance monitoring is not active for any of the U-interface digital subscriber lines (DSLs) on the SM. If allowed, then level 1 performance monitoring status for a U-interface DSL is determined by the level 1 performance monitoring group assigned to the DSL.

Status requests that immediately follow the inhibiting (INH:ALE) of integrated services digital network (ISDN) protocol channels may give an erroneous indication that level 1 performance monitoring has been inhibited. The actual counting of level 1 errored seconds, severely errored seconds, and cyclic redundancy check (CRC) block errors (BE), may not be inhibited for a period of up to 5 minutes. Status requests that immediately follow the allowing (ALW:ALE) of ISDN protocol channels may give an erroneous indication that level 1 performance monitoring is operational. The actual counting of level 1 errored seconds, severely errored seconds, and cyclic redundancy check block errors, may not resume for a period of up to 5 minutes.

If the PER generation parameter is inhibited, then no PERs will be recorded for any ISDN protocol channels on the SM. If the parameter is allowed, then the PER generation parameter for the individual ISDN protocol channel determines if PERs are recorded for that channel.

C = Line/trunk controls

Line/trunk ALE controls consist of a set of level 1 parameters and the PER generation parameter. The level 1 parameters only apply to U-interface DSLs. The PER generation parameter applies to all ISDN protocol channels whether supported on lines or trunks.

The level 1 control parameters consist of an overall level 1 inhibit, hourly alert generation, daily alert generation, interval report generation, and daily report generation. If the overall level 1 inhibit is active, then all level 1 performance monitoring activities for the U-interface are disabled. If the hourly alert generation inhibit is active, then the reporting of hourly alerts to the receive-only printer (ROP) will be suppressed for the interface. If the daily alert generation inhibit is active, then the reporting of daily alerts to the ROP will be suppressed for the interface. If the interval report generation inhibit is active, then the interface will not contribute to the interval report, if applicable. If the daily report generation inhibit is active, then the interface will not contribute to the daily report, if applicable. One or more of the level 1 controls may be active. This information is only applicable to U-interface DSLs.

Status requests that immediately follow the inhibiting (INH:ALE) of ISDN protocol channels may give an erroneous indication that level 1 performance monitoring has been inhibited. The actual counting of level 1 errored seconds, severely errored seconds, and CRC BE, may not be inhibited for a period of up to 5 minutes. Status requests that immediately follow the allowing (ALW:ALE) of ISDN protocol channels may give an erroneous indication that level 1 performance monitoring is operational. The actual counting of level 1 errored seconds, severely errored seconds, and cyclic redundancy check block errors, may not resume for a period of up to 5 minutes.

If the PER generation inhibit is active, then no PERs will be recorded for the ISDN protocol channel.

In addition to the INH:ALE input message, PER generation may be inhibited as a result of digital

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loopback testing (TST:DSL), routine exerciser (REX), or mechanized loop testing (MLT). This inhibit condition will exist for the duration of the test being performed for the line/trunk. After completion of the test, the PER inhibit condition will remain for a period of three to six minutes. After this period has expired, the inhibit condition will be cleared if the status prior to the invocation of the test was "allowed". If the previous status was not "allowed", then the line/trunk will remain inhibited.

Use the ALW:ALE input message to clear the inhibit condition prior to the expiration of the three to six minute period.

Six formats are used to provide the status information:

Format 1 provides the status information for the LEVEL1, LEVEL2, ROP, and PER REPT parameters that are used to control the automatic ALE report generation.

Format 2 provides a status message for the progress of the inhibit reports.

Format 3 provides the status of the SM control parameters.

Format 4 provides the status of the line/trunk control parameters.

Format 5 reports the capacity of the PER logging buffer resident in the SM physical memory. In addition, the current indication status of the PER logging buffer will be reported.

Format 6 provides the number of message segments printed for PER generation inhibit reports for multiple ISDN protocol channels.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`INH` = Inhibited. Otherwise allowed.

`L1-PM` = Level 1 protocol monitoring is inhibited for this SM.

`NOT AVAILABLE` = Inhibit status information cannot be obtained for this SM.

`PER-GEN` = PER generation is inhibited for this SM.

`a` = Option status. Valid value(s):
- `ALW` = Option allowed.
- `INH` = Option inhibited.

`b` = Status message. Valid value(s):
- `ABORTED-COMMUNICATION FAILURE` = The current status request was stopped because of failures in inter-process message transmission.
- `ABORTED-DATABASE ERROR` = The current status request was stopped due to database access failure in the AM.
- `ABORTED-INVALID SM` = The requested SM was invalid.
- `COMPLETED` = The status request was completed.
- `COMPLETED-NO DSLS EQUIPPED/ASSIGNED` = The SM to retrieve the status did not have any ISDN protocol channels assigned.
- `INHIBITS STARTED` = A status request was started.
- `NOT STARTED-INVALID PORT` = A status request was made for a non-existent channel.

`NOT STARTED-NON-PRIMARY DN SPECIFIED` = A status request was made for a DN that was not a primary DN.
`NOT STARTED-SM UNAVAILABLE` = A status request was made where the channel was on an SM that was not fully operational.
`PER LOG CAPACITY REPORT STARTED` = A PER logging buffer capacity request was started.
`STOPPED` = A PER logging buffer capacity request or status request was stopped.

`c` = Segment number.

`d` = Switching module number.

`e` = Level 1 performance monitoring status. Valid value(s):
`L1PM-ALW` = Level 1 performance monitoring is allowed.
`L1PM-INH` = Level 1 performance monitoring is inhibited.

`f` = PER generation status. Valid value(s):
`PER-ALW` = PER generation is allowed.
`PER-INH` = PER generation is inhibited.

`g` = Equipment number. Valid value(s):

DEN=d-h-i-j
EOC=d-n-o-q
ILEN=d-n-o-p
LCEN=d-k-l-m
LCKEN=d-c^1-d^1-e^1-f^1
NEN=d-g^1-h^1-i^1-j^1-k^1
PSUEN=d-l^1-m^1-n^1-s
TMC=d-n-o-q

`h` = Digital line and trunk unit (DLTU) number.

`i` = Digital facility interface number.

`j` = Digital channel number.

`n` = Integrated digital carrier unit number.

`o` = Remote terminal number.

`q` = Primary/protection identifier.

`p` = Channel unit number.

`k` = Integrated services line unit number.

`l` = Line group controller number.

`m` = Line card number.

`r` = Protocol handler (PH) channel group number.

`s` = PH channel group member number.

`t` = Channel type. Valid value(s):
- `B1` = Channel B1.
- `B2` = Channel B2.
- `D` = D-channel.

`u` = Interface type. Valid value(s):
- `A` = *ANSI*® U-Interface.
- `FD` = EOC or TMC facility data link.
- `SH` = Speech handler trunk.
- `T` = T-interface.
- `TK` = Digital trunk.
- `U` = Alternate mark inversion (AMI) U-interface.
- `XT` = X.25 link over T1 trunk.

`v` = Percentage of PER logging buffer currently in use.

`w` = Buffer usage indication level. Valid value(s):
- `CAUTION` = First level of indication preset at 80% capacity.
- `FULL` = Third and final level of indication preset at 100% capacity.
- `WARNING` = Second level of indication preset at 90% capacity.

`x` = Date the report was prepared, in the form month/day.

`y` = Time the report was prepared, in the form hours:minutes:seconds.

`z` = One of the following:
- `INHIBITS` = ALE inhibits report.
- `PER LOG CAPACITY` = PER logging buffer capacity report.

`a`[1] = Completion status:
- `COMPLETED` = Operation successfully completed.
- `STOPPED` = Operation stopped.

`b`[1] = Number of segments printed.

`c`[1] = Integrated service line unit 2 (ISLU2) number.

`d`[1] = Line group number.

`e`[1] = Line board number.

`f`[1] = Line circuit number.

`g`[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

`h`[1] = Data group (DG) number.

`i`[1] = Synchronous transport signal (STS) number.

`j`[1] = Virtual tributary (VT1.5) number.

`k`[1] = Digital signal level 0 (DS0) number.

`l`[1] = Packet switching unit (PSU) number.

`m`[1] = PSU shelf number.

`n`[1] = PSU channel group number.

4. ACTION TO BE TAKEN

Inspect the data in this output message. If the status of the indicated parameters is incorrect, use the INH:ALE and ALW:ALE input messages or RC/V Views 8.1 and 22.15 to correct the status of the incorrect parameters.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:ALE
EXC:ALE
INH:ALE
OP:ALE
```

Output Message(s):

```
ALW:ALE
EXC:ALE
INH:ALE
REPT:ALE-PTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-600-755 *Protocol Error Record Descriptions*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
22.15 (PERFORMANCE MONITORING THRESHOLD GROUP)

OP:ALE-B

Software Release: 5E12 only
Message Class: NULLDEV
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP ALE SESSION REPORT
        LEVEL1=a  LEVEL2=a  PER REPT=a  PRINT=a

[2]   ____________________________________________________________________
      OP ALE b

[3]   ____________________________________________________________________
      OP ALE SM INHIBITS - SEGMENT c
        SM     INHIBITS
        d   [NOT AVAILABLE] [L1-PM] [PER-GEN]
        .          .           .        .
        .          .           .        .
        .          .           .        .

[4]   ____________________________________________________________________
      OP ALE INHIBIT REPORT [- SEGMENT c]
        SM=d  STATUS: e f
                                          -------LEVEL 1-------
                                               ALERTS   REPORTS  PER
        EQUIPMENT NUMBER  DSLGM      CH TY   PM  HOUR DAY  INT DAY  GEN
        ----------------  ---------- -- --   --  ---- ---  --- ---  ---
               g          d-r-s     [t] u  [INH][INH][INH][INH][INH][INH]
               .          . . .      .  .     .   .    .    .   .    .
               .          . . .      .  .     .   .    .    .   .    .
               .          . . .      .  .     .   .    .    .   .    .

[5]   ____________________________________________________________________
      OP ALE PER LOG CAPACITY - SEGMENT d
        SM      USAGE(%)        INDICATOR     TIME
        d       v               [w]           [xx/xx yy:yy:yy]

[6]   ____________________________________________________________________
      OP ALE z a1: TOTAL OF b1 SEGMENTS PRINTED
```

2. REASON FOR OUTPUT

To provide the status of automatic line evaluation (ALE) system control parameters and resource usage.

The control parameters are grouped into three classes:

A = Automatic ALE session output controls:

The parameters LEVEL1, LEVEL2, PRINT, and PER=REPT allow the controls used for generating output information for the automatically requested ALE sessions. These options determine which counts are to be used for the session and where the output is to be directed. These controls have no bearing on the output of information due to a manually requested ALE session.

The default values for these options are restored on an administrative module (AM) full initialization. No other type of initialization will change the requested settings.

B = Switching module (SM) controls:

The SM parameters control the behavior of the level 1 performance monitoring and protocol error record (PER) generation. Refer to the Protocol Error Record Descriptions manual for additional information about a specific PER.

If the level 1 parameter is inhibited, then level 1 performance monitoring is not active for any of the U-interface digital subscriber lines (DSLs) on the SM. If allowed, then level 1 performance monitoring status for a U-interface DSL is determined by the level 1 performance monitoring group assigned to the DSL.

Status requests that immediately follow the inhibiting (INH:ALE) of integrated services digital network (ISDN) protocol channels may give an erroneous indication that level 1 performance monitoring has been inhibited. The actual counting of level 1 errored seconds, severely errored seconds, and cyclic redundancy check (CRC) block errors (BE), may not be inhibited for a period of up to 5 minutes. Status requests that immediately follow the allowing (ALW:ALE) of ISDN protocol channels may give an erroneous indication that level 1 performance monitoring is operational. The actual counting of level 1 errored seconds, severely errored seconds, and cyclic redundancy check block errors, may not resume for a period of up to 5 minutes.

If the PER generation parameter is inhibited, then no PERs will be recorded for any ISDN protocol channels on the SM. If the parameter is allowed, then the PER generation parameter for the individual ISDN protocol channel determines if PERs are recorded for that channel.

C = Line/trunk controls

Line/trunk ALE controls consist of a set of level 1 parameters and the PER generation parameter. The level 1 parameters only apply to U-interface DSLs. The PER generation parameter applies to all ISDN protocol channels whether supported on lines or trunks.

The level 1 control parameters consist of an overall level 1 inhibit, hourly alert generation, daily alert generation, interval report generation, and daily report generation. If the overall level 1 inhibit is active, then all level 1 performance monitoring activities for the U-interface are disabled. If the hourly alert generation inhibit is active, then the reporting of hourly alerts to the receive-only printer (ROP) will be suppressed for the interface. If the daily alert generation inhibit is active, then the reporting of daily alerts to the ROP will be suppressed for the interface. If the interval report generation inhibit is active, then the interface will not contribute to the interval report, if applicable. If the daily report generation inhibit is active, then the interface will not contribute to the daily report, if applicable. One or more of the level 1 controls may be active. This information is only applicable to U-interface DSLs.

Status requests that immediately follow the inhibiting (INH:ALE) of ISDN protocol channels may give an erroneous indication that level 1 performance monitoring has been inhibited. The actual counting of level 1 errored seconds, severely errored seconds, and CRC BE, may not be inhibited for a period of up to 5 minutes. Status requests that immediately follow the allowing (ALW:ALE) of ISDN protocol channels may give an erroneous indication that level 1 performance monitoring is operational. The actual counting of level 1 errored seconds, severely errored seconds, and cyclic redundancy check block errors, may not resume for a period of up to 5 minutes.

If the PER generation inhibit is active, then no PERs will be recorded for the ISDN protocol channel.

In addition to the INH:ALE input message, PER generation may be inhibited as a result of digital

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loopback testing (TST:DSL), routine exerciser (REX), or mechanized loop testing (MLT). This inhibit condition will exist for the duration of the test being performed for the line/trunk. After completion of the test, the PER inhibit condition will remain for a period of three to six minutes. After this period has expired, the inhibit condition will be cleared if the status prior to the invocation of the test was "allowed". If the previous status was not "allowed", then the line/trunk will remain inhibited.

Use the ALW:ALE input message to clear the inhibit condition prior to the expiration of the three to six minute period.

Six formats are used to provide the status information:

Format 1 provides the status information for the LEVEL1, LEVEL2, ROP, and PER REPT parameters that are used to control the automatic ALE report generation.

Format 2 provides a status message for the progress of the inhibit reports.

Format 3 provides the status of the SM control parameters.

Format 4 provides the status of the line/trunk control parameters.

Format 5 reports the capacity of the PER logging buffer resident in the SM physical memory. In addition, the current indication status of the PER logging buffer will be reported.

Format 6 provides the number of message segments printed for PER generation inhibit reports for multiple ISDN protocol channels.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`INH` = Inhibited. Otherwise allowed.

`L1-PM` = Level 1 protocol monitoring is inhibited for this SM.

`NOT AVAILABLE` = Inhibit status information cannot be obtained for this SM.

`PER-GEN` = PER generation is inhibited for this SM.

`a` = Option status. Valid value(s):
- `ALW` = Option allowed.
- `INH` = Option inhibited.

`b` = Status message. Valid value(s):
- `ABORTED-COMMUNICATION FAILURE` = The current status request was stopped because of failures in inter-process message transmission.
- `ABORTED-DATABASE ERROR` = The current status request was stopped due to database access failure in the AM.
- `ABORTED-INVALID SM` = The requested SM was invalid.
- `COMPLETED` = The status request was completed.
- `COMPLETED-NO DSLS EQUIPPED/ASSIGNED` = The SM to retrieve the status did not have any ISDN protocol channels assigned.
- `INHIBITS STARTED` = A status request was started.
- `NOT STARTED-INVALID PORT` = A status request was made for a non-existent channel.

`NOT STARTED-NON-PRIMARY DN SPECIFIED` = A status request was made for a DN that was not a primary DN.
`NOT STARTED-NON-UNIQUE NXX DN` = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.
`NOT STARTED-SM UNAVAILABLE` = A status request was made where the channel was on an SM that was not fully operational.
`PER LOG CAPACITY REPORT STARTED` = A PER logging buffer capacity request was started.
`STOPPED` = A PER logging buffer capacity request or status request was stopped.

`c` = Segment number.

`d` = Switching module number.

`e` = Level 1 performance monitoring status. Valid value(s):
`L1PM-ALW` = Level 1 performance monitoring is allowed.
`L1PM-INH` = Level 1 performance monitoring is inhibited.

`f` = PER generation status. Valid value(s):
`PER-ALW` = PER generation is allowed.
`PER-INH` = PER generation is inhibited.

`g` = Equipment number. Valid value(s):

$AIUEN=d\text{-}o^1\text{-}p^1\text{-}q^1$
$DEN=d\text{-}h\text{-}i\text{-}j$
$DNUSEOC=d\text{-}g^1\text{-}o\text{-}q$
$DNUSTMC=d\text{-}g^1\text{-}o\text{-}q$
$IDCUEOC=d\text{-}n\text{-}o\text{-}q$
$IDCUTMC=d\text{-}n\text{-}o\text{-}q$
$ILEN=d\text{-}n\text{-}o\text{-}p$
$INEN=d\text{-}g^1\text{-}o\text{-}p$
$LCEN=d\text{-}k\text{-}l\text{-}m$
$LCKEN=d\text{-}c^1\text{-}d^1\text{-}e^1\text{-}f^1$
$NEN=d\text{-}g^1\text{-}h^1\text{-}i^1\text{-}j^1\text{-}k^1$
$PSUEN=d\text{-}l^1\text{-}m^1\text{-}n^1\text{-}s$

`h` = Digital line and trunk unit (DLTU) number.

`i` = Digital facility interface number.

`j` = Digital channel number.

`k` = Integrated services line unit number.

`l` = Line group controller number.

`m` = Line card number.

`n` = Integrated digital carrier unit number.

`o` = Remote terminal (RT) number.

`p` = RT line number.

`q` = Primary/protection identifier.

`r` = Protocol handler (PH) channel group number.

`s` = PH channel group member number.

`t` = Channel type. Valid value(s):

`B1`	= Channel B1.
`B2`	= Channel B2.
`D`	= D-channel.

`u` = Interface type. Valid value(s):

`A`	= *ANSI*® U-Interface.
`FD`	= EOC or TMC facility data link.
`SH`	= Speech handler trunk.
`T`	= T-interface.
`TK`	= Digital trunk.
`U`	= Alternate mark inversion (AMI) U-interface.
`XT`	= X.25 link over T1 trunk.

`v` = Percentage of PER logging buffer currently in use.

`w` = Buffer usage indication level. Valid value(s):

`CAUTION`	= First level of indication preset at 80% capacity.
`FULL`	= Third and final level of indication preset at 100% capacity.
`WARNING`	= Second level of indication preset at 90% capacity.

`x` = Date the report was prepared, in the form month/day.

`y` = Time the report was prepared, in the form hours:minutes:seconds.

`z` = One of the following:

`INHIBITS`	= ALE inhibits report.
`PER LOG CAPACITY`	= PER logging buffer capacity report.

`a`[1] = Completion status:

`COMPLETED`	= Operation successfully completed.
`STOPPED`	= Operation stopped.

`b`[1] = Number of segments printed.

`c`[1] = Integrated service line unit 2 (ISLU2) number.

`d`[1] = Line group number.

`e`[1] = Line board number.

`f`[1] = Line circuit number.

g[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

h[1] = Data group (DG) number.

i[1] = Synchronous transport signal (STS) number.

j[1] = Virtual tributary (VT1.5) number.

k[1] = Digital signal level 0 (DS0) number.

l[1] = Packet switching unit (PSU) number.

m[1] = PSU shelf number.

n[1] = PSU channel group number.

o[1] = Access interface unit (AIU) number.

p[1] = AIU pack number.

q[1] = AIU circuit number.

4. ACTION TO BE TAKEN

Inspect the data in this output message. If the status of the indicated parameters is incorrect, use the INH:ALE and ALW:ALE input messages or RC/V Views 8.1 and 22.15 to correct the status of the incorrect parameters.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:ALE
EXC:ALE
INH:ALE
OP:ALE
```

Output Message(s):

```
ALW:ALE
EXC:ALE
INH:ALE
REPT:ALE-PTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-600-755 *Protocol Error Record Descriptions*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
22.15 (PERFORMANCE MONITORING THRESHOLD GROUP)

OP:ALE-C

Software Release: 5E13 and later
Message Class: NULLDEV
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP ALE SESSION REPORT
        LEVEL1=a  LEVEL2=a  PER REPT=a  PRINT=a

[2]   ____________________________________________________________________
      OP ALE b

[3]   ____________________________________________________________________
      OP ALE SM INHIBITS - SEGMENT c
        SM     INHIBITS
        d   [NOT AVAILABLE] [L1-PM] [PER-GEN]
        .          .           .        .
        .          .           .        .
        .          .           .        .

[4]   ____________________________________________________________________
      OP ALE INHIBIT REPORT [- SEGMENT c]
        SM=d  STATUS: e f
                                          -------LEVEL 1-------
                                               ALERTS   REPORTS  PER
        EQUIPMENT NUMBER  DSLGM      CH TY   PM  HOUR DAY  INT DAY  GEN
        ----------------  ---------- -- --   --  ---- ---  --- ---  ---
               g          d-r-s     [t] u  [INH][INH][INH][INH][INH][INH]
               .          . . .      .  .     .   .    .    .   .    .
               .          . . .      .  .     .   .    .    .   .    .
               .          . . .      .  .     .   .    .    .   .    .

[5]   ____________________________________________________________________
      OP ALE PER LOG CAPACITY - SEGMENT d
        SM      USAGE(%)        INDICATOR     TIME
        d       v               [w]           [xx/xx yy:yy:yy]

[6]   ____________________________________________________________________
      OP ALE z a1: TOTAL OF b1 SEGMENTS PRINTED
```

2. REASON FOR OUTPUT

To provide the status of automatic line evaluation (ALE) system control parameters and resource usage.

The control parameters are grouped into three classes:

A = Automatic ALE session output controls:

The parameters LEVEL1, LEVEL2, PRINT, and PER=REPT allow the controls used for generating output information for the automatically requested ALE sessions. These options determine which counts are to be used for the session and where the output is to be directed. These controls have no bearing on the output of information due to a manually requested ALE session.

The default values for these options are restored on an administrative module (AM) full initialization. No other type of initialization will change the requested settings.

B = Switching module (SM) controls:

The SM parameters control the behavior of the level 1 performance monitoring and protocol error record (PER) generation. Refer to the Protocol Error Record Descriptions manual for additional information about a specific PER.

If the level 1 parameter is inhibited, then level 1 performance monitoring is not active for any of the U-interface digital subscriber lines (DSLs) on the SM. If allowed, then level 1 performance monitoring status for a U-interface DSL is determined by the level 1 performance monitoring group assigned to the DSL.

Status requests that immediately follow the inhibiting (INH:ALE) of integrated services digital network (ISDN) protocol channels may give an erroneous indication that level 1 performance monitoring has been inhibited. The actual counting of level 1 errored seconds, severely errored seconds, and cyclic redundancy check (CRC) block errors (BE), may not be inhibited for a period of up to 5 minutes. Status requests that immediately follow the allowing (ALW:ALE) of ISDN protocol channels may give an erroneous indication that level 1 performance monitoring is operational. The actual counting of level 1 errored seconds, severely errored seconds, and cyclic redundancy check block errors, may not resume for a period of up to 5 minutes.

If the PER generation parameter is inhibited, then no PERs will be recorded for any ISDN protocol channels on the SM. If the parameter is allowed, then the PER generation parameter for the individual ISDN protocol channel determines if PERs are recorded for that channel.

C = Line/trunk controls

Line/trunk ALE controls consist of a set of level 1 parameters and the PER generation parameter. The level 1 parameters only apply to U-interface DSLs. The PER generation parameter applies to all ISDN protocol channels whether supported on lines or trunks.

The level 1 control parameters consist of an overall level 1 inhibit, hourly alert generation, daily alert generation, interval report generation, and daily report generation. If the overall level 1 inhibit is active, then all level 1 performance monitoring activities for the U-interface are disabled. If the hourly alert generation inhibit is active, then the reporting of hourly alerts to the receive-only printer (ROP) will be suppressed for the interface. If the daily alert generation inhibit is active, then the reporting of daily alerts to the ROP will be suppressed for the interface. If the interval report generation inhibit is active, then the interface will not contribute to the interval report, if applicable. If the daily report generation inhibit is active, then the interface will not contribute to the daily report, if applicable. One or more of the level 1 controls may be active. This information is only applicable to U-interface DSLs.

Status requests that immediately follow the inhibiting (INH:ALE) of ISDN protocol channels may give an erroneous indication that level 1 performance monitoring has been inhibited. The actual counting of level 1 errored seconds, severely errored seconds, and CRC BE, may not be inhibited for a period of up to 5 minutes. Status requests that immediately follow the allowing (ALW:ALE) of ISDN protocol channels may give an erroneous indication that level 1 performance monitoring is operational. The actual counting of level 1 errored seconds, severely errored seconds, and cyclic redundancy check block errors, may not resume for a period of up to 5 minutes.

If the PER generation inhibit is active, then no PERs will be recorded for the ISDN protocol channel.

In addition to the INH:ALE input message, PER generation may be inhibited as a result of digital

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loopback testing (TST:DSL), routine exerciser (REX), or mechanized loop testing (MLT). This inhibit condition will exist for the duration of the test being performed for the line/trunk. After completion of the test, the PER inhibit condition will remain for a period of three to six minutes. After this period has expired, the inhibit condition will be cleared if the status prior to the invocation of the test was "allowed". If the previous status was not "allowed", then the line/trunk will remain inhibited.

Use the ALW:ALE input message to clear the inhibit condition prior to the expiration of the three to six minute period.

Six formats are used to provide the status information:

Format 1 provides the status information for the LEVEL1, LEVEL2, ROP, and PER REPT parameters that are used to control the automatic ALE report generation.

Format 2 provides a status message for the progress of the inhibit reports.

Format 3 provides the status of the SM control parameters.

Format 4 provides the status of the line/trunk control parameters.

Format 5 reports the capacity of the PER logging buffer resident in the SM physical memory. In addition, the current indication status of the PER logging buffer will be reported.

Format 6 provides the number of message segments printed for PER generation inhibit reports for multiple ISDN protocol channels.

3. VARIABLE FIELD DEFINITIONS

`INH` = Inhibited. Otherwise allowed.

`L1-PM` = Level 1 protocol monitoring is inhibited for this SM.

`NOT AVAILABLE` = Inhibit status information cannot be obtained for this SM.

`PER-GEN` = PER generation is inhibited for this SM.

`a` = Option status. Valid value(s):
- `ALW` = Option allowed.
- `INH` = Option inhibited.

`b` = Status message. Valid value(s):
- `ABORTED-COMMUNICATION FAILURE` = The current status request was stopped because of failures in inter-process message transmission.
- `ABORTED-DATABASE ERROR` = The current status request was stopped due to database access failure in the AM.
- `ABORTED-INVALID SM` = The requested SM was invalid.
- `COMPLETED` = The status request was completed.
- `COMPLETED-NO DSLS EQUIPPED/ASSIGNED` = The SM to retrieve the status did not have any ISDN protocol channels assigned.
- `INHIBITS STARTED` = A status request was started.
- `NOT STARTED-INVALID PORT` = A status request was made for a non-existent channel.
- `NOT STARTED-NON-PRIMARY DN SPECIFIED` = A status request was made for a DN that was not a primary DN.

`NOT STARTED-NON-UNIQUE NXX DN` = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.
`NOT STARTED-SM UNAVAILABLE` = A status request was made where the channel was on an SM that was not fully operational.
`PER LOG CAPACITY REPORT STARTED` = A PER logging buffer capacity request was started.
`STOPPED` = A PER logging buffer capacity request or status request was stopped.

`c` = Segment number.

`d` = Switching module number.

`e` = Level 1 performance monitoring status. Valid value(s):
`L1PM-ALW` = Level 1 performance monitoring is allowed.
`L1PM-INH` = Level 1 performance monitoring is inhibited.

`f` = PER generation status. Valid value(s):
`PER-ALW` = PER generation is allowed.
`PER-INH` = PER generation is inhibited.

`g` = Equipment number. Valid value(s):

```
AIUEN=d-o1-p1-q1
 DEN=d-h-i-j
 DNUSEOC=d-g1-o-q
 DNUSTMC=d-g1-o-q
 IDCUEOC=d-n-o-q
 IDCUTMC=d-n-o-q
 ILEN=d-n-o-p
 INEN=d-g1-o-p
 LCEN=d-k-l-m
 LCKEN=d-c1-d1-e1-f1
 NEN=d-g1-h1-r1-i1-j1-s1-k1
 PSUEN=d-l1-m1-n1-s
```

`h` = Digital line and trunk unit (DLTU) number.

`i` = Digital facility interface number.

`j` = Digital channel number.

`k` = Integrated services line unit number.

`l` = Line group controller number.

`m` = Line card number.

`n` = Integrated digital carrier unit number.

`o` = Remote terminal (RT) number.

`p` = RT line number.

`q` = Primary/protection identifier.

`r` = Protocol handler (PH) channel group number.

`s` = PH channel group member number.

`t` = Channel type. Valid value(s):

`B1`	= Channel B1.
`B2`	= Channel B2.
`D`	= D-channel.

`u` = Interface type. Valid value(s):

`A`	= *ANSI*® U-Interface.
`ADT`	= Autoplex Data Trunk.
`BC`	= Frame Relay Bearer Channel.
`FD`	= EOC or TMC facility data link.
`SH`	= Speech handler trunk.
`T`	= T-interface.
`TK`	= Digital trunk.
`U`	= Alternate mark inversion (AMI) U-interface.
`XT`	= X.25 link over T1 trunk.

`v` = Percentage of PER logging buffer currently in use.

`w` = Buffer usage indication level. Valid value(s):

`CAUTION`	= First level of indication preset at 80% capacity.
`FULL`	= Third and final level of indication preset at 100% capacity.
`WARNING`	= Second level of indication preset at 90% capacity.

`x` = Date the report was prepared, in the form month/day.

`y` = Time the report was prepared, in the form hours:minutes:seconds.

`z` = One of the following:

`INHIBITS`	= ALE inhibits report.
`PER LOG CAPACITY`	= PER logging buffer capacity report.

`a`[1] = Completion status:

`COMPLETED`	= Operation successfully completed.
`STOPPED`	= Operation stopped.

`b`[1] = Number of segments printed.

`c`[1] = Integrated service line unit 2 (ISLU2) number.

`d`[1] = Line group number.

`e`[1] = Line board number.

`f`[1] = Line circuit number.

g[1] = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

h[1] = Data group (DG) number.

i[1] = Synchronous transport signal (STS) facility number.

j[1] = Virtual tributary group (VTG) number.

k[1] = Digital signal level 0 (DS0) number.

l[1] = Packet switching unit (PSU) number.

m[1] = PSU shelf number.

n[1] = PSU channel group number.

o[1] = Access interface unit (AIU) number.

p[1] = AIU pack number.

q[1] = AIU circuit number.

r[1] = SONET termination equipment (STE) facility number.

s[1] = Virtual tributary member (VTM) number.

4. ACTIONS TO BE TAKEN

Inspect the data in this output message. If the status of the indicated parameters is incorrect, use the INH:ALE and ALW:ALE input messages or RC/V Views 8.1 and 22.15 to correct the status of the incorrect parameters.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:ALE
EXC:ALE
INH:ALE
OP:ALE
```

Output Message(s):

```
ALW:ALE
EXC:ALE
INH:ALE
REPT:ALE-PTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

235-600-755 *Protocol Error Record Descriptions*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
22.15 (PERFORMANCE MONITORING THRESHOLD GROUP)

OP:ALM-ALL-A

Software Release: 5E10 - 5E11
Message Class: BPSC
Application: 5
Type: Output

1. FORMAT

```
[1]  ____________________________________________________________________
     OP ALM ALL a

[2]  ____________________________________________________________________
     OP ALM ALL - b ACTIVE ALARM SUMMARY  c
       SCAN-PT       DESCRIPTION
       -------------------------
      [d]             e
       .              .
       .              .
       .              .

[3]  ____________________________________________________________________
     OP ALM ALL - CFGSTAT CM POWER ALARM SUMMARY c
       UNIT    MTCE STATE      HDWCHK          DGN RESULT
       f       g               h               i
       .       .               .               .
       .       .               .               .
       .       .               .               .

[4]  ____________________________________________________________________
     OP ALM ALL - CGA SUMMARY j
       UNIT  ID         BLU  RED  YEL  QUAL  CLFI
       ========         ========================
       {t}             [AIS][LCA][RMA][QUAL][CLFI]
       .                 .    .    .    .    .
       .                 .    .    .    .    .
       .                 .    .    .    .    .

[5]  ____________________________________________________________________
     OP ALM ALL - RT ALARM SUMMARY c   [DATA MAY BE INCOMPLETE]
       LRT            SID      LOCATION        ALARM LEVEL
       LRT=k-r-v       w       x               y
       .               .       .               .
       .               .       .               .
       .               .       .               .

[6]  ____________________________________________________________________
     OP ALM ALL - FAN & FAN/PERPH FUSE ACTIVE ALARM SUMMARY
       SM            ALARM TYPE
       ------------------------
       k             z
       .             .
       .             .
       .             .
```

```
[7]   ____________________________________________________________
      OP ALM ALL - RBPSC ALARM SUMMARY SM k c

        ALM-LVL    STATE    SCAN-PT    LOCATION     DESCRIPTION
      ---------------------------------------------------------
        a1         b1       d          c1           d1
        .          .        .          .            .
        .          .        .          .            .
        .          .        .          .            .

[8]   ____________________________________________________________
      OP ALM ALL - RIBMSC ALARM SUMMARY SITE e1 c

        ALM-LEVEL    STATE    SCAN-PT     DESCRIPTION
      ---------------------------------------------------
        a1         ALARM      d             d1
        .            .        .             .
        .            .        .             .
        .            .        .             .

[9]   ____________________________________________________________
      OP ALM ALL - RISLUSC ALARM SUMMARY  c

        SCAN POINT NAME         STATE     SM    RISLU  SITE
        ---------------------------------------------------
              g1              ALARM      k      h1     e1
              .                 .        .      .      .
              .                 .        .      .      .
              .                 .        .      .      .

[10]  ____________________________________________________________
      OP ALM ALL - MSUSP=k-o-p-q ALARM SUMMARY COMPLETED
        SP STATUS       SP STATUS       SP STATUS       SP STATUS
        0  x            8  x            16 x            24 x
        1  x            9  x            17 x            25 x
        2  x            10 x            18 x            26 x
        3  x            11 x            19 x            27 x
        4  x            12 x            20 x            28 x
        5  x            13 x            21 x            29 x
        6  x            14 x            22 x            30 x
        7  x            15 x            23 x            31 x

[11]  ____________________________________________________________
      OP ALM ALL NON-RESPONDING SM SUMMARY c
        SM        MESSAGE TYPE
        ----------------------
        k         i1
        .         .
        .         .
        .         .
```

2. REASON FOR OUTPUT

To report all active alarms in an office in response to the OP:ALM-ALL input message. Only active alarms are listed

except for Format 10 which prints the scan point status for all metallic service unit (MSU) scan and distribute boards. Formats 2 and 6 are for alarms which previously were not included in any user-requested output messages.

Format 1 reports miscellaneous OP:ALM-ALL message status.

Format 2 reports active administrative module (AM) fan alarms, local building/power and miscellaneous alarms, common network interface (CNI) alarms, external sanity monitor alarms, miscellaneous frame fan and fuse alarms, and communications module (CM) fan and fan fuse alarms.

Format 3 reports the status of all CM units that are in the power alarm maintenance state.

Format 4 reports active carrier group alarms (CGAs).

Format 5 reports active integrated TR008/TR303 remote terminal (RT) alarms. TR008 RTs can be the *SLC*® 96, Series 5 feature package B, and Enhanced B. TR303 RTs can be the Series 5 feature package 303G.

Format 6 reports active switching module (SM) fan and fan/peripheral fuse alarms.

Format 7 reports active alarms for remote SMs (RSMs), optical remote modules (ORMs), or two-mile remote modules (TRMs). This output is only available in a multimodule RSM, ORM, or TRM that has the alarm input option. Only scan points that are actually in service are reported.

Format 8 reports active remote integrated services line unit (RISLU) building/miscellaneous alarm scan points (RIBMSC). Only scan points that are actually in service are reported.

Format 9 reports active RISLU fan, fuse, power, and battery alarm scan points (RISLUSC). Only scan points that are actually in service are reported.

Format 10 reports the status of scan points on an MSU scan board. The status of all points is reported, regardless of whether they are active or inactive.

Note: SP 31 is a current sensing scan point which "turns on" (logical 1) when the current falls below a threshold.

Format 11 reports all SMs that did not respond with alarm information for:
- MSU scan points.
- RSM building/power alarms.
- RISLU building/miscellaneous, fan, fuse, power, or battery alarms.
- Integrated TR008/TR303 RT alarms.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`DATA MAY BE INCOMPLETE` = Data in the message may be incomplete because of communication trouble with an SM.

`QUAL` = Red CGA Qualifier. Currently only used for STE facilities. Valid value(s):
- `LOF` = Loss of frame.
- `LOS` = Loss of signal.

`a` = Report status. Valid value(s):

COMPLETED = The OP:ALM-ALL output has terminated successfully.
MANUAL TERMINATION = The OP:ALM-ALL output has terminated due to a request from the STP:OP-ALM-ALL input message.
TERMINATED-CANNOT CREATE TERMINAL PROCESS FOR SM ALARMS = The OP:ALM-ALL output has terminated because the terminal process could not be created or it could not receive messages.
TERMINATED DUE TO CM ISOLATION-RETRY LATER = The OP:ALM-ALL output has terminated because the CM is isolated and no more alarm information for the CM or the SMs can be obtained. The request should be tried later when the CM is no longer isolated.
TLWS BUFFERS FULL-NO CGA REPORTED = The OP ALM ALL - CGA SUMMARY portion will not be printed due to too many currently active trunk and line work station activities. No more resources available. The rest of the alarm types are unaffected.
TLWS BUSY-NO CGA REPORTED = The OP ALM ALL - CGA SUMMARY portion will not be printed due to an in-progress OP:CGA input message. No more resources are available. The rest of the alarm types are unaffected.

b = Type of alarms being reported. Valid value(s):
AM FAN = Administrative module fan alarms.
BPSC = Building and power alarm scan points.
CNI = Common network interface alarms.
ESM = External sanity monitor.
MISC = Miscellaneous input/output processor (IOP) scan points.
MISC FRAME FAN = Miscellaneous frame fan.
MISC FRAME FUSE = Miscellaneous frame fuse.
MSGS = Message switch.
ONTC = Office network and timing complex.
TMS = Time-multiplexed switch.

c = Sequence of message block. Valid value(s):
FIRST RECORD
LAST RECORD
NEXT RECORD

d = Valid value(s):

If 'b' =	**'d' =**
BPSC, MISC	Logical scan point number.
AM FAN CNI ESM MISC FRAM FAN MISC FRAME FUSE MSGS ONTC TMS	Null.

e = Alarm name (or tag) - character string that identifies the particular scan point.

f = Unit identification.

g = Maintenance state.

h = Inhibit status. Valid value(s):
ALW,AUTO = Hardware checks are allowed.
INH,AUTO = Hardware checks are inhibited by automatic request.
INH,MAN = Hardware checks are inhibited manually.
Note: ALW,MAN is not valid.

i = Result of last diagnostic run on unit. Valid value(s):
ABT = Aborted.
ATP = All tests passed.
CATP = Conditional all tests passed.
N/A = Not applicable.
NTR = No tests run.
STF = Some tests failed.
STP = Stopped.

j = Report status. Valid value(s):
COMPLETED = The OP:CGA output has terminated successfully.
CONTINUED = The OP:CGA output consists of several reports. This is one of the intermediate reports.
STARTED = This is the initial OP:CGA output.
SYSTEM ERROR = The OP:CGA output has terminated. The output is incomplete; retry later.
SYSTEM BUSY REPEAT LATER = System is unable to execute OP:CGA at this time; retry later.

k = SM number.

l = Digital line and trunk unit (DLTU) number.

m = Digital facility interface (DFI) number.

n = Facility (FAC) number.

o = MSU number.

p = Service group (SG) number.

q = Board (BRD) number.

r = Digital carrier line unit (DCLU) number for the *SLC*® digital facility interface (SDFI) case. Integrated digital carrier unit (IDCU) number for the IDCU facility (IFAC) case.

s = Integrated SDFI number or IFAC number.

t = Unit IDs. Valid value(s): l l. T{ DFIH=k-l-m DS1SFAC=k-j^1-k^1-m^1-n^1 FAC=k-l-m-n IFAC=k-r-s SDFI=k-r-s T} T{ SPN=k-o-p-q-d STEFAC=k-j^1-k^1-l^1 STSFAC=k-j^1-k^1-m^1 VT1FAC=k-j^1-k^1-m^1-n^1 T}

v = Local RT number.

w = Site identification (SID) number.

x = Source of the alarm. Valid value(s):

CARRIER LINE = The T1 facility is suspected of being faulty.
FAR END = The RT is suspected of being faulty or manual action at the RT caused the alarm.
NEAR END = The equipment at the office is suspected of being faulty or manual action at the office caused the alarm. Given the situation where near end and far end caused alarms, only near end will be reported.

y = System alarms that are active for this RT (any combination of the following). Valid value(s):
CRITICAL = At least one critical alarm is active.
MAJOR = At least one major alarm is active.
MINOR = At least one minor alarm is active.
PWR/MISC = Power/miscellaneous alarm is active. Either AC power has been lost at the RT, or a miscellaneous alarm (a door is open, for example) is active at the RT site.

z = Type of alarm. Valid value(s):
FAN = SM fan alarm.
FAN/PERPH FUSE = SM fan/peripheral fuse alarm.

a[1] = Alarm level. Valid value(s):
CR = Critical.
MJ = Major.
MN = Minor.
NA = Not applicable.

b[1] = State of scan point. Valid value(s):
ALARM = RBPSC scan point is in its off-normal state.
ERROR = RBPSC duplex points have different states.
Note: If the scan point is part of a duplex configuration, normal reporting will continue on the uninhibited side.

c[1] = Physical location of scan point given as MSU, slot, and point numbers for remote building/power MSU scan point number (RBPSC).

d[1] = Name of RBPSC or RIBMSC scan point.

e[1] = RISLU site number.

g[1] = RISLUSC alarm scan point name. Valid value(s):
RISLU BATTERY = RISLU battery alarm scan point. Equipped on one RISLU per RISLU site.
RISLU FAN = RISLU fan alarm scan point.
RISLU FUSE = RISLU fuse alarm scan point.
RISLU POWER = RISLU power alarm scan point. Equipped on one RISLU per RISLU site.

h[1] = RISLU number.

i[1] = Type of alarm message not reported on by the associated SM. Valid value(s):
ALL ALARMS UNAVAILABLE = The specified SM was unavailable for any alarm statuses.
MSU SCAN POINTS = Some or all MSU scan point reports may be missing for the specified SM.
RISLU BUILDING/MISC OR FAN/FUSE/PWR/BATTERY ALARMS = RISLU building and miscellaneous or RISLU fan, fuse, power, and battery alarms.

`RSM BUILDING & POWER ALARMS` = RSM building/power alarms (includes RSMs, ORMs, TRMs, and Multi;-Mod RSMs).
`RTALARMS` = Remote terminal alarms. Will be accompanied by the '`DATA MAY BE INCOMPLETE`' qualifier.

`j`[1] = Digital network unit - SONET (DNU-S) number.

`k`[1] = Data group (DG) number.

`l`[1] = STE number.

`m`[1] = STS number.

`n`[1] = VT1.5/SONET DS1 number.

4. ACTION TO BE TAKEN

Investigate the cause of the alarm and take corrective action.

5. ALARMS

None

6. REFERENCES

Input Message(s):

```
CLR:OP-ALM-ALL
OP:ALM
OP:CFGSTAT
OP:CGA
OP:MSUSP
OP:RT-ALM-ALL
STP:OP-ALM-ALL
```

Output Message(s):

```
OP:ALM-RBPSC
OP:ALM-RIBMSC
OP:ALM-RISLUSC
OP:CFGSTAT-CM
OP:CGA
OP:MSUSP
OP:RT-ALARM
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*
235-190-115 *Local and Toll System Features*
363-200-101 *DCLU Integrated SLC® Carrier System*

MCC Display Page(s):

105/106 (BLDG/POWER & ALARM CNTRLS)
111/112 (AM, AM PERIPHERALS)
115 (COMMUNICATION MODULE SUMMARY)
116 (MISCELLANEOUS)
118 (CNI FRAME AND CCS LINK STATUS)
119 (MISCELLANEOUS ALARMS)
1010,X (SM X STATUS)

OP:ALM-ALL-B

Software Release: 5E12 only
Message Class: BPSC
Application: 5
Type: Output

1. FORMAT

```
[1]  ____________________________________________________________________
     OP ALM ALL a

[2]  ____________________________________________________________________
     OP ALM ALL - b ACTIVE ALARM SUMMARY  c
       SCAN-PT       DESCRIPTION
       -------------------------
      [d]             e
       .              .
       .              .
       .              .

[3]  ____________________________________________________________________
     OP ALM ALL - CFGSTAT CM POWER ALARM SUMMARY c
       UNIT    MTCE STATE      HDWCHK          DGN RESULT
       f       g               h               i
       .       .               .               .
       .       .               .               .
       .       .               .               .

[4]  ____________________________________________________________________
     OP ALM ALL - CGA SUMMARY j
       UNIT  ID         BLU  RED  YEL  QUAL  CLFI
       ========         ========================
       {t}             [AIS][LCA][RMA][QUAL][CLFI]
       .                 .    .    .    .    .
       .                 .    .    .    .    .
       .                 .    .    .    .    .

[5]  ____________________________________________________________________
     OP ALM ALL - RT ALARM SUMMARY c   [DATA MAY BE INCOMPLETE]
       LRT            SID      LOCATION        ALARM LEVEL
       LRT=k-r-v       w       x               y
       .               .       .               .
       .               .       .               .
       .               .       .               .

[6]  ____________________________________________________________________
     OP ALM ALL - FAN & FAN/PERPH FUSE ACTIVE ALARM SUMMARY
       SM            ALARM TYPE
       ------------------------
       k             z
       .             .
       .             .
       .             .
```

[7]
```
OP ALM ALL - RBPSC ALARM SUMMARY SM k c
  ALM-LVL    STATE    SCAN-PT    LOCATION     DESCRIPTION
-------------------------------------------------------
  a1         b1       d          c1           e
  .          .        .          .            .
  .          .        .          .            .
  .          .        .          .            .
```

[8]
```
OP ALM ALL - RAS ALARM SUMMARY SITE e1 c
  ALM-LEVEL    STATE    SCAN-PT     DESCRIPTION
-----------------------------------------------
  a1           b1       d           e
  .            .        .           .
  .            .        .           .
  .            .        .           .
```

[9]
```
OP ALM ALL - RP ALARM SUMMARY  SITE e1 c
  ALM-LVL  STATE  SCAN-PT  UNIT   SM   UNITNUM  DESCRIPTION
  -------------------------------------------------------------
  a1       b1    [d]       o1     k    h1       e
  .        .      .        .      .    .        .
  .        .      .        .      .    .        .
  .        .      .        .      .    .        .
```

[10]
```
OP ALM ALL - MSUSP=k-o-p-q ALARM SUMMARY COMPLETED
  SP STATUS       SP STATUS       SP STATUS       SP STATUS
  0  x            8  x            16 x            24 x
  1  x            9  x            17 x            25 x
  2  x            10 x            18 x            26 x
  3  x            11 x            19 x            27 x
  4  x            12 x            20 x            28 x
  5  x            13 x            21 x            29 x
  6  x            14 x            22 x            30 x
  7  x            15 x            23 x            31 x
```

[11]
```
OP ALM ALL NON-RESPONDING SM SUMMARY c
  SM        MESSAGE TYPE
  ----------------------
  k         i1
  .         .
  .         .
  .         .
```

2. REASON FOR OUTPUT

To report all active alarms in an office in response to the OP:ALM-ALL input message. Only active alarms are listed except for Format 10 which prints the scan point status for all metallic service unit (MSU) scan and distribute boards. Formats 2 and 6 are for alarms which previously were not included in any user-requested output messages.

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Format 1 reports miscellaneous OP:ALM-ALL message status.

Format 2 reports active administrative module (AM) fan alarms, local building/power and miscellaneous alarms, common network interface (CNI) alarms, external sanity monitor alarms, miscellaneous frame fan and fuse alarms, and communications module (CM) fan and fan fuse alarms.

Format 3 reports the status of all CM units that are in the power alarm maintenance state.

Format 4 reports active carrier group alarms (CGAs).

Format 5 reports active integrated TR008/TR303 remote terminal (RT) alarms. TR008 RTs can be the *SLC*® 96, Series 5 feature package B, and Enhanced B. TR303 RTs can be the Series 5 feature package 303G.

Format 6 reports active switching module (SM) fan and fan/peripheral fuse alarms.

Format 7 reports active alarms for remote SMs (RSMs), optical remote modules (ORMs), or two-mile remote modules (TRMs). This output is only available in a multimodule RSM, ORM, or TRM that has the alarm input option. Only scan points that are actually in service are reported.

Format 8 reports active remote alarm section (RAS) scan points. Only scan points that are actually in service are reported.

Format 9 reports active remote peripheral scan points. Only scan points that are actually in service are reported.

Format 10 reports the status of scan points on an MSU scan board. The status of all points is reported, regardless of whether they are active or inactive.

Note: SP 31 is a current sensing scan point which "turns on" (logical 1) when the current falls below a threshold.

Format 11 reports all SMs that did not respond with alarm information for:
- MSU scan points.
- RSM building/power alarms.
- Integrated TR008/TR303 RT alarms.
- Remote peripheral alarms.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`DATA MAY BE INCOMPLETE` = Data in the message may be incomplete because of communication trouble with an SM.

`QUAL` = Red CGA Qualifier. Currently only used for STE facilities. Valid value(s):
- `LOF` = Loss of frame.
- `LOS` = Loss of signal.

`a` = Report status. Valid value(s):
- `COMPLETED` = The OP:ALM-ALL output has terminated successfully.
- `MANUAL TERMINATION` = The OP:ALM-ALL output has terminated due to a request via the STP:OP-ALM-ALL input message.
- `TERMINATED-CANNOT CREATE TERMINAL PROCESS FOR SM ALARMS` = The OP:ALM-ALL

output has terminated because the terminal process could not be created or it could not receive messages.

`TERMINATED DUE TO CM ISOLATION-RETRY LATER` = The OP:ALM-ALL output has terminated because the CM is isolated and no more alarm information for the CM or the SMs can be obtained. The request should be tried later when the CM is no longer isolated.

`TLWS BUFFERS FULL-NO CGA REPORTED` = The OP ALM ALL - CGA SUMMARY portion will not be printed due to too many currently active trunk and line work station activities. No more resources available. The rest of the alarm types are unaffected.

`TLWS BUSY-NO CGA REPORTED` = The OP ALM ALL - CGA SUMMARY portion will not be printed due to an in-progress OP:CGA input message. No more resources are available. The rest of the alarm types are unaffected.

`b` = Type of alarms being reported. Valid value(s):

- `AM FAN` = Administrative module fan alarms.
- `BPSC` = Building and power alarm scan points.
- `CNI` = Common network interface alarms.
- `ESM` = External sanity monitor.
- `MISC` = Miscellaneous input/output processor (IOP) scan points.
- `MISC FRAME FAN` = Miscellaneous frame fan.
- `MISC FRAME FUSE` = Miscellaneous frame fuse.
- `MSGS` = Message switch.
- `ONTC` = Office network and timing complex.
- `TMS` = Time-multiplexed switch.

`c` = Sequence of message block. Valid value(s):

- `FIRST RECORD`
- `LAST RECORD`
- `NEXT RECORD`

`d` = Scan point number. Valid value(s):

If 'b' =	**'d' =**

`AM FAN`
`CNI`
`ESM`
`MISC FRAM FAN`
`MISC FRAME FUSE`
`MSGS`
`ONTC`
`TMS`
	Null.

`e` = Alarm name (or tag) - character string that identifies the particular scan point.

`f` = Unit identification.

`g` = Maintenance state.

`h` = Inhibit status. Valid value(s):

- `ALW,AUTO` = Hardware checks are allowed.
- `INH,AUTO` = Hardware checks are inhibited by automatic request.
- `INH,MAN` = Hardware checks are inhibited manually.

Note: `ALW,MAN` is not valid.

`i` = Result of last diagnostic run on unit. Valid value(s):

`ABT`	= Aborted.
`ATP`	= All tests passed.
`CATP`	= Conditional all tests passed.
`N/A`	= Not applicable.
`NTR`	= No tests run.
`STF`	= Some tests failed.
`STP`	= Stopped.

`j` = Report status. Valid value(s):

`COMPLETED`	= The OP:CGA output has terminated successfully.
`CONTINUED`	= The OP:CGA output consists of several reports. This is one of the intermediate reports.
`STARTED`	= This is the initial OP:CGA output.
`SYSTEM ERROR`	= The OP:CGA output has terminated. The output is incomplete; retry later.
`SYSTEM BUSY REPEAT LATER`	= System is unable to execute OP:CGA at this time; retry later.

`k` = SM number.

`l` = Digital line and trunk unit (DLTU) number.

`m` = Digital facility interface (DFI) number.

`n` = Facility (FAC) number.

`o` = MSU number.

`p` = Service group (SG) number.

`q` = Board (BRD) number.

`r` = Digital carrier line unit (DCLU) number for the *SLC*® digital facility interface (SDFI) case. Integrated digital carrier unit (IDCU) number for the IDCU facility (IFAC) case.

`s` = Integrated SDFI number or IFAC number.

`t` = Unit IDs. Valid value(s): I I. T{ `DFIH=k-l-m` `DS1SFAC=k-j1-k1-m1-n1` `FAC=k-l-m-n` `IFAC=k-r-s` `SDFI=k-r-s` T} T{ `SPN=k-o-p-q-d` `STEFAC=k-j1-k1-l1` `STSFAC=k-j1-k1-m1` `VT1FAC=k-j1-k1-m1-n1` T}

`v` = Local RT number.

`w` = Site identification (SID) number.

`x` = Source of the alarm. Valid value(s):

`CARRIER LINE`	= The T1 facility is suspected of being faulty.
`FAR END`	= The RT is suspected of being faulty or manual action at the RT caused the alarm.
`NEAR END`	= The equipment at the office is suspected of being faulty or manual action at the office caused the alarm. Given the situation where near end and far end caused alarms, only near end will be reported.

`y` = System alarms that are active for this RT (any combination of the following). Valid value(s):

- `CRITICAL` = At least one critical alarm is active.
- `MAJOR` = At least one major alarm is active.
- `MINOR` = At least one minor alarm is active.
- `PWR/MISC` = Power/miscellaneous alarm is active. Either AC power has been lost at the RT, or a miscellaneous alarm (a door is open, for example) is active at the RT site.

`z` = Type of alarm. Valid value(s):

- `FAN` = SM fan alarm.
- `FAN/PERPH FUSE` = SM fan/peripheral fuse alarm.

`a`[1] = Alarm level. Valid value(s):

- `CR` = Critical.
- `MJ` = Major.
- `MN` = Minor.
- `NA` = Not applicable.

`b`[1] = State of scan point. Valid value(s):

- `ALARM` = Scan point is in its off-normal state.
- `ERROR` = Duplex points have different states.
- `INH` = Scan point is manually inhibited.
- Note: If the scan point is part of a duplex configuration, normal reporting will continue on the uninhibited side.

`c`[1] = Physical location of scan point given as MSU, slot, and point numbers for remote building/power MSU scan point number (RBPSC).

`e`[1] = Remote peripheral site number.

`h`[1] = Remote peripheral unit number.

`i`[1] = Type of alarm message not reported on by the associated SM. Valid value(s):

- `ALL ALARMS UNAVAILABLE` = The specified SM was unavailable for any alarm statuses.
- `MSU SCAN POINTS` = Some or all MSU scan point reports may be missing for the specified SM.
- `REMOTE PERIPHERAL ALARMS` = Remote peripheral building/miscellaneous, fan, fuse, power, or battery alarms.
- `RSM BUILDING & POWER ALARMS` = RSM building/power alarms (includes RSMs, ORMs, TRMs, and Multi-Mod RSMs).
- `RTALARMS` = Remote terminal alarms. Will be accompanied by the '`DATA MAY BE INCOMPLETE`' qualifier.

`j`[1] = Digital network unit - SONET (DNU-S) number.

`k`[1] = Data group (DG) number.

`l`[1] = STE number.

`m`[1] = STS number.

`n`[1] = VT1.5/SONET DS1 number.

`o`[1] = Remote peripheral unit type. Valid values:
`EAIU` = Expansion access interface unit.
`RISLU` = Remote integrated services line unit.

4. ACTION TO BE TAKEN

Investigate the cause of the alarm and take corrective action.

5. ALARMS

None

6. REFERENCES

Input Message(s):

```
CLR:OP-ALM-ALL
OP:ALM
OP:CFGSTAT
OP:CGA
OP:MSUSP
OP:RT-ALM-ALL
STP:OP-ALM-ALL
```

Output Message(s):

```
OP:ALM-RAS
OP:ALM-RBPSC
OP:ALM-RP
OP:CFGSTAT-CM
OP:CGA
OP:MSUSP
OP:RT-ALARM
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*
235-190-115 *Local and Toll System Features*
363-200-101 *DCLU Integrated SLC® Carrier System*

MCC Display Page(s):

105/106 (BLDG/POWER & ALARM CNTRLS)
111/112 (AM, AM PERIPHERALS)
115 (COMMUNICATION MODULE SUMMARY)
116 (MISCELLANEOUS)
118 (CNI FRAME AND CCS LINK STATUS)

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119 (MISCELLANEOUS ALARMS)
1010,X (SM X STATUS)
1320 (AIU SUMMARY)
1420 (RAS ALARMS)
1620 (REMOTE PERPH SITE STATUS)
1640 (REMOTE PERPH MISC ALARMS)
1700 (RISLU NETWORK)

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OP:ALM-ALL-C

Software Release: 5E13 only
Message Class: BPSC
Application: 5
Type: Output

1. FORMAT

```
[1]  ____________________________________________________________
     OP ALM ALL a

[2]  ____________________________________________________________
     OP ALM ALL - b ACTIVE ALARM SUMMARY  c
       SCAN-PT       DESCRIPTION
       -------------------------
      [d]             e
       .              .
       .              .
       .              .

[3]  ____________________________________________________________
     OP ALM ALL - CFGSTAT CM POWER ALARM SUMMARY c
       UNIT    MTCE STATE      HDWCHK          DGN RESULT
       f       g               h               i
       .       .               .               .
       .       .               .               .
       .       .               .               .

[4]  ____________________________________________________________
     OP ALM ALL - CGA SUMMARY j
       UNIT  ID                 BLU  RED  YEL  QUAL  CLFI
       ========                 =========================
       {t}                     [AIS][LCA][RMA][QUAL][CLFI]
       .                         .    .    .    .    .
       .                         .    .    .    .    .
       .                         .    .    .    .    .

[5]  ____________________________________________________________
     OP ALM ALL - RT ALARM SUMMARY c   [DATA MAY BE INCOMPLETE]
       LRT            SID      LOCATION        ALARM LEVEL
       LRT=k-r-v       w       x               y
       .               .       .               .
       .               .       .               .
       .               .       .               .

[6]  ____________________________________________________________
     OP ALM ALL - FAN & FAN/PERPH FUSE ACTIVE ALARM SUMMARY
       SM            ALARM TYPE
       -------------------------
       k             z
       .             .
       .             .
       .             .
```

[7]
```
OP ALM ALL - RBPSC ALARM SUMMARY SM k c
  ALM-LVL    STATE    SCAN-PT    LOCATION     DESCRIPTION
-------------------------------------------------------
  a1         b1       d          c1           e
  .          .        .          .            .
  .          .        .          .            .
  .          .        .          .            .
```

[8]
```
OP ALM ALL - RAS ALARM SUMMARY SITE e1 c
  ALM-LEVEL    STATE    SCAN-PT     DESCRIPTION
-----------------------------------------------
  a1           b1       d           e
  .            .        .           .
  .            .        .           .
  .            .        .           .
```

[9]
```
OP ALM ALL - RP ALARM SUMMARY  SITE e1 c
  ALM-LVL  STATE  SCAN-PT  UNIT   SM   UNITNUM  DESCRIPTION
  -------------------------------------------------------------
  a1       b1    [d]       o1     k    h1       e
  .        .      .        .      .    .        .
  .        .      .        .      .    .        .
  .        .      .        .      .    .        .
```

[10]
```
OP ALM ALL - MSUSP=k-o-p-q ALARM SUMMARY COMPLETED
  SP STATUS       SP STATUS       SP STATUS       SP STATUS
  0  x            8  x            16 x            24 x
  1  x            9  x            17 x            25 x
  2  x            10 x            18 x            26 x
  3  x            11 x            19 x            27 x
  4  x            12 x            20 x            28 x
  5  x            13 x            21 x            29 x
  6  x            14 x            22 x            30 x
  7  x            15 x            23 x            31 x
```

[11]
```
OP ALM ALL NON-RESPONDING SM SUMMARY c
  SM        MESSAGE TYPE
  ----------------------
  k         i1
  .         .
  .         .
  .         .
```

2. REASON FOR OUTPUT

To report all active alarms in an office in response to the OP:ALM-ALL input message. Only active alarms are listed except for Format 10 which prints the scan point status for all metallic service unit (MSU) scan and distribute boards. Formats 2 and 6 are for alarms which previously were not included in any user-requested output messages.

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Format 1 reports miscellaneous OP:ALM-ALL message status. Format 2 reports active administrative module (AM) fan alarms, local building/power and miscellaneous alarms, common network interface (CNI) alarms, external sanity monitor alarms, miscellaneous frame fan and fuse alarms, and communications module (CM) fan and fan fuse alarms. Format 3 reports the status of all CM units that are in the power alarm maintenance state. Format 4 reports active carrier group alarms (CGAs). Format 5 reports active integrated TR008/TR303 remote terminal (RT) alarms. TR008 RTs can be the *SLC™* 96, Series 5 feature package B, and Enhanced B. TR303 RTs can be the Series 5 feature package 303G. Format 6 reports active switching module (SM) fan and fan/peripheral fuse alarms. Format 7 reports active alarms for remote SMs (RSMs), optical remote modules (ORMs), or two-mile remote modules (TRMs). This output is only available in a multimodule RSM, ORM, or TRM that has the alarm input option. Only scan points that are actually in service are reported. Format 8 reports active remote alarm section (RAS) scan points. Only scan points that are actually in service are reported. Format 9 reports active remote peripheral scan points. Only scan points that are actually in service are reported. Format 10 reports the status of scan points on an MSU scan board. The status of all points is reported, regardless of whether they are active or inactive.

Note: SP 31 is a current sensing scan point which "turns on" (logical 1) when the current falls below a threshold.

Format 11 reports all SMs that did not respond with alarm information for:
- MSU scan points.
- RSM building/power alarms.
- Integrated TR008/TR303 RT alarms.
- Remote peripheral alarms.

3. VARIABLE FIELD DEFINITIONS

`DATA MAY BE INCOMPLETE` = Data in the message may be incomplete because of communication trouble with an SM.

`QUAL` = Red CGA Qualifier. Currently only used for synchronous optical network (SONET) termination equipment (STE) facilities. Valid value(s):
- `LOF` = Loss of frame.
- `LOS` = Loss of signal.

`a` = Report status. Valid value(s):
- `COMPLETED` = The OP:ALM-ALL output has terminated successfully.
- `MANUAL TERMINATION` = The OP:ALM-ALL output has terminated due to a request via the STP:OP-ALM-ALL input message.
- `TERMINATED-CANNOT CREATE TERMINAL PROCESS FOR SM ALARMS` = The OP:ALM-ALL output has terminated because the terminal process could not be created or it could not receive messages.
- `TERMINATED DUE TO CM ISOLATION-RETRY LATER` = The OP:ALM-ALL output has terminated because the CM is isolated and no more alarm information for the CM or the SMs can be obtained. The request should be tried later when the CM is no longer isolated.
- `TLWS BUFFERS FULL-NO CGA REPORTED` = The OP ALM ALL - CGA SUMMARY portion will not be printed due to too many currently active trunk and line work station activities. No more resources available. The rest of the alarm types are unaffected.
- `TLWS BUSY-NO CGA REPORTED` = The OP ALM ALL - CGA SUMMARY portion will not be printed due to an in-progress OP:CGA input message. No more resources are available. The rest of the alarm types are unaffected.

b = Type of alarms being reported. Valid value(s):

AM FAN	= Administrative module fan alarms.
BPSC	= Building and power alarm scan points.
CNI	= Common network interface alarms.
ESM	= External sanity monitor.
MISC	= Miscellaneous input/output processor (IOP) scan points.
MISC FRAME FAN	= Miscellaneous frame fan.
MISC FRAME FUSE	= Miscellaneous frame fuse.
MSGS	= Message switch.
ONTC	= Office network and timing complex.
TMS	= Time-multiplexed switch.

c = Sequence of message block. Valid value(s):

FIRST RECORD
LAST RECORD
NEXT RECORD

d = Scan point number. Valid value(s):

If 'b' =	'd' =
AM FAN, CNI, ESM, MISC FRAME FAN, MISC FRAME FUSE, MSGS, ONTC, or TMS	Null.

e = Alarm name (or tag) - character string that identifies the particular scan point.

f = Unit identification.

g = Maintenance state.

h = Inhibit status. Valid value(s):

ALW,AUTO	= Hardware checks are allowed.
INH,AUTO	= Hardware checks are inhibited by automatic request.
INH,MAN	= Hardware checks are inhibited manually.
Note:	ALW,MAN is not valid.

i = Result of last diagnostic run on unit. Valid value(s):

ABT	= Aborted.
ATP	= All tests passed.
CATP	= Conditional all tests passed.
N/A	= Not applicable.
NTR	= No tests run.
STF	= Some tests failed.
STP	= Stopped.

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j = Report status. Valid value(s):
- COMPLETED = The OP:CGA output has terminated successfully.
- CONTINUED = The OP:CGA output consists of several reports. This is one of the intermediate reports.
- STARTED = This is the initial OP:CGA output.
- SYSTEM ERROR = The OP:CGA output has terminated. The output is incomplete; retry later.
- SYSTEM BUSY REPEAT LATER = System is unable to execute OP:CGA at this time; retry later.

k = SM number.

l = Digital line and trunk unit (DLTU) number.

m = Digital facility interface (DFI) number.

n = Facility (FAC) number.

o = MSU number.

p = Service group (SG) number.

q = Board (BRD) number.

r = Digital carrier line unit (DCLU) number for the *SLC*™ digital facility interface (SDFI) case. Integrated digital carrier unit (IDCU) number for the IDCU facility (IFAC) case.

s = Integrated SDFI number or IFAC number.

t = Unit IDs. Valid value(s):

DFIH=k-l-m	SDFI=k-r-s
DS1SFAC=k-j^1-k^1-l^1-m^1-n^1-p^1	SPN=k-o-p-q-d
EC1STE=k-j^1-k^1-l^1	STSFAC=k-j^1-k^1-l^1-m^1
FAC=k-l-m-n	VT1FAC=k-j^1-k^1-l^1-m^1-n^1-p^1
IFAC=k-r-s	

v = Local RT number.

w = Site identification (SID) number.

x = Source of the alarm. Valid value(s):
- CARRIER LINE = The T1 facility is suspected of being faulty.
- FAR END = The RT is suspected of being faulty or manual action at the RT caused the alarm.
- NEAR END = The equipment at the office is suspected of being faulty or manual action at the office caused the alarm. Given the situation where near end and far end caused alarms, only near end will be reported.

y = System alarms that are active for this RT (any combination of the following). Valid value(s):
- CRITICAL = At least one critical alarm is active.
- MAJOR = At least one major alarm is active.
- MINOR = At least one minor alarm is active.
- PWR/MISC = Power/miscellaneous alarm is active. Either AC power has been lost at the RT, or a miscellaneous alarm (a door is open, for example) is active at the RT site.

z = Type of alarm. Valid value(s):
FAN = SM fan alarm.
FAN/PERPH FUSE = SM fan/peripheral fuse alarm.

a[1] = Alarm level. Valid value(s):
CR = Critical.
MJ = Major.
MN = Minor.
NA = Not applicable.

b[1] = State of scan point. Valid value(s):
ALARM = Scan point is in its off-normal state.
ERROR = Duplex points have different states.
INH = Scan point is manually inhibited.
Note: If the scan point is part of a duplex configuration, normal reporting will continue on the uninhibited side.

c[1] = Physical location of scan point given as MSU, slot, and point numbers for remote building/power MSU scan point number (RBPSC).

e[1] = Remote peripheral site number.

h[1] = Remote peripheral unit number.

i[1] = Type of alarm message not reported on by the associated SM. Valid value(s):
ALL ALARMS UNAVAILABLE = The specified SM was unavailable for any alarm statuses.
MSU SCAN POINTS = Some or all MSU scan point reports may be missing for the specified SM.
REMOTE PERIPHERAL ALARMS = Remote peripheral building/miscellaneous, fan, fuse, power, or battery alarms.
RSM BUILDING & POWER ALARMS = RSM building/power alarms (includes RSMs, ORMs, TRMs, and Multi-Mod RSMs).
RTALARMS = Remote terminal alarms. Will be accompanied by the 'DATA MAY BE INCOMPLETE' qualifier.

j[1] = Digital networking unit - SONET (DNU-S) number.

k[1] = Data group (DG) number.

l[1] = STE number.

m[1] = Synchronous transport signal (STS) number.

n[1] = Virtual tributary group (VTG) number.

o[1] = Remote peripheral unit type. Valid values:
EAIU = Expansion access interface unit.
RISLU = Remote integrated services line unit.

p[1] = Virtual tributary member (VTM) number.

4. ACTIONS TO BE TAKEN

Investigate the cause of the alarm and take corrective action.

5. ALARMS

None

6. REFERENCES

Input Message(s):

```
CLR:OP-ALM-ALL
OP:ALM
OP:CFGSTAT
OP:CGA
OP:MSUSP
OP:RT-ALM-ALL
STP:OP-ALM-ALL
```

Output Message(s):

```
OP:ALM-RAS
OP:ALM-RBPSC
OP:ALM-RP
OP:CFGSTAT-CM
OP:CGA
OP:MSUSP
OP:RT-ALARM
```

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*
235-190-115 *Local and Toll System Features*
363-200-101 *DCLU Integrated SLC™ Carrier System*

MCC Display Page(s):

105/106 (BLDG/POWER & ALARM CNTRLS)
111/112 (AM, AM PERIPHERALS)
115 (COMMUNICATION MODULE SUMMARY)
116 (MISCELLANEOUS)
118 (CNI FRAME AND CCS LINK STATUS)
119 (MISCELLANEOUS ALARMS)
1010,X (SM X STATUS)
1320 (AIU SUMMARY)
1420 (RAS ALARMS)
1620 (REMOTE PERPH SITE STATUS)
1640 (REMOTE PERPH MISC ALARMS)
1700 (RISLU NETWORK)

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OP:ALM-ALL-D

Software Release: 5E14 and later
Message Class: BPSC
Application: 5
Type: Output

1. FORMAT

```
[1]  ____________________________________________________________________
     OP ALM ALL a

[2]  ____________________________________________________________________
     OP ALM ALL - b ACTIVE ALARM SUMMARY  c
       SCAN-PT       DESCRIPTION
       -------------------------
      [d]             e
       .              .
       .              .
       .              .

[3]  ____________________________________________________________________
     OP ALM ALL - CFGSTAT CM POWER ALARM SUMMARY c
       UNIT    MTCE STATE      HDWCHK          DGN RESULT
       f       g               h               i
       .       .               .               .
       .       .               .               .
       .       .               .               .

[4]  ____________________________________________________________________
     OP ALM ALL - CGA SUMMARY j
       UNIT  ID                 BLU  RED  YEL  QUAL  CLFI
       ========                 =========================
       {t}                     [AIS][LCA][RMA][QUAL][CLFI]
       .                         .    .    .    .    .
       .                         .    .    .    .    .
       .                         .    .    .    .    .

[5]  ____________________________________________________________________
     OP ALM ALL - RT ALARM SUMMARY c   [DATA MAY BE INCOMPLETE]
       LRT            SID      LOCATION        ALARM LEVEL
       LRT=k-r-v       w       x               y
       .               .       .               .
       .               .       .               .
       .               .       .               .

[6]  ____________________________________________________________________
     OP ALM ALL - FAN & FAN/PERPH FUSE ACTIVE ALARM SUMMARY
       SM            ALARM TYPE
       -------------------------
       k             z
       .             .
       .             .
       .             .
```

[7]

```
OP ALM ALL - RBPSC ALARM SUMMARY SM k c
  ALM-LVL    STATE    SCAN-PT    LOCATION     DESCRIPTION
-------------------------------------------------------
  a1         b1       d          c1           e
  .          .        .          .            .
  .          .        .          .            .
  .          .        .          .            .
```

[8]

```
OP ALM ALL - RAS ALARM SUMMARY SITE e1 c
  ALM-LEVEL    STATE    SCAN-PT     DESCRIPTION
-----------------------------------------------
  a1           b1       d           e
  .            .        .           .
  .            .        .           .
  .            .        .           .
```

[9]

```
OP ALM ALL - RP ALARM SUMMARY  SITE e1 c
  ALM-LVL  STATE  SCAN-PT  UNIT   SM   UNITNUM  DESCRIPTION
  ---------------------------------------------------------
  a1       b1     [d]      o1     k    h1       e
  .        .      .        .      .    .        .
  .        .      .        .      .    .        .
  .        .      .        .      .    .        .
```

[10]

```
OP ALM ALL - MSUSP=k-o-p-q ALARM SUMMARY COMPLETED
  SP STATUS       SP STATUS       SP STATUS       SP STATUS
  0  x            8  x            16 x            24 x
  1  x            9  x            17 x            25 x
  2  x            10 x            18 x            26 x
  3  x            11 x            19 x            27 x
  4  x            12 x            20 x            28 x
  5  x            13 x            21 x            29 x
  6  x            14 x            22 x            30 x
  7  x            15 x            23 x            31 x
```

[11]

```
OP ALM ALL NON-RESPONDING SM SUMMARY c
  SM        MESSAGE TYPE
  ----------------------
  k         i1
  .         .
  .         .
  .         .
```

[12]

```
OP ALM ALL - XAIU ALARM SUMMARY  c
  ALM-LVL  STATE  SCAN-PT  UNIT   SM   UNITNUM  DESCRIPTION
  ---------------------------------------------------------
  a1       b1     [d]      o1     k    q1       e
  .        .      .        .      .    .        .
```

. . . . . .
. . . . . .

2. REASON FOR OUTPUT

To report all active alarms in an office in response to the OP:ALM-ALL input message. Only active alarms are listed except for Format 10 which prints the scan point status for all metallic service unit (MSU) scan and distribute boards. Formats 2 and 6 are for alarms which previously were not included in any user-requested output messages.

Format 1 reports miscellaneous OP:ALM-ALL message status. Format 2 reports active administrative module (AM) fan alarms, local building/power and miscellaneous alarms, common network interface (CNI) alarms, external sanity monitor alarms, miscellaneous frame fan and fuse alarms, and communications module (CM) fan and fan fuse alarms. Format 3 reports the status of all CM units that are in the power alarm maintenance state. Format 4 reports active carrier group alarms (CGAs). Format 5 reports active integrated TR008/TR303 remote terminal (RT) alarms. TR008 RTs can be the *SLC*® 96, Series 5 feature package B, and Enhanced B. TR303 RTs can be the Series 5 feature package 303G. Format 6 reports active switching module (SM) fan and fan/peripheral fuse alarms. Format 7 reports active alarms for remote SMs (RSMs), optical remote modules (ORMs), or two-mile remote modules (TRMs). This output is only available in a multimodule RSM, ORM, or TRM that has the alarm input option. Only scan points that are actually in service are reported. Format 8 reports active remote alarm section (RAS) scan points. Only scan points that are actually in service are reported. Format 9 reports active remote peripheral scan points. Only scan points that are actually in service are reported. Format 10 reports the status of scan points on an MSU scan board. The status of all points is reported, regardless of whether they are active or inactive.

Note: SP 31 is a current sensing scan point which "turns on" (logical 1) when the current falls below a threshold.

Format 11 reports all SMs that did not respond with alarm information for:

- MSU scan points.
- RSM building/power alarms.
- Integrated TR008/TR303 RT alarms.
- Remote peripheral alarms. Format 12 reports active XAIU scan points.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`DATA MAY BE INCOMPLETE` = Data in the message may be incomplete because of communication trouble with an SM.

`QUAL` = Red CGA Qualifier. Currently only used for synchronous optical network (SONET) termination equipment (STE) facilities. Valid value(s):
`LOF` = Loss of frame.
`LOS` = Loss of signal.

`a` = Report status. Valid value(s):
`COMPLETED` = The OP:ALM-ALL output has terminated successfully.
`MANUAL TERMINATION` = The OP:ALM-ALL output has terminated due to a request by the STP:OP-ALM-ALL input message.

TERMINATED-CANNOT CREATE TERMINAL PROCESS FOR SM ALARMS = The OP:ALM-ALL output has terminated because the terminal process could not be created or it could not receive messages.

TERMINATED DUE TO CM ISOLATION-RETRY LATER = The OP:ALM-ALL output has terminated because the CM is isolated and no more alarm information for the CM or the SMs can be obtained. The request should be tried later when the CM is no longer isolated.

TLWS BUFFERS FULL-NO CGA REPORTED = The OP ALM ALL - CGA SUMMARY portion will not be printed due to too many currently active trunk and line work station activities. No more resources available. The rest of the alarm types are unaffected.

TLWS BUSY-NO CGA REPORTED = The OP ALM ALL - CGA SUMMARY portion will not be printed due to an in-progress OP:CGA input message. No more resources are available. The rest of the alarm types are unaffected.

b = Type of alarms being reported. Valid value(s):

AM FAN = Administrative module fan alarms.
BPSC = Building and power alarm scan points.
CNI = Common network interface alarms.
ESM = External sanity monitor.
MISC = Miscellaneous input/output processor (IOP) scan points.
MISC FRAME FAN = Miscellaneous frame fan.
MISC FRAME FUSE = Miscellaneous frame fuse.
MSGS = Message switch.
ONTC = Office network and timing complex.
TMS = Time-multiplexed switch.

c = Sequence of message block. Valid value(s):

FIRST RECORD
LAST RECORD
NEXT RECORD

d = Scan point number. Valid value(s):

If 'b' =	**'d' =**
AM FAN, CNI, ESM, MISC FRAME FAN, MISC FRAME FUSE, MSGS, ONTC, or TMS	Null.

e = Alarm name (or tag) - character string that identifies the particular scan point.

f = Unit identification.

g = Maintenance state.

h = Inhibit status. Valid value(s):

ALW,AUTO = Hardware checks are allowed.
INH,AUTO = Hardware checks are inhibited by automatic request.
INH,MAN = Hardware checks are inhibited manually.
Note: ALW,MAN is not valid.

i = Result of last diagnostic run on unit. Valid value(s):

ABT = Aborted.
ATP = All tests passed.

CATP = Conditional all tests passed.
N/A = Not applicable.
NTR = No tests run.
STF = Some tests failed.
STP = Stopped.

j = Report status. Valid value(s):
COMPLETED = The OP:CGA output has terminated successfully.
CONTINUED = The OP:CGA output consists of several reports. This is one of the intermediate reports.
STARTED = This is the initial OP:CGA output.
SYSTEM ERROR = The OP:CGA output has terminated. The output is incomplete; retry later.
SYSTEM BUSY REPEAT LATER = System is unable to execute OP:CGA at this time; retry later.

k = SM number.

l = Digital line and trunk unit (DLTU) number.

m = Digital facility interface (DFI) number.

n = Facility (FAC) number.

o = MSU number.

p = Service group (SG) number.

q = Board (BRD) number.

r = Digital carrier line unit (DCLU) number for the *SLC*® digital facility interface (SDFI) case. Integrated digital carrier unit (IDCU) number for the IDCU facility (IFAC) case.

s = Integrated SDFI number or IFAC number.

t = Unit IDs. Valid value(s):

DFIH=k-l-m	SDFI=k-r-s
DS1SFAC=k-j^1-k^1-l^1-m^1-n^1-p^1	SPN=k-o-p-q-d
EC1STE=k-j^1-k^1-l^1	STSFAC=k-j^1-k^1-l^1-m^1
FAC=k-l-m-n	VT1FAC=k-j^1-k^1-l^1-m^1-n^1-p^1
IFAC=k-r-s	

v = Local RT number.

w = Site identification (SID) number.

x = Source of the alarm. Valid value(s):
CARRIER LINE = The T1 facility is suspected of being faulty.
FAR END = The RT is suspected of being faulty or manual action at the RT caused the alarm.
NEAR END = The equipment at the office is suspected of being faulty or manual action at the office caused the alarm. Given the situation where near end and far end caused alarms, only near end will be reported.

`y` = System alarms that are active for this RT (any combination of the following). Valid value(s):

- `CRITICAL` = At least one critical alarm is active.
- `MAJOR` = At least one major alarm is active.
- `MINOR` = At least one minor alarm is active.
- `PWR/MISC` = Power/miscellaneous alarm is active. Either AC power has been lost at the RT, or a miscellaneous alarm (a door is open, for example) is active at the RT site.

`z` = Type of alarm. Valid value(s):

- `FAN` = SM fan alarm.
- `FAN/PERPH FUSE` = SM fan/peripheral fuse alarm.

`a`[1] = Alarm level. Valid value(s):

- `CR` = Critical.
- `MJ` = Major.
- `MN` = Minor.
- `NA` = Not applicable.

`b`[1] = State of scan point. Valid value(s):

- `ALARM` = Scan point is in its off-normal state.
- `ERROR` = Duplex points have different states.
- `INH` = Scan point is manually inhibited.
- Note: If the scan point is part of a duplex configuration, normal reporting will continue on the uninhibited side.

`c`[1] = Physical location of scan point given as MSU, slot, and point numbers for remote building/power MSU scan point number (RBPSC).

`e`[1] = Remote peripheral site number.

`h`[1] = Remote peripheral unit number.

`i`[1] = Type of alarm message not reported on by the associated SM. Valid value(s):

- `ALL ALARMS UNAVAILABLE` = The specified SM was unavailable for any alarm statuses.
- `MSU SCAN POINTS` = Some or all MSU scan point reports may be missing for the specified SM.
- `REMOTE PERIPHERAL ALARMS` = Remote peripheral building/miscellaneous, fan, fuse, power, or battery alarms.
- `RSM BUILDING & POWER ALARMS` = RSM building/power alarms (includes RSMs, ORMs, TRMs, and Multi-Mod RSMs).
- `RTALARMS` = Remote terminal alarms. Will be accompanied by the '`DATA MAY BE INCOMPLETE`' qualifier.

`j`[1] = Digital networking unit - SONET (DNU-S) number.

`k`[1] = Data group (DG) number.

`l`[1] = STE number.

`m`[1] = Synchronous transport signal (STS) number.

`n`[1] = Virtual tributary group (VTG) number.

o[1] = Remote peripheral unit type. Valid values:

EAIU	= Expansion access interface unit.
RISLU	= Remote integrated services line unit.
XAIU	= Multiplex access interface unit.

p[1] = Virtual tributary member (VTM) number.

q[1] = XAIU number.

4. ACTIONS TO BE TAKEN

Investigate the cause of the alarm and take corrective action.

5. ALARMS

None

6. REFERENCES

Input Message(s):

```
CLR:OP-ALM-ALL
OP:ALM
OP:CFGSTAT
OP:CGA
OP:MSUSP
OP:RT-ALM-ALL
STP:OP-ALM-ALL
```

Output Message(s):

```
OP:ALM-RAS
OP:ALM-RBPSC
OP:ALM-RP
OP:ALM-RISLUSC
OP:CFGSTAT-CM
OP:CGA
OP:MSUSP
OP:RT-ALARM
```

Other Manual(s):

235-105-110	*System Maintenance Requirements and Tools*
235-105-210	*Routine Operations and Maintenance*
235-105-220	*Corrective Maintenance*
235-105-250	*System Recovery Procedures*
235-190-115	*Local and Toll System Features*
363-200-101	*DCLU Integrated SLC® Carrier System*

MCC Display Page(s):

105/106 (BLDG/POWER & ALARM CNTRLS)

111/112 (AM, AM PERIPHERALS)
115 (COMMUNICATION MODULE SUMMARY)
116 (MISCELLANEOUS)
118 (CNI FRAME AND CCS LINK STATUS)
119 (MISCELLANEOUS ALARMS)
1010,X (SM X STATUS)
1320 (AIU SUMMARY)
1420 (RAS ALARMS)
1620 (REMOTE PERPH SITE STATUS)
1640 (REMOTE PERPH MISC ALARMS)
1700 (RISLU NETWORK)

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OP:ALM-RBPSC

Software Release: 5E10 and later
Message Class: BPSC
Application: 5
Type: Output

1. FORMAT

```
OP ALM RBPSC SM a [ALL POINTS] c RECORD
  ALM-LVL    STATE    SCAN-PT    LOCATION    DESCRIPTION
  ------------------------------------------------------------
   [d]       [e]       f          g           h
    .         .        .          .           .
    .         .        .          .           .
    .         .        .          .           .
```

2. REASON FOR OUTPUT

To report a summary of current status of either off-normal or all alarm scan points. This output occurs as a result of an input request or automatically when a remote switching module (RSM), optical remote module (ORM), or two-mile remote module (TRM) returns from stand-alone. This message is available only in a multimodule RSM, ORM or TRM that has the alarm input option.

Note: Normally, only those points that are either off-normal or inhibited are reported. If the ALL option is specified in the input request, all points are reported. In either case, only those points that are actually in service are reported.

3. VARIABLE FIELD DEFINITIONS

`ALL POINTS` = The '`ALL`' option was specified in the input.

`a` = Switching module (SM) number.

`c` = Sequence identifier. Valid value(s):
`FIRST`
`LAST`
`NEXT`

`d` = Alarm level. Valid value(s):

`CRIT`	= Critical.
`MAJ`	= Major.
`MIN`	= Minor.
`NA`	= Not applicable.

`e` = State of scan point. Valid value(s):

`ALARM`	= Scan point is in its off-normal state.
`AUTOINH`	= Scan point is chattering so it is automatically inhibited.
`CLEAR`	= Scan point is in its normal state (unalarmed).
`ERROR`	= Duplex points have different states.
`INH`	= Scan point reporting is inhibited (manual).
Note:	If the scan point is part of a duplex configuration, normal reporting will continue on

the uninhibited side.

`f` = Logical scan point number.

`g` = Physical location of scan point.
- Metallic service unit (MSU).
- Slot.
- Point numbers for remote building/power MSU scan point number (RBPSC).

`h` = Name of scan point.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:ALM
INH:ALM
OP:ALM
```

Output Message(s):

```
REPT:ALM
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1400,X (RSM BLDG/PWR ALARMS)

OP:ALM-RIBMSC-A

Software Release: 5E10 - 5E11
Message Class: BPSC
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP ALM RIBMSC SITE a [ALL POINTS] c RECORD
        ALM-LEVEL    STATE    SCAN-PT    DESCRIPTION
          ---------------------------------------------
          d            e        f             g
          .            .        .             .
          .            .        .             .
          .            .        .             .

[2]   ____________________________________________________________________
      OP ALM RIBMSC SITE a LAST RECORD
        ALM-LEVEL    STATE    SCAN-PT    DESCRIPTION
          ---------------------------------------------
          NO OFFNORMAL POINTS
```

2. REASON FOR OUTPUT

To print an alarm summary of current status of remote integrated services line unit (RISLU) building/miscellaneous alarm scan points (RIBMSC). Response to the OP:ALM input message.

Note: Normally, only those points that are either off -normal or inhibited are reported. If the ALL option is specified in the input request, all points are reported. In either case, only those points that are actually in service are reported.

3. VARIABLE FIELD DEFINITIONS

`ALL POINTS` = If the '`ALL`' option was specified in the input. If '`ALL`' was not specified in the input message, and if there are no off-normal points at the specified site, '`d`' - '`g`' will not apply and the report will print `NO OFFNORMAL POINTS`.

`a` = RISLU site number.

`c` = Sequence identifier message in sequence. Valid value(s):
`FIRST`
`LAST`
`NEXT`

`d` = Alarm level. Valid value(s):

`CR`	= Critical.
`MJ`	= Major.
`MN`	= Minor.
`NA`	= Not applicable.

`e` = State of scan point. Valid value(s):

`ALARM`	= Scan point is in its off-normal state.
`AUTOINH`	= Scan point is chattering so it is automatically inhibited.
`CLEAR`	= Scan point is in its normal state (unalarmed).
`INH`	= Scan point reporting is inhibited (manual).

`f` = Logical scan point number.

`g` = Name of scan point.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:ALM
INH:ALM
OP:ALM
```

Output Message(s):

```
REPT:ALM
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1420 (RISLU BLDG/PWR ALARMS)
1630 (RISLU SITE INDEX)

OP:ALM-RIBMSC-B

Software Release: 5E12 and later
Message Class: BPSC
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP ALM RAS SITE a [ALL POINTS] b RECORD
        ALM-LEVEL    STATE    SCAN-PT    DESCRIPTION
        -------------------------------------------
        c            d        e          f
        .            .        .          .
        .            .        .          .
        .            .        .          .

[2]   ____________________________________________________________________
      OP ALM RAS SITE a LAST RECORD
        ALM-LEVEL    STATE    SCAN-PT    DESCRIPTION
        -------------------------------------------
        NO OFFNORMAL POINTS
```

2. REASON FOR OUTPUT

To print a summary of the current status of remote alarm section (RAS) scan points at a remote peripheral site.

Note: Normally, only those points that are either off-normal or inhibited are reported. If the ALL option is specified in the input request, all points are reported. In either case, only those points that are actually in service are reported.

3. VARIABLE FIELD DEFINITIONS

`ALL POINTS` = The '`ALL`' option was specified in the input. If '`ALL`' was not specified in the input message, and if there are no off-normal points at the specified site, '`c`' - '`f`' will not apply and the report will print `NO OFFNORMAL POINTS`.

`a` = Remote peripheral site number.

`b` = Sequence identifier. Valid values:
`FIRST`
`LAST`
`NEXT`

`c` = Alarm level. Valid values:
`CR` = Critical.
`MJ` = Major.
`MN` = Minor.
`NA` = Not applicable.

`d` = State of scan point. Valid values:
`ALARM` = Scan point is off-normal.

AUTOINH	= Scan point is automatically inhibited due to chattering.
CLEAR	= Scan point is in its normal state.
INH	= Scan point is manually inhibited.

e = Logical scan point number.

f = Name of scan point.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:ALM
INH:ALM
OP:ALM
```

Output Message(s):

```
REPT:ALM
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1420 (RAS ALARMS)

OP:ALM-RISLUSC-A

Software Release: 5E10 - 5E11
Message Class: BPSC
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP ALM RISLUSC [ALL POINTS] b
        -------------------------------------------------------
        SCAN POINT NAME         STATE     SM     RISLU    SITE
               c                  d        e       f        g
               .                  .        .       .        .
               .                  .        .       .        .
               .                  .        .       .        .

[2]   ____________________________________________________________________
      OP ALM RISLUSC LAST RECORD
        -------------------------------------------------------
        SCAN POINT NAME         STATE     SM     RISLU    SITE
        NO OFFNORMAL POINTS                                 &g

[3]   ____________________________________________________________________
      OP ALM RISLUSC [ALL POINTS] STOPPED
```

2. REASON FOR OUTPUT

To report the state of remote integrated services line unit (RISLU) fan, fuse, power, and battery alarm scan points (RISLUSC).

Note: Normally, only those points that are either off-normal or inhibited are reported. If the ALL option is specified in the input request, all points are reported. In either case, only those points that are equipped on each RISLU are reported.

3. VARIABLE FIELD DEFINITIONS

`ALL POINTS` = The '`ALL`' option was specified in the input.

`b` = Sequence identifier message. Valid value(s):
- `FIRST`
- `LAST`
- `NEXT`
- `STOPPED` = Appears instead of `LAST` if additional RISLU alarm information is unavailable due to one or more isolated switching modules (SMs) hosting the RISLU site specified on the OP:ALM input message.

`c` = Alarm scan point name. Valid value(s):
- `RISLU FAN` = RISLU fan alarm scan point.
- `RISLU FUSE` = RISLU fuse alarm scan point.
- `RISLU POWER` = RISLU power alarm scan point. Equipped on one RISLU per RISLU site.
- `RISLU BATTERY` = RISLU battery alarm scan point. Equipped on one RISLU per RISLU site.

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`d` = RISLU fan, fuse, power or battery alarm state. Valid value(s):

`ALARM`	= Alarm scan point off-normal state.
`AUTOINH`	= Alarm scan point is chattering so it is automatically inhibited.
`CLEAR`	= Alarm scan point normal state (unalarmed).

`e` = SM number.

`f` = RISLU number.

`g` = RISLU site number.

4. ACTION TO BE TAKEN

If `STOPPED` appears in the output, any isolated SMs hosting the RISLU site can be determined by displaying the RISLU site status Master Control Center (MCC) display page.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:ALM
```

Output Message(s):

```
REPT:ALM
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

(R)ISLU NETWORK
1630 (RISLU SITE INDEX)
1620 (RISLU SITE STATUS)

OP:ALM-RISLUSC-B

Software Release: 5E12 - 5E13
Message Class: BPSC
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP ALM RP SITE a [ALL POINTS] b
        ALM-LVL  STATE  SCAN-PT  UNIT   SM   UNITNUM  DESCRIPTION
        ---------------------------------------------------------------
        c        f      [d]      g      h    i        e
        .        .       .       .      .    .        .
        .        .       .       .      .    .        .
        .        .       .       .      .    .        .

[2]   ____________________________________________________________________
      OP ALM RP SITE a LAST RECORD
        ALM-LVL  STATE  SCAN-PT  UNIT   SM   UNITNUM  DESCRIPTION
        ---------------------------------------------------------------
        NO OFFNORMAL POINTS

[3]   ____________________________________________________________________
      OP ALM RP [ALL POINTS] SITE a STOPPED
```

2. REASON FOR OUTPUT

To print a summary of current status of alarm scan points at a remote peripheral site.

Note: Normally, only those points that are either off-normal or inhibited are reported. If the ALL option is specified in the input request, all points are reported. In either case, only those points that are equipped on each remote peripheral are reported.

3. VARIABLE FIELD DEFINITIONS

`ALL POINTS` = The '`ALL`' option was specified in the input.

`STOPPED` = Will occur when an SM hosting scan points at the remote peripheral site fails to report scan point status, or an existing request for remote peripheral data is already in progress.

`a` = Remote peripheral site number.

`b` = Sequence identifier. Valid values:
`FIRST RECORD`
`LAST RECORD`
`NEXT RECORD`

`c` = Alarm level. Valid values:
`CR` = Critical.
`MJ` = Major.
`MN` = Minor.

`d` = Scan point number for miscellaneous scan points.

`e` = Name of scan point. For miscellaneous scan points, the name is an office-assignable character string. Other valid values:

`BATTERY`	= Battery alarm.
`FAN`	= Fan alarm.
`FUSE`	= Fuse alarm.
`POWER`	= Power alarm.

`f` = State of scan point. Valid values:

`ALARM`	= Scan point is off-normal.
`AUTOINH`	= Scan point is automatically inhibited due to chattering.
`CLEAR`	= Scan point is in its normal state.
`INH`	= Scan point is manually inhibited.

`g` = Remote peripheral unit type. Valid values:

`EAIU`	= Expansion access interface unit.
`RISLU`	= Remote integrated services line unit.

`h` = Switching module number.

`i` = Remote peripheral unit number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:ALM
```

Output Message(s):

```
REPT:ALM
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1320 (AIU SUMMARY)
1700 (RISLU NETWORK)
1620 (REMOTE PERPH SITE STATUS)

1640 (REMOTE PERPH MISC ALARMS)

OP:ALM-RISLUSC-C

Software Release: 5E14 and later
Message Class: BPSC
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP ALM RP SITE a [ALL POINTS] b
        ALM-LVL  STATE  SCAN-PT  UNIT   SM   UNITNUM  DESCRIPTION
        ---------------------------------------------------------------
        c        f      [d]      g      h    i        e
        .        .       .       .      .    .        .
        .        .       .       .      .    .        .
        .        .       .       .      .    .        .

[2]   ____________________________________________________________________
      OP ALM RP SITE a LAST RECORD
        ALM-LVL  STATE  SCAN-PT  UNIT   SM   UNITNUM  DESCRIPTION
        ---------------------------------------------------------------
        NO OFFNORMAL POINTS

[3]   ____________________________________________________________________
      OP ALM RP [ALL POINTS] SITE a STOPPED

[4]   ____________________________________________________________________
      OP ALM XAIU b
        ALM-LVL  STATE  SCAN-PT  UNIT   SM   UNITNUM  DESCRIPTION
        ---------------------------------------------------------------
        c        f      [d]      g      h    j        e
        .        .       .       .      .    .        .
        .        .       .       .      .    .        .
        .        .       .       .      .    .        .

[5]   ____________________________________________________________________
      OP ALM XAIU STOPPED
```

2. REASON FOR OUTPUT

To print a summary of current status of alarm scan points at a remote peripheral site.

Note: Normally, only those points that are either off-normal or inhibited are reported. If the ALL option is specified in the input request, all points are reported. In either case, only those points that are equipped on each remote peripheral are reported.

3. VARIABLE FIELD DEFINITIONS

`ALL POINTS` = The '`ALL`' option was specified in the input.

`STOPPED` = Will occur when an SM hosting scan points at the remote peripheral site fails to report scan point status, or an existing request for remote peripheral data is already in progress.

`a` = Remote peripheral site number.

b = Sequence identifier. Valid values:
FIRST RECORD
LAST RECORD
NEXT RECORD

c = Alarm level. Valid values:
CR = Critical.
MJ = Major.
MN = Minor.

d = Scan point number for miscellaneous scan points.

e = Name of scan point. For miscellaneous scan points, the name is an office-assignable character string. Other valid values:
BATTERY = Battery alarm.
FAN = Fan alarm.
FUSE = Fuse alarm.
POWER = Power alarm.

f = State of scan point. Valid values:
ALARM = Scan point is off-normal.
AUTOINH = Scan point is automatically inhibited due to chattering.
CLEAR = Scan point is in its normal state.
INH = Scan point is manually inhibited.

g = Remote peripheral unit type. Valid values:
EAIU = Expansion access interface unit.
RISLU = Remote integrated services line unit.
XAIU = Multiplex access interface unit.

h = Switching module number.

i = Remote peripheral unit number.

j = XAIU unit number.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:ALM
```

Output Message(s):

```
REPT:ALM
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1320 (AIU SUMMARY)
1700 (RISLU NETWORK)
1620 (REMOTE PERPH SITE STATUS)
1640 (REMOTE PERPH MISC ALARMS)

OP:AMAIRR

Software Release: 5E10 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
[1]    ____________________________________________________________________
       OP AMAIRR ON

[2]    ____________________________________________________________________
       OP AMAIRR OFF
```

2. REASON FOR OUTPUT

To report the activation status of the AMAIRR feature that reports in real time on irregular automatic message accounting (AMA) records.

Format 1 indicates that the AMAIRR feature is turned `ON`. Format 2 indicates that the AMAIRR feature is turned `OFF`.

The ALW:AMAIRR input message activates the AMAIRR feature. The INH:AMAIRR input message deactivates the AMAIRR feature.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:AMAIRR
INH:AMAIRR
OP:AMAIRR
```

Output Message(s):

```
REPT:AMAIRR
```

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OP:AMALOST

Software Release: 5E10 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP AMALOST ON TRC={ON|OFF}

[2]   ____________________________________________________________________
      OP AMALOST OFF
```

2. REASON FOR OUTPUT

To report the activation status of the AMALOST feature which will report in real time on lost AMA records. In addition, when the status is `ON`, this message reports the activation status of the AMALOST record tracing option. Format 1 indicates that the AMALOST feature is turned ON and whether the tracing option is turned `ON` or `OFF`.

Format 2 indicates that the AMALOST feature is turned `OFF`. An AMA trace of an AMALOST record is invoked if the AMALOST record tracing option has been activated and a partial or complete AMA record exists. The ALW:AMALOST input message with the TRC option activates the AMALOST feature with the record tracing option. The ALW:AMALOST input message activates the AMALOST feature without the record tracing option.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:AMALOST
INH:AMALOST
OP:AMALOST
```

Output Message(s):

```
REPT:AMALOST
REPT:AMATRC
```

Other Manual(s):
235-190-300 *Billing Feature*

OP:AMATRC

Software Release: 5E10 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

[1]
```
OP AMATRC - FILE = {ON|OFF}
  DNTRCOPTPSFLAG
  abc
  .
  .
  .
```

[2]
```
OP AMATRC FILE = {ON|OFF}
NO EXISTING TRACES
```

2. REASON FOR OUTPUT

To respond to a request (OP:AMATRC) for information on the directory numbers (DNs) active for tracing, their options, and whether the DN is a packet DN. The FILE attribute indicates whether AMATRC output is being sent to the AMTRCLOG log file.

3. VARIABLE FIELD DEFINITIONS

`FILE` = The AMATRC log file status. If ON, AMATRC output is placed in the AMTRCLOG log file in addition to being output to the receive-only printer (ROP).

`a` = A seven- or ten-digit DN.

`b` = The trace option for the listed DN {ORIG|TERM|BOTH}.

`c` = Trace packet-switched calls {ON|OFF}.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:AMATRC
INH:AMATRC
OP:AMATRC
```

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Output Message(s):

```
REPT:AMATRC
```

Other Manual(s):
235-190-300 *Billing Features and Specifications*

OP:AML

Software Release: 5E10 and later
Message Class: ATL
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP AML TG=a  f
        TG=a     SZ=b    [*]OOS=c   AML=d     [*]AMLOOS=e

[2]   ____________________________________________________________________
      OP AML REACHED   LIST SEGMENT=g  f
        TG=a     SZ=b   [*]OOS=c     AML=d     [*]AMLOOS=e
         .        .         .         .            .
         .        .         .         .            .
         .        .         .         .            .

[3]   ____________________________________________________________________
      OP AML REACHED   LIST CONTAINED h SEGMENTS   f
```

2. REASON FOR OUTPUT

To print (output) the automatic maintenance limit (AML) data for either a single specified trunk group (Format 1), or to list the AML data for all trunk groups which have currently reached or exceeded their AML (Format 2). The list will be followed by a trailer (Format 3) message indicating the end of list.

If many trunk groups have reached their AML, the list may be split into two or more messages. The AML out-of-service (OOS) counts displayed in this message only include those trunks whose OOS reason was applied against the group AML. The current total number of OOS trunks in that trunk group are reflected in the OOS counts in the output message.

This message prints in response to the OP:AML input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Trunk group number.

`b` = Number of trunks in the group.

`c` = The total number of OOS trunks in a trunk group. If a '`*`' appears before the '`OOS`', the number may be artificially high or low due to loss of communication to an SM. When the communication is restored, the switch will automatically update this count to reflect the current trunk status and remove the '`*`'.

`d` = Current AML for the trunk group.

`e` = Number of trunks that are OOS for reasons which count against the groups AML. If a '`*`' appears before the '`AMLOOS`', the number may be artificially high or low due to loss of communication to a switching module. When the communication is restored, the switch will automatically update this count to reflect the current trunk status and remove the '`*`'.

`f` = Termination report. Valid value(s):
`COMPLETED` = The requested action has been completed. If an AML list was being printed, all

segments have been printed.

`CONTINUED` = Second and subsequent segments of a list which comprises two or more segments.

`NO AML` = No AML data exists for the specified trunk group. Most likely, the specified group was not a group of outgoing or two-way trunks.

`NO ENTRIES IN LIST` = The AML list was requested, but no trunk groups are currently at or exceeding their AML.

`STARTED` = First segment of an AML list.

`SYSTEM ERROR` = An internal error occurred which prevents further processing of the request.

`TG INVALID` = The trunk group specified in the input message does not exist in the office data base.

`g` = Segment number of the current segment.

`h` = The total number of segments in the list.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:AML
```

OP:ANITBL-A

Software Release: 5E12 only
Message Class: PRFM
Application: 5
Type: Output

1. FORMAT

```
OP ANITBL SM=a b
```

2. REASON FOR OUTPUT

To print a summary of automatic number identification (ANI) entries for LDP offices to administer ANI Table (RC View 8.51). When the OP:ANITBL output status is printed showing ANI COUNT COMPLETED, then the following summary can be found in the /updtmp/ANIxxx file, where xxx is a random number. The ANIxxx file will automatically be removed in 5 days after the file is generated.

- On a per SM bases:
  - Number of ANI Table entries because of 2 or more LDP carriers associated with one ANI value
  - Number of ANI Table entries with Network Call Denial (NCD) equal to "Y"
  - Number of ANI Table entries
  - Number of ANI Table entries within each NPANXX per SM in ascending order. The format is:

    `SM number, NPANXX, Number of ANI Table entries`

- Total number of ANI Table entries per office (only if SM=ALL is entered) In case of an internal error event, a trace is stored in the ANIxxx file. Contact your next level of support for explanation.

3. VARIABLE FIELD DEFINITIONS

`a` = an individual Switching Module (SM) number or ALL for all SMs

`b` = Status. Valid status are:

`ANI COUNT COMPLETED, SUMMARY IN /updtmp/ANIxxx` = This message is printed when all results have been calculated. Either results or a trace of error events are in the file. This file may be printed on the ROP using the following command.

dump:file:all,fn="/updtmp/ANIxxx",opl=99

However, if there are lots of lines in the file, then it should not go to the ROP.

`INVALID SM OR SM IS NOT IN SERVICE` = This is printed when only 1 SM has been requested on the command line and that SM is either invalid or not operational.

`ANOTHER OP:ANITBL IS STILL RUNNING` = Only one job is allowed at a time.

`ANI COUNT IN PROGRESS, SUMMARY IN /updtmp/ANIxxx` = This message is printed when the calculations begin. Another file /updtmp/ANIprog may be of interest: it shows the processing status which includes current SM number, entries read so far, and

total entries processed. This file is updated periodically during the processing.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:ANITBL
```

OP:ANITBL-B

Software Release: 5E13 and later
Message Class: PRFM
Application: 5
Type: Output

1. FORMAT

[1]
```
OP ANITBL SM=a b
```

[2]
```
OP ANITBL INACTIVE SM=a b
```

2. REASON FOR OUTPUT

To print a summary of automatic number identification (ANI) entries for LDP offices to administer ANI Table (RC View 8.51) or ANI Index Table (RC View 8.58) and LDP Index Table (RC View 8.59). The summary will be printed in the /updtmp/ANIxxx file, where xxx is a random number. The ANIxxx file will automatically be removed in 5 days after the file is generated.

The ANI Table (RC View 8.51) summary includes the following:

- On a per SM bases:
  - Number of ANI Table entries because of 2 or more LDP carriers associated with one ANI value
  - Number of ANI Table entries with Network Call Denial (NCD) equal to "Y"
  - Number of ANI Table entries
  - Number of ANI Table entries within each NPANXX per SM in ascending order. The format is:

    ```
    SM number, NPANXX, Number of ANI Table entries
    ```

- Total number of ANI Table entries per office (only if SM=ALL is entered)

The ANI Index Table (RC View 8.58) and LDP Index Table (RC View 8.59) summary includes the following:

- On a per SM bases:
  - Number of ANI Index Table entries
  - Number of ANI Index Table entries within each NPANXX per SM in ascending order. The format is:

    ```
    SM Number, NPANXX, Number of ANI Index Table
    entries
    ```

- On a per office bases:
  - Total number of ANI Index Table entries per office (only if SM=ALL is entered)
  - Total number of LDP Index Table entries

In case of an internal error event, a trace is stored in the ANIxxx file. Contact your next level of support for explanation.

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3. VARIABLE FIELD DEFINITIONS

`a` = an individual Switching Module (SM) number or ALL for all SMs

`b` = Status. Valid status are:

`ANI COUNT COMPLETED, SUMMARY IN /updtmp/ANIxxx` = This message is printed when all results have been calculated. Either results or a trace of error events are in the file. This file may be printed on the ROP using the following command.

dump:file:all,fn="/updtmp/ANIxxx",opl=99

However, if there are lots of lines in the file, then it should not go to the ROP.

`INVALID SM OR SM IS NOT IN SERVICE` = This is printed when only 1 SM has been requested on the command line and that SM is either invalid or not operational.

`ANOTHER OP:ANITBL IS STILL RUNNING` = Only one job is allowed at a time.

`ANI COUNT IN PROGRESS, SUMMARY IN /updtmp/ANIxxx` = This message is printed when the calculations begin. Another file /updtmp/ANIprog may be of interest: it shows the processing status which includes current SM number, entries read so far, and total entries processed. This file is updated periodically during the processing.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:ANITBL`

OP:APT

Software Release: 5E10 and later
Message Class: ATL
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      OP APT     RUNNING        LAST TKGMN TESTED a b AND a b
        ELAPSED

[2]   ____________________________________________________________
      OP APT     NOT RUNNING    NEXT TKGMN TO BE TESTED a b
        NEXT
```

2. REASON FOR OUTPUT

To show the status of an automatic (trunk) progression test (APT) session. APT performs operational tests on trunks from two different trunk groups concurrently. When it is running (Format 1), the last two trunk group and member numbers (TKGMNs) tested are displayed along with how long the session has been running and the total length of the time the session will run. If APT is not running (Format 2), the time of the next scheduled session will be displayed along with the lower TKGMN the session will start with.

3. VARIABLE FIELD DEFINITIONS

`a` = Trunk group number.

`b` = Member number.

`c` = The length of time that the APT session has been running, in the form hours:minutes.

`d` = Current day of the week.

`e` = Duration of the total session in hours.

`f` = The time next session is scheduled to start, in the form hours:minutes.

`g` = The day of the week when APT will be run.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:APT
SCHED:APT
```

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```
STP:APT
```

Output Message(s):

```
REPT:APT-ABANDON
REPT:APT-ABORT
REPT:APT-COMPL
REPT:APT-FAIL
REPT:APT-RESUME
REPT:APT-START
REPT:APT-STOP
REPT:APT-SUSPEND
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

OP:ARC

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP ARC a
  OFFICE      CANT      CANF      ANN
    b           c         c         d
    :           :         :         :
```

2. REASON FOR OUTPUT

To display the status of all active alternate route cancellation (ARC) controls for up to 16 controls per message. A maximum of four messages can result since a maximum of 64 controls are allowed.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination report. Valid value(s):

`ABORTED`	= System error.
`COMPLETED`	= Last in a series of messages.
`CONTINUED`	= Middle of a series of messages.
`STARTED`	= First in a series of messages.

`b` = Office name.

`c` = Type of traffic subjected to the cancel to (CANT) or cancel from (CANF) control. Valid value(s):

`ALL`	= All level of precedence.
`RTN`	= Routine traffic.
`-`	= Control inactive.

`d` = Announcement (ANN) treatment if blocking occurs. Valid value(s):

`ANN`	= Treatment - If CANF control is inactive.
`EANN1`	= Emergency announcement 1.
`EANN2`	= Emergency announcement 2.
`NCA`	= No circuit announcement.

Note: CANT control does not require an announcement, only CANF uses an announcement.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

`OP:ARC`

Other Manual(s):
235-900-113 *Product Specification*

MCC Display Page(s):

109 (OVERLOAD)
129 (DSN NM EXCEPTION)

OP:ASPTQ-A

Software Release: 5E10 - 5E11
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

[1]

```
OP ASPTQ MSGTYPE = a                                  SECTION 1 OF 2
  USER ID:            [TYPE  ID    DN          SPID]
                      [b]    [c]   [d]         [e]
  BEARER CAPABILITY:  [f]
  CALLED PTY TYPE:    [g]
  TRIG CRITERIA:      [h]
  CALLING PTY BGID:   [i]    [j]   [k]
  CHARGE PTY TYPE:    [l]
  PRIMARY CARRIER:    [m]    [n]
  REDIRECTION INFO:   [o]    [p]   [q]
  AMP:                [r]        [s]             [t] [u]   [v:w]
  FAILURE CAUSE:      [x]
  CLEAR CAUSE:        [y]
  GENERIC NAME:       [z]
  TIMER:              [a1]
  GLOBAL TITLE ADDR:  [b1]
  CLOSE CAUSE:        [v1]
  NOTIFICATION IND:   [w1]
  BUSY CAUSE:         [x1]     [y1]    [z1]
  TRANSLATION TYPE:   [a2]
  GENERIC ADDR LIST:
   GENERIC ADDR 1:    [t1]     [u1]    [i1] [e1] [j1]
  AMA MEASUREMENT:    [b2]                 [c2]    [d2]
```

[2]

```
OP ASPTQ MSGTYPE = a                                  SECTION 2 OF 2
                          DIGITS       NATURE   NUMBER  PRES  SCRN
                                      OF NUMBER  PLAN   REST  IND
  CALLED PTY:             [c1]        [d1]      [e1]
  CHARGE NUMBER:          [f1]        [g1]      [e1]
  CALLING PTY:            [h1]        [i1]      [e1]    [j1]  [k1]
  ORIG CALLED PTY:        [l1]        [i1]      [e1]    [j1]  [k1]
  REDIRECTING PTY:        [m1]        [i1]      [e1]    [j1]  [k1]
  COLL ADDRESS INFO:      [n1]        [d1]      [e1]
  COLL DIGITS:            [o1]
  ACCESS CODE:            [p1]
  VERT SERV CODE:         [q1]
  LATA:                   [r1]
  TRAV CLASS MARK:        [s1]
```

2. REASON FOR OUTPUT

To display the advanced services platform (ASP) 0.1 test query parameters as a response to the OP:ASPTQ input message. Displayed parameters have been previously stored using the SET:ASPTQ input message.

The possible parameters that can be displayed are:
- Advanced intelligence network maintenance parameter (AMP).
- Access code.
- AMA measurement.
- Bearer capability.
- Busy cause.
- Called party ID.
- Called party station type.
- Calling party ID.
- Calling party business group ID.
- Charge number.
- Charge party station type.
- Clear cause.
- Close cause.
- Collected address information.
- Collected digits.
- Failure cause.
- Generic address list.
- Generic name.
- Global title address.
- Local access and transport area.
- Notification indicator.
- Original called party ID.
- Primary carrier.
- Redirection information.
- Redirecting party ID.
- Timer.
- Translation type.
- Traveling class mark.
- Trigger criteria type.
- User ID.
- Vertical service code.

3. VARIABLE FIELD DEFINITIONS

`a` = The message type. For convenience, the test query parameters associated with each message type are also listed below. If a particular parameter is not associated with a message type, an `NA` will be displayed in the first field for the parameter.

`CLOSE` = Information analyzed. Possible parameters:
- Advanced intelligence network maintenance parameter.
- Bearer capability.
- Close cause.
- User ID.

`INFOANAL` = Information analyzed. Possible parameters:
- Advanced intelligence network maintenance parameter.
- Access code.
- Bearer capability.
- Called party ID.
- Calling party ID.

- Calling party business group ID.
- Charge number.
- Charge party station type.
- Collected address information.
- Collected digits.
- Global title address.
- Local access and transport area.
- Original called party ID.
- Primary carrier.
- Redirection information.
- Redirecting party ID.
- Timer.
- Translation type.
- Traveling class mark.
- Trigger criteria type.
- User ID.
- Vertical service code.

`INFOCOLL` = Information collected. Possible parameters:

- Advanced intelligence network maintenance parameter.
- Access code.
- Bearer capability.
- Calling party ID.
- Charge number.
- Charge party station type.
- Collected address information.
- Collected digits.
- Generic address list.
- Global title address.
- Local access and transport area.
- Original called party ID.
- Primary carrier.
- Redirection information.
- Redirecting party ID.
- Timer.
- Translation type.
- Traveling class mark.
- Trigger criteria type.
- User ID.
- Vertical service code.

`OANSWER` = Originating answer. Possible parameters:

- Advanced intelligence network maintenance parameter.
- Bearer capability.
- Notification indicator.
- User ID.

`OCLDPTYBSY` = Originating called party busy. Possible parameters:

- Advanced intelligence network maintenance parameter.
- Bearer capability.
- Busy cause.
- Notification indicator.
- Timer.
- User ID.

`ONOANSWER` = Originating no answer. Possible parameters:
- Advanced intelligence network maintenance parameter.
- Bearer capability.
- Notification indicator.
- Timer.
- User ID.

`ORIGAT` = Origination attempt. Possible parameters.
- Advanced intelligence network maintenance parameter.
- Bearer capability.
- Calling party ID.
- Charge number.
- Charge party station type.
- Global title address.
- Local access and transport area.
- Primary carrier.
- Timer.
- Translation type.
- Trigger criteria type.
- User ID.

`OTERMSZD` = Originating termination seized. Possible parameters:
- Advanced intelligence network maintenance parameter.
- Bearer capability.
- Notification indicator.
- User ID.

`RESCLR` = Resource clear. Possible parameters.
- Advanced intelligence network maintenance parameter.
- AMA measurement.
- Clear cause.
- Collected address information.
- Collected digits.
- Failure cause.
- Primary carrier.
- Timer.

`TERMAT` = Termination attempt. Possible parameters.
- Advanced intelligence network maintenance parameter.
- Bearer capability.
- Called party ID.
- Called party station type.
- Calling party ID.
- Charge number.
- Charge party station type.
- Generic name.
- Global title address.
- Local access and transport area.
- Original called party ID.
- Redirecting party ID.
- Redirection information.
- Timer.
- Translation type.
- Traveling class mark.

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- Trigger criteria type.
- User ID.

ALL = All of the ASP 0.1B test query parameters.

b = User ID type. Valid value(s):
BRI = Basic rate interface.
DN = Directory number.
PFID = Private facility ID.
TGID = Trunk group ID.

c = Trunk group ID or private facility ID for the user ID parameter depending upon the user ID type.

d = Directory number for the user ID parameter.

e = Service profile ID for the user ID parameter.

f = Bearer capability. Valid value(s):
SPEECH
3.1KHZ AUDIO
56 KBPS
64 KBPS

g = Called party station type.

h = Trigger criteria type. Valid value(s):
CHANNEL SETUP PRI
COUNTRY CODE NPA-NXX-XXXX
CUSTOMIZED ACCESS
FEATURE ACTIVATOR
N11
NPA
NPA-N
NPA-NX
NPA-NXX
NPA-NXX-X
NPA-NXX-XX
NPA-NXX-XXX
NPA-NXX-XXXX
NXX
NXX-XXXX
OFF HOOK DELAY
OFF HOOK IMMEDIATE
ORIG NO ANSWER
ORIG PARTY BUSY
SHARED INTER OFFICE TRUNK
TERMINATION ATTEMPT
VERTICAL SERVICE CODE

i = Calling party business group ID.

j = Attendant status for the calling party BGID parameter. Valid value(s):

ATTENDANT = Attendant line.
NO ATTENDANT = Not an attendant line (or no indication).

k = Party selector for the calling party BGID parameter. Valid value(s):
CALLING PTY = Calling party.
REDIRECTING PTY = Redirecting party.

l = Charge party station type.

m = Carrier ID for the primary carrier parameter.

n = Carrier selection for the primary carrier parameter. Valid value(s):
NO INDICATION = no indication of whether the selected carrier is presubscribed.
NOT PRESUBSCRIBED AND INPUT = selected carrier is not presubscribed and not input by the calling party.
PRESUBSCRIBED AND INPUT = selected carrier is presubscribed and input by the calling party.
PRESUBSCRIBED AND NO INDICATION = selected carrier is presubscribed and no indication of whether input by the calling party.
PRESUBSCRIBED AND NOT INPUT = selected carrier is presubscribed and not input by the calling party.

o = Original redirecting reason. Valid value(s):
NO REPLY
UNCONDITIONAL
UNKNOWN
USER BUSY

p = Redirecting reason. Valid value(s):
NO REPLY
UNCONDITIONAL
UNKNOWN
USER BUSY

q = Redirecting count.

r = AMP key. Valid value(s):
NO TIME = No AMP time is specified (the following AMP fields are ignored).
TIME = An AMP time is specified.

s = AMP year. Valid value(s):
CURRENT YEAR
LAST YEAR
NEXT YEAR

t = AMP month. Valid value(s):
JAN = January.
FEB = February.
MAR = March.

APR	= April.
MAY	= May.
JUN	= June.
JUL	= July.
AUG	= August.
SEP	= September.
OCT	= October.
NOV	= November.
DEC	= December.

u = Advanced intelligence network maintenance parameter (AMP) date.

v = Advanced intelligence network maintenance parameter (AMP) hour.

w = Advanced intelligence network maintenance parameter (AMP) minute.

x = Failure cause. Valid value(s):
RATE TOO HIGH
UNAVAILABLE RESOURCE

y = Clear cause. Valid value(s):
ABANDON
ABORT
CALLED PARTY ANSWERED
CAPABILITY FAILURE
CHANNELS BUSY
FAILURE
IP TIMEOUT
ISDN TIMEOUT
INVALID CALLER RESPONSE
INVALID CODE
NORMAL
PROTOCOL ERROR
RESOURCE CANCELED
RESOURCE NOT AVAILABLE
RESOURCE TYPE NOT SUPPORTED
SEND TO RESOURCE CANCELED
SUPERVISION SERVICE INVOKED
TASK REFUSED
TEMPORARY FAILURE
TIME OUT

z = Generic name presentation. Valid value(s):
BLOCKING TOGGLE
PRESENTATION ALLOWED
PRESENTATION RESTRICTED

a[1] = Timer (in seconds)

b[1] = Global title address.

c[1] = Called party ID digits.

d[1] = Called type nature of number. Valid value(s):

950+	= 950+ call.
CUT THRU	= No address present, cut through to carrier.
INTL	= International number.
INTL OPR	= International number, operator requested.
NA	= Not applicable.
NADR OPR	= No address present, operator requested.
NAT	= National (significant) number.
NAT OPR	= National number, operator requested.
SS	= Subscriber number.
SS OPR	= Subscriber number, operator requested.
TST LINE	= Test line test code.

e[1] = Numbering plan. Valid value(s):

ISDN	= ISDN.
NA	= Unknown.
PRIV	= Private.

f[1] = Charge number digits.

g[1] = Charge type nature of number. Valid value(s):

NAT CLD	= Called party ANI; national number.
NAT CLG	= Calling party ANI, national number.
NOT AVL	= ANI not available or not provided.
NOT INCL	= Called party ANI not included.
SS CLD	= Called party ANI; subscriber number.
SS CLG	= Calling party ANI; subscriber number.

h[1] = Calling party ID digits.

i[1] = Calling type nature of number. Valid value(s):

INTL	= Unique international number.
NA	= Not applicable, or unknown.
NAT	= Unique national (significant) number.
NUNQ INT	= Non-unique international number.
NUNQ NAT	= Non-unique national number.
NUNQ SS	= Non-unique subscriber number.
SS	= Unique subscriber number.
TST LINE	= Test line test code.

j[1] = Presentation restriction indicator. Valid value(s):

ALW	= Presentation allowed.
REST	= Presentation restricted.
UNAV	= Number unavailable.

k[1] = Screening indicator. Valid value(s):

NETP	= Network provided.
UPNS	= User provided, not screened.

UPPS = User provided, passed screening.

l[1] = Original called party ID digits.

m[1] = Redirecting party ID digits.

n[1] = Collected address information digits.

o[1] = Collected digits digits.

p[1] = Access code digits.

q[1] = Vertical service code digits.

r[1] = Local access and transport area digits.

s[1] = Traveling class mark digits.

t[1] = Generic address signal digits.

u[1] = Generic address type of address. Values are:

COMPLETNBR = Completion number.
DESTNBR = Destination number.
DIALEDNBR = Dialed number.
SUPFAILSCR = Supplemental user provided calling address. Failed screening.
SUPNOTSCR = Supplemental user provided calling address. Not screened.

v[1] = Close cause. Valid value(s):

ANSW = Called party answered.
CMPL = Events and reports completed.
TERM = Call terminated.
UCOMM = Unexpected communication.

w[1] = Notification indicator. Valid value(s):

NOTIFY = Switch notification message.
REQ = Switch request message.

x[1] = Busy cause coding standard. Valid value(s):

CCITT = International Telecommunication Union - Telecommunication, Standardization Sector (ITU-TS) (formerly CCITT) standard.
NETWK = Network specific.

y[1] = Busy cause general location. Valid value(s):

LOCUNKN = Location unknown.
LOCTRL = Local interface controlled by signaling link.
INTNTWK = International network.
PUBLU = Public network serving local user.
PUBRU = Public network serving remote user.
PVTLU = Private network serving local user.
PVTRU = Private network serving remote user.

TRNTWK = Transit network.
USER = User.

z[1] = Busy cause value. Valid value(s):
ADRINC = Address incomplete.
AUNKPARM = Parameter non-existent or not implemented - accepted.
BCNOAUTH = Bearer capability not authorized.
BCNOIMPL = Bearer capability not implemented.
BCUNAV = Bearer capability not presently available.
CALLABN = Caller abandon.
CALLREJ = Call rejected.
DESTNORTE = No route to destination.
DESTOUT = Destination out of order.
DUNKPARM = Parameter non-existent or not implemented - discarded.
INFODISCD = Access information discarded.
INTWK = Interworking.
INVRSP = Improper caller response.
NBRCHG = Number changed.
NOCKT = No circuit available.
NOUSRSP = No user responding.
NRMCLR = Normal clearing.
NRM = Normal.
NSRVOPT = Service/option not implemented.
NTWKNORTE = No route to specified transit network.
NTWKOUT = Reserved for network out of order.
PARMINV = Parameter with invalid coding.
PRCLERR = Protocol error.
RDIRCTRX = Redirection counter exceeded.
RQCHANUNV = Requested channel not available.
RSRC = Resource unavailable.
SRVOPT = Service/option not available.
SWCHCONG = Switching equipment congestion.
TMPFAIL = Temporary failure.
UNALCNBR = Unallocated number.
UNKMSG = Msg type non-existent or not implemented.
USRALRT = User alerting, no answer.
USRBSY = User busy.

a[2] = Translation type (range of 0-255).

b[2] = AMA measurement start time (mm/dd/y hh:mm:ss.s).

c[2] = AMA measurement duration (mmmmm:ss.s).

d[2] = AMA measurement time guard. Valid value(s):
TIMING GUARD EXISTS = Timing guard exists.
NO TIMING GUARD = Timing guard does not exist.

4. ACTION TO BE TAKEN

None. This message is in response to a manual input request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:ASPTQ
SET:ASPTQ
```

Other Manual(s):
235-190-126 *Advanced Services Platform*

OP:ASPTQ-B

Software Release: 5E10 - 5E11
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

[1]

```
OP ASPTQ MSGTYPE = a                                  SECTION 1 OF 2
  USER ID:            [TYPE  ID    DN          SPID]
                      [b]    [c]   [d]         [e]
  BEARER CAPABILITY:  [f]
  CALLED PTY TYPE:    [g]
  TRIG CRITERIA:      [h]
  CALLING PTY BGID:   [i]    [j]   [k]
  CHARGE PTY TYPE:    [l]
  PRIMARY CARRIER:    [m]    [n]
  REDIRECTION INFO:   [o]    [p]   [q]
  AMP:                [r]        [s]             [t] [u]   [v:w]
  FAILURE CAUSE:      [x]
  CLEAR CAUSE:        [y]
  GENERIC NAME:       [z]
  TIMER:              [a1]
  GLOBAL TITLE ADDR:  [b1]
  CLOSE CAUSE:        [v1]
  NOTIFICATION IND:   [w1]
  BUSY CAUSE:         [x1]     [y1]    [z1]
  TRANSLATION TYPE:   [a2]
  GENERIC ADDR LIST:
   GENERIC ADDR 1:    [t1]     [u1]    [i1] [e1] [j1]
  AMA MEASUREMENT:    [b2]                 [c2]    [d2]
```

[2]

```
OP ASPTQ MSGTYPE = a                                  SECTION 2 OF 2
                          DIGITS       NATURE   NUMBER  PRES  SCRN
                                      OF NUMBER  PLAN   REST  IND
  CALLED PTY:             [c1]        [d1]      [e1]
  CHARGE NUMBER:          [f1]        [g1]      [e1]
  CALLING PTY:            [h1]        [i1]      [e1]    [j1]  [k1]
  ORIG CALLED PTY:        [l1]        [i1]      [e1]    [j1]  [k1]
  REDIRECTING PTY:        [m1]        [i1]      [e1]    [j1]  [k1]
  COLL ADDRESS INFO:      [n1]        [d1]      [e1]
  COLL DIGITS:            [o1]
  ACCESS CODE:            [p1]
  VERT SERV CODE:         [q1]
  LATA:                   [r1]
  TRAV CLASS MARK:        [s1]
```

2. REASON FOR OUTPUT

To display the advanced services platform (ASP) 0.1 test query parameters as a response to the OP:ASPTQ input message. Displayed parameters have been previously stored using the SET:ASPTQ input message.

The possible parameters that can be displayed are:
- Advanced intelligence network maintenance parameter (AMP).
- Access code.
- AMA measurement.
- Bearer capability.
- Busy cause.
- Called party ID.
- Called party station type.
- Calling party ID.
- Calling party business group ID.
- Charge number.
- Charge party station type.
- Clear cause.
- Close cause.
- Collected address information.
- Collected digits.
- Failure cause.
- Generic address list.
- Generic name.
- Global title address.
- Local access and transport area.
- Notification indicator.
- Original called party ID.
- Primary carrier.
- Redirection information.
- Redirecting party ID.
- Timer.
- Translation type.
- Traveling class mark.
- Trigger criteria type.
- User ID.
- Vertical service code.

3. VARIABLE FIELD DEFINITIONS

`a` = The message type. For convenience, the test query parameters associated with each message type are also listed below. If a particular parameter is not associated with a message type, an `NA` will be displayed in the first field for the parameter.

`CLOSE` = Information analyzed. Possible parameters:
- Advanced intelligence network maintenance parameter.
- Bearer capability.
- Close cause.
- User ID.

`INFOANAL` = Information analyzed. Possible parameters:
- Advanced intelligence network maintenance parameter.
- Access code.
- Bearer capability.
- Called party ID.
- Calling party ID.

- Calling party business group ID.
- Charge number.
- Charge party station type.
- Collected address information.
- Collected digits.
- Global title address.
- Local access and transport area.
- Original called party ID.
- Primary carrier.
- Redirection information.
- Redirecting party ID.
- Timer.
- Translation type.
- Traveling class mark.
- Trigger criteria type.
- User ID.
- Vertical service code.

`INFOCOLL` = Information collected. Possible parameters:

- Advanced intelligence network maintenance parameter.
- Access code.
- Bearer capability.
- Calling party ID.
- Charge number.
- Charge party station type.
- Collected address information.
- Collected digits.
- Generic address list.
- Global title address.
- Local access and transport area.
- Original called party ID.
- Primary carrier.
- Redirection information.
- Redirecting party ID.
- Timer.
- Translation type.
- Traveling class mark.
- Trigger criteria type.
- User ID.
- Vertical service code.

`OANSWER` = Originating answer. Possible parameters:

- Advanced intelligence network maintenance parameter.
- Bearer capability.
- Notification indicator.
- User ID.

`OCLDPTYBSY` = Originating called party busy. Possible parameters:

- Advanced intelligence network maintenance parameter.
- Bearer capability.
- Busy cause.
- Notification indicator.
- Timer.
- User ID.

`ONOANSWER` = Originating no answer. Possible parameters:
- Advanced intelligence network maintenance parameter.
- Bearer capability.
- Notification indicator.
- Timer.
- User ID.

`ORIGAT` = Origination attempt. Possible parameters.
- Advanced intelligence network maintenance parameter.
- Bearer capability.
- Calling party ID.
- Charge number.
- Charge party station type.
- Global title address.
- Local access and transport area.
- Primary carrier.
- Timer.
- Translation type.
- Trigger criteria type.
- User ID.

`OTERMSZD` = Originating termination seized. Possible parameters:
- Advanced intelligence network maintenance parameter.
- Bearer capability.
- Notification indicator.
- User ID.

`RESCLR` = Resource clear. Possible parameters.
- Advanced intelligence network maintenance parameter.
- AMA measurement.
- Clear cause.
- Collected address information.
- Collected digits.
- Failure cause.
- Primary carrier.
- Timer.

`TERMAT` = Termination attempt. Possible parameters.
- Advanced intelligence network maintenance parameter.
- Bearer capability.
- Called party ID.
- Called party station type.
- Calling party ID.
- Charge number.
- Charge party station type.
- Generic name.
- Global title address.
- Local access and transport area.
- Original called party ID.
- Redirecting party ID.
- Redirection information.
- Timer.
- Translation type.
- Traveling class mark.

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- Trigger criteria type.
- User ID.

ALL = All of the ASP 0.1B test query parameters.

b = User ID type. Valid value(s):
BRI = Basic rate interface.
DN = Directory number.
PFID = Private facility ID.
TGID = Trunk group ID.

c = Trunk group ID or private facility ID for the user ID parameter depending upon the user ID type.

d = Directory number for the user ID parameter.

e = Service profile ID for the user ID parameter.

f = Bearer capability. Valid value(s):
SPEECH
3.1KHZ AUDIO
56 KBPS
64 KBPS

g = Called party station type.

h = Trigger criteria type. Valid value(s):
CHANNEL SETUP PRI
COUNTRY CODE NPA-NXX-XXXX
CUSTOMIZED ACCESS
FEATURE ACTIVATOR
N11
NPA
NPA-N
NPA-NX
NPA-NXX
NPA-NXX-X
NPA-NXX-XX
NPA-NXX-XXX
NPA-NXX-XXXX
NXX
NXX-XXXX
OFF HOOK DELAY
OFF HOOK IMMEDIATE
ORIG NO ANSWER
ORIG PARTY BUSY
SHARED INTER OFFICE TRUNK
TERMINATION ATTEMPT
VERTICAL SERVICE CODE

i = Calling party business group ID.

j = Attendant status for the calling party BGID parameter. Valid value(s):

ATTENDANT = Attendant line.
NO ATTENDANT = Not an attendant line (or no indication).

k = Party selector for the calling party BGID parameter. Valid value(s):
CALLING PTY = Calling party.
REDIRECTING PTY = Redirecting party.

l = Charge party station type. .

m = Carrier ID for the primary carrier parameter.

n = Carrier selection for the primary carrier parameter. Valid value(s):
NO INDICATION = no indication of whether the selected carrier is presubscribed.
NOT PRESUBSCRIBED AND INPUT = selected carrier is not presubscribed and not input by the calling party.
PRESUBSCRIBED AND INPUT = selected carrier is presubscribed and input by the calling party.
PRESUBSCRIBED AND NO INDICATION = selected carrier is presubscribed and no indication of whether input by the calling party.
PRESUBSCRIBED AND NOT INPUT = selected carrier is presubscribed and not input by the calling party.

o = Original redirecting reason. Valid value(s):
NO REPLY
UNCONDITIONAL
UNKNOWN
USER BUSY

p = Redirecting reason. Valid value(s):
NO REPLY
UNCONDITIONAL
UNKNOWN
USER BUSY

q = Redirecting count.

r = AMP key. Valid value(s):
NO TIME = No AMP time is specified (the following AMP fields are ignored).
TIME = An AMP time is specified.

s = AMP year. Valid value(s):
CURRENT YEAR
LAST YEAR
NEXT YEAR

t = AMP month. Valid value(s):
JAN = January.
FEB = February.
MAR = March.
APR = April.

MAY = May.
JUN = June.
JUL = July.
AUG = August.
SEP = September.
OCT = October.
NOV = November.
DEC = December.

u = Advanced intelligence network maintenance parameter (AMP) date.

v = Advanced intelligence network maintenance parameter (AMP) hour.

w = Advanced intelligence network maintenance parameter (AMP) minute.

x = Failure cause. Valid value(s):
RATE TOO HIGH
UNAVAILABLE RESOURCE

y = Clear cause. Valid value(s):
ABANDON
ABORT
CALLED PARTY ANSWERED
CAPABILITY FAILURE
CHANNELS BUSY
FAILURE
IP TIMEOUT
ISDN TIMEOUT
INVALID CALLER RESPONSE
INVALID CODE
NORMAL
PROTOCOL ERROR
RESOURCE CANCELED
RESOURCE NOT AVAILABLE
RESOURCE TYPE NOT SUPPORTED
SEND TO RESOURCE CANCELED
SUPERVISION SERVICE INVOKED
TASK REFUSED
TEMPORARY FAILURE
TIME OUT

z = Generic name presentation. Valid value(s):
BLOCKING TOGGLE
PRESENTATION ALLOWED
PRESENTATION RESTRICTED

a[1] = Timer (in seconds)

b[1] = Global title address.

c[1] = Called party ID digits.

d[1] = Called type nature of number. Valid value(s):

950+	= 950+ call.
CUT THRU	= No address present, cut through to carrier.
INTL	= International number.
INTL OPR	= International number, operator requested.
NA	= Not applicable.
NADR OPR	= No address present, operator requested.
NAT	= National (significant) number.
NAT OPR	= National number, operator requested.
SS	= Subscriber number.
SS OPR	= Subscriber number, operator requested.
TST LINE	= Test line test code.

e[1] = Numbering plan. Valid value(s):

ISDN	= ISDN.
NA	= Unknown.
PRIV	= Private.

f[1] = Charge number digits.

g[1] = Charge type nature of number. Valid value(s):

NAT CLD	= Called party ANI; national number.
NAT CLG	= Calling party ANI, national number.
NOT AVL	= ANI not available or not provided.
NOT INCL	= Called party ANI not included.
SS CLD	= Called party ANI; subscriber number.
SS CLG	= Calling party ANI; subscriber number.

h[1] = Calling party ID digits.

i[1] = Calling type nature of number. Valid value(s):

INTL	= Unique international number.
NA	= Not applicable, or unknown.
NAT	= Unique national (significant) number.
NUNQ INT	= Non-unique international number.
NUNQ NAT	= Non-unique national number.
NUNQ SS	= Non-unique subscriber number.
SS	= Unique subscriber number.
TST LINE	= Test line test code.

j[1] = Presentation restriction indicator. Valid value(s):

ALW	= Presentation allowed.
REST	= Presentation restricted.
UNAV	= Number unavailable.

k[1] = Screening indicator. Valid value(s):

NETP	= Network provided.
UPNS	= User provided, not screened.

UPPS = User provided, passed screening.

l[1] = Original called party ID digits.

m[1] = Redirecting party ID digits.

n[1] = Collected address information digits.

o[1] = Collected digits digits.

p[1] = Access code digits.

q[1] = Vertical service code digits.

r[1] = Local access and transport area digits.

s[1] = Traveling class mark digits.

t[1] = Generic address signal digits.

u[1] = Generic address type of address. Values are:
COMPLETNBR = Completion number.
DESTNBR = Destination number.
DIALEDNBR = Dialed number.
SUPFAILSCR = Supplemental user provided calling address. Failed screening.
SUPNOTSCR = Supplemental user provided calling address. Not screened.

v[1] = Close cause. Valid value(s):
ANSW = Called party answered.
CMPL = Events and reports completed.
TERM = Call terminated.
UCOMM = Unexpected communication.

w[1] = Notification indicator. Valid value(s):
NOTIFY = Switch notification message.
REQ = Switch request message.

x[1] = Busy cause coding standard. Valid value(s):
CCITT = International Telecommunication Union - Telecommunication, Standardization Sector (ITU-TS) (formerly CCITT) standard.
NETWK = Network specific.

y[1] = Busy cause general location. Valid value(s):
LOCUNKN = Location unknown.
LOCTRL = Local interface controlled by signaling link.
INTNTWK = International network.
PUBLU = Public network serving local user.
PUBRU = Public network serving remote user.
PVTLU = Private network serving local user.
PVTRU = Private network serving remote user.

TRNTWK = Transit network.
USER = User.

z[1] = Busy cause value. Valid value(s):
ADRINC = Address incomplete.
AUNKPARM = Parameter non-existent or not implemented - accepted.
BCNOAUTH = Bearer capability not authorized.
BCNOIMPL = Bearer capability not implemented.
BCUNAV = Bearer capability not presently available.
CALLABN = Caller abandon.
CALLREJ = Call rejected.
DESTNORTE = No route to destination.
DESTOUT = Destination out of order.
DUNKPARM = Parameter non-existent or not implemented - discarded.
INFODISCD = Access information discarded.
INTWK = Interworking.
INVRSP = Improper caller response.
NBRCHG = Number changed.
NOCKT = No circuit available.
NOUSRSP = No user responding.
NRMCLR = Normal clearing.
NRM = Normal.
NSRVOPT = Service/option not implemented.
NTWKNORTE = No route to specified transit network.
NTWKOUT = Reserved for network out of order.
PARMINV = Parameter with invalid coding.
PRCLERR = Protocol error.
RDIRCTRX = Redirection counter exceeded.
RQCHANUNV = Requested channel not available.
RSRC = Resource unavailable.
SRVOPT = Service/option not available.
SWCHCONG = Switching equipment congestion.
TMPFAIL = Temporary failure.
UNALCNBR = Unallocated number.
UNKMSG = Msg type non-existent or not implemented.
USRALRT = User alerting, no answer.
USRBSY = User busy.

a[2] = Translation type (range of 0-255).

b[2] = AMA measurement start time (mm/dd/y hh:mm:ss.s).

c[2] = AMA measurement duration (mmmmm:ss.s).

d[2] = AMA measurement time guard. Valid value(s):
TIMING GUARD EXISTS = Timing guard exists.
NO TIMING GUARD = Timing guard does not exist.

e[2] = Origination point code. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Input Messages manual.

4. ACTION TO BE TAKEN

None. This message is in response to a manual input request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:ASPTQ
SET:ASPTQ
```

Other Manual(s):
235-190-126 *Advanced Services Platform*

OP:ASPTQ-C

Software Release: 5E12 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

[1]

```
OP ASPTQ MSGTYPE = a                                  SECTION 1 OF 2
  USER ID:            [TYPE  ID    DN          SPID]
                      [b]    [c]   [d]         [e]
  BEARER CAPABILITY:  [f]
  CALLED PTY TYPE:    [g]
  TRIG CRITERIA:      [h]
  CALLING PTY BGID:   [i]    [j]   [k]
  CHARGE PTY TYPE:    [l]
  PRIMARY CARRIER:    [m]    [n]
  REDIRECTION INFO:   [o]    [p]   [q]
  AMP:                [r]        [s]             [t] [u]   [v:w]
  FAILURE CAUSE:      [x]
  CLEAR CAUSE:        [y]
  GENERIC NAME:       [z]
  TIMER:              [a1]
  GLOBAL TITLE ADDR:  [b1]
  CLOSE CAUSE:        [v1]
  NOTIFICATION IND:   [w1]
  BUSY CAUSE:         [x1]     [y1]    [z1]
  TRANSLATION TYPE:   [a2]
  GENERIC ADDR LIST:
   GENERIC ADDR 1:    [t1]     [u1]    [i1] [e1] [j1]
  AMA MEASUREMENT:    [b2]                 [c2]    [d2]
  OPC:                [e2]
```

[2]

```
OP ASPTQ MSGTYPE = a                                  SECTION 2 OF 2
                          DIGITS       NATURE   NUMBER  PRES  SCRN
                                      OF NUMBER  PLAN   REST  IND
  CALLED PTY:             [c1]        [d1]      [e1]
  CHARGE NUMBER:          [f1]        [g1]      [e1]
  CALLING PTY:            [h1]        [i1]      [e1]    [j1]  [k1]
  ORIG CALLED PTY:        [l1]        [i1]      [e1]    [j1]  [k1]
  REDIRECTING PTY:        [m1]        [i1]      [e1]    [j1]  [k1]
  COLL ADDRESS INFO:      [n1]        [d1]      [e1]
  COLL DIGITS:            [o1]
  ACCESS CODE:            [p1]
  VERT SERV CODE:         [q1]
  LATA:                   [r1]
  TRAV CLASS MARK:        [s1]
```

2. REASON FOR OUTPUT

To display the advanced services platform (ASP) 0.1 test query parameters as a response to the OP:ASPTQ input message. Displayed parameters have been previously stored using the SET:ASPTQ input message.

The possible parameters that can be displayed are:

- Advanced intelligence network maintenance parameter (AMP).
- Access code.
- AMA measurement.
- Bearer capability.
- Busy cause.
- Called party ID.
- Called party station type.
- Calling party ID.
- Calling party business group ID.
- Charge number.
- Charge party station type.
- Clear cause.
- Close cause.
- Collected address information.
- Collected digits.
- Failure cause.
- Generic address list.
- Generic name.
- Global title address.
- Local access and transport area.
- Notification indicator.
- Original called party ID.
- Origination point code.
- Primary carrier.
- Redirection information.
- Redirecting party ID.
- Timer.
- Translation type.
- Traveling class mark.
- Trigger criteria type.
- User ID.
- Vertical service code.

3. VARIABLE FIELD DEFINITIONS

`a` = The message type. For convenience, the test query parameters associated with each message type are also listed below. If a particular parameter is not associated with a message type, an `NA` will be displayed in the first field for the parameter.

`CLOSE` = Information analyzed. Possible parameters:

- Advanced intelligence network maintenance parameter.
- Bearer capability.
- Close cause.
- User ID.

`INFOANAL` = Information analyzed. Possible parameters:

- Advanced intelligence network maintenance parameter.
- Access code.
- Bearer capability.

- Called party ID.
- Calling party ID.
- Calling party business group ID.
- Charge number.
- Charge party station type.
- Collected address information.
- Collected digits.
- Global title address.
- Local access and transport area.
- Original called party ID.
- Origination point code.
- Primary carrier.
- Redirection information.
- Redirecting party ID.
- Timer.
- Translation type.
- Traveling class mark.
- Trigger criteria type.
- User ID.
- Vertical service code.

`INFOCOLL` = Information collected. Possible parameters:

- Advanced intelligence network maintenance parameter.
- Access code.
- Bearer capability.
- Calling party ID.
- Charge number.
- Charge party station type.
- Collected address information.
- Collected digits.
- Generic address list.
- Global title address.
- Local access and transport area.
- Original called party ID.
- Origination point code.
- Primary carrier.
- Redirection information.
- Redirecting party ID.
- Timer.
- Translation type.
- Traveling class mark.
- Trigger criteria type.
- User ID.
- Vertical service code.

`OANSWER` = Originating answer. Possible parameters:

- Advanced intelligence network maintenance parameter.
- Bearer capability.
- Notification indicator.
- User ID.

`OCLDPTYBSY` = Originating called party busy. Possible parameters:

- Advanced intelligence network maintenance parameter.
- Bearer capability.

- Busy cause.
- Called party ID.
- Calling party ID.
- Charge number.
- Charge party station type.
- Local access and transport area.
- Notification indicator.
- Original called party ID.
- Origination point code.
- Primary carrier.
- Redirecting party ID.
- Redirection information.
- Timer.
- Trigger criteria type.
- User ID.

`ONOANSWER` = Originating no answer. Possible parameters:

- Advanced intelligence network maintenance parameter.
- Bearer capability.
- Called party ID.
- Calling party ID.
- Charge number.
- Charge party station type.
- Local access and transport area.
- Notification indicator.
- Original called party ID.
- Origination point code.
- Primary carrier.
- Redirecting party ID.
- Redirection information.
- Timer.
- Trigger criteria type.
- User ID.

`ORIGAT` = Origination attempt. Possible parameters.

- Advanced intelligence network maintenance parameter.
- Bearer capability.
- Calling party ID.
- Charge number.
- Charge party station type.
- Global title address.
- Local access and transport area.
- Origination point code.
- Primary carrier.
- Timer.
- Translation type.
- Trigger criteria type.
- User ID.

`OTERMSZD` = Originating termination seized. Possible parameters:

- Advanced intelligence network maintenance parameter.
- Bearer capability.
- Notification indicator.
- User ID.

RESCLR = Resource clear. Possible parameters.
- Advanced intelligence network maintenance parameter.
- AMA measurement.
- Clear cause.
- Collected address information.
- Collected digits.
- Failure cause.
- Primary carrier.
- Timer.

TERMAT = Termination attempt. Possible parameters.
- Advanced intelligence network maintenance parameter.
- Bearer capability.
- Called party ID.
- Called party station type.
- Calling party ID.
- Charge number.
- Charge party station type.
- Generic name.
- Global title address.
- Local access and transport area.
- Original called party ID.
- Origination point code.
- Redirecting party ID.
- Redirection information.
- Timer.
- Translation type.
- Traveling class mark.
- Trigger criteria type.
- User ID.

ALL = All of the ASP 0.1B test query parameters.

b = User ID type. Valid value(s):
BRI = Basic rate interface.
DN = Directory number.
PFID = Private facility ID.
TGID = Trunk group ID.

c = Trunk group ID or private facility ID for the user ID parameter depending upon the user ID type.

d = Directory number for the user ID parameter.

e = Service profile ID for the user ID parameter.

f = Bearer capability. Valid value(s):
SPEECH
3.1KHZ AUDIO
56 KBPS
64 KBPS

g = Called party station type.

h = Trigger criteria type. Valid value(s):
CHANNEL SETUP PRI
COUNTRY CODE NPA-NXX-XXXX
CUSTOMIZED ACCESS
FEATURE ACTIVATOR
N11
NPA
NPA-N
NPA-NX
NPA-NXX
NPA-NXX-X
NPA-NXX-XX
NPA-NXX-XXX
NPA-NXX-XXXX
NXX
NXX-XXXX
OFF HOOK DELAY
OFF HOOK IMMEDIATE
SHARED INTER OFFICE TRUNK
TERMINATION ATTEMPT
VERTICAL SERVICE CODE
ORIG PARTY BUSY
ORIG NO ANSWER

i = Calling party business group ID.

j = Attendant status for the calling party BGID parameter. Valid value(s):
ATTENDANT = Attendant line.
NO ATTENDANT = Not an attendant line (or no indication).

k = Party selector for the calling party BGID parameter. Valid value(s):
CALLING PTY = Calling party.
REDIRECTING PTY = Redirecting party.

l = Charge party station type.

m = Carrier ID for the primary carrier parameter.

n = Carrier selection for the primary carrier parameter. Valid value(s):
NO INDICATION = no indication of whether the selected carrier is presubscribed.
NOT PRESUBSCRIBED AND INPUT = selected carrier is not presubscribed and not input by the calling party.
PRESUBSCRIBED AND INPUT = selected carrier is presubscribed and input by the calling party.
PRESUBSCRIBED AND NO INDICATION = selected carrier is presubscribed and no indication of whether input by the calling party.
PRESUBSCRIBED AND NOT INPUT = selected carrier is presubscribed and not input by the calling party.

o = Original redirecting reason. Valid value(s):
NO REPLY
UNCONDITIONAL

UNKNOWN
USER BUSY

p = Redirecting reason. Valid value(s):
NO REPLY
UNCONDITIONAL
UNKNOWN
USER BUSY

q = Redirecting count.

r = AMP key. Valid value(s):
NO TIME = No AMP time is specified (the following AMP fields are ignored).
TIME = An AMP time is specified.

s = AMP year. Valid value(s):
CURRENT YEAR
LAST YEAR
NEXT YEAR

t = AMP month. Valid value(s):
JAN = January.
FEB = February.
MAR = March.
APR = April.
MAY = May.
JUN = June.
JUL = July.
AUG = August.
SEP = September.
OCT = October.
NOV = November.
DEC = December.

u = Advanced intelligence network maintenance parameter (AMP) date.

v = Advanced intelligence network maintenance parameter (AMP) hour.

w = Advanced intelligence network maintenance parameter (AMP) minute.

x = Failure cause. Valid value(s):
RATE TOO HIGH
UNAVAILABLE RESOURCE

y = Clear cause. Valid value(s):
ABANDON
ABORT
CALLED PARTY ANSWERED
CAPABILITY FAILURE
CHANNELS BUSY

FAILURE
IP TIMEOUT
ISDN TIMEOUT
INVALID CALLER RESPONSE
INVALID CODE
NORMAL
PROTOCOL ERROR
RESOURCE CANCELED
RESOURCE NOT AVAILABLE
RESOURCE TYPE NOT SUPPORTED
SEND TO RESOURCE CANCELED
SUPERVISION SERVICE INVOKED
TASK REFUSED
TEMPORARY FAILURE
TIME OUT

z = Generic name presentation. Valid value(s):
BLOCKING TOGGLE
PRESENTATION ALLOWED
PRESENTATION RESTRICTED

a[1] = Timer (in seconds)

b[1] = Global title address.

c[1] = Called party ID digits.

d[1] = Called type nature of number. Valid value(s):

950+	= 950+ call.
CUT THRU	= No address present, cut through to carrier.
INTL	= International number.
INTL OPR	= International number, operator requested.
NA	= Not applicable.
NADR OPR	= No address present, operator requested.
NAT	= National (significant) number.
NAT OPR	= National number, operator requested.
SS	= Subscriber number.
SS OPR	= Subscriber number, operator requested.
TST LINE	= Test line test code.

e[1] = Numbering plan. Valid value(s):

ISDN	= ISDN.
NA	= Unknown.
PRIV	= Private.

f[1] = Charge number digits.

g[1] = Charge type nature of number. Valid value(s):

NAT CLD	= Called party ANI; national number.
NAT CLG	= Calling party ANI, national number.
NOT AVL	= ANI not available or not provided.

NOT INCL = Called party ANI not included.
SS CLD = Called party ANI; subscriber number.
SS CLG = Calling party ANI; subscriber number.

h[1] = Calling party ID digits.

i[1] = Calling type nature of number. Valid value(s):
INTL = Unique international number.
NA = Not applicable, or unknown.
NAT = Unique national (significant) number.
NUNQ INT = Non-unique international number.
NUNQ NAT = Non-unique national number.
NUNQ SS = Non-unique subscriber number.
SS = Unique subscriber number.
TST LINE = Test line test code.

j[1] = Presentation restriction indicator. Valid value(s):
ALW = Presentation allowed.
REST = Presentation restricted.
UNAV = Number unavailable.

k[1] = Screening indicator. Valid value(s):
NETP = Network provided.
UPNS = User provided, not screened.
UPPS = User provided, passed screening.

l[1] = Original called party ID digits.

m[1] = Redirecting party ID digits.

n[1] = Collected address information digits.

o[1] = Collected digits digits.

p[1] = Access code digits.

q[1] = Vertical service code digits.

r[1] = Local access and transport area digits.

s[1] = Traveling class mark digits.

t[1] = Generic address signal digits.

u[1] = Generic address type of address. Values are:
COMPLETNBR = Completion number.
DESTNBR = Destination number.
DIALEDNBR = Dialed number.
SUPFAILSCR = Supplemental user provided calling address. Failed screening.
SUPNOTSCR = Supplemental user provided calling address. Not screened.

v[1] = Close cause. Valid value(s):

ANSW	= Called party answered.
CMPL	= Events and reports completed.
TERM	= Call terminated.
UCOMM	= Unexpected communication.

w[1] = Notification indicator. Valid value(s):

NOTIFY	= Switch notification message.
REQ	= Switch request message.

x[1] = Busy cause coding standard. Valid value(s):

CCITT	= International Telecommunication Union - Telecommunication, Standardization Sector (ITU-TS) (formerly CCITT) standard.
NETWK	= Network specific.

y[1] = Busy cause general location. Valid value(s):

LOCUNKN	= Location unknown.
LOCTRL	= Local interface controlled by signaling link.
INTNTWK	= International network.
PUBLU	= Public network serving local user.
PUBRU	= Public network serving remote user.
PVTLU	= Private network serving local user.
PVTRU	= Private network serving remote user.
TRNTWK	= Transit network.
USER	= User.

z[1] = Busy cause value. Valid value(s):

ADRINC	= Address incomplete.
AUNKPARM	= Parameter non-existent or not implemented - accepted.
BCNOAUTH	= Bearer capability not authorized.
BCNOIMPL	= Bearer capability not implemented.
BCUNAV	= Bearer capability not presently available.
CALLABN	= Caller abandon.
CALLREJ	= Call rejected.
DESTNORTE	= No route to destination.
DESTOUT	= Destination out of order.
DUNKPARM	= Parameter non-existent or not implemented - discarded.
INFODISCD	= Access information discarded.
INTWK	= Interworking.
INVRSP	= Improper caller response.
NBRCHG	= Number changed.
NOCKT	= No circuit available.
NOUSRSP	= No user responding.
NRMCLR	= Normal clearing.
NRM	= Normal.
NSRVOPT	= Service/option not implemented.
NTWKNORTE	= No route to specified transit network.
NTWKOUT	= Reserved for network out of order.

PARMINV	= Parameter with invalid coding.
PRCLERR	= Protocol error.
RDIRCTRX	= Redirection counter exceeded.
RQCHANUNV	= Requested channel not available.
RSRC	= Resource unavailable.
SRVOPT	= Service/option not available.
SWCHCONG	= Switching equipment congestion.
TMPFAIL	= Temporary failure.
UNALCNBR	= Unallocated number.
UNKMSG	= Msg type non-existent or not implemented.
USRALRT	= User alerting, no answer.
USRBSY	= User busy.

a[2] = Translation type (range of 0-255).

b[2] = AMA measurement start time (mm/dd/y hh:mm:ss.s).

c[2] = AMA measurement duration (mmmmm:ss.s).

d[2] = AMA measurement time guard. Valid value(s):
TIMING GUARD EXISTS = Timing guard exists.
NO TIMING GUARD = Timing guard does not exist.

e[2] = Origination point code. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Input Messages manual.

4. ACTION TO BE TAKEN

None. This message is in response to a manual input request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:ASPTQ
SET:ASPTQ
```

Other Manual(s):
235-190-126 *Advanced Services Platform*

OP:ATMALM

Software Release: 5E11 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP ATMALM PSU=a-0 PSLNK=b-c   [h]
                                                   PAGE d of e

       VPATH FAR END COMMUNITY ADDRESSES IN ATM AIS:
        f [.  .  .]
       [.  .  .  .]
       [.  .  .  .]
       [.  .  .  .]

[2]   ____________________________________________________________________
      OP ATMALM PSU=a-0 PSLNK=b-c   [h]
                                                   PAGE d of e

       VPATH FAR END COMMUNITY ADDRESSES IN ATM RDI:
        g [.  .  .]
       [.  .  .  .]
       [.  .  .  .]
       [.  .  .  .]

[3]   ____________________________________________________________________
      OP ATMALM PSU=a-0 PSLNK=b-c   [h]
                                                   PAGE d of e

       VIRTUAL PATH IDENTIFIER NUMBERS IN ATM AIS:
        f [.  .  .]
       [.  .  .  .]
       [.  .  .  .]
       [.  .  .  .]

[4]   ____________________________________________________________________
      OP ATMALM PSU=a-0 PSLNK=b-c   [h]
                                                   PAGE d of e

       VIRTUAL PATH IDENTIFIER NUMBERS IN ATM RDI:
        g [.  .  .]
       [.  .  .  .]
       [.  .  .  .]
       [.  .  .  .]

[5]   ____________________________________________________________________
      OP ATMALM PSU=a-0 PSLNK=b-c   [h] i
```

2. REASON FOR OUTPUT

To report the virtual path(s) (VPATHs) that is (are) in the asynchronous transfer mode (ATM) alarm state, in the

form of far end community address(es) or virtual path identifier (VPI) numbers, with respect to the given near end community address.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Near end community address of the packet switch unit (PSU) link or the virtual path(s).

`c` = Far end community address of the packet switch unit (PSU) link or the virtual path(s).

`d` = Current page number.

`e` = Total number of pages in this output.

`f` = Far end community address or VPI number that is in ATM alarm indication signal (AIS) alarm.

`g` = Far end community address or VPI number that is in ATM remote defect indication (RDI) alarm.

`h` = Termination status. Valid value(s):

`ABORTED`	= Requested action has aborted.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action has not been started.
`STOPPED`	= Requested action has stopped.

`i` = Additional information qualifying the termination status. Refer to the APP:PSU-RESP appendix in the Appendixes section of this Output Messages manual.

4. ACTION TO BE TAKEN

If a virtual path is in ATM alarm, contact far end(s) for resolution.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:ATMALM`

Output Appendix(es):

`APP:PSU-RESP`

MCC Display Page(s):

1187 (PSU LINKS STATUS)

OP:ATTS

Software Release: 5E10 and later
Message Class: APT,ATL
Application: 5
Type: Output

1. FORMAT

[1]
```
OP ATTS SCHED=a b
```

[2]
```
OP ATTS SCHED=a b [,DAY=i] j
  [NEXT] SCHEDULE WEEK=c
```

[3]
```
OP ATTS SCHED=a b j
  SCHEDULE WEEK=c, DAY=d
  CURRENT SESSION STOPS AT e
```

[4]
```
OP ATTS SCHED=a b j
  SCHEDULE WEEK=c, DAY=d
  NEXT SESSION STARTS ON WEEK=f, DAY=g, h
```

2. REASON FOR OUTPUT

Reports the manually requested output of the status of an automatic trunk test scheduler (ATTS) test schedule.

3. VARIABLE FIELD DEFINITIONS

a = The number of the ATTS test schedule for which the status was requested.

b = The ATTS test schedule operational state. Valid value(s):

- EMPTY = No test sessions are defined in the schedule.
- IDLE = The schedule is operating, but ATTS is in the process of cycling through a seven-day idle period begun by a fifth Monday in the current calendar month.
- PAUSING = The schedule is operating and waiting for the stopping time of the current scheduled test session to arrive as a result of the previous test session's early completion.
- RUNNING = The schedule is operating and a test session is in execution at the present time.
- SKIPPING = The schedule is operating and a test session is in the process of being skipped over at the present time.
- STOPPED = The schedule is not currently operating.
- SUSPENDED = The schedule is suspended when the message STP:ATTS is issued without the unconditional parameter.
  Note: If atts is stopped conditionally, the resulting status will be SUSPENDED. ATTS can be restarted or issue another STP:ATTS message at which point the state will then go to STOPPED.
- WAITING = The schedule is operating and waiting for the starting time of the next scheduled test session to arrive.

`c` = The number of either the next ATTS schedule week to be in effect (if the schedule is in the IDLE state) or the current schedule week in effect (if the schedule is operating and not in the IDLE state).

`d` = The number of the current schedule day in effect.

`e` = The scheduled stopping hour, in hour:minute:second format, of the test session under current consideration by ATTS.

`f` = The number of the schedule week associated with the next test session to be considered for execution by ATTS.

`g` = The number of the schedule day associated with the next test session to be considered for execution by ATTS.

`h` = The scheduled starting time, in hour:minute:second format, of the next test session to be considered for execution by ATTS.

`i` = The number of the current schedule day in the idle week.

`j` = The current schedule time, in hour:minute:second format.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:ATDTA
DUMP:ATLOG
DUMP:ATPRM
OP:ATTS
ST:ATTS
STP:ATTS
```

Output Message(s):

```
DUMP:ATDTA
DUMP:ATLOG
DUMP:ATPRM
OP:ATTS
REPT:ATTS
ST:ATTS
STP:ATTS
```

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-118-25x *Recent Change Procedures*

235-118-25x *Recent Change Reference*
235-105-210 *Routine Operations and Maintenance*
235-100-125 *System Description*

RC/V View(s):

14.9 (ATTS TEST SESSION SCHEDULE DATA)
14.10 (ATTS TEST SCHEDULE PARAMETER)

OP:AUD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP AUD a
        ROUTINE AUDIT SCHEDULING IS b
        AUDIT    AUDIT     AUDIT  MODE   INSTANCE    INS  MODE RTN
        NAME   MBR    RID   INH   PERM  RID   NAME   INH  ACT  SCH BLK
        [c]    [d]    [e]   [f]  [ghij]  k    [l]    [m]  [n]  [o] [p]
         .      .      .     .    ....   .     .      .    .    .   .
         .      .      .     .    ....   .     .      .    .    .   .
         .      .      .     .    ....   .     .      .    .    .   .

[2]   ____________________________________________________________________
      OP AUD ABORTED ECD INTERFACE ERROR q [AUDIT RID r]

[3]   ____________________________________________________________________
      OP AUD ABORTED CANNOT OPEN OUTPUT FILE s

[4]   ____________________________________________________________________
      OP AUD ABORTED CANNOT WRITE OUTPUT FILE s

[5]   ____________________________________________________________________
      OP AUD ABORTED CANNOT CREATE TEMPORARY FILE

[6]   ____________________________________________________________________
      OP AUD NOT STARTED
        CONFLICT WITH CURRENT SYSTEM STATUS t
        RETRY LATER u
```

2. REASON FOR OUTPUT

Format 1 prints the status of the audits controlled by the system integrity monitor (SIM).

Format 2 reports an equipment configuration database (ECD) interface error.

Format 3 reports an error when trying to create a temporary output file.

Format 4 reports an error when writing to a temporary output file.

Format 5 reports when unable to create a uniquely-named temporary file.

Format 6 reports the termination status of the OP:AUD input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Output message status. Valid value(s):
`COMPLETED` = Final or only message segment.
`COMPLETED-NO AUDIT RECORDS IN ECD`
`COMPLETED-NO AUDITS RUNNING`

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IN PROGRESS = Second or subsequent message segment.
STARTED = First of several message segments.

b = Master audit inhibit status for all audits controlled by SIM. Valid value(s):
ALLOWED
AUTOMATICALLY INHIBITED
IN UNKNOWN STATE
MANUALLY INHIBITED

c = Audit name. This field is blank for all instances after the first.

d = Member number. This field is blank for all instances after the first.

e = Record identification (RID) of the audit record from the equipment configuration database (ECD). This field is blank for all instances after the first.

f = Source of the inhibit: blank if the audit is not inhibited. This field is blank for all instances after the first. Valid value(s):
AUTO = Automatic action.
MAN = Manual request.
??? = Unrecognized reason.

If the inhibit source is enclosed by parentheses, it indicates that the inhibit state for the audit is set. However, the inhibit has no meaning because the audit is not permitted to run in either routine or software request mode (see description for mode permission fields). This inhibit will not cause the audit to appear in the REPT:AUDSTAT report.

g = R if routine mode is allowed for audit, otherwise this field is blank. This field is blank for all instances after the first.

h = M if manual mode is allowed for audit, otherwise this field is blank. This field is blank for all instances after the first.

i = S if software mode is allowed for audit, otherwise this field is blank. This field is blank for all instances after the first.

j = D if demand mode is allowed for audit, otherwise this field is blank. This field is blank for all instances after the first.

k = Record identifier (RID) of the instance record from ECD.

l = Instance name. This field may be blank.

m = Inhibit state of a given instance of the audit: blank if the audit is not inhibited. Valid value(s):
AUTO = Automatic action.
MAN = Manual request.
??? = Unrecognized reason.

If the inhibit state is enclosed by parentheses, it indicates that the inhibit state for the instance is set. However, the inhibit has no meaning because the audit is not permitted to run in either routine or software request mode (see description for mode permissions fields). This inhibit will not cause the audit to appear in the REPT:AUDSTAT report.

n = Mode in which the given instance of the audit is running or blank if the instance is not running. Valid value(s):

DEM	= Part of a recovery sequence.
MAN	= Manually requested.
RTN	= Routine scheduling.
SFT	= Software request.
???	= Unrecognized mode.

o = Scheduling frequency of the audit. Valid value(s):

A through H	= Frequency group of audit.
T	= Timed audit.
(blank)	= Audit is neither timed nor routine.

p = Audit block status. Valid value(s):

Y	= Indicates that the audit is blocked, but the block has no meaning because the audit is not permitted to run in any mode (see description for mode permission fields). This block will not cause the audit to appear in the REPT:AUDSTAT report.
(blank)	= This instance of the audit is not blocked.

q = ECD interface error number. Valid value(s):

10	= Cannot open audit record sequence.
11	= Cannot sequence through audit records.
12	= Cannot get audit record.
20	= Cannot open audit instance record sequence.
21	= Cannot sequence through instance records.

r = Audit record RID.

s = Name of temporary file.

t = Explanation of error. Refer to the APP:AUD-C appendix in the Appendixes section of the Output Messages manual.

u = Explanation of error. Refer to the APP:AUD-D appendix in the Appendixes section of the Output Messages manual.

Note: Refer to the APP:AUD-A and APP:AUD-B appendix in the Appendixes section of the Output Messages manual for assorted parsing errors when the input message (IM) catalog is not active.

4. ACTION TO BE TAKEN

For Formats 1, 2, and 6, use the ALW:AUD input message to allow audits that should be allowed. Use the INH:AUD input message to inhibit audits that should be inhibited. Use the STP:AUD or STOP:AUD input message to stop audits that should be stopped.

For Format 3, all the inodes of the tmp file system are being used. Clean up unused files in the tmp file system using the CLR:FSYS-FILE input message before retrying the input message.

For Format 4, all tmp file system space has been used. Clean up unused files in the tmp file system using the

CLR:FSYS-FILE input message before retrying the input message.

For Format 5, system resources do not permit of the input message at this time. Retry later. If the message continues to fail, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	439, 437, 668
2	435
3	438
4	628
5	667

Input Message(s):

```
ALW:AUD
CLR:FSYS-FILE
INH:AUD
OP:AUD
STOP:AUD
STP:AUD
```

Output Message(s):

```
REPT:AUDSTAT
```

Output Appendix(es):

```
APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D
APP:OMDB-X-REF
```

Other Manual(s):
235-600-400 *Audits*

OP:AUD-ERRLOG-A

Software Release: 5E10 only
Message Class: SODD
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP AUD = SODD ERRLOG
        a
        b
        [c]

[2]   ____________________________________________________________________
      OP AUD = SODD ERRLOG
        a
        NUMBER OF:  ERRORS = d   WARNINGS = e   UNAUDITED RELATIONS = f
        [DETAILED SUMMARY REPORT = g]

[3]   ____________________________________________________________________
      OP AUD = SODD ERRLOG
        a
        NUMBER OF:  ERRORS = d   WARNINGS = e   UNAUDITED RELATIONS = f
        DETAILED ERROR REPORT = h
```

2. REASON FOR OUTPUT

To print either a summary of the number of data errors detected by a static office-dependent data (SODD) audit or to indicate that the generation of either a detailed error or summary report for a SODD audit has completed.

Format 1 prints when the summary of errors cannot be determined or when either a detailed error or summary report cannot be generated.

Format 2 prints when a SODD audit completes or is stopped. It also prints when either a detailed summary report or a summary of errors has been requested using an OP:AUD-ERRLOG input message. If a detailed summary has been generated, the location of where it resides is also printed.

Format 3 prints when a detailed error report for a SODD audit has been successfully generated. The location of where the error report resides is also printed.

3. VARIABLE FIELD DEFINITIONS

a = Audit for which the error summary or report has been produced. Valid value(s):

```
TN = i, ALL = j
OE = k, ALL = j
RELATION = l, {THE AM|SM = m|THE CMP}, ALL = j
MLHG = n[, MEMB = o], ALL = j
TGN = p[, MEMB = q], ALL = j
AUDIT = FULL, DAY =  r,[ WEEK = s,] CYCLE = t, ALL = j
AUDIT = INCR, {THE AM|SM = u|THE CMP|RED ODD|ALL PROCESSORS|DAY = v},
CYCLE = t, ALL = j
```

b = Error message.

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c = Continuation of the error message.

d = Total number of errors encountered for audit 'a'.

e = Total number of warnings encountered for audit 'a'.

f = Total number of relations that were unaudited by audit 'a'.

g = The location of where the detailed summary report resides.

h = The location of where the detailed error report resides.

i = Telephone number that was audited.

j = Indicates whether all errors and warnings have been printed/counted. Valid value(s):
- N = No, only the errors have been printed/counted.
- Y = Yes, both the errors and warnings have been printed/counted.

k = Office equipment type and number that was audited.

l = Relation that was audited, or "ALL" if all relations on a specific processor were audited.

m = Switching module on which the relation, as specified in 'l', was audited.

n = Multi-line hunt group that was audited.

o = Member of multi-line hunt group that was audited.

p = Trunk group number that was audited.

q = Member of trunk group number that was audited.

r = Day or days that the full audit ran. Valid value(s):
- MON = Monday.
- TUE = Tuesday.
- WED = Wednesday.
- THU = Thursday.
- FRI = Friday.
- SAT = Saturday.
- SUN = Sunday.
- ALL = All days.

s = A single digit number indicating the number of weeks the full audit ran. Valid value(s):
- ALL = All weeks.

t = Audit cycle. Valid value(s):
- CUR = Current.
- PREV = Previous.

u = Switching module on which the incremental audit took place.

`v` = Day that the incremental audit ran. Valid value(s):

`MON`	= Monday.
`TUE`	= Tuesday.
`WED`	= Wednesday.
`THU`	= Thursday.
`FRI`	= Friday.
`SAT`	= Saturday.
`SUN`	= Sunday.

4. ACTION TO BE TAKEN

For Format 1, analyze and evaluate the reason for the error and take corrective action.

For Formats 2 and 3, if there are data errors detected by the audit, analyze the errors and take corrective action to resolve them in the ODD. If there are no data errors, then no action needs to be taken.

5. ALARMS

None

6. REFERENCES

Input Message(s):

```
EXC:AUD-SODD
OP:AUD-ERRLOG
SCHED:AUD-SODD
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

OP:AUD-ERRLOG-B

Software Release: 5E11 and later
Message Class: SODD
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP AUD = SODD ERRLOG
        a
        b
        [c]

[2]   ____________________________________________________________________
      OP AUD = SODD ERRLOG
        a
        NUMBER OF:  ERRORS = d   WARNINGS = e   UNAUDITED RELATIONS = f
        [DETAILED SUMMARY REPORT = g]

[3]   ____________________________________________________________________
      OP AUD = SODD ERRLOG
        a
        NUMBER OF:  ERRORS = d   WARNINGS = e   UNAUDITED RELATIONS = f
        DETAILED ERROR REPORT = h
```

2. REASON FOR OUTPUT

To print either a summary of the number of data errors detected by a static office-dependent data (SODD) audit or to indicate that the generation of either a detailed error or summary report for a SODD audit has completed. Format 1 prints when the summary of errors cannot be determined or when either a detailed error or summary report cannot be generated. Format 2 prints when a SODD audit completes or is stopped. It also prints when either a detailed summary report or a summary of errors has been requested using an OP:AUD-ERRLOG input message. If a detailed summary has been generated, the location of where it resides is also printed. Format 3 prints when a detailed error report for a SODD audit has been successfully generated. The location of where the error report resides is also printed.

3. VARIABLE FIELD DEFINITIONS

a = Audit for which the error summary or report has been produced. Valid value(s):

```
TN = i, ALL = j
OE = k, ALL = j
RELATION = l, {THE AM|SM = m|THE CMP}, ALL = j
MLHG = n[, MEMB = o], ALL = j
TGN = p[, MEMB = q], ALL = j
AUDIT = FULL, DAY =  r,[ WEEK = s,] CYCLE = t, ALL = j
AUDIT = INCR, {THE AM|SM = u|THE CMP|RED ODD|ALL PROCESSORS|DAY = v},
CYCLE = t, ALL = j
BRCS, MFT = w, {THE AM|SM = x|THE CMP}, ALL = j
```

b = Error message.

c = Continuation of the error message.

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d = Total number of errors encountered for audit 'a'.

e = Total number of warnings encountered for audit 'a'.

f = Total number of relations that were unaudited by audit 'a'.

g = The location of where the detailed summary report resides.

h = The location of where the detailed error report resides.

i = Telephone number that was audited.

j = Indicates whether all errors and warnings have been printed/counted. Valid value(s):
- N = No, only the errors have been printed/counted.
- Y = Yes, both the errors and warnings have been printed/counted.

k = Office equipment type and number that was audited.

l = Relation that was audited, or "ALL" if all relations on a specific processor were audited.

m = Switching module on which the relation, as specified in 'l', was audited.

n = Multi-line hunt group that was audited.

o = Member of multi-line hunt group that was audited.

p = Trunk group number that was audited.

q = Member of trunk group number that was audited.

r = Day or days that the full audit ran. Valid value(s):
- MON = Monday.
- TUE = Tuesday.
- WED = Wednesday.
- THU = Thursday.
- FRI = Friday.
- SAT = Saturday.
- SUN = Sunday.
- ALL = All days.

s = A single digit number indicating the number of weeks the full audit ran. Valid value(s):
- ALL = All weeks.

t = Audit cycle. Valid value(s):
- CUR = Current.
- PREV = Previous.

u = Switching module on which the incremental audit took place.

v = Day that the incremental audit ran. Valid value(s):
- MON = Monday.
- TUE = Tuesday.

WED	= Wednesday.
THU	= Thursday.
FRI	= Friday.
SAT	= Saturday.
SUN	= Sunday.

w = MFT that was audited, or "ALL" if all MFT on a specific processor were audited.

x = Switching module on which the relations associated with the MFT, as specified in 'w', were audited.

4. ACTION TO BE TAKEN

For Format 1, analyze and evaluate the reason for the error and take corrective action.

For Formats 2 and 3, if there are data errors detected by the audit, analyze the errors and take corrective action to resolve them in the ODD. If there are no data errors, then no action needs to be taken.

5. ALARMS

None

6. REFERENCES

Input Message(s):

```
EXC:AUD-SODD
OP:AUD-ERRLOG
SCHED:AUD-SODD
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

OP:AUD-ERROR-A

Software Release: 5E10 only
Message Class: SODD
Application: 5
Type: Output

1. FORMAT

```
OP AUD = SODD ERROR     AUDIT: AUDIT: a[ = b][, c[ = d]]
  REASON = e
  [f]
```

2. REASON FOR OUTPUT

To report an error that has occurred during the execution of the full, incremental, or an entity static office-dependent data (SODD) audit.

3. VARIABLE FIELD DEFINITIONS

a = Type of audit. Valid value(s):
FULL
INCR
TN
OE
MLHG
TGN
RELATION

b = Either the actual TN, OE, MLHG, TGN or RELATION being audited, or ALL if all relations on a specific processor are being audited (that is, a processor entity audit).

c = Valid value(s):

If 'a' =	**'c' =**
RELATION	THE AM or THE CMP or SM =
MLHG or TGN	MEMB

d = Member number or SM number.

e = Reason for error.

f = Continuation of reason for error.

4. ACTION TO BE TAKEN

Analyze and evaluate the reason for the error and take corrective action.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:AUD-SODD
SCHED:AUD-SODD
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

OP:AUD-ERROR-B

Software Release: 5E11 and later
Message Class: SODD
Application: 5
Type: Output

1. FORMAT

```
OP AUD = SODD ERROR     AUDIT: AUDIT: a[ = b][, c[ = d]]
  REASON = e
  [f]
```

2. REASON FOR OUTPUT

To report an error that has occurred during the execution of the full, incremental, or an entity static office-dependent data (SODD) audit.

3. VARIABLE FIELD DEFINITIONS

`a` = Type of audit. Valid value(s):
`FULL`
`INCR`
`TN`
`OE`
`MLHG`
`TGN`
`RELATION`

`b` = Either the actual TN, OE, MLHG, TGN or RELATION being audited, or `ALL` if all relations on a specific processor are being audited (that is, a processor entity audit).

`c` = Valid value(s):

If 'a' =	**'c' =**
`RELATION`	`THE AM` or `THE CMP` or `SM =`
`BRCS MFT`	`THE AM` or `THE CMP` or `SM =`
`MLHG` or `TGN`	`MEMB`

`d` = Member number or SM number.

`e` = Reason for error.

`f` = Continuation of reason for error.

4. ACTION TO BE TAKEN

Analyze and evaluate the reason for the error and take corrective action.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:AUD-SODD
SCHED:AUD-SODD
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

OP:AUD-SODD-EXC-A

Software Release: 5E10 only
Message Class: SODD
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP AUD = SODD EXC
        AUDIT          AUDITING                          % COMPLETE
        a [b]          c                                 [d]

[2]   ____________________________________________________________________
      OP AUD = SODD EXC
        NO SODD AUDITS ARE CURRENTLY RUNNING

[3]   ____________________________________________________________________
      OP AUD = SODD EXC ERROR
        e
        [f]
```

2. REASON FOR OUTPUT

Reports the execution status of the static office-dependent data (SODD) audits.

Format 1 prints the status of any SODD audit that may be executing. Format 2 indicates that there are no SODD audits currently running. Format 3 prints when errors were encountered while attempting to report the status of the SODD audits.

3. VARIABLE FIELD DEFINITIONS

a = Type of audit. Valid value(s):
AM
CMP
FULL
INCR
MLHG
MLHG MEMB
OE
RELATION
SM
TGN MEMB
TN

b = Switching module number that is being audited, in the case where 'a' is SM (for a processor entity audit).

c = Subject being audited. If 'a' is MLHG, MLHG MEMB, OE, RELATION, TGN, TGN MEMB, or TN, then this field contains the actual entity that is being audited (as was specified in the EXC:AUD-SODD input message.) For example, if 'a' is TN, the output in 'c' is formatted such as 5559823. Likewise, if 'a' is RELATION, 'c' is formatted such as FC_LINE, SM = 1. If 'a' is AM, CMP, FULL, INCR, or SM, then 'c' can contain various information. If any of these audits are currently executing, 'c' contains the relation, processor, and line number that is currently being

audited. If any of these audits have been stopped either by executing the STP:AUD-SODD input message or due to an internal error with the audit, 'c' contains the word "STOPPED". (These audits can be restarted using the EXC:AUD-SODD input message.) If 'a' is AM, CMP, or SM and the audit should be running but cannot due to an ODD growth or backup taking place, 'c' contains the word "PENDING". If 'a' is FULL or INCR, and either of these two audit types has been inhibited using the INH:AUD-SODD input message, 'c' contains the word "INHIBITED". Lastly, if 'a' is FULL and the audit is not currently executing but is scheduled to run at a later time, 'c' contains the word "SCHEDULED".

d = Percentage of relations that have been audited. If 'a' is AM, CMP, FULL, INCR, or SM, then 'd' contains the percentage of relations that have been audited from the start of the audit up to the point that the OP:AUD-EXC input message was entered. If 'c' contains the word "STOPPED", "INHIBITED", "PENDING", or "SCHEDULED", then 'd' contains the percentage of relations that have been audited from the start of the audit up to the point where it was stopped. This field is not populated for the other entity audit types.

e = Reason for status error.

f = Continuation of status errors.

4. ACTION TO BE TAKEN

For Formats 1 and 2, verify that the information contained in the messages is what was expected. If it is not, use one of the following input messages to change the state of an audit: STP:AUD-SODD to stop an audit, INH:AUD-SODD to inhibit a full or incremental audit, or EXC:AUD-SODD to execute an audit.

For Format 3, analyze and evaluate the reason for the error and take corrective action.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:AUD-SODD
INH:AUD-SODD
SCHED:AUD-SODD
STP:AUD-SODD
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

OP:AUD-SODD-EXC-B

Software Release: 5E11 only
Message Class: SODD
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP AUD = SODD EXC
        AUDIT          AUDITING                          % COMPLETE
        a [b]          c                                 [d]

[2]   ____________________________________________________________________
      OP AUD = SODD EXC
        NO SODD AUDITS ARE CURRENTLY RUNNING

[3]   ____________________________________________________________________
      OP AUD = SODD EXC ERROR
        e
       [f]
```

2. REASON FOR OUTPUT

Reports the execution status of the static office-dependent data (SODD) audits.

Format 1 prints the status of any SODD audit that may be executing.

Format 2 indicates that there are no SODD audits currently running.

Format 3 prints when errors were encountered while attempting to report the status of the SODD audits.

3. VARIABLE FIELD DEFINITIONS

a = Type of audit. Valid value(s):

```
AM
CMP
FULL
INCR
MLHG
MLHG MEMB
OE
RELATION
SM
TGN MEMB
TN
BRCS MFT
```

b = Switching module number that is being audited, in the case where 'a' is SM (for a processor entity audit).

c = Subject being audited. If 'a' is MLHG, MLHG MEMB, OE, RELATION, TGN, TGN MEMB, TN, or BRCS MFT, then this field contains the actual entity that is being audited (as was specified in the

EXC:AUD-SODD input message.) For example, if 'a' is TN, the output in 'c' is formatted such as 5559823. Likewise, if 'a' is RELATION, 'c' is formatted such as FC_LINE, SM = 1. If 'a' is AM, CMP, FULL, INCR, or SM, then 'c' can contain various information. If any of these audits are currently executing, 'c' contains the relation, processor, and line number that is currently being audited. If any of these audits have been stopped either by executing the STP:AUD-SODD input message or due to an internal error with the audit, 'c' contains the word "STOPPED". (These audits can be restarted using the EXC:AUD-SODD input message.) If 'a' is AM, CMP, or SM and the audit should be running but cannot due to an ODD growth or backup taking place, 'c' contains the word "PENDING". If 'a' is FULL or INCR, and either of these two audit types has been inhibited using the INH:AUD-SODD input message, 'c' contains the word "INHIBITED". Lastly, if 'a' is FULL and the audit is not currently executing but is scheduled to run at a later time, 'c' contains the word "SCHEDULED".

d = Percentage of relations that have been audited. If 'a' is AM, CMP, FULL, INCR, or SM, then 'd' contains the percentage of relations that have been audited from the start of the audit up to the point that the OP:AUD-EXC input message was entered. If 'c' contains the word "STOPPED", "INHIBITED", "PENDING", or "SCHEDULED", then 'd' contains the percentage of relations that have been audited from the start of the audit up to the point where it was stopped. This field is not populated for the other entity audit types.

e = Reason for status error.

f = Continuation of status errors.

4. ACTIONS TO BE TAKEN

For Formats 1 and 2, verify that the information contained in the messages is what was expected. If it is not, use one of the following input messages to change the state of an audit: STP:AUD-SODD to stop an audit, INH:AUD-SODD to inhibit a full or incremental audit, or EXC:AUD-SODD to execute an audit.

For Format 3, analyze and evaluate the reason for the error and take corrective action.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:AUD-SODD
INH:AUD-SODD
SCHED:AUD-SODD
STP:AUD-SODD
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

OP:AUD-SODD-EXC-C

Software Release: 5E12 and later
Message Class: SODD
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP AUD = SODD EXC
        AUDIT          AUDITING                          % COMPLETE
        a [b]          c                                 [d]

[2]   ____________________________________________________________________
      OP AUD = SODD EXC
        NO SODD AUDITS ARE CURRENTLY RUNNING

[3]   ____________________________________________________________________
      OP AUD = SODD EXC ERROR
        e
       [f]
```

2. REASON FOR OUTPUT

Reports the execution status of the static office-dependent data (SODD) audits. Format 1 prints the status of any SODD audit that may be executing. Format 2 indicates that there are no SODD audits currently running. Format 3 prints when errors were encountered while attempting to report the status of the SODD audits.

3. VARIABLE FIELD DEFINITIONS

a = Type of audit. Valid value(s):

```
AM
CMP
FULL
INCR
MLHG
MLHG MEMB
OE
RELATION
SM
TGN MEMB
TN
BRCS
MFT AM
MFT CMP
MFT SM
```

b = Switching module number that is being audited, in the case where 'a' is SM (for a processor entity audit) or MFT SM (for brcs,mft=all audit).

c = Subject being audited. If 'a' is MLHG, MLHG MEMB, OE, RELATION, TGN, TGN MEMB, TN, or BRCS, then this field contains the actual entity that is being audited (as was specified in the EXC:AUD-SODD input message.) For example, if 'a' is TN, the output in 'c' is formatted such as 5559823. Likewise, if 'a' is RELATION, 'c' is formatted such as FC_LINE, SM = 1. If 'a' is AM,

CMP, FULL, INCR, SM, MFT AM, MFT CMP, or MFT SM then 'c' can contain various information. If any of these audits are currently executing, 'c' contains the relation, processor, and line number that is currently being audited. If any of these audits have been stopped either by executing the STP:AUD-SODD input message or due to an internal error with the audit, 'c' contains the word "STOPPED". (These audits can be restarted using the EXC:AUD-SODD input message.) If 'a' is AM, CMP, SM, MFT AM, MFT CMP, or MFT SM and the audit should be running but cannot due to an ODD growth or backup taking place, 'c' contains the word "PENDING". If 'a' is FULL or INCR, and either of these two audit types has been inhibited using the INH:AUD-SODD input message, 'c' contains the word "INHIBITED". Lastly, if 'a' is FULL and the audit is not currently executing but is scheduled to run at a later time, 'c' contains the word "SCHEDULED".

d = Percentage of relations that have been audited. If 'a' is AM, CMP, FULL, INCR, SM, MFT AM, MFT CMP, or MFT SM then 'd' contains the percentage of relations that have been audited from the start of the audit up to the point that the OP:AUD-EXC input message was entered. If 'c' contains the word "STOPPED", "INHIBITED", "PENDING", or "SCHEDULED", then 'd' contains the percentage of relations that have been audited from the start of the audit up to the point where it was stopped. This field is not populated for the other entity audit types.

e = Reason for status error.

f = Continuation of status errors.

4. ACTIONS TO BE TAKEN

For Formats 1 and 2, verify that the information contained in the messages is what was expected. If it is not, use one of the following input messages to change the state of an audit: STP:AUD-SODD to stop an audit, INH:AUD-SODD to inhibit a full or incremental audit, or EXC:AUD-SODD to execute an audit.

For Format 3, analyze and evaluate the reason for the error and take corrective action.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:AUD-SODD
INH:AUD-SODD
SCHED:AUD-SODD
STP:AUD-SODD
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

OP:AUD-SODD-SCH

Software Release: 5E10 and later
Message Class: SODD
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP AUD = SODD SCHED
        DAY   STARTTIME      DURATION
        a       b              c

[2]   ____________________________________________________________________
      OP AUD = SODD SCHED
        NO JOBS ARE CURRENTLY SCHEDULED FOR THE FULL AUDIT

[3]   ____________________________________________________________________
      OP AUD = SODD SCHED ERROR
        d
        [e]
```

2. REASON FOR OUTPUT

Reports the current schedule for the full static office-dependent data (SODD) audit.

Format 1 prints the full SODD audit's schedule.

Format 2 indicates that there are no jobs currently scheduled for the full SODD audit.

Format 3 prints when errors were encountered while attempting to print the full SODD audit's schedule.

3. VARIABLE FIELD DEFINITIONS

a = Day for which the audit is scheduled to run. Valid value(s):

MON	= Monday.
TUE	= Tuesday.
WED	= Wednesday.
THU	= Thursday.
FRI	= Friday.
SAT	= Saturday.
SUN	= Sunday.

b = Time the audit is to begin in the format hh:mm, [hour (00-23), minute (00-59)].

c = Duration of the audit in the format hh:mm, [hour (01-24), minute (00-59)].

d = Reason for schedule error.

e = Continuation of schedule error.

4. ACTION TO BE TAKEN

For Formats 1 and 2, verify that the information contained in the messages is what was expected. If it is not, use the SCHED:AUD-SODD and/or CLR:AUD input message(s) to alter the schedule.

For Format 3, analyze and evaluate the reason for the error and take corrective action.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:AUD
OP:AUD-SODD
SCHED:AUD-SODD
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

OP:AUD-STATUS-A

Software Release: 5E10 only
Message Class: SODD
Application: 5
Type: Output

1. FORMAT

```
OP AUD = SODD STATUS     AUDIT: a[ = b][, c[ = d]]
  REMARKS = e
  [f]
```

2. REASON FOR OUTPUT

To report the status associated with a specific full, incremental or entity static office-dependent data (SODD) audit that is currently running.

3. VARIABLE FIELD DEFINITIONS

a = Type of audit. Valid value(s):
FULL
INCR
TN
OE
MLHG
TGN
RELATION

b = Either the actual TN, OE, MLHG, TGN or RELATION being audited, or ALL if all relations on a specific processor are being audited (that is, a processor entity audit).

c = Valid value(s):

If 'a' =	**'c' =**
RELATION	THE AM or THE CMP or SM =
MLHG or TGN	MEMB

d = Member number or SM number.

e = Remarks.

f = Continuation of remarks.

4. ACTION TO BE TAKEN

This message is used to give the status of a specific SODD audit that is executing or has been requested for execution. If the information contained in the message is not satisfactory, stop the audit using the STP:AUD-SODD input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:AUD-SODD
SCHED:AUD-SODD
STP:AUD-SODD
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

OP:AUD-STATUS-B

Software Release: 5E11 and later
Message Class: SODD
Application: 5
Type: Output

1. FORMAT

```
OP AUD = SODD STATUS     AUDIT: a[ = b][, c[ = d]]
  REMARKS = e
  [f]
```

2. REASON FOR OUTPUT

To report the status associated with a specific full, incremental or entity static office-dependent data (SODD) audit that is currently running.

3. VARIABLE FIELD DEFINITIONS

a = Type of audit. Valid value(s):
FULL
INCR
TN
OE
MLHG
TGN
RELATION
BRCS

b = Either the actual TN, OE, MLHG, TGN or RELATION being audited, or ALL if all relations on a specific processor are being audited (that is, a processor entity audit). For BRCS entity audit, either one specific MFT is audited or "ALL" if all MFTs are being audited.

c = Valid value(s):

If 'a' =	**'c' =**
RELATION	THE AM or THE CMP or SM =
MLHG or TGN	MEMB
BRCS, MFT	THE AM or THE CMP or SM =

d = Member number or SM number.

e = Remarks.

f = Continuation of remarks.

4. ACTION TO BE TAKEN

This message is used to give the status of a specific SODD audit that is executing or has been requested for execution. If the information contained in the message is not satisfactory, stop the audit using the STP:AUD-SODD input message.

5. ALARMS

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None.

6. REFERENCES

Input Message(s):

```
EXC:AUD-SODD
SCHED:AUD-SODD
STP:AUD-SODD
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

OP:AUDERR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP AUDERR a
           AUDIT                        ERRORS          ERROR    ERROR
        NAME     MBR    INSTANCE    FOUND CORRECTED    CAT      COUNT
        [b]      [c]      [d]         [e]     [f]       g         h
         .        .        .           .       .        .         .
         .        .        .           .       .        .         .
         .        .        .           .       .        .         .

[2]   ____________________________________________________________________
      OP AUDERR ABORTED ECD INTERFACE ERROR i [AUDIT RID j]

[3]   ____________________________________________________________________
      OP AUDERR ABORTED CANNOT OPEN OUTPUT FILE k

[4]   ____________________________________________________________________
      OP AUDERR ABORTED CANNOT WRITE OUTPUT FILE k

[5]   ____________________________________________________________________
      OP AUDERR ABORTED CANNOT CREATE TEMPORARY FILE

[6]   ____________________________________________________________________
      OP AUDERR NOT STARTED
        CONFLICT WITH CURRENT SYSTEM STATUS l
        RETRY LATER m
```

2. REASON FOR OUTPUT

Format 1 prints the status of the audits controlled by the system integrity monitor (SIM).

Format 2 reports an equipment configuration database (ECD) interface error.

Format 3 reports an error when creating a temporary output file.

Format 4 reports an error when writing to a temporary output file.

Format 5 reports an error when unable to create a uniquely-named temporary file.

Format 6 reports the termination status of OP:AUDERR input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Output message status. Valid value(s):
`COMPLETED` = last or only segment of message.
`COMPLETED-NO AUDIT RECORDS IN ECD`
`IN PROGRESS` = Intermediate segment(s) of message.
`STARTED` = First segment of message.

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b = Name of the audit. This field is blank for all instances after the first.

c = Member number of the audit. This field is blank for all instances after the first.

d = Instance name which may be blank.

e = Total errors found by audit since the last bootstrap. This will be blank for all error categories after the first.

f = Total errors corrected by the audit since the last bootstrap. This will be blank for all error categories after the first.

g = Error category (0-5). The error categories used by an audit are specified in its ECD record. Each error category represents a different level of severity and type of recovery action. Refer to any audit and its associated Audit Error Table in the Audits manual.

h = Error count of the category.

i = ECD interface error number. Valid value(s):

10	= Cannot open audit record sequence.
11	= Cannot sequence through audit records.
12	= Cannot get audit record.
20	= Cannot open audit instance record sequence.
21	= Cannot sequence through instance records.

j = Associated audit record RID.

k = Name of temporary file.

l = Explanation of error. Refer to the APP:AUD-C appendix in the Appendixes section of the Output Messages manual.

m = Explanation of error. Refer to the APP:AUD-D appendix in the Appendixes section of the Output Messages manual.

Note: Refer to the APP:AUD-A and APP:AUD-B appendix in the Appendixes section of the Output Messages manual for assorted parsing errors when the input message (IM) catalog is not active.

4. ACTION TO BE TAKEN

For Formats 1, 2, and 6, use the ALW:AUD input message to allow audits that should be allowed. Use the INH:AUD input message to inhibit audits that should be inhibited. Use the STP:AUD or STOP:AUD input message to stop audits that should be stopped.

For Format 3, all the inodes of the tmp file system are being used. Clean up unused files in the tmp file system using the CLR:FSYS-FILE input message before retrying the input message.

For Format 4, all tmp file system space has been used. Clean up unused files in the tmp file system using the CLR:FSYS-FILE input message before retrying the input message.

For Format 5, system resources do not permit of the OP:AUDERR input message at this time. Retry later. If the message continues to fail, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the

Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	434
2	435
3	438
4	628
5	667

Input Message(s):

```
ALW:AUD
AUD:[UNIT]
CLR:FSYS-FILE
INH:AUD
OP:AUD
OP:AUDERR
STOP:AUD
STP:AUD
```

Output Message(s):

```
AUD:[UNIT]
OP:AUD
```

Output Appendix(es):

```
APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D
APP:OMDB-X-REF
```

Other Manual(s):
235-600-400 *Audits*

OP:AVAILLOG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP AVAILLOG ALLOC=a AVAIL=b
```

2. REASON FOR OUTPUT

To report, in response to the OP:AVAILLOG input message, how much disk space is left for recent changes and customer-originated changes.

3. VARIABLE FIELD DEFINITIONS

`a` = Allocated space (in bytes).

`b` = Available space (in bytes).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:AVAILLOG`

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44. OP:B

OP:BCI

Software Release: 5E10 and later
Message Class: TRFM
Application: 5
Type: Output

1. FORMAT

```
[1]    ____________________________________________________________________
       OP BCI ORIG=a
        [SMRANGE=b TO c   MAX=d]
        [SMS STILL ALLOWED:]
        [e [e] [e] [e] [e] [e] [e] [e] [e] [e] [e] [e] [e] [e] [e] [e]...
          ...[e] [e] [e]]
           .
           .
           .

[2]    ____________________________________________________________________
       OP BCI TERM=a
        [SMRANGE=b TO c   MAX=d]
        [SMS STILL ALLOWED:]
        [e [e] [e] [e] [e] [e] [e] [e] [e] [e] [e] [e] [e] [e] [e] [e]...
          ...[e] [e] [e]]
           .
           .
           .
```

2. REASON FOR OUTPUT

To report the activation status of blocked call indication (BCI) reporting for both originating (ORIG) and terminating (TERM) calls. In addition, when status is "ON", to report the original input message parameters chosen, as well as to list of the switching modules (SMs) in which reporting is still allowed.

3. VARIABLE FIELD DEFINITIONS

a = Indicates whether blocked call reporting is turned on or off.

b = The SM number or the lower limit in the range of SMs chosen with the ALW:BCI input message.

c = The upper limit SM number.

d = The maximum number of blocked call messages entered in the ALW:BCI message. The MAX value printed in the OP:BCI message is the MAX value entered in the last ALW:BCI message.

e = SM number(s) in which blocked call reporting is still turned on.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:BCI
OP:BCI
STP:BCI
```

Output Message(s):

```
REPT:BCI
```

Other Manual(s):
235-170-100 *Switch Administration Guidelines*

OP:BKUPSTAT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP BKUPSTAT
 [FULL] [AM] [CMP=a[ TO b]] [NRODD=c[ TO d]] [RODD=c] EVERY=e AT=ff:ff!
  .
  .
  .
```

2. REASON FOR OUTPUT

To report all the office dependent data (ODD) backup scheduled requests set by previous BKUP:ODD messages.

3. VARIABLE FIELD DEFINITIONS

`AM` = The report is for AM.

`CMP` = The report is for the CMP.

`FULL` = Perform a full dump. The administrative module (AM) ODD is always backed up with the full dump. A differential dump is the default for the communications module processor (CMP) ODD and/or the switching module (SM) redundant (RODD) and non-redundant (NRODD) ODDs.

`NRODD` = The report is for non-redundant ODD.

`RODD` = The report is for redundant ODD.

`a` = CMP number or the lower limit of a range of CMP numbers.

`b` = Upper limit of range of CMP numbers.

`c` = Switching module (SM) number or the lower limit of a range of SM numbers.

`d` = Upper limit of range of SM numbers.

`e` = Interval in days between scheduled ODD backups.

`f` = Time of day (expressed as hours and minutes) that the ODD backup is scheduled to occur.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
OP:BKUPSTAT
BKUP:ODD
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

OP:BREVC

Software Release: 5E10 and later
Message Class: IOCNTL,IOC
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP BREVC                        PAGE a of b
        MSGCLS        CLASSDEF          STATUS
          c              d             {INH|ALW}
          .              .                 .
          .              .                 .
          .              .                 .

[2]   ____________________________________________________________________
      OP BREVC - NO MSGCLS IS INHIBITED
```

2. REASON FOR OUTPUT

To print the current output message brevity control (BREVC) status in response to the OP:BREVC input message. Format 1 is to respond for a one specified message class (MSGCLS) or all classes. However, if there is no MSGCLS in INH status, Format 2 will be printed instead.

3. VARIABLE FIELD DEFINITIONS

`a` = Current page number.

`b` = Total number of pages in this output.

`c` = Message class (MSGCLS).

`d` = Numeric representation of the message class classdef (ECD form) number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:BREVC
INH:BREVC
OP:BREVC
OP:LPS
OP:SYSSTAT
```

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Output Message(s):

```
OP:LPS
```

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-100-125 *System Description*
235-600-31x *ECD/SG*

MCC Display Page(s):

(INH & RCVRY CNTL)
(SYSTEM INHIBITS)

45. OP:C

OP:C7NET-A

Software Release: 5E10 only
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP C7NET

        +---------+-------+---+------------------+-+---+-+-----+
        |   NID   |       |   | ROUTES AND STATUS|C|   |R|     |
        +----+----|ROUTING|ACT|                  |N|   |C|     |
        | HEX| DEC| FLAG  |LS |PRIM | ALT1 | ALT2|G|RPI|T|INDEX|
        +---------+-------+---+------------------+-+---+-+-----+
      i1|  a | b  |   c   | d |e fg | h fg |i fg |j| k |l|  m  |
        +-------------------------------------------------------+

[2]   ____________________________________________________________________
      OP C7NET

        LOCAL NID = n; LOCAL PC = o; PC FORMAT = p;
        +-------------+-------+---+------------------+-+---+-+-----+
        | POINT CODE  |       |   |ROUTES AND STATUS |C|   |R|     |
        |             |ROUTING|ACT|                  |N|   |C|     |
        |HEX | DECIMAL| FLAG  |LS |PRIM | ALT1 | ALT2|G|RPI|T|INDEX|
        +-------------+-------+---+------------------+-+---+-+-----+
      i1| j1 | b-r-s-t|   c   | d |e fg | h fg |i fg |j| k |l|  u  |
        +-------------------------------------------------------+

[3]   ____________________________________________________________________
      OP C7NET

        LOCAL NID = n; LOCAL PC = o; PC FORMAT = p;
        +-------------+-------+---+------------------+-+---+-+-----+
        | POINT CODE  |       |   |ROUTES AND STATUS |C|   |R|     |
        |             |ROUTING|ACT|                  |N|   |C|     |
        |HEX | DECIMAL| FLAG  |LS |PRIM | ALT1 | ALT2|G|RPI|T|INDEX|
        +-------------+-------+---+------------------+-+---+-+-----+
      i1| j1 |  b-s-t |  c    | d |e fg | h fg |i fg |j| k |l|  u  |
        +-------------------------------------------------------+

[4]   ____________________________________________________________________
      OP C7NET

      Type       PC[0]  PC[1]  SELECTOR

      GPAIR STATIC    v     v        w
      GPAIR DYNAMIC   v     v        w

[5]   ____________________________________________________________________
      OP C7NET
       NO ROUTE FOR CLUSTER s
```

[6]
```
OP C7NET
 NO ROUTE FOR CLUSTER s MEMBER t
```

[7]
```
OP C7NET
 SCCP DEBUG FLAG BEING TURNED ON.
```

[8]
```
OP C7NET
 SCCP DEBUG FLAG BEING TURNED OFF.
```

[9]
```
OP C7NET
 SUBSYSTEM 1 (TBL INDEX 1) IS x AND IS y
 MGT INDICATIONS GO TO z CHAN a1
 UPAUSE/URESUME INDICATIONS WANTED
 SIGNALLING CHANNEL INFORMATION
 PADDR z CHAN a1 FINDX b1 ACTINDX c1
```

[10]
```
OP C7NET
 CURRENT LOCAL POINT CODE:   d1
  HEX VALUE:  d1
```

[11]
```
OP C7NET
 STP[0]:  d1 IS ACCESSIBLE
 STP[1]:  d1 IS ACCESSIBLE
```

[12]
```
OP C7NET
 POINT CODE IS ACCESSIBLE
 SUBSYSTEMS MARKED PROHIBITED:
    e1
 ALL OTHER SUBSYSTEMS ARE MARKED ALLOWED.
```

[13]
```
OP C7NET
  +--------+---------+---+--------------------+-+---+-+-----+
  |        |         |   | ROUTES AND STATUS  |C|   |R|     |
  |CNMEMBER| ROUTING |ACT|                    |N|   |C|     |
  | INDEX  |  FLAG   |LS | PRIM | ALT1 | ALT2 |G|RPI|T|INDEX|
  +--------+---------+---+--------------------+-+---+-+-----+
i1|   f1   |    c    | d | e fg | h fg | i fg |j| k |l|  g1 |
  +-------------------------------------------------------+
```

[14]
```
OP C7NET ABNORMAL
  +-------+--------+------+------+------+------+-----+
  |POINT  | ACTIVE | PRIM | ALT1 | ALT2 | CONG |SSN  |
  |CODE   | ROUTE  |  LS  |  LS  |  LS  | LVL  |LIST |
  +-------+--------+------+------+------+------+-----+
```

```
        |b-r-s-t|   d    | e fg | h fg | i fg |  j   | h1  |
        +-------------------------------------------------+

[15]  ____________________________________________________________________
      OP C7NET ABNORMAL
        +------+--------+------+------+------+------+-+---+
        |POINT | ACTIVE | PRIM | ALT1 | ALT2 | CONG |SSN  |
        |CODE  | ROUTE  |  LS  |  LS  |  LS  | LVL  |LIST |
        +------+--------+------+------+------+------+-----+
        | b-s-t|   d    | e fg | h fg | i fg |  j   | h1  |
        +-------------------------------------------------+
```

2. REASON FOR OUTPUT

To print a formatted display of the routing data in the cluster, member and load share tables of the common network and for the signaling connection control part (SCCP) subsystem bitmap. This is used in monitoring the common channel signaling (CCS) traffic management code that updates these tables.

3. VARIABLE FIELD DEFINITIONS

a = The network identifier (NID) expressed as a hexadecimal number.

b = The NID expressed as a decimal number.

c = The network, cluster, or member level routing flag. Valid value(s):

- CLU_O = The cluster only (CLU_O) flag is used to identify a cluster that has cluster-only-routing cluster. When routing to a cluster with this flag, a route will be selected for the SCCP and MTP routing to a signaling point based on only the network and cluster fields of the destination point code.
- DMEMBER = The dynamic member (DMEMBER) flag is used to identify dynamic members of a POPCLU. When routing to a member with this flag, a route will be selected for SCCP and MTP routing based on the network, cluster and member fields of the destination point code.
  - Note: A DMEMBER is only created as a result of network events (for example, transfer prohibits, subsystem prohibits, remote congestion, and so forth) and contain the abnormal network status of the member. These members will be deleted when the abnormal status is cleared.
- NTWK = The network (NTWK) flag is used to identify a network with clusters of signaling points. When routing to a network with this flag, a route will be selected for SCCP and message transfer part (MTP) routing to a signaling point based on the network, cluster, and, possibly, member fields of the destination point code.
- NTWK_O = The network only (NTWK_O) flag is used to identify a network that has network-only-routing. When routing to a network with this flag, a route will be selected for SCCP and MTP routing to a signaling point based only on the network field of the destination point code.
- POPCLU = A populated cluster (POPCLU) is a group of signaling points, all of which have the same network and cluster in their point codes. The populated cluster flag is used to identify populated clusters. When routing to a cluster with this flag, a route will be selected for SCCP and MTP routing based on the network, cluster and if the member is exceptional [for example, a full point code routing (FPCR) member or a member that has an abnormal route status], member fields of the destination point code.

`SMEMBER` = The static member (SMEMBER) flag is used to identify static members (FPCR members) of a POPCLU. When routing to a member with this flag, a route will be selected for SCCP and MTP routing based on the network, cluster, and member fields of the destination point code.

`UPOPCLU` = An unpopulated cluster (UPOPCLU) is a signaling point in a network that has a unique cluster number. The unpopulated cluster flag is used to identify unpopulated clusters (in the NSD network, STPs are unpopulated clusters). When routing to a cluster with this flag, a route will be selected for SCCP and MTP routing based on the network, and cluster fields of the destination point code.

`d` = The current/active link set (route) number or BLK (blocked) if point code is inaccessible.

`e` = The primary route's link set number. The value is left blank when there is no link set associated with the primary route.

`f` = The route status of the first direct link set associated with the route. If there is no first direct link set, this field is blank. Valid value(s):

- `A` = Transfer (cluster) allowed.
- `P` = Transfer (cluster) prohibited.
- `R` = Transfer (cluster) restricted.

`g` = The route status of the second direct link set associated with the route. If there is no second direct link set, this field is blank. Valid value(s):

- `A` = Transfer (cluster) allowed.
- `P` = Transfer (cluster) prohibited.
- `R` = Transfer (cluster) restricted.

Note: Variable fields '`f`' and '`g`' denote whether or not the route is a combined link set. If fields '`f`' and '`g`' are both non-blank then the route's link set is a combined link set. If field '`f`' is non-blank and field '`g`' is blank, then the link set is a direct link set. If both fields '`f`' and '`g`' are blank, then there is no link set associated with that route.

`h` = The first alternate route's link set number. The value is left blank when there is no link set associated with the first alternate route.

`i` = The second alternate route's link set number. The value is left blank when there is no link set associated with the second alternate route.

`j` = The remote congestion level. The value is blank when there is no remote congestion for the point code.

`k` = The routing priority index (RPI) for the point code. However, if the RPI is 0, a blank is printed for the field.

`l` = The signaling route set congestion test (RCT). It is used to denote what remote congestion timer is running at the present moment. Valid value(s):

- `0` = Timer protocol T15 is running.
- `1` = Timer protocol T16 is running.
- `null` = No timers are running.

`m` = The director index value.

`n` = The local network's NID in decimal format.

`o` = The local point code in hexadecimal format.

`p` = The local point code format. The word "ANSI STANDARD" or "AT&T" is indicated in this field.

`q` = The full point code in hexadecimal format.

`r` = Region from which the data is being retrieved in decimal format.

`s` = Cluster number from which the data is being retrieved in decimal format.

t = Member number from which the data is being retrieved in decimal format.

u = If the routing flag field 'c' indicates that the entry is a populated cluster, this field is used to index into the page access table, cNpage_access[]. If the data retrieved indicates that the entry is an unpopulated cluster or for a member (SMEMBER or DMEMBER), this field is used to index into the SCCP bitmap. For all other cases this field is left blank.

v = The point code translator. Valid value(s):

Construct	Format Type
$k^1k^1k^1l^1l^1l^1m^1m^1m^1$	ANSI
$k^1k^1k^1n^1n^1l^1m^1m^1m^1$	AT&T

w = Which translator value is used for the next translation. The values are 0 and 1.

x = Indicates if the subsystem is equipped or unequipped.

y = Indicates if the subsystem is allowed or prohibited.

z = The program address physical ring node or LADD_3B in hexadecimal format.

a^1 = The channel number.

b^1 = The preferred user selected function index for incoming messages.

c^1 = The active function index for incoming messages.

d^1 = The current local point code.

e^1 = The subsystem number (SSN).

f^1 = The index into the member table, cNmember[].

g^1 = The SCCP bitmap index.

h^1 = The list of prohibited subsystems.

i^1 = This field is used to indicate abnormal route status [transfer (cluster) restricted or transfer (cluster) prohibited] and/or alternate routing. A symbol of ">" indicates that there is an abnormal route status on any of the valid routes for that point code. A ">>" indicates that alternate routing is being used for that point code. The alternate routing symbol takes precedence over the abnormal route status symbol.

j^1 = Point code expressed in a hexadecimal format.

k^1 = Network ID in decimal format.

l^1 = Cluster number in decimal format.

m^1 = Member number in decimal format.

n^1 = Region number in decimal format.

4. ACTION TO BE TAKEN

For formats 1, 2, 3, 13, 14, and 15, if the output message is alarmed, determine whether the abnormal routing is due to conditions within the switch or in other entities in the network. If this is due to conditions within the switch, take corrective actions.

5. ALARMS

An alarm is associated with the OP C7NET output when both of the following have occurred:

- Output is the result of an OP:C7NET:ABNORMAL or OP:C7NET:PRTE input message.
- Abnormal routing was encountered on one or more point codes.

The alarm may be major or minor, depending upon the severity of the abnormal routing encountered. For example, if a point code was blocked, a major alarm would be associated with the output. If only one link to the point code was blocked, a minor alarm would be associated with the output.

6. REFERENCES

Input Message(s):

```
OP:C7NET
```

Output Message(s):

```
REPT:CCS7
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-190-120 *Common Channel Signaling Services*
235-118-25x *Recent Change Reference Manual*

MCC Display Page(s):

118 (CNI FRAME AND CCS STATUS)

OP:C7NET-B

Software Release: 5E11 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP C7NET

        +---------+-------+---+------------------+-+---+-+-----+
        |   NID   |       |   | ROUTES AND STATUS|C|   |R|     |
        +----+----|ROUTING|ACT|                  |N|   |C|     |
        | HEX| DEC| FLAG  |LS |PRIM | ALT1 | ALT2|G|RPI|T|INDEX|
        +---------+-------+---+------------------+-+---+-+-----+
      i1|  a | b  |   c   | d |e fg | h fg |i fg |j| k |l|  m  |
        +-------------------------------------------------------+

[2]   ____________________________________________________________________
      OP C7NET

        LOCAL NID = n; LOCAL PC = o; PC FORMAT = p;
        +-------------+-------+---+------------------+-+---+-+-----+
        | POINT CODE  |       |   |ROUTES AND STATUS |C|   |R|     |
        |             |ROUTING|ACT|                  |N|   |C|     |
        |HEX | DECIMAL| FLAG  |LS |PRIM | ALT1 | ALT2|G|RPI|T|INDEX|
        +-------------+-------+---+------------------+-+---+-+-----+
      i1| j1 | b-r-s-t|   c   | d |e fg | h fg |i fg |j| k |l|  u  |
        +-------------------------------------------------------+

[3]   ____________________________________________________________________
      OP C7NET

        LOCAL NID = n; LOCAL PC = o; PC FORMAT = p;
        +-------------+-------+---+------------------+-+---+-+-----+
        | POINT CODE  |       |   |ROUTES AND STATUS |C|   |R|     |
        |             |ROUTING|ACT|                  |N|   |C|     |
        |HEX | DECIMAL| FLAG  |LS |PRIM | ALT1 | ALT2|G|RPI|T|INDEX|
        +-------------+-------+---+------------------+-+---+-+-----+
      i1| j1 |  b-s-t |  c    | d |e fg | h fg |i fg |j| k |l|  u  |
        +-------------------------------------------------------+

[4]   ____________________________________________________________________
      OP C7NET

      Type       PC[0]  PC[1]  SELECTOR

      GPAIR STATIC    v     v        w
      GPAIR DYNAMIC   v     v        w

[5]   ____________________________________________________________________
      OP C7NET
       NO ROUTE FOR CLUSTER s
```

[6]
```
OP C7NET
 NO ROUTE FOR CLUSTER s MEMBER t
```

[7]
```
OP C7NET
 SCCP DEBUG FLAG BEING TURNED ON.
```

[8]
```
OP C7NET
 SCCP DEBUG FLAG BEING TURNED OFF.
```

[9]
```
OP C7NET
 SUBSYSTEM 1 (TBL INDEX 1) IS x AND IS y
 MGT INDICATIONS GO TO z CHAN a1
 UPAUSE/URESUME INDICATIONS WANTED
 SIGNALING CHANNEL INFORMATION
 PADDR z CHAN a1 FINDX b1 ACTINDX c1
```

[10]
```
OP C7NET
 CURRENT LOCAL POINT CODE:   d1
  HEX VALUE:  d1
```

[11]
```
OP C7NET
 STP[0]:  d1 IS ACCESSIBLE
 STP[1]:  d1 IS ACCESSIBLE
```

[12]
```
OP C7NET
 POINT CODE IS ACCESSIBLE
 SUBSYSTEMS MARKED PROHIBITED:
    e1
 ALL OTHER SUBSYSTEMS ARE MARKED ALLOWED.
```

[13]
```
OP C7NET
  +--------+---------+---+--------------------+-+---+-+-----+
  |        |         |   | ROUTES AND STATUS  |C|   |R|     |
  |CNMEMBER| ROUTING |ACT|                    |N|   |C|     |
  | INDEX  |  FLAG   |LS | PRIM | ALT1 | ALT2 |G|RPI|T|INDEX|
  +--------+---------+---+--------------------+-+---+-+-----+
i1|   f1   |    c    | d | e fg | h fg | i fg |j| k |l|  g1 |
  +-------------------------------------------------------+
```

[14]
```
OP C7NET ABNORMAL
  +-------+--------+------+------+------+------+-----+
  |POINT  | ACTIVE | PRIM | ALT1 | ALT2 | CONG |SSN  |
  |CODE   | ROUTE  |  LS  |  LS  |  LS  | LVL  |LIST |
  +-------+--------+------+------+------+------+-----+
```

```
  |b-r-s-t|   d    | e fg | h fg | i fg |  j   | h1  |
  +-------------------------------------------------+

[15] ____________________________________________________________________
OP C7NET ABNORMAL
  +------+--------+------+------+------+------+-+---+
  |POINT | ACTIVE | PRIM | ALT1 | ALT2 | CONG |SSN  |
  |CODE  | ROUTE  |  LS  |  LS  |  LS  | LVL  |LIST |
  +------+--------+------+------+------+------+-----+
  | b-s-t|   d    | e fg | h fg | i fg |  j   | h1  |
  +-------------------------------------------------+

[16] ____________________________________________________________________
OP C7NET
  +---------------+-----------------+
  |  POINT CODE   |  TIMER STATUS   |
  +---------------+-----------------+
  | HEX | DECIMAL | T25 | T28 | T29 |
  +-----+---------+-----+-----+-----+
  |  a  | b-r-s-t | o1  | o1  | o1  |
  +---------------------------------+

[17] ____________________________________________________________________
OP C7NET IN PROG
  LS r1 is s1
 [LS r1 is a COMBINED LS made up of DIRECT LS r1 and
       DIRECT LS r1 |
  LS r1 is a DIRECT LS which is part of a COMBINED LS r1]
  CNLS_RNA TABLE FOR t1 LINKS
       CNLS_RNA[u1] - LINK NODE ID = q1 (GRP v1, MEM w1)

 ---------------------------------------------------------------
        LINK      CNLDSHR[]           LINK      CNLDSHR[]
 SLS   NODE ID   PHYS. ADDR    SLS   NODE ID   PHYS. ADDR
 ---------------------------------------------------------------
   p1      q1           z        p1      q1           z
   .       .            .        .       .            .
   .       .            .        .       .            .
   .       .            .        .       .            .
OP C7NET COMPL
```

2. REASON FOR OUTPUT

To print a formatted display of the routing data in the cluster, member and load share tables of the common network and for the signaling connection control part (SCCP) subsystem bitmap. This is used in monitoring the common channel signaling (CCS) traffic management code that updates these tables. This output can also be a formatted display of the timer status in the message transfer part (MTP) restart table.

Format 17 shows the link set status, the link set description, the link set to ring node address (RNA) conversion table, and the load share table for the requested link set number. When the SLSEXP feature is enabled, the load share table contains 256 entries. When the SLSEXP feature is disabled, the load share table contains 32 entries.

3. VARIABLE FIELD DEFINITIONS

a = The network identifier (NID) expressed as a hexadecimal number.

b = The NID expressed as a decimal number.

b = The NID expressed as a decimal number.

c = The network, cluster, or member level routing flag. Valid value(s):

CLU_O = The cluster only (CLU_O) flag is used to identify a cluster that has cluster-only-routing cluster. When routing to a cluster with this flag, a route will be selected for the SCCP and MTP routing to a signaling point based on only the network and cluster fields of the destination point code.

DMEMBER = The dynamic member (DMEMBER) flag is used to identify dynamic members of a POPCLU. When routing to a member with this flag, a route will be selected for SCCP and MTP routing based on the network, cluster and member fields of the destination point code.

Note: A DMEMBER is only created as a result of network events (for example, transfer prohibits, subsystem prohibits, remote congestion, and so forth) and contain the abnormal network status of the member. These members will be deleted when the abnormal status is cleared.

NTWK = The network (NTWK) flag is used to identify a network with clusters of signaling points. When routing to a network with this flag, a route will be selected for SCCP and message transfer part (MTP) routing to a signaling point based on the network, cluster, and, possibly, member fields of the destination point code.

NTWK_O = The network only (NTWK_O) flag is used to identify a network that has network-only-routing. When routing to a network with this flag, a route will be selected for SCCP and MTP routing to a signaling point based only on the network field of the destination point code.

POPCLU = A populated cluster (POPCLU) is a group of signaling points, all of which have the same network and cluster in their point codes. The populated cluster flag is used to identify populated clusters. When routing to a cluster with this flag, a route will be selected for SCCP and MTP routing based on the network, cluster and if the member is exceptional [for example, a full point code routing (FPCR) member or a member that has an abnormal route status], member fields of the destination point code.

SMEMBER = The static member (SMEMBER) flag is used to identify static members (FPCR members) of a POPCLU. When routing to a member with this flag, a route will be selected for SCCP and MTP routing based on the network, cluster, and member fields of the destination point code.

UPOPCLU = An unpopulated cluster (UPOPCLU) is a signaling point in a network that has a unique cluster number. The unpopulated cluster flag is used to identify unpopulated clusters (in the NSD network, STPs are unpopulated clusters). When routing to a cluster with this flag, a route will be selected for SCCP and MTP routing based on the network, and cluster fields of the destination point code.

d = The current/active link set (route) number or BLK (blocked) if point code is inaccessible.

e = The primary route's link set number. The value is left blank when there is no link set associated with the primary route.

f = The route status of the first direct link set associated with the route. If there is no first direct link set, this field is blank. Valid value(s):

A = Transfer (cluster) allowed.
P = Transfer (cluster) prohibited.
R = Transfer (cluster) restricted.

g = The route status of the second direct link set associated with the route. If there is no second direct link set, this field is blank. Valid value(s):
A = Transfer (cluster) allowed.
P = Transfer (cluster) prohibited.
R = Transfer (cluster) restricted.
Note: Variable fields 'f' and 'g' denote whether or not the route is a combined link set. If fields 'f' and 'g' are both non-blank then the route's link set is a combined link set. If field 'f' is non-blank and field 'g' is blank, then the link set is a direct link set. If both fields 'f' and 'g' are blank, then there is no link set associated with that route.

h = The first alternate route's link set number. The value is left blank when there is no link set associated with the first alternate route.

i = The second alternate route's link set number. The value is left blank when there is no link set associated with the second alternate route.

j = The remote congestion level. The value is blank when there is no remote congestion for the point code.

k = The routing priority index (RPI) for the point code. However, if the RPI is 0, a blank is printed for the field.

l = The signaling route set congestion test (RCT). It is used to denote what remote congestion timer is running at the present moment. Valid value(s):
0 = Timer protocol T15 is running.
1 = Timer protocol T16 is running.
null = No timers are running.

m = The director index value.

n = The local network's NID in decimal format.

o = The local point code in hexadecimal format.

p = The local point code format. The word "ANSI STANDARD" or "AT&T" is indicated in this field.

q = The full point code in hexadecimal format.

r = Region from which the data is being retrieved in decimal format.

s = Cluster number from which the data is being retrieved in decimal format.

t = Member number from which the data is being retrieved in decimal format.

u = If the routing flag field 'c' indicates that the entry is a populated cluster, this field is used to index into the page access table, cNpage_access[]. If the data retrieved indicates that the entry is an unpopulated cluster or for a member (SMEMBER or DMEMBER), this field is used to index into the SCCP bitmap. For all other cases this field is left blank.

v = The point code translator. Valid value(s):

Construct	Format Type
$k^1k^1k^1l^1l^1l^1l^1m^1m^1m^1$	ANSI
$k^1k^1k^1n^1n^1l^1m^1m^1m^1$	AT&T

w = Which translator value is used for the next translation. The values are 0 and 1.

x = Indicates if the subsystem is equipped or unequipped.

y = Indicates if the subsystem is allowed or prohibited.

z = The program address physical ring node or LADD_3B in hexadecimal format.

a^1 = The channel number.

b^1 = The preferred user selected function index for incoming messages.

c^1 = The active function index for incoming messages.

d^1 = The current local point code.

e^1 = The subsystem number (SSN).

f^1 = The index into the member table, cNmember[].

g^1 = The SCCP bitmap index.

h^1 = The list of prohibited subsystems.

i^1 = This field is used to indicate abnormal route status [transfer (cluster) restricted or transfer (cluster) prohibited] and/or alternate routing. A symbol of ">" indicates that there is an abnormal route status on any of the valid routes for that point code. A ">>" indicates that alternate routing is being used for that point code. The alternate routing symbol takes precedence over the abnormal route status symbol.

j^1 = Point code expressed in a hexadecimal format.

k^1 = Network ID in decimal format.

l^1 = Cluster number in decimal format.

m^1 = Member number in decimal format.

n^1 = Region number in decimal format.

o^1 = MTP restart signaling point procedure timer status. Valid value(s):

```
NOT RUNNING
RUNNING
```

p^1 Signaling link selection (SLS) index in decimal.

q^1

r^1 = Ring node address (RNA) in decimal.

s^1 = The status of the LS. Valid value(s):

FAILED
NORMAL
UNEQUIPPED

blank Invalid LS number

Note: The rest of the output message will be printed only when the LS status is NORMAL or FAILED.

t^1 = Number of links in the LS.

u^1 = The index of the links in the LS, in sequence. It ranges from 0 to (t^1 -1).

v^1 = Group number.

w^1 = Member number.

4. ACTION TO BE TAKEN

For formats 1, 2, 3, 13, 14, and 15, if the output message is alarmed, determine whether the abnormal routing is due to conditions within the switch or in other entities in the network. If this is due to conditions within the switch, take corrective actions.

5. ALARMS

An alarm is associated with the OP C7NET output when both of the following have occurred:

- Output is the result of an OP:C7NET input message with the ABNORMAL or PRTE options.
- Abnormal routing was encountered on one or more point codes.

The alarm may be major or minor, depending upon the severity of the abnormal routing encountered. For example, if a point code was blocked, a major alarm would be associated with the output. If only one link to the point code was blocked, a minor alarm would be associated with the output.

6. REFERENCES

Input Message(s):

```
OP:C7NET
```

Output Message(s):

```
REPT:CCS7
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-190-120 *Common Channel Signaling Services*
235-118-25x *Recent Change Reference Manual*

MCC Display Page(s):

118 (CNI FRAME AND CCS STATUS)

OP:CALLMON-A

Software Release: 5E10 only
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
OP CALLMON PAST 15 MINUTE REPORT
  CALLMON PRINTMODE = a
  CALLMON STATE = b
  NON-CCS TEST CALL COMPLETION SUMMARY
  PASSED  FAILED  INDETERMINATE   NOT-ATTEMPTED   LAST-TRKG-PASSED
  c       d       e               f               g
  CCS TEST CALL COMPLETION SUMMARY
  PASSED  FAILED  INDETERMINATE   NOT-ATTEMPTED   LAST-TRKG-PASSED
  h       i       j               k               l
  TOP FIVE HIGHRUNNER FAILURE TYPES
  FAILURE-CODE    NUMBER-OF-OCCURRENCES
  H'm             n
  H'm             n
  H'm             n
  H'm             n
  H'm             n
```

2. REASON FOR OUTPUT

To report the call monitor history data upon request by the OP:CALLMON input message.

3. VARIABLE FIELD DEFINITIONS

a = The print mode of the monitor. Valid value(s):
- NORMAL = Default state prints failures only.
- VERBOSE = Verbose mode prints all reports and per test call results.

b = The monitor state. Valid value(s):
- ALLOWED = Default state.
- INHIBITED = The monitor is inhibited from running.

c = The number of non-CCS test calls that have passed in the indicated time interval.

d = The number of non-CCS test calls that have failed in the indicated time interval.

e = The number of indeterminate non-CCS test call results in the indicated time interval.

f = The number of not-attempted-non-CCS-test-call results in the indicated time interval.

g = The last non-CCS trunk group number (decimal) that passed a test call. If the number is 2002, then no test calls have passed since the monitor was last initialized.

h = The number of CCS test calls that have passed in the indicated time interval.

i = The number of CCS test calls that have failed in the indicated time interval.

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`j` = The number of indeterminate CCS test call results in the indicated time interval.

`k` = The number of not-attempted-CCS-test-call results in the indicated time interval.

`l` = The last CCS trunk group number (decimal) that passed a test call. If the number is 2002, then no test calls have passed since the monitor was last initialized.

`m` = Failure code. If zero, then no failure code stored. Refer to the APP:CALLMON appendix in the Appendixes section of the Output Messages manual.

`n` = Number of occurrences for failure code.

4. ACTION TO BE TAKEN

Analyze the output and take action according to the procedures in the System Maintenance Requirements and Tools and the Routine Operations and Maintenance manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:CALLMON
ALW:CALLMON
OP:CALLMON
SET:CALLMON
CLR:CALLMON
RTR:CALLMON
```

Output Message(s):

```
REPT:CALLMON-VTC
REPT:CALLMON-CMR
```

Output Appendix(es):

```
APP:CALLMON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

116 (MISCELLANEOUS)

OP:CALLMON-B

Software Release: 5E11 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
OP CALLMON PAST 15 MINUTE REPORT
  CALLMON PRINTMODE = a
  CALLMON STATE = b
  NON-CCS TEST CALL COMPLETION SUMMARY
  PASSED     FAILED  INDETERMINATE   NOT-ATTEMPTED   LAST-TRKG-PASSED
  c          d       e               f               g
  CCS TEST CALL COMPLETION SUMMARY
  PASSED     FAILED  INDETERMINATE   NOT-ATTEMPTED   LAST-TRKG-PASSED
  h          i       j               k               l
  TOP FIVE HIGHRUNNER FAILURE TYPES
  FAILURE-CODE       NUMBER-OF-OCCURRENCES
  H'm                n
  H'm                n
  H'm                n
  H'm                n
  H'm                n
```

2. REASON FOR OUTPUT

To report the call monitor history data upon request by the OP:CALLMON input message.

3. VARIABLE FIELD DEFINITIONS

a = The print mode of the monitor. Valid value(s):
- NORMAL = Default state prints failures only.
- VERBOSE = Verbose mode prints all reports and per test call results.

b = The monitor state. Valid value(s):
- ALLOWED = Default state.
- INHIBITED = The monitor is inhibited from running.

c = The number of non-CCS test calls that have passed in the indicated time interval.

d = The number of non-CCS test calls that have failed in the indicated time interval.

e = The number of indeterminate non-CCS test call results in the indicated time interval.

f = The number of not-attempted-non-CCS-test-call results in the indicated time interval.

g = The last non-CCS trunk group number (decimal) that passed a test call. If the number is 4002, then no test calls have passed since the monitor was last initialized.

h = The number of CCS test calls that have passed in the indicated time interval.

i = The number of CCS test calls that have failed in the indicated time interval.

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`j` = The number of indeterminate CCS test call results in the indicated time interval.

`k` = The number of not-attempted-CCS-test-call results in the indicated time interval.

`l` = The last CCS trunk group number (decimal) that passed a test call. If the number is 4002, then no test calls have passed since the monitor was last initialized.

`m` = Failure code. If zero, then no failure code stored. Refer to the APP:CALLMON appendix in the Appendixes section of the Output Messages manual.

`n` = Number of occurrences for failure code.

4. ACTION TO BE TAKEN

Analyze the output and take action according to the procedures in the System Maintenance Requirements and Tools and the Routine Operations and Maintenance manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:CALLMON
ALW:CALLMON
OP:CALLMON
SET:CALLMON
CLR:CALLMON
RTR:CALLMON
```

Output Message(s):

```
REPT:CALLMON-VTC
REPT:CALLMON-CMR
```

Output Appendix(es):

```
APP:CALLMON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

116 (MISCELLANEOUS)

OP:CAMPON-A

Software Release: 5E10 only
Message Class: TLWS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP CAMPON     STARTED

[2]   ____________________________________________________________________
      OP CAMPON a [b] [PKT] d [e] [PRIGRP=f] gg/gg/gg  gg:gg:gg  [?]

[3]   ____________________________________________________________________
      OP CAMPON     COMPLETED
```

2. REASON FOR OUTPUT

To output (in response to an OP:CAMPON input message) a list of trunks, lines, data links, and Operator Services Position System ports (OSPSPORTs) that are currently being camped on. The camp-on activity has resulted from a manual attempt to remove or restore the trunk, line, data link, or OSPSPORT. The camp-ons identified in this list can be stopped by using the STP:CAMPON input message.

Format 1 indicates the start of the OP:CAMPON output message.

Format 2 is the actual report that lists the ports that are camped on currently. If there are no ports that are camped on, this format will not print.

Format 3 indicates the end of the OP:CAMPON output message.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`?` = When present, indicates that the RMV/RST request that initiated the camp-on no longer exists. When this is the case, it is possible that the camp-on list is out of date and can be deleted by using the STP:CAMPON input message for that particular trunk, line, data link, or OSPSPORT.

`+` = Indicates the line is a party line, a custom multipoint interface DSL, or a standard interface multi-user DSL.

`a` = Equipment number or identifier. Valid value(s):

AQEST=m[1]
AQM=h-i
DN=j[1][-i[1]][+]
PKTDN=j[1]
PSUEN=c-s[1]-t[1]-u[1]-v[1]
TKGMN=j-k
XDB=l-m

`b` = Channel identifier. Used only for digital subscriber lines (DSLs), data links, and OSPSPORTs. Valid value(s):

B1
B2
D

c = Switching module (SM) number.

d = Equipment number or identifier. Valid value(s):

DEN=c-n-o-p
ILEN=c-q-r-s
LCEN=c-t-u-v
LCKEN=c-t-y^1-z^1-a^1
LEN=c-t-w-x-y-z
LTP=c-a^1
NEN=c-n^1-o^1-p^1-q^1-r^1
RAF=c-b^1-c^1
SAS=c-b^1-c^1
SLEN=c-d^1-r-s
TEN=w-e^1-f^1-g^1-h^1

e = Equipment number or identifier. Valid value(s): l. IC=x^1 ICB=k^1 ICD=l^1

f = Primary rate interface (PRI) group number.

g = Date and time of the start of the camp-on, in the form, month/day/year hour:min:sec.

h = Data link (group) number of the associated autoquote data link.

i = Relative link (member) number of the associated autoquote data link.

j = Trunk group number.

k = Trunk member number.

l = Data link (group) number of the XDB.

m = Relative link (member) number of the XDB.

n = Digital line and trunk unit (DLTU) number.

o = Digital facility interface (DFI) number.

p = Channel number.

q = IDCU number.

r = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

s = RT line number or PUB43801 channel.

t = Line unit number.

u = Line group controller number.

v = Line card number.

w = Grid number.

x = Board number.

y = Switch number.

z = Level number.

a[1] = Logical test port number.

b[1] = RAF or SAS unit number.

c[1] = RAF or SAS announcement channel number.

d[1] = Digital carrier line unit (DCLU) number.

e[1] = Trunk unit number.

f[1] = Service group number.

g[1] = Channel board number.

h[1] = Circuit number.

i[1] = Member number of the line time-slot bridging (LTSB) line. For LTSB a member number of '1' represents the lead line and a member number of '2' represents the associate line.

j[1] = Telephone number of the line or database.

k[1] = Identifying number of the FGB carrier which can be up to four digits. If present, this variable indicates a direct trunk to a carrier.

l[1] = Identifying number of the FGD carrier which can be up to four digits. If present, this variable indicates a direct trunk to a carrier.

m[1] = Telephone number of the AQEST.

n[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

o[1] = Data group number.

p[1] = Synchronous transport signal (STS) number.

q[1] = Virtual tributary 1.5 (VT1.5) number.

r[1] = Digital signal level 0 (DS0).

s[1] = PSU unit number.

t[1] = PSU shelf number.

u[1] = PSU channel group number.

v[1] = PSU channel group member number.

x[1] = Identifying number of the IC. If present, this variable indicates a direct trunk to a carrier.

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y[1] = Line group number.

z[1] = Line board number.

a[1] = Line circuit number.

4. ACTION TO BE TAKEN

None. Refer to the message output for pertinent status and information, and take appropriate action based on the information received, if necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CAMPON
RMV:DATALINK
RMV:LINE
RMV:OSPSPORT
RMV:TRK
RST:DATALINK
RST:LINE
RST:OSPSPORT
RST:TRK
STP:CAMPON
```

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

OP:CAMPON-B

Software Release: 5E11 - 5E12
Message Class: TLWS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP CAMPON     STARTED

[2]   ____________________________________________________________________
      OP CAMPON a [b] [PKT] d [e] [PRIGRP=f] gg/gg/gg  gg:gg:gg  [?]

[3]   ____________________________________________________________________
      OP CAMPON     COMPLETED
```

2. REASON FOR OUTPUT

To output (in response to an OP:CAMPON input message) a list of trunks, lines, data links, and Operator Services Position System ports (OSPSPORTs) that are currently being camped on. The camp-on activity has resulted from a manual attempt to remove or restore the trunk, line, data link, or OSPSPORT. The camp-ons identified in this list can be stopped by using the STP:CAMPON input message.

Format 1 indicates the start of the OP:CAMPON output message. Format 2 is the actual report that lists the ports that are camped on currently. If there are no ports that are camped on, this format will not print. Format 3 indicates the end of the OP:CAMPON output message.

3. VARIABLE FIELD DEFINITIONS

`?` = When present, indicates that the RMV/RST request that initiated the camp-on no longer exists. When this is the case, it is possible that the camp-on list is out of date and can be deleted by using the STP:CAMPON input message for that particular trunk, line, data link, or OSPSPORT.

`+` = Indicates the line is a party line, a custom multipoint interface DSL, or a standard interface multi-user DSL.

`a` = Equipment number or identifier. Valid value(s):

AQEST=m[1]
AQM=h-i
DN=j[1][-i[1]][+]
PKTDN=j[1]
PSUEN=c-s[1]-t[1]-u[1]-v[1]
TKGMN=j-k
XDB=l-m

`b` = Channel identifier. Used only for digital subscriber lines (DSLs), data links, and OSPSPORTs. Valid value(s):
B1
B2
D

`c` = Switching module (SM) number.

d = Equipment number or identifier. Valid value(s):

AIUEN=c-b^2-c^2-d^2 DEN=c-n-o-p ILEN=c-q-r-s INEN=c-n^1-r-s LCEN=c-t-u-v LCKEN=c-t-y^1-z^1-a^2 LEN=c-t-w-x-y-z	LTP=c-a^1 NEN=c-n^1-o^1-p^1-q^1-r^1 RAF=c-b^1-c^1 SAS=c-b^1-c^1 SLEN=c-d^1-r-s TEN=w-e^1-f^1-g^1-h^1

e = Equipment number or identifier. Valid value(s):

IC=x^1
ICB=k^1
ICD=l^1

f = Primary rate interface (PRI) group number.

g = Date and time of the start of the camp-on, in the form, month/day/year hour:min:sec.

h = Data link (group) number of the associated autoquote data link.

i = Relative link (member) number of the associated autoquote data link.

j = Trunk group number.

k = Trunk member number.

l = Data link (group) number of the XDB.

m = Relative link (member) number of the XDB.

n = Digital line and trunk unit (DLTU) number.

o = Digital facility interface (DFI) number.

p = Channel number.

q = IDCU number.

r = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

s = RT line number or PUB43801 channel.

t = Line unit number.

u = Line group controller number.

v = Line card number.

w = Grid number.

x = Board number.

y = Switch number.

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z = Level number.

a[1] = Logical test port number.

b[1] = RAF or SAS unit number.

c[1] = RAF or SAS announcement channel number.

d[1] = Digital carrier line unit (DCLU) number.

e[1] = Trunk unit number.

f[1] = Service group number.

g[1] = Channel board number.

h[1] = Circuit number.

i[1] = Member number of the line time-slot bridging (LTSB) line. For LTSB a member number of '1' represents the lead line and a member number of '2' represents the associate line.

j[1] = Telephone number of the line or database.

k[1] = Identifying number of the FGB carrier which can be up to four digits. If present, this variable indicates a direct trunk to a carrier.

l[1] = Identifying number of the FGD carrier which can be up to four digits. If present, this variable indicates a direct trunk to a carrier.

m[1] = Telephone number of the AQEST.

n[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

o[1] = Data group number.

p[1] = Synchronous transport signal (STS) number.

q[1] = Virtual tributary 1.5 (VT1.5) number.

r[1] = Digital signal level 0 (DS0).

s[1] = PSU unit number.

t[1] = PSU shelf number.

u[1] = PSU channel group number.

v[1] = PSU channel group member number.

x[1] = Identifying number of the IC. If present, this variable indicates a direct trunk to a carrier.

y[1] = Line group number.

z[1] = Line board number.

a[2] = Line circuit number.

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b[2] = Access interface unit (AIU) number.

c[2] = AIU pack number.

d[2] = AIU circuit number.

4. ACTIONS TO BE TAKEN

None. Refer to the message output for pertinent status and information, and take appropriate action based on the information received, if necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CAMPON
RMV:DATALINK
RMV:LINE
RMV:OSPSPORT
RMV:TRK
RST:DATALINK
RST:LINE
RST:OSPSPORT
RST:TRK
STP:CAMPON
```

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

OP:CAMPON-C

Software Release: 5E13 and later
Message Class: TLWS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      OP CAMPON     STARTED

[2]   ____________________________________________________________
      OP CAMPON a [b] [PKT] d [e] [PRIGRP=f] gg/gg/gg  gg:gg:gg  [?]

[3]   ____________________________________________________________
      OP CAMPON     COMPLETED
```

2. REASON FOR OUTPUT

To output (in response to an OP:CAMPON input message) a list of trunks, lines, data links, and Operator Services Position System ports (OSPSPORTs) that are currently being camped on. The camp-on activity has resulted from a manual attempt to remove or restore the trunk, line, data link, or OSPSPORT. The camp-ons identified in this list can be stopped by using the STP:CAMPON input message.

Format 1 indicates the start of the OP:CAMPON output message. Format 2 is the actual report that lists the ports that are camped on currently. If there are no ports that are camped on, this format will not print. Format 3 indicates the end of the OP:CAMPON output message.

3. VARIABLE FIELD DEFINITIONS

`?` = When present, indicates that the RMV/RST request that initiated the camp-on no longer exists. When this is the case, it is possible that the camp-on list is out of date and can be deleted by using the STP:CAMPON input message for that particular trunk, line, data link, or OSPSPORT.

`+` = Indicates the line is a party line, a custom multipoint interface DSL, or a standard interface multi-user DSL.

`a` = Equipment number or identifier. Valid value(s):

AQEST=m[1]
AQM=h-i
DN=j[1][-i[1]][+]
PKTDN=j[1]
PSUEN=c-s[1]-t[1]-u[1]-v[1]
TKGMN=j-k
XDB=l-m

`b` = Channel identifier. Used only for digital subscriber lines (DSLs), data links, and OSPSPORTs. Valid value(s):
B1
B2
D

c = Switching module (SM) number.

d = Equipment number or identifier. Valid value(s):

AIUEN=c-b^2-c^2-d^2	LTP=c-a^1
DEN=c-n-o-p	NEN=c-n^1-o^1-e^2-p^1-q^1-f^2-r^1
ILEN=c-q-r-s	RAF=c-b^1-c^1
INEN=c-n^1-r-s	SAS=c-b^1-c^1
LCEN=c-t-u-v	SLEN=c-d^1-r-s
LCKEN=c-t-y^1-z^1-a^2	TEN=w-e^1-f^1-g^1-h^1
LEN=c-t-w-x-y-z	

e = Equipment number or identifier. Valid value(s):

IC=x^1
ICB=k^1
ICD=l^1

f = Primary rate interface (PRI) group number.

g = Date and time of the start of the camp-on, in the form, month/day/year hour:min:sec.

h = Data link (group) number of the associated autoquote data link.

i = Relative link (member) number of the associated autoquote data link.

j = Trunk group number.

k = Trunk member number.

l = Data link (group) number of the XDB.

m = Relative link (member) number of the XDB.

n = Digital line and trunk unit (DLTU) number.

o = Digital facility interface (DFI) number.

p = Channel number.

q = IDCU number.

r = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

s = RT line number or PUB43801 channel.

t = Line unit number.

u = Line group controller number.

v = Line card number.

w = Grid number.

x = Board number.

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y = Switch number.

z = Level number.

a[1] = Logical test port number.

b[1] = RAF or SAS unit number.

c[1] = RAF or SAS announcement channel number.

d[1] = Digital carrier line unit (DCLU) number.

e[1] = Trunk unit number.

f[1] = Service group number.

g[1] = Channel board number.

h[1] = Circuit number.

i[1] = Member number of the line time-slot bridging (LTSB) line. For LTSB a member number of '1' represents the lead line and a member number of '2' represents the associate line.

j[1] = Telephone number of the line or database.

k[1] = Identifying number of the FGB carrier which can be up to four digits. If present, this variable indicates a direct trunk to a carrier.

l[1] = Identifying number of the FGD carrier which can be up to four digits. If present, this variable indicates a direct trunk to a carrier.

m[1] = Telephone number of the AQEST.

n[1] = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

o[1] = Data group number.

p[1] = Synchronous transport signal (STS) number.

q[1] = Virtual tributary group number.

r[1] = Digital signal level 0 (DS0).

s[1] = PSU unit number.

t[1] = PSU shelf number.

u[1] = PSU channel group number.

v[1] = PSU channel group member number.

x[1] = Identifying number of the IC. If present, this variable indicates a direct trunk to a carrier.

y[1] = Line group number.

z[1] = Line board number.

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a[2] = Line circuit number.

b[2] = Access interface unit (AIU) number.

c[2] = AIU pack number.

d[2] = AIU circuit number.

e[2] = SONET termination equipment (STE) number.

f[2] = Virtual tributary member number.

4. ACTIONS TO BE TAKEN

None. Refer to the message output for pertinent status and information, and take appropriate action based on the information received, if necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CAMPON
RMV:DATALINK
RMV:LINE
RMV:OSPSPORT
RMV:TRK
RST:DATALINK
RST:LINE
RST:OSPSPORT
RST:TRK
STP:CAMPON
```

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

OP:CCS-ACDPC-A

Software Release: 5E11 only
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP CCS ACDPC SM=a OPC=b  c  [d]
  DPC:SET  DPC:SET  DPC:SET  DPC:SET
    e:f      e:f      e:f      e:f
     .        .        .        .
     .        .        .        .
     .        .        .        .
    e:f      e:f      e:f      e:f
```

2. REASON FOR OUTPUT

To furnish the linkset serving each accessible destination point code (DPC) for a given global SM in response to the OP:CCS-ACDPC input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Common channel signaling (CCS) global switching module (GSM) number.

`b` = Originating point code (OPC) number. OPC number consists of three items, each being three digits in length. They are, respectively, the OPC network, OPC cluster, and OPC member.

`c` = Current page. Valid value(s):
`FIRST` = First page of report.
`LAST` = Last page of report associated with this report.
`NEXT` = Next report page.

`d` = Reason the message was not processed. Valid value(s):

DATA BEING UPDATED
THERE ARE NO ACCESSIBLE DPCS

`e` = Accessible destination point code (DPC). DPC number consists of three items, each being three digits in length. They are, respectively, the DPC network, DPC cluster, and DPC member.

`f` = Linkset number or combined linkset number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CCS-ACDPC
```

Other Manual(s):
235-120-120 *VCDX Users Guide*
235-190-120 *Common Channel Signaling Services*

OP:CCS-ACDPC-B

Software Release: 5E12 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      CCS ACDPC SM=a OPC=b  c
        DPC:SET  DPC:SET  DPC:SET  DPC:SET
          d:e      d:e      d:e      d:e
           .        .        .        .
           .        .        .        .
           .        .        .        .
          d:e      d:e      d:e      d:e

[2]   ____________________________________________________________________
      CCS ACDPC SM=a OPC=b LAST f
```

2. REASON FOR OUTPUT

To furnish the linkset serving each accessible destination point code (DPC) for a given global SM in response to the OP:CCS-ACDPC input message.

Format 1 is the output message where all accessible DPCs associated with their linkset number or combined linkset number are listed.

Format 2 is the output message where no DPCs are listed.

3. VARIABLE FIELD DEFINITIONS

a = Common channel signaling (CCS) global switching module (GSM) number.

b = Originating point code (OPC) number. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual for interpretation.

c = Current page. Valid value(s):

FIRST	= First page of report.
LAST	= Last page of report associated with this report.
NEXT	= Next report page.

d = Accessible destination point code (DPC). Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual for interpretation.

e = Linkset number or combined linkset number.

f = Reason the command was not processed. Valid value(s):

```
DATA BEING UPDATED
THERE IS NO ACCESSIBLE DPC
```

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4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CCS-ACDPC
```

Output Appendix(es):

```
APP:POINT-CODE
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services*

OP:CCS-ACTLK-A

Software Release: 5E11 only
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP CCS ACTLK SM=a  OPC=b  [NO AVAILABLE LINK SETS]
  SET:NUM   SET:NUM   SET:NUM   SET:NUM   SET:NUM   SET:NUM   SET:NUM
   c:d       c:d       c:d       c:d       c:d       c:d       c:d
    .         .         .         .         .         .         .
    .         .         .         .         .         .         .
    .         .         .         .         .         .         .
   c:d       c:d       c:d       c:d       c:d       c:d       c:d
```

2. REASON FOR OUTPUT

To furnish the number of currently active (in service) signaling links in the specified signaling linkset in response to the OP:CCS-ACTLK input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Common channel signaling (CCS) global switching module (GSM) number.

`b` = Originating point code (OPC) number. OPC number consists of three items, each being three digits in length. They are, respectively, the OPC network, OPC cluster, and OPC member.

`c` = Linkset number.

`d` = Number of active members in a linkset.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CCS-ACTLK
```

Other Manual(s):
235-120-120 *VCDX Users Guide*
235-190-120 *Common Channel Signaling Services*

MCC Display Page(s):

1532 (CCS LINK SET SUMMARY)
1533 (CCS LINK SET MEMBER)

OP:CCS-ACTLK-B

Software Release: 5E12 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP CCS ACTLK SM=a  OPC=b
        SET:NUM   SET:NUM   SET:NUM   SET:NUM   SET:NUM   SET:NUM   SET:NUM
        c:d       c:d       c:d       c:d       c:d       c:d       c:d
         .         .         .         .         .         .         .
         .         .         .         .         .         .         .
         .         .         .         .         .         .         .
        c:d       c:d       c:d       c:d       c:d       c:d       c:d

[2]   ____________________________________________________________________
      OP CCS ACTLK SM=a  OPC=b
        NO AVAILABLE LINK SETS
```

2. REASON FOR OUTPUT

To furnish the number of currently active (in-service) signaling links in all signaling linksets on the specified GSM, in response to the OP:CCS-ACTLK input message.

Format 1 is the output message where all currently active signaling links in all signaling linksets are listed.

Format 2 is the output message where there are no active signaling links in the office.

3. VARIABLE FIELD DEFINITIONS

`a` = Common channel signaling (CCS) global switching module (GSM) number.

`b` = Originating point code (OPC) number associated with the GSM. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual for interpretation.

`c` = Linkset number.

`d` = Number of active members in a linkset.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:CCS-ACTLK`

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Output Appendix(es):

```
APP:POINT-CODE
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services*

MCC Display Page(s):

1532 (CCS LINK SET SUMMARY)
1533 (CCS LINK SET MEMBER)

OP:CCS-CLS-A

Software Release: 5E11 only
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP CCS CLS SM=a
        STATUS OF COMBINED LINK SET  b
        LINK SET c:   MBR  SLS  STATUS
                       d    e   f [g] [h] [i]
                       .    .   .  .   .   .
                       .    .   .  .   .   .
        LINK SET c:   MBR  SLS  STATUS
                       d    e   f [g] [h] [i]
                       .    .   .  .   .   .
                       .    .   .  .   .   .

[2]   ____________________________________________________________________
      OP CCS CLS SM=a
        SUMMARY REPORT FOR CLS j-k
        NO DATA FOUND FOR l OF m ELEMENTS

[3]   ____________________________________________________________________
      OP CCS CLS SM=a
        SUMMARY REPORT FOR CLS b
        NO DATA FOUND
```

2. REASON FOR OUTPUT

To print the status of each members of a combined link set (CLS).

Format 1 is the output message where all the links of a given link set and their members are shown.

Format 2 is the output message if no members exist under a given range of combined link sets.

Format 3 is the output message if no members exist under a given combined link set.

3. VARIABLE FIELD DEFINITIONS

`a` = Common channel signaling (CCS) global switching module (GSM) number.

`b` = Combined link set number.

`c` = Link set number.

`d` = Member number.

`e` = Current number of signaling link selections (SLSs).

`f` = Status of member. Valid value(s):
`AVAIL` = Available.
`CONG_1` = Level 1 congestion.

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CONG_2	= Level 2 congestion.
CONG_3	= Level 3 congestion.
DACT	= Deactivated.
INIT	= Initialized.
LBLK	= Local block.
LINH	= Local inhibit.
LKER-L1	= Level 1 link error.
LKER-L2	= Level 2 link error.
LKER-L3	= Level 3 link error.
OOS-DL	= The data link is out-of-service.
OOSF-PH	= The PH is out-of-service.
OOST	= Out-of-service.
RBLK	= Remotely blocked.
RSRC	= Resources needed
RINH	= Remotely inhibited.
TBI	= To be idled.
UNKNOWN	= Unknown.

g = Additional status of member, if any. Valid value(s):

LBLK	= Local block.
LINH	= Local inhibit.
RBLK	= Remotely blocked
RINH	= Remotely inhibited.

h = Additional status of member, if any. Valid value(s):

LBLK	= Local block.
LINH	= Local inhibit.
RBLK	= Remotely blocked
RINH	= Remotely inhibited.

i = Additional status of member, if any. Valid value(s):

LBLK	= Local block.
LINH	= Local inhibit.
RBLK	= Remotely blocked
RINH	= Remotely inhibited.

j = Lower limit of a CLS range.

k = Upper limit of a CLS range.

l = Number of CLSs.

m = Total number of CLSs in a given range.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CCS-CLS
```

Other Manual(s):
235-120-120 *VCDX Users Guide*
235-190-120 *Common Channel Signaling Services*

MCC Display Page(s):

1532 (CCS LINK SET SUMMARY)
1533 (CCS LINK SET MEMBER)

OP:CCS-CLS-B

Software Release: 5E12 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

[1]
```
OP CCS CLS SM=a
  STATUS OF COMBINED LINK SET  b
  LINK SET c:   MBR  SLS  STATUS
                 d    e   f [g] [h] [i]
                 .    .   .  .   .   .
                 .    .   .  .   .   .
  LINK SET c:   MBR  SLS  STATUS
                 d    e   f [g] [h] [i]
                 .    .   .  .   .   .
                 .    .   .  .   .   .
```

[2]
```
OP CCS CLS SM=a
  SUMMARY REPORT FOR CLS j-k
  NO DATA FOUND FOR l OF m SETS
```

[3]
```
OP CCS CLS SM=a
  SUMMARY REPORT FOR CLS b
  NO DATA FOUND
```

2. REASON FOR OUTPUT

To print the status of each members of a combined link set (CLS).

Format 1 is the output message where status for each member in the CLS is listed.

Format 2 is the output message if no members exist in some CLSs in a specified range.

Format 3 is the output message if no members exist in a given CLS.

3. VARIABLE FIELD DEFINITIONS

`a` = Common channel signaling (CCS) global switching module (GSM) number.

`b` = Combined link set number.

`c` = Component link set number.

`d` = Member number.

`e` = Current number of signaling link selections (SLSs) associated with the member.

`f` = Status of member. Valid value(s):
- `AVAIL` = Available.
- `CONG_1` = Level 1 congestion.

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CONG_2	= Level 2 congestion.
CONG_3	= Level 3 congestion.
DACT	= Deactivated.
INIT	= Initializing.
LBLK	= Local block.
LINH	= Local inhibit.
LKER-L1	= Level 1 link error.
LKER-L2	= Level 2 link error.
LKER-L3	= Level 3 link error.
OOS-DL	= Signaling datalink out of service.
OOSF-PH	= PH out of service.
OOST	= Out of service.
RBLK	= Remotely blocked.
RINH	= Remotely inhibited.
RSRC	= Resources needed
TBI	= To be idled (audit recovery).
UNKNOWN	= Unknown.

g = Additional status of member, if any. Valid value(s):

LBLK	= Local block.
LINH	= Local inhibit.
RBLK	= Remotely blocked
RINH	= Remotely inhibited.

h = Additional status of member, if any. Valid value(s):

LBLK	= Local block.
LINH	= Local inhibit.
RBLK	= Remotely blocked
RINH	= Remotely inhibited.

i = Additional status of member, if any. Valid value(s):

LBLK	= Local block.
LINH	= Local inhibit.
RBLK	= Remotely blocked
RINH	= Remotely inhibited.

j = Lower limit of a CLS range.

k = Upper limit of a CLS range.

l = Number of CLSs without members.

m = Total number of CLSs in a given range.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CCS-CLS
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services*

MCC Display Page(s):

1532 (CCS LINK SET SUMMARY)
1533 (CCS LINK SET MEMBER)

OP:CCS-DPC-A

Software Release: 5E11 only
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP CCS DPC SM=a OPC=b c
        DPC     STATUS              LINKSET
        d       e f [INVALID DPC]   [g]
        .       . .      .          .
        .       . .      .          .
        .       . .      .          .
        d       e f [INVALID DPC]   [g]

[2]   ____________________________________________________________________
      OP CCS DPC SM=a OPC=b [h]
```

2. REASON FOR OUTPUT

Responds to the OP:CCS-DPC input message.

Format 1 displays status information for one or more destination point codes (DPC).

Format 2 displays the reason the input message was not processed.

3. VARIABLE FIELD DEFINITIONS

`a` = Common channel signaling (CCS) global switching module (GSM) number.

`b` = Originating point code (OPC) number. OPC number consists of three items, each being three digits in length. They are, respectively, the OPC network, OPC cluster, and OPC member.

`c` = Current page. Valid value(s):

```
END OF DATA
IN PROGRESS
```

`d` = Destination point code (DPC) number. DPC number consists of three items, each being three digits in length. They are, respectively, the DPC network, DPC cluster, and DPC member.

`e` = Status. Valid value(s):

`ACCESS`	= The DPC is accessible.
`INACCESS`	= The DPC is inaccessible.

`f` = Congestion. Valid value(s):

`CONG1`	= The DPC is congested at level 1.
`CONG2`	= The DPC is congested at level 2.
`CONG3`	= The DPC is congested at level 3.

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`g` = Link set number. Prints only for accessible DPCs.

`h` = Reason the input message was not processed. Valid value(s):

```
THERE ARE NO ACCESSIBLE DPCs.
THERE ARE NO INACCESSIBLE DPCs.
```

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CCS-DPC
```

Other Manual(s):
235-120-120 *VCDX Users Guide*
235-190-120 *Common Channel Signaling Services*

MCC Display Page(s):

1532 (CCS LINK SET SUMMARY)
1533 (CCS LINK SET MEMBER)

OP:CCS-DPC-B

Software Release: 5E12 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

[1]
```
OP CCS DPC SM=a OPC=b c
  DPC     STATUS                LINKSET
  d       e [f] [INVALID DPC]   [g]
  .       . .      .            .
  .       . .      .            .
  .       . .      .            .
  d       e [f] [INVALID DPC]   [g]
```

[2]
```
OP CCS DPC SM=a OPC=b [h]
```

2. REASON FOR OUTPUT

Responds to the OP:CCS-DPC input message.

Format 1 displays status information for one or more destination point codes (DPC).

Format 2 displays the reason the message was not processed.

3. VARIABLE FIELD DEFINITIONS

a = Common channel signaling (CCS) global switching module (GSM) number.

b = Originating point code (OPC) number associated with the GSM. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual for interpretation.

c = Current page. Valid value(s):

```
END OF DATA
IN PROGRESS
```

d = Destination point code (DPC) number. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual for interpretation.

e = DPC status. Valid value(s):

ACCESS	= The DPC is accessible.
INACCESS	= The DPC is inaccessible.

f = Congestion level. Valid value(s):

CONG1	= The DPC is congested at level 1.
CONG2	= The DPC is congested at level 2.
CONG3	= The DPC is congested at level 3.

`g` = Link set or combined link set number. This is the current access route, which is printed only for accessible DPCs.

`h` = Reason the message was not processed. Valid value(s):

```
THERE ARE NO ACCESSIBLE DPCs.
THERE ARE NO INACCESSIBLE DPCs.
```

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CCS-DPC
```

Output Appendix(es):

```
APP:POINT-CODE
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services*

MCC Display Page(s):

1532 (CCS LINK SET SUMMARY)
1533 (CCS LINK SET MEMBER)

OP:CCS-DPCLS-A

Software Release: 5E11 only
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP CCS DPCLS SET=a SM=b c
  OPC=d [e]
  DUMP OF DPCS
  f  [f  f  f  f]
  [f  f  f  f  f]
  [f  f  f  f  f]
```

2. REASON FOR OUTPUT

To display the destination point codes (DPCs) currently served by a linkset or a combined linkset.

3. VARIABLE FIELD DEFINITIONS

`a` = Linkset or combined linkset (CLS) number specified.

`b` = Switching module number.

`c` = Page sequence for multiple report. Valid value(s):
- `FIRST` = First page of report.
- `LAST` = Last page of report associated with this request.
- `NEXT` = Next report page.

`d` = Originating point code (OPC) number. OPC number consists of three items, each being three digits in length. They are, respectively, the OPC network, OPC cluster, and OPC member.

`e` = Reason the input message was not processed. Valid value(s):
- `CT7MPSIU PACKAGE NOT LOADED` = The loadable package that contains the software that receives the input message has not been loaded.
- `DATA BEING UPDATED` = The input message cannot be processed because the relations that contain the status of DPCs are being updated either by traffic diversion terminal process or by audits. Retry the input message later.
- `INVALID LINKSET NUMBER SPECIFIED` = Linkset number specified in the input message is invalid for the GSM indicated.
- `LINKSET NOT AVAILABLE` = Linkset specified in the input message is unavailable. Retry the input message later.
- `MSG NOT SENT TO CLIENT PROC.` = The input message cannot be processed because the signaling traffic route and management (STRM) system process failed to create the craft terminal process. Retry the input message later.
- `OFFICE NOT EQUIPPED WITH CCS` = This office does not have common channel signaling (CCS) features on the PSU platform.
- `SM DATA CURRENTLY NOT AVAILABLE` = Command cannot be processed because the requested data is currently not available for processing. Retry the input message later.
- `SM NOT AVAILABLE` = Command cannot be processed because the path to the global SM is not available. Retry the input message later.

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`f` = DPC number. DPC number consists of three items, each being three digits in length. They are, respectively, the DPC network, DPC cluster, and DPC member.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CCS-DPCLS
```

Other Manual(s):
235-120-120 *VCDX Users Guide*
235-190-120 *Common Channel Signaling Services*

MCC Display Page(s):

1532 (CCS LINK SET SUMMARY)
1533 (CCS LINK SET MEMBER)

OP:CCS-DPCLS-B

Software Release: 5E12 - 5E13
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP CCS DPCLS SET=a SM=b c
  OPC=d [e]
  DUMP OF DPCS
  f  [f  f  f  f]
  [f  f  f  f  f]
  [f  f  f  f  f]
```

2. REASON FOR OUTPUT

To display the destination point codes (DPCs) currently served by a linkset or a combined linkset.

3. VARIABLE FIELD DEFINITIONS

`a` = Linkset or combined linkset (CLS) number specified.

`b` = Common channel signaling (CCS) global switching module (GSM) number.

`c` = Page sequence for multiple report. Valid value(s):
- `FIRST` = First page of report.
- `LAST` = Last page of report associated with this request.
- `NEXT` = Next report page.

`d` = Originating point code (OPC) number associated with the GSM. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual for interpretation.

`e` = Reason the message was not processed. Valid value(s):
- `CT7MPSIU PACKAGE NOT LOADED` = The loadable package that contains the software that receives the message has not been loaded.
- `DATA BEING UPDATED` = The message cannot be processed because the relations that contain the status of DPCs are being updated either by traffic diversion terminal process or by audits. Retry the input message later.
- `INVALID LINKSET NUMBER SPECIFIED` = Linkset number specified in the input message is invalid for the GSM indicated.
- `LINKSET NOT AVAILABLE` = No number in the linkset specified is capable of supporting traffic. Retry the input message later.
- `MSG NOT SENT TO CLIENT PROC.` = The message cannot be processed because the signaling traffic route and management (STRM) system process failed to create the craft terminal process. Retry the input message later.
- `OFFICE NOT EQUIPPED WITH CCS` = This office does not have common channel signaling (CCS) features on the PSU platform.
- `SM DATA CURRENTLY NOT AVAILABLE` = Command cannot be processed because the requested data is currently not available for processing. Retry the input message later.
- `SM NOT AVAILABLE` = Command cannot be processed because the specified GSM is not accessible. Retry the input message later.

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`f` = DPC number currently being served by the specified linkset/CLS. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual for interpretation.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:CCS-DPCLS`

Output Appendix(es):

`APP:POINT-CODE`

Other Manual(s):
235-190-120 *Common Channel Signaling Services*

MCC Display Page(s):

1532 (CCS LINK SET SUMMARY)
1533 (CCS LINK SET MEMBER)

OP:CCS-DPCLS-C

Software Release: 5E14 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP CCS DPCLS SET=a SM=b c
  OPC=d
  SUPPORTED DPCS
  f  [f  f  f  f]
 [f  f  f  f  f]
 [f  f  f  f  f]
```

2. REASON FOR OUTPUT

To display the destination point codes (DPCs) currently served by a linkset or a combined linkset.

3. VARIABLE FIELD DEFINITIONS

`a` = Linkset or combined linkset (CLS) number specified.

`b` = Common channel signaling (CCS) global switching module (GSM) number.

`c` = Indicates the status of message being processed. Valid value(s):

`CT7MPSIU PACKAGE NOT LOADED` = The loadable package that contains the software that receives the message has not been loaded.

`OUTPUT INPCOMPLETE - DATA BEING UPDATED` = The message cannot be processed because the relations that contain the status of DPCs are being updated either by traffic diversion terminal process or by audits. The data reported may be incomplete. Retry the input message later.

`INVALID LINKSET NUMBER SPECIFIED` = Linkset number specified in the input message is invalid for the GSM indicated.

`LINKSET NOT AVAILABLE` = No number in the linkset specified is capable of supporting traffic. Retry the input message later.

`MSG NOT SENT TO CLIENT PROC.` = The message cannot be processed because the signaling traffic route and management (STRM) system process failed to create the end user terminal process. Retry the input message later.

`OFFICE NOT EQUIPPED WITH CCS` = This office does not have common channel signaling (CCS) features on the PSU platform.

`SM DATA CURRENTLY NOT AVAILABLE` = Command cannot be processed because the requested data is currently not available for processing. Retry the input message later.

`SM NOT AVAILABLE` = Command cannot be processed because the specified GSM is not accessible. Retry the input message later.

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`NO DPC SERVED BY LINKSET` = Currently no DPCs are served by the linkset.

`STARTED` = Started generating the report.

`COMPLETED` = Report completed.

`d` = Originating point code (OPC) number associated with the GSM. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual for interpretation.

`f` = DPC number currently being served by the specified linkset/CLS. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual for interpretation.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:CCS-DPCLS`

Output Appendix(es):

`APP:POINT-CODE`

Other Manual(s):
235-190-120 *Common Channel Signaling Service Features*

MCC Display Page(s):

1532 (CCS LINK SET SUMMARY)
1533 (CCS LINK SET MEMBER)

OP:CCS-GSM-A

Software Release: 5E11 only
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP CCS GSM [a]
  SM  CCS SUMMARY LINK STATUS        OPC
   b  c                              d
```

2. REASON FOR OUTPUT

To confirm the request to output the common channel signaling (CCS) global switching modules (GSMs), and the summary signaling link status of the CCS protocols in the office.

3. VARIABLE FIELD DEFINITIONS

`a` = Possible error conditions. Valid value(s):
`GSM MISMATCH` = CCS global SM and CCS protocols given in command do not correlate (wrong GSM number).

`b` = CCS GSM number.

`c` = CCS summary link status. Valid value(s):

```
ALL EQUIPPED LINKS IN SERVICE
SM NOT AVAILABLE
SOME LINKS IN OFFNORMAL STATE
```

`d` = Originating point code (OPC) number. OPC number consists of three items, each being three digits in length. They are, respectively, the OPC network, OPC cluster, and OPC member.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CCS-GSM
```

Other Manual(s):
235-120-120 *VCDX Users Guide*
235-190-120 *Common Channel Signaling Services*

MCC Display Page(s):

1532 (CCS LINK SET SUMMARY)
1533 (CCS LINK SET MEMBER)

OP:CCS-GSM-B

Software Release: 5E12 - 5E13
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP CCS GSM [a]
 SM  CCS SUMMARY LINK STATUS        OPC
  b  c                              d
  .  .                              .
  .  .                              .
 [b  c                              d]
```

2. REASON FOR OUTPUT

To confirm the request to output the common channel signaling (CCS) global switching modules (GSMs), and the summary signaling link status of the CCS protocols in the office.

3. VARIABLE FIELD DEFINITIONS

`a` = Possible error conditions. Valid value(s):
`GSM MISMATCH` = CCS global SM and CCS protocols given in the input message do not correlate (wrong GSM number).

`b` = CCS GSM number.

`c` = CCS summary link status. Valid value(s):

```
ALL EQUIPPED LINKS IN SERVICE
SM NOT AVAILABLE
SOME LINKS IN OFFNORMAL STATE
```

`d` = Originating point code (OPC) number. OPC number can be entered as a 9 digit number. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual for interpretation.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:CCS-GSM`

Output Appendix(es):

```
APP:POINT-CODE
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services*

MCC Display Page(s):

1532 (CCS LINK SET SUMMARY)
1533 (CCS LINK SET MEMBER)

OP:CCS-GSM-C

Software Release: 5E14 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP CCS GSM  f
 GSM     LINK STATUS        OPC               GSM TYPE      CMT CONNECTIVITY
 a       b                  c                 d             e
 .       .                  .                 .             .
 .       .                  .                 .             .
 .       .                  .                 .             .
 [a      b                  c                 d             e]
```

2. REASON FOR OUTPUT

To provide output in response to an OP:CCS,GSM request, which provides information associated with one/more common channel signaling (CCS) global switching modules (GSMs), including summary signaling link status and CCS Message Transport (CMT) connectivity status.

3. VARIABLE FIELD DEFINITIONS

`a` = GSM number.

`b` = Summary link status. Valid value(s):
`FULLY AVAILABLE` = All provisioned CCS signaling links are available.
`PARTIAL LOSS` = Some, but not all, CCS signaling links are available.
`TOTAL LOSS` = All provisioned CCS signaling links are unavailable.
`UNKNOWN` = The GSM is initializing or is isolated, or a system error occurred while accessing data.
`GROWTH` = No CCS signaling links are provisioned on the GSM (possible only during a growth/degrowth interval).

`c` = Originating point code (9-digit OPC associated with the GSM). Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual, for a description ANSI and AT&T/UNITEL formats.

`d` = Type of GSM, currently restricted to: ISLAND = Global SM can provide ISUP and SCCP services only for lines and trunks resident on the GSM.

`e` = CMT Connectivity (state of internal CCS message transport availability within the GSM).
`FULLY AVAILABLE` = Intra-GSM CMT is available.
`TOTAL LOSS` = Intra-GSM CMT is unavailable.
`UNKNOWN` = The GSM is initializing or is isolated, or a system error occurred while accessing data.
`GROWTH` = No CMT path is provisioned on the GSM (possible only during growth/degrowth interval).

`f` = Output message sequence number (FIRST, LAST).

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4. ACTIONS TO BE TAKEN

If a status other than FULLY AVAILABLE is produced, see corrective maintenance procedures in 235-190-120 (Common Channel Signaling Service Features).

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CCS-GSM
```

Output Appendix(es):

```
APP:POINT-CODE
```

Other Manual(s):
235-190-120 *Common Channel Signaling Service Features*

MCC Display Page(s):

1532 (CCS LINK SET SUMMARY)
1533 (CCS LINK SET MEMBER)
1540 (GSM CMT STATUS)

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OP:CCS-LSCLS-A

Software Release: 5E11 only
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      OP CCS LSCLS SM=a
        LINK SET b IS A MEMBER OF THE FOLLOWING CLS
        c

[2]   ____________________________________________________________
      OP CCS LSCLS SM=a
        LINK SET b IS NOT A MEMBER OF ANY CLS

[3]   ____________________________________________________________
      OP CCS LSCLS SM=a
        LINK SET b-b ARE NOT MEMBERS OF ANY CLS
```

2. REASON FOR OUTPUT

To report combined link set information in response to the OP:CCS-LSCLS input message.

Format 1 reports the combined linkset of which the link set is a member.

Format 2 reports the link set is not a member of any combined link set.

Format 3 reports the link sets in the range are not a member of any combined link sets.

3. VARIABLE FIELD DEFINITIONS

`a` = Common channel signaling (CCS) global switching module (GSM) number.

`b` = Link set number.

`c` = Combined link set number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:CCS-LSCLS`

Other Manual(s):

235-120-120 *VCDX Users Guide*
235-190-120 *Common Channel Signaling Services*

MCC Display Page(s):

1532 (CCS LINK SET SUMMARY)
1533 (CCS LINK SET MEMBER)

OP:CCS-LSCLS-B

Software Release: 5E12 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      OP CCS LSCLS SM=a
        LINK SET b IS A MEMBER OF THE FOLLOWING CLS
        c

[2]   ____________________________________________________________
      OP CCS LSCLS SM=a
        LINK SET b IS NOT A MEMBER OF ANY CLS

[3]   ____________________________________________________________
      OP CCS LSCLS SM=a
        LINK SET b-b ARE NOT MEMBERS OF ANY CLS
```

2. REASON FOR OUTPUT

To report combined link set information in response to the OP:CCS-LSCLS input message.

Format 1 reports the combined linkset of which the link set is a member.

Format 2 reports the link set is not a member of any combined link set.

Format 3 reports the link sets in the range are not members of any combined link sets.

3. VARIABLE FIELD DEFINITIONS

`a` = Common channel signaling (CCS) global switching module (GSM) number.

`b` = Link set number.

`c` = Combined link set number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:CCS-LSCLS`

Other Manual(s):

235-190-120 *Common Channel Signaling Services*

MCC Display Page(s):

1532 (CCS LINK SET SUMMARY)
1533 (CCS LINK SET MEMBER)

OP:CCS-SCMG-A

Software Release: 5E11 only
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP CCS SCMG GSM=a b
  DPC=c CONGESTION LEVEL=[d]
  SSN    STATUS
  [e]     [f]
```

2. REASON FOR OUTPUT

To display status information for one or more signaling connection control part (SCCP) subsystems on one or more destination point codes (DPCs).

Note: Congestion level, subsystem number (SSN), and status will be printed only if a SSN exists for the specified DPC. In addition, if the DPC or all SSNs are prohibited, the congestion level will not be printed.

3. VARIABLE FIELD DEFINITIONS

`a` = Common channel signaling (CCS) global switching module (GSM) number.

`b` = Report status. Valid value(s):

```
END OF DATA
IN PROGRESS
NO DATA AVAILABLE
```

`c` = Destination point code (DPC) number. DPC number consists of three items, each being three digits in length. They are, respectively, the DPC network, DPC cluster, and DPC member.

`d` = Congestion level of the DPC. Valid value(s):

- `0` = No congestion.
- `1` = Level 1 congestion.
- `2` = Level 2 congestion.
- `3` = Level 3 congestion.

`e` = Subsystem number.

`f` = Status. Valid value(s):

- `ALLOWED` = The subsystem is allowed.
- `NONE` = No data was found for this DPC or subsystem.
- `PROHIBITED` = The subsystem is prohibited.

4. ACTION TO BE TAKEN

None.

5. ALARMS

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None.

6. REFERENCES

Input Message(s):

```
OP:CCS-SCMG
```

Other Manual(s):
235-120-120 *VCDX Users Guide*
235-190-120 *Common Channel Signaling Services*

OP:CCS-SCMG-B

Software Release: 5E12 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP CCS SCMG GSM=a b
  DPC=c CONGESTION LEVEL=[d]
  SSN    STATUS
  [e]     [f]
```

2. REASON FOR OUTPUT

To display status information for one or more signaling connection control part (SCCP) subsystems on one or more destination point codes (DPCs).

Note: Congestion level, subsystem number (SSN), and status will be printed only if a SSN exists for the specified DPC. In addition, if the DPC or all SSNs are prohibited, the congestion level will not be printed.

3. VARIABLE FIELD DEFINITIONS

`a` = Common channel signaling (CCS) global switching module (GSM) number.

`b` = Report status. Valid value(s):

```
END OF DATA
IN PROGRESS
NO DATA AVAILABLE
```

`c` = Destination point code (DPC) number. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual for interpretation.

`d` = Congestion level of the DPC. Valid value(s):

`0`	= No congestion.
`1`	= Level 1 congestion.
`2`	= Level 2 congestion.
`3`	= Level 3 congestion.

`e` = Subsystem number.

`f` = Status. Valid value(s):

`ALLOWED`	= The subsystem is allowed.
`NONE`	= No data was found for this DPC or subsystem.
`PROHIBITED`	= The subsystem is prohibited.

4. ACTION TO BE TAKEN

None.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CCS-SCMG
```

Output Appendix(es):

```
APP:POINT-CODE
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services*

OP:CCS-SLS-A

Software Release: 5E11 only
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP CCS SLS SM=a  e  [f]
  DPC=[b] LS/CLS=[c]  OPC=d
  LS=[g]  MEM=[h]  SLC=[i]
  NORMAL SLS
  [j   j   j  .  .  .  .  .  .  .  .  .]
  CURRENT SLS
  [k   k   k  .  .  .  .  .  .  .  .  .]
```

2. REASON FOR OUTPUT

To display the normal and current signaling link selection (SLS) distribution on a specific link in a linkset or combined linkset (CLS).

3. VARIABLE FIELD DEFINITIONS

`a` = Common channel signaling (CCS) global switching module (GSM) number.

`b` = Specific destination point code (DPC). DPC is printed if specified in the input message. DPC number consists of three items, each being three digits in length. They are, respectively, the DPC network, DPC cluster, and DPC member.

`c` = Linkset number or CLS number. LS/CLS is printed if specified in the input message.

`d` = Originating point code (OPC) number. OPC number consists of three items, each being three digits in length. They are, respectively, the OPC network, OPC cluster, and OPC member.

`e` = Page index. Valid value(s):
- `FIRST` = First page of report.
- `LAST` = Last page of report associated with this report.
- `NEXT` = Next report page.

`f` = User message or response. Valid value(s):
- `CTMPSIU PACKAGE NOT LOADED` = The loadable package that contains the software that receives the command has not been loaded.
- `DATA BEING UPDATED` = The command cannot be processed because the relations that contain the status of DPCs are being updated either by traffic diversion terminal process or by audits. Retry the command later.
- `DPC INACCESSIBLE` = The DPC is inaccessible.
- `GSM NOT EQUIPPED` = The specified SM is not a CCS GSM.
- `INTERNAL ERROR` = An internal error occurred.
- `INVALID DPC NUMBER SPECIFIED` = An invalid DPC number was specified.
- `INVALID LINKSET NUMBER SPECIFIED` = Linkset number specified in the command is invalid for protocol or switching module (SM) indicated.
- `LINKSET NOT AVAILABLE` = Linkset specified in command is unavailable. Retry the command later.

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`OFFICE NOT EQUIPPED WITH CCS` = This office does not have CCS features on the packet switching unit (PSU) platform.
`SM DATA CURRENTLY NOT AVAILABLE` = Command cannot be processed because the requested data is currently not available for processing. Retry the command later.
`SM NOT AVAILABLE` = Command cannot be processed because the path to the global SM is not available. Retry the command later.

`g` = Linkset number.

`h` = Member number of the link in the linkset.

`i` = SLC number of the link in the linkset.

`j` = Normal SLS values of the link in the linkset or CLS.

`k` = Current SLS values of the link in the linkset or CLS.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CCS-SLS
```

Other Manual(s):
235-120-120 *VCDX Users Guide*
235-190-120 *Common Channel Signaling Services*

MCC Display Page(s):

1532 (CCS LINK SET SUMMARY)
1533 (CCS LINK SET MEMBER)

OP:CCS-SLS-B

Software Release: 5E12 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP CCS SLS SM=a  e  [f]
  DPC=[b] LS/CLS=[c]  OPC=d
  LS=[g]  MEM=[h]  SLC=[i]
  NORMAL SLS
  [j   j   j  .  .  .  .  .  .  .  .  .]
  CURRENT SLS
  [k   k   k  .  .  .  .  .  .  .  .  .]
```

2. REASON FOR OUTPUT

To display the normal and current signaling link selection (SLS) distribution on a specific link in a linkset or combined linkset (CLS).

3. VARIABLE FIELD DEFINITIONS

`a` = Common channel signaling (CCS) global switching module (GSM) number.

`b` = Specific destination point code (DPC). DPC is printed if specified in the input message. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual for interpretation.

`c` = Linkset number or CLS number. LS/CLS is printed if specified in the input message.

`d` = Originating point code (OPC) number associated with the GSM. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual for interpretation.

`e` = Page index. Valid value(s):
- `FIRST` = First page of report.
- `LAST` = Last page of report associated with this report.
- `NEXT` = Next report page.

`f` = User message or response. Valid value(s):
- `CTMPSIU PACKAGE NOT LOADED` = The loadable package that contains the software that receives the message has not been loaded.
- `DATA BEING UPDATED` = The message cannot be processed because the relations that contain the status of DPCs are being updated either by traffic diversion terminal process or by audits. Retry the input message later.
- `DPC INACCESSIBLE` = The DPC is inaccessible.
- `GSM NOT EQUIPPED` = The specified SM is not a CCS GSM.
- `INTERNAL ERROR` = An internal error occurred.
- `INVALID DPC NUMBER SPECIFIED` = An invalid DPC number was specified.
- `INVALID LINKSET NUMBER SPECIFIED` = Linkset number specified in the message is invalid for protocol or switching module (SM) indicated.
- `OFFICE NOT EQUIPPED WITH CCS` = This office does not have CCS features on the packet switching unit (PSU) platform.

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`SM DATA CURRENTLY NOT AVAILABLE` = Command cannot be processed because the requested data is currently not available for processing. Retry the input message later.

`SM NOT AVAILABLE` = Command cannot be processed because the specified GSM is not accessible. Retry the input message later.

`g` = Linkset number.

`h` = Member number of the link in the linkset.

`i` = SLC number of the link in the linkset.

`j` = Normal SLS values of the link in the linkset or CLS.

`k` = Current SLS values of the link in the linkset or CLS.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:CCS-SLS`

Output Appendix(es):

`APP:POINT-CODE`

Other Manual(s):
235-190-120 *Common Channel Signaling Services*

MCC Display Page(s):

1532 (CCS LINK SET SUMMARY)
1533 (CCS LINK SET MEMBER)

OP:CCSCQ

Software Release: 5E12 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
OP CCSCQ a     CQ START TIME IS b
```

2. REASON FOR OUTPUT

To report (in response to an OP:CCSCQ input message) whether the automatic common channel signaling (CCS) circuit query is inhibited or allowed for the entire office, and the circuit query start time.

3. VARIABLE FIELD DEFINITIONS

`a` = Current automatic circuit query activation state. Valid value(s) are:
`ALLOWED`
`MANUALLY INHIBITED`

`b` = Current automatic circuit query start time. Valid value(s) are:
`0-23` = range of start times, in hours.
`NOT SET` = no CQ START TIME has been selected.

4. ACTION TO BE TAKEN

If the resulted response is `CQ START TIME IS NOT SET`, set the circuit query start time within the 0-23 range using the RC/V 8.15 view.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:CCSCQ
EXC:CCSCQ
INH:CCSCQ
OP:CCSCQ
STP:CCSCQ
OP:JOBSTATUS
```

Output Message(s):

```
EXC:CCSCQ
OP:CCSCQ
STP:CCSCQ
OP:JOBSTATUS
```

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Other Manual(s):
235-190-120 *Common Channel Signaling Services*

OP:CCSTQ

Software Release: 5E10 - 5E11
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
OP CCSTQ a
```

2. REASON FOR OUTPUT

To report (in response to an OP:CCSTQ input message) whether the common channel signaling (CCS) trunk query interoffice audit is inhibited or allowed for the entire office.

3. VARIABLE FIELD DEFINITIONS

`a` = The result of the CCS trunk query test. Valid value(s):
`ALLOWED`
`MANUALLY INHIBITED`

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:CCSTQ
AUD:CCSTQ
INH:CCSTQ
OP:CCSTQ
```

Output Message(s):

```
AUD:CCSTQ
```

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OP:CFGSTAT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      OP:CFGSTAT MESSAGE STARTED
        UNIT        MTCE   INH   DGN
        a b [ c d ]  e      f     g

[2]   ____________________________________________________________
      OP CFGSTAT COMPLETED

[3]   ____________________________________________________________
      OP CFGSTAT INTERFACE ERROR, ERRNO=h

[4]   ____________________________________________________________
      OP CFGSTAT NOT STARTED
        INVALID DATA FIELD

[5]   ____________________________________________________________
      OP CFGSTAT NOT STARTED
        RETRY LATER

[6]   ____________________________________________________________
      OP CFGSTAT IN PROGRESS
        a b [ c d ]  e      f     g

[7]   ____________________________________________________________
      OP CFGSTAT RETRY LATER i

[8]   ____________________________________________________________
      OP CFGSTAT WRITE TO j
       [FAILED]
```

2. REASON FOR OUTPUT

To give device information specific to administrative module (AM) hardware units on communities requested using the OP:CFGSTAT input message. The format is consistent with related maintenance messages.

The exit status of this report is indicated by either the successful COMPLETED message or the unsuccessful INTERFACE ERROR message.

3. VARIABLE FIELD DEFINITIONS

`a` = Unit name. Refer to the APP:MEM-NUM-UNIT appendix in the Appendixes section of the Output Messages manual for AM unit names.

`b` = Unit number. Refer to the APP:MEM-NUM-UNIT appendix in the Appendixes section of the Output Messages manual.

`c` = Subunit name, if `a` = `CU`. Refer to the APP:MEM-NUM-UNIT appendix in the Appendixes section

of the Output Messages manual for AM control unit (CU) subunit names.

`d` = Subunit number. Refer to the APP:MEM-NUM-UNIT appendix in the Appendixes section of the Output Messages manual.

`e` = The current maintenance state of the unit. Valid value(s):

`ACT`	= Active units.
`GROW`	= Units being grown.
`INIT`	= Initializing units.
`OFL`	= Off-line units.
`OOS`	= Out-of-service units.
`STBY`	= Standby units.
`UNAV`	= Unavailable units.
`UNEQIP`	= Unequipped units.

`f` = Current inhibit status of the associated error source. Valid value(s):

`ALW`	= Allowed.
`INH`	= Inhibited.

`g` = The results of the last diagnostic on the unit. Valid value(s):

`ABT`	= Aborted diagnostics.
`ATP`	= All tests passed.
`CATP`	= Conditional all tests passed.
`NTR`	= No tests were run.
`STF`	= Some tests failed.

`h` = Error number. Valid value(s):

`9`	= Cannot attach to plant measurement library.
`10`	= Cannot open equipment configuration database (ECD) sequence.
`11`	= Cannot sequence unit control blocks (UCBs).

`i` = Retry the message later because:

```
CAN'T SEQUENCE DATABASE.
CAN'T CREATE FILE IN /tmp.
CAN'T GET DATABASE RECORD ID.
```

`j` = Temporary output file name.

`k` = Key associated with write failure.

4. ACTION TO BE TAKEN

If error numbers 11 or 12 are indicated, the system is still initializing and the input message should be retried.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	49, 477
2	50, 478
3	51, 479
6	580, 582
7	588, 589
8	656

Input Message(s):

```
OP:ACT
OP:CFGSTAT
OP:GROW
OP:INIT
OP:OFL
OP:OOS
OP:STBY
OP:UNAV
OP:UNEQIP
```

Input Appendix(es):

```
APP:MEM-NUM-CU
APP:MEM-NUM-UNIT
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

OP:CFGSTAT-CM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]
OP CFGSTAT CM a RECORD
  UNIT    MTCE STATE     HDWCHK     DGN RESULT
  b       c              d          e
  .       .              .          .
  .       .              .          .
  .       .              .          .

[2]
OP CFGSTAT CM HAS NO UNITS IN THE REQUESTED STATE
```

2. REASON FOR OUTPUT

To print the status of the specified unit or set of units in the specified maintenance state.

Format 1 is the standard output message format when there are communication module (CM) units in the specified state.

Format 2 is the output message format when there are no CM units in the specified state.

If the CM is manually isolated from the administrative module (AM), its current state is not known. In that case, any information reported reflects the last known state of the CM.

3. VARIABLE FIELD DEFINITIONS

a = Text string identifier showing order of CFGSTAT record. Valid value(s):
- FIRST = First record of continuing list.
- LAST = Last record of list.
- NEXT = Next record of continuing list.

b = Unit identification.

c = Maintenance state.

d = Inhibit status. Valid value(s):
- ALW,AUTO = Hardware checks are allowed.
- INH,AUTO = Hardware checks are inhibited by automatic request.
- INH,MAN = Hardware checks are inhibited manually.
- N/A = Not applicable.

e = Result of last diagnostic run on unit. Valid value(s):
- ATP = All tests passed.
- CATP = Conditional all tests passed.
- N/A = Not applicable.

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`NTR`	= No tests run.
`STF`	= Some tests failed.
`STP`	= Stopped or Aborted.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CFGSTAT
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

OP:CFGSTAT-SM

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP CFGSTAT SM a b [INCOMPLETE REPORT]
        [The report is incomplete due to high message volume]
        UNIT     MTCE STATE        ACTIVITY        HDWCHK        DGN RESULT
        e        f,g,h               i               j            k
        .          .                 .               .            .
        .          .                 .               .            .
        .          .                 .               .            .

[2]   ____________________________________________________________________
      OP CFGSTAT SM  a  ISLU SPARE STATUS  b
        SPARE LINE CARD          FAULTY LINE CARD
        ISLULC=a-l-m-n           ISLULC=a-l-m-n

[2]   ____________________________________________________________________
      OP CFGSTAT SM  a  ISLU SPARE STATUS  b
        SPARE LINE CARD          FAULTY LINE CARD
        ISLULCKT=a-l-o-p-q       ISLULCKT=a-l-o-p-q

[3]   ____________________________________________________________________
      OP CFGSTAT SM a HAS NO CIRCUITS IN THE REQUESTED STATE
```

2. REASON FOR OUTPUT

To list the configuration status (CFGSTAT) of units in the specified switching module (SM).

Format 1 is the standard output message format.

Format 2 displays any active integrated services line unit (ISLU) spare line cards along with the corresponding faulty line cards that are being replaced.

Format 3 prints when an SM has no circuits in the requested state. If the NOPRINT option is not specified with the OP:CFGSTAT-SM input message, then for all SMs that have no circuits in the requested state, a message '`SM x HAS NO CIRCUITS IN THE REQUESTED STATE`' (`x` = SM number) will be displayed on the receive-only printer (ROP). If the NOPRINT option is specified, then for all SMs that do not have circuits in the requested state, both the header and the empty message (blank space) are suppressed on the ROP.

Note: If the hardware status is required for the module controller/timeslot interchange (MCTSI), use the OP:OFFNORM-SM input message.

3. VARIABLE FIELD DEFINITIONS

`ISLULC` = ISLU line card.
`ISLULCKT` = ISLU line circuit.
`a` = Switching module (SM) number.
`b` = Sequence number of message block. Valid value(s):

FIRST RECORD
LAST RECORD
NEXT RECORD

e = Unit name.

f = Maintenance status. Valid value(s):

ACT	= Active.
DGN	= Diagnose.
EX	= Exercise.
FE	= Family of equipment.
FLT	= Fault.
LMTD	= Active restricted.
N/A	= Not applicable.
OOS	= Out-of-service.
PROOS	= Pre-OOS.
REX	= Routine exercise.
RMV	= Removed.
STBY	= Standby.
TBLA	= Trouble analysis.
UNAV	= Unavailable.
UPDATE	= Update.

g = Source of request. Valid value(s):

ACT	= Active.
AUTO	= Automatic.
FRCD	= Forced.
GROW	= Grow.
MAN	= Manual.
N/A	= Not applicable.
OOS	= Out-of-service.
REX	= Routine exercise.
SGROW	= Special grow.
UNAV	= Unavailable.
UNEQ	= Unequipped.

h = Reason for status. Valid value(s):

AUOOS	= OOS by Audits.
BLKD	= Blocked.
CAMPON	= Camped on.
CDNY	= Campon timed out.
DEFR	= Deferred.
DGN	= Diagnose.
DGR	= Degraded.
DSPR	= Designated spared.
EX	= Exercise.
FAF	= Facility failure.
FAST	= Fast mode.
FE	= Family of equipment.
FELP	= Integrated digital carrier unit (IDCU) facility in far end loop around (FELP).
FELPFE	= IDCU facility is OOS FE and in FELP.
FELPRM	= IDCU facility is OOS RMV and in FELP.
FLT	= Fault.

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FREE	= Free running mode.
HOLD	= Holdover mode.
INIT	= Unit to be initialized.
LVL2	= Level 2 error.
LVL3	= Level 3 error.
N/A	= Not applicable.
NORM	= Normal mode.
PROOS	= Pre-OOS.
PROT	= Integrated digital carrier unit (IDCU) facility on protection.
PROTFE	= IDCU facility is OOS FE and on protection.
PROTRM	= IDCU facility is OOS RMV and on protection.
PWRALM	= Power alarm.
PWROFF	= Power off.
REX	= Routine exercise.
RMV	= Removed.
SPR	= Spared.
SWITCH	= Unit to be switched.
TBLA	= Trouble analysis.
TMP	= Helper circuit for a diagnostic.
TST	= Test.
UPDATE	= Update.
WARM	= Not warmed up.

i = Circuit state. Valid value(s):
BUSY
IDLE

j = Hardware check. Valid value(s):

ALW	= Allow.
INH	= Inhibit.
N/A	= Not applicable.

k = Diagnostic result. Valid value(s):

ATP	= All tests passed.
CATP	= Conditional all tests passed.
N/A	= Not applicable.
NTR	= No tests run.
STF	= Some tests failed.
STP	= Stopped or aborted.

l = ISLU number.
m = Line group controller number.
n = Line card number.
o = Line group number.
p = Line board number.
q = Line circuit number.

4. ACTION TO BE TAKEN

If the status (variable 'f') of a grid is ACT, the activity (variable 'i') is BUSY, and the hardware check status (variable 'j') is INH, the line unit fabric exerciser program is being executed on the grid. No action should be taken to allow hardware checks on the grid. On completion, the exerciser program will allow hardware checks on the grid.

If hardware checks are inhibited for a duration of more than one day on a grid whose status is `ACT`, action should be taken to allow hardware checks on the grid.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CFGSTAT-SM
OP:OFFNORM-SM
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

OP:CGA-A

Software Release: 5E10 - 5E11
Message Class: TM,ADMN
Application: 5
Type: Output

1. FORMAT

```
OP CGA [STEFAC=a-b-c-d]e
  UNIT  ID          BLU  RED  YEL  QUAL  CLFI
  ========          ========================
  {f}              [AIS][LCA][RMA][QUAL][CLFI]
   .                 .    .    .    .    .
   .                 .    .    .    .    .
   .                 .    .    .    .    .
```

2. REASON FOR OUTPUT

To respond to a request for a listing of active carrier group alarms (CGAs). This message will report the highest level facility [STE (high), STS-1, VT1.5, or DS1 (low)] in a CGA condition. The facility that is reported the highest level color [AIS (high), LCA, or RMA (low)] is reported. For switch terminating equipment (STE) facilities only local alarm (LCA) and alarm indication signal (AIS) are possible.

3. VARIABLE FIELD DEFINITIONS

`AIS` = Alarm indication signal (blue).

`CLFI` = CLFI.

`DFIH` = Digital facility interface circuit pair.

`DS1SFAC` = Synchronous optical network (SONET) digital signal level 1 (DS1) facility.

`FAC` = Facility.

`IFAC` = Integrated digital carrier unit (IDCU) facility.

`LCA` = Local alarm (red).

`QUAL` = Red CGA qualifier. Currently only used for STE facilities. Valid value(s):
- `LOF` = Loss of frame.
- `LOS` = Loss of signal.

`RMA` = Remote alarm (yellow).

`SDFI` = *SLC*® 96 digital facilities interface.

`SPN` = Scan point number.

`STEFAC` = If a SONET transmission equipment facility (STEFAC) identifier appears on the first line of output the data in this message will detail the CGA status of a single SONET facility or any facility subtending to the STE facility.

`STSFAC` = SONET transport signal facility.

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`VT1FAC` = SONET virtual tributary facility.

`a` = Switching module (SM) number.

`b` = Digital network unit - SONET (DNU-S) number.

`c` = Data group (DG) number.

`d` = Switch terminating equipment (STE) number.

`e` = Report status. Valid value(s):

`COMPLETED` = The OP:CGA output has terminated successfully.
`CONTINUED` = The OP:CGA output consists of several reports. This is one of the intermediate reports.
`NO MATCH` = The requested facility does not exist or is in growth.
`STARTED` = This is the initial OP:CGA output.
`SYSTEM BUSY REPEAT LATER` = An OP:CGA request is currently being served; retry later.
`SYSTEM ERROR` = The OP:CGA output has terminated. The output is incomplete; retry later.
`UNAVAILABLE` = The SM containing the requested STE is not available at this time, retry later.

`f` = Valid value(s):

```
DFIH=a-g-h
DS1SFAC=a-b-c-r-s
FAC=a-g-h-i
IFAC=a-j-k
SDFI=a-l-m
SPN=a-n-o-p-q
STEFAC=a-b-c-d
STSFAC=a-b-c-r
VT1FAC=a-b-c-r-s
```

`g` = Digital line and trunk unit (DLTU) number.

`h` = Digital facility interface (DFI) number.

`i` = FAC number.

`j` = IDCU number.

`k` = IFAC number.

`l` = Digital carrier line unit (DCLU) number.

`m` = SDFI number.

`n` = Metallic service unit (MSU) number.

`o` = Service group (SG) number.

`p` = Board (BRD) number.

`q` = Scan point (SP) number.

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`r` = STS number.

`s` = VT1.5/SONET DS1 number.

4. ACTION TO BE TAKEN

If the report status was `SYSTEM ERROR` or `SYSTEM BUSY RETRY LATER`, retry later.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INIT:FAC
OP:CGA
OP:FAC
```

Output Message(s):

```
INIT:FAC
OP:FAC
```

Other Manual(s):
235-190-115 *Local and Toll System Features*
235-105-110 *System Maintenance Requirements and Tools*

OP:CGA-B

Software Release: 5E12 only
Message Class: TM,ADMN
Application: 5
Type: Output

1. FORMAT

```
OP CGA [SM t [TO SM u]] [STEFAC=a-b-c-d] e
  UNIT  ID          BLU  RED  YEL  QUAL  CLFI
  ========          ========================
  {f}              [AIS][LCA][RMA][QUAL][CLFI]
   .                 .    .    .    .    .
   .                 .    .    .    .    .
   .                 .    .    .    .    .
```

2. REASON FOR OUTPUT

To respond to a request for a listing of active carrier group alarms (CGAs).

For Digital Facility Interface (DFI) facilities, multiple CGA alarms can be reported. For the Digital Network Unit - SONET (DNU-S), this message will report the highest level facility [STE (high), STS-1, VT1.5, or DS1 (low)] in a CGA condition. For DNU-S facilities only the highest level color [AIS (high), LCA, or RMA (low)] is reported. For switch terminating equipment (STE) facilities only local alarm (LCA) and alarm indication signal (AIS) are possible.

3. VARIABLE FIELD DEFINITIONS

`AIS` = Alarm indication signal (blue).

`CLFI` = CLFI.

`DFIH` = Digital facility interface circuit pair.

`DS1SFAC` = Synchronous optical network (SONET) digital signal level 1 (DS1) facility.

`FAC` = Facility.

`IFAC` = Integrated digital carrier unit (IDCU) facility.

`LCA` = Local alarm (red).

`QUAL` = Red CGA qualifier. Currently only used for STE facilities. Valid value(s):
- `LOF` = Loss of frame.
- `LOS` = Loss of signal.

`RMA` = Remote alarm (yellow).

`SDFI` = *SLC*® 96 digital facilities interface.

`SPN` = Scan point number.

`STEFAC` = If a SONET transmission equipment facility (STEFAC) identifier appears on the first line of output the data in this message will detail the CGA status of a single SONET facility or any facility subtending to the STE facility.

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`STSFAC` = SONET transport signal facility.

`VT1FAC` = SONET virtual tributary facility.

`a` = Switching module (SM) number.

`b` = Digital network unit - SONET (DNU-S) number.

`c` = Data group (DG) number.

`d` = Switch terminating equipment (STE) number.

`e` = Report status. Valid value(s):

`COMPLETED` = The OP:CGA output has terminated successfully.
`CONTINUED` = The OP:CGA output consists of several reports. This is one of the intermediate reports.
`NO MATCH` = The requested facility does not exist or is in growth.
`STARTED` = This is the initial OP:CGA output.
`SYSTEM BUSY REPEAT LATER` = An OP:CGA request is currently being served; retry later.
`SYSTEM ERROR` = The OP:CGA output has terminated. The output is incomplete; retry later.
`UNAVAILABLE` = The requested SM is not available or all of the SMs requested in a range are not available.

`f` = Valid value(s):

```
DFIH=a-g-h
DS1SFAC=a-b-c-r-s
FAC=a-g-h-i
IFAC=a-j-k
SDFI=a-l-m
SPN=a-n-o-p-q
STEFAC=a-b-c-d
STSFAC=a-b-c-r
VT1FAC=a-b-c-r-s
```

`g` = Digital line and trunk unit (DLTU) number.

`h` = Digital facility interface (DFI) number.

`i` = FAC number.

`j` = IDCU number.

`k` = IFAC number.

`l` = Digital carrier line unit (DCLU) number.

`m` = SDFI number.

`n` = Metallic service unit (MSU) number.

`o` = Service group (SG) number.

`p` = Board (BRD) number.

`q` = Scan point (SP) number.

`r` = STS number.

`s` = VT1.5/SONET DS1 number.

`t` = Switching module (SM) number or lower limit of a range of SM numbers.

`u` = Upper limit of a range of SM numbers.

4. ACTION TO BE TAKEN

If the report status was `SYSTEM ERROR` or `SYSTEM BUSY RETRY LATER`, retry later.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INIT:FAC
OP:CGA
OP:FAC
```

Output Message(s):

```
INIT:FAC
OP:FAC
```

Other Manual(s):
235-190-115 *Local and Toll System Features*
235-105-110 *System Maintenance Requirements and Tools*

OP:CGA-C

Software Release: 5E13 and later
Message Class: TM,ADMN
Application: 5
Type: Output

1. FORMAT

```
OP CGA [SM t [TO SM u]] [EC1STE=a-b-c-d] e
  UNIT  ID                  BLU  RED  YEL  QUAL  CLFI
  ========                  ========================
  {f}                      [AIS][LCA][RMA][QUAL][CLFI]
   .                         .    .    .    .    .
   .                         .    .    .    .    .
   .                         .    .    .    .    .
```

2. REASON FOR OUTPUT

To respond to a request for a listing of active carrier group alarms (CGAs).

For digital facility interface (DFI) facilities, multiple CGA alarms can be reported. For the digital networking unit - SONET (DNU-S), this message will report the highest level facility [STE (high), STS-1, VT1.5, or DS1 (low)] in a CGA condition. For DNU-S facilities only the highest level color [AIS (high), LCA, or RMA (low)] is reported. For SONET termination equipment (STE) facilities only local alarm (LCA) and alarm indication signal (AIS) are possible.

3. VARIABLE FIELD DEFINITIONS

`AIS` = Alarm indication signal (blue).

`CLFI` = CLFI.

`DFIH` = Digital facility interface circuit pair.

`DS1SFAC` = Digital signal level 1 (DS1) SONET facility.

`EC1STE` = If an electrical carrier level 1 SONET termination equipment facility (EC1STE) identifier appears on the first line of output the data in this message will detail the CGA status of the single SONET facility or any facility subtending to the EC1STE facility.

`FAC` = Facility.

`IFAC` = Integrated digital carrier unit (IDCU) facility.

`LCA` = Local alarm (red).

`QUAL` = Red CGA qualifier. Currently only used for STE facilities. Valid value(s):
- `LOF` = Loss of frame.
- `LOS` = Loss of signal.

`RMA` = Remote alarm (yellow).

`SDFI` = *SLC*® 96 digital facilities interface.

`SPN` = Scan point number.

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STSFAC = Synchronous transport signal (STS) facility.

VT1FAC = Virtual tributary level 1 facility.

a = Switching module (SM) number.

b = DNU-S number.

c = Data group (DG) number.

d = STE number.

e = Report status. Valid value(s):

- COMPLETED = The OP:CGA output has terminated successfully.
- CONTINUED = The OP:CGA output consists of several reports. This is one of the intermediate reports.
- NO MATCH = The requested facility does not exist or is in growth.
- STARTED = This is the initial OP:CGA output.
- SYSTEM BUSY REPEAT LATER = An OP:CGA request is currently being served; retry later.
- SYSTEM ERROR = The OP:CGA output has terminated. The output is incomplete; retry later.
- UNAVAILABLE = The requested SM is not available or all of the SMs requested in a range are not available.

f = Valid value(s):

```
DFIH=a-g-h
 DS1SFAC=a-b-c-d-r-s-v
 EC1STE=a-b-c-d
 FAC=a-g-h-i
 IFAC=a-j-k
 SDFI=a-l-m
 SPN=a-n-o-p-q
 STSFAC=a-b-c-d-r
 VT1FAC=a-b-c-d-r-s-v
```

g = Digital line and trunk unit (DLTU) number.

h = Digital facility interface (DFI) number.

i = FAC number.

j = IDCU number.

k = IFAC number.

l = Digital carrier line unit (DCLU) number.

m = SDFI number.

n = Metallic service unit (MSU) number.

o = Service group (SG) number.

p = Board (BRD) number.

`q` = Scan point (SP) number.

`r` = STS number.

`s` = Virtual tributary group (VTG) number.

`t` = Switching module (SM) number or lower limit of a range of SM numbers.

`u` = Upper limit of a range of SM numbers.

`v` = Virtual tributary member (VTM) number.

4. ACTIONS TO BE TAKEN

If the report status was `SYSTEM ERROR` or `SYSTEM BUSY RETRY LATER`, retry later.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INIT:FAC
OP:CGA
OP:FAC
```

Output Message(s):

```
INIT:FAC
OP:FAC
```

Other Manual(s):
235-190-115 *Local and Toll System Features*
235-105-110 *System Maintenance Requirements and Tools*

OP:CGAP

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

[1]
```
OP CGAP a
  CODE  PREFIX DOM  GAP  ANN
  b      c  {ALL|f} d    e
  .      .     .    .    .
  .      .     .    .    .
  .      .     .    .    .
```

[2]
```
OP CGAP a
```

2. REASON FOR OUTPUT

To display the status of all active code controls with the corresponding gap values. One message can contain up to six controls. A maximum of 11 messages can result since 64 controls are allowed. This message is in response to the OP:CGAP input message.

Format 1 displays the termination status of started, continued, or completed control codes.

Format 2 displays the termination status of aborted or failed control codes.

3. VARIABLE FIELD DEFINITIONS

`ALL` = Code controls were applied to all domains.

`a` = Termination status. Valid value(s):
- `ABORTED` = Retry message.
- `COMPLETED` = Last in a series of these messages.
- `CONTINUED` = Middle of a series of these messages.
- `FAILED` = Invalid parameter.
- `STARTED` = First in a series of these messages.

`b` = Destination code gapped, or "-" if not applicable.

`c` = Access prefix gapped (0-0999). If the prefix is not specified, the field will contain a blank. The access prefix only applies to feature group D carriers.

`d` = Gap interval. Valid value(s):
- `0` = No control was applied but measurements were collected.
- `PT1` = 0.10 sec.
- `PT12` = 0.12 sec.
- `PT14` = 0.14 sec.
- `PT16` = 0.16 sec.
- `PT18` = 0.18 sec.
- `PT2` = 0.20 sec.

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PT25	= 0.25 sec.
PT36	= 0.36 sec.
PT5	= 0.50 sec.
PT6	= 0.60 sec.
PT75	= 0.75 sec.
1	= 1.0 sec.
1PT6	= 1.6 sec.
2	= 2.0 sec.
3	= 3.0 sec.
5	= 5.0 sec.
6	= 6.0 sec.
9	= 9.0 sec.
0	= 10.0 sec.
2	= 12.0 sec.
5	= 15.0 sec.
20	= 20.0 sec.
30	= 30.0 sec.
45	= 45.0 sec.
60	= 60.0 sec.
75	= 75.0 sec.
100	= 100.0 sec.
120	= 120.0 sec.
150	= 150.0 sec.
300	= 300.0 sec.
450	= 450.0 sec.
600	= 600.0 sec.
INF	= Infinity, block all but one call.

e = Announcement (ANN) treatment if blocking occurred. Valid value(s):

EANN1	= Emergency announcement 1.
EANN2	= Emergency announcement 2.
NCA	= No circuit announcement.

f = Switching domain list.

4. ACTION TO BE TAKEN

If the termination status is ABORTED, retry the input message.

If the termination status is FAILED, this message is a failure because of an input parameter error.

No action is required if the termination status is STARTED, CONTINUED, or COMPLETED.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CGAP
```

Other Manual(s):
235-190-115 *Local And Toll System Features*

MCC Display Page(s):

109 (OVERLOAD)
130 (NM EXCEPTION)

OP:CHANMAP-A

Software Release: 5E10 - 5E12
Message Class: PRFM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP CHANMAP   DFAC=a-b-c-d   EVENT:   e
        TKGMN        EN          PID       PTS   NCT
          f          g            h         l     m
          .          .            .         .     .
          .          .            .         .     .
          .          .            .         .     .

[2]   ____________________________________________________________________
      OP CHANMAP   DS1SFAC=a-n-o-p-q   EVENT:   e
        TKGMN        EN          PID       PTS   NCT
          f          g            h         l     m
          .          .            .         .     .
          .          .            .         .     .
          .          .            .         .     .

[3]   ____________________________________________________________________
      OP CHANMAP   DFAC=a-b-c-d   EVENT:   e
        ERROR: r

[4]   ____________________________________________________________________
      OP CHANMAP   DS1SFAC=a-n-o-p-q   EVENT:   e
        ERROR: r
```

2. REASON FOR OUTPUT

Format 1 is printed when data has been requested for a valid digital facility (DFAC). Data for the 24 channels in the facility is displayed in 6 separate messages. Each of the 6 messages has the same event number. The output contains information on how the channels in the specified facility are being utilized.

Format 2 is printed when data has been requested for a valid digital signal level-1 (DS1) facility (DS1SFAC). Data for the 24 channels in the facility is displayed in 6 separate messages. Each of the 6 messages has the same event number. The output contains information on how the channels in the specified facility are being utilized. Format 3 is printed when an error occurs while trying to lookup data associated with the specified DFAC. Format 4 is printed when an error occurs while trying to lookup data associated with the specified DS1SFAC. There is no explicit indication of wideband calls. Instead, the pattern of process identifier values will be an indication that a wideband call is present. All circuits with the same process identifier are part of a single wideband call. If output is requested for a non-existent or invalid facility, a message with Format 3 (for DFAC facilities) or Format 4 (for DS1SFAC facilities) is printed with the words "NO MATCH" in variable field '`r`'. Some possible non-existent or invalid facilities are:

- Host switching module (HSM)/remote switching module (RSM) umbilical.
- Inter-RSM communication link (ICL) between RSMs.
- *SLC*® termination.
- Facility 1 (FAC 1) on a DFI-1.

If channels on the facility are provisioned for packet service, including X.75, X.75', internal protocol (IP), or X.25 service on T1 Facilities (XAT), regardless of whether the channels are active with packet calls, the EN will be printed and "PACKET" in the PID field of the output message. For XAT, the TKGMN field f will be blank. For channels equipped for IP, X.75 and X.75', the TKGMN value is also printed, regardless of whether there are any active packet calls on the channel.

ERROR in the TKGMN column may indicate a line connection on this equipment number(EN). The op:chanmap command is not intended to display either the TN assignment or the busy-idle status for lines.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DLTU number.

`c` = DFI number.

`d` = Facility (FAC) number.

`e` = Event number.

`f` = Trunk group and member number separated by dashes.

`g` = Equipment number. When displayed as part of Format 1 the EN is comprised of a "D" followed by 8 digits. The first 3 digits represent the SM number. The fourth digit represents the DLTU number. The fifth and sixth digits represent the DFI number and the last 2 digits represent the channel number.

When displayed as part of format 2 the EN is comprised of a "N" followed by 10 digits. The first 3 digits represent the SM. The fourth digit represents the DNU-S. The fifth digit represents the data group. The sixth digit represents the STS. The seventh and eighth digits represent the DS1 facility number and the last 2 digits represent the channel number.

`h` = Process identifier (PID). If no port to process association is found, valid values are:

`ERROR`	= Internal failure for a particular port.
`IDLE`	= The port is idle.
`PACKET`	= The port supports packet switched data calls.
`UNEQUIPPED`	= The port is unequipped.

If there is a port to process association, the PID will be in the form: `i-j-k`.

`i` = Process number of the owning process identifier.

`j` = Switching module number of the owning process identifier.

`k` = Uniqueness number of the owning process identifier.

`l` = Peripheral time-slot (PTS) number.

`m` = Network control and timing (NCT) time-slot connection number:

- Intermodule call, NCT time-slots are connected in the time-multiplexed switch (TMS).
- Intramodule call, NCT time-slots are connected in the time-slot interchanger (TSI).

- For RSM-HSM connections, the true time slot used is not printed. Instead, the time slot used for the umbilical is printed.
- For intra SM-2000 connections, the true NCT time slot used is not printed. Instead, a pseudo time slot is printed.

`n` = DNU-S number.

`o` = Data group number.

`p` = STS number.

`q` = DS1 facility number.

`r` = Failure reason. Valid reasons are:
`CANNOT CREATE TERMINAL PROCESS`
`CANNOT SEND MESSAGE`
`INVALID SM OR SM IS NOT UP` = Cannot communicate with the requested SM.
`NO INTERNAL CIRCUIT NAME FOUND` = Name of facility cannot be determined.
`NO MATCH` = Non-existent or invalid facility.
`RECEIVED MESSAGE WAS TOO LONG`
`RETRY LATER` = A timer fired before a response was received.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Messages(s):

`OP:CHANMAP`

Other Manual(s):

235-105-220 *Corrective Maintenance*
235-190-104 *ISDN Feature Description*

OP:CHANMAP-B

Software Release: 5E13 and later
Message Class: PRFM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP CHANMAP   DFAC=a-b-c-d   EVENT:   e
        TKGMN        EN          PID       PTS   NCT
          f          g            h         l     m
          .          .            .         .     .
          .          .            .         .     .
          .          .            .         .     .

[2]   ____________________________________________________________________
      OP CHANMAP   DS1SFAC=a-n-o-q-p-s-t EVENT:   e
        TKGMN        EN          PID       PTS   NCT
          f          g            h         l     m
          .          .            .         .     .
          .          .            .         .     .
          .          .            .         .     .

[3]   ____________________________________________________________________
      OP CHANMAP   DFAC=a-b-c-d   EVENT:   e
        ERROR: r

[4]   ____________________________________________________________________
      OP CHANMAP   DS1SFAC=a-n-o-q-p-s-t EVENT:   e
        ERROR: r
```

2. REASON FOR OUTPUT

Format 1 is printed when data has been requested for a valid digital facility (DFAC). Data for the 24 channels in the facility is displayed in 6 separate messages. Each of the 6 messages has the same event number. The output contains information on how the channels in the specified facility are being utilized.

Format 2 is printed when data has been requested for a valid digital signal level-1 (DS1) facility (DS1SFAC). Data for the 24 channels in the facility is displayed in 6 separate messages. Each of the 6 messages has the same event number. The output contains information on how the channels in the specified facility are being utilized. Format 3 is printed when an error occurs while trying to lookup data associated with the specified DFAC. Format 4 is printed when an error occurs while trying to lookup data associated with the specified DS1SFAC. There is no explicit indication of wideband calls. Instead, the pattern of process identifier values will be an indication that a wideband call is present. All circuits with the same process identifier are part of a single wideband call. If output is requested for a non-existent or invalid facility, a message with Format 3 (for DFAC facilities) or Format 4 (for DS1SFAC facilities) is printed with the words "NO MATCH" in variable field '`r`'. Some possible non-existent or invalid facilities are:

- Host switching module (HSM)/remote switching module (RSM) umbilical.
- Inter-RSM communication link (ICL) between RSMs.
- *SLC*® termination.
- Facility 1 (FAC 1) on a DFI-1.

If channels on the facility are provisioned for packet service, including X.75, X.75', internal protocol (IP), or X.25 service on T1 Facilities (XAT), regardless of whether the channels are active with packet calls, the EN will be printed and "PACKET" in the PID field of the output message. For XAT, the TKGMN field f will be blank. For channels equipped for IP, X.75 and X.75', the TKGMN value is also printed, regardless of whether there are any active packet calls on the channel.

3. VARIABLE FIELD DEFINITIONS

`DNU` = Digital networking unit (DNU) number.

`DNU-S` = Digital networking unit (DNU) - synchronous optical network (SONET) (DNU-S).

`DS1` = Digital signal level-1 (DS1).

`DS1SFAC` = DNU-S DS1 facility.

`STS` = Synchronous transport signal (STS) number.

`a` = Switching module (SM) number.

`b` = DLTU number.

`c` = DFI number.

`d` = Facility (FAC) number.

`e` = Event number.

`f` = Trunk group and member number separated by dashes.

`g` = Equipment number. When displayed as part of Format 1 the EN is comprised of a "D" followed by 8 digits. The first 3 digits represent the SM number. The fourth digit represents the DLTU number. The fifth and sixth digits represent the DFI number and the last 2 digits represent the channel number.

When displayed as part of format 2 the EN is comprised of a "N" followed by 10 digits. The first 3 digits represent the SM. The fourth digit represents the DNU-S. The fifth digit represents the data group. The sixth digit represents the STS. The seventh and eighth digits represent the DS1 facility number and the last 2 digits represent the channel number.

`h` = Process identifier (PID). If no port to process association is found, valid values are:

- `ERROR` = Internal failure for a particular port.
- `IDLE` = The port is idle.
- `PACKET` = The port supports packet switched data calls.
- `UNEQUIPPED` = The port is unequipped.

If there is a port to process association, the PID will be in the form: `i-j-k`.

`i` = Process number of the owning process identifier.

`j` = Switching module number of the owning process identifier.

`k` = Uniqueness number of the owning process identifier.

`l` = Peripheral time-slot (PTS) number.

`m` = Network control and timing (NCT) time-slot connection number:
- Intermodule call, NCT time-slots are connected in the time-multiplexed switch (TMS).
- Intramodule call, NCT time-slots are connected in the time-slot interchanger (TSI).
- For RSM-HSM connections, the true time slot used is not printed. Instead, the time slot used for the umbilical is printed.
- For intra SM-2000 connections, the true NCT time slot used is not printed. Instead, a pseudo time slot is printed.

`n` = DNU-S number.

`o` = Data group number.

`p` = STS number.

`q` = SONET termination equipment (STE) number.

`s` = Virtual tributary group (VTG) number.

`t` = Virtual tributary member (VTM) number.

`r` = Failure reason. Valid reasons are:
`CANNOT CREATE TERMINAL PROCESS`
`CANNOT SEND MESSAGE`
`INVALID SM OR SM IS NOT UP` = Cannot communicate with the requested SM.
`NO INTERNAL CIRCUIT NAME FOUND` = Name of facility cannot be determined.
`NO MATCH` = Non-existent or invalid facility.
`RECEIVED MESSAGE WAS TOO LONG`
`RETRY LATER` = A timer fired before a response was received.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-105-220 *Corrective Maintenance Procedures*
235-190-110 *National ISDN Feature Descriptions*

OP:CLID-LIST

Software Release: 5E10 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
OP  CLID  LIST  CONTAINS  a  NUMBERS
  SECTION b OF c
          d
          .
          .
          .
```

2. REASON FOR OUTPUT

To print in response to an OP:CLID input message which prints out the directory numbers (DNs) on the calling line identification (CLID) list.

Note: This report contains directory numbers outside the office. When a call is made to a listed DN, the originating DN will be identified.

3. VARIABLE FIELD DEFINITIONS

a = The number of directory numbers on the CLID list.
b = Section number of the CLID list.
c = The number of sections on the CLID list.
d = Directory numbers that are included in the CLID list.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CLID
TRC:CLID
```

Other Manual(s):
235-190-115 *Local And Toll System Features*

MCC Display Page(s):

109 (OVERLOAD)
130 (NM EXCEPTION)

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OP:CLK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
OP CLK COMPLETED
  aa/aa/aa bb:bb
```

2. REASON FOR OUTPUT

To print the current date and time, as requested in an OP:CLK input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Date, in the form month/day/year.

`b` = Time, in the form hour:minute.

4. ACTION TO BE TAKEN

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	287

Input Message(s):

```
OP:CLK
SET:CLK-5
```

Output Message(s):

```
SET:CLK
SET:CLK-5
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

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OP:CONFIRM

Software Release: 5E10 and later
Message Class: IOCNTL
Application: 5
Type: Output

1. FORMAT

```
OP CONFIRM PAGE=a POKE=b DISPLAY=c DEFAULT="d"
  LINE1 "e"
  LINE2 "f"
  LINE3 "g"
```

2. REASON FOR OUTPUT

For a specified Master Control Center (MCC) page and poke combination, display the default (system-defined) confirmation prompt and the user-definable text and display status.

3. VARIABLE FIELD DEFINITIONS

`a` = MCC page number.

`b` = Command poke number.

`c` = Display status. Valid value(s):

- `N` = No confirmation page will appear and only the system-defined default confirmation prompt will appear.
- `Y` = A confirmation page (that is, a page showing the user-definable text) will be displayed at the requesting terminal, followed by the system-defined default confirmation prompt.

`d` = System-defined default confirmation prompt.

`e` = First line of user-definable text for confirmation prompt.

`f` = Second line of user-definable text for confirmation prompt.

`g` = Third line of user-definable text for confirmation prompt.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CONFIRM
SET:CONFIRM
```

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Other Manual(s):
235-190-115 *Local/Toll System Features*
235-105-110 *Maintenance Requirements/Tools*

OP:CONV-A

Software Release: 5E10 only
Message Class: TLWS
Application: 5
Type: Output

1. FORMAT

[1]

```
OP CONV a [b] [SID c] [CLEI=c2]  d
 [e] PORT=f-g [DSLGM=f-y-z|VT1GRPMEM=c3-d3] [PRIGRP=e2] [b3]
     .
     .
     .
     [AISLE   SM      BAY     UNIT    SG/DFI  EQL]
     [h       f       j       k l     m       n o]
     .
     .
     .
```

[2]

```
OP CONV a [SID c] d
  PORT   {DN|PKTDN}     {LCEN|LCKEN|ILEN|EOC|TMC}      [TYPE p[q]]
  f g  [r[-f2][+]]  f {s|h2}{t|k2|i2}{u|l2|j2} [v]
[MLHG w x]  [DSLGM f y z]
         .
         .
         .
     [AISLE   SM      BAY     UNIT    SG/DFI  EQL]
     [h       f       j       k l     m       n o a1]
      .
      .
      .
```

[3]

```
OP CONV AQEST r d
  PORT  AQEST     TEN
  f g     r    f b1 c1 d1 e1
  .
  .
  .
     AISLE   SM      BAY     UNIT    SG/DFI  EQL
     h       f       j       k l     m       n o a1
     .
     .
     .
```

[4]

```
OP CONV PRIGRP=p1 [CLEI=c2] d
  D1 TKGMN=s1-z1   DEN=f-l1-m1-n1     PORT=f-g      DSLGM=f-y-z

AISLE   SM      BAY
UNIT    SG/DFI  EQL
```

```
        h       f       j       k l     m       n o
  D2 TKGMN=s1-z1   DEN=f-l1-m1-n1     PORT=f-g      DSLGM=f-y-z

AISLE   SM      BAY
UNIT    SG/DFI  EQL
        h       f       j       k l     m       n o
```

2. REASON FOR OUTPUT

To respond to an OP:CONV input message and to report the requested conversion of a line, trunk, data link, or operator services position system port (OSPSPORT). Specifically, the unit name (Format 1 or 3) (DN, MLHG, TKGMN, or data link or OSPSPORT type), equipment number (DEN, ILEN, LCEN, LCKEN, LEN, LTP, NEN, PSUEN, SLEN, and TEN), internal port (PORT), embedded operations channel (EOC), time-slot management channel (TMC), scan point number (SPN), and the physical location in the office is given.

For digital subscriber lines (DSL) (Format 2), all ports defined for the basic rate interface (BRI) are given if no channel was specified on the input request. The OP:CONV message cannot display all possible 25 unique directory numbers (DN) associated with the DSL.

For *SLC*® lines (SLEN), integrated digital carrier unit (IDCU) line equipment number (ILEN), the *SLC*® identification (SID) is given, but its physical location is not given because it may not exist in the office. Format 4 is the result of an input request specifying a PRIGRP identifier and the PRIGRP has D-channel backup (DCBU). The output displays information about both D-channels, D1, the primary D-channel and D2 the secondary or backup D-channel. Format 1 is used if there is only one D-channel for the PRI group.

3. VARIABLE FIELD DEFINITIONS

Variables '`h`' through '`o`' and '`a1`' give the physical location in the office for the port identified.

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`+` = Indicates the line was a party line, a custom multipoint interface DSL, or a standard interface multi-user DSL.

`a` = The identifier that was entered on the input request, or related to input request. Valid value(s):

AP=f1-g1	ILEN=f-h2-k2-l2	PSUEN=f-w1-x1-y1-z1
AQ=f1-g1	LCEN=f-a3-t-u	RAF=f-m2-y1
AQM=f1-g1	LCKEN=f-a3-z2-u2-v2	RAS=f1-g1
BST=j1-k1	LEN=f-s-o1-p1-q1-r1	RTRS=f1-g1
DASC=f1-g1	LTP=f-g2	SAS=f-m2-y1
DEN=f-l1-m1-n1	MISLNK=f1-g1	SLEN=f-v1-i2-x1
DN=d2[-f2][+]	MLHG=w-x	SPN=f-h-i-n2-o2
DSLGM=f-y-z	NEN=f-p2-q2-r2-s2-t2	TEN=f-b1-c1-d1-e1
EIS=t1-w1	OAPF=u1	TKGMN=s1-z1
EOC=f-h2-i2-j2	OAPO=j1	TMC=f-h2-i2-j2
HOBICR=f1-g1	OPT=j1-k1	VT1=s2
HOBICV=f1-g1	PORT=f-g	XDB=f1-g1
HOBIS=f1-g1	PRIGRP=e2	XDPF=u1
		XDPO=j1

b = Equipment number or identifier. Valid value(s):

MLHG=w-x TKGMN=s^1-z^1

c = SID number.

d = Completion report. Valid value(s):

CMP UNAVAILABLE = The input request could not be completed because a needed communication module (CM) was unable to respond. Retry the request later.

COMPLETED = The requested conversion has been completed. If unable to obtain physical location, it will not be printed.

INPUT ERROR = One (or more) of the input message fields was incorrect.

INVALID PORT = The port identifier entered could not be translated and was considered invalid.

INVALID PRIGROUP = The PRI group identifier entered could not be translated and was considered invalid.

LOCATION UNKNOWN = Was unable to determine the physical location of the trunk or line in the office.

MLHG ACCESS DN = The DN entered was a uniform call distribution (UCD), multi-position hunt (MUPH) multi-line hunt group, or linear hunt line and as such could not be converted. To obtain the line's equipment number and/or multi-line hunt group and member number, use RC/V for the DN or refer to office records.

MP ACCESS DN = The DN entered was either a modem pool access DN a (DN that an analog user would dial to reach a packet service through a modem pool) or the DN is a LISTED TN of a packet-switched uniform call distribution multi-line hunt group (a DN that a packet user would dial to gain access into a modem pool as part of one of the two stage dialing effort to reach an analog user) and as such could not be converted. To assess whether this is actually a modem pool access DN, enter this DN on RC/V 23.12 or look up the corresponding office record. If data is populated for this DN, the associated modem pool MLHG will be given. If data is not there, this must be a modem pool MLHG LISTED TN. Check office records for RC/V 3.5 to find the MLHG number using this number. Additionally, if the user knows the equipment number of one of the analog or digital members of the modem pool group, or if the analog TN of any of the analog members of the modem pool is known, obtain the MLHG number through the OP:CONV input message or through RC/V 1.6 for analog or 23.2 for DSL.

NO DATABASE MATCH = Internal data base error. The desired tuple could not be found.

NO CHANNELS ASSIGNED = The PRI group specified has no channels assigned.

NOT PRIMARY DN OR MLHG = The DN or MLHG specified was not identified as the primary DN or MLHG and member on any line. This could be due to an office-dependent data (ODD) problem or the DN/MLHG could be a SECONDARY ONLY DN/MLHG. It, therefore, could not be used to identify for which equipment the status was to be obtained. Refer to RC/V or office records to determine the primary DNs or MLHG and member numbers.

SM UNAVAILABLE = The input request could not be completed because a needed switching module (SM) was unable to respond. Retry the request later.

SYSTEM BUSY = The system's processing capability limit was reached or a system resource was unavailable. Retry the request later.

SYSTEM ERROR = An unspecified error occurred that prevented further processing of the request.

e = Equipment number or identifier. Valid value(s):

DEN=f-l^1-m^1-n^1	RAF=f-m^2-y^1

LEN=f-s-o^1-p^1-q^1-r^1	SAS=f-m^2-y^1
LTP=f-g^2	SLEN=f-v^1-w^1-x^1
NEN=f-p^2-q^2-r^2-s^2-t^2	SPN=f-h-i-n^2-o^2
PSUEN=f-w^1-x^1-y^1-z^1	TEN=f-b^1-c^1-d^1-e^1
	VT1=s^2

f = SM number.

g = Logical port number in hexadecimal.

h = Unit number.

i = Service group number.

j = Bay number in aisle.

k = Unit type. Valid value(s):

- DLTU = Digital line and trunk unit.
- DNUS = Digital network unit - synchronous optical network (SONET) (DNU-S).
- IDCU = Integrated digital carrier unit.
- ISLU = Integrated services line unit.
- LU = Line unit.
- MMSU = Metallic service unit.
- PSU = Packet switching unit.
- RAF = Recorded announcement function.
- RISLU = Remote integrated services line unit.
- SAS = Service Announcement System.
- TU = Trunk unit.

l = Unit number.

m = Service group number, or DFI number if the unit type is a digital line trunk unit (DLTU).

n = Equipment location: vertical distance of circuit above floor in inches.

o = Equipment location: horizontal distance of circuit from left edge of bay in 1/8-inch increments.

p = Line card types. Valid value(s):

- AMIU = AT&T version BRI 2/wire DSL.
- ANSIU = *ANSI*® Standard BRI 2/wire DSL.
- T = Basic rate interface (BRI) 4/wire DSL.
- Z = Analog subscriber line (2/wire).
- W = Analog subscriber line.

q = Equipment number or identifier. Valid value(s):

AP=f^1-g^1	HOBICR=f^1-g^1	OPT=j^1-k^1
AQ=f^1-g^1	HOBICV=f^1-g^1	RAS=f^1-g^1
AQM=f^1-g^1	HOBIS=f^1-g^1	RTRS=f^1-g^1
BST=j^1-k^1	MISLNK=s^1-t^1	XDB=a^2-b^2
DASC=f^1-g^1	OAPF=u^1	XDPF=u^1

EIS=t[1]-w[1]	OAPO=j[1]	XDPO=j[1]

T}

r = Telephone number of the line or AQEST. If the line was a DSL and has circuit switching and packet switching services on the D-channel, this is the circuit switching DN for the D-channel. If the DSL has packet service on a B-channel, this is the packet DN.

s = Line unit number.

t = Line group controller number.

u = Line card number.

v = Digital subscriber line channel. Valid value(s):
B1
B2
D

w = Multi-line hunt group number.

x = Hunt group member number.

y = Packet switching unit (PSU) channel group number.

z = PSU channel group member number.

a[1] = Equipment location: depth in the unit in 1/10-inch increments.

b[1] = Trunk unit number.

c[1] = Service group number.

d[1] = Channel board number.

e[1] = Circuit number.

f[1] = Data link (group) number.

g[1] = Relative link (member) number.

j[1] = Operator service center number.

k[1] = Relative position number.

l[1] = Digital line and trunk unit (DLTU) number.

m[1] = Digital facility interface (DFI) number.

n[1] = Channel number.

o[1] = Grid number.

p[1] = Switch board number.

q[1] = Switch number.

r[1] = Level number.

s[1] = Trunk group number.

t[1] = EIS identifier (ID) on which the CPDL terminates.

u[1] = Force management center number of the OAPF.

v[1] = Digital carrier line unit number.

w[1] = External data link (member) number relative to the EIS.

x[1] = RT line number.

y[1] = RAF or SAS announcement channel number.

z[1] = Trunk member number.

c[2] = CLEI code of the associated circuit pack. Valid only for trunks.

d[2] = Telephone number entered. If a packet switching DN was entered and the digital subscriber line (DSL) has packet service on the D-channel, this will be the packet DN. If a circuit switching DN was entered and packet service is on the D-channel and the circuit and packet DN are different, then the packet DN will not appear in the output.

e[2] = PRI group number.

f[2] = Member number of the line time-slot bridging (LTSB) line. For LTSB a member number of '1' represents the lead line and a member number of '2' represents the associate line.

g[2] = Logical test port number.

h[2] = IDCU number.

i[2] = Remote terminal (RT) number.

j[2] = ID number.

k[2] = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

l[2] = RT line number or PUB43801 channel.

m[2] = RAF or SAS unit number.

n[2] = Board number.

o[2] = Scan point number.

p[2] = DNU-S number.

q[2] = Data group number.

r[2] = Synchronous transport signal (STS) number.

s[2] = Virtual tributary 1.5 (VT1.5) number.

t[2] = Digital signal level 0 (DS0).

`u`[2] = Line board number.

`v`[2] = Line circuit number.

`w`[2] = PSU unit number.

`x`[2] = PSU shelf number.

`y`[2] = PSU channel group number.

`z`[2] = Line group number.

`a`[3] = ISLU/ISLU2 number.

`b`[3] = Port identification phrase. Valid value(s):
`PKTPIPE` = Code division multiple access (CDMA) packet pipe trunk.
`PPMEM` = CDMA packet pipe member trunk.
`SPCHNDLR` = CDMA speech handler trunk.

`c`[3] = Virtual tributary group number.

`d`[3] = Virtual tributary member number.

4. ACTION TO BE TAKEN

None. Refer to the message output for pertinent status and information, and take appropriate action based on the information received, if necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CONV
```

Other Manual(s):
235-080-100 *Translations Guide*
235-500-100 *OSPS General Description*

RC/V View(s):

1.6 [COMPOSITE LINE (LINE ASSIGNMENT)]
3.5 [MULTILINE HUNT GROUP (LINE ASSIGNMENT)]
23.1 (ISDN MODEN TN TO DSL ASSIGNMENT)
23.2 (DIGITAL SUBSCRIBER LINE)

OP:CONV-B

Software Release: 5E11 - 5E12
Message Class: TLWS
Application: 5
Type: Output

1. FORMAT

[1]

```
OP CONV a b [SID c] [CLEI=c2]  d
 e PORT=f-g [DSLGM=f-y-z] [PRIGRP=e2] [b3]
     .
     .
     .
    AISLE   SM      BAY     UNIT    SG/DFI  EQL
    h       f       j       k    l  m       n o
    .
    .
    .
```

[2]

```
OP CONV a SID c d
  PORT   {DN|PKTDN}     { g3 }                TYPE p[q]
  f g  r[-f2[+]]  f {s|h2}{t|k2|i2}{u|l2|j2} [v] [MLHG w x]  [DSLGM f y z]
        .
        .
        .
    AISLE   SM      BAY     UNIT    SG/DFI  EQL         CABREF
    h       f       j       k    l  m       n o a1      c3
     .
     .
     .
```

[3]

```
OP CONV AQEST r d
  PORT  AQEST     TEN>
  f g     r    f b1 c1 d1 e1
  .
  .
  .

     AISLE   SM      BAY     UNIT    SG/DFI  EQL
     h       f       j       k    l  m       n o a1
     .
     .
     .
```

[4]

```
OP CONV PRIGRP=p1 CLEI=c2 d
  D1 TKGMN=s1-z1   DEN=f-l1-m1-n1     PORT=f-g      DSLGM=f-y-z

     AISLE   SM      BAY     UNIT    SG/DFI  EQL
```

```
          h       f       j       k    l  m       n o

     D2 TKGMN=s1-z1   DEN=f-l1-m1-n1     PORT=f-g      DSLGM=f-y-z

          AISLE   SM      BAY     UNIT    SG/DFI  EQL

          h       f       j       k    l  m       n o
```

2. REASON FOR OUTPUT

To respond to an OP:CONV input message and to report the requested conversion of a line, trunk, data link, or operator services position system port (OSPSPORT). Specifically, the unit name (Format 1 or 3) (DN, MLHG, TKGMN, or data link or OSPSPORT type), equipment number (DEN, ILEN, LCEN, LCKEN, LEN, LTP, NEN, PSUEN, SLEN, INEN, AIUEN, and TEN), internal port (PORT), embedded operations channel (EOC), time-slot management channel (TMC), scan point number (SPN), and the physical location in the office is given.

For digital subscriber lines (DSL) (Format 2), all ports defined for the basic rate interface (BRI) are given if no channel was specified on the input request. The OP:CONV message cannot display all possible 25 unique directory numbers (DN) associated with the DSL. For *SLC*® lines (SLEN), integrated digital carrier unit (IDCU) line equipment number (ILEN), and IDLC network equipment number (INEN), the *SLC*® identification (SID) is given, but its physical location is not given because it may not exist in the office. Format 4 is the result of an input request specifying a PRIGRP identifier and the PRIGRP has D-channel backup (DCBU). The output displays information about both D-channels, D1, the primary D-channel and D2 the secondary or backup D-channel. Format 1 is used if there is only one D-channel for the PRI group.

3. VARIABLE FIELD DEFINITIONS

Variables 'h' through 'o' and 'a^1' give the physical location in the office for the port identified.

+ = Indicates the line was a party line, a custom multipoint interface DSL, or a standard interface multi-user DSL.

a = The identifier that was entered on the input request, or related to input request. Valid value(s):

AIUEN=f-d^3-e^3-f^3	HOBICV=f^1-g^1	PORT=f-g
AP=f^1-g^1	HOBIS=f^1-g^1	PRIGRP=e^2
AQ=f^1-g^1	ILEN=f-h^2-k^2-l^2	PSUEN=f-w^1-x^1-y^1-z^1
AQM=f^1-g^1	INEN=f-p^2-k^2-l^2	RAF=f-m^2-y^1
BST=j^1-k^1	LCEN=f-a^3-t-u	RAS=f^1-g^1
DASC=f^1-g^1	LCKEN=f-a^3-z^2-u^2-v^2	RTRS=f^1-g^1
DEN=f-l^1-m^1-n^1	LEN=f-s-o^1-p^1-q^1-r^1	SAS=f-m^2-y^1
DN=d^2[-f^2][+]	LTP=f-g^2	SLEN=f-v^1-i^2-x^1
DSLGM=f-y-z	MISLNK=f^1-g^1	SPN=f-h-i-n^2-o^2
EIS=t^1-w^1	MLHG=w-x	TEN=f-b^1-c^1-d^1-e^1
DNUSEOC=f-p^2-i^2-h^3	NEN=f-p^2-q^2-r^2-s^2-t^2	TKGMN=s^1-z^1
DNUSTMC=f-p^2-i^2-i^3	OAPF=u^1	XDB=f^1-g^1
IDCUEOC=f-h^2-i^2-h^3	OAPO=j^1	XDPF=u^1
IDCUTMC=f-h^2-i^2-i^3	OPT=j^1-k^1	XDPO=j^1
HOBICR=f^1-g^1		

b = Equipment number or identifier. Valid value(s):

MLHG=w-x TKGMN=s^1-z^1

c = SID number.

d = Completion report. Valid value(s):

CMP UNAVAILABLE = The input request could not be completed because a needed communication module (CM) was unable to respond. Retry the request later.

COMPLETED = The requested conversion has been completed. If unable to obtain physical location, it will not be printed.

INPUT ERROR = One (or more) of the input message fields was incorrect.

INVALID PORT = The port identifier entered could not be translated and was considered invalid.

INVALID PRIGROUP = The PRI group identifier entered could not be translated and was considered invalid.

LOCATION UNKNOWN = Was unable to determine the physical location of the trunk or line in the office.

MLHG ACCESS DN = The DN entered was a uniform call distribution (UCD), multi-position hunt (MUPH) multi-line hunt group, or linear hunt line and as such could not be converted. To obtain the line's equipment number and/or multi-line hunt group and member number, use RC/V for the DN or refer to office records.

MP ACCESS DN = The DN entered was either a modem pool access DN a (DN that an analog user would dial to reach a packet service through a modem pool) or the DN is a LISTED TN of a packet-switched uniform call distribution multi-line hunt group (a DN that a packet user would dial to gain access into a modem pool as part of one of the two stage dialing effort to reach an analog user) and as such could not be converted. To assess whether this is actually a modem pool access DN, enter this DN on RC/V 23.12 or look up the corresponding office record. If data is populated for this DN, the associated modem pool MLHG will be given. If data is not there, this must be a modem pool MLHG LISTED TN. Check office records for RC/V 3.5 to find the MLHG number using this number. Additionally, if the user knows the equipment number of one of the analog or digital members of the modem pool group, or if the analog TN of any of the analog members of the modem pool is known, obtain the MLHG number through the OP:CONV input message or through RC/V 1.6 for analog or 23.2 for DSL.

NO DATABASE MATCH = Internal data base error. The desired tuple could not be found.

NO CHANNELS ASSIGNED = The PRI group specified has no channels assigned.

NON-UNIQUE NXX DN = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.

NOT PRIMARY DN OR MLHG = The DN or MLHG specified was not identified as the primary DN or MLHG and member on any line. This could be due to an office-dependent data (ODD) problem or the DN/MLHG could be a SECONDARY ONLY DN/MLHG. It, therefore, could not be used to identify for which equipment the status was to be obtained. Refer to RC/V or office records to determine the primary DNs or MLHG and member numbers.

SM UNAVAILABLE = The input request could not be completed because a needed switching module (SM) was unable to respond. Retry the request later.

SYSTEM BUSY = The system's processing capability limit was reached or a system resource was unavailable. Retry the request later.

SYSTEM ERROR = An unspecified error occurred that prevented further processing of the request.

e = Equipment number or identifier. Valid value(s):

DEN=f-l^1-m^1-n^1	RAF=f-m^2-y^1

LEN=f-s-o[1]-p[1]-q[1]-r[1]	SAS=f-m[2]-y[1]
LTP=f-g[2]	SLEN=f-v[1]-w[1]-x[1]
NEN=f-p[2]-q[2]-r[2]-s[2]-t[2]	SPN=f-h-i-n[2]-o[2]
PSUEN=f-w[1]-x[1]-y[1]-z[1]	TEN=f-b[1]-c[1]-d[1]-e[1]

f = SM number.

g = Logical port number in hexadecimal.

h = Unit number.

i = Service group number.

j = Bay number in aisle.

k = Unit type. Valid value(s):

- DLTU = Digital line and trunk unit.
- DNUS = Digital network unit - synchronous optical network (SONET) (DNU-S).
- IDCU = Integrated digital carrier unit.
- ISLU = Integrated services line unit.
- LU = Line unit.
- MMSU = Metallic service unit.
- PSU = Packet switching unit.
- RAF = Recorded announcement function.
- RISLU = Remote integrated services line unit.
- SAS = Service announcement system.
- TU = Trunk unit.

l = Unit number.

m = Service group number, or DFI number if the unit type is a digital line trunk unit (DLTU).

n = Equipment location: vertical distance of circuit above floor in inches.

o = Equipment location: horizontal distance of circuit from left edge of bay in 1/8-inch increments.

p = Line card types. Valid value(s):

- AMIU = AT&T version BRI 2/wire DSL.
- ANSIU = *ANSI*® Standard BRI 2/wire DSL.
- T = Basic rate interface (BRI) 4/wire DSL.
- Z = Analog subscriber line (2/wire).
- W = Analog subscriber line.

q = Equipment number or identifier. Valid value(s):

AP=f[1]-g[1] AQ=f[1]-g[1] AQM=f[1]-g[1]	HOBICR=f[1]-g[1]	OPT=j[1]-k[1]
BST=j[1]-k[1] DASC=f[1]-g[1] EIS=t[1]-w[1]	HOBICV=f[1]-g[1]	RAS=f[1]-g[1]
	HOBIS=f[1]-g[1]	RTRS=f[1]-g[1]
	MISLNK=s[1]-t[1]	XDB=a[2]-b[2]
	OAPF=u[1]	XDPF=u[1]
	OAPO=j[1]	XDPO=j[1]

r = Telephone number of the line or AQEST. If the line was a DSL and has circuit switching and packet switching services on the D-channel, this is the circuit switching DN for the D-channel. If the DSL has packet service on a B-channel, this is the packet DN.

s = Line unit number.

t = Line group controller number.

u = Line card number.

v = Digital subscriber line channel. Valid value(s):
B1
B2
D

w = Multi-line hunt group number.

x = Hunt group member number.

y = Packet switching unit (PSU) channel group number.

z = PSU channel group member number.

a[1] = Equipment location: depth in the unit in 1/10-inch increments.

b[1] = Trunk unit number.

c[1] = Service group number.

d[1] = Channel board number.

e[1] = Circuit number.

f[1] = Data link (group) number.

g[1] = Relative link (member) number.

j[1] = Operator service center number.

k[1] = Relative position number.

l[1] = Digital line and trunk unit (DLTU) number.

m[1] = Digital facility interface (DFI) number.

n[1] = Channel number.

o[1] = Grid number.

p[1] = Switch board number.

q[1] = Switch number.

r[1] = Level number.

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s[1] = Trunk group number.

t[1] = EIS identifier (ID) on which the CPDL terminates.

u[1] = Force management center number of the OAPF.

v[1] = Digital carrier line unit number.

w[1] = External data link (member) number relative to the EIS.

x[1] = RT line number.

y[1] = RAF or SAS announcement channel number.

z[1] = Trunk member number.

c[2] = CLEI code of the associated circuit pack. Valid only for trunks.

d[2] = Telephone number entered. If a packet switching DN was entered and the digital subscriber line (DSL) has packet service on the D-channel, this will be the packet DN. If a circuit switching DN was entered and packet service is on the D-channel and the circuit and packet DN are different, then the packet DN will not appear in the output.

e[2] = PRI group number.

f[2] = Member number of the line time-slot bridging (LTSB) line. For LTSB a member number of '1' represents the lead line and a member number of '2' represents the associate line.

g[2] = Logical test port number.

h[2] = IDCU number.

i[2] = Remote terminal (RT) number.

j[2] = ID number.

k[2] = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

l[2] = RT line number or PUB43801 channel.

m[2] = RAF or SAS unit number.

n[2] = Board number.

o[2] = Scan point number.

p[2] = DNU-S number.

q[2] = Data group number.

r[2] = Synchronous transport signal (STS) number.

s[2] = Virtual tributary 1.5 (VT1.5) number.

t[2] = Digital signal level 0 (DS0).

u[2] = Line board number.

v[2] = Line circuit number.

w[2] = PSU unit number.

x[2] = PSU shelf number.

y[2] = PSU channel group number.

z[2] = Line group number.

a[3] = ISLU/ISLU2 number.

b[3] = Port identification phrase. Valid value(s):

ADT	= Autoplex data trunk.
BCM	= Code division multiple access (CDMA) bearer channel member trunk.
FRBC	= CDMA frame relay bearer channel trunk.
PKTPIPE	= CDMA packet pipe trunk.
PPMEM	= CDMA packet pipe member trunk.
SPCHNDLR	= CDMA speech handler trunk.
SVC	= CDMA switched virtual circuit trunk.

c[3] = Cabinet reference. Possibilities include:

FRONT	= The unit is in the front side of the cabinet.
BACK	= The unit is in the back side of the cabinet.

d[3] = Access interface unit (AIU) number.

e[3] = AIU pack number.

f[3] = AIU circuit number.

g[3] = Equipment number or identifier. Valid value(s):

LCEN
LCKEN
ILEN
DNUSEOC
DNUSTMC
IDCUEOC
IDCUTMC
INEN
AIUEN

h[3] = EOC ID number.

i[3] = TMC ID number.

4. ACTIONS TO BE TAKEN

None. Refer to the message output for pertinent status and information, and take appropriate action based on the information received, if necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CONV
```

Other Manual(s):
235-080-100 *Translations Guide*
235-500-100 *OSPS General Description*

RC/V View(s):

1.6 [COMPOSITE LINE (LINE ASSIGNMENT)]
3.5 [MULTILINE HUNT GROUP (LINE ASSIGNMENT)]
23.1 (ISDN MODEN TN TO DSL ASSIGNMENT)
23.2 (DIGITAL SUBSCRIBER LINE)

OP:CONV-C

Software Release: 5E13 and later
Message Class: TLWS
Application: 5
Type: Output

1. FORMAT

[1]
```
OP CONV a b [SID c] [CLEI=c2]  d

  e PORT=f-g [DSLGM=f-y-z] [PRIGRP=e2] [b3]
  .
  .
  .

    AISLE   SM      BAY     UNIT    SG/DFI  EQL

    h       f       j       k    l  m       n o
    .
    .
    .
```

[2]
```
OP CONV a SID c d
  PORT   {DN|PKTDN}     { g3 }                TYPE p[q]
  f g  r[-f2[+]]  f {s|h2}{t|k2|i2}{u|l2|j2} [v] [MLHG w x]  [DSLGM f y z]
        .
        .
        .
    AISLE   SM      BAY     UNIT    SG/DFI  EQL         CABREF
    h       f       j       k    l  m       n o a1      c3
      .
      .
      .
```

[3]
```
OP CONV AQEST r d
  PORT  AQEST     TEN
  f g     r    f b1 c1 d1 e1
  .
  .
  .
     AISLE   SM      BAY     UNIT    SG/DFI  EQL
     h       f       j       k    l  m       n o a1
     .
     .
     .
```

[4]
```
OP CONV PRIGRP=p1 CLEI=c2
  D1 TKGMN=s1-z1   DEN=f-l1-m1-n1     PORT=f-g      DSLGM=f-y-z
     AISLE   SM      BAY     UNIT    SG/DFI  EQL
```

```
   h       f       j       k    l  m       n o
D2 TKGMN=s1-z1   DEN=f-l1-m1-n1     PORT=f-g      DSLGM=f-y-z
   AISLE   SM      BAY     UNIT    SG/DFI  EQL
   h       f       j       k    l  m       n o
```

2. REASON FOR OUTPUT

To respond to an OP:CONV input message and to report the requested conversion of a line, trunk, data link, or operator services position system port (OSPSPORT). Specifically, the unit name (Format 1 or 3) (DN, MLHG, TKGMN, or data link or OSPSPORT type), equipment number (DEN, ILEN, LCEN, LCKEN, LEN, LTP, NEN, PSUEN, SLEN, INEN, AIUEN, and TEN), internal port (PORT), embedded operations channel (EOC), time-slot management channel (TMC), scan point number (SPN), and the physical location in the office is given.

For digital subscriber lines (DSL) (Format 2), all ports defined for the basic rate interface (BRI) are given if no channel was specified on the input request. The OP:CONV message cannot display all possible 25 unique directory numbers (DN) associated with the DSL. For *SLC*® lines (SLEN), integrated digital carrier unit (IDCU) line equipment number (ILEN), and IDLC network equipment number (INEN), the *SLC*® identification (SID) is given, but its physical location is not given because it may not exist in the office. Format 4 is the result of an input request specifying a PRIGRP identifier and the PRIGRP has D-channel backup (DCBU). The output displays information about both D-channels, D1, the primary D-channel and D2 the secondary or backup D-channel. Format 1 is used if there is only one D-channel for the PRI group.

3. VARIABLE FIELD DEFINITIONS

Variables 'h' through 'o' and 'a^1' give the physical location in the office for the port identified.

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

+ = Indicates the line was a party line, a custom multipoint interface DSL, or a standard interface multi-user DSL.

a = The identifier that was entered on the input request, or related to input request. Valid value(s):

AIUEN=f-d^3-e^3-f^3	HOBICV=f^1-g^1	PORT=f-g
AP=f^1-g^1	HOBIS=f^1-g^1	PRIGRP=e^2
AQ=f^1-g^1	ILEN=f-h^2-k^2-l^2	PSUEN=f-w^1-x^1-y^1-z^1
AQM=f^1-g^1	INEN=f-p^2-k^2-l^2	RAF=f-m^2-y^1
BST=j^1-k^1	LCEN=f-a^3-t-u	RAS=f^1-g^1
DASC=f^1-g^1	LCKEN=f-a^3-z^2-u^2-v^2	RTRS=f^1-g^1
DEN=f-l^1-m^1-n ^{1}	LEN=f-s-o^1-p^1-q^1-r^1	SAS=f-m^2-y^1
DN=d^2[-f^2][+]	LTP=f-g^2	SLEN=f-v^1-i^2-x^1
DSLGM=f-y-z	MISLNK=f^1-g^1	SPN=f-h-i-n^2-o^2
EIS=t^1-w^1	MLHG=w-x	TEN=f-b^1-c^1-d^1-e^1
DNUSEOC=f-p^2-i^2-h^3	NEN=f-p^2-q^2-j^3-r^2-s^2-k^3-t^2	TKGMN=s^1-z^1
DNUSTMC=f-p^2-i^2-i^3	OAPF=u^1	XDB=f^1-g^1
IDCUEOC=f-h^2-i^2-h^3	OAPO=j^1	XDPF=u^1
IDCUTMC=f-h^2-i^2-i^3	OPT=j^1-k^1	XDPO=j^1
HOBICR=f^1-g^1		

b = Equipment number or identifier. Valid value(s):

```
MLHG=w-x
 TKGMN=s1-z1
```

c = SID number.

d = Completion report. Valid value(s):

CMP UNAVAILABLE = The input request could not be completed because a needed communication module (CM) was unable to respond. Retry the request later.

COMPLETED = The requested conversion has been completed. If unable to obtain physical location, it will not be printed.

INPUT ERROR = One (or more) of the input message fields was incorrect.

INVALID PORT = The port identifier entered could not be translated and was considered invalid.

INVALID PRIGROUP = The PRI group identifier entered could not be translated and was considered invalid.

LOCATION UNKNOWN = Was unable to determine the physical location of the trunk or line in the office.

MLHG ACCESS DN = The DN entered was a uniform call distribution (UCD), multi-position hunt (MUPH) multi-line hunt group, or linear hunt line and as such could not be converted. To obtain the line's equipment number and/or multi-line hunt group and member number, use RC/V for the DN or refer to office records.

MP ACCESS DN = The DN entered was either a modem pool access DN a (DN that an analog user would dial to reach a packet service through a modem pool) or the DN is a LISTED TN of a packet-switched uniform call distribution multi-line hunt group (a DN that a packet user would dial to gain access into a modem pool as part of one of the two stage dialing effort to reach an analog user) and as such could not be converted. To assess whether this is actually a modem pool access DN, enter this DN on RC/V 23.12 or look up the corresponding office record. If data is populated for this DN, the associated modem pool MLHG will be given. If data is not there, this must be a modem pool MLHG LISTED TN. Check office records for RC/V 3.5 to find the MLHG number using this number. Additionally, if the user knows the equipment number of one of the analog or digital members of the modem pool group, or if the analog TN of any of the analog members of the modem pool is known, obtain the MLHG number through the OP:CONV input message or through RC/V 1.6 for analog or 23.2 for DSL.

NO DATABASE MATCH = Internal data base error. The desired tuple could not be found.

NO CHANNELS ASSIGNED = The PRI group specified has no channels assigned.

NON-UNIQUE NXX DN = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.

NOT PRIMARY DN OR MLHG = The DN or MLHG specified was not identified as the primary DN or MLHG and member on any line. This could be due to an office-dependent data (ODD) problem or the DN/MLHG could be a SECONDARY ONLY DN/MLHG. It, therefore, could not be used to identify for which equipment the status was to be obtained. Refer to RC/V or office records to determine the primary DNs or MLHG and member numbers.

SM UNAVAILABLE = The input request could not be completed because a needed switching module (SM) was unable to respond. Retry the request later.

SYSTEM BUSY = The system's processing capability limit was reached or a system resource was unavailable. Retry the request later.

SYSTEM ERROR = An unspecified error occurred that prevented further processing of the request.

e = Equipment number or identifier. Valid value(s):

DEN=f-l^1-m^1-n^1	RAF=f-m^2-y^1
LEN=f-s-o^1-p^1-q^1-r^1	SAS=f-m^2-y^1
LTP=f-g^2	SLEN=f-v^1-w^1-x^1
NEN=f-p^2-q^2-j^3-r^2-s^2-k^3-t^2	SPN=f-h-i-n^2-o^2
PSUEN=f-w^1-x^1-y^1-z^1	TEN=f-b^1-c^1-d^1-e^1

f = SM number.

g = Logical port number in hexadecimal.

h = Unit number.

i = Service group number.

j = Bay number in aisle.

k = Unit type. Valid value(s):

- DLTU = Digital line and trunk unit.
- DNUS = Digital networking unit - synchronous optical network (SONET) (DNU-S).
- IDCU = Integrated digital carrier unit.
- ISLU = Integrated services line unit.
- LU = Line unit.
- MMSU = Metallic service unit.
- PSU = Packet switching unit.
- RAF = Recorded announcement function.
- RISLU = Remote integrated services line unit.
- SAS = Service announcement system.
- TU = Trunk unit.

l = Unit number.

m = Service group number, or DFI number if the unit type is a digital line trunk unit (DLTU).

n = Equipment location: vertical distance of circuit above floor in inches.

o = Equipment location: horizontal distance of circuit from left edge of bay in 1/8-inch increments.

p = Line card types. Valid value(s):

- AMIU = AT&T version BRI 2/wire DSL.
- ANSIU = *ANSI*® Standard BRI 2/wire DSL.
- T = Basic rate interface (BRI) 4/wire DSL.
- Z = Analog subscriber line (2/wire).
- W = Analog subscriber line.

q = Equipment number or identifier. Valid value(s):

AP=f^1-g^1	HOBICR=f^1-g^1	OPT=j^1-k^1
AQ=f^1-g^1	HOBICV=f^1-g^1	RAS=f^1-g^1
AQM=f^1-g^1	HOBIS=f^1-g^1	RTRS=f^1-g^1
BST=j^1-k^1	MISLNK=s^1-t^1	XDB=a^2-b^2
DASC=f^1-g^1	OAPF=u^1	XDPF=u^1

EIS=t[1]-w[1]	OAPO=j[1]	XDPO=j[1]

r = Telephone number of the line or AQEST. If the line was a DSL and has circuit switching and packet switching services on the D-channel, this is the circuit switching DN for the D-channel. If the DSL has packet service on a B-channel, this is the packet DN.

s = Line unit number.

t = Line group controller number.

u = Line card number.

v = Digital subscriber line channel. Valid value(s):
B1
B2
D

w = Multi-line hunt group number.

x = Hunt group member number.

y = Packet switching unit (PSU) channel group number.

z = PSU channel group member number.

a[1] = Equipment location: depth in the unit in 1/10-inch increments.

b[1] = Trunk unit number.

c[1] = Service group number.

d[1] = Channel board number.

e[1] = Circuit number.

f[1] = Data link (group) number.

g[1] = Relative link (member) number.

j[1] = Operator service center number.

k[1] = Relative position number.

l[1] = Digital line and trunk unit (DLTU) number.

m[1] = Digital facility interface (DFI) number.

n[1] = Channel number.

o[1] = Grid number.

p[1] = Switch board number.

q[1] = Switch number.

r[1] = Level number.

s[1] = Trunk group number.

t[1] = EIS identifier (ID) on which the CPDL terminates.

u[1] = Force management center number of the OAPF.

v[1] = Digital carrier line unit number.

w[1] = External data link (member) number relative to the EIS.

x[1] = RT line number.

y[1] = RAF or SAS announcement channel number.

z[1] = Trunk member number.

c[2] = CLEI code of the associated circuit pack. Valid only for trunks.

d[2] = Telephone number entered. If a packet switching DN was entered and the digital subscriber line (DSL) has packet service on the D-channel, this will be the packet DN. If a circuit switching DN was entered and packet service is on the D-channel and the circuit and packet DN are different, then the packet DN will not appear in the output.

e[2] = PRI group number.

f[2] = Member number of the line time-slot bridging (LTSB) line. For LTSB a member number of '1' represents the lead line and a member number of '2' represents the associate line.

g[2] = Logical test port number.

h[2] = IDCU number.

i[2] = Remote terminal (RT) number.

j[2] = ID number.

k[2] = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

l[2] = RT line number or PUB43801 channel.

m[2] = RAF or SAS unit number.

n[2] = Board number.

o[2] = Scan point number.

p[2] = DNU-S number.

q[2] = Data group number.

r[2] = Synchronous transport signal (STS) number.

s[2] = Virtual tributary group number.

t[2] = Digital signal level 0 (DS0).

u[2] = Line board number.

v[2] = Line circuit number.

w[2] = PSU unit number.

x[2] = PSU shelf number.

y[2] = PSU channel group number.

z[2] = Line group number.

a[3] = ISLU/ISLU2 number.

b[3] = Port identification phrase. Valid value(s):

A5	= A5 trunk.
ADT	= Autoplex data trunk.
BCM	= Code division multiple access (CDMA) bearer channel member trunk.
FRBC	= CDMA frame relay bearer channel trunk.
IS41	= IS41 trunk.
ISLPMEM	= ISLP member trunk.
PKTPIPE	= CDMA packet pipe trunk.
PPMEM	= CDMA packet pipe member trunk.
SPCHNDLR	= CDMA speech handler trunk.
SVC	= CDMA switched virtual circuit trunk.

c[3] = Cabinet reference. Possibilities include:

FRONT	= The unit is in the front side of the cabinet.
BACK	= The unit is in the back side of the cabinet.

d[3] = Access interface unit (AIU) number.

e[3] = AIU pack number.

f[3] = AIU circuit number.

g[3] = Equipment number or identifier. Valid value(s):

LCEN
LCKEN
ILEN
DNUSEOC
DNUSTMC
IDCUEOC
IDCUTMC
INEN
AIUEN

h[3] = EOC ID number.

i[3] = TMC ID number.

`j`[3] = SONET termination equipment (STE) number.

`k`[3] = Virtual tributary member number.

4. ACTIONS TO BE TAKEN

None. Refer to the message output for pertinent status and information, and take appropriate action based on the information received, if necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CONV
```

Other Manual(s):

235-080-100 *Translations Guide (TG-5)*

RC/V View(s):

1.6 [COMPOSITE LINE (LINE ASSIGNMENT)]
3.5 [MULTILINE HUNT GROUP (LINE ASSIGNMENT)]
23.1 (ISDN MODEN TN TO DSL ASSIGNMENT)
23.2 (DIGITAL SUBSCRIBER LINE)

OP:CONV-EXT

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
OP CONV EXT, a
  INTERNAL IDENTIFIER: b
```

2. REASON FOR OUTPUT

To report the requested conversion from a switching module (SM) circuit to its internal identifier. The external representation is an equipment number typically consisting of SM-UNITNO-SG-BOARD. The internal representation in the SM is a hexadecimal number between h'1 and h'fffd.

3. VARIABLE FIELD DEFINITIONS

`a` = External identifier of the unit/circuit.

`b` = Internal identifier of line unit A-link (ALINK), line equipment number (LEN), or any SM circuit.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:CONV-EXT`

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OP:CONV-INT

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
OP CONV INT,{CKT|ALINK|LEN}=a-b CIRCUIT INDEX: c.
  EXTERNAL IDENTIFIER: d [e] [f]
```

2. REASON FOR OUTPUT

To report the requested conversion from the internal name of a switching module (SM) circuit to its external identifier. The external representation is an equipment number typically consisting SM-UNITNO-SG-BOARD. The internal representation in the SM is a hexadecimal number between h'1 and h'fffd.

3. VARIABLE FIELD DEFINITIONS

a	= SM number.
b	= Internal identifier of line unit A-link (ALINK), line equipment number (LEN) or any SM circuit.
c	= Circuit Index of the internal identifier provided by the user in variable "b" Refer to the Population Rules Language Data manual for additional information.
d	= External identifier of the circuit.
e	= Subtending unit.
f	= Holding circuit.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
  OP:CONV-INT
```

Other Manual(s):

Where 'x' is the release specific version of the specified manual.
235-600-12x *Population Rules Language Data Manual*

OP:CONV-PHA

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
OP CONV PHA=a-b-c-d    e

 [CHANNEL PSLNK              AISLE   SM      BAY      UNIT    SHELF  EQL]
 [f       PSLNK=g-h          i       j       k        l       m      n-o]
```

2. REASON FOR OUTPUT

To print the conversion of a protocol handler (PH) for asynchronous transfer mode (ATM) (PHA) to the associated packet switching unit (PSU) link and channel being serviced.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = PSU number.

`c` = Shelf number.

`d` = PH number.

`e` = Request completion status. Valid value(s):
`COMPLETED` = Request has successfully completed.
`STOPPED - DATA BASE ERROR` = Requested action has not begun due to an internal data base error.
`STOPPED - NO CHANNEL EQUIPPED ON PH` = The specified PH is equipped, but does not have a PSU link channel equipped.
`STOPPED - PH IS UNEQUIPPED` = The specified PH is not equipped.

`f` = Channel number.

`g` = Near PSU community address of PSU link.

`h` = Far PSU community address of PSU link.

`i` = Aisle number of SM.

`j` = SM number.

`k` = Bay of SM containing PSU.

`l` = PSU number.

`m` = Shelf number.

`n` = Equipment location: vertical distance of circuit above floor in inches.

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○ = Equipment location: horizontal distance of circuit from left edge of bay in 1/8-inch increments.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CONV-PHA
```

Output Message(s):

```
OP:CONV-PSLNK
```

OP:CONV-PSLNK

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
OP CONV PSLNK=a-b    c
 [CHANNEL PHA            AISLE   SM      BAY      UNIT    SHELF  EQL]
 [d       e-f-g-h        i       j       k        l       m      n-o]
 [d       e-f-g-h        i       j       k        l       m      n-o]
```

2. REASON FOR OUTPUT

To print the conversion of a packet switching unit (PSU) link to the associated protocol handler(s) (PH) for asynchronous transfer mode (ATM) (PHA).

3. VARIABLE FIELD DEFINITIONS

`a` = Near PSU community address of the link.

`b` = Far PSU community address of the link.

`c` = Completion report. Valid value(s):
`COMPLETED` = Request has successfully completed.
`STOPPED - DATA BASE ERROR` = Requested action has not begun due to an internal database error.
`STOPPED - REQUESTED LINK IS NOT EQUIPPED` = Link is not equipped in the office-dependent data (ODD).

`d` = Channel number (0-1).

`e` = Switching module (SM) number.

`f` = PSU number.

`g` = Shelf number.

`h` = Protocol handler (PH) number.

`i` = Aisle number of SM.

`j` = SM number.

`k` = Bay of SM containing PSU.

`l` = PSU number.

`m` = Shelf number.

`n` = Equipment location: vertical distance of circuit above floor in inches.

`o` = Equipment location: horizontal distance of circuit from left edge of bay in 1/8-inch increments.

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4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CONV-PHA
OP:CONV-PSLNK
```

Output Message(s):

```
OP:CONV-PHA
```

MCC Display Page(s):

1187 (PSU LINKS STATUS)

OP:CORCSTAT-SM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]    ____________________________________________________________________
       OP CORCSTAT {SM=a|CMP=b} NO. OF CORC=c
          .
          .
          .

[2]    ____________________________________________________________________
       OP CORCSTAT=d
```

2. REASON FOR OUTPUT

To report, in response to input message OP:CORCSTAT-SM, the number of customer-originated recent changes (CORCs) that are logged in one or more switching modules (SMs) and/or in one or more communication module processors (CMPs).

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = CMP number.

`c` = The number of logged customer-originated recent changes (CORCs).

`d` = Termination report. Valid value(s):

- `ABORTED` = The requested action was terminated before a normal completion and the consistency of hardware states or data was questionable.
- `COMPLETED` = The requested action was terminated after completion.
- `STOPPED` = The requested action was terminated before a normal completion but consistency of hardware states and data was reliable.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:CORCSTAT-SM`

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:COT-STATUS

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

WARNING: INAPPROPRIATE USE OF THIS MESSAGE MAY INTERRUPT OR DEGRADE SERVICE. READ PURPOSE CAREFULLY.

1. FORMAT

```
OP COT STATUS
  MODE:          a
  PRIORITY:      b
  MSGS BUFFERED: c
  [SET COT TIMED OUT - RETRY LATER]
```

2. REASON FOR OUTPUT

To report the current customer-originated trace (COT) mode (dedicated or nondedicated), current COT message priority, and number of messages currently in the COT buffer. This message is in response to the OP:COT-STATUS or SET:COT input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Where to sent COT messages. Valid value(s):

`DEDICATED` = There is a dedicated tty45 to send COT messages to.

`NON DEDICATED` = There are writable devices on classdef 160 to send COT messages to. No checking is done to ensure that there actually is a dedicated TTY45 or devices on the classdef. It is up to the user to make certain of this.

WARNING: No checking is done to ensure that there actually is a dedicated TTY45 or devices on the classdef. It is up to the user to make certain of this.

`b` = Message priority, a number between 0 and 5, with 0 being lowest and 5 being highest. The priority determines whether the COT messages will be printed when when many messages are spooled. Priority is used only for messages spooled to the classdef.

`c` = The number of messages currently in the COT buffer (for DEDICATED mode), a number between 0 and 300. If the number of buffered messages reaches 300, the COT feature will be internally disabled until the buffer is emptied to having at most 285 messages. Refer to the SET:COT input message for how to empty the buffer.

4. ACTION TO BE TAKEN

If `SET COT TIMED OUT` message is printed, the database updating procedure timed out and no changes were made. Retry later.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
OP:COT-STATUS
SET:COT
```

Output Message(s):

```
REPT:COT-BUF
```

Other Manual(s):
235-190-130 *Local Area Services Features*

MCC Display Page(s):

199 (RCV ECD PARAMETER INFO)

OP:CPE-A

Software Release: 5E10 - 5E11
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP CPE {DN=a|ILEN=d-a1-b1-c1|LCEN=d-e-f-g|LCKEN=d-e-g1-h1-i1|MLHG=b-c|PKTDN=a}
       j

[2]   ____________________________________________________________________
      OP CPE   SECTION 1 OF 1
        {ILEN=d-a1-b1-c1|LCEN=d-e-f-g|LCKEN=d-e-g1-h1-i1} MAXTERM=h i j
        CHANNEL STATUS: D=k PPB1=l [PP]B2=l m
        -DN/MLHG- -------USPID------ TID TEI --TYPE-- STAT SGND PKTD SERVICE-TYPE

        n                          o p     q r-s/t    u    v    w    x
        .                          . .     . .        .    .    .    .
        .                          . .     . .        .    .    .    .
        .                          . .     . .        .    .    .    .

[3]   ____________________________________________________________________
      OP CPE   SECTION 1 OF 2

        {ILEN=d-a1-b1-c1|LCEN=d-e-f-g|LCKEN=d-e-g1-h1-i1} MAXTERM=h i j

        CHANNEL STATUS: D=k PPB1=l [PP]B2=l m
        NO TEI'S CURRENTLY ACTIVE ON DSL

        OP CPE   SECTION 2 OF 2
        {ILEN=d-a1-b1-c1|LCEN=d-e-f-g|LCKEN=d-e-g1-h1-i1} MAXTERM=h i j

        DNS/MLHGS AND USPIDS VALID ON THIS DSL:

        -DN/MLHG-   -------USPID------     -DN/MLHG-   -------USPID------

        d1                        e1|f1    d1                        e1|f1

       d1                        e1|f1   [d1                        e1|f1]

       d1                        e1|f1   [d1                        e1|f1]
       d1                        e1|f1   [d1                        e1|f1]

[4]   ____________________________________________________________________
      OP CPE   SECTION 1 OF 2

        {ILEN=d-a1-b1-c1|LCEN=d-e-f-g|LCKEN=d-e-g1-h1-i1} MAXTERM=h i j

        CHANNEL STATUS: D=k PPB1=l [PP]B2=l m

        -DN/MLHG- -------USPID------ TID TEI --TYPE-- STAT SGND PKTD SERVICE-TYPE
```

```
  n                          o p     q r-s/t    u    v    w    x
  .                          . .     . .        .    .    .    .
  .                          . .     . .        .    .    .    .
  .                          . .     . .        .    .    .    .

  OP CPE   SECTION 2 OF 2

  {ILEN=d-a1-b1-c1|LCEN=d-e-f-g|LCKEN=d-e-g1-h1-i1} MAXTERM=h i j
  DNS/MLHGS AND USPIDS VALID ON THIS DSL:

  -DN/MLHG-   -------USPID------     -DN/MLHG-   -------USPID------

  d1                           e1    d1                          e1
 d1                           e1   [d1                         e1]

 d1                           e1   [d1                         e1]

 d1                           e1   [d1                         e1]
```

[5]

```
OP CPE   SECTION 1 OF 2

  {ILEN=d-a1-b1-c1|LCEN=d-e-f-g|LCKEN=d-e-g1-h1-i1} MAXTERM=h i j
  CHANNEL STATUS: D=k PPB1=l [PP]B2=l m
  -DN/MLHG- -------USPID------ TID TEI --TYPE-- STAT SGND PKTD SERVICE-TYPE
  n                          z p     q r-s      u    v    w    x
  .                          . .     . .        .    .    .    .
  .                          . .     . .        .    .    .    .
  .                          . .     . .        .    .    .    .

OP CPE   SECTION 2 OF 2

  {ILEN=d-a1-b1-c1|LCEN=d-e-f-g|LCKEN=d-e-g1-h1-i1} MAXTERM=h i j

  DNS/MLHGS AND USPIDS VALID ON THIS DSL:
  -DN/MLHG-   -------USPID------     -DN/MLHG-   -------USPID------

  d1                           f1    d1                          f1

 d1                           f1   [d1                         f1]

 d1                           f1   [d1                         f1]
 d1                           f1   [d1                         f1]
```

2. REASON FOR OUTPUT

To report information describing the current configuration of the specified digital subscriber line (DSL), and to provide the terminal endpoint identifier (TEI) of current customer premises equipment (CPE). This message is in response to an OP:CPE input message.

Format 1 occurs when the input request is not successfully processed and identifies the specific failure reason.

Format 2 occurs when TEI is established on either a single point or a restricted multipoint DSL. Note that only one section is printed for these types of DSL.

Format 3 occurs when no TEIs are established on either a custom multipoint or a standard DSL.

Format 4 occurs when one or more TEIs have been established on a custom multipoint DSL.

Format 5 occurs similarly as format 4 but on standard interface only.

The output message is displayed in two sections for multipoint interfaces and standard interfaces. Section 1 shows the active user's data and section 2 shows the provisioned data [directory numbers (DNS)/multiline hunt groups (MLHGS) and users service profile identification (USPIDS) valid on this DSL]. Single point interface's and restricted multipoint interface's output message will not display SECTION 2, since they show only the active user's data. If the only service available on the DSL is default service [that is, there are no users assigned to this DSL in the office-dependent data (ODD)] and/or permanent packet B-channel (PPB) service, then SECTION 2 will not be displayed.

If a '$' character is printed anywhere in the DN/MLHG or USPID field, it means an untranslatable field was received and a teletypewriter (TTY) error message will follow.

The TEI information can be used during manually requested removals (RMV:CPE) or restorations (RST:CPE) of terminals connected to the DSL, as well as when performing digital loop back tests that terminate at the CPE (TST:DSL). The USPID information is provided for custom multipoint interface DSLs and standard interface DSLs to identify what USPIDs must be programmed into the CPE for it to receive subscriber service. The remaining information is provided to assist in determining causes of reported DSL problems.

The information provided by this message is similar in content to the information displayed on the trunk and line work station (TLWS) CPE TESTS and CPE USPIDS display page.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`NO TEI'S CURRENTLY ACTIVE ON DSL` = Currently, no CPE has established a (layer 2) TEI. Possible causes for this are:

- The DSL is out of service.
- There are no CPE connected to the DSL.
- The CPE that are connected to the DSL are not communicating with the network.
- The only device(s) connected to the DSL are PPB-only devices.

`PP` = Indicates that the associated B-channel is provisioned as a PPB. Packet B-channels are not used for circuit switched voice/data or on demand B-channel packet switching. For example, PPB1 implies that the B1 channel is provisioned for packet switching, while B1 indicates that it is not.

`USPID` = Users service profile identification. The USPID is used to uniquely identify a user. Fully initializing protocol CPE require that the SPID be programmed into the CPE to receive proper service on pure multipoint custom interface and standard interface DSLs. For a Custom user, the SPID consists of just the USPID. For a Standard DSL (FIP only) user, the SPID consists of USPID and the terminal identification (TID). However, the USPID and TID are displayed separately here. SPIDs are also used during automatic customer station rearrangement (ACSR) procedures to identify users moving their service. Refer to variable '`i`' for more details about the validity of USPID.

`a` = Circuit or packet directory number.

b = Multi-line hunt group number.

c = Multi-line hunt group member number.

d = Switching module (SM) number.

e = Integrated services line unit (ISLU/ISLU2) number.

f = Line group controller (LGC) number.

g = Line card (LC) number.

h = Maximum number of terminals that will be supported/administered on the DSL. If more than this number of terminals are connected to a custom multipoint interface or standard interface DSL, OP:CPE will not display them. For single-point DSLs, OP:CPE will display at most two TEIs (refer to the SINGLE POINT definition for variable 'i').

i = Type of digital subscriber line. Valid value(s):

MULTIPOINT = The line is a custom interface pure multipoint DSL. Any number of CPE can connect to the DSL (up to the 'maxterm' limit). Each CPE will receive the service identified by the USPID for fully initializing protocol (FIP) CPE, or the DN for non-initializing protocol (NIP) CPE. No more than one CPE (at any given time) can receive service associated with a valid USPID on a DSL.

The USPID that is displayed for a given TEI is the USPID sent in from a FIP CPE (or the USPID associated with the DN sent from a NIP CPE).

The DN/MLHG that is displayed for a given TEI is the DN sent in from a NIP CPE (or the DN/MLHG associated with the USPID sent from a FIP CPE).

If a FIP CPE sent in an invalid format USPID (such as, length of zero or greater than 10 digits, or non-digits), then a USPID of ?????????? is displayed.

If a NIP CPE sent in an invalid format calling DN (such as, length of less than 7 digits, or non-digits), then a DN/MLHG of ????????? is displayed.

For a CPE where USPID is unknown, ?????????? is displayed. For a CPE where DN/MLHG is unknown, ????????? is displayed.

RESTRICTED MPOINT = Restricted multipoint DSL (on custom interface only). Any number of CPE can connect to the DSL (up to the 'maxterm' limit). The first CPE connecting to the DSL will receive the service of the "active" user (if there is one) on the DSL (even if the USPID/DN provided by the CPE does not correspond to that active user). Subsequent CPE will receive default service if available, and will receive no service if default service is not available on the DSL. For an explanation of default service, refer to variable 'm'. Note that a restricted multipoint DSL with more than one CPE present should be a transient condition (such as when converting to a pure multipoint). The USPID and/or DN/MLHG are displayed for a given TEI. A basic initializing protocol (BIP) CPE receiving the service of the "active" user will display the USPID and DN/MLHG associated with that "active" user. For a FIP CPE, the USPID displayed is the USPID sent in from the CPE and the DN/MLHG displayed is ?????????. For a NIP CPE, the DN/MLHG displayed is the DN sent in from the CPE and the USPID displayed is ??????????. A basic protocol CPE receiving default service or a FIP CPE with an invalid format USPID will display a USPID of ?????????? and a DN/MLHG of ?????????.

SINGLE POINT = The line is a custom interface single-point DSL. Only one CPE can connect to

the DSL, and that CPE will receive the service associated with the "active" user for the DSL. Devices (CPE) which establish two TEIs (one for circuit switched services and a different TEI for packet switched services) are supported on single point DSLs. Any type of CPE (FIP, NIP, or basic protocol) is supported on a single point DSL. The USPID and DN/MLHG displayed for a TEI is the USPID and DN/MLHG associated with the "active" user.

`STANDARD` = The line is a standard interface DSL. Any number of CPE can connect to the DSL (up to the 'maxterm' limit). Each CPE will receive the service identified by the USPID for FIP CPE, or the DN for NIP CPE. No more than one CPE (at any given time) can receive service associated with a valid USPID on a DSL. Note that for FIP CPE, the SPID programmed into the CPE equals the USPID+TID. Refer to the USPID and TID.

The USPID that is displayed for a given TEI is the USPID sent in from a FIP CPE (or the USPID associated with the DN sent from a NIP CPE).

The DN/MLHG that is displayed for a given TEI is the DN sent in from a NIP CPE (or the DN/MLHG associated with the USPID sent from a FIP CPE).

If a FIP CPE sent in an invalid format USPID (such as, less than 3 digits or greater than 20 digits including the 2 digit TID, or non-digits), then a USPID of ??????????????????? and a TID of ?? is displayed.

If a NIP CPE sent in an invalid format calling DN (such as, length of less than 7 digits, or non-digits), then a DN/MLHG of ????????? is displayed.

For a CPE where USPID is unknown, ??????????????????? is displayed. For a CPE where DN/MLHG is unknown, ????????? is displayed.

`j` = Result (completion code) of the input request. Valid value(s):

`CMP UNAVAILABLE` = The input request could not be completed because a needed communication module (CM) was unable to respond. Retry the request later.

`STARTED` = The OP:CPE printing has started; SECTION 1 is being displayed. SECTION 2 follows.

`COMPLETED` = The OP:CPE request has completed; DSL related data is displayed.

`DATA BASE ERROR` = An internal error occurred while attempting to access the DSL data; repeat the request if desired.

`DSL BUSY` = The DSL remained busy.

`DSL OOS` = The DSL is out of service.

`INPUT ERROR` = Some data entered in the input request was invalid or incorrect. Verify the input and make the request again.

`INVALID DN` = The circuit or packet directory number entered was most likely invalid or incorrect.

`INVALID PORT` = The line could not be located in the data base. The line identifier used in the input request (DN, MLHG, LCEN, LCKEN and so forth) was most likely invalid or incorrect.

`MLHG ACCESS DN` = The DN entered is an access DN for the uniform call distribution (UCD), multi-position hunt (MUPH) multi-line hunt group, or linear hunt. This DN does not uniquely identify a line.

`MP ACCESS DN` = The directory number entered is a uniform call distribution multi-line hunt group line for modem pooling and as such cannot be used by specifying its DN. A line card equipment number or MLHG and member number must be specified. To obtain the line card equipment number and/or multi-line hunt group and member

number, use recent change/verify (RC/V) for the DN or refer to office records.

`NO DATA BASE MATCH` = Internal data base error: the desired tuple could not be found.

`NO PROCESS` = An attempt to create a process failed. Possible cause is a busy system. Retry the request later.

`NON-DSL/INVALID DSL TYPE` = The line is not a DSL or the type of DSL is incorrect. Only regular subscriber DSLs and attendant DSLs are valid; OSPS DSLs, data links, and so forth, are not.

`NOT PARTY EXIST` = The specified party does not exist on a DSL.

`NOT PRIMARY DN OR MLHG` = The DN or MLHG specified is for a key-system CPE and is not the primary DN for any key-system CPE. A primary DN is required to identify the specific CPE to be processed. Refer to RC/V or office records to determine the primary DNs or MLHG and member numbers.

`PROCESS TIMEOUT` = Internal time-out during processing; request aborted.

`SM UNAVAILABLE` = The input request could not be completed because a needed SM was unable to respond. Retry the request later.

`SYSTEM BUSY` = The system's processing capability limit was reached or a system resource was unavailable. Retry the request later.

`SYSTEM ERROR` = System error occurred making it impossible to continue processing request.

`UNASSIGNED PORT` = The request is invalid since the LCEN or LCKEN entered is for an equipped but unassigned line card.

`k` = Status of the D channel on DSL. Valid value(s):

`IS` = In-service.

`OOS` = Out-of-service. The specific OOS condition can be obtained using the OP:STATUS input message and that OOS condition is explained in the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual. Possible reasons that the DSL is OOS are:

- No CPE plugged into the DSL.
- Excessive protocol errors on the DSL.
- Manual maintenance action to explicitly remove the DSL.

`UNEQ` = Unequipped.

`l` = Status of the B-channel on DSL. Valid value(s):

`IS` = In service.

`OOS` = Out-of-service.

`UNEQ` = Unequipped.

`m` = Default service availability on this DSL. Valid value(s):

`DEFAULT AVAILABLE` = Default service is available on this DSL. CPE that do not identify themselves as a valid subscriber can still access ACSR, 911, 611, 811, 108 test line, BRIV (BRI verification) and BRITL (BRI test line) services. However, on a standard interface, if a default DN for circuit switched calls is also available on the interface (variable '`d`[1] with the `-D` option), the default DN will take precedence, and the CPE will be denied access to default service. The services provided by default service will be provided by the default DN.

`NO DEFAULT SERVICE` = Default service is not available on this DSL. CPE that do not identify themselves as a valid subscriber or do not access default DN service will not be able to receive dial tone or to make any type of call.

n = This field displays the user's primary DN (circuit DN if the user has circuit service. Otherwise, packet DN) or multi-line hunt group number and member number if the user is a MLHG member and does not have an individual DN. The DN will be printed in a seven digit format (such as, 2345678) and the MLHG will be printed in a group format (such as, 1234-5678). The DN/MLHG that is displayed for a given TEI is the DN/MLHG associated with that user. Refer to variable 'i' for more details about the validity of DN/MLHG.

o = Custom USPID. The Custom USPID can be 1 to 10 digits long. This field is right justified when printing.

p = Terminal identifier (TID) field that is required to construct the SPID for standard FIP CPEs. The range of values which are valid for the TID is 00 to 62. Values 63 to 99 will prevent the SPID from being treated as valid. If no SPID is received or an invalid format of SPID is received from a Standard FIP CPE, this field will display ??. For the custom interface and NIP CPE's on Standard interface, this field will be left as blank.

q = The TEI uniquely identifying each CPE on a DSL.

TEIs in the range 0-63 are "fixed TEI". CPE with fixed TEIs always establish the same TEI (unless the CPE is manually reprogrammed to change the TEI). If two or more CPE on the same DSL have the same fixed TEI value, the network will be unable to recognize the presence of both, the CPE will not function properly, and OP:CPE will only identify one CPE present (when more actually exist). Care should be taken to insure that two fixed TEI CPE on the same DSL do not use the same TEI value.

TEIs in the range 64-126 are automatic TEI. The TEI assigned to the CPE is negotiated between the CPE and the network when layer 2 is initialized for the CPE. Uniqueness of the TEI value assigned to each CPE is controlled by the network.

r = Protocol type that the CPE supports. Valid value(s):

- BIP = Non-identifying base-initializing protocol. All CPE on single-point DSLs will display as BIP protocol type (since the identifying aspects of the FIP and NIP protocols are ignored on single-point DSLs). BIP protocol CPE should not be used on a pure multipoint DSL, and protocol errors and/or anomalous behavior could result. On standard DSLs, BIP CPE can be used.
- FFP = Failed FIP (standard interface only). A FIP CPE that is not successfully initialized appears as FFP. The CPE may get service through the BIP, NIP, or TBD protocols.
- FIP = Fully-initializing protocol. This CPE type requires that a SPID be programmed into the CPE to allow the CPE to identify itself to the network. For Custom interface, the SPID can be 1 to 10 digits long. For Standard interface, the SPID can be 3 to 20 digits long including the 2 digit TID.
- NIP = Non-initializing protocol. This CPE type requires that a 7-digit DN be programmed into the CPE to allow the CPE to identify itself to the network for call originations and to be able to respond to terminating calls to that DN.
- TBD = The protocol needs to-be-determined (TBD). It is either NIP or BIP, but the CPE has not yet provided enough information for the type to be fully determined.

s = Type of CPE as recorded in ODD. Valid value(s):

- ? = Terminal type not specified. This may imply the CPE has subscribed to plain old digital service (PODS), which does not record the terminal type.
- A = Neither terminal management (TM) nor key system.
- B = TM system.
- C = Key system.

D = TM and key system.
E = Data only device.
P = Non-business/residential customer services.
T = Attendant.

t = Type of CPE as indicated by the CPE itself (custom interface only). Valid value(s):
? = The CPE did not provide this information when requested (or the DSL is single-point).
A = Neither terminal management (TM) nor key system.
B = TM system.
C = Key system.
D = TM and key system.

u = Service status of the CPE (STAT). Valid value(s):
IS = In service.
OOS = Out-of-service. Refer to RST:CPE if it is desired to restore the CPE to service.

v = Signaling link [service access profile identification (SAPI) 0] status for the CPE on D channel (SGND). Valid value(s):
IS = In service.
UNV = Unavailable. CPE which do not establish SAPI 0 will cause this condition.

w = The packet link (SAPI 16) status for the CPE on D channel (PKTD). Valid value(s):
IS = In service.
UNV = Unavailable. CPE which do not establish SAPI 16 (D-channel packet switching) will cause this condition.

x = Service type of the CPE (SERVICE-TYPE). Valid value(s):
DEFAULT = Default service. The CPE identifier (SPID/DN) was not recognized on this DSL, and have been given default service. From default service, access to automatic customer station rearrangement (ACSR), 911, 611, 811, BRIV (BRI verification), 108 test line and BRITL (BRI test line) services are provided. Default service is identified on originations by "stutter" dial tone. TEIs established by PPB devices for a PPB-only user may be identified as having default service without affecting the quality of the PPB service they receive.
SUBSCR-DFDN = Subscriber service on a default DN (standard interface only). The CPE did not identify itself with a valid DN or USPID and is receiving the service associated with the default DN (variable 'd[1] with the -D option) on this interface.
SUBSCR-FXTEI = Subscriber service on a fixed TEI DN (standard interface only). The CPE is receiving the service associated with the fixed TEI DN (variable 'd[1] with the -F option) on this interface.
SUBSCRIBER = Subscriber service. The CPE identifier (SPID/DN) has been received and the CPE is receiving the service associated with the USPID listed (for custom multipoint interface and standard interface DSL) or with the "active" user (for custom restricted multipoint interface and single-point DSL). Subscriber service is identified on originations by "normal" dial tone.
UNBND/DENIED = The CPE identifier (SPID/DN) has not yet been received or was received and was not valid on a DSL without default service. TEIs established by PPB devices for a PPB-only user may be identified as having unbound/denied service without

affecting the quality of the PPB service they receive.

z = Standard USPID. The Standard USPID can be 1 to 18 digits long. This field is right justified when printing.

a[1] = Integrated digital carrier unit (IDCU) number.

b[1] = Remote terminal (RT) number.

c[1] = RT line number.

d[1] = Displays the valid user's primary DN (circuit DN if the user has circuit service, otherwise, packet DN) or multi-line hunt group number and member number if the user is a MLHG member and does not have an individual DN. The DN will be printed in a seven digit format (such as, 2345678) and the MLHG will be printed in a group format (such as, 1234-5678). Valid DN suffixes are:

-D = Indicates this is a default DN.
-F = Indicates this is a fixed TEI DN.

e[1] = Displays the USPID that is valid on the custom multipoint interface. Up to 8 USPIDs can be administered onto a custom multipoint interface and each valid USPID is listed. Since USPIDs are not required to be programmed to receive service on single-point and restricted multipoint DSLs, the list of valid USPIDs are identified only for pure multipoint DSL. The Custom Interface USPID can be any combination of digits and between 1 and 10 digits long. This field is right justified when printing.

f[1] = Displays the USPID that is valid on the Standard Interface. Up to 8 USPIDs can be administered onto a Standard Interface and each valid USPID is listed. The Standard Interface USPID can be any combination of digits and between 1 and 18 digits long. This field is right justified when printing.

g[1] = Line group number.

h[1] = Line board number.

i[1] = Line circuit number.

4. ACTION TO BE TAKEN

The OP:CPE message is intended to provide manually requested information about the current state of the specified DSL. If the OP:CPE was requested as part of a corrective maintenance procedure, the following information should be useful to identify and correct the problem. Locate the off-normal condition in the list below, and follow the steps given with that condition to identify/resolve the problem.

Problem	Causes/Action
No TEIs exist on the DSL. Layer 2 has not been established by any CPE.	a Cause: The D and B channels are in some state other than IS or OOS BLOCKED AUTO. Action: Refer to the OP:STATUS recovery procedures. b Cause: No CPE are connected to the DSL, the wiring is faulty to the CPE, loop integrity may be bad, or the CPE are not functioning properly.
If 'x' is DEFAULT (for a given USPID/TEI, on custom interface only).	a Cause: The CPE has a misprogrammed USPID (custom multipoint interface DSL only). Action: Verify that the USPID that is programmed into the CPE ('o') appears in the list of valid USPIDs for the DSL in

	the ODD ('e[1]'). If it does not, the USPID in the CPE is incorrect and the user should reprogram the correct USPID into the CPE. b Cause: The CPE is a PPB terminal that establishes a TEI on the D-channel. Since the TEI is not required to provide PPB service, it is dependent on the PPB terminal type whether a TEI is established. A PPB channel exists if the channel status line of the OP:CPE message contains the optional PP for either the B1 or the B2 channels. Action: Verify that the PPB device's TEI being established does not prevent another CPE from receiving service. Some of the reasons that it may prevent service to another user are: 1 Exceeding maxterm (multipoint), 2 Having the PPB device being the first TEI established (single-point and restricted multipoint), 3 On a pure multipoint DSL having the USPID of another user erroneously programmed into the PPB device. c Cause: The CPE plugged into the DSL may be ready to perform or may be performing an ACSR transaction. Action: No recovery action is needed.
If 'x' is UNBND/DENIED (for a given USPID/TEI).	a Cause: The CPE has a misprogrammed USPID (Custom multipoint interface and standard interface DSL only). Action: Verify that the USPID that is programmed into the CPE ('o' for custom interface and 'z' for standard interface) appears in the list of valid USPIDs for the DSL in the ODD ('e[1]' or 'f[1]'). If it does not, the USPID in the CPE is incorrect and the user should reprogram the correct USPID into the CPE. Also note that, if the BRI type is standard and the CPE protocol is FIP, then a two digit TID (valid range, 00-62) should be programmed with the USPID. The switch will always assume the last two digits of the SPID received from a standard FIP CPE is TID. b Cause: The CPE is a PPB terminal that generates a TEI on the D-channel. A PPB channel exists if the channel status line of the OP:CPE message contains the optional PP for either the B1 or the B2 channels. Action: Verify that the PPB device's TEI being established does not prevent another CPE from receiving service. Reasons that it may prevent service to another user are: exceeding maxterm (custom multipoint interface or standard multi-user interface) or having the PPB device being the first TEI established (single-point and restricted multipoint). c Cause: The CPE plugged into the DSL may be a BIP terminal. Verify that field 'r' shows a protocol type of BIP or TBD. Action: Customer must plug proper CPE into the DSL. d Cause: The CPE plugged into the DSL is a NIP terminal that has not

	identified itself to the switch. Verify that the 'r' field shows a protocol type of TBD. Action: No recovery action is needed. e Cause: Two different CPE with the identical USPIDs programmed into each. Action: The CPE with the incorrect USPID should be reprogrammed.
CPE status is OOS.	a Cause: The CPE has been removed from service by the RMV:CPE input message or has been removed because of excessive protocol violations. Action: Refer to the RST:CPE input message.
SGND status is UNV.	a Cause: Voice services may not be provisioned for the user. Action: Check translations. b Cause: A data-only terminal (which does not establish a SAPI 0 logical link) may be plugged into the DSL. Verify that field 't' shows a value of '?' (for custom interface DSL only). Action: Verify that proper CPE is plugged into the DSL. c Cause: The CPE may have recently been unplugged from the DSL. If the TEI appears on OP:CPE again after waiting at least one minute, this is not the reason. d Cause: The CPE may not be plugged in properly, the wiring to the CPE may be faulty, the loop integrity may be bad, or the CPE may not be functioning properly.
PKTD status is UNV.	a Cause: Packet service may not be provisioned for the user. Action: Check translations. b Cause: A voice-only terminal (which does not establish a SAPI 16 logical link) may be plugged into the DSL. Action: Verify that proper CPE is plugged into the DSL. c Cause: The CPE may have recently been unplugged from the DSL. If the TEI appears on OP:CPE again after waiting at least one minute, this is not the reason. d Cause: The CPE may not be plugged in properly, the wiring to the CPE may be faulty, the loop integrity may be bad, or the CPE may not be functioning properly.
If 's' is [A, B, C, or D] and 't' is [A, B, C, or D] but does not match 's' (for custom interface DSL only).	a Cause: Term type in ODD does not match that of the CPE plugged into the DSL (exceptions: the combination s=A, t=C and s=B, t=D are valid). Action: Change translations or plug CPE of the proper term type into the DSL.
D or B1 or B2 channels are shown as OOS.	a Cause: CPE may not be plugged in or channels are OOS. Action: Refer to the OP:STATUS recovery procedures.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CPE
OP:STATUS
RMV:CPE
RMV:LINE
RST:CPE
RST:LINE
TST:DSL
```

Output Appendix(es):

```
APP:PORT-STATUS
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

9200 (TLWS CPE TESTS)

OP:CPE-B

Software Release: 5E12 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP CPE a j

[2]   ____________________________________________________________________
      OP CPE   SECTION 1 OF 1
        a MAXTERM=h i j
        CHANNEL STATUS: D=k PPB1=l [PP]B2=l m
        -DN/MLHG- -------USPID------ TID TEI --TYPE-- STAT SGND PKTD SERVICE-TYPE
        n                           o p     q r-s/t    u    v    w    x
        .                           . .     . .        .    .    .    .
        .                           . .     . .        .    .    .    .
        .                           . .     . .        .    .    .    .

[3]   ____________________________________________________________________
      OP CPE   SECTION 1 OF 2
        a MAXTERM=h i j
        CHANNEL STATUS: D=k PPB1=l [PP]B2=l m
        NO TEI'S CURRENTLY ACTIVE ON DSL
        OP CPE   SECTION 2 OF 2
        a MAXTERM=h i j
        DNS/MLHGS AND USPIDS VALID ON THIS DSL:
        -DN/MLHG-   -------USPID------     -DN/MLHG-   -------USPID------
        d1                         e1|f1    d1                        e1|f1

       d1                         e1|f1   [d1                        e1|f1]

       d1                         e1|f1   [d1                        e1|f1]

       d1                         e1|f1   [d1                        e1|f1]

[4]   ____________________________________________________________________
      OP CPE   SECTION 1 OF 2

        a MAXTERM=h i j

        CHANNEL STATUS: D=k PPB1=l [PP]B2=l m
        -DN/MLHG- -------USPID------ TID TEI --TYPE-- STAT SGND PKTD SERVICE-TYPE

        n                           o p     q r-s/t    u    v    w    x
        .                           . .     . .        .    .    .    .
        .                           . .     . .        .    .    .    .
        .                           . .     . .        .    .    .    .

        OP CPE   SECTION 2 OF 2
```

```
        a MAXTERM=h i j
        DNS/MLHGS AND USPIDS VALID ON THIS DSL:
        -DN/MLHG-   -------USPID------     -DN/MLHG-   -------USPID------

        d1                            e1    d1                            e1

1                           e1   [d1                            e1]

 d1                           e1   [d1                            e1]
 d1                           e1   [d1                            e1]

[5]   ____________________________________________________________________
      OP CPE   SECTION 1 OF 2

        a MAXTERM=h i j

        CHANNEL STATUS: D=k PPB1=l [PP]B2=l m
        -DN/MLHG- -------USPID------ TID TEI --TYPE-- STAT SGND PKTD SERVICE-TYPE
        n                           z p     q r-s      u    v    w    x
        .                           . .     . .        .    .    .    .
        .                           . .     . .        .    .    .    .
        .                           . .     . .        .    .    .    .
      OP CPE   SECTION 2 OF 2
        a MAXTERM=h i j
        DNS/MLHGS AND USPIDS VALID ON THIS DSL:
        -DN/MLHG-   -------USPID------     -DN/MLHG-   -------USPID------
        d1                            f1    d1                            f1
       d1                            f1   [d1                            f1]

       d1                            f1   [d1                            f1]

       d1                            f1   [d1                            f1]
```

2. REASON FOR OUTPUT

To report information describing the current configuration of the specified digital subscriber line (DSL), and to provide the terminal endpoint identifier (TEI) of current customer premises equipment (CPE). This message is in response to an OP:CPE input message.

Format 1 occurs when the input request is not successfully processed and identifies the specific failure reason.

Format 2 occurs when TEI is established on either a single point or a restricted multipoint DSL. Note that only one section is printed for these types of DSL.

Format 3 occurs when no TEIs are established on either a custom multipoint or a standard DSL.

Format 4 occurs when one or more TEIs have been established on a custom multipoint DSL.

Format 5 occurs similarly as format 4 but on standard interface only.

The output message is displayed in two sections for multipoint interfaces and standard interfaces. Section 1 shows the active user's data and section 2 shows the provisioned data [directory numbers (DNS)/multiline hunt groups (MLHGS) and users service profile identification (USPIDS) valid on this DSL]. Single point interface's and restricted multipoint interface's output message will not display SECTION 2, since they show only the active user's data. If the

only service available on the DSL is default service [that is, there are no users assigned to this DSL in the office-dependent data (ODD)] and/or permanent packet B-channel (PPB) service, then SECTION 2 will not be displayed.

If a '$' character is printed anywhere in the DN/MLHG or USPID field, it means an untranslatable field was received and a teletypewriter (TTY) error message will follow.

The TEI information can be used during manually requested removals (RMV:CPE) or restorations (RST:CPE) of terminals connected to the DSL, as well as when performing digital loop back tests that terminate at the CPE (TST:DSL). The USPID information is provided for custom multipoint interface DSLs and standard interface DSLs to identify what USPIDs must be programmed into the CPE for it to receive subscriber service. The remaining information is provided to assist in determining causes of reported DSL problems.

The information provided by this message is similar in content to the information displayed on the trunk and line work station (TLWS) CPE TESTS and CPE USPIDS display page.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`NO TEI'S CURRENTLY ACTIVE ON DSL` = Currently, no CPE has established a (layer 2) TEI. Possible causes for this are:

- The DSL is out of service.
- There are no CPE connected to the DSL.
- The CPE that are connected to the DSL are not communicating with the network.
- The only device(s) connected to the DSL are PPB-only devices.

`PP` = Indicates that the associated B-channel is provisioned as a PPB. Packet B-channels are not used for circuit switched voice/data or on demand B-channel packet switching. For example, PPB1 implies that the B1 channel is provisioned for packet switching, while B1 indicates that it is not.

`USPID` = Users service profile identification. The USPID is used to uniquely identify a user. Fully initializing protocol CPE require that the SPID be programmed into the CPE to receive proper service on pure multipoint custom interface and standard interface DSLs. For a Custom user, the SPID consists of just the USPID. For a Standard DSL (FIP only) user, the SPID consists of USPID and the terminal identification (TID). However, the USPID and TID are displayed separately here. SPIDs are also used during automatic customer station rearrangement (ACSR) procedures to identify users moving their service. Refer to variable '`i`' for more details about the validity of USPID.

`a` = Equipment number or identifier. Valid value(s):

$AIUEN=d\text{-}j^1\text{-}k^1\text{-}l^1$
$DN=m^1$
$ILEN=d\text{-}a^1\text{-}b^1\text{-}c^1$
$INEN=d\text{-}n^1\text{-}b^1\text{-}c^1$
$LCEN=d\text{-}e\text{-}f\text{-}g$
$LCKEN=d\text{-}e\text{-}g^1\text{-}h^1\text{-}i^1$
$MLHG=b\text{-}c$
$PKTDN=m^1$

`b` = Multi-line hunt group number.

`c` = Multi-line hunt group member number.

`d` = Switching module (SM) number.

`e` = Integrated services line unit (ISLU/ISLU2) number.

`f` = Line group controller (LGC) number.

`g` = Line card (LC) number.

`h` = Maximum number of terminals that will be supported/administered on the DSL. If more than this number of terminals are connected to a custom multipoint interface or standard interface DSL, OP:CPE will not display them. For single-point DSLs, OP:CPE will display at most two TEIs (refer to the `SINGLE POINT` definition for variable '`i`').

`i` = Type of digital subscriber line. Valid value(s):

`MULTIPOINT` = The line is a custom interface pure multipoint DSL. Any number of CPE can connect to the DSL (up to the 'maxterm' limit). Each CPE will receive the service identified by the USPID for fully initializing protocol (FIP) CPE, or the DN for non-initializing protocol (NIP) CPE. No more than one CPE (at any given time) can receive service associated with a valid USPID on a DSL.

The USPID that is displayed for a given TEI is the USPID sent in from a FIP CPE (or the USPID associated with the DN sent from a NIP CPE).

The DN/MLHG that is displayed for a given TEI is the DN sent in from a NIP CPE (or the DN/MLHG associated with the USPID sent from a FIP CPE).

If a FIP CPE sent in an invalid format USPID (such as, length of zero or greater than 10 digits, or non-digits), then a USPID of ?????????? is displayed.

If a NIP CPE sent in an invalid format calling DN then a DN/MLHG of ?????????? is displayed.

For a CPE where USPID is unknown, ?????????? is displayed. For a CPE where DN/MLHG is unknown, ?????????? is displayed.

`RESTRICTED MPOINT` = Restricted multipoint DSL (on custom interface only). Any number of CPE can connect to the DSL (up to the 'maxterm' limit). The first CPE connecting to the DSL will receive the service of the "active" user (if there is one) on the DSL (even if the USPID/DN provided by the CPE does not correspond to that active user). Subsequent CPE will receive default service if available, and will receive no service if default service is not available on the DSL. For an explanation of default service, refer to variable '`m`'. Note that a restricted multipoint DSL with more than one CPE present should be a transient condition (such as when converting to a pure multipoint). The USPID and/or DN/MLHG are displayed for a given TEI. A basic initializing protocol (BIP) CPE receiving the service of the "active" user will display the USPID and DN/MLHG associated with that "active" user. For a FIP CPE, the USPID displayed is the USPID sent in from the CPE and the DN/MLHG displayed is ??????????. For a NIP CPE, the DN/MLHG displayed is the DN sent in from the CPE and the USPID displayed is ??????????. A basic protocol CPE receiving default service or a FIP CPE with an invalid format USPID will display a USPID of ?????????? and a DN/MLHG of ??????????.

`SINGLE POINT` = The line is a custom interface single-point DSL. Only one CPE can connect to the DSL, and that CPE will receive the service associated with the "active" user for the DSL. Devices (CPE) which establish two TEIs (one for circuit switched services and a different TEI for packet switched services) are supported on single point

DSLs. Any type of CPE (FIP, NIP, or basic protocol) is supported on a single point DSL. The USPID and DN/MLHG displayed for a TEI is the USPID and DN/MLHG associated with the "active" user.

STANDARD = The line is a standard interface DSL. Any number of CPE can connect to the DSL (up to the 'maxterm' limit). Each CPE will receive the service identified by the USPID for FIP CPE, or the DN for NIP CPE. No more than one CPE (at any given time) can receive service associated with a valid USPID on a DSL. Note that for FIP CPE, the SPID programmed into the CPE equals the USPID+TID. Refer to the USPID and TID.

The USPID that is displayed for a given TEI is the USPID sent in from a FIP CPE (or the USPID associated with the DN sent from a NIP CPE).

The DN/MLHG that is displayed for a given TEI is the DN sent in from a NIP CPE (or the DN/MLHG associated with the USPID sent from a FIP CPE).

If a FIP CPE sent in an invalid format USPID (such as, less than 3 digits or greater than 20 digits including the 2 digit TID, or non-digits), then a USPID of ??????????????????? and a TID of ?? is displayed.

If a NIP CPE sent in an invalid format calling DN then a DN/MLHG of ?????????? is displayed.

For a CPE where USPID is unknown, ??????????????????? is displayed. For a CPE where DN/MLHG is unknown, ?????????? is displayed.

j = Result (completion code) of the input request. Valid value(s):

CMP UNAVAILABLE = The input request could not be completed because a needed communication module (CM) was unable to respond. Retry the request later.

STARTED = The OP:CPE printing has started; SECTION 1 is being displayed. SECTION 2 follows.

COMPLETED = The OP:CPE request has completed; DSL related data is displayed.

DATA BASE ERROR = An internal error occurred while attempting to access the DSL data; repeat the request if desired.

DSL BUSY = The DSL remained busy.

DSL OOS = The DSL is out of service.

INPUT ERROR = Some data entered in the input request was invalid or incorrect. Verify the input and make the request again.

INVALID DN = The circuit or packet directory number entered was most likely invalid or incorrect.

INVALID PORT = The line could not be located in the data base. The line identifier used in the input request (DN, MLHG, LCEN, LCKEN and so forth) was most likely invalid or incorrect.

MLHG ACCESS DN = The DN entered is an access DN for the uniform call distribution (UCD), multi-position hunt (MUPH) multi-line hunt group, or linear hunt. This DN does not uniquely identify a line.

MP ACCESS DN = The directory number entered is a uniform call distribution multi-line hunt group line for modem pooling and as such cannot be used by specifying its DN. A line card equipment number or MLHG and member number must be specified. To obtain the line card equipment number and/or multi-line hunt group and member number, use recent change/verify (RC/V) for the DN or refer to office records.

NO DATA BASE MATCH = Internal data base error: the desired tuple could not be found.

NO PROCESS = An attempt to create a process failed. Possible cause is a busy system. Retry the

request later.

NON-DSL/INVALID DSL TYPE = The line is not a DSL or the type of DSL is incorrect. Only regular subscriber DSLs and attendant DSLs are valid; OSPS DSLs, data links, and so forth, are not.

NON-UNIQUE NXX DN = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.

NOT PARTY EXIST = The specified party does not exist on a DSL.

NOT PRIMARY DN OR MLHG = The DN or MLHG specified is for a key-system CPE and is not the primary DN for any key-system CPE. A primary DN is required to identify the specific CPE to be processed. Refer to RC/V or office records to determine the primary DNs or MLHG and member numbers.

PROCESS TIMEOUT = Internal time-out during processing; request aborted.

SM UNAVAILABLE = The input request could not be completed because a needed SM was unable to respond. Retry the request later.

SYSTEM BUSY = The system's processing capability limit was reached or a system resource was unavailable. Retry the request later.

SYSTEM ERROR = System error occurred making it impossible to continue processing request.

UNASSIGNED PORT = The request is invalid since the LCEN or LCKEN entered is for an equipped but unassigned line card.

k = Status of the D channel on DSL. Valid value(s):

IS = In-service.

OOS = Out-of-service. The specific OOS condition can be obtained using the OP:STATUS input message and that OOS condition is explained in the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual. Possible reasons that the DSL is OOS are:

- No CPE plugged into the DSL.
- Excessive protocol errors on the DSL.
- Manual maintenance action to explicitly remove the DSL.

UNEQ = Unequipped.

l = Status of the B-channel on DSL. Valid value(s):

IS = In service.

OOS = Out-of-service.

UNEQ = Unequipped.

m = Default service availability on this DSL. Valid value(s):

DEFAULT AVAILABLE = Default service is available on this DSL. CPE that do not identify themselves as a valid subscriber can still access ACSR, 911, 611, 811, 108 test line, BRIV (BRI verification) and BRITL (BRI test line) services. However, on a standard interface, if a default DN for circuit switched calls is also available on the interface (variable 'd[1] with the -D option), the default DN will take precedence, and the CPE will be denied access to default service. The services provided by default service will be provided by the default DN.

NO DEFAULT SERVICE = Default service is not available on this DSL. CPE that do not identify themselves as a valid subscriber or do not access default DN service will not be able to receive dial tone or to make any type of call.

n = This field displays the user's primary DN (circuit DN if the user has circuit service. Otherwise,

packet DN) or multi-line hunt group number and member number if the user is a MLHG member and does not have an individual DN. The DN will be printed in a seven digit or 10 digit format, and the MLHG will be printed in a group format (such as, 1234-5678). The DN/MLHG that is displayed for a given TEI is the DN/MLHG associated with that user. Refer to variable '`i`' for more details about the validity of DN/MLHG.

`o` = Custom USPID. The Custom USPID can be 1 to 10 digits long. This field is right justified when printing.

`p` = Terminal identifier (TID) field that is required to construct the SPID for standard FIP CPEs. The range of values which are valid for the TID is 00 to 62. Values 63 to 99 will prevent the SPID from being treated as valid. If no SPID is received or an invalid format of SPID is received from a Standard FIP CPE, this field will display ??. For the custom interface and NIP CPE's on Standard interface, this field will be left as blank.

`q` = The TEI uniquely identifying each CPE on a DSL.

TEIs in the range 0-63 are "fixed TEI". CPE with fixed TEIs always establish the same TEI (unless the CPE is manually reprogrammed to change the TEI). If two or more CPE on the same DSL have the same fixed TEI value, the network will be unable to recognize the presence of both, the CPE will not function properly, and OP:CPE will only identify one CPE present (when more actually exist). Care should be taken to insure that two fixed TEI CPE on the same DSL do not use the same TEI value.

TEIs in the range 64-126 are automatic TEI. The TEI assigned to the CPE is negotiated between the CPE and the network when layer 2 is initialized for the CPE. Uniqueness of the TEI value assigned to each CPE is controlled by the network.

`r` = Protocol type that the CPE supports. Valid value(s):

- `BIP` = Non-identifying base-initializing protocol. All CPE on single-point DSLs will display as BIP protocol type (since the identifying aspects of the FIP and NIP protocols are ignored on single-point DSLs). BIP protocol CPE should not be used on a pure multipoint DSL, and protocol errors and/or anomalous behavior could result. On standard DSLs, BIP CPE can be used.
- `FFP` = Failed FIP (standard interface only). A FIP CPE that is not successfully initialized appears as FFP. The CPE may get service through the BIP, NIP, or TBD protocols.
- `FIP` = Fully-initializing protocol. This CPE type requires that a SPID be programmed into the CPE to allow the CPE to identify itself to the network. For Custom interface, the SPID can be 1 to 10 digits long. For Standard interface, the SPID can be 3 to 20 digits long including the 2 digit TID.
- `NIP` = Non-initializing protocol. This CPE type requires that a seven or ten digit digit DN be programmed into the CPE to allow the CPE to identify itself to the network for call originations and to be able to respond to terminating calls to that DN.
- `TBD` = The protocol needs to-be-determined (TBD). It is either NIP or BIP, but the CPE has not yet provided enough information for the type to be fully determined.

`s` = Type of CPE as recorded in ODD. Valid value(s):

- `?` = Terminal type not specified. This may imply the CPE has subscribed to plain old digital service (PODS), which does not record the terminal type.
- `A` = Neither terminal management (TM) nor key system.
- `B` = TM system.
- `C` = Key system.
- `D` = TM and key system.

E = Data only device.
P = Non-business/residential customer services.
T = Attendant.

t = Type of CPE as indicated by the CPE itself (custom interface only). Valid value(s):
? = The CPE did not provide this information when requested (or the DSL is single-point).
A = Neither terminal management (TM) nor key system.
B = TM system.
C = Key system.
D = TM and key system.

u = Service status of the CPE (STAT). Valid value(s):
IS = In service.
OOS = Out-of-service. Refer to RST:CPE if it is desired to restore the CPE to service.

v = Signaling link [service access profile identification (SAPI) 0] status for the CPE on D channel (SGND). Valid value(s):
IS = In service.
UNV = Unavailable. CPE which do not establish SAPI 0 will cause this condition.

w = The packet link (SAPI 16) status for the CPE on D channel (PKTD). Valid value(s):
IS = In service.
UNV = Unavailable. CPE which do not establish SAPI 16 (D-channel packet switching) will cause this condition.

x = Service type of the CPE (SERVICE-TYPE). Valid value(s):
DEFAULT = Default service. The CPE identifier (SPID/DN) was not recognized on this DSL, and have been given default service. From default service, access to automatic customer station rearrangement (ACSR), 911, 611, 811, BRIV (BRI verification), 108 test line and BRITL (BRI test line) services are provided. Default service is identified on originations by "stutter" dial tone. TEIs established by PPB devices for a PPB-only user may be identified as having default service without affecting the quality of the PPB service they receive.
SUBSCR-DFDN = Subscriber service on a default DN (standard interface only). The CPE did not identify itself with a valid DN or USPID and is receiving the service associated with the default DN (variable 'd[1] with the -D option) on this interface.
SUBSCR-FXTEI = Subscriber service on a fixed TEI DN (standard interface only). The CPE is receiving the service associated with the fixed TEI DN (variable 'd[1] with the -F option) on this interface.
SUBSCRIBER = Subscriber service. The CPE identifier (SPID/DN) has been received and the CPE is receiving the service associated with the USPID listed (for custom multipoint interface and standard interface DSL) or with the "active" user (for custom restricted multipoint interface and single-point DSL). Subscriber service is identified on originations by "normal" dial tone.
UNBND/DENIED = The CPE identifier (SPID/DN) has not yet been received or was received and was not valid on a DSL without default service. TEIs established by PPB devices for a PPB-only user may be identified as having unbound/denied service without affecting the quality of the PPB service they receive.

z = Standard USPID. The Standard USPID can be 1 to 18 digits long. This field is right justified when printing.

a[1] = Integrated digital carrier unit (IDCU) number.

b[1] = Remote terminal (RT) number.

c[1] = RT line number.

d[1] = Displays the valid user's primary DN (circuit DN if the user has circuit service, otherwise, packet DN) or multi-line hunt group number and member number if the user is a MLHG member and does not have an individual DN. The DN will be printed in a seven digit or ten digit format, and the MLHG will be printed in a group format (such as, 1234-5678). Valid DN suffixes are:

-D = Indicates this is a default DN.
-F = Indicates this is a fixed TEI DN.

e[1] = Displays the USPID that is valid on the custom multipoint interface. Up to 8 USPIDs can be administered onto a custom multipoint interface and each valid USPID is listed. Since USPIDs are not required to be programmed to receive service on single-point and restricted multipoint DSLs, the list of valid USPIDs are identified only for pure multipoint DSL. The Custom Interface USPID can be any combination of digits and between 1 and 10 digits long. This field is right justified when printing.

f[1] = Displays the USPID that is valid on the Standard Interface. Up to 8 USPIDs can be administered onto a Standard Interface and each valid USPID is listed. The Standard Interface USPID can be any combination of digits and between 1 and 18 digits long. This field is right justified when printing.

g[1] = Line group number.

h[1] = Line board number.

i[1] = Line circuit number.

j[1] = Access interface unit (AIU)

k[1] = AIU pack number.

l[1] = AIU circuit number.

m[1] = Circuit or packet directory number.

n[1] Digital network unit - synchronous optical network (SONET) (DNU-S) number.

4. ACTION TO BE TAKEN

The OP:CPE message is intended to provide manually requested information about the current state of the specified DSL. If the OP:CPE was requested as part of a corrective maintenance procedure, the following information should be useful to identify and correct the problem. Locate the off-normal condition in the list below, and follow the steps given with that condition to identify/resolve the problem.

Problem	Causes/Action
No TEIs exist on the DSL. Layer 2 has not been established by any CPE.	a Cause: The D and B channels are in some state other than IS or OOS BLOCKED AUTO.

	Action: Refer to the OP:STATUS recovery procedures. b Cause: No CPE are connected to the DSL, the wiring is faulty to the CPE, loop integrity may be bad, or the CPE are not functioning properly.
If 'x' is DEFAULT (for a given USPID/TEI, on custom interface only).	a Cause: The CPE has a misprogrammed USPID (custom multipoint interface DSL only). Action: Verify that the USPID that is programmed into the CPE ('o') appears in the list of valid USPIDs for the DSL in the ODD ('e^1'). If it does not, the USPID in the CPE is incorrect and the user should reprogram the correct USPID into the CPE. b Cause: The CPE is a PPB terminal that establishes a TEI on the D-channel. Since the TEI is not required to provide PPB service, it is dependent on the PPB terminal type whether a TEI is established. A PPB channel exists if the channel status line of the OP:CPE message contains the optional PP for either the B1 or the B2 channels. Action: Verify that the PPB device's TEI being established does not prevent another CPE from receiving service. Some of the reasons that it may prevent service to another user are: 1 Exceeding maxterm (multipoint), 2 Having the PPB device being the first TEI established (single-point and restricted multipoint), 3 On a pure multipoint DSL having the USPID of another user erroneously programmed into the PPB device. c Cause: The CPE plugged into the DSL may be ready to perform or may be performing an ACSR transaction. Action: No recovery action is needed.
If 'x' is UNBND/DENIED (for a given USPID/TEI).	a Cause: The CPE has a misprogrammed USPID (Custom multipoint interface and standard interface DSL only). Action: Verify that the USPID that is programmed into the CPE ('o' for custom interface and 'z' for standard interface) appears in the list of valid USPIDs for the DSL in the ODD ('e^1' or 'f^1'). If it does not, the USPID in the CPE is incorrect and the user should reprogram the correct USPID into the CPE. Also note that, if the BRI type is standard and the CPE protocol is FIP, then a two digit TID (valid range, 00-62) should be programmed with the USPID. The switch will always assume the last two digits of the SPID received from a standard FIP CPE is TID. b Cause: The CPE is a PPB terminal that generates a TEI on the D-channel. A PPB channel exists if the channel status line of the OP:CPE message contains the optional PP for either the B1 or the B2 channels. Action: Verify that the PPB device's TEI being established does not prevent another CPE from receiving service. Reasons that it may prevent service to another user are:

	exceeding maxterm (custom multipoint interface or standard multi-user interface) or having the PPB device being the first TEI established (single-point and restricted multipoint). c Cause: The CPE plugged into the DSL may be a BIP terminal. Verify that field 'r' shows a protocol type of BIP or TBD. Action: Customer must plug proper CPE into the DSL. d Cause: The CPE plugged into the DSL is a NIP terminal that has not identified itself to the switch. Verify that the 'r' field shows a protocol type of TBD. Action: No recovery action is needed. e Cause: Two different CPE with the identical USPIDs programmed into each. Action: The CPE with the incorrect USPID should be reprogrammed.
CPE status is OOS.	a Cause: The CPE has been removed from service by the RMV:CPE input message or has been removed because of excessive protocol violations. Action: Refer to the RST:CPE input message.
SGND status is UNV.	a Cause: Voice services may not be provisioned for the user. Action: Check translations. b Cause: A data-only terminal (which does not establish a SAPI 0 logical link) may be plugged into the DSL. Verify that field 't' shows a value of '?' (for custom interface DSL only). Action: Verify that proper CPE is plugged into the DSL. c Cause: The CPE may have recently been unplugged from the DSL. If the TEI appears on OP:CPE again after waiting at least one minute, this is not the reason. d Cause: The CPE may not be plugged in properly, the wiring to the CPE may be faulty, the loop integrity may be bad, or the CPE may not be functioning properly.
PKTD status is UNV.	a Cause: Packet service may not be provisioned for the user. Action: Check translations. b Cause: A voice-only terminal (which does not establish a SAPI 16 logical link) may be plugged into the DSL. Action: Verify that proper CPE is plugged into the DSL. c Cause: The CPE may have recently been unplugged from the DSL. If the TEI appears on OP:CPE again after waiting at least one minute, this is not the reason. d Cause: The CPE may not be plugged in properly, the wiring to the CPE may be faulty, the loop integrity may be bad, or the CPE may not be functioning properly.
If 's' is [A, B, C, or D] and 't' is [A, B, C, or D] but does not match 's' (for custom interface DSL only).	a Cause: Term type in ODD does not match that of the CPE plugged into the DSL (exceptions: the combination s=A, t=C and s=B, t=D are valid). Action: Change translations or plug CPE of the proper term type into the DSL.

D or B1 or B2 channels are shown as OOS.	a Cause: CPE may not be plugged in or channels are OOS. Action: Refer to the OP:STATUS recovery procedures.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CPE
OP:STATUS
RMV:CPE
RMV:LINE
RST:CPE
RST:LINE
TST:DSL
```

Output Appendix(es):

```
APP:PORT-STATUS
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

9200 (TLWS CPE TESTS)

46. OP:D

OP:DATALINK

Software Release: 5E10 and later
Message Class: TLWS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP DATALINK          DLGRPSTAT:{EISNORMAL|EISMINOR|EISMAJOR}
        EIS: c             SM_NO: b
        LINKNUM      RECOVLD       APPXUSAG        LNKSTATE
        d            e             f              {g|h}
        .            .             .               .
        .            .             .               .
        .            .             .               .

[2]   ____________________________________________________________________
      OP DATALINK CPDL{EIS=j-k|LCEN=l-m-n-o}[i]
```

2. REASON FOR OUTPUT

To report the current usage of an Operator Services Position System (OSPS) External Information System (EIS) data link or data link group in response to a usage (OP:DATALINK). If the group number (EIS identifier) and the switching module (SM) number are given in the OP:DATALINK input message, then the data link usage of all links in the specified group will be displayed.

Note: If a data link is in service, and the approximate usage is displayed as zero, the link capacity as calculated is less than one percent then.

3. VARIABLE FIELD DEFINITIONS

`DLGRPSTAT` = State of SM with respect to a datalink group. One of the values will be printed if the SM state (with respect to the data link group) is either major, minor, or normal.
`EIS` = External information system call processing data link (CPDL).
`LCEN` = Integrated services line card equipment number.
`LNKSTATE` = Primary status of the data link. This status is the most restrictive to call processing.
`b` = SM number.
`c` = The EIS number.
`d` = External data link member number.
`e` = Number of times within the last two-minute interval that the data link went into overload.
`f` = Percent of time during the last two-minute interval that the data link was in use.
`g` = In-service. The primary status of the data link is in-service (IS).
`h` = Out-of-service. The primary status of the data link is out-of-service (OOS).
`i` = The result of the data link usage query. Valid value(s):
- `CMPUNAVAILABLE` = The input request could not be completed because a needed communication module (CM) was unable to respond. Retry the request later.
- `COMPLETED` = The query has completed successfully. All data link usage is displayed.
- `INV PORT` = The data link specified in the input query was invalid.
- `INPUT ERROR` = The input message contained an undetermined error.
- `INV EIS ID` = A request was made to an EIS that is not currently assigned to the switch.
- `SM UNAVAILABLE` = The input request could not be completed because a needed switching module (SM) was unable to respond. Retry the request later.

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`SYSTEM BUSY` = The system was too busy or a system resource failure occurred. Repeat the request later.
`SYSTEM ERROR` = An internal error occurred which prevented further processing. The request has been aborted.

`j` = EIS number.
`k` = External data link member number.
`l` = SM number.
`m` = Line unit number.
`n` = Line group number.
`o` = Line card number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:DATALINK
```

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

OP:DCC

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP DCC a
  CODE    TRAFFIC    GAP   ANN
    b       c         d      e
    .       .         .      .
    .       .         .      .
    .       .         .      .
```

2. REASON FOR OUTPUT

To display status of all active destination code cancellation (DCC) controls for up to eight code controls per message. A maximum of eight messages can result since a maximum of 64 controls are allowed.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination report. Valid value(s):

`ABORTED`	= System error.
`COMPLETED`	= Last in a series of messages.
`CONTINUED`	= Middle of a series of messages.
`STARTED`	= First in a series of messages.

`b` = Destination code.

`c` = Type of traffic subjected to the control. Valid value(s):

`ALL`	= All levels of precedence.
`RTN`	= Only routine traffic is controlled.

`d` = Gap interval. Valid value(s):

`0`	= No control but collect measurements.
`1`	= 1.0 sec.
`2`	= 2.0 sec.
`5`	= 5.0 sec.
`10`	= 10.0 sec.
`15`	= 15.0 sec.
`30`	= 30.0 sec.
`60`	= 1.0 min.
`120`	= 2.0 min.
`300`	= 5.0 min.
`600`	= 10 min.
`INF`	= Infinity, block all but one call.
`PT1`	= 0.10 sec.
`PT25`	= 0.25 sec.
`PT5`	= 0.50 sec.

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`e` = Announcement (ANN) treatment if blocking occurs. Valid value(s):

- `EANN1` = Emergency announcement 1.
- `EANN2` = Emergency announcement 2.
- `ICA` = Isolated code announcement.
- `NCA` = No circuit announcement.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:DCC`

Other Manual(s):
235-100-125 *System Description*
235-900-113 *Product Specification*

MCC Display Page(s):

109 (OVERLOAD)
129 (DSN NM EXCEPTION)

OP:DCOFC

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP DCOFC a
   b
   .
   .
   .
```

2. REASON FOR OUTPUT

To display all offices that are directly connected to this office, for up to 16 offices per output message.

3. VARIABLE FIELD DEFINITIONS

a	= Termination report. Valid value(s):	
	ABORTED	= System error.
	COMPLETED	= Last in a series of messages.
	CONTINUED	= Middle of a series of messages.
	STARTED	= First in a series of messages.
b	= Office name.	

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

OP:DCOFC

Other Manual(s):
235-900-113 *Product Specification*

MCC Display Page(s):

109 (OVERLOAD)
129 (DSN NM EXCEPTION)

OP:DEBUG-A

Software Release: 5E12 - 5E13
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP DEBUG SM=a COMPLETED
  METALLIC    = b
  METPTRACE   = b
  METHWFAIL   = b
  METRESBLK   = b
  METSWBLK    = b
```

2. REASON FOR OUTPUT

To report the results of an OP:DEBUG input message.

Format 1 is for METALLIC, METPTRACE, METRESBLK, METSWBLK, and METHWFAIL SM only cases.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Debugging flag state. Valid value(s):

- `ALW` = Flag state is allowed, additional output message will be printed when failure of the category is encountered.
- `INH` = Flag state is inhibited, no additional output message will be printed.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:DEBUG
INH:DEBUG
OP:DEBUG
```

Output Message(s):

```
ALW:DEBUG
INH:DEBUG
```

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```
REPT:METALLIC
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

OP:DEBUG-B

Software Release: 5E14 and later
Message Class: MTCE\"MESSAGE CLASS
Application: 5
Type: Output

1. FORMAT

```
OP DEBUG SM=a COMPLETED
  METALLIC    = b
  METPTRACE   = b
  METHWFAIL   = b
  METRESBLK   = b
  METSWBLK    = b
  METSUCCESS  = b
```

2. REASON FOR OUTPUT

To report the results of an OP:DEBUG input message.

Format 1 is for METALLIC, METPTRACE, METRESBLK, METSWBLK, METHWFAIL, and METSUCCESS SM only cases.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Debugging flag state. Valid value(s):

- `ALW` = Flag state is allowed, additional output message will be printed when failure of the category is encountered.
- `INH` = Flag state is inhibited, no additional output message will be printed.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:DEBUG
INH:DEBUG
OP:DEBUG
```

Output Message(s):

```
ALW:DEBUG
INH:DEBUG
REPT:METALLIC
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

OP:DFC-INFO-A

Software Release: 5E10 - 5E12
Message Class: DSKUTL
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP DFC a INFO NOT STARTED b c

[2]   ____________________________________________________________________
      OP DFC a INFO STOPPED b c

[3]   ____________________________________________________________________
      OP DFC a INFO ERROR b c

[4]   ____________________________________________________________________
      OP DFC a INFO ABORTED b

[5]   ____________________________________________________________________
      OP DFC a INFO
        DFC a     STATUS: l
        FIRMWARE VERSION: d
        PUMPCODE VERSION: d
        NO DEVICES EQUIPPED

[6]   ____________________________________________________________________
      OP DFC a INFO
        DFC a     STATUS: l
        FIRMWARE VERSION: d
        PUMPCODE VERSION: d
        UNIT    DID PORT STATUS TRCKS  VTOC   USABLE RSVD ESNTL  MATE
        ------  --- ---- ------ ----- ------- ------ ---- ----- ------
          i      j   k     l      m     n       o      p    q     r
          .
          .
          .
               **** EQUIPAGE SIZE ****   SIZES
        UNIT     DRIVE    UCB    VTOC   COMPATIBLE
        ------  ------- ------- ------- ----------
          i       s        t       u        v
          .
          .
          .

[7]   ____________________________________________________________________
      OP DFC a INFO
        DFC a     STATUS: l
        FIRMWARE VERSION: d
        PUMPCODE VERSION: d
        SBUS w     SCSI HA BUS x       STATUS: l
        UNIT       DEVICE TYPE    DID STATUS  VTOC   USABLE RSVD ESNTL  MATE
        ------  ----------------- --- ------ ------- ------ ---- ----- ------
```

```
  i            b1        j    l      n      o     p     q     r
  .
  .
  .
         **** EQUIPAGE SIZE ****   SIZES
UNIT     DRIVE    UCB    VTOC   COMPATIBLE
------  ------- ------- ------- ----------
  i       s        t      u         v
  .
  .
  .
            PRODUCT       REV
UNIT     IDENTIFICATION  LEVEL    SERIAL NUMBER
------  ---------------- ----- -------------------
  i          y            a1            z
  .
  .
  .
```

[8]

```
OP DFC a INFO
  DFC a     STATUS: l
  FIRMWARE VERSION: d
  PUMPCODE VERSION: d
  SBUS w     SCSI HA BUS x       STATUS: l
  UNIT       DEVICE TYPE     DID STATUS  VTOC   USABLE RSVD ESNTL  MATE
  ------  ------------------ --- ------ ------- ------ ---- ----- ------
    i            b1          j    l      n      o     p     q     r
    .
    .
    .
         **** EQUIPAGE SIZE ****   SIZES
  UNIT     DRIVE    UCB    VTOC   COMPATIBLE
  ------  ------- ------- ------- ----------
    i       s        t      u         v
    .
    .
    .
            PRODUCT       REV
  UNIT     IDENTIFICATION  LEVEL    SERIAL NUMBER
  ------  ---------------- ----- -------------------
    i          y            a1           z
    .
    .
    .
  SBUS w     SCSI HA BUS x       STATUS: l
  UNIT       DEVICE TYPE     DID STATUS  VTOC   USABLE RSVD ESNTL  MATE
  ------  ------------------ --- ------ ------- ------ ---- ----- ------
    i            b1          j    l       n      o     p     q     r
    .
    .
    .
         **** EQUIPAGE SIZE ****   SIZES
```

```
UNIT     DRIVE    UCB    VTOC   COMPATIBLE
------  ------- ------- ------- ----------
  i       s        t      u         v
  .
  .
  .
            PRODUCT       REV
UNIT     IDENTIFICATION  LEVEL    SERIAL NUMBER
------  ---------------- ----- -------------------
  i           y            a1           z
  .
  .
  .
```

2. REASON FOR OUTPUT

To report the result of executing an OP:DFC-INFO input message.

Format 5 is output when all of the subunits of the disk file controller (DFC) are unequipped.

Format 6 outputs data for a storage module drive (SMD) DFC.

Format 7 outputs data for a small computer system interface (SCSI) DFC equipped with only one SCSI bus (SBUS).

Format 8 outputs data for an SCSI DFC equipped with more than one SBUS.

3. VARIABLE FIELD DEFINITIONS

a = DFC member number.

b = Process step or reason code. Valid value(s):

Code:	Explanation:
f01	Failed to enable message reception.
f03	Failed to open equipment configuration database (ECD)
f06	Failed to get unit control block (UCB) by name.
f09	Failed to get UCB of fSBUS.
f0c	Failed to get UCB of DFC.
f0e	Failed to get UCB of DFC.
f11	Failed to assign SDF name for DFC.
f14	Failed to open SDF for DFC.
f17	See disk driver (DKDRV) report on the ROP.
f1a	Failed to close special device file.
f1c	Failed to release special device file.
f1f	Failed to unreserve DFC UCB.
f23	Failed to get next UCB.
f26	Failed to assign SDF name for MHD.
f29	Failed to open SDF for MHD.
f2c	Failed to set I/O mode of device file.
f2f	MHD size not recognized.
f33	Refer to the DKDRV report on the ROP.
f36	Failed to close MHD SDF.
f37	Failed to release MHD SDF.
f38	Failed to unreserve MHD UCB.
f3e	Message to port failure.
f43	Message reception failure.
f46	Process timed out.
f49	Failed to close special device file.
f4c	Failed to release special device file.
f4f	Failed to unreserve UCB.
f53	Failed to close ECD.
f56	Terminated externally with signal.

c = System error code number. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

d = DFC firmware/pumpcode version in the form:

```
e.f.g - h
NAP          = The pumpcode version is not applicable for SMD DFCs.
NAV          = The firmware or pumpcode versions are not available or cannot be determined.
```

e = Version of DFC FIRMWARE/PUMPCODE.

f = Issue of DFC FIRMWARE/PUMPCODE.

g = Point issue of DFC FIRMWARE/PUMPCODE.

h = Laboratory design issue (LDI) of DFC FIRMWARE/PUMPCODE.

i = Unit name and member number.

j = Device ID (drive ID number).

k = Physical port where the SMD is connected to the DFC. Valid value(s):

```
NAV          = The DFC is not available, the DFC is reserved, or the SMD DFC
               firmware/pumpcode version is earlier than 3.2.0.
```

l = Major status of unit.

m = Number of tracks (in decimal) on the SMD disk drive. Valid value(s):

```
NAV          = DFC is unavailable, or the unit is reserved.
```

n = Validity of the volume table of contents (VTOC). Valid value(s):

```
INVALID      = Could not find a valid VTOC entry.
NAP          = Not valid for this device.
NAV          = Could not reserve unit - VTOC not read.
UNRDBLE      = Read error while trying to read VTOC.
VALID        = VTOC has a valid VTOC entry.
```

o = Usability. Valid value(s):

```
NAP          = Not applicable for this device.
NO           = Disk data integrity is unknown.
YES          = Disk is usable.
```

p = Unit reserved. Valid value(s):

```
NO           = Unit is not reserved.
YES          = Unit is reserved for maintenance activity.
```

q = Hexadecimal value of the essential field of the unit's unit control block (UCB).

```
NAP          = Not applicable for this device.
```

`r` = Name and number of duplex mate. Valid value(s):

`NAP`	= Not applicable for this device.
`SMPLX`	= Unit has no mate.

`s` = Equipage size based on the physical disk drive. For SCSI disks, the physical drive size is determined by reading the capacity of the disk from the disk drive itself. For SMD disks, the physical drive size is determined by reading the equipage value in the UCB record. Valid value(s):

`160MB`	= SMD disk drive.
`300MB`	= SMD disk drive.
`322MB`	= SCSI disk drive.
`340MB`	= SMD disk drive.
`600MB`	= SCSI disk drive.
`1000MB`	= SCSI disk drive.
`NAP`	= Not applicable for this device.
`NAV`	= The DFC is not active, the unit is reserved, or the SCSI device is inaccessible.

`t` = Equipage size based on the UCB equipage value. The drive size is determined by reading the equipage value in the UCB record for the unit. Valid value(s):

`160MB`	= SMD disk drive.
`300MB`	= SMD disk drive.
`322MB`	= SCSI disk drive.
`340MB`	= SMD disk drive.
`600MB`	= SCSI disk drive.
`1000MB`	= SCSI disk drive.
`NAP`	= Not applicable for this device.
`NAV`	= The DFC is not active or the unit is reserved.

`u` = Equipage size based on the VTOC. The drive size is determined from the maximum capacity of the unit's VTOC. Valid value(s):

`160MB`	= SMD disk drive.
`300MB`	= SMD disk drive.
`322MB`	= SCSI disk drive.
`340MB`	= SMD disk drive.
`600MB`	= SCSI disk drive.
`1000MB`	= SCSI disk drive.
`NAP`	= Not applicable for this device.
`NAV`	= The DFC is not active, the unit is reserved, or the unit is inaccessible.

`v` = Sizes compatible. Valid value(s):

`NAP`	= Not applicable for this device.
`NAV`	= At least one of the equipage sizes is not available.
`NO`	= DRIVE, UCB, and VTOC equipage sizes are not compatible.
`YES`	= DRIVE, UCB, and VTOC equipage sizes are compatible.

Equipage sizes are not compatible if the drive size is not equal to the UCB equipage size or if the drive size is smaller than the VTOC size.

Size comparisons are based on the formatted capacity of a disk drive. The formatted capacity of the *UNIX*® RTR-supported disk drives are as follows:

Drive	Formatted Capacity
160MB	133MB
300MB	253MB
322MB	322MB
340MB	277MB
600MB	604MB
1000MB	1000MB

`w` = Logical unit number of the SCSI bus that is stored in the SBUS's UCB.

`x` = Alphanumeric serial data representing the serial number of a SCSI device. Valid value(s):
- `NAP` = Not applicable for this device.
- `NAV` = The DFC or the SBUS is not active, or the unit is reserved, or the SCSI device is inaccessible.

`y` = Alphanumeric data representing the product identification of a SCSI device. Valid value(s):
- `NAP` = Not applicable for this device.
- `NAV` = The DFC or the SBUS is not active, or the unit is reserved, or the SCSI device is inaccessible.

`z` = SCSI host adapter (HA) bus identification number (0 or 1).

`a`[1] = Alphanumeric data representing the revision level of the firmware in a SCSI device. Valid value(s):
- `NAV` = The DFC or the SBUS is not active, or the unit is reserved, or the SCSI device is inaccessible.

`b`[1] = Device type.

4. ACTION TO BE TAKEN

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available, or became unavailable to perform the requested task. Clear the problem causing the resource limitation and try the request again.

A termination report specifying completion indicates all directives of the input request were done and no failures were encountered. If any unit of the associated DFC is reserved. However, certain fields will contain information that is not available. For more complete information, try the message again after the unit is released.

Format 5 results when all the subunits of the DFC are unequipped.

For Formats 6, 7, and 8, the drive equipage sizes are not compatible, verify the correctness of the UCB equipage value. If there is still an inconsistency, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):

1 - 4	153
5	152
6	150
7	570
8	571

Input Message(s):

```
OP:DFC-INFO
OP:MHD-INFO
OP:MT-INFO
```

Output Message(s):

```
OP:MHD-INFO
UPD:OMDB
```

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

OP:DFC-INFO-B

Software Release: 5E13 and later
Message Class: DSKUTL
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP DFC a INFO NOT STARTED b c

[2]   ____________________________________________________________________
      OP DFC a INFO STOPPED b c

[3]   ____________________________________________________________________
      OP DFC a INFO ERROR b c

[4]   ____________________________________________________________________
      OP DFC a INFO ABORTED b

[5]   ____________________________________________________________________
      OP DFC a INFO
        DFC a     STATUS: l
        FIRMWARE VERSION: d
        PUMPCODE VERSION: d
        NO DEVICES EQUIPPED

[6]   ____________________________________________________________________
      OP DFC a INFO
        DFC a     STATUS: l
        FIRMWARE VERSION: d
        PUMPCODE VERSION: d
        UNIT    DID PORT STATUS TRCKS  VTOC   USABLE RSVD ESNTL  MATE
        ------  --- ---- ------ ----- ------- ------ ---- ----- ------
          i      j   k     l      m     n       o      p    q     r
          .
          .
          .
               **** EQUIPAGE SIZE ****   SIZES
        UNIT     DRIVE    UCB    VTOC   COMPATIBLE
        ------  ------- ------- ------- ----------
          i       s        t       u        v
          .
          .
          .

[7]   ____________________________________________________________________
      OP DFC a INFO
        DFC a     STATUS: l
        FIRMWARE VERSION: d
        PUMPCODE VERSION: d
        SBUS w     SCSI HA BUS x       STATUS: l
        UNIT       DEVICE TYPE    DID STATUS  VTOC   USABLE RSVD ESNTL  MATE
        ------  ----------------- --- ------ ------- ------ ---- ----- ------
```

```
  i            b1        j    l      n      o     p     q     r
  .
  .
  .
         **** EQUIPAGE SIZE ****   SIZES
UNIT     DRIVE    UCB    VTOC   COMPATIBLE
------  ------- ------- ------- ----------
  i       s        t      u         v
  .
  .
  .
            PRODUCT       REV
UNIT     IDENTIFICATION  LEVEL    SERIAL NUMBER
------  ---------------- ----- -------------------
  i          y            a1            z
  .
  .
  .
```

[8]

```
OP DFC a INFO
  DFC a     STATUS: l
  FIRMWARE VERSION: d
  PUMPCODE VERSION: d
  SBUS w     SCSI HA BUS x       STATUS: l
  UNIT       DEVICE TYPE     DID STATUS  VTOC   USABLE RSVD ESNTL  MATE
  ------  ------------------ --- ------ ------- ------ ---- ----- ------
    i            b1          j    l      n      o     p     q     r
    .
    .
    .
         **** EQUIPAGE SIZE ****   SIZES
  UNIT     DRIVE    UCB    VTOC   COMPATIBLE
  ------  ------- ------- ------- ----------
    i       s        t      u         v
    .
    .
    .
            PRODUCT       REV
  UNIT     IDENTIFICATION  LEVEL    SERIAL NUMBER
  ------  ---------------- ----- -------------------
    i          y            a1           z
    .
    .
    .
  SBUS w     SCSI HA BUS x       STATUS: l
  UNIT       DEVICE TYPE     DID STATUS  VTOC   USABLE RSVD ESNTL  MATE
  ------  ------------------ --- ------ ------- ------ ---- ----- ------
    i            b1          j    l       n      o     p     q     r
    .
    .
    .
         **** EQUIPAGE SIZE ****   SIZES
```

```
UNIT     DRIVE    UCB    VTOC   COMPATIBLE
------  ------- ------- ------- ----------
  i       s        t      u         v
  .
  .
  .
            PRODUCT       REV
UNIT     IDENTIFICATION  LEVEL    SERIAL NUMBER
------  ---------------- ----- -------------------
  i           y            a1           z
  .
  .
  .
```

2. REASON FOR OUTPUT

To report the result of executing an OP:DFC-INFO input message.

Format 5 is output when all of the subunits of the disk file controller (DFC) are unequipped.

Format 6 outputs data for a storage module drive (SMD) DFC.

Format 7 outputs data for a small computer system interface (SCSI) DFC equipped with only one SCSI bus (SBUS).

Format 8 outputs data for an SCSI DFC equipped with more than one SBUS.

3. VARIABLE FIELD DEFINITIONS

a = DFC member number.

b = Process step or reason code. Valid value(s):

Code:	Explanation:
f01	Failed to enable message reception.
f03	Failed to open equipment configuration database (ECD)
f06	Failed to get unit control block (UCB) by name.
f09	Failed to get UCB of fSBUS.
f0c	Failed to get UCB of DFC.
f0e	Failed to get UCB of DFC.
f11	Failed to assign SDF name for DFC.
f14	Failed to open SDF for DFC.
f17	See disk driver (DKDRV) report on the ROP.
f1a	Failed to close special device file.
f1c	Failed to release special device file.
f1f	Failed to unreserve DFC UCB.
f23	Failed to get next UCB.
f26	Failed to assign SDF name for MHD.
f29	Failed to open SDF for MHD.
f2c	Failed to set I/O mode of device file.
f2f	MHD size not recognized.
f33	Refer to the DKDRV report on the ROP.
f36	Failed to close MHD SDF.
f37	Failed to release MHD SDF.
f38	Failed to unreserve MHD UCB.
f3e	Message to port failure.
f43	Message reception failure.
f46	Process timed out.
f49	Failed to close special device file.
f4c	Failed to release special device file.
f4f	Failed to unreserve UCB.
f53	Failed to close ECD.
f56	Terminated externally with signal.

c = System error code number. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

d = DFC firmware/pumpcode version in the form:

```
e.f.g - h
NAP          = The pumpcode version is not applicable for SMD DFCs.
NAV          = The firmware or pumpcode versions are not available or cannot be determined.
```

e = Version of DFC FIRMWARE/PUMPCODE.

f = Issue of DFC FIRMWARE/PUMPCODE.

g = Point issue of DFC FIRMWARE/PUMPCODE.

h = Laboratory design issue (LDI) of DFC FIRMWARE/PUMPCODE.

i = Unit name and member number.

j = Device ID (drive ID number).

k = Physical port where the SMD is connected to the DFC. Valid value(s):

```
NAV          = The DFC is not available, the DFC is reserved, or the SMD DFC
               firmware/pumpcode version is earlier than 3.2.0.
```

l = Major status of unit.

m = Number of tracks (in decimal) on the SMD disk drive. Valid value(s):

```
NAV          = DFC is unavailable, or the unit is reserved.
```

n = Validity of the volume table of contents (VTOC). Valid value(s):

```
INVALID      = Could not find a valid VTOC entry.
NAP          = Not valid for this device.
NAV          = Could not reserve unit - VTOC not read.
UNRDBLE      = Read error while trying to read VTOC.
VALID        = VTOC has a valid VTOC entry.
```

o = Usability. Valid value(s):

```
NAP          = Not applicable for this device.
NO           = Disk data integrity is unknown.
YES          = Disk is usable.
```

p = Unit reserved. Valid value(s):

```
NO           = Unit is not reserved.
YES          = Unit is reserved for maintenance activity.
```

q = Hexadecimal value of the essential field of the unit's unit control block (UCB).

```
NAP          = Not applicable for this device.
```

`r` = Name and number of duplex mate. Valid value(s):

`NAP`	= Not applicable for this device.
`SMPLX`	= Unit has no mate.

`s` = Equipage size based on the physical disk drive. For SCSI disks, the physical drive size is determined by reading the capacity of the disk from the disk drive itself. For SMD disks, the physical drive size is determined by reading the equipage value in the UCB record. Valid value(s):

`160MB`	= SMD disk drive.
`300MB`	= SMD disk drive.
`322MB`	= SCSI disk drive.
`340MB`	= SMD disk drive.
`600MB`	= SCSI disk drive.
`1000MB`	= SCSI disk drive.
`2000MB`	= SCSI disk drive.
`NAP`	= Not applicable for this device.
`NAV`	= The DFC is not active, the unit is reserved, or the SCSI device is inaccessible.

`t` = Equipage size based on the UCB equipage value. The drive size is determined by reading the equipage value in the UCB record for the unit. Valid value(s):

`160MB`	= SMD disk drive.
`300MB`	= SMD disk drive.
`322MB`	= SCSI disk drive.
`340MB`	= SMD disk drive.
`600MB`	= SCSI disk drive.
`1000MB`	= SCSI disk drive.
`2000MB`	= SCSI disk drive.
`NAP`	= Not applicable for this device.
`NAV`	= The DFC is not active or the unit is reserved.

`u` = Equipage size based on the VTOC. The drive size is determined from the maximum capacity of the unit's VTOC. Valid value(s):

`160MB`	= SMD disk drive.
`300MB`	= SMD disk drive.
`322MB`	= SCSI disk drive.
`340MB`	= SMD disk drive.
`600MB`	= SCSI disk drive.
`1000MB`	= SCSI disk drive.
`2000MB`	= SCSI disk drive.
`NAP`	= Not applicable for this device.
`NAV`	= The DFC is not active, the unit is reserved, or the unit is inaccessible.

`v` = Sizes compatible. Valid value(s):

`NAP`	= Not applicable for this device.
`NAV`	= At least one of the equipage sizes is not available.
`NO`	= DRIVE, UCB, and VTOC equipage sizes are not compatible.
`YES`	= DRIVE, UCB, and VTOC equipage sizes are compatible.

Equipage sizes are not compatible if the drive size is not equal to the UCB equipage size or if the

drive size is smaller than the VTOC size.

Size comparisons are based on the formatted capacity of a disk drive. The formatted capacity of the *UNIX*® RTR-supported disk drives are as follows:

Drive	Formatted Capacity
160MB	133MB
300MB	253MB
322MB	322MB
340MB	277MB
600MB	604MB
1000MB	1000MB
2000MB	2000MB

`w` = Logical unit number of the SCSI bus that is stored in the SBUS's UCB.

`x` = Alphanumeric serial data representing the serial number of a SCSI device. Valid value(s):
- `NAP` = Not applicable for this device.
- `NAV` = The DFC or the SBUS is not active, or the unit is reserved, or the SCSI device is inaccessible.

`y` = Alphanumeric data representing the product identification of a SCSI device. Valid value(s):
- `NAP` = Not applicable for this device.
- `NAV` = The DFC or the SBUS is not active, or the unit is reserved, or the SCSI device is inaccessible.

`z` = SCSI host adapter (HA) bus identification number (0 or 1).

`a`[1] = Alphanumeric data representing the revision level of the firmware in a SCSI device. Valid value(s):
- `NAV` = The DFC or the SBUS is not active, or the unit is reserved, or the SCSI device is inaccessible.

`b`[1] = Device type.

4. ACTION TO BE TAKEN

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available, or became unavailable to perform the requested task. Clear the problem causing the resource limitation and try the request again.

A termination report specifying completion indicates all directives of the input request were done and no failures were encountered. If any unit of the associated DFC is reserved. However, certain fields will contain information that is not available. For more complete information, try the message again after the unit is released.

Format 5 results when all the subunits of the DFC are unequipped.

For Formats 6, 7, and 8, the drive equipage sizes are not compatible, verify the correctness of the UCB equipage value. If there is still an inconsistency, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1 - 4	153
5	152
6	150
7	570
8	571

Input Message(s):

```
OP:DFC-INFO
OP:MHD-INFO
OP:MT-INFO
```

Output Message(s):

```
OP:MHD-INFO
UPD:OMDB
```

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

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OP:DFCELOG

Software Release: 5E10 and later
Message Class:
Application: 5,3B
Type: Output

1. FORMAT

[1]
```
OP DFCELOG CAN NOT OPEN LOGFILE a
```

[2]
```
OP DFCELOG CAN NOT ATTACH TO ECD
```

[3]
```
OP DFCELOG CAN NOT OPEN ECD
```

[4]
```
OP DFCELOG CAN NOT GET UCB BY NAME
```

[5]
```
OP DFCELOG CAN NOT GET NEXT UCB
```

[6]
```
OP DFCELOG CAN NOT GET SBUS UCB
```

[7]
```
OP DFCELOG ID PLUG DOES NOT MATCH a
```

[8]
```
OP DFCELOG ID SWITCH DOES NOT MATCH a
```

[9]
```
OP DFCELOG CORRUPTED LOGFILE - MISSING DOLLAR SIGN 1 a
```

[10]
```
OP DFCELOG CORRUPTED LOGFILE - MISSING DOLLAR SIGN 2 a
```

[11]
```
OP DFCELOG CORRUPTED LOGFILE - MISSING DOLLAR SIGN 3 a
```

[12]
```
OP DFCELOG CORRUPTED LOGFILE - MSG SIZE FIELD IS NOT NUMERIC a
```

[13]
```
OP DFCELOG CORRUPTED LOGFILE - INVALID MESSAGE SIZE a
```

[14]
```
OP DFCELOG CORRUPTED LOGFILE - DATE FIELD IS NOT NUMERIC a
```

[15]
```
OP DFCELOG CORRUPTED LOGFILE - TIME FIELD IS NOT NUMERIC a
```

[16]
```
OP DFCELOG INVALID DFC NUMBER a
```

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[17] _____
OP DFCELOG NEW LINE AND TAB IS EXPECTED a

[18] _____
OP DFCELOG INVALID ID PLUG NUMBER a

[19] _____
OP DFCELOG INVALID ID SWITCH NUMBER a

[20] _____
OP DFCELOG STARTED

[21] _____
OP DFCELOG IN PROGRESS MHD b SEGMENT c
d
AAAA - Data flags.
BBBB - Drive table status word 0.
CCCC - Drive table status word 1.
DDDD - Id plug number.
EEEE - Completion codes.
FFFF - Enhanced codes.
GGGG - Disk status register.
HHHH - Starting cylinder of current job.
IIII - Starting head of current job.
JJJJ - Starting sector of current job.
KKKK - Number of sectors in current job.
LLLL - Current cylinder.
MMMM - Current head.
NNNN - Current sector.

[22] _____
OP DFCELOG IN PROGRESS MHD b SEGMENT c
d
AAAAAAAA - Command completion word
BBBBBBBB - MHD status word
C.CC.CC - CCCC - Firmware version
D.DD.DD - DDDD - Pumpcode version
EEEE - Enhanced completion code
FF - SCSI job block status byte
GG - Firmware/Driver communication register
HHHHHHHH - Host adapter status register
IIIIIIII - BIC status register
JJJJJJJJ - Routine exerciser failure block number
KKKKKKKK - Failed word 1
KKKKKKKK - Failed word 2
KKKKKKKK - Failed word 3
KKKKKKKK - Failed word 4
LLLLLLLL - Extended sense data 1
LLLLLLLL - Extended sense data 2
LLLLLLLL - Extended sense data 3
LLLLLLLL - Extended sense data 4

[23] _____
OP DFCELOG COMPLETED

2. REASON FOR OUTPUT

Formats 2 - 6 report that an equipment configuration database (ECD) database call failed.

Format 7 reports that the SMD moving head disk (MHD) ID plug number does not match with the ID plug number in the ECD records.

Format 8 reports that the SCSI MHD ID switch number does not match with the ID switch number in the ECD records.

Formats 9 - 15 report that the user control string (UCS) portion of the DFCELOG entry is corrupted.

Formats 16 - 19 report that the text portion of the DFCELOG entry is corrupted.

Formats 20 - 23 report and format the enhanced information report (EIR) entries in the disk driver logfile. Refer to the REPT:DFCE and REPT:DFCI output messages for the displayed codes.

Format 21 is for storage module drive (SMD) disk file controller (DFC) reports.

Format 22 is for small computer system interface (SCSI) DFC reports.

3. VARIABLE FIELD DEFINITIONS

`A` = Command completion word in the form: `eeffghii`.

`C` = Firmware version in the form: `j.kk.ll - mmmm`.

`D` = Pumpcode version in the form: `n.oo.pp - q`.

If the SCSI DFC is running without pumpcode, the pumpcode version has the following format:

`FFFFFFFF`

`a` = Name of the disk driver logfile.

`b` = MHD number.

`c` = Number of the segment being generated.

`d` = Time stamp.

`e` = Completion code. Refer to the APP:DFC-B appendix, tables 1 and 2, in the Appendixes section of the Output Messages manual.

`f` = Number of blocks read on short failure of read message.

`g` = Device ID number.

`h` = Autonomous completion code. Refer to the APP:DFC-B appendix, in the Appendixes section of the Output Messages manual.

`i` = Job ID number.

`j` = Version of DFC firmware.

`k` = Issue of DFC firmware.

`l`	= Point issue of DFC firmware.
`m`	= Laboratory design issue (LDI).
`n`	Version of DFC pumpcode.
`o`	= Issue of DFC pumpcode.
`p`	= Point issue of DFC pumpcode.
`q`	= LDI.

4. ACTION TO BE TAKEN

If Format 1 is printed, check to see if the logfile exists under /etc/log.

The contents of the corrupted logfile must be SAVED on paper and/or tape for later reference. The corrupted logfile should be removed by using the CLR:FSYS-FILE input message, and terminate the spooler output process (SOP) for the logfile.

Note: Depending on the severity of the corruption, the message may or may not continue processing.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:FSYS-FILE
OP:DFCELOG
```

Output Message(s):

```
REPT:DFCE
REPT:DFCI
```

Output Appendix(es):

```
APP:DFC-B
```

OP:DFIMAP-FAC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

2. REASON FOR OUTPUT

This file was created for the newest release. Additional information will be included as it is made available.

3. VARIABLE FIELD DEFINITIONS

4. ACTION TO BE TAKEN

5. ALARMS

6. REFERENCES

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OP:DMQ

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
OP DMQ
  REQUEST ACTIVE
      [DIAGNOSTIC EXECUTION SUSPENDED DURING RECOVERY]
  a       b c   d
  SOURCE = e         PRIORITY = f
  STATUS = g
  REQUEST WAITING
  a       b c   d
  SOURCE = e         PRIORITY = f
  STATUS = g
    INHIBIT SOURCES
        h
OP DMQ COMPLETED
```

2. REASON FOR OUTPUT

To report the status of the maintenance input request administrator (MIRA) request queue in response to the OP:DMQ input message.

If the statement DIAGNOSTIC EXECUTION SUSPENDED DURING RECOVERY appears under REQUEST ACTING, a previous initialization has suspended all diagnostic requests. (Refer to the ALW:DMQ input message.)

3. VARIABLE FIELD DEFINITIONS

a = Task number assigned to the request by MIRA. This is the TASK number used in the STP:DMQ input message.

b = Request type. Valid value(s):
DGN
DMQ
RST
RMV

c = Requested unit (for example, CU 0 CC 0).

d = Request parameters. The request parameters indicate the beginning and ending phase numbers requested. If no phase numbers were specified in the input message, beginning phase (BPH) is shown as 1 and ending phase (EPH) is shown as 100.

e = Request source. Valid value(s):

ADP	= Automatic diagnostic process.
ARR	= Automatic ring recovery.
MAN	= Manual.
PSM	= Power switch monitor.
REX	= Routine exerciser.

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`f` = Request priority.

`g` = Request status. Valid value(s):
`ABORTING`
`ACTIVE`
`EMPTY`
`WAITING`

`h` = Source identification of the inhibited requests.

4. ACTION TO BE TAKEN

Issue STP:DMQ input message to remove any unwanted requests from the queue. Issue the appropriate maintenance request message (DGN, DMQ, RMV, RST) to add a desired request to the queue.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

Input Message(s):

```
ALW:DMQ
INH:DMQ
INH:RMV
OP:DMQ
STP:DMQ
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

OP:DMQ-CM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP DMQ CM a RECORD
        ACTION        UNIT        OPTION        SOURCE        STATUS
        b             c          [d]            e             f
        .             .           .             .             .
        .             .           .             .             .
        .             .           .             .             .

[2]   ____________________________________________________________________
      OP DMQ CM HAS NO REQUESTS ON THE DMQ
```

2. REASON FOR OUTPUT

To respond to the OP:DMQ-CM-SM input message to list all requests for communication module (CM) units on the deferred maintenance queue (DMQ).

Format 1 is the standard output message format when requests for CM units are on the DMQ.

Format 2 is the output message format when there are no requests for CM units on the DMQ.

3. VARIABLE FIELD DEFINITIONS

a = Text identifier showing order of DMQ record. Valid value(s):
- FIRST = First record of continuing list.
- LAST = Last record of list.
- NEXT = Next record of continuing list.

b = Action requested. Valid value(s):
- ALW = Allow.
- CLR = Clear.
- DGN = Diagnose.
- DUMP = Dump.
- EX = Exercise.
- INH = Inhibit.
- RMV = Remove.
- RST = Restore.
- SET = Set.
- ST = Start.
- SW = Switch.

c = Unit identification.

d = Options requested. Valid value(s):
- CDL = Conditional.

DEGROW	= Degrow.
FRC	= Force.
ISOL	= Isolation.
NOSEP	= No separation.
OPUMP	= Off-line pump.
PWRALM	= Power alarm.
PWROFF	= Power off.
PWRON	= Power on.
QLPS	= Isolation from quad-link packet switch (QLPS) network.
REMAP	= Remap.
UCL	= Unconditional.

e = Source of the request. Valid value(s):

AUDIT	= Audits.
AUTO	= Automatic (fault recovery).
DGN	= Diagnostics.
MAN	= Manual.
REX	= Routine exercise.
UTIL	= Generic utilities.

f = Status of request. Valid value(s):

RUNNING	= Request is running.
WAITING	= Request is waiting to be run.

4. ACTION TO BE TAKEN

The purpose of this message is to report the result of the action requested by the corresponding manually requested input message. No specific action is indicated.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

OP:DMQ-CM-SM

Other Manual(s):
235-105-220 *Corrective Maintenance*

OP:DMQ-SM

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

[1]
```
OP DMQ SM a b RECORD
  ACTION UNIT SOURCE STATUS QUEUE PID UNIQ
     c    d      e     f      g    h    i
     .    .      .     .      .    .    .
     .    .      .     .      .    .    .
     .    .      .     .      .    .    .
```

[2]
```
OP DMQ SM a HAS NO REQUESTS ON THE DMQ
```

2. REASON FOR OUTPUT

To respond to the OP:DMQ-CM-SM input message to list all requests in a switching module (SM) on the deferred maintenance queue (DMQ).

Format 1 is the standard output message format when SM requests are on the deferred maintenance queue.

Format 2 is the output message format when there are no SM requests on the deferred maintenance queue.

3. VARIABLE FIELD DEFINITIONS

a = SM number.

b = Text identifier showing order of DMQ record. Valid value(s):
- FIRST = First record of continuing list.
- LAST = Last record of list.
- NEXT = Next record of continuing list.

c = Action. Valid value(s):
- ALW = Allow.
- DGN = Diagnose.
- EX = Exercise.
- INH = Inhibit.
- RMV = Remove.
- RST = Restore.
- SET = Set.
- SW = Switch.
- TST = Test.

d = Circuit name.

e = Source of request. Valid value(s):
- AUTO = Automatic.

	MAN	= Manual.
	REX	= Routine exercise.
f	= State of the request. Valid value(s):	
	PENDING	= in the queue and waiting for a process.
	RUNNING	= associated with a process.
	TESTING	= executing a diagnostic.
	WAITING	= waiting for a blocking condition to clear.
g	= Queue the reqest is on. Valid value(s):	
	AUTOQ	= MRA diagnostics queue
	FURQ	= Fast Unit Reconfiguration queue
	FURSP	= FUR system process
	FURTP	= FUR terminal process
	ICEWAIT	= ICE process waiting list
	HIGHPQ	= MRA High Priority recovery queue
	LOWPQ	= MRA Low Priority recovery queue
	MRASP	= MRA system process
	MRATP	= MRA master terminal process
h	= process identification number	
i	= uniqueness field	

4. ACTION TO BE TAKEN

The purpose of this message is to report the result of the action requested by the corresponding manually requested input message. No specific action is indicated.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:DMQ-CM-SM
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

OP:DOC

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

[1]
```
OP DOC a
  DOC TRANSMIT b
  DOC TRANSMITTED FOR TOTAL OFFICE c
  TG    MC    INH    RESP    CNTL
  d     e      f      g        h
  .     .      .      .        .
  .     .      .      .        .
  .     .      .      .        .
```

[2]
```
OP DOC a
```

2. REASON FOR OUTPUT

To display the status of the dynamic overload controls (DOCs).

This message is in response to the OP:DOC message. Format 1 displays the termination status of `STARTED`, `CONTINUED`, or `COMPLETED`. Format 2 displays the termination status of `ABORTED` or `FAILED`.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination status. Valid value(s):
- `ABORTED` = Retry input message.
- `COMPLETED` = Last in a series of messages.
- `CONTINUED` = Next in a series of messages.
- `FAILED` = Invalid parameter.
- `STARTED` = First in a series of messages.

`b` = DOC transmit state. Valid value(s):
- `ALLOWED` = DOC allowed for the office.
- `INHIBITED` = DOC inhibited for the office.

`c` = Highest machine congestion level (overload severity) being transmitted. Valid value(s):
- `0` = No DOC.
- `1` = Machine congestion level 1.
- `2` = Machine congestion level 2.
- `3` = Machine congestion level 3.

`d` = Trunk group number.

`e` = Highest machine congestion level received. Valid value(s):
- `1` = Machine congestion level 1.

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2 = Machine congestion level 2.
3 = Machine congestion level 3.

f = Receive response inhibited. Valid value(s):
N = No.
Y = Yes.

g = DOC control response category. This depends on the machine congestion level and the traffic type to give the proper percentage in the response category.

DOC Response Category							
DOC LEVEL RECEIVED	TRAFFIC TYPE	RESPONSE CATEGORY					
		A	B	C	D	E	F
DOC1	Alternate route	0%	0%	75%	0%	0%	100%
	Direct route	0%	0%	50%	0%	0%	0%
DOC2	Alternate route	0%	0%	75%	100%	100%	100%
	Direct route	0%	0%	75%	0%	75%	75%
DOC3	All traffic	100%	100%	100%	100%	100%	100%

h = Control. Valid value(s):
CANT = Automatic cancel-to control.
SKIP = Automatic skip control.

4. ACTION TO BE TAKEN

If 'a' =	Action:
ABORTED	Retry the input message.
FAILED	This message is a failure because of an input parameter error.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

OP:DOC

Other Manual(s):
235-105-120 *CCS7 Signaling Services*

MCC Display Page(s):

130 (NM EXCEPTION)

OP:DR

Software Release: 5E10 and later
Message Class: XTRFM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP DR          SECTION 1:  STATUS
        TIME a
        REPORT TYPE     DR STATUS       HOURLY REPORT STATUS
        b               c               d
        PEG COUNT OPTION     USAGE COUNT OPTION
        e                    f

[2]   ____________________________________________________________________
      OP DR          SECTION 2:  VALIDITY
        TIME a
        PROC     DATLOS     SCN10     SCN100
        g        h          i         j

[3]   ____________________________________________________________________
      OP DR          SECTION 3:  CELL GROUPINGS
        TIME a
        CELLGRP         PEG             USAGE
        k               l               m
```

2. REASON FOR OUTPUT

To respond to an automatically generated hourly or daily plant report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared by the measurement subsystem (hours: minutes: seconds).

b = Report type. Valid value(s):
DAILY
HOURLY

c = Division of revenue (DR) status. Valid value(s):
OFF
ON

d = Hourly report status. This field is valid only when DR status is ON.
OFF
ON

e = Peg count status. For the daily report, this field is in effect only when DR status is ON. For the hourly report, this field is in effect only when DR status is ON and the hourly report status is ON. Valid value(s):
OFF

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ON

f = Usage count status. For the daily report, this field is in effect only when DR status is ON. For the hourly report, this field is in effect only when DR status is ON and the hourly report status is ON. Valid value(s):
OFF
ON

g = Processor number.

h = Validity of data. Valid value(s):
INVALID = Data is invalid for this reporting interval.
VALID = Data is valid for this reporting interval.

i = Number of 10-second scans in the reporting interval. This count is not used and will report a zero to the traffic channel and a -6 to the Engineering and Administrative Data Acquisition System (EADAS).

j = Number of 100-second scans in the reporting interval. This count is not used in the AM and will report a zero to the traffic channel for that processor and a -6 to EADAS.

k = Incoming separation class (INSEP)/destination separation class (DESEP) cell grouping number. Cell group zero is the default cell group (DCG). Any call receiving an invalid INSEP/DESEP pairing will peg this cell group.

l = Number of calls for the cell grouping category during the previous reporting interval.

m = Total usage over all reporting switch maintenance (SMs) for the cell grouping category during the previous reporting interval.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:DSNDR

Software Release: 5E10 and later
Message Class: XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP DSNDR     SECTION 4: DSN CELL GROUPINGS
  TIME aa:aa:aa
  CELLGRP            PRECEDENCE-PEG
  b                  c
```

2. REASON FOR OUTPUT

To respond to an automatically generated defense switch network (DSN) division of revenue (DOR) hourly or daily plant report (of Section 4).

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared (hours:minute:seconds).

b = Incoming separation class (INSEP)/destination separation class (DESEP) cell grouping number.

c = Number of precedence calls above routine (peg counts) for the cell grouping category during the previous reporting interval.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:DSNM5-ARC

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP DSNM5 PKG ARC a
  ARC MEASUREMENTS
  OFFICE       CANT    CANF    ANN    ATTEMPTS   BLOCKS   SKIPS
    b            c       d      e       f (f)     g (g)    h (h)
    .            .       .      .        .         .        .
    .            .       .      .        .         .        .
    .            .       .      .        .         .        .
```

2. REASON FOR OUTPUT

To display alternate route cancellation (ARC) control five-minute (M5) surveillance measurements package (PKG); for up to eight ARC controls per message. A maximum of eight messages can result since a maximum of 64 controls are allowed.

3. VARIABLE FIELD DEFINITIONS

a = Termination status. Valid value(s):

ABORTED	= System error.
COMPLETED	= Last in a series of messages.
CONTINUED	= Middle of a series of messages.
STARTED	= First in a series of messages.

b = Office name.

c = Type of traffic subjected to the cancel to (CANT) control. Valid value(s):

ALL	= All levels of precedence, for example, flash override, override, immediate, priority, and routine.
RTN	= Routine traffic.
–	= Control inactive.

d = Type of traffic subjected to the cancel from (CANF) control. Valid value(s):

ALL	= All levels of precedence, for example, flash override, override, immediate, priority, and routine.
RTN	= Routine traffic.
–	= Control inactive.

e = Announcement (ANN) treatment if blocking occurs for routine calls. Valid value(s):

EANN1	= Emergency announcement 1.
EANN2	= Emergency announcement 2.
NCA	= No circuit announcement.
–	= If CANF control is inactive.
Note:	The CANT control does not require an announcement, only CANF uses an announcement.

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Note: Variables '`f`', '`g`', and '`h`' contain two pieces of data, the items in parentheses represent counts pegged for traffic above routine level. The items not in parentheses represent counts pegged for traffic of all levels of precedence.

`f` = Number of attempts to this office.

`g` = Number of calls blocked after attempts to route using this office failed.

`h` = Number of calls skipped due to ARC through the specified office.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:DSNM5
```

Other Manual(s):
235-900-113 *Product Specification*

MCC Display Page(s):

109 (OVERLOAD)
129 (DSN EXCEPTION)

OP:DSNM5-CLCT

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP DSNM5 PKG CLCT a
  DSN NETWORK MANAGEMENT CONTROL COUNTS
  CONTROL       SKIPPED     CANCELED
  ARC            b (b)        c (c)
  DCC            -  -         d (d)
```

2. REASON FOR OUTPUT

To display the defense switched network (DSN) control count (CLCT) five-minute (M5) surveillance package (PKG) in response to the input message OP:DSNM5.

3. VARIABLE FIELD DEFINITIONS

a = Termination status of completed.

b = Number of times a trunk group was skipped during hunting due to an alternate route cancellation control (ARC).

Note: Measurements in this message have two pieces of data. The items in parentheses represent counts pegged for traffic above the routine level. The items not enclosed by the parentheses represent counts pegged for traffic of all levels of precedence.

c = Number of canceled calls due to an ARC.

d = Number of canceled calls due to a destination code cancellation control (DCC).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

OP:DSNM5

Other Manual(s):
235-900-113 *Product Specification*

MCC Display Page(s):

109 (OVERLOAD)
129 (DSN EXCEPTION)

OP:DSNM5-CLDIR

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP DSNM5 PKG CLDIR a
  CALL DIRECTION MEASUREMENTS
  ORIG=b (b)          INC=c (c)
  OUTG=d (d)          LOCAL-TERM=e (e)
  INTRA-TERM=f (f)    TANDEM=g (g)
```

2. REASON FOR OUTPUT

To display a defense switched network (DSN) call direction (CLDIR) package (PKG) from the five-minute (M5) surveillance data in response to input message OP:DSNM5.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination status. Valid value(s):
`ABORTED` = Message aborted. System error occurred.
`COMPLETED` = Message successfully completed.

Note: All measurements in this message have two pieces of data. The items in parentheses represent counts for traffic above the routine level. The items not in parentheses represent counts for traffic of all levels of precedence.

`b` = Total line seizures each resulting in at least one digit to the system.

`c` = Total trunk seizures each resulting in at least one digit to the system.

`d` = Total number of calls intended to complete on outgoing trunks.

`e` = Total number of calls terminating on lines in the office.

`f` = Total number of originating calls destined to complete on lines in the office (INTRA-TERM).

`g` = Total number of originating calls destined to complete on trunks in the office (TANDEM).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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OP:DSNM5

Other Manual(s):
235-100-125 *System Description*
235-900-113 *Product Specification*

MCC Display Page(s):

109 (OVERLOAD)
129 (DSN EXCEPTION)

OP:DSNM5-DCC

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP DSNM5 PKG DCC a
  DCC MEASUREMENTS
  CODE TRAFFIC   GAP   ANN   ATTEMPTS  BLOCKS
   b     c        d     e       f (f)   g (g)
   :     :        :     :        :        :
```

2. REASON FOR OUTPUT

To display destination code cancellation (DCC) control five-minute (M5) surveillance measurements package (PKG); for up to eight code controls per message. A maximum of eight messages can result since a maximum of 64 controls are allowed.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination status. Valid value(s):

`ABORTED`	= System error.
`COMPLETED`	= Last in a series of messages.
`CONTINUED`	= Middle of a series of messages.
`STARTED`	= First in a series of messages.

`b` = Destination code.

`c` = Type of traffic subjected to the control. Valid value(s):

`ALL`	= All level of precedence.
`RTN`	= Routine traffic.

`d` = Gap interval. Valid value(s):

`0`	= No control but collect measurements.
`1`	= 1.0 sec.
`2`	= 2.0 sec.
`5`	= 5.0 sec.
`10`	= 10.0 sec.
`15`	= 15.0 sec.
`30`	= 30.0 sec.
`60`	= 1.0 min.
`120`	= 2.0 min.
`300`	= 5.0 min.
`600`	= 10.0 min.
`INF`	= Infinity, block all calls.
`PT1`	= 0.10 sec.
`PT5`	= 0.50 sec.
`PT25`	= 0.25 sec.

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`e` = Announcement (ANN) treatment if blocking occurs. Valid value(s):

`EANN1`	= Emergency announcement 1.
`EANN2`	= Emergency announcement 2.
`ICA`	= Isolated code announcement.
`NCA`	= No circuit announcement.

Note: Variables '`f`' and '`g`' contain two pieces of data. The parenthetic items represent counts pegged for traffic above routine level. The items not enclosed by the parentheses represent counts pegged for traffic of all levels of precedence.

`f` = Number of attempts to this code.

`g` = Number of calls blocked because of the control.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:DSNM5
```

Other Manual(s):
235-100-125 *System Description*
235-900-113 *Product Specification*

MCC Display Page(s):

129 (DSN EXCEPTION)
109 (OVERLOAD)

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OP:DSNM5-TGMEAS

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP DSNM5 PKG TGMEAS a
  DSN BASIC TRUNK GROUP MEASUREMENTS
                                                PREEMPTION
  TG  OUTG   OVFL  INC    USG  MUSG  INC  OUT  FAIL
   b  c (c)   d    e (e)  f    g     h    i     j
   .   .      .     .     .    .     .    .     .
   .   .      .     .     .    .     .    .     .
   .   .      .     .     .    .     .    .     .
```

2. REASON FOR OUTPUT

To display a defense switched network (DSN) basic trunk group package (PKG) from the five-minute (M5) surveillance data for up to 6 trunk groups per message. This message is in response to the OP:DSNM5 input message. A maximum of 42 messages can result to accommodate up to 250 trunk groups.

3. VARIABLE FIELD DEFINITIONS

a = Termination report. Valid value(s):
- ABORTED = System error.
- COMPLETED = Last in a series of messages.
- CONTINUED = Middle of a series of messages.
- STARTED = First in a series of messages.

b = Trunk group number.

Note: Variables 'c' and 'e' in this message have to pieces of data. The items in parentheses represent counts pegged for traffic above routine level. The items not in parentheses represent counts pegged for traffic of all levels of precedence.

c = Number of outgoing (OUTG) attempts.

d = Number of overflow (OVFL) counts.

e = Incoming (INC) attempts.

f = Total usage (USG) in 100 seconds.

g = Maintenance usage in 100 seconds.

h = Number of incoming preemption.

i = Number of outgoing preemption.

j = Number of preemptive search failure.

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4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:DSNM5
```

Other Manual(s):
235-100-125 *System Description*
235-900-113 *Product Specification*

MCC Display Page(s):

109 (OVERLOAD)
129 (DSN EXCEPTION)

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OP:DSNNM

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP DSNNM a b
```

2. REASON FOR OUTPUT

To print a failure or no data response to the OP:ARC, OP:DCC, or OP:DCOFC input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Operation requested. Valid value(s):
- `ARC` = Alternate route cancellation.
- `DCC` = Destination code cancellation.
- `DCO` = Directly connected office.

`b` = Termination status. Valid value(s):
- `ABORTED` = System error.
- `FAILED` = Invalid parameter.
- `NO DATA` = No data.

4. ACTION TO BE TAKEN

If 'b' =	Action:
ABORTED	Retry the input message.
FAILED	This message is a failure because of an input parameter error.
NO DATA	This message indicates that no data exists.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:ARC
OP:DCC
OP:DCOFC
```

Other Manual(s):
235-100-125 *System Description*
235-900-113 *Product Specification*

MCC Display Page(s):

109 (OVERLOAD)
129 (DSN EXCEPTION)

OP:DSNPAGE

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP DSNPAGE
  DSN NM EXCEPTION PAGE
  ------------------------------------------------
  ACTIVE MANUAL CONTROLS
  DCC-ROUTINE     a
  DCC-ALL         b
  ARC-ROUTINE     c
  ARC-ALL         d
  ------------------------------------------------
  OPERATION               |       DELAYED READINESS
  MC1             e       |       LINES   i
  MC2             f       |       TRUNKS  j
  RSM             g       |
  ESP             h       |
  ------------------------------------------------
```

2. REASON FOR OUTPUT

To print a copy of the current Master Control Center (MCC) defense switched network (DSN) network management (NM) exception page.

3. VARIABLE FIELD DEFINITIONS

`a-j` = Status. Valid value(s):
- `NO` = No alerting condition exists.
- `YES` = An alerting condition exists.

4. ACTION TO BE TAKEN

None. This message is the result of an OP:NMPGE input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:NMPGE`

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-900-113 *Product Specifications*

MCC Display Page(s):

109 (OVERLOAD)
129 (DSN EXCEPTION)

OP:DSNPKG-A

Software Release: 5E10 - 5E11
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP DSNPKG a
  DSN 5-MIN PACKAGE ASSIGNMENTS
  PACKAGE
      b       c
      .       .
      .       .
      .       .
```

2. REASON FOR OUTPUT

To print, in response to input message OP:M5PKG, a list of defense switched network (DSN) package (PKG) assignments on the five-minute (M5) surveillance data.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination report. Valid value(s):

`ABORTED`	= System error.
`COMPLETED`	= Command successfully completed.

`b` = Package identification. Valid value(s):

`ARC`	= Alternate route cancellation control.
`CLCT`	= Network management control count.
`CLDIR`	= Call direction.
`DCC`	= Destination code cancellation control.
`DLYR`	= Delayed readiness.
`IMA`	= Additional ineffective machine attempts.
`MLNC`	= Failure to match and no circuit.
`OVRLD`	= Overload or congestion control.
`SVC`	= Critical service circuit.
`TGMEAS`	= Basic trunk group measurements.

`c` = Status. Valid value(s):

`N`	= The package is not being collected.
`Y`	= The package is being collected.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
OP:M5PKG
```

Other Manual(s):
235-100-125 *System Description*
235-900-113 *Product Specification*

MCC Display Page(s):

109 (OVERLOAD)
129 (DSN EXCEPTION)

OP:DSNPKG-B

Software Release: 5E12 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP DSNPKG a
  DSN 5-MIN PACKAGE ASSIGNMENTS
  PACKAGE
      b       c
      .       .
      .       .
      .       .
```

2. REASON FOR OUTPUT

To print, in response to input message OP:M5PKG, a list of defense switched network (DSN) package (PKG) assignments on the five-minute (M5) surveillance data.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination report. Valid value(s):

`ABORTED`	= System error.
`COMPLETED`	= Command successfully completed.

`b` = Package identification. Valid value(s):

`ARC`	= Alternate route cancellation control.
`CLCT`	= Network management control count.
`CLDIR`	= Call direction.
`DCC`	= Destination code cancellation control.
`DLYR`	= Delayed readiness.
`IMA`	= Additional ineffective machine attempts.
`OVRLD`	= Overload or congestion control.
`RRC`	= Manual reroute trunk group controls.
`SVC`	= Critical service circuit.
`TGFLAG`	= Trunk group flags.
`TGMEAS`	= Basic trunk group measurements.

`c` = Status. Valid value(s):

`N`	= The package is not being collected.
`Y`	= The package is being collected.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

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None.

6. REFERENCES

Input Message(s):

```
OP:M5PKG
```

Other Manual(s):
235-100-125 *System Description*
235-900-113 *Product Specification*

MCC Display Page(s):

109 (OVERLOAD)
129 (DSN EXCEPTION)

47. OP:E

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OP:ECDAUD

Software Release: 5E10 and later
Message Class: AUDIT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP ECDAUD COMPLETED - AUDIT a
        b
        c

[2]   ____________________________________________________________________
      OP ECDAUD ABORTED - SYSTEM ERROR d
```

2. REASON FOR OUTPUT

To report the termination status of the OP:ECDAUD input message.

Format 1 indicates successful execution. No action is necessary.

Format 2 indicates that an internal error has occurred. Refer to variable '`d`' for more information.

3. VARIABLE FIELD DEFINITIONS

`a` = INH/ALLOW status. Valid value(s):
`ALLOWED`
`INHIBITED`

`b` = Text line consisting of specific audit status. Valid value(s):
`AUDIT IS RUNNING, CHECKS COMPLETE = e`
`AUDIT IS NOT RUNNING, LAST RUN ON f`

`c` = Text line consisting of scheduling information. Valid value(s):
`AUDIT SCHEDULED MONTHLY ON g`

`AUDIT SCHEDULED WEEKLY ON h`

`d` = System error number. Valid value(s):

`1`	= Cannot open audit rule file - /lla/ECDAUD/ecdaud.rules.
`2`	= Cannot attach to ECD database.
`3`	= Unable to kill running audit, check PID in /lla/ECDAUD/.ecdaud.pid.
`4`	= Bad rule in rule file (/lla/ECDAUD/ecdaud.rules).
`5`	= Unable to audit data (/lla/ECDAUD/ecdaud.rules).
`6`	= Failure in reading ECD database.
`7`	= Cannot open audit rule file - /lla/ECDAUD/hwchk.rules.
`8`	= Failed to obtain current status.
`9`	= Internal system error.
`10`	= Database partition greater than 80% full, remove unused files.

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`e` = Number of checks.

`f` = The date of last execution.

`g` = The day/time the audit will execute.

`h` = The day/time the audit will execute.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual request of the OP:ECDAUD input message. No further action is necessary.

5. ALARMS

Minor if system error encountered.

6. REFERENCES

Input Message(s):

```
EXC:ECDAUD
STOP:ECDAUD
INH:ECDAUD
ALW:ECDAUD
OP:ECDAUD
SCHED:ECDAUD
```

Other Manual(s):
235-100-125 *System Description*
235-105-210 *Routine Operations and Maintenance Procedures*

OP:EMERSTAT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

[1]
```
OP EMERSTAT COMPLETED
  EMERGENCY DUMP PARTITION IS EMPTY
```

[2]
```
OP EMERSTAT COMPLETED
  EMERGENCY DUMP PARTITION IS FULL
  TIME OF EMERGENCY DUMP: a b c d e
  BOOT DEVICE LOADED = f
  g BYTES OF MAIN MEMORY WERE DUMPED
  FROM THE FOLLOWING SEGMENTS:
      ADDRESS     LENGTH
    X'hhhhhhhhX'iiiiiiii
```

[3]
```
OP EMERSTAT COMPLETED
 {FOPEN|FREAD|FSEEK|REWIND} OF PANIC DUMP PARTITION FAILED: ERRNO = j
```

[4]
```
OP EMERSTAT COMPLETED
  PDMPFULL FLAG IN LOW CORE IS NOT SET
  TIME OF LAST DUMP: k
```

2. REASON FOR OUTPUT

To report the status of the emergency dump partition in response to an OP:EMERSTAT input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Day of the week.

`b` = Month of the year.

`c` = Day of the month.

`d` = Time of day.

`e` = Year.

`f` = Unit number of the disk the dump was written on. Valid value(s):
- `0` = MHD 0.
- `1` = MHD 1.
- Note: If a disk restoration has been performed, the data reside on both disks.

`g` = Total number of bytes written into the emergency dump partition on MHD '`f`'.

`h` = For each segment, bits 31 and 30 represent status information and the remaining bits represent the physical address.

If set, Bit 31 indicates the segment was accessed, and Bit 30 indicates that all the data was dumped.

`i` = Number of bytes written from address '`h`'.

`j` = Error number.

`k` = ASCII string indicating time and date when last panic dump occurred.

4. ACTION TO BE TAKEN

For Format 1, no action is required.

For Format 2, use the COPY:TAPE-EMERDMP input message to copy the data to magnetic tape, and the CLR:EMERDMP input message to clear the emergency dump partition status flag. Send the tape and this printout to a technical assistance center for analysis.

For Format 3, take no action.

For Format 4, use the COPY:TAPE-EMERDMP input message to copy the data to magnetic tape. Send the tape and this output message to a technical assistance center for analysis.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	445
2	444
3	593
4	594

Input Message(s):

```
CLR:EMERDMP
COPY:TAPE-EMERDMP
OP:EMERSTAT
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

OP:EQSTAT-CM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP EQSTAT CM a RECORD
        UNIT                      EQUIPAGE STATE
        b                         c
        .                         .
        .                         .
        .                         .

[2]   ____________________________________________________________________
      OP EQSTAT CM HAS NO UNITS IN THE REQUESTED STATE
```

2. REASON FOR OUTPUT

To provide a printout of all communication module (CM) units or switching modules (SMs) that are in the growth (GROW) or special growth (SGRO) equipage states, or the equipage state of an individual unit. Refer to variable 'b' for a list of the possible units. This message is output only in response to a manual input request.

Format 1 is the standard output message format when there are CM units in the requested state, or when an individual unit is specified.

Format 2 is the output message format when there are no CM units in the requested state.

3. VARIABLE FIELD DEFINITIONS

a = Text identifier showing order of EQSTAT record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

b = Unit identification. Valid value(s):

CMP	= Communication module processor.
MMP	= Module message processor.
MMPGBRD	= MMP growth board (CM model 1 hardware only).
MMPSDLC	= MMP synchronous data link controller.
NLI	= Network link interface.
QGP	= Quad-link gateway processor.
QLPS	= Quad-link packet switch.
SM	= Switching module.
TMSLNK	= Time-multiplexed switch link.

c = Equipage state. Valid value(s):

GROW	= Growth.
NON-EXISTENT	= Not found.
OPER	= Operational.

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`SGRO`	= Special growth.
`UNEQ`	= Unequipped.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:EQSTAT
```

Other Manual(s):
235-105-231 *Hardware Change Procedures*

OP:EQSTAT-RSMCL-A

Software Release: 5E10 only
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP EQSTAT RSMCL HSM a b RECORD
  UNIT                CTS STATUS
  c                   d
  .                   .
  .                   .
  .                   .
```

2. REASON FOR OUTPUT

To provide a printout of the control time slot (CTS) status for all synchronous data link controllers (SDLC) in the module message processors (MMP) that are in the growth (GROW) equipage state. This message is output only in response to a manual input request.

3. VARIABLE FIELD DEFINITIONS

`a` = Host switch number (HSM).

`b` = Text identifier showing order of EQSTAT record. Valid value(s):
- `FIRST` = First record of continuing list.
- `LAST` = Last record of continuing list.
- `NEXT` = Next record of continuing list.

`c` = Module message processor synchronous link controller (MMPSDLC) unit number.

`d` = Equipage state. Valid value(s):
- `BUSY` = Specified unit CTS status is busy.
- `IDLE` = Specified unit CTS status is idle.
- `UNKNOWN` = Specified unit CTS status in unknown. This is due to a failure in obtaining data base information for the indicated CTS.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:EQSTAT`

Other Manual(s):
235-105-231 *Hardware Change Procedures*

OP:EQSTAT-RSMCL-B

Software Release: 5E11 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP EQSTAT RSMCL HSM a b RECORD
  UNIT                CTS     STATUS
  c                   d       e
  .                   .       .
  .                   .       .
  .                   .       .
```

2. REASON FOR OUTPUT

To provide a printout of the control time slot (CTS) status for all synchronous data link controllers (SDLC) in the module message processors (MMP) that are in the growth (GROW) equipage state. This message is output only in response to a manual input request.

3. VARIABLE FIELD DEFINITIONS

`a` = Host switch number (HSM).

`b` = Text identifier showing order of EQSTAT record. Valid value(s):
- `FIRST` = First record of continuing list.
- `LAST` = Last record of continuing list.
- `NEXT` = Next record of continuing list.

`c` = Module message processor synchronous link controller (MMPSDLC) unit number.

`d` = Corresponding CTS number.

`e` = State of CTS. Valid value(s):
- `BUSY` = Specified unit CTS status is busy.
- `IDLE` = Specified unit CTS status is idle.
- `UNKNOWN` = Specified unit CTS status in unknown. This is due to a failure in obtaining data base information for the indicated CTS.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:EQSTAT
```

Other Manual(s):
235-105-231 *Hardware Change Procedures*

OP:ERRCHK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP ERRCHK MESSAGE STARTED
        a
        b
        c
        d
        e

[2]   ____________________________________________________________________
      OP ERRCHK IN PROGRESS
          SUMMARY OF INHIBITED UNITS
             f     g     h     i
      OP ERRCHK COMPLETED

[3]   ____________________________________________________________________
      OP ERRCHK ABORTED  f

[4]   ____________________________________________________________________
      OP ERRCHK NOT STARTED
      INVALID ID FIELD
```

2. REASON FOR OUTPUT

To indicate the inhibit status of all administrative module (AM) error conditions that may be optionally inhibited or allowed. There are currently four error conditions of this type:

- Hardware checks identified by HDWCHK.
- Software checks identified by SFTCHK.
- Error interrupts identified by ERRINT.
- CU pseudo-nodes identified by ERRSRC.

The report lists each error condition and its associated inhibit state. In the case of inhibited error interrupts, a supplemental report is output which then lists all units that are inhibited. Information specific to each device is output in a format consistent with related maintenance messages.

The exit status of this report is indicated by either the successful COMPLETED message or the unsuccessful ABORTED message.

3. VARIABLE FIELD DEFINITIONS

`a` = This field indicates the existence or non-existence of AM error sources. Valid value(s):
`ACTIVE INHIBITS` = Error source inhibits are active.
`NO INHIBITS` = Error source inhibits are not active.

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b = HDWCHK if the AM hardware checks are inhibited.

c = SFTCHK if the AM software checks are inhibited.

d = ERRSRC if the AM CU pseudo nodes are inhibited.

e = ERRINT if the AM error interrupts are inhibited.

f = Unit name. This name may indicate the complex name in a two-level identification, such as control unit (CU), or can simply indicate a specific hardware unit, such as teletypewriter (TTY).

g = Unit number that specifically identifies a complex type or hardware unit.

h = Indicates a subunit name that must always be identified with a two-level name, such as CU O MASC O.

i = Subunit number that specifically identifies a unit described by a two-level name.

j = Error codes. Valid value(s):

- 50 = A message could not be sent to a driver or real time status report (RTS).
- 51 = An equipment configuration database (ECD) access function completed unsuccessfully.
- 52 = An error in message communication.
- 53 = An error internal to the inhibit administrator.
- 54 = Temporary output file could not be opened.

4. ACTION TO BE TAKEN

All error codes associated with this activity are significant. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	412
2	413
3	414

Input Message(s):

```
ALW:ERRCHK
INH:ERRCHK
OP:ERRCHK
```

Output Message(s):

```
ALW:ERRCHK
```

```
INH:ERRCHK
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

OP:ESA

Software Release: 5E10 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
OP ESA
  a
  [PRIMARY ESA:     APID=b STATE=c HEALTH=d]
  [SECONDARY ESA:   APID=b STATE=c HEALTH=d]
```

2. REASON FOR OUTPUT

Response to the OP:ESA,STATUS input message that reports the current status of the primary and secondary enhanced 911 service adjuncts (ESAs). This message could also indicate that the request has timed out.

3. VARIABLE FIELD DEFINITIONS

`a` = Informational text describing results of status query. Valid value(s):
- `NO INFORMATION TEXT` = The informational text was not set correctly in the message. This should be reported as a problem.
- `REQUEST HAS TIMED OUT` = The request for information has timed out and no information will be printed.
- `STATUS QUERY COMPLETE` = The query was successful and the information for the primary ESA and secondary ESA, if defined, will be printed.

`b` = Applications processor identifier (APID) of the ESA. If the APID for the ESA (GLE911APID or GLE911SEC office parameters) is 0, no data for that ESA will be printed.

`c` = Current state of the ESA. Valid value(s):
- `ACTIVE` = The ESA is active and receiving queries.
- `FORCED` = The ESA is in the forced active state and is receiving queries and cannot be switched to inactive until the force has been removed.
- `INACTIVE` = The ESA is not active and is not currently receiving queries.

`d` = Current health value of the ESA. Valid value(s):
- `COMM LOST` = The switch is not currently able to send queries to the ESA.
- `CRITICAL` = The ESA has a critical alarm.
- `MAJOR` = The ESA has a major alarm.
- `MINOR` = The ESA has a minor alarm.
- `NORMAL` = The ESA is functioning normally with no alarms.
- `UNKNOWN` = The health status of the ESA is unknown.

4. ACTION TO BE TAKEN

This message is printed in response to a OP:ESA input message. If the message indicates that REQUEST HAS TIMED OUT, retry the OP:ESA input message. If the message has NO INFORMATION TEXT, this should be reported as a problem.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:ESA
SET:ESA
CLR:ESA
```

Output Message(s):

```
SET:ESA
CLR:ESA
REPT:ESA
```

Other Manual(s):
235-900-303 *ISDN Applications Processor Interface Specification*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
24.7 [DSL APPLICATIONS PROCESSOR COMMUNICATION DATA]

48. OP:F

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OP:FAC-A

Software Release: 5E10 - 5E11
Message Class: PRFM
Application: 5
Type: Output

1. FORMAT

```
[1]  ____________________________________________________________________
     OP FAC FAC=a-b-c-d e FM=f [LCA][AIS][RMA] g h
       STAT=i     [COFA=j]    [SLIP=k]       [ES=l]
       [SES=m]    [BPV=n]     [FS=o]       [BES=p]

[2]  ____________________________________________________________________
     OP FAC [CURR] [PREV] [HIST] [p1] FAC=a-b-c-d FM=f g h
       e
       CI    INT    BES    THR    BPV    THR    COFA   THR    CRC6   THR
      [*]    q[r]   p      s      n      t      j      u      v      w
     CGA    [INH]  ES     THR    FS     THR    SES    THR    SS     THR
      x     [*]    l      y      o      z      m      a1     k      b1

[3]  ____________________________________________________________________
     OP FAC [CURR] [PREV]  [q1] IFAC=a-c1-e1 FM=f1 g h
       CI    INT   END [INH] CGA   BPV   LES   THR   LSES  THR
      [*]    q     g1  [*]   x     n     h1    i1    j1    k1
     [CRC6  ES    THR   SES   THR   FLS   THR   UAS   THR][  SS    THR]
     [v     l     y     m     a1    l1    m1    n1    o1 ][  k     b1 ]

[4]  ____________________________________________________________________
     OP FAC HIST IFAC=a-c1-e1 FM=f1 g (u1 OF v1)
       ------------------------ ERROR THRESHOLDS -------------------------
       TIME    CI   END   [ES    SES   FLS   UAS] [SS]   LES   LSES
       ----    --   ---   [y     a1    m1    o1 ] [b1]   i1    k1
       -------------------------- ERROR COUNTS ---------------------------
        x1     *    g1    [l     m    l1     n1 ] [k]    h1     j1
        .      .     .     .      .     .     .    .      .     .
        .      .     .     .      .     .     .    .      .     .
        .      .     .     .      .     .     .    .      .     .

[5]  ____________________________________________________________________
     OP FAC {r1} [CURR] [PREV] [HIST] h

[6]  ____________________________________________________________________
     OP FAC {s1/w1} [CURR] [PREV] [HIST] [COND] t1 h

[7]  ____________________________________________________________________
     OP FAC {r1/s1/y1} ACS  INH MML: [DAY] [INT] [NONE] RCV: [ACT] [NONE] h

[8]  ____________________________________________________________________
     OP FAC [COND] [CURR] [PREV] STEFAC=a-a2-b2-c2 S L [g] h
       TIME   CI   FI   INT   END   CV       [INH]   [CGA]
       x1     [*]  [*]   q     g1   v        [*]     [x]
       ES     THR    SES    THR    SEFS   THR
```

```
  l      y      m      a1      l1     m1

[9]  ____________________________________________________________
     OP FAC [COND] [CURR] [PREV] VT1FAC=a-a2-b2-d2-e2 P [g] h
       TIME   CI   FI   INT   END   CV       [INH]   [CGA]
       x1     [*]  [*]   q     g1   v        [*]     [x]
       ES     THR    SES    THR    UAS    THR
       l      y      m      a1      n1     o1

[10] ____________________________________________________________
     OP FAC [COND] [CURR] [PREV] DS1SFAC=a-a2-b2-d2-e2 FM=f1 P [g] h
       TIME   CI   FI   INT   END   CV       [INH]   [CGA]
       x1     [*]  [*]   q     g1   v        [*]     [x]
       ES     THR    SES    THR    SEFS   THR    UAS    THR    CSS    THR
       l      y      m      a1      l1     m1      n1      o1     k      b1

[11] ____________________________________________________________
     OP FAC HIST STEFAC=a-a2-b2-c2 S L [g] (u1 OF v1)
       -------------- ERROR THRESHOLDS --------------
         TIME   CI    FI    END    ES     SES    SEFS
         ----   --    --    ---    y      a1      m1
       ---------------- ERROR COUNTS ----------------
         x1     *     *     g1      l      m      l1
         .      .     .     .      .      .      .
         .      .     .     .      .      .      .
         .      .     .     .      .      .      .

[12] ____________________________________________________________
     OP FAC HIST VT1FAC=a-a2-b2-d2-e2 P [g] (u1 OF v1)
       ------------- ERROR THRESHOLDS --------------
         TIME   CI    FI    END    ES     SES    UAS
         ----   --    --    ---    y      a1     o1
       --------------- ERROR COUNTS ----------------
         x1     *     *     g1      l      m      n1
         .      .     .     .      .      .      .
         .      .     .     .      .      .      .
         .      .     .     .      .      .      .

[13] ____________________________________________________________
     OP FAC HIST DS1SFAC=a-a2-b2-d2-e2 FM=f1 P [g] (u1 OF v1)
       ------------------- ERROR THRESHOLDS --------------------
       TIME   CI    FI    END    ES     SES    SEFS   UAS    CSS
       ----   --    --    ---    y      a1      m1     o1     b1
       --------------------- ERROR COUNTS ----------------------
       x1     *     *     g1      l      m      l1     n1      k
       .      .     .     .      .      .      .      .      .
       .      .     .     .      .      .      .      .      .
       .      .     .     .      .      .      .      .      .
```

2. REASON FOR OUTPUT

Output (OP) facility (FAC) performance monitoring (PM) counts and alarm status in response to the OP:FAC input

message.

Format 1 displays the performance measurements of the specified digital facility interface (DFI) facility. This format is used to support early model DFIs such as the ANN1, ANN3(B), and so forth. (Such a DFI is sometimes known as DFI-1.)

Format 2 displays the performance monitoring counts for a DFI model 2 (DFI-2) facility.

Format 3 displays the performance monitoring counts for one or more integrated digital carrier unit (IDCU) facilities (IFAC).

Format 4 displays the history performance monitoring counts for one of the IFACs.

Format 5 displays the reason that the input request for a digital line and trunk unit (DLTU) related request could not complete; that is, its error termination status.

Format 6 displays the initial and final input request status for a requested unit or facility.

Format 7 displays the result of an input message requested alert control status (ACS) for the requested unit or facility.

Format 8 displays the performance monitoring counts for a digital networking unit - synchronous optical network (SONET) (DNU-S) section terminating equipment (STE) facility.

Format 9 displays the performance monitoring counts for a DNU-S virtual tributary 1.5 (VT1.5) facility.

Format 10 displays the performance monitoring counts for a DNU-S digital signal level-1 (DS1) facility.

Format 11 displays the history performance monitoring counts for the DNU-S STE facility.

Format 12 displays the history performance monitoring counts for the DNU-S VT1.5 facility.

Format 13 displays the history performance monitoring counts for the DNU-S DS1 facility.

3. VARIABLE FIELD DEFINITIONS

`ACS` = Alert control status. The unit's input message requested ACS. The status of inhibits for "MML:" and "RC/V:" follows.

`ACT` = Recent changeable alert inhibits are in effect for the requested unit. Refer to RC/V View 8.1, View 20.23, View 22.15, or View 20.25.

`AIS` = Alarm indication signal (AIS) is in effect for this facility.

`CI` = Corrupt indicator (CI) shows if the counts are invalid or incomplete for this interval. When a '*' is present on the column below CI, it means the PM counts are corrupt during that interval.

`COND` = Conditional request output. The output is generated for facilities that have reported a 15 minute threshold crossing during the current interval or daily threshold crossing during the current day.

`CSS` = Controlled slip seconds count.

`CV` = Coding violations count.

`CURR` = Current 15-minute and day counts were reported or requested.

`DAY` = Daily interval alerts were inhibited by the INH:FAC input message.

DFI = Digital facility interface.

DLTU = Digital line and trunk unit.

DNUS = DNU-S unit.

DS1SFAC = DNU-S DS1 facility.

ES = Errored seconds count.

FAC = Facility terminated on a DFI.

FI = Failure indication flag. When a '*' is present on the column below FI, it means there was a failure during that collection interval. For example, a CGA occurred in the interval treated as a failure.

FLS = Frame loss seconds count.

HIST = History of interval counts were reported or requested. History interval 1 is the most recent and history interval 32 is the oldest.

IDCU = Integrated digital carrier unit.

IFAC = IDCU facility.

INH = Inhibit indicator. This indicates whether the production of the automatic message REPT:FAC is inhibited for this facility for the associated reporting interval (15MN or 24HR). This field is only supported for the "CURR" report since the former inhibit statuses are not stored. The REPT:FAC output message reports the crossing of PM thresholds and other PM events.

INT = 15-minute interval alerts were inhibited by the INH:FAC input message.

L = Line counts. The type of counts being reported are line counts.

LCA = Local alarm (red) is in effect for this facility.

NONE = No input message requested MML inhibits have been requested for this unit. In the case of RCV, no recent changeable alert inhibits are in affect.

P = Path counts. The type of counts being reported are path counts.

PREV = Previous 15-minute and day counts were reported or requested. Note that the previous 15-minute interval is the same as history interval 1 and is not reported if both previous (PREV) and history (HIST) are requested.

RMA = Remote alarm (yellow) is in effect for this facility.

RT = Remote terminal.

S = Section counts. The type of counts being reported are section counts.

SEFS = Severely errored framing seconds count.

SES = Severely errored seconds count.

SS = Slip seconds count.

STEFAC = DNU-S STE facility.

STSFAC = DNU-S synchronous transport signal (STS) facility.

THR = Threshold of the PM count named to the immediate left.

UAS = Unavailable seconds count.

VT1FAC = DNU-S VT1.5 facility.

* = For CI, this indicates that the CI is set and at least one PM count is invalid for this interval. For FI, this indicates that the FI is set and at least one failure occurred for this interval. For INH, this indicates that the alerts are inhibited for the reported PM interval.

a = Switching module (SM) number.

b = DLTU number.

c = DFI number.

d = FAC number.

e = Circuit pack type.

f = T1 transmission mode and signaling format. Valid value(s):

- 64K = T1 DFI D4 format with 8-bit zero code suppression (B8ZS) and rob-bit signaling.
- B8ZS = T1 DFI remote SM (RSM) format with B8ZS and word-24 signaling.
- D4 = T1 DFI D4 format with zero code suppression (ZCS) and rob-bit signaling.
- D464 = T1 DFI D4 format with ZCS and rob-bit signaling.
- D4D64 = T1 DFI D4 format with B8ZS and digital multiplex interface bit-oriented signaling (DMI-BOS).
- D4DNO = T1 DFI D4 format with DMI-BOS.
- D4DZ = T1 DFI D4 format with ZCS and DMI-BOS.
- D4NO = T1 DFI D4 format with rob-bit signaling.
- DZBTS = T1 DFI extended framing (FE) format with zero byte time slot interchange (ZBTSI) and DMI-BOS.
- FE = T1 DFI FE format with rob-bit signaling.
- FE64 = T1 DFI FE format with ZCS and rob-bit signaling.
- FE8Z = T1 DFI FE format with B8ZS and rob-bit signaling.
- FEB7 = T1 DFI FE format with ZCS and rob-bit signaling.
- FED64 = T1 DFI FE format with B8ZS and DMI-BOS.
- FEDNO = T1 DFI FE format with DMI-BOS.
- FEDZ = T1 DFI FE format with ZCS and DMI-BOS.
- RZBTS = T1 DFI RSM format with ZBTSI and word-24 signaling.
- ZBTSI = T1 DFI FE format with ZBTSI and rob-bit signaling.
- ZCS = T1 DFI RSM format with ZCS and word-24 signaling.

g = Facility name (a customer-defined string through RC/V).

h = The result of the request. Valid value(s):

- COMPLETED = The request was successfully completed.
- COMPLETED FACS OOS = The request for performance monitoring (PM) counts from an entire IDCU, or TR303 RT, or DNU-S, or STS-1 completed but counts for out-of-service

facilities were not included in the output report

`COMPLETED EOC OOS` = The request for PM counts completed but counts could not be read from a TR303 RT because its embedded operations channel (EOC) was out-of-service

`CONT` = Continuing. Intermediate output report.

`CONTINUING` = Intermediate output report.

`FAILED` = The data could not be collected for this report.

`FAILED DNUS CC OOS` = The request for PM counts failed because DNU-S common control (CC) was out-of-service. DNU-S duplex failure condition.

`FAILED EOC OOS` = The request for PM counts from a TR303 RT failed because the RT's EOC was out-of-service.

`FAILED IDCU OOS` = The IFAC or TR303 request for PM counts failed because the IDCU was out-of-service.

`FAILED SM INHIBITED` = The input request could not be processed because PM is inhibited at the SM level.

`FAILED SWITCH AND SM INHIBITED` = The input request could not be processed because PM is inhibited at the both the switch and SM level.

`FAILED SWITCH INHIBITED` = The input request could not be processed because PM is inhibited at the switch level.

`NO MATCH` = The specified facility does not exist or is not a DFI-2 or IDCU facility.

`NOT ALLOWED` = The requested report is not allowed for the given facility or unit.

`OUT OF SERVICE` = The requested IDCU is out-of-service and no counts were output.

`SM UNAVAILABLE` = The input request could not be processed because communication with the associated SM is not possible.

`STARTED` = Initial output report.

`SYSTEM BUSY` = The system's processing capability has been reached, or a system resource is unavailable. Retry the request later.

`i` = Facility status (STAT). Valid value(s):

`ACT` = Active.

`MTCE` = Maintenance.

`j` = Number of path change-of-frame alignments (COFAs) in this interval.

`k` = Number of controlled slip seconds (CSS) or slip seconds (SS) in this interval.

`l` = Number of errored seconds (ES) in this interval.

`m` = Number of severely errored seconds (SES) in this interval.

`n` = Number of line bi-polar violations (BPVs) in this interval.

`o` = Number of path failed seconds (FSs) in this interval.

`p` = Number of path bursty errored seconds (BESs) in this interval.

`q` = Indicates the PM interval (INT) being reported. Valid value(s):

`15MIN` = 15-minute counts.

Note: After a DFI-2 facility initialization (using INIT:FAC or RST:DFI), the BPV, COFA, and cyclical redundancy checks (CRC) counts are zeroed until the next real time 15 minute interval. Also, due to facility initialization time discrepancies, these counts will be staggered as follows: The BPV, COFA, and CRC counts will move

to the previous and history registers on the real time 15 minute boundaries and may lag the remaining counts by several minutes. The remaining counts will be moved to the previous and history registers based on the DFI facility internal 15 minute timer. This timer was started when the DFI facility was initialized (using RST:DFI or when the facility became equipped) and may not coincide with the real time 15 minute clock.

`24HR` = Daily counts.
`HIST` = History data interval as described by variable '`r`' (Format 2 only).

`r` = Start time of the history interval. PM history interval which ranges from 1-32. The PM history intervals are the 32 previous 15-minute intervals. The intervals are numbered from newest to oldest. Thus the interval marked HIST1 is the previous 15-minute interval and the interval marked HIST32 is the 15-minute interval from 8 hours ago. If both PREV and HIST counts were requested, the previous 15-minute count is not included in the output report to avoid redundancy with history interval 1 (Format 2 only).

`s` = Current path BES threshold for this interval.

`t` = Current line BPV threshold for this interval.

`u` = Current path COFA threshold for this interval.

`v` = Number of CRC6s or CVs in this interval.

`w` = Current path CRC6 threshold for this interval.

`x` = This indicates the current highest carrier group alarm (CGA) alarm status. Valid value(s):
`AIS` = Used for AIS CGA, the highest CGA status.
`LCA` = Used for a local (or red) CGA, the next highest CGA status.
`RMA` = Used for a remote (or yellow) CGA, the lowest CGA status.
`NONE` = No CGA condition exits.

`y` = Current ES threshold for this interval.

`z` = Current path FS threshold for this interval.

`a`[1] = Current SES threshold for this interval.

`b`[1] = Current SS or CSS threshold for this interval.

`c`[1] = IDCU number.

`d`[1] = RT number.

`e`[1] = IFAC number.

`f`[1] = Framing mode (FM) of facility. Valid value(s):
`D4` = Super frame.
`ESF` = Extended super frame.
`SF` = Super frame (same as D4 mode).

g[1] = Network element being reported:. Valid value(s):

FE	= Far end. Far end of a facility.
NE	= Near end. Near end of a facility.

h[1] = Number of line ES for this interval.

i[1] " = Current LES threshold for this interval.

j[1] = Number of line SES for this interval.

k[1] = Current LSES threshold for this interval.

l[1] = Number of FLS or SEFS for this interval.

m[1] = Current FLS or SEFS threshold for this interval.

n[1] = Number of UAS for this interval.

o[1] = Current UAS threshold for this interval.

p[1] = Valid value(s):

DFI=a-b-c
DLTU=a-b

q[1] = Valid value(s):

IDCU=a-c[1]
RT=a-c[1]-d[1]

r[1] = Valid value(s):

FAC=a-b-c-d
DLTU=a-b
DFI=a-b-c

s[1] = Valid value(s):

IDCU=a-b[1]
RT=a-b[1]-c[1]
IFAC=a-b[1]-d[1]

t[1] = Network element being reported. Valid value(s):

BOTH	= Both ends of a TR303 facility.
COND	= Conditional request. Only facilities that have crossed a 15-minute alerting threshold during the current 15-minute interval or daily threshold during the current PM day are reported.
FE	= Far end. Far end of a facility.
NE	= Near end. Near end of a facility.

u[1] = Section of the history report for the given network element.

v[1] = Total sections of the history report for the given network element.

w[1] = Valid value(s):

DNUS=a-a[2]
DS1SFAC=a-a[2]-b[2]-d[2]-e[2]
STEFAC=a-a[2]-b[2]-c[2]
STSFAC=a-a[2]-b[2]-d[2]
VT1FAC=a-a[2]-b[2]-d[2]-e[2]

x[1] = Interval start time. The PM history intervals are the 32 previous 15-minute intervals. The timestamps represent the start time of each 15 minute interval. If both PREV and HIST counts were requested, the previous 15-minute count report is not printed to avoid redundancy with the first history interval.

y[1] = Valid value(s):

DNUS=a-a[2]
DS1SFAC=a-a[2]-b[2]-d[2]-e[2]
STEFAC=a-a[2]-b[2]-c[2]
VT1FAC=a-a[2]-b[2]-d[2]-e[2]

a[2] = DNU-S number.

b[2] = Data group number.

c[2] = STE facility number.

d[2] = STS facility number.

e[2] = VT1.5 facility number.

4. ACTION TO BE TAKEN

None. This message is generated in response to the OP:FAC input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:FAC
INH:FAC
INIT:FAC
INIT:REG
OP:FAC
OP:REG
```

Output Message(s):

```
ALW:FAC
INH:FAC
INIT:FAC
INIT:REG
OP:REG
```

```
REPT:FAC
REPT:CGA
```

Other Manual(s):
235-190-115 *Local and Toll System Features*
235-105-110 *System Maintenance Requirements and Tools*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
20.23 [IDCU FACILITY PERFORMANCE MONITORING (IFAC)]
20.25 (DNU-S PERFORMANCE MONITORING THRESHOLD GROUP)
22.15 (PERFORMANCE MONITORING)

OP:FAC-B

Software Release: 5E12 only
Message Class: PRFM
Application: 5
Type: Output

1. FORMAT

[1]
```
OP FAC FAC=a-b-c-d e FM=f [LCA][AIS][RMA] [g] h
  STAT=i     [COFA=j]    [SLIP=k]       [ES=l]
  [SES=m]    [BPV=n]     [FS=o]       [BES=p]
```

[2]
```
OP FAC [CURR] [PREV] [HIST] [p1] FAC=a-b-c-d FM=f [g] h
  e
  CI    INT    BES    THR    BPV    THR    COFA   THR    CRC6   THR
 [*]    q[r]   p      s      n      t      j      u      v      w
CGA     [INH]  ES     THR    FS     THR    SES    THR    SS     THR
 x      [*]    l      y      o      z      m      a1     k      b1
```

[3]
```
OP FAC [CURR] [PREV]  [q1] {IFAC=a-c1-e1|DS1SFAC=a-a2-b2-d2-e2} FM=f1 [g] h
  CI    INT   END [INH] CGA   BPV   LES   THR   LSES  THR
 [*]    q     g1  [*]   x     n     h1    i1    j1    k1
[CRC6  ES    THR   SES   THR   FLS   THR   UAS   THR][  SS    THR]
[v     l     y     m     a1    l1    m1    n1    o1 ][  k     b1 ]
```

[4]
```
OP FAC HIST {IFAC=a-c1-e1|DS1SFAC=a-a2-b2-d2-e2} FM=f1 [g] (u1 OF v1)
  ------------------------ ERROR THRESHOLDS -------------------------
  TIME    CI   END   [ES    SES   FLS   UAS] [SS]   LES   LSES
  ----    --   ---   [y     a1    m1    o1 ] [b1]   i1    k1
  -------------------------- ERROR COUNTS ---------------------------
   x1     *    g1    [l     m    l1     n1 ] [k]    h1     j1
   .      .     .     .      .     .     .    .      .     .
   .      .     .     .      .     .     .    .      .     .
   .      .     .     .      .     .     .    .      .     .
```

[5]
```
OP FAC {r1} [CURR] [PREV] [HIST] h
```

[6]
```
OP FAC {s1/w1} [CURR] [PREV] [HIST] [COND] t1 h
```

[7]
```
OP FAC {r1/s1/y1} ACS  INH MML: [DAY] [INT] [NONE] RCV: [ACT] [NONE] h
```

[8]
```
OP FAC [COND] [CURR] [PREV] STEFAC=a-a2-b2-c2 S L [g] h
  TIME   CI   FI   INT   END   CV       [INH]   [CGA]
  x1     [*]  [*]   q     g1   v        [*]     [x]
  ES     THR    SES    THR    SEFS   THR
```

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```
  l      y      m      a1      l1     m1

[9]  ____________________________________________________________
     OP FAC [COND] [CURR] [PREV] VT1FAC=a-a2-b2-d2-e2 P [g] h
       TIME   CI   FI   INT   END   CV       [INH]   [CGA]
       x1     [*]  [*]   q     g1   v        [*]     [x]
       ES     THR    SES    THR    UAS    THR
       l      y      m      a1      n1     o1

[10] ____________________________________________________________
     OP FAC [COND] [CURR] [PREV] DS1SFAC=a-a2-b2-d2-e2 FM=f1 P [g] h
       TIME   CI   FI   INT   END   CV       [INH]   [CGA]
       x1     [*]  [*]   q     g1   v        [*]     [x]
       ES     THR    SES    THR    SEFS   THR    UAS    THR    CSS    THR
       l      y      m      a1      l1     m1      n1      o1     k      b1

[11] ____________________________________________________________
     OP FAC HIST STEFAC=a-a2-b2-c2 S L [g] (u1 OF v1)
       -------------- ERROR THRESHOLDS --------------
         TIME   CI    FI    END    ES     SES    SEFS
         ----   --    --    ---    y      a1      m1
       ---------------- ERROR COUNTS ----------------
         x1     *     *     g1      l      m      l1
         .      .     .     .      .      .      .
         .      .     .     .      .      .      .
         .      .     .     .      .      .      .

[12] ____________________________________________________________
     OP FAC HIST VT1FAC=a-a2-b2-d2-e2 P [g] (u1 OF v1)
       ------------- ERROR THRESHOLDS --------------
         TIME   CI    FI    END    ES     SES    UAS
         ----   --    --    ---    y      a1     o1
       --------------- ERROR COUNTS ----------------
         x1     *     *     g1      l      m      n1
         .      .     .     .      .      .      .
         .      .     .     .      .      .      .
         .      .     .     .      .      .      .

[13] ____________________________________________________________
     OP FAC HIST DS1SFAC=a-a2-b2-d2-e2 FM=f1 P [g] (u1 OF v1)
       ------------------- ERROR THRESHOLDS --------------------
       TIME   CI    FI    END    ES     SES    SEFS   UAS    CSS
       ----   --    --    ---    y      a1      m1     o1     b1
       --------------------- ERROR COUNTS ----------------------
       x1     *     *     g1      l      m      l1     n1      k
       .      .     .     .      .      .      .      .      .
       .      .     .     .      .      .      .      .      .
       .      .     .     .      .      .      .      .      .
```

2. REASON FOR OUTPUT

Output (OP) facility (FAC) performance monitoring (PM) counts and alarm status in response to the OP:FAC input

message.

Format 1 displays the performance measurements of the specified digital facility interface (DFI) facility. This format is used to support early model DFIs such as the ANN1, ANN3(B), and so forth. (Such a DFI is sometimes known as DFI-1.)

Format 2 displays the performance monitoring counts for a DFI model 2 (DFI-2) facility.

Format 3 displays the performance monitoring counts for one or more integrated digital carrier unit (IDCU) facilities (IFAC) or one or more DNU-S DS1 far end (FE) facilities.

Format 4 displays the history performance monitoring counts for one of the IFACs or one of the DNU-S DS1 FE facility.

Format 5 displays the reason that the input request for a digital line and trunk unit (DLTU) related request could not complete; that is, its error termination status.

Format 6 displays the initial and final input request status for a requested unit or facility.

Format 7 displays the result of an input message requested alert control status (ACS) for the requested unit or facility.

Format 8 displays the performance monitoring counts for a digital networking unit - synchronous optical network (SONET) (DNU-S) section terminating equipment (STE) facility.

Format 9 displays the performance monitoring counts for a DNU-S virtual tributary 1.5 (VT1.5) facility.

Format 10 displays the performance monitoring counts for a DNU-S digital signal level-1 (DS1) facility.

Format 11 displays the history performance monitoring counts for the DNU-S STE facility.

Format 12 displays the history performance monitoring counts for the DNU-S VT1.5 facility.

Format 13 displays the history performance monitoring counts for the DNU-S DS1 facility.

3. VARIABLE FIELD DEFINITIONS

`ACS` = Alert control status. The unit's input message requested ACS. The status of inhibits for "MML:" and "RC/V:" follows.

`ACT` = Recent changeable alert inhibits are in effect for the requested unit. Refer to RC/V View 8.1, View 20.23, View 22.15, or View 20.25.

`AIS` = Alarm indication signal (AIS) is in effect for this facility.

`CI` = Corrupt indicator (CI) shows if the counts are invalid or incomplete for this interval. When a '*' is present on the column below CI, it means the PM counts are corrupt during that interval.

`COND` = Conditional request output. The output is generated for facilities that have reported a 15 minute threshold crossing during the current interval or daily threshold crossing during the current day.

`CSS` = Controlled slip seconds count.

`CV` = Coding violations count.

`CURR` = Current 15-minute and day counts were reported or requested.

DAY	= Daily interval alerts were inhibited by the INH:FAC input message.
DFI	= Digital facility interface.
DLTU	= Digital line and trunk unit.
DNUS	= DNU-S unit.
DS1SFAC	= DNU-S DS1 facility.
ES	= Errored seconds count.
FAC	= Facility terminated on a DFI.
FI	= Failure indication flag. When a '*' is present on the column below FI, it means there was a failure during that collection interval. For example, a CGA occurred in the interval treated as a failure.
FLS	= Frame loss seconds count.
HIST	= History of interval counts were reported or requested. History interval 1 is the most recent and history interval 32 is the oldest.
IDCU	= Integrated digital carrier unit.
IFAC	= IDCU facility.
INH	= Inhibit indicator. This indicates whether the production of the automatic message REPT:FAC is inhibited for this facility for the associated reporting interval (15MN or 24HR). This field is only supported for the "CURR" report since the former inhibit statuses are not stored. The REPT:FAC output message reports the crossing of PM thresholds and other PM events.
INT	= 15-minute interval alerts were inhibited by the INH:FAC input message.
L	= Line counts. The type of counts being reported are line counts.
LCA	= Local alarm (red) is in effect for this facility.
NONE	= No input message requested MML inhibits have been requested for this unit. In the case of RCV, no recent changeable alert inhibits are in affect.
P	= Path counts. The type of counts being reported are path counts.
PREV	= Previous 15-minute and day counts were reported or requested. Note that the previous 15-minute interval is the same as history interval 1 and is not reported if both previous (PREV) and history (HIST) are requested.
RMA	= Remote alarm (yellow) is in effect for this facility.
RT	= Remote terminal.
S	= Section counts. The type of counts being reported are section counts.
SEFS	= Severely errored framing seconds count.
SES	= Severely errored seconds count.

SS = Slip seconds count.

STEFAC = DNU-S STE facility.

STSFAC = DNU-S synchronous transport signal (STS) facility.

THR = Threshold of the PM count named to the immediate left.

UAS = Unavailable seconds count.

VT1FAC = DNU-S VT1.5 facility.

* = For CI, this indicates that the CI is set and at least one PM count is invalid for this interval. For FI, this indicates that the FI is set and at least one failure occurred for this interval. For INH, this indicates that the alerts are inhibited for the reported PM interval.

a = Switching module (SM) number.

b = DLTU number.

c = DFI number.

d = FAC number.

e = Circuit pack type.

f = T1 transmission mode and signaling format. Valid value(s):

- 64K = T1 DFI D4 format with 8-bit zero code suppression (B8ZS) and rob-bit signaling.
- B8ZS = T1 DFI remote SM (RSM) format with B8ZS and word-24 signaling.
- D4 = T1 DFI D4 format with zero code suppression (ZCS) and rob-bit signaling.
- D464 = T1 DFI D4 format with ZCS and rob-bit signaling.
- D4D64 = T1 DFI D4 format with B8ZS and digital multiplex interface bit-oriented signaling (DMI-BOS).
- D4DNO = T1 DFI D4 format with DMI-BOS.
- D4DZ = T1 DFI D4 format with ZCS and DMI-BOS.
- D4NO = T1 DFI D4 format with rob-bit signaling.
- DZBTS = T1 DFI extended framing (FE) format with zero byte time slot interchange (ZBTSI) and DMI-BOS.
- FE = T1 DFI FE format with rob-bit signaling.
- FE64 = T1 DFI FE format with ZCS and rob-bit signaling.
- FE8Z = T1 DFI FE format with B8ZS and rob-bit signaling.
- FEB7 = T1 DFI FE format with ZCS and rob-bit signaling.
- FED64 = T1 DFI FE format with B8ZS and DMI-BOS.
- FEDNO = T1 DFI FE format with DMI-BOS.
- FEDZ = T1 DFI FE format with ZCS and DMI-BOS.
- RZBTS = T1 DFI RSM format with ZBTSI and word-24 signaling.
- ZBTSI = T1 DFI FE format with ZBTSI and rob-bit signaling.
- ZCS = T1 DFI RSM format with ZCS and word-24 signaling.

g = Facility name (a customer-defined string through RC/V).

h = The result of the request. Valid value(s):

- COMPLETED = The request was successfully completed.

`COMPLETED FACS OOS` = The request for performance monitoring (PM) counts from an entire IDCU, or TR303 RT, or DNU-S, or STS-1 completed but counts for out-of-service facilities were not included in the output report
`COMPLETED EOC OOS` = The request for PM counts completed but counts could not be read from a TR303 RT because its embedded operations channel (EOC) was out-of-service
`CONT` = Continuing. Intermediate output report.
`CONTINUING` = Intermediate output report.
`FAILED` = The data could not be collected for this report.
`FAILED DNUS CC OOS` = The request for PM counts failed because DNU-S common control (CC) was out-of-service. DNU-S duplex failure condition.
`FAILED EOC OOS` = The request for PM counts from a TR303 RT failed because the RT's EOC was out-of-service.
`FAILED IDCU OOS` = The IFAC or TR303 request for PM counts failed because the IDCU was out-of-service.
`FAILED SM INHIBITED` = The input request could not be processed because PM is inhibited at the SM level.
`FAILED SWITCH AND SM INHIBITED` = The input request could not be processed because PM is inhibited at the both the switch and SM level.
`FAILED SWITCH INHIBITED` = The input request could not be processed because PM is inhibited at the switch level.
`NO MATCH` = The specified facility does not exist or is not a DFI-2 or IDCU facility.
`NOT ALLOWED` = The requested report is not allowed for the given facility or unit.
`OUT OF SERVICE` = The requested IDCU is out-of-service and no counts were output.
`SM UNAVAILABLE` = The input request could not be processed because communication with the associated SM is not possible.
`STARTED` = Initial output report.
`SYSTEM BUSY` = The system's processing capability has been reached, or a system resource is unavailable. Retry the request later.

`i` = Facility status (STAT). Valid value(s):
`ACT` = Active.
`MTCE` = Maintenance.

`j` = Number of path change-of-frame alignments (COFAs) in this interval.

`k` = Number of controlled slip seconds (CSS) or slip seconds (SS) in this interval.

`l` = Number of errored seconds (ES) in this interval.

`m` = Number of severely errored seconds (SES) in this interval.

`n` = Number of line bi-polar violations (BPVs) in this interval.

`o` = Number of path failed seconds (FSs) in this interval.

`p` = Number of path bursty errored seconds (BESs) in this interval.

`q` = Indicates the PM interval (INT) being reported. Valid value(s):
`15MIN` = 15-minute counts.
Note: After a DFI-2 facility initialization (using INIT:FAC or RST:DFI), the BPV, COFA, and cyclical redundancy checks (CRC) counts are zeroed until the next real time 15 minute interval. Also, due to

facility initialization time discrepancies, these counts will be staggered as follows: The BPV, COFA, and CRC counts will move to the previous and history registers on the real time 15 minute boundaries and may lag the remaining counts by several minutes. The remaining counts will be moved to the previous and history registers based on the DFI facility internal 15 minute timer. This timer was started when the DFI facility was initialized (using RST:DFI or when the facility became equipped) and may not coincide with the real time 15 minute clock.

`24HR` = Daily counts.
`HIST` = History data interval as described by variable '`r`' (Format 2 only).

`r` = Start time of the history interval. PM history interval which ranges from 1-32. The PM history intervals are the 32 previous 15-minute intervals. The intervals are numbered from newest to oldest. Thus the interval marked HIST1 is the previous 15-minute interval and the interval marked HIST32 is the 15-minute interval from 8 hours ago. If both PREV and HIST counts were requested, the previous 15-minute count is not included in the output report to avoid redundancy with history interval 1 (Format 2 only).

`s` = Current path BES threshold for this interval.

`t` = Current line BPV threshold for this interval.

`u` = Current path COFA threshold for this interval

`v` = Number of CRC6s or CVs in this interval.

`w` = Current path CRC6 threshold for this interval.

`x` = This indicates the current highest carrier group alarm (CGA) alarm status. Valid value(s):
`AIS` = Used for AIS CGA, the highest CGA status.
`LCA` = Used for a local (or red) CGA, the next highest CGA status.
`RMA` = Used for a remote (or yellow) CGA, the lowest CGA status.
`NONE` = No CGA condition exits.

`y` = Current ES threshold for this interval.

`z` = Current path FS threshold for this interval.

`a`[1] = Current SES threshold for this interval.

`b`[1] = Current SS or CSS threshold for this interval.

`c`[1] = IDCU number.

`d`[1] = RT number.

`e`[1] = IFAC number.

`f`[1] = Framing mode (FM) of facility. Valid value(s):
`D4` = Super frame.
`ESF` = Extended super frame.

SF = Super frame (same as D4 mode).

g^1 = Network element being reported:. Valid value(s):
FE = Far end. Far end of a facility.
NE = Near end. Near end of a facility.

h^1 = Number of line ES for this interval.

i^1 " = Current LES threshold for this interval.

j^1 = Number of line SES for this interval.

k^1 = Current LSES threshold for this interval.

l^1 = Number of FLS or SEFS for this interval.

m^1 = Current FLS or SEFS threshold for this interval.

n^1 = Number of UAS for this interval.

o^1 = Current UAS threshold for this interval.

p^1 = Valid value(s):

DFI=a-b-c
DLTU=a-b

q^1 = Valid value(s):

IDCU=a-c^1
IDCURT=a-c^1-d^1
DNUSRT=a-a^2-d^1

r^1 = Valid value(s):

FAC=a-b-c-d
DLTU=a-b
DFI=a-b-c

s^1 = Valid value(s):

IDCU=a-b^1
IDCURT=a-c^1-d^1
IFAC=a-c^1-e^1

t^1 = Network element being reported. Valid value(s):
BOTH = Both ends of a TR303 facility.
COND = Conditional request. Only facilities that have crossed a 15-minute alerting threshold during the current 15-minute interval or daily threshold during the current PM day are reported.
FE = Far end. Far end of a facility.
NE = Near end. Near end of a facility.

u^1 = Section of the history report for the given network element.

v^1 = Total sections of the history report for the given network element.

w^1 = Valid value(s):

DNUS=a-a^2
DNUSRT=a-a^2-d^1
DS1SFAC=a-a^2-b^2-d^2-e^2
STEFAC=a-a^2-b^2-c^2
STSFAC=a-a^2-b^2-d^2
VT1FAC=a-a^2-b^2-d^2-e^2

x^1 = Interval start time. The PM history intervals are the 32 previous 15-minute intervals. The timestamps represent the start time of each 15 minute interval. If both PREV and HIST counts were requested, the previous 15-minute count report is not printed to avoid redundancy with the first history interval.

y^1 = Valid value(s):

DNUS=a-a^2
DNUSRT=a-a^2-d^1
DS1SFAC=a-a^2-b^2-d^2-e^2
STEFAC=a-a^2-b^2-c^2
VT1FAC=a-a^2-b^2-d^2-e^2

a^2 = DNU-S number.

b^2 = Data group number.

c^2 = STE facility number.

d^2 = STS facility number.

e^2 = VT1.5 facility number.

4. ACTION TO BE TAKEN

None. This message is generated in response to the OP:FAC input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:FAC
INH:FAC
INIT:FAC
INIT:REG
OP:FAC
OP:REG
```

Output Message(s):

```
ALW:FAC
INH:FAC
INIT:FAC
INIT:REG
OP:REG
REPT:FAC
REPT:CGA
```

Other Manual(s):
235-190-115 *Local and Toll System Features*
235-105-110 *System Maintenance Requirements and Tools*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
20.23 [IDCU FACILITY PERFORMANCE MONITORING (IFAC)]
20.25 (DNU-S PERFORMANCE MONITORING THRESHOLD GROUP)
22.15 (PERFORMANCE MONITORING)

OP:FAC-C

Software Release: 5E13 and later
Message Class: PRFM
Application: 5
Type: Output

1. FORMAT

```
[1]  ____________________________________________________________________
     OP FAC FAC=a-b-c-d e FM=f [LCA][AIS][RMA] [g] h
       STAT=i     [COFA=j]    [SLIP=k]       [ES=l]
       [SES=m]    [BPV=n]     [FS=o]       [BES=p]

[2]  ____________________________________________________________________
     OP FAC [CURR] [PREV] [HIST] [p1] FAC=a-b-c-d FM=f [g] h
       e
       CI    INT    BES    THR    BPV    THR    COFA   THR    CRC6   THR
      [*]    q[r]   p      s      n      t      j      u      v      w
     CGA    [INH]  ES     THR    FS     THR    SES    THR    SS     THR
      x     [*]    l      y      o      z      m      a1     k      b1

[3]  ____________________________________________________________________
     OP FAC [CURR] [PREV]  [q1] {IFAC=a-c1-e1|DS1SFAC=a-a2-b2-c2-d2-e2-f2} FM=f1 [g
     ] h
       CI    INT   END [INH] CGA   BPV   LES   THR   LSES  THR
      [*]    q     g1  [*]   x     n     h1    i1    j1    k1
     [CRC6  ES    THR   SES   THR   FLS   THR   UAS   THR][  SS    THR]
     [v     l     y     m     a1    l1    m1    n1    o1 ][  k     b1 ]

[4]  ____________________________________________________________________
     OP FAC HIST {IFAC=a-c1-e1|DS1SFAC=a-a2-b2-c2-d2-e2-f2} FM=f1 [g] (u1 OF v1)
       ------------------------ ERROR THRESHOLDS -------------------------
       TIME    CI   END   [ES    SES   FLS   UAS] [SS]   LES   LSES
       ----    --   ---   [y     a1    m1    o1 ] [b1]   i1    k1
       -------------------------- ERROR COUNTS ---------------------------
        x1     *    g1    [l     m    l1     n1 ] [k]    h1     j1
        .      .     .     .      .     .     .    .      .     .
        .      .     .     .      .     .     .    .      .     .
        .      .     .     .      .     .     .    .      .     .

[5]  ____________________________________________________________________
     OP FAC {r1} [CURR] [PREV] [HIST] h

[6]  ____________________________________________________________________
     OP FAC {s1/w1} [CURR] [PREV] [HIST] [COND] t1 h

[7]  ____________________________________________________________________
     OP FAC {r1/s1/y1} ACS  INH MML: [DAY] [INT] [NONE] RCV: [ACT] [NONE] h

[8]  ____________________________________________________________________
     OP FAC [COND] [CURR] [PREV] EC1STE=a-a2-b2-c2 S L [g] h
       TIME   CI   FI   INT   END   CV       [INH]    [CGA]
       x1     [*]  [*]   q     g1   v        [*]      [x]
```

```
  ES     THR    SES    THR    SEFS   THR
  l      y      m      a1      l1     m1

[9]  ____________________________________________________________________
OP FAC [COND] [CURR] [PREV] VT1FAC=a-a2-b2-c2-d2-e2-f2 P [g] h
  TIME   CI   FI   INT   END   CV       [INH]   [CGA]
  x1     [*]  [*]   q     g1   v        [*]     [x]
  ES     THR    SES    THR    UAS    THR
  l      y      m      a1      n1     o1

[10] ____________________________________________________________________
OP FAC [COND] [CURR] [PREV] DS1SFAC=a-a2-b2-c2-d2-e2-f2 FM=f1 P [g] h
  TIME   CI   FI   INT   END   CV       [INH]   [CGA]
  x1     [*]  [*]   q     g1   v        [*]     [x]
  ES     THR    SES    THR    SEFS   THR    UAS    THR    CSS    THR
  l      y      m      a1      l1     m1     n1     o1     k      b1

[11] ____________________________________________________________________
OP FAC HIST EC1STE=a-a2-b2-c2 S L [g] (u1 OF v1)
  -------------- ERROR THRESHOLDS --------------
    TIME   CI    FI    END    ES     SES    SEFS
    ----   --    --    ---    y      a1     m1
  ---------------- ERROR COUNTS ----------------
    x1     *     *     g1     l      m      l1
    .      .     .     .      .      .      .
    .      .     .     .      .      .      .
    .      .     .     .      .      .      .

[12] ____________________________________________________________________
OP FAC HIST VT1FAC=a-a2-b2-c2-d2-e2-f2 P [g] (u1 OF v1)
  ------------- ERROR THRESHOLDS --------------
    TIME   CI    FI    END    ES     SES    UAS
    ----   --    --    ---    y      a1     o1
  --------------- ERROR COUNTS ----------------
    x1     *     *     g1     l      m      n1
    .      .     .     .      .      .      .
    .      .     .     .      .      .      .
    .      .     .     .      .      .      .

[13] ____________________________________________________________________
OP FAC HIST DS1SFAC=a-a2-b2-c2-d2-e2-f2 FM=f1 P [g] (u1 OF v1)
  ------------------- ERROR THRESHOLDS --------------------
  TIME   CI    FI    END    ES     SES    SEFS   UAS    CSS
  ----   --    --    ---    y      a1     m1     o1     b1
  --------------------- ERROR COUNTS ----------------------
  x1     *     *     g1     l      m      l1     n1     k
  .      .     .     .      .      .      .      .      .
  .      .     .     .      .      .      .      .      .
  .      .     .     .      .      .      .      .      .
```

2. REASON FOR OUTPUT

Output (OP) facility (FAC) performance monitoring (PM) counts and alarm status in response to the OP:FAC input

message.

Format 1 displays the performance measurements of the specified digital facility interface (DFI) facility. This format is used to support early model DFIs such as the ANN1, ANN3(B), and so forth. (Such a DFI is sometimes known as DFI-1.) Format 2 displays the performance monitoring counts for a DFI model 2 (DFI-2) facility. Format 3 displays the performance monitoring counts for one or more integrated digital carrier unit (IDCU) facilities (IFAC) or one or more digital networking unit - synchronous optical network (SONET) (DNU-S) digital signal level 1 SONET (DS1SFAC) far end (FE) facilities. Format 4 displays the history performance monitoring counts for one of the IFACs or one of the DNU-S DS1 FE facility. Format 5 displays the reason that the input request for a digital line and trunk unit (DLTU) related request could not complete; that is, its error termination status. Format 6 displays the initial and final input request status for a requested unit or facility. Format 7 displays the result of an input message requested alert control status (ACS) for the requested unit or facility. Format 8 displays the performance monitoring counts for a digital networking unit - synchronous optical network (SONET) (DNU-S) SONET termination equipment (STE) facility number. Format 9 displays the performance monitoring counts for a DNU-S virtual tributary 1.5 (VT1.5) facility. Format 10 displays the performance monitoring counts for a DNU-S digital signal level-1 (DS1) facility. Format 11 displays the history performance monitoring counts for the DNU-S STE facility. Format 12 displays the history performance monitoring counts for the DNU-S VT1.5 facility. Format 13 displays the history performance monitoring counts for the DNU-S DS1 facility.

3. VARIABLE FIELD DEFINITIONS

`ACS` = Alert control status. The unit's input message requested ACS. The status of inhibits for "MML:" and "RC/V:" follows.

`ACT` = Recent changeable alert inhibits are in effect for the requested unit. Refer to RC/V View 8.1, View 20.23, View 22.15, or View 20.25.

`AIS` = Alarm indication signal (AIS) is in effect for this facility.

`CI` = Corrupt indicator (CI) shows if the counts are invalid or incomplete for this interval. When a '*' is present on the column below CI, it means the PM counts are corrupt during that interval.

`COND` = Conditional request output. The output is generated for facilities that have reported a 15 minute threshold crossing during the current interval or daily threshold crossing during the current day.

`CSS` = Controlled slip seconds count.

`CV` = Coding violations count.

`CURR` = Current 15-minute and day counts were reported or requested.

`DAY` = Daily interval alerts were inhibited by the INH:FAC input message.

`DFI` = Digital facility interface.

`DLTU` = Digital line and trunk unit.

`DNUS` = DNU-S unit.

`DS1SFAC` = DNU-S Digital signal level 1 facility.

`ES` = Errored seconds count.

`FAC` = Facility terminated on a DFI.

`FI` = Failure indication flag. When a '*' is present on the column below FI, it means there was a failure

during that collection interval. For example, a CGA occurred in the interval treated as a failure.

FLS = Frame loss seconds count.

HIST = History of interval counts were reported or requested. History interval 1 is the most recent and history interval 32 is the oldest.

IDCU = Integrated digital carrier unit.

IFAC = IDCU facility.

INH = Inhibit indicator. This indicates whether the production of the automatic message REPT:FAC is inhibited for this facility for the associated reporting interval (15MN or 24HR). This field is only supported for the "CURR" report since the former inhibit statuses are not stored. The REPT:FAC output message reports the crossing of PM thresholds and other PM events.

INT = 15-minute interval alerts were inhibited by the INH:FAC input message.

L = Line counts. The type of counts being reported are line counts.

LCA = Local alarm (red) is in effect for this facility.

NONE = No input message requested MML inhibits have been requested for this unit. In the case of RCV, no recent changeable alert inhibits are in affect.

P = Path counts. The type of counts being reported are path counts.

PREV = Previous 15-minute and day counts were reported or requested. Note that the previous 15-minute interval is the same as history interval 1 and is not reported if both previous (PREV) and history (HIST) are requested.

RMA = Remote alarm (yellow) is in effect for this facility.

RT = Remote terminal.

S = Section counts. The type of counts being reported are section counts.

SEFS = Severely errored framing seconds count.

SES = Severely errored seconds count.

SS = Slip seconds count.

EC1STE = Electrical carrier level 1 SONET termination equipment.

STSFAC = DNU-S Synchronous transport signal (STS) facility.

THR = Threshold of the PM count named to the immediate left.

UAS = Unavailable seconds count.

VT1FAC = Virtual tributary level 1 facility.

* = For CI, this indicates that the CI is set and at least one PM count is invalid for this interval. For FI, this indicates that the FI is set and at least one failure occurred for this interval. For INH, this indicates that the alerts are inhibited for the reported PM interval.

a = Switching module (SM) number.

b = DLTU number.

c = DFI number.

d = FAC number.

e = Circuit pack type.

f = T1 transmission mode and signaling format. Valid value(s):

- 64K = T1 DFI D4 format with 8-bit zero code suppression (B8ZS) and rob-bit signaling.
- B8ZS = T1 DFI remote SM (RSM) format with B8ZS and word-24 signaling.
- D4 = T1 DFI D4 format with zero code suppression (ZCS) and rob-bit signaling.
- D464 = T1 DFI D4 format with ZCS and rob-bit signaling.
- D4D64 = T1 DFI D4 format with B8ZS and digital multiplex interface bit-oriented signaling (DMI-BOS).
- D4DNO = T1 DFI D4 format with DMI-BOS.
- D4DZ = T1 DFI D4 format with ZCS and DMI-BOS.
- D4NO = T1 DFI D4 format with rob-bit signaling.
- DZBTS = T1 DFI extended framing (FE) format with zero byte time slot interchange (ZBTSI) and DMI-BOS.
- FE = T1 DFI FE format with rob-bit signaling.
- FE64 = T1 DFI FE format with ZCS and rob-bit signaling.
- FE8Z = T1 DFI FE format with B8ZS and rob-bit signaling.
- FEB7 = T1 DFI FE format with ZCS and rob-bit signaling.
- FED64 = T1 DFI FE format with B8ZS and DMI-BOS.
- FEDNO = T1 DFI FE format with DMI-BOS.
- FEDZ = T1 DFI FE format with ZCS and DMI-BOS.
- RZBTS = T1 DFI RSM format with ZBTSI and word-24 signaling.
- ZBTSI = T1 DFI FE format with ZBTSI and rob-bit signaling.
- ZCS = T1 DFI RSM format with ZCS and word-24 signaling.

g = Facility name (a customer-defined string through RC/V).

h = The result of the request. Valid value(s):

- COMPLETED = The request was successfully completed.
- COMPLETED FACS OOS = The request for performance monitoring (PM) counts from an entire IDCU, or TR303 RT, or DNU-S, or STS-1 completed but counts for out-of-service facilities were not included in the output report
- COMPLETED EOC OOS = The request for PM counts completed but counts could not be read from a TR303 RT because its embedded operations channel (EOC) was out-of-service
- CONT = Continuing. Intermediate output report.
- CONTINUING = Intermediate output report.
- FAILED = The data could not be collected for this report.
- FAILED DNUS CC OOS = The request for PM counts failed because DNU-S common control (CC) was out-of-service. DNU-S duplex failure condition.
- FAILED EOC OOS = The request for PM counts from a TR303 RT failed because the RT's EOC was out-of-service.
- FAILED IDCU OOS = The IFAC or TR303 request for PM counts failed because the IDCU was out-of-service.
- FAILED SM INHIBITED = The input request could not be processed because PM is inhibited at

the SM level.

`FAILED SWITCH AND SM INHIBITED` = The input request could not be processed because PM is inhibited at the both the switch and SM level.

`FAILED SWITCH INHIBITED` = The input request could not be processed because PM is inhibited at the switch level.

`NO MATCH` = The specified facility does not exist or is not a DFI-2 or IDCU facility.

`NOT ALLOWED` = The requested report is not allowed for the given facility or unit.

`OUT OF SERVICE` = The requested IDCU is out-of-service and no counts were output.

`SM UNAVAILABLE` = The input request could not be processed because communication with the associated SM is not possible.

`STARTED` = Initial output report.

`SYSTEM BUSY` = The system's processing capability has been reached, or a system resource is unavailable. Retry the request later.

`i` = Facility status (STAT). Valid value(s):

`ACT` = Active.

`MTCE` = Maintenance.

`j` = Number of path change-of-frame alignments (COFAs) in this interval.

`k` = Number of controlled slip seconds (CSS) or slip seconds (SS) in this interval.

`l` = Number of errored seconds (ES) in this interval.

`m` = Number of severely errored seconds (SES) in this interval.

`n` = Number of line bi-polar violations (BPVs) in this interval.

`o` = Number of path failed seconds (FSs) in this interval.

`p` = Number of path bursty errored seconds (BESs) in this interval.

`q` = Indicates the PM interval (INT) being reported. Valid value(s):

`15MIN` = 15-minute counts.

Note: After a DFI-2 facility initialization (using INIT:FAC or RST:DFI), the BPV, COFA, and cyclical redundancy checks (CRC) counts are zeroed until the next real time 15 minute interval. Also, due to facility initialization time discrepancies, these counts will be staggered as follows: The BPV, COFA, and CRC counts will move to the previous and history registers on the real time 15 minute boundaries and may lag the remaining counts by several minutes. The remaining counts will be moved to the previous and history registers based on the DFI facility internal 15 minute timer. This timer was started when the DFI facility was initialized (using RST:DFI or when the facility became equipped) and may not coincide with the real time 15 minute clock.

`24HR` = Daily counts.

`HIST` = History data interval as described by variable '`r`' (Format 2 only).

`r` = Start time of the history interval. PM history interval which ranges from 1-32. The PM history intervals are the 32 previous 15-minute intervals. The intervals are numbered from newest to oldest.

Thus the interval marked HIST1 is the previous 15-minute interval and the interval marked HIST32 is the 15-minute interval from 8 hours ago. If both PREV and HIST counts were requested, the previous 15-minute count is not included in the output report to avoid redundancy with history interval 1 (Format 2 only).

s = Current path BES threshold for this interval.

t = Current line BPV threshold for this interval.

u = Current path COFA threshold for this interval.

v = Number of CRC6s or CVs in this interval.

w = Current path CRC6 threshold for this interval.

x = This indicates the current highest carrier group alarm (CGA) alarm status. Valid value(s):

AIS	= Used for AIS CGA, the highest CGA status.
LCA	= Used for a local (or red) CGA, the next highest CGA status.
RMA	= Used for a remote (or yellow) CGA, the lowest CGA status.
NONE	= No CGA condition exits.

y = Current ES threshold for this interval.

z = Current path FS threshold for this interval.

a[1] = Current SES threshold for this interval.

b[1] = Current SS or CSS threshold for this interval.

c[1] = IDCU number.

d[1] = RT number.

e[1] = IFAC number.

f[1] = Framing mode (FM) of facility. Valid value(s):

D4	= Super frame.
ESF	= Extended super frame.
SF	= Super frame (same as D4 mode).

g[1] = Network element being reported:. Valid value(s):

FE	= Far end. Far end of a facility.
NE	= Near end. Near end of a facility.

h[1] = Number of line ES for this interval.

i[1]" = Current LES threshold for this interval.

j[1] = Number of line SES for this interval.

k[1] = Current LSES threshold for this interval.

l[1] = Number of FLS or SEFS for this interval.

m^1 = Current FLS or SEFS threshold for this interval.

n^1 = Number of UAS for this interval.

o^1 = Current UAS threshold for this interval.

p^1 = Valid value(s):

DFI=a-b-c
DLTU=a-b

q^1 = Valid value(s):

IDCU=a-c^1
IDCURT=a-c^1-d^1
DNUSRT=a-a^2-d^1

r^1 = Valid value(s):

FAC=a-b-c-d
DLTU=a-b
DFI=a-b-c

s^1 = Valid value(s):

IDCU=a-b^1
IDCURT=a-c^1-d^1
IFAC=a-c^1-e^1

t^1 = Network element being reported. Valid value(s):

BOTH	= Both ends of a TR303 facility.
COND	= Conditional request. Only facilities that have crossed a 15-minute alerting threshold during the current 15-minute interval or daily threshold during the current PM day are reported.
FE	= Far end. Far end of a facility.
NE	= Near end. Near end of a facility.

u^1 = Section of the history report for the given network element.

v^1 = Total sections of the history report for the given network element.

w^1 = Valid value(s):

DNUS=a-a^2
DNUSRT=a-a^2-d^1
EC1STE=a-a^2-b^2-c^2
STSFAC=a-a^2-b^2-c^2-d^2
VT1FAC=a-a^2-b^2-c^2-d^2-e^2-f^2
DS1SFAC=a-a^2-b^2-c^2-d^2-e^2-f^2

x^1 = Interval start time. The PM history intervals are the 32 previous 15-minute intervals. The timestamps represent the start time of each 15 minute interval. If both PREV and HIST counts were requested, the previous 15-minute count report is not printed to avoid redundancy with the first

history interval.

y[1] = Valid value(s):

```
DNUS=a-a2
 DNUSRT=a-a2-d1
 EC1STE=a-a2-b2-c2
 VT1FAC=a-a2-b2-c2-d2-e2-f2
 DS1SFAC=a-a2-b2-c2-d2-e2-f2
```

a[2] = DNU-S number.

b[2] = Data group number.

c[2] = STE facility number.

d[2] = STS facility number.

e[2] = Virtual tributary group (VTG) number.

f[2] = Virtual tributary member (VTM) number.

4. ACTIONS TO BE TAKEN

None. This message is generated in response to the OP:FAC input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:FAC
INH:FAC
INIT:FAC
INIT:REG
OP:FAC
OP:REG
```

Output Message(s):

```
ALW:FAC
INH:FAC
INIT:FAC
INIT:REG
OP:REG
REPT:FAC
REPT:CGA
```

Other Manual(s):
235-190-115 *Local and Toll System Features*

235-105-110 *System Maintenance Requirements and Tools*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
20.23 [IDCU FACILITY PERFORMANCE MONITORING (IFAC)]
20.25 (DNU-S PERFORMANCE MONITORING THRESHOLD GROUP)
22.15 (PERFORMANCE MONITORING)

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OP:FACMAP

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP FACMAP   FAC=a-b-c-d
         CHAN-STAT     CHAN-STAT     CHAN-STAT     CHAN-STAT     CHAN-STAT
           1   e         6   e        11   e        16   e        21   e
           2   e         7   e        12   e        17   e        22   e
           3   e         8   e        13   e        18   e        23   e
           4   e         9   e        14   e        19   e
           5   e        10   e        15   e        20   e

[2]   ____________________________________________________________________
      OP FACMAP   FAC=a-b-c-d   f
```

2. REASON FOR OUTPUT

Format 1 is printed when data is available for a valid umbilical facility - either a T1 host to remote facility (HFAC) or a T1 remote to host facility (T1FAC). Status for the first 23 channels on the T1 facility is displayed in 5 columns. Channel 24 is not displayed since it is always reserved for CCS signaling.

Format 2 is printed when an error occurs while trying to obtain channel data associated with the requested FAC.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DLTU number.

`c` = DFI number.

`d` = Facility (FAC) number.

`e` = Status. Valid value(s):
- `B` = The channel is busy.
- `C` = The channel is being used for a control time slot (applies only to channel 1).
- `I` = The channel is idle.

`f` = Error type. Valid value(s):
- `DATA BASE ERROR` = Error occurred while trying to obtain channel information.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-105-220 *Corrective Maintenance Manual*
235-105-250 *System Recovery Manual*

OP:FACR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

[1]
```
OP FACR SCHED SCHEDULE
  REQ ID  DATE    TIME    REQ TYPE
    a     b/c     d:00       e
    .      .       .         .
    .      .       .         .
    .      .       .         .
```

[2]
```
OP FACR STATUS COMPLETED
  NO FACR AUDIT RUNNING
```

[3]
```
OP FACR STATUS COMPLETED
  FACR AUDIT SUSPENDED
  LAST PROCESSED SM f
```

[4]
```
OP FACR STATUS COMPLETED
  FACR AUDIT IN PROGRESS
  PROCESSING SM f
```

2. REASON FOR OUTPUT

To report on the status of a feature activation counting and reconciliation (FACR) audit or display the scheduled entries.

Format 1 reports a list of entries the FACR has been scheduled for. This output can be used in conjunction with the DEL:FACR input message for removing a scheduled entry.

Formats 2, 3, and 4 will indicate if the FACR audit is running or suspended, along with the SM that is being processed.

3. VARIABLE FIELD DEFINITIONS

`a` = Identification number of each FACR scheduled entry.

`b` = Month FACR has been scheduled for (1-12).

`c` = Day of the month FACR has been scheduled for (1-31).

`d` = Hour of the day FACR has been scheduled for (0-5, 18-23).

`e` = Type of FACR audit requested to be executed. Valid value(s):
- `OFFICIAL` = Request for an official run of the FACR audit.
- `UNOFFCIAL` = Request for an unofficial run of the FACR audit. The output from the audit is restricted for use by the service provider.

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`SUSPENDED` = A previous FACR audit has been suspended and is scheduled to restart at the specified date and time.
`UNOFC DETAIL` = Request for a detail run of the FACR audit for a single NSEP. All detail runs are executed in the unofficial mode.

`f` = Switching module currently being processed.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual request of the OP:FACR input message. No further action is necessary if the request completed successfully.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DEL:FACR
OP:FACR
```

Other Manual(s):
235-040-100 *OA&M Planning Guide*
235-100-125 *System Description*

OP:FNAME

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      OP FNAME a
        b NAME
        c d

[2]   ____________________________________________________________
      OP FNAME NOT STARTED
        RETRY LATER e

[3]   ____________________________________________________________
      OP FNAME ABORTED CANNOT OPEN OUTPUT FILE e

[4]   ____________________________________________________________
      OP FNAME ABORTED CANNOT WRITE OUTPUT FILE e

[5]   ____________________________________________________________
      OP FNAME ABORTED CANNOT CREATE TEMPORARY FILE
```

2. REASON FOR OUTPUT

Format 1 prints the full path names of files.

Format 2 reports why an OP:FNAME input message aborted.

Format 3 reports that an error occurred when trying to create a temporary file.

Format 4 reports that an error occurred when trying to write to a temporary file.

Format 5 reports an error when unable to create a uniquely-named temporary file.

3. VARIABLE FIELD DEFINITIONS

`a` = Output message status. Valid value(s):
- `COMPLETED` = Last or only segment of message.
- `IN PROGRESS` = Intermediate segment(s) of message.
- `STARTED` = First segment of message.

`b` = Search type. Valid value(s):
- `BLOCK` = The check for matches was made on block numbers.
- `INODE` = The check for matches was made on inodes.

`c` = Inode or first block number on which the match occurred.

`d` = Full path name on which the match occurred.

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`e` = Name of temporary file.

`f` = Explanation of error. Refer to the APP:OP-FNAME appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

For Format 1, no action is required.

For Format 2, all the inodes of the tmp file system are being used. Clean up unused files in the tmp file system, using the CLR:FSYS-FILE input message, before retrying the OP:FNAME input message.

For Format 3, all tmp file system space has been used up. Clean up unused files in the tmp file system, using the CLR:FSYS-FILE input message, before retrying the OP:FNAME input message.

For Format 4, system resources do not permit the running of this input message at this time. Retry later. If the OP:FNAME input message continues to fail, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	442
2	438
3	628
4	667
5	none

Input Message(s):

```
CLR:FSYS-FILE
OP:FNAME
```

Output Message(s):

```
AUD:FSBLK
AUD:FSLINK
```

Output Appendix(es):

```
APP:OMDB-X-REF
APP:OP-FNAME
```

Other Manual(s):
235-600-400 *Audits*

49. OP:G

OP:GEN-APPLLOG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP GEN APPLLOG
        APPLLOG DOES NOT EXIST

[2]   ____________________________________________________________________
      OP GEN APPLLOG REPORT
        {stage:  b
        execution mode: {CONDITIONAL|UNCONDITIONAL}
        start time: c d  e  ff:ff:ff g
        end time: c d  e ff:ff:ff g
        major error: h
        minor error: i
        [files copied: j]
        [DISK PROCESS STATUS:p|DISK ERROR MESSAGE:q]
             .
             .
             .
        [sent RSM CPI rqst: c d  e ff:ff:ff g]
        [sent CPI rqst: c d  e ff:ff:ff g]
        [module action:
        number  type    action                    result
        ------  ----    ------                 ------------

        k       l       m                      n  [o | c d e ff:ff:ff g]
             .
             .
             .  ]}
             .
             .
             .
```

2. REASON FOR OUTPUT

Whenever the retrofit message UPD:GEN-[BEGIN|ENTER|PROCEED| COMMIT|SWITCHFWD|SWITCHBCK|BACKOUT|SMSWITCH|SMBKOUT|RESTORE| END] are executed, the retrofit process applhook populates the log file /etc/log/appllog with information indicating what transpired. As successive retrofit messages are run, additional entries are appended to the appllog file. The execution of the UPD:GEN-END message indicates the end of the retrofit message sequence and automatically moves the appllog file to /etc/log/sv.appllog.

Format 1 indicates the appllog file does not exist. The appllog is required to exist to conditionally execute the ENTER, PROCEED, COMMIT, SWITCHFWD, SWITCHBCK, BACKOUT, SMSWITCH, SMBKOUT, RESTORE, and END retrofit stages.

Format 2 indicates that appllog exists and a printout of the appllog file contents will follow. Format 2 lists a retrofit log containing a single retrofit log entry. Several retrofit log entries may be present in the appllog report at any one time

and would print consecutively one after the other until the entire log contents were output. The optional information fields listed in Format 2 depend on which retrofit stage the log entry is for.

All retrofit log entries contain the following information: the mode of execution, date, starting and ending time that the entry was made, and the major and minor reason for error, if any. The major errors are listed in the section 3.

If variable '`b`' is a BEGIN or END appllog entry, there are no optional fields. The BEGIN stage indicates the start of the retrofit process; the END stage indicates the completion of the retrofit process.

If variable '`b`' is a ENTER, COMMIT, or RESTORE appllog entry, it includes all the basic information as well as the optional disk process status and disk error messages. The disk process status and disk error messages are listed in section 3.

If variable '`b`' is a PROCEED appllog entry, it includes all the basic information as well as the path of the source files copied to the offline disk and the results of the file copies. It also includes the optional disk process status and disk error message. In the retrofit stage sequence, the PROCEED stage follows the ENTER stage.

If variable '`b`' is a SMSWITCH or SMBKOUT, it includes all the basic information as well as the date and time at which the first central processor intervention (CPI) request was sent to the remote switching module (RSM) and the date and time at which the first CPI request was sent to the non-RSMs, the list of switching modules (SM) with their module number, type, action, result, and optional status or timestamp; that is, the consequence of the CPI requests or the date and time that the SM responded to the CPI request. The retrofit SMSWITCH stage is normally executed after the PROCEED stage to switch SMs from module controller/time slot interchanger (MCTSI) side 0 to MCTSI side 1. The retrofit SMBKOUT stage is normally executed after the PROCEED stage to switch SMs from MCTSI side 1 to MCTSI side 0.

If variable '`b`' is a SWITCHFWD, SWITCHBCK or BACKOUT appllog entry, it includes all the basic information as well as the path of the source files copied to the off-line disk, the results of the file copies, the date and time at which the first CPI request was sent to the RSMs and the date and time at which the first CPI request was sent to the non-RSMs with the list of SMs, their module number, type, action, result, and optional status or timestamp; that is, the consequence of the CPI requests or the date and time that the SM responded to the CPI request. In the retrofit stage sequence the SWITCHFWD, SWITCHBCK, or BACKOUT message occur after the PROCEED stage. The retrofit SWITCHFWD stage is used to switch SMs from MCTSI side containing the "old" to the MCTSI side containing the "new" software release. The retrofit SWITCHBCK and BACKOUT stages are used to switch SMs from the MCTSI side containing the "new" to the MCTSI side containing the "old" software release.

If variable '`n`' is `FAILED`, it will be followed by the field '`o`' which will provide information on why the failure occurred.

If variable '`n`' is "Switched", it will be followed by a date stamp that marks when the SM successfully responded to the CPI request.

3. VARIABLE FIELD DEFINITIONS

`b` = Appllog entry. Valid value(s):

- `BACKOUT` = Switch SMs MCTSI sides that have been offline pumped from the new back to the old software release. This message also copies log files from the active to the offline MHDs.
- `BEGIN` = Start of the retrofit process, function performed by applhook include creation of the /etc/log/appllog log file, recent change and routine exerciser inhibits, etc.
- `COMMIT` = MHDs are restored to duplex operation on the new software release. Functions performed by applhook include restoring even numbered MHDs to service.
- `END` = Completes the retrofit cycle, functions performed by applhook include moving the /etc/log/appllog log file to /etc/log/sv.appllog, recent change and routine exerciser allow, etc.

`ENTER` = Generic text loading process, function performed by applhook include removing odd numbered moving head disks (MHD) from service and marking the offline.
`PROCEED` = Final preparation of the offline MHDs for initialization, functions performed by applhook include copying files from the active to the offline MHDs.
`RESTORE` = MHDs are restored to duplex operation on the old software release when backing out of the retrofit, function performed by applhook include restoring even numbered MHDs to service.
`SM BKOUT` = Switch SMs from MCTSI side 1 to MCTSI side 0.
`SM SWITCH` = Switch SMs from MCTSI side 0 to MCTSI side 1.
`SWITCH BCK` = Switch SMs MCTSI sides that have been offline pumped from the new back to the old software release. This message also copies log files from the active to the offline MHDs.
`SWITCH FWD` = Switch SMs MCTSI sides that have been offline pumped from the old to the new software release. This message also copies log files from the active to the offline MHDs.

`c` = Abbreviated weekday - Sun to Sat.

`d` = Abbreviated month - Jan to Dec.

`e` = Day of month - 01 to 31.

`f` = Time of day, in the form hours:minutes:seconds.

`g` = Four digits of year.

`h` = The error that occurred during the applhook process. Valid value(s):
`ABNORMAL MNTFS ERROR` = An error occurred while copying files to the offline disk using the mount offline file system (MNTFS) process.
`BAD ARGUMENT` = The input arguments are inconsistent.
`CONTEXT ERROR` = The current state is inconsistent with the usage of this message.
`CPI ERROR` = A problem was detected while sending central processor intervention (CPI) message.
`DD ERROR` = A problem with data delivery (DD) was detected.
`DISK LOG ERROR` = A problem was detected while reading or writing the file /etc/log/appldsklog.
`DISK PROCESS FAULT` = An error occurred while either making an MHD offline or restoring an MHD from offline to the active state.
`MESSAGE ERROR` = An error occurred while sending or receiving messages.
`OFFLINE COPY ERROR` = An error was detected while copying files from the ACTIVE to the OFFLINE MHDs.
`RECEIVED SIGNAL` = A signal was received which terminated the message.
`SM NOT DUPLEX` = The SMs are not duplex.
`SUCCESS` = No error.
`UNIX` = A *UNIX*® error occurred.

`i` = The error that occurred during the applhook process. The complete list of minor errors can be found in the Generic Retrofit Procedures manual.

`j` = The path of the source file name being copied to the offline MHD followed by the results of the copy. Valid value(s):
`CANNOT ALLOCATE ENOUGH SPACE` = Could not allocate contiguous space for the destination file.
`CPFILE INCORRECT ARGUMENT COUNT` = A line in the file cpfile.prc or cpfile.swfwd is not in the

correct format.
`DEST WRITE ERROR` = An error occurred while writing the destination file.
`DPATH IS NOT A DIRECTORY` = The destination file name already exists and is a directory.
`INCORRECT SOURCE PATHNAME` = The source file directory or the source file does not exist.
`INVALID DEST PATH OR PTN IN CP FILE` = An invalid entry exists in the cpfile.prc or cpfile.swfwd file for the destination path [field 3] or the destination partition [field 4].
`MNTFS ERROR` = The mount offline file system (MNTFS) process returned an error.
`NOT COPIED-POSSIBLE COPY ERROR` = The entry in the cpfile was skipped.
`OFF LINE MOUNT ERROR` = An error occurred while mounting a file system from the offline MHD.
`OFF LINE MOUNT PROCESS DEAD` = The mount offline partition process (MOPP) is not running and should be running.
`SOURCE READ ERROR` = An error occurred while reading the source file.
`SOURCE NOT FOUND-NO FAILURE` = The source file does not exist but the file is marked as unessential in the cpfile.
`SUCCESSFUL` = no error.
`UNIX` = A *UNIX*® error occurred.

`k` = The SM number.

`l` = The SM type. Valid value(s):
`HSM` = Host switching module.
`LSM` = Local switching module
`ORM` = Optically remote module.
`RSM` = Remote switching module.
`TRM` = Two-mile remote module.

`m` = The action performed on the SM. Valid value(s):
`END STATE` = SM is already on proper side.
`GROWTH` = SM is in growth state, no action performed.
`MANUALLY ISOLATED` = SM is manually isolated, no action performed.
`NOT REQUESTED` = No action has been requested on this SM.
`SWITCH TO 0` = SM is being switched to side 0.
`SWITCH TO 1` = SM is being switched to side 1.

`n` = The result of action '`m`' on the SM. Valid value(s):
`End State` = SM is already in the end state.
`Expected State` = SM is in the expected state for this action.
`Failed` = The SM failed to switch, or is initializing and the status could not be determined.
`Force Cleared` = The force on the SM has been cleared.
`No Action` = No action has been requested on this SM.
`Switched` = The SM has switched successfully.
`Unknown State` = SM is not in the expected state for this action.

`o` = The last status taken on the SM. This field will be printed whenever the SM switch result '`n`' is "FAILED". Each field r,s,t,u,v,w,x,y,z,a^1,b^1, represents a different SM attribute. Valid value(s): `o` = (rstuvwxyzga^{1}b^1)

`p` = Disk process status field describes an action taken on the MHDs during the retrofit process. The possible disk process statuses are listed below. Refer to Exhibit B.

q = Disk error message field describes a fault that occurred during the retrofit process while changing the status of MHDs. Refer to Exhibit C for disk error messages and definitions.
Note: The first disk error message in the log is the cause of the failure. As this failure is returned back to the calling function, these functions will in most cases also print error messages.

r = Status of the DDRISOL (isolation) data delivery key. Refer to Exhibit A for values.

s = Status of the DDCPLVL3 (level 3 communication) data delivery key. Refer to Exhibit A for values.

t = Status of the DDSMGEND (software release difference) data delivery key. Refer to Exhibit A for values.

u = Status of the DDSFRC (SM force) data delivery key. Refer to Exhibit A for values.

v = Status of the DDSMP (SM side) data delivery key. Refer to Exhibit A for values.

w = Status of the DDIMLVL3 (level 3 communication) data delivery key. Refer to Exhibit A for values.

x = Status of the DDSMTMEM (SM mate memory) data delivery key. Refer to Exhibit A for values.

y = Status of the DDOGEND (software release difference) data delivery key. Refer to Exhibit A for values.

z = Status of the DDSOPSTAT (operational status) data delivery key.

a[1] = Spare field (not currently implemented).

b[1] = Spare field (not currently implemented).

Value:	Meaning:
0	SMP is currently on side 0.
1	SMP is currently on side 1.
X	This state is currently not checked.
a	Defines the "abnormal" case of data delivery key.
g	Current state is "software release" difference (GENDIFF).
n	Defines the "normal" case of data delivery key.
o	SM's mate memory contains "old" data.
s	SM's mate memory is "standby".
u	SM's mate memory is being "updated".

Disk Process Status

Status:	Definition:
Cleanup disk with ucbfd n	The disk process is releasing the UCB for MHD 0 or 1.
File /etc/log/appldsklog does not exist	The file appldsklog tracks manipulations done to the MHDs.
Marking MHD nOFL in ECD	MHD nis being marked offline.
Marking MHD nOOS in ECD	MHD nis being marked from offline to out of service.
Marking MHD nOFL in OFL MHD ECD	The mate MHD to the MHDs currently in the offline state must be offline on the new generic disk.
Mounting offline db partition	The /dev/db partition on the offline primary disk is being mounted.
release MHD n	The disk process is releasing the UCB for MHD n.
Removing MHD nfrom service	A request is being made to remove MHD n from service.
reserve MHD n	The disk process is reserving the UCB for MHD n.
Restoring MHD nto service	A request is being made to restore MHD n to active from out of service.
Selecting MHDs for processing	The MHDs are examined to determine which should be made offline.
Selecting MHDs for restoration	During COMMIT and RESTORE mate paired MHDs are

	automatically restored to service.
Unmounting offline db partition	The /dev/db partition on the offline primary disk is being unmounted.

Disk Error Messages

Message:	Reason:
bad newstate found newstate	Function SUrcv() used inconsistently, this error indicates a coding inconsistency.
both boot disks active	Either MHD 0 or MHD 1 must be offline.
cannot close ECD	The function close() failed on the /dev/ecd.
Cannot create disk log /etc/log/appldsklog	The appldsklog could not be created.
cannot do setio	The function call setio() failed to set input/output to physical.
Cannot enable messages	The function call msgenab() failed.
Cannot extract base disk info for n	The boot disk nmust be MHD 0.
cannot find entry for prt n	The partition entry nin the VTOC is out of range.
cannot open ecd	The system call to open /dev/ecd for read/write failed.
Cannot open file /etc/log/appldsklog for reading	The system call to open appldsklog for reading failed.
cannot open vtoc file n	The system call to open the special device file n for reading failed.
Cannot read header from file /etc/log/appldsklog	The system call read() failed while reading the header from the file appldsklog.
Cannot write disk data for disk pair	The system call write() failed while writing disk data for disk pairn to the file /etc/log/appldsklog.
Cannot write disk log header	The system call write() failed while writing the header to the file appldsklog.
Cannot write disk sync word	The system call write() failed while writing the sync word to the file appldsklog.
close failed	The system call close() failed while closing the file descriptor to the file /dev/ecd.
close of ucb failed	The system call close() failed while closing the UCB file descriptor for MHD 1.
close of vtoc file failed	The system call close() failed while closing the file descriptor to the offline disk VTOC.
dfcinit failed	The function dfcinit() returned a failure.
disk driver message not received	Unable to communicate to the disk driver.
Disk log file age exceeded, age = nsec	The file appldsklog is older than 24 hours, The file appldsklog is older than 24 hours, nis the current age in seconds.
Disk log file ID string incorrect n	The file ID contained in the file appldsklog is incorrect, the value found was n.
disk log read out of sync expected APPLDSKSYNC got n	The sync word read from the file appldsklog is incorrect, the value found was n.
disk usevtoc msg error	The message received from the disk driver has a non-zero return code.
diskinit failed	The function call to diskinit() returned a failure.
diskinit (from dfcinit) failed	The function call made from dfcinit() to diskinit() returned a failure.
diskinit (from diskreuse) failed	The function call made from diskreuse() to diskinit() returned a failure.
diskinit (from dskbase) failed	The function call made from dskbase() to diskinit() returned a failure.
diskmira failed	The function SUdskmira() return a failure.
diskrelease failed	The function SUdskrelease() returned a failure.
diskreserve failed	The function SUdskreserve() returned a failure.
diskreuse failed	The function SUdskreuse() returned a failure.
diskuseprt failed n	The function SUdskuseprt() returned a failure, the disk special device file being used was n.
dskbase call failed n	The function SUdskbase() failed, the boot device unit number was n.
dskfree call failed	The function SUdskfree() returned a failure.
dskmira msgenab() failed n	The system call to enable messages msgenab() failed int the function SUdskmira().
dskmira recvw() failed	The system call to receive messages recvw() failed int the function SUdskmira(), the message was being received from

	the maintenance request administrator (MIRA).
dskmira request result errorn	The result from the request to MIRA to change the disk state is inconsistent, the result was n.
dskmira sendpw() failed	The system call to send messages sendpw() failed in the function SUdskmira(), the message was being sent to the maintenance request administrator (MIRA).
dskmira ucb unexpected status u_stat n	The UCB for the MHD currently being operated on shows that the disk is not in the proper state, the current state is n.
dskmira ugetucb() failed cucbn	The system call to ugetucb() (get UCB) returned a failure for cucbn.
failure to sequence ucbs	The function SUgetucbs() failed, this function looks up the UCBs for all MHDs.
fclose failed	The system call fclose() returned a failure for the input file being built for the rcvecd call, file being closed is /tmp/rcvin%d, where %d is the process ID of applhook.
File status of /etc/log/appldsklog incorrect	The file appldsklog is not a regular *UNIX*® file.
fopen failed	The system call fopen() returned a failure for the input file being built for the rcvecd call, file being opened is /tmp/rcvin%d, where %d is the process ID of applhook.
Illegal mira request n	The function SUdskmira was called with a newstate value other than OOS or ACTIVE, the state value was n.
link failed	The system call link() failed to link the appecd file to the appdmert file on the offline mounted /dev/db partition.
mhd oos selection	The function SUmhd2oos() return a failure, this function selects what MHDs need to be made offline.
mhd OOS status unexpected for rt n	One of the MHDs in the MHD pair for rt nwas OOS, this is not a legal retrofit state.
mknod failed	The system call mknod() returned a failure while trying to create the node for accessing the offline /dev/db partition.
mount failed	The system call mount() failed while trying to mount the offline /dev/db partition.
mount of offline db partition failure	The function SUmountdb returned a failure.
msg not from disk driver	The from process ID of the message received was not from the disk driver.
msgport failed	The system call msgport() returned a failure.
neither boot disk active	Neither boot disk (MHD 0 or 1) are active.
no ucb reserved	The UCB for MHD 1 was not reserved.
open offline partition failedn	The system call open() failed while trying to open the special device file nto read the offline MHD VTOC.
problem unmounting db partition	The function call SUumountdb() return a failure while trying to unmount the offline /dev/db partition.
RCV failed	The system call system() had a non-zero return code for the rcvecd call.
rcv failed	The function SUrcv() returned a failure while trying to change the status of an MHD to offline on the offline disk.
rcv incore failed	The function SUrcv() returned a failure while trying to change the status of and MHD to offline int the incore ECD.
rcvofldisk failure	The function SUrcvofldisk() returned a failure while trying to mark even numbered MHDs offline in the offline ECD.
rd_vtoc failed on n	The function SUrd_vtoc() returned a failure while trying to read the vtoc at location n.
Read disk log data for disk pair nfailed	The system call read() failed while reading MHD pair ndata from the file appldsklog.
Read disk log sync for disk pair nfailed	The system call read() failed while reading MHD pair n sync from the file appldsklog.
read into vtoc buffer error	The system call read() returned a failure while trying to read a VTOC.
some disk already reserved	A function call to SUdskreserve was made with an MHD already reserved.
stat failed	The system call stat() failed for the special device file for the offline MHD during a vtoc read.

trouble mounting offline db partition	The function call SUmountdb() returned a failure.
ugetucb fail code n	The system call ugetucb() (get UCB) returned a failure, the errno is n.
ugsdf fail code n	The system call ugsdf() (get special device file) returned a failure, the errno is n.
ugucbn fail code n	The system call ugucbn() (get UCB named) returned a failure, this function is used to retrieve the UCB entries for the MHDs.
umount failed n	The system call umount() returned a failure while trying to unmount the offline /dev/db partition, the special device pointer being used was n.
umountdb failure	The function SUumountdb() returned an error while attempting to unmount the offline db partition.
unexpected MHD unit numbers	The MHD pairs should only have MHD numbers with a difference of on between them, for example, MHD 0 and 1, a pair of MHDs was detected with a difference greater than 1.
unlink failed	The system call unlink() returned a failure.
relucb fail code n	The system call urelucb() (generic UCB of interest) returned a failure, the system errno was n.
ursdf fail code n	The system call ursdf() (generic special device file) returned a failure, the system errno was n.
ursvucb fail code n	The system call ursvucb() (reserve UCB of interest) returned a failure, the system errno was n.
Write disk log failed	The function SUwr_dsklog() failed to successfully write the file appldsklog.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:G-READLOG
STOP:GEN
UPD:G-BEGIN
UPD:G-BACKOUT
UPD:G-COMMIT
UPD:G-CONTINUE
UPD:G-ENTER
UPD:G-PROCEED
UPD:G-RESTORE
UPD:G-SWITCHFWD
UPD:G-SWITCHBCK
UPD:G-SMSWITCH
UPD:G-SMBKOUT
UPD:G-END
```

Output Message(s):

```
OP:GEN-READLOG
STOP:GEN
```

```
UPD:GEN-BEGIN
UPD:GEN-BACKOUT
UPD:GEN-COMMIT
UPD:GEN-CONTINUE
UPD:GEN-ENTER
UPD:GEN-PROCEED
UPD:GEN-RESTORE
UPD:GEN-SMBKOUT
UPD:GEN-END
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-105-24x *Generic Retrofit Procedures*
235-105-34x *Generic Update Procedures*
235-105-44x *Large Terminal Growth Procedures*

OP:GEN-READHDR

Software Release: 5E10 and later
Message Class: GENR
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP GEN READHDR COMPLETE

[2]   ____________________________________________________________________
      OP GEN READHDR STOPPED

        CANNOT ACCESS TAPE DRIVE
        TAPE MAY NOT BE MOUNTED CORRECTLY
        OR TAPE DRIVE MAY NOT BE ONLINE

[3]   ____________________________________________________________________
      OP GEN READHDR STOPPED

        TAPE DOES NOT APPEAR TO BE IN LDFT FORMAT

[4]   ____________________________________________________________________
      OP GEN READHDR TAPE HEADER DATA

        TAPE SEQUENCE TYPE:     a
        TAPE NO. IN SEQUENCE:   b
        TAPE DENSITY:           c       (TAPE DEVICE: d)
        DESTINATION:            e       (MHD PAIR f)
        TAPE SEQUENCE ID:       g
        POINT RELEASE:          h
        TAPE DOES NOT CONTAIN A VTOC

[5]   ____________________________________________________________________
      OP GEN READHDR TAPE HEADER DATA

        TAPE SEQUENCE TYPE:     a
        TAPE NO. IN SEQUENCE:   b
        TAPE DENSITY:           c       (TAPE DEVICE: d)
        DESTINATION:            e       (MHD PAIR f)
        TAPE SEQUENCE ID:       g
        POINT RELEASE:          h
       {TAPE CONTAINS A VTOC|TAPE CONTAINS AN INVALID VTOC}
       PTN     START   SIZE DESCRIPTION
        i        j       k      [l]

[6]   ____________________________________________________________________
      OP GEN READHDR ERROR

        FAILED UPDATE OF /etc/log/tapelog
```

2. REASON FOR OUTPUT

To provide information obtained from a load-disk-from-tape (LDFT) format tape header. A volume table of contents (VTOC) is printed if present.

In Format 1, the READHDR message has completed successfully.

In Format 2, the READHDR message could not access the tape drive.

In Format 3, the READHDR message could not interpret the tape header data. The tape may not be in LDFT format, or the tape may have been damaged.

In Format 4, the information from the LDFT tape header is printed. The tape has no VTOC and is therefore not the first tape in the sequence, or is not a text tape or a data base tape.

In Format 5, the information from the LDFT tape header is printed. The tape contains a VTOC which is printed following the tape header information. If the tape contains an invalid VTOC do NOT attempt to use it.

In Format 6, the READHDR message failed to update the /etc/log/tapelog tape data file. This file is used during a software release transition for tape loading. Consult the appropriate software release (retrofit, update, large terminal growth) transition procedures for more information.

3. VARIABLE FIELD DEFINITIONS

`a` = The tape sequence type. Valid value(s):

```
DATA BASE
OTHER LDFT TYPE
TEXT
TOP
```

`b` = A tape sequence may consist of one tape or multiple tapes if the sequence would not fit on one tape. The tape number in sequence (1, 2, 3...) refers to the order that the tapes were written. The tapes should be loaded in ascending numerical order.

`c` = Tape density in bytes per inch (BPI) (1600 or 6250).

`d` = The tape device used to read the header information from the tape. If the tape was mounted on tape drive zero the possible values for this field are "/dev/mt00" and "/dev/mt08." For tape drive one the values are "/dev/mt10" and "/dev/mt18."

`e` = The destination device file that this tape was written for (such as, /dev/vtoc). This information is useful for determining or verifying the tape loading parameters during a software release transition. Consult the appropriate software release transition procedures for more information.

`f` = The moving head disk (MHD) pair that the destination corresponds to.

`g` = The tape sequence identifier is a time stamp used when reading a sequence consisting of more than one tape. Tapes of the same sequence should have the same sequence identifier.

`h` = The point release level of a text tape.

`i` = The disk partition number.

`j` = Start block address on disk of the partition.

`k` = The size in blocks of the disk partition.

`l` = The partition name, if present, or "UNASGNED" (unassigned partition).

4. ACTION TO BE TAKEN

Errors are generally caused by a damaged tape or problems with the tape drive. Follow the software transition procedures used for execution of the message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:G-READLOG
STOP:GEN
UPD:G-APPLPROC
UPD:G-BACKOUT
UPD:G-BEGIN
UPD:G-COMMIT
UPD:G-CONTINUE
UPD:G-END
UPD:G-ENTER
UPD:G-PROCEED
UPD:G-RESTORE
UPD:G-SMBKOUT
UPD:G-SMSWITCH
UPD:G-SWITCHBCK
UPD:G-SWITCHFWD
```

Output Message(s):

```
OP:GEN-READLOG
STOP:GEN
UPD:GEN-APPL
UPD:GEN-BACKOUT
UPD:GEN-BEGIN
UPD:GEN-COMMIT
UPD:GEN-CONTINUE
UPD:GEN-END
UPD:GEN-ENTER
UPD:GEN-PROCEED
UPD:GEN-RESTORE
UPD:GEN-SMBKOUT
UPD:GEN-SMSWITCH
UPD:GEN-SWITCHBK
UPD:GEN-SWITCHFW
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-105-24x *Software Release Retrofit*

235-105-34x *Software Release Update*
235-105-44x *Large Terminal Growth*

OP:GEN-READLOG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

[1]
```
OP GEN READLOG  COMPLETED
```

[2]
```
OP GEN READLOG  STOPPED WITH ERROR CODE a
```

[3]
```
OP GEN READLOG
  FIRST ENTRIES: b
```

[4]
```
OP GEN READLOG
  BEGIN {PROCEED|COMMIT|BACKOUT|RESTORE}
  METHOD: {BKPRT|OFLDISK}
  EXECUTION: {CONDITIONAL|UNCONDITIONAL}
  PID: c
  d
```

[5]
```
OP GEN READLOG
  BEGIN ENTER
  METHOD: {BKPRT|OFLDISK}
  EXECUTION: {CONDITIONAL|UNCONDITIONAL}
  INPUT FILE: e
  DESTINATIONS: f
  DFC NUMBER: [0|1]
  SEQUENCE OPTIONS: g
  ECD: h
  ECD PARTITION: i
  OLD LOG: j
  OLD LOG PARTITION: k
  NEW LOG: l
  NEW LOG PARTITION: m
  PID: c
  d
```

[6]
```
OP GEN READLOG
  DISK {ENTER|COMMIT|RESTORE}
  VTOC: f
  PID: c
  DISK PAIR: n
  0
```

[7]
```
OP GEN READLOG
```

```
        DISK {ENTER|COMMIT|RESTORE}
        NEW GENERIC: MHD p
        OLD GENERIC: MHD a
        PID: c
        DISK PAIR: n
        o

[8]     ____________________________________________________________________
      OP GEN READLOG
        WRITE ENTER
        PARTITION: r
        BACKUP PARTITION: s
        PID: c
        d

[9]     ____________________________________________________________________
      OP GEN READLOG
        TAPE ENTER
        SEQUENCE NUMBER: t
        SG ID: u
        GENERIC-VERSION: v
        SEQUENCE: {FIRST|SECOND}
        PID: c
        d

[10]    ____________________________________________________________________
      OP GEN READLOG
        APPLHOOK {ENTER|PROCEED|COMMIT|BACKOUT|RESTORE}
        PID: c
        d

[11]    ____________________________________________________________________
      OP GEN READLOG
        UPDATE ENTER
        PID: c
        BACKUP PARTITION UPDATED: w
        d

[12]    ____________________________________________________________________
      OP GEN READLOG
        CONTINUE {ENTER|PROCEED|COMMIT|BACKOUT|RESTORE}
        PID: c
        d

[13]    ____________________________________________________________________
      OP GEN READLOG
        END {ENTER|PROCEED|COMMIT|BACKOUT|RESTORE}
        FILE SYSTEM: {PRIMARY|BACKUP}
        BOOT FILE: {APPDMERT|DMERT}
        BOOT DISK: MHD {0|1}
        COMPLETION: {SUCCESS|FAILURE}
        ERROR CODE: a
      UNIX® ERROR NUMBER: x
        CONTINUABLE: {YES|NO}
        PID: c
```

```
        d

[14]    ____________________________________________________________________
      OP GEN READLOG
        NOT STARTED
        INVALID ID FIELD ERROR IN IDENTIFICATION FIELD

[15]    ____________________________________________________________________
      OP GEN READLOG
        NOT STARTED
        CONFLICT WITH CURRENT SYSTEM STATUS PROCESS NOT INITIATED
```

2. REASON FOR OUTPUT

To print the contents of the system update event log.

Note: Two of these formats may appear in succession with OP:G-READLOG printed only once.

Format 1 indicates that output of the system update event log has been completed.

Format 2 indicates that output of the system update event log has been stopped due to error. The error is identified.

Format 3 displays the FIRST log entry, including the number of entries in the log.

Format 4 displays a BEGIN log entry, indicating that an identified system update process began the update method in use, the mode of execution and the process ID (PID) of the update process, and the date and time that the entry was made.

Format 5 displays a BEGIN log entry for an ENTER process, which includes all the information in Format 4 as well as the pathname of the input file (normally a magnetic-tape device), the pathname of each volume table of contents (VTOC) on each disk-pair being updated, the unit number of the disk file controller (DFC) for each new-release disk (if one was specified), and the tape sequence options used to update the specified disks. Also included is the pathname of the equipment configuration data base (ECD) which will be accessed in the new software release, the partition in which this ECD will reside, the pathname of the system update log in the new software release, and the partition in which this log will reside. Also included is the PID of the update process, and the date and time of the log entry.

Format 6 displays a DISK entry for the backup partition (BKPRT) update method, indicating the type of update process that began updating a disk-pair, the name of the VTOC on this disk-pair, the process identification (PID) of the update process, and the date and time that the entry was made.

Format 7 displays a disconnect (DISK) entry for the off-line disk (OFLDISK) update method, indicating the type of process that began updating a disk, the disk that was to contain (or contained) the new software release, and its mate, the disk that contained the old software release. Also included is the PID of the update process, and the date and time of the log entry.

Format 8 displays a WRITE entry, indicating that an ENTER process began to update a partition, which partition was being updated, and its backup partition (if one exists). Also, the PID of the update process and the date and time of the log entry are included.

Format 9 displays a TAPE entry, indicating that an ENTER process was ready to read a tape, the sequence number of the tape expected, the system generation (SG)-data base ID (time stamp) expected from the tape, the software release-version number expected from the tape, and an indication of whether the tape is in the first or second sequence for the disk-pair. Also included is the process ID of the update process, and the date and time of the log entry.

Format 10 displays an APPLHOOK entry, indicating the type of update process that initiated application-dependent processing, the PID of the update process, and the date and time of the log entry.

Format 11 displays an UPDATE entry indicating that the ENTER process is updating the backup partitions, the PID of the update process, the backup partition number being updated, and the date and time of the log entry.

Format 12 displays a CONTINUE entry, indicating the type of update process that restarted execution, the PID of the update process, and the date and time of the log entry.

Format 13 displays an END entry, indicating that the execution of an update process ended (and the process type), whether the system was booted on primary or backup root, appdmert or dmert (the latter is MIN_CONFIG on the EAI), and for the off-line disk method the boot disk (moving head disk (MHD) 0 or 1). Also included are: whether the process completed successfully or failed, the error code, an error number set by a *UNIX*® system call or DMERT interface function, the PID of the update process, and the date and time of the log entry.

Formats 14 and 15 indicate that an error was made when entering the input message.
Note: The log is normally emptied when a COMMIT or RESTORE process succeeds.

3. VARIABLE FIELD DEFINITIONS

`a` = Error code for the reason the process stopped/0 implies success. Refer to the APP:SUPR appendix in the Appendixes section of the Output Messages manual.

`b` = Number of event entries in the system update log.

`c` = Process ID associated with the log entry.

`d` = Date stamp - indicates when the log entry was made.

`e` = Pathname of the input file; as specified in the UPD:G-ENTER input message.

`f` = Destination VTOC pathname(s) for subsequent write entries.

`g` = Sequence options used for the specified destinations.

`h` = Pathname of the ECD to be accessed in the new software release.

`i` = Partition number of the partition in which the ECD will reside.

`j` = Pathname of the system update log in the old software release.

`k` = Partition number of the partition in which the system update log of the old software release resided.

`l` = Pathname of the system update log in the new software release.

`m` = Partition number of the partition in which the system update log will reside.

`n` = Number, in order of updating, of the disk-pair being updated.

`o` = Date stamp - indicates when the log entry was made.

`p` = Member number of the disk containing the new software release; associated with subsequent write entries (off-line disk method only).

`q` = Member number of the duplexed disk containing the old software release; mate for MHD '`a`' (off-line disk method only).

`r` = Partition number of the partition written.

`s` = Partition number of the partition paired with '`a`', if one exists; 0 implies that no backup to '`a`' exists.

`t` = Sequence number of the tape.

`u` = System generation data base (SG) unique ID (time stamp).

`v` = Generic and version number of the new software release.

`w` = Backup partition number being updated.

`x` = Error number set by a failed *UNIX*® system call or DMERT interface function (which usually results in process failure); 0 implies success of all system calls (some DMERT functions set this number to nonzero values even on success).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:G-READLOG
UPD:G-BACKOUT
UPD:G-COMMIT
UPD:G-ENTER
UPD:G-PROCEED
UPD:G-RESTORE
```

Output Message(s):

```
UPD:GEN-BACKOUT
UPD:GEN-COMMIT
UPD:GEN-ENTER
UPD:GEN-PROCEED
UPD:GEN-RESTORE
```

OP:GENBKUP-LAST

Software Release: 5E10 and later
Message Class: MAIPR
Application: 5
Type: Output

1. FORMAT

```
OP GENBKUP LAST
   a    [b]
   .     .
   .     .
   .     .
```

2. REASON FOR OUTPUT

To print records of the last successful office backup activities using GENBKUP (the automated office backup procedure). This message prints only in response to OP:GENBKUP-LAST input message.

3. VARIABLE FIELD DEFINITIONS

a = Text line consisting of the type of backup. Valid value(s):

```
AM ODD   TAPE SEQUENCE MADE ON
AM TEXT  TAPE SEQUENCE MADE ON
COPY PARTITION ALL CMD DONE ON
SM ODD 1 TAPE SEQUENCE MADE ON
SM ODD 2 TAPE SEQUENCE MADE ON
SM ODD 3 TAPE SEQUENCE MADE ON
SM ODD 4 TAPE SEQUENCE MADE ON
SM ODD 5 TAPE SEQUENCE MADE ON
SM ODD 6 TAPE SEQUENCE MADE ON
SM TEXT  TAPE SEQUENCE MADE ON
SOFTWR BKUP DISK 14 UPDATED ON
SOFTWR BKUP DISK 15 UPDATED ON
TOP      TAPE          MADE ON
```

Or (when no record of GENBKUP activities is found):

```
NO HISTORY FILE FOUND FOR LAST SUCCESSFUL BACKUP
```

b = Date and time (for example, Sun Feb 6 02:14:27 1990).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:GENBKUP-LAST
RCV:M-GENBKUP
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

OP:GROW

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP GROW MESSAGE STARTED
        UNIT        MTCE   INH   DGN
        a b [ c d ] e       f     g

[2]   ____________________________________________________________________
      OP GROW COMPLETED

[3]   ____________________________________________________________________
      OP GROW INTERFACE ERROR, ERRNO=h

[4]   ____________________________________________________________________
      OP GROW NOT STARTED
        INVALID DATA FIELD

[5]   ____________________________________________________________________
      OP GROW NOT STARTED
        RETRY LATER

[6]   ____________________________________________________________________
      OP GROW IN PROGRESS
        a b [ c d ]  e      f     g

[7]   ____________________________________________________________________
      OP GROW RETRY LATER i

[8]   ____________________________________________________________________
      OP GROW WRITE TO j
        FAILED ON KEY #k
```

2. REASON FOR OUTPUT

To give device information specific to administrative module (AM) hardware units on communities requested by the OP:GROW input message. The format is consistent with related maintenance messages.

The exit status of this report is indicated by either the successful COMPLETED message or the unsuccessful INTERFACE ERROR message.

3. VARIABLE FIELD DEFINITIONS

`a` = Unit name. AM unit names are listed in the APP:MEM-NUM-UNIT Appendix in the Appendixes section of the Input Messages Manual.

`b` = Unit number. Refer to the APP:MEM-NUM-UNIT Appendix in the Appendixes section of the Input Messages Manual.

`c` = Subunit name, if `a` = CU. AM CU subunit names are listed in the APP:MEM-NUM-CU appendix in

the Appendixes section of the Input Messages manual.

`d` = Subunit number. Refer to the APP:MEM-NUM-CU appendix in the Appendixes section of the Input Messages manual.

`e` = The current maintenance state of the unit is indicated by the following identifiers. Valid value(s):

`ACT`	= Active units.
`GROW`	= Units being grown.
`INIT`	= Initializing units.
`OFL`	= Offline units.
`OOS`	= Out-of-service units.
`STBY`	= Standby units.
`UNAV`	= Unavailable units.
`UNEQIP`	= Unequipped units.

`f` = Current inhibit status of the associated error source. Valid value(s):

`ALW`	= Allowed.
`INH`	= Inhibited.

`g` = Results of the last diagnostic on the unit. Valid value(s):

`ABT`	= Aborted diagnostics.
`ATP`	= All tests passed.
`CATP`	= Conditional all tests passed.
`NTR`	= No tests were run.
`STF`	= Some tests failed.

`h` = Error number. Valid value(s):

`9`	= Cannot attach to plant measurement library.
`11`	= Cannot open equipment configuration data base (ECD sequence).
`12`	= Cannot sequence unit control blocks (UCBs).

`i` = Retry the input message later because:

```
CAN'T CREATE FILE IN /tmp
CAN'T GET DATABASE RECORD ID
CAN'T SEQUENCE DATABASE
```

`j` = Temporary output file name.

`k` = Key associated with write failure.

4. ACTION TO BE TAKEN

If error numbers 11 or 12 are indicated, the system is still initializing and the input message should be retried.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	49, 477
2	50, 478
3	51, 479
6	580, 582
7	588, 589
8	656

Input Message(s):

```
OP:ACT
OP:CFGSTAT
OP:GROW
OP:INIT
OP:OFL
OP:OOS
OP:STBY
OP:UNAV
OP:UNEQIP
```

Input Appendix(es):

```
APP:MEM-NUM-CU
APP:MEM-NUM-UNIT
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

50. OP:H

OP:HDWCHK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP HDWCHK CM a RECORD
  UNIT    MTCE STATE      HDWCHK        DGN RESULT
  b       c               d             e
  .       .               .             .
  .       .               .             .
  .       .               .             .
```

2. REASON FOR OUTPUT

To print the hardware check status of specified communication module (CM) units.

If the CM is manually isolated from the administrative module (AM), its current state is not known. In that case, any information reported reflects the last known state of the CM.

3. VARIABLE FIELD DEFINITIONS

a = Text identifier indicating order of HDWCHK record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of continuing list.
NEXT	= Next record of continuing list.

b = Unit identification. Valid value(s):

CLNK	= Communication link.
CMP	= Communication module processor.
FPC	= Foundation peripheral controller.
MMP	= Module message processor.
MSCU	= Message switch control unit.
PPC	= Pump peripheral controller.
QGP	= Quad-link gateway processor.

c = Maintenance state.

d = Hardware check status. Valid value(s):

ALW,AUTO	= Hardware checks are allowed.
INH,AUTO	= Hardware checks are inhibited by automatic request.
INH,MAN	= Hardware checks are inhibited manually.

e = Result of last diagnostic run on unit. Valid value(s):

ATP	= All tests passed.
CATP	= Conditional all tests passed.
N/A	= Not applicable.
NTR	= No tests run.
STF	= Some tests failed.

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`STP` = Stopped.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:HDWCHK
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery Procedures*

OP:HIST

Software Release: 5E10 and later
Message Class: NULLDEV
Application: 5,3B
Type: Output

1. FORMAT

```
OP HIST  RECORDING a  CMD=b TO c  PART 1 OF e
    f    g
    ...
    f    g
OP HIST  PART d OF e
    f    g
    ...
    f    g
```

2. REASON FOR OUTPUT

To respond to an OP:HIST input message.

The header format indicates the command name, history recording status, range of command numbers available, the current part number and the total number of parts. The rest of the message contains the available command numbers and commands of the requested range.

If more than 15 commands are to be output, the request is broken into parts, each containing 15 commands, except, possibly the last part. Only the first part will contain the full header. Subsequent message headers will have the message name and part information.

3. VARIABLE FIELD DEFINITIONS

a = Status of history recording. Valid value(s):

```
ALLOWED
INHIBITED
```

b = Lowest command number of available range.

c = Highest command number of available range.

d = Part number of the following output message information.

e = Total number of parts of the request.

f = Command number in requested range.

g = Command text identified by adjacent command number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HIST
CLR:HIST
INH:HIST
OP:HIST
```

OP:HPRI

Software Release: 5E12 and later
Message Class: MAINT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP HPRI - HIGH PRIORITY TERMINAL FEATURE IS ACTIVE FOR a UNTIL b

[2]   ____________________________________________________________________
      OP HPRI - HIGH PRIORITY TERMINAL FEATURE IS NOT ACTIVE
```

2. REASON FOR OUTPUT

To respond to OP:HPRI input command.

Format 1 is printed when the feature is active for a terminal. The terminal tty name on which feature is active and the time when it will be deactivated is also provided. Format 2 is printed when the feature is currently not active.

3. VARIABLE FIELD DEFINITIONS

a = The terminal TTY name.

b = Date and Time when feature will be deactivated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:HPRI
```

Output Message(s):

```
CLR:HPRI
SET:HPRI
```

Other Manual(s):
235-100-125 *System Description*

51. OP:I

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OP:ILHB

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP ILHB DN=a
        DATE:bb/bb      TIME:cc:cc
        LICDN=d
        MULT_CALL=e      PRIV_INC=f      TRACE=g         IDP=h
        SCREENING=i      ADDR_TYPE=j     NUM_PLAN=k      UNIQ=l
        CNPR_INC=m

[2]   ____________________________________________________________________
      OP ILHB n   PTY=o
        DATE:bb/bb     TIME:cc:cc
        LICDN=d
        MULT_CALL=e      PRIV_INC=f      TRACE=g         IDP=h
        SCREENING=i      ADDR_TYPE=j     NUM_PLAN=k      UNIQ=l
        CNPR_INC=m

[3]   ____________________________________________________________________
      OP ILHB DN=a
      p

[4]   ____________________________________________________________________
      OP ILHB n   PTY=o
      p
```

2. REASON FOR OUTPUT

To report the incoming line history block (ILHB) or an error message in response to an OP:ILHB input message.

Format 1 displays the ILHB status of a directory number (DN).

Format 2 displays the ILHB status of an office equipment (OE) number, which includes the following: an integrated digital carrier unit (IDCU) line equipment number (ILEN), an integrated services line card equipment number (LCEN), a line equipment number (LEN) of a line, an *SLC*® line equipment number (SLEN), or an Integrated services line circuit (LCKEN).

Format 3 reports an error response for a DN.

Format 4 reports an error response for an OE number, which includes the following: an ILEN, a LCEN, a LEN, a SLEN, a LCKEN.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`a` = Ten-digit directory number (DN) of the line.

b = Date of the last incoming call. Listed in the form of month/day.

c = Time of day of the last incoming call. Listed in the form of hour and minute.

d = Last incoming calling DN.

e = Multiple call indicator. Valid value(s):
- NO = No call was active when this call updated the last incoming call.
- YES = A call was already active when this call updated the last incoming call.

f = Incoming privacy indicator (used for per call privacy and all call privacy features). Valid value(s):
- NO = The LICDN was marked public for display.
- YES = The LICDN was marked private for display.

g = Local area switching services (LASS) customer originated trace (COT) indicator. Valid value(s):
- NO = The LICDN has not been traced using COT.
- YES = The LICDN has already been traced using COT.

h = Individual dialing plan (IDP) indicator. Valid value(s):
- NO = The calling party did not use IDP intercom dialing.
- YES = The calling party (identified by the LICDN) used IDP intercom dialing.

i = LICDN screening indicator. Valid value(s):
- NP = Network-provided.
- UPNS = User-provided - not screened.
- UPSP = User-provided - screened and passed.
- UPSF = User-provided - screened and failed.

j = LICDN type of address. Valid value(s):
- INTL = International.
- LOC = Local.
- NATL = National.
- UNK = Unknown.

k = LICDN numbering plan. Valid value(s):
- ISDN = Integrated services digital network.
- PRIV = Private.
- PUB = Public.
- UNK = Unknown.

l = Uniqueness of the LICDN. Valid value(s):
- NO = Calling DN is not unique.
- UNK = Unknown.
- YES = Calling DN is unique.

m = Calling name and calling number presentation indicator for the calling DN (the LICDN). Valid value(s):

NAP = Name presentation indicator was invoked by the calling DN.
NNDA = Name and number display code was invoked by the calling DN.
NNP = Name and number presentation access code was invoked by the calling DN.
NOP = No name and number presentation access code was invoked by the calling DN.

n = Valid value(s):
ILEN=q-r-s-t
LCEN=q-h^1-i^1-w
LCKEN=q-h^1-v-f^1-g^1
LEN=q-u-e^1-y-z-a^1
SLEN=q-b^1-c^1-d^1

o = Party. For an analog ILEN, LEN, LCEN, or SLEN, valid values are:
I = Individual line.
T = 2 party tip.
R = 2 party ring.
0-9 = Multi-party.

For an ISDN LCEN, ILEN, and LCKEN valid values are:
I,0 = Point-point.
0-7 = Multi-point.

p = Error message in response to an OP:ILHB input message. Valid value(s):
DATA BASE READ FAILURE - rlAR_CF = Data from the relation rlAR_CF could not be successfully retrieved, because a database read failure occurred.
DATA BASE READ FAILURE - rlFC_LINE = Data from the relation rlFC_LINE could not be successfully retrieved, because a database read failure occurred.
DATA BASE READ FAILURE - rlLPT_PT = Data from the relation rlLPT_PT could not be successfully retrieved, because a database read failure occurred.
DN CONTAINS AN INVALID NPA = The DN contains a numbering plan area (NPA) that is invalid or does not exist.
DN CONTAINS AN INVALID NXX = The DN contains an office code that is invalid or does not exist.
DN IS INVALID = The hundreds group is not populated for the specified DN, or the specified DN is invalid or does not exist.
INCOMING LINE HISTORY BLOCK NOT AVAILABLE = The specified DN or OE is not allowed for LASS feature requests, or the ILHB is not available for this request.
NOT PROCESSED: LASS SUPPORT PACKAGE NOT LOADED = The switch does not have the appropriate local area signaling services (LASS) software loaded to handle the request.
OE OR PTY IS INVALID = The OE number or the party is invalid or does not exist.
PTY IS INVALID = The party is invalid or does not exist.
RETRY LATER: REQUEST COULD NOT BE PROCESSED = Switch resources were not available to allow processing of the request.
SM REDUNDANT DATA MISMATCH = This request was not processed, because data was inconsistent across SMs.
UNEXPECTED DATA VALUE = A software fault has occurred. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

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q	= Switching module (SM) number.
r	= IDCU number.
s	= Remote terminal (RT) number or IDCU facility (IFAC) number.
t	= RT line number or IFAC channel number.
u	= Line unit number.
v	= Line group number.
w	= Line card number.
y	= Switch board number.
z	= Switch number.
a[1]	= Level number.
b[1]	= Digital carrier line unit (DCLU) number.
c[1]	= RT number.
d[1]	= RT line number.
e[1]	= Grid number.
f[1]	= Line board number.
g[1]	= Line circuit number.
h[1]	= ISDN line unit (ISLU/ISLU2).
i[1]	= Line group controller number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:ILHB
```

Output Appendix(es):

```
APP:AUD-A
APP:AUD-B
APP:AUD-C
```

APP:AUD-D

Other Manual(s):
235-190-130 *Local Area Signaling Services Features*
235-600-400 *Audits*

OP:INIT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP INIT MESSAGE STARTED
        UNIT        MTCE   INH   DGN
        a b [ c d ] e       f     g

[2]   ____________________________________________________________________
      OP INIT COMPLETED

[3]   ____________________________________________________________________
      OP INIT INTERFACE ERROR, ERRNO=h

[4]   ____________________________________________________________________
      OP INIT NOT STARTED
        INVALID DATA FIELD

[5]   ____________________________________________________________________
      OP INIT NOT STARTED
        RETRY LATER

[6]   ____________________________________________________________________
      OP INIT IN PROGRESS
        a b [ c d ]  e      f     g

[7]   ____________________________________________________________________
      OP INIT RETRY LATER i

[8]   ____________________________________________________________________
      OP INIT WRITE TO j
        FAILED ON KEY #k
```

2. REASON FOR OUTPUT

To give device information specific to administrative module (AM) hardware units on communities requested by the OP:INIT input message. The format is consistent with related maintenance messages.

The exit status of this report is indicated by either the successful COMPLETED message or the unsuccessful INTERFACE ERROR message.

3. VARIABLE FIELD DEFINITIONS

`a` = Unit name. AM unit names are listed in the APP:MEM-NUM-UNIT appendix in the Appendixes section of the input manual.

`b` = Unit number. Refer to the APP:MEM-NUM-UNIT appendix in the Appendixes section of the input manual.

`c` = Subunit name, if a = CU. AM CU subunit names are listed in the APP:MEM-NUM-CU appendix in

the Appendixes section of the input manual.

`d` = Subunit number. Refer to the APP:MEM-NUM-CU appendix in the Appendixes section of the Output Messages manual.

`e` = The current maintenance state of the unit. Valid value(s):

`ACT`	= Active units.
`GROW`	= Units being grown.
`INIT`	= Initializing units.
`OFL`	= Offline units.
`OOS`	= Out-of-service units.
`STBY`	= Standby units.
`UNAV`	= Unavailable units.
`UNEQIP`	= Unequipped units.

`f` = Current inhibit status of the associated error source. Valid value(s):

`ALW`	= Allowed.
`INH`	= Inhibited.

`g` = Results of the last diagnostic on the unit. Valid value(s):

`ABT`	= Aborted diagnostics.
`ATP`	= All tests passed.
`CATP`	= Conditional all tests passed.
`NTR`	= No tests were run.
`STF`	= Some tests failed.

`h` = Error number. Valid value(s):

`9`	= Cannot attach to plant measurement library.
`11`	= Cannot open equipment configuration database (ECD) sequence.
`12`	= Cannot sequence unit control blocks (UCBs).

`i` = Retry the input message later because:

```
CAN'T CREATE FILE IN /tmp
CAN'T GET DATABASE RECORD ID
CAN'T SEQUENCE DATABASE
```

`j` = Temporary output file name.

`k` = Key associated with write failure.

4. ACTION TO BE TAKEN

If error numbers 11 or 12 are indicated, the system is still initializing and the input message should be retried.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	49, 477
2	50, 478
3	51, 479
6	580, 582
7	588, 589
8	656

Input Message(s):

```
OP:ACT
OP:CFGSTAT
OP:GROW
OP:INIT
OP:OFL
OP:OOS
OP:STBY
OP:UNAV
OP:UNEQIP
```

Input Appendix(es):

```
APP:MEM-NUM-CU
APP:MEM-NUM-UNIT
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

OP:INSTALL-RFR

Software Release: 5E10 and later
Message Class: REX
Application: 5,3B
Type: Output

1. FORMAT

```
OP INSTALLATION REX FEATURE REPORT
  THE INSTALLATION MODE IS ON
```

2. REASON FOR OUTPUT

To indicate that the installation mode is turned on for all or some communication module (CM)/switching modules (SMs). This output message is printed on the receive-only printer (ROP) every 15 minutes when installation mode is turned on and there is no installation routine exercise (IREX) activity currently running.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

If the installation is finished, turn off the installation mode.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
  RCV:M-IREX
```

OP:INSTALL-RSSR

Software Release: 5E10 and later
Message Class: REX
Application: 5,3B
Type: Output

1. FORMAT

```
OP INSTALLATION REX SESSION SUMMARY REPORT
  OFFICE BASE: a
  SOFTWARE RELEASE: b
  MODULE: c
  TEST TYPE: d
  START TIME: e
  END TIME: f
  TOTAL NUMBER OF CIRCUITS: g
  ATP CIRCUITS: h
  CATP CIRCUITS: i
  STF CIRCUITS: j
  NTR CIRCUITS: k
  STOPPED CIRCUITS: l
  NOT STARTED CIRCUITS: m
```

2. REASON FOR OUTPUT

To show a routine exercise (REX) session summary data when installation mode is turned on.

3. VARIABLE FIELD DEFINITIONS

`a` = Office name.

`b` = Generic number and point load number.

`c` = Module number. Valid value(s):
- `CM` = Communication module.
- `SM x` = Switching module number.

`d` = Test type. Valid value(s):
- `DGN` = Diagnostic.
- `FAB` = Fabric exercise.

`e` = REX session start time.

`f` = REX session end time. For in-progress session, it will show `IN PROGRESS`.

`g` = Total number of circuits which have been REXed in this session.

`h` = Number of all test pass (ATP) circuits.

`i` = Number of conditional all test pass (CATP) circuits.

`j` = Number of some test fail (STF) circuits.

`k` = Number of no test run (NTR) circuits.

`l` = Number of stopped circuits.

`m` = Number of not started circuits.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RCV:M-IREX
```

OP:IODRV

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP IODRV   MSG STARTED
        LVL
        a
        ID
        b
        CLASS
        c
        MSGSAVE
        ON|OFF
        OP IODRV COMPLETED

[2]   ____________________________________________________________________
      OP IODRV NOT STARTED
        CONFLICT WITH CURRENT SYSTEM STATUS  d

[3]   ____________________________________________________________________
      OP IODRV ABORTED

[4]   ____________________________________________________________________
      OP IODRV ATTRIBUTE FILE UPDATED
```

2. REASON FOR OUTPUT

Format 1 prints the status of the current options set in the input/output processor (IOP) driver. These options are as requested in the OP:IODRV input message.

Format 4 indicates that the attribute file for the IOP driver messages was inconsistent with the IOP driver and has been updated to the current settings.

3. VARIABLE FIELD DEFINITIONS

`OFF` = Messages are not being saved in the IODRVLOG logfile.

`ON` = Messages are being saved in the IODRVLOG logfile.

`a` = Severity levels set.

`b` = Handler identifications set.

`c` = Classes set.

`d` = Process not initiated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	221
3, 4	161

Input Message(s):

```
CLR:IODRV
OP:IODRV
SET:IODRV
```

Output Message(s):

```
CLR:IODRV
SET:IODRV
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

OP:IOP

Software Release: 5E11 and later
Message Class: VAR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP IOP a INFO b c [d]

[2]   ____________________________________________________________________
      OP IOP a INFO
         U_Name     Unit #    U_mv     State    PackCode      Versions       Ver_Fro
      m
        _________   ______   ______   _______   ________   ________________   _______
      _
        e           f        g        h         i          j                  k
        .
        .
        .
```

2. REASON FOR OUTPUT

To report the result of teh OP:IOP input message.

3. VARIABLE FIELD DEFINITIONS

`a` = IOP member number.

`b` = Message status. Valid value(s):
`ABORT`
`ERROR`
`NOT STARTED`
`STOPPED`

`c` = Process stop or error code. Valid value(s):

`f01`	= Failed to enable message reception.
`f03`	= Failed to open ECD.
`f06`	= Failed to get UCB by name.
`f08`	= Failed to get down UCB.
`f09`	= Failed to get the side UCB.
`f0a`	= Top UCB is not an IOP.
`f10`	= Failed to send message to I/O driver.
`f11`	= Failed to unreserve UCB.
`f12`	= Failed to receive acknowledgement from I/O driver.
`f13`	= Failed to close ECD.
`f14`	= Failed to reserve UCB.
`f15`	= A message to driver has been lost, time out.
`f16`	= Terminated externally with signal.
`f20`	= Failed to get UCBL.
`f21`	= Failed to get page table address.

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f23 = Failed to assign a DMA slot.
f24 = Failed to queue a job.
f25 = Failed to define a task with an UCBIP as the idcode, function timreq1 failed.
f27 = I/O is BUSY.
f28 = Time out when access RAM.

d = System error code.

e = IOP unit name.

f = Unit number.

g = MV number.

h = Major states.

i = Pack code.

j = RAM code version.

k = Area where the RAM code version is read from. Valid value(s):
ECD = Version is read from the ECD.
RAM = Version is read from the RAM.
c = Refer to variable 'c'.

4. ACTIONS TO BE TAKEN

A termination report specifying completion indicates all directives of the input request were done and no failures were encountered. If any unit of the associated IOP is reserved, however, certain fields will contain information that is not available. For more complete information, try the message again after the unit is released.

A termination report specirfying ono-completion that provides an error code usually indicates a system resource was not available, or became unavailable to perform the requested task. Clear the problem causing the resource limitation and try the request again.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	766
2	767

Input Message(s):

```
OP:IOP
```

Output Appendix(es):

```
APP:SYSERR
```

52. OP:J

OP:JOBSTATUS-A

Software Release: 5E10 - 5E11
Message Class: TLWS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP JOBSTATUS a b TASKS CURRENTLY ACTIVE    STARTED

[2]   ____________________________________________________________________
      OP JOBSTATUS b PID=c UNIQ=d [PRI=e] [*]f [g] [TEI=h] i

[3]   ____________________________________________________________________
      OP JOBSTATUS
             .
             .
             .

[4]   ____________________________________________________________________
      OP JOBSTATUS   j
```

2. REASON FOR OUTPUT

To identify all active jobs controlled by the automatic task administrator (ATA) or by the *Autoplex*® automatic task administrator (AATA) system process in the administration module (AM). ATA jobs are identified as "TLWS" jobs. Refer to variable '`b`'. This message is in direct response to an OP:JOBSTATUS input message.

The jobs listed by OP:JOBSTATUS were initiated by one or more input messages described by variable '`f`', to accomplish a specific maintenance action. The information contained in this message indicates which ATA jobs or AATA jobs are still executing, and can be used to determine whether a previously requested maintenance action has completed or not. If desired, the job (identified by the task identifier contained in this message) may be aborted using the ABT:TASK input message. Since the ABT:TASK purges the running AM process, its use is strongly discouraged, and should only be used when unable to stop the process by other means.

The list of jobs is composed of a "start-of-list" message Format 1, followed by zero or more messages that identify active tasks, Format 2 or Format 3 or intermix Format 2 and 3, and terminated by an "end-of-list" message Format 4.

3. VARIABLE FIELD DEFINITIONS

`a` = The number of tasks currently active in the AM.

`b` = Job type. Valid value(s):
- `AATA` = AATA maintenance task.
- `TLWS` = TLWS maintenance task.

`c` = Task process number given by the OP:JOBSTATUS input message. It is required if the task is to be aborted.

`d` = Unique number given by the OP:JOBSTATUS input message. It is required if the task is to be aborted.

e = Priority given an AATA maintenance task (1 is the lowest priority).

* = Indicator (for AATA job type) is printed if the job has been running more than one hour.

f = The type of task.

AATA task types. Valid value(s):

```
DSCLP
DSCRST
GEN-ATEP
RESET:ALL
RESET:GRP
RESET:INDV
STRES
TIATKMNT:BLK
TIATKMNT:UNB
TGREQ
TRKLP:LP
TRKLP:CLR
TTDMND:TT
TTDMND:RMV
TTDMND:RST
TTDMND:CNCL
UTREQ
```

TLWS task types. Valid value(s):

```
ABT:OTO
ABT:TASK
CLR:PB
CONN:TAT
DISC:TAT
EX:OTO
INIT:FAC
OP:AML
OP:CAMPON
OP:CGA
OP:CONV
OP:CPE
OP:FAC
OP:JOBSTATUS
OP:LIST
OP:LISTOTO
OP:OFFNORM-IS
OP:OSPS
OP:PB
OP:SCF
OP:SL
OP:SS7
OP:STATUS
OP:TGCNT
OP:WCPE
RMV:CPE
RMV:DATALINK
```

```
RMV:ISMNAIL
RMV:LINE
RMV:OSPSPORT
RMV:TRK
RST:CPE
RST:DATALINK
RST:ISMNAIL
RST:LINE
RST:OSPSPORT
RST:TRK
SET:PB
STP:LIST
STP:CAMPON
STP:TST-DSL
STP:TST-ELS
STP:TST-TRK
TST:DSL
TST:LINE-ELS
TST:MP
TST:TRK
UPD:SSD
```

g = Further identifies the object of the active task. For further explanation of this field, refer to the input message description corresponding to the task type. Valid value(s):

AP	= Application processor data link.
AQ	= Autoquote data link.
AQEST	= Autoquote establishment ospsport.
AQM	= Autoquote mate analog ospsport.
BST	= Basic services terminal ospsport.
DASC	= Directory assistance system computer data link.
DEN	= Digital equipment number.
DN	= Directory number.
EIS	= External Information System call processing data link (CPDL).
HOBICR	= Hotel billing center record terminal data link.
HOBICV	= Hotel billing center voice terminal data link.
HOBIS	= Hotel Billing Information System data link.
ISMNAIL	= Inter-SM nailup.
ILEN	= IDLC network equipment number.
INEN	= Networking line equipment number.
LCEN	= Integrated services line unit (ISLU) line card equipment number.
LCKEN	= ISLU2 line circuit equipment number.
LEN	= Line equipment number.
MISLNK	= Management information system data link.
MLHG	= Multi-line hunt group member.
NEN	= Networking equipment number.
OAPF	= OSPS administrative processor (force management center) ospsport.
OAPO	= OSPS administrative processor (operator service center) ospsport.
OPT	= Operator position terminal ospsport.
PKTDN	= Packet directory number.
PRIGRP	= Primary rate interface (PRI) group.
PSUEN	= Packet switching unit (PSU) equipment number.
RAS	= Remote alarm section data link.

RTRS	= Real time rating system data link.
SLEN	= Digital carrier line unit (DCLU) integrated *SLC*® line equipment number.
TEI	= Terminal endpoint identifier.
TEN	= Trunk equipment number.
TG	= Trunk group.
TKGMN	= Trunk group member.
XDB	= External database data link.
XDPF	= External data port (force management center) ospsport.
XDPO	= External data port (operator service center) ospsport.

h = Terminal endpoint identifier (TEI=0-126).

i = Optional for AATA job type. Valid value(s):

DSC	= DSC number.
TG	= Trunk group.
TKGMN	= Trunk group-member.

j = Output message completion code. Valid value(s):

COMPLETED	= The list of active ATA tasks completed successfully. All tasks currently controlled by the ATA system process have been identified.
SYSTEM ERROR	= An internal error occurred that prevented further output of the list of active tasks. The list is most likely not complete.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:OTO
ABT:TASK
CLR:PB
EX:OTO
INIT:FAC
OP:AML
OP:CAMPON
OP:CGA
OP:CONV
OP:CPE
OP:FAC
OP:JOBSTATUS
OP:LIST
OP:LISTOTO
OP:OFFNORM-IS
OP:OSPS
```

```
OP:PB
OP:SCF
OP:SL
OP:SS7
OP:STATUS
OP:TGCNT
OP:WCPE
RMV:CPE
RMV:DATALINK
RMV:ISMNAIL
RMV:LINE
RMV:OSPSPORT
RMV:TRK
RST:CPE
RST:DATALINK
RST:ISMNAIL
RST:LINE
RST:OSPSPORT
RST:TRK
SET:PB
STP:LIST
STP:CAMPON
STP:TST-DSL
STP:TST-ELS
STP:TST-TRK
TST:DSL
TST:LINE-ELS
TST:MP
TST:TRK
UPD:SSD
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

OP:JOBSTATUS-B

Software Release: 5E12 and later
Message Class: TLWS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP JOBSTATUS a b TASKS CURRENTLY ACTIVE    STARTED

[2]   ____________________________________________________________________
      OP JOBSTATUS b PID=c  UNIQ=d

[3]   ____________________________________________________________________
      OP JOBSTATUS   j
```

2. REASON FOR OUTPUT

To identify all active jobs controlled by the automatic task administrator (ATA) or by the Autoplex(r) automatic task administrator (AATA) system process in the administration module (AM). ATA jobs are identified as "TLWS" jobs. Refer to variable 'b'. This message is in direct response to an OP:JOBSTATUS input message.

The jobs listed by OP:JOBSTATUS were initiated by one or more input messages described by variable 'f', to accomplish a specific maintenance action. The information contained in this message indicates which ATA jobs or AATA jobs are still executing, and can be used to determine whether a previously requested maintenance action has completed or not. If desired, the job (identified by the task identifier contained in this message) may be aborted using the ABT:TASK input message. Since the ABT:TASK purges the running AM process, its use is strongly discouraged, and should only be used when unable to stop the process by other means.

The list of jobs is composed of a "start-of-list" message (Format 1), followed by zero or more messages that identify active tasks (Format 2), and terminated by an "end-of-list" message (Format 3).

3. VARIABLE FIELD DEFINITIONS

a = The number of tasks currently active in the AM.

b = Job type. Valid value(s):
- AATA = AATA maintenance task.
- TLWS = TLWS maintenance task.

c = Task process number associated with the task. It is required if the task is to be aborted via the ABT:TASK command.

d = A uniqueness qualifier to further identify the task. It is also required if the task is to be aborted via the ABT:TASK command.

e = Priority given an AATA maintenance task (1 is the lowest priority).

* = Indicator (for AATA job type) is printed if the job has been running more than one hour.

f = The type of task.

AATA task types. Valid value(s):

```
DSCLP
DSCRST
GEN-ATEP
RESET:ALL
RESET:GRP
RESET:INDV
STRES
TIATKMNT:BLK
TIATKMNT:UNB
TGREQ
TRKLP:LP
TRKLP:CLR
TTDMND:TT
TTDMND:RMV
TTDMND:RST
TTDMND:CNCL
UTREQ
```

TLWS task types. Valid value(s):

```
ABT:OTO
ABT:TASK
CLR:PB
CONN:TAT
DISC:TAT
EXC:CCSCQ
EXC:CCSXLATE
EX:OTO
INIT:FAC
OP:AML
OP:CAMPON
OP:CGA
OP:CONV
OP:CPE
OP:FAC
OP:JOBSTATUS
OP:LIST
OP:LISTOTO
OP:OFFNORM-IS
OP:OSPS
OP:PB
OP:SCF
OP:SL
OP:SS7
OP:STATUS
OP:TGCNT
OP:WCPE
RMV:CPE
RMV:DATALINK
RMV:ISMNAIL
RMV:LINE
RMV:OSPSPORT
RMV:TRK
RST:CPE
RST:DATALINK
```

RST:ISMNAIL
RST:LINE
RST:OSPSPORT
RST:TRK
SET:PB
STP:CAMPON
STP:CCSCQ
STP:LIST
STP:TST-DSL
STP:TST-ELS
STP:TST-TRK
TST:DSL
TST:LINE-ELS
TST:MP
TST:TRK
UPD:SSD

g = Further identifies the object of the active task. For further explanation of this field, refer to the input message description corresponding to the task type. Valid value(s):

AP = Application processor data link.
AQ = Autoquote data link.
AQEST = Autoquote establishment ospsport.
AQM = Autoquote mate analog ospsport.
BST = Basic services terminal ospsport.
DASC = Directory assistance system computer data link.
DEN = Digital equipment number.
DN = Directory number.
EIS = External Information System call processing data link (CPDL).
HOBICR = Hotel billing center record terminal data link.
HOBICV = Hotel billing center voice terminal data link.
HOBIS = Hotel Billing Information System data link.
ISMNAIL = Inter-SM nailup.
ILEN = Integrated digital carrier unit (IDCU) line equipment number.
INEN = Integrated digital loop carrier (IDLC) networking line equipment number.
LCEN = Integrated services line unit (ISLU) line card equipment number.
LCKEN = ISLU2 line circuit equipment number.
LEN = Line equipment number.
MISLNK = Management information system data link.
MLHG = Multi-line hunt group member.
NEN = Networking equipment number.
OAPF = OSPS administrative processor (force management center) ospsport.
OAPO = OSPS administrative processor (operator service center) ospsport.
OFFICE-AUTO = Office wide action - Automatic switch generated request.
OFFICE-DEMAND = Office wide action - Demand request.
OPC DPC = Origination Point Code/Destination Point Code.
OPT = Operator position terminal ospsport.
PKTDN = Packet directory number.
PRIGRP = Primary rate interface (PRI) group.
PSUEN = Packet switching unit (PSU) equipment number.
RAS = Remote alarm section data link.
RTRS = Real time rating system data link.
SLEN = Digital carrier line unit (DCLU) integrated *SLC*® line equipment number.

TEI	= Terminal endpoint identifier.
TEN	= Trunk equipment number.
TG	= Trunk group.
TKGMN	= Trunk group member.
XDB	= External database data link.
XDPF	= External data port (force management center) ospsport.
XDPO	= External data port (operator service center) ospsport.

h = Optional terminal endpoint identifier (TEI=0-126).

i = Optional for AATA job type. Valid value(s):

DSC	= DSC number.
TG	= Trunk group.
TKGMN	= Trunk group-member.

j = Output message completion code. Valid value(s):

COMPLETED	= The list of active ATA tasks completed successfully. All tasks currently controlled by the ATA system process have been identified.
SYSTEM ERROR	= An internal error occurred that prevented further output of the list of active tasks. The list is most likely not complete.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:OTO
ABT:TASK
CLR:PB
EXC:CCSCQ
EXC:CCSXLATE
EX:OTO
INIT:FAC
OP:AML
OP:CAMPON
OP:CGA
OP:CONV
OP:CPE
OP:FAC
OP:JOBSTATUS
OP:LIST
OP:LISTOTO
OP:OFFNORM-IS
OP:OSPS
```

```
OP:PB
OP:SCF
OP:SL
OP:SS7
OP:STATUS
OP:TGCNT
OP:WCPE
RMV:CPE
RMV:DATALINK
RMV:ISMNAIL
RMV:LINE
RMV:OSPSPORT
RMV:TRK
RST:CPE
RST:DATALINK
RST:ISMNAIL
RST:LINE
RST:OSPSPORT
RST:TRK
SET:PB
STP:CAMPON
STP:CCSCQ
STP:LIST
STP:TST-DSL
STP:TST-ELS
STP:TST-TRK
TST:DSL
TST:LINE-ELS
TST:MP
TST:TRK
UPD:SSD
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

53. OP:L

OP:LASSRQST-A

Software Release: 5E10 only
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
OP LASSRQST SM = a
  DN b - c
```

2. REASON FOR OUTPUT

To report the result of a directory number (DN) validation request in response to an OP:LASSRQST input message. If the request could not be processed, the message should be tried again later. If the DN is invalid, a reason will be provided.

Terminating restrictions and terminal group station restrictions (TGSRs) on a user's DN may impact whether or not DNs can be added to the user's screen list. When the input message is used to validate a DN, no user's DN is specified. Therefore, the terminating restrictions and TGSRs for a specific user's DN and the DN to be validated must be compared as described below.

3. VARIABLE FIELD DEFINITIONS

`a` = Number of the switching module (SM) that processed the OP:LASSRQST message.

`b` = Ten-digit directory number.

`c` = Result of the DN validation request. Valid value(s):

`NOT PROCESSED: LASS SUPPORT PACKAGE NOT LOADED` = The switch does not have the appropriate local area signaling services (LASS) software loaded to handle the request.

`RETRY LATER: RESPONSE MESSAGE WAS NOT RECEIVED` = The DN resides off-switch and a common channel signaling (CCS) message requesting validation was sent. A response message was expected but was not received.

`RETRY LATER: REQUEST COULD NOT BE PROCESSED` = Switch resources were not available to allow processing of the request.

`RETRY LATER: TEMPORARY INTERSWITCH CCS NETWORK FAILURE` = Interswitch messages could not be sent or received.

`IS INVALID: LINE DATA UNAVAILABLE` = The specified DN exists in another switch, but data needed for validation does not exist.

`IS INVALID: CCS7 TCAP QUERY MESSAGE WAS REJECTED` = The DN resides off-switch and the CCS request message was rejected.

`IS INVALID: CCS RESOURCES UNAVAILABLE` = The DN resides off-switch and CCS resources do not exist to transmit a request message.

`IS INVALID: IS INCOMPATIBLE WITH LASS FEATURES` = The DN cannot be uniquely identified by LASS selective features (LSFs) or LSFs cannot operate on this DN because of other line characteristics.

`IS INVALID: HAS ORIGINATING RESTRICTIONS` = The specified DN cannot originate phone calls and, therefore, would not be added to a user's screen list.

`IS INVALID: LONG-TERM INTERSWITCH CCS NETWORK FAILURE` = CCS connectivity required to validate the specified DN does not physically exist.

`IS INVALID: IS UNASSIGNED` = The specified DN is not currently in service.

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`IS VALID: WOULD BE ADDED TO A SCREEN LIST` = The specified DN is completely valid. The user's DN, however, should still be checked. Terminating restrictions would preclude validity of the specified DN, causing validation failure. Semi- or full-terminating TGSRs would require that the user's DN and the specified DN be in the same terminal group for complete validation success.

`WOULD BE VALID: CHECK TERMINAL GROUP RESTRICTIONS, TGID=d` = where '`d`' is the terminal group identifier (TGID) of the DN being validated. It is printed only with this response when the DN resides in the host switch and is valid in all other respects. The specified DN would be completely valid only if both the specified DN and the user's DN have the same TGID and the user's DN is not terminating restricted.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LASSRQST
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

OP:LASSRQST-B

Software Release: 5E11 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
OP LASSRQST SM = a
  DN = b   [LATA = c]   OPC = f
  d
```

2. REASON FOR OUTPUT

To report the result of a directory number (DN) validation request in response to an OP:LASSRQST input message. If the request could not be processed, the message should be tried again later. If the DN is invalid, a reason will be provided.

Terminating restrictions and terminal group station restrictions (TGSRs) on a user's DN may impact whether or not DNs can be added to the user's screen list. When the input message is used to validate a DN, no user's DN is specified. Therefore, the terminating restrictions and TGSRs for a specific user's DN and the DN to be validated must be compared as described below.

3. VARIABLE FIELD DEFINITIONS

`a` = Number of the switching module (SM) that processed the OP:LASSRQST message.

`b` = Ten-digit directory number.

`c` = Local access transport area (LATA) number.

`d` = Result of the DN validation request. Valid value(s):

`NOT PROCESSED: LASS SUPPORT PACKAGE NOT LOADED` = The switch does not have the appropriate local area signaling services (LASS) software loaded to handle the request.

`RETRY LATER: RESPONSE MESSAGE WAS NOT RECEIVED` = The DN resides off-switch and a common channel signaling (CCS) message requesting validation was sent. A response message was expected but was not received.

`RETRY LATER: REQUEST COULD NOT BE PROCESSED` = Switch resources were not available to allow processing of the request.

`RETRY LATER: TEMPORARY INTERSWITCH CCS NETWORK FAILURE` = Interswitch messages could not be sent or received.

`IS INVALID: LINE DATA UNAVAILABLE` = The specified DN exists in another switch, but data needed for validation does not exist.

`IS INVALID: CCS7 TCAP QUERY MESSAGE WAS REJECTED` = The DN resides off-switch and the CCS request message was rejected.

`IS INVALID: CCS RESOURCES UNAVAILABLE` = The DN resides off-switch and CCS resources do not exist to transmit a request message.

`IS INVALID: IS INCOMPATIBLE WITH LASS FEATURES` = The DN cannot be uniquely identified by LASS selective features (LSFs) or LSFs cannot operate on this DN because of other line characteristics.

`IS INVALID: HAS ORIGINATING RESTRICTIONS` = The specified DN cannot originate phone calls and, therefore, would not be added to a user's screen list.

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`IS INVALID: LONG-TERM INTERSWITCH CCS NETWORK FAILURE` = CCS connectivity required to validate the specified DN does not physically exist.

`IS INVALID: IS UNASSIGNED` = The specified DN is not currently in service.

`IS VALID: WOULD BE ADDED TO A SCREEN LIST` = The specified DN is completely valid. The user's DN, however, should still be checked. Terminating restrictions would preclude validity of the specified DN, causing validation failure. Semi- or full-terminating TGSRs would require that the user's DN and the specified DN be in the same terminal group for complete validation success.

`WOULD BE VALID: CHECK TERMINAL GROUP RESTRICTIONS, TGID=e` = It is printed only with this response when the DN resides in the host switch and is valid in all other respects. The specified DN would be completely valid only if both the specified DN and the user's DN have the same TGID and the user's DN is not terminating restricted.

`e` = The terminal group identifier (TGID) of the DN being validated.

`f` = Origination point code. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Input Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LASSRQST
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

OP:LIB-CLIENT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP LIB CLIENT
  DATA FROM CLIENT:
  a
```

2. REASON FOR OUTPUT

To output the data generated by the library client program.

3. VARIABLE FIELD DEFINITIONS

`a` = The string of data from the client.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

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OP:LIB-DISK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP LIB DISK
  PROGRAM  SM     AM     COMPAT          COMMENT
  a        b      c      d               e
```

2. REASON FOR OUTPUT

To report the completion status of a manually issued OP:LIB-DISK input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Name of the library program.

`b` = Existence of the program for the switching module (SM). Valid value(s):
- `N` = Program does not exist for the SM.
- `Y` = Program exists for the SM.

`c` = Existence of the program for the administrative module (AM). Valid value(s):
- `N` = Program does not exist for the AM.
- `Y` = Program exists for the AM.

`d` = A string copied from the .info file to indicate the release compatibility.

`e` = A user supplied comment, taken from the second line of the .info file.

4. ACTION TO BE TAKEN

Since this is a response to a manual request, no action is required. Normally, testing would proceed from this point.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:LIB-DISK`

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OP:LIB-STATUS

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP LIB STATUS
  TEAM  a  PROGRAM NAME b                    c  [d]  STATE=e
```

2. REASON FOR OUTPUT

To report the completion status of a manually issued OP:LIB-STATUS input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Team number.

`b` = Name of the library program.

`c` = Central processor (CP) flag. Valid value(s):
- `N` = CP is not reporting.
- `Y` = CP is reporting.

`d` = Switching module (SM) number. Default is that SM is not reporting.

`e` = Current state. Valid value(s):

```
LOADED
LOADING
STARTED
STOPPED
CLEARED
```

4. ACTION TO BE TAKEN

Since this is a response to a manual request, no action is required. Normally, testing would proceed from this point.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LIB-STATUS
```

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OP:LIST-DATA

Software Release: 5E10 and later
Message Class: CP,CP_RSP
Application: 5
Type: Output

1. FORMAT

```
OP LIST - DATA FROM THE FOLLOWING SM'S MAY BE INCOMPLETE
  a   [a]   [a]   [a]   [a]   [a]   [a]   [a]
                   .
                   .
                   .
```

2. REASON FOR OUTPUT

To respond to an OP:LIST input message request. It identifies the switching modules (SMs) which were unable to respond or which did not complete the current request.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number from which some or all out-of-service trunks or lines may be missing from the current OP:LIST-LINES or OP:LIST-TRUNK output.

4. ACTION TO BE TAKEN

Repeat the list request when the SMs are available. An SM's availability can be determined on the MCC Page EQUIPPED SM STATUS SUMMARY.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LIST
```

Output Message(s):

```
OP:LIST-LINES
OP:LIST-TRUNK
```

MCC Display Page(s):

114 (EQUIPPED SM STATUS SUMMARY)

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OP:LIST-DATALIN

Software Release: 5E10 and later
Message Class: CP,CP_RSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP LIST a [FULL] [SM b] [c] [c] [c] [c] [c] SEGMENT d e
       [f]     [LCEN g h i j] [k]    l [l] [l] [l] [l]
                                   [m [m] [m] [m] [m]]
                                         .
                                         .
                                         .

[2]   ____________________________________________________________________
      OP LIST a [FULL] [SM b] [c] [c] [c] [c] [c] NSEGS o e
```

2. REASON FOR OUTPUT

To respond to an OP:LIST input message manual request to output a list of data links that match a specified status. The list, if long, will be broken into segments.

Format 1 is used to list the data links that match the specified status. The end of the list and termination report is indicated by a trailer message described in Format 2.

3. VARIABLE FIELD DEFINITIONS

`AP` = The application processor data link.

`AQ` = The autoquote data link.

`DASC` = The directory assistance systems computer data link.

`DATALINKS` = All data links in the office that match the specified status.

`DSLG` = The digital subscriber line group.

`EIS` = External information system call processing data link (CPDL).

`FULL` = The primary and all pending statuses for each data link was requested.

`HOBICR` = The hotel billing center record terminal data link.

`HOBICV` = The hotel billing center voice terminal data link.

`HOBIS` = The Hotel Billing Information System data link.

`LCEN` = Integrated services line card equipment number.

`MISLNK` = The Management Information System data link.

`OAPF` = The Operator Services Position System (OSPS) administrative processor (force management center) data link.

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OAPO = The OSPS administrative processor (operator service center) data link.

RAS = The remote alarm section data link.

RTRS = The Real Time Rating System data link.

XDB = The external database data link.

a = Indicates what the request was for. Valid value(s):

```
AP [n]
AQ [o]
DASC [n]
DATALINKS
DSLG g p
EIS [t]
HOBICR [n]
HOBICV [n]
HOBIS [n]
MISLNK [n]
OAPF
OAPO
RAS [n]
RTRS [n]
XDB [n]
```

b = The switching module number that was requested.

c = The status mask entered in the input message which indicates which lines should be included in the list. Fields not specified are ignored. The first subfield indicates the basic state; the second subfield indicates the qualifier; the third subfield indicates the operational restrictions; the fourth subfield indicates the supplementary information; the fifth subfield indicates the mode of the line status. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Message manual for a complete list of possible status subfields.

d = Segment number of this segment of the list. Segments are numbered sequentially starting from 1.

e = Completion report. Valid value(s):

COMPLETED	= All items in the requested list have been output. Will occur only in a trailing (Format 2) message.
CONTINUED	= Indicates second and subsequent segments of a list that was too long to be printed in a single segment.
INPUT ERROR	= The input request was in some way incorrect.
INV STATUS	= The status entered was invalid. Since no lines could possibly have matched, the search was not performed.
NO MATCH	= The search was performed as requested, but no lines were found that satisfied the status requested.
STARTED	= Indicates the first segment in the list. This does not necessarily imply that additional segments will be required. The list will be terminated by a 'end-of-list' message (Format 2).
STOPPED	= The list was stopped by manual action.
SYSTEM BUSY	= The system was too busy to perform the request or a system resource failure occurred which prevented the request from being processed. This could indicate that another OP:LIST request is in progress.

`SYSTEM ERROR` = An unspecified internal system error occurred which prevents further processing. The request has been aborted.

`f` = Indicates what the request was for. Valid value(s):

```
AP n q
AQ n q
DASC n q
DSLG g p
EIS r n
HOBICR n q
HOBICV n q
HOBIS n q
MISLNK n q
OAPF s
OAPO t
RAS n q
RTRS n q
XDB n q
```

`g` = Switching module (SM) number.

`h` = Line unit number.

`i` = Line group number.

`j` = Line card number.

`k` = Channel identifier. Valid value(s):

```
B1
B2
D
```

`l` = Primary status for the line. This is the most restrictive status currently on the line. The first subfield indicates the basic state; the second subfield indicates the qualifier; the third subfield indicates the operational restrictions; the fourth subfield indicates the supplementary information; the fifth subfield indicates the mode of the line status. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Message manual for a detailed explanation of the status.

`m` = Pending statuses for the line. The first subfield indicates the basic state; the second subfield indicates the qualifier; the third subfield indicates the operational restrictions; the fourth subfield indicates the supplementary information; the fifth subfield indicates the mode of the line status. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Message manual for a detailed explanation of the status and the status hierarchy.

`n` = Data link group number.

`o` = Total number of segments in the list.

`q` = Relative link number.

`p` = The protocol handler (PH) channel group number.

`r` = EIS identifier on which a CPDL terminates.

`s` = The force management center number of the OAPF.

`t` = The operator service center number of the OAPO.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LIST
STP:LIST
```

Output Message(s):

```
OP:LIST-DATA
OP:LIST-SUM
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-900-301 *ISDN Basic Rate Interface Specification*
250-505-100 *OSPS Description and Procedures*

OP:LIST-ISMNAIL

Software Release: 5E10 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP LIST ISMNAIL SM=a u SEGMENT=d EVENT=e f
       [g]
       [SM   DLT      MASTER CHNG    MEMBER  MATESM  MATEDLT  STATUS]
       [j       k        l      v       w       h       i        m ]

[2]   ____________________________________________________________________
      OP LIST ISMNAIL SM=a CHNG=b u SEGMENT=d EVENT=e f
       [g]
       [SM      DLT      MASTER CHNG    MEMBER  MATESM  MATEDLT  STATUS]
      j       k        l      v       w       h       i        m

[3]   ____________________________________________________________________
      OP LIST ISMNAIL SM=a MATESM=c u SEGMENT=d EVENT=e f
       [g]
       [           PRIMARY     HISTORY1     HISTORY2     HISTORY3]
       [    DLT=k     m           n            o            p]
       [MATEDLT=i     q           r            s            t]
```

2. REASON FOR OUTPUT

To respond to an OP:LIST-ISMNAIL input message and indicates in a list form the status of inter-SM (switching module) nailups (ISMNAILs). Format 1 is produced by requesting the status for all ISMNAILs emanating from a specific SM. Only primary maintenance status and the "master/slave" characteristic of the ISMNAIL data link terminal (DLT) on the source SM will be provided. Format 2 is produced by requesting the status for all ISMNAILs emanating from a specific ISM channel group (CHNG). Only primary maintenance status of the ISMNAIL DLT on the source SM/CHNG will be provided. Format 3 is produced by requesting the status for all ISMNAILs between a specified pair of SMs. Primary and history maintenance status of the ISMNAIL DLT on both the source and the destination SMs will be provided.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = Channel group number.

`c` = Mate SM number.

`d` = Output message segment, designated FIRST, NEXT or LAST. (If there is only one segment, LAST will be output).

`e` = Event number.

`f` = Termination report. Valid value(s):
`COMPLETED` = Request completed successfully.
`FAILURE` = Request was terminated before a normal completion.

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g = Additional data qualifying the termination of the request. Includes the following. Valid value(s):

DATABASE PROBLEM = Problem occurred while attempting to access critical data (accompanying ASSERT should provide more details).

LACK OF MESSAGE RESOURCE = Message resources were not available in the administration module (AM) and the craft request could not be forwarded to the SM for execution.

MESSAGE NOT RECEIVED = Expected message not received by ATA terminal process within designated timeout interval.

NO OPTION MATCH = None of the ISMNAILs had states corresponding to option specified in the input request.

STOPPED = Request stopped due to manual intervention.

SM IN MINMODE = SM is in MINMODE, and, therefore, cannot support ISMNAILs.

SM ISOLATED = SM is isolated, and requested action cannot be honored.

TERMINAL PROCESS NOT CREATED = An automatic task administrator (ATA) terminal process to execute the craft request could not be created due to system problems.

TIMEOUT = Timeout occurred.

Note: For many failed restorations, the ISMNAIL may be left in a state, which will allow a successful automatic restoration at some later time; use OP:ST-ISMNAIL to determine current status associated with the affected ISMNAIL.

h = Mate SM number which represents the SM at the other end of the ISMNAIL.

i = DLT number (1-160).

j = SM number that represents the SM of the ISMNAIL.

k = Mate DLT number (1-160).

l = Master status of the source DLT. Valid value(s):

N = The DLT is slave.

Y = The DLT is master.

m = The primary status for the source port associated with the ISMNAIL; this is the most restrictive status currently on the port. Valid value(s):

IS = In-service (normal operation).

ISOLATED = No status data could be derived from the SM due to isolation.

OOS DLI = OOS dual link interface (DLI) ISMNAIL is OOS due to a removed DLI on the major office network and timing complex (ONTC).

OOS DSBLD = OOS disabled (DSBLD) indicates the ISMNAIL is manually removed.

OOS DSLINIT = OOS Initialization (DSLINIT) ISMNAIL will be automatically scheduled for an initialization.

OOS MASTRSM = Slave ISM port is OOS awaiting a restoration, which must be triggered by the mate master SM.

OOS NLI = OOS network link interface (NLI) ISMNAIL is OOS due to a removal of all NLIs on the major office network and timing complex (ONTC).

OOS PSU = OOS packet switch unit (PSU) the ISMNAIL is OOS because of an OOS/degraded protocol handler (PH).

OOS SLAVESM = Master ISM port is OOS due to problem in mate slave SM.

OOS TBI = OOS to-be-idled (TBI) indicates the ISMNAIL is on the TBI list due to data corruption discovered by audits; this is a transient state and recovery is automatic.

OOS TBLA = OOS trouble analysis (TBLA) indicates the ISMNAIL is OOS for no known hardware reasons, but cannot be restored to service for any reasonable length of

time; repeated automatic restorations have been attempted, and maintenance personnel intervention is now required.

`OOS TMSCONN` = OOS time multiplexed switch link connectivity; ISMNAIL is OOS due to a TMS interconnectivity problem between the SMs (out-of-service DLI/NLIs or TMSLNKS) at one or more ends of the nailup.

`TRANSIENT` = The ISMNAIL is in a transient state, due to maintenance activity.

`UNKNOWN` = No status data received from the SM within the allotted timeout interval; valid reasons include unavailability of message resources, high levels of call processing/maintenance activity, or overload.

`n` = The first pending (history) status for the source port associated with the ISMNAIL; a port can have zero to three pending statuses, in addition to the primary status. They are produced only in Format 3 output. Valid value(s):

`NO STATUS` = No pending (history) status.

`OOS DLI` = The ISMNAIL is OOS due to a removed DLI on the major ONTC.

`OOS DSBLD` = The ISMNAIL is manually removed.

`OOS NLI` = This ISMNAIL is OOS due to a removal of all NLIs on the major ONTC.

`OOS PSU` = The ISMNAIL is OOS because of an OOS/degraded PH.

`OOS SLAVESM` = Master ISM port is OOS due to problem in mate slave SM.

`OOS TMSCONN` = The ISMNAIL is OOS due to a TMS interconnectivity problem between the SMs (out-of-service DLI/NLIs or TMSLNKS) at one or more ends of the nailup.

`o` = The second pending (history) status for the source port associated with the ISMNAIL (Format 3 outputs only).

`p` = The third pending (history) status for the source port associated with the ISMNAIL (Format 3 outputs only).

`q` = The primary status for the destination port associated with the ISMNAIL (Format 3 outputs only). Possible values are the same as listed for variable '`k`'.

`r` = The first pending status for the destination port associated with the ISMNAIL (Format 3 outputs only). Possible values are the same as listed for variable '`m`'.

`s` = The second pending (history) status for the destination port associated with the ISMNAIL (Format 3 outputs only).

`t` = The third pending (history) status for the destination port associated with the ISMNAIL (Format 3 outputs only).

`u` = State filtering option (selected by the input request). Valid value(s):

`ALL` = Output produced regardless of status.

`IS` = Only in-service (IS) ISMNAILs will be output.

`OOS` = Only out-of-service (OOS) ISMNAILs will be output.

`v` = Source DLT channel group number (0-80).

`w` = Source DLT channel group member (Spyder) number (0-128).

4. ACTION TO BE TAKEN

No further action is necessary if the request completed successfully.

If the termination report is FAILURE, the 'g' field will give some indication as to why the request failed.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LIST-ISMNAIL
OP:ST-ISMNAIL
STP:ISMNAIL
```

Output Message(s):

```
STP:ISMNAIL
```

Other Manual(s):
235-600-500 *Asserts*

OP:LIST-LINES-A

Software Release: 5E10 - 5E12
Message Class: CP,CP_RSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP LIST a [FULL] [SM b] [c] [c] [c] [c] [c] SEGMENT d e
        [f]         [DEN h h1 i1 j1]      t [t] [t] [t] [t]
                                               u [u [u] [u] [u]]

                                                       .
                                                       .
                                                       .

        [f]    [g]  [ILEN h a1 r s]      t [t] [t] [t] [t]
                                       [u [u] [u] [u] [u]]
                                               .
                                               .
                                               .

        [f]    [g]  [INEN h g1 r s]      t [t] [t] [t] [t]
                                       [u [u] [u] [u] [u]]
                                               .
                                               .
                                               .

        [f]         [LEN h i m n o p]   t [t] [t] [t] [t]
                                       [u [u] [u] [u] [u]]
                                               .
                                               .
                                               .

        [f]    [g]  [LCEN h f1 j k]      t [t] [t] [t] [t]
                                       [u [u] [u] [u] [u]]
                                               .
                                               .
                                               .

        [f]    [LCEN h f1 j k]  [g]      t [t] [t] [t] [t]
                                       [u [u] [u] [u] [u]]
                                               .
                                               .
                                               .

        [f]         [NEN h g1 k1 l1 m1 n1]      t [t] [t] [t] [t]
                                               u [u [u] [u] [u]]

                                                       .
                                                       .
                                                       .
```

```
        [f]          [SLEN h q r s]      t [t] [t] [t] [t]
                                        [u [u] [u] [u] [u]]
                                                .
                                                .
                                                .
        [f]    [g]  [LCKEN h f1 b1 c1 e1]   t [t] [t] [t] [t]
                                        [u [u] [u] [u] [u]]
                                                .
                                                .
                                                .

        [f]    [LCKEN h f1 b1 c1 e1]  [g]   t [t] [t] [t] [t]
                                        [u [u] [u] [u] [u]]
                                                .
                                                .
                                                .

[2]     ____________________________________________________________
        OP LIST a [FULL] [SM b] [c] [c] [c] [c] [c] NSEGS w e
```

2. REASON FOR OUTPUT

To respond to a manual request for a list of lines with a specified status. The list, if long, will be broken into segments.

Format 1 lists the lines that match the specified status. Note that there are two cases for the order in which the channel identifier ('g') and the integrated services line card equipment number (LCEN) and integrated services line card, Version 2, line circuit equipment number (LCKEN) are output: `[g] [LCEN h f1 j k]` or `[g] [LCKEN h f1 j b1 c1]` is used for the request LINES; `[LCEN h f1 j k] [g]` or `[LCKEN h f1 j b1 c1] [g]` is used for requests DSLG and MLHG. Format 2 describes a trailer message that indicates the end of the list and termination report.

3. VARIABLE FIELD DEFINITIONS

`FULL` = The primary and all pending statuses for each line was requested.

`+` = Indicates the line is a party line, a custom multipoint interface DSL, or a standard interface multi-user DSL.

`a` = Indicates what the request was. Valid value(s):

```
LINES
 DSLG h x
 MLHG y [z[&&z]]
 RPCU d1
```

`b` = The SM number that was requested.

`c` = Primary status for the line. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for possible line status values for the subfields.

`d` = Segment number of this segment of the list. Segments are numbered sequentially starting from 1.

e = Completion report. Valid value(s):

- COMPLETED = All items in the requested list have been output. Will occur only in a trailing message (Format 2).
- CONTINUED = Second and subsequent segments of a list that was too long to be printed in a single segment.
- INPUT ERROR = The input request was in some way incorrect.
- INV STATUS = The status entered was invalid. Since no lines could possibly have matched, the search was not performed.
- MLHG INVALID = The multi-line hunt group specified in the input request was invalid. Verify that the correct group number was specified.
- NO MATCH = The search was performed as requested, but no lines were found that satisfied the status requested.
- STARTED = The first segment in the list. This does not necessarily imply that additional segments will be required. The list will be terminated by an 'end-of-list' message (Format 2).
- STOPPED = The list was stopped by manual action.
- SYSTEM BUSY = The system was too busy to perform the request or a system resource failure occurred which prevented the request from being processed. This could indicate that another OP:LIST request is in progress.
- SYSTEM ERROR = An unspecified internal system error occurred which prevents further processing. The request has been aborted.

f = Equipment number or identifier (if available). Valid value(s):

```
DN v[-l][+]
 DSLG h x
 MLHG y z
```

g = Channel identifier: D, B1, or B2. Used only for DSL lines.

h = SM number.

i = Line unit number.

j = Line group controller number.

k = Line card number.

l = Member number of the line time slot bridging (LTSB) line. For LTSB, a member number of 1 represents the lead line and a member number of 2 represents the associate line.

m = Line grid number.

n = Switch board number.

o = Switch number.

p = Level number.

q = Digital carrier line unit number.

r = Remote terminal (RT) number.

s = RT line number.

t = Primary status for the line. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual.

u = Pending status for the line. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual.

v = Telephone number of the line, XAT, 4-wire analog line, or 4-wire digital line.

w = Total number of segments in the list.

x = Protocol handler (PH) channel group number.

y = Group number.

z = Group member number or range of members.

a[1] = IDCU number.

b[1] = Line group number.

c[1] = Line board number.

d[1] = Radio port controller unit.

e[1] = Line circuit number.

f[1] = Integrated services line unit (ISLU)/ISLU2 number.

g[1] = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

h[1] = Digital line and trunk unit (DLTU) number.

i[1] = Digital facility interface (DFI) number.

j[1] = Channel number.

k[1] = Data group number.

l[1] = Synchronous transport signal (STS) number.

m[1] = Virtual Tributary 1.5 (VT1.5) number.

n[1] = Digital signal Level 0 (DS0) number.

4. ACTIONS TO BE TAKEN

None. Refer to the message output for pertinent status and information, and take appropriate action based on the information received, if necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LIST
STP:LIST
```

Output Message(s):

```
OP:LIST-DATA
OP:LIST-SUM
```

Output Appendix(es):

```
APP:PORT-STATUS
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

OP:LIST-LINES-B

Software Release: 5E13 and later
Message Class: CP,CP_RSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP LIST a [FULL] [SM b] [c] [c] [c] [c] [c] SEGMENT d e
        [f]         [DEN h h1 i1 j1]      t [t] [t] [t] [t]
                                               u [u [u] [u] [u]]

                                                       .
                                                       .
                                                       .

        [f]    [g]  [ILEN h a1 r s]      t [t] [t] [t] [t]
                                       [u [u] [u] [u] [u]]
                                               .
                                               .
                                               .

        [f]    [g]  [INEN h g1 r s]      t [t] [t] [t] [t]
                                       [u [u] [u] [u] [u]]
                                               .
                                               .
                                               .

        [f]         [LEN h i m n o p]   t [t] [t] [t] [t]
                                       [u [u] [u] [u] [u]]
                                               .
                                               .
                                               .

        [f]    [g]  [LCEN h f1 j k]      t [t] [t] [t] [t]
                                       [u [u] [u] [u] [u]]
                                               .
                                               .
                                               .

        [f]    [LCEN h f1 j k]  [g]      t [t] [t] [t] [t]
                                       [u [u] [u] [u] [u]]
                                               .
                                               .
                                               .

        [f]         [NEN h g1 k1 l1 m1 n1 o1 p1]      t [t] [t] [t] [t]
                                               u [u [u] [u] [u]]

                                                       .
                                                       .
                                                       .
```

```
        [f]          [SLEN h q r s]      t [t] [t] [t] [t]
                                        [u [u] [u] [u] [u]]
                                                .
                                                .
                                                .
        [f]    [g]  [LCKEN h f1 b1 c1 e1]   t [t] [t] [t] [t]
                                        [u [u] [u] [u] [u]]
                                                .
                                                .
                                                .

        [f]    [LCKEN h f1 b1 c1 e1]  [g]   t [t] [t] [t] [t]
                                        [u [u] [u] [u] [u]]
                                                .
                                                .
                                                .

[2]     ____________________________________________________________
        OP LIST a [FULL] [SM b] [c] [c] [c] [c] [c] NSEGS w e
```

2. REASON FOR OUTPUT

To respond to a manual request for a list of lines with a specified status. The list, if long, will be broken into segments.

Format 1 lists the lines that match the specified status. Note that there are two cases for the order in which the channel identifier ('g') and the integrated services line card equipment number (LCEN) and integrated services line card, Version 2, line circuit equipment number (LCKEN) are output: `[g] [LCEN h f1 j k]` or `[g] [LCKEN h f1 j b1 c1]` is used for the request LINES; `[LCEN h f1 j k] [g]` or `[LCKEN h f1 j b1 c1] [g]` is used for requests DSLG and MLHG. Format 2 describes a trailer message that indicates the end of the list and termination report.

3. VARIABLE FIELD DEFINITIONS

`FULL` = The primary and all pending statuses for each line was requested.

`+` = Indicates the line is a party line, a custom multipoint interface DSL, or a standard interface multi-user DSL.

`a` = Indicates what the request was. Valid value(s):

```
LINES
 DSLG h x
 MLHG y [z[&&z]]
 RPCU d1
```

`b` = The SM number that was requested.

`c` = Primary status for the line. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for possible line status values for the subfields.

`d` = Segment number of this segment of the list. Segments are numbered sequentially starting from 1.

e = Completion report. Valid value(s):

- COMPLETED = All items in the requested list have been output. Will occur only in a trailing message (Format 2).
- CONTINUED = Second and subsequent segments of a list that was too long to be printed in a single segment.
- INPUT ERROR = The input request was in some way incorrect.
- INV STATUS = The status entered was invalid. Since no lines could possibly have matched, the search was not performed.
- MLHG INVALID = The multi-line hunt group specified in the input request was invalid. Verify that the correct group number was specified.
- NO MATCH = The search was performed as requested, but no lines were found that satisfied the status requested.
- STARTED = The first segment in the list. This does not necessarily imply that additional segments will be required. The list will be terminated by an 'end-of-list' message (Format 2).
- STOPPED = The list was stopped by manual action.
- SYSTEM BUSY = The system was too busy to perform the request or a system resource failure occurred which prevented the request from being processed. This could indicate that another OP:LIST request is in progress.
- SYSTEM ERROR = An unspecified internal system error occurred which prevents further processing. The request has been aborted.

f = Equipment number or identifier (if available). Valid value(s):

```
DN v[-l][+]
 DSLG h x
 MLHG y z
```

g = Channel identifier: D, B1, or B2. Used only for DSL lines.

h = SM number.

i = Line unit number.

j = Line group controller number.

k = Line card number.

l = Member number of the line time slot bridging (LTSB) line. For LTSB, a member number of 1 represents the lead line and a member number of 2 represents the associate line.

m = Line grid number.

n = Switch board number.

o = Switch number.

p = Level number.

q = Digital carrier line unit number.

r = Remote terminal (RT) number.

s = RT line number.

t = Primary status for the line. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual.

u = Pending status for the line. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual.

v = Telephone number of the line, XAT, 4-wire analog line, or 4-wire digital line.

w = Total number of segments in the list.

x = Protocol handler (PH) channel group number.

y = Group number.

z = Group member number or range of members.

a[1] = IDCU number.

b[1] = Line group number.

c[1] = Line board number.

d[1] = Radio port controller unit.

e[1] = Line circuit number.

f[1] = Integrated services line unit (ISLU)/ISLU2 number.

g[1] = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

h[1] = Digital line and trunk unit (DLTU) number.

i[1] = Digital facility interface (DFI) number.

j[1] = Channel number.

k[1] = Data group number.

l[1] = SONET termination equipment (STE) number.

m[1] = Synchronous transport signal (STS) number.

n[1] = Virtual tributary group number.

o[1] = Virtual tributary member number.

p[1] = Digital signal Level 0 (DS0) number. (DNU-S) number.

4. ACTIONS TO BE TAKEN

None. Refer to the message output for pertinent status and information, and take appropriate action based on the information received, if necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LIST
STP:LIST
```

Output Message(s):

```
OP:LIST-DATA
OP:LIST-SUM
```

Output Appendix(es):

```
APP:PORT-STATUS
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

OP:LIST-OSPSPOR

Software Release: 5E10 and later
Message Class: CP,CP_RSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP LIST a [FULL] [SM b] [c] [c] [c] [c] [c] SEGMENT d e
       [f]     [g]                 h [h] [h] [h] [h]
                                  [i [i] [i] [i] [i]]
                                          .
                                          .
                                          .

[2]   ____________________________________________________________________
      OP LIST a [FULL] [SM b] [c] [c] [c] [c] [c] NSEGS j e
```

2. REASON FOR OUTPUT

To respond to an OP:LIST manual request to output a list of Operator Services Position System ports (OSPSPORTs) that match a specified status. The list, if long, will be broken into segments.

Format 1 is used to list the OSPSPORTs that match the specified status. The end of the list and termination report is indicated by a trailer message described in Format 2.

3. VARIABLE FIELD DEFINITIONS

`AQEST` = The autoquote establishment OSPSPORT.

`AQM` = The autoquote mate analog OSPSPORT.

`BST` = The basic services terminal OSPSPORT.

`FULL` = The primary and all pending statuses for each data link was requested.

`LCEN` = Integrated services line card equipment number if available.

`OPT` = The operator position terminal OSPSPORT.

`OSPSPORTS` = All OSPSPORTs in the office that match the specified status.

`TEN` = Trunk equipment number, if available.

`XDPF` = The external data port (force management center) OSPSPORT.

`XDPO` = The external data port (operator service center) OSPSPORT.

`a` = Indicates what the request was for. Valid value(s):

```
AQEST
AQM [k]
BST [l]
OPT [m]
```

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OSPSPORT
XDPF
XDPO

b = The switching module (SM) number that was requested.

c = The status mask entered in the input message that indicates which OSPSPORTs should be included in the list. Fields not specified are ignored. Refer to the APP:PORT-STATUS Appendix in the appendixes section of the Output Messages manual for a complete list of possible status subfields.

d = Segment number of this segment of the list. Segments are numbered sequentially starting from 1.

e = Completion report. Valid value(s):

COMPLETED = All items in the requested list have been output. Will occur only in a trailing message (Format 2).
CONTINUED = Indicates second and subsequent segments of a list that was too long to be printed in a single segment.
INPUT ERROR = The input request was in some way incorrect.
INV STATUS = The status entered was invalid. Because no OSPSPORTs could possibly have matched, the search was not performed.
NO MATCH = The search was performed as requested, but no OSPSPORTs were found that satisfied the status requested.
STARTED = Indicates the first segment in the list. This does not necessarily imply that additional segments will be required. The list will be terminated by a 'end-of-list' message (Format 2).
STOPPED = The list was stopped by manual action.
SYSTEM BUSY = The system was too busy to perform the request or a system resource failure occurred that prevented the request from being processed. This could indicate that another OP:LIST request is in progress.
SYSTEM ERROR = An unspecified internal system error occurred which prevents further processing. The request has been aborted.

f = Indicates what the request was for. Valid value(s):

AQEST m
AQM k n
BST l o
OPT l o
XDPF p
XDPO l

g = Valid value(s):

LCEN q r s t [u]
TEN q v w x y

h = Primary status for the OSPSPORT. This is the most restrictive status currently on the OSPSPORT. Refer to the APP:PORT-STATUS Appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status.

i = Pending statuses for the OSPSPORT. Refer to the APP:PORT-STATUS Appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status and the status hierarchy.

`j` = Total number of segments in the list.

`k` = The data link group number.

`l` = Operator service center number.

`m` = The AQEST telephone number.

`n` = Relative link (member) number.

`o` = Relative position number.

`p` = Force management center number.

`q` = SM number.

`r` = Line unit number.

`s` = Line group number.

`t` = Line card number.

`u` = Channel identifier. Valid value(s):

```
D
B1
B2
```

`v` = Trunk unit number.

`w` = Service group number.

`x` = Channel board number.

`y` = Circuit number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LIST
STP:LIST
```

Output Message(s):

```
OP:LIST-DATA
OP:LIST-SUM
```

Output Appendix(es):

```
APP:PORT-STATUS
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
250-505-100 *OSPS Description and Procedures*

OP:LIST-REPORT

Software Release: 5E10 and later
Message Class: LINE,TRUNK,CP, CP_RSP,TRK
Application: 5
Type: Output

1. FORMAT

```
OP LIST - DATA FROM THE FOLLOWING SM'S MAY BE INCOMPLETE
  a   [a   [a   [a   [a   [a   [a   [a]]]]]]]
                .
                .
                .
```

2. REASON FOR OUTPUT

To respond to an OP:LIST input message request to identify the switching modules (SMs), which were unable to respond or which did not complete the current request.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number from which some or all out-of-service trunks or lines may be missing from the current OP:LIST output.

4. ACTION TO BE TAKEN

Repeat the list request when the SM is available.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LIST
```

Output Message(s):

```
OP:LIST-LINES
OP:LIST-TRUNK
```

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OP:LIST-SUM-A

Software Release: 5E10 - 5E12
Message Class: CP,CP_RSP,TRK
Application: 5
Type: Output

1. FORMAT

```
OP LIST - a [SM c] b SUM
  d  MATCHING ITEMS FOUND
```

2. REASON FOR OUTPUT

To respond to an OP:LIST input message requesting summarized output of trunks, lines, data links, or Operator Services Position System ports (OSPSPORTs) that currently match the status specified in the request.

3. VARIABLE FIELD DEFINITIONS

AP	= Application processor (AP) data link.
AQ	= Autoquote (AQ) data link.
AQEST	= Autoquote establishment (AQEST) OSPSPORT.
AQM	= Autoquote mate analog (AQM) OSPSPORT.
BST	= Basic services terminal.
DASC	= Directory assistance system computer (DASC) data link.
DATALINKS	= Data links.
DFI	= Digital facility interface.
DSLG	= Digital subscriber line group (DSLG).
HOBICR	= Hotel billing center record terminal (HOBICR) data link.
HOBICV	= Hotel billing center voice terminal (HOBICV) data link.
HOBIS	= Hotel billing information system (HOBIS) data link.
LINES	= Lines.
MISLNK	= Management information system (MISLNK) data link.
MLHG	= Multi-line hunt group.
OAPF	= OSPS administrative processor (force management center) (OAPF) OSPSPORT.
OAPO	= OSPS administrative processor (operator service center) (OAPO) OSPSPORT.
OSPSPORTS	= OSPS ports.
PRIGRP	= Primary rate interface group (PRI).

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RAS = Remote alarm section (RAS) data link.

RTRS = Real time rating system (RTRS) data link.

TG = Trunk group.

VDT = Video display terminal (VDT) OSPSPORT.

VT1FAC = Virtual tributary 1.5 (VT1.5) facility.

XDB = External data base (XDB) data link.

XDPF = External data port (force management center) (XDPF) OSPSPORT.

XDPO = External data port (operator service center) (XDPO) OSPSPORT.

a = One of the following. Valid value(s):

AP[h]	HOBICV[h]	RTRS[w]
AQEST	HOBIS[h]	TG o[p&&q]
AQM[h]	LINES	TRUNKS
AQ[h]	MISLNK[h]	VDT[i]
BST[i]	MLHG k[l&&m]	VT1FAC e s t u v
DASC[h]	OAPF	XDB[r]
DATALINKS	OAPO	XDPF
DFI e f g	OSPSPORTS	XDPO
DSLG e j	PRIGRP[n]	HOBICR[h]
RAS[v]		

b = The status requested in the input message which indicates which port status the summary is to report on. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status.

c = The SM that was requested.

d = The number of ports belonging to group ''a'' with port status ''b''.

e = Switching module (SM) number.

f = Digital line and trunk (DLTU) number.

g = Digital facility interface (DFI) number.

h = Data link (group) number.

i = Operator service center number.

j = Protocol handler channel group number.

k = Multi-line hunt group number.

l = The lower limit of a range of multi-line hunt group member numbers.

m = The upper limit of a range of multi-line hunt group member numbers.

n = PRI group number specified.

o = Trunk group number.

`p` = The lower limit of a range of trunk group member numbers.

`q` = The upper limit of a range of trunk group member numbers.

`r` = Data link (group) number of the XDB.

`s` = Digital network unit - SONET (DNU-S) number.

`t` = Data group number.

`u` = Synchronous transport signal (STS) number.

`v` = Virtual tributary 1.5 (VT1.5) number.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LIST
```

Output Message(s):

```
OP:LIST-DATA
OP:LIST-DATALIN
OP:LIST-LINES
OP:LIST-OSPSPOR
OP:LIST-REPORT
OP:LIST-TRUNK
```

Output Appendix(es):

```
APP:PORT-STATUS
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-900-301 *ISDN Basic Rate Interface Specification*
250-505-100 *OSPS Description and Procedures*

OP:LIST-SUM-B

Software Release: 5E13 and later
Message Class: CP,CP_RSP,TRK
Application: 5
Type: Output

1. FORMAT

```
OP LIST - a [SM c] b SUM
  d  MATCHING ITEMS FOUND
```

2. REASON FOR OUTPUT

To respond to an OP:LIST input message requesting summarized output of trunks, lines, data links, or Operator Services Position System ports (OSPSPORTs) that currently match the status specified in the request.

3. VARIABLE FIELD DEFINITIONS

AP	= Application processor (AP) data link.
AQ	= Autoquote (AQ) data link.
AQEST	= Autoquote establishment (AQEST) OSPSPORT.
AQM	= Autoquote mate analog (AQM) OSPSPORT.
BST	= Basic services terminal.
DASC	= Directory assistance system computer (DASC) data link.
DATALINKS	= Data links.
DFI	= Digital facility interface.
DSLG	= Digital subscriber line group (DSLG).
HOBICR	= Hotel billing center record terminal (HOBICR) data link.
HOBICV	= Hotel billing center voice terminal (HOBICV) data link.
HOBIS	= Hotel billing information system (HOBIS) data link.
LINES	= Lines.
MISLNK	= Management information system (MISLNK) data link.
MLHG	= Multi-line hunt group.
OAPF	= OSPS administrative processor (force management center) (OAPF) OSPSPORT.
OAPO	= OSPS administrative processor (operator service center) (OAPO) OSPSPORT.
OSPSPORTS	= OSPS ports.
PRIGRP	= Primary rate interface group (PRI).

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RAS = Remote alarm section (RAS) data link.

RTRS = Real time rating system (RTRS) data link.

TG = Trunk group.

VDT = Video display terminal (VDT) OSPSPORT.

VT1FAC = Virtual tributary level 1 facility.

XDB = External data base (XDB) data link.

XDPF = External data port (force management center) (XDPF) OSPSPORT.

XDPO = External data port (operator service center) (XDPO) OSPSPORT.

a = One of the following. Valid value(s):

AP[h]	HOBICV[h]	RTRS[w]
AQEST	HOBIS[h]	TG o[p&&q]
AQM[h]	LINES	TRUNKS
AQ[h]	MISLNK[h]	VDT[i]
BST[i]	MLHG k[l&&m]	VT1FAC e s t w u v x
DASC[h]	OAPF	XDB[r]
DATALINKS	OAPO	XDPF
DFI e f g	OSPSPORTS	XDPO
DSLG e j	PRIGRP[n]	HOBICR[h]
RAS[v]		

b = The status requested in the input message which indicates which port status the summary is to report on. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status.

c = The SM that was requested.

d = The number of ports belonging to group ''a'' with port status ''b''.

e = Switching module (SM) number.

f = Digital line and trunk (DLTU) number.

g = Digital facility interface (DFI) number.

h = Data link (group) number.

i = Operator service center number.

j = Protocol handler channel group number.

k = Multi-line hunt group number.

l = The lower limit of a range of multi-line hunt group member numbers.

m = The upper limit of a range of multi-line hunt group member numbers.

n = PRI group number specified.

o = Trunk group number.

`p` = The lower limit of a range of trunk group member numbers.

`q` = The upper limit of a range of trunk group member numbers.

`r` = Data link (group) number of the XDB.

`s` = Digital networking unit - SONET (DNU-S) number.

`t` = Data group number.

`u` = Synchronous transport signal (STS) number.

`v` = Virtual tributary group number.

`w` = SONET termination equipment (STE) number.

`x` = Virtual tributary member number.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LIST
```

Output Message(s):

```
OP:LIST-DATA
OP:LIST-DATALIN
OP:LIST-LINES
OP:LIST-OSPSPOR
OP:LIST-REPORT
OP:LIST-TRUNK
```

Output Appendix(es):

```
APP:PORT-STATUS
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-900-301 *ISDN Basic Rate Interface Specification*
250-505-100 *OSPS Description and Procedures*

OP:LIST-TRUNK-A

Software Release: 5E10 - 5E12
Message Class: CP,CP_RSP
Application: 5
Type: Output

WARNING: INAPPROPRIATE USE OF THIS MESSAGE MAY INTERRUPT OR DEGRADE SERVICE. READ PURPOSE CAREFULLY.

1. FORMAT

```
[1]   ____________________________________________________________________
      OP LIST a [FULL] [SM b] [c] [c] [c] [c] [c] SEGMENT d e
       [f]        [DEN g n o p]   [ICB=v|ICD=w]  l [l] [l] [l] [l]
                                        [m [m] [m] [m] [m]]
                                                .
                                                .
                                                .
       [f]        [ILEN g t r s]  [ICB=v|ICD=w]  l [l] [l] [l] [l]
                                        [m [m] [m] [m] [m]]
                                                .
                                                .
                                                .
       [f]        [INEN g l1 r s]  [ICB=v|ICD=w]  l [l] [l] [l] [l]
                                        [m [m] [m] [m] [m]]
                                                .
                                                .
                                                .
       [f]        [LTP g g1]      [ICB=v|ICD=w]  l [l] [l] [l] [l]
                                        [m [m] [m] [m] [m]]
                                                .
                                                .
                                                .
       [f]        [RAF g x y]  [ICB=v|ICD=w]  l [l] [l] [l] [l]
                                        [m [m] [m] [m] [m]]
                                                .
                                                .
                                                .
       [f]        [SAS g x y]  [ICB=v|ICD=w]  l [l] [l] [l] [l]
                                        [m [m] [m] [m] [m]]
                                                .
                                                .
                                                .
       [f]        [SLEN g q r s]  [ICB=v|ICD=w]  l [l] [l] [l] [l]
                                        [m [m] [m] [m] [m]]
                                                .
                                                .
                                                .
       [f]        [TEN g h i j k] [ICB=v|ICD=w]  l [l] [l] [l] [l]
                                        [m [m] [m] [m] [m]]
                                                .
                                                .
```

```
                                                  .
[f]        [DEN g n o p]   [GRP[=h1]]  l [l] [l][l] [l] [i1|j1]
                                     [m [m] [m] [m] [m]]
                                                  .
                                                  .
                                                  .
[f]        [NEN g l1 m1 n1 o1 p1]  [ICB=v|ICD=w]  l [l] [l] [l] [l]
                                     [m [m] [m] [m] [m]]
                                                        .
                                                        .
                                                        .

[f]        [PSUEN g r1 s1 t1 u1]     l [l] [l][l] [l] [i1|j1]
                                     [m [m] [m] [m] [m]]
                                                  .
                                                  .
                                                  .

[2]   ____________________________________________________________
      OP LIST a [FULL] [SM b] [c] [c] [c] [c] [c] NSEGS u e
```

2. REASON FOR OUTPUT

To respond to a manual request (using the OP:LIST input message) to list trunks having a specified condition. The output has two different forms depending on the scope of the request:

1 Requests involving all the trunks of one or more switching modules (SMs) (even a whole switch). Only the trunks matching the specified out-of-service (OOS) condition are listed.

2 Remaining requests. Only the trunks matching the specified in-service (IS) or OOS condition are listed. If no IS nor OOS qualifier are specified in the input request, all the trunks are listed.

The list, if long, will be broken into segments as described by Format 1. The end of the list and termination report is indicated by a trailer message described in Format 2.

WARNING: The removal or restoration of a large facility may create a situation in which the OP LIST-TRUNKS output may report individual port status indications that are temporarily inconsistent with the current status of the facility.

3. VARIABLE FIELD DEFINITIONS

`DEN` = The digital equipment number (DEN) of a digital trunk, if available.

`DFI` = All ports on a digital facility interface (DFI) that matched the specified status.

`DSLG` = The digital subscriber line group (DSLG).

`FRBC` = All switched virtual circuit (SVC) ports associated with a frame relay bearer channel (FRBC). The FRBC will first be output then all SVCs will be listed after the FRBC.

`FULL` = The primary and all pending statuses for each trunk was requested.

`GRP` = All ports associated with a PRI group number.

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ICB = Feature group B (FGB) interlata or international carrier.

ICD = Feature group D (FGD) interlata or international carrier.

ILEN = Integrated digital carrier unit (IDCU) line equipment number.

INEN = Integrated Digital Loop Carrier (IDLC) networking equipment number.

LTP = Logical test port.

MLHG = Multi-line hunt group.

NEN = Networking equipment number.

PRIGRP = All ports associated with a primary rate interface (PRI) group number.

PSUEN = Packet switching unit (PSU) equipment number.

RAF = Recorded announcement function equipment number associated with the announcement port.

SAS = Service announcement System equipment number associated with the announcement port.

SLEN = *SLC™* line equipment number (SLEN), if available.

TEN = The trunk equipment number (TEN) of the analog trunk.

TG = Trunk group.

TKGMN = Trunk group and member number for a port if available.

TRUNKS = All trunks in the office that matched the specified status.

VT1FAC = All ports on a digital network unit - synchronous optical network (SONET) (DNU-S) virtual tributary 1.5 (VT1.5) facility that matched the specified status.

a = Indicates what the request was for. Valid value(s):

```
DFI g n o
 DSLG g z
 FRBC a1 v1
 MLHG d1 [e1&&f1]}
 PRIGRP [h1]
 TG a1 [b1&&c1]
 TRUNKS
 VT1FAC g l1 m1 n1 o1
```

b = The SM number that was requested.

c = Status mask entered in the input message that indicates which trunks should be included in the list. Fields not specified on the input message are omitted in the output. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual.

d = Segment number of this segment of the list. Segments are numbered sequentially starting from 1.

e = Completion report. Valid value(s):

`COMPLETED` = Will occur only in a trailing message (Format 2). All items in the requested list have been output.

`CONTINUED` = Second and subsequent segments of a list too long to be printed in a single segment.

`INPUT ERROR` = The input request was incorrect. It most likely implies that the trunk group entered was invalid.

`INV EQUIPMENT` = The request was for equipment that does not exist or was not assigned.

`INVALID PRI GROUP` = The PRI Group number entered is invalid.

`INV STATUS` = The status entered was invalid. Since no trunks could possibly have matched, the search was not performed.

`NO CHANNELS ASSIGNED` = No channels assigned to this PRI group.

`NO MATCH` = The search was performed as requested, but no trunks were found that satisfied it. If an incorrect SM number is entered for a specific PRIGRP, `NO MATCH` will result on the receive-only printer (ROP). If the user eliminates the SM= option, they can obtain the correct SM number.

`SM UNAVAILABLE` = The request was for ports on a particular SM that was unable to handle the request. Check the status of the SM and try again.

`STARTED` = Indicates the first segment in the list. This does not necessarily imply that additional segments will be required. The list will be terminated by a 'end-of-list' message (Format 2).

`STOPPED` = The list was stopped by manual action.

`SYSTEM BUSY` = The system was too busy to perform the request or a system resource failure occurred which prevented the request from being processed. This could indicate that another OP:LIST input message request is in progress.

`SYSTEM ERROR` = An unspecified internal system error occurred which prevented further processing. The request has been aborted.

`TG INVALID` = The trunk group specified in the input request was invalid. Verify that the correct group number was specified.

`f` = Valid value(s):

```
DN q1
 DSLG g z
 GRP [h1] [i1|j1]
 MLHG d1 [e1&&f1]
 TKGMN a1 k1
```

`g` = SM number.

`h` = Trunk unit number.

`i` = Service group number.

`j` = Channel board number.

`k` = Channel circuit number.

`l` = The primary status for the trunk. This is the most restrictive status currently on the port. Refer to the appendix APP:PORT-STATUS in the Appendixes section of the Output Messages manual for a detailed explanation of the status.

`m` = The pending status(s) for the trunk. A trunk can have zero to three pending statuses in addition to

the primary status. Refer to the appendix APP:PORT-STATUS in the Appendixes section of the Output Messages manual for a detailed explanation of the status and the status hierarchy.

n = Digital line and trunk unit (DLTU) number.

o = DFI number.

p = DFI channel number.

q = Digital carrier line unit (DCLU) number.

r = Remote terminal (RT) number.

s = RT line number.

t = IDCU number.

u = Total number of segments in the list.

v = Identifying number of the FGB carrier, which can be up to 4 digits.

w = Identifying number of the FGD carrier, which can be up to 4 digits.

x = RAF or SAS unit number.

y = RAF or SAS announcement channel number.

z = PSU channel group number.

a[1] = Trunk group number.

b[1] = The lower limit of a range of trunk group member numbers.

c[1] = The upper limit of a range of trunk group member numbers.

d[1] = Multi-line hunt group number.

e[1] = The lower limit of a range of multi-line hunt group (MLHG) member numbers.

f[1] = The upper limit of a range of MLHG member numbers.

g[1] = Logical test port number.

h[1] = PRI group number specified.

i[1] = Indicates a B for B channel or D for D channel.

j[1] = Identifies whether the signaling D channel of the PRI group is marked as primary (D1) or secondary (D2). This field is only filled in if the D channel back up feature is active.

k[1] = Trunk member number.

l[1] = DNU-S number.

m[1] = Data group number.

n[1] = Synchronous transport signal (STS) number.

o[1] = VT1.5 number.

p[1] = Digital signal level 0 (DS0).

q[1] = Directory number of the XAT, 4-wire analog line, or 4-wire digital line. The DN will be output when no MLHG is associated with the port.

r[1] = PSU unit number.

s[1] = PSU shelf number.

t[1] = PSU channel group number.

u[1] = PSU channel group member number.

v[1] = trunk group member number.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LIST
STP:LIST
```

Output Message(s):

```
OP:LIST-DATA
```

Output Appendix(es):

```
APP:PORT-STATUS
```

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-105-100 *System Maintenance Requirements and Tools*
235-190-103 *Business and Residence Feature Description*
235-190-115 *Local and Toll System Features*
235-900-34x *ISDN Basic Rate Interface Specifications*

OP:LIST-TRUNK-B

Software Release: 5E13 and later
Message Class: CP,CP_RSP
Application: 5
Type: Output

WARNING: INAPPROPRIATE USE OF THIS MESSAGE MAY INTERRUPT OR DEGRADE SERVICE. READ PURPOSE CAREFULLY.

1. FORMAT

```
[1]   ____________________________________________________________________
      OP LIST a [FULL] [SM b] [c] [c] [c] [c] [c] SEGMENT d e
       [f]        [DEN g n o p]   [ICB=v|ICD=w]  l [l] [l] [l] [l]
                                        [m [m] [m] [m] [m]]
                                                .
                                                .
                                                .
       [f]        [ILEN g t r s]  [ICB=v|ICD=w]  l [l] [l] [l] [l]
                                        [m [m] [m] [m] [m]]
                                                .
                                                .
                                                .
       [f]        [INEN g l1 r s]  [ICB=v|ICD=w]  l [l] [l] [l] [l]
                                        [m [m] [m] [m] [m]]
                                                .
                                                .
                                                .
       [f]        [LTP g g1]      [ICB=v|ICD=w]  l [l] [l] [l] [l]
                                        [m [m] [m] [m] [m]]
                                                .
                                                .
                                                .
       [f]        [RAF g x y]  [ICB=v|ICD=w]  l [l] [l] [l] [l]
                                        [m [m] [m] [m] [m]]
                                                .
                                                .
                                                .
       [f]        [SAS g x y]  [ICB=v|ICD=w]  l [l] [l] [l] [l]
                                        [m [m] [m] [m] [m]]
                                                .
                                                .
                                                .
       [f]        [SLEN g q r s]  [ICB=v|ICD=w]  l [l] [l] [l] [l]
                                        [m [m] [m] [m] [m]]
                                                .
                                                .
                                                .
       [f]        [TEN g h i j k] [ICB=v|ICD=w]  l [l] [l] [l] [l]
                                        [m [m] [m] [m] [m]]
                                                .
                                                .
```

```
                                                  .
[f]        [DEN g n o p]   [GRP[=h1]]  l [l] [l][l] [l] [i1|j1]
                                     [m [m] [m] [m] [m]]
                                                  .
                                                  .
                                                  .
[f]        [NEN g l1 m1 w1 n1 o1 x1 p1]  [ICB=v|ICD=w]  l [l] [l] [l] [l]
                                     [m [m] [m] [m] [m]]
                                                        .
                                                        .
                                                        .

[f]        [PSUEN g r1 s1 t1 u1]     l [l] [l][l] [l] [i1|j1]
                                     [m [m] [m] [m] [m]]
                                                  .
                                                  .
                                                  .

[2]   ____________________________________________________________________
      OP LIST a [FULL] [SM b] [c] [c] [c] [c] [c] NSEGS u e
```

2. REASON FOR OUTPUT

To respond to a manual request (using the OP:LIST input message) to list trunks having a specified condition. The output has two different forms depending on the scope of the request:

1 Requests involving all the trunks of one or more switching modules (SMs) (even a whole switch). Only the trunks matching the specified out-of-service (OOS) condition are listed.

2 Remaining requests. Only the trunks matching the specified in-service (IS) or OOS condition are listed. If no IS nor OOS qualifier are specified in the input request, all the trunks are listed.

The list, if long, will be broken into segments as described by Format 1. The end of the list and termination report is indicated by a trailer message described in Format 2.

WARNING: The removal or restoration of a large facility may create a situation in which the OP LIST-TRUNKS output may report individual port status indications that are temporarily inconsistent with the current status of the facility.

3. VARIABLE FIELD DEFINITIONS

`DEN` = The digital equipment number (DEN) of a digital trunk, if available.

`DFI` = All ports on a digital facility interface (DFI) that matched the specified status.

`DSLG` = The digital subscriber line group (DSLG).

`FRBC` = All switched virtual circuit (SVC) ports associated with a frame relay bearer channel (FRBC). The FRBC will first be output then all SVCs will be listed after the FRBC.

`FULL` = The primary and all pending statuses for each trunk was requested.

`GRP` = All ports associated with a PRI group number.

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ICB = Feature group B (FGB) interlata or international carrier.

ICD = Feature group D (FGD) interlata or international carrier.

ILEN = Integrated digital carrier unit (IDCU) line equipment number.

INEN = Integrated Digital Loop Carrier (IDLC) networking equipment number.

LTP = Logical test port.

MLHG = Multi-line hunt group.

NEN = Networking equipment number.

PRIGRP = All ports associated with a primary rate interface (PRI) group number.

PSUEN = Packet switching unit (PSU) equipment number.

RAF = Recorded announcement function equipment number associated with the announcement port.

SAS = Service announcement System equipment number associated with the announcement port.

SLEN = *SLC™* line equipment number (SLEN), if available.

TEN = The trunk equipment number (TEN) of the analog trunk.

TG = Trunk group.

TKGMN = Trunk group and member number for a port if available.

TRUNKS = All trunks in the office that matched the specified status.

VT1FAC = All ports on a digital network unit - synchronous optical network (SONET) (DNU-S) virtual tributary level 1 facility that matched the specified status.

a = Indicates what the request was for. Valid value(s):

```
DFI g n o
 DSLG g z
 FRBC a1 v1
 MLHG d1 [e1&&f1]}
 PRIGRP [h1]
 TG a1 [b1&&c1]
 TRUNKS
 VT1FAC g l1 m1 w1 n1 o1 x1
```

b = The SM number that was requested.

c = Status mask entered in the input message that indicates which trunks should be included in the list. Fields not specified on the input message are omitted in the output. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual.

d = Segment number of this segment of the list. Segments are numbered sequentially starting from 1.

e = Completion report. Valid value(s):

`COMPLETED` = Will occur only in a trailing message (Format 2). All items in the requested list have been output.

`CONTINUED` = Second and subsequent segments of a list too long to be printed in a single segment.

`INPUT ERROR` = The input request was incorrect. It most likely implies that the trunk group entered was invalid.

`INV EQUIPMENT` = The request was for equipment that does not exist or was not assigned.

`INVALID PRI GROUP` = The PRI Group number entered is invalid.

`INV STATUS` = The status entered was invalid. Since no trunks could possibly have matched, the search was not performed.

`NO CHANNELS ASSIGNED` = No channels assigned to this PRI group.

`NO MATCH` = The search was performed as requested, but no trunks were found that satisfied it. If an incorrect SM number is entered for a specific PRIGRP, `NO MATCH` will result on the receive-only printer (ROP). If the user eliminates the SM= option, they can obtain the correct SM number.

`SM UNAVAILABLE` = The request was for ports on a particular SM that was unable to handle the request. Check the status of the SM and try again.

`STARTED` = Indicates the first segment in the list. This does not necessarily imply that additional segments will be required. The list will be terminated by a 'end-of-list' message (Format 2).

`STOPPED` = The list was stopped by manual action.

`SYSTEM BUSY` = The system was too busy to perform the request or a system resource failure occurred which prevented the request from being processed. This could indicate that another OP:LIST input message request is in progress.

`SYSTEM ERROR` = An unspecified internal system error occurred which prevented further processing. The request has been aborted.

`TG INVALID` = The trunk group specified in the input request was invalid. Verify that the correct group number was specified.

`f` = Valid value(s):

```
DN q1
 DSLG g z
 GRP [h1] [i1|j1]
 MLHG d1 [e1&&f1]
 TKGMN a1 k1
```

`g` = SM number.

`h` = Trunk unit number.

`i` = Service group number.

`j` = Channel board number.

`k` = Channel circuit number.

`l` = The primary status for the trunk. This is the most restrictive status currently on the port. Refer to the appendix APP:PORT-STATUS in the Appendixes section of the Output Messages manual for a detailed explanation of the status.

`m` = The pending status(s) for the trunk. A trunk can have zero to three pending statuses in addition to

the primary status. Refer to the appendix APP:PORT-STATUS in the Appendixes section of the Output Messages manual for a detailed explanation of the status and the status hierarchy.

n = Digital line and trunk unit (DLTU) number.

o = DFI number.

p = DFI channel number.

q = Digital carrier line unit (DCLU) number.

r = Remote terminal (RT) number.

s = RT line number.

t = IDCU number.

u = Total number of segments in the list.

v = Identifying number of the FGB carrier, which can be up to 4 digits.

w = Identifying number of the FGD carrier, which can be up to 4 digits.

x = RAF or SAS unit number.

y = RAF or SAS announcement channel number.

z = PSU channel group number.

a[1] = Trunk group number.

b[1] = The lower limit of a range of trunk group member numbers.

c[1] = The upper limit of a range of trunk group member numbers.

d[1] = Multi-line hunt group number.

e[1] = The lower limit of a range of multi-line hunt group (MLHG) member numbers.

f[1] = The upper limit of a range of MLHG member numbers.

g[1] = Logical test port number.

h[1] = PRI group number specified.

i[1] = Indicates a B for B channel or D for D channel.

j[1] = Identifies whether the signaling D channel of the PRI group is marked as primary (D1) or secondary (D2). This field is only filled in if the D channel back up feature is active.

k[1] = Trunk member number.

l[1] = DNU-S number.

m[1] = Data group number.

n[1] = Synchronous transport signal (STS) number.

o[1] = VT1.5 group number.

p[1] = Digital signal level 0 (DS0).

q[1] = Directory number of the XAT, 4-wire analog line, or 4-wire digital line. The DN will be output when no MLHG is associated with the port.

r[1] = PSU unit number.

s[1] = PSU shelf number.

t[1] = PSU channel group number.

u[1] = PSU channel group member number.

v[1] = trunk group member number.

w[1] = SONET termination equipment (STE) number.

x[1] = Virtual tributary member number.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LIST
STP:LIST
```

Output Message(s):

```
OP:LIST-DATA
```

Output Appendix(es):

```
APP:PORT-STATUS
```

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-105-100 *System Maintenance Requirements and Tools*
235-190-103 *Business and Residence Feature Description*
235-190-115 *Local and Toll System Features*
235-900-34x *ISDN Basic Rate Interface Specifications*

OP:LISTOTO-A

Software Release: 5E10 only
Message Class: TM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP LISTOTO LINE-REPORT DN=a[&&b] [ILEN=c[&&d]] [SLEN=e[&&f]] SEGMENT=g
        DN=h [ILEN=i] [LCEN=j] [LCKEN=k] [LEN=l] [SLEN=m] [MLHG=u-v] n
        .      .        .        .         .       .         .      .
        .      .        .        .         .       .         .      .
        .      .        .        .         .       .         .      .

[2]   ____________________________________________________________________
      OP LISTOTO o DN=a[&&b] [ILEN=c[&&d]] [SLEN=e[&&f]] [MLHG=u-v]
        COUNTS:
        SEGMENTS PRINTED = p
        UNASSIGNED LINES = q
        IDCU ANLG LINES  = r
        IDCU ISDN LINES  = s
        ISLC LINES       = t
```

2. REASON FOR OUTPUT

The output is printed in response to an OP:LISTOTO input message. The data printed is used to determine which lines in the office are assigned, unassigned, and/or integrated digital carrier unit (IDCU) lines, integrated *SLC*® (ISLC) lines, integrated services line unit (ISLU) line, or integrated services line unit 2 (ISLU2) lines. The contents of the reports are controlled by command line parameters to OP:LISTOTO input. A request can be made for a single line or a range of lines by directory number (DN), IDCU line equipment number (ILEN), or *SLC*® line equipment number (SLEN). Also, the user can ask to see just the unassigned lines (UNA option), just the IDCU lines (IDCU option), just the ISLC lines (ISLC option), or by omitting all options, all the lines.

Format 1 is printed in response to a single line request, when a segment is full (12 lines of data), or when the job is completed.

Format 2 is a summary report and it will be printed only if a range of 2 or more lines is specified in the OP:LISTOTO input message.

Note: Loss of output is indicative of message throttling. To reduce the possibility of a loss use the INH:BREVC input message.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

a = NXX and local digits of first DN of range request.

b = Local digits of last DN of range request.

c = SM number, IDCU number, remote terminal (RT) or IDCU facility (IFAC) number, RT line or IFAC

channel number or the lower limit of a range of RT line or IFAC channel numbers.

d = Upper limit of a range of RT line or IFAC channel numbers.

e = SM number, DCLU number, RT number, RT line number or the lower limit of a range of RT line numbers.

f = Upper limit of a range of RT line numbers.

g = Segment number of the LINE-REPORT. The total number of segments printed will be stated in the completion or stop report (Format 2).

h = NXX and local digits of line being reported.

i = SM number, IDCU number, RT or IFAC number, RT line or IFAC channel number of the line being reported.

j = SM number, ISLU number, line group controller number, line card number of the line being reported.

k = SM number, ISLU2 number, line group number, line board number, line circuit number of the line being reported.

l = SM number, line unit number, grid number, half-grid number, switch number, level number of line being reported.

m = SM number, DCLU number, RT number, RT line number of line being reported.

n = Type of line. Valid value(s):

(blank)	= An assigned line which is neither a *SLC*® 96 nor IDCU line.
IDCU	= Non-ISDN integrated digital carrier unit line.
IDCU-ISDN	= ISDN integrated digital carrier unit line.
ISLC	= Integrated *SLC*® 96 line.
UNASSIGNED	= Unassigned line.

o = Status of request. Valid value(s):

COMPLETED	= Normal completion of request
STOPPED	= Request was halted by a STP:LISTOTO command

p = Number of segments printed.

q = Number of unassigned lines in range.

r = Number of non-ISDN IDCU lines in range.

s = Number of ISDN IDCU lines in range.

t = Number of ISLC lines in range.

u = MLHG group number.

v = MLHG member number.

4. ACTION TO BE TAKEN

Compare with office-to-office (OTO) test results, verify with office records, and correct data base as necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:OTO
INH:BREVC
OP:LISTOTO
STP:LISTOTO
```

Output Message(s):

```
EX:OTO
```

Other Manual(s):
235-105-200 *Precutover and Cutover Procedures*

OP:LISTOTO-B

Software Release: 5E11 only
Message Class: TM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP LISTOTO LINE-REPORT x SEGMENT=g
        DN=h [ILEN=i] [LCEN=j] [LCKEN=k] [AIUEN=w] [LEN=l] [SLEN=m] [MLHG=u-v] n
        .      .        .        .         .         .       .        .
        .      .        .        .         .         .       .        .
        .      .        .        .         .         .       .        .

[2]   ____________________________________________________________________
      OP LISTOTO o z [MLHG=u-v]
        COUNTS:
        SEGMENTS PRINTED = p
        UNASSIGNED LINES = q
        IDCU ANLG LINES  = r
        IDCU ISDN LINES  = s
        ISLC LINES       = t
```

2. REASON FOR OUTPUT

The output is printed in response to an OP:LISTOTO input message. The data printed is used to determine which lines in the office are assigned, unassigned, and/or integrated digital carrier unit (IDCU) lines, integrated *SLC*® (ISLC) lines, integrated services line unit (ISLU) line, or integrated services line unit 2 (ISLU2) lines. The contents of the reports are controlled by the OP:LISTOTO input message parameters. A request can be made for a single line or a range of lines by directory number (DN), IDCU line equipment number (ILEN), or *SLC*® line equipment number (SLEN). Also, the user can ask to see just the unassigned lines (UNA option), just the IDCU lines (IDCU option), just the ISLC lines (ISLC option), or by omitting all options, all the lines.

Format 1 is printed in response to a single line request, when a segment is full (12 lines of data), or when the job is completed.

Format 2 is a summary report and it will be printed only if a range of 2 or more lines is specified in the OP:LISTOTO input message.

Note: Loss of output is indicative of message throttling. To reduce the possibility of a loss use the INH:BREVC input message.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

a = NXX and local digits of first DN of range request.

b = Local digits of last DN of range request.

c = SM number, IDCU number, remote terminal (RT) or IDCU facility (IFAC) number, RT line or IFAC

channel number or the lower limit of a range of RT line or IFAC channel numbers.

d = Upper limit of a range of RT line or IFAC channel numbers.

e = SM number, DCLU number, RT number, RT line number or the lower limit of a range of RT line numbers.

f = Upper limit of a range of RT line numbers.

g = Segment number of the LINE-REPORT. The total number of segments printed will be stated in the completion or stop report (Format 2).

h = NXX and local digits of line being reported.

i = SM number, IDCU number, RT or IFAC number, RT line or IFAC channel number of the line being reported.

j = SM number, ISLU number, line group controller number, line card number of the line being reported.

k = SM number, ISLU2 number, line group number, line board number, line circuit number of the line being reported.

l = SM number, line unit number, grid number, half-grid number, switch number, level number of line being reported.

m = SM number, DCLU number, RT number, RT line number of line being reported.

n = Type of line. Valid value(s):

(blank)	= An assigned line which is neither a *SLC*® 96 nor IDCU line.
IDCU	= Non-ISDN integrated digital carrier unit line.
IDCU-ISDN	= ISDN integrated digital carrier unit line.
ISLC	= Integrated *SLC*® 96 line.
UNASSIGNED	= Unassigned line.

o = Status of request. Valid value(s):

COMPLETED	= Normal completion of request.
STOPPED	= Request was halted by a STP:LISTOTO input message.

p = Number of segments printed.

q = Number of unassigned lines in range.

r = Number of non-ISDN IDCU lines in range.

s = Number of ISDN IDCU lines in range.

t = Number of ISLC lines in range.

u = MLHG group number.

v = MLHG member number.

w = Access interface unit equipment number (SM number, AIU number, application pack number,

circuit number).

`x` = Valid value(s):

```
DN=a[&&b]
ILEN=c[&&d]
SLEN=e[&&f]
```

4. ACTION TO BE TAKEN

Compare with office-to-office (OTO) test results, verify with office records, and correct data base as necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:OTO
INH:BREVC
OP:LISTOTO
STP:LISTOTO
```

Output Message(s):

```
EX:OTO
```

Other Manual(s):
235-105-200 *Precutover and Cutover Procedures*

OP:LISTOTO-C

Software Release: 5E12 and later
Message Class: TM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP LISTOTO LINE-REPORT NPA=a1 [z] SEGMENT=g
        DN=h[ILEN=i][INEN=b1][LCEN=j][LCKEN=k][AIUEN=w][LEN=l][SLEN=m][MLHG=u-v] n
        .    .       .        .       .        .        .      .
        .    .       .        .       .        .        .      .
        .    .       .        .       .        .        .      .

[2]   ____________________________________________________________________
      OP LISTOTO o NPA=a1 [z] [MLHG=u-v]
        COUNTS:
        SEGMENTS PRINTED = p
        UNASSIGNED LINES = q
        IDCU ANLG LINES  = r
        IDCU ISDN LINES  = s
        ISLC LINES       = t
```

2. REASON FOR OUTPUT

The output is printed in response to an OP:LISTOTO input message. The data printed is used to determine which lines in the office are assigned, unassigned, and/or integrated digital carrier unit (IDCU) lines, integrated *SLC*® (ISLC) lines, integrated services line unit (ISLU) line, or integrated services line unit 2 (ISLU2) lines. The contents of the reports are controlled by the OP:LISTOTO input message parameters. A request can be made for a single line or a range of lines by directory number (DN), IDCU line equipment number (ILEN), or *SLC*® line equipment number (SLEN). Also, the user can ask to see just the unassigned lines (UNA option), just the IDCU lines (IDCU option), just the ISLC lines (ISLC option), or by omitting all options, all the lines.

Format 1 is printed in response to a single line request, when a segment is full (12 lines of data), or when the job is completed.

Format 2 is a summary report and it will be printed only if a range of 2 or more lines is specified in the OP:LISTOTO input message.

Note: Loss of output is indicative of message throttling. To reduce the possibility of a loss use the INH:BREVC input message.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

a = NXX and local digits of first DN of range request.

b = Local digits of last DN of range request.

c = SM number, IDCU number, remote terminal (RT) or IDCU facility (IFAC) number, RT line or IFAC

channel number or the lower limit of a range of RT line or IFAC channel numbers.

d = Upper limit of a range of RT line or IFAC channel numbers.

e = SM number, DCLU number, RT number, RT line number or the lower limit of a range of RT line numbers.

f = Upper limit of a range of RT line numbers.

g = Segment number of the LINE-REPORT. The total number of segments printed will be stated in the completion or stop report (Format 2).

h = NXX and local digits of line being reported.

i = SM number, IDCU number, RT or IFAC number, RT line or IFAC channel number of the line being reported.

j = SM number, ISLU number, line group controller number, line card number of the line being reported.

k = SM number, ISLU2 number, line group number, line board number, line circuit number of the line being reported.

l = SM number, line unit number, grid number, half-grid number, switch number, level number of line being reported.

m = SM number, DCLU number, RT number, RT line number of line being reported.

n = Type of line. Valid value(s):

(blank)	= An assigned line which is neither a *SLC*® 96 nor IDCU line.
IDCU	= Non-ISDN integrated digital carrier unit line.
IDCU-ISDN	= ISDN integrated digital carrier unit line.
ISLC	= Integrated *SLC*® 96 line.
UNASSIGNED	= Unassigned line.

o = Status of request. Valid value(s):

COMPLETED	= Normal completion of request.
STOPPED	= Request was halted by a STP:LISTOTO input message.

p = Number of segments printed.

q = Number of unassigned lines in range.

r = Number of non-ISDN IDCU lines in range.

s = Number of ISDN IDCU lines in range.

t = Number of ISLC lines in range.

u = MLHG group number.

v = MLHG member number.

w = Access interface unit equipment number (SM number, AIU number, application pack number,

circuit number).

`x` = SM number, DNU number, RT number, RT line number or the lower limit of a range of RT line numbers.

`y` = Upper limit of a range of RT line numbers.

`z` = Valid value(s):

```
DN=a[&&b]
ILEN=c[&&d]
INEN=x[&&y]
SLEN=e[&&f]
```

`a1` = Numbering Plan Area or Area Code of the DN.

`b1` =SM number,DNU number,RT number,RT line number of the line being reported.

4. ACTION TO BE TAKEN

Compare with office-to-office (OTO) test results, verify with office records, and correct data base as necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EX:OTO
INH:BREVC
OP:LISTOTO
STP:LISTOTO
```

Output Message(s):

```
EX:OTO
```

Other Manual(s):
235-105-200 *Precutover and Cutover Procedures*

OP:LIT-A

Software Release: 5E10 only
Message Class: ALIT,TLWS
Application: 5
Type: Output

1. FORMAT

```
[1]    OP LIT ENTITY a PROGRESS SUMMARY SM b - MMSU c PART d OF e
         LU/ISLU SUMMARY
         SM NUMBER   LU/ISLU UNIT NUMBER:STATUS
         f       g:h . . . g:h
                .
                .
                .
         f       g:h . . . g:h

         [CURRENT LINE COUNTS:   ATTEMPTS=p  TESTS=q  FAILURES=r]

[2]    OP LIT ENTITY a PROGRESS SUMMARY SM b - MMSU c PART d OF e:
         DCLU/IDCU RT SUMMARY
                       DONE/             DONE/
         SG SH MA  MTB:TOTAL:S . . . MTB:TOTAL:S
         --------  -----------       -----------
         i  j  k     l: m/n :o . . .   l: m/n :o
                      .
                      .
                      .
         i  j  k     l: m/n :o . . .   l: m/n :o
       CURRENTLINECOUNTS:ATTEMPTS=pTESTS=qFAILURES=r
```

2. REASON FOR OUTPUT

To respond to the OP:LIT input message to report the status of automatic line insulation testing (ALIT) for each modular metallic service unit (MMSU) in the office. For each MMSU, the status of the line units (LUs) and integrated service line units (ISLUs) is reported first followed by the status of digital carrier line units (DCLUs) and integrated digital carrier units (IDCUs). The status of LUs/ISLUs and DCLUs/IDCUs is each reported in a different format. The LUs/ISLUs status will not print if units of this type do not exist on the MMSU. The same applies to DCLUs/IDCUs status.

Format 1 lists the status of LUs/ISLUs per switching module (SM). The current line counts are only printed with the last section in the report.

Format 2 lists the status of DCLUs/IDCUs per groups of remote terminals (RTs) per metallic test bus (MTB). The current line counts is only printed with the last section in the report.

3. VARIABLE FIELD DEFINITIONS

`a` = Entity number. All LUs, ISLUs, DCLUs and IDCUs that have their MTBs assigned to a single MMSU are considered 1 test entity. Only the ALIT packs co-located in this same MMSU can test lines assigned to these units. Each entity will test independently of all other entities.

`b` = SM number of where the entity's MMSU is located.

c = MMSU number.

d = Part number of the report.

e = Total number of parts to the report.

f = SM number being reported on. A maximum of 10 SMs are reported in one part of the summary.

g = LU/ISLU unit number. A maximum of 12 units can be reported on one line of the summary. If the SM has more than 12 units to report on, additional lines will be used with the same SM number.

h = Status of ALIT in given unit. Valid value(s):
- A = Active. ALIT is in progress.
- D = Done. Tested by a previous ALIT session.
- P = Partial. Partially tested when most recent ALIT stopped.
- R = Recent. Testing completed in most recent ALIT session.
- S = Suspended. Testing in this unit has been suspended in the current ALIT session.
- U = Untested. Testing has not started yet.

i = MMSU service group (SG) number of MTB.

j = MMSU shelf number of MTB.

k = MA pack number.

l = MTB number. A maximum of 5 MTBS can be reported on a single line.

m = Number of RTs which have completed testing. A maximum of 20 RTs can be ALIT tested.

n = Total quantity of RTs on the MTB. A maximum of 20 RTs can be located on 1 MTB.

o = Inclusive status of RTs on MTB. Valid value(s):
- A = Active. 1 RT on the MTB is actively being ALIT tested. Overides the status of other RTs on that MTB. This status is printed only when ALIT session is active.
- D = Done. All RTs on the MTB were tested in previous session. This status is printed only when ALIT session is active.
- P = Partial. Some RTs on the MTB but not all were tested in the most recent ALIT session.
- R = Recent. Testing of the RTs on the MTB was completed in the most recent session.
- S = Suspended. At least 1 RT on the MTB had its ALIT testing suspended in the most recent ALIT session. Look for an "`EXC LIT SINGLE CIRCUIT ABORT`" message on the ROP for the line on the RT that failed.
- U = Untested. No RTs on the MTB were tested in the most recent ALIT session.

p = Number of lines ALIT attempted to test in the latest session.

q = Number of lines actually tested by ALIT in the latest session.

r = Number of tested lines which failed the ALIT test in the latest session.

4. ACTION TO BE TAKEN

The purpose of this message is to report the result of the action requested by the corresponding manually requested input message. No specific action is indicated.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:LIT
OP:LIT
```

Output Message(s):

```
EXC:LIT-SINGLE
OP:LIT
```

OP:LIT-B

Software Release: 5E11 only
Message Class: ALIT,TLWS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP LIT ENTITY a PROGRESS SUMMARY SM b - MMSU c PART d OF e
        LU/ISLU SUMMARY
        SM NUMBER   LU/ISLU UNIT NUMBER:STATUS
        f       g:h . . . g:h
               .
               .
               .
        f       g:h . . . g:h
        [CURRENT LINE COUNTS:   ATTEMPTS=p  TESTS=q  FAILURES=r]

[2]   ____________________________________________________________________
      OP LIT ENTITY a PROGRESS SUMMARY SM b - MMSU c PART d OF e
        AIU SUMMARY
        SM NUMBER   AIU UNIT NUMBER:STATUS
        f       s:h . . . s:h
               .
               .
               .
        f       s:h . . . s:h

        [CURRENT LINE COUNTS:   ATTEMPTS=p  TESTS=q  FAILURES=r]

[3]   ____________________________________________________________________
      OP LIT ENTITY a PROGRESS SUMMARY SM b - MMSU c PART d OF e:
        DCLU/IDCU/DNU RT SUMMARY
                       DONE/             DONE/
        SG SH MA  MTB:TOTAL:S . . . MTB:TOTAL:S
        --------  -----------       -----------
        i  j  k     l: m/n :o . . .   l: m/n :o
                     .
                     .
                     .
        i  j  k     l: m/n :o . . .   l: m/n :o
      CURRENT LINE COUNTS: ATTEMPTS=p TESTS=q FAILURES=r
```

2. REASON FOR OUTPUT

To respond to the OP:LIT input message to report the status of automatic line insulation testing (ALIT) for each modular metallic service unit (MMSU) in the office. For each MMSU, the status of the line units (LUs) and integrated service line units (ISLUs) is reported first followed by the status of access interface unit (AIUs) followed by the status of digital carrier line units (DCLUs) and integrated digital carrier units (IDCUs). The status of LUs/ISLUs, AIUs and DCLUs/IDCUs is each reported in a different format. The LUs/ISLUs and AIUs status will not print if units of this type do not exist on the MMSU. The same applies to DCLUs/IDCUs status.

Format 1 lists the status of LUs/ISLUs per switching module (SM). The current line counts are only printed with the

last section in the report.

Format 2 lists the status of AIUs per SM. The current line counts are only printed with the last section in the report.

Format 3 lists the status of DCLUs/IDCUs per groups of remote terminals (RTs) per metallic test bus (MTB). The current line counts is only printed with the last section in the report.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

a = Entity number. All LUs, ISLUs, DCLUs and IDCUs that have their MTBs assigned to a single MMSU are considered 1 test entity. Only the ALIT packs co-located in this same MMSU can test lines assigned to these units. Each entity will test independently of all other entities.

b = SM number of where the entity's MMSU is located.

c = MMSU number.

d = Part number of the report.

e = Total number of parts to the report.

f = SM number being reported on. A maximum of 10 SMs are reported in one part of the summary.

g = LU/ISLU unit number. A maximum of 12 units can be reported on one line of the summary. If the SM has more than 12 units to report on, additional lines will be used with the same SM number.

h = Status of ALIT in given unit. Valid value(s):
- A = Active. ALIT is in progress.
- D = Done. Tested by a previous ALIT session.
- P = Partial. Partially tested when most recent ALIT stopped.
- R = Recent. Testing completed in most recent ALIT session.
- S = Suspended. Testing in this unit has been suspended in the current ALIT session.
- U = Untested. Testing has not started yet.

i = MMSU service group (SG) number of MTB.

j = MMSU shelf number of MTB.

k = MA pack number.

l = MTB number. A maximum of 5 MTBS can be reported on a single line.

m = Number of RTs which have completed testing. A maximum of 20 RTs can be ALIT tested.

n = Total quantity of RTs on the MTB. A maximum of 20 RTs can be located on 1 MTB.

o = Inclusive status of RTs on MTB. Valid value(s):
- A = Active. 1 RT on the MTB is actively being ALIT tested. Overides the status of other RTs on that MTB. This status is printed only when ALIT session is active.
- D = Done. All RTs on the MTB were tested in previous session. This status is printed only when ALIT session is active.
- P = Partial. Some RTs on the MTB but not all were tested in the most recent ALIT

session.

`R` = Recent. Testing of the RTs on the MTB was completed in the most recent session.

`S` = Suspended. At least 1 RT on the MTB had its ALIT testing suspended in the most recent ALIT session. Look for an "`EXC LIT SINGLE CIRCUIT ABORT`" message on the ROP for the line on the RT that failed.

`U` = Untested. No RTs on the MTB were tested in the most recent ALIT session.

`p` = Number of lines ALIT attempted to test in the latest session.

`q` = Number of lines actually tested by ALIT in the latest session.

`r` = Number of tested lines which failed the ALIT test in the latest session.

`s` = AIU number. A maximum of 12 units can be reported on one line of the summary. If the SM has more than 12 units to report on, additional lines will be used with the same SM number.

4. ACTION TO BE TAKEN

The purpose of this message is to report the result of the action requested by the corresponding manually requested input message. No specific action is indicated.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:LIT
OP:LIT
```

Output Message(s):

```
EXC:LIT-SINGLE
OP:LIT
```

OP:LIT-C

Software Release: 5E12 and later
Message Class: ALIT,TLWS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP LIT ENTITY a PROGRESS SUMMARY SM b - MMSU c PART d OF e
        LU/ISLU SUMMARY
        SM NUMBER   LU/ISLU UNIT NUMBER:STATUS
        f       g:h . . . g:h
                .
                .
                .
        f       g:h . . . g:h
        [CURRENT LINE COUNTS:   ATTEMPTS=p  TESTS=q  FAILURES=r]

[2]   ____________________________________________________________________
      OP LIT ENTITY a PROGRESS SUMMARY SM b - MMSU c PART d OF e
        AIU SUMMARY
        SM NUMBER   AIU UNIT NUMBER:STATUS
        f       s:h . . . s:h
                .
                .
                .
        f       s:h . . . s:h

        [CURRENT LINE COUNTS:   ATTEMPTS=p  TESTS=q  FAILURES=r]

[3]   ____________________________________________________________________
      OP LIT ENTITY a PROGRESS SUMMARY SM b - MMSU c PART d OF e:
        DCLU/IDCU/DNU-S RT SUMMARY
                       DONE/             DONE/
        SG SH MA  MTB:TOTAL:S . . . MTB:TOTAL:S
        --------  -----------       -----------
        i  j  k     l: m/n :o . . .   l: m/n :o
                     .
                     .
                     .
        i  j  k     l: m/n :o . . .   l: m/n :o
      CURRENT LINE COUNTS:   ATTEMPTS=p  TESTS=q  FAILURES=r
```

2. REASON FOR OUTPUT

To respond to the OP:LIT input message to report the status of automatic line insulation testing (ALIT) for each modular metallic service unit (MMSU) in the office. For each MMSU, the status of the line units (LUs) and integrated service line units (ISLUs) is reported first followed by the status of access interface unit (AIUs) followed by the status of digital carrier line units (DCLUs) and integrated digital carrier units (IDCUs). The status of LUs/ISLUs, AIUs and DCLUs/IDCUs/DNU-Ss is each reported in a different format. The LUs/ISLUs and AIUs status will not print if units of this type do not exist on the MMSU. The same applies to DCLUs/IDCUs/DNU-Ss status.

Format 1 lists the status of LUs/ISLUs per switching module (SM). The current line counts are only printed with the

last section in the report.

Format 2 lists the status of AIUs per SM. The current line counts are only printed with the last section in the report.

Format 3 lists the status of DCLUs/IDCUs/DNU-Ss per groups of remote terminals (RTs) per metallic test bus (MTB). The current line counts is only printed with the last section in the report.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

a = Entity number. All LUs, ISLUs, DCLUs and IDCUs that have their MTBs assigned to a single MMSU are considered 1 test entity. Only the ALIT packs co-located in this same MMSU can test lines assigned to these units. Each entity will test independently of all other entities.

b = SM number of where the entity's MMSU is located.

c = MMSU number.

d = Part number of the report.

e = Total number of parts to the report.

f = SM number being reported on. A maximum of 10 SMs are reported in one part of the summary.

g = LU/ISLU unit number. A maximum of 12 units can be reported on one line of the summary. If the SM has more than 12 units to report on, additional lines will be used with the same SM number.

h = Status of ALIT in given unit. Valid value(s):
- A = Active. ALIT is in progress.
- D = Done. Tested by a previous ALIT session.
- P = Partial. Partially tested when most recent ALIT stopped.
- R = Recent. Testing completed in most recent ALIT session.
- S = Suspended. Testing in this unit has been suspended in the current ALIT session.
- U = Untested. Testing has not started yet.

i = MMSU service group (SG) number of MTB.

j = MMSU shelf number of MTB.

k = MA pack number.

l = MTB number. A maximum of 5 MTBS can be reported on a single line.

m = Number of RTs which have completed testing. A maximum of 20 RTs can be ALIT tested.

n = Total quantity of RTs on the MTB. A maximum of 20 RTs can be located on 1 MTB.

o = Inclusive status of RTs on MTB. Valid value(s):
- A = Active. 1 RT on the MTB is actively being ALIT tested. Overides the status of other RTs on that MTB. This status is printed only when ALIT session is active.
- D = Done. All RTs on the MTB were tested in previous session. This status is printed only when ALIT session is active.
- P = Partial. Some RTs on the MTB but not all were tested in the most recent ALIT

session.

`R` = Recent. Testing of the RTs on the MTB was completed in the most recent session.

`S` = Suspended. At least 1 RT on the MTB had its ALIT testing suspended in the most recent ALIT session. Look for an "`EXC LIT SINGLE CIRCUIT ABORT`" message on the ROP for the line on the RT that failed.

`U` = Untested. No RTs on the MTB were tested in the most recent ALIT session.

`p` = Number of lines ALIT attempted to test in the latest session.

`q` = Number of lines actually tested by ALIT in the latest session.

`r` = Number of tested lines which failed the ALIT test in the latest session.

`s` = AIU number. A maximum of 12 units can be reported on one line of the summary. If the SM has more than 12 units to report on, additional lines will be used with the same SM number.

4. ACTION TO BE TAKEN

The purpose of this message is to report the result of the action requested by the corresponding manually requested input message. No specific action is indicated.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:LIT
OP:LIT
```

Output Message(s):

```
EXC:LIT-SINGLE
OP:LIT
```

OP:LNSTAT-A

Software Release: 5E10 - 5E11
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

[1]
```
OP LNSTAT a b  IN PROG
  SLK a b   NWT c
  MINOR = d LKTYPE = e
  SPEED = f EC_MODE = g
  FACILITY = h LI_TYPE = i
  L2_STATE = j XLC_STATE = k
  ROL_STATE = l DUR_SIB = m
  SUERM = n L1_STATE = p
  NP_LNC_ST = q
  OP LNSTAT a b  COMPL
```

[2]
```
OP LNSTAT a b ABT
  r
```

2. REASON FOR OUTPUT

Prints in response to the OP:LNSTAT input message.

Format 1 prints requested OP:LNSTAT data.

Format 2 reports that the OP:LNSTAT command aborted prior to outputting the data.

3. VARIABLE FIELD DEFINITIONS

a = Group number.

b = Member number.

c = Network time (hour:minutes:seconds).

d = Minor state. Valid value(s):

IS	= In service.
MOOS	= Manual out of service.
OOS	= Out of service.

e = Link type:

A
B
C
D
G
W

f = Link speed (kilobits per second). Valid value(s):

56	= 56kps.

g = Error correction mode. Valid value(s):

BEC	= Basic error correction.
PCR	= Preventive cyclic retransmission.

h = Facility type. Valid value(s):

DSU T1FA

i = Link interface board type and circuit pack number. Valid value(s):

LINE	= TN916.
LINE	= TN916-2 (microcode MC3F030A1).
LIE	= TN917B.
LIE	= TN917B-2 (microcode MC3F029A1).

j = Level 2 state. Valid value(s):

ALG_NRDY	= Alignment not ready due to processor outage interruption. Local and/or remote processor outage must cease before level 2 can go in service.
ALG_RDY	= Local initial alignment complete (ready) and waiting on fill-in signal unit (FISU) and/or message signaling unit (MSU) to go in service (level 2 state = IS and timer T1 is active).
INTALGN_E	= This is the initial alignment state 2 of being aligned, level 2 will be sending SIN or SIE and waiting for SIN or SIE (timer T3 is active). Emergency proving time is used.
INTALGN_N	= This is the initial alignment state 2 of being aligned, level 2 will be sending status indicator normal (SIN) or status indicator emergency (SIE) and waiting for SIN or SIE (timer T3 is active). Normal proving time is used.
INTNALGN_E	= This is the first step, or non-aligned stage, of initial alignment (timer T2 is active). Emergency proving time is used.
INTNALGN_N	= This is the first step, or non-aligned stage, of initial alignment (timer T2 is active). Normal proving time is used.
INTPROVIN_E	= This is the initial alignment state 3 with Emergency proving being done, and level 2 is sending and/or receiving SIE (timer T4e is active).
INTPROVIN_N	= This is the initial alignment state 3 with Normal proving being done, and level 2 is sending SIN (timer T4n is active).
IS	= In service; capable of handling level 3 traffic.
L_POUT	= Local processor outage.
LR_POUT	= Both local and remote processor outage.
OOS	= Out of service (sending status indicator out-of-service (SIOS) link status signaling unit (LSSU) on link).
OOS_LLT	= Out of service (performing local loop-back test).
OOS_LLT_FAIL	= Out of service (local loop-back test failed).
PWROFF	= Level 2 is in a power off state due to initialization, hardware failure, or transition to another state.
R_POUT	= Remote processor outage.
WAIT_POUT	= Recovering from processor outage, waiting for events.

k = Transmit link buffer congestion level. Valid value(s):

XDIS1	= Transmit buffer level 1 discard state, level 0 priority MSUs are discarded.
XDIS2	= Transmit buffer level 2 discard state, level 0 and 1 priority MSUs are discarded.
XDIS3	= Transmit buffer level 3 discard state, level 0, 1, and 2 priority MSUs are discarded.
XFULL	= Transmit buffer is full.
XNORM	= Transmit buffer level is normal.
XONS1	= Transmit buffer level 1 onset state.
XONS2	= Transmit buffer level 2 onset state.
XONS3	= Transmit buffer level 3 onset state.

l = Receive buffer overload state. Valid value(s):

RB_NORM	= Normal - there is no receive buffer congestion.
RB_OVFL	= Level 2 receive buffer overflow exists (no space in receive buffer, hence MSUs are discarded but are held in far-end retransmit buffer). Far-end timer T6 is active as a result of below RB_OVLD.
RB_OVLD	= Level 2 receive buffer overload exists when the number of bytes in receive buffer exceeds the onset congestion threshold and the abatement threshold has not occurred.

m = Duration of status indication busys (SIBs) received. This is an indication of far-end receive buffer congestion and level 2 flow control. It will provide the duration of any current far-end congestion in milliseconds. A value of zero is given for no congestion.

n = A count of the signaling unit error rate monitor (SUERM).

p = Level one state. Valid value(s):

NA	= Not available. The level one state is not available to report.

q = Node processor link and node control state. Valid value(s):

IS_BUF	= In service, but messages are buffered.
IS_BUF_S	= In service, but messages are buffered, short processor outage.
IS_TXM	= In service and messages are transmitted.
IS_TXM_S	= In service and messages are transmitted, short processor outage.
OOS_L2ID	= Out of service and level 2 is idle.
OOS_L2RT	= Out of service and level 2 is restoring.
OOS_L2UP	= Out of service and level 2 is up.
OOS_SIPO	= Out of service - processor outage at either one or both ends of link.
RDY_CB	= Out of service - ready for changeback.
RDY_CB_S	= Out of service - ready for changeback, short processor outage.

r = Text describing an error condition that has been encountered causing OP:LNSTAT to abort. Valid value(s):

```
TIMED OUT WHILE WAITING FOR DATA FROM LINK NODE
```

This error condition may be caused by a defective link node, or, a lost message either from or to the administrative module (AM).

4. ACTION TO BE TAKEN

For Format 1, none. This message is a response to the input message OP:LNSTAT. Use information provided for monitoring link node performance and trouble analysis.

For Format 2, the message is self-explanatory. If unable to resolve, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LNSTAT
```

OP:LNSTAT-B

Software Release: 5E12 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP LNSTAT a b  IN PROG
        SLK  a b   NWT c
        MINOR     = d                    LKTYPE = e
        SPEED     = f                    EC_MODE = g
        FACILITY  = h                    LI_TYPE = i
        L2_STATE  = j                    XLC_STATE = k
        ROL_STATE = l                    DUR_SIB = m
        SUERM     = n                    L1_STATE = p
        NP_LNC_ST = q                    LI_FW_VER = r
      OP LNSTAT a b  COMPL

[2]   ____________________________________________________________________
      OP LNSTAT a b ABT
        s
```

2. REASON FOR OUTPUT

Prints in response to the OP:LNSTAT input message.

Format 1 prints requested OP:LNSTAT data.

Format 2 reports that the OP:LNSTAT command aborted prior to outputting the data.

3. VARIABLE FIELD DEFINITIONS

`a` = Group number.

`b` = Member number.

`c` = Network time (hour:minutes:seconds).

`d` = Minor state. Valid value(s):

`IS`	= In service.
`MOOS`	= Manual out of service.
`OOS`	= Out of service.

`e` = Link type:

`A`
`E`
`F`

`f` = Link speed (kilobits per second). Valid value(s):

`56`	= 56kps.

g = Error correction mode. Valid value(s):

BEC	= Basic error correction.
PCR	= Preventive cyclic retransmission.

h = Facility type. Valid value(s):

DSU T1FA

i = Link interface board type and circuit pack number. Valid value(s):

LINE	= TN916.
LINE	= TN916-2 (microcode MC3F030A1).
LIE	= TN917B.
LIE	= TN917B-2 (microcode MC3F029A1).

j = Level 2 state. Valid value(s):

ALG_NRDY	= Alignment not ready due to processor outage interruption. Local and/or remote processor outage must cease before level 2 can go in service.
ALG_RDY	= Local initial alignment complete (ready) and waiting on fill-in signal unit (FISU) and/or message signaling unit (MSU) to go in service (level 2 state = IS and timer T1 is active).
INTALGN_E	= This is the initial alignment state 2 of being aligned, level 2 will be sending SIN or SIE and waiting for SIN or SIE (timer T3 is active). Emergency proving time is used.
INTALGN_N	= This is the initial alignment state 2 of being aligned, level 2 will be sending status indicator normal (SIN) or status indicator emergency (SIE) and waiting for SIN or SIE (timer T3 is active). Normal proving time is used.
INTNALGN_E	= This is the first step, or non-aligned stage, of initial alignment (timer T2 is active). Emergency proving time is used.
INTNALGN_N	= This is the first step, or non-aligned stage, of initial alignment (timer T2 is active). Normal proving time is used.
INTPROVIN_E	= This is the initial alignment state 3 with Emergency proving being done, and level 2 is sending and/or receiving SIE (timer T4e is active).
INTPROVIN_N	= This is the initial alignment state 3 with Normal proving being done, and level 2 is sending SIN (timer T4n is active).
IS	= In service; capable of handling level 3 traffic.
L_POUT	= Local processor outage.
LR_POUT	= Both local and remote processor outage.
OOS	= Out of service (sending status indicator out-of-service (SIOS) link status signaling unit (LSSU) on link).
OOS_LLT	= Out of service (performing local loop-back test).
OOS_LLT_FAIL	= Out of service (local loop-back test failed).
PWROFF	= Level 2 is in a power off state due to initialization, hardware failure, or transition to another state.
R_POUT	= Remote processor outage.
WAIT_POUT	= Recovering from processor outage, waiting for events.

k = Transmit link buffer congestion level. Valid value(s):

XDIS1	= Transmit buffer level 1 discard state, level 0 priority MSUs are discarded.
XDIS2	= Transmit buffer level 2 discard state, level 0 and 1 priority MSUs are discarded.
XDIS3	= Transmit buffer level 3 discard state, level 0, 1, and 2 priority MSUs are discarded.

XFULL = Transmit buffer is full.
XNORM = Transmit buffer level is normal.
XONS1 = Transmit buffer level 1 onset state.
XONS2 = Transmit buffer level 2 onset state.
XONS3 = Transmit buffer level 3 onset state.

l = Receive buffer overload state. Valid value(s):

RB_NORM = Normal - there is no receive buffer congestion.
RB_OVFL = Level 2 receive buffer overflow exists (no space in receive buffer, hence MSUs are discarded but are held in far-end retransmit buffer). Far-end timer T6 is active as a result of below RB_OVLD.
RB_OVLD = Level 2 receive buffer overload exists when the number of bytes in receive buffer exceeds the onset congestion threshold and the abatement threshold has not occurred.

m = Duration of status indication busys (SIBs) received. This is an indication of far-end receive buffer congestion and level 2 flow control. It will provide the duration of any current far-end congestion in milliseconds. A value of zero is given for no congestion.

n = A count of the signaling unit error rate monitor (SUERM).

p = Level one state. Valid value(s):

NA = Not available. The level one state is not available to report.

q = Node processor link and node control state. Valid value(s):

IS_BUF = In service, but messages are buffered.
IS_BUF_S = In service, but messages are buffered, short processor outage.
IS_TXM = In service and messages are transmitted.
IS_TXM_S = In service and messages are transmitted, short processor outage.
OOS_L2ID = Out of service and level 2 is idle.
OOS_L2RT = Out of service and level 2 is restoring.
OOS_L2UP = Out of service and level 2 is up.
OOS_SIPO = Out of service - processor outage at either one or both ends of link.
RDY_CB = Out of service - ready for changeback.
RDY_CB_S = Out of service - ready for changeback, short processor outage.

r = LI firmware version:

```
MC3F029A1
MC3F030A1
MC3F032A1
```

NA = Not Available, the firmware version is an older version that is not detectable by the node software.

s = Text describing an error condition that has been encountered causing OP:LNSTAT to abort. Valid value(s):

```
TIMED OUT WHILE WAITING FOR DATA FROM LINK NODE
```

This error condition may be caused by a defective link node, or, a lost message either from or to the administrative module (AM).

4. ACTION TO BE TAKEN

For Format 1, none. This message is a response to the input message OP:LNSTAT. Use information provided for monitoring link node performance and trouble analysis.

For Format 2, the message is self-explanatory. If unable to resolve, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LNSTAT
```

OP:LNUPD

Software Release: 5E12 and later
Message Class: SWM01
Application: CNI
Type: Output

1. FORMAT

```
[1]    OP LNUPD STARTED

         LNUPD STATUS

         NODE        STATUS

         LNa b       c
             .       .
             .       .
             .       .

         LNa b       c

             d

             e

[2]    OP LNUPD COMPL
```

2. REASON FOR OUTPUT

Prints in response to an OP:LNUPD input message when there are 30 or fewer SS7 nodes being reported on.

3. VARIABLE FIELD DEFINITIONS

a = Ring node group number.

b = Ring node member number.

c = A response explaining the update status. Valid values are:

```
UPDATE PENDING

UPDATE IN PROGRESS

UPDATE SUCCESSFULLY COMPLETED

UPDATE ABORTED - NODE NOT IN ACT MAJOR STATE

UPDATE ABORTED - STOP UPDATE REQUESTED

UPDATE ABORTED - NODE MOVED OUT OF ACT STATE DURING UPDATE

UPDATE ABORTED - PUMPER RE-CREATION COUNT EXCEEDED

UPDATE ABORTED - PUMPER REPORTED FAILURE
```

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UPDATE ABORTED - PUMPER TIMED OUT

UPDATE ABORTED - CHECKSUM NOT ACKNOWLEDGED

UPDATE ABORTED - CHECKSUM FAILURE

UPDATE ABORTED - SLMK COMMUNICATION FAILURE

UPDATE ABORTED - FAILED TO GET NODE'S GSF ID

UPDATE ABORTED - UPDATE ERRLOG SITUATION

UPDATE FAILED - XFER REQUEST ACKNOWLEDGED, QUERY REPORTED FAILURE

UPDATE FAILED - XFER REQUEST ACKNOWLEDGED, QUERY NOT ACKNOWLEDGED

UPDATE FAILED - XFER REQUEST NOT ACKNOWLEDGED, QUERY REPORTED FAILURE

UPDATE FAILED - XFER REQUEST NOT ACKNOWLEDGED, QUERY NOT ACKNOWLEDGED

UPDATE FAILED - NODE MOVED OUT OF ACT STATE IMMEDIATELY AFTER SUCCESSFUL UPDATE

UPDATE FAILED - UPDATE ERRLOG SITUATION

UPDATE FAILED - FAILED TO CHANGEOVER THE LINK, MOOS FAILED

UPDATE NOT ATTEMPTED

d = An explicit status of the last LNUPD:LN request. Valid values are:

UPDATE JOB NEVER EXECUTED

UPDATE JOB IS CURRENTLY EXECUTING

UPDATE JOB COMPLETED

UPDATE JOB STOPPED, STOP UPDATE REQUESTED

UPDATE JOB ABORTED, SLMK COMMUNICATION FAILED

UPDATE JOB ABORTED, PUMPER CREATION FAILURE

UPDATE JOB ABORTED, PUMPER RE-CREATION COUNT EXCEEDED

UPDATE JOB ABORTED, PUMPER GUARD TIMER TIMED OUT

UPDATE JOB ABORTED, EXCESSIVE NODE UPDATE FAILURES

UPDATE JOB ABORTED, EXCESSIVE RING COMMUNICATION FAILURES

UPDATE JOB ABORTED, RING DOWN

UPDATE JOB ABORTED, UPDATE ERRLOG SITUATION

UPDATE JOB COMPLETED - NO NODES IDENTIFIED FOR UPDATE

e = A string showing the time of the last LNUPD:LN completion. For example, MON JUN 23 04:31:19 1997.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
LNUPD:LN
OP:LNUPD
STOP:LNUPD
```

Output Message(s):

```
LNUPD:LN
REPT:LNUPD
STOP:LNUPD
```

OP:LOG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      OP LOG a b CORRUPT SEGMENT AT c
      [g]

[2]   ____________________________________________________________
      OP LOG a FILE d CANNOT OPEN TEMPORARY FILE

[3]   ____________________________________________________________
      OP LOG a CANNOT OPEN LOGFILE

[4]   ____________________________________________________________
      OP LOG a {STARTED|IN PROGRESS|COMPLETED} SEGMENT e
        f
        [g]

[5]   ____________________________________________________________
      OP LOG a OUTPUT FILE EXISTS h

[6]   ____________________________________________________________
      OP LOG a CANNOT CREATE OUTPUT FILE h

[7]   ____________________________________________________________
      OP LOG a OUTPUT DIRECTORY DOES NOT EXIST i

[8]   ____________________________________________________________
      OP LOG a OUTPUT DIRECTORY IS NOT WRITABLE i

[9]   ____________________________________________________________
      OP LOG a PASSED BAD PARM TYPE TO FILE FUNCTION

[10]  ____________________________________________________________
      OP LOG a STOPPED j
```

2. REASON FOR OUTPUT

Formats 1, 2, 3, and 5 report that an error occurred when executing the OP:LOG input message.

Formats 6 - 8 indicate a system error preventing creation of the file.

Format 9 indicates that the process is using invalid data in the message structure.

Formats 4 and 10 indicate the process status.

3. VARIABLE FIELD DEFINITIONS

`a` = Name of the logfile.

`b` = Pathname of the file in which corruption was discovered.

`c` = Position in file, expressed in characters, where corruption was discovered.

`d` = Name of temporary file.

`e` = Number of output segment.

`f` = Time stamp.

`g` = Message text from the logfile entry. If the output file parameter has been requested, this will not appear.

`h` = Name of the output file to be created in /fmt.

`i` = Name of the directory where the output file will be created.

`j` = The STOPPED reason code. Valid value(s):

- `40` = Cannot open temporary file.
- `201` = Given output file name is too long.
- `202` = Implied output file name is too long.
- `203` = Given output file is formatted incorrectly.
- `208` = Given input file name is too long.
- `211` = Cannot create temporary file.
- `212` = Cannot write temporary file.

4. ACTION TO BE TAKEN

For Format 1, the contents of the corrupt log file must be SAVED on paper and/or tape for later reference. The corrupt logfile entries should be cleaned up by using the DEL:LOG input message on the logfile without any selection criteria.

For Format 2, check the /tmp file system to see if all the space is used up.

For Format 3, check to see if the log file exists under the pathname specified in the device record.

For Format 5, retry the command with a file name that is 14 characters or less and contains no slashes (/) to denote a sub-directory.

For Format 6, check to see if there are i-nodes available on the file system partition in which that directory resides. If i-nodes are available, contact technical support for further assistance.

For Formats 7 or 8, check to see if the identified directory exists and has write permissions.

For Format 9, contact technical support for further assistance.

For Format 10, check SPLLOG for CSOP error messages.

5. ALARMS

None. This alarm is either a manually-requested report, or an automatically-generated report. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1 - 3	277
4	279
5 - 10	276

Input Message(s):

```
DEL:LOG
OP:LOG
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

OP:LOGSTAT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP LOGSTAT: RCLOG a PERCENT FULL
  CORCLOG b
  RCLOG c
  [RECOVERY NEEDED. ENTER EXC:ODDRCVY;ALL]
```

2. REASON FOR OUTPUT

To report how full the recent change log files (RCLOG) and the customer-originated recent change log files (CORCLOG) are, to report the number of records logged in both files, and to report if the logs must be manually reapplied to the disk log.

3. VARIABLE FIELD DEFINITIONS

`a` = Percentage of log space that has not been used. (The percentage is derived by comparing the percentage of log space used to the space used that can be reapplied to the disk log in one hour).

`b` = Number of CORCs found in CORC log file.

`c` = Number of recent changes found in recent change log file.

`RECOVERY NEEDED` = RCLOG data and CORCLOG data have not been reapplied to the log file after system initialization occurred and must be started manually (refer to the EXC:ODDRCVY input message).

4. ACTION TO BE TAKEN

If the RCLOG is more than 80% full, then the time required to restore the ODD will approach one hour if a system initialization occurs. If an office database backup operation is performed it will not be necessary to recover the recent changes currently in the log file after a system initialization.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`EXC:ODDRCVY`

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OP:LPS

Software Release: 5E10 and later
Message Class: IOC
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP LPS    PAGE a of b
        MSGCLS    CLASSDEF     CURRENT ROUTING      BACKUP ROUTING
                                 DAYLOG  ECD          DAYLOG ECD
        c         d                e     f            [e]  [f]
        .         .                .     .             .    .
        .         .                .     .             .    .
        .         .                .     .             .    .

[2]   ____________________________________________________________________
      OP LPS - DISK LPS TABLE MISSING
        NEW  /log/HMlpstable HAS BEEN CREATED
```

2. REASON FOR OUTPUT

To respond to an OP:LPS input message (Format 1) or to report automatically that the disk file which contained current status table and backup status table was missing (Format 2). In the latter case a new disk file has been created automatically. If the loss was detected during an initialization, both current and backup statuses are now set to default value. If the loss was detected at other times, current status table is unchanged (same as before the loss of the file) and backup status is set to default value. The new statuses can be obtained by entering OP:LPS input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Current page number.

`b` = Total number of pages in this output.

`c` = Message class name.

`d` = Numeric representation of the message class classdef number.

`e` = Daylog routing status indicator (ON or OFF). The backup status will be printed only when it is different from the current status.

`f` = Equipment configuration data base (ECD) routing status indicator (ON or OFF). The backup status will be printed only when it is different from the current status.
Note: A discard status is represented if '`e`' is OFF and '`f`' is OFF.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CHG:LPS-MSGCLS
OP:LOG
OP:LPS
```

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-100-125 *System Description*
235-600-31x *ECD/SG*

54. OP:M

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OP:M5-CCS

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP M5 CCS a
  CCS GENERAL SERVICE MEASUREMENTS
  800 SERVICE (INWATS): TOTAL b
  NETWORK CALL DENIAL (NCD): QUERIES c
  CALLS SKIPPED DUE TO GSC: k
                        RECEIVED        TRANSMITTED
  IAMS                     d                 e
  ANS                      f                 g
  OOC CALLS                h                 -
  OOC CALLS FAILED         i                 -
  CONTINUITY FAILURE       j                 -
```

2. REASON FOR OUTPUT

To output the common channel signaling (CCS) general service measurements (CCS) package (PKG) from the five-minute (M5) surveillance data. This message is the result of an OP:M5 input message.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Termination status. Valid value(s):
COMPLETED = Command successfully completed.

b = Total number of 800 service [inward wide area telecommunications service (INWATS)] calls.

c = Total number of network call denial (NCD) queries.

d = Total number of CCS initial address messages (IAMs) received.

e = Total number of CCS initial address messages (IAMs) transmitted.

f = Total number of CCS answer (ANS) messages received.

g = Total number of CCS answer (ANS) messages transmitted.

h = Total number of out-of-chain CCS calls received.

i = Total number of out-of-chain CCS calls received, but failed.

j = Total CCS continuity failure received.

k = Total number of calls skipped due to a group signaling congestion (GSC) control.

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4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:M5
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:M5PKG-A

Software Release: 5E10 only
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP M5 PKG a
  5-MIN PACKAGE ASSIGNMENTS
  PACKAGE    PRIMARY   BACKUP
  DLYR             b        c
  OVRLD            .        .
  CLDIR            .        .
  MLNC             .        .
  SVC
  IMA
  CLCT
  CCS
  LNCU
  CCSP
  LNNODE
  NS
  SDN
  LN
  IECSTG
  TGMEAS
  TGFLAG
  IECSST
  CGAP
  RRC
  WBTGMEAS
```

2. REASON FOR OUTPUT

To display a list of package (PKG) assignments on the five-minute (M5) surveillance data.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

`CCS` = Common channel signaling general service measurements.

`CCSP` = Common channel signaling special service measurements.

`CGAP` = Code control.

`CLCT` = Network management control counts.

`CLDIR` = Call direction.

`DLYR` = Delayed readiness.

IECSST = Inter-exchange carrier start signal timeout counts.

IECSTG = Inter-exchange carrier shared trunk group counts.

IMA = Additional ineffective machine attempts.

LN = Leased network action point.

LNCU = Leased network office-wide measurements for critical users.

LNNODE = Leased network node-to-node measurements.

MLNC = Failure to match and no circuit.

NS = Number services.

OVRLD = Overload or congestion control.

RRC = Manual reroute trunk group controls.

SDN = Action control point for software defined networks.

SVC = Critical service circuit.

TGFLAG = Trunk group flags.

TGMEAS = Basic trunk group measurements.

WBTGMEAS = Wideband trunk group measurements.

a = Termination status. Valid value(s):
COMPLETED = Command successfully completed.

b = Assigned from the primary channel - remote network management center (RNMC). Valid value(s):
N = The package is not being collected for EADAS/NM.
Y = The package is being collected for EADAS/NM.

c = Assigned from the back-up channel (on-site). Valid value(s):
N = The package is not being collected for the back-up channel.
Y = The package is being collected for the back-up channel.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:M5
OP:M5
SET:M5
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):
235-190-115 *Local and Toll System Features*

OP:M5PKG-B

Software Release: 5E11 only
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP M5 PKG a
  5-MIN PACKAGE ASSIGNMENTS
  PACKAGE    PRIMARY   BACKUP
  DLYR             b        c
  OVRLD            .        .
  CLDIR            .        .
  MLNC             .        .
  SVC
  IMA
  CLCT
  CCS
  LNCU
  CCSP
  LNNODE
  NS
  SDN
  LN
  IECSTG
  TGMEAS
  TGFLAG
  IECSST
  CGAP
  RRC
  WBTGMEAS
  ASPTF
```

2. REASON FOR OUTPUT

To display a list of package (PKG) assignments on the five-minute (M5) surveillance data.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

`ASPTF` = Advanced services platform toll free counts.

`CCS` = Common channel signaling general service measurements.

`CCSP` = Common channel signaling special service measurements.

`CGAP` = Code control.

`CLCT` = Network management control counts.

`CLDIR` = Call direction.

DLYR = Delayed readiness.

IECSST = Inter-exchange carrier start signal timeout counts.

IECSTG = Inter-exchange carrier shared trunk group counts.

IMA = Additional ineffective machine attempts.

LN = Leased network action point.

LNCU = Leased network office-wide measurements for critical users.

LNNODE = Leased network node-to-node measurements.

MLNC = Failure to match and no circuit.

NS = Number services.

OVRLD = Overload or congestion control.

RRC = Manual reroute trunk group controls.

SDN = Action control point for software defined networks.

SVC = Critical service circuit.

TGFLAG = Trunk group flags.

TGMEAS = Basic trunk group measurements.

WBTGMEAS = Wideband trunk group measurements.

a = Termination status. Valid value(s):
COMPLETED = Command successfully completed.

b = Assigned from the primary channel - remote network management center (RNMC). Valid value(s):
N = The package is not being collected for EADAS/NM.
Y = The package is being collected for EADAS/NM.

c = Assigned from the back-up channel (on-site). Valid value(s):
N = The package is not being collected for the back-up channel.
Y = The package is being collected for the back-up channel.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:M5
OP:M5
SET:M5
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):
235-190-115 *Local and Toll System Features*

OP:M5PKG-C

Software Release: 5E12 only
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP M5 PKG a
  5-MIN PACKAGE ASSIGNMENTS
  PACKAGE    PRIMARY   BACKUP
  DLYR             b        c
  OVRLD            .        .
  CLDIR            .        .
  MLNC             .        .
  SVC
  IMA
  CLCT
  CCS
  LNCU
  CCSP
  LNNODE
  NS
  SDN
  LN
  IECSTG
  TGMEAS
  TGFLAG
  IECSST
  CGAP
  RRC
  WBTGMEAS
  ASPTF
  BNP
```

2. REASON FOR OUTPUT

To display a list of package (PKG) assignments on the five-minute (M5) surveillance data.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

`ASPTF` = Advanced services platform toll free counts.

`BNP` = Basic number portability measurements.

`CCS` = Common channel signaling general service measurements.

`CCSP` = Common channel signaling special service measurements.

`CGAP` = Code control.

CLCT = Network management control counts.

CLDIR = Call direction.

DLYR = Delayed readiness.

IECSST = Inter-exchange carrier start signal timeout counts.

IECSTG = Inter-exchange carrier shared trunk group counts.

IMA = Additional ineffective machine attempts.

LN = Leased network action point.

LNCU = Leased network office-wide measurements for critical users.

LNNODE = Leased network node-to-node measurements.

MLNC = Failure to match and no circuit.

NS = Number services.

OVRLD = Overload or congestion control.

RRC = Manual reroute trunk group controls.

SDN = Action control point for software defined networks.

SVC = Critical service circuit.

TGFLAG = Trunk group flags.

TGMEAS = Basic trunk group measurements.

WBTGMEAS = Wideband trunk group measurements.

a = Termination status. Valid value(s):
COMPLETED = Command successfully completed.

b = Assigned from the primary channel - remote network management center (RNMC). Valid value(s):
N = The package is not being collected for EADAS/NM.
Y = The package is being collected for EADAS/NM.

c = Assigned from the back-up channel (on-site). Valid value(s):
N = The package is not being collected for the back-up channel.
Y = The package is being collected for the back-up channel.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:M5
OP:M5
SET:M5
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):
235-190-115 *Local and Toll System Features*

OP:M5PKG-D

Software Release: 5E13 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP M5 PKG a
  5-MIN PACKAGE ASSIGNMENTS
  PACKAGE    PRIMARY   BACKUP
    b          c         d
    .          .         .
    .          .         .
    .          .         .
```

2. REASON FOR OUTPUT

To display a list of package (PKG) assignments on the five-minute (M5) surveillance data.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination status. Valid value(s):

`COMPLETED`	= Command successfully completed.

`b` = Package. Valid value(s):

`ASPTF`	= Advanced services platform toll free counts.
`BNP`	= Basic number portability measurements.
`CCS`	= Common channel signaling general service measurements.
`CCSP`	= Common channel signaling special service measurements.
`CGAP`	= Code control.
`CLCT`	= Network management control counts.
`CLDIR`	= Call direction.
`DLYR`	= Delayed readiness.
`GETSHPC`	= Government emergency telecommunications service high probability of call completion.
`HPCTG`	= High probability of call completion trunk group.
`IECSST`	= Inter-exchange carrier start signal timeout counts.
`IECSTG`	= Inter-exchange carrier shared trunk group counts.
`IMA`	= Additional ineffective machine attempts.
`LN`	= Leased network action point.
`LNCU`	= Leased network office-wide measurements for critical users.
`LNNODE`	= Leased network node-to-node measurements.
`MLNC`	= Failure to match and no circuit.
`NS`	= Number services.
`OVRLD`	= Overload or congestion control.
`RRC`	= Manual reroute trunk group controls.
`SDN`	= Action control point for software defined networks.
`SVC`	= Critical service circuit.

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TGFLAG = Trunk group flags.
TGMEAS = Basic trunk group measurements.
WBTGMEAS = Wideband trunk group measurements.

c = Assigned from the primary channel - remote network management center (RNMC). Valid value(s):
N = The package is not being collected for the RNMC
Y = The package is being collected for the RNMC

d = Assigned from the back-up channel (on-site). Valid value(s):
N = The package is not being collected for the back-up channel.
Y = The package is being collected for the back-up channel.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:M5
OP:M5
SET:M5
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):
235-190-115 *Local and Toll System Features*

OP:M5PKG-ASPTF

Software Release: 5E11 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP M5 PKG ASPTF a
  ASP MEASUREMENTS
  TOT-CMPLT    SCP-OVFL        SMS-OVFL
  b              c              d
  ASPTF MEASUREMENTS
  TOT-CMPLT    TOT-ATMPT       SCP-BLK        SMS-BLK
  e              f              g              h
```

2. REASON FOR OUTPUT

This message displays the advanced services platform toll free (ASPTF) package (PKG) from the five-minute (M5) data in response to an OP:M5 input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination status. Valid value(s):
`COMPLETED` = Message successfully completed.

`b` = Total number of ASP calls completed.

`c` = Number of requests to install a SCP overload control that failed due to list overflow.

`d` = Number of requests to install a SMS initiated control that failed due to list overflow.

`e` = Total number of ASP toll free calls completed.

`f` = Total number of ASP toll free calls attempted.

`g` = Number of ASP toll free calls that have a query blocked due to a SCP overload control.

`h` = Number of ASP toll free calls that have a query blocked due to a SMS initiated control.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:M5`

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Other Manual(s):
235-070-100 *Switch Administrative Guidelines*

MCC Display Page(s):

109 (OVERLOAD)
130 (NM EXCEPTION)

OP:M5PKG-BNP

Software Release: 5E12 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP M5 PKG BNP a
  BASIC NP MEASUREMENTS
  NP-QRY         NP-QRY-FAIL  NP-RSP-LRN    NP-REL
    b               c            d             e
  NP-UNA-NOLRN   NP-UNA-LRN   NP-NO-QRY     NP-CCS-TDM
    f               g            h             i
  NP-MCG-BLK     NP-SCP-BLK   NP-SMS-BLK
    j               k            l
  QOR-INIT       QOR-QRY      QOR-NOQRY
    m               n            o
```

2. REASON FOR OUTPUT

This message displays the basic number portability (BNP) package (PKG) from the five-minute (M5) data in response to an OP:M5 input message.

3. VARIABLE FIELD DEFINITIONS

a = Termination status. Valid value(s):
`COMPLETED` = Message successfully completed.

b = Number of number portability (NP) queries launched to the service control point (SCP).

c = Number of NP queries that failed.

d = Number of NP query responses that contained an local routing number (LRN).

e = Number of calls encountering an ISUP release message containing a cause value of *ANSI*® 26.

f = Number of NP calls terminating to an unallocated number. Query response did not contain an LRN.

g = Number of NP calls terminating to an unallocated number. Query response did contain an LRN.

h = Number of NP calls processed without launching an NP query.

i = Number of NP common channel signaling (CCS) tandem calls.

j = Number of NP calls blocked by manual call gap.

k = Number of NP queries blocked by SCP overload automatic call gap (ACG).

l = Number of NP queries blocked by service management system (SMS) initiated ACG.

m = Number of query on release calls initiated.

n = Number of query on release calls which launched an NP query.

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o = Number of query on release calls which terminated without launching a NP query.

4. ACTION TO BE TAKEN

None

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:M5
```

Other Manual(s):
235-070-100 *Switch Administrative Guidelines*

OP:M5PKG-CCSP

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP M5 PKG CCSP a
  CCS SPECIAL SERVICE MEASUREMENTS
  800 SERVICE (INWATS):      TOTAL b
  800 SERVICE (CANC):        IDB-CNTL  IDB-10-CNTL  NON-IDB-CNTL
                             c         d            e
  NETWORK CALL DENIAL (NCD): QUERIES f
  NCD QUERIES (BLKD/RET):    NCP-CNTL  CCS-CNTL
                             g         h
```

2. REASON FOR OUTPUT

To display the common channel signaling (CCS) special service (CCSP) package (PKG) from the five-minute (M5) surveillance data. This message is the result of an OP:M5,PKG=CCSP input message.

3. VARIABLE FIELD DEFINITIONS

a = Termination status. Valid value(s):
`COMPLETED` = Command successfully completed.

b = Total number of 800 service (inward wide area telecommunications service [INWATS]) calls.

c = Total number of calls canceled due to INWATS database (IDB) initiated code controls.

d = Total number of calls canceled due to IDB initiated code control on 10-digit 800 service numbers.

e = Total number of calls canceled for reasons other than IDB initiated code control.

f = Total number of network call denial (NCD) queries.

g = Total number of NCD queries blocked due to NCD/network control point (NCP) initiated overload controls.

h = Total number of NCD queries blocked due to common channel signaling (CCS) initiated overload controls.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
OP:M5
```

MCC Display Page(s):

109 (OVERLOAD)
130 (NM EXCEPTION)

OP:M5-PKG-CGAP

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP M5 PKG CGAP a
  CALL GAP MEASUREMENTS
  CODE          PREFIX     DOM     GAP     ANN     ATTEMPTS     PASSED
  b               c       h|ALL     d       e         f          g
  .               .         .       .       .         .          .
  .               .         .       .       .         .          .
  .               .         .       .       .         .          .
```

2. REASON FOR OUTPUT

To display a call gapping (CGAP) code control five-minute (M5) surveillance measurements package (PKG). One message can contain up to six controls. A maximum of 11 messages can result since a maximum of 64 controls is allowed.

3. VARIABLE FIELD DEFINITIONS

`ALL` = The code control was applied to all domains.

`a` = Termination report. Valid value(s):
- `COMPLETED` = Last in a series of these messages.
- `CONTINUED` = Middle of a series of these messages.
- `STARTED` = First in a series of these messages.

`b` = Destination code gapped, or "-" if not applicable.

`c` = Access prefix gapped (0 - 9999). The prefix field will be blank if the access code is not specified. The access prefix only applies to feature group D carriers.

`d` = Gap interval. Valid value(s):
- `0` = No control was applied, but measurements were collected.
- `PT1` = 0.10 sec.
- `PT12` = 0.12 sec.
- `PT14` = 0.14 sec.
- `PT16` = 0.16 sec.
- `PT18` = 0.18 sec.
- `PT2` = 0.20 sec.
- `PT25` = 0.25 sec.
- `PT36` = 0.36 sec.
- `PT5` = 0.50 sec.
- `PT6` = 0.60 sec.
- `PT75` = 0.75 sec.
- `1` = 1.0 sec.
- `1PT6` = 1.6 sec.
- `2` = 2.0 sec.

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3	= 3.0 sec.
5	= 5.0 sec.
6	= 6.0 sec.
9	= 9.0 sec.
10	= 10.0 sec.
12	= 12.0 sec.
15	= 15.0 sec.
20	= 20.0 sec.
30	= 30.0 sec.
45	= 45.0 sec.
60	= 60.0 sec.
75	= 75.0 sec.
100	= 100.0 sec.
120	= 120.0 sec.
150	= 150.0 sec.
300	= 300.0 sec.
450	= 450.0 sec.
600	= 600.0 sec.
INF	= Infinity, block all but one call.

e = Announcement (ANN) treatment if blocking occurred. Valid value(s):

EANN1	= Emergency announcement 1.
EANN2	= Emergency announcement 2.
NCA	= "NO CIRCUIT" announcement.

f = Number of attempts to the specified code and prefix.

g = Number of calls passed (not blocked) to the specified code and prefix.

h = Switching domain list (1- 99).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

OP:M5

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

MCC Display Page(s):

109 (OVERLOAD)
130 (NM EXCEPTION)

OP:M5PKG-CLCT

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP M5 PKG CLCT a
  NETWORK MANAGEMENT CONTROL COUNTS
  CONTROL     SKIPPED   RR-ATT    RR-FAIL   CANCELED
  TGC            b         c         d          e
  CGAP           -         -         -          f
  DOC            g         -         -          h
  TR             i         -         -          j
```

2. REASON FOR OUTPUT

To output the network management (NM) control count package of the five minute (M5) surveillance package. This is a response to an OP:M5 input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination status. Valid value(s):
`COMPLETED` = Command successfully completed.

`b` = Number of times a trunk group was skipped during hunting due to a trunk group control (TGC).

`c` = Number of NM reroute attempts due to a TGC.

`d` = Number of NM reroute failures due to a TGC.

`e` = Number of canceled calls due to a TGC.

`f` = Number of canceled calls due to a call gapping (CGAP) code control.

`g` = Number of times a trunk group was skipped during hunting due to a dynamic overload control (DOC).

`h` = Number of canceled calls due to a DOC.

`i` = Number of times a trunk group was skipped during hunting due to a trunk reservation (TR) control.

`j` = Number of canceled calls due to a TR control.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
OP:M5
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*
235-190-115 *Local and Toll System Features*

OP:M5PKG-CLDIR

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP M5 PKG CLDIR
  CALL DIRECTION MEASUREMENTS
  ORIG=a  INC=b  OUTG=c
  LOCAL-TERM=d  INTRA-TERM=e  TANDEM=f
```

2. REASON FOR OUTPUT

To display call direction (CLDIR) package (PKG) from the five-minute (M5) surveillance data.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a	= Total line seizures each resulting in at least one digit to the system.
b	= Total trunk seizures each resulting in at least one digit to the system.
c	= Total number of calls intended to complete on outgoing trunks.
d	= Total number of calls terminating on lines in the office.
e	= Total number of originating calls destined to complete on lines in the office.
f	= Total number of originating calls destined to complete on trunks in the office.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:M5
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):

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235-070-100 *Switch Administration Guidelines*

MCC Display Page(s):

109 (OVERLOAD)
130 (NM EXCEPTION)

OP:M5PKG-DLYR

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP M5 PKG DLYR a
  DELAYED READINESS MEASUREMENTS
  LINE ORIG    TRUNK INC
  ORIG  DTD     INC  SDD
   b    c       d    e
```

2. REASON FOR OUTPUT

To display delayed readiness (DLYR) package (PKG) from the five-minute (M5) surveillance data.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination status. Valid value(s):
`COMPLETED` = Request successfully completed.

`b` = Total number of line originations.

`c` = Number of times dial tone delay (DTD) exceeds a generic threshold for all lines.

`d` = Total number of incoming (INC) trunk seizures.

`e` = Number of times start dial delay (SDD) exceeds a generic threshold for all trunks.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:M5`

Output Appendix(es):

`APP:MEASUREMENTS`

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Other Manual(s):
235-070-100 *Switch Administration Guidelines*

MCC Display Page(s):

109 (OVERLOAD)
130 (NM EXCEPTION)

OP:M5PKG-GETSHP

Software Release: 5E13 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP M5 PKG GETSHPC a
  GETS/HPC MEASUREMENTS
  ORIG      INC       TERM      OUTG      OUTGNC
   b         c         d         e         f
  ACG-EX    ACG-BLK   MCG-EX    CANT-EX
   g         h         i         j
  ACC-EX    TR-EX     CANF-EX   SKIP-EX
   k         l         m         n
```

2. REASON FOR OUTPUT

This message displays the government emergency telephone service high probability of call completion (GETS/HPC) package (PKG) from the five-minute (M5) data in response to an OP:M5 input message.

3. VARIABLE FIELD DEFINITIONS

a = Termination status. Valid value(s):
`COMPLETED` = Message successfully completed.

b = Number of originating call attempts.

c = Number of incoming trunk calls.

d = Number of terminating calls.

e = Number of outgoing trunk calls.

f = Number of outgoing trunk calls to no circuit.

g = Number of calls exempted from automatic call gap (ACG) controls.

h = Number of calls blocked by ACG controls.

i = Number of calls exempted from manual call gap controls.

j = Number of calls exempted from cancel-to controls.

k = Number of calls exempted from automatic congestion controls.

l = Number of calls exempted from trunk reservation controls.

m = Number of calls exempted from cancel-from controls.

n = Number of calls exempted from skip controls.

4. ACTIONS TO BE TAKEN

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None

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:M5
```

Other Manual(s):
235-070-100 *Switch Administrative Guidelines*

OP:M5PKG-HPCTG

Software Release: 5E13 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP M5 PKG HPCTG  a
  GETS/HPC TRUNK GROUP MEASUREMENTS
     TG      OUTG    OVFL    Q-OVFL   Q-TO
     b       c       d       e        f
     .       .       .       .        .
     .       .       .       .        .
     .       .       .       .        .
```

2. REASON FOR OUTPUT

To display the government emergency telephone service high probability of call completion (GETS/HPC) trunk group (TG) measurement package (PKG) from the five-minute (M5) surveillance data.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination status. Valid value(s):
- `COMPLETED` = Last in a series of messages.
- `CONTINUED` = Middle in a series of messages.
- `STARTED` = First in a series of messages.

`b` = Trunk group number.

`c` = Number of trunks requested for outgoing attempts.

`d` = Number of trunks overflowed.

`e` = Number of queue overflows.

`f` = Number of queue timeouts.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:M5
STP:NMOP
```

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Output Appendix(es):

```
APP:MEASUREMENTS
```

OP:M5PKG-IECSST

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP M5 PKG IECSST a
  START SIGNAL TIMEOUTS
                  IEC TG
  IEC             SS-TO
  b c             d
   .              .
   .              .
   .              .
```

2. REASON FOR OUTPUT

To display an inter-exchange carrier start signal timeout (IECSST) package (PKG) from the five-minute (M5) surveillance data. One message can contain up to six IECs. A maximum of 17 messages can result to accommodate up to 100 IECs.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination report. Valid value(s):
- `COMPLETED` = Last in a series of messages.
- `CONTINUED` = Middle of a series of messages.
- `STARTED` = First in a series of messages.

`b` = Feature group identifier.

`c` = Carrier identification code.

`d` = Number of start signal timeout (SS-TO).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:M5`

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

MCC Display Page(s):

109 (OVERLOAD)
130 (NM EXCEPTION)

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OP:M5PKG-IECSTG

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP M5 PKG IECSTG a
  SHARED TRUNK GROUP DATA
                  JOINT TG
  IEC     OGPC    OVFL    USG
  b c     d       e       f
   .      .       .       .
   .      .       .       .
   .      .       .       .
```

2. REASON FOR OUTPUT

To display inter-exchange carrier shared trunk group (IECSTG) data package (PKG) from the five-minute (M5) surveillance data. One message can contain up to six IECs. A maximum of 17 messages to accommodate 100 IECs can result.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination report. Valid value(s):
- `COMPLETED` = Last in a series of these messages.
- `CONTINUED` = Middle of a series of these messages.
- `STARTED` = First in a series of these messages.

`b` = Feature group identifier.

`c` = Carrier identification code.

`d` = Outgoing peg count (OGPC).

`e` = Overflow (OVFL) count.

`f` = Usage (USG) in 100-second counts.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:M5`

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Other Manual(s):
235-070-100 *Switch Administration Guidelines*

MCC Display Page(s):

109 (OVERLOAD)
130 (NM EXCEPTION)

OP:M5PKG-IMA

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP M5 PKG IMA a
        ADDITIONAL INEFFECTIVE MACHINE ATTEMPT MEASUREMENTS
        IN-PSTO MISC-EQPT  VCT  FHO
            b   c          d    e

[2]   ____________________________________________________________________
      OP M5 PKG IMA a
        ADDITIONAL INEFFECTIVE MACHINE ATTEMPT MEASUREMENTS
        IN-PSTO MISC-EQPT  VCT  FHO   TTO
            b   c          d    e     f
```

2. REASON FOR OUTPUT

To display, in response to the OP:M5 input message, an ineffective machine attempt (IMA) package (PKG) from the five minute (M5) surveillance data.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination status. Valid value(s):
`COMPLETED` = Command successfully completed.

`b` = Number of IMAs because of the incoming permanent signal timeouts (IN-PSTO).

`c` = Number of IMAs because of miscellaneous (MISC) equipment (EQUIP) problems.

`d` = Number of IMAs because the called digits are not interpretable (that is, vacant code [VCT]).

`e` = Number of calls subjected to final handling overflow (FHO).

`f` = Number of transmitter timeouts (TTO).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
OP:DSNM5
OP:M5
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

MCC Display Page(s):

109 (OVERLOAD)
130 (NM EXCEPTION)

OP:M5PKG-LN

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP M5 PKG LN a
  LEASED NETWORK ACTION POINT
  ORIG    CCSBKLD  DBOVLD  OSSCNTL  OVFL
  b       c        d       e        f
```

2. REASON FOR OUTPUT

To print the leased network (LN) action control point (ACP) package (PKG) from the five-minute (M5) surveillance data in response to an OP:M5PKG input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination status. Valid value(s):
`COMPLETED` = Message successfully completed.

`b` = Number of originating LN services attempts.

`c` = Number of LN service calls blocked due to common channel signaling (CCS) problems.

`d` = Number of LN service calls blocked by data base overload controls.

`e` = Number of LN service calls blocked by Operating Services System (OSS) initiated controls.

`f` = Number of occurrences of LN control lists overflow.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:M5PKG`

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

MCC Display Page(s):

109 (OVERLOAD)
130 (NM EXCEPTION)

OP:M5-PKG-LNCU

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP M5 PKG LNCU a
  LEASED NETWORK OFFICE-WIDE MEASUREMENTS
     CU-ORIG    CU-CALL-LOAD    CU-CALL-BLKED    AFCTED-BY-SSTR
     b          c               d                e
```

2. REASON FOR OUTPUT

To respond to a request for the output of office-wide counts of the five-minute surveillance package. This is a response to an OP:M5PKG input message for the LNCU package.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination status. Valid value(s):
`COMPLETED` = Command successfully completed.

`b` = Number of critical user originating calls.

`c` = Total critical user call load. This is the total number of originating calls and incoming calls.

`d` = Number of critical user calls blocked. This indicates the number of critical user calls that did not complete due to resource failure.

`e` = Number of calls affected by service selection trunk reservation (SSTR) control. This is the number of non-critical user calls being denied access to a trunk group because of SSTR controls.

4. ACTION TO BE TAKEN

If the termination status is ABORTED, reinitiate the request after the system error has been recovered.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:M5
OP:M5PKG
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*
235-190-115 *Local and Toll System Features*

OP:M5PKG-LNNODE

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP M5 PKG LNNODE a
  LEASED NETWORK NODE-TO-NODE MEASUREMENTS
     CLLI          V/D    ATTEMPTS     OVERFLOW
     b             c      d            e
     .             .      .            .
     .             .      .            .
     .             .      .            .
```

2. REASON FOR OUTPUT

To respond to a request for the output of node-to-node counts of the five-minute surveillance package. The output is based on the five-minute node-to-node schedule (NMNODES) and is a response to an OP:M5PKG input message for the leased network node (LNNODE) package.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination status. Valid value(s):
- `COMPLETED` = This is the last of a series of messages. Command successfully completed.
- `CONTINUED` = This is the next of a series of messages.
- `STARTED` = This is the first of a series of messages.

`b` = CLLI code.

`c` = Voice/data indicator. Valid value(s):
- `D` = Data indicator.
- `V` = Voice indicator.

`d` = Total number of node-to-node attempts.

`e` = Total number of node-to-node overflows.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:M5`

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OP:M5PKG

Other Manual(s):
235-070-100 *Switch Administration Guidelines*
235-190-115 *Local and Toll System Features*

OP:M5PKG-MLNC

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP M5 PKG MLNC a
  FAILURE TO MATCH AND NO CIRCUIT MEASUREMENTS
  ORIG-OUT   TANDEM   CALLS-TO-LB   ORIG-MATCHLOSS
      b       c           d               e
  TERM-MATCHLOSS  TANDEM-MATCHLOSS
      f                   g
```

2. REASON FOR OUTPUT

To display matching loss and no circuit (MLNC) package (PKG) five-minute (M5) surveillance data.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination status. Valid value(s):
`COMPLETED` = Command successfully completed.

`b` = Number of originating calls that could not be completed because there is no idle trunk after all routes are tried.

`c` = Number of tandem calls that could not be completed because there is no idle trunk after all routes are tried.

`d` = Number of terminating calls resulting in line busy (LB) indication to the customer.

`e` = Number of originating calls failed due to matching loss. This count is not collected at this time. zero will be shown on the report.

`f` = Number of terminating calls failed due to matching loss. This count is not collected at this time. zero will be shown on the report.

`g` = Number of tandem calls failed due to matching loss. This count is not collected at this time. zero will be shown on the report.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:M5
OP:M5PKG
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:M5PKG-NS

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP M5 PKG NS a
  NS MEASUREMENTS
  NSC-ORG/RCV    NSC-BLK-VAC    NSC-BLK-OVL    NSC-BLK-MAS
  b              c              d              e
  NSC-BLK-MAN    SDV-COL-OVF    TDV-COL-OVF    NON-NPA-OVF
  f              g              h              i
  OVL-COL-OVF    MAS-COL-OVF    MAN-COL-OVF
  j              k              l
```

2. REASON FOR OUTPUT

This message displays the number services (NS) package (PKG) from the five-minute (M5) surveillance data in response to an OP:M5 input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination status. Valid value(s):
`COMPLETED` = Message successfully completed.

`b` = Total number of NS calls originating at the switch and received from other offices [access tandem or service switching point (SSP) office].

`c` = Number of NS calls blocked by service control point (SCP) due to vacant codes.

`d` = Number of NS calls blocked by SCP due to database overloads.

`e` = Number of NS calls blocked by SCP due to mass calling.

`f` = Number of NS calls blocked by SCP due to service management system (SMS) initiated control.

`g` = Number of 6-digit vacant code automatic call gap (ACG) control list overflows.

`h` = Number of 10-digit vacant code ACG control list overflows.

`i` = Number of nonpurchased NPA code ACG control list overflows.

`j` = Number of SCP overload code ACG control list overflows.

`k` = Number of mass calling code ACG control list overflows.

`l` = Number of SMS initiated control code ACG control list overflows.

4. ACTION TO BE TAKEN

None.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:M5`

Other Manual(s):
235-070-100 *Switch Administrative Guidelines*

MCC Display Page(s):

109 (OVERLOAD)
130 (NM EXCEPTION)

OP:M5PKG-OVRLD

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP M5 PKG OVRLD a
  OVERLOAD OR CONGESTION CONTROL MEASUREMENTS
         EVENTS     DURATION
  MC1      b           a
  MC2      d           e
```

2. REASON FOR OUTPUT

To display overload (OVRLD) package (PKG) from the five-minute (M5) surveillance data.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination status. Valid value(s):
`COMPLETED` = Command successfully completed.

`b` = Number of machine congestion 1 (MC1) events during the five-minute collection period.

`c` = Total duration of the machine congestion 1 (MC1) event in seconds collection period.

`d` = Number of machine congestion 2 (MC2) events during the five-minute collection period.

`e` = Total duration of the machine congestion 2 (MC2) events in seconds.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:M5`

Output Appendix(es):

`APP:MEASUREMENTS`

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Other Manual(s):
235-070-100 *Switch Administrative Guidelines*

MCC Display Page(s):

109 (OVERLOAD)
130 (NM EXCEPTION)

OP:M5PKG-RRC

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP M5 PKG RRC a
  MANUAL RE-ROUTE TRUNK GROUP CONTROL MEASUREMENTS
  TG   ATTEMPTS FAILURES
   b      c        d
   .      .        .
   .      .        .
   .      .        .
```

2. REASON FOR OUTPUT

To display manual reroute trunk group control (RRC) package (PKG) from the five-minute (M5) surveillance data. One message can contain up to six trunk groups. A maximum of 22 messages can result to accommodate up to 128 reroute controls in effect.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination report. Valid value(s):
- `COMPLETED` = Last in a series of messages.
- `CONTINUED` = Middle in a series of messages.
- `STARTED` = First in a series of messages.

`b` = Trunk group number.

`c` = Number of reroute attempts.

`d` = Number of reroute failures.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:M5`

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Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):
235-070-100 *Switch Administrative Guidelines*

MCC Display Page(s):

109 (OVERLOAD)
130 (NM EXCEPTION)

OP:M5-PKG-SDN

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP M5 PKG SDN a
  ACP FOR SDN MEASUREMENTS
  ORIG       CCSBKLD       DBOVLD      OSSCNTL
  b          c             d           e
  OVFL
  f
```

2. REASON FOR OUTPUT

This message displays the action control point (ACP) for software defined network (SDN) package (PKG) from the five-minute (M5) surveillance data in response to an OP:M5PKG input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination status. Valid value(s):
`COMPLETED` = Message successfully completed.

`b` = Total originating SDN/automatic number identification (ANI) services attempts.

`c` = SDN/ANI services calls blocked due to common channel signaling (CCS) problems.

`d` = SDN/ANI service calls blocked by database overload controls.

`e` = SDN/ANI service calls blocked by controls issued by Operating Services System (OSS).

`f` = SDN/ANI control lists overflow.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:M5PKG`

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

MCC Display Page(s):

109 (OVERLOAD)
130 (NM EXCEPTION)

OP:M5PKG-SVC

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP M5 PKG SVC a
  CRITICAL SERVICE CIRCUIT MEASUREMENTS
  TYPE    USAGE     MTCE    IMA  TOTAL-CKTS
  HLSC      b        c       d     h
  TD        e        f       g     i
```

2. REASON FOR OUTPUT

To display, in response to the OP:M5 input message, a critical service circuit (SVC) package (PKG) from the five-minute (M5) surveillance data.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination status. Valid value(s):
`COMPLETED` = Command successfully completed.

`b` = Usage counts for the high level service circuits (HLSC) in 10 seconds.

`c` = Maintenance (MTCE) busy counts for the HLSC in 100 seconds.

`d` = Number of ineffective machine attempts (IMAs) because the HLSCs are unavailable.

`e` = Usage counts for the tone decoder (TD) in 10 seconds.

`f` = Maintenance (MTCE) busy counts for the TDs in 100 seconds.

`g` = Number of IMAs because the TDs are unavailable.

`h` = Total number of HLSCs in the office.

`i` = Total number of TDs in the office.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
OP:DSNM5
OP:M5
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

MCC Display Page(s):

109 (OVERLOAD)
130 (NM EXCEPTION)

OP:M5-PKG-TGFLG

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP M5 PKG TGFLAG a
  BASIC TRUNK GROUP FLAGS
     TG       DOC       GSC       TR       AUTO
     b        c         d         e        f
     .        .         .         .        .
     .        .         .         .        .
     .        .         .         .        .
```

2. REASON FOR OUTPUT

To display the basic trunk group flag (TGFLAG) package from the five minute surveillance data. This is a response to an OP:M5 input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination report. Valid value(s):
- `COMPLETED` = Last in a series of messages.
- `CONTINUED` = Next in a series of messages.
- `STARTED` = First in a series of messages.

`b` = Trunk group (TG) number.

`c` = Dynamic overload control (DOC). Valid value(s):
- `N` = No calls have been affected by DOC.
- `Y` = At least one call has been affected by DOC.

`d` = Group signaling congestion (GSC). Valid value(s):
- `N` = No calls have been affected by GSC.
- `Y` = At least one call has been affected by the receipt of a GSC signal.

`e` = Trunk reservation controls group (TR). Valid value(s):
- `N` = No calls have been affected by TR.
- `Y` = At least one call has been affected by TR.

`f` = Count of all the calls affected by automatic (AUTO) controls.

4. ACTION TO BE TAKEN

None.

5. ALARMS

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None.

6. REFERENCES

Input Message(s):

```
OP:M5
STP:NMOP
```

Other Manual(s):
235-190-115 *Local and Toll System Features*
235-070-100 *Switch Administration Guidelines*

OP:M5PKG-TGMEAS

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

[1]
```
OP M5 PKG TGMEAS a
  BASIC TRUNK GROUP MEASUREMENTS
     TG OUTG  OVFL  USG  INC    MTU
     b  c     d     e    f      g
     .  .     .     .    .      .
     .  .     .     .    .      .
     .  .     .     .    .      .
```

[2]
```
OP M5 PKG TGMEAS a
  BASIC TRUNK GROUP MEASUREMENTS
     TG OUTG  OVFL  USG  INC    MTU    TTO
     b  c     d     e    f      g      h
     .  .     .     .    .      .      .
     .  .     .     .    .      .      .
     .  .     .     .    .      .      .
```

[3]
```
OP M5 PKG TGMEAS a
  BASIC TRUNK GROUP MEASUREMENTS
     TG OUTG  OUTGTT  OVFL  USG  INC    MTU    TTO
     b  c     i       d     e    f      g      h
     .  .     .       .     .    .      .      .
     .  .     .       .     .    .      .      .
     .  .     .       .     .    .      .      .
```

2. REASON FOR OUTPUT

To display a basic trunk group package (PKG) from the five-minute (M5) surveillance data.

3. VARIABLE FIELD DEFINITIONS

a = Termination status. Valid value(s):
- COMPLETED = Last in a series of messages.
- CONTINUED = Middle in a series of messages.
- STARTED = First in a series of messages.

b = Trunk group number.

c = Number of outgoing attempts.

d = Number of overflow count.

e = Total usage of trunk at 100 second intervals.

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`f` = Number of incoming attempts.

`g` = Total maintenance usage of trunk at 100 second intervals.

`h` = Number of transmitter timeouts.

`i` = Number of trunks requested for outgoing attempts.

Note: For non-wideband calls, variable '`c`' and variable '`i`' are the same.

For wideband calls, variable '`c`' is pegged once per call. Variable '`i`' is pegged N times per call; where N is the number of trunks requested for that wideband call.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:M5
STP:NMOP
```

MCC Display Page(s):

109 (OVERLOAD)
130 (NM EXCEPTION)

OP:M5PKG-WBTGME

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP M5 PKG WBTGMEAS  a
  WIDEBAND TRUNK GROUP MEASUREMENTS
     TG      OUTG    OVFL    INC
     b       c       d       e
     .       .       .       .
     .       .       .       .
     .       .       .       .
```

2. REASON FOR OUTPUT

To display the wideband trunk group measurement (WBTGMEAS) package (PKG) from the five-minute (M5) surveillance data.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination status. Valid value(s):
- `COMPLETED` = Last in a series of messages.
- `CONTINUED` = Middle in a series of messages.
- `STARTED` = First in a series of messages.

`b` = Trunk group number.

`c` = Number of trunks requested for outgoing attempts.

`d` = Number of trunks overflowed.

`e` = Number of trunks with incoming attempts.
Note: Variables '`c,d,e`' are pegged '`n`' times per call; where '`n`' is the number of trunks requested for wideband calls, and one for non-wideband calls.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:M5
STP:NMOP
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

MCC Display Page(s):

109 (OVERLOAD)
130 (NM EXCEPTION)

OP:MDII-A

Software Release: 5E10 - 5E11
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP MDII a TG b c d
```

2. REASON FOR OUTPUT

To report the result of a request to output all trunk group and machine-dependent interoffice irregularity (MDII) suppression combinations.

3. VARIABLE FIELD DEFINITIONS

`a` = The MDII suppressed on the trunk group. Refer to the APP:MDII appendix in the Appendixes section of the Output Messages manual for a list of MDIIs.

`b` = Trunk group being suppressed.

`c` = Suppression indicator for the MDII. Valid value(s):
`NOT SUPPRESSED` = MDII and trunk group are not suppressed.
`SUPPRESSED` = MDII and trunk group are suppressed.

`d` = Output message termination report. Valid value(s):
`COMPLETED` = MDII and trunk group are suppressed.
`SYSTEM ERROR` = System processing error.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:MDII
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:MDII-B

Software Release: 5E12 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP MDII a TG b c d
```

2. REASON FOR OUTPUT

To report the result of a request to output all trunk group and machine-dependent interoffice irregularity (MDII) suppression combinations.

3. VARIABLE FIELD DEFINITIONS

`a` = The MDII suppressed on the trunk group. Refer to the APP:MDII appendix in the Appendixes section of the Output Messages manual for a list of MDIIs.

`b` = Trunk group being suppressed.

`c` = Suppression indicator for the MDII. Valid value(s):
`NOT SUPPRESSED` = MDII and trunk group are not suppressed.
`SUPPRESSED` = MDII and trunk group are suppressed.

`d` = Output message termination report. Valid value(s):
`COMPLETED` = MDII and trunk group are suppressed.
`SYSTEM ERROR` = System processing error.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:MDII
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

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OP:MEASIC

Software Release: 5E10 and later
Message Class: TRFM
Application: 5
Type: Output

1. FORMAT

```
OP MEASIC
          PART a OF b
  MEASURED CARRIERS: c
   d e
   . .
   . .
   . .
```

2. REASON FOR OUTPUT

To respond to a manually requested message. This report lists the carriers for which measurements are enabled.

3. VARIABLE FIELD DEFINITIONS

a	= Current page number of this report.
b	= Total number of pages for this report.
c	= Total number of measured carriers.
d	= Feature group identifier.
e	= InterLATA carrier identifier.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:M5
OP:MEASIC
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
OP:PLNT24
OP:PLNTMO
```

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Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*
235-190-115 *Local and Toll System Features*

OP:MEASTAT-CLCT

Software Release: 5E10 and later
Message Class: TRFM
Application: 5
Type: Output

1. FORMAT

```
OP MEASTAT CLCT
  COLLECT STATUS SUMMARY OF 30-MINUTE TRAFFIC REPORT
  SECT NAME   SIZE                 STATUS
  a    b      c                    d
  .    .      .                    .
  .    .      .                    .
  .    .      .                    .
  TOTAL MEMORY USED = e BYTES OUT OF f
```

2. REASON FOR OUTPUT

To respond to an OP:MEASTAT input message to report the collection status of each section of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Section number. Refer to the APP:TRFC-SECTION appendix in the Appendixes section of the Output Messages manual.

b = Section name. Refer to the APP:TRFC-SECTION appendix in the Appendixes section of the Output Messages manual.

c = The number of bytes needed to hold the indicated buffer of the report section.

d = The status (ALW or INH) of the report section collection.

e = The total number of bytes used by the 30-minute traffic report. This is the sum of the sizes of all the allowed sections.

f = The total number of bytes available for the 30-minute traffic report.

4. ACTION TO BE TAKEN

Use the OP:MEASTAT input message to request the status of the COLLECT allocation usage. If the status report indicates that a desired section is inhibited, choose a section which is not desired and inhibit it (INH:TRFC30). Follow up with the appropriate ALW:TRFC30 request to permit collection of the desired section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

ALW:TRFC30

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```
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
```

Output Message(s):

```
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Output Appendix(es):

```
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:MEASTAT-PRNT

Software Release: 5E10 and later
Message Class: TRFM
Application: 5
Type: Output

1. FORMAT

```
OP MEASTAT PRINT
          PRINT STATUS SUMMARY OF MEASUREMENT OUTPUTS
                     ROP                  TRFCH
  REPORT          SIZE     STATUS    SIZE     STATUS
  DRHR            a        b         c        d
  PLNTHR          a        b         c        d
  TRFC15          a        b         c        d
  TRFC30          a        d         c        d
  TOTAL MESSAGE UNITS USED = e OUT OF f
```

2. REASON FOR OUTPUT

To respond to an OP:MEASTAT input message request to report the print status of the 15-minute traffic (TRFC15), the 30-minute traffic (TRFC30), the division of revenue hourly report (DRHR), and the hourly plant (PLNTHR) reports.

To find the status of the individual sections of TRFC30, use the OP:ST-TRFC30 input message.

3. VARIABLE FIELD DEFINITIONS

a = The size (in message units) needed to print the report when the output is directed to the receive-only printer (ROP). In the case of the TRFC30, this is the total of all sections allowed.

b = The status (ALW or INH) of the report for ROP output.

c = The size (in message units) needed to print the report when the output is directed to the traffic channel (TRFCH). In the case of the TRFC30, this is total of all sections allowed.

d = The status (ALW or INH) of the report for traffic channel output.

e = The sum of message units for all reports and sections of TRFC30 currently allowed.

f = The total allocation of message units.

4. ACTION TO BE TAKEN

Use the OP:MEASTAT input message to request the status of the PRINT allocation usage. If the status report indicates that a desired report or section is inhibited, choose a report (or section) which is not desired and inhibit it (INH:TRFC30). Follow up with the appropriate ALW:TRFC30 request to permit printing of the desired report (section). For a detailed report on the status of the sections of TRFC30, use OP:ST-TRFC30.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ALW:DRHR
ALW:PLNTHR
ALW:TRFC15
ALW:TRFC30
INH:DRHR
INH:PLNTHR
INH:TRFC15
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:ST-TRFC30
```

Output Appendix(es):

```
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:MEMERRS

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP MEMERRS IN PROGRESS
        DATE      TIME CU MASC MY/OTH TYPE SLOT DEV UNCORR/CORR
        kk/kk/kk  ll ll a   b    c      d    e    f       g
        ACCESS ERRASRC
         h   i
        [j]

[2]   ____________________________________________________________________
      OP MEMERRS CANNOT OPEN NEW TEMP FILE

[3]   ____________________________________________________________________
      OP MEMERRS NO MEMLOG FILES

[4]   ____________________________________________________________________
      OP MEMERRS NOT STARTED
        CONFLICT WITH CURRENT SYSTEM STATUS - NOT AVAILABLE ON HW PLATFORM

[5]   ____________________________________________________________________
      OP MEMERRS CANNOT OPEN ECD FOR MEMLOG

[6]   ____________________________________________________________________
      OP MEMERRS CANNOT RETRIEVE MEMLOG RECORD FROM ECD

[7]   ____________________________________________________________________
      OP MEMERRS COMPLETED
        NO MEMLOG ENTRIES MATCH THE SPECIFIED DATE

[8]   ____________________________________________________________________
      OP MEMERRS CANNOT WRITE TEMPORARY FILE

[9]   ____________________________________________________________________
      OP MEMERRS CANNOT CLOSE TEMPORARY FILE
```

2. REASON FOR OUTPUT

To report a table of interpreted 3B20D CU memory errors from the memory log file (MEMLOG). 3B21D control unit (CU) memory errors are not interpreted because there is only one memory board in each CU.

Format 3 indicates there are no memory errors stored in the log files.

Format 4 indicates that memory error interpretation was requested on 3B21D CU memory errors.

3. VARIABLE FIELD DEFINITIONS

`a` = CU number of the faulty unit.

`b` = Main store controller of the faulty unit.

`c` = Indicates where the error occurred. Valid value(s):

`MY`	= My store.
`OTH`	= Other store.

`d` = Type of memory error that occurred. Valid value(s):

`Error A`	= An "or" over several circuit checks resulted in error detection.
`Error B`	= An attempt was made to access an unequipped memory array or module.
`Error C`	= The Hamming check circuitry detected a multi-bit uncorrectable error during a system access of memory.
`Error D`	= A system or refresh access of memory detected an error.

`e` = Slot number of the faulty data. This number is relative to the CU.

`f` = Hexadecimal code identifier for memory devices.

This value is only reported on an error D and is used to locate the faulty chip on the array board. The form of this identifier is nnss where ss is the side (A, B, 1A, 1B, 2A, 2B) of the memory device.

`g` = Indicates whether the detected error was correctable or uncorrectable.

`h` = Indicates whether the error was detected during system or refresh access.

`i` = The error A interrupt source formed from an "or" of several check circuits internal to the memory controller. The error A source is only output if an error A has occurred.

`j` = An optional warning or abort message of the form:

```
SLOT NUMBERS ARE INVALID
```

`k` = Date that the memory error occurred. Listed in the form of month/day/year.

`l` = Time of day of the memory error. Listed in the form of hour and minute.

4. ACTION TO BE TAKEN

If the abort message appears, remove any files in directory "tmp" of the form "MEMERRS-XXXXXX" and retry the message.

If the warning message that the slot numbers are invalid appears, the slot numbers in the table cannot be trusted. This message indicates that the equipment configuration data base (ECD) cannot be properly accessed, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. Also, all equipage is assumed to be the same as in CU 0 and only main store controller (MASC) 0 and MASC 1 are allowed for any CU.

If `?`s appear at any place, the data being read is invalid. Output will resume at the next valid entry.

Format 3 is not an error condition. It requires no action.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	428
2	427
3	429
5	598
6	597
7	600
8, 9	713

Input Message(s):

```
OP:MEMERRS
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

OP:MEMSIZE-A

Software Release: 5E10 - 5E11
Message Class: OFR
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP MEMSIZE                                                PAGE x OF y
        BASE & CONTROL:    a
        FROM:       b      TO:      c
        PROC   TYPE   RETROFIT  SABM  MEG  MEM  KILO ODD  MEG TOTAL  %FREE  MEMORY
        NO             CONFIG         EQUIPPED   NEEDED  NEEDED(MIN)        NEEDED
        d      e        f       g        h         i         j         k      l
        OP MEMSIZE                                                  PAGE x OF y
        BASE & CONTROL:      a
        FROM:       b    TO:      c
        PROC  CORE   TN56  TN2012  TN1374  TN1376  TN1661  TN1685  TN1806  TOTAL
        NO    BOARD  2MEG   4MEG    4MEG    8MEG    16MEG   32MEG   64MEG   MEG
        d       m      n      o       p       q       r       s      t       u

[2]   ____________________________________________________________________
      OP MEMSIZE v [w]
```

2. REASON FOR OUTPUT

To report a forecast summary of the memory needed by the office's administration module (AM), communications module processor (CMP), and switching modules (SMs) to retrofit to the specified release. Any errors encountered are reported with Format 2. The report is also output to /rclog/memsize.rep file.

3. VARIABLE FIELD DEFINITIONS

a = Base and control for the office.

b = Current software release.

c = Retrofit software release.

d = Processor number.

e = Type of processor being associated with variable 'd'. For SMs, the types are, local switching module (LSM), remote switching module (RSM), host switching module (HSM). Other types to be sized are the AM, CMP and disk facilities.

f = Retrofit configuration. For SMs, the configuration represents the configuration after retrofit. The configuration for SMs can be BSM (BASIC), SSM (STANDARD), LSM (LOADED), or 2KSM (SM-2000). For the AM, CMP and disk facilities, the retrofit configuration is always the same as the type.

g = SABM equipped. This indicates whether or not the processor is equipped with the standalone billing memory feature (Yes or No).

h = Meg memory equipped. This indicates the amount of memory (in megabytes) that the processor

is equipped with.

i = Kilo ODD needed. This indicates the amount of memory (in kilobytes) that the processor needs for the office-dependent data (ODD) after retrofit. This number is the sum of RODD and UODD for SM. It is the sum of SODD and UODD for AM and CMP. For disks, this quantity is the total amount of space needed by the partition that backs up all the NRODDs from SMs.

j = Meg total (minimum). This indicates the minimum amount of memory (in megabytes) that the processor needs for the retrofit.

k = This indicates the percent of free space used in computing the meg ODD needed (variable 'i').

l = Memory needed. This indicates if the processor needs additional memory to successfully retrofit (Yes or No). Additional memory needed is the difference of variables 'j' and 'h'.

m = Amount of memory in megabytes on the processor core board of processor 'd'.

n = Number of TN56 memory boards on processor 'd'.

o = Number of TN2012 memory boards on processor 'd'.

p = Number of TN1374 memory boards on processor 'd'.

q = Number of TN1376 memory boards on processor 'd'.

r = Number of TN1661 memory boards on processor 'd'.

s = Number of TN1685 memory boards on processor 'd'.

t = Number of TN1806 memory boards on processor 'd'.

u = Total memory in megabytes on processor 'd'. An asterisk (*) in this field indicates that the equipage on the two sides is different and the smaller number is reported.

v = Job status. Valid value(s):

ABORTED = Requested action was terminated before completion and the termination was immediate. Reasons are given in variable 'v'.

STOPPED = Requested action was stopped as requested using the STP:MEMSIZE input message.

w = Error message. Valid value(s):

ERROR DURING SIZING = Rerun command and observe output. If problem persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

ERROR IN ACCESSING I/O FILES = Rerun command and observe output. If problem persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

ERROR IN ACCESSING THE MODATT RELATION = Rerun command and observe output. If problem persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

ERROR IN ACCESSING THE SMCONF RELATION = Rerun command and observe output. If problem persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

ERROR IN COMMUNICATION BETWEEN PROCESSORS = Rerun command and observe output. If

problem persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`ERROR IN COMMUNICATION BETWEEN UNIX AND OKP` = Rerun command and observe output. If problem persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`ERROR IN TRANSFERRING DELTA INFORMATION` = Rerun command and observe output. If problem persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`INVALID TORELEASE PARAMETER OR MISSING INPUT FILES` = Either the TORELEASE parameter was incorrectly input or the data files needed to run the tool are missing.

`NO ACTIVE SMS WERE FOUND` = Cannot run the tool as no active SM was found.

`ONE OR MORE PROCESSORS ARE IN ISOLATION` = Cannot run the tool until all SMs are out of isolation.

`x` = Current page number.

`y` = Total number of output pages.

4. ACTIONS TO BE TAKEN

For Format 1, none. This information is output in response to a user-specified request.

For Format 2, rerun the command and observe the output. If the problem persist, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:MEMSIZE
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-070-100 *Switch Administration and Engineering Guidelines*
235-105-248 *Software Release Retrofit*
235-118-25x *Recent Change Procedures Manual*
235-118-251 *Recent Change Reference Manual*
235-600-400 *Audits Manual*

OP:MEMSIZE-B

Software Release: 5E12 and later
Message Class: OFR
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP MEMSIZE                                                  PAGE y OF z

        BASE & CONTROL:    a

        FROM:       b      TO:      c

        PROC   TYPE   RETROFIT  SA  RT  MEG  MEM  KILO ODD  MEG TOTAL  %FREE  MEMORY

        NO             CONFIG   BM  BM  EQUIPPED   NEEDED  NEEDED(MIN)        NEEDED

        d      e        f       g   h      i         j         k         l      m

      OP MEMSIZE                                                  PAGE y OF z

        BASE & CONTROL:      a

        FROM:       b    TO:      c

        PROC  CORE   TN56  TN2012  TN1374  TN1376  TN1661  TN1685  TN1806  TOTAL

        NO    BOARD  2MEG   4MEG    4MEG    8MEG    16MEG   32MEG   64MEG   MEG

        d       n      o      p       q       r       s       t       u       v

[2]   ____________________________________________________________________
      OP MEMSIZE w x
```

2. REASON FOR OUTPUT

To report a forecast summary of the memory needed by the office's administration module (AM), communications module processor (CMP), and switching modules (SMs) to retrofit to the specified release. Any errors encountered are reported with Format 2. The report is also output to /rclog/memsize.rep file.

3. VARIABLE FIELD DEFINITIONS

a = Base and control for the office.

b = Current software release.

c = Retrofit software release.

d = Processor number.

e = Type of processor being associated with variable 'd'. For SMs, the types are, local switching module (LSM), remote switching module (RSM), host switching module (HSM). Other types to be

sized are the AM, CMP and disk facilities.

f = Retrofit configuration. For SMs, the configuration represents the configuration after retrofit. The configuration for SMs can be BSM (BASIC), SSM (STANDARD), LSM (LOADED), or 2KSM (SM-2000). For the AM, CMP and disk facilities, the retrofit configuration is always the same as the type.

g = SABM equipped. This indicates whether or not the processor is equipped with the standalone billing memory feature (Yes or No).

h = RTBM equipped. This indicates whether or not the processor is equipped with the realtime billing memory feature (Yes or No).

i = Meg memory equipped. This indicates the amount of memory (in megabytes) that the processor is equipped with.

j = Kilo ODD needed. This indicates the amount of memory (in kilobytes) that the processor needs for the office-dependent data (ODD) after retrofit. This number is the sum of RODD and UODD for SM. It is the sum of SODD and UODD for AM and CMP. For disks, this quantity is the total amount of space needed by the partition that backs up all the NRODDs from SMs.

k = Meg total (minimum). This indicates the minimum amount of memory (in megabytes) that the processor needs for the retrofit.

l = This indicates the percent of free space used in computing the meg ODD needed (variable 'j').

m = Memory needed. This indicates if the processor needs additional memory to successfully retrofit (Yes, No, or PCR). PCR means the SM needs new processor. Otherwise, additional memory needed is the difference of variables 'k' and 'i'.

n = Amount of memory in megabytes on the processor core board of processor 'd'.

o = Number of TN56 memory boards on processor 'd'.

p = Number of TN2012 memory boards on processor 'd'.

q = Number of TN1374 memory boards on processor 'd'.

r = Number of TN1376 memory boards on processor 'd'.

s = Number of TN1661 memory boards on processor 'd'.

t = Number of TN1685 memory boards on processor 'd'.

u = Number of TN1806 memory boards on processor 'd'.

v = Total memory in megabytes on processor 'd'. An asterisk (*) in this field indicates that the equipage on the two sides is different and the smaller number is reported.

w = Job status. Valid value(s):

ABORTED = Requested action was terminated before completion and the termination was immediate. Reasons are given in variable 'w'.

STOPPED = Requested action was stopped as requested using the STP:MEMSIZE input message.

`x` = Error/Warning message. Valid value(s):

`ERROR DURING SIZING` = Rerun command and observe output. If problem persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`ERROR IN ACCESSING I/O FILES` = Rerun command and observe output. If problem persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`ERROR IN ACCESSING THE MODATT RELATION` = Rerun command and observe output. If problem persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`ERROR IN ACCESSING THE SMCONF RELATION` = Rerun command and observe output. If problem persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`ERROR IN COMMUNICATION BETWEEN PROCESSORS` = Rerun command and observe output. If problem persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`ERROR IN COMMUNICATION BETWEEN UNIX AND OKP` = Rerun command and observe output. If problem persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`ERROR IN TRANSFERRING DELTA INFORMATION` = Rerun command and observe output. If problem persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`INVALID TORELEASE PARAMETER OR MISSING INPUT FILES` = Either the TORELEASE parameter was incorrectly input or the data files needed to run the tool are missing.

`NO ACTIVE SMS WERE FOUND` = Cannot run the tool as no active SM was found.

`ONE OR MORE PROCESSORS ARE IN ISOLATION` = Cannot run the tool until all SMs are out of isolation.

`WARNING - PROCS NEAR 52 MB MAX SEE /rclog/memsize.rep` = Processor number x is at or near 52 megabytes maximum. Please examine the output /rclog/memsize.rep and examine the "%FREE" column of the report output to determine if the values are acceptable to the office.

`WARNING - PCR - MEANS NEED NEW PROCESSOR` = Processor number x has exceeded its maximum 52 megabytes capacity. The only option is to replace with a new SM processor.

`y` = Current page number.

`z` = Total number of output pages.

4. ACTIONS TO BE TAKEN

For Format 1, none. This information is output in response to a user-specified request.

For Format 2, rerun the command and observe the output. If the problem persist, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:MEMSIZE
```

Other Manual(s):

235-070-100	*Administration and Engineering Guidelines*
235-105-24x	*Software Release Retrofit Procedures*
235-118-251	*Recent Change Procedures*
235-118-25x	*Recent Change Reference*
235-600-400	*Audits*

OP:MGDSC

Software Release: 5E10 and later
Message Class: IOC
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP MGDSC   {AM|CMP=a|SM=b}    PAGE c of d
        MSG CLASS   BREVITY DISCARD   THROTTLE DISCARD
          e                  f                   g
       [  :                  :                   :  ]
       [  :                  :                   :  ]

[2]   ____________________________________________________________________
      OP MGDSC   {AM|CMP=a|SM=b}    PAGE 1 of 1
        NO OUTPUT MESSAGES HAVE BEEN DISCARDED
```

2. REASON FOR OUTPUT

To respond to an OP:MGDSC input message.

If the request is for a specific message class, Format 1 is printed.

If the request is for all message classes, Format 1 is printed with a list of message classes that has non-zero value in the brevity control message discard (MGDSC) count or the throttle message discard count. However, if no messages have been discarded, Format 2 is printed.

The brevity control message discard count contains total number of messages being discarded due to brevity control for the specified processor, administrative module (AM) operational kernel process, communication module processor (CMP), or a switching module (SM). The message throttling discard count contains total number of messages being discarded due to queue overflow for the specified processor, AM, CMP, or an SM. These counts were accumulated since 23:58:00, two minutes before midnight, or the time the last CLR:MGDSC input message was entered.

3. VARIABLE FIELD DEFINITIONS

`a` = CMP number.

`b` = SM number.

`c` = Current page number in this report.

`d` = Total number of pages in this report.

`e` = Message class name.

`f` = Total number of output messages being discarded due to brevity control.

`g` = Total number of output messages discarded due to message queue overflow.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:MGDSC
CLR:MGDSC
```

OP:MHD

Software Release: 5E10 and later
Message Class: DSKSYS
Application: 5
Type: Output

1. FORMAT

```
OP MHD CONFIGURATION
  MDCT                DEVICES
  a           MHD b [*]        [[MHD c] *]
  .
  .
  .

  d
  .
  .
  .
```

2. REASON FOR OUTPUT

To report on the system's disk configuration. This message is a response to the OP:MHD-CFG input message.

3. VARIABLE FIELD DEFINITIONS

`a` = A normal minor device configuration table (MDCT) form name.

`b` = A moving head disk (MHD) that is related to the specified MDCT.

`c` = A MHD that is also related to the specified MDCT.

`d` = One or more lines of text. Valid value(s):

`AUTO MHD CONFIGURATION IS INHIBITED ON MHD(s) e ...` = The specified moving head disks (MHDs) have been blocked from automatic MHD configuration by manual input message. The MHD(s) are specified by the e variable(s).

`AUTO MHD CONFIGURATION IS INHIBITED` = Automatic MHD configuration for this office is inhibited office wide.

`AUTO MHD CONFIGURATION IS NOT PERMITTED` = The default state of automatic MHD configuration for this office is off.

`* INDICATES RECONFIGURED MHD` = MHDs with an asterisk ('`*`') are not associated with their normal MDCT form.

`WARNING SYSTEM NOT BOOTABLE` = If the system takes a level 52 or higher recovery, it will likely not recover.

4. ACTION TO BE TAKEN

If '`d`' =	Action:
`* INDICATES RECONFIGURED MHD`	If any non-spare MHDs are defective, repair or replace defective MHD(s). Restore MHDs to standard configuration when all the replaced MHDs have been repaired.
`AUTO MHD CONFIGURATION IS INHIBITED`	Verify that this is inhibited for a valid reason (for example, some procedure requires it to be inhibited). If not, allow it with the

	ALW:AUTOCFG input message.
`AUTO MHD CONFIGURATION IS INHIBITED ON MHD(s) e ...`	Verify that this is inhibited for a valid reason (for example, some procedure requires it to be inhibited). If not, allow it with the ALW:AUTOCFG input message.
`AUTO MHD CONFIGURATION IS NOT PERMITTED`	None.
`WARNING SYSTEM NOT BOOTABLE`	If either MHD0 or MHD1 is non-defective, use SW:MHD input message to configure one of them as a system primary disk. If both MHD0 and MHD1 are defective, repair or replace one of them immediately.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:AUTOCFG
INH:AUTOCFG
OP:MHD-CFG
SW:MHD
```

Output Message(s):

```
REPT:MHD-CONFIG
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-105-210 *Routine Operations and Maintenance*
235-600-31x *ECD/SG Data Base*

OP:MHD-INFO-A

Software Release: 5E10 - 5E12
Message Class: DSKUTL
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP MHD a INFO NOT STARTED b c

[2]   ____________________________________________________________________
      OP MHD a INFO STOPPED b c

[3]   ____________________________________________________________________
      OP MHD a INFO ERROR b c

[4]   ____________________________________________________________________
      OP MHD a INFO ABORTED b

[5]   ____________________________________________________________________
      OP MHD a INFO
        CONTROLLER:  DFC d     STATUS: m
        FIRMWARE VERSION: e
        PUMPCODE VERSION: e
        UNIT    DID PORT STATUS TRCKS  VTOC   USABLE RSVD ESNTL  MATE
        ------  --- ---- ------ ----- ------- ------ ---- ----- ------
        MHD j    k   l     m       n    o       p      q    r     s
        .
        .
        .
               **** EQUIPAGE SIZE ****   SIZES
        UNIT     DRIVE    UCB    VTOC   COMPATIBLE
        -----  --------- ------ ------- ----------
        MHD j      t       u      v         w
        .
        .
        .
                     PRODUCT       REV
        UNIT      IDENTIFICATION  LEVEL    SERIAL NUMBER
        ------   ---------------- ----- -------------------
        MHD j          x            b[1]           a [1]
        .
        .
        .

[6]   ____________________________________________________________________
      OP MHD a INFO
        CONTROLLER:  DFC d     STATUS: m
        FIRMWARE VERSION: e
        PUMPCODE VERSION: e
        SBUS y     SCSI HA BUS z       STATUS: m

        UNIT       DEVICE TYPE     DID STATUS  VTOC   USABLE RSVD ESNTL  MATE
```

```
------  ------------------ --- ------ ------- ------ ---- ----- ------
MHD j           c1          k    m       o      p     q     r     s
.
.
.
       **** EQUIPAGE SIZE ****   SIZES
UNIT    DRIVE    UCB    VTOC   COMPATIBLE
------ ------- ------- ------- ----------
MHD j    t        u      v         w
.
.
.
             PRODUCT       REV
UNIT      IDENTIFICATION  LEVEL    SERIAL NUMBER
------   ---------------- ----- -------------------
MHD j          x            b1           a  1
.
.
.
```

2. REASON FOR OUTPUT

To report the result of executing an OP:MHD-INFO input message.

Format 5 outputs data for a storage module drive (SMD) moving head disk (MHD).

Format 6 outputs data for a small computer system interface (SCSI) MHD.

3. VARIABLE FIELD DEFINITIONS

a = MHD member number.

b = Process step or reason code. Valid value(s):

- f01 = Failed to enable message reception.
- f03 = Failed to open equipment configuration database (ECD).
- f06 = Failed to get unit control block (UCB) by name.
- f08 = Failed to get top UCB.
- f0a = Top UCB is not a disk file controller (DFC).
- f0c = Unknown DFC type.
- f0e = Failed to get UCB of SCSI bus (SBUS).
- f11 = Failed to assign special device file (SDF) name for DFC.
- f14 = Failed to open SDF for DFC.
- f17 = Refer to the disk driver (DKDRV) report on the receive-only printer (ROP).
- f1a = Failed to close special device file.
- f1c = Failed to release special device file.
- f1f = Failed to unreserve DFC UCB.
- f23 = Failed to get next UCB.
- f26 = Failed to assign SDF name for MHD.
- f29 = Failed to open SDF for MHD.
- f2c = Failed to set input/output (I/O) mode of device file.
- f2f = Device size not recognized.
- f33 = Refer to the DKDRV report on the ROP.
- f36 = Failed to close SDF.

`f37` = Failed to release SDF.
`f38` = Failed to unreserve UCB.
`f3e` = Message to port failure.
`f43` = Message reception failure.
`f46` = Process timed out.
`f49` = Failed to close special device file.
`f4c` = Failed to release special device file.
`f4f` = Failed to unreserve UCB.
`f53` = Failed to close ECD.
`f56` = Terminated externally with signal.

`c` = System error code number. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

`d` = Member number of controller.

`e` = DFC firmware/pumpcode version in the form:

`f.g.h-i`

Valid value(s):
`NAP` = The pumpcode version is not applicable for SMD DFCs.
`NAV` = The firmware or pumpcode versions are not available or cannot be determined.

`f` = Version of DFC FIRMWARE/PUMPCODE.

`g` = Issue of DFC FIRMWARE/PUMPCODE.

`h` = Point issue of DFC FIRMWARE/PUMPCODE.

`i` = Laboratory design issue (LDI) of DFC FIRMWARE/PUMPCODE.

`j` = Unit number.

`k` = Device ID (drive ID plug number).

`l` = Physical port number (where the SMD disk is connected to the DFC). Valid value(s):
`NAV` = The DFC is not available, is reserved, or the SMD DFC FIRMWARE/PUMPCODE version is earlier than 3.2.0.

`m` = Major status of unit.

`n` = Number of tracks (in decimal) on the disk drive. Valid value(s):
`NAV` = DFC was unavailable or reserved.

`o` = Validity of the volume table of contents (VTOC). Valid value(s):
`INVALID` = Could not find a valid VTOC entry.
`NAV` = Could not reserve unit; VTOC not read.
`UNRDBLE` = Read error while trying to read the VTOC.
`VALID` = VTOC has a valid entry for the VTOC.

p = Usability. Valid value(s):
- NO = Disk data integrity is unknown.
- YES = The disk is usable.

q = Unit reserved. Valid value(s):
- NO = The unit is not reserved.
- YES = The unit is reserved for maintenance activity.

r = Hexadecimal value of the essential field of the unit's unit control block (UCB).

s = Unit name and member number of duplex mate or SMPLX (unit has no mate).

t = Equipage size based on the physical drive. For SCSI disks, the physical drive size is determined by reading the capacity of the disk from the disk drive itself. For SMD disks, the physical drive size is determined by reading the equipage value in the UCB record. Valid value(s):
- 160MB = SMD disk drive.
- 300MB = SMD disk drive.
- 322MB = SCSI disk drive.
- 340MB = SMD disk drive.
- 600MB = SCSI disk drive.
- 1000MB = SCSI disk drive.
- NAV = DFC is not active, the unit is reserved, or the SCSI device is inaccessible.

u = Equipage size based on the UCB equipage value. The drive size is determined by reading the equipage value in the UCB record for the unit. Valid value(s):
- 160MB = SMD disk drive)
- 300MB = SMD disk drive.
- 322MB = SCSI disk drive.
- 340MB = SMD disk drive.
- 600MB = SCSI disk drive.
- 1000MB = SCSI disk drive.
- NAV = DFC is not active, or the unit is reserved.

v = Equipage size based on the VTOC. The drive size is derived from the maximum capacity of the unit's VTOC. Valid value(s):
- 160MB = SMD disk drive.
- 300MB = SMD disk drive.
- 322MB = SCSI disk drive.
- 340MB = SMD disk drive.
- 600MB = SCSI disk drive.
- 1000MB = SCSI disk drive.
- NAV = DFC is not active, the unit is reserved, or the unit is inaccessible.

w = Sizes compatible. Valid value(s):
- NAV = At least one of the equipage sizes is not available.
- NO = DRIVE, UCB, and VTOC equipage sizes are not compatible.
- YES = DRIVE, UCB, and VTOC equipage sizes are compatible.

Equipage sizes are not compatible if the drive size is not equal to the UCB equipage size or if the drive size is smaller than the VTOC size.

Size comparisons are based on the formatted capacity of a disk drive. The formatted capacity of the *UNIX*® RTR-supported disk drives are as follows:

Drive	Formatted Capacity
160MB	133MB
300MB	253MB
322MB	322MB
340MB	277MB
600MB	604MB
1000MB	1000MB

`x` = Alphanumeric data representing the product identification of a SCSI device. Valid value(s):
- `NAV` = The DFC or the SBUS is not active, or the unit is reserved, or the SCSI device is inaccessible.

`y` = Logical unit number of the SCSI bus that is stored in the SBUS's UCB.

`z` = SCSI host adapter (HA) bus identification number (0 or 1).

`a`[1] = Alphanumeric data representing the serial number of a SCSI device. Valid value(s):
- `NAP` = Not applicable for this device.
- `NAV` = The DFE or the SBUS is not active, or the unit is reserved, or the SCSI device is inaccessible.

`b`[1] = Alphanumeric data representing the revision level of the firmware in a SCSI device. Valid value(s):
- `NAV` = The DFC or the SBUS is not active, or the unit is reserved, or the SCSI device is inaccessible.

`c`[1] = Device type.

4. ACTION TO BE TAKEN

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available, or became unavailable to perform the requested task. Clear the problem causing the resource limitation and try the request again.

A termination report specifying completion indicates all directives of the input request were done and no failures were encountered.

For Formats 5 and 6, if the drive equipage sizes are not compatible, verify the correctness of the UCB equipage value. If there is still an inconsistency, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. This alarm is a manually-requested report. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1 - 4	153
5	151
6	572

Input Message(s):

```
OP:DFC-INFO
OP:MHD-INFO
```

Output Message(s):

```
OP:DFC-INFO
UPD:OMDB
```

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

OP:MHD-INFO-B

Software Release: 5E13 and later
Message Class: DSKUTL
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP MHD a INFO NOT STARTED b c

[2]   ____________________________________________________________________
      OP MHD a INFO STOPPED b c

[3]   ____________________________________________________________________
      OP MHD a INFO ERROR b c

[4]   ____________________________________________________________________
      OP MHD a INFO ABORTED b

[5]   ____________________________________________________________________
      OP MHD a INFO
        CONTROLLER:  DFC d     STATUS: m
        FIRMWARE VERSION: e
        PUMPCODE VERSION: e
        UNIT    DID PORT STATUS TRCKS  VTOC   USABLE RSVD ESNTL  MATE
        ------  --- ---- ------ ----- ------- ------ ---- ----- ------
        MHD j    k   l     m       n    o       p      q    r     s
        .
        .
        .
               **** EQUIPAGE SIZE ****   SIZES
        UNIT     DRIVE    UCB    VTOC   COMPATIBLE
        -----  --------- ------ ------- ----------
        MHD j      t       u      v         w
        .
        .
        .
                     PRODUCT       REV
        UNIT      IDENTIFICATION  LEVEL    SERIAL NUMBER
        ------   ---------------- ----- -------------------
        MHD j          x            b[1]           a [1]
        .
        .
        .

[6]   ____________________________________________________________________
      OP MHD a INFO
        CONTROLLER:  DFC d     STATUS: m
        FIRMWARE VERSION: e
        PUMPCODE VERSION: e
        SBUS y     SCSI HA BUS z       STATUS: m

        UNIT       DEVICE TYPE     DID STATUS  VTOC   USABLE RSVD ESNTL  MATE
```

```
------  ------------------ --- ------ ------- ------ ---- ----- ------
MHD j           c1          k    m       o      p     q     r     s
.
.
.
       **** EQUIPAGE SIZE ****   SIZES
UNIT    DRIVE    UCB    VTOC   COMPATIBLE
------ ------- ------- ------- ----------
MHD j    t        u      v         w
.
.
.
             PRODUCT       REV
UNIT      IDENTIFICATION  LEVEL    SERIAL NUMBER
------   ---------------- ----- -------------------
MHD j          x            b1           a  1
.
.
.
```

2. REASON FOR OUTPUT

To report the result of executing an OP:MHD-INFO input message.

Format 5 outputs data for a storage module drive (SMD) moving head disk (MHD).

Format 6 outputs data for a small computer system interface (SCSI) MHD.

3. VARIABLE FIELD DEFINITIONS

a = MHD member number.

b = Process step or reason code. Valid value(s):

- f01 = Failed to enable message reception.
- f03 = Failed to open equipment configuration database (ECD).
- f06 = Failed to get unit control block (UCB) by name.
- f08 = Failed to get top UCB.
- f0a = Top UCB is not a disk file controller (DFC).
- f0c = Unknown DFC type.
- f0e = Failed to get UCB of SCSI bus (SBUS).
- f11 = Failed to assign special device file (SDF) name for DFC.
- f14 = Failed to open SDF for DFC.
- f17 = Refer to the disk driver (DKDRV) report on the receive-only printer (ROP).
- f1a = Failed to close special device file.
- f1c = Failed to release special device file.
- f1f = Failed to unreserve DFC UCB.
- f23 = Failed to get next UCB.
- f26 = Failed to assign SDF name for MHD.
- f29 = Failed to open SDF for MHD.
- f2c = Failed to set input/output (I/O) mode of device file.
- f2f = Device size not recognized.
- f33 = Refer to the DKDRV report on the ROP.
- f36 = Failed to close SDF.

`f37` = Failed to release SDF.
`f38` = Failed to unreserve UCB.
`f3e` = Message to port failure.
`f43` = Message reception failure.
`f46` = Process timed out.
`f49` = Failed to close special device file.
`f4c` = Failed to release special device file.
`f4f` = Failed to unreserve UCB.
`f53` = Failed to close ECD.
`f56` = Terminated externally with signal.

`c` = System error code number. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

`d` = Member number of controller.

`e` = DFC firmware/pumpcode version in the form:

`f.g.h-i`

Valid value(s):
`NAP` = The pumpcode version is not applicable for SMD DFCs.
`NAV` = The firmware or pumpcode versions are not available or cannot be determined.

`f` = Version of DFC FIRMWARE/PUMPCODE.

`g` = Issue of DFC FIRMWARE/PUMPCODE.

`h` = Point issue of DFC FIRMWARE/PUMPCODE.

`i` = Laboratory design issue (LDI) of DFC FIRMWARE/PUMPCODE.

`j` = Unit number.

`k` = Device ID (drive ID plug number).

`l` = Physical port number (where the SMD disk is connected to the DFC). Valid value(s):
`NAV` = The DFC is not available, is reserved, or the SMD DFC FIRMWARE/PUMPCODE version is earlier than 3.2.0.

`m` = Major status of unit.

`n` = Number of tracks (in decimal) on the disk drive. Valid value(s):
`NAV` = DFC was unavailable or reserved.

`o` = Validity of the volume table of contents (VTOC). Valid value(s):
`INVALID` = Could not find a valid VTOC entry.
`NAV` = Could not reserve unit; VTOC not read.
`UNRDBLE` = Read error while trying to read the VTOC.
`VALID` = VTOC has a valid entry for the VTOC.

p = Usability. Valid value(s):
- NO = Disk data integrity is unknown.
- YES = The disk is usable.

q = Unit reserved. Valid value(s):
- NO = The unit is not reserved.
- YES = The unit is reserved for maintenance activity.

r = Hexadecimal value of the essential field of the unit's unit control block (UCB).

s = Unit name and member number of duplex mate or SMPLX (unit has no mate).

t = Equipage size based on the physical drive. For SCSI disks, the physical drive size is determined by reading the capacity of the disk from the disk drive itself. For SMD disks, the physical drive size is determined by reading the equipage value in the UCB record. Valid value(s):
- 160MB = SMD disk drive.
- 300MB = SMD disk drive.
- 322MB = SCSI disk drive.
- 340MB = SMD disk drive.
- 600MB = SCSI disk drive.
- 1000MB = SCSI disk drive.
- 2000MB = SCSI disk drive.
- NAV = DFC is not active, the unit is reserved, or the SCSI device is inaccessible.

u = Equipage size based on the UCB equipage value. The drive size is determined by reading the equipage value in the UCB record for the unit. Valid value(s):
- 160MB = SMD disk drive)
- 300MB = SMD disk drive.
- 322MB = SCSI disk drive.
- 340MB = SMD disk drive.
- 600MB = SCSI disk drive.
- 1000MB = SCSI disk drive.
- 2000MB = SCSI disk drive.
- NAV = DFC is not active, or the unit is reserved.

v = Equipage size based on the VTOC. The drive size is derived from the maximum capacity of the unit's VTOC. Valid value(s):
- 160MB = SMD disk drive.
- 300MB = SMD disk drive.
- 322MB = SCSI disk drive.
- 340MB = SMD disk drive.
- 600MB = SCSI disk drive.
- 1000MB = SCSI disk drive.
- 2000MB = SCSI disk drive.
- NAV = DFC is not active, the unit is reserved, or the unit is inaccessible.

w = Sizes compatible. Valid value(s):
- NAV = At least one of the equipage sizes is not available.
- NO = DRIVE, UCB, and VTOC equipage sizes are not compatible.

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YES = DRIVE, UCB, and VTOC equipage sizes are compatible.

Equipage sizes are not compatible if the drive size is not equal to the UCB equipage size or if the drive size is smaller than the VTOC size.

Size comparisons are based on the formatted capacity of a disk drive. The formatted capacity of the *UNIX*® RTR-supported disk drives are as follows:

Drive	Formatted Capacity
160MB	133MB
300MB	253MB
322MB	322MB
340MB	277MB
600MB	604MB
1000MB	1000MB
2000MB	2000MB

x = Alphanumeric data representing the product identification of a SCSI device. Valid value(s):
NAV = The DFC or the SBUS is not active, or the unit is reserved, or the SCSI device is inaccessible.

y = Logical unit number of the SCSI bus that is stored in the SBUS's UCB.

z = SCSI host adapter (HA) bus identification number (0 or 1).

a[1] = Alphanumeric data representing the serial number of a SCSI device. Valid value(s):
NAP = Not applicable for this device.
NAV = The DFE or the SBUS is not active, or the unit is reserved, or the SCSI device is inaccessible.

b[1] = Alphanumeric data representing the revision level of the firmware in a SCSI device. Valid value(s):
NAV = The DFC or the SBUS is not active, or the unit is reserved, or the SCSI device is inaccessible.

c[1] = Device type.

4. ACTION TO BE TAKEN

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available, or became unavailable to perform the requested task. Clear the problem causing the resource limitation and try the request again.

A termination report specifying completion indicates all directives of the input request were done and no failures were encountered.

For Formats 5 and 6, if the drive equipage sizes are not compatible, verify the correctness of the UCB equipage value. If there is still an inconsistency, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. This alarm is a manually-requested report. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1 - 4	153
5	151
6	572

Input Message(s):

```
OP:DFC-INFO
OP:MHD-INFO
```

Output Message(s):

```
OP:DFC-INFO
UPD:OMDB
```

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

OP:MON-CTL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

[1]
```
OP MON CTL AM OShisarray = d
     ACT e         IDX f         FLG f         DDT f
     AD1 g         AD2 g         AD3 g         AD4 g
     AD5 g         AD6 g         PRG i         PRI j
     PTM h         PGS k         PST h         PDA h
     PDM h         CTL l         FFG h         SP1 m
     SP2 m         SP3 m         SP4 m         SP5 m
     SP6 m         SP7 m         SP8 m         SP9 m
     SPa m         SPb m         SPc m         SPd m
     UET h         OET h         BGF n         SVF h
     SVW h         SVD o         SVT p         SVS q
     SVA h         SVP h         SVY h         SVB h
     SA1 h         SA2 h         SA3 h         SA4 h
     SA5 h         SA6 h         SET h         SSA h
     SSP h         SSY h         SSB h         SS1 h
     SS2 h         SS3 h         SS4 h         SS5 h
     SS6 h         MET h         SMA h         SMP h
     SMY h         SMB h         BCL h         ECL h
```

[2]
```
OP MON CTL {CMP=b-c} SIhistory = d
     ACT e         IDX f         FLG f         DDT f
     AD1 g         AD2 g         AD3 g         AD4 g
     AD5 g         AD6 g         LA1 h         LA2 h
     LA3 h         PRG i         PRI j         PTM h
     PRT r         PDA h         PDM h         FRA h
     CTL l         FFG h         SP1 m         SP2 m
     SP3 m         SP4 m         SP5 m         SP6 m
     SP7 m         SP8 m         SP9 m         SPa m
     SPb m         SPc m         SPd m         EVN s
     FGC h         BGF n         SVA h         SVP h
     SVY h         SVB h         FGS m         SGS m
     SVF h         SVW h         SVD o         SVT p
     SGL t         SA1 h         SA2 h         SA3 h
     SA4 h         SA5 h         SA6 h         SL1 h
     SL2 h         SL3 h         BCL h         ECL h
```

[3]
```
OP MON CTL {SM=a} SIhistory = d
     ACT e         IDX f         FLG f         DDT f
     AD1 g         AD2 g         AD3 g         AD4 g
     AD5 g         AD6 g         LA1 h         LA2 h
     LA3 h         PRG i         PRI j         PTM h
     PRT r         PDA h         PDM h         FRA h
     CTL l         FFG h         SP1 m         SP2 m
```

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```
SP3 m        SP4 m        SP5 m        SP6 m
SP7 m        SP8 m        SP9 m        SPa m
SPb m        SPc m        SPd m        PIC h
FGC h        BGF n        SVA h        SVP h
SVY h        SVB h        FGS m        SGS m
SVF h        SVW h        SVD o        SVT p
SGL t        SA1 h        SA2 h        SA3 h
SA4 h        SA5 h        SA6 h        SL1 h
SL2 h        SL3 h        BCL h        ECL h
```

2. REASON FOR OUTPUT

To respond to an OP:MON-CTL input message. Format 1 is for a response for an administrative module (AM) request. Format 2 is for a response for a switching module (SM) or a communications module processor (CMP) request.

3. VARIABLE FIELD DEFINITIONS

ACT = Monitor activation control.

AD1 = First address of memory to store in monitor buffer.

AD2 = Second address of memory to store in monitor buffer.

AD3 = Third address of memory to store in monitor buffer.

AD4 = Fourth address of memory to store in monitor buffer.

AD5 = Fifth address of memory to store in monitor buffer.

AD6 = Sixth address of memory to store in monitor buffer.

AM = Administrative module.

BCL = Start clock in milliseconds for peg and time accumulation.

BGF = Flag indicating background loading of the dispatch array.

CTL = Monitor special execution control word.

DDT = Bit flags that specify data to be stored in the monitor buffer.

ECL = Stop clock in milliseconds for peg and time accumulation.

EVN = Foreground exception vector number.

FFG = Monitor special function execution control bits (0-15) and special monitor action bits (16-31).

FGC = Clock at beginning of foreground in 125 microsecond units.

FGS = Unused.

FRA = Previous function return address.

FLG = Bit flags that specify monitor actions to perform.

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IDX = Byte index into the dispatch array of the monitor buffer.

LA1 = Process control block link area (PCBLA) first offset of data to be dumped on per event snap shot (SM only).

LA2 = PCBLA second offset of data to be dumped on per event snap shot (SM only).

LA3 = PCBLA third offset of data to be dumped on per event snap shot (SM only).

OET = Real time clock at entry to OKP.

OShisarray = AM monitor buffer variable.

PDA = Data value for match/mismatch function or start time for automatic start/stop feature.

PDM = Mask value for match/mismatch function.

PGS = Switch maintenance kernel process (SMKP) program ID or special code for monitor actions involving process dispatch.

PIC = Foreground PIC interrupt data value.

PRG = Program ID of process or special code for monitor actions involving process dispatch.
Note: For the AM this field applies to the operational kernel process OKP) only.

PRI = Operating system for distributed switching (OSDS) priority level for per event data snap shots.

PRT = Port number for snap shot filtering.

PST = Time in milliseconds filter for filter for per event shot or consecutive segment check filter, or time interval for timed data dump (SMKP).

PTM = Time in milliseconds for filter for per event data snap shot or consecutive segment check filter, or time interval for timed data dump (OKP).

Time in number of 125 microsecond intervals for filter for per event data snaps or consecutive segment check filter, or time interval for timed data dump (SM CMP).

SA1 = Save dumped data from address AD1.

SA2 = Save dumped data from address AD2.

SA3 = Save dumped data from address AD3.

SA4 = Save dumped data from address AD4.

SA5 = Save dumped data from address AD5.

SA6 = Save dumped data from address AD6.

SET = Real time clock at entry to SMKP.

SGL = Save process segment length.

SGS = Unused.

`SIhistory` = SM and CMP monitor buffer variable.

`SL1` = Save dumped data from LA1 (SM only).

`SL2` = Save dumped data from LA2 (SM only).

`SL3` = Save dumped data from LA3 (SM only).

`SMA` = Save next segment address for MSKP (similar to SVA).

`SMB` = Save real time clock at beginning of job for MSKP.

`SMP` = Save program ID and PCB index for MSKP.

`SMT` = Real time clock at entry to MSKP.

`SMY` = Save process priority, event type and segment time for MSKP.

`SP1` = Spare control word 1.

`SP2` = Spare control word 2.

`SP3` = Spare control word 3.

`SP4` = Spare control word 4.

`SP5` = Spare control word 5.

`SP6` = Spare control word 6.

`SP7` = Spare control word 7.

`SP8` = Spare control word 8.

`SP9` = Spare control word 9.

`SPa` = Spare control word a.

`SPb` = Spare control word b.

`SPc` = Spare control word c.

`SPd` = Spare control word d.

`SSA` = Save next segment address for SMKP (similar to SVA).

`SSB` = Save real time clock at beginning of job for SMKP.

`SSP` = Save program ID and PCB index for SMKP.

`SSY` = Save process priority, event type and segment time for SMKP.

`SS1` = Save dumped data from address AD1 for SMKP.

`SS2` = Save dumped data from address AD2 for SMKP.

`SS3` = Save dumped data from address AD3 for SMKP.

SS4 = Save dumped data from address AD4 for SMKP.

SS5 = Save dumped data from address AD5 for SMKP.

SS6 = Save dumped data from address AD6 for SMKP.

SVA = Save next segment address.

SVB = Save real time clock at beginning of job.

SVD = Day that the monitor started.

SVP = Save program ID and PCB index.

SVF = Location to save FFG word while waiting for the monitor to start.

SVS = Process segment length.

SVT = Time of data that the monitor started.

SVW = Location to save CTL word while waiting for the monitor to start.

SVY = Save process priority, event type and segment time.

UET = Real time clock at entry to *UNIX*®-RTR.

a = Switching module (SM) number.

b = Message switch side (0 or 1).

c = Communications module processor (CMP) number (0-11).

d = Address of the monitor buffer in the AM, SM or CMP.

e = Status of monitor. Valid value(s):
0 = OFF.
Non-zero number = ON.

f = 0 through H'FFFFFFFF.

g = Hexadecimal address (0-FFFFFFFF). 0 specifies end of address dumps.

h = Any hexadecimal value (0 through H'FFFFFFFF).

i = Value of PRG.

j = 0 through 7.

k = Value of PGS.

l = 0 means no functions to execute.

A non-zero value means execute functions specified by FFG data.

m = Unused.

`n` = Loading status of the array. Valid value(s):
`0` = Not loading the array.
`H'FFFFFFFF` = Loading the array.

`o` = Number of days since Jan 1, 1970.

`p` = Number of milliseconds since midnight.

`q` = Time in milliseconds.

`r` = Any hexadecimal value of port from relation FC_PORTYP.

`s` = Any hexadecimal value (0 through H'FF).

`t` = Time in 125 microsecond units.

4. ACTION TO BE TAKEN

Collect and send appropriate data as specified by technical support personnel.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:MON
INH:MON
OP:MON-CTL
OP:MON-DSP
OP:MON-PID
SET:MON-DATA
SET:MON-FCN
SET:MON-SPEC
SET:MON-WTD
```

Output Message(s):

```
ALW:MON
INH:MON
OP:MON-DSP
OP:MON-PID
REPT:SIMON-FILE
SET:MON
```

OP:MON-DSP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP MON DSP {AM|SM=a|CMP=b-c}{FIRST|NEXT|LAST} RECORD
        d:         e         e          e        e
        .          .         .          .        .
        .          .         .          .        .
        .          .         .          .        .

[2]   ____________________________________________________________________
      OP MON DSP {AM|SM=a|CMP=b-c}{IN PROGRESS|COMPLETED}
```

2. REASON FOR OUTPUT

To respond to a OP:MON-DSP input message. Format 1 responds to messages destined for the receive-only printer (ROP). Format 2 responds to messages destined for a file.

3. VARIABLE FIELD DEFINITIONS

`AM` = Administrative module.

`a` = Switching module (SM) number.

`b` = Message switch side (0-1).

`c` = Communications module processor (CMP) number (0 to 11).

`d` = Relative byte address in the monitor buffer.

`e` = Contents of memory from operating system for distributed switching (OSDS) monitor buffer in hexadecimal.

4. ACTION TO BE TAKEN

Collect and send appropriate data as specified by technical support personnel.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:MON
INH:MON
OP:MON-CTL
OP:MON-DSP
```

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```
OP:MON-PID
SET:MON-DATA
SET:MON-FCN
SET:MON-SPEC
SET:MON-WTD
```

Output Message(s):

```
ALW:MON
INH:MON
OP:MON-CTL
OP:MON-PID
REPT:SIMON-FILE
SET:MON
```

OP:MON-PID

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP MON PID {AM|SM=a|CMP=b-c}
        PID:  d
        PEG:  e  f
        TIME: g  h

[2]   ____________________________________________________________________
      OP MON PID {AM|SM=a|CMP=b-c}{FIRST|NEXT|LAST} RECORD
        i:       j         k         j         k
        .        .         .         .         .
        .        .         .         .         .
        .        .         .         .         .

[3]   ____________________________________________________________________
      OP MON PID {AM|SM=a|CMP=b-c}{IN PROGRESS|COMPLETED}
```

2. REASON FOR OUTPUT

To respond to a OP:MON-PID input message. Formats 1 and 3 are responses to single program ID requests. Formats 2 and 3 are responses to all program ID requests.

3. VARIABLE FIELD DEFINITIONS

`AM` = Administrative module.

`a` = Switching module (SM).

`b` = Message switch side (0-1).

`c` = Communications module processor (CMP) number (0 to 11).

`d` = Program ID (PID).

`e` = Number of dispatches (PEG) of processes associated with the specified program ID.

`f` = Hexadecimal value of '`e`'.

`g` = Total time in milliseconds for the '`e`' dispatches of the program ID specified by '`d`'.

`h` = Hexadecimal value of '`g`'.

`i` = Relative address in the monitor buffer where the data for program IDs were stored. The number of output blocks depends on the maximum number of program IDs defined for the processor.

`j` = Number of process dispatches for the program ID.

`k` = Accumulated real time in milliseconds by the program ID.

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4. ACTION TO BE TAKEN

Collect and send appropriate data as specified by technical support personnel.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:MON
INH:MON
OP:MON-CTL
OP:MON-DSP
OP:MON-PID
SET:MON-DATA
SET:MON-FCN
SET:MON-SPEC
SET:MON-WTD
```

Output Message(s):

```
ALW:MON
INH:MON
OP:MON-CTL
OP:MON-DSP
REPT:SIMON-FILE
SET:MON
```

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OP:MON-PID-AM

Software Release: 5E10 and later
Message Class:
Application: 5
Type: Output

1. FORMAT

[1]

```
OP MON PID AM FIRST RECORD
   PCHUF  a    ACHUF  a    ICHUF  a    ICHOX  a
   PCHOX  a    ACHOX  a    ACOKP  a    TOHOX  a
   PCHIJ  a    ACHIJ  a    PCCNI  a    ACCNI  a
   PCHSX  a    ACHSX  a    PCHMX  a    ACHMX  a
   PCAPD  b    ACAPD  b    OKAUD  a    SKAUD  a
```

[2]

```
OP MON PID AM NEXT RECORD
   PPG0   a    ACC0   a    PPG1   a    ACC1   a
   PPG2   a    ACC2   a    PPG3   a    ACC3   a
   PPG4   a    ACC4   a    PPG5   a    ACC5   a
   PPG6   a    ACC6   a    PPG7   a    ACC7   a
   DLTA   c    KERN   c    KNPR   c    SUPR   c
   USER   c    IDLE   c    LVL0   c    LVL1   c
   LVL2   c    LVL3   c    LVL4   c    LVL5   c
   LVL6   c    LVL7   c    LVL8   c    LVL9   c
   LVLa   c    LVLb   c    LVLc   c    LVLd   c
   LVLe   c    LVLf   c
```

[3]

```
OP MON PID AM LAST RECORD
   MSGI   a    MSGO   a    MSGL   a    TUNX   a
   FUNX   a    SPR1   b    SPR2   b    SPR5   b
   SPR6   b    SPR7   b    SPR8   b    SPR9   b
   SPRa   b    SPRb   b    SPRc   b    SPRd   b
   SPRe   b    SPRf   b    SPRg   b    SPRh   b
   SPRi   b    SPRj   b    SPRk   b    SCTU   d
   HAIR   d    IMCP   d    AMCT   d    DDCP   d
   CCTP   d    BCST   d    AMCP   d    PSCP   d
   FALT   d    CMBP   d    CNIR   d    CNIS   d
   RTFD   b    RTGN   b    TSRE   b    PATH   b
   HORQ   b    CINJ   b
```

[4]

```
OP MON PID AM COMPLETED
```

2. REASON FOR OUTPUT

To respond to a OP:MON-PID input message for the administrative module (AM). Format 1 is the first record for a receive-only printer (ROP) request. Format 2 is the second record for a ROP request. Format 3 is the last record for a ROP request. Format 4 is the completion response for all requests.

3. VARIABLE FIELD DEFINITIONS

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Note: For definitions with a '*', when the monitor is active this data represents the initial values of the SPY data when the monitor was activated. If the monitor has been inhibited using the INH:MON or the automatic start/stop feature, this data is the "Spy" data time differences during the monitor run period.

Note: For definitions with '**', these values are accumulators for the numbers of various interject message types. They are zeroed at monitor activation but will continue to be incremented when the monitor is inhibited. The counts for the interject message types at the monitor inhibit point are stored elsewhere in the monitor buffer.

`ACAPD` = Not used.
`ACCNI` = Amount of time in milliseconds in CCrcvcni() function.
`ACC0` = Amount of time in milliseconds in OSDS priority 0.
`ACC1` = Amount of time in milliseconds in OSDS priority 1.
`ACC2` = Amount of time in milliseconds in OSDS priority 2.
`ACC3` = Amount of time in milliseconds in OSDS priority 3.
`ACC4` = Amount of time in milliseconds in OSDS priority 4.
`ACC5` = Amount of time in milliseconds in OSDS priority 5.
`ACC6` = Amount of time in milliseconds in OSDS priority 6.
`ACC7` = Amount of time in milliseconds in OSDS priority 7.
`ACHIJ` = Amount of time in milliseconds in OKP interject.
`ACHMX` = Amount of time in milliseconds in MSKP.
`ACHOX` = Amount of time in milliseconds in OKP work entries.
`ACHUF` = Amount of time in milliseconds in *UNIX*® RTR operating system work entries.
`ACHSX` = Amount of time in milliseconds in SMKP.
`ACOKP` = Amount of time in milliseconds in OKP where segment time is greater than 3 milliseconds.
`AMCP` = Accumulator for AMCP interject messages.**
`AMCT` = Accumulator for AMCT interject messages.**
`BCST` = Accumulator for BCST interject messages.**
`CCPT` = Accumulator for CCPT interject messages.**
`CINJ` = Not used.
`CMBP` = Number of messages sent by the CMbput().
`CNIR` = Accumulator for CNI receive messages.**
`CNIS` = Accumulator for CNI send messages.**
`DDCP` = Accumulator for DDCP interject messages.**
`DLTA` = Elapsed time of *UNIX*® RTR operating system "Spy" snap shot for monitor.*
`FALT` = Accumulator for interject messages that are destined for an OKP process.**
`FUNX` = Accumulator for message sent from another *UNIX*® RTR process to OKP.
`HAIR` = Accumulator for hairpin messages.**
`HORQ` = Not used.
`ICHUF` = Number of *UNIX*® RTR operating system idle entries to operational kernel process (OKP).
`ICHOX` = Total number of OKP entries.
`IDLE` = Amount of time in idle event loop.*
`IMCP` = Accumulator for IMCP interject messages.**
`KERN` = Amount of time in kernel.*
`KNPR` = Amount of time in kernel processes.*
`LVL0` = Amount of time in *UNIX*® RTR operating system level 0.*
`LVL1` = Amount of time in *UNIX*® RTR operating system level 1.*
`LVL2` = Amount of time in *UNIX*® RTR operating system level 2.*
`LVL3` = Amount of time in *UNIX*® RTR operating system level 3.*
`LVL4` = Amount of time in *UNIX*® RTR operating system level 4.*

LVL5	= Amount of time in *UNIX*® RTR operating system level 5.*
LVL6	= Amount of time in *UNIX*® RTR operating system level 6.*
LVL7	= Amount of time in *UNIX*® RTR operating system level 7.*
LVL8	= Amount of time in *UNIX*® RTR operating system level 8.*
LVL9	= Amount of time in *UNIX*® RTR operating system level 9.*
LVLa	= Amount of time in *UNIX*® RTR operating system level 10.*
LVLb	= Amount of time in *UNIX*® RTR operating system level 11.*
LVLc	= Amount of time in *UNIX*® RTR operating system level 12.*
LVLd	= Amount of time in *UNIX*® RTR operating system level 13.*
LVLe	= Amount of time in *UNIX*® RTR operating system level 14.*
LVLf	= Amount of time in *UNIX*® RTR operating system level 15.*
MSGI	= Accumulator for inter-processor message received.
MSGL	= Accumulator for intra-processor message sent.
MSGO	= Accumulator for inter-processor message sent.
OKAUD	= Last audit segment interval time in milliseconds.
PATH	= Not used.
PCAPD	= Not used.
PCCNI	= Number of calls to function CCrcvcni().
PCHIJ	= Number of entries to OKP interject.
PCHMX	= Number of message switch kernel process (MSKP) entries.
PCHOX	= Number of OKP work entries.
PCHUF	= Number of *UNIX*® RTR operating system work entries.
PCHSX	= Number of switch maintenance kernel process (SMKP) entries.
PPG0	= Number of entries to OSDS priority 0.
PPG1	= Number of entries to OSDS priority 1.
PPG2	= Number of entries to OSDS priority 2.
PPG3	= Number of entries to OSDS priority 3.
PPG4	= Number of entries to OSDS priority 4.
PPG5	= Number of entries to OSDS priority 5.
PPG6	= Number of entries to OSDS priority 6.
PPG7	= Number of entries to OSDS priority 7.
PSCP	= Accumulator for PSCP interject messages.**
RTFD	= Not used.
RTGN	= Not used.
SCTU	= Accumulator for messages from an SM or CMP to *UNIX*® RTR processes other than OKP.
SKAUD	= Real time clock (RTC) at time of last audit segment dispatch.
SPR1	= Not used.
SPR2	= Not used.
SPR5	= Not used.
SPR6	= Not used.
SPR7	= Not used.
SPR8	= Not used.
SPR9	= Not used.
SPRa	= Not used.
SPRb	= Not used.
SPRc	= Not used.
SPRd	= Not used.
SPRe	= Not used.
SPRf	= Not used.
SPRg	= Not used.

SPRh	= Not used.
SPRi	= Not used.
SPRj	= Not used.
SPRk	= Not used.
SUPR	= Amount of time in supervisor processes.*
TOHOX	= Number of OKP entries greater than 100 milliseconds.
TSRE	= Not used.
TUNX	= Accumulator for message sent from OKP to another *UNIX*® RTR process.
USER	= Amount of time in user processes.*
a	= Value in hexadecimal.
b	= Not used.
c	= Value in hexadecimal. When the monitor is active, this data represents the initial values of the SPY data when the monitor was activated. If the monitor has been inhibited using the INH:MON or the automatic start/stop feature, this data is the "Spy" data time differences during the monitor run period.
d	= Value in hexadecimal. These values are accumulators for the numbers of various interject message types. They are zeroed at monitor activation but will continue to be incremented when the monitor is inhibited. The counts for the interject message types at the monitor inhibit point are stored elsewhere in the monitor buffer.

4. ACTION TO BE TAKEN

Collect and send appropriate data as specified by technical support personnel.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:MON
INH:MON
OP:MON-CTL
OP:MON-DSP
OP:MON-PID
SET:MON-DATA
SET:MON-FCN
SET:MON-SPEC
SET:MON-WTD
```

Output Message(s):

```
ALW:MON
INH:MON
OP:MON-CTL
OP:MON-DSP
REPT:SIMON-FILE
SET:MON
```

OP:MON-PID-CMP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP MON PID CMP=a-b FIRST RECORD
        PCHUF  c    ACHUF  c    PCHIJ  c    ICHIJ  c
        ACHIJ  c    MSGIN  c    MSGOT  c    MSGLC  c
        MBCST  d    MCPRT  d    MDDSP  d    MICMP  d
        MPCNC  d    MPRGP  d    MFALT  d

[2]   ____________________________________________________________________
      OP MON PID CMP=a-b NEXT RECORD
        MSPA1  e    MSPA2  e    MSPA3  e    ACHMH  e
        SMIDS  e    SPAR1  e    SPAR2  e    SPAR3  e
        SPAR4  e    SPAR5  e    SPAR6  e    SPAR7  e
        SPAR8  e    SPAR9  e    SPARa  e    SPARb  e
        SPARc  e    SPARd  e    SPARe  e    SPARf  e
        SPARg  e    SPARh  e    SPARi  e    SPARj  c

[3]   ____________________________________________________________________
      OP MON PID CMP=a-b LAST RECORD
        PPG0   c    ACC0   c    PPG1   c    ACC1   c
        PPG2   c    ACC2   c    PPG3   c    ACC3   c
        PPG4   c    ACC4   c    PPG5   c    ACC5   c
        PPG6   c    ACC6   c    PPG7   c    ACC7   c

[4]   ____________________________________________________________________
      OP MON PID CMP=b-c COMPLETED
```

2. REASON FOR OUTPUT

To respond to an OP:MON-PID input message for a communications module processor (CMP). Format 1 is the first record for a receive-only printer (ROP) request. Format 2 is the second record for a ROP request. Format 3 is the last record for a ROP request. Format 4 is the completion response for all requests.

3. VARIABLE FIELD DEFINITIONS

Note: For definitions with a '*', these values are accumulators for the number of various interject message types. They are zeroed at monitor activation but will continue to be incremented when the monitor is inhibited. The counts for the interject message types at the monitor inhibit point are stored elsewhere in the monitor buffer.

`ACC0` = Time in milliseconds in operating system for distributed switching (OSDS) priority 0.

`ACC1` = Time in milliseconds in OSDS priority 1.

`ACC2` = Time in milliseconds in OSDS priority 2.

`ACC3` = Time in milliseconds in OSDS priority 3.

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ACC4 = Time in milliseconds in OSDS priority 4.

ACC5 = Time in milliseconds in OSDS priority 5.

ACC6 = Time in milliseconds in OSDS priority 6.

ACC7 = Time in milliseconds in OSDS priority 7.

ACHIJ = Amount of real time in milliseconds in CMP interject.

ACHMH = Not used.

ACHUF = Amount of real time in milliseconds in foreground entries.

ICHIJ = Number of entries to CMP interject when no interject flags were set.

MBCST = Accumulator for broadcast pump (BCST) interject messages.*

MCPRT = Accumulator for CPRT interject messages.*

MDDSP = Accumulator for DDCP interject messages.*

SMIDS = Accumulator for SMIDS interject messages.*

MFALT = Accumulator for interject messages that were destined for a CMP process.*

MICMP = Accumulator for ICMP interject messages.*

MPCNC = Accumulator for PCNC interject messages.*

MPRGP = Accumulator for PRGP messages.*

MSGIN = Number of messages received by the CMP.

MSGLC = Number of intra-processor messages sent.

MSGOT = Number of messages sent by the CMP.

MSPA1 = Not used.

MSPA2 = Not used.

MSPA3 = Not used.

PCHIJ = Number of entries to CMP interject.

PCHUF = Number of foreground entries.

PPG0 = Number of entries to OSDS priority 0.

PPG1 = Number of entries to OSDS priority 1.

PPG2 = Number of entries to OSDS priority 2.

PPG3 = Number of entries to OSDS priority 3.

PPG4 = Number of entries to OSDS priority 4.

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PPG5 = Number of entries to OSDS priority 5.

PPG6 = Number of entries to OSDS priority 6.

PPG7 = Number of entries to OSDS priority 7.

SPAR1 = Not used.

SPAR2 = Not used.

SPAR3 = Not used.

SPAR4 = Not used.

SPAR5 = Not used.

SPAR6 = Not used.

SPAR7 = Not used.

SPAR8 = Not used.

SPAR9 = Not used.

SPARa = Not used.

SPARb = Not used.

SPARc = Not used.

SPARd = Not used.

SPARe = Not used.

SPARf = Not used.

SPARg = Not used.

SPARh = Not used.

SPARi = Not used.

SPARj = Not used.

a = Message switch side (0-1).

b = CMP number (0 to 11).

c = Value in hexadecimal.

d = Value in hexadecimal. These values are accumulators for the number of various interject message types. They are zeroed at monitor activation but will continue to be incremented when the monitor is inhibited. The counts for the interject message types at the monitor inhibit point are stored elsewhere in the monitor buffer.

e = Not used.

4. ACTION TO BE TAKEN

Collect and send appropriate data as specified by technical support personnel.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:MON
INH:MON
OP:MON-CTL
OP:MON-DSP
OP:MON-PID
SET:MON-DATA
SET:MON-FCN
SET:MON-SPEC
SET:MON-WTD
```

Output Message(s):

```
ALW:MON
INH:MON
OP:MON-CTL
OP:MON-DSP
REPT:SIMON-FILE
SET:MON
```

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OP:MON-PID-SM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

[1]
```
OP MON PID SM=a FIRST RECORD
  PCHUF b    ACHUF b    PCHIJ b    ICHIJ b
  ACHIJ b    MSGIN b    MSGOT b    MSGLC b
  ACHMH c    SPAR1 b    SPAR2 b    SPAR3 b
  SPAR4 b    SPAR5 c    SPAR6 c    SPAR7 c
  SPAR8 c    SPAR9 c    SPARa c    SPARb c
  SPARc c    SPARd c    SPARe c    SPARf c
  SPARg c    SPARh c    SPARi c    SPARj c
  SPARk c
```

[2]
```
OP MON PID SM=a LAST RECORD
  PPG0  b    ACC0  b    PPG1  b    ACC1  b
  PPG2  b    ACC2  b    PPG3  b    ACC3  b
  PPG4  b    ACC4  b    PPG5  b    ACC5  b
  PPG6  b    ACC6  b    PPG7  b    ACC7  b
```

[3]
```
OP MON PID SM=a COMPLETED
```

2. REASON FOR OUTPUT

To respond to an OP:MON-PID input message for a switching module (SM). Format 1 is the first record for a receive-only printer (ROP) request. Format 2 is the last record for a ROP request. Format 3 is the completion response for all requests.

3. VARIABLE FIELD DEFINITIONS

a = SM number.

b = Value in hexadecimal.

c = Unused.

4. ACTION TO BE TAKEN

Collect and send appropriate data as specified by technical support personnel.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:MON
INH:MON
OP:MON-CTL
OP:MON-DSP
OP:MON-PID
SET:MON-DATA
SET:MON-FCN
SET:MON-SPEC
SET:MON-WTD
```

Output Message(s):

```
ALW:MON
INH:MON
OP:MON-CTL
OP:MON-DSP
REPT:SIMON-FILE
SET:MON
```

OP:MSUSP

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

[1]

```
OP  MSUSP=a-b-c-d  COMPLETED
  SP STATUS       SP STATUS       SP STATUS       SP STATUS
  0  f            8  f           16  f           24  f
  1  f            9  f           17  f           25  f
  2  f           10  f           18  f           26  f
  3  f           11  f           19  f           27  f
  4  f           12  f           20  f           28  f
  5  f           13  f           21  f           29  f
  6  f           14  f           22  f           30  f
  7  f           15  f           23  f           31  f
```

[2]

```
OP  MSUSP=a-b-c-d  NOT STARTED  e
```

2. REASON FOR OUTPUT

To respond to an OP:MSUSP input message to output the status of scan points (SP) on a metallic service unit (MSU) scan board.

Format 1 is printed when the status report is completed.

Format 2 is printed when the status report has not started.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = MSU number.

`c` = Service group number.

`d` = Scan board number.

`e` = Termination report. Valid value(s):

```
UNIT IS OUT OF SERVICE
UNIT NOT EQUIPPED WITH SCAN PTS
```

`f` = Current status of scan point. Valid value(s):

`0` = Off.
`1` = On.

Note: SP 31 is a current sensing scan point which "turns on" (or logical 1) when the current falls below a threshold.

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4. ACTION TO BE TAKEN

If the output message indicates that the unit is out-of-service (OOS), restore the scan board and re-enter the OP:MSUSP input message.

If the output message indicates that the unit is not equipped with scan points, verify that the input message that was entered was really for a SCAN board. If the input message was for a SCAN board re-enter the message. If same results occur, verify MSU hardware and ports in office-dependent data (ODD) relations CKTDATA, PC_MSUSG, and SMEST using recent change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:MSUSP
RST:SCAN
```

MCC Display Page(s):

(MSU SERVICE GROUP)

OP:MT-INFO

Software Release: 5E10 and later
Message Class: DSKUTL
Application: 3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP MT a INFO NOT STARTED b c

[2]   ____________________________________________________________________
      OP MT a INFO STOPPED b c

[3]   ____________________________________________________________________
      OP MT a INFO ERROR b c

[4]   ____________________________________________________________________
      OP MT a INFO ABORTED b

[5]   ____________________________________________________________________
      OP MT a INFO
        CONTROLLER:  DFC d     STATUS: e
        FIRMWARE VERSION: f
        PUMPCODE VERSION: f
        SBUS g     SCSI HA BUS h       STATUS: e
        UNIT       DEVICE TYPE     DID STATUS RSVD
        ------  ------------------ --- ------ ----
        MT  i           j           k    e     l
        .
        .
        .
                    PRODUCT       REV
        UNIT     IDENTIFICATION  LEVEL    SERIAL NUMBER
        ------  ---------------- ----- -------------------
        MT  i          m           n            o
        .
        .
        .
```

2. REASON FOR OUTPUT

To report the result of executing an OP:MT-INFO input message.

Format 5 is used to output data for a small computer system interface (SCSI) magnetic tape (MT) device.

3. VARIABLE FIELD DEFINITIONS

`a` = MT member number.

`b` = Process step or reason code. Valid value(s):

- `f01` = Failed to enable message reception.
- `f03` = Failed to open equipment configuration database (ECD).
- `f06` = Failed to get unit control block (UCB) by name.

`f08` = Failed to get top UCB.
`f0a` = Top UCB is not a disk file controller (DFC).
`f0c` = Unknown DFC type.
`f0e` = Failed to get UCB of SCSI bus (SBUS).
`f11` = Failed to assign special device file name for DFC.
`f14` = Failed to open special device file for DFC.
`f17` = Refer to the disk driver (DKDRV) report on the receive-only printer (ROP).
`f1a` = Failed to close special device file.
`f1c` = Failed to release special device file.
`f1f` = Failed to unreserve DFC UCB.
`f23` = Failed to get next UCB.
`f26` = Failed to assign special device file name.
`f29` = Failed to open special device file.
`f2c` = Failed to set input/output (I/O) mode of device file.
`f2f` = Device size not recognized.
`f33` = Refer to the DKDRV report on the ROP.
`f36` = Failed to close special device file.
`f37` = Failed to release special device file.
`f38` = Failed to unreserve device UCB.
`f3e` = Message to port failure.
`f43` = Message reception failure.
`f46` = Process timed out.
`f49` = Failed to close special device file.
`f4c` = Failed to release special device file.
`f4f` = Failed to unreserve UCB.
`f53` = Failed to close ECD.
`f56` = Terminated externally with signal.

`c` = System error code number. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

`d` = Member number of controller.

`e` = Major status of unit.

`f` = DFC firmware/pumpcode version in the form:

`p.q.s - t`

Valid value(s):
`NAV` = The firmware or pumpcode versions are not available, or cannot be determined.

`g` = Logical unit number of the SCSI bus that is stored in the SBUS's UCB.

`h` = SCSI host adapter (HA) bus identification number (0 or 1).

`i` = Unit number.

`j` = Device type.

`k` = Device ID (drive ID number).

`l` = Unit reserved. Valid value(s):
- `NO` = Unit is not reserved.
- `YES` = Unit is reserved for maintenance activity.

`m` = Product identification. Valid value(s):
- `NAP` = Not applicable for this device.

`n` = Alphanumeric data representing the revision level of the firmware in an SCSI device. Valid value(s):
- `NAV` = The DFC or the SBUS is not active, or the unit is reserved, or the SCSI device is inaccessible.

`o` = Serial number. Valid value(s):
- `NAP` = Not applicable for this device.

`p` = Version of DFC FIRMWARE/PUMPCODE.

`q` = Issue of DFC FIRMWARE/PUMPCODE.

`s` = Point issue of DFC FIRMWARE/PUMPCODE.

`t` = Laboratory design issue (LDI) of DFC FIRMWARE/PUMPCODE.

4. ACTION TO BE TAKEN

A termination report specifying completion indicates all directives of the input request were done and no failures were encountered.

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available, or became unavailable to perform the requested task. Clear the problem causing the resource limitation and try the request again.

5. ALARMS

None. This alarm is a manually-requested report. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1 - 4	153
5	695

Input Message(s):

```
OP:DFC-INFO
OP:MHD-INFO
```

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

55. OP:N

OP:NAILUP-A

Software Release: 5E10 - 5E11
Message Class: CP
Application: 5
Type: Output

1. FORMAT

[1]

```
OP NAILUP DFI=a-b-c   s  t
          TYPE              LOSS    STATUS
  CON1    DEN=a-b-c-d       j       k l m c1 d1
          DEN=a-b-c-d       j       k l m c1 d1
  CON1    DEN=a-b-c-d       j       k l m c1 d1
          SLEN=a-u-v-w      j       k l m c1 d1
  CON1    DEN=a-b-c-d       j       k l m c1 d1
          TEN=a-e-f-g-h     j       k l m c1 d1
  CON1    DEN=a-b-c-d       j       k l m c1 d1
          ILEN=a-x-y-z      j       k l m c1 d1
  CON1    DEN=a-b-c-d       j       k l m c1 d1
          NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
  CON1    SLEN=a-u-v-w      j       k l m c1 d1
          DEN=a-b-c-d       j       k l m c1 d1
  CON1    TEN=a-e-f-g-h     j       k l m c1 d1
          DEN=a-b-c-d       j       k l m c1 d1
  CON1    ILEN=a-x-y-z      j       k l m c1 d1
          DEN=a-b-c-d       j       k l m c1 d1
  CON1    NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
          DEN=a-b-c-d       j       k l m c1 d1
```

[2]

```
OP NAILUP SDFI=a-u-v   s  t
          TYPE              LOSS    STATUS
  CON1    SLEN=a-u-v-w      j       k l m c1 d1
          SLEN=a-u-v-w      j       k l m c1 d1
  CON1    SLEN=a-u-v-w      j       k l m c1 d1
          DEN=a-b-c-d       j       k l m c1 d1
  CON1    SLEN=a-u-v-w      j       k l m c1 d1
          ILEN=a-x-y-z      j       k l m c1 d1
  CON1    SLEN=a-u-v-w      j       k l m c1 d1
          NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
  CON1    DEN=a-b-c-d       j       k l m c1 d1
          SLEN=a-u-v-w      j       k l m c1 d1
  CON2    ILEN=a-x-y-z      j       k l m c1 d1
          SLEN=a-u-v-w      j       k l m c1 d1
  CON1    NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
          SLEN=a-u-v-w      j       k l m c1 d1
```

[3]

```
OP NAILUP TUCHBD=a-e-f-g  s  t
```

```
            TYPE                LOSS    STATUS
  CON1      TEN=a-e-f-g-h       j       k l m c1 d1
            TEN=a-e-f-g-h       j       k l m c1 d1
  CON1      TEN=a-e-f-g-h       j       k l m c1 d1
            DEN=a-b-c-d         j       k l m c1 d1
  CON1      TEN=a-e-f-g-h       j       k l m c1 d1
            ILEN=a-x-y-z        j       k l m c1 d1
  CON1      TEN=a-e-f-g-h       j       k l m c1 d1
            NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
  CON1      DEN=a-b-c-d         j       k l m c1 d1
            TEN=a-e-f-g-h       j       k l m c1 d1
  CON1      ILEN=a-x-y-z        j       k l m c1 d1
            TEN=a-e-f-g-h       j       k l m c1 d1
  CON1      NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
            TEN=a-e-f-g-h       j       k l m c1 d1
```

[4]

```
OP NAILUP DS1SFAC=a-g1-h1-j1-l1  s  t
            TYPE                LOSS    STATUS
  CON1      NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
            NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
  CON1      NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
            DEN=a-b-c-d         j       k l m c1 d1
  CON1      NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
            SLEN=a-u-v-w        j       k l m c1 d1
  CON1      NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
            TEN=a-e-f-g-h       j       k l m c1 d1
  CON1      NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
            ILEN=a-x-y-z        j       k l m c1 d1
  CON1      DEN=a-b-c-d         j       k l m c1 d1
            NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
  CON1      SLEN=a-u-v-w        j       k l m c1 d1
            NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
  CON1      TEN=a-e-f-g-h       j       k l m c1 d1
            NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
  CON1      ILEN=a-x-y-z        j       k l m c1 d1
            NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
```

[5]

```
OP NAILUP DEN=a-b-c-d  s  t
            TYPE                LOSS    STATUS
  CON1      DEN=a-b-c-d         j       k l m c1 d1
            DEN=a-b-c-d         j       k l m c1 d1
  CON1      DEN=a-b-c-d         j       k l m c1 d1
            TEN=a-e-f-g-h       j       k l m c1 d1
  CON1      DEN=a-b-c-d         j       k l m c1 d1
            SLEN=a-u-v-w        j       k l m c1 d1
  CON1      DEN=a-b-c-d         j       k l m c1 d1
            ILEN=a-x-y-z        j       k l m c1 d1
```

```
  CON1     DEN=a-b-c-d       j       k l m c1 d1
           NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
  CON1     SLEN=a-u-v-w      j       k l m c1 d1
           DEN=a-b-c-d       j       k l m c1 d1
  CON1     TEN=a-e-f-g-h     j       k l m c1 d1
           DEN=a-b-c-d       j       k l m c1 d1
  CON1     ILEN=a-x-y-z      j       k l m c1 d1
           DEN=a-b-c-d       j       k l m c1 d1
  CON1     NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
           DEN=a-b-c-d       j       k l m c1 d1
```

[6]

```
OP NAILUP TEN b-f-g-h  s  t
           TYPE              LOSS    STATUS
  CON1     TEN=a-e-f-g-h     j       k l m c1 d1
           TEN=a-e-f-g-h     j       k l m c1 d1
  CON1     TEN=a-e-f-g-h     j       k l m c1 d1
           DEN=a-b-c-d       j       k l m c1 d1
  CON1     TEN=a-e-f-g-h     j       k l m c1 d1
           ILEN=a-x-y-z      j       k l m c1 d1
  CON1     TEN=a-e-f-g-h     j       k l m c1 d1
           NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
  CON1     DEN=a-b-c-d       j       k l m c1 d1
           TEN=a-e-f-g-h     j       k l m c1 d1
  CON1     ILEN=a-x-y-z      j       k l m c1 d1
           TEN=a-e-f-g-h     j       k l m c1 d1
  CON1     NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
           TEN=a-e-f-g-h     j       k l m c1 d1
```

[7]

```
OP NAILUP SLEN=a-u-v-w   s  t
           TYPE              LOSS    STATUS
  CON1     SLEN=a-u-v-w      j       k l m c1 d1
           DEN=a-b-c-d       j       k l m c1 d1
  CON1     DEN=a-b-c-d       j       k l m c1 d1
           SLEN=a-u-v-w      j       k l m c1 d1
  CON1     SLEN=a-u-v-w      j       k l m c1 d1
           ILEN=a-x-y-z      j       k l m c1 d1
  CON1     ILEN=a-x-y-z      j       k l m c1 d1
           SLEN=a-u-v-w      j       k l m c1 d1
  CON1     SLEN=a-u-v-w      j       k l m c1 d1
           NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
  CON1     NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
           SLEN=a-u-v-w      j       k l m c1 d1
  CON1     SLEN=a-u-v-w      j       k l m c1 d1
           SLEN=a-u-v-w      j       k l m c1 d1
```

[8]

```
OP NAILUP NEN=a-g1-h1-j1-k1-m1  s  t
```

```
            TYPE                LOSS    STATUS
  CON1      NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
            NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
  CON1      NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
            DEN=a-b-c-d       j       k l m c1 d1
  CON1      NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
            SLEN=a-u-v-w      j       k l m c1 d1
  CON1      NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
            TEN=a-e-f-g-h     j       k l m c1 d1
  CON1      NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
            ILEN=a-x-y-z      j       k l m c1 d1
  CON1      DEN=a-b-c-d       j       k l m c1 d1
            NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
  CON1      SLEN=a-u-v-w      j       k l m c1 d1
            NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
  CON1      TEN=a-e-f-g-h     j       k l m c1 d1
            NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
  CON1      ILEN=a-x-y-z      j       k l m c1 d1
            NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
```

[9]

```
OP NAILUP ILEN=a-x-y-z  s  t
            TYPE                LOSS    STATUS
  CON1 HP ILEN=a-x-y-z      j       k l m c1 d1
            ILEN=a-x-y-z      j       k l m c1 d1
  CON1      ILEN=a-x-y-z      j       k l m c1 d1
            DEN=a-b-c-d       j       k l m c1 d1
  CON1      ILEN=a-x-y-z      j       k l m c1 d1
            TEN=a-e-f-g-h     j       k l m c1 d1
  CON1      ILEN=a-x-y-z      j       k l m c1 d1
            SLEN=a-u-v-w      j       k l m c1 d1
  CON1      ILEN=a-x-y-z      j       k l m c1 d1
            NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
  CON1      DEN=a-b-c-d       j       k l m c1 d1
            ILEN=a-x-y-z      j       k l m c1 d1
  CON1      TEN=a-e-f-g-h     j       k l m c1 d1
            ILEN=a-x-y-z      j       k l m c1 d1
  CON1      SLEN=a-u-v-w      j       k l m c1 d1
            ILEN=a-x-y-z      j       k l m c1 d1
  CON1      NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
            ILEN=a-x-y-z      j       k l m c1 d1
```

[10]

```
OP NAILUP IFAC=a-x-a1  s  t
            TYPE                LOSS    STATUS
1 d1
            ILEN=a-x-y-z      j       k l m c1 d1
  CON2      ILEN=a-x-y-z      j       k l m c1 d1
            DEN=a-b-c-d       j       k l m c1 d1
```

```
  CON3     ILEN=a-x-y-z      j       k l m c1 d1
           TEN=a-e-f-g-h     j       k l m c1 d1
  CON4     ILEN=a-x-y-z      j       k l m c1 d1
           SLEN=a-u-v-w      j       k l m c1 d1
  CON5     ILEN=a-x-y-z      j       k l m c1 d1
           NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
  CON6     DEN=a-b-c-d       j       k l m c1 d1
           ILEN=a-x-y-z      j       k l m c1 d1
  CON7     TEN=a-e-f-g-h     j       k l m c1 d1
           ILEN=a-x-y-z      j       k l m c1 d1
  CON8     SLEN=a-u-v-w      j       k l m c1 d1
           ILEN=a-x-y-z      j       k l m c1 d1
  CON9     NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
           ILEN=a-x-y-z      j       k l m c1 d1

[11]  ____________________________________________________________
      OP NAILUP - OP:NAILUP NAILUP REQUEST FAILURE
      PORT   n

[12]  ____________________________________________________________
      OP NAILUP QUAN SM = a  t
           QUANTITY  PERCENT  INTRA-SM   INTER-SM
        NU o         p        q          r
        HP e1        NA       f1         NA
```

2. REASON FOR OUTPUT

To print the status of one or a group of nail-up connections. For Formats 1 through 10, the originating ("from") port is shown as the first port in each pair.

Format 1 prints the status information for a specific digital facility interface (DFI) and has up to 30 entries (CON1-CON30).

Format 2 prints the status information for a specific subscriber DFI (SDFI) and has up to 24entries (CON1-CON24).

Format 3 prints status on a trunk unit channel board level (TUCHBD) and has up to four entries (CON1-CON4).

Format 4 prints status on a DNU-S DS1 facility (DS1SFAC) and has up to 24 entries (CON1-CON24).

Format 5 prints status of one connection (CON1) using the digital equipment number (DEN).

Format 6 prints the status of CON1 using the trunk equipment number (TEN).

Format 7 prints the status of one connection using the subscriber loop equipment number (SLEN) number.

Format 8 prints the status of one connection using the DNU-S network equipment number (NEN).

Format 9 prints the status of one connection using the IDCU line equipment number (ILEN) number.

Format 10 prints the status for a specific integrated digital carrier unit (IDCU) facility (IFAC) and has up to 24 entries (CON1-CON24).

Format 11 shows a nail-up request failure.

Format 12 prints the status of an entire switching module (SM) using the quantity (QUAN) parameter.

Note: If the DFI parameter is specified, there will be no TEN to TEN combinations printed; when a TUCHBD is specified, there will be no DEN to DEN combinations printed.

3. VARIABLE FIELD DEFINITIONS

`HP` = Indicates that the connection is a hairpin. Otherwise, the connection is a nail-up.

`a` = SM number.

`b` = Digital line and trunk unit (DLTU) number.

`c` = DFI number.

`d` = Channel number.

`e` = Trunk unit (TU) number.

`f` = Service group number.

`g` = Channel board number.

`h` = Circuit number.

`j` = Loss in decibels (0.0- 7.0) rounded to nearest 0.5.

`k` = Basic state of port [such as, in-service (IS)].

`l` = Qualifier of port.

`m` = Operational restriction on port.

`n` = Unit for which OP:NAILUP was requested, as specified in the input message (such as, DEN a-b-c-d).

`o` = Number of nail-up ports in SM.

`p` = Percentage of nail-up ports in SM requiring time-slot interchange unit (TSIU) network timeslots divided by the total number of TSIU network timeslots in the SM, rounded to the nearest whole percentage.

`q` = Number of intra-SM nail-up ports.

`r` = Number of inter-SM nail-up ports.

`s` = Status of the request. Valid value(s):
`COMPLETED` = OP:NAILUP input message request completed.
`CONTINUED` = OP:NAILUP input message request continued.
`PORT NOT NAILED UP` = Port not in a nail-up connection.
`STARTED` = OP:NAILUP input message request started.

`t` = Valid value(s):
`DATA MAY BE INVALID` = Part of message data is invalid indicated by zeros.

u = DCLU number.

v = RT number.

w = RT line number.

x = IDCU number.

y = RT number or IDCU PUB43801 facility number.

z = RT line number or IDCU PUB43801 channel number.

a[1] = IDCU facility (IFAC) number.

c[1] = Supplementary information on port.

d[1] = Mode of port.

e[1] = Number of hairpin ports in SM.

f[1] = Number of intra-SM hairpin ports.

g[1] = DNU-S number.

h[1] = Data group number.

j[1] = STS number.

k[1] = VT1.5 facility number.

l[1] = DS1 facility number.

m[1] = DS0 number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:NAILUP
```

OP:NAILUP-B

Software Release: 5E12 only
Message Class: CP
Application: 5
Type: Output

1. FORMAT

[1]

```
OP NAILUP DFI=a-b-c   s  t
           TYPE              LOSS    STATUS
  CON1     DEN=a-b-c-d       j       k l m c1 d1
           DEN=a-b-c-d       j       k l m c1 d1
  CON1     DEN=a-b-c-d       j       k l m c1 d1
           SLEN=a-u-v-w      j       k l m c1 d1
  CON1     DEN=a-b-c-d       j       k l m c1 d1
           TEN=a-e-f-g-h     j       k l m c1 d1
  CON1     DEN=a-b-c-d       j       k l m c1 d1
           ILEN=a-x-y-z      j       k l m c1 d1
  CON1     DEN=a-b-c-d       j       k l m c1 d1
           NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
  CON1     DEN=a-b-c-d       j       k l m c1 d1
           INEN=a-g1-v-w     j       k l m c1 d1
  CON1     SLEN=a-u-v-w      j       k l m c1 d1
           DEN=a-b-c-d       j       k l m c1 d1
  CON1     TEN=a-e-f-g-h     j       k l m c1 d1
           DEN=a-b-c-d       j       k l m c1 d1
  CON1     ILEN=a-x-y-z      j       k l m c1 d1
           DEN=a-b-c-d       j       k l m c1 d1
  CON1     NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
           DEN=a-b-c-d       j       k l m c1 d1
  CON1     INEN=a-g1-v-w     j       k l m c1 d1
           DEN=a-b-c-d       j       k l m c1 d1
```

[2]

```
OP NAILUP SDFI=a-u-v   s  t
           TYPE              LOSS    STATUS
  CON1     SLEN=a-u-v-w      j       k l m c1 d1
           SLEN=a-u-v-w      j       k l m c1 d1
  CON1     SLEN=a-u-v-w      j       k l m c1 d1
           DEN=a-b-c-d       j       k l m c1 d1
  CON1     SLEN=a-u-v-w      j       k l m c1 d1
           ILEN=a-x-y-z      j       k l m c1 d1
  CON1     SLEN=a-u-v-w      j       k l m c1 d1
           NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
  CON1     SLEN=a-u-v-w      j       k l m c1 d1
           INEN=a-g1-v-w     j       k l m c1 d1
  CON1     DEN=a-b-c-d       j       k l m c1 d1
           SLEN=a-u-v-w      j       k l m c1 d1
```

```
  CON2     ILEN=a-x-y-z      j       k l m c1 d1
           SLEN=a-u-v-w      j       k l m c1 d1
  CON1     NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
           SLEN=a-u-v-w      j       k l m c1 d1
  CON1     INEN=a-g1-v-w     j       k l m c1 d1
           SLEN=a-u-v-w      j       k l m c1 d1
```

[3]

```
OP NAILUP TUCHBD=a-e-f-g  s  t
           TYPE              LOSS    STATUS
  CON1     TEN=a-e-f-g-h     j       k l m c1 d1
           TEN=a-e-f-g-h     j       k l m c1 d1
  CON1     TEN=a-e-f-g-h     j       k l m c1 d1
           DEN=a-b-c-d       j       k l m c1 d1
  CON1     TEN=a-e-f-g-h     j       k l m c1 d1
           ILEN=a-x-y-z      j       k l m c1 d1
  CON1     TEN=a-e-f-g-h     j       k l m c1 d1
           NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
  CON1     TEN=a-e-f-g-h     j       k l m c1 d1
           INEN=a-g1-v-w     j       k l m c1 d1
  CON1     DEN=a-b-c-d       j       k l m c1 d1
           TEN=a-e-f-g-h     j       k l m c1 d1
  CON1     ILEN=a-x-y-z      j       k l m c1 d1
           TEN=a-e-f-g-h     j       k l m c1 d1
  CON1     NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
           TEN=a-e-f-g-h     j       k l m c1 d1
  CON1     INEN=a-g1-v-w     j       k l m c1 d1
           TEN=a-e-f-g-h     j       k l m c1 d1
```

[4]

```
OP NAILUP DS1SFAC=a-g1-h1-j1-l1  s  t
           TYPE              LOSS    STATUS
  CON1     NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
           NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
  CON1     NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
           DEN=a-b-c-d       j       k l m c1 d1
  CON1     NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
           SLEN=a-u-v-w      j       k l m c1 d1
  CON1     NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
           TEN=a-e-f-g-h     j       k l m c1 d1
  CON1     NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
           ILEN=a-x-y-z      j       k l m c1 d1
  CON1     NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
           INEN=a-g1-v-w     j       k l m c1 d1
  CON1     DEN=a-b-c-d       j       k l m c1 d1
           NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
  CON1     SLEN=a-u-v-w      j       k l m c1 d1
           NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
```

```
CON1     TEN=a-e-f-g-h     j       k l m c1 d1
         NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
CON1     ILEN=a-x-y-z      j       k l m c1 d1
         NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
CON1     INEN=a-g1-v-w     j       k l m c1 d1
         NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
CON1     INEN=a-g1-v-w     j       k l m c1 d1
         INEN=a-g1-v-w     j       k l m c1 d1
CON1     INEN=a-g1-v-w     j       k l m c1 d1
         DEN=a-b-c-d       j       k l m c1 d1
CON1     INEN=a-g1-v-w     j       k l m c1 d1
         TEN=a-e-f-g-h     j       k l m c1 d1
CON1     INEN=a-g1-v-w     j       k l m c1 d1
         SLEN=a-u-v-w      j       k l m c1 d1
CON1     INEN=a-g1-v-w     j       k l m c1 d1
         ILEN=a-x-y-z      j       k l m c1 d1
CON1     DEN=a-b-c-d       j       k l m c1 d1
         INEN=a-g1-v-w     j       k l m c1 d1
CON1     TEN=a-e-f-g-h     j       k l m c1 d1
         INEN=a-g1-v-w     j       k l m c1 d1
CON1     SLEN=a-u-v-w      j       k l m c1 d1
         INEN=a-g1-v-w     j       k l m c1 d1
CON1     ILEN=a-x-y-z      j       k l m c1 d1
         INEN=a-g1-v-w     j       k l m c1 d1
```

[5]

```
OP NAILUP DEN=a-b-c-d  s  t
         TYPE              LOSS    STATUS
CON1     DEN=a-b-c-d       j       k l m c1 d1
         DEN=a-b-c-d       j       k l m c1 d1
CON1     DEN=a-b-c-d       j       k l m c1 d1
         TEN=a-e-f-g-h     j       k l m c1 d1
CON1     DEN=a-b-c-d       j       k l m c1 d1
         SLEN=a-u-v-w      j       k l m c1 d1
CON1     DEN=a-b-c-d       j       k l m c1 d1
         ILEN=a-x-y-z      j       k l m c1 d1
CON1     DEN=a-b-c-d       j       k l m c1 d1
         NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
CON1     DEN=a-b-c-d       j       k l m c1 d1
         INEN=a-g1-v-w     j       k l m c1 d1
CON1     SLEN=a-u-v-w      j       k l m c1 d1
         DEN=a-b-c-d       j       k l m c1 d1
CON1     TEN=a-e-f-g-h     j       k l m c1 d1
         DEN=a-b-c-d       j       k l m c1 d1
CON1     ILEN=a-x-y-z      j       k l m c1 d1
         DEN=a-b-c-d       j       k l m c1 d1
CON1     NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
         DEN=a-b-c-d       j       k l m c1 d1
```

```
  CON1     INEN=a-g1-v-w     j       k l m c1 d1
           DEN=a-b-c-d       j       k l m c1 d1

[6]  ____________________________________________________________________
OP NAILUP TEN b-f-g-h  s  t
           TYPE              LOSS    STATUS
  CON1     TEN=a-e-f-g-h     j       k l m c1 d1
           TEN=a-e-f-g-h     j       k l m c1 d1
  CON1     TEN=a-e-f-g-h     j       k l m c1 d1
           DEN=a-b-c-d       j       k l m c1 d1
  CON1     TEN=a-e-f-g-h     j       k l m c1 d1
           ILEN=a-x-y-z      j       k l m c1 d1
  CON1     TEN=a-e-f-g-h     j       k l m c1 d1
           NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
  CON1     TEN=a-e-f-g-h     j       k l m c1 d1
           INEN=a-g1-v-w     j       k l m c1 d1
  CON1     DEN=a-b-c-d       j       k l m c1 d1
           TEN=a-e-f-g-h     j       k l m c1 d1
  CON1     ILEN=a-x-y-z      j       k l m c1 d1
           TEN=a-e-f-g-h     j       k l m c1 d1
  CON1     NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
           TEN=a-e-f-g-h     j       k l m c1 d1
  CON1     INEN=a-g1-v-w     j       k l m c1 d1
           TEN=a-e-f-g-h     j       k l m c1 d1

[7]  ____________________________________________________________________
OP NAILUP SLEN=a-u-v-w   s  t
           TYPE              LOSS    STATUS
  CON1     SLEN=a-u-v-w      j       k l m c1 d1
           DEN=a-b-c-d       j       k l m c1 d1
  CON1     DEN=a-b-c-d       j       k l m c1 d1
           SLEN=a-u-v-w      j       k l m c1 d1
  CON1     SLEN=a-u-v-w      j       k l m c1 d1
           ILEN=a-x-y-z      j       k l m c1 d1
  CON1     ILEN=a-x-y-z      j       k l m c1 d1
           SLEN=a-u-v-w      j       k l m c1 d1
  CON1     SLEN=a-u-v-w      j       k l m c1 d1
           NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
  CON1     NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
           SLEN=a-u-v-w      j       k l m c1 d1
  CON1     SLEN=a-u-v-w      j       k l m c1 d1
           INEN=a-g1-v-w     j       k l m c1 d1
  CON1     INEN=a-g1-v-w     j       k l m c1 d1
           SLEN=a-u-v-w      j       k l m c1 d1
  CON1     SLEN=a-u-v-w      j       k l m c1 d1
           SLEN=a-u-v-w      j       k l m c1 d1

[8]  ____________________________________________________________________
OP NAILUP NEN=a-g1-h1-j1-k1-m1  s  t
```

```
            TYPE                LOSS    STATUS
  CON1      NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
            NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
  CON1      NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
            DEN=a-b-c-d       j       k l m c1 d1
  CON1      NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
            SLEN=a-u-v-w      j       k l m c1 d1
  CON1      NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
            TEN=a-e-f-g-h     j       k l m c1 d1
  CON1      NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
            ILEN=a-x-y-z      j       k l m c1 d1
  CON1      NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
            INEN=a-g1-v-w     j       k l m c1 d1
  CON1      DEN=a-b-c-d       j       k l m c1 d1
            NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
  CON1      SLEN=a-u-v-w      j       k l m c1 d1
            NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
  CON1      TEN=a-e-f-g-h     j       k l m c1 d1
            NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
  CON1      ILEN=a-x-y-z      j       k l m c1 d1
            NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
  CON1      INEN=a-g1-v-w     j       k l m c1 d1
            NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
```

[9] _____

```
OP NAILUP ILEN=a-x-y-z  s  t
            TYPE                LOSS    STATUS
  CON1 HP ILEN=a-x-y-z      j       k l m c1 d1
            ILEN=a-x-y-z      j       k l m c1 d1
  CON1      ILEN=a-x-y-z      j       k l m c1 d1
            DEN=a-b-c-d       j       k l m c1 d1
  CON1      ILEN=a-x-y-z      j       k l m c1 d1
            TEN=a-e-f-g-h     j       k l m c1 d1
  CON1      ILEN=a-x-y-z      j       k l m c1 d1
            SLEN=a-u-v-w      j       k l m c1 d1
  CON1      ILEN=a-x-y-z      j       k l m c1 d1
            NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
  CON1      ILEN=a-x-y-z      j       k l m c1 d1
            INEN=a-g1-v-w     j       k l m c1 d1
  CON1      DEN=a-b-c-d       j       k l m c1 d1
            ILEN=a-x-y-z      j       k l m c1 d1
  CON1      TEN=a-e-f-g-h     j       k l m c1 d1
            ILEN=a-x-y-z      j       k l m c1 d1
  CON1      SLEN=a-u-v-w      j       k l m c1 d1
            ILEN=a-x-y-z      j       k l m c1 d1
  CON1      NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
            ILEN=a-x-y-z      j       k l m c1 d1
  CON1      INEN=a-g1-v-w     j       k l m c1 d1
```

```
                ILEN=a-x-y-z      j       k l m c1 d1

[10]  ____________________________________________________________________
      OP NAILUP IFAC=a-x-a1  s  t
                TYPE              LOSS    STATUS
      1 d1
                ILEN=a-x-y-z      j       k l m c1 d1
        CON2    ILEN=a-x-y-z      j       k l m c1 d1
                DEN=a-b-c-d       j       k l m c1 d1
        CON3    ILEN=a-x-y-z      j       k l m c1 d1
                TEN=a-e-f-g-h     j       k l m c1 d1
        CON4    ILEN=a-x-y-z      j       k l m c1 d1
                SLEN=a-u-v-w      j       k l m c1 d1
        CON5    ILEN=a-x-y-z      j       k l m c1 d1
                NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
        CON6    ILEN=a-x-y-z      j       k l m c1 d1
                INEN=a-g1-v-w     j       k l m c1 d1
        CON7    DEN=a-b-c-d       j       k l m c1 d1
                ILEN=a-x-y-z      j       k l m c1 d1
        CON8    TEN=a-e-f-g-h     j       k l m c1 d1
                ILEN=a-x-y-z      j       k l m c1 d1
        CON9    SLEN=a-u-v-w      j       k l m c1 d1
                ILEN=a-x-y-z      j       k l m c1 d1
        CON10   NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
                ILEN=a-x-y-z      j       k l m c1 d1
        CON11   INEN=a-g1-v-w     j       k l m c1 d1
                ILEN=a-x-y-z      j       k l m c1 d1

[11]  ____________________________________________________________________
      OP NAILUP INEN=a-g1-v-w  s  t
                TYPE              LOSS    STATUS
        CON1    INEN=a-g1-v-w     j       k l m c1 d1
                INEN=a-g1-v-w     j       k l m c1 d1
        CON1    INEN=a-g1-v-w     j       k l m c1 d1
                DEN=a-b-c-d       j       k l m c1 d1
        CON1    INEN=a-g1-v-w     j       k l m c1 d1
                TEN=a-e-f-g-h     j       k l m c1 d1
        CON1    INEN=a-g1-v-w     j       k l m c1 d1
                SLEN=a-u-v-w      j       k l m c1 d1
        CON1    INEN=a-g1-v-w     j       k l m c1 d1
                ILEN=a-x-y-z      j       k l m c1 d1
        CON1    INEN=a-g1-v-w     j       k l m c1 d1
                NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
        CON1    DEN=a-b-c-d       j       k l m c1 d1
                INEN=a-g1-v-w     j       k l m c1 d1
        CON1    TEN=a-e-f-g-h     j       k l m c1 d1
                INEN=a-g1-v-w     j       k l m c1 d1
        CON1    SLEN=a-u-v-w      j       k l m c1 d1
```

```
                INEN=a-g1-v-w     j       k l m c1 d1
        CON1    ILEN=a-x-y-z      j       k l m c1 d1
                INEN=a-g1-v-w     j       k l m c1 d1
        CON1    NEN=a-g1-h1-j1-k1-m1  j       k l m c1 d1
                INEN=a-g1-v-w     j       k l m c1 d1

[12]  ____________________________________________________________
      OP NAILUP - OP:NAILUP NAILUP REQUEST FAILURE
      PORT   n

[13]  ____________________________________________________________
      OP NAILUP QUAN SM = a  t
           QUANTITY  PERCENT  INTRA-SM   INTER-SM
        NU o         p        q          r
        HP e1        NA       f1         NA
```

2. REASON FOR OUTPUT

To print the status of one or a group of nail-up connections. For Formats 1 through 10, the originating ("from") port is shown as the first port in each pair.

Format 1 prints the status information for a specific digital facility interface (DFI) and has up to 30 entries (CON1-CON30).

Format 2 prints the status information for a specific subscriber DFI (SDFI) and has up to 24entries (CON1-CON24).

Format 3 prints status on a trunk unit channel board level (TUCHBD) and has up to four entries (CON1-CON4).

Format 4 prints status on a DNU-S DS1 facility (DS1SFAC) and has up to 24 entries (CON1-CON24).

Format 5 prints status of one connection (CON1) using the digital equipment number (DEN).

Format 6 prints the status of CON1 using the trunk equipment number (TEN).

Format 7 prints the status of one connection using the subscriber loop equipment number (SLEN) number.

Format 8 prints the status of one connection using the DNU-S network equipment number (NEN).

Format 9 prints the status of one connection using the IDCU line equipment number (ILEN) number.

Format 10 prints the status for a specific integrated digital carrier unit (IDCU) facility (IFAC) and has up to 24 entries (CON1-CON24).

Format 11 prints the status of one connection using the integrated digital loop carrier (IDLC) network equipment number (INEN).

Format 12 shows a nail-up request failure.

Format 13 prints the status of an entire switching module (SM) using the quantity (QUAN) parameter.

Note: If the DFI parameter is specified, there will be no TEN to TEN combinations printed; when a TUCHBD is specified, there will be no DEN to DEN combinations printed.

3. VARIABLE FIELD DEFINITIONS

`HP` = Indicates that the connection is a hairpin. Otherwise, the connection is a nail-up.

`a` = SM number.

`b` = Digital line and trunk unit (DLTU) number.

`c` = DFI number.

`d` = Channel number.

`e` = Trunk unit (TU) number.

`f` = Service group number.

`g` = Channel board number.

`h` = Circuit number.

`j` = Loss in decibels (0.0- 7.0) rounded to nearest 0.5.

`k` = Basic state of port [such as, in-service (IS)].

`l` = Qualifier of port.

`m` = Operational restriction on port.

`n` = Unit for which OP:NAILUP was requested, as specified in the input message (such as, DEN a-b-c-d).

`o` = Number of nail-up ports in SM.

`p` = Percentage of nail-up ports in SM requiring time-slot interchange unit (TSIU) network timeslots divided by the total number of TSIU network timeslots in the SM, rounded to the nearest whole percentage.

`q` = Number of intra-SM nail-up ports.

`r` = Number of inter-SM nail-up ports.

`s` = Status of the request. Valid value(s):
`COMPLETED` = OP:NAILUP input message request completed.
`CONTINUED` = OP:NAILUP input message request continued.
`PORT NOT NAILED UP` = Port not in a nail-up connection.
`STARTED` = OP:NAILUP input message request started.

`t` = Valid value(s):
`DATA MAY BE INVALID` = Part of message data is invalid indicated by zeros.

`u` = DCLU number.

`v` = RT number.

`w` = RT line number.

x = IDCU number.

y = RT number or IDCU PUB43801 facility number.

z = RT line number or IDCU PUB43801 channel number.

a[1] = IDCU facility (IFAC) number.

c[1] = Supplementary information on port.

d[1] = Mode of port.

e[1] = Number of hairpin ports in SM.

f[1] = Number of intra-SM hairpin ports.

g[1] = DNU-S number.

h[1] = Data group number.

j[1] = STS number.

k[1] = VT1.5 facility number.

l[1] = DS1 facility number.

m[1] = DS0 number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:NAILUP
```

OP:NAILUP-C

Software Release: 5E13 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

[1]

```
OP NAILUP DFI=a-b-c   s  t
           TYPE                          LOSS    STATUS
  CON1     DEN=a-b-c-d                   j       k l m c1 d1
           DEN=a-b-c-d                   j       k l m c1 d1
  CON1     DEN=a-b-c-d                   j       k l m c1 d1
           SLEN=a-u-v-w                  j       k l m c1 d1
  CON1     DEN=a-b-c-d                   j       k l m c1 d1
           TEN=a-e-f-g-h                 j       k l m c1 d1
  CON1     DEN=a-b-c-d                   j       k l m c1 d1
           ILEN=a-x-y-z                  j       k l m c1 d1
  CON1     DEN=a-b-c-d                   j       k l m c1 d1
           NEN=a-g1-h1-j1-k1-l1-m1-n1    j       k l m c1 d1
  CON1     DEN=a-b-c-d                   j       k l m c1 d1
           INEN=a-g1-v-w                 j       k l m c1 d1
  CON1     SLEN=a-u-v-w                  j       k l m c1 d1
           DEN=a-b-c-d                   j       k l m c1 d1
  CON1     TEN=a-e-f-g-h                 j       k l m c1 d1
           DEN=a-b-c-d                   j       k l m c1 d1
  CON1     ILEN=a-x-y-z                  j       k l m c1 d1
           DEN=a-b-c-d                   j       k l m c1 d1
  CON1     NEN=a-g1-h1-j1-k1-l1-m1-n1    j       k l m c1 d1
           DEN=a-b-c-d                   j       k l m c1 d1
  CON1     INEN=a-g1-v-w                 j       k l m c1 d1
           DEN=a-b-c-d                   j       k l m c1 d1
```

[2]

```
OP NAILUP SDFI=a-u-v   s  t
           TYPE                          LOSS    STATUS
  CON1     SLEN=a-u-v-w                  j       k l m c1 d1
           SLEN=a-u-v-w                  j       k l m c1 d1
  CON1     SLEN=a-u-v-w                  j       k l m c1 d1
           DEN=a-b-c-d                   j       k l m c1 d1
  CON1     SLEN=a-u-v-w                  j       k l m c1 d1
           ILEN=a-x-y-z                  j       k l m c1 d1
  CON1     SLEN=a-u-v-w                  j       k l m c1 d1
           NEN=a-g1-h1-j1-k1-l1-m1-n1    j       k l m c1 d1
  CON1     SLEN=a-u-v-w                  j       k l m c1 d1
           INEN=a-g1-v-w                 j       k l m c1 d1
  CON1     DEN=a-b-c-d                   j       k l m c1 d1
           SLEN=a-u-v-w                  j       k l m c1 d1
```

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```
  CON2     ILEN=a-x-y-z                  j       k l m c1 d1
           SLEN=a-u-v-w                  j       k l m c1 d1
  CON1     NEN=a-g1-h1-j1-k1-l1-m1-n1    j       k l m c1 d1
           SLEN=a-u-v-w                  j       k l m c1 d1
  CON1     INEN=a-g1-v-w                 j       k l m c1 d1
           SLEN=a-u-v-w                  j       k l m c1 d1
```

[3]

```
OP NAILUP TUCHBD=a-e-f-g  s  t
           TYPE                          LOSS    STATUS
  CON1     TEN=a-e-f-g-h                 j       k l m c1 d1
           TEN=a-e-f-g-h                 j       k l m c1 d1
  CON1     TEN=a-e-f-g-h                 j       k l m c1 d1
           DEN=a-b-c-d                   j       k l m c1 d1
  CON1     TEN=a-e-f-g-h                 j       k l m c1 d1
           ILEN=a-x-y-z                  j       k l m c1 d1
  CON1     TEN=a-e-f-g-h                 j       k l m c1 d1
           NEN=a-g1-h1-j1-k1-l1-m1-n1    j       k l m c1 d1
  CON1     TEN=a-e-f-g-h                 j       k l m c1 d1
           INEN=a-g1-v-w                 j       k l m c1 d1
  CON1     DEN=a-b-c-d                   j       k l m c1 d1
           TEN=a-e-f-g-h                 j       k l m c1 d1
  CON1     ILEN=a-x-y-z                  j       k l m c1 d1
           TEN=a-e-f-g-h                 j       k l m c1 d1
  CON1     NEN=a-g1-h1-j1-k1-l1-m1-n1    j       k l m c1 d1
           TEN=a-e-f-g-h                 j       k l m c1 d1
  CON1     INEN=a-g1-v-w                 j       k l m c1 d1
           TEN=a-e-f-g-h                 j       k l m c1 d1
```

[4]

```
OP NAILUP DS1SFAC=a-g1-h1-j1-k1-l1-m1    s  t
           TYPE                          LOSS    STATUS
  CON1     NEN=a-g1-h1-j1-k1-l1-m1-n1    j       k l m c1 d1
           NEN=a-g1-h1-j1-k1-l1-m1-n1    j       k l m c1 d1
  CON1     NEN=a-g1-h1-j1-k1-l1-m1-n1    j       k l m c1 d1
           DEN=a-b-c-d                   j       k l m c1 d1
  CON1     NEN=a-g1-h1-j1-k1-l1-m1-n1    j       k l m c1 d1
           SLEN=a-u-v-w                  j       k l m c1 d1
  CON1     NEN=a-g1-h1-j1-k1-l1-m1-n1    j       k l m c1 d1
           TEN=a-e-f-g-h                 j       k l m c1 d1
  CON1     NEN=a-g1-h1-j1-k1-l1-m1-n1    j       k l m c1 d1
           ILEN=a-x-y-z                  j       k l m c1 d1
  CON1     NEN=a-g1-h1-j1-k1-l1-m1-n1    j       k l m c1 d1
           INEN=a-g1-v-w                 j       k l m c1 d1
  CON1     DEN=a-b-c-d                   j       k l m c1 d1
           NEN=a-g1-h1-j1-k1-l1-m1-n1    j       k l m c1 d1
  CON1     SLEN=a-u-v-w                  j       k l m c1 d1
           NEN=a-g1-h1-j1-k1-l1-m1-n1    j       k l m c1 d1
```

```
  CON1     TEN=a-e-f-g-h                j       k l m c1 d1
           NEN=a-g1-h1-j1-k1-l1-m1-n1   j       k l m c1 d1
  CON1     ILEN=a-x-y-z                 j       k l m c1 d1
           NEN=a-g1-h1-j1-k1-l1-m1-n1   j       k l m c1 d1
  CON1     INEN=a-g1-v-w                j       k l m c1 d1
           NEN=a-g1-h1-j1-k1-l1-m1-n1   j       k l m c1 d1
  CON1     INEN=a-g1-v-w                j       k l m c1 d1
           INEN=a-g1-v-w                j       k l m c1 d1
  CON1     INEN=a-g1-v-w                j       k l m c1 d1
           DEN=a-b-c-d                  j       k l m c1 d1
  CON1     INEN=a-g1-v-w                j       k l m c1 d1
           TEN=a-e-f-g-h                j       k l m c1 d1
  CON1     INEN=a-g1-v-w                j       k l m c1 d1
           SLEN=a-u-v-w                 j       k l m c1 d1
  CON1     INEN=a-g1-v-w                j       k l m c1 d1
           ILEN=a-x-y-z                 j       k l m c1 d1
  CON1     DEN=a-b-c-d                  j       k l m c1 d1
           INEN=a-g1-v-w                j       k l m c1 d1
  CON1     TEN=a-e-f-g-h                j       k l m c1 d1
           INEN=a-g1-v-w                j       k l m c1 d1
  CON1     SLEN=a-u-v-w                 j       k l m c1 d1
           INEN=a-g1-v-w                j       k l m c1 d1
  CON1     ILEN=a-x-y-z                 j       k l m c1 d1
           INEN=a-g1-v-w                j       k l m c1 d1
```

[5]

```
OP NAILUP DEN=a-b-c-d  s  t
           TYPE                         LOSS    STATUS
  CON1     DEN=a-b-c-d                  j       k l m c1 d1
           DEN=a-b-c-d                  j       k l m c1 d1
  CON1     DEN=a-b-c-d                  j       k l m c1 d1
           TEN=a-e-f-g-h                j       k l m c1 d1
  CON1     DEN=a-b-c-d                  j       k l m c1 d1
           SLEN=a-u-v-w                 j       k l m c1 d1
  CON1     DEN=a-b-c-d                  j       k l m c1 d1
           ILEN=a-x-y-z                 j       k l m c1 d1
  CON1     DEN=a-b-c-d                  j       k l m c1 d1
           NEN=a-g1-h1-j1-k1-l1-m1-n1   j       k l m c1 d1
  CON1     DEN=a-b-c-d                  j       k l m c1 d1
           INEN=a-g1-v-w                j       k l m c1 d1
  CON1     SLEN=a-u-v-w                 j       k l m c1 d1
           DEN=a-b-c-d                  j       k l m c1 d1
  CON1     TEN=a-e-f-g-h                j       k l m c1 d1
           DEN=a-b-c-d                  j       k l m c1 d1
  CON1     ILEN=a-x-y-z                 j       k l m c1 d1
           DEN=a-b-c-d                  j       k l m c1 d1
  CON1     NEN=a-g1-h1-j1-k1-l1-m1-n1   j       k l m c1 d1
           DEN=a-b-c-d                  j       k l m c1 d1
```

```
  CON1     INEN=a-g1-v-w                j       k l m c1 d1
           DEN=a-b-c-d                  j       k l m c1 d1
```

[6]

```
OP NAILUP TEN b-f-g-h  s  t
           TYPE                         LOSS    STATUS
  CON1     TEN=a-e-f-g-h                j       k l m c1 d1
           TEN=a-e-f-g-h                j       k l m c1 d1
  CON1     TEN=a-e-f-g-h                j       k l m c1 d1
           DEN=a-b-c-d                  j       k l m c1 d1
  CON1     TEN=a-e-f-g-h                j       k l m c1 d1
           ILEN=a-x-y-z                 j       k l m c1 d1
  CON1     TEN=a-e-f-g-h                j       k l m c1 d1
           NEN=a-g1-h1-j1-k1-l1-m1-n1   j       k l m c1 d1
  CON1     TEN=a-e-f-g-h                j       k l m c1 d1
           INEN=a-g1-v-w                j       k l m c1 d1
  CON1     DEN=a-b-c-d                  j       k l m c1 d1
           TEN=a-e-f-g-h                j       k l m c1 d1
  CON1     ILEN=a-x-y-z                 j       k l m c1 d1
           TEN=a-e-f-g-h                j       k l m c1 d1
  CON1     NEN=a-g1-h1-j1-k1-l1-m1-n1   j       k l m c1 d1
           TEN=a-e-f-g-h                j       k l m c1 d1
  CON1     INEN=a-g1-v-w                j       k l m c1 d1
           TEN=a-e-f-g-h                j       k l m c1 d1
```

[7]

```
OP NAILUP SLEN=a-u-v-w   s  t
           TYPE                         LOSS    STATUS
  CON1     SLEN=a-u-v-w                 j       k l m c1 d1
           DEN=a-b-c-d                  j       k l m c1 d1
  CON1     DEN=a-b-c-d                  j       k l m c1 d1
           SLEN=a-u-v-w                 j       k l m c1 d1
  CON1     SLEN=a-u-v-w                 j       k l m c1 d1
           ILEN=a-x-y-z                 j       k l m c1 d1
  CON1     ILEN=a-x-y-z                 j       k l m c1 d1
           SLEN=a-u-v-w                 j       k l m c1 d1
  CON1     SLEN=a-u-v-w                 j       k l m c1 d1
           NEN=a-g1-h1-j1-k1-l1-m1-n1   j       k l m c1 d1
  CON1     NEN=a-g1-h1-j1-k1-l1-m1-n1   j       k l m c1 d1
           SLEN=a-u-v-w                 j       k l m c1 d1
  CON1     SLEN=a-u-v-w                 j       k l m c1 d1
           INEN=a-g1-v-w                j       k l m c1 d1
  CON1     INEN=a-g1-v-w                j       k l m c1 d1
           SLEN=a-u-v-w                 j       k l m c1 d1
  CON1     SLEN=a-u-v-w                 j       k l m c1 d1
           SLEN=a-u-v-w                 j       k l m c1 d1
```

[8]

```
OP NAILUP NEN=a-g1-h1-j1-k1-l1-m1-n1  s  t
```

```
            TYPE                          LOSS    STATUS
  CON1      NEN=a-g1-h1-j1-k1-l1-m1-n1    j       k l m c1 d1
            NEN=a-g1-h1-j1-k1-l1-m1-n1    j       k l m c1 d1
  CON1      NEN=a-g1-h1-j1-k1-l1-m1-n1    j       k l m c1 d1
            DEN=a-b-c-d                   j       k l m c1 d1
  CON1      NEN=a-g1-h1-j1-k1-l1-m1-n1    j       k l m c1 d1
            SLEN=a-u-v-w                  j       k l m c1 d1
  CON1      NEN=a-g1-h1-j1-k1-l1-m1-n1    j       k l m c1 d1
            TEN=a-e-f-g-h                 j       k l m c1 d1
  CON1      NEN=a-g1-h1-j1-k1-l1-m1-n1    j       k l m c1 d1
            ILEN=a-x-y-z                  j       k l m c1 d1
  CON1      NEN=a-g1-h1-j1-k1-l1-m1-n1    j       k l m c1 d1
            INEN=a-g1-v-w                 j       k l m c1 d1
  CON1      DEN=a-b-c-d                   j       k l m c1 d1
            NEN=a-g1-h1-j1-k1-l1-m1-n1    j       k l m c1 d1
  CON1      SLEN=a-u-v-w                  j       k l m c1 d1
            NEN=a-g1-h1-j1-k1-l1-m1-n1    j       k l m c1 d1
  CON1      TEN=a-e-f-g-h                 j       k l m c1 d1
            NEN=a-g1-h1-j1-k1-l1-m1-n1    j       k l m c1 d1
  CON1      ILEN=a-x-y-z                  j       k l m c1 d1
            NEN=a-g1-h1-j1-k1-l1-m1-n1    j       k l m c1 d1
  CON1      INEN=a-g1-v-w                 j       k l m c1 d1
            NEN=a-g1-h1-j1-k1-l1-m1-n1    j       k l m c1 d1
```

[9]

```
OP NAILUP ILEN=a-x-y-z  s  t
            TYPE                          LOSS    STATUS
  CON1 HP   ILEN=a-x-y-z                  j       k l m c1 d1
            ILEN=a-x-y-z                  j       k l m c1 d1
  CON1      ILEN=a-x-y-z                  j       k l m c1 d1
            DEN=a-b-c-d                   j       k l m c1 d1
  CON1      ILEN=a-x-y-z                  j       k l m c1 d1
            TEN=a-e-f-g-h                 j       k l m c1 d1
  CON1      ILEN=a-x-y-z                  j       k l m c1 d1
            SLEN=a-u-v-w                  j       k l m c1 d1
  CON1      ILEN=a-x-y-z                  j       k l m c1 d1
            NEN=a-g1-h1-j1-k1-l1-m1-n1    j       k l m c1 d1
  CON1      ILEN=a-x-y-z                  j       k l m c1 d1
            INEN=a-g1-v-w                 j       k l m c1 d1
  CON1      DEN=a-b-c-d                   j       k l m c1 d1
            ILEN=a-x-y-z                  j       k l m c1 d1
  CON1      TEN=a-e-f-g-h                 j       k l m c1 d1
            ILEN=a-x-y-z                  j       k l m c1 d1
  CON1      SLEN=a-u-v-w                  j       k l m c1 d1
            ILEN=a-x-y-z                  j       k l m c1 d1
  CON1      NEN=a-g1-h1-j1-k1-l1-m1-n1    j       k l m c1 d1
            ILEN=a-x-y-z                  j       k l m c1 d1
  CON1      INEN=a-g1-v-w                 j       k l m c1 d1
```

```
                ILEN=a-x-y-z                j       k l m c1 d1

[10]  ____________________________________________________________
      OP NAILUP IFAC=a-x-a1  s  t
                TYPE                        LOSS    STATUS

        CON1 HP ILEN=a-x-y-z                j       k l m c1 d1
                ILEN=a-x-y-z                j       k l m c1 d1
        CON2    ILEN=a-x-y-z                j       k l m c1 d1
                DEN=a-b-c-d                 j       k l m c1 d1
        CON3    ILEN=a-x-y-z                j       k l m c1 d1
                TEN=a-e-f-g-h               j       k l m c1 d1
        CON4    ILEN=a-x-y-z                j       k l m c1 d1
                SLEN=a-u-v-w                j       k l m c1 d1
        CON5    ILEN=a-x-y-z                j       k l m c1 d1
                NEN=a-g1-h1-j1-k1-l1-m1-n1  j       k l m c1 d1
        CON6    ILEN=a-x-y-z                j       k l m c1 d1
                INEN=a-g1-v-w               j       k l m c1 d1
        CON7    DEN=a-b-c-d                 j       k l m c1 d1
                ILEN=a-x-y-z                j       k l m c1 d1
        CON8    TEN=a-e-f-g-h               j       k l m c1 d1
                ILEN=a-x-y-z                j       k l m c1 d1
        CON9    SLEN=a-u-v-w                j       k l m c1 d1
                ILEN=a-x-y-z                j       k l m c1 d1
        CON10   NEN=a-g1-h1-j1-k1-l1-m1-n1  j       k l m c1 d1
                ILEN=a-x-y-z                j       k l m c1 d1
        CON11   INEN=a-g1-v-w               j       k l m c1 d1
                ILEN=a-x-y-z                j       k l m c1 d1

[11]  ____________________________________________________________
      OP NAILUP INEN=a-g1-v-w  s  t
                TYPE                        LOSS    STATUS
        CON1    INEN=a-g1-v-w               j       k l m c1 d1
                INEN=a-g1-v-w               j       k l m c1 d1
        CON1    INEN=a-g1-v-w               j       k l m c1 d1
                DEN=a-b-c-d                 j       k l m c1 d1
        CON1    INEN=a-g1-v-w               j       k l m c1 d1
                TEN=a-e-f-g-h               j       k l m c1 d1
        CON1    INEN=a-g1-v-w               j       k l m c1 d1
                SLEN=a-u-v-w                j       k l m c1 d1
        CON1    INEN=a-g1-v-w               j       k l m c1 d1
                ILEN=a-x-y-z                j       k l m c1 d1
        CON1    INEN=a-g1-v-w               j       k l m c1 d1
                NEN=a-g1-h1-j1-k1-l1-m1-n1  j       k l m c1 d1
        CON1    DEN=a-b-c-d                 j       k l m c1 d1
                INEN=a-g1-v-w               j       k l m c1 d1
        CON1    TEN=a-e-f-g-h               j       k l m c1 d1
                INEN=a-g1-v-w               j       k l m c1 d1
```

```
  CON1     SLEN=a-u-v-w                j       k l m c1 d1
           INEN=a-g1-v-w               j       k l m c1 d1
  CON1     ILEN=a-x-y-z                j       k l m c1 d1
           INEN=a-g1-v-w               j       k l m c1 d1
  CON1     NEN=a-g1-h1-j1-k1-l1-m1-n1  j       k l m c1 d1
           INEN=a-g1-v-w               j       k l m c1 d1
```

[12]

```
OP NAILUP - OP:NAILUP NAILUP REQUEST FAILURE
PORT   n
```

[13]

```
OP NAILUP QUAN SM = a  t
     QUANTITY  PERCENT  INTRA-SM   INTER-SM
  NU o         p        q          r
  HP e1        NA       f1         NA
```

2. REASON FOR OUTPUT

To print the status of one or a group of nail-up connections. For Formats 1 through 10, the originating ("from") port is shown as the first port in each pair.

Format 1 prints the status information for a specific digital facility interface (DFI) and has up to 30 entries (CON1-CON30). Format 2 prints the status information for a specific subscriber DFI (SDFI) and has up to 24entries (CON1-CON24). Format 3 prints status on a trunk unit channel board level (TUCHBD) and has up to four entries (CON1-CON4). Format 4 prints status on a DS1 facility (DS1SFAC) of a digital networking unit - synchronous optical network (SONET)(DNU-S) and has up to 24 entries (CON1-CON24). Format 5 prints status of one connection (CON1) using the digital equipment number (DEN). Format 6 prints the status of CON1 using the trunk equipment number (TEN). Format 7 prints the status of one connection using the subscriber loop equipment number (SLEN) number. Format 8 prints the status of one connection using the DNU-S network equipment number (NEN). Format 9 prints the status of one connection using the IDCU line equipment number (ILEN) number. Format 10 prints the status for a specific integrated digital carrier unit (IDCU) facility (IFAC) and has up to 24 entries (CON1-CON24). Format 11 prints the status of one connection using the integrated digital loop carrier (IDLC) network equipment number (INEN). Format 12 shows a nail-up request failure. Format 13 prints the status of an entire switching module (SM) using the quantity (QUAN) parameter.

Note: If the DFI parameter is specified, there will be no TEN to TEN combinations printed; when a TUCHBD is specified, there will be no DEN to DEN combinations printed.

3. VARIABLE FIELD DEFINITIONS

HP = Indicates that the connection is a hairpin. Otherwise, the connection is a nail-up.

a = SM number.

b = Digital line and trunk unit (DLTU) number.

c = DFI number.

d = Channel number.

e = Trunk unit (TU) number.

f = Service group number.

g = Channel board number.

h = Circuit number.

j = Loss in decibels (0.0- 7.0) rounded to nearest 0.5.

k = Basic state of port [such as, in-service (IS)].

l = Qualifier of port.

m = Operational restriction on port.

n = Unit for which OP:NAILUP was requested, as specified in the input message (such as, DEN a-b-c-d).

o = Number of nail-up ports in SM.

p = Percentage of nail-up ports in SM requiring time-slot interchange unit (TSIU) network timeslots divided by the total number of TSIU network timeslots in the SM, rounded to the nearest whole percentage.

q = Number of intra-SM nail-up ports.

r = Number of inter-SM nail-up ports.

s = Status of the request. Valid value(s):
`COMPLETED` = OP:NAILUP input message request completed.
`CONTINUED` = OP:NAILUP input message request continued.
`PORT NOT NAILED UP` = Port not in a nail-up connection.
`STARTED` = OP:NAILUP input message request started.

t = Valid value(s):
`DATA MAY BE INVALID` = Part of message data is invalid indicated by zeros.

u = DCLU number.

v = RT number.

w = RT line number.

x = IDCU number.

y = RT number or IDCU PUB43801 facility number.

z = RT line number or IDCU PUB43801 channel number.

a[1] = IDCU facility (IFAC) number.

c[1] = Supplementary information on port.

d[1] = Mode of port.

e[1] = Number of hairpin ports in SM.

f[1] = Number of intra-SM hairpin ports.

g[1] = DNU-S number.

h[1] = Data group (DG) number.

j[1] = SONET termination equipment (STE) number.

k[1] = Synchronous transport signal (STS) number.

l[1] = Virtual tributary group (VTG) number.

m[1] = Virtual tributary member (VTM) number.

n[1] = Digital signal level 0 (DS0) number.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:NAILUP
```

OP:NMNODES

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP NMNODES a
  CLLI          V/D
  b             c
  .             .
  .             .
  .             .
```

2. REASON FOR OUTPUT

To print the list of nodes on the five-minute network management node schedule (NMNODES). This is a response to an OP:NMNODES input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination status. Valid value(s):

`ABORTED`	= Message failed. A system error encountered.
`COMPLETED`	= This is the last of a series of messages.
`CONTINUED`	= This is the next of a series of messages.
`STARTED`	= This is the first of a series of messages.

`b` = CLLI code.

`c` = Voice/data indicator. Valid value(s):

`D`	= Data indicator.
`V`	= Voice indicator.

4. ACTION TO BE TAKEN

If the termination status is `COMPLETED`, `CONTINUED`, or `STARTED`, the message is a confirmation of a request from an input message. No action required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ASGN:NMNODES
CLR:NMNODES
OP:NMNODES
```

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OP:NMOUT

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP NMOUT COMPLETED
  NM  OUTPUT INHIBITS
  [SILC] [TGC] [CGAP] [DOC] [TR] [SSTR]
```

2. REASON FOR OUTPUT

To display a list of inhibits for suppressing the printing of remote network management center (RNMC) stimulated messages. This is a response to the OP:NMOUT input message.

3. VARIABLE FIELD DEFINITIONS

`CGAP` = Output messages relating to call gapping (CGAP) code controls are inhibited.

`DOC` = Output messages relating to dynamic overload controls (DOC) are inhibited.

`SILC` = Output messages relating to selective incoming load control (SILC) are inhibited.

`SSTR` = Output messages relating to service selective trunk reservation (SSTR) controls are inhibited.
Valid value(s):

```
NM OUTPUT INHIBITS
OP NMOUT COMPLETED
TGC CGAP
```

`TGC` = Output messages relating to trunk group controls (TGC) are inhibited.

`TR` = Output messages relating to trunk reservation controls group (TR) are inhibited.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:NMOUT
INH:NMOUT
OP:NMOUT
```

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OP:NMPGE-A

Software Release: 5E10 only
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP NMPGE
  NM EXCEPTION PAGE
  ----------------------------------------------------
  ----MANUAL CONTROLS-----|-----AUTOMATIC CONTROLS-----
  CALL GAP     a          |        DLN    DOC     SILC
  TRUNK GROUP  b          |        XMT  RCV XMT
                          | MC1,2  r    d   c     e
                          | MC3         h   i     g
                          | STATUS s        l     k
                          |
                          |                 SSTR  TR
                          | INH OVRD        o     m
                          | TRIGGERED       p     n
                          | ASSIGNED        q
  ----------------------------------------------------
```

2. REASON FOR OUTPUT

To print a copy of the current Master Control Center (MCC) NM exception page (EXCPAGE). This is a response to the OP:NMPGE input message.

3. VARIABLE FIELD DEFINITIONS

a = Call gap control status. Valid value(s):
- NO = Controls do not exist.
- YES = Controls exist.

b = Trunk group control status. Valid value(s):
- NO = Controls do not exist.
- YES = Controls exist.

c = Status of dynamic overload control (DOC) machine congestion level. Valid value(s):
- MC1 = Machine congestion level 1 exists.
- MC2 = Machine congestion level 2 exists.
- NO = Neither MC1 nor MC2 exists.

d = Status of incoming machine congestion levels 1 and 2. Valid value(s):
- MC1 = Machine congestion level 1 exists in the adjacent switches.
- MC2 = Machine congestion level 2 exists in the adjacent switches.
- NO = Neither MC1 nor MC2 exist in the adjacent switches.

e = Status of selective incoming load control (SILC) machine congestion level. Valid value(s):

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MC1 = Machine congestion level 1 exists.
MC2 = Machine congestion level 2 exists.
NO = Neither MC1 nor MC2 exists.

g = Status of machine congestion level for SILC. Valid value(s):
NO = MC3 does not exist.
YES = Machine congestion level 3 (MC3) exists.

h = Status of incoming machine congestion level 3. Valid value(s):
NO = MC3 does not exist in the adjacent switches.
YES = MC3 exists in the adjacent switches.

i = Status of machine congestion level for DOC. Valid value(s):
NO = MC3 does not exist.
YES = MC3 exists.

k = Status of SILC. Valid value(s):
ALW = SILC is allowed.
INH = SILC is inhibited.

l = DOC transmitting status. Valid value(s):
ALW = The switch informs other switches of the machine congestion levels for DOC.
INH = The switch does not inform other switches of the machine congestion levels for DOC.

m = Status of trunk reservation (TR) controls inhibit override. Valid value(s):
NO = TR inhibit override is not in effect.
YES = All TR per-trunk group inhibits have been overridden.

n = Status of TR controls triggered. Valid value(s):
NO = TR control(s) have not affected any calls.
YES = A call has been controlled by TR.

o = Status of service selective trunk reservation (SSTR) controls inhibit override. Valid value(s):
NO = SSTR inhibit override is not in effect.
YES = All SSTR per-trunk group inhibits have been overridden.

p = Status of SSTR controls triggered. Valid value(s):
NO = SSTR control(s) have not affected any calls.
YES = A call has been controlled by SSTR.

q = Status of assigning SSTR control. Valid value(s):
NO = An SSTR control is not assigned.
YES = An SSTR control is assigned.

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`r` = Status of direct link node (DLN) overload levels. Valid value(s):

- `MC1` = DLN overload level 1 exists.
- `MC2` = DLN overload level 2 exists.
- `NO` = Neither DLN overload level 1 nor level 2 exists.

`s` = DLN overload control transmitting status. Valid value(s):

- `ALW` = The switch informs other switches of the DLN overload level.
- `INH` = The switch does not inform other switches of the DLN overload level.

4. ACTION TO BE TAKEN

The purpose of this message is to report the result of the action requested by the corresponding manually requested input message. No specific action is indicated.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:NMPGE
```

OP:NMPGE-B

Software Release: 5E11 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP NMPGE
  NM EXCEPTION PAGE
  ----------------------------------------------------
  ----MANUAL CONTROLS-----|-----AUTOMATIC CONTROLS-----
  CALL GAP     a          |        CCS    ACC     SILC
  TRUNK GROUP  b          |        XMT  RCV XMT
                          | MC1,2  r    d   c     e
                          | MC3         h   i     g
                          | STATUS s        l     k
                          |
                          |                 SSTR  TR
                          | INH OVRD        o     m
                          | TRIGGERED       p     n
                          | ASSIGNED        q
  ----------------------------------------------------
```

2. REASON FOR OUTPUT

To print a copy of the current Master Control Center (MCC) NM exception page (EXCPAGE). This is a response to the OP:NMPGE input message.

3. VARIABLE FIELD DEFINITIONS

a = Call gap control status. Valid value(s):
- NO = Controls do not exist.
- YES = Controls exist.

b = Trunk group control status. Valid value(s):
- NO = Controls do not exist.
- YES = Controls exist.

c = Status of automatic congestion control (ACC) machine congestion level. Valid value(s):
- MC1 = Machine congestion level 1 exists.
- MC2 = Machine congestion level 2 exists.
- NO = Neither MC1 nor MC2 exists.

d = Status of incoming machine congestion levels 1 and 2. Valid value(s):
- MC1 = Machine congestion level 1 exists in the adjacent switches.
- MC2 = Machine congestion level 2 exists in the adjacent switches.
- NO = Neither MC1 nor MC2 exist in the adjacent switches.

e = Status of selective incoming load control (SILC) machine congestion level. Valid value(s):

MC1 = Machine congestion level 1 exists.
MC2 = Machine congestion level 2 exists.
NO = Neither MC1 nor MC2 exists.

g = Status of machine congestion level for SILC. Valid value(s):
NO = MC3 does not exist.
YES = Machine congestion level 3 (MC3) exists.

h = Status of incoming machine congestion level 3. Valid value(s):
NO = MC3 does not exist in the adjacent switches.
YES = Machine congestion level 3 (MC3) exists in the adjacent switches.

i = Status of machine congestion level for ACC. Valid value(s):
NO = MC3 does not exist.
YES = MC3 exists.

k = Status of SILC. Valid value(s):
ALW = SILC is allowed.
INH = SILC is inhibited.

l = ACC transmitting status. Valid value(s):
ALW = The switch informs other switches of the machine congestion levels for ACC.
INH = The switch does not inform other switches of the machine congestion levels for ACC.

m = Status of trunk reservation (TR) controls inhibit override. Valid value(s):
NO = TR inhibit override is not in effect.
YES = All TR per-trunk group inhibits have been overridden.

n = Status of TR controls triggered. Valid value(s):
NO = TR control(s) have not affected any calls.
YES = A call has been controlled by TR.

o = Status of service selective trunk reservation (SSTR) controls inhibit override. Valid value(s):
NO = SSTR inhibit override is not in effect.
YES = All SSTR per-trunk group inhibits have been overridden.

p = Status of SSTR controls triggered. Valid value(s):
NO = SSTR control(s) have not affected any calls.
YES = A call has been controlled by SSTR.

q = Status of assigning SSTR control. Valid value(s):
NO = An SSTR control is not assigned.
YES = An SSTR control is assigned.

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`r` = Status of CCS processor overload levels. Valid value(s):

- `MC1` = Overload level 1 exists.
- `MC2` = Overload level 2 exists.
- `NO` = Neither overload level 1 nor level 2 exists, or this is not applicable.

`s` = CCS processor overload control transmitting status. Valid value(s):

- `ALW` = The switch informs other switches of the overload level.
- `INH` = The switch does not inform other switches of the overload level.

4. ACTION TO BE TAKEN

The purpose of this message is to report the result of the action requested by the corresponding manually requested input message. No specific action is indicated.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:NMPGE
```

OP:NMSCH

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP NMSCH a
  NM SCHEDULE
  b b b b b b b b
  . . . . . . . .
  . . . . . . . .
  . . . . . . . .
```

2. REASON FOR OUTPUT

To display a list of trunk groups on the network management (NM) trunk group schedule.

3. VARIABLE FIELD DEFINITIONS

a	= Termination report. Valid value(s):	
	ABORTED	= System error.
	COMPLETED	= Last in a series of messages
	CONTINUED	= More messages to come.
	STARTED	= First in a series of messages.
b	= Trunk group number.	

4. ACTION TO BE TAKEN

This message is the result of an OP:NMSCH input message. If the termination status is ABORTED, reinitiate the request after the system error has been recovered.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

ASGN:NMSCH
CLR:NMSCH
OP:NMSCH
STP:NMOP

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OP:NMTHD

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP NMTHD a
  MU     b         b         b         b
  ACH    b         b         b         b
  CCH    b         b         b         b
```

2. REASON FOR OUTPUT

To display all the network management (NM) threshold (NMTHD) values defined for all trunk groups in the TRUNK block of the defense switched network (DSN) NM exception page 129.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination report. Valid value(s):
`ABORTED` = System error.
`COMPLETED` = Command successfully completed.

`b` = Threshold value.

4. ACTION TO BE TAKEN

This message is the result of an OP:NMTHD input message. If the termination status is `ABORTED`, reinitiate the request after the system error has been recovered.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:NMTHD`

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OP:NPMEM-A

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP NPMEM a
        {RPCNb 0|LN b c}
        d
        e  f
        .  .
        .  .
        .  .

[2]   ____________________________________________________________________
      OP NPMEM STOPPED
      g
```

2. REASON FOR OUTPUT

To print a data dump of the node processor (NP) memory or ports in response to an OP:NPMEM input message. Up to 464 bytes will print per block of data. Dumps of more than 464 bytes are printed in multiple blocks.

3. VARIABLE FIELD DEFINITIONS

`LN` = Link node.

`RPCN` = Ring node peripheral controller.

`a` = Termination status. Valid value(s):
- `COMPL` = Completed.
- `INPROG` = In progress.
- `STARTED` = Request started.

`b` = Ring node (RN) group number.

`c` = Ring node member number.

`d` = Type of dump. Valid value(s):
- `BPORT` = Byte port.
- `MADDR` = Byte memory.

`e` = Start address (5 hexadecimal digits) of the first byte of NP memory represented on this line.

`f` = Contents of the indicated byte in node processor memory or port in hexadecimal.

`g` = Reason for stopping.

4. ACTION TO BE TAKEN

If an error message is unclear, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:NPMEM
```

OP:NPMEM-B

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP NPMEM {ROP | FILEROP} {RPCNb 0 | LNb c} a
       {RPCNb 0|LNb c}
        d
        e  f
        .  .
        .  .
        .  .

[2]   ____________________________________________________________________
      OP NPMEM {FILE | FILEROP | RAW3B | RAW80} {RPCNb 0 | LNb c} a
        h BYTES OUTPUT IN FILE - ij

[3]   ____________________________________________________________________
      OP NPMEM STOPPED
      g
```

2. REASON FOR OUTPUT

To print a data dump of the node processor (NP) memory or ports in response to an OP:NPMEM input message. Up to 464 bytes will print per block of data. Dumps of more than 464 bytes are printed in multiple blocks. Format 1 is produced when ROP or FILEROP is used as an argument to the NPMEM input message keyword. Format 2 is produced when FILE, FILEROP, RAW3B, or RAW80 is used as an argument to the NPMEM input message keyword. Format 3 may be output by itself or with formats 1 or 2.

3. VARIABLE FIELD DEFINITIONS

`LN` = Link node.

`RPCN` = Ring node peripheral controller.

`a` = Termination status. Valid value(s):
- `COMPL` = Completed.
- `INPROG` = In progress.
- `STARTED` = Request started.

`b` = Ring node (RN) group number.

`c` = Ring node member number.

`d` = Type of dump. Valid value(s):
- `BPORT` = Byte port.
- `MADDR` = Node processor memory.

`e` = Start address (5 hexadecimal digits) of the first byte of NP memory or port represented on this

line.

`f` = Contents of the indicated byte in node processor memory or port in hexadecimal.

`g` = Reason for stopping.

`h` = Total number of bytes dumped to the file.

`i` = Path to the file where data was placed. The default path is "/etc/log/".

`j` = File name where data is placed, {D. | DR.}{RPCN | LN}b_c.

4. ACTION TO BE TAKEN

If an error message is unclear, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:NPMEM
```

56. OP:O

OP:ODD-A

Software Release: 5E10 - 5E11
Message Class: ODD
Application: 5
Type: Output

1. FORMAT

```
[1]  ____________________________________________________________________
     OP ODD                                    PAGE a OF b
       AM SODD USED=c AVAIL=d PCT USED=e
       AM UODD USED=c AVAIL=d PCT USED=e
       AM DISK USED=c AVAIL=d PCT USED=e

[2]  ____________________________________________________________________
     OP ODD                                    PAGE a OF b
                SM RODD USED=c AVAIL=d PCT USED=e
                NRODD    PCT    UODD     PCT
              USED AVAIL USED USED AVAIL USED UNALLOC SABM
       SM f    c    d     e    c    d     e      g     h
       SM f    c    d     e    c    d     e      g     h

[3]  ____________________________________________________________________
     OP ODD                                    PAGE a OF b
                NRODD    PCT    UODD     PCT
              USED AVAIL USED USED AVAIL USED UNALLOC SABM
       CMP f   c    d     e    c    d     e
       CMP f   c    d     e    c    d     e

[4]  ____________________________________________________________________
     OP ODD                                    PAGE a OF b
                AM SODD USED=c AVAIL=d PCT USED=e
                AM UODD USED=c AVAIL=d PCT USED=e
                AM DISK USED=c AVAIL=d PCT USED=e
                SM RODD USED=c AVAIL=d PCT USED=e
                NRODD    PCT    UODD     PCT
              USED AVAIL USED USED AVAIL USED UNALLOC SABM
       SM  f    c    d     e    c    d     e      g     h
       SM  f    c    d     e    c    d     e      g     h
       CMP f    c    d     e    c    d     e
       CMP f    c    d     e    c    d     e

[5]  ____________________________________________________________________
     OP ODD                                    PAGE a OF b
       AM {MEMORY|DISK} USED=c AVAIL=d PCT USED=e

[6]  ____________________________________________________________________
     OP ODD                                    PAGE a OF b
              MEMORY   PCT
            USED AVAIL USED
       {SM|CMP} f    c    d     e
```

2. REASON FOR OUTPUT

To print the office dependent data (ODD) availability of the administrative module (AM) or one or more switching modules (SMs), or one or more communications module processor (CMPs). Formats 1-4 are in response to an OP:ODD input message. The ODD usage reflects the real memory usage determined by counting the number of used and free blocks of ODD memory. If the PCT_USED (calculated by dividing the number of blocks currently in use by total number of blocks) is greater than or equal to 95%, the ODDWARN processor status lamp on the 116 MCC page for AM, the 1800,x MCC page for SM, and the 1850, 1851 MCC pages for CMP will be lit. If the processor status currently has the ODDWARN lamp lit, and if the PCT_USED is determined to be less than 95%, the OP:ODD input message will also clear the ODDWARN status lamp(s). Formats 5 and 6 are reported automatically when the ODD has 20% or less available ODD space. The ODD usage in this case is based on the ODD high address mark (the largest amount of memory that has ever been used at one time in that processor). If the PCT_USED is greater than or equal to 95%, the ODDWARN processor status lamp on the 116 MCC page for AM, the 1800,x MCC page for SM, and the 1850, 1851 MCC pages for CMP will be lit.

Note: That the PCT_USED value of formats 1-4 may be different from that of formats 5-6 due to different methods of calculation as described above.

3. VARIABLE FIELD DEFINITIONS

`DISK` = Disk resident ODD.

`MEMORY` = Memory-resident ODD (SODD, UODD, RODD, NRODD).

`NRODD` = SM memory-resident, non-redundant ODD.

`RODD` = SM memory-resident, redundant ODD.

`SODD` = Static ODD.

`UODD` = Unprotected ODD.

`a` = Page number.

`b` = Number of pages.

`c` = Amount of ODD space used, in kilobytes.

`d` = Amount of available ODD space, in kilobytes.

`e` = Percentage of used ODD space.

`f` = CMP or SM number.

`g` = Amount of unallocated memory (UNALLOC), in kilobytes for the SMs.

`h` = Amount of stand-alone billing memory (SABM), in kilobytes for the SMs.

4. ACTIONS TO BE TAKEN

Grow the appropriate memory ODD space. Refer to the ODD growth messages listed in the References.

5. ALARMS

Major or minor.

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6. REFERENCES

Input Message(s):

```
OP:ODDWARN
OP:ODD-AM-SM
ST:NRODDGRW
ST:ODDGRW-SM
ST:RODDGRW
ST:UODDGRW-SM
```

Output Message(s):

```
OP:ODDWARN
```

MCC Display Page(s):

116 (AM)
1800x (SM)
1850, 1851 (CMP)

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OP:ODD-B

Software Release: 5E12 and later
Message Class: ODD
Application: 5
Type: Output

1. FORMAT

[1]
```
OP ODD                                          PAGE a OF b
  AM SODD USED=c AVAIL=d PCT USED=e
  AM UODD USED=c AVAIL=d PCT USED=e
  AM DISK USED=c AVAIL=d PCT USED=e
```

[2]
```
OP ODD                                          PAGE a OF b
          SM RODD USED=c AVAIL=d PCT USED=e
          NRODD    PCT    UODD     PCT
        USED AVAIL USED USED AVAIL USED UNALLOC SABM RTBM
  SM f   c    d     e    c    d     e      g     h    i
  SM f   c    d     e    c    d     e      g     h    i
```

[3]
```
OP ODD                                          PAGE a OF b
       NRODD    PCT    UODD     PCT
     USED AVAIL USED USED AVAIL USED UNALLOC SABM RTBM
  CMP fc    d     e    c    d     e
  CMP fc    d     e    c    d     e
```

[4]
```
OP ODD                                          PAGE a OF b
        AM SODD USED=c AVAIL=d PCT USED=e
        AM UODD USED=c AVAIL=d PCT USED=e
        AM DISK USED=c AVAIL=d PCT USED=e
        SM RODD USED=c AVAIL=d PCT USED=e
        NRODD    PCT    UODD     PCT
      USED AVAIL USED USED AVAIL USED UNALLOC SABM RTBM
  SM  f   c    d     e    c    d     e      g     h   i
  SM  f   c    d     e    c    d     e      g     h   i
  CMP f   c    d     e    c    d     e
  CMP f   c    d     e    c    d     e
```

[5]
```
OP ODD                                          PAGE a OF b
  AM {MEMORY|DISK} USED=c AVAIL=d PCT USED=e
```

[6]
```
OP ODD                                          PAGE a OF b
         MEMORY   PCT
       USED AVAIL USED
 {SM|CMP} f   c    d     e
```

2. REASON FOR OUTPUT

To print the office dependent data (ODD) availability of the administrative module (AM) or one or more switching modules (SMs), or one or more communications module processor (CMPs).

Formats 1-4 are in response to an OP:ODD input message. The ODD usage reflects the real memory usage determined by counting the number of used and free blocks of ODD memory. If the PCT_USED (calculated by dividing the number of blocks currently in use by total number of blocks) is greater than or equal to 95%, the ODDWARN processor status lamp on the 116 MCC page for AM, the 1800,x MCC page for SM, and the 1850, 1851 MCC pages for CMP will be lit. If the processor status currently has the ODDWARN lamp lit, and if the PCT_USED is determined to be less than 95%, the OP:ODD input message will also clear the ODDWARN status lamp(s).

Formats 5 and 6 are reported automatically when the ODD has 20% or less available ODD space. The ODD usage in this case is based on the ODD high address mark (the largest amount of memory that has ever been used at one time in that processor). If the PCT_USED is greater than or equal to 95%, the ODDWARN processor status lamp on the 116 MCC page for AM, the 1800,x MCC page for SM, and the 1850, 1851 MCC pages for CMP will be lit.

Note: That the PCT_USED value of formats 1-4 may be different from that of formats 5-6 due to different methods of calculation as described above.

3. VARIABLE FIELD DEFINITIONS

`Note` The `DISK` as shown in the FORMAT section refers to the disk resident ODD. This is specifically the DODD disk partitian (for 50+/- disk resident relations that are not real time independent). Use OP:ST-FREEDISK and OP:AMA-DISK/OP:AMA-CONFIG input messages to ascertain SM ODD and AMA information.

`MEMORY` = Memory-resident ODD (SODD, UODD, RODD, NRODD).

`NRODD` = SM memory-resident, non-redundant ODD.

`RODD` = SM memory-resident, redundant ODD.

`SODD` = Static ODD.

`UODD` = Unprotected ODD.

`a` = Page number.

`b` = Number of pages.

`c` = Amount of ODD space used, in kilobytes.

`d` = Amount of available ODD space, in kilobytes.

`e` = Percentage of used ODD space.

`f` = CMP or SM number.

`g` = Amount of unallocated memory (UNALLOC), in kilobytes for the SMs.

`h` = Amount of stand-alone billing memory (SABM), in kilobytes for the SMs.

`i` = Amount of real-time billing memory (RTBM), in kilobytes for the SMs.

4. ACTIONS TO BE TAKEN

Grow the appropriate memory ODD space. Refer to the ODD growth messages listed in the References.

5. ALARMS

Major or minor.

6. REFERENCES

Input Message(s):

```
OP:ODDWARN
OP:ODD-AM-SM
ST:NRODDGRW
ST:ODDGRW-SM
ST:RODDGRW
ST:UODDGRW-SM
```

Output Message(s):

```
OP:ODDWARN
```

MCC Display Page(s):

116 (AM)
1800x (SM)
1850, 1851 (CMP)

OP:ODDWARN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP ODDWARN {SM=a|CMP=b-c|AM}
  PERCENTAGE OF USED ODD = d
  AUTO REORG OF RELATIONS IN OVERFLOW = e
```

2. REASON FOR OUTPUT

To report office-dependent data (ODD) warning information for the specified processor in response to the OP:ODDWARN input message. Two ODD warning conditions are reported as either normal or abnormal: the status of used ODD and the status of generated key (GK) or hashed relations in overflow after automatic reorganization. A generated key relation is one whose access method is DBACC_GK. A hashed relation is one whose access method is DBACC_HASH. The message is repeated for each processor that was requested in the OP:ODDWARN input message.

Note: If automatic reorganization is inhibited (INH:REORG), running automatic reorganization (EXC:REORG) reports relations in overflow without performing any database reorganizations. If overflow is detected, the processor status lamp will indicate ODD WARN on page(s) 1800, 1850, 1851, or 116, depending on which processor(s) have relation(s) in overflow.

3. VARIABLE FIELD DEFINITIONS

`AM` = ODD warning information was requested for the administrative module (AM).

`a` = Number of the switching module (SM) for which ODD warning information was requested.

`b` = Message switch side for the desired communication module processor (CMP).

`c` = CMP for which ODD warning information was requested.

`d` = Status of ODD usage. Valid value(s):

- `ABNORMAL` = The amount of ODD free space on the specified processor is running low. The percentage of used space as determined by OP:ODD output message has exceeded the office engineering recommended maximum.
- `NORMAL` = The ODD on the specified processor is normal. The percentage of used space as determined by OP:ODD output message is within the office engineering recommended maximum.

`e` = Overflow status after last automatic reorganization. Valid value(s):

- `ABNORMAL` = The latest automatic reorganization on the specified processor detected and could not correct (either because it was inhibited or it failed to reorganize) at least one GK or hashed relation with overflow tuple(s).
- `NORMAL` = The latest automatic reorganization on the specified processor detected zero GK or hashed relations with overflow tuples.

4. ACTION TO BE TAKEN

If '`d`' = ABNORMAL, execute OP:ODD-AM-SM input message for ODD usage statistics. If ODD growth is necessary, refer to the Routine Operations and Maintenance manual for SM and AM ODD memory growth procedures. Refer to the OP:ODD output message for detailed descriptions about ABNORMAL conditions.

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If 'e' = ABNORMAL, refer to the Corrective Maintenance manual for manual overflow recovery procedures. After resolving all overflow conditions manually, an automatic database reorganization (EXC:REORG) is required to return the overflow status to NORMAL.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:REORG
INH:REORG
OP:ODD-AM-SM
OP:ODDWARN
```

Output Message(s):

```
OP:ODD
REPT:REORG
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

116 (AM)
1800x (SM)
1850, 1851 (CMP)

OP:OFFNORM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP OFFNORM CM a RECORD
        UNIT    MTCE STATE      HDWCHK        DGN RESULT
        b       c               d             e
        .       .               .             .
        .       .               .             .
        .       .               .             .

[2]   ____________________________________________________________________
      OP OFFNORM CM HAS NO UNITS IN THE REQUESTED STATE
```

2. REASON FOR OUTPUT

To print a list of all communication module (CM) units whose current hardware check states are off-normal or whose current maintenance states are forced active.

Format 1 is the standard output message format when there are CM units in the requested state.

Format 2 is the output message format when there are no CM units in the requested state.

If the CM is manually isolated from the administrative module (AM), its current state is not known. In that case, any information reported reflects the last known state of the CM.

3. VARIABLE FIELD DEFINITIONS

a = Text identifier showing order of OFFNORM record. Valid value(s):
- FIRST = First record of continuing list.
- LAST = Last record of list.
- NEXT = Next record of continuing list.

b = Unit identification.

c = Maintenance state.

d = Hardware check status. Valid value(s):
- ALW,AUTO = Hardware checks are allowed.
- INH,AUTO = Hardware checks are inhibited by automatic request.
- INH,MAN = Hardware checks are inhibited manually.
- N/A = Not applicable.

e = Result of last diagnostic run on unit. Valid value(s):
- ATP = All tests passed.
- CATP = Conditional all tests passed.
- N/A = Not applicable.

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`NTR`	= No tests run.
`STF`	= Some tests failed.
`STP`	= Stopped.

4. ACTION TO BE TAKEN

The purpose of this message is to report the result of the action requested by the corresponding manually requested input message. No specific action is indicated.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-CM
```

OP:OFFNORM-AM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP OFFNORM AM a
  UNIT    MTCE STATE     INH STATE     DGN RESULT
  b       c              d             e
```

2. REASON FOR OUTPUT

To print a list of all administrative module units whose current inhibit states are off-normal or whose current maintenance states are off-normal (for example, forced active or forced unavailable).

3. VARIABLE FIELD DEFINITIONS

`a` = Sequence number of message block. Valid value(s):
- `FIRST` = First record.
- `LAST` = Last record.
- `NEXT` = Next record.

`b` = Unit identification.

`c` = Maintenance state.

`d` = Inhibit status. Valid value(s):
- `INH,AUTO` = Hardware checks are inhibited by automatic request.
- `INH,MAN` = Hardware checks are inhibited manually.

`e` = Result of last diagnostic run on unit. Valid value(s):
- `ABT` = Aborted.
- `ATP` = All tests passed.
- `CATP` = Conditional all tests passed.
- `NTR` = No tests run.
- `STF` = Some tests failed.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

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OP:OFFNORM-IS

Software Release: 5E10 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
OP OFFNORM ISMNAIL SM=a&&b SEGMENT=c EVENT=d e [f]
  [  SM   OOS-FE OOS-TBLA OOS-DSBLD ]
  [NUMBER COUNT   COUNT     COUNT     STATUS]
  [  g      h       i         j         l     ]
```

2. REASON FOR OUTPUT

To respond to an OP:OFFNORM-IS input request message and indicate the number of off-normal inter-SM (switching module) nailups (ISMNAILs) for the range of SMs specified in the input message. "Off-normal" implies any ISMNAIL that is not in-service (IS) or is not currently undergoing automatic recovery.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number or the lower limit of a range of SM numbers.

`b` = Upper limit of a range of SM numbers.

`c` = Output message segment. Valid value(s):
`FIRST`
`LAST` If there is only one segment, LAST will be output.
`NEXT`

`d` = Unique event number of output to logically tie multiple segment output messages together.

`e` = Termination report. Valid value(s):
`COMPLETED` = Request completed successfully.
`FAILURE` = Request was terminated before a normal completion.

`f` = Additional data qualifying the termination of the request. Valid value(s):
`DATABASE PROBLEM` = Problem occurred, while attempting to access critical data (accompanying ASSERT should provide more details).
`LACK OF MESSAGE RESOURCE` = Message resources were not available in the administration module (AM), and craft request could not be forwarded to the SM for execution.
`MESSAGE NOT RECEIVED` = Expected message not received by ATA terminal process within designed timeout interval.
`NO OFFNORM ISMNAIL` = No off-normal ISMNAILs exist on the SM(s) specified.
`SM IN MINMODE` = SM is in MINMODE, and, therefore, cannot support ISMNAILs.
`SM ISOLATED` = SM is isolated, and requested action cannot be honored.
`STOPPED` = Request stopped due to manual intervention.
`SUCCESS` = Success with no error.
`TERMINAL PROCESS NOT CREATED` = An automatic task administrator (ATA) terminal process to execute the craft request could not be created due to system problems.
`TIMEOUT` = Timeout occurred.
Note: For many failed restorations, the ISMNAIL may be left in a state, which will allow a

successful automatic restoration at some later time; use OP:ST-ISMNAIL to determine current status associated with the affected ISMNAIL.

`g` = SM number, for which the off-normal output is being produced.

`h` = Count of the inter-SM (ISM) ports, which for the specified SM, are out-of-service (OOS) due to family-of-equipment (FE) reasons, associated repairable hardware problems:
- OOS PSU (packet switch unit).
- OOS DLI (dual link interface).
- OOS TMSCONN (time multiplexed switch or NLI link problem).
- OOS NLI (network link interface).

`i` = Count of the ISM port, which for the specified SM, are OOS for unknown reasons, such as, OOS TBLA (trouble analysis) ports.

`j` = Count of the ISM port, which for the specified SM, are manually removed OOS DSBLD (disabled) ports.

`l` = Status of the SM. Valid value(s):
`DATABASE PROBLEM` = Problem occurred while attempting to access critical data
`LACK OF MESSAGE RESOURCE` = Message resources were not available in the administration module (AM) and craft request could not be forwarded to the SM for execution.
`MESSAGE NOT RECEIVED` = Expected message not received by ATA terminal process within designated timeout interval.
`NO OFFNORM ISMNAIL` = No off-normal ISMNAILs exist on the SM(s) specified.
`SM IN MINMODE` = SM is in MINMODE and, therefore, cannot support ISMNAILs.
`SM ISOLATED` = SM is isolated and requested action cannot be honored.
`STOPPED` = Request stopped for unknown reasons. The accompanying ASSERT should provide more details.
`SUCCESS` = Success with no errors.
`TERMINAL PROCESS NOT CREATED` = An automatic task administrator (ATA) terminal process to execute the craft request could not be created due to system problems.
`TIMEOUT` = Timeout occurred.

4. ACTION TO BE TAKEN

No further action is necessary if the request completed successfully.

If the termination report indicates a failure, the field will give some indication as to why the request failed.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-IS
OP:ST-ISMNAIL
```

```
STP:ISMNAIL
```

Output Message(s):

```
STP:ISMNAIL
```

OP:OFFNORM-PRI

Software Release: 5E10 and later
Message Class: DCHTRK
Application: 5
Type: Output

1. FORMAT

```
OP OFFNORM PRIGRP a
 [                                D1                D2
  PRIGRP PRI-STAT  B-CH   DCBU  STATE    SM     STATE    SM
   b     c         [d]    e     f        g      f        g   [h]
   .     .          .     .     .        .      .        .    .
   .     .          .     .     .        .      .        .    .
   .     .          .     .     .        .      .        .    . ]
```

2. REASON FOR OUTPUT

To list all primary rate interface (PRI) off-normal conditions. An off-normal condition is defined as a D-channel in an out-of-service (OOS) state. Output data is sorted on the switching module (SM) number first, and then by PRIGRP.

3. VARIABLE FIELD DEFINITIONS

`a` = Completion report. Valid value(s):

- `CONTINUED` = Second and subsequent segments of a list of off-normal conditions is too long to be printed in a single segment.
- `LAST` = Will occur only in a trailing message that contains a list of off-normal conditions. All items in the requested list have been output.
- `NO MATCH` = Indicates that there are no off-normal PRI D-channel conditions to report. This includes conditions where there are no PRI groups in the office, a PRI group is built but no D-channel(s) have yet been assigned, and there are PRI group D-channels assigned but none are in an off-normal condition.
- `RL - OP:OFFNORM,PRIGRP CURRENTLY IN PROGRESS` = Retry later. The request cannot be executed now because another OP:OFFNORM-PRI request is in progress. No more than one task of this type may be executed at any given time.

`b` = PRI group with the off-normal condition. Only groups with off-normal conditions are listed in this report.

`c` = Indication of the PRI group status based on the state of the D-channel(s). If all D-channels are out of service, then this is reflected with an OOS status in this field. If at least one D-channel is in service, then this is reflected with an IS status in this field.

`d` = Total number of B-channels provisioned within the PRI group. If this field is blank, the data could not be retrieved, due to a cross copy read failure to an SM. If blank, field '`h`' indicates there is incomplete data in this output line.

`e` = Indication if D-channel backup (DCBU) is provisioned for this group. Valid value(s):

- `NO` = This PRI group is served by a single D-channel.
- `YES` = This PRI group has DCBU.

`f` = State of the D-channel for this off-normal PRI group. The state is shown for both D-channels if the

PRI group is provisioned with D-channel backup. If the PRI group is provisioned with DCBU, then D1 is the primary and D2 is the secondary D-channel. If the PRI group is not provisioned with DCBU, then the D1/D2 labeling has no significance. If the D-channel is in an OOS CADN AUTO or OOD CADN MAN state, the output will show it as OOS-MAN. Valid value(s):

`IS` = In service.
`OOS-AUTO` = Out-of-service automatic.
`OOS-MAN` = Out-of-service manual.

`g` = SM number where this D-channel is physically provisioned.

`h` = Indicates that the number of B-channels could not be determined, due to a cross copy read failure to an SM. When this is indicated, the field showing the total number of B-channels provisioned is blank. Valid value(s):
`INCOMPLETE DATA` = Indicates incomplete data on this output line.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-PRI
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

MCC Display Page(s):

107 (CIRCUIT LIMIT)

OP:OFFNORM-SM

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP OFFNORM SM a b RECORD
        UNIT                        STATUS  ACTIVITY  HDWCHK QUAL   BIT
        c                           d       e         f      g      h
        .                           .       .         .      .      .
        .                           .       .         .      .      .
        .                           .       .         .      .      .

[2]   ____________________________________________________________________
      OP OFFNORM SM a HAS MASTER INHIBITS IN EFFECT FOR HW ERROR CHECKS

[3]   ____________________________________________________________________
      OP OFFNORM SM a HAS NO CIRCUITS IN THE REQUESTED STATE
```

2. REASON FOR OUTPUT

To list all circuits in the specified switching module (SM) that are in service and have hardware checks abnormally inhibited (some subunits run with hardware checks inhibited). This message is output in response to an OP:OFFNORM-SM input message.

Format 1 is the standard output message format when the SM has circuits in the requested state.

Format 2 is the output message format when the NOPRINT option is specified with the OP:OFFNORM-SM input message and the SM has master inhibits applied for the hardware error checks. If the NOPRINT option is not specified and the SM has master inhibits applied for the hardware error checks, the output messages will be in Format 1. The state of the master inhibits for the hardware checks can be determined by examining the MCC (master control center) page INH & RCVRY CNTL.

Format 3 is the output message format when the SM has no circuits in the requested state. If the NOPRINT option is not specified with the OP:OFFNORM-SM input message, then for all SMs that have no circuits in the OFFNORM state, a message '`SM x HAS NO CIRCUITS IN THE REQUESTED STATE`' ('`x`' = SM number) will be displayed on the receive-only printer (ROP). If the NOPRINT option is specified, then for all SMs that do not have circuits in the OFFNORM state, the OP:OFFNORM-SM output response will be suppressed on the ROP.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = Text identifier showing order of OFFNORM record. Valid value(s):

`FIRST`	= First record of continuing list.
`LAST`	= Last record of list.
`NEXT`	= Next record of continuing list.

`c` = Circuit name.

`d` = Maintenance status. Valid value(s):

ACT	= Active. Unit is in service.
LMTD	= Limited. Unit is in service but not all subunits are available due to a camp-on timeout.
N/A	= Not applicable.
OOS	= Out of service.
STBY	= Standby. Unit is ready to be placed into service.
UNAV	= Unavailable.

e = Maintenance activity. Valid value(s):

BUSY
IDLE

f = Hardware check status. Valid value(s):

ALW	= Allow.
INH	= Inhibit.

g = Hardware check qualifier. Valid value(s):

AUTO	= Automatic (fault recovery action).
MAN	= Manual.
TEMP	= Temporary (diagnostics).

h = Module processor inhibit. Valid value(s):

AFFCI	= Active flip-flop cleared interrupt mask.
ALL	= All of the following bits.
ARPV	= Arbitration protocol violation error mask.
ASDPE	= Synchronous data set controller (SDLC) A parity error mask.
BSDPE	= SDLC B parity error mask.
CACHE	= Cache error interrupt mask for all SMs and cache disable for non-SM-2000s.
CADPE	= Memory address mismatch error mask.
CBERR	= Correctable bit interrupt mask.
CI0IN	= Control interface (CI) 0 interrupt mask.
CI1IN	= CI 1 interrupt mask.
CI2IN	= CI 2 interrupt mask.
CI3IN	= CI 3 interrupt mask.
CPIE	= Administrative module (AM) intervention interrupt mask.
CPINT	= Enhanced AM intervention interrupt mask.
DCODE	= Decode error mask.
DL0PE	= Dual link interface (DLI) 0 read parity error mask.
DL1PE	= DLI 1 read parity error mask.
DLI0I	= DLI 0 interrupt mask.
DLI1I	= DLI 1 interrupt mask.
DLILINKA	= Network control and timing (NCT) A link error mask.
DLILINKB	= NCT B link error mask.
DLISW	= DLI switch error mask.
IAC0	= DLI 0 invalid access error mask.
IAC1	= DLI 1 invalid access error mask.
LPVER	= Bus lock violation mask.
MADPE	= Address parity error mask.

MAPCMSC	= Application controller miscellaneous errors (loss of clock, receive cyclic-redundancy-check error, loss of synchronization and subunit mismatch error).
MATE	= Mate controller and mate peripheral interrupt mask.
MCINT	= Mate controller interrupt mask.
MDLIE	= DLI interface error mask.
MH0IN	= Message handler (MH) 0 interrupt mask.
MH1IN	= MH 1 interrupt mask.
MH2IN	= MH 2 interrupt mask.
MIOIO	= I/O invalid operation error mask.
MIOLE	= I/O lock error mask.
MIOPE	= I/O bus parity error mask.
MIOTO	= I/O timer timeout error mask.
MIOUE	= I/O unlock error mask.
MMEME	= Memory system error mask.
MPRIN	= Mate peripheral interrupt mask.
MRDYT	= Ready timeout mask.
MRSPERR	= Multiple response error mask.
MRWPE	= Write/read parity error mask.
MSKMR	= Mate reset mask.
MSUSM	= Subunit select mismatch mask.
MTINT	= Miscellaneous timer interrupt mask.
MTRT	= Mate ready timeout mask.
MWPER	= Write protect error mask.
N/A	= Not applicable.
NCBERR	= Non-correctable bit error interrupt mask.
PIINT	= Packet interface interrupt mask.
PUMPHW	= Pump hardware inhibited.
REFE	= Dynamic random access memory (DRAM) refresh fail error mask.
SANTIM	= Sanity timer inhibited.
SPINT	= Signal processor (SP)interrupt mask.
SSYNC	= Scanned I/O synchronization error mask.
STKE	= Stack protect error mask.
SU5IN	= Subunit 5 mask.
SU6IN	= Subunit 6 mask.
SU7IN	= Subunit 7 mask.
TSIIN	= Time-slot interchange (TSI) interrupt mask. This bit, when inhibited, will block SM detection of network link interface (NLI) interrupts in SM-2000.
TSI4IN	= TSI unit 4 interrupt mask. This bit will not affect the inhibits for NLIs.

4. ACTION TO BE TAKEN

If the status (variable 'd') of a grid is ACT, the activity (variable 'e') is BUSY, and the hardware check status (variable 'f') is INH, the line unit fabric exerciser program is being executed on the grid. No action should be taken to allow the hardware checks on the grid. On completion, the exerciser program will allow hardware checks on the grid. If hardware checks are inhibited for more than one day on a grid whose status is ACT, allow hardware checks on the grid with the input message ALW:HDW-GRID or ALW:HDW-GRIDBD, as appropriate.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-GRID
ALW:HDW-GRIDBD
ALW:HDW-MCTSI
ALW:HDW-SM
INH:HDW-MCTSI
INH:HDW-SM
OP:OFFNORM-SM
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

OP:OFL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP OFL MESSAGE STARTED
        UNIT        MTCE   INH   DGN
        a b [ c d ] e       f     g

[2]   ____________________________________________________________________
      OP OFL COMPLETED

[3]   ____________________________________________________________________
      OP OFL INTERFACE ERROR, ERRNO=h

[4]   ____________________________________________________________________
      OP OFL NOT STARTED
        INVALID DATA FIELD

[5]   ____________________________________________________________________
      OP OFL NOT STARTED
        RETRY LATER

[6]   ____________________________________________________________________
      OP OFL IN PROGRESS
        a b [ c d ]  e      f     g

[7]   ____________________________________________________________________
      OP OFL RETRY LATER i

[8]   ____________________________________________________________________
      OP OFL WRITE TO j
        FAILED ON KEY #k
```

2. REASON FOR OUTPUT

To give device information specific to administrative module (AM) hardware units on communities requested using the OP:OFL input message. The format is consistent with related maintenance messages.

The exit status of this report is indicated by either the successful COMPLETED message or the unsuccessful INTERFACE ERROR message.

3. VARIABLE FIELD DEFINITIONS

a = Unit name. Refer to the APP:MEM-NUM-UNIT appendix in the Appendixes section of the Input Messages manual for AM unit names.

b = Unit number. Refer to the APP:MEM-NUM-UNIT appendix in the Appendixes section of the Input Messages manual.

c = Subunit name. Refer to the APP:MEM-NUM-CU appendix in the Appendixes section of the Input

Messages manual for AM CU subunit names.

`d` = Subunit number. Refer to the APP:MEM-NUM-CU appendix in the Appendixes section of the Input Messages manual.

`e` = The current maintenance state of the unit. Valid value(s):

`ACT`	= Active units.
`GROW`	= Units being grown.
`INIT`	= Initializing units.
`OFL`	= Offline units.
`OOS`	= Out-of-service units.
`STBY`	= Standby units.
`UNAV`	= Unavailable units.
`UNEQIP`	= Unequipped units.

`f` = Current inhibit status of the associated error source. Valid value(s):

`ALW`	= Allowed.
`INH`	= Inhibited.

`g` = Results of the last diagnostic on the unit. Valid value(s):

`ABT`	= Aborted diagnostics.
`ATP`	= All tests passed.
`CATP`	= Conditional all tests passed.
`NTR`	= No tests were run.
`STF`	= Some test failed.

`h` = Error number. Valid value(s):

`9`	= Cannot attach to plant measurement library.
`11`	= Cannot open equipment configuration data base (ECD) sequence.
`12`	= Cannot sequence unit control blocks (UCBs).

`i` = Retry the input message later. Valid value(s):

```
CAN'T SEQUENCE DATABASE
CAN'T CREATE FILE IN /tmp
CAN'T GET DATABASE RECORD ID
```

`j` = Temporary output file name.

`k` = Key associated with write failure.

4. ACTION TO BE TAKEN

If error numbers 11 or 12 are indicated, the system is still initializing and the input message should be retried.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual. The OMDB keys will vary depending on the alarm level of the message.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	49, 477
2	50, 478
3	51, 479
6	580, 582
7	588, 589
8	656

Input Message(s):

```
OP:ACT
OP:CFGSTAT
OP:GROW
OP:INIT
OP:OFL
OP:OOS
OP:STBY
OP:UNAV
OP:UNEQIP
```

Input Appendix(es):

```
APP:MEM-NUM-CU
APP:MEM-NUM-UNIT
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

OP:OFR-CAT-A

Software Release: 5E10 - 5E11
Message Class: OFR
Application: 5
Type: Output

1. FORMAT

```
OP OFR CAT=a   OPT=b    DEVICE=e
  REQUEST ID=c   STATUS=d
```

2. REASON FOR OUTPUT

To acknowledge the OP:OFR-CAT input message, which prints one or all categories of office records forms. This output message also prints the request identification number, which may be used in the STP:OFR input message.

3. VARIABLE FIELD DEFINITIONS

a = Category of forms to be printed. Valid value(s):

- ADMIN = Administrative forms.
- ALL = All categories.
- APPROC = Applications processor forms.
- BRCSFD = Business and residential customer services (BRCS) feature definition forms.
- CONFIG = Configuration forms.
- DARC = Digit analysis, screening, routing and charging forms.
- EQUIP = Equipment forms.
- LASS = Local area signaling service forms.
- LINE = Line forms.
- OSPS = Operator Services Position System forms.
- MEAS = Measurements forms.
- PKT = Packet switching forms.
- TRUNK = Trunk forms.

b = Printing option. Valid value(s):

- DELAY = Printing is delayed until the fixed time set by the IN:OFR-PARM input message.
- NONE = None specified.

c = Identification number assigned to this output message.

d = Status of request. Valid value(s):

- CANNOT CREATE REPORT PROCESS = The office records report process could not be started.
- CANNOT EXECUTE REPGEN = The office records report generator process could not be started.
- CANNOT READ SCHEDULING TABLE = An internal error in the office records scheduling process occurred.
- COMPLETED WITH ERRORS = A form completed but errors (typically due to inconsistencies in the ODD) occurred. Other messages detail the errors.
- DATA BASE ERROR = An access to the ODD failed. Other messages should appear detailing the errors.
- DISK ACCESS ERROR = A system call failed while attempting to access a file on the AM file system. If the file cannot be identified, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

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FATAL DB SYSTEM ERROR = An internal error in an office record process or in an ODD access routine.
FATAL PROCESSING ERROR = An internal error in the office records report process.
INTERNAL PROGRAMMING ERROR = An internal error in the office records report process.
INVALID MESSAGE RECEIVED = An internal error in the message passing system.
INVALID OUTPUT DEVICE = The device specification was incorrect on a form or category request; correct the device specification and retry.
INVALID REQUEST = A form or category scheduling request has an invalid combination of parameters (typically, incorrect key for a form); correct the request and retry.
NO JOBS PENDING = No jobs in the queue need to run.
NO MORE VALUES TO PROCESS = All elements from a range of values have been processed. This is likely not an error, although it may indicate that an incorrect range was specified.
OUTPUT DEVICE UNAVAILABLE = The requested output device or file could not be opened. Assure that the device is ready and retry.
PROCESS CURRENTLY BUSY = Likely an internal error in the office records scheduling process. If forms do not continue to process, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
PROCESSING HAS STARTED = Active job.
PROCESSING COMPLETED = Job completed without errors.
PROCESSING SCHEDULED = Job was scheduled.
STOPPED PROCESSING = A form was being processed when a stop message was issued. The form was stopped.
UNABLE TO READ OUTPUT DEVICE = Process not able to read the output device.
UNABLE TO SCHEDULE JOB = An internal failure in the scheduling code occurred. If forms do not continue to process or no further forms can be scheduled, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
UNKNOWN ERROR RETURNED = An internal error in an office records process or in the message passing system occurred. If forms do not continue to process, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

e = Output device/file of the category.

4. ACTION TO BE TAKEN

If 'd'	Action:
FATAL PROCESSING ERROR	Reexecute OP:OFR-CAT input message later. If the problem persists, check the information provided and verify the office-dependent data (ODD) for correctness.
INVALID OUTPUT DEVICE	The device specified was not valid.
INVALID REQUEST	Check format of input message. An invalid parameter was entered.
OUTPUT DEVICE UNAVAILABLE	Check if the output device is available. The device was in use, not on line or not properly configured in the equipment configuration database.
UNABLE TO READ OUTPUT DEVICE	Check if the output device is available. The device was in use, not on line or not properly configured in the equipment configuration database.
DATA BASE SYSTEM ERROR	Check the information provided and verify the ODD for correctness.
INTERNAL PROGRAMMING ERROR	Seek the next level of technical assistance.
PROCESSING HAS STARTED, PROCESSING COMPLETED, or COMPLETED WITH ERRORS	Analyze OP:OFR-ERROR ROP message(s), validate KEY VALUE with the ODD.
PROCESSING SCHEDULED, STOPPED PROCESSING, UNABLE TO SCHEDULE JOB	No specific action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:OFR
IN:OFR-PARM
OP:OFR-CAT
OP:OFR-FORM
OP:OFR-STATUS
STP:OFR
```

Output Message(s):

```
OP:OFR-ERROR
OP:OFR-STATUS
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-118-25x *Recent Change Reference Manual*
235-118-25x *Recent Change Procedures Manual*
235-080-100 *Translation Guide (TG-5)*

OP:OFR-CAT-B

Software Release: 5E12 and later
Message Class: OFR
Application: 5
Type: Output

1. FORMAT

```
OP OFR CAT=a   OPT=b   FORMAT=f    DEVICE=e
  REQUEST ID=c   STATUS=d
```

2. REASON FOR OUTPUT

To acknowledge the OP:OFR-CAT input message, which prints one or all categories of office records forms. This output message also prints the request identification number, which may be used in the STP:OFR input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Category of forms to be printed. Valid value(s):

- `ADMIN` = Administrative forms.
- `ALL` = All categories.
- `APPROC` = Applications processor forms.
- `BRCSFD` = Business and residential customer services (BRCS) feature definition forms.
- `CONFIG` = Configuration forms.
- `DARC` = Digit analysis, screening, routing and charging forms.
- `EQUIP` = Equipment forms.
- `LASS` = Local area signaling service forms.
- `LINE` = Line forms.
- `OSPS` = Operator Services Position System forms.
- `MEAS` = Measurements forms.
- `PKT` = Packet switching forms.
- `TRUNK` = Trunk forms.

`b` = Printing option. Valid value(s):

- `DELAY` = Printing is delayed until the fixed time set by the IN:OFR-PARM input message.
- `NONE` = None specified.

`c` = Identification number assigned to this output message.

`d` = Status of request. Valid value(s):

- `CANNOT CREATE REPORT PROCESS` = The office records report process could not be started.
- `CANNOT EXECUTE REPGEN` = The office records report generator process could not be started.
- `CANNOT READ SCHEDULING TABLE` = An internal error in the office records scheduling process occurred.
- `COMPLETED WITH ERRORS` = A form completed but errors (typically due to inconsistencies in the ODD) occurred. Other messages detail the errors.
- `DATA BASE ERROR` = An access to the ODD failed. Other messages should appear detailing the errors.
- `DISK ACCESS ERROR` = A system call failed while attempting to access a file on the AM file system. If the file cannot be identified, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

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`FATAL DB SYSTEM ERROR` = An internal error in an office record process or in an ODD access routine.
`FATAL PROCESSING ERROR` = An internal error in the office records report process.
`INTERNAL PROGRAMMING ERROR` = An internal error in the office records report process.
`INVALID MESSAGE RECEIVED` = An internal error in the message passing system.
`INVALID OUTPUT DEVICE` = The device specification was incorrect on a form or category request; correct the device specification and retry.
`INVALID REQUEST` = A form or category scheduling request has an invalid combination of parameters (typically, incorrect key for a form); correct the request and retry.
`NO JOBS PENDING` = No jobs in the queue need to run.
`NO MORE VALUES TO PROCESS` = All elements from a range of values have been processed. This is likely not an error, although it may indicate that an incorrect range was specified.
`OUTPUT DEVICE UNAVAILABLE` = The requested output device or file could not be opened. Assure that the device is ready and retry.
`PROCESS CURRENTLY BUSY` = Likely an internal error in the office records scheduling process. If forms do not continue to process, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`PROCESSING HAS STARTED` = Active job.
`PROCESSING COMPLETED` = Job completed without errors.
`PROCESSING SCHEDULED` = Job was scheduled.
`STOPPED PROCESSING` = A form was being processed when a stop message was issued. The form was stopped.
`UNABLE TO READ OUTPUT DEVICE` = Process not able to read the output device.
`UNABLE TO SCHEDULE JOB` = An internal failure in the scheduling code occurred. If forms do not continue to process or no further forms can be scheduled, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`UNKNOWN ERROR RETURNED` = An internal error in an office records process or in the message passing system occurred. If forms do not continue to process, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`OUTPUT DEVICE INCOMPATIBLE WITH FORMAT = RAW` = Certain output devices such as printers may hang when attempting to print raw formatted office records. To avoid this situation, certain output devices are not allowed when the raw format option is specified.
`RAW FORMAT OFC REC FEATURE MUST BE PURCHASED` = The raw formatted office record feature is a secure feature that must be purchased and activated via Recent Change form 8.22.

`e` = Output device/file of the category.

`f` = Output Format.

FORMATTED The office record output is in the traditional human readable format. This is the default output format used when the FORMAT = RAW option is not specified on the input command.

RAW The office record output is in RAW format. Each row of output in a "RAW" formatted office record is an instance of the Recent Change view associated with the form type being processed. Each row contains tab separated values associated with the fields defined for the particular Recent Change view. When using this format the output is machine readable and can be post processed more easily than the default formatting of office records.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:OFR
IN:OFR-PARM
OP:OFR-CAT
OP:OFR-FORM
OP:OFR-STATUS
STP:OFR
```

Output Message(s):

```
OP:OFR-ERROR
OP:OFR-STATUS
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-118-25x *Recent Change Reference*
235-118-251 *Recent Change Procedures*
235-080-100 *Translation Guide (TG-5)*

OP:OFR-ERROR

Software Release: 5E10 and later
Message Class: OFR
Application: 5
Type: Output

1. FORMAT

```
OP OFR ERROR
  REQUEST ID  a    CAT  [b]    FORM  [c]    VIEW  [d]    DEVICE  [e]
  [KEY VALUE   f]
     [g]
      .
      .
      .
```

2. REASON FOR OUTPUT

To report that a database error occurred during processing of the on-line office records (initiated by the OP:OFR-CAT or OP:OFR-FORM input messages). This error does not terminate the processing and printing of the records or invalidate the original request.

3. VARIABLE FIELD DEFINITIONS

a = Requested identification number. This number is used in the STP:OFR input message.

b = Category of forms to be printed (if 'b' is blank, then refer to variable 'c'). Valid value(s):

ADMIN	= Administrative forms.
ALL	= All categories, all forms.
APPROC	= Applications processor forms.
BRCSFD	= All business and residential customer services (BRCS) feature definition forms.
CONFIG	= Configuration forms.
DARC	= Digit analysis, screening, routing, and charging forms.
EQUIP	= Equipment forms.
LASS	= Local area signaling service forms.
LINE	= Line forms.
OSPS	= Operator Services Position System forms.
PKT	= Packet switching forms.
TRUNK	= Trunk forms.
(BLANK)	= None specified.

c = Specific form type to be printed. (Refer to the Recent Change Procedures manual for all valid form types.)

d = The recent change view that the office record is associated with.

e = Device/file in which the error occurred.

f = The key_attribute(s) of the row of information that was being accessed when the error occurred. (If the key value has not yet been generated at the time an error is encountered, this field will be blank.)

g = One to four lines containing the error message.

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4. ACTION TO BE TAKEN

If the error message indicates a failure when reading a view, read the indicated view with recent change for the key value(s) given and debug the translations problem following local practice. If the record indicates a fatal database system error and aborts, re-execute the OP:OFR-FORM input message at a later time. If the problem persists, check the information provided and verify the ODD for correctness.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFR-CAT
OP:OFR-FORM
STP:OFR
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-080-100 *Translation Guide (TG-5)*
235-118-25x *Recent Change Procedures*

OP:OFR-FORM-A

Software Release: 5E10 only
Message Class: OFR
Application: 5
Type: Output

1. FORMAT

```
OP OFR FORM=a     OPT=b       DEVICE=c
  REQUEST ID=d      STATUS=e
```

2. REASON FOR OUTPUT

To report the status of the OP:OFR-FORM input message, which prints office record forms.

3. VARIABLE FIELD DEFINITIONS

`a` = Specific form type. Refer to the table in the OP:OFR-FORM input message.

`b` = Printing option. Valid value(s):
- `DELAY` = Job scheduled to process at START TIME set by the IN:OFR-PARM input message.
- `NONE` = None specified.

`c` = Output device/file of the form.

`d` = Request identification number. This number is used with the STP:OFR input message.

`e` = Status of request. Valid value(s):
- `ABNORMAL TERMINATION` = Form processing failed, other error messages should appear detailing the failure.
- `ABORTED PROCESSING` = A form was being processed when an abort message was issued. The form was aborted. This message is informational only.
- `CANCELED` = A form was pending (queued for processing) when an abort or stop message was issued. The form will not be run. This message is informational only.
- `CANNOT CREATE REPORT PROCESS` = The office records report process could not be started.
- `CANNOT EXECUTE REPGEN` = The office records report generator process could not be started.
- `CANNOT PROCESS REQUEST` = The message system call that passes initialization information for a form or query request to the report or query process failed.
- `CANNOT READ SCHEDULING TABLE` = An internal error in the office records scheduling process occurred.
- `CANNOT TRANSLATE OFFICE RECORD` = An unknown office record was requested. Correct the request and retry.
- `COMPLETED WITH ERRORS` = A form completed but errors (typically due to inconsistencies in the ODD) occurred. Other messages should appear detailing the errors.
- `DATA BASE ERROR` = An access to the ODD failed. Other messages should appear detailing the errors.
- `DISK ACCESS ERROR` = A system call failed while attempting to access a file on the AM file system.
- `FATAL DB SYSTEM ERROR` = An internal error in an office record process or in an ODD access routine.
- `FATAL PROCESSING ERROR` = An internal error in the office records report process.

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`INTERNAL PROGRAMMING ERROR` = An internal error in the office records report process.
`INVALID KEY ID SPECIFIED` = Verify the valid ranges allowed.
`INVALID MESSAGE RECEIVED` = An internal error in the message passing system.
`INVALID OUTPUT DEVICE` = The device specification was incorrect on a form or category request; correct the device specification and retry.
`INVALID RANGE SPECIFIED` = The range entered is invalid.
`INVALID REQUEST` = A form or category scheduling request has an invalid combination of parameters (typically, incorrect key for a form); correct the request and retry.
`NO JOBS COMPLETED` = No queued jobs have completed.
`NO JOBS COMPLETED, PROCESSING OR PENDING` = No jobs in the queue.
`NO JOBS PENDING` = No jobs in the queue need to run.
`NO MORE VALUES TO PROCESS` = All elements from a range of values have been processed. This is likely not an error, although it may indicate that an incorrect range was specified.
`NONE PROCESSING` = No jobs are running.
`OUTPUT DEVICE UNAVAILABLE` = The requested output device or file could not be opened. Assure that the device is ready and retry.
`PROCESS CURRENTLY BUSY` = Likely an internal error in the office records scheduling process. If forms do not continue to process, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`PROCESSING HAS STARTED` = Active job.
`PROCESSING COMPLETED` = Job completed without errors.
`PROCESSING SCHEDULED` = Job was scheduled.
`REQUEST ID UNKNOWN` = A specified request ID was not found in the schedule table. Use a status request to check the schedule table and retry.
`RESTRICTED CATEGORY OR FORM` = The request is restricted.
`STOPPED PROCESSING` = A form was being processed when a stop message was issued. The form was stopped. This message is informational only.
`TTY INTERRUPT` = An interrupt was received from the TTY.
`UNABLE TO READ OUTPUT DEVICE` = Process not able to read the output device.
`UNABLE TO SCHEDULE JOB` = An internal failure in the scheduling code occurred. If forms do not continue to process or no further forms can be scheduled, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`UNKNOWN ERROR RETURNED` = An internal error in an office records process or in the message passing system occurred. If forms do not continue to process, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

4. ACTION TO BE TAKEN

If 'e' =	Action:
FATAL PROCESSING ERROR	Reexecute OP:OFR-FORM input message later.
INVALID OUTPUT DEVICE	The device specified was not valid.
INVALID REQUEST	Check format of input message. An invalid parameter was entered.
OUTPUT DEVICE UNAVAILABLE	Check if output device is available. The device was in use, not on-line or not properly configured in the equipment configuration database (ECD).
COMPLETED WITH ERRORS	Analyze OP:OFR-ERROR read-only printer (ROP) message(s), validate KEY VALUE with the ODD.
UNABLE TO SCHEDULE JOB	Reexecute OP:OFR-FORM input message later.
DATA BASE SYSTEM ERROR	Check the information provided and verify the ODD for correctness.
INTERNAL PROGRAMMING ERROR	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
IN:OFR-PARM
OP:OFR-FORM
OP:OFR-STATUS
STP:OFR
```

Output Message(s):

```
OP:OFR-CAT
OP:OFR-ERROR
```

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-080-100 *Translation Guide (TG-5)*
235-118-25x *Recent Change Reference*

OP:OFR-FORM-B

Software Release: 5E11 only
Message Class: OFR
Application: 5
Type: Output

1. FORMAT

```
OP OFR FORM=a     OPT=b       DEVICE=c
  REQUEST ID=d      STATUS=e
```

2. REASON FOR OUTPUT

To report the status of the OP:OFR-FORM input message, which prints office record forms.

3. VARIABLE FIELD DEFINITIONS

`a` = Specific form type. Refer to the table in the OP:OFR-FORM input message.

`b` = Printing option. Valid value(s):
- `DELAY` = Job scheduled to process at START TIME set by the IN:OFR-PARM input message.
- `NONE` = None specified.

`c` = Output device/file of the form.

`d` = Request identification number. This number is used with the STP:OFR input message.

`e` = Status of request. Valid value(s):
- `ABNORMAL TERMINATION` = Form processing failed, other error messages should appear detailing the failure.
- `ABORTED PROCESSING` = A form was being processed when an abort message was issued. The form was aborted.
- `CANCELED` = A form was pending (queued for processing) when an abort or stop message was issued. The form will not be run.
- `CANNOT CREATE REPORT PROCESS` = The office records report process could not be started.
- `CANNOT EXECUTE REPGEN` = The office records report generator process (REPGEN) could not be started.
- `CANNOT EXECUTE RECPRINT` = The office records report generator process (RECPRINT) could not be started.
- `CANNOT PROCESS REQUEST` = The message system call that passes initialization information for a form or query request to the report or query process failed.
- `CANNOT READ SCHEDULING TABLE` = An internal error in the office records scheduling process occurred.
- `CANNOT TRANSLATE OFFICE RECORD` = An unknown office record was requested. Correct the request and retry.
- `COMPLETED WITH ERRORS` = A form completed but errors (typically due to inconsistencies in the ODD) occurred. Other messages should appear detailing the errors.
- `DATA BASE ERROR` = An access to the ODD failed. Other messages should appear detailing the errors.
- `DISK ACCESS ERROR` = A system call failed while attempting to access a file on the AM file system.

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`FATAL DB SYSTEM ERROR` = An internal error in an office record process or in an ODD access routine.
`FATAL PROCESSING ERROR` = An internal error in the office records report process.
`INTERNAL PROGRAMMING ERROR` = An internal error in the office records report process.
`INVALID KEY ID SPECIFIED` = Verify the valid ranges allowed.
`INVALID MESSAGE RECEIVED` = An internal error in the message passing system.
`INVALID OUTPUT DEVICE` = The device specification was incorrect on a form or category request; correct the device specification and retry.
`INVALID RANGE SPECIFIED` = The range entered is invalid.
`INVALID REQUEST` = A form or category scheduling request has an invalid combination of parameters (typically, incorrect key for a form); correct the request and retry.
`NO JOBS COMPLETED` = No queued jobs have completed.
`NO JOBS COMPLETED, PROCESSING OR PENDING` = No jobs in the queue.
`NO JOBS PENDING` = No jobs in the queue need to run.
`NO MORE VALUES TO PROCESS` = All elements from a range of values have been processed. This is likely not an error, although it may indicate that an incorrect range was specified.
`NONE PROCESSING` = No jobs are running.
`OUTPUT DEVICE UNAVAILABLE` = The requested output device or file could not be opened. Assure that the device is ready and retry.
`PROCESS CURRENTLY BUSY` = Likely an internal error in the office records scheduling process. If forms do not continue to process, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`PROCESSING HAS STARTED` = Active job.
`PROCESSING COMPLETED` = Job completed without errors.
`PROCESSING SCHEDULED` = Job was scheduled.
`REQUEST ID UNKNOWN` = A specified request ID was not found in the schedule table. Use a status request to check the schedule table and retry.
`RESTRICTED CATEGORY OR FORM` = The request is restricted.
`STOPPED PROCESSING` = A form was being processed when a stop message was issued. The form was stopped.
`TTY INTERRUPT` = An interrupt was received from the TTY.
`UNABLE TO READ OUTPUT DEVICE` = Process not able to read the output device.
`UNABLE TO SCHEDULE JOB` = An internal failure in the scheduling code occurred. If forms do not continue to process or no further forms can be scheduled, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`UNKNOWN ERROR RETURNED` = An internal error in an office records process or in the message passing system occurred. If forms do not continue to process, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

4. ACTION TO BE TAKEN

If 'e' =	**Action:**
`FATAL PROCESSING ERROR`	Reexecute OP:OFR-FORM input message later.
`INVALID OUTPUT DEVICE`	The device specified was not valid.
`INVALID REQUEST`	Check format of input message. An invalid parameter was entered.
`OUTPUT DEVICE UNAVAILABLE`	Check if output device is available. The device was in use, not on-line or not properly configured in the equipment configuration database (ECD).

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
IN:OFR-PARM
OP:OFR-FORM
OP:OFR-STATUS
STP:OFR
```

Output Message(s):

```
OP:OFR-CAT
OP:OFR-ERROR
```

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-080-100 *Translation Guide (TG-5)*
235-118-25x *Recent Change Reference*

OP:OFR-FORM-C

Software Release: 5E12 and later
Message Class: OFR
Application: 5
Type: Output

1. FORMAT

```
OP OFR FORM=a     OPT=b   FORMAT=f   DEVICE=c
  REQUEST ID=d      STATUS=e
```

2. REASON FOR OUTPUT

To report the status of the OP:OFR-FORM input message, which prints office record forms.

3. VARIABLE FIELD DEFINITIONS

`a` = Specific form type. Refer to the table in the OP:OFR-FORM input message.

`b` = Printing option. Valid value(s):
- `DELAY` = Job scheduled to process at START TIME set by the IN:OFR-PARM input message.
- `NONE` = None specified.

`c` = Output device/file of the form.

`d` = Request identification number. This number is used with the STP:OFR input message.

`e` = Status of request. Valid value(s):
- `ABNORMAL TERMINATION` = Form processing failed, other error messages should appear detailing the failure.
- `ABORTED PROCESSING` = A form was being processed when an abort message was issued. The form was aborted.
- `CANCELED` = A form was pending (queued for processing) when an abort or stop message was issued. The form will not be run.
- `CANNOT CREATE REPORT PROCESS` = The office records report process could not be started.
- `CANNOT EXECUTE REPGEN` = The office records report generator process (REPGEN) could not be started.
- `CANNOT EXECUTE RECPRINT` = The office records report generator process (RECPRINT) could not be started.
- `CANNOT PROCESS REQUEST` = The message system call that passes initialization information for a form or query request to the report or query process failed.
- `CANNOT READ SCHEDULING TABLE` = An internal error in the office records scheduling process occurred.
- `CANNOT TRANSLATE OFFICE RECORD` = An unknown office record was requested. Correct the request and retry.
- `COMPLETED WITH ERRORS` = A form completed but errors (typically due to inconsistencies in the ODD) occurred. Other messages should appear detailing the errors.
- `DATA BASE ERROR` = An access to the ODD failed. Other messages should appear detailing the errors.
- `DISK ACCESS ERROR` = A system call failed while attempting to access a file on the AM file system.

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`FATAL DB SYSTEM ERROR` = An internal error in an office record process or in an ODD access routine.
`FATAL PROCESSING ERROR` = An internal error in the office records report process.
`INTERNAL PROGRAMMING ERROR` = An internal error in the office records report process.
`INVALID KEY ID SPECIFIED` = Verify the valid ranges allowed.
`INVALID MESSAGE RECEIVED` = An internal error in the message passing system.
`INVALID OUTPUT DEVICE` = The device specification was incorrect on a form or category request; correct the device specification and retry.
`INVALID RANGE SPECIFIED` = The range entered is invalid.
`INVALID REQUEST` = A form or category scheduling request has an invalid combination of parameters (typically, incorrect key for a form); correct the request and retry.
`NO JOBS COMPLETED` = No queued jobs have completed.
`NO JOBS COMPLETED, PROCESSING OR PENDING` = No jobs in the queue.
`NO JOBS PENDING` = No jobs in the queue need to run.
`NO MORE VALUES TO PROCESS` = All elements from a range of values have been processed. This is likely not an error, although it may indicate that an incorrect range was specified.
`NONE PROCESSING` = No jobs are running.
`OUTPUT DEVICE UNAVAILABLE` = The requested output device or file could not be opened. Assure that the device is ready and retry.
`PROCESS CURRENTLY BUSY` = Likely an internal error in the office records scheduling process. If forms do not continue to process, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`PROCESSING HAS STARTED` = Active job.
`PROCESSING COMPLETED` = Job completed without errors.
`PROCESSING SCHEDULED` = Job was scheduled.
`REQUEST ID UNKNOWN` = A specified request ID was not found in the schedule table. Use a status request to check the schedule table and retry.
`RESTRICTED CATEGORY OR FORM` = The request is restricted.
`STOPPED PROCESSING` = A form was being processed when a stop message was issued. The form was stopped.
`TTY INTERRUPT` = An interrupt was received from the TTY.
`UNABLE TO READ OUTPUT DEVICE` = Process not able to read the output device.
`UNABLE TO SCHEDULE JOB` = An internal failure in the scheduling code occurred. If forms do not continue to process or no further forms can be scheduled, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`UNKNOWN ERROR RETURNED` = An internal error in an office records process or in the message passing system occurred. If forms do not continue to process, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`OUTPUT DEVICE INCOMPATIBLE WITH FORMAT = RAW` = Certain output devices such as printers may hang when attempting to print raw formatted office records. To avoid this situation, certain output devices are not allowed when the raw format option is specified.
`RAW FORMAT OFC REC FEATURE MUST BE PURCHASED` = The raw formatted office record feature is a secure feature that must be purchased and activated via Recent Change form 8.22.

`f` = Output Format.

FORMATTED The office record output is in a "standard" human readable format. This is the default output format when format is not specified on the input command.

RAW The office record output is in RAW format. Each row of output in a "RAW"

formatted office record is an instance of the Recent Change view associated with the form type being processed. Each row contains tab separated values associated with the fields defined for the particular Recent Change view. When using this format the output is machine readable and can be post processed more easily than the default formatting of office records.

4. ACTIONS TO BE TAKEN

If 'e' =	Action:
FATAL PROCESSING ERROR	Reexecute OP:OFR-FORM input message later.
INVALID OUTPUT DEVICE	The device specified was not valid.
INVALID REQUEST	Check format of input message. An invalid parameter was entered.
OUTPUT DEVICE UNAVAILABLE	Check if output device is available. The device was in use, not on-line or not properly configured in the equipment configuration database (ECD).
COMPLETED WITH ERRORS	Analyze OP:OFR-ERROR read-only printer (ROP) message(s), validate KEY VALUE with the ODD.
UNABLE TO SCHEDULE JOB	Reexecute OP:OFR-FORM input message later.
DATA BASE SYSTEM ERROR	Check the information provided and verify the ODD for correctness.
INTERNAL PROGRAMMING ERROR	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
IN:OFR-PARM
OP:OFR-FORM
OP:OFR-STATUS
STP:OFR
```

Output Message(s):

```
OP:OFR-CAT
OP:OFR-ERROR
```

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-080-100 *Translation Guide (TG-5)*
235-118-25x *Recent Change Reference*

OP:OFR-STATUS

Software Release: 5E10 and later
Message Class: OFR
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP OFR STATUS PARM

        PRINTING  MON     TUE     WED     THU     FRI     SAT     SUN
        SCHEDULE:
                  [a]     [a]     [a]     [a]     [a]     [a]     [a]
        START TIME = [b]    DURATION = [c]    STATUS = [d]

[2]   ____________________________________________________________________
      OP OFR STATUS SCHED
        REQID      CAT    FORM     DEVICE      STATUS
        [e]        [f]    [g]      [h]         [i]
         .          .      .        .           .
         .          .      .        .           .
         .          .      .        .           .

[3]   ____________________________________________________________________
      OP OFR STATUS KEYS
        CURRENT KEYS: [j]
```

2. REASON FOR OUTPUT

To report the results of the OP:OFR-STATUS input message.

Format 1 reports the office records (OFR) capability operating and scheduling parameters. This format prints if the PARM option was specified in the OP:OFR-STATUS input message.

Format 2 reports the status of the jobs scheduled internally by the on-line OFR capability. This format prints if the `SCHED`, `COMPLETED`, `PROCESSING`, `PENDING`, or `REQID` option was specified in the OP:OFR-STATUS input message.

Format 3 reports the value of keys being processed by the currently processing office record. This format prints for all OP:OFR-STATUS input messages. Note that if keys are not currently being processed (as is the case when the office record output is being sorted), the message "`NO OFFICE RECORDS IN PROGRESS`" will be output by this format.

3. VARIABLE FIELD DEFINITIONS

`a` = Indicates whether scheduled printing and file clean up occurs. Valid value(s):

`OFF`	= Scheduled printing and file clean up does not occur.
`ON`	= Scheduled printing and file clean up occurs.
`(blank)`	= If an error occurred while reading the database, nothing is printed in the space.

Office record files that are older than 24 hours are removed from the RCLOG partition if the DAY field is ON. If the DAY field is OFF, file clean up will not occur.

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b = Hour at which automatic printing of changed pages is scheduled to begin. A value of 99 indicates that an error occurred while reading the database.

c = Maximum allowed print time (in hours) for automatic printing of changed pages. A value of zero indicates that an error occurred while reading the database.

d = Status of changed page recording. Valid value(s):
DISABLED = Changed page printing is disabled.
ENABLED = Changed page printing is enabled.
(blank) = If an error occurred while reading the database, nothing is printed in this space.

e = Identification number. This number is used in the STP:OFR input message.

f = Category of forms to be printed. Valid value(s):
ADMIN = Administrative forms.
ALL = All categories, all forms.
APPROC = Applications processor forms.
BRCSFD = All business and residential customer service (BRCS) feature definition forms.
CONFIG = Configuration forms.
DARC = Digit analysis, routing and charging forms.
EQUIP = Equipment forms.
LASS = Local area signaling service forms.
LINE = Line forms.
MEAS = Measurements forms.
NONE = This occurs if a category type was not specified.
OSPS = Operator Services Position System forms.
PKT = Packet switching forms.
TRUNK = Trunk forms.

g = Specific form type. Refer to the exhibit in the OP:OFR-FORM input message.
Note: NONE occurs if a form type was not specified.

h = Output device/file that is scheduled.

i = Status of scheduled request. Valid value(s):
ABNORMAL TERMINATION = Job did not complete processing.
ABORTED PROCESSING = Processing job was aborted.
CANCELED = Pending job was aborted/stopped.
COMPLETED = Job was completed successfully.
COMPLETED WITH ERRORS = Job completed with errors.
CURRENTLY PROCESSING = Job is currently active.
NONE COMPLETED = No completed jobs are in the table.
NONE COMPLETED, PROCESSING OR PENDING = No jobs are in the table.
NONE PENDING = No pending jobs are in the table.
NONE PROCESSING = No job is active.
PENDING = Job is waiting for processing.
REQUEST ID UNKNOWN = Job number is unknown.
STOPPED PROCESSING = Processing job was stopped.

j = Last valid key generated or 'NO OFFICE RECORDS IN PROGRESS'.

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4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
IN:OFR-PARM
OP:OFR-CAT
OP:OFR-FORM
OP:OFR-STATUS
STP:OFR
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-080-100 *Translation Guide (TG-5)*
235-118-25x *Recent Change Procedures*
235-118-25x *Recent Change Reference*

OP:OLHB

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP OLHB DN=a
        LOC_DN=b
        PRIV_INC=c    PRIV_OUT=d    ESC_ODP=e
        VALID=f     BEAR_CAP=g
        CNPR_INC=h     CNPR_OUT=i

[2]   ____________________________________________________________________
      OP OLHB j   PTY=k
        LOC_DN=b
        PRIV_INC=c    PRIV_OUT=d    ESC_ODP=e
        VALID=f     BEAR_CAP=g
        CNPR_INC=h     CNPR_OUT=i

[3]   ____________________________________________________________________
      OP OLHB DN=a
        l

[4]   ____________________________________________________________________
      OP OLHB j   PTY=k
        l
```

2. REASON FOR OUTPUT

To report the outgoing line history block (OLHB) or an error message in response to an OP:OLHB input message.

Format 1 displays the OLHB status of a directory number (DN).

Format 2 displays the OLHB status of an office equipment (OE) number, which includes the following: an integrated digital carrier unit (IDCU) line equipment number (ILEN), an integrated services line card equipment number (LCEN), a line equipment number (LEN) of a line, an integrated *SLC*® line equipment number (SLEN), or an integrated services line circuit (LCKEN).

Format 3 reports an error response for a DN.

Format 4 reports an error response for an OE number, which includes the following: an ILEN, a LCEN, a LEN, a SLEN, a LCKEN.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

a = Ten-digit directory number (DN) of the line.

b = Up to 20 digits of the last outgoing valid call. A blank value indicates that the digits are invalid or more than 20 digits were dialed.

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c = Incoming privacy indicator (used for per call privacy and all call privacy features) for the last outgoing called number.

This indicator is specific to the following local area switching services (LASS) auto callback (AC) interaction. Valid value(s):

Terminal A (the DN or OE specified in the OP:OLHB input request) received a call from Terminal B. Terminal B's privacy information was stored in Terminal A's incoming line history block (ILHB). Terminal A then used AC to call Terminal B back. This caused Terminal A's OLHB to be updated with Terminal A's ILHB information. The call to Terminal B is now Terminal A's last outgoing call (specified in field 'b'). Valid value(s):

NO = The last outgoing call's DN is marked public, and can be displayed on ringback.
YES = The last outgoing call's DN is marked private, and cannot be displayed on ringback.

d = Outgoing privacy indicator (used for per call privacy and all call privacy features) for the calling number. Valid value(s):

NO = The DN the last outgoing call dialed was marked public, and could be displayed.
YES = The calling DN (the DN or OE specified in the OP:OLHB input request) was marked private and could not be displayed.

e = Escape to office dialing plan (ODP) indicator. This indicator is specific to the following LASS AC interaction. Valid value(s):

Terminal A (the DN or OE specified in the OP:OLHB input request) received a call from Terminal B. Terminal B's public DN was stored in Terminal A's ILHB. Terminal A is in an IDP, and used AC to call Terminal B back. This AC call updated Terminal A's OLHB. Valid value(s):

NO = For an AC call, an IDP intercom number was derived for Terminal B's public DN and used for the AC. This intercom number was stored into Terminal A's OLHB.
YES = For an AC call, Terminal B's public number was used so Terminal A's (the DN or OE specified in the OP:OLHB input message) individual dialing plan (IDP) has to be bypassed with an implied escape to ODP.

f = Validity of the OLHB. Valid value(s):

NO = The OLHB output is not valid.
YES = The OLHB output is valid.

g = Bearer capability value of last outgoing call. The bearer capability value for all analog lines will be SPEECH. Valid value(s):

CLR56K = 56 KPS clear data bearer capability.
CLR64K = 64 kilobits per second (KPS) clear data bearer capability.
DCHAN = D-channel packet switching data bearer capability.
RES56K = 56 KPS restricted data bearer capability.
RES64K = 64 KPS restricted data bearer capability.
SPEECH = Speech bearer capability.
VG3.1K = 3.1 kilohertz voice-grade data bearer capability.
X.25 = X.25 packet switching data bearer capability.

h = Calling name and calling number presentation indicator for the last outgoing called number

(specified in field 'b').

This indicator is specific to the following LASS AC interaction. Valid value(s):

Terminal A (the DN or OE specified in the OP:OLHB input request) received a call from Terminal B. Terminal B's privacy information was stored in Terminal A's incoming line history block (ILHB). Terminal A then used AC to call Terminal B back. This caused Terminal A's OLHB to be updated with Terminal A's IHLB information. The call to Terminal B is now Terminal A's last outgoing call (specified in field 'b'). Valid value(s):

NAP = Toggle name presentation indicator was invoked by Terminal B.
NNDA = Name and number display code was invoked by Terminal B.
NNP = Name and number presentation access code was invoked by Terminal B.
NOP = No name and number presentation access code was invoked by Terminal B.

i = Calling name and calling number presentation indicator for the calling number (the DN or OE specified in the OP:OLHB input message). Valid value(s):

NAP = Name presentation access code was dialed by the calling DN on the last outgoing call.
NNDA = Name and number display code was dialed by the calling DN on the last outgoing call.
NNP = Name and number presentation access code was dialed by the calling DN on the last outgoing call.
NOP = No name and number presentation access code was dialed by the calling DN on the last outgoing call.

j = Valid value(s):

ILEN=m-n-o-p
LCEN=m-c^1-d^1-s
LCKEN=m-c^1-r-a^1-b^1
LEN=m-q-t-u-v-w
SLEN=m-x-y-z

k = Party. Valid value(s):

For:	'k' =
analog ILEN, LEN, or SLEN	I = Individual Line. T 2 party tip. R 2 party ring. 0-9 = Multi-party.
ISDN LCEN	I,O Point-point. 0-7 = Multi-point.

l = Error message in response to the OP:OLHB input message. Valid value(s):

DATA BASE READ FAILURE - rlAR_CF = Data from the relation rlAR_CF could not be successfully retrieved, because a database read failure occurred.
DATA BASE READ FAILURE - rlFC_LINE = Data from the relation rlFC_LINE could not be successfully retrieved, because a database read failure occurred.
DATA BASE READ FAILURE - rlLPT_PT = Data from the relation rlLPT_PT could not be successfully retrieved, because a database read failure occurred.
DN CONTAINS AN INVALID NPA = The DN contains a numbering plan area (NPA) that is invalid

or does not exist.

`DN CONTAINS AN INVALID NXX` = The DN contains an office code that is invalid or does not exist.

`DN IS INVALID` = The hundreds group is not populated for the specified DN, or the specified DN is invalid or does not exist.

`NOT PROCESSED: LASS SUPPORT PACKAGE NOT LOADED` = The switch does not have the appropriate local area signaling services (LASS) software loaded to handle the request.

`OE OR PTY IS INVALID` = The OE number or the party is invalid or does not exist.

`OUTGOING LINE HISTORY BLOCK NOT AVAILABLE` = The specified DN or OE is not allowed for LASS feature requests, or the OLHB is not available for this request.

`PTY IS INVALID` = The party is invalid or does not exist.

`RETRY LATER: REQUEST COULD NOT BE PROCESSED` = Switch resources were not available to allow processing of the request.

`SM REDUNDANT DATA MISMATCH` = This request was not processed, because data was inconsistent across SMs.

`UNEXPECTED DATA VALUE` = A software fault has occurred. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`m` = Switching module (SM) number.

`n` = IDCU number.

`o` = Remote terminal (RT) number or IDCU facility (IFAC) number.

`p` = RT line number or IFAC channel number.

`q` = Line unit number.

`r` = Line group number.

`s` = Line card number.

`t` = Grid number.

`u` = Switch board number.

`v` = Switch number.

`w` = Level number.

`x` = Digital carrier line unit (DCLU) number.

`y` = RT number.

`z` = RT line number.

`a`[1] = Line board number.

`b`[1] = Line circuit number.

`c`[1] = ISDN line unit (ISLU/ISLU2).

`d`[1] = Line group controller number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OLHB
```

Other Manual(s):
235-190-130 *Local Area Signaling Services*
235-600-400 *Audits*

OP:OMDB

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP OMDB COMPLETED

[2]   ____________________________________________________________________
      OP OMDB NO DATABASE ENTRY FOUND
        FOR THE FOLLOWING KEYS:
        a

[3]   ____________________________________________________________________
      OP OMDB FAILED
        UNABLE TO ACCESS /cft/spl/omdb

[4]   ____________________________________________________________________
      OP OMDB FAILED

[5]   ____________________________________________________________________
      OP OMDB ABORTED
        UNABLE TO CREATE TEMP FILE

[6]   ____________________________________________________________________
      OP OMDB b
        KEY    MSG_CLASS   ALARM   TEXT
        c          d         e      f

[7]   ____________________________________________________________________
      OP OMDB ABORTED
        UNABLE TO SEND REQUEST TO CSOP

[8]   ____________________________________________________________________
      OP OMDB NOT STARTED
        CONFLICT WITH CURRENT SYSTEM STATUS g
```

2. REASON FOR OUTPUT

To report the result of executing an OP:OMDB input message.

3. VARIABLE FIELD DEFINITIONS

a = List of message keys for which the OP:OMDB input message failed.

b = DISK for OMDB disk file or ACT for active OMDB.

c = Message key that was requested. There will be one line in the report for each key requested.

d = Numeric value of the message class associated with the message for the message key in 'c'.

e = Alarm level associated with the message for the message key in 'c'. Valid value(s):

```
ACT
CRIT
INFO
MAJ
MAN
MIN
VAR
```

f = Up to 40 characters of the text associated with the message for the message key in 'c'. The text shown in this report may include "%" characters. These characters indicate that variable data will be passed by the requesting process when this message is to be formatted and spooled.

g = Further explanation of error. Valid value(s):

```
INVALID KEY
INVALID OMDB COPY
SYNTAX ERROR
TOO MANY KEYS
```

4. ACTION TO BE TAKEN

Format 1 indicates success.

For Format 2, verify that the key(s) was entered correctly.

For Format 3, determine if the disk is available. If the disk is available, verify the status of the OMDB disk file by using the OP:ST-LISTDIR input message for /cft/spl/omdb.

For Format 4, verify that the OMDB disk file (/cft/spl/omdb) is there. If the file is there, run the ACTV:OMDB input message. If that does not solve the problem, attempt a Craft Init. If the file is not on the disk, restore the file and then run ACTV:OMDB.

Format 5 indicates a possible file system problem, such as lack of available disk space.

Format 6 indicates successful execution of the input message.

For Format 7, verify that the craft output spooler (CSOP) is running.

For Format 8, verify that the input message was entered correctly.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	5
2	7
5	10
6	6
7	118

Input Message(s):

```
ACTV:OMDB
OP:OMDB
OP:ST-LISTDIR
UPD:OMDB
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

OP:OOS

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP OOS MESSAGE STARTED
        UNIT        MTCE   INH   DGN
        a b [ c d ] e       f     g

[2]   ____________________________________________________________________
      OP OOS COMPLETED

[3]   ____________________________________________________________________
      OP OOS INTERFACE ERROR, ERRNO=h

[4]   ____________________________________________________________________
      OP OOS NOT STARTED
        INVALID DATA FIELD

[5]   ____________________________________________________________________
      OP OOS NOT STARTED
        RETRY LATER

[6]   ____________________________________________________________________
      OP OOS IN PROGRESS
        a b [ c d ]  e      f     g

[7]   ____________________________________________________________________
      OP OOS RETRY LATER i

[8]   ____________________________________________________________________
      OP OOS WRITE TO j
        FAILED ON KEY #k
```

2. REASON FOR OUTPUT

To give device information specific to administrative module (AM) hardware units on communities requested by the OP:OOS input message. The format is consistent with related maintenance messages.

The exit status of this report is indicated by either the successful COMPLETED message or the unsuccessful INTERFACE ERROR message.

3. VARIABLE FIELD DEFINITIONS

a = Unit name. Refer to the APP:MEM-NUM-UNIT appendix in the Appendixes section of the Input Messages manual for AM unit names.

b = Unit number. Refer to the APP:MEM-NUM-UNIT appendix in the Appendixes section of the Input Messages manual.

c = Subunit name, Refer to the APP:MEM-NUM-UNIT appendix in the Appendixes section of the

Input Messages manual for AM control unit (CU) subunit names.

`d` = Subunit number. Refer to the APP:MEM-NUM-UNIT appendix in the Appendixes section of the Input Messages manual.

`e` = The current maintenance state of the unit. Valid value(s):

`ACT`	= Active units.
`GROW`	= Units being grown.
`INIT`	= Initializing units.
`OFL`	= Offline units.
`OOS`	= Out-of-service units.
`STBY`	= Standby units.
`UNAV`	= Unavailable units.
`UNEQIP`	= Unequipped units.

`f` = Current inhibit status of the associated error source. Valid value(s):

`ALW`	= Allowed.
`INH`	= Inhibited.

`g` = Result of the last diagnostic on the unit. Valid value(s):

`ABT`	= Aborted diagnostics.
`ATP`	= All tests passed.
`CATP`	= Conditional all tests passed.
`NTR`	= No tests were run.
`STF`	= Some test failed.

`h` = Error number. Valid value(s):

`9`	= Cannot attach to plant measurement library.
`11`	= Cannot open equipment configuration database (ECD) sequence.
`12`	= Cannot sequence unit control blocks (UCBs).

`i` = Retry the input message later. Valid value(s):

```
CAN'T CREATE FILE IN /tmp
CAN'T GET DATABASE RECORD ID
CAN'T SEQUENCE DATABASE
```

`j` = Temporary output file name.

`k` = Key associated with write failure.

4. ACTION TO BE TAKEN

If error numbers 11 or 12 are indicated, the system is still initializing and the input message should be retried.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual. The

OMDB keys will vary depending on the alarm level of the message.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	49, 477
2	50, 478
3	51, 479
6	580, 582
7	588, 589
8	656

Input Message(s):

```
OP:ACT
OP:CFGSTAT
OP:GROW
OP:INIT
OP:OFL
OP:OOS
OP:STBY
OP:UNAV
OP:UNEQIP
```

Input Appendix(es):

```
APP:MEM-NUM-UNIT
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

OP:OPUMP

Software Release: 5E10 and later
Message Class: GENR
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP OPUMP STATUS SM = a
        [{ISLUCC=a-b-c|IDCU=a-b-c|DNUSCC=a-b-c}] [d]
          .                                        .
          .                                        .
          .                                        .

[2]   ____________________________________________________________________
      OP OPUMP STATUS SM = a
        NO PERIPHERAL STATUS TO REPORT AT THIS TIME
```

2. REASON FOR OUTPUT

To respond to the OP:OPUMP input message. This message lists the switching module (SM) peripherals that failed offline pump.

Format 1 is printed from each SM requested in the input message listing any failures that occurred. No failures are listed if all peripherals were successfully removed, pumped, or restored.

Format 2 is printed from each SM requested in the input message if no peripherals are equipped on that SM or if no peripheral offline pump actions have occurred.

3. VARIABLE FIELD DEFINITIONS

`DNUSCC` = Digital networking unit - synchronous optical network (SONET) (DNU-S) common controller (CC).

`IDCU` = Integrated digital carrier unit.

`ISLUCC` = Integrated services line unit common controller for integrated services line unit (ISLU), remote ISLU (RISLU), or ISLU model 2 (ISLU2) units.

`a` = SM number.

`b` = Line unit (ISLU, RISLU, ISLU2, IDCU, DNU-S) number.

`c` = CC side.

`d` = Line unit status. Valid value(s):

```
PERIPHERAL SIDE FAILED TO OFF-LINE PUMP
PERIPHERAL SIDE FAILED TO REMOVE FROM SERVICE
PERIPHERAL SIDE FAILED TO RESTORE TO DUPLEX
PERIPHERAL SIDE FAILED TO UPDATE FLASH
```

4. ACTION TO BE TAKEN

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In order for a duplex peripheral unit to be offline pumped, the unit must be in an active/standby state prior to the start of the offline pump. If a failure occurs, make sure the failing peripheral is duplex and retry the peripheral offline pump.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OPUMP
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-105-24x *Generic Retrofit Procedures*
235-105-34x *Generic Update Procedures*

OP:OSPS

Software Release: 5E10 and later
Message Class: TLWS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP OSPS OSC=a ST=b DB=c [XDB=d] e

[2]   ____________________________________________________________________
      OP OSPS NOT LOADED
```

2. REASON FOR OUTPUT

To report the external database (XDB) multiline hunt group, given the operator service center (OSC), serving team (ST), and database (DB) numbers. This message is in response to the OP:OSPS input message.

Format 1 is used when OSPS software is loaded.

Format 2 is used when OSPS software is not loaded.

3. VARIABLE FIELD DEFINITIONS

`a` = OSC number.

`b` = ST number.

`c` = DB number.

`d` = XDB multiline hunt group number corresponding to the above inputs. Nothing is printed if there was an error.

`e` = Output message completion code. Valid value(s):

`BAD PACKET TELEPHONE NUMBER` = The packet telephone number for the external database corresponding to the above inputs is not correct. This can be caused by: an illegal packet telephone number (such as, a packet telephone number with the wrong number of digits), a wrong packet telephone number, an undefined normalized office code (NOC), or no multiline hunt group defined for the packet telephone number.

`COMPLETED` = XDB multiline hunt group number was successfully provided.

`INVALID INPUT` = No XDB multiline hunt groups could be found for the values provided.

`NO OSPS SMS IN SWITCH` = The switch is not configured with any OSPS switching modules (SMs), so there are no XDB multiline hunt groups.

`RETRY LATER - OSPS OR ROUTING SM ISOLATED` = Cannot communicate with the OSPS SM or the routing SM.

`SYSTEM ERROR` = Database reads could not be performed to determine the XDB multiline hunt group.

4. ACTION TO BE TAKEN

None.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OSPS
```

MCC Display Page(s):

(DATA LINK DSLs)
(DATALINKS)

OP:OUTCLS

Software Release: 5E10 and later
Message Class: MTCE
Application: 5, CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP OUTCLS a STARTED
        CLASS   a
        DEVICE  b       b       b       b       b
                b       b       b       b       b
                b       b       b       b       b
                b       b       b       b       b
        OP OUTCLS a COMPL

[2]   ____________________________________________________________________
      OP OUTCLS a STARTED
        DESTINATION a IS NOT EQUIPPED

        OP OUTCLS a COMPL

[3]   ____________________________________________________________________
      OP OUTCLS ALL IN PROG
        CLASS   a
        DEVICE  b       b       b       b       b
                b       b       b       b       b
                b       b       b       b       b
                b       b       b       b       b
          .
          .
          .
        CLASS   a
        DEVICE  b       b       b       b       b
                b       b       b       b       b
                b       b       b       b       b
                b       b       b       b       b

[4]   ____________________________________________________________________
      OP OUTCLS ALL IN PROG
        NO DESTINATIONS ARE EQUIPPED

        OP OUTCLS ALL COMPL
```

2. REASON FOR OUTPUT

To report one or all of the output classes available in the equipment configuration database (ECD) and the device(s) assigned to these output classes.

Formats 1 and 2 are in response to input message OP:OUTCLS a. Formats 3 and 4 are in response to OP:OUTCLS ALL. Each output of Format 3 contains a maximum of 10 classes.

If all output classes were requested, then the class/device information will be displayed for each output class in the

ECD. The number of devices assigned to an output class can vary from one to twenty. Only the assigned device names will be output from left to right and top to bottom.

3. VARIABLE FIELD DEFINITIONS

`a` = Output class.

`b` = Device name (1-9 text characters).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OUTCLS
```

OP:OVRLD-A

Software Release: 5E10 - 5E13
Message Class: OVLD
Application: 5
Type: Output

1. FORMAT

```
OP OVRLD {AM|SM=a|CMP=f-g,h|DLN=i-j|QGP=k-l}
  REAL TIME b
  RESOURCE c
  CONTROLS d e
```

2. REASON FOR OUTPUT

To report that an overload occurred in the administrative module (AM), one of the switching modules (SM), one of the communication module processors (CMP), in the direct link node processor (DLN), and/or in one of the quad-link gateway processors (QGP). This message is also in response to the OP:OVRLD-AM-SM input message.

This message also reports the current overload status whenever the overload status has changed, and periodically (every 15 minutes) during an overload if the status remains the same.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = Real-time overload status. Valid value(s):

`CRITICAL`	= Critical real-time overload.
`MAJOR`	= Major real-time overload.
`MINOR`	= Minor real-time overload.
`NONE`	= No real-time overload.

`c` = Resources that are overloaded. Refer to the APP:RESOURCES appendix in the Appendixes section of the Output Messages manual.

`d` = Controls that are currently in effect. Valid value(s):

`AVRT`	= Avoidance routing. Route around an overloaded SM.
`CART`	= CCS avoidance routing. Route around the overloaded switch.
`DNET`	= Defer non-essential tasks such as terminal maintenance routine tests.
`ESP`	= Essential service protection is allowed.
`NONE`	= No controls are in effect.
`RIAR`	= Input acceptance rates are reduced to the control level specified in variable '`e`'.
`RIOR`	= Inter-SM origination rates are reduced to the control level specified in variable '`e`'.
`RRR`	= Route requests are reduced to the control level specified in variable '`e`'.
`RTR`	= Termination requests are reduced to the control level specified in variable '`e`'.
`SRT`	= Receiver timing values (permanent signal and partial dial timing) are shortened to overload timing values (SM only).

`e` = Level of control (number of calls allowed per hour).

`f` = The message switch control unit (MSCU) side in which the CMP resides.

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`g` = CMP number.

`h` = CMP identifier. Valid value(s):
`,MATE` = Mate processor.
`,PRIM` = Primary processor.

`i` = DLN group number.

`j` = DLN member number.

`k` = Message switch side number.

`l` = QGP number.

4. ACTION TO BE TAKEN

Determine the cause of the overload, escalating through normal channels as necessary. To find the status of the overloaded packet interface (PI) and/or packet handlers (PHs), use the OP:TRFC30 and OP:ST input messages.

5. ALARMS

Critical, major, or minor.

6. REFERENCES

Input Message(s):

```
OP:OVRLD-AM-SM
OP:ST
OP:TRFC30
```

Output Message(s):

```
REPT:OVERLOAD
```

Output Appendix(es):

```
APP:RESOURCES
```

Other Manual(s):
235-190-115 *Local and Toll System Features*

OP:OVRLD-B

Software Release: 5E14 and later
Message Class: OVLD
Application: 5
Type: Output

1. FORMAT

```
OP OVRLD {AM|SM=a|CMP=f-g,h|DLN=i-j|QGP=k-l}
  REAL TIME b
  RESOURCE c
  CONTROLS d e
```

2. REASON FOR OUTPUT

To report that an overload occurred in the administrative module (AM), one of the switching modules (SM), one of the communication module processors (CMP), in the direct link node processor (DLN), and/or in one of the quad-link gateway processors (QGP). This message is also in response to the OP:OVRLD-AM-SM input message.

This message also reports the current overload status whenever the overload status has changed, and periodically (every 15 minutes) during an overload if the status remains the same.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = Real-time overload status. Valid value(s):

`CRITICAL`	= Critical real-time overload.
`MAJOR`	= Major real-time overload.
`MINOR`	= Minor real-time overload.
`NONE`	= No real-time overload.

`c` = Resources that are overloaded. Refer to the APP:RESOURCES appendix in the Appendixes section of the Output Messages manual.

`d` = Controls that are currently in effect. Valid value(s):

`AVRT`	= Avoidance routing. Route around an overloaded SM.
`CART`	= CCS avoidance routing. Route around the overloaded switch.
`DNET`	= Defer non-essential tasks such as terminal maintenance routine tests.
`ESP`	= Essential service protection is allowed.
`NONE`	= No controls are in effect.
`RIAR`	= Input acceptance rates are reduced to the control level specified in variable '`e`'.
`RIOR`	= Inter-SM origination rates are reduced to the control level specified in variable '`e`'.
`RRR`	= Route requests are reduced to the control level specified in variable '`e`'.
`RTR`	= Termination requests are reduced to the control level specified in variable '`e`'.
`SRT`	= Receiver timing values (permanent signal and partial dial timing) are shortened to overload timing values (SM only).

`e` = Level of control (number of calls allowed per hour).

`f` = The message switch control unit (MSCU) side in which the CMP resides.

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`g` = CMP number.

`h` = CMP identifier. Valid value(s):
`,MATE` = Mate processor.
`,PRIM` = Primary processor.

`i` = DLN group number.

`j` = DLN member number.

`k` = Message switch side number.

`l` = QGP number.

4. ACTIONS TO BE TAKEN

Determine the cause of the overload, escalating through normal channels as necessary. To find the status of the overloaded packet interface (PI) and/or packet handlers (PHs), use the OP:TRFC30 and OP:ST input messages.

5. ALARMS

Critical, major, or minor.

6. REFERENCES

Input Message(s):

```
OP:OVRLD-AM-SM
OP:ST
OP:TRFC30
```

Output Message(s):

```
REPT:OVERLOAD
```

Output Appendix(es):

```
APP:RESOURCES
```

Other Manual(s):

235-190-115 *Local and Toll System Features*

57. OP:P

OP:PB

Software Release: 5E10 and later
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
OP PB
  ID TYPE     STATUS
  a  b        c
```

2. REASON FOR OUTPUT

To print the position busy status of the trunk line work stations (TWSs) or centralized trunk test units (CTTUs) assigned to terminating 101test line calls.

3. VARIABLE FIELD DEFINITIONS

`a` = Trunk work station ID number.

`b` = Type of trunk work station. Valid value(s):
- `CTTU` = Centralized trunk test unit (CTTU).
- `LOCAL` = Trunk and line work station (TLWS) with local talk and monitor (T&M) phone.
- `REMOTE` = TLWS with remote T&M phone.

`c` = Status of indicator. Valid value(s):
- `NOT POSITION BUSY` = The TWS position has been marked as busy.
- `POSITION BUSY` = The TWS position has been marked as available.

4. ACTION TO BE TAKEN

If there are TWSs that should be receiving 101 test line calls and are not set appropriately, enter the input messages SET:PB or CLR:PB. If there is a TWS that is not on the list that should be, the user would know that the office data base is probably incorrectly populated and should contact the data base engineer.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:PB
OP:PB
SET:PB
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*

235-105-220 *Corrective Maintenance*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
14.0 (VERIFY 101 TEST LINE)

OP:PCTF-A

Software Release: 5E10 only
Message Class: PCTFSUM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP PCTF [SUMMARY] [SM a[&&b]]   [SEGMENT c] d
                                [LLR LSS  PX RCF RVF TTF]
      [[DNe[-f][+]] [g]   v   v   v   v   v   v]
                      .                 .
                      .                 .
                      .                 .

[2]   ____________________________________________________________________
      OP PCTF SUMMARY - DATA FROM THE FOLLOWING SM's WAS NOT REPORTED
        w  [w]  [w]  [w]  [w]  [w]  [w]  [w]
        w  [w]  [w]  [w]  [w]  [w]  [w]  [w]
```

2. REASON FOR OUTPUT

To respond to a manual request to output a summary list of per-call test failures (PCTFs). Each port or high-level service circuit (HLSC) identified in the summary (Format 1) has experienced at least one PCTF occurrence since the last automatic PCTF summary was generated. The list, if long, will be broken into segments.

The summary report uses the message class PCTFSUM (classdef 84).

Format 2 identifies switching modules (SMs) that were not reported in Format 1 because they could not be queried for PCTF data.

3. VARIABLE FIELD DEFINITIONS

`DN` = Directory number.

`ILEN` = Integrated digital carrier unit (IDCU) line equipment number.

`LCEN` = Integrated services line card equipment number.

`LEN` = Line unit equipment number.

`SLEN` = *SLC*® line equipment number.

`LLR` = Low line-resistance failures.

`LSS` = Line security scan failures.

`LUHLSC` = Line unit HLSC. The summary counts indicate the number of PCTF occurrences that involved the identified HLSC.

`ISLUHLSC` = Integrated services line unit (ISLU) high level service circuit (HLSC). The summary counts indicate the number of PCTF occurrences that involved the identified HLSC.

`PX` = Power cross failures.

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`RCF` = Ringer continuity failures.

`RFV` = Restore and verify failures.

`TTF` = TOUCH-TONE fraud failures.

`+` = Indicates the line is a party line.

`a` = SM number, or lower limit of a range of SM numbers.

`b` = Upper limit of a range of SM numbers.

`c` = Segment number of this segment of the list. Segments are numbered sequentially starting from 1.

`d` = Completion report. Valid value(s):

- `COMPLETED` = All the requested PCTF information has been output.
- `CONTINUED` = Identifies second and subsequent segments of a list that was too long to be printed in a single segment.
- `INPUT ERROR` = The input request was in some way incorrect. Processing of the request has been aborted and no PCTF summary output will follow.
- `NO PCTFS` = No per-call test failures have occurred since the previous periodic report was generated.
- `STARTED` = Indicates the first segment in the list. This does not necessarily imply that additional segments will be required.
- `STOPPED` = The list was stopped by manual action.
- `SYSTEM BUSY` = The system was too busy to perform the requested action or a system resource failure occurred which prevented the request from being processed. This could indicate that another OP:PCTF request is in progress.
- `SYSTEM ERROR` = An unspecified internal system error occurred which prevented further processing. The request has been aborted.

`e` = Telephone number of the line.

`f` = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

`g` = Valid value(s):

```
ILEN h x y z
LCEN h i j k
LEN h l m n o p
SLEN h q r s
LUHLSC h l t u
ISLUHLSC h i t u
```

`h` = SM number.

`i` = Integrated services line unit (ISLU) number.

`j` = Line group number.

`k` = Line card number.

`l` = Line unit number.

`m` = Grid number.

`n` = Switch board number (LU1, LU2, LU3) or half grid number (LU4).

`o` = Switch number.

`p` = Level number.

`q` = Digital carrier line unit.

`r` = Remote terminal (RT).

`s` = RT line.

`t` = Service group number.

`u` = HLSC number.

`v` = The number of occurrences of a given PCTF type.

`w` = SM number for which PCTF data could not obtained.

`x` = IDCU number.

`y` = RT number (RT).

`z` = RT line number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PCTF
STP:PCTF
```

Output Message(s):

```
REPT:PCTF
REPT:PCTF-SUMMARY
STP:PCTF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

OP:PCTF-B

Software Release: 5E11 only
Message Class: PCTFSUM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP PCTF [SUMMARY] [SM a[&&b]]   [SEGMENT c] d
                                [LLR LSS  PX RCF RVF TTF]
      [[DNe[-f][+]] [g]   v   v   v   v   v   v]
                      .                 .
                      .                 .
                      .                 .

[2]   ____________________________________________________________________
      OP PCTF SUMMARY - DATA FROM THE FOLLOWING SM's WAS NOT REPORTED
        w  [w]  [w]  [w]  [w]  [w]  [w]  [w]
        w  [w]  [w]  [w]  [w]  [w]  [w]  [w]
```

2. REASON FOR OUTPUT

To respond to a manual request to output a summary list of per-call test failures (PCTFs). Each port or high-level service circuit (HLSC) identified in the summary (Format 1) has experienced at least one PCTF occurrence since the last automatic PCTF summary was generated. The list, if long, will be broken into segments.

The summary report uses the message class PCTFSUM (classdef 84).

Format 2 identifies switching modules (SMs) that were not reported in Format 1 because they could not be queried for PCTF data.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`+` = Indicates the line is a party line.

`a` = SM number, or lower limit of a range of SM numbers.

`b` = Upper limit of a range of SM numbers.

`c` = Segment number of this segment of the list. Segments are numbered sequentially starting from 1.

`d` = Completion report. Valid value(s):

- `COMPLETED` = All the requested PCTF information has been output.
- `CONTINUED` = Identifies second and subsequent segments of a list that was too long to be printed in a single segment.
- `INPUT ERROR` = The input request was in some way incorrect. Processing of the request has been aborted and no PCTF summary output will follow.
- `NO PCTFS` = No per-call test failures have occurred since the previous periodic report was generated.
- `STARTED` = Indicates the first segment in the list. This does not necessarily imply that

additional segments will be required.

`STOPPED` = The list was stopped by manual action.

`SYSTEM BUSY` = The system was too busy to perform the requested action or a system resource failure occurred which prevented the request from being processed. This could indicate that another OP:PCTF request is in progress.

`SYSTEM ERROR` = An unspecified internal system error occurred which prevented further processing. The request has been aborted.

`e` = Telephone number of the line.

`f` = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

`g` = Valid value(s):

```
AIUEN h a1 b1 c1
ILEN h x y z
ISLUHLSC h i t u
LCEN h i j k
LEN h l m n o p
LUHLSC h l t u
SLEN h q r s
```

`h` = SM number.

`i` = Integrated services line unit (ISLU) number. The summary counts indicate the number of PCTF occurrences that involved the identified HLSC.

`j` = Line group number.

`k` = Line card number.

`l` = Line unit number.

`m` = Grid number.

`n` = Switch board number (LU1, LU2, or LU3).

`o` = Switch number.

`p` = Level number.

`q` = Digital carrier line unit.

`r` = Remote terminal (RT).

`s` = RT line.

`t` = Service group number.

`u` = HLSC number. The summary counts indicate the number of PCTF occurrences that involved the identified HLSC.

`v` = The number of occurrences of a given PCTF type.

w	= SM number for which PCTF data could not obtained.
x	= IDCU number.
y	= RT number (RT).
z	= RT line number.
a[1]	= Access interface unit (AIU) equipment number.
b[1]	= AIU pack number.
c[1]	= AIU circuit number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PCTF
STP:PCTF
```

Output Message(s):

```
REPT:PCTF
REPT:PCTF-SUMMARY
STP:PCTF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

OP:PCTF-C

Software Release: 5E12 and later
Message Class: PCTFSUM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP PCTF [SUMMARY] [SM a[&&b]]   [SEGMENT c] d
                                [LLR LSS  PX RCF RVF TTF]
      [[DNe[-f][+]] [g]   v   v   v   v   v   v]
                      .                 .
                      .                 .
                      .                 .

[2]   ____________________________________________________________________
      OP PCTF SUMMARY - DATA FROM THE FOLLOWING SM's WAS NOT REPORTED
        w  [w]  [w]  [w]  [w]  [w]  [w]  [w]
        w  [w]  [w]  [w]  [w]  [w]  [w]  [w]
```

2. REASON FOR OUTPUT

To respond to a manual request to output a summary list of per-call test failures (PCTFs). Each port or high-level service circuit (HLSC) identified in the summary (Format 1) has experienced at least one PCTF occurrence since the last automatic PCTF summary was generated. The list, if long, will be broken into segments.

The summary report uses the message class PCTFSUM (classdef 84). Format 2 identifies switching modules (SMs) that were not reported in Format 1 because they could not be queried for PCTF data.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`+` = Indicates the line is a party line.

`a` = SM number, or lower limit of a range of SM numbers.

`b` = Upper limit of a range of SM numbers.

`c` = Segment number of this segment of the list. Segments are numbered sequentially starting from 1.

`d` = Completion report. Valid value(s):

- `COMPLETED` = All the requested PCTF information has been output.
- `CONTINUED` = Identifies second and subsequent segments of a list that was too long to be printed in a single segment.
- `INPUT ERROR` = The input request was in some way incorrect. Processing of the request has been aborted and no PCTF summary output will follow.
- `NO PCTFS` = No per-call test failures have occurred since the previous periodic report was generated.
- `STARTED` = Indicates the first segment in the list. This does not necessarily imply that additional segments will be required.
- `STOPPED` = The list was stopped by manual action.

`SYSTEM BUSY` = The system was too busy to perform the requested action or a system resource failure occurred which prevented the request from being processed. This could indicate that another OP:PCTF request is in progress.

`SYSTEM ERROR` = An unspecified internal system error occurred which prevented further processing. The request has been aborted.

`e` = Telephone number of the line.

`f` = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

`g` = Valid value(s):

AIUEN h a^1 b^1 c^1
ILEN h x y z
INEN h d^1 y z
ISLUHLSC h i t u
LCEN h i j k
LEN h l m n o p
LUHLSC h l t u
SLEN h q r s

`h` = SM number.

`i` = Integrated services line unit (ISLU) number. The summary counts indicate the number of PCTF occurrences that involved the identified HLSC.

`j` = Line group number.

`k` = Line card number.

`l` = Line unit number.

`m` = Grid number.

`n` = Switch board number (LU1, LU2, or LU3).

`o` = Switch number.

`p` = Level number.

`q` = Digital carrier line unit.

`r` = Remote terminal (RT).

`s` = RT line.

`t` = Service group number.

`u` = HLSC number. The summary counts indicate the number of PCTF occurrences that involved the identified HLSC.

`v` = The number of occurrences of a given PCTF type.

`w` = SM number for which PCTF data could not obtained.

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x = IDCU number.

y = RT number (RT).

z = RT line number.

a[1] = Access interface unit (AIU) equipment number.

b[1] = AIU pack number.

c[1] = AIU circuit number.

d[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PCTF
STP:PCTF
```

Output Message(s):

```
REPT:PCTF
REPT:PCTF-SUMMARY
STP:PCTF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

OP:PERF

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP PERF {AM|CMP=a-b|SM=c}
  REPORTING PERIOD - d MIN
  RESOURCE   MAX_AVAIL    MIN_USED    MAX_USED    AVG_USED
     MCB            e           f           g           h
     PCB            i           j           k           l
     SCB            m           n           o           p
     TCB            q           r           s           t
```

2. REASON FOR OUTPUT

To print data from the Operating System for Distributed Switching (OSDS) resource monitoring utility as to the usage of OSDS message, process, stack, and timer control blocks (MCBs, PCBs, SCBs, and TCBs) for the most recent reporting period. These messages are in response to the OP:PERF input message.

3. VARIABLE FIELD DEFINITIONS

`AM` = Operational kernel process in the administrative module (AM).

`a` = Message switch side.

`b` = Communications module processor (CMP) number.

`c` = Switching module (SM) number.

`d` = Reporting period, in minutes.

`e` = Maximum number of MCBs available.

`f` = Minimum number of MCBs used during any six-second interval during the reporting period.

`g` = Maximum number of MCBs used during any six-second interval during the reporting period.

`h` = Average (mean) number of MCBs used during the reporting period.

`i` = Maximum number of PCBs available.

`j` = Minimum number of PCBs used during any six-second interval during the reporting period.

`k` = Maximum number of PCBs used during any six-second interval during the reporting period.

`l` = Average (mean) number of PCBs used during the reporting period.

`m` = Maximum number of SCBs available.

`n` = Minimum number of SCBs used during any six-second interval during the reporting period.

`o` = Maximum number of SCBs used during any six-second interval during the reporting period.

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`p` = Average (mean) number of SCBs used during the reporting period.

`q` = Maximum number of TCBs available.

`r` = Minimum number of TCBs used during any six-second interval during the reporting period.

`s` = Maximum number of TCBs used during any six-second interval during the reporting period.

`t` = Average (mean) number of TCBs used during the reporting period.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PERF
STP:PERF
```

OP:PERPH-SM-SUM

Software Release: 5E10 and later
Message Class: PFR_RSP
Application: 5
Type: Output

1. FORMAT

```
OP PERPH SM[=a] SUM=b  c
```

2. REASON FOR OUTPUT

To provide a response to the OP:PERPH-SM-SUM input message indicating that there will be no summary data from the indicated switching module (SM).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Type of summary requested. Valid value(s):
- `SYS` = System wide SM transient peripheral error summary.
- `UNIT` = Summary of transient peripheral errors by unit type for SM indicated.

`c` = Additional information. Valid value(s):
- `NO SMS FOUND` = No operational SMs could be found in the office.
- `SUMMARY NOT AVAILABLE` = Indicates that the information could not be obtained due to a system resource failure.

4. ACTION TO BE TAKEN

If additional information indicates `SUMMARY NOT AVAILABLE`, then retry later. If additional information indicates `NO SMS FOUND`, then check the office database for information on operational SMs.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:PERPH-SM
OP:PERPH-SM-SUM
SET:PERPH-SM
```

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OP:PERPH-SM-UES

Software Release: 5E10 and later
Message Class: PFR_RSP
Application: 5
Type: Output

1. FORMAT

```
OP PERPH SM=a UNIT ERROR SUMMARY
  UNIT   COF  SERV    OPER    PAR
    b      c     d       e      f
    .      .     .       .      .
    .      .     .       .      .
    .      .     .       .      .
```

2. REASON FOR OUTPUT

To provide a summary of transient peripheral errors that have occurred on switching module (SM) peripheral (PERPH) units. Transient peripheral errors are counted by peripheral fault recovery (PFR), but are not normally reported. This output message contains a list of unit types in the SM and transient errors that have occurred on those units since the last time the error counts were cleared. The unit error counts can be cleared by request through the OP:PERPH-SM-SUM input message with the CLR option and are automatically cleared at 7:00 p.m. each day.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = Name of unit on which errors occurred. Valid value(s):

`AIU`	= Access interface unit.
`EAIU`	= Extenden access interface unit.
`DCLU`	= Digital carrier line unit.
`DCTU`	= Directly connected test unit.
`DLTU`	= Digital line trunk unit.
`DSU`	= Digital service unit.
`IDCU`	= Integrated digital carrier unit.
`ISLU`	= Integrated services line unit.
`LU`	= Line unit.
`MSU`	= Metallic service unit.
`PSU`	= Packet switch unit.
`TU`	= Trunk unit.

`c` = Total number of control order failures received from a hardware unit. Control order failures indicate that a peripheral interface control bus (PICB) interrupt has occurred.

`d` = Total number of service request interrupts received from a hardware unit. Service requests are any errors belonging to one category:

- DCLU service request failures.
- DCTU service requests.
- DCTU spurious messages.
- DFI communications control buffer (CCB) errors.
- DFI unified control interface (UCI) errors.

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- DFI status errors.
- DSU digital service circuit (DSC) service request failures.
- DSU common service request failures.
- E-bit errors.
- Gated diode crosspoint (GDX) access power alarms.
- GDX controller power alarms.
- GDX grid power alarms.
- Internal data path faults.
- LU clock failures.
- Model 2 LU address fault alarms.
- S-DFI internal peripheral interface data bus (PIDB) parity errors.
- S-DFI service request failures.
- TU service request failures.
- Unexpected service requests.

The categories above correspond to error types that are contained in the REPT:CDFI-TRBL, REPT:DFIH-TRBL, REPT:HDFI-TRBL, REPT:RDFI-TRBL, and REPT:SDFI output messages.

e = Total number of test failures received from a hardware unit. Test failures are any errors belonging to one category:

- LU operational test failures.
- MSU path setup failures.
- Terminal maintenance transmission test facility (TTF) or global digital services function (GDSF) failures.
- DCTU error messages.

Test failures occur as a result of an error during an operational (for example, call setup) or terminal maintenance (for example, DCTU measurement) test on a line or trunk. These categories correspond to error types which are contained in REPT:CDFI-TRBL, REPT:DFIH-TRBL, REPT:HDFI-TRBL, REPT:RDFI-TRBL, and REPT:SDFI output messages.

f = Total number of parity errors received from a hardware unit. Parity errors are any errors belonging to one category:

- PIDB parity failures.
- Local DSU data parity failures.
- Facilities interface data bus (FIDB) parity failures.
- TSI PIDB parity failures.

These errors correspond to error types contained in the REPT:CDFI-TRBL, REPT:DFIH-TRBL, REPT:HDFI-TRBL, REPT:RDFI-TRBL or REPT:SDFI-TRBL output messages.

4. ACTIONS TO BE TAKEN

A more detailed summary of transient peripheral errors on SM units can be obtained using the OP:PERPH-SM-SUM input message.

By default, output messages for peripheral errors that result in recovery actions in a circuit will be logged and not printed. The CHG:LPS-MSGCLS input message can be used to change this default print status of the message class for each peripheral unit type.

The SET:PERPH-SM input message can also be used to output transient peripheral error messages which indicate

that no recovery action has been taken (for example, "ANALYSIS ONLY").

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CHG:LPS-MSGCLS
CLR:PERPH-SM
OP:PERPH-SM-SUM
SET:PERPH-SM
```

Output Message(s):

```
OP:PERPH-SYS-ES
REPT:CDFI-TRBL
REPT:DFIH-TRBL
REPT:HDFI-TRBL
REPT:RDFI-TRBL
REPT:SDFI-TRBL
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

OP:PERPH-SYS-ES

Software Release: 5E10 and later
Message Class: PFR_RSP
Application: 5
Type: Output

1. FORMAT

```
OP PERPH SYSTEM ERROR SUMMARY  a
  SM  ERRCNT   SM  ERRCNT   SM  ERRCNT
   b     [c]   [b    [c]]   [b    [c]]
                .
                .
                .
```

2. REASON FOR OUTPUT

To provide a system wide switching module (SM) peripheral (PERPH) transient error summary. Peripheral transient errors are counted by peripheral fault recovery (PFR) but are not normally reported.

This output message is either printed on demand (as a result of the OP:PERPH-SM-SUM input message) or automatically at 7:00 AM. If this message is printed automatically, error data for at most 24 SMs will appear in the message. These will be the SMs with the highest counts of transient peripheral errors since the last automatic printing of this message.

The system wide SM peripheral transient error summary counts can be cleared (CLR) by request, and are automatically cleared at 7:00 PM each day. This summary message is printed in blocks containing data for up to 24 SMs.

3. VARIABLE FIELD DEFINITIONS

`a` = Sequence of message block. Valid value(s):
`FIRST RECORD`
`LAST RECORD`
`NEXT RECORD`

`b` = SM number.

`c` = Total number of transient peripheral errors for that SM. If blank, that SM's information was not available.

4. ACTION TO BE TAKEN

A more detailed summary of transient peripheral errors on SM units can be obtained using the OP:PERPH-SM-SUM input message.

By default, output messages for peripheral errors that result in recovery actions in a circuit will be logged and not printed. The CHG:LPS-MSGCLS input message can be used to change this default print status of the message class for each peripheral unit type.

The SET:PERPH-SM input message can also be used to output transient peripheral error messages which indicate that no recovery action has been taken (for example "ANALYSIS ONLY").

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CHG:LPS-MSGCLS
CLR:PERPH-SM
OP:PERPH-SM-SUM
SET:PERPH-SM
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

OP:PLNT24-ND

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNT24 NO-DATA
  PART4 - RSMS NOT FOUND
  a     [a]     [a]     [a]     [a]
```

2. REASON FOR OUTPUT

To report that the specified remote switching module (RSM) has no data collected. This message is a response to OP:PLNT24 input message specifying PART4. If any of the requested RSMs was not found, this message will print after listing the RSMs that were found.

3. VARIABLE FIELD DEFINITIONS

`a` = RSM number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNT24
INH:PLNT24
OP:PLNT24
OP:ST-PLNT24
```

Output Message(s):

```
OP:ST-PLNT24
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-070-100 *Switch Administration Guidelines*

OP:PLNT24-PT01A-A

Software Release: 5E10 - 5E12
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNT24
                        24 HOUR PLANT MEASUREMENT REPORT
  REPORTING  OFFICE      a
  REPORT PERIOD          bb/bb/bb cc:cc:cc _ dd/dd/dd ee:ee:ee
  CURRENT DATE AND TIME  ff/ff/ff gg:gg:gg
  DATA LAST INITIALIZED  hh/hh/hh ii:ii:ii
  PART 1A
  j
                        SERVICE MEASUREMENTS - BASE COUNTS
  CALL CATEGORY      ORIGIN      INCOM        TERM
  BASE COUNTS        k           l            m
  REQUESTS           p           q
  CALL CATEGORY      OUTGO       INTRA-OFFICE TANDEM
  BASE COUNTS        n           o            r
  CALL CATEGORY      ORIGOUT     INCTERM      CAMASZ
  BASE COUNTS        s           t            u
  CALL CATEGORY      CAMAONI     CAMAANI      2STAGE
  BASE COUNTS        v           w            o1
                        SERVICE MEASUREMENTS
                     SWITCH      FACILITY      ISDNLCO      GDX
  CUT OFF CALLS      x           y             q1           z
  NAIL UP LOST       a1
                     COINPC  COINSTK AMAENTR AMALOST AMAIRR  AMA-PC
  BILLING
   TROUBLES          b1      c1      d1      e1      f1      g1
                     CAMAFRE CAMANIT CAMAOIA
                     h1      i1      j1
  FRAUD              SSTDET  IN-INV  TOT-INV FRAUD
   COUNTS            k1      l1      m1      n1
  BCLID LOST MSGS    p1
```

2. REASON FOR OUTPUT

To print the most recent 24-hour plant report.

3. VARIABLE FIELD DEFINITIONS

a = Reporting office identifier.

b = Date of the beginning of the report period, in the form month/day/year.

c = Time of the beginning of the report period, in the form hour:minutes:seconds.

d = Date of the end of the report period, in the form month/day/year.

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e = Time of the end of the report period, in the form hour:minutes:seconds.

f = Date when the report was prepared, in the form month/day/year.

g = Time when the report was prepared, in the form hour:minutes:seconds.

h = Date the data was last initialized, in the form month/day/year.

i = Time the data was last initialized, in the form hour:minutes:seconds.

j = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

Variables 'k' through 'w' are service measurements (base counts).

k = Number of originating calls.

l = Number of incoming calls.

m = Number of terminating calls.

n = Number of outgoing calls.

o = Number of intraoffice calls.

p = Number of originating requests.

q = Number of incoming requests.

r = Number of tandem calls.

s = Number of originating-outgoing calls.

t = Number of incoming-terminating calls.

u = Number of centralized automatic message accounting (CAMA) seizures.

v = Number of CAMA operator number identification (ONI) calls.

w = Number of CAMA automatic number identification (ANI) calls.

Variables'x' through 'a^1' are service measurements (cutoff calls).

x = Number of switch cutoff calls.

y = Number of facility cutoff calls.

z = Number of gated diode crosspoint (GDX) cutoff calls.

a^1 = Number of lost nailed up connections. This number represents the accumulated number of connections found out-of-service (OOS) every 15 minutes. Refer to the REPT:NAILUP output message also.

Variables 'b^1' through 'j^1' are service measurements (billing troubles).

b^1 = Number of coin control attempts.

c^1 = Number of stuck coin conditions.

d^1 = Number of automatic message accounting (AMA) entries.

e^1 = Number of AMA entries lost.

f^1 = Number of irregular AMA entries.

g^1 = Number of calls requiring AMA treatment.

h^1 = Number of CAMA free calls.

i^1 = Number of CAMA ANI troubles.

j^1 = Number of CAMA ONI ineffective attempts.

Variables 'k^1' through 'n^1' are blue box fraud counts.

k^1 = Number of short supervisory transitions (SST) detected.

l^1 = Number of ineffective fraud investigations.

m^1 = Number of calls subjected to fraud investigation.

n^1 = Number of calls determined to be fraudulent and terminated.

o^1 = Number of traditional two-stage international outbound calls where the second stage was processed. This is used by toll offices that have fully coded addressing.

p^1 = Number of calls for which the end customer received no bulk customer line identification (BCLID) message because of switch data equipment. This indicates that BCLID messages are being lost due to unavailability of data equipment due to being in maintenance state.

q^1 = Number of ISDN circuit switched calls (voice and data) which are abnormally terminated due to problems in the ISDN loop.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNT24
INH:PLNT24
```

```
OP:PLNT24
OP:ST-PLNT24
```

Output Message(s):

```
OP:ST-PLNT24
REPT:NAILUP
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-070-100 *Switch Administration Guidelines*

OP:PLNT24-PT01A-B

Software Release: 5E13 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNT24
                        24 HOUR PLANT MEASUREMENT REPORT
  REPORTING  OFFICE      a
  REPORT PERIOD          bb/bb/bb cc:cc:cc _ dd/dd/dd ee:ee:ee
  CURRENT DATE AND TIME  ff/ff/ff gg:gg:gg
  DATA LAST INITIALIZED  hh/hh/hh ii:ii:ii
  PART 1A
  j
                        SERVICE MEASUREMENTS - BASE COUNTS
  CALL CATEGORY      ORIGIN      INCOM        TERM
  BASE COUNTS        k           l            m
  REQUESTS           p           q
  CALL CATEGORY      OUTGO       INTRA-OFFICE TANDEM
  BASE COUNTS        n           o            r
  CALL CATEGORY      ORIGOUT     INCTERM      CAMASZ
  BASE COUNTS        s           t            u
  CALL CATEGORY      CAMAONI     CAMAANI      2STAGE
  BASE COUNTS        v           w            x
                        SERVICE MEASUREMENTS
                     SWITCH      FACILITY      ISDNLCO      GDX
  CUT OFF CALLS      y           z             a1           b1
  NAIL UP LOST       c1
                     COINPC  COINSTK AMAENTR AMALOST AMAIRR  AMA-PC
  BILLING
   TROUBLES          d1      e1      f1      g1      h1      i1
                     CAMAFRE CAMANIT CAMAOIA
                     j1      k1      l1

                     TOTAL         ACK/RCV       MHEIB         OVFL
  REAL TIME CALL     m1            n1            o1            p1
   DETAIL RECORDS
                     MELNKOOS      LDC
                     q1            r1

  FRAUD              SSTDET  IN-INV  TOT-INV FRAUD
   COUNTS            s1      t1      u1      v1
  BCLID LOST MSGS    w1
```

2. REASON FOR OUTPUT

To print the most recent 24-hour plant report.

3. VARIABLE FIELD DEFINITIONS

a = Reporting office identifier.

b = Date of the beginning of the report period, in the form month/day/year.

c = Time of the beginning of the report period, in the form hour:minutes:seconds.

d = Date of the end of the report period, in the form month/day/year.

e = Time of the end of the report period, in the form hour:minutes:seconds.

f = Date when the report was prepared, in the form month/day/year.

g = Time when the report was prepared, in the form hour:minutes:seconds.

h = Date the data was last initialized, in the form month/day/year.

i = Time the data was last initialized, in the form hour:minutes:seconds.

j = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

Variables 'k' through 'x' are service measurements (base counts).

k = Number of originating calls.

l = Number of incoming calls.

m = Number of terminating calls.

n = Number of outgoing calls.

o = Number of intraoffice calls.

p = Number of originating requests.

q = Number of incoming requests.

r = Number of tandem calls.

s = Number of originating-outgoing calls.

t = Number of incoming-terminating calls.

u = Number of centralized automatic message accounting (CAMA) seizures.

v = Number of CAMA operator number identification (ONI) calls.

w = Number of CAMA automatic number identification (ANI) calls.

x = Number of traditional two-stage international outbound calls where the second stage was processed. This is used by toll offices that have fully coded addressing.

Variables'y' through 'c^1' are service measurements (cutoff calls).

y = Number of switch cutoff calls.

z = Number of facility cutoff calls.

a^1 = Number of gated diode crosspoint (GDX) cutoff calls.

b^1 = Number of ISDN circuit switched calls (voice and data) which are abnormally terminated due to problems in the ISDN loop.

c^1 = Number of lost nailed up connections. This number represents the accumulated number of connections found out-of-service (OOS) every 15 minutes. Refer to the REPT:NAILUP output message also.

Variables 'd^1' through 'l^1' are service measurements (billing troubles).

d^1 = Number of coin control attempts.

e^1 = Number of stuck coin conditions.

f^1 = Number of automatic message accounting (AMA) entries.

g^1 = Number of AMA entries lost.

h^1 = Number of irregular AMA entries.

i^1 = Number of calls requiring AMA treatment.

j^1 = Number of CAMA free calls.

k^1 = Number of CAMA ANI troubles.

l^1 = Number of CAMA ONI ineffective attempts.

Variables 'm^1' through 'r^1' are Real Time Call Detail (RTCD)

m^1 = Total number of RTCD records generated by all Originating SM's.

n^1 = Total number of RTCD records acknowledged/received at the GBSM from all Originating SM's.

o^1 = Total number of RTCD records transmitted out the MHEIB.

p^1 = Total number of RTCD records lost due to RTBM overflow.

q^1 = Total time (in units of seconds) that the Ethernet link was out-of-service.

r^1 = Total number of Long Duration Call (LDC) RTCD records generated by all Originating SM's.

Variables 's^1' through 'w^1' are blue box fraud counts.

s^1 = Number of short supervisory transitions (SST) detected.

t^1 = Number of ineffective fraud investigations.

u^1 = Number of calls subjected to fraud investigation.

v[1] = Number of calls determined to be fraudulent and terminated.

w[1] = Number of calls for which the end customer received no bulk customer line identification (BCLID) message because of switch data equipment. This indicates that BCLID messages are being lost due to unavailability of data equipment due to being in maintenance state.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNT24
INH:PLNT24
OP:PLNT24
OP:ST-PLNT24
```

Output Message(s):

```
OP:ST-PLNT24
REPT:NAILUP
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-070-100 *Switch Administration Guidelines*

OP:PLNT24-PT01B

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNT24       PART 1B
  TIME aa:aa:aa      b
                 SERVICE MEASUREMENTS - INEFFECTIVE ATTEMPTS
  CALL CATEGORY  CONNECT ORIGIN  INCOM   TERM    OUTGO
  CALL SETUP
  TROUBLES       c       d       e       f
    ORIG-OUTG                                    g
    INCG-OUTG                                    h
  TRANSIENT
  CALLS LOST     i
  FALSE STARTS           j       k
  PERMANENT
  SIGNAL -  MF           l       m
         -  DP           n       o
         -  RP                   z
         -  2S                   a1
  PARTIAL DIAL
  TIMEOUT -  MF          p       q
          -  DP          r       s
          -  RP                  d1
          -  2S                  b1
  TIMEOUTS AND
  ABANDONS                       t               e1
  VACANT CODE                    u
          -  2S                  c1
  NO CIRCUIT                                      v
  NM BLOCKED                                      w
  NO PATH/
  NO SVC CKT     x
  ABANDONS FROM  y
   QUEUES
  BACKWARD
   FAILURE
   MESSAGES
   ORIGINATED                    f1
  SIGNALING
   NETWORK
   FAILURE                                        g1
  UNREASONABLE
   MESSAGES                      h1
  RELEASE
   GUARD
   RECEIVED                                       i1
```

2. REASON FOR OUTPUT

To print the most recent 24-hour plant report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hour:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

Note: Variables 'c' through 'y' are service measurements-ineffective attempts.

c = Number of call setup troubles - connecting.

d = Number of call setup troubles - originating.

e = Number of call setup troubles - incoming.

f = Number of call setup troubles - terminating.

g = Number of call setup troubles - originating-outgoing.

h = Number of call setup troubles - incoming-outgoing.

i = Number of transient calls lost - connecting.

j = Number of false starts - originating.

k = Number of false starts - incoming.

l = Number of permanent signals - originating TOUCH-TONE (TT).

m = Number of permanent signals - incoming TT multi-frequency (MF).

n = Number of permanent signals - originating dial pulsing (DP).

o = Number of permanent signals - incoming DP.

p = Number of partial dial timeouts - originating MF.

q = Number of partial dial timeouts - incoming MF.

r = Number of partial dial timeouts - originating DP.

s = Number of partial dial timeouts - incoming DP.

t = Number of timeouts and abandons - incoming.

u = Number of vacant codes - incoming.

v = Number of no circuits (trunk) - outgoing.

w = Number of network management (NM) blocked - outgoing.

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x = Number of no path or service circuits - connecting.

y = Number of abandons from queues - connecting.

z = Number of permanent signals - incoming revertive pulsing (RP).

a[1] = Number of permanent signal timeouts in the second stage of a traditional 2-stage international outbound call - incoming. This is used by toll offices that have fully coded addressing.

b[1] = Number of partial dial timeouts in the second stage of a traditional 2-stage international outbound call - incoming. This is used by toll offices that have fully coded addressing.

c[1] = Number of vacant codes in the second stage of a traditional 2-stage international outbound call - incoming. This is used by toll offices that have fully coded addressing.

d[1] = Number of partial dial timeouts - incoming RP.

e[1] = Number of ineffective machine attempt address complete timeouts - outgoing.

f[1] = Number of backward failure messages originated - incoming.

g[1] = Number of signaling network failures - outgoing.

h[1] = Number of unreasonable messages - incoming.

i[1] = Number of release guard messages received - outgoing.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PLNT24
ALW:PLNT24
INH:PLNT24
OP:ST-PLNT24
```

Output Message(s):

```
OP:ST-PLNT24
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNT24-PT02A

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNT24      PART 2A
  TIME aa:aa:aa                b
  EQUIPMENT PERFORMANCE
```

	QTY	FAULTS	ERRORS	AUTO DIAGS	MTCE USAGE	DUPLEX MTCE USAGE
SM	c		d			
CMP	e	f	g	h	i	j
MSCU	k	l			m	
FPC/CDAL	n	o			p	
PPC	q	r			s	
MMP	t	u			v	
QGP	k^1	l^1			m^1	
QGL	n^1	o^1			NA	
ONTCCOM	w	x			y	
NCREF	z	a^1			NA	
NCOSC	b^1	c^1			NA	
LI	d^1	e^1			f^1	
TMSLNK	g^1	h^1				
QLPS	p^1	q^1			r^1	
QTMSLNK	s^1	t^1			NA	
QPIPE	u^1		v^1		NA	
QLNK	w^1		x^1		NA	
CLNKS	i^1		j^1		NA	

2. REASON FOR OUTPUT

To print the most recent 24-hour plant report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):

```
DATA IS VALID
DATA MAY BE INVALID
```

c = Number of switching modules (SMs).

d = Number of errors (resets and interrupts) in the SMs.

e = Number of communication module processors (CMPs).

f = Number of faults [some tests fail (STF) diagnostics] in the CMPs.

g = Number of errors (hardware interrupts) in the CMPs.

h = Number of requested auto diagnostics in the CMPs.

i = CMP maintenance usage excluding diagnostics and MSCU out of service (OOS) (total time either active or standby OOS) in seconds.

j = CMP duplex maintenance usage in seconds; there is not an active CMP.

k = Number of message switch control units (MSCUs).

l = Number of MSCU faults.

m = MSCU maintenance usage in seconds.

n = Number of foundation peripheral controllers (FPCs).

o = Number of foundation peripheral controller/control and diagnostic access link (FPC/CDAL) faults.

p = FPC maintenance usage in seconds.

q = Number of pump peripheral controllers (PPCs).

r = Number of PPC faults.

s = PPC maintenance usage in seconds.

t = Number of module message processors (MMPs).

u = Number of MMP faults.

v = MMP maintenance usage in seconds.

w = Number of office network and timing complex commons (ONTCCOMs).

x = Number of ONTCCOM critical faults.

y = ONTCCOM maintenance usage in seconds.

z = Number of network clock (NC) references.

a^1 = Number of NC reference noncritical faults.

b^1 = Number of NC oscillators.

c^1 = Number of NC oscillator noncritical faults.

d^1 = Number of link interfaces (LIs).

e^1 = Number of LI faults.

f^1 = LI maintenance usage in seconds.

g[1] = Number of time multiplexed switch links (TMSLNKs).

h[1] = Number of times the switch maintenance kernel process recognizes any fault on a time multiplexed switch link (TMSLNK).

i[1] = Number of communication links (CLNKs).

j[1] = Number of CLNK errors.

k[1] = Number of QLPS gateway processors (QGPs).

l[1] = Number of times the switch maintenance kernel process recognizes any critical fault on a QLPS gateway processor (QGP).

m[1] = QGP maintenance usage in seconds.

n[1] = Number of QLPS gateway link (QGL).

o[1] = Number of times the switch maintenance kernel process recognizes any fault on a QLPS gateway link (QGL).

p[1] = Number of quad-link packet switches (QLPSs).

q[1] = Number of times the switch maintenance kernel process recognizes any fault on a quad link packet switch (QLPS).

r[1] = QLPS maintenance usage in seconds.

s[1] = Number of QLPS time multiplexed switch link (QTMSLNK).

t[1] = Number of times the switch maintenance kernel process recognizes any fault on a QTMSLNK.

u[1] = Number of QLPS PIPEs (QPIPEs).

v[1] = Number of QPIPE software errors.

w[1] = Number of QLPS links (QLNK).

x[1] = Number of QLNK software errors.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNT24
INH:PLNT24
OP:PLNT24
```

```
OP:ST-PLNT24
```

Output Message(s):

```
OP:ST-PLNT24
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-070-100 Switch Administration Guidelines

OP:PLNT24-PT02B

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNT24      PART 2B
  TIME  aa:aa:aa                 b
  INITIALIZATIONS-AM      FI      SI      FPI      DA      SPP
     AUTO                 c       d       e        f       g
     MANUAL               h       i       j        NA      k
  INITIALIZATIONS-SM      FI      SI      FPI      DA      SPP
     AUTO                 l       m               o       p
     MANUAL               q       r       NA       NA      s
  INITIALIZATIONS-CMP     FI      SI      FPI      DA      SPP
     AUTO                 t       u               v       w
     MANUAL               x       y       NA       NA       z
```

2. REASON FOR OUTPUT

To print the most recent 24-hour plant report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Number of automatic full administrative module (AM) initializations (S7).

d = Number of automatic selective AM initializations (S6).

e = Number of automatic full process initializations (S5).

f = Number of automatic directed audit initializations in the AM (S4).

g = Number of automatic single process purges in the AM (S3).

h = Number of manual full AM initializations (S7).

i = Number of manual selective AM initializations (S6).

j = Number of manual full process initializations (S5).

k = Number of manual single process purges in the AM (S3).

l = Number of automatic full switching module (SM) initializations (M7).

m = Number of automatic selective SM initializations (M6).

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o = Number of automatic directed audit initializations in the SMs (M4).

p = Number of automatic single process purges in the SMs (M3).

q = Number of manual full SM initializations (M7).

r = Number of manual selective SM initializations (M6).

s = Number of manual single process purges in the SMs (M3).

t = Number of automatic full communication module processor (CMP) (active and standby) initializations.

u = Number of automatic selective CMP (active and standby) initializations.

v = Number of automatic directed audit initializations in the CMPs (active and standby).

w = Number of automatic single process purges in the CMPs (active and standby).

x = Number of manual full CMP (active and standby) initializations.

y = Number of manual selective CMP (active and standby) initializations.

z = Number of manual single process purges in the CMPs (active and standby).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNT24
INH:PLNT24
OP:PLNT24
OP:ST-PLNT24
```

Output Message(s):

```
OP:ST-PLNT24
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-070-100 *Switch Administration Guidelines*

OP:PLNT24-PT03

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNT24  PART 3
  TIME aa:aa:aa   b
  PERFORMANCE MEASUREMENTS - CALL SETUP
     CONNECTING      OUTGOING         CALL_RELEASE
     c               d                e
  PERFORMANCE MEASUREMENTS - SYSTEM
     OUTAGE  ASRT-AM AUD_EV  MSGDIS  EXT_SLP ERR_SEC
     f       g       h       i       j       k
     TS_MM
     w
  PERFORMANCE MEASUREMENTS - SPEED OF SERVICE
     TDAD
     l
  PERFORMANCE MEASUREMENTS - SM TOTALS
     OUTAGE  ASRT-SM PUMPS   PMPBLK  RESETS  MT_INT
     m       n       o       p       q       r
     PERPMP
     x
  PERFORMANCE MEASUREMENTS - CMP TOTALS
     OUTAGE  AUD_EV  ASRT-CMP
     d1       e1       f1
  PERFORMANCE MEASUREMENTS
                     INCOM   OUTGO
     COT             y
     BKWDMSG                 z
     BLKXMT                  a1
     ACKTO           b1
     INVLDMSG        c1
  REMOTE SWITCHING MODULES ONLY - TOTALS
     RFERSEC  RFSLIP  RFALRMS  RLITRB
     s        t       u        v
```

2. REASON FOR OUTPUT

To print the most recent 24-hour plant report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

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c = Connecting call setup performance.

d = Outgoing call setup performance.

e = Number of call release (restore verify) failures.

f = Administrative module (AM) outage time in seconds.

g = Number of asserts in the AM.

h = Number of audit events in the system (that is, AM, SMs and active CMP(s)).

i = Number of output messages discarded.

j = Number of external (DS1) slips.

k = Number of times the errored seconds threshold was reached.

l = Number of times the tone decoder attachment delay threshold was reached.

m = Total switching module (SM) outage in seconds.

n = Number of asserts in the SM.

o = Number of pumps to the SM.

p = Number of pumped blocks to the SMs.

q = Number of resets in the SM processor.

r = Number of maintenance interrupts from the SM peripherals.

s = Number of remote switching module (RSM) remoting facility errored seconds.

t = Number of RSM remoting facility slips.

u = Number of RSM remoting facility alarms.

v = Number of RSM remoting facility interface troubles.

w = Number of inter-SM timeslot mismatches in office.

x = Number of requests to pump an SM peripheral unit.

y = Number of continuity failures - incoming.

z = Number of backward failure messages received - outgoing.

a^1 = Number of blocking signals transmitted - outgoing.

b^1 = Number of blocking acknowledgement signal timeouts - incoming.

c^1 = Number of times an invalid message type occurred - incoming.

d^1 = Total communication module processor (CMP) outage in seconds.

e^1 = Total number of audit events in the active CMP(s).

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`f`[1] = Number of asserts in the active CMP(s).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNT24
INH:PLNT24
OP:PLNT24
OP:ST-PLNT24
```

Output Message(s):

```
OP:ST-PLNT24
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-070-100 *Switch Administration Guidelines*

OP:PLNT24-PT04

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNT24  PART 4
  TIME aa:aa:aa   b
  RM NUMBER - c
  BASE MEASUREMENTS
     RMORIG  RMINC  RMOUTG
     d       e      g
  MAINTENANCE SERVICE MEASUREMENTS - INEFFECTIVE ATTEMPTS
     TRANSCL
     h
     CALL SETUP TROUBLES
     RMCONN  RMORIG  RMINC  RMTERM  RMOUTG  RMBLK
     i       j       k      l       m       n
     AMRMBLK
     o
  PERFORMANCE MEASUREMENTS - RECOVERY ACTIONS
     INITIALIZATIONS      FI    SI    FGI    DA    SPP
      AUTO                p     q            s     t
      MANUAL              u     v     NA     NA    w
  PERFORMANCE MEASUREMENTS - STANDALONE
     SATIME   SAFLT
     x        y
```

2. REASON FOR OUTPUT

To print the most recent 24-hour plant report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Remote module (RM) number.

Unless otherwise noted all values are peg counts. Variables 'd' through 'e' are base measurements.

d = Number of originating calls.

e = Number of incoming calls.

g = Number of outgoing calls.

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Variables 'h' through 'o' are service measurements.

h = Number of transient calls lost.

i = Number of connecting call setup troubles.

j = Number of originating call setup troubles.

k = Number of incoming call setup troubles.

l = Number of terminating call setup troubles.

m = Number of outgoing call setup troubles.

n = Number of calls blocked.

o = Number of calls blocked- administrative module to RM.

Variables 'p' through 'y' are performance measurements.

p = Number of automatic full initializations.

q = Number of automatic selective initializations.

s = Number of automatic directed audit initializations.

t = Number of automatic single process purges.

u = Number of manual full initializations.

v = Number of manual selective initializations.

w = Number of manual single process purges.

x = Number of seconds in stand-alone.

y = Number of times the RM entered stand-alone.

Note: An output value of 111 indicates a count that will be implemented in future issues and is not currently being taken.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNT24
INH:PLNT24
```

```
OP:PLNT24
OP:ST-PLNT24
```

Output Message(s):

```
OP:ST-PLNT24
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*
235-190-115 *Local and Toll System Features*

OP:PLNT24-PT05

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP PLNT24                    PART 5 (1 of b)
        TIME cc:cc:cc                 d
                 TOTAL                  TOTAL                     TOTAL
               INCOMING              OUTGOING                     TERA
                MDIIS                  MDIIS                 DEACTIVATIONS
                  e                      f                          g
          TRUNK            TERA                          PREEMPT
          GROUP          RECOVERY          OOS      PEER        QUICK-CHECK
           h                i               j         k               l
           .                .               .         .               .
           .                .               .         .               .
           .                .               .         .               .

[2]   ____________________________________________________________________
      OP PLNT24                    PART 5 (2 of b)
        TIME cc:cc:cc                 d
          TRUNK            TERA                          PREEMPT
          GROUP          RECOVERY          OOS      PEER        QUICK-CHECK
           h                i               j         k               l
           .                .               .         .               .
           .                .               .         .               .
           .                .               .         .               .

[3]   ____________________________________________________________________
      OP PLNT24                    PART 5 (a of b)
        TIME cc:cc:cc                 d
                                            TRUNK GROUP
          MDII     DEACT     h      [h]     [h]     [h]     [h]     [h]
           o         p       q      [q]     [q]     [q]     [q]     [q]
           .         .       .       .       .       .       .       .
           .         .       .       .       .       .       .       .
           .         .       .       .       .       .       .       .

[4]   ____________________________________________________________________
      OP PLNT24                    PART 5 (a of b)
        TIME cc:cc:cc                 d
                                                TRUNK GROUP
          MDII       h      [h]     [h]     [h]     [h]     [h]     [h]
           o         q      [q]     [q]     [q]     [q]     [q]     [q]
           .         .       .       .       .       .       .       .
           .         .       .       .       .       .       .       .
           .         .       .       .       .       .       .       .
```

2. REASON FOR OUTPUT

To print the most recent 24-hour plant report.

Part 5 of the 24-hour plant report contains the trunk error analysis (TERA) measurements. Some TERA measurements are kept on a trunk group (that is, peer group) basis (for a maximum of 20trunk groups - 10 groups each on Formats 1 and 2), some are kept on a machine detected inter-office irregularity (MDII) basis (DEACT in Format 3), some are kept on both peer group and MDII basis (Format 3: first 6 trunk groups for all MDIIs; Format 4: last 14 (maximum possible) trunk groups for all MDIIs), and some are simple totals (Format 1 TOTALs). These outgoing MDIIs are used exclusively for reporting common channel signaling (CCS) failure:

`MGBAF` = Maintenance group blocking acknowledgment failure.

`MGUAF` = Maintenance group unblocking acknowledgment failure.

`HGBAF` = Hardware group blocking acknowledgment failure.

`HGUAF` = Hardware group unblocking acknowledgment failure.

These MDIIs are generated during a remove or restore of a CCS trunk group. Any of these MDIIs (MGBAF or HGBAF for a remove) (MGUAF or HGUAF for a restore) can be reported more than once on the ROP. TERA is deactivated for these MDIIs by default, since these MDIIs are associated with a whole trunk group and not with a trunk member. Only the measurement counts for TOTAL OUTGOING MDIIs, TOTAL DEACTIVATIONS OF PART5 (1 of x), and OUTGOING OF PART24 of the PLNT 24 report are pegged.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

`a` = Section number.

`b` = Number of sections that will be printed.

`c` = Time when the report was prepared, in the form hours:minutes:seconds.

`d` = Status of data. Valid value(s):
`DATA IS VALID`
`DATA MAY BE INVALID`

`e` = Number of incoming MDIIs detected.

`f` = Number of outgoing MDIIs detected.

`g` = Number of times TERA was deactivated,

`h` = Trunk group number.

`i` = Number of recovery actions initiated by TERA, per peer group.

`j` = Number of times equipment was taken out-of-service (OOS) due to TERA, per peer group.

`k` = Number of MDIIs preempted from TERA's peer group analysis, per peer group.

`l` = Number of MDIIs preempted from TERA's quick-check analysis, per peer group.

o = MDII type.

p = Number of manual requests to deactivate TERA on an MDII basis.

q = Number of MDIIs input to TERA, per peer group.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PLNT24
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-070-100 *Switch Administration Guidelines*
235-190-115 *Local and Toll System Features*

OP:PLNT24-PT06

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNT24 PART 6
  TIME aa:aa:aa             b

  INTERLATA CARRIER MEASUREMENTS

  CALL ATTEMPTS

    IC   DIR_IN     DIR_OUT    SHR_OUT
  c   d  e          f          g
     .
     .
     .

  SELECTIVE CARRIER DENIAL

    IC   LINES      BLOCKS
  c   d  h          i
     .
     .
     .

  MDII

    IC   DIR_IN     DIR_OUT    SHR_SSD    SHR_ACK
  c   d  j          k          l          m
     .
     .
     .

  CCS7 SPECIFIC

    IC   CCS7_IN    CCS7_OUT   COTFAIL    NP1_IAM
  c   d  n          o          p          q
     .
     .
     .
```

2. REASON FOR OUTPUT

To print the most recent 24-hour report.

3. VARIABLE FIELD DEFINITIONS

`IC` = InterLATA carrier identifier consisting of identifiers '`c`' and '`d`'.

`a` = Time when the report was prepared, in the form hours:minutes:seconds.

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b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Feature group identifier (letter B or D).

d = Carrier identifier.

e = Number of incoming call attempts on trunks directly connected to a carrier (trunk class = IC).

f = Number of routed outgoing call attempts on trunks directly connected to a carrier (trunk class = IC).

g = Number of routed outgoing call attempts on trunks connected to a tandem for access-via-tandem calls (trunk class = LTOLL).

h = Number of lines screened by selective carrier denial (SCD).

i = Number of calls blocked by SCD.

j = Number of incoming machine detected interoffice irregularities (MDII) on trunks directly connected to a carrier (trunk class = IC).

k = Number of outgoing MDII on trunks directly connected to a carrier (trunk class = IC).

l = Number of outgoing second start dial (SSD) wink MDII on trunks connected to a tandem for access-via-tandem calls (trunk class = LTOLL).

m = Number of outgoing acknowledgement (ACK) wink MDII on trunks connected to a tandem for access-via-tandem calls (trunk class = LTOLL).

n = Number of incoming integrated services digital network user part (ISUP) MDII on trunks directly connected to a carrier (trunk class = IC).

o = Number of outgoing ISUP MDII on trunks directly connected to a carrier (trunk class = IC).

p = Number of ISUP continuity failures after two attempts at the end office or access tandem (trunk class = IC or LTOLL). A call fails after two successive continuity failures.

q = Number of ISUP initial address messages (IAM) received having a priority other than one.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNT24
INH:PLNT24
OP:MEASIC
OP:ST-PLNT24
OP:PLNT24
```

Output Message(s):

```
OP:MEASIC
OP:ST-PLNT24
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-070-100 *Switch Administration Guidelines*
235-190-115 *Local and Toll System Features*

OP:PLNT24-PT07

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNT24  PART 7
  TIME aa:aa:aa        b
  NETWORK CALL DENIAL
  QUERIES:
     TOTAL         DENY-RCV  RET-NCP  RET-CCS
     c             d         g        h
     BLKD-NCP      BLKD-CCS
     e             f
  CALL TREATMENT:
     KILLED         POST-ANS
     i              j
  INVALID MESSAGE   k
              MESSAGE DETAIL RECORDING MEASUREMENTS
                     GENERATED       LOST
                        l             m
```

2. REASON FOR OUTPUT

To print the most recent 24-hour plant report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form of hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Total number of network call denial (NCD) queries.

d = Number of NCD deny messages received.

e = Number of NCD queries blocked due to network control point (NCP) overload controls.

f = Number of NCD queries blocked due to common channel signaling (CCS) overload controls.

g = Number of NCD queries returned by the NCP.

h = Number of NCD queries returned by the CCS network.

i = Total calls killed due to NCD.

j = Number of calls killed due to NCD after answer supervision.

k = Number of invalid NCD messages.

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`l` = Number of generated message detail recording (MDR) records.

`m` = Number of lost MDR records.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PLNT24
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-070-100 *Switch Administration Guidelines*

OP:PLNT24-PT08

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNT24  PART 8
  TIME aa:aa:aa           b
       REMOTE SITE - c    REMOTE SITE ID - d
          PERFORMANCE MEASUREMENTS
     REMOTE SITE STAND ALONE MEASUREMENTS
     PSA-USG   PSAFALT  FSA-USG   FSAFALT
        e         f        g         h
     REMOTE CLOCK MEASUREMENTS - RSM NUMBER i
     RCLKTRBL      RCLKSLS  RCLKSMS  RCLKNLKD
        j             k        l        m
```

2. REASON FOR OUTPUT

To print the most recent 24-hour plant report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Text identifier of the remote site.

d = Numerical identifier of the remote site.

e = Amount of time in seconds that the remote site was in partial stand alone.

f = Number of times the remote site entered partial stand alone from the linked state.

g = Amount of time in seconds that the remote site was in full stand alone.

h = Number of times the remote site entered full stand alone.

i = Remote switching module (RSM) containing the remote clock.

j = Number of times that the remote clock experienced any troubles.

k = Number of hundred-call-seconds (CCS) that the remote clock had only one timing reference.

l = Number of CCS that the remote clock was in a maintenance state.

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`m` = Number of times that the remoting facility was not linked to the network.
Note: If variables '`k`' - '`m`' are zero, then no RSM in the remote site contains a remote clock.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PLNT24
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNT24-PT09

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNT24   PART 9   ISDN PACKET SWITCHING OFFICE TOTALS
  TIME aa:aa:aa         b
         TOTAL    RSM
         PACKETS  PACKETS
  SENT    c       d
  RECD    e       f
  ERRORS  g       h
  ISMNAIL AUTO RECOVERIES       i
                        PACKETS  CALLS
  FACILITY CUTOFFS       j        k
  ORIGINATING                     l
  TERMINATING                     m
```

2. REASON FOR OUTPUT

To print the most recent 24-hour plant report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Number of packet-switched packets sent.

d = Number of packet-switched packets sent by a remote switching module (RSM).

e = Number of packet-switched packets received (RECD).

f = Number of packet-switched packets received by an RSM.

g = Number of level 3 packet-switched packet errors on switching modules (SM).

h = Number of level 3 packet-switched packet errors on RSMs.

i = Number of inter-SM nailup automatic recoveries.

j = Number of packets discarded due to a facility cutoff.

k = Number of packet-switched calls cutoff due to facility failure.

l = Number of originating calls.

m = Number of terminating calls.

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4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNT24
INH:PLNT24
OP:PLNT24
OP:ST-PLNT24
```

Output Message(s):

```
OP:ST-PLNT24
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-070-100 *Switch Administration Guidelines*

OP:PLNT24-PT10

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNT24  PART 10
  TIME aa:aa:aa                        b
                 OSPS SERVICE MEASUREMENTS
  CALLTYPE          ATTEMPT    FAILURE
  INCOMING             c          d
  OUTGOING             e          f
                    REORDER      ABAND
                       g          h
                 OSPS EQUIPMENT PERFORMANCE
                      MTUSG
  POSITIONS            i
  DASC LINK SM      ATTEMPT    FAILURE      OVFL     SUCCESS     MTUSG
            j          k          l          m          n          o
            .          .          .          .          .          .
            .          .          .          .          .          .
                 LAYER 3 PROTOCOL MEASUREMENTS
            SM       RESETS    RESTRTS   RETRANS
            j          p          q          r
            .          .          .          .
            .          .          .          .
```

2. REASON FOR OUTPUT

To print the most recent 24-hour plant report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Number of incoming OSPS call attempts because:
- A directory-assistance (DA) call was received.
- Any automated toll and assistance (T&A) OSPS call (that is, coin, calling card, inward) was received.
- Any operator assisted T&A OSPS call was received.
- The end of a time-and-charge call that was routed to an operator.

d = Number of incoming OSPS call attempt failures because:

Source:	Reason(s):
For DA calls	- Call type determination failed on a DA call. - Failure to read RC/V View 21.22 to obtain call queue information on a DA call. - Failure to RC/V View view 21.7 to determine if interflow was active on a DA call. - Failure to RC/V View view 21.27 when interflow was active for the DA serving team assigned to receive the incoming call. - Could not obtain a (DASC) channel number to send a position seizure message to the DASC on a DA call. - Failure to interflow a DA call, through reroute, when interflow was active for the serving team assigned to receive the call.
For automatic call distributor (ACD)	- Failure to send route request message to the ACD. - Failure to receive acknowledgement from the ACD that an operator request was received. - Call processing determined that the call received was a commercial ACD call type but commercial ACD in RC/V View 8.30 was set to N. - Failure of ACD to route a call to an operator for reasons other than the call queue was full. - Failure to set a system timer to wait for an ACD response to an operator request. - After a second timeout while waiting for a response from the ACD to an operator request. - When a system interrupt signal was received while the call was waiting for a response to an operator request from the ACD.
For coin	- when the back party went on-hook while the call was being routed to an operator on a 1+ coin call that required an operator for initial customer contact. - when the back party went on-hook while a queue overflow announcement was being played on a 1+ coin call that required an operator for initial customer contact. - after successfully giving a queue overflow announcement on a 1+coin call that required an operator for initial customer contact. - when a failure to allocate coin dynamic data on a coin call occurred. - when a 0+ coin test call had bad automatic number identification (ANI).
Others	- Failure to define a path to an operator. - Failure on an automated calling card service (ACCS) call to release the path to the digital service unit model 2/recorded announcement function (DSU2/RAF) on a call that was to be routed to an operator. - Failure to route to an announcement when a call queue was closed. - When a call queue was closed. - Failure to route to level 3 delay announcement. - When more than 11 digits were received on an inward call. - When digit analysis failed on a 950, 0+, 0-, or 011+ call. - When digit analysis failed on an ACCS call being routed to an operator.

e = Number of times a DA operator attempted to initiate a call to a point external to the switch or a T&A operator initiated a delayed call from BK# SEND or FWD# SEND.

f = Number of times a DA operator canceled an external call by entering the DIAL or POSREL key or a routing failure occurred on an outgoing call as defined by OUTGOING ATTEMPT.

g = Number of OSPS calls routed to reorder tone because:
- A rating query failed on an initial automated coin toll service (ACTS) coin call.
- Failure to get a conference circuit on an initial ACTS coin call.
- Failure to route a call to an operator.
- Failure to route a call to a closed queue announcement.

h = Number of times the ACD successfully removed a queued call for which the back party had gone

on-hook.

i = Operator position maintenance usage in seconds.

Variables 'j' through 'o' are Operator Services Position System (OSPS) performance measurements.

j = Switching module number. The maximum number of OSPS switching modules (SMs) for which directory assistance services/computer (DAS/C) measurements are reported. Range is 1 to 32.

k = Number of times the switch attempted to notify the DAS/C about a directory assistance (DA) position seizure.

l = Number of times the switch failed to notify the DAS/C about a DA position seizure because the level 3 protocol was unavailable or down.

m = Number of times the switch failed to notify the DAS/C about a DA position seizure because the level 3 protocol buffers were full.

n = Number of times the switch successfully notified the DAS/C about a DA position seizure. Equal to ATTEMPT - FAILURE - OVFL.

o = Number of seconds a DAS/C port was found to be in an out-of-service state. Equal to the accumulation of the number of ports found to be in an out-of-service state every 100 seconds multiplied by 100.

Variables 'p' through 'r' are OSPS SM layer 3 protocol measurements. The maximum number of OSPS SMs for which DAS/C measurements are reported is 32.

p = Number of layer 3 protocol resets.

q = Number of layer 3 protocol restarts.

r = Number of layer 3 protocol retransmissions.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNT24
INH:PLNT24
OP:PLNT24
OP:ST-PLNT24
```

Output Message(s):

```
OP:ST-PLNT24
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*
250-505-100 *OSPS Description and Procedures*

RC/V View(s):

8.30 (OSPS COMMERCIAL ACD PARAMETERS)
21.22 (OSPS CALL TYPE)
21.27 (OSPS LISTING SERVICES/C-ACD INTERFLOW DESTINATION)
21.7 (OSPS IMMEDIATE INTERFLOW ACTIVATION AND DEACTIVATION)

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OP:PLNT24-PT10B

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNT24  PART 10B
  TIME aa:aa:aa                        b
             OSPS EQUIPMENT PERFORMANCE
                  SM      ATTEMPT FAILURE OVFL    SUCCESS MTUSG
  DASC LNK        c       d       e       f       g       h
                  .       .       .       .       .       .
                  .       .       .       .       .       .
                  .       .       .       .       .       .
             LAYER 3 PROTOCOL MEASUREMENTS
   SM      RESETS          RESTRTS         RETRANS
   c       i               j               k
   .       .               .               .
   .       .               .               .
   .       .               .               .
```

2. REASON FOR OUTPUT

To print the most recent 24-hour plant report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

Variables 'c' through 'h' are Operator Services Position System (OSPS) performance measurements.

c = Switching module (SM) number. The maximum number of OSPS SMs for which directory assistance system/computer (DAS/C) measurements are reported is 32.

d = Number of times the switch attempted to notify the DAS/C about a directory assistance (DA) position seizure.

e = Number of times the switch failed to notify the DAS/C about a DA position seizure because the level 3 protocol was unavailable or down.

f = Number of times the switch failed to notify the DAS/C about a DA position seizure because the level 3 protocol buffers were full.

g = Number of times the switch successfully notified the DAS/C about a DA position seizure. Equal to ATTEMPT - FAILURE - OVFL.

h = Number of seconds a DAS/C port was found to be in an out-of-service state. Equal to the accumulation of the number of ports found to be in an out-of-service state every 100 seconds multiplied by 100.

Variables 'i' through 'k' are OSPS SM layer 3 protocol measurements. The maximum number of OSPS SMs for

which DAS/C measurements are reported is 32, which is shared between Part 10B and Part 10.

`i` = Number of layer 3 protocol resets.
`j` = Number of layer 3 protocol restarts.
`k` = Number of layer 3 protocol retransmissions.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNT24
INH:PLNT24
OP:PLNT24
OP:ST-PLNT24
```

Output Message(s):

```
OP:ST-PLNT24
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-070-100 *Switch Administration Guidelines*

OP:PLNT24-PT11

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

[1]

```
_____________________________________________________________________
OP PLNT24    PART 11    ISDN OFFICE TOTALS
  TIME aa:aa:aa           b
                          ORIGIN  INCOM   TERM    OUTGO
  PARTIAL DIAL TIMEOUT    c       c
  PERMANENT SIGNAL        d
  REQUESTS                e       e
  CALLS                   f       f       f       f
                          RSM     RSM
         FRAMES  PACKETS  FRAMES  PACKETS
  SENT   g       h        i       j
  RECD   k       l        m       n
  ERRORS o       p        q       r
                 INITIALIZATIONS
  PHHLRCV PHLLRCV PIHLRCV PILLRCV L2LL  RSM_L2LL
  s       t       u       v       w     x
  OVERLOADS
  PH      PI
  y       z
  EQUIPMENT QUANTITIES
  PH      PI
  a1      b1
```

[2]

```
_____________________________________________________________________
OP PLNT24    PART 11    ISDN OFFICE TOTALS
  TIME aa:aa:aa           b
                          ORIGIN  INCOM   TERM    OUTGO
  PARTIAL DIAL TIMEOUT    c       c
  PERMANENT SIGNAL        d
  REQUESTS                e       e
  CALLS                   f       f       f       f

                                              RSM             RSM
                   FRAMES    PACKETS          FRAMES          PACKETS
  SENT             g         h                i               j
  RECD             k         l                m               n
  ERRORS           o         p                q               r
                 INITIALIZATIONS
  PHHLRCV PHLLRCV PIHLRCV PILLRCV L2LL  RSM_L2LL
  s       t       u       v       w     x
  OVERLOADS
  PH      PI
  y       z
  EQUIPMENT QUANTITIES
  PH      PI
```

```
a1      b1
ATS_ATT    ATS_FAIL   ATS_QFUL
c1         d1          e1
```

2. REASON FOR OUTPUT

To print the most recent 24-hour plant report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Number of times that incomplete directory information was followed by an intermessage timeout.

d = Number of times that a set-up request with no subsequent directory number information was followed by a system initiated DISCONNECT.

e = Number of requests.

f = Number of calls.

g = Number of frames (circuit- and packet-switched) sent by protocol handler (PH) to a D-channel.

h = Number of circuit-switched packets sent by the switching module (SM) to a packet interface (PI) or PH.

i = Number of frames (circuit- and packet-switched) sent by the PHs on a remote switching module (RSM) to a D-channel.

j = Number of circuit-switched packets sent by an RSM to a PI or PH.

k = Number of frames (circuit- and packet-switched) received (RECD) by PHs from a D-channel.

l = Number of circuit-switched packets received by the SM from a PI or PH.

m = Number of frames (circuit- and packet-switched) received by the PHs on an RSM from a D-channel.

n = Number of circuit-switched packets received by an RSM from a PI or PH.

o = Number of errored frames (circuit- and packet-switched) at PHs or SMs.

p = Number of level 3 circuit-switched packet errors at an SM.

q = Number of errored frames (circuit- and packet-switched) at PHs or RSMs.

r = Number of level 3 circuit-switched packet errors at an RSM.

s = Number of high-level recovery actions (HLRCV) in PHs; these include full and selective initializations.

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t = Number of low-level recovery actions (LLRCV) in PHs; these include packet services (PS) subsystem inits, single process purges (SPP) and return to point of interrupt (RPI).

u = Number of high-level recovery actions in the PI; these include full and selective initializations.

v = Number of low-level recovery actions in the PI; these include PS subsystem inits, SPPs and RPIs.

w = Number of level 2 logical link (L2LL) resets on SMs.

x = Number of level 2 logical link (L2LL) resets on RSMs.

y = The number of six second intervals that the PHs were in overload.

z = The number of six second intervals that the PIs were in overload.

a[1] = Number of PHs equipped.

b[1] = Number of PIs equipped.

c[1] = Number of download attempts where an attempt is defined as the receipt of a REGISTER message for which the protocol data unit (PDU) can be decoded at least to the point of identifying that a download was requested.

d[1] = Number of downloads which failed.

e[1] = Number of download requests which could not be honored because of a queue full condition.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNT24
INH:PLNT24
OP:PLNT24
OP:ST-PLNT24
```

Output Message(s):

```
OP:ST-PLNT24
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-070-100 *Switch Administration Guidelines*

OP:PLNT24-PT13

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNT24  PART 13
  TIME aa:aa:aa     b
  OSPS REAL-TIME RATING QUERY MEASURES
  RATING QUERIES
         ATMPT       SENT        NSENT        HDW      OVRLD
             c          d            e          f          g
         NO-ID       TEST
             h          i
  RATING QUERY REPLIES
         NPROC      UNEXP      INVFRMT
             j          k            l
       TIMEOUT      OVRLD        ABAND
             m          n            o
         TOTAL
             p
  REAL-TIME RATING FEATURE SPECIFIC MEASURES
                  SENT              FAILURE
   RATEQT            q                   r
   CCQS              s                   t
   T&C               u                   v
   COIN              w                   x
   CL                y                   z
   TOTAL                                 a1
```

2. REASON FOR OUTPUT

To print the most recent 24-hour plant report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

Note: For the variables with '*' refer to the 4ACTION TO BE TAKEN section in this manual page.

a = Time when the report was prepared, in the form of hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Number of rating queries attempted. Equal to SENT + NSENT.

d = Number of rating queries sent to the real-time rating service (RTRS) database. Equal to RATEQT SENT + CCQS SENT + T&C SENT + COIN SENT + CL SENT.

e = Number of rating queries not sent to the RTRS database. Equal to HDW + OVRLD + NM + NO-ID + AMBLK.

f = Number of rating queries not sent to the RTRS because of database link hardware problems. This count is not pegged when a test query cannot be sent to RTRS because of link hardware problems.

g = Number of rating queries not sent to the RTRS because of database cutbacks.

h = Number of rating queries not sent to the RTRS because no query identifiers were available.

i = Number of rating test queries sent to the RTRS database.

j = Number of RTRS query replies received that indicated that the data base was unable to process the reply.

k = Number of unexpected RTRS query replies received.

l = Number of RTRS query replies received in an invalid format.

m = Number of times that the OSPS switch timed out waiting for a reply from the RTRS database.

n = Number of RTRS query replies received that contained a non-zero overload indicator.

o = Number of times that a rating query was cancelled before a reply was received due to an operator or caller action.

p = Number of rating query replies received. Equal to TOTAL SUCCESS + TOTAL FAILURE in section 63: TRFC30 ORTR.

q = Number of rate quote queries sent to the RTRS database.

r = Number of rating query replies received from the RTRS that indicated a rate quote query was not successfully rated.

s = Number of centralized charge quotation system (CCQS) queries sent to the RTRS database.

t = Number of rating query replies received that indicated a CCQS query was not successfully rated. This count also includes replies that were successfully rated but the charges were greater than what hotel billing information system (HOBIS) or hotel billing information center (HOBIC) can receive, that is, $999.99.

u = Number of time and charges (T&C) queries sent to the RTRS database.

v = Number of rating query replies received that indicated a T&C query was not successfully rated.

w = Number of coin rating queries sent to the RTRS database. Equal to OVERALL INIT + OVERALL INTRM + OVERALL EOC in Section 100: TRFC30 OCOIN.

x = Number of coin rating query failures. Equal to POSTPAY IRQF + NON-ACTS IRQF + PREPAY INITIAL SEIZURE FAIL + OVERTIME ICRF + END OF CALL ECRF in Section 100: TRFC30 OCOIN.

y = Number of card limit (CL) queries sent to the RTRS database including initial and subsequent queries.

z = Number of CL initial and subsequent RTRS queries that are not successfully rated.

a[1] = Number of rating query failures. Equal to RATEQT FAILURE + CCQS FAILURE + T&C FAILURE + COIN FAILURE + CL FAILURE.

4. ACTION TO BE TAKEN

None.

The counts with '*' are specific to a CFR database and will always be zero when the rating database is an RTRS.

The validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNT24
INH:PLNT24
OP:PLNT24
OP:ST-PLNT24
OP:TRFC30
```

Output Message(s):

```
OP:ST-PLNT24
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNT24-PT14

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNT24  PART 14
  TIME aa:aa:aa     b
  OSPS FACILITY ADMINISTRATION MEASURES
  CONFERENCE CIRCUIT REQUESTS
                3 PORT     6 PORT
   INITIATED     c         d
   NOT-SERVED    e         f
  CAMA MEASURES
                REORDER   IDFAIL   CAMAPOSD
                  g         h         i
                TOTAL    NOQUEUE     ABAND
    XFER          j         k         l
    SYSTEM        m         n         o
  ACCS INITIAL CALLS
                TO-NK    ABANDNK     TOTAL
                  p         q         r
  ACCS SEQUENCE CALLS
                SQINIT   SQABAND
                  s         t
  SCREENED CALLS
                ATMPT    FAILURE     SUCCESS
                  u         v          w
  ONI CALLS
               ANIFAIL     UNEQ       TOTAL
                  x         y          z
  CCQS MEASURES
               ATMPT    SUCCESS
                 a1        b1
  ANI CALLS
               TRUNK
                 c1
```

2. REASON FOR OUTPUT

To print the most recent 24-hour plant report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):

DATA IS VALID

DATA MAY BE INVALID

c = Number of times an OSPS call, either operator-assisted or automated, requested a 3-port conference circuit. Determination of whether a 3-port or 6-port conference circuit is needed on the call depends on the number of parties on the call and whether the call needs to be attached to an announcement service circuit.

d = Number of times an OSPS call, either operator-assisted or automated, requested a 6-port conference circuit. Determination of whether a 3-port or 6-port conference circuit is needed on the call depends on the number of parties on the call and whether the call needs to be attached to an announcement service circuit

e = Number of times when a hardware failure (that is, a circuit was not usable) or communication failure prevented OSPS from getting a 3-port conference circuit. The events pegged for this count are different from those for 3-PORT CCOFL in Section 10: TRFC30 UCONF.

f = Number of times when a hardware failure (that is, a circuit was not usable) or communication failure prevented OSPS from getting a 6-port conference circuit. The events pegged for this count are different from those for 6-PORT CCOFL in Section 10: TRFC30 UCONF.

g = Number of REORDER signals sent by the centralized automatic message accounting (CAMA) offices in the last 24 hours.

h = Number of times when either of the following events occurred: (1) The OSPS switch is unable to interpret the automatic number identification failure / operator number identification (ANIF/ONI) tone received from the CAMA office on a transfer CAMA call. (2) The OSPS switch has timed out waiting for the ANIF/ONI tone from the CAMA office on a transfer CAMA call.

i = Number of times an operator released a transfer CAMA call from a position. This results in a POSITION DISCONNECT signals sent to the CAMA offices.

j = Number of times the OSPS switch received a transfer CAMA call.

k = Total number of transfer CAMA calls served without queuing for position in the last 24 hours.

l = Number of incoming transfer CAMA calls where the back party went on-hook before being connected to an operator.

m = Number of times the OSPS switch received a system CAMA ANIF/ONI call.

n = Total number of system CAMA-ONI calls served without queuing for position in the last 24 hours.

o = Number of incoming system CAMA calls where the back party went on-hook before being connected to an operator.

p = Number of automatic calling card service (ACCS) calls where the switch timed out after the bong tone waiting for the first calling card digit to be entered.

q = Number of initial ACCS calls where the back party went on-hook before entering the first calling card digit or while the call was being routed to an announcement service circuit for the playing of the bong tone and detection of calling card digits.

r = Number of potential ACCS calls that were routed to operators.

s = Number of ACCS sequence calls initiated, using a local exchange carrier (LEC) calling card, where the back party entered a # sign at the end of an ACCS call or during the ringing of the

forward party's phone.

t = Number of ACCS sequence calls placed with a LEC calling card where the back party went on-hook during the keying of a new forward number, during routing to the forward party, or during ringing of the forward party's phone.

u = Number of screened calls handled by operators. Equal to FAILURE + SUCCESS.

v = Number of times an operator cancelled a call on which the back party was screened against one or more classes of charge.

w = Number of times an operator floated or externally transferred a call on which the back party was screened against one or more classes of charge.

x = Number of transfer CAMA, system CAMA, or ISP calls requiring ONI due to ANI failure.

y = Number of transfer CAMA, system CAMA, or ISP calls sent to an operator because ONI was required and because the originating office was without ANI equipment or served multi-party lines.

z = Number of transfer CAMA, system CAMA, or ISP calls that were sent to an operator because of ANI failure or because ONI was required. Equal to ANIFAIL + UNEQ.

a[1] = Number of times an attempt was made to send a voice quote message to an automatic charge quotation service (ACQS) establishment.

b[1] = Number of times the OSPS switch received a rating query reply indicating that a centralized charge quotation system (CCQS) query was successfully rated.

c[1] = Number of incoming ISP calls that arrived on ANI-searched screened trunks and there was no originating line screening restriction.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNT24
INH:PLNT24
OP:PLNT24
OP:ST-PLNT24
```

Output Message(s):

```
OP:ST-PLNT24
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-070-100 Switch Administration Guidelines

OP:PLNT24-PT15

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNT24  PART 15
  TIME aa:aa:aa        b
  OSPS MEASUREMENTS
  AUTOQUOTE CALLS
        COMPL      PRINT     AQCRDT     REROUT     RQFAIL     VQCRDT
            c          d          e          f          g          h
  COIN CIRCUIT
         OPER       UNAV      NOTFY       NPER
            i          j          k          l
  SEIZURE INFORMATION
         AEOC       ACDS     DEPSAT
            m          n          o
  COIN QUERIES
         INIT      INTRM        EOC
            p          q          r
  AUTOMATED INWARD LINE SCREENING
      CALL SERVING OSPS
                               OLS        TCS
            QUERIES_SENT         s          t
            REPLIES_RECD         u          v
                  TSKREF      MSQRY       UXDT    TIMEOUT
                       w          x          y          z
      NORMAL SERVING OSPS
                               OLS        TCS
            QUERIES_RECD         a1         b1
            REPLIES_SENT         c1         d1
                  TSKREF      MSQRY       UXDT
                       e1         f1         g1
```

2. REASON FOR OUTPUT

To print the most recent 24-hour plant report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Number of attempts to send an autoquote message to an autoquote establishment.

d = Number of printed autoquote calls.

e = Number of times that an autoquote message was not sent to the autoquote establishment and a credit record was created for the following events:

- Automatic charge quotation service (ACQS) message buffer pointers were corrupted which resulted in credit records created for each queued autoquote.
- An autoquote message was queued for longer than the value in field "HOBIS/C TIME" of RC/V View 8.9.
- The ACQS message buffer was full (max 100) and a new message arrived replacing a queued autoquote message.
- Failures occurred during transmitting the message to the autoquote establishment and when trying to reroute the message to a Hotel Billing Information System (HOBIS) or hotel billing information center (HOBIC).

f = Number of autoquote messages successfully rerouted to a HOBIS or HOBIC.

g = Number of autoquote messages that failed because all autoquote digital subscriber lines (DSL) were busy or call processing could not dial up the autoquote establishment because of a lack of software process control blocks (PCB) or process stacks (PS).

h = Number of credited voice quote messages that were not sent to HOBIS or HOBIC because:

- The ACQS message buffer pointers were corrupted which resulted in credit records created for each queued voice quote message.
- A voice quote message was queued for longer than the value in field "HOBIS/C TIME" of RC/V View 8.9.
- The ACQS message buffer was full (max 100) and a new message arrived replacing a queued voice quote message.
- A failure occurred during transmitting the message to HOBIS or HOBIC.

i = Number of times an operator was successfully requested after a successful rating query at the end of an automated coin call and any of the following events occurred:

- An announcement circuit could not be attached to the call because of AM routing throttling.
- Routing to an announcement circuit failed.

Also includes the number of times any of the following events occurred which resulted in the coin call being routed to an operator:

- The call timed out (10 seconds) on an automated overtime charge-due seizure waiting for confirmation that an announcement circuit had been attached or a routing failure occurred when attempting to attach the announcement circuit and the back party had gone on-hook.
- The call timed out (10 seconds) on an automated end-of-call seizure waiting for confirmation that an announcement circuit had been attached or a routing failure occurred when attempting to attach the announcement circuit.
- An end-of-call seizure was routed to an operator.
- An announcement circuit failure or announcement failure occurred after the circuit was successfully attached on an overtime seizure where the back party had subsequently gone on-hook or on an end-of-call seizure.

j = Number of times any of the following events occurred on a 1+ prepay ACTS coin call during the

initial contact:

- Originating call treatment had timed out (10 seconds) waiting for an announcement process to be created.
- The announcement process failed to activate an announcement service circuit.
- Routing to an announcement circuit failed.
- The announcement process informed originating call treatment of a announcement circuit hardware failure.

k = Number of times any of the following events occurred at the end of the initial period of a coin-sent-paid call and a notification announcement was required:

- A 3-port conference circuit could not be obtained (call proceeded into grace period).
- Call processing could not define a path to the announcement circuit (call was routed to an operator).
- Call processing failed to route to an announcement circuit (call was routed to an operator).
- Call processing was waiting for an announcement circuit to be connected and a software failure or timeout (10 seconds) indication was received (call was idled).

l = Number of times any of the following events occurred after successful rating queries on overtime seizures:

- A 6-port conference circuit could not be obtained (call was consequently routed to an operator if a 3-port conference circuit could be obtained; if not, call proceeded to next overtime period); for pre-paid overtime for coin calls, the call is idled.
- Call processing could not define a path to the announcement circuit (call was consequently idled).
- Call processing failed to route to an announcement circuit (call was consequently routed to an operator).
- Call processing was waiting for an announcement circuit to be connected and software failure or timeout (10 seconds) indication was received (call was consequently routed to an operator).

m = Number of attempted automated end-of-call seizures regardless of whether an announcement circuit could be attached, a walkaway occurred, or the call was routed to an operator for large charge collection. Large charge means amount due is greater than 5 times LRG CHG THR in RC/V View 8.9.

n = Number of times an overtime seizure occurred for which automation was attempted. This measurement is scored whether or not an announcement circuit was successfully attached.

o = Number of deposits satisfied on fully automated charges-due seizures.

p = Number of initial coin rating queries successfully sent to RTRS.

q = Number of interim coin rating queries successfully sent to RTRS

r = Number of end-of-call coin rating queries successfully sent to RTRS.

s = Number of automated inward line screening (AILS) queries sent from the call serving OSPS to retrieve originating line screening (OLS) data.

t = Number of AILS queries sent from the call serving OSPS to retrieve terminating code screening (TCS) data.

u = Number of AILS replies received in the call serving OSPS returning OLS data. This measure does not include the error replies received in the call serving OSPS.

v = Number of AILS replies received in the call serving OSPS returning TCS data. This measure does not include the error replies received in the call serving OSPS.

w = Number of error replies of "task refused" received in the call serving OSPS.

x = Number of error replies of "misroute" received in the call serving OSPS.

y = Number of error replies of "unexpected input data value" received in the call serving OSPS.

z = Number of queries that timed out in the call serving OSPS. This is a measure of the number of queries that actually left the call serving OSPS and became indeterminate (a valid reply was not received) for whatever reason.

a^1 = Number of AILS queries received in the normal serving OSPS from the call serving OSPS to retrieve OLS data.

b^1 = Number of AILS queries received in the normal serving OSPS from the call serving OSPS to retrieve TCS data.

c^1 = Number of AILS replies sent from the normal serving OSPS to the call serving OSPS returning OLS data. This measure does not include the error replies sent to the call serving OSPS.

d^1 = Number of AILS replies sent from the normal serving OSPS to the call serving OSPS returning TCS data. This measure does not include the error replies sent to the call serving OSPS.

e^1 = Number of error replies of "task refused" sent from the normal serving OSPS to the call serving OSPS.

f^1 = Number of error replies of "misroute" sent from the normal serving OSPS to the call serving OSPS.

g^1 = Number of error replies of "unexpected input data value" sent from the normal serving OSPS to the call serving OSPS.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNT24
INH:PLNT24
OP:PLNT24
OP:ST-PLNT24
```

Output Message(s):

```
OP:ST-PLNT24
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

RC/V View(s):

8.9 (OSPS OFFICE PARAMETERS)

OP:PLNT24-PT16

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNT24      PART 16
  TIME aa:aa:aa    b
  OSPS INTERFLOW MEASURES
          OSPS_ID B_RMV   B_LINKDOWN      D_RMV   D_LINKDOWN
          c       d       ee:ee:ee        f       gg:gg:gg
          .       .          .            .           .
          .       .          .            .           .
          .       .          .            .           .
```

2. REASON FOR OUTPUT

To print the most recent 24-hour plant report.

3. VARIABLE FIELD DEFINITIONS

`a` = Time when the report was prepared, in the form hours:minutes:seconds.

`b` = Status of data. Valid value(s):
`DATA IS VALID`
`DATA MAY BE INVALID`

`c` = Identification number of the receiving Operator Services Position System (OSPS) office.

`d` = Number of times a B-channel has been removed from service in the past 24 hours.

`e` = Accumulated amount of time the B-channel links were down, in the form hours:minutes:seconds.

`f` = Number of times a D-channel has been removed from service in the past 24 hours.

`g` = Accumulated amount of time the D-channel links were down, in the form hours:minutes:seconds.

4. ACTION TO BE TAKEN

None.

If an OSPS ID is removed, then a manual request (demand report) will have invalid data.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
ALW:PLNT24
INH:PLNT24
OP:PLNT24
OP:ST-PLNT24
```

Output Message(s):

```
OP:ST-PLNT24
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-070-100 *Switch Administration Guidelines*

OP:PLNT24-PT17-A

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNT24      PART 17
  TIME aa:aa:aa    b
  OSPS ANSI TCAP QUERY MEASURES
  QUERIES
              ATMPT       SENT     NSENT      HDW
   LICCD          c          d         e        f
   89CCC          t1         u1        v1       w1
   LIBNS          k          l         m        n
              OVRLD         NM     NO-ID    AMBLK      TEST
   LICCD          g          h         i        j         m1
   89CCC          x1         y1        z1       a2        b2
   LIBNS          o          p         q        r         r1
  REPLIES
              ABNOR      RTEFA     ADDFA  SYSCONG
   LICCD          s          t         u        v
   89CCC          c2         d2        e2       f2
   LIBNS          a1         b1        c1       d1
              SYSFA       UNEQ      NWFA   NWCONG
   LICCD          w          x         y        z
   89CCC          g2         h2        i2       j2
   LIBNS          e1         f1        g1       h1
               TOTAL     UNEXP   INVFRMT  TIMEOUT
   LICCD           i1        j1        k1       l1
   89CCC           k2        l2        m2       n2
   LIBNS           n1        o1        p1       q1
                 ACG     PSDI4
   LICCD           s1        p2
   89CCC           o2        q2
```

2. REASON FOR OUTPUT

To print the most recent 24-hour plant report. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

Note: For the variables with '*' refer to the 4ACTION TO BE TAKEN section of this manual page.

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Number of LIDB calling card (CCD) queries attempted. Equal to LICCD SENT + NSENT.

d = *Number of LIDB calling card (CCD) queries sent from the OSPS into the common channel signaling (CCS) network. This count excludes test queries.

e = Number of LIDB CCD queries attempted but not sent (total of LICCD: HDW + OVRLD + NM + NO-ID + AMBLK).

f = *Number of LIDB CCD queries not sent because the common network interface (CNI) ring was not available. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

g = *Number of CCD queries not sent because the switch had enforced query cutbacks according to automatic call gapping (ACG) controls received from the database. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

h = *Number of CCD queries not sent because a cutback was in effect to accommodate a network management control measure. Network management cutbacks are implemented for a period of five seconds after a billed number screening (BNS) or calling card query reply indicates network congestion, network failure, subsystem congestion or subsystem failure. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

i = *Number of CCD queries not sent to the database because a LIDB query ID was not available. The switch can handle 256 outstanding LIDB queries. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

j = *Number of CCD queries not sent because of:

- Abnormal administrative module (AM) conditions.
- Abnormal communication link conditions between the switching module (SM) and AM.
- Switch data in the AM could not be read to determine the translation type parameter that is to be sent in the query to the signaling system 7 (SS7) network. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

k = Number of LIDB billing number screening (BNS) queries attempted. Equal to LIBNS SENT + NSENT.

l = *Number of billed number screening (BNS) queries sent from the OSPS into the CCS network. This count excludes test queries.

m = Number of BNS queries attempted but not sent (total of LIBNS: HDW + OVRLD + NM + NO-ID + AMBLK).

n = *Number of BNS queries not sent because the CNI ring was not available. The operator on the call may allow or disallow the call.

o = *Number of BNS queries not sent because the switch had enforced query cutbacks according to ACG controls received from the database. The operator on the call may allow or disallow the call.

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p = *Number of BNS queries not sent because a cutback was in effect to accommodate a network management control measure. Network management cutbacks are implemented for a period of five seconds after a BNS or calling card query reply indicates network congestion, network failure, subsystem congestion, or subsystem failure. The operator on the call may allow or disallow the call.

q = *Number of BNS queries not sent because a query ID was not available. The switch can handle 256 outstanding LIDB queries. The operator on the call may allow or disallow the call.

r = *Number of BNS queries not sent because of:
- Abnormal administrative module (AM) conditions.
- Abnormal communication link conditions between the SM and AM.
- Switch data in the AM could not be read to determine the translation type parameter that was to be sent in the query to the signaling system 7 (SS7) network. The operator on the call may allow or disallow the call.

s = Number of abnormal LIDB CCD replies received. These are queries that do not make it to the destined database and are returned by the network. (total of LICCD: RTEFA + ADDFA + SYSCONG + SYSFA + UNEQ + NWFA + NWCONG).

t = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated "no translation for an address of such nature". This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

u = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated "no translation for this specific address". This resulted in calling card denial on the call.

v = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated "subsystem congestion". This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9. This also resulted in a five-second cutback of LIDB calling card queries that have a calling card number with the same NPA or RAO as the calling card number that resulted in the subsystem congestion response.

w = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated "subsystem failure". This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9. This also resulted in a five-second cutback of LIDB calling card queries that have a calling card number with the same NPA or RAO as the calling card number that resulted in the subsystem failure response.

x = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated "unequipped user". This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

y = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated "network failure". This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9. This also resulted in a five-second cutback of LIDB calling card queries that have a calling card number with the same NPA or RAO as the calling card number that resulted in the network failure response.

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z = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated network congestion. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9. This also resulted in a five-second cutback of LIDB calling card queries that have a calling card number with the same NPA or RAO as the calling card number that resulted in the network congestion response.

a[1] = Number of abnormal LIDB BNS replies received. These are queries that do not make it to the destined database and are returned by the network. (total of LIBNS: RTEFA + ADDFA + SYSCONG + SYSFA + UNEQ + NWFA + NWCONG).

b[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated no translation for an address of such nature. The operator on the call may allow or disallow the call.

c[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated no translation for this specific address. This resulted in billing denial on the call.

d[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated subsystem congestion. The operator on the call may allow or disallow the call. This also resulted in a five-second cutback of LIDB BNS queries that have a billing number with the same NPA or RAO as the billing number that resulted in the subsystem congestion response.

e[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated subsystem failure. The operator on the call may allow or disallow the call. This also resulted in a five-second cutback of LIDB BNS queries that have a billing number with the same NPA or RAO as the billing number that resulted in the subsystem failure response.

f[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated unequipped user. The operator on the call may allow or disallow the call.

g[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated network failure. The operator on the call may allow or disallow the call. This also resulted in a five-second cutback of LIDB BNS queries that have a billing number with the same NPA or RAO as the billing number that resulted in the network failure response.

h[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated network congestion. The operator on the call may allow or disallow the call. This also resulted in a five-second cutback of LIDB BNS queries that have a billing number with the same NPA or RAO as the billing number that resulted in the network congestion response.

i[1] = Number of LIDB CCD replies received. Total of LICCD: UNEXP + INVFRMT + VLDFRMT. VLDFRMT is printed in section 109: TRFC30 OATQ.

j[1] = *Number of times an unexpected or duplicate LIDB CCD query reply was received from the database. Replies for which the switch had timed out while waiting for them are also included.

k[1] = *Number of LIDB CCD replies received in an invalid format where the reply was garbled in some manner or data fields did not conform to correct message syntax. Valid value(s):

- The value in the translation ID field was invalid.
- The component sequence ID field was invalid.
- The component type ID field was invalid.
- The length of the entire query response was longer than expected.

- The length of the transaction capability application part (TCAP) message was longer than expected.
- The package type identifier field was invalid.
- The message type field was invalid.
- The response was a service message from the SS7 network and the service message type was not recognized.

l[1] = Number of times that the OSPS timed out waiting for a LIDB CCD reply to a query from the database (refer to the CC and BNS TIME parameter in RC/V View 8.9). The call receives indeterminate query treatment as specified by parameter QUERY REPLIES TIMEOUT in RC/V View 8.9. Valid value(s):

A) = If TIMEOUT indicates "allow" then the reply is treated as an allow.
D) = If TIMEOUT indicates "deny" then the reply is treated as a deny.
E) = If TIMEOUT indicates "existing treatment" then the type of indeterminate query treatment is specified by parameter CC BILL BLOCK in RC/V View 8.9.

m[1] = Number of LIDB CCD test queries sent to the CCS network.

n[1] = Number of LIDB BNS replies received. Total of LIBNS: UNEXP + INVFRMT + VLDFRMT. VLDFRMT is printed in section 109: TRFC30 OATQ.

o[1] = *Number of times an unexpected or duplicate LIDB BNS query reply was received from the database. Replies for which the switch had timed out while waiting for them are also included.

p[1] = *Number of LIDB BNS replies received in an invalid format where the reply was garbled in some manner or data fields did not conform to correct message syntax. Valid value(s):

- The value in the translation ID field was invalid.
- The component sequence ID field was invalid.
- The component type ID field was invalid.
- The length of the entire query response was longer than expected.
- The length of the TCAP message was longer than expected.
- The package type identifier field was invalid.
- The message type field was invalid.
- The response is a service message from the SS7 network and the service message type was not recognized.

q[1] = Number of times that the OSPS timed out waiting for a BNS reply to a query from the database (refer to the CC and BNS TIME parameter in RC/V View 8.9). The call receives indeterminate query treatment as specified by parameter QUERY REPLIES TIMEOUT in RC/V View 8.9:

A) = If TIMEOUT indicates allow, then the reply is treated as an allow.
D) = If TIMEOUT indicates deny, then the reply is treated as a deny.
E) = If TIMEOUT indicates existing treatment, then the type of indeterminate query treatment is specified by parameter CC BILL BLOCK in RC/V View 8.9.

r[1] = Number of LIDB BNS test queries sent to the CCS network.

s[1] = *Number of BNS or CCD query replies from the database that contained an ACG component. All queries for calls that matched the first six digits of the affected billing number were potentially cutback as specified by the ACG control parameters. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

t[1] = Total number of telecommunications card/commercial credit card (89/CCC) queries attempted. (Total of 89CCC: SENT + NSENT.)

u[1] = *Number of 89/CCC queries sent from the OSPS into the network connecting the OSPS to the database. This count excludes test queries.

v[1] = Number of 89/CCC queries attempted but not sent. (Total of 89CCC: HDW + OVRLD + NM + NO-ID + AMBLK.)

w[1] = *Number of 89/CCC queries not sent because of the common network interface (CNI) ring was not available. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

x[1] = *Number of 89/CCC queries not sent because the switch had enforced query cutbacks according to automatic call gapping (ACG) controls received from the database. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

y[1] = *Number of 89/CCC queries not sent to the database because a cutback was in effect to accommodate a network management control measure. Network management cutbacks are implemented for a period of five seconds after a calling card query reply indicates network congestion, network failure, subsystem congestion or subsystem failure. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

z[1] = *Number of 89/CCC queries not sent to the data because a query ID was not available. The switch can handle 256 outstanding queries. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

a[2] = *Number of 89/CCC queries not sent to the database because:

- Abnormal administrative module (AM) conditions.
- Abnormal communication link conditions between the switching module (SM) and AM.
- Switch data in the AM could not be read to determine the translation type parameter that is to be sent in the query to the signaling system 7 (SS7) network. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

b[2] = *Number of 89/CCC test queries sent to the CCS network.

c[2] = Number of abnormal 89/CCC replies received. These are queries that do not make it to the destined database and are returned by the network.(total of 89CCC: RTEFA + ADDFA + SYSCONG + SYSFA + UNEQ + NWFA + NWCONG).

d[2] = *Number of times the CCS network returned a service message in response to an 89/CCC query and the response indicated no translation for an address of such nature. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

e[2] = *Number of times the CCS network returned a service message in response to an 89/CCC query and the response indicated no translation for this specific address. This resulted in calling card denial on the call.

f[2] = *Number of times the CCS network returned a service message in response to an 89/CCC query and the response indicated subsystem congestion. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56. This also resulted in a five-second cutback of calling card queries that have a calling card number with the same issuer as the calling card number that resulted in the subsystem congestion response.

g[2] = *Number of times the CCS network returned a service message in response to an 89/CCC query and the response indicated subsystem failure. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56. This also resulted in a five-second cutback of calling card queries that have a calling card number with the same issuer as the calling card number that resulted in the subsystem failure response.

h[2] = *Number of times the CCS network returned a service message in response to a 89/CCC query and the response indicated unequipped user. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

i[2] = *Number of times the CCS network returned a service message in response to an 89/CCC query and the response indicated network failure. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56. This also resulted in a five-second cutback of calling card queries that have a calling card number with the same issuer as the calling card number that resulted in the network failure response.

j[2] = *Number of times the CCS network returned a service message in response to a 89/CCC query and the response indicated network congestion. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56. This also resulted in a five-second cutback of calling card queries that have a calling card number with the same issuer as the calling card number that resulted in the network congestion response.

k[2] = Number of 89/CCC replies received of all types. Total of 89/CCC: UNEXP + INVFRMT + VLDFRMT.

l[2] = *Number of times an unexpected or duplicate 89/CCC query reply was received from the database. Replies for which the switch had timed out while waiting for them are also included.

m[2] = *Number of 89/CCC replies received in an invalid format where the reply was garbled in some manner or data fields did not conform to correct message syntax. Valid value(s):

- The value in the translation ID field was invalid.
- The component sequence ID field was invalid.
- The component type ID field was invalid.
- The length of the entire query response was longer than expected.
- The length of the transaction capability application part (TCAP) message was longer than expected.
- The package type identifier field was invalid.
- The message type field was invalid.
- The response was a service message from the SS7 network and the service message type was not recognized.

n[2] = Number of times that the OSPS timed out waiting for an 89/CCC reply to a query from the

database [refer to the QUERY TIMEOUT parameter in RC/V View 27.56. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

o[2] = *Number of 89/CCC query replies from the database that contained an ACG component. All queries for calls that matched the first six digits of the affected billing number were potentially cutback as specified by the ACG control parameters. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

p[2] = Number of 10+4 calling card validation replies with a '`PSDI=4`' response from the validation database.

q[2] = Number of 89C/CCC card validation replies with a '`PSDI=4`' response from the validation database.

4. ACTION TO BE TAKEN

The set of variables with '*' above represents the measurements collected in the direct link node (DLN). If the office is equipped with the DLN and the set of variables with '*' are zero, suggests that the DLN failed to report these variables and these variables are invalid for the reporting period.

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNT24
INH:PLNT24
OP:PLNT24
OP:ST-PLNT24
```

Output Message(s):

```
OP:ST-PLNT24
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNT24-PT17-B

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNT24      PART 17
  TIME aa:aa:aa    b
  OSPS ANSI TCAP QUERY MEASURES
  QUERIES
              ATMPT       SENT     NSENT      HDW
   LICCD          c          d         e        f
   89CCC          t1         u1        v1       w1
   LIBNS          k          l         m        n
              OVRLD         NM     NO-ID    AMBLK      TEST
   LICCD          g          h         i        j         m1
   89CCC          x1         y1        z1       a2        b2
   LIBNS          o          p         q        r         r1
  REPLIES
              ABNOR      RTEFA     ADDFA  SYSCONG
   LICCD          s          t         u        v
   89CCC          c2         d2        e2       f2
   LIBNS          a1         b1        c1       d1
              SYSFA       UNEQ      NWFA   NWCONG
   LICCD          w          x         y        z
   89CCC          g2         h2        i2       j2
   LIBNS          e1         f1        g1       h1
               TOTAL     UNEXP   INVFRMT  TIMEOUT
   LICCD           i1        j1        k1       l1
   89CCC           k2        l2        m2       n2
   LIBNS           n1        o1        p1       q1
                 ACG     PSDI4
   LICCD           s1        p2
   89CCC           o2        q2
```

2. REASON FOR OUTPUT

To print the most recent 24-hour plant report. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

Note: For the variables with '*' refer to the 4ACTION TO BE TAKEN section of this manual page.

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Number of LIDB calling card (CCD) queries attempted. Equal to LICCD SENT + NSENT.

d = *Number of LIDB calling card (CCD) queries sent from the OSPS into the common channel signaling (CCS) network. This count excludes test queries.

e = Number of LIDB CCD queries attempted but not sent (total of LICCD: HDW + OVRLD + NM + NO-ID + AMBLK).

f = *Number of LIDB CCD queries not sent because the common network interface (CNI) ring was not available. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

g = *Number of CCD queries not sent because the switch had enforced query cutbacks according to automatic call gapping (ACG) controls received from the database. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

h = *Number of CCD queries not sent because a cutback was in effect to accommodate a network management control measure. Network management cutbacks are implemented for a period of five seconds after a billed number screening (BNS) or calling card query reply indicates network congestion, network failure, subsystem congestion or subsystem failure. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

i = *Number of CCD queries not sent to the database because a LIDB query ID was not available. The switch can handle 256 outstanding LIDB queries. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

j = *Number of CCD queries not sent because of:

- Abnormal administrative module (AM) conditions.
- Abnormal communication link conditions between the switching module (SM) and AM.
- Switch data in the AM could not be read to determine the translation type parameter that is to be sent in the query to the signaling system 7 (SS7) network. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

k = Number of LIDB billing number screening (BNS) queries attempted. Equal to LIBNS SENT + NSENT.

l = *Number of billed number screening (BNS) queries sent from the OSPS into the CCS network. This count excludes test queries.

m = Number of BNS queries attempted but not sent (total of LIBNS: HDW + OVRLD + NM + NO-ID + AMBLK).

n = *Number of BNS queries not sent because the CNI ring was not available. The operator on the call may allow or disallow the call.

o = *Number of BNS queries not sent because the switch had enforced query cutbacks according to ACG controls received from the database. The operator on the call may allow or disallow the call.

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p = *Number of BNS queries not sent because a cutback was in effect to accommodate a network management control measure. Network management cutbacks are implemented for a period of five seconds after a BNS or calling card query reply indicates network congestion, network failure, subsystem congestion, or subsystem failure. The operator on the call may allow or disallow the call.

q = *Number of BNS queries not sent because a query ID was not available. The switch can handle 256 outstanding LIDB queries. The operator on the call may allow or disallow the call.

r = *Number of BNS queries not sent because of:
- Abnormal administrative module (AM) conditions.
- Abnormal communication link conditions between the SM and AM.
- Switch data in the AM could not be read to determine the translation type parameter that was to be sent in the query to the signaling system 7 (SS7) network. The operator on the call may allow or disallow the call.

s = Number of abnormal LIDB CCD replies received. These are queries that do not make it to the destined database and are returned by the network. (total of LICCD: RTEFA + ADDFA + SYSCONG + SYSFA + UNEQ + NWFA + NWCONG).

t = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated "no translation for an address of such nature". This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

u = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated "no translation for this specific address". This resulted in calling card denial on the call.

v = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated "subsystem congestion". This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9. This also resulted in a five-second cutback of LIDB calling card queries that have a calling card number with the same NPA or RAO as the calling card number that resulted in the subsystem congestion response.

w = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated "subsystem failure". This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9. This also resulted in a five-second cutback of LIDB calling card queries that have a calling card number with the same NPA or RAO as the calling card number that resulted in the subsystem failure response.

x = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated "unequipped user". This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

y = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated "network failure". This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9. This also resulted in a five-second cutback of LIDB calling card queries that have a calling card number with the same NPA or RAO as the calling card number that resulted in the network failure response.

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z = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated network congestion. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9. This also resulted in a five-second cutback of LIDB calling card queries that have a calling card number with the same NPA or RAO as the calling card number that resulted in the network congestion response.

a[1] = Number of abnormal LIDB BNS replies received. These are queries that do not make it to the destined database and are returned by the network. (total of LIBNS: RTEFA + ADDFA + SYSCONG + SYSFA + UNEQ + NWFA + NWCONG).

b[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated no translation for an address of such nature. The operator on the call may allow or disallow the call.

c[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated no translation for this specific address. This resulted in billing denial on the call.

d[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated subsystem congestion. The operator on the call may allow or disallow the call. This also resulted in a five-second cutback of LIDB BNS queries that have a billing number with the same NPA or RAO as the billing number that resulted in the subsystem congestion response.

e[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated subsystem failure. The operator on the call may allow or disallow the call. This also resulted in a five-second cutback of LIDB BNS queries that have a billing number with the same NPA or RAO as the billing number that resulted in the subsystem failure response.

f[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated unequipped user. The operator on the call may allow or disallow the call.

g[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated network failure. The operator on the call may allow or disallow the call. This also resulted in a five-second cutback of LIDB BNS queries that have a billing number with the same NPA or RAO as the billing number that resulted in the network failure response.

h[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated network congestion. The operator on the call may allow or disallow the call. This also resulted in a five-second cutback of LIDB BNS queries that have a billing number with the same NPA or RAO as the billing number that resulted in the network congestion response.

i[1] = Number of LIDB CCD replies received. Total of LICCD: UNEXP + INVFRMT + VLDFRMT. VLDFRMT is printed in section 109: TRFC30 OATQ.

j[1] = *Number of times an unexpected or duplicate LIDB CCD query reply was received from the database. Replies for which the switch had timed out while waiting for them are also included.

k[1] = *Number of LIDB CCD replies received in an invalid format where the reply was garbled in some manner or data fields did not conform to correct message syntax. Valid value(s):

- The value in the translation ID field was invalid.
- The component sequence ID field was invalid.
- The component type ID field was invalid.
- The length of the entire query response was longer than expected.

- The length of the transaction capability application part (TCAP) message was longer than expected.
- The package type identifier field was invalid.
- The message type field was invalid.
- The response was a service message from the SS7 network and the service message type was not recognized.

l[1] = Number of times that the OSPS timed out waiting for a LIDB CCD reply to a query from the database (refer to the CC and BNS TIME parameter in RC/V View 8.9). The call receives indeterminate query treatment as specified by parameter QUERY REPLIES TIMEOUT in RC/V View 8.9. Valid value(s):

A) = If TIMEOUT indicates "allow" then the reply is treated as an allow.
D) = If TIMEOUT indicates "deny" then the reply is treated as a deny.
E) = If TIMEOUT indicates "existing treatment" then the type of indeterminate query treatment is specified by parameter CC BILL BLOCK in RC/V View 8.9.

m[1] = Number of LIDB CCD test queries sent to the CCS network.

n[1] = Number of LIDB BNS replies received. Total of LIBNS: UNEXP + INVFRMT + VLDFRMT. VLDFRMT is printed in section 109: TRFC30 OATQ.

o[1] = *Number of times an unexpected or duplicate LIDB BNS query reply was received from the database. Replies for which the switch had timed out while waiting for them are also included.

p[1] = *Number of LIDB BNS replies received in an invalid format where the reply was garbled in some manner or data fields did not conform to correct message syntax. Valid value(s):

- The value in the translation ID field was invalid.
- The component sequence ID field was invalid.
- The component type ID field was invalid.
- The length of the entire query response was longer than expected.
- The length of the TCAP message was longer than expected.
- The package type identifier field was invalid.
- The message type field was invalid.
- The response is a service message from the SS7 network and the service message type was not recognized.

q[1] = Number of times that the OSPS timed out waiting for a BNS reply to a query from the database (refer to the CC and BNS TIME parameter in RC/V View 8.9). The call receives indeterminate query treatment as specified by parameter QUERY REPLIES TIMEOUT in RC/V View 8.9:

A) = If TIMEOUT indicates allow, then the reply is treated as an allow.
D) = If TIMEOUT indicates deny, then the reply is treated as a deny.
E) = If TIMEOUT indicates existing treatment, then the type of indeterminate query treatment is specified by parameter CC BILL BLOCK in RC/V View 8.9.

r[1] = Number of LIDB BNS test queries sent to the CCS network.

s[1] = *Number of BNS or CCD query replies from the database that contained an ACG component. All queries for calls that matched the first six digits of the affected billing number were potentially cutback as specified by the ACG control parameters. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

t[1] = Total number of telecommunications card/commercial credit card (89/CCC) queries attempted. (Total of 89CCC: SENT + NSENT.)

u[1] = *Number of 89/CCC queries sent from the OSPS into the network connecting the OSPS to the database. This count excludes test queries.

v[1] = Number of 89/CCC queries attempted but not sent. (Total of 89CCC: HDW + OVRLD + NM + NO-ID + AMBLK.)

w[1] = *Number of 89/CCC queries not sent because of the common network interface (CNI) ring was not available. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

x[1] = *Number of 89/CCC queries not sent because the switch had enforced query cutbacks according to automatic call gapping (ACG) controls received from the database. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

y[1] = *Number of 89/CCC queries not sent to the database because a cutback was in effect to accommodate a network management control measure. Network management cutbacks are implemented for a period of five seconds after a calling card query reply indicates network congestion, network failure, subsystem congestion or subsystem failure. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

z[1] = *Number of 89/CCC queries not sent to the data because a query ID was not available. The switch can handle 256 outstanding queries. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

a[2] = *Number of 89/CCC queries not sent to the database because:

- Abnormal administrative module (AM) conditions.
- Abnormal communication link conditions between the switching module (SM) and AM.
- Switch data in the AM could not be read to determine the translation type parameter that is to be sent in the query to the signaling system 7 (SS7) network. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

b[2] = *Number of 89/CCC test queries sent to the CCS network.

c[2] = Number of abnormal 89/CCC replies received. These are queries that do not make it to the destined database and are returned by the network.(total of 89CCC: RTEFA + ADDFA + SYSCONG + SYSFA + UNEQ + NWFA + NWCONG).

d[2] = *Number of times the CCS network returned a service message in response to an 89/CCC query and the response indicated no translation for an address of such nature. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

e[2] = *Number of times the CCS network returned a service message in response to an 89/CCC query and the response indicated no translation for this specific address. This resulted in calling card denial on the call.

f[2] = *Number of times the CCS network returned a service message in response to an 89/CCC query and the response indicated subsystem congestion. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56. This also resulted in a five-second cutback of calling card queries that have a calling card number with the same issuer as the calling card number that resulted in the subsystem congestion response.

g[2] = *Number of times the CCS network returned a service message in response to an 89/CCC query and the response indicated subsystem failure. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56. This also resulted in a five-second cutback of calling card queries that have a calling card number with the same issuer as the calling card number that resulted in the subsystem failure response.

h[2] = *Number of times the CCS network returned a service message in response to a 89/CCC query and the response indicated unequipped user. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

i[2] = *Number of times the CCS network returned a service message in response to an 89/CCC query and the response indicated network failure. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56. This also resulted in a five-second cutback of calling card queries that have a calling card number with the same issuer as the calling card number that resulted in the network failure response.

j[2] = *Number of times the CCS network returned a service message in response to a 89/CCC query and the response indicated network congestion. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56. This also resulted in a five-second cutback of calling card queries that have a calling card number with the same issuer as the calling card number that resulted in the network congestion response.

k[2] = Number of 89/CCC replies received of all types. Total of 89/CCC: UNEXP + INVFRMT + VLDFRMT.

l[2] = *Number of times an unexpected or duplicate 89/CCC query reply was received from the database. Replies for which the switch had timed out while waiting for them are also included.

m[2] = *Number of 89/CCC replies received in an invalid format where the reply was garbled in some manner or data fields did not conform to correct message syntax. Valid value(s):

- The value in the translation ID field was invalid.
- The component sequence ID field was invalid.
- The component type ID field was invalid.
- The length of the entire query response was longer than expected.
- The length of the transaction capability application part (TCAP) message was longer than expected.
- The package type identifier field was invalid.
- The message type field was invalid.
- The response was a service message from the SS7 network and the service message type was not recognized.

n[2] = Number of times that the OSPS timed out waiting for an 89/CCC reply to a query from the

database [refer to the QUERY TIMEOUT parameter in RC/V View 27.56. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

o[2] = *Number of 89/CCC query replies from the database that contained an ACG component. All queries for calls that matched the first six digits of the affected billing number were potentially cutback as specified by the ACG control parameters. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

p[2] = Number of 10+4 calling card validation replies with a '`PSDI=4`' response from the validation database.

q[2] = Number of 89C/CCC card validation replies with a '`PSDI=4`' response from the validation database.

4. ACTION TO BE TAKEN

The set of variables with '*' above represents the measurements collected in the direct link node (DLN). If the office is equipped with the DLN and the set of variables with '*' are zero, suggests that the DLN failed to report these variables and these variables are invalid for the reporting period.

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNT24
INH:PLNT24
OP:PLNT24
OP:ST-PLNT24
```

Output Message(s):

```
OP:ST-PLNT24
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNT24-PT18-A

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNT24      PART 18
  TIME aa:aa:aa    b
  OSPS CAS MEASURES
  QUERIES
          ATMPT   SENT    NSENT   HDW
          c       d       e       f
          OVRLD   NM      NO-ID   AMBLK   TEST
          g       h       i       j       w
  ABNORMAL REPLIES
          ABNOR   NRTDG   CONGEST BLKD    UNEQ
          k       l       m       n       o
  DATABASE REPLIES RECEIVED
          TOTAL   NPROC   UNEXP   INVFRMT VFRMT
          p       q       r       s       t
  MISCELLANEOUS REPLIES
          TIMEOUT OVRLD
          u       v
```

2. REASON FOR OUTPUT

To print the most recent 24-hour plant report.

3. VARIABLE FIELD DEFINITIONS

Note: For the variables with '*' refer to the 4ACTION TO BE TAKEN section of this manual page.

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Number of customer account service (CAS) queries in destination-routed common channel interoffice signaling 6 (DCIS6) format attempted. Equal to SENT + NSENT.

d = Number of calling card queries* in DCIS6 format sent to the CAS database. This excludes test queries.

e = Number of calling card queries in DCIS6 format that were attempted but not sent. Equal to HDW + OVRLD + NM + NO-ID + AMBLK.

f = Number of calling card queries* in DCIS6 format not sent to the CAS database because the common network interface (CNI) ring was not available. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

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g = Number of calling card queries* in DCIS6 format not sent to the CAS database because the switch had enforced query cutbacks according to call gapping controls received from the CAS database. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

h = Number of calling card queries* in DCIS6 format not sent to the CAS database because of network management cutbacks. Network management cutbacks are implemented for calling card queries for a period of 5 seconds after a calling card query reply indicates network congestion or network blockage. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

i = Number of calling card queries* in DCIS6 format not sent to the CAS database because a query ID was not available or was out of range due to an internal software error, where the range is 1-128. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

j = Number of calling card queries in DCIS6 format not sent to the CAS database because of abnormal administrative module (AM) conditions or abnormal communication link conditions between the switching module (SM) and AM. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

k = Number of abnormal calling card replies in DCIS6 format. Equal to NRTDG + CONGEST + BLKD + UNEQ.

l = Number of times an calling card query* failed to reach the CAS database because of no routing data in the network. A query reply from the common channel signaling (CCS) network indicated a failure reason of "no routing data". This resulted in call completion denial.

m = Number of times an calling card query* in DCIS6 format failed to reach the CAS database because of network congestion. A query reply from the CCS network indicated a failure reason of "network congestion." The result was cutback of subsequent calling card queries that had the same first three digits in the card account number as the account number that resulted in the network congestion reply. The cutbacks are in effect for a period of 5 seconds. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

n = Number of times an calling card query* in DCIS6 format failed to reach the CAS database because of network blockage. A query reply from the CCS network indicated a failure reason of "network blockage." The result was cutback of subsequent calling card queries that had the same first three digits in the card account number as the account number that resulted in the network blockage reply. The cutbacks are in effect for a period of 5 seconds. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

o = Number of times an calling card query* in DCIS6 format failed to reach the CAS database because the function was not equipped in the network. A query reply from the CCS network indicated a failure reason of "unequipped destination." This occurred when a query was sent to a destination that could not process CAS queries. This resulted in call completion denial.

p = Number of calling card replies received in DCIS6 format. Equal to NPROC + UNEXP + INVFRMT + VFRMT.

q = Number of calling card query replies in DCIS6 format received from the CAS database indicating that the database was unable to process the query. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View

8.9.

r = Number of unexpected or duplicate calling card query replies* received from the CAS database.

s = Number of calling card query replies* in DCIS6 format received from the CAS database containing an invalid response in the message type field or the reply code field. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

t = Number of calling card query replies with a valid DCIS6 format. Equal to ALCALL + INVDC + INVPN + DOMRS + INTRS in section 110: TRFC30 OCAS.

u = Number of times the OSPS switch timed out waiting for a reply to a calling card query in DCIS6 format from the CAS database. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

v = Number of calling card replies* in DCIS6 format (received from the CAS database) containing an overload indicator that required the switch to cutback queries to the database. This resulted in CAS query cutbacks according to the call gapping parameters received in the reply. The call was given indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

w = Number of calling card test queries sent to the CCS network.

4. ACTION TO BE TAKEN

None.

The set of variables with '*' represents the measurements collected in the direct link node (DLN). If the office is equipped with the DLN and the set of variables with '*' are zero, suggests that the DLN failed to report these variables and these variables are invalid for the reporting period.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNT24
INH:PLNT24
OP:PLNT24
OP:ST-PLNT24
```

Output Message(s):

```
OP:ST-PLNT24
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNT24-PT18-B

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNT24      PART 18
  TIME aa:aa:aa    b
  OSPS CAS MEASURES
  QUERIES
          ATMPT   SENT    NSENT   HDW
          c       d       e       f
          OVRLD   NM      NO-ID   AMBLK   TEST
          g       h       i       j       w
  ABNORMAL REPLIES
          ABNOR   NRTDG   CONGEST BLKD    UNEQ
          k       l       m       n       o
  DATABASE REPLIES RECEIVED
          TOTAL   NPROC   UNEXP   INVFRMT VFRMT
          p       q       r       s       t
  MISCELLANEOUS REPLIES
          TIMEOUT OVRLD
          u       v
```

2. REASON FOR OUTPUT

To print the most recent 24-hour plant report.

3. VARIABLE FIELD DEFINITIONS

Note: For the variables with '*' refer to the 4ACTION TO BE TAKEN section of this manual page.

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Number of customer account service (CAS) queries in destination-routed common channel interoffice signaling 6 (DCIS6) format attempted. Equal to SENT + NSENT.

d = Number of calling card queries* in DCIS6 format sent to the CAS database. This excludes test queries.

e = Number of calling card queries in DCIS6 format that were attempted but not sent. Equal to HDW + OVRLD + NM + NO-ID + AMBLK.

f = Number of calling card queries* in DCIS6 format not sent to the CAS database because the common network interface (CNI) ring was not available. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

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g = Number of calling card queries* in DCIS6 format not sent to the CAS database because the switch had enforced query cutbacks according to call gapping controls received from the CAS database. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

h = Number of calling card queries* in DCIS6 format not sent to the CAS database because of network management cutbacks. Network management cutbacks are implemented for calling card queries for a period of 5 seconds after a calling card query reply indicates network congestion or network blockage. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

i = Number of calling card queries* in DCIS6 format not sent to the CAS database because a query ID was not available or was out of range due to an internal software error, where the range is 1-128. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

j = Number of calling card queries in DCIS6 format not sent to the CAS database because of abnormal administrative module (AM) conditions or abnormal communication link conditions between the switching module (SM) and AM. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

k = Number of abnormal calling card replies in DCIS6 format. Equal to NRTDG + CONGEST + BLKD + UNEQ.

l = Number of times an calling card query* failed to reach the CAS database because of no routing data in the network. A query reply from the common channel signaling (CCS) network indicated a failure reason of "no routing data". This resulted in call completion denial.

m = Number of times an calling card query* in DCIS6 format failed to reach the CAS database because of network congestion. A query reply from the CCS network indicated a failure reason of "network congestion." The result was cutback of subsequent calling card queries that had the same first three digits in the card account number as the account number that resulted in the network congestion reply. The cutbacks are in effect for a period of 5 seconds. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

n = Number of times an calling card query* in DCIS6 format failed to reach the CAS database because of network blockage. A query reply from the CCS network indicated a failure reason of "network blockage." The result was cutback of subsequent calling card queries that had the same first three digits in the card account number as the account number that resulted in the network blockage reply. The cutbacks are in effect for a period of 5 seconds. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

o = Number of times an calling card query* in DCIS6 format failed to reach the CAS database because the function was not equipped in the network. A query reply from the CCS network indicated a failure reason of "unequipped destination." This occurred when a query was sent to a destination that could not process CAS queries. This resulted in call completion denial.

p = Number of calling card replies received in DCIS6 format. Equal to NPROC + UNEXP + INVFRMT + VFRMT.

q = Number of calling card query replies in DCIS6 format received from the CAS database indicating that the database was unable to process the query. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View

8.9.

r = Number of unexpected or duplicate calling card query replies* received from the CAS database.

s = Number of calling card query replies* in DCIS6 format received from the CAS database containing an invalid response in the message type field or the reply code field. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

t = Number of calling card query replies with a valid DCIS6 format. Equal to ALCALL + INVDC + INVPN + DOMRS + INTRS in section 110: TRFC30 OCAS.

u = Number of times the OSPS switch timed out waiting for a reply to a calling card query in DCIS6 format from the CAS database. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

v = Number of calling card replies* in DCIS6 format (received from the CAS database) containing an overload indicator that required the switch to cutback queries to the database. This resulted in CAS query cutbacks according to the call gapping parameters received in the reply. The call was given indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

w = Number of calling card test queries sent to the CCS network.

4. ACTION TO BE TAKEN

None.

The set of variables with '*' represents the measurements collected in the direct link node (DLN). If the office is equipped with the DLN and the set of variables with '*' are zero, suggests that the DLN failed to report these variables and these variables are invalid for the reporting period.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNT24
INH:PLNT24
OP:PLNT24
OP:ST-PLNT24
```

Output Message(s):

```
OP:ST-PLNT24
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNT24-PT19

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNT24   PART 19 b
  TIME aa:aa:aa
  ACP FOR SOFTWARE DEFINED NETWORKS
  ORIG    QUERY   OPLS
  c       d       e
```

2. REASON FOR OUTPUT

To print the most recent 24-hour plant report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Total originating software defined network (SDN) services attempts.

d = Total SDN queries to database.

e = Total completed SDN service calls successfully outpulsed.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNT24
INH:PLNT24
OP:PLNT24
OP:ST-PLNT24
```

Output Message(s):

```
OP:ST-PLNT24
```

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Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-070-100 *Switch Administration Guidelines*

OP:PLNT24-PT21

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNT24   PART 21
  TIME aa:aa:aa   b
  LEASED NETWORK ACTION POINT
  ORIG    QUERY   OPLS
  c       d       e
```

2. REASON FOR OUTPUT

To print the most recent 24-hour plant report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Number of originating leased network (LN) services attempts.

d = Number of LN queries to database.

e = Number of completed LN service calls successfully outpulsed.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNT24
INH:PLNT24
OP:PLNT24
OP:ST-PLNT24
```

Output Message(s):

```
OP:ST-PLNT24
```

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Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-070-100 *Switch Administration Guidelines*

OP:PLNT24-PT22

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNT24      PART 22
  TIME aa:aa:aa    b
  OSPS INTERCEPT MEASURES
          CLS0    CLS1    CLS2    CLS3    CLS5    CLS6    CLS7    CLS8
          c       d       e       f       g       h       i       j
          NODB    OPLS    SRT     VERBQT
          k       l       m       n
          EXT     CUSTOM  FRAUD
    ANNC  o       p       q
```

2. REASON FOR OUTPUT

To print the most recent 24-hour plant report in response to either a manual or automatic request.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Number of intercept calls with a class of 0 or a class determination of "automatic number identification (ANI) blank or unassigned number".

d = Number of intercept calls with a class of 1 or a class determination of "ANI Trouble" denoting customer's line is having problems.

e = Number of intercept calls with a class of 2 or a class determination of "ANI equipment failure to identify line number".

f = Number of intercept calls with a class of 3 or a class determination of "ANI regular", a regular intercept call.

g = Number of intercept calls with a class of 5 or a class determination of "concentrator spinoff".

h = Number of intercept calls with a class of 6 or a class determination of "operator number identification (ONI) regular".

i = Number of intercept calls with a class of 7 or a class determination of "ONI blank or unassigned number".

j = Number of intercept calls with a class of 8 or a class determination of "ONI trouble".

k = Number of intercept calls that could not find information in the external information system (EIS) data base. The EIS vendor supplies this information to the Operator Services Position System

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(OSPS) switch. This count may not be supported by all vendors.

`l` = Number of intercept calls outpulsed for call completion. This count includes the total number of both automated and non-automated intercept call completions after the call has been successfully routed to the forward number and digits outpulsed.

`m` = Number of intercept calls receiving split referral treatment. It is pegged when an EIS message is received to:

- Route an intercept call to an automated split referral announcement,
- Bill for an operator-provided split referral announcement. The EIS vendor supplies this information to the OSPS switch. This count may not be supported by all vendors.

`n` = Number of operator-assisted intercept calls receiving a verbal quote. The "listing access key" must be depressed to indicate to the EIS that billing applies to the service before sending a valid billing message to OSPS. The EIS vendor supplies this information to the OSPS switch and may not be supported by all vendors.

`o` = Number of intercept calls successfully routed to an external intercept announcement.

`p` = Not used.

`q` = Number of intercept calls receiving toll fraud announcements. The EIS vendor supplies this information to the OSPS switch and may not be supported by all vendors.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNT24
INH:PLNT24
OP:PLNT24
OP:ST-PLNT24
```

Output Message(s):

```
OP:ST-PLNT24
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-070-100 *Switch Administration Guidelines*

OP:PLNT24-PT23

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNT24      PART 23
  TIME aa:aa:aa    b
  OSPS CAS CCS7/ICCV SIGNALING MEASURES
  QUERIES
              ATMPT       SENT      NSENT       IPRB
    CAS7          c          d          e          f
    ICCV          j          k          l          m
              NO-ID      NMBLK      DBCBK
    CAS7          g          h          i
    ICCV          n          o
               TEST QUERIES SENT
    CAS7          p
    ICCV          q
  ABNORMAL REPLIES
              TOTAL      RTEFA      ADDFA    SYSCONG      SYSFA
    CAS7          r          s          t          u          v
    ICCV          w          x          y          z          a1
               UNEQ     NWCONG       NWFA     UNQUAL
    CAS7          b1         c1         d1         e1
    ICCV          f1         g1         h1         i1
  ERROR REPLIES
              TOTAL       UXDT     NOPARM     UXPARM      MSQRY
    CAS7          j1         k1         l1         m1         n1
    ICCV          o1         p1         q1         r1         s1
             TSKREF      VCODE    GATEWAY     DBUNAV     MSGFMT
    CAS7          t1         u1         v1
    ICCV                                          w1         x1
  VALID REPLIES
                  TOTAL
    CAS7              y1
    ICCV              z1
  MISCELLANEOUS REPLIES
               REJ       ABORT    TIMEOUT    INITABN
    CAS7         a2         b2         c2         d2
    ICCV         h2         i2         j2         k2
             UNEXP     INVFRMT        ACG
    CAS7         e2         f2         g2
    ICCV         l2         m2
  CALL DISPOSITION MESSAGES
           UPDONLY     REQUEST    REPLIES
    CAS7         n2         o2         p2
    ICCV         q2
  VIRTUAL CARD
```

```
          QUERIES    REPLIES
                         ALW       DENY
                r2         s2         t2
SPEED DIALING AUTOPROVISIONING
           FNCQRY     FNCALW     FNCDNY     SDLUPD     UPDALW     UPDDNY
                u2         v2         w2         x2         y2         z2
```

2. REASON FOR OUTPUT

To print the most recent 24-hour plant report section 23: Operator Services Position System (OSPS) customer account services (CAS) Common Channel Signaling System 7 (CCS7)/international credit card validation (ICCV) signaling measures, in response to either a manual or automatic request. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

Note: For the variables with '*' refer to the 4ACTION TO BE TAKEN section in this manual page.

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Number of CAS transaction capabilities application part (TCAP) database query attempts. Equal to (CAS7): SENT + NSENT.

d = Number of queries* sent from the OSPS to a card database where the query conforms to CAS TCAP signaling protocol. This excludes test queries.

e = Number of CAS TCAP queries not sent. Equal to (CAS7): IPRB + NO-ID + NMBLK + DBCBK.

f = Number of CAS TCAP queries* not sent because of OSPS internal problems (the administrative module (AM) or direct link node (DLN) is in an abnormal state, the common network interface (CNI) is not operational, or data could not be read successfully). The call received indeterminate treatment.

g = Number of CAS TCAP queries* not sent because a query ID was not available, or was out of range due to an internal software error, where the range is 0-255. The call received indeterminate treatment.

h = Number of CAS TCAP queries* not sent because a cutback was in effect to accommodate a network management control measure - due to CCS7 network problems. The network management cutbacks are implemented for a period of 5 seconds after CAS CCS7 replies are received indicating network congestion, subsystem congestion, network failure, or subsystem failure. The call received indeterminate treatment.

i = Number of CAS TCAP queries* not sent because the switch has enforced query cutbacks according to call gapping controls received from the CAS database. The call received indeterminate treatment.

j = Number of ICCV International Telecommunication Union - Telecommunication Standardization Sector (ITU-TS) (formerly CCITT) TCAP database query attempts. Equal to (ICCV): SENT + NSENT.

k = Number of queries* sent from the OSPS to a card database where the query conforms to ICCV ITU-TS TCAP signaling protocol. This excludes test queries.

l = Number of ICCV ITU-TS TCAP queries not sent. Equal to (ICCV): IPRB + NO-ID + NMBLK.

m = Number of ICCV ITU-TS TCAP queries* not sent because of OSPS internal problems (the AM or DLN is in an abnormal state, the CNI is not operational, data could not be read successfully). The call received indeterminate treatment.

n = Number of ICCV ITU-TS TCAP queries* not sent because a query ID was not available, or was out of range due to an internal software error, where the range is 0-255. The call received indeterminate treatment.

o = Number of ICCV ITU-TS TCAP queries* not sent because a cut back was in effect to accommodate a network management control measure - due to CCS7 network problems. The network management cut backs are implemented for a period of 5 seconds after CAS CCS7 replies are received indicating network congestion, subsystem congestion, network failure, or subsystem failure. The call received indeterminate treatment.

p = Number of CAS TCAP test queries that are sent by maintenance personnel (this does NOT include any replies to the test queries).

q = Number of ICCV ITU-TS TCAP test queries that are sent by maintenance personnel (this does NOT include any replies to the test queries).

r = Number of abnormal CAS TCAP replies received. Equal to (CAS7): RTEFA + ADDFA + SYSCONG + SYSFA + UNEQ + NWCONG + NWFA + UNQUAL.

s = Number of CAS TCAP unit data service messages* received with a diagnostic reason of "No translation data for an address of such nature". The call received indeterminate treatment.

t = Number of CAS TCAP unit data service messages* received with a diagnostic reason of "No translation data for this specific address". The call received denial treatment.

u = Number of CAS TCAP unit data service messages* received with a diagnostic reason of "Subsystem congestion". All subsequent CAS CCS7 queries with the same routing destinations were cut back for a period of 5 seconds. This call and subsequent calls that were cut back received indeterminate treatment.

v = Number of CAS TCAP unit data service messages* received with a diagnostic reason of "Subsystem failure". All subsequent CAS CCS7 queries with the same routing destinations were cut back for a period of 5 seconds. This call and subsequent calls that were cut back received indeterminate treatment.

w = Number of abnormal ICCV ITU-TS TCAP replies received. Equal to (ICCV): RTEFA + ADDFA + SYSCONG + SYSFA + UNEQ + NWCONG + NWFA + UNQUAL.

x = Number of ICCV ITU-TS TCAP unit data service messages* received with a diagnostic reason of "No translation data for an address of such nature". The call received indeterminate treatment.

y = Number of ICCV ITU-TS TCAP unit data service messages* received with a diagnostic reason of "No translation data for this specific address". The call received denial treatment.

z = Number of ICCV ITU-TS TCAP unit data service messages* received with a diagnostic reason of "Subsystem congestion". All subsequent ICCV queries with the same routing destinations were cut

back for a period of 5 seconds. This call and subsequent calls that were cut back received indeterminate treatment.

a[1] = Number of ICCV ITU-TS TCAP unit data service messages* received with a diagnostic reason of "Subsystem failure". All subsequent ICCV queries with the same routing destinations were cut back for a period of 5 seconds. This call and subsequent calls that were cut back received indeterminate treatment.

b[1] = Number of CAS TCAP unit data service messages* received with the diagnostic reason of "Unequipped user". The call received denial treatment.

c[1] = Number of CAS TCAP unit data service messages* received with the diagnostic reason of "Network congestion". All subsequent CAS CCS7 queries with the same routing destinations were cut back for a period of 5 seconds. This call and subsequent calls that were cut back received indeterminate treatment.

d[1] = Number of CAS TCAP unit data service messages* received with the diagnostic reason of "Network failure". All subsequent CAS CCS7 queries with the same routing destinations were cut back for a period of 5 seconds. This call and subsequent calls that were cut back received indeterminate treatment.

e[1] = Number of CAS TCAP unit data service messages* received with the diagnostic reason of "Unqualified". The call received indeterminate treatment.

f[1] = Number of ICCV ITU-TS TCAP unit data service messages* received with the diagnostic reason of "Unequipped user". The call received denial treatment.

g[1] = Number of ICCV ITU-TS TCAP unit data service messages* received with the diagnostic reason of "Network congestion". All subsequent ICCV queries with the same routing destinations were cut back for a period of 5 seconds. This call and subsequent calls that were cut back received indeterminate treatment.

h[1] = Number of ICCV ITU-TS TCAP unit data service messages* received with the diagnostic reason of "Network failure". All subsequent CAS CCS7 queries with the same routing destinations were cut back for a period of 5 seconds. This call and subsequent calls that were cut back received indeterminate treatment.

i[1] = Number of ICCV ITU-TS TCAP unit data service messages* received with the diagnostic reason of "Unqualified". The call received indeterminate treatment.

j[1] = Total number of CAS TCAP return error replies received. Equal to (CAS7): UXDT + NOPARM + UXPARM + MSQRY + TSKREF + VCODE + GATEWAY.

k[1] = Number of CAS TCAP return error replies received with an error code of "Unexpected Input Data Value", signifying that the query contained unexpected data. The call received indeterminate treatment.

l[1] = Number of CAS TCAP return error replies received with an error code of "Missing Parameter", signifying that a mandatory parameter was missing from the query. The call received indeterminate treatment.

m[1] = Number of CAS TCAP return error replies received with an error code of "Unexpected Parameter", signifying that an unrecognized parameter was contained in the query. The call received indeterminate treatment.

n[1] = Number of CAS TCAP return error replies received with an error code of "Misrouted Query", signifying that the database has determined that the card number contained in the query is not within the range expected. The call received indeterminate treatment.

o[1] = Total number of ICCV ITU-TS TCAP return error replies received. Equal to (ICCV): UXDT + NOPARM + UXPARM + MSQRY + DBUNAV + MSGFMT.

p[1] = Number of ICCV ITU-TS TCAP return error replies received with an error code of "Unexpected Input Data Value", signifying that the query contained unexpected data. The call received indeterminate treatment.

q[1] = Number of ICCV ITU-TS TCAP return error replies received with an error code of "Missing Parameter", signifying that a mandatory parameter was missing from the query. The call received indeterminate treatment.

r[1] = Number of ICCV ITU-TS TCAP return error replies received with an error code of "Unexpected Parameter", signifying that an unrecognized parameter was contained in the query. The call received indeterminate treatment.

s[1] = Number of ICCV ITU-TS TCAP return error replies received with an error code of "Misrouted Query", signifying that the database has determined that the card number contained in the query is not within the range expected. The call received indeterminate treatment.

t[1] = Number of CAS TCAP return error replies received with an error code of "Task Refused", signifying that the node could not handle the request at this time. The call received indeterminate treatment.

u[1] = Number of CAS TCAP return error replies received with an error code of "Vacant Code", signifying that the database has determined that the card number contained in the query has not been assigned. The call is denied.

v[1] = Number of CAS TCAP return error replies received with an error code of "Gateway Error", signifying that communication with a commercial credit card vendor was unsuccessful. The call received indeterminate treatment.

w[1] = Number of ICCV ITU-TS TCAP return error replies received with an error code of "Database Unavailable", signifying that the database could not handle the request at this time (not because the operation was incorrect). The call received indeterminate treatment.

x[1] = Number of ICCV ITU-TS TCAP return error replies received with an error code of "Error in Message Format", signifying that the structure of the query is not what was expected. The call received indeterminate treatment.

y[1] = Total valid CAS TCAP replies received, regardless of the calling card used. Refer to the OP:TRFC30-OCAS7 field "VALID REPLIES CAS TOTAL", for further description of this field.

z[1] = Total valid ICCV ITU-TS TCAP replies received. Refer to the OP:TRFC30-OCAS7 field "VALID REPLIES ICCV TOTAL", for further description of this field.

a[2] = Number of CAS TCAP "Reject" components* received in response to a card validation query. The call received indeterminate treatment.

b[2] = Number of CAS TCAP U-abort or P-abort messages* received. The call received indeterminate treatment.

c^2 = Number of times the query timer expired before receipt of a CAS TCAP database reply. The call received indeterminate treatment.

d^2 = Number of CAS TCAP queries initiated, then abandoned. The condition occurs if the call is canceled or the class of charge is changed after a query has been sent but before a reply was received. When the reply was received, it was ignored.

e^2 = Number of CAS TCAP replies* received that were not expected. The replies were ignored. They could be late or duplicate responses.

f^2 = Number of CAS TCAP database replies* received in invalid format. It includes data field values, as well as invalid TCAP format. The reply was dropped and the call received indeterminate treatment.

g^2 = Number of CAS TCAP replies* received with an automatic call gapping (ACG) component. All CAS SS7 queries to the same destination were gapped according to the received information. The call received appropriate treatment according to the response. Subsequent calls that were cut back due to these gapping controls received indeterminate treatment.

h^2 = Number of ICCV ITU-TS TCAP "Reject" components* received in response to a card validation query. The call received indeterminate treatment.

i^2 = Number of ICCV ITU-TS TCAP U-abort or P-abort messages* received. The call received indeterminate treatment.

j^2 = Number of times the query timer expired before receipt of an ICCV ITU-TS TCAP database reply. The call received indeterminate treatment.

k^2 = Number of ICCV ITU-TS TCAP queries initiated, then abandoned. The condition occurs if the call is canceled or the class of charge is changed after a query has been sent but before a reply was received. When the reply was received, it was ignored.

l^2 = Number of ICCV ITU-TS TCAP replies received* that were not expected. The replies were ignored. They could be late or duplicate responses.

m^2 = Number of ICCV ITU-TS TCAP database replies received* in invalid format. It includes data field values, as well as invalid TCAP format. The reply was dropped and the call received indeterminate treatment.

n^2 = Number of CAS update-only call disposition messages* (UO-CDMs) that have been sent to the card database.

o^2 = Number of CAS TCAP request for more balance call disposition messages (RFMB-CDMs)* that have been sent to the card database for purchase limit (PL) and/or duration limit (DL) calls, including RFMB-CDMs sent before setting up the call as well as those sent after the call has been set up.

p^2 = Number of replies to CAS RFMB-CDMs* received from the card database, regardless of whether the reply is a "grant or a "deny".

q^2 = Number of ICCV UO-CDMs* that have been sent to the card database.

r^2 = Total number of virtual card format (VCF) validation queries made.

s^2 = Total number of VCF validation replies received with an "allow call" response from a VCF

validation query.

t[2] = Total number of VCF validation replies received with a response of "missing customer record", "invalid PIN", or "vacant code" from a VCF validation query.

u[2] = Total number of forward number check (FNC) messages sent by the OSPS.

v[2] = Total number of allow replies received to the FNC query, with a reply code of "Allow Call - Valid Speed Call Number".

w[2] = Total number of deny replies received to the FNC query, with a reply code of "Deny Call - Invalid Speed Call Number".

x[2] = Total number of speed dial list (SDL) update requests sent by the OSPS.

y[2] = Total number of allow replies received in response to the SDL update.

z[2] = Total number of deny replies received in response to the SDL update.

4. ACTION TO BE TAKEN

None.

The set of variables with '*' represents the measurements collected in the direct link node (DLN). If the office is equipped with the DLN and the variables with '*' are zero, this suggests that the DLN failed to report these variables and these variables are invalid for the reporting period.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNT24
INH:PLNT24
OP:PLNT24
OP:ST-PLNT24
```

Output Message(s):

```
OP:ST-PLNT24
OP:TRFC30-OCAS7
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNT24-PT24

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNT24    PART 24
  TIME aa:aa:aa               b
             MDII TRUNK GROUP MEASUREMENTS
                 INCOMING              OUTGOING
     TG        PDT      OTHER        TRIAL1  TRIAL2
     c         d        e            f       g
     .         .        .            .       .
     .         .        .            .       .
     .         .        .            .       .
```

2. REASON FOR OUTPUT

To print the most recent 24-hour report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Trunk group (TG) number.

d = Number of incoming partial dial time-out (PDT) machine detected inter-office irregularities (MDIIs).

e = Number of other (except PDT) incoming MDIIs.

f = Number of outgoing trial 1 MDIIs.

g = Number of outgoing trial 2 MDIIs.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNT24
INH:PLNT24
OP:PLNT24
OP:ST-PLNT24
```

Output Message(s):

```
OP:ST-PLNT24
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-070-100 *Switch Administration Guidelines*

OP:PLNT24-PT25

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNT24    PART 25    ISDN USER PART OFFICE TOTALS
  TIME aa:aa:aa           b
          CONF_IN   CONF_OUT     PEC_IN    PEC_OUT
                c          d          e          f
          UUI_DIS    ATP_DIS
                g          h
```

2. REASON FOR OUTPUT

To print the most recent 24-hour report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Number of incoming ISDN user part (ISUP) confusion messages.

d = Number of outgoing ISUP confusion messages.

e = Number of incoming ISUP messages having a cause value = 6 (protocol error class).

f = Number of outgoing ISUP messages having a cause value = 6 (protocol error class).

g = Number of ISUP user-to-user (UUI) parameters discarded due to length considerations, including ISUP length violations.

h = Number of ISUP access transport (ATP) parameters discarded due to length considerations, including ISUP length violations.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
ALW:PLNT24
INH:PLNT24
OP:PLNT24
OP:ST-PLNT24
```

Output Message(s):

```
OP:ST-PLNT24
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-070-100 *Switch Administration Guidelines*

OP:PLNT24-PT26

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNT24                  PART 26              DS1 MEASUREMENTS
  TIME aa:aa:aa                                b

                        LOS/
  DS1       C   BES     BPV     COFA    CRC6    ES      FS      SES     SLIP
  c-d-e-f  [g]  h       i       j       k       l       m       n       o
    .       .   .       .       .       .       .       .       .       .
    .       .   .       .       .       .       .       .       .       .
    .       .   .       .       .       .       .       .       .       .
```

2. REASON FOR OUTPUT

To print the most recent 24-hour report.

3. VARIABLE FIELD DEFINITIONS

`DS1` = Digital signal 1 (DS1) number consisting of the following identifiers '`c`'-'`f`'.

`a` = Time when the report was prepared, in the form hours:minutes:seconds.

`b` = Status of data. Valid value(s):
`DATA IS VALID`
`DATA MAY BE INVALID`

`c` = Switching module (SM) number.

`d` = Digital line and trunk unit (DLTU) number.

`e` = Digital facility interface (DFI) number.

`f` = Facility number.

`g` = Corrupt field indicator: "*" indicates that data for this DS1 may be corrupt, otherwise this field is blank.

`h` = Number of bursty errored seconds (BES) since the last initialization of the BES performance monitoring (PM) parameter. A BES is a second that contains at least one but less than 320 cyclic redundancy check-6 (CRC-6) code violations (CV).

`i` = Number of loss of signal (LOS) or bipolar violations (BPV). BPV is the violation of bipolar line coding in which two logically level consecutive pulses occur with the same polarity, excluding the B8ZS coding. LOS is defined as the absence of bipolar code for 100 ms.

`j` = Number of 10-second intervals that contain at least one change of frame alignment (COFA) event. A COFA event is declared after a loss of frame alignment (LOFA) if the current frame alignment is found to be incorrect.

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`k` = Number of CRC-6 errors since the last CRC-6 PM parameter initialization. The DFI-2 board must be in the extended super frame (ESF) mode for the CRC-6 PM parameters to work. A CRC-6 error occurs when the computed CRC-6 code for the incoming signal does not match the received code.

`l` = Number of errored seconds (ES) that have occurred since the last ES PM parameter initialization. An ES is a second with at least one CRC-6 CV, LOFA, or slip.

`m` = Number of failed seconds (FS) since the last initialization of the FS PM parameter. An FS is any second that occurs during a carrier group alarm (CGA) condition on the given DS1.

`n` = Number of severely errored seconds (SES) since the last initialization of the SES PM parameter. An SES is a second with at least 320 CRC-6 errors, at least one LOFA, or at least one slip.

`o` = Number of 10-second intervals with at least one slip event since the last initialization of the SLIP PM parameter. A slip event is the insertion or deletion of data bits into or from the data stream and is the direct result of equipment buffer overflow or underflow resulting from improperly timed network equipment.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNT24
INH:PLNT24
OP:FAC
OP:ST-PLNT24
OP:PLNT24
```

Output Message(s):

```
OP:ST-PLNT24
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-070-100 *Switch Administration Guidelines*
235-190-115 *Local and Toll System Features*

OP:PLNT24-PT27

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNT24   PART 27
  TIME aa:aa:aa                b
     STATIC PROPORTIONATE BIDDING MEASUREMENTS
    RTE INDEX     CARRIER    PERCENT       CALLS
      c                d          e           f
      .                .          .           .
      .                .          .           .
      .                .          .           .
      .                .          .           .
      c                d          e           f
      .                .          .           .
      .                .          .           .
      .                .          .           .
      .                .          .           .
      c                d          e           f
      .                .          .           .
      .                .          .           .
      .                .          .           .
      .                .          .           .
      c                d          e           f
      .                .          .           .
      .                .          .           .
      .                .          .           .
      .                .          .           .
```

2. REASON FOR OUTPUT

To print PART 27 of the most recent 24-hour plant report in response to either a manual or automatic request.

There are four records under each header. The four records represent the four possible CARRIER, PERCENT, and CALLS values associated with each RTE INDEX value. All the records have identical sizes, with the size of the record varying from one to seven lines. Each line in a record represents a different RTE INDEX. Each record has the same set of RTE INDEX values. A maximum of 32 RTE INDEX values exist. If there is no new data to report, then only the headers will be printed.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared. In the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Proportionate bidding (PB) route index.

`d` = Carrier number associated with the PB route index. Can have up to four carrier numbers per PB route index.

`e` = Percent of the total calls for that PB route index that were handled by this carrier number. Can have up to four percentages for that PB route index (one for each carrier number).

`f` = The number of calls handled for that PB route index by this carrier number. Can have up to four call counts for that PB route index (one for each carrier number).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNT24
INH:PLNT24
OP:PLNT24
OP:ST-PLNT24
```

Output Message(s):

```
OP:ST-PLNT24
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNT24-PT28

Software Release: 5E10 and later
Message Class: PM
Application: 5
Type: Output

1. FORMAT

```
OP PLNT24      PART 28
  TIME aa:aa:aa    b
  OSPS ICCV MEASURES BY FOREIGN DATA BASE
          DB      QUERIES   VALID      INVALID   QUERIES  UNIDIRECT
          LABEL   SENT      REPLIES    REPLIES   TIMEOUT  MESSAGES
          c       d         e          f         g        h
          .       .         .          .         .        .
          .       .         .          .         .        .
          .       .         .          .         .        .
```

2. REASON FOR OUTPUT

To print the most recent 24-hour plant report part 28: Operator Services Position System (OSPS) international credit card validation (ICCV) measures by foreign data base in response to either a manual or automatic request.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = OSPS ICCV database label.

d = Number of ICCV queries sent.

e = Number of valid ICCV end messages received.

f = Number of ICCV unsuccessful replies received.

g = Number of queries that timed out after a query was sent.

h = Number of ICCV call disposition messages generated.

4. ACTION TO BE TAKEN

None.

If a database label is removed, then a manual request (demand report) will have invalid data.

5. ALARMS

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None.

6. REFERENCES

Input Message(s):

```
ALW:PLNT24
INH:PLNT24
OP:PLNT24
OP:ST-PLNT24
```

Output Message(s):

```
OP:ST-PLNT24
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNT24-PT29-A

Software Release: 5E10 only
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNT24 PART 29
  TIME aa:aa:aa   b
  OSPS AT&T LAC SIGNALING MEASURES
  QUERIES
           ATMPT        SENT     NSENT       HDW     OVRLD
               c           d         e         f         g
              NM       NO_ID       CDM      TEST
               h           i         j         k
  ABNORMAL REPLIES
           TOTAL       RTEFA     SCONG    NWCONG      UNEQ
               l           m         n         o         p
           SYSFA       ADDFA      NWFA    UNQUAL
               q           r         s         t
  MISCELLANEOUS REPLIES
           ABORT     TIMEOUT     ABAND     UNEXP
               u           v         w         x
         INVFRMT         ACG
               y           z
  CALLING CARD VALIDATION MEASUREMENTS
          REJECT
              a1
  BNS VALIDATION MEASUREMENTS
          REJECT
              b1
  NAI SPECIFIC MEASUREMENTS
         SENT       REJECT
           c1           d1
```

2. REASON FOR OUTPUT

To print the most recent 24-hour plant report part 29: Operator Services Position System (OSPS) line applications for consumers (LAC) signaling measures, in response to either a manual or automatic request. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

Note: The set of variables with an asterisk (*) above represents the measurements collected for the direct link node (DLN), if a DLN is present.

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

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c = The total number of query attempts from the OSPS to a database. This variable is equal to the sum of variables 'd' and 'e'.

d = * The number of queries sent from the OSPS to a database.

e = The number of queries not sent from the OSPS to a database. This variable is equal to the sum of variables 'f', 'g', 'h', and 'i'.

f = * The number of queries not sent because of OSPS hardware problems including administrative module (AM) overload or other internal problems.

g = * The number of queries not sent because a cutback was in effect to accommodate a database overload as indicated by the automatic call gapping (ACG) parameter in the reply.

h = * The number of queries not sent because of common channel signaling (CCS) network problems.

i = * The number of queries not sent because a query ID was not available.

j = * The number of intermediate call disposition messages (CDM) and end CDMs generated.

k = The number of test queries that are initiated by maintenance personnel. This does not include any replies to the test query.

l = The total number of abnormal network replies received. These were queries that did not reach the destined database and were returned by the network. This variable is equal to the sum of variables 'm', 'n', 'o', 'p', 'q', 'r', 's', and 't'.

m = * The number of *ANSI*® and transaction capabilities application part (TCAP) replies of no translation data for an address of such nature.

n = * The number of *ANSI*® and TCAP replies of subsystem congestion.

o = * The number of *ANSI*® and TCAP replies of network congestion.

p = * The number of *ANSI*® and TCAP replies of unequipped user.

q = * The number of *ANSI*® and TCAP replies of subsystem failure.

r = * The number of *ANSI*® and TCAP replies of no translation data for this specific address.

s = * The number of *ANSI*® and TCAP replies of network failure.

t = * The number of TCAP replies of unqualified.

u = * The number of queries that were initiated then aborted as a result of the OSPS receiving either a U-abort or P-abort from the network.

v = * The number of times a number 2 line applications for consumers (2LAC) query was initiated and a reply, indeterminate reply, or abnormal reply was not received by the OSPS before the timing parameter was exceeded.

w = The number of 2LAC queries that were initiated then abandoned.

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x = * The number of unexpected replies received by the OSPS when the OSPS has timed out while waiting for a reply, or a query was not sent but a reply was received.

y = * The number of "error in message format" replies received from the 2LAC in TCAP.

z = * The number of replies that contained an ACG overload indicator component.

a[1] = The number of calling card reject errors received from a card database.

b[1] = The number of times a reject error was received in response to a billed number screening (BNS) query.

c[1] = * The number of attempts that qualify for network access interrupt (NAI) processing and resulted in a query being sent to the 2LAC.

d[1] = * The number of reject error replies received.

4. ACTION TO BE TAKEN

None.

If the office is equipped with the DLN and this set of variables are zero, this suggests that DLN failed to report these variables and these variables are invalid for the reporting period. These measurements will be scored on the administrative module (AM) if DLN is not present.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNT24
INH:PLNT24
OP:PLNT24
OP:ST-PLNT24
```

Output Message(s):

```
OP:ST-PLNT24
OP:TRFC30-OLAC
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNT24-PT29-B

Software Release: 5E11 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNT24 PART 29
  TIME aa:aa:aa   b
  OSPS LAC & LNP TCAP SIGNALING MEASURES
  QUERIES
                ATMPT       SENT      NSENT        HDW      OVRLD
    LAC             c          d          e          f          g
    LNP             e1         f1         g1         h1         i1
                   NM      NO_ID        CDM       TEST
    LAC             h          i          j          k
    LNP             j1         k1                    l1
  ABNORMAL REPLIES
                TOTAL      RTEFA      SCONG     NWCONG       UNEQ
    LAC             l          m          n          o          p
    LNP             m1         n1         o1         p1         q1
                SYSFA      ADDFA       NWFA     UNQUAL
    LAC             q          r          s          t
    LNP             r1         s1         t1         u1
  MISCELLANEOUS REPLIES
                ABORT    TIMEOUT      ABAND      UNEXP
    LAC             u          v          w          x
    LNP             v1         w1         x1         y1
              INVFRMT        ACG
    LAC             y          z
    LNP             z1         a2
  CALLING CARD VALIDATION MEASUREMENTS
          REJECT
               a1
  BNS VALIDATION MEASUREMENTS
          REJECT
               b1
  NAI SPECIFIC MEASUREMENTS
            SENT     REJECT
               c1         d1
  LNP SPECIFIC MEASUREMENTS
          REJECT     ERROR
               b2        c2
```

2. REASON FOR OUTPUT

To print the most recent 24-hour plant report part 29: Operator Services Position System (OSPS) line applications for consumers (LAC) signaling measures and local number portability (LNP) signaling measures, in response to either a manual or automatic request. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

Note: The set of variables with an asterisk (*) above represents the measurements collected for the direct link node (DLN), if a DLN is present.

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = The total number of LAC query attempts from the OSPS to a database. This variable is equal to the sum of variables 'd' and 'e'.

d = * The number of LAC queries sent from the OSPS to a database.

e = The number of LAC queries not sent from the OSPS to a database. This variable is equal to the sum of variables 'f', 'g', 'h', and 'i'.

f = * The number of LAC queries not sent because of OSPS hardware problems including administrative module (AM) overload or other internal problems.

g = * The number of LAC queries not sent because a cutback was in effect to accommodate a database overload as indicated by the automatic call gapping (ACG) parameter in the reply.

e^1 = The total number of LNP query attempts. This variable is equal to the sum of variables 'f^1' and 'g^1'.

f^1 = * The number of LNP queries sent.

g^1 = The number of LNP queries not sent. This variable is equal to the sum of variables 'h^1', 'i^1', 'j^1', and 'k^1'.

h^1 = * The number of LNP queries not sent because of OSPS hardware problems including AM overload, CNI ring (including DLN) down, or other internal problems.

i^1 = * The number of LNP queries not sent because a cutback was in effect to accommodate a database overload as indicated by the ACG parameter in the reply.

h = * The number of LAC queries not sent because of common channel signaling (CCS) network problems.

i = * The number of LAC queries not sent because a query ID was not available.

j = * The number of LAC intermediate call disposition messages (CDM) and end CDMs generated.

k = The number of LAC test queries that are initiated by maintenance personnel. This does not include any replies to the test query.

j^1 = * The number of LNP queries not sent because of CCS network problems.

k^1 = * The number of LNP queries not sent because a query ID was not available.

l^1 = The number of LNP test queries that are initiated by maintenance personnel. This does not include any replies to the test query.

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l = The total number of LAC abnormal network replies received. These were LAC queries that did not reach the destined database and were returned by the network. This variable is equal to the sum of variables 'm', 'n', 'o', 'p', 'q', 'r', 's', and 't'.

m = * The number of *ANSI*® and transaction capabilities application part (TCAP) replies of no translation data for an address of such nature.

n = * The number of *ANSI*® and TCAP replies of subsystem congestion.

o = * The number of *ANSI*® and TCAP replies of network congestion.

p = * The number of *ANSI*® and TCAP replies of unequipped user.

m^1 = The total number of abnormal network LNP replies received. These were LNP queries that did not reach the destined database and were returned by the network. This variable is equal to the sum of variables 'n^1', 'o^1', 'p^1', 'q^1', 'r^1', 's^1', 't^1', and 'u^1'.

n^1 = * The number of LNP replies of no translation data for an address of such nature.

o^1 = * The number of LNP replies of subsystem congestion.

p^1 = * The number of LNP replies of network congestion.

q^1 = * The number of LNP replies of unequipped user.

q = * The number of *ANSI*® and TCAP replies of subsystem failure.

r = * The number of *ANSI*® and TCAP replies of no translation data for this specific address.

s = * The number of *ANSI*® and TCAP replies of network failure.

t = * The number of TCAP replies of unqualified.

r^1 = * The number of LNP replies of subsystem failure.

s^1 = * The number of LNP replies of no translation data for this specific address.

t^1 = * The number of LNP replies of network failure.

u^1 = * The number of LNP replies of unqualified.

u = * The number of LAC queries that were initiated then aborted as a result of the OSPS receiving either a U-abort or P-abort from the network.

v = * The number of times a number 2 line applications for consumers (2LAC) query was initiated and a reply, indeterminate reply, or abnormal reply was not received by the OSPS before the timing parameter was exceeded.

w = The number of 2LAC queries that were initiated then abandoned.

x = * The number of LAC unexpected replies received by the OSPS when the OSPS has timed out while waiting for a reply, or a query was not sent but a reply was received.

v^1 = * The number of LNP queries that were initiated then aborted as a result of the OSPS receiving either a U-abort or P-abort from the network.

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w^1 = * The number LNP queries that timed out because no reply (normal or abnormal) was received before the timing parameter was exceeded.

x^1 = The number of LNP queries that were initiated then abandoned (canceled by call processing because of caller abandon or operator action).

y^1 = * The number of unexpected LNP replies received because the OSPS has timed out while waiting for a reply; or, a query was not sent but a reply was received.

y = * The number of "error in message format" replies received from the 2LAC in TCAP.

z = * The number of LAC replies that contained an ACG overload indicator component.

z^1 = * The number of LNP replies received in which the OSPS detected an invalid message format.

a^2 = * The number of LNP replies that contained an ACG overload indicator component.

a^1 = The number of calling card reject errors received from a card database.

b^1 = The number of times a reject error was received in response to a billed number screening (BNS) query.

c^1 = * The number of attempts that qualify for network access interrupt (NAI) processing and resulted in a query being sent to the 2LAC.

d^1 = * The number of NAI reject error replies received.

b^2 = The number of reject error LNP replies received.

c^2 = The number of LNP replies with a return error other than "not portable." This includes "unexpected data value", "task refused", "missing parameter", and "unexpected parameter."

4. ACTION TO BE TAKEN

None.

If the office is equipped with the DLN and this set of variables are zero, this suggests that DLN failed to report these variables and these variables are invalid for the reporting period. These measurements will be scored on the administrative module (AM) if DLN is not present.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNT24
INH:PLNT24
OP:PLNT24
OP:ST-PLNT24
```

Output Message(s):

```
OP:ST-PLNT24
OP:TRFC30-OLAC
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNT24-PT30

Software Release: 5E12 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNT24 PART 30
  TIME aa:aa:aa
  OSPS OLNS MEASURES
  QUERIES
     SENT    NSENT   HDW     OVRLD   NM      NO_ID   AMBLK   TEST
     b       c       d       e       f       g       h       i
  REPLIES
     ABNOR   RTEFA   ADDFA   SYSCONG SYSFA   UNEQ    NWFA    NWCONG
     j       k       l       m       n       o       p       q
     TOTAL   UNEXP   INVFRMT TIMEOUT
     r       s       t       u
     MSGRP   NPRTGRP NONWKRS REJECT  ABAND
     v       w       x       y       z
     VALID   NOT-FND  NORRSP
     a1      b1      c1
```

2. REASON FOR OUTPUT

To print the most recent 24-hour plant report part 30: Operator Services Position System (OSPS) originating line number screening (OLNS) measures in response to either a manual or automatic request.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

Note: A variable with '*' in the definition represents a measurement that is collected in the direct link node (DLN) when a DLN is present. If the office is equipped with the DLN and the set of variables with '*' are zero, this suggests that DLN failed to report these variables and these variables are invalid for the reporting period. These measurements will be scored on the administrative module (AM) if DLN is not present.

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = *Number of OLNS queries sent

c = Number of OLNS queries attempted but not sent.

d = *Number of OLNS queries not sent to the database because the CNI ring was not available.

e = *Number of OLNS queries not sent because of ACG control cutback.

f = *Number of OLNS queries not sent to the database because of network management control cutback.

g = *Number of OLNS queries not sent to the database because query ID not available.

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h = *Number of OLNS queries not sent to the database because AM conditions.

i = Number of OLNS test queries.

j = Number of OLNS total abnormal query replies.

k = *Number of OLNS abnormal query replies because of address of such nature.

l = *Number of OLNS abnormal query replies because of no translation for this address.

m = *Number of OLNS abnormal query replies because of subsystem congestion.

n = *Number of OLNS abnormal query replies because of subsystem failure.

o = *Number of OLNS abnormal query replies because of unequipped user.

p = * Number of OLNS abnormal query replies because of network failure.

q = *Number of OLNS abnormal query replies because of network congestion.

r = *Number of total OLNS replies received.

s = *Number of unexpected query replies.

t = *Number of query replies with invalid format.

u = Number of queries that timed out waiting for a query reply.

v = Number of error messages returned from the database because of missing group or misrouted.

w = Number of error messages returned from the database because of nonparticipating group.

x = Number of error messages returned from the database because of unavailable network resources.

y = Number of reject messages received.

z = Number of queries that were aborted due to customer abandonment or operator change of billing type.

a[1] = Number of total valid format query replies.

b[1] = Number of error messages returned from the database because of unexpected data value or vacant group.

c[1] = Number of query responses received from the database indicating that a record for the data contained in the query was found in the database.

4. ACTIONS TO BE TAKEN

None.

If the office is equipped with the DLN and this set of variables are zero, this suggests that DLN failed to report these variables and these variables are invalid for the reporting period. These measurements will be scored on the administrative module (AM) if DLN is not present.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNT24
INH:PLNT24
OP:PLNT24
OP:ST-PLNT24
```

Output Message(s):

```
OP:ST-PLNT24
OP:TRFC30-OLNS
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):

235-070-100 *Switch Administration Guidelines*

OP:PLNTHR-PT01A

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTHR
           HOURLY PLANT MEASUREMENT REPORT
  REPORTING  OFFICE      a
  REPORT PERIOD          cc/cc/cc dd:dd:dd - ee/ee/ee ff:ff:ff
  CURRENT DATE AND TIME  gg/gg/gg hh:hh:hh
  DATA LAST INITIALIZED  ii/ii/ii jj:jj:jj
  PART 1A
  k
            SERVICE MEASUREMENTS - BASE COUNTS
  CALL CATEGORY          ORIGIN          INCOM              TERM
  BASE COUNTS                 l               m                 n
  REQUESTS                    q               r
  CALL CATEGORY           OUTGO     INTRA-OFFICE          TANDEM
  BASE COUNTS                 o               p                 s
  CALL CATEGORY         ORIGOUT         INCTERM           CAMASZ
  BASE COUNTS                 t               u                 v
  CALL CATEGORY         CAMAONI         CAMAANI           2STAGE
  BASE COUNTS                 w               x                 b
            SERVICE MEASUREMENTS
               SWITCH  FACILITY     ISDNLCO
  CUT OFF CALLS      y         z           o1
            COINPC  COINSTK AMAENTR AMALOST AMAIRR  AMA-PC
  BILLING
  TROUBLES   a1      b1      c1      d1      e1      f1
            CAMAFRE CAMANIT CAMAOIA
            g1      h1      i1
  FRAUD      SSTDET  IN-INV  TOT-INV FRAUD
  COUNTS     j1      k1      l1      m1
  BCLID LOST MSGS    n1
```

2. REASON FOR OUTPUT

To print the most recent hourly plant report.

3. VARIABLE FIELD DEFINITIONS

a = Reporting office identifier.

b = Number of traditional 2-stage international outbound calls where the second stage was processed. This is used by toll offices that have fully coded addressing (FCA). FCA is a common channel signaling single-stage protocol used to route international outbound calls in a uniform and simple manner through the U.S. network towards the international switching centers.

c = Date of the beginning of the report period, in the form month/day/year.

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d = Time of the beginning of the report period, in the form hours:minutes:seconds.

e = Date of the end of the report period, in the form month/day/year.

f = Time of the beginning of the report period, in the form hours:minutes:seconds.

g = Date when the report was prepared, in the form month/day/year.

h = Time when the report was prepared, in the form hours:minutes:seconds.

i = Date the data was last initialized, in the form month/day/year.

j = Time the data was last initialized, in the form hours:minutes:seconds.

k = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

Note: Variables 'l' through 'x' are service measurements-base counts.

l = Number of originating calls.

m = Number of incoming calls.

n = Number of terminating calls.

o = Number of outgoing calls.

p = Number of intraoffice calls.

q = Number of originating requests.

r = Number of incoming requests.

s = Number of tandem calls.

t = Number of originating-outgoing calls.

u = Number of incoming-terminating calls.

v = Number of centralized automatic message accounting (CAMA) seizures.

w = Number of CAMA operator number identification (ONI) calls.

x = Number of CAMA automatic number identification (ANI) calls.

Note: Variables 'y' and 'z' are service measurements- cutoff calls.

y = Number of switch cutoff calls.

z = Number of facility cutoff calls.

Note: Variables 'a^1' through 'i^1' are service measurements-billing troubles.

a^1 = Number of coin control attempts.

b^1 = Number of stuck coin conditions.

c^1 = Number of automatic message accounting (AMA) recent change entries.

d^1 = Number of AMA entries lost.

e^1 = Number of irregular AMA entries.

f^1 = Number of calls requiring AMA treatment.

g^1 = Number of CAMA free calls.

h^1 = Number of CAMA ANI troubles.

i^1 = Number of CAMA ONI ineffective attempts.

Note: Variables 'j^1' through 'm^1' are "blue box fraud" counts.

j^1 = Number of short supervisory transitions (SSTs) detected.

k^1 = Number of ineffective fraud investigations.

l^1 = Number of calls subjected to fraud investigation.

m^1 = Number of calls determined as fraudulent and terminated.

n^1 = Number of calls for which the end customer receives no bulk customer line identification (BCLID) message because of switch data equipment. This provokes an indication that BCLID messages are being lost due to unavailability of data equipment related to maintenance state.

o^1 = Number of integrated services digital network (ISDN) circuit switched calls (voice and data) which are abnormally terminated due to problems in the ISDN loop.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNTHR
INH:PLNTHR
OP:MEASTAT
OP:PLNTHR
```

Output Message(s):

```
OP:MEASTAT-PRNT
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNTHR-PT01B

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTHR  PART 1B
  TIME aa:aa:aa            b
           SERVICE MEASUREMENTS - INEFFECTIVE ATTEMPTS
  CALL CATEGORY   CONNECT ORIGIN  INCOM   TERM    OUTGO
  CALL SETUP
  TROUBLES        c       d       e       f
    ORIG-OUTG                                     g
    INCG-OUTG                                     h
  TRANSIENT
  CALLS LOST              i
  FALSE STARTS            j       k
  PERMANENT
  SIGNAL  - MF            l       m
          - DP            n       o
          - RP                    p
          - 2S                    c1
  PARTIAL DIAL
  TIMEOUT - MF            q       r
          - DP            s       t
          - RP                    u
          - 2S                    d1
  TIMEOUTS AND
  ABANDONS                        v               w
  VACANT CODE                     x
        - 2S                      e1
  NO CIRCUIT                                      y
  NM BLOCKED                                      z
  NO PATH/
  NO SVC CKT        a1
  ABANDONS FROM
  QUEUES            b1
  BACKWARD
   FAILURE
   MESSAGES
   ORIGINATED                     f1
  SIGNALING
   NETWORK
   FAILURE                                        g1
  UNREASONABLE
   MESSAGES                       h1
  RELEASE
   GUARD
   RECEIVED                                       i1
```

2. REASON FOR OUTPUT

To print the most recent hourly plant report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

Note: Variables 'c' through 'y' are measurements - ineffective attempts.

c = Number of call setup troubles - connecting.

d = Number of call setup troubles - originating.

e = Number of call setup troubles - incoming.

f = Number of call setup troubles - terminating.

g = Number of call setup troubles - originating-outgoing.

h = Number of call setup troubles - incoming-outgoing.

i = Number of transient calls lost - connecting.

j = Number of false starts - originating.

k = Number of false starts - incoming.

l = Number of permanent signals - originating TOUCH-TONE (TT).

m = Number of permanent signals - incoming TT multi-frequency (MF).

n = Number of permanent signals - originating dial pulsing (DP).

o = Number of permanent signals - incoming DP.

p = Number of permanent signals - incoming revertive pulsing.

q = Number of partial dial timeouts - originating MF.

r = Number of partial dial timeouts - incoming MF.

s = Number of partial dial timeouts - originating DP.

t = Number of partial dial timeouts - incoming DP.

u = Number of partial dial timeouts - incoming revertive pulsing.

v = Number of timeouts and abandons - incoming.

w = Number of timeouts and abandons - outgoing.

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x = Number of vacant codes - incoming.

y = Number of no circuits (trunk) - outgoing.

z = Number of network management (NM) blocked - outgoing.

a[1] = Number of no path or service circuits - connecting.

b[1] = Number of abandons from queues - connecting.

c[1] = Number of permanent signal timeouts in second stage of a traditional 2-stage international outbound call - incoming. This is used by toll offices that have fully coded addressing.

d[1] = Number of partial dial timeouts in second stage of a traditional 2-stage international outbound call - incoming. This is used by toll offices that have fully coded addressing.

e[1] = Number of vacant codes in the second stage of a traditional 2-stage international outbound call - incoming. This is used by offices that have fully coded addressing.

f[1] = Number of backward failure messages originated - incoming.

g[1] = Number of signaling network failures - outgoing.

h[1] = Number of unreasonable messages - incoming.

i[1] = Number of release guard messages received - outgoing.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNTHR
INH:PLNTHR
OP:MEASTAT
OP:PLNTHR
```

Output Message(s):

```
OP:MEASTAT-PRNT
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNTHR-PT02A

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTHR    PART 2A
  TIME aa:aa:aa             b
  EQUIPMENT PERFORMANCE
                                                    DUPLEX
                                     AUTO    MTCE    MTCE
            QTY     FAULTS  ERRORS   DIAGS   USAGE   USAGE
  SM        c               d
  CMP       e       f       g        h       i       j
  MSCU      k       l                        m
  FPC/CDAL  n       o                        p
  PPC       q       r                        s
  MMP       t       u                        v
  QGP       k1      l1                       m1
  QGL       n1      o1                       NA
  ONTCCOM   w       x                        y
  NCREF     z       a1                       NA
  NCOSC     b1      c1                       NA
  DLI       d1      e1                       f1
  TMSLNK    g1      h1
  QLPS      p1      q1                       r1
  QTMSLNK   s1      t1                       NA
  QPIPE     u1              v1               NA
  QLNK      w1              x1               NA
  CLNKS     i1              j1               NA
```

2. REASON FOR OUTPUT

To print the most recent hourly plant report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Number of switching modules (SMs).

d = Number of errors (resets and interrupts) in the SMs.

e = Number of communication module processors (CMPs).

f = Number of faults [some tests fail (STF) diagnostics] in the CMPs.

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g = Number of errors (hardware interrupts) in the CMPs.

h = Number of requested auto diagnostics in the CMPs.

i = CMP maintenance usage excluding diagnostics and message switch control units (MSCU) out-of-service (OOS), (total time either active or standby OOS) in seconds.

j = CMP duplex maintenance usage (duplex CMP pair OOS) time in seconds. There is no active CMP.

k = Number of MSCUs.

l = Number of MSCU faults.

m = MSCU maintenance usage in seconds.

n = Number of foundation peripheral controller (FPCs).

o = Number of foundation peripheral controller/control and diagnostic access link (FPC/CDAL) faults.

p = FPC maintenance usage in seconds.

q = Number of pump peripheral controllers (PPCs).

r = Number of PPC faults.

s = PPC maintenance usage in seconds.

t = Number of module message processors (MMPs).

u = Number of MMP faults.

v = MMP maintenance usage in seconds.

w = Number of office network and timing complex common (ONTCCOMs).

x = Number of ONTCCOM critical faults.

y = ONTCCOM maintenance usage in seconds.

z = Number of network clock (NC) references.

a^1 = Number of NC reference noncritical faults.

b^1 = Number of NC oscillators.

c^1 = Number of NC oscillator noncritical faults.

d^1 = Number of dual link interfaces (DLIs).

e^1 = Number of DLI faults.

f^1 = DLI maintenance usage in seconds.

g^1 = Number of time multiplexed switch links (TMSLNKs).

h[1] = Number of times the switch maintenance kernel process recognizes any fault on a time multiplexed switch link (TMSLNKS).

i[1] = Number of communication links (CLNKs).

j[1] = Number of CLNK errors.

k[1] = Number of QLPS gateway processors (QGPs).

l[1] = Number of times the switch maintenance kernel process recognizes any critical fault on a QLPS gateway processor (QGP).

m[1] = QGP maintenance usage in seconds.

n[1] = Number of QLPS gateway link (QGL).

o[1] = Number of times the switch maintenance kernel process recognizes any fault on a QLPS gateway link (QGL).

p[1] = Number of quad-link packet switches (QLPSs).

q[1] = Number of times the switch maintenance kernel process recognizes any fault on a quad link packet switch (QLPS).

r[1] = QLPS maintenance usage in seconds.

s[1] = Number of QLPS time multiplexed switch link (QTMSLNK).

t[1] = Number of times the switch maintenance kernel process recognizes any fault on a QTMSLNK.

u[1] = Number of QLPS PIPEs (QPIPEs).

v[1] = Number of QPIPE software errors.

w[1] = Number of QLPS links (QLNK).

x[1] = Number of QLNK software errors.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNTHR
INH:PLNTHR
OP:MEASTAT
OP:PLNTHR
```

Output Message(s):

```
OP:MEASTAT-PRNT
```

Other Manual(s):
235-070-100 *Switch Administration and Engineering Guidelines*

OP:PLNTHR-PT02B

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTHR    PART 2B
  TIME aa:aa:aa      b
  INITIALIZATIONS-AM      FI      SI      FPI     DA     SPP
     AUTO                 c       d       e       f      g
     MANUAL               h       i       j       NA     k
  INITIALIZATION-SM       FI      SI      FGI     DA     SPP
     AUTO                 l       m               o      p
     MANUAL               q       r       NA      NA     s
  INITIALIZATION-CMP      FI      SI      FGI     DA     SPP
     AUTO                 t       u               v      w
     MANUAL               x       y       NA      NA     z
```

2. REASON FOR OUTPUT

To print the most recent hourly plant report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Number of automatic full administrative module (AM) initializations (S7).

d = Number of automatic selective AM initializations (S6).

e = Number of automatic full process initializations (S5).

f = Number of automatic directed audit initializations in the AM (S4).

g = Number of automatic single process purges in the AM (S3).

h = Number of manual full AM initializations (S7).

i = Number of manual selective AM initializations (S6).

j = Number of manual full process initializations (S5).

k = Number of manual single process purges in the AM (S3).

l = Number of automatic full switching module (SM) initializations (M7).

m = Number of automatic selective SM initializations (M6).

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o = Number of automatic directed audit initializations in the SMs (M4).

p = Number of automatic single process purges in the SMs (M3).

q = Number of manual full SM initializations (M7).

r = Number of manual selective SM initializations (M6).

s = Number of manual single process purges in the SMs (M3).

t = Number of automatic full communication module processor (CMP) (active and standby) initializations.

u = Number of automatic selective CMP (active and standby) initializations.

v = Number of automatic directed audit initializations in the CMPs (active and standby).

w = Number of automatic single process purges in the CMPs (active and standby).

x = Number of manual full CMP (active and standby) initializations.

y = Number of manual selective CMP (active and standby) initializations.

z = Number of manual single process purges in the CMPs (active and standby).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNTHR
INH:PLNTHR
OP:MEASTAT
OP:PLNTHR
```

Output Message(s):

```
OP:MEASTAT-PRNT
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNTHR-PT03

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTHR  PART 3
  TIME aa:aa:aa    b
  PERFORMANCE MEASUREMENTS - CALL SETUP
  CONNECTING         OUTGOING         CALL_RELEASE
  c                  d                e
  PERFORMANCE MEASUREMENTS - SYSTEM
  OUTAGE  ASRT-AM AUD_EV  MSGDIS  EXT_SLP  ERR_SEC
  f       g       h       i       j        k
  PERFORMANCE MEASUREMENTS - SPEED OF SERVICE
  TDAD
  l
  PERFORMANCE MEASUREMENTS - SM TOTALS
  OUTAGE  ASRT-SM PUMPS   PMPBLK  RESETS  MT_INT
  m       n       o       p       q       r
  PERFORMANCE MEASUREMENTS - CMP TOTALS
  OUTAGE   AUD_EV   ASRT-CMP
  a1       b1       c1
  PERFORMANCE MEASUREMENTS
                     INCOM   OUTGO
    COT              s
    BKWDMSG                  t
    BLKXMT                   u
    ACKTO            v
    INVLDMSG         w
```

2. REASON FOR OUTPUT

To print the most recent hourly plant report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Number of connecting call setups.

d = Number of outgoing call setups.

e = Number of call release (restore verify) failures.

f = Administrative module (AM) outage time, in seconds.

g = Number of asserts in the AM.

h = Number of audit events in the system (that is, AM, switching modules (SM), and the active communication module processors (CMP).

i = Number of output messages discarded.

j = Number of external (DS1) slips.

k = Number of times the errored seconds threshold was reached.

l = Number of times the tone decoder attachment delay threshold was reached.

m = Total SM outage time, in seconds.

n = Number of asserts in the SMs.

o = Number of pumps to the SMs.

p = Number of blocks pumped to the SMs.

q = Number of resets in the SM processor.

r = Number of maintenance interrupts from the SM peripherals.

s = Number of continuity failures - incoming.

t = Number of backward failure messages received - outgoing.

u = Number of blocking signals transmitted - outgoing.

v = Number of blocking acknowledgment signal timeouts - incoming.

w = Number of invalid message types - incoming.

a[1] = Total CMP outage time, in seconds.

b[1] = Total number of audit events in the active CMP(s).

c[1] = Total number of asserts in the active CMP(s).
Note: If direct link node (DLN) is equipped, 'b' may not apply to this count.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNTHR
```

```
INH:PLNTHR
OP:MEASTAT
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNTMO-PT01A-A

Software Release: 5E10 - 5E12
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTMO
                MONTHLY PLANT MEASUREMENT REPORT
  REPORTING  OFFICE       a
  REPORT PERIOD           bb/bb/bb cc:cc:cc -  dd/dd/dd ee:ee:ee
  CURRENT DATE AND TIME   ff/ff/ff gg:gg:gg
  DATA LAST INITIALIZED   hh/hh/hh ii:ii:ii
  PART 1A
  j
        SERVICE MEASUREMENTS - BASE COUNTS
  CALL CATEGORY        ORIGIN        INCOM        TERM
  BASE COUNTS        k        l        m
  REQUESTS        p        q
  CALL CATEGORY        OUTGO        INTRA-OFFICE        TANDEM
  BASE COUNTS        n        o        r
  CALL CATEGORY        ORIGOUT        INCTERM        CAMASZ
  BASE COUNTS        s        t        u
  CALL CATEGORY        CAMAONI        CAMAANI        2STAGE
  BASE COUNTS        v        w        o1
        SERVICE MEASUREMENTS
        SWITCH        FACILITY        ISDNLCO        GDX
  CUT OFF CALLS        x        y        q1        z
  NAIL UP LOST        a1
        COINPC        COINSTK        AMAENTR        AMALOST        AMAIRR        AMA-
PC
  BILLING
   TROUBLES        b1        c1        d1        e1        f1        g1
        CAMAFRE        CAMANIT        CAMAOIA
        h1        i1        j1
  FRAUD        SSTDET        IN-INV        TOT-INV        FRAUD
   COUNTS        k1        l1        m1        n1
  BCLID LOST MSGS        p1
```

2. REASON FOR OUTPUT

To print the current monthly plant report. If the report is automatically generated, it is a complete report for the previous month. If it is generated in response to a manual request, it contains only data accumulated since the previous automatic report.

The monthly plant report is used to gather information on equipment performance, to evaluate the impact of troubles on customer service, and to calculate the performance index. The report also contains data regarding originating, incoming, and outgoing calls, customer dialing irregularities and call setup troubles, and reflects the maintenance effect on traffic during the past month.

3. VARIABLE FIELD DEFINITIONS

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a = Name of reporting office.

b = Date of the beginning of the report period, in the form month/day/year.

c = Time of the beginning of the report period, in the form hours:minutes:seconds.

d = Date of the end of the report period, in the form month/day/year.

e = Time of the end of the report period, in the form hours:minutes:seconds.

f = Current date when the report was prepared, in the form month/day/year.

g = Current time when the report was prepared, in the form hours:minutes:seconds.

h = Date the data was last initialized, in the form month/day/year.

i = Time the data was last initialized, in the form hours:minutes:seconds.

j = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

Note: Variables 'k' through 'w' are service measurements- base counts.

k = Number of originating calls.

l = Number of incoming calls.

m = Number of terminating calls.

n = Number of outgoing calls.

o = Number of intraoffice calls.

p = Number of originating requests.

q = Number of incoming requests.

r = Number of tandem calls.

s = Number of originating-outgoing calls.

t = Number of incoming-terminating calls.

u = Number of centralized automatic message accounting (CAMA) seizures.

v = Number of CAMA operator number identification (ONI) calls.

w = Number of CAMA automatic number identification (ANI) calls.

Note: Variables 'x' through 'a^1' are service measurements- cutoff calls.

x = Number of switch cutoff calls.

y = Number of facility cutoff calls.

z = Number of gated diode crosspoint (GDX) cutoff calls.

a^1 = Number of lost nailed up connections. This number represents the accumulated number of connections found out of service every 15 minutes. (Refer to the REPT:NAILUP output message.)

Note: Variables 'b^1' through 'j^1' are service measurements- billing troubles.

b^1 = Number of coin control attempts.

c^1 = Number of stuck coin conditions.

d^1 = Number of automatic message accounting (AMA) entries.

e^1 = Number of AMA entries lost.

f^1 = Number of irregular AMA entries.

g^1 = Number of calls requiring AMA treatment.

h^1 = Number of CAMA free calls.

i^1 = Number of CAMA ANI troubles.

j^1 = Number of CAMA ONI ineffective attempts.

Note: Variables 'k^1' through 'n^1' are blue box fraud counts.

k^1 = Number of short supervisory transitions (SSTs) detected.

l^1 = Number of ineffective fraud investigations.

m^1 = Number of calls subjected to fraud investigation.

n^1 = Number of calls determined to be fraudulent.

o^1 = Number of traditional 2-stage international outbound calls where the second stage was processed. This is used by toll offices that have fully coded addressing.

p^1 = Number of calls for which the end customer receives no bulk customer line identification (BCLID) message because of switch data equipment. This provokes an indication that BCLID messages are being lost due to unavailability of data equipment related to maintenance state.

q^1 = Number of ISDN circuit switched calls (voice and data) which are abnormally terminated due to problems in the ISDN loop.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PLNTMO
```

Output Message(s):

```
REPT:NAILUP
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNTMO-PT01A-B

Software Release: 5E13 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTMO
                MONTHLY PLANT MEASUREMENT REPORT
  REPORTING  OFFICE       a
  REPORT PERIOD           bb/bb/bb cc:cc:cc -  dd/dd/dd ee:ee:ee
  CURRENT DATE AND TIME   ff/ff/ff gg:gg:gg
  DATA LAST INITIALIZED   hh/hh/hh ii:ii:ii
  PART 1A
  j
                       SERVICE MEASUREMENTS - BASE COUNTS
  CALL CATEGORY      ORIGIN      INCOM        TERM
  BASE COUNTS        k           l            m
  REQUESTS           p           q
  CALL CATEGORY      OUTGO       INTRA-OFFICE TANDEM
  BASE COUNTS        n           o            r
  CALL CATEGORY      ORIGOUT     INCTERM      CAMASZ
  BASE COUNTS        s           t            u
  CALL CATEGORY      CAMAONI     CAMAANI      2STAGE
  BASE COUNTS        v           w            x
                       SERVICE MEASUREMENTS
                     SWITCH      FACILITY      ISDNLCO      GDX
  CUT OFF CALLS      y           z             a1           b1
  NAIL UP LOST       c1
                     COINPC  COINSTK AMAENTR AMALOST AMAIRR  AMA-PC
  BILLING
   TROUBLES          d1      e1      f1      g1      h1      i1
                     CAMAFRE CAMANIT CAMAOIA
                     j1      k1      l1

                     TOTAL         ACK/RCV       MHEIB         OVFL
  REAL TIME CALL     m1            n1            o1            p1
   DETAIL RECORDS
                     MELNKOOS      LDC
                     q1            r1

  FRAUD              SSTDET  IN-INV  TOT-INV FRAUD
   COUNTS            s1      t1      u1      v1
  BCLID LOST MSGS    w1
```

2. REASON FOR OUTPUT

To print the current monthly plant report. If the report is automatically generated, it is a complete report for the previous month. If it is generated in response to a manual request, it contains only data accumulated since the previous automatic report.

The monthly plant report is used to gather information on equipment performance, to evaluate the impact of troubles

on customer service, and to calculate the performance index. The report also contains data regarding originating, incoming, and outgoing calls, customer dialing irregularities and call setup troubles, and reflects the maintenance effect on traffic during the past month.

3. VARIABLE FIELD DEFINITIONS

a = Name of reporting office.

b = Date of the beginning of the report period, in the form month/day/year.

c = Time of the beginning of the report period, in the form hours:minutes:seconds.

d = Date of the end of the report period, in the form month/day/year.

e = Time of the end of the report period, in the form hours:minutes:seconds.

f = Current date when the report was prepared, in the form month/day/year.

g = Current time when the report was prepared, in the form hours:minutes:seconds.

h = Date the data was last initialized, in the form month/day/year.

i = Time the data was last initialized, in the form hours:minutes:seconds.

j = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

Note: Variables 'k' through 'x' are service measurements (base counts).

k = Number of originating calls.

l = Number of incoming calls.

m = Number of terminating calls.

n = Number of outgoing calls.

o = Number of intraoffice calls.

p = Number of originating requests.

q = Number of incoming requests.

r = Number of tandem calls.

s = Number of originating-outgoing calls.

t = Number of incoming-terminating calls.

u = Number of centralized automatic message accounting (CAMA) seizures.

v = Number of CAMA operator number identification (ONI) calls.

w = Number of CAMA automatic number identification (ANI) calls.

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x = Number of traditional two-stage international outbound calls where the second stage was processed. This is used by toll offices that have fully coded addressing.

Variables'y' through 'c[1]' are service measurements (cutoff calls).

y = Number of switch cutoff calls.

z = Number of facility cutoff calls.

a[1] = Number of gated diode crosspoint (GDX) cutoff calls.

b[1] = Number of ISDN circuit switched calls (voice and data) which are abnormally terminated due to problems in the ISDN loop.

c[1] = Number of lost nailed up connections. This number represents the accumulated number of connections found out-of-service (OOS) every 15 minutes. Refer to the REPT:NAILUP output message also.

Variables 'd[1]' through 'l[1]' are service measurements (billing troubles).

d[1] = Number of coin control attempts.

e[1] = Number of stuck coin conditions.

f[1] = Number of automatic message accounting (AMA) entries.

g[1] = Number of AMA entries lost.

h[1] = Number of irregular AMA entries.

i[1] = Number of calls requiring AMA treatment.

j[1] = Number of CAMA free calls.

k[1] = Number of CAMA ANI troubles.

l[1] = Number of CAMA ONI ineffective attempts.

Variables 'm[1]' through 'r[1]' are Real Time Call Detail (RTCD)

m[1] = Total number of RTCD records generated by all Originating SM's.

n[1] = Total number of RTCD records acknowledged/received at the GBSM from all Originating SM's.

o[1] = Total number of RTCD records transmitted out the MHEIB.

p[1] = Total number of RTCD records lost due to RTBM overflow.

q[1] = Total time (in units of seconds) that the Ethernet link was out-of-service.

r[1] = Total number of Long Duration Call (LDC) RTCD records generated by all Originating SM's.

Variables 's[1]' through 'w[1]' are blue box fraud counts.

s[1] = Number of short supervisory transitions (SST) detected.

t[1] = Number of ineffective fraud investigations.

u[1] = Number of calls subjected to fraud investigation.

v[1] = Number of calls determined to be fraudulent and terminated.

w[1] = Number of calls for which the end customer received no bulk customer line identification (BCLID) message because of switch data equipment. This indicates that BCLID messages are being lost due to unavailability of data equipment due to being in maintenance state.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PLNTMO
```

Output Message(s):

```
REPT:NAILUP
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNTMO-PT01B

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTMO       PART 1B
  TIME aa:aa:aa      b
                 SERVICE MEASUREMENTS - INEFFECTIVE ATTEMPTS
  CALL CATEGORY  CONNECT ORIGIN  INCOM   TERM    OUTGO
  CALL SETUP
  TROUBLES       c       d       e       f
    ORIG-OUTG                                    g
    INCG-OUTG                                    h
  TRANSIENT
  CALLS LOST     i
  FALSE STARTS           j       k
  PERMANENT
  SIGNAL -  MF           l       m
         -  DP           n       o
         -  RP                   p
         -  2S                   g1
  PARTIAL DIAL
  TIMEOUT -  MF          q       r
          -  DP          s       t
          -  RP                  u
          -  2S                  h1
  TIMEOUTS AND
  ABANDONS                       v               f1
  VACANT CODE                    w
          -  2S                  i1
  NO CIRCUIT                                      x
  NM BLOCKED                                      y
  NO PATH/
  NO SVC CKT     z
  ABANDONS FROM
  QUEUES         a1
  BACKWARD
   FAILURE
   MESSAGES
   ORIGINATED                    b1
  SIGNALING
   NETWORK
   FAILURE                                        c1
  UNREASONABLE
   MESSAGES                      d1
  RELEASE
   GUARD
   RECEIVED                                       e1
```

2. REASON FOR OUTPUT

To print the current monthly plant report. If the report is automatically generated, it is a complete report for the previous month. If it is generated in response to a manual request, it contains only data accumulated since the previous automatic report.

The monthly plant report is used to gather information on equipment performance, to evaluate the impact of troubles on customer service, and to calculate the performance index. The report also contains data regarding originating, incoming, and outgoing calls, customer dialing irregularities and call setup troubles, and reflects the maintenance effect on traffic during the past month.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

Note: Variables 'c' through 'a1' are service measurements - ineffective attempts.

c = Number of call setup troubles - connecting.

d = Number of call setup troubles - originating.

e = Number of call setup troubles - incoming.

f = Number of call setup troubles - terminating.

g = Number of call setup troubles - originating-outgoing.

h = Number of call setup troubles - incoming-outgoing.

i = Number of transient calls lost - connecting.

j = Number of false starts - originating.

k = Number of false starts - incoming.

l = Number of permanent signals - originating touch-tone (TT).

m = Number of permanent signals - incoming TT multi-frequency (MF).

n = Number of permanent signals - originating dial pulsing (DP).

o = Number of permanent signals - incoming DP.

p = Number of permanent signals - incoming revertive pulsing (RP).

q = Number of partial dial timeouts - originating MF.

r = Number of partial dial timeouts - incoming MF.

s = Number of partial dial timeouts - originating DP.

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t = Number of partial dial timeouts - incoming DP.

u = Number of partial dial timeouts - incoming RP.

v = Number of timeouts and abandons - incoming.

w = Number of vacant codes - incoming.

x = Number of no circuits (trunk) - outgoing.

y = Number of network management (NM) blocked calls - outgoing.

z = Number of no path or service circuits - connecting.

a[1] = Number of abandons from queues - connecting.

b[1] = Number of backward failure messages originated - incoming.

c[1] = Number of signaling network failures - outgoing.

d[1] = Number of unreasonable messages received - incoming.

e[1] = Number of release guards received - outgoing.

f[1] = Number of ineffective machine attempt (IMA) address complete timeouts - outgoing.

g[1] = Number of permanent signal timeouts in the second stage of a traditional 2-stage international outbound call - incoming 2-stage (2S). This is used by toll offices that have fully coded addressing.

h[1] = Number of partial dial timeouts in the second stage of a traditional 2-stage international outbound call - incoming 2S. This is used by toll offices that have fully coded addressing.

i[1] = Number of vacant codes in the second stage of a traditional 2-stage international outbound call - incoming 2S. This is used by toll offices that have fully coded addressing.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PLNTMO
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNTMO-PT02A

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTMO    PART 2A
  TIME aa:aa:aa      b
  EQUIPMENT PERFORMANCE
                                                        DUPLEX
                                        AUTO    MTCE    MTCE
            QTY     FAULTS  ERRORS  DIAGS   USAGE   USAGE
  SM        c               d
  CMP       e       f       g       h       i       j
  MSCU      k       l                       m
  FPC/CDAL  n       o                       p
  PPC       q       r                       s
  MMP       t       u                       v
  QGP       k1      l1                      m1
  QGL       n1      o1                      NA
  ONTCCOM   w       x                       y
  NCREF     z       a1                      NA
  NCOSC     b1      c1                      NA
  DLI       d1      e1                      f1
  TMSLNK    g1      h1
  QLPS      p1      q1                      r1
  QTMSLNK   s1      t1                      NA
  QPIPE     u1              v1              NA
  QLNK      w1              x1              NA
  CLNKS     i1              j1              NA
```

2. REASON FOR OUTPUT

To print the most recent monthly plant report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hour:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Number of switching modules (SMs).

d = Number of errors (resets and interrupts) in the SMs.

e = Total number of communication module processors (CMPs).

f = Number of faults [some test fail (STF) diagnostics] in the CMPs.

g = Number of errors (hardware interrupts) in the CMPs.

h = Number of requested auto diagnostics in the CMPs.

i = CMP maintenance usage excluding diagnostics and message switch control units (MSCU) out of service (OOS) in seconds.

j = CMP duplex maintenance usage (duplex CMP pair OOS) in seconds.

k = Number of MSCUs.

l = Number of MSCU faults.

m = MSCU maintenance usage in seconds.

n = Number of foundation peripheral controllers (FPCs).

o = Number of foundation peripheral controller/control and diagnostic access link (FPC/CDAL) faults.

p = FPC maintenance usage in seconds.

q = Number of pump peripheral controllers (PPCs).

r = Number of PPC faults.

s = PPC maintenance usage in seconds.

t = Number of module message processors (MMPs).

u = Number of MMP faults.

v = MMP maintenance usage in seconds.

w = Number of office network and timing complex common (ONTCCOMs).

x = Number of ONTCCOM critical faults.

y = ONTCCOM maintenance usage in seconds.

z = Number of network clock (NC) references.

a^1 = Number of NC reference noncritical faults.

b^1 = Number of NC oscillators.

c^1 = Number of NC oscillator noncritical faults.

d^1 = Number of dual link interfaces (DLIs).

e^1 = Number of DLI faults.

f^1 = DLI maintenance usage in seconds.

g^1 = Number of time multiplexed switch links (TMSLNKS).

h^1 = Number of times the switch maintenance kernel process recognizes any fault on a time

multiplexed switch link (TMSLNK).

i[1] = Number of communication links (CLNKs).

j[1] = Number of CLNK errors.

k[1] = Number of QLPS gateway processors (QGPs).

l[1] = Number of times the switch maintenance kernel process recognizes any critical fault on a QLPS gateway processor (QGP).

m[1] = QGP maintenance usage in seconds.

n[1] = Number of QLPS gateway link (QGL).

o[1] = Number of times the switch maintenance kernel process recognizes any fault on a QLPS gateway link (QGL).

p[1] = Number of quad-link packet switches (QLPSs).

q[1] = Number of times the switch maintenance kernel process recognizes any fault on a quad link packet switch (QLPS).

r[1] = QLPS maintenance usage in seconds.

s[1] = Number of QLPS time multiplexed switch link (QTMSLNK).

t[1] = Number of times the switch maintenance kernel process recognizes any fault on a QTMSLNK.

u[1] = Number of QLPS PIPEs (QPIPEs).

v[1] = Number of QPIPE software errors.

w[1] = Number of QLPS links (QLNK).

x[1] = Number of QLNK software errors.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PLNTMO
```

OP:PLNTMO-PT02B

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTMO      PART 2B
  TIME  aa:aa:aa          b
  INITIALIZATIONS-AM    FI      SI      FPI     DA      SPP
     AUTO               c       d       e       f       g
     MANUAL             h       i       j       NA      k
  INITIALIZATIONS-SM    FI      SI      FPI     DA      SPP
     AUTO               l       m               o       p
     MANUAL             q       r       NA      NA      s
  INITIALIZATIONS-CMP   FI      SI      FPI     DA      SPP
     AUTO               t       u               v       w
     MANUAL             x       y       NA      NA      z
```

2. REASON FOR OUTPUT

To print the current monthly plant report. If the report is automatically generated, it is a complete report for the previous month. If it is generated in response to a manual request, it contains only data accumulated since the previous automatic report.

The monthly plant report is used to gather information on equipment performance, to evaluate the impact of troubles on customer service, and to calculate the performance index. The report also contains data regarding originating, incoming, and outgoing calls, customer dialing irregularities, and call setup troubles. This report also reflects the maintenance effect on traffic during the past month.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Number of automatic full administrative module (AM) initializations (S7).

d = Number of automatic selective AM initializations (S6).

e = Number of automatic full process initializations (S5).

f = Number of automatic directed audit initializations in the AM (S4).

g = Number of automatic single process purges in the AM (S3).

h = Number of manual full AM initializations (S7).

i = Number of manual selective AM initializations (S6).

j = Number of manual full process initializations (S5).

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`k` = Number of manual single process purges in the AM (S3).

`l` = Number of automatic full switching module (SM) initializations (M7).

`m` = Number of automatic selective SM initializations (M6).

`o` = Number of automatic directed audit initializations in the SMs (M4).

`p` = Number of automatic single process purges in the SMs (M3).

`q` = Number of manual full SM initializations (M7).

`r` = Number of manual selective SM initializations (M6).

`s` = Number of manual single process purges in the SMs (M3).

`t` = Number of automatic full communication module processors (CMP) (active and standby) initializations.

`u` = Number of automatic selective CMP (active and standby) initializations.

`v` = Number of automatic directed audit initializations in the CMPs (active and standby).

`w` = Number of automatic single process purges in the CMPs (active and standby).

`x` = Number of manual full CMP (active and standby) initializations.

`y` = Number of manual selective CMP (active and standby) initializations.

`z` = Number manual single process purges in the CMPs (active and standby).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PLNTMO
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNTMO-PT03

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTMO    PART 3
  TIME aa:aa:aa              b
  PERFORMANCE MEASUREMENTS - CALL SETUP
     CONNECTING      OUTGOING        CALL_RELEASE
     c               d               e
  PERFORMANCE MEASUREMENTS - SYSTEM
     OUTAGE  ASRT-AM AUD_EV  MSGDIS  EXT_SLP ERR_SEC
     f       g       h       i       j       k
     TS_MM
     c1
  PERFORMANCE MEASUREMENTS - SPEED OF SERVICE
     TDAD
     l
  PERFORMANCE MEASUREMENTS - SM TOTALS
     OUTAGE  ASRT-SM PUMPS   PMPBLK  RESETS  MT_INT
     m       n       o       p       q       r
     PERPMP
     s
  PERFORMANCE MEASUREMENTS - CMP TOTALS
     OUTAGE  AUD_EV  ASRT-CMP
     d1      e1      f1
  PERFORMANCE MEASUREMENTS
                     INCOM   OUTGO
     COT             t
     BKWDMSG                 u
     BLKXMT                  v
     ACKTO           w
     INVLDMSG        x
            REMOTE SWITCHING MODULES ONLY - TOTALS
               RFERSEC RFSLIP  RFALRMS RLITRB
                 y       z       a1      b1
```

2. REASON FOR OUTPUT

To print the current monthly plant report. If the report is automatically generated, it is a complete report for the previous month. If it is generated in response to a manual request, it contains only data accumulated since the previous automatic report.

The monthly plant report is used to gather information on equipment performance, to evaluate the impact of troubles on customer service, and to calculate the performance index. The report also contains data regarding originating, incoming, and outgoing calls, customer dialing irregularities and call setup troubles, and reflects the maintenance effect on traffic during the past month.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Number of attempts that encounter a switching system trouble on a first or subsequent trial.

d = Number of failures to seize an outgoing trunk.

e = Number of failure attempts to make a line capable of origination following a disconnect.

f = Administrative module (AM) outage time in seconds.

g = Number of asserts in the AM.

h = Total number of audit events in the AM, SMs and active CMP(s).

i = Number of output messages discarded.

j = Number of external digital trunk (DS1) slips.

k = Number of times the errored seconds threshold was reached.

l = Number of times the tone decoder attachment delay threshold was reached.

m = Total switching module (SM) outage time in seconds.

n = Number of asserts in all the SMs.

o = Number of pumps to all the SMs.

p = Number of pumped blocks to all the SMs.

q = Number of resets in all the SM processors.

r = Number of maintenance interrupts from all the SM peripherals.

s = Number of peripheral pump requests in all the SM processors.

t = Number of continuity failures - incoming.

u = Number of backward failure messages received - outgoing.

v = Number of group blocking signals transmitted - outgoing.

w = Number of group blocking acknowledgement signal time outs - incoming.

x = Number of invalid messages received - incoming.

y = Number of remote switching module (RSM) remoting facility errored seconds.

z = Number of RSM remoting facility slips.

a^1 = Number of RSM remoting facility alarms.

b[1] = Number of RSM remoting facility interface troubles.

c[1] = Number of inter-SM time slot mismatches in office.

d[1] = Communication module processor (CMP) outage time in seconds.

e[1] = Total number of audit events in the active CMP(s).

f[1] = Number of asserts in the active CMP(s).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PLNTMO
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNTMO-PT04

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTMO  PART 4
  TIME aa:aa:aa   b
  RM NUMBER - c
  BASE MEASUREMENTS
     RMORIG  RMINC  RMOUTG
     d       e      f
  MAINTENANCE SERVICE MEASUREMENTS - INEFFECTIVE ATTEMPTS
     TRANSCL
     g
     CALL SETUP TROUBLES
     RMCONN  RMORIG  RMINC  RMTERM  RMOUTG  RMBLK
     h       i       j      k       l       m
     AMRMBLK
     n
  PERFORMANCE MEASUREMENTS - RECOVERY ACTIONS
     INITIALIZATIONS      FI    SI    FGI    DA    SPP
     AUTO                 o     p            r     s
     MANUAL               t     u     NA     NA    v
  PERFORMANCE MEASUREMENTS - STANDALONE
     SATIME   SAFLT
     w        x
```

2. REASON FOR OUTPUT

To print the current monthly plant report. If the report is automatically generated, it is a complete report for the previous month. If it is generated in response to a manual request, it contains only data accumulated since the previous automatic report.

The monthly plant report is used to gather information on equipment performance, to evaluate the impact of troubles on customer service, and to calculate the performance index. The report also contains data regarding originating, incoming, and outgoing calls, customer dialing irregularities and call setup troubles, and reflects the maintenance effect on traffic during the past month.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE VALID

c = Remote module (RM) number.

Note: Variables 'd' through 'f' are base measurements:

d = Number of originating calls.

e = Number of incoming calls.

f = Number of outgoing calls.

Note: Variables 'g' through 'n' are service measurements:

g = Number of transient calls lost.

h = Number of connecting call setup troubles.

i = Number of originating call setup troubles.

j = Number of incoming call setup troubles.

k = Number of terminating call setup troubles.

l = Number of outgoing call setup troubles.

m = Number of calls blocked in remote module.

n = Number of calls blocked- administrative module (AM) to RM.

Note: Variables 'o' through 'x' are performance measurements:

o = Number of automatic full initializations.

p = Number of automatic selective initializations.

r = Number of automatic directed audit initializations.

s = Number of automatic single process purges.

t = Number of manual full initializations.

u = Number of manual selective initializations.

v = Number of manual single process purges.

w = Number of seconds in stand-alone.

x = Number of times the RM entered stand-alone.

Note: An output value of 111 indicates a count that will be implemented in future issues and is not currently being taken.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PLNTMO
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*
235-190-100 *Feature Description*

OP:PLNTMO-PT05

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTMO              PART 5 ( 1 of 1)
  TIME aa:aa:aa                        b
              TOTAL           TOTAL           TOTAL
             INCOMING        OUTGOING         TERA
              MDIIS           MDIIS       DEACTIVATIONS
              c               d               e
     TRUNK              TERA                        PREEMPT
     GROUP            RECOVERY        OOS       PEER       QUICK-CHECK
```

2. REASON FOR OUTPUT

To print the current monthly plant report. If the report is automatically generated, it is a complete report for the previous month. If it is generated in response to a manual request, it contains only data accumulated since the previous automatic monthly report.

The monthly plant report is used to gather information on equipment performance, to evaluate the impact of troubles on customer service, and to calculate the performance index. The report also contains data regarding originating, incoming, and outgoing calls, customer dialing irregularities and call setup troubles, and reflects the maintenance effect on traffic during the past month. Part 5 of the monthly plant report contains the trunk error analysis (TERA) measurements. Only the first 3 counts for the TERA measurements are kept on a monthly basis. The remainder of the TERA counts are not kept on a monthly basis.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared in the form of hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Number of all incoming machine detected interoffice irregularities (MDII) detected within an office.

d = Number of all outgoing MDIIs detected within an office.

e = Number of times TERA was deactivated within an office.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PLNTMO
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*
235-190-100 *Feature Description*

OP:PLNTMO-PT06

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTMO PART 6
  TIME aa:aa:aa          b
  INTERLATA CARRIER MEASUREMENTS
  CALL ATTEMPTS
  IC          DIR_IN    DIR_OUT    SHR_OUT
  c d         e         f          g
  SELECTIVE CARRIER DENIAL
  IC       LINES      BLOCKS
  c d      h          i
  MDII
  IC          DIR_IN    DIR_OUT    SHR_SSD    SHR_ACK
  c d         j         k          l          m
  CCS7
  IC          MDII_IN   MDII_OUT   COTFAIL    NP1_IAM
  c d         n         o          p          q
```

2. REASON FOR OUTPUT

To print the current monthly plant report. If the report is automatically generated, it is a complete report for the previous month. If it is generated in response to a manual request, it contains only data accumulated since the previous automatic report.

The monthly plant report is used to gather information on equipment performance, to evaluate the impact of troubles on customer service, and to calculate the performance index. The report also contains data regarding originating, incoming, and outgoing calls, customer dialing irregularities and call setup troubles, and reflects the maintenance effect on traffic during the past month.

3. VARIABLE FIELD DEFINITIONS

`a` = Time when the report was prepared, in the form hours:minutes:seconds.

`b` = Status of data. Valid value(s):
`DATA IS VALID`
`DATA MAY BE INVALID`

`IC` = InterLATA carrier identifier consisting of identifiers '`c`' and '`d`'.

`c` = Feature group identifier (letter B or D).

`d` = Carrier identifier (number 0 - 9999).

`e` = Number of incoming call attempts on trunks directly connected to a carrier (trunk class = IC).

`f` = Number of routed outgoing call attempts on trunks directly connected to a carrier (trunk class = IC).

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`g` = Number of routed outgoing call attempts on trunks connected to a tandem for access-via-tandem calls (trunk class = LTOLL).

`h` = Number of lines screened by selective carrier denial (SCD).

`i` = Number of calls blocked by SCD.

`j` = Number of incoming machine detected interoffice irregularities (MDII) on trunks directly connected to a carrier (trunk class = IC).

`k` = Number of outgoing MDII on trunks directly connected to a carrier (trunk class = IC).

`l` = Number of outgoing second start dial (SSD) wink MDII on trunks connected to a tandem for access-via-tandem calls (trunk class = LTOLL).

`m` = Number of outgoing acknowledgement (ACK) wink MDII on trunks connected to a tandem for access-via-tandem calls (trunk class = LTOLL).

`n` = Number of incoming integrated services digital network user part (ISUP) MDII on trunks directly connected to a carrier (trunk class = IC).

`o` = Number of outgoing ISUP MDII on trunks directly connected to a carrier (trunk class = IC).

`p` = Number of ISUP continuity failures after two attempts at the end office or access tandem (trunk class = IC or LTOLL). A call fails after two successive continuity failures.

`q` = Number of ISUP initial address messages (IAM) received having a priority other than one.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PLNTMO
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*
235-190-115 *Local and Toll System Features*

OP:PLNTMO-PT07

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTMO  PART 7
  TIME aa:aa:aa       b
                        NETWORK CALL DENIAL
  QUERIES:
     TOTAL              DENY-RCV        RET-NCP         RET-CCS
     c                  d               e               f
     BLKD-NCP           BLKD-CCS
     g                  h
  CALL TREATMENT:
     KILLED             POST-ANS
     i                  j
  INVALID MESSAGE        k
  MESSAGE DETAIL RECORDING MEASUREMENTS
     GENERATED       LOST
     l               m
```

2. REASON FOR OUTPUT

To print the current monthly plant report. If the report is automatically generated, it is a complete report for the previous month. If it is generated in response to a manual request, it contains only data accumulated since the previous automatic report.

The monthly plant report is used to gather information on equipment performance, to evaluate the impact of troubles on customer service, and to calculate the performance index. The report also contains data regarding originating, incoming, and outgoing calls, customer dialing irregularities and call setup troubles, and reflects the maintenance effect on traffic during the past month.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Total number of network call denial (NCD) queries.

d = Number of NCD deny messages received.

e = Number of NCD queries returned by the network control point (NCP).

f = Number of NCD queries returned by the common channel signaling (CCS) network.

g = Number of NCD queries blocked due to NCP overload controls.

h = Number of NCD queries blocked due to CCS overload controls.

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`i` = Total number of calls killed due to NCD.

`j` = Number of calls killed due to NCD after answer supervision.

`k` = Number of invalid NCD messages.

`l` = Number of generated message detail recording (MDR) records.

`m` = Number of lost MDR records.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PLNTMO
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNTMO-PT08

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTMO    PART 8
  TIME aa:aa:aa      b
  REMOTE SITE - c    REMOTE SITE ID - d
  PERFORMANCE MEASUREMENTS
  REMOTE SITE STAND ALONE MEASUREMENTS
     PSA-USG PSAFLT  FSA-USG FSAFLT
     e       f       g       h
  REMOTE CLOCK MEASUREMENTS - RSM NUMBER i
     RCLKTRBL        RCLKSLS RCLKSMS RCLKNLKD
     j               k       l       m
```

2. REASON FOR OUTPUT

To print the current monthly plant report. If the report is automatically generated, it is a complete report for the previous month. If it is generated in response to a manual request, it contains only data accumulated since the previous automatic report.

The monthly plant report is used to gather information on equipment performance, to evaluate the impact of troubles on customer service, and to calculate the performance index. The report also contains data regarding originating, incoming, and outgoing calls, customer dialing irregularities and call setup troubles, and reflects the maintenance effect on traffic during the past month.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Text identifier of the remote site.

d = Numerical identifier of the remote site.

e = Amount of time (in seconds) the remote site was in partial stand alone.

f = Number of times the remote site entered partial stand alone from the linked state.

g = Amount of time (in seconds) the remote site was in full stand alone.

h = Number of times the remote site entered full stand alone.

i = Number of the remote switching module (RSM) containing the remote clock.

j = Number of remote clock troubles.

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`k` = Number of hundred-call-seconds (CCS) that the remote clock had only one timing reference.

`l` = Number of CCS that the remote clock was in a maintenance state.

`m` = Number of times the remoting facility was not linked to the network.

Note: If fields '`i`' through '`m`' are zero, then no RSM in the remote site contains a remote clock.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PLNTMO
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNTMO-PT09

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTMO    PART 9          ISDN PACKET SWITCHING OFFICE TOTALS
  TIME aa:aa:aa              b
             TOTAL   RSM
             PACKETS PACKETS
     SENT    c       d
     RECD    e       f
     ERRORS  g       h
     ISMNAIL AUTO RECOVERIES        i
                             PACKETS  CALLS
     FACILITY CUTOFFS        j        k
     ORIGINATING                      l
     TERMINATING                      m
```

2. REASON FOR OUTPUT

To print the current monthly plant report. If the report is automatically generated, it is a complete report for the previous month. If it is generated in response to a manual request, it contains only data accumulated since the previous automatic report.

The monthly plant report is used to gather information on equipment performance, to evaluate the impact of troubles on customer service, and to calculate the performance index. The report also contains data regarding originating, incoming, and outgoing calls, customer dialing irregularities and call setup troubles, and reflects the maintenance effect on traffic during the past month.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Number of packet-switched packets sent.

d = Number of packet-switched packets sent by a remote switching module (RSM).

e = Number of packet-switched packets received.

f = Number of packet-switched packets received by an RSM.

g = Number of level 3 packet-switched packet errors on switching modules (SM).

h = Number of level 3 packet-switched packet errors on RSMs.

i = Number of inter-SM nailup automatic recoveries.

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`j` = Number of packets discarded due to a facility cutoff.

`k` = Number of packet-switched calls cutoff due to facility failure.

`l` = Number of originating calls.

`m` = Number of terminating calls.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PLNTMO
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNTMO-PT10

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTMO    PART 10
       TIME aa:aa:aa           b
                  OSPS SERVICE MEASUREMENTS
  CALLTYPE           ATTEMPT    FAILURE
  INCOMING              c          d
  OUTGOING              e          f
                     REORDER      ABAND
                        g          h
                  OSPS EQUIPMENT PERFORMANCE
                       MTUSG
  POSITIONS             i
  DASC LINK SM      ATTEMPT    FAILURE      OVFL     SUCCESS     MTUSG
            j          k          l          m          n          o
            .          .          .          .          .          .
            .          .          .          .          .          .
                  LAYER 3 PROTOCOL MEASUREMENTS
            SM       RESETS    RESTRTS   RETRANS
            j          p          q          r
            .          .          .          .
            .          .          .          .
```

2. REASON FOR OUTPUT

To print the current monthly plant report. If the report is automatically generated, it is a complete report for the previous month. If it is generated in response to a manual request, it contains only data accumulated since the previous automatic report.

The monthly plant report is used to gather information on equipment performance, to evaluate the impact of troubles on customer service, and to calculate the performance index. The report also contains data regarding originating, incoming, and outgoing calls, customer dialing irregularities and call setup troubles, and reflects the maintenance effect on traffic during the past month.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

Note: Variables 'j' through 'o' are Operator Services Position System (OSPS) performance measurements.

c = Number of incoming OSPS call attempts for any of the following events:
- A directory-assistance (DA) call was received.

- Any automated toll and assistance (T&A) OSPS call (for example, coin, calling card, inward) was received.
- Any operator assisted T&A OSPS call was received.
- The end of a time and charge call which was routed to an operator.

d = Number of incoming OSPS call attempt failures for any of the following events.

For DA calls:
- Call type determination failed on a DA call.
- Failure to read RC/V View 21.22 (OSPS CALL TYPE) to obtain call queue information on a DA call.
- Failure to read RC/V View 21.7 (OSPS IMMEDIATE INTERFLOW ACTIVATION AND DEACTIVATION) to determine if interflow was active on a DA call.
- Failure to read RC/V View 21.27 (OSPS LISTING SERVICES/C-ACD INTERFLOW DESTINATION) when interflow was active for the DA serving team assigned to receive the incoming call.
- Could not obtain a DASC channel number to send a position seizure message to the DASC on a DA call.
- Failure to interflow a DA call, through reroute, when interflow was active for the serving team assigned to receive the call.

For automatic call distributor (ACD):
- Failure to send route request message to the ACD.
- Failure to receive acknowledgement from the ACD acknowledging that an operator request was received.
- Call processing determined that the call received was a commercial ACD call type but COMMERCIAL ACD in RC/V View 8.30 (OSPS COMMERCIAL ACD PARAMETERS) was set to N.
- Failure of ACD to route a call to an operator for reasons other than the call queue was full.
- Failure to set a system timer to wait for an ACD response to an operator request.
- After a second timeout while waiting for a response from the ACD to an operator request.
- When a system interrupt signal was received while the call was waiting for a response to an operator request from the ACD.

For coin:
- When the back party went on-hook while the call was being routed to an operator on a 1+ coin call that required an operator for initial customer contact.
- When the back party went on-hook while a queue overflow announcement was being played on a 1+ coin call that required an operator for initial customer contact.
- After successfully giving a queue overflow announcement on a 1+coin call that required an operator for initial customer contact.
- When a failure to allocate coin dynamic data on a coin call occurred.
- When a 0+ coin test call had bad automatic number identification (ANI).

Others:
- Failure to define a path to an operator.
- Failure on an automated calling card service (ACCS) call to release the path to the announcement service circuit on a call that was to be routed to an operator.
- Failure to route to an announcement when a call queue was closed.

- When a call queue was closed.
- Failure to route to level 3 delay announcement.
- When more than 11 digits were received on an inward call.
- When digit analysis failed on a 950, 0+, 0-, or 011+ call.
- When digit analysis failed on an ACCS call being routed to an operator.

e = Number of times a DA operator attempted to initiate a call to a point external to the switch or a T&A operator initiated a delayed call from BK# SEND or FWD# SEND.

f = Number of times a DA operator canceled an external call by entering the DIAL or POSREL key or a routing failure occurred on an outgoing call as defined by OUTGOING ATTEMPT.

g = Number of OSPS calls routed to reorder tone for the following events:
- A rating query failed on an initial automated coin toll service (ACTS) coin call.
- Failure to get a conference circuit on an initial ACTS coin call.
- Failure to route a call to an operator.
- Failure to route a call to a closed queue announcement.

h = Number of times the ACD successfully removed a queued call for which the back party had gone on-hook.

i = Operator position maintenance usage in seconds.

j = Switching module (SM) number.

k = Number of times the switch attempted to notify the DAS/C about a directory assistance (DA) position seizure.

l = Number of times the switch failed to notify the DAS/C about a DA position seizure because the level 3 protocol was unavailable or down.

m = Number of times the switch failed to notify the DAS/C about a DA position seizure because the level 3 protocol buffers were full.

n = Number of times the switch successfully notified the DAS/C about a DA position seizure. Equal to ATTEMPT - FAILURE - OVFL.

o = Number of seconds a DAS/C port was found to be in an out-of-service state. Equal to the accumulation of the number of ports found to be in an out-of-service state every 100 seconds multiplied by 100.

Note: Variables 'p' through 'r' are OSPS SM layer 3 protocol measurements. The maximum number of OSPS SMs for which DAS/C measurements are reported is 32.

p = Number of layer 3 protocol resets.

q = Number of layer 3 protocol restarts.

r = Number of layer 3 protocol retransmissions.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PLNTMO
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*
250-505-100 *OSPS Description and Procedures*

RC/V View(s):

8.30 (OSPS COMMERCIAL ACD PARAMETERS)
21.22 (OSPS CALL TYPE)
21.27 (OSPS LISTING SERVICES/C-ACD INTERFLOW DESTINATION)
21.7 (OSPS IMMEDIATE INTERFLOW ACTIVATION AND DEACTIVATION)

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OP:PLNTMO-PT10B

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTMO    PART 10B
  TIME aa:aa:aa           b
          OSPS EQUIPMENT PERFORMANCE
                  SM      ATTEMPT FAILURE OVFL    SUCCESS MTUSG
  DASC LNK         c       d       e       f       g       h
                   .       .       .       .       .       .
                   .       .       .       .       .       .
                   .       .       .       .       .       .
          LAYER 3 PROTOCOL MEASUREMENTS
  SM              RESETS          RESTRTS         RETRANS
   c               i               j               k
   .               .               .               .
   .               .               .               .
   .               .               .               .
```

2. REASON FOR OUTPUT

To print the current monthly plant report. If the report is automatically generated, it is a complete report for the previous month. If it is generated in response to a manual request, it contains only data accumulated since the previous automatic report.

The monthly plant report is used to gather information on equipment performance, to evaluate the impact of troubles on customer service, and to calculate the performance index. The report also contains data regarding originating, incoming, and outgoing calls, customer dialing irregularities and call setup troubles. In addition, the report reflects the maintenance effect on traffic during the past month.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

Note: Variables 'c' through 'h' are Operator Services Position System (OSPS) performance measurements.

c = Switching module (SM) number.

d = Number of times the switch attempted to notify the directory assistance system/computer (DAS/C) about a directory assistance (DA) position seizure.

e = Number of times the switch failed to notify the DAS/C about a DA position seizure because the level 3 protocol was unavailable or down.

f = Number of times the switch failed to notify the DAS/C about a DA position seizure because the

level 3 protocol buffers were full.

`g` = Number of times the switch successfully notified the DAS/C about a DA position seizure. Equal to ATTEMPT - FAILURE - OVFL.

`h` = Number of seconds a DAS/C port was found to be in an out-of-service state. Equal to the accumulation of the number of ports found to be in an out-of-service state every 100 seconds multiplied by 100.

Note: Variables '`i`' through '`k`' are OSPS SM layer 3 protocol measurements. The maximum number of OSPS SMs for which DAS/C measurements are reported is 32, which is shared between Part 10 B and Part 10.

`i` = Number of layer 3 protocol resets.

`j` = Number of layer 3 protocol restarts.

`k` = Number of layer 3 protocol retransmissions.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PLNTMO
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNTMO-PT11

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTMO    PART 11          ISDN OFFICE TOTALS
  TIME aa:aa:aa               b
                              ORIGIN     INCOM       TERM    OUTGO
     PARTIAL DIAL TIMEOUT     c          c
     PERMANENT SIGNAL         d
     REQUESTS                 e          e
     CALLS                    b1         b1          b1      b1
                               RSM     RSM
              FRAMES  PACKETS FRAMES  PACKETS
     SENT     f       g       h       i
     RECD     j       k       l       m
     ERRORS   n       o       p       q
                      INITIALIZATIONS
     PHHLRCV PHLLRCV PIHLRCV PILLRCV L2LL   RSM_L2LL
     r       s       t       u       v      w
     OVERLOADS
     PH      PI
     x       y
     EQUIPMENT QUANTITIES
     PH      PI
     z       a1
```

2. REASON FOR OUTPUT

To print the current monthly plant report. If the report is automatically generated, it is a complete report for the previous month. If it is generated in response to a manual request, it contains only data accumulated since the previous automatic report.

The monthly plant report is used to gather information on equipment performance, to evaluate the impact of troubles on customer service, and to calculate the performance index. The report also contains data regarding originating, incoming, and outgoing calls, customer dialing irregularities and call setup troubles, and reflects the maintenance effect on traffic during the past month.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Number of partial dial timeouts.

d = Number of permanent signals.

e = Number of requests.

f = Number of frames sent.

g = Number of packets sent.

h = Number of remote switching module (RSM) frames sent.

i = Number of RSM packets sent.

j = Number of frames received.

k = Number of packets received.

l = Number of RSM frames received.

m = Number of RSM packets received.

n = Number of frame errors.

o = Number of packet errors.

p = Number of RSM frame errors.

q = Number of RSM packet errors.

r = Number of protocol handler (PH) high level recovery actions.

s = Number of PH low level recovery actions.

t = Number of packet interface (PI) high level recovery actions.

u = Number of PI low level recovery actions.

v = Number of level 2 logical link (L2LL) resets on SMs.

w = Number of level 2 logical link (L2LL) resets on RSMs.

x = Number of PH overloads.

y = Number of PI overloads.

z = Number of PHs.

a^1 = Number of PIs.

b^1 = Number of calls.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PLNTMO
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNTMO-PT13

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTMO    PART 13
  TIME aa:aa:aa              b
  OSPS REAL-TIME RATING QUERY MEASURES
  RATING QUERIES
         ATMPT       SENT        NSENT        HDW      OVRLD
             c          d            e          f          g
         NO-ID       TEST
             i          u
  RATING QUERY REPLIES
         NPROC      UNEXP      INVFRMT
             p          q            r
       TIMEOUT      OVRLD        ABAND
             s          t            f1
         TOTAL
             v
  REAL-TIME RATING FEATURE SPECIFIC MEASURES
                  SENT              FAILURE
    RATEQT           w                   x
    CCQS             y                   z
    T&C              a1                  b1
    COIN             c1                  d1
    CL               g1                  h1
    TOTAL                                e1
```

2. REASON FOR OUTPUT

To print the current monthly plant report. If the report is automatically generated, it is a complete report for the previous month. If it is generated in response to a manual request, it contains only data accumulated since the previous automatic report.

The monthly plant report is used to gather information on equipment performance, to evaluate the impact of troubles on customer service, and to calculate the performance index.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Number of rating queries attempted. Equal to SENT + NSENT.

d = Number of rating queries sent to the real-time rating service (RTRS) database. Equal to RATEQT SENT + CCQS SENT + T&C SENT + COIN SENT + CL SENT.

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e = Number of rating queries not sent to the RTRS database. Equal to HDW + OVRLD + NM + NO-ID + AMBLK.

f = Number of rating queries not sent to the RTRS because of database link hardware problems. This count is not pegged when a test query cannot be sent to RTRS because of link hardware problems.

g = Number of rating queries not sent to the RTRS because of database cutbacks.

i = Number of rating queries not sent to the RTRS because no query identifiers were available.

p = Number of RTRS query replies received that indicated that the database was unable to process the reply.

q = Number of unexpected RTRS query replies received.

r = Number of RTRS query replies received in an invalid format.

s = Number of times that the OSPS switch timed out waiting for a reply from the RTRS database.

t = Number of RTRS query replies received that contained a non-zero overload indicator.

u = Number of rating test queries sent to the RTRS database.

v = Number of rating query replies received. Equal to TOTAL SUCCESS + TOTAL FAILURE in section 63: TRFC30 ORTR.

w = Number of rate quote queries sent to the RTRS database.

x = Number of rating query replies received from the RTRS that indicated a rate quote query was not successfully rated.

y = Number of centralized charge quotation system (CCQS) queries sent to the RTRS database.

z = Number of rating query replies received that indicated a CCQS query was not successfully rated. This count also includes replies that were successfully rated but the charges were greater than what hotel billing information system (HOBIS) or hotel billing information center (HOBIC) can receive, that is, 999.99.

a[1] = Number of time and charges (T&C) queries sent to the RTRS database.

b[1] = Number of rating query replies received that indicated a T&C query was not successfully rated.

c[1] = Number of coin rating queries sent to the RTRS database. Equal to OVERALL INIT + OVERALL INTRM + OVERALL EOC in Section 100: TRFC30 OCOIN.

d[1] = Number of coin rating query failures. Equal to POSTPAY IRQF + NON-ACTS IRQF + PREPAY INITIAL SEIZURE FAIL + OVERTIME ICRF + END OF CALL ECRF in Section 100: TRFC30 OCOIN. CL FAILURE.

e[1] = Number of rating query failures. Equal to RATEQT FAILURE + CCQS FAILURE + T&C FAILURE + COIN FAILURE +

f[1] = Number of times that a rating query was cancelled before a reply was received due to an operator or caller action.

g[1] = Number of card limit (CL) queries sent to the RTRS database including initial and subsequent queries.

h[1] = Number of CL initial and subsequent RTRS that are not successfully rated.

4. ACTION TO BE TAKEN

None.

The validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PLNTMO
OP:TRFC30
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNTMO-PT14

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTMO    PART 14
  TIME aa:aa:aa              b
  OSPS FACILITY ADMINISTRATION MEASURES
  CONFERENCE CIRCUIT REQUESTS
                3 PORT     6 PORT
   INITIATED     c         d
   NOT-SERVED    e         f
  CAMA MEASURES
                REORDER   IDFAIL   CAMAPOSD
                  g         h         i
                TOTAL    NOQUEUE     ABAND
    XFER          j         k         l
    SYSTEM        m         n         o
  ACCS INITIAL CALLS
                TO-NK    ABANDNK     TOTAL
                  p         q         r
  ACCS SEQUENCE CALLS
                SQINIT   SQABAND
                  s         t
  SCREENED CALLS
                ATMPT    FAILURE     SUCCESS
                  u         v          w
  ONI CALLS
               ANIFAIL     UNEQ       TOTAL
                  x         y          z
  CCQS MEASURES
               ATMPT    SUCCESS
                 a1        b1
  ANI CALLS
               TRUNK
                 c1
```

2. REASON FOR OUTPUT

To print the current monthly plant report. If the report is automatically generated, it is a complete report for the previous month. If it is generated in response to a manual request, it contains only data accumulated since the previous automatic report.

The monthly plant report is used to gather information on equipment performance, to evaluate the impact of troubles on customer service, and to calculate the performance index.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

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b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Number of times an OSPS call, either operator-assisted or automated, requested a 3-port conference circuit. Determination of whether a 3-port or 6-port conference circuit is needed on the call depends on the number of parties on the call and whether the call needs to be attached to an announcement service circuit.

d = Number of times an OSPS call, either operator-assisted or automated, requested a 6-port conference circuit. Determination of whether a 3-port or 6-port conference circuit is needed on the call depends on the number of parties on the call and whether the call needs to be attached to an announcement service circuit.

e = Number of times when a hardware failure (that is, a circuit was not usable) or communication failure prevented OSPS from getting a 3-port conference circuit. The events pegged for this count are different from those for 3-PORT CCOFL in Section 10: TRFC30 UCONF.

f = Number of times when a hardware failure (that is, a circuit was not usable) or communication failure prevented OSPS from getting a 6-port conference circuit. The events pegged for this count are different from those for 6-PORT CCOFL in Section 10: TRFC30 UCONF.

g = Number of REORDER signals sent by the centralized automatic message accounting (CAMA) offices in the last 24 hours.

h = Number of times when either of the following events occurred:
- The OSPS switch is unable to interpret the automatic number identification failure / operator number identification (ANIF/ONI) tone received from the CAMA office on a transfer CAMA call.
- The OSPS switch has timed out waiting for the ANIF/ONI tone from the CAMA office on a transfer CAMA call.

i = Number of times an operator released a transfer CAMA call from a position. This results in a POSITION DISCONNECT signals sent to the CAMA offices.

j = Number of times the OSPS switch received a transfer CAMA call.

k = Total number of transfer CAMA calls served without queuing for position in the last 24 hours.

l = Number of incoming transfer CAMA calls where the back party went on-hook before being connected to an operator.

m = Number of times the OSPS switch received a system CAMA ANIF/ONI call.

n = Total number of system CAMA-ONI calls served without queuing for position in the last 24 hours.

o = Number of incoming system CAMA calls where the back party went on-hook before being connected to an operator.

p = Number of automatic calling card service (ACCS) calls where the switch timed out after the bong tone waiting for the first calling card digit to be entered.

q = Number of initial ACCS calls where the back party went on-hook before entering the first calling card digit or while the call was being routed to an announcement service circuit for the playing of the

bong tone and detection of calling card digits.

r = Number of potential ACCS calls that were routed to operators.

s = Number of ACCS sequence calls initiated, using a local exchange carrier (LEC) calling card, where the back party entered a # sign at the end of an ACCS call or during the ringing of the forward party's phone.

t = Number of ACCS sequence calls placed with a LEC calling card where the back party went on-hook during the keying of a new forward number, during routing to the forward party, or during ringing of the forward party's phone.

u = Number of screened calls handled by operators. Equal to FAILURE + SUCCESS.

v = Number of times an operator cancelled a call on which the back party was screened against one or more classes of charge.

w = Number of times an operator floated or externally transferred a call on which the back party was screened against one or more classes of charge.

x = Number of transfer CAMA, system CAMA, or ISP calls requiring ONI due to ANI failure.

y = Number of transfer CAMA, system CAMA, or ISP calls sent to an operator because ONI was required and because the originating office was without ANI equipment or served multi-party lines.

z = Number of transfer CAMA, system CAMA, or ISP calls that were sent to an operator because of ANI failure or because ONI was required. Equal to ANIFAIL + UNEQ.

a[1] = Number of times an attempt was made to send a voice quote message to an automatic charge quotation service (ACQS) establishment.

b[1] = Number of times the OSPS switch received a rating query reply indicating that a centralized charge quotation system (CCQS) query was successfully rated.

c[1] = Number of incoming ISP calls that arrived on ANI-searched screened trunks and there was no originating line screening restriction.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PLNTMO
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNTMO-PT15

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTMO    PART 15
  TIME aa:aa:aa        b
  OSPS MEASUREMENTS
  AUTOQUOTE CALLS
        COMPL      PRINT     AQCRDT     REROUT     RQFAIL     VQCRDT
            c          d          e          f          g          h
  COIN CIRCUIT
         OPER       UNAV      NOTFY       NPER
            i          j          k          l
  SEIZURE INFORMATION
         AEOC       ACDS     DEPSAT
            m          n          o
  COIN QUERIES
         INIT      INTRM        EOC
            p          q          r
  AUTOMATED INWARD LINE SCREENING
      CALL SERVING OSPS
                                OLS        TCS
            QUERIES_SENT          s          t
            REPLIES_RECD          u          v
                  TSKREF      MSQRY       UXDT    TIMEOUT
                       w          x          y          z
      NORMAL SERVING OSPS
                                OLS        TCS
            QUERIES_RECD          a1         b1
            REPLIES_SENT          c1         d1
                  TSKREF      MSQRY       UXDT
                       e1         f1         g1
```

2. REASON FOR OUTPUT

To print the current monthly plant report. If the report is automatically generated, it is a complete report for the previous month. If it is generated in response to a manual request, it contains only data accumulated since the previous automatic report.

The monthly plant report is used to gather information on equipment performance, to evaluate the impact of troubles on customer service, and to calculate the performance index.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Number of attempts to send an autoquote message to an autoquote establishment.

d = Number of printed autoquote calls.

e = Number of times that an autoquote message was not sent to the autoquote establishment and a credit record was created for the following events:

- Automatic charge quotation service (ACQS) message buffer pointers were corrupted which resulted in credit records created for each queued autoquote.
- An autoquote message was queued for longer than the value in field "HOBIS/C TIME" of RC/V View 8.9.
- The ACQS message buffer was full (max 100) and a new message arrived replacing a queued autoquote message.
- Failures occurred during transmitting the message to the autoquote establishment and when trying to reroute the message to a Hotel Billing Information System (HOBIS) or hotel billing information center (HOBIC).

f = Number of autoquote messages successfully rerouted to a HOBIS or HOBIC.

g = Number of autoquote messages that failed because all autoquote digital subscriber lines (DSL) were busy or call processing could not dial up the autoquote establishment because of a lack of software process control blocks (PCB) or process stacks (PS).

h = Number of credited voice quote messages that were not sent to HOBIS or HOBIC due to such events as:

- The ACQS message buffer pointers were corrupted which resulted in credit records created for each queued voice quote message.
- A voice quote message was queued for longer than the value in field "HOBIS/C TIME" of RC/V View 8.9.
- The ACQS message buffer was full (max 100) and a new message arrived replacing a queued voice quote message.
- A failure occurred during transmitting the message to HOBIS or HOBIC.

i = Number of times an operator was successfully requested after a successful rating query at the end of an automated coin call and any of the following events occurred:

- An announcement circuit could not be attached to the call because of AM routing throttling.
- Routing to an announcement circuit failed.

Also includes the number of times any of the following events occurred which resulted in the coin call being routed to an operator:

- The call timed out (10 seconds) on an automated overtime charge-due seizure waiting for confirmation that an announcement circuit had been attached or a routing failure occurred when attempting to attach the announcement circuit and the back party had gone on-hook.
- The call timed out (10 seconds) on an automated end-of-call seizure waiting for confirmation that an announcement circuit had been attached or a routing failure occurred when attempting to attach the circuit.
- An end-of-call seizure was routed to an operator.
- An announcement circuit failure or announcement failure occurred after a circuit was successfully attached on an overtime seizure where the back party had subsequently gone on-hook or on an end-of-call seizure.

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j = Number of times any of the following events occurred on a 1+ prepay ACTS coin call during the initial contact:
- Originating call treatment had timed out (10 seconds) waiting for an announcement process to be created.
- The announcement process failed to activate an announcement service circuit.
- Routing to an announcement circuit failed.
- The announcement process informed originating call treatment of an announcement service circuit hardware failure.

k = Number of times any of the following events occurred at the end of the initial period of a coin-sent-paid call and a notification announcement was required:
- A 3-port conference circuit could not be obtained (call proceeded into grace period).
- Call processing could not define a path to the announcement circuit (call was routed to an operator).
- Call processing failed to route to an announcement circuit (call was routed to an operator).
- Call processing was waiting for an announcement circuit to be connected and a software failure or timeout (10 seconds) indication was received (call was idled).

l = Number of times any of the following events occurred after successful rating queries on overtime seizures:
- A 6-port conference circuit could not be obtained (call was consequently routed to an operator if a 3-port conference circuit could be obtained; if not, call proceeded to next overtime period); for pre-paid overtime for coin calls, the call is idled.
- Call processing could not define a path to the announcement circuit (call was consequently idled).
- Call processing failed to route to an announcement circuit (call was consequently routed to an operator).
- Call processing was waiting for an announcement circuit to be connected and software failure or timeout (10 seconds) indication was received (call was consequently routed to an operator).

m = Number of attempted automated end-of-call seizures regardless of whether an announcement circuit could be attached, a walkaway occurred, or the call was routed to an operator for large charge collection. Large charge means amount due is greater than 5 times LRG CHG THR in RC/V View 8.9.

n = Number of times an overtime seizure occurred for which automation was attempted. This measurement is scored whether or not an announcement circuit was successfully attached.

o = Number of deposits satisfied on fully automated charges-due seizures.

p = Number of initial coin rating queries successfully sent to RTRS.

q = Number of interim coin rating queries successfully sent to RTRS

r = Number of end-of-call coin rating queries successfully sent to RTRS.

s = Number of automated inward line screening (AILS) queries sent from the call serving OSPS to retrieve originating line screening (OLS) data.

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t = Number of AILS queries sent from the call serving OSPS to retrieve terminating code screening (TCS) data.

u = Number of AILS replies received in the call serving OSPS returning OLS data. This measure does not include the error replies received in the call serving OSPS.

v = Number of AILS replies received in the call serving OSPS returning TCS data. This measure does not include the error replies received in the call serving OSPS.

w = Number of error replies of "task refused" received in the call serving OSPS.

x = Number of error replies of "misroute" received in the call serving OSPS.

y = Number of error replies of "unexpected input data value" received in the call serving OSPS.

z = Number of queries that timed out in the call serving OSPS. This is a measure of the number of queries that actually left the call serving OSPS and became indeterminate (a valid reply was not received) for whatever reason.

a^1 = Number of AILS queries received in the normal serving OSPS from the call serving OSPS to retrieve OLS data.

b^1 = Number of AILS queries received in the normal serving OSPS from the call serving OSPS to retrieve TCS data.

c^1 = Number of AILS replies sent from the normal serving OSPS to the call serving OSPS returning OLS data. This measure does not include the error replies sent to the call serving OSPS.

d^1 = Number of AILS replies sent from the normal serving OSPS to the call serving OSPS returning TCS data. This measure does not include the error replies sent to the call serving OSPS.

e^1 = Number of error replies of "task refused" sent from the normal serving OSPS to the call serving OSPS.

f^1 = Number of error replies of "misroute" sent from the normal serving OSPS to the call serving OSPS.

g^1 = Number of error replies of "unexpected input data value" sent from the normal serving OSPS to the call serving OSPS.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PLNTMO
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

RC/V View(s):

8.9 (OSPS OFFICE PARAMETERS)

OP:PLNTMO-PT16

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTMO      PART 16
  TIME aa:aa:aa    b
  OSPS INTERFLOW MEASURES
          OSPS_ID B_RMV   B_LINKDOWN      D_RMV   D_LINKDOWN
          c       d       ee:ee:ee        f       gg:gg:gg
          .       .          .            .           .
          .       .          .            .           .
          .       .          .            .           .
```

2. REASON FOR OUTPUT

To print the current monthly plant report. If the report is automatically generated, it is a complete report for the previous month. If it is generated in response to a manual request, it contains only data accumulated since the previous automatic report.

The monthly plant report is used to gather information on equipment performance, to evaluate the impact of troubles on customer service, and to calculate the performance index. The report contains data regarding Operator Services Position System (OSPS) interflow toll and assistance (T&A) outgoing B-channel removals, interflow T&A B-channel link time unavailable, interflow T&A outgoing D-channel removals and interflow T&A D-channel link time unavailable during the previous month.

3. VARIABLE FIELD DEFINITIONS

`a` = Time when the report was prepared, in the form hours:minutes:seconds.

`b` = Status of data. Valid value(s):
`DATA IS VALID`
`DATA MAY BE INVALID`

`c` = Identification number of OSPS destination office.

`d` = Number of times a B-channel has been removed from service in the past month.

`e` = Accumulated amount of time the B-channel links were down, in the form hours:minutes:seconds.

`f` = Number of times a D-channel has been removed from service in the past month.

`g` = Accumulated amount of time the D-channel links were down, in the form hours:minutes:seconds.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PLNTMO
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNTMO-PT17-A

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTMO      PART 17
  TIME aa:aa:aa    b
  OSPS ANSI TCAP QUERY MEASURES
  QUERIES
              ATMPT       SENT     NSENT      HDW
   LICCD          c          d         e        f
   89CCC          t1         u1        v1       w1
   LIBNS          k          l         m        n
              OVRLD         NM     NO-ID    AMBLK      TEST
   LICCD          g          h         i        j         m1
   89CCC          x1         y1        z1       a2        b2
   LIBNS          o          p         q        r         r1
  REPLIES
              ABNOR      RTEFA     ADDFA  SYSCONG
   LICCD          s          t         u        v
   89CCC          c2         d2        e2       f2
   LIBNS          a1         b1        c1       d1
              SYSFA       UNEQ      NWFA   NWCONG
   LICCD          w          x         y        z
   89CCC          g2         h2        i2       j2
   LIBNS          e1         f1        g1       h1
              TOTAL      UNEXP   INVFRMT  TIMEOUT
   LICCD          i1         j1        k1       l1
   89CCC          k2         l2        m2       n2
   LIBNS          n1         o1        p1       q1
                ACG      PSDI4
   LICCD          s1         p2
   89CCC          o2         q2
```

2. REASON FOR OUTPUT

To print the current monthly plant report. If the report is automatically generated, it is a complete report for the previous month. If it is generated in response to a manual request, it contains only data accumulated since the previous automatic report.

The monthly plant report is used to gather information on equipment performance, to evaluate the impact of troubles on customer service, and to calculate the performance index. The report contains data regarding database queries and replies during the previous month.

3. VARIABLE FIELD DEFINITIONS

Note: For variables with a '*', refer to the 4ACTION TO BE TAKEN section.

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Number of LIDB calling card (CCD) queries attempted. Equal to LICCD SENT + NSENT.

d = *Number of LIDB calling card (CCD) queries sent from the OSPS into the common channel signaling (CCS) network. This count excludes test queries.

e = Number of LIDB CCD queries attempted but not sent (total of LICCD: HDW + OVRLD + NM + NO-ID + AMBLK).

f = *Number of LIDB CCD queries not sent because the common network interface (CNI) ring was not available. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

g = *Number of CCD queries not sent because the switch had enforced query cutbacks according to automatic call gapping (ACG) controls received from the database. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

h = *Number of CCD queries not sent because a cutback was in effect to accommodate a network management control measure. Network management cutbacks are implemented for a period of five seconds after a billed number screening (BNS) or calling card query reply indicates network congestion, network failure, subsystem congestion or subsystem failure. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

i = *Number of CCD queries not sent to the database because a LIDB query ID was not available. The switch can handle 256 outstanding LIDB queries. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

j = *Number of CCD queries not sent because:
- Abnormal administrative module (AM) conditions.
- Abnormal communication link conditions between the switching module (SM) and AM.
- Switch data in the AM could not be read to determine the translation type parameter that is to be sent in the query to the signaling system 7 (SS7) network. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

k = Number of LIDB BNS queries attempted. Equal to LIBNS SENT + NSENT.

l = *Number of BNS queries sent from the OSPS into the CCS network. This count excludes test queries.

m = Number of BNS queries attempted but not sent (total of LIBNS: HDW + OVRLD + NM + NO-ID + AMBLK).

n = *Number of BNS queries not sent because the CNI ring was not available. The operator on the call may allow or disallow the call.

o = *Number of BNS queries not sent because the switch had enforced query cutbacks according to ACG controls received from the database. The operator on the call may allow or disallow the call.

p = *Number of BNS queries not sent because a cutback was in effect to accommodate a network management control measure. Network management cutbacks are implemented for a period of five seconds after a BNS or calling card query reply indicates network congestion, network failure, subsystem congestion, or subsystem failure. The operator on the call may allow or disallow the call.

q = *Number of BNS queries not sent because a query ID was not available. The switch can handle 256 outstanding LIDB queries. The operator on the call may allow or disallow the call.

r = *Number of BNS queries not sent because:
- Abnormal administrative module (AM) conditions.
- Abnormal communication link conditions between the SM and AM.
- Switch data in the AM could not be read to determine the translation type parameter that was to be sent in the query to the signaling system 7 (SS7) network. The operator on the call may allow or disallow the call.

s = Number of abnormal LIDB CCD replies received. These are queries that do not make it to the destined database and are returned by the network. (Total of LICCD: RTEFA + ADDFA + SYSCONG + SYSFA + UNEQ + NWFA + NWCONG.)

t = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated no translation for an address of such nature. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

u = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated no translation for this specific address. This resulted in calling card denial on the call.

v = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated subsystem congestion. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9. This also resulted in a five-second cutback of LIDB calling card queries that have a calling card number with the same NPA or RAO as the calling card number that resulted in the subsystem congestion response.

w = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated subsystem failure. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9. This also resulted in a five-second cutback of LIDB calling card queries that have a calling card number with the same NPA or RAO as the calling card number that resulted in the subsystem failure response.

x = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated unequipped user. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

y = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated network failure. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9. This also resulted in a five-second cutback of LIDB calling card queries that have a

calling card number with the same NPA or RAO as the calling card number that resulted in the network failure response.

z = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated network congestion. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9. This also resulted in a five-second cutback of LIDB calling card queries that have a calling card number with the same NPA or RAO as the calling card number that resulted in the network congestion response.

a[1] = *Number of abnormal LIDB BNS replies received. These are queries that do not make it to the destined database and are returned by the network. (Total of LIBNS: RTEFA + ADDFA + SYSCONG + SYSFA + UNEQ + NWFA + NWCONG.)

b[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated no translation for an address of such nature. The operator on the call may allow or disallow the call.

c[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated no translation for this specific address. This resulted in billing denial on the call.

d[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated subsystem congestion. The operator on the call may allow or disallow the call. This also resulted in a five-second cutback of LIDB BNS queries that have a billing number with the same NPA or RAO as the billing number that resulted in the subsystem congestion response.

e[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated subsystem failure. The operator on the call may allow or disallow the call. This also resulted in a five-second cutback of LIDB BNS queries that have a billing number with the same NPA or RAO as the billing number that resulted in the subsystem failure response.

f[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated unequipped user. The operator on the call may allow or disallow the call.

g[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated network failure. The operator on the call may allow or disallow the call. This also resulted in a five-second cutback of LIDB BNS queries that have a billing number with the same NPA or RAO as the billing number that resulted in the network failure response.

h[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated network congestion. The operator on the call may allow or disallow the call. This also resulted in a five-second cutback of LIDB BNS queries that have a billing number with the same NPA or RAO as the billing number that resulted in the network congestion response.

i[1] = Number of LIDB CCD replies received. Total of LICCD: UNEXP + INVFRMT + VLDFRMT. VLDFRMT is printed in section 109: TRFC30 OATQ.

j[1] = *Number of times an unexpected or duplicate LIDB CCD query reply was received from the database. Replies for which the switch had timed out while waiting for them are also included.

k[1] = *Number of LIDB CCD replies received in an invalid format where the reply was garbled in some manner or data fields did not conform to correct message syntax. Examples of such cases are:

- The value in the translation ID field was invalid.

- The component sequence ID field was invalid.
- The component type ID field was invalid.
- The length of the entire query response was longer than expected.
- The length of the transaction capability application part (TCAP) message was longer than expected.
- The package type identifier field was invalid.
- The message type field was invalid.
- The response was a service message from the SS7 network and the service message type was not recognized.

l[1] = Number of times that the OSPS timed out waiting for a LIDB CCD reply to a query from the database (refer to the CC and BNS TIME parameter in RC/V View 8.9). The call receives indeterminate query treatment as specified by parameter QUERY REPLIES TIMEOUT in RC/V View 8.9.

A) = If TIMEOUT indicates allow, then the reply is treated as an allow.
D) = If TIMEOUT indicates deny, then the reply is treated as a deny.
E) = If TIMEOUT indicates existing treatment, then the type of indeterminate query treatment is specified by parameter CC BILL BLOCK in RC/V View 8.9.

m[1] = Number of LIDB CCD test queries sent to the CCS network.

n[1] = Number of LIDB BNS replies received. Total of LIBNS: UNEXP + INVFRMT + VLDFRMT. VLDFRMT is printed in section 109: TRFC30 OATQ.

o[1] = *Number of times an unexpected or duplicate LIDB BNS query reply was received from the database or the switch had timed out while waiting for the reply.

p[1] = *Number of LIDB BNS replies received in an invalid format where the reply was garbled in some manner or data fields did not conform to correct message syntax. Examples of such cases are:

- The value in the translation ID field was invalid.
- The component sequence ID field was invalid.
- The component type ID field was invalid.
- The length of the entire query response was longer than expected.
- The length of the TCAP message was longer than expected.
- The package type identifier field was invalid.
- The message type field was invalid.
- The response is a service message from the SS7 network and the service message type was not recognized.

q[1] = Number of times that the OSPS timed out waiting for a BNS reply to a query from the database (refer to the CC and BNS TIME parameter in RC/V View 8.9). The call receives indeterminate query treatment as specified by parameter QUERY REPLIES TIMEOUT in RC/V View 8.9.

A) = If TIMEOUT indicates "allow", then the reply is treated as an allow.
D) = If TIMEOUT indicates "deny", then the reply is treated as a deny.
E) = If TIMEOUT indicates "existing treatment", then the type of indeterminate query treatment is specified by parameter CC BILL BLOCK in RC/V View 8.9.

r[1] = Number of LIDB BNS test queries sent to the CCS network.

s[1] = *Number of BNS or CCD query replies from the database that contained an ACG component. All queries for calls that matched the first six digits of the affected billing number were potentially

cutback as specified by the ACG control parameters. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

t[1] = Total number of telecommunications card/commercial credit card (89/CCC) queries attempted. (Total of 89CCC: SENT + NSENT.)

u[1] = *Number of 89/CCC queries sent from the OSPS into the network connecting the OSPS to the database. This count excludes test queries.

v[1] = Number of 89/CCC queries attempted but not sent. (Total of 89CCC: HDW + OVRLD + NM + NO-ID + AMBLK.)

w[1] = *Number of 89/CCC queries not sent because of the common network interface (CNI) ring was not available. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

x[1] = *Number of 89/CCC queries not sent because the switch had enforced query cutbacks according to automatic call gapping (ACG) controls received from the database. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

y[1] = *Number of 89/CCC queries not sent to the database because a cutback was in effect to accommodate a network management control measure. Network management cutbacks are implemented for a period of five seconds after a calling card query reply indicates network congestion, network failure, subsystem congestion or subsystem failure. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

z[1] = *Number of 89/CCC queries not sent to the data because a query ID was not available. The switch can handle 256 outstanding queries. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

a[2] = *Number of 89/CCC queries not sent to the database because of:

- Abnormal administrative module (AM) conditions.
- Abnormal communication link conditions between the switching module (SM) and AM.
- Switch data in the AM could not be read to determine the translation type parameter that is to be sent in the query to the signaling system 7 (SS7) network. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

b[2] = *Number of 89/CCC test queries sent to the CCS network.

c[2] = Number of abnormal 89/CCC replies received. These are queries that do not make it to the destined database and are returned by the network. (Total of 89CCC: RTEFA + ADDFA + SYSCONG + SYSFA + UNEQ + NWFA + NWCONG.)

d[2] = *Number of times the CCS network returned a service message in response to an 89/CCC query and the response indicated no translation for an address of such nature. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

e[2] = *Number of times the CCS network returned a service message in response to an 89/CCC query and the response indicated no translation for this specific address. This resulted in calling card denial on the call.

f[2] = *Number of times the CCS network returned a service message in response to an 89/CCC query and the response indicated subsystem congestion. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56. This also resulted in a five-second cutback of calling card queries that have a calling card number with the same issuer as the calling card number that resulted in the subsystem congestion response.

g[2] = *Number of times the CCS network returned a service message in response to an 89/CCC query and the response indicated subsystem failure. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56. This also resulted in a five-second cutback of calling card queries that have a calling card number with the same issuer as the calling card number that resulted in the subsystem failure response.

h[2] = *Number of times the CCS network returned a service message in response to a 89/CCC query and the response indicated unequipped user. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

i[2] = *Number of times the CCS network returned a service message in response to an 89/CCC query and the response indicated network failure. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56. This also resulted in a five-second cutback of calling card queries that have a calling card number with the same issuer as the calling card number that resulted in the network failure response.

j[2] = *Number of times the CCS network returned a service message in response to a 89/CCC query and the response indicated network congestion. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56. This also resulted in a five-second cutback of calling card queries that have a calling card number with the same issuer as the calling card number that resulted in the network congestion response.

k[2] = Number of 89/CCC replies received of all types. Total of 89CCC: UNEXP + INVFRMT + VLDFRMT.

l[2] = *Number of times an unexpected or duplicate query reply was received from the database. Replies for which the switch had timed out while waiting for them are also included.

m[2] = *Number of 89/CCC replies received in an invalid format where the reply was garbled in some manner or data fields did not conform to correct message syntax. Examples of such cases are:

- The value in the translation ID field was invalid.
- The component sequence ID field was invalid.
- The component type ID field was invalid.
- The length of the entire query response was longer than expected.
- The length of the TCAP message was longer than expected.
- The package type identifier field was invalid.
- The message type field was invalid.
- The response was a service message from the SS7 network and the service message type was not recognized.

n^2 = Number of times that the OSPS timed out waiting for an 89/CCC reply to a query from the database refer to the QUERY TIMEOUT parameter in RC/V View 27.56. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

o^2 = *Number of 89/CCC query replies from the database that contained an ACG component. All queries for calls that matched the first six digits of the affected billing number were potentially cutback as specified by the ACG control parameters. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

p^2 = Number of 10+4 calling card validation replies with a '`PSDI=4`' response from the validation database.

q^2 = Number of 89C/CCC card validation replies with a '`PSDI=4`' response from the validation database.

4. ACTION TO BE TAKEN

None.

The set of variables with '*' above represents the measurements collected in the direct link node (DLN). If the office is equipped with the DLN and the set of variables with '*' are zero, suggests that the DLN failed to report these variables and these variables are invalid for the reporting period.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PLNTMO
```

Other Manual(s):
235-070-100 *Switch Administration and Engineering Guidelines*

OP:PLNTMO-PT17-B

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTMO      PART 17
  TIME aa:aa:aa    b
  OSPS ANSI TCAP QUERY MEASURES
  QUERIES
              ATMPT       SENT     NSENT      HDW
   LICCD          c          d         e        f
   89CCC          t1         u1        v1       w1
   LIBNS          k          l         m        n
              OVRLD         NM     NO-ID    AMBLK      TEST
   LICCD          g          h         i        j         m1
   89CCC          x1         y1        z1       a2        b2
   LIBNS          o          p         q        r         r1
  REPLIES
              ABNOR      RTEFA     ADDFA  SYSCONG
   LICCD          s          t         u        v
   89CCC          c2         d2        e2       f2
   LIBNS          a1         b1        c1       d1
              SYSFA       UNEQ      NWFA   NWCONG
   LICCD          w          x         y        z
   89CCC          g2         h2        i2       j2
   LIBNS          e1         f1        g1       h1
              TOTAL      UNEXP   INVFRMT  TIMEOUT
   LICCD          i1         j1        k1       l1
   89CCC          k2         l2        m2       n2
   LIBNS          n1         o1        p1       q1
                ACG      PSDI4
   LICCD          s1         p2
   89CCC          o2         q2
```

2. REASON FOR OUTPUT

To print the current monthly plant report. If the report is automatically generated, it is a complete report for the previous month. If it is generated in response to a manual request, it contains only data accumulated since the previous automatic report. The monthly plant report is used to gather information on equipment performance, to evaluate the impact of troubles on customer service, and to calculate the performance index. The report contains data regarding database queries and replies during the previous month.

3. VARIABLE FIELD DEFINITIONS

Note: For variables with a '*', refer to the 4ACTION TO BE TAKEN section.

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):

```
DATA IS VALID
DATA MAY BE INVALID
```

c = Number of LIDB calling card (CCD) queries attempted. Equal to LICCD SENT + NSENT.

d = *Number of LIDB calling card (CCD) queries sent from the OSPS into the common channel signaling (CCS) network. This count excludes test queries.

e = Number of LIDB CCD queries attempted but not sent (total of LICCD: HDW + OVRLD + NM + NO-ID + AMBLK).

f = *Number of LIDB CCD queries not sent because the common network interface (CNI) ring was not available. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

g = *Number of CCD queries not sent because the switch had enforced query cutbacks according to automatic call gapping (ACG) controls received from the database. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

h = *Number of CCD queries not sent because a cutback was in effect to accommodate a network management control measure. Network management cutbacks are implemented for a period of five seconds after a billed number screening (BNS) or calling card query reply indicates network congestion, network failure, subsystem congestion or subsystem failure. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

i = *Number of CCD queries not sent to the database because a LIDB query ID was not available. The switch can handle 256 outstanding LIDB queries. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

j = *Number of CCD queries not sent because:

- Abnormal administrative module (AM) conditions.
- Abnormal communication link conditions between the switching module (SM) and AM.
- Switch data in the AM could not be read to determine the translation type parameter that is to be sent in the query to the signaling system 7 (SS7) network. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

k = Number of LIDB BNS queries attempted. Equal to LIBNS SENT + NSENT.

l = *Number of BNS queries sent from the OSPS into the CCS network. This count excludes test queries.

m = Number of BNS queries attempted but not sent (total of LIBNS: HDW + OVRLD + NM + NO-ID + AMBLK).

n = *Number of BNS queries not sent because the CNI ring was not available. The operator on the call may allow or disallow the call.

o = *Number of BNS queries not sent because the switch had enforced query cutbacks according to

ACG controls received from the database. The operator on the call may allow or disallow the call.

p = *Number of BNS queries not sent because a cutback was in effect to accommodate a network management control measure. Network management cutbacks are implemented for a period of five seconds after a BNS or calling card query reply indicates network congestion, network failure, subsystem congestion, or subsystem failure. The operator on the call may allow or disallow the call.

q = *Number of BNS queries not sent because a query ID was not available. The switch can handle 256 outstanding LIDB queries. The operator on the call may allow or disallow the call.

r = *Number of BNS queries not sent because:
- Abnormal administrative module (AM) conditions.
- Abnormal communication link conditions between the SM and AM.
- Switch data in the AM could not be read to determine the translation type parameter that was to be sent in the query to the signaling system 7 (SS7) network. The operator on the call may allow or disallow the call.

s = Number of abnormal LIDB CCD replies received. These are queries that do not make it to the destined database and are returned by the network. (Total of LICCD: RTEFA + ADDFA + SYSCONG + SYSFA + UNEQ + NWFA + NWCONG.)

t = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated no translation for an address of such nature. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

u = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated no translation for this specific address. This resulted in calling card denial on the call.

v = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated subsystem congestion. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9. This also resulted in a five-second cutback of LIDB calling card queries that have a calling card number with the same NPA or RAO as the calling card number that resulted in the subsystem congestion response.

w = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated subsystem failure. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9. This also resulted in a five-second cutback of LIDB calling card queries that have a calling card number with the same NPA or RAO as the calling card number that resulted in the subsystem failure response.

x = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated unequipped user. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

y = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated network failure. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9. This also resulted in a five-second cutback of LIDB calling card queries that have a calling card number with the same NPA or RAO as the calling card number that resulted in the

network failure response.

z = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated network congestion. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9. This also resulted in a five-second cutback of LIDB calling card queries that have a calling card number with the same NPA or RAO as the calling card number that resulted in the network congestion response.

a[1] = *Number of abnormal LIDB BNS replies received. These are queries that do not make it to the destined database and are returned by the network. (Total of LIBNS: RTEFA + ADDFA + SYSCONG + SYSFA + UNEQ + NWFA + NWCONG.)

b[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated no translation for an address of such nature. The operator on the call may allow or disallow the call.

c[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated no translation for this specific address. This resulted in billing denial on the call.

d[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated subsystem congestion. The operator on the call may allow or disallow the call. This also resulted in a five-second cutback of LIDB BNS queries that have a billing number with the same NPA or RAO as the billing number that resulted in the subsystem congestion response.

e[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated subsystem failure. The operator on the call may allow or disallow the call. This also resulted in a five-second cutback of LIDB BNS queries that have a billing number with the same NPA or RAO as the billing number that resulted in the subsystem failure response.

f[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated unequipped user. The operator on the call may allow or disallow the call.

g[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated network failure. The operator on the call may allow or disallow the call. This also resulted in a five-second cutback of LIDB BNS queries that have a billing number with the same NPA or RAO as the billing number that resulted in the network failure response.

h[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated network congestion. The operator on the call may allow or disallow the call. This also resulted in a five-second cutback of LIDB BNS queries that have a billing number with the same NPA or RAO as the billing number that resulted in the network congestion response.

i[1] = Number of LIDB CCD replies received. Total of LICCD: UNEXP + INVFRMT + VLDFRMT. VLDFRMT is printed in section 109: TRFC30 OATQ.

j[1] = *Number of times an unexpected or duplicate LIDB CCD query reply was received from the database. Replies for which the switch had timed out while waiting for them are also included.

k[1] = *Number of LIDB CCD replies received in an invalid format where the reply was garbled in some manner or data fields did not conform to correct message syntax. Examples of such cases are:

- The value in the translation ID field was invalid.
- The component sequence ID field was invalid.

- The component type ID field was invalid.
- The length of the entire query response was longer than expected.
- The length of the transaction capability application part (TCAP) message was longer than expected.
- The package type identifier field was invalid.
- The message type field was invalid.
- The response was a service message from the SS7 network and the service message type was not recognized.

l[1] = Number of times that the OSPS timed out waiting for a LIDB CCD reply to a query from the database (refer to the CC and BNS TIME parameter in RC/V View 8.9). The call receives indeterminate query treatment as specified by parameter QUERY REPLIES TIMEOUT in RC/V View 8.9.

A) = If TIMEOUT indicates allow, then the reply is treated as an allow.
D) = If TIMEOUT indicates deny, then the reply is treated as a deny.
E) = If TIMEOUT indicates existing treatment, then the type of indeterminate query treatment is specified by parameter CC BILL BLOCK in RC/V View 8.9.

m[1] = Number of LIDB CCD test queries sent to the CCS network.

n[1] = Number of LIDB BNS replies received. Total of LIBNS: UNEXP + INVFRMT + VLDFRMT. VLDFRMT is printed in section 109: TRFC30 OATQ.

o[1] = *Number of times an unexpected or duplicate LIDB BNS query reply was received from the database or the switch had timed out while waiting for the reply.

p[1] = *Number of LIDB BNS replies received in an invalid format where the reply was garbled in some manner or data fields did not conform to correct message syntax. Examples of such cases are:

- The value in the translation ID field was invalid.
- The component sequence ID field was invalid.
- The component type ID field was invalid.
- The length of the entire query response was longer than expected.
- The length of the TCAP message was longer than expected.
- The package type identifier field was invalid.
- The message type field was invalid.
- The response is a service message from the SS7 network and the service message type was not recognized.

q[1] = Number of times that the OSPS timed out waiting for a BNS reply to a query from the database (refer to the CC and BNS TIME parameter in RC/V View 8.9). The call receives indeterminate query treatment as specified by parameter QUERY REPLIES TIMEOUT in RC/V View 8.9.

A) = If TIMEOUT indicates "allow", then the reply is treated as an allow.
D) = If TIMEOUT indicates "deny", then the reply is treated as a deny.
E) = If TIMEOUT indicates "existing treatment", then the type of indeterminate query treatment is specified by parameter CC BILL BLOCK in RC/V View 8.9.

r[1] = Number of LIDB BNS test queries sent to the CCS network.

s[1] = *Number of BNS or CCD query replies from the database that contained an ACG component. All queries for calls that matched the first six digits of the affected billing number were potentially cutback as specified by the ACG control parameters. This resulted in calls' receiving indeterminate

query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

t^1 = Total number of telecommunications card/commercial credit card (89/CCC) queries attempted. (Total of 89CCC: SENT + NSENT.)

u^1 = *Number of 89/CCC queries sent from the OSPS into the network connecting the OSPS to the database. This count excludes test queries.

v^1 = Number of 89/CCC queries attempted but not sent. (Total of 89CCC: HDW + OVRLD + NM + NO-ID + AMBLK.)

w^1 = *Number of 89/CCC queries not sent because of the common network interface (CNI) ring was not available. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

x^1 = *Number of 89/CCC queries not sent because the switch had enforced query cutbacks according to automatic call gapping (ACG) controls received from the database. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

y^1 = *Number of 89/CCC queries not sent to the database because a cutback was in effect to accommodate a network management control measure. Network management cutbacks are implemented for a period of five seconds after a calling card query reply indicates network congestion, network failure, subsystem congestion or subsystem failure. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

z^1 = *Number of 89/CCC queries not sent to the data because a query ID was not available. The switch can handle 256 outstanding queries. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

a^2 = *Number of 89/CCC queries not sent to the database because of:

- Abnormal administrative module (AM) conditions.
- Abnormal communication link conditions between the switching module (SM) and AM.
- Switch data in the AM could not be read to determine the translation type parameter that is to be sent in the query to the signaling system 7 (SS7) network. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

b^2 = *Number of 89/CCC test queries sent to the CCS network.

c^2 = Number of abnormal 89/CCC replies received. These are queries that do not make it to the destined database and are returned by the network. (Total of 89CCC: RTEFA + ADDFA + SYSCONG + SYSFA + UNEQ + NWFA + NWCONG.)

d^2 = *Number of times the CCS network returned a service message in response to an 89/CCC query and the response indicated no translation for an address of such nature. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

e[2] = *Number of times the CCS network returned a service message in response to an 89/CCC query and the response indicated no translation for this specific address. This resulted in calling card denial on the call.

f[2] = *Number of times the CCS network returned a service message in response to an 89/CCC query and the response indicated subsystem congestion. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56. This also resulted in a five-second cutback of calling card queries that have a calling card number with the same issuer as the calling card number that resulted in the subsystem congestion response.

g[2] = *Number of times the CCS network returned a service message in response to an 89/CCC query and the response indicated subsystem failure. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56. This also resulted in a five-second cutback of calling card queries that have a calling card number with the same issuer as the calling card number that resulted in the subsystem failure response.

h[2] = *Number of times the CCS network returned a service message in response to a 89/CCC query and the response indicated unequipped user. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

i[2] = *Number of times the CCS network returned a service message in response to an 89/CCC query and the response indicated network failure. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56. This also resulted in a five-second cutback of calling card queries that have a calling card number with the same issuer as the calling card number that resulted in the network failure response.

j[2] = *Number of times the CCS network returned a service message in response to a 89/CCC query and the response indicated network congestion. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56. This also resulted in a five-second cutback of calling card queries that have a calling card number with the same issuer as the calling card number that resulted in the network congestion response.

k[2] = Number of 89/CCC replies received of all types. Total of 89CCC: UNEXP + INVFRMT + VLDFRMT.

l[2] = *Number of times an unexpected or duplicate query reply was received from the database. Replies for which the switch had timed out while waiting for them are also included.

m[2] = *Number of 89/CCC replies received in an invalid format where the reply was garbled in some manner or data fields did not conform to correct message syntax. Examples of such cases are:

- The value in the translation ID field was invalid.
- The component sequence ID field was invalid.
- The component type ID field was invalid.
- The length of the entire query response was longer than expected.
- The length of the TCAP message was longer than expected.
- The package type identifier field was invalid.
- The message type field was invalid.
- The response was a service message from the SS7 network and the service message type was not recognized.

n^2 = Number of times that the OSPS timed out waiting for an 89/CCC reply to a query from the database refer to the QUERY TIMEOUT parameter in RC/V View 27.56. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

o^2 = *Number of 89/CCC query replies from the database that contained an ACG component. All queries for calls that matched the first six digits of the affected billing number were potentially cutback as specified by the ACG control parameters. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

p^2 = Number of 10+4 calling card validation replies with a '`PSDI=4`' response from the validation database.

q^2 = Number of 89C/CCC card validation replies with a '`PSDI=4`' response from the validation database.

4. ACTION TO BE TAKEN

None.

The set of variables with '*' above represents the measurements collected in the direct link node (DLN). If the office is equipped with the DLN and the set of variables with '*' are zero, suggests that the DLN failed to report these variables and these variables are invalid for the reporting period.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PLNTMO
```

Other Manual(s):
235-070-100 *Switch Administration and Engineering Guidelines*

OP:PLNTMO-PT18-A

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTMO      PART 18
  TIME aa:aa:aa    b
  OSPS CAS MEASURES
  QUERIES
          ATMPT   SENT    NSENT   HDW
          c       d       e       f
          OVRLD   NM      NO-ID   AMBLK   TEST
          g       h       i       j       w
  ABNORMAL REPLIES
          ABNOR   NRTDG   CONGEST BLKD    UNEQ
          k       l       m       n       o
  DATABASE REPLIES RECEIVED
          TOTAL   NPROC   UNEXP   INVFRMT VFRMT
          p       q       r       s       t
  MISCELLANEOUS REPLIES
          TIMEOUT OVRLD
          u       v
```

2. REASON FOR OUTPUT

To print the current monthly plant report. If the report is automatically generated, it is a complete report for the previous month. If it is generated in response to a manual request, it contains only data accumulated since the previous automatic report. The monthly plant report is used to gather information on equipment performance, to evaluate the impact of troubles on customer service, and to calculate the performance index. The report contains data regarding customer account services (CAS) queries and replies.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Number of CAS queries in destination-routed common channel interoffice signaling 6 (DCIS6) format attempted. Equal to SENT + NSENT.

d = Number of calling card queries* in DCIS6 format sent to the CAS database. This excludes test queries.

e = Number of calling card queries in DCIS6 format that were attempted but not sent. Equal to HDW + OVRLD + NM + NO-ID + AMBLK.

f = Number of calling card queries* in DCIS6 format not sent to the CAS database because the common network interface (CNI) ring was not available. This resulted in the call's receiving

indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9 (OSPS OFFICE PARAMETERS).

g = Number of calling card queries* in DCIS6 format not sent to the CAS database because the switch had enforced query cutbacks according to call gapping controls received from the CAS database. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

h = Number of calling card queries* in DCIS6 format not sent to the CAS database because of network management cutbacks. Network management cutbacks are implemented for calling card queries for a period of 5 seconds after a calling card query reply indicates network congestion or network blockage. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

i = Number of calling card queries* in DCIS6 format not sent to the CAS database because a query ID was not available or was out of range due to an internal software error, where the range is 1-128. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

j = Number of calling card queries in DCIS6 format not sent to the CAS database because of abnormal administrative module (AM) conditions or abnormal communication link conditions between the switching module (SM) and AM. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

k = Number of abnormal calling card replies in DCIS6 format. Equal to NRTDG + CONGEST + BLKD + UNEQ.

l = Number of times an calling card query* failed to reach the CAS database because of no routing data in the network. A query reply from the common channel signaling (CCS) network indicated a failure reason of "no routing data". This resulted in call completion denial.

m = Number of times an calling card query* in DCIS6 format failed to reach the CAS database because of network congestion. A query reply from the CCS network indicated a failure reason of "network congestion." The result was cutback of subsequent calling card queries that had the same first three digits in the card account number as the account number that resulted in the network congestion reply. The cutbacks are in effect for a period of 5 seconds. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

n = Number of times an calling card query* in DCIS6 format failed to reach the CAS database because of network blockage. A query reply from the CCS network indicated a failure reason of "network blockage." The result was cutback of subsequent calling card queries that had the same first three digits in the card account number as the account number that resulted in the network blockage reply. The cutbacks are in effect for a period of 5 seconds. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

o = Number of times an calling card query* in DCIS6 format failed to reach the CAS database because the function was not equipped in the network. A query reply from the CCS network indicated a failure reason of "unequipped destination." This occurred when a query was sent to a destination that could not process CAS queries. This resulted in call completion denial.

p = Number of calling card replies received in DCIS6 format. Equal to NPROC + UNEXP + INVFRMT + VFRMT.

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q = Number of calling card query replies in DCIS6 format received from the CAS database indicating that the database was unable to process the query. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

r = Number of unexpected or duplicate calling card query replies* received from the CAS database.

s = Number of calling card query replies* in DCIS6 format received from the CAS database containing an invalid response in the message type field or the reply code field. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

t = Number of calling card query replies with a valid DCIS6 format. Equal to ALCALL + INVDC + INVPN + DOMRS + INTRS in section 110: TRFC30 OCAS.

u = Number of times the OSPS switch timed out waiting for a reply to a calling card query in DCIS6 format from the CAS database. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

v = Number of calling card replies* in DCIS6 format (received from the CAS database) containing an overload indicator that required the switch to cutback queries to the database. This resulted in CAS query cutbacks according to the call gapping parameters received in the reply. The call was given indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

w = Number of calling card test queries sent to the CCS network.

4. ACTION TO BE TAKEN

None.

The set of variables with '*' represents the measurements collected in the direct link node (DLN). If the office is equipped with the DLN and the set of variables with '*' are zero, suggests that the DLN failed to report these variables and these variables are invalid for the reporting period.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PLNTMO
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

RC/V View(s):

8.9 (OSPS OFFICE PARAMETERS)

OP:PLNTMO-PT18-B

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTMO      PART 18
  TIME aa:aa:aa    b
  OSPS CAS MEASURES
  QUERIES
          ATMPT   SENT    NSENT   HDW
          c       d       e       f
          OVRLD   NM      NO-ID   AMBLK   TEST
          g       h       i       j       w
  ABNORMAL REPLIES
          ABNOR   NRTDG   CONGEST BLKD    UNEQ
          k       l       m       n       o
  DATABASE REPLIES RECEIVED
          TOTAL   NPROC   UNEXP   INVFRMT VFRMT
          p       q       r       s       t
  MISCELLANEOUS REPLIES
          TIMEOUT OVRLD
          u       v
```

2. REASON FOR OUTPUT

To print the current monthly plant report. If the report is automatically generated, it is a complete report for the previous month. If it is generated in response to a manual request, it contains only data accumulated since the previous automatic report. The monthly plant report is used to gather information on equipment performance, to evaluate the impact of troubles on customer service, and to calculate the performance index. The report contains data regarding customer account services (CAS) queries and replies.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Number of CAS queries in destination-routed common channel interoffice signaling 6 (DCIS6) format attempted. Equal to SENT + NSENT.

d = Number of calling card queries* in DCIS6 format sent to the CAS database. This excludes test queries.

e = Number of calling card queries in DCIS6 format that were attempted but not sent. Equal to HDW + OVRLD + NM + NO-ID + AMBLK.

f = Number of calling card queries* in DCIS6 format not sent to the CAS database because the common network interface (CNI) ring was not available. This resulted in the call's receiving

indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9 (OSPS OFFICE PARAMETERS).

g = Number of calling card queries* in DCIS6 format not sent to the CAS database because the switch had enforced query cutbacks according to call gapping controls received from the CAS database. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

h = Number of calling card queries* in DCIS6 format not sent to the CAS database because of network management cutbacks. Network management cutbacks are implemented for calling card queries for a period of 5 seconds after a calling card query reply indicates network congestion or network blockage. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

i = Number of calling card queries* in DCIS6 format not sent to the CAS database because a query ID was not available or was out of range due to an internal software error, where the range is 1-128. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

j = Number of calling card queries in DCIS6 format not sent to the CAS database because of abnormal administrative module (AM) conditions or abnormal communication link conditions between the switching module (SM) and AM. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

k = Number of abnormal calling card replies in DCIS6 format. Equal to NRTDG + CONGEST + BLKD + UNEQ.

l = Number of times an calling card query* failed to reach the CAS database because of no routing data in the network. A query reply from the common channel signaling (CCS) network indicated a failure reason of "no routing data". This resulted in call completion denial.

m = Number of times an calling card query* in DCIS6 format failed to reach the CAS database because of network congestion. A query reply from the CCS network indicated a failure reason of "network congestion." The result was cutback of subsequent calling card queries that had the same first three digits in the card account number as the account number that resulted in the network congestion reply. The cutbacks are in effect for a period of 5 seconds. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

n = Number of times an calling card query* in DCIS6 format failed to reach the CAS database because of network blockage. A query reply from the CCS network indicated a failure reason of "network blockage." The result was cutback of subsequent calling card queries that had the same first three digits in the card account number as the account number that resulted in the network blockage reply. The cutbacks are in effect for a period of 5 seconds. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

o = Number of times an calling card query* in DCIS6 format failed to reach the CAS database because the function was not equipped in the network. A query reply from the CCS network indicated a failure reason of "unequipped destination." This occurred when a query was sent to a destination that could not process CAS queries. This resulted in call completion denial.

p = Number of calling card replies received in DCIS6 format. Equal to NPROC + UNEXP + INVFRMT + VFRMT.

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q = Number of calling card query replies in DCIS6 format received from the CAS database indicating that the database was unable to process the query. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

r = Number of unexpected or duplicate calling card query replies* received from the CAS database.

s = Number of calling card query replies* in DCIS6 format received from the CAS database containing an invalid response in the message type field or the reply code field. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

t = Number of calling card query replies with a valid DCIS6 format. Equal to ALCALL + INVDC + INVPN + DOMRS + INTRS in section 110: TRFC30 OCAS.

u = Number of times the OSPS switch timed out waiting for a reply to a calling card query in DCIS6 format from the CAS database. This resulted in the call's receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

v = Number of calling card replies* in DCIS6 format (received from the CAS database) containing an overload indicator that required the switch to cutback queries to the database. This resulted in CAS query cutbacks according to the call gapping parameters received in the reply. The call was given indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

w = Number of calling card test queries sent to the CCS network.

4. ACTION TO BE TAKEN

None.

The set of variables with '*' represents the measurements collected in the direct link node (DLN). If the office is equipped with the DLN and the set of variables with '*' are zero, suggests that the DLN failed to report these variables and these variables are invalid for the reporting period.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PLNTMO
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

RC/V View(s):

8.9 (OSPS OFFICE PARAMETERS)

OP:PLNTMO-PT19

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTMO   PART 19 b
  TIME aa:aa:aa

  ACP FOR SOFTWARE DEFINED NETWORKS

  ORIG    QUERY   OPLS
  c       d       e
```

2. REASON FOR OUTPUT

To print the current monthly plant report. If the report is automatically generated, it is a complete report for the previous month. If it is generated in response to a manual request, it contains only data accumulated since the previous automatic report.

The monthly plant report is used to gather information on equipment performance, to evaluate the impact of troubles on customer service, and to calculate the performance index. The report also contains data regarding originating, incoming, and outgoing calls, customer dialing irregularities and call setup troubles, and reflects the maintenance effect on traffic during the past month.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Total number of originating software defined network (SDN) services attempts.

d = Total number of SDN queries to database.

e = Total completed SDN services calls successfully outpulsed.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PLNTMO
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNTMO-PT21

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTMO   PART 21
  TIME aa:aa:aa       b
  LEASED NETWORK ACTION POINT
  ORIG    QUERY   OPLS
  c       d       e
```

2. REASON FOR OUTPUT

To print the current monthly plant report. If the report is automatically generated, it is a complete report for the previous month. If it is generated in response to a manual request, it contains only data accumulated since the previous automatic report.

The monthly plant report is used to gather information on equipment performance, to evaluate the impact of troubles on customer service, and to calculate the performance index. The report also contains data regarding originating, incoming, and outgoing calls, customer dialing irregularities and call setup troubles, and reflects the maintenance effect on traffic during the past month.

3. VARIABLE FIELD DEFINITIONS

`a` = Time when the report was prepared, in the form hours:minutes:seconds.

`b` = Status of data. Valid value(s):
`DATA IS VALID`
`DATA MAY BE INVALID`

`c` = Number of originating leased network (LN) services attempts.

`d` = Number of LN queries to database.

`e` = Number of completed LN services calls successfully outpulsed.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:PLNTMO`

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Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNTMO-PT22

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTMO      PART 22
  TIME aa:aa:aa    b
  OSPS INTERCEPT MEASURES
          CLS0    CLS1    CLS2    CLS3    CLS5    CLS6    CLS7    CLS8
          c       d       e       f       g       h       i       j
          NODB    OPLS    SRT     VERBQT
          k       l       m       n
          EXT     CUSTOM  FRAUD
    ANNC  o       p       q
```

2. REASON FOR OUTPUT

To print the current monthly plant report. If the report is automatically generated, it is a complete report for the previous month. If it is generated in response to a manual request, it contains only data accumulated since the previous automatic report.

The monthly plant report is used to gather information on equipment performance, to evaluate the impact of troubles on customer service, and to calculate the performance index.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Number of intercept calls with a class of 0 or a class determination of "automatic number identification (ANI) blank or unassigned number".

d = Number of intercept calls with a class of 1 or a class determination of "ANI Trouble" denoting customer's line is having problems.

e = Number of intercept calls with a class of 2 or a class determination of "ANI equipment failure to identify line number".

f = Number of intercept calls with a class of 3 or a class determination of "ANI regular", a regular intercept call.

g = Number of intercept calls with a class of 5 or a class determination of "concentrator spinoff".

h = Number of intercept calls with a class of 6 or a class determination of "operator number identification (ONI) regular".

i = Number of intercept calls with a class of 7 or a class determination of "ONI blank or unassigned number".

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j = Number of intercept calls with a class of 8 or a class determination of "ONI trouble".

k = Number of intercept calls that could not find information in the external information system (EIS) database. The EIS vendor supplies this information to the Operator Services Position System (OSPS) switch. This count may not be supported by all vendors.

l = Number of intercept calls outpulsed for call completion. This count includes the total number of both automated and non-automated intercept call completions after the call has been successfully routed to the forward number and digits outpulsed.

m = Number of intercept calls receiving split referral treatment. It is pegged when an EIS message is received to:

- Route an intercept call to an automated split referral announcement,
- Bill for an operator-provided split referral announcement. The EIS vendor supplies this information to the OSPS switch. This count may not be supported by all vendors.

n = Number of operator-assisted intercept calls receiving a verbal quote. The "listing access key" must be depressed to indicate to the EIS that billing applies to the service before sending a valid billing message to OSPS. The EIS vendor supplies this information to the OSPS switch and may not be supported by all vendors.

o = Number of intercept calls successfully routed to an external intercept announcement.

p = Not used.

q = Number of intercept calls receiving toll fraud announcements. The EIS vendor supplies this information to the OSPS switch and may not be supported by all vendors.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PLNTMO
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNTMO-PT23

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTMO      PART 23
  TIME aa:aa:aa    b
  OSPS CAS CCS7/ICCV SIGNALING MEASURES
  QUERIES
             ATMPT       SENT      NSENT       IPRB
    CAS7         c          d          e          f
    ICCV         j          k          l          m
             NO-ID      NMBLK      DBCBK
    CAS7         g          h          i
    ICCV         n          o
              TEST QUERIES SENT
    CAS7         p
    ICCV         q
  ABNORMAL REPLIES
             TOTAL      RTEFA      ADDFA    SYSCONG      SYSFA
    CAS7         r          s          t          u          v
    ICCV         w          x          y          z          a1
              UNEQ     NWCONG       NWFA     UNQUAL
    CAS7         b1         c1         d1         e1
    ICCV         f1         g1         h1         i1
  ERROR REPLIES
             TOTAL       UXDT     NOPARM     UXPARM      MSQRY
    CAS7         j1         k1         l1         m1         n1
    ICCV         o1         p1         q1         r1         s1
            TSKREF      VCODE    GATEWAY     DBUNAV     MSGFMT
    CAS7         t1         u1         v1
    ICCV                                         w1         x1
  VALID REPLIES
                TOTAL
    CAS7            y1
    ICCV            z1
  MISCELLANEOUS REPLIES
              REJ       ABORT    TIMEOUT    INITABN
    CAS7         a2         b2         c2         d2
    ICCV         h2         i2         j2         k2
            UNEXP     INVFRMT        ACG
    CAS7         e2         f2         g2
    ICCV         l2         m2
  CALL DISPOSITION MESSAGES
          UPDONLY     REQUEST    REPLIES
    CAS7         n2         o2         p2
    ICCV         q2
  VIRTUAL CARD
```

```
           QUERIES    REPLIES
                          ALW       DENY
                r2         s2         t2
 SPEED DIALING AUTOPROVISIONING
           FNCQRY     FNCALW     FNCDNY     SDLUPD     UPDALW     UPDDNY
                u2         v2         w2         x2         y2         z2
```

2. REASON FOR OUTPUT

To print the most recent 24-hour plant report section 23: Operator Services Position System (OSPS) customer account services (CAS) Common Channel Signaling System 7 (CCS7)/international credit card validation (ICCV) signaling measures, in response to either a manual or automatic request.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Number of CAS transaction capabilities application part (TCAP) database query attempts. Equal to (CAS7): SENT + NSENT.

d = Number of queries* sent from the OSPS to a card database where the query conforms to CAS TCAP signaling protocol. This excludes test queries.

e = Number of CAS TCAP queries not sent. Equal to (CAS7): IPRB + NO-ID + NMBLK + DBCBK.

f = Number of CAS TCAP queries* not sent because of OSPS internal problems (the administrative module (AM) or direct link node (DLN) is in an abnormal state, the common network interface (CNI) is not operational, or data could not be read successfully). The call received indeterminate treatment.

j = Number of ICCV International Telecommunications Union - Telecommunication Standardization Sector (ITU-TS) (formerly CCITT) TCAP database query attempts. Equal to (ICCV): SENT + NSENT.

k = Number of queries* sent from the OSPS to a card database where the query conforms to ICCV ITU-TS TCAP signaling protocol. This excludes test queries.

l = Number of ICCV ITU-TS TCAP queries not sent. Equal to (ICCV): IPRB + NO-ID + NMBLK.

m = Number of ICCV ITU-TS TCAP queries* not sent because of OSPS internal problems (the AM or DLN is in an abnormal state, the CNI is not operational, data could not be read successfully). The call received indeterminate treatment.

g = Number of CAS TCAP queries* not sent because a query ID was not available, or was out of range due to an internal software error. The call received indeterminate treatment.

h = Number of CAS TCAP queries* not sent because a cutback was in effect to accommodate a network management control measure - due to CCS7 network problems. The network management cutbacks are implemented for a period of 5 seconds after CAS CCS7 replies are received indicating network congestion, subsystem congestion, network failure, or subsystem failure. The call received

indeterminate treatment.

i = Number of CAS TCAP queries* not sent because the switch has enforced query cutbacks according to call gapping controls received from the CAS database. The call received indeterminate treatment.

n = Number of ICCV ITU-TS TCAP queries* not sent because a query ID was not available, or was out of range due to an internal software error, where the range is 0-455. The call received indeterminate treatment.

o = Number of ICCV ITU-TS TCAP queries* not sent because a cut back was in effect to accommodate a network management control measure - due to CCS7 network problems. The network management cut backs are implemented for a period of 5 seconds after CAS CCS7 replies are received indicating network congestion, subsystem congestion, network failure, or subsystem failure. The call received indeterminate treatment.

p = Number of CAS TCAP test queries that are sent by maintenance personnel (this does NOT include any replies to the test queries).

q = Number of ICCV ITU-TS TCAP test queries that are sent by maintenance personnel (this does NOT include any replies to the test queries).

r = Number of abnormal CAS TCAP replies received. Equal to (CAS7): RTEFA + ADDFA + SYSCONG + SYSFA + UNEQ + NWCONG + NWFA + UNQUAL.

s = Number of CAS TCAP unit data service messages* received with a diagnostic reason of "No translation data for an address of such nature". The call received indeterminate treatment.

t = Number of CAS TCAP unit data service messages* received with a diagnostic reason of "No translation data for this specific address". The call received denial treatment.

u = Number of CAS TCAP unit data service messages* received with a diagnostic reason of "Subsystem congestion". All subsequent CAS CCS7 queries with the same routing destinations were cut back for a period of 5 seconds. This call and subsequent calls that were cut back received indeterminate treatment.

v = Number of CAS TCAP unit data service messages* received with a diagnostic reason of "Subsystem failure". All subsequent CAS CCS7 queries with the same routing destinations were cut back for a period of 5 seconds. This call and subsequent calls that were cut back received indeterminate treatment.

w = Number of abnormal ICCV ITU-TS TCAP replies received. Equal to (ICCV): RTEFA + ADDFA + SYSCONG + SYSFA + UNEQ + NWCONG + NWFA + UNQUAL.

x = Number of ICCV ITU-TS TCAP unit data service messages* received with a diagnostic reason of "No translation data for an address of such nature". The call received indeterminate treatment.

y = Number of ICCV ITU-TS TCAP unit data service messages* received with a diagnostic reason of "No translation data for this specific address". The call received denial treatment.

z = Number of ICCV ITU-TS TCAP unit data service messages* received with a diagnostic reason of "Subsystem congestion". All subsequent ICCV queries with the same routing destinations were cut back for a period of 5 seconds. This call and subsequent calls that were cut back received indeterminate treatment.

a[1] = Number of ICCV ITU-TS TCAP unit data service messages* received with a diagnostic reason of "Subsystem failure". All subsequent ICCV queries with the same routing destinations were cut back for a period of 5 seconds. This call and subsequent calls that were cut back received indeterminate treatment.

b[1] = Number of CAS TCAP unit data service messages* received with the diagnostic reason of "Unequipped user". The call received denial treatment.

c[1] = Number of CAS TCAP unit data service messages* received with the diagnostic reason of "Network congestion". All subsequent CAS CCS7 queries with the same routing destinations were cut back for a period of 5 seconds. This call and subsequent calls that were cut back received indeterminate treatment.

d[1] = Number of CAS TCAP unit data service messages* received with the diagnostic reason of "Network failure". All subsequent CAS CCS7 queries with the same routing destinations were cut back for a period of 5 seconds. This call and subsequent calls that were cut back received indeterminate treatment.

e[1] = Number of CAS TCAP unit data service messages* received with the diagnostic reason of "Unqualified". The call received indeterminate treatment.

f[1] = Number of ICCV ITU-TS TCAP unit data service messages* received with the diagnostic reason of "Unequipped user". The call received denial treatment.

g[1] = Number of ICCV ITU-TS TCAP unit data service messages* received with the diagnostic reason of "Network congestion". All subsequent ICCV queries with the same routing destinations were cut back for a period of 5 seconds. This call and subsequent calls that were cut back received indeterminate treatment.

h[1] = Number of ICCV ITU-TS TCAP unit data service messages* received with the diagnostic reason of "Network failure". All subsequent CAS CCS7 queries with the same routing destinations were cut back for a period of 5 seconds. This call and subsequent calls that were cut back received indeterminate treatment.

i[1] = Number of ICCV ITU-TS TCAP unit data service messages* received with the diagnostic reason of "Unqualified". The call received indeterminate treatment.

j[1] = Total number of CAS TCAP return error replies received. Equal to (CAS7): UXDT + NOPARM + UXPARM + MSQRY + TSKREF + VCODE + GATEWAY.

k[1] = Number of CAS TCAP return error replies received with an error code of "Unexpected Input Data Value", signifying that the query contained unexpected data. The call received indeterminate treatment.

l[1] = Number of CAS TCAP return error replies received with an error code of "Missing Parameter", signifying that a mandatory parameter was missing from the query. The call received indeterminate treatment.

m[1] = Number of CAS TCAP return error replies received with an error code of "Unexpected Parameter", signifying that an unrecognized parameter was contained in the query. The call received indeterminate treatment.

n[1] = Number of CAS TCAP return error replies received with an error code of "Misrouted Query", signifying that the database has determined that the card number contained in the query is not within the range expected. The call received indeterminate treatment.

o[1] = Total number of ICCV ITU-TS TCAP return error replies received. Equal to (ICCV): UXDT + NOPARM + UXPARM + MSQRY + DBUNAV + MSGFMT.

p[1] = Number of ICCV ITU-TS TCAP return error replies received with an error code of "Unexpected Input Data Value", signifying that the query contained unexpected data. The call received indeterminate treatment.

q[1] = Number of ICCV ITU-TS TCAP return error replies received with an error code of "Missing Parameter", signifying that a mandatory parameter was missing from the query. The call received indeterminate treatment.

r[1] = Number of ICCV ITU-TS TCAP return error replies received with an error code of "Unexpected Parameter", signifying that an unrecognized parameter was contained in the query. The call received indeterminate treatment.

s[1] = Number of ICCV ITU-TS TCAP return error replies received with an error code of "Misrouted Query", signifying that the database has determined that the card number contained in the query is not within the range expected. The call received indeterminate treatment.

t[1] = Number of CAS TCAP return error replies received with an error code of "Task Refused", signifying that the node could not handle the request at this time. The call received indeterminate treatment.

u[1] = Number of CAS TCAP return error replies received with an error code of "Vacant Code", signifying that the database has determined that the card number contained in the query has not been assigned. The call is denied.

v[1] = Number of CAS TCAP return error replies received with an error code of "Gateway Error", signifying that communication with a commercial credit card vendor was unsuccessful. The call received indeterminate treatment.

w[1] = Number of ICCV ITU-TS TCAP return error replies received with an error code of "Database Unavailable", signifying that the database could not handle the request at this time (not because the operation was incorrect). The call received indeterminate treatment.

x[1] = Number of ICCV ITU-TS TCAP return error replies received with an error code of "Error in Message Format", signifying that the structure of the query is not what was expected. The call received indeterminate treatment.

y[1] = Total valid CAS TCAP replies received, regardless of the calling card used. Refer to the OP:TRFC30-OCAS7 output message for further description of this field.

z[1] = Total valid ICCV ITU-TS TCAP replies received. Refer to the OP:TRFC30-OCAS7 output message for further description of this field.

a[2] = Number of CAS TCAP "Reject" components* received in response to a card validation query. The call received indeterminate treatment.

b[2] = Number of CAS TCAP U-abort or P-abort messages* received. The call received indeterminate treatment.

c[2] = Number of times the query timer expired before receipt of a CAS TCAP database reply. The call received indeterminate treatment.

d[2] = Number of CAS TCAP queries initiated, then abandoned. The condition occurs if the call is

canceled or the class of charge is changed after a query has been sent but before a reply was received. When the reply was received, it was ignored.

e[2] = Number of CAS TCAP replies* received that were not expected. The replies were ignored. They could be late or duplicate responses.

f[2] = Number of CAS TCAP database replies* received in invalid format. It includes data field values, as well as invalid TCAP format. The reply was dropped and the call received indeterminate treatment.

g[2] = Number of CAS TCAP replies* received with an automatic call gapping (ACG) component. All CAS SS7 queries to the same destination were gapped according to the received information. The call received appropriate treatment according to the response. Subsequent calls that were cut back due to these gapping controls received indeterminate treatment.

h[2] = Number of ICCV ITU-TS TCAP "Reject" components* received in response to a card validation query. The call received indeterminate treatment.

i[2] = Number of ICCV ITU-TS TCAP U-abort or P-abort messages* received. The call received indeterminate treatment.

j[2] = Number of times the query timer expired before receipt of an ICCV ITU-TS TCAP database reply. The call received indeterminate treatment.

k[2] = Number of ICCV ITU-TS TCAP queries initiated, then abandoned. The condition occurs if the call is canceled or the class of charge is changed after a query has been sent but before a reply was received. When the reply was received, it was ignored.

l[2] = Number of ICCV ITU-TS TCAP replies received* that were not expected. The replies were ignored. They could be late or duplicate responses.

m[2] = Number of ICCV ITU-TS TCAP database replies received* in invalid format. It includes data field values, as well as invalid TCAP format. The reply was dropped and the call received indeterminate treatment.

n[2] = Number of CAS update-only call disposition messages* (UO-CDMs) that have been sent to the card database.

o[2] = Number of CAS TCAP request for more balance call disposition messages (RFMB-CDMs)* that have been sent to the card database for purchase limit (PL) and/or duration limit (DL) calls, including RFMB-CDMs sent before setting up the call as well as those sent after the call has been set up.

p[2] = Number of replies to CAS RFMB-CDMs* received from the card database, regardless of whether the reply is a "grant or a "deny".

q[2] = Number of ICCV UO-CDMs* that have been sent to the card database.

r[2] = Total number of virtual card format (VCF) validation queries made.

s[2] = Total number of VCF validation replies received with an "allow call" response from a VCF validation query.

t[2] = Total number of VCF validation replies received with a response of "missing customer record", "invalid PIN", or "vacant code" from a VCF validation query.

u[2] = Total number of forward number check (FNC) messages sent by the OSPS.

v[2] = Total number of allow replies received to the FNC query, with a reply code of "Allow Call - Valid Speed Call Number".

w[2] = Total number of deny replies received to the FNC query, with a reply code of "Deny Call - Invalid Speed Call Number".

x[2] = Total number of speed dial list (SDL) update requests sent by the OSPS.

y[2] = Total number of allow replies received in response to the SDL update.

z[2] = Total number of deny replies received in response to the SDL update.

4. ACTION TO BE TAKEN

None.

The set of variables with '*' represents the measurements collected in the direct link node (DLN). If the office is equipped with the DLN and the variables with '*' are zero, this suggests that the DLN failed to report these variables and these variables are invalid for the reporting period.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PLNTMO
```

Output Message(s):

```
OP:TRFC30-OCAS7
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNTMO-PT25

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTMO    PART 25    ISDN USER PART OFFICE TOTALS
  TIME aa:aa:aa           b

          CONF_IN   CONF_OUT     PEC_IN    PEC_OUT
                c          d          e          f

          UUI_DIS    ATP_DIS
                g          h
```

2. REASON FOR OUTPUT

To print the current monthly plant report. If the report is automatically generated, it is a complete report for the previous month. If it is generated in response to a manual request, it contains only data accumulated since the previous automatic report.

The monthly plant report is used to gather information on equipment performance, to evaluate the impact of troubles on customer service, and to calculate the performance index. The report also contains data regarding originating, incoming, and outgoing calls, customer dialing irregularities and call setup troubles, and reflects the maintenance effect on traffic during the past month.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Number of incoming ISDN user part (ISUP) confusion messages.

d = Number of outgoing ISUP confusion messages.

e = Number of incoming ISUP messages having a cause value = 6 (protocol error class).

f = Number of outgoing ISUP messages having a cause value = 6 (protocol error class).

g = Number of ISUP user-to-user (UUI) parameters discarded due to length considerations, including ISUP length violations.

h = Number of ISUP access transport (ATP) parameters discarded due to length considerations, including ISUP length violations.

4. ACTION TO BE TAKEN

None.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PLNTMO
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNTMO-PT28

Software Release: 5E10 and later
Message Class: PM
Application: 5
Type: Output

1. FORMAT

```
OP PLNTMO      PART 28
  TIME aa:aa:aa    b
  OSPS ICCV MEASURES BY FOREIGN DATA BASE
          DB      QUERIES VALID    INVALID   QUERIES   UNIDIRECT
          LABEL   SENT    REPLIES  REPLIES   TIMEOUT   MESSAGES
          c       d       e        f         g         h
          .       .       .        .         .         .
          .       .       .        .         .         .
          .       .       .        .         .         .
```

2. REASON FOR OUTPUT

To print the current monthly plant report part 28. If the report is automatically generated, it is a complete report for the previous month. If it is generated in response to a manual request, it contains only data accumulated since the previous automatic report.

The report contains data regarding Operator Services Position System (OSPS) international credit card validation (ICCV) queries sent, valid replies received, invalid replies received, queries timed out, and unidirectional messages generated during the previous month.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = OSPS ICCV database label.

d = Number of ICCV queries sent.

e = Number of valid ICCV end messages received.

f = Number of ICCV unsuccessful replies received.

g = Number of queries that timed out after a query was sent.

h = Number of ICCV call disposition messages generated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

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None.

6. REFERENCES

Input Message(s):

```
OP:PLNTMO
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNTMO-PT29-A

Software Release: 5E10 only
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTMO PART 29
  TIME aa:aa:aa   b
    OSPS AT&T LAC SIGNALING MEASURES
    QUERIES
             ATMPT       SENT      NSENT        HDW      OVRLD
                 c          d          e          f          g
                NM      NO_ID        CDM       TEST
                 h          i          j          k
    ABNORMAL REPLIES
             TOTAL      RTEFA    SYSCONG     NWCONG       UNEQ
                 l          m          n          o          p
             SYSFA      ADDFA       NWFA     UNQUAL
                 q          r          s          t
    MISCELLANEOUS REPLIES
             ABORT    TIMEOUT      ABAND      UNEXP
                 u          v          w          x
           INVFRMT        ACG
                 y          z
    CALLING CARD VALIDATION MEASUREMENTS
            REJECT
                a1
    BNS VALIDATION MEASUREMENTS
            REJECT
                b1
    NAI SPECIFIC MEASUREMENTS
              SENT     REJECT
                c1         d1
```

2. REASON FOR OUTPUT

To print the current monthly plant report part 29: Operator Services Position System (OSPS) line applications for consumers (OLAC) signaling measures, in response to either a manual or automatic request. If the report is automatically generated, it is a complete report for the previous month. If it is generated in response to a manual request, it contains only data accumulated since the previous automatic report.

3. VARIABLE FIELD DEFINITIONS

Note: The set of variables with an asterisk (*) represents the measurements collected in the direct link node (DLN), if a DLN is present.

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = The total number of query attempts from the OSPS to a database. This variable is equal to the sum of variables 'd' and 'e'.

d = * The number of queries sent from the OSPS to a database.

e = The number of queries not sent from the OSPS to a database. This variable is equal to the sum of variables 'f', 'g', 'h', and 'i'.

f = * The number of queries not sent because of OSPS hardware problems including administrative module (AM) overload or other internal problems.

g = * The number of queries not sent because a cutback was in effect to accommodate a database overload as indicated by the automatic call gapping (ACG) parameter in the reply.

h = * The number of queries not sent because of common channel signaling (CCS) network problems.

i = * The number of queries not sent because a query ID was not available.

j = * The number of intermediate call disposition messages (CDM) and end CDMs generated.

k = The number of test queries that are initiated by maintenance personnel. This does not include any replies to the test query.

l = The total number of abnormal network replies received. These were queries that did not reach the destined database and were returned by the network. This variable is equal to the sum of variables 'm', 'n', 'o', 'p', 'q', 'r', 's', and 't'.

m = * The number of *ANSI*® and transaction capabilities application part (TCAP) replies of no translation data for an address of such nature.

n = * The number of *ANSI*® and TCAP replies of subsystem congestion.

o = * The number of *ANSI*® and TCAP replies of network congestion.

p = * The number of *ANSI*® and TCAP replies of unequipped user.

q = * The number of *ANSI*® and TCAP replies of subsystem failure.

r = * The number of *ANSI*® and TCAP replies of no translation data for this specific address.

s = * The number of *ANSI*® and TCAP replies of network failure.

t = * The number of TCAP replies of unqualified.

u = * The number of queries that were initiated then aborted as a result of the OSPS receiving either a U-abort or P-abort from the network.

v = * The number of times a number 2 line applications for consumers (2LAC) query was initiated and a reply, indeterminate reply, or abnormal reply was not received by the OSPS before the timing parameter was exceeded.

w = The number of 2LAC queries that were initiated then abandoned.

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x = * The number of unexpected replies received by the OSPS when the OSPS has timed out while waiting for a reply, or a query was not sent but a reply was received.

y = * The number of "error in message format" replies received from the 2LAC in TCAP.

z = * The number of replies that contained an ACG overload indicator component.

a[1] = The number of calling card reject errors received from a card database.

b[1] = The number of times a reject error was received in response to a billed number screening (BNS) query.

c[1] = * The number of attempts that qualify for network access interrupt (NAI) processing and resulted in a query being sent to the 2LAC.

d[1] = * The number of reject error replies received.

4. ACTION TO BE TAKEN

None.

If the office is equipped with the DLN and this set of variables are zero, this suggests that DLN failed to report these variables and these variables are invalid for the reporting period. These measurements will be scored on the administrative module (AM) if DLN is not present.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PLNTMO
```

Output Message(s):

```
Other Manual(s):
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNTMO-PT29-B

Software Release: 5E11 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTMO PART 29
  TIME aa:aa:aa   b
  OSPS LAC & LNP TCAP SIGNALING MEASURES
  QUERIES
                ATMPT       SENT      NSENT        HDW      OVRLD
    LAC             c          d          e          f          g
    LNP             e1         f1         g1         h1         i1
                   NM      NO_ID        CDM       TEST
    LAC             h          i          j          k
    LNP             j1         k1                    l1
  ABNORMAL REPLIES
                TOTAL      RTEFA      SCONG     NWCONG       UNEQ
    LAC             l          m          n          o          p
    LNP             m1         n1         o1         p1         q1
                SYSFA      ADDFA       NWFA     UNQUAL
    LAC             q          r          s          t
    LNP             r1         s1         t1         u1
  MISCELLANEOUS REPLIES
                ABORT    TIMEOUT      ABAND      UNEXP
    LAC             u          v          w          x
    LNP             v1         w1         x1         y1
              INVFRMT        ACG
    LAC             y          z
    LNP             z1         a2
  CALLING CARD VALIDATION MEASUREMENTS
          REJECT
               a1
  BNS VALIDATION MEASUREMENTS
          REJECT
               b1
  NAI SPECIFIC MEASUREMENTS
            SENT     REJECT
               c1         d1
  LNP SPECIFIC MEASUREMENTS
          REJECT      ERROR
               b2         c2
```

2. REASON FOR OUTPUT

To print the current monthly plant report part 29: Operator Services Position System (OSPS) line applications for consumers (OLAC) signaling measures and local number portability (LNP) signaling measures, in response to either a manual or automatic request. If the report is automatically generated, it is a complete report for the previous month. If it is generated in response to a manual request, it contains only data accumulated since the previous automatic report.

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3. VARIABLE FIELD DEFINITIONS

Note: The set of variables with an asterisk (*) represents the measurements collected in the direct link node (DLN), if a DLN is present.

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = The total number of LAC query attempts from the OSPS to a database. This variable is equal to the sum of variables 'd' and 'e'.

d = * The number of LAC queries sent from the OSPS to a database.

e = The number of LAC queries not sent from the OSPS to a database. This variable is equal to the sum of variables 'f', 'g', 'h', and 'i'.

f = * The number of LAC queries not sent because of OSPS hardware problems including administrative module (AM) overload or other internal problems.

g = * The number of LAC queries not sent because a cutback was in effect to accommodate a database overload as indicated by the automatic call gapping (ACG) parameter in the reply.

e^1 = The total number of LNP query attempts. This variable is equal to the sum of variables 'f^1' and 'g^1'.

f^1 = * The number of LNP queries sent.

g^1 = The number of LNP queries not sent. This variable is equal to the sum of variables 'h^1', 'i^1', 'j^1', and 'k^1'.

h^1 = * The number of LNP queries not sent because of OSPS hardware problems including AM overload, CNI ring (including DLN) down, or other internal problems.

i^1 = * The number of LNP queries not sent because a cutback was in effect to accommodate a database overload as indicated by the ACG parameter in the reply.

h = * The number of LAC queries not sent because of common channel signaling (CCS) network problems.

i = * The number of LAC queries not sent because a query ID was not available.

j = * The number of LAC intermediate call disposition messages (CDM) and end CDMs generated.

k = The number of LAC test queries that are initiated by maintenance personnel. This does not include any replies to the test query.

j^1 = * The number of LNP queries not sent because of CCS network problems.

k^1 = * The number of LNP queries not sent because a query ID was not available.

l^1 = The number of LNP test queries that are initiated by maintenance personnel. This does not

include any replies to the test query.

l = The total number of LAC abnormal network replies received. These were LAC queries that did not reach the destined database and were returned by the network. This variable is equal to the sum of variables 'm', 'n', 'o', 'p', 'q', 'r', 's', and 't'.

m = * The number of *ANSI*® and transaction capabilities application part (TCAP) replies of no translation data for an address of such nature.

n = * The number of *ANSI*® and TCAP replies of subsystem congestion.

o = * The number of *ANSI*® and TCAP replies of network congestion.

p = * The number of *ANSI*® and TCAP replies of unequipped user.

m^1 = The total number of abnormal network LNP replies received. These were LNP queries that did not reach the destined database and were returned by the network. This variable is equal to the sum of variables 'n^1', 'o^1', 'p^1', 'q^1', 'r^1', 's^1', 't^1', and 'u^1'.

n^1 = * The number of LNP replies of no translation data for an address of such nature.

o^1 = * The number of LNP replies of subsystem congestion.

p^1 = * The number of LNP replies of network congestion.

q^1 = * The number of LNP replies of unequipped user.

q = * The number of *ANSI*® and TCAP replies of subsystem failure.

r = * The number of *ANSI*® and TCAP replies of no translation data for this specific address.

s = * The number of *ANSI*® and TCAP replies of network failure.

t = * The number of TCAP replies of unqualified.

r^1 = * The number of LNP replies of subsystem failure.

s^1 = * The number of LNP replies of no translation data for this specific address.

t^1 = * The number of LNP replies of network failure.

u^1 = * The number of LNP replies of unqualified.

u = * The number of LAC queries that were initiated then aborted as a result of the OSPS receiving either a U-abort or P-abort from the network.

v = * The number of times a number 2 line applications for consumers (2LAC) query was initiated and a reply, indeterminate reply, or abnormal reply was not received by the OSPS before the timing parameter was exceeded.

w = The number of 2LAC queries that were initiated then abandoned.

x = * The number of LAC unexpected replies received by the OSPS when the OSPS has timed out while waiting for a reply, or a query was not sent but a reply was received.

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v^1 = * The number of LNP queries that were initiated then aborted as a result of the OSPS receiving either a U-abort or P-abort from the network.

w^1 = * The number LNP queries that timed out because no reply (normal or abnormal) was received before the timing parameter was exceeded.

x^1 = The number of LNP queries that were initiated then abandoned (canceled by call processing because of caller abandon or operator action).

y^1 = * The number of unexpected LNP replies received because the OSPS has timed out while waiting for a reply; or, a query was not sent but a reply was received.

y = * The number of "error in message format" replies received from the 2LAC in TCAP.

z = * The number of LAC replies that contained an ACG overload indicator component.

z^1 = * The number of LNP replies received in which the OSPS detected an invalid message format.

a^2 = * The number of LNP replies that contained an ACG overload indicator component.

a^1 = The number of calling card reject errors received from a card database.

b^1 = The number of times a reject error was received in response to a billed number screening (BNS) query.

c^1 = * The number of attempts that qualify for network access interrupt (NAI) processing and resulted in a query being sent to the 2LAC.

d^1 = * The number of NAI reject error replies received.

b^2 = The number of reject error LNP replies received.

c^2 = The number of LNP replies with a return error other than "not portable". This includes "unexpected data value", "task refused", "missing parameter", and "unexpected parameter."

4. ACTION TO BE TAKEN

None.

If the office is equipped with the DLN and this set of variables are zero, this suggests that DLN failed to report these variables and these variables are invalid for the reporting period. These measurements will be scored on the administrative module (AM) if DLN is not present.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PLNTMO
```

Output Message(s):

```
Other Manual(s):
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:PLNTMO-PT30

Software Release: 5E12 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP PLNTMO PART 30
  TIME aa:aa:aa
  OSPS OLNS MEASURES
  QUERIES
     SENT    NSENT   HDW     OVRLD   NM      NO_ID   AMBLK   TEST
     b       c       d       e       f       g       h       i
  REPLIES
     ABNOR   RTEFA   ADDFA   SYSCONG SYSFA   UNEQ    NWFA    NWCONG
     j       k       l       m       n       o       p       q
     TOTAL   UNEXP   INVFRMT TIMEOUT
     r       s       t       u
     MSGRP   NPRTGRP NONWKRS REJECT  ABAND
     v       w       x       y       z
     VALID   NOT-FND  NORRSP
     a1      b1      c1
```

2. REASON FOR OUTPUT

To print the current monthly plant report part 30: Operator Services Position System (OSPS) originating line number screening (OLNS) measures in response to either a manual or automatic request. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

Note: A variable with '*' in the definition represents a measurement that is collected in the direct link node (DLN) when a DLN is present. If the office is equipped with the DLN and the set of variables with '*' are zero, this suggests that DLN failed to report these variables and these variables are invalid for the reporting period. These measurements will be scored on the administrative module (AM) if DLN is not present.

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = *Number of OLNS queries sent

c = Number of OLNS queries attempted but not sent.

d = *Number of OLNS queries not sent to the database because the CNI ring was not available.

e = *Number of OLNS queries not sent because of ACG control cutback.

f = *Number of OLNS queries not sent to the database because of network management control cutback.

g = *Number of OLNS queries not sent to the database because query ID not available.

h = *Number of OLNS queries not sent to the database because AM conditions.

i = Number of OLNS test queries.

j = Number of OLNS total abnormal query replies.

k = *Number of OLNS abnormal query replies because of address of such nature.

l = *Number of OLNS abnormal query replies because of no translation for this address.

m = *Number of OLNS abnormal query replies because of subsystem congestion.

n = *Number of OLNS abnormal query replies because of subsystem failure.

o = *Number of OLNS abnormal query replies because of unequipped user.

p = * Number of OLNS abnormal query replies because of network failure.

q = *Number of OLNS abnormal query replies because of network congestion.

r = *Number of total OLNS replies received.

s = *Number of unexpected query replies.

t = *Number of query replies with invalid format.

u = Number of queries that timed out waiting for a query reply.

v = Number of error messages returned from the database because of missing group or misrouted.

w = Number of error messages returned from the database because of nonparticipating group.

x = Number of error messages returned from the database because of unavailable network resources.

y = Number of reject messages received.

z = Number of queries that were aborted due to customer abandonment or operator change of billing type.

a[1] = Number of total valid format query replies.

b[1] = Number of error messages returned from the database because of unexpected data value or vacant group.

c[1] = Number of query responses received from the database indicating that a record for the data contained in the query was found in the database.

4. ACTIONS TO BE TAKEN

None.

If the office is equipped with the DLN and this set of variables are zero, this suggests that DLN failed to report these variables and these variables are invalid for the reporting period. These measurements will be scored on the administrative module (AM) if DLN is not present.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PLNTMO
```

Other Manual(s):

235-070-100 *Switch Administration Guidelines*

OP:PM-A

Software Release: 5E10 - 5E11
Message Class: SPM
Application: 5
Type: Output

1. FORMAT

[1]

```
OP PM
 [DSLGM=a-b-c PORT=a-d e CH=p [q] x]
 [SES=y zz/zz a1a1:a1a1:a1a1 b1b1/b1b1 c1c1:c1c1:c1c1 OFFSET=d1 DUR=e1]
 [PROT=f1 TRIGLVL=g1 {TRIGVAL=h1|PER[=i1]} DIR=j1 RECLVL=k1]
 {XLATE|NO XLATE} [STATE=l1]
 [ATF=m1] [PMCFF=n1]
```

[2]

```
OP PM o1
 [SES=y b1b1/b1b1 c1c1:c1c1:c1c1]
```

2. REASON FOR OUTPUT

To respond to a manual request to output a list of active protocol monitoring (PM) sessions.

Before a response is made, the information for active PM sessions is verified. If this verification determines that a session's data has been corrupted, the PM session will abort without printing any session information. Format 1 displays all pertinent information for active PM sessions. Format 2 provides the status (that is, aborted, completed, not started) of the request to list active PM sessions.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`NO XLATE` = The hexadecimal output for this session will not be translated through the protocol monitoring translator.

`PER` = Trigger value that terminated the recording session was a protocol error record (PER) occurring on the channel being recorded. Refer to the Protocol Error Record Descriptions manual for additional information about a specific PER.

`XLATE` = The protocol monitoring translator has been invoked for this session. The output will be translated into an American standard code for information interchange (ASCII) file.

`a` = Switching module (SM) number.

`b` = Protocol handler (PH) channel group number.

`c` = PH channel member number.

`d` = Logical port number.

`e` = The equipment number identifier.
Note: If the port is associated with an X.75' trunk or an extended digital subscriber line

(EDSL), then the digital equipment number (DEN) is used. If the port is associated with a digital network unit - SONET (DNU-S) then the networking equipment number (NEN) is used. If the port is associated with an embedded operation channel (EOC) or timeslot management channel (TMC), then the EOC or TMC equipment number is used. Otherwise, the line card equipment number (LCEN), line circuit equipment number (LCKEN), or integrated digital carrier unit (IDCU) line equipment number (ILEN) is used.

Valid value(s):

DEN=a-f-g-h
EOC=a-l-m-o
ILEN=a-l-m-n
LCEN=a-i-j-k
LCKEN=a-p^1-q^1-r^1-s^1
NEN=a-t^1-u^1-v^1-w^1-x^1
TMC=a-l-m-o

f = Digital line and trunk unit (DLTU) number.

g = Digital facility interface number.

h = Digital channel number.

i = Integrated services line unit number.

j = Line group controller number.

k = Line card number.

l = Integrated digital carrier unit number.

m = Remote terminal number.

n = Channel unit number.

o = Primary/protection identifier.

p = Channel (CH) being monitored. Valid value(s):

D	= D-channel.
B1	= B1-channel.
B2	= B2-channel.

q = Port services identifier.

Note: This field will be blank if the port does not have a unique port services identifier.

Valid value(s):

DN=r
MLHG=s-t
PKTDN=u
TKGMN=v-w

r = The DN associated with a channel of a digital subscriber line (DSL).

s = Multi-line hunt group number.

t = Multi-line hunt group member number.

u = The DN associated with a packet-switched channel of a DSL.

v = Trunk group number.

w = Trunk group member number.

x = Service characteristic identifier of DSL channel. Valid value(s):

ODP	= On-demand packet.
PPD	= Permanent packet D.
PPB	= Permanent packet B.

y = The value of the session identifier (SES) for this monitoring session.

z = The date-stamp of the beginning of the monitoring session, in the form month/day.

a[1] = The time-stamp of the beginning of the monitoring session, in the form hours:minutes:seconds.

b[1] = The current date-stamp for the monitoring session, in the form month/day.

c[1] = The current time-stamp for the monitoring session, in the form hours:minutes:seconds.

d[1] = The offset (OFFSET) for the number of frames that will be recorded after detection of the trigger event.

e[1] = The duration (DUR) for the recording session in seconds.

f[1] = Protocol (PROT) monitored. Valid value(s):

LAPD	= The LAPD protocol.
LAPB	= The LAPB protocol.
Q931	= The Q.931 protocol.
X25	= The X.25 protocol.
X75P	= The X.75' protocol.
V120	= The V.120 protocol.
TMC	= The TMC protocol.

g[1] = Trigger level (TRIGLVL). Valid value(s):

LAPD	= The trigger level is the LAPD protocol.
LAPB	= The trigger level is the LAPB protocol.
Q931	= The trigger level is the Q.931 protocol.
X25	= The trigger level is the X.25 protocol.
X75P	= The trigger level is the X.75' protocol.
V120	= The trigger level is the V.120 protocol.
TMC	= The trigger level is the TMC protocol.
IDLC	= The trigger level is the IDLC protocol.
ATS	= The trigger level is the automated test system (ATS) protocol.

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h[1] = TRIGVAL that terminated the recording session. Refer to the EXC:PM input manual page for a complete list of trigger values.

i[1] = Specific trigger value that terminated the recording session (a single PER occurring on the channel being recorded). Refer to the Protocol Error Record Descriptions manual.

j[1] = Direction (DIR) of frame/packet/message to triggered on. Valid value(s):
`RCV` = Triggered on frame/packet/message received by the switch from the customer premises equipment (CPE).
`XMT` = Triggered on frame/packet/message transmitted from the switch to the CPE.

k[1] = The protocol level recorded (RECLVL). Valid value(s):
`LEVEL2` = Recorded all layer 2 frames.
`LEVEL3` = Recorded only the layer 3 packets/messages.

l[1] = State of the protocol monitoring session. Valid value(s):
`ABORTED` = The session has aborted.
`DATA RETRIEVAL` = The recording of data has completed and is being processed for output.
`DURATION TIMEOUT` = The duration timer has fired. Waiting for session output.
`RECORD COMPLETED` = The session has completed normally.
`RECORDING` = The session is recording data and the trigger has not yet fired.
`STOP NO DUMP` = The session has been manually terminated. The collected data will be discarded. No translation or dump of hexadecimal data will occur.
`STOP WITH DUMP` = The session has been manually terminated with either translation or dump of the output data.
`TRANSLATING` = The hexadecimal data collected during the session is being translated into an ASCII format.
`TRIGGER FIRED` = The trigger of the session has fired.
`WAIT DUMP ACK` = A manual request has been made to terminate the session with translation or dump. Awaiting response from the switch.
`WAIT STOP ACK` = A manual request has been made to terminate the session without translation or dump. Awaiting response from the switch.

m[1] = The ASCII translation file (ATF) name. Contains the ASCII translation of the hexadecimal data output from the protocol monitoring session.

n[1] = The protocol monitoring common format file (PMCFF) file name. The intermediate binary file created during the translation of the hexadecimal output of the session into ASCII output. This file is used internally and is not generally available for inspection.

o[1] = Status. Valid value(s):
`ABORTED - ATF CLOSE FAILURE` = The PM session was aborted because the ATF file could not be closed.
`ABORTED - ATF OPEN FAILURE` = The PM session was aborted because the ATF file could not be opened.
`ABORTED - ATF WRITE FAILURE` = The PM session was aborted because the ATF file could not be written to.
`ABORTED - COMMUNICATION FAILURE` = An unspecified communication error occurred between the administrative module (AM) and SM, between the SM and the PH, or between the AM and *UNIX*® operating system.
`ABORTED - DATABASE PROBLEM` = The request to verify a PM session failed because an error

occurred while reading the database.

`ABORTED - INVALID PMCFF FILE` = The PM session was aborted because the PMCFF contents were corrupted, or were missing.

`ABORTED - INVALID SESSION ID` = The PM session was aborted because the session identifier did not correspond to a valid session.

`ABORTED - PMCFF CLOSE FAILURE` = The PM session was aborted because the PMCFF could not be closed.

`ABORTED - PMCFF OPEN FAILURE` = The PM session was aborted because the PMCFF could not be opened.

`ABORTED - PMCFF READ FAILURE` = The PM session was aborted because the PMCFF could not be read.

`ABORTED - PMCFF WRITE FAILURE` = The PM session was aborted because the PMCFF could not be written to.

`ABORTED - TEMPORARY FILE CLOSE FAILURE` = The PM session was aborted because the temporary file created for this session could not be closed.

`ABORTED - TEMPORARY FILE OPEN FAILURE` = The PM session was aborted because the temporary file created for this session could not be opened.

`ABORTED - TEMPORARY FILE READ FAILURE` = The PM session was aborted because the temporary file created for this session could not be read.

`ABORTED - TEMPORARY FILE WRITE FAILURE` = The PM session was aborted because the temporary file created for this session could not be written to.

`ABORTED - TRANSLATION FAILURE` = The PM session was aborted because the protocol translator was not able to translate this session.

`COMPLETED` = The verification request has successfully been completed.

`NOT STARTED - CHANNEL MISMATCH` = The CH specified on the input line is not valid for the PROT specified on the input line.

`NOT STARTED - CHANNEL REQUIRED` = The CH option must be specified on the input line, since the directory number or multi-line hunt group is assigned to more than one channel.

`NOT STARTED - CMP UNAVAILABLE` = The request to verify a PM session failed because the communications module (CM) was isolated from the AM.

`NOT STARTED - INVALID PORT` = The port identifier entered could not be translated and was considered to be invalid.

`NOT STARTED - MLHG DN SPECIFIED` = The request to verify a PM session failed because a DN for a MLHG or UCD group was specified. Repeat request using MLHG port services identifier option.

`NOT STARTED - NO ACTIVE SESSION` = The request to verify a PM session failed because no active PM sessions existed or because the session number specified did not match an active session number.

`NOT STARTED - NON-PRIMARY DN SPECIFIED` = The request to verify a PM session failed because the primary DN is required. Repeat request specifying the primary DN.

`NOT STARTED - SM UNAVAILABLE` = The request to verify a PM session failed because the SM was isolated from the AM.

`NOT STARTED - TRANSIENT STATE` = The request to verify a PM session could not be honored. Internal verification of the current session was executing. Repeat later.

p^1 = Integrated service line unit 2 (ISLU2) number.

q^1 = Line group number.

r^1 = Line board number.

s^1 = Line circuit number.

t[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

u[1] = Data group (DG) number.

v[1] = Synchronous transport signal (STS) number.

w[1] = Virtual tributary (VT1.5) number.

x[1] = DS0 number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:PM
OP:PM
STP:PM
```

Output Message(s):

```
EXC:PM
STP:PM
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-390-500 *Feature Handbook*
235-600-755 *Protocol Error Record Descriptions*
235-900-341 *National ISDN BRI Interface Specification*

OP:PM-B

Software Release: 5E12 only
Message Class: SPM
Application: 5
Type: Output

1. FORMAT

[1]

```
OP PM
 [DSLGM=a-b-c PORT=a-d e CH=p [q] x]
 [SES=y zz/zz a1a1:a1a1:a1a1 b1b1/b1b1 c1c1:c1c1:c1c1 OFFSET=d1 DUR=e1]
 [PROT=f1 TRIGLVL=g1 {TRIGVAL=h1|PER[=i1]} DIR=j1 RECLVL=k1]
 {XLATE|NO XLATE} [STATE=l1]
 [ATF=m1] [PMCFF=n1]
```

[2]

```
OP PM o1
 [SES=y b1b1/b1b1 c1c1:c1c1:c1c1]
```

2. REASON FOR OUTPUT

To respond to a manual request to output a list of active protocol monitoring (PM) sessions.

Before a response is made, the information for active PM sessions is verified. If this verification determines that a session's data has been corrupted, the PM session will abort without printing any session information.

Format 1 displays all pertinent information for active PM sessions.

Format 2 provides the status (that is, aborted, completed, not started) of the request to list active PM sessions.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`NO XLATE` = The hexadecimal output for this session will not be translated through the protocol monitoring translator.

`PER` = Trigger value that terminated the recording session was a protocol error record (PER) occurring on the channel being recorded. Refer to the Protocol Error Record Descriptions manual for additional information about a specific PER.

`XLATE` = The protocol monitoring translator has been invoked for this session. The output will be translated into an American standard code for information interchange (ASCII) file.

`a` = Switching module (SM) number.

`b` = Protocol handler (PH) channel group number.

`c` = PH channel member number.

`d` = Logical port number.

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e = The equipment number identifier.

Note: If the port is associated with an X.75' trunk or an extended digital subscriber line (EDSL), then the digital equipment number (DEN) is used. If the port is associated with a digital network unit - SONET (DNU-S) then the networking equipment number (NEN) is used. If the port is associated with an embedded operation channel (EOC) or timeslot management channel (TMC), then the EOC or TMC equipment number is used. Otherwise, the line card equipment number (LCEN), line circuit equipment number (LCKEN), IDLC equipment number (INEN), Access interface unit equipment number (AIUEN), or integrated digital carrier unit (IDCU) line equipment number (ILEN) is used.

Valid value(s):

AIUEN=a-y^1-z^1-a^2
DEN=a-f-g-h
EOC=a-l-m-o
ILEN=a-l-m-n
INEN=a-t^1-m-n
LCEN=a-i-j-k
LCKEN=a-p^1-q^1-r^1-s^1
NEN=a-t^1-u^1-v^1-w^1-x^1
TMC=a-l-m-o

f = Digital line and trunk unit (DLTU) number.

g = Digital facility interface number.

h = Digital channel number.

i = Integrated services line unit number.

j = Line group controller number.

k = Line card number.

l = Integrated digital carrier unit number.

m = Remote terminal (RT) number.

n = RT line number.

o = Primary/protection identifier.

p = Channel (CH) being monitored. Valid value(s):

D = D-channel.
B1 = B1-channel.
B2 = B2-channel.

q = Port services identifier.

Note: This field will be blank if the port does not have a unique port services identifier.

Valid value(s):

```
DN=r
MLHG=s-t
PKTDN=u
TKGMN=v-w
```

r = The DN associated with a channel of a digital subscriber line (DSL).

s = Multi-line hunt group number.

t = Multi-line hunt group member number.

u = The DN associated with a packet-switched channel of a DSL.

v = Trunk group number.

w = Trunk group member number.

x = Service characteristic identifier of DSL channel. Valid value(s):

ODP	= On-demand packet.
PPD	= Permanent packet D.
PPB	= Permanent packet B.

y = The value of the session identifier (SES) for this monitoring session.

z = The date-stamp of the beginning of the monitoring session, in the form month/day.

a[1] = The time-stamp of the beginning of the monitoring session, in the form hours:minutes:seconds.

b[1] = The current date-stamp for the monitoring session, in the form month/day.

c[1] = The current time-stamp for the monitoring session, in the form hours:minutes:seconds.

d[1] = The offset (OFFSET) for the number of frames that will be recorded after detection of the trigger event.

e[1] = The duration (DUR) for the recording session in seconds.

f[1] = Protocol (PROT) monitored. Valid value(s):

LAPD	= The LAPD protocol.
LAPB	= The LAPB protocol.
Q931	= The Q.931 protocol.
X25	= The X.25 protocol.
X75P	= The X.75' protocol.
V120	= The V.120 protocol.
TMC	= The TMC protocol.

g[1] = Trigger level (TRIGLVL). Valid value(s):

LAPD	= The trigger level is the LAPD protocol.
LAPB	= The trigger level is the LAPB protocol.
Q931	= The trigger level is the Q.931 protocol.
X25	= The trigger level is the X.25 protocol.
X75P	= The trigger level is the X.75' protocol.
V120	= The trigger level is the V.120 protocol.

TMC = The trigger level is the TMC protocol.
IDLC = The trigger level is the IDLC protocol.
ATS = The trigger level is the automated test system (ATS) protocol.

h[1] = TRIGVAL that terminated the recording session. Refer to the EXC:PM input manual page for a complete list of trigger values.

i[1] = Specific trigger value that terminated the recording session (a single PER occurring on the channel being recorded). Refer to the Protocol Error Record Descriptions manual.

j[1] = Direction (DIR) of frame/packet/message to triggered on. Valid value(s):
RCV = Triggered on frame/packet/message received by the switch from the customer premises equipment (CPE).
XMT = Triggered on frame/packet/message transmitted from the switch to the CPE.

k[1] = The protocol level recorded (RECLVL). Valid value(s):
LEVEL2 = Recorded all layer 2 frames.
LEVEL3 = Recorded only the layer 3 packets/messages.

l[1] = State of the protocol monitoring session. Valid value(s):
ABORTED = The session has aborted.
DATA RETRIEVAL = The recording of data has completed and is being processed for output.
DURATION TIMEOUT = The duration timer has fired. Waiting for session output.
RECORD COMPLETED = The session has completed normally.
RECORDING = The session is recording data and the trigger has not yet fired.
STOP NO DUMP = The session has been manually terminated. The collected data will be discarded. No translation or dump of hexadecimal data will occur.
STOP WITH DUMP = The session has been manually terminated with either translation or dump of the output data.
TRANSLATING = The hexadecimal data collected during the session is being translated into an ASCII format.
TRIGGER FIRED = The trigger of the session has fired.
WAIT DUMP ACK = A manual request has been made to terminate the session with translation or dump. Awaiting response from the switch.
WAIT STOP ACK = A manual request has been made to terminate the session without translation or dump. Awaiting response from the switch.

m[1] = The ASCII translation file (ATF) name. Contains the ASCII translation of the hexadecimal data output from the protocol monitoring session.

n[1] = The protocol monitoring common format file (PMCFF) file name. The intermediate binary file created during the translation of the hexadecimal output of the session into ASCII output. This file is used internally and is not generally available for inspection.

o[1] = Status. Valid value(s):
ABORTED - ATF CLOSE FAILURE = The PM session was aborted because the ATF file could not be closed.
ABORTED - ATF OPEN FAILURE = The PM session was aborted because the ATF file could not be opened.
ABORTED - ATF WRITE FAILURE = The PM session was aborted because the ATF file could not

be written to.

`ABORTED - COMMUNICATION FAILURE` = An unspecified communication error occurred between the administrative module (AM) and SM, between the SM and the PH, or between the AM and *UNIX*® operating system.

`ABORTED - DATABASE PROBLEM` = The request to verify a PM session failed because an error occurred while reading the database.

`ABORTED - INVALID PMCFF FILE` = The PM session was aborted because the PMCFF contents were corrupted, or were missing.

`ABORTED - INVALID SESSION ID` = The PM session was aborted because the session identifier did not correspond to a valid session.

`ABORTED - PMCFF CLOSE FAILURE` = The PM session was aborted because the PMCFF could not be closed.

`ABORTED - PMCFF OPEN FAILURE` = The PM session was aborted because the PMCFF could not be opened.

`ABORTED - PMCFF READ FAILURE` = The PM session was aborted because the PMCFF could not be read.

`ABORTED - PMCFF WRITE FAILURE` = The PM session was aborted because the PMCFF could not be written to.

`ABORTED - TEMPORARY FILE CLOSE FAILURE` = The PM session was aborted because the temporary file created for this session could not be closed.

`ABORTED - TEMPORARY FILE OPEN FAILURE` = The PM session was aborted because the temporary file created for this session could not be opened.

`ABORTED - TEMPORARY FILE READ FAILURE` = The PM session was aborted because the temporary file created for this session could not be read.

`ABORTED - TEMPORARY FILE WRITE FAILURE` = The PM session was aborted because the temporary file created for this session could not be written to.

`ABORTED - TRANSLATION FAILURE` = The PM session was aborted because the protocol translator was not able to translate this session.

`COMPLETED` = The verification request has successfully been completed.

`NOT STARTED - CHANNEL MISMATCH` = The CH specified on the input line is not valid for the PROT specified on the input line.

`NOT STARTED - CHANNEL REQUIRED` = The CH option must be specified on the input line, since the directory number or multi-line hunt group is assigned to more than one channel.

`NOT STARTED - CMP UNAVAILABLE` = The request to verify a PM session failed because the communications module (CM) was isolated from the AM.

`NOT STARTED - INVALID PORT` = The port identifier entered could not be translated and was considered to be invalid.

`NOT STARTED - MLHG DN SPECIFIED` = The request to verify a PM session failed because a DN for a MLHG or UCD group was specified. Repeat request using MLHG port services identifier option.

`NOT STARTED - NO ACTIVE SESSION` = The request to verify a PM session failed because no active PM sessions existed or because the session number specified did not match an active session number.

`NOT STARTED - NON-PRIMARY DN SPECIFIED` = The request to verify a PM session failed because the primary DN is required. Repeat request specifying the primary DN.

`NOT STARTED - NON-UNIQUE NXX DN` = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.

`NOT STARTED - SM UNAVAILABLE` = The request to verify a PM session failed because the SM was isolated from the AM.

`NOT STARTED - TRANSIENT STATE` = The request to verify a PM session could not be honored. Internal verification of the current session was executing. Repeat later.

p[1] = Integrated service line unit 2 (ISLU2) number.

q[1] = Line group number.

r[1] = Line board number.

s[1] = Line circuit number.

t[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

u[1] = Data group (DG) number.

v[1] = Synchronous transport signal (STS) number.

w[1] = Virtual tributary (VT1.5) number.

x[1] = DS0 number.

y[1] = Access interface unit (AIU) number.

z[1] = AIU pack number.

a[2] = AIU circuit number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:PM
OP:PM
STP:PM
```

Output Message(s):

```
EXC:PM
STP:PM
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-390-500 *Feature Handbook*
235-600-755 *Protocol Error Record Descriptions*
235-900-341 *National ISDN BRI Interface Specification*

OP:PM-C

Software Release: 5E13 only
Message Class: SPM
Application: 5
Type: Output

1. FORMAT

[1]

```
OP PM
 [DSLGM=a-b-c PORT=a-d e CH=p [q] x]
 [SES=y zz/zz a1a1:a1a1:a1a1 b1b1/b1b1 c1c1:c1c1:c1c1 OFFSET=d1 DUR=e1]
  [PLANE=b2 | MSGGRP=c2]
 [PROT=f1 TRIGLVL=g1 {TRIGVAL=h1|PER[=i1]} DIR=j1 RECLVL=k1]
 {XLATE|NO XLATE} [STATE=l1]
 [ATF=m1] [PMCFF=n1]
```

[2]

```
OP PM o1
 [SES=y b1b1/b1b1 c1c1:c1c1:c1c1]
```

2. REASON FOR OUTPUT

To respond to a manual request to output a list of active protocol monitoring (PM) sessions.

Before a response is made, the information for active PM sessions is verified. If this verification determines that a session's data has been corrupted, the PM session will abort without printing any session information.

Format 1 displays all pertinent information for active PM sessions.

Format 2 provides the status (that is, aborted, completed, not started) of the request to list active PM sessions.

3. VARIABLE FIELD DEFINITIONS

`NO XLATE` = The hexadecimal output for this session will not be translated through the protocol monitoring translator.

`PER` = Trigger value that terminated the recording session was a protocol error record (PER) occurring on the channel being recorded. Refer to the Protocol Error Record Descriptions manual for additional information about a specific PER.

`XLATE` = The protocol monitoring translator has been invoked for this session. The output will be translated into an American standard code for information interchange (ASCII) file.

`a` = Switching module (SM) number.

`b` = Protocol handler (PH) channel group number.

`c` = PH channel member number.

`d` = Logical port number.

`e` = The equipment number identifier.

Note: If the port is associated with an X.75' trunk or an extended digital subscriber line (EDSL), then the digital equipment number (DEN) is used. If the port is associated with a digital networking unit - synchronous optical network (SONET) (DNU-S) number then the DNU-S networking equipment number (NEN) is used. If the port is associated with an embedded operation channel (EOC) or timeslot management channel (TMC), then the EOC or TMC equipment number is used. Otherwise, the line card equipment number (LCEN), line circuit equipment number (LCKEN), IDLC equipment number (INEN), Access interface unit equipment number (AIUEN), packet switching unit equipment number (PSUEN), or integrated digital carrier unit (IDCU) line equipment number (ILEN) is used.

Valid value(s):

AIUEN=a-y^1-z^1-a^2
DEN=a-f-g-h
EOC=a-l-m-o
ILEN=a-l-m-n
INEN=a-t^1-m-n
LCEN=a-i-j-k
LCKEN=a-p^1-q^1-r^1-s^1
NEN=a-t^1-u^1-g^2-v^1-w^1-h^2-x^1
TMC=a-l-m-o
PSUEN=a-d^2-e^2-f^2-c

f = Digital line and trunk unit (DLTU) number.

g = Digital facility interface number.

h = Digital channel number.

i = Integrated services line unit number.

j = Line group controller number.

k = Line card number.

l = Integrated digital carrier unit number.

m = Remote terminal (RT) number.

n = RT line number.

o = Primary/protection identifier.

p = Channel (CH) being monitored. Valid value(s):

D	= D-channel.
B1	= B1-channel.
B2	= B2-channel.

q = Port services identifier.

Note: This field will be blank if the port does not have a unique port services identifier.

Valid value(s):

```
DN=r
 MLHG=s-t
 PKTDN=u
 TKGMN=v-w
```

`r` = The DN associated with a channel of a digital subscriber line (DSL).

`s` = Multi-line hunt group number.

`t` = Multi-line hunt group member number.

`u` = The DN associated with a packet-switched channel of a DSL.

`v` = Trunk group number.

`w` = Trunk group member number.

`x` = Service characteristic identifier of DSL channel. Valid value(s):

- `ODP` = On-demand packet.
- `PPD` = Permanent packet D.
- `PPB` = Permanent packet B.

`y` = The value of the session identifier (SES) for this monitoring session.

`z` = The date-stamp of the beginning of the monitoring session, in the form month/day.

`a`[1] = The time-stamp of the beginning of the monitoring session, in the form hours:minutes:seconds.

`b`[1] = The current date-stamp for the monitoring session, in the form month/day.

`c`[1] = The current time-stamp for the monitoring session, in the form hours:minutes:seconds.

`d`[1] = The offset (OFFSET) for the number of frames that will be recorded after detection of the trigger event.

`e`[1] = The duration (DUR) for the recording session in seconds.

`f`[1] = Protocol (PROT) monitored. Valid value(s):

- `LAPD` = The LAPD protocol.
- `LAPB` = The LAPB protocol.
- `Q931` = The Q.931 protocol.
- `X25` = The X.25 protocol.
- `X75P` = The X.75' protocol.
- `V120` = The V.120 protocol.
- `TMC` = The TMC protocol.
- `RLP` = The RLP protocol.
- `CESHL2` = The CESHL2 protocol.
- `CESHL3` = The CESHL3 protocol.

`g`[1] = Trigger level (TRIGLVL). Valid value(s):

- `LAPD` = The trigger level is the LAPD protocol.
- `LAPB` = The trigger level is the LAPB protocol.
- `Q931` = The trigger level is the Q.931 protocol.

X25 = The trigger level is the X.25 protocol.
X75P = The trigger level is the X.75' protocol.
V120 = The trigger level is the V.120 protocol.
TMC = The trigger level is the TMC protocol.
IDLC = The trigger level is the IDLC protocol.
ATS = The trigger level is the automated test system (ATS) protocol.
RLP = The trigger level is the RLP protocol.
CESHL2 = The trigger level is the CESHL2 protocol.
CESHL3 = The trigger level is the CESHL3 protocol.

h[1] = TRIGVAL that terminated the recording session. Refer to the EXC:PM input manual page for a complete list of trigger values.

i[1] = Specific trigger value that terminated the recording session (a single PER occurring on the channel being recorded). Refer to the APP:ALE-PER Appendix in the appendixes section of the Output Messages manual for a complete list of trigger values.

j[1] = Direction (DIR) of frame/packet/message to triggered on. Valid value(s):
RCV = Triggered on frame/packet/message received by the switch from the customer premises equipment (CPE).
XMT = Triggered on frame/packet/message transmitted from the switch to the CPE.

k[1] = The protocol level recorded (RECLVL). Valid value(s):
LEVEL2 = Recorded all layer 2 frames.
LEVEL3 = Recorded only the layer 3 packets/messages.
LEVEL7 = Recorded only the layer 7 packets/messages.

l[1] = State of the protocol monitoring session. Valid value(s):
ABORTED = The session has aborted.
DATA RETRIEVAL = The recording of data has completed and is being processed for output.
DURATION TIMEOUT = The duration timer has fired. Waiting for session output.
RECORD COMPLETED = The session has completed normally.
RECORDING = The session is recording data and the trigger has not yet fired.
STOP NO DUMP = The session has been manually terminated. The collected data will be discarded. No translation or dump of hexadecimal data will occur.
STOP WITH DUMP = The session has been manually terminated with either translation or dump of the output data.
TRANSLATING = The hexadecimal data collected during the session is being translated into an ASCII format.
TRIGGER FIRED = The trigger of the session has fired.
WAIT DUMP ACK = A manual request has been made to terminate the session with translation or dump. Awaiting response from the switch.
WAIT STOP ACK = A manual request has been made to terminate the session without translation or dump. Awaiting response from the switch.

m[1] = The ASCII translation file (ATF) name. Contains the ASCII translation of the hexadecimal data output from the protocol monitoring session.

n[1] = The protocol monitoring common format file (PMCFF) file name. The intermediate binary file created during the translation of the hexadecimal output of the session into ASCII output. This file is

used internally and is not generally available for inspection.

o[1] = Status. Valid value(s):

`ABORTED - ATF CLOSE FAILURE` = The PM session was aborted because the ATF file could not be closed.

`ABORTED - ATF OPEN FAILURE` = The PM session was aborted because the ATF file could not be opened.

`ABORTED - ATF WRITE FAILURE` = The PM session was aborted because the ATF file could not be written to.

`ABORTED - COMMUNICATION FAILURE` = An unspecified communication error occurred between the administrative module (AM) and SM, between the SM and the PH, or between the AM and *UNIX*® operating system.

`ABORTED - DATABASE PROBLEM` = The request to verify a PM session failed because an error occurred while reading the database.

`ABORTED - INVALID PMCFF FILE` = The PM session was aborted because the PMCFF contents were corrupted, or were missing.

`ABORTED - INVALID SESSION ID` = The PM session was aborted because the session identifier did not correspond to a valid session.

`ABORTED - PMCFF CLOSE FAILURE` = The PM session was aborted because the PMCFF could not be closed.

`ABORTED - PMCFF OPEN FAILURE` = The PM session was aborted because the PMCFF could not be opened.

`ABORTED - PMCFF READ FAILURE` = The PM session was aborted because the PMCFF could not be read.

`ABORTED - PMCFF WRITE FAILURE` = The PM session was aborted because the PMCFF could not be written to.

`ABORTED - TEMPORARY FILE CLOSE FAILURE` = The PM session was aborted because the temporary file created for this session could not be closed.

`ABORTED - TEMPORARY FILE OPEN FAILURE` = The PM session was aborted because the temporary file created for this session could not be opened.

`ABORTED - TEMPORARY FILE READ FAILURE` = The PM session was aborted because the temporary file created for this session could not be read.

`ABORTED - TEMPORARY FILE WRITE FAILURE` = The PM session was aborted because the temporary file created for this session could not be written to.

`ABORTED - TRANSLATION FAILURE` = The PM session was aborted because the protocol translator was not able to translate this session.

`COMPLETED` = The verification request has successfully been completed.

`NOT STARTED - CHANNEL MISMATCH` = The CH specified on the input line is not valid for the PROT specified on the input line.

`NOT STARTED - CHANNEL REQUIRED` = The CH option must be specified on the input line, since the directory number or multi-line hunt group is assigned to more than one channel.

`NOT STARTED - CMP UNAVAILABLE` = The request to verify a PM session failed because the communications module (CM) was isolated from the AM.

`NOT STARTED - INVALID PORT` = The port identifier entered could not be translated and was considered to be invalid.

`NOT STARTED - MLHG DN SPECIFIED` = The request to verify a PM session failed because a DN for a MLHG or UCD group was specified. Repeat request using MLHG port services identifier option.

`NOT STARTED - NO ACTIVE SESSION` = The request to verify a PM session failed because no active PM sessions existed or because the session number specified did not match an active session number.

`NOT STARTED - NON-PRIMARY DN SPECIFIED` = The request to verify a PM session failed

because the primary DN is required. Repeat request specifying the primary DN.

`NOT STARTED - NON-UNIQUE NXX DN` = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.

`NOT STARTED - SM UNAVAILABLE` = The request to verify a PM session failed because the SM was isolated from the AM.

`NOT STARTED - TRANSIENT STATE` = The request to verify a PM session could not be honored. Internal verification of the current session was executing. Repeat later.

`p`[1] = Integrated service line unit 2 (ISLU2) number.

`q`[1] = Line group number.

`r`[1] = Line board number.

`s`[1] = Line circuit number.

`t`[1] = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

`u`[1] = Data group (DG) number.

`v`[1] = Synchronous transport signal (STS) facility number.

`w`[1] = Virtual tributary group (VTG) number.

`x`[1] = DS0 number.

`y`[1] = Access interface unit (AIU) number.

`z`[1] = AIU pack number.

`a`[2] = AIU circuit number.

`b`[2] = Type of messages recorded when monitoring LAP D protocol on a Frame Relay Bearer Channel. User can request specifically to monitor either control messages or user data. However, if user data recording is requested , only a summary of the user data frame will be recorded, due to the sheer volume of the user data. The summary of the user data frame will contain the address information and the length of the actual user data frame transmitted or received.

`Valid values are as follows:`

`CTRL` = recorded only control messages. CTRL is the default value.

`DATA` = recorded only a summary of the transmitted or received user data frame.

`ALL` = recorded both control messages and a summary of the transmitted or received user data frame.

`c`[2] = Type of messages or frames recorded when protocol monitoring is on a Speech Handler or an Autoplex Data Trunk. This option can be used with CESHL2 or CESHL3 or RLP protocol.

`Valid values are as follows:`

`CTRL` = recorded control frames (S and I) for CESHL2 protocol. Default value for CESHL2 protocol at level 2 recording.

`TRAF` = recorded UI traffic messages for CESHL3 protocol.

`IP` = recorded Inter-Processor messages for CESHL3 protocol. Default value for CESHL3 protocol at level 3 recording.

`RLP` = recorded non-idle RLP frames for RLP protocol. Default value for RLP protocol at level 7 recording.

`ALL` = recorded all messages for CESHL2 or CESHL3 or RLP protocol. This will result in recording S, I, XID, and, UI frames for CESHL2 protocol, or UI plus IP frames for CESHL3 protocol, or RLP plus idle frames for RLP protocol.

`d`[2] = Packet Switching Unit (PSU) number.

`e`[2] = PSU shelf number.

`f`[2] = PSU channel group number.

`g`[2] = SONET termination equipment (STE) facility number.

`h`[2] = Virtual tributary member (VTM) number.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:PM
OP:PM
STP:PM
```

Output Message(s):

```
EXC:PM
STP:PM
```

Output Appendix(es):

```
APP:ALE-PER
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-390-500 *Feature Handbook*
235-600-755 *Protocol Error Record Descriptions*
235-900-341 *National ISDN BRI Interface Specification*

OP:PM-D

Software Release: 5E14 and later
Message Class: SPM
Application: 5
Type: Output

1. FORMAT

```
[1]    OP PM
        [DSLGM=a-b-c PORT=a-d e CH=p [q] x]
        [SES=y zz/zz a1a1:a1a1:a1a1 b1b1/b1b1 c1c1:c1c1:c1c1 OFFSET=d1 DUR=e1] [PLANE
       =b2 | MSGGRP=c2]
        [PROT=f1 TRIGLVL=g1 {TRIGVAL=h1|PER[=i1]} DIR=j1 RECLVL=k1]
        {i2} [STATE=l1]
        [ATF=m1] [PMCFF=n1]

[2]    OP PM o1
        [SES=y b1b1/b1b1 c1c1:c1c1:c1c1]
```

2. REASON FOR OUTPUT

To respond to a manual request to output a list of active protocol monitoring (PM) sessions.

Before a response is made, the information for active PM sessions is verified. If this verification determines that a session's data has been corrupted, the PM session will abort without printing any session information.

Format 1 displays all pertinent information for active PM sessions.

Format 2 provides the status (that is, aborted, completed, not started) of the request to list active PM sessions.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Protocol handler (PH) channel group number.

c = PH channel member number.

d = Logical port number.

e = The equipment number identifier.

Note: If the port is associated with an X.75' trunk or an extended digital subscriber line (EDSL), then the digital equipment number (DEN) is used. If the port is associated with a digital networking unit - synchronous optical network (SONET) (DNU-S) number then the DNU-S networking equipment number (NEN) is used. If the port is associated with an embedded operation channel (EOC) or timeslot management channel (TMC), then the EOC or TMC equipment number is used. Otherwise, the line card equipment number (LCEN), line circuit equipment number (LCKEN), IDLC equipment number (INEN), Access interface unit equipment number (AIUEN), packet switching unit equipment number (PSUEN), or integrated digital carrier unit (IDCU) line equipment number (ILEN) is used.

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Valid value(s):

AIUEN=a-y^1-z^1-a^2
DEN=a-f-g-h
EOC=a-l-m-o
ILEN=a-l-m-n
INEN=a-t^1-m-n
LCEN=a-i-j-k
LCKEN=a-p^1-q^1-r^1-s^1
NEN=a-t^1-u^1-g^2-v^1-w^1-h^2-x^1
TMC=a-l-m-o
PSUEN=a-d^2-e^2-f^2-c

f = Digital line and trunk unit (DLTU) number.

g = Digital facility interface number.

h = Digital channel number.

i = Integrated services line unit number.

j = Line group controller number.

k = Line card number.

l = Integrated digital carrier unit number.

m = Remote terminal (RT) number.

n = RT line number.

o = Primary/protection identifier.

p = Channel (CH) being monitored. Valid value(s):

D = D-channel.

B1 = B1-channel.

B2 = B2-channel.

q = Port services identifier.

Note: This field will be blank if the port does not have a unique port services identifier.

Valid value(s):

DN=r
MLHG=s-t
PKTDN=u
TKGMN=v-w

r = The DN associated with a channel of a digital subscriber line (DSL).

s = Multi-line hunt group number.

`t` = Multi-line hunt group member number.

`u` = The DN associated with a packet-switched channel of a DSL.

`v` = Trunk group number.

`w` = Trunk group member number.

`x` = Service characteristic identifier of DSL channel. Valid value(s):

- `ODP` = On-demand packet.
- `PPD` = Permanent packet D.
- `PPB` = Permanent packet B.

`y` = The value of the session identifier (SES) for this monitoring session.

`z` = The date-stamp of the beginning of the monitoring session, in the form month/day.

`a`[1] = The time-stamp of the beginning of the monitoring session, in the form hours:minutes:seconds.

`b`[1] = The current date-stamp for the monitoring session, in the form month/day.

`c`[1] = The current time-stamp for the monitoring session, in the form hours:minutes:seconds.

`d`[1] = The offset (OFFSET) for the number of frames that will be recorded after detection of the trigger event.

`e`[1] = The duration (DUR) for the recording session in seconds.

`f`[1] = Protocol (PROT) monitored. Valid value(s):

- `LAPD` = The LAPD protocol.
- `LAPB` = The LAPB protocol.
- `Q931` = The Q.931 protocol.
- `X25` = The X.25 protocol.
- `X75P` = The X.75' protocol.
- `V120` = The V.120 protocol.
- `TMC` = The TMC protocol.
- `RLP` = The RLP protocol.
- `CESHL2` = The CESHL2 protocol.
- `CESHL3` = The CESHL3 protocol.
- `ISLP` = The ISLP protocol.

g[1] = Trigger level (TRIGLVL). Valid value(s):

- LAPD = The trigger level is the LAPD protocol.
- LAPB = The trigger level is the LAPB protocol.
- Q931 = The trigger level is the Q.931 protocol.
- X25 = The trigger level is the X.25 protocol.
- X75P = The trigger level is the X.75' protocol.
- V120 = The trigger level is the V.120 protocol.
- TMC = The trigger level is the TMC protocol.
- IDLC = The trigger level is the IDLC protocol.
- ATS = The trigger level is the automated test system (ATS) protocol.
- RLP = The trigger level is the RLP protocol.
- CESHL2 = The trigger level is the CESHL2 protocol.
- CESHL3 = The trigger level is the CESHL3 protocol.
- ISLP = The trigger level is the ISLP protocol.

h[1] = TRIGVAL that terminated the recording session. Refer to the EXC:PM input manual page for a complete list of trigger values.

i[1] = Specific trigger value that terminated the recording session (a single PER occurring on the channel being recorded). Refer to the APP:ALE-PER Appendix in the appendixes section of the Output Messages manual for a complete list of trigger values.

j[1] = Direction (DIR) of frame/packet/message to triggered on. Valid value(s):

- RCV = Triggered on frame/packet/message received by the switch from the customer premises equipment (CPE).
- XMT = Triggered on frame/packet/message transmitted from the switch to the CPE.

k[1] = The protocol level recorded (RECLVL). Valid value(s):

- LEVEL2 = Recorded all layer 2 frames.
- LEVEL3 = Recorded only the layer 3 packets/messages.
- LEVEL7 = Recorded only the layer 7 packets/messages.

l[1] = State of the protocol monitoring session. Valid value(s):

- ABORTED = The session has aborted.

`DATA RETRIEVAL` = The recording of data has completed and is being processed for output.

`DURATION TIMEOUT` = The duration timer has fired. Waiting for session output.

`RECORD COMPLETED` = The session has completed normally.

`RECORDING` = The session is recording data and the trigger has not yet fired.

`STOP NO DUMP` = The session has been manually terminated. The collected data will be discarded. No translation or dump of hexadecimal data will occur.

`STOP WITH DUMP` = The session has been manually terminated with either translation or dump of the output data.

`TRANSLATING` = The hexadecimal data collected during the session is being translated into an ASCII format.

`TRIGGER FIRED` = The trigger of the session has fired.

`WAIT DUMP ACK` = A manual request has been made to terminate the session with translation or dump. Awaiting response from the switch.

`WAIT STOP ACK` = A manual request has been made to terminate the session without translation or dump. Awaiting response from the switch.

`m`[1] = The ASCII translation file (ATF) name. Contains the ASCII translation of the hexadecimal data output from the protocol monitoring session.

`n`[1] = The protocol monitoring common format file (PMCFF) file name. The intermediate binary file created during the translation of the hexadecimal output of the session into ASCII output. This file is used internally and is not generally available for inspection.

`o`[1] = Status. Valid value(s):

`ABORTED - ATF CLOSE FAILURE` = The PM session was aborted because the ATF file could not be closed.

`ABORTED - ATF OPEN FAILURE` = The PM session was aborted because the ATF file could not be opened.

`ABORTED - ATF WRITE FAILURE` = The PM session was aborted because the ATF file could not be written to.

`ABORTED - COMMUNICATION FAILURE` = An unspecified communication error occurred between the administrative module (AM) and SM, between the SM and the PH, or between the AM and *UNIX*® operating system.

`ABORTED - DATABASE PROBLEM` = The request to verify a PM session failed because an error occurred while reading the database.

`ABORTED - INVALID PMCFF FILE` = The PM session was aborted because the PMCFF contents were corrupted, or were missing.

`ABORTED - INVALID SESSION ID` = The PM session was aborted because the session identifier did not correspond to a valid session.

`ABORTED - PMCFF CLOSE FAILURE` = The PM session was aborted because the PMCFF could not be closed.

`ABORTED - PMCFF OPEN FAILURE` = The PM session was aborted because the PMCFF could not be opened.

`ABORTED - PMCFF READ FAILURE` = The PM session was aborted because the PMCFF could not be read.

`ABORTED - PMCFF WRITE FAILURE` = The PM session was aborted because the PMCFF could not be written to.

`ABORTED - TEMPORARY FILE CLOSE FAILURE` = The PM session was aborted because the temporary file created for this session could not be closed.

`ABORTED - TEMPORARY FILE OPEN FAILURE` = The PM session was aborted because the temporary file created for this session could not be opened.

`ABORTED - TEMPORARY FILE READ FAILURE` = The PM session was aborted because the temporary file created for this session could not be read.

`ABORTED - TEMPORARY FILE WRITE FAILURE` = The PM session was aborted because the temporary file created for this session could not be written to.

`ABORTED - TRANSLATION FAILURE` = The PM session was aborted because the protocol translator was not able to translate this session.

`COMPLETED` = The verification request has successfully been completed.

`NOT STARTED - CHANNEL MISMATCH` = The CH specified on the input line is not valid for the PROT specified on the input line.

`NOT STARTED - CHANNEL REQUIRED` = The CH option must be specified on the input line, since the directory number or multi-line hunt group is assigned to more than one channel.

`NOT STARTED - CMP UNAVAILABLE` = The request to verify a PM session failed because the communications module (CM) was isolated from the AM.

`NOT STARTED - INVALID PORT` = The port identifier entered could not be translated and was considered to be invalid.

`NOT STARTED - MLHG DN SPECIFIED` = The request to verify a PM session failed because a DN for a MLHG or UCD group was specified. Repeat request using MLHG port services identifier option.

`NOT STARTED - NO ACTIVE SESSION` = The request to verify a PM session failed because no active PM sessions existed or because the session number specified did not match an active session number.

`NOT STARTED - NON-PRIMARY DN SPECIFIED` = The request to verify a PM session failed because the primary DN is required. Repeat request specifying the primary DN.

`NOT STARTED - NON-UNIQUE NXX DN` = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.

`NOT STARTED - SM UNAVAILABLE` = The request to verify a PM session failed because the SM was isolated from the AM.

`NOT STARTED - TRANSIENT STATE` = The request to verify a PM session could not be honored. Internal verification of the current session was executing. Repeat later.

`p`[1] = Integrated service line unit 2 (ISLU2) number.

`q`[1] = Line group number.

`r`[1] = Line board number.

`s`[1] = Line circuit number.

`t`[1] = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

`u`[1] = Data group (DG) number.

`v`[1] = Synchronous transport signal (STS) facility number.

`w`[1] = Virtual tributary group (VTG) number.

`x`[1] = DS0 number.

`y`[1] = Access interface unit (AIU) number.

`z`[1] = AIU pack number.

`a`[2] = AIU circuit number.

`b`[2] = Type of messages recorded when monitoring LAP D protocol on a Frame Relay Bearer Channel. User can request specifically to monitor either control messages or user data. However, if user data recording is requested, only a summary of the user data frame will be recorded, due to the sheer volume of the user data. The summary of the user data frame will contain the address information and the length of the actual user data frame transmitted or received.

Valid value(s):

`CTRL` = Recorded only control messages. CTRL is the default value.
`DATA` = Recorded only a summary of the transmitted or received user data frame.
`ALL` = Recorded both control messages and a summary of the transmitted or received user data frame.

`c`[2] = Type of messages or frames recorded when protocol monitoring is on a Speech Handler or an Autoplex Data Trunk. This option can be used with CESHL2 or CESHL3 or RLP protocol.

Valid value(s):

`CTRL` = recorded control frames (S and I) for CESHL2 protocol. Default value for CESHL2 protocol at level 2 recording.

`TRAF` = recorded UI traffic messages for CESHL3 protocol.

`IP` = recorded Inter-Processor messages for CESHL3 protocol. Default value for CESHL3 protocol at level 3 recording.

`RLP` = recorded non-idle RLP frames for RLP protocol. Default value for RLP protocol at level 7 recording.

`ALL` = recorded all messages for CESHL2 or CESHL3 or RLP protocol. This will result in recording S, I, XID, and, UI frames for CESHL2 protocol, or UI plus IP frames for CESHL3 protocol, or RLP plus idle frames for RLP protocol.

`d`[2] = Packet Switching Unit (PSU) number

`e`[2] = PSU shelf number.

`f`[2] = PSU channel group number.

`g`[2] = SONET termination equipment (STE) facility number.

`h`[2] = Virtual tributary member (VTM) number.

`i`[2] = Translator status. Valid value(s):

`NO XLATE` = The hexadecimal output for this session will not be translated through the protocol monitoring translator.

`XLATE` = The protocol monitoring translator has been invoked for this session. The output will be translated into an American standard code for information interchange (ASCII) file.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:PM
OP:PM
STP:PM
```

Output Message(s):

```
EXC:PM
STP:PM
```

Output Appendix(es):

```
APP:ALE-PER
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-600-755 *Protocol Error Record Descriptions*
235-900-341 *National ISDN Basic Rate Interface Specification*

OP:PM-DNUSCC

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
OP POSTMORT  DNUSCC=a-b-c EVENT=d
  ACTION= e BUFFER= f g
  hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh
  hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh
  hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh
  hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh
  hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh
  hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh
  hhhhhhhh hhhhhhhh
```

2. REASON FOR OUTPUT

To dump the post mortem buffers of the digital networking unit - synchronous optical network (SONET) (DNU-S) common controller (DNUSCC), after a removal of the DNUSCC or in response to the OP:POSTMORT input message. The output contains the history of the last fifty abnormal events recorded by the DNUSCC resident software.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Common controller number.

`d` = Event number.

`e` = Reason action taken. Valid value(s):

`MANUAL`	= Manual request for the report.
`RECOVERY`	= Peripheral fault recovery (PFR). The DNUSCC was removed automatically by manual fault recovery.
`REMOVE`	= Manual request by the maintenance request administrator (MRA) to remove the DNUSCC.

`f` = The output buffer number. Valid value(s):

`g` = The status of the post mortem dump. Valid value(s):

```
ACTIVE UNIT FAILED TO RESPOND
CATASTROPHIC CODE FAILURE
CORRUPTED POSTMORTEM CONTROL TABLE
DATA BASE FAILURE
DIAGNOSTIC OR RECOVERY BLOCKING REQUEST
INVALID UNIT ID
POSTMORTEM ALREADY IN PROGRESS
POSTMORTEM PROCESS NOT CREATED
REQUEST ABORTED BY FAULT RECOVERY
```

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```
REQUEST ABORTED BY REMOVE
STANDBY UNIT FAILED TO RESPOND
SUCCESSFUL HISTORY OUTPUT
SUCCESSFUL POSTMORTEM OUTPUT
SUCCESSFUL RELEASE POSTMORTEM
UNINITIALIZED FIELD = Buffers do not contain any valid data.
UNIT IN GROWTH STATE
UNRECOGNIZED MESSAGE TYPE
```

`h` = Content of the DNUSCC post mortem buffers in hexadecimal.

4. ACTION TO BE TAKEN

Monitor the progress of software recovery. Initiate manual actions if the recovery does not proceed as expected.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:DNUSCC
OP:HISTORY
OP:POSTMORT
RMV:DNUSCC
RST:DNUSCC
```

Output Message(s):

```
REPT:DNUSCC-TOF
REPT:DNUSCC-TRBL
```

Other Manual(s):
235-100-125 *System Description*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1510 (DNUS STATUS)

OP:PM-IDCU

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
OP POSTMORT  IDCU=a-b-c EVENT=d
  ACTION= e BUFFER= f g
  hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh
  hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh
  hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh
  hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh
  hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh
  hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh
  hhhhhhhh hhhhhhhh
```

2. REASON FOR OUTPUT

To dump the post mortem buffers of the integrated digital carrier unit (IDCU) after a removal of the IDCU, or the status of the response to the OP:POSTMORT input message. The output contains the history of the last fifty abnormal events recorded by the IDCU resident software.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Integrated digital carrier unit (IDCU) number.

`c` = IDCU service group number.

`d` = Event number.

`e` = Action taken due to. Valid value(s):

- `MANUAL` = Manual request for the report.
- `RECOVERY` = Peripheral fault recovery (PFR). The IDCU was removed automatically by manual fault recovery.
- `REMOVE` = Manual request by the maintenance request administrator (MRA) to remove the IDCU.

`f` = The output buffer number.

`g` = The status of the post mortem dump. Valid value(s):

```
ACTIVE UNIT FAILED TO RESPOND
CATASTROPHIC CODE FAILURE
CORRUPTED POSTMORTEM CONTROL TABLE
DATA BASE FAILURE
DIAGNOSTIC OR RECOVERY BLOCKING REQUEST
INVALID UNIT ID
POSTMORTEM ALREADY IN PROGRESS
POSTMORTEM PROCESS NOT CREATED
REQUEST ABORTED BY FAULT RECOVERY
REQUEST ABORTED BY REMOVE
```

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STANDBY UNIT FAILED TO RESPOND
SUCCESSFUL HISTORY OUTPUT
SUCCESSFUL POSTMORTEM OUTPUT
SUCCESSFUL RELEASE POSTMORTEM
UNINITIALIZED FIELD = Buffers do not contain any valid data.
UNIT IN GROWTH STATE
UNRECOGNIZED MESSAGE TYPE

h = Content of the IDCU post mortem buffers in hexadecimal.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CHG:PRNTMODE
DGN:IDCU
OP:HISTORY
OP:POSTMORT
RMV:IDCU
RST:IDCU
```

Output Message(s):

```
RMV:IDCU
REPT:IDCU-HF
REPT:IDCU-TBTF
REPT:IDCU-TCOF
REPT:IDCU-TDPF
REPT:IDCU-TFM
REPT:IDCU-TOF
REPT:IDCU-TMSR
REPT:IDCU-TPPF
```

Other Manual(s):
235-100-125 *System Description*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

186Y,X (SM X IDCU Y CIRCUIT)

OP:PM-ISLUCC

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
OP POSTMORT  ISLUCC=a-b-c EVENT=d
  ACTION= e BUFFER= f g
  hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh
  hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh
  hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh
  hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh
  hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh
  hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh
  hhhhhhhh hhhhhhhh
```

2. REASON FOR OUTPUT

To dump the post mortem buffers of the integrated services line unit common controller (ISLUCC), including remote ISLU, after a removal of the ISLUCC or the status of the response to the OP:POSTMORT input message. The output contains the history of the last fifty abnormal events recorded by the ISLUCC resident software.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Integrated services line unit (ISLU) number.

`c` = Common controller number.

`d` = Event number.

`e` = Action taken due to. Valid value(s):

- `MANUAL` = Manual request for the report.
- `RECOVERY` = Peripheral fault recovery (PFR). The ISLUCC was removed automatically by manual fault recovery.
- `REMOVE` = Manual request by the maintenance request administrator (MRA) to remove the ISLUCC.

`f` = The output buffer number. Valid value(s):

`g` = The status of the post mortem dump. Valid value(s):

```
ACTIVE UNIT FAILED TO RESPOND
CATASTROPHIC CODE FAILURE
CORRUPTED POSTMORTEM CONTROL TABLE
DATA BASE FAILURE
DIAGNOSTIC OR RECOVERY BLOCKING REQUEST
INVALID UNIT ID
POSTMORTEM ALREADY IN PROGRESS
POSTMORTEM PROCESS NOT CREATED
REQUEST ABORTED BY FAULT RECOVERY
REQUEST ABORTED BY REMOVE
```

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STANDBY UNIT FAILED TO RESPOND
SUCCESSFUL HISTORY OUTPUT
SUCCESSFUL POSTMORTEM OUTPUT
SUCCESSFUL RELEASE POSTMORTEM
UNINITIALIZED FIELD = Buffers do not contain any valid data.
UNIT IN GROWTH STATE
UNRECOGNIZED MESSAGE TYPE

h = Content of the ISLUCC post mortem buffers in hexadecimal.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:ISLUCC
CHG:PRNTMODE
OP:HISTORY
OP:POSTMORT
RMV:ISLUCC
RST:ISLUCC
```

Output Message(s):

```
REPT:ISLUCC-HFE
REPT:ISLUCC-TE
```

Other Manual(s):
235-100-125 *System Description*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

170x (ISLU X NETWORK)

OP:PM-TMUX

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
OP POSTMORT  TMUX=a-b-c-d EVENT=e
  ACTION= f BUFFER= g h
  iiiiiiii iiiiiiii iiiiiiii iiiiiiii iiiiiiii iiiiiiii iiiiiiii iiiiiiii
  iiiiiiii iiiiiiii iiiiiiii iiiiiiii iiiiiiii iiiiiiii iiiiiiii iiiiiiii
  iiiiiiii iiiiiiii iiiiiiii iiiiiiii iiiiiiii iiiiiiii iiiiiiii iiiiiiii
  iiiiiiii iiiiiiii iiiiiiii iiiiiiii iiiiiiii iiiiiiii iiiiiiii iiiiiiii
  iiiiiiii iiiiiiii iiiiiiii iiiiiiii iiiiiiii iiiiiiii iiiiiiii iiiiiiii
  iiiiiiii iiiiiiii iiiiiiii iiiiiiii iiiiiiii iiiiiiii iiiiiiii iiiiiiii
  iiiiiiii iiiiiiii
```

2. REASON FOR OUTPUT

To dump the post mortem buffers of the digital networking unit - synchronous optical network (DNU-S) transmission multiplexer (TMUX), after a removal of the TMUX or in response to the OP:POSTMORT input message. The output contains the history of the last fifty abnormal events recorded by the TMUX resident software.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = TMUX number.

`e` = Event number.

`f` = Reason action taken. Valid value(s):

`MANUAL`	= Manual request for the report.
`RECOVERY`	= Peripheral fault recovery (PFR). The TMUX was removed automatically by manual fault recovery.
`REMOVE`	= Manual request by the maintenance request administrator (MRA) to remove the TMUX.

`g` = The output buffer number. Valid value(s):

`h` = The status of the post mortem dump. Valid value(s):

```
ACTIVE UNIT FAILED TO RESPOND
CATASTROPHIC CODE FAILURE
CORRUPTED POSTMORTEM CONTROL TABLE
DATA BASE FAILURE
DIAGNOSTIC OR RECOVERY BLOCKING REQUEST
INVALID UNIT ID
POSTMORTEM ALREADY IN PROGRESS
POSTMORTEM PROCESS NOT CREATED
```

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```
REQUEST ABORTED BY FAULT RECOVERY
REQUEST ABORTED BY REMOVE
STANDBY UNIT FAILED TO RESPOND
SUCCESSFUL HISTORY OUTPUT
SUCCESSFUL POSTMORTEM OUTPUT
SUCCESSFUL RELEASE POSTMORTEM
UNINITIALIZED FIELD = Buffers do not contain any valid data.
UNIT IN GROWTH STATE
UNRECOGNIZED MESSAGE TYPE
```

`i` = Content of the TMUX post mortem buffers in hexadecimal.

4. ACTION TO BE TAKEN

Monitor the progress of software recovery. Initiate manual actions if the recovery does not proceed as expected.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:TMUX
OP:HISTORY
OP:POSTMORT
RMV:TMUX
RST:TMUX
```

Output Message(s):

```
REPT:TMUX-HF
REPT:TMUX-TRBL
REPT:TMUX-TBTF
```

Other Manual(s):
235-100-125 *System Description*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1510 (DNUS STATUS)

OP:PMCR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

[1]
```
OP PMCR ERROR a[,ERRNO = b]
```

[2]
```
OP PMCR INFO a
```

2. REASON FOR OUTPUT

To report errors encountered during the execution of the processes that comprise the plant measurements common report (PMCR) capability.

3. VARIABLE FIELD DEFINITIONS

a = Four-digit error code. This code consists of a one-digit number that indicates the PMCR process in which the error was detected, a two-digit number that indicates the error type, and a one-digit that is not used.

Process values (first digit). Valid value(s):

1 = PMCR user interface.
2 = PMCR manager.
3 = PMCR collector.
4 = PMCR report generator.

Error type (second and third digits). Valid value(s):

00 = User is not allowed to request scheduled report. This message comes from PMCR user interface as ERROR 1001.
01 = Could not connect to system port.
02 = Could not send or receive message.
03 = Failed 'plib' call.
04 = Failed 'pl_init' call.
05 = Failed 'pl_attrec' call.
06 = Failed 'pl_update' call.
07 = Failed 'pl_read' call.
08 = Failed 'lla_iatt' call.
09 = Failed 'lla_irel' call.
10 = Failed 'lla_rdget' call.
11 = Failed 'lla_opensq' call.
12 = Failed 'lla_nextseq' call.
13 = Could not execute PMCR collector or PMCR report generator.
14 = Could not get equipment configuration database (ECD) segments.
15 = Could not get reporting office name from ECD.
16 = Computation of maintenance usage time for the specified unit resulted in a time greater than 86,400 seconds (one day) or a negative value.
17 = Bad arguments received by PMCR report generator.

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18 = Spool error during output of report.
19 = No data has been collected to output a retained/demand report. Requesting a daily retained report should not be attempted until after a scheduled daily report has been generated. Requesting an hourly retained report should not be attempted until after a scheduled hourly report has been generated. Demand reports should not be attempted until at least one hour after a valid scheduled daily report has been generated.
22 = PMDB initialization time reset to current time.
23 = Start time reset to 0.
24 = Start time reset to current time.
25 = Change reason for start time and reset time to 0.
26 = Start time reset to top unit start time.
27 = Change reason for start time to top unit reason and reset start time to top unit start time.
28 = Hour limit exceeded. Time reset to one hour.
29 = Negative time count. Time reset to 0.
30 = Day limit exceeded. Time reset to one day.
31 = Current value (for example, alarm count) is less than count recorded from previous hour, or previous count was invalid.
32 = Open of /etc/log/pmcrlog file failed.
33 = Could not execute pmdbcopy.
34 = Unrecognized unit control block (UCB) status.
35 = Failed 'malloc' call.
36 = Failed 'lla_gtrid' call.
37 = Plant measurements audit record deleted.

Fourth digit is not used.

b = Error code returned by the failing function call. Valid value(s):

If 'a' =	**'b' =**
x01x-x03x, x13x-x16x, x181, or x182	Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.
x04x-x07x	The plant measurements error code number.
x17x or x183	The value of the bad arguments passed to the function or process.
x08xx-x12x, x19x, x35x, x36x, or x38x	Does not specify an error code.
x34x	The invalid UCB status.
x37x	The deleted audit record.

4. ACTION TO BE TAKEN

For messages 22 through 31, refer to /etc/log/pmcrlog for record name information. These error messages indicate that the count or time for the unit may not be valid. No further action is needed.

The log file (/etc/log/pmcrlog) is reset every time a scheduled report runs.

If 'a' =	**Action To Be Taken**
x00x	Request output of scheduled reports to be turned on by using OP:PMCR message. Then scheduled hourly reports will be printed at the end of the hour, and daily at the end of the day.
x01x	Check port 27, using the OP:ST-PORTS input message, to see if another process has control of the port.
x02x	Check that the correct OP:PMCR input message was entered. Request output of scheduled reports to be turned on by using the OP:PMCR input message.
x03x-x07x	Check the usability of the plant measurements database.
x08x-x12x	Check the usability of the ECD.

x13x	Check the usability of the PMCR processes.
x14x-x15x	Check the usability of the ECD.
x16x	Check system clock versus last clean report.
x17x	Check that the correct OP:PMCR input message was entered.
x18x-x19x	No action can be taken.
x32x	Check that the /etc/log directory has read/write/search permission, that the /etc/log/pmcrlog file (if it exists) has write permission, and that free blocks and i-nodes are available on the file system.
x33x	Check that the /prc/pmdbcopy file exists and is executable.
x34x-x35x	If the error persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
x36x	Check the usability of the ECD.
x37x	No action to be taken.

In all instances, if the error persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

This alarm is automatically generated. Action may or may not be required. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	213
2	319

Input Message(s):

```
OP:PMCR
OP:ST-PORTS
```

Output Message(s):

```
REPT:OP-PMCR
```

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

OP:PMCCS

Software Release: 5E12 and later
Message Class: SPM
Application: 5
Type: Output

1. FORMAT

```
[1]    ____________________________________________________________________
       OP PMCCS

        {CALLED=a|CALLING=b} TKGMN=c-d [CDTT=e|CGSN=f|CDSN=g] [LAYER=h] REPEAT=i

        SES=j kk/kk ll:ll:ll [DUR=m

        PROT=n DIR=o

        {XLATE|NO XLATE} STATE=p

[2]    ____________________________________________________________________
       OP PMCCS q

        SES=j kk/kk ll:ll:ll

        AM|DLN

        SM NUMBERS

          r   r   r   r   r   r   r   r
```

2. REASON FOR OUTPUT

To respond to a manual request to output a list of active CCS protocol monitoring (PM) sessions.

Before a response is made, the information for active PM sessions is verified. If this verification determines that a session's data has been corrupted, the PM session will abort without printing any session information. Format 1 displays all pertinent information for active PM sessions. Format 2 provides the status (that is, aborted, completed, not started) of the request to list active PM sessions. It is also used to report the status of the processors involved in the PM session when the verbose option is requested on the op:pmccs input command.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`NO XLATE` = The hexadecimal output for this session will NOT be translated through the protocol monitoring translator. The data will be reported in hexadecimal format on the receive-only-printer (ROP).

`XLATE` = The protocol monitoring translator has been invoked for this session. The output will be translated into an American standard code for information interchange (ASCII) file.

`AM|DLN` = Signifies that the AM or DLN processor is associated with this PM session.

`SM NUMBERS` = Signifies that SM processors are associated with this PM session.

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`a` = Called party address directory number.

`b` = Calling party address directory number.

`c` = Trunk group number. Trunk group used to route the ISUP call associated with this PM session.

`d` = Trunk group member number. Trunk group member used to route the ISUP call associated with this PM session.

`e` = Called party translation type.

`f` = Calling party subsystem number.

`g` = Called party subsystem number.

`h` = Location in the TCAP message to match the CALLED/CALLING parameters (SCCP=SCCP Header;TCAP=TCAP data).

`i` = Number of times this session will be repeated.

`j` = The value of the session identifier (SES) for this monitoring session.

`k` = The date-stamp of the beginning of the monitoring session, in the form month/day.

`l` = The time-stamp of the beginning of the monitoring session, in the form hours:minutes:seconds.

`m` = The duration (DUR) of the recording session in seconds.

`n` = Protocol requested for the session.

`o` = Direction of the first matching message.

`p` = State of the protocol monitoring session. Valid value(s):

`ABORTED` = The session has aborted.
`DATA RETRIEVAL` = The recording of data has completed and is being processed for output.
`DURATION TIMEOUT` = The duration timer has fired. Waiting for session output.
`RECORDING` = The session is recording data and the termination message has has not yet been captured.
`STOP WITH DUMP` = The session has been manually terminated with either translation or hexadecimal reporting of the output data.
`TRANSLATING` = The hexadecimal data collected during the session is being translated into an ASCII format.

= Indicates that the session will not repeat due to an abnormal termination.

`q` = Status. Valid value(s):

`ABORTED - COMMUNICATION FAILURE` = An unspecified communication error occurred between the administrative module (AM) and the recording processor (SM, DLN or AM) or the AM and *UNIX*® operating system.
`ABORTED - DATABASE PROBLEM` = The request to start a PM session failed because an error occurred while reading the database.
`ABORTED - INTERNAL FAILURE` = The PM session was aborted because an internal failure was encountered.
`RECORDERS ABORTED` = List of PM processors that have aborted during a PM session.

`PROCESSORS SCREENING` = List of PM processors that are actively screening messages for this PM session.
`PROCESSOR RECORDING` = Lists the PM processor that is recording data for this PM session.
`RECORDERS INACTIVE DUE TO OVERLOAD` = List of PM processors that have aborted due to a detection of an overload condition.
`ABORTED - INVALID SESSION ID` = The PM session was aborted because the session identifier did not correspond to a valid session.
`COMPLETED` = The verification request has successfully been completed.
`NOT STARTED - NO ACTIVE SESSION` = The request to verify a PM session failed because no active PM sessions existed or because the session number specified did not match an active session number.
`NOT STARTED - TRANSIENT STATE` = The request to verify a PM session could not be honored. Internal verification of the current session was executing. Repeat later.

`r` = SM number(s) associated with this PM session.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:PMCCS
OP:PMCCS
STP:PMCCS
```

Output Message(s):

```
EXC:PMCCS
STP:PMCCS
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

OP:PSLT

Software Release: 5E13 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP CCS PSLT SM=a f b

        c

[2]   ____________________________________________________________________
      OP CCS PSLT SM=a SET=d f b

        c

[3]   ____________________________________________________________________
      OP CCS PSLT SM=a SET=d MEMBER=e f b

        c
```

2. REASON FOR OUTPUT

To report the status of inhibited or allowed of the periodic signaling link test (PSLT) for the requested GSM link(s).

3. VARIABLE FIELD DEFINITIONS

a = CCS GSM number (SM).

b = Page indicator. Valid value(s):
`FIRST` =First page of report.
`NEXT` =Next report page.
`LAST` =Last page of report associated with this request.

c = Qualifier. Valid value(s):
`SET MEMBER STATUS` = Header for list of linkset, member, and their status.
`NO LINKS FOUND` = No link(s) found.
`SYSTEM ERROR` = An internal error occurred which prevented further processing.

d = Link set number (SET).

e = Link set member (MEMBER).

f = PSLT Status. Valid value(s):
`INHIBITED` = PSLT for the link is inhibited.
`ALLOWED` = PSLT for the link is allowed.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

OP:PTRC-STSFAC

Software Release: 5E13 and later
Message Class: PRFM
Application: 5
Type: Output

1. FORMAT

```
OP PTRC STSFAC=a-b-c-d-e f [g]
  EXPECTED:
  h
  RECEIVED:
  i
```

2. REASON FOR OUTPUT

This output message is generated in response to the OP:PTRC-STSFAC input command. This output message is used for digital networking unit - synchronous optical network (SONET) (DNU-S). This output message is used to verify that the specified receiving Synchronous Transport Signal (STS) Path Terminating Equipment (PTE) is connected to the intended transmitting STS PTE. The value of the expected and received data will be dumped along with a "MATCH/MISMATCH" status indicating whether the system considers the expected and received data to be in agreement or not.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = SONET terminating equipment facility number.

`e` = STS facility number.

`f` = The result of the request. Valid value(s):

- `COMPLETED` = The request was successfully completed.
- `FAILED` = The data could not be collected for this report.
- `FAILED DNUS CC OOS` = The request for PM counts failed because DNU-S common control (CC) was out-of-service. DNU-S duplex failure condition.
- `NO MATCH` = The specified facility does not exist or is not a DNU-S facility.
- `NOT ALLOWED` = The requested report is not allowed for the given facility or unit.
- `OUT OF SERVICE` = Either the specified facility or the associated Transmission Multiplexer (TMUX) is out of service.
- `HARDWARE NOT OPERATIONAL` = Either the specified facility or the associated Transmission Multiplexer (TMUX) is not in an operational state.
- `TMUX OFF NORMAL` = The associated Transmission Multiplexer (TMUX) is in an off normal condition.
- `SM UNAVAILABLE` = The input request could not be processed because communication with the associated SM is not possible.
- `SYSTEM BUSY` = The system's processing capability has been reached, or a system resource is unavailable. Retry the request later.

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g = Trace Status

MATCH = The specified receiving STS PTE data matches (agrees with) the intended transmitting STS PTE data.

MISMATCH = The system does not consider the specified receiving STS PTE data to match (does not agree with) the intended transmitting STS PTE data.

h = Data that this system was expecting from the transmitting STS PTE.

i = Data received from the transmitting STS PTE.

4. ACTIONS TO BE TAKEN

This message is generated in response to the OP:PTRC-STSFAC input message.

In the event a MISMATCH indication is received in field "g" above, first verify that the specified PTE (STSFAC) equipment is correct. Next verify that field "f" contains a COMPLETED status. If field "f" does not contain a COMPLETED status, take action according to the specified status adhering to local practices. If field "f" does contain a COMPLETED status indication, then determine whether the EXPECTED and RECEIVED data strings agree with one another.

If the EXPECTED and RECEIVED data strings do not agree with one another, then the following should be checked: the far end transmitting PTE should be connected to the correct near end receiving PTE, the customer provisionable data being transmitted by the far end transmitting PTE should agree with the near end receiving PTE customer provisionable data. In the latter case, the far end transmitting PTE's data may need to be refreshed. See Data Refresh section below.

If the EXPECTED and RECEIVED data strings do appear to agree with one another, check closely for unusual characters at the end of the string. The problem may be that the either the far end transmitting PTE or the near end receiving PTE is corrupting the data.

If the transmitting data is believed to be correct and the hardware is connected correctly, then it may be that the path data is out-of-date. If that is the case, it may be necessary to refresh this data. See Data Refresh section below.

If the system outputs MISMATCH for field "g" and field "f" contains COMPLETED, and the EXPECTED and RECEIVED data strings do agree with one another, then this indicates a software problem. Proceed in accordance with local practices for reporting software problems.

Data Refresh: If it has been determined that the data needs to be refreshed, perform the following operations (only if the far end transmitting PTE is DNU-S equipment): the far end transmitting PTE data can be refreshed by entering the OP:PTRC-STSFAC input message at the far end transmitting PTE (STSFAC). In general the OP:PTRC-STSFAC input command updates the specified PTE's transmitted data after it dumps the received data. If refreshing the far end transmitting PTE does not have the desired effect, it may be that there is a problem is with the near end receiving PTE equipment, in this case it may be necessary to diagnose the associated near end PTE's TMUX and SFI equipment.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PTRC-STSFAC
```

Output Message(s):

```
None.
```

Other Manual(s):
235-190-115 *Local and Toll System Features*
235-105-110 *System Maintenance Requirements and Tools*

RC/V View(s):

20.12 [DIGITAL NETWORKING UNIT SONET FOR STE AND STS (SM2000)]

58. OP:Q

OP:QNETSTAT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP QNETSTAT QLPSNW= a [g] b
        UNIT                     MTCE STATE
         c                         d[,e][,f]
         .                           .
         .                           .
         .                           .

[2]   ____________________________________________________________________
      OP QNETSTAT QLPSNW= a g LAST RECORD
```

2. REASON FOR OUTPUT

To report the configuration status of quad-link packet switch (QLPS) pipes (QPIPEs), QLPS communication links (QLNKs), and inter-switching module QLNKs (ISMQLNKs) and, if requested, the supporting communication module (CM) hardware.

Format 1 is the standard output message format when there are some units for which status must be reported.

Format 2 is the output message format when the status of QLPS network units cannot be reported due to the reason stated in '`g`'.

This output message is printed in response to a manual request for the status of QPIPEs, QLNKs, and ISMQLNKs by the OP:QNETSTAT input message. The request may be for all QPIPEs, QLNKs, and ISMQLNKs that meet specified criteria, or for the status of a specific QPIPE, QLNK, or ISMQLNK and all supporting CM hardware. In addition, this output message may be printed automatically to report that QPIPEs, QLNKs, and/or ISMQLNKs are out-of-service (OOS) despite the availability of all supporting hardware.

QPIPE, QLNK, and ISMQLNK maintenance states may be reported for either or both QLPSs of a network. The status of a QPIPE/QLNK/ISMQLNK associated with a standby parent QLPS indicates whether it is expected to be able to support message traffic if the parent QLPS were to become active.

A QPIPE that is OOS (except for family-of-equipment reasons) under a standby QLPS may have been removed from service due to errors that occurred prior to a QLPS switch. A QLNK or ISMQLNK that is reported to be in the STBY state is expected to become ACTIVE in the event of a QLPS switch (the parent QLPS is STBY). All parent hardware for such a QLNK/ISMQLNK is available, and the level 2 communication protocol is established through the mate (active) QLPS. If level 2 communication is not established through the active QLPS, the status of the QLNK/ISMQLNK through the standby QLPS will be IDLE.

Unless information about a specific ISMQLNK is manually requested, only the status of ISMQLNKs associated with an active QLPS will be reported. If there is no active QLPS for a network, the ISMQLNK status associated with the QLPS on ONTC side 0 will be reported.

The SM-2000 module controller time slot interchanger (MCTSI) side reported as part of the MH QPIPE, QLNK, or ISMQLNK unit identification is always the active MCTSI side at the time this report was generated.

3. VARIABLE FIELD DEFINITIONS

a = QLPS network number.

b = Sequence number of message block. Valid value(s):
FIRST RECORD = First record of continuing list.
NEXT RECORD = Next record of continuing list.
LAST RECORD = Last record of list.

c = Unit identification. Valid value(s):
ISMQLNK = Inter-switching module (SM) quad-link packet switch (QLPS) communication link.
MHQPIPE = Pipe from an SM-2000 message handler (MH) to a QLPS.
MSCU = Message switch control unit.
NLI = Network link interface.
ONTCCOM = Office network and timing complex (ONTC) common controller.
QGL = QLPS gateway processor (QGP) link.
QGP = QLPS gateway processor.
QGPQPIPE = QLPS pipe from a QGP to a QLPS.
QLNK = QLPS communication link between an SM-2000 and the administrative module (AM).
QLPS = Quad-link packet switch.
QTMSLNK = QLPS time multiplexed switch link.
TMSLNK = Time multiplexed switch link.

d = Maintenance state. Valid value(s):
ACT = Active.
DGRD = Degraded (ONTCCOM only).
IDLE = Idle.
INIT = Initializing.
OOS = Out of service.
STBY = Standby.
UNAV = Unavailable.

e = First maintenance state qualifier. Valid value(s):
AUTO = Due to an automatic action.
CLRISOL = The SM is clearing manual isolation (either QLPS only or total isolation).
FAR = Far end pipe failure.
FARFLT = Far end pipe failure due to fault.
FARLBK = Far end pipe failure due to loopback test.
FE = Family of equipment.
FRCD = Forced.
L2 = Level 2 is down.
LE = Link establish message sent.
LEACK = Link establish acknowledgement sent.
MAJOR = Major (ONTCCOM only).
MAN = Due to a manual action.
MANISOL = Manual isolation.
MINOR = Minor (ONTCCOM only).
NEARFLT = Near end pipe failure due to fault.
NEARLBK = Near end pipe failure due to loopback test.
PEND = A manual action is pending on a parent which will cause this unit to be removed.

`UPD` = Routing update in progress.

`f` = Second maintenance state qualifier. Valid value(s):

- `DGN` = Unit is being diagnosed.
- `DFRIP` = Duplex/quadruplex failure recovery is in progress.
- `EX` = Unit is being manually exercised.
- `FE` = Family of equipment.
- `FLT` = Fault.
- `MIP` = Maintenance in progress.
- `PWRALM` = Power alarm.
- `PWROFF` = Power off.
- `REX` = Unit is being routinely exercised.
- `RMV` = Unit has been removed.
- `TBLA` = Trouble analysis.
- `TMP` = Temporary.

`g` = Report completion status. Valid value(s):

- `DATA INCOMPLETE` = Complete data associated with ISMQLNKs could not be obtained. This can occur because an SM-2000 is isolated or initializing, or due to a timeout waiting for a response from the SM-2000.
- `INVALID REQUEST` = Options input were invalid. Verify that the specified network and source QGP are correct.
- `NO UNITS SELECTED` = No units were found that met the specified input criteria (manual requests only).

4. ACTION TO BE TAKEN

Refer to the Corrective Maintenance Procedures manual for information to clear any reported offnormal conditions in the QLPS networks. If this message was printed automatically, any units reported are considered to be offnormal.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-105-220 *Corrective Maintenance Procedures*
235-105-250 *System Recovery Procedures*

59. OP:R

OP:RCACCESS-A

Software Release: 5E10 - 5E12
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP RCACCESS TTY "a" ACCESS H'"b"
```

2. REASON FOR OUTPUT

To respond to the OP:RCACCESS input message to display the recent change (RC) access abilities for the specified terminal (TTY).

3. VARIABLE FIELD DEFINITIONS

a = Name of a terminal in the office. (Refer to Exhibit A).

b = A hexadecimal number representing a set of RC abilities is assigned to a specific TTY. The bits are numbered for reference from right to left. When translated to binary, a binary "1" indicates that a representative set of recent change abilities is allowed from the associated terminal:

Bit location	RC ability
0	Lines -- Telephone number (TN) views.
1	Lines -- Originating equipment number (OE) views.
2	Lines -- Multi-line hunt group (MLHG) views.
3	Lines -- Miscellaneous views.
4	Trunks -- Trunk group number (TGN) member views.
5	Automatic Call Dist. views.
6	Trunks -- Miscellaneous views.
7	Office miscellaneous and alarm views.
8	Digit analysis views.
9	Routing charging views.
10	Cutover status views.
11	Business/residence customer service (BRCS) feature definition views.
12	Traffic measurement views.
13	Line trunk test views.
14	Common network interface (CCS).
15	Packet switching unit (PSU) based signaling system 7 (SS7) views.
16	Communication module (CM) views.
17	Switching module (SM) and *SLC*™ 96 module views.
18	SM unit views.
19	SM pack subpack views.
20	Operator Services Position System (OSPS) views.
21	Integrated services digital networks (ISDN) equipment.
22	ISDN basic rate interface.
23	Applications processor.
24	Large data movement.
25	OSPS toll and assistance/intermediate switching point (ISP) views.
26	OSPS toll and assistance part II.
27	Global recent change (RC) - lines views.
28	Wireless network controller (WNC) - lines views.

Exhibit A

TTY Number	TTY Name
enter "ttya"	For MCC
enter "ttyA"	For TTY=26
(MTTY=0/MTTY=1)	enter "ttyB"
For TTY=27	(note: "ttyb" is not used)
enter "ttyC"	For TTY=28
enter "ttyc"	For TTY=2

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enter "ttyD"	For TTY=29
enter "ttyd"	For TTY=3
enter "ttyE"	For TTY=30
enter "ttye"	For TTY=4
enter "ttyF"	For TTY=31
enter "ttyf"	For TTY=5
enter "ttyG"	For TTY=32
enter "ttyg"	For TTY=6
enter "ttyH"	For TTY=33
enter "ttyh"	For TTY=7
enter "ttyI"	For TTY=34
enter "ttyi"	For TTY=8
enter "ttyJ"	For TTY=35
enter "ttyj"	For TTY=9
enter "ttyK"	For TTY=36
enter "ttyk"	For TTY=10
enter "ttyL"	For TTY=37
enter "ttyl"	For TTY=11
enter "ttyM"	For TTY=38
enter "ttym"	For TTY=12
enter "ttyJ"	For TTY=39
enter "ttyn"	For TTY=13
enter "ttyO"	For TTY=40
enter "ttyo"	For TTY=14
enter "ttyP"	For TTY=41
enter "ttyp"	For TTY=15
enter "ttyQ"	For TTY=42
enter "ttyq"	For TTY=16
enter "ttyR"	For TTY=43
enter "ttyr"	For TTY=17
enter "ttyS"	For TTY=44
enter "ttys"	For TTY=18
enter "ttyT"	For TTY=45
enter "ttyt"	For TTY=19
enter "ttyU"	For TTY=46
enter "ttyu"	For TTY=20
enter "ttyV"	For TTY=47
enter "ttyv"	For TTY=21
enter "ttyW"	For TTY=48
enter "ttyw	TTY=22
enter "ttyX"	For TTY=49
enter "ttyx"	For SCC ternary
enter "ttyY"	For TTY=50
enter "ttyy"	For SCC secondary
enter "ttyZ"	For TTY=51
enter "ttyz"	For SCC primary

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:RCACCESS
SET:RCACCESS
```

Other Manual(s):
235-118-25x *Recent Change Procedures*

OP:RCACCESS-B

Software Release: 5E13 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP RCACCESS {LOGIN "a"|TTY "b"} ACCESS H'"c"
```

2. REASON FOR OUTPUT

To respond to the OP:RCACCESS input message to display the recent change (RC) access abilities for the specified terminal (TTY) associated with the 3B processor or the specified login id (LOGIN) associated with the administrative services module (ASM).

3. VARIABLE FIELD DEFINITIONS

a = Name of a login id assigned on the ASM in the office.

b = Name of a terminal associated with the 3B in the office. (Refer to Exhibit A).

c = A hexadecimal number representing a set of RC abilities is assigned to a specific TTY or LOGIN. The bits are numbered for reference from right to left. When translated to binary, a binary "1" indicates that a representative set of recent change abilities is allowed from the associated terminal:

Bit location	RC ability
0	Lines -- Telephone number (TN) views.
1	Lines -- Originating equipment number (OE) views.
2	Lines -- Multi-line hunt group (MLHG) views.
3	Lines -- Miscellaneous views.
4	Trunks -- Trunk group number (TGN) member views.
5	Automatic Call Dist. views.
6	Trunks -- Miscellaneous views.
7	Office miscellaneous and alarm views.
8	Digit analysis views.
9	Routing charging views.
10	Cutover status views.
11	Business/residence customer service (BRCS) feature definition views.
12	Traffic measurement views.
13	Line trunk test views.
14	Common network interface (CCS).
15	Packet switching unit (PSU) based signaling system 7 (SS7) views.
16	Communication module (CM) views.
17	Switching module (SM) and *SLC*™ 96 module views.
18	SM unit views.
19	SM pack subpack views.
20	Operator Services Position System (OSPS) views.
21	Integrated services digital networks (ISDN) equipment.
22	ISDN basic rate interface.
23	Applications processor.
24	Large data movement.
25	OSPS toll and assistance/intermediate switching point (ISP) views.
26	OSPS toll and assistance part II.
27	Global recent change (RC) - lines views.
28	Wireless network controller (WNC) - lines views.

Exhibit A -- TERMINAL IDENTIFICATION FOR USE WITH SET/OP:RCACCESS COMMAND

TTY Number	TTY Name
enter "ttya"	For MCC
enter "ttyA"	For TTY=26

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(MTTY=0/MTTY=1)	enter "ttyB"
For TTY=27	(note: "ttyb" is not used)
enter "ttyC"	For TTY=28
enter "ttyc"	For TTY=2
enter "ttyD"	For TTY=29
enter "ttyd"	For TTY=3
enter "ttyE"	For TTY=30
enter "ttye"	For TTY=4
enter "ttyF"	For TTY=31
enter "ttyf"	For TTY=5
enter "ttyG"	For TTY=32
enter "ttyg"	For TTY=6
enter "ttyH"	For TTY=33
enter "ttyh"	For TTY=7
enter "ttyI"	For TTY=34
enter "ttyi"	For TTY=8
enter "ttyJ"	For TTY=35
enter "ttyj"	For TTY=9
enter "ttyK"	For TTY=36
enter "ttyk"	For TTY=10
enter "ttyL"	For TTY=37
enter "ttyl"	For TTY=11
enter "ttyM"	For TTY=38
enter "ttym"	For TTY=12
enter "ttyJ"	For TTY=39
enter "ttyn"	For TTY=13
enter "ttyO"	For TTY=40
enter "ttyo"	For TTY=14
enter "ttyP"	For TTY=41
enter "ttyp"	For TTY=15
enter "ttyQ"	For TTY=42
enter "ttyq"	For TTY=16
enter "ttyR"	For TTY=43
enter "ttyr"	For TTY=17
enter "ttyS"	For TTY=44
enter "ttys"	For TTY=18
enter "ttyT"	For TTY=45
enter "ttyt"	For TTY=19
enter "ttyU"	For TTY=46
enter "ttyu"	For TTY=20
enter "ttyV"	For TTY=47
enter "ttyv"	For TTY=21
enter "ttyW"	For TTY=48
enter "ttyw	TTY=22
enter "ttyX"	For TTY=49
enter "ttyx"	For SCC ternary
enter "ttyY"	For TTY=50
enter "ttyy"	For SCC secondary
enter "ttyZ"	For TTY=51
enter "ttyz"	For SCC primary

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:RCACCESS
SET:RCACCESS
```

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-118-xxx *Recent Change Procedures and References Collection*

OP:RCHIST

Software Release: 5E10 and later
Message Class: RCVY
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP:RCHIST IN PROGRESS

[2]   ____________________________________________________________________
      OP:RCHIST NOT STARTED REPT RCHIST NOT IN PROGRESS
```

2. REASON FOR OUTPUT

To respond to a previously entered OP:RCHIST input message. Format 1 prints if the RCHIST is in progress. Format 2 prints if the RCHIST is not in progress.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:RCHIST

REPT:RCHIST

OP:RCHIST
```

Output Message(s):

```
REPT:RCHIST
STP:RCHIST
```

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OP:RCRLS

Software Release: 5E10 and later
Message Class: RCVY
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP:RCRLS IN PROGRESS

[2]   ____________________________________________________________________
      OP:RCRLS NOT STARTED EXC RCRLS NOT IN PROGRESS
```

2. REASON FOR OUTPUT

To respond to a previously entered OP:RCRLS input message. Format 1 prints if the RCRLS is in progress. Format 2 prints if the RCRLS is not in progress.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:RCRLS

STP:RCRLS

OP:RCRLS
```

Output Message(s):

```
OP:RCRLS
```

OP:RCRMV

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]    ____________________________________________________________________
       OP:RCRMV IN PROGRESS

[2]    ____________________________________________________________________
       OP:RCRMV NOT STARTED EXC RCRMV NOT IN PROGRESS
```

2. REASON FOR OUTPUT

To respond to a previously entered OP:RCRMV input message. Format 1 prints if the RCRMV is in progress. Format 2 prints if the RCRMV is not in progress.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:RCRMV

STP:RCRMV

OP:RCRMV
```

Other Manual(s):
235-118-217 *Recent Change Procedures Batch Release*

OP:RCSTAT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]    ____________________________________________________________________
       OP RCSTAT {SM a|CMP b|AM}NO OF RC c
                        .
                        .
                        .

[2]    ____________________________________________________________________
       OP RCSTAT {AM|CMP|SM|RED} LOG PERCENT FULL=d

[3]    ____________________________________________________________________
       OP RCSTAT=e
```

2. REASON FOR OUTPUT

To report the number of recent changes in one or more switching modules (SMs), one or more communication module processors (CMPs), and/or the administrative module (AM). This message is a response to an OP:RCSTAT-SM input message.

Format 1 will be repeated for each module for which a report was requested.

Format 2 which reports the percentage of the log file filled by recent change, will be printed once for each OP:RCSTAT-SM input message entered. All four forms of Format 2 will be printed with each request.

Format 3 will be printed once for each OP:RCSTAT-SM input message entered. The order in which the messages are printed is not significant.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = CMP number.

`c` = Number of recent changes logged.

`d` = Percentage of the log file filled by recent changes.

`e` = Termination report. Valid value(s):

- `ABORTED` = The requested action was terminated before a normal completion and the consistency of hardware states or data was questionable.
- `COMPLETED` = The requested action was terminated after a normal completion.
- `STOPPED` = The requested action was terminated before a normal completion but consistency of hardware states and data was reliable.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:RCSTAT-SM
```

Other Manual(s):
235-105-250 *System Recovery*

OP:RCUSER

Software Release: 5E10 and later
Message Class: RCVY
Application: 5
Type: Output

1. FORMAT

```
OP RCUSER: a ACTIVE RC USERS
 [RC PROCESS             TTY/LOGICAL/CLERK-ID  PART b OF c ]
 [RCV:MENU,APPRC          TERM-ID =  d]
 [RCV:POKE 196            TERM-ID =  d]
 [RCV:APPTEXT             TERM-ID =  d]
 [RC BATCH DEMAND RELEASE CLERK   =  d]
 [RC BATCH TIME RELEASE   CLERK   =  d]
 [RC BATCH HISTORY        CLERK   =  d]
 [RC BATCH REMOVE         CLERK   =  d]
 [RC BATCH AUTO CLEAN                 ]
 [RC FM             APID AND BCID =  d]
 [RC OFFICE RECORD        DEST    =  d]
 [RC QUERY                DEST    =  d]
 [RC ACSR                 ORIG TN =  d]
 [ODBE                    TERM-ID =  d]
```

2. REASON FOR OUTPUT

To respond to the OP:RCUSER input message to print the total number of users that are executing recent change (RC) operations, and print a list of user names that are either a terminal (TTY), a logical name, or a clerk ID.

3. VARIABLE FIELD DEFINITIONS

`a` = Total number of users executing RC operations at the time of query.

`b` = Section number. If '`a`' is zero, '`b`' will not be printed.

`c` = Total number of sections. If '`a`' is zero, '`c`' will not be printed.

`d` = User name that is either a TTY, a logical name, or a clerk ID at the time of query. If '`a`' is zero, '`d`' will not be printed. If the corresponding RC process is not running, the whole line will not be printed.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:RCUSER`

OP:RDTA-A

Software Release: 5E10 - 5E11
Message Class: TM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP RDTA SESSION=a b
        [b] [c] [l] [w] [y]
        [INDN=z ITAP=a1-b1] [OUTDN=c1 OTAP=d1-e1]
            MODE=f1 [QTS=g1]  DURATION=h1 TIME REMAINING=i1

[2]   ____________________________________________________________________
      OP RDTA SESSION=ALL SEGMENT j1 OF k1
         SES   EQUIP NUMBER          CHAN    MODE        QTS  TIME REMAINING
         ---   ------------          ----    ----        ---  --------------

          a  {b|l}                   [y]     f1           [g1]  i1
          .    .                      .      .             .    .
          .    .                      .      .             .    .
          .    .                      .      .             .    .

[3]   ____________________________________________________________________
      OP RDTA {c|l|w|SESSION={a|ALL}} [y] b FP=l1
```

2. REASON FOR OUTPUT

To respond to a manual request to output a status report of one or more remote digital test access (RDTA) sessions.

Format 1 is a successful response to a request to gather information on one particular RDTA session. This format will appear on a successful completion when requesting session information by submitting the session number or the port under test (PUT). The first line shows the session number and the successful look-up of session information. The second line describes the PUT in the various port identifications which are applicable to the PUT. The third line shows the output facility information defining routing for the RDTA connection and the location of the protocol analysis equipment. Acronyms are as follows: incoming directory number (INDN), incoming test access port (ITAP), outgoing DN (OUTDN), and outgoing test access port (OTAP). The fourth line shows the type of connection and quarter time-slot, if applicable, along with the total session duration and remaining session time.

Format 2 is used to respond to a request to print status information for all active RDTA sessions. This format will give limited information for up to 24 RDTA sessions (the maximum allowable number of RDTA sessions). A maximum of eight sessions are printed per segment. The first line displays the number of segments which will be displayed as a result of this request and the segment number of the segment which is being printed. To receive more detail, a specific session or PUT identification request should be made. Format 3 is used if there is a failure in getting the status information. The information, as seen by the input message, will be returned along with the reason for failure and a failure point number, used to identify the point in software where failure occurred.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

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+ = Assigned to a multipoint interface.

a = Session number given to the requested session. Sessions are numbered sequentially from 1 through 99. At 99, the numbers will be recycled starting from 1 again.

b = Response to OP:RDTA input message. Valid value(s):

`CMP UNAVAILABLE` = The communications module (CM) containing the PUT, which is needed to retrieve/translate port names, is isolated. This restricts the administrative module (AM) from printing the PUT external identifiers on line 2 of the Format 1 output message. Therefore, this message may also be seen on line 2 of the Format 1 output message in place of these external identifiers.

`COMPLETED` = Status information successfully found for the requested RDTA session.

`CORRUPTED DYNAMIC DATA` = Dynamic data has been corrupted. Look at receive-only printer (ROP) for a related assert to give assistance toward correcting the office dependent data (ODD) problem. Audits will correct any RDTA session/data inconsistency. If session data is corrupted for a particular RDTA session and an OP:RDTA request is made for all sessions this message will be seen in the equipment number field of Format 2.

`INVALID PUT` = The port could not be located in the database. The port identifier used in the input message was found to be invalid or incorrect.

`NON-UNIQUE NXX DN` = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.

`SESSION NOT ACTIVE` = The requested RDTA session is not active.

`SM UNAVAILABLE` = The SM containing the PUT, which is needed to retrieve/translate port names, is isolated. This restricts the AM from printing the PUT external identifiers on line 2 of the Format 1 output message. Therefore, this message may also be seen on line 2 of the Format 1 output message in place of these external identifiers.

`SYSTEM BUSY` = System resources are not available to gather information pertaining to the requested RDTA session. The AM or SM may be in overload condition.

`SYSTEM ERROR` = Internal system error occurred while generating status information for the requested RDTA session.

c = Service group and member numbers. Valid value(s):

```
BST=d-e
MLHG=f-g
OAPO=d
OPT=d-e
RTRS=h-i
TKGMN=j-k
```

d = Operator service center number.

e = Relative position number.

f = Multi-line hunt group number.

g = Multi-line hunt group member number.

h = Data link relative group number.

i = Data link relative member number.

j = Trunk group number.

k = Trunk group member number.

l = Equipment number. Valid value(s):

DEN=m-n-o-p
ILEN=m-q-r-s
LCEN=m-t-u-v
LCKEN=m-t-m^1-n^1-o^1
NEN=m-p^1-q^1-r^1-s^1-t^1

m = SM number.

n = Digital unit number.

o = Digital facility interface number.

p = Digital channel

q = Integrated digital carrier unit number.

r = Remote terminal number.

s = Channel unit number.

t = Integrated services line unit number.

u = Line group controller number.

v = Line card number.

w = Directory number. Valid value(s): I. DN=w[+] PKTDN=w[+]

y = Channel type (for basic rate interface BRI). Valid value(s):
B1 = B1-Channel.
B2 = B2-Channel.
D = D-Channel (default).

z = DN of the output facility where the protocol analyzer is connected to access the test data sent over the PUT to the switch. This direction will be known as incoming. Data sent from the analysis equipment for interaction with the PUT will originate from INDN for all interactive mode connections excepting the SPLITPH connection.

a^1 = SM number of the port which corresponds to the INDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

b^1 = Logical port number of the port which corresponds to INDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

c^1 = DN of the output facility where the protocol analyzer is connected to access the test data sent from the switch to the PUT. This direction will be known as outgoing. Data sent from the analysis equipment for interaction with the switch will originate from OUTDN for the SPLIT and SPLITPH connections.

d^1 = SM number of the port which corresponds to the OUTDN for local access or of the port which

connects the session switch (where the session is set up) to the network for remote access.

e[1] = Logical port number of the port which corresponds to OUTDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

f[1] = Connection mode of the RDTA session. Valid value(s):

- DTAC = Direct test access connection (DTAC). This is an interactive connection on a port that does not have a path set up on it. The PUT is seized and directly connected to a outgoing port terminating at the protocol analysis equipment.
- MON = Monitor. This is a receive-only connection on a busy circuit. A copy of the transmit and receive data being passed over the PUT is transmitted to two individual outgoing ports that terminate at the protocol analysis equipment.
- SPLIT = Duplex split. This is an interactive connection on a busy circuit. The existing path on the PUT is broken and each half is connected to an outgoing port terminated at the protocol analysis equipment. This allows interactive testing of both sides of the original path.
- SPLITPH = Simplex split protocol handler (PH) side. This is an interactive connection on an integrated services digital network (ISDN) channel nailed-up to a PH. The existing path on the ISDN channel is torn down and the PH associated with the channel being tested is directly connected to an outgoing port terminating to the protocol analysis equipment.
- SPLITPUT = Simplex split PUT side. This is an interactive connection on a busy circuit. The existing path on the PUT is broken and the PUT is directly connected to an outgoing port terminating to the protocol analysis equipment.

g[1] = The quarter time-slot (QTS) (16 kb/s section) of a 64 kb/s unrestricted channel. This output facility pseudo BRI D-channel quarter time-slot corresponds to the quarter time-slot carrying the BRI D-channel data, the PUT data, to the protocol handler (PH).

h[1] = This is the total time for which the session has been active in its present state (that is, the time since the start or conversion of the session). The output form is days (with a space between) hours:minutes:seconds.

i[1] = This is the remaining time for which the session will continue operating before the session will be automatically terminated, in the form days (with a space between) hours:minutes:seconds. If the session has been set for an infinite duration, the time field will be printed as INFINITE. The session may be extended by using the UPD:RDTA input message.

j[1] = Segment number of the segment currently being printed.

k[1] = Total number of segments being printed to satisfy one particular OP:RTDA request to retrieve information on all sessions.

l[1] = Fail point number used to relay the specific point in the software at which a failure occurred. This is used purely for debugging purposes.

m[1] = Line group number.

n[1] = Line board number.

o[1] = Line circuit number.

p[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

q[1] = Data group (DG) number.

r[1] = Synchronous transport signal (STS) number.

s[1] = Virtual tributary (VT1.5) number.

t[1] = Digital signal level 0 (DS0) number.

4. ACTION TO BE TAKEN

If the completion code indicates a failure in getting the status report, due to an internal software/hardware error, save the printer output. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:RDTA
OP:RDTA
UPD:RDTA
STP:RDTA
VFY:RDTA
```

Output Message(s):

```
EXC:RDTA
STP:RDTA
UPD:RDTA
VFY:RDTA
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-190-105 *ISDN Feature Descriptions*
235-900-301 *ISDN Basic Rate Interface Specification*

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OP:RDTA-B

Software Release: 5E12 only
Message Class: TM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP RDTA SESSION=a b
        [b] [c] [l] [w] [y]
        [INDN=z ITAP=a1-b1] [OUTDN=c1 OTAP=d1-e1]
            MODE=f1 [QTS=g1]  DURATION=h1 TIME REMAINING=i1

[2]   ____________________________________________________________________
      OP RDTA SESSION=ALL SEGMENT j1 OF k1
         SES   EQUIP NUMBER          CHAN    MODE        QTS  TIME REMAINING
         ---   ------------          ----    ----        ---  --------------

          a  {b|l}                   [y]     f1           [g1]  i1
          .    .                      .      .             .    .
          .    .                      .      .             .    .
          .    .                      .      .             .    .

[3]   ____________________________________________________________________
      OP RDTA {c|l|w|SESSION={a|ALL}} [y] b FP=l1
```

2. REASON FOR OUTPUT

To respond to a manual request to output a status report of one or more remote digital test access (RDTA) sessions.

Format 1 is a successful response to a request to gather information on one particular RDTA session. This format will appear on a successful completion when requesting session information by submitting the session number or the port under test (PUT). The first line shows the session number and the successful look-up of session information. The second line describes the PUT in the various port identifications which are applicable to the PUT. The third line shows the output facility information defining routing for the RDTA connection and the location of the protocol analysis equipment. Acronyms are as follows: incoming directory number (INDN), incoming test access port (ITAP), outgoing DN (OUTDN), and outgoing test access port (OTAP). The fourth line shows the type of connection and quarter time-slot, if applicable, along with the total session duration and remaining session time.

Format 2 is used to respond to a request to print status information for all active RDTA sessions. This format will give limited information for up to 24 RDTA sessions (the maximum allowable number of RDTA sessions). A maximum of eight sessions are printed per segment. The first line displays the number of segments which will be displayed as a result of this request and the segment number of the segment which is being printed. To receive more detail, a specific session or PUT identification request should be made.

Format 3 is used if there is a failure in getting the status information. The information, as seen by the input message, will be returned along with the reason for failure and a failure point number, used to identify the point in software where failure occurred.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms

shown in the format.

+ = Assigned to a multipoint interface.

a = Session number given to the requested session. Sessions are numbered sequentially from 1 through 99. At 99, the numbers will be recycled starting from 1 again.

b = Response to OP:RDTA input message. Valid value(s):

`CMP UNAVAILABLE` = The communications module (CM) containing the PUT, which is needed to retrieve/translate port names, is isolated. This restricts the administrative module (AM) from printing the PUT external identifiers on line 2 of the Format 1 output message. Therefore, this message may also be seen on line 2 of the Format 1 output message in place of these external identifiers.

`COMPLETED` = Status information successfully found for the requested RDTA session.

`CORRUPTED DYNAMIC DATA` = Dynamic data has been corrupted. Look at receive-only printer (ROP) for a related assert to give assistance toward correcting the office dependent data (ODD) problem. Audits will correct any RDTA session/data inconsistency. If session data is corrupted for a particular RDTA session and an OP:RDTA request is made for all sessions this message will be seen in the equipment number field of Format 2.

`INVALID PUT` = The port could not be located in the database. The port identifier used in the input message was found to be invalid or incorrect.

`NON-UNIQUE NXX DN` = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.

`SESSION NOT ACTIVE` = The requested RDTA session is not active.

`SM UNAVAILABLE` = The SM containing the PUT, which is needed to retrieve/translate port names, is isolated. This restricts the AM from printing the PUT external identifiers on line 2 of the Format 1 output message. Therefore, this message may also be seen on line 2 of the Format 1 output message in place of these external identifiers.

`SYSTEM BUSY` = System resources are not available to gather information pertaining to the requested RDTA session. The AM or SM may be in overload condition.

`SYSTEM ERROR` = Internal system error occurred while generating status information for the requested RDTA session.

c = Service group and member numbers. Valid value(s):

```
BST=d-e
MLHG=f-g
OAPO=d
OPT=d-e
RTRS=h-i
TKGMN=j-k
```

d = Operator service center number.

e = Relative position number.

f = Multi-line hunt group number.

g = Multi-line hunt group member number.

h = Data link relative group number.

i = Data link relative member number.

j = Trunk group number.

k = Trunk group member number.

l = Equipment number. Valid value(s):

AIUEN=m-t-n[1]-o[1]
DEN=m-n-o-p
ILEN=m-q-r-s
INEN=m-p-r-s
LCEN=m-t-u-v
LCKEN=m-t-m[1]-n[1]-o[1]
NEN=m-p[1]-q[1]-r[1]-s[1]-t[1]

m = SM number.

n = Digital unit number.

o = Digital facility interface number.

p = Digital channel

q = Integrated digital carrier unit number.

r = Remote terminal number.

s = Channel unit number.

t = Integrated services line unit (ISLU) or access interface unit (AIU) number.

u = Line group controller number.

v = Line card number.

w = Directory number. Valid value(s): I. DN=w[+] PKTDN=w[+]

y = Channel type (for basic rate interface (BRI)). Valid value(s):

B1	= B1-Channel.
B2	= B2-Channel.
D	= D-Channel (default).

z = DN of the output facility where the protocol analyzer is connected to access the test data sent over the PUT to the switch. This direction will be known as incoming. Data sent from the analysis equipment for interaction with the PUT will originate from INDN for all interactive mode connections excepting the SPLITPH connection.

a[1] = SM number of the port which corresponds to the INDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

b[1] = Logical port number of the port which corresponds to INDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

c[1] = DN of the output facility where the protocol analyzer is connected to access the test data sent from the switch to the PUT. This direction will be known as outgoing. Data sent from the analysis

equipment for interaction with the switch will originate from OUTDN for the SPLIT and SPLITPH connections.

d[1] = SM number of the port which corresponds to the OUTDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

e[1] = Logical port number of the port which corresponds to OUTDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

f[1] = Connection mode of the RDTA session. Valid value(s):

- DTAC = Direct test access connection (DTAC). This is an interactive connection on a port that does not have a path set up on it. The PUT is seized and directly connected to a outgoing port terminating at the protocol analysis equipment.
- MON = Monitor. This is a receive-only connection on a busy circuit. A copy of the transmit and receive data being passed over the PUT is transmitted to two individual outgoing ports that terminate at the protocol analysis equipment.
- SPLIT = Duplex split. This is an interactive connection on a busy circuit. The existing path on the PUT is broken and each half is connected to an outgoing port terminated at the protocol analysis equipment. This allows interactive testing of both sides of the original path.
- SPLITPH = Simplex split protocol handler (PH) side. This is an interactive connection on an integrated services digital network (ISDN) channel nailed-up to a PH. The existing path on the ISDN channel is torn down and the PH associated with the channel being tested is directly connected to an outgoing port terminating to the protocol analysis equipment.
- SPLITPUT = Simplex split PUT side. This is an interactive connection on a busy circuit. The existing path on the PUT is broken and the PUT is directly connected to an outgoing port terminating to the protocol analysis equipment.

g[1] = The quarter time-slot (QTS) (16 kb/s section) of a 64 kb/s unrestricted channel. This output facility pseudo BRI D-channel quarter time-slot corresponds to the quarter time-slot carrying the BRI D-channel data, the PUT data, to the PH.

h[1] = This is the total time for which the session has been active in its present state (that is, the time since the start or conversion of the session). The output form is days (with a space between) hours:minutes:seconds.

i[1] = This is the remaining time for which the session will continue operating before the session will be automatically terminated, in the form days (with a space between) hours:minutes:seconds. If the session has been set for an infinite duration, the time field will be printed as INFINITE. The session may be extended by using the UPD:RDTA input message.

j[1] = Segment number of the segment currently being printed.

k[1] = Total number of segments being printed to satisfy one particular OP:RTDA request to retrieve information on all sessions.

l[1] = Fail point number used to relay the specific point in the software at which a failure occurred. This is used purely for debugging purposes.

m[1] = Line group number.

n[1] = Line board number.

o[1] = Line circuit number.

p[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

q[1] = Data group (DG) number.

r[1] = Synchronous transport signal (STS) number.

s[1] = Virtual tributary (VT1.5) number.

t[1] = Digital signal level 0 (DS0) number.

4. ACTION TO BE TAKEN

If the completion code indicates a failure in getting the status report, due to an internal software/hardware error, save the printer output. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:RDTA
OP:RDTA
UPD:RDTA
STP:RDTA
VFY:RDTA
```

Output Message(s):

```
EXC:RDTA
STP:RDTA
UPD:RDTA
VFY:RDTA
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-190-105 *ISDN Feature Descriptions*
235-900-301 *ISDN Basic Rate Interface Specification*

OP:RDTA-C

Software Release: 5E13 and later
Message Class: TM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      OP RDTA SESSION=a b
        [b] [c] [l] [w] [y]
        [INDN=z ITAP=a1-b1] [OUTDN=c1 OTAP=d1-e1]
            MODE=f1 [QTS=g1]  DURATION=h1 TIME REMAINING=i1

[2]   ____________________________________________________________
      OP RDTA SESSION=ALL SEGMENT j1 OF k1
         SES   EQUIP NUMBER          CHAN    MODE        QTS  TIME REMAINING
         ---   ------------          ----    ----        ---  --------------

          a  {b|l}                   [y]     f1           [g1]  i1
          .    .                      .      .             .    .
          .    .                      .      .             .    .
          .    .                      .      .             .    .

[3]   ____________________________________________________________
      OP RDTA {c|l|w|SESSION={a|ALL}} [y] b FP=l1
```

2. REASON FOR OUTPUT

To respond to a manual request to output a status report of one or more remote digital test access (RDTA) sessions.

Format 1 is a successful response to a request to gather information on one particular RDTA session. This format will appear on a successful completion when requesting session information by submitting the session number or the port under test (PUT). The first line shows the session number and the successful look-up of session information. The second line describes the PUT in the various port identifications which are applicable to the PUT. The third line shows the output facility information defining routing for the RDTA connection and the location of the protocol analysis equipment. Acronyms are as follows: incoming directory number (INDN), incoming test access port (ITAP), outgoing DN (OUTDN), and outgoing test access port (OTAP). The fourth line shows the type of connection and quarter time-slot, if applicable, along with the total session duration and remaining session time. Format 2 is used to respond to a request to print status information for all active RDTA sessions. This format will give limited information for up to 24 RDTA sessions (the maximum allowable number of RDTA sessions). A maximum of eight sessions are printed per segment. The first line displays the number of segments which will be displayed as a result of this request and the segment number of the segment which is being printed. To receive more detail, a specific session or PUT identification request should be made. Format 3 is used if there is a failure in getting the status information. The information, as seen by the input message, will be returned along with the reason for failure and a failure point number, used to identify the point in software where failure occurred.

3. VARIABLE FIELD DEFINITIONS

`+` = Assigned to a multipoint interface.

`a` = Session number given to the requested session. Sessions are numbered sequentially from 1

through 99. At 99, the numbers will be recycled starting from 1 again.

b = Response to OP:RDTA input message. Valid value(s):

`CMP UNAVAILABLE` = The communications module (CM) containing the PUT, which is needed to retrieve/translate port names, is isolated. This restricts the administrative module (AM) from printing the PUT external identifiers on line 2 of the Format 1 output message. Therefore, this message may also be seen on line 2 of the Format 1 output message in place of these external identifiers.

`COMPLETED` = Status information successfully found for the requested RDTA session.

`CORRUPTED DYNAMIC DATA` = Dynamic data has been corrupted. Look at receive-only printer (ROP) for a related assert to give assistance toward correcting the office dependent data (ODD) problem. Audits will correct any RDTA session/data inconsistency. If session data is corrupted for a particular RDTA session and an OP:RDTA request is made for all sessions this message will be seen in the equipment number field of Format 2.

`INVALID PUT` = The port could not be located in the database. The port identifier used in the input message was found to be invalid or incorrect.

`NON-UNIQUE NXX DN` = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.

`SESSION NOT ACTIVE` = The requested RDTA session is not active.

`SM UNAVAILABLE` = The SM containing the PUT, which is needed to retrieve/translate port names, is isolated. This restricts the AM from printing the PUT external identifiers on line 2 of the Format 1 output message. Therefore, this message may also be seen on line 2 of the Format 1 output message in place of these external identifiers.

`SYSTEM BUSY` = System resources are not available to gather information pertaining to the requested RDTA session. The AM or SM may be in overload condition.

`SYSTEM ERROR` = Internal system error occurred while generating status information for the requested RDTA session.

c = Service group and member numbers. Valid value(s):

```
BST=d-e
 MLHG=f-g
 OAPO=d
 OPT=d-e
 RTRS=h-i
 TKGMN=j-k
```

d = Operator service center number.

e = Relative position number.

f = Multi-line hunt group number.

g = Multi-line hunt group member number.

h = Data link relative group number.

i = Data link relative member number.

j = Trunk group number.

k = Trunk group member number.

l = Equipment number. Valid value(s):

```
AIUEN=m-t-n1-o1
 DEN=m-n-o-p
 ILEN=m-q-r-s
 LCEN=m-t-u-v
 LCKEN=m-t-m1-n1-o1
 NEN=m-p1-q1-r1-s1-t1-u1-v1

 INEN=m-p-r-s
```

m = SM number.

n = Digital unit number.

o = Digital facility interface number.

p = Digital channel

q = Integrated digital carrier unit number.

r = Remote terminal number.

s = Channel unit number.

t = Integrated services line unit (ISLU) or access interface unit (AIU) number.

u = Line group controller number.

v = Line card number.

w = Directory number. Valid value(s):

```
DN=w[+]
 PKTDN=w[+]
```

y = Channel type (for basic rate interface (BRI)). Valid value(s):

- B1 = B1-Channel.
- B2 = B2-Channel.
- D = D-Channel (default).

z = DN of the output facility where the protocol analyzer is connected to access the test data sent over the PUT to the switch. This direction will be known as incoming. Data sent from the analysis equipment for interaction with the PUT will originate from INDN for all interactive mode connections excepting the SPLITPH connection.

a^1 = SM number of the port which corresponds to the INDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

b^1 = Logical port number of the port which corresponds to INDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

c^1 = DN of the output facility where the protocol analyzer is connected to access the test data sent from the switch to the PUT. This direction will be known as outgoing. Data sent from the analysis equipment for interaction with the switch will originate from OUTDN for the SPLIT and SPLITPH

connections.

d[1] = SM number of the port which corresponds to the OUTDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

e[1] = Logical port number of the port which corresponds to OUTDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

f[1] = Connection mode of the RDTA session. Valid value(s):

- `DTAC` = Direct test access connection (DTAC). This is an interactive connection on a port that does not have a path set up on it. The PUT is seized and directly connected to a outgoing port terminating at the protocol analysis equipment.
- `MON` = Monitor. This is a receive-only connection on a busy circuit. A copy of the transmit and receive data being passed over the PUT is transmitted to two individual outgoing ports that terminate at the protocol analysis equipment.
- `SPLIT` = Duplex split. This is an interactive connection on a busy circuit. The existing path on the PUT is broken and each half is connected to an outgoing port terminated at the protocol analysis equipment. This allows interactive testing of both sides of the original path.
- `SPLITPH` = Simplex split protocol handler (PH) side. This is an interactive connection on an integrated services digital network (ISDN) channel nailed-up to a PH. The existing path on the ISDN channel is torn down and the PH associated with the channel being tested is directly connected to an outgoing port terminating to the protocol analysis equipment.
- `SPLITPUT` = Simplex split PUT side. This is an interactive connection on a busy circuit. The existing path on the PUT is broken and the PUT is directly connected to an outgoing port terminating to the protocol analysis equipment.

g[1] = The quarter time-slot (QTS) (16 kb/s section) of a 64 kb/s unrestricted channel. This output facility pseudo BRI D-channel quarter time-slot corresponds to the quarter time-slot carrying the BRI D-channel data, the PUT data, to the PH.

h[1] = This is the total time for which the session has been active in its present state (that is, the time since the start or conversion of the session). The output form is days (with a space between) hours:minutes:seconds.

i[1] = This is the remaining time for which the session will continue operating before the session will be automatically terminated, in the form days (with a space between) hours:minutes:seconds. If the session has been set for an infinite duration, the time field will be printed as INFINITE. The session may be extended by using the UPD:RDTA input message.

j[1] = Segment number of the segment currently being printed.

k[1] = Total number of segments being printed to satisfy one particular OP:RTDA request to retrieve information on all sessions.

l[1] = Fail point number used to relay the specific point in the software at which a failure occurred. This is used purely for debugging purposes.

m[1] = Line group number.

n[1] = Line board number.

o[1] = Line circuit number.

p[1] = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

q[1] = Data group (DG) number.

r[1] = SONET termination equipment (STE) facility number.

s[1] = Synchronous transport signal (STS) facility number.

t[1] = Virtual tributary group (VTG) number.

u[1] = Virtual tributary member (VTM) number.

v[1] = Digital signal level 0 (DS0) number.

4. ACTIONS TO BE TAKEN

If the completion code indicates a failure in getting the status report, due to an internal software/hardware error, save the printer output. Refer to the TECHNICAL ASSISTANCE section of the INTRODUCTION.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:RDTA
OP:RDTA
UPD:RDTA
STP:RDTA
VFY:RDTA
```

Output Message(s):

```
EXC:RDTA
STP:RDTA
UPD:RDTA
VFY:RDTA
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-190-105 *ISDN Feature Descriptions*
235-900-301 *ISDN Basic Rate Interface Specification*

OP:REG

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP REG {a=b-c-d|SDFI=b-e-f|DFIH=b-c-g}  FAC h   i
        j MODE k ALARM [LCA] [RMA] [AIS] o
        [SLIP=p]   [OOF=q]   [COFA=r]   [BPV=s]
        [SES=t]    [ES=u]    [CRC6=v]

[2]   ____________________________________________________________________
      OP REG {a=b-c-d|SDFI=b-e-f|DFIH=b-c-g}  FAC 0   w
```

2. REASON FOR OUTPUT

To report the results of an OP:REG input message.

Format 1 displays the contents of the error registers of the specified hardware unit with a successful termination status. This is used only for T1 error registers on digital facility interfaces (DFIs).

Format 2 displays the reason that the input message could not complete (error termination status).

3. VARIABLE FIELD DEFINITIONS

`AIS` = Alarm indication signal (AIS) is in effect for this facility.

`DFIH` = Remote integrated services line unit (RISLU) digital facility interface.

`LCA` = Local alarm (red) is in effect for this facility.

`RMA` = Remote alarm (yellow) is in effect for this facility.

`SDFI` = *SLC*® digital facility interface.

`a` = Hardware unit type. Valid value(s):
- `DFI` = Digital facility interface.
- `HDFI` = Host digital facility interface.
- `RDFI` = Remote digital facility interface.

`b` = Switching module (SM) number.

`c` = Digital line and trunk unit (DLTU) number.

`d` = Digital facility interface (DFI) number.

`e` = Digital carrier line unit (DCLU) number.

`f` = *SLC*® digital facility interface (SDFI) number.

`g` = RISLU digital facility interface number.

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`h` = Facility number.

`i` = Termination status. Valid value(s):

- `COMPLETED` = Successful completion.
- `DATA MAY BE INVALID` = An error was encountered during processing. One or more counts may be invalid.

`j` = Circuit pack code (ANN or TN number) or microcode number.

`k` = T1 transmission mode and signaling format. Valid value(s):

- `64K` = T1 DFI D4 format with 8 bit zero code suppression (B8ZS) and rob-bit signaling. (ANN3(B),TN1611)
- `B8ZS` = T1 DFI remote SM (RSM) format with B8ZS and word-24 signaling (ANN5(B),TN1612). RISLUs only: extended framing (FE) format with B8ZS and no word-24 signaling. (TN1306,TN1311, TN1304,TN1309)
- `D4` = T1 DFI D4 format with zero code suppression (ZCS) and rob-bit signaling. (ANN1,ANN3(B),TN1611)
- `D464` = T1 DFI D4 format with ZCS and rob-bit signaling. (ANN3(B),TN1611)
- `D4D64` = T1 DFI D4 format with B8ZS and digital multiplex interface bit-oriented signaling (DMI-BOS). (TN1611)
- `D4DNO` = T1 DFI D4 format with DMI-BOS (TN1611).
- `D4DZ` = T1 DFI D4 format with ZCS and DMI-BOS (TN1611).
- `D4NO` = T1 DFI D4 format with rob-bit signaling. (ANN3(B),TN1611)
- `DZBTS` = T1 DFI FE format with zero byte time slot interchange (ZBTSI) and DMI-BOS (TN1611 [MC5D226A1]).
- `FE` = T1 DFI FE format with rob-bit signaling. (ANN3(B),TN1611). RISLUs only: FE format with ZCS and no rob-bit signaling. (TN1306,TN1311,TN1304,TN1309)
- `FE64` = T1 DFI FE format with ZCS and rob-bit signaling. (ANN3(B),TN1611)
- `FE8Z` = T1 DFI FE format with B8ZS and rob-bit signaling. (ANN3(B),TN1611). RISLUs only: FE format with B8ZS and no rob-bit signaling. (TN1306,TN1311,TN1304,TN1309)
- `FEB7` = T1 DFI FE format with ZCS and rob-bit signaling. (ANN3(B),TN1611)
- `FED64` = T1 DFI FE format with B8ZS and DMI-BOS (TN1611).
- `FEDNO` = T1 DFI FE format with DMI-BOS (TN1611).
- `FEDZ` = T1 DFI FE format with ZCS and DMI-BOS. (TN1611)
- `RZBTS` = T1 DFI RSM format with ZBTSI and word-24 signaling (TN1612 [MC5D227A1]).
- `SLC96_A` = *SLC*®96 A line S-DFI (ANN4).
- `SLC96_B` = *SLC*®96 B line S-DFI (ANN4).
- `SLC96_C` = *SLC*®96 C line S-DFI (ANN4).
- `SLC96_D` = *SLC*®96 D line S-DFI (ANN4).
- `SLC96_P` = *SLC*®96 P line S-DFI (ANN4).
- `ZBTSI` = T1 DFI FE format with ZBTSI and rob-bit signaling. (TN1611 [MC5D226A1])
- `ZCS` = T1 DFI RSM format with ZCS and word-24 signaling. (ANN5(B),TN1612). RISLUs only: FE format with ZCS and no word-24 signaling. (TN1306,TN1311,TN1304,TN1309)

`o` = Status of DFI. Valid value(s):

- `ACT` = Active.
- `OOS` = Out of service.
- `STBY` = Standby.

`p` = Total slip value (3-digit decimal number). This value is incremented once during a 10 second interval if at least one slip has occurred. Loss of signal will not increment this counter.

`q` = Number of 10-second intervals in which an out-of-frame error has occurred.

`r` = Change-of-frame alignment (COFA) count (5-digit decimal number). This value is incremented once during a 10 second interval if at least one COFA has occurred. Loss of signal will not increment this counter.

`s` = Bipolar violation (BPV) count (5-digit decimal number).

`t` = Severely errored seconds (SES) count (3-digit decimal number). Gives the total number of one-second intervals which contained at least 320 cyclic redundancy check (CRC-6) errors.

`u` = Errored seconds (ES) count (5-digit decimal number). Gives the total number of one second intervals which contained at least one CRC-6 error or frame alignment signal.

`v` = Cyclic redundancy check (CRC-6) count (5-digit decimal number).

`w` Error termination status. Valid value(s):
`ANN DFI TYPE INVALID` = Invalid circuit pack type.
`DFI DOES NOT EXIST` = Specified DFI number does not exist.
`DFI STATE INVALID` = DFI must be active or out of service for the message to continue processing. *SLC*® DFI must be active to continue processing. RISLU DFIH must be active or standby to continue processing.
`SOFTWARE ERROR` = Software error.

4. ACTION TO BE TAKEN

Retry OP:REG message when variable '`w`' = `SOFTWARE ERROR` or '`i`' = `DATA MAY BE INVALID`.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INIT:REG
OP:REG
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

OP:RELSPACE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP:RELSPACE: RELATION = a    PROCESSOR = b[&&c]
 [SIZE IN BYTES = d]
 [e]
 [f]
```

2. REASON FOR OUTPUT

To report the size of a relation residing on an operational processor or range of processors, such as the administrative module (AM), the communications module processor (CMP), or switching modules (SMs).

The size of the relation refers to all memory allocated to the relation including head pages, data pages and intermediate data pages. Virtual relations are made up of more than one physical relation and do not directly use any memory pages. Furthermore, two virtual relations may share the same physical relation. Because of this, no size can be calculated for virtual relations.

This message does not report the number of tuples in the relation, nor the amount of space taken up by the tuples in the relation, but only the total amount of memory allocated to the relation at the time of request.

3. VARIABLE FIELD DEFINITIONS

`a` = Relation name. The relation name will be printed in capital letters matching the relation name dictionary entry exactly as shown in Translations Manual or Dynamic Data Manual.

`b` = Processor number, or lower limit of a range of processor numbers.

`c` = Upper limit of a range of processor numbers.

`d` = Size of the relation, including head pages, data pages and intermediate data pages, expressed in bytes. No value is printed for aborted or stopped requests.

`e` = Termination report. Valid value(s):

- `ABORTED` = Request is aborted due to the reason given in variable '`f`'. No size information is provided for aborted requests.
- `COMPLETED` = Request completed successfully.
- `STOPPED` = Request is stopped due to the reason given in variable '`f`'. No size information is provided for stopped requests.

`f` = Reason for aborted or stopped request. Valid value(s):

- `FAILED TO COMMUNICATE WITH THE AM TERMINAL PROCESS` = The AM terminal process is successfully created, but the AM system process can not communicate with it. Check system status and retry request.
- `FAILED TO CREATE THE AM TERMINAL PROCESS` = The AM system process failed to create the AM terminal process. Check system status and retry request.
- `FAILED TO CREATE THE CMP TERMINAL PROCESS` = The CMP system process failed to create the CMP terminal process. Check system status and retry request.

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`FAILED TO CREATE THE SM TERMINAL PROCESS` = The SM system process failed to create the SM terminal process. Check system status and retry request.

`FAILED TO RECEIVE A MESSAGE FROM THE CMP` = The CMP terminal process is successfully created, but it failed to receive a message from the CMP system process. Check system status and retry request.

`FAILED TO RECEIVE A MESSAGE FROM THE SM` = The SM terminal process is successfully created, but it failed to receive a message from the SM system process. Check system status and retry request.

`FAILED TO SEND THE SIZING REQUEST TO THE CMP` = The CMP terminal process is successfully created, but the CMP system process is unable to send the sizing request message to it. Check system status and retry request.

`FAILED TO SEND THE SIZING REQUEST TO THE SM` = The SM terminal process is successfully created, but the SM system process is unable to send the sizing request message to it. Check system status and retry request.

`REQUESTED RELATION DOES NOT EXIST ON PROCESSOR` = The requested relation and the specified processor are incompatible. One cause of relation/processor incompatibility is a distribution type mismatch. For example, a request that specifies an SM processor and a relation with distribution type logical partitioned (LP) will result in a mismatch because LP relations exist on the AM or the CMP, but not on the SM. Another cause of relation/processor incompatibility is an application mismatch. For example, a request that specifies the CMP and a relation that is distribution LP and used only by an AM application will result in a mismatch because the CMP does not store relations used only by AM applications. Retry the request with new relation or processor(s) specified.

`THE AM TERMINAL WAS CREATED IN ERROR AND KILLED` = The AM terminal process is created, but it detected a bad reason code and terminated itself. Retry request.

`THE HM MESSAGE WAS NOT RECEIVED FROM THE AM` = The AM terminal process is successfully created, but it failed to receive a message from the AM system process. Check system status and retry request.

`THE REQUESTED PROCESSORS ARE NOT OPERATIONAL` = None of the processor(s) specified in the OP:RELSPACE input message are operational. Retry the request with new processor(s) specified.

`THE REQUESTED RELATION IS INVALID` = The requested relation does not reside on the processor(s) specified in the OP:RELSPACE input message. Retry the request with new processor(s) and/or a new relation specified.

`THE REQUESTED RELATION IS VIRTUAL- SEE OP:RELSPACE` = The requested relation is a virtual relation and, therefore, can not be sized.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:RELSPACE`

Other Manual(s):

Where 'x' is the release specific version of the specified manual.
235-600-10x *Translations Data*
235-600-20x *Dynamic Data*

OP:REX-DGN-FAB

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
OP REX  (DGN, FAB) [CM | SM = a] BLOCK b OF c
  CIRCUIT         NOT STARTED          COMPLETED          STOPPED
   TYPE                              ATP  STF  CATP  NTR
  _______         ___________       ___  ___  ____  ___     _______
     d                e             f    g    h    i          j
```

2. REASON FOR OUTPUT

To summarize diagnostic and/or fabric tests of routine exercise (REX) for hardware in the communication module (CM) and all switching modules (SMs) or in the CM or an SM. If required, the data will be printed in more than one block. This summary is printed automatically once a day at 8:00 a.m.

3. VARIABLE FIELD DEFINITIONS

`CM` = The CM based hardware summary is to be printed.

`SM` = The SM hardware summary is to be printed.

Note: If neither of these fields is printed, the CM summary and all SM summaries are to be printed.

`a` = SM number.

`b` = Current number of the block of data printed.

`c` = Total number of blocks of data to be printed.

`d` = Circuit type tested, such as bootstrapper (BTSR), line unit (LU) or test access circuit (TAC). Only gated diode crosspoint grid (GRID) and GRID board (GRIDBD) prints under circuit type when specifying fabric tests (FAB).

`e` = Number of circuits for which the test did not start. This field is initialized to the total number of circuits that REX will schedule for a test when an EXC:REX-CM-SM input message is received.

`f` = Number of circuits with all tests passed (ATP).

`g` = Number of circuits with some tests failed (STF).

`h` = Number of circuits with conditionally all tests passed (CATP).

`i` = Number of circuits for which tests did not run.

`j` = Number of circuits for which tests stopped or aborted.

Note: If a summary for all test types is requested, a full table with a number of data blocks will be provided. This will include a separated table for electronic loop segregation (ELS) tests also. Otherwise, a partial table of summary for the requested test type will be provided. The GRID and GRIDBD circuit types in the table of this message will give the fabric test results. If all variables

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equal zero, no tests have been run since the previous invocation.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:REX-CM-SM
OP:REX-CM-SM
```

Output Message(s):

```
OP:REX-ELS
```

OP:REX-ELS

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
OP REX (ELS) [SM = a]
  CIRCUIT         NOT STARTED         COMPLETED         SKIPPED
   TYPE
  ________        ___________         _________         ________
   LINE               b                   c                 d
```

2. REASON FOR OUTPUT

To provide a summary of the tests skipped and completed during the testing of electronic loop segregation (ELS). This testing was scheduled by routine exercise (REX) in one or all switching modules (SMs). This output message is printed in response to an OP:REX-CM-SM input message. It is also printed automatically at 8:00 a.m. daily.

3. VARIABLE FIELD DEFINITIONS

a = SM number (default is all SMs).

b = Number of lines for which the tests were not started for reasons such as unavailability of resources, failure to release resources, or data base error. This field is initialized to the total number of grids that REX will test after the EXC:REX-CM-SM input message is received.

c = Number of lines for which the tests are completed.

d = Number of lines skipped for reasons such as the lines were unassigned, out of service, or private branch exchange (PBX) lines.
Note: This message follows the OP:REX-DGN-FAB output message, if a summary of all test types (DGN, ELS and FAB) is requested.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

EXC:REX-CM-SM
OP:REX-CM-SM

Output Message(s):

```
OP:REX-DGN-FAB
OP:REX-ELS
```

OP:REXINH

Software Release: 5E10 and later
Message Class: SM
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP REXINH a
        [b] REX INHIBITED
        [c d]
         . .
         . .
         . .
        [REX INHIBITED IN DMQ |
         REX DMQ STATUS NOT AVAILABLE]

[2]   ____________________________________________________________________
      OP REXINH CANNOT OPEN e

[3]   ____________________________________________________________________
      OP REXINH NOT STARTED
        INVALID DATA FIELD

[4]   ____________________________________________________________________
      OP REXINH NOT STARTED
        RETRY LATER

[5]   ____________________________________________________________________
      OP REXINH CANNOT WRITE TO e
        WITH MESSAGE FROM KEY # f
```

2. REASON FOR OUTPUT

Format 1 is printed in response to an OP:REXINH input message. It also lists the hardware communities for which routine exercises are temporarily inhibited by the INH:REX input message. This message reports if routine exercises are inhibited in the deferred maintenance queue (DMQ) or if the DMQ cannot be accessed as part of temporary REX inhibits. Permanent REX inhibits are established for hardware communities by a field in the equipment configuration database (ECD).

Format 2 could not open temporary file used for sending report data to coordinator of spooler output process (CSOP) - no report is generated.

3. VARIABLE FIELD DEFINITIONS

`a` = Status of the report. Valid value(s):
- `COMPLETED` = Entire report has been processed. The last lines of the report follow the `COMPLETED` message.
- `IN PROGRESS` = The report has not yet been completed.

`b` = This field is empty if there are temporary REX inhibited hardware communities or REX is inhibited in the DMQ, followed by a list of the temporary REX inhibits. This field is set to NO if there are no

REX inhibited hardware communities and REX is not inhibited in the DMQ.

When the PERM option is specified on the OP:REXINH input message, reports whether permanent REX inhibits exist. Valid value(s):

`PERMANENT` = There are permanent REX inhibited hardware communities. Followed by a list of the permanent REX inhibited hardware communities.

`NO PERMANENT` = There are no permanent REX inhibited hardware communities.

`c` = Unit name.

`d` = Unit number.

Note: Some units like the bootstrapper (BTSR), remote link interface (RLI), and remote alarm unit (RAU) have no unit number.

`e` = Temporary output file name.

`f` = Key associated with writer failure.

4. ACTION TO BE TAKEN

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	24
2	25
3	650

Input Message(s):

```
ALW:DMQ
ALW:REX-CM-SM
INH:DMQ
INH:REX
INH:REX-CM-SM
OP:DMQ
OP:REXINH
```

Output Message(s):

```
OP:DMQ
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1280 (REX STATUS (SM))
1290 (REX STATUS (CM))

OP:REXINH-SLB

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
OP REXINH  STATUS  LIST     BLOCK    a  OF  b
  ROUTINE EXERCISE INHIBIT/ALLOW/IN-PROGRESS STATUS
  MODULE            DIAGNOSTICS                ELS            FABRIC
  ID           MODULE       UNIT(S)
  CM              c            d                N/A             N/A
  SM e            c            d                 c               c
   .              .                              .               .
   .              .                              .               .
   .              .                              .               .
  SM e            c            d                 c               c
```

2. REASON FOR OUTPUT

To provide the status list of routine exercise (REX) for all valid test types in the communication module (CM) and all switching modules (SMs) or in the CM or in a range of SMs. The data for the CM and each SM is given on a separate line of output. Therefore, this message may have many lines of output contained in one or more blocks of data. This output message is printed in response to an OP:REXINH input message.

3. VARIABLE FIELD DEFINITIONS

`CM` = Data on this line is for the CM.

`N/A` = Not applicable.

`SM` = Data on this line is for an SM.

`a` = Current block number of the data in this output message.

`b` = Total number of blocks of data in this output message.

`c` = Status of the test type. Valid value(s):
- `ALW` = The test type is allowed.
- `INH` = The test type is inhibited.
- `IP` = The test type is in progress.

`d` = Status of the test type. Valid value(s):
- `ALW` = The test type is allowed.
- `INH` = The test type is inhibited.

`e` = Number of the SM whose inhibit status is listed on this line.

4. ACTION TO BE TAKEN

None.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:REX-CM-SM
INH:REX-CM-SM
OP:REXINH
```

OP:RG1AUD

Software Release: 5E11 and later
Message Class: CCS
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP:RG1AUD  a

[2]   ____________________________________________________________________
      OP RG1AUD COMPL
        RING 1 AUDIT STARTED AT b
        WITH THE FOLLOWING OPTIONS:
        RATE=c, DUR=d, PAT=e

[3]   ____________________________________________________________________
      OP RG1AUD COMPL
        RING 1 AUDIT STARTED AT b
        WITH THE FOLLOWING OPTIONS:
        RATE=c, DUR=d, PAT=e AND UCL
```

2. REASON FOR OUTPUT

To print a response to the OP:RG1AUD input message. Format 1 prints when the Ring 1 Audit was not running or had been aborted. Format 2 or 3 prints if the Ring 1 Audit is currently running.

3. VARIABLE FIELD DEFINITIONS

a = Response for a successful input:

PF = The request was received and will be processed. A printout will follow giving either a termination report or termination report and results of the work initiated by the input message. Additional output that can accompany the PF output:

- OP RG1AUD STOPPED RG1AUD NOT RUNNING

- OP RG1AUD ABT PROBLEM WITH IMS DRIVER'S REPLY ACKNOWLEDGEMENT RATE VALUE

- OP RG1AUD ABT PROBLEM WITH IMS DRIVER'S REPLY ACKNOWLEDGEMENT

- OP RG1AUD ABT PROBLEM WITH IMS DRIVER'S REPLY REQUEST

b = The date and time when Ring 1 Audit was started.

c = The RATE (LOW, MED, or HIGH) the Ring 1 Audit is sending messages.

d = The duration in minutes (1-480) the Ring 1 Audit will run.

e = The test pattern (H'xxxxxxxx) repeated in the Ring 1 Audit messages.

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4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message

```
EXC:RG1AUD
REPT:RG1AUD
STOP:RG1AUD
```

OP:RING

Software Release: 5E10 and later
Message Class: SWM01
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP RING COMPL
        RING STAT: a

[2]   ____________________________________________________________________
      OP RING COMPL
        RING STAT: a

        GRP
        00 ddddddddddddddddd 01 ddddddddddddddddd 02 ddddddddddddddddd
          [eeeeeeeeeeeeeeee]  [eeeeeeeeeeeeeeee]  [eeeeeeeeeeeeeeee]
        03 ddddddddddddddddd 04 ddddddddddddddddd 05 ddddddddddddddddd
          [eeeeeeeeeeeeeeee]  [eeeeeeeeeeeeeeee]  [eeeeeeeeeeeeeeee]
                  .                   .                   .
                  .                   .                   .
                  .                   .                   .
        60 ddddddddddddddddd 61 ddddddddddddddddd 62 ddddddddddddddddd
          [eeeeeeeeeeeeeeee]  [eeeeeeeeeeeeeeee]  [eeeeeeeeeeeeeeee]
        63 ddddddddddddddddd
          [eeeeeeeeeeeeeeee]

[3]   ____________________________________________________________________
      OP RING LNf g COMPL
        LNf g: MJ=h; NM=i; RI=j; NP=k; EMSB=x
        l

[4]   ____________________________________________________________________
      OP RING RPCNf 0 COMPL
        RPCNf 0: MJ=h; NM=i; RI=j; NP=k
        l

[5]   ____________________________________________________________________
      OP RING GRP f COMPL
        GRP f: MJ=h; NM=i; RI=j; NP=k [;EMSB=x]
        l

[6]   ____________________________________________________________________
      OP RING LNf g COMPL
        IMS GENERIC RELEASE m
        LNf g  HOME RPC=n
        LNf g PRESENT LOAD TO 3B=o
        GENERIC SPEC FILE ACCORDING TO IUN:
        w GENERIC SPEC. FILE [p] CONTENTS:
                {(q       r       s) | NOT AVAILABLE}

[7]   ____________________________________________________________________
```

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```
      OP RING RPCNf 0 COMPL
        IMS GENERIC RELEASE m
        RPCNf 0 HAS t NODES ASSIGNED
        GENERIC SPEC FILE ACCORDING TO ECD:
        GENERIC SPEC. FILE [p] CONTENTS:
                {(q       r       s) | NOT AVAILABLE}

[8]   ____________________________________________________________________
      OP RING STOPPED
        u
```

2. REASON FOR OUTPUT

To provide status and generic information of specific ring nodes, groups of ring nodes, or the entire ring in general in response to an OP:RING input message.

Format 1 prints a general summary output.

Format 2 prints a detailed summary output. Formats 1 and 2 also provide the status of ring error analysis threshold.

Ring error analysis and recovery (EAR) operates in one of two modes. In the "stable" mode, EAR assumes that all ring failure events are transient in nature. Consequently, on a ring failure, the first recovery action attempted is to restore the ring to the configuration that existed before the ring failure occurred (from EAR level 0). If this fails, EAR will escalate to a recovery action that usually isolates the faulty portion of the ring (from EAR level 1 or 3). EAR will keep track of the number of ring failures that occur. If the failure rate (4) in a given time interval (60 minutes) becomes excessive, EAR will switch its mode of operation to the "quasi-unstable" or seemingly-unstable mode. In this mode, EAR assumes that all ring failure events are not transient in nature. The first recovery action attempted then will usually isolate the faulty portion of the ring (from EAR recovery level 1 or 3). Once in the quasi-unstable mode of operation, EAR will automatically switch back to the stable mode when the ring has remained error free for a 60 minute interval. Formats 1 and 2 indicate '`ERROR THRESHOLD EXCEEDED`' when EAR is operating in the quasi-unstable mode.

Formats 3 and 4 print a single ring node output.

Format 5 prints a ring node group output. The output is like formats 3 and 4, but for all the ring nodes in a requested ring node group.

Format 6 prints generic information for a LN ring node. If it is impossible to determine the generic specification file name according to the IUN, for example, the IUN is out of service or the IUN did not respond to generic specification file query request, the generic specification file name will be printed as blank (null) string and the phase '`NOT AVAILABLE`' will also be printed. If the generic specification file's contents can not be read the generic specification file name will be printed and the phase '`NOT AVAILABLE`' will also be printed.

Format 7 prints generic information for an RPC node.

Format 8 prints the reason the input message was STOPPED.

3. VARIABLE FIELD DEFINITIONS

```
a          = Ring status. Valid value(s):
           -          ACTIVE
           -          CONFIGURING
           -          ISOLATED SEGMENT BISO:  b EISO:  c
           -          RING STAT:
```

b,c = Ring node name (for example, LN001).

d = Major state of the ring node.

RING NODE MAJOR STATES

Active Nodes	Isolated Nodes	State
A	NOT APP	Active
B	b	Initializing
F	f	Off-line
G	g	Growth
O	i	Out of service
S	s	Standby
U	u	Unavailable
.	.	Unequipped

e = Numeric character representation of the minor node states when requesting OP:RING:DETD. Valid value(s):

(blank) = Node maintenance mode state AUTO and ring interface hardware state USBL and node processor hardware state USBL, or node major state is UNEQ.

1 = Node under manual control.

2 = Node processor hardware maintenance state is FLTY or UNTSTD, or ring interface hardware maintenance state is QUSBL.

4 = Ring interface hardware maintenance state is FLTY or UNTSTD.

3,5,6,7 = Combination of the above definitions.

f = Ring node group number.

g = Ring node member number.

h = Major state of the ring node. Valid value(s):

ACT = Node is active.

GROW = Node is being physically added to or removed from the ring.

INIT = Node is initializing.

OFL = Node is off-line and neither restoration nor removal is permitted.

OOS = Node is out-of-service and unavailable for normal use.

STBY = Node is a ring peripheral controller (RPC) that is running but the ring configuration is not completed or the ring is down.

UNAV = Unavailable.

UNEQ = Node is unequipped, but an equipment configuration data base (ECD) record may exist for it.

UNKNOWN MJ = An unknown major state has been encountered.

i = Maintenance mode state of the ring node. Valid value(s):

AUTO = Node is under automatic control.

MAN = Node is under manual control.

UNKNOWN MN = An unknown maintenance mode state has been encountered.

j = Ring interface (RI) hardware maintenance state of the ring node. Valid value(s):

FLTY = Ring interface hardware is faulty.

QUSBL = Ring interface hardware is usable if the node is quarantined.

UNKNOWN RI = An unknown ring interface hardware state has been encountered.

UNTSTD = Condition of ring interface hardware is unknown.
USBL = Ring interface hardware is usable.

k = Node processor hardware maintenance state of the ring node. Valid value(s):
FLTY = Node processor hardware is faulty.
UNKNOWN RI = An unknown node processor hardware state has been encountered.
UNTSTD = Condition of node processor hardware is unknown.
USBL = Node processor hardware is usable.

l = Ring position (RP). Valid value(s):
- BISO NODE - BEGINNING OF ISOLATED SEGMENT
- EISO NODE - END OF ISOLATED SEGMENT
- FAILED RANGE FOR PHYS. NODE IDENTIFIER
- IN ACT SEG
- IN ISOL SEG
- RING BEING RECONFIGURED, UNKNOWN RP AT THIS TIME
- RING DOWN, UNKNOWN RP AT THIS TIME
- UNKNOWN RP

m = Interprocess message switch (IMS) generic load number.

n = Ring peripheral controller (RPC) associated with this ring node if this ring node is in ACT or OOS state, and is not in an isolated segment. If this ring node is not in ACT or OOS state, or is in an isolated segment, NONE will be printed.

o = Present load capacity of this ring node presented to AM.

p = Generic specification file (for example RPC.1.0).

q = Type of file. Valid value(s):
b = b16.out load module.
d = Data file common to all nodes.
G = Attached processor (AP) generic specification file.
m = mc68.out load module.
n = Node dependent data file.
v = Optional node dependent data file.
w = rap.out load module.
x = x86.out load module.

r = Address. Valid value(s):

If 'q' =	'r' =
b, x, m, or w	Start execution address, segment and virtual address value, respectively.
d, n, or v	Location where data is to be written into related processor of this ring node. Segment and virtual address value respectively,
G	Dummy value is given (field not used).

s = File name.

t = Number of ring nodes linked to this RPC.

u = Reason the input message was stopped. Valid value(s):

```
-           COULD NOT GET A UCB
-           PROBLEM WITH IMS DRIVER REPLY
-           PROBLEM WITH IMS DRIVER REPLY
-           PROBLEM WITH IMS DRIVER REPLY
-           PROBLEM WITH IMS DRIVER REPLY
-           PROBLEM WITH IMS DRIVER REPLY
-           RING STATE CHANGED! ORIG: v. CURR: v.
```

v = Ring major state. Valid value(s):

```
-           ACTIVE, ISO SEG
-           ACTIVE, NO ISO SEG
-           BISO/EISO OOS, ISO SEG
-           DOWN
-           RECONFIGURING
-           UNKNOWN
```

w = Processor associated with this ring node. Valid value(s):

AP = Attached processor.
NP = Node processor.

x = ECD equipped status of enhanced message sampling board. Valid value(s):

NO = Board not equipped.
YES = Board equipped.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

OP:RING

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

118 (CNI RING STATUS PAGE)
1520 (RING NODE STATUS PAGE)

OP:RPCU

Software Release: 5E11 and later
Message Class: TM
Application: AEWNC
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP RPCU ALARM [SEGMENT a] [SM b] [NSEGS c] d
      [   RPCU ID    ALARM LVL          ]
      [  ----------------------------   ]
      [          e      f               ]
      [            .                    ]
      [            .                    ]
      [            .                    ]
      [            .                    ]
      [            .                    ]
      [            .                    ]
      [            .                    ]
      [            .                    ]
      [            .                    ]

[2]   ____________________________________________________________________
      OP RPCU ALARM [SM=g&&h] i
```

2. REASON FOR OUTPUT

To respond to a manual request for radio port controller units (RPCUs) and their alarm level. The list will be broken into separate segments if it is too long.

Format 1 is displayed when there are alarmed RPCUs present on the switching modules (SMs) specified by the input message. Format 2 provides additional information when no alarm data is available.

3. VARIABLE FIELD DEFINITIONS

`a` = Segment number identifying this portion of the message.

`b` = The switching module (SM) associated with this message.

`c` = The total number of segments printed for this message.

`d` = Type of message printed.

- `COMPLETED` = The OP:RPCU,ALARM output is complete
- `CONTINUED` = This output is a continuation of an OP:RPCU input message that has already printed at least one message.
- `REQUEST FAILED` = The request failed due to unexpected errors.
- `REQUEST TIMED-OUT` = Timed out waiting for the SM listed in this message to respond with alarm information.
- `STARTED` = This is the first message for an OP:RPCU input message.
- `STOPPED` = This message has been stopped by an STP:RPCU input message.
- `UNAVAILABLE` = The SM indicated is not available.

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`e` = RPCU in an alarm condition.

`f` = Alarm level for out-of-service (OOS) digital subscriber line (DSL) B-channels on this RPCU.
`CRITICAL` = There are 125 or more OOS DSL B-channels.
`MAJOR` = There are 24 to 124 OOS DSL B-channels.
`MINOR` = There are 5 to 24 OOS DSL B-channels.

`g` = SM number, or the lower limit of the range of SMs entered on the OP:RPCU input message.

`h` = Upper limit of the range of SMs entered on the OP:RPCU input message.

`i` = Report identifying why there is no alarmed RPCU data to print.
`ALREADY IN PROGRESS` = An OP:RPCU report is currently being generated.
`NO RPCUS WITH ALARMS FOUND` = There are no RPCUs in an alarm condition
`NO SMS WITH RPCUS ENTERED` = No RPCUs were found for the SM range specified in the OP:RPCU input message.
`NO SMS WITH RPCUS FOUND` = The OP:RPCU input message found no RPCUs.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:RPCU
STP:RPCU
```

MCC Display Page(s):

107 (CIRCUIT LIMIT PAGE)

Other Manual(s):
230-701-100 *Air Extension^{SM} Reference Manual*
230-701-120 *Air Extension^{SM} User's Guide*

OP:RT-ALARM-A

Software Release: 5E10 - 5E11
Message Class: PFR_RSP
Application: 5
Type: Output

1. FORMAT

```
OP RT ALARM SUMMARY  a   [b]
  LRT             SID     LOCATION        ALARM LEVEL
 [LRT=c-d-e       f       g               h]
  .               .       .               .
  .               .       .               .
  .               .       .               .
```

2. REASON FOR OUTPUT

To respond to the OP:RT-ALM-ALL input message that has requested a summary of the off-normal integrated TR008/TR303 remote terminals (RTs) in the office. TR008 RTs can be the *SLC*® 96, Series 5 feature package B, and enhanced B. TR303 RTs can be the Series 5 feature package 303G.

3. VARIABLE FIELD DEFINITIONS

`LRT` = Local number for the RT.

`a` = Sequence of message block. Valid value(s):
`FIRST RECORD`
`LAST RECORD`
`NEXT RECORD`

`b` = Qualifying information about data in message. Valid value(s):
`DATA MAY BE INCOMPLETE` = Data in the message may be incomplete because of communication trouble with a switching module (SM).
`NO ACTIVE ALARMS` = There are no active integrated RT alarms, that is, there are no off-normal integrated TR008/TR303 RTs (variable fields '`c`'-'`h`' are blank).

`c` = SM number.

`d` = Digital carrier line unit (DCLU) or integrated digital carrier unit (IDCU) number.

`e` = Local RT number.

`f` = Site identification (SID) number.

`g` Source of alarm. Valid value(s):
`CARRIER LINE` = The T1 facility is suspected of being faulty.
`FAR END` = The RT is suspected of being faulty or manual action at the RT caused the alarm.
`NEAR END` = The equipment at the office is suspected of being faulty or manual action at the office caused the alarm. Given the situation where near end and far end caused alarms, only near end will be reported.

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`h` = System alarms that are active for this RT. Valid value(s):

`CRITICAL`	= At least one critical alarm is active.
`MAJOR`	= At least one major alarm is active.
`MINOR`	= At least one minor alarm is active.
`PWR/MISC`	= Power/miscellaneous alarm is active. Either AC power has been lost at the RT, or a miscellaneous alarm (a door is open, for example) is active at the RT site.

4. ACTIONS TO BE TAKEN

None.

More detailed information about the alarms for a particular RT can be obtained with the OP:RT-ALM-ALL input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:RT-ALM-ALL
OP:RT-SID-LRT
```

Output Message(s):

```
OP:RT-SID-LRT
OP:RT-SID-SNA
```

MCC Display Page(s):

115Y,X (SM X-DCLU Y)
13ZY,X (SM X-DCLU Y RT Z)
187Y,X (SM X-IDCU Y FACILITY)
188YZZ,X (SM X-IDCU Y RT ZZ)

OP:RT-ALARM-B

Software Release: 5E12 and later
Message Class: PFR_RSP
Application: 5
Type: Output

1. FORMAT

```
OP RT ALARM SUMMARY  a   [b]
  LRT             SID     LOCATION        ALARM LEVEL
 [DCLURT=c-d-e    f       g               h]
 [IDCURT=c-d-e    f       g               h]
 [DNUSRT=c-d-e    f       g               h]
  .               .       .               .
  .               .       .               .
  .               .       .               .
```

2. REASON FOR OUTPUT

To respond to the OP:RT-ALM-ALL input message that has requested a summary of the off-normal integrated TR008/TR303 remote terminals (RTs) in the office. TR008 RTs can be the *SLC*® 96, Series 5 feature package B, and enhanced B. TR303 RTs can be the Series 5 feature package 303G.

3. VARIABLE FIELD DEFINITIONS

`a` = Sequence of message block. Valid value(s):

`FIRST RECORD`

`LAST RECORD`

`NEXT RECORD`

`b` = Qualifying information about data in message. Valid value(s):

`DATA MAY BE INCOMPLETE` = Data in the message may be incomplete because of communication trouble with a switching module (SM).

`NO ACTIVE ALARMS` = There are no active integrated RT alarms, that is, there are no off-normal integrated TR008/TR303 RTs (variable fields '`c`'-'`h`' are blank).

`c` = SM number.

`d` = Digital carrier line unit (DCLU) or integrated digital carrier unit (IDCU) number or digital networking unit - synchronous optical network (DNU-S) number.

`e` = Local RT number.

`f` = Site identification (SID) number.

`g` Source of alarm. Valid value(s):

`CARRIER LINE` = The T1 facility is suspected of being faulty.

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`FAR END` = The RT is suspected of being faulty or manual action at the RT caused the alarm.

`NEAR END` = The equipment at the office is suspected of being faulty or manual action at the office caused the alarm. Given the situation where near end and far end caused alarms, only near end will be reported.

`h` = System alarms that are active for this RT. Valid value(s):

`CRITICAL` = At least one critical alarm is active.

`MAJOR` = At least one major alarm is active.

`MINOR` = At least one minor alarm is active.

`PWR/MISC` = Power/miscellaneous alarm is active. Either AC power has been lost at the RT, or a miscellaneous alarm (a door is open, for example) is active at the RT site.

4. ACTIONS TO BE TAKEN

None.

More detailed information about the alarms for a particular RT can be obtained with the OP:RT-ALM-ALL input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:RT-ALM-ALL
OP:RT-SID-LRT
```

Output Message(s):

```
OP:RT-SID-LRT
OP:RT-SID-SNA
```

MCC Display Page(s):

1150,YY,X (SM X-DCLU YY)
1310,YY,Z,X (SM X-DCLU YY RT Z)
1870,Y,X (SM X-IDCU Y FACILITY)
1880,Y,ZZ,X (SM X-IDCU Y RT ZZ)
1511,Y,ZZZ,X (DNUS STS MAINTENANCE SM X DNU-S Y STS ZZZ)
1512,Y,ZZZ,X (DNUS STS DS1 APPLICATION SM X DNU-S Y STS ZZZ)
1660,YYYY,X (TR303 REMOTE TERMINAL SM X SID YYYY)

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OP:RT-ALL-A

Software Release: 5E10 - 5E11
Message Class: PFR_RSP
Application: 5
Type: Output

1. FORMAT

```
OP RT ALL/SID a
```

2. REASON FOR OUTPUT

To report the completion status of the OP:RT-ALM-ALL or the OP:RT-SID input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Completion status of message. Valid value(s):
`COMPLETED` = The message has been successfully completed.
`COMPLETED-DATABASE FAILURE` = The message has completed, but a database problem was encountered during processing.

4. ACTIONS TO BE TAKEN

If 'a' =	Action:
COMPLETED	None.
COMPLETED-DATABASE FAILURE	The message should be executed again. If the response is the same, the administrative module (AM) relation 96SIDLRT should be examined for problems.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:RT-ALM-ALL
OP:RT-SID-LRT
```

Output Message(s):

```
OP:RT-SID-LRT
OP:RT-SID-SNA
```

Other Manual(s):
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

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115Y,X (SM X-DCLU Y)
13ZY,X (SM X-DCLU Y RT Z)
187Y,X (SM X-IDCU Y FACILITY)
188YZZ,X (SM X-IDCU Y RT ZZ)

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OP:RT-ALL-B

Software Release: 5E12 and later
Message Class: PFR_RSP
Application: 5
Type: Output

1. FORMAT

```
OP RT ALL/SID a
```

2. REASON FOR OUTPUT

To report the completion status of the OP:RT-ALM-ALL or the OP:RT-SID input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Completion status of message. Valid value(s):

`COMPLETED` = The message has been successfully completed.

`COMPLETED-DATABASE FAILURE` = The message has completed, but a database problem was encountered during processing.

4. ACTIONS TO BE TAKEN

If 'a' =	**Action:**
COMPLETED	None.
COMPLETED-DATABASE FAILURE	The message should be executed again. If the response is the same, the administrative module (AM) relation 96SIDLRT should be examined for problems.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:RT-ALM-ALL
OP:RT-SID-LRT
```

Output Message(s):

```
OP:RT-SID-LRT
OP:RT-SID-SNA
```

Other Manual(s):
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

1150,YY,X (SM X-DCLU YY)
1310,YY,Z,X (SM X-DCLU YY RT Z)
1870,Y,X (SM X-IDCU Y FACILITY)
1880,Y,ZZ,X (SM X-IDCU Y RT ZZ)
1511,Y,ZZZ,X (DNUS STS MAINTENANCE SM X DNU-S Y STS ZZZ)
1512,Y,ZZZ,X (DNUS STS DS1 APPLICATION SM X DNU-S Y STS ZZZ)
1660,YYYY,X (TR303 REMOTE TERMINAL SM X SID YYYY)

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OP:RT-CHAN

Software Release: 5E10 and later
Message Class: PS
Application: 5
Type: Output

1. FORMAT

```
OP RT CHAN [IDCURT=a-b-c | DNUSRT=a-i-c | SID=j] h
  EOC=0  d  TEI=e  SAPI=f  MF=g
  EOC=0  d  TEI=e  SAPI=f  MF=g
  EOC=1  d  TEI=e  SAPI=f  MF=g
  EOC=1  d  TEI=e  SAPI=f  MF=g
  TMC=0  d  TEI=e  SAPI=f  MF=g
  TMC=0  d  TEI=e  SAPI=f  MF=g
  TMC=1  d  TEI=e  SAPI=f  MF=g
  TMC=1  d  TEI=e  SAPI=f  MF=g
```

2. REASON FOR OUTPUT

To respond to the OP:RT-CHAN input message request to report the state of all terminal endpoint identifiers (TEIs) associated with an integrated digital carrier unit (IDCU) or digital networking unit - synchronous optical network (SONET) (DNU-S) remote terminal's (RT's) extended operation channel (EOC) and timeslot maintenance channels (TMCs).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = Local remote terminal number.

`d` = EOC or TMC status. Valid value(s):
- `ACT` = Active.
- `OOS` = Out-of-service.
- `STBY` = Standby.

`e` = TEI number.

`f` = Service access point identifier (SAPI) number.

`g` = Multi-frame (MF) status. Valid value(s):
- `DOWN` = MF is not established.
- `EST` = MF is established.

`h` = The result of the remote terminal channel query. Valid value(s):
- `COMPLETED` = The query has completed successfully. All statuses on the channel are indicated.
- `SYSTEM ERROR` = An internal error occurred which prevented further processing. The request has been aborted.

`i` = DNU-S number.

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`j` = Site identification (SID) number.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:RT-CHAN
```

OP:RT-FAC-OFF

Software Release: 5E10 and later
Message Class: PFR_RSP
Application: 5
Type: Output

1. FORMAT

```
OP RT FAC OFF NORMAL INDICATION IS {SET|CLEARED}
```

2. REASON FOR OUTPUT

To report the status of the option of having the switching module (SM) status indicator updated to off-normal (OFFN) when a remote terminal (RT) T1 facility (FAC) is in an off-normal state. Specifically, if the option is set, the SM status will be updated to "RT PLS" (RT protection line switch) when a T1 facility goes on protection, or to "CKT OOS" (circuit out of service) when a T1 facility goes OOS.

3. VARIABLE FIELD DEFINITIONS

`CLEARED` = The option is cleared for updating the SM status to indicate that a T1 facility is off normal.

`SET` = The option is set for updating the SM status to indicate that a T1 facility is off normal.

4. ACTIONS TO BE TAKEN

None. If the reported state is not the desired state, set or clear the option using SET:RT-FACOFFN or CLR:RT-FACOFFN, respectively.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:RT-FACOFFN
OP:RT-FACOFFN
SET:RT-FACOFFN
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance Procedures*

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OP:RT-PROV-A

Software Release: 5E10 - 5E11
Message Class: RT
Application: 5
Type: Output

1. FORMAT

```
OP RT PROV a
  SID       LRT     INH   DS1  GLOBAL  PORTS  REPT  CLIENT
  b      c   d  e    f     g      h      i      j     k
```

2. REASON FOR OUTPUT

To report the completion status of an OP:RT-PROV request for status of provisioning an IDCURT. This output should not be used when the PROVISION RT field in RC/V View 18.15 (REMOTE TERMINAL) shows N (no). The switch is then not responsible for RT provisioning and does not maintain the data reported.

3. VARIABLE FIELD DEFINITIONS

a = Completion status. Valid value(s):
- COMPLETED = The request has been completed.
- DATABASE READ FAILURE = A database read failed when attempting to complete this request.
- INVALID REQUEST = The request contained invalid data.
- RESOURCES UNAVAIL = Retry later. Unavailable system resources for completing the request.
- TR303 RT NOT FOUND = Either the requested RT does not exist in the database or it is not a TR303 RT.

b = Site identification (SID) number of the RT.

c = Switching module (SM) number.

d = Unit number.

e = Local RT (LRT) number.

f = Indicates provisioning is inhibited (INH) or allowed. Provisioning may be inhibited manually using recent change or automatically as a result of a "memory mismatch" alarm reported by the RT. Valid value(s):
- NO = Provisioning is allowed.
- YES = Provisioning is inhibited.

g = DS1 provisioning tasks. Valid value(s):
- NO = No DS1 provisioning task pending.
- YES = A provisioning task is scheduled within 15 minutes for DS1 data. If immediate provisioning is required, refer to the EXC:RT-PROV input message.

h = Global provisioning tasks. Valid value(s):
- NO = No global provisioning task pending.
- YES = A provisioning task is scheduled within 15 minutes for global RT data. If immediate provisioning is required, refer to the EXC:RT-PROV input message.

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`i` = Port provisioning tasks. Valid value(s):
- `NO` = No port provisioning task pending.
- `YES` = A provisioning task is scheduled within 15 minutes for RT port data. If immediate provisioning is required, refer to the EXC:RT-PROV input message.

`j` = Provisioning report messages. Valid value(s):
- `NO` = Report messages are inhibited for this entry.
- `YES` = Report messages are allowed for this entry.

`k` = The client currently being served by provisioning. Valid value(s):
- `ALARMS REQUEST` = A provisioning task initiated by an alarm.
- `CRAFT REQUEST` = A provisioning task initiated by a end user request.
- `FULL INIT REQUEST` = A provisioning task initiated by an SM full initialization.
- `MRA REQUEST` = A provisioning task initiated by an EOC restoration.
- `NONE` = No preemptable provisioning task is currently running on this RT.
- `ROUTINE 15 REQUEST` = A provisioning task initiated by routine periodic provisioning.
- `ROUTINE 24 REQUEST` = A provisioning task initiated by routine daily provisioning.

4. ACTIONS TO BE TAKEN

The purpose of this message is to report the result of the action requested by the corresponding input message. No specific action is indicated.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:RT-PROV
OP:RT-PROV
```

Output Message(s):

```
EXC:RT-PROV
OP:RT-PROV
REPT:RT-PROV
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

OP:RT-PROV-B

Software Release: 5E12 and later
Message Class: RT
Application: 5
Type: Output

1. FORMAT

```
OP RT PROV a
  SID       LRT     UTYPE  INH   DS1  GLOBAL  PORTS  REPT  CLIENT
  b      c   d  e    u      f     g      h      i      j     k
```

2. REASON FOR OUTPUT

To report the completion status of an OP:RT-PROV request for status of provisioning an Integrated Digital Carrier Unit (IDCU) or Digital Network Unit SONET (DNU-S) terminated TR303 remote terminal (RT).

This output should not be used when the PROVISION RT field in RC/V View 18.15 (REMOTE TERMINAL) shows N (no). The switch is then not responsible for RT provisioning and does not maintain the data reported.

3. VARIABLE FIELD DEFINITIONS

a = Completion status. Valid value(s):
`COMPLETED` = The request has been completed.
`DATABASE READ FAILURE` = A database read failed when attempting to complete this request.
`INVALID REQUEST` = The request contained invalid data.
`RESOURCES UNAVAIL` = Retry later. Unavailable system resources for completing the request.
`TR303 RT NOT FOUND` = Either the requested RT does not exist in the database or it is not a TR303 RT.

b = Site identification (SID) number of the RT.

c = Switching module (SM) number.

d = Unit number.

e = Local RT (LRT) number.

u = Unit type (UTYPE).

f = Indicates provisioning is inhibited (INH) or allowed. Provisioning may be inhibited manually using recent change or automatically as a result of a "memory mismatch" alarm reported by the RT. Valid value(s):
`NO` = Provisioning is allowed.
`YES` = Provisioning is inhibited.

g = DS1 provisioning tasks. Valid value(s):
`NO` = No DS1 provisioning task pending.
`YES` = A provisioning task is scheduled within 15 minutes for DS1 data. If immediate provisioning is required, refer to the EXC:RT-PROV input message.

h = Global provisioning tasks. Valid value(s):

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NO = No global provisioning task pending.
YES = A provisioning task is scheduled within 15 minutes for global RT data. If immediate provisioning is required, refer to the EXC:RT-PROV input message.

i = Port provisioning tasks. Valid value(s):
NO = No port provisioning task pending.
YES = A provisioning task is scheduled within 15 minutes for RT port data. If immediate provisioning is required, refer to the EXC:RT-PROV input message.

j = Provisioning report messages. Valid value(s):
NO = Report messages are inhibited for this entry.
YES = Report messages are allowed for this entry.

k = The client currently being served by provisioning. Valid value(s):
ALARMS REQUEST = A provisioning task initiated by an alarm.
CRAFT REQUEST = A provisioning task initiated by a craft request.
FULL INIT REQUEST = A provisioning task initiated by an SM full initialization.
MRA REQUEST = A provisioning task initiated by an EOC restoration.
NONE = No preemptable provisioning task is currently running on this RT.
ROUTINE 15 REQUEST = A provisioning task initiated by routine periodic provisioning.
ROUTINE 24 REQUEST = A provisioning task initiated by routine daily provisioning.

4. ACTIONS TO BE TAKEN

The purpose of this message is to report the result of the action requested by the corresponding input message. No specific action is indicated.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:RT-PROV
OP:RT-PROV
```

Output Message(s):

```
EXC:RT-PROV
OP:RT-PROV
REPT:RT-PROV
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

OP:RT-REPT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP RT REPT MESSAGES ARE {ALLOWED|INHIBITED} AT MCC/SCC
```

2. REASON FOR OUTPUT

To report whether the Master Control Center (MCC) and the Switching Control Center (SCC) are able to receive reports concerning alarms on remote terminals (RT).

3. VARIABLE FIELD DEFINITIONS

`ALLOWED` = RT report messages are allowed.

`INHIBITED` = RT report messages are inhibited.

4. ACTIONS TO BE TAKEN

If reported state is not the desired state, inhibit or allow report using the INH:RT-REPT or ALW:RT-REPT input message, respectively.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:RT-REPT
INH:RT-REPT
OP:RT-REPT
```

Other Manual(s):
235-105-220 *Corrective Maintenance Procedures*
235-105-110 *System Maintenance Requirements and Tools*

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OP:RT-SID-LRT-A

Software Release: 5E10 - 5E11
Message Class: PFR_RSP
Application: 5
Type: Output

1. FORMAT

```
OP RT SID=a LRT=b-c-d e [f] [g]
 [h]   [i]   [j]   [k]
  .     .     .     .
  .     .     .     .
  .     .     .     .
```

2. REASON FOR OUTPUT

To report the result of an OP:RT-ALM-ALL input message that prints the alarms and off-normal conditions of the specified integrated TR008/TR303 remote terminal (RT). TR008 RTs can be the *SLC*® 96, Series 5 feature package B, and enhanced B. TR303 RTs can be the Series 5 feature package 303G.

3. VARIABLE FIELD DEFINITIONS

`a` = Site identification (SID) number.

`b` = Switching module (SM) number.

`c` = Digital carrier line unit (DCLU) or integrated digital carrier unit (IDCU) number.

`d` = Local RT number.

`e` = System alarms that are active for this integrated TR008/TR303 RT. Valid value(s):

- `ALL OKAY` = Entire RT system is working properly, that is, there are no alarms active. Variables '`g`' through '`j`' will not accompany this type of system alarm.
- `CRITICAL` = Critical alarm is active.
- `MAJOR` = Major alarm is active.
- `MINOR` = Minor alarm is active.
- `PWR/MISC` = Power/miscellaneous alarm is active.

`f` = Source of the alarm if an alarm is indicated in variable '`e`'. Valid value(s):

- `CARRIER LINE` = The T1 facility is suspected of being faulty.
- `FAR END` = The RT is suspected of being faulty or manual action at the RT caused the alarm.
- `NEAR END` = The equipment at the office is suspected of being faulty or manual action at the office caused the alarm. Given the situation where near end and far end caused alarms, only near end will be reported.

`g` = Sequence of message block. Valid value(s):

- `FIRST RECORD`
- `LAST RECORD`
- `NEXT RECORD`

`h` = TR008 RT units. Valid value(s):

DIGROUP = Digroup (TR008 RT)
DUAL DIGROUP = Dual Digroup (TR008 RT)
FAC = Facility
RT = Remote terminal
SHELF = Shelf (TR008 RT)
SHFGRP = Shelf group, that is, bank (TR008 RT)

i = Unit identifications. Valid value(s):
EOC = Embedded operations channels for TR303 RT.
TMC = Timeslot management channels for TR303 RT.

j = Alarm types. Valid value(s):
ALARMS UNAVAILABLE = Cannot read alarm information at the RT because the EOCs are in a duplex failure condition.
BANK LOOP BACK = Bank loop back request.
CTU = Channel test unit (CTU) alarm.
CTU DATA READ FAIL = CTU alarm data read failure, that is, unable to determine the state of the CTU alarm.
CTU/DLU DATA READ FAIL = CTU and data link unit (DLU) alarm data read failure, that is, unable to determine the state of the CTU or DLU alarm.
DATA READ FAIL = Data read failure, which means a failure to access the facility information from the associated RT digital facility interface.
DEGRADED = Facility is taking bit-errors.
DEGRADED STATE CLEARED = Either the rate of bipolar violations (BPVs) on a facility has dropped below 1E-4, or the facility has gone out-of-service.
DLU FAIL = DLU failure, which indicates that the DLU is unable to frame on the data it is receiving.
DLU DATA READ FAIL = DLU alarm data read failure, that is, unable to determine the state of the DLU alarm.
DUPLEX FAILURE = Duplex failure of the EOC or TMC.
FAR END LOOP = Far end loop sustained request is active.
IN DEGRADED STATE = The rate of BPVs on a facility is greater than 1E-4 and the protection line is unavailable.
INHIBIT DDL = The maintenance fields of the derived data link (DDL) are inhibited on the A and/or P facility. This implies that no maintenance information can be received from the RT over the A and/or P facility.
LINE ON PROT = Line on protection.
LOSS OF DDL = The RT alarm information is not available due to a problem with the A and/or the P facility. RT alarm information is sent to the switch through the DDL, which in turn is carried on both the A facility and, when equipped, the P facility.
LOSS OF DDL - RT ALARM INFORMATION UNAVAILABLE = Can not read DDL alarm information (also refer to LOSS OF DDL).
PATH SWITCH INHIBITED = Inhibit EOC or TMC path switching.
RECEIVE LINE FAIL = The system has detected a problem with the T1 facility: loss of framing, loss of signal, or loss of the DDL.
SIMPLEX FAILURE = Simplex failure of the EOC or TMC.
SWITCH DISABLED = A sustained request to disable protection line switching for the specified facility or facilities is active.
SWITCH TO PROT = A sustained request to switch the specified facility or facilities to the protection line is active.
TAU COT = Timeslot assignment unit (TAU) COT alarm.

TAU RT	= TAU alarm at the RT.
(message text)	= TR303 RT defined text that reports a problem that has currently existed at the RT.

k = States. Valid value(s):

ALARM ON	= An alarm condition exists.
ALARM OFF	= An alarm condition no longer exists.
REQUESTED	= A switch to protection or far end loop (SET:RT-FAC) sustained request has been entered but cannot be honored.

4. ACTIONS TO BE TAKEN

If 'i' =	Action:
FAR END LOOP	The sustained request can be turned off by using the CLR:RT-FAC input message.
SWITCH DISABLED	The sustained request can be turned off by using the ALW:RT-FAC input message.
SWITCH TO PROT	The sustained request can be turned off by using the CLR:RT-FAC input message, also.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:RT-FAC
CLR:RT-FAC
OP:RT-ALM-ALL
SET:RT-FAC
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

OP:RT-SID-LRT-B

Software Release: 5E12 and later
Message Class: PFR_RSP
Application: 5
Type: Output

1. FORMAT

```
OP RT SID=a {DCLURT=b-c-d|IDCURT=b-c-d|DNUSRT=b-c-d} e [f] [g]
 [h] [i] [j] [k]
  .   .   .   .
  .   .   .   .
  .   .   .   .
```

2. REASON FOR OUTPUT

To report the result of an OP:RT-ALM-ALL input message that prints the alarms and off-normal conditions of the specified integrated TR008/TR303 remote terminal (RT). TR008 RTs can be the *SLC*® 96, Series 5 feature package B, and enhanced B. TR303 RTs can be the Series 5 feature package 303G.

3. VARIABLE FIELD DEFINITIONS

`a` = Site identification (SID) number.

`b` = Switching module (SM) number.

`c` = Digital carrier line unit (DCLU) or integrated digital carrier unit (IDCU) number or digital networking unit - synchronous optical network (DNU-S).

`d` = Local RT number.

`e` = System alarms that are active for this integrated TR008/TR303 RT. Valid value(s):

- `ALL OKAY` = Entire RT system is working properly, that is, there are no alarms active. Variables '`g`' through '`j`' will not accompany this type of system alarm.
- `CRITICAL` = Critical alarm is active.
- `MAJOR` = Major alarm is active.
- `MINOR` = Minor alarm is active.
- `PWR/MISC` = Power/miscellaneous alarm is active.

`f` = Source of the alarm if an alarm is indicated in variable '`e`'. Valid value(s):

- `CARRIER LINE` = The T1 facility is suspected of being faulty.
- `FAR END` = The RT is suspected of being faulty or manual action at the RT caused the alarm.
- `NEAR END` = The equipment at the office is suspected of being faulty or manual action at the office caused the alarm. Given the situation where near end and far end caused alarms, only near end will be reported.

`g` = Sequence of message block. Valid value(s):

- `FIRST RECORD`
- `LAST RECORD`
- `NEXT RECORD`

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`h` = TR008 RT units. Valid value(s):

`DIGROUP` = Digroup (TR008 RT)
`DUAL DIGROUP` = Dual Digroup (TR008 RT)
`FAC` = Facility
`RT` = Remote terminal
`SHELF` = Shelf (TR008 RT)
`SHFGRP` = Shelf group, that is, bank (TR008 RT)

`i` = Unit identifications. Valid value(s):

`EOC` = Embedded operations channels for TR303 RT.
`TMC` = Timeslot management channels for TR303 RT.

`j` = Alarm types. Valid value(s):

`ALARMS UNAVAILABLE` = Cannot read alarm information at the RT because the EOCs are in a duplex failure condition.
`BANK LOOP BACK` = Bank loop back request.
`CTU` = Channel test unit (CTU) alarm.
`CTU DATA READ FAIL` = CTU alarm data read failure, that is, unable to determine the state of the CTU alarm.
`CTU/DLU DATA READ FAIL` = CTU and data link unit (DLU) alarm data read failure, that is, unable to determine the state of the CTU or DLU alarm.
`DATA READ FAIL` = Data read failure, which means a failure to access the facility information from the associated RT digital facility interface.
`DEGRADED` = Facility is taking bit-errors or some DS0s are out of service.
`DEGRADED STATE CLEARED` = Either the rate of bipolar violations (BPVs) on a facility has dropped below 1E-4, or the facility has gone out-of-service or FAC back in service with unconditional restore.
`DLU FAIL` = DLU failure, which indicates that the DLU is unable to frame on the data it is receiving.
`DLU DATA READ FAIL` = DLU alarm data read failure, that is, unable to determine the state of the DLU alarm.
`DUPLEX FAILURE` = Duplex failure of the EOC or TMC.
`FAR END LOOP` = Far end loop sustained request is active.
`IN DEGRADED STATE` = The rate of BPVs on a facility is greater than 1E-4 and the protection line is unavailable.
`INHIBIT DDL` = The maintenance fields of the derived data link (DDL) are inhibited on the A and/or P facility. This implies that no maintenance information can be received from the RT over the A and/or P facility.
`LINE ON PROT` = Line on protection.
`LOSS OF DDL` = The RT alarm information is not available due to a problem with the A and/or the P facility. RT alarm information is sent to the switch through the DDL, which in turn is carried on both the A facility and, when equipped, the P facility.
`LOSS OF DDL - RT ALARM INFORMATION UNAVAILABLE` = Can not read DDL alarm information (also refer to LOSS OF DDL).
`PATH SWITCH INHIBITED` = Inhibit EOC or TMC path switching.
`RECEIVE LINE FAIL` = The system has detected a problem with the T1 facility: loss of framing, loss of signal, or loss of the DDL.
`SIMPLEX FAILURE` = Simplex failure of the EOC or TMC.
`SWITCH DISABLED` = A sustained request to disable protection line switching for the specified facility or facilities is active.
`SWITCH RELEASE INHIBITED` = The RT is unable to release a protection line switch due to a pin

placed in the switch release inhibit pinjack at the RT.

`SWITCH TO PROT` = A sustained request to switch the specified facility or facilities to the protection line is active.

`TAU COT` = Timeslot assignment unit (TAU) COT alarm.

`TAU RT` = TAU alarm at the RT.

(message text) = TR303 RT defined text that reports a problem that has currently existed at the RT.

`k` = States. Valid value(s):

`ALARM ON` = An alarm condition exists.

`ALARM OFF` = An alarm condition no longer exists.

`REQUESTED` = A switch to protection or far end loop (SET:RT-FAC) sustained request has been entered but cannot be honored.

4. ACTIONS TO BE TAKEN

If 'i' =	Action:
FAR END LOOP	The sustained request can be turned off by using the CLR:RT-FAC input message.
SWITCH DISABLED	The sustained request can be turned off by using the ALW:RT-FAC input message.
SWITCH TO PROT	The sustained request can be turned off by using the CLR:RT-FAC input message, also.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:RT-FAC
CLR:RT-FAC
OP:RT-ALM-ALL
SET:RT-FAC
```

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*

235-105-220 *Corrective Maintenance*

OP:RT-SID-SNA-A

Software Release: 5E10 - 5E11
Message Class: PFR,PFR_RSP
Application: 5
Type: Output

1. FORMAT

```
OP RT SID=a STATUS NOT AVAILABLE
```

2. REASON FOR OUTPUT

To report the inability to get the status of one of the integrated TR008/TR303 remote terminals (RT) requested by the OP:RT-ALM-ALL or the OP:RT-SID-LRT input message. TR008 RTs can be the *SLC*® 96, Series 5 feature package B, and enhanced B. TR303 RTs can be the Series 5 feature package 303G.

3. VARIABLE FIELD DEFINITIONS

`a` = Site identification (SID) number.

4. ACTIONS TO BE TAKEN

The switching module (SM) may have been isolated or having communication problems at the time of the request, so a separate OP:RT-SID-LRT input message for this particular SID may work later. Otherwise, it is possible that the data in the administrative module (AM) is inconsistent with the data in the SM, in which case the AM relation 96SIDLRT should be checked against the SM relations S96EQUIP, RT_MISC and CKTDATA.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:RT-ALM-ALL
OP:RT-SID-LRT
```

Output Message(s):

```
OP:RT-SID-LRT
```

Other Manual(s):
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

115Y,X (SM X-DCLU Y)
13ZY,X (SM X-DCLU Y RT Z)
187Y,X (SM X-IDCU Y FACILITY)
188YZZ,X (SM X-IDCU Y RT ZZ)

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OP:RT-SID-SNA-B

Software Release: 5E12 and later
Message Class: PFR,PFR_RSP
Application: 5
Type: Output

1. FORMAT

```
OP RT SID=a STATUS NOT AVAILABLE
```

2. REASON FOR OUTPUT

To report the inability to get the status of one of the integrated TR008/TR303 remote terminals (RT) requested by the OP:RT-ALM-ALL or the OP:RT-SID-LRT input message. TR008 RTs can be the *SLC*® 96, Series 5 feature package B, and enhanced B. TR303 RTs can be the Series 5 feature package 303G.

3. VARIABLE FIELD DEFINITIONS

`a` = Site identification (SID) number.

4. ACTIONS TO BE TAKEN

The switching module (SM) may have been isolated or having communication problems at the time of the request, so a separate OP:RT-SID-LRT input message for this particular SID may work later. Otherwise, it is possible that the data in the administrative module (AM) is inconsistent with the data in the SM, in which case the AM relation 96SIDLRT should be checked against the SM relations S96EQUIP, RT_MISC and CKTDATA.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:RT-ALM-ALL
OP:RT-SID-LRT
```

Output Message(s):

```
OP:RT-SID-LRT
```

Other Manual(s):
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

1150,YY,X (SM X-DCLU YY)
1310,YY,Z,X (SM X-DCLU YY RT Z)
1870,Y,X (SM X-IDCU Y FACILITY)
1880,Y,ZZ,X (SM X-IDCU Y RT ZZ)

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1511,Y,ZZZ,X (DNUS STS MAINTENANCE SM X DNU-S Y STS ZZZ)
1512,Y,ZZZ,X (DNUS STS DS1 APPLICATION SM X DNU-S Y STS ZZZ)
1660,YYYY,X (TR303 REMOTE TERMINAL SM X SID YYYY)

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OP:RTCD

Software Release: 5E12 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP RTCD COMPLETED
  RTCD OFFICE OPTION IS a GLOBAL BILLING SM{=b| IS NOT EQUIPPED}
```

2. REASON FOR OUTPUT

To report the global billing switching module (SM) number and the Real Time Call Detail (RTCD) office option value.

3. VARIABLE FIELD DEFINITIONS

`a` = RTCD office option. Valid values are:
- `ON` = RTCD office option is on.
- `OFF` = RTCD office option is off.

`b` = Global billing SM number.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:RTCD`

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OP:RTRACK

Software Release: 5E11 and later
Message Class: SWM01
Application: CNI
Type: Output

1. FORMAT

[1]
```
OP RTRACK COMPL
  RTRACK NEVER STARTED
```

[2]
```
OP RTRACK STARTED
  RTRACK NOT ACTIVE
  RTRACK STOPPED a
  RTRACK NODE ISOLATION HISTORY
       RNA       TIMES        STABILITY        STABILITY
       GR MEM   ISOLATED       TIME(1)          TIME(2)
        b  c       d             e                f
        .
        .
        .
  OP RTRACK COMPL
```

[3]
```
OP RTRACK STARTED
  RTRACK STARTED a
  CURRENT ISOLATION: g
  RING STABLE FOR h HR(S) i MIN(S) j SEC(S) WITH CURRENT
  ISOLATION
  CURRENT CONFIDENCE INTERVAL CALCULATED AS k HR(S) l
  MIN(S)
  RTRACK NODE ISOLATION HISTORY
       RNA       TIMES        STABILITY        STABILITY
       GR MEM   ISOLATED       TIME(1)          TIME(2)
        b  c       d             e                f
        .
        .
        .
  OP RTRACK COMPL
```

[4]
```
OP RTRACK STARTED
  RTRACK OPERATING IN HALF RING MODE
  RTRACK STARTED a
  CURRENT ISOLATED NODE(S) g
  OP RTRACK COMPL
```

2. REASON FOR OUTPUT

To print a response to the OP:RTRACK input message.

NOTE: History data from a previous execution of Ring Tracker is lost when internal data is initialized at the

beginning of a new Ring Tracker execution. If entry into Ring Tracker is denied due to the presence of a ring node in the growth state, history data from any previous Ring Tracker execution will be lost.

Format 1 prints when ring tracker mode has never been active.

Format 2 prints when ring tracker mode is not active, but it has been active in the past. Note that when the ring tracker mode terminates, the stability time for the node isolated at that time is recorded in the node's isolation history.

Format 3 prints when ring tracker mode is active and is not operating in half ring mode.

Format 4 prints when ring tracker mode is active and is operating in half ring mode.

3. VARIABLE FIELD DEFINITIONS

`a` = A date and time recorded when ring tracker mode was started/stopped.
`b` = A ring node group number.
`c` = The node's position in the ring node group.
`d` = The number of times this node has been isolated.
`e` = First isolation stability duration in hours, minutes, and seconds (hh:mm:ss). Note that the current isolated node's stability time will be blank. A stability time of zero associated with a node indicates that a working ring could not be established with that node isolated.
`f` = Second isolation stability duration in hours, minutes, and seconds (hh:mm:ss). Note that the current isolated node's stability time will be blank. A stability time of zero associated with a node indicates that a working ring could not be established with that node isolated.
`g` = A ring peripheral controller node (RPCN) or link node (LN). Valid value(s):

`RPCNm 0`
`LNm n`

`h` = Hour(s) component of the ring tracker current isolation ring stability time.
`i` = Minute(s) component of the ring tracker current isolation ring stability time.
`j` = Second(s) component of the ring tracker current isolation ring stability time.
`k` = Hour(s) component of the ring tracker confidence interval.
`l` = Minute(s) component of the ring tracker confidence interval.
`m` = A ring node group number.
`n` = The node's position in the ring node group.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:RTRACK
EXC:RTRACK
INH:RTRACK
OP:RTRACK
```

```
STOP:RTRACK
```

Output Message(s):

```
ALW:RTRACK
EXC:RTRACK
INH:RTRACK
REPT:RING-CFR
STOP:RTRACK
```

OP:RUTIL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP RUTIL IN PROG
        LN aa b  BP  = c
        BPTNUM  ADDR    IMP     STATE   HITS    MHITS   LOST
        c    H' d       e       f       g       h       i

[2]   ____________________________________________________________________
      OP RUTIL ABT
        SEND2KERN MKNODE() FAILED  j

[3]   ____________________________________________________________________
      OP RUTIL ABT
        SEND2KERN OPEN() FAILED j

[4]   ____________________________________________________________________
      OP RUTIL ABT
        SEND2KERN KERNEL RETURNED ERROR j

[5]   ____________________________________________________________________
      RUTIL ABT
        KERNEL RESPONSE TIMEOUT j
```

2. REASON FOR OUTPUT

Response to a OP:RUTIL input message.

Format 1 indicates a successful completion of the OP:RUTIL input message.

Format 2 indicate the creating the special file for the kernel has failed.

Format 3 indicate that attempting to open the file for kernel processing has failed.

Format 4 indicate that the kernel has returned a failing return code.

Format 5 indicate that the kernel has not responded to the craft process.

3. VARIABLE FIELD DEFINITIONS

a = The group number of the concerned node.

b = The member number of the concerned node.

c = The specified break point number.

d = The address of the given break point.

e = Source of break point implementation. Valid value(s):

1 = Software implementation of break point.
2 = Hardware implementation of break point.

f = Status of break point. Valid value(s):
1 = Break point is disabled.
2 = Break point is enabled.

g = Number of hits on this break point.

h = Maximum number of hits specified for this break point.

i = Number of break point response messages lost for this break point.

j = The value of the global variable "errno".

4. ACTIONS TO BE TAKEN

For Formats 2 through 5, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:RUTIL
ALW:RUTILFLAG
CLR:RUTIL
CLR:RUTILFLAG
DUMP:RUTIL
INH:RUTIL
INH:RUTILFLAG
LOAD:RUTIL
OP:RUTIL
OP:RUTILFLAG
WHEN:RUTIL
```

Output Message(s):

```
ALW:RUTIL
ALW:RUTILFLAG
CLR:RUTIL
CLR:RUTILFLAG
DUMP:RUTIL
INH:RUTIL
INH:RUTILFLAG
LOAD:RUTIL
OP:RUTILFLAG
REPT:RUTIL
```

```
WHEN:RUTIL
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

OP:RUTILFLAG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      OP RUTILFLAG IN PROG
        LN aa b BP = c
        FLAG NOT DEFINED

[2]   ____________________________________________________________
      OP RUTILFLAG COMPL
        LN aa b  INVALID BP  = c

[3]   ____________________________________________________________
      OP RUTILFLAG ABT
        SEND2KERN MKNODE() FAILED d

[4]   ____________________________________________________________
      OP RUTILFLAG ABT
        SEND2KERN OPEN() FAILED d

[5]   ____________________________________________________________
      OP RUTILFLAG ABT
        SEND2KERN KERNEL RETURNED ERROR d

[6]   ____________________________________________________________
      OP RUTILFLAG ABT
        KERNEL RESPONSE TIMEOUT d
```

2. REASON FOR OUTPUT

Response to a OP:RUTILFLAG input message.

Format 1 indicates that this particular break point is not set.

Format 2 indicates that the break point specified is invalid.

Format 3 indicate the creating the special file for the kernel has failed.

Format 4 indicate that attempting to open the file for kernel processing has failed.

Format 5 indicate that the kernel has returned a failing return code.

Format 6 indicate that the kernel has not responded to the craft process.

3. VARIABLE FIELD DEFINITIONS

`a` = The group number of the concerned node.

`b` = The member number of the concerned node.

`c` = The specified break point number.

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`d` = The value of the global variable "errno".

4. ACTIONS TO BE TAKEN

For Format 1, check the specified break point number.

For Formats 2 through 6, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:RUTIL
ALW:RUTILFLAG
CLR:RUTIL
CLR:RUTILFLAG
DUMP:RUTIL
INH:RUTIL
INH:RUTILFLAG
LOAD:RUTIL
OP:RUTIL
OP:RUTILFLAG
WHEN:RUTIL
```

Output Message(s):

```
ALW:RUTIL
ALW:RUTILFLAG
CLR:RUTIL
CLR:RUTILFLAG
DUMP:RUTIL
INH:RUTIL
INH:RUTILFLAG
LOAD:RUTIL
OP:RUTILFLAG
REPT:RUTIL
WHEN:RUTIL
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

60. OP:S

OP:SCF

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP SCF  STARTED
      OP SCF DN a LEN=b-c-d-e-f-g  TYPE n  CT o
      OP SCF DN a SLEN=b-h-i-j     TYPE n  CT o
      OP SCF DN a LCEN=b-k-l-m     TYPE n  CT o
          .
          .
          .
      OP SCF p

[2]   ____________________________________________________________________
      OP SCF  NO COINS STUCK
```

2. REASON FOR OUTPUT

To print (on demand) a list of lines for which stuck coin failures (SCF) have been reported since the last automatically printed list. The list is not zeroed after demand printings (unlike automatic printings).

Format 1 prints when there have been stuck coin failures to report. For every line with a stuck coin failure, one list entry prints.

Format 2 prints when there are no stuck coin failures to report (NO COINS STUCK).

3. VARIABLE FIELD DEFINITIONS

`DN` = Directory number.

`LCEN` = Line card equipment number.

`LEN` = Line equipment number of the line.

`SLEN` = *SLC*® line equipment number.

`a` = Telephone number of the coin line that has had a stuck coin reported during the last interval.

`b` = Switching module (SM) number.

`c` = Line unit number.

`d` = Grid number.

`e` = Switch board number.

`f` = Switch number.

`g` = Level number.

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`h` = Digital carrier line unit number.

`i` = Remote terminal number (RT).

`j` = RT line number.

`k` = Integrated services line unit number.

`l` = Line group number.

`m` = Line card number.

`n` = The type of the stuck coin count. Valid value(s):

- `1F` = The count (variable '`q`') represents the number of first-try-only failures reported on this coin line. This indicates that only first try failures occurred for this coin line.
- `1+2F` = The count (variable '`q`') represents the number of first and second try failures reported on this coin line. In this case, the count of first-try-only stuck coin failures is not printed.

`o` = The count of stuck coin failures reported. The type of count (first-try-only or first and second try failures) is given by variable '`p`'. Only the first 15 coin failures, for a particular coin line, are recorded between automatic list printings.

`p` = Termination status indicating outcome. Valid value(s):

- `COMPLETED` = The list of stuck coin lines that contained at least one stuck coin report was successfully printed.
- `SYSTEM ERROR` = An unexpected error occurred during processing of the list and the printed list is likely to be incomplete. The internal list of stuck coin counts has been zeroed.

4. ACTIONS TO BE TAKEN

Clear the stuck coins, if possible. Depending upon the particular problem it is sometimes possible to clear a stuck coin from the trunk and line work station (TLWS). This is done by seizing the line in question and performing coin detect, coin collect, coin return and home totalizer operations. If this does not clear the problem, dispatch a repair person to repair the phone in question. Place particular attention on high and wet dial tone first (DTF) coin lines since attempts are automatically made to clear a stuck coin on these lines.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SCF
```

OP:SCF-STARTED

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      OP SCF  STARTED

      OP SCF DN a {LEN=b-c-d-e-f-g|SLEN=h-i-j-k} TYPE l  CT m
          .
          .
          .
      OP SCF n

[2]   ____________________________________________________________
      OP SCF  NO COINS STUCK
```

2. REASON FOR OUTPUT

To print (manually requested) a list of lines for which stuck coin failures have been reported since the last automatically printed list. Unlike automatic printings, the list is not cleared after printing.

Format 1 prints when there have been stuck coin failures to report. The first line indicates the start of the list, the second line indicates a line with a stuck coin reported (one output message per coin line), and the third line indicates the end of the list.

Format 2 is printed when there are no stuck coin failures to report.

3. VARIABLE FIELD DEFINITIONS

`LEN` = Line equipment number of the line.

`SLEN` = Subscriber loop carrier line equipment number.

`a` = Directory number of the coin line that has had a stuck coin reported during the last interval.

`b` = Switching module (SM) number.

`c` = Line unit number.

`d` = Grid number.

`e` = Switch board number.

`f` = Switch number.

`g` = Level number.

`h` = SM number.

`i` = Digital carrier line unit.

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`j` = Remote terminal (RT).

`k` = RT line.

`l` = The type of the stuck coin count. Valid value(s):

- `1F` = The count ('`m`') represents the number of first-try-only failures reported on this coin line. This indicates that only first try failures occurred for this coin line.
- `1+2F` = The count ('`m`') represents the number of first and second try failures reported on this coin line. In this case the count of first-try-only stuck coin failures is not printed.

`m` = The count of stuck coin failures reported. The type of count (first-try-only or first and second try failures) is given by '`l`'. To meet feature specification document (FSD) requirements, only the first 15 coin failures, for a particular coin line, are recorded between automatic list printings.

`n` = Termination status indicating outcome. Valid value(s):

- `COMPLETED` = The list of stuck coin lines that contained at least one stuck coin report was successfully printed.
- `SYSTEM ERROR` = An unexpected error occurred during processing of the list and the printed list is likely to be incomplete. The internal list of stuck coin counts has been zeroed.

4. ACTIONS TO BE TAKEN

Clear the stuck coins.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:SCF`

RC/V View(s):

8.1 (OFFICE PARAMETERS (MISCELLANEOUS))

OP:SCHD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP SCHD IN PROG
  REPORT NAME DEST REPORT TYPE HISTORY FILE ACT TIME REPEAT
  ----------- ---- ----------- ------------ -------- ------
       a        b       c            d          e       f
```

2. REASON FOR OUTPUT

To report information for each report in the Measurement Output Control (MOC) schedule table (SCHD).

3. VARIABLE FIELD DEFINITIONS

a	= Report name.
b	= Output class.
c	= Report generator type.
d	= History file name.
e	= Activation time.
f	= Number of repetitions per day.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
  OP:SCHD
```

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OP:SCSD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    ____________________________________________________________________
       OP SCSD UNIT a
          INHIBIT   cccccccc cccccccc cccccccc cccccccc cccccccc cccccccc
          SCAN PT   dddddddd dddddddd dddddddd dddddddd dddddddd dddddddd
       OP SCSD UNIT a b

[2]    ____________________________________________________________________
       OP SCSD GRPN e
          DUPID  f
          INHIBIT:  [ccc]
          SCAN PT:  [ddd]
       OP SCSD GRPN e b

[4]    ____________________________________________________________________
       OP SCSD NOT STARTED
       CONFLICT WITH CURRENT SYSTEM STATUS
```

2. REASON FOR OUTPUT

To indicate the state and the inhibit status of the scan points on a scanner and signal distributor (SCSD) unit.

Format 1 is used to display the entire SCSD scan map for a unit.

Format 2 is used to display the scan state for a particular logical group. The DUPID will display either 0, 1, or both, depending upon what is defined in the database.

Format 3 indicates the SCSD administration process is not active. No communication with SCSD points is possible.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number of SCSD unit.

`b` = Termination status. Valid value(s):

- `COMPLETED` = Action completed.
- `FAILED` = Action could not be completed by the SCSD administrator. Possible reasons for failure are:
  - SCSD unit number is invalid.
  - Point number is invalid for the logical group.
    Logical group name is invalid and either the SCSD unit is out-of-service (OOS), or is in an inactive state to the SCSD administrator.

`c` = Inhibit status. Valid value(s):

- `0` = Scan point is not inhibited.
- `1` = Scan point is inhibited.

d = Scan point status. Valid value(s):
0 = Scan point is clear (open).
1 = Scan point is set (closed).

e = Logical group name.
f = Duplex group ID.

4. ACTIONS TO BE TAKEN

Issue the OP:OOS input message to determine if the SCSD unit is listed as OOS. Otherwise, enter recent change and verify (RC/V) to verify input message arguments.

If logical addressing is used, check that the logical group name exists and/or the point number is contained in the logical group. If physical addressing is used, verify that the SCSD unit is equipped.

If the above results are negative, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

Manual alarm. This alarm is a manually requested report.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	158
2	157

Input Message(s):

```
OP:OOS
OP:SCSD
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):

Where 'x' is the release specific version of the specified manual.

235-600-31x *ECD/SG*

OP:SILC

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP SILC a
         SILC b FOR TOTAL OFFICE
         PERCENT CALLS CANCELED
         MC1          MC2
         c            d
         SILC ASSIGNED TGs
         e    e    e    e    e   e   e    e
         .    .    .    .    .   .   .    .
         .    .    .    .    .   .   .    .
         .    .    .    .    .   .   .    .

[2]   ____________________________________________________________________
      OP SILC a
```

2. REASON FOR OUTPUT

To display total office SILC status. One message can contain up to 32 groups. A maximum of four messages can result since a maximum of 128 trunk groups can exist on the SILC list. This message is in response to the OP:SILC message.

Format 1 displays the termination status of started, continued, or completed.

Format 2 displays the termination status of aborted or failed.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination status. Valid value(s):

`ABORTED`	= Retry the message.
`COMPLETED`	= Last in a series of these messages.
`CONTINUED`	= Middle of a series of these messages.
`FAILED`	= Invalid parameter.
`STARTED`	= First in a series of these messages.

`b` = Control type. Valid value(s):
`ALLOWED`
`INHIBITED`

`c` = Percent of calls canceled on machine congestion level 1.

`d` = Percent of calls canceled on machine congestion level 2.

`e` = Trunk group number.

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4. ACTION TO BE TAKEN

If the termination status is aborted, retry input command.

If the termination status is failed, this message is a failure because of an input parameter error.

If the termination status is started, continued, or completed, no further action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SILC
```

Other Manual(s):
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

130 (NM EXCEPTION)
109 (OVERLOAD)

OP:SL-A

Software Release: 5E10 - 5E12
Message Class: TM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP SL STSFAC=a-b-c-d RCV=f [m] EXP=g [l]

[2]   ____________________________________________________________________
      OP SL VT1FAC=a-b-c-d-e RCV=h [m] EXP=i RCV=j EXP=k [l]

[3]   ____________________________________________________________________
      OP SL n
```

2. REASON FOR OUTPUT

To respond to a manual request to output the signal labels currently received and expected in the STS path. To respond to a manual request to output the signal labels and VT group size in the VT path.

Format 1 displays the received and expected signal labels for the specified STS-1 facility.

Format 2 displays the received and expected signal labels and VT group size for the specified VT1.5 facility.

Format 3 displays reason for failure of the signal label query.

3. VARIABLE FIELD DEFINITIONS

`STSFAC` = STS facility.

`VT1FAC` = VT1.5 facility

`a` = SM number.

`b` = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

`c` = Data group (DG) number.

`d` = STS number.

`e` = Virtual tributary 1.5 (VT1.5) number.

`f` = STS signal label received. Valid value(s):

- `ASYNC-DS3` = Asynchronous DS3 mapping (4).
- `ASYN-DS4NA` = Asynchronous DS4 for North America mapping (3 DS3's to form one 139.264 Mb/s DS4NA) (12).
- `ASYNC-FDDI` = Asynchronous fiber distributed data interface mapping (15).
- `ATM-MAP` = ATM mapping (13).
- `BYTE-SYNC` = Byte observable SYNTRAN (5).
- `DQDB-MAP` = DQDB mapping (14).
- `EQ-NONSP` = Equipped non-specific payload (1).
- `FLOAT-VT` = Floating VT mode (2).
- `LOCK-VT` = Locked VT mode (3).

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UNEQUIP = Unequipped mode (0).
UNK-STS-SL = Unknown STS signal label.

g = STS signal label expected. Valid value(s):
FLOAT-VT = Floating VT mode (2).

h = VT1.5 signal label received. Valid value(s):
ASYNC-DS1 = Asynchronous DS1 mapping (2).
BIT-SYNC = Bit synchronous DS1 mapping (3).
BYTE-SYNC = Byte synchronous DS1 mapping (4).
EQ-NONSP = Equipped non-specific payload (1).
UNEQUIP = Unequipped mode (0).
UNK-VT-SL = Unknown VT signal label.

i = VT1.5 signal label expected. Valid value(s):
ASYNC-DS1 = Asynchronous DS1 mapping (2).

j = Received VT group size. Valid value(s):
UNK-VTSZ = Unknown VT group size.
VT1.5 = Group size of VT1.5 (3).
VT2 = Group size of VT2 (2).
VT3 = Group size of VT3 (1).
VT6 = Group size of VT6 (0).

k = Expected VT group size. Valid value(s):
VT1.5 = Group size of VT1.5 (3).

l = Indication that due to a failure condition on facility or parent facility reported values may be invalid.

m = A Numeric representation of an unknown received signal label value (RCV). This field appears only when the received signal label is either RCV=UNK-STS-SL or RCV=UNK-VT-SL.

n = Completion report. Valid value(s):
FAILED = Failure for unspecified reason.
FAILED DNUS CC OOS = The DNU-S was out of service or could not receive or send a message.
NO MATCH = STS/VT facility ID in input message is invalid.
SM UNAVAILABLE = The request was for facilities on a particular SM that was unable to handle the request. Check the status of the SM and try again.
SYSTEM BUSY = No PCBs available, no MCBs available, or no stack available.
TIMEOUT = The DNU-S did not respond in a reasonable timeframe.

4. ACTION TO BE TAKEN

None. A received signal label value of EQ-NONSP will match any legal expected signal label value except UNEQUIP. In this situation, even though the received and expected signal label values are different, the invalid data indicator (variable 'l') will not be present. The signal label values are read from hardware registers. The values are a direct reflection of the bit pattern currently being received. Execute OP:SL input message again if received and expected

values appear inconsistent.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SL
```

Output Message(s):

```
REPT:FAC
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

RC/V View(s):

20.12 (STS-1 FACILITY PROVISIONING)
20.24 (VT1.5 FACILITY PROVISIONING)

OP:SL-B

Software Release: 5E13 and later
Message Class: TM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP SL STSFAC=a-b-c-o-d RCV-SL=f [m] EXP-SL=g [l]

[2]   ____________________________________________________________________
      OP SL VT1FAC=a-b-c-o-d-e-p RCV-SL=h [m] EXP-SL=i
        RCV-SZ=j EXP-SZ=k [l]

[3]   ____________________________________________________________________
      OP SL n
```

2. REASON FOR OUTPUT

To respond to a manual request to output the signal labels currently received and expected in the STS path. To respond to a manual request to output the signal labels and VT group size in the VT path.

Format 1 displays the received and expected signal labels for the specified STS-1 facility. Format 2 displays the received and expected signal labels and VT group size for the specified VT1.5 facility. Format 3 displays reason for failure of the signal label query.

3. VARIABLE FIELD DEFINITIONS

`STSFAC` = Synchronous transport signal (STS) facility.

`VT1FAC` = Virtual tributary level 1 facility.

`a` = SM number.

`b` = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

`c` = Data group (DG) number.

`d` = STS number.

`e` = Virtual tributary group (VTG) number.

`f` = STS signal label received. Valid value(s):

- `ASYNC-DS3` = Asynchronous DS3 mapping (4).
- `ASYN-DS4NA` = Asynchronous DS4 for North America mapping (3 DS3's to form one 139.264 Mb/s DS4NA) (12).
- `ASYNC-FDDI` = Asynchronous fiber distributed data interface mapping (15).
- `ATM-MAP` = ATM mapping (13).
- `BYTE-SYNC` = Byte observable SYNTRAN (5).
- `DQDB-MAP` = DQDB mapping (14).
- `EQ-NONSP` = Equipped non-specific payload (1).
- `FLOAT-VT` = Floating VT mode (2).
- `LOCK-VT` = Locked VT mode (3).

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UNEQUIP = Unequipped mode (0).
UNK-STS-SL = Unknown STS signal label.

g = STS signal label expected. Valid value(s):
FLOAT-VT = Floating VT mode (2).

h = VT1.5 signal label received. Valid value(s):
ASYNC-DS1 = Asynchronous DS1 mapping (2).
BIT-SYNC = Bit synchronous DS1 mapping (3).
BYTE-SYNC = Byte synchronous DS1 mapping (4).
EQ-NONSP = Equipped non-specific payload (1).
UNEQUIP = Unequipped mode (0).
UNK-VT-SL = Unknown VT signal label.

i = VT1.5 signal label expected. Valid value(s):
ASYNC-DS1 = Asynchronous DS1 mapping (2).

j = Received VT group size. Valid value(s):
UNK-VTSZ = Unknown VT group size.
VT1.5 = Group size of VT1.5 (3).
VT2 = Group size of VT2 (2).
VT3 = Group size of VT3 (1).
VT6 = Group size of VT6 (0).

k = Expected VT group size. Valid value(s):
VT1.5 = Group size of VT1.5 (3).

l = Indication that due to a failure condition on facility or parent facility reported values may be invalid.

m = A Numeric representation of an unknown received signal label value (RCV). This field appears only when the received signal label is either RCV=UNK-STS-SL or RCV=UNK-VT-SL.

n = Completion report. Valid value(s):
FAILED = Failure for unspecified reason.
FAILED DNUS CC OOS = The DNU-S was out of service or could not receive or send a message.
NO MATCH = STS/VT facility ID in input message is invalid.
SM UNAVAILABLE = The request was for facilities on a particular SM that was unable to handle the request. Check the status of the SM and try again.
SYSTEM BUSY = No PCBs available, no MCBs available, or no stack available.
TIMEOUT = The DNU-S did not respond in a reasonable timeframe.

o = SONET termination equipment (STE) facility number.

p = Virtual tributary member (VTM) number.

4. ACTIONS TO BE TAKEN

None. A received signal label value of `EQ-NONSP` will match any legal expected signal label value except `UNEQUIP`. In this situation, even though the received and expected signal label values are different, the invalid data indicator (variable '`l`') will not be present. The signal label values are read from hardware registers. The values are a direct reflection of the bit pattern currently being received. Execute OP:SL input message again if received and expected values appear inconsistent.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SL
```

Output Message(s):

```
REPT:FAC
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

RC/V View(s):

20.12 (STS-1 FACILITY PROVISIONING)
20.24 (VT1.5 FACILITY PROVISIONING)

OP:SLK

Software Release: 5E10 and later
Message Class: NONE
Application: 5,CNI
Type: Output

1. FORMAT

[1]
```
OP SLK {a[-b]|ALL} IN PROG
  SLK c d e f g
```

[2]
```
OP SLK {a[-b]|ALL} IN PROG
  SLK c d e f g
           h i j k l m n o p q r s t u
```

[3]
```
OP SLK {a[-b]|ALL} IN PROG
  SLK c d e f g
           h i j k l p q
```

[4]
```
OP SLK {a[-b]|ALL} IN PROG
  SLK c d e f g
           h v w x y z a1 b1 c1 f1 g1
           h1 i1 j1 k1 l1 m1 n1 o1 p1
```

[5]
```
OP SLK {a[-b]|ALL} IN PROG
  SLK c d e f g
           h i j k l m n o p q r s t u
           h v w x y z a1 b1 c1 f1 g1
           h1 i1 j1 k1 l1 m1 n1 o1 p1
```

[6]
```
OP SLK {a[-b]|ALL} IN PROG
  SLK c d e f g
           h i j k m p q
           h v w x y z a1 b1 c1 f1 g1
           h1 i1 j1 k1 l1 m1 n1 o1 p1
```

[7]
```
OP SLK {a[-b]|ALL} IN PROG
  SLK c d e f g
           h v w x y z a1 b1 c1 f1 g1
           q1 r1 s1 t1 u1 v1
           w1 x1 y1 z1 a2 b2 c2
           d2 e2 f2 g2 h2 i2
           k3 l3 m3 n3
```

[8]
```
OP SLK {a[-b]|ALL} IN PROG
```

```
  SLK c d e f g
          h i j k l x2 y2 m z2 a3 p s t
          h v w x y z a1 b1 c1 f1 g1
          q1 r1 s1 t1 u1 v1
          w1 x1 y1 z1 a2 b2 c2
          d2 e2 f2 g2 h2 i2
          k3 l3 m3 n3
```

[9]

```
OP SLK {a[-b]|ALL} IN PROG
  SLK c d e f g
          h i j k l x2 y2 m z2 a3 p s t
```

[10]

```
OP SLK {a[-b]|ALL} IN PROG
  SLK c d e f g
          h i j k l
          h v w x y z a1 b1 c1 f1 g1
          q1 r1 s1 t1 u1 v1
          w1 x1 y1 z1 a2 b2 c2
          d2 e2 f2 g2 h2 i2
          k3 l3 m3 n3
```

[11]

```
OP SLK {a[-b]|ALL} IN PROG
  SLK c d e f g
          h n2 o2 p2 q2 r2 s2 t2 u2 v2 w2
```

[12]

```
OP SLK {a[-b]|ALL} IN PROG
  SLK c d e f g
          h n2 o2 p2 q2 r2 s2 t2 u2 v2 w2
          h v w x y z a1 b1 c1 f1 g1
          h1 i1 j1 k1 l1 m1 n1 o1 p1
```

[13]

```
OP SLK {a[-b]|ALL} IN PROG
  SLK c d e f g
          h
          h v w x y z a1 b1 c1 f1 g1
          q1 r1 s1 t1 u1 v1
          w1 x1 y1 z1 a2 b2 c2
          d2 e2 f2 g2 h2 i2
          k3 l3 m3 n3
```

[14]

```
OP SLK {a[-b]|ALL} IN PROG
  SLK c d e f g
          h i j k l m n o p q r s t u
          h n2 o2 p2 q2 r2 s2 t2 u2 v2 w2
          h v w x y z a1 b1 c1 f1 g1
          h1 i1 j1 k1 l1 m1 n1 o1 p1
```

[15]
```
OP SLK {a[-b]|ALL} IN PROG
  SLK c d e f g
           h i j k l x2 y2 m z2 a3 p s t
           h
           h v w x y z a1 b1 c1 f1 g1
           q1 r1 s1 t1 u1 v1
           w1 x1 y1 z1 a2 b2 c2
           d2 e2 f2 g2 h2 i2
           k3 l3 m3 n3
```

[16]
```
OP SLK {a[-b]|ALL} IN PROG
  SLK c d e f g
           h i j k m p q
           h n2 o2 p2 q2 r2 s2 t2 u2 v2 w2
           h v w x y z a1 b1 c1 f1 g1
           h1 i1 j1 k1 l1 m1 n1 o1 p1
```

[17]
```
OP SLK {a[-b]|ALL} IN PROG
  SLK c d e f g
           h i j k l
           h
           h v w x y z a1 b1 c1 f1 g1
           q1 r1 s1 t1 u1 v1
           w1 x1 y1 z1 a2 b2 c2
           d2 e2 f2 g2 h2 i2
           k3 l3 m3 n3
```

[18]
```
OP:SLK {a[-b]|ALL} IN PROG
  DLN c d j2 k2
```

2. REASON FOR OUTPUT

To report the status of a signaling link(s) (SLK) in response to an OP:SLK input message.

Note: Each report is preceded and followed by the date and time information in the following format:

NWT c^1 d^1 e^1 f^1:g^1:h^1:i^1 j^1

For certain reports some nodes are skipped. The range of those skipped are shown in the report with the format:

SLK c d THRU c d b^1

Format 1 is the default format.

Format 2 is for Common Channel Signaling System 6 (CCS6) SLK(s) with the RAW option specified in the input message.

Format 3 is for both CCS6 and Common Channel Signaling System 7 (CCS7) SLK(s) with the ABNORMAL option specified in the input message.

Format 4 is for CCS6 SLK(s) with the FIX option specified in the input message.

Format 5 is for CCS6 SLK(s) with the RAW and FIX options specified in the input message.

Format 6 is for CCS6 SLK(s) with the ABNORMAL and FIX options specified in the input message.

Format 7 is for CCS7 SLK(s) with the FIX option specified in the input message.

Format 8 is for CCS7 SLK(s) with the RAW and FIX options specified in the input message.

Format 9 is for CCS7 SLK(s) with the RAW option specified in the input message.

Format 10 is for CCS7 SLK(s) with the ABNORMAL and FIX options specified in the input message.

Format 11 is for CCS6 and CCS7 SLK(s) with the ROUTING option specified in the input message.

Format 12 is for CCS6 SLK(s) with the ROUTING and FIX options specified in the input message.

Format 13 is for CCS7 SLK(s) with the ROUTING and FIX options specified in the input message.

Format 14 is for CCS6 SLK(s) with the RAW, ROUTING and FIX options specified in the input message.

Format 15 is for CCS7 SLK(s) with the RAW, ROUTING and FIX options specified in the input message.

Format 16 is for CCS6 SLK(s) with the ABNORMAL, ROUTING and FIX options specified in the input message.

Format 17 is for CCS7 SLK(s) with the ABNORMAL, ROUTING and FIX options specified in the input message.

Format 18 is for direct link nodes (DLN).

3. VARIABLE FIELD DEFINITIONS

`ALL` = Provide information for all SLKs.

`a` = SLK number or lower limit of a range of link numbers that was selected in the input request.

`b` = Upper limit of a range of SLK numbers.

`c` = Group number.

`d` = Member number.

`e` = Far end CLLI code.

`f` = Major state. Valid value(s):
- `AVL` = Available.
- `UNA` = Unavailable.
- `UNE` = Unequipped.

`g` = Minor state. Valid value(s):
- `GROW` = Unavailable grow.
- `IS` = In service.
- `MOOS` = Manual-out-of-service.

OOS = Out-of-service.
TEST = Unavailable test.

h = Node type. Valid value(s):
6 = CCS6 link.
7 = CCS7 link.
DLN = DLN node.

i = First failure indicator. Valid value(s):

If 'h' =	'i' =
6	0 = Node activated, link IS. 1 = Node initialized, link IS. 2 = Node not active (ACT). 3 = Prove-in completed, link IS. 4-6 = Unused. 7 = Monitor timer expired. 8-9 = Unused. 10 = Leaky bucket overflow (LBO). 11 = Changeover (COV). 12 = Link Node (LN) abnormality. 13 = Far-end processor outage (PRO). 14-18 = Unused. 19 = Continuous processor signaling congestion (PSC) received. 20 = Continuous overload. 21-n = Unused.
7	0 = Node activated, link IS. Node initialized, link IS. 1 = Node not ACT. 2 = Alignment guard timer, T1 expired. 3 = Alignment guard timer, T2 expired. 4 = Alignment guard timer, T3 expired. 5 = Signal unit (SU) error rate monitor threshold exceeded. 6 = Alignment error rate threshold exceeded. 7 = Link status signal unit (LSSU) received with signaling information octet (SIO), SIOS, spare image number (SIN), SIE. 8 = Receiver link failure. 9 = Excessive acknowledgement timer expired. 10 = Congestion guard timer expired. 11 = 2/3 bad forward sequence number received. 12 = 2/3 bad forward indicator bits received. 13 = Invalid transmit frame size. 14 = Invalid internal state transition. 15 = Null pointer found in re-transmit queue. 16 = Encryption trouble. 17-19 = Unused. 20 = Sending serial in parallel out (SIPO). 21 = SIPOs received. 22 = Bad start parameters. 23 = Remote changeover. 24 = Bad start command.

	25 = Maintenance timer expired. 26 = Traffic blocked. 27 = Force restart. 28 = Link interface (LI) seems comatose. 29 = Interprocess message switch (IMS) user node (IUN) to LI communications problem. 30 = Unused. 31 = Unused.

j = Link failure indicators (hexadecimal number) where a 1 in bit position 'n' indicates the condition is active or has occurred since the last time the link was in service. The definition of each bit is given in variable 'i'.

k = Link status indicators (hexadecimal number) where a 1 in bit position 'n' indicates the condition is active or has occurred since the last time the link was removed from service. Valid value(s):

If 'g' =	**'k' =**
6	0 = Node ACT. 1 = Node initialization complete. 2 = Unused. 3 = Prove-in complete. 4 = Emergency load transfer (ELT) received. 5 = Load transfer (LTR) received. 6 = Load transfer acknowledge (LTA) received. 7 = Unused. 8 = Load transfer timer expired. 9 = Changed prove-in mode. 10-14 = Unused. 15 = Link data recent changed. 16 = Long key exchange. 17 = Diagnostic delay timer expired. 18 = End of status update (ESU) received. 19 = Unused. 20 = Unused. 21 = Request all bands (RAB) received. 22 = Manual changeover (MCO) received. 23 = Manual changeover acknowledgement (MCOA) received. 24 = Test voice frequency link (VFL). 25 = Terminate VFL test. 26-29 = Unused. 30 = Transmit buffer overload. 31 = Transmit buffer overflow.
7	0-2 = Unused. 3 = Prove-in complete. 4 = User complete, continue link recovery. 5-15 = Unused. 16 = Long key exchange. 17-31 = Unused.

l = Link monitor status. All zero value indicates OFF. Any non-zero value indicates ON. Refer to input message MON:SLK.

m = Alarm inhibit status. Valid value(s):
OFF
ON

n = Far end manual changeover status. Valid value(s):
CLEAR
FAR W2
NEAR W
ON
TRAF C
WAIT F

o = Near end manual changeover status. Valid value(s):
CLEAR
FAR W2
NEAR W
ON
TRAF C
WAIT F

p = Prove-in mode. Valid value(s):
E = Emergency.
N = Normal.

q = VFL force. Valid value(s):
A = VFL A forced.
B = VFL B forced.
- = No VFL forced.

r = VFL act. Valid value(s):
A = A VFL.
B = B VFL.
- = Unknown.

s = Diagnostic requested. Valid value(s):
N = No.
Y = Yes.

t = Encryption state. Valid value(s):
0 = Audit not in progress.
1 = Link interface circuit (LIC) to be sent.
2 = Request audit data for LIC.
3 = LIC to be sent.
4 = req audit data for LIC.
5 = LICs to be sent.

u = Periodic rekey status. Valid value(s):
N = Inactive.

Y = In progress.

v = Link type. Valid value(s):
- A = Switching office to signal transfer point (STP).
- B = Between STPs in different regions.
- C = Between paired STPs in the same region.
- D = Between regional STP and auxiliary STP.
- E = Switching office to STP in adjacent regions.
- F = Between switching offices bypassing STPs.

w = Link speed. Valid value(s):
- 024 = 2.4 kilobit per second (KBS) link.
- 048 = 4.8 KBS link.
- 560 = 56 KBS link.

x = Encryption option. Valid value(s):
- E = Encrypted.
- N = Nonencrypted.

y = Mate link group number.

z = Mate link member number.

a[1] = Far end STP. Valid value(s):
- E = Even.
- N = Not connected to an STP.
- O = Odd.

b[1] = Far end region number of this link.

c[1] = Far end function number.

d[1] = Normal prove-in error threshold. Valid value(s):
- 010 = 2.4 KBS link.
- 021 = 4.8 KBS link.
- 240 = 56 KBS link.

e[1] = Emergency prove-in error threshold. Valid value(s):
- 002 = 2.4 KBS link.
- 004 = 4.8 KBS link.
- 048 = 56 KBS link.

f[1] = Leaky bucket threshold. Valid value(s):
- 30 = 2.4 KBS link.
- 60 = 4.8 KBS link.
- 700 = 56 KBS link.

g[1] = Far-end point code.

h[1] = Synchronized signal unit (SYU) code. Valid value(s):
- E = Even.
- O = Odd.
- S = Self looped.

i[1] = VFL. Valid value(s):
- D = Dual.
- S = Simplex.

j[1] = Changeover limit. Valid value(s):
- 01 = 2.4 KBS link.
- 202 = 4.8 KBS link.

k[1] = Receive buffer threshold.

l[1] = Break-in option. Valid value(s):
- A = Allowed.
- N = Not allowed.

m[1] = Pool number.

n[1] = Combined pool number.

o[1] = Link layer.

p[1] = VFL test access circuit quadrant.

q[1] = Link set.

r[1] = Combined link set.

s[1] = Signaling link code.

t[1] = Size, in bytes, of receive queue.

u[1] = Congestion onset threshold in bytes.

v[1] = Congestion abatement threshold in bytes.

w[1] = Size, in bytes, of transmit queue.

x[1] = Far-end prove-in guard timer (650 ticks) = 13 seconds/20ms per tick.

y[1] = Near-end not aligned timer (590 ticks) = 11.8 seconds/20ms per tick.

z[1] = Far-end not aligned timer (590 ticks) = 11.8 seconds/20ms per tick.

a[2] = Normal prove-in timer (115 ticks) = 2.3 seconds/20ms per tick.

b[2] = Emergency prove-in timer (30 ticks) = 0.6 seconds/20ms per tick.

c[2] = Local congestion timer (10 ticks) = 0.2 seconds/20ms per tick.

d[2] = Remote congestion timer (1500 ticks) = 30 seconds/20ms per tick.

e[2] = Alignment error rate monitor, signal unit threshold.

f[2] = Emergency alignment error rate monitor, signal unit threshold.

g[2] = SU error rate monitor threshold.

h[2] = Packet acknowledgement timer (50 ticks) = 1 second/20ms per tick.

i[2] = Retransmit queue length in bytes.

j[2] = DLN state. Valid value(s):
ACT
OFL
OOS
STBY

k[2] = DLN mode. Valid value(s):
1WAYIN
1WAYOUT
2WAY
GROWTH

m[2] = Ring state. Valid value(s):
ACT
Out-of-service

n[2] = Link status. Valid value(s):
FBA = Active.
FBC = Congested.
FBN = Unknown.
FBO = Out-of-service.

o[2] = Mate link status. Valid value(s):
FBA = Active.
FBC = Congested.
FBN = Unknown.
FBO = Out-of-service.

p[2] = Pool status. Valid value(s):
FBA = Active.
FBN = Unknown.
FBO = Out-of-service.

q[2] = Combined pool status. Valid value(s):
FBA = Active.
FBN = Unknown.

FBO = Out-of-service.

r[2] = Pool congestion status. Valid value(s):
FBC = Congested.
FBN = Unknown.
FBN = Not congested.

s[2] = Combined pool congestion status. Valid value(s):
FBC = Congested.
FBN = Unknown.
FBN = Not congested.

t[2] = Number of bands allowed.

u[2] = Number of bands blocked.

v[2] = Number of bands restricted.

w[2] = Number of bands unknown.

x[2] = Internal link state.

y[2] = Internal link changeover/changeback state. Valid value(s):
0 = Change back idle (link out-of-service).
1 = Change back wait for 6 to complete.
2 = Change back wait for change back acknowledgement (CBA).
3 = Change over idle (link ACT).
4 = Change over wait for 6 and T2 change over acknowledgement (COA)/emergency changeover acknowledgement (ECA).
5 = Change over wait for COA/ECA, T2, or NP out-of-service.
6 = Change over wait for 6.
7 = Change over wait for link or node out-of-service after receiving change over order (COO)/emergency changeover order (ECO).
8 = Change over waiting for retrieval complete message.
9 = Waiting to change back, manual.
10 = Waiting to change over, manual.

z[2] = Far end manual inhibit state. Valid value(s):
0 = MCO cleared.
1 = Awaiting response from application.
2 = Awaiting far-end response.
3 = Awaiting far-end response.
4 = Waiting for traffic to clear.
5 = MCO processing complete.
6 = Awaiting far-end uninhibit response.
7 = Awaiting far-end uninhibit response (retry).
8 = Awaiting far-end (force) uninhibit response.
9 = Awaiting far-end (force) uninhibit response (retry).

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a[1] = Near end manual inhibit state (refer to variable 'z[2]').

b[1] = Reason nodes were skipped. Valid value(s):

```
ARE AVL IS OR UNA OR UNEQUIPPED
DID NOT MATCH INPUT CRITERIA
NOT ABNORMAL
NOT AVL
NOT AVL IS
NOT AVL MOOS
NOT AVL OOS
NOT OF TYPE REQUESTED
NOT UNA
NOT UNA GROW
NOT UNA TEST
UNEQUIPPED
```

c[1] = Day of week.

d[1] = Month of year.

e[1] = Day of month.

f[1] = Hour in day.

g[1] = Minute in day.

h[1] = Second in minute.

i[1] = Millisecond in second.

j[1] = Year (four digit value).

k[1] = Facility Type. Valid value(s):

1 = Modem
2 = T1FA

l[1] = Rna of T1FA control node (applies only for DCHN or International Telecommunication Union - Telecommunication, Standardization Sector (ITU-TS) (formerly CCITT) SS7 node types).

m[1] = Medium. Valid value(s):

1 = Satellite.
2 = Terrestrial.

n[1] = Error correction mode. Valid value(s):

1 = PCR
2 = Basic.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
MON:SLK
OP:SLK
```

Output Message(s):

```
REPT:MON-SLK
```

OP:SM-UTILFLG

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
OP SM UTILFLG a STATUS ACTIVE
```

2. REASON FOR OUTPUT

To provide the status of one or all the breakpoints in the utility system in response to the OP:UT-SM input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Breakpoint for which the status was requested.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:UT-SM
```

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OP:SMR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
OP SMR a b
     .
     .
     .
OP SMR a b
```

2. REASON FOR OUTPUT

To report the termination status of the signaling management report (SMR) in response to input message OP:SMR.

The body of the report is enclosed by the two OP:SMR messages; the second is called the termination message. Depending on the nature of the report, a report can either be paginated or not paginated. The first message in each group is repeated at the beginning of each page of a multipage report.

3. VARIABLE FIELD DEFINITIONS

`a` = Name of the requested report. The name should be at most 16 characters long. Valid value(s):

```
A15MPR15
A30MPR30
AMPRCDAY
AMPRHR
AMPRLDAY
ASEPR15
ASEPR30
ASEPRCDAY
ASEPRHR
ASEPRLDAY
ASNPR1CDAY
ASNPR1HR
ASNPR1LDAY
ASNPR215
ASNPR230
ASNPR2CDAY
ASNPR2HR
ASNPR2LDAY
NFDISK
NFDISKEX
NFLPM
NFLPMEX
RINGEXLPM
```

`b` = Message termination code. Valid value(s):

`ABT`	= Aborted.
`COMPL`	= Completed.
`IN PROG`	= In progress.
`STARTED`	= Started.

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`STOPPED` = Stopped.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:SMR`

OP:SMR-A15MPR15

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
OP SMR A15MPR15 STARTED
  MACHINE RESOURCE PERFORMANCE REPORT
  REPORTING OFFICE: a            REPORT INTERVAL: FIFTEEN MINUTES
   CURRENT GENERIC: b              DEMAND REPORT
  DATE: cc-cc-cc,  TIME: dd:dd:dd
  REPORT PERIOD(e): ff-ff-ff, gg:gg:gg THRU hh-hh-hh, ii:ii:ii
  DATA COVERAGE: j

  CCS7    BYTES     BYTES      MSUS      MSUS    FLD
  NODES   IN        OUT        IN        OUT     CNT
  -----  --------  --------  --------  --------  ---
  k-l     m         n          o         p       q
                    .
                    .
                    .
```

2. REASON FOR OUTPUT

To print the signaling link 15-minute machine resource performance report in response to input message OP:SMR.

3. VARIABLE FIELD DEFINITIONS

a = Reporting office CLLI code.

b = Current software release identification.

c = Local date, in the form year-month-day.

d = Local time, in the form hour:minute:second.

e = User defined string [by way of the equipment configuration database (ECD)]. This is the time zone indicator and has a default of "NWT".

f = Network date of beginning of accumulation period, in the form year-month-day.

g = Network time of beginning of accumulation period, in the form hour:minute:second.

h = Network date of ending of accumulation period, in the form year-month-day.

i = Network time of ending of accumulation period, in the form hour:minute:second.

j = The number of 5-minute accumulation periods out of the maximum number of coverage periods for this report; format is 'rrr/sss'.
'aaa' = The number of periods of accumulated data for this report.
'ccc' = The maximum number of periods that can be covered where:

001 <= rrr <= 288 (288 periods equal one day - 24 hours) 001 <= sss <= 288 rrr

<= sss

k = Group number of link.

l = Member number of link.

m = Number of incoming bytes (to a *5ESS*®-2000 switch).

n = Number of outgoing bytes (to network).

o = Number of message signal units in to a *5ESS*®-2000 switch.

p = Number of message signal units out to network.

q = Declared link failure count.

4. ACTION TO BE TAKEN

If the ABORTED status message is printed, the user may wish to try the OP:SMR input message again.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

OP:SMR

OP:SMR-A30MPR30-A

Software Release: 5E10 - 5E11
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

[1]
```
OP SMR A30MPR30 STARTED
  SIGNALING LINK 30 MINUTE MARGINAL PERFORMANCE REPORT
  REPORTING OFFICE: a               REPORT INTERVAL: HALF HOURLY
  CURRENT GENERIC: b                DEMAND REPORT
  DATE: cc-cc-cc,  TIME: dd:dd:dd
  REPORT PERIOD(e): ff-ff-ff, gg:gg:gg THRU hh-hh-hh, ii:ii:ii
  DATA COVERAGE: j
  PAGE f1 OF g1
```

[2]
```
OP SMR A30MPR30        IN PROG
  CCIS6 LINKS:
                                 OOS TIM SU ERR SU RXMT AURS
  FAR END CLLI-LAYER T GR-MEM VFL MIN SEC
  ------------------ - ------ --- ------- ------ ------- ----
        k        -l  m  n-o    p   qq:qq       t       u    v
        k        -l  m  n-o    p   qq:qq       t       u    v
        k        -l  m  n-o    p   qq:qq       t       u    v
                                  .
                                  .
                                  .

  PAGE f1 OF g1
```

[3]
```
OP SMR A30MPR30        IN PROG
  CCIS6 LINKS:
                                 AUT CHG OVER CB SM
  FAR END CLLI-LAYER T GR-MEM VFL
  ------------------ - ------ --- ------------ -----
        k        -l  m  n-o    p           w       x
        k        -l  m  n-o    p           w       x
        k        -l  m  n-o    p           w       x
                                 .
                                 .
                                 .
  PAGE f1 OF g1
```

[4]
```
OP SMR A30MPR30        IN PROG
  CCS7 LINKS:
                              OOS TIM CRCER BY RX   AUTO
  FAR END CLLI-LAYER T GR-MEM MIN SEC             CHG OVER
  ------------------ - ------ ------- ----- ----- --------
```

```
          k        -l  m  n-o    qq:qq     y     z        a1
          k        -l  m  n-o    qq:qq     y     z        a1
          k        -l  m  n-o    qq:qq     y     z        a1
                                   .
                                   .
                                   .
    PAGE f1 OF g1

[5]  ____________________________________________________________________
     OP SMR A30MPR30        IN PROG
       CCS7 LINKS:
                                      ERSEC     UNVL
       FAR END CLLI-LAYER T GR-MEM
       ------------------ - ------   -------   ------
          k        -l  m  n-o        b1       c1
          k        -l  m  n-o        b1       c1
          k        -l  m  n-o        b1       c1
                                      .
                                      .
                                      .
       PAGE f1 OF g1

[6]  ____________________________________________________________________
     OP SMR A30MPR30        IN PROG
       CCS7 CLUSTERS:
                            ROUTE SET UNAVAILABLE
       CLUSTER     TYPE     COUNT           SEC
       -------     ----    ---------------------
          r          s        d1             e1
          r          s        d1             e1
          r          s        d1             e1
                     .
                     .
                     .
       PAGE f1 OF g1

[7]  ____________________________________________________________________
     OP SMR A30MPR30        COMPL
```

2. REASON FOR OUTPUT

To print a common channel interoffice signaling (CCIS) measurement report in response to the OP:SMR input message. The output may be interrupted by other output messages.

3. VARIABLE FIELD DEFINITIONS

a = Reporting office CLLI code.

b = Current software release identification.

c = Local date, in the form year-month-day.

d = Local time, in the form hour:minute:second.

e = User defined string [by way of the equipment configuration database (ECD)]. This is the time zone indicator and has a default of "NWT".

f = Network date of beginning of accumulation period, in the form year-month-day.

g = Network time of beginning of accumulation period, in the form hour:minute:second.

h = Network date of ending of accumulation period, in the form year-month-day.

i = Network time of ending of accumulation period, in the form hour:minute:second.

j = The number of 5-minute accumulation periods out of the maximum number of coverage periods for this report; format is '$h^1h^1h^1/i^1i^1i^1$'.

$h^1h^1h^1$ = The number of periods of accumulated data for this report.

$i^1i^1i^1$ = The maximum number of periods that can be covered where:

001 <= $h^1h^1h^1$ <= 288 (288 periods equal one day - 24 hours)

001 <= $i^1i^1i^1$ <= 288 $h^1h^1h^1$ <= $i^1i^1i^1$

k = CLLI code plus set member number.

l = Link layer number.

m = Link type. Valid value(s):

A = Signaling link between an end office (EO) and a signaling transfer point (STP) in the same (home) region.

B = Signaling link between a home STP and an STP in a different region.

C = Signaling link between two home STPs.

D = Signaling link between a regional STP and an area STP.

E = Signaling link between an EO and an STP in a different region.

n = Group number of link in frame.

o = Member number of link in frame.

p = Voice frequency link (VFL) type. Valid value(s):

A = Secondary; only A and E links types have a secondary (A) VFL.

B = Primary.

q = Out-of-service time, in the form minutes:seconds.

r = Cluster number.

s = Cluster type. Valid value(s):

NO_RTE = No Route.

POP = Populated.

UNPOP = Unpopulated.

Note: Any of the following measurements may appear on the report followed by an asterisk ('*') indicating that the threshold for that measurement has been exceeded. Only links that have at least one measurement whose threshold is exceeded are printed; therefore if no data appears on this report,

then no thresholds were exceeded for the report period.

`t` = Number of signaling units in error.

`u` = Number of byte retransmission requests.

`v` = Number of repeated or skipped acknowledgement signal units.

`w` = Number of automatically initiated changeovers.

`x` = Number of changeover/changebacks to the same VFL.

`y` = Number of cyclic redundancy check errors.

`z` = Number of bytes retransmitted.

`a`[1] = Number of automatically initiated changeovers.

`b`[1] = The total number of seconds in error.

`c`[1] = The proportion of time the link was out of service (count is in 100ths of a percent).

`d`[1] = Number of times a route set was unavailable.

`e`[1] = Duration of route set unavailable, in seconds.

`f`[1] = Current page number.

`g`[1] = Total number of pages in report.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SMR
```

Output Message(s):

```
REPT:SMR-A30MPR30
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*
235-070-100 *System Administration and Engineering Guidelines*

OP:SMR-A30MPR30-B

Software Release: 5E12 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

[1]
```
OP SMR A30MPR30 STARTED
  SIGNALING LINK 30 MINUTE MARGINAL PERFORMANCE REPORT
  REPORTING OFFICE: a               REPORT INTERVAL: HALF HOURLY
  CURRENT GENERIC: b                DEMAND REPORT
  DATE: cc-cc-cc,  TIME: dd:dd:dd
  REPORT PERIOD(e): ff-ff-ff, gg:gg:gg THRU hh-hh-hh, ii:ii:ii
  DATA COVERAGE: j
  PAGE f1 OF g1
```

[2]
```
OP SMR A30MPR30        IN PROG
  CCIS6 LINKS:
                                 OOS TIM SU ERR SU RXMT AURS
  FAR END CLLI-LAYER T GR-MEM VFL MIN SEC
  ------------------ - ------ --- ------- ------ ------- ----
        k        -l  m  n-o    p   qq:qq       t       u    v
        k        -l  m  n-o    p   qq:qq       t       u    v
        k        -l  m  n-o    p   qq:qq       t       u    v
                                  .
                                  .
                                  .

PAGE f1 OF g1
```

[3]
```
OP SMR A30MPR30        IN PROG
  CCIS6 LINKS:
                                 AUT CHG OVER CB SM
  FAR END CLLI-LAYER T GR-MEM VFL
  ------------------ - ------ --- ------------ -----
        k        -l  m  n-o    p           w       x
        k        -l  m  n-o    p           w       x
        k        -l  m  n-o    p           w       x
                                .
                                .
                                .
  PAGE f1 OF g1
```

[4]
```
OP SMR A30MPR30        IN PROG
  CCS7 LINKS:
                              OOS TIM CRCER BY RX   AUTO
  FAR END CLLI-LAYER T GR-MEM MIN SEC             CHG OVER
  ------------------ - ------ ------- ----- ----- --------
```

```
          k        -l  m  n-o    qq:qq     y     z        a1
          k        -l  m  n-o    qq:qq     y     z        a1
          k        -l  m  n-o    qq:qq     y     z        a1
                                   .
                                   .
                                   .
    PAGE f1 OF g1

[5]  ____________________________________________________________________
     OP SMR A30MPR30        IN PROG
       CCS7 LINKS:
                                      ERSEC     UNVL
       FAR END CLLI-LAYER T GR-MEM
       ------------------ - ------   -------   ------
          k        -l  m  n-o        b1       c1
          k        -l  m  n-o        b1       c1
          k        -l  m  n-o        b1       c1
                                      .
                                      .
                                      .
       PAGE f1 OF g1

[6]  ____________________________________________________________________
     OP SMR A30MPR30        IN PROG
       CCS7 CLUSTERS:
                            ROUTE SET UNAVAILABLE
       CLUSTER     TYPE     COUNT           SEC
       -------     ----    ---------------------
          r          s        d1             e1
          r          s        d1             e1
          r          s        d1             e1
                     .
                     .
                     .
       PAGE f1 OF g1

[7]  ____________________________________________________________________
     OP SMR A30MPR30        COMPL
```

2. REASON FOR OUTPUT

To print a common channel interoffice signaling (CCIS) measurement report in response to the OP:SMR input message. The output may be interrupted by other output messages.

3. VARIABLE FIELD DEFINITIONS

a = Reporting office CLLI code.

b = Current software release identification.

c = Local date, in the form year-month-day.

d = Local time, in the form hour:minute:second.

e = User defined string [by way of the equipment configuration database (ECD)]. This is the time zone indicator and has a default of "NWT".

f = Network date of beginning of accumulation period, in the form year-month-day.

g = Network time of beginning of accumulation period, in the form hour:minute:second.

h = Network date of ending of accumulation period, in the form year-month-day.

i = Network time of ending of accumulation period, in the form hour:minute:second.

j = The number of 5-minute accumulation periods out of the maximum number of coverage periods for this report; format is '$h^1h^1h^1/i^1i^1i^1$'.

$h^1h^1h^1$ = The number of periods of accumulated data for this report.

$i^1i^1i^1$ = The maximum number of periods that can be covered where:

001 <= $h^1h^1h^1$ <= 288 (288 periods equal one day - 24 hours)

001 <= $i^1i^1i^1$ <= 288

$h^1h^1h^1$ <= $i^1i^1i^1$

k = CLLI code plus set member number.

l = Link layer number.

m = Link type. Valid value(s):

- A = Signaling link between an end office (EO) and a signaling transfer point (STP) in the same (home) region.
- B = Signaling link between a home STP and an STP in a different region.
- C = Signaling link between two home STPs.
- D = Signaling link between a regional STP and an area STP.
- E = Signaling link between an EO and an STP in a different region.
- F = Signaling link between EOs.

n = Group number of link in frame.

o = Member number of link in frame.

p = Voice frequency link (VFL) type. Valid value(s):

- A = Secondary; only A and E links types have a secondary (A) VFL.
- B = Primary.

q = Out-of-service time, in the form minutes:seconds.

r = Cluster number.

s = Cluster type. Valid value(s):

- NO_RTE = No Route.
- POP = Populated.
- UNPOP = Unpopulated.

Note: Any of the following measurements may appear on the report followed by an asterisk ('*') indicating

that the threshold for that measurement has been exceeded. Only links that have at least one measurement whose threshold is exceeded are printed; therefore if no data appears on this report, then no thresholds were exceeded for the report period.

`t` = Number of signaling units in error.

`u` = Number of byte retransmission requests.

`v` = Number of repeated or skipped acknowledgement signal units.

`w` = Number of automatically initiated changeovers.

`x` = Number of changeover/changebacks to the same VFL.

`y` = Number of cyclic redundancy check errors.

`z` = Number of bytes retransmitted.

`a`[1] = Number of automatically initiated changeovers.

`b`[1] = The total number of seconds in error.

`c`[1] = The proportion of time the link was out of service (count is in 100ths of a percent).

`d`[1] = Number of times a route set was unavailable.

`e`[1] = Duration of route set unavailable, in seconds.

`f`[1] = Current page number.

`g`[1] = Total number of pages in report.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SMR
```

Output Message(s):

```
REPT:SMR-A30MPR30
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*
235-070-100 *System Administration and Engineering Guidelines*

OP:SMR-AMPR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
OP SMR AMPR [a] b
  5ESS MACHINE PERFORMANCE REPORT
  REPORTING OFFICE:  c                    REPORT INTERVAL d
  CURRENT GENERIC:  e                     DEMAND REPORT
  DATE:  ff-ff-ff  TIME:  gg:gg:gg
  REPORT PERIOD(i2):  hh-hh-hh, ii:ii:ii THRU jj-jj-jj, kk:kk:kk
  DATA COVERAGE:  l

  SYSTEM INITIALIZATIONS
           LEVEL 0         LEVEL 1        LEVEL 1A         LEVEL 1B
         COUNT   SEC     COUNT   SEC    COUNT    SEC     COUNT    SEC
         -----------     -----------    ------------     ------------
  CNI      m       n       o       p         N/A              N/A
  IMS      q       r          N/A         s        t       u        v
  SYSTEM INITIALIZATIONS
           LEVEL 2         LEVEL 3         LEVEL 4
         COUNT   SEC     COUNT   SEC     COUNT   SEC
         -----------     -----------     -----------
  CNI      j2      k2       w       x       y       z
  IMS        N/A           a1      b1      c1      d1
  NO MESSAGE SIGNAL UNIT PROCESSING
          COUNT   SEC
          -----   ---
            e1      f1
  RPC NODE PERFORMANCE - RPC COUNT:  2
          ERRORS        OOS AUTO          OOS MAN         OOS CNFG
           COUNT   COUNT        SEC  COUNT       SEC  COUNT       SEC
          ------   ----------------  ---------------  ---------------
               g1      h1         i1     j1        k1     l1        m1
  LN NODE PERFORMANCE - LN COUNT:  n1
          ERRORS        OOS AUTO          OOS MAN         OOS `CNFG
           COUNT   COUNT        SEC  COUNT       SEC  COUNT       SEC
          ------   ----------------  ---------------  ---------------
               o1      p1         q1     r1        s1     t1        u1
  RING PERFORMANCE
          SNGL   ISOLAT   MULT   ISOLAT   RING DOWN   MAN NODE  ISOLAT
          COUNT     SEC   COUNT     SEC   COUNT SEC   COUNT        SEC
          -------------   -------------   ---------   ----------------
            v1        w1    x1        y1    z1    a2    b2           c2
  INTERNAL CONGESTION
                                OVERFLOW    OVERFLOW    OVERFLOW
                                LEVEL 1     LEVEL 2     LEVEL 3
                                --------    --------    --------
  RPC RING RECEIVE BUFFER             d2          e2          f2
```

```
 LN RING RECEIVE BUFFER            N/A          g2          h2
OP SMR AMPR[a] COMPL
```

2. REASON FOR OUTPUT

To report the switch machine performance report (MPR) equipment performance measurements for both the common and the non-common portions of the switch.

3. VARIABLE FIELD DEFINITIONS

a = Report period. Valid value(s):

15	= 15 minutes
30	= 30 minutes
HR	= 1 hour
CDAY	= Current day
LDAY	= Last (previous) day

b = Status of the input message. Valid value(s):

ABT	= Aborted.
COMPL	= Completed.
IN PROG	= In progress.
STARTED	= Started.
STOPPED	= Stopped.

c = Local CLLI code of the office.

d = The accumulation period. Valid value(s):

DAILY
FIFTEEN MINUTES
HALF HOURLY
HOURLY

e = Current software release identification.

f = Local date, in the form year-month-day.

g = Local time, in the form hour:minute:second.

h = Network date at beginning of accumulation period, in the form year-month-day.

i = Network date at beginning of accumulation period, in the form hour:minute:second.

j = Network date at end of accumulation period, in the form year-month-day.

k = Network date at end of accumulation period, in the form hour:minute:second.

l = The number of accumulation periods (one period is 5 minutes) out of the maximum number of coverage periods for this report; format is '$l^2l^2l^2/m^2m^2m^2$'.

$l^2l^2l^2$ = The number of periods of accumulated data for this report.

$m^2m^2m^2$ = The maximum number of periods than can be covered where:

001 <= $l^2l^2l^2$ <= 288 (288 periods equals one day - 24 hours)

001 <= $m^2m^2m^2$ <= 288 $l^2l^2l^2$ <= $m^2m^2m^2$.

m	= The number of common network interface (CNI) level 0 initializations.
n	= The time (in seconds) of variable 'm'.
o	= The number of CNI level 1 initializations.
p	= The time (in seconds) of variable 'o'.
q	= The number of interprocess message switch (IMS) level 0 initializations.
r	= The time (in seconds) of variable 'q'.
s	= The number of IMS level 1A initializations.
t	= The time (in seconds) of variable 's'.
u	= The number of IMS level 1B initializations.
v	= The time (in seconds) of variable 'u'.
w	= The number of CNI level 3 initializations.
x	= The time (in seconds) of variable 'w'.
y	= The number of CNI level 4 initializations.
z	= The time (in seconds) of variable 'y'.
a^1	= The number of IMS level 3 initializations.
b^1	= The time (in seconds) of variable 'a^1'.
c^1	= The number of IMS level 4 initializations.
d^1	= The time (in seconds) of variable 'c^1'.
e^1	= The number of times no signal unit processing was occurring.
f^1	= The interval (in seconds) that no signal unit processing was occurring.
g^1	= The number of ring peripheral controller (RPC) node errors.
h^1	= The number of RPC out-of-service auto for RPC node.
i^1	= The time (in seconds) of variable 'h^1'.
j^1	= The number of RPC out-of-service manual for RPC node.
k^1	= The time (in seconds) of variable 'j^1'.
l^1	= The number of RPC out-of-service configuration for RPC node.
m^1	= The time (in seconds) of variable 'l^1'.

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n^1 = The number of link nodes (LNs) for which this output data was collected.

o^1 = The number of LN node errors.

p^1 = The number of LN out-of-service auto for LN node.

q^1 = The time (in seconds) of variable 'p^1'.

r^1 = The number of LN out-of-service manual for LN node.

s^1 = The time (in seconds) of variable 'r^1'.

t^1 = The number of LN out-of-service configuration for LN node.

u^1 = The time (in seconds) of variable 't^1'.

v^1 = The number of single fault ring errors.

w^1 = The time (in seconds) of variable 'v^1'.

x^1 = The number of multiple fault ring errors.

y^1 = The time (in seconds) of variable 'x^1'.

z^1 = The number of times the entire ring went down.

a^2 = The time (in seconds) the ring was down.

b^2 = The number of nodes isolated manually.

c^2 = Duration timer for the number of nodes isolated manually (in seconds).

d^2 = The number of ring receive buffer overflows (level 1).

e^2 = The number of ring receive buffer overflows (level 2).

f^2 = The number of ring receive buffer overflows (level 3).

g^2 = The number of link node receive buffer overflows (level 2).

h^2 = The number of link node receive buffer overflows (level 3).

i^2 = User-defined string [by way of the equipment configuration database (ECD)]. This is the time zone indicator and has a default of "NWT".

j^2 = The number of CNI level 2 initializations.

k^2 = The time (in seconds) of variable 'j^2'.

4. ACTION TO BE TAKEN

If the aborted (ABT) status message is printed, the user may wish to try the command again.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SMR
```

Output Message(s):

```
REPT:SMR-AMPR
```

Other Manual(s):
235-070-100 *Traffic and Plant Measurements*

OP:SMR-ASEPR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

[1]
```
_____________________________________________________________________
OP SMR ASEPR[a] STARTED
  SIGNALING EQUIPMENT PERFORMANCE REPORT
  REPORTING OFFICE: b                    REPORT INTERVAL: c
  CURRENT GENERIC: d                     DEMAND REPORT
  DATE: ee-ee-ee,   TIME: ff:ff:ff
  REPORT PERIOD(g): hh-hh-hh, ii:ii:ii THRU  jj-jj-jj, kk:kk:kk
  DATA COVERAGE: l
  PAGE v OF w
```

[2]
```
_____________________________________________________________________
OP SMR ASEPR[a] IN PROG
  CCIS6 LN PERFORMANCE

   GRP   MEM  ERROR    OOS_AUTO       OOS_MAN      OOS_CNFG
   NUM   NUM  COUNT  COUNT    SEC  COUNT    SEC  COUNT    SEC

  _____  ___  _____  ___________  ___________  ___________
    m     n     o      p       q     r       s     t       u
    m     n     o      p       q     r       s     t       u
    m     n     o      p       q     r       s     t       u
                                .
                                .
                                .
  PAGE v OF w
```

[3]
```
_____________________________________________________________________
OP SMR ASEPR[a] IN PROG
  CCS7 LN PERFORMANCE
   GRP   MEM  ERROR    OOS_AUTO       OOS_MAN      OOS_CNFG
   NUM   NUM  COUNT  COUNT    SEC  COUNT    SEC  COUNT    SEC

  _____  ___  _____  ___________  ___________  ___________
    m     n     o      p       q     r       s     t       u
    m     n     o      p       q     r       s     t       u
    m     n     o      p       q     r       s     t       u
                                .
                                .
                                .
  PAGE v OF w
```

[4]
```
_____________________________________________________________________
OP SMR ASEPR[a] IN PROG
  RPC NODE PERFORMANCE
   GRP   MEM  ERROR    OOS_AUTO       OOS_MAN      OOS_CNFG
   NUM   NUM  COUNT  COUNT    SEC  COUNT    SEC  COUNT    SEC

  _____  ___  _____  ___________  ___________  ___________
    m     n     o      p       q     r       s     t       u
```

```
          m     n     o     p       q     r       s     t       u
          m     n     o     p       q     r       s     t       u
                                    .
                                    .
                                    .
        PAGE v OF w

[5]   ____________________________________________________________________
      OP SMR ASEPR[a] COMPL
```

2. REASON FOR OUTPUT

To print a common channel interoffice signaling (CCIS) measurement report in response to the OP:SMR input message.

3. VARIABLE FIELD DEFINITIONS

a = Report period. Valid value(s):
- 15 = Fifteen minutes.
- 30 = Thirty minutes.
- HR = One hour.
- CDAY = Current day.
- LDAY = Last (previous) day.

b = CLLI code.

c = Accumulation period. Valid value(s):
- DAILY
- FIFTEEN MINUTES
- HALF HOURLY
- HOURLY

d = Current software release identification.

e = Local time-zone in the form year-month-date.

f = Local time-zone in the form hour:minute:second.

g = User defined string [by way of the equipment configuration database (ECD)]. This is the time zone indicator and has a default of "NWT".

h = Network date of beginning of accumulation period in the form year-month-date.

i = Network time of beginning of accumulation period in the form hour:minute:second.

j = Network date of end of accumulation period in the form year-month-date.

k = Network time of end of accumulation period in the form hour:minute:second.

l = The number of accumulation periods (one period is 5 minutes) out of the maximum number of coverage periods for this report; format is 'xxx/yyy'.
- xxx = The number of periods of accumulated data for this report.
- yyy = The maximum number of periods that can be covered where:

001 <= xxx <= 288 (288 periods equals one day - 24 hours)
001 <= yyy <= 288
xxx <= yyy.

m = Group number of link in frame.

n = Member number.

o = Peg count of transient errors (that is, errors which do not result in a node's being removed from service).

p = Peg count of out-of-service time due to faults; this includes all time that a node is automatically removed from service.

q = Duration of time in seconds that a node is out-of-service due to faults.

r = Peg count for manually initiated out-of-service time.

s = Duration of time in seconds that a node is manually out-of-service.

t = Peg count for out-of-service time due to ring reconfiguration that isolates this node.

u = Duration of time in seconds that a node is out-of-service due to a ring reconfiguration.

v = Current page number.

w = Total number of pages of report.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SMR
```

Other Manual(s):
235-070-100 *Traffic and Plant Measurements*

OP:SMR-ASNPR1-A

Software Release: 5E10 - 5E12
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
OP SMR ASNPR1[a] STARTED
  SIGNALING NETWORK PERFORMANCE REPORT - PART I
  REPORTING OFFICE: b                      REPORT INTERVAL c
  CURRENT GENERIC: d                       DEMAND REPORT
  DATE: ee-ee-ee TIME: ff:ff:ff
  REPORT PERIOD(g): hh-hh-hh, ii:ii:ii THRU jj-jj-jj, kk:kk:kk
  DATA COVERAGE: l
  SIGNALING LOAD ---         RECEIVED        TRANSMITTED
     CCIS6 SIGNAL UNITS:        m                n
     CCIS6 ROUTED MESSAGES:     o                p
     CCIS6 DIRECT SIG MSGS:     q                r
  SIGNALING PERFORMANCE ---                     PEG  TIME
                                               COUNT (SEC.)
  CCIS6 PERFORMANCE ---                        ----- ------
    EMERGENCY RESTART                            s     t
    TRANSMIT BUFFER OVERLOAD                     u     v
    DECLARED LINK FAILURES                       w     x
    AUTOMATIC SIG LINK CHANGEOVERS               y
    RECEIVE BUFFER OVERFLOW                      z
    RECEIVE BUFFER OVERLOAD                      a1    b1
    EXCEPTION REPORTS (THRESHOLDS EXCEEDED) ---
       SIGNAL UNIT ERRORS                        c1
       RETRANSMISSION REQUESTS                   d1
       REPEATED AND SKIPPED ACU'S                e1
       AUTOMATIC CHANGEOVERS                     f1
   MESSAGE TRANSFER FAILURES ---
      POTS MESSAGES BLOCKED                      g1
      UNEQUIPPED POTS LABEL (NO TRANSLATION)     h1
      DIRECT SIG MSGS REFUSED (BLOCKED)          i1
      DIRECT SIG MSGS REFUSED (NO TRANSLATION)   j1
      TRANSMIT BUFFER OVERFLOW                   k1
      INITIAL ADDRESS MSGS DROPPED               l1
      LOOPED DIRECT SIG MSGS                     m1
      DS & 511 MSGS DROPPED (RPC CONGESTION)     n1
  PAGE g3 OF h3
  OP SMR ASNPR1[a] IN PROG
  SIGNALING LOAD ---         RECEIVED        TRANSMITTED
     CCS7 MSU BYTES:            o1               p1
     CCS7 ROUTED MESSAGES:      q1               r1
     ECIS MESSAGES:             s1               t1
     TOTAL GTR MSGS REC'D:      u1
  SIGNALING PERFORMANCE ---                     PEG  TIME
                                               COUNT (SEC.)
```

```
CCS7 PERFORMANCE ---                          ----- ------
  SIGNALING POINT ISOLATION                     v1    w1
  LINK SET FAILURE                              x1    y1
  SIG LINK CONGESTION ONSET (LEVEL 1)           z1    a2
  DECLARED LINK FAILURES                        b2    c2
  AUTOMATIC CHANGEOVERS                         d2
  RECEIVE BUFFER OVERFLOW                       e2
  RECEIVE BUFFER OVERLOAD                       f2    g2
  TRANSMIT BUFFER DISCARD LEVEL 1               h2
  ROUTING AUDIT FAILURES                        i2
  ALTERNATE LINK SET ROUTING TRANSITIONS        i3    j3
  EXCEPTION REPORTS (THRESHOLDS EXCEEDED) ---
    ERRORED SECONDS                             j2
    DETECTED ERRORS                             k2
    BYTES RETRANSMITTED                         l2
    AUTOMATIC CHANGEOVERS                       m2
  MESSAGE TRANSFER FAILURES ---
    ECIS MSGS REFUSED - BLOCKED                 n2
    ECIS MSGS REFUSED - NO TRANSLATION          o2
    DCIS MSGS REFUSED - BLOCKED                 p2
    DCIS MSGS REFUSED - NO TRANSLATION          q2
    ECIS6 MSGS DROPPED - RPC CONGESTION         r2
    MSUS DISCARDED - ROUTING DATA ERROR         s2
    LOOPING CCS7 MSGS                           t2

    GTT REFUSED - BLOCKED                       u2
    GTT REFUSED - NO TRANSLATION                v2
    SIG LINK MESSAGES DISCARDED                 w2
    MSGS DROPPED - RPC CONGESTION               x2
    SCCP MSGS - UNKNOWN ADDRESS      (LN7)      y2
    SCCP MGSG - UNKNOWN ADDRESS TYPE (LN7)      z2
    SCCP MSGS - UNEQUIPPED SUBSYSTEM (LN7)      a3
    SCCP MSGS - PROHIBITED SUBSYSTEM (LN7)      b3
    SCCP MSGS - UNKNOWN ADDRESS      (OFC)      c3
    SCCP MSGS - UNKNOWN ADDRESS TYPE (OFC)      d3
    SCCP MSGS - UNEQUIPPED SUBSYSTEM (OFC)      e3
    SCCP MSGS - PROHIBITED SUBSYSTEM (OFC)      f3
PAGE g3 OF h3
OP SMR ASNPR1[a] COMPL
```

2. REASON FOR OUTPUT

To print part one of the signaling network performance report in response to input command OP:SMR.

3. VARIABLE FIELD DEFINITIONS

a	= Report period. Valid value(s):
	15 = 15 minutes.
	30 = 30 minutes.

HR = 1 hour.
CDAY = Current day.
LDAY = Last (previous) day.

b = Reporting office CLLI code.

c = Accumulation period. Valid value(s):
DAILY
FIFTEEN MINUTES
HALF HOURLY
HOURLY

d = Current software release identification.

e = Local time-zone in the form year-month-date.

f = Local time-zone time in the form hour:minute:second.

g = User-defined string [from the equipment configuration database (ECD)]. This is the time zone indicator and has a default of "NWT".

h = Network time of beginning of accumulation period in the form hour:minute:second.

i = Network date of ending of accumulation period in the form hour:minute:second.

j = Network time of ending of accumulation period in the form year-month-date.

k = Network time of ending of accumulation period in the form hour:minute:second.

l = The number of 5-minute accumulation periods out of the maximum number of coverage periods for this report; format is '$k^3k^3k^3/l^3l^3l^3$'.
$k^3k^3k^3$ = The number of periods of accumulated data for this report.
$l^3l^3l^3$ = The maximum number of periods that can be covered where:

001 <= $k^3k^3k^3$ <= 288 (288 periods equal one 24-hour day)
001 <= $l^3l^3l^3$ <= 288
$k^3k^3k^3$ <= $l^3l^3l^3$

m = Common channel interoffice signaling 6 (CCIS6) signal units received.

n = CCIS6 signal units transmitted.

o = CCIS6 routed messages received.

p = CCIS6 routed messages transmitted.

q = CCIS6 direct signaling messages received.

r = CCIS6 direct signaling messages transmitted.

s = Signaling point (SP) emergency restarts.

t = Duration of SP emergency restarts (in seconds).

u = Transmit buffer overloads.

v = Duration of transmit buffer overloads (in seconds).

w = Declared link failures.

x = Duration of declared link failures (in seconds).

y = Automatic changeovers.

z = Receive buffer overflow.

a[1] = Receive buffer overload.

b[1] = Duration of receive buffer overload (in seconds).

c[1] = Half-hours with signal unit error threshold exceeded.

d[1] = Half-hours with retransmission threshold exceeded.

e[1] = Half-hours with acknowledgement unit repeat or skip threshold exceeded.

f[1] = Half-hours with automatic changeover threshold exceeded.

g[1] = Plain old telephone service (POTS) messages refused, congestion.

h[1] = POTS messages refused, no translation.

i[1] = Direct signaling messages refused, congestion.

j[1] = Direct signaling messages refused, no translation.

k[1] = Transmit buffer overflow.

l[1] = Initial address messages dropped.

m[1] = Looped direct signaling messages.

n[1] = Number of direct signaling and 511 banded messages dropped due to RPC congestion.

o[1] = Number of common channel signaling 7 (CCS7) bytes received.

p[1] = Number of CCS7 bytes transmitted.

q[1] = Number of CCS7 routed messages received.

r[1] = Number of CCS7 routed messages transmitted.

s[1] = Number of embedded CCIS (ECIS) messages received.

t[1] = Number of ECIS messages transmitted.

u[1] = Total number of global title routing messages received.

v[1] = Number of SP node isolations.

w[1] = Duration of SP node isolations (in seconds).

x^1 = Number of SP link set failures.

y^1 = Duration of SP link set failures (in seconds).

z^1 = Number of level 1 transmit buffer congestion onsets.

a^2 = Duration of level 1 transmit buffer overloads (in seconds).

b^2 = Number of declared failures.

c^2 = Duration of declared link failures.

d^2 = Number of automatic changeovers.

e^2 = Number of receive buffer overflows.

f^2 = Number of receive buffer overloads.

g^2 = Duration of receive buffer overload (in seconds).

h^2 = Number of level 1 transmit buffer discards.

i^2 = Number of routing audit failures.

j^2 = Number of half-hours with errored second threshold exceeded.

k^2 = Number of half-hours with detected error threshold exceeded.

l^2 = Number of bytes retransmitted.

m^2 = Number of half-hours with automatic changeover threshold exceeded.

n^2 = Number of ECIS messages refused, congestion.

o^2 = Number of ECIS messages refused, no translation.

p^2 = Number of destination CCIS6 (DCIS) messages refused - congestion.

q^2 = Number of DCIS messages refused - no translation.

r^2 = Number of priority level 1/2/3 ECIS6 messages dropped due to ring peripheral controller (RPC) congestion.

s^2 = Number of metallic service unit (MSU)s discarded due to routing data error count.

t^2 = Number of looping CCS7 messages.

u^2 = Number of global title translations refused - blocked.

v^2 = Number of global title translations refused - no translation.

w^2 = Number of messages removed/discarded due to link congestion.

x^2 = Number of priority level 1/2/3 messages dropped due to RPC congestion.

y^2 = Number of signaling connection control part (SCCP) messages destined for an unknown address

(or global title) (link node LN7).

z[2] = Number of SCCP messages destined for an unknown address (or global title) type (LN7).

a[3] = Number of SCCP messages destined for an unequipped subsystem (LN7).

b[3] = Number of SCCP messages destined for a prohibited subsystem (LN7).

c[3] = Number of SCCP messages destined for an unknown address (or global title) [office (OFC)].

d[3] = Number of SCCP messages destined for an unknown address (or global title) type (OFC).

e[3] = Number of SCCP messages destined for an unequipped subsystem (OFC).

f[3] = Number of SCCP messages destined for an prohibited subsystem (OFC).

g[3] = Current page number.

h[3] = Total number of pages of report.

i[3] = Number of alternate link set routing transitions to a lower priority link set.

j[3] = Duration, in milliseconds, of alternate link set transitions.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SMR
```

Output Message(s):

```
REPT:SMR-SNPR1
```

Other Manual(s):
235-070-100 *System Administration and Engineering Guidelines*

OP:SMR-ASNPR1-B

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP SMR ASNPR1[a] STARTED
        SIGNALING NETWORK PERFORMANCE REPORT - PART I
        REPORTING OFFICE: b                      REPORT INTERVAL c
        CURRENT GENERIC: d                       DEMAND REPORT
        DATE: ee-ee-ee TIME: ff:ff:ff
        REPORT PERIOD(g): hh-hh-hh, ii:ii:ii THRU jj-jj-jj, kk:kk:kk
        DATA COVERAGE: l
        SIGNALING LOAD ---         RECEIVED        TRANSMITTED
           CCS7 MSU BYTES:            m                   n
           CCS7 ROUTED MESSAGES:      o                   p
           ECIS MESSAGES:             q                   r
           TOTAL GTR MSGS REC'D:      s
                SIGNALING PERFORMANCE ---                      PEG  TIME
                                                              COUNT (SEC.)
                CCS7 PERFORMANCE ---                          ----- ------
                  SIGNALING POINT ISOLATION                     t     u
                  LINK SET FAILURE                              v     w
                  SIG LINK CONGESTION ONSET (LEVEL 1)           x     y
                  DECLARED LINK FAILURES                        z     a1
                  AUTOMATIC CHANGEOVERS                         b1
                  RECEIVE BUFFER OVERFLOW                       c1
                  RECEIVE BUFFER OVERLOAD                       d1    e1
                  TRANSMIT BUFFER DISCARD LEVEL 1               f1
                  ROUTING AUDIT FAILURES                        g1
                  ALTERNATE LINK SET ROUTING TRANSITIONS        h1    i1
                  EXCEPTION REPORTS (THRESHOLDS EXCEEDED) ---
                    ERRORED SECONDS                             j1
                    DETECTED ERRORS                             k1
                    BYTES RETRANSMITTED                         l1
                    AUTOMATIC CHANGEOVERS                       m1
                  MESSAGE TRANSFER FAILURES ---
                    ECIS MSGS REFUSED - BLOCKED                 n1
                    ECIS MSGS REFUSED - NO TRANSLATION          o1
                    DCIS MSGS REFUSED - BLOCKED                 p1
                    DCIS MSGS REFUSED - NO TRANSLATION          q1
                    ECIS6 MSGS DROPPED - RPC CONGESTION         r1
                    MSUS DISCARDED - ROUTING DATA ERROR         s1
                    LOOPING CCS7 MSGS                           t1
                    GTT REFUSED - BLOCKED                       u1
                    GTT REFUSED - NO TRANSLATION                v1
                    SIG LINK MESSAGES DISCARDED                 w1
```

```
                MSGS DROPPED - RPC CONGESTION                x1
                SCCP MSGS - UNKNOWN ADDRESS      (LN7)       y1
                SCCP MGSG - UNKNOWN ADDRESS TYPE (LN7)       z1
                SCCP MSGS - UNEQUIPPED SUBSYSTEM (LN7)       a2
                SCCP MSGS - PROHIBITED SUBSYSTEM (LN7)       b2
                SCCP MSGS - UNKNOWN ADDRESS      (OFC)       c2
                SCCP MSGS - UNKNOWN ADDRESS TYPE (OFC)       d2
                SCCP MSGS - UNEQUIPPED SUBSYSTEM (OFC)       e2
                SCCP MSGS - PROHIBITED SUBSYSTEM (OFC)       f2
            PAGE g2 of h2

[2]  ____________________________________________________________________
     OP SMR ASNPR1[a] COMPL
```

2. REASON FOR OUTPUT

To print part one of the signaling network performance report in response to input command OP:SMR.

3. VARIABLE FIELD DEFINITIONS

a = Report period. Valid value(s):

15	= 15 minutes.
30	= 30 minutes.
HR	= 1 hour.
CDAY	= Current day.
LDAY	= Last (previous) day.

b = Reporting office CLLI code.

c = Accumulation period. Valid value(s):

DAILY
FIFTEEN MINUTES
HALF HOURLY
HOURLY

d = Current software release identification.

e = Local time-zone in the form year-month-date.

f = Local time-zone time in the form hour:minute:second.

g = User defined string (by the way of the equipment configuration database (ECD)). This is the time zone indicator and has a default of "NWT" within the Continental US.

h = Network time of beginning of accumulation period in the form hour:minute:second.

i = Network date of ending of accumulation period in the form hour:minute:second.

j = Network time of ending of accumulation period in the form year-month-date.

k = Network time of ending of accumulation period in the form hour:minute:second.

l = The number of accumulation periods (one period is 5 minutes) out of the maximum number of coverage periods for this report; format is '$i^2i^2i^2/j^2j^2j^2$'

$i^2i^2i^2$ = The number of periods of accumulated data for this report

$j^2j^2j^2$ = The maximum number of periods that can be covered where:

001 <= $i^2i^2i^2$ <= 288 (288 periods equal one 24-hour day)

001 <= $j^2j^2j^2$ <= 288 $i^2i^2i^2$ <= $j^2j^2j^2$.

m = Common channel signaling 7 (CCS7) bytes received.

n = CCS7 bytes transmitted.

o = CCS7 routed messages received.

p = CCS7 routed messages transmitted.

q = Embedded CCIS (ECIS) messages received.

r = ECIS messages transmitted.

s = Total number of global title routing messages received.

t = SP node isolations.

u = Duration of SP node isolations (in seconds).

v = SP link set failures.

w = Duration of SP link set failures (in seconds).

x = Level 1 transmit buffer congestion onset.

y = Duration of level 1 transmit buffer congestion (in seconds).

z = Declared failures.

a^1 = Duration of declared link failures.

b^1 = Automatic changeovers.

c^1 = Receive buffer overflow.

d^1 = Receive buffer overload.

e^1 = Duration of receive buffer overload (in seconds).

f^1 = Transmit buffer discard level 1.

g^1 = Number of alternate link set routing transitions to a lower priority link set.

h^1 = Duration, in seconds, of alternate link set transitions.

i^1 = Routing audit failures.

j^1 = Half-hours with errored second threshold exceeded.

k[1] = Half-hours with detected error threshold exceeded.

l[1] = Bytes retransmitted.

m[1] = Half-hours with automatic changeover threshold exceeded.

n[1] = ECIS messages refused, congestion.

o[1] = ECIS messages refused, no translation.

p[1] = Destination CCIS6 (DCIS) messages refused - congestion.

q[1] = DCIS messages refused - no translation.

r[1] = Number of priority level 1/2/3 ECIS6 messages dropped due to ring peripheral controller (RPC) congestion.

s[1] = Message Signaling service units (MSUs) discarded due to routing data error count.

t[1] = Looping CCS7 messages.

u[1] = Global title translation refused - blocked.

v[1] = Global title translation refused - no translation.

w[1] = Messages removed/discarded due to link congestion.

x[1] = Number of priority level 1/2/3 messages dropped due to RPC congestion.

y[1] = Number of signaling connection control part (SCCP) messages destined for an unknown address (or global title) (link node LN7).

z[1] = Number of SCCP messages destined for an unknown address (or global title) type (LN7).

a[2] = Number of SCCP messages destined for an unequipped subsystem (LN7).

b[2] = Number of SCCP messages destined for a prohibited subsystem (LN7).

c[2] = Number of SCCP messages destined for an unknown address (or global title) [office (OFC)].

d[2] = Number of SCCP messages destined for an unknown address (or global title) type (OFC).

e[2] = Number of SCCP messages destined for an unequipped subsystem (OFC).

f[2] = Number of SCCP messages destined for an prohibited subsystem (OFC).

g[2] = Current page number.

h[2] = Total number of pages of report.

i[2] = The number of periods of accumulated data for this report.

j[2] = The maximum number of periods that can be covered.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SMR
```

Output Message(s):

```
REPT:SMR-SNPR1
```

Other Manual(s):

235-070-100 *Administration and Engineering Guidelines*

OP:SMR-ASNPR2-A

Software Release: 5E10 - 5E11
Message Class: MAINT
Application: 5
Type: Output

1. FORMAT

[1]
```
OP SMR ASNPR2a STARTED
  SIGNALING NETWORK PERFORMANCE REPORT - PART II
  REPORTING OFFICE: b                      REPORT INTERVAL: c
  CURRENT GENERIC: d                       DEMAND REPORT
  DATE: ee-ee-ee,  TIME: ff:ff:ff
  REPORT PERIOD(g): hh-hh-hh, ii:ii:ii THRU  jj-jj-jj, kk:kk:kk
  DATA COVERAGE: l

                                        CCIS6     CCS7
  TOTAL NO. OF EQUIPPED LINKS:            m         n
  TOTAL LINK OOS TIME(SECS):              o         p
  DURATION RCV'D PROCESSOR OUTAGE:        q         r
  TOTAL NO. OF POOLS/LINK SETS:           s         t
  LOSS OF SIGNALING CAPABILITY ---
                   ----- EMR -----
                     PC      SEC
  A/E LINKS:          u       v

  LOSS OF SIGNALING CAPABILITY ---
              ---CCS7 SPI---   ---CCS7 LSF---
                PC      SEC      PC      SEC
  A/E LINKS:     w       x        y       z

  PAGE l2 OF m2
```

[2]
```
OP SMR ASNPR2a IN PROG
  ALTERNATE LINK SET ROUTING ---
  LINK SET #   PC    SEC
  ----------  ----  -----
       n2       o2    p2
            .
            .
            .
  PAGE l2 OF m2
```

[3]
```
OP SMR ASNPR2a IN PROG

  CCIS6 SIGNALING LINK PERFORMANCE ---

                                  ---ACO--  --SU-ERR-   -SU-RXMT-   -R&S-ACU
  FAR END CLLI-LAYER T GR-MEM VFL  PC   TE    PC   TE     PC   TE      PC   TE
  ________________ _ ______ ___ ________  __________  _________  _________
```

```
        a1       b1  c1 d1-e1  f1  g1   h1    i1   j1    k1   l1     m1   n1
        a1       b1  c1 d1-e1  f1  g1   h1    i1   j1    k1   l1     m1   n1
PAGE l2 OF m2

[4]  ____________________________________________________________________
OP SMR ASNPR2a IN PROG
  CCIS6 SIGNALING LINK PERFORMANCE ---
                                OOS-TIME  -DCL-FLR-  --EMR---  --EMR-PO-
  FAR END CLLI-LAYER T GR-MEM HH MM SS  PC    SEC  PC   SEC  PC    SEC
  _________________ _ ______ ________  ________ ________ _________
        a1       b1  c1 d1-e1     o1    p1    q1   u     v    r1    s1
        a1       b1  c1 d1-e1     o1    p1    q1   u     v    r1    s1
  PAGE l2 OF m2

[5]  ____________________________________________________________________
OP SMR ASNPR2a IN PROG
  CCIS6 SIGNALING LINK PERFORMANCE ---

                              ---XMIT BUFFER---
                               OVFL  ---OVLD-  PRO-XMTD  PRO-RCVD
  FAR END CLLI-LAYER T GR-MEM   PC  PC   SEC  PC   SEC  PC   SEC
  _________________ _ ______ ____  ________ ________ ________
        a1       b1  c1 d1-e1   t1  u1   v1   w1   x1   y1    z1
        a1       b1  c1 d1-e1   t1  u1   v1   w1   x1   y1    z1
  PAGE l2 OF m2

[6]  ____________________________________________________________________
OP SMR ASNPR2a IN PROG
  CCS7 SIGNALING LINK PERFORMANCE ---

                                --ACO--  --ERSEC---  -CRCER--   BYT-RXMT
  FAR END CLLI-LAYER T GR-MEM   PC   TE    PC   TE    PC   TE   PC   TE
  _________________ _ ______  ________  _________  ________  ________
        a1       b1  c1 d1-e1   g1   h1    a2   b2    c2   d2   e2   f2
        a1       b1  c1 d1-e1   g1   h1    a2   b2    c2   d2   e2   f2
  PAGE l2 OF m2

[7]  ____________________________________________________________________
OP SMR ASNPR2a IN PROG
  CCS7 SIGNALING LINK PERFORMANCE ---
                                OOS-TIME      ----LSF---      --DCL-FLR-
  FAR END CLLI-LAYER T GR-MEM HH MM SS       PC    SEC       PC    SEC
  _________________ _ ______ ________      _________      _________
        a1       b1  c1 d1-e1    o1          y      z        p1     q1
        a1       b1  c1 d1-e1    o1          y      z        p1     q1
  PAGE l2 OF m2

[8]  ____________________________________________________________________
OP SMR ASNPR2a IN PROG
  CCS7 SIGNALING LINK PERFORMANCE ---
                                 ----XMIT BUFFER---
                                 MSURMV   CONG-LEV1   PRO-XMTD   PRO-RCVD
```

```
  FAR END CLLI-LAYER T GR-MEM      PC    PC     SEC    PC    SEC    PC    SEC
  _________________ _ ______  ______   _________  ________  ________
        a1       b1  c1 d1-e1      g2    h2      i2    w1     x1    y1     z1
        a1       b1  c1 d1-e1      g2    h2      i2    w1     x1    y1     z1
  PAGE l2 OF m2
```

[9]

```
OP SMR ASNPR2a IN PROG
  CCS7 SIGNALING LINK PERFORMANCE ---
                                ----EMR--  --EMR-PO-  ----SPI--  --SPI-PO-
  FAR END CLLI-LAYER T GR-MEM    PC   SEC    PC   SEC    PC   SEC    PC   SEC
  _________________ _ ______  _________  _________  _________  _________
        a1       b1  c1 d1-e1   u     v    r1    s1    w     x    j2    k2
        a1       b1  c1 d1-e1   u     v    r1    s1    w     x    j2    k2
  PAGE l2 OF m2
```

[10]

```
OP SMR ASNPR2a COMPL
```

2. REASON FOR OUTPUT

To print part two of the signaling network performance report in response to input message OP:SMR.

3. VARIABLE FIELD DEFINITIONS

a = Report period. Valid value(s):

15	= 15 minutes
30	= 30 minutes
HR	= 1 hour
CDAY	= Current day
LDAY	= Last (previous) day

b = Reporting office CLLI code.

c = Accumulation period. Valid value(s):

DAILY
FIFTEEN MINUTES
HALF HOURLY
HOURLY

d = Current software release identification.

e = Local time-zone, in the form year-month-day.

f = Local time-zone, in the form hour:minute:second.

g = User-defined string [by way of the equipment configuration database (ECD)]. This is the time zone indicator and has a default of "NWT" within the Continental US.

h = Network date of beginning of accumulation period, in the form year-month-day.

i = Network time of beginning of accumulation period, in the form hour:minute:second.

j = Network date of ending of accumulation period, in the form year-month-day.

k = Network time of ending of accumulation period, in the form hour:minute:second.

l = The number of accumulation periods (one period is 5 minutes) out of the maximum number of coverage periods for this report; format is '$q^2q^2q^2/r^2r^2r^2$'.

$q^2q^2q^2$ = The number of periods of accumulated data for this report.

$r^2r^2r^2$ = The maximum number of periods than can be covered where:

001 <= $q^2q^2q^2$ <= 288 (288 periods equals one day - 24 hours)

001 <= $r^2r^2r^2$ <= 288

$q^2q^2q^2$ <= $r^2r^2r^2$

m = The number of Common Channel Interoffice Signaling System 6 (CCIS6) equipped links; this number is not necessarily equal to the number of CCIS6 links whose data is printed on this report since links with data measurements of zero are not printed.

n = The number of Common Channel Interoffice Signaling System 7 (CCS7) equipped links; this number is not necessarily equal to the number of CCS7 links whose data is printed on this report since links with data measurements of zero are not printed.

o = The total active time, in seconds, of all CCIS6 links, including those not printed because measurement data was zero.

p = The total active time, in seconds, of all CCS7 links, including those not printed because measurement data was zero.

q = Duration, in seconds, of CCIS6 far-end processor outage events observed.

r = Duration, in seconds, of CCS7 far-end processor outage events observed.

s = Total number of pools.

t = Total number of link sets.

u = Emergency restart peg count.

v = Duration, in seconds, of emergency restart.

w = Node isolation peg count.

x = Duration, in seconds, of node isolation.

y = Combined link-set failure peg count.

z = Duration in seconds of link-set failure.

a^1 = Far-end CLLI code.

b^1 = Link-layer.

c^1 = Link type.

d^1 = Group number of link in frame.

e^1 = Member number of link in frame.

f^1 = VFL type. Valid value(s):
A = Secondary; only A and E links have a secondary (A) voice frequency link (VFL).
B = Primary.

g^1 = Peg count for automatic changeover.

h^1 = Number of times threshold was exceeded for automatic change-over.

i^1 = Peg count for signaling units in error.

j^1 = Number of times threshold was exceeded for signaling units in error.

k^1 = Peg count for signaling units retransmitted.

l^1 = Number of times threshold was exceeded for signaling units retransmitted.

m^1 = Peg count for repeated and skipped acknowledgement signaling units.

n^1 = Number of times threshold was exceeded for repeated and skipped acknowledgment signaling units.

o^1 = Out-of-service time, in the form hours:minutes:seconds.

p^1 = Peg count for declared link failures.

q^1 = Duration, in seconds, of declared link failures.

r^1 = Emergency restart due to far-end processor outage.

s^1 = Duration of emergency restart due to far end processor outage.

t^1 = Peg count for transmit buffer overflow.

u^1 = Peg count for transmit buffer overload.

v^1 = Duration, in seconds, of transmit buffer overload.

w^1 = Link interface in processor send mode.

x^1 = Duration, in seconds, of processor outage.

y^1 = Far-end processor outage occurred.

z^1 = Duration of far-end processor outage.

a^2 = Peg count for data link in error time.

b^2 = Number of times threshold was exceeded for data link in error time.

c^2 = Peg count for cyclic redundancy check errors.

d^2 = Number of times threshold was exceeded for crc check errors.

e^2 = Peg count for bytes retransmitted.

f[2] = Number of times threshold was exceeded for byte retransmissions.

g[2] = MSUs removed due to link congestions.

h[2] = Peg count for transmit buffer overload - Level 1.

i[2] = Duration in seconds of transmit buffer overload - Level 1.

j[2] = Adjacent signaling point isolation due to far end processor outage.

k[2] = Duration of adjacent signaling point isolation due to far end processor outage.

l[2] = Current page number.

m[2] = Total number of pages of report.

n[2] = Link set number.

o[2] = Number of link set routing transitions to a lower priority link set.

p[2] = Duration, in milliseconds, of alternate link set transitions.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SMR
```

Output Message(s):

```
REPT:SMR-ASNPR2
```

Other Manual(s):
235-070-100 *System Administration and Engineering Guidelines*

OP:SMR-ASNPR2-B

Software Release: 5E12 only
Message Class: MAINT
Application: 5
Type: Output

1. FORMAT

[1]
```
OP SMR ASNPR2a        STARTED
  SIGNALING NETWORK PERFORMANCE REPORT - PART II
  REPORTING OFFICE: b                    REPORT INTERVAL: c
  CURRENT GENERIC: d                     DEMAND REPORT
  DATE: ee-ee-ee,  TIME: ff:ff:ff
  REPORT PERIOD(g): hh-hh-hh, ii:ii:ii    THRU  jj-jj-jj, kk:kk:kk
  DATA COVERAGE: l

                                       CCIS6       CCS7
  TOTAL NO. OF EQUIPPED LINKS:            m          n
  TOTAL LINK OOS TIME(SECS):              o          p
  DURATION RCV'D PROCESSOR OUTAGE:        q          r
  TOTAL NO. OF POOLS/LINK SETS:           s          t
  LOSS OF SIGNALING CAPABILITY ---
                  -----EMR-----
                   PC       SEC
  A/E/F LINKS:          u        v

  LOSS OF SIGNALING CAPABILITY ---
                  ---CCS7 SPI---       ---CCS7 LSF---
                    PC      SEC          PC      SEC
  A/E/F LINKS:          w        x           y        z

  PAGE l2 OF m2
```

[2]
```
OP SMR ASNPR2a IN PROG
  ALTERNATE LINK SET ROUTING ---
  LINK SET #   PC    SEC
  ----------  ----  -----
       n2       o2    p2
            .
            .
            .
  PAGE l2 OF m2
```

[3]
```
OP SMR ASNPR2a IN PROG
  CCIS6 SIGNALING LINK PERFORMANCE ---

                                  ---ACO--  --SU-ERR-   -SU-RXMT-   -R&S-ACU
  FAR END CLLI-LAYER T GR-MEM VFL  PC   TE    PC   TE     PC   TE     PC   TE
  ________________ _ _______ ___ ________ __________ _________ _________
        a1       b1  c1 d1-e1  f1  g1   h1    i1   j1    k1   l1     m1   n1
```

```
        a1       b1  c1 d1-e1  f1  g1   h1    i1   j1    k1   l1     m1   n1
  PAGE l2 OF m2

[4]  ____________________________________________________________________
     OP SMR ASNPR2a IN PROG
       CCIS6 SIGNALING LINK PERFORMANCE ---

                                  OOS-TIME  -DCL-FLR-  --EMR---  --EMR-PO-
       FAR END CLLI-LAYER T GR-MEM HH MM SS  PC    SEC  PC   SEC  PC    SEC
       _________________ _ ______ ________  _________ ________ __________
             a1       b1  c1 d1-e1     o1    p1    q1   u     v    r1    s1
             a1       b1  c1 d1-e1     o1    p1    q1   u     v    r1    s1
       PAGE l2 OF m2

[5]  ____________________________________________________________________
     OP SMR ASNPR2a IN PROG
       CCIS6 SIGNALING LINK PERFORMANCE ---
                                 ---XMIT BUFFER---
                                  OVFL  ---OVLD-  PRO-XMTD  PRO-RCVD
       FAR END CLLI-LAYER T GR-MEM   PC  PC   SEC  PC   SEC  PC   SEC
       _________________ _ ______ ____  ________  ________  ________
             a1       b1  c1 d1-e1   t1  u1   v1   w1   x1   y1    z1
             a1       b1  c1 d1-e1   t1  u1   v1   w1   x1   y1    z1
       PAGE l2 OF m2

[6]  ____________________________________________________________________
     OP SMR ASNPR2a IN PROG
       CCS7 SIGNALING LINK PERFORMANCE ---

                                    --ACO--  --ERSEC---  -CRCER--   BYT-RXMT
       FAR END CLLI-LAYER T GR-MEM   PC   TE    PC   TE    PC   TE   PC   TE
       _________________ _ ______  ________  __________  ________  ________
             a1       b1  c1 d1-e1   g1   h1    a2   b2    c2   d2   e2   f2
             a1       b1  c1 d1-e1   g1   h1    a2   b2    c2   d2   e2   f2
       PAGE l2 OF m2

[7]  ____________________________________________________________________
     OP SMR ASNPR2a IN PROG
       CCS7 SIGNALING LINK PERFORMANCE ---

                                  OOS-TIME      ----LSF---      --DCL-FLR-
       FAR END CLLI-LAYER T GR-MEM HH MM SS       PC    SEC       PC    SEC
       _________________ _ ______ ________      __________      __________
             a1       b1  c1 d1-e1    o1          y      z        p1     q1
             a1       b1  c1 d1-e1    o1          y      z        p1     q1
       PAGE l2 OF m2

[8]  ____________________________________________________________________
     OP SMR ASNPR2a IN PROG
       CCS7 SIGNALING LINK PERFORMANCE ---

                                   ----XMIT BUFFER---
                                   MSURMV   CONG-LEV1   PRO-XMTD   PRO-RCVD
```

```
  FAR END CLLI-LAYER T GR-MEM      PC   PC    SEC   PC   SEC   PC   SEC
  _________________ _ ______  ______  ________  ________  ________
        a1       b1  c1 d1-e1      g2   h2     i2   w1    x1   y1    z1
        a1       b1  c1 d1-e1      g2   h2     i2   w1    x1   y1    z1
  PAGE l2 OF m2
```

[9]

```
OP SMR ASNPR2a IN PROG
  CCS7 SIGNALING LINK PERFORMANCE ---
                                 ----EMR--  --EMR-PO-  ----SPI--  --SPI-PO-
  FAR END CLLI-LAYER T GR-MEM   PC   SEC   PC   SEC   PC   SEC   PC   SEC
  _________________ _ ______  ________  ________  ________  ________
        a1       b1  c1 d1-e1   u     v   r1    s1   w     x    j2    k2
        a1       b1  c1 d1-e1   u     v   r1    s1   w     x    j2    k2
  PAGE l2 OF m2
```

[10]

```
OP SMR ASNPR2a COMPL
```

2. REASON FOR OUTPUT

To print part two of the signaling network performance report in response to input message OP:SMR.

3. VARIABLE FIELD DEFINITIONS

a = Report period. Valid value(s):

15	= 15 minutes
30	= 30 minutes
HR	= 1 hour
CDAY	= Current day
LDAY	= Last (previous) day

b = Reporting office CLLI code.

c = Accumulation period. Valid value(s):

DAILY
FIFTEEN MINUTES
HALF HOURLY
HOURLY

d = Current software release identification.

e = Local time-zone, in the form year-month-day.

f = Local time-zone, in the form hour:minute:second.

g = User-defined string [by way of the equipment configuration database (ECD)]. This is the time zone indicator and has a default of "NWT" within the Continental US.

h = Network date of beginning of accumulation period, in the form year-month-day.

i = Network time of beginning of accumulation period, in the form hour:minute:second.

j = Network date of ending of accumulation period, in the form year-month-day.

k = Network time of ending of accumulation period, in the form hour:minute:second.

l = The number of accumulation periods (one period is 5 minutes) out of the maximum number of coverage periods for this report; format is '$q^2q^2q^2/r^2r^2r^2$'.

$q^2q^2q^2$ = The number of periods of accumulated data for this report.

$r^2r^2r^2$ = The maximum number of periods than can be covered where:

001 <= $q^2q^2q^2$ <= 288 (288 periods equals one day - 24 hours)

001 <= $r^2r^2r^2$ <= 288

$q^2q^2q^2$ <= $r^2r^2r^2$

m = The number of Common Channel Interoffice Signaling System 6 (CCIS6) equipped links; this number is not necessarily equal to the number of CCIS6 links whose data is printed on this report since links with data measurements of zero are not printed.

n = The number of Common Channel Interoffice Signaling System 7 (CCS7) equipped links; this number is not necessarily equal to the number of CCS7 links whose data is printed on this report since links with data measurements of zero are not printed.

o = The total active time, in seconds, of all CCIS6 links, including those not printed because measurement data was zero.

p = The total active time, in seconds, of all CCS7 links, including those not printed because measurement data was zero.

q = Duration, in seconds, of CCIS6 far-end processor outage events observed.

r = Duration, in seconds, of CCS7 far-end processor outage events observed.

s = Total number of pools.

t = Total number of link sets.

u = Emergency restart peg count.

v = Duration, in seconds, of emergency restart.

w = Node isolation peg count.

x = Duration, in seconds, of node isolation.

y = Combined link-set failure peg count.

z = Duration in seconds of link-set failure.

a^1 = Far-end CLLI code.

b^1 = Link-layer.

c^1 = Link type. Valid values are:

A
E

F

d[1] = Group number of link in frame.

e[1] = Member number of link in frame.

f[1] = VFL type. Valid value(s):
A = Secondary; only A and E links have a secondary (A) voice frequency link (VFL).
B = Primary.

g[1] = Peg count for automatic changeover.

h[1] = Number of times threshold was exceeded for automatic change-over.

i[1] = Peg count for signaling units in error.

j[1] = Number of times threshold was exceeded for signaling units in error.

k[1] = Peg count for signaling units retransmitted.

l[1] = Number of times threshold was exceeded for signaling units retransmitted.

m[1] = Peg count for repeated and skipped acknowledgement signaling units.

n[1] = Number of times threshold was exceeded for repeated and skipped acknowledgment signaling units.

o[1] = Out-of-service time, in the form hours:minutes:seconds.

p[1] = Peg count for declared link failures.

q[1] = Duration, in seconds, of declared link failures.

r[1] = Emergency restart due to far-end processor outage.

s[1] = Duration of emergency restart due to far end processor outage.

t[1] = Peg count for transmit buffer overflow.

u[1] = Peg count for transmit buffer overload.

v[1] = Duration, in seconds, of transmit buffer overload.

w[1] = Link interface in processor send mode.

x[1] = Duration, in seconds, of processor outage.

y[1] = Far-end processor outage occurred.

z[1] = Duration of far-end processor outage.

a[2] = Peg count for data link in error time.

b[2] = Number of times threshold was exceeded for data link in error time.

c^2 = Peg count for cyclic redundancy check errors.

d^2 = Number of times threshold was exceeded for crc check errors.

e^2 = Peg count for bytes retransmitted.

f^2 = Number of times threshold was exceeded for byte retransmissions.

g^2 = MSUs removed due to link congestions.

h^2 = Peg count for transmit buffer overload - Level 1.

i^2 = Duration in seconds of transmit buffer overload - Level 1.

j^2 = Adjacent signaling point isolation due to far end processor outage.

k^2 = Duration of adjacent signaling point isolation due to far end processor outage.

l^2 = Current page number.

m^2 = Total number of pages of report.

n^2 = Link set number.

o^2 = Number of link set routing transitions to a lower priority link set.

p^2 = Duration, in milliseconds, of alternate link set transitions.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SMR
```

Output Message(s):

```
REPT:SMR-ASNPR2
```

Other Manual(s):
235-070-100 *System Administration and Engineering Guidelines*

OP:SMR-ASNPR2-C

Software Release: 5E12 and later
Message Class: MAINT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP SMR ASNPR2a        STARTED

        SIGNALING NETWORK PERFORMANCE REPORT - PART II

        REPORTING OFFICE: b                    REPORT INTERVAL: c

        CURRENT GENERIC: d                     DEMAND REPORT

        DATE: ee-ee-ee,  TIME: ff:ff:ff

        REPORT PERIOD(g): hh-hh-hh, ii:ii:ii    THRU  jj-jj-jj, kk:kk:kk

        DATA COVERAGE: l

                                            CCS7

        TOTAL NO. OF EQUIPPED LINKS:           m

        TOTAL LINK OOS TIME(SECS):             n

        DURATION RCV'D PROCESSOR OUTAGE:       o

        TOTAL NO. OF POOLS/LINK SETS:          p

        LOSS OF SIGNALING CAPABILITY ---

                         -----EMR-----

                          PC       SEC

        A/E/F LINKS:          q        r

        LOSS OF SIGNALING CAPABILITY ---

                         ---CCS7 SPI---       ---CCS7 LSF---

                           PC      SEC          PC      SEC

        A/E/F LINKS:        s        t           u        v

        PAGE x1 OF y1

[2]   ____________________________________________________________________
      OP SMR ASNPR2a IN PROG
```

```
ALTERNATE LINK SET ROUTING ---

LINK SET #   PC    SEC

----------  ----  -----

     z1       a2    b2

          .

          .

          .

PAGE x1 OF y1
```

[3]

```
OP SMR ASNPR2a IN PROG

CCS7 SIGNALING LINK PERFORMANCE ---

                                --ACO--  --ERSEC---  -CRCER--   BYT-RXMT

FAR END CLLI-LAYER T GR-MEM   PC   TE    PC   TE    PC   TE   PC   TE

_________________ _ ______  ________  __________  _________  ________

      w       x    y z  -a1   b1   c1    m1   n1    o1   p1   q1   r1

      w       x    y z  -a1   b1   c1    m1   n1    o1   p1   q1   r1

PAGE x1 OF y1
```

[4]

```
OP SMR ASNPR2a IN PROG

CCS7 SIGNALING LINK PERFORMANCE ---

                              OOS-TIME      ----LSF---      --DCL-FLR-

FAR END CLLI-LAYER T GR-MEM HH MM SS       PC    SEC       PC    SEC

_________________ _ ______ ________      __________      __________

      w    x       y z  -a1    d1          u      z        e1     f1

      w    x       y z  -a1    d1          u      z        e1     f1

PAGE x1 OF y1
```

[5]

```
OP SMR ASNPR2a IN PROG
```

```
CCS7 SIGNALING LINK PERFORMANCE ---

                                ----XMIT BUFFER---

                                MSURMV   CONG-LEV1   PRO-XMTD   PRO-RCVD

FAR END CLLI-LAYER T GR-MEM       PC   PC    SEC   PC   SEC   PC   SEC

_________________ _ ______  ______   _________   ________   ________

      w    x       y z  -a1      s1   t1     u1   i1    j1   k1    l1

      w    x       y z  -a1      s1   t1     u1   i1    j1   k1    l1

PAGE x1 OF y1
```

[6]

```
OP SMR ASNPR2a IN PROG

CCS7 SIGNALING LINK PERFORMANCE ---

                                ----EMR--  --EMR-PO-  ----SPI--  --SPI-PO-

FAR END CLLI-LAYER T GR-MEM   PC   SEC   PC   SEC   PC   SEC   PC   SEC

_________________ _ ______  _________  _________  _________  _________

      w    x       y z  -a1   q     r    g1    h1   s     t    v1    w1

      w    x       y z  -a1   q     r    g1    h1   s     t    v1    w1

PAGE x1 OF y1
```

[7]

```
OP SMR ASNPR2a COMPL>
```

2. REASON FOR OUTPUT

To print part two of the signaling network performance report in response to input message OP:SMR.

3. VARIABLE FIELD DEFINITIONS

a = Report period. Valid value(s):

15	= 15 minutes
30	= 30 minutes
HR	= 1 hour
CDAY	= Current day
LDAY	= Last (previous) day

b = Reporting office CLLI code.

c = Accumulation period. Valid value(s):
DAILY
FIFTEEN MINUTES
HALF HOURLY
HOURLY

d = Current software release identification.

e = Local time-zone, in the form year-month-day.

f = Local time-zone, in the form hour:minute:second.

g = User-defined string [by way of the equipment configuration database (ECD)]. This is the time zone indicator and has a default of "NWT" within the Continental US.

h = Network date of beginning of accumulation period, in the form year-month-day.

i = Network time of beginning of accumulation period, in the form hour:minute:second.

j = Network date of ending of accumulation period, in the form year-month-day.

k = Network time of ending of accumulation period, in the form hour:minute:second.

l = The number of accumulation periods (one period is 5 minutes) out of the maximum number of coverage periods for this report; format is '$c^2c^2c^2/d^2d^2d^2$'.
$c^2c^2c^2$ = The number of periods of accumulated data for this report.
$d^2d^2d^2$ = The maximum number of periods than can be covered where:

001 <= $c^2c^2c^2$ <= 288 (288 periods equals one day - 24 hours) 001 <= $d^2d^2d^2$ <= 288 $c^2c^2c^2$ <= $d^2d^2d^2$

m = The number of Common Channel Interoffice Signaling System 7 (CCS7) equipped links; this number is not necessarily equal to the number of CCS7 links whose data is printed on this report since links with data measurements of zero are not printed.

n = The total OOS time, in seconds, of all CCS7 links, including those not printed because measurement data was zero.

o = Duration, in seconds, of CCS7 far-end processor outage events observed.

p = Total number of link sets.

q = Emergency restart peg count.

r = Duration, in seconds, of emergency restart.

s = Node isolation peg count.

t = Duration, in seconds, of node isolation.

u = Combined link-set failure peg count.

v = Duration in seconds of link-set failure.

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w = Far-end CLLI code.

x = Link-layer.

y = Link type. Valid values are:
A
E
F

z = Group number of link in frame.

a[1] = Member number of link in frame.

b[1] = Peg count for automatic changeover.

c[1] = Number of times threshold was exceeded for automatic change-over.

d[1] = Out-of-service time, in the form hours:minutes:seconds.

e[1] = Peg count for declared link failures.

f[1] = Duration, in seconds, of declared link failures.

g[1] = Emergency restart due to far-end processor outage.

h[1] = Duration of emergency restart due to far end processor outage.

i[1] = Link interface in processor send mode.

j[1] = Duration, in seconds, of processor outage.

k[1] = Far-end processor outage occurred.

l[1] = Duration of far-end processor outage.

m[1] = Peg count for data link in error time.

n[1] = Number of times threshold was exceeded for data link in error time.

o[1] = Peg count for cyclic redundancy check errors.

p[1] = Number of times threshold was exceeded for crc check errors.

q[1] = Peg count for bytes retransmitted.

r[1] = Number of times threshold was exceeded for byte retransmissions.

s[1] = MSUs removed due to link congestions.

t[1] = Peg count for transmit buffer overload - Level 1.

u[1] = Duration in seconds of transmit buffer overload - Level 1.

v[1] = Adjacent signaling point isolation due to far end processor outage.

w[1] = Duration of adjacent signaling point isolation due to far end processor outage.

x[1] = Current page number.

y[1] = Total number of pages of report.

z[1] = Link set number.

a[2] = Number of link set routing transitions to a lower priority link set.

b[2] = Duration, in milliseconds, of alternate link set transitions.

c[2] = The number of periods of accumulated data for this report.

d[2] = The maximum number of periods that can be covered.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SMR
```

Output Message(s):

```
REPT:SMR-ASNPR2
```

Other Manual(s):

235-070-100 *Administration and Engineering Guidelines*

OP:SMR-MPR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP SMR MPR a
  No. 2 STP MACHINE PERFORMANCE REPORT
  REPORTING OFFICE:  b                    REPORT INTERVAL c
  CURRENT GENERIC:  d                     DEMAND REPORT
  DATE:  e  TIME:  f
  REPORT PERIOD:  g, h THRU i, j
  DATA VALID:  k
  NO MESSAGE SIGNAL UNIT PROCESSING
          COUNT   SEC
            l      m
  SYSTEM INITIALIZATIONS
                 LEVEL0   LEVEL1   LEVEL1A   LEVEL1B   LEVEL3   LEVEL4
                 COUNT    COUNT    COUNT     COUNT     COUNT    COUNT
          IMS      n       N/A       o         p         q        r
          CNI      s        t       N/A       N/A        u        v
          STP      w        x       N/A       N/A        y        z
  NODE PERFORMANCE
                        ERRORS   OOS-AUTO     OSS-MN    OSS-CNFG
                        COUNT    COUNT SEC  COUNT SEC   COUNT SEC
          RPC NODES     a1       b1  c1   d1  e1    f1  g1
          LN NODES      h1       i1  j1   k1  l1    m1  n1
  RING PERFORMANCE
          SINGLE FAULTS   MULT FAULTS   RING DOWN
          COUNT   SEC     COUNT  SEC       SEC
           o1      p1      q1     r1        s1
```

2. REASON FOR OUTPUT

To report the number 2 STP machine performance report (STP MPR) equipment performance measurements for both the common and the non-common portions of the number 2 STP.

3. VARIABLE FIELD DEFINITIONS

a = Termination status of the input message. Valid value(s):

ABT	= Aborted.
COMPL	= Completed.
IN PROG	= In progress.
STOPPED	= Stopped.

b = Local CLLI code of the office.

c = The accumulation period. Valid value(s):
DAILY
DAY TO HOUR

HOURLY

d = Current office type and software update.

e = Date when the report was printed.

f = Time when the report was printed.

g = The date of the beginning of the accumulation interval.

h = The time of the beginning of the accumulation interval.

i = The date of the end of the accumulation interval.

j = The time of the end of the accumulation interval.

k = The data validity flag. Valid value(s):
NO = Invalid.
YES = Valid.

l = The peg count showing the number of occurrences when no signal unit processing was occurring.

m = The interval (in seconds) of the peg counts referenced in variable 'l'.

n = The number of IMS level 0 initializations.

o = The number of IMS level 1A initializations.

p = The number of IMS level 1B initializations.

q = The number of IMS level 3 initializations.

r = The number of IMS level 4 initializations.

s = The number of CNI level 0 initializations.

t = The number of CNI level 1 initializations.

u = The number of CNI level 3 initializations.

v = The number of CNI level 4 initializations.

w = The number of STP level 0 initializations.

x = The number of STP level 1 initializations.

y = The number of STP level 3 initializations.

z = The number of STP level 4 initializations.

a^1 = The peg count of RPC node errors.

b^1 = The peg count of RPC out of service auto for RPC node.

c^1 = The time (in seconds) of variable 'b^1'.

d^1 = The peg count of RPC out of service manual for RPC Node.

e^1 = The time (in seconds) of variable 'd^1'.

f^1 = The peg count of RPC out of service configuration for RPC node.

g^1 = The time (in seconds) of variable 'f^1'.

h^1 = The peg count of LN node errors.

i^1 = The peg count of LN out of service auto for LN node.

j^1 = The time (in seconds) of variable 'i^1'.

k^1 = The peg count of LN out of service manual for LN node.

l^1 = The time (in seconds) of variable 'k^1'.

m^1 = The peg count of LN out of service configuration for LN node.

n^1 = The time (in seconds) of variable 'm^1'.

o^1 = The peg count of single fault ring errors.

p^1 = The time (in seconds) of variable 'n^1'.

q^1 = The peg count of multiple fault ring errors.

r^1 = The time (in seconds) of variable 'q^1'.

s^1 = The time (in seconds) the ring was down.

4. ACTION TO BE TAKEN

If the aborted (ABT) status message is printed, the user may wish to try the input message again.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SMR
```

OP:SMR-SEPR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP SMR SEPR STARTED
  SIGNALING EQUIPMENT PERFORMANCE REPORT
  REPORTING OFFICE: b                    REPORT INTERVAL: c
  CURRENT GENERIC: d                     DEMAND REPORT
  DATE: e,   TIME: f
  REPORT PERIOD: g, h THRU  i, j
  DATA VALID: k
  LN PERFORMANCE
  GROUP  MEM  PRTCL  ERROR  OOS-AUTO  OOS-MAN  OOS-CNFG
   NUM   NUM  TYPE    PC    PC   SEC  PC  SEC  PC   SEC
  _____  ___  _____  _____  ________  _______  ________
    l     m    n       o     p    q    r   s    t    u
    l     m    n       o     p    q    r   s    t    u
    l     m    n       o     p    q    r   s    t    u
                           .
                           .
                           .
  PAGE v OF w
  OP SMR SEPR IN PROG
  RPC NODE PERFORMANCE
  GROUP  MEM  ERROR  OOS-AUTO    OOS-MAN  OOS-CNFG
   NUM   NUM   PC    PC   SEC    PC  SEC  PC   SEC
  _____  ___  _____  ________    _______  ________
    l     m     o     p    q      r   s    t    u
    l     m     o     p    q      r   s    t    u
    l     m     o     p    q      r   s    t    u
                          .
                          .
                          .
  PAGE v OF w
```

2. REASON FOR OUTPUT

To print a common channel interoffice signaling (CCIS) measurement report in response to the OP:SMR input message.

3. VARIABLE FIELD DEFINITIONS

`b` = Reporting office CLLI code.

`c` = Accumulation period. Valid value(s):

- `DAILY` = Data represents an accumulation period of 24 hours (this is the longest interval).
- `DAY TO HOUR` = Data represents an accumulation period of more than one hour but less than 24 hours.
- `HOURLY` = Data represents an accumulation period of one hour (this is the shortest interval).

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d = Current software release.

e = Local time-zone date in mm/dd/yy format.

f = Local time-zone time in hh:mm:ss format.

g = Network date of beginning of accumulation period in mm/dd/yy format.

h = Network time of beginning of accumulation period in hh:mm:ss format.

i = Network date of ending of accumulation period in mm/dd/yy format.

j = Network time of ending of accumulation period in hh:mm:ss format.

k = Validity of data. Valid value(s):
NO = Data for one or more links is questionable.
YES = Data for all links is legitimate.

l = Group number of link in frame.

m = Member number.

n = Link protocol. Valid value(s):
6 = CCIS6
7 = CCS7

o = Peg count of transient errors (that is, errors which do not result in a node's being removed from service).

p = Peg count of out-of-service time due to faults; this includes all time that a node is automatically removed from service.

q = Duration of time in seconds that a node is out-of-service due to faults.

r = Peg count for manually initiated out-of-service time.

s = Duration of time in seconds that a node is manually out-of-service.

t = Peg count for out-of-service time due to ring reconfiguration that isolates this node.

u = Duration of time in seconds that a node is out-of-service due to a ring reconfiguration.

v = Current page number.

w = Total number of pages of report.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SMR
```

OP:SMR-SNPR1

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP SMR SNPR1 a
  SIGNALING NETWORK PERFORMANCE REPORT - PART I
  REPORTING OFFICE: b                      REPORT INTERVAL c
  CURRENT GENERIC: d                       DEMAND REPORT
  DATE: e TIME: f
  REPORT PERIOD: g , h THRU i , j
  DATA VALID: k
  SIGNALING LOAD ---         RECEIVED        TRANSMITTED
     CCIS6 SIGNAL UNITS:        l                m
     CCS7 BYTES:                n                o
  SIGNALING PERFORMANCE ---                     PEG  TIME
                                               COUNT (SEC.)
   PROCESSOR OUTAGE TIME (AVERAGE)                     p
   PROCESSOR CONGESTION TIME (LEVEL 1)            q    r
   PROCESSOR CONGESTION TIME (LEVEL 2)            s    t
   PROCESSOR CONGESTION TIME (LEVEL 3)            u    v
   CCIS6 PERFORMANCE
    EMERGENCY RESTART                             w    x
    SIG LINK BUFFER OVERFLOW                      y
    SIG LINK BUFFER OVERLOAD                      z    a1
    DECLARED LINK FAILURES                        b1   c1
    AUTOMATIC SIG LINK CHANGEOVERS                d1   e1
    EXCEPTION REPORTS (THRESHOLDS EXCEEDED) ---
       SIGNAL UNIT ERRORS                         f1
       RETRANSMISSION REQUESTS                    g1
       REPEATED AND SKIPPED ACU'S                 h1
       AUTOMATIC CHANGEOVERS                      i1
   MESSAGE TRANSFER FAILURES ---
    POTS MESSAGES BLOCKED                         j1
    UNEQUIPPED POTS LABEL (NO TRANSLATION)        k1
    DIRECT SIG MESSAGES REFUSED (BLOCKED)         l1
    DIRECT SIG MESSAGES REFUSED (NO TRANSLATION)  m1
   CCS7 PERFORMANCE ---
    NODE ISOLATION                                n1   o1
    COMBINED LINK SET FAILURE                     p1   q1
    SIG LINK BUFFER OVERFLOW (LEVEL 3)            r1
    SIG LINK BUFFER OVERLOAD (LEVEL 1)            s1   t1
    SIG LINK BUFFER OVERLOAD (LEVEL 2)            u1   v1
    SIG LINK BUFFER OVERLOAD (LEVEL 3)            w1   x1
    DECLARED LINK FAILURES                        y1   z1
    AUTOMATIC CHANGEOVERS                         a2   b2
    EXCEPTION REPORTS (THRESHOLDS EXCEEDED) ---
      ERRORED SECONDS                             c2
```

```
  DETECTED ERRORS                              d2
  MESSAGES RETRANSMITTED                       e2
  AUTOMATIC CHANGEOVERS                        f2
MESSAGE TRANSFER FAILURES ---
  ECIS MESSAGES REFUSED - BLOCKED              g2
  ECIS MESSAGES REFUSED - NO TRANSLATION       h2
  NON-ECIS MSGS REFUSED - BLOCKED              i2
  NON-ECIS MSGS REFUSED - NO TRANSLATION       j2
k2 OP SMR SNPR1 COMPL
```

2. REASON FOR OUTPUT

To print part one of the signaling network performance report in response to input message OP:SMR.

3. VARIABLE FIELD DEFINITIONS

a = Termination status of the input message. Valid value(s):

ABT	= Aborted.
COMPL	= Completed.
IN PROG	= In progress.
STARTED	= Started.
STOPPED	= Stopped.

b = Local CLLI code of the office.

c = Accumulation period. Valid value(s):

DAILY	= Data represents an accumulation period of 24 hours (this is the longest interval).
DAY TO HOUR	= Data represents an accumulation period of more than one hour but fewer than 24 hours.
HOURLY	= Data represents an accumulation period of one hour (this is the shortest interval).

d = Current software release.

e = Local time-zone date in mm/dd/yy format.

f = Local time-zone time in hh:mm:ss format.

g = Network date of beginning of accumulation period in mm/dd/yy format.

h = Network time of beginning of accumulation period in hh:mm:ss format.

i = Network date of ending of accumulation period in hh/mm/ss format.

j = Network time of end of accumulation period in hh:mm:ss format.

k = Data validity flag. Valid value(s):

NO	= Data for one or more links is questionable.
YES	= Data for all links is legitimate.

l = Common channel interoffice signaling system 6 (CCIS6) signal units received.

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m = CCIS6 signal units transmitted.

n = Common channel signaling system 7 (CCS7) bytes received.

o = CCS7 bytes transmitted.

p = Duration of near-end processor outage (in seconds).

q = Near-end processor congestion- level 1.

r = Duration of level 1 near-end processor congestion (in seconds).

s = Near-end processor congestion- level 2.

t = Duration of level 2 near-end processor congestion (in seconds).

u = Near-end processor congestion- level 3.

v = Duration of level 3 near-end processor congestion (in seconds).

w = SP emergency restarts.

x = Duration of SP emergency restarts (in seconds).

y = Transmit buffer overflows.

z = Transmit buffer overloads.

a[1] = Duration of transmit buffer overloads (in seconds).

b[1] = Declared link failures.

c[1] = Duration of declared link failures (in seconds).

d[1] = Automatic changeovers.

e[1] = Duration of all link failures (in seconds).

f[1] = Half-hours with signal unit error threshold exceeded.

g[1] = Half-hours with retransmission threshold exceeded.

h[1] = Half-hours with acknowledgment unit repeat or skip threshold exceeded.

i[1] = Half-hours with automatic changeover threshold exceeded.

j[1] = Plain old telephone service (POTS) messages refused: congestion.

k[1] = POTS messages refused: no translation.

l[1] = Direct signaling messages refused: congestion.

m[1] = Direct signaling messages refused: no translation.

n[1] = SP node isolations.

o[1] = Duration of SP node isolations (in seconds).

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p[1] = SP combined link set failures.

q[1] = Duration of SP combined link set failures (in seconds).

r[1] = Transmit buffer overflows: level 3.

s[1] = Transmit buffer overloads: level 1.

t[1] = Duration of level 1 transmit buffer overloads (in seconds).

u[1] = Transmit buffer overloads: level 2.

v[1] = Duration of level 2 transmit buffer overloads (in seconds).

w[1] = Transmit buffer overloads: level 3.

x[1] = Duration of level 3 transmit buffer overloads (in seconds).

y[1] = Declared failures.

z[1] = Duration of declared link failures.

a[2] = Automatic changeovers.

b[2] = Duration of all link failures.

c[2] = Half-hours with errored second threshold exceeded.

d[2] = Half-hours with detected error threshold exceeded.

e[2] = Messages retransmitted.

f[2] = Half-hours with automatic changeover threshold exceeded.

g[2] = Embedded CCIS6 (ECIS) messages refused: congestion.

h[2] = ECIS messages refused: no translation.

i[2] = Non-ECIS messages refused: congestion.

j[2] = Non-ECIS messages refused: no translation.

k[2] = Time of day stamp.

4. ACTION TO BE TAKEN

If the termination status message (field 'a') is ABT, the user may wish to try the OP:SMR input message again.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

OP:SMR

OP:SMR-SNPR2

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP SMR SNPR2 STARTED
  SIGNALING NETWORK PERFORMANCE REPORT - PART 2
  REPORTING OFFICE: b                      REPORT INTERVAL: c
  CURRENT GENERIC: d                       DEMAND REPORT
  DATE: e,  TIME: f
  REPORT PERIOD: g, h THRU  i, j
  DATA VALID: k
  LOSS OF SIGNALING CAPABILITY ---
                 ---CCIS6 EMR---
                    PC      SEC
  A/E LINKS:         l       m
  B LINKS:           l       m
  C LINKS:           l       m
  LOSS OF SIGNALING CAPABILITY ---
             ---CCS7 EMR---   ---CCS7 NIS---    ---CCS7 CLF---
               PC      SEC      PC      SEC       PC      SEC
  A/E LINKS:     l       m        n       o         p       q
  B LINKS:       l       m        n       o         p       q
  C LINKS:       l       m        n       o         p       q
  PAGE r OF s
  OP SMR SNPR2 IN PROG
  CCIS6 SIGNALING LINK PERFORMANCE ---
                                  ACT TIME SU ERR SU RXMT AUTO CHG OVER
  FAR END CLLI-LAYER T GR-MEM VFL  HR  MIN    TE     TE         PC   TE
  _________________ _ ______ ___ ________ ______ _______ ____________
        t     -  u   v  w-x    y      z      a1      b1         c1   d1
        t     -  u   v  w-x    y      z      a1      b1         c1   d1
        t     -  u   v  w-x    y      z      a1      b1         c1   d1
                              .
                              .
                              .
  PAGE r OF s
  OP SMR SNPR2 IN PROG
  CCIS6 SIGNALING LINK PERFORMANCE -
                              R&S ACU   DCL   FLR        EMR
  FAR END CLLI-LAYER T GR-MEM    TE      PC    SEC     PC    SEC
  _________________ _ ______ ________  ___________  __________
        s     -  u   v  w-x      e1      f1     g1      m     n
        s     -  u   v  w-x      e1      f1     g1      m     n
        s     -  u   v  w-x      e1      f1     g1      m     n
                              .
                              .
                              .
  PAGE r OF s
  OP SMR SNPR2 IN PROG
```

```
CCIS6 SIGNALING LINK PERFORMANCE ---
                                          OVLD            OVFL
FAR END CLLI-LAYER T GR-MEM          PC    SEC            PC
_________________ _ ______      _______________     ________
      t     -  u   v  w-x           h1     i1            j1
      t     -  u   v  w-x           h1     i1            j1
      t     -  u   v  w-x           h1     i1            j1
                          .
                          .
                          .
PAGE r OF s
OP SMR SNPR2 IN PROG
CCS7 SIGNALING LINK PERFORMANCE
                            ACT TIM ERROR   MSG ERR BYT RXMT AUT CHG OVR
FAR END CLLI-LAYER T GR-MEM  HR MIN SECS TE    TE      TE        PC   TE
_________________ _ ______ _______ _______ _______ ________ ___________
      t     -  u   v  w-x      z      k1       l1      m1        c1   d1
      t     -  u   v  w-x      z      k1       l1      m1        c1   d1
      t     -  u   v  w-x      z      k1       l1      m1        c1   d1
                                     .
                                     .
                                     .
PAGE r OF s
OP SMR SNPR2 IN PROG
CCS7 SIGNALING LINK PERFORMANCE
                             DCL  FLR        CLF        OVFL
FAR END CLLI-LAYER T GR-MEM  PC   SEC      PC   SEC      PC
_________________ _ ______ __________     _________   _______
      t     -  u   v  w-x    e1    g1       q    r       j1
      t     -  u   v  w-x    e1    g1       q    r       j1
      t     -  u   v  w-x    e1    g1       q    r       j1
                            .
                            .
                            .
PAGE r OF s
OP SMR SNPR2 IN PROG
CCS7 SIGNALING LINK PERFORMANCE
                                     NIS            OVLD
FAR END CLLI-LAYER T GR-MEM     PC   SEC        PC    SEC
_________________ _ ______    __________     ___________
      t     -  u   v  w-x        o    p        h1     i1
      t     -  u   v  w-x        o    p        h1     i1
      t     -  u   v  w-x        o    p        h1     i1
                            .
                            .
                            .
PAGE r OF s
OP SMR SNPR2 COMPL
CCS7 SIGNALING LINK PERFORMANCE
                                        EMR
FAR END CLLI-LAYER T GR-MEM          PC    SEC
_________________ _ ______      ______________
```

```
        t     -  u   v  w-x              m     n
        t     -  u   v  w-x              m     n
        t     -  u   v  w-x              m     n
                              .
                              .
                              .
  PAGE r OF s
```

2. REASON FOR OUTPUT

To print part two of the signaling network performance report in response to input message OP:SMR.

3. VARIABLE FIELD DEFINITIONS

b = Reporting CLLI code.

c = Accumulation period. Valid value(s):
- DAILY = Data represents an accumulation period of 24 hours (this is the longest interval).
- DAY TO HOUR = Data represents an accumulation period of more than one hour but fewer than 24 hours.
- HOURLY = Data represents an accumulation period of one hour (this is the shortest interval).

d = Current software release.

e = Local time-zone date in mm/dd/yy format.

f = Local time-zone time in hh:mm:ss format.

g = Network date of beginning of accumulation period in mm/dd/yy format.

h = Network time of beginning of accumulation period in hh:mm:ss format.

i = Network date of ending of accumulation period in mm/dd/yy format.

j = Network time of ending of accumulation period in hh:mm:ss format.

k = Data validity flag. Valid value(s):
- NO = Data for one or more links is questionable.
- YES = Data for all links is legitimate.

l = Emergency restart peg count.

m = Duration in seconds of emergency restart.

n = Node isolation peg count.

o = Duration in seconds of node isolation.

p = Combined link-set failure peg count.

q = Duration in seconds of combined link-set failure.

r = Current page number.

s = Number of logical pages of report.

t = Far-end CLLI code.

u = Link layer.

v = Link type.

w = Group number of link.

x = Member number.

y = Voice frequency link (VFL) type. Valid value(s):
- A = Secondary. Only A and E links have a secondary VFL.
- B = Primary.

z = Amount of time link is active.

a[1] = Number of times threshold exceeded for signaling units in error.

b[1] = Number of times threshold exceeded for signaling units retransmitted.

c[1] = Peg count for automatic changeover.

d[1] = Number of times threshold exceeded for automatic changeover.

e[1] = Number of times threshold exceeded for repeated and skipped acknowledgment signaling units.

f[1] = Peg count for declared link failures.

g[1] = Duration in seconds of declared link failures.

h[1] = Peg count for transmit buffer overload.

i[1] = Duration in seconds of transmit buffer overload.

j[1] = Peg count for transmit buffer overflow.

k[1] = Number of times threshold exceeded for data link in error time.

l[1] = Number of times threshold exceeded for cyclic redundancy check (CRC) errors.

m[1] = Number of times threshold exceeded for byte retransmissions.

4. ACTION TO BE TAKEN

If the `ABORTED` status message is printed, the user may wish to try the OP:SMR message again.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SMR
```

OP:SMST

Software Release: 5E10 and later
Message Class: IOC
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP SMST                    PAGE a OF b
         SM   TTY   SM   TTY   SM   TTY
         c     d     c    d     c    d
         .
         .
         .

[2]   ____________________________________________________________________
      OP SMST  -  e  SM's CURRENTLY ROUTED
```

2. REASON FOR OUTPUT

To output information about alternate output message routing in a switching module system test (SMST) facility.

Format 1 is printed in response to an OP:SMST input message.

Format 2 is printed periodically whenever alternate message routing is in effect for any switching module (SM).

3. VARIABLE FIELD DEFINITIONS

a = Current page number.

b = Total number of pages for this output.

c = Switching module number.

d = Terminal name to which the SM is routed.

e = Number of switching modules that are currently routed to terminals.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SMST
RLS:SMST
RTE:SMST
```

OP:SNAT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP SNAT a
 NWT b c d e:f:g:h i
```

2. REASON FOR OUTPUT

To respond to a request for the current signaling network administrative time (SNAT).

3. VARIABLE FIELD DEFINITIONS

a	= Message termination code.
b	= Day of the week.
c	= Month.
d	= Day of the month.
e	= Hour.
f	= Minute.
g	= Seconds
h	= Milliseconds.
i	= Year.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SNAT
```

Output Message(s):

```
REPT:SNAT
```

OP:SRM-A

Software Release: 5E11 - 5E12
Message Class: SORRT
Application: 5
Type: Output

1. FORMAT

```
OP SRM SM=a SOFTWARE RESOURCE MEASUREMENTS
  RESOURCE    AVAIL  MAX_USED  MIN_USED   USAGE  ATTEMPT   OVFL
     b            c         d         e       f        g      h
     .            .         .         .       .        .      .
     .            .         .         .       .        .      .
     .            .         .         .       .        .      .
```

2. REASON FOR OUTPUT

To report software resource measurement (SRM) information for a particular switching module (SM) for the previous 30 minutes.

3. VARIABLE FIELD DEFINITIONS

a = SM number.

b = Software resource identifier.

c = The number of available tuples in the SM.

d = The maximum number of tuples that were in use during any 100-second interval in the previous 30 minutes.

e = The minimum number of tuples that were in use during any 100-second interval in the previous 30 minutes.

f = The average usage of the resource over the previous 30 minutes, based on a 100-second scan cycle.

g = The number of times an attempt was made to obtain an idle tuple of this resource.

h = The number of times an unsuccessful attempt was made to obtain an idle tuple of this resource because all of the tuples were in use.

4. ACTIONS TO BE TAKEN

This information is intended to be used to determine software resource usage in an SM. Software resources are dynamic relations that are used to store information. The performance of an SM is related to the availability of the appropriate software resources. If an SM has too few of a particular resource, the SM will go into resource overload. The information in these reports can be used by engineering and support personnel to determine the appropriate number of tuples for a particular resource. Additional tuples can be added using RC/V View 8.40, Software Resource Engineering (SRE) Incremental Global Parameters.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ALW:SRM
INH:SRM
```

Other Manual(s):
235-070-100 *Administration and Engineering Guidelines*
235-145-100 *Call Processing Description*

RC/V View(s):

8.40 (SRE INCREMENTAL GLOBAL PARAMETERS)

OP:SRM-B

Software Release: 5E13 only
Message Class: SORRT
Application: 5
Type: Output

1. FORMAT

```
OP SRM SM=a SOFTWARE RESOURCE MEASUREMENTS
  RESOURCE     AVAIL  MAX_USED  MIN_USED   USAGE  ATTEMPT   OVFL
     b            c         d         e       f        g      h
     .            .         .         .       .        .      .
     .            .         .         .       .        .      .
     .            .         .         .       .        .      .
```

2. REASON FOR OUTPUT

To report software resource measurement (SRM) information for a particular switching module (SM) for the previous 30 minutes.

3. VARIABLE FIELD DEFINITIONS

a = SM number.

b = Software resource identifier.

Identifier	Resource Description	Application
ADB	Analog Data Block	Shared Analog
ASPTP	Advanced Services Platform Terminal Process	ASP
ATCALL	Automatic Callback Data	BRCS
BRCSDB	Business and Residential Custom Services Data Block	BRCS
CBDB	Call Buildup Data Block	BRCS,ISDN
CCSSTPD	Common Channel Signalling Setup Data	SS7
CFLNT	Call Forwarding Line Termination Data	BRCS
CFSCOP	Call Forwarding System Camp-On Process Data	BRCS
CLDB	Call Leg Data Block	BRCS,ISDN
CRD	Call Record	ISDN,POTS
DALB	D-Channel Application Linkage Block	ISDN
DBCND	Data Block for Calling Name Display	BRCS
DISPDB	Display Data Block	ISDN
E911DB	Enhanced 911 Data Block	E911
LSCMDB	Large Shared Call Model Data Block	ISDN
MDB	Model Data Block	BRCS,ISDN
MSMWIDA	Message Service Message Waiting Indicator Data	BRCS
NS BILL	Network Services Billing Data	ASP,NS
NS IDX	Network Services Index Data	ASP,NS
NSDB	Network Services Data Block	ASP,NS
PUENT	Call Pickup Entry Data	BRCS
QV STATE	Queueing and Vectoring State Data	ACD/BRCS
SCMDB	Shared Call Model Data Block	ISDN
TATDB	Terminating Attempt Trigger Data Block	ASP
TN INFO	Terminating Notification Information	ASP

Application	Description
ACD	Automatic Call Distributor
ASP	Advanced Services Platform
BRCS	Business and Residence Custom Services
E911	Enhanced 911
ISDN	Integrated Services Digital Network
NS	Network Services

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POTS	Plain Old Telephone Service
SS7	Signalling System 7

`c` = The number of available tuples in the SM.

`d` = The maximum number of tuples that were in use during any 100-second interval in the previous 30 minutes.

`e` = The minimum number of tuples that were in use during any 100-second interval in the previous 30 minutes.

`f` = The average usage of the resource over the previous 30 minutes, based on a 100-second scan cycle.

`g` = The number of times an attempt was made to obtain an idle tuple of this resource.

`h` = The number of times an unsuccessful attempt was made to obtain an idle tuple of this resource because all of the tuples were in use.

4. ACTIONS TO BE TAKEN

This information is intended to be used to determine software resource usage in an SM. Software resources are dynamic relations that are used to store information. The performance of an SM is related to the availability of the appropriate software resources. If an SM has too few of a particular resource, the SM will go into resource overload. The information in these reports can be used by engineering and support personnel to determine the appropriate number of tuples for a particular resource. Additional tuples can be added using RC/V View 8.40, Software Resource Engineering (SRE) Incremental Global Parameters.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:SRM
INH:SRM
```

Other Manual(s):
235-070-100 *Administration and Engineering Guidelines*
235-145-100 *Call Processing Description*

RC/V View(s):

8.40 (SRE INCREMENTAL GLOBAL PARAMETERS)

OP:SRM-C

Software Release: 5E14 and later
Message Class: SORRT
Application: 5
Type: Output

1. FORMAT

```
OP SRM SM=a SOFTWARE RESOURCE MEASUREMENTS
  RESOURCE    AVAIL  MAX_USED  MIN_USED   USAGE  ATTEMPT   OVFL
     b            c         d         e       f        g      h
     .            .         .         .       .        .      .
     .            .         .         .       .        .      .
     .            .         .         .       .        .      .
```

2. REASON FOR OUTPUT

To report software resource measurement (SRM) information for a particular switching module (SM) for the previous 30 minutes.

3. VARIABLE FIELD DEFINITIONS

a = SM number.

b = Software resource identifier.

Identifier	Resource Description	Application
ADB	Analog Data Block	Shared Analog
ASPDISP	Advanced Services Platform Display Information	ASP
ASPTP	Advanced Services Platform Terminal Process	ASP
ASPTRANS	Advanced Services Platform Transaction Information	ASP
ATCALL	Automatic Callback Data	BRCS
BRCSDB	Business and Residential Custom Services Data Block	BRCS
CBDB	Call Buildup Data Block	BRCS,ISDN
CCSSTPD	Common Channel Signalling Setup Data	SS7
CFLNT	Call Forwarding Line Termination Data	BRCS
CFSCOP	Call Forwarding System Camp-On Process Data	BRCS
CLDB	Call Leg Data Block	BRCS,ISDN
CRD	Call Record	ISDN,POTS
DALB	D-Channel Application Linkage Block	ISDN
DBCND	Data Block for Calling Name Display	BRCS
DISPDB	Display Data Block	ISDN
E911DB	Enhanced 911 Data Block	E911
FRN AMA	Furnish AMA Information Data	ASP
LSCMDB	Large Shared Call Model Data Block	ISDN
MDB	Model Data Block	BRCS,ISDN
MSMWIDA	Message Service Message Waiting Indicator Data	BRCS
NS BILL	Network Services Billing Data	ASP,NS
NS IDX	Network Services Index Data	ASP,NS
NSDB	Network Services Data Block	ASP,NS
PUENT	Call Pickup Entry Data	BRCS
QV STATE	Queueing and Vectoring State Data	ACD/BRCS
SCMDB	Shared Call Model Data Block	ISDN
TATDB	Terminating Attempt Trigger Data Block	ASP
TN INFO	Terminating Notification Information	ASP

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TXN INFO	TCAP Transaction Information	ASP

Application	Description
ACD	Automatic Call Distributor
ASP	Advanced Services Platform
BRCS	Business and Residence Custom Services
E911	Enhanced 911
ISDN	Integrated Services Digital Network
NS	Network Services
POTS	Plain Old Telephone Service
SS7	Signalling System 7

c = The number of available tuples in the SM.

d = The maximum number of tuples that were in use during any 100-second interval in the previous 30 minutes.

e = The minimum number of tuples that were in use during any 100-second interval in the previous 30 minutes.

f = The average usage of the resource over the previous 30 minutes, based on a 100-second scan cycle.

g = The number of times an attempt was made to obtain an idle tuple of this resource.

h = The number of times an unsuccessful attempt was made to obtain an idle tuple of this resource because all of the tuples were in use.

4. ACTIONS TO BE TAKEN

This information is intended to be used to determine software resource usage in an SM. Software resources are dynamic relations that are used to store information. The performance of an SM is related to the availability of the appropriate software resources. If an SM has too few of a particular resource, the SM will go into resource overload. The information in these reports can be used by engineering and support personnel to determine the appropriate number of tuples for a particular resource. Additional tuples can be added using RC/V View 8.40, Software Resource Engineering (SRE) Incremental Global Parameters.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:SRM
INH:SRM
```

Other Manual(s):
235-070-100 *Administration and Engineering Guidelines*

RC/V View(s):

8.40 (SRE INCREMENTAL GLOBAL PARAMETERS)

OP:SS7-A

Software Release: 5E10 - 5E11
Message Class: TRK
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP SS7 a SEGMENT=b c
        TG
       [d]   [d]    .     .    [d]   [d]

        .     .     .     .     .     .
        .     .     .     .     .     .

       [d]   [d]    .     .    [d]   [d]

[2]   ____________________________________________________________________
      OP SS7 a SEGMENT=b c
        TKGMN     OPC        DPC        CIC
       [d] [e]   [f]        [g]        [h]

        .   .     .          .          .
        .   .     .          .          .

       [d] [e]   [f]        [g]        [h]

[3]   ____________________________________________________________________
      OP SS7 a [NSEGS=i] c
```

2. REASON FOR OUTPUT

To print the signaling system 7 (SS7) data collected for an SS7 trunk data request.

Format 1 provides the output of SS7 trunk data when the input is a single, specific destination point code (DPC).

Format 2 provides the output of SS7 trunk data when the input is a DPC and a single circuit identification code (CIC), a CIC range, or the '`ALL`' keyword indicating all possible CICs, or an SS7 trunk group (TG) number or an SS7 trunk group number and a single trunk group member number, or a trunk group member number range.

Format 3 provides the output of the completion report of an SS7 trunk data request.

3. VARIABLE FIELD DEFINITIONS

`a` = Input parameters. Valid value(s): I. `DPC=j[,CIC=k[&l]] TG=m TKGMN=m-n[&o]`

`b` = Segment number of this segment of the list. Segments are numbered sequentially starting from one.

`c` = Completion report. Valid value(s):
`CCS NOT AVAILABLE IN OFFICE` = The request cannot be processed because the office is not equipped with CCS capability.
`COMPLETED` = All of the data has been found and printed.

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`CONTINUED` = Second and subsequent segments of a list too long to be printed in a single segment.

`DATABASE ERROR` = An internal database failure prevented the SS7 trunk data request from further processing. The request has been aborted.

`DPC INVALID` = The DPC specified in the input request was invalid. Verify that the correct DPC was specified and is in one of the three accepted formats. Refer to the input manual page of OP:SS7 for the formats. If the DPC represents an inter-module trunk group, verify that the correct near and far switching module (SM) numbers are specified.

`NO DATA FOUND` = The search was performed as requested, but no data was found for the given input.

`NON-SS7 TG OR DPC INPUT` = The input request could not be processed because the input trunk group or DPC is not an SS7 trunk group or DPC.

`STARTED` = Indicates the first segment in the list. This does not necessarily imply that additional segments will be needed.

`SYSTEM BUSY` = Indicates the system was too busy to process the request or a system resource failure occurred.

`TG INVALID` = The trunk group specified in the input request was invalid. Verify that the correct group number was specified.

`d` = SS7 trunk group number found for output.

`e` = SS7 trunk group member number found for output.

`f` = Origination point code (OPC) found for output.

`g` = Destination point code found for output.

`h` = Circuit identification code found for output.

`i` = The total number of segments output for an SS7 trunk data request. No total number of segments is given if no segments were output for the request prior to the output of the completion report.

`j` = DPC specified as input.

`k` = Single CIC or the lower limit of a range of circuit identification codes specified as input. If the ALL option was used as input, the lower limit of the CIC range is the lowest possible CIC value.

`l` = The upper limit of a range of circuit identification codes specified as input. If the ALL option is used as input, the upper limit of the CIC range is the highest possible CIC value.

`m` = SS7 TG number specified as input.

`n` = Single SS7 trunk group member number (TKGMN) or the lower limit of a range of member numbers specified as input.

`o` = The upper limit of a range of trunk group member numbers specified as input.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:SS7
```

Output Message(s):

```
OP:SS7
STP:SS7
```

Other Manual(s):

235-040-100	*OA&M Planning Guide*
235-100-125	*System Description*
235-105-220	*Corrective Maintenance Procedures*
235-190-120	*Common Channel Signaling Services Features*

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OP:SS7-B

Software Release: 5E12 and later
Message Class:
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP SS7 a SEGMENT=b c
        TG   OPC   DPC
        d     f     g

        .     .     .
        .     .     .

       [d]   [f]   [g]

[2]   ____________________________________________________________________
      OP SS7 a SEGMENT=b c
        TKGMN   OPC             DPC   CIC
        d   e    f               g     h

        .   .    .               .     .
        .   .    .               .     .

       [d] [e]  [f]             [g]   [h]

[3]   ____________________________________________________________________
      OP SS7 a [NSEGS=i] c
```

2. REASON FOR OUTPUT

To print the signaling system 7 (SS7) trunk data collected for an OP:SS7 request. Format 1 provides the output of SS7 trunk data when the input specifies:

- all possible point codes
- a single destination point code (DPC)
- a single origination point code (OPC)
- an OPC and DPC pair
- all the possible point code associatedwith the global switching module (GSM)
- all the possible point code associated with the common network interface (CNI)
- a single DPC associated with the CNI
- a single DPC associated with the GSM

Format 2 provides the output of SS7 trunk data when the input specifies:

- a DPC and/or OPC and a single circuit identification code (CIC), or a CIC range,
- a single SS7 trunk group (TG) number,
- a single trunk group member number (TKGMN), or a trunk group member number range,
- a single CIC or a CIC range associated with the CNI,

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- a single CIC or a CIC range associated with the GSM,
- a single DPC with a single CIC or a CIC range associated with the CNI,
- a single DPC with a single CIC or a CIC range associated with the GSM.

Format 3 provides the output of the completion report of an SS7 trunk data request.

3. VARIABLE FIELD DEFINITIONS

`a` = Input parameters. Refer to the OP:SS7 input message for valid values.

`b` = Number of this segment in the listing produced. Segments are numbered sequentially starting from one.

`c` = Completion report. Valid value(s):

`CCS NOT AVAILABLE IN OFFICE` = The request cannot be processed because the office is not equipped with CCS capability.

`CNI NOT PROVISIONED` = The request cannot be processed because the office is not equipped with a CNI.

`COMPLETED` = All of the data has been found and printed.

`CONTINUED` = Second and subsequent segments of a list too long to be printed in a single segment.

`DATABASE ERROR` = An internal database failure prevented the SS7 trunk data request from further processing. The request has been aborted.

`DPC INVALID` = The DPC specified in the input request was invalid. Verify that the correct DPC was specified and is in one of the three accepted formats. Refer to the APP:POINT-CODE appendix

`GSM INVALID` = The request cannot be processed because the specific GSM is either not a provisioned SM number or is not a global switching module.

`NO DATA FOUND` = The search was performed as requested, but no data was found for the given input.

`OPC INVALID` = The OPC specified in the input request was invalid. Verify that the correct OPC was specified and is in one of three accepted formats. Refer to the APP:POINT-CODE appendix.

`OPC REQUIRED` = When a DPC with a network value of 236 or 254 is specified, and multiple OPC networks exist in the office, then OPC must be entered.

`SM INVALID` = The input request could not be processed because the specified SM is not provisioned.

`STARTED` = Indicates the first segment in the list. This does not necessarily imply that additional segments will be produced.

`SYSTEM BUSY` = Indicates the system was too busy to process the request or a system resource

failure occurred. Retry later.

`TG INVALID OR NON-SS7 TG` = The input request could not be processed because the specified trunk group is not a provisioned SS7 trunk group.

`d` = SS7 trunk group number found for output.

`e` = SS7 trunk group member number found for output.

`f` = Origination point code (OPC) found for output. Refer to the APP:POINT-CODE appendix.

`g` = Destination point code (DPC) found for output. Refer to the APP:POINT-CODE appendix.

`h` = Circuit identification code found for output.

`i` = The total number of segments output for an SS7 trunk data request. No segment count is produced if no segments were printed for the request prior to the output of the completion report.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:SS7
OP:SS7
```

Input Appendix(es):

```
APP:POINT-CODE
```

Output Message(s):

```
STP:SS7
```

Output Appendix(es):

```
APP:POINT-CODE
```

Other Manual(s):

235-190-120 *Common Channel Signaling Service Features*

OP:SSTR

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP SSTR a
  SSTR INHIBIT OVERRIDE b
     TG      RL      INH
     c       d       e
     .       .       .
     .       .       .
     .       .       .
```

2. REASON FOR OUTPUT

To display the status of a service selective trunk reservation (SSTR) control. This is a response to the OP:SSTR input message.

3. VARIABLE FIELD DEFINITIONS

a = Termination status. Valid value(s):
- ABORTED = Retry message.
- COMPLETED = This is the last of a series of messages.
- CONTINUED = This is the next of a series of messages.
- FAILED-PARAMETER = Invalid parameter.
- STARTED = This is the first of a series of messages.

b = SSTR inhibit override status. Valid value(s):
- N = SSTR inhibits remain in effect.
- Y = All SSTR inhibits have been overridden.

c = Trunk group (TG) number.

d = Reservation level (RL) - Number of circuits per trunk group reserved.

e = SSTR control inhibited (INH). Valid value(s):
- N = SSTR control is allowed.
- Y = SSTR control is inhibited.

4. ACTION TO BE TAKEN

If 'a' =	Action:
ABORTED	Reinitiate the request.
COMPLETED, CONTINUED, or STARTED	The message is a confirmation of a request from an input message. No action is required.
FAILED-PARAMETER	Check for the validity of input parameters and reinitiate the corrected request.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ASGN:SSTR
OP:SSTR
```

Other Manual(s):
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

130 (NM EXCEPTION)

OP:ST-A

Software Release: 5E10 only
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
OP STATUS {PSUPH=a-b-c-d CHNG=a-b-c-e|MCTSI=a-f PI} [TIME=qq:qq  rr/rr/rr]
  MESSAGE-NO=g     IMAGE=p
  STATUS = h
  [PRINT MODE FLAG = i]
  [PRINT MODE TIMEOUT = jjjj]
  [SWCHK = k]
  [OVERLOAD SEVERITY = l]
  [TIME IN OVERLOAD = m]
  [HIGH-LEVEL RECOVERY ACTIONS = n]
  [LOW-LEVEL RECOVERY ACTIONS = o]
```

2. REASON FOR OUTPUT

To respond to a manually requested OP:STATUS input message. It contains summary information of software modes for the specified packet interface (PI) of the module controller time slot interchanger (MCTSI) or packet switching unit protocol handler (PSUPH). If the requested unit is out of service only the information kept in the SM will print. When the unit is unequipped, only that status will be reported. For active PSUPHs, the associated channel group (CHNG) will also be given.

3. VARIABLE FIELD DEFINITIONS

`PSUPH` = Packet switch unit protocol handler (physical PH).

`CHNG` = Channel group (logical PH).

`MCTSI` = Module controller time slot interchanger.

`PI` = Packet interface.

`a` = Switching module (SM) number.

`b` = Packet switching unit (PSU) number.

`c` = PSU shelf number.

`d` = PSUPH number.

`e` = CHNG number.

`f` = MCTSI side number.

`g` = Message sequence number.

`h` = Port processor status. Valid value(s):
- `ACT` = Active.
- `OOS` = Out of service.
- `SPARE` = Spare.

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STBY = Standby.
UNEQ = Unequipped.

i = Print mode status (ON/OFF).

j = Print mode time remaining of the 48 hours since a CHG:PRNTMODE request. The field will be in hours and minutes (HHMM).

k = Software checks. Valid value(s):
ALW = Allowed.
INH = Inhibited.

l = Overload severity. Valid value(s):
CRIT = Critical.
MAJ = Major.
MIN = Minor.
NORM = Normal.

m = Cumulative time in overload since the last 30-minute traffic report in minute:second format.

n = Number of high-level initializations since 24-hour plant report.

o = Number of low-level initializations since 24-hour plant report.

Note: Variables 'i'-'o' will be suppressed for units with an UNEQ or OOS status.

p = Image type in the PH. Valid value(s):
ERROR IMAGE = The image contained an error.
NULL IMAGE = No image was loaded.
PH2 GATEWAY IMAGE = X.75' features on a PH2 were loaded.
PH2 ACCESS IMAGE = All features (other than X.75') on a PH2 were loaded.
PH3 COMMON IMAGE = All features on a PH3 were loaded.
PH4 ISDN IMAGE = All features on a PH4 ISDN were loaded.
PH4 FRPH IMAGE = All features on a PH4 FRPH were loaded.
PHV1 CDMA IMAGE = All features on a PHV1 CDMA were loaded.
PI IMAGE = Image used for PI was loaded.
PI2 IMAGE = Image used for PI2 was loaded.

q = Time when the status was requested, in form hour:minute.

r = Date when the status was requested, in the form month/day/year.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CHG:PRNTMODE
OP:HISTORY
OP:ST
```

Output Message(s):

```
OP:PLNT24-PT11
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

OP:ST-B

Software Release: 5E11 only
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
OP STATUS {PSUPH=a-b-c-d CHNG=a-b-c-e|MCTSI=a-f PI} [TIME=qq:qq  rr/rr/rr]
  MESSAGE-NO=g     IMAGE=p
  STATUS = h
  [PRINT MODE FLAG = i]
  [PRINT MODE TIMEOUT = jjjj]
  [HWCHK = s]
  [SWCHK = k]
  [OVERLOAD SEVERITY = l]
  [TIME IN OVERLOAD = m]
  [HIGH-LEVEL RECOVERY ACTIONS = n]
  [LOW-LEVEL RECOVERY ACTIONS = o]
```

2. REASON FOR OUTPUT

To respond to a manually requested OP:STATUS input message. It contains summary information of software modes for the specified packet interface (PI) of the module controller time slot interchanger (MCTSI) or packet switching unit protocol handler (PSUPH). If the requested unit is out of service only the information kept in the SM will print. When the unit is unequipped, only that status will be reported. For active PSUPHs, the associated channel group (CHNG) will also be given.

3. VARIABLE FIELD DEFINITIONS

`PSUPH` = Packet switch unit protocol handler (physical PH).

`CHNG` = Channel group (logical PH).

`MCTSI` = Module controller time slot interchanger.

`PI` = Packet interface.

`a` = Switching module (SM) number.

`b` = Packet switching unit (PSU) number.

`c` = PSU shelf number.

`d` = PSUPH number.

`e` = CHNG number.

`f` = MCTSI side number.

`g` = Message sequence number.

`h` = Port processor status. Valid value(s):
- `ACT` = Active.
- `OOS` = Out of service.

SPARE = Spare.
STBY = Standby.
UNEQ = Unequipped.

i = Print mode status (ON/OFF).

j = Print mode time remaining of the 48 hours since a CHG:PRNTMODE request. The field will be in hours and minutes (HHMM).

k = Software checks. Valid value(s):
ALW = Allowed.
INH = Inhibited.

l = Overload severity. Valid value(s):
CRIT = Critical.
MAJ = Major.
MIN = Minor.
NORM = Normal.

m = Cumulative time in overload since the last 30-minute traffic report in minute:second format.

n = Number of high-level initializations since 24-hour plant report.

o = Number of low-level initializations since 24-hour plant report.

Note: Variables 'i'-'o' and 's' will be suppressed for units with an UNEQ status. Variables 'l'-'o' will be suppressed for units with an OOS status.

p = Image type in the PH. Valid value(s):
ERROR IMAGE = The image contained an error.
NULL IMAGE = No image was loaded.
PH2 GATEWAY IMAGE = X.75' features on a PH2 were loaded.
PH2 ACCESS IMAGE = All features (other than X.75') on a PH2 were loaded.
PH3 ISDN IMAGE = All features on a PH3 ISDN AP were loaded.
PH3 CCS IMAGE = All features on a PH3 CCS AP were loaded.
PH4 ISDN IMAGE = All features on a PH4 ISDN were loaded.
PH4 FRPH IMAGE = All features on a PH4 FRPH were loaded.
PHV1 CDMA IMAGE = Software used for PHV CDMA with rom-based DSPs was loaded.
PHV3 RAM-BASED CDMA IMAGE = Software used for PHV3 CDMA with downloadable DSPs was loaded.
PHV3 WITH 8K DSP CDMA IMAGE = Software used for PHV3 CDMA with the 8K DSP algorithm was loaded.
PHV3 WITH 13K DSP CDMA IMAGE = Software used for PHV3 CDMA with the 13K DSP algorithm was loaded.
PHV3 WITH EVRC DSP CDMA IMAGE = Software used for PHV3 CDMA with the EVRC DSP algorithm was loaded.
PHA1A IMAGE = Image used for PHA1A was loaded.
PI IMAGE = Image used for PI was loaded.
PI2 IMAGE = Image used for PI2 was loaded.

`q` = Time when the status was requested, in form hour:minute.

`r` = Date when the status was requested, in the form month/day/year.

`s` = Hardware checks. Valid value(s):
`ALW` = Allowed.
`INH` = Inhibited.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CHG:PRNTMODE
OP:HISTORY
OP:ST
```

Output Message(s):

```
OP:PLNT24-PT11
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

OP:ST-C

Software Release: 5E12 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
OP STATUS {PSUPH=a-b-c-d CHNG=a-b-c-e|MCTSI=a-f PI} [TIME=qq:qq  rr/rr/rr]
  MESSAGE-NO=g     IMAGE=p
  STATUS = h
  [PRINT MODE FLAG = i]
  [PRINT MODE TIMEOUT = jjjj]
  [HWCHK = s]
  [SWCHK = k]
  [OVERLOAD SEVERITY = l]
  [OVERLOAD RESOURCE = t [t] [t] [t] [t] [t]]
  [TIME IN OVERLOAD = m]
  [HIGH-LEVEL RECOVERY ACTIONS = n]
  [LOW-LEVEL RECOVERY ACTIONS = o]
```

2. REASON FOR OUTPUT

To respond to a manually requested OP:STATUS input message. It contains summary information of software modes for the specified packet interface (PI) of the module controller time slot interchanger (MCTSI) or packet switching unit protocol handler (PSUPH). If the requested unit is out of service only the information kept in the SM will print. When the unit is unequipped, only that status will be reported. For active PSUPHs, the associated channel group (CHNG) will also be given.

3. VARIABLE FIELD DEFINITIONS

`PSUPH` = Packet switch unit protocol handler (physical PH).

`CHNG` = Channel group (logical PH).

`MCTSI` = Module controller time slot interchanger.

`PI` = Packet interface.

`a` = Switching module (SM) number.

`b` = Packet switching unit (PSU) number.

`c` = PSU shelf number.

`d` = PSUPH number.

`e` = CHNG number.

`f` = MCTSI side number.

`g` = Message sequence number.

`h` = Port processor status. Valid value(s):
`ACT` = Active.

OOS = Out of service.
SPARE = Spare.
STBY = Standby.
UNEQ = Unequipped.

i = Print mode status (ON/OFF).

j = Print mode time remaining of the 48 hours since a CHG:PRNTMODE request. The field will be in hours and minutes (HHMM).

k = Software checks. Valid value(s):
ALW = Allowed.
INH = Inhibited.

l = Overload severity. Valid value(s):
CRIT = Critical.
MAJ = Major.
MIN = Minor.
NORM = Normal.

m = Cumulative time in overload since the last 30-minute traffic report in minute:second format.

n = Number of high-level initializations since 24-hour plant report.

o = Number of low-level initializations since 24-hour plant report.

Note: Variables 'i'-'o' and 's' will be suppressed for units with an UNEQ status. Variables 'l'-'o' will be suppressed for units with an OOS status.

p = Image type in the PH. Valid value(s):
ERROR IMAGE = The image contained an error.
NULL IMAGE = No image was loaded.
PH2 GATEWAY IMAGE = X.75' features on a PH2 were loaded.
PH2 ACCESS IMAGE = All features (other than X.75') on a PH2 were loaded.
PH3 ISDN IMAGE = All features on a PH3 ISDN AP were loaded.
PH3 CCS IMAGE = All features on a PH3 CCS AP were loaded.
PH4 ISDN IMAGE = All features on a PH4 ISDN were loaded.
PH4 FRPH IMAGE = All features on a PH4 FRPH were loaded.
PHV1 CDMA IMAGE = Software used for PHV CDMA with rom-based DSPs was loaded.
PHV3 RAM-BASED CDMA IMAGE = Software used for PHV3 CDMA with downloadable DSPs was loaded.
PHV3 WITH 8K DSP CDMA IMAGE = Software used for PHV3 CDMA with the 8K DSP algorithm was loaded.
PHV3 WITH 13K DSP CDMA IMAGE = Software used for PHV3 CDMA with the 13K DSP algorithm was loaded.
PHV3 WITH EVRC DSP CDMA IMAGE = Software used for PHV3 CDMA with the EVRC DSP algorithm was loaded.
PHA1A IMAGE = Image used for PHA1A was loaded.
PI IMAGE = Image used for PI was loaded.
PI2 IMAGE = Image used for PI2 was loaded.

`q` = Time when the status was requested, in form hour:minute.

`r` = Date when the status was requested, in the form month/day/year.

`s` = Hardware checks. Valid value(s):

`ALW`	= Allowed.
`INH`	= Inhibited.

`t` = PH/PI resources that are overloaded (up to six). Valid value(s):

`NONE`	= No resource overloaded.
`PHCELL`	= PH Dropped Cell.
`PHGPBD`	= PH General Purpose Buffer Descriptor.
`PHLRFD`	= PH LAN-side Received Frame Descriptor.
`PHRT`	= PH Real-time (based on interject cycles).
`PHSRFD`	= PH SPYDER-side Received Frame Descriptor.
`PHSTFD`	= PH SPYDER-side Transmit Frame Descriptor.
`PIFIFO`	= PI First-in, First-out buffer.
`PIGPBD`	= PI General Purpose Buffer Descriptor.
`PILRFD`	= PI LAN-side Received Frame Descriptor.
`PIRT`	= PI Real-time (based on interject cycles).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CHG:PRNTMODE
OP:HISTORY
OP:ST
```

Output Message(s):

```
OP:PLNT24-PT11
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

OP:ST-APX

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP STATUS APX
  DCS-ECP COMMUNICATION a
```

2. REASON FOR OUTPUT

To respond to the manual input message OP:STATUS-APX requesting the current communication status between the *5ESS*®-2000 Digital Cellular Switch and the *Autoplex*® Executive Cellular Processor.

3. VARIABLE FIELD DEFINITIONS

a	= Communication status. Valid value(s):	
	DOWN	= Communication links down.
	NORMAL	= Communication normal.

4. ACTION TO BE TAKEN

Investigate status of CCS links and notify personnel at *Autoplex*® ECP office of the problem.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:ST-APX
```

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OP:ST-AUD-CMP

Software Release: 5E10 and later
Message Class: AUDT
Application: 5
Type: Output

1. FORMAT

```
OP  STATUS  AUD  CMP=a-d {PRIM|MATE}  (b OF c)
  e         {ALW|INH}
  .             .
  .             .
  .             .
```

2. REASON FOR OUTPUT

To respond to an input request to output the status (inhibit and/or allow) of a particular audit or all audits, or the status of the routine audit cycle in the specified communication module processor (CMP).

3. VARIABLE FIELD DEFINITIONS

`ALW` = The audit or cycle is allowed.

`CYCLE` = Routine audit cycle. Application audit ID.

`INH` = The audit or cycle is inhibited.

`a` = Message switch side.

`b` = Current page number.

`c` = Total number of pages in report.

`d` = CMP number.

`e` = Routine audit cycle. Application audit ID. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

Inhibit or allow the audit if necessary. Refer to the Audits manual for an explanation of the audit ID.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:ST-AUD-CMP`

Output Appendix(es):

APP:AUDITS

OP:ST-AUD-ENV

Software Release: 5E10 and later
Message Class: AUDT
Application: 5
Type: Output

1. FORMAT

```
OP STATUS  AUD  ENV=a   (b OF c)
  d        {ALW|INH}
  .            .
  .            .
  .            .
```

2. REASON FOR OUTPUT

To respond to an input request to output the status (inhibit and/or allow) of a particular audit, or all the audits, or just the status of the audit cycle in the requested kernel process environment (OKP or SMKP).

3. VARIABLE FIELD DEFINITIONS

`ALW` = The audit or cycle is allowed.

`CYCLE` = Routine audit cycle. Application audit ID.

`INH` = The audit or cycle is inhibited.

`a` = Kernel process where the application audit resides. Valid value(s):
- `FULL` = Full static office dependent data (SODD) audit.
- `INCR` = Incremental static office dependent data (SODD) audit.
- `OKP` = Operational kernel process.
- `SMKP` = Switch maintenance kernel process.

`b` = Current page number.

`c` = Total number of pages.

`d` = Routine audit cycle. Application audit ID. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

Inhibit or allow the audit if necessary. Refer to the Audits manual for an explanation of the audit ID.

Leaving an audit in the INH status may be unadvisable; this means errors that the audit is designed to detect will be unreported and/or uncorrected.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
OP:ST-AUD-ENV
```

Output Appendix(es):

```
APP:AUDITS
```

Other Manual(s):
235-600-400 *Audits*

OP:ST-AUD-SM

Software Release: 5E10 and later
Message Class: AUDT
Application: 5
Type: Output

1. FORMAT

```
OP  STATUS  AUD  SM=a  (b of c)
  d        {ALW|INH}
  .            .
  .            .
  .            .
```

2. REASON FOR OUTPUT

To respond to an input request to output the status (inhibit and/or allow) of a particular audit or all audits, or the status of the routine audit cycle in the specified switching module (SM).

3. VARIABLE FIELD DEFINITIONS

ALW	= The audit or cycle is allowed.
CYCLE	= Routine audit cycle. Application audit ID.
INH	= The audit or cycle is inhibited.
a	= SM number that contains application audits.
b	= Current page number.
c	= Total number of pages in report.
d	= Routine audit cycle. Application audit ID. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

Inhibit or allow the audit if necessary. Refer to the Audits manual for an explanation of the audit ID.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

OP:ST-AUD-SM

Output Appendix(es):

APP:AUDITS

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Other Manual(s):
235-600-400 *Audits*

OP:ST-CCSLK-A

Software Release: 5E11 only
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP STATUS CCSLK  a
  SM=b  OPC=c  [NO LINKS FOUND]
  LS  MBR STATE                              PSUPH      EN
  d    e  f [g] [OUTPUT INCOMPLETE]          [b-i-j-k]  [l] [m]
  .    .  .  .           .                       .       .   .
  .    .  .  .           .                       .       .   .
  .    .  .  .           .                       .       .   .
```

2. REASON FOR OUTPUT

To output status information on one or more common channel signaling (CCS) links in response to the OP:STATUS-CCSLK input message.

3. VARIABLE FIELD DEFINITIONS

Note: Variables 'b' and 'i' through 'k' are printed only if the link member is in the AVAIL state.

a = Page indicator. Valid value(s):
- FIRST = First page of report.
- NEXT = Next report page.
- LAST = Last page of report associated with this request.

b = Switching module (SM) number of packet switching unit (PSU).

c = Origination point code (OPC) number. OPC number consists of three items, each being three digits in length. They are, respectively, the OPC network, OPC cluster, and OPC member.

d = Link set number.

e = Link member number.

f = State of link member. Valid value(s):
- AVAIL = Available active. Link is in service available for traffic.
- CONG1 = Link is congested at level 1.
- CONG2 = Link is congested at level 2.
- CONG3 = Link is congested at level 3.
- NO LINKS FOUND = No links found.
- UNAV = Unavailable. Link unavailable for traffic.
- UNEQ = Unequipped. No such link set and member combination.

g = Optional information indicating status reliability of link or out-of-service status. Valid value(s):
[LINH][,RINH][,LBLK][,RBLK][,h] Where :
- LINH = Locally inhibited.
- RINH = Remotely inhibited.

LBLK	= Locally blocked.
RBLK	= Remotely blocked.

h = Out-of-service status. Valid value(s):

DACT	= Deactivated.
ERROR	= Error in software.
INIT	= The signaling link is on the initialization queue.
LKER-L1	= Level one failure (signaling data link out of service).
LKER-L2	= Level two failure (level two failed alignment).
LKER-L3	= Level three failure (the link test failed).
OOS-DL	= The signaling (data link) is out of service.
OOSF-PH	= The ST-PH is out of service family of equipment.
OOST	= The signaling link state is transient.
RESRC	= There was a lack of resources required to complete action.
TBI	= To be idled.
UNKNOWN	= Unknown link.

i = Unit number of PSU in SM.

j = Shelf number in PSU.

k = PH number on shelf.

l = Hardware unit type. Valid value(s):

D	= Digital line trunk unit.
N	= Digital networking unit-synchronous optical network (SONET) (DNU-S).

m = Valid value(s):
n-o-p-q
r-s-t-u-v-w

n = SM number of the SDL digital facility interface (DFI).

o = Digital line and trunk unit (DLTU) number of the SDL DFI.

p = DFI number of the SDL DFI.

q = Channel number of the SDL DFI.

r = SM number of DNU-S number.

s = DNU-S number.

t = Data group number.

u = Synchronous transport signal (STS) number.

v = Virtual tributary 1.5 (VT1.5) number.

w = Digital signal level 0 (DS0).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:ST-CCSLK
```

Other Manual(s):
235-120-120 *VCDX Users Guide*
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

1532 (CCS LINK SET SUMMARY)
1533 (CCS LINK SET MEMBER)

OP:ST-CCSLK-B

Software Release: 5E12 only
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP STATUS CCSLK  a
  SM=b  OPC=c  [NO LINKS FOUND]
  LS  MBR STATE                              PSUPH      EN
  d    e  f [g] [h] [OUTPUT INCOMPLETE]      [b-i-j-k]  [l] [m]
  .    .  .  .           .                      .        .   .
  .    .  .  .           .                      .        .   .
  .    .  .  .           .                      .        .   .
```

2. REASON FOR OUTPUT

To output status information on one or more common channel signaling (CCS) links in response to the OP:STATUS-CCSLK input message. Protocol handler (PSUPH) termination and access equipment number (EN) data will be provided only for available ccs links.

3. VARIABLE FIELD DEFINITIONS

Note: The PSUPH and EN will be printed only if the link member is AVAIL.

`a` = Page indicator. Valid value(s):
- `FIRST` = First page of report.
- `NEXT` = Next report page.
- `LAST` = Last page of report associated with this request.

`b` = Switching module (SM) number of packet switching unit (PSU).

`c` = Origination point code (OPC) number associated with the GSM. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual for interpretation.

`d` = Link set number.

`e` = Link member number.

`f` = State of link member. Valid value(s):
- `AVAIL` = Available (active). Note that the link may still not be capable of carrying traffic due to inhibited or blocked qualifiers.
- `CONG1` = Link is congested at level 1.
- `CONG2` = Link is congested at level 2.
- `CONG3` = Link is congested at level 3.
- `NO LINKS FOUND` = No links found.
- `UNAV` = Unavailable. Link unavailable for traffic.
- `UNEQ` = Unequipped. No such link set and member combination.

`g` = Optional information indicating blocking or inhibit status of link or out-of-service status. Valid value(s):

LINH	= Locally inhibited.
RINH	= Remotely inhibited.
LBLK	= Locally blocked.
RBLK	= Remotely blocked.

h = Out-of-service status. Valid value(s):

DACT	= Deactivated.
ERROR	= Error in software.
INIT	= The signaling link is on the initialization queue.
LKER-L1	= Level one failure (No network timeslot available).
LKER-L2	= Level two failure (level two failed alignment).
LKER-L3	= Level three failure (the link test failed).
OOS-DL	= No signaling data link (SDL) is available for use.
OOSF-PH	= Channel group is unassigned.
OOST	= The signaling link state is transient.
RSRC	= There was a lack of resources required to complete action.
TBI	= To be idled (audit recovery).
UNKNOWN	= Unknown link.

i = Unit number of PSU in SM.

j = Shelf number in PSU.

k = PH number on shelf.

l = Access type. Valid value(s):

D	= Digital equipment number(DEN), which is a port on a digital facility interface(DFI).
N	= Network equipment number(NEN), which is a port on a digital networking synchronous optical network-Sonet (DNU-S).

m = Valid value(s):

n-o-p-q	(if variable 'l' is "D" which represents a DEN)
r-s-t-u-v-w	(if variable 'l' is "N" which represents a NEN)

n = SM number of the SDL digital facility interface (DFI).

o = Digital line and trunk unit (DLTU) number of the SDL.

p = DFI number of the SDL.

q = Channel number of the SDL.

r = SM number of the SDL DNU-S.

s = DNU-S number of the SDL.

t = Data group number of the SDL.

u = Synchronous transport signal (STS) number of the SDL.

v = Virtual tributary 1.5 (VT1.5) number of the SDL.

`w` = VT1.5 channel number of the SDL.

`OUTPUT INCOMPLETE` = Error in reading data, which will also produce a corresponding assert.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:ST-CCSLK`

Output Appendix(es):

`APP:POINT-CODE`

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

1532 (CCS LINK SET SUMMARY)
1533 (CCS LINK SET MEMBER)

OP:ST-CCSLK-C

Software Release: 5E13 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP STATUS CCSLK  a
  SM=b  OPC=c  [NO LINKS FOUND]
  LS  MBR STATE                              PSUPH      EN
  d    e  f [g] [h] [OUTPUT INCOMPLETE]      [b-i-j-k]  [l] [m]
  .    .  .  .           .                      .        .   .
  .    .  .  .           .                      .        .   .
  .    .  .  .           .                      .        .   .
```

2. REASON FOR OUTPUT

To output status information on one or more common channel signaling (CCS) links in response to the OP:STATUS-CCSLK input message. Protocol handler (PSUPH) termination and access equipment number (EN) data will be provided only for available ccs links.

3. VARIABLE FIELD DEFINITIONS

Note: The PSUPH and EN will be printed only if the link member is AVAIL.

`a` = Page indicator. Valid value(s):
- `FIRST` = First page of report.
- `NEXT` = Next report page.
- `LAST` = Last page of report associated with this request.

`b` = Switching module (SM) number of packet switching unit (PSU).

`c` = Origination point code (OPC) number associated with the GSM. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual for interpretation.

`d` = Link set number.

`e` = Link member number.

`f` = State of link member. Valid value(s):
- `AVAIL` = Available (active). Note that the link may still not be capable of carrying traffic due to inhibited or blocked qualifiers.
- `CONG1` = Link is congested at level 1.
- `CONG2` = Link is congested at level 2.
- `CONG3` = Link is congested at level 3.
- `NO LINKS FOUND` = No links found.
- `UNAV` = Unavailable. Link unavailable for traffic.
- `UNEQ` = Unequipped. No such link set and member combination.

`g` = Optional information indicating blocking or inhibit status of link or out-of-service status. Valid value(s):

LINH = Locally inhibited.
RINH = Remotely inhibited.
LBLK = Locally blocked.
RBLK = Remotely blocked.

h = Out-of-service status. Valid value(s):
DACT = Deactivated.
ERROR = Error in software.
INIT = The signaling link is on the initialization queue.
LKER-L1 = Level one failure (No network timeslot available).
LKER-L2 = Level two failure (level two failed alignment).
LKER-L3 = Level three failure (the link test failed).
OOS-DL = No signaling data link (SDL) is available for use.
OOSF-PH = Channel group is unassigned.
OOST = The signaling link state is transient.
RSRC = There was a lack of resources required to complete action.
TBI = To be idled (audit recovery).
UNKNOWN = Unknown link.

i = Unit number of PSU in SM.

j = Shelf number in PSU.

k = PH number on shelf.

l = Access type. Valid value(s):
D = Digital equipment number(DEN), which is a port on a digital facility interface(DFI).
N = Network equipment number(NEN), which is a port on a digital networking synchronous optical network-Sonet (DNU-S).

m = Valid value(s):
n-o-p-q (if variable 'l' is "D" which represents a DEN)
r-s-t-u-v-w-x-y (if variable 'l' is "N" which represents a NEN)

n = SM number of the SDL digital facility interface (DFI).

o = Digital line and trunk unit (DLTU) number of the SDL.

p = DFI number of the SDL.

q = Channel number of the SDL.

r = SM number of the SDL DNU-S.

s = DNU-S number of the SDL.

t = Data group number of the SDL.

u = DNU-S sonet terminating equipment(STE) number of the SDL.

v = DNU-S synchronous transport signal (STS) number of the SDL.

`w` = DNU-S virtual tributary 1.5 group(VTGRP) number of the SDL.

`x` = DNU-S virtual tributary 1.5 member(VTGRM) number of the SDL.

`y` = DNU-S VT1.5 channel number of the SDL.

`OUTPUT INCOMPLETE` = Error in reading data, which will also produce a corresponding assert.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:ST-CCSLK
```

Output Appendix(es):

```
APP:POINT-CODE
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

1532 (CCS LINK SET SUMMARY)
1533 (CCS LINK SET MEMBER)

OP:ST-DISKUSE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP STATUS DISKUSE COMPLETED
        a b

[2]   ____________________________________________________________________
      OP STATUS DISKUSE  STOPPED
        c  DOES NOT EXIST

[3]   ____________________________________________________________________
      OP STATUS DISKUSE STOPPED
        TOTAL OR EACH  MUST BE SPECIFIED
                          IF FN IS A FILE.

[4]   ____________________________________________________________________
      OP STATUS DISKUSE STOPPED
        d
```

2. REASON FOR OUTPUT

To report the result of executing an OP:ST-DISKUSE input message.

3. VARIABLE FIELD DEFINITIONS

a = The total number of blocks in the directory or file. Block size is 512 bytes.

b = Pathname of the directory or file specified in the input message.

c = Pathname of the directory that does not exist.

d = Text explaining why the message was stopped.

4. ACTION TO BE TAKEN

Format 1 indicates success and requires no action.

For Formats 2 and 3, correct any input line errors. The existence of the directory can be confirmed using input message.

For Format 4, if the text is not self-explanatory, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	282

Input Message(s):

```
CLR:FSYS-FILE
COPY:FSYS-FILE
OP:ST-DISKUSE
OP:ST-LISTDIR
OP:ST-SUM
```

Output Message(s):

```
OP:ST-LISTDIR
OP:ST-SUM
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

OP:ST-DSE-A

Software Release: 5E10 only
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
OP STATUS DSE a {ON|OFF}
```

2. REASON FOR OUTPUT

To print the current status of the trapping and printing of direct signaling events (DSEs) as requested by the OP:ST-DSE input message.

3. VARIABLE FIELD DEFINITIONS

`OFF` = Indicates that the trap is turned off for the given event and will not be reported.

`ON` = Indicates that the trap is turned on for the given event and will be reported in the REPT:ACP-APP-SM, REPT:ASP, REPT:DSE, REPT:MS-TRAPPED, REPT:NS or REPT:OSPS-DSE output messages.

`a` = The event trap for which the status was requested in the input message. Valid value(s):

- `AILSGMG` = Automated inward line screening (AILS) message received with invalid format reply.
- `AILSMRQ` = AILS error - misrouted query.
- `AILSTOT` = AILS query timed out before a reply was received.
- `AILSTRF` = AILS error - task refused.
- `AILSUDV` = AILS error - message received with unexpected input data value.
- `ASPACGCOMP` = Advanced services platform (ASP) service control point (SCP) response or unidirectional message with an automatic call gap (ACG) component received at the switch.
- `ASPBADRESP` = ASP SCP response message received with invalid data.
- `ASPNORTEMSG` = ASP reject message, return error, or a play announcement received at the switch from the SCP.
- `ASPQRYFAIL` = ASP query blocked by network management (NM) ACG, a returned query or conversation received at the switch, or a time out received in call processing.
- `ASPSNCOMP` = ASP SCP response message with a send notification component received at the switch.
- `ASPTNMSG` = ASP termination notification message sent from the switch to the SCP.
- `CASDBOV` = Customer accounts services (CAS) message received indicating database overload.
- `CASDBUN` = CAS message returned - database unable to process.
- `CASGMSG` = CAS message received garbled.
- `CASNBLK` = CAS message returned because of network blockage.
- `CASNCON` = CAS message returned because of network congestion.
- `CASNRTE` = CAS message returned because of no routing data.
- `CASTOUT` = CAS message returned because of timeout.
- `CASUNEQ` = CAS message returned because of unequipped destination.
- `CASURPY` = CAS message received with an unexpected reply.
- `CAS7ABM` = CAS common channel signaling 7 (CCS7) abort message received.
- `CAS7ACG` = CAS CCS7 ACG invoke component received.

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CAS7GMG	= CAS CCS7 received with invalid format reply.
CAS7GWE	= CAS CCS7 error - gateway error.
CAS7MPR	= CAS CCS7 error - message received with missing parameter.
CAS7MRQ	= CAS CCS7 error - misrouted query.
CAS7NCG	= CAS CCS7 message returned because of network congestion.
CAS7NFL	= CAS CCS7 message returned because of network failure.
CAS7RCR	= CAS CCS7 reject component received.
CAS7SCG	= CAS CCS7 message returned because of subsystem congestion.
CAS7SFL	= CAS CCS7 message returned because of subsystem failure.
CAS7TAN	= CAS CCS7 message returned - no translation data for address of such nature.
CAS7TOT	= CAS CCS7 query which timed out before reply received.
CAS7TRF	= CAS CCS7 error - task refused.
CAS7TSA	= CAS CCS7 message returned - no translation data for this specific address.
CAS7UDV	= CAS CCS7 error - message received with unexpected input data value.
CAS7UPR	= CAS CCS7 error - message received with unexpected parameter.
CAS7UQD	= CAS CCS7 message returned - unqualified.
CAS7URY	= CAS CCS7 received with unexpected reply.
CAS7UUR	= CAS CCS7 message returned - unequipped user.
CAS7VCD	= CAS CCS7 error - vacant code.
CCDDBOV	= BVA calling card (CCRD) message received indicating database overload.
CCDDBUN	= BVA CCRD message returned because database unable to process.
CCDGMSG	= BVA CCRD message received garbled.
CCDNBLK	= BVA CCRD message returned because of network blockage.
CCDNCON	= BVA CCRD message returned because of network congestion.
CCDNRTE	= BVA CCRD message returned because of no routing data.
CCDUNEQ	= BVA CCRD message returned- unequipped destination.
CCDURPY	= BVA CCRD message received with an unexpected reply.
ICCVABM	= International credit card validation (ICCV) abort message received.
ICCVDBU	= ICCV error - message returned - database unavailable.
ICCVEMF	= ICCV error in message format.
ICCVGMG	= ICCV received with invalid format reply.
ICCVMPR	= ICCV error - message received with missing parameter.
ICCVMRQ	= ICCV error - misrouted query.
ICCVNCG	= ICCV message returned because of network congestion.
ICCVNFL	= ICCV message returned because of network failure.
ICCVRCR	= ICCV reject component received.
ICCVSCG	= ICCV message returned because of subsystem congestion.
ICCVSFL	= ICCV message returned because of subsystem failure.
ICCVTAN	= ICCV message returned - no translation data for address of such nature.
ICCVTOT	= ICCV query which timed out before reply received.
ICCVTSA	= ICCV message returned - no translation data for this specific address.
ICCVUDV	= ICCV error - message received with unexpected input data value.
ICCVUPR	= ICCV error - message received with unexpected parameter.
ICCVUQD	= ICCV message returned - unqualified.
ICCVURY	= ICCV received with unexpected reply.
ICCVUUR	= ICCV message returned - unequipped user.
INWBLKD	= Inward wide area telecommunications service (INWATS) returned blocked.
INWBUSY	= INWATS all lines busy.
INWCCBL	= INWATS code control blocked.
INWDBOV	= INWATS database overload.
INWDBTO	= INWATS database timeout.

INWDSBL	= INWATS direct signaling blocked.
INWNNPA	= INWATS nonpurchased numbering plan area (NPA).
INWNOXL	= INWATS returned no translation.
INWONPA	= INWATS invalid originating numbering plan area (ONPA).
INWOVLD	= INWATS returned overload.
INWUNEQ	= INWATS returned unequipped.
INWVLIN	= INWATS vacant line number.
INWVNXX	= INWATS vacant NXX.
LACABM	= Line application for consumers (LAC) abort message received.
LACACG	= LAC invoke component received.
LACGMG	= LAC message received with invalid format.
LACMPR	= LAC error - message received with missing parameter.
LACMRQ	= LAC error - misrouted query.
LACNCG	= LAC message returned because of network congestion.
LACNFL	= LAC message returned because of network failure.
LACRCR	= LAC reject component received.
LACSCG	= LAC message returned because of subsystem congestion.
LACSFL	= LAC message returned because of subsystem failure.
LACTAN	= LAC message returned - no translation data for address of such nature.
LACTOT	= LAC query timed out before a reply was received.
LACTRF	= LAC error - task refused.
LACTSA	= LAC message returned - no translation data for this specific address.
LACUDV	= LAC error - message received with unexpected input data value.
LACUPR	= LAC error - message received with unexpected parameter.
LACUQD	= LAC message returned - unqualified.
LACURY	= LAC unexpected reply.
LACUUR	= LAC message returned - unequipped user.
LACVCD	= LAC error - vacant code.
LBNCGI	= Line information database (LIDB) BNS message with a call gapping indicator present.
LBNGM	= LIDB BNS garbled message.
LBNMGM	= LIDB BNS return value missing group or misrouted.
LBNNAN	= LIDB BNS return value no translation for an address of such nature.
LBNNCG	= LIDB BNS return value network congestion.
LBNNFL	= LIDB BNS return value network failure.
LBNNPG	= LIDB BNS return value nonparticipating group.
LBNNSA	= LIDB BNS return value no translation for this specific address.
LBNREJ	= LIDB BNS reject message received.
LBNSCG	= LIDB BNS return value subsystem congestion.
LBNSFL	= LIDB BNS return value subsystem failure.
LBNTO	= LIDB BNS message missed because of timeout.
LBNUP	= LIDB BNS message with unexpected reply.
LBNUUR	= LIDB BNS return value unequipped user.
LCDCGI	= LIDB CCRD message with a call gapping indicator present.
LCDGM	= LIDB CCRD garbled message.
LCDMGM	= LIDB CCRD return value missing group or misrouted.
LCDNAN	= LIDB CCRD return value no translation for an address of such nature.
LCDNCG	= LIDB CCRD return value network congestion.
LCDNFL	= LIDB CCRD return value network failure.
LCDNPG	= LIDB CCRD return value nonparticipating group.
LCDNSA	= LIDB CCRD return value no translation for this specific address.

LCDREJ	= LIDB CCRD reject message received.
LCDSCG	= LIDB CCRD return value subsystem congestion.
LCDSFL	= LIDB CCRD return value subsystem failure.
LCDTO	= LIDB CCRD message missed because of timeout.
LCDUP	= LIDB CCRD message with unexpected reply.
LCDUUR	= LIDB CCRD return value unequipped user.
LNBAS	= Call failed due to the query being blocked at the switch.
LNBN	= Call failed due to the query being blocked in the common channel signaling (CCS) network.
LNGTCAP	= Garbled transaction capability application part (TCAP) message received - message can not be parsed.
LNNCANI	= Centralized automatic message accounting (CAMA) call failed due to CAMA trunk not providing automatic number identification (ANI) for query.
LNNCFA	= Call failure due to some reason while the transaction with the network control point (NCP) is active.
LNNCFI	= Call failure due to some reason while the transaction with the NCP is inactive.
LNRER	= Call failed due to the conversation with the NCP resulting in a return error response.
LNRR	= Call failed due to the conversation with the NCP resulting in a reject response.
LNTIM	= Call failed due to the query not being answered in time by the NCP.
LNTRF	= Call failed due to the NCP answering with a terminate request.
MSFAILRCVD	= A "Message Service System (MSS) reject" message or a "return error" message was received at the near/far switch from the far/near switch respectively.
MSFAILSENT	= An "MSS reject" message or a "return error" message was sent to the near/far switch from the far/near switch respectively.
MSQRYFAIL	= A timeout was received in the MSS. A "return query" message was received at the near switch because of a network failure or failure to send a query.
NCDAFTA	= Network call denial (NCD) denied after answer.
NCDBEFA	= NCD denied before answer.
NCDBLKD	= NCD returned blocked.
NCDCCBL	= NCD code control blocked.
NCDDBOV	= NCD database overload.
NCDDENY	= NCD deny received.
NCDDSBL	= NCD direct signaling blocked.
NCDNOXL	= NCD returned no translation.
NCDOVLD	= NCD returned overload.
NCDUNEQ	= NCD returned unequipped.
NSACGCOMP	= Number services (NS) SCP response message with an ACG component received at the switch.
NSBADRESP	= NS SCP response message with invalid data.
NSNONRTEMSG	= NS reject message, a return error, or a play announcement received at the switch from the SCP.
NSQRYFAIL	= NS query blocked by NM ACG, a returned query received at the switch, or a time out received in call processing.
NSSNCOMP	= NS SCP response message with a send notification received at the switch.
NSTNMSG	= NS termination notification message sent from the switch to the SCP.
RATDBOV	= Rating message received indicating database overload.
RATDBUN	= Rating message returned - database unable to process.
RATGMSG	= Rating message received garbled.
RATTOUT	= Rating message returned because of timeout.
RATURPY	= Rating message received with an unexpected reply.
SDNBAS	= Call failed due to the query's being blocked at the switch.

SDNBN	= Call failed due to the query's being blocked in the CCS network.
SDNGTCAP	= Garbled transaction capability application part (TCAP) message received - message can not be parsed.
SDNNCANI	= CAMA call failed due to CAMA trunk's not providing ANI for query.
SDNNCFA	= Call failed while the transaction with the NCP was active.
SDNNCFI	= Call failed while the transaction with the NCP was inactive.
SDNNOCANI	= CAMA call failed due to CAMA trunk's not providing ANI through operator number identification (ONI) for query.
SDNRER	= Call failed because to the conversation with the NCP resulting in a return error response.
SDNRR	= Call failed because to the conversation with the NCP resulting in a reject response.
SDNTIM	= Call failed due to the query's not being answered in time by the NCP.
SDNTRF	= Call failed due to the NCP's answering with a terminate request.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:DSE
OP:ST-DSE
SET:DSE
```

Output Message(s):

```
OP:ST-DSE
REPT:ACP-APP-SM
REPT:ASP
REPT:DSE
REPT:MS-TRAPPED
REPT:NS
REPT:OSPS-DSE
```

Other Manual(s):

235-190-120 *Common Channel Signaling Services Features*
235-190-125 *Advanced Services Platform, Release 0 and Release 0.1A*
235-190-126 *Advanced Services Platform, Release 0.1B*

OP:ST-DSE-B

Software Release: 5E11 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
OP STATUS DSE a {ON|OFF}
```

2. REASON FOR OUTPUT

To print the current status of the trapping and printing of direct signaling events (DSEs) as requested by the OP:ST-DSE input message.

3. VARIABLE FIELD DEFINITIONS

`OFF` = Indicates that the trap is turned off for the given event and will not be reported.

`ON` = Indicates that the trap is turned on for the given event and will be reported in the REPT:ACP-APP-SM, REPT:ASP, REPT:DSE, REPT:MS-TRAPPED, REPT:NS or REPT:OSPS-DSE output messages.

`a` = The event trap for which the status was requested in the input message. Valid value(s):

- `AILSGMG` = Automated inward line screening (AILS) message received with invalid format reply.
- `AILSMRQ` = AILS error - misrouted query.
- `AILSTOT` = AILS query timed out before a reply was received.
- `AILSTRF` = AILS error - task refused.
- `AILSUDV` = AILS error - message received with unexpected input data value.
- `ASPACGCOMP` = Advanced services platform (ASP) service control point (SCP) response or unidirectional message with an automatic call gap (ACG) component received at the switch.
- `ASPBADRESP` = ASP SCP response message received with invalid data.
- `ASPNORTEMSG` = ASP reject message, return error, or a play announcement received at the switch from the SCP.
- `ASPQRYFAIL` = ASP query blocked by network management (NM) ACG, a returned query or conversation received at the switch, or a time out received in call processing.
- `ASPSNCOMP` = ASP SCP response message with a send notification component received at the switch.
- `ASPTNMSG` = ASP termination notification message sent from the switch to the SCP.
- `CASDBOV` = Customer accounts services (CAS) message received indicating database overload.
- `CASDBUN` = CAS message returned - database unable to process.
- `CASGMSG` = CAS message received garbled.
- `CASNBLK` = CAS message returned because of network blockage.
- `CASNCON` = CAS message returned because of network congestion.
- `CASNRTE` = CAS message returned because of no routing data.
- `CASTOUT` = CAS message returned because of timeout.
- `CASUNEQ` = CAS message returned because of unequipped destination.
- `CASURPY` = CAS message received with an unexpected reply.
- `CAS7ABM` = CAS common channel signaling 7 (CCS7) abort message received.
- `CAS7ACG` = CAS CCS7 ACG invoke component received.

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CAS7GMG	= CAS CCS7 received with invalid format reply.
CAS7GWE	= CAS CCS7 error - gateway error.
CAS7MPR	= CAS CCS7 error - message received with missing parameter.
CAS7MRQ	= CAS CCS7 error - misrouted query.
CAS7NCG	= CAS CCS7 message returned because of network congestion.
CAS7NFL	= CAS CCS7 message returned because of network failure.
CAS7RCR	= CAS CCS7 reject component received.
CAS7SCG	= CAS CCS7 message returned because of subsystem congestion.
CAS7SFL	= CAS CCS7 message returned because of subsystem failure.
CAS7TAN	= CAS CCS7 message returned - no translation data for address of such nature.
CAS7TOT	= CAS CCS7 query which timed out before reply received.
CAS7TRF	= CAS CCS7 error - task refused.
CAS7TSA	= CAS CCS7 message returned - no translation data for this specific address.
CAS7UDV	= CAS CCS7 error - message received with unexpected input data value.
CAS7UPR	= CAS CCS7 error - message received with unexpected parameter.
CAS7UQD	= CAS CCS7 message returned - unqualified.
CAS7URY	= CAS CCS7 received with unexpected reply.
CAS7UUR	= CAS CCS7 message returned - unequipped user.
CAS7VCD	= CAS CCS7 error - vacant code.
CCDDBOV	= BVA calling card (CCRD) message received indicating database overload.
CCDDBUN	= BVA CCRD message returned because database unable to process.
CCDGMSG	= BVA CCRD message received garbled.
CCDNBLK	= BVA CCRD message returned because of network blockage.
CCDNCON	= BVA CCRD message returned because of network congestion.
CCDNRTE	= BVA CCRD message returned because of no routing data.
CCDUNEQ	= BVA CCRD message returned- unequipped destination.
CCDURPY	= BVA CCRD message received with an unexpected reply.
ICCVABM	= International credit card validation (ICCV) abort message received.
ICCVDBU	= ICCV error - message returned - database unavailable.
ICCVEMF	= ICCV error in message format.
ICCVGMG	= ICCV received with invalid format reply.
ICCVMPR	= ICCV error - message received with missing parameter.
ICCVMRQ	= ICCV error - misrouted query.
ICCVNCG	= ICCV message returned because of network congestion.
ICCVNFL	= ICCV message returned because of network failure.
ICCVRCR	= ICCV reject component received.
ICCVSCG	= ICCV message returned because of subsystem congestion.
ICCVSFL	= ICCV message returned because of subsystem failure.
ICCVTAN	= ICCV message returned - no translation data for address of such nature.
ICCVTOT	= ICCV query which timed out before reply received.
ICCVTSA	= ICCV message returned - no translation data for this specific address.
ICCVUDV	= ICCV error - message received with unexpected input data value.
ICCVUPR	= ICCV error - message received with unexpected parameter.
ICCVUQD	= ICCV message returned - unqualified.
ICCVURY	= ICCV received with unexpected reply.
ICCVUUR	= ICCV message returned - unequipped user.
INWBLKD	= Inward wide area telecommunications service (INWATS) returned blocked.
INWBUSY	= INWATS all lines busy.
INWCCBL	= INWATS code control blocked.
INWDBOV	= INWATS database overload.
INWDBTO	= INWATS database timeout.

INWDSBL	= INWATS direct signaling blocked.
INWNNPA	= INWATS nonpurchased numbering plan area (NPA).
INWNOXL	= INWATS returned no translation.
INWONPA	= INWATS invalid originating numbering plan area (ONPA).
INWOVLD	= INWATS returned overload.
INWUNEQ	= INWATS returned unequipped.
INWVLIN	= INWATS vacant line number.
INWVNXX	= INWATS vacant NXX.
LACABM	= Line application for consumers (LAC) abort message received.
LACACG	= LAC invoke component received.
LACGMG	= LAC message received with invalid format.
LACMPR	= LAC error - message received with missing parameter.
LACMRQ	= LAC error - misrouted query.
LACNCG	= LAC message returned because of network congestion.
LACNFL	= LAC message returned because of network failure.
LACRCR	= LAC reject component received.
LACSCG	= LAC message returned because of subsystem congestion.
LACSFL	= LAC message returned because of subsystem failure.
LACTAN	= LAC message returned - no translation data for address of such nature.
LACTOT	= LAC query timed out before a reply was received.
LACTRF	= LAC error - task refused.
LACTSA	= LAC message returned - no translation data for this specific address.
LACUDV	= LAC error - message received with unexpected input data value.
LACUPR	= LAC error - message received with unexpected parameter.
LACUQD	= LAC message returned - unqualified.
LACURY	= LAC unexpected reply.
LACUUR	= LAC message returned - unequipped user.
LACVCD	= LAC error - vacant code.
LBNCGI	= Line information database (LIDB) BNS message with a call gapping indicator present.
LBNGM	= LIDB BNS garbled message.
LBNMGM	= LIDB BNS return value missing group or misrouted.
LBNNAN	= LIDB BNS return value no translation for an address of such nature.
LBNNCG	= LIDB BNS return value network congestion.
LBNNFL	= LIDB BNS return value network failure.
LBNNPG	= LIDB BNS return value nonparticipating group.
LBNNSA	= LIDB BNS return value no translation for this specific address.
LBNREJ	= LIDB BNS reject message received.
LBNSCG	= LIDB BNS return value subsystem congestion.
LBNSFL	= LIDB BNS return value subsystem failure.
LBNTO	= LIDB BNS message missed because of timeout.
LBNUP	= LIDB BNS message with unexpected reply.
LBNUUR	= LIDB BNS return value unequipped user.
LCDCGI	= LIDB CCRD message with a call gapping indicator present.
LCDGM	= LIDB CCRD garbled message.
LCDMGM	= LIDB CCRD return value missing group or misrouted.
LCDNAN	= LIDB CCRD return value no translation for an address of such nature.
LCDNCG	= LIDB CCRD return value network congestion.
LCDNFL	= LIDB CCRD return value network failure.
LCDNPG	= LIDB CCRD return value nonparticipating group.
LCDNSA	= LIDB CCRD return value no translation for this specific address.

LCDREJ	= LIDB CCRD reject message received.
LCDSCG	= LIDB CCRD return value subsystem congestion.
LCDSFL	= LIDB CCRD return value subsystem failure.
LCDTO	= LIDB CCRD message missed because of timeout.
LCDUP	= LIDB CCRD message with unexpected reply.
LCDUUR	= LIDB CCRD return value unequipped user.
LNBAS	= Call failed due to the query being blocked at the switch.
LNBN	= Call failed due to the query being blocked in the common channel signaling (CCS) network.
LNGTCAP	= Garbled transaction capability application part (TCAP) message received - message can not be parsed.
LNNCANI	= Centralized automatic message accounting (CAMA) call failed due to CAMA trunk not providing automatic number identification (ANI) for query.
LNNCFA	= Call failure due to some reason while the transaction with the network control point (NCP) is active.
LNNCFI	= Call failure due to some reason while the transaction with the NCP is inactive.
LNRER	= Call failed due to the conversation with the NCP resulting in a return error response.
LNRR	= Call failed due to the conversation with the NCP resulting in a reject response.
LNTIM	= Call failed due to the query not being answered in time by the NCP.
LNTRF	= Call failed due to the NCP answering with a terminate request.
MSFAILRCVD	= A "Message Service System (MSS) reject" message or a "return error" message was received at the near/far switch from the far/near switch respectively.
MSFAILSENT	= An "MSS reject" message or a "return error" message was sent to the near/far switch from the far/near switch respectively.
MSQRYFAIL	= A timeout was received in the MSS. A "return query" message was received at the near switch because of a network failure or failure to send a query.
NCDAFTA	= Network call denial (NCD) denied after answer.
NCDBEFA	= NCD denied before answer.
NCDBLKD	= NCD returned blocked.
NCDCCBL	= NCD code control blocked.
NCDDBOV	= NCD database overload.
NCDDENY	= NCD deny received.
NCDDSBL	= NCD direct signaling blocked.
NCDNOXL	= NCD returned no translation.
NCDOVLD	= NCD returned overload.
NCDUNEQ	= NCD returned unequipped.
NSACGCOMP	= Number services (NS) SCP response message with an ACG component received at the switch.
NSBADRESP	= NS SCP response message with invalid data.
NSNONRTEMSG	= NS reject message, a return error, or a play announcement received at the switch from the SCP.
NSQRYFAIL	= NS query blocked by NM ACG, a returned query received at the switch, or a time out received in call processing.
NSSNCOMP	= NS SCP response message with a send notification received at the switch.
NSTNMSG	= NS termination notification message sent from the switch to the SCP.
OLNPABM	= OSPS LNP abort message received.
OLNPACG	= OSPS LNP ACG invoke component received.
OLNPECR	= OSPS LNP error code received.
OLNPGMG	= OSPS LNP received with invalid format reply.
OLNPNCG	= OSPS LNP message returned because of network congestion.
OLNPNFL	= OSPS LNP message returned because of network failure.

OLNPRCR	= OSPS LNP reject component received.
OLNPSCG	= OSPS LNP message returned because of subsystem congestion.
OLNPSFL	= OSPS LNP message returned because of subsystem failure.
OLNPTOT	= OSPS LNP query which timed out before reply received.
OLNPTSA	= OSPS LNP message returned - no translation data for this specific address.
OLNPTSN	= OSPS LNP message returned - no translation data for address of such nature.
OLNPUQD	= OSPS LNP message returned - unqualified.
OLNPURY	= OSPS LNP received with unexpected reply.
OLNPUUR	= OSPS LNP message returned - unequipped user.
RATDBOV	= Rating message received indicating database overload.
RATDBUN	= Rating message returned - database unable to process.
RATGMSG	= Rating message received garbled.
RATTOUT	= Rating message returned because of timeout.
RATURPY	= Rating message received with an unexpected reply.
SDNBAS	= Call failed due to the query's being blocked at the switch.
SDNBN	= Call failed due to the query's being blocked in the CCS network.
SDNGTCAP	= Garbled transaction capability application part (TCAP) message received - message can not be parsed.
SDNNCANI	= CAMA call failed due to CAMA trunk's not providing ANI for query.
SDNNCFA	= Call failed while the transaction with the NCP was active.
SDNNCFI	= Call failed while the transaction with the NCP was inactive.
SDNNOCANI	= CAMA call failed due to CAMA trunk's not providing ANI through operator number identification (ONI) for query.
SDNRER	= Call failed because to the conversation with the NCP resulting in a return error response.
SDNRR	= Call failed because to the conversation with the NCP resulting in a reject response.
SDNTIM	= Call failed due to the query's not being answered in time by the NCP.
SDNTRF	= Call failed due to the NCP's answering with a terminate request.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:DSE
OP:ST-DSE
SET:DSE
```

Output Message(s):

```
OP:ST-DSE
REPT:ACP-APP-SM
REPT:ASP
```

```
REPT:DSE
REPT:MS-TRAPPED
REPT:NS
REPT:OSPS-DSE
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*
235-190-125 *Advanced Services Platform, Release 0 and Release 0.1A*
235-190-126 *Advanced Services Platform, Release 0.1B*

OP:ST-FILESYS

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      OP STATUS FILESYS {STARTED|IN PROGRESS|COMPLETED}
        a    on    b    c    on    d

[2]   ____________________________________________________________
      OP STATUS LISTDIR STOPPED
        e
```

2. REASON FOR OUTPUT

To output information about all the mounted file systems requested by the OP:ST-FILESYS input message.

3. VARIABLE FIELD DEFINITIONS

a = The directory name on which the file system is mounted.

b = File system; for example, /dev/root.

c = Permission; for example, read/write.

d = Date and time the file system was mounted.

e = Text explaining why the command was stopped.

4. ACTION TO BE TAKEN

Format 1 indicates success and requires no action.

For Format 2, if the text is not self-explanatory, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	282
2	288

Input Message(s):

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```
ALW:FSYS-MOUNT
INH:FSYS-UMOUNT
OP:ST-FILESYS
```

Output Message(s):

```
INH:FSYS-UMOUNT
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

OP:ST-FREEDISK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      OP STATUS FREEDISK COMPLETED
        a    b       c         d              e

[2]   ____________________________________________________________
      OP STATUS FREEDISK STOPPED
        f
```

2. REASON FOR OUTPUT

To output the results of executing an OP:ST-FREEDISK input message.

Format 1 indicates successful execution of the input message.

Format 2 indicates that the input message failed.

3. VARIABLE FIELD DEFINITIONS

a = Pathname specified in the input message.

b = Device name.

c = Mounted directory name.

d = Free blocks available.

e = Free nodes.

f = Text explaining why the input message was stopped.

4. ACTION TO BE TAKEN

Format 1 indicates success and requires no action.

For Format 2, refer to the input messages manual for the correct format and reenter the message. If the text is not self-explanatory, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):

1	282
2	288

Input Message(s):

```
ALW:FSYS-MOUNT
OP:ST-FREEDISK
OP:ST-FILESYS
OP:ST-LISTDIR
```

Output Message(s):

```
OP:ST-FILESYS
OP:ST-LISTDIR
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

OP:ST-GSMNET

Software Release: 5E14 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]    OP STATUS GSMNET GSM=a OPC=b STOPPED c

[2]    OP STATUS GSMNET GSM=a OPC=b LAST
       NGSM    CMT PATH   STATE   QUALIFIER
         a      MD=a        d        [e]
```

2. REASON FOR OUTPUT

Format 1 indicates the status request cannot be processed by the SM at all.

Format 2 reports valid status output. Note: This ouput can be a response to an OP:STATUS,GSMNET input message or can be produced automatically on a hourly basis. The CMT PATH specified can currently indicate only intra-SM message delivery (MD) link transport on an ISLAND GSM.

3. VARIABLE FIELD DEFINITIONS

`a` = GSM (global switching module) specified in the input request.

`b` = OPC (9-digit originating point code associated with the HOST/ISLAND GSM). Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual, for format of ANSI and AT&T/UNITEL formats.

`c` = Reasons for failure. Valid value(s):
`NO STATE MATCH` = There are no GSM/NGSM pairs matching the state restriction specified on the input command or the default INACC state (not valid for the STATE=ALL or NGSM input option).
`NOT A GSM` = Due to data inconsistencies, the GSM can identify no provisioned NGSM.

`d` = State. Valid value(s):
`INACC` = CCS message transport within the GSM is unavailable. Further qualification is provided by field "e".
`ACC` = CCS message transport within the GSM is available.

`e` = The most restrictive reason for inaccessibility, currently only:

QUALIFIER	MEANING
MD LINK OOS	The loss of CCS functionality is due to the intra-SM MD link outage.

4. ACTIONS TO BE TAKEN

For Format 2 outputs, see corrective maintenance procedures in 235-190-120 (Common Channel Signaling Service Features), if inaccessibility is reported.

5. ALARMS

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None.

6. REFERENCES

Input Message(s):

```
OP:ST-GSMNET
```

Other Manual(s):
235-190-120 *Common Channel Signaling Service Features*

MCC Display Page(s):

1540 (GSM CMT STATUS)

OP:ST-ISMNAIL

Software Release: 5E10 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
OP STATUS ISMNAIL DLT=a-b MATEDLT=c-d g
 [h]
 [          PRIMARY     HISTORY1     HISTORY2    HISTORY3]
 [    DLT=i    k           l            m           n    ]
 [MATEDLT=j    o           p            q           r    ]
```

2. REASON FOR OUTPUT

To respond to an OP:ST-ISMNAIL input message and indicate the status of a single inter-SM (switching module) nailup (ISMNAIL), utilized to transport packets between SMs.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = Data link terminal (DLT) number associated with the SM.

`c` = Mate SM number.

`d` = DLT number associated with the mate SM.

`g` = Termination report. Valid value(s):
`COMPLETED` = Request completed successfully.
`FAILURE` = Request was terminated before a normal completion.

`h` = Additional data qualifying the termination of the request. Valid value(s):
`DATABASE PROBLEM` = Problem occurred while attempting to access critical data (accompanying ASSERT should provide more details).
`INVALID NAILUP SPECIFIED` = An invalid nailup was specified in the input request.
`LACK OF MESSAGE RESOURCE` = Message resources were not available in the administration module (AM), and user request could not be forwarded to the SM for execution.
`MESSAGE NOT RECEIVED` = Expected message not received by ATA terminal process within designated timeout interval.
`NO OPTION MATCH` = None of the ISMNAILs had states corresponding to option specified in the input request.
`SAME SM AND MATESM SPECIFIED` = SM and MATESM are the same which is invalid.
`SM IN MINMODE` = SM is in MINMODE, and, therefore, cannot support ISMNAILs.
`SM ISOLATED` = Both SMs are isolated, and requested action cannot be honored.
`TERMINAL PROCESS NOT CREATED` = An automatic task administrator (ATA) terminal process to execute the user request could not be created due to system problems.
`TIMEOUT` = Timeout occurred.

Note: For many failed restorations, the ISMNAIL may be left in a state, which will allow a successful automatic restoration at some later time; use OP:ST-ISMNAIL to determine current status

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associated with the affected ISMNAIL.

`i` = DLT number.

`j` = Mate DLT number.

`k` = The primary status for the source port associated with the ISMNAIL; this is the most restrictive status currently on the port. Valid value(s):

- `IS` = In-service (normal operation).
- `OOS DSBLD` = Out-of-service disabled (DSBLD) indicates the ISMNAIL is manually removed.
- `OOS DSLINIT` = Out-of-service initialization (DSLINIT) ISMNAIL will be automatically scheduled for an initialization.
- `OOS DLI` = Out-of-service dual link interface (DLI) ISMNAIL is out-of-service due to a removed DLI on the major office network and timing complex (ONTC).
- `OOS NLI` = Out-of-service network link interface (NLI) ISMNAIL is out-of-service due to a removal of all NLIs on the major office network and timing complex (ONTC).
- `OOS TMSCONN` = Out-of-service time multiplexed switch connectivity; the ISMNAIL is out-of-service due to a TMS interconnectivity problem between the SMs (out-of-service DLI/NLIs or TMSLNKS) at one or more ends of the nailup.
- `OOS PSU` = Out-of-service packet switch unit (PSU) the ISMNAIL is out-of-service because of an out-of-service/degraded PH.
- `OOS SLAVESM` = Master ISM port is out-of-service due to problem in mate slave SM.
- `OOS MASTRSM` = Slave ISM port is out-of-service awaiting a restoration, which must be triggered by the mate master SM.
- `OOS TBLA` = Out-of-service trouble analysis (TBLA) indicates the ISMNAIL is out-of-service for no known hardware reasons, but cannot be restored to service for any reasonable length of time; repeated automatic restorations have been attempted, and maintenance personnel intervention is now required.
- `OOS TBI` = Out-of-service to-be-idled (TBI) indicates the ISMNAIL is on the TBI list due to data corruption discovered by audits; this is a transient state and recovery is automatic.
- `ISOLATED` = No status data could be derived from the SM due to isolation.
- `UNKNOWN` = No status data received from the SM within the allotted timeout interval; valid reasons include unavailability of message resources, high levels of call processing/maintenance activity, or overload.
- `TRANSIENT` = The ISMNAIL is in a transient state, due to maintenance activity.

`l` = The first pending (history) status for the source port associated with the ISMNAIL; a port can have zero to three pending statuses, in addition to the primary status. Valid value(s):

- `NO STATUS` = No pending (history) status.
- `OOS DSBLD` = The ISMNAIL is manually removed.
- `OOS DLI` = The ISMNAIL is out-of-service due to a removed DLI on the major ONTC.
- `OOS NLI` = The ISMNAIL is out-of-service due to a removal of all NLIs on the major ONTC.
- `OOS TMSCONN` = The ISMNAIL is out-of-service due to a TMS interconnectivity problems between the SMs (out-of-service DLI/NLIs or TMSLNKS) at one or more ends of the nailup.
- `OOS PSU` = The ISMNAIL is out-of-service because of an out-of-service/degraded PH.
- `OOS SLAVESM` = Master ISM port is out-of-service due to problem in mate slave SM.

`m` = The second pending (history) status for the source port associated with the ISMNAIL.

`n` = The third pending (history) status for the source port associated with the ISMNAIL.

`o` = The primary status for the destination port associated with the ISMNAIL. Possible values are the same as listed for variable '`k`' above.

`p` = The first pending (history) status for the destination port associated with the ISMNAIL. Possible values are the same as listed for variable '`l`' above.

`q` = The second pending (history) status for the destination port associated with the ISMNAIL.

`r` = The third pending (history) status for the destination port associated with the ISMNAIL.

4. ACTION TO BE TAKEN

No further action is necessary, if the request completed successfully.

If the termination report indicates `FAILURE`, the '`h`' field will give some indication as to why the request failed.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:ST-ISMNAIL
STP:ISMNAIL
```

Output Message(s):

```
STP:ISMNAIL
```

Other Manual(s):
235-600-500 *Asserts Manual*

OP:ST-ISMTS

Software Release: 5E10 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
OP STATUS ISMTS SM=a b [c]
  TOTAL NETWORK SIDE TSIU  TIMESLOTS ALLOCATED FOR ISMNAIL=d
  TOTAL PSU SHELF 0 PIDB   TIMESLOTS ALLOCATED FOR ISMNAIL=e
  TOTAL PSU SHELF 1 PIDB   TIMESLOTS ALLOCATED FOR ISMNAIL=f
  TOTAL PSU SHELF 2 PIDB   TIMESLOTS ALLOCATED FOR ISMNAIL=g
  TOTAL PSU SHELF 3 PIDB   TIMESLOTS ALLOCATED FOR ISMNAIL=h
  TOTAL PSU SHELF 4 PIDB   TIMESLOTS ALLOCATED FOR ISMNAIL=i
  TOTAL PSU SHELF 5 PIDB   TIMESLOTS ALLOCATED FOR ISMNAIL=j
  TOTAL INTER-CLUSTER LINK TIMESLOTS ALLOCATED FOR ISMNAIL=k
```

2. REASON FOR OUTPUT

This message is in response to an OP:ST-ISMTS (inter-SM time slot) input message and indicates the number of network side time slot interchange unit (TSIU) timeslots and peripheral interface data bus (PIDB) timeslots utilized by inter-SM nailups (ISMNAIL) used for packet transport between switching modules (SMs).

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = Termination report. Valid value(s):
`COMPLETED` = Request completed successfully.
`FAILURE` = Request was terminated before a normal completion.

`c` = Additional data qualifying the termination of the request. Valid value(s):
`DATABASE PROBLEM` = Problem occurred, while attempting to access critical data (accompanying ASSERT should provide more details).
`PACKAGE NOT LOADED` = Integrated services digital network packet (ISDNPCKT) is not loaded in the administrative module (AM), and ISMNAIL requests are invalid.
`SM NOT IN ISM NETWORK` = SM requested is not in the ISM network, and, therefore, cannot support ISMNAILs.

`d` = Total of network side TSIU timeslots allocated for ISMNAIL usage. For a host switching module (HSM), local switching module (LSM), optically remoted module (ORM), trunk remoted module (TRM) this corresponds to the time multiplexed switch (TMS) timeslot usage.

`e` = Total of packet switch unit (PSU) Shelf 0 peripheral interface data bus (PIDB) timeslots allocated for ISMNAIL usage.

`f` = Total of PSU Shelf 1 PIDB timeslots allocated for ISMNAIL usage.

`g` = Total of PSU Shelf 2 PIDB timeslots allocated for ISMNAIL usage.

`h` = Total of PSU Shelf 3 PIDB timeslots allocated for ISMNAIL usage.

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`i` = Total of PSU Shelf 4 PIDB timeslots allocated for ISMNAIL usage.

`j` = Total of PSU Shelf 5 PIDB timeslots allocated for ISMNAIL usage.

`k` = Total of remote switching module (RSM) inter-cluster link (ICL) in a multi-module (MMRSM) cluster timeslots allocated for ISMNAIL usage.

4. ACTION TO BE TAKEN

No further action is necessary, if the request completed successfully.

If the termination report indicates a failure, the '`c`' field will give an indication as to why the request failed.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:ST-ISMTS
```

OP:ST-ISUP

Software Release: 5E10 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
OP STATUS ISUP EVENT=ATPUUI STATUS={ON|OFF}
```

2. REASON FOR OUTPUT

To print the current status of the trapping and printing of the intergrated services digital network (ISDN) user part (ISUP) events as requested by the OP:ST-ISUP input message.

3. VARIABLE FIELD DEFINITIONS

`ATPUUI` = Access transport parameter (ATP) user-to-user information (UUI).

`OFF` = The trap was turned off for the given event and will not be reported.

`ON` = The trap was turned on for the given event and will be reported in the REPT:ISUP output message.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:ISUP
OP:ST-ISUP
SET:ISUP
```

Output Message(s):

```
OP:ST-ISUP
REPT:ISUP
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

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OP:ST-LISTDIR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP STATUS LISTDIR {STARTED|IN PROGRESS|COMPLETED}
        a    b    c    d    e    f    g    h    i

[2]   ____________________________________________________________________
      OP STATUS LISTDIR STOPPED
        j
```

2. REASON FOR OUTPUT

To report the result of executing an OP:ST-LISTDIR input message.

Note: `STARTED`, `IN PROGRESS` and `COMPLETED` messages appear when three or more output segments are printed.

Note: `STARTED` and `COMPLETED` messages appear when two output segments are printed.

Note: A `COMPLETED` message appears when only one output segment is printed.

3. VARIABLE FIELD DEFINITIONS

`a` = Pathname specified with input message.

`b` = Total blocks of disk space the files occupy.

`c` = Mode file type (ordinary, directory, block, character).

`d` = Links - the number of links to a file.

`e` = Owner of the file.

`f` = Size in bytes.

`g` = Date last changed.

`h` = Time last changed.

`i` = Filename.

`j` = Text explaining why the input message was stopped.

4. ACTION TO BE TAKEN

Format 1 indicates success and requires no action.

For Format 2, if the text is not self-explanatory, refer to the TECHNICAL ASSISTANCE portion of the

INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	282
2	288

Input Message(s):

```
ALW:FSYS-ACCESS
OP:ST-LISTDIR
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

OP:ST-MD-A

Software Release: 5E11 only
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP STATUS MD
  SM  PSUPH          CHGMEM  STATUS  [NO MD PATHS]
  a   b-[c]-[d]-[e]  [f]-[g]    h
  [i]
```

2. REASON FOR OUTPUT

To print the status of the message delivery (MD) network in response to the OP:STATUS-MD input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Common channel signaling (CCS) global switching module (GSM) number.

`b` = Switching module (SM) number of packet switching unit (PSU).

`c` = Unit number of PSU.

`d` = Shelf number on PSU.

`e` = Protocol handler (PH) number in shelf.

`f` = Channel group number (logical PH number on shelf).

`g` = Logical channel group member number.

`h` = Status of the path. Valid value(s):
`ACTIVE` = Path is in service.
`INITIALIZING` = Path is initializing.
`OOS-DEACTIVATED` = Path is manually deactivated.
`OOS-FAMILY PH` = Path is out-of-service due to lack of a PH. In this case, the psu unit, shelf, ph, channel group, and channel group member fields will be blank.
`OOS-LINK ERROR` = Path is OOS due to errors.
`OOS-TRANSIENT` = Path is OOS during a transition.

`i` = Optional information indicating status reliability. Valid value(s):
`COULD NOT SEND OSDS MESSAGE`
`DATA CORRUPTED - INCOMPLETE`
`INCOMPLETE`
`NONEXISTENT MD PATH`
`OSDS TIMEOUT - INCOMPLETE`
`SM NOT AVAILABLE`
`SM NOT EQUIPPED`

4. ACTION TO BE TAKEN

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None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:ST-MD
```

Other Manual(s):
235-120-120 *VCDX Users Guide*
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

1530 (GLOBAL SM MESSAGE DELIVERY STATUS)

OP:ST-MD-B

Software Release: 5E12 - 5E13
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP STATUS MD a
  SM  PSUPH          CHGMEM  STATUS  [NO MD PATHS]
  b   c-[d]-[e]-[f]  [g]-[h]   i
 [j]
```

2. REASON FOR OUTPUT

To print the status of the message delivery (MD) network in response to the OP:STATUS-MD input message.

3. VARIABLE FIELD DEFINITIONS

a = Page indicator. Valid value(s):
- FIRST = First page of report.
- NEXT = Next report page.
- LAST = Last page of report associated with this request.

b = Common channel signaling (CCS) global switching module (GSM) number.

c = Switching module (SM) number of packet switching unit (PSU).

d = Unit number of PSU.

e = Shelf number on PSU.

f = Protocol handler (PH) number in shelf.

g = Channel group number (logical PH number on shelf).

h = Logical channel group member number.

i = Status of the intra-GSM MD path. Valid value(s):
- ACTIVE = Path is in service.
- INITIALIZING = Path is initializing.
- OOS-DEACTIVATED = Path is manually deactivated.
- OOS-FAMILY PH = Path is out-of-service due to lack of a PH assignment. In this case, the PSU unit, shelf, PH, channel group, and channel group member fields will be blank.
- OOS-LINK ERROR = Path is OOS due to internal errors.
- OOS-TRANSIENT = Path is OOS undergoing a transition.

j = Optional information indicating status reliability. Valid value(s):
- COULD NOT SEND OSDS MESSAGE
- DATA CORRUPTED - INCOMPLETE
- INCOMPLETE
- NONEXISTENT MD PATH
- OSDS TIMEOUT - INCOMPLETE

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4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:ST-MD
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

1530 (GLOBAL SM MESSAGE DELIVERY STATUS)

OP:ST-MD-C

Software Release: 5E14 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]    OP STATUS MD a
       SM  PSUPH          CHGMEM  STATUS
       b   c-d-e [f]      g-h       i
       [j]

[2]    OP STATUS MD [SM=a]  NO MD PATHS
```

2. REASON FOR OUTPUT

Format 1 prints the status of intra-GSM message delivery (MD) paths in response to the OP:STATUS-MD input message.

Format 2 indicates there are no intra-SM MD paths provisioned in the office or the specified GSM.

3. VARIABLE FIELD DEFINITIONS

`a` = Page indicator. Valid value(s):

- `FIRST` = First page of report.
- `NEXT` = Next report page.
- `LAST` = Last page of report associated with this request.

`b` = Common channel signaling (CCS) global switching module (GSM) number.

`c` = Switching module (SM) number of packet switching unit (PSU).

`d` = Unit number of PSU.

`e` = Shelf number on PSU.

`f` = Protocol handler (PH) number in shelf.

`g` = Channel group number (logical PH number on shelf).

`h` = Logical channel group member number.

`i` = Status of the intra-GSM MD path. Valid value(s):

- `ACTIVE` = Path is in service.
- `INITIALIZING` = Path is currently initializing or will be automatically scheduled for an initialization shortly.
- `OOS-DEACTIVATED` = Path is manually deactivated.

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`OOS-FAMILY PH` = Path is out-of-service due to lack of a PH assignment. In this case, PH (field "f") will be blank.

`OOS-TRANSIENT` = Path status is OOS undergoing a transition.

`j` = Optional information indicating status reliability. Valid value(s):

`COULD NOT SEND OSDS MESSAGE`

`DATA CORRUPTED - INCOMPLETE`

`INCOMPLETE`

`OSDS TIMEOUT - INCOMPLETE`

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:ST-MD`

Other Manual(s):
235-190-120 *Common Channel Signaling Service Features*

MCC Display Page(s):

1540 (GSM CMT STATUS)

OP:ST-MELNK-A

Software Release: 5E12 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP STATUS MELNK SM=a COMPLETED
        UNIT          MTCE STATE
        b=a-c[-d]     e[,f]

[2]   ____________________________________________________________________
      OP STATUS MELNK[ SM=a] COMPLETED g
```

2. REASON FOR OUTPUT

To provide MCTSI-based ethernet link (MELNK)/MCTSI-based ethernet pipe (MEPIPE) information in response to an OP:ST-MELNK input message.

Format 1 is the standard output report format when there are MELNKs and/or an MEPIPE for which status must be reported. Format 2 prints when an SM has no MEPIPEs or MELNKs in an off normal condition, or when the OP:STAT-MELNK input command specifies an SM range and no accessible SMs in the range have equipped MELNKs. Specifying the NOPRINT qualifier in the OP:STAT-MELNK input command suppresses printing of this output report format.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = MEPIPE or MELNK.

`c` = MEPIPE number.

`d` = MELNK number (present only when 'b' is MELNK).

`e` = The current maintenance state of the MEPIPE/MELNK. Valid values are:

```
If 'b' is MEPIPE:
ACT          = Active - the MEPIPE is capable of supporting MELNK connection establishment.
INIT         = Initializing.
OOS          = Out of service.
If 'b' is MELNK:
ACT          = Active - all ports of the MELNK are in service.
DGR          = Degraded - at least one but not all MELNK ports are in service.
OOS          = Out of service.
```

`f` = MEPIPE/MELNK out of service qualifier. Valid values are:

```
If 'b' is MEPIPE:
FLT          = MEPIPE autonomously removed by fault recovery.
L1           = Level 1 - hardware layer error.
LBK          = Loop back attempt to hub failed.
MAN          = Manual - all MELNKs on the MEPIPE are manually removed.
```

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```
If 'b' is MELNK:
FE          = Family of equipment - parent MEPIPE is out of service.
FLT         = MELNK autonomously removed by fault recovery.
L2          = Level 2 - no MELNK port is in service.
LBK         = Loop back attempt to far end failed.
MAN         = The MELNK is manually removed.
```

`g` = The completion qualifying reason. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:ST-MELNK`

MCC Display Page(s):

1204 (MELNK STATUS)

OP:ST-MELNK-B

Software Release: 5E12 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

[1]
```
OP STATUS MELNK SM=a [b]
  UNIT          MTCE STATE
  c=a-d[-e]     f[,g]
  . . .  .      .  .
  . . .  .      .  .
  . . .  .      .  .
```

[2]
```
OP STATUS MELNK[ SM=a] h
```

2. REASON FOR OUTPUT

To provide MCTSI-based ethernet link (MELNK)/MCTSI-based ethernet pipe (MEPIPE) information in response to an OP:ST-MELNK input message.

Format 1 is the standard output report format when there are MELNKs and/or an MEPIPE for which status must be reported.

Format 2 prints when an SM has no MEPIPEs or MELNKs in an off normal condition, or when the OP:STAT-MELNK input command specifies an SM range and no accessible SMs in the range have equipped MELNKs. Specifying the NOPRINT qualifier in the OP:STAT-MELNK input command suppresses printing of this output report format.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = Text identifier showing order of record. Valid values are:
`FIRST RECORD` = First record of continuing list.
`LAST RECORD` = Last record of continuing list.
`NEXT RECORD` = Next record of continuing list.

`c` = Unit type for which maintenance state information is being reported. Valid values are:
`MELNK` = Output report line specifies an MELNK number and MELNK maintenance state.
`MEPIPE` = Output report line specifies an MEPIPE number and MEPIPE maintenance state.

`d` = MEPIPE number.

`e` = MELNK number (present only when field `'c'` is `MELNK`).

`f` = The current maintenance state of the MELNK/MEPIPE. If field `'c'` is `MELNK`, valid values are:
`ACT` = Active - all ports of the MELNK are in service.
`DGR` = Degraded - at least one but not all MELNK ports are in service.
`OOS` = Out of service.

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If field 'c' is MEPIPE, valid values are:

ACT	= Active - the MEPIPE is capable of supporting MELNK connection establishment.
INIT	= Initializing.
OOS	= Out of service.

g = MELNK/MEPIPE out of service qualifier. If field 'c' is MELNK, valid values are:

FE	= Family of equipment - parent MEPIPE is out of service.
FLT	= MELNK autonomously removed by fault recovery.
L2	= Level 2 - no MELNK port is in service.
LBK	= Loop back attempt to far end failed.
MAN	= The MELNK is manually removed.

If field 'c' is MEPIPE, valid values are:

FLT	= MEPIPE autonomously removed by fault recovery.
L1	= Level 1 - hardware layer error.
LBK	= Loop back attempt to hub failed.
MAN	= Manual - all MELNKs on the MEPIPE are manually removed.

h = The completion qualifying reason. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

OP:ST-MELNK

MCC Display Page(s):

1204 (MELNK STATUS)

OP:ST-MI

Software Release: 5E10 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

[1]
```
OP STATUS ONTC a MI b
  EVENT NUMBER c
  MI HDW STATUS FOR SIDE d
  MI OPERATIONAL REGISTERS
    COMMAND REGISTER 1         =e
    COMMAND REGISTER 1         =f
    COMMAND REGISTER 1         =g
    COMMAND REGISTER 1         =h
    COMMAND REGISTER 1         =i
    COMMAND REGISTER 1         =j
    COMMAND REGISTER 1         =k
    STATUS REGISTER            =l
    ERROR SOURCE REGISTER MAP  =m
    ERROR SOURCE REGISTER 1    =n
    ERROR SOURCE REGISTER 2    =o
    ERROR SOURCE REGISTER 3    =p
    ERROR SOURCE REGISTER 4    =q
    ERROR SOURCE REGISTER 5    =r
    CPI REGISTER               =s
```

[2]
```
OP STATUS ONTC a MI b EVENT=c
  MI OPERATIONAL REGISTERS
  uuvvwwxx yyzza1b1 c1d1e1f1 g1h1i1j1 k1l1m1n1 o1p1q1r1 s1t1u1v1 w1x1y1z1
a2b2c2d2 e2******
```

[3]
```
OP STATUS ONTC a MI b
  EVENT NUMBER c
  MI HDW STATUS FOR SIDE d
  TIME SLOT SWITCH STATUS FOR SWITCHES 0 TO 127
      0    1    2    3    4    5    6    7    8    9
   0 H't  H't  H't  H't  H't  H't  H't  H't  H't  H't
   1 H't  H't  H't  H't  H't  H't  H't  H't  H't  H't
   2 H't  H't  H't  H't  H't  H't  H't  H't  H't  H't
   3 H't  H't  H't  H't  H't  H't  H't  H't  H't  H't
   4 H't  H't  H't  H't  H't  H't  H't  H't  H't  H't
   5 H't  H't  H't  H't  H't  H't  H't  H't  H't  H't
   6 H't  H't  H't  H't  H't  H't  H't  H't  H't  H't
   7 H't  H't  H't  H't  H't  H't  H't  H't  H't  H't
   8 H't  H't  H't  H't  H't  H't  H't  H't  H't  H't
   9 H't  H't  H't  H't  H't  H't  H't  H't  H't  H't
  10 H't  H't  H't  H't  H't  H't  H't  H't  H't  H't
  11 H't  H't  H't  H't  H't  H't  H't  H't  H't  H't
```

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```
        12 H't  H't  H't  H't  H't  H't  H't  H't

[4]   ____________________________________________________________________
      OP STATUS ONTC a MI b
        EVENT NUMBER c
        MI HDW STATUS FOR SIDE d
        TIME SLOT SWITCH STATUS FOR SWITCHES 128 TO 255
```

2. REASON FOR OUTPUT

To display the contents of the message interface (MI) hardware registers in response to the OP:STATUS-MI input message.

3. VARIABLE FIELD DEFINITIONS

`**` = Ignore (no meaning).

`a` = MI side.

`b` = Options. Valid value(s):

`ALL`	= All of the above.
`REGS`	= Registers.
`TS1H`	= Time slots, first half.
`TS2H`	= Time slots, second half.

`c` = Event number.

`d` = System side.

`e` = Contents of MI command register 1.

`f` = Contents of MI command register 2.

`g` = Contents of MI command register 3.

`h` = Contents of MI command register 4.

`i` = Contents of MI command register 5.

`j` = Contents of MI command register 6.

`k` = Contents of MI command register 7.

`l` = Contents of MI status register.

`m` = Contents of error source register map.

`n` = Contents of error source register 1.

`o` = Contents of error source register 2.

`p` = Contents of error source register 3.

`q` = Contents of error source register 4.

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r	= Contents of error source register 5.
s	= Contents of CPI register.
t	= Time-slot switch setting.
u	= Contents of control register 1.
v	= Contents of control register 2.
w	= Contents of control register 3B.
x	= Contents of control register 4B.
y	= Contents of control register 5B.
z	= Contents of control register 6B.
a^1	= Contents of control register 7.
b^1	= Contents of control register 8.
c^1	= Contents of control register 3A.
d^1	= Contents of control register 4A.
e^1	= Contents of control register 5A.
f^1	= Contents of control register 6A.
g^1	= Contents of status register 1.
h^1	= Contents of status register 2B.
i^1	= Contents of status register 2A.
j^1	= Contents of error source register 1B.
k^1	= Contents of error source register 2.
l^1	= Contents of error source register 3B.
m^1	= Contents of error source register 4B.
n^1	= Contents of error source register 5B.
o^1	= Contents of error source register 1A.
p^1	= Contents of error source register 3A.
q^1	= Contents of error source register 4A.
r^1	= Contents of error source register 5A.
s^1	= Contents of error source register map.
t^1	= Contents of mask register 1B.

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u[1] = Contents of mask register 2.

v[1] = Contents of mask register 3B.

w[1] = Contents of mask register 4B.

x[1] = Contents of mask register 5B.

y[1] = Contents of mask register 1A.

z[1] = Contents of mask register 3A.

a[2] = Contents of mask register 4A.

b[2] = Contents of mask register 5A.

c[2] = Mask map.

d[2] = Contents of clock select register.

e[2] = Contents of time-slot register.

4. ACTION TO BE TAKEN

None. Retain this information and transmit to the next level of support. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:ST-MI
```

OP:ST-MI-REG

Software Release: 5E10 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

```
OP STATUS MI a REGS EVENT=b
MI OPERATIONAL REGISTERS
  ccddeeff gghhiijj kkllmmnn ooppqqrr ssttuuvv wwxxyyzz
  a1b1c1d1 e1f1g1h1 j1k10000 00000000 00000000 00000000
```

2. REASON FOR OUTPUT

To output the specified message interface (MI) operational registers because of an automatic request by office network and timing (ONTC) fault recovery.

Note: The variable fields are contents of control registers, error source registers, mask registers, and status registers printed in hexadecimal bytes. Control and mask registers normally have a value of zero. The following rule is used for the bit contents of all error source and status registers:

`0` = No error condition.
`1` = An error condition has occurred.

3. VARIABLE FIELD DEFINITIONS

`a` = MI side.

`b` = Event number.

`c` = Contents of control register 1 of the MI.

`d` = Contents of control register 2 of the MI.

`e` = Contents of control register 3 on the A link of the MI.

`f` = Contents of control register 3 on the B link of the MI.

`g` = Contents of control register 4 on the A link of the MI.

`h` = Contents of control register 4 on the B link of the MI.

`i` = Contents of control register 5 on the A link of the MI.

`j` = Contents of control register 5 on the B link of the MI.

`k` = Contents of control register 6 on the A link of the MI.

`l` = Contents of control register 6 on the B link of the MI.

`m` = Contents of control register 7 of the MI.

`n` = Contents of control register 8 of the MI.

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o = Contents of status register 1 of the MI. Valid value(s):

Note: For values of 00-K1, B0-B7 required bits 0-7.

B2 = Test receive time slot counter match circuit.
B3 = Not used.
B4 = Not used.
B5 = Not used.
B6 = Not used.
B7 = Not used.
B1 = Error detected by administrative module intervention (AMI) gate array.
B0 = Test transmit time slot counter match circuit.

p = Contents of status register 2 on the A link of the MI. Valid value(s):

B0 = Side 0 PC 0.
B1 = Side 1 PC 0.
B2 = Side 0 PC 1.
B3 = Side 1 PC 1.
B4 = Side 0 PC 2.
B5 = Side 1 PC 2.
B6 = Side 0 PC 3.
B7 = Side 1 peripheral controller (PC) 3.

q = Contents of status register 2 on the B link of the MI. Valid value(s):

B0 = Side 0 PC 0.
B1 = Side 1 PC 0.
B2 = Side 0 PC 1.
B3 = Side 1 PC 1.
B4 = Side 0 PC 2.
B5 = Side 1 PC 2.
B6 = Side 0 PC 3.
B7 = Side 1 PC 3.

r = Contents of mask register 1 on the A link of the MI.

s = Contents of mask register 1 on the B link of the MI.

t = Contents of mask register 2 of the MI.

u = Contents of mask register 3 on the A link of the MI.

v = Contents of mask register 3 on the B link of the MI.

w = Contents of mask register 4 on the A link of the MI.

x = Contents of mask register 4 on the B link of the MI.

y = Contents of mask register 5 on the A link of the MI.

z = Contents of mask register 5 on the B link of the MI.

a^1 = Contents of mask register for error source register map of the MI.

b[1] = Contents of error source register map. Valid value(s):

- B0 = Error flagged in error source register 5.
- B1 = Error flagged in error source register 3.
- B2 = Comparison parity error.
- B3 = MI 1 A or MI 2 A unequipped.
- B4 = Error flagged in error source register 1.
- B5 = MI 1 B or MI 2 B unequipped.
- B6 = Error flagged in error source register 5.
- B7 = Error flagged in error source register 2.

c[1] = Contents of error source register 1 on the A link of the MI. Valid value(s):

- B0 = Transmit parity error on MIB 0.
- B1 = Transmit parity error on MIB 1.
- B2 = Transmit parity error on MIB 2.
- B3 = Transmit parity error on MIB 3.
- B4 = Transmit parity error on MIB 4.
- B5 = Transmit parity error on MIB 5.
- B6 = Transmit parity error on MIB 6.
- B7 = Transmit parity error on message interface bus (MIB) 7.

d[1] = Contents of error source register 1 on the B link of the MI. Valid value(s):

- B0 = Transmit parity error on MIB 0.
- B1 = Transmit parity error on MIB 1.
- B2 = Transmit parity error on MIB 2.
- B3 = Transmit parity error on MIB 3.
- B4 = Transmit parity error on MIB 4.
- B5 = Transmit parity error on MIB 5.
- B6 = Transmit parity error on MIB 6.
- B7 = Transmit parity error on MIB 7.

e[1] = Contents of error source register 2 of the MI. Valid value(s):

- B0 = Invalid parity detected across address of MI CDAL word.
- B1 = Invalid parity detected across data field of MI control diagnostic access link (CDAL) word.
- B2 = Clock detect error on time slot switch memory counter.
- B3 = Parity error detected during read access of time slot switching memory.
- B4 = Norm sync pulse sequence error on the B link.
- B5 = Transmit 4MHz clock generation on the B link.
- B6 = Norm sync pulse sequence error on the A link.
- B7 = Transmit clock error on the A link.

f[1] = Contents of error source register 3 on the A link of the MI. Valid value(s):

- B0 = Mismatch error on MIB 0.
- B1 = Mismatch error on MIB 1.
- B2 = Mismatch error on MIB 2.
- B3 = Mismatch error on MIB 3.
- B4 = Mismatch error on MIB 4.
- B5 = Mismatch error on MIB 5.
- B6 = Mismatch error on MIB 6.

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B7 = Mismatch error on MIB 7.

g[1] = Contents of error source register 3 on the B link of the MI. Valid value(s):
B0 = Mismatch error on MIB 0.
B1 = Mismatch error on MIB 1.
B2 = Mismatch error on MIB 2.
B3 = Mismatch error on MIB 3.
B4 = Mismatch error on MIB 4.
B5 = Mismatch error on MIB 5.
B6 = Mismatch error on MIB 6.
B7 = Mismatch error on MIB 7.

h[1] = Contents of error source register 4 on the A link of the MI. Valid value(s):
B0 = Receive parity error on MIB 0.
B1 = Receive parity error on MIB 1.
B2 = Receive parity error on MIB 2.
B3 = Receive parity error on MIB 3.
B4 = Receive parity error on MIB 4.
B5 = Receive parity error on MIB 5.
B6 = Receive parity error on MIB 6.
B7 = Receive parity error on MIB 7.

i[1] = Contents of error source register 4 on the B link of the MI. Valid value(s):
B0 = Receive parity error on MIB 0.
B1 = Receive parity error on MIB 1.
B2 = Receive parity error on MIB 2.
B3 = Receive parity error on MIB 3.
B4 = Receive parity error on MIB 4.
B5 = Receive parity error on MIB 5.
B6 = Receive parity error on MIB 6.
B7 = Receive parity error on MIB 7.

j[1] = Contents of error source register 5 on the A link of the MI. Valid value(s):
B0 = 16-bit time slot from TMS failed parity check.
B1 = Transmit 4MHz clock failure, loss of MIB clocks to MMP.
B2 = Norm sync failure loss of sync to module message processor (MMP).
B3 = 2MHZ clock failure on serial parity generators.
B4 = Clear pulse failure on serial parity generators.
B5 = Data/parity selection pulse failure on serial parity generators.
B6 = Failure in MIB loop-back circuit.
B7 = Not used.

k[1] = Contents of error source register 5 on the B link of the MI. Valid value(s):
B0 = 16-bit time slot from TMS failed parity check.
B1 = Transmit 4MHz clock failure, loss of MIB clocks to MMP.
B2 = Norm sync failure loss of sync to MMPs.
B3 = 2MHZ clock failure on serial parity generators.
B4 = Clear pulse failure on serial parity generators.

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B5	= Data/parity selection pulse failure on serial parity generators.
B6	= Failure in MIB loop-back circuit.
B7	= Not used.

4. ACTION TO BE TAKEN

When this message is output, the office network and timing complex common portion (ONTCCOM) will be taken out of service and diagnosed. The diagnostic should find the problem and report the defective board. If it does not, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. This output data will be useful to others in correcting the problem.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:ST-MI
```

Output Message(s):

```
DGN:ONTC
OP:ST-MI
REPT:TRBL
```

OP:ST-NGSMNET

Software Release: 5E14 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]    OP STATUS NGSMNET NGSM=a STOPPED b

[2]    OP STATUS NGSMNET NGSM=a LAST
       GSM   OPC   CMT PATH   STATE   QUALIFIER
        a     c     MD=a        d       [e]
```

2. REASON FOR OUTPUT

Format 1 indicates the status request cannot be processed by the SM at all.

Format 2 reports the requested status output. Note: The CMT PATH specified can currently indicate only intra-SM message delivery (MD) link transport on an ISLAND GSM.

3. VARIABLE FIELD DEFINITIONS

a = NGSM specified in the input request.

b = Reasons for failure: NO STATE MATCH = There are no GSM/NGSM pairs matching the state restriction specified on the input command or the default INACC state (not valid for the STATE=ALL or GSM input option). NOT AN NGSM = Due to data inconsistencies, the NGSM can identify no provisioned GSM.

c = Originating point code (9-digit OPC associated with the GSM). Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual, for format of ANSI and AT&T/UNITEL formats.

d = State: INACC = CCS message transport within the GSM is unavailable. Further qualification is provided by field "e". ACC = CCS message transport within the GSM is available.

e = The most restrictive reason for inaccessibility, currently only:

QUALIFIER	MEANING
MD LINK OOS	The loss of CCS functionality is due to the intra-SM MD link outage.

4. ACTIONS TO BE TAKEN

For Format 2 outputs, see corrective maintenance procedures in 235-190-120 (Common Channel Signaling Service Features), if inaccessibility is reported.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
OP:ST-NGSMNET
```

Output Appendix(es):

```
APP:POINT CODE
```

Other Manual(s):
235-190-120 *Common Channel Signaling Service Features*

MCC Display Page(s):

1541 (NGSM CMT STATUS)

OP:ST-ONTC-LI

Software Release: 5E10 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

```
OP STATUS ONTC a LI
   LI HDW STATUS FOR SIDE b
   EVENT = c
        COMMAND REGISTER 1              = d
        COMMAND REGISTER 2              = e
        CONTROL REGISTER                = f
        MASK REGISTER 1                 = g
        MASK REGISTER 2                 = h
        ERROR SOURCE REGISTER 1         = i
        ERROR SOURCE REGISTER 2         = j
        PARITY COUNTER 0                = k
        PARITY COUNTER 1                = l
```

2. REASON FOR OUTPUT

To display the status of the link interface (LI) operational registers.

3. VARIABLE FIELD DEFINITIONS

a = MI side.

b = System side.

c = Event number.

d = LI command register 1.

e = LI command register 2.

f = LI control register.

g = LI mask register 1.

h = LI mask register 2.

i = Error source register 1.

j = Error source register 2.

k = Parity counter 0.

l = Parity counter 1.

4. ACTION TO BE TAKEN

If this message was output in response to a manual request, analyze the data to determine the fault in the unit.

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When this message is output automatically by fault recovery, the office network and timing complex common portion (ONTCCOM) will be taken out of service and diagnosed. The diagnostic should find the problem and report the defective board. If it does not, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. This output data will be useful to others in correcting the problem.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:ONTC
OP:ST-LI
```

Output Message(s):

```
DGN:ONTC
REPT:TRBL
```

OP:ST-ONTC-MI

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
OP STATUS ONTC a MI b
    EVENT NUMBER c
    MI HDW STATUS FOR SIDE d
    TIME SLOT SWITCH STATUS FOR SWITCHES e
         0      1      2      3      4      5      6      7      8      9
  0      f      f      f      f      f      f      f      f      f      f
  1      f      f      f      f      f      f      f      f      f      f
  2      f      f      f      f      f      f      f      f      f      f
  3      f      f      f      f      f      f      f      f      f      f
  23     f      f      f      f      f      f      f      f      f      f
  24     f      f      f      f      f      f      f      f      f      f
  25     f      f      f      f      f      f      f      f      f      f
```

2. REASON FOR OUTPUT

To display the status of time slot switches of the message interface (MI).

3. VARIABLE FIELD DEFINITIONS

`a` = Office network timing complex.

`b` = Hardware request. Valid value(s):

`ALL`	= All registers and timeslots.
`REGS`	= Registers.
`TS1H`	= Time slots first half.
`TS2H`	= Time slots second half.

`c` = Event number.

`d` = System side.

`e` = Range of time slots.

`f` = Status information for the time slot switches.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
OP:ST-MI
```

OP:ST-ONTC-MIR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP STATUS ONTC a MI b
  EVENT NUMBER c
  MI HDW STATUS FOR SIDE d
  MI OPERATIONAL REGISTERS
      COMMAND REGISTER 1         =e
      COMMAND REGISTER 2         =f
      COMMAND REGISTER 3         =g
      COMMAND REGISTER 4         =h
      COMMAND REGISTER 5         =i
      COMMAND REGISTER 6         =j
      COMMAND REGISTER 7         =k
      STATUS REGISTER            =l
      ERROR SOURCE REGISTER MAP  =m
      ERROR SOURCE REGISTER 1    =n
      ERROR SOURCE REGISTER 2    =o
      ERROR SOURCE REGISTER 3    =p
      ERROR SOURCE REGISTER 4    =q
      ERROR SOURCE REGISTER 5    =r
      CPI REGISTER               =s
```

2. REASON FOR OUTPUT

To display the contents of the message interface (MI) hardware register in response to the OP:STATUS-MI input message.

3. VARIABLE FIELD DEFINITIONS

`a` = MI side.

`b` = Options. Valid value(s):

`ALL`	= All registers and time slots.
`REGS`	= Registers.
`TS1H`	= Time slots first half.
`TS2H`	= Time slots second half.

`c` = Event number.

`d` = System side.

`e` = MI command register 1.

`f` = MI command register 2.

`g` = MI command register 3.

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h	= MI command register 4.
i	= MI command register 5.
j	= MI command register 6.
k	= MI command register 7.
l	= MI status register.
m	= Error source register map.
n	= Error source register 1.
o	= Error source register 2.
p	= Error source register 3.
q	= Error source register 4.
r	= Error source register 5.
s	= CPI register.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:ST-LI
OP:ST-MI
```

OP:ST-PLNT24

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
OP STATUS PLNT24
  PART    STATUS
  a       b
  .       .
  .       .
  .       .
```

2. REASON FOR OUTPUT

To respond to an OP:ST-PLNT24 input message request to report the print status of the parts of the 24-hour plant report. Variables 'a' and 'b' will be repeated as many times as needed to list all the parts of the 24-hour plant report.

3. VARIABLE FIELD DEFINITIONS

a = Name of report part of the 24-hour plant report. Valid value(s):

- PART1 = Service measurements.
- PART2 = Equipment performance.
- PART3 = Performance measurements.
- PART4 = Remote switching module (RSM) maintenance service and performance.
- PART5 = Trunk error analysis.
- PART6 = Interlata carrier measurements.
- PART7 = Network call denial.
- PART8 = RSM cluster measurements.
- PART9 = Integrated services digital network (ISDN) packet switching office totals.
- PART10 = Operator Services Position System (OSPS) processors counts.
- PART11 = ISDN office totals.
- PART13 = OSPS real-time rating query measures.
- PART14 = OSPS facility administration measures.
- PART15 = OSPS measurements.
- PART16 = OSPS interflow measures.
- PART17 = OSPS line information database (LIDB) measures.
- PART18 = OSPS customer account service (CAS).
- PART19 = Action control point (ACP) for software defined network.
- PART21 = Leased network action point.
- PART22 = OSPS intercept measures.
- PART23 = OSPS customer account services release 3 signaling measures.
- PART24 = Machine-detected inter-office irregularity (MDII) trunk group measurements.
- PART25 = ISDN user part (ISUP) office totals.
- PART26 = DS1 measurements.
- PART27 = Static proportionate bidding (PB) measurements.
- PART28 = OSPS international credit card validation (ICCV) measures by foreign database.
- PART29 = OSPS line applications for consumers (LAC) signaling measures.

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`b` = The status of the part for receive-only printer output. Valid value(s):

`ALW`	= Allowed
`INH`	= Inhibited

4. ACTION TO BE TAKEN

If the status report indicates that a desired part is inhibited, simply follow up with the appropriate ALW:PLNT24 request to have the desired part printed automatically.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PLNT24
INH:PLNT24
OP:PLNT24
OP:ST-PLNT24
```

Output Message(s):

```
OP:PLNT24-ND
OP:PLNT24-PT01A
OP:PLNT24-PT01B
OP:PLNT24-PT02A
OP:PLNT24-PT02B
OP:PLNT24-PT03
OP:PLNT24-PT04
OP:PLNT24-PT05
OP:PLNT24-PT06
OP:PLNT24-PT07
OP:PLNT24-PT08
OP:PLNT24-PT09
OP:PLNT24-PT10
OP:PLNT24-PT10B
OP:PLNT24-PT11
OP:PLNT24-PT13
OP:PLNT24-PT14
OP:PLNT24-PT15
OP:PLNT24-PT16
OP:PLNT24-PT17
OP:PLNT24-PT18
OP:PLNT24-PT19
OP:PLNT24-PT21
OP:PLNT24-PT22
OP:PLNT24-PT23
OP:PLNT24-PT24
OP:PLNT24-PT25
OP:PLNT24-PT26
OP:PLNT24-PT27
```

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```
OP:PLNT24-PT28
OP:PLNT24-PT29
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:ST-PORT-A

Software Release: 5E10 only
Message Class: TLWS
Application: 5
Type: Output

WARNING: INAPPROPRIATE USE OF THIS MESSAGE MAY INTERRUPT OR DEGRADE SERVICE. READ PURPOSE CAREFULLY.

1. FORMAT

```
[1]    ____________________________________________________________________
       OP STATUS [a] [b] [PKT] [d] [e] [PRIGRP=c] f
          [g] h [h] [h] [h] [h]      ii/ii/ii ii:ii:ii
          [j [j] [j] [j] [j]]
                  .
                  .
                  .

       [PREVIOUS STATE = u1 [u1] [u1] [u1] [u1]]

[2]    ____________________________________________________________________
       OP STATUS PRIGRP=z1 f
          D1 TKGMN=r-s DEN=x-y-z-a
            h [h] [h] [h] [h]      ii/ii/ii ii:ii:ii
            [j [j] [j] [j] [j]]
            [PREVIOUS STATE = u1 [u1] [u1] [u1] [u1]]
          D2 TKGMN=r-s DEN=x-y-z-a
            h [h] [h] [h] [h]      ii/ii/ii ii:ii:ii
            [j [j] [j] [j] [j]]
            [PREVIOUS STATE = u1 [u1] [u1] [u1] [u1]]
```

2. REASON FOR OUTPUT

Format 1 is used to report the current status for a line, trunk, data link, or Operator Services Position System (OSPS) port (OSPSPORT) in response to a status query manually initiated with an OP:STATUS input message. A status query for a digital subscriber line (DSL) which has a DSL scope (the entire DSL is implied) results in a single output message containing the status of all the DSL's channels. Both primary status and any pending statuses (0-3) are listed. The time the primary status went into effect is also printed.

Format 2 is only used to print the status of the two primary rate interface (PRI) D-channels when the `prigrp =` option is specified on the input message and the PRI group has D channel backup (DCBU).

WARNING: The removal or restoration of a large facility may creating a situation in which the OP:STATUS output may report individual port status indications that are temporarily inconsistent with the current status of the facility.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`PKT` = Packet-switched logical link (or service) on the D-channel. Used only when packet switching is on

the D-channel of a DSL.

+ = Indicates the line is a party line, a custom multipoint interface DSL, or a standard interface multi-user DSL.

a = Equipment number or identifier. Valid value(s):

```
AP=k-l
AQ=k-l
AQEST=m
AQM=k-l
BST=n-o
DASC=k-l
DN m[-p][+]
EIS=t-u
HOBICR=k-l
HOBICV=k-l
HOBIS=k-l
MISLNK=k-l
OAPF=q
OAPO=n
OPT=n-o
RAS=k-l
RTRS=k-l
TKGMN=r-s
XDB=k-l
XDPF=q
XDPO=n
```

b = Channel identifier (D, B1, or B2) originally specified in the status query request. Used only for DSL lines.

c = The primary rate interface (PRI) group of a D- or B-channel in the form. This is an optional field and is only printed if the specified port is a B- or D-channel of a PRI.

d = Equipment number or identifier. Valid value(s):

DEN=x-y-z-a^1
ILEN=x-r^1-j^1-k^1
LCEN=x-h^2-g^2-d^1
LCKEN=x-h^2-c^1-a^2-b^2
LEN=x-b^1-e^1-f^1-g^1-h^1
NEN=x-v^1-w^1-x^1-y^1-z^1
PSUEN=x-c^2-d^2-e^2-f^2
RAF=x-p^1-q^1
SAS=x-p^1-q^1
SLEN=x-i^1-j^1-k^1
TEN=x-l^1-m^1-n^1-o^1

e = Equipment number or identifier. Valid value(s):

ICB=s^1
ICD=t^1
MLHG=v-w

f = The result of the port status query. Valid value(s):

`CMP UNAVAILABLE` = The input request could not be completed because a needed communication module (CM) was unable to respond.

`COMPLETED` = The query has completed successfully. All statuses on the port are indicated.

`INPUT ERROR` = The input message contained an undetermined error.

`INV PORT` = The trunk, line, data link or OSPSPORT specified in the input query request was invalid.

`INV PRI GROUP` = The PRI group identifier entered could not be translated and was considered invalid.

`MLHG ACCESS DN` = The DN entered is a uniform call distribution (UCD), linear hunt line, or multi-position hunt (MUPH) multi-line hunt group line, and as such cannot be used to obtain the status of the line. An equipment number of MLHG and member number must be specified. To obtain these values use recent change/verify (RC/V) for the DN or refer to office records.

`MP ACCESS DN` = The DN entered is a uniform call distribution multi-line hunt group line for modem pooling and as such cannot be used to obtain the status of the line. An equipment number of MLHG and member number must be specified. To obtain these values, use RC/V for the DN or refer to office records.

`NO CHANNELS ASSIGNED` = The PRI group specified has no channels assigned to it.

`NO DATA BASE MATCH` = Internal database error. The desired tuple could not be found.

`NOT PRIMARY DN OR MLHG` = The DN or MLHG specified is not identified as the primary DN or MLHG and member on any line. It therefore cannot be used to identify which equipment the status is to be obtained for. Refer to recent change and verify (RC/V) or office records to determine the primary DNs or MLHG and member numbers.

`PROCESS TIMEOUT` = An internal timeout occurred during processing. The request has been aborted.

`SM UNAVAILABLE` = The input request could not be completed because a needed switching module (SM) was unable to respond.

`SYSTEM BUSY` = The system was too busy or a system resource failure occurred. Retry later.

`SYSTEM ERROR` = An internal error occurred which prevented further processing. The request has been aborted.

g = Channel identifier; D, B1, or B2. B1 and B2 are used only for DSL lines. D is used for DSL lines and for the primary rate interface D-channel when the PRIGRP= option was specified on the input message.

h = Primary status for the trunk, line, data link, or OSPSPORT. This status is the most restrictive to call processing. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status.

i = Date and time the primary status of the trunk, line, data link, or OSPSPORT was last updated, in the form: month/day/year hour:min:second

j = Pending status for the trunk, line, data link, or OSPSPORT. These statuses are less restrictive than the primary status. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status and the status hierarchy.

k = Data link (group) number.

l = Relative link (member) number.

m = Telephone number.

n = Operator service center number.

o = Relative position number.

p = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

q = Force management center number.

r = Trunk group number.

s = Trunk member number.

t = EIS identifier (ID) on which a call processing data link (CPDL) terminates.

u = External data link (member) number relative to the EIS.

v = Multi-line hunt group number.

w = Hunt group member number.

x = Switching module (SM) number.

y = Digital line and trunk unit (DLTU) number.

z = Digital facility interface (DFI) number.

a^1 = DFI channel number.

b^1 = Line unit number.

c^1 = Line group number.

d^1 = Line card number.

e^1 = Line grid number.

f^1 = Switch board number.

g^1 = Switch number.

h^1 = Level number.

i^1 = Digital carrier line unit number.

j^1 = Remote terminal (RT) number.

k^1 = RT line number.

l^1 = Trunk unit number.

m^1 = Service group number.

n^1 = Channel board number.

o^1 = Circuit number.

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p[1] = RAF or SAS unit number.

q[1] = RAF or SAS announcement channel number.

r[1] = IDCU number.

s[1] = Identifying number of the FGB carrier, which can be up to 4 digits. If present, this variable indicates a direct trunk to a carrier.

t[1] = Identifying number of the FGD carrier, which can be up to 4 digits. If present, this variable indicates a direct trunk to a carrier.

u[1] = Previous status for the trunk, line, data link, or OSPSPORT. Previous status is only printed if the primary status is IS. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status.

v[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

w[1] = Data group number.

x[1] = Synchronous transport signal (STS) number.

y[1] = Virtual tributary 1.5 (VT1.5) number.

z[1] = Digital signal level 0 (DS0).

a[2] = Line board number.

b[2] = Line circuit number.

c[2] = PSU unit number.

d[2] = PSU shelf number.

e[2] = PSU channel group number.

f[2] = PSU channel group member number.

g[2] = Line group controller number.

h[2] = Integrated services line unit (ISLU)/ISLU2 number.

4. ACTION TO BE TAKEN

None. Refer to the message output for pertinent status and information, and take appropriate action based on the information received, if necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:STATUS
```

Output Appendix(es):

```
APP:PORT-STATUS
```

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-900-341 *National ISDN BRI Interface Specification*
250-500-100 *OSPS General Description*
250-518-113 *OSPS Recent Change Procedures*

OP:ST-PORT-B

Software Release: 5E11 - 5E12
Message Class: TLWS
Application: 5
Type: Output

WARNING: INAPPROPRIATE USE OF THIS MESSAGE MAY INTERRUPT OR DEGRADE SERVICE. READ PURPOSE CAREFULLY.

1. FORMAT

```
[1]    ____________________________________________________________________
       OP STATUS [a] [b] [PKT] [d] [e] [PRIGRP=c] f
          [g] h [h] [h] [h] [h]      ii/ii/ii ii:ii:ii
          [j [j] [j] [j] [j]]
                  .
                  .
                  .

       [PREVIOUS STATE = u1 [u1] [u1] [u1] [u1]]

[2]    ____________________________________________________________________
       OP STATUS PRIGRP=z1 f
          D1 TKGMN=r-s DEN=x-y-z-a
            h [h] [h] [h] [h]      ii/ii/ii ii:ii:ii
            [j [j] [j] [j] [j]]
            [PREVIOUS STATE = u1 [u1] [u1] [u1] [u1]]
          D2 TKGMN=r-s DEN=x-y-z-a
            h [h] [h] [h] [h]      ii/ii/ii ii:ii:ii
            [j [j] [j] [j] [j]]
            [PREVIOUS STATE = u1 [u1] [u1] [u1] [u1]]
```

2. REASON FOR OUTPUT

Format 1 is used to report the current status for a line, trunk, data link, or Operator Services Position System (OSPS) port (OSPSPORT) in response to a status query manually initiated with an OP:STATUS input message. A status query for a digital subscriber line (DSL) which has a DSL scope (the entire DSL is implied) results in a single output message containing the status of all the DSL's channels. Both primary status and any pending statuses (0-3) are listed. The time the primary status went into effect is also printed.

Format 2 is only used to print the status of the two primary rate interface (PRI) D-channels when the `PRIGRP =` option is specified on the input message and the PRI group has D channel backup (DCBU).

WARNING: The removal or restoration of a large facility may creating a situation in which the OP:STATUS output may report individual port status indications that are temporarily inconsistent with the current status of the facility.

3. VARIABLE FIELD DEFINITIONS

`PKT` = Packet-switched logical link (or service) on the D-channel. Used only when packet switching is on the D-channel of a DSL.

`+` = Indicates the line is a party line, a custom multipoint interface DSL, or a standard interface

multi-user DSL.

a = Equipment number or identifier. Valid value(s):

AP=k-l	EIS=t-u	OPT=n-o
AQ=k-l	HOBICR=k-l	RAS=k-l
AQEST=m	HOBICV=k-l	RTRS=k-l
AQM=k-l	HOBIS=k-l	TKGMN=r-s
BST=n-o	MISLNK=k-l	XDB=k-l
DASC=k-l	OAPF=q	XDPF=q
DN m[-p][+]	OAPO=n	XDPO=n

b = Channel identifier (D, B1, or B2) originally specified in the status query request. Used only for DSL lines.

c = The primary rate interface (PRI) group of a D- or B-channel in the form. This is an optional field and is only printed if the specified port is a B- or D-channel of a PRI.

d = Equipment number or identifier. Valid value(s):

AIUEN=x-i^1-j^1-k^1	NEN=x-v^1-w^1-x^1-y^1-z^1
DEN=x-y-z-a^1	PSUEN=x-c^2-d^2-e^2-f^2
ILEN=x-r^1-j^1-k^1	RAF=x-p^1-q^1
INEN=x-v^1-j^1-k^1	SAS=x-p^1-q^1
LCEN=x-h^2-g^2-d^1	SLEN=x-i^1-j^1-k^1
LCKEN=x-h^2-c^1-a^2-b^2	TEN=x-l^1-m^1-n^1-o^1
LEN=x-b^1-e^1-f^1-g^1-h^1	

e = Equipment number or identifier. Valid value(s):

ICB=s^1
ICD=t^1
MLHG=v-w

f = The result of the port status query. Valid value(s):

CMP UNAVAILABLE = The input request could not be completed because a needed communication module (CM) was unable to respond.

COMPLETED = The query has completed successfully. All statuses on the port are indicated.

INPUT ERROR = The input message contained an undetermined error.

INV PORT = The trunk, line, data link or OSPSPORT specified in the input query request was invalid.

INV PRI GROUP = The PRI group identifier entered could not be translated and was considered invalid.

MLHG ACCESS DN = The DN entered is a uniform call distribution (UCD), linear hunt line, or multi-position hunt (MUPH) multi-line hunt group line, and as such cannot be used to obtain the status of the line. An equipment number of MLHG and member number must be specified. To obtain these values use recent change/verify (RC/V) for the DN or refer to office records.

MP ACCESS DN = The DN entered is a uniform call distribution multi-line hunt group line for modem pooling and as such cannot be used to obtain the status of the line. An equipment number of MLHG and member number must be specified. To obtain these values, use RC/V for the DN or refer to office records.

NO CHANNELS ASSIGNED = The PRI group specified has no channels assigned to it.

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`NO DATA BASE MATCH` = Internal database error. The desired tuple could not be found.
`NON-UNIQUE NXX DN` = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.
`NOT PRIMARY DN OR MLHG` = The DN or MLHG specified is not identified as the primary DN or MLHG and member on any line. It therefore cannot be used to identify which equipment the status is to be obtained for. Refer to RC/V or office records to determine the primary DNs or MLHG and member numbers.
`PROCESS TIMEOUT` = An internal timeout occurred during processing. The request has been aborted.
`SM UNAVAILABLE` = The input request could not be completed because a needed switching module (SM) was unable to respond.
`SYSTEM BUSY` = The system was too busy or a system resource failure occurred. Retry later.
`SYSTEM ERROR` = An internal error occurred which prevented further processing. The request has been aborted.

`g` = Channel identifier; D, B1, or B2. B1 and B2 are used only for DSL lines. D is used for DSL lines and for the primary rate interface D-channel when the `PRIGRP=` option was specified on the input message.

`h` = Primary status for the trunk, line, data link, or OSPSPORT. This status is the most restrictive to call processing. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status.

`i` = Date and time the primary status of the trunk, line, data link, or OSPSPORT was last updated, in the form: month/day/year hour:min:second

`j` = Pending status for the trunk, line, data link, or OSPSPORT. These statuses are less restrictive than the primary status. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status and the status hierarchy.

`k` = Data link (group) number.

`l` = Relative link (member) number.

`m` = Telephone number.

`n` = Operator service center number.

`o` = Relative position number.

`p` = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

`q` = Force management center number.

`r` = Trunk group number.

`s` = Trunk member number.

`t` = EIS identifier (ID) on which a call processing data link (CPDL) terminates.

`u` = External data link (member) number relative to the EIS.

`v` = Multi-line hunt group number.

w = Hunt group member number.

x = Switching module (SM) number.

y = Digital line and trunk unit (DLTU) number.

z = Digital facility interface (DFI) number.

a[1] = DFI channel number.

b[1] = Line unit number.

c[1] = Line group number.

d[1] = Line card number.

e[1] = Line grid number.

f[1] = Switch board number.

g[1] = Switch number.

h[1] = Level number.

i[1] = Digital carrier line unit number.

j[1] = Remote terminal (RT) number.

k[1] = RT line number.

l[1] = Trunk unit number.

m[1] = Service group number.

n[1] = Channel board number.

o[1] = Circuit number.

p[1] = RAF or SAS unit number.

q[1] = RAF or SAS announcement channel number.

r[1] = IDCU number.

s[1] = Identifying number of the FGB carrier, which can be up to 4 digits. If present, this variable indicates a direct trunk to a carrier.

t[1] = Identifying number of the FGD carrier, which can be up to 4 digits. If present, this variable indicates a direct trunk to a carrier.

u[1] = Previous status for the trunk, line, data link, or OSPSPORT. Previous status is only printed if the primary status is IS. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status.

v[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

w[1] = Data group number.

x[1] = Synchronous transport signal (STS) number.

y[1] = Virtual tributary 1.5 (VT1.5) number.

z[1] = Digital signal level 0 (DS0).

a[2] = Line board number.

b[2] = Line circuit number.

c[2] = PSU unit number.

d[2] = PSU shelf number.

e[2] = PSU channel group number.

f[2] = PSU channel group member number.

g[2] = Line group controller number.

h[2] = Integrated services line unit (ISLU)/ISLU2 number.

i[2] = Access interface unit (AIU) number.

j[2] = AIU pack number.

k[2] = AIU circuit number.

4. ACTIONS TO BE TAKEN

None. Refer to the message output for pertinent status and information, and take appropriate action based on the information received, if necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:STATUS
```

Output Appendix(es):

```
APP:PORT-STATUS
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-900-341 *National ISDN BRI Interface Specification*
250-500-100 *OSPS General Description*
250-518-113 *OSPS Recent Change Procedures*

OP:ST-PORT-C

Software Release: 5E13 and later
Message Class: TLWS
Application: 5
Type: Output

WARNING: INAPPROPRIATE USE OF THIS MESSAGE MAY INTERRUPT OR DEGRADE SERVICE. READ PURPOSE CAREFULLY.

1. FORMAT

```
[1]   ____________________________________________________________________
      OP STATUS [a] [b] [PKT] [d] [e] [PRIGRP=c] f
         [g] h [h] [h] [h] [h]      ii/ii/ii ii:ii:ii
         [j [j] [j] [j] [j]]
                 .
                 .
                 .

      [PREVIOUS STATE = u1 [u1] [u1] [u1] [u1]]

[2]   ____________________________________________________________________
      OP STATUS PRIGRP=z1 f
         D1 TKGMN=r-s DEN=x-y-z-a
           h [h] [h] [h] [h]      ii/ii/ii ii:ii:ii
           [j [j] [j] [j] [j]]
           [PREVIOUS STATE = u1 [u1] [u1] [u1] [u1]]
         D2 TKGMN=r-s DEN=x-y-z-a
           h [h] [h] [h] [h]      ii/ii/ii ii:ii:ii
           [j [j] [j] [j] [j]]
           [PREVIOUS STATE = u1 [u1] [u1] [u1] [u1]]
```

2. REASON FOR OUTPUT

Format 1 is used to report the current status for a line, trunk, data link, or Operator Services Position System (OSPS) port (OSPSPORT) in response to a status query manually initiated with an OP:STATUS input message. A status query for a digital subscriber line (DSL) which has a DSL scope (the entire DSL is implied) results in a single output message containing the status of all the DSL's channels. Both primary status and any pending statuses (0-3) are listed. The time the primary status went into effect is also printed.

Format 2 is only used to print the status of the two primary rate interface (PRI) D-channels when the `PRIGRP =` option is specified on the input message and the PRI group has D channel backup (DCBU).

WARNING: The removal or restoration of a large facility may creating a situation in which the OP:STATUS output may report individual port status indications that are temporarily inconsistent with the current status of the facility.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`PKT` = Packet-switched logical link (or service) on the D-channel. Used only when packet switching is on

the D-channel of a DSL.

+ = Indicates the line is a party line, a custom multipoint interface DSL, or a standard interface multi-user DSL.

a = Equipment number or identifier. Valid value(s):

AP=k-l	EIS=t-u	OPT=n-o
AQ=k-l	HOBICR=k-l	RAS=k-l
AQEST=m	HOBICV=k-l	RTRS=k-l
AQM=k-l	HOBIS=k-l	TKGMN=r-s
BST=n-o	MISLNK=k-l	XDB=k-l
DASC=k-l	OAPF=q	XDPF=q
DN m[-p][+]	OAPO=n	XDPO=n

b = Channel identifier (D, B1, or B2) originally specified in the status query request. Used only for DSL lines.

c = The primary rate interface (PRI) group of a D- or B-channel in the form. This is an optional field and is only printed if the specified port is a B- or D-channel of a PRI.

d = Equipment number or identifier. Valid value(s):

AIUEN=x-i^1-j^1-k^1	NEN=x-v^1-w^1-l^2-x^1-y^1-m^2-z^1
DEN=x-y-z-a^1	PSUEN=x-c^2-d^2-e^2-f^2
ILEN=x-r^1-j^1-k^1	RAF=x-p^1-q^1
INEN=x-v^1-j^1-k^1	SAS=x-p^1-q^1
LCEN=x-h^2-g^2-d^1	SLEN=x-i^1-j^1-k^1
LCKEN=x-h^2-c^1-a^2-b^2	TEN=x-l^1-m^1-n^1-o^1
LEN=x-b^1-e^1-f^1-g^1-h^1	

e = Equipment number or identifier. Valid value(s):

ICB=s^1
ICD=t^1
MLHG=v-w

f = The result of the port status query. Valid value(s):

CMP UNAVAILABLE = The input request could not be completed because a needed communication module (CM) was unable to respond.

COMPLETED = The query has completed successfully. All statuses on the port are indicated.

INPUT ERROR = The input message contained an undetermined error.

INV PORT = The trunk, line, data link or OSPSPORT specified in the input query request was invalid.

INV PRI GROUP = The PRI group identifier entered could not be translated and was considered invalid.

MLHG ACCESS DN = The DN entered is a uniform call distribution (UCD), linear hunt line, or multi-position hunt (MUPH) multi-line hunt group line, and as such cannot be used to obtain the status of the line. An equipment number of MLHG and member number must be specified. To obtain these values use recent change/verify (RC/V) for the DN or refer to office records.

MP ACCESS DN = The DN entered is a uniform call distribution multi-line hunt group line for modem pooling and as such cannot be used to obtain the status of the line. An equipment

number of MLHG and member number must be specified. To obtain these values, use RC/V for the DN or refer to office records.

`NO CHANNELS ASSIGNED` = The PRI group specified has no channels assigned to it.

`NO DATA BASE MATCH` = Internal database error. The desired tuple could not be found.

`NON-UNIQUE NXX DN` = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.

`NOT PRIMARY DN OR MLHG` = The DN or MLHG specified is not identified as the primary DN or MLHG and member on any line. It therefore cannot be used to identify which equipment the status is to be obtained for. Refer to RC/V or office records to determine the primary DNs or MLHG and member numbers.

`PROCESS TIMEOUT` = An internal timeout occurred during processing. The request has been aborted.

`SM UNAVAILABLE` = The input request could not be completed because a needed switching module (SM) was unable to respond.

`SYSTEM BUSY` = The system was too busy or a system resource failure occurred. Retry later.

`SYSTEM ERROR` = An internal error occurred which prevented further processing. The request has been aborted.

`g` = Channel identifier; D, B1, or B2. B1 and B2 are used only for DSL lines. D is used for DSL lines and for the primary rate interface D-channel when the `PRIGRP=` option was specified on the input message.

`h` = Primary status for the trunk, line, data link, or OSPSPORT. This status is the most restrictive to call processing. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status.

`i` = Date and time the primary status of the trunk, line, data link, or OSPSPORT was last updated, in the form: month/day/year hour:min:second

`j` = Pending status for the trunk, line, data link, or OSPSPORT. These statuses are less restrictive than the primary status. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status and the status hierarchy.

`k` = Data link (group) number.

`l` = Relative link (member) number.

`m` = Telephone number.

`n` = Operator service center number.

`o` = Relative position number.

`p` = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

`q` = Force management center number.

`r` = Trunk group number.

`s` = Trunk member number.

`t` = EIS identifier (ID) on which a call processing data link (CPDL) terminates.

u = External data link (member) number relative to the EIS.

v = Multi-line hunt group number.

w = Hunt group member number.

x = Switching module (SM) number.

y = Digital line and trunk unit (DLTU) number.

z = Digital facility interface (DFI) number.

a[1] = DFI channel number.

b[1] = Line unit number.

c[1] = Line group number.

d[1] = Line card number.

e[1] = Line grid number.

f[1] = Switch board number.

g[1] = Switch number.

h[1] = Level number.

i[1] = Digital carrier line unit number.

j[1] = Remote terminal (RT) number.

k[1] = RT line number.

l[1] = Trunk unit number.

m[1] = Service group number.

n[1] = Channel board number.

o[1] = Circuit number.

p[1] = RAF or SAS unit number.

q[1] = RAF or SAS announcement channel number.

r[1] = IDCU number.

s[1] = Identifying number of the FGB carrier, which can be up to 4 digits. If present, this variable indicates a direct trunk to a carrier.

t[1] = Identifying number of the FGD carrier, which can be up to 4 digits. If present, this variable indicates a direct trunk to a carrier.

u[1] = Previous status for the trunk, line, data link, or OSPSPORT. Previous status is only printed if the primary status is IS. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status.

v[1] = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

w[1] = Data group number.

x[1] = Synchronous transport signal (STS) number.

y[1] = Virtual tributary group number.

z[1] = Digital signal level 0 (DS0).

a[2] = Line board number.

b[2] = Line circuit number.

c[2] = PSU unit number.

d[2] = PSU shelf number.

e[2] = PSU channel group number.

f[2] = PSU channel group member number.

g[2] = Line group controller number.

h[2] = Integrated services line unit (ISLU)/ISLU2 number.

i[2] = Access interface unit (AIU) number.

j[2] = AIU pack number.

k[2] = AIU circuit number.

l[2] = SONET termination equipment (STE) number.

m[2] = Virtual tributary member number.

4. ACTIONS TO BE TAKEN

None. Refer to the message output for pertinent status and information, and take appropriate action based on the information received, if necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:STATUS
```

Output Appendix(es):

```
APP:PORT-STATUS
```

Other Manual(s):

235-105-110	*System Maintenance Requirements and Tools*
235-900-341	*National ISDN BRI Interface Specification*
250-500-100	*OSPS General Description*
250-518-113	*OSPS Recent Change Procedures*

OP:ST-PORTS

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP STATUS PORTS {STARTED|IN PROGRESS|COMPLETED}
        a     b

[2]   ____________________________________________________________________
      OP STATUS PORTS STOPPED
        c
```

2. REASON FOR OUTPUT

To respond to an OP:ST-PORTS input message to output the status of each connected port.

3. VARIABLE FIELD DEFINITIONS

a = Port number.

b = Process ID of the process connected to the port (port owner).

c = Text explaining why the command was stopped.

4. ACTION TO BE TAKEN

Format 1 indicates success and requires no action.

For Format 2, refer to the input message manual for the correct format and reenter the command. If the text is not self-explanatory, seek technical assistance.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	282
2	288

Input Message(s):

OP:ST-PORTS

Output Appendix(es):

APP:OMDB-X-REF

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OP:ST-PROC

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP STATUS PROCESS {STARTED|IN PROGRESS|COMPLETED}
        PSTAT PRI KTIME KPTIM STIME TTY PID UTID SIZE SLEEP CMD
          a    b     c     d     e    f   g   h   i    j     k

[2]   ____________________________________________________________________
      OP STATUS PROCESS {STARTED|IN PROGRESS|COMPLETED}
        PSTAT PRI TOUT RTOUT EVENTS CHAN PID ADDR DCT ID DEVICE
          a    l    m     n     o     p   g    q   r   h    s
        PSTAT PRI KTIME KPTIM STIME TTY PID UTID SIZE SLEEP CMD
          a    b    c     d     e    f   g   h     i    j    k

[3]   ____________________________________________________________________
      OP STATUS PROCESS {STARTED|IN PROGRESS|COMPLETED}
        PPID    TTY    PID    CMD
          t      f      g      k

[4]   ____________________________________________________________________
      OP STATUS PROCESS STOPPED
        u
```

2. REASON FOR OUTPUT

To output the status of one or more active processes.

Format 1 prints when `ALL` or `ALLTERMS` was specified in the input message.

Format 2 prints when `ALLKERNS` was specified in the input message.

Format 3 prints when `PATH` was specified in the input message.

Format 4 is printed to indicate that the input message failed.

Note 1: `STARTED`, `IN PROGRESS` and `COMPLETED` messages appear when three or more output segments are printed.

Note 2: `STARTED` and `COMPLETED` messages appear when two output segments are printed.

Note 3: A `COMPLETED` message appears when only one output segment is printed.

3. VARIABLE FIELD DEFINITIONS

`a` = Process status flags (in hexadecimal notation).

`b` = Current priority of the process (in decimal notation).

`c` = Time spent in the kernel in milliseconds (in decimal notation).

`d` = Time spent in kernel processes in milliseconds (in decimal notation).

`e` = Time spent in supervisor processes in milliseconds (in decimal notation).

`f` = Last character of the control channel (terminal) of the process (alphabetical).

`g` = Process number of the process (in decimal notation).

`h` = Utility identification (ID) as given in the specification file for the process.

`i` = Size (in bytes) of the process (in decimal notation).

`j` = Bit pattern on which the process is sleeping (in hexadecimal notation).

`k` = Command line used to invoke the process, including any arguments passed to the process. This is in alphabetical sequence.

`l` = Execution level for the process (in decimal notation).

`m` = Real-time clock value for a single or repetitive timeout (in hexadecimal notation).

`n` = Time interval (in milliseconds) between timeouts for repetitive timeouts (in decimal notation).

`o` = Process event-flag word (in hexadecimal notation).

`p` = Process control channel (in hexadecimal notation).

`q` = Address of the process control block (PCB) segment descriptor entry (in hexadecimal notation).

`r` = Dispatcher control table index for the process (in decimal notation).

`s` = Name of the controller or device.

`t` = Process number of the parent process (in decimal notation).

`u` = Text explaining why the input message was stopped. Valid value(s):

```
bad input line: badline
bad read
can't open /dev/kmem
can't open swap device: swapdev
can't open /dmrt/kprc
internal error
internal table exhausted
no /dev/pmem
out of memory
read error
read error /dev/kmem
read error on /dmrt/kprc
warning: can't stat /dmrt/kprc
```

4. ACTION TO BE TAKEN

If Format 4 or other error message prints, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION

section of the Output Messages manual.

5. ALARMS

None. This alarm is either a manually-requested report or is automatically-generated. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1 - 4	287

Input Message(s):

```
OP:ST-PROC
STOP:EXC-ANY
STOP:EXC-USER
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

OP:ST-PSLNK-A

Software Release: 5E10 only
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
OP STATUS PSLNK SM=a    b
 [PSLNK     LINK STATUS     CH0 STATUS     CH1 STATUS]
 [c-d       e               f[-g]          h[-i]]
 [. .       .               .              .    ]
 [. .       .               .              .    ]
 [. .       .               .              .    ]
```

2. REASON FOR OUTPUT

To report the status of requested packet switch unit (PSU) links.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Completion report. Valid value(s):
- `COMPLETED` = Request has successfully completed.
- `COMPLETED - NO LINKS FOUND` = No links were found which matched the input request.
- `STOPPED - DATA BASE ERROR` = Requested action has not begun due to an internal database error.
- `STOPPED - NO PHAS EQUIPPED IN OFFICE` = No protocol handlers (PHs) for asynchronous transfer mode (ATM) (PHAs) were found in the office.
- `STOPPED - REQUESTED LINK IS NOT EQUIPPED` = Link is not equipped in the ODD.

`c` = Near PSU community address.

`d` = Far PSU community address.

`e` = PSU link status. Valid value(s):
- `ACT` = Active. All equipped channels in link are active or standby.
- `OFFNORM` = Off normal. One channel in a duplex link is out of service.
- `OOS` = Out of service. All equipped channels in link are OOS.

`f` = Channel zero status. Valid value(s):
- `ACT` = Active.
- `OOS` = Out of service.
- `STBY` = Standby.
- `UNEQ` = Unequipped.

`g` = Channel zero qualifier. Valid value(s):
- `AIS` = Alarm indication signal.
- `FE` = Family of equipment.
- `LCL` = Local.

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`RMT` = Remote.

`h` = Channel one status. Refer to channel zero.

`i` = Channel one qualifier. Refer to channel zero.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:ST-PSLNK
```

MCC Display Page(s):

1187 (PSU LINKS STATUS)

OP:ST-PSLNK-B

Software Release: 5E11 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP STATUS PSLNK [PSU=a-0]   [b] [c]
       [PSU     ATM   LINK     CHANNEL 0      CHANNEL 1]
       [LINK    ALM  STATUS   STATUS   APS   STATUS   APS]
       [-------------------------------------------------]
       [d-e     f    g        h[-i]    j     l[-m]    n]
       [. .     .    .        .        .     .        .]
       [. .     .    .        .        .     .        .]
       [. .     .    .        .        .     .        .]

[2]   ____________________________________________________________________
      OP STATUS PSLNK PSU=a-0   [b] [c]
       [PSU     ATM   LINK     CHANNEL 0      CHANNEL 1]
       [LINK    ALM  STATUS   STATUS   APS   STATUS   APS]
       [-------------------------------------------------]
       [d-e     f    g        h[-i]    j     l[-m]    n]
       [CHAN 0 ALARM: k          RCV K2K1: p [r]]
       [CHAN 1 ALARM: o          XMT K2K1: q]
```

2. REASON FOR OUTPUT

To report the various status of the requested packet switch unit (PSU) link(s) (PSLNKs).

Format 1 reports when more than one PSU link status report are requested (for instance, without specifying the far end PSU community address in the input message). Format 2 reports when exactly one PSU link status is requested.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Termination status. Valid value(s):
- `ABORTED` = Requested action has aborted.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action has not been started.
- `STOPPED` = Requested action has stopped.

`c` = Additional information qualifying the termination status. Refer to the APP:PSU-RESP appendix in the Appendixes section of this Output Messages manual.

`d` = Near PSU community address of the PSU link(s).

`e` = Far PSU community address of the PSU link(s).

`f` = ATM alarm indicator. Valid value(s):

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NO = No ATM alarm exists.
YES = ATM alarm exists.

g = PSU link status. Valid value(s):
ACT = Active. All equipped channels in link are active or standby.
OFFNORM = Off normal. One channel in a duplex link is out of service.
OOS = Out of service. Both channels in a duplex link are out of service.

h = Channel 0 status. Valid value(s):
ACT = Active.
ACTF = Active forced due to mate channel becoming unavailable.
STBY = Standby.
OOS = Out of service.
OOSF = Out of service family due to parent circuit is OOS.
UNEQ = Unequipped.
UNAV = Unavailable due to local or remote forced switch (FS) or lock out of protection (LP).

i = Channel 0 status qualifier. Valid value(s):
AIS = Alarm indication signal indicates that synchronous optical network (SONET) or synchronous digital hierarchy (SDH) layer AIS for line (AIS-L) or AIS for path (AIS-P) signal is received. This indicates that both the receive and transmit optical fibers are good but either the far end line terminating equipment (LTE) or the far end path terminating equipment (PTE) is not in normal operational mode.
LCL = Locally detected SONET/SDH layer (line) failure in receive optical fiber.
RMT = Remote failure, also know as remote defect indication (RDI) or far end receive failure (FERF), indicates that SONET/SDH layer RDI for line (RDI-L) or RDI for path (RDI-P) signal is received. This indicates that the receive fiber of the far end LTE or PTE is experiencing LCL condition or is receiving SONET/SDH AIS signal.

j = Automatic protection switch state of channel 0. Valid value(s):
FS = Forced switch.
LP = Lock out of protection.
MS = Manual switch.
NR = No request.
RMT = Remote forced switch (FS) or remote lock out of protection (LP).
SD = Signal degrade.
SF = Signal failure.
TBL = Automatic protection switch (APS) trouble. Reasons for trouble are:
Babbling. = This occurs when the receive K1 byte (bits 0-7 of variable 'p') are inconsistent for 12 successive frames, starting with the last frame containing previously consistent code, where no 3 consecutive frames contain identical K1 byte.
Mismatches. = There are 2 types of mismatches: channel mismatch and mode mismatch.
- Channel mismatch occurs when the channel number in the receive K2 byte (bits 12-15 of variable 'q') is inconsistent with the channel number in the transmit K1 byte (bits 0-3 of variable

'p') for some internally defined finite time.

- Mode mismatch occurs when the mode of operation field in the receive K2 byte (bits 8-10 of variable 'p') is inconsistent with the mode of operation field in the transmit K2 byte (bits 8-10 of variable 'q') for some internally defined finite time.

Invalid code. = This occurs when one or more fields in the receive K1 and K2 bytes (refer to variable 'p') contain undefined values or unexpected values.

Far end signal fail on channel 0. = This occurs when the far end of the PSU link experiences signal fail in the receive direction (refer to variable 'q'.)

Note: This field is blank if this channel is unequipped, unprovisioned, or out of service family (OOSF).

k = A 8-digit hexadecimal number represents a 32-bit bitmap SONET alarm indicator of channel 0.

Note: If the PHA associated with the channel number is out-of-service (OOS), the hexadecimal value will be zero.

Bit field definitions from left to right are as follows:

Bit 31	= Loss of cell delineation.
Bit 30	= Loss of Signal.
Bit 29	= Loss of frame.
Bit 28	= Loss of pointer.
Bit 27	= Receive input side loss of clock.
Bit 26	= Signal failure.
Bit 25	= Signal degrade.
Bit 24	= Path alarm indication signal
Bit 23	= Path remote defect indication.
Bit 22	= Line alarm indication signal.
Bit 21	= Line remote defect indication.
Bit 20-0	= Not used.

The active value for each bit is 1.

l = Channel 1 status.

ACT	= Active.
ACTF	= Active forced due to mate channel becoming unavailable.
STBY	= Standby.
OOS	= Out of service.
OOSF	= Out of service family due to parent circuit is OOS.
UNEQ	= Unequipped.
UNAV	= Unavailable due to local or remote forced switch (FS).

m = Channel 1 status qualifier. Refer to variable 'i'.

n = Automatic protection switch state of channel 1. Valid value(s):

DNR = Do not revert (only if channel is standby.)

FS = Forced switch.
MS = Manual switch.
NR = No request (only if channel is active.)
RMT = Remote forced switch (FS).
SD = Signal degrade.
SF = Signal failure.

Note: The APS state of this channel (the working channel) is maintained by channel 0 (the protection channel.) Therefore, this field is blank if channel 0 status (refer to variable 'h') is unequipped or OOSF, or channel 0's APS state (refer to variable 'j') is TBL. This field is also blank if this working channel is OOSF.

SD and SF on channel 1 is reported to and is maintained by channel 0. Therefore, SD or SF, if exists, is not shown if the PSLNK is simplex (channel 0 is unequipped). The SD and SF conditions are available in bit 8 and bit 9 of variable 'o', respectively.

o = A 8-digit hexadecimal number represents a 32-bit bitmap SONET alarm indicator of channel 1. Refer to variable 'k'.

p = Received APS's K2K1 bytes represented in hexadecimal number.

Note: If the PHA associated with the channel number is OOS, the hexadecimal value for the APS fields will always be zero (0000).

When the word BABBLINGis displayed to the right of this number, the K1 byte is not meaningful (refer to variable 'j' for definition of K1 babbling.)

Bit definitions from left to right are as follows:

Bits 15-12 = Channel number of the channel on protection (of K2 byte).
Bit 11 = Architecture (of K2 byte). Valid value(s):
- 0 = 1+1. One protection channel for one working channel.
- 1 = 1:n. One protection channel for n number of working channels.

Bits 10-8 = Mode of operation (of K2 byte). Valid value(s):
- 7 = Line alarm indication signal.
- 6 = Line remote defect indication.
- 5 = Bidirectional.
- 4 = Unidirectional.
- 3-0 = Not used.

Bits 7-4 = Type of request (of K1 byte). Valid value(s):
- f = Lock out of protection.
- e = Forced switch.
- d = High priority signal failure.
- c = Low priority signal failure.
- b = High priority signal degrade.
- a = Low priority signal degrade.
- 9 = Not used.
- 8 = Manual switch.
- 7 = Not used.
- 6 = Wait to restore.
- 5 = Not used.
- 4 = Exercise.

	3	= Not used.
	2	= Reverse request.
	1	= Do not revert.
	0	= No request.
	Bits 3-0	= Channel number for which request is being made (of K1 byte).

`q` = Transmit APS's K2K1 byte represented in hexadecimal number. Refer to variable '`p`' for bit definition.

Note: If the PHA associated with the channel number is OOS, the APS field will always be blank.

`r` = Receive K1 babbling indication. Refer to variable '`j`' for definition of K1 babbling.

Note: If the PHA associated with the channel number is OOS, the APS field will always be blank.

4. ACTION TO BE TAKEN

If the status of a channel is made unavailable (UNAV) using the SET:PSLNK input message for maintenance purpose, it should be cleared using the CLR:PSLNK input message after maintenance action is completed. Leaving a channel unavailable can adversely impact service if failure, such as signal degrade (SD) or signal fail (SF), occurs on the other channel.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:PSLNK
OP:ATMALM
OP:ST-PSLNK
SET:PSLNK
```

Output Appendix(es):

```
APP:PSU-RESP
```

MCC Display Page(s):

1187 (PSU LINKS STATUS)

OP:ST-SUM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      OP STATUS SUM COMPLETED
        a    b     c

[2]   ____________________________________________________________
      OP STATUS SUM STOPPED
        d
```

2. REASON FOR OUTPUT

To output the result of executing the OP:ST-SUM input message to calculate the checksum and to report the number of blocks in a file.

Format 1 indicates successful execution of the input message.

Format 2 indicates that the input message failed.

3. VARIABLE FIELD DEFINITIONS

a = 16-bit checksum of a file (in decimal notation).

b = Number of blocks in a file (in decimal notation).

c = Pathname of the file specified in the input message.

d = Text explaining why the input message was stopped.

4. ACTION TO BE TAKEN

Format 1 indicates success and requires no action.

For Format 2, refer to the input message manual for the correct format and reenter the input message. The existence of the file can be confirmed using the OP:ST-LISTDIR input message. If the text is not self-explanatory, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	282

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2	288

Input Message(s):

```
OP:ST-LISTDIR
OP:ST-SUM
```

Output Message(s):

```
OP:ST-DISKUSE
OP:ST-LISTDIR
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

OP:ST-TRFC30

Software Release: 5E10 and later
Message Class: TRFM
Application: 5
Type: Output

1. FORMAT

```
OP STATUS TRFC30
                        ROP                  TRFCH
  SECT   NAME     SIZE      STATUS      SIZE      STATUS
    a      b       c          d          e          f
    .      .       .          .          .          .
    .      .       .          .          .          .
    .      .       .          .          .          .
```

2. REASON FOR OUTPUT

To respond to an OP:ST-TRFC30 input message request to report the print status of the sections of the 30-minute traffic report.

Variables '`a`' through '`f`' will be repeated up to 30 times in each message. As many messages will be printed as are needed to list all the sections of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

`a` = Number of a section of the 30-minute traffic report. Refer to the APP:TRFC-SECTION appendix in the Appendixes section of the Output Messages manual for section numbers.

`b` = Name of a section of the 30-minute traffic report. Refer to the APP:TRFC-SECTION appendix in the Appendixes section of the Output Messages manual for section names.

`c` = The size (in message units) of the section when the output is directed to the receive-only printer (ROP).

`d` = The status (`ALW` or `INH`) of the section for receive-only printer output.

`e` = The size (in message units) of the section when the output is directed to the traffic channel (TRFCH).

`f` = The status (`ALW` or `INH`) of the section for traffic channel output.

4. ACTION TO BE TAKEN

If the status indicates that a desired section is inhibited, and there is room left for it in the allocation (as given by OP:MEASTAT-PRNT), allow it (ALW:TRFC30). If there is not room for it, choose a report (or section of the TRFC30) that is not desired and inhibit it (INH:TRFC30). Follow up with the appropriate ALW:TRFC30 request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
```

Output Message(s):

```
OP:MEASTAT-PRNT
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:STAT

Software Release: 5E10 and later
Message Class: ACSR
Application: 5
Type: Output

1. FORMAT

[1]
```
OP STAT
  ACSR ENQ a
  ACSR DEQ a
  ACSR QUEUE b
```

[2]
```
OP STAT
  CORC c
```

[3]
```
OP STAT
  ACSR ENQ a
  ACSR DEQ a
  ACSR QUEUE b
  CORC c
```

2. REASON FOR OUTPUT

To print the status of automatic customer station rearrangement (ACSR) enqueuing and dequeuing, to report if the ACSR queue is full or not, and/or to report if customer originated recent change (CORC) is allowed or inhibited.

3. VARIABLE FIELD DEFINITIONS

`a` = ACSR dequeuing/enqueuing status. Valid value(s):
`MANUALLY ALLOWED` = Operation is allowed by manual action.
`MANUALLY INHIBITED` = Operation is inhibited by manual action.
`RECOVERY` = Recovery status.
`SYSTEM ALLOWED` = Operation is allowed by system.
`SYSTEM INHIBITED` = Operation is inhibited by system.

`b` = ACSR queue status. Valid value(s):
`IS FULL` = ACSR queue is full.
`IS NOT FULL` = ACSR queue is not full.

`c` = CORC status. Valid value(s):
`ALLOWED` = CORC is allowed on the switch.
`INHIBITED` = CORC is not allowed on the switch.

4. ACTION TO BE TAKEN

If ACSR is system inhibited, one or more of the following conditions are true:

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- Recent change is inhibited.
- Recent change is in backout for a SM.
- Recent change log files are full and recent change logging is not inhibited.

If ACSR dequeuing is manually inhibited and dequeuing is desired, allow ACSR dequeuing with the input message ALW:ACSR. (This does not override a system inhibit)

If ACSR enqueuing is manually inhibited and enqueuing is desired, allow ACSR enqueuing with the input message ALW:ACSR. (This does not override a system inhibit)

If the ACSR queue is full, verify that ACSR dequeuing is allowed. If dequeuing is manually inhibited, then allow ACSR dequeuing with the ALW:ACSR input message.

If CORC is inhibited, use MCC page 110 to allow CORC.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:ACSR
INH:ACSR
OP:STAT
```

Other Manual(s):
235-190-105 *ISDN Features and Applications*

MCC Display Page(s):

110 (SYSTEM INHIBITS)

OP:STATUS-PS-A

Software Release: 5E10 only
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
OP STATUS PSUTSCOUNT SM=a SMTYPE=b
             TIMESLOTS ALLOCATED COUNT
             TSIU  SHLF0  SHLF1  SHLF2  SHLF3  SHLF4  ICL  UMB
  SERVICE
  ISM         c      d      e      f      g      h     i    j
  IP          k      l      m      n      o      p
  XAT         q      r      s      t      u      v
  PRI         w      x      y      z      a1     b1
  X.75        c1     d1     e1     f1     g1     h1
  X.75'       i1     j1     k1     l1     m1     n1
  RISLU       o1     p1     q1     r1     s1     t1
  RDTA               u1     v1     w1     x1     y1
  PP TRK      z1     a2     b2     c2     d2     e2
  SH TRK             f2     g2     h2     i2     j2
  TOTAL       k2     l2     m2     n2     o2     p2    q2   r2
```

2. REASON FOR OUTPUT

This message is in response to an OP:STATUS-PS (packet switch unit (PSU) timeslot usage) input message.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = SM type. Valid value(s):

HSM	= Host switching module.
LSM	= Local switching module.
ORM	= Optical remote module.
RSM	= Remote switching module.
TRM	= Two-mile remote module.

c = Number of network side timeslot interchange unit (TSIU) timeslots allocated for inter-switching module (ISM) nailup usage. For an LSM, HSM, ORM and TRM this corresponds to the time multiplexed switch (TMS) timeslot usage. RSM usage corresponds to the summation of intra-cluster link (ICL) timeslots for multi-module RSMs (MMRSM) within the same cluster and T1 umbilical (UMB) to HSM timeslots allocated for ISM nailups.

d = Number of PSU shelf 0 peripheral interface data bus (PIDB) timeslots allocated for ISM nailup usage.

e = Number of PSU shelf 1 PIDB timeslots allocated for ISM nailup usage.

f = Number of PSU shelf 2 PIDB timeslots allocated for ISM nailup usage.

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g = Number of PSU shelf 3 PIDB timeslots allocated for ISM nailup usage.

h = Number of PSU shelf 4 PIDB timeslots allocated for ISM nailup usage.

i = Number of ICL timeslots in a MMRSM cluster allocated for ISM nailup usage. It is recommended that a maximum of 25% of the total number of ICL timeslots be allocated for usage.

j = Number of UMB timeslots allocated for ISM nailup usage. It is recommended that a maximum of 25% of the total number of TSIU timeslots be allocated for usage.

k = Number of network side TSIU timeslots allocated for internal protocol (IP) trunk nailup usage.

l = Number of PSU shelf 0 PIDB timeslots allocated for IP trunk nailup usage.

m = Number of PSU shelf 1 PIDB timeslots allocated for IP trunk nailup usage.

n = Number of PSU shelf 2 PIDB timeslots allocated for IP trunk nailup usage.

o = Number of PSU shelf 3 PIDB timeslots allocated for IP trunk nailup usage.

p = Number of PSU shelf 4 PIDB timeslots allocated for IP trunk nailup usage.

q = Number of network side TSIU timeslots allocated for X.25 packet switching on a T1 facility (XAT) nailup usage.

r = Number of PSU shelf 0 PIDB timeslots allocated for XAT nailup usage.

s = Number of PSU shelf 1 PIDB timeslots allocated for XAT nailup usage.

t = Number of PSU shelf 2 PIDB timeslots allocated for XAT nailup usage.

u = Number of PSU shelf 3 PIDB timeslots allocated for XAT nailup usage.

v = Number of PSU shelf 4 PIDB timeslots allocated for XAT nailup usage.

w = Number of network side TSIU timeslots allocated for primary rate interface (PRI) nailup usage.

x = Number of PSU shelf 0 PIDB timeslots allocated for PRI nailup usage.

y = Number of PSU shelf 1 PIDB timeslots allocated for PRI nailup usage.

z = Number of PSU shelf 2 PIDB timeslots allocated for PRI nailup usage.

a^1 = Number of PSU shelf 3 PIDB timeslots allocated for PRI nailup usage.

b^1 = Number of PSU shelf 4 PIDB timeslots allocated for PRI nailup usage.

c^1 = Number of network side TSIU timeslots allocated for X.75 trunk nailup usage.

d^1 = Number of PSU shelf 0 PIDB timeslots allocated for X.75 trunk nailup usage.

e^1 = Number of PSU shelf 1 PIDB timeslots allocated for X.75 trunk nailup usage.

f^1 = Number of PSU shelf 2 PIDB timeslots allocated for X.75 trunk nailup usage.

g^1 = Number of PSU shelf 3 PIDB timeslots allocated for X.75 trunk nailup usage.

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h^1 = Number of PSU shelf 4 PIDB timeslots allocated for X.75 trunk nailup usage.

i^1 = Number of network side TSIU timeslots allocated for X.75' trunk nailup usage.

j^1 = Number of PSU shelf 0 PIDB timeslots allocated for X.75' trunk nailup usage.

k^1 = Number of PSU shelf 1 PIDB timeslots allocated for X.75' trunk nailup usage.

l^1 = Number of PSU shelf 2 PIDB timeslots allocated for X.75' trunk nailup usage.

m^1 = Number of PSU shelf 3 PIDB timeslots allocated for X.75' trunk nailup usage.

n^1 = Number of PSU shelf 4 PIDB timeslots allocated for X.75' trunk nailup usage.

o^1 = Number of network side TSIU timeslots allocated for remote integrated services line unit (RISLU) nailup usage.

p^1 = Number of PSU shelf 0 PIDB timeslots allocated for RISLU nailup usage.

q^1 = Number of PSU shelf 1 PIDB timeslots allocated for RISLU nailup usage.

r^1 = Number of PSU shelf 2 PIDB timeslots allocated for RISLU nailup usage.

s^1 = Number of PSU shelf 3 PIDB timeslots allocated for RISLU nailup usage.

t^1 = Number of PSU shelf 4 PIDB timeslots allocated for RISLU nailup usage.

u^1 = Number of PSU shelf 0 PIDB timeslots reserved for the remote digital test access (RDTA) feature.

v^1 = Number of PSU shelf 1 PIDB timeslots reserved for the RDTA feature.

w^1 = Number of PSU shelf 2 PIDB timeslots reserved for the RDTA feature.

x^1 = Number of PSU shelf 3 PIDB timeslots reserved for the RDTA feature.

y^1 = Number of PSU shelf 4 PIDB timeslots reserved for the RDTA feature.

z^1 = Number of network side TSIU timeslots allocated for packet pipe PP TRK nailup usage. For an intra-SM packet pipe on an SM, this corresponds to the TMS timeslot usage for the packet pipe members and the packet pipe port. For an intra-SM packet pipe on an SM-2000, no network side TSIU timeslots are used. For an inter-SM packet pipe, the network side TSIU count is the number of network side TSIU timeslots used in the half of the packet pipe that resides on this SM.

a^2 = Number of PSU shelf 0 PIDB timeslots allocated for PP TRK nailup usage.

b^2 = Number of PSU shelf 1 PIDB timeslots allocated for PP TRK nailup usage.

c^2 = Number of PSU shelf 2 PIDB timeslots allocated for PP TRK nailup usage.

d^2 = Number of PSU shelf 3 PIDB timeslots allocated for PP TRK nailup usage.

e^2 = Number of PSU shelf 4 PIDB timeslots allocated for PP TRK nailup usage.

f^2 = Number of PSU shelf 0 PIDB timeslots allocated for speech handler trunk (SH TRK) nailup usage.

g^2 = Number of PSU shelf 1 PIDB timeslots allocated for SH TRK nailup usage.

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h[2] = Number of PSU shelf 2 PIDB timeslots allocated for SH TRK nailup usage.

i[2] = Number of PSU shelf 3 PIDB timeslots allocated for SH TRK nailup usage.

j[2] = Number of PSU shelf 4 PIDB timeslots allocated for SH TRK nailup usage.

k[2] = Total number of network side TSIU timeslots allocated for ISM, IP trunk, XAT, PRI, X.75, X.75' trunk, RISLU, and PP TRK nailup usage. Use this guideline: on an SM a maximum 190 TSIU timeslots should be allocated for ISDN nailup usage. For an SM-2000 and cellular applications, no guide lines exist.

l[2] = Total number of PSU shelf 0 PIDB timeslots allocated/reserved for ISM, IP trunk, XAT, PRI, X.75, X.75' trunk, RISLU, RDTA, PP TRK, and SH TRK nailup usage.

m[2] = Total number of PSU shelf 1 PIDB timeslots allocated/reserved for ISM, IP trunk, XAT, PRI, X.75, X.75' trunk, RISLU, RDTA, PP TRK and SH TRK nailup usage.

n[2] = Total number of PSU shelf 2 PIDB timeslots allocated/reserved for ISM, IP trunk, XAT, PRI, X.75, X.75' trunk, RISLU, RDTA, PP TRK, and SH TRK nailup usage.

o[2] = Total number of PSU shelf 3 PIDB timeslots allocated/reserved for ISM, IP trunk, XAT, PRI, X.75, X.75' trunk, RISLU, RDTA, PP TRK, and SH TRK nailup usage.

p[2] = Total number of PSU shelf 4 PIDB timeslots allocated/reserved for ISM, IP trunk, XAT, PRI, X.75, X.75' trunk, RISLU, RDTA, PP TRK, and SH TRK nailup usage.

q[2] = Total number of RSM ICL timeslots in a MMRSM cluster allocated for ISM nailup usage. It is recommended that a maximum of 25% of the total number of ICL timeslots be allocated for usage.

r[2] = Total number of UMB timeslots allocated for ISM nailup usage. It is recommended that a maximum of 25% of the total number of TSIU timeslots be allocated for usage.

4. ACTION TO BE TAKEN

If the request completed successfully, no action is necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:STATUS-PS
```

Other Manual(s):
235-080-100 *TG-5 Translation Guide*
235-600-500 *Asserts Manual*

OP:STATUS-PS-B

Software Release: 5E11 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
OP STATUS PSUTSCOUNT SM=a SMTYPE=b
             TIMESLOTS ALLOCATED COUNT
             TSIU  SHLF0  SHLF1  SHLF2  SHLF3  SHLF4  ICL  UMB
  SERVICE
  ISM         c      d      e      f      g      h     i    j
  IP          k      l      m      n      o      p
  XAT         q      r      s      t      u      v
  PRI         w      x      y      z      a1     b1
  X.75        c1     d1     e1     f1     g1     h1
  X.75'       i1     j1     k1     l1     m1     n1
  BRI         o1     p1     q1     r1     s1     t1
  RDTA               u1     v1     w1     x1     y1
  PP TRK      z1     a2     b2     c2     d2     e2
  SH TRK             f2     g2     h2     i2     j2
  CCS         k2     l2     m2     n2     o2     p2
  EOC/TMC            f(y2     g(z2     a3     b3     c3
  ODB                d(y2     e(z2     f3     g3     h3
  TOTAL       q2     r2     s2     t2     u2     v2   w2   x2
```

2. REASON FOR OUTPUT

This message is in response to an OP:STATUS-PS (packet switch unit (PSU) timeslot usage) input message.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = SM type. Valid value(s):

HSM	= Host switching module.
LSM	= Local switching module.
ORM	= Optical remote module.
RSM	= Remote switching module.
TRM	= Two-mile remote module.

c = Number of network side timeslot interchange unit (TSIU) timeslots allocated for inter-switching module (ISM) nailup usage. For an LSM, HSM, ORM and TRM this corresponds to the time multiplexed switch (TMS) timeslot usage. RSM usage corresponds to the summation of intra-cluster link (ICL) timeslots for multi-module RSMs (MMRSM) within the same cluster and T1 umbilical (UMB) to HSM timeslots allocated for ISM nailups.

d = Number of PSU shelf 0 peripheral interface data bus (PIDB) timeslots allocated for ISM nailup usage.

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e = Number of PSU shelf 1 PIDB timeslots allocated for ISM nailup usage.

f = Number of PSU shelf 2 PIDB timeslots allocated for ISM nailup usage.

g = Number of PSU shelf 3 PIDB timeslots allocated for ISM nailup usage.

h = Number of PSU shelf 4 PIDB timeslots allocated for ISM nailup usage.

i = Number of ICL timeslots in a MMRSM cluster allocated for ISM nailup usage. It is recommended that a maximum of 25% of the total number of ICL timeslots be allocated for usage.

j = Number of UMB timeslots allocated for ISM nailup usage. It is recommended that a maximum of 25% of the total number of TSIU timeslots be allocated for usage.

k = Number of network side TSIU timeslots allocated for internal protocol (IP) trunk nailup usage.

l = Number of PSU shelf 0 PIDB timeslots allocated for IP trunk nailup usage.

m = Number of PSU shelf 1 PIDB timeslots allocated for IP trunk nailup usage.

n = Number of PSU shelf 2 PIDB timeslots allocated for IP trunk nailup usage.

o = Number of PSU shelf 3 PIDB timeslots allocated for IP trunk nailup usage.

p = Number of PSU shelf 4 PIDB timeslots allocated for IP trunk nailup usage.

q = Number of network side TSIU timeslots allocated for X.25 packet switching on a T1 facility (XAT) nailup usage.

r = Number of PSU shelf 0 PIDB timeslots allocated for XAT nailup usage.

s = Number of PSU shelf 1 PIDB timeslots allocated for XAT nailup usage.

t = Number of PSU shelf 2 PIDB timeslots allocated for XAT nailup usage.

u = Number of PSU shelf 3 PIDB timeslots allocated for XAT nailup usage.

v = Number of PSU shelf 4 PIDB timeslots allocated for XAT nailup usage.

w = Number of network side TSIU timeslots allocated for primary rate interface (PRI) nailup usage.

x = Number of PSU shelf 0 PIDB timeslots allocated for PRI nailup usage.

y = Number of PSU shelf 1 PIDB timeslots allocated for PRI nailup usage.

z = Number of PSU shelf 2 PIDB timeslots allocated for PRI nailup usage.

a^1 = Number of PSU shelf 3 PIDB timeslots allocated for PRI nailup usage.

b^1 = Number of PSU shelf 4 PIDB timeslots allocated for PRI nailup usage.

c^1 = Number of network side TSIU timeslots allocated for X.75 trunk nailup usage.

d^1 = Number of PSU shelf 0 PIDB timeslots allocated for X.75 trunk nailup usage.

e^1 = Number of PSU shelf 1 PIDB timeslots allocated for X.75 trunk nailup usage.

f^1 = Number of PSU shelf 2 PIDB timeslots allocated for X.75 trunk nailup usage.

g^1 = Number of PSU shelf 3 PIDB timeslots allocated for X.75 trunk nailup usage.

h^1 = Number of PSU shelf 4 PIDB timeslots allocated for X.75 trunk nailup usage.

i^1 = Number of network side TSIU timeslots allocated for X.75' trunk nailup usage.

j^1 = Number of PSU shelf 0 PIDB timeslots allocated for X.75' trunk nailup usage.

k^1 = Number of PSU shelf 1 PIDB timeslots allocated for X.75' trunk nailup usage.

l^1 = Number of PSU shelf 2 PIDB timeslots allocated for X.75' trunk nailup usage.

m^1 = Number of PSU shelf 3 PIDB timeslots allocated for X.75' trunk nailup usage.

n^1 = Number of PSU shelf 4 PIDB timeslots allocated for X.75' trunk nailup usage.

o^1 = Number of network side TSIU timeslots allocated for Basic Rate Interface (BRI) semi-permanent D-channel and B-channel usage.

p^1 = Number of PSU shelf 0 timeslots allocated for BRI semi-permanent D-channel and B-channel usage.

q^1 = Number of PSU shelf 1 timeslots allocated for BRI semi-permanent D-channel and B-channel usage.

r^1 = Number of PSU shelf 2 timeslots allocated for BRI semi-permanent D-channel and B-channel usage.

s^1 = Number of PSU shelf 3 timeslots allocated for BRI semi-permanent D-channel and B-channel usage.

t^1 = Number of PSU shelf 4 timeslots allocated for BRI semi-permanent D-channel and B-channel usage.

u^1 = Number of PSU shelf 0 PIDB timeslots reserved for the remote digital test access (RDTA) feature.

v^1 = Number of PSU shelf 1 PIDB timeslots reserved for the RDTA feature.

w^1 = Number of PSU shelf 2 PIDB timeslots reserved for the RDTA feature.

x^1 = Number of PSU shelf 3 PIDB timeslots reserved for the RDTA feature.

y^1 = Number of PSU shelf 4 PIDB timeslots reserved for the RDTA feature.

z^1 = Number of network side TSIU timeslots allocated for packet pipe (PP TRK) nailup usage. For an intra-SM packet pipe on an SM, this corresponds to the TMS timeslot usage for the packet pipe members and the packet pipe port. For an intra-SM packet pipe on an SM-2000, no network side TSIU timeslots are used. For an inter-SM packet pipe, the network side TSIU count is the number of network side TSIU timeslots used in the half of the packet pipe that resides on this SM.

a^2 = Number of PSU shelf 0 PIDB timeslots allocated for PP TRK nailup usage.

b^2 = Number of PSU shelf 1 PIDB timeslots allocated for PP TRK nailup usage.

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c^2 = Number of PSU shelf 2 PIDB timeslots allocated for PP TRK nailup usage.

d^2 = Number of PSU shelf 3 PIDB timeslots allocated for PP TRK nailup usage.

e^2 = Number of PSU shelf 4 PIDB timeslots allocated for PP TRK nailup usage.

f^2 = Number of PSU shelf 0 PIDB timeslots allocated for speech handler trunk (SH TRK) nailup usage.

g^2 = Number of PSU shelf 1 PIDB timeslots allocated for SH TRK nailup usage.

h^2 = Number of PSU shelf 2 PIDB timeslots allocated for SH TRK nailup usage.

i^2 = Number of PSU shelf 3 PIDB timeslots allocated for SH TRK nailup usage.

j^2 = Number of PSU shelf 4 PIDB timeslots allocated for SH TRK nailup usage.

k^2 = Number of network side TSIU timeslots allocated for common channel signaling (CCS) nailup usage.

l^2 = Number of PSU shelf 0 PIDB timeslots allocated for CCS nailup usage.

m^2 = Number of PSU shelf 1 PIDB timeslots allocated for CCS nailup usage.

n^2 = Number of PSU shelf 2 PIDB timeslots allocated for CCS nailup usage.

o^2 = Number of PSU shelf 3 PIDB timeslots allocated for CCS nailup usage.

p^2 = Number of PSU shelf 4 PIDB timeslots allocated for CCS nailup usage.

q^2 = Total number of network side TSIU timeslots allocated for ISM, IP trunk, XAT, PRI, X.75, X.75' trunk, BRI, PP TRK, and CCS nailup usage. Use this guideline: on an SM a maximum 190 TSIU timeslots should be allocated for ISDN nailup usage. For an SM-2000 and cellular applications, no guide lines exist.

r^2 = Total number of PSU shelf 0 PIDB timeslots allocated/reserved for ISM, IP trunk, XAT, PRI, X.75, X.75' trunk, BRI, RDTA, PP TRK, SH TRK, EOC/TMC, ODB, and CCS nailup usage.

s^2 = Total number of PSU shelf 1 PIDB timeslots allocated/reserved for ISM, IP trunk, XAT, PRI, X.75, X.75' trunk, BRI, RDTA, PP TRK, SH TRK, EOC/TMC, ODB, and CCS nailup usage.

t^2 = Total number of PSU shelf 2 PIDB timeslots allocated/reserved for ISM, IP trunk, XAT, PRI, X.75, X.75' trunk, BRI, RDTA, PP TRK, SH TRK, EOC/TMC, ODB, and CCS nailup usage.

u^2 = Total number of PSU shelf 3 PIDB timeslots allocated/reserved for ISM, IP trunk, XAT, PRI, X.75, X.75' trunk, BRI, RDTA, PP TRK, SH TRK, EOC/TMC, ODB, and CCS nailup usage.

v^2 = Total number of PSU shelf 4 PIDB timeslots allocated/reserved for ISM, IP trunk, XAT, PRI, X.75, X.75' trunk, BRI, RDTA, PP TRK, SH TRK, EOC/TMC, ODB, and CCS nailup usage.

w^2 = Total number of RSM ICL timeslots in a MMRSM cluster allocated for ISM nailup usage. It is recommended that a maximum of 25% of the total number of ICL timeslots be allocated for usage.

x^2 = Total number of UMB timeslots allocated for ISM nailup usage. It is recommended that a maximum of 25% of the total number of TSIU timeslots be allocated for usage.

y^2 = Number of PSU shelf 0 timeslots allocated for EOC and TMC nailup usage.

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z[2] = Number of PSU shelf 1 timeslots allocated for EOC and TMC nailup usage.

a[3] = Number of PSU shelf 2 timeslots allocated for EOC and TMC nailup usage.

b[3] = Number of PSU shelf 3 timeslots allocated for EOC and TMC nailup usage.

c[3] = Number of PSU shelf 4 timeslots allocated for EOC and TMC nailup usage.

d[3] = Number of PSU shelf 0 timeslots allocated for ODB nailup usage.

e[3] = Number of PSU shelf 1 timeslots allocated for ODB nailup usage.

f[3] = Number of PSU shelf 2 timeslots allocated for ODB nailup usage.

g[3] = Number of PSU shelf 3 timeslots allocated for ODB nailup usage.

h[3] = Number of PSU shelf 4 timeslots allocated for ODB nailup usage.

4. ACTION TO BE TAKEN

If the request completed successfully, no action is necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:STATUS-PS
```

Other Manual(s):
235-080-100 *TG-5 Translation Guide*
235-600-500 *Asserts Manual*

OP:STBY

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP STBY MESSAGE STARTED
        UNIT        MTCE   INH   DGN
        a b [ c d ] e       f     g

[2]   ____________________________________________________________________
      OP STBY COMPLETED

[3]   ____________________________________________________________________
      OP STBY INTERFACE ERROR, ERRNO=h

[4]   ____________________________________________________________________
      OP STBY NOT STARTED
        INVALID DATA FIELD

[5]   ____________________________________________________________________
      OP STBY NOT STARTED
        RETRY LATER

[6]   ____________________________________________________________________
      OP STBY OFL IN PROGRESS
        a b [ c d ]  e      f     g

[7]   ____________________________________________________________________
      OP STBY RETRY LATER i

[8]   ____________________________________________________________________
      OP STBY WRITE TO j
        FAILED ON KEY #k
```

2. REASON FOR OUTPUT

To give device information specific to administrative module (AM) hardware units on communities requested by the OP:STBY input message. The format is consistent with related maintenance messages.

The exit status of this report is indicated by either the successful `COMPLETED` message or the unsuccessful `INTERFACE ERROR` message.

3. VARIABLE FIELD DEFINITIONS

`a` = Unit name. Refer to the APP:MEM-NUM-UNIT appendix in the Appendixes section of the Input Messages manual for AM unit names.

`b` = Unit number (refer to the APP:MEM-NUM-UNIT appendix in the Appendixes section of the Input Messages manual).

`c` = Subunit name. Refer to the APP:MEM-NUM-CU appendix in the Appendixes section of the Input

Messages manual for AM control unit (CU) subunit names.

`d` = Subunit number (refer to the APP:MEM-NUM-AUD appendix in the Appendixes section of the Input Messages manual).

`e` = The current maintenance state of the unit. Valid value(s):

`ACT`	= Active units.
`GROW`	= Units being grown.
`INIT`	= Initializing units.
`OFL`	= Offline units.
`OOS`	= Out-of-service units.
`STBY`	= Standby units.
`UNAV`	= Unavailable units.
`UNEQIP`	= Unequipped units.

`f` = Current inhibit status of the associated error source. Valid value(s):

`ALW`	= Allowed.
`INH`	= Inhibited.

`g` = Results of the last diagnostic on the unit. Valid value(s):

`ABT`	= Aborted diagnostics.
`ATP`	= All tests passed.
`CATP`	= Conditional all tests passed.
`NTR`	= No tests were run.
`STF`	= Some tests failed.

`h` = Error number. Valid value(s):

`9`	= Cannot attach to plant measurement library.
`11`	= Cannot open equipment configuration database (ECD)sequence.
`12`	= Cannot sequence unit control blocks (UCBs).

`i` = Retry the command later. Valid value(s):

```
CAN'T SEQUENCE DATABASE
CAN'T CREATE FILE IN /tmp
CAN'T GET DATABASE RECORD ID
```

`j` = Temporary output file name.

`k` = Key associated with write failure.

4. ACTION TO BE TAKEN

If error numbers 11 or 12 are indicated, the system is still initializing and the input message should be retried.

5. ALARMS

None.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

Note: The OMDB keys will vary depending on the alarm level of the message.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
box	
1	49, 477
2	50, 478
3	51, 479
6	580, 582
7	588, 589
8	656

Input Message(s):

```
OP:ACT
OP:CFGSTAT
OP:GROW
OP:INIT
OP:OFL
OP:OOS
OP:STBY
OP:UNAV
OP:UNEQIP
```

Input Appendix(es):

```
APP:MEM-NUM-AUD
APP:MEM-NUM-CU
APP:MEM-NUM-UNIT
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

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OP:SYSSTAT-SUM-A

Software Release: 5E10 - 5E13
Message Class: IOC_MON
Application: 5
Type: Output

1. FORMAT

```
OP  SYSSTAT  SUMMARY              a RECORD
 [b] [c] [d][,e][f-g h]:   i[ i...]
  .   .     .      .
  .   .     .      .
  .   .     .      .
```

2. REASON FOR OUTPUT

To respond to the OP:SYSSTAT input message or to report hourly the off-normal conditions corresponding to the Master Control Center (MCC) display pages for system inhibits, administrative module (AM), communication module (CM), communication module processor (CMP) and the switching module (SM) summary pages.

In the case of the automatic hourly report, no printout is given if conditions are normal. This message is normally logged, but will also print in response to input message OP:SYSSTAT.

3. VARIABLE FIELD DEFINITIONS

`a` = Record sequence identifier. Valid value(s):

`FIRST`	= First record in sequence.
`LAST`	= Last record in sequence.
`NEXT`	= Second or subsequent record in sequence.

`b` = SM configuration. Valid value(s):

`B`	= Basic configuration.
`L`	= Loaded configuration.
`S`	= Standard configuration.
`K`	= SM-2000 configuration.
`?`	= Unknown configuration. Relation SMCONF needs to be verified.

`c` = Processor with off-normal conditions. Valid value(s):

`AM`	= Administrative module.
`CM`	= Communication module.
`CMP`	= Communication module processor.
`HSM`	= Host switching module.
`LSM`	= Local switching module.
`ORM`	= Optical remote switching module.
`RSM`	= Remote switching module.
`SYS`	= System-wide conditions.
`TRM`	= Two-mile optical remote switching module.
`???`	= Unknown type of switching module. Relation MODATT needs to be verified.

`d` = Physical SM number.

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e = Active side of SM.

f = Message switch side (MSGS).

g = Physical CMP number.

h = Processor being reported on. Valid value(s):
- M = Mate CMP.
- P = Primary CMP.

i = Off-normal condition(s) existing in processor 'c'. Valid value(s):
- BACKOUT-RC = Recent change backout has occurred.
- BACKOUT-UPD = Program update backout occurred.
- BKUP_FAIL = Recent change office-dependent data (ODD) backup has failed.
- BLDG/PWR = Non-critical building and power alarms for remote modules and peripheral units. = Call processing restrictions are in effect.
- CACHE_DIS = Cache disabled on SM processor.
- CALL_CONTROL = Call processing restrictions are in effect.
- CGA = Carrier group alarm.
- CCS_LNK = Common channel signaling link off-normal.
- CKT_LIMIT = One or more circuit groups have exceeded their out-of-service (OOS) limit.
- CKT_OOS = One or more circuits are OOS.
- CLNK_LOST = All CLNK communication has been lost to this SM or SM-2000.
- CLNK_OFFN = The indicated SM has one or more off-normal communication links.
- CMP_ISOL = Total service interruption is in effect due to unavailability of the CMP without the stand alone call processing option.
- CMP_STALN = The module is in stand-alone call processing due to unavailability of the CMP.
- COMM_LOST = Communication lost with AM. Displayed during automatic fault recovery interval. If the SM has QLNKs equipped, CLNK plus QLNK are lost.
- CPE_SYNC = Synchronizing customer premises equipment (CPE) lamps and displays.
- CRIT_ALM = Critical building and power alarms for remote modules and peripheral units.
- D/C_HASH = Disc to core hashum mismatch.
- DATA_SYNC = The module is synchronizing data following an initialization or isolation.
- DSL_MAJOR = 30% or more of the digital subscriber lines (DSLs) on this module are out of service.
- DSL_MINOR = One or more (<30%) of the DSLs on this module are out of service.
- E911_CRIT = All of the application processor (AP) links to the enhanced 911 service adjunct (ESA) on this module are out of service.
- FAN/FUSE = Module or remote ISDN line unit remote integrated services line unit (RISLU) fan or fuse alarms.
- FORCED = Hardware forces are in effect.
- GEN_DIFF = The AM contains a different software release than this module.
- HASH_ERR = The memory contains a hashsum error.
- HSM_ISOL = Total RSM service interruption is in effect due to unavailability of its HSM without the stand-alone call processing option in the RSM.
- HSM_STALN = The RSM is in stand-alone call processing due to unavailability of its HSM.
- INHIBITS-AUD = Audit inhibits are in effect.
- INHIBITS-HW = Hardware inhibits are in effect.
- INHIBITS-MISC = Miscellaneous inhibits are in effect.
- INHIBITS-MSG = Message handling inhibits are in effect.
- INHIBITS-MTCE = Maintenance inhibits are in effect.

INHIBITS-PUMP = Pump inhibits are in effect.
INHIBITS-RC = Recent change inhibits are in effect.
INHIBITS-SW = Software inhibits are in effect.
INITIALIZING = The module is initializing.
INIT_ISOL = An initialization is pending on an isolated SM.
INIT_PEND = An initialization is pending.
ISDN_RT_RST = Restarting integrated services digital network (ISDN) DSLs, timeslot management control (TMC) data links to IDCU hosted remote terminals (RTs), or embedded operations channel (EOC) data links to IDCU hosted RTs.
ISOLATED = Automatically isolated module without the stand alone call processing option, due to loss of communication with the AM. If the SM has QLNKs equipped, CLNK plus QLNK are lost.
MAN_ISOL = The module has been isolated manually. If the SM has QLNKs equipped, CLNK plus QLNK are lost.
MATE_OOD = Offline memory is out of date.
MATE_PUMP = The offline memory is different from the on-line memory, or it is in the process of updating.
MATE_UPD = Offline memory is being updated from the on-line memory.
MD_LNK = Common channel signaling message delivery off-normal.
MIN_MODE = The module is in minmode.
MISC = System is off-normal due to reasons pertaining to the updating of the software release.
MORE = There are more off-normal conditions than can be listed on this line. These conditions are of less importance than the ones listed.
MSG_CNTL = Output messages are being discarded at the user's request.
NIPMP = Non-interfering pump in progress.
NOINTERCP = Intermodule calls can not be made by this module because its links to the active major ONTC are out of service.
NO_REQ_PEND = The module has no requests pending.
NORMAL = The module has no off-normal conditions (only printed in response to manual requests).
ODDHSHERR = The ODD memory area contains a hash error.
ODD_WARN = Either the amount of ODD space being used has exceeded the engineering recommendations or the automatic relation engineering reorganization process has failed on one or more relations.
OVERLOAD = A call processing or resource overload condition exists.
POSTINIT = Module is in safe period following a high-level initialization.
POST_CUT = Module is in the post-cutover state.
PRE_CUT = Module is in the pre-cutover state.
PSLNKOFFN = Some PSU link connectivity has been lost. Either one channel of a duplex link is out of service, or there is a virtual path alarm on the link.
PSLNKOOS = At least one PSU link has lost connectivity. If it is a simplex link (only one channel equipped), the channel is out of service, or both channels of a duplex link are out of service.
PTL_STALN = The RSM is in partial stand alone because at least one other RSM in the MMRSM is in stand alone mode.
QLNK_LOST = If QGPs are equipped, all QLNK communication has been lost to this SM-2000. If QGPs are not equipped, all ISMQLNK communication has been lost to this SM-2000.
QLNK_OFFN = Some but not all QLNKs or ISMQLNKs are off-normal to this SM-2000.
QLPS_ISOL = QPIPEs to All networks have been lost to this SM-2000.
QMAN_ISOL = SM-2000 is manually isolated from QLPS network.

QPIPE_OOS	= SM-2000 lost MH QPIPE to a single network.
REQ_PEND	= Request to "set" or "inh" the module is pending.
RT_PLS	= RT protection line switching status has changed.
SCAN_ON	= Non-DSL line and trunk scanning is on. Non-ISDN calls can be originated.
SFT_SWTCH	= The CMP is going through a soft switch.
SPEC_GROW	= The module is in a special growth state.
STNDALONE	= Automatically isolated module with the stand alone call processing option, due to loss of communication with the AM.
SVC_DGRD	= Call processing service is degraded due to inability to connect paths between this module and other modules.
SVC_INTR	= A partial or total service interruption is in effect.

4. ACTIONS TO BE TAKEN

Verify that the indicated off-normal conditions exist and take corrective action to remove them.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SYSSTAT
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

110 (SYSTEM INHIBITS)
114 (EQUIPPED SM STATUS SUMMARY)
115 (COMMUNICATION MODULE SUMMARY)
1010 (SM STATUS)
1460 (SM DATA LINK DSLS)
1480 (SM AP DATALINK DSLS)
1800 (INH & RCVY CNTL)
1850/1851 (CMP INH & RCVY CNTL)

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OP:SYSSTAT-SUM-B

Software Release: 5E14 and later
Message Class: IOC_MON
Application: 5
Type: Output

1. FORMAT

```
OP  SYSSTAT  SUMMARY              a RECORD
 [b] [c] [d][,e][f-g h]:   i[ i...]
  .   .     .      .
  .   .     .      .
  .   .     .      .
```

2. REASON FOR OUTPUT

To respond to the OP:SYSSTAT input message or to report hourly the off-normal conditions corresponding to the Master Control Center (MCC) display pages for system inhibits, administrative module (AM), communication module (CM), communication module processor (CMP) and the switching module (SM) summary pages.

In the case of the automatic hourly report, no printout is given if conditions are normal. This message is normally logged, but will also print in response to input message OP:SYSSTAT.

3. VARIABLE FIELD DEFINITIONS

`a` = Record sequence identifier. Valid value(s):

`FIRST`	= First record in sequence.
`LAST`	= Last record in sequence.
`NEXT`	= Second or subsequent record in sequence.

`b` = SM configuration. Valid value(s):

`B`	= Basic configuration.
`L`	= Loaded configuration.
`S`	= Standard configuration.
`K`	= SM-2000 configuration.
`?`	= Unknown configuration. Relation SMCONF needs to be verified.

`c` = Processor with off-normal conditions. Valid value(s):

`AM`	= Administrative module.
`CM`	= Communication module.
`CMP`	= Communication module processor.
`HSM`	= Host switching module.
`LSM`	= Local switching module.
`ORM`	= Optical remote switching module.
`RSM`	= Remote switching module.
`SYS`	= System-wide conditions.
`TRM`	= Two-mile optical remote switching module.
`???`	= Unknown type of switching module. Relation MODATT needs to be verified.

`d` = Physical SM number.

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e = Active side of SM.

f = Message switch side (MSGS).

g = Physical CMP number.

h = Processor being reported on. Valid value(s):
- M = Mate CMP.
- P = Primary CMP.

i = Off-normal condition(s) existing in processor 'c'. Valid value(s):
- BACKOUT-RC = Recent change backout has occurred.
- BACKOUT-UPD = Program update backout occurred.
- BKUP_FAIL = Recent change office-dependent data (ODD) backup has failed.
- BLDG/PWR = Non-critical building and power alarms for remote modules and peripheral units. = Call processing restrictions are in effect.
- CACHE_DIS = Cache disabled on SM processor.
- CALL_CONTROL = Call processing restrictions are in effect.
- CGA = Carrier group alarm.
- CCS_LNK = Common channel signaling link off-normal.
- CKT_LIMIT = One or more circuit groups have exceeded their out-of-service (OOS) limit.
- CKT_OOS = One or more circuits are OOS.
- CLNK_LOST = All CLNK communication has been lost to this SM or SM-2000.
- CLNK_OFFN = The indicated SM has one or more off-normal communication links.
- CMP_ISOL = Total service interruption is in effect due to unavailability of the CMP without the stand alone call processing option.
- CMP_STALN = The module is in stand-alone call processing due to unavailability of the CMP.
- COMM_LOST = Communication lost with AM. Displayed during automatic fault recovery interval. If the SM has QLNKs equipped, CLNK plus QLNK are lost.
- CPE_SYNC = Synchronizing customer premises equipment (CPE) lamps and displays.
- CRIT_ALM = Critical building and power alarms for remote modules and peripheral units.
- D/C_HASH = Disc to core hashum mismatch.
- DATA_SYNC = The module is synchronizing data following an initialization or isolation.
- DSL_MAJOR = 30% or more of the digital subscriber lines (DSLs) on this module are out of service.
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- E911_CRIT = All of the application processor (AP) links to the enhanced 911 service adjunct (ESA) on this module are out of service.
- FAN/FUSE = Module or remote ISDN line unit remote integrated services line unit (RISLU) fan or fuse alarms.
- FORCED = Hardware forces are in effect.
- GEN_DIFF = The AM contains a different software release than this module.
- HASH_ERR = The memory contains a hashsum error.
- HSM_ISOL = Total RSM service interruption is in effect due to unavailability of its HSM without the stand-alone call processing option in the RSM.
- HSM_STALN = The RSM is in stand-alone call processing due to unavailability of its HSM.
- INHIBITS-AUD = Audit inhibits are in effect.
- INHIBITS-HW = Hardware inhibits are in effect.
- INHIBITS-MISC = Miscellaneous inhibits are in effect.
- INHIBITS-MSG = Message handling inhibits are in effect.
- INHIBITS-MTCE = Maintenance inhibits are in effect.

INHIBITS-PUMP = Pump inhibits are in effect.
INHIBITS-RC = Recent change inhibits are in effect.
INHIBITS-SW = Software inhibits are in effect.
INITIALIZING = The module is initializing.
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ISDN_RT_RST = Restarting integrated services digital network (ISDN) DSLs, timeslot management control (TMC) data links to IDCU hosted remote terminals (RTs), or embedded operations channel (EOC) data links to IDCU hosted RTs.
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MAN_ISOL = The module has been isolated manually. If the SM has QLNKs equipped, CLNK plus QLNK are lost.
MATE_OOD = Offline memory is out of date.
MATE_PUMP = The offline memory is different from the on-line memory, or it is in the process of updating.
MATE_UPD = Offline memory is being updated from the on-line memory.
MD_LNK = Common channel signaling message delivery off-normal.
MIN_MODE = The module is in minmode.
MISC = System is off-normal due to reasons pertaining to the updating of the software release.
MORE = There are more off-normal conditions than can be listed on this line. These conditions are of less importance than the ones listed.
MSG_CNTL = Output messages are being discarded at the user's request.
NIPMP = Non-interfering pump in progress.
NOINTERCP = Intermodule calls can not be made by this module because its links to the active major ONTC are out of service.
NO_REQ_PEND = The module has no requests pending.
NORMAL = The module has no off-normal conditions (only printed in response to manual requests).
ODDHSHERR = The ODD memory area contains a hash error.
ODD_WARN = Either the amount of ODD space being used has exceeded the engineering recommendations or the automatic relation engineering reorganization process has failed on one or more relations.
OVERLOAD = A call processing or resource overload condition exists.
POSTINIT = Module is in safe period following a high-level initialization.
POST_CUT = Module is in the post-cutover state.
PRE_CUT = Module is in the pre-cutover state.
PSLNKOFFN = Some PSU link connectivity has been lost. Either one channel of a duplex link is out of service, or there is a virtual path alarm on the link.
PSLNKOOS = At least one PSU link has lost connectivity. If it is a simplex link (only one channel equipped), the channel is out of service, or both channels of a duplex link are out of service.
PTL_STALN = The RSM is in partial stand alone because at least one other RSM in the MMRSM is in stand alone mode.
QLNK_LOST = If QGPs are equipped, all QLNK communication has been lost to this SM-2000. If QGPs are not equipped, all ISMQLNK communication has been lost to this SM-2000.
QLNK_OFFN = Some but not all QLNKs or ISMQLNKs are off-normal to this SM-2000.
QLPS_ISOL = QPIPEs to All networks have been lost to this SM-2000.
QMAN_ISOL = SM-2000 is manually isolated from QLPS network.

QPIPE_OOS	= SM-2000 lost MH QPIPE to a single network.
REQ_PEND	= Request to "set" or "inh" the module is pending.
RT_PLS	= RT protection line switching status has changed.
SCAN_ON	= Non-DSL line and trunk scanning is on. Non-ISDN calls can be originated.
SFT_SWTCH	= The CMP is going through a soft switch.
SPEC_GROW	= The module is in a special growth state.
STNDALONE	= Automatically isolated module with the stand alone call processing option, due to loss of communication with the AM.
SVC_DGRD	= Call processing service is degraded due to inability to connect paths between this module and other modules.
SVC_INTR	= A partial or total service interruption is in effect.

4. ACTIONS TO BE TAKEN

Verify that the indicated off-normal conditions exist and take corrective action to remove them.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SYSSTAT
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

110 (SYSTEM INHIBITS)
114 (EQUIPPED SM STATUS SUMMARY)
115 (COMMUNICATION MODULE SUMMARY)
1010 (SM STATUS)
1460 (SM DATA LINK DSLS)
1480 (SM AP DATALINK DSLS)
1800 (INH & RCVY CNTL)
1850/1851 (CMP INH & RCVY CNTL)

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61. OP:T

OP:TAG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP TAG STOPPED
        NO FAILING DGNS EXIST IN THE TAGLOG

[2]   ____________________________________________________________________
      OP TAG COMPLETED
                  5ESS SWITCH
        RETURNED CIRCUIT PACK TAG
        OFFICE BASE          DATE FAILED
           a                 b
        REASON FOR RETURN(CIRCLE ONE)
        DEFECTIVE        UPDATE
        EQUIPMENT STATUS(CIRCLE ONE)
        INSTALLING       PRECUT      IN SERVICE
        24 HR FAILURE?        GENERIC
        YES/NO                  c
        d
        PH    SEG    TEST     MM
        e     f      g        h
        FAIL TYPE:
              LEN:
            ALINK:
            BLINK:
        OTHER FAILURE INDICATIONS:
        CIRCUIT PACK CODE:
                   SERIES:
            SERIAL NUMBER:
        SECURE TO CIRCUIT PACK
        NW 44-18(11-91)

[3]   ____________________________________________________________________
      OP TAG DGN i NOT FOUND
        THE FOLLOWING DGNS ARE AVAILABLE FOR TAGS:
         j   k  STF PH e SEG f TEST g MM h
```

2. REASON FOR OUTPUT

To dump a circuit pack return tag or a list of failing diagnostics that are available for tags to the receive-only printer (ROP) or trunk and line work station (TLWS).

Format 1 prints when no failing diagnostics are available in the TAGLOG for conversion to circuit pack return tags.

Format 2 prints a circuit pack return tag for the last available failing diagnostics, or for the last failing diagnostics that match the information specified by the input arguments.

Format 3 prints a list of failing diagnostics that are available for conversion to circuit pack return tags.

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3. VARIABLE FIELD DEFINITIONS

a	= The office base and control number.
b	= The date the diagnostic failed.
c	= The software release that the switch was running on.
d	= The failing equipment and location.
e	= The failing phase.
f	= The failing segment.
g	= The failing test.
h	= The failing mismatch field.
i	= The arguments specified by the craft.
j	= The date stamp for the diagnostic (mmddhhmm where mm=month, dd=day, hh=hour, mm=minute).
k	= The failing equipment and its location

4. ACTION TO BE TAKEN

For Format 1, no action is required. When a failing diagnostic is run, it will be logged in the TAGLOG and then the OP:TAG command can be used to produce a circuit pack return tag.

For Format 2, fold and staple the printed tag to a "yellow" tag. Then tie the "yellow" tag to the circuit pack (this includes line cards), and return the pack for repair.

For Format 3, no action is required. This output can be used to determine which arguments should be used to print the desired tag.

5. ALARMS

None

6. REFERENCES

Input Message(s):

```
OP:TAG
```

OP:TAG-REPORT

Software Release: 5E10 and later
Message Class: REX
Application: 5,3B
Type: Output

1. FORMAT

```
OP TAG REPORT STARTED
   ************************************************************
   ************************************************************
  a
     5ESS SWITCH CIRCUIT PACK RETURN AUTHORIZATION

     TO BE RETURNED WITH DEFECT CIRCUIT PACK

     GENERATION DATE/TIME b

     OFFICE BASE: c
   SOFTWARE RELEASE: d

     REASON FOR RETURN: e

     EQUIPMENT STATUS: f

     24 HOUR INDICATOR: g

    [SOURCE OF DIAGNOSTIC REQUEST: h]
    [DATE/TIME FAILED: i]
    [j PH k SEG l]
    [TEST NUMBER AND MISMATCH DATA:]
    [m       n]
    [o       p]
    [q       r]
    [s       t]
    [u       v]

  OTHER FAILURE INDICATIONS:

  CIRCUIT PACK CODE: w
  SERIES: x
  SERIAL NUMBER: y

  a
   ************************************************************
   ************************************************************
  OP TAG REPORT COMPLETED
```

2. REASON FOR OUTPUT

To print the returned circuit pack tag that is needed to ship a circuit pack for repair or update of the circuit pack.

3. VARIABLE FIELD DEFINITIONS

a = Two form feeds.

b = Date and time the return tag is generated (mm-dd-yy hh:mm).

c = Office name.

d = Generic number and point load number.

e = Reason for return. Valid value(s):
DEFECT = To fix the defective circuit pack.
UPDATE = To update the circuit pack.

f = Equipment status. Valid value(s):
IN_SERVICE = The equipment status is at the in-service phase.
INSTALLING = The equipment status is at the installing phase.
PRE-CUT = The equipment status is at the pre-cut phase.
[CIRCLE ONE]INSTALLING/PRE-CUT/IN SERVICE = Default when status is unknown. Circle one status shown.

g = 24 hour indicator. Valid value(s):
NO = The pack was not installed within 24 hours.
YES = The pack was installed within 24 hours.
[CIRCLE ONE] YES/NO = Default when the installation time is unknown. Circle one.

h = Source of diagnostic request. Not applicable to UPDATE tag. Valid value(s):
AUTOMATIC = Automatic diagnostic.
MANUAL = Manual diagnostic.
POWER SWITCH = Diagnostic after power restore. Only apply to administrative module (AM) diagnostics.
REX = Routine exercise.

i = Date and time the diagnostic failed (mm-dd-yy hh:mm). Not applicable to UPDATE tag.

j = Circuit identifier and number. Not applicable to UPDATE tag.

k = Diagnostic phase number. Not applicable to UPDATE tag.

l = Diagnostic segment number. Only applies to communication module (CM) and switching module (SM) diagnostics. Not applicable to UPDATE tag.

m = Diagnostic test number. Not applicable to UPDATE tag.

n = Diagnostic mismatch data of the failing test(s). Not applicable to UPDATE tag.

o = Diagnostic test number. Not applicable to UPDATE tag. Not applicable to CM and SM diagnostics.

p = Diagnostic mismatch data of the failing test(s). Not applicable to UPDATE tag. Not applicable to CM and SM diagnostics.

q = Diagnostic test number. Not applicable to UPDATE tag. Not applicable to CM and SM diagnostics.

r = Diagnostic mismatch data of the failing test(s). Not applicable to UPDATE tag. Not applicable to

CM and SM diagnostics.

`s` = Diagnostic test number. Not applicable to UPDATE tag. Not applicable to CM and SM diagnostics.

`t` = Diagnostic mismatch data of the failing test(s). Not applicable to UPDATE tag. Not applicable to CM and SM diagnostics.

`u` = Diagnostic test number. Not applicable to UPDATE tag. Not applicable to CM and SM diagnostics.

`v` = Diagnostic mismatch data of the failing test(s). Not applicable to UPDATE tag. Not applicable to CM and SM diagnostics.

`w` = Circuit pack code.

`x` = Circuit pack series number.

`y` = Circuit pack serial number.

4. ACTION TO BE TAKEN

Tear off the return tag output message at the perforations. Fill out the missing information. Secure the tag to the circuit pack. Ship the circuit pack for repair or update.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RCV:M-RTAG
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-118-25x *Recent Change Reference Manual*

OP:TAG-SUMMARY

Software Release: 5E10 and later
Message Class: REX
Application: 5,3B
Type: Output

1. FORMAT

```
OP TAG SUMMARY RECORD a of b
  c
```

2. REASON FOR OUTPUT

To print the diagnostic failure summary list that matches the specified key word(s) in the RCV:M-RTAG tool.

3. VARIABLE FIELD DEFINITIONS

`a` = Number of current record.

`b` = Number of records that matches the specified key word(s).

`c` = List of diagnostic summaries.

4. ACTION TO BE TAKEN

Use the diagnostic failure summary list to find the specific diagnostic failure to generate the circuit return tag. For additional information, refer to the OP:TAG-REPORT input message for the circuit return tag format.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RCV:M-RTAG
```

Output Message(s):

```
OP:TAG-REPORT
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-118-25x *Recent Change Reference Manual*

OP:TERACNTS-A

Software Release: 5E10 - 5E11
Message Class: TRK
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP TERACNTS  MDII a TG b TGCNT c TKMN  d TKMNCNT e
                f ATP-CNT g  h

[2]   ____________________________________________________________________
      OP TERACNTS  TKGMN=b-d  f  CONSEC-CNT i  PURGE-CNT j  h

[3]   ____________________________________________________________________
      OP TERACNTS    f  CONSEC-CNT i  PURGE-CNT j  h
```

2. REASON FOR OUTPUT

To respond to an OP:TERACNTS input message to print the trunk group threshold count (TGCNT) and trunk group member threshold count (TGMNCNT) (Format 1), and the consecutive error count and purge count (PURGE-CNT) of a trunk (Format 2) or universal tone decoder (UTD) (Format 3) on the trunk error analysis (TERA) lists.

3. VARIABLE FIELD DEFINITIONS

`ATP-CNT` = All tests passed count.

`CONSEC-CNT` = Consecutive error count.

`DEN` = Digital trunk equipment number.

`ILEN` = Integrated digital carrier unit (IDCU) line equipment number.

`NEN` = Networking equipment number.

`PURGE-CNT` = Trunk error analysis purge count.

`SLEN` = *SLC*® line equipment number.

`TEN` = Analog trunk equipment number.

`TGNCT` = TG count.

`TKMNCNT` = TKMN count.

`UTD` = Universal tone decoder.

`a` = Machine-detected interoffice irregularity (MDII) type. Refer to the APP:MDII appendix in the Appendixes section of the Output Messages manual for a list of MDIIs.

`b` = Trunk group (TG) number.

`c` = The number of MDIIs of type '`a`' that have occurred on the other members of the trunk group since the entry was placed on the trunk error analysis list.

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d = Trunk member number (TKMN).

e = The number of MDIIs of type 'a' that have occurred on the trunk since the entry was placed on the trunk error analysis list.

f = Trunk or service circuit number. Valid value(s):

DEN=k-l-m-n
ILEN=k-o-p-q
NEN=k-z-a^1-b^1-c^1-d^1
SLEN=k-r-p-q
TEN=k-s-t-u-v
UTD=k-w-x-y

g = Number of ATP-CNT results received on trunk.

h = Reason for termination report indicator. Valid value(s):

COMPLETED = This message is the last message of requested information.
CONTINUED = This message is a continuation of requested information.
INPUT ERROR = There was an input error in specifying the trunk or UTD.
INV PORT = The trunk port specified was invalid.
NO MATCH = The information requested was not found.
PORT UNASSIGNED = The trunk port specified was valid but unassigned.
SM UNAVAILABLE = The input request could not be completed because a needed switching module (SM) is unable to respond. Retry the request later.
STARTED = This message is the start of requested output.
SYSTEM ERROR = An error occurred while accessing information.

i = Number of consecutive MDIIs that have occurred on trunk or UTD.

Note: For consecutive error counts, the value is not cleared unless the recovery action is taken on the circuit or when an MDII on the circuit is preceded by the successful completion of a call. Also, an entry is not put on the consecutive error list until two consecutive MDIIs have occurred on the trunk or UTD.

j = The maximum number of 2-hour periods a trunk or UTD can remain on the trunk error analysis quick check list before being removed.

k = SM number.

l = Digital line and trunk unit (DLTU) number.

m = Digital facility interface number.

n = Digital facility interface channel number.

o = IDCU number.

p = Remote terminal (RT) number.

q = RT line number.

r = Digital carrier line unit number.

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s = Trunk unit number.

t = Service group number.

u = Channel board number.

v = Channel circuit number.

w = Local digital service unit number.

x = Service group number.

y = Digital service circuit unit board number.

z = Digital network unit - synchronous optical network (SONET) (DNU-S).

a[1] = Data group (DG).

b[1] = Synchronous transport signal (STS).

c[1] = Virtual tributary 1.5 (VT1.5).

d[1] = DS0 number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TERACNTS
```

Output Appendix(es):

```
APP:MDII
```

Other Manual(s):
235-190-102 *Business and Residence Non-Modular Features*
235-190-120 *Common Channel Signaling Services Features*

OP:TERACNTS-B

Software Release: 5E12 only
Message Class: TRK
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP TERACNTS  MDII a TG b TGCNT c TKMN  d TKMNCNT e
                f ATP-CNT g  h

[2]   ____________________________________________________________________
      OP TERACNTS  TKGMN=b-d  f  CONSEC-CNT i  PURGE-CNT j
                h

[3]   ____________________________________________________________________
      OP TERACNTS    f  CONSEC-CNT i  PURGE-CNT j  h
```

2. REASON FOR OUTPUT

To respond to an OP:TERACNTS input message to print the trunk group threshold count (TGCNT) and trunk group member threshold count (TGMNCNT) (Format 1), and the consecutive error count and purge count (PURGE-CNT) of a trunk (Format 2) or universal tone decoder (UTD) (Format 3) on the trunk error analysis (TERA) lists.

3. VARIABLE FIELD DEFINITIONS

`ATP-CNT` = All tests passed count.

`CONSEC-CNT` = Consecutive error count.

`DEN` = Digital trunk equipment number.

`ILEN` = Integrated digital carrier unit (IDCU) line equipment number.

`INEN` = IDLC network equipment number.

`NEN` = Networking equipment number.

`PURGE-CNT` = Trunk error analysis purge count.

`SLEN` = *SLC*® line equipment number.

`TEN` = Analog trunk equipment number.

`TGNCT` = TG count.

`TKMNCNT` = TKMN count.

`UTD` = Universal tone decoder.

`a` = Machine-detected interoffice irregularity (MDII) type. Refer to the APP:MDII appendix in the Appendixes section of the Output Messages manual for a list of MDIIs.

`b` = Trunk group (TG) number.

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c = The number of MDIIs of type 'a' that have occurred on the other members of the trunk group since the entry was placed on the trunk error analysis list.

d = Trunk member number (TKMN).

e = The number of MDIIs of type 'a' that have occurred on the trunk since the entry was placed on the trunk error analysis list.

f = Trunk or service circuit number. Valid value(s):

DEN=k-l-m-n
ILEN=k-o-p-q
INEN=k-z-p-q
NEN=k-z-a^1-b^1-c^1-d^1
SLEN=k-r-p-q
TEN=k-s-t-u-v
UTD=k-w-x-y

g = Number of ATP-CNT results received on trunk.

h = Reason for termination report indicator. Valid value(s):

COMPLETED = This message is the last message of requested information.
CONTINUED = This message is a continuation of requested information.
INPUT ERROR = There was an input error in specifying the trunk or UTD.
INV PORT = The trunk port specified was invalid.
NO MATCH = The information requested was not found.
PORT UNASSIGNED = The trunk port specified was valid but unassigned.
SM UNAVAILABLE = The input request could not be completed because a needed switching module (SM) is unable to respond. Retry the request later.
STARTED = This message is the start of requested output.
SYSTEM ERROR = An error occurred while accessing information.

i = Number of consecutive MDIIs that have occurred on trunk or UTD.

Note: For consecutive error counts, the value is not cleared unless the recovery action is taken on the circuit or when an MDII on the circuit is preceded by the successful completion of a call. Also, an entry is not put on the consecutive error list until two consecutive MDIIs have occurred on the trunk or UTD.

j = The maximum number of 2-hour periods a trunk or UTD can remain on the trunk error analysis quick check list before being removed.

k = SM number.

l = Digital line and trunk unit (DLTU) number.

m = Digital facility interface number.

n = Digital facility interface channel number.

o = IDCU number.

p = Remote terminal (RT) number.

q = RT line number.

r = Digital carrier line unit number.

s = Trunk unit number.

t = Service group number.

u = Channel board number.

v = Channel circuit number.

w = Local digital service unit number.

x = Service group number.

y = Digital service circuit unit board number.

z = Digital network unit - synchronous optical network (SONET) (DNU-S).

a[1] = Data group (DG).

b[1] = Synchronous transport signal (STS).

c[1] = Virtual tributary 1.5 (VT1.5).

d[1] = DS0 number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TERACNTS
```

Output Appendix(es):

```
APP:MDII
```

Other Manual(s):
235-190-102 *Business and Residence Non-Modular Features*
235-190-120 *Common Channel Signaling Services Features*

OP:TERACNTS-C

Software Release: 5E13 and later
Message Class: TRK
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP TERACNTS  MDII a TG b TGCNT c TKMN  d TKMNCNT e
                f ATP-CNT g  h

[2]   ____________________________________________________________________
      OP TERACNTS  TKGMN=b-d  f  CONSEC-CNT i  PURGE-CNT j
                h

[3]   ____________________________________________________________________
      OP TERACNTS    f  CONSEC-CNT i  PURGE-CNT j  h
```

2. REASON FOR OUTPUT

To respond to an OP:TERACNTS input message to print the trunk group threshold count (TGCNT) and trunk group member threshold count (TGMNCNT) (Format 1), and the consecutive error count and purge count (PURGE-CNT) of a trunk (Format 2) or universal tone decoder (UTD) (Format 3) on the trunk error analysis (TERA) lists.

3. VARIABLE FIELD DEFINITIONS

`ATP-CNT` = All tests passed count.

`CONSEC-CNT` = Consecutive error count.

`DEN` = Digital trunk equipment number.

`ILEN` = Integrated digital carrier unit (IDCU) line equipment number.

`INEN` = IDLC network equipment number.

`NEN` = DNU-S networking equipment number.

`PURGE-CNT` = Trunk error analysis purge count.

`SLEN` = *SLC*® line equipment number.

`TEN` = Analog trunk equipment number.

`TGNCT` = TG count.

`TKMNCNT` = TKMN count.

`UTD` = Universal tone decoder.

`a` = Machine-detected interoffice irregularity (MDII) type. Refer to the APP:MDII appendix in the Appendixes section of the Output Messages manual for a list of MDIIs.

`b` = Trunk group (TG) number.

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c = The number of MDIIs of type 'a' that have occurred on the other members of the trunk group since the entry was placed on the trunk error analysis list.

d = Trunk member number (TKMN).

e = The number of MDIIs of type 'a' that have occurred on the trunk since the entry was placed on the trunk error analysis list.

f = Trunk or service circuit number. Valid value(s):

```
DEN=k-l-m-n
 ILEN=k-o-p-q
 INEN=k-z-p-q
 NEN=k-z-a1-e1-b1-c1-f1-d1
 SLEN=k-r-p-q
 TEN=k-s-t-u-v
 UTD=k-w-x-y
```

g = Number of ATP-CNT results received on trunk.

h = Reason for termination report indicator. Valid value(s):

COMPLETED = This message is the last message of requested information.
CONTINUED = This message is a continuation of requested information.
INPUT ERROR = There was an input error in specifying the trunk or UTD.
INV PORT = The trunk port specified was invalid.
NO MATCH = The information requested was not found.
PORT UNASSIGNED = The trunk port specified was valid but unassigned.
SM UNAVAILABLE = The input request could not be completed because a needed switching module (SM) is unable to respond. Retry the request later.
STARTED = This message is the start of requested output.
SYSTEM ERROR = An error occurred while accessing information.

i = Number of consecutive MDIIs that have occurred on trunk or UTD.

Note: For consecutive error counts, the value is not cleared unless the recovery action is taken on the circuit or when an MDII on the circuit is preceded by the successful completion of a call. Also, an entry is not put on the consecutive error list until two consecutive MDIIs have occurred on the trunk or UTD.

j = The maximum number of 2-hour periods a trunk or UTD can remain on the trunk error analysis quick check list before being removed.

k = SM number.

l = Digital line and trunk unit (DLTU) number.

m = Digital facility interface number.

n = Digital facility interface channel number.

o = IDCU number.

p = Remote terminal (RT) number.

q = RT line number.

r = Digital carrier line unit number.

s = Trunk unit number.

t = Service group number.

u = Channel board number.

v = Channel circuit number.

w = Local digital service unit number.

x = Service group number.

y = Digital service circuit unit board number.

z = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

a[1] = Data group (DG).

b[1] = Synchronous transport signal (STS) facility number.

c[1] = Virtual tributary group (VTG) number.

d[1] = Digital signal level 0 (DS0) number.

e[1] = SONET termination equipment (STE) facility number.

f[1] = Virtual tributary member (VTM) number.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TERACNTS
```

Output Appendix(es):

```
APP:MDII
```

Other Manual(s):
235-190-102 *Business and Residence Non-Modular Features*
235-190-120 *Common Channel Signaling Services Features*

OP:TESTSET

Software Release: 5E11 and later
Message Class: LINE
Application: AEWNC
Type: Output

1. FORMAT

```
          OP TESTSET g

  TSDN      USERDN        END TIME
  ------------------------------------
  a         b             c:d
```

2. REASON FOR OUTPUT

To report the result of the OP:TESTSET message.

3. VARIABLE FIELD DEFINITIONS

`a` = 10 digit DN of the test set.

b = 10 digit DN of the user.

c = End time the test set to be de-assigned in hours.

`d` = Minute.

`g` = Status. Valid value(s):
`OP:TESTSET STARTED` = The query started.
`COMPLETED` = The process completed.
`SYSTEM ERROR` = System error occurred.
`DATABASE ERROR` = Database error occurred.
`NO TESTSETS PROVISIONED` = There is no test set provisioned.
`OP:TESTSET STILL WORKING` = The query is being processed.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:TESTSET`

Other Manual(s):
230-701-100 *Air Extension^{SM} Reference Guide*

230-701-120 *Air Extension^{SM} User Guide*

OP:TGC

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
              OP TGC a
        NON-REROUTE CONTROLS
        TG  CNTL  DRPCT   ARPCT   ANN  DLTYPE  DL
        b      c      d       e     f  y      {ALL|z z z z z}
        .      .      .       .     .  .       .
        .      .      .       .     .  .       .
        .      .      .       .     .  .       .

[2]   ____________________________________________________________________
              OP TGC a
        REROUTE CONTROLS
        TG              DRPCT    ARPCT   CICR   PRR   PIIT
        b               d        e       v      w     x
        .               .        .       .      .     .
        .               .        .       .      .     .
        .               .        .       .      .     .
        TG              ALG      VIARR                      VIATO
        b               u        g [h][i][j][k][l][m]       n o p q r s t
        .               .        .                            .
        .               .        .                            .
        .               .        .                            .
        TG              DLTYPE   DL
        b               y       {ALL|z z z z z}
        .               .        .
        .               .        .
        .               .        .

[3]   ____________________________________________________________________
      OP TGC a
```

2. REASON FOR OUTPUT

To display the status of all trunk group controls (TGCs) or of a given trunk group. This message is in response to the OP:TGC input message.

Format 1 is for non-reroute controls and Format 2 is for reroute controls. Format 1 and Format 2 display the termination status of `STARTED`, `CONTINUED`, or `COMPLETED`. Format 3 displays the termination status of `ABORTED-RETRY LATER` or `FAILED-INVALID PARAMETER`.

3. VARIABLE FIELD DEFINITIONS

`ALL` = Trunk group control was applied to all domains.

`a` = Termination status. Valid value(s):
`ABORTED-RETRY LATER`

ABORTED = Termination of message.
COMPLETED = Last in a series of these messages.
CONTINUED = Middle in a series of these messages.
FAILED-INVALID PARAMETER
STARTED = First in a series of these messages.

b = Trunk group number.

c = Non-reroute control type. Valid value(s):
CANF = Manual cancel-from control.
CANT = Manual cancel-to control.
CRO = Manual cancel reroute overflow control.
SKIP = Manual skip control.

d = Direct route percentage of traffic that was controlled. Valid value(s):
0 = No control was applied but measurements were collected.
12.5 = 12.5 %.
25.0 = 25 %.
37.5 = 37.5 %.
50.0 = 50 %.
62.5 = 62.5 %.
75.0 = 75 %.
87.5 = 87.5 %.
100 = 100 %, block all direct route traffic.

e = Alternate route percentage of traffic that was controlled. Valid value(s):
0 = No control was applied but measurements were collected.
12.5 = 12.5 %.
25.0 = 25 %.
37.5 = 37.5 %.
50.0 = 50 %.
62.5 = 62.5 %.
75.0 = 75 %.
87.5 = 87.5 %.
100 = 100 %. All alternate route traffic was blocked.

f = Announcement (ANN) treatment if blocking occurred. Valid value(s):
EANN1 = Emergency announcement 1.
EANN2 = Emergency announcement 2.
NCA = "NO CIRCUIT" announcement.
NO-ANN = No Announcement.

g-m = Trunk group numbers representing the out-of-chain trunk groups.

n-t = Congestion signals have been received for those trunk groups:
N = No
Y = Yes

u = Hunting algorithm. Valid value(s):
ORD = Ordered.
RGLR = Regular.
SPRY = Spray.

v = Cancel in-chain return option. Valid value(s):
N = No
Y = Yes

w = Previously-rerouted option. Indicates if calls were rerouted that had been previously rerouted. Valid value(s):
N = No
Y = Yes

x = Prohibit international inbound turnoff. Indicates if calls were rerouted that had originated internationally. Valid value(s):
N = No
Y = Yes

y = Switching domain list type. Valid value(s):
EXC = Exclude (controls domains are not contained in the list).
INC = Include (controls domains are contained in the list).

z = Switching domain list.

4. ACTION TO BE TAKEN

If 'a'	Action:
ABORTED	Retry the input message.
FAILED	This message is a failure because of an input parameter error.
STARTED, CONTINUED , or COMPLETED	None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

OP:TGC

Other Manual(s):
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

130 (NM EXCEPTION)

OP:TGCNT

Software Release: 5E10 and later
Message Class: AML,ATL
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP TGCNT TG=a  SZ=b  [c]OOS=d   e

[2]   ____________________________________________________________________
      OP TGCNT  LIST SEGMENT=f  e
                TG=a    SZ=b   [c]OOS=d
                 .       .        .
                 .       .        .
                 .       .        .

[3]   ____________________________________________________________________
      OP TGCNT  LIST CONTAINED g SEGMENTS  e
```

2. REASON FOR OUTPUT

To respond to the OP:TGCNT input message request to report the state of out-of-service (OOS) trunks in a single trunk group or a range of trunk groups with out-of-service trunks along with the trunk group size. Format 1 above is used if a single trunk group was requested. If no trunk group number was requested, all trunks groups with out-of-service trunks will be included in output using Format 2 above. If a range of trunk groups was requested, all trunks groups within the specified range with out-of-service trunks will be included in output using Format 2 above. Format 3 is used as a trailer for Format 2 to indicate the end of list, and to indicate total number of segments printed.

3. VARIABLE FIELD DEFINITIONS

`a` = Trunk group number.

`b` = Trunk group size (SZ); the total number of trunks in the trunk group.

`c` = Invalid indicator. If present as a '`*`', indicates some trunks in the trunk group did not respond to the request. The switching module (SM) could be down, or not responding to the request.

`d` = Number of out-of-service trunks in the trunk group.

`e` = Termination report. Valid value(s):

- `COMPLETED` = The requested action has been completed. If an TGCNT list was being printed, all segments have been printed.
- `CONTINUED` = Second and subsequent segments of a list which comprises two or more segments.
- `NO ENTRIES IN LIST` = The TGCNT list was requested, but no trunk groups have out-of-service trunks.
- `STARTED` = First in a series of these messages.
- `SYSTEM ERROR` = An internal error occurred which prevents further processing of the request.
- `TG INVALID` = The trunk groups specified in the input message does not exist in the office data base.

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`f` = Segment number of the current segment.

`g` = The total number of segments in the list.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TGCNT
OP:AML
```

Other Manual(s):
235-600-400 *Audits Manual*

OP:TLPNOTE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP TLPNOTE a RECORD b of c
  d
```

2. REASON FOR OUTPUT

To report the contents of communication module (CM) or switching module (SM) trouble locating procedure (TLP) note file specified in an OP:TLP-NOTE input message.

3. VARIABLE FIELD DEFINITIONS

a	= TLP note number.
b	= Number of current record.
c	= Number of records in specified TLP note.
d	= Text of TLP note.

4. ACTION TO BE TAKEN

Use the TLP note instructions in addition to other equipment replacement procedures.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

OP:TLPNOTE

Output Appendix(es):

APP:TLP-NOTE

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

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OP:TPC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      OP:TPC; TYPE a
        TRANSLATION POINT CODES
        b
       [c]

[2]   ____________________________________________________________
      OP:TPC;TYPE ALL
        TRANSLATION POINT CODES
        TYPE  a
        b
       [c]
        .
        .
        .
        DEFAULT TRANSLATION POINT CODES
        b
       [c]
```

2. REASON FOR OUTPUT

Format 1 is used when a specific translation type is entered. Format 2 is used when the word "ALL" appears as the translation type.

Note: When the ALL option is used, only equipped translation types are printed, the other translation types will use the default TPCs.

3. VARIABLE FIELD DEFINITIONS

a = The translation type.
b = A translation point code (in decimal notation), or 'UNABLE TO DERIVE TPC'.
c = An optional translation point code (in decimal notation), or not displayed at all.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CHG:SRVT
EXC:SRVT
OP:TPC
```

Output Message(s):

```
CHG:SRVT
EXC:SRVT
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

OP:TR

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
OP TR a
  TR INHIBIT OVERRIDE b
  TG    RL1    RL2    RESP    CNTL    ARA    INH
  c      d      e      f       g       h      i
  .      .      .      .       .       .      .
  .      .      .      .       .       .      .
  .      .      .      .       .       .      .
```

2. REASON FOR OUTPUT

To display the status of the trunk reservation (TR) controls. This message is a response to the OP:TR input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination status. Valid value(s):
- `ABORTED` = Retry message.
- `COMPLETED` = This is the last of a series of messages.
- `CONTINUED` = This is the next of a series of messages.
- `FAILED PARAMETER` = Invalid parameter.
- `STARTED` = This is the first of a series of messages.

`b` = TR inhibit override status. Valid value(s):
- `N` = TR inhibits remain in effect.
- `Y` = All TR inhibits have been overridden.

`c` = Trunk group (TG) number.

`d` = Reservation level 1 (RL1). Number of idle circuits per trunk group reserved.

`e` = Reservation level 2 (RL2). Number of idle circuits per trunk group reserved.

`f` = TR control response (RESP) category. This depends on the reservation level and the traffic type to give the proper percentage in the response category

TR Response Category

RESERVATION LEVEL	TRAFFIC TYPE	A	B	C	D	E
RL1	Alternate route	0%	0%	0%	100%	0%
RL1	Direct rout	0%	0%	0%	0%	0%
RL2	Alternate route	0%	100%	100%	100%	0%
RL2	Direct route	0%	0%	0%	100%	0%

`g` = Control (CNTL) action. Valid value(s):
- `CANT` = TR cancel-to control.
- `SKIP 2` = TR skip control.

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`h` = Automatic reservation adjustment (ARA) option adjusts the reservation levels on a per-call basis according to the traffic load on the trunk group. Valid value(s):

`N` = ARA is not in effect.
`Y` = ARA is in effect.

`i` = TR control inhibited (INH). Valid value(s):

`N` = TR control is allowed.
`Y` = TR control is inhibited.

4. ACTION TO BE TAKEN

If 'a' =	Action:
ABORTED	Retry the input message.
FAILED	This message is a failure because of an input parameter error.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ASGN:TR
OP:TR
```

Other Manual(s):
235-190-103 *Business and Residence Feature Description*
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

130 (NM EXCEPTION)

OP:TRACE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP TRACE STARTED
        STAT:  a
        PROC:  b
        NODE:  c

[2]   ____________________________________________________________________
      OP TRACE INPROG
        SUBSYSTEM            DETAIL(HEX)
         d                    e
         .                    .
         .                    .
         .                    .
         d                    e

[3]   ____________________________________________________________________
      OP TRACE COMPL
```

2. REASON FOR OUTPUT

To report the termination status of the OP:TRACE input message. Format 1 prints at the start of the request. Format 2 prints the body of the message. Format 3 prints when the message has finished processing.

3. VARIABLE FIELD DEFINITIONS

a = State. Valid value(s):
ACTIVE
INACTIVE

b = Processor. Valid value(s):
AM = Administrative module.
NP = Node processor.

c = Node. Valid value(s):
ALL
NONE
Node identity = Name unit (for example, IUN32 1)
Slot identity = Name unit slot [for example, IUN32 1 (1)]

d = Subsystem identifier.

e = Detail flags in hexadecimal.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message

```
ALW:TRACE
INH:TRACE
OP:TRACE
SET:TRACE
```

Output Message

```
ALW:TRACE
INH:TRACE
REPT:TRACE
SET:TRACE
```

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OP:TRAP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP TRAP STATUS IN PROG

        TRAP     TRM                                  RT   DK  MSG
         ID STAT RSN RATE   START TIME   END TIME    DISP SAVE COLL

         a   b    c   d          e          f         g    h    i

        OP TRAP STATUS COMPL

[2]   ____________________________________________________________________
      OP TRAP STATUS IN PROG

                      TRAP INFORMATION  [ID  a]

        STAT      b   RATE        d    RT DISP   g   START TIME   ee:ee ee/ee
        TRM RSN   c   MSG COLL    i    DK SAVE   h   END TIME     ff:ff ff/ff
        LINK(S): {p|NO AFFECTED LINK}


                      SET:TRAP COMMAND INFORMATION

        RATE     m   DUR        s    MCNT     t   ST          u
        RTDSP    n   SAVE       o    DEST     v   MGSZE       w
        LINK(S): q  r


         NAME       X'OFST       X'VALUE      X'MASK
        ---------------------------------------------------
           x         [y]           z          [a1]

        OP TRAP STATUS COMPL

[3]   ____________________________________________________________________
      OP TRAP STATUS IN PROG

                     TRAP INFORMATION  [ID  a]

        STAT      b   RATE        d    RT DISP   g   START TIME   ee:ee ee/ee
        TRM RSN   c   MSG COLL    i    DK SAVE   h   END TIME     ff:ff ff/ff
        LINK(S): {p|NO AFFECTED LINK}


                      SET:TRAP COMMAND INFORMATION

        RATE     m   DUR        s    MCNT     t   ST          u
```

```
RTDSP    n   SAVE       o    DEST     v   MGSZE       w
LINK(S): q  r


   NAME       X'OFST       X'VALUE      X'MASK
-----------------------------------------------------
    x          [y]            z          [a1]

OP TRAP STATUS COMPL
```

[4]

```
OP TRAP RESULT IN PROG

  ID   a   NBYTES   j   LN   kk-kk     day mo mm:hh:ss yr

        < Refer to format 15 through format 25 >

  OP TRAP RESULT COMPL
```

[5]

```
OP TRAP
  MTRP: OP TRAP COMPL; NO TRAP IN SYSTEM
```

[6]

```
OP TRAP
  MTRP: OP TRAP IN PROG; SPECIFIED DEST = {m|DEF}
```

[7]

```
OP TRAP
  MTRP: OP TRAP FAILED; c1
```

[8]

```
OP TRAP
  MTRP: OP TRAP ID COMPL; NO MSG COLLECTED
```

[9]

```
OP TRAP
  MTRP: OP TRAP ID COMPL
```

[10]

```
OP TRAP
  MTRP: OP TRAP ID FAILED; d1; ID = a
```

[11]

```
OP TRAP
  MTRP: OP TRAP ID IN PROG; SPECIFIED DEST = b1
```

[12]

```
OP TRAP
  MTRP: OP TRAP ID RTDSP l COMPL
```

[13]

```
OP TRAP
  MTRP: OP TRAP ID LFORM e1  COMPL
```

[14] _____

OP TRAP

MTRP: OP TRAP ID LFORM e^1 FAILED; RETRY LATER; ID = a

[15] _____

OP TRAP

ID f^1 NBYTES g^1 LN h^1-i^1 j^1

k^1 k^1 k^1 k^1 k^1
k^1 k^1 k^1 k^1 k^1

ISDN7: SIO=l^1 DPC=m^1 OPC=n^1
SLS=o^1 MTYPE=f^2 CIC=q^1

[16] _____

OP TRAP

ID f^1 NBYTES g^1 LN h^1-i^1 j^1

k^1 k^1 k^1 k^1 k^1
k^1 k^1 k^1 k^1 k^1

SCCP7: SIO=l^1 DPC=m^1 OPC=n^1
SLS=o^1 MTYPE=r^1 {PCLASS=s^1|DGPAR=n}

[17] _____

OP TRAP

ID f^1 NBYTES g^1 LN h^1-i^1 j^1

k^1 k^1 k^1 k^1 k^1
k^1 k^1 k^1 k^1 k^1
SCMG7: SIO=l^1 DPC=m^1 OPC=n^1
SLS=o^1 FMTID=t^1

[18] _____

OP TRAP

ID f^1 NBYTES g^1 LN h^1-i^1 j^1
k^1 k^1 k^1 k^1 k^1
k^1 k^1 k^1 k^1 k^1

SNM7: SIO=l^1 DPC=m^1 OPC=n^1
SLS=o^1 H0/H1=p^1 [AFFPC=u^1]

[19] _____

OP TRAP

ID f^1 NBYTES g^1 LN h^1-i^1 j^1

```
 k1     k1     k1     k1     k1
 k1     k1     k1     k1     k1


 ECIS:  SIO=l1  HDGINF=v1  BD=w1  TK=x1

[20]  ____________________________________________________________________
      OP TRAP

 ID  f1   NBYTES  g1   LN  h1-i1     j1

 k1     k1     k1     k1     k1
 k1     k1     k1     k1     k1


 DCIS:  SIO=l1   DPC=m1   OPC=n1
        SLS=o1 DOM=y1 DESTA=z1  DESTB=a2   FUNC=b2
        RF=c2      RC=d2      RTAD=e2

[21]  ____________________________________________________________________
      OP TRAP

 ID  f1   NBYTES  g1   LN  h1-i1     j1

 k1     k1     k1     k1     k1
 k1     k1     k1     k1     k1


 BAND6:    HDGINF=v1  BD=w1    TK=x1

[22]  ____________________________________________________________________
      OP TRAP

 ID  f1   NBYTES  g1   LN  h1-i1     j1

 k1     k1     k1     k1     k1
 k1     k1     k1     k1     k1


 DS6:   DOM=y1     DESTA=z1   DESTB=a2   FUNC=b2
        RF=c2      RC=d2      RTAD=e2

[23]  ____________________________________________________________________
      OP TRAP

 ID  f1   NBYTES  g1   LN  h1-i1     j1

 k1     k1     k1     k1     k1
 k1     k1     k1     k1     k1
```

```
        NM6:  HDGINF=g2   BD=w1

[24]    ____________________________________________________________
        OP TRAP

        ID  f1   NBYTES  g1   LN  h1-i1     j1

        k1     k1     k1     k1     k1
        k1     k1     k1     k1     k1


        MSPEC7:    SIO=l1     DPC=m1   OPC=n1
                   SLS=o1 H0/H1=h2

[25]    ____________________________________________________________
        OP TRAP

        ID  f1   NBYTES  g1   LN  h1-i1     j1

        k1     k1     k1     k1     k1
        k1     k1     k1     k1     k1


        UNDEF7:  SIO=l1     DPC=m1   OPC=n1
                 SLS=o1
```

2. REASON FOR OUTPUT

This output message is in response to an OP:TRAP input message.

For Format 1, if only OP:TRAP is given (in other words, no other keyword has been specified), the status information as detailed in this format will be printed for all existing traps on the message trap system.

For Format 2, if no trap ID was given and "LFORM Y" is specified, the status information as detailed in this format will be printed for all existing traps on the message trap system.

For Format 3, if only a trap ID was given, the status information and any trap results as detailed in this format will be printed for the specified trap.

For Format 4, individual trapped messages, if any, will be displayed in this format. It has the message trap header information and the content of the trapped message in enhanced buffer dump format.

For Format 5, if only OP:TRAP is given (in other words, no other keyword has been specified) and there is no trap on the message trap system, this format will be printed.

For Format 6, if no trap ID was given and DEST is specified, this format will be used to acknowledge the OP:TRAP input message. The trap status information as detailed in Format 1 will be displayed in the specified destination output class.

For Format 7, this format results when only OP:TRAP is given (in other words, no other keyword has been specified) and the processing of the input message has failed for the reason being displayed.

For Format 8, if only a trap ID was given, normally the status information and any trap results as detailed in Format 3 will be printed for the specified trap. In this format, only the trap status information will be printed since no message

was collected for this trap.

For Format 9, if only a trap ID was given, the status information and any trap results as detailed in Format 3 will be printed for the specified trap. This format serves as a positive acknowledgement to the input message that has been successfully processed to completion.

For Format 10, this format results when a trap ID has been given (other keywords may have been specified as well) and the processing of the input message has failed because of the reason being displayed.

For Format 11, if a trap ID was given and DEST is specified, this format will be used to acknowledge the OP:TRAP input message. The trap status information and any trap results as detailed in Format 3 will be displayed in the specified destination output class.

For Format 12, if a trap ID was given and RTDSP is specified with Y or N option, this format will be printed to acknowledge the input message which has been processed successfully.

For Format 13, if a trap ID was given and LFORM is specified with Y or N option, this format will be printed to acknowledge the input message that has been processed successfully.

For Format 14, if a trap ID was given and LFORM is specified with Y or N option, this format will be printed to acknowledge the input message that has not been processed successfully.

Formats 15 - 25 contain the decoded results of the particular trapped message.

For Format 15, in some ISND7 messages, the names of some fields may be meaningless.

For Format 16, in SCCP messages other than UDT and UDTS, the names of some fields such as MTYPE may be meaningless.

For Format 18, in SNM7 messages with a Message Group of CHM, ECM or MIM the AFFPC field is not present and will not be printed.

For Format 20, when the RF=0, the RC and RTAD are not valid.

For Format 23, NM6 is printed for all messages whose HDGINF field begins with binary 111.

3. VARIABLE FIELD DEFINITIONS

`a` = Trap identification number.

`b` = Trap state. Valid value(s):

`ABT`	= Aborted trap.
`ACT`	= Active trap.
`CMP`	= Completed trap.
`INH`	= Inhibited trap.
`PND`	= Pending trap.
`TRM`	= Terminated trap.

`c` = Termination reason. Valid value(s):

`0`	= Unspecified
`1`	= The trap has gone to completion gracefully (due to message count).
`2`	= The trap has gone to completion gracefully (due to duration).
`3`	= User initiated STOP:TRAP.
`4`	= Inhibited for too long; abort trap.

5 = Resource problem at the administrative module (AM).
6 = Frequency of disk write at the AM exceeds threshold.
7 = Disk space exhausted in "no overwrite" mode.
8 = MTRP incore buffers unavailable during disk write.
9 = Common network interface (CNI) level 1 initialization has occurred.
10 = Trap aborted at all concerned link node(s); because of resource or congestion problem(s) at link node(s).
11 = All concerned link nodes are out of service (OOS).
12 = All concerned link nodes are either OOS or have aborted the trap.
13 = Problem occurred during status check or audit.

d = Rate of trapping (one out of a specified number of messages).

e = Starting time of trap, in the form hour:minute month/day.

f = Ending time of trap, in the form hour:minute month/day.

g = Real time display. Valid value(s):
N = No
Y = Yes

h = Saved collected messages on disk. Valid value(s):
N = No
Y = Yes

i = Number of trapped messages collected.

j = Length of trapped message in bytes.

k = Link number in group number and member number format.

l = Real time display. Valid value(s):
N = No
Y = Yes

m = Rate of trapping. If DEF is output, then a value was not given in the SET:TRAP input message; default used.

n = Real time display. Valid value(s):
DEF = a value was not given in the SET:TRAP input message; default used.
N = No
Y = Yes

o = Saved collected messages on disk. Valid value(s):
N = No
Y = Yes

p = List of link numbers (currently affected by this trap) in group number and member number format. If no link is currently affected by this trap, the following will be printed:

NO AFFECTED LINK

q = Link information given in SET:TRAP input message. Valid value(s):
LNKLST = Link list values were given.
LNKR = Link range value was given.
LNKSET = Link set value was given.

r = Link information given in SET:TRAP input message (refer to variable 'q')

If 'q' =	'r' =
LNKR	The number of links (next to LNKLST). The list of links in group number and member number format is printed on the next line.
LNKR	The link range in group number and member number to group number and member number format.
LNKSET	The link set value.

s = Duration of trapping, in the form hour,minute. If DEF is output, then a value was not given in the SET:TRAP input message; default used.

t = Number of trapped messages to be collected. If DEF is output, then a value was not given in the SET:TRAP input message; default used.

u = Number of minutes to start the trap from the time when the SET:TRAP input message was entered. If IMMD is output, then the trap was to be started immediately after the SET:TRAP input message was entered.

v = Message class number for output of trap information.

w = Maximum trapped message size (in bytes) that will be saved and displayed.

x = Keywords of parameters as given in SET:TRAP input message. Valid value(s):

MTYPE, OPC, DPC, SOPC, CGT, CGPC, CGSN, CGGT1, CGGT2, CDT, CDPC, CDSN, CDGT1, CDGT2, DMI, DOM, DESA, DESB, BNM, VLN, RFR, RC, RTAD, OFSTB, MODE

Note: CGGT1 gives high order 2 bytes of CGGT. CGGT2 gives low order 4 bytes of CGGT. CDGT1 gives high order 2 bytes of CDGT. CDGT2 gives low order 4 bytes of CDGT. CGGT and CDGT are used in the SET:TRAP input message.

y = Offset value in hexadecimal.

z = Bit pattern value in hexadecimal.

If 'x' =	'z' =
MTYPE	BAN6, DS6, NM6, ALL6, DCIS, ECIS7, ISDN7, MREG7, MSPEC7, SNM7, SCCP, NM67, ALL7
MODE	Either IN or OUT.

For further information on the meanings refer to the SET:TRAP input manual.

a^1 = Bit mask value, in hexadecimal.

Note: When there is no input parameter, NO OTHER INPUT PARAMETERS will be used in place of the table containing 'x','y','z','a^1'.

b^1 = Destination output class specified in OP:TRAP input message.

c[1] = Response to failed OP:TRAP input message (no other keyword is specified). Valid value(s):
PREVIOUS OP TRAP IN PROGRESS
RETRY LATER

d[1] = Response to failed OP:TRAP input message (keyword ID is specified). Valid value(s):
INVALID ID = ID does not belong to any trap
INVALID TRAP STATE = internal error
PND TRAP = pending trap does not have trap results
RETRY LATER = try again later

e[1] = Long format status display. Valid value(s):
N = No
Y = Yes

f[1] = Trap ID.

g[1] = Length of the common channel signaling (CCS) message in bytes.

h[1] = Group number.

i[1] = Member number.

j[1] = Time stamp (for example: Wed Apr 11 19:11:02 1990).

k[1] = The whole hexadecimal message printed out in 5 words per line for as many lines as needed.

l[1] = Service indicator of the SIO in decimal.

m[1] = Destination point code (DPC) in decimal and hexadecimal (network ID, region, cluster).

n[1] = Origination point code (OPC) in decimal and hexadecimal (network ID, region, cluster).

o[1] = Signaling link selection.

p[1] = The symbolic value from the H0/H1 code. Valid value(s):
CBA = Change back acknowledgement signal.
CBD = Change back declaration signal.
COA = Change over acknowledgement signal.
COO = Change over order signal.
ECA = Emergency changeover acknowledgement signal.
ECO = Emergency changeover order signal.
LFU = Link forced uninhibit message.
LIA = Link inhibit acknowledgement message.
LID = Link inhibit denied message.
LIN = Link inhibit message.
LUA = Link uninhibit acknowledgement.
LUN = Link uninhibit message.
RCP = Signaling route set test cluster prohibited signal.
RCR = Signaling route set test cluster restricted signal.
RCT = Signaling route set congestion test signal.
RSP = Signaling route set test prohibited signal.

RSR = Signaling route set test restricted signal.
TCA = Transfer cluster allowed signal.
TCP = Transfer cluster prohibited signal.
TCR = Transfer cluster restricted signal.
TFA = Transfer allowed signal.
TFC = Transferred controlled signal.
TFP = Transfer prohibited signal.
TFR = Transfer restricted signal.

q[1] = The decimal value for the circuit identification code (CIC) field.

r[1] = Message type. Valid value(s):
CO_AK = Data acknowledgement.
CO_CA = Connection failure acknowledgement.
CO_CC = Connection confirm.
CO_CF = Connection failure.
CO_CR = Connection request.
CO_CREF = Connection refused.
CO_DT1 = Data form 1.
CO_DT2 = Data form 2.
CO_EA = Expected data acknowledgement.
CO_ED = Expected data.
CO_ERR = Error.
CO_IT = Inactivity test.
CO_RLC = Connection released complete.
CO_RLSD = Connection released.
CO_RSC = Reset confirmation.
CO_RSR = Reset request.
UDT = Unit data.
UDTS = Unit data service signal.

s[1] = The hexadecimal value for the PCLASS or DGPAR field.

t[1] = Format ID. Valid value(s):
SBR = Subsystem backup routing.
SNR = Subsystem normal routing.
SOG = Subsystem out of service grant.
SOR = Subsystem out of service request.
SRT = Subsystem routing status test
SSA = Subsystem allowed.
SSP = Subsystem prohibited.
SST = Subsystem status test.

u[1] = The affected point code in decimal and hexadecimal (network ID, region, cluster).

v[1] = Heading information flag. Valid value(s):
ADC = Address complete, charge.
ADI = Address incomplete.
ANC = Answer, charge.
BLO = Blocking.

CB1	= Clear back #1.
CB2	= Clear back #2.
CB3	= Clear back #3.
CBK	= Crankback.
CFL	= Call failure.
CLF	= Clear forward.
COF	= Confusion.
COT	= Continuity.
IAM	= Initial address message.
MMUM	= Miscellaneous multi-unit message.
MRF	= Message refusal.
NTC	= National trunk congestion.
NSC	= National switching congestion.
RA1	= Reanswer #1.
RA2	= Reanswer #2.
RA3	= Reanswer #3.
RCT	= Recycle continuity timer.
RLG	= Release guard.
RST	= Reset trunk.
SSB	= Customer busy (subscriber busy, electrical).
SSD	= Second start dial.
UBL	= Unblocking.

w[1] = Band number.

x[1] = Trunk number.

y[1] = Domain.

z[1] = Destination A.

a[2] = Destination B.

b[2] = Function number.

c[2] = Return flag.

d[2] = Return code.

e[2] = Return address.

f[2] = Message type for ISDN messages. Valid value(s):

ACM	= Address complete.
ANM	= Answer.
BLA	= Blocking acknowledgement.
CCR	= Continuity check request.
CFN	= Confusion.
CGB	= Circuit group blocking.
CGBA	= Circuit group blocking acknowledgement.
CMR	= Call modification request.
CMC	= Call modification completed.
CMRJ	= Call modification reject.

CON	= Connect.
COT	= Continuity.
CPG	= Call progress.
CQM	= Circuit query.
CQR	= Circuit query response.
CRA	= Circuit reservation acknowledgement.
CRM	= Circuit reservation.
CSVR	= Closed user group selection and validation request.
CSVS	= Closed user group selection and validation response.
CVR	= Circuit validation test response.
CVT	= Circuit validation test.
DRS	= Delayed release.
EXM	= Exit.
FAA	= Facility accepted.
FAD	= Facility deactivated.
FAI	= Facility information.
FAR	= Facility request.
FOT	= Forward transfer.
FRJ	= Facility reject.
GRA	= Circuit group reset acknowledgement.
GRS	= Circuit group reset.
IAM	= Initial address.
INF	= Information.
INR	= Information request.
LPA	= Loop-back acknowledgement.
OLM	= Overload.
PAM	= Pass along.
REL	= Release.
RES	= Resume.
RLC	= Release complete.
RSC	= Reset circuit.
RSVP	= RSVP message.
RSVR	= RSVP reply.
SAI	= SDN SID/ANI increment.
SAM	= Subsequent address.
SSD	= Second start redial.
SUS	= Suspend.
UBL	= Unblocking.
UCI	= Unequipped CIC.
USR	= User to user information.
VCR	= Virtual connection request.

g^2 = Heading information flag. Valid value(s):

BD1	= Broadcast dynamic overload control level 1.
BD2	= Broadcast dynamic overload control level 2.
BD3	= Broadcast dynamic overload control level 3.
COV	= Changeover.
DEL	= Delimiter.
DOC1	= Dynamic overload control level 1.
DOC2	= Dynamic overload control level 2.

DOC3	= Dynamic overload control level 3
DOCO	= Dynamic overload control OFF.
DOCRE	= Dynamic overload control refusal.
ELT	= Emergency load transfer.
ENDOC	= Enable dynamic overload control.
ESU	= End of status update.
GSC	= Group signaling congestion.
IGDOC	= Ignore dynamic overload control.
LKA	= Link alarm signal.
LKF	= Link failed.
LKN	= Link normal.
LTA	= Load transfer acknowledgement.
LTR	= Load transfer request.
MCA	= Manual changeover acknowledgement.
MCO	= Manual changeover.
MVT	= Manual voice frequency link transfer.
PRO	= Processor outage.
PSC	= Processor signaling congestion.
RD1	= Remove dynamic overload control level 1.
RD2	= Remove dynamic overload control level 2.
RD3	= Remove dynamic overload control level 3.
RAB	= Request all band status of signaling transfer point (STP).
RLK	= Request link status of STP.
RPB	= Request particular band status of STP.
RSB	= Reset band.
TFA	= Transfer allowed.
TFP	= Transfer prohibited.
TFR	= Transfer restricted.
TQU	= Trunk query.
TSV	= Test standby voice frequency link.
VLF	= Voice frequency link test failed.
VLP	= Voice frequency link test passed.

h^2 = Signaling network test and maintenance message. Valid value(s):

SLT	= Signaling link test message.
SLTA	= Signaling link test message acknowledgement.

4. ACTION TO BE TAKEN

Formats 1-6, 8, 9, 11-13, and 15-25, none.

For Format 7, wait at least 1 minute and try again.

For Format 10, if an internal error condition occurs, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual ; otherwise, message is self-explanatory.

For Format 14, wait at least 3 minutes and try again.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRAP
INH:TRAP
OP:TRAP
SET:TRAP
STOP:TRAP
```

Output Message(s):

```
ALW:TRAP
INH:TRAP
REPT:MON-TRAP
SET:TRAP
STOP:TRAP
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

OP:TRC-ALCB

Software Release: 5E10 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
OP TRC ALCB EVENT=a b c CHAN d ERR e
  ALCB f
  g...g   g...g   g...g   g...g   g...g   g...g   g...g   g...g
```

2. REASON FOR OUTPUT

To respond to a request to print the access line control block (ALCB) data structure collected by the most recent packet utility call trace snapshot.

3. VARIABLE FIELD DEFINITIONS

`ALCB` = Specific access line control block data structure to be printed.

`CHAN` = Channel of a packet utility call trace.

`EVENT` = Variables '`a`', '`b`', and '`c`' are event tags linking all messages reporting on the same trace.

`a` = Event number.

`b` = Secondary event identifier; associated remote switching module or host switching module data will have the same value.

`c` = Event switching module (SM) type. Valid value(s):

- `HSM` = Host switching module.
- `LSM` = Local switching module.
- `ORM` = Optical remote module.
- `RSM` = Remote switching module.
- `TRM` = Two-mile remote module.

`d` = Channel type. Valid value(s):

- `B1`
- `B2`
- `D`
- `TRK` = For X.75 or X.75' trunks.
- `XAT`

`e` = Error indicator. Valid value(s):

- `N` = No errors were encountered.
- `Y` = Errors were encountered in collecting the trace data; look for asserts or a TRC:UTIL-ERR output message with this event tag and process ID.

`f` = ALCB index.

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`g` = Hex dump of the contents of the ALCB.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRC
TRC:UTIL
```

Output Message(s):

```
OP:TRC-B-CHAN
OP:TRC-D-CHAN
OP:TRC-T-CHAN
OP:TRC-LCN
OP:TRC-PKL2DATA
TRC:UTIL-ERR
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

131-140 (CALL TRACE MENU)

OP:TRC-B-CHAN

Software Release: 5E10 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
OP TRC B-CHAN EVENT=a b c PID d e f ERR g h
  PORTLA
  i...i   i...i   i...i   i...i   i...i   i...i   i...i   i...i
  DPB
  j...j   j...j   j...j   j...j   j...j   j...j   j...j   j...j
  ISLU PTSB
  k...k   k...k   k...k   k...k   k...k   k...k   k...k   k...k
  PSU PTSB
  l...l   l...l   l...l   l...l   l...l   l...l   l...l   l...l
  CHDB
  m...m   m...m   m...m   m...m   m...m   m...m   m...m   m...m
```

2. REASON FOR OUTPUT

To respond to a user request for output of the data structures collected by the most recent packet utility call trace snapshot. This message dumps the PORT linkage area (PORTLA), D-channel port block (DPB) for the B-channel, PIDB time slot block (PTSB), and the channel data block (CHDB).

3. VARIABLE FIELD DEFINITIONS

`EVENT` = Variables '`a`', '`b`', and '`c`' are event tags linking all messages reporting on the same trace.

`PID` = Variables '`d`', '`e`', and '`f`' make up the process ID (PID) of the process controlling a traced connection. All messages describing one connection of a call will have the same PID.

`a` = Event number.

`b` = Secondary event identifier; associated remote switching module (RSM) or host switching module (HSM) data will have the same value.

`c` = Event switching module (SM) type. Valid value(s):

- `HSM` = Host switching module.
- `LSM` = Local switching module.
- `ORM` = Optical remote module.
- `RSM` = Remote switching module.
- `TRM` = Two-mile remote module.

`d` = Process number of the PID.

`e` = Switching module number of the PID.

`f` = Uniqueness number of the PID.

`g` = Error indicator. Valid value(s):

- `N` = No errors were encountered.

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`Y` = Errors were encountered in collecting the trace data; look for asserts or a TRC:UTIL-ERR output message with this event tag and process ID.

`h` = Circuit switch or packet switch utility call trace. Valid value(s):
- `CKT` = B-channel for circuit switch utility call trace.
- `PKT` = B-channel for packet switch utility call trace.

`i` = Hex dump of the contents of the PORTLA.

`j` = Hex dump of the contents of the DPB.

`k` = Hex dump of the contents of the integrated services line unit (ISLU) PTSB.

`l` = Hex dump of the contents of the packet switch unit (PSU) PTSB.

`m` = Hex dump of the contents of the CHDB.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRC
TRC:UTIL
```

Output Message(s):

```
OP:TRC-ALCB
OP:TRC-D-CHAN
OP:TRC-LCN
OP:TRC-PKL2DATA
TRC:UTIL-ERR
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-105-220	*Corrective Maintenance*
235-190-115	*Local and Toll System Features*
235-600-23x	*Dynamic Data*
235-600-400	*Audits*

MCC Display Page(s):

131-140 (CALL TRACE MENU)

OP:TRC-CHAN

Software Release: 5E10 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
OP TRC CHAN EVENT=a b c PID d e f ERR g
  CCBCOM
  h...h   h...h   h...h   h...h   h...h   h...h   h...h   h...h
  CQB
  i...i   i...i   i...i   i...i   i...i   i...i   i...i   i...i
  CHDB
  j...j   j...j   j...j   j...j   j...j   j...j   j...j   j...j
```

2. REASON FOR OUTPUT

To print data structures collected by the most recent utility call trace snapshot. This message describes the peripheral time slot (channel) and related data structures linking it to a process.

3. VARIABLE FIELD DEFINITIONS

`EVENT` = Variables '`a`', '`b`', and '`c`' are event tags linking all messages reporting on the same trace.

`PID` = Variables '`b`', '`c`', and '`d`' make up the process ID (PID) of the process controlling a traced connection. All messages describing one connection of a call will have the same PID.

`a` = Event number.

`b` = Secondary event identifier; associated remote switching module (RSM) or host switching module (HSM) data will have the same value.

`c` = Event switching module (SM) type. Valid value(s):

- `HSM` = Host switching module.
- `LSM` = Local switching module.
- `ORM` = Optical remote module.
- `RSM` = Remote switching module.
- `TRM` = Two-mile remote module.

`d` = Process number of the PID.

`e` = Switching module number of the PID.

`f` = Uniqueness number of the PID.

`g` = Error indicator. Valid value(s):

- `N` = No errors were encountered.
- `Y` = Errors were encountered in collecting the trace data; look for asserts or a TRC:UTIL-ERR output message with this event tag and process ID.

`h` = Hexadecimal dump of the contents of the channel control block common area (CCBCOM), the PC background data.

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`i` = Hexadecimal dump of the contents of the head circuit queuing block linked to the CCBCOM.

`j` = Hexadecimal dump of the contents of the source channel data block linked to the CCBCOM.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRC
TRC:IPCT
TRC:UTIL
```

Output Message(s):

```
OP:TRC-ACCS
OP:TRC-APB
OP:TRC-BST
OP:TRC-CKT
OP:TRC-COIN
OP:TRC-CR
OP:TRC-CV
OP:TRC-D-CHAN
OP:TRC-DISP
OP:TRC-EIS
OP:TRC-HLSC
OP:TRC-ISDN
OP:TRC-LOOP
OP:TRC-MDB
OP:TRC-NTWK
OP:TRC-OPT
OP:TRC-PROC
OP:TRC-SHDN
OP:TRC-SRVOT
OP:TRC-TALOOP
TRC:UTIL-ERR
TRC:UTIL-HSM
TRC:UTIL-IDLE
TRC:UTIL-INTERN
TRC:UTIL-LINE
TRC:UTIL-TRK
```

Other Manual(s):
235-600-400 *Audits*

MCC Display Page(s):

131-140 (CALL TRACE MENU)

OP:TRC-CKT

Software Release: 5E10 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
OP TRC CKT EVENT=a b c PID d e f ERR g
  CDBCOM NUM h LINK i
  j...j   j...j   j...j   j...j   j...j   j...j   j...j   j...j
  CKTDATA
  k...k   k...k   k...k   k...k   k...k   k...k   k...k   k...k
  CHAN
  l...l   l...l   l...l   l...l   l...l   l...l   l...l   l...l
  UTD
  m...m   m...m   m...m   m...m   m...m   m...m   m...m   m...m
  CQB
  n...n   n...n   n...n   n...n   n...n   n...n   n...n   n...n
```

2. REASON FOR OUTPUT

To print the requested data structures collected by the most recent utility call trace snapshot. This message contains data blocks describing circuits allocated to the traced call connection.

3. VARIABLE FIELD DEFINITIONS

`EVENT` = Variables '`a`', '`b`', and '`c`' are event tags linking all messages reporting on the same trace.

`PID` = Variables '`d`', '`e`', and '`f`' make up the process ID (PID) of the process controlling a traced connection. All messages describing one connection of a call

`a` = Event number.

`b` = Secondary event identifier; associated remote switching module (RSM) or host switching module (HSM) data will have the same value.

`c` = Event switching module (SM) type. Valid value(s):

- `HSM` = Host switching module.
- `LSM` = Local switching module.
- `ORM` = Optical remote module.
- `RSM` = Remote switching module.
- `TRM` = Two-mile remote module. have the same PID.

`d` = Process number of the PID.

`e` = SM number of the PID.

`f` = Uniqueness number of the PID.

`g` = Error indicator. Valid value(s):

- `N` = No errors were encountered.
- `Y` = Errors were encountered in collecting the trace data; look for a TRC:UTIL-ERR

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message with this same event tag and process ID.

`h` = The number of circuit data blocks (CDBs) allocated to the process (call connection).

`i` = The circuit data block in the set linked to the channel control block (CCB). Valid value(s):
`HEAD` = The first CDB in the list.
`TAIL` = The last CDB in the list.

`j` = Hexadecimal dump of the contents of the circuit data block.

`k` = Hexadecimal dump of the contents of the static circuit data.

`l` = Hexadecimal dump of the contents of the channel relation associated with the circuit.

`m` = Hexadecimal dump of the contents of the universal tone decoder relation associated with the circuit.

`n` = Hexadecimal dump of the contents of the head circuit queuing block linked to the CDB.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CLID
OP:TRC
TRC:IPCT
TRC:UTIL
```

Output Message(s):

```
OP:TRC-ACCS
OP:TRC-APB
OP:TRC-BST
OP:TRC-CHAN
OP:TRC-COIN
OP:TRC-CR
OP:TRC-CV
OP:TRC-D-CHAN
OP:TRC-DISP
OP:TRC-EIS
OP:TRC-HLSC
OP:TRC-ISDN
OP:TRC-ISDN
OP:TRC-LOOP
OP:TRC-MDB
```

```
OP:TRC-NTWK
OP:TRC-OPT
OP:TRC-PROC
OP:TRC-SHDN
OP:TRC-SRVOT
OP:TRC-TALOOP
OP:CLID-LIST
TRC:UTIL-ERR
TRC:UTIL-HSM
TRC:UTIL-IDLE
TRC:UTIL-INTERN
TRC:UTIL-LINE
TRC:UTIL-TRK
```

MCC Display Page(s):

131-140 (CALL TRACE MENU)

OP:TRC-CLDB

Software Release: 5E10 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
OP TRC CLDB EVENT=a b c PID d e f ERR g
  CLDB h
  i...i i...i i...i i...i i...i i...i i...i i...i
```

2. REASON FOR OUTPUT

To print data structures collected by the most recent utility call trace snapshot. This message dumps the call leg data block (CLDB). This message is in response to an OP:TRC input message.

3. VARIABLE FIELD DEFINITIONS

`EVENT` = Variables '`a`', '`b`', and '`c`' are event tags linking all messages reporting on the same trace.

`PID` = Variables '`d`', '`e`', and '`f`' make up the process ID (PID) of the process controlling a traced connection. All messages describing one connection of a call will have the same PID.

`a` = Event number.

`b` = Secondary event identifier; associated remote switching module (RSM) or host switching module (HSM) data will have the same value.

`c` = Event switching module (SM) type. Valid value(s):

- `HSM` = Host switching module.
- `LSM` = Local switching module.
- `ORM` = Optical remote module.
- `RSM` = Remote switching module.
- `TRM` = Two-mile remote module.

`d` = Process number of the PID.

`e` = Switching module number of the PID.

`f` = Uniqueness number of the PID.

`g` = Error indicator. Valid value(s):

- `N` = No errors were encountered.
- `Y` = Errors were encountered in collecting the trace data; look for asserts or a TRC:UTIL-ERR output message with this event tag and process ID.

`h` = CLDB 1 to 5 represent the call leg data associated with a particular party.

`i` = Hexadecimal dump of the contents of the CLDB.

4. ACTION TO BE TAKEN

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None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRC
TRC:IPCT
TRC:UTIL
```

Output Message(s):

```
OP:TRC-ACCS
OP:TRC-APB
OP:TRC-BST
OP:TRC-CHAN
OP:TRC-CKT
OP:TRC-COIN
OP:TRC-CR
OP:TRC-CV
OP:TRC-D-CHAN
OP:TRC-DISP
OP:TRC-EIS
OP:TRC-HLSC
OP:TRC-ISDN
OP:TRC-LOOP
OP:TRC-MDB
OP:TRC-NTWK
OP:TRC-OPT
OP:TRC-PROC
OP:TRC-SHDN
OP:TRC-SRVOT
OP:TRC-TALOOP
TRC:UTIL-ERR
TRC:UTIL-HSM
TRC:UTIL-IDLE
TRC:UTIL-INTERN
TRC:UTIL-LINE
TRC:UTIL-LINK
TRC:UTIL-TRK
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*
235-600-23x *Dynamic Data*
235-600-400 *Audits*

MCC Display Page(s):

131-140 (CALL TRACE MENU)

OP:TRC-CR

Software Release: 5E10 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
OP TRC CR MSG=j EVENT=a b c PID d e f ERR g
  CR h
  i...i   i...i   i...i   i...i   i...i   i...i   i...i   i...i
```

2. REASON FOR OUTPUT

To print a call record (CR) collected by the most recent utility call trace resulting from an OP:TRC input message. A call record is associated with the printing of the originating end of each call. Three output messages may be printed for custom feature calls.

3. VARIABLE FIELD DEFINITIONS

`EVENT` = Variables '`a`', '`b`', and '`c`' are event tags linking all messages reporting on the same trace.

`PID` = Variables '`d`', '`e`', and '`f`' make up the process ID (PID) of the process controlling a traced connection. All messages describing one connection of a call will have the same PID.

`a` = Event number.

`b` = Secondary event identifier; associated remote switching module (RSM) or host switching module (HSM) data will have the same value.

`c` = Event switching module (SM) type. Valid value(s):

- `HSM` = Host switching module.
- `LSM` = Local switching module.
- `ORM` = Optical remote module.
- `RSM` = Remote switching module.
- `TRM` = Two-mile remote module.

`d` = Process number of the PID.

`e` = Switching module number of the PID.

`f` = Uniqueness number of the PID.

`g` = Error indicator. Valid value(s):

- `N` = No errors were encountered.
- `Y` = Errors were encountered in collecting the trace data; look for a TRC:UTIL-ERR message with this event tag and process ID.

`h` = Call record indicator. Valid value(s):

- `LEG1` = Call record for the first leg of the call. This will be the only call record if a plain old telephone service (POTS) call.
- `LEG2` = Call record for the second leg of the call. This will print in the case of multiway or

call waiting call.

`LEG3` = Call record for the third leg of the call. This will print in the case of a multiway call.

`LEG4` = Call record for the fourth leg of the call. This will print in the case of a multiway call.

`LEG5` = Call record for the fifth leg of the call. This will print in the case of a multiway call.

`i` = Hexadecimal dump of the contents of the call record.

`j` = Call record message number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRC
TRC:IPCT
TRC:UTIL
```

Output Message(s):

```
OP:TRC-ACCS
OP:TRC-APB
OP:TRC-BST
OP:TRC-CHAN
OP:TRC-CKT
OP:TRC-COIN
OP:TRC-CV
OP:TRC-D-CHAN
OP:TRC-DISP
OP:TRC-EIS
OP:TRC-HLSC
OP:TRC-ISDN
OP:TRC-LOOP
OP:TRC-NTWK
OP:TRC-OPT
OP:TRC-PROC
OP:TRC-SHDN
OP:TRC-SRVOT
OP:TRC-TALOOP
TRC:UTIL-ERR
TRC:UTIL-HSM
TRC:UTIL-IDLE
TRC:UTIL-INTERN
TRC:UTIL-LINE
TRC:UTIL-TRK
```

Other Manual(s):
235-600-400 *Audits*

MCC Display Page(s):

131-140 (CALL TRACE MENU)

OP:TRC-D-CHAN

Software Release: 5E10 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
OP TRC D-CHAN EVENT=a b c PID d e f ERR g m
  PORTLA
  h...h   h...h   h...h   h...h   h...h   h...h   h...h   h...h
  DPB
  i...i   i...i   i...i   i...i   i...i   i...i   i...i   i...i
  ISLU PTSB
  j...j   j...j   j...j   j...j   j...j   j...j   j...j   j...j
  PSU PTSB
  k...k   k...k   k...k   k...k   k...k   k...k   k...k   k...k
  CHDB
  l...l   l...l   l...l   l...l   l...l   l...l   l...l   l...l
```

2. REASON FOR OUTPUT

To print data structures collected by the most recent utility call trace snapshot. This message dumps the PORT linkage area (PORTLA), D-channel port block (DPB), peripheral interface data bus (PIDB) time slot block (PTSB), and the channel data block (CHDB). This message is in response to an OP:TRC input message.

3. VARIABLE FIELD DEFINITIONS

`EVENT` = Variables '`a`', '`b`', and '`c`' are event tags linking all messages reporting on the same trace.

`PID` = Variables '`d`', '`e`', and '`f`' make up the process ID (PID) of the process controlling a traced connection. All messages describing one connection of a call will have the same PID.

`a` = Event number.

`b` = Secondary event identifier; associated remote switching module (RSM) or host switching module (HSM) data will have the same value.

`c` = Event switching module (SM) type. Valid value(s):

- `HSM` = Host switching module.
- `LSM` = Local switching module.
- `ORM` = Optical remote module.
- `RSM` = Remote switching module.
- `TRM` = Two-mile remote module.

`d` = Process number of the PID.

`e` = Switching module number of the PID.

`f` = Uniqueness number of the PID.

`g` = Error indicator. Valid value(s):

- `N` = No errors were encountered.

`Y` = Errors were encountered in collecting the trace data; look for asserts or a TRC:UTIL-ERR output message with this event tag and process ID.

`h` = Hexadecimal dump of the contents of the PORTLA.

`i` = Hexadecimal dump of the contents of the DPB.

`j` = Hexadecimal dump of the contents of the integrated services line unit (ISLU) PTSB.

`k` = Hexadecimal dump of the contents of the packet switch unit (PSU) PTSB.

`l` = Hexadecimal dump of the contents of the CHDB.

`m` = D-channel. Valid value(s):
- `CKT` = D-channel for circuit switch utility call trace.
- `PKT` = D-channel for packet switch utility call trace.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRC
TRC:IPCT
TRC:UTIL
```

Output Message(s):

```
OP:TRC-ACCS
OP:TRC-ALCB
OP:TRC-APB
OP:TRC-B-CHAN
OP:TRC-BST
OP:TRC-CHAN
OP:TRC-CKT
OP:TRC-COIN
OP:TRC-CR
OP:TRC-CV
OP:TRC-D-CHAN
OP:TRC-DISP
OP:TRC-EIS
OP:TRC-HLSC
OP:TRC-ISDN
OP:TRC-LCN
OP:TRC-LOOP
```

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```
OP:TRC-MDB
OP:TRC-NTWK
OP:TRC-OPT
OP:TRC-PKL2DATA
OP:TRC-PROC
OP:TRC-SHDN
OP:TRC-SRVOT
OP:TRC-TALOOP
TRC:UTIL-ERR
TRC:UTIL-HSM
TRC:UTIL-IDLE
TRC:UTIL-INTERN
TRC:UTIL-LINE
TRC:UTIL-TRK
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-105-220	*Corrective Maintenance*
235-190-115	*Local and Toll System Features*
235-600-23x	*Dynamic Data*
235-600-400	*Audits*

MCC Display Page(s):

131-140 (CALL TRACE MENU)

OP:TRC-DISP

Software Release: 5E10 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
OP TRC DISP EVENT=a b c PID d e f ERR g
  DISPDB
  h...h   h...h   h...h   h...h   h...h   h...h   h...h   h...h
  DISPDB ATTENDANT
  i...i   i...i   i...i   i...i   i...i   i...i   i...i   i...i
```

2. REASON FOR OUTPUT

To print data structures collected by the most recent utility call trace snapshot. This message describes the data block that is associated with the integrated services digital network (ISDN) terminal display (DISP) feature. This message is in response to an OP:TRC input message.

3. VARIABLE FIELD DEFINITIONS

`EVENT` = Variables '`a`', '`b`', and '`c`' are event tags linking all messages reporting on the same trace.

`PID` = Variables '`d`', '`e`', and '`f`' make up the process ID (PID) of the process controlling a traced connection. All messages describing one connection of a call will have the same PID.

`a` = Event number.

`b` = Secondary event identifier; associated remote switching module (RSM) or host switching module (HSM) data will have the same value.

`c` = Event switching module (SM) type. Valid value(s):

- `HSM` = Host switching module.
- `LSM` = Local switching module.
- `ORM` = Optical remote module.
- `RSM` = Remote switching module.
- `TRM` = Two-mile remote module.

`d` = Process number of the PID.

`e` = Switching module number of the PID.

`f` = Uniqueness number of the PID.

`g` = Error indicator. Valid value(s):

- `N` = No errors were encountered.
- `Y` = Errors were encountered in collecting the trace data; look for asserts or a TRC:UTIL-ERR output message with this event tag and process ID.

`h` = Hexadecimal dump of the contents of the display data block (DISPDB).

`i` = Hexadecimal dump of the contents of the DISPDB used for attendants.

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4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRC
TRC:IPCT
TRC:UTIL
```

Output Message(s):

```
OP:TRC-ACCS
OP:TRC-APB
OP:TRC-BST
OP:TRC-CHAN
OP:TRC-CKT
OP:TRC-COIN
OP:TRC-CR
OP:TRC-CV
OP:TRC-D-CHAN
OP:TRC-EIS
OP:TRC-HLSC
OP:TRC-ISDN
OP:TRC-LOOP
OP:TRC-MDB
OP:TRC-NTWK
OP:TRC-OPT
OP:TRC-PROC
OP:TRC-SHDN
OP:TRC-SRVOT
OP:TRC-TALOOP
TRC:UTIL-ERR
TRC:UTIL-HSM
TRC:UTIL-IDLE
TRC:UTIL-INTERN
TRC:UTIL-LINE
TRC:UTIL-TRK
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*
235-600-23x *Dynamic Data*
235-600-400 *Audits*

MCC Display Page(s):

131-140 (CALL TRACE MENU)

OP:TRC-EVENT

Software Release: 5E10 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
OP TRC a [b][ MSG=c] EVENT=d[ PID e][ CHAN f] g END h ERR i
  n [o] [p]
  q...q   q...q   q...q   q...q   q...q   q...q   q...q   q...q
 [n [o] [p]]
 [q...q   q...q   q...q   q...q   q...q   q...q   q...q   q...q]
 [n [o] [p]]
 [q...q   q...q   q...q   q...q   q...q   q...q   q...q   q...q]
 [n [o] [p]]
 [q...q   q...q   q...q   q...q   q...q   q...q   q...q   q...q]
 [n [o] [p]]
 [q...q   q...q   q...q   q...q   q...q   q...q   q...q   q...q]
 [n [o] [p]]
 [q...q   q...q   q...q   q...q   q...q   q...q   q...q   q...q]
```

2. REASON FOR OUTPUT

To print data structures collected by the most recent utility call trace snapshot. This message is in response to an OP:TRC input message or if data is requested from a break point call trace. There may be from one to six data structures dumped in one message, so the second and third lines may be repeated.

3. VARIABLE FIELD DEFINITIONS

`CHAN` = Channel of a packet call.

`END` = End flag.

`ERR` = Error flag.

`EVENT` = The event tag linking all messages together for the same trace.

`MSG` = The message number. Some data structures are too large to dump in one message and so are split into multiple messages.

`PID` = The process ID (PID) of the process controlling a traced connection. All messages describing one connection of a call will have the same PID. Packet calls do not have a PID unless the call is queued or is an on-demand-B (ODB) packet call.

`a` = The data group classification. This indicates the type of data structures dumped. Refer to variable '`n`' for descriptions of the data structures. Valid value(s):

- `ACCS` = Data associated with operator services position system (OSPS) automated calling card service (ACCS) call. It includes the ACCSDB and QRYDB data structures.
- `ALCB` = Displays the access line control block. Collected by a packet utility call trace.
- `APB` = Displays the associated process block.
- `BST` = Data associated with an OSPS directory assistance (DA) operator position. It includes the POSDB and SPB data structures.

CHAN	= Data associated with the peripheral time slot (channel) and related data structures linking it to a process. It includes the CCBCOM, CQB, CHDB, DS0B, and PTSB data structures. PSU indicates that the data is associated with a packet switching unit (PSU).
CKT	= Data associated with circuits allocated to the traced call connection. It includes the CDBCOM and CHAN data structures.
CLDB	= Displays the call leg data block.
COIN	= Data associated with a toll and assistance (T/A) automated coin call. It displays the COINOT data structure.
CR	= Displays the call record.
CV	= Data associated with an OSPS call vectored (CV) call. It displays the CV_STATE data structure.
DISP	= Data associated with the ISDN display feature. It includes the DISPDB and DISP ATTENDANT data structures.
EIS	= Displays the EISCALL, EIS_LNK and EISLKSEL data structures when the call at the OSPS operator position is associated with an external information system (EIS).
HLSC	= Data associated with the high level service circuit for line connections. It includes the PCCCBFG, HLSCR, and HLSCP data structures.
ISDN	= Data associated with an integrated services digital network call. It includes the DALB, DALB ATTENDANT, and PRISTAT data structures.
ISDN2	= Additional data associated with an ISDN call. It includes the TEDB, BRCSDB, BRCSDB ATTENDANT, ACDPOSDB, and TEILA data structures.
LOOP	= Data associated with an OSPS DA operator position. Displays the LOOPDB data block.
LCN	= Displays the LCCB associated with a specified logical channel number. Collected by a packet utility call trace.
MDB	= Displays the model data block.
NTWK	= Data associated with the network path. It includes the PHDB(s) and TSDB data structures
OPT	= Data associated with the T/A operator position. It includes the TAPOSDB, QRYDB and the SPB data structures.
OSPS CR	= Displays the OSPS call record.
PKL2DATA	= Data associated with a level 2 packet connection. It includes the LLCB and the DCCB data structures. Collected by a packet utility call trace.
PROC	= Data associated with a process and port. Normally used for fault tracing. It includes the DPB, PCBLA, PORTLA, and LTSBDB data structures.
SHDN	= Data associated with a shared directory number or a multiline hunt group member number call. It includes the ADB, LTMSTAT and the (large) shared call model data block (SCMDB).
SRVOT	= Data associated with an OSPS operator position on a listing services (LS) call for originating treatment (OT) and EIS interface. It displays the SRVOT data structure.
TALOOP	= Data associated with an OSPS T/A operator position. It displays the call loop data blocks (TALOOPDB) for the traced loop.
TEILA	= The terminal equipment identifier linkage area(s) for an ISDN call.
WRLS	= Data associated with a wireless call. It includes the APXCTBL, APXFDB and GPAXDB(s).

b = The logical channel number (LCN) with which the logical channel control block (LCCB) is associated.

c = Data block message number.

d = The event number, the secondary event identifier, associated remote switching module (RSM) or host switching module (HSM), and the SM type. Valid value(s):

- HSM = Host switching module.
- LSM = Local switching module.
- ORM = Optical remote module.
- RSM = Remote switching module.
- TRM = Two-mile remote module.

e = The process number of the PID, the SM number of the PID, and uniqueness number of the PID.

f = Channel type is B1, B2, D, PRI, XAT or TRK (for X.75 or X.75' trunks).

g = Circuit switch or packet switched utility call trace. Valid value(s):

- CKT = Circuit switch utility call trace.
- PKT = Packet switch utility call trace.

h = Indicates whether this is the end of the data associated with this data block. Valid value(s):

- N = There is more data to follow with the same data block identifier, event number, and process ID (if available).
- Y = This is the last message associated with this data block.

i = Indicates whether errors were encountered in collecting the trace data. Valid value(s):

- N = There were no errors.
- Y = Errors were encountered. Look for asserts or a TRC:UTIL-FAILED output message with this event number and process ID (if available).

n = Indicates the data structure being dumped. Valid value(s):

- ACCSDB = Automated calling card service data block.
- ACDPOSDB = Automatic call distribution position data block.
- ADB = Analog data block.
- ALCB = Access line control block
- APB = Associated process block.
- APXCTBL = *Autoplex*® call table.
- APXFDB = *Autoplex*® feature data block.
- BRCSDB = Business and residential customer services data block.
- BRCSDB ATTENDANT = BRCSDB for attendants.
- CCBCOM = Channel control block communication region.
- CDBCOM = Circuit data block communication region.
- CHAN = Channel circuit data block.
- CHDB = Channel data block.
- CLDB = Call leg data block.
- COINOT = Automated coin data block.
- CQB = Circuit queuing block.
- CR = Call record.
- CV_STATE = Call vectoring data block.
- DALB = D-channel application linkage block.
- DALB ATTENDANT = DALB for attendants.
- DCCB = D-channel control block

DISPDB = Display data block.
DISPDB ATTENDANT = DISPDB for attendants.
DLTSBDB = Dynamic line time slot bridging data block.
DPB = D-channel port block.
DS0B = Digital signal level 0 data block.
EISCALL = EIS call data block.
EIS_LNK = EIS link message data block.
EISLKSEL = EIS links selected data block.
GPAXDB = General purpose annex data block.
HLSCP = Per call test high level service circuit descriptor.
HLSCR = Ringing high level service circuit descriptor.
LCCB = Logical channel control block.
LLCB = Logical link control block
LOOPDB = DA operator position call loop data block.
LSCMDB = Large shared call model data block.
LTMSTAT = Logical termination busy file status data block.
MDB = Model data block. The MDB type will be indicated by one of the following labels: FM (feature model), NEAR (near model), or CC (call control model).
OSPS CR = OSPS call record.
PCBLA = Process control block linkage area.
PCCCBFG = PC foreground data area.
PHDB = Path data block.
PORTLA = Port linkage area.
POSDB = DA operator position data block.
PRISTAT = PRI group status.
PTSB = Peripheral interface data bus (PIDB) time slot block.
QRYDB = Query data block.
SCMDB = Shared call model data block.
SPB = Supplementary protocol data block.
SRVOT = OSPS SRVOT data block.
TALOOP = T/A call loop data block.
TAPOSDB = T/A operator position data block.
TEDB = Terminal equipment data block.
TEILA = Terminal endpoint identifier linkage area.
TSDB SOURCE = Source time slot data block linked to PHDB.
TSDB SINK = Sink time slot data block linked to PHDB.

o = Valid value(s):

If 'n' =	**'o' =**
ALCB, DCCB, LCCB, or LLCB	Indicates the index.
APB, CLDB, GPAXDB, MDB, or TEILA	Indicates the order in which the structures were collected.
CDBCOM	Indicates the number of CDB's allocated to the process (call connection).
CR	A sequential number used to store the CRs. One CR (CR 1) will be displayed for a POTS call. Up to 5 CR will be displayed in the case of multiway.
PHDB	Indicates the number of PHDB's linked to the CCB.
TSDB	Indicates the number of source TSDB's linked to the PHDB.
TALOOP	Indicates the loop number of the traced call (1-3).

p = Valid value(s):

If 'n' =	**'p' =**
CDBCOM	Indicates whether this is the first (HEAD) or last (TAIL) CDBCOM linked to the CCBCOM.
PHDB	Indicates whether this is the first (HEAD) or last (TAIL) PHDB.

TSDB	Indicates if it is linked to the first (HEAD) or last (TAIL) PHDB.

q = Hexadecimal dump of the contents of the data structure being dumped.

4. ACTION TO BE TAKEN

None. This message is the result of a utility call trace data dump request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
TRC:UTIL
OP:TRC
```

Other Manual(s):

Where 'x' is the release specific version of the specified manual.
235-105-220 *Corrective Maintenance Procedures*
235-190-115 *Local and Toll System Features*
235-600-23x *Dynamic Data*

MCC Display Page(s):

131-132 (CALL TRACE MENU)
133-138 (HARDWARE CALL TRACE - 1 THROUGH 6)
139 (ISDN PACKET SWITCH CALL TRACE)
140 (HARDWARE CALL TRACE)
150 (TRACEABLE CALL STATUS)
151 (CONFERENCE CIRCUIT TRACE)

OP:TRC-HLSC

Software Release: 5E10 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
OP TRC HLSC EVENT a b c PID d e f ERR g
  PCCCBFG
  h...h   h...h   h...h   h...h   h...h   h...h   h...h   h...h
  HLSCR
  i...i   i...i   i...i   i...i   i...i   i...i   i...i   i...i
  HLSCP
  j...j   j...j   j...j   j...j   j...j   j...j   j...j   j...j
```

2. REASON FOR OUTPUT

To print the high level service circuit (HLSC) information collected by the most recent utility call trace snapshot. High level service circuit information is collected for line connections only.

3. VARIABLE FIELD DEFINITIONS

`EVENT` = Variables '`a`', '`b`', and '`c`' are event tags linking all messages reporting on the same trace.

`PID` = Variables '`d`', '`e`', and '`f`' make up the process ID (PID) of the process controlling a traced connection. All messages describing one connection of a call will have the same PID.

`a` = Event number.

`b` = Secondary event identifier; associated remote switching module (RSM) or host switching module (HSM) data will have the same value.

`c` = Event switching module (SM) type. Valid value(s):

- `HSM` = Host switching module.
- `LSM` = Local switching module.
- `ORM` = Optical remote module.
- `RSM` = Remote switching module.
- `TRM` = Two-mile remote module.

`d` = Process number of the PID.

`e` = Switching module number of the PID.

`f` = Uniqueness number of the PID.

`g` = Error indicator. Valid value(s):

- `N` = No errors were encountered.
- `Y` = Errors were encountered in collecting the trace data; look for a TRC:UTIL-ERR message with this event tag and process ID.

`h` = Hexadecimal dump of the contents of the PC foreground data area.

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`i` = Hexadecimal dump of the contents of the ringing high level service circuit descriptor.

`j` = Hexadecimal dump of the contents of the per call test high level service circuit descriptor.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CLID
OP:TRC
TRC:IPCT
TRC:UTIL
```

Output Message(s):

```
OP:TRC-ACCS
OP:TRC-APB
OP:TRC-BST
OP:TRC-CHAN
OP:TRC-CKT
OP:TRC-COIN
OP:TRC-CR
OP:TRC-CV
OP:TRC-D-CHAN
OP:TRC-DISP
OP:TRC-EIS
OP:TRC-ISDN
OP:TRC-LOOP
OP:TRC-MDB
OP:TRC-NTWK
OP:TRC-OPT
OP:TRC-PROC
OP:TRC-SHDN
OP:TRC-SRVOT
OP:TRC-TALOOP
OP:CLID-LIST
TRC:UTIL-ERR
TRC:UTIL-HSM
TRC:UTIL-IDLE
TRC:UTIL-INTERN
TRC:UTIL-LINE
TRC:UTIL-TRK
```

Other Manual(s):
235-600-400 *Audits*

MCC Display Page(s):

131-140 (CALL TRACE MENU)

OP:TRC-ISDN

Software Release: 5E10 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
OP TRC ISDN EVENT=a b c PID d e f ERR g
  PTSB
  h...h   h...h   h...h   h...h   h...h   h...h   h...h   h...h
  DALB
  i...i   i...i   i...i   i...i   i...i   i...i   i...i   i...i
  DALB ATTENDANT
  j...j   j...j   j...j   j...j   j...j   j...j   j...j   j...j
  DPB
  k...k   k...k   k...k   k...k   k...k   k...k   k...k   k...k
  CCBCOM
  l...l   l...l   l...l   l...l   l...l   l...l   l...l   l...l
```

2. REASON FOR OUTPUT

To print data structures collected by the most recent utility call trace snapshot. This message describes the data blocks that are associated with an integrated services digital network (ISDN) call. This message is in response to an OP:TRC input message.

3. VARIABLE FIELD DEFINITIONS

`EVENT` = Variables '`a`', '`b`', and '`c`' are event tags linking all messages reporting on the same trace.

`PID` = Variables '`d`', '`e`', and '`f`' make up the process ID (PID) of the process controlling a traced connection. All messages describing one connection of a call will have the same PID.

`a` = Event number.

`b` = Secondary event identifier; associated remote switching module (RSM) or host switching module (HSM) data will have the same value.

`c` = Event switching module (SM) type. Valid value(s):

- `HSM` = Host switching module.
- `LSM` = Local switching module.
- `ORM` = Optical remote module.
- `RSM` = Remote switching module.
- `TRM` = Two-mile remote module.

`d` = Process number of the PID.

`e` = Switching module number of the PID.

`f` = Uniqueness number of the PID.

`g` = Error indicator. Valid value(s):

- `N` = No errors were encountered.

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`Y` = Errors were encountered in collecting the trace data; look for asserts or a TRC:UTIL-ERR output message with this event tag and process ID.

`h` = Hexadecimal dump of the contents of the peripheral interface data bus (PIDB) time slot data block.

`i` = Hexadecimal dump of the contents of the D-channel application linkage block (DALB).

`j` = Hexadecimal dump of the contents of the DALB used for attendants.

`k` = Hexadecimal dump of the contents of the D-channel port block (DPB).

`l` = Hexadecimal dump of the contents of the channel control block common (CCBCOM).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRC
TRC:IPCT
TRC:UTIL
```

Output Message(s):

```
OP:TRC-ACCS
OP:TRC-APB
OP:TRC-BST
OP:TRC-CHAN
OP:TRC-CKT
OP:TRC-COIN
OP:TRC-CR
OP:TRC-CV
OP:TRC-D-CHAN
OP:TRC-DISP
OP:TRC-EIS
OP:TRC-HLSC
OP:TRC-LOOP
OP:TRC-MDB
OP:TRC-NTWK
OP:TRC-OPT
OP:TRC-PROC
OP:TRC-SHDN
OP:TRC-SRVOT
OP:TRC-TALOOP
TRC:UTIL-ERR
```

```
TRC:UTIL-HSM
TRC:UTIL-IDLE
TRC:UTIL-INTERN
TRC:UTIL-LINE
TRC:UTIL-TRK
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-105-210	*Routine Operations and Maintenance*
235-105-220	*Corrective Maintenance*
235-600-23x	*Dynamic Data*
235-600-400	*Audits*

MCC Display Page(s):

131-140 (CALL TRACE MENU)

OP:TRC-ISDN2

Software Release: 5E10 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
OP TRC ISDN2 EVENT=a b c PID d e f ERR g
  TEDB
  h...h   h...h   h...h   h...h   h...h   h...h   h...h   h...h
  BRCSDB
  i...i   i...i   i...i   i...i   i...i   i...i   i...i   i...i
  BRCSDB ATTENDANT
  j...j   j...j   j...j   j...j   j...j   j...j   j...j   j...j
  TEILA
  k...k   k...k   k...k   k...k   k...k   k...k   k...k   k...k
```

2. REASON FOR OUTPUT

To print data structures collected by the most recent utility call trace snapshot. This message describes additional data blocks associated with an integrated services digital network (ISDN) call. This message is in response to an OP:TRC input message.

3. VARIABLE FIELD DEFINITIONS

`EVENT` = Variables '`a`', '`b`', and '`c`' are event tags linking all messages reporting on the same trace.

`PID` = Variables '`d`', '`e`', and '`f`' make up the process ID (PID) of the process controlling a traced connection. All messages describing one connection of a call will have the same PID.

`a` = Event number.

`b` = Secondary event identifier; associated remote switching module (RSM) or host switching module (HSM) data will have the same value.

`c` = Event switching module (SM) type. Valid value(s):

- `HSM` = Host switching module.
- `LSM` = Local switching module.
- `ORM` = Optical remote module.
- `RSM` = Remote switching module.
- `TRM` = Two-mile remote module.

`d` = Process number of the PID.

`e` = Switching module number of the PID.

`f` = Uniqueness number of the PID.

`g` = Error indicator. Valid value(s):

- `N` = No errors were encountered.
- `Y` = Errors were encountered in collecting the trace data; look for asserts or a TRC:UTIL-ERR output message with this event tag and process ID.

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`h` = Hexadecimal dump of the contents of the terminal equipment data block (TEDB).

`i` = Hexadecimal dump of the contents of the BRCS data block (BRCSDB).

`j` = Hexadecimal dump of the contents of the BRCSDB used for attendants.

`k` = Hexadecimal dump of the contents of the terminal endpoint identifier linkage area (TEILA).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRC
TRC:IPCT
TRC:UTIL
```

Output Message(s):

```
OP:TRC-ACCS
OP:TRC-APB
OP:TRC-BST
OP:TRC-CHAN
OP:TRC-CKT
OP:TRC-COIN
OP:TRC-CR
OP:TRC-CV
OP:TRC-D-CHAN
OP:TRC-DISP
OP:TRC-EIS
OP:TRC-HLSC
OP:TRC-ISDN
OP:TRC-LOOP
OP:TRC-MDB
OP:TRC-NTWK
OP:TRC-OPT
OP:TRC-PROC
OP:TRC-SHDN
OP:TRC-SRVOT
OP:TRC-TALOOP
TRC:UTIL-ERR
TRC:UTIL-HSM
TRC:UTIL-IDLE
TRC:UTIL-INTERN
TRC:UTIL-LINE
TRC:UTIL-TRK
```

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Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*
235-600-23x *Dynamic Data*
235-600-400 *Audits*

MCC Display Page(s):

131-140 (CALL TRACE MENU)

OP:TRC-LCN

Software Release: 5E10 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
OP TRC LCN f MSG=i EVENT=a b c CHAN d ERR e
  LCCB g
  h...h   h...h   h...h   h...h   h...h   h...h   h...h   h...h
```

2. REASON FOR OUTPUT

To respond to a request for output of the logical channel control block (LCCB) data structure. This data structure was collected by the most recent packet utility call trace snapshot and is associated with a specified logical channel number (LCN).

3. VARIABLE FIELD DEFINITIONS

`CHAN` = Channel of a packet utility call trace.

`EVENT` = Variables '`a`', '`b`', and '`c`' are event tags linking all messages reporting on the same trace.

`LCCB` = Logical channel control block.

`LCN` = Specific logical channel number for which the associated LCCBs will be dumped.

`a` = Event number.

`b` = Secondary event identifier; associated remote switching module or host switching module data will have the same value.

`c` = Event switching module (SM) type. Valid value(s):
- `HSM` = Host switching module.
- `LSM` = Local switching module.
- `ORM` = Optical remote module.
- `RSM` = Remote switching module.
- `TRM` = Two-mile remote module.

`d` = Channel type. Valid value(s):
- `B1`
- `B2`
- `D`
- `TRK` = For X.75 or X.75' trunks.
- `XAT`

`e` = Error indicator. Valid value(s):
- `N` = No errors were encountered.
- `Y` = Errors were encountered in collecting the trace data; look for asserts or a TRC:UTIL-ERR output message with this event tag and process ID.

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`f f` = Logical channel number.

`g` = Logical channel control block (LCCB) index for which data is to be dumped.

`h` = Hex dump of the contents of the LCCB for the requested LCN.

`i` = LCN message number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRC
TRC:UTIL
```

Output Message(s):

```
OP:TRC-ALCB
OP:TRC-B-CHAN
OP:TRC-D-CHAN
OP:TRC-T-CHAN
OP:TRC-PKL2DATA
TRC:UTIL-ERR
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-105-220 *Corrective Maintenance*
235-190-115 *Local and Toll System Features*
235-600-23x *Dynamic Data*
235-600-400 *Audits*

MCC Display Page(s):

131-140 (CALL TRACE MENU)

OP:TRC-MDB

Software Release: 5E10 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
OP TRC MDB EVENT=a b c PID d e f ERR g
  MDB h
  i...i i...i i...i i...i i...i i...i i...i i...i
```

2. REASON FOR OUTPUT

To print data structures collected by the most recent utility call trace snapshot. This message dumps the call leg data block (MDB). This message is in response to an OP:TRC input message.

3. VARIABLE FIELD DEFINITIONS

`EVENT` = Variables '`a`', '`b`', and '`c`' are event tags linking all messages reporting on the same trace.

`PID` = Variables '`d`', '`e`', and '`f`' make up the process ID (PID) of the process controlling a traced connection. All messages describing one connection of a call will have the same PID.

`a` = Event number.

`b` = Secondary event identifier; associated remote switching module (RSM) or host switching module (HSM) data will have the same value.

`c` = Event switching module (SM) type. Valid value(s):

`HSM`	= Host switching module.
`LSM`	= Local switching module.
`ORM`	= Optical remote module.
`RSM`	= Remote switching module.
`TRM`	= Two-mile remote module.

`d` = Process number of the PID.

`e` = Switching module number of the PID.

`f` = Uniqueness number of the PID.

`g` = Error indicator. Valid value(s):

`N`	= No errors were encountered.
`Y`	= Errors were encountered in collecting the trace data; look for asserts or a TRC:UTIL-ERR output message with this event tag and process ID.

`h` = Model ID of MDB. Valid value(s):

`0`	= Feature model (FM) MDB.
`1`	= Near (NEAR) MDB.
`2 - 6`	= Call control (CC) MDB.

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`i` = Hexadecimal dump of the contents of the MDB.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRC
TRC:IPCT
TRC:UTIL
```

Output Message(s):

```
OP:TRC-ACCS
OP:TRC-APB
OP:TRC-BST
OP:TRC-CHAN
OP:TRC-CKT
OP:TRC-COIN
OP:TRC-CR
OP:TRC-CV
OP:TRC-D-CHAN
OP:TRC-DISP
OP:TRC-EIS
OP:TRC-HLSC
OP:TRC-ISDN
OP:TRC-LOOP
OP:TRC-NTWK
OP:TRC-OPT
OP:TRC-PROC
OP:TRC-SHDN
OP:TRC-SRVOT
OP:TRC-TALOOP
TRC:UTIL-ERR
TRC:UTIL-HSM
TRC:UTIL-IDLE
TRC:UTIL-INTERN
TRC:UTIL-LINE
TRC:UTIL-TRK
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*
235-600-23x *Dynamic Data*

235-600-400 *Audits*

MCC Display Page(s):

131-140 (CALL TRACE MENU)

OP:TRC-NTWK

Software Release: 5E10 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
OP TRC NTWK EVENT a b c PID d e f ERR g
  PHDB1 NUMPHDB h
  i...i   i...i   i...i   i...i   i...i   i...i   i...i   i...i
  TSDB1H NUMTSDB j
  k...k   k...k   k...k   k...k   k...k   k...k   k...k   k...k
  TSDB1T
  l...l   l...l   l...l   l...l   l...l   l...l   l...l   l...l
  TSDB1L
  m...m   m...m   m...m   m...m   m...m   m...m   m...m   m...m
  PHDB2
  n...n   n...n   n...n   n...n   n...n   n...n   n...n   n...n
  TSDB2H NUMTSDB o
  p...p   p...p   p...p   p...p   p...p   p...p   p...p   p...p
  TSDB2T
  q...q   q...q   q...q   q...q   q...q   q...q   q...q   q...q
  TSDB2L
  r...r   r...r   r...r   r...r   r...r   r...r   r...r   r...r
```

2. REASON FOR OUTPUT

To print the requested data structures collected by the most recent utility call trace snapshot. These structures describe the network path.

3. VARIABLE FIELD DEFINITIONS

`EVENT` = Variables '`a`', '`b`', and '`c`' are event tags linking all messages reporting on the same trace.

`PID` = Variables '`d`', '`e`', and '`f`' make up the process ID (PID) of the process controlling a traced connection. The PID links the output messages describing one connection.

`a` = Event number.

`b` = Secondary event identifier; associated remote switching module (RSM) or host switching module (HSM) data will have the same value.

`c` = Event switching module (SM) type. Valid value(s):

- `HSM` = Host switching module.
- `LSM` = Local switching module.
- `ORM` = Optical remote module.
- `RSM` = Remote switching module.
- `TRM` = Two-mile remote module.

`d` = Process number of the PID.

`e` = SM number of the PID.

`f` = Uniqueness number of the PID.

`g` = Error indicator. Valid value(s):
- `N` = No errors were encountered.
- `Y` = Errors were encountered in collecting the trace data; look for a TRC:UTIL-ERR message with this event tag and process ID.

`h` = The number of path data blocks (PHDBs) linked to the channel control block (CCB).

`i` = Hexadecimal dump of the contents of the head (first) PHDB in the list.

`j` = The number of source time slot data blocks (TSDBs) linked to the head PHDB.

`k` = Hexadecimal dump of the contents of the head (first) sink TSDB linked to PHDB1.

`l` = Hexadecimal dump of the contents of the tail (last) sink TSDB linked to PHDB1.

`m` = Hexadecimal dump of the contents of the link TSDB linked to the PHDB1.

`n` = Hexadecimal dump of the contents of the tail PHDB in the list.

`o` = The number of source time slot data blocks linked to the tail PHDB.

`p` = Hexadecimal dump of the contents of the head sink TSDB linked to the PHDB2.

`q` = Hexadecimal dump of the contents of the tail sink TSDB linked to PHDB2.

`r` = Hexadecimal dump of the contents of the source TSDB linked to the PHDB2.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CLID
OP:TRC
TRC:IPCT
TRC:UTIL
```

Output Message(s):

```
OP:TRC-ACCS
OP:TRC-APB
OP:TRC-BST
OP:TRC-CHAN
OP:TRC-CKT
```

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```
OP:TRC-CLDB
OP:TRC-COIN
OP:TRC-CR
OP:TRC-CV
OP:TRC-D-CHAN
OP:TRC-DISP
OP:TRC-EIS
OP:TRC-HLSC
OP:TRC-ISDN
OP:TRC-LOOP
OP:TRC-OPT
OP:TRC-PROC
OP:TRC-SHDN
OP:TRC-SRVOT
OP:TRC-TALOOP
OP:CLID-LIST
TRC:UTIL-ERR
TRC:UTIL-HSM
TRC:UTIL-IDLE
TRC:UTIL-INTERN
TRC:UTIL-LINE
TRC:UTIL-TRK
```

Other Manual(s):
235-600-400 *Audits*

MCC Display Page(s):

131-140 (CALL TRACE)

OP:TRC-OSPS

Software Release: 5E10 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
OP TRC OSPS CR MSG=j EVENT=a b c PID d e f ERR g
  CR h
  i...i   i...i   i...i   i...i   i...i   i...i   i...i   i...i
```

2. REASON FOR OUTPUT

To print an Operator Services Position System (OSPS) call record (CR) collected by the most recent utility call trace resulting from an OP:TRC input message. A call record is associated with the printing of the originating end of each call. Up to five output messages may be printed for custom feature calls.

3. VARIABLE FIELD DEFINITIONS

`EVENT` = Variables '`a`', '`b`', and '`c`' are event tags linking all messages reporting on the same trace.

`PID` = Variables '`d`', '`e`', and '`f`' make up the process ID (PID) of the process controlling a traced connection. All messages describing one connection of a call will have the same PID.

`a` = Event number.

`b` = Secondary event identifier; associated remote switching module (RSM) or host switching module (HSM) data will have the same value.

`c` = Event switching module (SM) type. Valid value(s):

- `HSM` = Host switching module.
- `LSM` = Local switching module.
- `ORM` = Optically remoted module.
- `RSM` = Remote switching module.
- `TRM` = Two-mile remote module.

`d` = Process number of the PID.

`e` = SM number of the PID.

`f` = Uniqueness number of the PID.

`g` = Error indicator. Valid value(s):

- `N` = No errors were encountered.
- `Y` = Errors were encountered in collecting the trace data; look for a TRC:UTIL-ERR message with this event tag and process ID.

`h` = Call record indicator. Valid value(s):

- `LEG1` = Call record for the first leg of the call. This will be the only call record if a plain old telephone service (POTS) call.
- `LEG2` = Call record for the second leg of the call. This will print in the case of multiway or

call waiting call.

`LEG3` = Call record for the third leg of the call. This will print in the case of a multiway call.

`LEG4` = Call record for the fourth leg of the call. This will print in the case of a multiway call.

`LEG5` = Call record for the fifth leg of the call. This will print in the case of a multiway call.

`i` = Hexadecimal dump of the contents of the call record.

`j` = Call record message number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRC
TRC:IPCT
TRC:UTIL
```

Output Message(s):

```
OP:TRC-ACCS
OP:TRC-APB
OP:TRC-BST
OP:TRC-CHAN
OP:TRC-CKT
OP:TRC-COIN
OP:TRC-CV
OP:TRC-D-CHAN
OP:TRC-DISP
OP:TRC-HLSC
OP:TRC-ISDN
OP:TRC-LOOP
OP:TRC-NTWK
OP:TRC-OPT
OP:TRC-PROC
OP:TRC-SHDN
OP:TRC-TALOOP
TRC:UTIL-ERR
TRC:UTIL-HSM
TRC:UTIL-IDLE
TRC:UTIL-INTERN
TRC:UTIL-LINE
TRC:UTIL-TRK
```

MCC Display Page(s):

131-140 (CALL TRACE PAGES)

OP:TRC-PKL2DATA

Software Release: 5E10 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
OP TRC PKL2DATA EVENT=a b c CHAN d ERR e
  DCCB f
  g...g   g...g   g...g   g...g   g...g   g...g   g...g   g...g
  LLCB h
  i...i   i...i   i...i   i...i   i...i   i...i   i...i   i...i
```

2. REASON FOR OUTPUT

To respond to a request for output of the level 2 data structures collected by the most recent packet utility call trace snapshot. This message dumps the level 2 data structures, D-channel control block (DCCB) and logical link control block (LLCB).

3. VARIABLE FIELD DEFINITIONS

`CHAN` = Channel of a packet utility call trace.

`DCCB` = D-channel control block to be printed to the receive-only printer (ROP).

`EVENT` = Variables '`a`', '`b`', and '`c`' are event tags linking all messages reporting on the same trace.

`LLCB` = Logical link control block to be printed to the ROP.

`a` = Event number.

`b` = Secondary event identifier; associated remote switching module (RSM) or host switching module (HSM) data will have the same value.

`c` = Event switching module (SM) type. Valid value(s):
- `HSM` = Host switching module.
- `LSM` = Local switching module.
- `ORM` = Optical remote module.
- `RSM` = Remote switching module.
- `TRM` = Two-mile remote module.

`d` = Channel type. Valid value(s):
- `B1`
- `B2`
- `D`
- `TRK` = For X.75 or X.75' trunks.
- `XAT`

`e` = Error indicator. Valid value(s):
- `N` = No errors were encountered.
- `Y` = Errors were encountered in collecting the trace data; look for asserts or a

TRC:UTIL-ERR output message with this event tag and process ID.

`f` = Index of DCCB.

`g` = Hexadecimal dump of the contents of the DCCB.

`h` = Index of LLCB.

`i` = Hexadecimal dump of the contents of the LLCB.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRC
TRC:UTIL
```

Output Message(s):

```
OP:TRC-ALCB
OP:TRC-B-CHAN
OP:TRC-D-CHAN
OP:TRC-T-CHAN
OP:TRC-LCN
TRC:UTIL-ERR
TRC:UTIL-TRK
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-105-220 *Corrective Maintenance*
235-190-115 *Local and Toll System Features*
235-600-23x *Dynamic Data*
235-600-400 *Audits*

MCC Display Page(s):

131-140 (CALL TRACE MENU)

OP:TRC-PROC

Software Release: 5E10 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
OP TRC PROC EVENT=a b c PID d e f ERR g
  PCBLA
  h...h   h...h   h...h   h...h   h...h   h...h   h...h   h...h
  PORTLA
  i...i   i...i   i...i   i...i   i...i   i...i   i...i   i...i
 [S96SHELF
  j...j]
 [DLTSBDB
  k...k k...k k...k k...k k...k]
```

2. REASON FOR OUTPUT

To respond to an OP:TRC input message to print data structures collected by the most recent utility call trace. This message contains the trace data describing a process and port, and is normally used for fault tracing.

3. VARIABLE FIELD DEFINITIONS

`EVENT` = Variables '`a`', '`b`', and '`c`' are event tags linking all messages reporting on the same trace.

`PID` = Variables '`d`', '`e`', and '`f`' make up the process ID (PID) of the process controlling a traced connection. The PID links the output messages describing one connection.

`a` = Event number.

`b` = Secondary event identifier; associated remote switching module (RSM) or host switching module (HSM) data will have the same value.

`c` = Event switching module (SM) type. Valid value(s):

- `HSM` = Host switching module.
- `LSM` = Local switching module.
- `ORM` = Optical remote module.
- `RSM` = Remote switching module.
- `TRM` = Two-mile remote module.

`d` = Process number of the PID.

`e` = Switching module number of the PID.

`f` = Uniqueness number of the PID.

`g` = Error indicator. Valid value(s):

- `N` = No errors were encountered.
- `Y` = Errors were encountered in collecting the trace data; look for a TRC:UTIL-ERR message with this event tag and process ID.

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`h` = Hexadecimal dump of the contents of the process control block linkage area (PCBLA).

`i` = Hexadecimal dump of the contents of the port linkage area linked to the PCBLA.

`j` = Hexadecimal dump of the contents of the S96SHELF data area. The presence of the dump indicates that the port is a subscriber loop carrier line.

`k` = Hexadecimal dump of the contents of the line time slot bridging (LTSB) data block (DLTSBDB). The presence of the dump indicates that the port is a LTSB line.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRC
TRC:IPCT
TRC:UTIL
```

Output Message(s):

```
OP:TRC-ACCS
OP:TRC-APB
OP:TRC-BST
OP:TRC-CHAN
OP:TRC-CKT
OP:TRC-CLDB
OP:TRC-COIN
OP:TRC-CR
OP:TRC-CV
OP:TRC-D-CHAN
OP:TRC-DISP
OP:TRC-EIS
OP:TRC-HLSC
OP:TRC-ISDN
OP:TRC-LOOP
OP:TRC-NTWK
OP:TRC-OPT
OP:TRC-SHDN
OP:TRC-SRVOT
OP:TRC-TALOOP
TRC:UTIL-ERR
TRC:UTIL-HSM
TRC:UTIL-IDLE
TRC:UTIL-INTERN
TRC:UTIL-LINE
TRC:UTIL-TRK
```

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Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-105-210	*Routine Operations and Maintenance*
235-105-220	*Corrective Maintenance*
235-190-103	*Business and Residence Feature Description*
235-600-23x	*Dynamic Data*
235-600-400	*Audits*

MCC Display Page(s):

131-140 (CALL TRACE MENU)

OP:TRC-SHDN

Software Release: 5E10 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
OP TRC SHDN EVENT=a b c PID d e f ERR g
  ADB
  h...h   h...h   h...h   h...h   h...h   h...h   h...h   h...h
  LTMSTAT
  i...i   i...i   i...i   i...i   i...i   i...i   i...i   i...i
```

2. REASON FOR OUTPUT

To print data structures collected by the most recent utility call trace snapshot. This message describes the analog data block (ADB) and logical termination busy file status (LTMSTAT) data blocks that are associated with a shared directory number (SHDN) or multiline hunt group member number call. This message is in response to an OP:TRC input message.

3. VARIABLE FIELD DEFINITIONS

`EVENT` = Variables '`a`', '`b`', and '`c`' are event tags linking all messages reporting on the same trace.

`PID` = Variables '`d`', '`e`', and '`f`' make up the process ID (PID) of the process controlling a traced connection. All messages describing one connection of a call will have the same PID.

`a` = Event number.

`b` = Secondary event identifier; associated remote switching module (RSM) or host switching module (HSM) data will have the same value.

`c` = Event switching module (SM) type. Valid value(s):

- `HSM` = Host switching module.
- `LSM` = Local switching module.
- `ORM` = Optical remote module.
- `RSM` = Remote switching module.
- `TRM` = Two-mile remote module.

`d` = Process number of the PID.

`e` = Switching module number of the PID.

`f` = Uniqueness number of the PID.

`g` = Error indicator. Valid value(s):

- `N` = No errors were encountered.
- `Y` = Errors were encountered in collecting the trace data; look for asserts or a TRC:UTIL-ERR output message with this event tag and process ID.

`h` = Hexadecimal dump of the contents of the analog data block (ADB).

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`i` = Hexadecimal dump of the contents of the logical termination busy/idle status (LTMSTAT) data block.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRC
TRC:IPCT
TRC:UTIL
```

Output Message(s):

```
OP:TRC-ACCS
OP:TRC-APB
OP:TRC-BST
OP:TRC-CHAN
OP:TRC-CKT
OP:TRC-COIN
OP:TRC-CR
OP:TRC-CV
OP:TRC-D-CHAN
OP:TRC-DISP
OP:TRC-EIS
OP:TRC-HLSC
OP:TRC-ISDN
OP:TRC-LOOP
OP:TRC-MDB
OP:TRC-NTWK
OP:TRC-OPT
OP:TRC-PROC
OP:TRC-SHDN2
OP:TRC-SRVOT
OP:TRC-TALOOP
TRC:UTIL-ERR
TRC:UTIL-HSM
TRC:UTIL-IDLE
TRC:UTIL-INTERN
TRC:UTIL-LINE
TRC:UTIL-TRK
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-105-210 *Routine Operations and Maintenance*

235-105-220 *Corrective Maintenance*
235-600-23x *Dynamic Data*
235-600-400 *Audits*

MCC Display Page(s):

131-140 (CALL TRACE MENU)

OP:TRC-SHDN2

Software Release: 5E10 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
OP TRC SHDN2 EVENT=a b c PID d e f ERR g
  h
  i...i   i...i   i...i   i...i   i...i   i...i   i...i   i...i
    .       .       .       .       .       .       .       .
    .       .       .       .       .       .       .       .
    .       .       .       .       .       .       .       .
```

2. REASON FOR OUTPUT

To print data structures collected by the most recent utility call trace snapshot. This message describes the shared call model data block (SCMDB or LSCMDB) that is associated with a shared directory number (SHDN) or multiline hunt group member number call. This message is in response to an OP:TRC input message.

3. VARIABLE FIELD DEFINITIONS

`EVENT` = Variables '`a`', '`b`', and '`c`' are event tags linking all messages reporting on the same trace.

`PID` = Variables '`d`', '`e`', and '`f`' make up the process ID (PID) of the process controlling a traced connection. All messages describing one connection of a call will have the same PID.

`a` = Event number.

`b` = Secondary event identifier; associated remote switching module (RSM) or host switching module (HSM) data will have the same value.

`c` = Event switching module (SM) type. Valid value(s):

- `HSM` = Host switching module.
- `LSM` = Local switching module.
- `ORM` = Optical remote module.
- `RSM` = Remote switching module.
- `TRM` = Two-mile remote module.

`d` = Process number of the PID.

`e` = Switching module number of the PID.

`f` = Uniqueness number of the PID.

`g` = Error indicator. Valid value(s):

- `N` = No errors were encountered.
- `Y` = Errors were encountered in collecting the trace data; look for asserts or a TRC:UTIL-ERR output message with this event tag and process ID.

`h` = Shared call model data block being dumped. Valid value(s):

`LSCMDB` = Large shared call model data block.
`SCMDB` = Shared call model data block.

`i` = Hexadecimal dump of the contents of the shared call model data block (SCMDB) or the large shared call model data block (LSCMDB).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRC
TRC:IPCT
TRC:UTIL
```

Output Message(s):

```
OP:TRC-ACCS
OP:TRC-APB
OP:TRC-BST
OP:TRC-CHAN
OP:TRC-CKT
OP:TRC-COIN
OP:TRC-CR
OP:TRC-CV
OP:TRC-D-CHAN
OP:TRC-DISP
OP:TRC-EIS
OP:TRC-HLSC
OP:TRC-ISDN
OP:TRC-LOOP
OP:TRC-MDB
OP:TRC-NTWK
OP:TRC-OPT
OP:TRC-PROC
OP:TRC-SHDN
OP:TRC-SRVOT
OP:TRC-TALOOP
TRC:UTIL-ERR
TRC:UTIL-HSM
TRC:UTIL-IDLE
TRC:UTIL-INTERN
TRC:UTIL-LINE
TRC:UTIL-TRK
```

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Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-105-210	*Routine Operations and Maintenance*
235-105-220	*Corrective Maintenance*
235-600-23x	*Dynamic Data*
235-600-400	*Audits*

MCC Display Page(s):

131-140 (CALL TRACE MENU)

OP:TRC-SUM

Software Release: 5E10 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
OP TRC SUM EVENT=a b c CHAN d ERR e BLOCK f TOTBLOCK g
  LOCAL_DN    LCN      REMOTE_DN    CTYPE LOC_CONN   DESTSM  PORT/TGN
     h         i          j           k      l          m       n
     h         i          j           k      l          m       n
     h         i          j           k      l          m       n
     h         i          j           k      l          m       n
```

2. REASON FOR OUTPUT

To print the packet summary data collected by the most recent digital subscriber line (DSL) packet utility call trace snapshot. This message dumps the logical channel number (LCN), the local directory number (LOCAL_DN), the remote directory number (REMOTE_DN), the call type (CTYPE), the connection type (LOC_CONN), destination switching module (DESTSM) and the port or trunk group (PORT/TGN).

3. VARIABLE FIELD DEFINITIONS

`CHAN` = Channel of a packet utility call trace.

`EVENT` = Variables '`a`', '`b`', and '`c`' are event tags linking all messages reporting on the same trace.

`a` = Event number.

`b` = Secondary event identifier; associated remote switching module or host switching module data will have the same value.

`c` = Event switching module (SM) type. Valid value(s):
- `HSM` = Host switching module.
- `LSM` = Local switching module.
- `ORM` = Optical remote module.
- `RSM` = Remote switching module.
- `TRM` = Two-mile remote module.

`d` = Channel type. Valid value(s):
- `B1`
- `B2`
- `D`
- `XAT`

`e` = Error indicator. Valid value(s):
- `N` = No errors were encountered.
- `Y` = Errors were encountered in collecting the trace data.

`f` = Block number.

`g` = Total number of blocks available for display.

`h` = Local directory number.

`i` = Logical channel number.

`j` = Remote directory number.

`k` = Call type. Valid value(s):
- `PVC` = Permanent virtual circuit
- `VC` = Virtual call

`l` = Destination connection type. Valid value(s):
- `INTER-SM` = Destination port is on the same switch but a different SM than the traced port.
- `INTER-SW` = Call is connected to an inter-office trunk.
- `INTRA-SM` = Destination port is on the same SM as the traced port.

`m` = Destination SM number.

`n` = Destination port or trunk group. For inter-SM and intra-SM calls, the port number on the destination SM will be displayed. For inter-switch calls, the trunk group number on the destination SM will be displayed.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRC
TRC:UTIL
```

Output Message(s):

```
OP:TRC-EVENT
TRC:UTIL-FAILED
```

Other Manual(s):

Where (x) is the release specific version of the specified manual.

235-105-220 *Corrective Maintenance Procedures*
235-190-115 *Local and Toll System Features*
235-600-20x *Dynamic Data*

MCC Display Page(s):

131-132 (CALL TRACE MENU)
139 (ISDN PACKET SWITCH CALL TRACE)
140 (HARDWARE CALL TRACE)

OP:TRC-SUM-PT

Software Release: 5E10 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
OP TRC SUM EVENT=a b c CHAN d ERR e BLOCK f of g
  LCN  DEST   CALL DEST DEST PRT/| LCN  DEST   CALL DEST DEST PRT/
       DNCNT  TYPE SM   TRK |      DNCNT  TYPE SM   TRK
   h    i       j   k    l    m  |  h    i       j   k    l    m
   .
   .
   .
```

2. REASON FOR OUTPUT

To respond to a craft request to output the packet summary collected by the most recent packet utility call trace snapshot. This message dumps the logical channel number (LCN), the destination directory number (DEST DN), the type of call connection (CALL CNT), the destination type (DEST TYPE), destination SM (DEST SM) and the port or trunk (PRT/TRK).

3. VARIABLE FIELD DEFINITIONS

`EVENT` = Variables '`a`', '`b`', and '`c`' are event tags linking all messages reporting on the same trace.

`a` = Event number.

`b` = Secondary event identifier; associated remote switching module (RSM) or host switching module (HSM) data will have the same value.

`c` = Event switching module (SM) type. Valid value(s):

- `HSM` = Host switching module.
- `LSM` = Local switching module.
- `ORM` = Optical remote module.
- `RSM` = Remote switching module.
- `TRM` = Two-mile remote module.

`d` = Channel of a packet utility call trace. Valid value(s):

- `B1`
- `B2`
- `D`
- `XAT`

`e` = Error indicator. Valid value(s):

- `N` = No errors were encountered.
- `Y` = Errors were encountered in collecting the trace data.

`f` = Block number.

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`g` = Total blocks available for display.

`h` = Logical channel number.

`i` = Destination dialing number.

`j` = Call connection. Valid value(s):
- `PVC` = Permanent virtual circuit
- `VC` = Virtual call

`k` = Destination type. Valid value(s):
- `A_SM` = Intra-SM
- `E_SM` = Inter-SM
- `E_SW` = Inter-Switch

`l` = Destination SM number.

`m` = Destination port or trunk. Valid value(s):
- `PRT` = For inter SM and intra SM calls, the port on the destination SM will be displayed.
- `TRK` = For inter switch (SW) calls, the trunk group number on the destination SM will be displayed.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRC
```

Output Message(s):

```
OP:TRC-ALCB
OP:TRC-B-CHAN
OP:TRC-D-CHAN
OP:TRC-LCN
OP:TRC-PKL2DATA
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-105-220 *Corrective Maintenance*
235-190-115 *Local and Toll System Features*
235-600-23x *Dynamic Data*

235-600-400 *Audits*

MCC Display Page(s):

131 (CALL TRACE MENU)

OP:TRC-T-CHAN

Software Release: 5E10 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
OP TRC T-CHAN EVENT=a b c PID d e f ERR g [PKT]
  PORTLA
  h...h   h...h   h...h   h...h   h...h   h...h   h...h   h...h
  DPB
  i...i   i...i   i...i   i...i   i...i   i...i   i...i   i...i
  PSU PTSB
  j...j   j...j   j...j   j...j   j...j   j...j   j...j   j...j
  CHDB
  k...k   k...k   k...k   k...k   k...k   k...k   k...k   k...k
```

2. REASON FOR OUTPUT

To print the X.75 or X.75' trunk channel (T-CHAN) switching module (SM) data structures collected by the most recent utility call trace snapshot. This message dumps the port linkage area (PORTLA), D-channel port block (DPB), peripheral interface data bus time slot block (PTSB) assigned to the packet switch unit (PSU), and the channel data block (CHDB). This message is in response to an OP:TRC input message.

3. VARIABLE FIELD DEFINITIONS

`EVENT` = Variables '`a`', '`b`', and '`c`' are event tags linking all messages reporting on the same trace.

`PID` = Variables '`d`', '`e`', and '`f`' make up the process ID (PID) of the process controlling a traced connection. All messages describing one connection of a call will have the same PID.

`a` = Event number.

`b` = Secondary event identifier; associated remote switching module or host switching module data will have the same value.

`c` = Event SM type. Valid value(s):
- `HSM` = Host switching module.
- `LSM` = Local switching module.
- `ORM` = Optical remote module.
- `RSM` = Remote switching module.
- `TRM` = Two-mile remote module.

`d` = Process number of the PID.

`e` = Switching module number of the PID.

`f` = Uniqueness number of the PID.

`g` = Error indicator. Valid value(s):
- `N` = No errors were encountered.
- `Y` = Errors were encountered in collecting the trace data; look for asserts or a

TRC:UTIL-ERR output message with this event tag and process ID.

`h` = Hexadecimal dump of the contents of the PORTLA relation.

`i` = Hexadecimal dump of the contents of the DPB relation.

`j` = Hexadecimal dump of the contents of the PSU PTSB relation.

`k` = Hexadecimal dump of the contents of the CHDB relation.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRC
TRC:UTIL
```

Output Message(s):

```
OP:TRC-ALCB
OP:TRC-LCN
OP:TRC-PKL2DATA
TRC:UTIL-ERR
TRC:UTIL-TRK
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-105-220 *Corrective Maintenance*
235-190-115 *Local and Toll System Features*
235-600-23x *Dynamic Data*
235-600-400 *Audits*

MCC Display Page(s):

131-140 (CALL TRACE MENU)

OP:TRCU

Software Release: 5E12 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

```
OP TRCU     [a]
  TRCP=b-c        {NO CTS|CTS=y}  [TCTS=d]
          e [f]   g [h]
  HOST REMARK:i
  REMOTE REMARK:j

          HOST TRCU       REMOTE TRCU
  TYPE    k       l
  NUM     m       n
  CKT     o       p
  CLI     q       r
  AISLE   s       t
  BAY     u       v
  VERTPOS w       x
```

2. REASON FOR OUTPUT

To print the information about the specified TRCU path (TRCP) or the TRCU3 control time slot (TCTS) number in response to the command "OP:TRCU,{TRCP=sm-path | TCTS=tcts}".

If the switching module (SM) or/and communications module (CM) is/are isolated from the administrative module (AM), the information about the remote TRCU aisle, bay and vertical position is not available and not reported. The TRCU exists only at the SM of type ORM/EXM2K, and the TCTS exists only with the TRCU path of type TRCU3.

3. VARIABLE FIELD DEFINITIONS

`a` = Text string identifier showing order of the TRCU record. It's possible to have up to two different TRCU paths for the same TCTS value and, hence, up to two records printed in a continuing list. Valid values:
`FIRST RECORD` = First record of the continuing list.
`LAST RECORD` = Last record of the list.

`b` = SM number.

`c` = TRCU path value.

`y` = Control time slot value of this SM for this TRCU PATH.

`d` = TCTS value. None for the TRCU or TRCU2 types.

`e` = First NLI or DLI pertaining to the TRCU path.

`f` Text specifying A-LINK or B-LINK used in the first DLI. None for the NLI.

`g` = Second NLI or DLI pertaining to the TRCU path.

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h Text specifying A-LINK or B-LINK used in the second DLI. None for the NLI.

i = Text string of comments, if entered, for the host TRCU.

j = Text string of comments, if entered, for the remote TRCU.

k = Host TRCU type. Valid values:
- TRCU = For the TRCU model 1.
- TRCU2 = For the TRCU model 2.
- TRCU3 = For the TRCU model 3.

l = Remote TRCU type. Valid values:
- TRCU = For the TRCU model 1.
- TRCU2 = For the TRCU model 2.
- TRCU3 = For the TRCU model 3.
- N/A = during SM growth.

m = Host TRCU unit number.

n = Remote TRCU unit number. N/A during SM growth.

o = Host TRCU circuit number.

p = Remote TRCU circuit number. N/A during SM growth.

q = Host TRCU change level indicator (CLI).

r = Remote TRCU CLI. N/A during SM growth.

s = Host TRCU aisle number.

t = Remote TRCU aisle number. N/A when the SM is isolated.

u = Host TRCU bay number.

v = Remote TRCU bay number. N/A when the SM is isolated.

w = Host TRCU vertical position number.

x = Remote TRCU vertical position number. N/A when the SM is isolated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRCU
```

MCC Display Page(s):

1201,XX (ORM DLI/NLI/TMSLNK SET XX)

OP:TRFC15-PT01

Software Release: 5E10 and later
Message Class: TRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC15           PART 1
  TIME aa:aa:aa                      b
  ORIGPC INCPC INTRPC OUTGPC TERMPC TANPC DPORQ
  c      d     e      f      g      h     i
  TTORQ DPINRQ MFINRQ RPINRQ C6INRQ ISUPRQ TUPRQ
  j     k      l      m      n      o      p
  ISDORQ ISDIRQ MFOURQ C6OURQ ISUPOR
  q      r      s      t      u
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of part 1: total office measurements of the 15-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Status of data. Valid value(s):
DATA IS VALID
DATA MAY BE INVALID

c = Number of originating calls.

d = Number of incoming calls.

e = Number of intra-office calls.

f = Number of outgoing calls.

g = Number of terminating calls.

h = Number of tandem calls.

i = Number of originating dial pulse (DP) requests.

j = Number of originating touch-tone (TT) requests.

k = Number of incoming DP requests.

l = Number of incoming multifrequency (MF) requests.

m = Number of incoming revertive pulsing (RP) requests.

n = Number of common channel interoffice signaling number 6 (CCIS6) incoming requests.

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o = Number of integrated services digital network (ISDN) user part incoming requests.

p = Number of telephone user part (TUP) incoming requests.

q = Number of ISDN originating requests.

r = Number of ISDN incoming requests.

s = Number of outgoing MF requests.

t = Number of CCIS6 outgoing requests.

u = Number of ISDN user part outgoing requests.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC15
INH:TRFC15
OP:MEASTAT
OP:TRFC15
```

Output Message(s):

```
OP:MEASTAT-PRNT
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC15-PT02A-A

Software Release: 5E10 only
Message Class: TRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC15         PART 2A
  TIME aa:aa:aa
  PROCESSOR PERFORMANCE
             PERCENT
     PROC    OCCUP   PRCLD        DTDPC        REORD        BLKOVD
        AM       b       h           NA           NA           NA
     c       b       d            e            f            g
     .       .       .            .            .            .
     .       .       .            .            .            .
     .       .       .            .            .            .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of part 2A: processor performance measurements of the 15-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = For the switching module (SM), percent of time spent processing jobs other than the two lowest priority jobs in the system.

For the administrative module (AM), percent occupancy of call processing only.

c = SM number.

d = Number of call processing terminal processes created.

e = Number of dial tone delays (touch-tone service and dial pulse service) exceeding three seconds.

f = Number of calls sent to reorder.

g = Number of calls blocked during overload.

h = Either the total AM percent occupancy, includes both call processing and non-call processing work done in the AM or NA for not used.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ALW:TRFC15
INH:TRFC15
OP:MEASTAT
OP:TRFC15
```

Output Message(s):

```
OP:MEASTAT-PRNT
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC15-PT02A-B

Software Release: 5E11 and later
Message Class: TRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC15         PART 2A
  TIME aa:aa:aa
  PROCESSOR PERFORMANCE
             PERCENT
     PROC    OCCUP   PRCLD   DTDPC   REORD     RCR   BLKOVD
        AM       b       h      NA      NA      NA       NA
         c       b       d       e       f       i        g
         .       .       .       .       .       .        .
         .       .       .       .       .       .        .
         .       .       .       .       .       .        .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of part 2A: processor performance measurements of the 15-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = For the switching module (SM), percent of time spent processing jobs other than the two lowest priority jobs in the system.

For the administrative module (AM), percent occupancy of call processing only.

c = SM number.

d = Number of call processing terminal processes created.

e = Number of dial tone delays (touch-tone service and dial pulse service) exceeding three seconds.

f = Number of calls sent to reorder.

g = Number of calls blocked during overload.

h = Either the total AM percent occupancy, includes both call processing and non-call processing work done in the AM or NA for not used.

i = A threshold value result from reorder count ratio (RCR). RCR value is the result of the third 5 minutes of the 15 minutes interval. System integrity (SI) will report RCR every 5 minutes if it exceeds any of the thresholds. The threshold are set by using the RC/V View 8.1. Defaults the thresholds are set to 0 as for inactive.

4. ACTION TO BE TAKEN

None.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC15
INH:TRFC15
OP:MEASTAT
OP:TRFC15
```

Output Message(s):

```
OP:MEASTAT-PRNT
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]

OP:TRFC15-PT02B

Software Release: 5E10 and later
Message Class: TRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC15 PART 2B
  TIME aa:aa:aa
  COMMUNICATION MODULE PROCESSOR PERFORMANCE
                       PERCENT CALL
  MSC   CMP    VALID   OCCUP   OCCUP
   b     c       d       e       f
   .     .       .       .       .
   .     .       .       .       .
   .     .       .       .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of part 2B: communication module processor (CMP) performance measurements of the 15-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Message switch controller (MSC) side.

c = Communication module processor (CMP) ID.

d = Validity of the CMP. Valid value(s):
0 = Valid.
1 = Invalid.

e = Percent of time spent processing jobs other than the lowest priority work in the system.

f = Percent of real time spent doing call processing work.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC15
INH:TRFC15
```

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```
OP:MEASTAT
OP:TRFC15
```

Output Message(s):

```
OP:MEASTAT-PRNT
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-ACDBR

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 ACDBRCS
  TIME zz:zz:zz
  SECTION 182: AUTOMATIC CALL DISTRIBUTOR / BRCS MEASUREMENTS
    INCOMING
             ATMPT   FAIL
             a       b
    REORD    QOVFL   ABAND   DELANN  DELMUS  CCFAIL
    c        d       e       f       g       h
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or a scheduled output of section 182: automatic call distributor (ACD)/business and residential customer services (BRCS) measurements, of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

z = Time when the report was prepared, in the form hours:minutes:seconds.

a = Number of incoming ACD/BRCS call attempts for any event:
- An automatic call distributor (ACD) directory number (DN) call was received.
- A direct agent access (DAA) call was received.
- A queue access dialed call was received.
- An agent intercom call was received.

b = Number of incoming ACD/BRCS call attempt failures for any event:
- Failure in sending an agent route request message to the ACD.
- Failure to receive acknowledgment from the ACD acknowledging that an agent request was received.
- Call processing determined that the call received was an ACD call type but ACD secured feature bit is set to N (NO) in recent change.
- Failure of ACD to route a call to an agent for reasons other than the call queue was full.
- Failure to set a system timer to wait for an ACD response to an agent request.
- After a second time-out while waiting for a response from the ACD to an agent request.
- When system interrupt signal was received while the call was waiting for a response to an agent request from the ACD.
- Failure to route to music.
- Failure to route to an announcement if level 3 delay threshold is exceeded.

c = Number of ACD/BRCS calls routed to reorder tone for event:

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- Failure to route a call to a position.
- Failure to route a call to a closed queue announcement.

d = Number of times the ACD tried to queue a call and either a call queue was full or no call queue data blocks (CQDBs) were available to queue the call. The CQDBs are system data blocks allocated to each queued call.

e = Number of times the back party (call originator) had gone on-hook before:
- The ACD successfully removed a queued call.
- Vectored call prior to delivery.

f = Number of times the ACD queued a call and the call was connected to an announcement while the call was in the queue.

g = Number of times the ACD queued a call and the call was connected to music while the call was in the queue.

h = Number of third party call control event messages that were not processed by the switch.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-ACSR

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 ACSR
  TIME aa:aa:aa
  SECTION 108: ISDN BRCS AUTOMATIC CUSTOMER STATION REARRANGEMENT
                ID      REQUEST      SUCCESS      OVER20      OVERFLOW
                b           c           d            e           f
                .
                .
                .
```

2. REASON FOR OUTPUT

To respond to a request for an immediate output of section 108: integrated services digital network (ISDN), business and residential customer services (BRCS), and automatic customer station rearrangement (ACSR) of the 30-minute traffic report. This response may also appear as part of the regularly scheduled 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = ACSR group identifier.

c = Number of ACSR requests.

d = Number of successful completion of ACSR moves.

e = Number of ACSR moves that exceed 20 minutes from activation to completion.

f = Number of times ACSR services are denied because resources are unavailable.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with the input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity of the administrative module (AM) applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-ADPID

Software Release: 5E12 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 ADPIDB
  TIME aa:aa:aa
  SECTION 229: AIU DIRECTLY CONNECTED PIDB
  SM     SHELF   AIU     ATMPT   USG    OVFL
  b      c       d       e       f      g
  .      .       .       .       .      .
  .      .       .       .       .      .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of Section 229: AIU directly-connected peripheral data bus (ADPIDB) of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = PSU Shelf number.

d = AIU number.

e = Number of attempts to seize a DPIDB time slot to set up an ODB connection.

f = DPIDB time slot usage, in units of hundred call seconds, of a directly connected peripheral interface data bus.

g = Number of times that DPIDB time slots were not available.

4. ACTIONS TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with the input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

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None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Administration and Engineering Guidelines*

OP:TRFC30-AIU-A

Software Release: 5E11 only
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 AIU
  TIME aa:aa:aa
  SECTION 216: ACCESS INTERFACE UNIT
  SM     AIU     TMATT    TMBLK      TOTUSG     MTUSG      RGOVL
  b      c       d        e          f          g          h
  .      .       .        .          .          .          .
  .      .       .        .          .          .          .
  .      .       .        .          .          .          .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of Section 216: access interface unit (AIU) of the 30-minute traffic report. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = AIU number.

d = Number of attempts to terminate a circuit-switched call to an AIU line.

e = Number of terminating circuit switched attempts that failed due to the inability to select an idle time slot.

f = Total usage of the peripheral interface data bus (PIDB) time slots, reported in hundred-call-seconds (CCS).

g = Maintenance usage the PIDB time slots are out of service, reported in CCS.

h = Number of times a terminating call is blocked due to a generator overload condition for a line on an AIU.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with the input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-AIU-B

Software Release: 5E12 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 AIU
  TIME aa:aa:aa
  SECTION 216: ACCESS INTERFACE UNIT
  SM     AIU     TMATT    TMBLK      TOTUSG     MTUSG      RGOVL
  b      c       d        e          f          g          h
  .      .       .        .          .          .          .
  .      .       .        .          .          .          .
  SM     AIU     DIGATT   DIGBLK     DIGUSG
  b      c       i        j          k
  .      .       .        .          .
  .      .       .        .          .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of Section 216: access interface unit (AIU) of the 30-minute traffic report. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = AIU, RAIU or XAIU number.

d = Number of attempts to terminate a circuit-switched call to an (R/X)AIU line.

e = Number of terminating circuit switched attempts that failed due to the inability to select an idle time slot.

f = Total usage of the peripheral interface data bus (PIDB) time slots, reported in hundred-call-seconds (CCS).

g = Maintenance usage the PIDB time slots are out-of-service, reported in CCS.

h = Number of times a terminating call is blocked due to a generator overload condition for a line on an (R/X)AIU.

i = Number of attempts to terminate a circuit-switched call to an (R/X)AIU line.

j = Number of terminating circuit-switched call attempts that failed due to the inability to select an idle time slot.

k = Number of PIDB time slots used for circuit-switched calls to or from BRIs.

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4. ACTIONS TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with the input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Administration and Engineering Guidelines*

OP:TRFC30-AIULC-A

Software Release: 5E11 only
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 AIULC
  TIME aa:aa:aa
  SECTION 218: Access Interface Unit Line Measurements For AIU

      SM  AIU  AP  LC  ORIG   SETUP  TERM   USAGE  ORIG   TERM
                       REQ    DELAY                 BLKD   BLKD
      b   c    d   e   f      g      h      i      j      k
      .   .    .   .   .      .      .      .      .      .
      .   .    .   .   .      .      .      .      .      .
      .   .    .   .   .      .      .      .      .      .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 218; the access interface unit (AIU) line measurements, of the 30-minute traffic report. A maximum of six lines can be allowed (ALW) or requested (OP) for printing to the receive-only printer (ROP).

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = AIU number.

d = Application pack (AP) number.

e = Line card (LC) number.

f = Number of originating requests.

g = Number of times an SM took more than 3 seconds to respond to a SETUP request.

h = Number of terminating calls.

i = Usage count for originating and terminating circuit switched voice and/or data calls in units of hundred-call-seconds (CCS).

j = Number of originating request attempts blocked.

k = Number of terminating request attempts blocked.

4. ACTION TO BE TAKEN

No action is required.

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If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-AIULC-B

Software Release: 5E12 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 AIULC
  TIME aa:aa:aa
  SECTION 218: Access Interface Unit Line Measurements For AIU

      SM  AIU  AP  LC  ORIG   SETUP  TERM   USAGE  ORIG   TERM
                       REQ    DELAY                 BLKD   BLKD
      b   c    d   e   f      g      h      i      j      k
      .   .    .   .   .      .      .      .      .      .
      .   .    .   .   .      .      .      .      .      .
      .   .    .   .   .      .      .      .      .      .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 218; the access interface unit (AIU) line measurements, of the 30-minute traffic report. A maximum of six lines can be allowed (ALW) or requested (OP) for printing to the read-only printer (ROP).

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = AIU, RAIU or XAIU number.

d = Application pack (AP) number.

e = Line card (LC) number.

f = Number of originating requests.

g = Number of times an SM took more than 3 seconds to respond to a SETUP request.

h = Number of terminating calls.

i = Usage count for originating and terminating circuit switched voice and/or data calls in units of hundred-call-seconds (CCS).

j = Number of originating request attempts blocked.

k = Number of terminating request attempts blocked.

4. ACTIONS TO BE TAKEN

No action is required.

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If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Administration and Engineering Guidelines*

OP:TRFC30-AIULN-A

Software Release: 5E11 only
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 AIULN
  TIME aa:aa:aa
  SECTION 217: Access Interface Unit Measurements For Lines

      SM  AIU  AP  LC  ORIG   SETUP  TERM   USAGE  ORIG   TERM
                       REQ    DELAY                 BLKD   BLKD
      b   c    d   e   f      g      h      i      j      k
      .   .    .   .   .      .      .      .      .      .
      .   .    .   .   .      .      .      .      .      .
      .   .    .   .   .      .      .      .      .      .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 217; the access interface unit (AIU) line measurements of the 30-minute traffic report. A maximum of six lines can be allowed (ALW) or requested (OP) for printing to the receive-only printer (ROP).

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = AIU number.

d = Application pack (AP) number.

e = Line card (LC) number.

f = Number of originating requests.

g = Number of times an SM took more than 3 seconds to respond to a SETUP request.

h = Number of terminating calls.

i = Usage count for originating and terminating circuit switched voice and/or data calls in units of hundred-call-seconds (CCS).

j = Number of originating request attempts blocked.

k = Number of terminating request attempts blocked.

4. ACTION TO BE TAKEN

No action is required.

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If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-AIULN-B

Software Release: 5E12 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 AIULN
  TIME aa:aa:aa
  SECTION 217: Access Interface Unit Measurements For Lines

      SM  AIU  AP  LC  ORIG   SETUP  TERM   USAGE  ORIG   TERM
                       REQ    DELAY                 BLKD   BLKD
      b   c    d   e   f      g      h      i      j      k
      .   .    .   .   .      .      .      .      .      .
      .   .    .   .   .      .      .      .      .      .
      .   .    .   .   .      .      .      .      .      .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 217; the access interface unit (AIU) line measurements of the 30-minute traffic report. A maximum of six lines can be allowed (ALW) or requested (OP) for printing to the read-only printer (ROP).

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = AIU, RAIU or XAIU number.

d = Application pack (AP) number.

e = Line card (LC) number.

f = Number of originating requests.

g = Number of times an SM took more than 3 seconds to respond to a SETUP request.

h = Number of terminating calls.

i = Usage count for originating and terminating circuit switched voice and/or data calls in units of hundred-call-seconds (CCS).

j = Number of originating request attempts blocked.

k = Number of terminating request attempts blocked.

4. ACTIONS TO BE TAKEN

No action is required.

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If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Administration and Engineering Guidelines*

OP:TRFC30-ANNC

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 ANNC
  TIME aa:aa:aa
  SECTION 46: ANNOUNCEMENT SERVICES
              ACCESS  OVFL    RAFMUSG RAFTUSG SASMUSG SASTUSG
  DA          b       c       d       e       z       a1
  ACCS        f       g       h       i       b1      c1
  COIN        j       k       l       m       d1      e1
  BRCS        n       o       p       q       f1      g1
  ASP         r       s       t       u       h1      i1
  AOC         v       w       x       y       j1      k1
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 46: announcement services measurements for the digital service unit model 2 (DSU2)/recorded announcement function (RAF) and the service announcement system (SAS) circuit types for the 30-minute traffic report. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Number of attempts to access an announcement circuit for the directory assistance (DA) application.

c = Number of times a request to use a DA announcement circuit failed because all units were occupied.

d = Number of DA DSU2/RAF circuits that were not in service during 100-second scanning.

e = Number of DA DSU2/RAF circuits in an in-service, non-idle state, or not in an in-service state (including out of service and any other maintenance state that a RAF may be in) during 100-second scanning.

f = Number of attempts to access a dial through announcement (DTA) announcement service circuit on an automated calling card service (ACCS) call, including second attempts to access a circuit if a timeout occurred for the first request.

g = Number of times a request to use an announcement circuit on ACCS calls was queued because all circuits were busy.

h = Number of DTA DSU2/RAF circuits on ACCS calls that were not in service during 100-second scanning.

i = Number of DTA DSU2/RAF circuits on ACCS calls in an in-service, non-idle state, or not in an in-service state (including out of service and any other maintenance state that a RAF may be in)

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during 100-second scanning.

j = Number of attempts to access coin announcement service circuits. Valid events are:
- To give a notification announcement at the end of the initial period on an automated coin call.
- To make an automated coin toll service (ACTS) coin station test call.
- After a successful rating for an overtime charge-due seizure or end-of-call seizure on an automated coin call and having successfully obtained a 6-port conference circuit.
- During initial contact on a 1+ coin ACTS call with good automatic number identification (ANI).
- When the back party went on-hook on a ringback and the end of call charges were to be announced; (6) after a successful rating query for a non-free overtime-charge-due seizure or end-of-call seizure, ACTS, operator assisted coin call.
- When coming out of hold on a coin paid ACTS call.

k = Number of times a request to use a coin announcement circuit failed because all circuits were busy.

l = Number of coin DSU2/RAF circuits that were not in service during 100-second scanning.

m = Number of coin DSU2/RAF circuits in an in-service, non-idle state, or not in an in-service state (including out of service and any other maintenance state that a RAF may be in) during 100-second scanning.

n = Number of attempts to access the business and residential customer services (BRCS) announcement service circuits.

o = Number of times a request to use the BRCS announcement service circuit failed because all units were occupied.

p = Number of DSU2/RAF/BRCS circuits that were out of service during the 100-second scan.

q = Number of DSU2/RAF/BRCS circuits in use at the time of 100-second scan.

r = Number of attempts to access an advanced services platform (ASP) announcement service circuit.

s = Number of times a request to use the ASP announcement service circuit failed because all units were occupied.

t = Number of DSU2/RAF/ASP circuits that were out of service during the 100-second scan.

u = Number of DSU2/RAF/ASP circuits in use at the time of 100-second scan.

v = Number of attempts to access announcement only channel (AOC) announcement service circuits.

w = Number of times a request to use an AOC announcement service circuit failed because all circuits were busy.

x = Number of AOC DSU2/RAF circuits that were not in service during 100-second scanning.

y = Number of AOC DSU2/RAF circuits in an in-service, non-idle state, or not in an in-service state (including out of service and any other maintenance state that a RAF may be in) during 100-second

scanning.

z = Number of DA SAS circuits that were not in service during 100-second scanning.

a[1] = Number of DA SAS circuits in an in-service, non-idle state, or not in an in-service state (including out of service and any other maintenance state that a SAS may be in) during 100-second scanning.

b[1] = Number of DTA SAS circuits that were not in service during 100-second scanning.

c[1] = Number of DTA SAS circuits in an in-service, non-idle state, or not in an in-service state (including out of service and any other maintenance state that a SAS may be in) during 100-second scanning.

d[1] = Number of coin SAS circuits that were not in service during 100-second scanning.

e[1] = Number of coin SAS circuits in an in-service, non-idle state, or not in an in-service state (including out of service and any other maintenance state that a SAS may be in) during 100-second scanning.

f[1] = Number of BRCS SAS circuits that were not in service during 100-second scanning.

g[1] = Number of BRCS SAS circuits in an in-service, non-idle state, or not in an in-service state (including out of service and any other maintenance state that a SAS may be in) during 100-second scanning.

h[1] = Number of ASP SAS circuits that were not in service during 100-second scanning.

i[1] = Number of ASP SAS circuits in an in-service, non-idle state, or not in an in-service state (including out of service and any other maintenance state that a SAS may be in) during 100-second scanning.

j[1] = Number of AOC SAS circuits that were not in service during 100-second scanning.

k[1] = Number of AOC SAS circuits in an in-service, non-idle state, or not in an in-service state (including out of service and any other maintenance state that a SAS may be in) during 100-second scanning.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
```

```
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-APDL

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 APDL
    TIME a
  SECTION 59: APPLICATION PROCESSOR DATA LINK MEASURES
  APID     DLOCC
  b        c
  .        .
  .        .
  .        .
```

2. REASON FOR OUTPUT

To respond to a request for either a manual or an automatic output of section 59, application processor data link measures (APDL) of the 30-minute traffic report. There are a maximum of three application processor IDs to be printed. The TRFM message class applies to 5E10 and later.

The XTRFM message class applies to 5E10 and later.

3. VARIABLE FIELD DEFINITIONS

`a` = Time, in the form of hours:minutes:seconds.

`b` = Application processor identifier (APID).

`c` = Percentage occupancy of the data link to the specified application processor (DLOCC).

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module (AM) applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
```

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```
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-APSOD

Software Release: 5E12 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 APSODB
  TIME aa:aa:aa
  SECTION 228: AIU PACKET SWITCHING ON-DEMAND B-CHANNEL
  SM     AIU     ATMPT    USG     OVFL
  b      c       d        e       f
  .      .       .        .       .
  .      .       .        .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of Section 228: AIU packet switching on-demand b-channel of the 30-minute traffic report. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

`a` = Time when the report was prepared, in the form hours:minutes:seconds.

`b` = Switching module (SM) number.

`c` = AIU or XAIU number.

`d` = Number of attempts to set up an ODB connection to the protocol handler (PH) whether successful or not.

`e` = DPIDB or PIDB usage, in units of hundred call seconds, of a directly connected peripheral interface data bus or a connected peripheral interface data bus.

`f` = Number of attempts to set up the ODB connection to the PH that failed.

4. ACTIONS TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with the input message OP:TRFC30 using the VLD option:

.ce `OP:TRFC30,VLD`

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Administration and Engineering Guidelines*

OP:TRFC30-ARS

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 ARS
  TIME a
  SECTION 35: AUTOMATIC ROUTE SELECTION MEASURES
  PATID      PATATMPT    INSF_FRL      ROUTE      RTESUCC
    b           c           d             e           f
    .           .           .             .           .
    .           .           .             .           .
    .           .           .             .           .
    b           c           d             e           f
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 35 of the 30-minute traffic report. Up to 16 ROUTE-RTESUCC pairs may be output for each pattern identifier. The TRFM message class applies to 5E10 and later.

The XTRFM message class applies to 5E10 and later.

3. VARIABLE FIELD DEFINITIONS

a = Time, in the form of hours:minutes:seconds.

b = Automatic route section (ARS) pattern identifier.

c = Number of attempts to route using ARS pattern.

d = Number of failures to route due to insufficient facility restriction level (FRL).

e = Route number.

f = Number of route successes.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module (AM) applies to this section.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-ASP-A

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 ASP
  TIME aa:aa:aa

  SECTION 118 : ADVANCED SERVICE PLATFORM

        FAIL-CP-BIQ     FAIL-CP-AIQ   UNAVAIL-BIQ  UNAVAIL-AIQ   NMMC-BLK-C
         b               c             d            e             f

        SIG-FAIL-TO     INV-CMD-MSG   INVLD-RESP   RETREJ-RESP   ABDN-BS-OT
         g               h             i            j             k

        ABDN-AS-OTBCA   TRK-BSY-IC    TRK-BSY-LOC  ASP-ORG       ASP-RCVD
         l               m             n            o             p

        QRYS            NORM-RESP     PLAY-ANN     STRIG-OVFL    TERMNF-RCVD
         q               r             s            t             u

        TERMNF-SNT      UNAVAIL-NFR   STR(E)-MSG
         v               w             x

  NCAS:

        REG_ATMPT       REG_SUCC      SCP_ATMPT    SCP_SUCC      NCA_MSBLK
         y               z             a1           b1            c1
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 118: advanced service platform (ASP) of the 30-minute traffic report. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Number of call processing failures before initial query to the service control point database.

c = Number of call processing failures after initial query to the service control point database.

d = Number of times of resource unavailable before initial query to the service control point database.

e = Number of times of resource unavailable after initial query to the service control point database.

f = Number of times that network management (NM) control blocked a call.

g = Number of signaling failures due to timeout at the service switching point (SSP).

h = Number of times that an invalid command message was returned from the SSP.

i = Number of times that an invalid sequence message was returned from the SSP.

j = Number of times that a return error, reject message, or return query was received.

k = Number of abandons before outpulsing.

l = Number of abandons after outpulsing.

m = Number of times that all inter-local access transport area (LATA) carrier trunks were busy.

n = Number of times that all Telephone Company trunks were busy.

o = Number of ASP calls originating in the SSP for which dialing was complete.

p = Number of ASP calls that have been received from another switch.

q = Number of ASP queries sent to service control point (SCP).

r = Number of normal route response messages received.

s = Number of play announcement messages from SCP.

t = Number of times the serial triggering limit has overflowed or been exhausted.

u = Number of times a termination notification request is received by the SSP.

v = Number of times the SSP sends a response to a request for a termination notification.

w = Number of times the SSP is unable to obtain a non-critical (non-fatal) resource.

x = Number of times the send to resource external [STR(E)] message is received from SCP.

Note: Variables 'y' through 'b^1' are non call associated services (NCAS) measurements.

y = Number of network element services signaling (NESS) register messages from the ISDN CPE that are recognized by the switch as NESS messaging attempts.

z = Number of NESS register messages from the ISDN CPE that were successfully validated in preparation for sending a NESS transaction capabilities application part (TCAP) message.

a^1 = Number of nCAData requests from a service control point (SCP) that are recognized by the switch as NESS TCAP messaging attempts.

b^1 = Number of nCAData requests from an SCP that did result in sending a NESS register message.

c^1 = Number of network management blocked NCAS messages.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-ASP-B

Software Release: 5E11 only
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP TRFC30 ASP
        TIME aa:aa:aa
        SECTION 117 : ADVANCED SERVICE PLATFORM
           NCAS:
              REG_ATMPT       REG_SUCC      SCP_ATMPT    SCP_SUCC      NCA_MSBLK
               b               c             d            e             f
           LNP:
              SCPQ
               d1

[2]   ____________________________________________________________________
      OP TRFC30 ASP
        TIME aa:aa:aa
        SECTION 118 : ADVANCED SERVICE PLATFORM
        NON TOLLFREE:
              FAIL-CP-BIQ     FAIL-CP-AIQ   UNAVAIL-BIQ  UNAVAIL-AIQ   NMMC-BLK-C
               g               h             i            j             k
              SIG-FAIL-TO     INV-CMD-MSG   INVLD-RESP   RETREJ-RESP   ABDN-BS-OT
               l               m             n            o             p
              ABDN-AS-OTBCA   TRK-BSY-IC    TRK-BSY-LOC  ASP-ORG       ASP-RCVD
               q               r             s            t             u
              QRYS            NORM-RESP     PLAY-ANN     STRIG-OVFL    TERMNF-RCVD
               v               w             x            y             z
              TERMNF-SNT      UNAVAIL-NFR   STR(E)-MSG   UNDEF-ANNC
               a1              b1            c1           e1
           TOLLFREE:
              FAIL-CP-BIQ     FAIL-CP-AIQ   UNAVAIL-BIQ  UNAVAIL-AIQ   NMMC-BLK-C
               f1              g1            h1           i1            j1
              SIG-FAIL-TO     INV-CMD-MSG   INVLD-RESP   RETREJ-RESP   ABDN-BS-OT
               k1              l1            m1           n1            o1
              ABDN-AS-OTBCA   TRK-BSY-IC    TRK-BSY-LOC  ASP-ORG       ASP-RCVD
               p1              q1            r1           s1            t1
              QRYS            NORM-RESP     PLAY-ANN     STRIG-OVFL    TERMNF-RCVD
               u1              v1            w1           x1            y1
              TERMNF-SNT      UNAVAIL-NFR   STR(E)-MSG   UNDEF-ANNC
               z1              a2            b2           c2
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 117 and 118: advanced service platform (ASP) of the 30-minute traffic report. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

Note: Variables 'b' through 'f' are non call associated services (NCAS) measurements.

b = Number of network element services signaling (NESS) register messages from the ISDN CPE that are recognized by the switch as NESS messaging attempts.

c = Number of NESS register messages from the ISDN CPE that were successfully validated in preparation for sending a NESS transaction capabilities application part (TCAP) message.

d = Number of nCAData requests from a service control point (SCP) that are recognized by the switch as NESS TCAP messaging attempts.

e = Number of nCAData requests from an SCP that did result in sending a NESS register message.

f = Number of network management blocked NCAS messages.

Note: Variables 'g' through 'e^1' define ASP non toll free measurements.

g = Number of call processing failures before initial query to the service control point database.

h = Number of call processing failures after initial query to the service control point database.

i = Number of times of resource unavailable before initial query to the service control point database.

j = Number of times of resource unavailable after initial query to the service control point database.

k = Number of times that network management (NM) control blocked a call.

l = Number of signaling failures due to timeout at the service switching point (SSP).

m = Number of times that an invalid command message was returned from the SSP.

n = Number of times that an invalid sequence message was returned from the SSP.

o = Number of times that a return error, reject message, or return query was received.

p = Number of abandons before outpulsing.

q = Number of abandons after outpulsing.

r = Number of times that all inter-local access transport area (LATA) carrier trunks were busy.

s = Number of times that all service provider trunks were busy.

t = Number of ASP calls originating in the SSP for which dialing was complete.

u = Number of ASP calls that have been received from another switch.

v = Number of ASP queries sent to service control point (SCP).

w = Number of normal route response messages received.

x = Number of play announcement messages from SCP.

y = Number of times the serial triggering limit has overflowed or been exhausted.

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z = Number of times a termination notification request is received by the SSP.

a^1 = Number of times the SSP sends a response to a request for a termination notification.

b^1 = Number of times the SSP is unable to obtain a non-critical (non-fatal) resource.

c^1 = Number of times the send to resource external [STR(E)] message is received from SCP.

e^1 = Number of times announcement number included in STR message is undefined.

Note: Variable 'd^1' is a local number portability (LNP) measurement.

d^1 = Number of calls encountering an LNP trigger that result in an SCP query.

Note: Variables 'f^1' through 'c^2' define ASP toll free measurements. These will be reported as 0 when the ASP toll free phase 2 feature is turned off.

f^1 = Number of toll free call processing failures before initial query to the service control point database.

g^1 = Number of toll free call processing failures after initial query to the service control point database.

h^1 = Number of times of resource unavailable before initial query to the service control point database for toll free calls.

i^1 = Number of times of resource unavailable after initial query to the service control point database for toll free calls.

j^1 = Number of times that NM control blocked a toll free call.

k^1 = Number of signaling failures due to timeout at the SSP for toll free calls.

l^1 = Number of times that an invalid command message was returned from the SSP for toll free calls.

m^1 = Number of times that an invalid sequence message was returned from the SSP for toll free calls.

n^1 = Number of times that a return error, reject message, or return query was received for toll free calls.

o^1 = Number of abandons before outpulsing for toll free calls.

p^1 = Number of abandons after outpulsing for toll free calls.

q^1 = Number of times that all inter-LATA carrier trunks were busy for toll free calls.

r^1 = Number of times that all service provider trunks were busy for toll free calls.

s^1 = Number of toll free calls originating in the SSP for which dialing was complete.

t^1 = Number of toll free calls that have been received from another switch.

u^1 = Number of toll free queries sent to SCP.

v^1 = Number of normal route response messages received for toll free calls.

w^1 = Number of play announcement messages from SCP for toll free calls.

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x[1] = Number of times the serial triggering limit has overflowed or been exhausted for toll free calls.

y[1] = Number of times a termination notification request is received by the SSP for toll free calls.

z[1] = Number of times the SSP sends a response to a request for a termination notification for toll free calls.

a[2] = Number of times the SSP is unable to obtain a non-critical (non-fatal) resource for toll free calls.

b[2] = Number of times the STR(E) message is received from SCP for toll free calls.

c[2] = Number of times announcement included in STR message is undefined for toll free calls.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
```

```
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*
235-070-100 *Traffic and Plant Measurements*

OP:TRFC30-ASP-C

Software Release: 5E12 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 ASP
   TIME aa:aa:aa
   SECTION 231 : ADVANCED SERVICE PLATFORM
         FAIL-CP-BIQ     FAIL-CP-AIQ   UNAVAIL-BIQ  UNAVAIL-AIQ   NMMC-BLK-C
          b               c             d            e             f
         SIG-FAIL-TO     INV-CMD-MSG   INVLD-RESP   RETREJ-RESP   ABDN-BS-OT
          g               h             i            j             k
         ABDN-AS-OTBCA   TRK-BSY-IC    TRK-BSY-LOC  ASP-ORG       ASP-RCVD
          l               m             n            o             p
         QRYS            NORM-RESP     PLAY-ANN     STRIG-OVFL    TERMNF-RCVD
          q               r             s            t             u
         TERMNF-SNT      UNAVAIL-NFR   LSTR(E)-MSG   UNDEF-ANNC   RSTR(E)-MSG
          v               w             x            y             z
         RIP-TMOUT       RIP-UNAVAL    RIP-ACS      7DIGITS-RECVD
          a1              b1            c1           d1
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 231 advanced service platform (ASP) of the 30-minute traffic report. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Number of call processing failures before initial query to the service control point database.

c = Number of call processing failures after initial query to the service control point database.

d = Number of times of resource unavailable before initial query to the service control point database.

e = Number of times of resource unavailable after initial query to the service control point database.

f = Number of times that network management (NM) control blocked a call.

g = Number of signaling failures due to timeout at the service switching point (SSP).

h = Number of times that an invalid command message was returned from the SSP.

i = Number of times that an invalid sequence message was returned from the SSP.

j = Number of times that a return error, reject message, or return query was received.

k = Number of abandons before outpulsing.

l = Number of abandons after outpulsing.

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m = Number of times that all inter-local access transport area (LATA) carrier trunks were busy.

n = Number of times that all service provider trunks were busy.

o = Number of ASP calls originating in the SSP for which dialing was complete.

p = Number of ASP calls that have been received from another switch.

q = Number of ASP queries sent to service control point (SCP).

r = Number of normal route response messages received.

s = Number of play announcement messages from SCP.

t = Number of times the serial triggering limit has overflowed or been exhausted.

u = Number of times a termination notification request is received by the SSP.

v[1] = Number of times the SSP sends a response to a request for a termination notification.

w = Number of times the SSP is unable to obtain a non-critical (non-fatal) resource.

x = Number of times the send to resource external [STR(E)] message is received from a local intelligent peripheral (IP).

y = Number of times announcement number included in STR message is undefined.

z = Number of REMOTE STR(E) Messages, pegged whenever a well formed STR(E) message is received for a remote IP.

a1 = Number of REMOTE IP Timeouts, pegged whenever this SSP (acting as a local SSP) receives indication from the Remote SSP that the Remote IP timed out and this SSP reports this to the SCP with a Resource_Clear message whose ClearCause value is "isdnTimeout".

b1 = Number of REMOTE IP Unavailable, pegged whenever this SSP (acting as a local SSP) receives indication from the Remote SSP that the Remote SSP cannot seize an idle B channel to the indicated Remote IP, and when this SSP reports this to the SCP with a Resource_Clear message whose ClearCause value is "channelsBusy".

c1 = Number of REMOTE accesses to Local IP, pegged whenever a well formed IAM message is received at this switch (acting in the role of a Remote SSP) for an IP homed on this switch.

d1 = Number of times when ASP receives a 7-digits Called Party ID and provides final treatment.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*
235-070-100 *Traffic and Plant Measurements*

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OP:TRFC30-ASPLG

Software Release: 5E12 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 ASPLG
  TIME aa:aa:aa

  SECTION 117 : ADVANCED SERVICE PLATFORM LARGE

      NCAS:

         REG_ATMPT       REG_SUCC      SCP_ATMPT    SCP_SUCC      NCA_MSBLK
          b               c             d            e             f
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 117 advanced service platform large (ASPLG) counts of the 30-minute traffic report. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Number of network element services signaling (NESS) register messages from the ISDN CPE that are recognized by the switch as NESS messaging attempts.

c = Number of NESS register messages from the ISDN CPE that were successfully validated in preparation for sending a NESS transaction capabilities application part (TCAP) message.

d = Number of nCAData requests from a service control point (SCP) that are recognized by the switch as NESS TCAP messaging attempts.

e = Number of nCAData requests from an SCP that did result in sending a NESS register message.

f = Number of network management blocked NCAS messages.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*
235-070-100 *Traffic and Plant Measurements*

OP:TRFC30-ASPTF

Software Release: 5E12 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 ASPTF
  TIME aa:aa:aa

  SECTION 232 : ADVANCED SERVICE PLATFORM TOLL FREE

        FAIL-CP-BIQ     FAIL-CP-AIQ   UNAVAIL-BIQ  UNAVAIL-AIQ   NMMC-BLK-C

         b               c             d            e             f

        SIG-FAIL-TO     INV-CMD-MSG   INVLD-RESP   RETREJ-RESP   ABDN-BS-OT

         g               h             i            j             k

        ABDN-AS-OTBCA   TRK-BSY-IC    TRK-BSY-LOC  ASP-ORG       ASP-RCVD

         l               m             n            o             p

        QRYS            NORM-RESP     PLAY-ANN     STRIG-OVFL    TERMNF-RCVD

         q               r             s            t             u

        TERMNF-SNT      UNAVAIL-NFR   STR(E)-MSG   UNDEF-ANNC    RSTR(E)-MSG

         v               w             x            y             z

        RIP-TMOUT       RIP-UNAVAL    RIP-ACS      7DIGITS-RECVD

         a1              b1            c1           d1
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 232 advanced service platform (ASP) toll free (TF) of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Number of call processing failures before initial query to the service control point database.

c = Number of call processing failures after initial query to the service control point database.

d = Number of times of resource unavailable before initial query to the service control point database.

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e = Number of times of resource unavailable after initial query to the service control point database.

f = Number of times that NM control blocked a call.

g = Number of signaling failures due to timeout at the SSP.

h = Number of times that an invalid command message was returned from the SSP.

i = Number of times that an invalid sequence message was returned from the SSP.

j = Number of times that a return error, reject message, or return query was received.

k = Number of abandons before outpulsing.

l = Number of abandons after outpulsing.

m = Number of times that all inter-LATA carrier trunks were busy.

n = Number of times that all service provider trunks were busy.

o = Number of calls originating in the SSP for which dialing was complete.

p = Number of calls that have been received from another switch.

q = Number of queries sent to SCP.

r = Number of normal route response messages received.

s = Number of play announcement messages from SCP.

t = Number of times the serial triggering limit has overflowed or been exhausted.

u = Number of times a termination notification request is received by the SSP.

v = Number of times the SSP sends a response to a request for a termination notification.

w = Number of times the SSP is unable to obtain a non-critical (non-fatal) resource.

x = Number of times the STR(E) message is received for a local intelligent peripheral (IP).

y = Number of times announcement included in STR message is undefined.

z = Number of REMOTE STR(E) Messages, pegged whenever a well formed STR(E) message is received for a remote IP.

a1 = Number of REMOTE IP Timeouts, pegged whenever this SSP (acting as a local SSP) receives indication from the Remote SSP that the Remote IP timed out. This is reported to the SCP with a resource_clear message whose clear cause value is "isdnTimeout".

b1 = Number of REMOTE IP Unavailable, pegged whenever this SSP (acting as a local SSP) receives indication from the Remote SSP that the Remote SSP cannot seize an idle B channel to the indicated Remote IP. This is reported to the SCP with a Resource_Clear message whose clear cause value is "channelsBusy".

c1 = Number of REMOTE accesses to Local IP, pegged whenever a well formed IAM message is received at this switch (acting in the role of a Remote SSP) for an IP homed on this switch.

`d1` = Number of times when TF ASP receives a 7-digits Called Party ID and provides final treatment.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*
235-070-100 *Traffic and Plant Measurements*

OP:TRFC30-ATTG

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 ATTG
  TIME aa:aa:aa
  SECTION 33: ATTENDANT GROUP MEASURES
  ID         USG          PC          OVFL        INTRAG
  b          c            d           e           f
  .          .            .           .            .
  .          .            .           .            .
  .          .            .           .            .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 33: attendant group measures (ATTG) of the 30-minute traffic report. Up to five attendant groups may be reported on in a single message.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Attendant group identifier.

c = Attendant line usage.

d = Number of successful terminations to and originations from an attendant group.

e = Number of attendant overflows.

f = Number of intra-group attempts to attendant.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module (AM) applies to this section.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-BCLID

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 BCLID
  TIME aa:aa:aa

  SECTION 147 : BULK CALLING LINE IDENTIFICATION

       BCID   CALLS   P_MSG   O_MSG   MSGLOST
       b      c       d       e       f
       .      .       .       .       .
       .      .       .       .       .
       .      .       .       .       .
```

2. REASON FOR OUTPUT

To respond to a request (OP:TRFC30) for either an immediate or scheduled output of section 147: bulk calling line identification (BCLID) of the 30-minute traffic report (TRFC30). The TRFM message class applies to 5E10 and later.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Business customer identifier (BCID).

c = Number of calls for which complete calling directory number (DN) is transmitted to the customer premises equipment (CPE) (count 1).

d = Number of messages transmitted to BCLID customers' CPE containing the character "P", indicating that the calling party had invoked the privacy feature (count 2).

e = Number of messages transmitted to BCLID customers' CPE containing the character "O", indicating that the calling DN could not be determined (count 3).

f = Number of messages lost (not transmitted to the BCLID customer's application processor) because of data channel overload (count 4).

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data for each switching module (SM) may be checked by requesting the validity section of the 30-minute traffic report with their input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-BRCF

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 BRCF
  TIME aa:aa:aa
  SECTION 29: BUSINESS RESIDENTIAL CUSTOMER FEATURE MEASURES
  NAME        ATMPT          ACTV          PCHG
  b           c              d             e
  .            .             .             .
  .            .             .             .
  .            .             .             .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 29: business residential customer feature (BRCF) measures of the 30-minute traffic report. Up to five features may be reported in a message.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Feature identifier name.

c = Number of feature attempts.

d = Number of feature activation or deactivation attempts.

e = Number of feature parameter change attempts.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
  ALW:TRFC30
```

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```
INH:TRFC30
OP:TRFC30
OP:ST-TRFC30
OP:MEASTAT
```

Output Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:ST-TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-BRCS-A

Software Release: 5E10 only
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 BRCS
  TIME aa:aa:aa

  SECTION 26: BUSINESS RESIDENTIAL CUSTOMER SERVICES MEASURES

        DIRG    CWCA    CWLDCA  1SC     2SC     3SC
        b       c       d       e       f       g

        SCPCHG  TODE    APBO    ACBCO
        h       i       j       k

        TGQREO  SFGQREO CLDBO   MDBO
        l       m       n       o

        CALL WAITING DELUXE
        FORWARD ANNC    DROP    CONF
        p       q       r       s

        DROPFST DROPLST FWDDF   ANNCDF   AUDIBLE
        t       u       v       w        x
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or a scheduled output of section 26: business residential customer services (BRCS), of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form of hours:minutes:seconds.

b = Number of BRCS dialing irregularities.

c = Number of call-waiting calls answered.

d = Number of long distance call-waiting distinctive tone calls answered.

e = Number of one-digit plain old telephone service (POTS) speed call attempts.

f = Number of two-digit speed call attempts.

g = Number of three-digit speed call attempts.

h = Number of speed call parameter change attempts.

i = Number of times the time of day facility failed to complete its scheduled task within the specified time.

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j = Associated process block overflow count.

k = Auto call back buffer overflow count.

l = Number of overflows to reorder or queue for trunk groups.

m = Number of overflows to reorder or queue for simulated facility groups.

n = Call leg data block overflow count.

o = Model data block overflow count.

p = Number of times the switch receives a valid FORWARD option.

q = Number of times the switch receives a valid ANNOUNCEMENT option.

r = Number of times the switch receives a valid DROP option, irrespective of the call state (that is, waiting state and held call state) from which the option was applied.

s = Number of times the switch receives a valid CONFERENCE option, irrespective of the call state (that is, waiting state and held call state) from the option was applied.

t = Number of times the switch receives a valid DROP FIRST option.

u = Number of times the switch receives a valid DROP LAST option.

v = Number of times T_default timed out resulting in the switch applying the default treatment of forwarding the incoming call to the call forwarding don't answer (CFDA) destination.

w = Number of times T_default timed out resulting in the switch applying the default treatment of connecting the incoming call to an ANNOUNCEMENT.

x = Number of times T_default timed out resulting in the switch applying the default treatment of continuing to provide the AUDIBLE ringing to the incoming call.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
```

```
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-BRCS-B

Software Release: 5E11 - 5E13
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 BRCS
  TIME aa:aa:aa
  SECTION 26: BUSINESS RESIDENTIAL CUSTOMER SERVICES MEASURES
        DIRG    CWCA    CWLDCA  1SC     2SC     3SC
        b       c       d       e       f       g
        SCPCHG  TODE    APBO    ACBCO
        h       i       j       k
        TGQREO  SFGQREO CLDBO   MDBO
        l       m       n       o
        CALL WAITING DELUXE
        FORWARD ANNC    DROP    CONF     HOLD
        p       q       r       s        y
        DROPFST DROPLST FWDDF   ANNCDF   AUDIBLE
        t       u       v       w        x
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or a scheduled output of section 26: business residential customer services (BRCS), of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form of hours:minutes:seconds.

b = Number of BRCS dialing irregularities.

c = Number of call-waiting calls answered.

d = Number of long distance call-waiting distinctive tone calls answered.

e = Number of one-digit plain old telephone service (POTS) speed call attempts.

f = Number of two-digit speed call attempts.

g = Number of three-digit speed call attempts.

h = Number of speed call parameter change attempts.

i = Number of times the time of day facility failed to complete its scheduled task within the specified time.

j = Associated process block overflow count.

k = Auto call back buffer overflow count.

l = Number of overflows to reorder or queue for trunk groups.

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m = Number of overflows to reorder or queue for simulated facility groups.

n = Call leg data block overflow count.

o = Model data block overflow count.

p = Number of times the switch receives a valid FORWARD option.

q = Number of times the switch receives a valid ANNOUNCEMENT option.

r = Number of times the switch receives a valid DROP option, irrespective of the call state (that is, waiting state and held call state) from which the option was applied.

s = Number of times the switch receives a valid CONFERENCE option, irrespective of the call state (that is, waiting state and held call state) from the option was applied.

t = Number of times the switch receives a valid DROP FIRST option.

u = Number of times the switch receives a valid DROP LAST option.

v = Number of times T_default timed out resulting in the switch applying the default treatment of forwarding the incoming call to the call forwarding don't answer (CFDA) destination.

w = Number of times T_default timed out resulting in the switch applying the default treatment of connecting the incoming call to an ANNOUNCEMENT.

x = Number of times T_default timed out resulting in the switch applying the default treatment of continuing to provide the AUDIBLE ringing to the incoming call.

y = Number of times the switch receives a valid HOLD option.

4. ACTIONS TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-BRCS-C

Software Release: 5E14 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 BRCS
  TIME aa:aa:aa
  SECTION 26: BUSINESS RESIDENTIAL CUSTOMER SERVICES MEASURES
        DIRG    CWCA    CWLDCA  1SC     2SC     3SC
        b       c       d       e       f       g
        SCPCHG  TODE    APBO    ACBCO
        h       i       j       k
        TGQREO  SFGQREO CLDBO   MDBO
        l       m       n       o
        TALKING CALL WAITING
        ATMPDN1 ATMPDN2 FAILDN1 FAILDN2
        p       q       r       s
        CALL WAITING DELUXE
        FORWARD ANNC    DROP    CONF     HOLD
        t       u       v       w        x
        DROPFST DROPLST FWDDF   ANNCDF   AUDIBLE
        y       z       ab      ac       ad
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or a scheduled output of section 26: business residential customer services (BRCS), of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form of hours:minutes:seconds.

b = Number of BRCS dialing irregularities.

c = Number of call-waiting calls answered.

d = Number of long distance call-waiting distinctive tone calls answered.

e = Number of one-digit plain old telephone service (POTS) speed call attempts.

f = Number of two-digit speed call attempts.

g = Number of three-digit speed call attempts.

h = Number of speed call parameter change attempts.

i = Number of times the time of day facility failed to complete its scheduled task within the specified time.

j = Associated process block overflow count.

k = Auto call back buffer overflow count.

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`l` = Number of overflows to reorder or queue for trunk groups.

`m` = Number of overflows to reorder or queue for simulated facility groups.

`n` = Call leg data block overflow count.

`o` = Model data block overflow count.

`p` = DN1 total number of attempts to complete a call to the IP.

`q` = DN2 total number of attempts to complete a call to the IP.

`r` = DN1 total number of attempts to complete a call to the IP that failed either before an answer was received from the IP or because the IP did not originate a disconnect.

`s` = DN2 total number of attempts to complete a call to the IP that failed either before an answer was received from the IP or because the IP did not originate a disconnect.

`t` = Number of times the switch receives a valid FORWARD option.

`u` = Number of times the switch receives a valid ANNOUNCEMENT option.

`v` = Number of times the switch receives a valid DROP option, irrespective of the call state (that is, waiting state and held call state) from which the option was applied.

`w` = Number of times the switch receives a valid CONFERENCE option, irrespective of the call state (that is, waiting state and held call state) from the option was applied.

`x` = Number of times the switch receives a valid DROP FIRST option.

`y` = Number of times the switch receives a valid DROP LAST option.

`z` = Number of times T_default timed out resulting in the switch applying the default treatment of forwarding the incoming call to the call forwarding don't answer (CFDA) destination.

`ab` = Number of times T_default timed out resulting in the switch applying the default treatment of connecting the incoming call to an ANNOUNCEMENT.

`ac` = Number of times T_default timed out resulting in the switch applying the default treatment of continuing to provide the AUDIBLE ringing to the incoming call.

`ad` = Number of times the switch receives a valid HOLD option.

4. ACTIONS TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-CDN

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 CDN
  TIME aa:aa:aa
  SECTION 128: CUSTOMER DIRECTORY NUMBER COUNTS
  DN      SM  TERMC TBUSY NOANS TRMBLK ORG   ORGBLK USAGE
  b       c     d     e     f     g     h      i      j
  .       .     .     .     .     .     .      .      .
  .       .     .     .     .     .     .      .      .
  .       .     .     .     .     .     .      .      .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 128, customer directory number (CDN) counts, of the 30-minute traffic report. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Directory number (DN).

c = Switching module (SM) number.

d = Total number of terminating attempts to the DN. These may be line-to-line or trunk-to-line calls. Calls which are forwarded to a DN are also treated as terminating calls to the DN.

e = Total number of terminating attempts to the DN that resulted in busy tone being returned to the caller. The number of terminating calls which cannot complete because the called DN is busy, or cannot be forwarded because the number of simultaneously forwarded calls, inter-switch or intra-switch, has reached the allowed limit.

f = Total number of terminating calls for which a disconnect signal (on-hook) is received from the originating DN before an off-hook signal is received from the terminating DN, the call is transferred because of the Call Forwarding Don't Answer feature, or the call is picked up by another DN while the terminating DN is ringing. A ringing indication does not have to be returned to the originating DN.

g = Total number of terminating calls blocked because of System Blockage, or RT Blockage on an integrated *SLC*® system. This peg count will not be incremented if a peripheral or network path is unavailable due to all resources being Out-Of-Service (OOS); however, this peg count is incremented for blockages due to an OOS HLSC, LDSU, or GDSU.

h = Total number of call origination attempts which resulted from the switch receiving at least one dialed digit (0-9,*,#), or the switch determining the destination (that is, identifies the terminating DN) in the case of direct connect service, which requires no dialed digits.

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`i` = Total number of originating calls blocked because of System Blockage, or RT Blockage on an integrated *SLC*® system. This peg count will not be incremented if a peripheral or network path is unavailable due to all resources being Out-Of-Service (OOS); however, this peg count is incremented for blockages due to an OOS HLSC, LDSU, or GDSU. If a blockage occurs during an origination, the switch will continue to retry until the originator abandons the call attempt. The initial attempt to originate and each retry attempt that is blocked, will increment the Originating Blockage peg count.

`j` = Total amount of time an individual analog line is busy during a given interval. This number is the sum of the originating usage and terminating usage, and represents the total traffic usage by an individual line based on a 100-second scan cycle. A DN is considered usage busy once, even if the DN is on multiple calls simultaneously. This measurement does not include diagnostics and maintenance usage; however, it does include the time spent dialing and ringing.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-CMP

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 CMP
  TIME aa:aa:aa
  SECTION 126: COMMUNICATION MODULE PROCESSOR
                           PERCENT CALL
  MSC     CMP     VALID   OCCUP   OCCUP   BLCYC   BPOT    BPIN
   b      c       d       e       f       g       h       i
   .      .       .       .       .       .       .       .
   .      .       .       .       .       .       .       .
   .      .       .       .       .       .       .       .
  MSC     CMP     HPOT    HPIN    BPQOVFL
   b      c       j       k       l
   .      .       .       .       .
   .      .       .       .       .
   .      .       .       .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 126: communication module processor (CMP) of the 30-minute traffic report. The TRFM message class applies to 5E10 and later. The XTRFM message class applies to 5E10 and later.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Message switch controller (MSC) side.

c = Communication module processor (CMP) ID.

d = Validity of the CMP. Valid value(s):
- 0 = Valid.
- 1 = Invalid.

e = Percent of time spent processing jobs other than the lowest priority work in the system.

f = Percent of real time spent doing call processing work.

g = Number of base-level cycles, reported in thousands.

h = Number of base-priority messages sent out of the CMP.

i = Number of base-priority messages received in the CMP.

j = Number of high-priority messages sent out of the CMP.

k = Number of high-priority messages received in the CMP.

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`l` = Number of times the base-priority output queue overflowed. This measurement represents the number of times that the message handler (MSGH) of the communication module processor (CMP) tried to load a message to the message switch control unit (MSCU) and that queue was full. Therefore, the MSGH leaves the message in the application processor's (AP) output queue. The message is not lost unless the AP's output queue fills. When the AP's output queue becomes full, an assert fires. The only time for concern is if the CMP reaches overload or when that assert starts firing.

The measurement is pegged every base level loop of the MSGH which runs every few microseconds. If the MSCU is delayed for some reason (even for a short time), this number could reach a high value quickly.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-CORC

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 CORC
  TIME aa:aa:aa
  SECTION 27: CUSTOMER ORIGINATED RECENT CHANGE MEASURES
  PROC    LATMPT        LDELY          GATMPT        GDELY
    b      c             d              e             f
    .      .             .              .             .
    .      .             .              .             .
    .      .             .              .             .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 27: customer originated recent change (CORC) of the 30-minute traffic report. Up to five switching modules (SMs) may be reported in a single message.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = SM number.

c = Local CORC attempts (count 1).

d = Local delayed CORCs (count 2).

e = Global CORC attempts (count 3).

f = Global delayed CORCs (count 4).

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30-VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-CT

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 CT
  TIME aa:aa:aa
  SECTION5:CALL TYPE INFORMATION
  CALLTYP         PEGCT          USG        NOCKT      MACHLOS
  ORIGINAT            b            c            d            q
  INCOMING            e                         f            r
  INTRAOFF            g                         h            s
  OUTGOING            i                         j            t
  TERMINAT            k            l            m            u
  TANDEM              n                         o            v
  O+T                              p
  IFFM                                                        w
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 5: call type (CT) information of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Number of originating calls.

c = Total office circuit-switched usage generated by scanning originating calls every 100 seconds. With certain features there may be concurrent multiple originating calls on one line (for example, three-way call).

d = Number of originating calls no circuit.

e = Number of incoming calls.

f = Number of incoming calls no circuit.

g = Number of intraoffice calls.

h = Number of intraoffice calls no circuit.

i = Number of outgoing calls.

j = Number of outgoing calls no circuit.

k = Number of terminating calls.

l = Total office circuit-switched traffic usage generated by scanning terminating calls every 100 seconds. With certain features there may be concurrent multiple terminating calls on one line (for example, call hold).

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m = Number of terminating calls no circuit.

n = Number of tandem calls.

o = Number of tandem calls no circuit.

p = Total extended office (including host, remote switching module (RSM) and optically-remote module (ORM) circuit-switched traffic usage generated by originating and terminating (O+T) calls measured at a single, common point in the system network. This count includes all line units (LUs), integrated services line units (ISLUs), digital carrier line units (DCLUs), and integrated digital carrier units (IDCUs).

In the following definitions, "matching loss" refers to a call's failing due to unavailability of network/peripheral path to the intended destination to either an idle line or trunk. The following valid network/peripheral unavailabilities will cause the matching loss:

Network/peripheral unavailability:	Matching loss:
Unavailability of concentrator path (A and/or B links) to an LU.	q, r, s, u, and w only
Unavailability of peripheral interface data bus (PIDB) time slots to an ISLU.	q, r, s, u, and w only
Unavailability of PIDB time slots to a DCLU.	q, r, s, u, and w only
Unavailability of PIDB time slots to an IDCU.	q, r, s, u, and w only
Unavailability of time slots in the time slot interchanger (TSI) to time-multiplexed switch (TMS) to TSI (TSI-TMS-TSI) path.	q, r, s, t, u, v, and w
Unavailability of RSM umbilicals and/or inter-RSM communication links (ICLs).	q, r, s, t, u, v, and w

q = Number of originating line-to-trunk or line-to-line call failures due to matching loss.

r = Number of incoming trunk-to-line call failures due to matching loss.

s = Number of intraoffice line-to-line call failures due to matching loss.

t = Number of outgoing line-to-trunk call failures due to matching loss.

u = Number of terminating line-to-line or trunk-to-line call failures due to matching loss.

v = Number of tandem trunk-to-trunk call failures due to matching loss.

w = Number of first occurrences of matching loss on incoming or terminating trunk-to-Line calls. The calls may or may not fail depending on alternate routing attempts.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity of the administrative module (AM) applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-CTS

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 CTS
  TIME aa:aa:aa
  SECTION 125: CONTROL TIME SLOT LINK OCCUPANCY
         AVERAGE PERCENT OCCUPANCY        MAXIMUM PERCENT OCCUPANCY
  SM    0XMT    0RCV    1XMT    1RCV      0XMT    0RCV    1XMT    1RCV
   b      c       d       e       f         g       h       i       j
   .      .       .       .       .         .       .       .       .
   .      .       .       .       .         .       .       .       .
   .      .       .       .       .         .       .       .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 125: control time slot (CTS) link occupancy of the 30-minute traffic report. The TRFM message class applies to 5E10 and later. The XTRFM message class applies to 5E10 and later.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = Average occupancy (in percent) of CTS link 0 for messages transmitted from the SM (count 1).

d = Average occupancy (in percent) of CTS link 0 for messages received in the SM (count 2).

e = Average occupancy (in percent) of CTS link 1 for messages transmitted from the SM (count 3).

f = Average occupancy (in percent) of CTS link 1 for messages received in the SM (count 4).

g = Maximum occupancy (in percent) of CTS link 0 for messages transmitted from the SM. Occupancy is measured in six-second intervals (count 5).

h = Maximum occupancy (in percent) of CTS link 0 for messages received in the SM. Occupancy is measured in six-second intervals (count 6).

i = Maximum occupancy (in percent) of CTS link 1 for messages transmitted from the SM. Occupancy is measured in six-second intervals (count 7).

j = Maximum occupancy (in percent) of CTS link 1 for messages received in the SM. Occupancy is measured in six-second intervals (count 8).

4. ACTION TO BE TAKEN

No action is required.

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If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with the input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity of the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-DC

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 DSNTG CHANGE
  NO VALID PP TRUNK GROUPS
```

2. REASON FOR OUTPUT

To respond to an OP:TRFC30 input message request for immediate output of up to five trunk groups when all of the precedence (PP) trunk group identifiers requested are invalid (not precedence trunk groups).

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

A trunk group can be requested again using an OP:TRFC30 input message.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):

235-070-100 *Switch Administration Guidelines*

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OP:TRFC30-DCLU

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 DCLU
  TIME aa:aa:aa
  SECTION 21: DIGITAL CARRIER LINE UNIT
  PROC    DCLU    TERMATT    TERMBLK    TOTUSG    MTUSG
    b       c        d          e          f        g
    .       .        .          .          .        .
    .       .        .          .          .        .
    .       .        .          .          .        .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 21: digital carrier line unit (DCLU) of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Processor identifier.

c = Digital carrier line unit (DCLU) identifier.

d = Number of terminating attempts.

e = Number of blocked terminating attempts.

f = Total usage in hundred-call-seconds(CCS).

g = Maintenance usage in CCS.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with the input message: OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

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None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-DLINE

Software Release: 5E12 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 DLINE
  TIME aa:aa:aa
  SECTION 222: DIGITAL NETWORK UNIT "SONET" - LINES

                     TOTAL ORIG        ORIG  TOTAL
     INEN            DELAY REQ   TMATT OVFL  OVFL  USG
     b-c-d-e         f     g     h     i     j     k
     . . . .         .     .     .     .     .     .
     . . . .         .     .     .     .     .     .
     . . . .         .     .     .     .     .     .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 222: digital network unit - synchronous optical network (SONET) (DNU-S) - lines of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = DNU-S number.

d = Remote digital terminal (RDT) number.

e = RDT line number.

f = Number of times dial tone delay exceeds the 3-second threshold for touch-tone and dial pulse originating non-ISDN calls plus the number of times call setup delay exceeds the 3-second threshold between receipt of a SETUP message and the return of a SETUP acknowledge or call proceeding message for circuit-switched originating ISDN calls.

g = Number of times the switch initiates action leading to a readiness to receive customer dial pulse or touch-tone service digits or to process a call for which digits are not required; the count is incremented at the time the line requesting service is identified.

h = Number of times the switch attempts to terminate circuit-switched calls to lines or PBX trunks served by an DNU-S; this count is incremented when the switch identifies the terminating party.

i = Number of times that service was denied to attempted call originations because of a lack of resources in the switch, RDT, or intervening digital signal level 1 (DS1) facilities.

j = Number of times that service was denied to originating, terminating, or outgoing calls because of

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a lack of resources in the switch, remote digital terminal (RDT), or intervening DS1 facilities.

`k` = Traffic usage reported in hundred-call-seconds for the line's originating, terminating, and outgoing calls or the traffic usage for semi-permanently cross-connected circuits (provisioned B and D channels).

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-DLN

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 DLN
  TIME aa:aa:aa
  SECTION 66: DIRECT LINK NODE
                                DLN-PIC       PIC-DLN
       CCS MSGS QUEUE 0     :   b             c
       CCS MSGS QUEUE 1     :   d             e
       PERCENT OCCUP SIDE 0 :   i             j
       PERCENT OCCUP SIDE 1 :   k             l
                                RRB           AP
       PERCENT OCCUP        :   g             h
                                DMACYC
       MSG DELAY            :   m
       VALIDITY             :   f
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 66: direct link node (DLN) of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form of hours:minutes:seconds.

b = The total number of common channel signaling (CCS) messages sent from the DLN to the peripheral interface controller (PIC) through input queue 0.

c = The total number of CCS messages sent to the DLN from the PIC through output queue 0.

d = The total number of CCS messages sent from the DLN to the PIC through input queue 1.

e = The total number of CCS messages sent to the DLN from the PIC through output queue 1.

f = The validity of this section. Valid value(s):
INVALID
VALID

g = Percentage of occupancy of the ring receive buffer space used to hold the switch incoming CCS messages prior to processing.

h = Percentage of occupancy of the AP processor being used for CCS call processing.

i = Percentage of occupancy of buffer space used to hold the CCS messages being sent from the DLN to the PIC side 0.

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`j` = Percentage of occupancy of buffer space used to hold the CCS messages being sent from the PIC to the DLN side 0.

`k` = Percentage of occupancy of buffer space used to hold the CCS messages being sent from the DLN to the PIC side 1.

`l` = Percentage of occupancy of buffer space used to hold the CCS messages being sent from the PIC to the DLN side 1.

`m` = Average direct memory access cycle time in milli-seconds. This value is the average message delay for messages transported to or from the PIC-DLN queues.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration and Engineering Guidelines*

OP:TRFC30-DLTU

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 DLTU
  TIME aa:aa:aa
  SECTION 16: DIGITAL LINE/TRUNK UNIT
  PROC    DLTU    DLUSG
  b       c       d
  .       .       .
  .       .       .
  .       .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 16: digital line/trunk unit (DLTU) of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

`a` = Time when the report was prepared, in the form hours:minutes:seconds.

`b` = Switching module number.

`c` = Digital line/trunk unit number.

`d` = Digital line/trunk unit traffic usage reported in hundred-call-seconds (CCS). This measurement does not include the maintenance usage, but it includes the usage for packet pipes.

4. ACTIONS TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):

235-070-100 *Administration and Engineering Guidelines*

OP:TRFC30-DMLHG

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 DMLHG
  TIME aa:aa:aa
  SECTION 65: DEFENSE SWITCH NETWORK MULTI_LINE HUNT GROUP MEASURES
  ID      PTERM   POVFL
  b       c       d
  .       .       .
  .       .       .
  .       .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 65 of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

`a` = Time the report was generated, in the form hours:minutes:seconds.

`b` = Multi-line hunt group identifier.

`c` = Number of precedence terminating calls above routine.

`d` = Number of precedence overflow calls above routine.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module (AM) applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
  OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-DNUS

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 DNUS
  TIME aa:aa:aa

  SECTION 189: DIGITAL NETWORKING UNIT - SONET

       SM   DNUS   USAGE
       b    c      d
       .    .      .
       .    .      .
       .    .      .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 189: digital networking unit - synchronous optical network (SONET) (DNUS) of the 30-minute traffic report. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hh:mm:ss.

b = Switching module (SM) number.

c = DNUS number.

d = Traffic usage.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-DODB

Software Release: 5E12 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 DODB
  TIME aa:aa:aa
  SECTION 223: DIGITAL NETWORK UNIT "SONET" - ODB

                                PSU
      SM       DNUS     PSU     SHELF   ATMPT   OVFL   USG
      b        c        d       e       f       g      h
      .        .        .       .       .       .      .
      .        .        .       .       .       .      .
      .        .        .       .       .       .      .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 223: digital networking unit - synchronous optical network (SONET) (DNU-S) - on-demand B-channel (ODB) of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = DNU-S number.

d = Packet switching unit (PSU)

e = PSU shelf number.

f = Number of attempts to seize a directly-connected peripheral interface data bus (DPIDB) time slot to set up an ODB connection.

g = Number of attempts to seize a time slot to set up an ODB connection that were denied because an idle time slot was not available.

h = Traffic usage reported in hundred-call-seconds (CCS) of DPIDB time slots for ODB packet switched calls.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

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If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-DPIDB

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 DPIDB
  TIME aa:aa:aa
  SECTION 106: PACKET SWITCHING DIRECTLY CONNECTED PIDB
    SM b
              PSU
    ISLU    SHELF   ATMPT   USG      OVFL
     c        d       e      f        g
     .        .       .      .        .
     .        .       .      .        .
     .        .       .      .        .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 106: integrated services digital network (ISDN) packet switching (PS) directly connected peripheral interface data bus (DPIDB) of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = Integrated services line unit (ISLU) number.

d = Packet switching unit (PSU) shelf number.

e = Number of attempts to seize a DPIDB timeslot to set up the on-demand B-channel (ODB) (count 1).

f = Time-slot usage of a DPIDB in units of hundred call seconds (CCS) (count 2).

g = Number of attempts to seize a time-slot to set up the ODB channel that were denied because an idle timeslot was not available (count 3).

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-DSIG

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 DSIG
  TIME aa:aa:aa
  SECTION 36: DIRECT SIGNALING
  800 SERVICE (INWATS):      TOTAL   QRY-SENT   SUCCESS
                             b       c          d
  800 SERVICE (FAIL):        NO-INDEX
                             e
  DIRECT SIG (FAIL):         REORD   VCA        NM
                             f       g          h
  NETWORK CALL DENIAL (NCD): QRY     DENY-RCV
                             i       j
  NCD TREATMENTS:            KILLED  POST-ANS   ANN
                             k       l          m
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 36: direct signaling (DSIG) of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Total 800 service (inward wide area telecommunications service- INWATS) calls.

c = Total 800 service (INWATS) queries sent.

d = Total 800 service (INWATS) success replies.

e = 800 service failure- no reply index available.

f = Direct signaling incoming reorder treatment.

g = Direct signaling ineffective attempt (vacant code) replies.

h = Direct signaling network management code control blocked calls.

i = Total number of NCD queries.

j = Total number of NCD deny replies received.

k = Calls killed due to NCD screening.

l = Calls killed due to NCD screening after answer supervision.

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`m` = Denied calls that were routed to NCD announcement.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module (AM) applies to this section.

Note: If direct link node (DLN) is equipped, the validity may be incorrect for the fields '`c`', '`e`' and '`j`'. If DLN is equipped, to determine the validity of '`c`', '`e`' and '`j`', check validity field on section 66 (OP:TRFC30).

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:TRFC30-DLN
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):

235-070-100 *Switch Administration Guidelines*

OP:TRFC30-DSL

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 DSL
  TIME aa:aa:aa
  SECTION 77: DIGITAL SUBSCRIBER LINE MEASUREMENTS
   ___LCEN/LCKEN__  ISLU  ORIG  TERM    SETUP   ORIG    TERM    USAGE
                    TYPE  REQ           DELAY   BLKD    BLKD
  b-c-d-f|b-c-e-m-n o     g     h       i       j       k       l
   .                .     .     .       .       .       .       .
   .                .     .     .       .       .       .       .
   .                .     .     .       .       .       .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 77: digital subscriber line (DSL) measurements of the 30-minute traffic report. This includes digital lines off of U and T cards as well as analog lines off of Z cards.

A maximum of six lines can be allowed (ALW) or requested (OP) for printing to the receive-only printer (ROP).

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = Integrated services line unit (ISLU) number.

d = Line group controller (LGC) number.

e = Line board (LB) number (for ISLU2 only).

f = Line card (LC) number.

g = Number of originating requests (count 1).

h = Number of terminating calls (count 2).

i = Number of times an SM took more than 3 seconds to respond to a SETUP request (count 3).

j = Number of originating request attempts blocked (count 4).

k = Number of terminating request attempts blocked (count 5).

l = Usage count for originating and terminating circuit switched voice and/or data calls in units of hundred call seconds (CCS) (count 6).

m = Line group number.

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`n` = Line circuit number.

`o` = ISLU type. There are three possible values for ISLU type field. The value 0 means, no line circuit type specified. The value 1 means, LCEN type circuit. The value 2 means, LCKEN type circuit.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-DSLG-A

Software Release: 5E10 - 5E11
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 DSLG
    TIME aa:aa:aa
  SECTION 52: ISDN DIGITAL SUBSCRIBER LINE GROUP
     SM  DSLG SHLF PH[TYPE]OVLD       OCCUP   FRAMES     PACKETS  LAN
     b   c    d    e [k]   f          g       h          i        j
     .   .    .    .  .    .          .       .          .        .
     .   .    .    .  .    .          .       .          .        .
     .   .    .    .  .    .          .       .          .        .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 52: integrated services digital network (ISDN) digital subscriber line group (DSLG) of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = DSLG number.

d = Shelf number.

e = Protocol handler (PH) unit number within the shelf.

k = Type of PH and PH hardware type. This is a string value that represents a unique application and hardware type. For example, DSLG-2 would be DSLG with PH2.

f = Total number of three-second intervals in overload.

g = Processor occupancy percentage based on interject entry rate.

h = The number of frames (circuit- or packet-switched) sent and received by the PH.

i = The number of circuit-switched packets sent and received by the PH.

j = The number of frames discarded by local area network (LAN) in the PH.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

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```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-DSLG-B

Software Release: 5E12 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 DSLG
  TIME aa:aa:aa
  SECTION 52: CHANNEL GROUP MEASUREMENTS
     SM  DSLG SHLF PH[TYPE]    OVLD    OCCUP   FRAMES     PACKETS  LAN
     b   c    d    e [k]       f       g       h          i        j
     .   .    .    .  .        .       .       .          .        .
     .   .    .    .  .        .       .       .          .        .
     .   .    .    .  .        .       .       .          .        .
     SM  DSLG SHLF PH   MSGIN      MSGOUT
     b   c    d    e    l          m
     .   .    .    .    .          .
     .   .    .    .    .          .
     .   .    .    .    .          .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 52: CCS and ISDN channel group (DSLG) of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = DSLG number.

d = Shelf number.

e = Protocol handler (PH) unit number within the shelf.

k = Type of PH and PH hardware type. This is a string value that represents a unique application and hardware type. For example, DSLG-2 would be DSLG with PH2.

f = Total number of three-second intervals in overload.

g = Processor occupancy percentage based on interject entry rate.

h = The number of frames (circuit- or packet-switched) sent and received by the PH.

i = The number of circuit-switched packets sent and received by the PH.

j = The number of frames discarded by local area network (LAN) in the PH.

l = Total packet switch unit messages incoming to the PH.

m = Total packet switch unit messages outgoing from the PH.

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4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-DSNOF

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 DSNOFC
    TIME aa:aa:aa
  SECTION 47: DEFENSE SWITCH NETWORK OFFICE TOTALS
  INCPPC = b      TERMP  = c      OUTPPC = d
  INTRAP = e      TANP   = f      ORGHL  = g
  ORGD   = h      ORGPRI = i      ORGI   = j
  ORGF   = k      ORGFO  = l      PRMTFP = m
  PRMTFI = n      PRMTFF = o      PRMTFFO= p
  PRMT   = q      POVFL  = r      PRICMPL= s
  PRIBLKD= t      PRIPRMT= u
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 47: defense switch network (DSN) office totals of the 30-minute traffic report. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Number of incoming precedence calls above routine.

c = Number of terminating precedence calls above routine.

d = Number of outgoing precedence calls above routine.

e = Number of intrasystem precedence calls above routine.

f = Number of tandem precedence calls above routine.

g = Number of originating hot line calls.

h = Number of originating calls denied (because of invalid precedence).

i = Number of originating priority calls.

j = Number of originating immediate calls.

k = Number of originating flash calls.

l = Number of originating flash override calls.

m = Number of priority calls that were unsuccessful in securing an intercenter outgoing trunk during the preempt search, after attempting to preempt in all intercenter trunk groups in a polygrid pattern.

n = Number of immediate calls that were unsuccessful in securing an intercenter outgoing trunk

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during the preempt search, after attempting to preempt in all intercenter trunk groups in a polygrid pattern.

o = Number of flash calls that were unsuccessful in securing an intercenter outgoing trunk during the preempt search, after attempting to preempt in all intercenter trunk groups in a polygrid pattern.

p = Number of flash override calls that were unsuccessful in securing an intercenter outgoing trunk during the preempt search, after attempting to preempt in all intercenter trunk groups in a polygrid pattern.

q = Number of primary intertoll trunks successfully preempted for reuse.

r = Number of precedence overflow of trunk groups above routine.

s = Number of multi-level precedence and preemption (MLPP) on primary rate interface (PRI) calls completed which is pegged on both the originating and terminating switches.

t = Number of calls routed to a blocked precedence announcement or other treatment because a PRI B-channel could not be preempted.

u = Number of MLPP PRI calls preempted by a higher priority call. This count is pegged by the switch indicating the preemption.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with the input message OP:TRFC30 using the VLD options:

```
OP:TRFC30,VLD
```

The validity for the administrative module (AM) applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*
235-200-300 *Defense Switched Network Application*

OP:TRFC30-DSNTG

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 DSNTG
  TIME aa:aa:aa
  SECTION 48: DEFENSE SWITCH NETWORK TRUNK GROUP MEASURES
  ID      IPPC    OPPC    PRMT    PRMTF    IPRMT    OPRMT    IPPRMT   OPPRMT
  b       c       d       e       f        g        h        i        j
  .       .       .       .       .        .        .        .        .
  .       .       .       .       .        .        .        .        .
  .       .       .       .       .        .        .        .        .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 48 of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time the report was generated, in the form hours:minutes:seconds.

b = Trunk group identifier.

c = Number of incoming precedence calls above routine.

d = Number of attempted outgoing precedence calls above routine.

e = Number of preemptions.

f = Number of preemption failures.

g = Number of incoming preemption calls.

h = Number of outgoing preemption calls.

i = Number of incoming precedence preemption calls above routine.

j = Number of outgoing precedence preemption calls above routine.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with the input message OP:TRFC30VLD using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module (AM) applies to this section.

The output of section 48 (defense switch network trunk group measures) depends on section 12 (trunk group

measures) being allowed for output. Trunk groups allowed for section 12 are also allowed for Section 48.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
Other Manual(s):
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*
235-200-300 *Defense Switched Network Applications*

OP:TRFC30-E911

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 E911
  TIME aa:aa:aa
  SECTION 148: ENHANCED 911
                 INVMSG  INVESN  INVDATA  ORIGTO  DEFRTG  QRYSENT
         ESA     b       c       d        e       f       g
                 ORIG    OVFL    ANITO    ANIDIG  ANIFMT
         INTER   h       i       j        k       l
         INTRA   m       n
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 148: enhanced 911 (E911) of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Number of invalid messages, either unexpected or malformed, that the switch received from the E911 service adjunct (ESA).

c = Number of E911 response messages received from the ESA with the validity code parameter set to "INVALID ESN" (invalid emergency service number).

d = Number of invalid E911 response messages received from the ESA with the validity code parameter set to anything other than "OK" or "INVALID ESN".

e = Number of time-outs that occurred while waiting for a response from the ESA for an E911 call origination.

f = Number of E911 calls that were default routed. For the "ESA" configuration, this count reflects calls that used the default ESN for routing when the ESA did not respond. For the "NON-ESA" switch configuration, this count will appear as a zero.

g = Number of E911 query messages that were sent to the ESA for E911 call originations. E911 test query messages are not included in this count.

h = Number of interoffice E911 calls that were originated at the E911 office over a non-dedicated trunk.

i = Number of interoffice E911 calls that were originated at the E911 office over a non-dedicated trunk and were blocked because the choke count for non-dedicated trunk originations was exceeded (no simulated facilities group (SFG) available).

j = Number of E911 calls in which time-out occurred prior to the reception of complete automatic number identification (ANI) information [centralized automatic message accounting (CAMA) trunks only]. For other trunks, a zero will print.

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`k` = Number of interoffice E911 calls in which the ANI information digit received indicated an ANI failure (CAMA trunks only). For CAMA originations, the information digit (I), which gives the class of service, has a value of 2 for ANI failure. For other trunks, a zero will print.

`l` = Number of interoffice E911 calls in which the received ANI information did not satisfy ANI format requirements. For CAMA trunks, this implies that an incorrect number of digits was received between the key pulse (KP) and start (ST) digits. For common channel signaling (CCS) originations, the charge (CHG) or calling party number (CPN) parameters were not populated in the incoming initial address message (IAM).

`m` = Number of intraoffice E911 calls that were originated locally at the E911 office.

`n` = Number of intraoffice E911 calls that were blocked because the choke count for local originations was exceeded (no SFG available).

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with the input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity of the administrative module (AM) applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-ECDN

Software Release: 5E12 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 ECDN
  TIME aa:aa:aa
  SECTION 235: EXPANDED CUSTOMER DIRECTORY NUMBER COUNTS

  DN          SM  TERMC TBUSY NOANS TRMBLK ORG   ORGBLK USAGE
  b           c   d     e     f     g      h     i      j
  .           .   .     .     .     .      .     .      .
  .           .   .     .     .     .      .     .      .
  .           .   .     .     .     .      .     .      .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 235, customer directory number (ECDN) counts, of the 30-minute traffic report. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Directory number (DN).

c = Switching module (SM) number.

d = Total number of terminating attempts to the DN. These may be line-to-line or trunk-to-line calls. Calls which are forwarded to a DN are also treated as terminating calls to the DN.

e = Total number of terminating attempts to the DN that resulted in busy tone being returned to the caller. The number of terminating calls which cannot complete because the called DN is busy, or cannot be forwarded because the number of simultaneously forwarded calls, inter-switch or intra-switch, has reached the allowed limit.

f = Total number of terminating calls for which a disconnect signal (on-hook) is received from the originating DN before an off-hook signal is received from the terminating DN, the call is transferred because of the Call Forwarding Don't Answer feature, or the call is picked up by another DN while the terminating DN is ringing. A ringing indication does not have to be returned to the originating DN.

g = Total number of terminating calls blocked because of System Blockage, or RT Blockage on an integrated SLC system. This peg count will not be incremented if a peripheral or network path is unavailable due to all resources being Out-Of-Service (OOS); however, this peg count is incremented for blockages due to an OOS HLSC, LDSU, or GDSU.

h = Total number of call origination attempts which resulted from the switch receiving at least one dialed digit (0-9,*,#), or the switch determining the destination (that is, identifies the terminating DN) in the case of direct connect service, which requires no dialed digits.

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`i` = Total number of originating calls blocked because of System Blockage, or RT Blockage on an integrated SLC system. This peg count will not be incremented if a peripheral or network path is unavailable due to all resources being Out-Of-Service (OOS); however, this peg count is incremented for blockages due to an OOS HLSC, LDSU, or GDSU. If a blockage occurs during an origination, the switch will continue to retry until the originator abandons the call attempt. The initial attempt to originate and each retry attempt that is blocked, will increment the Originating Blockage peg count.

`j` = Total amount of time an individual analog line is busy during a given interval. This number is the sum of the originating usage and terminating usage, and represents the total traffic usage by an individual line based on a 100-second scan cycle. A DN is considered usage busy once, even if the DN is on multiple calls simultaneously. This measurement does not include diagnostics and maintenance usage; however, it does include the time spent dialing and ringing.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-ECPS

Software Release: 5E13 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 ECPSRVT
  TIME hh:mm:ss

  SECTION 247: EXECUTIVE CELLULAR PROCESSOR SERVICE TYPE COUNTS

   SM  PSU  SRV_T  MISSGPKTS
   b   c    d      e
   .   .    .      .
   .   .    .      .
   .   .    .      .

         SINGLE CELL CONNECTION CALL INTERVALS

   SM  PSU  SRV_T  LOWQUAL    SINGLE     2CONSEC    M2CONSEC   TOTAL
   b   c    d      f          g          h          i          j
   .   .    .      .          .          .          .          .
   .   .    .      .          .          .          .          .
   .   .    .      .          .          .          .          .

         2-WAY SOFT HAND-OFF CALL INTERVALS

   SM  PSU  SRV_T  LOWQUAL    SINGLE     2CONSEC    M2CONSEC   TOTAL
   b   c    d      k          l          m          n          o
   .   .    .      .          .          .          .          .
   .   .    .      .          .          .          .          .
   .   .    .      .          .          .          .          .

         3-WAY SOFT HAND-OFF CALL INTERVALS

   SM  PSU  SRV_T  LOWQUAL    SINGLE     2CONSEC    M2CONSEC   TOTAL
   b   c    d      p          q          r          s          t
   .   .    .      .          .          .          .          .
   .   .    .      .          .          .          .          .
   .   .    .      .          .          .          .          .

         4-WAY SOFT HAND-OFF CALL INTERVALS

   SM  PSU  SRV_T  LOWQUAL    SINGLE     2CONSEC    M2CONSEC   TOTAL
   b   c    d      u          v          w          x          y
   .   .    .      .          .          .          .          .
   .   .    .      .          .          .          .          .
   .   .    .      .          .          .          .          .

         5-WAY SOFT HAND-OFF CALL INTERVALS
```

SM	PSU	SRV_T	LOWQUAL	SINGLE	2CONSEC	M2CONSEC	TOTAL
b	c	d	z	a^1	b^1	c^1	d^1
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.

6-WAY SOFT HAND-OFF CALL INTERVALS

SM	PSU	SRV_T	LOWQUAL	SINGLE	2CONSEC	M2CONSEC	TOTAL
b	c	d	e^1	f^1	g^1	h^1	i^1
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 247: executive cellular processor service type (ECPSRVT) of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hh:mm:ss.

b = Switching module (SM) number.

c = Packet Switching Unit (PSU) number (0).

d = Service Type

8K	= CDMA 8K Voice
13K	= CDMA 13K Voice
ACELP	= TDMA ACELP (Algebraic Code Excited Linear Predictive vocoder algorithm) Voice
VSELP	= TDMA VSELP (Vector Sum Excited Linear Predictive vocoder algorithm) Voice
C1ASN	= CDMA Data Rate Set 1 - Asynchronous Service
C2ASN	= CDMA Data Rate Set 2 - Asynchronous Service
C1FAX	= CDMA Data Rate Set 1 - Fax Service
C2FAX	= CDMA Data Rate Set 2 - Fax Service
C1IP	= CDMA Data Rate Set 1 - IP (Internet Protocol) Service
C2IP	= CDMA Data Rate Set 2 - IP Service
C1CDCP	= CDMA Data Rate Set 1 - CDPD (Cellular Digital Packet Data) Service
C2CDCP	= CDMA Data Rate Set 2 - CDPD Service

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T1DRS = TDMA Data Rate Set 1

e = Number of 20 millisecond (ms) reverse traffic intervals that occur in which all reverse traffic packets are early, late, or missing.

f = Number of 20 ms reverse traffic intervals that occur for calls that are not in soft handoff in which a low quality traffic packet is fed to the vocoder.

g = Number of occurrences of a single 20 ms reverse traffic interval for calls that are not in soft handoff in which all reverse traffic packets are either early, late, missing or erase.

h = Number of occurrences of two consecutive 20 ms reverse traffic intervals for calls that are not in soft handoff in which all reverse traffic packets are either early, late, missing or erase.

i = Number of occurrences of more than two consecutive 20 ms reverse traffic intervals for calls that are not in soft handoff in which all reverse traffic packets are either early, late, missing or erase.

j = Number of 20 ms reverse traffic intervals that occur for calls that are not in soft handoff.

k = Number of 20 ms reverse traffic intervals that occur for calls that are in 2-way soft handoff in which a low quality traffic packet is fed to the vocoder.

l = Number of occurrences of a single 20 ms reverse traffic interval for calls that are in 2-way soft handoff in which all reverse traffic packets are either early, late, missing or erase.

m = Number of occurrences of two consecutive 20 ms reverse traffic intervals for calls that are in 2-way soft handoff in which all reverse traffic packets are either early, late, missing or erase.

n = Number of occurrences of more than two consecutive 20 ms reverse traffic intervals for calls that are in 2-way soft handoff in which all reverse traffic packets are either early, late, missing or erase.

o = Number of 20 ms reverse traffic intervals that occur for calls that are in 2-way soft handoff.

p = Number of 20 ms reverse traffic intervals that occur for calls that are in 3-way soft handoff in which a low quality traffic packet is fed to the vocoder.

q = Number of occurrences of a single 20 ms reverse traffic interval for calls that are in 3-way soft handoff in which all reverse traffic packets are either early, late, missing or erase.

r = Number of occurrences of two consecutive 20 ms reverse traffic intervals for calls that are in 3-way soft handoff in which all reverse traffic packets are either early, late, missing or erase.

s = Number of occurrences of more than two consecutive 20 ms reverse traffic intervals for calls that are in 3-way soft handoff in which all reverse traffic packets are either early, late, missing or erase.

t = Number of 20 ms reverse traffic intervals that occur for calls that are in 3-way soft handoff.

u = Number of 20 ms reverse traffic intervals that occur for calls that are in 4-way soft handoff in which a low quality traffic packet is fed to the vocoder.

v = Number of occurrences of a single 20 ms reverse traffic interval for calls that are in 4-way soft handoff in which all reverse traffic packets are either early, late, missing or erase.

w = Number of occurrences of two consecutive 20 ms reverse traffic intervals for calls that are in 4-way soft handoff in which all reverse traffic packets are either early, late, missing or erase.

x = Number of occurrences of more than two consecutive 20 ms reverse traffic intervals for calls that are in 4-way soft handoff in which all reverse traffic packets are either early, late, missing or erase.

y = Number of 20 ms reverse traffic intervals that occur for calls that are in 4-way soft handoff.

z = Number of 20 ms reverse traffic intervals that occur for calls that are in 5-way soft handoff in which a low quality traffic packet is fed to the vocoder.

a^1 = Number of occurrences of a single 20 ms reverse traffic interval for calls that are in 5-way soft handoff in which all reverse traffic packets are either early, late, missing or erase.

b^1 = Number of occurrences of two consecutive 20 ms reverse traffic intervals for calls that are in 5-way soft handoff in which all reverse traffic packets are either early, late, missing or erase.

c^1 = Number of occurrences of more than two consecutive 20 ms reverse traffic intervals for calls that are in 5-way soft handoff in which all reverse traffic packets are either early, late, missing or erase.

d^1 = Number of 20 ms reverse traffic intervals that occur for calls that are in 5-way soft handoff.

e^1 = Number of 20 ms reverse traffic intervals that occur for calls that are in 6-way soft handoff in which a low quality traffic packet is fed to the vocoder.

f^1 = Number of occurrences of a single 20 ms reverse traffic interval for calls that are in 6-way soft handoff in which all reverse traffic packets are either early, late, missing or erase.

g^1 = Number of occurrences of two consecutive 20 ms reverse traffic intervals for calls that are in 6-way soft handoff in which all reverse traffic packets are either early, late, missing or erase.

h^1 = Number of occurrences of more than two consecutive 20 ms reverse traffic intervals for calls that are in 6-way soft handoff in which all reverse traffic packets are either early, late, missing or erase.

i^1 = Number of 20 ms reverse traffic intervals that occur for calls that are in 6-way soft handoff.

4. ACTIONS TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
```

```
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Administration and Engineering Guidelines*

OP:TRFC30-EDSC

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 EDSC
  TIME aa:aa:aa
  SECTION 73: ISDN BRCS ELECTRONIC DIRECTORY SERVICE CUSTOMER
          CUSTID  DQDREQ  DQDSDM  ACREQ   UACREQ  NDSMSG
          b        c       d       e       f        g
          .        .       .       .       .        .
          .        .       .       .       .        .
          .        .       .       .       .        .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 73: integrated services digital network (ISDN) business and residential customer services (BRCS) electronic directory service customers (EDSC) of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Customer number.

c = Number of directory query display (DQD) session requests.

d = Number of successfully obtained display messages from an attached processor during DQD sessions.

e = Number of electronic directory service (EDS) auto call requests.

f = Number of unsuccessful EDS auto call requests.

g = Number of calling name display (CND) messages not received within a user-specified interval.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity of the administrative module (AM) applies to the section.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-EPCS

Software Release: 5E12 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 EPCS
  TIME aa:aa:aa
  SECTION 236: EXPANDED ISDN PCS DN SPECIAL STUDY
  DN         SM   ALTRQ     ORIGATMP
  b          c    d         e
  .          .    .         .
  .          .    .         .
  .          .    .         .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 236, ISDN personal communications services (EPCS) directory number (DN) special study counts, of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Directory number (DN).

c = Switching module (SM) number.

d = Number of inter-radio port control unit (RPCU) automatic link transfer (ALT) requests per DN for PCS basic rate interface (BRI) interconnecting the RPCUs and the switch.

e = Number of PCS originating attempts per DN for PCS BRI.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-FRBC

Software Release: 5E13 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 FRBC
 TIME aa:aa:aa
 SECTION 248: FRAME RELAY BEARER CHANNEL COUNTS

 PSUEN           INC     OUT
 b-c-d-e-f       g       h
 .               .       .
 .               .       .
 .               .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 248: frame relay bearer channel (FRBC) of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = Packet Switching Unit (PSU) number.

d = Shelf (SHELF) number.

e = Channel group (CHGRP) number.

f = Channel (CHANNEL) number.

g = Number of incoming calls.

h = Number of outgoing calls.

4. ACTIONS TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

OP:TRFC30,VLD

If the data is checked, check the validity of the corresponding SM.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-FRPH-A

Software Release: 5E10 - 5E11
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 FRPH
  TIME aa:aa:aa

  SECTION 193: FRAME RELAY PROTOCOL HANDLER COUNTS

      SM  PSU  SHLF  CHGRP  CHAN  XMTOCC   RCVOCC   MSGSXMT   MSGSRCV
      b   c    d     e      f     g        h        i         j
      .   .    .     .      .     .        .        .         .
      .   .    .     .      .     .        .        .         .
      .   .    .     .      .     .        .        .         .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 193: frame relay protocol handler (FRPH) of the 30-minute traffic report. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hh:mm:ss.

b = Switching module (SM) number.

c = Packet switching unit (PSU) number (0).

d = Shelf (SHLF) number (0-4).

e = Channel group (CHGRP) number (0-15).

f = Packet pipe (CHAN) number (0-3).

g = Bandwidth transmit percent occupancy. This occupancy is taken over an entire 30 minute period. If this packet pipe is out of service (OOS) for part of that 30 minutes, the calculation still uses 30 minutes as the total time. In this case, the occupancy may appear low. This count will be lost on both a hard and a soft switch.

h = Bandwidth receive percent occupancy. This occupancy is taken over an entire 30 minute period. If this packet pipe is OOS for part of that 30 minutes, the calculation still uses 30 minutes as the total time. In this case, the occupancy may appear low. This count will be lost on both a hard and a soft switch.

i = Average messages per second transmitted by the FRPH on a packet pipe. The number of messages is averaged over an entire 30 minute period. If this packet pipe is OOS for part of that 30 minutes, the calculation still uses 30 minutes as the total time. In this case, the average number of messages may appear low. This count will be lost on both a hard and a soft switch.

j = Average messages per second received by the FRPH on a packet pipe. The number of

messages is averaged over an entire 30 minute period. If this packet pipe is OOS for part of that 30 minutes, the calculation still uses 30 minutes as the total time. In this case, the average number of messages may appear low. This count will be lost on both a hard and a soft switch.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):

235-070-100 *Switch Administration Guidelines*

OP:TRFC30-FRPH-B

Software Release: 5E12 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 FRPH
  TIME aa:aa:aa

  SECTION 193: FRAME RELAY PROTOCOL HANDLER COUNTS

      SM  PSU  SHLF  CHGRP  CHAN  XMTOCC   RCVOCC   MSGSXMT   MSGSRCV
      b   c    d     e      f     g        h        i         j
      .   .    .     .      .     .        .        .         .
      .   .    .     .      .     .        .        .         .
      .   .    .     .      .     .        .        .         .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 193: frame relay protocol handler (FRPH) of the 30-minute traffic report. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hh:mm:ss.

b = Switching module (SM) number.

c = Packet switching unit (PSU) number (0).

d = Shelf (SHLF) number (0-4).

e = Channel group (CHGRP) number (0-15).

f = Packet pipe (CHAN) number (0-21).

g = Bandwidth transmit percent occupancy. This occupancy is taken over an entire 30 minute period. If this packet pipe is out of service (OOS) for part of that 30 minutes, the calculation still uses 30 minutes as the total time. In this case, the occupancy may appear low. This count will be lost on both a hard and a soft switch.

h = Bandwidth receive percent occupancy. This occupancy is taken over an entire 30 minute period. If this packet pipe is OOS for part of that 30 minutes, the calculation still uses 30 minutes as the total time. In this case, the occupancy may appear low. This count will be lost on both a hard and a soft switch.

i = Average messages per second transmitted by the FRPH on a packet pipe. The number of messages is averaged over an entire 30 minute period. If this packet pipe is OOS for part of that 30 minutes, the calculation still uses 30 minutes as the total time. In this case, the average number of messages may appear low. This count will be lost on both a hard and a soft switch.

j = Average messages per second received by the FRPH on a packet pipe. The number of

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messages is averaged over an entire 30 minute period. If this packet pipe is OOS for part of that 30 minutes, the calculation still uses 30 minutes as the total time. In this case, the average number of messages may appear low. This count will be lost on both a hard and a soft switch.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):

235-070-100 *Switch Administration Guidelines*

OP:TRFC30-GAMA

Software Release: 5E12 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

2. REASON FOR OUTPUT

This file was created for the newest release. Additional information will be included as it is made available.

3. VARIABLE FIELD DEFINITIONS

4. ACTIONS TO BE TAKEN

5. ALARMS

6. REFERENCES

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OP:TRFC30-GHPC

Software Release: 5E13 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 GETSHPC
  TIME aa:aa:aa
  SECTION 17 : GETS HIGH PROBABILITY COMPLETION
          HPCXMPT     HPCORIG     HPCINC      HPCTERM
          b           c           d           e
          HPCOUT      HPCTOIXC    HPCNC       HPCIXCNC
          f           g           h           i
          HPCTGQ      HPCTGQOF    HPCTGQABAN  HPCTGQTMO
          j           k           l           m
          HPCACGXMPT  HPCACGBLK
          n           o
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 17: Government Emergency Telephone System High Probability of Call Completion (GETSHPC) of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = HPC calls exempted from Network Management Controls.

c = Originating HPC call attempts.

d = Incoming HPC calls.

e = Terminating HPC calls.

f = Outgoing HPC calls.

g = Outgoing HPC calls to IXC's.

h = Outgoing HPC calls to No Circuit.

i = Outgoing HPC IXC calls to No Circuit.

j = HPC trunk group queue attempts.

k = HPC trunk group queue overflow.

l = HPC trunk group queue abandon.

m = HPC trunk group queue timeout.

n = ACG exempted HPC call attempts.

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○ = ACG blocked HPC call attempts.

4. ACTIONS TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*
235-456-789 *Traffic and Plant Measurements*

OP:TRFC30-GMTIB

Software Release: 5E12 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 GMTIB
 TIME aa:aa:aa
 SECTION 79: GDX-ES AND MTIBS ACTIVITIES OF MMSU

 SM  MMSU  MATTMPTS  MOVFL  GOVFL  MUSAGE
 b   c     d         e      f      g
 .   .     .         .      .      .
 .   .     .         .      .      .
 .   .     .         .      .      .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 79: GDX-ES AND MTIBS ACTIVITIES OF MMSU (GMTIB) counts of the 30-minute traffic report. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching Module (SM) number. Refer to the APP:RANGES appendix in the Appendixes section of the Output Messages manual.

c = MMSU Number.

d = Attempts to Seize Metallic Test Interconnection Bus (MTIB).

e = Metallic Test Interconnection Bus Not Available This overflow count is the number of attempts to seize MTIB that was denied due to lack of resources.

f = Gated Diode Crosspoint Not Available. This overflow count is the number of attempts to seize a GDX that was denied due to lack of resources.

g = Total usage Metallic Test Interconnection Bus on a MMSU unit.

4. ACTIONS TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

OP:TRFC30,VLD

If the data is checked, check the validity of the corresponding SM.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:RANGES
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):

235-070-100 *Switch Administration Guidelines*

OP:TRFC30-HLSC

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 HLSC
  TIME aa:aa:aa
  SECTION 8: HIGH LEVEL SERVICE CIRCUITS
  PROC  LU  PEGCT  TOTUSG  SHTOVF  MTUSG  RNGOVF
  b     c   d      e       f       g      h
  .     .   .      .       .       .      .
  .     .   .      .       .       .      .
  .     .   .      .       .       .      .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 8: high level service circuits (HLSC) of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module number.

c = Line unit number.

d = Number of times an attempt was made to use an HLSC.

e = Sum of traffic and maintenance usage reported in hundred-call-seconds (CCS).

f = Number of times the switch could not obtain an HLSC to run an originating short job.

g = Maintenance usage reported in CCS.

h = Number of times the switch could not obtain an HLSC to ring a customer line.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-IA

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 IA
  TIME aa:aa:aa
  SECTION 6: INEFFECTIVE ATTEMPTS
  CALLTYP   FALST   PERMSIG   PDABAN   PDTIMO   ABAND   BFMO
  ORIGIN    b       c         d        e        f
  INCOM     g       h         i        j        k       l
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 6: ineffective attempts (IA) of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Number of originating false starts.

c = Number of originating permanent signals.

d = Number of originating partial dials abandoned.

e = Number of originating partial dials timed out.

f = Number of originating calls abandoned.

g = Number of incoming false starts.

h = Number of incoming permanent signals.

i = Number of incoming partial dials abandoned.

j = Number of incoming partial dials timed out.

k = Number of incoming calls abandoned.

l = Number of incoming backward fail messages.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

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The validity of the administrative module (AM) applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-IBROF

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 IBROFC
  TIME aa:aa:aa
  SECTION 72: ISDN BRCS AND LASS ANALOG OFFICE TOTALS
     DNMSGS       CPN_PRIVATE  CPN_UNAVAIL  CPN_BN
     b            c            d            e
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 72: integrated services digital network (ISDN) business and residential customer services (BRCS) office totals (IBROFC) of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Total number of messages containing directory numbers (DNMSGS) sent to customers during previous 30-minute reporting period. This count may be pegged by both the ISDN BRCS feature (if equipped) and the local area signaling services (LASS) feature (analog).

c = Number of times a single calling party number (CPN) information element (IE) containing "number private" indication was delivered to calling number delivery (CND) customers.

d = Number of times a single CPN IE containing "number unavailable" indication was delivered to CND customers.

e = Number of times a single CPNIE containing billing number (charge number) was delivered to CND customers.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with OP:TRFC30 input message using the VLD option:

OP:TRFC30,VLD

The validity of the administrative module (AM) applies to this section.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-IC

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 IC
  TIME aa:aa:aa
  SECTION 164: INTERLATA CARRIERS - TANDEM TRUNKS
    IC      OUTGO      OVFL      USAGE
    b c     d          e         f
    . .     .          .         .
    . .     .          .         .
    . .     .          .         .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 164: interLATA carriers (IC) tandem trunks of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

`IC` = InterLATA carrier identifier consisting of identifiers '`b`' and '`c`'.

`a` = Time when the report was prepared, in the form hours:minutes:seconds.

`b` = Feature group identifier.

`c` = InterLATA carrier identifier.

`d` = Number of outgoing call attempts on tandem trunks.

`e` = Number of trunk overflows on tandem trunks.

`f` = Traffic usage on tandem trunks reported in 100-call-seconds.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with the OP:TRFC30 input message using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASIC
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASIC
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*
235-190-115 *Local and Toll System Features*

OP:TRFC30-IC-ST

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 IC STATUS
  ALLOWED INTERLATA CARRIERS
  a [a][a][a][a][a][a][a][a][a]
  INVALID INTERLATA CARRIERS:
  b [b][b][b][b][b][b][b][b][b]
  ALLOWED INTERLATA CARRIER COUNT:     c     (LIMIT = 10)
```

2. REASON FOR OUTPUT

To respond to an ALW:TRFC30, INH:TRFC30, OP:TRFC30, and REPT:TRFC30 input message request for immediate output of up to 10 interLATA carriers (ICs) when one or more of the interLATA carrier identifiers requested is invalid.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

`a` = Allowed interLATA carrier identifier(s) requested.

`b` = Invalid interLATA carrier identifier(s) requested.

`c` = Current number of interLATA carriers allowed for output.

4. ACTION TO BE TAKEN

An interLATA carrier can be requested again if it was flagged as invalid because of a typing error. If the limit is reached, inhibit an existing IC and input a new IC.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-ICL

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 ICL
  TIME aa:aa:aa
  SECTION 37: INTRA-RSM COMMUNICATION LINKS
  SITE                    SITEID
    b                        c
  RSM      T1PC   T1OFL   T1BKH   T1MT    T1UG
  d - e     f       g       h      i       j
   .        .       .       .      .       .
   .        .       .       .      .       .
   .        .       .       .      .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate output or scheduled output of section 37: intra-remote switching module (RSM) communication links (ICL) of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Text identifier of the remote site.

c = Numerical identifier of the remote site. (If there is only one RSM at the site, there are no ICL measurements. If there are two or more RSMs, there is one set of measurements for each pair.)

d = Lower member number of the pair.

e = Higher member number of the pair.

f = Number of ICL time slot allocation attempts.

g = Number of unsuccessful time slot allocation attempts.

h = Number of successful backhaul attempts. (This peg count is incremented when an overflow condition exists on the ICLs, and the path is set up through the host switching module(s).)

i = ICL time slot maintenance usage reported in hundred-call-seconds (CCS).

j = ICL time slot total usage reported in CCS.

4. ACTION TO BE TAKEN

No action is required.

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If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-IDP

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 IDP
  TIME aa:aa:aa
  SECTION 31: INDIVIDUAL DIALING PLAN MEASURES
  NAME   INTER   AD1    AD2    AD3       CARR   ACT   FCD
  b      c       d      e      f         g      h     i
  .      .       .      .      .         .      .     .
  .      .       .      .      .         .      .     .
  .      .       .      .      .         .      .     .
  NAME   PFA     DPAT   UCET   PRIMCAR   POTS   PCHG
  b      j       k      l      m         n      o
  .      .       .      .      .         .      .
  .      .       .      .      .         .      .
  .      .       .      .      .         .      .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 31: individual dialing plan (IDP) measures of the 30-minute traffic report. Up to five IDP group's measurements may appear in a single message.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = IDP group identifier name.

c = Number of intercom dialing attempts.

d = Number of abbreviated dialing attempts (1 digit).

e = Number of abbreviated dialing attempts (2 digits).

f = Number of abbreviated dialing attempts (3 digits).

g = Number of requests for a specific carrier.

h = Number of ACT attempts.

i = Number of feature code definition attempts.

j = Number of private facility access code attempts.

k = Number of calls receiving "dialing plan access treatment restricted code" error treatment.

l = Number of calls receiving "undefined code" error treatment.

m = Number of IDP primary carrier parameter is used.

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`n` = Number of POTS access attempts.

`o` = Number of IDP parameter change attempts.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:TRFC30
OP:ST-TRFC30
OP:MEASTAT
```

Output Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:ST-TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-IDPID

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 IDPIDB
  TIME aa:aa:aa
  SECTION 140: INTEGRATED DIGITAL CARRIER UNIT - DPIDB

      SM    IDCU   ATMPT OVFL  TOTUSG MTUSG  TOT_TS  ODB_TS
      b     c      d     e     f      g      h       i
      .     .      .     .     .      .      .       .
      .     .      .     .     .      .      .       .
      .     .      .     .     .      .      .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 140: integrated digital carrier unit (IDCU) - directly connected peripheral interface data bus (DPIDB) of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = IDCU number.

d = Number of attempts to seize a DPIDB time slot to set up an on-demand B-channel (ODB) connection (count 1).

e = Number of attempts to seize a DPIDB time slot to set up an ODB connection that were denied because an idle time slot was not available (count 2).

f = Total usage reported in hundred-call-second (CCS) of an IDCU's DPIDB time slots; this includes traffic usage for ODB calls plus the maintenance usage of the time slots (count 3).

g = Maintenance usage reported in CCS of an IDCU's DPIDB time slots; this is the cumulative amount of time that each DPIDB time slot was not available to carry traffic and includes maintenance activity for an IDCU that makes DPIDBs unavailable for service (count 4).

h = Total number of DPIDB time slots connected to an IDCU (count 5).

i = Number of DPIDB time slots available for ODB calls; this excludes DPIDB time slots used for provisioned B channels, D channels, embedded operations channels (EOC), and time-slot management channels (TMC) (count 6).

4. ACTION TO BE TAKEN

No action is required.

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If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-ILINE

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 ILINE
  TIME aa:aa:aa
  SECTION 141:  INTEGRATED DIGITAL CARRIER UNIT - LINES

                     TOTAL ORIG        ORIG  TOTAL
      ILEN           DELAY REQ   TMATT OVFL  OVFL  USG
      b-c-d-e        f     g     h     i     j     k
      . . . .        .     .     .     .     .     .
      . . . .        .     .     .     .     .     .
      . . . .        .     .     .     .     .     .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 141: integrated digital carrier unit (IDCU) - lines of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = IDCU number.

d = Digital remote terminal (RT) number.

e = RT line number.

f = Number of times dial tone delay exceeds the 3-second threshold for touch-tone and dial pulse originating non-ISDN calls plus the number of times call setup delay exceeds the 3-second threshold between receipt of a SETUP message and the return of a SETUP acknowledge or call proceeding message for circuit-switched originating ISDN calls (count 1).

g = Number of times the switch initiates action leading to a readiness to receive customer dial pulse or touch-tone service digits or to process a call for which digits are not required; the count is incremented at the time the line requesting service is identified (count 2).

h = Number of times the switch attempts to terminate circuit-switched calls to lines or PBX trunks served by an IDCU; this count is incremented when the switch identifies the terminating party (count 3).

i = Number of times that service was denied to attempted call originations because of a lack of resources in the switch, RT, or intervening digital signal level 1 (DS1) facilities (count 4).

j = Number of times that service was denied to originating, terminating, or outgoing calls because of a lack of resources in the switch, remote digital terminal (RT), or intervening DS1 facilities (count 5).

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`k` = Traffic usage reported in hundred-call-seconds for the line's originating, terminating, and outgoing calls or the traffic usage for semi-permanently cross-connected circuits (provisioned B and D channels) (count 6).

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-IODB

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 IODB
  TIME aa:aa:aa
  SECTION 142: INTEGRATED DIGITAL CARRIER UNIT - ODB
      SM    IDCU
      b     c

      PSU
      SHELF   ATMPT   OVFL   USG
      d       e       f      g
      .       .       .      .
      .       .       .      .
      .       .       .      .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 142: integrated digital carrier unit (IDCU) - on-demand B-channel (ODB) of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = IDCU number.

d = Packet switching unit (PSU) shelf number.

e = Number of attempts to seize a directly-connected peripheral interface data bus (DPIDB) time slot to set up an ODB connection (count 1).

f = Number of attempts to seize a time slot to set up an ODB connection that were denied because an idle time slot was not available (count 2).

g = Traffic usage reported in hundred-call-seconds (CCS) of DPIDB time slots for ODB packet switched calls (count 3).

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

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If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-IPIDB

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 IPIDB
  TIME aa:aa:aa
  SECTION 139: INTEGRATED DIGITAL CARRIER UNIT - PIDB
      SM    IDCU   TMATT TMBLK TOTUSG DIGUSG MTUSG TOT_TS LOC_TS
      b     c      d     e     f      g      h     i      j
      .     .      .     .     .      .      .     .      .
      .     .      .     .     .      .      .     .      .
      .     .      .     .     .      .      .     .      .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 139: integrated digital carrier unit (IDCU)- peripheral interface data bus (PIDB) of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = IDCU number.

d = Number of times the switch attempts to terminate circuit-switched calls to lines or private branch exchange (PBX) trunks served by an IDCU; this count is incremented when the switch identifies the terminating party; it is incremented only once for each terminating request regardless of the number of retries due to resource failures (count 1).

e = Number of times that an attempt to terminate a circuit-switched call was blocked due to failure to find an idle PIDB time slot (count 2).

f = Total usage reported in hundred-call-seconds (CCS) of an IDCU's PIDB time slots; this includes traffic usage generated by circuit-switched calls for the IDCU's ISDN and non-ISDN lines plus maintenance usage of the time slots (count 3).

g = Amount of traffic usage reported in CCS of an IDCU's PIDB time slots generated by circuit-switched calls for the IDCU's ISDN lines (count 4).

h = Maintenance usage for an IDCU's PIDBs; this is the cumulative length of time that an IDCU's PIDB time slots were not available for traffic because of maintenance activity and includes all maintenance activity for an IDCU that makes PIDBs unavailable for service (count 5).

i = Total number of PIDB time slots connected to the IDCU (count 6).

j = Number of PIDB time slots available for locally- switched traffic (those calls not nailed up using RC/V view 7.11); this excludes PIDB time slots used for nailed-up circuits (count 7).

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4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

RC/V View(s):

7.11 (NAIL-UP AND HAIRPIN SPECIFICATION)

OP:TRFC30-IPT

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 IPT
  TIME aa:aa:aa
  SECTION 198: INTELLIGENT PERIPHERAL TRUNKS
      TGRP  TIMEOUT UNVAIL   RECEIVED MSGRCV
      b     c       d        e        f
      .     .       .        .        .
      .     .       .        .        .
      .     .       .        .        .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 198: intelligent peripheral trunks (IPT) of the 30-minute traffic report. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = trunk group number (0-2000).

c = Number of IP timeout, kept on a per-IP basis, is pegged whenever the SSP detects an ipTimeout condition and reports it to the SCP with a Resource_Clear message whose ClearCause value is "isdnTimeout."

d = Number of IP unavailable, kept on a per-IP basis, is pegged whenever the SSP can not seize an idle B channel to the indicated IP, and reports this to the SCP with a Resource_Clear message whose ClearCause value is "channelsBusy."

e = Number of send to resource external [STR(E)] messages received for that IP.

f = Number of IAM Messages Received, pegged whenever a well formed IAM message is received for a Remote IP.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-IRT

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 IRT
  TIME aa:aa:aa
  SECTION 143: INTEGRATED DIGITAL CARRIER UNIT - RT
                                ORIG   TERM
      SM  IDCU  RT   ATMPT  BLKD   BLKD    TOTUSG  MTUSG
      b   c     d    e      f      m       g       h
      .   .     .    .      .      .       .       .
      .   .     .    .      .      .       .       .
      .   .     .    .      .      .       .       .

      SM  IDCU  RT   TOT_TS LOC_TS EOC_PKT TMC_PKT
      b   c     d    i      j      k       l
      .   .     .    .      .      .       .
      .   .     .    .      .      .       .
      .   .     .    .      .      .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 143: integrated digital carrier unit (IDCU) per remote terminal (RT) of the 30-minute traffic report. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = IDCU number.

d = RT number.

e = Number of times the switch recognizes a request for service (such as, a setup message) from the RT's locally-switched lines (those lines not nailed up using RC/V view 7.11) or attempts to terminate calls to the RT's locally-switched lines or private branch exchange (PBX) direct inward dialing (DID) trunks; the count is incremented when the switch identifies the originating or terminating party; the count is incremented only once for each originating or terminating call regardless of retry attempts due to resource failures (count 1).

f = Number of times locally-switched originating calls are blocked due to non-availability of an idle digital signal level 1 (DS1) time slot (count 2).

m = Number of times locally-switched terminating calls are blocked due to non-availability of an idle DS1 time slot (count 3).

g = Total usage reported in hundred-call-seconds (CCS) of the RT's DS1 time slots this includes

traffic for locally-switched originating and terminating calls plus the maintenance usage of the DS1 time slots (count 4).

`h` = Maintenance usage of the DS1 time slots; this is the cumulative length of time that each of an RT's active DS1 time slots was not available for traffic due to maintenance activity and includes time slots for non-locally switched circuits (any circuit nailed up using RC/V view 7.11), D channels, provisioned B channels, embedded operations channels (EOC), and time-slot management channel (TMC); maintenance usage for an out of service DS1 is calculated by multiplying the time the facility is not available for service by 24, the number of channels per DS1; the time a DS1 is on protection is not considered in this measurement of maintenance usage (count 5).

`i` = Number of time slots on the RT's active DS1s (excludes time slots on the protection DS1, but includes time slots for semi-permanent cross connections (provisioned B channels, provisioned D channels), EOCs, and TMCs) (count 6).

`j` = Number of the RT's active DS1 time slots available for locally-switched traffic; this excludes all time slots that are used for semi-permanently cross- connected services, EOCs, and TMCs (count 7).

`k` = Number of packets transmitted and received in Information frames (I frames) over the RT's active and standby EOCs (count 8).

`l` = Number of packets transmitted and received in I frames over the RT's active and standby TMCs (count 9).

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
ALW:ST-TRFC30
```

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

RC/V View(s):

7.11 (NAIL-UP AND HAIRPIN SPECIFICATION)

OP:TRFC30-ISLU

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 ISLU
  TIME aa:aa:aa
  SECTION 49: INTEGRATED SERVICES LINE UNIT
      SM   ISLU   TMATT   TMBLK   TOTUSG   DIG_USG   MTUSG
       b     c      d       e       f         g        h
       .     .      .       .       .         .        .
       .     .      .       .       .         .        .
       .     .      .       .       .         .        .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 49: integrated services line unit (ISLU) of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = ISLU number.

d = Number of attempts to hunt a terminating circuit-switched path to an ISLU (U, T, or Z cards).

e = Number of terminating circuit-switched call attempts that failed due to the inability to select an idle time slot (U, T, or Z cards).

f = Number of peripheral interface data bus (PIDB) time slots used for circuit-switched calls, reported in hundred-call-seconds (CCS) (U, T, or Z cards).

g = Number of PIDB time slots used for circuit-switched calls to or from digital subscriber lines (DSL), reported in CCS (U and T cards).

h = Number of PIDB time slots out of service.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-ISM

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 ISM
  TIME aa:aa:aa
  SECTION 53: ISDN SWITCHING MODULE MEASUREMENTS
  PROC        ORIGRQ  SETUP_DELAY  TSIU_USG
   b            c         d           e
   .            .         .           .
   .            .         .           .
   .            .         .           .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 53: integrated services digital network (ISDN) switching module (ISM) measurements of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = Number of ISDN originating call SETUP messages (Q.931) received (count 1).

d = Number of times the SM took more than 3 seconds to respond to an incoming SETUP request (count 2).

e = Usage, reported in hundred-call-seconds (CCS), of the time slot interchange unit (TSIU) channels connecting the TSIU to the peripheral switching unit (PSU) for the remote digital test access (also known as remote protocol access) feature (count 3).

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the switching module applies to this section.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-ISOFC-A

Software Release: 5E10 - 5E11
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 ISOFC
  TIME aa:aa:aa
  SECTION 50: INTEGRATED SERVICES DIGITAL NETWORK OFFICE TOTALS
     ORIGPC  ORIGUSG TERMPC  TERMUSG INCPC   OUTPC   INTRA   ORIGRQ
     b       c       d       e       f       g       h       i
     INCREQ  ISIPDTO ISOPDTO ISOPS   O+T_USG
     j       k       l       m       n
  CGPS
      ORIG         TERM
      o            p
  RND
      UNAVAIL      1_PUBLIC     1_PRIVATE    2_DLVRY
      q            r            s            t
  ACO
      OFFER        ANSWER
      u            v
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 50: integrated services digital network office totals (ISOFC) of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Number of integrated services digital network (ISDN) originating calls.

c = Total usage generated by scanning originating ISDN circuit-switched calls every 100 seconds. There may be concurrent multiple originating calls on one line (that is, on more than one channel).

d = Number of ISDN terminating calls.

e = Total usage generated by scanning terminating ISDN circuit-switched calls every 100 seconds. There may be concurrent multiple terminating calls on one line (that is, on more than one channel).

f = Number of ISDN incoming calls.

g = Number of ISDN outgoing calls.

h = Number of ISDN intra-office (line-to-line) calls.

i = Number of ISDN originating requests.

j = Number of ISDN incoming requests.

k = Number of ISDN incoming partial dial time-outs.

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`l` = Number of ISDN originating partial dial time-outs.

`m` = Number of ISDN originating permanent signals.

`n` = Total extended office (include host, RSM and ORM) ISDN circuit-switched traffic usage generated by originating and terminating (O+T) calls measured at a single, common point in the system network. This count includes all integrated services line units (ISLUs).

`o` = Number of calling party subaddress (CgPS) received at originating end. This peg count is incremented any time a CgPS information element (IE) is received by the switch.

`p` = Number of CgPS delivered to terminating end. The CgPS will be delivered when it is available at the far end and a user-provided passed screening (UPPS) "public" calling party number (CPN) is being delivered as part of the existing calling party number/billing number (CPN/BN) feature. This is the only time that this count will be pegged.

`q` = Number of single "number unavailable" redirecting number (RN) IE deliveries. This count will be pegged when a single RN IE is delivered in the terminating SETUP message indicating that the number is unavailable. If two RN IEs are delivered with either one indicating that the number is unavailable, this count is not pegged.

`r` = Number of single "number public (full digits)" RN IE deliveries. This count will be pegged when a single RN IE is delivered in the terminating SETUP message with a "number public (full digits) number." If two RN IEs are delivered with either one indicating "number public (full digits) number," this count is not pegged.

`s` = Number of single "number private (no digit)" RN IE deliveries. This count will be pegged when a single RN IE is delivered in the terminating SETUP message with a "number private (no digit) number." If two RN IEs are delivered with either one indicating "number private (no digit) number," this count is not pegged.

`t` = Number of 2 RN IE deliveries. This count will be pegged when 2 RN IEs are delivered in the terminating SETUP message.

`u` = Number of additional call offering (ACO) calls offered. This count reflects the number of calls that would not have been offered had ACO not been available.

`v` = Number of ACO calls answered by subscriber.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-ISOFC-B

Software Release: 5E12 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 ISOFC
  TIME aa:aa:aa
  SECTION 50: INTEGRATED SERVICES DIGITAL NETWORK OFFICE TOTALS
     ORIGPC  ORIGUSG TERMPC  TERMUSG INCPC   OUTPC   INTRA   ORIGRQ
     b       c       d       e       f       g       h       i
     INCREQ  ISIPDTO ISOPDTO ISOPS   O+T_USG
     j       k       l       m       n
  CGPS
      ORIG         TERM
      o            p
  RND
      UNAVAIL      1_PUBLIC     1_PRIVATE    2_DLVRY
      q            r            s            t
  ACO
      OFFER        ANSWER
      u            v
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 50: integrated services digital network office totals (ISOFC) of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Number of integrated services digital network (ISDN) originating calls.

c = Total usage generated by scanning originating ISDN circuit-switched calls every 100 seconds. There may be concurrent multiple originating calls on one line (that is, on more than one channel).

d = Number of ISDN terminating calls.

e = Total usage generated by scanning terminating ISDN circuit-switched calls every 100 seconds. There may be concurrent multiple terminating calls on one line (that is, on more than one channel).

f = Number of ISDN incoming calls.

g = Number of ISDN outgoing calls.

h = Number of ISDN intra-office (line-to-line) calls.

i = Number of ISDN originating requests.

j = Number of ISDN incoming requests.

k = Number of ISDN incoming partial dial time-outs.

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`l` = Number of ISDN originating partial dial time-outs.

`m` = Number of ISDN originating permanent signals.

`n` = Total extended office (include host, RSM and ORM) ISDN circuit-switched traffic usage generated by originating and terminating (O+T) calls measured at a single, common point in the system network. This count includes all integrated services line units (ISLUs) and access interface units (AIUs).

`o` = Number of calling party subaddress (CgPS) received at originating end. This peg count is incremented any time a CgPS information element (IE) is received by the switch.

`p` = Number of CgPS delivered to terminating end. The CgPS will be delivered when it is available at the far end and a user-provided passed screening (UPPS) "public" calling party number (CPN) is being delivered as part of the existing calling party number/billing number (CPN/BN) feature. This is the only time that this count will be pegged.

`q` = Number of single "number unavailable" redirecting number (RN) IE deliveries. This count will be pegged when a single RN IE is delivered in the terminating SETUP message indicating "number unavailable." If two RN IEs are delivered with either one indicating "number unavailable," this count is not pegged.

`r` = Number of single "number public (full digits)" RN IE deliveries. This count will be pegged when a single RN IE is delivered in the terminating SETUP message with a "number public (full digits) number." If two RN IEs are delivered with either one indicating "number public (full digits) number," this count is not pegged.

`s` = Number of single "number private (no digit)" RN IE deliveries. This count will be pegged when a single RN IE is delivered in the terminating SETUP message with a "number private (no digit) number." If two RN IEs are delivered with either one indicating "number private (no digit) number," this count is not pegged.

`t` = Number of 2 RN IE deliveries. This count will be pegged when 2 RN IEs are delivered in the terminating SETUP message.

`u` = Number of additional call offering (ACO) calls offered. This count reflects the number of calls that would not have been offered had ACO not been available.

`v` = Number of ACO calls answered by subscriber.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-ISPI-A

Software Release: 5E10 - 5E11
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 ISPI
  TIME aa:aa:aa
  SECTION 51: ISDN PACKET INTERFACE MEASUREMENTS
  SM     OCCUP    OVLD
   b      c         d
   .      .         .
   .      .         .
   .      .         .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 51: integrated services digital network (ISDN) packet interface (ISPI) measurements of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

`a` = Time when the report was prepared, in the form hours:minutes:seconds.

`b` = Switching module (SM) number (which is also packet interface (PI) number); the active SM and the active PI have the same number.

`c` = Processor occupancy percentage based on interject entry rate (count 1).

`d` = Total number of three-second intervals in overload (count 2).

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
```

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```
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-ISPI-B

Software Release: 5E12 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 ISPI
  TIME aa:aa:aa
  SECTION 51: PACKET INTERFACE MEASUREMENTS
     SM     OCCUP    OVLD     MSGIN    MSGOUT
     b      c        d        e        f
     .      .        .        .        .
     .      .        .        .        .
     .      .        .        .        .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 51: packet interface (ISPI) measurements of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

`a` = Time when the report was prepared, in the form hours:minutes:seconds.

`b` = Switching module (SM) number (which is also packet interface (PI) number); the active SM and the active PI have the same number.

`c` = Processor occupancy percentage based on interject entry rate (count 1).

`d` = Total number of three-second intervals in overload (count 2).

`e` = Total packet switch unit messages incoming to the PI.

`f` = Total packet switch unit messages outgoing from the PI.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-ISUP-A

Software Release: 5E10 - 5E13
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 ISUP
    TIME aa:aa:aa
  SECTION 120: ISDN USER PART MEASUREMENTS
       UTILIZATION                    PERFORMANCE
     MSGOUT     MSGIN          UNRMSG          ABNREL
          b         c               d               e
                     AVAILABILITY
     BLKMSG     GLARE         COTFAIL           OTHER
          f         g               h               i
                END-TO-END PERFORMANCE
     TOTAL UNSUCCESSFUL ATTEMPTS        j
     SWCONG     NOCKT         ADDRINC         TMPFAIL
          k         l               m               n
     BADNUM      BUSY         DESTOOS           OTHER
          o         p               q               r
```

2. REASON FOR OUTPUT

To respond to a request for an immediate or scheduled output of section 120: integrated services digital network (ISDN) user part (ISUP) of the 30-minute traffic report.

The TRFM message class applies to 5E10 and later. The XTRFM message class applies to 5E10 and later.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Number of outgoing ISUP messages.

c = Number of incoming ISUP messages.

d = Number of known ISUP call setup messages that were received and considered unreasonable for the call state.

e = Number of ISUP release (REL) messages initiated in the backward direction due to abnormal events.

f = Number of blocked (BLO) messages received on an in-service ISUP trunk.

g = Number of trunk rehunts started on an ISUP trunk because a glare condition was detected.

h = Number of trunk rehunts started on an ISUP trunk because a continuity test failed.

i = Number of trunk rehunts started on an ISUP trunk for any reason other than a glare condition or a continuity test failure.

j = Number of unsuccessful call attempts on ISUP trunks. An initial address message (IAM) or a

circuit reservation message (CRM) was sent but the call does not attain a talking state and a REL message was received in the backward direction that contains an abnormal REL cause.

`k` = Number of ISUP call failures occurring in this switch caused by switch congestion and resulting in a REL cause=42.

`l` = Number of ISUP call failures occurring in this switch because no outgoing trunk was available resulting in a REL cause=34.

`m` = Number of ISUP call failures occurring in this switch because analysis of the called party number in the incoming IAM resulted in "address incomplete". This failure results in a REL cause=28.

`n` = Number of ISUP call failures occurring in this switch resulting in a "temporary failure". This failure results in a REL cause=41.

`o` = Number of ISUP call failures occurring in this switch because analysis of the called party number in the incoming IAM resulted in an "unallocated number". This failure results in a REL cause=1.

`p` = Number of ISUP call failures occurring in this switch when the called subscriber was busy. This failure results in a REL cause=17.

`q` = Number of ISUP call failures occurring in this switch because the destination was out-of-service. The trunk hunt was completed and termination attempted to the chosen trunk when the point code was out-of-service and there is no alternate route available. This failure results in a REL cause=27.

`r` = Number of ISUP call failures occurring in this switch that result in REL causes other than those listed in '`k`' through '`q`'.

4. ACTIONS TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module (AM) applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Administration and Engineering Guidelines*
235-190-115 *Local and Toll System Features*

OP:TRFC30-ISUP-B

Software Release: 5E14 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 ISUP
    TIME aa:aa:aa
  SECTION 120: ISDN USER PART MEASUREMENTS
       UTILIZATION                    PERFORMANCE
     MSGOUT     MSGIN          UNRMSG          ABNREL
          b         c               d               e
                     AVAILABILITY
     BLKMSG     GLARE         COTFAIL           OTHER
          f         g               h               i
                END-TO-END PERFORMANCE
     TOTAL UNSUCCESSFUL ATTEMPTS        j
     SWCONG     NOCKT         ADDRINC         TMPFAIL
          k         l               m               n
     BADNUM      BUSY         DESTOOS           OTHER
          o         p               q               r
      IAMRC      RELI
          s         t
```

2. REASON FOR OUTPUT

To respond to a request for an immediate or scheduled output of section 120: integrated services digital network (ISDN) user part (ISUP) of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Number of outgoing ISUP messages.

c = Number of incoming ISUP messages.

d = Number of known ISUP call setup messages that were received and considered unreasonable for the call state.

e = Number of ISUP release (REL) messages initiated in the backward direction due to abnormal events.

f = Number of blocked (BLO) messages received on an in-service ISUP trunk.

g = Number of trunk rehunts started on an ISUP trunk because a glare condition was detected.

h = Number of trunk rehunts started on an ISUP trunk because a continuity test failed.

i = Number of trunk rehunts started on an ISUP trunk for any reason other than a glare condition or a continuity test failure.

j = Number of unsuccessful call attempts on ISUP trunks. An initial address message (IAM) or a

circuit reservation message (CRM) was sent but the call does not attain a talking state and a REL message was received in the backward direction that contains an abnormal REL cause.

`k` = Number of ISUP call failures occurring in this switch caused by switch congestion and resulting in a REL cause=42.

`l` = Number of ISUP call failures occurring in this switch because no outgoing trunk was available resulting in a REL cause=34.

`m` = Number of ISUP call failures occurring in this switch because analysis of the called party number in the incoming IAM resulted in "address incomplete". This failure results in a REL cause=28.

`n` = Number of ISUP call failures occurring in this switch resulting in a "temporary failure". This failure results in a REL cause=41.

`o` = Number of ISUP call failures occurring in this switch because analysis of the called party number in the incoming IAM resulted in an "unallocated number". This failure results in a REL cause=1.

`p` = Number of ISUP call failures occurring in this switch when the called subscriber was busy. This failure results in a REL cause=17.

`q` = Number of ISUP call failures occurring in this switch because the destination was out-of-service. The trunk hunt was completed and termination attempted to the chosen trunk when the point code was out-of-service and there is no alternate route available. This failure results in a REL cause=27.

`r` = Number of ISUP call failures occurring in this switch that result in REL causes other than those listed in '`k`' through '`q`'.

`s` = Number of calls resulting in an Initial Address Message with Redirect Capability Parameter beging sentas a result of Release Link initiation.

`t` = Number of calls setup as a result of having received a Release Message with Redirection Information message.

4. ACTIONS TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module (AM) applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
```

```
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Administration and Engineering Guidelines*
235-190-115 *Local and Toll System Features*

OP:TRFC30-JMTB

Software Release: 5E12 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 JMTB
 TIME aa:aa:aa
 SECTION 78: JUNCTORS AND MTBS ACTIVITIES OF MMSU MODULE

 SM  MMSU  SG   SHELF  JATMPT  JOVFL  JUSAGE  MATMPT  MUATMPT  MUSAGE
 b   c     d    e      f       g      h       i       j        k
 .   .     .    .      .       .      .       .       .        .
 .   .     .    .      .       .      .       .       .        .
 .   .     .    .      .       .      .       .       .        .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 78: JUNCTORS AND MTBS ACTIVITIES OF MMSU MODULE (JMTB) counts of the 30-minute traffic report. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching Module (SM) number.

c = MMSU Number.

d = Service Group (SG) Number.

e = Shelf Number.

f = Attempts to Seize a Junctor

g = Junctor Not Available This overflow count is the number of attempts to seize Junctor that was denied due to lack of resources.

h = Total Usage of Junctor.

i = Attempts to Seize Metallic Test Bus (MTB).

j = Metallic Test Bus (MTB) Not Available. This overflow count is the number of attempts to seize a MTB that was denied due to lack of resources.

k = Total Usage of MTB.

4. ACTIONS TO BE TAKEN

No action is required.

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If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

OP:TRFC30,VLD

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-LASS-A

Software Release: 5E10 only
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 LASS
  TIME aa:aa:aa
  SECTION 76 : LOCAL AREA SIGNALING SERVICES
  AUTO CALLBK
     ACS    CANC   ICS    CAMPON  OVFL   LTD    STD    TO     BYRB   BLKD
     b      c      d      e       f      g      h      i      j      w1
  AUTO RECALL
     k      l      m      n       o      p      q      r      s
  CUST ORIG TRACE
     ACS     UNAV    DENIED
     t       u       v
  INDIV CLNG LINE ID
     PVACT   CNDACT  CNDDACT CNAMNNP CNAMNAP CNAMNNDA  CNQRYTO  CNQRYS
     w       x       y       n1      s1      t1        u1       v1
             ACS     ATT     MATCH   ANNC    REROUTE   RING
  SCF        z       a1
  SCA        b1              c1      d1      e1
  CAR        f1              g1      h1      i1
  SCR        j1              k1
  SDA        l1                                        m1
  BULK CLNG LINE ID
     CALLS   P_MSG   O_MSG   MSGLOST
     o1      p1      q1      r1
```

2. REASON FOR OUTPUT

To respond to a request (OP:TRFC30) for either an immediate or scheduled output of section 76: local area signaling services (LASS) of the 30-minute traffic report (TRFC30). Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Number of automatic callback (AC) feature access customer requests (ACS).

c = Number of AC feature cancel (CANC) customer requests.

d = Number of AC feature accesses that resulted in immediate call setup (ICS).

e = Number of AC feature accesses that resulted in camp-on (CAMPON) to the called directory number (DN).

f = Number of times an AC feature access attempt was unsuccessful due to lack of AC feature processing resources on the originating switch (OVFL).

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g = Number of AC feature access attempts that resulted in long term denial (LTD) being returned to the end user.

h = Number of AC feature access attempts that resulted in short term denial (STD) being returned to the end user.

i = Number of AC feature accesses that resulted in timeout (TO) of the feature before ringback can be given to the end user.

j = Number of times that busy announcement resulted after AC ringback was given (BYRB).

k = Number of automatic recall (AR) feature ACS.

l = Number of AR feature CANC customer requests.

m = Number of AR feature accesses that resulted in ICS.

n = Number of AR feature accesses that resulted in CAMPON to the called DN.

o = Number of times an AR feature access attempt was unsuccessful due to lack of AC feature processing resources on the originating switch (OVFL).

p = Number of AR feature access attempts that resulted in LTD being returned to the end user.

q = Number of AR feature access attempts that resulted in STD being returned to the end user.

r = Number of AR feature accesses that resulted in TO of the feature before ringback could be given to the end user.

s = Number of times that busy announcement resulted after AR ringback was given (BYRB).

t = Number of successful accesses of the customer originated trace (COT) feature ACS.

u = Number of times that the calling DN was unavailable (UNAV).

v = Number of times that the COT feature was denied (DENIED).

w = Number of times that customers dialed a code to access or cancel the privacy feature (PVACT).

x = Number of times that customers dialed an access code to activate the calling number display (CND) feature (CNDACT).

y = Number of times that customers dialed an access code to deactivate the CND feature (CNDDACT).

z = Number of times the selective call forwarding (SCF) access code was dialed or SCF integrated services digital network (ISDN) feature button was pressed.

a^1 = Number of attempts to provide SCF.

b^1 = Number of times the selective call acceptance (SCA) access code was dialed or SCA ISDN feature button was pressed.

c^1 = Number of successful matches between calling DN and customer DN SCA list while SCA was active.

d[1] = Number of calls refused for which an announcement was provided because of SCA.

e[1] = Number of calls rerouted to forward-to-DNs because of SCA.

f[1] = Number of times the computer access restriction (CAR) access code was dialed or CAR ISDN feature button was pressed.

g[1] = Number of successful matches between calling DN and customer DN CAR list while CAR was active.

h[1] = Number of calls refused for which an announcement was provided because of CAR.

i[1] = Number of calls rerouted to forward-to-DNs because of CAR.

j[1] = Number of times the selective call rejection (SCR) access code was dialed or SCR ISDN feature button was pressed.

k[1] = Number of successful matches between calling DN and customer DN SCR list while SCR was active.

l[1] = Number of times the selective distinctive alert (SDA) access code was dialed or SDA ISDN feature button was pressed.

m[1] = Number of attempts to provide distinctive ringing or distinctive call waiting due to SDA.

n[1] = Number of times the name/number privacy (NNP) access code was dialed for the analog calling name (CNAM) delivery feature.

o[1] = Number of calls for which a complete calling DN was transmitted to the customer premises equipment (CPE).

p[1] = Number of messages transmitted to bulk calling line identification (BCLID) customers' CPE containing the character "P", indicating that the calling party had invoked the privacy feature.

q[1] = Number of messages transmitted to BCLID customers' CPE containing the character "O", indicating that the calling DN could not be determined.

r[1] = Number of messages lost (not transmitted to the BCLID customer's application processor) because of data channel overload.

s[1] = Number of times the CNAM name privacy (NAP) access code was dialed.

t[1] = Number of times the CNAM name/number display allowed (NNDA) access code was dialed.

u[1] = Number of CNAM transaction capabilities application part (TCAP) queries that timed out while the switch was waiting for a response.

v[1] = Number of CNAM TCAP queries sent from the switch into the common channel signaling (CCS) network.

w[1] = Number of AC access attempts that were blocked because they tried to terminate to a private number.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-LASS-B

Software Release: 5E11 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 LASS
  TIME aa:aa:aa
  SECTION 76 : LOCAL AREA SIGNALING SERVICES
  AUTO CALLBK
     ACS    CANC   ICS    CAMPON  OVFL   LTD    STD    TO     BYRB   BLKD
     b      c      d      e       f      g      h      i      j      w1
  AUTO RECALL
     k      l      m      n       o      p      q      r      s
  CUST ORIG TRACE
     ACS     UNAV    DENIED
     t       u       v
  INDIV CLNG LINE ID
     PVACT   CNDACT  CNDDACT CNAMNNP CNAMNAP CNAMNNDA  CNQRYTO  CNQRYS
     w       x       y       n1      s1      t1        u1       v1
             ACS     ATT     MATCH   ANNC    REROUTE   RING
  SCF        z       a1
  SCA        b1              c1      d1      e1
  CAR        f1              g1      h1      i1
  SCR        j1              k1
  SDA        l1                                        m1
  BULK CLNG LINE ID
     CALLS   P_MSG   O_MSG   MSGLOST
     o1      p1      q1      r1
  PRIVACY OF CALLING NAME ON PRI
     ALLOWED          RESTRICTED      DENIED
     x1               y1              z1
```

2. REASON FOR OUTPUT

To respond to a request (OP:TRFC30) for either an immediate or scheduled output of section 76: local area signaling services (LASS) of the 30-minute traffic report (TRFC30). Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Number of automatic callback (AC) feature access customer requests (ACS).

c = Number of AC feature cancel (CANC) customer requests.

d = Number of AC feature accesses that resulted in immediate call setup (ICS).

e = Number of AC feature accesses that resulted in camp-on (CAMPON) to the called directory number (DN).

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f = Number of times an AC feature access attempt was unsuccessful due to lack of AC feature processing resources on the originating switch (OVFL).

g = Number of AC feature access attempts that resulted in long term denial (LTD) being returned to the end user.

h = Number of AC feature access attempts that resulted in short term denial (STD) being returned to the end user.

i = Number of AC feature accesses that resulted in timeout (TO) of the feature before ringback can be given to the end user.

j = Number of times that busy announcement resulted after AC ringback was given (BYRB).

k = Number of automatic recall (AR) feature ACS.

l = Number of AR feature CANC customer requests.

m = Number of AR feature accesses that resulted in ICS.

n = Number of AR feature accesses that resulted in CAMPON to the called DN.

o = Number of times an AR feature access attempt was unsuccessful due to lack of AC feature processing resources on the originating switch (OVFL).

p = Number of AR feature access attempts that resulted in LTD being returned to the end user.

q = Number of AR feature access attempts that resulted in STD being returned to the end user.

r = Number of AR feature accesses that resulted in TO of the feature before ringback could be given to the end user.

s = Number of times that busy announcement resulted after AR ringback was given (BYRB).

t = Number of successful accesses of the customer originated trace (COT) feature ACS.

u = Number of times that the calling DN was unavailable (UNAV).

v = Number of times that the COT feature was denied (DENIED).

w = Number of times that customers dialed a code to access or cancel the privacy feature (PVACT).

x = Number of times that customers dialed an access code to activate the calling number display (CND) feature (CNDACT).

y = Number of times that customers dialed an access code to deactivate the CND feature (CNDDACT).

z = Number of times the selective call forwarding (SCF) access code was dialed or SCF integrated services digital network (ISDN) feature button was pressed.

a^1 = Number of attempts to provide SCF.

b^1 = Number of times the selective call acceptance (SCA) access code was dialed or SCA ISDN feature button was pressed.

c[1] = Number of successful matches between calling DN and customer DN SCA list while SCA was active.

d[1] = Number of calls refused for which an announcement was provided because of SCA.

e[1] = Number of calls rerouted to forward-to-DNs because of SCA.

f[1] = Number of times the computer access restriction (CAR) access code was dialed or CAR ISDN feature button was pressed.

g[1] = Number of successful matches between calling DN and customer DN CAR list while CAR was active.

h[1] = Number of calls refused for which an announcement was provided because of CAR.

i[1] = Number of calls rerouted to forward-to-DNs because of CAR.

j[1] = Number of times the selective call rejection (SCR) access code was dialed or SCR ISDN feature button was pressed.

k[1] = Number of successful matches between calling DN and customer DN SCR list while SCR was active.

l[1] = Number of times the selective distinctive alert (SDA) access code was dialed or SDA ISDN feature button was pressed.

m[1] = Number of attempts to provide distinctive ringing or distinctive call waiting due to SDA.

n[1] = Number of times the name/number privacy (NNP) access code was dialed for the analog calling name (CNAM) delivery feature.

o[1] = Number of calls for which a complete calling DN was transmitted to the customer premises equipment (CPE).

p[1] = Number of messages transmitted to bulk calling line identification (BCLID) customers' CPE containing the character "P", indicating that the calling party had invoked the privacy feature.

q[1] = Number of messages transmitted to BCLID customers' CPE containing the character "O", indicating that the calling DN could not be determined.

r[1] = Number of messages lost (not transmitted to the BCLID customer's application processor) because of data channel overload.

s[1] = Number of times the CNAM name privacy (NAP) access code was dialed.

t[1] = Number of times the CNAM name/number display allowed (NNDA) access code was dialed.

u[1] = Number of CNAM transaction capabilities application part (TCAP) queries that timed out while the switch was waiting for a response.

v[1] = Number of CNAM TCAP queries sent from the switch into the common channel signaling (CCS) network.

w[1] = Number of AC access attempts that were blocked because they tried to terminate to a private number.

x[1] = Number of successful invocations to set privacy of calling name (PCN) name presentation status to allowed.

y[1] = Number of successful invocations to set PCN name presentation status to restricted.

z[1] = Number of PCN denials.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-LGC

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 LGC
  TIME aa:aa:aa
  SECTION 145: LINE GROUP MEASUREMENTS
     SM    ISLU    LG     USAGE
     b     c       d      e
     .     .       .      .
     .     .       .      .
     .     .       .      .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of Section 145: line group controller (LGC) or line group pack measurements of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = Integrated services line unit (ISLU) number.

d = Line group (controller or pack) number (LG).

e = Traffic usage reported in hundred-call-seconds (CCS). This count is only generated after the LG has been allowed for collection and is in use (count 1).

For each LG with U- or T-cards, the traffic usage measurement will be generated for:
- Circuit-switched calls (voice or data).
- On-demand B-channel (packet-switched) calls.
- Dedicated or nailed-up B-channels.
- Terminal maintenance.

The usage measurement for U- or T-cards will not include:
- Diagnostic maintenance usage.
- D-channel usage.
- Control time slot usage.

For each LG with Z-cards, the usage measurement will include:
- Voice.
- Voice graded data service.
- Terminal maintenance.

The usage measurement for Z-cards will not include:

- Diagnostic maintenance usage.

Generation of the usage count does not begin until the section is allowed for collection using the ALW: TRFC30 input message. Therefore, when comparing usage of one LG to another LG, the following must be considered.

Note: The differential may be especially significant if comparing weekly data.

- Length of time a study has been allowed for collection: If one study is allowed for collection before another study is allowed, the LGs on the RISLU/ISLUs on the first study will appear to have higher usage.
- Length of time an (RISLU/ISLU has been a member of a study: If a RISLU/ISLU is added to a study (recent change view 13.6 update) and the study is already allowed for collection, the LGs on the RISLU/ISLU added by the update will appear to have lower usage than the LGs on the (RISLU/ISLUs on the study before the update.
- Length of time LGs have been operational: If a study is allowed for collection and LGs on a RISLU/ISLU on the study are updated to operational and then the study is reallowed for collection, the recently operational LGs will appear to have lower usage than the LGs which were on the study before the second allow input message was entered.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with the input message OP:TRFC30 using the VLD option:

OP:TRFC30,VLD

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
```

```
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-LINE

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 LINE
  TIME aa:aa:aa
  SECTION 90: LINE COUNTS
      SM      TYPE     LINE ID       ATMPTS  BLOCK   USAGE
      b        c      d - e - f        g       h       i
      .
      .
      .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 90: line counts of the 30-minute traffic report. Only lines with non-zero counts will be printed on the receive-only printer (ROP). The TRFM message class applies to 5E10 and later. The XTRFM message class applies to 5E10 and later.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = Line equipment number (LEN) type.

d = Line unit (LU) number.

e = Concentrator (CONC) number.

Table 1 Conversion from CONC to Grid and Board:

conc	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
grid	0	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7
board	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1

f = Line number (switch and level).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-LN

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 LN
  TIME aa:aa:aa
  SECTION 121: LEASED NETWORK
  BASE:
          ORIG    QUERY   OPLS
          b       c       d
  FAILURES:
          ANI     INATRN  ACTTRN
          e       f       g
  TRANSACTION CAPABILITY:
          BLKD    TO      CCDBLKD INVMSG  INVSEQ
          h       i       j       k       l
          ERROR   REJECT  ABORT   TERM
          m       n       o       p
  ABANDONS:
          NOREPLY NOANS
          q       r
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 121: leased network (LN) action control point (ACP) of the 30-minute traffic report.

The TRFM message class applies to 5E9(1) and later.
The XTRFM message class applies to 5E9(1) and later.

3. VARIABLE FIELD DEFINITIONS

NOTE: For the variables with '*' refer to the *ACTION TO BE TAKEN* section of this manual page.

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Number of originating (ORIG) LN/automatic number identification (ANI) services attempts.

c = Number of LN/ANI queries (QUERY) to data base.

d = Number of completed LN/ANI services calls successfully outpulsed (OPLS).

e = Number of failures to obtain ANI on a centralized automatic message accounting (CAMA) trunk.

f = Number of call processing failures - transaction inactive (INATRN).

g = Number of call processing failures - transaction active (ACTTRN).

h = Number of transaction capability (TC) signaling failures blocked (BLKD) at switch.

i = Number of TC signaling failures timeouts (TO) at switch.

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`j` = Number of TC signaling failures blocked in common channel signaling (CCS) (CCSBLKD) network.

`k` = * Number of invalid TC message/components (INVMSG).

`l` = Number of invalid TC message sequences (INVSEQ) received.

`m` = Number of TC return errors (ERROR) received.

`n` = Number of TC rejects (REJECT) received.

`o` = Number of TC aborts (ABORT) received.

`p` = Number of TC terminates (TERM) due to failure.

`q` = Number of abandons after initial query, before reply (NOREPLY).

`r` = Number of abandons after outpulsing before answer (NOANS).

4. ACTION TO BE TAKEN

None.

The set of variables with '*' above represents the measurements collected in the direct link node (DLN). If the office is equipped with the DLN and the set of variables with '*' are zero, this suggests that the DLN failed to report these variables and these variables are invalid for the reporting period.

If desired, the validity of this data be be checked by requesting the validity section of the 30-minute traffic report using the input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module (AM) applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:TRFC30
OP:ST-TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-LU-A

Software Release: 5E10 only
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 LU
  TIME aa:aa:aa
  SECTION 11: LINE UNIT
  PROC     LU    TMBLK   TMCALLS   TOTUSG   MTUSG
  b        c     d       e         f        g
  .        .     .       .         .        .
  .        .     .       .         .        .
  .        .     .       .         .        .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 11: line unit (LU) of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a	= Time when the report was prepared, in the form hours:minutes:seconds.
b	= Switching module (SM) number.
c	= Line unit number.
d	= Number of times a final attempt to terminate a call was unsuccessful because all paths were in a busy state.
e	= Number of attempts to terminate a call to an LU.
f	= Total usage, reported in hundred-call-seconds (CCS).
g	= Maintenance usage, reported in CCS.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with the input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-LU-B

Software Release: 5E11 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 LU
  TIME aa:aa:aa
  SECTION 11: LINE UNIT
  PROC     LU    TMBLK   TMCALLS   TOTUSG   MTUSG  NOIDLA  NOIDLB  NOPATH
  b        c     d       e         f        g      h       i       j
  .        .     .       .         .        .      .       .       .
  .        .     .       .         .        .      .       .       .
  .        .     .       .         .        .      .       .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 11: line unit (LU) of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = Line unit number.

d = Number of times a final attempt to terminate a call was unsuccessful because all paths were in a busy state.

e = Number of attempts to terminate a call to an LU.

f = Terminating total usage, reported in hundred-call-seconds (CCS).

g = Maintenance usage, reported in CCS.

h = Count of both originating and terminating calls with no idle A-link (A-link is blocked or not available). Default value is 0. This is a secured feature (99-5E-3004). Refer to the *SECURED FEATURES* portion of the INTRODUCTION section of this manual.

i = Count of both originating and terminating calls with no idle B-link (B-link is blocked or not available). Default value is 0. This is a secured feature (99-5E-3004). Refer to the *SECURED FEATURES* portion of the INTRODUCTION section of this manual.

j = Count of both originating and terminating calls with no path (A-link and B-link are idle or available, but no match exists). Default value is 0. This is a secured feature (99-5E-3004). Refer to the *SECURED FEATURES* portion of the INTRODUCTION section of this manual.

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4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with the input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-MBG

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 MBG
  TIME aa:aa:aa

  SECTION 192 : MULTISWITCH BUSINESS GROUP

     MBGID INC   OUTG  ANNC  BLOCK
     b     c     d     e     f
     .     .     .     .     .
     .     .     .     .     .
     .     .     .     .     .
```

2. REASON FOR OUTPUT

To respond to a request (OP:TRFC30) for either an immediate or scheduled output of section 192: multiswitch business group (MBG) of the 30-minute traffic report (TRFC30).

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = MBG number.

c = Number of termination attempts to a MBG from the public network.

d

d = Number of originations from the members of a MBG when call is directed into the public network.

e = Number of calls routed to a special intercept announcement (SIA treatment).

g = Number of MBG calls blocked because:
- Reception of ISUP7 REL message with a cause code value of 54 for outgoing MBG calls.
- Trunk originated MBG calls include:
  -- TGSR feature originating access restrictions screening.
  -- TGSR feature terminating access restrictions screening.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data for each switching module (SM) may be checked by requesting the validity of this data using the OP:TRFC30 input message with the VLD option of the 30-minute traffic report: `OP:TRFC30,VLD`

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-MGSC

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 MGSC
  TIME aa:aa:aa
  SECTION 74: ISDN BRCS MESSAGE SERVICE CUSTOMER
             CUSTID  MGSREQ  MRDSMS  ACREQ   UACREQ
          b       c       d       e       f
          .       .       .       .       .
          .       .       .       .       .
          .       .       .       .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 74: integrated services digital network (ISDN) business and residential customer services (BRCS) message service customer (MGSC) of the 30-minute traffic report.

The TRFM message class applies to 5E9(1) and later.
The XTRFM message class applies to 5E9(1) and later.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Customer number.

c = Number of requests for message service (MGS) user features.

d = Number of successfully obtained message segments from an attached processor during message retrieval display (MRD) sessions.

e = Number of MGS auto call requests.

f = Number of unsuccessful MGS auto call requests.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity of the administrative module (AM) applies to the section.

5. ALARMS

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None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-MGSG

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 MGSG
  TIME aa:aa:aa
  SECTION 75: ISDN BRCS MESSAGE SERVICE MULTI LINE HUNT GROUP
             MLHGID  MGCATT  MGCSUC  MGSUDN  MWIREQ
          b        c       d       e      f
          .        .       .       .      .
          .        .       .       .      .
          .        .       .       .      .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 75: integrated services digital network (ISDN) business and residential customer services (BRCS) message service multi-line hunt group (MGSG) of the 30-minute traffic report.

The TRFM message class applies to 5E9(1) and later.
The XTRFM message class applies to 5E9(1) and later.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Multi line hunt group number.

c = Number of attempts to complete incoming calls to message desk center (MDC) line.

d = Number of incoming calls completed to an MDC line for which call information is successfully supplied.

e = Number of incoming calls completed to an MDC line without originating directory number (DN) due to unavailable information.

f = Number of message waiting indicator (MWI) activation/deactivation requests.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity of the administrative module (AM) applies to the section.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-MH-A

Software Release: 5E10 - 5E12
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 MH
  TIME aa:aa:aa
  SECTION 185: MESSAGE HANDLER OCCUPANCY PER SM2000
      SM   MH   MESSAGES    CYCLES
      b    c    d           e
      .    .    .           .
      .    .    .           .
      .    .    .           .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 185: message handler occupancy for each message handler per each switching module (SM)-2000 of the 30-minute traffic report. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = SM-2000 number.

c = Message handler number (MH). The integer number associated with a specific message handler on a particular SM-2000.

d = The total number of messages handled by a specific MH per a SM-2000.

e = The base level loop cycles (divided by 1000) executed by a specific MH on a particular SM-2000.

4. ACTIONS TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-MH-B

Software Release: 5E13 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 MH
  TIME aa:aa:aa
  SECTION 185: MESSAGE HANDLER OCCUPANCY PER SM2000
      SM   MH   MESSAGES    CYCLES      EPIPEOCC    EPIPECO     MAXBYTES
      b    c    d           e           f           g           h
      .    .    .           .           .           .           .
      .    .    .           .           .           .           .
      .    .    .           .           .           .           .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 185: message handler occupancy for each message handler per each switching module (SM)-2000 of the 30-minute traffic report. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = SM-2000 number.

c = Message handler number (MH). The integer number associated with a specific message handler on a particular SM-2000.

d = The total number of messages handled by a specific MH per a SM-2000.

e = The base level loop cycles (divided by 1000) executed by a specific MH on a particular SM-2000.

f = Pipe occupancy. This percentage value is calculated by multiplying the total number of bytes received/transmitted by 100 and dividing the result by the max. number/transmitted in 30 minutes. For MH32 this count is N/A and will be displayed as such.

g = Number of collisions per MHEIB pipe. For MH32 this count is N/A and will be displayed as such.

h = The maximum number of message bytes processed per MHEIB over the 6 second interval. For MH32 this count is N/A and will be displayed as such.

4. ACTIONS TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

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If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-MHPIP

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 MHPIPE
  TIME aa:aa:aa
  SECTION 177: MH-QLPS PIPE OCCUPANCY
                  ________AVERAGE________    ________PERCENT________
       SM  VALID RCV-0 RCV-1 XMT-0 XMT-1    RCV-0 RCV-1 XMT-0 XMT-1
       b   c     d     e     f     g        h     i     j     k
       .   .     .     .     .     .        .     .     .     .
       .   .     .     .     .     .        .     .     .     .
       .   .     .     .     .     .        .     .     .     .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 177: quad-link packet switching (QLPS) message handler (MH) link occupancy of the 30-minute traffic report. This section is specifically for SM2000.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = Validity of the data, 0=Valid, 1=Invalid.

d = Average occupancy of pipe between the MH and a network 0 QLPS in the receiving direction (QLPS to MH).

e = Average occupancy of pipe between the MH and a network 1 QLPS in the receiving direction (QLPS to MH).

f = Average occupancy of pipe between the MH and a network 0 QLPS in the sending direction (MH to QLPS).

g = Average occupancy of pipe between the MH and a network 1 QLPS in the sending direction (MH to QLPS).

h = 95th percentile occupancy of pipe between the MH and a network 0 QLPS in the receiving direction (QLPS to MH).

i = 95th percentile occupancy of pipe between the MH and a network 1 QLPS in the receiving direction (QLPS to MH).

j = 95th percentile occupancy of pipe between the MH and a network 0 QLPS in the sending direction (MH to QLPS).

k = 95th percentile occupancy of pipe between the MH and a network 1 QLPS in the sending direction

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(MH to QLPS).

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with the input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity of the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration and Engineering Guidelines*

OP:TRFC30-MLHG

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 MLHG
  TIME aa:aa:aa
  SECTION 34: MULTI-LINE HUNT GROUP MEASURES
  ID          DNTERM        TERM        USG         OVFL
  b           c             d           e           f
   .          .             .           .           .
   .          .             .           .           .
   .          .             .           .           .
  ID          DNTERM        TERM        USG         OVFL
  b           c             d           e           f
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 34 of the 30-minute traffic report. Up to five multi-line hunt groups (MLHGs) may be reported in a single message.

The TRFM message class applies to 5E9(1) and later.
The XTRFM message class applies to 5E9(1) and later.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

`a` = Time, in form hours:minutes:seconds.

`b` = Multi-line hunt group identifier.

`c` = Multi-line hunt group listed directory number (DN) termination attempts.

`d` = Multi-line hunt group all termination attempts.

`e` = Multi-line hunt group usage.

`f` = Multi-line hunt group overflows.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Administrative Guidelines*

OP:TRFC30-MMP

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 MMP
  TIME aa:aa:aa
  SECTION 18: MODULE MESSAGE PROCESSORS
  MSC   MMP   VALID   BLCYC   MSG   MGRNR   TO_MSCU   FR_MSCU
  b     c     d       e       f     g       h         i
  .     .     .       .       .     .       .         .
  .     .     .       .       .     .       .         .
  .     .     .       .       .     .       .         .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 18: module message processors (MMP) of the 30-minute traffic report.

The TRFM message class applies to 5E9(1) and later.
The XTRFM message class applies to 5E9(1) and later.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Message switch controller (MSC) side.

c = MMP identifier.

d = Validity of the MMP. Valid value(s):
- 0 = Valid.
- 1 = Invalid.

e = Number of base level cycles (BLCYCs), reported in thousands.

f = Number of messages.

g = Number of receiver-not-ready messages.

h = Number of messages sent to message switch control unit (MSCU).

i = Number of messages received from MSCU.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report

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with the input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity of the administrative module (AM) applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:TRFC30
OP:ST-TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-MOD1-A

Software Release: 5E10 - 5E11
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 MOD1
  TIME aa:aa:aa
  SECTION 122: MISCELLANEOUS PER SM MEASUREMENTS

                      ATPUUI
      SM      AMAMEM  DIS     NTSOCC UTDOFL
      b       c       d       e      f
      .       .       .       .      .
      .       .       .       .      .
      .       .       .       .      .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 122: miscellaneous persm measurements of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = Automatic message accounting (AMA) billing memory consumed in kilobytes.

d = Number of incoming ISUP7 calls processed after discarding access transport parameter (ATP)/ user to user information/unimplemented parameters (UUI) data due to lack of internal resources.

e = Peak network-side timeslot (NTS) occupancy of all 100-second periods during last 30-minutes, in percent.

f = This count, kept on a per-SM basis, is pegged whenever an send to resource external [STR(E)] message contained a request for dial pulse to touch tone conversion, but a universal tone detector (UTD) was unavailable because the per-SM UTD maximum would be exceeded.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with the input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

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If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-MOD1-B

Software Release: 5E12 only
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 MOD1
  TIME aa:aa:aa
  SECTION 122: MISCELLANEOUS PER SM MEASUREMENTS
                          ATPUUI                    OVFL    TOTAL
      SM      AMAMEM  DIS     NTSOCC  UTDOFL  RTCD    RTCD
      b       c       d       e       f       g       h
      .       .       .       .       .       .       .
      .       .       .       .       .       .       .
      .       .       .       .       .       .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 122: miscellaneous persm measurements of the 30-minute traffic report. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = Automatic message accounting (AMA) billing memory consumed in kilobytes.

d = Number of incoming ISUP7 calls processed after discarding access transport parameter (ATP)/ user to user information/unimplemented parameters (UUI) data due to lack of internal resources.

e = Peak network-side timeslot (NTS) occupancy of all 100-second periods during last 30-minutes, in percent.

f = This count, kept on a per-SM basis, is pegged whenever an send to resource external [STR(E)] message contained a request for dial pulse to touch tone conversion, but a universal tone detector (UTD) was unavailable because the per-SM UTD maximum would be exceeded.

g = Number of the Real Time Call Detail (RTCD) records lost because of Real Time Billing Memory (RTBM) overflow per Originating Switching Module (OSM).

h = Total number of the Real Time Call Detail (RTCD) records generated per Originating Switching Module (OSM).

4. ACTIONS TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with the input message OP:TRFC30 using the VLD option:

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```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-MOD1-C

Software Release: 5E13 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 MOD1
  TIME aa:aa:aa
  SECTION 83: MISCELLANEOUS PER SM MEASUREMENTS
                      ATPUUI                  OVFL    TOTAL   MEM
      SM      AMAMEM  DIS     NTSOCC  UTDOFL  RTCD    RTCD    RTCD
      b       c       d       e       f       g       h       i
      .       .       .       .       .       .       .       .
      .       .       .       .       .       .       .       .
      .       .       .       .       .       .       .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 83: miscellaneous persm measurements of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = Automatic message accounting (AMA) billing memory consumed in kilobytes.

d = Number of incoming ISUP7 calls processed after discarding access transport parameter (ATP)/ user to user information/unimplemented parameters (UUI) data due to lack of internal resources.

e = Peak network-side timeslot (NTS) occupancy of all 100-second periods during last 30-minutes, in percent.

f = This count, kept on a per-SM basis, is pegged whenever an send to resource external [STR(E)] message contained a request for dial pulse to touch tone conversion, but a universal tone detector (UTD) was unavailable because the per-SM UTD maximum would be exceeded.

g = Number of the Real Time Call Detail (RTCD) records lost because of Real Time Billing Memory (RTBM) overflow per Originating Switching Module (OSM).

h = Total number of the Real Time Call Detail (RTCD) records generated per Originating Switching Module (OSM).

i = Total amount of the Real Time Call Detail (RTCD) data it generates in kilobytes.

4. ACTIONS TO BE TAKEN

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No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with the input message OP:TRFC30 using the VLD option:
`OP:TRFC30,VLD`

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):

235-070-100 *Administration and Engineering Guidelines*

OP:TRFC30-MSGS

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 MSGS
  TIME aa:aa:aa
  SECTION 19: MESSAGE SWITCH CONTROLLER
         MSC     VALIDITY      BLCYC     CPMSG
       b         c            d         e
       .         .            .         .
       .         .            .         .
       .         .            .         .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 19: message switch controller (MSGS) of the 30-minute traffic report.

The TRFM message class applies to 5E9(1) and later.
The XTRFM message class applies to 5E9(1) and later.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form of hours:minutes:seconds.

b = Message switch controller (MSC) side.

c = Validity of MSC side. Valid value(s):
- 0 = Valid.
- 1 = Invalid.

d = Number of base level cycles, reported in thousands.

e = Number of messages sent between the MSCs and the administrative module (AM).

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with the input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding switching module (SM).

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Administrative Guidelines*

OP:TRFC30-ND

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 NO_DATA

  SECTION a (b) ELEMENTS NOT FOUND:

        c       [d]      [e]      [f]
        .        .        .        .
        .        .        .        .
        .        .        .        .
```

2. REASON FOR OUTPUT

To report that some elements of the specified section (refer to variables '`a`' and '`b`') of the 30-minute traffic report had no data collected. For sections that require group identifiers, this message will print for both the requested and the scheduled output of the specified section (`b`). The APP:TRFC-SECTION input appendix indicates which sections require identifiers.

When allowing a section of the 30-minute traffic report (TRFC30) for reporting at the receive-only printer (ROP) some sections require identifiers (such as, groups, units) which effectively select what is printed at the ROP. This message will follow the outputting of the data that was found for those sections.

Identifiers are also required when allowing some TRFC30 sections for collection; however, allowing the same sections for ROP requires no identifiers. For those sections that require an identifier when allowing for collection but none when allowing for ROP, this message will replace the OP:TRFC30 output message if all the counts for the specified section are zeros.

Some sections require single identifiers (such as, trunk group number) while other sections require multiple identifiers (such as, switching module (SM), protocol handler and shelf numbers).

Each line of output represents one element (such as, unit or group) identified by one or multiple identifiers.

The TRFM message class applies to 5E9(1) and later.
The XTRFM message class applies to 5E9(1) and later.

3. VARIABLE FIELD DEFINITIONS

`a`	= Section number. Refer to APP:TRFC-SECTION appendix in the Appendixes section of the Output Messages manual.
`b`	= Section name. Refer to APP:TRFC-SECTION appendix in the Appendixes section of the Output Messages manual.
`c-f`	= Element identifier. Refer to APP:TRFC-SECTION appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

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None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-[UNIT]
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-NP

Software Release: 5E12 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 NP
  TIME aa:aa:aa
  SECTION 241 : NUMBER PORTABILITY
      SCPQRY     NP-QRY-FAIL NP-RSP-LRN  NP-REL      NP-UN-NOLRN NP-UN-LRN
      b          c           d           e           f           g
      QOR:
         INIT      ATMPT      ALERT
         h         i          j
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 241: number portability (NP) of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Number of calls encountering a number portability (NP) trigger that result in an SCP query.

c = Number of NP queries that failed.

d = Number of NP query responses that contained an local routing number (LRN).

e = Number of calls encountering an ISUP release message containing a cause value of *ANSI*® 26.

f = Number of NP calls terminating to an unallocated number. Query response did not contain an LRN.

g = Number of NP calls terminating to an unallocated number. Query response did contain an LRN.

h = Number of calls for which a QOR is initiated and an Initial Address Message (IAM) is sent.

i = Number of calls for which a QOR is initiated and an IAM is sent, which result in an LNP query being attempted.

j = Number of calls for which a QOR is initiated and an IAM is sent, for which an Address Complete Message (ACM) or Answer Message (ANM) is received (e.g., alerting of far party, or indication that ISUP not used all the way, or indication of user network interaction.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report

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with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*
235-070-100 *Traffic and Plant Measurements*

OP:TRFC30-NS

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 NS
  TIME aa:aa:aa
  SECTION 91: NUMBER SERVICES
  NSC-ORG         NSC-RCVD         NSC-800         NSQ-800
  c               d                e               f
  FAIL-2S-EA      FAIL-CP-BIQ      FAIL-CP-AIQ     SIG-FAIL-TO
  g               h                i               j
  NMMC-BLK-C      INV-CMD-MSG      ABDN-BS-OT      ABDN-AS-OTBCA
  k               l                m               n
  NORM-RESP       PLAY-ANN         OTHER-RESP
  o               p                q
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 91: number services (NS) of the 30-minute traffic report.

The TRFM message class applies to 5E9(1) and later.
The XTRFM message class applies to 5E9(1) and later.

3. VARIABLE FIELD DEFINITIONS

NOTE: For the variables with '*', refer to the ACTION TO BE TAKEN section of this manual page.

a = Time of report preparation, in the form hours:minutes:seconds.

c = Number of number services calls originating at the switch.

d = Number of NS calls received from other offices - access tandem/service switching point (AT/SSP).

e = * Total number of NS calls- 800 only.

f = Total number of NS queries sent- 800 only.

g = Number of failures to receive second signaling stage on an equal access (EA) trunk (AT/SSP).

h = Number of call processing failures before initial query.

i = Number of call processing failures after initial query.

j = Number of signaling failures - time-out at SSP.

k = * Number of calls blocked by network management (NM) manual code control or Service Management System (SMS) initiated controls/automatic call gap (ACG) on an NS number.

l = * Number of invalid command messages from service control point (SCP).

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m = Number of abandons- before SSP seizes an outgoing trunk.

n = Number of abandons- after SSP seizes an outgoing trunk, but before the call is answered.

o = Number of normal response messages received from the SCP in response to the query sent by the SSP.

p = Number of play announcement messages received from the SCP in response to the query sent by the SSP.

q = Number of other responses received from the SCP in response to the query sent by the SSP.

4. ACTION TO BE TAKEN

The set of variables with '*' above represents the measurements collected in the direct link node (DLN). If the office is equipped with the DLN and the set of variables with '*' are zero, this suggests that the DLN failed to report these variables and these variables are invalid for the report period.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
OP:MEASTAT
OP:TRFC30
```

Output Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-NS
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
```

```
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-O800A

Software Release: 5E10 and later
Message Class: XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30  O800A
  TIME aa:aa:aa
  SECTION 196:  OSPS 800 ACCESS MEASURES
  TYPE    ATMPTS  MESGS
  b       c       d
  .       .       .
  .       .       .
  .       .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or a scheduled output of section 196: Operator Services Position System (OSPS) 800 Access (800A) measures of the 30-minute traffic report. This section collects and prints measurements for each label defined. This section corresponds to RC/V view 27.71.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a	= Time when the report was prepared, in the form hours:minutes:seconds.
b	= Measurement label.
c	= Number of call attempts for 800 access calls assigned to the index in the 1+800 service designation table.
d	= Number of messages (billable calls) for 800 access calls assigned to the index in the 1+800 service designation table.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module (AM) applies to this section.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

RC/V View(s):

27.71 (OSPS MEASUREMENTS DESIGNATION FOR 800 ACCESS CALLS)

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OP:TRFC30-OATQ-A

Software Release: 5E10 - 5E11
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30  OATQ
  TIME aa:aa:aa
  SECTION 109: OSPS ANSI TCAP QUERY MEASURES
  QUERIES
              SENT   NSENT   HDW     OVRLD   NM      NO-ID   AMBLK   TEST
  LICCD       b      c       d       e       f       g       h       k1
  89CCC       l2     m2      n2      o2      p2      q2      r2      s2
  LIBNS       i      j       k       l       m       n       o       q1
  REPLIES
              ABNOR  RTEFA   ADDFA   SYSCONG SYSFA   UNEQ    NWFA    NWCONG
  LICCD       p      q       r       s       t       u       v       w
  89CCC       t2     u2      v2      w2      x2      y2      z2      a3
  LIBNS       x      y       z       a1      b1      c1      d1      e1
              TOTAL  UNEXP   INVFRMT VLDFRMT TIMEOUT
  LICCD       f1     g1      h1      i1      j1
  89CCC       b3     c3      d3      e3      f3
  LIBNS       l1     m1      n1      o1      p1
              MSGRP  NPRTGRP NONWKRS REJ     ABAND   PSDI4
  LICCD       r1     s1      t1      u1      v1      q3
  89CCC       g3     h3      i3      j3      k3      r3
  LIBNS       w1     x1      y1      z1      a2
  CALLING CARD FEATURE SPECIFIC MEASURES
              VALID  NOT-FND DENIAL  NO-PIN
  LICCD       b2     c2      d2      e2
  89CCC       l3     m3      n3      o3
  BNS FEATURE SPECIFIC BILLING MEASURES
              ALLOW  DENY    INDET   NORRSP  BRCNFND
              f2     g2      h2      i2      j2
              ACG
  LICCD       k2
  89CCC       p3
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 109: Operator Services Position System (OSPS) *ANSI*® transaction capabilities application part (TCAP) query (OATQ) measures of the 30-minute traffic report. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

Note: For the variables with '*', refer to the **ACTION TO BE TAKEN** section in this manual page.

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = *Number of line information database (LIDB) calling card (CCD) queries sent from the OSPS into the common channel signaling (CCS) network. This count excludes test queries.

c = Number of LIDB CCD queries attempted but not sent (total of line information database calling card (LICCD): HDW + OVRLD + NM + NO-ID + AMBLK).

d = *Number of LIDB CCD queries not sent to the database because the common network interface (CNI) ring was not available. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

e = *Number of CCD queries not sent because the switch had enforced query cutbacks according to automatic call gapping (ACG) controls received from the database. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

f = *Number of CCD queries not sent to the database because a cutback was in effect to accommodate a network management control measure. Network management cutbacks are implemented for a period of five seconds after a billed number screening (BNS) or calling card query reply indicates network congestion, network failure, subsystem congestion or subsystem failure. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

g = *Number of CCD queries not sent to the database because a LIDB query ID was not available. The switch can handle 256 outstanding LIDB queries. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

h = *Number of CCD queries not sent to the database because of:

- Abnormal administrative module (AM) conditions.
- Abnormal communication link conditions between the switching module (SM) and AM.
- Switch data in the AM could not be read to determine the translation type parameter that was to be sent in the query to the signaling system 7 (SS7) network. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

i = *Number of BNS queries sent from the OSPS into the CCS network. This count excludes test queries.

j = Number of BNS queries attempted but not sent (total of line information database billed number screening (LIBNS): HDW + OVRLD + NM + NO-ID + AMBLK).

k = *Number of BNS queries not sent to the database because the CNI ring was not available. Indeterminate treatment applies to the call.

l = *Number of BNS queries not sent to the database because the switch had enforced query cutbacks according to ACG controls received from the database. Indeterminate treatment applies to the call.

m = *Number of BNS queries not sent to the database because a cutback was in effect to accommodate a network management control measure. Network management cutbacks are

implemented for a period of five seconds after a BNS or calling card query reply indicates network congestion, network failure, subsystem congestion, or subsystem failure. Indeterminate treatment applies to the call.

n = *Number of BNS queries not sent to the database because a LIDB query ID was not available. The switch can handle 256 outstanding LIDB queries. Indeterminate treatment applies to the call.

o = *Number of BNS queries not sent to the database because of:
- Abnormal AM conditions.
- Abnormal communication link conditions between the SM and AM.
- Switch data in the AM could not be read to determine the translation type parameter that was to be sent in the query to the Signaling System 7 (SS7) network. Indeterminate treatment applies to the call.

p = Number of abnormal LIDB CCD replies received. These are queries that do not make it to the destined database and are returned by the network. (total of LICCD: RTEFA + ADDFA + SYSCONG + SYSFA + UNEQ + NWFA + NWCONG).

q = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated no translation for an address of such nature. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

r = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated no translation for this specific address. This resulted in calling card denial on the call.

s = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated subsystem congestion. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9. This also resulted in a five-second cutback of LIDB calling card queries that have a calling card number with the same NPA or RAO as the calling card number that resulted in the subsystem congestion response.

t = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated subsystem failure. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9. This also resulted in a five-second cutback of LIDB calling card queries that have a calling card number with the same NPA or RAO as the calling card number that resulted in the subsystem failure response.

u = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated unequipped user. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

v = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated network failure. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9. This also resulted in a five-second cutback of LIDB calling card queries that have a calling card number with the same NPA or RAO as the calling card number that resulted in the network failure response.

w = *Number of times the CCS network returned a service message in response to a LIDB CCD query

and the response indicated network congestion. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9. This also resulted in a five-second cutback of LIDB calling card queries that have a calling card number with the same NPA or RAO as the calling card number that resulted in the network congestion response.

x = Number of abnormal LIDB BNS replies received. These are queries that do not make it to the destined database and are returned by the network (total of LIBNS: RTEFA + ADDFA + SYSCONG + SYSFA + UNEQ + NWFA + NWCONG).

y = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated no translation for an address of such nature. Indeterminate treatment applies to the call.

z = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated no translation for this specific address. This resulted in billing denial on the call.

a[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated subsystem congestion. Indeterminate treatment applies to the call. This also resulted in a five-second cutback of LIDB BNS queries that have a billing number with the same NPA or RAO as the billing number that resulted in the subsystem congestion response.

b[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated subsystem failure. Indeterminate treatment applies to the call. This also resulted in a five-second cutback of LIDB BNS queries that have a billing number with the same NPA or RAO as the billing number that resulted in the subsystem failure response.

c[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated unequipped user. Indeterminate treatment applies to the call.

d[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated network failure. Indeterminate treatment applies to the call. This also resulted in a five-second cutback of LIDB BNS queries that have a billing number with the same NPA or RAO as the billing number that resulted in the network failure response.

e[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated network congestion. Indeterminate treatment applies to the call. This also resulted in a five-second cutback of LIDB BNS queries that have a billing number with the same NPA or RAO as the billing number that resulted in the network congestion response.

f[1] = Number of LIDB CCD replies received. Total of LICCD: UNEXP + INVFRMT + VLDFRMT.

g[1] = *Number of times an unexpected or duplicate LIDB CCD query reply was received from the database. Replies for which the switch had timed out while waiting for them are included.

h[1] = *Number of LIDB CCD replies received in an invalid format where the reply was garbled in some manner or data fields did not conform to correct message syntax. Examples of such cases are:

- The value in the translation ID field was invalid.
- The component sequence ID field was invalid.
- The component type ID field was invalid.
- The length of the entire query response was longer than expected.
- The length of the transaction capability application part (TCAP) message was longer than expected.
- The package type identifier field was invalid.

- The message type field was invalid.
- The response was a service message from the SS7 network and the service message type was not recognized.

i[1] = Number of LICCD replies received that were in a valid format regardless of content. This number is the sum of LICCD: MSGRP + NPRTGRP + NONWKRS + REJ + VALID + NOT-FND + DENIAL + NO-PIN.

j[1] = Number of times that the OSPS timed out waiting for a LIDB CCD reply to a query from the database. Refer to the CC and BNS TIME parameter in RC/V View 8.9. The call will receive indeterminate query treatment as specified by parameter QUERY REPLIES TIMEOUT in RC/V view 8.9. Valid value(s):

A = If TIMEOUT indicates allow then the reply will be treated as an allow.
D = If TIMEOUT indicates deny then the reply will be treated an a deny.
E = If TIMEOUT indicates existing treatment then the type of indeterminate query treatment is specified by parameter CC BILL BLOCK in RC/V view 8.9.

k[1] = Number of LIDB CCD test queries sent to the CCS network.

l[1] = Number of LIDB BNS replies received. Total of LIBNS: UNEXP + INVFRMT + VLDFRMT.

m[1] = *Number of times an unexpected or duplicate LIDB BNS query reply was received from the database. Replies for which the switch had timed out while waiting for them are included.

n[1] = *Number of LIDB BNS replies received in an invalid format where the reply was garbled in some manner or data fields did not conform to correct message syntax. Examples of such cases are:

- The value in the translation ID field was invalid.
- The component sequence ID field was invalid.
- The component type ID field was invalid.
- The length of the entire query response was longer than expected.
- The length of the TCAP message was longer than expected.
- The package type identifier field was invalid.
- The message type field was invalid.
- The response is a service message from the SS7 network and the service message type was not recognized.

o[1] = Number of LIDB BNS replies received that were in a valid format regardless of content. This number is the sum of LIBNS: MSGRP + NPRTGRP + NONWKRS + REJ + NORRSP + BRCNFND.

p[1] = Number of times that the OSPS timed out waiting for a BNS reply to a query from the database. Refer to the CC and BNS TIME parameter in RC/V View 8.9. The call will receive indeterminate query treatment as specified by parameter QUERY REPLIES TIMEOUT in RC/V view 8.9. Valid value(s):

A = If TIMEOUT indicates allow then the reply will be treated as an allow.
D = If TIMEOUT indicates deny then the reply will be treated an a deny.
E = If TIMEOUT indicates existing treatment then the type of indeterminate query treatment is specified by parameter CC BILL BLOCK in RC/V view 8.9.

q[1] = Number of LIDB BNS test queries sent to the CCS network.

r[1] = Number of error messages, returned from the database in response to a CCD query, indicating missing group or misrouted. The call will receive indeterminate query treatment as specified by parameter QUERY REPLIES OTHER INDET in RC/V view 8.9. Valid value(s):

A = If OTHER INDET indicates allow then the reply will be treated as an allow.
D = If OTHER INDET indicates deny then the reply will be treated an a deny.
E = If OTHER INDET indicates existing treatment then the type of indeterminate query treatment is specified by parameter CC BILL BLOCK in RC/V view 8.9.

s[1] = Number of error messages, returned from the database in response to a CCD query, indicating nonparticipating group. The call will receive indeterminate query treatment as specified by parameter QUERY REPLIES UNR AND NPG in RC/V view 8.9. Valid value(s):

A = If UNR AND NPG indicates allow then the reply will be treated as an allow.
D = If UNR AND NPG indicates deny then the reply will be treated an a deny.
E = If UNR AND NPG indicates existing treatment then the type of indeterminate query treatment is specified by parameter CC BILL BLOCK in RC/V view 8.9.

t[1] = Number of error messages, returned from the database in response to a CCD query, indicating unavailable network resource. The call will receive indeterminate query treatment as specified by parameter QUERY REPLIES UNR AND NPG in RC/V view 8.9. Valid value(s):

A = If UNR AND NPG indicates allow then the reply will be treated as an allow.
D = If UNR AND NPG indicates deny then the reply will be treated an a deny.
E = If UNR AND NPG indicates existing treatment then the type of indeterminate query treatment is specified by parameter CC BILL BLOCK in RC/V view 8.9.

u[1] = *Number of reject messages received from the database in response to a LIDB CCD query. The call will receive indeterminate query treatment as specified by parameter QUERY REPLIES OTHER INDET in RC/V view 8.9. Valid value(s):

A = If OTHER INDET indicates allow then the reply will be treated as an allow.
D = If OTHER INDET indicates deny then the reply will be treated an a deny.
E = If OTHER INDET indicates existing treatment then the type of indeterminate query treatment is specified by parameter CC BILL BLOCK in RC/V view 8.9.

v[1] = Number of CCD queries to the database that were initiated then aborted by OSPS because of customer abandonment or inward operator abandonment or operator change of billing type.

w[1] = Number of error messages, returned from the database in response to a BNS query, indicating missing group or misrouted. Indeterminate treatment applies to the call.

x[1] = Number of error messages, returned from the database in response to a BNS query, indicating nonparticipating group. Indeterminate treatment applies to the call.

y[1] = Number of error messages, returned from the database in response to a BNS query, indicating unavailable network resources. Indeterminate treatment applies to the call.

z[1] = *Number of reject messages received from the database in response to a BNS query. Indeterminate treatment applies to the call.

a[2] = Number of LIDB BNS queries that were initiated then aborted by OSPS because of customer abandonment or inward operator abandonment or operator change of billing type.

b[2] = Number of CCD replies received from the database containing a response that indicates that a

match between the account number and personal identification number (PIN) was found, regardless of whether the PIN is restricted or unrestricted.

c^2 = Number of error messages, returned from the database in response to a CCD query, indicating unexpected data value, vacant group, or missing customer record. In all cases the calling card number was assumed invalid and the call was denied completion.

d^2 = Number of CCD replies received from the database indicating service denial for the calling card account number received or service denial because:

- A PIN threshold within the database was exceeded.
- Non-payment associated with the PIN.
- No PIN was assigned to the account.
- A line number service application (LSA) reply containing a value of 240 is received, indicating fraud.

e^2 = Number of CCD replies received from the database indicating that a matching PIN was not found for a valid calling card account number. The call was denied completion.

f^2 = Number of BNS query replies, received from the database, that indicated that billing should be allowed. This measurement is scored for the following events:

- For a collect call, the reply indicated that acceptance of a collect call to the associated forward number was to be verified by an operator.
- For a collect call, the reply indicated that a collect call to the associated forward number may be placed without verification by an operator.
- For an intraLATA collect call, the reply indicated that an intraLATA collect call to the associated forward number may be placed without verification by an operator.
- For an interLATA collect call, the reply indicated that acceptance of an interLATA collect call to the associated forward number was to be verified by an operator.
- For a collect call to a public phone, the reply indicated that a collect call to a public phone was allowed.
- For a third number call, the reply indicated that a third number call billed to the associated third number may be placed without verification by an operator.
- For a third number call, the reply indicated that acceptance of a third number call billed to the associated third number was to be verified by an operator.
- For an intraLATA third number call, the reply indicated that an intraLATA third number call billed to the associated third number may be placed without verification by an operator.
- For an intraLATA third number call, the reply indicated that acceptance of an intraLATA third number call billed to the associated third number was to be verified by an operator.
- For a sent-paid call, the reply indicated that a sent-paid call billed to the back number was allowed.

g^2 = Number of BNS query replies received from the database where the response indicated that billing should be denied. Reasons for denial:

- An error message was received indicating unexpected data value, vacant group, or missing customer record.
- For a collect call, the collect acceptance indicator in the query response indicated that collect calls to the associated forward number were to be denied.
- For an interLATA collect call, the collect acceptance indicator in the query response indicated that all interLATA collect calls were to be denied.
- For a third number billing call, the third number acceptance indicator in the query response indicated that third number billing was not allowed with the third number

used on the call.

- For an interLATA third number billing call, the third number acceptance indicator in the query response indicated that interLATA third number billing was not allowed with the third number used on the call.
- For a third number billing call, the service indicator in the query response indicated that the third number was assigned to a public phone.
- For a sent-paid call, the service indicator in the query response indicated that sent-paid billing was not allowed from the back number.
- For collect, third number billing and sent-paid calls, an LSA reply containing a value of 240 is received, indicating fraud.

This measurement is not pegged if the missing customer record BNS reply code was received and the missing LIDB data call handling modification feature (Secure Feature ID 56) has been activated.

h^2 = Number of times the switch was unable to determine by a BNS query whether billing should be allowed or denied. In all cases, indeterminate treatment applies to the call. Reasons why billing could not be determined:

- A BNS query was not sent to the database because the CNI ring was not available.
- A BNS query was not sent to the LIDB database because of abnormal AM conditions or abnormal communication link conditions between the SM and AM.
- The reply code returned from the database in response to a BNS query indicated nonparticipating group, misroute, missing group, unavailable network resource or reject.
- The switch timed out waiting for a BNS query response.
- The switch was unable to obtain a system timer to time for a BNS query response.
- The switch did not send a query because of network management cutback controls or because of database cutback controls.
- The value returned in the collect acceptance indicator field or the third number acceptance indicator field was unrecognizable.
- The CCS network responded to a BNS query with a service message indicating either of the following: no translation for an address of such nature, subsystem congestion, subsystem failure, unequipped user, network failure, or network congestion.
- The missing customer record BNS reply code was received and the missing LIDB data call handling modification feature (Secure Feature ID 56) had been activated.

i^2 = Number of BNS query responses received from the database indicating that a record for the data contained in the query was found in the database.

j^2 = Number of error messages, returned from the database in response to a BNS query, indicating unexpected data value, vacant group, or missing customer record.

k^2 = *Number of BNS or CCD query replies from the database that contained an ACG component. All queries for calls that matched the first six digits of the affected billing number were potentially cut back as specified by the ACG control parameters. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

l^2 = *Number of telecommunications card/commercial credit card (89/CCC) queries sent from the OSPS into the network connecting the OSPS to the database. This count excludes test queries.

m^2 = Number of 89/CCC queries attempted but not sent (total of 89CCC: HDW + OVRLD + NM + NO-ID + AMBLK).

n[2] = *Number of 89/CCC queries not sent because the common network interface (CNI) ring was not available. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

o[2] = *Number of 89/CCC queries not sent because the switch had enforced query cutbacks according to automatic call gapping (ACG) controls received from the database. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

p[2] = *Number of 89/CCC queries not sent to the database because a cutback was in effect to accommodate a network management control measure. Network management cutbacks are implemented for a period of five seconds after a calling card query reply indicates network congestion, network failure, subsystem congestion or subsystem failure. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

q[2] = *Number of 89/CCC queries not sent to the data because a query ID was not available. The switch can handle 256 outstanding queries. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

r[2] = *Number of 89/CCC queries not sent to the database because of:

- Abnormal AM conditions.
- Abnormal communication link conditions between the SM and AM.
- Switch data in the AM could not be read to determine the translation type parameter that is to be sent in the query to the Signaling System 7 (SS7) network. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

s[2] = *Number of 89/CCC test queries sent to the CCS network.

t[2] = Number of abnormal 89/CCC replies received. These are queries that do not make it to the destined database and are returned by the network (total of 89CCC: RTEFA + ADDFA + SYSCONG + SYSFA + UNEQ + NWFA + NWCONG).

u[2] = *Number of times the CCS network returned a service message in response to an 89/CCC query and the response indicated no translation for an address of such nature. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

v[2] = *Number of times the CCS network returned a service message in response to an 89/CCC query and the response indicated no translation for this specific address. This resulted in calling card denial on the call.

w[2] = *Number of times the CCS network returned a service message in response to an 89/CCC query and the response indicated subsystem congestion This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56. This also resulted in a five-second cutback of calling card queries that have a calling card number with the same issuer as the calling card number that resulted in the subsystem congestion response.

x[2] = *Number of times the CCS network returned a service message in response to an 89/CCC query

and the response indicated subsystem failure. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56. This also resulted in a five-second cutback of calling card queries that have a calling card number with the same issuer as the calling card number that resulted in the subsystem failure response.

y[2] = *Number of times the CCS network returned a service message in response to an 89/CCC query and the response indicated unequipped user. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

z[2] = *Number of times the CCS network returned a service message in response to an 89/CCC query and the response indicated network failure. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56. This also resulted in a five-second cutback of calling card queries that have a calling card number with the same issuer as the calling card number that resulted in the network failure response.

a[3] = *Number of times the CCS network returned a service message in response to an 89/CCC query and the response indicated network congestion. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56. This also resulted in a five-second cutback of calling card queries that have a calling card number with the same issuer as the calling card number that resulted in the network congestion response.

b[3] = Number of 89/CCC replies received of all types. Total of 89CCC: UNEXP + INVFRMT + VLDFRMT.

c[3] = *Number of times an unexpected or duplicate query reply was received from the database. Replies for which the switch had timed out while waiting for them are included.

d[3] = *Number of 89/CCC replies received in an invalid format where the reply was garbled in some manner or data fields did not conform to correct message syntax. Examples of such cases are:

- The value in the translation ID field was invalid.
- The component sequence ID field was invalid.
- The component type ID field was invalid.
- The length of the entire query response was longer than expected.
- The length of the TCAP message was longer than expected.
- The package type identifier field was invalid.
- The message type field was invalid.
- The response was a service message from the SS7 network and the service message type was not recognized.

e[3] = Number of 89/CCC replies received with valid data in the common portion of the reply. This number is the sum of 89CCC: MSGRP + NPRTGRP + NONWKRS + REJ + VALID + NOT-FND + DENIAL + NO-PIN.

f[3] = Number of times that the OSPS timed out waiting for an 89/CCC reply to a query from the database (refer to the QUERY TIMEOUT parameter in RC/V View 27.56). This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

g[3] = Number of error messages, returned from the database in response to an 89/CCC query, indicating missing group or misrouted. This resulted in calls' receiving indeterminate query

treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

h[3] = Number of error messages, returned from the database in response to an 89/CCC query, indicating nonparticipating group. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

i[3] = Number of error messages, returned from the database in response to an 89/CCC query, indicating unavailable network resource. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

j[3] = *Number of reject messages received from the database in response to an 89/CCC query. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

k[3] = Number of 89/CCC queries that were initiated then aborted by OSPS because of customer abandonment or operator change of billing type.

l[3] = Number of CCD replies received from the database containing a response that indicates that a match between the account number and personal identification number (PIN) was found, regardless of whether the PIN is restricted or unrestricted.

m[3] = Number of error messages, returned from the database in response to an 89/CCC query, indicating unexpected data value, vacant group, or missing customer record. In all cases the calling card number was assumed invalid and the call was denied completion.

n[3] = Number of 89/CCC replies received from the database indicating service denial for the calling card account number received or service denial because:

- A PIN threshold within the database was exceeded.
- Non-payment associated with the PIN.
- No PIN was assigned to the account.

o[3] = Number of 89/CCC replies received from the database indicating that a matching PIN was not found for a valid calling card account number. The call was denied completion.

p[3] = *Number of 89/CCC query replies from the database that contained an ACG component. All queries for calls that matched the first six digits of the affected billing number were potentially cutback as specified by the ACG control parameters. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

q[3] = Number of 10+4 calling card validation replies with a 'PSDI=4' response from the validation database.

r[3] = Number of 89C/CCC card validation replies returned with a 'PSDI=4' response from the validation database.

4. ACTIONS TO BE TAKEN

The set of variables marked with and asterisk (*) represents the measurements collected in the direct link node (DLN). If office is not equipped with a DLN then the measurements are collected from the AM. If the office is

equipped with the DLN and the set of variables with '*' are zero, this suggests that the DLN failed to report these variables and these variables are invalid for the reporting period.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration and Engineering Guidelines*

RC/V View(s):

8.9 (OSPS OFFICE PARAMETERS)
27.56 [OSPS - TELEPHONE CREDIT CARD (TCR) ATTRIBUTES]

OP:TRFC30-OATQ-B

Software Release: 5E12 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30  OATQ
  TIME aa:aa:aa
  SECTION 109: OSPS ANSI TCAP QUERY MEASURES
  QUERIES
              SENT   NSENT   HDW     OVRLD   NM      NO-ID   AMBLK   TEST
  LICCD       b      c       d       e       f       g       h       k1
  89CCC       l2     m2      n2      o2      p2      q2      r2      s2
  LIBNS       i      j       k       l       m       n       o       q1
  REPLIES
              ABNOR  RTEFA   ADDFA   SYSCONG SYSFA   UNEQ    NWFA    NWCONG
  LICCD       p      q       r       s       t       u       v       w
  89CCC       t2     u2      v2      w2      x2      y2      z2      a3
  LIBNS       x      y       z       a1      b1      c1      d1      e1
              TOTAL  UNEXP   INVFRMT VLDFRMT TIMEOUT
  LICCD       f1     g1      h1      i1      j1
  89CCC       b3     c3      d3      e3      f3
  LIBNS       l1     m1      n1      o1      p1
              MSGRP  NPRTGRP NONWKRS REJ     ABAND   PSDI4
  LICCD       r1     s1      t1      u1      v1      q3
  89CCC       g3     h3      i3      j3      k3      r3
  LIBNS       w1     x1      y1      z1      a2
  CALLING CARD FEATURE SPECIFIC MEASURES
              VALID  NOT-FND DENIAL  NO-PIN
  LICCD       b2     c2      d2      e2
  89CCC       l3     m3      n3      o3
  BNS FEATURE SPECIFIC BILLING MEASURES
              ALLOW  DENY    INDET   NORRSP  BRCNFND
              f2     g2      h2      i2      j2
              ACG
  LICCD       k2
  89CCC       p3
  PROPRIETARY CARD QUERIES
              SENT   ALLOW  DENY    INDET   TIMEOUT
              s3     t3     u3      v3      w3
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 109: Operator Services Position System (OSPS) *ANSI*® transaction capabilities application part (TCAP) query (OATQ) measures of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

Note: For the variables with '*', refer to the **ACTION TO BE TAKEN** section in this manual page.

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = *Number of line information database (LIDB) calling card (CCD) queries sent from the OSPS into the common channel signaling (CCS) network. This count excludes test queries.

c = Number of LIDB CCD queries attempted but not sent (total of line information database calling card (LICCD): HDW + OVRLD + NM + NO-ID + AMBLK).

d = *Number of LIDB CCD queries not sent to the database because the common network interface (CNI) ring was not available. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

e = *Number of CCD queries not sent because the switch had enforced query cutbacks according to automatic call gapping (ACG) controls received from the database. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

f = *Number of CCD queries not sent to the database because a cutback was in effect to accommodate a network management control measure. Network management cutbacks are implemented for a period of five seconds after a billed number screening (BNS) or calling card query reply indicates network congestion, network failure, subsystem congestion or subsystem failure. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

g = *Number of CCD queries not sent to the database because a LIDB query ID was not available. The switch can handle 256 outstanding LIDB queries. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

h = *Number of CCD queries not sent to the database because of:
- Abnormal administrative module (AM) conditions.
- Abnormal communication link conditions between the switching module (SM) and AM.
- Switch data in the AM could not be read to determine the translation type parameter that was to be sent in the query to the signaling system 7 (SS7) network. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

i = *Number of BNS queries sent from the OSPS into the CCS network. This count excludes test queries.

j = Number of BNS queries attempted but not sent (total of line information database billed number screening (LIBNS): HDW + OVRLD + NM + NO-ID + AMBLK).

k = *Number of BNS queries not sent to the database because the CNI ring was not available. Indeterminate treatment applies to the call.

l = *Number of BNS queries not sent to the database because the switch had enforced query

cutbacks according to ACG controls received from the database. Indeterminate treatment applies to the call.

m = *Number of BNS queries not sent to the database because a cutback was in effect to accommodate a network management control measure. Network management cutbacks are implemented for a period of five seconds after a BNS or calling card query reply indicates network congestion, network failure, subsystem congestion, or subsystem failure. Indeterminate treatment applies to the call.

n = *Number of BNS queries not sent to the database because a LIDB query ID was not available. The switch can handle 256 outstanding LIDB queries. Indeterminate treatment applies to the call.

o = *Number of BNS queries not sent to the database because of:
- Abnormal AM conditions.
- Abnormal communication link conditions between the SM and AM.
- Switch data in the AM could not be read to determine the translation type parameter that was to be sent in the query to the Signaling System 7 (SS7) network. Indeterminate treatment applies to the call.

p = Number of abnormal LIDB CCD replies received. These are queries that do not make it to the destined database and are returned by the network. (total of LICCD: RTEFA + ADDFA + SYSCONG + SYSFA + UNEQ + NWFA + NWCONG).

q = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated no translation for an address of such nature. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

r = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated no translation for this specific address. This resulted in calling card denial on the call.

s = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated subsystem congestion. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9. This also resulted in a five-second cutback of LIDB calling card queries that have a calling card number with the same NPA or RAO as the calling card number that resulted in the subsystem congestion response.

t = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated subsystem failure. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9. This also resulted in a five-second cutback of LIDB calling card queries that have a calling card number with the same NPA or RAO as the calling card number that resulted in the subsystem failure response.

u = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated unequipped user. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

v = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated network failure. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in

RC/V View 8.9. This also resulted in a five-second cutback of LIDB calling card queries that have a calling card number with the same NPA or RAO as the calling card number that resulted in the network failure response.

w = *Number of times the CCS network returned a service message in response to a LIDB CCD query and the response indicated network congestion. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9. This also resulted in a five-second cutback of LIDB calling card queries that have a calling card number with the same NPA or RAO as the calling card number that resulted in the network congestion response.

x = Number of abnormal LIDB BNS replies received. These are queries that do not make it to the destined database and are returned by the network (total of LIBNS: RTEFA + ADDFA + SYSCONG + SYSFA + UNEQ + NWFA + NWCONG).

y = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated no translation for an address of such nature. Indeterminate treatment applies to the call.

z = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated no translation for this specific address. This resulted in billing denial on the call.

a[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated subsystem congestion. Indeterminate treatment applies to the call. This also resulted in a five-second cutback of LIDB BNS queries that have a billing number with the same NPA or RAO as the billing number that resulted in the subsystem congestion response.

b[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated subsystem failure. Indeterminate treatment applies to the call. This also resulted in a five-second cutback of LIDB BNS queries that have a billing number with the same NPA or RAO as the billing number that resulted in the subsystem failure response.

c[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated unequipped user. Indeterminate treatment applies to the call.

d[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated network failure. Indeterminate treatment applies to the call. This also resulted in a five-second cutback of LIDB BNS queries that have a billing number with the same NPA or RAO as the billing number that resulted in the network failure response.

e[1] = *Number of times the CCS network returned a service message in response to a LIDB BNS query and the response indicated network congestion. Indeterminate treatment applies to the call. This also resulted in a five-second cutback of LIDB BNS queries that have a billing number with the same NPA or RAO as the billing number that resulted in the network congestion response.

f[1] = Number of LIDB CCD replies received. Total of LICCD: UNEXP + INVFRMT + VLDFRMT.

g[1] = *Number of times an unexpected or duplicate LIDB CCD query reply was received from the database. Replies for which the switch had timed out while waiting for them are included.

h[1] = *Number of LIDB CCD replies received in an invalid format where the reply was garbled in some manner or data fields did not conform to correct message syntax. Examples of such cases are:

- The value in the translation ID field was invalid.
- The component sequence ID field was invalid.

- The component type ID field was invalid.
- The length of the entire query response was longer than expected.
- The length of the transaction capability application part (TCAP) message was longer than expected.
- The package type identifier field was invalid.
- The message type field was invalid.
- The response was a service message from the SS7 network and the service message type was not recognized.

i[1] = Number of LICCD replies received that were in a valid format regardless of content. This number is the sum of LICCD: MSGRP + NPRTGRP + NONWKRS + REJ + VALID + NOT-FND + DENIAL + NO-PIN.

j[1] = Number of times that the OSPS timed out waiting for a LIDB CCD reply to a query from the database. Refer to the CC and BNS TIME parameter in RC/V View 8.9. The call will receive indeterminate query treatment as specified by parameter QUERY REPLIES TIMEOUT in RC/V view 8.9. Valid value(s):

A = If TIMEOUT indicates allow then the reply will be treated as an allow.
D = If TIMEOUT indicates deny then the reply will be treated an a deny.
E = If TIMEOUT indicates existing treatment then the type of indeterminate query treatment is specified by parameter CC BILL BLOCK in RC/V view 8.9.

k[1] = Number of LIDB CCD test queries sent to the CCS network.

l[1] = Number of LIDB BNS replies received. Total of LIBNS: UNEXP + INVFRMT + VLDFRMT.

m[1] = *Number of times an unexpected or duplicate LIDB BNS query reply was received from the database. Replies for which the switch had timed out while waiting for them are included.

n[1] = *Number of LIDB BNS replies received in an invalid format where the reply was garbled in some manner or data fields did not conform to correct message syntax. Examples of such cases are:

- The value in the translation ID field was invalid.
- The component sequence ID field was invalid.
- The component type ID field was invalid.
- The length of the entire query response was longer than expected.
- The length of the TCAP message was longer than expected.
- The package type identifier field was invalid.
- The message type field was invalid.
- The response is a service message from the SS7 network and the service message type was not recognized.

o[1] = Number of LIDB BNS replies received that were in a valid format regardless of content. This number is the sum of LIBNS: MSGRP + NPRTGRP + NONWKRS + REJ + NORRSP + BRCNFND.

p[1] = Number of times that the OSPS timed out waiting for a BNS reply to a query from the database. Refer to the CC and BNS TIME parameter in RC/V View 8.9. The call will receive indeterminate query treatment as specified by parameter QUERY REPLIES TIMEOUT in RC/V view 8.9. Valid value(s):

A = If TIMEOUT indicates allow then the reply will be treated as an allow.
D = If TIMEOUT indicates deny then the reply will be treated an a deny.
E = If TIMEOUT indicates existing treatment then the type of indeterminate query

treatment is specified by parameter CC BILL BLOCK in RC/V view 8.9.

q[1] = Number of LIDB BNS test queries sent to the CCS network.

r[1] = Number of error messages, returned from the database in response to a CCD query, indicating missing group or misrouted. The call will receive indeterminate query treatment as specified by parameter QUERY REPLIES OTHER INDET in RC/V view 8.9. Valid value(s):

A = If OTHER INDET indicates allow then the reply will be treated as an allow.
D = If OTHER INDET indicates deny then the reply will be treated an a deny.
E = If OTHER INDET indicates existing treatment then the type of indeterminate query treatment is specified by parameter CC BILL BLOCK in RC/V view 8.9.

s[1] = Number of error messages, returned from the database in response to a CCD query, indicating nonparticipating group. The call will receive indeterminate query treatment as specified by parameter QUERY REPLIES UNR AND NPG in RC/V view 8.9. Valid value(s):

A = If UNR AND NPG indicates allow then the reply will be treated as an allow.
D = If UNR AND NPG indicates deny then the reply will be treated an a deny.
E = If UNR AND NPG indicates existing treatment then the type of indeterminate query treatment is specified by parameter CC BILL BLOCK in RC/V view 8.9.

t[1] = Number of error messages, returned from the database in response to a CCD query, indicating unavailable network resource. The call will receive indeterminate query treatment as specified by parameter QUERY REPLIES UNR AND NPG in RC/V view 8.9. Valid value(s):

A = If UNR AND NPG indicates allow then the reply will be treated as an allow.
D = If UNR AND NPG indicates deny then the reply will be treated an a deny.
E = If UNR AND NPG indicates existing treatment then the type of indeterminate query treatment is specified by parameter CC BILL BLOCK in RC/V view 8.9.

u[1] = *Number of reject messages received from the database in response to a LIDB CCD query. The call will receive indeterminate query treatment as specified by parameter QUERY REPLIES OTHER INDET in RC/V view 8.9. Valid value(s):

A = If OTHER INDET indicates allow then the reply will be treated as an allow.
D = If OTHER INDET indicates deny then the reply will be treated an a deny.
E = If OTHER INDET indicates existing treatment then the type of indeterminate query treatment is specified by parameter CC BILL BLOCK in RC/V view 8.9.

v[1] = Number of CCD queries to the database that were initiated then aborted by OSPS because of customer abandonment or inward operator abandonment or operator change of billing type.

w[1] = Number of error messages, returned from the database in response to a BNS query, indicating missing group or misrouted. Indeterminate treatment applies to the call.

x[1] = Number of error messages, returned from the database in response to a BNS query, indicating nonparticipating group. Indeterminate treatment applies to the call.

y[1] = Number of error messages, returned from the database in response to a BNS query, indicating unavailable network resources. Indeterminate treatment applies to the call.

z[1] = *Number of reject messages received from the database in response to a BNS query. Indeterminate treatment applies to the call.

a^2 = Number of LIDB BNS queries that were initiated then aborted by OSPS because of customer abandonment or inward operator abandonment or operator change of billing type.

b^2 = Number of CCD replies received from the database containing a response that indicates that a match between the account number and personal identification number (PIN) was found, regardless of whether the PIN is restricted or unrestricted.

c^2 = Number of error messages, returned from the database in response to a CCD query, indicating unexpected data value, vacant group, or missing customer record. In all cases the calling card number was assumed invalid and the call was denied completion.

d^2 = Number of CCD replies received from the database indicating service denial for the calling card account number received or service denial because:

- A PIN threshold within the database was exceeded.
- Non-payment associated with the PIN.
- No PIN was assigned to the account.
- A line number service application (LSA) reply containing a value of 240 is received, indicating fraud.

e^2 = Number of CCD replies received from the database indicating that a matching PIN was not found for a valid calling card account number. The call was denied completion.

f^2 = Number of BNS query replies, received from the database, that indicated that billing should be allowed. This measurement is scored for the following events:

- For a collect call, the reply indicated that acceptance of a collect call to the associated forward number was to be verified by an operator.
- For a collect call, the reply indicated that a collect call to the associated forward number may be placed without verification by an operator.
- For an intraLATA collect call, the reply indicated that an intraLATA collect call to the associated forward number may be placed without verification by an operator.
- For an interLATA collect call, the reply indicated that acceptance of an interLATA collect call to the associated forward number was to be verified by an operator.
- For a collect call to a public phone, the reply indicated that a collect call to a public phone was allowed.
- For a third number call, the reply indicated that a third number call billed to the associated third number may be placed without verification by an operator.
- For a third number call, the reply indicated that acceptance of a third number call billed to the associated third number was to be verified by an operator.
- For an intraLATA third number call, the reply indicated that an intraLATA third number call billed to the associated third number may be placed without verification by an operator.
- For an intraLATA third number call, the reply indicated that acceptance of an intraLATA third number call billed to the associated third number was to be verified by an operator.
- For a sent-paid call, the reply indicated that a sent-paid call billed to the back number was allowed.

g^2 = Number of BNS query replies received from the database where the response indicated that billing should be denied. Reasons for denial:

- An error message was received indicating unexpected data value, vacant group, or missing customer record.
- For a collect call, the collect acceptance indicator in the query response indicated

that collect calls to the associated forward number were to be denied.

- For an interLATA collect call, the collect acceptance indicator in the query response indicated that all interLATA collect calls were to be denied.
- For a third number billing call, the third number acceptance indicator in the query response indicated that third number billing was not allowed with the third number used on the call.
- For an interLATA third number billing call, the third number acceptance indicator in the query response indicated that interLATA third number billing was not allowed with the third number used on the call.
- For a third number billing call, the service indicator in the query response indicated that the third number was assigned to a public phone.
- For a sent-paid call, the service indicator in the query response indicated that sent-paid billing was not allowed from the back number.
- For collect, third number billing and sent-paid calls, an LSA reply containing a value of 240 is received, indicating fraud.

This measurement is not pegged if the missing customer record BNS reply code was received and the missing LIDB data call handling modification feature (Secure Feature ID 56) has been activated.

h^2 = Number of times the switch was unable to determine by a BNS query whether billing should be allowed or denied. In all cases, indeterminate treatment applies to the call. Reasons why billing could not be determined:

- A BNS query was not sent to the database because the CNI ring was not available.
- A BNS query was not sent to the LIDB database because of abnormal AM conditions or abnormal communication link conditions between the SM and AM.
- The reply code returned from the database in response to a BNS query indicated nonparticipating group, misroute, missing group, unavailable network resource or reject.
- The switch timed out waiting for a BNS query response.
- The switch was unable to obtain a system timer to time for a BNS query response.
- The switch did not send a query because of network management cutback controls or because of database cutback controls.
- The value returned in the collect acceptance indicator field or the third number acceptance indicator field was unrecognizable.
- The CCS network responded to a BNS query with a service message indicating either of the following: no translation for an address of such nature, subsystem congestion, subsystem failure, unequipped user, network failure, or network congestion.
- The missing customer record BNS reply code was received and the missing LIDB data call handling modification feature (Secure Feature ID 56) had been activated.

i^2 = Number of BNS query responses received from the database indicating that a record for the data contained in the query was found in the database.

j^2 = Number of error messages, returned from the database in response to a BNS query, indicating unexpected data value, vacant group, or missing customer record.

k^2 = *Number of BNS or CCD query replies from the database that contained an ACG component. All queries for calls that matched the first six digits of the affected billing number were potentially cut back as specified by the ACG control parameters. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

l[2] = *Number of telecommunications card/commercial credit card (89/CCC) queries sent from the OSPS into the network connecting the OSPS to the database. This count excludes test queries.

m[2] = Number of 89/CCC queries attempted but not sent (total of 89CCC: HDW + OVRLD + NM + NO-ID + AMBLK).

n[2] = *Number of 89/CCC queries not sent because the common network interface (CNI) ring was not available. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

o[2] = *Number of 89/CCC queries not sent because the switch had enforced query cutbacks according to automatic call gapping (ACG) controls received from the database. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

p[2] = *Number of 89/CCC queries not sent to the database because a cutback was in effect to accommodate a network management control measure. Network management cutbacks are implemented for a period of five seconds after a calling card query reply indicates network congestion, network failure, subsystem congestion or subsystem failure. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

q[2] = *Number of 89/CCC queries not sent to the data because a query ID was not available. The switch can handle 256 outstanding queries. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

r[2] = *Number of 89/CCC queries not sent to the database because of:

- Abnormal AM conditions.
- Abnormal communication link conditions between the SM and AM.
- Switch data in the AM could not be read to determine the translation type parameter that is to be sent in the query to the Signaling System 7 (SS7) network. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

s[2] = *Number of 89/CCC test queries sent to the CCS network.

t[2] = Number of abnormal 89/CCC replies received. These are queries that do not make it to the destined database and are returned by the network (total of 89CCC: RTEFA + ADDFA + SYSCONG + SYSFA + UNEQ + NWFA + NWCONG).

u[2] = *Number of times the CCS network returned a service message in response to an 89/CCC query and the response indicated no translation for an address of such nature. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

v[2] = *Number of times the CCS network returned a service message in response to an 89/CCC query and the response indicated no translation for this specific address. This resulted in calling card denial on the call.

w[2] = *Number of times the CCS network returned a service message in response to an 89/CCC query and the response indicated subsystem congestion This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter

INDETERMINATE in RC/V View 27.56. This also resulted in a five-second cutback of calling card queries that have a calling card number with the same issuer as the calling card number that resulted in the subsystem congestion response.

x[2] = *Number of times the CCS network returned a service message in response to an 89/CCC query and the response indicated subsystem failure. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56. This also resulted in a five-second cutback of calling card queries that have a calling card number with the same issuer as the calling card number that resulted in the subsystem failure response.

y[2] = *Number of times the CCS network returned a service message in response to an 89/CCC query and the response indicated unequipped user. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

z[2] = *Number of times the CCS network returned a service message in response to an 89/CCC query and the response indicated network failure. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56. This also resulted in a five-second cutback of calling card queries that have a calling card number with the same issuer as the calling card number that resulted in the network failure response.

a[3] = *Number of times the CCS network returned a service message in response to an 89/CCC query and the response indicated network congestion. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56. This also resulted in a five-second cutback of calling card queries that have a calling card number with the same issuer as the calling card number that resulted in the network congestion response.

b[3] = Number of 89/CCC replies received of all types. Total of 89CCC: UNEXP + INVFRMT + VLDFRMT.

c[3] = *Number of times an unexpected or duplicate query reply was received from the database. Replies for which the switch had timed out while waiting for them are included.

d[3] = *Number of 89/CCC replies received in an invalid format where the reply was garbled in some manner or data fields did not conform to correct message syntax. Examples of such cases are:

- The value in the translation ID field was invalid.
- The component sequence ID field was invalid.
- The component type ID field was invalid.
- The length of the entire query response was longer than expected.
- The length of the TCAP message was longer than expected.
- The package type identifier field was invalid.
- The message type field was invalid.
- The response was a service message from the SS7 network and the service message type was not recognized.

e[3] = Number of 89/CCC replies received with valid data in the common portion of the reply. This number is the sum of 89CCC: MSGRP + NPRTGRP + NONWKRS + REJ + VALID + NOT-FND + DENIAL + NO-PIN.

f[3] = Number of times that the OSPS timed out waiting for an 89/CCC reply to a query from the database (refer to the QUERY TIMEOUT parameter in RC/V View 27.56). This resulted in calls'

receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

g[3] = Number of error messages, returned from the database in response to an 89/CCC query, indicating missing group or misrouted. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified by parameter BILL BLOCK in RC/V View 8.9.

h[3] = Number of error messages, returned from the database in response to an 89/CCC query, indicating nonparticipating group. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

i[3] = Number of error messages, returned from the database in response to an 89/CCC query, indicating unavailable network resource. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

j[3] = *Number of reject messages received from the database in response to an 89/CCC query. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

k[3] = Number of 89/CCC queries that were initiated then aborted by OSPS because of customer abandonment or operator change of billing type.

l[3] = Number of CCD replies received from the database containing a response that indicates that a match between the account number and personal identification number (PIN) was found, regardless of whether the PIN is restricted or unrestricted.

m[3] = Number of error messages, returned from the database in response to an 89/CCC query, indicating unexpected data value, vacant group, or missing customer record. In all cases the calling card number was assumed invalid and the call was denied completion.

n[3] = Number of 89/CCC replies received from the database indicating service denial for the calling card account number received or service denial because:

- A PIN threshold within the database was exceeded.
- Non-payment associated with the PIN.
- No PIN was assigned to the account.

o[3] = Number of 89/CCC replies received from the database indicating that a matching PIN was not found for a valid calling card account number. The call was denied completion.

p[3] = *Number of 89/CCC query replies from the database that contained an ACG component. All queries for calls that matched the first six digits of the affected billing number were potentially cutback as specified by the ACG control parameters. This resulted in calls' receiving indeterminate query treatment. For 89/CCC, the type of indeterminate query treatment is specified by parameter INDETERMINATE in RC/V View 27.56.

q[3] = Number of 10+4 calling card validation replies with a 'PSDI=4' response from the validation database.

r[3] = Number of 89C/CCC card validation replies returned with a 'PSDI=4' response from the validation database.

s[3] = Number of proprietary card queries sent to the common network interface (CNI).

t[3] = Number of proprietary card queries that received an explicit "allow" reply from the card validation database.

u[3] = Number of proprietary card queries that received an explicit "deny" reply from the card validation database.

v[3] = Number of proprietary card queries that resulted in an indeterminate reply. This count excludes timeouts.

w[3] = Number of proprietary card queries that timed out while waiting for a response from the card validation database.

4. ACTIONS TO BE TAKEN

The set of variables marked with and asterisk (*) represents the measurements collected in the direct link node (DLN). If office is not equipped with a DLN then the measurements are collected from the AM. If the office is equipped with the DLN and the set of variables with '*' are zero, this suggests that the DLN failed to report these variables and these variables are invalid for the reporting period.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration and Engineering Guidelines*

RC/V View(s):

8.9 (OSPS OFFICE PARAMETERS)
8.41 (OSPS FEATURE PARAMETERS)
27.56 [OSPS - TELEPHONE CREDIT CARD (TCR) ATTRIBUTES]

OP:TRFC30-OCAS-A

Software Release: 5E10 only
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30  OCAS
  TIME aa:aa:aa
  SECTION 110: OSPS CAS MEASURES
  QUERIES
     ATMPT   SENT    NSENT   HDW     OVRLD   NM      NO-ID   AMBLK
     b       c       d       e       f       g       h       i
     CAS TEST QUERIES SENT   j
  ABNORMAL REPLIES
     ABNOR   NRTDG   CONGEST BLKD    UNEQ
     k       l       m       n       o
  DATABASE REPLIES RECEIVED
     TOTAL   NPROC   UNEXP   INVFRMT VFRMT
     p       q       r       s       t
     ALCALL  INVDC   INVPN   DOMRS   INTRS
     u       v       w       x       y
  MISCELLANEOUS REPLIES
     TIMEOUT OVRLD   ABAND
     z       a1      b1
  INWARD VALIDATIONS
             OPASST  TTOPATT MFOPATT ABND_TO AUTO
    89C      c1      d1      e1      f1      g1
    CCC      h1      i1      j1      k1      l1
  SEQ CALL
              INIT    ABNDS
    89C      m1      n1
    CCC      o1      p1
  POT VAL NON-LEC CARDS
    89C      q1
    CCC      r1
MANUAL VALIDATIONS
           POSSEIZ OPER    ACPTBLG
  89C      s1      t1      u1
  CCC      v1      w1      x1
TABLE LOOK-UPS
           OPCHK   OPDNY   CUSTCHK CUSTDNY
  AT&T     y1      z1      a2      b2
  CCC/89C  c2      d2      e2      f2
  LEC      g2      h2      i2      j2
CARD LIMIT
           ITIMEX  NITIMEX
CCC/89C    k2      l2

           DWA
           v2
```

```
ENHANCED CUT THROUGH
           POSSEIZ CRDFAIL
           m2      n2
CALL DISPOSITION MESSAGES
           REQUSTS GRANTS  DENIES  PLINBAL  PLRTRS
           o2      p2      q2      r2       s2
           PDLINS    PDLRTRS
           t2        u2
CARD BASED SPEED DIALING
           OUTPLS  ANSW    QUERY   FNDENY
           w2      x2      y2      zus62s10d
SPEED DIALING AUTOPROVISIONING
           QFULL
           a3
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 110: Operator Services Position System (OSPS) customer account services (CAS) measures of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

NOTE: For the variables with '*', refer to the ACTION TO BE TAKEN section of this manual page.

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Number of CAS database query attempts in destination-routed common channel interoffice signaling 6 (DCIS6) format. Equal to SENT + NSENT.

c = Number of calling card queries* in DCIS6 format sent to the CAS database. This excludes test queries.

d = Number of calling card queries in DCIS6 format that were attempted but not sent. Equal to HDW + OVRLD+ NM + NO-ID + AMBLK.

e = Number of calling card queries* in DCIS6 format not sent to the CAS database because the common network interface (CNI) ring was not available. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

f = Number of calling card queries* in DCIS6 format not sent to the CAS database because the switch had enforced query cutbacks according to call gapping controls received from the CAS database. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

g = Number of calling card queries* in DCIS6 format not sent to the CAS database because of network management cutbacks. Network management cutbacks are implemented for calling card queries for a period of five seconds after a calling card query reply indicates network congestion or network blockage. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

h = Number of calling card queries* in DCIS6 format not sent to the CAS database because a query ID was not available or was out of range due to an internal software error, where the range is 1-128. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

i = Number of calling card queries in DCIS6 format not sent to the CAS database because of abnormal administrative module (AM) conditions or abnormal communication link conditions between the switching module (SM) and AM. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

j = Number of calling card test queries sent to the CCS network.

k = Number of abnormal calling card replies. Equal to NRTDG + CONGEST + BLKD + UNEQ.

l = Number of times an calling card query* in DCIS6 format failed to reach the CAS database because of no routing data in the network. A query reply from the common channel signaling (CCS) network indicated that a failure reason of "no routing data". This resulted in call completion denial.

m = Number of times an calling card query* in DCIS6 format failed to reach the CAS database because of network congestion. A query reply from the CCS network indicated a failure reason of "network congestion." The result was a cutback of subsequent calling card queries that had the same first three digits in the card account number as the account number that resulted in the network congestion reply. The cutbacks are in effect for a period of five seconds. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

n = Number of times an calling card query* in DCIS6 format failed to reach the CAS database because of network blockage. A query reply from the CCS network indicated a failure reason of "network blockage." The result was a cutback of subsequent calling card queries that had the same first three digits in the card account number as the account number that resulted in the network blockage reply. The cutbacks are in effect for a period of five seconds. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

o = Number of times an calling card query* in DCIS6 format failed to reach the CAS database because the function was not equipped in the network. A query reply from the CCS network indicated a failure reason of "unequipped destination." This occurred when a query was sent to a destination which could not process CAS queries. This resulted in call completion denial.

p = Number of calling card replies received. Equal to NPROC + UNEXP + INVFRMT + VFRMT.

q = Number of calling card query replies received in DCIS6 format from the CAS database indicating that the database was unable to process the query. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

r = Number of unexpected or duplicate calling card query replies* received from the CAS database.

s = Number of calling card query replies* received in DCIS6 format from the CAS database containing an invalid response in the message type field or the reply code field. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

t = Number of calling card query replies in DCIS6 format with a valid format. Equal to ALCALL + INVDC + INVPN + DOMRS + INTRS.

u = Number of CAS replies received from the CAS database in DCIS6 format indicating that the call was allowed.

v = Number of CAS replies received from the CAS database in DCIS6 format indicating that the call should be blocked because the calling card number entered was not valid.

w = Number of CAS replies received from the CAS database in DCIS6 format indicating that the call should be blocked because the personal identification number (PIN) entered was not valid.

x = Number of CAS replies received from the CAS database in DCIS6 format indicating that the call should be blocked based on a U.S. restriction.

y = Number of CAS replies received from the CAS database in DCIS6 format indicating that the call should be blocked because of an international restriction.

z = Number of times the OSPS switch timed out waiting for a reply to a calling card query in DCIS6 format from the CAS database. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

a[1] = Number of calling card replies* in DCIS6 format (received from the CAS database) containing an overload indicator that required the switch to cutback queries to the database. This resulted in CAS query cutbacks according to the call gapping parameters received in the reply. The call was given indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

b[1] = Number of calling card queries in DCIS6 format canceled by OSPS call processing.

c[1] = Number of times an operator entered an 89C (CAS and non-CAS) calling card number on an operator-assisted inward calling card validation call.

d[1] = Number of times an automated inward calling card validation request was received from an operator who was using touch-tone equipment to validate an 89C (CAS and non-CAS) calling card.

e[1] = Number of times an automated inward calling card validation request was received from an operator who was using multi-frequency equipment to validate an 89C (CAS and non-CAS) calling card.

f[1] = Number of automated inward calls that were abandoned or timed out during the entry of an 89C (CAS and non-CAS) calling card number.

g[1] = Number of automated inward calling card validation requests received from an operator who was validating an 89C calling card. Equal to (89C) TTOPATT + MFOPATT.

h[1] = Number of times an operator entered a commercial credit card (CCC) calling card number on an operator-assisted inward calling card validation call.

i[1] = Number of times an automated inward calling card validation request was received from an operator who was using touch-tone equipment to validate a CCC calling card.

j[1] = Number of times an automated inward calling card validation request was received from an operator who was using multi-frequency equipment to validate a CCC calling card.

k[1] = Number of automated inward calls using a CCC card that were abandoned or timed out.

l[1] = Number of automated inward calling card validation requests received from an operator who was validating a CCC calling card. Equal to (CCC) TTOPATT + MFOPATT.

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m^1 = Number of times the back party initiated a sequence call by depressing the # key at the end of an automated calling card service (ACCS) call, that was placed with an (CAS and non-CAS) calling card (that is, the forward party went on-hook); or when the call was placed with an 89C (CAS and non-CAS) calling card and the back party depressed the # key during the ringing of the forward party's phone.

n^1 = Number of times the back party went on-hook during the keying of a new forward number, during routing to the forward party, or during ringing of the forward party's phone on an ACCS sequence call placed with an 89C (CAS and non-CAS) calling card.

o^1 = Number of automated sequence calls initiated using a CCC card either by depressing "#" key after the forward party went on-hook, or during the ringing state of the forward party's phone.

p^1 = Number of times the back party went on-hook during the keying of a new forward number, during routing to the forward party, or during ringing of the forward party's phone on an automated sequence call placed with a CCC card.

q^1 = Number of times the switch determined that the back party had entered a potentially valid 89C (CAS and non-CAS) calling card number on an ACCS call before the calling card query was sent.

r^1 = Number of times the switch determined that the back party had entered a potentially valid CCC calling card number on an ACCS call before the calling card query was sent.

s^1 = Number of times the back party entered an 89C card number and the call was attached to an operator.

t^1 = Number of times an operator entered an 89C card number in either the back or forward number card field.

u^1 = Number of times an operator entered the accepting billing key while manually validating an 89C card number.

v^1 = Number of times the back party entered a CCC number and the call was attached to an operator.

w^1 = Number of times an operator entered a CCC card number in either the back or forward number card field.

x^1 = Number of times an operator entered the accepting billing key while manually validating a CCC card number.

y^1 = Number of times a contract table check was required on a call for which an operator entered an calling card number in either the back or forward card fields. The check is based on the numbering plan area (NPA)-NXX in the billed party's telephone number and verifies whether an (CAS) calling card may be used to place a local exchange carrier (LEC) carried call.

z^1 = Number of times a contract table check was required on a call for which an operator entered an (CAS) calling card number and the table indicated that the billed party may not use an calling card to place a LEC-carried call.

a^2 = Number of times a contract table check was required on a call for which the back party entered an (CAS) calling card number. The check is based on the NPA-NXX in the back party's telephone number and verifies whether an calling card may be used to place an LEC-carried call.

b^2 = Number of times a contract table check was required on a call for which the back party entered an calling card number and the table indicated that the back party may not use an calling card to place

a LEC-carried call.

c[2] = Number of times a contract table check was required on a call for which an operator entered a non-CAS 89C or CCC card number in either the back or forward card fields. The check is based on the NPA-NXX in the billed party's telephone number and verifies whether a non-CAS 89C or CCC card may be used to place a LEC-carried call.

d[2] = Number of times a contract table check was required on a call for which an operator entered a non-CAS 89C or CCC card number and the table indicated that the billed party may not use a non-CAS 89C or CCC card to place a LEC-carried call.

e[2] = Number of times a contract table check was required on a call for which the back party entered a non-CAS 89C or CCC card number. The check is based on the NPA-NXX in the billed party's telephone number and verifies whether a non-CAS 89C or CCC card may be used to place an LEC-carried call.

f[2] = Number of times a contract table check was required on a call for which the back party entered a non-CAS 89C or CCC card number and the table indicated that the billed party may not use a non-CAS 89C or CCC card to place a LEC-carried call.

g[2] = Number of times an inverse contract table check was required on a call for which an operator entered an LEC calling card number in either the back or the forward card fields. The check is based on the NPA-NXX or revenue accounting office (RAO)-0/1XX in the billed party's card number and verifies whether an LEC calling card may be used to place an AT&T-carried call.

h[2] = Number of times an inverse contract table check was required on a call for which an operator entered an LEC calling card number in either the back or the forward card fields and the table indicated that the billed party may not use a LEC calling card to place an AT&T-carried call.

i[2] = Number of times an inverse contract table check was required on a call for which the back party entered an LEC calling card number. The check is based on the NPA-NXX or RAO-0/1XX in the billed party's card number and verifies whether an LEC calling card may be used to place an AT&T-carried call.

j[2] = Number of times an inverse contract table check was required on a call for which the back party entered an LEC calling card number the table indicated that the back party may not use a LEC calling card place an AT&T-carried call.

k[2] = Number of billable CL calls which have exceeded the initial intermediate timer. This excludes all calls for which an intermediate timer is not used [such as, volume limit (VL) only/multiple calls in progress (MCIP)].

l[2] = Number of billable CAS card limit (CL) calls which have terminated before the first intermediate timer has expired. This excludes all calls for which an intermediate timer is not used (such as, VL only/MCIP).

m[2] = Number of ACCS calls for which the caller entered an invalid calling card number, and an operator was then requested, either by the customer (dial 0 or flash) or automatically by the OSPS. This includes non-LEC card numbers not found in the card recognition tables, and card numbers resulting in either a contract or inverse contract table failure.

n[2] = Number of card recognition failures that occur in which the card length is at least 11 digits and not exactly 14 digits. This includes all customer or operator entered calling card numbers.

o[2] = Number of request for more balance call disposition messages (RFMB-CDMs) sent* to the card

database for purchase limit (PL) and/or duration limit (DL) calls. This includes RFMB-CDMs sent before setting up the call as well as those sent after the call has been set up. (This measurement also appears in TRFC30-OCAS7, Section 135.)

p[2] = Number of balance "grants" received from the card database, where a grant is defined to be a successful reply to an RFMB-CDM such that for every balance requested in the RFMB-CDM (PL and/or DL) there is a non-zero balance allocation returned in the reply.

q[2] = Number of "denies" received from the card database, where a deny is defined to be the failure to receive a non-zero balance allocation for any one (or more) of the balances (PL and/or DL) requested in the corresponding RFMB-CDM.

r[2] = Number of call attempts billed to an enforced PL multiple calls in progress (MCIP) card whose initial PL balance, allocated by the card database and successfully translated into a call duration by the Real Time Rating System (RTRS), is insufficient for the initial period of the call.

s[2] = Number of call attempts billed to an enforced PL MCIP card which receive an initial PL balance and are successfully rated by RTRS.

t[2] = Number of call attempts billed to an enforced with disconnect PL and/or DL MCIP card whose initial balance(s), allocated by the card data base and, for PL, successfully translated into a call duration by RTRS, is insufficient to cover the first intermediate interval.

u[2] = Number of call attempts billed to an enforced with disconnect PL and/or DL MCIP card which receive an initial balance(s) and, if PL applies, are successfully translated into a call duration by RTRS.

v[2] = Number of card limit calls that receive the disconnect warning announcement.

w[2] = Number of card based speed dial calls successfully outpulsed by the OSPS.

x[2] = Number of card based speed dial calls answered.

y[2] = Number of card validation queries sent that include a SDC digit parameter in lieu of the called number digit parameter.

z[2] = Number of speed dialed calls that are denied due to forward number digit analysis failure at the OSPS.

a[3] = Number of calls received that cannot be sent to a speed dialing auto-provisioning (SDAP) automated position (AP) because all positions are busy and the queue is full.

4. ACTION TO BE TAKEN

The set of variables with '*' above represents the measurements collected in the direct link node (DLN), if a DLN is present. If the office is equipped with the DLN and the set of variables with '*' is zero, this suggests that the DLN failed to report these variables and these variables are invalid for the reporting period. These measurements will be scored on the administrative module (AM) if DLN is not present.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration and Engineering Guidelines*

RC/V View(s):

8.9 (OSPS OFFICE PARAMETERS)

OP:TRFC30-OCAS-B

Software Release: 5E11 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30  OCAS
  TIME aa:aa:aa
  SECTION 110: OSPS CAS MEASURES
  QUERIES
     ATMPT   SENT    NSENT   HDW     OVRLD   NM      NO-ID   AMBLK
     b       c       d       e       f       g       h       i
     CAS TEST QUERIES SENT   j
  ABNORMAL REPLIES
     ABNOR   NRTDG   CONGEST BLKD    UNEQ
     k       l       m       n       o
  DATABASE REPLIES RECEIVED
     TOTAL   NPROC   UNEXP   INVFRMT VFRMT
     p       q       r       s       t
     ALCALL  INVDC   INVPN   DOMRS   INTRS
     u       v       w       x       y
  MISCELLANEOUS REPLIES
     TIMEOUT OVRLD   ABAND
     z       a1      b1
  INWARD VALIDATIONS
             OPASST  TTOPATT MFOPATT ABND_TO AUTO
    89C      c1      d1      e1      f1      g1
    CCC      h1      i1      j1      k1      l1
  SEQ CALL
              INIT    ABNDS
    89C      m1      n1
    CCC      o1      p1
  POT VAL NON-LEC CARDS
    89C      q1
    CCC      r1
MANUAL VALIDATIONS
           POSSEIZ OPER    ACPTBLG
  89C      s1      t1      u1
  CCC      v1      w1      x1
TABLE LOOK-UPS
           OPCHK   OPDNY   CUSTCHK CUSTDNY
  AT&T     y1      z1      a2      b2
  CCC/89C  c2      d2      e2      f2
  LEC      g2      h2      i2      j2
CARD LIMIT
           ITIMEX  NITIMEX
CCC/89C    k2      l2

           DWA
           v2
```

```
ENHANCED CUT THROUGH
           POSSEIZ CRDFAIL
           m2      n2
CALL DISPOSITION MESSAGES
           REQUSTS GRANTS  DENIES  PLINBAL  PLRTRS
           o2      p2      q2      r2       s2
           PDLINS    PDLRTRS
           t2        u2
CARD BASED SPEED DIALING
           OUTPLS  ANSW    QUERY   FNDENY
           w2      x2      y2      zus62s10d
SPEED DIALING AUTOPROVISIONING
           QFULL
           a3
SPECIAL 10 DIGIT CALLING CARD HANDLING
           SENT    DENY    INDET
           b3      c3      d3
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 110: Operator Services Position System (OSPS) customer account services (CAS) measures of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

NOTE: For the variables with '*', refer to the ACTION TO BE TAKEN section of this manual page.

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Number of CAS database query attempts in destination-routed common channel interoffice signaling 6 (DCIS6) format. Equal to SENT + NSENT.

c = Number of calling card queries* in DCIS6 format sent to the CAS database. This excludes test queries.

d = Number of calling card queries in DCIS6 format that were attempted but not sent. Equal to HDW + OVRLD+ NM + NO-ID + AMBLK.

e = Number of calling card queries* in DCIS6 format not sent to the CAS database because the common network interface (CNI) ring was not available. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

f = Number of calling card queries* in DCIS6 format not sent to the CAS database because the switch had enforced query cutbacks according to call gapping controls received from the CAS database. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

g = Number of calling card queries* in DCIS6 format not sent to the CAS database because of network management cutbacks. Network management cutbacks are implemented for calling card queries for a period of five seconds after a calling card query reply indicates network congestion or

network blockage. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

h = Number of calling card queries* in DCIS6 format not sent to the CAS database because a query ID was not available or was out of range due to an internal software error, where the range is 1-128. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

i = Number of calling card queries in DCIS6 format not sent to the CAS database because of abnormal administrative module (AM) conditions or abnormal communication link conditions between the switching module (SM) and AM. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

j = Number of calling card test queries sent to the CCS network.

k = Number of abnormal calling card replies. Equal to NRTDG + CONGEST + BLKD + UNEQ.

l = Number of times an calling card query* in DCIS6 format failed to reach the CAS database because of no routing data in the network. A query reply from the common channel signaling (CCS) network indicated that a failure reason of "no routing data". This resulted in call completion denial.

m = Number of times an calling card query* in DCIS6 format failed to reach the CAS database because of network congestion. A query reply from the CCS network indicated a failure reason of "network congestion." The result was a cutback of subsequent calling card queries that had the same first three digits in the card account number as the account number that resulted in the network congestion reply. The cutbacks are in effect for a period of five seconds. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

n = Number of times an calling card query* in DCIS6 format failed to reach the CAS database because of network blockage. A query reply from the CCS network indicated a failure reason of "network blockage." The result was a cutback of subsequent calling card queries that had the same first three digits in the card account number as the account number that resulted in the network blockage reply. The cutbacks are in effect for a period of five seconds. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

o = Number of times an calling card query* in DCIS6 format failed to reach the CAS database because the function was not equipped in the network. A query reply from the CCS network indicated a failure reason of "unequipped destination." This occurred when a query was sent to a destination which could not process CAS queries. This resulted in call completion denial.

p = Number of calling card replies received. Equal to NPROC + UNEXP + INVFRMT + VFRMT.

q = Number of calling card query replies received in DCIS6 format from the CAS database indicating that the database was unable to process the query. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

r = Number of unexpected or duplicate calling card query replies* received from the CAS database.

s = Number of calling card query replies* received in DCIS6 format from the CAS database containing an invalid response in the message type field or the reply code field. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

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t = Number of calling card query replies in DCIS6 format with a valid format. Equal to ALCALL + INVDC + INVPN + DOMRS + INTRS.

u = Number of CAS replies received from the CAS database in DCIS6 format indicating that the call was allowed.

v = Number of CAS replies received from the CAS database in DCIS6 format indicating that the call should be blocked because the calling card number entered was not valid.

w = Number of CAS replies received from the CAS database in DCIS6 format indicating that the call should be blocked because the personal identification number (PIN) entered was not valid.

x = Number of CAS replies received from the CAS database in DCIS6 format indicating that the call should be blocked based on a U.S. restriction.

y = Number of CAS replies received from the CAS database in DCIS6 format indicating that the call should be blocked because of an international restriction.

z = Number of times the OSPS switch timed out waiting for a reply to a calling card query in DCIS6 format from the CAS database. This resulted in calls' receiving indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

a^1 = Number of calling card replies* in DCIS6 format (received from the CAS database) containing an overload indicator that required the switch to cutback queries to the database. This resulted in CAS query cutbacks according to the call gapping parameters received in the reply. The call was given indeterminate query treatment. The type of indeterminate query treatment is specified in RC/V View 8.9.

b^1 = Number of calling card queries in DCIS6 format canceled by OSPS call processing.

c^1 = Number of times an operator entered an 89C (CAS and non-CAS) calling card number on an operator-assisted inward calling card validation call.

d^1 = Number of times an automated inward calling card validation request was received from an operator who was using touch-tone equipment to validate an 89C (CAS and non-CAS) calling card.

e^1 = Number of times an automated inward calling card validation request was received from an operator who was using multi-frequency equipment to validate an 89C (CAS and non-CAS) calling card.

f^1 = Number of automated inward calls that were abandoned or timed out during the entry of an 89C (CAS and non-CAS) calling card number.

g^1 = Number of automated inward calling card validation requests received from an operator who was validating an 89C calling card. Equal to (89C) TTOPATT + MFOPATT.

h^1 = Number of times an operator entered a commercial credit card (CCC) calling card number on an operator-assisted inward calling card validation call.

i^1 = Number of times an automated inward calling card validation request was received from an operator who was using touch-tone equipment to validate a CCC calling card.

j^1 = Number of times an automated inward calling card validation request was received from an operator who was using multi-frequency equipment to validate a CCC calling card.

k^1 = Number of automated inward calls using a CCC card that were abandoned or timed out.

l^1 = Number of automated inward calling card validation requests received from an operator who was validating a CCC calling card. Equal to (CCC) TTOPATT + MFOPATT.

m^1 = Number of times the back party initiated a sequence call by depressing the # key at the end of an automated calling card service (ACCS) call, that was placed with an (CAS and non-CAS) calling card (that is, the forward party went on-hook); or when the call was placed with an 89C (CAS and non-CAS) calling card and the back party depressed the # key during the ringing of the forward party's phone.

n^1 = Number of times the back party went on-hook during the keying of a new forward number, during routing to the forward party, or during ringing of the forward party's phone on an ACCS sequence call placed with an 89C (CAS and non-CAS) calling card.

o^1 = Number of automated sequence calls initiated using a CCC card either by depressing "#" key after the forward party went on-hook, or during the ringing state of the forward party's phone.

p^1 = Number of times the back party went on-hook during the keying of a new forward number, during routing to the forward party, or during ringing of the forward party's phone on an automated sequence call placed with a CCC card.

q^1 = Number of times the switch determined that the back party had entered a potentially valid 89C (CAS and non-CAS) calling card number on an ACCS call before the calling card query was sent.

r^1 = Number of times the switch determined that the back party had entered a potentially valid CCC calling card number on an ACCS call before the calling card query was sent.

s^1 = Number of times the back party entered an 89C card number and the call was attached to an operator.

t^1 = Number of times an operator entered an 89C card number in either the back or forward number card field.

u^1 = Number of times an operator entered the accepting billing key while manually validating an 89C card number.

v^1 = Number of times the back party entered a CCC number and the call was attached to an operator.

w^1 = Number of times an operator entered a CCC card number in either the back or forward number card field.

x^1 = Number of times an operator entered the accepting billing key while manually validating a CCC card number.

y^1 = Number of times a contract table check was required on a call for which an operator entered an calling card number in either the back or forward card fields. The check is based on the numbering plan area (NPA)-NXX in the billed party's telephone number and verifies whether an (CAS) calling card may be used to place a local exchange carrier (LEC) carried call.

z^1 = Number of times a contract table check was required on a call for which an operator entered an (CAS) calling card number and the table indicated that the billed party may not use an calling card to place a LEC-carried call.

a^2 = Number of times a contract table check was required on a call for which the back party entered an (CAS) calling card number. The check is based on the NPA-NXX in the back party's telephone number and verifies whether an calling card may be used to place an LEC-carried call.

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b^2 = Number of times a contract table check was required on a call for which the back party entered an calling card number and the table indicated that the back party may not use an calling card to place a LEC-carried call.

c^2 = Number of times a contract table check was required on a call for which an operator entered a non-CAS 89C or CCC card number in either the back or forward card fields. The check is based on the NPA-NXX in the billed party's telephone number and verifies whether a non-CAS 89C or CCC card may be used to place a LEC-carried call.

d^2 = Number of times a contract table check was required on a call for which an operator entered a non-CAS 89C or CCC card number and the table indicated that the billed party may not use a non-CAS 89C or CCC card to place a LEC-carried call.

e^2 = Number of times a contract table check was required on a call for which the back party entered a non-CAS 89C or CCC card number. The check is based on the NPA-NXX in the billed party's telephone number and verifies whether a non-CAS 89C or CCC card may be used to place an LEC-carried call.

f^2 = Number of times a contract table check was required on a call for which the back party entered a non-CAS 89C or CCC card number and the table indicated that the billed party may not use a non-CAS 89C or CCC card to place a LEC-carried call.

g^2 = Number of times an inverse contract table check was required on a call for which an operator entered an LEC calling card number in either the back or the forward card fields. The check is based on the NPA-NXX or revenue accounting office (RAO)-0/1XX in the billed party's card number and verifies whether an LEC calling card may be used to place an AT&T-carried call.

h^2 = Number of times an inverse contract table check was required on a call for which an operator entered an LEC calling card number in either the back or the forward card fields and the table indicated that the billed party may not use a LEC calling card to place an AT&T-carried call.

i^2 = Number of times an inverse contract table check was required on a call for which the back party entered an LEC calling card number. The check is based on the NPA-NXX or RAO-0/1XX in the billed party's card number and verifies whether an LEC calling card may be used to place an AT&T-carried call.

j^2 = Number of times an inverse contract table check was required on a call for which the back party entered an LEC calling card number the table indicated that the back party may not use a LEC calling card place an AT&T-carried call.

k^2 = Number of billable CL calls which have exceeded the initial intermediate timer. This excludes all calls for which an intermediate timer is not used [such as, volume limit (VL) only/multiple calls in progress (MCIP)].

l^2 = Number of billable CAS card limit (CL) calls which have terminated before the first intermediate timer has expired. This excludes all calls for which an intermediate timer is not used (such as, VL only/MCIP).

m^2 = Number of ACCS calls for which the caller entered an invalid calling card number, and an operator was then requested, either by the customer (dial 0 or flash) or automatically by the OSPS. This includes non-LEC card numbers not found in the card recognition tables, and card numbers resulting in either a contract or inverse contract table failure.

n^2 = Number of card recognition failures that occur in which the card length is at least 11 digits and not

exactly 14 digits. This includes all customer or operator entered calling card numbers.

o^2 = Number of request for more balance call disposition messages (RFMB-CDMs) sent* to the card database for purchase limit (PL) and/or duration limit (DL) calls. This includes RFMB-CDMs sent before setting up the call as well as those sent after the call has been set up. (This measurement also appears in TRFC30-OCAS7, Section 135.)

p^2 = Number of balance "grants" received from the card database, where a grant is defined to be a successful reply to an RFMB-CDM such that for every balance requested in the RFMB-CDM (PL and/or DL) there is a non-zero balance allocation returned in the reply.

q^2 = Number of "denies" received from the card database, where a deny is defined to be the failure to receive a non-zero balance allocation for any one (or more) of the balances (PL and/or DL) requested in the corresponding RFMB-CDM.

r^2 = Number of call attempts billed to an enforced PL multiple calls in progress (MCIP) card whose initial PL balance, allocated by the card database and successfully translated into a call duration by the Real Time Rating System (RTRS), is insufficient for the initial period of the call.

s^2 = Number of call attempts billed to an enforced PL MCIP card which receive an initial PL balance and are successfully rated by RTRS.

t^2 = Number of call attempts billed to an enforced with disconnect PL and/or DL MCIP card whose initial balance(s), allocated by the card data base and, for PL, successfully translated into a call duration by RTRS, is insufficient to cover the first intermediate interval.

u^2 = Number of call attempts billed to an enforced with disconnect PL and/or DL MCIP card which receive an initial balance(s) and, if PL applies, are successfully translated into a call duration by RTRS.

v^2 = Number of card limit calls that receive the disconnect warning announcement.

w^2 = Number of card based speed dial calls successfully outpulsed by the OSPS.

x^2 = Number of card based speed dial calls answered.

y^2 = Number of card validation queries sent that include a SDC digit parameter in lieu of the called number digit parameter.

z^2 = Number of speed dialed calls that are denied due to forward number digit analysis failure at the OSPS.

a^3 = Number of calls received that cannot be sent to a speed dialing auto-provisioning (SDAP) automated position (AP) because all positions are busy and the queue is full.

b^3 = Number of 10 digit true choice calling card (10D-TCCC) queries sent to the CAS data base.

c^3 = Number of Deny Call - undetermined card issuer replies received.

d^3 = Number of indeterminate replies received in response to 10D-TCCC queries.

4. ACTION TO BE TAKEN

The set of variables with '*' above represents the measurements collected in the direct link node (DLN), if a DLN is present. If the office is equipped with the DLN and the set of variables with '*' is zero, this suggests that the DLN

failed to report these variables and these variables are invalid for the reporting period. These measurements will be scored on the administrative module (AM) if DLN is not present.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration and Engineering Guidelines*

RC/V View(s):

8.9 (OSPS OFFICE PARAMETERS)
8.22 (SECURED FEATURE UPGRADE)

OP:TRFC30-OCAS7-A

Software Release: 5E10 - 5E12
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 OCAS7
  TIME aa:aa:aa
  SECTION 135: OSPS CAS CCS7/ICCV SIGNALING MEASURES
  QUERIES
            ATMPT   SENT    NSENT   IPRB    NO-ID   NMBLK   DBCBK
      CAS7  b       c       d       e       f       g       h
      ICCV  i       j       k       l       m       n
            TEST QUERIES SENT
      CAS7  o
      ICCV  p
  ABNORMAL REPLIES
            TOTAL   RTEFA   ADDFA   SYSCONG SYSFA
      CAS7  q       r       s       t       u
      ICCV  v       w       x       y       z
            UNEQ    NWCONG  NWFA    UNQUAL
      CAS7  a1      b1       c1      d1
      ICCV  e1      f1       g1      h1
  ERROR REPLIES
            TOTAL   UXDT    NOPARM  UXPARM  MSQRY
      CAS7  i1      j1       k1      l1      m1
      ICCV  n1      o1       p1      q1      r1
            TSKREF  VCODE   GATEWAY DBUNAV  MSGFMT
      CAS7  s1      t1       u1
      ICCV                          v1      w1
  VALID REPLIES
            ALW     NOT-FND FRAUD   INVPN   CDNR    INVSD
      89C   x1      y1       z1      a2       b2      s3
      CCC   c2      d2       e2      f2       j3
      ICCV  g2      h2       i2      j2       l3
            CGNR    CDTRS   INVCC   NELGCC  CLDENY  NOSD
      89C   k2      l2               r3       g3      t3
      CCC   h3      i3       m2      n2       k3
      ICCV  o2      p2
            TOTAL
      CAS7  q2
      ICCV  r2
  MISCELLANEOUS REPLIES
            REJ     ABORT   TIMEOUT INITABN UNEXP   INVFRMT ACG
      CAS7  s2      t2       u2      v2       w2      x2      y2
      ICCV  z2      a3       b3      c3       d3      e3
  CALL DISPOSITION MESSAGES
            UPDONLY REQUEST REPLIES
      CAS7  f3      o3       p3
```

```
      ICCV  q3
 VIRTUAL CARD
            QUERIES REPLIES
                    ALW     DENY
            u3      v3       w3
 SPEED DIALING AUTOPROVISIONING
            FNCQRY  FNCALW  FNCDNY  SDLUPD  UPDALW   UPDDNY
            u2       v2      w2      x2       y2       z2
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 135: Operator Services Position System (OSPS) customer account services (CAS) Common Channel Signaling System 7 (CCS7)/international credit card validation (ICCV) signaling measures of the 30-minute traffic report. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

Note: For the variables with '*', refer to the **ACTION TO BE TAKEN** section in this manual page.

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Number of CAS transaction capabilities application part (TCAP) database query attempts. Equal to (CAS7): SENT + NSENT.

c = Number of queries* sent from the OSPS to a card database where the query conforms to CAS TCAP signaling protocol. This excludes test queries.

d = Number of CAS TCAP queries not sent. Equal to (CAS7): IPRB + NO-ID + NMBLK + DBCBK.

e = Number of CAS TCAP queries* not sent because of OSPS internal problems (the administrative module (AM) or direct link node (DLN) is in an abnormal state, the common network interface (CNI) is not operational, or data could not be read successfully). The call received indeterminate treatment.

f = Number of CAS TCAP queries* not sent because a query ID was not available, or was out of range due to an internal software error, where the range is 0-255. The call received indeterminate treatment.

g = Number of CAS TCAP queries* not sent because a cutback was in effect to accommodate a network management control measure - due to CCS7 network problems. The network management cutbacks are implemented for a period of 5 seconds after CAS CCS7 replies are received indicating network congestion, subsystem congestion, network failure, or subsystem failure. The call received indeterminate treatment.

h = Number of CAS TCAP queries* not sent because the switch has enforced query cutbacks according to call gapping controls received from the CAS database. The call received indeterminate treatment.

i = Number of ICCV International Telecommunication Union - Telecommunication Standardization Sector (ITU-TS) (formerly CCITT) TCAP database query attempts. Equal to (ICCV): SENT + NSENT.

j = Number of queries* sent from the OSPS to a card database where the query conforms to ICCV

ITU-TS TCAP signaling protocol. This excludes test queries.

k = Number of ICCV ITU-TS TCAP queries not sent. Equal to (ICCV): IPRB + NO-ID + NMBLK.

l = Number of ICCV ITU-TS TCAP queries* not sent because of OSPS internal problems (the AM or DLN is in an abnormal state, the CNI is not operational, data could not be read successfully). The call received indeterminate treatment.

m = Number of ICCV ITU-TS TCAP queries* not sent because a query ID was not available, or was out of range due to an internal software error, where the range is 0-255. The call received indeterminate treatment.

n = Number of ICCV ITU-TS TCAP queries* not sent because a cutback was in effect to accommodate a network management control measure - due to CCS7 network problems. The network management cutbacks are implemented for a period of 5 seconds after CAS CCS7 replies are received indicating network congestion, subsystem congestion, network failure, or subsystem failure. The call received indeterminate treatment.

o = Number of CAS TCAP test queries that are sent by maintenance personnel (this does NOT include any replies to the test queries).

p = Number of ICCV ITU-TS TCAP test queries that are sent by maintenance personnel (this does NOT include any replies to the test queries).

q = Number of abnormal CAS TCAP replies received. Equal to (CAS7): RTEFA + ADDFA + SYSCONG + SYSFA + UNEQ + NWCONG + NWFA + UNQAL.

r = Number of CAS TCAP unit data service messages* received with a diagnostic reason of "No translation data for an address of such nature". The call received indeterminate treatment.

s = Number of CAS TCAP unit data service messages* received with a diagnostic reason of "No translation data for this specific address". The call received denial treatment.

t = Number of CAS TCAP unit data service messages* received with a diagnostic reason of "Subsystem congestion". All subsequent CAS CCS7 queries with the same routing destinations were cut back for a period of 5 seconds. This call and subsequent calls that were cut back received indeterminate treatment.

u = Number of CAS TCAP unit data service messages* received with a diagnostic reason of "Subsystem failure". All subsequent CAS CCS7 queries with the same routing destinations were cut back for a period of 5 seconds. This call and subsequent calls that were cut back received indeterminate treatment.

v = Number of abnormal ICCV TCAP replies received. Equal to (ICCV): RTEFA + ADDFA + SYSCONG + SYSFA + UNEQ + NWCONG + NWFA + UNQAL.

w = Number of ICCV ITU-TS TCAP unit data service messages* received with a diagnostic reason of "No translation data for an address of such nature". The call received indeterminate treatment.

x = Number of ICCV ITU-TS TCAP unit data service messages* received with a diagnostic reason of "No translation data for this specific address". The call received denial treatment.

y = Number of ICCV ITU-TS TCAP unit data service messages* received with a diagnostic reason of "Subsystem congestion". All subsequent ICCV queries with the same routing destinations were cut back for a period of 5 seconds. This call and subsequent calls that were cut back received

indeterminate treatment.

z = Number of ICCV ITU-TS TCAP unit data service messages* received with a diagnostic reason of "Subsystem failure". All subsequent ICCV queries with the same routing destinations were cut back for a period of 5 seconds. This call and subsequent calls that were cut back received indeterminate treatment.

a^1 = Number of CAS TCAP unit data service messages* received with the diagnostic reason of "Unequipped user". The call received denial treatment.

b^1 = Number of CAS TCAP unit data service messages* received with the diagnostic reason of "Network congestion". All subsequent CAS CCS7 queries with the same routing destinations were cut back for a period of 5 seconds. This call and subsequent calls that were cut back received indeterminate treatment.

c^1 = Number of CAS TCAP unit data service messages* received with the diagnostic reason of "Network failure". All subsequent CAS CCS7 queries with the same routing destinations were cut back for a period of 5 seconds. This call and subsequent calls that were cut back received indeterminate treatment.

d^1 = Number of CAS TCAP unit data service messages* received with the diagnostic reason of "Unqualified". The call received indeterminate treatment.

e^1 = Number of ICCV ITU-TS TCAP unit data service messages* received with the diagnostic reason of "Unequipped user". The call received denial treatment.

f^1 = Number of ICCV ITU-TS TCAP unit data service messages* received with the diagnostic reason of "Network congestion". All subsequent ICCV queries with the same routing destinations were cut back for a period of 5 seconds. This call and subsequent calls that were cut back received indeterminate treatment.

g^1 = Number of ICCV ITU-TS TCAP unit data service messages* received with the diagnostic reason of "Network failure". All subsequent ICCV queries with the same routing destinations were cut back for a period of 5 seconds. This call and subsequent calls that were cut back received indeterminate treatment.

h^1 = Number of ICCV ITU-TS TCAP unit data service messages* received with the diagnostic reason of "Unqualified". The call received indeterminate treatment.

i^1 = Total number of CAS TCAP return error replies received. Equal to (CAS7): UXDT + NOPARM + UXPARM + MSQRY + TSKREF + VCODE + GATEWAY.

j^1 = Number of CAS TCAP return error replies received with an error code of "Unexpected Input Data Value", signifying that the query contained unexpected data. The call received indeterminate treatment.

k^1 = Number of CAS TCAP return error replies received with an error code of "Missing Parameter", signifying that a mandatory parameter was missing from the query. The call received indeterminate treatment.

l^1 = Number of CAS TCAP return error replies received with an error code of "Unexpected Parameter", signifying that an unrecognized parameter was contained in the query. The call received indeterminate treatment.

m^1 = Number of CAS TCAP return error replies received with an error code of "Misrouted Query",

signifying that the database has determined that the card number contained in the query is not within the range expected. The call received indeterminate treatment.

n^1 = Total number of ICCV ITU-TS return error replies received. Equal to (ICCV): UXDT + NOPARM + UXPARM + MSQRY + DBUNAV + MSGFMT.

o^1 = Number of ICCV ITU-TS return error replies received with an error code of "Unexpected Input Data Value", signifying that the query contained unexpected data. The call received indeterminate treatment.

p^1 = Number of ICCV ITU-TS return error replies received with an error code of "Missing Parameter", signifying that a mandatory parameter was missing from the query. The call received indeterminate treatment.

q^1 = Number of ICCV ITU-TS return error replies received with an error code of "Unexpected Parameter", signifying that an unrecognized parameter was contained in the query. The call received indeterminate treatment.

r^1 = Number of ICCV ITU-TS return error replies received with an error code of "Misrouted Query", signifying that the database has determined that the card number contained in the query is not within the range expected. The call received indeterminate treatment.

s^1 = Number of CAS TCAP return error replies received with an error code of "Task Refused", signifying that the node could not handle the request at this time. The call received indeterminate treatment.

t^1 = Number of CAS TCAP return error replies received with an error code of "Vacant Code", signifying that the database has determined that the card number contained in the query has not been assigned. The call is denied.

u^1 = Number of CAS TCAP return error replies received with an error code of "Gateway Error", signifying that communication with a commercial credit card vendor was unsuccessful. The call received indeterminate treatment.

v^1 = Number of ICCV ITU-TS return error replies received with an error code of "Database Unavailable", signifying that the database could not handle the request at this time (not because the operation was incorrect). The call received indeterminate treatment.

w^1 = Number of ICCV ITU-TS return error replies received with an error code of "Error in Message Format", signifying that the structure of the query is not what was expected. The call received indeterminate treatment.

x^1 = Number of CAS TCAP database replies received with either an "allow call" or an "allow call - terminating code screening (TCS) override" response in reply to an 89C card validation query, signifying that the card number and personal identification number (PIN) contained in the query were valid. Call processing continued.

y^1 = Number of CAS TCAP database replies received with an error code of "missing customer record" in response to an 89C card validation query, signifying that the card number was not found in the database. The call was denied.

z^1 = Number of CAS TCAP database replies received with an error code of "deny - fraud restricted" in response to an 89C card validation query, signifying that it is suspected that the card is being used fraudulently. The call is denied.

a^2 = Number of CAS TCAP database replies received with an error code of "invalid PIN" in response to an 89C card validation query, signifying that the entered PIN is not allowed with the entered card number. The call is denied.

b^2 = Number of CAS TCAP database replies received with an error code of "called number restrictions" in response to an 89C card validation query, signifying that the card may not be used when placing a call to the forward number contained in the query. The call was denied. The call was denied.

c^2 = Number of CAS TCAP database replies received with either an "allow call" or an "allow call - TCS override" response in reply to a CCC card validation query, signifying that the card number and PIN contained in the query were valid. Call processing continued.

d^2 = Number of CAS TCAP database replies received with an error code of "missing customer record" in response to a CCC card validation query, signifying that the card number was not found in the database. The call was denied.

e^2 = Number of CAS TCAP database replies received with an error code of "deny - fraud restricted" in response to a CCC card card validation query, signifying that it is suspected that the card is being used fraudulently. The call is denied.

f^2 = Number of CAS TCAP database replies received with an error code of "invalid PIN" in response to a CCC card validation query, signifying that the entered PIN is not allowed with the entered card number. The call is denied.

g^2 = Number of ICCV ITU-TS database replies received with an "allow call" response, signifying that the card number and PIN contained in the query were valid. Call processing continues.

h^2 = Number of ICCV ITU-TS database replies received with an error code of "invalid card number", signifying that the card number was not found in the database, or "expired card", signifying that the card number has expired. The call was denied.

i^2 = Number of ICCV ITU-TS database replies received with an error code of "volume threshold exceeded", signifying that the number of calls has exceeded the limit within a specific time interval, or "fraud restricted", signifying that the card is restricted to prevent fraudulent use. The call was denied.

j^2 = Number of ICCV ITU-TS database replies received with an error code of "invalid PIN", signifying that the entered PIN is not allowed with the entered card number. The call was denied.

k^2 = Number of CAS TCAP database replies received with an error code of "calling number restrictions" in response to an 89C card validation query, signifying that the card may not be used when placing a call to the calling number contained in the query. The call was denied.

l^2 = Number of CAS TCAP database replies received with an error code of "deny - credit restricted" in response to an 89C card validation query, signifying that the card holder is delinquent in payment. The call is denied.

m^2 = Number of CAS TCAP database replies received with an error code of "invalid commercial credit card" in response to a CCC card validation query, signifying that the card vendor has indicated that the card is invalid. The call was denied.

n^2 = Number of CAS TCAP database replies received with an error code of "ineligible commercial credit card" in response to a CCC card validation query, signifying that even though the card number is valid, it may not be used for this service. The call is denied.

o^2 = Number of ICCV ITU-TS database replies received with an error code of "calling number restrictions", signifying that the card may not be used outside of the issuing administration's network, or "call not permitted from station", signifying that there is not an agreement between the card issuing administration and the card originating administration. The call was denied.

p^2 = Number of ICCV ITU-TS database replies received with an error code of "credit threshold exceeded", signifying that the credit limit of the card has been exceeded, or "due to non-payment", signifying that the card holder is delinquent in payment. The call was denied.

q^2 = Total valid CAS TCAP replies received, regardless of the calling card used. Equal to (89C): ALW + NOT-FND + FRAUD + INVPN + CDNR + INVSD + CGNR + CDTRS + NELGCC + CLDENY + (CCC): ALW + NOT-FND + FRAUD + INVPN + CDNR + CGNR + CDTRS + INVCC + NELGCC + CLDENY + NOSD.

r^2 = Total valid ICCV ITU-TS TCAP replies received. Equal to (ICCV): ALW + NOT-FND + FRAUD + INVPN + CDNR + CGNR + CLDENY.

s^2 = Number of CAS TCAP TCAP "Reject" components* received in response to a card validation query. The call received indeterminate treatment.

t^2 = Number of CAS SS7 U-Abort or P-Abort messages* received. The call received indeterminate treatment.

u^2 = Number of times the query timer expired before receipt of a CAS TCAP database reply. The call received indeterminate treatment.

v^2 = Number of CAS TCAP queries initiated, then abandoned. The condition occurs if the call is canceled or the class of charge is changed after a query has been sent but before a reply was received. When the reply was received, it was ignored.

w^2 = Number of CAS TCAP replies* received which were not expected. The replies were ignored. They could be late or duplicate responses.

x^2 = Number of CAS TCAP database replies* received in invalid format. It includes data field values, as well as invalid TCAP format. The reply was dropped and the call received indeterminate treatment.

y^2 = Number of CAS SS7 replies* received with an automatic call gapping (ACG) component. All CAS SS7 queries to the same destination were gapped according to the received information. The call received appropriate treatment according to the response. Subsequent calls that were cut back due to these gapping controls received indeterminate treatment.

z^2 = Number of ICCV ITU-TS TCAP "Reject" components* received in response to a card validation query. The call received indeterminate treatment.

a^3 = Number of ICCV ITU-TS SS7 U-abort or P-abort messages* received. The call received indeterminate treatment.

b^3 = Number of times the query timer expired before receipt of an ICCV ITU-TS database reply. The call received indeterminate treatment.

c^3 = Number of ICCV ITU-TS queries initiated, then abandoned. The condition occurs if the call is canceled or the class of charge is changed after a query has been sent but before a reply was received. When the reply was received, it was ignored.

d[3] = Number of ICCV ITU-TS replies received* which were not expected. The replies were ignored. They could be late or duplicate responses.

e[3] = Number of ICCV ITU-TS database replies received* in invalid format. It includes data field values, as well as invalid TCAP format. The reply was dropped and the call received indeterminate treatment.

f[3] = Number of CAS TCAP update-only call disposition messages (UO-CDMs)* that have been sent to the card database.

g[3] = Number of CAS TCAP database replies received with an error code of "card limit call in progress", "CL insufficient balance", or "card unavailable" in response to an 89C card validation query. The call is denied.

h[3] = Number of CAS TCAP database replies received with an error code of "calling number restrictions" in response to a CCC card validation query, signifying that the card may not be used when placing a call from the calling number contained in the query. The call was denied.

i[3] = Number of CAS TCAP database replies received with an error code of "deny - credit restrictions" in response to a CCC card validation query, signifying that the card holder is delinquent in payment. The call was denied.

j[3] = Number of CAS TCAP database replies received with an error code of "called number restrictions" in response to a CCC card validation query, signifying that the card may not be used when placing a call to the forward number contained in the query. The call was denied.

k[3] = Number of CAS TCAP database replies received with an error code of "CL call in progress", "CL insufficient balance", or "card unavailable" in response to a CCC card validation query. The call is denied.

l[3] = Number of ICCV ITU-TS database replies received with an error code of "called number restrictions" signifying that the card may not be used when placing a call to the forward number contained in the query. The call was denied.

o[3] = Number of CAS TCAP request for more balance call disposition messages (RFMB-CDMs)* that have been sent to the card database for purchase limit (PL) and/or duration limit (DL) calls, including RFMB-CDMs sent before setting up the call as well as those sent after the call has been set up. (This measurement also appears in TRFC30-OCAS, Section 110.)

p[3] = Number of replies to CAS TCAP RFMB-CDMs* received from the card database, regardless of whether the reply is a "grant" or a "deny".

q[3] = Number of ICCV UO-CDMs* that have been sent to the card database.

r[3] = Number of CAS TCAP database replies received with an error code of "ineligible card" in response to an 89C card validation query, signifying that even though the card number is valid, it may not be used for this service. The call is denied.

s[3] = Number of CAS TCAP database replies received with an error code of "invalid speed code" in response to an 89C card validation query, signifying that the speed code sent in the query could not be mapped to a forward number.

t[3] = Number of CAS TCAP database replies received with an error code of "speed calling feature not allowed" in response to an 89C card validation query, signifying that the card number can not be used in speed dialing. The call is denied.

u[3] = Total number of virtual card format (VCF) validation queries made.

v[3] = Total number of VCF validation replies received with an "allow call" response from a VCF validation query.

w[3] = Total number of VCF validation replies received with a response of "missing customer record", "invalid PIN", or "vacant code" from a VCF validation query.

x[3] = Total number of Forward Number Check (FNC) messages sent by the OSPS.

y[3] = Total number of Allow replies received to the FNC Query, with a reply code of "Allow Call - Valid Speed Call Number".

z[3] = Total number of Deny replies received to the FNC Query, with a reply code of "Deny Call - Invalid Speed Call Number".

a[4] = Total number of Speed Dialing List (SDL) Update requests sent by the OSPS.

b[4] = Total number of Allow replies received in response to the SDL Update.

c[4] = Total number of Deny replies received in response to the SDL Update.

4. ACTIONS TO BE TAKEN

The set of variables with '*' above represents the measurements collected in the direct link node (DLN). If the office is equipped with the DLN and the set of variables with '*' is zero, this suggests that the DLN failed to report these variables and these variables are invalid for the reporting period.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-OCAS7-B

Software Release: 5E13 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 OCAS7
  TIME aa:aa:aa
  SECTION 135: OSPS CAS CCS7/ICCV SIGNALING MEASURES
  QUERIES
             ATMPT   SENT    NSENT   IPRB    NO-ID   NMBLK   DBCBK
       CAS7  b       c       d       e       f       g       h
       ICCV  i       j       k       l       m       n
             TEST QUERIES SENT
       CAS7  o
       ICCV  p
  ABNORMAL REPLIES
             TOTAL   RTEFA   ADDFA   SYSCONG SYSFA
       CAS7  q       r       s       t       u
       ICCV  v       w       x       y       z
             UNEQ    NWCONG  NWFA    UNQUAL
       CAS7  a1      b1       c1      d1
       ICCV  e1      f1       g1      h1
  ERROR REPLIES
             TOTAL   UXDT    NOPARM  UXPARM  MSQRY
       CAS7  i1      j1       k1      l1      m1
       ICCV  n1      o1       p1      q1      r1
             TSKREF  VCODE   GATEWAY DBUNAV  MSGFMT
       CAS7  s1      t1       u1
       ICCV                          v1      w1
  VALID REPLIES
             ALW     NOT-FND FRAUD   INVPN   CDNR    INVSD
       89C   x1      y1       z1      a2       b2      s3
       CCC   c2      d2       e2      f2       j3
       ICCV  g2      h2       i2      j2       l3
             CGNR    CDTRS   INVCC   NELGCC  CLDENY  NOSD    OTHER
       89C   k2      l2              r3      g3      t3
       CCC   h3      i3      m2      n2      k3               d4
       ICCV  o2      p2
             TOTAL
       CAS7  q2
       ICCV  r2
  MISCELLANEOUS REPLIES
             REJ     ABORT   TIMEOUT INITABN UNEXP   INVFRMT ACG
       CAS7  s2      t2       u2      v2       w2      x2      y2
       ICCV  z2      a3       b3      c3       d3      e3
  CALL DISPOSITION MESSAGES
             UPDONLY REQUEST REPLIES
       CAS7  f3      o3       p3
```

```
      ICCV  q3
 VIRTUAL CARD
            QUERIES REPLIES
                    ALW     DENY
            u3      v3       w3
 SPEED DIALING AUTOPROVISIONING
            FNCQRY  FNCALW  FNCDNY  SDLUPD  UPDALW   UPDDNY
            u2       v2      w2      x2       y2       z2
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 135: Operator Services Position System (OSPS) customer account services (CAS) Common Channel Signaling System 7 (CCS7)/international credit card validation (ICCV) signaling measures of the 30-minute traffic report. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

Note: For the variables with '*', refer to the **ACTION TO BE TAKEN** section in this manual page.

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Number of CAS transaction capabilities application part (TCAP) database query attempts. Equal to (CAS7): SENT + NSENT.

c = Number of queries* sent from the OSPS to a card database where the query conforms to CAS TCAP signaling protocol. This excludes test queries.

d = Number of CAS TCAP queries not sent. Equal to (CAS7): IPRB + NO-ID + NMBLK + DBCBK.

e = Number of CAS TCAP queries* not sent because of OSPS internal problems (the administrative module (AM) or direct link node (DLN) is in an abnormal state, the common network interface (CNI) is not operational, or data could not be read successfully). The call received indeterminate treatment.

f = Number of CAS TCAP queries* not sent because a query ID was not available, or was out of range due to an internal software error, where the range is 0-255. The call received indeterminate treatment.

g = Number of CAS TCAP queries* not sent because a cutback was in effect to accommodate a network management control measure - due to CCS7 network problems. The network management cutbacks are implemented for a period of 5 seconds after CAS CCS7 replies are received indicating network congestion, subsystem congestion, network failure, or subsystem failure. The call received indeterminate treatment.

h = Number of CAS TCAP queries* not sent because the switch has enforced query cutbacks according to call gapping controls received from the CAS database. The call received indeterminate treatment.

i = Number of ICCV International Telecommunication Union - Telecommunication Standardization Sector (ITU-TS) (formerly CCITT) TCAP database query attempts. Equal to (ICCV): SENT + NSENT.

j = Number of queries* sent from the OSPS to a card database where the query conforms to ICCV

ITU-TS TCAP signaling protocol. This excludes test queries.

k = Number of ICCV ITU-TS TCAP queries not sent. Equal to (ICCV): IPRB + NO-ID + NMBLK.

l = Number of ICCV ITU-TS TCAP queries* not sent because of OSPS internal problems (the AM or DLN is in an abnormal state, the CNI is not operational, data could not be read successfully). The call received indeterminate treatment.

m = Number of ICCV ITU-TS TCAP queries* not sent because a query ID was not available, or was out of range due to an internal software error, where the range is 0-255. The call received indeterminate treatment.

n = Number of ICCV ITU-TS TCAP queries* not sent because a cutback was in effect to accommodate a network management control measure - due to CCS7 network problems. The network management cutbacks are implemented for a period of 5 seconds after CAS CCS7 replies are received indicating network congestion, subsystem congestion, network failure, or subsystem failure. The call received indeterminate treatment.

o = Number of CAS TCAP test queries that are sent by maintenance personnel (this does NOT include any replies to the test queries).

p = Number of ICCV ITU-TS TCAP test queries that are sent by maintenance personnel (this does NOT include any replies to the test queries).

q = Number of abnormal CAS TCAP replies received. Equal to (CAS7): RTEFA + ADDFA + SYSCONG + SYSFA + UNEQ + NWCONG + NWFA + UNQAL.

r = Number of CAS TCAP unit data service messages* received with a diagnostic reason of "No translation data for an address of such nature". The call received indeterminate treatment.

s = Number of CAS TCAP unit data service messages* received with a diagnostic reason of "No translation data for this specific address". The call received denial treatment.

t = Number of CAS TCAP unit data service messages* received with a diagnostic reason of "Subsystem congestion". All subsequent CAS CCS7 queries with the same routing destinations were cut back for a period of 5 seconds. This call and subsequent calls that were cut back received indeterminate treatment.

u = Number of CAS TCAP unit data service messages* received with a diagnostic reason of "Subsystem failure". All subsequent CAS CCS7 queries with the same routing destinations were cut back for a period of 5 seconds. This call and subsequent calls that were cut back received indeterminate treatment.

v = Number of abnormal ICCV TCAP replies received. Equal to (ICCV): RTEFA + ADDFA + SYSCONG + SYSFA + UNEQ + NWCONG + NWFA + UNQAL.

w = Number of ICCV ITU-TS TCAP unit data service messages* received with a diagnostic reason of "No translation data for an address of such nature". The call received indeterminate treatment.

x = Number of ICCV ITU-TS TCAP unit data service messages* received with a diagnostic reason of "No translation data for this specific address". The call received denial treatment.

y = Number of ICCV ITU-TS TCAP unit data service messages* received with a diagnostic reason of "Subsystem congestion". All subsequent ICCV queries with the same routing destinations were cut back for a period of 5 seconds. This call and subsequent calls that were cut back received

indeterminate treatment.

z = Number of ICCV ITU-TS TCAP unit data service messages* received with a diagnostic reason of "Subsystem failure". All subsequent ICCV queries with the same routing destinations were cut back for a period of 5 seconds. This call and subsequent calls that were cut back received indeterminate treatment.

a^1 = Number of CAS TCAP unit data service messages* received with the diagnostic reason of "Unequipped user". The call received denial treatment.

b^1 = Number of CAS TCAP unit data service messages* received with the diagnostic reason of "Network congestion". All subsequent CAS CCS7 queries with the same routing destinations were cut back for a period of 5 seconds. This call and subsequent calls that were cut back received indeterminate treatment.

c^1 = Number of CAS TCAP unit data service messages* received with the diagnostic reason of "Network failure". All subsequent CAS CCS7 queries with the same routing destinations were cut back for a period of 5 seconds. This call and subsequent calls that were cut back received indeterminate treatment.

d^1 = Number of CAS TCAP unit data service messages* received with the diagnostic reason of "Unqualified". The call received indeterminate treatment.

e^1 = Number of ICCV ITU-TS TCAP unit data service messages* received with the diagnostic reason of "Unequipped user". The call received denial treatment.

f^1 = Number of ICCV ITU-TS TCAP unit data service messages* received with the diagnostic reason of "Network congestion". All subsequent ICCV queries with the same routing destinations were cut back for a period of 5 seconds. This call and subsequent calls that were cut back received indeterminate treatment.

g^1 = Number of ICCV ITU-TS TCAP unit data service messages* received with the diagnostic reason of "Network failure". All subsequent ICCV queries with the same routing destinations were cut back for a period of 5 seconds. This call and subsequent calls that were cut back received indeterminate treatment.

h^1 = Number of ICCV ITU-TS TCAP unit data service messages* received with the diagnostic reason of "Unqualified". The call received indeterminate treatment.

i^1 = Total number of CAS TCAP return error replies received. Equal to (CAS7): UXDT + NOPARM + UXPARM + MSQRY + TSKREF + VCODE + GATEWAY.

j^1 = Number of CAS TCAP return error replies received with an error code of "Unexpected Input Data Value", signifying that the query contained unexpected data. The call received indeterminate treatment.

k^1 = Number of CAS TCAP return error replies received with an error code of "Missing Parameter", signifying that a mandatory parameter was missing from the query. The call received indeterminate treatment.

l^1 = Number of CAS TCAP return error replies received with an error code of "Unexpected Parameter", signifying that an unrecognized parameter was contained in the query. The call received indeterminate treatment.

m^1 = Number of CAS TCAP return error replies received with an error code of "Misrouted Query",

signifying that the database has determined that the card number contained in the query is not within the range expected. The call received indeterminate treatment.

n^1 = Total number of ICCV ITU-TS return error replies received. Equal to (ICCV): UXDT + NOPARM + UXPARM + MSQRY + DBUNAV + MSGFMT.

o^1 = Number of ICCV ITU-TS return error replies received with an error code of "Unexpected Input Data Value", signifying that the query contained unexpected data. The call received indeterminate treatment.

p^1 = Number of ICCV ITU-TS return error replies received with an error code of "Missing Parameter", signifying that a mandatory parameter was missing from the query. The call received indeterminate treatment.

q^1 = Number of ICCV ITU-TS return error replies received with an error code of "Unexpected Parameter", signifying that an unrecognized parameter was contained in the query. The call received indeterminate treatment.

r^1 = Number of ICCV ITU-TS return error replies received with an error code of "Misrouted Query", signifying that the database has determined that the card number contained in the query is not within the range expected. The call received indeterminate treatment.

s^1 = Number of CAS TCAP return error replies received with an error code of "Task Refused", signifying that the node could not handle the request at this time. The call received indeterminate treatment.

t^1 = Number of CAS TCAP return error replies received with an error code of "Vacant Code", signifying that the database has determined that the card number contained in the query has not been assigned. The call is denied.

u^1 = Number of CAS TCAP return error replies received with an error code of "Gateway Error", signifying that communication with a commercial credit card vendor was unsuccessful. The call received indeterminate treatment.

v^1 = Number of ICCV ITU-TS return error replies received with an error code of "Database Unavailable", signifying that the database could not handle the request at this time (not because the operation was incorrect). The call received indeterminate treatment.

w^1 = Number of ICCV ITU-TS return error replies received with an error code of "Error in Message Format", signifying that the structure of the query is not what was expected. The call received indeterminate treatment.

x^1 = Number of CAS TCAP database replies received with either an "allow call" or an "allow call - terminating code screening (TCS) override" response in reply to an 89C card validation query, signifying that the card number and personal identification number (PIN) contained in the query were valid. Call processing continued.

y^1 = Number of CAS TCAP database replies received with an error code of "missing customer record" in response to an 89C card validation query, signifying that the card number was not found in the database. The call was denied.

z^1 = Number of CAS TCAP database replies received with an error code of "deny - fraud restricted" in response to an 89C card validation query, signifying that it is suspected that the card is being used fraudulently. The call is denied.

a^2 = Number of CAS TCAP database replies received with an error code of "invalid PIN" in response to an 89C card validation query, signifying that the entered PIN is not allowed with the entered card number. The call is denied.

b^2 = Number of CAS TCAP database replies received with an error code of "called number restrictions" in response to an 89C card validation query, signifying that the card may not be used when placing a call to the forward number contained in the query. The call was denied. The call was denied.

c^2 = Number of CAS TCAP database replies received with either an "allow call" or an "allow call - TCS override" response in reply to a CCC card validation query, signifying that the card number and PIN contained in the query were valid. Call processing continued.

d^2 = Number of CAS TCAP database replies received with an error code of "missing customer record" in response to a CCC card validation query, signifying that the card number was not found in the database. The call was denied.

e^2 = Number of CAS TCAP database replies received with an error code of "deny - fraud restricted" in response to a CCC card card validation query, signifying that it is suspected that the card is being used fraudulently. The call is denied.

f^2 = Number of CAS TCAP database replies received with an error code of "invalid PIN" in response to a CCC card validation query, signifying that the entered PIN is not allowed with the entered card number. The call is denied.

g^2 = Number of ICCV ITU-TS database replies received with an "allow call" response, signifying that the card number and PIN contained in the query were valid. Call processing continues.

h^2 = Number of ICCV ITU-TS database replies received with an error code of "invalid card number", signifying that the card number was not found in the database, or "expired card", signifying that the card number has expired. The call was denied.

i^2 = Number of ICCV ITU-TS database replies received with an error code of "volume threshold exceeded", signifying that the number of calls has exceeded the limit within a specific time interval, or "fraud restricted", signifying that the card is restricted to prevent fraudulent use. The call was denied.

j^2 = Number of ICCV ITU-TS database replies received with an error code of "invalid PIN", signifying that the entered PIN is not allowed with the entered card number. The call was denied.

k^2 = Number of CAS TCAP database replies received with an error code of "calling number restrictions" in response to an 89C card validation query, signifying that the card may not be used when placing a call to the calling number contained in the query. The call was denied.

l^2 = Number of CAS TCAP database replies received with an error code of "deny - credit restricted" in response to an 89C card validation query, signifying that the card holder is delinquent in payment. The call is denied.

m^2 = Number of CAS TCAP database replies received with an error code of "invalid commercial credit card" in response to a CCC card validation query, signifying that the card vendor has indicated that the card is invalid. The call was denied.

n^2 = Number of CAS TCAP database replies received with an error code of "ineligible commercial credit card" in response to a CCC card validation query, signifying that even though the card number is valid, it may not be used for this service. The call is denied.

o^2 = Number of ICCV ITU-TS database replies received with an error code of "calling number restrictions", signifying that the card may not be used outside of the issuing administration's network, or "call not permitted from station", signifying that there is not an agreement between the card issuing administration and the card originating administration. The call was denied.

p^2 = Number of ICCV ITU-TS database replies received with an error code of "credit threshold exceeded", signifying that the credit limit of the card has been exceeded, or "due to non-payment", signifying that the card holder is delinquent in payment. The call was denied.

q^2 = Total valid CAS TCAP replies received, regardless of the calling card used. Equal to (89C): ALW + NOT-FND + FRAUD + INVPN + CDNR + INVSD + CGNR + CDTRS + NELGCC + CLDENY + NOSD + (CCC): ALW + NOT-FND + FRAUD + INVPN + CDNR + CGNR + CDTRS + INVCC + NELGCC + CLDENY + OTHER.

r^2 = Total valid ICCV ITU-TS TCAP replies received. Equal to (ICCV): ALW + NOT-FND + FRAUD + INVPN + CDNR + CGNR + CLDENY.

s^2 = Number of CAS TCAP TCAP "Reject" components* received in response to a card validation query. The call received indeterminate treatment.

t^2 = Number of CAS SS7 U-Abort or P-Abort messages* received. The call received indeterminate treatment.

u^2 = Number of times the query timer expired before receipt of a CAS TCAP database reply. The call received indeterminate treatment.

v^2 = Number of CAS TCAP queries initiated, then abandoned. The condition occurs if the call is canceled or the class of charge is changed after a query has been sent but before a reply was received. When the reply was received, it was ignored.

w^2 = Number of CAS TCAP replies* received which were not expected. The replies were ignored. They could be late or duplicate responses.

x^2 = Number of CAS TCAP database replies* received in invalid format. It includes data field values, as well as invalid TCAP format. The reply was dropped and the call received indeterminate treatment.

y^2 = Number of CAS SS7 replies* received with an automatic call gapping (ACG) component. All CAS SS7 queries to the same destination were gapped according to the received information. The call received appropriate treatment according to the response. Subsequent calls that were cut back due to these gapping controls received indeterminate treatment.

z^2 = Number of ICCV ITU-TS TCAP "Reject" components* received in response to a card validation query. The call received indeterminate treatment.

a^3 = Number of ICCV ITU-TS SS7 U-abort or P-abort messages* received. The call received indeterminate treatment.

b^3 = Number of times the query timer expired before receipt of an ICCV ITU-TS database reply. The call received indeterminate treatment.

c^3 = Number of ICCV ITU-TS queries initiated, then abandoned. The condition occurs if the call is canceled or the class of charge is changed after a query has been sent but before a reply was received. When the reply was received, it was ignored.

d[3] = Number of ICCV ITU-TS replies received* which were not expected. The replies were ignored. They could be late or duplicate responses.

e[3] = Number of ICCV ITU-TS database replies received* in invalid format. It includes data field values, as well as invalid TCAP format. The reply was dropped and the call received indeterminate treatment.

f[3] = Number of CAS TCAP update-only call disposition messages (UO-CDMs)* that have been sent to the card database.

g[3] = Number of CAS TCAP database replies received with an error code of "card limit call in progress", "CL insufficient balance", or "card unavailable" in response to an 89C card validation query. The call is denied.

h[3] = Number of CAS TCAP database replies received with an error code of "calling number restrictions" in response to a CCC card validation query, signifying that the card may not be used when placing a call from the calling number contained in the query. The call was denied.

i[3] = Number of CAS TCAP database replies received with an error code of "deny - credit restrictions" in response to a CCC card validation query, signifying that the card holder is delinquent in payment. The call was denied.

j[3] = Number of CAS TCAP database replies received with an error code of "called number restrictions" in response to a CCC card validation query, signifying that the card may not be used when placing a call to the forward number contained in the query. The call was denied.

k[3] = Number of CAS TCAP database replies received with an error code of "CL call in progress", "CL insufficient balance", or "card unavailable" in response to a CCC card validation query. The call is denied.

l[3] = Number of ICCV ITU-TS database replies received with an error code of "called number restrictions" signifying that the card may not be used when placing a call to the forward number contained in the query. The call was denied.

o[3] = Number of CAS TCAP request for more balance call disposition messages (RFMB-CDMs)* that have been sent to the card database for purchase limit (PL) and/or duration limit (DL) calls, including RFMB-CDMs sent before setting up the call as well as those sent after the call has been set up. (This measurement also appears in TRFC30-OCAS, Section 110.)

p[3] = Number of replies to CAS TCAP RFMB-CDMs* received from the card database, regardless of whether the reply is a "grant" or a "deny".

q[3] = Number of ICCV UO-CDMs* that have been sent to the card database.

r[3] = Number of CAS TCAP database replies received with an error code of "ineligible card" in response to an 89C card validation query, signifying that even though the card number is valid, it may not be used for this service. The call is denied.

s[3] = Number of CAS TCAP database replies received with an error code of "invalid speed code" in response to an 89C card validation query, signifying that the speed code sent in the query could not be mapped to a forward number.

t[3] = Number of CAS TCAP database replies received with an error code of "speed calling feature not allowed" in response to an 89C card validation query, signifying that the card number can not be used in speed dialing. The call is denied.

u[3] = Total number of virtual card format (VCF) validation queries made.

v[3] = Total number of VCF validation replies received with an "allow call" response from a VCF validation query.

w[3] = Total number of VCF validation replies received with a response of "missing customer record", "invalid PIN", or "vacant code" from a VCF validation query.

x[3] = Total number of Forward Number Check (FNC) messages sent by the OSPS.

y[3] = Total number of Allow replies received to the FNC Query, with a reply code of "Allow Call - Valid Speed Call Number".

z[3] = Total number of Deny replies received to the FNC Query, with a reply code of "Deny Call - Invalid Speed Call Number".

a[4] = Total number of Speed Dialing List (SDL) Update requests sent by the OSPS.

b[4] = Total number of Allow replies received in response to the SDL Update.

c[4] = Total number of Deny replies received in response to the SDL Update.

d[4] = Other valid CAS7 query replies not specifically listed. This is equal to the sum of "DIOR PERSONAL TOLL-FREE NUMBER-POS" in section 123 (TRFC30-OMISC) + "DIOR PERSONAL TOLL-FREE NUMBER-NEG" in section 123 (TRFC30-OMISC).

4. ACTIONS TO BE TAKEN

The set of variables with '*' above represents the measurements collected in the direct link node (DLN). If the office is equipped with the DLN and the set of variables with '*' is zero, this suggests that the DLN failed to report these variables and these variables are invalid for the reporting period.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-OCOIN

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 OCOIN
  TIME aa:aa:aa
  SECTION 100: OSPS COIN MEASUREMENTS
  INITIAL SEIZURE ATTEMPTS
             SUCC    ABNDDQ  ABNDOQ  IRQF    OPATT
    POSTPAY  b       c       d       e       f
    NON-ACTS g       h       i       j       k
  PERFORMANCE
     INITIAL SEIZURE
             TOTAL   SNTPD   STAPD
             l       m       n
     PREPAY INITIAL SEIZURE
             SUCC    FAIL    NOCKT   ABNDBD  ABNDDD
             o       p       q       r       s
             FLSHDD  TODD    LGCHG   OPOVR   DPSAT
             t       u       v       w       x
     NOTIFY SEIZURE
             SNTPD   NPROV
             y       z
     OVERTIME
             SUCC    ICRF    CHGDU   FLASH   TMOUT
             a1      b1      c1      d1      e1
             DISCON  LGCHG   SATIS   OPOVR   NPERF
             f1      g1      h1      i1      j1
     END OF CALL
             SUCC    ECRF    AUTO    LGCHG   AWALK
             k1      l1      m1      n1      o1
             CWALK   OPOVR   NCDCIR  FLASH   TMOUT
             p1      q1      r1      s1      t1
             DEP
             u1
     OVERALL
             AUTO    MANUL    INIT    INTRM  EOC
             v1      w1      x1      y1      z1
     PRE-PAID OVERTIME COIN SERVICE
             ANSW    FAIL2X   PPOTWLK
             a2      b2      c2
```

2. REASON FOR OUTPUT

To respond to a request for an immediate or scheduled output of section 100: Operator Services Position System (OSPS) coin measurements of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

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3. VARIABLE FIELD DEFINITIONS

a = Time when report was prepared, in the form hours:minutes:seconds.

b = Number of successful initial contact rating queries on 0+, 0-, or 1+ postpay coin calls.

c = Number of times the back party went on-hook before being queued for an operator on a 1+ postpay automated coin toll service (ACTS) or non-ACTS coin call.

d = Number of times the back party went on-hook while queued on a 1+ postpay ACTS or non-ACTS coin call.

e = Number of initial contact rating query failures on 0+, 0-, or 1+ postpay coin calls. Associated calls are given treatment according to INI RAT FL in RC/V View 8.9.

f = Number of times an operator was attached to a 1+ postpay ACTS or non-ACTS coin call.

g = Number of successful initial coin rating queries on 0+, 0-, or 1+ prepay non-ACTS coin calls.

h = Number of times the back party went on-hook before being queued for an operator on a 1+ prepay non-ACTS coin call.

i = Number of times the back party went on-hook while queued on a 1+ prepay non-ACTS coin call.

j = Number of initial coin rating query failures on 0+, 0-, or 1+ prepay non-ACTS calls. Associated calls are given treatment according to INI RAT FL in RC/V View 8.9.

k = Number of times an operator was attached to a 1+ prepay non-ACTS coin call.

l = Number of operator-handled and automated 1+ sent paid coin calls. Equal to PREPAY PERPD + PREPAY STAPD + POSTPAY PERPD + POSTPAY STAPD + PERFORMANCE INIT in Section 101: TRFC30 OVOEQ.

m = Number of initial 0+, 0-, or 1+ postpay coin calls with a class of charge of sent paid floated by an operator.

n = Number of initial 0+, 0-, or 1+ postpay or prepay coin calls received on a non-ACTS trunk that were floated by an operator with a sent paid class of charge.

o = Number of successful initial coin rating queries on 0+, 0-, or 1+ prepay ACTS coin calls.

p = Number of initial rating query failures on 0+, 0-, or 1+ prepay ACTS coin calls. Associated calls are given treatment according to INI RAT FL in RC/V View 8.9.

q = Number of times any of the following events occurred on a 1+ prepay ACTS coin call during the initial contact:

- Originating call treatment had timed out (10 seconds) waiting for an announcement process to be created.
- The announcement process failed to activate an announcement circuit.
- Routing to an announcement circuit failed.
- The announcement process informed originating call treatment of an announcement circuit hardware failure.

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r = Number of calls on which the back party went on-hook before the initial deposit announcement on a 1+ prepay ACTS coin call after the call had entered a state where it was waiting for connection to an announcement circuit. Once a call is attached to the announcement circuit, this measurement will not be scored.

s = Number of calls on which the back party went on-hook during the initial deposit announcement or while the coin deposits were being detected on a 1+ prepay ACTS coin call.

t = Number of calls on which the back party flashed during the initial deposit announcement or while the coin deposits were being detected on a 1+ prepay ACTS coin call.

u = Number of calls on which an interim coin deposit timeout occurred during the initial coin deposits on a 1+ prepay ACTS coin call.

v = Number of 1+ prepay ACTS coin calls that were successfully attached to an announcement service circuit during initial contact but were subsequently routed to an operator because of large charge, that is, amount due was greater than 5 times LRG CHG THR in RC/V View 8.9.

w = Number of 0+, 0-, or 1+ prepay ACTS initial seizures and 0+, 0-, or 1+ postpay initial seizures at an operator position where the operator performed an override and then floated the call.

x = Number of times an operator floated a 0+, 0-, or 1+ postpay or prepay, ACTS or non-ACTS initial coin call with a class of charge of sent paid.

y = Number of coin sent paid calls that reached the end of the initial period and a notification announcement was required. This measurement is not scored when a notification announcement is not required.

z = Number of times any of the following events occurred at the end of the initial period of a coin-sent-paid call and a notification announcement was required:

- A 3-port conference circuit could not be obtained (call proceeded into grace period).
- Call processing could not define a path to the announcement circuit (call was routed to an operator).
- Call processing failed to route to an announcement circuit (call was routed to an operator).
- Call processing was waiting for an announcement circuit to be connected and a software failure or timeout (10 seconds) indication was received (call was idled).

a^1 = Number of successful interim coin rating queries on coin sent paid calls.

b^1 = Number of long-duration interim coin rating failures at the end of overtime periods on coin sent paid calls (call was consequently routed to an operator) plus the number of times that the real-time rating service (RTRS) does not respond to an interim coin rating query.

c^1 = Number of times an overtime seizure occurred for which automation was attempted. This measurement is scored whether or not an announcement circuit was successfully attached.

d^1 = Number of automated coin calls on which the back party flashed after the call had been successfully attached to an announcement circuit. The call was consequently routed to an operator.

e^1 = Number of coin calls on which an intercoin timeout occurred. The call was consequently routed to an operator.

f^1 = Number of coin calls on which the back party went on-hook without satisfying the deposit during

an automated overtime seizure after an announcement circuit had been attached. This measurement is not to be scored when the event occurs with no charge due.

g^1 = Number of times an operator was attached to an automated coin call during an overtime seizure with a large charge, that is, amount due was greater than 5 times LRG CHG THR in RC/V View 8.9, after a conference circuit was successfully obtained.

h^1 = Number of times an operator floated or performed a record ticket on an overtime seizure.

i^1 = Number of times an operator overrode the charge due on an overtime seizure. The measurement is scored when the operator floats or performs a record ticket on the overtime seizure.

j^1 = Number of times any of the following events occurred after successful rating queries on overtime charge-due seizures:

- A 6-port conference circuit could not be obtained (call was consequently routed to an operator if a 3-port conference circuit could be obtained; if not, call proceeds to next overtime period). For pre-paid overtime for coin calls (PPOCC), the call is idled.
- Call processing could not define a path to the announcement circuit (call was consequently idled).
- Call processing failed to route to an announcement circuit (call was consequently routed to an operator).
- Call processing was waiting for an announcement circuit to be connected and software failure or timeout (10 seconds) indication was received (call was consequently routed to an operator).

k^1 = Number of successful end-of-call rating queries for automated coin calls. The call was ended when either the back party flashed or went on-hook during an overtime period or the forward party went on-hook. This measurement is also scored when an operator enters the PAID key to initiate an end-of-call rating query and the query is successful. The operator typically does this on an automated end-of-call seizure that is routed to an operator when an end-of-call rating query fails.

l^1 = Number of end-of-call rating query failures, including replies that indicated long duration, on automated coin calls. The call was ended when either the back party flashed or went on-hook during an overtime period or the forward party went on-hook. This measurement is also scored when an operator enters the PAID key to initiate an end-of-call rating query and the query fails. The calls were routed to an operator if EOC RAT FL = OPR in RC/V View 8.9.

m^1 = Number of attempted automated end-of-call seizures regardless of whether an announcement circuit could be attached, a walkaway occurred, or the call was routed to an operator for large charge collection. Large charge means amount due is greater than 5 times LRG CHG THR in RC/V View 8.9.

n^1 = Number of times an operator was successfully attached to an automated coin call during an end-of-call seizure with a large charge, that is, amount due was greater than 5 times LRG CHG THR in RC/V View 8.9, and a conference circuit was successfully requested. The excludes times a conference circuit is not requested, that is, there is no announcement circuit or forward party on the call.

o^1 = Number of coin calls on which the back party answered an end-of-call ringback and then hung up during the announcement. Also includes the number of coin calls on which the back party did not answer an automated ringback within 30 seconds.

p^1 = Number of times an operator floated or performed a record ticket on an overtime charge-due

seizure or end-of-call seizure on which a walkaway had occurred.

q^1 = Number of times an operator floated or performed a record ticket on an end-of-coin-call seizure after performing an override during the end-of-call seizure.

r^1 = Number of times an operator was successfully requested after a successful rating query at the end of an automated coin call and any of the following events occurred:

- An announcement circuit could not be attached to the call because of AM routing throttling.
- Routing to an announcement circuit failed.

Also includes the number of times any of the following events occurred which resulted in the coin call being routed to an operator:

- The call timed out (10 seconds) on an automated overtime charge-due seizure waiting for confirmation that an announcement circuit had been attached or a routing failure occurred when attempting to attach the announcement circuit and the back party had gone on-hook.
- The call timed out (10 seconds) on an automated end-of-call seizure waiting for confirmation that an announcement circuit had been attached or a routing failure occurred when attempting to attach the announcement circuit.
- An end-of-call seizure was routed to an operator.
- An announcement circuit failure or announcement failure occurred after an announcement circuit was successfully attached on an overtime seizure where the back party had subsequently gone on-hook or on an end-of-call seizure.

s^1 = Number of automated coin calls on which the back party flashed after the call had been successfully attached to an announcement circuit during an end-of-call seizure. The calls were consequently routed to an operator.

t^1 = Number of automated coin calls on which an intercoin timeout occurred during an end-of-call seizure. The calls were consequently routed to an operator.

u^1 = Number of times an operator floated or performed a record ticket for an end-of-coin-call seizure for which the deposit was satisfied or an override was performed for the end-of-call charges. Also includes no-charge end-of-call seizures released by an operator.

v^1 = Number of times any of the following events occurred:

- The grace period ended on an automated coin call which coincided with the beginning of the first overtime period.
- When a call failed to be routed to an operator because the deposits were not satisfied on an automated overtime charge-due seizure and switch data indicated that the first overtime period had not been entered.
- After a successful rating query for the first overtime period and after a failure to obtain a 6-port conference circuit and a subsequent failure to obtain a 3-port conference circuit on an automated coin call and switch data indicated that the first overtime period had not been entered.

w^1 = Number of non-ACTS coin calls on which any of the following events occurred:

- The grace period ended just before entering the first overtime period.
- The call failed to be routed to an operator at the end of an overtime period and switch data indicated that the first overtime period had not been entered.
- After a successful rating query for the first overtime period and after a failure to

obtain a 3-port conference circuit and switch data indicated that the first overtime period had not been entered.

x[1] = Number of initial coin rating queries successfully sent to RTRS.

y[1] = Number of interim coin rating queries successfully sent to RTRS

z[1] = Number of end-of-call coin rating queries successfully sent to RTRS.

a[2] = Total number of PPOCC that received answer. For interflowed calls, this is pegged on the sending side.

b[2] = Total number of times there were two successive rating failures on a PPOCC call. For interflowed calls, this is pegged on the sending side.

c[2] = Total number of walkaways after a switch to post-paid overtime coin service after two successive rating failures. For interflowed calls, this is pegged on the sending side.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report:

```
OP:TRFC30-VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

RC/V View(s):

8.9 (OSPS OFFICE PARAMETERS)

OP:TRFC30-OCTD

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 OCTD
  TIME aa:aa:aa
  SECTION 103: OSPS CAMA TONE DECODER MEASURES
          SM      ACCESS    OVFL       USG     MTUSG
           b        c         d         e        f
           .        .         .         .        .
           .        .         .         .        .
           .        .         .         .        .
```

2. REASON FOR OUTPUT

To respond to a request for an immediate or scheduled output of section 103: OSPS CAMA TONE DECODER MEASURES. This message is in response to the input message. Data for up to five switching modules (SMs) can be reported in a single message.

The TRFM message class applies to 5E9(1) and later.
The XTRFM message class applies to 5E9(1) and later.

3. VARIABLE FIELD DEFINITIONS

a = Time report was generated, in the form hours:minutes:seconds.

b = SM number.

c = Number of times the digital service unit 2/local digital service unit function (DSU2/LDSUF) centralized automatic message accounting (CAMA) tone decoder was accessed.

d = Number of times a request to a DSU2/LDSUF CAMA tone decoder failed because there where no idle decoders.

e = Number of DSU2/LDSUF CAMA tone decoder circuits found in an active, non-idle state or a state other than active (including out-of-service and any other maintenance state for a CAMA tone decoder) every 10 seconds.

f = Number of DSU2/LDSUF CAMA tone decoder circuits found in a state other than active every 100 seconds.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

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The validity for the administrative module (AM) applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-ODACC

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 ODACCIN
  TIME aa:aa:aa
  SECTION 134: OSPS DA CALL COMPLETION AND INTERCEPT MEASURES
  DA CALL COMPLETION
                 OPKY     DTMF     EIS      DACC
                 b        c        d        e
                 AUTO     ACTS     ACCS     HOTEL    NOPER
                 f        g        h        i        j
                 COLL     3RDNO    SNTPD    PPD      CCRD
     NCOIN       k        l        m        n        o
     COIN        p        q        r        s        t
  INTERCEPT
                 ANI      ONI      VACANT   TRBL     NODB     TOTAL
                 u        v        w        x        y        z
                 AUTO     NOCHG   OPKY     EIS      INTCC
                 a1       b1       c1       d1       e1
```

2. REASON FOR OUTPUT

To respond to a request for an immediate or scheduled output of section 134: Operator Services Position System (OSPS) directory assistance (DA) call completion and intercept measures of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Number of DA calls attempted to a retrieved number as a result of a request by operator keying. The operator indicated to the external information system (EIS) that call completion is desired.

c = Number of DA calls attempted to a retrieved number as a result from a request by caller dual tone multi-frequency (DTMF) keying in response to automated announcement prompting.

d = Number of DA calls attempted to a retrieved number without operator intervention.

e = Total number of DA calls attempted to a retrieved number regardless of how call completion was requested. This derived count is equal to OPKY (DA CALL) + DTMF + EIS (DA CALL).

f = Number of directory assistance (DA) calls outpulsed to a retrieved number with an autocollect class of charge. This includes calls where the EIS returned an indication that the call may be completed and charged to the retrieved directory number. This also includes those calls where autocollect has been requested by the operator.

g = Number of DA calls outpulsed to a retrieved number with an automated coin toll service (ACTS) class of charge.

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h = Number of DA calls outpulsed to a retrieved number with an automated calling card service (ACCS) class of charge.

i = Number of DA calls outpulsed to a retrieved number with an operator-handled, hotel guest, paid class of charge.

j = Number of DA calls outpulsed to a retrieved number with a non-coin, non-operator, paid class of charge.

k = Number of DA calls outpulsed to a retrieved number with an operator-handled collect class of charge from non-coin or hotel stations.

l = Number of DA calls outpulsed to a retrieved number with an operator-handled third number class of charge from non-coin or hotel stations.

m = Number of DA calls outpulsed to a retrieved number with an operator-handled sent paid or direct distance dialed (DDD) class of charge from non-coin stations.

n = Number of DA calls outpulsed to a retrieved number with an operator-handled "person paid" class of charge from non-coin stations.

o = Number of DA calls outpulsed to a retrieved number with an operator-handled "calling card" class of charge from non-coin or hotel stations.

p = Number of DA calls outpulsed to a retrieved number with an operator-handled "collect" class of charge from coin stations.

q = Number of DA calls outpulsed to a retrieved number with an operator-handled "third number billing" class of charge from coin stations.

r = Number of DA calls outpulsed to a retrieved number with an operator-handled "station paid" class of charge from coin stations.

s = Number of DA calls outpulsed to a retrieved number with an operator-handled "person paid" class of charge from coin stations.

t = Number of DA calls outpulsed to a retrieved number with an operator-handled "calling card" class of charge from coin stations.

u = Total number of automatic number identification (ANI) intercept calls. This count is equal to the total number of calls received with intercept classes 0, 1, 2, or 3.

v = Total number of operator number identification (ONI) intercept calls. This count is equal to the total number of calls received with intercept classes 5, 6, 7, or 8.

w = Total number of "vacant code intercept calls". This count is equal to the total number of calls received with intercept classes 0 or 7.

x = Total number of trouble intercept calls. This count is equal to the total number of calls received with intercept classes 1 or 8.

y = Number of intercept calls that could not find information in the EIS data base.

z = Total number of intercept calls. This is the total number of incoming OSPS calls labeled as intercept by ACD call type determination and includes: ANI intercept calls, ONI intercept calls, and improperly signaled intercept calls given service (based upon non-zero DEST IDX in RC/V view

8.9).

a[1] = Number of intercept calls outpulsed to a retrieved number with an autocollect class of charge.

b[1] = Number of intercept calls outpulsed to a retrieved number with a "no charge" class of charge.

c[1] = Number of intercept calls outpulsed to a retrieved number as a result from a request by operator keying. The operator indicated to the EIS that call completion was desired.

d[1] = Number of intercept calls outpulsed to a retrieved number without operator intervention.

e[1] = Total number of intercept call completion requests outpulsed to a retrieved number, regardless of how call completion was requested. This derived count is equal to OPKY (INTERCEPT) + EIS (INTERCEPT).

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report:

```
OP:TRFC30-VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
```

```
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

RC/V View(s):

8.9 (OSPS OFFICE PARAMETERS)

OP:TRFC30-ODBPS

Software Release: 5E12 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 ODBPSU
 TIME aa:aa:aa
 SECTION 221: ON-DEMAND B-CHANNEL - PSU SHELF

                PSU     TOTAL
  SM   PSU      SHELF   ATMPT   OVFL    TOTUSG  MTUSG   TOT_TS  ODB_TS
  b    c        d       e       f       g       h       i       j
  .    .        .       .       .       .       .       .       .
  .    .        .       .       .       .       .       .       .
  .    .        .       .       .       .       .       .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 221: on-demand b-channel (ODB) - packet switching unit (PSU) shelf of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = Packet switching unit (PSU) number.

d = PSU shelf number.

e = Attempts to seize a PSU shelf time slot. This peg count is the number of attempts to seize a PSU shelf time slot to set up an on-demand B-channel (ODB) connection.

f = Denied attempts to seize a PSU shelf time slot. This overflow count is the number of attempts to seize a PSU shelf time slot to set up an ODB connection that was denied because an idle time slot was not available.

g = Total usage of an ODB PSU shelf time slot. This is the total usage (100-second scan) of ODB PSU shelf time slots. This includes traffic usage for ODB calls plus the maintenance usage of the time slots.

h = Maintenance usage of an ODB PSU shelf time slot. This is the maintenance usage (100-second scan) of ODB PSU shelf time slots. This is the cumulative amount of time that each PSU shelf time slot was not available to carry traffic and includes maintenance activity for an ODB that makes PSU shelves unavailable for service.

i = PSU shelf time slots for ODB calls. This peg count is the total number of PSU shelf time slots for an ODB calls. This quantity is computed based on the data available from the static database, and the state of a PSU shelf being in service or out of service does not affect this number.

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`j` = PSU shelf time slots available for ODB calls. This peg count is the number of PSU shelf time slots available for ODB calls. This excludes PSU shelf time slots used for provisioned B-channels, D-channels, embedded operations channels (EOC), and time-slot management channels (TMC). This quantity is computed based on the data available from the static database, and the state of a PSU shelf being in service or out of service does not affect this number.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):

235-070-100 *Switch Administration Guidelines*

OP:TRFC30-OEIS

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30  OEIS
  TIME aa:aa:aa
  SECTION 124:  OSPS EXTERNAL INFORMATION SYSTEM - DATA LINKS
     EIS_ID   LINKNO  ATMPT  FAIL  OVFL  SUCC  RECVD  USAGE  NRECV
     b        c       d      e     f     g     h      i      j
     .        .       .      .     .     .     .      .      .
     .        .       .      .     .     .     .      .      .
     .        .       .      .     .     .     .      .      .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or a scheduled output of section 124: Operator Services Position System (OSPS) External Information System (OEIS) data links measures of the 30-minute traffic report. This section collects and prints measurements for each link. Each link is associated with a particular switching module (SM). A maximum of 6 links can be printed on the receive-only printer (ROP).

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = EIS identification number per customer.

c = EIS call processing data link (CPDL) number.

d = Total number of attempts to send a message on the CPDL (count 1).

e = Number of attempts to send a message on the CPDL that were dropped due to hardware failures, system initialization, or other system problems. This number is equal to ATMPT - OVFL - SUCC (count 2).

f = Number of attempts to send a message on the CPDL that could not be sent due to message buffer overflow (count 3).

g = Number of attempts to send a message on the CPDL that were successfully sent or buffered for transmission (count 4).

h = Number of messages received on the CPDL from EIS (count 5).

i = The average usage of the CPDL bandwidth expressed as a percentage of the maximum link capacity, MAX MSGS indicated in RC/V View 21.51 (count 6). The percentage is calculated by the following formula:

```
          SUCC msgs +  RECVD msgs
USAGE = ----------------------------------  * 100
          MAX MSGS msgs /sec  *  1800 secs
```

j Number of messages expected from EIS but not received. At various stages during a call for a specific EIS service, a particular response message may be expected from the EIS. Upon these occasions, if the subsequent message associated with a call is not the expected message, this count is pegged. The intent of this count is to indicate whether operational difficulties with an EIS are CPDL-dependent or independent (count 7).

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report:

```
OP:TRFC30-VLD
```

Since each link is associated with a particular SM, the validity for the corresponding SM applies to the individual links. Refer to the Administrative Model AM data XNDLDSL (office dependent data) which has attributes xnamid and xnamrl corresponding to EIS_ID and LINKNO and gdport.module for SM number.

An overflow (OVFL) count greater than zero indicates that the CPDL was unable to support the message traffic being assigned to the data link. This may be due to assignment of too many calls to the data link (RC/V View 21.51), more than the expected average number of messages required per call, or data link problems requiring a significant number of message retransmissions.

The USAGE count is based upon the MAX MSGS value specified in Recent Change View 21.51. The actual number of messages sent and received on a CPDL is dependent upon the maximum number of calls assignable to the CPDL (RC/V View 21.51), the average number of messages associated with each call, and the actual bandwidth of the facility and equipment used on the data link during normal operating conditions.

If the OVFL count is greater than zero under normal data link conditions, reduce the number of calls assignable to the CPDL, MAX CALLS. If the USAGE count routinely exceeds 100% and no OVFL counts are indicated, the MAX MSGS parameter is set too low; conversely, if the USAGE count is consistently under 100% and OVFL counts occur regularly, the MAX MSGS parameter is set too high.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
```

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

RC/V View(s):

21.51 (OSPS EXTERNAL INFORMATION SYSTEM)

OP:TRFC30-OFA

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 OFA
  TIME aa:aa:aa
  SECTION 61: OSPS FACILITY ADMINISTRATION MEASURES
  BASE COUNTS
     BNFN    HANDOFF 0+NCN   0-NCN
     b       c       d       e
     ACCS0+  ONI     CCQS
     f       g       h
  OPERATOR HANDLED NON COIN CALL COUNTS
     CALLING CALLED  3RDBL   DDD     STAPD   CCCOC   TOTAL
     i       j       k       l       f1      m       n
  INCOMING INWARD CALLS
      NONCOIN OPERCC  AUTO    IBNS    AIBNS
     o       p       q       h1      i1
  INCOMING CAMA CALLS
     XFER    ONI
     r       s
  NON ISP CALLS
     RECV
     t
  QUERIES
     RATING  LICCD   LIBNS   89CCC
     x       y       z       g1
  CONFERENCE CIRCUIT REQUESTS
             3PORT   6PORT
  INITIATED  b1      c1
  NOT-SERVED d1      e1
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 61: Operator Services Position System (OSPS) facility administration (OFA) measures of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Number of times a position was released from a call when the call was operator-initiated and there existed a forward number and back number.

c = Number of times a call is completed to an external operator using a ROUTE # or INTL ROUTE #.

It is pegged in the following cases:

- A call is handed off to an external operator [such as, mobile, marine, toll station, international operating center (IOC)].
- A call is position released or placed in chargeable hold for OSPS timing and billing.

d = Number of times when a position was seized with an initial, intermediate switching point (ISP) originated, 0+, or good automatic number identification (ANI) call from a non-coin or automatic charge quotation service (ACQS) station. This includes seizures associated with automated calling card service (ACCS) sequence calls.

e = Number of times when a position was seized with an initial, ISP originated, 0-, or good automatic number identification (ANI) call from a non-coin or ACQS station. This includes seizures associated with ACCS sequence calls.

f = Number of 0+ calls that were provided with ACCS treatment. This includes calls that are subsequently routed to a position due to flash, keying in 0, or timing out after the bong tone.

g = Number of transfer centralized automatic message accounting (CAMA), system CAMA, or ISP calls that were sent to an operator because of ANI failure (ANIF) or because operator number identification (ONI) was required. Equal to ANIFAIL + UNEQ in Section 64: TRFC30 OTA.

h = Number of times an attempt was made to send a voice quote message to an ACQS establishment.

i = Number of times a position was released from a call from a non-coin station and the class-of-charge was person paid.

j = Number of times a position was released from a call from a non-coin station and the class-of-charge was collect.

k = Number of times a position was released from a call from a non-coin station and the class-of-charge was third-number billing.

l = Number of times a position was released from a call from a non-coin station and the class-of-charge was direct distance dialing (DDD).

m = Number of times a position was released from a call from a non-coin station and the class-of-charge was calling card.

n = Number of calls from a non-coin station released from a position and the class-of-charge was person paid, collect, third-number billing, DDD, station paid, or calling card. Equal to CALLING + CALLED + 3RDBL + DDD + STAPD + CCCOC.

o = Number of incoming inward calls for which digit analysis identified the inward code as 121 or 1158 which was entered by an operator who originated the inward call.

p = Number of incoming inward calls for which digit analysis identified the inward code as 1160 or 1172 which was entered by an operator who originated the inward call.

q = Number of automated inward calling cards, network call denial (NCD), and calling card plus NCD validations received (inward codes 1161, 1162, 1166, 1168, and 1170 which were entered by operators who originated the inward call). The excludes validations for calling cards. Equal to 10DIGIT + DTMF/TT + MF in Section 64: TRFC30 OTA.

r = Number of times the OSPS switch received a transfer CAMA call.

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s = Number of times the OSPS switch received a system CAMA ANIF/ONI call.

t = Number of calls arriving on a non-ISP trunk for which an automatic call distributor (ACD) request was made for an operator. This does NOT include ALL calls arriving on non-ISP trunks. Calls such as CAMA, inward, and DIOR do not peg this measurement. It is pegged for the following calls:

- Directory assistance calls arriving on non-ISP trunks which are routed to a terminal for handling.
- Calls arriving on non-ISP trunks which must be set up to go to an operator at a terminal.

These may arrive on non-ISP trunks because ISP trunks cost more to engineer, and the office wishes to use existing trunking instead. The calls are handled with toll and assistance (T&A) type functionality, although it may be somewhat limited.

x = Number of Real-Time Rating System (RTRS) query attempts. Equal to QUERIES SENT TOTAL + NOT SENT TOTAL in section 63: TRFC30 ORTR.

y = Number of line information data base calling card (LICCD) query attempts. Equal to LICCD SENT + NSENT in section 109: TRFC30 OATQ.

z = Number of line information data base billed number screening (LIBNS) query attempts. Equal to LIBNS SENT + NSENT in section 109: TRFC30 OATQ.

b^1 = Number of times an OSPS call, either operator-assisted or automated, requested a three-port conference circuit. Determination of whether a three-port or six-port conference circuit is needed on the call depends on the number of parties on the call and whether the call needs to be attached to a recorded announcement function circuit.

c^1 = Number of times an OSPS call, either operator-assisted or automated, requested a six-port conference circuit. Determination of whether a three-port or six-port conference circuit is needed on the call depends on the number of parties on the call and whether the call needs to be attached to a recorded announcement function circuit.

d^1 = Number of times when a hardware failure (that is, a circuit was not usable) or communication failure prevented OSPS from getting a three-port conference circuit. The events pegged for this count are different from those for 3-PORT CCOFL in Section 10: TRFC30 UCONF.

e^1 = Number of times when a hardware failure (that is, a circuit was not usable) or communication failure prevented OSPS from getting a 6-port conference circuit. The events pegged for this count are different from those for 6-PORT CCOFL in Section 10: TRFC30 UCONF.

f^1 = Number of non-coin station paid calls that had a class-of-charge of hotel or paid.

g^1 = Number of *ANSI*® transaction capabilities application part (TCAP) query attempts. Equal to 89CCC SENT + NSENT in section 109: TRFC30 OATQ.

h^1 = Number of requests for automated inward international billed number screening (IBNS) service received. This number is the sum of the counts in Section 64: TRFC30-OTA, AUTO BNS INWARD REQUESTS:IBNS-DTMF/TT and AUTO BNS INWARD REQUESTS:IBNS-MF.

i^1 = Number of requests for automated inward billed number screening (AIBNS) service received. This number is the sum of the counts in Section 64: TRFC30-OTA, AUTO BNS INWARD REQUESTS: AIBNS-DTMF/TT and AUTO BNS INWARD REQUESTS:AIBNS-MF.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-OFC

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 OFC
  TIME aa:aa:aa
  SECTION 3: OFFICE TOTALS

  DPORQ   = b     TTORQ   = c     DPINRQ  = d
  MFINRQ  = e     CDIRR   = f     TCBSY   = g
  TCINT   = h     TCANS   = i     TCRNG   = j
  RPINRQ  = k     C6INRQ  = l     ISUPRQ  = m
  TUPRQ   = n     MFOURQ  = o     C6OURQ  = p
  ISUPOR  = q
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 3: office totals (OFC) of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Number of originating requests for dial pulse.

c = Number of originating requests for touch tone.

d = Number of incoming requests for dial pulse.

e = Number of incoming requests for multi-frequency.

f = Number of customer dialing irregularities.

g = Number of terminating calls to busy.

h = Number of terminating calls to intercept.

i = Number of terminating calls to answer.

j = Number of terminating calls to ring/no answer.

k = Number of total incoming requests for revertive pulsing.

l = Number of common channel interoffice signaling number 6 (CCIS6) incoming requests.

m = Number of integrated services digital network (ISDN) user part incoming requests.

n = Number of telephone user part incoming requests.

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o = Number of outgoing requests for multi-frequency.

p = Number of CCIS6 outgoing requests.

q = Number of ISDN user part outgoing requests.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with the input message OP:TRFC30 using the VLD option:

```
OP:TRFC30:VLD
```

The validity of the administrative module (AM) applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-OFF-A

Software Release: 5E10 only
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 OFF
  TIME aa:aa:aa
  SECTION 127: OSPS FAST FEATURES
  VMS
     ACC-CD  XBUSY   XRINGNA
     b       c       d
     .       .       .
     .       .       .
     .       .       .
     .       .       .
     .       .       .
     OTHERS  .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or a scheduled output of section 127: Operator Services Position System (OSPS) fast features (OFF) measures of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

`a` = Time when the report was prepared, in the form hours:minutes:seconds.

`b` = Voice messaging service (VMS) access code. Up to six separate access codes may be reported.

`c` = Number of callers who are transferred to an enhanced service provider (ESP) when a common channel signaling system 7 (CCS7) busy condition is encountered.

`d` = Number of callers who are transferred to an ESP when a CCS7 ring/no answer or called number status undefined condition is encountered.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module (AM) applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration and Engineering Guidelines*

OP:TRFC30-OFF-B

Software Release: 5E11 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 OFF
  TIME aa:aa:aa
  SECTION 127: OSPS FAST FEATURES
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or a scheduled output of section 127: Operator Services Position System (OSPS) fast features (OFF) measures of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

`a` = Time when the report was prepared, in the form hours:minutes:seconds.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module (AM) applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
```

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```
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration and Engineering Guidelines*

OP:TRFC30-OINTA

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30  OINTA
  TIME aa:aa:aa
  SECTION 97: OSPS INTERFLOW LISTING SERVICES/C-ACD MEASURES
          OSPS_ID SENT
          b       c
          .       .
          .       .
          .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 97: Operator Services Position System (OSPS) interflow listing services/commercial-automatic call distributor (C-ACD) measures (OINTA) of the 30-minute traffic report. This section was formerly titled "OSPS Interflow Non T&A Calls Sent Measures".

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Identification number of the receiving OSPS office.

c = Number of times originating call treatment determined that the serving team assigned to handle a call was activated for interflow through reroute and the call was consequently attempted to be rerouted to the network.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-OIRCV

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30  OIRCV
  TIME aa:aa:aa
  SECTION 96: OSPS INTERFLOW T&A CALLS RECEIVED MEASURES
          OSPS_ID RECVD   BLKD    PKLOST
          b       c       d       e
          .
          .
          .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 96: Operator Services Position System (OSPS) interflow toll and assistance (T&A) calls received (OIRCV) of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Identification number of the sending OSPS office.

c = Number of interflow calls received from the sending interflow switch. It is pegged when a voice channel terminal process on the receiving interflow switch end of an interflow extended digital subscriber line (EDSL) link received a call setup request from a voice channel terminal process on the sending interflow switch end of the link. The call setup request indicated the reception of an interflow call.

d = Number of times the automatic call distributor (ACD) on the receiving interflow switch received an interflow call and determined that the serving team assigned to serve the call was activated for interflow. Interflow calls cannot be interflowed a second time.

e = Number of times an X.25 level 3 data packet could not be queued on the receiving interflow switch for transmission across the data channel to the sending interflow switch because the transmit queue was full.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

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The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-OISNT

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30  OISNT
  TIME aa:aa:aa
  SECTION 95: OSPS INTERFLOW T&A CALLS SENT MEASURES
          OSPS_ID SENT    OVFL    OCCUP   PKLOST
          b       c       d       e       f
          .
          .
          .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 95: Operator Services Position System (OSPS) interflow toll and assistance (T&A) calls sent (OISNT) of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Identification number of the receiving OSPS office.

c = Number of T&A interflow calls sent by the sending interflow switch to each receiving interflow switch. It is pegged when a voice channel terminal process that interfaces with an interflow extended digital subscriber line (EDSL) link on the sending interflow switch received a position termination request from the automatic call distributor (ACD) and sent a call setup request to the receiving interflow switch.

d = Number of times the ACD on the sending interflow switch attempted to route an incoming call to a voice channel terminal process that interfaces with an interflow EDSL link but none of the processes was available.

e = Percentage of time that the voice channels on an interflow EDSL link were busy with calls. This was derived by scanning every 100 seconds for the status of the voice channel terminal processes that interface with an interflow EDSL link on the sending switch. Accumulated with each scan is the number of terminal processes that were busy handling an interflowed call divided by the total number of terminal processes. The number reported is the average of the accumulations multiplied by 100.

f = Number of times an X.25 level 3 data packet could not be queued on the sending interflow switch for transmission across the data channel to the receiving interflow switch because the transmit queue was full.

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4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administration module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-OLAC-A

Software Release: 5E10 only
Message Class: TRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30  OLAC
  TIME aa:aa:aa
  SECTION 195:  OSPS AT&T LAC SIGNALING MEASURES
  QUERIES
     ATMPT   SENT    NSENT   HDW     OVRLD   NM      NO_ID
     b       c       d       e       f       g       h
     CDM     TEST
     i       j
  ABNORMAL REPLIES
     TOTAL   RTEFA   SYSCONG NWCONG  UNEQ    SYSFA   ADDFA
     k       l       m       n       o       p       q
     NWFA    UNQUAL
     r       s
  MISCELLANEOUS REPLIES
     ABORT   TIMEOUT ABAND   UNEXP   INVFRMT ACG
     t       u       v       w       x       y
  CALLING CARD VALIDATION MEASUREMENTS
     VALID   DENIAL  PSDI4   NO_PIN  NELGCC  REJECT  MSGRP
     z       a1      b1      c1      d1      e1      f1
     NPRTGRP NONWKRS
     g1      h1
  BNS VALIDATION MEASUREMENTS
     ALLOW   DENY    INDET   REJECT  NORRSP  RECNFND MSGRP
     i1      j1      k1      l1      n1      m1      o1
     NPRTGRP NONWKRS
     p1      q1
  NAI SPECIFIC MEASUREMENTS
     SENT    ALLOW   DENY    THRSHLD REJECT  VCODE   UXPARM
     r1      s1      t1      u1      v1      w1      x1
     MSQRY   NOPARM  TSKREF  UXDT
     y1      z1      a2      b2
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 195: Operator Services Position System (OSPS) line applications for consumers (OLAC) signaling query measures of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

Note: A variable with '*' in the definition represents a measurement that is collected in the direct link node (DLN) when a DLN is present. If the office is equipped with the DLN and the set of variables with '*' are zero, this suggests that DLN failed to report these variables and these variables are invalid for the reporting period. These measurements will be scored on the administrative module (AM) if DLN is not present.

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a = Time when the report was prepared, in the form hours:minutes:seconds.

b = The total number of query attempts from the OSPS to a database. This variable is equal to the sum of variables 'c' and 'd'.

c = * The number of queries sent from the OSPS to a database.

d = The number of queries not sent from the OSPS to a database. This variable is equal to the sum of variables 'e', 'f', 'g', and 'h'.

e = * The number of queries not sent because of OSPS hardware problems including administrative module (AM) overload or other internal problems.

f = * The number of queries not sent because a cutback was in effect to accommodate a database overload as indicated by the automatic call gapping (ACG) parameter in the reply.

g = * The number of queries not sent because of common channel signaling (CCS) network problems.

h = * The number of queries not sent because a query ID was not available.

i = * The number of intermediate call disposition messages (CDM) and end CDMs generated.

j = The number of test queries that are initiated by maintenance personnel. This does not include any replies to the test query.

k = The total number of abnormal network replies received. These were queries that did not reach the destined database and were returned by the network. This variable is equal to the sum of variables 'l', 'm', 'n', 'o', 'p', 'q', 'r',and 's'.

l = * The number of *ANSI*® and transaction capabilities application part (TCAP) replies of no translation data for an address of such nature.

m = * The number of *ANSI*® and TCAP replies of subsystem congestion.

n = * The number of *ANSI*® and TCAP replies of network congestion.

o = * The number of *ANSI*® and TCAP replies of unequipped user.

p = * The number of *ANSI*® and TCAP replies of subsystem failure.

q = * The number of *ANSI*® and TCAP replies of no translation data for this specific address.

r = * The number of *ANSI*® and TCAP replies of network failure.

s = * The number of TCAP replies of unqualified.

t = * The number of queries that were initiated then aborted as a result of the OSPS receiving either a U-abort or P-abort from the network.

u = * The number of times a number 2 line applications for consumers (2LAC) query was initiated and a reply, indeterminate reply, or abnormal reply was not received by the OSPS before the timing parameter was exceeded.

v = The number of 2LAC queries that were initiated then abandoned.

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w = * The number of unexpected replies received by the OSPS when the OSPS has timed out while waiting for a reply; or, a query was not sent but a reply was received.

x = * The number of "error in message format" replies received from the 2LAC in TCAP.

y = * The number of replies that contained an ACG overload indicator component.

z = The number of replies received from a card database indicating a valid card/personal identification number (PIN) combination.

a[1] = The number of replies received from a card database indicating a billing number was not found resulting in a denial of service for the offered billing. This includes replies with a binary equivalent value of 4 when a deny reply code value of 4 is received.

b[1] = The number of replies received from a card database indicating a "PIN service denial indicator of 4" (PSDI4) response.

c[1] = The number of replies received from a card database indicating a denial of service because the PIN did not match the calling card number.

d[1] = The number of replies received from a card database with a binary equivalent value of 7 indicating a "deny call - card ineligible for service" when a deny reply code value of 7 is received.

e[1] = The number of calling card reject errors received from a card database.

f[1] = The number of calling card "missing group" replies received from a card database.

g[1] = The number of calling card "non-participating group" replies received.

h[1] = The number of calling card "no network resource available" replies received.

i[1] = The number of billed number screening (BNS) replies received that indicated that collect or bill to third billing should be allowed.

j[1] = The number of BNS replies received that indicated that collect or bill to third billing should be denied. This includes replies with a binary equivalent value of 4 when a deny reply code value of 4 is received.

k[1] The number of times a BNS query does not return an allowed or denied response for a collect or bill to third query.

l[1] = The number of times a reject error was received in response to a BNS query.

m[1] = The number of normal BNS query responses received indicating that a record was found for the billing number.

n[1] = The number of replies that indicate that the line information database (LIDB) was unable to find a record in response to a BNS request or the database reply indicated "vacant group", "unexpected data value", or "missing customer record."

o[1] = The number of BNS "missing group" replies received.

p[1] = The number of BNS "non-participating group" replies received.

q[1] = The number of BNS "no network resource available" replies received.

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r[1] = * The number of attempts that qualify for network access interrupt (NAI) processing and resulted in a query being sent to the 2LAC.

s[1] = The number of allow replies received from the 2LAC in the signaling component indicating that the attempt should be allowed due to NAI causes.

t[1] = The number of deny replies received from the 2LAC in the signaling component indicating that the attempt should be denied due to NAI causes. TCAP reply codes of 1, 4, 5, 22-24 are summed to create this measurement.

u[1] = The number of replies received from the 2LAC in the reply indicating that the attempt should be thresholded as identified by the receipt of a "continue" message with an operation set to "send notification termination."

v[1] = * The number of reject error replies received.

w[1] = The number of vacant code replies received.

x[1] = The number of replies that resulted in an "unexpected data parameter" from the 2LAC in TCAP.

y[1] = The number of replies that resulted in a "misrouted query" from the 2LAC in TCAP.

z[1] = The number of replies that resulted in a "missing parameter" reply code from the 2LAC in TCAP because one or more required parameters were not included in the query.

a[2] = The number of task refused replies received in TCAP.

b[2] = The number of replies that resulted in an "unexpected input data value" from the 2LAC in TCAP.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30-VLD
```

The validity for the AM applies to this section.

5. ALARMS

None.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
```

```
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-VLD
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

RC/V View(s):

8.9 (OSPS OFFICE PARAMETERS)

OP:TRFC30-OLAC-B

Software Release: 5E11 and later
Message Class: TRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30  OLAC
  TIME aa:aa:aa
  SECTION 195:  OSPS LAC AND LNP SIGNALING MEASURES
  QUERIES
         ATMPT   SENT    NSENT   HDW     OVRLD   NM      NO_ID
 LAC     b       c       d       e       f       g       h
 LNP     c2      d2      e2      f2      g2      h2      i2
         CDM     TEST
 LAC     i       j
 LNP             j2
  ABNORMAL REPLIES
         TOTAL   RTEFA   SYSCONG NWCONG  UNEQ    SYSFA   ADDFA
 LAC     k       l       m       n       o       p       q
 LNP     k2      l2      m2      n2      o2      p2      q2
         NWFA    UNQUAL
 LAC     r       s
 LNP     r2      s2
  MISCELLANEOUS REPLIES
         ABORT   TIMEOUT ABAND   UNEXP   INVFRMT ACG
 LAC     t       u       v       w       x       y
 LNP     t2      u2      v2      w2      x2      y2
  CALLING CARD VALIDATION MEASUREMENTS
     VALID   DENIAL  PSDI4   NO_PIN  NELGCC  REJECT  MSGRP
     z       a1      b1      c1      d1      e1      f1
     NPRTGRP NONWKRS
     g1      h1
  BNS VALIDATION MEASUREMENTS
     ALLOW   DENY    INDET   REJECT  NORRSP  RECNFND MSGRP
     i1      j1      k1      l1      n1      m1      o1
     NPRTGRP NONWKRS
     p1      q1
  NAI SPECIFIC MEASUREMENTS
     SENT    ALLOW   DENY    THRSHLD REJECT  VCODE   UXPARM
     r1      s1      t1      u1      v1      w1      x1
     MSQRY   NOPARM  TSKREF  UXDT
     y1      z1      a2      b2
  LNP SPECIFIC MEASUREMENTS
     VALID   NOTPORT REJECT  ERROR
     z2      a3      b3      c3
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 195: Operator Services Position System (OSPS) line applications for consumers (LAC) signaling measures and local number portability (LNP)

signaling measures of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

Note: A variable with '*' in the definition represents a measurement that is collected in the direct link node (DLN) when a DLN is present. If the office is equipped with the DLN and the set of variables with '*' are zero, this suggests that DLN failed to report these variables and these variables are invalid for the reporting period. These measurements will be scored on the administrative module (AM) if DLN is not present.

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = The total number of LAC query attempts from the OSPS to a database. This variable is equal to the sum of variables 'c' and 'd'.

c = * The number of LAC queries sent from the OSPS to a database.

d = The number of LAC queries not sent from the OSPS to a database. This variable is equal to the sum of variables 'e', 'f', 'g', and 'h'.

e = * The number of LAC queries not sent because of OSPS hardware problems including administrative module (AM) overload or other internal problems.

f = * The number of LAC queries not sent because a cutback was in effect to accommodate a database overload as indicated by the automatic call gapping (ACG) parameter in the reply.

g = * The number of LAC queries not sent because of common channel signaling (CCS) network problems.

h = * The number of LAC queries not sent because a query ID was not available.

i = * The number of LAC intermediate call disposition messages (CDM) and end CDMs generated.

j = The number of LAC test queries that are initiated by maintenance personnel. This does not include any replies to the test query.

k = The total number of LAC abnormal network replies received. These were LAC queries that did not reach the destined database and were returned by the network. This variable is equal to the sum of variables 'l', 'm', 'n', 'o', 'p', 'q', 'r', and 's'.

l = * The number of *ANSI*® and transaction capabilities application part (TCAP) replies of no translation data for an address of such nature.

m = * The number of *ANSI*® and TCAP replies of subsystem congestion.

n = * The number of *ANSI*® and TCAP replies of network congestion.

o = * The number of *ANSI*® and TCAP replies of unequipped user.

p = * The number of *ANSI*® and TCAP replies of subsystem failure.

q = * The number of *ANSI*® and TCAP replies of no translation data for this specific address.

r = * The number of *ANSI*® and TCAP replies of network failure.

s = * The number of TCAP replies of unqualified.

t = * The number of LAC queries that were initiated then aborted as a result of the OSPS receiving either a U-abort or P-abort from the network.

u = * The number of times a number 2 line applications for consumers (2LAC) query was initiated and a reply, indeterminate reply, or abnormal reply was not received by the OSPS before the timing parameter was exceeded.

v = The number of 2LAC queries that were initiated then abandoned.

w = * The number of LAC unexpected replies received by the OSPS when the OSPS has timed out while waiting for a reply; or, a query was not sent but a reply was received.

x = * The number of "error in message format" replies received from the 2LAC in TCAP.

y = * The number of LAC replies that contained an ACG overload indicator component.

z = The number of replies received from a card database indicating a valid card/personal identification number (PIN) combination.

a[1] = The number of LAC replies received from a card database indicating a billing number was not found resulting in a denial of service for the offered billing. This includes replies with a binary equivalent value of 4 when a deny reply code value of 4 is received.

b[1] = The number of LAC replies received from a card database indicating a "PIN service denial indicator of 4" (PSDI4) response.

c[1] = The number of LAC replies received from a card database indicating a denial of service because the PIN did not match the calling card number.

d[1] = The number of LAC replies received from a card database with a binary equivalent value of 7 indicating a "deny call - card ineligible for service" when a deny reply code value of 7 is received.

e[1] = The number of LAC calling card reject errors received from a card database.

f[1] = The number of calling card "missing group" replies received from a card database.

g[1] = The number of calling card "non-participating group" replies received.

h[1] = The number of calling card "no network resource available" replies received.

i[1] = The number of billed number screening (BNS) replies received that indicated that collect or bill to third billing should be allowed.

j[1] = The number of BNS replies received that indicated that collect or bill to third billing should be denied. This includes replies with a binary equivalent value of 4 when a deny reply code value of 4 is received.

k[1] = The number of times a BNS query does not return an allowed or denied response for a collect or bill to third query.

l[1] = The number of times a reject error was received in response to a BNS query.

m[1] = The number of normal BNS query responses received indicating that a record was found for the billing number.

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n^1 = The number of replies that indicate that the line information database (LIDB) was unable to find a record in response to a BNS request or the database reply indicated "vacant group", "unexpected data value", or "missing customer record."

o^1 = The number of BNS "missing group" replies received.

p^1 = The number of BNS "non-participating group" replies received.

q^1 = The number of BNS "no network resource available" replies received.

r^1 = * The number of attempts that qualify for network access interrupt (NAI) processing and resulted in a query being sent to the 2LAC.

s^1 = The number of allow replies received from the 2LAC in the signaling component indicating that the attempt should be allowed due to NAI causes.

t^1 = The number of deny replies received from the 2LAC in the signaling component indicating that the attempt should be denied due to NAI causes. TCAP reply codes of 1, 4, 5, 22-24 are summed to create this measurement.

u^1 = The number of NAI replies received from the 2LAC in the reply indicating that the attempt should be thresholded as identified by the receipt of a "continue" message with an operation set to "send notification termination."

v^1 = * The number of NAI reject error replies received.

w^1 = The number of NAI vacant code replies received.

x^1 = The number of NAI replies that resulted in an "unexpected data parameter" from the 2LAC in TCAP.

y^1 = The number of NAI replies that resulted in a "misrouted query" from the 2LAC in TCAP.

z^1 = The number of NAI replies that resulted in a "missing parameter" reply code from the 2LAC in TCAP because one or more required parameters were not included in the query.

a^2 = The number of NAI task refused replies received in TCAP.

b^2 = The number of NAI replies that resulted in an "unexpected input data value" from the 2LAC in TCAP.

c^2 = The total number of LNP query attempts. This variable is equal to the sum of variables 'd^2' and 'e^2'.

d^2 = * The number of LNP queries sent.

e^2 = The number of LNP queries not sent. This variable is equal to the sum of variables 'f^2', 'g^2', 'h^2', and 'i^2'.

f^2 = * The number of LNP queries not sent because of OSPS hardware problems including AM overload, CNI ring (including direct link node) down, or other internal problems.

g^2 = * The number of LNP queries not sent because a cutback was in effect to accommodate a database overload as indicated by the ACG parameter in the reply.

h^2 = * The number of LNP queries not sent because of CCS network problems.

i^2 = * The number of LNP queries not sent because a query ID was not available.

j^2 = The number of LNP test queries that are initiated by maintenance personnel. This does not include any replies to the test query.

k^2 = The total number of abnormal network LNP replies received. These were LNP queries that did not reach the destined database and were returned by the network. This variable is equal to the sum of variables 'l^2', 'm^2', 'n^2', 'o^2', 'p^2', 'q^2', 'r^2', and 's^2'.

l^2 = * The number of LNP replies of no translation data for an address of such nature.

m^2 = * The number of LNP replies of subsystem congestion.

n^2 = * The number of LNP replies of network congestion.

o^2 = * The number of LNP replies of unequipped user.

p^2 = * The number of LNP replies of subsystem failure.

q^2 = * The number of LNP replies of no translation data for this specific address.

r^2 = * The number of LNP replies of network failure.

s^2 = * The number of LNP replies of unqualified.

t^2 = * The number of LNP queries that were initiated then aborted as a result of the OSPS receiving either a U-abort or P-abort from the network.

u^2 = * The number LNP queries that timed out because no reply (normal or abnormal) was received before the timing parameter was exceeded.

v^2 = The number of LNP queries that were initiated then abandoned (canceled by call processing because of caller abandon or operator action).

w^2 = * The number of unexpected LNP replies received because the OSPS has timed out while waiting for a reply; or, a query was not sent but a reply was received.

x^2 = * The number of LNP replies received in which the OSPS detected an invalid message format.

y^2 = * The number of LNP replies that contained an ACG overload indicator component.

z^2 = The number of valid LNP replies received (including those with Report Error - Not Portable components).

a^3 = The number of return error components received with not portable error codes (destination number, billing number, and ANI). Note that there can be more than one of these per LNP reply.

b^3 = The number of reject error LNP replies received.

c^3 = The number of LNP replies with a return error other than "not portable." This includes "unexpected data value", "task refused", "missing parameter", and "unexpected parameter."

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30-VLD
```

The validity for the AM applies to this section.

5. ALARMS

None.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-VLD
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

RC/V View(s):

8.9 (OSPS OFFICE PARAMETERS)

OP:TRFC30-OLNS

Software Release: 5E12 and later
Message Class: TRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30  OLNS
  TIME aa:aa:aa
  SECTION 220:  OSPS OLNS MEASURES
  QUERIES
     SENT    NSENT   HDW     OVRLD   NM      NO_ID   AMBLK   TEST
     b       c       d       e       f       g       h       i
  REPLIES
     ABNOR   RTEFA   ADDFA   SYSCONG SYSFA   UNEQ    NWFA    NWCONG
     j       k       l       m       n       o       p       q
     TOTAL   UNEXP   INVFRMT TIMEOUT
     r       s       t       u
     MSGRP   NPRTGRP NONWKRS REJECT  ABAND
     v       w       x       y       z
     VALID   NOT-FND  NORRSP
     a1      b1      c1
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 220: Operator Services Position System (OSPS) line applications for consumers (OLNS) signaling query measures of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

Note: A variable with '*' in the definition represents a measurement that is collected in the direct link node (DLN) when a DLN is present. If the office is equipped with the DLN and the set of variables with '*' are zero, this suggests that DLN failed to report these variables and these variables are invalid for the reporting period. These measurements will be scored on the administrative module (AM) if DLN is not present.

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = *Number of OLNS queries sent

c = Number of OLNS queries attempted but not sent.

d = *Number of OLNS queries not sent to the database because the CNI ring was not available.

e = *Number of OLNS queries not sent because of ACG control cutback.

f = *Number of OLNS queries not sent to the database because of network management control cutback.

g = *Number of OLNS queries not sent to the database because query ID not available.

h = *Number of OLNS queries not sent to the database because AM conditions.

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i = Number of OLNS test queries.

j = Number of OLNS total abnormal query replies.

k = *Number of OLNS abnormal query replies because of address of such nature.

l = *Number of OLNS abnormal query replies because of no translation for this address.

m = *Number of OLNS abnormal query replies because of subsystem congestion.

n = *Number of OLNS abnormal query replies because of subsystem failure.

o = *Number of OLNS abnormal query replies because of unequipped user.

p = * Number of OLNS abnormal query replies because of network failure.

q = *Number of OLNS abnormal query replies because of network congestion.

r = *Number of total OLNS replies received.

s = *Number of unexpected query replies.

t = *Number of query replies with invalid format.

u = Number of queries that timed out waiting for a query reply.

v = Number of error messages returned from the database because of missing group or misrouted.

w = Number of error messages returned from the database because of nonparticipating group.

x = Number of error messages returned from the database because of unavailable network resources.

y = Number of reject messages received.

z = Number of queries that were aborted due to customer abandonment or operator change of billing type.

a[1] = Number of total valid format query replies.

b[1] = Number of error messages returned from the database because of unexpected data value or vacant group.

c[1] = Number of query responses received from the database indicating that a record for the data contained in the query was found in the database.

4. ACTIONS TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:
`OP:TRFC30-VLD`

The validity for the AM applies to this section.

5. ALARMS

None.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-VLD
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

RC/V View(s):

8.9 (OSPS OFFICE PARAMETERS)

OP:TRFC30-OMISC-A

Software Release: 5E10 only
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 OMISC
  TIME aa:aa:aa
  SECTION 123:  OSPS MISCELLANEOUS CALLS MEASURES
  DIOR
            ATMPT    SEIZED  CCRD    COLL    3RDNO   NOCHG   OTHER
     INIT   b        c       d       e       f       g       h
     SEQ    i        j       k
  AUTO DIOR
            ELIGBL   NOFWD   NOCARD  ANSWER
            f1       g1      h1      i1
  DIOR COUNTRY PAIR SCREENING
            ATMPT    ALLOW   SSCHK   CRDSCR  CRSCMPL TOPHDL  TOHCMPL
            n1       o1      v1      w1      x1      y1      z1
  DIOR SPEED DIALING
            ATMPT    SUCCESS
            p1       q1
  DIOR SEQUENCE ENHANCEMENTS
            ANNC     TRANS   ROUTE   SEQ
            r1       s1      t1      u1
  DIOR TOLL FREE I800 SERVICE
            ATMPT    TLFRANS CLPDANS BLKD
            a2       b2      c2      d2
  DIOR NETWORK REMOTE ACCESS
            ALLOW    ANSW    BLKD
            j2       k2      l2
  MECH
            ALLOW    RECVD   RECALL  ANNC    BLKANNC OPER
            l        m       n       o       p       q
  ITNA
            OFFHOOK  SECURED BNSACPT
            r        s       t
  LISTING SERVICES
            ANNC
            u
  AATOS & SDN/NRA
            AATOS    SDN0-   SDN0+   SDN01+  SDN800  SDNSEQ
            v        w       x       y       z       a1
  VMS
            OPER     AUTO
     ATMPT  b1       d1
     COMPL  c1       e1
            BUSY     RINGNA  HANGUP
            q3       r3      s3
  CICADA CALLS
```

```
            ELIGBL   ACCPT   AUTO    OPER
            j1       k1       l1      m1
 INMATE CALLING SERVICES
            ROUTE    COMPL   T1EXP   T2EXP   T3EXP
            e2       f2       g2      h2       i2
 AUTOMATION OF TERMINATING CODE SCREENING/COUNTRY PAIR SCREENING OVERRIDE
            AUTO     OP_ELIG OPER    CONNECT CALLINF VERIFY
            m2       n2      o2      p2      q2      r2
                     ALLOW   DENY    O_BILL  OPASST  WARNING TIMEOUT
   PRE-VER           s2      t2      u2      v2      w2      x2
   POST-VER          y2      z2      a3      b3      c3      d3
                     HELP    INVALID ABAND   DISCON  DUR
   PRE-VER           e3      f3      g3      h3      i3 : j3
   POST-VER          k3      l3      m3      n3      o3 : p3
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or a scheduled output of section 123: Operator Services Position System (OSPS) miscellaneous calls (OMISC) measures of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Number of direct international originations (DIOR) call attempts. When the call is interflowed, the measurement is pegged in the sending switch. Test calls (10X/958,10X/959,10X), calls with signaling errors and sequence calls are not included.

c = Number of initial DIOR calls that are not eligible for automated treatment that seized an operator position. When the call is interflowed, the measurement is pegged in the sending switch. Sequence calls that result in an operator seizure and subsequent operator handled calls are not included.

d = Number of operator handled DIOR calls completed having a "calling card" class of charge. This includes initial, subsequent and subsequent directory assistance (DA) completion calls. When the call is interflowed, the measurement is pegged in the sending switch.

e = Number of operator handled DIOR calls completed having a "collect" class of charge. This includes initial, subsequent and subsequent DA completion calls. When the call is interflowed, the measurement is pegged in the sending switch.

f = Number of operator handled DIOR calls completed having a third number billing class of charge. This includes initial, subsequent and subsequent DA completion calls. When the call is interflowed, the measurement is pegged in the sending switch.

g = Number of operator handled DIOR calls completed having a "no charge" class of charge. This includes initial, subsequent and subsequent DA completion calls. When the call is interflowed, the measurement is pegged in the sending switch.

h = Number of operator handled DIOR calls completed having an "other" class of charge (that is, not calling card, collect, third number, or no charge). This includes initial, subsequent and subsequent

DA completion calls. Unlikely to occur unless originating line screening (OLS) was populated to allow sent paid or autocollect classes of charge and the DIOR operator used such a class of charge on a DIOR call. When the call is interflowed, the measurement is pegged in the sending switch.

i = Number of DIOR automatic calling card service (ACCS) sequence calls attempted. A DIOR caller who is eligible for a DIOR sequence call presses the "#" sign to request a sequence call. To be eligible for a DIOR sequence call, the previous call must have been billed to a calling card and RC/V data for the originating country must allow automated calling. Refer to RC/V View 27.7. This measurement is not pegged for sequence ACCS DA completion calls. When the call is interflowed, the measurement is pegged in the sending switch.

j = Number of valid DIOR ACCS sequence calls that seized an operator position. This can occur if the calling card requires manual validation. This can also occur if a caller attempts to dial a sequence call with a number that is terminating code screening (TCS) restricted and the RC/V data specifies that TCS restricted numbers should seize an operator position as specified in RC/V Views 27.1 and 27.2. This measurement is also pegged for sequence ACCS DA completion calls. When the call is interflowed, the measurement is pegged in the sending switch.

k = Number of DIOR ACCS sequence calls that completed. This includes completed sequence calls that were either fully automated or that seized an operator position. This also includes sequence ACCS CICADA accepted DA calls and DA completion calls that originated as ACCS sequence. When the call is interflowed, the measurement is pegged in the sending switch.

l = Number of calls for which more efficient call handling (MECH) treatment was allowed. This measurement is pegged on both the sending and receiving switch in an interflow configuration.

m = Number of MECH calls released prior to outpulsing in order to float the call until the forward party answers. This means the call received MECH treatment. This measurement is pegged on both the sending and receiving switch in an interflow configuration.

n = Number of MECH calls connected to an operator due to calling customer flash. When the call is interflowed, the measurement is pegged in both the sending and receiving switch.

o = Number of MECH calls successfully routed to an announcement facility for the MECH holding announcement. This measurement is pegged on the receiving switch in an interflow configuration.

p = Number of MECH calls that could not be routed to an announcement facility for the MECH holding announcement. This measurement is pegged on the receiving switch in an interflow configuration.

q = Number of MECH calls connected to a second operator due to the reception of forward party answer supervision from the called station. When the call is interflowed, the measurement is pegged in both the sending and receiving switch.

r = Number of times an off-hook was received on a connection to a third number when the class of charge was a back third number and the improved third number acceptance (ITNA) feature is active. If multiple connections are made to a third party and multiple off hooks are received on the connection by the same third party number the count is only increment by one. Examples of when multiple connections might be made using the same third party number are when voice path has distorted transmission or the back party changes from intraLATA to an interLATA call. When the call is interflowed, the count must be pegged only at the sending switch.

s = Number of third number calls for which ITNA was secured when the class of charge was a back third number. This count is only incremented by one when the accept billing key is depressed once or multiple times and the "ACCPT BLG" is displayed when a call is released from the operator position. When the call is interflowed, the count must be pegged only at the sending switch.

t = Number of times the billed number screening (BNS) database returned a reply of "always accept" in response to a ITNA query on a third number when the class of charge was a back third number. When the call is interflowed, the count must be pegged only at the sending switch.

u = Number of times the listing access complete key (may also be known as verbal report) was depressed for a verbal announcement. The listing access complete key is a vender controlled key.

v = Number of 1+800 calls marked as non-software defined network/network remote access (SDN/NRA) calls when routed from the OSPS. The calls originate as 1+800 alternate access to operator services (AATOS) or SDN/NRA, but are routed over the public network.

w = Number of 0- calls marked as SDN/NRA calls when routed from the OSPS. Pegged only on initial calling card calls that are routed over the private network.

x = Number of 0+ calls marked as SDN/NRA calls when routed from the OSPS. Pegged only on initial calling card calls that are routed over the private network.

y = Number of 01+ calls marked as SDN/NRA calls when routed from the OSPS. Pegged only on initial calling card calls that are routed over the private network.

z = Number of 1+800 calls marked as SDN/NRA calls when routed from the OSPS. Pegged on all calls that originate as 1+800 AATOS or SDN/NRA, but are routed over the private network.

a^1 = Number of sequence calls marked as SDN/NRA calls when routed from the OSPS. Pegged for automated sequence calls that are routed over the private network.

b^1 = Number of voice message service (VMS) operator-handled call attempts. It is considered an attempt, and is pegged when a correct service code and a valid access code, that is, 1ZXXX or 19ZXXX, is entered. Note: The VMS measurements information for variable fields 'b^1', 'c^1', 'd^1', and 'e^1', will be reported on TRFC30-OVMS, section 168, if the OSPS VMS SVC Measurements secured feature is active.

c^1 = Number of VMS operator-handled call completions. This is pegged on completion of the call information transfer process.

d^1 = Number of VMS automated call attempts. It is considered an attempt, and is pegged when a correct service code and a valid access code, such as, 1ZXXX or 19ZXXX, is entered.

e^1 = Number of VMS automated call completions. This is pegged on completion of the call information transfer process.

f^1 = Number of initial DIOR calls eligible for automated treatment. Eligible calls are those received from countries that have the "automated handling allowed" bit set to Y.

g^1 = Number of initial DIOR calls eligible for automated treatment that are connected to the operator before successful forward number entry by the caller. This will happen if the caller dials nothing and times out, dials 0, 0#, dials a forward number that encounters a terminating point restriction, or dials an invalid forward number. This will be pegged on the sending switch in an interflow configuration.

h^1 = Number of initial DIOR calls eligible for automated treatment that are connected to the operator after the caller has successfully dialed the forward number and the OSPS has played the card entry prompt. This happens if following the card prompt the customer times out, dials 0, dials 0#, OLS restricts calling card billing, or the customer dials a card number that receives a network call denial. This will be pegged on the sending switch in an interflow configuration.

i[1] = Number of fully automated initial DIOR calls that are answered by the forward party. This includes CICADA accepted DA calls and DA completion calls that originated as ACCS.

j[1] = Total number of completion of interLATA calls accessing directory assistance (CICADA) - eligible directory assistance (DA) calls handled by the OSPS - whether or not the caller accepted CICADA service.

k[1] = Total number of CICADA-accepted DA calls answered by local exchange carrier (LEC) DAs. A CICADA-eligible DA call becomes a CICADA-accepted DA call once the caller accepts the CICADA service.

l[1] = Total number of subsequent DA completion calls completed (such as, answered) that resulted because the caller accepted the CICADA service offer while receiving automated treatment.

m[1] = Total number of subsequent DA completion calls completed (such as, answered) that resulted because the caller accepted the CICADA service offer while receiving operator treatment.

n[1] = Total number of DIOR country-to-country (CTC) requests attempted. This number is pegged if the DIOR call passes the following country pair screening (CPS) checks: The call is an automated initial, automated sequence, or operator-assisted DIOR call and the forward number is either an international forward number or a North American numbering plan (NANP) forward number where the NPA-NXX is outside the United States as indicated by RC/V View 26.6.

o[1] = This peg count is the total number of DIOR CPS requests that are allowed. This is pegged when a successful DIOR CPS ATTEMPT passes the following additional data checks:

- The DIOR originating country code and carrier has an entry in RC/V View 27.8.
- For the originating country code and carrier, the called number is allowed based on RC/V View 27.8 data that defines the completion type and related terminating countries (in the terminating country identifier list field). Possible completion types and their meanings are:

  `WORLD` = All successful attempts allowed.

  `WORLD-` = All successful attempts allowed except for those to countries defined in the terminating country identifier list.

  `MEMBER` = Allowed only if call is to a country defined to be a DIOR club member.

  `MEMBER+` = Allowed only if call is to a DIOR club member country or to a country defined in the terminating country identifier list.

  `MEMBER-` = Allowed only if the call is to a DIOR club member country that is not defined in the terminating country identifier list.

- For `MEMBER`, `MEMBER+`, and `MEMBER-`, the terminating country is defined to be a member in either RC/V View 26.6 for NANP international, or RC/V View 27.8 for international forward numbers.

p[1] = Total number of attempts of automated initial DIOR speed dialing calls, operator assisted DIOR speed dialing calls, and sequenced DIOR speed dialing calls. This count is pegged after the DIOR speed dialing access code entered has been verified as matching the DIOR speed dialing service access code (DSD SERVICE CODE) on RC/V View 8.9.

q[1] = Number of successfully translated DIOR speed dialing speed codes. This count is pegged after a DIOR speed dialing call attempt has successfully completed translating the speed code to a forward number using RC/V View 27.9.

r[1] = Total number of times the sum of direct international origination offered transfer to operator

(DOTTO) announcements A1, A2, A3, A4, A5, A6, A7, and A8 are offered to the customer.

s^1 = Total number of times that callers accept transfer to an operator after any of the DOTTO announcements A1 through A8 have been played and operator seizure has resulted.

t^1 = Total number of times a DOTTO call that has been routed to an operator results in a call attempt. This single measurement is the sum of call attempts to a new number and calls to the same number.

u^1 = Total number of times a call has resulted in an automated sequence call after announcement A2, A4, A5, A6, and A8 have been played.

v^1 =Total number of calls that received DIOR CPS special screening table checks.

w^1 = Total number of calls (initial and sequence) that received DIOR CPS special screening table checks and are eligible for DIOR CPS-card screening.

x^1 = Total number of calls (initial and sequence) routed for completion that received DIOR CPS special screening table checks and were eligible for DIOR CPS-card screening.

y^1 = Total number of calls (initial and sequence) that received DIOR CPS special screening table checks and are eligible for DIOR CPS-terminating operator handling.

z^1 = Total number of calls (initial and sequence) routed for completion that received DIOR CPS special screening table checks and were eligible for DIOR CPS-terminating operator handling.

a^2 = Total number of DIOR international 800 (I800) call attempts, where the forward number is determined to be an 800 number.

b^2 = Total number of DIOR I800 "Toll-free" calls that are successfully answered.

c^2 = Total number of DIOR I800 "Caller-paid" calls that are successfully answered.

d^2 = Total number of DIOR I800 "Blocked" calls that result in the caller hanging up, without a new call attempt being made.

e^2 = Number of inmate calling services (ICS) calls routed to the external information system (EIS). This measurement counts the number of request action messages sent to the EIS by OSPS.

f^2 = Number of ICS calls completed by the EIS. This measurement counts the number of initial begin billing messages received by OSPS from the EIS.

g^2 = Number of times that the ICS timer T1 has expired. Timer T1 is used when OSPS informs the vendor of the arrival of a call that's eligible for inmate calling services treatment. It is also used when a call terminating error condition is encountered after communication has been established with the EIS.

h^2 = Number of times that the ICS timer T2 has expired without OSPS receiving a call processing data link (CPDL) message from the EIS. Timer T2 is used when OSPS recognizes that the EIS has gone off-hook on the external audio response unit (ARU) trunk selected by OSPS for communication between the back party and the EIS.

i^2 = Number of times that the ICS timer T3 has expired without OSPS receiving a CPDL message from the EIS. Timer T3 is used when OSPS has determined that billing is acceptable for the associated call and that, from an OSPS perspective, the call can be allowed to complete.

j^2 = Number of DIOR calls where the forward number is determined to be a DIOR network remote access (NRA) 800 number and the DIOR NRA treatment is allowed.

k^2 = Number of allowed DIOR NRA calls successfully answered.

l^2 = Number of DIOR calls where the forward number is determined to be a DIOR NRA 800 number and the DIOR NRA treatment is blocked.

m^2 = Number of automated calling card service (ACCS) calls and automated position system (APS) calls that invoke automation of TCS/CPS override (ATCO) processing.

n^2 = Number of operator-assisted initial seizure calls with TCS/CPS card restrictions that are eligible for ATCO processing. This does not include APS calls.

o^2 = Number of calls that are transferred to ATCO processing by the operator. This does not include APS calls.

p^2 = Number of ATCO calls that successfully connect to the international card verification center (ICVC) and receive answer supervision.

q^2 = Number of times the call information announcement is played to the ICVC attendant on ATCO calls.

r^2 = Number of ATCO calls that enter into a verification dialogue between the ICVC attendant and the caller.

s^2 = Number of ATCO calls that are allowed by the ICVC attendant prior to the attendant conversing with the caller.

t^2 = Number of ATCO calls that are denied by the ICVC attendant prior to the ICVC attendant conversing with the caller.

u^2 = Number of ATCO calls that are sent to an operator queue for "other-billing" by the ICVC attendant prior to the ICVC attendant conversing with the caller.

v^2 = Number of ATCO calls that are sent to an operator queue for "operator assistance" by the ICVC attendant prior to the ICVC attendant conversing with the caller.

w^2 = Number of ATCO calls that are given the bail out warning announcement prior to the ICVC attendant conversing with the caller.

x^2 = Number of ATCO calls that are sent to an OSPS operator queue due to the caller being "split" for too long a period of time prior to the ICVC attendant conversing with the caller. This number includes bail outs from the initial call set-up segment of an ATCO call.

y^2 = Number of ATCO calls that are allowed by the ICVC attendant after the ICVC attendant converses with the caller.

z^2 = Number of ATCO calls that are denied by the ICVC attendant after the ICVC attendant converses with the caller.

a^3 = Number of ATCO calls that are sent to an operator queue for "other-billing" by the ICVC attendant after the ICVC attendant converses with the caller.

b^3 = Number of ATCO calls that are sent to an operator queue for "operator-assistance" by the ICVC attendant after the ICVC attendant converses with the caller.

c^3 = Number of ATCO calls that are given the bail out warning announcement during the verification dialogue between the ICVC attendant and caller.

d^3 = Number of ATCO calls that are sent to an OSPS operator queue due to the verification dialogue continuing for too long a period of time or due to a delay in the entering of a call disposition after the ICVC attendant has "split" the caller.

e^3 = Number of times the help message is given to an ICVC attendant for an ATCO call prior to the ICVC attendant conversing with the caller.

f^3 = Number of times that the ICVC attendant keys in an invalid dual tone multifrequency (DTMF) entry for an ATCO call prior to the ICVC attendant conversing with the caller.

g^3 = Number of times that the caller abandons an ATCO call prior to the ICVC attendant conversing with the caller.

h^3 = Number of times that the ICVC attendant disconnects an ATCO call unexpectedly prior to having a verification dialogue with the caller.

i^3 = Total duration of ATCO calls prior to the ICVC attendant conversing with the caller. The duration is represented as "minutes : seconds." This is the "minutes" portion of the duration value.

j^3 = Total duration of ATCO calls prior to the ICVC attendant conversing with the caller. The duration is represented as "minutes : seconds." This is the "seconds" portion of the duration value.

k^3 = Number of times the help message is given to the ICVC attendant during the verification dialogue of an ATCO call.

l^3 = Number of times that the ICVC attendant keys an invalid DTMF entry during the verification dialogue of an ATCO call.

m^3 = Number of times that the caller abandons during the verification dialogue of an ATCO call.

n^3 = Number of times that the ICVC attendant disconnects an ATCO call unexpectedly during the verification dialogue with the caller.

o^3 = Total duration of ATCO calls after the ICVC attendant and caller enter into a verification dialogue. The duration is represented as "minutes : seconds". This is the "minutes" portion of the duration value.

p^3 = Total duration of ATCO calls after the ICVC attendant and caller enter into a verification dialogue. The duration is represented as "minutes: seconds". This is the "seconds" portion of the duration value.

q^3 = Number of callers who receive a busy VMS prompt announcement.

r^3 = Number of callers who receive a ring/no answer VMS prompt announcement.

s^3 = Number of callers who are eligible for the ring/no answer VMS prompt announcement but who hang up before the announcement playback begins.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module (AM) applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

RC/V View(s):

8.9 (OSPS OFFICE PARAMETERS)
8.22 (SECURED FEATURE UPGRADE)
26.6 (NPA-NXXS OUTSIDE THE UNITED STATES)
27.1 (OSPS TERMINATING CODE SCREENING TEXT AND RESTRICTIONS)
27.2 (OSPS TERMINATING CODE SCREENING FOR NPA-NXX)
27.7 (OSPS COUNTRY NUMBER TO COUNTRY NAME MAPPING)
27.8 (DIOR COUNTRY PAIR SCREENING PERMISSIONS)
27.9 (OSPS DIOR SPEED DIALING)

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OP:TRFC30-OMISC-B

Software Release: 5E11 only
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 OMISC
  TIME aa:aa:aa
  SECTION 123:  OSPS MISCELLANEOUS CALLS MEASURES
  DIOR
            ATMPT    SEIZED  CCRD    COLL    3RDNO   NOCHG   OTHER
     INIT   b        c       d       e       f       g       h
     SEQ    i        j       k
  AUTO DIOR
            ELIGBL   NOFWD   NOCARD  ANSWER
            f1       g1      h1      i1
  DIOR COUNTRY PAIR SCREENING
            ATMPT    ALLOW   SSCHK   CRDSCR  CRSCMPL TOPHDL  TOHCMPL
            n1       o1      v1      w1      x1      y1      z1
  DIOR SPEED DIALING
            ATMPT    SUCCESS
            p1       q1
  DIOR SEQUENCE ENHANCEMENTS
            ANNC     TRANS   ROUTE   SEQ
            r1       s1      t1      u1
  DIOR TOLL FREE I800 SERVICE
            ATMPT    TLFRANS CLPDANS BLKD
            a2       b2      c2      d2
  DIOR NETWORK REMOTE ACCESS
            ALLOW    ANSW    BLKD
            j2       k2      l2
  DIOR WITH COMMERCIAL CREDIT CARD CALLS
            REJECT
            t3
  MECH
            ALLOW    RECVD   RECALL  ANNC    BLKANNC OPER
            l        m       n       o       p       q
  ITNA
            OFFHOOK  SECURED BNSACPT
            r        s       t
  LISTING SERVICES
            ANNC
            u
  AATOS & SDN/NRA
            AATOS    SDN0-   SDN0+   SDN01+  SDN800  SDNSEQ
            v        w       x       y       z       a1
  VMS
            OPER     AUTO
     ATMPT  b1       d1
     COMPL  c1       e1
```

```
            BUSY      RINGNA  HANGUP
            q3        r3      s3
CICADA CALLS
            ELIGBL    ACCPT   AUTO    OPER
            j1        k1       l1      m1
INMATE CALLING SERVICES
            ROUTE     COMPL   T1EXP   T2EXP   T3EXP
            e2        f2       g2      h2       i2
AUTOMATION OF TERMINATING CODE SCREENING/COUNTRY PAIR SCREENING OVERRIDE
            AUTO      OP_ELIG OPER    CONNECT CALLINF VERIFY
            m2        n2      o2      p2      q2      r2
                      ALLOW   DENY    O_BILL  OPASST  WARNING TIMEOUT
   PRE-VER            s2      t2      u2      v2      w2      x2
   POST-VER           y2      z2      a3      b3      c3      d3
                      HELP    INVALID ABAND   DISCON  DUR
   PRE-VER            e3      f3      g3      h3      i3 : j3
   POST-VER           k3      l3      m3      n3      o3 : p3
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or a scheduled output of section 123: Operator Services Position System (OSPS) miscellaneous calls (OMISC) measures of the 30-minute traffic report. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Number of direct international originations (DIOR) call attempts. When the call is interflowed, the measurement is pegged in the sending switch. Test calls (10X/958,10X/959,10X), calls with signaling errors and sequence calls are not included.

c = Number of initial DIOR calls that are not eligible for automated treatment that seized an operator position. When the call is interflowed, the measurement is pegged in the sending switch. Sequence calls that result in an operator seizure and subsequent operator handled calls are not included.

d = Number of operator handled DIOR calls completed having a "calling card" class of charge. This includes initial, subsequent and subsequent directory assistance (DA) completion calls. When the call is interflowed, the measurement is pegged in the sending switch.

e = Number of operator handled DIOR calls completed having a "collect" class of charge. This includes initial, subsequent and subsequent DA completion calls. When the call is interflowed, the measurement is pegged in the sending switch.

f = Number of operator handled DIOR calls completed having a third number billing class of charge. This includes initial, subsequent and subsequent DA completion calls. When the call is interflowed, the measurement is pegged in the sending switch.

g = Number of operator handled DIOR calls completed having a "no charge" class of charge. This includes initial, subsequent and subsequent DA completion calls. When the call is interflowed, the measurement is pegged in the sending switch.

h = Number of operator handled DIOR calls completed having an "other" class of charge (that is, not

calling card, collect, third number, or no charge). This includes initial, subsequent and subsequent DA completion calls. Unlikely to occur unless originating line screening (OLS) was populated to allow sent paid or autocollect classes of charge and the DIOR operator used such a class of charge on a DIOR call. When the call is interflowed, the measurement is pegged in the sending switch.

i = Number of DIOR automatic calling card service (ACCS) sequence calls attempted. A DIOR caller who is eligible for a DIOR sequence call presses the "#" sign to request a sequence call. To be eligible for a DIOR sequence call, the previous call must have been billed to a calling card and RC/V data for the originating country must allow automated calling. Refer to RC/V View 27.7. This measurement is not pegged for sequence ACCS DA completion calls. When the call is interflowed, the measurement is pegged in the sending switch.

j = Number of valid DIOR ACCS sequence calls that seized an operator position. This can occur if the calling card requires manual validation. This can also occur if a caller attempts to dial a sequence call with a number that is terminating code screening (TCS) restricted and the RC/V data specifies that TCS restricted numbers should seize an operator position as specified in RC/V Views 27.1 and 27.2. This measurement is also pegged for sequence ACCS DA completion calls. When the call is interflowed, the measurement is pegged in the sending switch.

k = Number of DIOR ACCS sequence calls that completed. This includes completed sequence calls that were either fully automated or that seized an operator position. This also includes sequence ACCS CICADA accepted DA calls and DA completion calls that originated as ACCS sequence. When the call is interflowed, the measurement is pegged in the sending switch.

l = Number of calls for which more efficient call handling (MECH) treatment was allowed. This measurement is pegged on both the sending and receiving switch in an interflow configuration.

m = Number of MECH calls released prior to outpulsing in order to float the call until the forward party answers. This means the call received MECH treatment. This measurement is pegged on both the sending and receiving switch in an interflow configuration.

n = Number of MECH calls connected to an operator due to calling customer flash. When the call is interflowed, the measurement is pegged in both the sending and receiving switch.

o = Number of MECH calls successfully routed to an announcement facility for the MECH holding announcement. This measurement is pegged on the receiving switch in an interflow configuration.

p = Number of MECH calls that could not be routed to an announcement facility for the MECH holding announcement. This measurement is pegged on the receiving switch in an interflow configuration.

q = Number of MECH calls connected to a second operator due to the reception of forward party answer supervision from the called station. When the call is interflowed, the measurement is pegged in both the sending and receiving switch.

r = Number of times an off-hook was received on a connection to a third number when the class of charge was a back third number and the improved third number acceptance (ITNA) feature is active. If multiple connections are made to a third party and multiple off hooks are received on the connection by the same third party number the count is only increment by one. Examples of when multiple connections might be made using the same third party number are when voice path has distorted transmission or the back party changes from intraLATA to an interLATA call. When the call is interflowed, the count must be pegged only at the sending switch.

s = Number of third number calls for which ITNA was secured when the class of charge was a back third number. This count is only incremented by one when the accept billing key is depressed once or multiple times and the "ACCPT BLG" is displayed when a call is released from the operator

position. When the call is interflowed, the count must be pegged only at the sending switch.

t = Number of times the billed number screening (BNS) database returned a reply of "always accept" in response to a ITNA query on a third number when the class of charge was a back third number. When the call is interflowed, the count must be pegged only at the sending switch.

u = Number of times the listing access complete key (may also be known as verbal report) was depressed for a verbal announcement. The listing access complete key is a vender controlled key.

v = Number of 1+800 calls marked as non-software defined network/network remote access (SDN/NRA) calls when routed from the OSPS. The calls originate as 1+800 alternate access to operator services (AATOS) or SDN/NRA, but are routed over the public network.

w = Number of 0- calls marked as SDN/NRA calls when routed from the OSPS. Pegged only on initial calling card calls that are routed over the private network.

x = Number of 0+ calls marked as SDN/NRA calls when routed from the OSPS. Pegged only on initial calling card calls that are routed over the private network.

y = Number of 01+ calls marked as SDN/NRA calls when routed from the OSPS. Pegged only on initial calling card calls that are routed over the private network.

z = Number of 1+800 calls marked as SDN/NRA calls when routed from the OSPS. Pegged on all calls that originate as 1+800 AATOS or SDN/NRA, but are routed over the private network.

a^1 = Number of sequence calls marked as SDN/NRA calls when routed from the OSPS. Pegged for automated sequence calls that are routed over the private network.

b^1 = Number of voice message service (VMS) operator-handled call attempts. It is considered an attempt, and is pegged when a correct service code and a valid access code, that is, 1ZXXX or 19ZXXX, is entered. Note: The VMS measurements information for variable fields 'b^1', 'c^1', 'd^1', and 'e^1', will be reported on TRFC30-OVMS, section 168, if the OSPS VMS SVC Measurements secured feature is active.

c^1 = Number of VMS operator-handled call completions. This is pegged on completion of the call information transfer process.

d^1 = Number of VMS automated call attempts. It is considered an attempt, and is pegged when a correct service code and a valid access code, such as, 1ZXXX or 19ZXXX, is entered.

e^1 = Number of VMS automated call completions. This is pegged on completion of the call information transfer process.

f^1 = Number of initial DIOR calls eligible for automated treatment. Eligible calls are those received from countries that have the "automated handling allowed" bit set to Y.

g^1 = Number of initial DIOR calls eligible for automated treatment that are connected to the operator before successful forward number entry by the caller. This will happen if the caller dials nothing and times out, dials 0, 0#, dials a forward number that encounters a terminating point restriction, or dials an invalid forward number. This will be pegged on the sending switch in an interflow configuration.

h^1 = Number of initial DIOR calls eligible for automated treatment that are connected to the operator after the caller has successfully dialed the forward number and the OSPS has played the card entry prompt. This happens if following the card prompt the customer times out, dials 0, dials 0#, OLS restricts calling card billing, or the customer dials a card number that receives a network call denial.

This will be pegged on the sending switch in an interflow configuration.

i[1] = Number of fully automated initial DIOR calls that are answered by the forward party. This includes CICADA accepted DA calls and DA completion calls that originated as ACCS.

j[1] = Total number of completion of interLATA calls accessing directory assistance (CICADA) - eligible directory assistance (DA) calls handled by the OSPS - whether or not the caller accepted CICADA service.

k[1] = Total number of CICADA-accepted DA calls answered by local exchange carrier (LEC) DAs. A CICADA-eligible DA call becomes a CICADA-accepted DA call once the caller accepts the CICADA service.

l[1] = Total number of subsequent DA completion calls completed (such as, answered) that resulted because the caller accepted the CICADA service offer while receiving automated treatment.

m[1] = Total number of subsequent DA completion calls completed (such as, answered) that resulted because the caller accepted the CICADA service offer while receiving operator treatment.

n[1] = Total number of DIOR country-to-country (CTC) requests attempted. This number is pegged if the DIOR call passes the following country pair screening (CPS) checks: The call is an automated initial, automated sequence, or operator-assisted DIOR call and the forward number is either an international forward number or a North American numbering plan (NANP) forward number where the NPA-NXX is outside the United States as indicated by RC/V View 26.6.

o[1] = This peg count is the total number of DIOR CPS requests that are allowed. This is pegged when a successful DIOR CPS ATTEMPT passes the following additional data checks:

- The DIOR originating country code and carrier has an entry in RC/V View 27.8.
- For the originating country code and carrier, the called number is allowed based on RC/V View 27.8 data that defines the completion type and related terminating countries (in the terminating country identifier list field). Possible completion types and their meanings are:

  `WORLD` = All successful attempts allowed.

  `WORLD-` = All successful attempts allowed except for those to countries defined in the terminating country identifier list.

  `MEMBER` = Allowed only if call is to a country defined to be a DIOR club member.

  `MEMBER+` = Allowed only if call is to a DIOR club member country or to a country defined in the terminating country identifier list.

  `MEMBER-` = Allowed only if the call is to a DIOR club member country that is not defined in the terminating country identifier list.

- For `MEMBER`, `MEMBER+`, and `MEMBER-`, the terminating country is defined to be a member in either RC/V View 26.6 for NANP international, or RC/V View 27.8 for international forward numbers.

p[1] = Total number of attempts of automated initial DIOR speed dialing calls, operator assisted DIOR speed dialing calls, and sequenced DIOR speed dialing calls. This count is pegged after the DIOR speed dialing access code entered has been verified as matching the DIOR speed dialing service access code (DSD SERVICE CODE) on RC/V View 8.9.

q[1] = Number of successfully translated DIOR speed dialing speed codes. This count is pegged after a DIOR speed dialing call attempt has successfully completed translating the speed code to a forward number using RC/V View 27.9.

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r^1 = Total number of times the sum of direct international origination offered transfer to operator (DOTTO) announcements A1, A2, A3, A4, A5, A6, A7, and A8 are offered to the customer.

s^1 = Total number of times that callers accept transfer to an operator after any of the DOTTO announcements A1 through A8 have been played and operator seizure has resulted.

t^1 = Total number of times a DOTTO call that has been routed to an operator results in a call attempt. This single measurement is the sum of call attempts to a new number and calls to the same number.

u^1 = Total number of times a call has resulted in an automated sequence call after announcement A2, A4, A5, A6, and A8 have been played.

v^1 =Total number of calls that received DIOR CPS special screening table checks.

w^1 = Total number of calls (initial and sequence) that received DIOR CPS special screening table checks and are eligible for DIOR CPS-card screening.

x^1 = Total number of calls (initial and sequence) routed for completion that received DIOR CPS special screening table checks and were eligible for DIOR CPS-card screening.

y^1 = Total number of calls (initial and sequence) that received DIOR CPS special screening table checks and are eligible for DIOR CPS-terminating operator handling.

z^1 = Total number of calls (initial and sequence) routed for completion that received DIOR CPS special screening table checks and were eligible for DIOR CPS-terminating operator handling.

a^2 = Total number of DIOR international 800 (I800) call attempts, where the forward number is determined to be an 800 number.

b^2 = Total number of DIOR I800 "Toll-free" calls that are successfully answered.

c^2 = Total number of DIOR I800 "Caller-paid" calls that are successfully answered.

d^2 = Total number of DIOR I800 "Blocked" calls that result in the caller hanging up, without a new call attempt being made.

e^2 = Number of inmate calling services (ICS) calls routed to the external information system (EIS). This measurement counts the number of request action messages sent to the EIS by OSPS.

f^2 = Number of ICS calls completed by the EIS. This measurement counts the number of initial begin billing messages received by OSPS from the EIS.

g^2 = Number of times that the ICS timer T1 has expired. Timer T1 is used when OSPS informs the vendor of the arrival of a call that's eligible for inmate calling services treatment. It is also used when a call terminating error condition is encountered after communication has been established with the EIS.

h^2 = Number of times that the ICS timer T2 has expired without OSPS receiving a call processing data link (CPDL) message from the EIS. Timer T2 is used when OSPS recognizes that the EIS has gone off-hook on the external audio response unit (ARU) trunk selected by OSPS for communication between the back party and the EIS.

i^2 = Number of times that the ICS timer T3 has expired without OSPS receiving a CPDL message from the EIS. Timer T3 is used when OSPS has determined that billing is acceptable for the

associated call and that, from an OSPS perspective, the call can be allowed to complete.

j^2 = Number of DIOR calls where the forward number is determined to be a DIOR network remote access (NRA) 800 number and the DIOR NRA treatment is allowed.

k^2 = Number of allowed DIOR NRA calls successfully answered.

l^2 = Number of DIOR calls where the forward number is determined to be a DIOR NRA 800 number and the DIOR NRA treatment is blocked.

m^2 = Number of automated calling card service (ACCS) calls and automated position system (APS) calls that invoke automation of TCS/CPS override (ATCO) processing.

n^2 = Number of operator-assisted initial seizure calls with TCS/CPS card restrictions that are eligible for ATCO processing. This does not include APS calls.

o^2 = Number of calls that are transferred to ATCO processing by the operator. This does not include APS calls.

p^2 = Number of ATCO calls that successfully connect to the international card verification center (ICVC) and receive answer supervision.

q^2 = Number of times the call information announcement is played to the ICVC attendant on ATCO calls.

r^2 = Number of ATCO calls that enter into a verification dialogue between the ICVC attendant and the caller.

s^2 = Number of ATCO calls that are allowed by the ICVC attendant prior to the attendant conversing with the caller.

t^2 = Number of ATCO calls that are denied by the ICVC attendant prior to the ICVC attendant conversing with the caller.

u^2 = Number of ATCO calls that are sent to an operator queue for "other-billing" by the ICVC attendant prior to the ICVC attendant conversing with the caller.

v^2 = Number of ATCO calls that are sent to an operator queue for "operator assistance" by the ICVC attendant prior to the ICVC attendant conversing with the caller.

w^2 = Number of ATCO calls that are given the bail out warning announcement prior to the ICVC attendant conversing with the caller.

x^2 = Number of ATCO calls that are sent to an OSPS operator queue due to the caller being "split" for too long a period of time prior to the ICVC attendant conversing with the caller. This number includes bail outs from the initial call set-up segment of an ATCO call.

y^2 = Number of ATCO calls that are allowed by the ICVC attendant after the ICVC attendant converses with the caller.

z^2 = Number of ATCO calls that are denied by the ICVC attendant after the ICVC attendant converses with the caller.

a^3 = Number of ATCO calls that are sent to an operator queue for "other-billing" by the ICVC attendant after the ICVC attendant converses with the caller.

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b^3 = Number of ATCO calls that are sent to an operator queue for "operator-assistance" by the ICVC attendant after the ICVC attendant converses with the caller.

c^3 = Number of ATCO calls that are given the bail out warning announcement during the verification dialogue between the ICVC attendant and caller.

d^3 = Number of ATCO calls that are sent to an OSPS operator queue due to the verification dialogue continuing for too long a period of time or due to a delay in the entering of a call disposition after the ICVC attendant has "split" the caller.

e^3 = Number of times the help message is given to an ICVC attendant for an ATCO call prior to the ICVC attendant conversing with the caller.

f^3 = Number of times that the ICVC attendant keys in an invalid dual tone multifrequency (DTMF) entry for an ATCO call prior to the ICVC attendant conversing with the caller.

g^3 = Number of times that the caller abandons an ATCO call prior to the ICVC attendant conversing with the caller.

h^3 = Number of times that the ICVC attendant disconnects an ATCO call unexpectedly prior to having a verification dialogue with the caller.

i^3 = Total duration of ATCO calls prior to the ICVC attendant conversing with the caller. The duration is represented as "minutes : seconds." This is the "minutes" portion of the duration value.

j^3 = Total duration of ATCO calls prior to the ICVC attendant conversing with the caller. The duration is represented as "minutes : seconds." This is the "seconds" portion of the duration value.

k^3 = Number of times the help message is given to the ICVC attendant during the verification dialogue of an ATCO call.

l^3 = Number of times that the ICVC attendant keys an invalid DTMF entry during the verification dialogue of an ATCO call.

m^3 = Number of times that the caller abandons during the verification dialogue of an ATCO call.

n^3 = Number of times that the ICVC attendant disconnects an ATCO call unexpectedly during the verification dialogue with the caller.

o^3 = Total duration of ATCO calls after the ICVC attendant and caller enter into a verification dialogue. The duration is represented as "minutes : seconds". This is the "minutes" portion of the duration value.

p^3 = Total duration of ATCO calls after the ICVC attendant and caller enter into a verification dialogue. The duration is represented as "minutes: seconds". This is the "seconds" portion of the duration value.

q^3 = Number of callers who receive a busy VMS prompt announcement.

r^3 = Number of callers who receive a ring/no answer VMS prompt announcement.

s^3 = Number of callers who are eligible for the ring/no answer VMS prompt announcement but who hang up before the announcement playback begins.

t^3 = Number of times a commercial credit card (CCC) number entry on a DIOR call is rejected because the call was ineligible for CCC billing.

4. ACTIONS TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module (AM) applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

RC/V View(s):

8.9 (OSPS OFFICE PARAMETERS)
8.22 (SECURED FEATURE UPGRADE)
26.6 (NPA-NXXS OUTSIDE THE UNITED STATES)
27.1 (OSPS TERMINATING CODE SCREENING TEXT AND RESTRICTIONS)

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27.2 (OSPS TERMINATING CODE SCREENING FOR NPA-NXX)
27.7 (OSPS COUNTRY NUMBER TO COUNTRY NAME MAPPING)
27.8 (DIOR COUNTRY PAIR SCREENING PERMISSIONS)
27.9 (OSPS DIOR SPEED DIALING)
27.90 (DIOR WITH CCC CAPABILITY)

OP:TRFC30-OMISC-C

Software Release: 5E12 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 OMISC
  TIME aa:aa:aa
  SECTION 123:  OSPS MISCELLANEOUS CALLS MEASURES
  DIOR
            ATMPT    SEIZED  CCRD    COLL    3RDNO   NOCHG   OTHER
     INIT   b        c       d       e       f       g       h
     SEQ    i        j       k
  AUTO DIOR
            ELIGBL   NOFWD   NOCARD  ANSWER
            f1       g1      h1      i1
  DIOR COUNTRY PAIR SCREENING
            ATMPT    ALLOW   SSCHK   CRDSCR  CRSCMPL TOPHDL  TOHCMPL
            n1       o1      v1      w1      x1      y1      z1
  DIOR SPEED DIALING
            ATMPT    SUCCESS
            p1       q1
  DIOR SEQUENCE ENHANCEMENTS
            ANNC     TRANS   ROUTE   SEQ
            r1       s1      t1      u1
  DIOR TOLL FREE I800 SERVICE
            ATMPT    TLFRANS CLPDANS BLKD
            a2       b2      c2      d2
  DIOR NETWORK REMOTE ACCESS
            ALLOW    ANSW    BLKD
            j2       k2      l2
  DIOR WITH COMMERCIAL CREDIT CARD CALLS
            REJECT
            t3
  DIOR PERSONAL TOLL-FREE NUMBER
            ANS      CHK     POS     NEG     INDET
            u3       v3      w3      x3      y3
  DIOR CALLING CARD RESTRICTIONS TO DOMESTIC TERMINATIONS
            CCRDT
            z3
  MECH
            ALLOW    RECVD   RECALL  ANNC    BLKANNC OPER
            l        m       n       o       p       q
  ITNA
            OFFHOOK  SECURED BNSACPT
            r        s       t
  LISTING SERVICES
            ANNC
            u
  AATOS & SDN/NRA
```

```
            AATOS     SDN0-    SDN0+    SDN01+   SDN800   SDNSEQ
            v         w        x        y        z        a1
VMS
            OPER      AUTO
   ATMPT    b1        d1
   COMPL    c1        e1
            BUSY      RINGNA   HANGUP
            q3        r3       s3
CICADA CALLS
            ELIGBL    ACCPT    AUTO     OPER
            j1        k1        l1       m1
INMATE CALLING SERVICES
            ROUTE     COMPL    T1EXP    T2EXP    T3EXP
            e2        f2        g2       h2        i2
AUTOMATION OF TERMINATING CODE SCREENING/COUNTRY PAIR SCREENING OVERRIDE
            AUTO      OP_ELIG  OPER     CONNECT  CALLINF  VERIFY
            m2        n2       o2       p2       q2       r2
                      ALLOW    DENY     O_BILL   OPASST   WARNING  TIMEOUT
   PRE-VER            s2       t2       u2       v2       w2       x2
   POST-VER           y2       z2       a3       b3       c3       d3
                      HELP     INVALID  ABAND    DISCON   DUR
   PRE-VER            e3       f3       g3       h3       i3 : j3
   POST-VER           k3       l3       m3       n3       o3 : p3
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or a scheduled output of section 123: Operator Services Position System (OSPS) miscellaneous calls (OMISC) measures of the 30-minute traffic report. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Number of direct international originations (DIOR) call attempts. When the call is interflowed, the measurement is pegged in the sending switch. Test calls (10X/958,10X/959,10X), calls with signaling errors and sequence calls are not included.

c = Number of initial DIOR calls that are not eligible for automated treatment that seized an operator position. When the call is interflowed, the measurement is pegged in the sending switch. Sequence calls that result in an operator seizure and subsequent operator handled calls are not included.

d = Number of operator handled DIOR calls completed having a "calling card" class of charge. This includes initial, subsequent and subsequent directory assistance (DA) completion calls. When the call is interflowed, the measurement is pegged in the sending switch.

e = Number of operator handled DIOR calls completed having a "collect" class of charge. This includes initial, subsequent and subsequent DA completion calls. When the call is interflowed, the measurement is pegged in the sending switch.

f = Number of operator handled DIOR calls completed having a third number billing class of charge. This includes initial, subsequent and subsequent DA completion calls. When the call is interflowed,

the measurement is pegged in the sending switch.

g = Number of operator handled DIOR calls completed having a "no charge" class of charge. This includes initial, subsequent and subsequent DA completion calls. When the call is interflowed, the measurement is pegged in the sending switch.

h = Number of operator handled DIOR calls completed having an "other" class of charge (that is, not calling card, collect, third number, or no charge). This includes initial, subsequent and subsequent DA completion calls. Unlikely to occur unless originating line screening (OLS) was populated to allow sent paid or autocollect classes of charge and the DIOR operator used such a class of charge on a DIOR call. When the call is interflowed, the measurement is pegged in the sending switch.

i = Number of DIOR automatic calling card service (ACCS) sequence calls attempted. A DIOR caller who is eligible for a DIOR sequence call presses the "#" sign to request a sequence call. To be eligible for a DIOR sequence call, the previous call must have been billed to a calling card and RC/V data for the originating country must allow automated calling. Refer to RC/V View 27.7. This measurement is not pegged for sequence ACCS DA completion calls. When the call is interflowed, the measurement is pegged in the sending switch.

j = Number of valid DIOR ACCS sequence calls that seized an operator position. This can occur if the calling card requires manual validation. This can also occur if a caller attempts to dial a sequence call with a number that is terminating code screening (TCS) restricted and the RC/V data specifies that TCS restricted numbers should seize an operator position as specified in RC/V Views 27.1 and 27.2. This measurement is also pegged for sequence ACCS DA completion calls. When the call is interflowed, the measurement is pegged in the sending switch.

k = Number of DIOR ACCS sequence calls that completed. This includes completed sequence calls that were either fully automated or that seized an operator position. This also includes sequence ACCS CICADA accepted DA calls and DA completion calls that originated as ACCS sequence. When the call is interflowed, the measurement is pegged in the sending switch.

l = Number of calls for which more efficient call handling (MECH) treatment was allowed. This measurement is pegged on both the sending and receiving switch in an interflow configuration.

m = Number of MECH calls released prior to outpulsing in order to float the call until the forward party answers. This means the call received MECH treatment. This measurement is pegged on both the sending and receiving switch in an interflow configuration.

n = Number of MECH calls connected to an operator due to calling customer flash. When the call is interflowed, the measurement is pegged in both the sending and receiving switch.

o = Number of MECH calls successfully routed to an announcement facility for the MECH holding announcement. This measurement is pegged on the receiving switch in an interflow configuration.

p = Number of MECH calls that could not be routed to an announcement facility for the MECH holding announcement. This measurement is pegged on the receiving switch in an interflow configuration.

q = Number of MECH calls connected to a second operator due to the reception of forward party answer supervision from the called station. When the call is interflowed, the measurement is pegged in both the sending and receiving switch.

r = Number of times an off-hook was received on a connection to a third number when the class of charge was a back third number and the improved third number acceptance (ITNA) feature is active. If multiple connections are made to a third party and multiple off hooks are received on the connection by the same third party number the count is only increment by one. Examples of when

multiple connections might be made using the same third party number are when voice path has distorted transmission or the back party changes from intraLATA to an interLATA call. When the call is interflowed, the count must be pegged only at the sending switch.

s = Number of third number calls for which ITNA was secured when the class of charge was a back third number. This count is only incremented by one when the accept billing key is depressed once or multiple times and the "ACCPT BLG" is displayed when a call is released from the operator position. When the call is interflowed, the count must be pegged only at the sending switch.

t = Number of times the billed number screening (BNS) database returned a reply of "always accept" in response to a ITNA query on a third number when the class of charge was a back third number. When the call is interflowed, the count must be pegged only at the sending switch.

u = Number of times the listing access complete key (may also be known as verbal report) was depressed for a verbal announcement. The listing access complete key is a vender controlled key.

v = Number of 1+800 calls marked as non-software defined network/network remote access (SDN/NRA) calls when routed from the OSPS. The calls originate as 1+800 alternate access to operator services (AATOS) or SDN/NRA, but are routed over the public network.

w = Number of 0- calls marked as SDN/NRA calls when routed from the OSPS. Pegged only on initial calling card calls that are routed over the private network.

x = Number of 0+ calls marked as SDN/NRA calls when routed from the OSPS. Pegged only on initial calling card calls that are routed over the private network.

y = Number of 01+ calls marked as SDN/NRA calls when routed from the OSPS. Pegged only on initial calling card calls that are routed over the private network.

z = Number of 1+800 calls marked as SDN/NRA calls when routed from the OSPS. Pegged on all calls that originate as 1+800 AATOS or SDN/NRA, but are routed over the private network.

a^1 = Number of sequence calls marked as SDN/NRA calls when routed from the OSPS. Pegged for automated sequence calls that are routed over the private network.

b^1 = Number of voice message service (VMS) operator-handled call attempts. It is considered an attempt, and is pegged when a correct service code and a valid access code, that is, 1ZXXX or 19ZXXX, is entered. Note: The VMS measurements information for variable fields 'b^1', 'c^1', 'd^1', and 'e^1', will be reported on TRFC30-OVMS, section 168, if the OSPS VMS SVC Measurements secured feature is active.

c^1 = Number of VMS operator-handled call completions. This is pegged on completion of the call information transfer process.

d^1 = Number of VMS automated call attempts. It is considered an attempt, and is pegged when a correct service code and a valid access code, such as, 1ZXXX or 19ZXXX, is entered.

e^1 = Number of VMS automated call completions. This is pegged on completion of the call information transfer process.

f^1 = Number of initial DIOR calls eligible for automated treatment. Eligible calls are those received from countries that have the "automated handling allowed" bit set to Y.

g^1 = Number of initial DIOR calls eligible for automated treatment that are connected to the operator before successful forward number entry by the caller. This will happen if the caller dials nothing and

times out, dials 0, 0#, dials a forward number that encounters a terminating point restriction, or dials an invalid forward number. This will be pegged on the sending switch in an interflow configuration.

h[1] = Number of initial DIOR calls eligible for automated treatment that are connected to the operator after the caller has successfully dialed the forward number and the OSPS has played the card entry prompt. This happens if following the card prompt the customer times out, dials 0, dials 0#, OLS restricts calling card billing, or the customer dials a card number that receives a network call denial. This will be pegged on the sending switch in an interflow configuration.

i[1] = Number of fully automated initial DIOR calls that are answered by the forward party. This includes CICADA accepted DA calls and DA completion calls that originated as ACCS.

j[1] = Total number of completion of interLATA calls accessing directory assistance (CICADA) - eligible directory assistance (DA) calls handled by the OSPS - whether or not the caller accepted CICADA service.

k[1] = Total number of CICADA-accepted DA calls answered by local exchange carrier (LEC) DAs. A CICADA-eligible DA call becomes a CICADA-accepted DA call once the caller accepts the CICADA service.

l[1] = Total number of subsequent DA completion calls completed (such as, answered) that resulted because the caller accepted the CICADA service offer while receiving automated treatment.

m[1] = Total number of subsequent DA completion calls completed (such as, answered) that resulted because the caller accepted the CICADA service offer while receiving operator treatment.

n[1] = Total number of DIOR country-to-country (CTC) requests attempted. This number is pegged if the DIOR call passes the following country pair screening (CPS) checks: The call is an automated initial, automated sequence, or operator-assisted DIOR call and the forward number is either an international forward number or a North American numbering plan (NANP) forward number where the NPA-NXX is outside the United States as indicated by RC/V View 26.6.

o[1] = This peg count is the total number of DIOR CPS requests that are allowed. This is pegged when a successful DIOR CPS ATTEMPT passes the following additional data checks:

- The DIOR originating country code and carrier has an entry in RC/V View 27.8.
- For the originating country code and carrier, the called number is allowed based on RC/V View 27.8 data that defines the completion type and related terminating countries (in the terminating country identifier list field). Possible completion types and their meanings are:

  `WORLD` = All successful attempts allowed.

  `WORLD-` = All successful attempts allowed except for those to countries defined in the terminating country identifier list.

  `MEMBER` = Allowed only if call is to a country defined to be a DIOR club member.

  `MEMBER+` = Allowed only if call is to a DIOR club member country or to a country defined in the terminating country identifier list.

  `MEMBER-` = Allowed only if the call is to a DIOR club member country that is not defined in the terminating country identifier list.

- For `MEMBER`, `MEMBER+`, and `MEMBER-`, the terminating country is defined to be a member in either RC/V View 26.6 for NANP international, or RC/V View 27.8 for international forward numbers.

p[1] = Total number of attempts of automated initial DIOR speed dialing calls, operator assisted DIOR

speed dialing calls, and sequenced DIOR speed dialing calls. This count is pegged after the DIOR speed dialing access code entered has been verified as matching the DIOR speed dialing service access code (DSD SERVICE CODE) on RC/V View 8.9.

q^1 = Number of successfully translated DIOR speed dialing speed codes. This count is pegged after a DIOR speed dialing call attempt has successfully completed translating the speed code to a forward number using RC/V View 27.9.

r^1 = Total number of times the sum of direct international origination offered transfer to operator (DOTTO) announcements A1, A2, A3, A4, A5, A6, A7, and A8 are offered to the customer.

s^1 = Total number of times that callers accept transfer to an operator after any of the DOTTO announcements A1 through A8 have been played and operator seizure has resulted.

t^1 = Total number of times a DOTTO call that has been routed to an operator results in a call attempt. This single measurement is the sum of call attempts to a new number and calls to the same number.

u^1 = Total number of times a call has resulted in an automated sequence call after announcement A2, A4, A5, A6, and A8 have been played.

v^1 =Total number of calls that received DIOR CPS special screening table checks.

w^1 = Total number of calls (initial and sequence) that received DIOR CPS special screening table checks and are eligible for DIOR CPS-card screening.

x^1 = Total number of calls (initial and sequence) routed for completion that received DIOR CPS special screening table checks and were eligible for DIOR CPS-card screening.

y^1 = Total number of calls (initial and sequence) that received DIOR CPS special screening table checks and are eligible for DIOR CPS-terminating operator handling.

z^1 = Total number of calls (initial and sequence) routed for completion that received DIOR CPS special screening table checks and were eligible for DIOR CPS-terminating operator handling.

a^2 = Total number of DIOR international 800 (I800) call attempts, where the forward number is determined to be an 800 number.

b^2 = Total number of DIOR I800 "Toll-free" calls that are successfully answered.

c^2 = Total number of DIOR I800 "Caller-paid" calls that are successfully answered.

d^2 = Total number of DIOR I800 "Blocked" calls that result in the caller hanging up, without a new call attempt being made.

e^2 = Number of inmate calling services (ICS) calls routed to the external information system (EIS). This measurement counts the number of request action messages sent to the EIS by OSPS.

f^2 = Number of ICS calls completed by the EIS. This measurement counts the number of initial begin billing messages received by OSPS from the EIS.

g^2 = Number of times that the ICS timer T1 has expired. Timer T1 is used when OSPS informs the vendor of the arrival of a call that's eligible for inmate calling services treatment. It is also used when a call terminating error condition is encountered after communication has been established with the EIS.

h^2 = Number of times that the ICS timer T2 has expired without OSPS receiving a call processing data link (CPDL) message from the EIS. Timer T2 is used when OSPS recognizes that the EIS has gone off-hook on the external audio response unit (ARU) trunk selected by OSPS for communication between the back party and the EIS.

i^2 = Number of times that the ICS timer T3 has expired without OSPS receiving a CPDL message from the EIS. Timer T3 is used when OSPS has determined that billing is acceptable for the associated call and that, from an OSPS perspective, the call can be allowed to complete.

j^2 = Number of DIOR calls where the forward number is determined to be a DIOR network remote access (NRA) 800 number and the DIOR NRA treatment is allowed.

k^2 = Number of allowed DIOR NRA calls successfully answered.

l^2 = Number of DIOR calls where the forward number is determined to be a DIOR NRA 800 number and the DIOR NRA treatment is blocked.

m^2 = Number of automated calling card service (ACCS) calls and automated position system (APS) calls that invoke automation of TCS/CPS override (ATCO) processing.

n^2 = Number of operator-assisted initial seizure calls with TCS/CPS card restrictions that are eligible for ATCO processing. This does not include APS calls.

o^2 = Number of calls that are transferred to ATCO processing by the operator. This does not include APS calls.

p^2 = Number of ATCO calls that successfully connect to the international card verification center (ICVC) and receive answer supervision.

q^2 = Number of times the call information announcement is played to the ICVC attendant on ATCO calls.

r^2 = Number of ATCO calls that enter into a verification dialogue between the ICVC attendant and the caller.

s^2 = Number of ATCO calls that are allowed by the ICVC attendant prior to the attendant conversing with the caller.

t^2 = Number of ATCO calls that are denied by the ICVC attendant prior to the ICVC attendant conversing with the caller.

u^2 = Number of ATCO calls that are sent to an operator queue for "other-billing" by the ICVC attendant prior to the ICVC attendant conversing with the caller.

v^2 = Number of ATCO calls that are sent to an operator queue for "operator assistance" by the ICVC attendant prior to the ICVC attendant conversing with the caller.

w^2 = Number of ATCO calls that are given the bail out warning announcement prior to the ICVC attendant conversing with the caller.

x^2 = Number of ATCO calls that are sent to an OSPS operator queue due to the caller being "split" for too long a period of time prior to the ICVC attendant conversing with the caller. This number includes bail outs from the initial call set-up segment of an ATCO call.

y^2 = Number of ATCO calls that are allowed by the ICVC attendant after the ICVC attendant converses with the caller.

z^2 = Number of ATCO calls that are denied by the ICVC attendant after the ICVC attendant converses with the caller.

a^3 = Number of ATCO calls that are sent to an operator queue for "other-billing" by the ICVC attendant after the ICVC attendant converses with the caller.

b^3 = Number of ATCO calls that are sent to an operator queue for "operator-assistance" by the ICVC attendant after the ICVC attendant converses with the caller.

c^3 = Number of ATCO calls that are given the bail out warning announcement during the verification dialogue between the ICVC attendant and caller.

d^3 = Number of ATCO calls that are sent to an OSPS operator queue due to the verification dialogue continuing for too long a period of time or due to a delay in the entering of a call disposition after the ICVC attendant has "split" the caller.

e^3 = Number of times the help message is given to an ICVC attendant for an ATCO call prior to the ICVC attendant conversing with the caller.

f^3 = Number of times that the ICVC attendant keys in an invalid dual tone multifrequency (DTMF) entry for an ATCO call prior to the ICVC attendant conversing with the caller.

g^3 = Number of times that the caller abandons an ATCO call prior to the ICVC attendant conversing with the caller.

h^3 = Number of times that the ICVC attendant disconnects an ATCO call unexpectedly prior to having a verification dialogue with the caller.

i^3 = Total duration of ATCO calls prior to the ICVC attendant conversing with the caller. The duration is represented as "minutes : seconds." This is the "minutes" portion of the duration value.

j^3 = Total duration of ATCO calls prior to the ICVC attendant conversing with the caller. The duration is represented as "minutes : seconds." This is the "seconds" portion of the duration value.

k^3 = Number of times the help message is given to the ICVC attendant during the verification dialogue of an ATCO call.

l^3 = Number of times that the ICVC attendant keys an invalid DTMF entry during the verification dialogue of an ATCO call.

m^3 = Number of times that the caller abandons during the verification dialogue of an ATCO call.

n^3 = Number of times that the ICVC attendant disconnects an ATCO call unexpectedly during the verification dialogue with the caller.

o^3 = Total duration of ATCO calls after the ICVC attendant and caller enter into a verification dialogue. The duration is represented as "minutes : seconds". This is the "minutes" portion of the duration value.

p^3 = Total duration of ATCO calls after the ICVC attendant and caller enter into a verification dialogue. The duration is represented as "minutes: seconds". This is the "seconds" portion of the duration value.

q^3 = Number of callers who receive a busy VMS prompt announcement.

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r[3] = Number of callers who receive a ring/no answer VMS prompt announcement.

s[3] = Number of callers who are eligible for the ring/no answer VMS prompt announcement but who hang up before the announcement playback begins.

t[3] = Number of times a commercial credit card (CCC) number entry on a DIOR call is rejected because the call was ineligible for CCC billing.

u[3] = Number of DIOR calls where the forward number is a personal toll-free (PTF) number and the call was successfully routed and answered.

v[3] = Number of CAS7 queries attempted to check if the DIOR toll-free number entered is a PTF number.

w[3] = Number of replies received from PTF checks which indicate that the toll-free number is a PTF number.

x[3] = Number of replies received from PTF checks which indicate that the toll-free number is not a PTF number.

y[3] = Number of indeterminate replies received from PTF checks. This includes queries not sent due to hardware or software problems, query timeouts, abnormal replies received, error replies received indicating protocol errors, garbled messages received, abort messages received, etc.

z[3] = Number of DIOR initial and sequence card calls that encounter a DIOR Calling Card Restrictions to Domestic Terminations (CCRDT) restriction and the restriction is applied to the call.

This count excludes those calls in which the restriction is automatically overridden. Included in this count are those calls in which a non-AT&T card has been blocked or an AT&T card was blocked or restricted by the CCRDT restrictions.

4. ACTIONS TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module (AM) applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

RC/V View(s):

8.9 (OSPS OFFICE PARAMETERS)
8.22 (SECURED FEATURE UPGRADE)
26.6 (NPA-NXXS OUTSIDE THE UNITED STATES)
27.1 (OSPS TERMINATING CODE SCREENING TEXT AND RESTRICTIONS)
27.2 (OSPS TERMINATING CODE SCREENING FOR NPA-NXX)
27.7 (OSPS COUNTRY NUMBER TO COUNTRY NAME MAPPING)
27.8 (DIOR COUNTRY PAIR SCREENING PERMISSIONS)
27.9 (OSPS DIOR SPEED DIALING)
27.90 (DIOR WITH CCC CAPABILITY)

OP:TRFC30-ORTR

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 ORTR
  TIME aa:aa:aa
  SECTION 63: OSPS REAL-TIME RATING QUERY MEASURES
  QUERIES SENT
     TOTAL  RATEQT   CCQS     T&C   COIN      CL      TEST
     b      c        d        e     p         l       v
  QUERIES NOT SENT
     TOTAL    HDW    OVRLD    NO-ID
     f        g      h        j
  REPLIES
     NPROC   UNEXP  INVFRMT
     q       r      s
     TIMEOUT OVRLD  ABAND
     t       u      m
  REAL-TIME RATING FEATURE SPECIFIC MEASURES
            SUCCESS FAILURE REPLIES
     RATEQT  w       x
     CCQS    y       z
     T&C     a1      b1
     COIN    o       n
     CL      k       i
     TOTAL   c1      d1      e1
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 63: Operator Services Position System (OSPS) real-time rating (ORTR) query measures of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Number of rating queries sent to the real-time rating service (RTRS) database. This number is equal to the sum of variables 'c', 'd', 'e', 'p', and 'l'.

c = Number of rate quote queries sent to the RTRS database.

d = Number of centralized charge quotation system (CCQS) queries sent to the RTRS database.

e = Number of time and charges (T&C) queries sent to the RTRS database.

f = Number of rating queries not sent to the RTRS database. This variable is equal to the sum of

variables 'g', 'h', and 'j'.

g = Number of rating queries not sent to the RTRS because of database link hardware problems. This count is not pegged when a test query cannot be sent to RTRS because of link hardware problems.

h = Number of rating queries not sent to the RTRS because of database cutbacks.

i = Number of CL initial and subsequent RTRS queries that are not successfully rated.

j = Number of rating queries not sent to the RTRS because no query identifiers were available.

k = Number of CL initial and subsequent RTRS queries that are successfully rated.

l = Number of card limit (CL) queries sent to the RTRS database including initial and subsequent queries.

m = Number of times that a rating query was canceled by call processing.

n = Number of coin rating query failures.

o = Number of successful coin rating queries.

p = Number of coin rating queries sent to the RTRS database.

q = Number of RTRS query replies received that indicated that the database was unable to process the reply.

r = Number of unexpected RTRS query replies received.

s = Number of RTRS query replies received in an invalid format.

t = Number of times that the OSPS switch timed out waiting for a reply from the RTRS database.

u = Number of RTRS query replies received that contained a non-zero overload indicator.

v = Number of rating test queries sent to the RTRS database.

w = Number of rating query replies received from the RTRS that indicated a rate quote query was successfully rated.

x = Number of rating query replies received from the RTRS that indicated a rate quote query was not successfully rated.

y = Number of rating query replies received from the RTRS that indicated a CCQS query was successfully rated.

z = Number of rating query replies received that indicated a CCQS query was not successfully rated. This count also includes replies that were successfully rated but the charges were greater than what hotel billing information system (HOBIS) or hotel billing information center (HOBIC) can receive, that is, $999.99.

a[1] = Number of rating query replies received that indicated a T&C query was successfully rated.

b[1] = Number of rating query replies received that indicated a T&C query was not successfully rated.

c[1] = Number of rating query replies received that indicated that the query was successfully rated. This

number is equal to the sum of variables 'w', 'y', 'a[1]', and 'o'.

d[1] = Number of rating query failures. This number is equal to the sum of variables 'x', 'y', 'b[1]', and 'n'.

e[1] = Number of rating query replies received. This number is equal to the sum of variables 'c[1]' and 'd[1]'.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the AM applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-OCOIN
OP:TRFC30-VLD
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):

235-070-100 *Switch Administration Guidelines*

OP:TRFC30-OSPS-A

Software Release: 5E10 only
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 OSPS
  TIME pp:pp:pp
  SECTION 44: OPERATOR SERVICES POSITION SYSTEM MEASUREMENTS
  CALLTYPE   ATTEMPT         FAILURE         SUCCESS
  INCOMING   a               b               c
  OUTGOING   d               e               f
  LOTR       RECALLS REORDER QOVFL   DELAY1  DELAY2  DELAY3
  g          h       i       j       k       l       m
  ABAND      ACD
  n          o
  DACC_RCL
  q
  UNEXPECTED CALLS
  NONSPEECH
r
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or a scheduled output of section 44: Operator Services Position System (OSPS) measurements, of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Number of incoming OSPS call attempts for:
- A directory-assistance (DA) call was received.
- Any automated toll and assistance (T&A) OSPS call (such as, coin, calling card, inward) was received.
- Any operator-assisted T&A OSPS call was received.
- The end of a time-and-charge call which was routed to an operator.
- An intercept call was received.

b = Number of incoming OSPS call attempt failures. Failures associated with DA and intercept calls:
- Call type determination failed.
- Failure to read RC/V View 21.22 to obtain call queue information.
- Failure to read RC/V View 21.7 to determine if interflow was active.
- Failure to read RC/V View 21.27 when interflow, using reroute, was active for the DA serving team assigned to receive the incoming call.
- Could not obtain a directory assistance system computer (DASC) channel number to send a position seizure message to the external information system (EIS).
- Failure to interflow a DA call, using reroute, when interflow was active for the serving team assigned to receive the call.

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Failures associated with the automatic call distributor (ACD):

- Failure to send route request message to the ACD.
- Failure to receive acknowledgement from the ACD acknowledging that an operator request was received.
- Call processing determined that the call received was a Commercial ACD call type but COMMERCIAL ACD in RC/V View 8.30 was set to N.
- Failure of ACD to route a call to an operator for reasons other than the call queue was full.
- Failure to set a system timer to wait for an ACD response to an operator request.
- After a second timeout while waiting for a response from the ACD to an operator request.
- When a system interrupt signal was received while the call was waiting for a response to an operator request from the ACD.

Failures associated with coin toll calls:

- The back party went on-hook while the call was being routed to an operator on a 1+ coin call that required an operator for initial customer contact.
- The back party went on-hook while a queue overflow announcement was being played on a 1+ coin call that required an operator for initial customer contact.
- After successfully giving a queue overflow announcement on a 1+coin call that required an operator for initial customer contact.
- A failure to allocate coin dynamic data on a coin call occurred.
- A 0+ coin test call had bad automatic number identification (ANI).

Other failures:

-
- Failure on an automated calling card service (ACCS) call to release the path to the announcement service circuit on a call that was to be routed to an operator.
- Failure to route to an announcement when a call queue was closed.
- A call queue was closed.
- Failure to route to level 3 delay announcement.
- More than 11 digits were received on an inward call.
- Digit analysis failed on a 950, 0+, 0-, or 011+ call.
- Digit analysis failed on an ACCS call being routed to an operator.

c = Number of successful incoming OSPS call attempts. Equal to 'a' - 'b'.

d = Number of times an operator attempted to initiate a call to a point external to the switch using the DIAL key on a basic services terminal (BST) or an operator initiated a delayed call using BK# SEND or FWD# SEND from a video display terminal (VDT) or combined services terminal (CST).

e = Number of times an operator canceled an external call by entering the DIAL or POSREL key on a BST or a routing failure occurred on an outgoing call as defined by OUTGOING ATTEMPT.

f = Number of successful outgoing OSPS call attempts. Equal to the sum of variables 'd' and 'e'.

g = Number of local operator trouble reports created by operators who entered SPCL-digits-ENTER at a BST or by operators who entered a valid trouble number at a VDT, CST or BST-LS.

h = Number of recall seizures to operators for:

- A failure to set up or play an announcement on a DA or intercept call.
- The back party remained off-hook after the announcement had been played on a DA call.

- The back party remained off-hook after the announcement had been played on an intercept call where call completion was not offered to the calling party.
- For a T&A call, the back party flashed with or without a forward party connected and the call was connected to an operator.
- A time and charge (T&C) call had ended and was connected to an operator.
- For a DA call completion call, the back party flashed with or without a forward party connected and the call was connected to an operator.
- For a DA call completion call, the back party keyed a (DTMF) star (*) that OSPS accepted as a DA recall.

i = Number of OSPS calls routed to reorder tone for and of:
- A rating query failed on an initial automated coin toll service (ACTS) coin call.
- Failure to get a conference circuit on an initial ACTS coin call.
- Failure to route a call to an operator.
- Failure to route a call to a closed queue announcement.

j = Number of times the ACD tried to queue a call and either the call queue was full or no call queue data blocks (CQDBs) were available to queue the call. CQDBs are system data allocated to each queued call.

k = Number of times the ACD queued a call and determined that a level 1 delay announcement should be played because the expected delay of the call just queued equals or exceeds the delay 1 threshold assigned to the call queue.

l = Number of times the ACD queued a call and determined that a level 2 delay announcement should be played because the expected delay of the call just queued equals or exceeds the delay 2 threshold assigned to the call queue.

m = Number of times the ACD queued a call and determined that a level 3 delay announcement should be played because the expected delay of the call just queued equals or exceeds the delay 3 threshold assigned to the call queue.

n = Number of times the ACD successfully removed a queued call for which the back party had gone on-hook.

o = Number of times a request was made for a connection to an operator or an operator conferenced or transferred a call to a specified operator identifier or position number.

p = Time when the report was prepared, in the form hours:minutes:seconds.

q = Number of times a dual tone multi-frequency (DTMF) star (*) is received to request reconnection to a listing services/directory assistance (LS/DA) operator position as a recall under the customer-controlled reconnect to LS/DA feature. Also included in RECALLS (h).

r = Number of incoming OSPS SS7 calls received with an information transfer capability other than "speech" or "3.1-kHz audio" in the initial address message (IAM) user service information parameter. Such calls cannot be handled by OSPS.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report

with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

RC/V View(s):

8.9 (OSPS OFFICE PARAMETERS)
8.30 (OSPS COMMERCIAL ACD PARAMETERS)
21.22 (OSPS CALL TYPE)
21.27 (OSPS LISTING SERVICES/C-ACD INTERFLOW DESTINATION)
21.7 (OSPS IMMEDIATE INTERFLOW ACTIVATION AND DEACTIVATION)

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OP:TRFC30-OSPS-B

Software Release: 5E11 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 OSPS
  TIME pp:pp:pp
  SECTION 44: OPERATOR SERVICES POSITION SYSTEM MEASUREMENTS
  CALLTYPE   ATTEMPT         FAILURE         SUCCESS
  INCOMING   a               b               c
  OUTGOING   d               e               f
  LOTR       RECALLS REORDER QOVFL   DELAY1  DELAY2  DELAY3
  g          h       i       j       k       l       m
  ABAND      ACD
  n          o
  DACC_RCL
  q
  UNEXPECTED CALLS
  NONSPEECH
  r
  CCS7 WIRELESS
  RCVD       ANSW
  s          t
  LNP INFO RECEIVED
  CALLED
  u
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or a scheduled output of section 44: Operator Services Position System (OSPS) measurements, of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Number of incoming OSPS call attempts for:
- A directory-assistance (DA) call was received.
- Any automated toll and assistance (T&A) OSPS call (such as, coin, calling card, inward) was received.
- Any operator-assisted T&A OSPS call was received.
- The end of a time-and-charge call which was routed to an operator.
- An intercept call was received.

b = Number of incoming OSPS call attempt failures. Failures associated with DA and intercept calls:
- Call type determination failed.
- Failure to read RC/V View 21.22 to obtain call queue information.
- Failure to read RC/V View 21.7 to determine if interflow was active.
- Failure to read RC/V View 21.27 when interflow, using reroute, was active for the DA serving team assigned to receive the incoming call.
- Could not obtain a directory assistance system computer (DASC) channel number

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to send a position seizure message to the external information system (EIS).
- Failure to interflow a DA call, using reroute, when interflow was active for the serving team assigned to receive the call.

Failures associated with the automatic call distributor (ACD):
- Failure to send route request message to the ACD.
- Failure to receive acknowledgement from the ACD acknowledging that an operator request was received.
- Call processing determined that the call received was a Commercial ACD call type but COMMERCIAL ACD in RC/V View 8.30 was set to N.
- Failure of ACD to route a call to an operator for reasons other than the call queue was full.
- Failure to set a system timer to wait for an ACD response to an operator request.
- After a second timeout while waiting for a response from the ACD to an operator request.
- When a system interrupt signal was received while the call was waiting for a response to an operator request from the ACD.

Failures associated with coin toll calls:
- The back party went on-hook while the call was being routed to an operator on a 1+ coin call that required an operator for initial customer contact.
- The back party went on-hook while a queue overflow announcement was being played on a 1+ coin call that required an operator for initial customer contact.
- After successfully giving a queue overflow announcement on a 1+coin call that required an operator for initial customer contact.
- A failure to allocate coin dynamic data on a coin call occurred.
- A 0+ coin test call had bad automatic number identification (ANI).

Other failures:
- Failure to define a path to an operator.
- Failure on an automated calling card service (ACCS) call to release the path to the announcement service circuit on a call that was to be routed to an operator.
- Failure to route to an announcement when a call queue was closed.
- A call queue was closed.
- Failure to route to level 3 delay announcement.
- More than 11 digits were received on an inward call.
- Digit analysis failed on a 950, 0+, 0-, or 011+ call.
- Digit analysis failed on an ACCS call being routed to an operator.

c = Number of successful incoming OSPS call attempts. Equal to 'a' - 'b'.

d = Number of times an operator attempted to initiate a call to a point external to the switch using the DIAL key on a basic services terminal (BST) or an operator initiated a delayed call using BK# SEND or FWD# SEND from a video display terminal (VDT) or combined services terminal (CST).

e = Number of times an operator canceled an external call by entering the DIAL or POSREL key on a BST or a routing failure occurred on an outgoing call as defined by OUTGOING ATTEMPT.

f = Number of successful outgoing OSPS call attempts. Equal to the sum of variables 'd' and 'e'.

g = Number of local operator trouble reports created by operators who entered SPCL-digits-ENTER at

a BST or by operators who entered a valid trouble number at a VDT, CST or BST-LS.

h = Number of recall seizures to operators for:
- A failure to set up or play an announcement on a DA or intercept call.
- The back party remained off-hook after the announcement had been played on a DA call.
- The back party remained off-hook after the announcement had been played on an intercept call where call completion was not offered to the calling party.
- For a T&A call, the back party flashed with or without a forward party connected and the call was connected to an operator.
- A time and charge (T&C) call had ended and was connected to an operator.
- For a DA call completion call, the back party flashed with or without a forward party connected and the call was connected to an operator.
- For a DA call completion call, the back party keyed a dual tone multi-frequency (DTMF) star (*) that OSPS accepted as a DA recall.

i = Number of OSPS calls routed to reorder tone for and of:
- A rating query failed on an initial automated coin toll service (ACTS) coin call.
- Failure to get a conference circuit on an initial ACTS coin call.
- Failure to route a call to an operator.
- Failure to route a call to a closed queue announcement.

j = Number of times the ACD tried to queue a call and either the call queue was full or no call queue data blocks (CQDBs) were available to queue the call. CQDBs are system data allocated to each queued call.

k = Number of times the ACD queued a call and determined that a level 1 delay announcement should be played because the expected delay of the call just queued equals or exceeds the delay 1 threshold assigned to the call queue.

l = Number of times the ACD queued a call and determined that a level 2 delay announcement should be played because the expected delay of the call just queued equals or exceeds the delay 2 threshold assigned to the call queue.

m = Number of times the ACD queued a call and determined that a level 3 delay announcement should be played because the expected delay of the call just queued equals or exceeds the delay 3 threshold assigned to the call queue.

n = Number of times the ACD successfully removed a queued call for which the back party had gone on-hook.

o = Number of times a request was made for a connection to an operator or an operator conferenced or transferred a call to a specified operator identifier or position number.

p = Time when the report was prepared, in the form hours:minutes:seconds.

q = Number of times a DTMF star (*) is received to request reconnection to a listing services/directory assistance (LS/DA) operator position as a recall under the customer-controlled reconnect to LS/DA feature. Also included in RECALLS (h).

r = Number of incoming OSPS SS7 calls received with an information transfer capability other than "speech" or "3.1-kHz audio" in the initial address message (IAM) user service information parameter. Such calls cannot be handled by OSPS.

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`s` = Number of SS7 signaled wireless call received. OSPS shall peg this count after recognizing a call received on a CCS7 ISUP trunk group as an SS7 signaled wireless call.

`t` = Number of SS7 signaled wireless calls for which billable answer was returned. OSPS shall peg this count on calls requiring billable answer after returning the answer message.

`u` = Number of calls received with local number portability (LNP) processing already performed for the called number.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

RC/V View(s):

8.9 (OSPS OFFICE PARAMETERS)
8.30 (OSPS COMMERCIAL ACD PARAMETERS)
8.41 (OSPS FEATURE PARAMETERS)
21.22 (OSPS CALL TYPE)
21.27 (OSPS LISTING SERVICES/C-ACD INTERFLOW DESTINATION)
21.7 (OSPS IMMEDIATE INTERFLOW ACTIVATION AND DEACTIVATION)

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OP:TRFC30-OSPSD

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 OSPSDL
  TIME aa:aa:aa
  SECTION 45: DATA LINKS
          SM  ATTEMPT FAILURE OVFL    SUCCESS MTUSG    CCMSG
  DASC    b   c       d       e       f       g
   .      .   .       .       .       .       .
   .      .   .       .       .       .       .
   .      .   .       .       .       .       .
  MISLNK  b   h       i       j       k       l        m
   .      .   .       .       .       .       .        .
   .      .   .       .       .       .       .        .
   .      .   .       .       .       .       .        .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or a scheduled output of section 45: Operator Services Position System directory assistance system computer (DASC) or management information system data link (MISLNK) of the 30-minute traffic report.

The maximum number of switching modules (SMs) for which DASC or MISLNK measurements are reported is 32. SMs must have the ISDN loadable package to be reported.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = SM number.

c = Number of times the switch attempted to notify the DASC about a directory assistance (DA) position seizure (count 1).

d = Number of times the switch failed to notify the DASC about a DA position seizure because the level 3 protocol was unavailable or down (count 2).

e = Number of times the switch failed to notify the DASC about a DA position seizure because the level 3 protocol buffers were full (count 3).

f = Number of times the switch successfully notified the DASC about a DA position seizure. Equal to DASC ATTEMPT - FAILURE - OVFL (count 4).

g = Number of seconds a DASC port was found to be in an out-of-service state. Equal to the accumulation of the number of ports found to be in an out-of-service state every 100 seconds multiplied by 100 (count 5).

h = Number of times the switch unloaded the MISLNK event buffer to the MISLNK or replied to an MISLNK heartbeat message received from the MISLNK (count 6).

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`i` = Number of times the switch failed to unload the MISLNK event buffer to the MISLNK or failed to reply to an MISLNK heartbeat message received from the MISLNK because the level 3 protocol was unavailable/down (count 7).

`j` = Number of times the switch failed to unload the MISLNK event buffer to the MISLNK or failed to reply to an MISLNK heartbeat message received from the MISLNK because the level 3 protocol buffers were full (count 8).

`k` = Number of times the switch successfully unloaded the MISLNK event buffer to the MISLNK and successfully replied to the MISLNK heartbeat message. Equal to MISLNK ATTEMPT - FAILURE - OVFL (count 9).

`l` = Number of seconds a MISLNK port was found to be in an out-of-service state. Equal to the accumulation of the number of ports found to be in an out-of-service state every 100 seconds multiplied by 100 (count 10).

`m` = Number of third party call control event messages received by the switch from the MISLNK using the application interface unit (AIU) (count 11).

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the SMs applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-OT

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 OUTPUT TERMINATED - REPT NOT READY
```

2. REASON FOR OUTPUT

Reports when the sections currently allowed for output are unable to be printed before the next 30-minute traffic report is formed. This may occur when more than 3-5 sections are allowed for output in a medium to large office or when the message traffic on the printer is heavy.

This may also output when an immediate print of a section is requested and a new 30-minute traffic report begins to form while the output is being printed. This may result in incomplete data.

The TRFM message class applies to 5E9(1) and later.
The XTRFM message class applies to 5E9(1) and later.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

If this occurs for more than one 30-minute interval, the user should use the INH:TRFC30 input message to inhibit some or all of the currently allowed sections. To find which sections are currently allowed, the OP:ST-TRFC30 input message should be used.

If this occurs as a result of an immediate print request, the data may be incomplete. The section can be requested at a later time and the data from the new report will be output.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30

INH:TRFC30

OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-OTA-A

Software Release: 5E10 only
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 OTA
  TIME aa:aa:aa
  SECTION 64: OSPS MISCELLANEOUS CALLS
  BASE COUNTS
     EPR     CR-REQ  APB/OVFL
     b       c       d
     CAMAOTR CCQSUCC CAMAPOSD
     e       f       g
     RECALL  10DIGIT
     h       i
  INITIAL CALLS
     0+KEY0  FLASH   TO-NK   TOTAL
     j       k       l       m
     ABNDNK  ABNDK   PVLDBN
     n       o       p
  SEQ CALLS
             INIT    BINIT   THSLD   ABND    OK      AVG
    ACCS     q       r               s       t       u
    SAB      v       w       x       y       z       a1
  SUBACCOUNT BILLING
     ELIGBL  NELIGBL
     b1       c1
  NON-OSPS ACCS INW CALLS
     OPASST  DTMF/TT MF      ABNDTO
     d1      e1      f1      g1
  AUTO BNS INWARD REQUESTS
             DTMF/TT MF      ABNDTO
    IBNS     a2      b2      c2
    AIBNS    d2      e2      f2
  INTERNATIONAL BILLED NUMBER SCREENING - RELEASE 2
     ATMPT   ALLOW   DENY    DNYCOMP
     g2      h2      i2      j2
  CCRD
     ACCPT   REJ
     h1      i1
  SCRND
     ATMPT   FAIL    SUCC
     j1      k1      l1
  SUBSCRBR RECALLS
     ATMPT   OP-REC  QUE     ABND    OVFL
     m1      n1      o1      p1      q1
  OUTG/INW
     OPERCC
     r1
```

```
INC/CAMA
           ABNDTO  ANSTME
XFER       s1      t1
SYS-ONI    u1      v1
ONI CALLS
   ANIFAIL UNEQ
   w1      x1
ANI CALLS
   TRK
   y1
CD
z1
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 64: Operator Services Position System (OSPS) toll and assistance (OTA) miscellaneous calls measures of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time the report was prepared, in the form hours:minutes:seconds.

b = Number of times the early position release indicator was displayed when an operator floated or externally transferred a call.

c = Number of times an operator entered a valid credit number from 1 to 10.

d = Number of times an associated process block (APB) was requested for OSPS call processing and they were exhausted. APBs are system-allocated data required to process OSPS calls.

e = Number of operator-entered trouble numbers sent to a centralized automatic message accounting (CAMA) office on a transfer CAMA call.

f = Number of times the OSPS switch received a rating query reply indicating that a Centralized Charge Quotation System (CCQS) query was successfully rated. This number is equal to CCQS SUCCESS in section 63: TRFC30 ORTR.

g = Number of times an operator released a transfer CAMA call from a position. This results in a POSITION DISCONNECT signal sent to the CAMA office.

h = Number of times the back party flashed on an inward call.

i = Number of times an automated inward network call denial (NCD) validation request was received.

j = Number of times any of the following events occurred:

- The back party entered a '0' after the bong tone on an automated calling card service (ACCS) call and CCC ON was N in RC/V View 8.9, that is, the customer account services - release 2 (CASR2) feature was not turned on.
- If CASR2 is turned on (CCC ON is Y) and the CASR2 initial digit timing parameter (ZERO TIMEOUT) is zero in RC/V View 8.9 then this count is pegged immediately after the back party enters '0' after the ACCS bong tone.

- If the CASR2 feature is turned on and the initial digit timing parameter is greater than zero, then this count is pegged after the back party enters '0' after the ACCS bong tone and the switch times out (as specified by ZERO TIMEOUT) while waiting for a second digit to be entered.
- Pegged any time the 0# keys are entered after the ACCS bong tone.

k = Number of ACCS calls where the back party flashed after the bong tone and before entering the first calling card digit.

l = Number of ACCS calls on which the switch timed out after the bong tone waiting for the first calling card digit to be entered.

m = Number of potential ACCS calls that were routed to operators (the total of 0+KEY0 + FLASH + TO-NK).

n = Number of initial ACCS calls where the back party went on-hook before entering the first calling card digit or while the call was being routed to an announcement circuit for the playing of the bong tone and detection of calling card digits.

o = Number of initial ACCS calls where the back party was keying a calling card number (at least one digit must have been entered), or the back party went on-hook while the call was being routed to the forward party or while the forward party's phone was ringing.

p = Number of ACCS calls where the back party had entered a potentially valid local exchange carrier (LEC) calling card number. This count is pegged before the calling card query is sent.

q = Number of ACCS sequence calls initiated, using a LEC calling card, where the back party entered a # sign at the end of an ACCS call or during the ringing of the forward party's phone.

r = Number of LEC customer-dialed sequence call sequences (batches) initiated. These are first ACCS sequence calls initiated by the back party, using a LEC calling card, whether or not the call was completed.

s = Number of ACCS sequence calls placed with an LEC calling card where the back party went on-hook during the keying of a new forward number, during routing to the forward party, or during ringing of the forward party's phone.

t = Number of ACCS sequence calls placed with an LEC calling card where the back party entered a valid forward number.

u = Average number of ACCS sequence calls, placed with an LEC calling card, per call sequence. This equals the value of ACCS OK divided by the value of ACCS BINIT.

v = Number of subaccount billing (SAB) sequence calls initiated where the back party entered a # sign at the end of a SAB call during TRD timing or during the ringing of the forward party's phone.

w = Number of customer-dialed SAB sequence call sequences (batches) initiated. Number of first SAB sequence calls initiated by the back party in a series of SAB sequence calls whether or not a forward party answered the initial SAB call.

x = Number of times the back party completed an initial SAB call and nine sequence calls. A call is considered complete only after a forward party has answered.

y = Number of SAB sequence calls where the back party went on-hook during the keying of a new forward number, during routing to the forward party, or during ringing of the forward party's phone.

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z = Number of SAB sequence calls where the back party entered a valid forward number. If an NCD query was sent, that is, this count was not pegged if the query response was DENY. If the query response was ALLOW or could not be determined because of a query failure, then this count was pegged.

a[1] = Average number of SAB sequence calls per call sequence. Equals the value of SAB OK divided by the value of SAB BINIT.

b[1] = Number of calls where the back party entered a SAB number (1ZX[X][X][X]), that is, ACCESS CODE in RC/V View 8.9 followed by 1 to 4 digits, and the back number was determined not to be screened using original line screening (OLS) from making SAB calls or paid direct distance dialing (DDD) calls.

c[1] = Number of calls where the back party entered a SAB number (1ZX[X][X][X]), that is, ACCESS CODE in RC/V View 8.9 followed by 1 to 4 digits and the back number was determined to be screened using OLS from making SAB calls.

d[1] = Number of operator-assisted inward calling card validations for special number (1160) for non-AT&T.

e[1] = Number of automated inward calling card validation requests received and the number of automated inward calling card plus NCD validation requests received from an operator who was using touch-tone equipment to validate a LEC calling card.

f[1] = Number of automated inward calling card validation requests and the number of automated inward calling card plus NCD validation requests received from an operator who was using multifrequency equipment to validate a LEC calling card.

g[1] = Number of automated inward calls abandoned or timed out during the entry of a LEC calling card number.

h[1] = Number of ACCS and operator-assisted calls where a calling card query response indicated acceptable billing.

i[1] = Number of ACCS and operator-assisted calls where a calling card query response indicated that the calling card number had been rejected.

j[1] = Number of screened calls handled by operators. Equal to SCRND FAIL + SCRND SUCC.

k[1] = Number of times an operator canceled a call on which the back party was screened against one or more classes of charge.

l[1] = Number of times an operator floated or externally transferred a call on which the back party was screened against one or more classes of charge.

m[1] = Number of times the back party flashed for an operator. Equal to SUBSCRBR RECALLS: OP-REC + QUE + OVFL.

n[1] = Number of subscriber recalls where the back party flashed for an operator and the call was not queued before being served by an operator.

o[1] = Number of subscriber recalls where the back party flashed for an operator and the call was queued before being served by an operator.

p[1] = Number of subscriber recalls where the back party went on-hook after flashing for an operator

while the call was queued.

q[1] = Number of subscriber recalls where the back party flashed for an operator but an operator could not be reached because the call queue assigned to receive the recall was full.

r[1] = Number of times an operator routed a call to an inward operator for a calling card validation, that is, the inward code used was 1160, 11601, 1172 and 11721.

s[1] = Number of incoming transfer CAMA calls where the back party went on-hook before being connected to an operator.

t[1] = Average answer time for the incoming transfer CAMA calls (in seconds). The transfer CAMA queue, as defined by CALL TYPE in RC/V View 26.10 is scanned every 10 seconds and the number of calls on queue is accumulated. Equal to the total accumulated queued transfer CAMA calls multiplied by 10 seconds and divided by INCOMING CAMA CALLS XFER in Section 61: TRFC30 OFA.

u[1] = Number of incoming system CAMA calls where the back party were abandoned (that is, on-hook) before being connected to an operator.

v[1] = Average answer time for the incoming system CAMA-operator number identification (ONI) calls (in seconds). The system CAMA queue, as defined by CALL TYPE in RC/V View 26.10 is scanned every 10 seconds and the number of calls on queue is accumulated. Equal to the total accumulated queued system CAMA calls multiplied by 10 seconds and divided by INCOMING CAMA CALLS ONI in Section 61: TRFC30 OFA.

w[1] = Number of calls received on CAMA and ISP trunks requiring ONI due to automatic number identification (ANI) failure.

x[1] = Number of calls received on CAMA and ISP trunks sent to an operator because ONI was required, because the originating office was without ANI equipment or served multi-party lines.

y[1] = Number of incoming ISP, feature group D, or CAMA calls that arrived on ANI-search trunks and there were no OLS screening restrictions.

z[1] = Number of times a billing code of "cd" was entered by an operator and accepted by the switch. The 0-/0+ rate differential feature must be activated.

a[2] = Number of automated inward international billed number screening (IBNS) service requests received from positions equipped with dual tone multifrequency (DTMF)/touch-tone (TT) signaling.

b[2] = Number of automated inward IBNS service requests received from positions equipped with multifrequency (MF) signaling.

c[2] = Number of automated inward IBNS service requests that were terminated because of timeout, abandonment or invalid billing number format.

d[2] = Number of automated inward billed number screening (AIBNS) service requests for collect calls or third number billing calls received from positions equipped with DTMF/TT signaling.

e[2] = Number of AIBNS service requests for collect calls or third number billing calls received from positions equipped with MF signaling.

f[2] = Number of AIBNS service requests that were terminated because of timeout, abandons by the distant inward operator, or invalid billing number format.

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g^2 = Number of call attempts for international billed number screening - release 2 (IBNS-2) service.

h^2 = Number of "Allow Collect" or "Indeterminate Allow" calls for IBNS-2 service.

i^2 = Number of "Deny Collect," "Public," "NAI Deny," or "Indeterminate Deny" calls for IBNS-2 service.

j^2 = Number of calls completed (answered) after "Deny Collect," "Public," "NAI Deny," or "Indeterminate Deny" for IBNS-2 service.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):

235-070-100 *Switch Administration Guidelines*

RC/V View(s):

8.9 (OSPS OFFICE PARAMETERS)
26.10 (OSPS ACD CALL TYPE)

OP:TRFC30-OTA-B

Software Release: 5E11 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 OTA
  TIME aa:aa:aa
  SECTION 64: OSPS MISCELLANEOUS CALLS
  BASE COUNTS
     EPR     CR-REQ  APB/OVFL
     b       c       d
     CAMAOTR CCQSUCC CAMAPOSD
     e       f       g
     RECALL  10DIGIT
     h       i
  INITIAL CALLS
     0+KEY0  FLASH   TO-NK   TOTAL
     j       k       l       m
     ABNDNK  ABNDK   PVLDBN
     n       o       p
  SEQ CALLS
             INIT    BINIT   THSLD   ABND    OK      AVG
    ACCS     q       r               s       t       u
    SAB      v       w       x       y       z       a1
  SUBACCOUNT BILLING
     ELIGBL  NELIGBL
     b1       c1
  NON-OSPS ACCS INW CALLS
     OPASST  DTMF/TT MF      ABNDTO
     d1      e1      f1      g1
  AUTO BNS INWARD REQUESTS
             DTMF/TT MF      ABNDTO
    IBNS     a2      b2      c2
    AIBNS    d2      e2      f2
  INTERNATIONAL BILLED NUMBER SCREENING - RELEASE 2
     ATMPT   ALLOW   DENY    DNYCOMP
     g2      h2      i2      j2
  CCRD
     ACCPT   REJ
     h1      i1
  SCRND
     ATMPT   FAIL    SUCC
     j1      k1      l1
  SUBSCRBR RECALLS
     ATMPT   OP-REC  QUE     ABND    OVFL
     m1      n1      o1      p1      q1
  OUTG/INW
     OPERCC
     r1
```

```
INC/CAMA
           ABNDTO  ANSTME
XFER       s1      t1
SYS-ONI    u1      v1
ONI CALLS
   ANIFAIL UNEQ
   w1      x1
ANI CALLS
   TRK
   y1
CD
z1
PAYPHONE COMPENSABLE ACCESS CALLS
              CRDCMP     CLCTCMP     BT3CMP
800/8YY       k2         l2          m2
00-/0+        n2         o2          p2
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 64: Operator Services Position System (OSPS) toll and assistance (OTA) miscellaneous calls measures of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time the report was prepared, in the form hours:minutes:seconds.

b = Number of times the early position release indicator was displayed when an operator floated or externally transferred a call.

c = Number of times an operator entered a valid credit number from 1 to 10.

d = Number of times an associated process block (APB) was requested for OSPS call processing and they were exhausted. APBs are system-allocated data required to process OSPS calls.

e = Number of operator-entered trouble numbers sent to a centralized automatic message accounting (CAMA) office on a transfer CAMA call.

f = Number of times the OSPS switch received a rating query reply indicating that a Centralized Charge Quotation System (CCQS) query was successfully rated. This number is equal to CCQS SUCCESS in section 63: TRFC30 ORTR.

g = Number of times an operator released a transfer CAMA call from a position. This results in a POSITION DISCONNECT signal sent to the CAMA office.

h = Number of times the back party flashed on an inward call.

i = Number of times an automated inward network call denial (NCD) validation request was received.

j = Number of times any of the following events occurred:
- The back party entered a '0' after the bong tone on an automated calling card

service (ACCS) call and CCC ON was N in RC/V View 8.9, that is, the customer account services - release 2 (CASR2) feature was not turned on.

- If CASR2 is turned on (CCC ON is Y) and the CASR2 initial digit timing parameter (ZERO TIMEOUT) is zero in RC/V View 8.9 then this count is pegged immediately after the back party enters '0' after the ACCS bong tone.
- If the CASR2 feature is turned on and the initial digit timing parameter is greater than zero, then this count is pegged after the back party enters '0' after the ACCS bong tone and the switch times out (as specified by ZERO TIMEOUT) while waiting for a second digit to be entered.
- Pegged any time the 0# keys are entered after the ACCS bong tone.

k = Number of ACCS calls where the back party flashed after the bong tone and before entering the first calling card digit.

l = Number of ACCS calls on which the switch timed out after the bong tone waiting for the first calling card digit to be entered.

m = Number of potential ACCS calls that were routed to operators (the total of 0+KEY0 + FLASH + TO-NK).

n = Number of initial ACCS calls where the back party went on-hook before entering the first calling card digit or while the call was being routed to an announcement circuit for the playing of the bong tone and detection of calling card digits.

o = Number of initial ACCS calls where the back party was keying a calling card number (at least one digit must have been entered), or the back party went on-hook while the call was being routed to the forward party or while the forward party's phone was ringing.

p = Number of ACCS calls where the back party had entered a potentially valid local exchange carrier (LEC) calling card number. This count is pegged before the calling card query is sent.

q = Number of ACCS sequence calls initiated, using a LEC calling card, where the back party entered a # sign at the end of an ACCS call or during the ringing of the forward party's phone.

r = Number of LEC customer-dialed sequence call sequences (batches) initiated. These are first ACCS sequence calls initiated by the back party, using a LEC calling card, whether or not the call was completed.

s = Number of ACCS sequence calls placed with an LEC calling card where the back party went on-hook during the keying of a new forward number, during routing to the forward party, or during ringing of the forward party's phone.

t = Number of ACCS sequence calls placed with an LEC calling card where the back party entered a valid forward number.

u = Average number of ACCS sequence calls, placed with an LEC calling card, per call sequence. This equals the value of ACCS OK divided by the value of ACCS BINIT.

v = Number of subaccount billing (SAB) sequence calls initiated where the back party entered a # sign at the end of a SAB call during TRD timing or during the ringing of the forward party's phone.

w = Number of customer-dialed SAB sequence call sequences (batches) initiated. Number of first SAB sequence calls initiated by the back party in a series of SAB sequence calls whether or not a forward party answered the initial SAB call.

x = Number of times the back party completed an initial SAB call and nine sequence calls. A call is considered complete only after a forward party has answered.

y = Number of SAB sequence calls where the back party went on-hook during the keying of a new forward number, during routing to the forward party, or during ringing of the forward party's phone.

z = Number of SAB sequence calls where the back party entered a valid forward number. If an NCD query was sent, that is, this count was not pegged if the query response was DENY. If the query response was ALLOW or could not be determined because of a query failure, then this count was pegged.

a^1 = Average number of SAB sequence calls per call sequence. Equals the value of SAB OK divided by the value of SAB BINIT.

b^1 = Number of calls where the back party entered a SAB number (1ZX[X][X][X]), that is, ACCESS CODE in RC/V View 8.9 followed by 1 to 4 digits, and the back number was determined not to be screened using original line screening (OLS) from making SAB calls or paid direct distance dialing (DDD) calls.

c^1 = Number of calls where the back party entered a SAB number (1ZX[X][X][X]), that is, ACCESS CODE in RC/V View 8.9 followed by 1 to 4 digits and the back number was determined to be screened using OLS from making SAB calls.

d^1 = Number of operator-assisted inward calling card validations for special number (1160) for non-AT&T.

e^1 = Number of automated inward calling card validation requests received and the number of automated inward calling card plus NCD validation requests received from an operator who was using touch-tone equipment to validate a LEC calling card.

f^1 = Number of automated inward calling card validation requests and the number of automated inward calling card plus NCD validation requests received from an operator who was using multifrequency equipment to validate a LEC calling card.

g^1 = Number of automated inward calls abandoned or timed out during the entry of a LEC calling card number.

h^1 = Number of ACCS and operator-assisted calls where a calling card query response indicated acceptable billing.

i^1 = Number of ACCS and operator-assisted calls where a calling card query response indicated that the calling card number had been rejected.

j^1 = Number of screened calls handled by operators. Equal to SCRND FAIL + SCRND SUCC.

k^1 = Number of times an operator canceled a call on which the back party was screened against one or more classes of charge.

l^1 = Number of times an operator floated or externally transferred a call on which the back party was screened against one or more classes of charge.

m^1 = Number of times the back party flashed for an operator. Equal to SUBSCRBR RECALLS: OP-REC + QUE + OVFL.

n^1 = Number of subscriber recalls where the back party flashed for an operator and the call was not

queued before being served by an operator.

o[1] = Number of subscriber recalls where the back party flashed for an operator and the call was queued before being served by an operator.

p[1] = Number of subscriber recalls where the back party went on-hook after flashing for an operator while the call was queued.

q[1] = Number of subscriber recalls where the back party flashed for an operator but an operator could not be reached because the call queue assigned to receive the recall was full.

r[1] = Number of times an operator routed a call to an inward operator for a calling card validation, that is, the inward code used was 1160, 11601, 1172 and 11721.

s[1] = Number of incoming transfer CAMA calls where the back party went on-hook before being connected to an operator.

t[1] = Average answer time for the incoming transfer CAMA calls (in seconds). The transfer CAMA queue, as defined by CALL TYPE in RC/V View 26.10 is scanned every 10 seconds and the number of calls on queue is accumulated. Equal to the total accumulated queued transfer CAMA calls multiplied by 10 seconds and divided by INCOMING CAMA CALLS XFER in Section 61: TRFC30 OFA.

u[1] = Number of incoming system CAMA calls where the back party were abandoned (that is, on-hook) before being connected to an operator.

v[1] = Average answer time for the incoming system CAMA-operator number identification (ONI) calls (in seconds). The system CAMA queue, as defined by CALL TYPE in RC/V View 26.10 is scanned every 10 seconds and the number of calls on queue is accumulated. Equal to the total accumulated queued system CAMA calls multiplied by 10 seconds and divided by INCOMING CAMA CALLS ONI in Section 61: TRFC30 OFA.

w[1] = Number of calls received on CAMA and ISP trunks requiring ONI due to automatic number identification (ANI) failure.

x[1] = Number of calls received on CAMA and ISP trunks sent to an operator because ONI was required, because the originating office was without ANI equipment or served multi-party lines.

y[1] = Number of incoming ISP, feature group D, or CAMA calls that arrived on ANI-search trunks and there were no OLS screening restrictions.

z[1] = Number of times a billing code of "cd" was entered by an operator and accepted by the switch. The 0-/0+ rate differential feature must be activated.

a[2] = Number of automated inward international billed number screening (IBNS) service requests received from positions equipped with dual tone multifrequency (DTMF)/touch-tone (TT) signaling.

b[2] = Number of automated inward IBNS service requests received from positions equipped with multifrequency (MF) signaling.

c[2] = Number of automated inward IBNS service requests that were terminated because of timeout, abandonment or invalid billing number format.

d[2] = Number of automated inward billed number screening (AIBNS) service requests for collect calls or third number billing calls received from positions equipped with DTMF/TT signaling.

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e^2 = Number of AIBNS service requests for collect calls or third number billing calls received from positions equipped with MF signaling.

f^2 = Number of AIBNS service requests that were terminated because of timeout, abandons by the distant inward operator, or invalid billing number format.

g^2 = Number of call attempts for international billed number screening - release 2 (IBNS-2) service.

h^2 = Number of "Allow Collect" or "Indeterminate Allow" calls for IBNS-2 service.

i^2 = Number of "Deny Collect," "Public," "NAI Deny," or "Indeterminate Deny" calls for IBNS-2 service.

j^2 = Number of calls completed (answered) after "Deny Collect," "Public," "NAI Deny," or "Indeterminate Deny" for IBNS-2 service.

k^2 = Number of attempts of pay phone compensable 800/8YY access calls that completed with card billing.

l^2 = Number of attempts of pay phone compensable 800/8YY access calls that completed with collect billing.

m^2 = Number of attempts of pay phone compensable 800/8YY access calls that completed with Bill-To-Third (BT3) billing.

n^2 = Number of attempts of pay phone compensable 102880+/-, 00-/0+ access calls that completed with card billing.

o^2 = Number of attempts of pay phone compensable 102880+/-, 00-/0+ access calls that completed with collect billing.

p^2 = Number of attempts of pay phone compensable 102880+/-, 00-/0+ access calls that completed with Bill-To-Third (BT3) billing.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
```

```
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

RC/V View(s):

8.9 (OSPS OFFICE PARAMETERS)
8.22 (OSPS FEATURE UPGRADE)
8.31 (OPTIONED FEATURES)
8.41 (OSPS FEATURE PARAMETERS)
26.10 (OSPS ACD CALL TYPE)
26.45 (OSPS ANI II DIGITS FOR AMA RECORDING)

OP:TRFC30-OTA-C

Software Release: 5E11 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 OTA
  TIME aa:aa:aa
  SECTION 64: OSPS MISCELLANEOUS CALLS
  BASE COUNTS
     EPR     CR-REQ  APB/OVFL
     b       c       d
     CAMAOTR CCQSUCC CAMAPOSD
     e       f       g
     RECALL  10DIGIT
     h       i
  INITIAL CALLS
     0+KEY0  FLASH   TO-NK   TOTAL
     j       k       l       m
     ABNDNK  ABNDK   PVLDBN
     n       o       p
  SEQ CALLS
             INIT    BINIT   THSLD   ABND    OK      AVG
    ACCS     q       r               s       t       u
    SAB      v       w       x       y       z       a1
  SUBACCOUNT BILLING
     ELIGBL  NELIGBL
     b1       c1
  NON-OSPS ACCS INW CALLS
     OPASST  DTMF/TT MF      ABNDTO
     d1      e1      f1      g1
  AUTO BNS INWARD REQUESTS
             DTMF/TT MF      ABNDTO
    IBNS     a2      b2      c2
    AIBNS    d2      e2      f2
  INTERNATIONAL BILLED NUMBER SCREENING - RELEASE 2
     ATMPT   ALLOW   DENY    DNYCOMP
     g2      h2      i2      j2
  CCRD
     ACCPT   REJ
     h1      i1
  SCRND
     ATMPT   FAIL    SUCC
     j1      k1      l1
  SUBSCRBR RECALLS
     ATMPT   OP-REC  QUE     ABND    OVFL
     m1      n1      o1      p1      q1
  OUTG/INW
     OPERCC
     r1
```

```
INC/CAMA
           ABNDTO  ANSTME
XFER       s1      t1
SYS-ONI    u1      v1
ONI CALLS
   ANIFAIL UNEQ
   w1      x1
ANI CALLS
   TRK
   y1
CD
z1
PAYPHONE COMPENSABLE ACCESS CALLS
              CRDCMP     CLCTCMP     BT3CMP
800/8YY       k2         l2          m2
00-/0+        n2         o2          p2
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 64: Operator Services Position System (OSPS) toll and assistance (OTA) miscellaneous calls measures of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time the report was prepared, in the form hours:minutes:seconds.

b = Number of times the early position release indicator was displayed when an operator floated or externally transferred a call.

c = Number of times an operator entered a valid credit number from 1 to 10.

d = Number of times an associated process block (APB) was requested for OSPS call processing and they were exhausted. APBs are system-allocated data required to process OSPS calls.

e = Number of operator-entered trouble numbers sent to a centralized automatic message accounting (CAMA) office on a transfer CAMA call.

f = Number of times the OSPS switch received a rating query reply indicating that a Centralized Charge Quotation System (CCQS) query was successfully rated. This number is equal to CCQS SUCCESS in section 63: TRFC30 ORTR.

g = Number of times an operator released a transfer CAMA call from a position. This results in a POSITION DISCONNECT signal sent to the CAMA office.

h = Number of times the back party flashed on an inward call.

i = Number of times an automated inward network call denial (NCD) validation request was received.

j = Number of times any of the following events occurred:
- The back party entered a '0' after the bong tone on an automated calling card

service (ACCS) call and CCC ON was N in RC/V View 8.9, that is, the customer account services - release 2 (CASR2) feature was not turned on.

- If CASR2 is turned on (CCC ON is Y) and the CASR2 initial digit timing parameter (ZERO TIMEOUT) is zero in RC/V View 8.9 then this count is pegged immediately after the back party enters '0' after the ACCS bong tone.
- If the CASR2 feature is turned on and the initial digit timing parameter is greater than zero, then this count is pegged after the back party enters '0' after the ACCS bong tone and the switch times out (as specified by ZERO TIMEOUT) while waiting for a second digit to be entered.
- Pegged any time the 0# keys are entered after the ACCS bong tone.

k = Number of ACCS calls where the back party flashed after the bong tone and before entering the first calling card digit.

l = Number of ACCS calls on which the switch timed out after the bong tone waiting for the first calling card digit to be entered.

m = Number of potential ACCS calls that were routed to operators (the total of 0+KEY0 + FLASH + TO-NK).

n = Number of initial ACCS calls where the back party went on-hook before entering the first calling card digit or while the call was being routed to an announcement circuit for the playing of the bong tone and detection of calling card digits.

o = Number of initial ACCS calls where the back party was keying a calling card number (at least one digit must have been entered), or the back party went on-hook while the call was being routed to the forward party or while the forward party's phone was ringing.

p = Number of ACCS calls where the back party had entered a potentially valid local exchange carrier (LEC) calling card number. This count is pegged before the calling card query is sent.

q = Number of ACCS sequence calls initiated, using a LEC calling card, where the back party entered a # sign at the end of an ACCS call or during the ringing of the forward party's phone.

r = Number of LEC customer-dialed sequence call sequences (batches) initiated. These are first ACCS sequence calls initiated by the back party, using a LEC calling card, whether or not the call was completed.

s = Number of ACCS sequence calls placed with an LEC calling card where the back party went on-hook during the keying of a new forward number, during routing to the forward party, or during ringing of the forward party's phone.

t = Number of ACCS sequence calls placed with an LEC calling card where the back party entered a valid forward number.

u = Average number of ACCS sequence calls, placed with an LEC calling card, per call sequence. This equals the value of ACCS OK divided by the value of ACCS BINIT.

v = Number of subaccount billing (SAB) sequence calls initiated where the back party entered a # sign at the end of a SAB call during TRD timing or during the ringing of the forward party's phone.

w = Number of customer-dialed SAB sequence call sequences (batches) initiated. Number of first SAB sequence calls initiated by the back party in a series of SAB sequence calls whether or not a forward party answered the initial SAB call.

x = Number of times the back party completed an initial SAB call and the allowed limit of sequence calls. A call is considered complete only after a forward party has answered.

y = Number of SAB sequence calls where the back party went on-hook during the keying of a new forward number, during routing to the forward party, or during ringing of the forward party's phone.

z = Number of SAB sequence calls where the back party entered a valid forward number. If an NCD query was sent, that is, this count was not pegged if the query response was DENY. If the query response was ALLOW or could not be determined because of a query failure, then this count was pegged.

a[1] = Average number of SAB sequence calls per call sequence. Equals the value of SAB OK divided by the value of SAB BINIT.

b[1] = Number of calls where the back party entered a SAB number (1ZX[X][X][X]), that is, ACCESS CODE in RC/V View 8.9 followed by 1 to 4 digits, and the back number was determined not to be screened using original line screening (OLS) from making SAB calls or paid direct distance dialing (DDD) calls.

c[1] = Number of calls where the back party entered a SAB number (1ZX[X][X][X]), that is, ACCESS CODE in RC/V View 8.9 followed by 1 to 4 digits and the back number was determined to be screened using OLS from making SAB calls.

d[1] = Number of operator-assisted inward calling card validations for special number (1160) for non-AT&T.

e[1] = Number of automated inward calling card validation requests received and the number of automated inward calling card plus NCD validation requests received from an operator who was using touch-tone equipment to validate a LEC calling card.

f[1] = Number of automated inward calling card validation requests and the number of automated inward calling card plus NCD validation requests received from an operator who was using multifrequency equipment to validate a LEC calling card.

g[1] = Number of automated inward calls abandoned or timed out during the entry of a LEC calling card number.

h[1] = Number of ACCS and operator-assisted calls where a calling card query response indicated acceptable billing.

i[1] = Number of ACCS and operator-assisted calls where a calling card query response indicated that the calling card number had been rejected.

j[1] = Number of screened calls handled by operators. Equal to SCRND FAIL + SCRND SUCC.

k[1] = Number of times an operator canceled a call on which the back party was screened against one or more classes of charge.

l[1] = Number of times an operator floated or externally transferred a call on which the back party was screened against one or more classes of charge.

m[1] = Number of times the back party flashed for an operator. Equal to SUBSCRBR RECALLS: OP-REC + QUE + OVFL.

n[1] = Number of subscriber recalls where the back party flashed for an operator and the call was not

queued before being served by an operator.

o[1] = Number of subscriber recalls where the back party flashed for an operator and the call was queued before being served by an operator.

p[1] = Number of subscriber recalls where the back party went on-hook after flashing for an operator while the call was queued.

q[1] = Number of subscriber recalls where the back party flashed for an operator but an operator could not be reached because the call queue assigned to receive the recall was full.

r[1] = Number of times an operator routed a call to an inward operator for a calling card validation, that is, the inward code used was 1160, 11601, 1172 and 11721.

s[1] = Number of incoming transfer CAMA calls where the back party went on-hook before being connected to an operator.

t[1] = Average answer time for the incoming transfer CAMA calls (in seconds). The transfer CAMA queue, as defined by CALL TYPE in RC/V View 26.10 is scanned every 10 seconds and the number of calls on queue is accumulated. Equal to the total accumulated queued transfer CAMA calls multiplied by 10 seconds and divided by INCOMING CAMA CALLS XFER in Section 61: TRFC30 OFA.

u[1] = Number of incoming system CAMA calls where the back party were abandoned (that is, on-hook) before being connected to an operator.

v[1] = Average answer time for the incoming system CAMA-operator number identification (ONI) calls (in seconds). The system CAMA queue, as defined by CALL TYPE in RC/V View 26.10 is scanned every 10 seconds and the number of calls on queue is accumulated. Equal to the total accumulated queued system CAMA calls multiplied by 10 seconds and divided by INCOMING CAMA CALLS ONI in Section 61: TRFC30 OFA.

w[1] = Number of calls received on CAMA and ISP trunks requiring ONI due to automatic number identification (ANI) failure.

x[1] = Number of calls received on CAMA and ISP trunks sent to an operator because ONI was required, because the originating office was without ANI equipment or served multi-party lines.

y[1] = Number of incoming ISP, feature group D, or CAMA calls that arrived on ANI-search trunks and there were no OLS screening restrictions.

z[1] = Number of times a billing code of "cd" was entered by an operator and accepted by the switch. The 0-/0+ rate differential feature must be activated.

a[2] = Number of automated inward international billed number screening (IBNS) service requests received from positions equipped with dual tone multifrequency (DTMF)/touch-tone (TT) signaling.

b[2] = Number of automated inward IBNS service requests received from positions equipped with multifrequency (MF) signaling.

c[2] = Number of automated inward IBNS service requests that were terminated because of timeout, abandonment or invalid billing number format.

d[2] = Number of automated inward billed number screening (AIBNS) service requests for collect calls or third number billing calls received from positions equipped with DTMF/TT signaling.

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e^2 = Number of AIBNS service requests for collect calls or third number billing calls received from positions equipped with MF signaling.

f^2 = Number of AIBNS service requests that were terminated because of timeout, abandons by the distant inward operator, or invalid billing number format.

g^2 = Number of call attempts for international billed number screening - release 2 (IBNS-2) service.

h^2 = Number of "Allow Collect" or "Indeterminate Allow" calls for IBNS-2 service.

i^2 = Number of "Deny Collect," "Public," "NAI Deny," or "Indeterminate Deny" calls for IBNS-2 service.

j^2 = Number of calls completed (answered) after "Deny Collect," "Public," "NAI Deny," or "Indeterminate Deny" for IBNS-2 service.

k^2 = Number of attempts of pay phone compensable 800/8YY access calls that completed with card billing.

l^2 = Number of attempts of pay phone compensable 800/8YY access calls that completed with collect billing.

m^2 = Number of attempts of pay phone compensable 800/8YY access calls that completed with Bill-To-Third (BT3) billing.

n^2 = Number of attempts of pay phone compensable 102880+/-, 00-/0+ access calls that completed with card billing.

o^2 = Number of attempts of pay phone compensable 102880+/-, 00-/0+ access calls that completed with collect billing.

p^2 = Number of attempts of pay phone compensable 102880+/-, 00-/0+ access calls that completed with Bill-To-Third (BT3) billing.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
```

```
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

RC/V View(s):

8.9 (OSPS OFFICE PARAMETERS)
8.22 (OSPS FEATURE UPGRADE)
8.31 (OPTIONED FEATURES)
8.41 (OSPS FEATURE PARAMETERS)
26.10 (OSPS ACD CALL TYPE)
26.45 (OSPS ANI II DIGITS FOR AMA RECORDING)

OP:TRFC30-OTAP-A

Software Release: 5E10 only
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 OTAP
  TIME aa:aa:aa
  SECTION 102: OSPS PERFORMANCE
  AUTOQUOTE CALLS
            COMPL   PRINT   AQCRDT  REROUT  RQFAIL  VQCRCDT
            b       c       d       e       f       g
  INTERNATIONAL CALLS
            AUTO    OPER
            h       i
  TERMINATED CODE SCREENING CALLS
            REORD   OPER    ERROR
            j       k       l
  ACCS 0+ CALLS
            NON-COIN        m
            COIN            n
  NUMBER RESIDUAL CALLS     o
  TERMINATING POINT RESTRICTIONS
            DIOR    AATOS   AATLSOS WIRELESS
   CHECKED  p       q       r       s
   BLK_RESTR t      u       v       w
   I_CHECKED x      y       z       a1
   I_BLK_RST b1     c1      d1      e1
  AUTOMATED INWARD LINE SCREENING
      CALL SERVING OSPS
                            OLS     TCS
            QUERIES_SENT    f1      g1
            REPLIES_RECD    h1      i1
            TSKREF  MSQRY   UXDT    TIMEOUT
            j1      k1      l1      m1
      NORMAL SERVING OSPS
                            OLS     TCS
            QUERIES_RECD    n1      o1
            REPLIES_SENT    p1      q1
            TSKREF  MSQRY   UXDT
            r1      s1      t1
  IDENTIFICATION OF CALLS ORIGINATED THROUGH SPECIAL ACCESS METHODS
            ROUTE   BILLABL
            u1      v1
  AATLSOS AUTOMATED ACCESS PROMPTING USING CPDL INTERFACE
            ATMPT   ROUTE   BCRD    COLL    BTN
            w1      x1      y1      z1      a2
            T1EXP   T2EXP   T3EXP   T4EXP
            b2      c2      d2      e2
  CAS INTERCEPT SCREENING
```

```
CAS_INT
f2
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of of section 102: Operator Services Position System (OSPS) toll and assistance performance (OTAP) measurements of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Number of attempts to send an autoquote message to an autoquote establishment.

c = Number of printed autoquote calls.

d = Number of times that an autoquote message was not sent to the autoquote establishment and a credit record was created for the following events:

- Automatic charge quotation service (ACQS) message buffer pointers were corrupted which resulted in credit records created for each queued autoquote.
- An autoquote message was queued for longer than the value in field "HOBIS/C TIME" of RC/V View 8.9.
- The ACQS message buffer was full (max 100) and a new message arrived replacing a queued autoquote message.
- Failures occurred during transmitting the message to the autoquote establishment and when trying to reroute the message to a hotel billing information system (HOBIS) or hotel billing information center (HOBIC).

e = Number of autoquote messages successfully rerouted to a HOBIS or HOBIC.

f = Number of autoquote messages that failed because all autoquote digital subscriber lines (DSL) were busy or call processing could not dial up the autoquote establishment because of a lack of software process control blocks (PCB) or process stacks (PS).

g = Number of credited voice quote messages that were not sent to HOBIS or HOBIC due to such events as:

- The ACQS message buffer pointers were corrupted which resulted in credit records created for each queued voice quote message.
- A voice quote message was queued for longer than the value in field "HOBIS/C TIME" of RC/V View 8.9.
- The ACQS message buffer was full (max 100) and a new message arrived replacing a queued voice quote message;
- A failure occurred during transmitting the message to HOBIS or HOBIC.

h = Number of successfully outpulsed international calls signaled as direct dialed, excluding calls to Mexico.

i = Number of successfully outpulsed international calls signaled as operator-assisted, excluding calls to Mexico.

j = Number of automated calling card service (ACCS) calls attempted to be routed to reorder because of terminating code screening (TCS) restrictions for either international or U.S. calls. (Refer to RC/V Views 27.2 and 27.3)

k = Number of ACCS calls attempted to be routed to an operator or the automated verification process because of TCS restrictions for either international or U.S. calls. (Refer to RC/V Views 27.2 and 27.3)

l = Number of times a calling card call encountered a TCS restriction while the call was at a position (this does not include the initial display given when an automated call is routed to an operator).

m = Number of ACCS 0+ non-coin calls with a valid calling card number and personal identification number (PIN) (whether restricted or unrestricted) plus the number of calling card query failures with indeterminate billing allowed (Refer to the "BILL BLOCK" and "CAS INDT BLK" parameters in RC/V View 8.9). This measurement will be scored whether the initial or sequence call is automatically routed, routed to an operator, sent to reorder, or the announcement circuit is disconnected.

n = Number of ACCS 0+ coin calls with a valid calling card number and PIN (whether restricted or unrestricted) plus the number of calling card query failures with indeterminate billing allowed (refer to the "BILL BLOCK" and "CAS INDT BLK" parameters in RC/V View 8.9). This measurement will be scored whether the initial or sequence call is automatically routed, routed to an operator, sent to reorder, or the announcement circuit is disconnected.

o = Number of residual calls [calls to the special operator services traffic (SOST) operator] released from an operator position.

p = Number of direct international originations (DIOR) calls with a forward number in a North American numbering plan (NANP) format that were subject to terminating point restriction (TPR) checks.

q = Number of alternate access to operator service (AATOS) calls with a forward number in a NANP format that were subject to TPR checks.

r = Number of alternate access to language specific operator services (AATLSOS) calls with a forward number in a NANP format that were subject to TPR checks.

s = Number of wireless calls with a forward number in a NANP format that were subject to TPR checks.

t = Number of DIOR calls with a forward number in a NANP format that were blocked or restricted by TPR.

u = Number of AATOS calls with a forward number in a NANP format that were blocked or restricted by TPR.

v = Number of AATLSOS calls with a forward number in a NANP format that were blocked or restricted by TPR.

w = Number of wireless calls with a forward number in a NANP format that were blocked or restricted by TPR.

x = Number of DIOR calls with a forward number in an international format that were subject to TPR checks.

y = Number of AATOS calls with a forward number in an international format that were subject to TPR

checks.

z = Number of AATLSOS calls with a forward number in an international format that were subject to TPR checks.

a[1] = Number of wireless calls with a forward number in an international format that were subject to TPR checks.

b[1] = Number of DIOR calls with a forward number in an international format that were blocked or restricted by TPR.

c[1] = Number of AATOS calls with a forward number in an international format that were blocked or restricted by TPR.

d[1] = Number of AATLSOS calls with a forward number in an international format that were blocked or restricted by TPR.

e[1] = Number of wireless calls with a forward number in an international format that were blocked or restricted by TPR.

f[1] = Number of automated inward line screening (AILS) queries sent from the call serving OSPS to retrieve originating line screening (OLS) data.

g[1] = Number of AILS queries sent from the call serving OSPS to retrieve terminating code screening (TCS) data.

h[1] = Number of AILS replies received in the call serving OSPS returning OLS data. This measure does not include the error replies received in the call serving OSPS.

i[1] = Number of AILS replies received in the call serving OSPS returning TCS data. This measure does not include the error replies received in the call serving OSPS.

j[1] = Number of error replies of "task refused" received in the call serving OSPS.

k[1] = Number of error replies of "misroute" received in the call serving OSPS.

l[1] = Number of error replies of "unexpected input data value" received in the call serving OSPS.

m[1] = Number of queries that timed out in the call serving OSPS. This is a measure of the number of queries that actually left the call serving OSPS and became indeterminate (a valid reply was not received) for whatever reason.

n[1] = Number of AILS queries received in the normal serving OSPS from the call serving OSPS to retrieve OLS data.

o[1] = Number of AILS queries received in the normal serving OSPS from the call serving OSPS to retrieve TCS data.

p[1] = Number of AILS replies sent from the normal serving OSPS to the call serving OSPS returning OLS data. This measure does not include the error replies sent to the call serving OSPS.

q[1] = Number of AILS replies sent from the normal serving OSPS to the call serving OSPS returning TCS data. This measure does not include the error replies sent to the call serving OSPS.

r[1] = Number of error replies of "task refused" sent from the normal serving OSPS to the call serving OSPS.

s^1 = Number of error replies of "misroute" sent from the normal serving OSPS to the call serving OSPS.

t^1 = Number of error replies of "unexpected input data value" sent from the normal serving OSPS to the call serving OSPS.

u^1 = Number of calls routed over special access trunk groups. OSPS pegs this count whenever a special access trunk group is seized for initial call seizure only.

v^1 = Number of billable calls routed over special access trunk groups. OSPS pegs this count whenever a billable call having a negative prior call completion status was routed over a special access trunk group.

w^1 = Number of attempts of 1-800-225-5288 using call processing data link (CPDL) interface calls. This measurement counts the number of times OSPS identified an incoming call as a 1-800-225-5288 using CPDL interface call.

x^1 = Number of 1-800-225-5288 using CPDL interface calls routed to the customer data service unit (CDSU). This measurement counts the number of "request action" messages sent to the CDSU by OSPS.

y^1 = Number of attempts of 1-800-225-5288 using CPDL interface calls that completed (answered with billable time) with back card billing.

z^1 = Number of attempts of 1-800-225-5288 using CPDL interface calls that completed (answered with billable time) with collect billing.

a^2 = Number of attempts of 1-800-225-5288 using CPDL interface calls that completed (answered with billable time) with back third number billing.

b^2 = Number of times that the AATLSOS automated access prompting using CPDL interface timer T1 expired. Timer T1 is used to guard against the occurrence of a hung call while OSPS is waiting for further instructions from the CDSU during processing of a call. Specifically, timer T1 is used when OSPS informs the CDSU of the arrival of a call that's eligible for AATLSOS automated access prompting using CPDL interface treatment, or when error conditions are encountered after communication has been established with the CDSU and OSPS expects the call to be terminated.

c^2 = Number of times that the AATLSOS automated access prompting using CPDL interface timer T2 expired. Timer T2 is used to guard against the occurrence of a hung call while OSPS is waiting for further instructions from the CDSU during processing of a call. Specifically, timer T2 is used when OSPS recognizes that the CDSU has gone off-hook on the external audio response unit (ARU) trunk selected by OSPS for communication between the back party and the CDSU. Prior to expiration of this timer OSPS expects the CDSU to send the OSPS complete call message or the transfer request message.

d^2 = Number of times that the AATLSOS automated access prompting using CPDL interface timer T3 expired. Timer T3 is used to provide a timeout interval after the 10th or 11th digit of a NANP forward number is entered because the caller may attempt to enter [forward number][#][card number] format at the forward number prompt or reprompt.

e^2 = Number of times that the AATLSOS automated access prompting using CPDL interface timer T4 expired. Timer T4 is used to provide a timeout interval after the "#" sign is entered following a forward number because the caller may attempt to enter [forward number][#][card number] format at the forward number prompt or reprompt.

f^2 = Number of times AT&T card calls encounter an Intercept Screening restriction (such as, an Intercept Screening Indicator returned in the Customer Account Services(CAS) query validation response) and the Intercept Screening restriction is applied to the call (such as, feature is activated and the Intercept Screening restriction has precedence). This count shall include those calls in which the look-up in the Customized Handling By Card Product Type table results in the call receiving "Verify" or "Other Billing" treatment.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module (AM) and switching modules (SMs) applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*
250-505-100 *OSPS Description and Procedures*

RC/V View(s):

8.9 (OSPS OFFICE PARAMETERS)
8.41 (OSPS FEATURE PARAMETERS)
27.1 (OSPS TERMINATING CODE SCREENING TEXT AND RESTRICTIONS)
27.2 (OSPS TERMINATING CODE SCREENING FOR NPA-NXX)
27.3 (OSPS TERMINATING CODE SCREENING & PCC FOR COUNTRY CODE)

OP:TRFC30-OTAP-B

Software Release: 5E11 only
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 OTAP
  TIME aa:aa:aa
  SECTION 102: OSPS PERFORMANCE
  AUTOQUOTE CALLS
            COMPL   PRINT   AQCRDT  REROUT  RQFAIL  VQCRCDT
            b       c       d       e       f       g
  INTERNATIONAL CALLS
            AUTO    OPER
            h       i
  TERMINATED CODE SCREENING CALLS
            REORD   OPER    ERROR
            j       k       l
  ACCS 0+ CALLS
            NON-COIN        m
            COIN            n
  NUMBER RESIDUAL CALLS     o
  TERMINATING POINT RESTRICTIONS
            DIOR    AATOS   AATLSOS WIRELESS
   CHECKED  p       q       r       s
   BLK_RESTR t      u       v       w
   I_CHECKED x      y       z       a1
   I_BLK_RST b1     c1      d1      e1
  AUTOMATED INWARD LINE SCREENING
      CALL SERVING OSPS
                            OLS     TCS
            QUERIES_SENT    f1      g1
            REPLIES_RECD    h1      i1
            TSKREF  MSQRY   UXDT    TIMEOUT
            j1      k1      l1      m1
      NORMAL SERVING OSPS
                            OLS     TCS
            QUERIES_RECD    n1      o1
            REPLIES_SENT    p1      q1
            TSKREF  MSQRY   UXDT
            r1      s1      t1
  IDENTIFICATION OF CALLS ORIGINATED THROUGH SPECIAL ACCESS METHODS
            ROUTE   BILLABL
            u1      v1
  AATLSOS AUTOMATED ACCESS PROMPTING USING CPDL INTERFACE
            ATMPT   ROUTE   BCRD    COLL    BTN
            w1      x1      y1      z1      a2
            T1EXP   T2EXP   T3EXP   T4EXP
            b2      c2      d2      e2
  AATLSOS AUTOMATED ACCESS PROMPTING NON-TARIFFED ANNOUNCEMENT
```

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```
            NON-TARIFFED
            k2
LISTING SERVICES CALL COMPLETION SERVICE MEASUREMENTS
            ATMPT   DDD-ANS BLKD    DA      CARD-ANS
            l2      m2      n2      o2      p2
            RERTE   BILLABL RCVD    ELIG    COMPLETE
            q2      r2      s2      t2      u2

CAS INTERCEPT SCREENING
            CAS_INT
            f2
PLBQ WITH ADD-ON CAPABILITES
                        DIOR    NON_DIOR
            CALLS       g2      h2
            CARDS       i2      j2
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of of section 102: Operator Services Position System (OSPS) toll and assistance performance (OTAP) measurements of the 30-minute traffic report. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Number of attempts to send an autoquote message to an autoquote establishment.

c = Number of printed autoquote calls.

d = Number of times that an autoquote message was not sent to the autoquote establishment and a credit record was created for the following events:

- Automatic charge quotation service (ACQS) message buffer pointers were corrupted which resulted in credit records created for each queued autoquote.
- An autoquote message was queued for longer than the value in field "HOBIS/C TIME" of RC/V View 8.9.
- The ACQS message buffer was full (max 100) and a new message arrived replacing a queued autoquote message.
- Failures occurred during transmitting the message to the autoquote establishment and when trying to reroute the message to a hotel billing information system (HOBIS) or hotel billing information center (HOBIC).

e = Number of autoquote messages successfully rerouted to a HOBIS or HOBIC.

f = Number of autoquote messages that failed because all autoquote digital subscriber lines (DSL) were busy or call processing could not dial up the autoquote establishment because of a lack of software process control blocks (PCB) or process stacks (PS).

g = Number of credited voice quote messages that were not sent to HOBIS or HOBIC due to such events as:

- The ACQS message buffer pointers were corrupted which resulted in credit records created for each queued voice quote message.

- A voice quote message was queued for longer than the value in field "HOBIS/C TIME" of RC/V View 8.9.
- The ACQS message buffer was full (max 100) and a new message arrived replacing a queued voice quote message;
- A failure occurred during transmitting the message to HOBIS or HOBIC.

h = Number of successfully outpulsed international calls signaled as direct dialed, excluding calls to Mexico.

i = Number of successfully outpulsed international calls signaled as operator-assisted, excluding calls to Mexico.

j = Number of automated calling card service (ACCS) calls attempted to be routed to reorder because of terminating code screening (TCS) restrictions for either international or USA calls. (Refer to RC/V Views 27.2 and 27.3)

k = Number of ACCS calls attempted to be routed to an operator or the automated verification process because of TCS restrictions for either international or USA calls. (Refer to RC/V Views 27.2 and 27.3)

l = Number of times a calling card call encountered a TCS restriction while the call was at a position (this does not include the initial display given when an automated call is routed to an operator).

m = Number of ACCS 0+ non-coin calls with a valid calling card number and personal identification number (PIN) (whether restricted or unrestricted) plus the number of calling card query failures with indeterminate billing allowed (Refer to the "BILL BLOCK" and "CAS INDT BLK" parameters in RC/V View 8.9). This measurement will be scored whether the initial or sequence call is automatically routed, routed to an operator, sent to reorder, or the announcement circuit is disconnected.

n = Number of ACCS 0+ coin calls with a valid calling card number and PIN (whether restricted or unrestricted) plus the number of calling card query failures with indeterminate billing allowed (refer to the "BILL BLOCK" and "CAS INDT BLK" parameters in RC/V View 8.9). This measurement will be scored whether the initial or sequence call is automatically routed, routed to an operator, sent to reorder, or the announcement circuit is disconnected.

o = Number of residual calls [calls to the special operator services traffic (SOST) operator] released from an operator position.

p = Number of direct international originations (DIOR) calls with a forward number in a North American numbering plan (NANP) format that were subject to terminating point restriction (TPR) checks.

q = Number of alternate access to operator service (AATOS) calls with a forward number in a NANP format that were subject to TPR checks.

r = Number of alternate access to language specific operator services (AATLSOS) calls with a forward number in a NANP format that were subject to TPR checks.

s = Number of wireless calls with a forward number in a NANP format that were subject to TPR checks.

t = Number of DIOR calls with a forward number in a NANP format that were blocked or restricted by TPR.

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u = Number of AATOS calls with a forward number in a NANP format that were blocked or restricted by TPR.

v = Number of AATLSOS calls with a forward number in a NANP format that were blocked or restricted by TPR.

w = Number of wireless calls with a forward number in a NANP format that were blocked or restricted by TPR.

x = Number of DIOR calls with a forward number in an international format that were subject to TPR checks.

y = Number of AATOS calls with a forward number in an international format that were subject to TPR checks.

z = Number of AATLSOS calls with a forward number in an international format that were subject to TPR checks.

a[1] = Number of wireless calls with a forward number in an international format that were subject to TPR checks.

b[1] = Number of DIOR calls with a forward number in an international format that were blocked or restricted by TPR.

c[1] = Number of AATOS calls with a forward number in an international format that were blocked or restricted by TPR.

d[1] = Number of AATLSOS calls with a forward number in an international format that were blocked or restricted by TPR.

e[1] = Number of wireless calls with a forward number in an international format that were blocked or restricted by TPR.

f[1] = Number of automated inward line screening (AILS) queries sent from the call serving OSPS to retrieve originating line screening (OLS) data.

g[1] = Number of AILS queries sent from the call serving OSPS to retrieve terminating code screening (TCS) data.

h[1] = Number of AILS replies received in the call serving OSPS returning OLS data. This measure does not include the error replies received in the call serving OSPS.

i[1] = Number of AILS replies received in the call serving OSPS returning TCS data. This measure does not include the error replies received in the call serving OSPS.

j[1] = Number of error replies of "task refused" received in the call serving OSPS.

k[1] = Number of error replies of "misroute" received in the call serving OSPS.

l[1] = Number of error replies of "unexpected input data value" received in the call serving OSPS.

m[1] = Number of queries that timed out in the call serving OSPS. This is a measure of the number of queries that actually left the call serving OSPS and became indeterminate (a valid reply was not received) for whatever reason.

n[1] = Number of AILS queries received in the normal serving OSPS from the call serving OSPS to

retrieve OLS data.

o[1] = Number of AILS queries received in the normal serving OSPS from the call serving OSPS to retrieve TCS data.

p[1] = Number of AILS replies sent from the normal serving OSPS to the call serving OSPS returning OLS data. This measure does not include the error replies sent to the call serving OSPS.

q[1] = Number of AILS replies sent from the normal serving OSPS to the call serving OSPS returning TCS data. This measure does not include the error replies sent to the call serving OSPS.

r[1] = Number of error replies of "task refused" sent from the normal serving OSPS to the call serving OSPS.

s[1] = Number of error replies of "misroute" sent from the normal serving OSPS to the call serving OSPS.

t[1] = Number of error replies of "unexpected input data value" sent from the normal serving OSPS to the call serving OSPS.

u[1] = Number of calls routed over special access trunk groups. OSPS pegs this count whenever a special access trunk group is seized for initial call seizure only.

v[1] = Number of billable calls routed over special access trunk groups. OSPS pegs this count whenever a billable call having a negative prior call completion status was routed over a special access trunk group.

w[1] = Number of attempts of 1-800-225-5288 using call processing data link (CPDL) interface calls. This measurement counts the number of times OSPS identified an incoming call as a 1-800-225-5288 using CPDL interface call.

x[1] = Number of 1-800-225-5288 using CPDL interface calls routed to the customer data service unit (CDSU). This measurement counts the number of "request action" messages sent to the CDSU by OSPS.

y[1] = Number of attempts of 1-800-225-5288 using CPDL interface calls that completed (answered with billable time) with back card billing.

z[1] = Number of attempts of 1-800-225-5288 using CPDL interface calls that completed (answered with billable time) with collect billing.

a[2] = Number of attempts of 1-800-225-5288 using CPDL interface calls that completed (answered with billable time) with back third number billing.

b[2] = Number of times that the AATLSOS automated access prompting using CPDL interface timer T1 expired. Timer T1 is used to guard against the occurrence of a hung call while OSPS is waiting for further instructions from the CDSU during processing of a call. Specifically, timer T1 is used when OSPS informs the CDSU of the arrival of a call that's eligible for AATLSOS automated access prompting using CPDL interface treatment, or when error conditions are encountered after communication has been established with the CDSU and OSPS expects the call to be terminated.

c[2] = Number of times that the AATLSOS automated access prompting using CPDL interface timer T2 expired. Timer T2 is used to guard against the occurrence of a hung call while OSPS is waiting for further instructions from the CDSU during processing of a call. Specifically, timer T2 is used when OSPS recognizes that the CDSU has gone off-hook on the external audio response unit (ARU)

trunk selected by OSPS for communication between the back party and the CDSU. Prior to expiration of this timer OSPS expects the CDSU to send the OSPS complete call message or the transfer request message.

d[2] = Number of times that the AATLSOS automated access prompting using CPDL interface timer T3 expired. Timer T3 is used to provide a timeout interval after the 10th or 11th digit of a NANP forward number is entered because the caller may attempt to enter [forward number][#][card number] format at the forward number prompt or reprompt.

e[2] = Number of times that the AATLSOS automated access prompting using CPDL interface timer T4 expired. Timer T4 is used to provide a timeout interval after the "#" sign is entered following a forward number because the caller may attempt to enter [forward number][#][card number] format at the forward number prompt or reprompt.

f[2] = Number of times AT&T card calls encounter an Intercept Screening restriction (such as, an Intercept Screening Indicator returned in the Customer Account Services(CAS) query validation response) and the Intercept Screening restriction is applied to the call (such as, feature is activated and the Intercept Screening restriction has precedence). This count shall include those calls in which the look-up in the Customized Handling By Card Product Type table results in the call receiving "Verify" or "Other Billing" treatment.

g[2] = Number of DIOR calls that extend their calling time by entering another add-on card. This measurement is pegged for each initial call or sequence call that extends its calling time.

h[2] = Number of non-DIOR calls that extend their calling time by entering another add-on card. This measurement is pegged for each initial call or sequence call that extends its calling time.

i[2] = Number of add-on cards for DIOR calls that are successfully entered during add-on processing. This measurement only includes subsequent entries of add-on cards and not the first entered card number. Add-on cards that are rejected by the system are not included in this measurement.

j[2] = Number of add-on cards for non-DIOR calls that are successfully entered during add-on processing. This measurement only includes subsequent entries of add-on cards and not the first entered card number. Add-on cards that are rejected by the system are not included in this measurement.

k[2] = Number of attempts of 1-800-CALLATT calls that the caller selects the option for Non-Tariffed Terms and Conditions.

l[2] = Number of attempts of National DA 00- Access calls are accessing the Directory service option and the DDD class of charge is allowed by the switch.

m[2] = Number of National DA 00- Access calls are accessing the Directory service option, the DDD class of charge is allowed by the switch, and the "called end answers" after routing the call to the network.

n[2] = Number of National DA 00- Access calls (after the caller selects the Directory service option) are sent from an AP to an operator due to any one of the following error handling conditions:

- the call is originated from a station type requiring special handling for sent-paid (coin or Automated Charge Quotation System (ACQS)),
- the call is not allowed for paid/DDD billing per the Originating Line Screening (OLS) data, or
- the DDD class of charge is not allowed by the switch (either due to key blocking or due to billing validation failure).

o[2] = Number of attempts of 1-800-CALLATT calls that the caller selects the option for Directory Assistance Service. This measurement will be pegged under the following conditions:
- when the Non-Tariffed feature is on and LSCCS Measurement feature is off, or
- when the Non-Tariffed feature is off and LSCCS Measurement feature is on, or
- when both of the Non-Tariffed feature and LSCCS Measurement feature are on.

p[2] = Number of AAP 1-800-CALLATT calls are accessing the Directory service option, the card class of charge is used and allowed by the switch, and the "called end answers" after routing the call to the network.

q[2] = Number of National DA 00- Access calls and AAP 1-800-CALLATT calls are accessing the Directory service option and receive a Release message containing a request for DA call completion.

r[2] = Number of National DA 00- Access calls and AAP 1-800-CALLATT calls are accessing the Directory service option, receive a Release message containing a request for DA call completion, and are successfully completed and billable for DA call completion with the OSPS AMA "Listing Services Call Completion" Module 321 appended in OSPS AMA record.

s[2] = Number of National DA 00- Access calls and AAP 1-800-CALLATT calls that are accessing the Directory service option are received and recognized by the OSPS-LS.

t[2] = Number of National DA 00- Access calls and AAP 1-800-CALLATT calls that are accessing the Directory service option are received and recognized by the OSPS-LS and are eligible for DA call completion.

u[2] = Number of National DA 00- Access calls and AAP 1-800-CALLATT calls that are accessing the Directory service option are received and recognized by the OSPS-LS and are eligible for DA call completion and the caller accepts the DA call completion offer.

4. ACTIONS TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module (AM) and switching modules (SMs) applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
```

```
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*
250-505-100 *OSPS Description and Procedures*

RC/V View(s):

8.9 (OSPS OFFICE PARAMETERS)
8.41 (OSPS FEATURE PARAMETERS)
27.1 (OSPS TERMINATING CODE SCREENING TEXT AND RESTRICTIONS)
27.2 (OSPS TERMINATING CODE SCREENING FOR NPA-NXX)
27.3 (OSPS TERMINATING CODE SCREENING & PCC FOR COUNTRY CODE)
27.5 (OSPS TELEPHONE CREDIT CARD ISSUER IDENTIFICATION)
27.61 (CUSTOMIZED HANDLING BY CARD PRODUCT TYPE)

OP:TRFC30-OTAP-C

Software Release: 5E12 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 OTAP
  TIME aa:aa:aa
  SECTION 102: OSPS PERFORMANCE
  AUTOQUOTE CALLS
            COMPL   PRINT   AQCRDT  REROUT  RQFAIL  VQCRCDT
            b       c       d       e       f       g
  INTERNATIONAL CALLS
            AUTO    OPER
            h       i
  TERMINATED CODE SCREENING CALLS
            REORD   OPER    ERROR
            j       k       l
  ACCS 0+ CALLS
            NON-COIN        m
            COIN            n
  NUMBER RESIDUAL CALLS     o
  TERMINATING POINT RESTRICTIONS
            DIOR    AATOS   AATLSOS WIRELESS
   CHECKED  p       q       r       s
   BLK_RESTR t      u       v       w
   I_CHECKED x      y       z       a1
   I_BLK_RST b1     c1      d1      e1
  AUTOMATED INWARD LINE SCREENING
      CALL SERVING OSPS
                            OLS     TCS
            QUERIES_SENT    f1      g1
            REPLIES_RECD    h1      i1
            TSKREF  MSQRY   UXDT    TIMEOUT
            j1      k1      l1      m1
      NORMAL SERVING OSPS
                            OLS     TCS
            QUERIES_RECD    n1      o1
            REPLIES_SENT    p1      q1
            TSKREF  MSQRY   UXDT
            r1      s1      t1
  IDENTIFICATION OF CALLS ORIGINATED THROUGH SPECIAL ACCESS METHODS
            ROUTE   BILLABL
            u1      v1
  AATLSOS AUTOMATED ACCESS PROMPTING USING CPDL INTERFACE
            ATMPT   ROUTE   BCRD    COLL    BTN
            w1      x1      y1      z1      a2
            T1EXP   T2EXP   T3EXP   T4EXP
            b2      c2      d2      e2
  AATLSOS AUTOMATED ACCESS PROMPTING NON-TARIFFED ANNOUNCEMENT
```

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```
            NON-TARIFFED
            k2
LISTING SERVICES CALL COMPLETION SERVICE MEASUREMENTS
            ATMPT   DDD-ANS BLKD    DA      CARD-ANS
            l2      m2      n2      o2      p2
            RERTE   BILLABL RCVD    ELIG    COMPLETE
            q2      r2      s2      t2      u2

CAS INTERCEPT SCREENING
            CAS_INT
            f2
PLBQ WITH ADD-ON CAPABILITES
                        DIOR    NON_DIOR
            CALLS       g2      h2
            CARDS       i2      j2
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of of section 102: Operator Services Position System (OSPS) toll and assistance performance (OTAP) measurements of the 30-minute traffic report. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Number of attempts to send an autoquote message to an autoquote establishment.

c = Number of printed autoquote calls.

d = Number of times that an autoquote message was not sent to the autoquote establishment and a credit record was created for the following events:

- Automatic charge quotation service (ACQS) message buffer pointers were corrupted which resulted in credit records created for each queued autoquote.
- An autoquote message was queued for longer than the value in field "HOBIS/C TIME" of RC/V View 8.9.
- The ACQS message buffer was full (max 100) and a new message arrived replacing a queued autoquote message.
- Failures occurred during transmitting the message to the autoquote establishment and when trying to reroute the message to a hotel billing information system (HOBIS) or hotel billing information center (HOBIC).

e = Number of autoquote messages successfully rerouted to a HOBIS or HOBIC.

f = Number of autoquote messages that failed because all autoquote digital subscriber lines (DSL) were busy or call processing could not dial up the autoquote establishment because of a lack of software process control blocks (PCB) or process stacks (PS).

g = Number of credited voice quote messages that were not sent to HOBIS or HOBIC due to such events as:

- The ACQS message buffer pointers were corrupted which resulted in credit records created for each queued voice quote message.

- A voice quote message was queued for longer than the value in field "HOBIS/C TIME" of RC/V View 8.9.
- The ACQS message buffer was full (max 100) and a new message arrived replacing a queued voice quote message;
- A failure occurred during transmitting the message to HOBIS or HOBIC.

h = Number of successfully outpulsed international calls signaled as direct dialed, excluding calls to Mexico.

i = Number of successfully outpulsed international calls signaled as operator-assisted, excluding calls to Mexico.

j = Number of automated calling card service (ACCS) calls attempted to be routed to reorder because of terminating code screening (TCS) restrictions for either international or USA calls. (Refer to RC/V Views 27.2 and 27.3)

k = Number of ACCS calls attempted to be routed to an operator or the automated verification process because of TCS restrictions for either international or USA calls. (Refer to RC/V Views 27.2 and 27.3)

l = Number of times a calling card call encountered a TCS restriction while the call was at a position (this does not include the initial display given when an automated call is routed to an operator).

m = Number of ACCS 0+ non-coin calls with a valid calling card number and personal identification number (PIN) (whether restricted or unrestricted) plus the number of calling card query failures with indeterminate billing allowed (Refer to the "BILL BLOCK" and "CAS INDT BLK" parameters in RC/V View 8.9). This measurement will be scored whether the initial or sequence call is automatically routed, routed to an operator, sent to reorder, or the announcement circuit is disconnected.

n = Number of ACCS 0+ coin calls with a valid calling card number and PIN (whether restricted or unrestricted) plus the number of calling card query failures with indeterminate billing allowed (refer to the "BILL BLOCK" and "CAS INDT BLK" parameters in RC/V View 8.9). This measurement will be scored whether the initial or sequence call is automatically routed, routed to an operator, sent to reorder, or the announcement circuit is disconnected.

o = Number of residual calls [calls to the special operator services traffic (SOST) operator] released from an operator position.

p = Number of direct international originations (DIOR) calls with a forward number in a North American numbering plan (NANP) format that were subject to terminating point restriction (TPR) checks.

q = Number of alternate access to operator service (AATOS) calls with a forward number in a NANP format that were subject to TPR checks.

r = Number of alternate access to language specific operator services (AATLSOS) calls with a forward number in a NANP format that were subject to TPR checks.

s = Number of wireless calls with a forward number in a NANP format that were subject to TPR checks.

t = Number of DIOR calls with a forward number in a NANP format that were blocked or restricted by TPR.

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u = Number of AATOS calls with a forward number in a NANP format that were blocked or restricted by TPR.

v = Number of AATLSOS calls with a forward number in a NANP format that were blocked or restricted by TPR.

w = Number of wireless calls with a forward number in a NANP format that were blocked or restricted by TPR.

x = Number of DIOR calls with a forward number in an international format that were subject to TPR checks.

y = Number of AATOS calls with a forward number in an international format that were subject to TPR checks.

z = Number of AATLSOS calls with a forward number in an international format that were subject to TPR checks.

a[1] = Number of wireless calls with a forward number in an international format that were subject to TPR checks.

b[1] = Number of DIOR calls with a forward number in an international format that were blocked or restricted by TPR.

c[1] = Number of AATOS calls with a forward number in an international format that were blocked or restricted by TPR.

d[1] = Number of AATLSOS calls with a forward number in an international format that were blocked or restricted by TPR.

e[1] = Number of wireless calls with a forward number in an international format that were blocked or restricted by TPR.

f[1] = Number of automated inward line screening (AILS) queries sent from the call serving OSPS to retrieve originating line screening (OLS) data.

g[1] = Number of AILS queries sent from the call serving OSPS to retrieve terminating code screening (TCS) data.

h[1] = Number of AILS replies received in the call serving OSPS returning OLS data. This measure does not include the error replies received in the call serving OSPS.

i[1] = Number of AILS replies received in the call serving OSPS returning TCS data. This measure does not include the error replies received in the call serving OSPS.

j[1] = Number of error replies of "task refused" received in the call serving OSPS.

k[1] = Number of error replies of "misroute" received in the call serving OSPS.

l[1] = Number of error replies of "unexpected input data value" received in the call serving OSPS.

m[1] = Number of queries that timed out in the call serving OSPS. This is a measure of the number of queries that actually left the call serving OSPS and became indeterminate (a valid reply was not received) for whatever reason.

n[1] = Number of AILS queries received in the normal serving OSPS from the call serving OSPS to

retrieve OLS data.

o[1] = Number of AILS queries received in the normal serving OSPS from the call serving OSPS to retrieve TCS data.

p[1] = Number of AILS replies sent from the normal serving OSPS to the call serving OSPS returning OLS data. This measure does not include the error replies sent to the call serving OSPS.

q[1] = Number of AILS replies sent from the normal serving OSPS to the call serving OSPS returning TCS data. This measure does not include the error replies sent to the call serving OSPS.

r[1] = Number of error replies of "task refused" sent from the normal serving OSPS to the call serving OSPS.

s[1] = Number of error replies of "misroute" sent from the normal serving OSPS to the call serving OSPS.

t[1] = Number of error replies of "unexpected input data value" sent from the normal serving OSPS to the call serving OSPS.

u[1] = Number of calls routed over special access trunk groups. OSPS pegs this count whenever a special access trunk group is seized for initial call seizure only.

v[1] = Number of billable calls routed over special access trunk groups. OSPS pegs this count whenever a billable call having a negative prior call completion status was routed over a special access trunk group.

w[1] = Number of attempts of 1-800-225-5288 using call processing data link (CPDL) interface calls. This measurement counts the number of times OSPS identified an incoming call as a 1-800-225-5288 using CPDL interface call.

x[1] = Number of 1-800-225-5288 using CPDL interface calls routed to the customer data service unit (CDSU). This measurement counts the number of "request action" messages sent to the CDSU by OSPS.

y[1] = Number of attempts of 1-800-225-5288 using CPDL interface calls that completed (answered with billable time) with back card billing.

z[1] = Number of attempts of 1-800-225-5288 using CPDL interface calls that completed (answered with billable time) with collect billing.

a[2] = Number of attempts of 1-800-225-5288 using CPDL interface calls that completed (answered with billable time) with back third number billing.

b[2] = Number of times that the AATLSOS automated access prompting using CPDL interface timer T1 expired. Timer T1 is used to guard against the occurrence of a hung call while OSPS is waiting for further instructions from the CDSU during processing of a call. Specifically, timer T1 is used when OSPS informs the CDSU of the arrival of a call that's eligible for AATLSOS automated access prompting using CPDL interface treatment, or when error conditions are encountered after communication has been established with the CDSU and OSPS expects the call to be terminated.

c[2] = Number of times that the AATLSOS automated access prompting using CPDL interface timer T2 expired. Timer T2 is used to guard against the occurrence of a hung call while OSPS is waiting for further instructions from the CDSU during processing of a call. Specifically, timer T2 is used when OSPS recognizes that the CDSU has gone off-hook on the external audio response unit (ARU)

trunk selected by OSPS for communication between the back party and the CDSU. Prior to expiration of this timer OSPS expects the CDSU to send the OSPS complete call message or the transfer request message.

d[2] = Number of times that the AATLSOS automated access prompting using CPDL interface timer T3 expired. Timer T3 is used to provide a timeout interval after the 10th or 11th digit of a NANP forward number is entered because the caller may attempt to enter [forward number][#][card number] format at the forward number prompt or reprompt.

e[2] = Number of times that the AATLSOS automated access prompting using CPDL interface timer T4 expired. Timer T4 is used to provide a timeout interval after the "#" sign is entered following a forward number because the caller may attempt to enter [forward number][#][card number] format at the forward number prompt or reprompt.

f[2] = Number of times AT&T card calls encounter an Intercept Screening restriction (such as, an Intercept Screening Indicator returned in the Customer Account Services(CAS) query validation response) and the Intercept Screening restriction is applied to the call (such as, feature is activated and the Intercept Screening restriction has precedence). This count shall include those calls in which the look-up in the Customized Handling By Card Product Type table results in the call receiving "Verify" or "Other Billing" treatment.

g[2] = Number of DIOR calls that extend their calling time by entering another add-on card. This measurement is pegged for each initial call or sequence call that extends its calling time.

h[2] = Number of non-DIOR calls that extend their calling time by entering another add-on card. This measurement is pegged for each initial call or sequence call that extends its calling time.

i[2] = Number of add-on cards for DIOR calls that are successfully entered during add-on processing. This measurement only includes subsequent entries of add-on cards and not the first entered card number. Add-on cards that are rejected by the system are not included in this measurement.

j[2] = Number of add-on cards for non-DIOR calls that are successfully entered during add-on processing. This measurement only includes subsequent entries of add-on cards and not the first entered card number. Add-on cards that are rejected by the system are not included in this measurement.

k[2] = Number of attempts of 1-800-CALLATT calls that the caller selects the option for Non-Tariffed Terms and Conditions.

l[2] = Number of attempts of National DA 00- Access calls are accessing the Directory service option and the DDD class of charge is allowed by the switch.

m[2] = Number of National DA 00- Access calls are accessing the Directory service option, the DDD class of charge is allowed by the switch, and the "called end answers" after routing the call to the network.

n[2] = Number of National DA 00- Access calls (after the caller selects the Directory service option) are sent from an AP to an operator due to any one of the following error handling conditions:

- the call is originated from a station type requiring special handling for sent-paid (coin or Automated Charge Quotation System (ACQS)),
- the call is not allowed for paid/DDD billing per the Originating Line Screening (OLS) data, or
- the DDD class of charge is not allowed by the switch (either due to key blocking or due to billing validation failure).

o[2] = Number of attempts of 1-800-CALLATT calls that the caller selects the option for Directory Assistance Service. This measurement will be pegged under the following conditions:
- when the Non-Tariffed feature is on and LSCCS Measurement feature is off, or
- when the Non-Tariffed feature is off and LSCCS Measurement feature is on, or
- when both of the Non-Tariffed feature and LSCCS Measurement feature are on.

p[2] = Number of AAP 1-800-CALLATT calls are accessing the Directory service option, the card class of charge is used and allowed by the switch, and the "called end answers" after routing the call to the network.

q[2] = Number of National DA 00- Access calls and AAP 1-800-CALLATT calls are accessing the Directory service option and receive a Release message containing a request for DA call completion.

r[2] = Number of National DA 00- Access calls and AAP 1-800-CALLATT calls are accessing the Directory service option, receive a Release message containing a request for DA call completion, and are successfully completed and billable for DA call completion with the OSPS AMA "Listing Services Call Completion" Module 321 appended in OSPS AMA record.

s[2] = Number of National DA 00- Access calls and AAP 1-800-CALLATT calls that are accessing the Directory service option are received and recognized by the OSPS-LS.

t[2] = Number of National DA 00- Access calls and AAP 1-800-CALLATT calls that are accessing the Directory service option are received and recognized by the OSPS-LS and are eligible for DA call completion.

u[2] = Number of National DA 00- Access calls and AAP 1-800-CALLATT calls that are accessing the Directory service option are received and recognized by the OSPS-LS and are eligible for DA call completion and the caller accepts the DA call completion offer.

4. ACTIONS TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module (AM) and switching modules (SMs) applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
```

```
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*
250-505-100 *OSPS Description and Procedures*

RC/V View(s):

8.9 (OSPS OFFICE PARAMETERS)
8.41 (OSPS FEATURE PARAMETERS)
27.1 (OSPS TERMINATING CODE SCREENING TEXT AND RESTRICTIONS)
27.2 (OSPS TERMINATING CODE SCREENING FOR NPA-NXX)
27.3 (OSPS TERMINATING CODE SCREENING & PCC FOR COUNTRY CODE)
27.5 (OSPS TELEPHONE CREDIT CARD ISSUER IDENTIFICATION)
27.61 (CUSTOMIZED HANDLING BY CARD PRODUCT TYPE)
27.88 (OSPS DACC TREATMENT TABLE)

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OP:TRFC30-OVMS-A

Software Release: 5E10 only
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 OVMS
  TIME aa:aa:aa
  SECTION 168:  OSPS VOICE MESSAGING SERVICE MEASURES
     ACC-CD     OPATMPT   OPCOMP   AUTATMP  AUTCOMP
     b          c         d        e        f
     .          .         .        .        .
     .          .         .        .        .
     .          .         .        .        .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or a scheduled output of section 168: Operator Services Position System (OSPS) voice messaging service (VMS) measures of the 30-minute traffic report. This section collects and prints measurements for each access code which had one or more of the measurements pegged for this reporting period.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = VMS access code

c = Number of VMS operator-handled call attempts. It is considered an attempt, and is pegged when a correct service code and a valid access code, that is, 1ZXXX or 19ZXXX, is entered.

d = Number of VMS operator-handled call completions. This is pegged on completion of the call information transfer process.

e = Number of VMS automated call attempts. It is considered an attempt, and is pegged when a correct service code and a valid access code, that is, 1ZXXX or 19ZXXX, is entered.

f = Number of VMS automated call completions. This is pegged on completion of the call information transfer process.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

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The validity for the administrative module (AM) applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

RC/V View(s):

8.9 (OSPS OFFICE PARAMETERS)
8.22 (SECURED FEATURE UPGRADE)
27.65 (VOICE MESSAGING SERVICE INTERFACE)

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OP:TRFC30-OVMS-B

Software Release: 5E11 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 OVMS
  TIME aa:aa:aa
  SECTION 168:  OSPS VOICE MESSAGING SERVICE MEASURES
     ACC-CD  OPATMT  OPCOMP  AUTATMT AUTCOMP XBUSY   XRINGNA
     b       c       d       e       f       g       h
     .       .       .       .       .       .       .
     .       .       .       .       .       .       .
     .       .       .       .       .       .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or a scheduled output of section 168: Operator Services Position System (OSPS) voice messaging service (VMS) measures of the 30-minute traffic report. This section collects and prints measurements for each access code which had one or more of the measurements pegged for this reporting period.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = VMS access code

c = Number of VMS operator-handled call attempts. It is considered an attempt, and is pegged when a correct service code and a valid access code, that is, 1ZXXX or 19ZXXX, is entered.

d = Number of VMS operator-handled call completions. This is pegged on completion of the call information transfer process.

e = Number of VMS automated call attempts. It is considered an attempt, and is pegged when a correct service code and a valid access code, that is, 1ZXXX or 19ZXXX, is entered.

f = Number of VMS automated call completions. This is pegged on completion of the call information transfer process.

g = Number of callers who are transferred to an enhanced service provider (ESP) when a Common Channel Signaling System 7 (CCS7) busy condition is encountered.

h = Number of callers who are transferred to an ESP when a CCS7 ring/no answer or called number status undefined condition is encountered.

4. ACTION TO BE TAKEN

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No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module (AM) applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

RC/V View(s):

8.9 (OSPS OFFICE PARAMETERS)
8.22 (SECURED FEATURE UPGRADE)
27.65 (VOICE MESSAGING SERVICE INTERFACE)

OP:TRFC30-OVOEQ

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 OVOEQ
  TIME aa:aa:aa
  SECTION 101: OSPS CALL VOLUME AND EQUIPMENT USAGE
  INITIAL SEIZURE ATTEMPTS
           NSNT     PERPD     STAPD     TOTAL     DIAL1
  PREPAY:  b        c         d         e         f
  POSTPAY: g        h         i         j         k
  0+ and 0- COIN CALLS
           PERPD     STAPD     COLL     3RDNO
           l         m         n        o
           CARD    TOTAL     0PLUS    0MINUS
           p        q        r        s
  BUSY LINE VERIFICATION
           ATTS     NNET     EXCL
           t        u        v
           CANCEL     RECRD     QUEUE
           w          x         y
  EMERGENCY INTERRUPT
           ATTS     CANCEL     EICAN     RECRD     NLDSU
           z        a1         b1        c1        d1
  DTA CIRCUITS
           NSRV
           e1
  PERFORMANCE
           INIT     OPANN     ACDS
           f1       g1        h1
           OPCDS     OPEOC     AEOC
           i1        j1        k1
           CAMA     FLASH     AUTO
           l1       m1        n1
```

2. REASON FOR OUTPUT

To respond to a request for an immediate or scheduled output of section 101: Operator Services Position System (OSPS) call volume and equipment usage (OVOEQ) measurements of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Number of operator-handled 1+ calls from prepay automatic coin terminal service (ACTS)

compatible coin stations that were released from an operator position with a class of charge set to something other than sent paid.

c = Number of operator-handled 1+ calls from prepay ACTS compatible coin stations that were released from an operator position with a class of charge set to person paid.

d = Number of operator-handled 1+ calls from prepay ACTS compatible coin stations that were released from an operator position with a class of charge set to station paid.

e = Total number of operator-handled 1+ calls from prepay ACTS compatible coin stations (total of PREPAY NSNT + PERPD + STAPD).

f = Number of initial seizure attempts from prepay ACTS compatible stations that were dialed 1+ or 1+800/950.

g = Number of operator-handled 1+ calls from postpay ACTS or non-ACTS compatible or from prepay non-ACTS compatible coin stations that were released from an operator position with a class of charge set to something other than sent paid.

h = Number of operator-handled 1+ calls from postpay ACTS or non-ACTS compatible or from prepay non-ACTS compatible coin stations that were released from an operator position with a class of charge set to person paid.

i = Number of operator-handled 1+ calls from postpay ACTS or non-ACTS compatible or from prepay non-ACTS compatible coin stations that were released from an operator position with a class of charge set to station paid.

j = Total number of operator-handled 1+ calls from postpay ACTS or non-ACTS compatible or prepay non-ACTS compatible coin stations (total of POSTPAY NSNT + PERPD + STAPD).

k = Number of initial seizure attempts from postpay ACTS or non-ACTS compatible or prepay non-ACTS compatible coin stations that were dialed 1+ or 1+800/950.

l = Number of operator-handled 0+ and 0- coin calls, regardless of station type, that were released from an operator position with a class of charge set to person paid.

m = Number of operator-handled 0+ and 0- coin calls, regardless of station type, that were released from an operator position with a class of charge set to station paid.

n = Number of operator-handled 0+ and 0- coin calls, regardless of station type, that were released from an operator position with a class of charge set to collect.

o = Number of operator-handled 0+ and 0- coin calls, regardless of station type, that were released from an operator position with a class of charge set to third number.

p = Number of operator-handled 0+ and 0- coin calls, regardless of station type, that were released from an operator position with a class of charge set to calling card.

q = Total number of operator-handled 0+ and 0- coin calls (total of PERPD + STAPD + COLL + 3RDNO + CARD).

r = Number of initial seizure attempts that were dialed 0+ regardless of station type and regardless of whether an operator was successfully attached.

s = Number of initial seizure attempts that were dialed 0- regardless of station type and regardless of whether an operator was successfully attached.

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t = Number of busy line verification (BLV) activation attempts.

u = Number of BLV activation attempts on lines that were not in this Operator Services Position Systems (OSPSs) verify network. (Refer to RC/V View 27.10)

v = Number of BLV activation attempts on lines that were in the verify network but were excluded from verification. (Refer to RC/V View 27.11)

w = Number of times the CANCEL CALL key was used to end a BLV transaction.

x = Number of times a BLV was successfully terminated with the RECRD TICKT key.

y = Number of times a BLV had to queue for a trunk.

z = Number of emergency interrupt (EI) activation attempts.

a[1] = Number of times the CANCEL CALL key was used to end an EI transaction.

b[1] = Number of times the EI CANCEL key was used to end an EI transaction.

c[1] = Number of times an EI was successfully terminated with the RECRD TICKT key.

d[1] = Number of times there was a software failure or a local digital service unit (LDSU) hardware failure such that EI tone could not be provided on an EI attempt.

e[1] = Number of times a request to use an announcement circuit failed for:
- Time-out.
- Q overflow.
- Announcement circuit unavailable and queuing was not requested.

The queued timing parameter is specified by "DSU2 Q TIME" in RC/V View 8.9.

f[1] = Number of initial deposits satisfied on fully automated 1+ coin seizures.

g[1] = Number of times that coin calls requiring an operator to provide a notify announcement were successfully attached to an operator and a conference circuit was successfully obtained when either an announcement circuit and/or forward party were attached. If an announcement circuit and forward party were not on the call, then a conference circuit was not required.

h[1] = Number of deposits satisfied on fully automated charges-due seizures.

i[1] = Number of times that ACTS or non-ACTS coin calls requiring an operator on an overtime charges-due seizure were successfully attached to an operator and a conference circuit was successfully obtained when either an announcement circuit and/or forward party were attached. If an announcement circuit and forward party were not on the call, then a conference circuit was not required.

j[1] = Number of times that ACTS or non-ACTS coin calls requiring an operator on an end-of-call seizure were successfully attached to an operator and a conference circuit was successfully obtained when either an announcement circuit and/or forward party were attached. If an announcement circuit and forward party were not on the call, then a conference circuit was not required.

k[1] = Number of deposits satisfied on fully automated end-of-call seizures.

`l`[1] = Number of 1+ automatic number identification (ANI), automatic number identification failure (ANIF), or operator number identification (ONI) system-centralized automated message accounting (CAMA) calls received on operator trunks.

`m`[1] = Number of customer flashes during grace period for coin calls.

`n`[1] = Number of automated end-of-initial-period announcements. Equal to SNTPD (Section 100) - OPANN (Section 101).

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report:

```
OP:TRFC30,VLD
```

The validity for the administrative module (AM) applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

250-505-100 *OSPS Description and Procedures*

RC/V View(s):

8.9 (OSPS OFFICE PARAMETERS)
27.10 (OSPS BUSY LINE VERIFICATION NPA FORM)
27.11 (OSPS BUSY LINE VERIFICATION LINE EXCLUSIONS)

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OP:TRFC30-PBG

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 PBG
  TIME aa:aa:aa
  SECTION 119: PACKET BUSINESS GROUPS
      PBGID   INTRA   ORIGATT TERMATT LCNOVFL TCPOVFL RTDOVFL
      b       c       d       e       f       g       h
      .       .       .       .       .       .       .
      .       .       .       .       .       .       .
      .       .       .       .       .       .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate output or a scheduled output of section 119: packet business groups (PBG) of the 30-minute traffic report.

The TRFM message class applies to 5E9(1) and later.
The XTRFM message class applies to 5E9(1) and later.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds

b = PBG number.

c = The number of X.25 originations from an ISDN business group element (BGE-I) that are routed towards a terminating BGE-I of the same PBG under study. This includes intra-PBG calls that are blocked/routed calls when the PBG is in overflow, as well as calls which are routed when not in overflow (count 1).

For variables 'd' - 'h', a packet mode call is non-intra-PBG if it is an interswitch call, if the originating and terminating parties are not members of the same PBG, or if one or the other (or even both) are not members of any PBG.

d = Number of originating call attempts. This is the number of X.25 call request packets that have been processed for a delivery to a BGE-I of the PBG that is under study. This includes non-intra-PBG calls that are blocked/routed when the terminating PBG is in overflow as well as calls which are routed when not in overflow (count 2).

e = Number of terminating call attempts. This is the number of X.25 call request packets that are received from a BGE-I of the PBG that is under study. This includes non-intra-PBG calls that are blocked/routed when the originating PBG is in overflow as well as calls which are routed when not in overflow (count 3).

f = Number of X.25 originations and terminations for a BGE-I of the PBG under study that are blocked because the aggregate logical channel count for the associated PBG has exceeded the provisional limit. Intra-PBG calls will be pegged twice (count 4).

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`g` = Number of X.25 originations and terminations for a BGE-I of the PBG under study that are blocked because the aggregate throughput class for the associated PBG has exceeded the provisional limit. Intra-PBG calls will be pegged twice (count 5).

`h` = Number of X.25 originations and terminations for a BGE-I of the PBG under study that are routed when in overflow. Intra-PBG calls will be pegged twice (count 6).

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with the input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity of the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

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Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-PC

Software Release: 5E12 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 PC
  TIME aa:aa:aa

  SECTION 234: POINT CODE COUNTS FOR MTP

     GSM  NETWORK CLUSTER  MEMB  PCU       DPCU       LSAR       LSUR
     b    c       d        e     f         g          h          i
     .    .       .        .     .         .          .          .
     .    .       .        .     .         .          .          .
     .    .       .        .     .         .          .          .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 234: Point Code (PC) for Packet Switch Unit (PSU) based Common Channel Signalling (CCS) of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

Note that selection of components for collection and reporting of this section is administered using RC/V views 13.7 and 13.8.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hh:mm:ss.

b = Global Switching Module (GSM) number.

c = Network.

d = Cluster.

e = Member.

f = Point Code (PC) Unavailable Count.

g = Duration of Point Code (PC) Unavailability.

h = Link Sets Available Routes.

i = Link Sets Unavailable Routes.

4. ACTION TO BE TAKEN

No action is required.

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If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

Check the validity of the corresponding GSM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-PCSDN

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 PCSDN
  TIME aa:aa:aa
  SECTION 199: ISDN PCS DN SPECIAL STUDY
  DN      SM   ALTRQ     ORIGATMP
  b       c    d         e
  .       .    .         .
  .       .    .         .
  .       .    .         .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 199, ISDN personal communications services (PCS) directory number (DN) special study counts, of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Directory number (DN).

c = Switching module (SM) number.

d = Number of inter-radio port control unit (RPCU) automatic link transfer (ALT) requests per DN for PCS basic rate interface (BRI) interconnecting the RPCUs and the switch.

e = Number of PCS originating attempts per DN for PCS BRI.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-PCSOF

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 PCSOFC
  TIME aa:aa:aa
  SECTION 200: PERSONAL COMMUNICATIONS SERVICES OFFICE TOTALS
     ORIGATT    ORIGSUC    TERMATT    TERMSUC    ALTREQ     ALTSUC
     b          c          d          e          f          g
     REGATT     REGSUC     AUTHATT    AUTHFAIL
     h          i          j          k
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or a scheduled output of section 200: personal communications services (PCS) office total measurements, of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

`a` = Time when the report was prepared, in the form hours:minutes:seconds

`b` = Number of PCS origination call attempts.

`c` = Number of successful PCS originations.

`d` = Number of PCS termination call attempts.

`e` = Number of successful PCS terminations.

`f` = Number of inter-radio port control unit (RPCU) automatic link transfer (ALT) requests.

`g` = Number of successful inter-RPCU ALTs.

`h` = Number of registration attempts by an *AIR EXTENSION*® wireless phone. [For *AIR EXTENSION*® wireless phone. wireless network controller (AEWNC) only.]

`i` = Number of successful registration by an *AIR EXTENSION*® wireless phone. (For AEWNC only.)

`j` = Number of authentication attempts by an *AIR EXTENSION*® wireless phone. (For AEWNC only.)

`k` = Number of authentication failures by an *AIR EXTENSION*® wireless phone. (For AEWNC only.)

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

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```
OP:TRFC30,VLD
```

The validity for the SMs applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-PRIGR

Software Release: 5E14 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 PRIGRP
 TIME aa:aa:aa
 SECTION 243: Primary Rate Interface Group

  PRIGRP  RQST    SUCC    RQOVFL  ACTOVFL
  b       c       d       e       f
  .       .       .       .       .
  .       .       .       .       .
  .       .       .       .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 243: Primary Rate Interface Group section of the 30-minute traffic report. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Primary Rate Interface Group Number.

c = Number of valid TBCT transfer requests. This count is pegged each time a FACILITY message is received with a facility IE that contains an Invoke component with an Operation value coded for "enhancedExplicitECTExecute", and the feature assignment and validity checks are passed.

d = Number of successful TBCT transfers. This count is pegged each time a transfer request has been validated and the transfer is successfully accomplished (indicated when the switch sends the controller a DISCONNECT message with a facility IE that contains a Return Result component which includes the Invoke Identifier that corresponds to the TBCT request).

e = Number of overflows of maximum number of TBCT Transfer Requests in Current Period . This count is pegged each time a valid transfer request is rejected because the number of transfer requests in the current period is greater than the Maximum Transfer Requests per Ten Seconds parameter.

f = Number of overflows of maximum number of active TBCT Transfers. This count is be pegged if a valid transfer request is rejected because the number of active transfers is equal to or greater than the Maximum Active Transfers parameter and if the number of transfer requests in the current period does not exceed the Maximum Transfer Requests per 10-Seconds parameter limit.

4. ACTIONS TO BE TAKEN

No action is required.

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If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

OP:TRFC30,VLD

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-PROC

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 PROC
  TIME aa:aa:aa
  SECTION 15: PROCESSOR PERFORMANCE
              PERCENT
  PROC        OCCUP   LOAD    ORGHC     TERMHC     INCHC     OUTHC    PUQCO
  AM          b       j       NA        NA         NA        NA       NA
  c           b       d       e         f          g         h        i
  .           .       .       .         .          .         .        .
  .           .       .       .         .          .         .        .
  .           .       .       .         .          .         .        .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 15: processor (PROC) performance of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:seconds:minutes.

b = Valid value(s):

Module type	'b' =
Switching module (SM)	Percent of time spent processing jobs other than the two lowest priority jobs in the system.
Administrative module (AM)	Percent occupancy of call processing only.

c = SM number.

d = Number of terminal processes created.

e = Number of originating half calls.

f = Number of terminating half calls.

g = Number of incoming half calls.

h = Number of outgoing half calls.

i = This overflow count is the number of call pickup calls not queued because there were no available slots in the pickup queue for a particular pickup group.

j = Either NA for not used or total AM percent occupancy. Includes both call processing and non-call processing work done in the AM.

4. ACTION TO BE TAKEN

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No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding processor.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-PSGRP

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 PSGRP
  TIME aa:aa:aa
  SECTION 71: ISDN PACKET SWITCHING GROUP COUNTS
      GRPID   MPGOOS  MLHGATT  MLHGOFL  LCCBUSG
      b         c       d        e        f
      .         .       .        .        .
      .         .       .        .        .
      .         .       .        .        .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 71: integrated services digital network (ISDN) packet switching group (PSGRP) counts of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

`a` = Time of report, in the form hours:minutes:seconds.

`b` = Group ID. Valid value(s):
- `MPG` = Modem pooling group.
- `MLHG` = Multi-line hunt group.

`c` = Maintenance out-of-service (OOS) usage of all members of an MPG reported in hundred call seconds (CCS) (count 1).

`d` = Number of attempts to terminate to an MLHG (count 2).

`e` = Number of times that an attempt was made to terminate to an MLHG but no members in that group had an available logical channel (count 3).

`f` = Logical channel control block (LCCB) usage reported in CCS (count 4).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-PSODB

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 PSODB
  TIME aa:aa:aa
  SECTION 105: PACKET SWITCHING ON-DEMAND B-CHANNEL
    SM      ISLU    ATMPT   USG     OVFL
     b       c        d      e       f
     .       .        .      .       .
     .       .        .      .       .
     .       .        .      .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 105: integrated services digital network (ISDN) packet switching (PS) on-demand B-channel (ODB) of the 30-minute traffic report.

The TRFM message class applies to 5E9(1) and later.
The XTRFM message class applies to 5E9(1) and later.

3. VARIABLE FIELD DEFINITIONS

`a` = Time when the report was prepared, in the form hours:minutes:seconds.

`b` = Switching module (SM) number.

`c` = Integrated services line unit (ISLU) number.

`d` = Number of attempts to set up the ODB connection to the protocol handler (PH), whether successful or not (count 1).

`e` = Directly connected peripheral interface data bus (count 2) (DPIDB) timeslot usage (includes permanent packet B (PPB), permanent packet D (PPD), and ODB)) in units of hundred call seconds (CCS).

`f` = Number of failures to establish ODB channels (count 3).

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

OP:TRFC30,VLD

The validity for the administrative module applies to this section.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-PSOFC

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 PSOFC
  TIME aa:aa:aa
  SECTION 69: ISDN PACKET SWITCHING OFFICE TOTALS
     ORIGPC  TERMPC  INCPC   OUTPC  OVLDEN   TANDEM
     b       c       d       e      f        g
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 69: integrated services digital network (ISDN) packet switching office (PSOFC) totals of 30-minute traffic report.

The TRFM message class applies to 5E9(1) and later.
The XTRFM message class applies to 5E9(1) and later.

3. VARIABLE FIELD DEFINITIONS

`a` = Time of report, in the form hours:minutes:seconds.

`b` = Number of ISDN originating packet-switched calls.

`c` = Number of ISDN terminating packet-switched calls.

`d` = Number of ISDN incoming packet-switched calls.

`e` = Number of ISDN outgoing packet-switched calls.

`f` = Number of packet-switched calls denied due to overload.

`g` = Number of ISDN packet-switched tandem virtual calls which transmit from one X.75' port to another. These tandem calls include IP-IP (internal protocol), IP-X.75', IP-X.75, X.75'-X.75', X.75'-X.75, and X.75-X.75 trunk group tandem calls.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with OP:TRFC30 using the VLD option.

```
OP:TRFC30,VLD
```

The validity of the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-PSPH

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 PSPH
  TIME aa:aa:aa
  SECTION 68:  ISDN PACKET SWITCHING PROTOCOL HANDLER/DSLG
                                          BUF     LCCB   LCCB     LCCB
     SM  DSLG  SHELF PH [TYPE]  PACKETS   OVFL    OVFL   ATMPT    USG
     b   c     d     e  [k]     f         g       h      i        j
     .   .     .     .   .      .         .       .      .        .
     .   .     .     .   .      .         .       .      .        .
     .   .     .     .   .      .         .       .      .        .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 68: integrated services digital network (ISDN) packet switching protocol handler (PSPH)/digital subscriber line group (DSLG) of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = DSLG number.

d = Shelf number.

e = Protocol handler (PH) unit number within the shelf.

k = Type of PH and PH hardware type. This is a string value that represents a unique application and hardware type. For example, DSLG-2 would be DSLG with PH2.

f = Number of packet switched packets sent and received (count 1).

g = Number of times an attempt was made to allocate a buffer and none was available (count 2).

h = Number of times an attempt was made to allocate a logical channel control block (LCCB) and none was available (count 3).

i = Number of attempts to hunt idle LCCB on the PH, whether successful or not (count 4).

j = LCCB usage in units of hundred call seconds (CCS) of a PH (count 5).

4. ACTION TO BE TAKEN

No action is required.

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If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module (AM) applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-PSPOR

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 PSPORT
  TIME aa:aa:aa
  SECTION 67:  ISDN PACKET SWITCHING PH PORT COUNTS
                  [TRANSLATION TABLE]
      SM      DSLG     SHELF   PH   [PORT   ID]
      b       c         d      e     [f]    [g]
      .
      .
      .
  PACKETS
     ID    CKTSW    PKTSW   ERRORS   DISCARD  RETRANS ORIG TERM
     g       h        i        j        k        l       m    n
     .
     .
     .
  FRAMES                       LCCB
      ID     ERRORS   RETRANS USG
       g       n        o      p
       .
       .
       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 67: integrated services digital network (ISDN) packet switching protocol handler (PH) port (PSPORT) of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = Digital subscriber line group (DSLG) number.

d = Shelf number.

e = PH unit number within the shelf.

f = Optional port (channel number). This variable will only appear if the user has turned on arbitrary traffic measurements for DSLG.

g = Either a port number or an arbitrarily selected ID. Note that this variable will only appear if the user has turned on arbitrary traffic measurements for DSLG.

Port number if PSPORT has been allowed for all ports on one PH. (A port and ID that print here do

not appear in the Translation Table and do not appear in the first line of the format.)

Arbitrarily selected ID and port if a random port has been selected (A port and ID that print here do appear in the Translation Table and on the first line of the format).

`h` = Number of circuit-switched (CKTSW) signaling packets transferred (sent + received) (count 1).

`i` = Number of packet-switched (PKTSW) packets transferred (sent + received) (count 2).

`j` = Number of X.25 level 3 protocol errors (count 3).

`k` = Number of PKTSW packets discarded (count 4).

`l` = Number of PKTSW packets retransmitted (count 5).

`m` = Number of originating or incoming calls (count 6).

`n` = Number of terminating or outgoing calls (count 7).

`o` = Percentage of frames received with errors (count 8).

`p` = Percentage of frames sent that were retransmitted (count 9).

`q` = Logical channel control block (LCCB) usage in units of hundred call seconds (CCS) (count 10).

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the indicated SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
```

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-PSSM

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 PSSM
  TIME aa:aa:aa
  SECTION 132: PACKET SWITCHING SWITCHING MODULE COUNTS
  SM      ORGHC   TERMHC   INCHC   OUTHC
   b          c        d       e       f
   .          .        .       .       .
   .          .        .       .       .
   .          .        .       .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 132: packet switching switching module (PSSM) counts of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module number.

c = Number of originating half calls (count 1).

d = Number of terminating half calls (count 2).

e = Number of incoming half calls (count 3).

f = Number of outgoing half calls (count 4).

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with the input message (OP:TRFC30) using the VLD option:

```
OP:TRFC30:VLD
```

The validity for the administrative module (AM) applies to this section.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-PSTG

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 PSTG
  TIME aa:aa:aa
  SECTION 92: PACKET SWITCHING TRUNK GROUP
                                  LCCB            OUTG    BUF
          TGID    INC     OUTG    USG     MTUSG   OVFL    OVFL
          b       c       d       e       f       g       h
          .       .       .       .       .       .       .
          .       .       .       .       .       .       .
          .       .       .       .       .       .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 92: packet switching trunk group (PSTG) of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Trunk group number.

c = Number of incoming call attempts (count 1).

d = Number of outgoing call attempts (count 2).

e = Logical channel control block (LCCB) usage reported in hundred call seconds (CCS). This does not include internal protocol (IP) trunk groups (count 3).

f = Number of hundreds call seconds (CCS) that any trunk member was unable to provide service. This includes the maintenance disabled, maintenance locked out, circuit administration, out of service (OOS) blocked auto, OSS blocked manual, OOS facility, and any other switch defined OOS state. The camped-on and link level quality states are "partially OSS" but should not be counted as maintenance usage. Notification is provided on entry to these states (count 4).

g = Outgoing overflow count (count 5).

h = Packet buffer overflow count (count 6).

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minutes traffic report with the input message OP:TRFC30 using the VLD option:

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```
OP:TRFC30,VLD
```

The validity of the administrative module (AM) applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-PSUC

Software Release: 5E13 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 PSUCHAN
TIME aa:aa:aa

SECTION 193: PACKET SWITCH UNIT CHANNEL MEASUREMENTS

    SM  PSU  SHLF  CHGRP  CHAN  XMTOCC   RCVOCC   MSGSXMT   MSGSRCV
    b   c    d     e      f     g        h        i         j
    .   .    .     .      .     .        .        .         .
    .   .    .     .      .     .        .        .         .
    .   .    .     .      .     .        .        .         .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 193: packet switch unit channel (PSUCHAN) of the 30-minute traffic report. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hh:mm:ss.

b = Switching module (SM) number.

c = Packet switching unit (PSU) number (0).

d = Shelf (SHLF) number (0-4).

e = Channel group (CHGRP) number (0-15).

f = Channel (CHAN) number (0-31).

g = Bandwidth transmit percent occupancy. This occupancy is taken over an entire 30 minute period. If this channel is out-of-service (OOS) for part of that 30 minutes, the calculation still uses 30 minutes as the total time. In this case, the occupancy may appear low. This count will be lost on both a hard and a soft switch of the associated PH.

h = Bandwidth receive percent occupancy. This occupancy is taken over an entire 30 minute period. If this channel is OOS for part of that 30 minutes, the calculation still uses 30 minutes as the total time. In this case, the occupancy may appear low. This count will be lost on both a hard and a soft switch of the associated PH.

i = Average messages per second transmitted by the FRPH/IFRPH on a channel. The number of messages is averaged over an entire 30 minute period. If this channel is OOS for part of that 30 minutes, the calculation still uses 30 minutes as the total time. In this case, the average number of messages may appear low. This count will be lost on both a hard and a soft switch of the associated PH.

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`j` = Average messages per second received by the FRPH/IFRPH on a channel. The number of messages is averaged over an entire 30 minute period. If this channel is OOS for part of that 30 minutes, the calculation still uses 30 minutes as the total time. In this case, the average number of messages may appear low. This count will be lost on both a hard and a soft switch of the associated PH.

4. ACTIONS TO BE TAKEN

None.

The validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

Check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

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Other Manual(s):
235-070-100 *Administration and Engineering Guidelines*

OP:TRFC30-PSULN-A

Software Release: 5E10 only
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 PSULNK
  TIME aa:aa:aa

  SECTION 197: PROTOCOL HANDLER FOR ATM LINK COUNTS

              ACTIVE CHANNEL            STANDBY CHANNEL
    NCA  FCA  CONG1  CONG2  Q-OVFL      CONG1  CONG2  Q-OVFL
    b    c    d      e      f           g      h      i
    .    .    .      .      .           .      .      .
    .    .    .      .      .           .      .      .
    .    .    .      .      .           .      .      .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 197: protocol handler for asynchronous transfer mode (ATM) link (PSULNK) of the 30 minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hh:mm:ss.

b = Near community address (NCA).

c = Far community address (FCA).

d = Active congestion level 1 queue capacity.

e = Active congestion level 2 queue capacity.

f = Active ATM queue overflow.

g = Standby congestion level 1 queue capacity.

h = Standby congestion level 2 queue capacity.

i = Standby ATM queue overflow.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report

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with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-PSULN-B

Software Release: 5E11 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 PSULNK
  TIME aa:aa:aa

  SECTION 197: PROTOCOL HANDLER FOR ATM LINK COUNTS

              ACTIVE CHANNEL       STANDBY CHANNEL
    NCA  FCA  ROT1ES  ROT2ES       ROT2ES  ROT2ES
    b    c    d       e            f       g
    .    .    .       .            .       .
    .    .    .       .            .       .
    .    .    .       .            .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 197: protocol handler for asynchronous transfer mode (ATM) link (PSULNK) of the 30 minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hh:mm:ss.

b = Near community address (NCA).

c = Far community address (FCA).

d = Active PHA Level 1 Receive Occupancy Threshold Exceeded Seconds (ROT1ES)

e = Active PHA Level 2 Receive Occupancy Threshold Exceeded Seconds (ROT2ES)

f = Standby PHA Level 1 Receive Occupancy Threshold Exceeded Seconds (ROT1ES)

g = Standby PHA Level 2 Receive Occupancy Threshold Exceeded Seconds (ROT2ES)

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

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If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-QANN

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 QANN
  TIME aa:aa:aa
  SECTION 42: QUEUEING ANNOUNCEMENTS FOR MULTI_LINE HUNT GROUPS
        MLHGID  ANNID   PC      OVFL
        b       c       d       e
        .       .       .       .
        .       .       .       .
        .       .       .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 42: queuing announcement (QANN) for multi-line hunt groups of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Multi-line hunt group number.

c = Announcement channel number.

d = Announcement channel use peg count.

e = Announcement channel overflows.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module (AM) applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-QGP

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 QGP
  TIME aa:aa:aa
  SECTION 175: QGP PROCESSOR PERFORMANCE
                  __________QGP-MSGH_________   _______QGP-AP________
  MSCU QGP VALID MSGIN  MSGOUT  BLCYCL  OVFL   MSGIN  MSGOUT  BLCYCL
  b    c   d     e      f       g       h      i      j       k
  .    .   .     .      .       .       .      .      .       .
  .    .   .     .      .       .       .      .      .       .
  .    .   .     .      .       .       .      .      .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 175: quad-link gateway processor (QGP) processor performance link occupancy of the 30-minute traffic report. This section is specifically for the switching module (SM)-2000.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Message switching controller unit (MSCU) side.

c = QGP unit number.

d = Validity of the data. Valid value(s):
0 = Valid.
1 = Invalid.

e = Number of messages received by the QGP-message handler (MSGH) from an MSCU.

f = Number of messages transmitted by the QGP-MSGH to an MSCU.

g = Number of MSGH base level loop cycles divided by 1000.

h = Number of times the QGP-MSGH base priority output queue has overflowed.

i = Number of messages received by the QGP-application processor (AP) from the quad link packet switch (QLPS).

j = Number of messages transmitted by the QGP-AP to the QLPS.

k = Number of QGP AP base level loop cycles divided by 1000.

4. ACTION TO BE TAKEN

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No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with the input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity of the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration and Engineering Guidelines*

OP:TRFC30-QMLHG

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 QMLHG
  TIME aa:aa:aa
  SECTION 40: QUEUEING FOR MULTI-LINE HUNT GROUPS
  ID      ATMPT  ABAN   USG    OVFL   DELAY
   b        c     d      e      f       g
   .        .     .      .      .       .
   .        .     .      .      .       .
   .        .     .      .      .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or a scheduled output of section 40: queueing for multi-line hunt groups (QMLHGs), of the 30-minute traffic report. Up to five multi-line hunt groups (MLHGs) may be reported in a single message.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Multi-line hunt group identifier.

c = Number of multi-line hunt group queuing attempts.

d = Number of multi-line hunt group queue abandons.

e = Number of multi-line hunt group queue usage.

f = Number of multi-line hunt group overflows.

g = Number of calls held in the multi-line hunt group queue for longer than 1 second.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check administrative module (AM) validity for queuing attempts and queue overflows, and check switching module (SM) validity for all of the counts.

5. ALARMS

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None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-QPIPE

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 QPIPE
  TIME aa:aa:aa
  SECTION 176: QGP-QLPS PIPE OCCUPANCY
                  ________AVERAGE________   ________PERCENT________
  MSCU QGP VALID RCV-0 RCV-1 XMT-0 XMT-1   RCV-0 RCV-1 XMT-0 XMT-1
  b    c   d     e     f     g     h       i     j     k     l
  .    .   .     .     .     .     .       .     .     .     .
  .    .   .     .     .     .     .       .     .     .     .
  .    .   .     .     .     .     .       .     .     .     .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of Section 176: quad-link packet switching (QLPS) QLPS gateway processor (QPIPE) link occupancy of the 30-minute traffic report. This section is specifically for switching module (SM)-2000.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Message switch controller unit (MSCU) side.

c = QGP unit number.

d = Validity of the data. Valid value(s):
0 = Valid.
1 = Invalid.

e = Average occupancy of pipe between the QGP and a network 0 QLPS in the receiving direction (QLPS to QGP).

f = Average occupancy of pipe between the QGP and a network 1 QLPS in the receiving direction (QLPS to QGP).

g = Average occupancy of pipe between the QGP and a network 0 QLPS in the sending direction (QGP to QLPS).

h = Average occupancy of pipe between the QGP and a network 1 QLPS in the sending direction (QGP to QLPS).

i = 95th percentile occupancy of pipe between the QGP and a network 0 QLPS in the receiving direction (QLPS to QGP).

j = 95th percentile occupancy of pipe between the QGP and a network 1 QLPS in the receiving direction (QLPS to QGP).

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`k` = 95th percentile occupancy of pipe between the QGP and a network 0 QLPS in the sending direction (QGP to QLPS).

`l` = 95th percentile occupancy of pipe between the QGP and a network 1 QLPS in the sending direction (QGP to QLPS).

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with the input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity of the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration and Engineering Guidelines*

OP:TRFC30-QSF

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 QSF
    TIME aa:aa:aa
  SECTION 57: QUEUING FOR SIMULATED FACILITY GROUP MEASURES
  ID   RATTMPT   RABAN   RUSAGE   ROVFL   RTIMOUT
   b      c        d        e       f        g
   .      .        .        .       .        .
   .      .        .        .       .        .
   .      .        .        .       .        .
   b      c        d        e       f        g
  ID   PATTMPT   PABAN   PUSAGE   POVFL   PTIMOUT
   h      i        j        k       l        m
   .      .        .        .       .        .
   .      .        .        .       .        .
   .      .        .        .       .        .
   h      i        j        k       l        m
```

2. REASON FOR OUTPUT

To respond to a request for either a manual or an automatic output of section 57 for routine and priority queuing simulated facility (QSF) group measures of the 30-minute traffic report. Up to five simulated facility groups may be output in a single message.

3. VARIABLE FIELD DEFINITIONS

a = Time, in the form hours:minutes:seconds.

b = Simulated facility group identifier.

c = Number of attempts to place a call in a routine queue.

d = Number of abandoned calls while in a routine queue.

e = Routine queue usage.

f = Routine queue overflow.

g = Number of timeouts while in a routine queue.

h = Simulated facility group identifier.

i = Number of attempts to place call in a priority queue.

j = Number of abandoned calls while in a priority queue.

k = Priority queue usage.

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`l` = Priority queue overflow.

`m` = Number of timeouts while in a priority queue.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module (AM) applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-QTG

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 QTG
    TIME aa:aa:aa
  SECTION 55: QUEUING FOR TRUNK GROUP MEASURES
  ID   RATTMPT   RABAN   RUSAGE   ROVFL   RTIMOUT
   b      c        d        e       f        g
   .      .        .        .       .        .
   .      .        .        .       .        .
   b      c        d        e       f        g
  ID   PATTMPT   PABAN   PUSAGE   POVFL   PTIMOUT
   h      i        j        k       l        m
   .      .        .        .       .        .
   .      .        .        .       .        .
   h      i        j        k       l        m
```

2. REASON FOR OUTPUT

To respond to a request for either a manual or an automatic output of section 55, routine and priority queuing for trunk group (QTG) measures of the 30-minute traffic report. Up to five trunk groups may be output in a single message.

3. VARIABLE FIELD DEFINITIONS

a = Time, in the form of hours:minutes:seconds.

b = Trunk group identifier.

c = Number of attempts to place a call in a routine queue.

d = Number of abandoned calls while in a routine queue.

e = Routine queue usage.

f = Routine queue overflow.

g = Number of timeouts while in a routine queue.

h = Trunk group identifier.

i = Number of attempts to place call in a priority queue.

j = Number of abandoned calls while in a priority queue.

k = Priority queue usage.

l = Priority queue overflow.

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`m` = Number of timeouts while in a priority queue.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module (AM) applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-RAS

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 RAS
  TIME aa:aa:aa
  SECTION 93 : REMOTE ACCESS SERVICES OFFICE TOTALS
  REMOTE                  ATMPT   TRN     DSCNCT  OVFL
       ACCESS               b      c        d      e
       CF ACT/DEACT         f
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 93: remote access services (RAS) of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b Number of calls that terminated to the remote access directory number (RADN).

c = Number of completed remote access transactions. This is a count of the number of times remote access successfully passed control to a feature based upon the feature access code dialed.

d = Number of times a RAS call was forcibly disconnected due to user errors.

e = Number of times RAS was denied due to system errors and/or software resources unavailable. System errors are customer originated recent change (CORC) failures and/or database read failures. Software errors occur when remote access cannot obtain dynamic data structures.

f = Number of attempts to activate/deactivate call forwarding (CF) using remote access.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity of the administrative module (AM) applies to this section.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-RDT

Software Release: 5E12 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 RDT
  TIME aa:aa:aa
  SECTION 224: DIGITAL NETWORK UNIT "SONET" - RDT

                              ORIG   TERM
      SM  DNUS  RDT  ATMPT  BLKD   BLKD    TOTUSG  MTUSG
      b   c     d    e      f      g       h       i
      .   .     .    .      .      .       .       .
      .   .     .    .      .      .       .       .
      .   .     .    .      .      .       .       .

      SM  DNUS  RDT  TOT_TS LOC_TS EOC_PKT TMC_PKT
      b   c     d    j      k      l       m
      .   .     .    .      .      .       .
      .   .     .    .      .      .       .
      .   .     .    .      .      .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 224: digital network unit - synchronous optical network (SONET) (DNU-S) - remote digital terminal (RDT) of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = DNU-S number.

d = RDT number.

e = Number of times the switch recognizes a request for service (such as, a setup message) from the RDT locally-switched lines (those lines not nailed up using RC/V view 7.11) or attempts to terminate calls to the RDT locally-switched lines or private branch exchange (PBX) direct inward dialing (DID) trunks. The count is incremented when the switch identifies the originating or terminating party and is incremented only once for each originating or terminating call regardless of retry attempts due to resource failures.

f = Number of times locally-switched originating calls are blocked due to non-availability of an idle digital signal level 1 (DS1) time slot.

g = Number of times locally-switched terminating calls are blocked due to non-availability of an idle

DS1 time slot.

h = Total usage reported in hundred-call-seconds (CCS) of the RDT DS1 time slots this includes traffic for locally-switched originating and terminating calls plus the maintenance usage of the DS1 time slots.

i = Maintenance usage of the DS1 time slots. This is the cumulative length of time that each of an RDT active DS1 time slots was not available for traffic due to maintenance activity and includes time slots for non-locally switched circuits (any circuit nailed up using RC/V view 7.11), D channels, provisioned B channels, embedded operations channels (EOC), and time-slot management channel (TMC). Maintenance usage for an out of service DS1 is calculated by multiplying the time the facility is not available for service by 24, the number of channels per DS1. The time a DS1 is on protection is not considered in this measurement of maintenance usage.

j = Number of time slots on the RDT active DS1s [excludes time slots on the protection DS1, but includes time slots for semi-permanent cross connections (provisioned B channels, provisioned D channels), EOCs, and TMCs].

k = Number of the RDT active DS1 time slots available for locally-switched traffic; this excludes all time slots that are used for semi-permanently cross-connected services, EOCs, and TMCs.

l = Number of packets transmitted and received in Information frames (I frames) over the RDT active and standby EOCs.

m = Number of packets transmitted and received in I frames over the RDT active and standby TMCs.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
```

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

RC/V View(s):

7.11 (NAIL-UP AND HAIRPIN SPECIFICATION)

OP:TRFC30-RDTDN

Software Release: 5E12 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 RDT DNU-S
  TIME aa:aa:aa
  SECTION 225: DIGITAL NETWORK UNIT "SONET" - RDT DNU-S

                              ORIG   TERM
      SM  DNUS  RDT  ATMPT  BLKD   BLKD    TOTUSG  MTUSG
      b   c     d    e      f      g       h       i
      .   .     .    .      .      .       .       .
      .   .     .    .      .      .       .       .
      .   .     .    .      .      .       .       .

      SM  DNUS  RDT  TOT_TS LOC_TS EOC_PKT TMC_PKT
      b   c     d    j      k      l       m
      .   .     .    .      .      .       .
      .   .     .    .      .      .       .
      .   .     .    .      .      .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 225: digital networking unit - synchronous optical network (SONET) (DNU-S) - remote digital terminal (RDT) of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = DNU-S number.

d = RDT number.

e = Number of times the switch recognizes a request for service (such as a setup message) from the RDT locally-switched lines (those lines not nailed up using RC/V view 7.11) or attempts to terminate calls to the RDT locally-switched lines or private branch exchange (PBX) direct inward dialing (DID) trunks. The count is incremented when the switch identifies the originating or terminating party and is incremented only once for each originating or terminating call regardless of retry attempts due to resource failures.

f = Number of times locally-switched originating calls are blocked due to non-availability of an idle digital signal level 1 (DS1) time slot.

g = Number of times locally-switched terminating calls are blocked due to non-availability of an idle

DS1 time slot.

h = Total usage reported in hundred-call-seconds (CCS) of the RDT DS1 time slots this includes traffic for locally-switched originating and terminating calls plus the maintenance usage of the DS1 time slots.

i = Maintenance usage of the DS1 time slots. This is the cumulative length of time that each of an RDT active DS1 time slots was not available for traffic due to maintenance activity and includes time slots for non-locally switched circuits (any circuit nailed up using RC/V view 7.11), D channels, provisioned B channels, embedded operations channels (EOC), and time-slot management channel (TMC). Maintenance usage for an out of service DS1 is calculated by multiplying the time the facility is not available for service by 24, the number of channels per DS1. The time a DS1 is on protection is not considered in this measurement of maintenance usage.

j = Number of time slots on the RDT active DS1s [excludes time slots on the protection DS1, but includes time slots for semi-permanent cross connections (provisioned B channels, provisioned D channels), EOCs, and TMCs].

k = Number of the RDT active DS1 time slots available for locally-switched traffic; this excludes all time slots that are used for semi-permanently cross-connected services, EOCs, and TMCs.

l = Number of packets transmitted and received in Information frames (I frames) over the RDT active and standby EOCs.

m = Number of packets transmitted and received in I frames over the RDT active and standby TMCs.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
```

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

RC/V View(s):

7.11 (NAIL-UP AND HAIRPIN SPECIFICATION)

OP:TRFC30-RSIT

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 RSIT
  TIME ee:ee:ee
  SECTION 39: REMOTE SITE STAND ALONE
  SITE   SITEID   FSA-USG   PSA-USG
   a       b         c         d
   .       .         .         .
   .       .         .         .
   .       .         .         .
   a       b         c         d
```

2. REASON FOR OUTPUT

To measure the amount of stand-alone and partial stand-alone time in the remote site. This message responds to a request for an immediate or scheduled teletypewriter (TTY) output of section 39 of the 30-minute traffic report. One line prints for each multimodule remote switching module (RSM) (remote site).

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a	= Text identifier of the remote site.
b	= Numerical identifier of the remote site.
c	= Amount of time (in seconds) the remote site was in full stand alone.
d	= Amount of time (in seconds) the remote site was in partial stand alone.
e	= Time in the form hours:minutes:seconds.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
OP:TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-RT

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 RT
  TIME aa:aa:aa
  SECTION 20: REMOTE TERMINAL - DCLU
  PROC    DCLU    RT    TRFCUSG   ORGBLK  TRMBLK
  b       c       d     e         f       g
  .       .       .     .         .       .
  .       .       .     .         .       .
  .       .       .     .         .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate output or scheduled output of section 20: remote terminal (RT) - digital carrier line unit (DCLU) of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a	= Time when the report was prepared, in the form hours:minutes:seconds.
b	= Switching module (SM) number.
c	= DCLU number.
d	= Remote terminal number.
e	= Remote terminal traffic usage, reported in hundred-call-seconds.
f	= Number of times an originating call request from the RT cannot get a time slot over the T1 links to the RT to set up the call.
g	= Number of times a call attempts to terminate to a directory number (DN) on the RT cannot get a time slot over the T1 links to the RT to set up the call.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-RVPT

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 RVPT
  TIME aa:aa:aa
  SECTION 25: REVERTIVE PULSE TRANSCEIVERS
  PROC    PEGCNT    USG    OVFLO    MTUSG
   b        c        d       e        f
   .        .        .       .        .
   .        .        .       .        .
   .        .        .       .        .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 25: revertive pulse transceivers (RVPT) of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a	= Time when the report was prepared, in the form hours:minutes:seconds.
b	= Switching module (SM) number.
c	= Number of attempts to use an RVPT (count 1).
d	= Total usage reported in ten-call-seconds (count 2).
e	= Revertive pulse transceivers overflow (count 3).
f	= Maintenance usage reported in hundred-call-seconds (CCS) (count 4).

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-SAD

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 SAD
  TIME aa:aa:aa
  SECTION 4: SYSTEM ACCESS DELAY
  PROC   DTDPC   DTDSC   TDAD   TDASC  REORD  BLKOVD  TSMM
   b       c       d      e       f      g       h     i
   .       .       .      .       .      .       .     .
   .       .       .      .       .      .       .     .
   .       .       .      .       .      .       .     .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 4: system access delay (SAD) of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = Number of instances that dial tone delay has occurred (count 1).

d = Number of dial tone samples (count 2).

e = Number of tone decoder attachment delays (count 3).

f = Tone decoder sample size (count 4).

g = Number of calls sent to reorder because of switch failure (count 5).

h = Number of route request messages not sent because communications module processor (CMP) in overload (count 6).

i = Number of time slot mismatches (count 7).

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with the input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

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OP:TRFC30-SCCP

Software Release: 5E12 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 SCCP
  TIME aa:aa:aa

  SECTION 233: SIGNALING CONNECTION CONTROL PART (SCCP) COUNTS

      GSM  ADDF       SADDF      PCNA       NWCONG     SUBNA      SUBNE
      b    c          d          e          f          g          h
      .    .          .          .          .          .          .
      .    .          .          .          .          .          .
      .    .          .          .          .          .          .
      GSM  GTTF       GTTS       CLMGDIS
      b    i          j          k
      .    .          .          .
      .    .          .          .
      .    .          .          .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 233: Signalling Connection Control Part (SCCP) for Packet Switch Unit (PSU) based Common Channel Signalling (CCS) of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

Note that selection of components for collection and reporting of this section is administered using RC/V views 13.7 and 13.8.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hh:mm:ss.

b = Global Switching module (GSM) number.

c = The number of SCCP routing failure of no translation of address for such nature.

d = The number of SCCP routing failure due to no translation of this specific address.

e = Number of SCCP routing failure due to network point code not available.

f = Number of SCCP routing failure due to network congestion.

g = Number of SCCP routing failure due to subsystem unavailable.

h = Number of SCCP routing failure due to unequipped user.

i = Number of global title translations (GTTs) failed for any reason.

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`j` = Number of successful global title translations (GTTs).

`k` = Number of connectionless SCCP messages discarded for any reason.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):

235-070-100 *Switch Administration Guidelines*

OP:TRFC30-SDN

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 SDN
  TIME aa:aa:aa
  SECTION 94: ACP FOR SOFTWARE DEFINED NETWORKS
  BASE:
     ORIG  QUERY  OPLS
     b     c      d
  FAILURES:
     ANI   ONI    INATRN  ACTTRN
     e     f      g       h
  TRANSACTION CAPABILITY:
     BLKD  TO  CCDBLKD  INVMSG  INVSEQ  ERROR  REJECT  ABORT  TERM
     i     j   k        l       m       n      o       p      q
  ABANDONS:
      NOREPLY  NOANS
      s        t
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 94: action control point (ACP) for software defined network (SDN) of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

NOTE: For the variables with '*' refer to the ACTION TO BE TAKEN section.

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Number of originating SDN/automatic number identification (ANI) services attempts.

c = Number of SDN/ANI queries to database.

d = Number of completed SDN/ANI services calls successfully outpulsed (OPLS).

e = Number of failures to obtain ANI on a centralized automatic message accounting (CAMA) trunk.

f = Number of failures to obtain ANI through operator number identification (ONI) on CAMA trunk.

g = Number of call processing failures - transaction inactive (INATRN).

h = Number of call processing failures - transaction active (ACTTRN).

i = Number of transaction capability (TC) signaling failures blocked (BLKD) at switch.

j = Number of TC signaling failures timeout (TO) at switch.

k = Number of TC signaling failures blocked in common channel signaling (CCS) network.

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`l` = * Number of invalid TC message/components (INVMSG).

`m` = Number of invalid TC message sequences received (INVSEQ).

`n` = Number of TC return errors received.

`o` = Number of TC rejects received.

`p` = Number of TC aborts received.

`q` = Number of TC terminates (TERM) due to failure.

`s` = Number of abandons after initial query, before reply.

`t` = Number of abandons after outpulsing before answer.

4. ACTION TO BE TAKEN

The set of variables with '*' above represents the measurements collected in the direct link node (DLN). If the office is equipped with the DLN and the set of variables with '*' are zero, this suggests that the DLN failed to report these variables and these variables and these variables are invalid for the reporting period.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:TRFC30
```

Output Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-SFG

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 SFG
  TIME aa:aa:aa
  SECTION 32: SIMULATED FACILITY GROUP MEASURES
  ID        USG          PC          SOVFL        POVFL       HUNG    ICROVFL
  b         c            d           e            f           g       h
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 32: simulated facility group (SFG) measures of the 30-minute traffic report. Up to five SFGs may be reported in a single message.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = SFG identifier.

c = SFG usage in hundred call seconds.

d = Number of SFG access attempts.

e = Number of SFG attempts that met with simulated blocked access.

f = Number of SFG attempts that met with physical blocked access.

g = Number of SFG hung members.

h = Number of intercom calling restriction (ICR) overflow calls that were allowed to complete after notification that extra billing would be applied to complete the call.

4. ACTION TO BE TAKEN

The validity of the data may be requested by first determining which switching modules (SMs) the reported groups belong to using the RC/V View 7.3.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the SMs applies to this section.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:ST-TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

RC/V View(s):

7.3 (PFA SIMULATED FACILITY)

OP:TRFC30-SG-A

Software Release: 5E10 only
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 SG
  TIME aa:aa:aa
  SECTION 144: SWITCH GROUP MEASUREMENTS
          SM    LU    CONC    SG    USAGE
          b     c     d       e     f
          .     .     .       .     .
          .     .     .       .     .
          .     .     .       .     .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of Section 144: switch group (SG) measurements of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = Line unit (LU) number.

d = Concentrator number.

e = Switch group number.

f = Traffic usage reported in hundred-call-second (CCS). This count is only generated after the SG has been allowed for collection and is in use (count 1).

For each SG, the traffic usage measurement will be generated for:
- Circuit-switched calls (voice and/or data).
- Terminal maintenance.
- Network fabric exercise.

The traffic usage measurement will not reflect the following:
- Diagnostic maintenance. Generation of the usage count does not begin until the section is allowed for collection using the ALW:TRFC30 input message. Therefore, when comparing usage of one SG to another SG, the following must be considered.

  NOTE: The differential may be especially significant if comparing weekly data.
- Length of time a study has been allowed for collection. If one study is allowed for collection before another study is allowed, the SGs on the LUs on the first study will appear to have higher usage.
- Length of time an LU has been a member of a study. If an LU is added to a study

(recent change view 13.6 update) and the study is already allowed for collection, the SGs on the LU added by the update will appear to have lower usage than the SGs on the LUs on the study before the update.

- Length of time SGs have been operational. If a study is allowed for collection and SGs on an LU on the study are updated to operational and then the study is reallowed for collection, the recently operational SGs will appear to have lower usage than the SGs which were on the study before the second allow input message was entered.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with the input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
```

```
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-SG-B

Software Release: 5E11 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 SG
  TIME aa:aa:aa
  SECTION 144: SWITCHING GROUP MEASUREMENTS
        SM      LU      CONC    SG      USAGE   [OTBLK]
        b       c       d       e       f       [g]
        .       .       .       .       .       [.]
        .       .       .       .       .       [.]
        .       .       .       .       .       [.]
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of Section 144: switching group (SG) measurements of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = Line unit (LU) number.

d = Concentrator number.

e = Switch group number.

f = Traffic usage reported in hundred-call-second (CCS). This count is only generated after the SG has been allowed for collection and is in use (count 1).

For each SG, the traffic usage measurement will be generated for:
- Circuit-switched calls (voice and/or data).
- Terminal maintenance.
- Network fabric exercise.

The traffic usage measurement will not reflect the following:
- Diagnostic maintenance. Generation of the usage count does not begin until the section is allowed for collection using the ALW:TRFC30 input message. Therefore, when comparing usage of one SG to another SG, the following must be considered.

  NOTE: The differential may be especially significant if comparing weekly data.
- Length of time a study has been allowed for collection. If one study is allowed for collection before another study is allowed, the SGs on the LUs on the first study will appear to have higher usage.
- Length of time an LU has been a member of a study. If an LU is added to a study

(RC/V View 13.6 update) and the study is already allowed for collection, the SGs on the LU added by the update will appear to have lower usage than the SGs on the LUs on the study before the update.

- Length of time SGs have been operational. If a study is allowed for collection and SGs on an LU on the study are updated to operational and then the study is reallowed for collection, the recently operational SGs will appear to have lower usage than the SGs which were on the study before the second allow input message was entered.

`g` = Total originating and terminating blockage.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with the input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-SH

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 SH
  TIME hh:mm:ss

  SECTION 194: SPEECH HANDLER COUNTS

   SM  PSU  MISSGPKTS
   b   c    d
   .   .    .
   .   .    .
   .   .    .

         SINGLE CELL CONNECTION CALL INTERVALS

   SM  PSU  LOWQUAL    SINGLE     2CONSEC    M2CONSEC   TOTAL
   b   c    o          p          q          r          s
   .   .    .          .          .          .          .
   .   .    .          .          .          .          .
   .   .    .          .          .          .          .

         2-WAY SOFT HAND-OFF CALL INTERVALS

   SM  PSU  LOWQUAL    SINGLE     2CONSEC    M2CONSEC   TOTAL
   b   c    e          f          g          h          i
   .   .    .          .          .          .          .
   .   .    .          .          .          .          .
   .   .    .          .          .          .          .

         3-WAY SOFT HAND-OFF CALL INTERVALS

   SM  PSU  LOWQUAL    SINGLE     2CONSEC    M2CONSEC   TOTAL
   b   c    j          k          l          m          n
   .   .    .          .          .          .          .
   .   .    .          .          .          .          .
   .   .    .          .          .          .          .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 194: speech handler (SH) of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

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a = Time when the report was prepared, in the form hh:mm:ss.

b = Switching module (SM) number.

c = Packet Switching Unit (PSU) number (0).

d = Number of 20 millisecond (ms) reverse voice intervals that occur in which all reverse voice packets are early, late, or missing.

e = Number of 20 ms reverse voice intervals that occur for calls that are in 2-way soft handoff in which a low quality voice packet is fed to the vocoder.

f = Number of occurrences of a single 20 ms reverse voice interval for calls that are in 2-way soft handoff in which all reverse voice packets are either early, late, missing or erase.

g = Number of occurrences of two consecutive 20 ms reverse voice intervals for calls that are in 2-way soft handoff in which all reverse voice packets are either early, late, missing or erase.

h = Number of occurrences of more than two consecutive 20 ms reverse voice intervals for calls that are in 2-way soft handoff in which all reverse voice packets are either early, late, missing or erase.

i = Number of 20 ms reverse voice intervals that occur for calls that are in 2-way soft handoff.

j = Number of 20 ms reverse voice intervals that occur for calls that are in 3-way soft handoff in which a low quality voice packet is fed to the vocoder.

k = Number of occurrences of a single 20 ms reverse voice interval for calls that are in 3-way soft handoff in which all reverse voice packets are either early, late, missing or erase.

l = Number of occurrences of two consecutive 20 ms reverse voice intervals for calls that are in 3-way soft handoff in which all reverse voice packets are either early, late, missing or erase.

m = Number of occurrences of more than two consecutive 20 ms reverse voice intervals for calls that are in 2-way soft handoff in which all reverse voice packets are either early, late, missing or erase.

n = Number of 20 ms reverse voice intervals that occur for calls that are in 3-way soft handoff.

o = Number of 20 ms reverse voice intervals that occur for calls that are not in soft handoff in which a low quality voice packet is fed to the vocoder.

p = Number of occurrences of a single 20 ms reverse voice interval for calls that are not in soft handoff in which all reverse voice packets are either early, late, missing or erase.

q = Number of occurrences of two consecutive 20 ms reverse voice intervals for calls that are not in soft handoff in which all reverse voice packets are either early, late, missing or erase.

r = Number of occurrences of more than two consecutive 20 ms reverse voice intervals for calls that are not in soft handoff in which all reverse voice packets are either early, late, missing or erase.

s = Number of 20 ms reverse voice intervals that occur for calls that are not in soft handoff.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-SL

Software Release: 5E12 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 SL
TIME aa:aa:aa

  SECTION 230: MTP SIGNALING LINK

   GSM  LSNUM  MEMBER
   b    c      d


   NSUE       NSFR       NRBO       SFAR       EDLA       EERR
   e          f          g          h          i          j


   FEDC       ALFL       DSLU       DSLA       INLM       INRM
   k          l          m          n          o          p


   CDOC       NSFX       MSUX       MSUR       MDSC       CRMSUL
   q          r          s          t          u          v


   MRTR       TCONG      RCONG      RMCONG     TBCONG     SLTH1
   w          x          y          z          a1         b1


   SLTH2      SLTH3      NACK       ORTR       LACO       LACB
   c1         d1         e1         f1         g1         h1


   LMCO       DSLUFL
   i1         j1
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 230: MTP Signaling Link (SL) for Packet Switch Unit (PSU) based Common Channel Signalling (CCS) of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

Note that selection of components for collection and reporting of this section is administered using RC/V views 13.7 and 13.8.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hh:mm:ss.

b = Global Switching Module (GSM) number.

c = Link Set Number

d = Link Set Member Number

e = Number of signaling units in error.

f = Number of SIF (Service Information Field) and SIO (Signaling information Octets) received.

g = Number of receive buffer overflows per signaling link.

h = Number of times a signaling link failure occurred regardless of the reason.

i = Number of times there is an excessive delay of ACK causing signaling link failure.

j = Number of times an excessive error rate causes a signaling link failure.

k = Number of times an excessive period of congestion occurs causing a signaling link failure.

l = Number of times a signaling link alignment failure occurs for any reason.

m = Number of seconds that a signaling link is unavailable for any reason.

n = Duration the signaling link is in the IN-SERVICE state.

o = Duration the signaling link is inhibited due to local management action.

p = Duration the signaling link is inhibited due to remote management action.

q = Duration the signaling link is congested.

r = Number of SIF and SIOs transmitted.

s = Number of MSUs transmitted for the first time (such as, excluding retransmitted MSUs).

t = Number of MSUs received by each signaling link.

u = Number of MSUs discarded due to signaling link congestion.

v = Number of congestion events resulting in loss of MSUs.

w = Number of messages retransmitted by each signaling link.

x = The number of times the messages in the level 2 retransmission buffer waiting for acknowledgement has exceeded a defined threshold.

y = Number of times the remote office is in reception congestion and sends a SIB (status indication busy).

z = The number of times the messages in the DMA processor has exceeded a defined threshold due to SS7 reception congestion.

a^1 = Number of transmission buffer congestions on a per signaling link basis.

b[1] = Number of times level 1 congestion has been exceeded on the signalling link.

c[1] = Number of times level 2 congestion has been exceeded on the signalling link.

d[1] = Number of times level 3 congestion has been exceeded on the signalling link.

e[1] = Number of negative acknowledgement received.

f[1] = Number of octets retransmitted.

g[1] = Number of local automatic changeover performed.

h[1] = Number of local automatic changeback performed.

i[1] = Number of local manual changeover performed.

j[1] = Duration of signaling link unavailability due to a link failure.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

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Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-SMS

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 SMS
  TIME aa:aa:aa
  SECTION 22: SWITCHING MODULE SYSTEM
                                                      WIDEBAND
                                                 ___ATMPT___ ____BLK____
  PROC ORIG  INC   OTG   OTGBLK INCBLK SATIME L2-6  H7-24 L2-6  H7-24
  b    c     d     e     f      g      h      i     j     k     l
  .    .     .     .     .      .      .      .     .     .     .
  .    .     .     .     .      .      .      .     .     .     .
  .    .     .     .     .      .      .      .     .     .     .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 22: Switching Module System (SMS) of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = Number of originating calls (count 1).

d = Number of incoming (line and trunk) calls (count 2).

e = Number of outgoing (line and trunk) calls (count 3).

f = Number of outgoing (line and trunk) calls blocked (count 4).

g = Number of incoming (line and trunk) calls blocked (count 5).

h = Stand alone time in seconds (count 6).

i = Number of wideband interSM call attempts where 2, 3, 4, 5, or 6 channels were requested coming into this SM from another SM or going out of this SM to another SM. The call attempt can be either primary rate interface (PRI) or integrated digital services network (ISDN) user part (ISUP) signaling. Calls that peg this count do not peg counts incoming (INC) or outgoing (OTG)which pertain to single channel calls (count 7).

j = Number of wideband interSM call attempts where 7 or more (max of 24) channels were requested coming into this SM from another SM or going out of this SM to another SM. The call attempt can be either PRI or ISUP signaling. Calls that peg this count do not peg counts INC or OTG which

pertains to single channel calls (count 8).

`k` = Number of blocked due to time slot hunt failure wideband interSM call attempts where 2, 3, 4, 5, or 6 channels were requested coming into this SM from another SM or going out of this SM to another SM. The call attempt can be either PRI or ISUP signaling. Calls that peg this count do not peg counts INC block (INCBLK) or OTG block (OTGBLK) which pertain to single channel calls (count 9).

`l` = Number of blocked due to time slot hunt failure wideband interSM call attempts where 7 or more (max of 24) channels were requested coming into this SM from another SM or going out of this SM to another SM. The call attempt can be either PRI or ISUP signaling. Calls that peg this count do not peg counts INCBLK or OTGBLK which pertain to single channel calls (count 10).

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check AM validity for incoming calls blocked and check SM validity for all other counts.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-SPA

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 SPA
  TIME aa:aa:aa
  SECTION 98: SPECIAL ACCESS
      SPA-WATS     MEGACOM      SPA-B800     MEGACOM-800
      b            c            d            e
```

2. REASON FOR OUTPUT

To respond to a request for an immediate output of the most recent 30-minute traffic report (TRFC30) for section 98: special access (SPA). This response may also appear as part of the regularly scheduled 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Number of attempted incoming special access wide area telephone service (WATS) calls.

c = Number of attempted incoming *MEGACOM*™ (special access) calls.

d = Number of attempted outgoing special access basic 800 calls.

e = Number of attempted outgoing *MEGACOM*™-800 (special access) calls.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module (AM) applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
```

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```
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-SQA

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 SQA
    TIME a
  SECTION 58: SIMULATED FACILITY GROUP QUEUING ANNOUNCEMENT MEASURES
     ID           CHANNEL ANNOUNCEMENT PEG COUNTS
      b           c     d     e     f     g     h     i     j
      .           .     .     .     .     .     .     .     .
      .           .     .     .     .     .     .     .     .
      .           .     .     .     .     .     .     .     .
      b           c     d     e     f     g     h     i     j
     ID           CHANNEL ANNOUNCEMENT OVERFLOW COUNTS
      k           l     m     n     o     p     q     r     s
      .           .     .     .     .     .     .     .     .
      .           .     .     .     .     .     .     .     .
      .           .     .     .     .     .     .     .     .
      k           l     m     n     o     p     q     r     s
```

2. REASON FOR OUTPUT

To respond to a request for either a manual or an automatic output of section 58, routine, priority, and flexible first announcement simulated facility group queuing announcement (SQA) measures of the 30-minute traffic report. Up to five simulated facilities groups may be output in a single message. Each group may have up to four announcement IDs.

3. VARIABLE FIELD DEFINITIONS

a = Time of day, in the form of hours:minutes:seconds.

b = Simulated facility group identifier.

c = Number of channel announcement number 1 (for routine queue).

d = Number of channel announcement number 2 (for routine queue).

e = Number of channel announcement number 3 (for routine queue).

f = Number of channel announcement number 4 (for routine queue).

g = Number of channel announcement number 5 (for flexible first announcement).

h = Number of channel announcement number 6 (for priority queue).

i = Number of channel announcement number 7 (for priority queue).

j = Number of channel announcement number 8 (for priority queue).

k = Simulated facility group identifier.

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`l` = Channel announcement number 1 overflow (for routine queue).

`m` = Channel announcement number 2 overflow (for routine queue).

`n` = Channel announcement number 3 overflow (for routine queue).

`o` = Channel announcement number 4 overflow (for routine queue).

`p` = Channel announcement number 5 overflow (for flexible first announcement).

`q` = Channel announcement number 6 overflow (for priority queue).

`r` = Channel announcement number 7 overflow (for priority queue).

`s` = Channel announcement number 8 overflow (for priority queue).

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module (AM) applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-TBCT

Software Release: 5E13 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 TBCT
  TIME aa:aa:aa
  SECTION 243: Two B-Channel Transfer
   PRIGRP  RQST    SUCC    RQOVFL  ACTOVFL
   b       c       d       e       f
   .       .       .       .       .
   .       .       .       .       .
   .       .       .       .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 243: Two B-Channel Transfer section of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Primary Rate Interface Group Number. number.

c = Number of valid TBCT transfer requests. This count is pegged each time a FACILITY message is received with a facility IE that contains an Invoke component with an Operation value coded for "enhancedExplicitECTExecute", and the feature assignment and validity checks are passed.

d = Number of successful TBCT transfers. This count is pegged each time a transfer request has been validated and the transfer is successfully accomplished (indicated when the switch sends the controller a DISCONNECT message with a facility IE that contains a Return Result component which includes the Invoke Identifier that corresponds to the TBCT request).

e = Number of overflows of maximum number of TBCT Transfer Requests in Current Period . This count is pegged each time a valid transfer request is rejected because the number of transfer requests in the current period is greater than the Maximum Transfer Requests per Ten Seconds parameter.

f = Number of overflows of maximum number of active TBCT Transfers. This count is be pegged if a valid transfer request is rejected because the number of active transfers is equal to or greater than the Maximum Active Transfers parameter and if the number of transfer requests in the current period does not exceed the Maximum Transfer Requests per 10-Seconds parameter limit.

4. ACTION TO BE TAKEN

No action is required.

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If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):

235-070-100 Switch Administration Guidelines

OP:TRFC30-TD

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 TD
  TIME aa:aa:aa
  SECTION 7: TONE DECODERS
  PROC       PEGCT   TOTUSG  OVFLOW  MTUSG   NTSUSG
  b          c       d       e       f       g
  .          .       .       .       .       .
  .          .       .       .       .       .
  .          .       .       .       .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 7: tone decoders (TD) of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) identifier.

c = Number of times an attempt was made to access a TD (count 1).

d = Traffic and maintenance usage reported in hundred-call-seconds (CCS) (count 2).

e = Number of times an unsuccessful attempt was made to locate or access a TD because all TDs were busy (count 3).

f = Maintenance usage reported in CCS (count 4).

g = Network time slot usage reported in CCS. This count will include usage due to nail-ups (count 5).

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with the input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding SM.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-TG-A

Software Release: 5E10 - 5E12
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 TG
  TIME aa:aa:aa
  SECTION 12: TRUNK GROUP
       ID     IPC   OPC    OFL    MTU    USG    [ITUSG][OTUSG]
       b      c     d      e      f      g      [h]    [i]
       .      .     .      .      .      .      [.]    [.]
       .      .     .      .      .      .      [.]    [.]
       .      .     .      .      .      .      [.]    [.]

       ID     IPCTT OPCTT  OFLTT  SILC   EAIPC  EAITU
       b      j     k      l      m      n      o
       .      .     .      .      .      .      .
       .      .     .      .      .      .      .
       .      .     .      .      .      .      .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 12: trunk group (TG) of the 30-minute traffic report. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Trunk group number.

c = Number of incoming calls.

d = Number of outgoing calls.

e = Number of attempts to access a trunk when none was available for that trunk group.

f = Maintenance usage, reported in CCS.

g = Total usage, the sum of both traffic and maintenance usage reported in hundred-call-seconds (CCS).

h = Trunk group incoming traffic usage.

i = Trunk group outgoing traffic usage.

j = Number of incoming peg count (IPC) total trunk (IPCTT) seizures for all incoming calls. For non-wideband trunk groups, IPCTT and IPC are the same.

k = Number of outgoing peg count (OPC) total trunk (OPCTT) seizures for all outgoing calls. For non-wideband trunk groups, OPCTT and OPC are the same.

`l` = Number of overflow (OFL) total trunks (OFLTT). It provides the total number of attempted trunk seizures that resulted in an unsuccessful call. For all calls, this count pegs the total number of trunks requested for the call. For non-wideband trunk groups, OFLTT and OFL are the same.

`m` = Number of calls blocked by selective incoming load control (SILC).

`n` = Number of equal access signaling (EAS) incoming calls.

`o` = Total EAS usage, the number of times the EAS was used, reported in CCS.

Note 1: An unsuccessful call may succeed on another trunk group if an alternate route is specified.

Note 2: For wideband calls, this count provides the total number of trunks needed for the call to succeed, although a subset of trunks may have been available.

4. ACTIONS TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

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Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration and Engineering Guidelines*

OP:TRFC30-TG-B

Software Release: 5E13 only
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 TG
  TIME aa:aa:aa
  SECTION 12: TRUNK GROUP
       ID     IPC   OPC    OFL    MTU    USG    [ITUSG][OTUSG]
       b      c     d      e      f      g      [h]    [i]
       .      .     .      .      .      .      [.]    [.]
       .      .     .      .      .      .      [.]    [.]
       .      .     .      .      .      .      [.]    [.]

       ID     IPCTT OPCTT  OFLTT  SILC   EAIPC  EAITU  FAOUT
       b      j     k      l      m      n      o      p
       .      .     .      .      .      .      .      .
       .      .     .      .      .      .      .      .
       .      .     .      .      .      .      .      .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 12: trunk group (TG) of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Trunk group number.

c = Number of incoming calls.

d = Number of outgoing calls.

e = Number of attempts to access a trunk when none was available for that trunk group.

f = Maintenance usage, reported in CCS.

g = Total usage, the sum of both traffic and maintenance usage reported in hundred-call-seconds (CCS).

h = Trunk group incoming traffic usage.

i = Trunk group outgoing traffic usage.

j = Number of incoming peg count (IPC) total trunk (IPCTT) seizures for all incoming calls. For non-wideband trunk groups, IPCTT and IPC are the same.

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`k` = Number of outgoing peg count (OPC) total trunk (OPCTT) seizures for all outgoing calls. For non-wideband trunk groups, OPCTT and OPC are the same.

`l` = Number of overflow (OFL) total trunks (OFLTT). It provides the total number of attempted trunk seizures that resulted in an unsuccessful call. For all calls, this count pegs the total number of trunks requested for the call. For non-wideband trunk groups, OFLTT and OFL are the same.

Note 1: An unsuccessful call may succeed on another trunk group if an alternate route is specified.

Note 2: For wideband calls, this count provides the total number of trunks needed for the call to succeed, although a subset of trunks may have been available.

`m` = Number of calls blocked by selective incoming load control (SILC).

`n` = Number of equal access signaling (EAS) incoming calls.

`o` = Total EAS usage, the number of times the EAS was used, reported in CCS.

`p` = Flexible alerting outgoing call attempt. This count provides the number of times a trunk was seized for an outgoing flexible alerting call for AMPS only.

4. ACTIONS TO BE TAKEN

No action is required.

The validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Administration and Engineering Guidelines*

OP:TRFC30-TG-C

Software Release: 5E14 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 TG
  TIME aa:aa:aa
  SECTION 12: TRUNK GROUP
       ID     IPC   OPC    OFL    MTU    USG    [ITUSG][OTUSG]
       b      c     d      e      f      g      [h]    [i]
       .      .     .      .      .      .      [.]    [.]
       .      .     .      .      .      .      [.]    [.]
       .      .     .      .      .      .      [.]    [.]

       ID     IPCTT OPCTT  OFLTT  SILC   EAIPC  EAITU  FAOUT
       b      j     k      l      m      n      o      p
       .      .     .      .      .      .      .      .
       .      .     .      .      .      .      .      .
       .      .     .      .      .      .      .      .

       ID     IAMRC RELI
       b      q     r
       .      .     .
       .      .     .
       .      .     .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 12: trunk group (TG) of the 30-minute traffic report. Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Trunk group number.

c = Number of incoming calls.

d = Number of outgoing calls.

e = Number of attempts to access a trunk when none was available for that trunk group.

f = Maintenance usage, reported in CCS.

g = Total usage, the sum of both traffic and maintenance usage reported in hundred-call-seconds (CCS).

h = Trunk group incoming traffic usage.

`i` = Trunk group outgoing traffic usage.

`j` = Number of incoming peg count (IPC) total trunk (IPCTT) seizures for all incoming calls. For non-wideband trunk groups, IPCTT and IPC are the same.

`k` = Number of outgoing peg count (OPC) total trunk (OPCTT) seizures for all outgoing calls. For non-wideband trunk groups, OPCTT and OPC are the same.

`l` = Number of overflow (OFL) total trunks (OFLTT). It provides the total number of attempted trunk seizures that resulted in an unsuccessful call. For all calls, this count pegs the total number of trunks requested for the call. For non-wideband trunk groups, OFLTT and OFL are the same.

Note 1: An unsuccessful call may succeed on another trunk group if an alternate route is specified.

Note 2: For wideband calls, this count provides the total number of trunks needed for the call to succeed, although a subset of trunks may have been available.

`m` = Number of calls blocked by selective incoming load control (SILC).

`n` = Number of equal access signaling (EAS) incoming calls.

`o` = Total EAS usage, the number of times the EAS was used, reported in CCS.

`p` = Flexible alerting outgoing call attempt. This count provides the number of times a trunk was seized for an outgoing flexible alerting call for AMPS only.

`q` = Number of calls resulting in an Initial Address Message with Redirect Capability Parameter beging sentas a result of Release Link initiation.

`r` = Number of calls setup as a result of having received a Release Message with Redirection Information message.

4. ACTIONS TO BE TAKEN

No action is required.

The validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
```

```
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Administration and Engineering Guidelines*

OP:TRFC30-TGCHG

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 TG CHANGE
  TRUNK GROUPS
  a [a][a][a][a]
  INVALID TRUNK GROUPS:
  b [b][b][b][b]
  ALLOWED TRUNK GROUP COUNT:      c       (LIMIT = 5)
```

2. REASON FOR OUTPUT

To respond to an OP:TRFC30 input message request for immediate output of up to five trunk groups when one or more of the trunk group identifiers requested is invalid.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a	= Allowed trunk group identifier(s) requested.
b	= Invalid trunk group identifier(s) requested.
c	= Current number of trunk groups allowed for output.

4. ACTION TO BE TAKEN

A trunk group can be requested again if it was flagged as invalid because of a typing error.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

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```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-TQA

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 TQA
    TIME a
  SECTION 56: TRUNK GROUP QUEUING ANNOUNCEMENT MEASURES
     ID           CHANNEL ANNOUNCEMENT PEG COUNTS
      b           c     d     e     f     g     h     i     j
      .           .     .     .     .     .     .     .     .
      .           .     .     .     .     .     .     .     .
      b           c     d     e     f     g     h     i     j
     ID           CHANNEL ANNOUNCEMENT OVERFLOW COUNTS
      k           l     m     n     o     p     q     r     s
      .           .     .     .     .     .     .     .     .
      .           .     .     .     .     .     .     .     .
      k           l     m     n     o     p     q     r     s
```

2. REASON FOR OUTPUT

To respond to a request for either a manual or an automatic output of section 56, routine, priority, and first announcement trunk group queuing announcement (TQA) measures of the 30-minute traffic report. Up to five trunk groups may be output in a single message. Each group may have up to four announcement IDs.

3. VARIABLE FIELD DEFINITIONS

a = Time of day, in the form hours:minutes:seconds.

b = Trunk group identifier.

c = Number of channel announcement number 1 (for routine queue).

d = Number of channel announcement number 2 (for routine queue).

e = Number of channel announcement number 3 (for routine queue).

f = Number of channel announcement number 4 (for routine queue).

g = Number of channel announcement number 5 (for flexible first announcement).

h = Number of channel announcement number 6 (for priority queue).

i = Number of channel announcement number 7 (for priority queue).

j = Number of channel announcement number 8 (for priority queue).

k = Trunk group identifier.

l = Channel announcement number 1 overflow (for routine queue).

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`m` = Channel announcement number 2 overflow (for routine queue).

`n` = Channel announcement number 3 overflow (for routine queue).

`o` = Channel announcement number 4 overflow (for routine queue).

`p` = Channel announcement number 5 overflow (for flexible first announcement).

`q` = Channel announcement number 6 overflow (for priority queue).

`r` = Channel announcement number 7 overflow (for priority queue).

`s` = Channel announcement number 8 overflow (for priority queue).

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module (AM) applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-TRMG

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 TRMG
  TIME aa:aa:aa
  SECTION 30: TERMINAL GROUP MEASUREMENTS
                                    MW-
  ID       ORIG     INC   INTRAG   DIRCT  CF-DA  CF-REG  CF-BUSY
  b        c        d     e        f      g      h       i
  .        .        .     .        .      .      .       .
  .        .        .     .        .      .      .       .
  .        .        .     .        .      .      .       .
  ID       MW-HOLD  PKUP  MW-AUTO  MW-3W     MW-NW  CW
  b        j        k     l        m         n      o
  .        .        .     .        .         .      .
  .        .        .     .        .         .      .
  .        .        .     .        .         .      .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 30: terminal group (TRMG) measurements of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Terminal group number.

c = Number of originating calls.

d = Number of incoming calls.

e = Number of intragroup calls.

f = Number of multi-way feature with direct connect control attempts.

g = Number of call forwarding features with 'don't answer' option attempts.

h = Number of call forwarding features with 'regular' option attempts.

i = Number of call forwarding features with 'busy line' option attempts.

j = Number of multi-way feature with a 'hold' control option attempts.

k Number of call pick-up feature attempts.

`l` = Number of multi-way feature with 'automatic 3-way' control option attempts.

`m` = Number of multi-way feature with '3-way' control option attempts.

`n` = Number of multi-way feature with 'n-way' control option attempts.

`o` = Number of call waiting feature attempts.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module (AM) applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

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Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-TU

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 TU
  TIME aa:aa:aa
  SECTION 14: TRUNK UNIT
  PROC    TU      TUUSG
  b       c       d
  .       .       .
  .       .       .
  .       .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 14: trunk unit (TU) of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a	= Time when the report was prepared, in the form hours:minutes:seconds.
b	= Switching module number.
c	= Trunk unit number.
d	= Traffic usage reported in hundred-call-seconds (CCS).

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with the input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding switching module (SM).

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-TX

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 TX
  TIME aa:aa:aa
  SECTION 60: TONE TRANSCEIVERS
      PCRID  PC     USG    OVFL   MTCE   VBPC   VBUSG  VBOVFL VBMTCE
      b      c      d      e      f      g      h      i      j
      .      .      .      .      .      .      .      .      .
      .      .      .      .      .      .      .      .      .
      .      .      .      .      .      .      .      .      .
      .      .      .      .      .      .      .      .      .
```

2. REASON FOR OUTPUT

To respond to a request by the OP:TRFC30 input message for either an immediate or scheduled output of section 60: tone transceivers (TX) of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Switching module (SM) number.

c = Number of times an attempt is made to use tone transceivers (count 1).

d = Total usage indicating the total number of 10-second scans that all tone transceivers were in use (count 2).

e = Overflow of tone transceivers indicating the number of times an attempt was made to access a tone transceiver, but none was available (count 3).

f = Maintenance usage indicating the number of 100-second scans during which a tone transceiver was unavailable due to conditional maintenance (count 4).

g = Number of times an attempt is made to use voice band data services (VBS) tone transceivers (count 5).

h = Total usage indicating the total number of 10-second scans that all VBS tone transceivers were in use (count 6).

i = Overflow of VBS tone transceivers indicating the number of times an attempt was made to access a VBS tone transceiver, but none was available (count 7).

j = Maintenance usage indicating the number of 100-second scans during which a VBS tone transceiver was unavailable due to conditional maintenance (count 8).

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4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-UCONF

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 UCONF
  TIME aa:aa:aa
  SECTION 10: UNIVERSAL CONFERENCE CIRCUITS
  3-PORT: CCPC = b    CCUSG = c    CCOFL = d    CCMTU = e
  6-PORT: CCPC = f    CCUSG = g    CCOFL = h    CCMTU = i
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 10: universal conference circuits (UCONF) of the 30-minute traffic report.

3. VARIABLE FIELD DEFINITIONS

a	= Time when the report was prepared, in the form hours:minutes:seconds.
b	= Number of attempts to use a 3-port conference circuit.
c	= 3-port conference circuit total usage reported in hundred-call-seconds (CCS).
d	= 3-port conference circuit overflow count.
e	= 3-port conference circuit maintenance usage reported in CCS.
f	= Number of attempts to use a 6-port conference circuit.
g	= 6-port conference circuit total usage reported in CCS.
h	= 6-port conference circuit overflow count.
i	= 6-port conference circuit maintenance usage reported in CCS.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity of the administrative module (AM) applies to this section.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-UTS

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 UTS
  TIME aa:aa:aa
  SECTION 23: UMBILICAL TIME SLOT
  RSMID    UMPC    UMOFL    UMBMT    UMBUG
  b        c       d        e        f
  .        .       .        .        .
  .        .       .        .        .
  .        .       .        .        .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 23: umbilical time slot (UTS) of the 30-minute traffic report.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a	= Time when the report was prepared, in the form hours:minutes:seconds.
b	= Remote switching module (RSM) number.
b	= Number of attempts to allocate a UTS.
d	= Number of unsuccessful attempts to allocate a UTS.
e	= UTS maintenance usage reported in hundred-call-seconds (CCS).
f	= UTS total usage, reported in CCS.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

If the data is checked, check the validity of the corresponding switching module (SM).

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-VLD

Software Release: 5E10 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 VLD
  TIME aa:aa:aa
  SECTION 1: VALIDITY
  PROC       STATUS   SCN10   SCN100
  AM         b        0       c
  d          e        f       g
  .          .        .       .
  .          .        .       .
  .          .        .       .
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 1: validity (VLD) of the 30-minute traffic report. Reasons why the data in the report may be invalid for a processor are:

- Initialization in the switching module (SM), communications module processor (CMP), and/or administrative module (AM).
- Any database manager (DBM) read failure in the SM, AM and/or CMP.
- Failure to send poll messages to an SM or CMP.
- Failure to receive data from an SM or CMP.
- Invalid previous report (due to DBM read failure in the SM, AM and/or CMP, failure to send poll messages to an SM or CMP, or failure to receive data from an SM or CMP).

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = Validity of the data in this report interval for the AM. Valid value(s):
INVAL
VALID

c = Number of 100-second scans during this report interval for the AM.

d = SM number.

e = Validity of the data in this report interval for the SM. Valid value(s):
INVAL
VALID

f = Number of 10-second scans during this report interval for the SM.

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`g` = Number of 100-second scans during this report interval for the SM.

4. ACTION TO BE TAKEN

No action is required.

If desired, the validity of the data for each processor may be checked by observing the STATUS field of this message for the corresponding processor.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

OP:TRFC30-VOCOD

Software Release: 5E13 and later
Message Class: TRFM,XTRFM
Application: 5
Type: Output

1. FORMAT

```
OP TRFC30 VOCODER
  TIME aa:aa:aa
  SECTION 246: VOCODER COUNTS
      TYPE  OVFL  USAGE
      b     c     d
```

2. REASON FOR OUTPUT

To respond to a request for either an immediate or scheduled output of section 246: vocoder of the 30-minute traffic report. .sp Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Time when the report was prepared, in the form hours:minutes:seconds.

b = VOCODER type. Valid value(s):
8K
13K
EVRC
ACELP
VSELP

c = Number of overflows

d = VOCODER usage in CCS

4. ACTIONS TO BE TAKEN

No action is required.

If desired, the validity of this data may be checked by requesting the validity section of the 30-minute traffic report with input message OP:TRFC30 using the VLD option:

```
OP:TRFC30,VLD
```

The validity for the administrative module applies to this section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRFC30
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
OP:TRFC30
```

Output Message(s):

```
ALW:MEASTAT
ALW:ST-TRFC30
ALW:TRFC30
INH:TRFC30
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
OP:ST-TRFC30
OP:TRFC30-ND
```

Input Appendix(es):

```
APP:TRFC-SECTION
```

Output Appendix(es):

```
APP:MEASUREMENTS
APP:MSG-CLS
APP:MSGCLS
APP:TRFC-SECTION
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*
235-070-100ap *Traffic and Plant Measurements*

OP:TRUNK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OP TRUNK TGRP a TKMN b c d
```

2. REASON FOR OUTPUT

To respond to an OP:TRUNK input request to output trunk groups that are being monitored for being held off-hook and out-of-service.

3. VARIABLE FIELD DEFINITIONS

`a` = Trunk group being output.

`b` = Trunk member being output.

`c` = Indicator of whether the trunk is being held. Valid value(s):
- `HELD` = Trunk is being held off-hook and out-of-service.
- `NOT HELD` = Trunk is not being held off-hook and out-of-service.

`d` = Output message termination report. Valid value(s):
- `COMPLETED` = Trunk group and member are output.
- `INPUT ERROR` = Invalid trunk group or member.
- `NO MATCH` = Trunk group and member not being held.
- `SOME MEMBERS NOT MONITORED` = While printing the list of monitored members in this group, at least one member was found not being monitored.
- `SYSTEM ERROR` = System processing error.

4. ACTION TO BE TAKEN

If input message OP:TRUNK has failed, try the message once again. Also try alternative formats of the input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:TRUNK`

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OP:TSESS

Software Release: 5E10 and later
Message Class: TLWS
Application: 5
Type: Output

1. FORMAT

```
OP TSESS
  SLIM TESTSESSION     START DATE      START TIME      STATUS
       a               b               c               d e
```

2. REASON FOR OUTPUT

Prints the status of up to 40 subscriber line and instrument measurement (SLIM) routine mode test sessions.

3. VARIABLE FIELD DEFINITIONS

a = Test session identity.

b = Date of currently executing test session or the starting date of the test session, in yy-mm-dd format.

c = Time of currently executing test session or the starting time of the test session in hour:minute format.

d = Status of test session. Valid value(s):

ABORTED	= Test session aborted.
DEF	= Test session defined.
DONE	= Test session completed.
ERROR	= Test session error.
INH	= Test session suspended.
IP	= Test session scheduled for execution.
SCHED	= Test session scheduled for execution.

e = Status frequency. Valid value(s):

- DAILY
- MONTHLY
- ONCE
- WEEKLY

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

MCC Display Page(s):

162 (TESTSESSION STATUS)

62. OP:U

OP:ULARP-COM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP ULARP COMMAND {STARTED|IN PROGRESS|COMPLETED}
        NAME  STATUS LAST CHANGED
          a     b     c

[2]   ____________________________________________________________________
      OP ULARP COMMAND ABORTED - DATABASE ACCESS ERROR

[3]   ____________________________________________________________________
      OP ULARP STOPPED - CANNOT CREATE TEMPORARY FILE d
```

2. REASON FOR OUTPUT

To report the result of executing an OP:ULARP-COMMAND input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Name of the equipment configuration data base (ECD) record for the run command.

`b` = Status of the run command. Valid value(s):

- `COMPLETED` = Run command has successfully executed. Numeric value indicates the exit status of a run command that failed.
- `EXECFAIL` = ULARP could not execute the command.
- `FORK_FAIL` = User level automatic restart process's (ULARP's) attempt to fork a process to execute the run command failed.
- `NON_EXEC` = Run command was not executed.

`c` = Date and time status field last changed.

`d` = Name of the file which could not be create.

4. ACTION TO BE TAKEN

Format 1 indicates successful execution of the command. If run commands have failed, use the status to determine any appropriate corrective action. If the failing commands should be run again, use the INIT:ULARP input message to have ULARP re-run the commands that failed.

Formats 2 and 3 indicate that the command has failed. Retry the command later. If problems still exist, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
INIT:ULARP
OP:ULARP-COM
```

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

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OP:ULARP-EXEC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP ULARP EXECSEQ BOOT {STARTED|IN PROGRESS|COMPLETED}
        SEQ NUM  NAME  TYPE  BOOTPRM  RID/UID  DELAY  WAIT
           a       b     c       d       e       f      g

[2]   ____________________________________________________________________
      OP ULARP EXECSEQ CFTINIT {STARTED|IN PROGRESS|COMPLETED}
        SEQ NUM  NAME  TYPE  BOOTPRM  RID/UID  DELAY  WAIT
           a       b     c       d       e       f      g

[3]   ____________________________________________________________________
      OP ULARP EXESEQ ABORTED - DATABASE ACCESS ERROR

[4]   ____________________________________________________________________
      OP ULARP STOPPED - CANNOT CREATE TEMPORARY FILE h
```

2. REASON FOR OUTPUT

To report the result of executing an OP:ULARP-EXECSEQ input message.

3. VARIABLE FIELD DEFINITIONS

a = Sequence number.

b = Name of equipment configuration data base (ECD) record for child process or run command.

c = Child process or run command. Valid value(s):
C = Run command.
P = Child process.

d = BOOTPRM. Two digit hex number which is output as part of a processor recovery message (PRM) resulting from the creation of each child process.

e = Record identification (ID) in the case of a run command, or utility ID in the case of a child process.

f = Delay timing field (in seconds).

g = Wait-for-completion flag for run commands. Valid value(s):
NO
YES

h = Name of the file which could not be created.

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4. ACTION TO BE TAKEN

Formats 1 and 2 indicate success. Take no action.

Formats 3 and 4 indicate that the command failed. Retry the command later. If the problems still exist, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

INTRODUCTION section of the Output Messages manual.

Format(s):	Key(s):
1, 2, 3	368
4	472

Input Message(s):

```
OP:ULARP-EXEC
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

OP:ULARP-PROC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      OP ULARP PROCESS {STARTED|IN PROGRESS|COMPLETED}
        NAME  PID  STATUS  LAST CHANGED  RST CNT  RST TIME
         a     b     c          d           e        f

[2]   ____________________________________________________________
      OP ULARP ABORTED - DATABASE ACCESS ERROR

[3]   ____________________________________________________________
      OP ULARP STOPPED - CANNOT CREATE TEMPORARY FILE g
```

2. REASON FOR OUTPUT

To report the result of executing the OP:ULARP-PROC input message.

3. VARIABLE FIELD DEFINITIONS

a = Name of equipment configuration database (ECD) record for a ULARP child process.

b = Process ID.

c = Status of the process. Valid value(s):

CFTTERM	= User initialization is in progress.
EXECFAIL	= ULARP failed to execute the process.
FORKFAIL	= ULARP's attempt to fork the process failed.
NONEXEC	= Process was not executed.
RUNNING	= Process is running.
UFATAL	= Process terminated because of a fatal error.

Numeric value indicates that the process terminated and was not restarted by ULARP. The value is the exit status that was returned to ULARP the last time the process terminated.

d = Date and time status field last changed.

e = Restart count, if non-zero.

f = Date and time ULARP started counting restarts if 'e' is non-zero.

g = Name of the file which could not be created.

4. ACTION TO BE TAKEN

Format 1 indicates successful execution of the command. If processes have died and not been restarted, use the status to determine any appropriate corrective action. Once the problems are corrected, use the INIT:ULARP input message to have ULARP restart the processes that are not running.

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Formats 1 and 2 indicate that the command has failed. Retry the command later. If the problems still exist, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1 2	467
3	472

Input Message(s):

```
OP:ULARP-PROC
INIT:ULARP
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

OP:UMBILMAP

Software Release: 5E13 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

[1]

```
OP UMBILMAP   UMBIL=a-b-c
  CHAN-STAT     CHAN-STAT     CHAN-STAT     CHAN-STAT     CHAN-STAT
    1   d         6   d        11   d        16   d        21   d
    2   d         7   d        12   d        17   d        22   d
    3   d         8   d        13   d        18   d        23   d
    4   d         9   d        14   d        19   d
    5   d        10   d        15   d        20   d
```

[2]

```
OP UMBILMAP   UMBIL=a-b   e
```

2. REASON FOR OUTPUT

Format 1 is printed when data is available for a valid host umbilical. Status for the first 23 channels on the host umbilical is displayed in 5 columns. Channel 24 is not displayed since it is always reserved for CCS signaling. Format 2 is printed when an error occurs while trying to obtain channel data associated with the requested umbilical.

3. VARIABLE FIELD DEFINITIONS

`a` = Host switching module (HSM) number.

`b` = Remote switching module (RSM) number.

`c` = Host umbilical (UMBIL) number.

`d` = Status. Valid value(s):
- `B` = The channel is busy.
- `C` = The channel is being used for a control time slot (applies only to channel 1).
- `I` = The channel is idle.

`e` = Error type. Valid value(s):
- `DATA BASE ERROR` = Error occurred while trying to obtain channel information.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

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Other Manual(s):
235-105-220 *Corrective Maintenance Manual*
235-105-250 *System Recovery Manual*

MCC Display Page(s):

1740,xxx,yyy (HOST UMBILICALS (1 - 10))
1741,xxx,yyy (HOST UMBILICALS (11 - 20))

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OP:UMEM

Software Release: 5E10 and later
Message Class:
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP UMEM STOPPED COULD NOT CREATE f #g

[2]   ____________________________________________________________________
      OP UMEM COMPLETED NO OUTPUT #h

[3]   ____________________________________________________________________
      OP UMEM a [b LINES WRITTEN TO c FROM
        CIRCUIT d] #e

[4]   ____________________________________________________________________
      OP UMEM NOT STARTED
        CONFLICT WITH CURRENT SYSTEM STATUS
          NO TRACE IS DEFINED

[5]   ____________________________________________________________________
      OP UMEM NOT STARTED
        INVALID ACTION FIELD INVALID KEYWORD

[6]   ____________________________________________________________________
      OP UMEM NOT STARTED
        INVALID ID FIELD GENERAL SYNTAX ERROR

[7]   ____________________________________________________________________
      OP UMEM NOT STARTED
        RETRY LATER THE SYSTEM IS IN OVERLOAD
          CONDITION

[8]   ____________________________________________________________________
      OP UMEM STOPPED TRACE DEFINED ON CU i
        PLEASE RESTORE CU i AND PERFORM A SWITCH
        TO THAT CU.  AFTER THE SWITCH HAS COMPLETED,
        REISSUE THE OP:UMEM INPUT MESSAGE
```

2. REASON FOR OUTPUT

To report the disposition of an OP:UMEM input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination status. Valid value(s):
`COMPLETED` = The data has been dumped to the file as indicated.
`STOPPED UCERR` = The utility circuit either does not respond or does not match the circuit present when the trace was defined.

`b` = Number of lines written to the file.

c = Name of the file to which the output was written.

d = Circuit type from which the information was taken.

e-h = Generic access package (GRASP) execution sequence number.

f = Indicates which file operation failed. Valid value(s):
CREATE
OPEN
READ

g = Diagnostics trace information. Indicates file for which operation failed.

i = Indicates control unit (CU) for which last trace was defined.

4. ACTION TO BE TAKEN

The file into which the information was written should be removed after it has been examined.

If 'a' =	Action:
STOPPED UCERR	Check the utility circuit hardware. After it is fixed, use initiative to reinitialize the circuit.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the appendix section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	507
2	508
3	509

Input Message(s):

```
CLR:FSYS-FILE
DUMP:F-ALL
DUMP:F-PARTL
INIT:UC
OP:ST-PROC
OP:UTIL
OP:UMEM
```

Output Message(s):

```
OP:UTIL
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

OP:UNAV

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP UNAV MESSAGE STARTED
        UNIT        MTCE   INH   DGN
        a b [ c d ] e       f     g

[2]   ____________________________________________________________________
      OP UNAV COMPLETED

[3]   ____________________________________________________________________
      OP UNAV INTERFACE ERROR, ERRNO=h

[4]   ____________________________________________________________________
      OP UNAV NOT STARTED
        INVALID DATA FIELD

[5]   ____________________________________________________________________
      OP UNAV NOT STARTED
        RETRY LATER

[6]   ____________________________________________________________________
      OP UNAV IN PROGRESS
        a b [ c d ]  e      f     g

[7]   ____________________________________________________________________
      OP UNAV RETRY LATER i

[8]   ____________________________________________________________________
      OP UNAV WRITE TO j
        FAILED ON KEY #k
```

2. REASON FOR OUTPUT

To give device information specific to administrative module (AM) hardware units on communities requested by the OP:UNAV input message. The format is consistent with related maintenance messages.

The exit status of this report is indicated by either the successful `COMPLETED` message or the unsuccessful `INTERFACE ERROR` message.

3. VARIABLE FIELD DEFINITIONS

`a` = Unit name. Refer to the APP:MEM-NUM-UNIT appendix in the Appendixes section of the Input Messages manual for AM unit names.

`b` = Unit number. Refer to the APP:MEM-NUM-UNIT appendix in the Appendixes section of the Output Messages manual.

`c` = Subunit name. Refer to the APP:MEM-NUM-UNIT appendix in the Appendixes section of the

Input Messages manual for AM control unit (CU) subunit names.

`d` = Subunit number.

`e` = The current maintenance state of the unit. Valid value(s):

`ACT`	= Active units.
`GROW`	= Units being grown.
`INIT`	= Initializing units.
`OFL`	= Offline units.
`OOS`	= Out-of-service units.
`STBY`	= Standby units.
`UNAV`	= Unavailable units.
`UNEQIP`	= Unequipped units.

`f` = Current inhibit status of the associated error source. Valid value(s):

`ALW`	= Allowed.
`INH`	= Inhibited.

`g` = Results of the last diagnostic on the unit. Valid value(s):

`ABT`	= Aborted diagnostics.
`ATP`	= All tests passed.
`CATP`	= Conditional all tests passed.
`NTR`	= No tests were run.
`STF`	= Some tests failed.

`h` = Error number. Valid value(s):

`9`	= Cannot attach to plant measurement library.
`11`	= Cannot open equipment configuration data base (ECD) sequence.
`12`	= Cannot sequence (UCBs).

`i` = Retry the command later. Valid value(s):

```
CAN'T CREATE FILE IN /tmp
CAN'T GET DATABASE RECORD ID
CAN'T SEQUENCE DATABASE
```

`j` = Temporary output file name.

`k` = Key associated with write failure.

4. ACTION TO BE TAKEN

If error numbers 11 or 12 are indicated, the system is still initializing and the input message should be retried.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	49, 477
2	50, 478
3	51, 479
6	580, 582
7	588, 589
8	656

Input Message(s):

```
OP:ACT
OP:CFGSTAT
OP:GROW
OP:INIT
OP:OFL
OP:OOS
OP:STBY
OP:UNAV
OP:UNEQIP
```

Input Appendix(es):

```
APP:MEM-NUM-UNIT
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

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OP:UNEQIP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP UNEQIP MESSAGE STARTED
        UNIT        MTCE   INH   DGN
        a b [ c d ] e       f     g

[2]   ____________________________________________________________________
      OP UNEQIP COMPLETED

[3]   ____________________________________________________________________
      OP UNEQIP INTERFACE ERROR, ERRNO=g

[4]   ____________________________________________________________________
      OP UNEQIP NOT STARTED
        INVALID DATA FIELD

[5]   ____________________________________________________________________
      OP UNEQIP NOT STARTED
        RETRY LATER

[6]   ____________________________________________________________________
      OP UNEQIP IN PROGRESS
        a b [ c d ]  e      f     g

[7]   ____________________________________________________________________
      OP UNEQIP RETRY LATER i

[8]   ____________________________________________________________________
      OP UNEQIP WRITE TO j
        FAILED ON KEY #k
```

2. REASON FOR OUTPUT

To give device information specific to administrative module (AM) hardware units on communities requested by the OP:UNEQIP input message. The format is consistent with related maintenance messages.

The exit status of this report is indicated by either the successful `COMPLETED` message or the unsuccessful `INTERFACE ERROR` message.

3. VARIABLE FIELD DEFINITIONS

`a` = Unit name. Refer to the APP:MEM-NUM-UNIT appendix in the Appendixes section of the Input Messages manual for AM unit names.

`b` = Unit number. Refer to the APP:MEM-NUM-UNIT appendix in the Appendixes section of the Input Messages manual.

`c` = Subunit name. Refer to the APP:MEM-NUM-UNIT appendix in the Appendixes section of the

Input Messages manual for AM control unit (CU) subunit names.

`d` = Subunit number. Refer to the APP:MEM-NUM-UNIT appendix in the Appendixes section of the Input Messages manual.

`e` = The current maintenance state of the unit is indicated by the following identifiers. Valid value(s):

`ACT`	= Active units.
`GROW`	= Units being grown.
`INIT`	= Initializing units.
`OFL`	= Offline units.
`OOS`	= Out-of-service units.
`STBY`	= Standby units.
`UNAV`	= Unavailable units.
`UNEQIP`	= Unequipped units.

`f` = Current inhibit status of the associated error source. Valid value(s):

`ALW`	= Allowed.
`INH`	= Inhibited.

`g` = Results of the last diagnostic on the unit. Valid value(s):

`ABT`	= Aborted diagnostics.
`ATP`	= All tests passed.
`CATP`	= Conditional all tests passed.
`NTR`	= No tests were run.
`STF`	= Some tests failed.

`h` = Error number. Valid value(s):

`9`	= Cannot attach to plant measurement library.
`11`	= Cannot open equipment configuration database (ECD) sequence.
`12`	= Cannot sequence unit control blocks (UCBs).

`i` = Retry the command later. Valid value(s):

```
CAN'T CREATE FILE IN /tmp
CAN'T GET DATABASE RECORD ID
CAN'T SEQUENCE DATABASE
```

`j` = Temporary output file name.

`k` = Key associated with write failure.

4. ACTION TO BE TAKEN

If error numbers 11 or 12 are indicated, the system is still initializing and the input message should be retried.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	49, 477
2	50, 478
3	51, 479
6	580, 582
7	588, 589
8	656

Input Message(s):

```
OP:ACT
OP:CFGSTAT
OP:GROW
OP:INIT
OP:OFL
OP:OOS
OP:STBY
OP:UNAV
OP:UNEQIP
```

Input Appendix(es):

```
APP:MEM-NUM-UNIT
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

OP:UT-CMP-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
OP UT CMP=a-b {MATE|PRIM} UTILFLAG c {ADDR d|FUNC e OFF f|TIME g} h HIT i
```

2. REASON FOR OUTPUT

To report the status of the response to the OP:UT-CMP input message, which reports the status of one or more communication module processor (CMP) WHEN clauses.

3. VARIABLE FIELD DEFINITIONS

MATE	= Message was executed in the standby CMP.
PRIM	= Message was executed in the active CMP.
UTIL	= The message was run on all UT WHEN clauses in the processor.
UTILFLAG	= Designates one specific WHEN clause in this processor.
a	= Message switch side.
b	= CMP number.
c	= WHEN message clause identification number, in decimal.
d	= Physical address specified in the WHEN message. If an error is encountered, the value of the address may be invalid.
e	= Symbolic address specified in the WHEN message.
f	= Offset specified in the WHEN message.
g	= Time interval specified in the WHEN message (in milliseconds).
h	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages Manual.
i	Current hit-count of the WHEN message clause. If an error occurs the hit-count is 0.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
OP:UT-CMP
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

OP:UT-CMP-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP UT CMP=a-b {MATE|PRIM} UTILFLAG c ADDR d i HIT j

[2]   ____________________________________________________________________
      OP UT CMP=a-b {MATE|PRIM} UTILFLAG c i
        SYMIDX e FUNC f OFF g HIT j

[3]   ____________________________________________________________________
      OP UT CMP=a-b {MATE|PRIM} UTILFLAG c TIME h i HIT j

[4]   ____________________________________________________________________
      OP UT CMP=a-b {MATE|PRIM} UTIL i
```

2. REASON FOR OUTPUT

To report the status of the response to the OP:UT-CMP input message, which reports the status of one or more communication module processor (CMP) WHEN clauses.

Format 1 reports the operational status of a specific WHEN breakpoint input message which has been defined with a physical address.

Format 2 reports the operational status of a specific WHEN breakpoint input message which has been defined with a symbolic reference and an optional offset.

Format 3 reports the operational status of a timed specific WHEN input message.

Format 4 provides the status of the OP:UT-CMP input message when the UTIL option is used.

3. VARIABLE FIELD DEFINITIONS

`MATE` = Message was executed in the standby CMP.

`PRIM` = Message was executed in the active CMP.

`UTIL` = The message was run on all UT WHEN clauses in the processor.

`UTILFLAG` = Designates one specific WHEN clause in this processor.

`a` = Message switch side.

`b` = CMP number.

`c` = WHEN message clause identification number, in decimal.

`d` = Physical address specified in the WHEN message. If an error is encountered, the value of the address may be invalid.

`e` Symbol index number of the specified symbol either specified in the WHEN input message or

determined by the UT code based on the symbol name '`f`'.

`f` = Symbolic name specified in the WHEN input message or determined by the UT code based on the symbol index number '`e`'. The symbol name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`g` = Offset specified in the WHEN message.

`h` = Time interval specified in the WHEN message (in milliseconds).

`i` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages Manual.

`j` Current hit-count of the WHEN message clause. If an error occurs the hit-count is 0.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-SYMID
OP:UT-CMP
WHEN:UT-CMP
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-600-400 *Audits Manual*

OP:UT-MCTSI-PI-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      OP UT MCTSI=a-b PI {UTIL|UTILFLAG c} ADDR d h HIT i

[2]   ____________________________________________________________
      OP UT MCTSI=a-b PI {UTIL|UTILFLAG c} FUNC e OFF f h HIT i

[3]   ____________________________________________________________
      OP UT MCTSI=a-b PI {UTIL|UTILFLAG c} TIME g h HIT i
```

2. REASON FOR OUTPUT

To report the status of the OP:UT-MCTSI-PI input message used to report the status of the specified WHEN command clause(s) in the packet interface (PI).

Format 1 reports the operational status of a WHEN breakpoint command which has been defined with a physical address.

Format 2 reports the operational status of a WHEN breakpoint command which has been defined with a symbolic reference and an optional offset.

Format 3 reports the operational status of a timed WHEN command.

3. VARIABLE FIELD DEFINITIONS

`UTIL` = Message was run on all UT WHEN clauses in the processor.

`UTILFLAG` = Designates one specific WHEN clause.

`a` = Switching module (SM) number

`b` = Side of the module controller/time-slot interchange (MCTSI).

`c` = WHEN message identification number, in decimal.

`d` = Physical address (ADDR) specified in the WHEN message. If an error is encountered, the value of the address may be invalid.

`e` = Symbolic address specified in the WHEN message.

`f` = Offset (OFF) specified in the WHEN message.

`g` = Time interval specified in the WHEN message (in milliseconds).

`h` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

`i` = Current hit count of the WHEN command clause. If an error occurs, the hit count is 0. If the hit count is equal to minus one, it means the FOREVER flag was set to this command.

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4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:UT-MCTSI-PI
WHEN:UT-MCTSI-PI
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements And Tools*
235-600-400 *Audits Manual*

OP:UT-MCTSI-PI-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP UT MCTSI=a-b PI UTILFLAG c ADDR d i HIT j

[2]   ____________________________________________________________________
      OP UT MCTSI=a-b PI UTILFLAG c i
        SYMIDX e FUNC f OFF g HIT j

[3]   ____________________________________________________________________
      OP UT MCTSI=a-b PI UTILFLAG c TIME h i HIT j

[4]   ____________________________________________________________________
      OP UT MCTSI=a-b PI UTIL i
```

2. REASON FOR OUTPUT

To report the status of the OP:UT-MCTSI-PI input message used to report the status of the specified WHEN input message clause(s) in the packet interface (PI).

Format 1 reports the operational status of a WHEN breakpoint input message which has been defined with a physical address.

Format 2 reports the operational status of a WHEN breakpoint input message which has been defined with a symbolic reference and an optional offset.

Format 3 reports the operational status of a timed WHEN input message.

Format 4 provides the status of the OP:UT-MCTSI input message when the UTIL option is used.

3. VARIABLE FIELD DEFINITIONS

`UTIL` = Message was run on all UT WHEN clauses in the processor.

`UTILFLAG` = Designates one specific WHEN clause.

`a` = Switching module (SM) number

`b` = Side of the module controller/time-slot interchange (MCTSI).

`c` = WHEN message identification number, in decimal.

`d` = Physical address (ADDR) specified in the WHEN message. If an error is encountered, the value of the address may be invalid.

`e` = Symbol index number of the specified symbol either specified in the WHEN input message or determined by the UT code based on the symbol name '`f`'.

`f` = Symbolic name specified in the WHEN input message or determined by the UT code based on

the symbol index number 'e'. The symbol name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '*' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

g = Offset (OFF) specified in the WHEN message.

h = Time interval specified in the WHEN message (in milliseconds).

i = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

j = Current hit count of the WHEN command clause. If an error occurs, the hit count is 0. If the hit count is equal to minus one, it means the FOREVER flag was set to this command.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-SYMID
OP:UT-MCTSI-PI
WHEN:UT-MCTSI-PI
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements And Tools*
235-600-400 *Audits Manual*

OP:UT-PSUPH-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
OP UT PSUPH=a-b-c-d UTILFLAG e {ADDR f|FUNC g OFF h|TIME i} j HIT k
```

2. REASON FOR OUTPUT

To report the status of the response to the OP:UT-PSUPH input message, which reports the status of one or more packet switch unit protocol handler (PSUPH) WHEN clauses.

3. VARIABLE FIELD DEFINITIONS

`UTIL` = The message was run on all UT WHEN clauses in the processor.

`UTILFLAG` = Designates one specific WHEN clause in this processor.

`a` = Switching module (SM) number.

`b` = Unit number.

`c` = Shelf number.

`d` = Slot number.

`e` = WHEN message clause identification number, in decimal.

`f` = Physical address (ADDR) specified in the WHEN message. If an error is encountered, the value of the address may be invalid.

`g` = Symbolic address specified in the WHEN message.

`h` = Offset (OFF) specified in the WHEN message.

`i` = Time interval specified in the WHEN message (in milliseconds).

`j` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages Manual.

`k` = Current hit-count of the WHEN message clause. If an error occurs, the hit-count is 0.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
OP:UT-PSUPH
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-600-400 *Audits*

OP:UT-PSUPH-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      OP UT PSUPH=a-b-c-d UTILFLAG e ADDR f k HIT l

[2]   ____________________________________________________________
      OP UT PSUPH=a-b-c-d UTILFLAG e k
        SYMIDX g FUNC h OFF i HIT l

[3]   ____________________________________________________________
      OP UT PSUPH=a-b-c-d UTILFLAG e TIME j k HIT l

[4]   ____________________________________________________________
      OP UT PSUPH=a-b-c-d UTIL k
```

2. REASON FOR OUTPUT

To report the status of the response to the OP:UT-PSUPH input message, which reports the status of one or more packet switch unit protocol handler (PSUPH) WHEN clauses.

Format 1 reports the operational status of a WHEN breakpoint input message which has been defined with a physical address.

Format 2 reports the operational status of a WHEN breakpoint input message which has been defined with a symbolic reference and an optional offset.

Format 3 reports the operational status of a timed WHEN input message.

Format 4 provides the status of the OP:UT-PSUPH input message when the UTIL option is used.

3. VARIABLE FIELD DEFINITIONS

`UTIL` = The message was run on all UT WHEN clauses in the processor.

`UTILFLAG` = Designates one specific WHEN clause in this processor.

`a` = Switching module (SM) number.

`b` = Unit number.

`c` = Shelf number.

`d` = Slot number.

`e` = WHEN message clause identification number, in decimal.

`f` = Physical address (ADDR) specified in the WHEN message. If an error is encountered, the value of the address may be invalid.

`g` = Symbol index number of the specified symbol either specified in the WHEN input message or

determined by the UT code based on the symbol name '`h`'.

`h` = Symbolic name specified in the WHEN input message or determined by the UT code based on the symbol index number '`g`'. The symbol name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`i` = Offset (OFF) specified in the WHEN message.

`j` = Time interval specified in the WHEN message (in milliseconds).

`k` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages Manual.

`l` = Current hit-count of the WHEN message clause. If an error occurs, the hit-count is 0.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-SYMID
OP:UT-PSUPH
WHEN:UT-PSUPH
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-600-400 *Audits*

OP:UT-SM-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP UT SM=a UTILFLAG b ADDR c g HIT h

[2]   ____________________________________________________________________
      OP UT SM=a UTILFLAG b FUNC d OFF e g HIT h

[3]   ____________________________________________________________________
      OP UT SM=a UTILFLAG b TIME f g HIT h

[4]   ____________________________________________________________________
      OP UT SM=a UTIL g

[5]   ____________________________________________________________________
      OP UT SM=a UTILFLAG b g HIT h
        DATA k ADRS i OPER m
        DMSK l AMSK j OMSK n
```

2. REASON FOR OUTPUT

To report the status of the response to the OP:UT-SM input message, which reports the status of one or more WHEN clauses.

Format 1 reports the operational status of a specific WHEN breakpoint command which has been defined with a physical address.

Format 2 reports the operational status of a specific WHEN breakpoint command which has been defined with a symbolic reference and an optional offset.

Format 3 reports the operational status of a timed specific WHEN command.

Format 4 provides the status of the OP:UT-SM input message when the UTIL option is used.

Format 5 reports the operational status of a matching specific WHEN command for an SM2000.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = WHEN command clause identification number, in decimal.

`c` = Physical address specified in the WHEN command. If an error is encountered, the value of the address may be invalid.

`d` = Global symbol specified in the WHEN command.

`e` = Offset specified in the WHEN command.

`f` = Time interval specified in the WHEN command (in milliseconds).

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`g` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages Manual.

`h` = Current hit-count of the WHEN command clause. If an error occurs the hit-count is 0. If the WHEN command was input with the FOREVER option, the hit-count is indicated as 65535.

`k` = The value of the data field specified in the WHEN command.

`l` = The mask value for the data field specified in the WHEN command.

`i` = The address specified in the WHEN command which is used in the matching WHEN command.

`j` = The mask value for the address field specified in the WHEN command.

`m` = The type of bus operation specified in the WHEN command.

`n` = The mask value for the bus operation field specified in the WHEN command.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:UT-SM
```

Output Message(s):

```
OP:UT-SM
```

Input Appendix(es):

```
APP:UT-IM-REASON
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

OP:UT-SM-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP UT SM=a UTILFLAG b ADDR c h HIT i

[2]   ____________________________________________________________________
      OP UT SM=a UTILFLAG b h
        SYMIDX d FUNC e OFF f HIT i

[3]   ____________________________________________________________________
      OP UT SM=a UTILFLAG b TIME g h HIT i

[4]   ____________________________________________________________________
      OP UT SM=a UTILFLAG b h HIT i
        DATA j ADRS l OPER n
        DMSK k AMSK m OMSK o

[5]   ____________________________________________________________________
      OP UT SM=a UTIL h
```

2. REASON FOR OUTPUT

To report the status of the response to the OP:UT-SM input message, which reports the status of one or more WHEN clauses.

Format 1 reports the operational status of a specific WHEN breakpoint input message which has been defined with a physical address.

Format 2 reports the operational status of a specific WHEN breakpoint input message which has been defined with a symbolic reference and an optional offset.

Format 3 reports the operational status of a timed specific WHEN input message.

Format 4 reports the operational status of a matching specific WHEN input message for an SM-2000.

Format 5 provides the status of the OP:UT-SM input message when the UTIL option is used.

3. VARIABLE FIELD DEFINITIONS

`UTIL` = The message was run on all UT WHEN clauses in the processor.

`UTILFLAG` = Designates one specific WHEN clause in this processor.

`a` = Switching module number.

`b` = WHEN input message clause identification number, in decimal.

`c` = Physical address specified in the WHEN input message. If an error is encountered, the value of the address may be invalid.

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`d` = Symbol index number of the specified symbol either specified in the WHEN input message or determined by the UT code based on the symbol name '`e`'.

`e` = Symbolic name specified in the WHEN input message or determined by the UT code based on the symbol index number '`d`'. The symbol name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`f` = Offset specified in the WHEN input message.

`g` = Time interval specified in the WHEN input message (in milliseconds).

`h` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages Manual.

`i` = Current hit-count of the WHEN input message clause. If an error occurs the hit-count is 0. If the WHEN input message was input with the FOREVER option, the hit-count is indicated as 65535.

`j` = The value of the data field specified in the WHEN input message.

`k` = The mask value for the data field specified in the WHEN input message.

`l` = The address specified in the WHEN input message which is used in the matching WHEN input message.

`m` = The mask value for the address field specified in the WHEN input message.

`n` = The type of bus operation specified in the WHEN input message.

`o` = The mask value for the bus operation field specified in the WHEN input message.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-SYMID
OP:UT-SM
WHEN:UT-SM
```

Output Message(s):

```
OP:UT-SM
```

Input Appendix(es):

```
APP:UT-IM-REASON
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-600-400 *Audits Manual*

OP:UTIL

Software Release: 5E10 and later
Message Class:
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP UTIL COMPLETED
        DTIME = a
        DCYCLE = c                  DEATH DELAY = d
        {NO FLAGS DEFINED
        BPTNUM  UID X'  PID  ADDR X'  L  MODE   (IMP)  STATE
          e      f       g      h     i    j    (k)    l  }
        {NO TRACE DEFINED
        TRACE   UID X'  PID  ADDR X'  L  STORE  (IMP)  STATE
          m      n       o      p     q    r     (s)    t  }
          #u

[2]   ____________________________________________________________________
      OP UTIL NOT STARTED
        INVALID ACTION FIELD INVALID KEYWORD

[3]   ____________________________________________________________________
      OP UTIL NOT STARTED
        RETRY LATER THE SYSTEM IS IN AN OVERLOAD CONDITION
```

2. REASON FOR OUTPUT

To print a summary status report of the generic access package (GRASP). This is in response to an OP:UTIL input message. The effective values of the dynamic and static thresholds, defined breakpoints and their attributes, and the transfer trace attributes are printed.

3. VARIABLE FIELD DEFINITIONS

a = Threshold value of dynamic real time usage at which GRASP will take overload recovery. Expressed as a percentage.

c = Interval of time over which GRASP real time usage is accumulated. Expressed in milliseconds.

d = Length of time of debugging inactivity through which GRASP will wait before terminating itself. Expressed in minutes.

e = Breakpoint number.

f = Utility ID (UID) of the process in which the breakpoint is planted. The value is enclosed in parentheses if the breakpoint definition specified a process ID instead of a utility ID.

g = Process ID (PID) of the process in which the breakpoint is planted. The value is enclosed in parentheses if the breakpoint definition specified a utility ID instead of a process ID. The field will be blank if no suitable process has been found.

h = Address of the breakpoint.

`i` = Length of the match interval. Execution breakpoints indicate one byte.

`j` = Breakpoint condition as specified in the WHEN: input message.

`k` = Implementation of the breakpoint. Software implemented breakpoints are not marked. Hardware implemented breakpoints are marked with an 'H'. In addition, the range matcher is marked with an asterisk (*) and the hardware execution matcher is marked with a pound sign (#).

`l` = Breakpoint state. Valid value(s):
`DISABLED`
`ENABLED`

`m` = Stop condition of the trace. Valid value(s):
`CIRC` = The trace will run indefinitely, replacing the oldest data with the newest.
`STOP FULL` = The trace will stop when the memory fills up.

`n` = Utility ID to which the trace is restricted. The value will be enclosed in parentheses if the INIT:UMEM message specified a process ID. If no restriction was given, will be blank.

`o` = Process ID to which the trace is restricted. If no PID restriction was given, will be blank.

`p` = Beginning address to which the trace is restricted.

`q` = Length of the address interval to which the trace is restricted.

`r` = Storage mode. Valid value(s):
`DATA`
`DFPAR`
`DTRANS`
`FPARAM`
`TRANS`
`UID`

`s` = Implementation of the trace. Indicates which matcher is used with 'H*' for the range matcher and 'H' for the execution matcher.

`t` = Trace state. Valid value(s):
`DUMPED` = The trace is not running and its data has already been dumped.
`NEW` = The trace is not running and does not contain data.
`RUNNING` = The trace is collecting data.
`STOPPED` = The trace is not running but does contain data.

`u` = GRASP execution sequence number range. Other GRASP operations have higher priority then OP:UTIL, some may occur during OP:UTIL formatting.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	515

Input Message(s):

```
IN:DTIME
OP:ST-PROC
OP:UTIL
```

Output Message(s):

```
WHEN:PID
WHEN:UID
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

63. OP:V

OP:VERSION

Software Release: 5E10 and later
Message Class: UPDT
Application: 5
Type: Output

1. FORMAT

```
OP VERSION [MISMATCH]  a  [PART b [COMPLETED]]
  PARTITION       VERSION         BWM
  c               d               e
                  .
                  .
                  .
  [DISK CONFIGURATION: f]
```

2. REASON FOR OUTPUT

To respond to the input message OP:VERSION.

3. VARIABLE FIELD DEFINITIONS

`COMPLETED` = Final part of multipart message.

`MISMATCH` = The generic text versions and/or software update levels mismatch.

`PART` = Indicates multipart message.

`a` = Indicated version and level to which date partitions were set.

`b` = Message part number.

`c` = Partition name. The pseudo-partition 'ECD' refers to the 'systype' and 'genid' items from the 'eaiopt' form in the equipment configuration database (ECD).

`d` = Generic text version of this partition.

`e` = Software update level of this partition. The ECD partition does not have a software update level.

`f` = Office disk configuration.

4. ACTION TO BE TAKEN

None. This message is the direct response to a manually executed input message. No specific action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:VERSION`

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```
UPD:VERSION
```

Output Message(s):

```
UPD:VERSION
```

64. OP:W

OP:WCPE

Software Release: 5E10 and later
Message Class: LINE
Application: AEWNC
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP WCPE {DN=a | LCKEN=b-c-d-e-f} g

[2]   ____________________________________________________________________
      OP WCPE g
        LCKEN=b-c-d-e-f                 DN=a
        ESN=h                           TID=i
        TESTSET=j                       TENANT GRP=k
        REG STATE=l                     REG AREA=[m n]
        CALL STATE=o                    MWI=p
        WIRED PHONE=q                   ALERT ID=[r s]
        LINE PORT STATUS=t [u] [v] [w] x
        SERVICE RESTRICTION=y
```

2. REASON FOR OUTPUT

To report the results of the OP:WCPE input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Wireless directory number (DN).

`b` = Switching module (SM) number.

`c` = Integrated services line unit version 2 (ISLU2) unit number.

`d` = Line group number.

`e` = Line board number.

`f` = Line circuit number.

`g` = Status. Valid value(s):

`COMPLETED` = The OP:WCPE request completed successfully.

`DATA BASE ERROR` = An error occurred in accessing the system's database. Retry the request. If the problem persists, check for any associated asserts and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`DUPLICATE REQUEST` = An OP:WCPE request is already in progress for the wireless phone specified in the OP:WCPE input message. If the correct wireless phone was specified, wait and retry the request after the active OP:WCPE request completes. Otherwise, verify that the correct wireless phone was specified in the input message and retry the request.

`INPUT ERROR` = Some data entered in the OP:WCPE input message was incorrect. If a wireless phone's DN is entered, all 10 digits of the wireless DN must be specified. Verify that the data specified in the OP:WCPE input message is correct and retry the request.

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`INVALID PORT` = The port specified in the OP:WCPE input message is unknown to the system. Verify that a valid wireless phone is specified in the OP:WCPE input message and retry the request.

`INVALID PORT TYPE` = The port specified in the OP:WCPE input message is valid for the system but is not associated with a wireless phone. Verify that a valid wireless phone is specified in the OP:WCPE input message and retry the request.

`PROCESS TIMEOUT` = The request failed because an internal process timed-out waiting for a response. The system may be too busy to process the request. Retry the request at a later time. If the problem persists, check for any associated asserts and Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`SM UNAVAILABLE` = An SM required to process the OP:WCPE input message is unavailable. Retry the request at a later time.

`SYSTEM BUSY` = The request failed because the system is too busy. Retry the request at a later time. If the problem persists, check for any associated asserts and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`SYSTEM ERROR` = The request failed because of a system error. The system may be too busy to process the request. Retry the request at a later time. If the problem persists, check for any associated asserts refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`h` = Electronic serial number (ESN) stored in the wireless network controller (WNC) for the wireless phone.

`i` = Terminal ID stored in the WNC for the wireless phone.

`j` = Indication of whether the wireless phone is a wireless test set or a wireless subscriber's phone. Valid value(s):

`NO` = The wireless phone is a wireless subscriber's phone and not a test set.

`YES` = The wireless phone is a test set.

`k` = Tenant group wireless phone is assigned to.

`l` = Registration state of the wireless phone. Valid value(s):

`DENIED-AUTH FAILURE` = The wireless phone is not registered because it failed authentication. Attempt to update the wireless phone's shared secret data (SSD) using the UPD:SSD input message. Refer to the UPD:SSD manual pages for additional information.

`INTERNAL ERROR` = The wireless phone's registrations state is indeterminate. This may be due to a system error. Retry the OP:WCPE input message at a later time. If the problem persists, check for any associated asserts or audits and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`NOT REGISTERED` = The wireless phone is not registered. The phone is probably turned off.

`REGISTERED` = The wireless phone is registered. There is one exception to this. Following a SM full initialization, the WNC will consider a wireless phone as registered if it was registered at the time the initialization occurred. For this situation, the registration area reported by OP:WCPE will be null. Both the registration state and registration area will not be updated for the wireless phone unless the phone attempts a wireless origination or registration, or an attempt is made to terminate a call to the phone.

Note: Variables 'm' and 'n' form the registration area the wireless phone is registered in. These fields are blank if the wireless phone is not registered or the registration area is unknown to the WNC.

m = The wireless service provider ID (WSPID).

n = The registration code.

o = Call state of the wireless phone. Valid value(s):

- ACTIVE = The wireless phone is active on a call. If OP:WCPE indicates that the wireless phone is active on a call but the wireless phone is not registered, the wireless phone is active on an emergency call.
- DENIED TESTSET = The wireless phone is denied service because a wireless test set is assigned to the wireless subscriber.
- IDLE = The wireless phone is idle.
- NA = The wireless call state is not applicable (NA) because the wireless phone is not registered.
- TRANSIENT = The wireless phone is in a transient call state. Examples of transient call states include origination call setups, registrations, and SSD updates.

p = Status of the wireless phone's visual message waiting indicator (MWI) as maintained in the WNC. Valid value(s):

- OFF = The MWI is off.
- ON = The MWI is on.

q = Hook status of the wireless phone's associated wired phone. Valid value(s):

- OFF-HOOK = The wired phone is off-hook.
- ON-HOOK = The wired phone is on-hook.
- UNKNOWN = The wired-phone's hook status can not be determined because hardware is out-of-service (OOS).

Note: Variables 'r' and 's' form the alert ID assigned by the WNC to the wireless phone. The alert ID is used by the wireless phone to know when it is being paged by the WNC. These fields are blank if the wireless phone is not registered.

r = The alert phase.

s = The alert value.

Note: Variables 't' through 'x' make up the port status of the wireless phone's associated ISLU2 W-card port. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for the definition of the port status.

t = The port status's basic state.

u = The port status's qualifier.

v = The port status's operational restriction.

w = The port status's supplementary information.

x = The port status's mode.

`y` = Service restriction assigned to the wireless phone. Valid value(s).

`AUTH NOT SUPPORTED` = Service is denied because the wireless phone attempted to access the system without authentication.

`AUTHR MISMATCH` = Service is denied because the wireless phone's authentication values do not match the phone's authentication values stored in the WNC.

`CALL COUNT MISMATCH` = Service is denied because the wireless phone's call count does not match the phone's call count stored in the WNC.

`CAVE NOT SUPPORTED` = Service is denied because the wireless phone's authentication algorithm is not supported by the WNC.

`COUNT NOT SUPPORTED` = Service is denied because the wireless phone does not support a call count.

`COUNT UPDATE FAILURE` = Service is denied because the call count in the wireless phone could not be updated.

`DELINQUENT ACCOUNT` = Service is denied because the wireless phone's bill has not been paid.

`DUPLICATE UNIT` = Service is denied because this wireless phone is suspected of having been duplicated.

`INVALID SERIAL NUMBER` = Service is denied because the wireless phone's ESN does not match the ESN stored in the WNC.

`MISSING AUTH PARAMETER` = Service is denied because the wireless phone failed to provide all of the necessary information for authentication.

`NONE` = No service restriction exists for the wireless phone.

`SHARING SSD NOT SUPPORTED` = Service is denied because the home location register (HLR) will not provide the SSD required to process the wireless phone's authentication request.

`SKEY NOT SUPPORTED` = Service is denied because the WNC does not support the wireless phone's signaling message encryption (SME) algorithm.

`SSD UPDATE FAILURE` = Service is denied because the WNC's and/or wireless phone's SSD could not be updated.

`STOLEN UNIT` = Service is denied because the wireless phone was reported as stolen.

`UNASSIGNED DN` = Service is denied because the wireless phone is unknown to the system.

`UNIQUE CHALLENGE FAILURE` = Service is denied because the wireless phone's authentication values do not match the authentication values stored in the wireless network controller.

`UNSPECIFIED` = Service is denied due to an undetermined system error.

4. ACTION TO BE TAKEN

The OP:WCPE message is intended to provide manually requested information about the current state of the specified wireless phone. If OP:WCPE was used as part of a corrective maintenance procedure, refer to the wireless subscriber maintenance section of the *AIR EXTENSION*® User Guide for information on clearing any abnormal conditions reported by the OP:WCPE output message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:WCPE`

```
UPD:SSD
```

Output Appendix(es):

```
APP:PORT-STATUS
```

Other Manual(s):
230-701-100 *Air Extension^{SM} Reference Guide*
230-701-120 *Air Extension^{SM} User Guide*

OP:WSDATA-A

Software Release: 5E10 only
Message Class: TM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      OP WSDATA TEST POSITION a
        DN= b[-c]   d     [MLHG=u-v]     ACCESS= w
      j1

[2]   ____________________________________________________________
      OP WSDATA TEST POSITION a
           TKGMN x-y  z                  ACCESS= w
      j1
```

2. REASON FOR OUTPUT

List the most-recent metallic test results for directly connected test unit (DCTU) or subscriber line and intergrated measurement (SLIM) at the specified trunk and line work station (TLWS) test position (TP). Enter the input message OP:WSDATA to get a hard copy of the results shown in the result area of the test position page after test results have been displayed.

Format 1 is for the output of line testing. Format 2 is for the output of trunk testing.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`E` = Signifies that the number that follows is an exponential value.

`EN` = End.

`Ko` = Kilo-Ohms.

`OC` = Open circuit.

`ORIG` = Time call originated (or when monitor started) in hours, minutes, and seconds.

`a` = TP number.

`b` = Telephone number entered.

`c` = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

`d` = Line equipment number, valid values are:

AP=e-f
ILEN=g-h-i-j
LCEN=g-k-l-m
LCKEN=g-k-l-w[3]-x[3]
LEN=g-k-n-o-p-q

```
SLEN=g-r-s-t
```

e = Data link (group) number.

f = Relative link (member) number.

g = Switching module (SM) number.

h = IDCU number.

i = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

j = RT line number or PUB43801 channel.

k = Line unit number.

l = Line group number.

m = Line card number.

n = Grid number.

o = Switch board number (LU1, LU2, or LU3).

p = Switch number.

q = Level number.

r = Digital carrier line unit number.

s = RT number.

t = RT line number.

u = Multi-line hunt group number.

uF = Microfarads.

v = Hunt group member number.

w = Access type, Valid value(s):

AC1 JACK	= Connection to the AC jack number 1.
AC2 JACK	= Connection to the AC jack number 2.
CAMPED ON	= Line or trunk is camped on.
CPE TESTS	= Test customer premises equipment.
DC1 JACK	= Connection to the DC jack number 1.
DC2 JACK	= Connection to the DC jack number 2.
DIG TRANS	= Connection to digital transmission equipment.
IN PROGRESS	= Test or test setup is in progress.
METALLIC	= Connection to metallic measurement equipment.
MONITOR B&I	= Monitor a busy or idle line/trunk.
MONITOR BUSY	= Monitor a busy line/trunk.
SEIZED	= Line or trunk is seized.
SUPERVISION	= Supervisory test running.
TRANSMISSION	= Connection to transmission equipment.

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x = Trunk group number.

y = Trunk member number.

z = Trunk equipment number. Valid value(s):

DEN=g-a^1-b^1-c^1
NEN=g-f^3-g^3-h^3-i^3-j^3
PSUEN=g-k^3-l^3-m^3-n^3
RAF PORT g-d^1-e^1
TEN=g-f^1-g^1-h^1-i^1
SAS PORT g-d^1-e^1

a^1 = Digital line and trunk unit (DLTU) number.

b^1 = Digital facility interface (DFI) number.

c^1 = Channel number.

d^1 = RAF or SAS unit number.

e^1 = RAF or SAS channel number.

f^1 = Trunk unit number.

g^1 = Service group number.

h^1 = Channel board number.

i^1 = Circuit number.

j^1 = Test results. Valid value(s):

[1]

```
  DCTUPORT =   g - g1 -  k1
OC VOLTAGE (VOLTS)
    AC          DC
TG          l1 m2
RG          n1 o2
TR          p1 q2
```

[2]

```
  DCTUPORT =   g - g1 -  k1
RESISTANCE (K-OHMS)
      TG r1
      RG s1
      TR t1
```

[3]

```
  DCTUPORT =   g - g1 -  k1
CAPACITANCE (MICROF)
      TG u1
      RG v1
```

```
            TR w1

[4]   ____________________________________________________________
      <COMBINATION TEST RESULTS>
        DCTUPORT =   g - g1 -  k1
          TG          RG          TR

      AV          l1          n2
      p3
      DV          m1          o2
      q3
      Ko          r1          s2
      t3
      uF          u1          v2
      w3

[5]   ____________________________________________________________
        DCTUPORT =   g - g1  -  k1
      DISTANCE TO OPEN
      x1 [x 1000] FEET
      [DATA MAY BE INVALID]
      [NO TR OPEN DETECTED]

[6]   ____________________________________________________________
        DCTUPORT =   g - g1 -  k1
      HOME TOTALIZER TEST
            MILLIA ST          y1
            MILLIA EN          z1
            ATTEMPTS           a2
            PULSES RCV         b2
```

or

```
  DCTUPORT =   g - g1 -  k1
HOME TOTALIZER TEST

TOTLZR ALREADY HOMED

[7]   ____________________________________________________________
        DCTUPORT =   g - g1 -  k1
      DETECT COIN TEST

        [NO] COIN PRESENT

[8]   ____________________________________________________________
        DCTUPORT =   g - g1 -  k1
      COLLECT COIN TEST
            MILLIA OPR           c2
            SECONDS OPR          d2
            ATTEMPTS             a2
```

or

```
  DCTUPORT =   g - g1 -  k1
COLLECT COIN TEST

    NO COIN
```

[9]

```
  DCTUPORT =   g - g1 -  k1
RETURN COIN TEST
      MILLIA OPR          e2
      SECONDS OPR         d2
      ATTEMPTS            a2
```

or

```
  DCTUPORT =   g - g1 -  k1
RETURN COIN TEST

NO COIN
```

[10]

```
  DCTUPORT =   g - g1 -  k1
RINGER COUNT
      TG          f2
      RG          g2
      TR          h2
```

[11]

```
  DCTUPORT =   g - g1  -  k1
MONITOR FOR SHORT
  TIP/RING STATE IS
       i2
```

[12]

```
<MEASUREMENT RESULTS>

j2 FTON k2    -   Measurement results.
```

[13]

```
<FREQUENCY/LEVEL RESULTS>

FREQ = l2 LEVEL = m2
```

[14]

```
[QUICK] WINK RESULTS
n2 o2:p2
q2 = r2 ms
```

[15]

```
<DIGITAL TRUNK RESULTS>

     ELAPSED     =  s2
     BLKSZ       =  t2
     BER         =  u2  E  -v2
```

```
     ERBLK       =  w2  E  x2

[16] ____________________________________________________________
     <DIGITAL SUBSCRIBER LINE LOOPBACK TESTS>

      {PHEN|ISTFEN} = y2      EQCU = z1
      ELAP =  s1     BLKSZ =  t1
       CHAN        BER          ERBLK
        B1       u2 E -v2
     w2 E x2
        B2       u2 E -v2
     w2 E x2
        D          N/A         w2 E x2

[17] ____________________________________________________________
     <DIGITAL SUBSCRIBER LINE LOOPBACK TESTS>
       OOR NO SYNC

[18] ____________________________________________________________
       USER DEFAULTS ARE SET TO:
     TERM = k3    BLKSZ = n3
     CHAN = l3    TESTEQ = o3
     FREQ = m3    LEVEL = p3
     OPDGTS = [q3]
     T&M NUMBER = r3

[19] ____________________________________________________________
     <AUTOMATIC TESTS>
     a3 [b3] WAS RELEASED
     FOR AUTOMATIC TESTING
     SEE ROP FOR RESULTS

[20] ____________________________________________________________
     <MISMATCH TEST>

[21] ____________________________________________________________
     <DISPLAY DIALED DIGITS>

     ORIG=hh:mm:ss MSG=id
     e3

[22] ____________________________________________________________
           SLIMPORT =   g - k1
     OC VOLTAGE (VOLTS)
                 AC          DC

     TG          l1          m2
     RG          n1          o2
     TR          p1          q2

[23] ____________________________________________________________
           SLIMPORT =   g - k1
```

```
RESISTANCE (K-OHMS)
      TG r1
      RG s1
      TR t1

[24]  ____________________________________________________________
SLIMPORT =   g - k1
CAPACITANCE (MICROF)
      TG u1
      RG v1
      TR w1

[25]  ____________________________________________________________
      <COMBINATION TEST RESULTS>
  SLIMPORT =   g - k1
            TG          RG          TR

AV          l1          n2          p3
DV          m1          o2          q3
Ko          r1          s2          t3
uF          u1          v2          w3

[26]  ____________________________________________________________
SLIMPORT =   g -  k1
DISTANCE TO OPEN

x1 [x 1000] FEET
[DATA MAY BE INVALID]
[NO TR OPEN DETECTED]

[27]  ____________________________________________________________
SLIMPORT =   g - k1
HOME TOTALIZER TEST
      MILLIA ST          y1
      MILLIA EN          z1
      ATTEMPTS           a2
      PULSES RCV         b2f1
      PULSES RCV         b2f1
or
  SLIMPORT =   g - k1
HOME TOTALIZER TEST

TOTLZR ALREADY HOMED

[28]  ____________________________________________________________
SLIMPORT =   g - k1
DETECT COIN TEST

  [NO] COIN PRESENT

[29]  ____________________________________________________________
```

```
SLIMPORT =   g - k1
COLLECT COIN TEST
      MILLIA OPR          c2
      SECONDS OPR         d2
      ATTEMPTS            a2f1
or
  SLIMPORT =   g - k1
COLLECT COIN TEST

NO COIN
```

[30] _____

```
SLIMPORT =   g - k1
RETURN COIN TEST
      MILLIA OPR          e2
      SECONDS OPR         d2
      ATTEMPTS            a2f1
or
SLIMPORT =   g - k1
RETURN COIN TEST

NO COIN
```

[31] _____

```
SLIMPORT =   g - k1
MONITOR FOR SHORT

     TIP/RING STATE IS
          i2
```

[32] _____

```
SLIMPORT =    g - k1
DIAL SPD(Hz):   o3  KEY:  v3
DIAL PUL(%):    p3
```

[33] _____

```
SLIMPORT =    g - k1
FLASH   (ms) :  q3
```

[34] _____

```
SLIMPORT =    g - k1
KEYTONE LVL :  r3 - r3
KEYTONE DIFF:  s3  KEY: v3
KEYTONE FREQ:  t3  t3
```

[35] _____

```
SLIMPORT =   g - k1
LOOP RESISTANCE (OHMS): u3
```

k^1 = Port number.

`l`[1] = AC foreign potential measured tip-to-ground (TG).

`m`[2] = DC foreign potential measured tip-to-ground.

`n`[1] = AC foreign potential measured ring-to-ground (RG).

`o`[2] = DC foreign potential measured ring-to-ground.

`p`[1] = AC foreign potential measured tip-to-ring (TR).

`q`[2] = DC foreign potential measured tip-to-ring.

`r`[1] = Resistance measured tip-to-ground.

`s`[1] = Resistance measured ring-to-ground.

`t`[1] = Resistance measured tip-to-ring.

`u`[1] = Capacitance measured tip-to-ground.

`v`[1] = Capacitance measured ring-to-ground.

`w`[1] = Capacitance measured tip-to-ring.

`x`[1] = Distance in feet, or times 1000 feet (x 1000), to an open on the subscriber's tip-ring loop pair. This measurement is a translated capacitance value based on the fact that, given a particular gauge of wire, the distance two wires run side by side is directly proportional to the capacitance between them (assuming that they are not connected).

Prior to running the distance-to-open test, a check is made to determine whether a tip-to-ring open can be detected. If no open is detected, the warning '`DATA MAY BE INVALID; NO TR OPEN DETECTED`' will be displayed in addition to the translated capacitance of the loop pair.

To determine the capacitance value of the loop pair, or to determine whether there is a tip-to-ring open, perform a metallic capacitance or resistance test on the pair (TST:WSMET).

`y`[1] = Initial current.

`z`[1] = Final current.

`a`[2] = Number of attempts.

`b`[2] = Pulses received from totalizer.

`c`[2] = Current required to operate collect relay.

`d`[2] = Duration of operate current.

`e`[2] = Current required to operate return relay.

`f`[2] = Number of ringers connected tip-to-ground.

`g`[2] = Number of ringers connected ring-to-ground.

`h`[2] = Number of ringers connected tip-to-ring.

`i`[2] = OPEN for open or SHORT for short.

`j`[2] = Frequency (Hz) (404, 1004, or 2804). Valid value(s):

`BBAND`	= Broad-band-level test.
`ERL`	= Echo-return-loss test.
`L404`	= Frequency test at 404 Hz.
`L1004`	= Frequency test at 1004 Hz.
`L2804`	= Frequency test at 2804 Hz.
`N`	= Noise test.
`NWT`	= Noise with tone test.
`SRL`	= Singing-return-loss test.
`SRLHI`	= Singing-return-loss-high test.

`k`[2] = Level in decibels. Valid value(s):

`NOTST`	= No test run.
`OORHI`	= Out-of-range high.
`OORLO`	= Out-of-range low.

`l`[2] = Frequency of tone being sent. Range is 0 to +4095 Hz.

`m`[2] = Level of tone being sent in db. Range is +3.2 to -49.0.

`n`[2] = Time stamp in milliseconds to the beginning of the wink from the near end signaling off-hook.

`o`[2] = State of beginning of wink (on or off).

`p`[2] = Time stamp in milliseconds to the end of the wink from the near end signaling off-hook.

`q`[2] = State of end of wink (on or off).

`r`[2] = Duration time of the wink in milliseconds.

`s`[2] = Elapsed time in seconds since the test started.

`t`[2] = Current block size being used.

`u`[2] = Bit error rate (BER).

`v`[2] = Negative exponential value for BER.

`w`[2] = Number of errored blocks (ERBLK).

`x`[2] = Positive exponential value for ERBLK.

`y`[2] = The test equipment number of the PH/ISTF which the channel is used.

`z`[2] = Number of channel units equipped on an *ANSI*® U-DSL as determined by direct polling.

`a`[3] = The directory number (DN), trunk group and member number (TKGMN), or digital subscriber line (DSL).

`b`[3] = DN of the line or the TKGMN of the trunk.

`c`[3] = Either *ANSI*® or AMI.

d[3] = Line card type (T, AMI, *ANSI*®, or Z).

The mismatch test detects a mismatch of an ISLU linecard (LC) and the first metallic termination beyond the LC on U-DSLs. This test will not detect NT1 mismatches when CUs are present.

The mismatch test also tests for loop resistance that is too high or too low between the tip and ring of the LC connected to the first metallic termination (NT1 or CU) or loop resistance that is too low between tip and ground or ring and ground.

For AMI U-DSLs, the mismatch test will also detect a tip and ring reversal at the AMI NT1.

Display:	Explanation:
c[3] NT1/CU DETECTED NO MISMATCH EXISTS	No mismatch detected. ODD, line card, and NT1 all match.
c[3] NT1/CU DETECTED NT1/CU MISMATCH EXISTS	NT1/CU type (either *ANSI*® or AMI) mismatch between line card and ODD.
d[3] LC DETECTED LC MISMATCH EXISTS	Line card type does not match ODD.
c[3] LC, c[3] NT1/CU DETECTED BOTH LC AND NT1/CU MISMATCH	Line card type does not agree with ODD and NT1/CU does not agree with line card.
AMI NT1 DETECTED TIP/RING REVERSAL	Tip/ring polarity reversal on AMI NT1.
TIP/RING LOOP FAULT	Tip/ground or ring/ground low resistance loop fault.
NT1/CU NOT DETECTABLE TIP TO RING HIGH RESISTANCE	Tip/ring high resistance loop fault (such as, tip/ring open loop or no NT1).
NT1/CU NOT DETECTABLE TIP TO RING LOW RESISTANCE	Tip/ring low resistance loop fault (such as, tip/ring short).
TEST BLOCKED DUE TO LINE CARD SPARING	Mismatch test blocked because ISLU involved in line card sparing.
NT1/CU NOT DETECTABLE FALSE CROSS AND GROUND	False cross and ground failure.
NT1/CU NOT DETECTABLE POWER CROSS DETECTED	Power cross failure
NT1/CU INDETERMINATE	NT1 or CU type can not be determined (possible multiple loop failures).
TEST RESOURCE UNAVAILABLE	Test resources unavailable (such as, equipment busy).

e[3] = Five lines of signals/tones sent or received by the switch, including dialed digits (1234567890#*), and defense switched network (DSN) dialing (F=flash, P=priority, I=immediate, O=over-ride).

Sent by the switch:

??s = Unknown signal sent.
ABC = Abandon call check.
BRG = Barge-in tone.
BUSY = Busy tone.
CCOL = Coin collect.
CRET = Coin return.
CT = Confirmation tone.
CW = Call waiting tone.
DD = Delay dial.
DRF = Double ring forward.
DSAs = DSN alert signal sent.
DSCs = DSN clear wink sent.
DSRs = DSN reuse wink sent.
DSTs = DSN test signal sent.
DT = Dial tone.
ERW = Expensive rate warning.
FBAT = Forward battery.
FLSH = Flash.
HTOT = Home totalizer.
OFHs = Off-hook sent.

OIT	= Operator intrusion tone.
ONHs	= On-hook sent.
OPA	= Operator attached.
OPNI	= Open interval.
OPR	= Operator release.
ORCC	= Operator release coin collect.
PDT	= Party departure tone.
PT	= Preemption tone.
RBAK	= Ring back.
RBAT	= Reverse battery.
RING	= Ring tone.
ROH	= Receiver-off-hook.
RT	= Reorder tone.
STKO	= Stuck off-hook.
WINK	= Wink.
ZIP	= Zip tone.

Received by the switch:

??r	= Unknown signal received.
DSCr	= DSN clear wink received.
DSFr	= DSN wink failure received.
DSRr	= DSN reuse wink received.
DSTr	= DSN test signal received.
KP	= Multi-frequency (MF) start pulse.
OFHr	= Off-hook received.
OFPL	= Off-hook pulse of short duration other than normal off-hook.
ONHr	= On-hook received.
ONPL	= On-hook pulse of short duration other than disconnect (that is, wink, flash).
ST	= MF stop pulse.
ST1	= MF stop pulse.
ST2	= MF stop pulse.
ST3	= MF stop pulse.

f[3] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

g[3] = Data group (DG) number.

h[3] = Synchronous transport signal (STS) number.

i[3] = Virtual tributary 1.5 (VT1.5) number.

j[3] = DS0 number.

k[3] = PSU unit number.

l[3] = PSU shelf number.

m[3] = PSU channel group number.

n[3] = PSU channel group member number.

o[3] = Dial speed of subscribers handset (Hz).

p[3] = Dial speed of subscribers handset (%).

q[3] = Duration time of flash hook in milliseconds (ms).

r[3] = Keytone levels of subscribers handset (db).

s[3] = Keytone difference of subscribers handset (db).

t[3] = Keytone frequence of subscribers handset (Hz).

u[3] = Loop resistance of line (ohms).

v[3] = Key dialed/pressed.

w[3] = Line board number.

x[3] = Line circuit number.

y[3] = Digital test termination point.

z[3] = Digital test channel.

a[4] = Send frequency in hertz.

b[4] = Current block size being used.

c[4] = Test equipment channel display information.

d[4] = Send level in decibels.

e[4] = Outpulse directory number.

f = The phone number of the T&M phone as defined by recent change.

4. ACTION TO BE TAKEN

Refer to the Corrective Maintenance manual for information on the corresponding tests to enter to get the above results.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSDATA
```

Output Message(s):

```
TST:DSL
```

Output Appendix(es):

```
APP:PORT-STATUS
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

OP:WSDATA-B

Software Release: 5E11 only
Message Class: TM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      OP WSDATA TEST POSITION a
        DN= b[-c]   d     [MLHG=u-v]     ACCESS= w
      j1

[2]   ____________________________________________________________
      OP WSDATA TEST POSITION a
           TKGMN x-y  z                  ACCESS= w
      j1
```

2. REASON FOR OUTPUT

List the most-recent metallic test results for directly connected test unit (DCTU) or subscriber line and intergrated measurement (SLIM) at the specified trunk and line work station (TLWS) test position (TP). Enter the input message OP:WSDATA to get a hard copy of the results shown in the result area of the test position page after test results have been displayed.

Format 1 is for the output of line testing. Format 2 is for the output of trunk testing.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`E` = Signifies that the number that follows is an exponential value.

`EN` = End.

`Ko` = Kilo-Ohms.

`OC` = Open circuit.

`ORIG` = Time call originated (or when monitor started) in hours, minutes, and seconds.

`a` = TP number.

`b` = Telephone number entered.

`c` = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

`d` = Line equipment number. Valid value(s):

AP=e-f
ILEN=g-h-i-j
LCEN=g-k-l-m
LCKEN=g-k-l-w[3]-x[3]
LEN=g-k-n-o-p-q

SLEN=g-r-s-t
AIUEN=g-g^4-h^4-i^4

e = Data link (group) number.

f = Relative link (member) number.

g = Switching module (SM) number.

h = IDCU number.

i = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

j = RT line number or PUB43801 channel.

k = Line unit number.

l = Line group number.

m = Line card number.

n = Grid number.

o = Switch board number (LU1, LU2, or LU3).

p = Switch number.

q = Level number.

r = Digital carrier line unit number.

s = RT number.

t = RT line number.

u = Multi-line hunt group number.

uF = Microfarads.

v = Hunt group member number.

w = Access type. Valid value(s):

AC1 JACK = Connection to the AC jack number 1.
AC2 JACK = Connection to the AC jack number 2.
CAMPED ON = Line or trunk is camped on.
CPE TESTS = Test customer premises equipment.
DC1 JACK = Connection to the DC jack number 1.
DC2 JACK = Connection to the DC jack number 2.
DIG TRANS = Connection to digital transmission equipment.
IN PROGRESS = Test or test setup is in progress.
METALLIC = Connection to metallic measurement equipment.
MONITOR B&I = Monitor a busy or idle line/trunk.
MONITOR BUSY = Monitor a busy line/trunk.
SEIZED = Line or trunk is seized.
SUPERVISION = Supervisory test running.
TRANSMISSION = Connection to transmission equipment.

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x = Trunk group number.

y = Trunk member number.

z = Trunk equipment number. Valid value(s):

DEN=g-a^1-b^1-c^1
NEN=g-f^3-g^3-h^3-i^3-j^3
PSUEN=g-k^3-l^3-m^3-n^3
RAF PORT g-d^1-e^1
TEN=g-f^1-g^1-h^1-i^1
SAS PORT g-d^1-e^1

a^1 = Digital line and trunk unit (DLTU) number.

b^1 = Digital facility interface (DFI) number.

c^1 = Channel number.

d^1 = RAF or SAS unit number.

e^1 = RAF or SAS channel number.

f^1 = Trunk unit number.

g^1 = Service group number.

h^1 = Channel board number.

i^1 = Circuit number.

j^1 = Test results. Valid value(s):

[1]

```
  DCTUPORT =   g - g1 -  k1
OC VOLTAGE (VOLTS)
    AC          DC
TG          l1 m2
RG          n1 o2
TR          p1 q2
```

[2]

```
  DCTUPORT =   g - g1 -  k1
RESISTANCE (K-OHMS)
      TG r1
      RG s1
      TR t1
```

[3]

```
  DCTUPORT =   g - g1 -  k1
CAPACITANCE (MICROF)
      TG u1
      RG v1
```

```
            TR w1

[4]   ____________________________________________________________
      <COMBINATION TEST RESULTS>
        DCTUPORT =   g - g1 -  k1
          TG          RG          TR

      AV          l1          n2
      p3
      DV          m1          o2
      q3
      Ko          r1          s2
      t3
      uF          u1          v2
      w3

[5]   ____________________________________________________________
        DCTUPORT =   g - g1  -  k1
      DISTANCE TO OPEN
      x1 [x 1000] FEET
      [DATA MAY BE INVALID]
      [NO TR OPEN DETECTED]

[6]   ____________________________________________________________
        DCTUPORT =   g - g1 -  k1
      HOME TOTALIZER TEST
            MILLIA ST          y1
            MILLIA EN          z1
            ATTEMPTS           a2
            PULSES RCV         b2
```

or

```
  DCTUPORT =   g - g1 -  k1
HOME TOTALIZER TEST

TOTLZR ALREADY HOMED

[7]   ____________________________________________________________
        DCTUPORT =   g - g1 -  k1
      DETECT COIN TEST

        [NO] COIN PRESENT

[8]   ____________________________________________________________
        DCTUPORT =   g - g1 -  k1
      COLLECT COIN TEST
            MILLIA OPR           c2
            SECONDS OPR          d2
            ATTEMPTS             a2
```

or

```
  DCTUPORT =   g - g1 -  k1
COLLECT COIN TEST

    NO COIN
```

[9]

```
  DCTUPORT =   g - g1 -  k1
RETURN COIN TEST
      MILLIA OPR          e2
      SECONDS OPR         d2
      ATTEMPTS            a2
```

or

```
  DCTUPORT =   g - g1 -  k1
RETURN COIN TEST

NO COIN
```

[10]

```
  DCTUPORT =   g - g1 -  k1
RINGER COUNT
      TG          f2
      RG          g2
      TR          h2
```

[11]

```
  DCTUPORT =   g - g1  -  k1
MONITOR FOR SHORT
  TIP/RING STATE IS
       i2
```

[12]

```
<MEASUREMENT RESULTS>

j2 FTON k2    -   Measurement results.
```

[13]

```
<FREQUENCY/LEVEL RESULTS>

FREQ = l2 LEVEL = m2
```

[14]

```
[QUICK] WINK RESULTS
n2 o2:p2
q2 = r2 ms
```

[15]

```
<DIGITAL TRUNK RESULTS>
     ELAPSED     =  s2
     BLKSZ       =  t2
     BER         =  u2  E  -v2
     ERBLK       =  w2  E  x2
```

[16]
```
<DIGITAL SUBSCRIBER LINE LOOPBACK TESTS>

 {PHEN|ISTFEN} = y2      EQCU = z1
 ELAP =  s1     BLKSZ =  t1
  CHAN        BER          ERBLK
   B1       u2 E -v2
w2 E x2
   B2       u2 E -v2
w2 E x2
   D          N/A         w2 E x2
```

[17]
```
<DIGITAL SUBSCRIBER LINE LOOPBACK TESTS>
  OOR NO SYNC
```

[18]
```
  USER DEFAULTS ARE SET TO:
TERM = k3    BLKSZ = n3
CHAN = l3    TESTEQ = o3
FREQ = m3    LEVEL = p3
OPDGTS = [q3]
T&M NUMBER = r3
```

[19]
```
<AUTOMATIC TESTS>
a3 [b3] WAS RELEASED
FOR AUTOMATIC TESTING
SEE ROP FOR RESULTS
```

[20]
```
<MISMATCH TEST>
```

[21]
```
<DISPLAY DIALED DIGITS>

ORIG=hh:mm:ss MSG=id
e3
```

[22]
```
      SLIMPORT =   g - k1
OC VOLTAGE (VOLTS)
            AC          DC

TG          l1          m2
RG          n1          o2
TR          p1          q2
```

[23]
```
      SLIMPORT =   g - k1
RESISTANCE (K-OHMS)
```

```
      TG r1
      RG s1
      TR t1

[24]  ____________________________________________________________________
      SLIMPORT =   g - k1
      CAPACITANCE (MICROF)
      TG u1
      RG v1
      TR w1

[25]  ____________________________________________________________________
      <COMBINATION TEST RESULTS>
  SLIMPORT =   g - k1
            TG          RG          TR

      AV          l1          n2
      p3
      DV          m1          o2
      q3
      Ko          r1          s2
      t3
      uF          u1          v2
      w3

[26]  ____________________________________________________________________
      SLIMPORT =   g -  k1
      DISTANCE TO OPEN

      x1 [x 1000] FEET
      [DATA MAY BE INVALID]
      [NO TR OPEN DETECTED]

[27]  ____________________________________________________________________
      SLIMPORT =   g - k1
      HOME TOTALIZER TEST
      MILLIA ST          y1
      MILLIA EN          z1
      ATTEMPTS           a2
      PULSES RCV         b2f1
      PULSES RCV         b2f1
      or
  SLIMPORT =   g - k1
      HOME TOTALIZER TEST

      TOTLZR ALREADY HOMED

[28]  ____________________________________________________________________
      SLIMPORT =   g - k1
      DETECT COIN TEST
```

[NO] COIN PRESENT

[29] _____

SLIMPORT = g - k^1
COLLECT COIN TEST
MILLIA OPR c^2
SECONDS OPR d^2
ATTEMPTS a^2f1
or
SLIMPORT = g - k^1
COLLECT COIN TEST

NO COIN

[30] _____

SLIMPORT = g - k^1
RETURN COIN TEST
MILLIA OPR e^2
SECONDS OPR d^2
ATTEMPTS a^2f1
or
SLIMPORT = g - k^1
RETURN COIN TEST

NO COIN

[31] _____

SLIMPORT = g - k^1
MONITOR FOR SHORT

TIP/RING STATE IS
i^2

[32] _____

SLIMPORT = g - k^1
DIAL SPD(Hz): o^3 KEY: v^3
DIAL PUL(%): p^3

[33] _____

SLIMPORT = g - k^1
FLASH (ms) : q^3

[34] _____

SLIMPORT = g - k^1
KEYTONE LVL : r^3 - r^3
KEYTONE DIFF: s^3 KEY: v^3
KEYTONE FREQ: t^3 t^3

[35] _____

SLIMPORT = g - k^1
LOOP RESISTANCE (OHMS): u^3

k[1] = Port number.

l[1] = AC foreign potential measured tip-to-ground (TG).

m[2] = DC foreign potential measured tip-to-ground.

n[1] = AC foreign potential measured ring-to-ground (RG).

o[2] = DC foreign potential measured ring-to-ground.

p[1] = AC foreign potential measured tip-to-ring (TR).

q[2] = DC foreign potential measured tip-to-ring.

r[1] = Resistance measured tip-to-ground.

s[1] = Resistance measured ring-to-ground.

t[1] = Resistance measured tip-to-ring.

u[1] = Capacitance measured tip-to-ground.

v[1] = Capacitance measured ring-to-ground.

w[1] = Capacitance measured tip-to-ring.

x[1] = Distance in feet, or times 1000 feet (x 1000), to an open on the subscriber's tip-ring loop pair. This measurement is a translated capacitance value based on the fact that, given a particular gauge of wire, the distance two wires run side by side is directly proportional to the capacitance between them (assuming that they are not connected).

Prior to running the distance-to-open test, a check is made to determine whether a tip-to-ring open can be detected. If no open is detected, the warning '`DATA MAY BE INVALID; NO TR OPEN DETECTED`' will be displayed in addition to the translated capacitance of the loop pair.

To determine the capacitance value of the loop pair, or to determine whether there is a tip-to-ring open, perform a metallic capacitance or resistance test on the pair (TST:WSMET).

y[1] = Initial current.

z[1] = Final current.

a[2] = Number of attempts.

b[2] = Pulses received from totalizer.

c[2] = Current required to operate collect relay.

d[2] = Duration of operate current.

e[2] = Current required to operate return relay.

f[2] = Number of ringers connected tip-to-ground.

g[2] = Number of ringers connected ring-to-ground.

h[2] = Number of ringers connected tip-to-ring.

i[2] = OPEN for open or SHORT for short.

j[2] = Frequency (Hz) (404, 1004, or 2804). Valid value(s):

BBAND	= Broad-band-level test.
ERL	= Echo-return-loss test.
L404	= Frequency test at 404 Hz.
L1004	= Frequency test at 1004 Hz.
L2804	= Frequency test at 2804 Hz.
N	= Noise test.
NWT	= Noise with tone test.
SRL	= Singing-return-loss test.
SRLHI	= Singing-return-loss-high test.

k[2] = Level in decibels. Valid value(s):

NOTST	= No test run.
OORHI	= Out-of-range high.
OORLO	= Out-of-range low.

l[2] = Frequency of tone being sent. Range is 0 to +4095 Hz.

m[2] = Level of tone being sent in db. Range is +3.2 to -49.0.

n[2] = Time stamp in milliseconds to the beginning of the wink from the near end signaling off-hook.

o[2] = State of beginning of wink (on or off).

p[2] = Time stamp in milliseconds to the end of the wink from the near end signaling off-hook.

q[2] = State of end of wink (on or off).

r[2] = Duration time of the wink in milliseconds.

s[2] = Elapsed time in seconds since the test started.

t[2] = Current block size being used.

u[2] = Bit error rate (BER).

v[2] = Negative exponential value for BER.

w[2] = Number of errored blocks (ERBLK).

x[2] = Positive exponential value for ERBLK.

y[2] = The test equipment number of the PH/ISTF which the channel is used.

z[2] = Number of channel units equipped on an *ANSI*® U-DSL as determined by direct polling.

a[3] = The directory number (DN), trunk group and member number (TKGMN), or digital subscriber line (DSL).

b[3] = DN of the line or the TKGMN of the trunk.

c[3] = Either *ANSI*® or AMI.

d[3] = Line card type (T, AMI, *ANSI*®, or Z).

The mismatch test detects a mismatch of an ISLU linecard (LC) and the first metallic termination beyond the LC on U-DSLs. This test will not detect NT1 mismatches when CUs are present.

The mismatch test also tests for loop resistance that is too high or too low between the tip and ring of the LC connected to the first metallic termination (NT1 or CU) or loop resistance that is too low between tip and ground or ring and ground.

For AMI U-DSLs, the mismatch test will also detect a tip and ring reversal at the AMI NT1.

Display:	Explanation:
c[3] NT1/CU DETECTED NO MISMATCH EXISTS	No mismatch detected. ODD, line card, and NT1 all match.
c[3] NT1/CU DETECTED NT1/CU MISMATCH EXISTS	NT1/CU type (either *ANSI*® or AMI) mismatch between line card and ODD.
d[3] LC DETECTED LC MISMATCH EXISTS	Line card type does not match ODD.
c[3] LC, c[3] NT1/CU DETECTED BOTH LC AND NT1/CU MISMATCH	Line card type does not agree with ODD and NT1/CU does not agree with line card.
AMI NT1 DETECTED TIP/RING REVERSAL	Tip/ring polarity reversal on AMI NT1.
TIP/RING LOOP FAULT	Tip/ground or ring/ground low resistance loop fault.
NT1/CU NOT DETECTABLE TIP TO RING HIGH RESISTANCE	Tip/ring high resistance loop fault (such as, tip/ring open loop or no NT1).
NT1/CU NOT DETECTABLE TIP TO RING LOW RESISTANCE	Tip/ring low resistance loop fault (such as, tip/ring short).
TEST BLOCKED DUE TO LINE CARD SPARING	Mismatch test blocked because ISLU involved in line card sparing.
NT1/CU NOT DETECTABLE FALSE CROSS AND GROUND	False cross and ground failure.
NT1/CU NOT DETECTABLE POWER CROSS DETECTED	Power cross failure
NT1/CU INDETERMINATE	NT1 or CU type can not be determined (possible multiple loop failures).
TEST RESOURCE UNAVAILABLE	Test resources unavailable (such as, equipment busy).

e[3] = Five lines of signals/tones sent or received by the switch, including dialed digits (1234567890#*), and defense switched network (DSN) dialing (F=flash, P=priority, I=immediate, O=over-ride).

Sent by the switch:

??s = Unknown signal sent.
ABC = Abandon call check.
BRG = Barge-in tone.
BUSY = Busy tone.
CCOL = Coin collect.
CRET = Coin return.
CT = Confirmation tone.
CW = Call waiting tone.
DD = Delay dial.
DRF = Double ring forward.
DSAs = DSN alert signal sent.
DSCs = DSN clear wink sent.
DSRs = DSN reuse wink sent.
DSTs = DSN test signal sent.
DT = Dial tone.
ERW = Expensive rate warning.
FBAT = Forward battery.

FLSH	= Flash.
HTOT	= Home totalizer.
OFHs	= Off-hook sent.
OIT	= Operator intrusion tone.
ONHs	= On-hook sent.
OPA	= Operator attached.
OPNI	= Open interval.
OPR	= Operator release.
ORCC	= Operator release coin collect.
PDT	= Party departure tone.
PT	= Preemption tone.
RBAK	= Ring back.
RBAT	= Reverse battery.
RING	= Ring tone.
ROH	= Receiver-off-hook.
RT	= Reorder tone.
STKO	= Stuck off-hook.
WINK	= Wink.
ZIP	= Zip tone.

Received by the switch:

??r	= Unknown signal received.
DSCr	= DSN clear wink received.
DSFr	= DSN wink failure received.
DSRr	= DSN reuse wink received.
DSTr	= DSN test signal received.
KP	= Multi-frequency (MF) start pulse.
OFHr	= Off-hook received.
OFPL	= Off-hook pulse of short duration other than normal off-hook.
ONHr	= On-hook received.
ONPL	= On-hook pulse of short duration other than disconnect (that is, wink, flash).
ST	= MF stop pulse.
ST1	= MF stop pulse.
ST2	= MF stop pulse.
ST3	= MF stop pulse.

f[3] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

g[3] = Data group (DG) number.

h[3] = Synchronous transport signal (STS) number.

i[3] = Virtual tributary 1.5 (VT1.5) number.

j[3] = DS0 number.

k[3] = PSU unit number.

l[3] = PSU shelf number.

m[3] = PSU channel group number.

n[3] = PSU channel group member number.

o[3] = Dial speed of subscribers handset (Hz).

p[3] = Dial speed of subscribers handset (%).

q[3] = Duration time of flash hook in milliseconds (ms).

r[3] = Keytone levels of subscribers handset (db).

s[3] = Keytone difference of subscribers handset (db).

t[3] = Keytone frequence of subscribers handset (Hz).

u[3] = Loop resistance of line (ohms).

v[3] = Key dialed/pressed.

w[3] = Line board number.

x[3] = Line circuit number.

y[3] = Digital test termination point.

z[3] = Digital test channel.

a[4] = Send frequency in hertz.

b[4] = Current block size being used.

c[4] = Test equipment channel display information.

d[4] = Send level in decibels.

e[4] = Outpulse directory number.

f[4] = The phone number of the T&M phone as defined by recent change.

g[4] = Access interface unit (AIU) number.

h[4] = AIU line pack number.

i[4] = AIU line circuit number.

4. ACTION TO BE TAKEN

Refer to the Corrective Maintenance manual for information on the corresponding tests to enter to get the above results.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSDATA
```

Output Message(s):

```
TST:DSL
```

Output Appendix(es):

```
APP:PORT-STATUS
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

OP:WSDATA-C

Software Release: 5E12 only
Message Class: TM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      OP WSDATA TEST POSITION a
        DN= b[-c]   d     [MLHG=u-v]     ACCESS= w
      j1

[2]   ____________________________________________________________
      OP WSDATA TEST POSITION a
           TKGMN x-y  z                  ACCESS= w
      j1
```

2. REASON FOR OUTPUT

List the most-recent metallic test results for directly connected test unit (DCTU) or subscriber line and intergrated measurement (SLIM) at the specified trunk and line work station (TLWS) test position (TP). Enter the input message OP:WSDATA to get a hard copy of the results shown in the result area of the test position page after test results have been displayed.

Format 1 is for the output of line testing. Format 2 is for the output of trunk testing.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

E = Signifies that the number that follows is an exponential value.

EN = End.

Ko = Kilo-Ohms.

OC = Open circuit.

ORIG = Time call originated (or when monitor started) in hours, minutes, and seconds.

a = TP number.

b = Telephone number entered.

c = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

d = Line equipment number. Valid value(s):

AP=e-f
ILEN=g-h-i-j
INEN=g-j[4]-i-j
LCEN=g-k-l-m
LCKEN=g-k-l-w[3]-x[3]

LEN=g-k-n-o-p-q
SLEN=g-r-s-t
AIUEN=g-g^4-h^4-i^4

e = Data link (group) number.

f = Relative link (member) number.

g = Switching module (SM) number.

h = IDCU number.

i = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

j = RT line number or PUB43801 channel.

k = Line unit number.

l = Line group number.

m = Line card number.

n = Grid number.

o = Switch board number (LU1, LU2, or LU3).

p = Switch number.

q = Level number.

r = Digital carrier line unit number.

s = RT number.

t = RT line number.

u = Multi-line hunt group number.

uF = Microfarads.

v = Hunt group member number.

w = Access type. Valid value(s):

AC1 JACK = Connection to the AC jack number 1.
AC2 JACK = Connection to the AC jack number 2.
CAMPED ON = Line or trunk is camped on.
CPE TESTS = Test customer premises equipment.
DC1 JACK = Connection to the DC jack number 1.
DC2 JACK = Connection to the DC jack number 2.
DIG TRANS = Connection to digital transmission equipment.
IN PROGRESS = Test or test setup is in progress.
METALLIC = Connection to metallic measurement equipment.
MONITOR B&I = Monitor a busy or idle line/trunk.
MONITOR BUSY = Monitor a busy line/trunk.
SEIZED = Line or trunk is seized.
SUPERVISION = Supervisory test running.

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TRANSMISSION = Connection to transmission equipment.

x = Trunk group number.

y = Trunk member number.

z = Trunk equipment number. Valid value(s):

DEN=g-a^1-b^1-c^1
INEN=g-j^4-i-j
NEN=g-f^3-g^3-h^3-i^3-j^3
PSUEN=g-k^3-l^3-m^3-n^3
RAF PORT g-d^1-e^1
TEN=g-f^1-g^1-h^1-i^1
SAS PORT g-d^1-e^1

a^1 = Digital line and trunk unit (DLTU) number.

b^1 = Digital facility interface (DFI) number.

c^1 = Channel number.

d^1 = RAF or SAS unit number.

e^1 = RAF or SAS channel number.

f^1 = Trunk unit number.

g^1 = Service group number.

h^1 = Channel board number.

i^1 = Circuit number.

j^1 = Test results. Valid value(s):

[1]

```
  DCTUPORT =   g - g1 -  k1
OC VOLTAGE (VOLTS)
    AC          DC
TG          l1 m2
RG          n1 o2
TR          p1 q2
```

[2]

```
  DCTUPORT =   g - g1 -  k1
RESISTANCE (K-OHMS)
      TG r1
      RG s1
      TR t1
```

[3]

```
  DCTUPORT =   g - g1 -  k1
CAPACITANCE (MICROF)
```

```
            TG u1
            RG v1
            TR w1

[4]   ____________________________________________________________________
      <COMBINATION TEST RESULTS>
        DCTUPORT =   g - g1 -  k1
          TG          RG          TR

      AV          l1          n2
      p3
      DV          m1          o2
      q3
      Ko          r1          s2
      t3
      uF          u1          v2
      w3

[5]   ____________________________________________________________________
        DCTUPORT =   g - g1  -  k1
      DISTANCE TO OPEN
      x1 [x 1000] FEET
      [DATA MAY BE INVALID]
      [NO TR OPEN DETECTED]

[6]   ____________________________________________________________________
        DCTUPORT =   g - g1 -  k1
      HOME TOTALIZER TEST
            MILLIA ST          y1
            MILLIA EN          z1
            ATTEMPTS           a2
            PULSES RCV         b2
```

or

```
  DCTUPORT =   g - g1 -  k1
HOME TOTALIZER TEST

TOTLZR ALREADY HOMED

[7]   ____________________________________________________________________
        DCTUPORT =   g - g1 -  k1
      DETECT COIN TEST

        [NO] COIN PRESENT

[8]   ____________________________________________________________________
        DCTUPORT =   g - g1 -  k1
      COLLECT COIN TEST
            MILLIA OPR           c2
            SECONDS OPR          d2
            ATTEMPTS             a2
```

or

```
  DCTUPORT =   g - g1 -  k1
COLLECT COIN TEST

    NO COIN
```

[9]

```
  DCTUPORT =   g - g1 -  k1
RETURN COIN TEST
      MILLIA OPR          e2
      SECONDS OPR         d2
      ATTEMPTS            a2
```

or

```
  DCTUPORT =   g - g1 -  k1
RETURN COIN TEST

NO COIN
```

[10]

```
  DCTUPORT =   g - g1 -  k1
RINGER COUNT
      TG          f2
      RG          g2
      TR          h2
```

[11]

```
  DCTUPORT =   g - g1  -  k1
MONITOR FOR SHORT
  TIP/RING STATE IS
       i2
```

[12]

```
<MEASUREMENT RESULTS>

j2 FTON k2    -   Measurement results.
```

[13]

```
<FREQUENCY/LEVEL RESULTS>

FREQ = l2 LEVEL = m2
```

[14]

```
[QUICK] WINK RESULTS
n2 o2:p2
q2 = r2 ms
```

[15]

```
<DIGITAL TRUNK RESULTS>
     ELAPSED     =  s2
     BLKSZ       =  t2
```

```
     BER         =  u2  E  -v2
     ERBLK       =  w2  E  x2

[16] ____________________________________________________________________
     <DIGITAL SUBSCRIBER LINE LOOPBACK TESTS>

      {PHEN|ISTFEN} = y2      EQCU = z1
      ELAP =  s1     BLKSZ =  t1
       CHAN        BER          ERBLK
        B1       u2 E -v2
     w2 E x2
        B2       u2 E -v2
     w2 E x2
        D          N/A         w2 E x2

[17] ____________________________________________________________________
     <DIGITAL SUBSCRIBER LINE LOOPBACK TESTS>
       OOR NO SYNC

[18] ____________________________________________________________________
       USER DEFAULTS ARE SET TO:
     TERM = k3    BLKSZ = n3
     CHAN = l3    TESTEQ = o3
     FREQ = m3    LEVEL = p3
     OPDGTS = [q3]
     T&M NUMBER = r3

[19] ____________________________________________________________________
     <AUTOMATIC TESTS>
     a3 [b3] WAS RELEASED
     FOR AUTOMATIC TESTING
     SEE ROP FOR RESULTS

[20] ____________________________________________________________________
     <MISMATCH TEST>

[21] ____________________________________________________________________
     <DISPLAY DIALED DIGITS>

     ORIG=hh:mm:ss MSG=id
     e3

[22] ____________________________________________________________________
           SLIMPORT =   g - k1
     OC VOLTAGE (VOLTS)
                AC          DC

     TG         l1          m2
     RG         n1          o2
     TR         p1          q2

[23] ____________________________________________________________________
```

```
      SLIMPORT =   g - k1
RESISTANCE (K-OHMS)
      TG r1
      RG s1
      TR t1
```

[24]

```
SLIMPORT =   g - k1
CAPACITANCE (MICROF)
      TG u1
      RG v1
      TR w1
```

[25]

```
      <COMBINATION TEST RESULTS>
  SLIMPORT =   g - k1
            TG          RG          TR

AV          l1          n2          p3
DV          m1          o2          q3
Ko          r1          s2          t3
uF          u1          v2          w3
```

[26]

```
SLIMPORT =   g -  k1
DISTANCE TO OPEN

x1 [x 1000] FEET
[DATA MAY BE INVALID]
[NO TR OPEN DETECTED]
```

[27]

```
SLIMPORT =   g - k1
HOME TOTALIZER TEST
      MILLIA ST          y1
      MILLIA EN          z1
      ATTEMPTS           a2
      PULSES RCV         b2f1
      PULSES RCV         b2f1
or
  SLIMPORT =   g - k1
HOME TOTALIZER TEST

TOTLZR ALREADY HOMED
```

[28]

```
SLIMPORT =   g - k1
DETECT COIN TEST

  [NO] COIN PRESENT
```

[29] _____

```
SLIMPORT =   g - k1
COLLECT COIN TEST
      MILLIA OPR          c2
      SECONDS OPR         d2
      ATTEMPTS            a2f1
or
  SLIMPORT =   g - k1
COLLECT COIN TEST

NO COIN
```

[30] _____

```
SLIMPORT =   g - k1
RETURN COIN TEST
      MILLIA OPR          e2
      SECONDS OPR         d2
      ATTEMPTS            a2f1
or
SLIMPORT =   g - k1
RETURN COIN TEST

NO COIN
```

[31] _____

```
SLIMPORT =   g - k1
MONITOR FOR SHORT
     TIP/RING STATE IS
          i2
```

[32] _____

```
SLIMPORT =    g - k1
DIAL SPD(Hz):   o3  KEY:  v3
DIAL PUL(%):    p3
```

[33] _____

```
SLIMPORT =    g - k1
FLASH   (ms) :  q3
```

[34] _____

```
SLIMPORT =    g - k1
KEYTONE LVL :  r3 - r3
KEYTONE DIFF:  s3  KEY: v3
KEYTONE FREQ:  t3  t3
```

[35] _____

```
SLIMPORT =   g - k1
LOOP RESISTANCE (OHMS): u3
```

k^1 = Port number.

`l`[1] = AC foreign potential measured tip-to-ground (TG).

`m`[2] = DC foreign potential measured tip-to-ground.

`n`[1] = AC foreign potential measured ring-to-ground (RG).

`o`[2] = DC foreign potential measured ring-to-ground.

`p`[1] = AC foreign potential measured tip-to-ring (TR).

`q`[2] = DC foreign potential measured tip-to-ring.

`r`[1] = Resistance measured tip-to-ground.

`s`[1] = Resistance measured ring-to-ground.

`t`[1] = Resistance measured tip-to-ring.

`u`[1] = Capacitance measured tip-to-ground.

`v`[1] = Capacitance measured ring-to-ground.

`w`[1] = Capacitance measured tip-to-ring.

`x`[1] = Distance in feet, or times 1000 feet (x 1000), to an open on the subscriber's tip-ring loop pair. This measurement is a translated capacitance value based on the fact that, given a particular gauge of wire, the distance two wires run side by side is directly proportional to the capacitance between them (assuming that they are not connected).

Prior to running the distance-to-open test, a check is made to determine whether a tip-to-ring open can be detected. If no open is detected, the warning '`DATA MAY BE INVALID; NO TR OPEN DETECTED`' will be displayed in addition to the translated capacitance of the loop pair.

To determine the capacitance value of the loop pair, or to determine whether there is a tip-to-ring open, perform a metallic capacitance or resistance test on the pair (TST:WSMET).

`y`[1] = Initial current.

`z`[1] = Final current.

`a`[2] = Number of attempts.

`b`[2] = Pulses received from totalizer.

`c`[2] = Current required to operate collect relay.

`d`[2] = Duration of operate current.

`e`[2] = Current required to operate return relay.

`f`[2] = Number of ringers connected tip-to-ground.

`g`[2] = Number of ringers connected ring-to-ground.

`h`[2] = Number of ringers connected tip-to-ring.

`i`[2] = OPEN for open or SHORT for short.

`j`[2] = Frequency (Hz) (404, 1004, or 2804). Valid value(s):

`BBAND`	= Broad-band-level test.
`ERL`	= Echo-return-loss test.
`L404`	= Frequency test at 404 Hz.
`L1004`	= Frequency test at 1004 Hz.
`L2804`	= Frequency test at 2804 Hz.
`N`	= Noise test.
`NWT`	= Noise with tone test.
`SRL`	= Singing-return-loss test.
`SRLHI`	= Singing-return-loss-high test.

`k`[2] = Level in decibels. Valid value(s):

`NOTST`	= No test run.
`OORHI`	= Out-of-range high.
`OORLO`	= Out-of-range low.

`l`[2] = Frequency of tone being sent. Range is 0 to +4095 Hz.

`m`[2] = Level of tone being sent in db. Range is +3.2 to -49.0.

`n`[2] = Time stamp in milliseconds to the beginning of the wink from the near end signaling off-hook.

`o`[2] = State of beginning of wink (on or off).

`p`[2] = Time stamp in milliseconds to the end of the wink from the near end signaling off-hook.

`q`[2] = State of end of wink (on or off).

`r`[2] = Duration time of the wink in milliseconds.

`s`[2] = Elapsed time in seconds since the test started.

`t`[2] = Current block size being used.

`u`[2] = Bit error rate (BER).

`v`[2] = Negative exponential value for BER.

`w`[2] = Number of errored blocks (ERBLK).

`x`[2] = Positive exponential value for ERBLK.

`y`[2] = The test equipment number of the PH/ISTF which the channel is used.

`z`[2] = Number of channel units equipped on an *ANSI*® U-DSL as determined by direct polling.

`a`[3] = The directory number (DN), trunk group and member number (TKGMN), or digital subscriber line (DSL).

`b`[3] = DN of the line or the TKGMN of the trunk.

`c`[3] = Either *ANSI*® or AMI.

d[3] = Line card type (T, AMI, *ANSI*®, or Z).

The mismatch test detects a mismatch of an ISLU linecard (LC) and the first metallic termination beyond the LC on U-DSLs. This test will not detect NT1 mismatches when CUs are present.

The mismatch test also tests for loop resistance that is too high or too low between the tip and ring of the LC connected to the first metallic termination (NT1 or CU) or loop resistance that is too low between tip and ground or ring and ground.

For AMI U-DSLs, the mismatch test will also detect a tip and ring reversal at the AMI NT1.

Display:	Explanation:
c[3] NT1/CU DETECTED NO MISMATCH EXISTS	No mismatch detected. ODD, line card, and NT1 all match.
c[3] NT1/CU DETECTED NT1/CU MISMATCH EXISTS	NT1/CU type (either *ANSI*® or AMI) mismatch between line card and ODD.
d[3] LC DETECTED LC MISMATCH EXISTS	Line card type does not match ODD.
c[3] LC, c[3] NT1/CU DETECTED BOTH LC AND NT1/CU MISMATCH	Line card type does not agree with ODD and NT1/CU does not agree with line card.
AMI NT1 DETECTED TIP/RING REVERSAL	Tip/ring polarity reversal on AMI NT1.
TIP/RING LOOP FAULT	Tip/ground or ring/ground low resistance loop fault.
NT1/CU NOT DETECTABLE TIP TO RING HIGH RESISTANCE	Tip/ring high resistance loop fault (such as, tip/ring open loop or no NT1).
NT1/CU NOT DETECTABLE TIP TO RING LOW RESISTANCE	Tip/ring low resistance loop fault (such as, tip/ring short).
TEST BLOCKED DUE TO LINE CARD SPARING	Mismatch test blocked because ISLU involved in line card sparing.
NT1/CU NOT DETECTABLE FALSE CROSS AND GROUND	False cross and ground failure.
NT1/CU NOT DETECTABLE POWER CROSS DETECTED	Power cross failure
NT1/CU INDETERMINATE	NT1 or CU type can not be determined (possible multiple loop failures).
TEST RESOURCE UNAVAILABLE	Test resources unavailable (such as, equipment busy).

e[3] = Five lines of signals/tones sent or received by the switch, including dialed digits (1234567890#*), and defense switched network (DSN) dialing (F=flash, P=priority, I=immediate, O=over-ride).

Sent by the switch:

??s = Unknown signal sent.
ABC = Abandon call check.
BRG = Barge-in tone.
BUSY = Busy tone.
CCOL = Coin collect.
CRET = Coin return.
CT = Confirmation tone.
CW = Call waiting tone.
DD = Delay dial.
DRF = Double ring forward.
DSAs = DSN alert signal sent.
DSCs = DSN clear wink sent.
DSRs = DSN reuse wink sent.
DSTs = DSN test signal sent.
DT = Dial tone.
ERW = Expensive rate warning.
FBAT = Forward battery.
FLSH = Flash.
HTOT = Home totalizer.
OFHs = Off-hook sent.

OIT	= Operator intrusion tone.
ONHs	= On-hook sent.
OPA	= Operator attached.
OPNI	= Open interval.
OPR	= Operator release.
ORCC	= Operator release coin collect.
PDT	= Party departure tone.
PT	= Preemption tone.
RBAK	= Ring back.
RBAT	= Reverse battery.
RING	= Ring tone.
ROH	= Receiver-off-hook.
RT	= Reorder tone.
STKO	= Stuck off-hook.
WINK	= Wink.
ZIP	= Zip tone.

Received by the switch:

??r	= Unknown signal received.
DSCr	= DSN clear wink received.
DSFr	= DSN wink failure received.
DSRr	= DSN reuse wink received.
DSTr	= DSN test signal received.
KP	= Multi-frequency (MF) start pulse.
OFHr	= Off-hook received.
OFPL	= Off-hook pulse of short duration other than normal off-hook.
ONHr	= On-hook received.
ONPL	= On-hook pulse of short duration other than disconnect (that is, wink, flash).
ST	= MF stop pulse.
ST1	= MF stop pulse.
ST2	= MF stop pulse.
ST3	= MF stop pulse.

f[3] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

g[3] = Data group (DG) number.

h[3] = Synchronous transport signal (STS) number.

i[3] = Virtual tributary 1.5 (VT1.5) number.

j[3] = DS0 number.

k[3] = PSU unit number.

l[3] = PSU shelf number.

m[3] = PSU channel group number.

n[3] = PSU channel group member number.

o[3] = Dial speed of subscribers handset (Hz).

p[3] = Dial speed of subscribers handset (%).

q[3] = Duration time of flash hook in milliseconds (ms).

r[3] = Keytone levels of subscribers handset (db).

s[3] = Keytone difference of subscribers handset (db).

t[3] = Keytone frequence of subscribers handset (Hz).

u[3] = Loop resistance of line (ohms).

v[3] = Key dialed/pressed.

w[3] = Line board number.

x[3] = Line circuit number.

y[3] = Digital test termination point.

z[3] = Digital test channel.

a[4] = Send frequency in hertz.

b[4] = Current block size being used.

c[4] = Test equipment channel display information.

d[4] = Send level in decibels.

e[4] = Outpulse directory number.

f[4] = The phone number of the T&M phone as defined by recent change.

g[4] = Access interface unit (AIU) number.

h[4] = AIU line pack number.

i[4] = AIU line circuit number.

j[4] = DNU number.

4. ACTION TO BE TAKEN

Refer to the Corrective Maintenance manual for information on the corresponding tests to enter to get the above results.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSDATA
```

Output Message(s):

```
TST:DSL
```

Output Appendix(es):

```
APP:PORT-STATUS
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

OP:WSDATA-D

Software Release: 5E13 and later
Message Class: TM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP WSDATA TEST POSITION a
        DN= b[-c]   d     [MLHG=u-v]     ACCESS= w
      j1

[2]   ____________________________________________________________________
      OP WSDATA TEST POSITION a
           TKGMN x-y  z                  ACCESS= w
      j1

[3]   ____________________________________________________________________
      OP WSDATA TEST POSITION a
        DN= b[-c]         l4             ACCESS= w
      j1
```

2. REASON FOR OUTPUT

List the most-recent metallic test results for directly connected test unit (DCTU) or subscriber line and intergrated measurement (SLIM) at the specified trunk and line work station (TLWS) test position (TP). Enter the input message OP:WSDATA to get a hard copy of the results shown in the result area of the test position page after test results have been displayed.

Format 1 is for the output of line testing. Format 2 is for the output of trunk testing.

3. VARIABLE FIELD DEFINITIONS

`E` = Signifies that the number that follows is an exponential value.

`EN` = End.

`Ko` = Kilo-Ohms.

`OC` = Open circuit.

`ORIG` = Time call originated (or when monitor started) in hours, minutes, and seconds.

`a` = TP number.

`b` = Telephone number entered.

`c` = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

`d` = Line equipment number. Valid value(s):

```
AP=e-f
 ILEN=g-h-i-j
```

```
INEN=g-f3-i-j
LCEN=g-k-l-m
LCKEN=g-k-l-w3-x3
LEN=g-k-n-o-p-q
SLEN=g-r-s-t
AIUEN=g-g4-h4-i4
```

e = Data link (group) number.

f = Relative link (member) number.

g = Switching module (SM) number.

h = IDCU number.

i = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

j = RT line number or PUB43801 channel.

k = Line unit number.

l = Line group number.

m = Line card number.

n = Grid number.

o = Switch board number (LU1, LU2, or LU3).

p = Switch number.

q = Level number.

r = Digital carrier line unit number.

s = RT number.

t = RT line number.

u = Multi-line hunt group number.

uF = Microfarads.

v = Hunt group member number.

w = Access type. Valid value(s):

AC1 JACK	= Connection to the AC jack number 1.
AC2 JACK	= Connection to the AC jack number 2.
CAMPED ON	= Line or trunk is camped on.
CPE TESTS	= Test customer premises equipment.
DC1 JACK	= Connection to the DC jack number 1.
DC2 JACK	= Connection to the DC jack number 2.
DIG TRANS	= Connection to digital transmission equipment.
IN PROGRESS	= Test or test setup is in progress.
METALLIC	= Connection to metallic measurement equipment.

MONITOR B&I = Monitor a busy or idle line/trunk.
MONITOR BUSY = Monitor a busy line/trunk.
SEIZED = Line or trunk is seized.
SUPERVISION = Supervisory test running.
TRANSMISSION = Connection to transmission equipment.

x = Trunk group number.

y = Trunk member number.

z = Trunk equipment number. Valid value(s):

```
DEN=g-a1-b1-c1
 INEN=g-f3-i-j
 NEN=g-f3-g3-i3-h3-j4-k4-j3
 PSUEN=g-k3-l3-m3-n3
 RAF PORT g-d1-e1
 TEN=g-f1-g1-h1-i1
 SAS PORT g-d1-e1
```

a^1 = Digital line and trunk unit (DLTU) number.

b^1 = Digital facility interface (DFI) number.

c^1 = Channel number.

d^1 = RAF or SAS unit number.

e^1 = RAF or SAS channel number.

f^1 = Trunk unit number.

g^1 = Service group number.

h^1 = Channel board number.

i^1 = Circuit number.

j^1 = Test results. Valid value(s):

[1]

```
DCTUPORT =   g - g1 -  k1
OC VOLTAGE (VOLTS)
            AC          DC
TG          l1          m1
RG          n1          o1
TR          p1          q1
```

[2]

```
DCTUPORT =   g - g1 -  k1
RESISTANCE (K-OHMS)
      TG r1
```

```
      RG s1
      TR t1

[3]   ____________________________________________________________________
        DCTUPORT =   g - g1 -  k1
      CAPACITANCE (MICROF)
      TG u1
      RG v1
      TR w1

[4]   ____________________________________________________________________
      <COMBINATION TEST RESULTS>
        DCTUPORT =   g - g1 -  k1
                 TG          RG          TR
      AV         l1          n1          p1
      DV         m1          o1          q1
      Ko         r1          s1          t1
      uF         u1          v1          w1

[5]   ____________________________________________________________________
        DCTUPORT =   g - g1 -  k1
      DISTANCE TO OPEN
      x1 [x 1000] FEET
      [DATA MAY BE INVALID]
      [NO TR OPEN DETECTED]

[6]   ____________________________________________________________________
        DCTUPORT =   g - g1 -  k1
      HOME TOTALIZER TEST
      MILLIA ST          y1
      MILLIA EN          z1
      ATTEMPTS           a2
      PULSES RCV         b2
      or
        DCTUPORT =   g - g1 -  k1
      HOME TOTALIZER TEST
      TOTLZR ALREADY HOMED

[7]   ____________________________________________________________________
        DCTUPORT =   g - g1 -  k1
      DETECT COIN TEST
        [NO] COIN PRESENT

[8]   ____________________________________________________________________
        DCTUPORT =   g - g1 -  k1
      COLLECT COIN TEST
      MILLIA OPR           c2
      SECONDS OPR          d2
      ATTEMPTS             a2
      or
        DCTUPORT =   g - g1 -  k1
```

```
COLLECT COIN TEST
 NO COIN
```

[9]

```
  DCTUPORT =   g - g1 -  k1
RETURN COIN TEST
      MILLIA OPR          e2
      SECONDS OPR         d2
      ATTEMPTS            a2
or
  DCTUPORT =   g - g1 -  k1
RETURN COIN TEST
NO COIN
```

[10]

```
  DCTUPORT =   g - g1 -  k1
RINGER COUNT
      TG          f2
      RG          g2
      TR          h2
```

[11]

```
  DCTUPORT =   g - g1 -  k1
MONITOR FOR SHORT
  TIP/RING STATE IS
          i2
```

[12]

```
<MEASUREMENT RESULTS>
j2 FTON k2    -   Measurement results.
```

[13]

```
<FREQUENCY/LEVEL RESULTS>
FREQ = l2 LEVEL = m2
```

[14]

```
[QUICK] WINK RESULTS
n2 o2:p2 q2 = r2 ms
```

[15]

```
<DIGITAL TRUNK RESULTS>
      ELAPSED     =  s2
      BLKSZ       =  t2
      BER         =  u2  E  -v2
      ERBLK       =  w2  E  x2
```

[16]

```
<DIGITAL SUBSCRIBER LINE LOOPBACK TESTS>
  {PHEN|ISTFEN} = y2      EQCU = z1
  ELAP =  s2    BLKSZ =  t2
   CHAN        BER          ERBLK
    B1       u2 E -v2      w2 E x2
```

```
    B2       u2 E -v2      w2 E x2
    D          N/A         w2 E x2

[17] ____________________________________________________________________
<DIGITAL SUBSCRIBER LINE LOOPBACK TESTS>
  OOR NO SYNC

[18] ____________________________________________________________________
  USER DEFAULTS ARE SET TO:
TERM = y3    BLKSZ = b4
CHAN = z3    TESTEQ = c4
FREQ = a4    LEVEL = d4
OPDGTS = [e4]
T&M NUMBER = f4

[19] ____________________________________________________________________
<AUTOMATIC TESTS>
a3 [b3] WAS RELEASED
FOR AUTOMATIC TESTING
SEE ROP FOR RESULTS

[20] ____________________________________________________________________
<MISMATCH TEST>

[21] ____________________________________________________________________
<DISPLAY DIALED DIGITS>
ORIG=hh:mm:ss MSG=id
e3

[22] ____________________________________________________________________
SLIMPORT =   g - k1
OC VOLTAGE (VOLTS)
            AC          DC
TG          l1          m1
RG          n1          o1
TR          p1          q1

[23] ____________________________________________________________________
SLIMPORT =   g - k1
RESISTANCE (K-OHMS)
      TG r1
      RG s1
      TR t1

[24] ____________________________________________________________________
  SLIMPORT =   g - k1
CAPACITANCE (MICROF)
      TG u1
      RG v1
      TR w1

[25] ____________________________________________________________________
```

```
<COMBINATION TEST RESULTS>
  SLIMPORT =   g - k1
            TG          RG          TR
AV          l1          n1          p1
DV          m1          o1          q1
Ko          r1          s1          t1
uF          u1          v1          w1

[26]  ____________________________________________________________
  SLIMPORT =   g -  k1
DISTANCE TO OPEN
x1 [x 1000] FEET
[DATA MAY BE INVALID]
[NO TR OPEN DETECTED]

[27]  ____________________________________________________________
  SLIMPORT =   g - k1
HOME TOTALIZER TEST
      MILLIA ST          y1
      MILLIA EN          z1
      ATTEMPTS           a2
      PULSES RCV         b2
or
  SLIMPORT =   g - k1
HOME TOTALIZER TEST
TOTLZR ALREADY HOMED

[28]  ____________________________________________________________
  SLIMPORT =   g - k1
DETECT COIN TEST
  [NO] COIN PRESENT

[29]  ____________________________________________________________
  SLIMPORT =   g - k1
COLLECT COIN TEST
      MILLIA OPR           c2
      SECONDS OPR          d2
      ATTEMPTS             a2
or
  SLIMPORT =   g - k1
COLLECT COIN TEST
NO COIN

[30]  ____________________________________________________________
  SLIMPORT =   g - k1
RETURN COIN TEST
      MILLIA OPR           e2
      SECONDS OPR          d2
      ATTEMPTS             a2
or
  SLIMPORT =   g - k1
```

```
        RETURN COIN TEST
        NO COIN

[31]    ____________________________________________________________
          SLIMPORT =   g - k1
        MONITOR FOR SHORT
             TIP/RING STATE IS
                  i2

[32]    ____________________________________________________________
          SLIMPORT =
        g - k1
        DIAL SPD(Hz):   o3  KEY:  v3
        DIAL PUL(%):    p3

[33]    ____________________________________________________________
          SLIMPORT =
        g - k1
        FLASH
        (ms) :  q3

[34]    ____________________________________________________________
          SLIMPORT =
        g - k1
        KEYTONE LVL :  r3 - r3
        KEYTONE DIFF:  s3  KEY: v3
        KEYTONE FREQ:  t3  t3

[35]    ____________________________________________________________
          SLIMPORT =   g - k1
        LOOP RESISTANCE (OHMS): u3
```

k^1 = Port number.

l^1 = AC foreign potential measured tip-to-ground (TG).

m^1 = DC foreign potential measured tip-to-ground.

n^1 = AC foreign potential measured ring-to-ground (RG).

o^1 = DC foreign potential measured ring-to-ground.

p^1 = AC foreign potential measured tip-to-ring (TR).

q^1 = DC foreign potential measured tip-to-ring.

r^1 = Resistance measured tip-to-ground.

s^1 = Resistance measured ring-to-ground.

t^1 = Resistance measured tip-to-ring.

u^1 = Capacitance measured tip-to-ground.

v[1] = Capacitance measured ring-to-ground.

w[1] = Capacitance measured tip-to-ring.

x[1] = Distance in feet, or times 1000 feet (x 1000), to an open on the subscriber's tip-ring loop pair. This measurement is a translated capacitance value based on the fact that, given a particular gauge of wire, the distance two wires run side by side is directly proportional to the capacitance between them (assuming that they are not connected).

Prior to running the distance-to-open test, a check is made to determine whether a tip-to-ring open can be detected. If no open is detected, the warning '`DATA MAY BE INVALID; NO TR OPEN DETECTED`' will be displayed in addition to the translated capacitance of the loop pair.

To determine the capacitance value of the loop pair, or to determine whether there is a tip-to-ring open, perform a metallic capacitance or resistance test on the pair (TST:WSMET).

y[1] = Initial current.

z[1] = Final current.

a[2] = Number of attempts.

b[2] = Pulses received from totalizer.

c[2] = Current required to operate collect relay.

d[2] = Duration of operate current.

e[2] = Current required to operate return relay.

f[2] = Number of ringers connected tip-to-ground.

g[2] = Number of ringers connected ring-to-ground.

h[2] = Number of ringers connected tip-to-ring.

i[2] = OPEN for open or SHORT for short.

j[2] = Frequency (Hz) (404, 1004, or 2804). Valid value(s):

`BBAND`	= Broad-band-level test.
`ERL`	= Echo-return-loss test.
`L404`	= Frequency test at 404 Hz.
`L1004`	= Frequency test at 1004 Hz.
`L2804`	= Frequency test at 2804 Hz.
`N`	= Noise test.
`NWT`	= Noise with tone test.
`SRL`	= Singing-return-loss test.
`SRLHI`	= Singing-return-loss-high test.

k[2] = Level in decibels. Valid value(s):

`NOTST`	= No test run.
`OORHI`	= Out-of-range high.
`OORLO`	= Out-of-range low.

l[2] = Frequency of tone being sent. Range is 0 to +4095 Hz.

m[2] = Level of tone being sent in db. Range is +3.2 to -49.0.

n[2] = Time stamp in milliseconds to the beginning of the wink from the near end signaling off-hook.

o[2] = State of beginning of wink (on or off).

p[2] = Time stamp in milliseconds to the end of the wink from the near end signaling off-hook.

q[2] = State of end of wink (on or off).

r[2] = Duration time of the wink in milliseconds.

s[2] = Elapsed time in seconds since the test started.

t[2] = Current block size being used.

u[2] = Bit error rate (BER).

v[2] = Negative exponential value for BER.

w[2] = Number of errored blocks (ERBLK).

x[2] = Positive exponential value for ERBLK.

y[2] = The test equipment number of the PH/ISTF which the channel is used.

z[2] = Number of channel units equipped on an *ANSI*® U-DSL as determined by direct polling.

a[3] = The directory number (DN), trunk group and member number (TKGMN), or digital subscriber line (DSL).

b[3] = DN of the line or the TKGMN of the trunk.

c[3] = Either *ANSI*® or AMI.

d[3] = Line card type (T, AMI, *ANSI*®, or Z).

The mismatch test detects a mismatch of an ISLU linecard (LC) and the first metallic termination beyond the LC on U-DSLs. This test will not detect NT1 mismatches when CUs are present.

The mismatch test also tests for loop resistance that is too high or too low between the tip and ring of the LC connected to the first metallic termination (NT1 or CU) or loop resistance that is too low between tip and ground or ring and ground.

For AMI U-DSLs, the mismatch test will also detect a tip and ring reversal at the AMI NT1.

Display:	Explanation:
c[3] NT1/CU DETECTED NO MISMATCH EXISTS	No mismatch detected. ODD, line card, and NT1 all match.
c[3] NT1/CU DETECTED NT1/CU MISMATCH EXISTS	NT1/CU type (either *ANSI*® or AMI) mismatch between line card and ODD.
d[3] LC DETECTED LC MISMATCH EXISTS	Line card type does not match ODD.
c[3] LC, c[3] NT1/CU DETECTED BOTH LC AND NT1/CU MISMATCH	Line card type does not agree with ODD and NT1/CU does not agree with line card.
AMI NT1 DETECTED TIP/RING REVERSAL	Tip/ring polarity reversal on AMI NT1.
TIP/RING LOOP FAULT	Tip/ground or ring/ground low resistance loop fault.

NT1/CU NOT DETECTABLE TIP TO RING HIGH RESISTANCE	Tip/ring high resistance loop fault (such as, tip/ring open loop or no NT1).
NT1/CU NOT DETECTABLE TIP TO RING LOW RESISTANCE	Tip/ring low resistance loop fault (such as, tip/ring short).
TEST BLOCKED DUE TO LINE CARD SPARING	Mismatch test blocked because ISLU involved in line card sparing.
NT1/CU NOT DETECTABLE FALSE CROSS AND GROUND	False cross and ground failure.
NT1/CU NOT DETECTABLE POWER CROSS DETECTED	Power cross failure
NT1/CU INDETERMINATE	NT1 or CU type can not be determined (possible multiple loop failures).
TEST RESOURCE UNAVAILABLE	Test resources unavailable (such as, equipment busy).

e^3 = Five lines of signals/tones sent or received by the switch, including dialed digits (1234567890#*), and defense switched network (DSN) dialing (F=flash, P=priority, I=immediate, O=over-ride).

Sent by the switch:

??s = Unknown signal sent.
ABC = Abandon call check.
BRG = Barge-in tone.
BUSY = Busy tone.
CCOL = Coin collect.
CRET = Coin return.
CT = Confirmation tone.
CW = Call waiting tone.
DD = Delay dial.
DRF = Double ring forward.
DSAs = DSN alert signal sent.
DSCs = DSN clear wink sent.
DSRs = DSN reuse wink sent.
DSTs = DSN test signal sent.
DT = Dial tone.
ERW = Expensive rate warning.
FBAT = Forward battery.
FLSH = Flash.
HTOT = Home totalizer.
OFHs = Off-hook sent.
OIT = Operator intrusion tone.
ONHs = On-hook sent.
OPA = Operator attached.
OPNI = Open interval.
OPR = Operator release.
ORCC = Operator release coin collect.
PDT = Party departure tone.
PT = Preemption tone.
RBAK = Ring back.
RBAT = Reverse battery.
RING = Ring tone.
ROH = Receiver-off-hook.
RT = Reorder tone.
STKO = Stuck off-hook.
WINK = Wink.
ZIP = Zip tone.

Received by the switch:

??r	= Unknown signal received.
DSCr	= DSN clear wink received.
DSFr	= DSN wink failure received.
DSRr	= DSN reuse wink received.
DSTr	= DSN test signal received.
KP	= Multi-frequency (MF) start pulse.
OFHr	= Off-hook received.
OFPL	= Off-hook pulse of short duration other than normal off-hook.
ONHr	= On-hook received.
ONPL	= On-hook pulse of short duration other than disconnect (that is, wink, flash).
ST	= MF stop pulse.
ST1	= MF stop pulse.
ST2	= MF stop pulse.
ST3	= MF stop pulse.

f[3] = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

g[3] = Data group (DG) number.

h[3] = Synchronous transport signal (STS) facility number.

i[3] = SONET termination equipment (STE) facility number.

j[3] = Digital signal level 0 (DS0) number.

k[3] = PSU unit number.

l[3] = PSU shelf number.

m[3] = PSU channel group number.

n[3] = PSU channel group member number.

o[3] = Dial speed of subscribers handset (Hz).

p[3] = Dial speed of subscribers handset (%).

q[3] = Duration time of flash hook in milliseconds (ms).

r[3] = Keytone levels of subscribers handset (db).

s[3] = Keytone difference of subscribers handset (db).

t[3] = Keytone frequence of subscribers handset (Hz).

u[3] = Loop resistance of line (ohms).

v[3] = Key dialed/pressed.

w[3] = Line board number.

x[3] = Line circuit number.

y^3 = Digital test termination point.

z^3 = Digital test channel.

a^4 = Send frequency in hertz.

b^4 = Current block size being used.

c^4 = Test equipment channel display information.

d^4 = Send level in decibels.

e^4 = Outpulse directory number.

f^4 = The phone number of the T&M phone as defined by recent change.

g^4 = Access interface unit (AIU) number.

h^4 = AIU line pack number.

i^4 = AIU line circuit number.

j^4 = Virtual tributary group (VTG) number.

k^4 = Virtual tributary member (VTM) number.

l^4 = Line equipment number. Valid value(s):
NEN=g-f^3-g^3-i^3-h^3-j^4-k^4-j^3

4. ACTIONS TO BE TAKEN

Refer to the Corrective Maintenance manual for information on the corresponding tests to enter to get the above results.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSDATA
```

Output Message(s):

```
TST:DSL
```

Output Appendix(es):

```
APP:PORT-STATUS
```

Other Manual(s):

235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

OP:WSSTAT-A

Software Release: 5E10 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP WSSTAT TEST POSITION = a                 AVAILABLE

[2]   ____________________________________________________________________
      OP WSSTAT TEST POSITION = a, ID = b         IN USE
        ACCESS=f                                  T&M=g
        c[-d] e

[3]   ____________________________________________________________________
      OP WSSTAT  SUMMARY TOTAL TP AVAILABLE = g1
        MAX TP =  h1, MAJOR TP =  i1, MINOR TP =  j1, DIGIT ZERO = k1
```

2. REASON FOR OUTPUT

To list the current testing status of a trunk and line work station (TLWS) test position (TP). This status can be seen on the TP summary page at the Master Control Center (MCC).

The user would enter the input message OP:WSSTAT to get a hard-copy of the TP summary page.

By default, the output is sent only to the input device where the request originated (TLWSRSP). The input message OP:WSDATA,LOG can be used to change the output so that it appears on all devices associated with the class definition TLWS.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

a = TP number.

b = TLWSR tuple identification.

c = Directory number (DN) or trunk group member number (TKGMN).

d = Member number of the line time slot bridging (LTSB) line. Valid value(s):
- 1 = The lead line.
- 2 = The associate line.

e = Valid value(s):

AP=h-i	NEN=j-l^1-m^1-n^1-o^1-p^1
DEN=j-k-l-m	PSUEN=j-q^1-r^1-s^1-t^1
ILEN=j-d^1-e^1-f^1	RAF=j-u-v
LCEN=j-n-o-p	SAS=j-u-v
LCKEN=j-n-o-u^1-v^1	SLEN=j-w-x-y

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LEN=j-n-q-r-s-t	TEN=j-z-a^1-b^1-c^1

f = Test access type. Valid value(s):

- AC1 JACK = Connection to the AC jack number 1.
- AC2 JACK = Connection to the AC jack number 2.
- CAMPED ON = Line or trunk is camped on.
- DC1 JACK = Connection to the DC jack number 1.
- DC2 JACK = Connection to the DC jack number 2.
- DIG TRANS = Connection to digital transmission equipment.
- IDLE = No port seized at TP.
- IN PROGRESS = Test or test setup is in progress.
- METALLIC = Connection to metallic measurement equipment.
- SEIZED = Line or trunk is seized.
- SUPERVISION = Supervisory test running.
- TRANSMISSION = Connection to transmission equipment.

g = The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):

- H = The T&M phone is ON-HOLD (metallic connections).
- M = The T&M phone is in the MONITOR mode (listen-only).
- N = No T&M phone in the connection.
- T = The T&M phone is in the TALK mode (listen and talk).

h = Data link (group) number of the AP.

i = Relative link (member) number of the AP.

j = Switching module (SM) number.

k = Digital line and trunk unit (DLTU) number.

l = Digital facility interface (DFI) number.

m = Channel number.

n = Line unit number.

o = Line group number.

p = Line card number.

q = Grid number.

r = Switch board number (LU1, LU2, LU3).

s = Switch number.

t = Level number.

u = RAF or SAS unit number.

v = RAF or SAS channel number.

w = Digital carrier line unit number.

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x = Remote terminal (RT) number.

y = RT line number.

z = Trunk unit number.

a[1] = Service group number.

b[1] = Channel board number.

c[1] = Circuit number.

d[1] = IDCU number.

e[1] = RT number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

f[1] = RT line number or PUB43801 channel.

g[1] = Number of TPs currently unused. This value represents the number of test positions available out of 32 test positions without considering the value of MAX TP.

h[1] = The value of the global parameter GLTPMAX. Represents the maximum number of test positions that may be active concurrently. A test position is considered active if it has been seized using a SET:WSPOS request.

i[1] = The value of the global parameter GLTPMAJOR. Represents the maximum number of test positions that may be active concurrently while the AM is in major overload.

j[1] = The value of the global parameter GLTPMINOR. Represents the maximum number of test positions that may be active concurrently while the AM is in minor overload.

k[1] = The value of the global parameter GLDIGZERO. Indicates whether remote talk and monitor access requires digit zero security precautions.

l[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

m[1] = Data group (DG) number.

n[1] = Synchronous transport signal (STS) number.

o[1] = Virtual tributary 1.5 (VT1.5) number.

p[1] = Digital signal level 0 (DS0) number.

q[1] = PSU unit number.

r[1] = PSU shelf number.

s[1] = PSU channel group number.

t[1] = PSU channel group member number.

u[1] = Line board number.

v[1] = Line circuit number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSDATA
OP:WSSTAT
SET:WSPOS
```

Output Message(s):

```
OP:WSDATA
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
14.3 (TRUNK AND LINE WORK STATION)

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OP:WSSTAT-B

Software Release: 5E11 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP WSSTAT TEST POSITION = a                 AVAILABLE

[2]   ____________________________________________________________________
      OP WSSTAT TEST POSITION = a, ID = b         IN USE
        ACCESS=f                                  T&M=g
        c[-d] e

[3]   ____________________________________________________________________
      OP WSSTAT  SUMMARY TOTAL TP AVAILABLE = g1
        MAX TP =  h1, MAJOR TP =  i1, MINOR TP =  j1, DIGIT ZERO = k1
```

2. REASON FOR OUTPUT

To list the current testing status of a trunk and line work station (TLWS) test position (TP). This status can be seen on the TP summary page at the Master Control Center (MCC).

The user would enter the input message OP:WSSTAT to get a hard-copy of the TP summary page.

By default, the output is sent only to the input device where the request originated (TLWSRSP). The input message OP:WSDATA,LOG can be used to change the output so that it appears on all devices associated with the class definition TLWS.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

a = TP number.

b = TLWSR tuple identification.

c = Directory number (DN) or trunk group member number (TKGMN).

d = Member number of the line time slot bridging (LTSB) line. Valid value(s):
- 1 = The lead line.
- 2 = The associate line.

e = Valid value(s):

AP=h-i	NEN=j-l^1-m^1-n^1-o^1-p^1
AIUEN=j-w^1-x^1-y^1	PSUEN=j-q^1-r
DEN=j-k-l-m	1_-s^1-t^1
ILEN=j-d^1-e^1-f^1	RAF=j-u-v
LCEN=j-n-o-p	SAS=j-u-v

LCKEN=j-n-o-u[1]-v[1] LEN=j-n-q-r-s-t	SLEN=j-w-x-y TEN=j-z-a[1]-b[1]-c[1]

f = Test access type. Valid value(s):

- AC1 JACK = Connection to the AC jack number 1.
- AC2 JACK = Connection to the AC jack number 2.
- CAMPED ON = Line or trunk is camped on.
- DC1 JACK = Connection to the DC jack number 1.
- DC2 JACK = Connection to the DC jack number 2.
- DIG TRANS = Connection to digital transmission equipment.
- IDLE = No port seized at TP.
- IN PROGRESS = Test or test setup is in progress.
- METALLIC = Connection to metallic measurement equipment.
- SEIZED = Line or trunk is seized.
- SUPERVISION = Supervisory test running.
- TRANSMISSION = Connection to transmission equipment.

g = The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):

- H = The T&M phone is ON-HOLD (metallic connections).
- M = The T&M phone is in the MONITOR mode (listen-only).
- N = No T&M phone in the connection.
- T = The T&M phone is in the TALK mode (listen and talk).

h = Data link (group) number of the AP.

i = Relative link (member) number of the AP.

j = Switching module (SM) number.

k = Digital line and trunk unit (DLTU) number.

l = Digital facility interface (DFI) number.

m = Channel number.

n = Line unit number.

o = Line group number.

p = Line card number.

q = Grid number.

r = Switch board number (LU1, LU2, or LU3).

s = Switch number.

t = Level number.

u = RAF or SAS unit number.

v = RAF or SAS channel number.

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w = Digital carrier line unit number.

x = Remote terminal (RT) number.

y = RT line number.

z = Trunk unit number.

a[1] = Service group number.

b[1] = Channel board number.

c[1] = Circuit number.

d[1] = IDCU number.

e[1] = RT number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

f[1] = RT line number or PUB43801 channel.

g[1] = Number of TPs currently unused. This value represents the number of test positions available out of 32 test positions without considering the value of MAX TP.

h[1] = The value of the global parameter GLTPMAX. Represents the maximum number of test positions that may be active concurrently. A test position is considered active if it has been seized using a SET:WSPOS request.

i[1] = The value of the global parameter GLTPMAJOR. Represents the maximum number of test positions that may be active concurrently while the AM is in major overload.

j[1] = The value of the global parameter GLTPMINOR. Represents the maximum number of test positions that may be active concurrently while the AM is in minor overload.

k[1] = The value of the global parameter GLDIGZERO. Indicates whether remote talk and monitor access requires digit zero security precautions.

l[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

m[1] = Data group (DG) number.

n[1] = Synchronous transport signal (STS) number.

o[1] = Virtual tributary 1.5 (VT1.5) number.

p[1] = Digital signal level 0 (DS0) number.

q[1] = PSU unit number.

r[1] = PSU shelf number.

s[1] = PSU channel group number.

t[1] = PSU channel group member number.

u[1] = Line board number.

v[1] = Line circuit number.

w[1] = Access interface unit (AIU) number.

x[1] = AIU line pack number.

y[1] = AIU line circuit number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSDATA
OP:WSSTAT
SET:WSPOS
```

Output Message(s):

```
OP:WSDATA
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
14.3 (TRUNK AND LINE WORK STATION)

OP:WSSTAT-C

Software Release: 5E12 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP WSSTAT TEST POSITION = a                 AVAILABLE

[2]   ____________________________________________________________________
      OP WSSTAT TEST POSITION = a, ID = b         IN USE
        ACCESS=f                                  T&M=g
        c[-d] e

[3]   ____________________________________________________________________
      OP WSSTAT  SUMMARY TOTAL TP AVAILABLE = g1
        MAX TP =  h1, MAJOR TP =  i1, MINOR TP =  j1, DIGIT ZERO = k1
```

2. REASON FOR OUTPUT

To list the current testing status of a trunk and line work station (TLWS) test position (TP). This status can be seen on the TP summary page at the Master Control Center (MCC).

The user would enter the input message OP:WSSTAT to get a hard-copy of the TP summary page.

By default, the output is sent only to the input device where the request originated (TLWSRSP). The input message OP:WSDATA,LOG can be used to change the output so that it appears on all devices associated with the class definition TLWS.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

a = TP number.

b = TLWSR tuple identification.

c = Directory number (DN) or trunk group member number (TKGMN).

d = Member number of the line time slot bridging (LTSB) line. Valid value(s):
- 1 = The lead line.
- 2 = The associate line.

e = Equipment number. Valid value(s):

AP=h-i	NEN=j-l^1-m^1-n^1-o^1-p^1
DEN=j-k-l-m	PSUEN=j-q^1-r^1-s^1-t^1
ILEN=j-d^1-e^1-f^1	RAF=j-u-v
INEN=j-a^2-x-y	SAS=j-u-v
LCEN=j-n-o-p	SLEN=j-w-x-y

LCKEN=j-n-o-u^1-v^1 LEN=j-n-q-r-s-t AIUEN=j-w^1-x^1-y^1	TEN=j-z-a^1-b^1-c^1

f = Test access type. Valid value(s):

- AC1 JACK = Connection to the AC jack number 1.
- AC2 JACK = Connection to the AC jack number 2.
- CAMPED ON = Line or trunk is camped on.
- DC1 JACK = Connection to the DC jack number 1.
- DC2 JACK = Connection to the DC jack number 2.
- DIG TRANS = Connection to digital transmission equipment.
- IDLE = No port seized at TP.
- IN PROGRESS = Test or test setup is in progress.
- METALLIC = Connection to metallic measurement equipment.
- SEIZED = Line or trunk is seized.
- SUPERVISION = Supervisory test running.
- TRANSMISSION = Connection to transmission equipment.

g = The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):

- H = The T&M phone is ON-HOLD (metallic connections).
- M = The T&M phone is in the MONITOR mode (listen-only).
- N = No T&M phone in the connection.
- T = The T&M phone is in the TALK mode (listen and talk).

h = Data link (group) number of the AP.

i = Relative link (member) number of the AP.

j = Switching module (SM) number.

k = Digital line and trunk unit (DLTU) number.

l = Digital facility interface (DFI) number.

m = Channel number.

n = Line unit number.

o = Line group number.

p = Line card number.

q = Grid number.

r = Switch board number (LU1, LU2, or LU3).

s = Switch number.

t = Level number.

u = RAF or SAS unit number.

v = RAF or SAS channel number.

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w = Digital carrier line unit number.

x = Remote terminal (RT) number.

y = RT line number.

z = Trunk unit number.

a[1] = Service group number.

b[1] = Channel board number.

c[1] = Circuit number.

d[1] = IDCU number.

e[1] = RT number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

f[1] = RT line number or PUB43801 channel.

g[1] = Number of TPs currently unused. This value represents the number of test positions available out of 32 test positions without considering the value of MAX TP.

h[1] = The value of the global parameter GLTPMAX. Represents the maximum number of test positions that may be active concurrently. A test position is considered active if it has been seized using a SET:WSPOS request.

i[1] = The value of the global parameter GLTPMAJOR. Represents the maximum number of test positions that may be active concurrently while the AM is in major overload.

j[1] = The value of the global parameter GLTPMINOR. Represents the maximum number of test positions that may be active concurrently while the AM is in minor overload.

k[1] = The value of the global parameter GLDIGZERO. Indicates whether remote talk and monitor access requires digit zero security precautions.

l[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

m[1] = Data group (DG) number.

n[1] = Synchronous transport signal (STS) number.

o[1] = Virtual tributary 1.5 (VT1.5) number.

p[1] = Digital signal level 0 (DS0) number.

q[1] = PSU unit number.

r[1] = PSU shelf number.

s[1] = PSU channel group number.

t[1] = PSU channel group member number.

u[1] = Line board number.

v[1] = Line circuit number.

w[1] = Access interface unit (AIU) number.

x[1] = AIU line pack number.

y[1] = AIU line circuit number.

z[1] = Intergrated Digital Carrier Unit.

a[2] = DNU number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSDATA
OP:WSSTAT
SET:WSPOS
```

Output Message(s):

```
OP:WSDATA
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
14.3 (TRUNK AND LINE WORK STATION)

OP:WSSTAT-D

Software Release: 5E13 and later
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      OP WSSTAT TEST POSITION = a                 AVAILABLE

[2]   ____________________________________________________________________
      OP WSSTAT TEST POSITION = a, ID = b         IN USE
        ACCESS=f                                  T&M=g
        c[-d] e

[3]   ____________________________________________________________________
      OP WSSTAT  SUMMARY TOTAL TP AVAILABLE = g1
        MAX TP =  h1, MAJOR TP =  i1, MINOR TP =  j1, DIGIT ZERO = k1
```

2. REASON FOR OUTPUT

To list the current testing status of a trunk and line work station (TLWS) test position (TP). This status can be seen on the TP summary page at the Master Control Center (MCC).

The user would enter the input message OP:WSSTAT to get a hard-copy of the TP summary page. By default, the output is sent only to the input device where the request originated (TLWSRSP). The input message OP:WSDATA,LOG can be used to change the output so that it appears on all devices associated with the class definition TLWS.

3. VARIABLE FIELD DEFINITIONS

a

b = TLWSR tuple identification.

c = Directory number (DN) or trunk group member number (TKGMN).

d = Member number of the line time slot bridging (LTSB) line. Valid value(s):
- 1 = The lead line.
- 2 = The associate line.

e = Equipment number. Valid value(s):

AP=h-i	NEN=j-l^1-m^1-o^1-n^1-a^2-b^2-p^1
DEN=j-k-l-m	PSUEN=j-q^1-r^1-s^1-t^1
ILEN=j-d^1-e^1-f^1	RAF=j-u-v
INEN=j-l^1-x-y	SAS=j-u-v
LCEN=j-n-o-p	SLEN=j-w-x-y
LCKEN=j-n-o-u^1-v^1	TEN=j-z-a^1-b^1-c^1
LEN=j-n-q-r-s-t	
AIUEN=j-w^1-x^1-y^1	

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f = Test access type. Valid value(s):

AC1 JACK	= Connection to the AC jack number 1.
AC2 JACK	= Connection to the AC jack number 2.
CAMPED ON	= Line or trunk is camped on.
DC1 JACK	= Connection to the DC jack number 1.
DC2 JACK	= Connection to the DC jack number 2.
DIG TRANS	= Connection to digital transmission equipment.
IDLE	= No port seized at TP.
IN PROGRESS	= Test or test setup is in progress.
METALLIC	= Connection to metallic measurement equipment.
SEIZED	= Line or trunk is seized.
SUPERVISION	= Supervisory test running.
TRANSMISSION	= Connection to transmission equipment.

g = The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):

H	= The T&M phone is ON-HOLD (metallic connections).
M	= The T&M phone is in the MONITOR mode (listen-only).
N	= No T&M phone in the connection.
T	= The T&M phone is in the TALK mode (listen and talk).

h = Data link (group) number of the AP.

i = Relative link (member) number of the AP.

j = Switching module (SM) number.

k = Digital line and trunk unit (DLTU) number.

l = Digital facility interface (DFI) number.

m = Channel number.

n = Line unit number.

o = Line group number.

p = Line card number.

q = Grid number.

r = Switch board number (LU1, LU2, or LU3).

s = Switch number.

t = Level number.

u = RAF or SAS unit number.

v = RAF or SAS channel number.

w = Digital carrier line unit number.

x = Remote terminal (RT) number.

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y = RT line number.

z = Trunk unit number.

a[1] = Service group number.

b[1] = Channel board number.

c[1] = Circuit number.

d[1] = IDCU number.

e[1] = RT number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

f[1] = RT line number or PUB43801 channel.

g[1] = Number of TPs currently unused. This value represents the number of test positions available out of 32 test positions without considering the value of MAX TP.

h[1] = The value of the global parameter GLTPMAX. Represents the maximum number of test positions that may be active concurrently. A test position is considered active if it has been seized using a SET:WSPOS request.

i[1] = The value of the global parameter GLTPMAJOR. Represents the maximum number of test positions that may be active concurrently while the AM is in major overload.

j[1] = The value of the global parameter GLTPMINOR. Represents the maximum number of test positions that may be active concurrently while the AM is in minor overload.

k[1] = The value of the global parameter GLDIGZERO. Indicates whether remote talk and monitor access requires digit zero security precautions.

l[1] = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

m[1] = Data group (DG) number.

n[1] = Synchronous transport signal (STS) facility number.

o[1] = SONET termination equipment (STE) facility number.

p[1] = Digital signal level 0 (DS0) number.

q[1] = PSU unit number.

r[1] = PSU shelf number.

s[1] = PSU channel group number.

t[1] = PSU channel group member number.

u[1] = Line board number.

v[1] = Line circuit number.

w[1] = Access interface unit (AIU) number.

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x[1] = AIU line pack number.

y[1] = AIU line circuit number.

z[1] = Intergrated Digital Carrier Unit.

a[2] = Virtual tributary group (VTG) number.

b[2] = Virtual tributary member (VTM) number.

4. ACTIONS TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSDATA
OP:WSSTAT
SET:WSPOS
```

Output Message(s):

```
OP:WSDATA
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
14.3 (TRUNK AND LINE WORK STATION)

65. OPLST

OPLST:PRCST

Software Release: 5E11 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OPLST PRCST a b:  STAGE c STEP d e: f MSG- g: h
```

2. REASON FOR OUTPUT

To respond to a manual request for the status of an RCLPAGE procedure.

3. VARIABLE FIELD DEFINITIONS

`a` = Procedure name. Valid values can be found on MCC page 1980.

`b` = Procedure status. Valid value(s):

`UNKNOWN`	= The status of the procedure is unknown.
`EXECUTING`	= The procedure is currently executing.
`STOPPED`	= The procedure is stopped.
`WAITING`	= The procedure is paused waiting for manual action.
`COMPLETED`	= The procedure is complete.

`c` = Stage. Valid values can be found on MCC page 1985.

`d` = Current step. Valid values can be found on MCC page 1985.

`e` = Step status.

`UNKNOWN`	= The status of the procedure is unknown.
`EXECUTING`	= The procedure is currently executing.
`STOPPED`	= The procedure is stopped.
`WAITING`	= The procedure is paused waiting for manual action.
`COMPLETED`	= The procedure is complete.

`f` = Status of manual action. Valid values can be found on MCC page 1985.

`g` = Message number.

`h` = User prompt for manual action.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

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None.

6. REFERENCES

None.

OPLST:PROC

Software Release: 5E11 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
OPLST PROC a STAGE b c STATUS: d STEPS e f STATUS: g
```

2. REASON FOR OUTPUT

To respond to a manual request for the status of an RCLPAGE procedure.

3. VARIABLE FIELD DEFINITIONS

a = Procedure name. Valid values can be found on MCC page 1980.

b = Stage name. Valid values can be found on MCC page 1985.

c = Procedure status.

UNKNOWN = The status of the procedure is unknown.

EXECUTING = The procedure is currently executing.

STOPPED = The procedure is stopped.

WAITING = The procedure is paused waiting for manual action.

COMPLETED = The procedure is complete.

d = Stage status.

PAUSE = Paused, waiting for manual action.

CONTINUING = Continuing to next step in stage.

COMPLETE = The stage step is complete.

e = Current step. Valid values can be found on MCC page 1985.

f = Step status.

UNKNOWN = The status of the procedure is unknown.

EXECUTING = The procedure is currently executing.

STOPPED = The procedure is stopped.

WAITING = The procedure is paused waiting for manual action.

COMPLETED = The procedure is complete.

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f = Status of manual action. Valid values can be found on MCC page 1985.

g = Stage status.

PAUSE	= Paused, waiting for manual action.
CONTINUING	= Continuing to next step in stage.
COMPLETE	= The stage is complete.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

66. ORD

ORD:CPI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ORD:CPI a [b [c]]   CMD d [e] f
 [UNIT   RESULT]
 [g      h]
  .      .
  .      .
  .      .
```

2. REASON FOR OUTPUT

To provide the results of CPI requests. These requests can be in the form of ORD:CPI input messages, MCC menu options or the craft intervention key (CIK).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Office network and timing complex (ONTC) side (0 or 1).

`c` = Even (0) or odd (1) network control and timing (NCT) link to the SM.

`d` = Central processor intervention (CPI) message sent to the SM. Valid value(s):

- `ALW` = A request to allow the sanity timer was sent.
- `CIK` = The specified module controller/time slot interchange (MCTSI) was forced active and initialized by a manual request through the craft intervention key at the RSM.
- `CLR` = A request to clear the force on the specified SM was sent.
- `FRC` = A request to force the specified module controller/time slot interchange (MCTSI) active was sent. This causes a single process purge if a processor switch is involved.
- `GRSW` = A request to force the specified MCTSI active and cause a full initialization was sent.
- `INH` = A request to inhibit the sanity timer was sent.
- `RESET` = A request to reset the specified SM was sent. This results in a full initialization.
- `SW` = A request to switch the MCTSI to the specified side, then force that side active.

`e` = Side (0 or 1) of the MCTSI (only for FRC and SW messages).

`f` = Result of the input message. Valid value(s):

COMPLETE = The request was successfully executed in all requested SMs.

NOT COMPLETED = The expected results were not received from the SMs listed below.

g = SM number that failed to complete the CPI request.

h = Reason for failure. Valid value(s):

FAULT-STATUS UNKNOWN = Error detected during CPI transmission by message interface (MI).

MATE IS POWERED OFF = The force was cleared because the mate is powered off.

STATUS UNKNOWN = The message was sent to the SM and no response was received.

TIMEOUT-STATUS UNKNOWN = Message acknowledgement timeout with MI.

UNABLE TO SWITCH = State of SM prevented a soft switch from occurring (valid only for the SW message).

4. ACTION TO BE TAKEN

If 'h' =	Action:
FAULT-STATUS UNKNOWN	Refer to MCC pages listed in reference to determine status. If repeating the message fails to help, then run diagnostics on the ONTC and MCTSI to determine problem.
MATE POWERED OFF	Restore power to mate MCTSI.
STATUS UNKNOWN	Refer to MCC pages listed in reference to determine status. Repeat message if necessary. When using the SW option for CMD, a failure will occur if SM diagnostics are running. Always check the SM status and verify that no diagnostics are running on the SM.
TIMEOUT	Refer to MCC pages listed in reference to determine status. Repeat message if necessary.
UNABLE TO SWITCH	Correct problem that has the MCTSI forced or out-of-service.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

ORD:CPI

Other Manual(s):

235-105-250 *System Recovery Manual*

MCC Display Page(s):

1190 (MCTSI/DLI)
1190 (MCTSI/RLI)
1800 (INHIBIT AND RECOVERY CONTROL)

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ORD:DLOOP-A

Software Release: 5E10 - 5E12
Message Class: TRK
Application: 5
Type: Output

1. FORMAT

[1]
```
ORD DLOOP a [b] DEN=c-d-e-f g;
```

[2]
```
ORD DLOOP a [b] NEN=c-h-i-j-k-l g;
```

2. REASON FOR OUTPUT

To report the sequence of actions requested by an ORD:DLOOP input message.

3. VARIABLE FIELD DEFINITIONS

`DEN` = The digital equipment number (DEN) of the digital trunk.

`NEN` = The networking equipment number (NEN) of the digital trunk.

`a` = Action requested. Valid value(s):

- `OPR` = Operate or connect.
- `RLS` = Release or undo function.

`b` = Number of seconds the connection was maintained.

`c` = Switching module (SM) number.

`d` = Digital line and trunk unit (DLTU) number.

`e` = Digital facility interface (DFI) number.

`f` = Channel number.

`g` = Disposition of the input request. Valid value(s):

- `ABORTED` = SM detected a software defensive check failure and aborted.
- `ALREADY IDLE` = Trunk is already in an idle state.
- `CIRCUIT BUSY` = Trunk is in a busy state.
- `COMPLETED` = Action performed successfully.
- `FAILED` = Failed to loop or unloop trunk.
- `INV PORT` = The equipment number (DEN or NEN) for the trunk was invalid.
- `INVALID TRUNK TYPE` = The trunk signaling type is not valid for this request.

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`PROCESS TIMEOUT` = A process in the administrative module (AM) or SM timed out waiting for a response from another processor.

`SM/DLTU/DFI BUSY` = SM cannot obtain hardware resources [digital network unit - synchronous optical network (SONET) (DNU-S), digital line and trunk unit (DLTU), or their respective subtending circuits may be out of service], or the SM cannot obtain network timeslots.

`SM UNAVAILABLE` = The SM identified by the DEN or NEN is not available.

`h` = DNU-S number.

`i` = Data group (DG) number.

`j` = Synchronous transport signal (STS) number.

`k` = Virtual tributary 1.5 (VT1.5) number.

`l` = Digital signal level 0 (DS0) number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ORD:DLOOP
```

ORD:DLOOP-B

Software Release: 5E13 and later
Message Class: TRK
Application: 5
Type: Output

1. FORMAT

[1]
```
ORD DLOOP a [b] DEN=c-d-e-f g;
```

[2]
```
ORD DLOOP a [b] NEN=c-h-i-j-k-l-m-n g;
```

2. REASON FOR OUTPUT

To report the sequence of actions requested by an ORD:DLOOP input message.

3. VARIABLE FIELD DEFINITIONS

`DEN` = The digital equipment number (DEN) of the digital trunk.

`NEN` = The networking equipment number (NEN) of the digital trunk.

`a` = Action requested. Valid value(s):
- `OPR` = Operate or connect.
- `RLS` = Release or undo function.

`b` = Number of seconds the connection was maintained.

`c` = Switching module (SM) number.

`d` = Digital line and trunk unit (DLTU) number.

`e` = Digital facility interface (DFI) number.

`f` = Channel number.

`g` = Disposition of the input request. Valid value(s):
- `ABORTED` = SM detected a software defensive check failure and aborted.
- `ALREADY IDLE` = Trunk is already in an idle state.
- `CIRCUIT BUSY` = Trunk is in a busy state.
- `COMPLETED` = Action performed successfully.
- `FAILED` = Failed to loop or unloop trunk.
- `INV PORT` = The equipment number (DEN or NEN) for the trunk was invalid.
- `INVALID TRUNK TYPE` = The trunk signaling type is not valid for this request.
- `PROCESS TIMEOUT` = A process in the administrative module (AM) or SM timed out waiting for a response from another processor.
- `SM/DLTU/DFI BUSY` = SM cannot obtain hardware resources [digital network unit - synchronous optical network (SONET) (DNU-S), digital line and trunk unit (DLTU), or their respective subtending circuits may be out of service], or the SM cannot obtain network timeslots.
- `SM UNAVAILABLE` = The SM identified by the DEN or NEN is not available.

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`h` = Digital Networking Unit - SONET (DNU-S) number.

`i` = Data group (DG) number.

`j` = SONET Terminal Equipment (STE) facility number.

`k` = Synchronous transport signal (STS) facility number.

`l` = Virtual Tributary Group (VTG) number.

`m` = Virtual Tributary Member (VTM) number.

`n` = Digital signal level 0 (DS0) number.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ORD:DLOOP
```

ORD:SCAN-A

Software Release: 5E10 - 5E12
Message Class: TRK
Application: 5
Type: Output

1. FORMAT

[1]
```
ORD SCAN DEN=b-c-d-e f;
```

[2]
```
ORD SCAN NEN=b-g-h-i-j-k f;
```

2. REASON FOR OUTPUT

To report the sequence of actions requested by an ORD:SCAN input message.

3. VARIABLE FIELD DEFINITIONS

`DEN` = The digital equipment number (DEN) of the digital trunk.

`NEN` = The networking equipment number (NEN) of the digital trunk.

`b` = Switching module (SM) number.

`c` = Digital line and trunk unit (DLTU) number.

`d` = Digital facility interface (DFI) number.

`e` = Channel number.

`f` = Disposition of the input request. Valid value(s):

`ABORTED` = SM detected a software defensive check failure and aborted.

`COMPLETED OFFHOOK` = Trunk was off-hook.

`COMPLETED ONHOOK` = Trunk was on-hook.

`FAILED` = Failed to report incoming supervision status of the trunk.

`INV PORT` = The equipment number (DEN or NEN) for the trunk was invalid.

`INVALID TRUNK TYPE` = The trunk signaling type is not valid for this request.

`PROCESS TIMEOUT` = A process in the administrative module (AM) or SM timed out waiting for a response from another processor (either AM or SM).

`SM/DLTU/DFI BUSY` = SM cannot obtain hardware resources [digital network unit - synchronous optical network (SONET) (DNU-S), digital line and trunk unit (DLTU), or their respective subtending circuits may be out of service], or the SM cannot obtain network timeslots.

`SM UNAVAILABLE` = The SM identified by the DEN or NEN is not available.

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`g` = DNU-S number.

`h` = Data group (DG) number.

`i` = Synchronous transport signal (STS) number.

`j` = Virtual tributary 1.5 (VT1.5) number.

`k` = Digital signal level 0 (DS0) number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ORD:SCAN
```

ORD:SCAN-B

Software Release: 5E13 and later
Message Class: TRK
Application: 5
Type: Output

1. FORMAT

```
[1]
ORD SCAN DEN=b-c-d-e f;

[2]
ORD SCAN NEN=b-g-h-i-j-k-l-m f;
```

2. REASON FOR OUTPUT

To report the sequence of actions requested by an ORD:SCAN input message.

3. VARIABLE FIELD DEFINITIONS

`DEN` = The digital equipment number (DEN) of the digital trunk.

`NEN` = The networking equipment number (NEN) of the digital trunk.

`b` = Switching module (SM) number.

`c` = Digital line and trunk unit (DLTU) number.

`d` = Digital facility interface (DFI) number.

`e` = Channel number.

`f` = Disposition of the input request. Valid value(s):

- `ABORTED` = SM detected a software defensive check failure and aborted.
- `COMPLETED OFFHOOK` = Trunk was off-hook.
- `COMPLETED ONHOOK` = Trunk was on-hook.
- `FAILED` = Failed to report incoming supervision status of the trunk.
- `INV PORT` = The equipment number (DEN or NEN) for the trunk was invalid.
- `INVALID TRUNK TYPE` = The trunk signaling type is not valid for this request.
- `PROCESS TIMEOUT` = A process in the administrative module (AM) or SM timed out waiting for a response from another processor (either AM or SM).
- `SM/DLTU/DFI BUSY` = SM cannot obtain hardware resources [digital network unit - synchronous optical network (SONET) (DNU-S), digital line and trunk unit (DLTU), or their respective subtending circuits may be out of service], or the SM cannot obtain network timeslots.
- `SM UNAVAILABLE` = The SM identified by the DEN or NEN is not available.

`g` = Digital Networking Unit - SONET (DNU-S) number.

`h` = Data group (DG) number.

`i` = SONET Terminal Equipment (STE) facility number.

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`j` = Synchronous transport signal (STS) facility number.

`k` = Virtual tributary group (VTG) number.

`l` = Virtual tributary Member (VTM) number.

`m` = Digital signal level 0 (DS0) number.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ORD:SCAN
```

ORD:SCSD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      ORD SCSD UNIT a PT b[bbbbbbb] f g

[2]   ____________________________________________________________
      ORD SCSD GRPN c DUPID d PT e[eeeee] f g

[3]   ____________________________________________________________
      ORD SCSD NOT STARTED
        CONFLICT WITH CURRENT SYSTEM STATUS
```

2. REASON FOR OUTPUT

To indicate the result of a distribute operation requested by an ORD:SCSD input message. The operations are: set, clear, flash for eight seconds, and flash continuously.

Format 1 is used when a distribute point is identified by physical location.

Format 2 is used when a distribute point is identified by logical address.

Format 3 indicates the scanner and signal distributor (SCSD) administration process is not active. No communication with SCSD points is possible.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number SCSD unit.

`b` = Physical scan point number on an SCSD.

`c` = Name of the logical group.

`d` = Duplex group ID (0 or 1).

`e` = Number of a point within a logical group.

`f` = Distribute operation. Valid value(s):

`OPERATE`	= Set.
`RELEASE`	= Clear.
`REPEAT`	= Flash continuously.
`STEP`	= Flash for eight seconds, which it terminates in the cleared state.

`g` = Termination status. Valid value(s):

`COMPLETED`	= Action completed.
`FAILED`	= Action could not be completed by SCSD Administrator. Possible reasons for failure are:

- SCSD unit number is invalid.
- Point number is invalid for the logical group. If more than one point number is specified, at least one of them is invalid. Operation will complete for all valid point numbers if there are no other errors.
- Logical group name is invalid and either the SCSD unit is out-of-service (OOS), or is in an inactive state to the SCSD Administrator.

4. ACTION TO BE TAKEN

Issue the OP:OOS input message to determine if the SCSD unit is listed as OOS. Otherwise, enter recent change and verify (RC/V) to verify message arguments.

If logical addressing is used, check that the logical group name exists and/or the point number is contained in the logical group. If physical addressing is used, verify that the SCSD unit is equipped.

If the above results are negative, seek technical assistance.

5. ALARMS

None. This alarm is a manually-requested report.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1, 2	229

Input Message(s):

```
OP:OOS
ORD:SCSD
```

Output Message(s):

```
OP:SCSD
RMV:SCSDC
RST:SCSDC
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-600-31x *ECD/SG*

ORD:TONE-A

Software Release: 5E10 - 5E12
Message Class: TRK
Application: 5
Type: Output

1. FORMAT

[1]
```
ORD TONE a [b] DEN=c-d-e-f g;
```

[2]
```
ORD TONE a [b] NEN=c-h-i-j-k-l g;
```

2. REASON FOR OUTPUT

To report the sequence of actions requested by an ORD:TONE input message.

3. VARIABLE FIELD DEFINITIONS

`DEN` = The digital equipment number (DEN) of the digital trunk.

`NEN` = The networking equipment number (NEN) of the digital trunk.

`a` = Action requested. Valid value(s):
- `OPR` = Establish (operate) a connection.
- `RLS` = Release a connection.

`b` = Number of seconds the connection was maintained.

`c` = Switching module (SM) number. of the Output Messages manual.

`d` = Digital line and trunk unit (DLTU) number.

`e` = Digital facility interface (DFI) number.

`f` = Channel number.

`g` = Disposition of the input request. Valid value(s):
- `ABORTED` = SM detected a software defensive check failure and aborted.
- `ALREADY IDLE` = Trunk is already in an idle state.
- `CIRCUIT BUSY` = Trunk is in a busy state.
- `COMPLETED` = Action performed successfully.
- `FAILED` = Failed to loop or unloop trunk.
- `INV PORT` = The equipment number (DEN or NEN) for the trunk was invalid.
- `INVALID TRUNK TYPE` = The trunk signaling type is not valid for this request.
- `PROCESS TIMEOUT` = A process in the administrative module (AM) or SM timed out waiting for a response from another processor (either AM or SM).
- `SM/DLTU/DFI BUSY` = SM cannot obtain hardware resources [digital network unit - synchronous optical network (SONET) (DNU-S), digital line and trunk unit (DLTU), or their respective subtending circuits may be out of service], or the SM cannot obtain network timeslots.
- `SM UNAVAILABLE` = The SM identified by the DEN or NEN is not available.

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`h` = DNU-S number.

`i` = Data group (DG) number.

`j` = Synchronous transport signal (STS) number.

`k` = Virtual tributary 1.5 (VT1.5) number.

`l` = Digital signal level 0 (DS0) number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ORD:TONE
```

ORD:TONE-B

Software Release: 5E13 and later
Message Class: TRK
Application: 5
Type: Output

1. FORMAT

[1]
```
ORD TONE a [b] DEN=c-d-e-f g;
```

[2]
```
ORD TONE a [b] NEN=c-h-i-j-k-l-m-n g;
```

2. REASON FOR OUTPUT

To report the sequence of actions requested by an ORD:TONE input message.

3. VARIABLE FIELD DEFINITIONS

`DEN` = The digital equipment number (DEN) of the digital trunk.

`NEN` = The networking equipment number (NEN) of the digital trunk.

`a` = Action requested. Valid value(s):
- `OPR` = Establish (operate) a connection.
- `RLS` = Release a connection.

`b` = Number of seconds the connection was maintained.

`c` = Switching module (SM) number.

`d` = Digital line and trunk unit (DLTU) number.

`e` = Digital facility interface (DFI) number.

`f` = Channel number.

`g` = Disposition of the input request. Valid value(s):
- `ABORTED` = SM detected a software defensive check failure and aborted.
- `ALREADY IDLE` = Trunk is already in an idle state.
- `CIRCUIT BUSY` = Trunk is in a busy state.
- `COMPLETED` = Action performed successfully.
- `FAILED` = Failed to loop or unloop trunk.
- `INV PORT` = The equipment number (DEN or NEN) for the trunk was invalid.
- `INVALID TRUNK TYPE` = The trunk signaling type is not valid for this request.
- `PROCESS TIMEOUT` = A process in the administrative module (AM) or SM timed out waiting for a response from another processor (either AM or SM).
- `SM/DLTU/DFI BUSY` = SM cannot obtain hardware resources [digital network unit - synchronous optical network (SONET) (DNU-S), digital line and trunk unit (DLTU), or their respective subtending circuits may be out of service], or the SM cannot obtain network timeslots.

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`SM UNAVAILABLE` = The SM identified by the DEN or NEN is not available.

`h` = Digital Networking Unit - SONET (DNU-S) number.

`i` = Data group (DG) number.

`j` = SONET Terminal Equipment (STE) facility number.

`k` = Synchronous transport signal (STS) facility number.

`l` = Virtual tributary Group (VTG) number.

`m` = Virtual tributary Member (VTM) number.

`n` = Digital signal level 0 (DS0) number.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ORD:TONE
```

ORD:TRK-A

Software Release: 5E10 - 5E12
Message Class: TRK
Application: 5
Type: Output

1. FORMAT

[1]
```
ORD TRK a DEN=b-c-d-e f;
```

[2]
```
ORD TRK a NEN=b-g-h-i-j-k f;
```

2. REASON FOR OUTPUT

To report the sequence of actions requested by an ORD:TRK input message.

3. VARIABLE FIELD DEFINITIONS

`DEN` = The digital equipment number (DEN) of the trunk.

`NEN` = The networking equipment number (NEN) of the trunk.

`a` = Action requested. Valid value(s):
- `OFFHOOK` = Set the trunk off-hook.
- `ONHOOK` = Set the trunk on-hook.
- `READ` = Read outgoing supervision state (on/off-hook).

`b` = Switching module (SM) number.

`c` = Digital line and trunk unit (DLTU) number.

`d` = Digital facility interface (DFI) number.

`e` = Channel number.

`f` = Disposition of the input request. Valid value(s):
- `ABORTED` = SM detected a software defensive check failure and aborted.
- `COMPLETED` = The trunk was set on or off-hook.
- `COMPLETED OFFHOOK` = Trunk is off-hook.
- `COMPLETED ONHOOK` = Trunk is on-hook.
- `FAILED` = Failed to perform operation.
- `INV PORT` = The equipment number (DEN or NEN) for the trunk was invalid.
- `INVALID TRUNK TYPE` = The trunk signaling type is not valid for this request.
- `PROCESS TIMEOUT` = A process in the administrative module (AM) or SM timed out waiting for a response from another processor (either AM or SM).
- `SM/DLTU/DFI BUSY` = SM cannot obtain hardware resources [digital network unit - synchronous optical network (SONET) (DNU-S), digital line and trunk unit (DLTU), or their respective subtending circuits may be out of service], or the SM cannot obtain network timeslots.
- `SM UNAVAILABLE` = The SM identified by the DEN or NEN is not available.

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`g` = DNU-S number.

`h` = Data group (DG) number.

`i` = Synchronous transport signal (STS) number.

`j` = Virtual tributary 1.5 (VT1.5) number.

`k` = Digital signal level 0 (DS0) number.

4. ACTION TO BE TAKEN

Once the trunk is set off-hook, it may have to be followed by an ORD:TRK input message with the '`ONHOOK`' option to return the trunk to an on-hook condition.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ORD:TRK
```

ORD:TRK-B

Software Release: 5E13 and later
Message Class: TRK
Application: 5
Type: Output

1. FORMAT

[1]
```
ORD TRK a DEN=b-c-d-e f;
```

[2]
```
ORD TRK a NEN=b-g-h-i-j-k-l-m f;
```

2. REASON FOR OUTPUT

To report the sequence of actions requested by an ORD:TRK input message.

3. VARIABLE FIELD DEFINITIONS

`DEN` = The digital equipment number (DEN) of the trunk.

`NEN` = The networking equipment number (NEN) of the trunk.

`a` = Action requested. Valid value(s):
- `OFFHOOK` = Set the trunk off-hook.
- `ONHOOK` = Set the trunk on-hook.
- `READ` = Read outgoing supervision state (on/off-hook).

`b` = Switching module (SM) number.

`c` = Digital line and trunk unit (DLTU) number.

`d` = Digital facility interface (DFI) number.

`e` = Channel number.

`f` = Disposition of the input request. Valid value(s):
- `ABORTED` = SM detected a software defensive check failure and aborted.
- `COMPLETED` = The trunk was set on or off-hook.
- `COMPLETED OFFHOOK` = Trunk is off-hook.
- `COMPLETED ONHOOK` = Trunk is on-hook.
- `FAILED` = Failed to perform operation.
- `INV PORT` = The equipment number (DEN or NEN) for the trunk was invalid.
- `INVALID TRUNK TYPE` = The trunk signaling type is not valid for this request.
- `PROCESS TIMEOUT` = A process in the administrative module (AM) or SM timed out waiting for a response from another processor (either AM or SM).
- `SM/DLTU/DFI BUSY` = SM cannot obtain hardware resources [digital network unit - synchronous optical network (SONET) (DNU-S), digital line and trunk unit (DLTU), or their respective subtending circuits may be out of service], or the SM cannot obtain network timeslots.
- `SM UNAVAILABLE` = The SM identified by the DEN or NEN is not available.

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`g` = Digital Networking Unit - SONET (DNU-S) number.

`h` = Data group (DG) number.

`i` = SONET Terminal Equipment (STE) facility number.

`j` = Synchronous transport signal (STS) facility number.

`k` = Virtual tributary group (VTG) number.

`l` = Virtual tributary Member (VTM) number.

`m` = Digital signal level 0 (DS0) number.

4. ACTIONS TO BE TAKEN

Once the trunk is set off-hook, it may have to be followed by an ORD:TRK input message with the '`ONHOOK`' option to return the trunk to an on-hook condition.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ORD:TRK
```

67. PRM

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PRM:0

Software Release: 5E10 and later
Message Class: NONE
Application: 5,3B
Type: Output

1. FORMAT

```
PRM_0 AAAA AAAA AAAA AAAA AA AA AA
```

2. REASON FOR OUTPUT

All PRM message descriptions have been removed from the Output Messages manual. PRM message descriptions for both *UNIX*® RTR PRMs and *5ESS*®-2000 switch application PRMs are now located in the Processor Recovery Messages manual.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):

Where 'x' is the generic specific version of the specified manual.

235-600-60x *Processor Recovery Messages*

68. RC

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RC:BATCH-TERM

Software Release: 5E10 and later
Message Class: RCVY
Application: 5
Type: Output

1. FORMAT

```
RC BATCH {SUCCESS|ERROR} a b TERM-ID=c CLERK=d
```

2. REASON FOR OUTPUT

To report the result of a recent change (RC) batch operation (insert, update, or delete).

3. VARIABLE FIELD DEFINITIONS

`a` = RC form name used for the operation.

`b` = Result of the RC operation. Valid value(s):

```
DELETED
INSERTED
NOT DELETED
NOT INSERTED
NOT UPDATED
UPDATED
```

`c` = The name of terminal that the RC batch clerk file was created from. A clerk file contains a batch of RC operations that will be executed later. The batch RC operations can be executed on a different terminal than the one the clerk file was created on.

`d` = The identification of the clerk who created the clerk file.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:RCRLS
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-118-21x *Recent Change Procedures Batch Release*

RC:INHIBITED

Software Release: 5E10 and later
Message Class: RCVY
Application: 5
Type: Output

1. FORMAT

```
RC INHIBITED a NOT b TERM-ID=c CLERK=d
```

2. REASON FOR OUTPUT

To report the failure of a recent change (RC) batch operation (insert, update, or delete) during the inhibition of RC activity.

3. VARIABLE FIELD DEFINITIONS

`a` = RC form name used for the operation.

`b` = Result of the RC operation. Valid value(s):
`NOT DELETED`
`NOT INSERTED`
`NOT UPDATED`

`c` = The name of terminal that the RC batch clerk file was created from. A clerk file contains a batch of RC operations that will be executed later. The batch RC operations can be executed on a different terminal than the one the clerk file was created on.

`d` = The identification of the clerk who created the clerk file.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`EXC:RCRLS`

RC:MTCE-WARNING

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RC MTCE WARNING
  a
  [VERIFY BY PLACING COURTESY CALL TO THIS TELEPHONE NUMBER.]
```

2. REASON FOR OUTPUT

To print a warning related to a recent change (RC) event because there is no mechanism to convey the information back to the user's terminal. The event detected may or may not require action. Supplemental information may be provided if any action is recommended.

3. VARIABLE FIELD DEFINITIONS

a = Text of warning message for RC event. The messages related to the local area signaling services (LASS) features are:

- `AGENCY FIELD ON LASS OFFICE PARAMETERS VIEW (8.21) HAS CHANGED.`
- `Use EXC:SODD, LSF commands screen list data clean up on ALL SMs`
- `Use EXC:SODD, LSF command to clean up unneeded screen list data on sm`
- `LASS .`
- `out of SMs failed to update, on the LASS Feature Access View.`
- `out of SMs failed due to SM being in isolation.`

The messages related to the automatic customer station rearrangement (ACSR) feature are:

- Could not access RCacsr_jobs. Process exiting.
  Return code = <code>
- Port unavailable. ACSR system process exiting.
  Return code = <code>
- Message enable failed. System process exiting.
  Return code = <code>
- Could not connect port. ACSR terminal process exiting.
  Return code = <code>
- Message enable failed. ACSR terminal process exiting.
  Return code = <code>
- NO DB link. ACSR Terminal process exiting.
  Return code = <code>
- ACSR Terminal Proc could not read RCACSR_Q. Return code = <code>
- ACSR user's calls are blocked. Update SPID.
  Set blk_call = DBNO
  User = <telephone number>
  Return code = <code>

4. ACTION TO BE TAKEN

Action to be taken, if any, is specified in the text of the message.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-118-25x *Recent Change Procedures*
235-190-103 *Business and Residence Feature Description*
235-190-130 *LASS Features*

69. RCV

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RCV:BFG

Software Release: 5E10 and later
Message Class: RCVY,RCVYMON
Application: 5
Type: Output

1. FORMAT

[1]
```
RCV: BFG SUMMARY INFORMATION - EVENT a - STARTED
  Number of lines PROCESSED without error for SM c: d
```

[2]
```
RCV: BFG SUMMARY INFORMATION - EVENT a - COMPLETED
  Number of lines/operations in ERROR for SM c: e
```

[3]
```
RCV: BFG SUMMARY INFORMATION - EVENT a - STARTED
  Total number of lines PROCESSED without error: f
```

[4]
```
RCV: BFG SUMMARY INFORMATION - EVENT a - COMPLETED
  Total number of lines/operations in ERROR: g
```

[5]
```
RCV: BFG FAILURE RELATED INFORMATION - EVENT a - STARTED
  Processing unable to continue on SM: c
```

[6]
```
RCV: BFG FAILURE RELATED INFORMATION - EVENT a - STARTED
  Lines associated with the following tuples weren't updated:
```

[7]
```
RCV: BFG FAILURE RELATED INFORMATION - EVENT a - PART b
  DN_FEATS - MODULE: c,  LTM TYPE: h,  LTM IDX: i,  RANGE: j
```

[8]
```
RCV: BFG FAILURE RELATED INFORMATION - EVENT a - PART b
  FC_LINE  - MODULE: c,  MEMBER: k,  PARTY: l
```

[9]
```
RCV: BFG FAILURE RELATED INFORMATION - EVENT a - STARTED
  Cannot INSERT the following LTM_BFG entry:
```

[10]
```
RCV: BFG FAILURE RELATED INFORMATION - EVENT a - STARTED
  Cannot READ the following LTM_BFG entry for BFG m:
```

[11]
```
RCV: BFG FAILURE RELATED INFORMATION - EVENT a - PART b
  LTM_BFG  - MODULE: c,  BFG ID: n,  LTM IDX: i, TYPE: h
```

[12]
```
RCV: BFG FAILURE RELATED INFORMATION - EVENT a
  Cannot OPEN a transaction, View aborted.
```

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```
[13]  ____________________________________________________________
      RCV: BFG FAILURE RELATED INFORMATION - EVENT a - STARTED
        Failure to UPDATE DN: o

[14]  ____________________________________________________________
      RCV: BFG FAILURE RELATED INFORMATION - EVENT a - STARTED
        Failure to UPDATE Member p of MLHG q

[15]  ____________________________________________________________
      RCV: BFG FAILURE RELATED INFORMATION - EVENT a - STARTED
        Cannot READ the Master LTM_BFG for m on SM c

[16]  ____________________________________________________________
      RCV: BFG FAILURE RELATED INFORMATION - EVENT a
        [COMPLETED|PART b]
        r,  s  [t]
```

2. REASON FOR OUTPUT

To report the result of the business and residence customer service (BRCS) feature group (BFG) update, such as the total number of successes and failures of the update operations on each switching module (SM) and all SMs in the office, or failure-related information during a BFG update.

The message will start with a message header, either for the summary or failure message, followed by statistical information for the summary message or the failure-related information for a failure message. For failure-related messages, the user should consult the Business and Residence Modular Features manual. In this manual, refer to the "Feature Assignment" section on "BFG (BRCS Feature Grouping)" subsection "BFG ROP Errors". This is especially true for failure-related message(s) of Format 16, in order to interpret variable fields: '`r`', '`s`' and '`t`'.

BFG summary messages use the RCVYMON message class.

3. VARIABLE FIELD DEFINITIONS

`a` = Event number.

`b` = Message section number.

`c` = SM number.

`d` = The total number of successful BFG updates on '`c`'.

`e` = The total number of failing BFG lines/operations updates on '`c`'.

`f` = The total number of successful BFG updates on all SMs.

`g` = The total number of failing BFG lines/operations updates on all SMs.

`h` = The type of the logical termination index (LTM IDX).

`i` = The LTM IDX.

`j` = Range key value for DN_FEATS the relation.

`k` = The port number in hexadecimal for the line that has the BFG.

`l` = The party type of the port number for the line that has the BFG. Refer to the Recent Change

Attribute Definitions manual for valid party types.

`m` = The name of the BFG.

`n` = The identification number of the BFG.

`o` = The telephone number.

`p` = The member number of the multi-line hunt group (MLHG).

`r` = The number of the error class for the given error - '`s`'.

`s` = The unique error message number, for the given error class - '`r`'.

`t` = Substitution value(s) used for interpreting an error message.

4. ACTION TO BE TAKEN

Take corrective actions based on the failure information. Refer to the Business and Residential Modular Features manual for further information.

5. ALARMS

None.

6. REFERENCES

IM/OM References:

None.

Other Manual(s):
235-118-218 *Recent Change Attribute Definistions*
235-190-103 *Business and Residence Feature Description*

RCV:DMTECD-VFY

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      RCV DMTECD VFY STARTED

[2]   ____________________________________________________________
      RCV DMTECD VFY DB a - PAGE b OF c

[3]   ____________________________________________________________
      RCV DMTECD VFY DB a COMPLETED

[4]   ____________________________________________________________
      RCV DMTECD VFY DB a ERROR MESSAGES

[5]   ____________________________________________________________
      RCV DMTECD VFY DB a ABORTED INTERNAL ERROR

[6]   ____________________________________________________________
      RCV DMTECD VFY DB a LOG - PAGE b OF c

[7]   ____________________________________________________________
      RCV DMTECD VFY DB a ERRORS FOLLOW

[8]   ____________________________________________________________
      RCV DMTECD VFY DB a TERMINATED WITH ERRORS
```

2. REASON FOR OUTPUT

To report the initiation or completion of an RCV:DMTECD-VFY session, preface error output, preface log file output, or to flag termination status.

3. VARIABLE FIELD DEFINITIONS

`a` = Database accessed by RCV:DMTECD-VFY.

`b` = Current page of output file.

`c` = Total pages of output file.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

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6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1, 2, 3, 6	722
4, 5, 7, 8	721

Input Message(s):

```
RCV:DMTECD-VFY
RCV:M-RCVECD
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-600-31x *ECD/SG*

RCV:DMTSG-VFY

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      RCV DMTSG VFY STARTED

[2]   ____________________________________________________________
      RCV DMTSG VFY DB a - PAGE b OF c

[3]   ____________________________________________________________
      RCV DMTSG VFY DB a COMPLETED

[4]   ____________________________________________________________
      RCV DMTSG VFY DB a ERROR MESSAGES

[5]   ____________________________________________________________
      RCV DMTSG VFY DB a ABORTED INTERNAL ERROR

[6]   ____________________________________________________________
      RCV DMTSG VFY DB a LOG - PAGE b OF c

[7]   ____________________________________________________________
      RCV DMTSG VFY DB a ERRORS FOLLOW

[8]   ____________________________________________________________
      RCV DMTSG VFY DB a TERMINATED WITH ERRORS
```

2. REASON FOR OUTPUT

To report the initiation or completion of an RCV:DMTSG-VFY session, preface error output, preface log file output, or to flag termination status.

3. VARIABLE FIELD DEFINITIONS

`a` = Database accessed by RCV:DMTSG-VFY.

`b` = Current page of output file.

`c` = Total pages of output file.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

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6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1, 2, 3, 6	722
4, 5, 7, 8	721

Input Message(s):

```
RCV:DMTSG-VFY
RCV:M-RCVSG
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-600-31x *ECD/SG*

RCV:FAILURE

Software Release: 5E10 and later
Message Class: RCVY
Application: 5
Type: Output

1. FORMAT

```
RCV FAILURE a NOT b c {TERM-ID=d|FM USER:APID=e,BCID=f}
```

2. REASON FOR OUTPUT

To report that a recent change (RC) operation (insert, update, or delete) has not been successfully completed for RC menu mode, text interface, or facility management (FM) users.

3. VARIABLE FIELD DEFINITIONS

`a` = RC view name that as used for the RC operation.

`b` = RC operation. Valid value(s):
`DELETED`
`INSERTED`
`UPDATED`

`c` = The value of the key(s) for the RC operation on '`a`'.

`d` = The terminal that RC is executing on.

`e` = The application processor (AP) identification number for the FM user.

`f` = The business customer (BC) identification number for the FM user.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RCV:APPTEXT
RCV:M-APPRC
```

MCC Display Page(s):

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RCV:MENU

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
RCV MENU a b [c][ERRNO d]
```

2. REASON FOR OUTPUT

To specify the termination status of a RCV:MENU input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Name of first ID field of corresponding input message.

`b` = Termination status. Valid value(s):
`ABORTED` = Error.
`COMPLETED` = Successful completion.

`c` = Reason for abort. Valid value(s):
`CANNOT CREATE ERROR FILE` = Recent Change activity unable to create a log file for errors; permissions may be inappropriate or file space may be insufficient.
`CANNOT DETERMINE DEFAULT VALUES` = Special error return from RCV indicating failure to determine default mask directory.
`CANNOT EXEC` = Unknown recent change activity in second data field or permissions inappropriate.
`CANNOT GETTRAP` = System call failed.
`CANNOT GETTRAP STDIN` = System call failed.
`CANNOT REOPEN STREAM` = Library call failed.
`CANNOT REOPEN TERMINAL` = Library call failed.
`CANNOT SETTRAP` = System call failed.
`CANNOT WAIT` = MENU finds system call failure.
`CLOSE FAILED` = System call failed.
`DATA SUBFIELD num INCORRECT` = Parameters to recent change activity incorrect; num is an integer starting from one indicating which parameter is not understood.
`DUP FAILED` = System call failed.
`FCLOSE FAILED` = Library call failed.
`FORK FAILED` = MENU finds system call failure.
`INTERNAL ERROR` = Recent change activity encountered an internal error; error message logged to error file named for the activity.
`ODIN FORM CHECK FAILED FOR BATCH` = Special error return from RCV3B to indicate a failure in batch mode.
`OUT OF MEMORY` = MENU cannot find main memory for setup.
`PIPE FAILED` = System call failed.
`READ FAILED` = System call failed.
`SETTRAP STDIN FAILED` = System call failed.
`WRITE FAILED` = System call failed.

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`d` = Error number after system call failure. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual. Conflict with current system status interactive process on MTTY requires redirection of STDIN and STDOUT.

4. ACTION TO BE TAKEN

Check the Input Messages manual and the Output Messages manual version of the message to see if an error log file exists.

If `INTERNAL ERROR` is printed, examine the error log file. If an error log file does not exist, check the ROP.

Obtain assistance to restore the system to sanity if any other system-related or library-related message is printed.

Refer to Input Messages manual and reenter the correct input format for any other error messages.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
All	169

Input Message(s):

```
RCV:M-BROWSE
RCV:M-CREATEECD
RCV:M-CREATESG
RCV:M-EVOL
RCV:M-LOADF3B
RCV:M-RCVECD
RCV:M-RCVSG
RCV:M-TRANSGEN
RCV:M-TREEBLD
```

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

Other Manual(s):

Where 'x' is the generic-specific version of the specified manual.
235-600-31x *ECD/SG*

RCV:MENU-BKUPCHK

Software Release: 5E10 and later
Message Class: MAINT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      RCV MENU BKUPCHK: PTN FILES CHECK COMPLETE

[2]   ____________________________________________________________________
      RCV MENU BKUPCHK: a APPEARS TO BE CORRUPT
```

2. REASON FOR OUTPUT

To report the result of request for validity check on /no5text/bkup/*.ptn files. These messages are printed only in response to RCV:M-BKUPCHK input message.

Format 1 will print when all .ptn files pass the validity check.

Format 2 will print when a .ptn file fails the validity check.

3. VARIABLE FIELD DEFINITIONS

`a` = The name of the .ptn file that failed the validity check. The file is located in /no5text/bkup.

4. ACTION TO BE TAKEN

No action is needed when Format 1 prints.

If Format 2 prints, it is possible that the bkupsum file was not properly updated. Compare the sum (use sum -r) value of the named .ptn file with the sum value listed in /no5text/bkup/bkupsum file for that file. If they are different, try changing the value in bkupsum file.

Otherwise, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RCV:M-BKUPCHK`

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

RCV:MENU-GENBKUP

Software Release: 5E10 and later
Message Class: MAINT
Application: 5
Type: Output

1. FORMAT

```
RCV MENU GENBKUP: [(a)] b
```

2. REASON FOR OUTPUT

To report progress of a request for software release backup. These messages are printed only in response to RCV:MENU-GENBKUP input message.

3. VARIABLE FIELD DEFINITIONS

`a` = The name of the terminal from which the input message was entered (for example, ttya or ttyl).

`b` = A phrase reporting the progress or an error condition. It is usually self explanatory. Phrases are listed in the ACTION TO BE TAKEN section in three groups: one for those that need some action by the user, another for those that the user should refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. and another for those that need no action by the user.

4. ACTION TO BE TAKEN

When the process terminates normally, no action is required.

When the process terminates abnormally (for example, '`ABORTED`') take the corrective action suggested in the list above for error state phrases or refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. In the phrases below: '`x`' is a numeric expression and '`<>`' denotes a variable string with a brief explanation inside the brackets.

The following messages require the user to take some corrective action.

Error message:	Action:
CRAFT QUIT TAPE WRITE PROCEDURE! POSSIBLE TAPE DRIVE PROBLEMS! CAN'T WRITE AT HIGH DENSITY	Run a phase 5 diagnostics on magnetic tape drive. Refer to the Corrective Maintenance manual to run this phase.
GENBKUP TIMED OUT - LAST COMMAND DID NOT COMPLETE	The genbkup process was waiting for a message to complete but did not receive the completion message within a specified time. This could be caused due to the message taking longer than usual time in completing the task. Retry the RCV:MENU-GENBKUP input message later. If the same problem persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
MHD 0 MUST BE ACTIVE TO CONTINUE! PLEASE TYPE A "RST:MHD=0" COMMAND	Enter the suggested input message.
MHD 1 MUST BE ACTIVE TO CONTINUE! PLEASE TYPE A "RST:MHD=1" COMMAND	Enter the suggested input message.
MHD x IS NOT ACCESSIBLE AT THIS TIME	Restore MHD x.
ODD BACKUP IN PROGRESS. GENBKUP ABORTING	Retry when office dependent data (ODD) backup is complete.
ODD MEMORY GROWTH IN PROGRESS. GENBKUP ABORTING	Retry when memory growth process is complete.
RMV/RST OF MTC 0 RESULTED IN AN UNSTABLE	Diagnose magnetic tape controller (MTC) and take corrective action

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MTC 0 STATE. HAVE CRAFT INVESTIGATE	accordingly.
TAPE VFY FAILED! ENTIRE TAPE SEQ --> MAY <-- NEED TO BE REWRITTEN! IF THE CRAFT CONTINUES THIS TAPE SEQUENCE RE-VERIFY THIS FAILED TAPE LATER USING OPTION "p" FROM GENBKUP'S MAIN MENU	Follow the suggestion in the message.
THE RMV:MHD=x COMMAND FAILED FROM AN ABORTED/STOPPED ERROR CONDITION	Take corrective action on MHD x.
THE RST:MHD=x COMMAND FAILED FROM AN ABORTED/STOPPED ERROR CONDITION	Take corrective action on MHD x.
TAPE SEQ NOT STARTED! FIELD UPDATE ACTIVITY DETECTED!	Genbkup cannot be run when field update activity is under way, so this tape sequence was not started. Wait until the field update is completed.
TOP TAPE VERIFICATION FAILED	Retry RCV:MENU:GENBKUP. If the same problem persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
USE POKE 195	Instead of using the RCV:MENU-GENBKUP input message, use poke 195.
VFY:MHD=0 CMD FAILED! POSSIBLY SERIOUS DFC-0/MHD-0 HARDWARE PROBLEMS EXIST	Take corrective action on MHD 0.
VFY:MHD=1 CMD FAILED! POSSIBLY SERIOUS DFC-1/MHD-1 HARDWARE PROBLEMS EXIST	Take corrective action on MHD 1.

Following messages may indicate serious system problems. If the following messages appear, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Error message:	**Explanation:**
/dev/ IS MOUNTED BUT NOT POPULATED!	The file system /dev/ is mounted but is empty.
/dev/ MOUNTED ON A NON-STANDARD DIRECTORY MOUNT POINT!	The file system /dev/ is mounted on an incorrect directory.
/dev/ SHOULD HAVE BEEN AN ENTRY IN THE MOUNT TABLE BUT WAS NOT!	The file system /dev/ is not listed in the mount table (probably because it is not mounted).
AM ODD DISK VERIFICATION ABORTED!	
AN AM ODD FSBLK/FSLINK AUDIT FAILED!	An audit of AM ODD file system blocks/links failed.
AN SM ODD TAPE SEQ ABORTED! CHECK ROP!	An SM tape sequence was aborted, read ROP to see if you can find the possible cause.
AN UNRECOGNIZED AUDIT OR CMPR:DISK TO CORE COMMAND WAS ENCOUNTERED! GENBKUP ABORTING!	An input message for audit or for compare disk to core was issued by genbkup but it was not recognized by the system for some reason.
ATTEMPTED TAPE SEQUENCE ABORTED! CAN NOT CREATE LINKFILE. GENBKUP ABORTING!	Genbkup cannot create linkfile (/tmp/.genbkupLINK) which is used as a flag.
CAN NOT CREATE LOCKFILE. GENBKUP ABORTING!	Genbkup cannot create lockfile (/tmp/.genbkupLOCK) which is used as a flag. Linkfile and lockfile are linked together (same file with different names).
CAN NOT FOPEN LOCKFILE FOR APPENDING! GENBKUP ABORTING!!	Genbkup cannot open lockfile for append mode.
CAN NOT FOPEN LOCKFILE FOR WRITING! GENBKUP ABORTING!!	Genbkup cannot open lockfile for write mode.
CAN'T BYTE SEEK IN CURRENT MTCLOG!	Access to maintenance log failed. Maintenance log (named MTCLOG0 or MTCLOG1) are located in /etc/log or /log/log.
CAN'T BYTE SEEK IN MTCLOG0!	
CAN'T BYTE SEEK IN MTCLOG1!	
CAN'T CHANGE DIRECTORY TO /cft/shl	
CAN'T CLEAR RC INHIBIT BIT!	Inhibit bit for recent change cannot be cleared for some reason .
CAN'T CREATE TMP FILE FOR SCREEN DUMP!	Genbkup cannot create a temporary file in /tmp.
CAN'T CREATE TMP FILE FOR THE SOFTWARE BKUP DISK LABEL!	
CAN'T CREATE TMP FILE FOR THE TAPE LABEL!	
CAN'T DETERMINE IF AN LDFT TAPE IS MOUNTED!	
CAN'T GET MOUNT TABLE STATUS FROM mntstat()! GENBKUP ABORTING	
CAN'T SET RC INHIBIT BIT!	Inhibit bit for recent change cannot be set for some reason.
CAN'T STAT CURRENT MTCLOG!	Stat() of the current maintenance log failed.

COPY:ACTDISK:MHD=x CMD FAILED FROM AN ABORTED/STOPPED ERROR CONDITION!	The above input message issued by genbkup failed.
COPY:SPDISK CMD FOR MHD x FAILED FROM AN ABORTED/STOPPED ERROR CONDITION!	
COULD NOT EXEC LAST CMD FROM GBexec_row()!	Genbkup failed to execute the last message (refer to the last message on the screen).
COULD NOT KILL CURRENT COPY:BKDISK RELIABLY!	Genbkup attempted to kill currently running COPY:BKDISK, but is unsure of the result due to unclear return code.
CURRENT MTCLOG SIZE LESS THAN ZERO BYTES!	There is something wrong with the maintenance log.
FILE SYSTEM MOUNT TABLE INCONSISTENCY(S)! CRAFT SHOULD INVESTIGATE AND SEEK APPROPRIATE TECHNICAL ASSISTANCE IMMEDIATELY!	There is something wrong with the mount table.
GBgreplog() ABORTED DUE TO ILLEGAL GREP TYPE!	Internal program error--genbkup is looking for a message type that is not in the program.
GBmkdir: cannot access "." !	This and the following messages indicate that genbkup tried but could not make the directory "/genbkupDIR" which is used to mount broot file system.
GBmkdir: cannot link "/genbkupDIR/." !	
GBmkdir: cannot link "/genbkupDIR/.." !	
GBmkdir: cannot make directory "/genbkupDIR" !	
GBrmdir: "/genbkupDIR" is a mounted file system !	
5GBrmdir: "/genbkupDIR" no permission	
GBrmdir: "/genbkupDIR" non-existent !	
GBrmdir: "/genbkupDIR" not a directory !	
GBrmdir: "/genbkupDIR" not empty !	
GBrmdir: "/genbkupDIR" not removed !	
GBrmdir: "/genbkupDIR" unreadable !	
GBrmdir: cannot remove current directory !	
GBrmdir: cannot stat "." !	
GENBKUP INTERNAL ERROR EXPRESSION -><- RETURNED ERROR: x	
ODD BACKUP PROCEDURE ABORTED!	
PARTITION CHECK FUNCTION FAILED!	
POSSIBLY CORRUPT PTN FILES!	Files (with .ptn suffix) under /no5text/bkup used in partition checks may be corrupted or incorrect.
POSSIBLY SERIOUS AUDIT/CMPR:DISK INCONSISTENCIES!	There were inconsistencies in the results of audit and compare disk.
SM ODD DISK VERIFICATION ABORTED!	
SM ODD FSBLK/FSLINK AUDIT FAILED!	An audit of SM ODD file system blocks/links failed.
TAPE SEQ ABORTED DUE TO COPY:BKDISK ERROR!	This tape sequence was aborted because COPY:BKDISK message failed.
TEXT DISK VERIFICATION ABORTED!	
THE COPY:PTN:ALL COMMAND FAILED FROM AN ABORTED/STOPPED ERROR CONDITION!	The above input message issued by genbkup failed.
THE INIT:MHD=x,VFY COMMAND FAILED FROM AN ABORTED/STOPPED ERROR CONDITION!	The above input message issued by genbkup failed.
THE PRIMARY no5sodd[1/2] FILE SYSTEM IS NOT POPULATED! SM INIT RECOVERY IMPOSSIBLE!	The switching module (SM) ODD file system does not have data in it.
UNABLE TO DETERMINE ACTIVE MTCLOG!	Genbkup cannot tell which MTCLOG (0 or 1) is active.
UNABLE TO KILL THE PREVIOUS GENBKUP PROCESS. ABORTING!!	There can be only one genbkup running at one time. This genbkup tried to kill the already running genbkup but failed.
UNABLE TO OPEN MTCLOG0!	Cannot open the maintenance log (MTCLOG0). MTCLOG0 is in /etc/log or /log/log.
UNABLE TO OPEN MTCLOG1!	Cannot open the maintenance log (MTCLOG1). MTCLOG1 is in /etc/log or /log/log.
UNABLE TO SET THE RC INHIBIT BIT!	Inhibit bit for recent change cannot be set for some reason.
UNINTERPRETABLE ODIN TPREAD RETURN!	Possible internal program error.
UNRECOVERABLE LOGIC ERROR IN GBsetlog()!	Possible internal program error.
WRITE AT END OF LOCKFILE FAILED! GENBKUP ABORTING!!	Genbkup cannot write to lockfile (/tmp/.genbkupLOCK) which is used as a flag.
WRITE AT START OF LOCKFILE FAILED!	Genbkup cannot write to lockfile (/tmp/.genbkupLOCK) which is used

GENBKUP ABORTING!!	as a flag.

The following messages require no action.

Error Message:
ABORTED Note: Before this message appears, a message explaining the cause will appear. Look for that message and check the list above.
COMPLETED
STARTING
A (software release) DATABASE BACKUP TAPE DATED (date) WILL BE OVERWRITTEN!
A (software release) LDFT FORMATTED TAPE DATED (date) WILL BE OVERWRITTEN!
A (software release) TEXT BACKUP TAPE DATED (date) WILL BE OVERWRITTEN!
A (software release) TOP TAPE DATED (date) WILL BE OVERWRITTEN!
ALLOWING OTHER GENBKUP PROCESS TO CONTINUE (PID = x ON (ttyname))!
AUTO TAPE VFY -->NOT<-- CHOSEN FOR THIS TAPE SEQ!
AUTO TAPE VFY CHOSEN FOR THIS TAPE SEQ!
COPY:PTN:ALL COMMAND COMPLETED SUCCESSFULLY!
CRAFT CHOSE THE NO5SODDx TAPE SEQ VIA RESTART
CRAFT ELECTED TO ABORT THE (tapename) TAPE WRITE PROCEDURE! THIS QUIT OPTION WAS EXERCISED AFTER FINDING
AN LDFT TAPE MADE WITHIN THE LAST WEEK!
CRAFT HAS ELECTED TO ABORT CURRENT TAPE SEQ!
CRAFT HAS ELECTED TO RESTART CURRENT TAPE SEQ!
CRAFT HAS ELECTED TO TRY TO WRITE (tapename) TAPE SEQUENCE AT LOW DENSITY (1600 BPI)!
CRAFT HAS ELECTED TO USE RESTART TAPE OPTION!
CRAFT HAS ELECTED TO USE THE RESTART SOFTWARE BACKUP DISK OPTION!
CRAFT QUIT SINCE MOUNT TABLE NOT STABLE!
CRAFT QUIT SM ODD WRITE TAPE FUNC AT VFY QUES
CRAFT QUIT SM ODD WRITE TAPE FUNCTION EARLY.
CURRENTLY MOUNTED & TO BE VERIFIED AT IS
GENBKUP (pid = x) is ALREADY running on terminal (ttyname) !!
IN MIN CONFIG, AIMRC POINTS TO NO5AODD2, GENBKUP PROCEEDING!
LABEL FOR SOFTWARE BACKUP DISK x, (followed by a label)
LAST COMMAND ATTEMPTED WAS: (input message string)
LDFT TAPE VERIFICATION SUCCESSFUL!
NEW TAPE BEING TESTED. PREVIOUS TAPE COULD ONLY BE WRITTEN AT 1600 BPI.
ODD BACKUP PROCEDURE FAILED! GENBKUP RETRYING.
ON BROOT - BROOT TO ROOT PTN CPY EXECUTING!
ON ROOT - ROOT TO BROOT PTN CPY EXECUTING!
PROCESSING - x
SCREEN DUMP (followed by dump of the screen at the time)
SOFTWARE BACKUP DISK PROCEDURE FOR MHD x COMPLETED SUCCESSFULLY
TAPE LABEL (followed by a label)
TAPE SEQUENCE COMPLETED SUCCESSFULLY!
TEXT, AM & SM ODD DISK VFY COMPLETED SUCCESSFULLY!
TOP TAPE VERIFICATION SUCCESSFUL!
USER HAS DECIDED TO CONTINUE!

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:MTC
CMPR:DISK-CORE
COPY:ACTDISK
COPY:BKDISK
COPY:PTN-ALL
COPY:SPDISK
RCV:M-GENBKUP
RMV:MHD
```

```
RST:MHD
INIT:MHD
VFY:MHD
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

RCV:MENU-VFYTXT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RCV MENU VFYTXT: a
```

2. REASON FOR OUTPUT

To report progress of a request for verification of tape or disk backups. These messages are printed only in response to RCV:MENU:VFYTXT input message.

3. VARIABLE FIELD DEFINITIONS

`a` = A phrase reporting the progress or an error condition. It is usually self explanatory.

4. ACTION TO BE TAKEN

When the process terminates normally, no action is required.

When the process terminates abnormally (for example, '`ABORTED`') take the corrective action suggested in the list above for error state phrases or refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

In the phrases below: '`x`' is a numeric expression and '`<>`' denotes a variable string with a brief explanation inside the brackets.

The following messages require the user to take some corrective action.

Error message:	Action:
MHD x MUST BE ACTIVE FOR THIS PROCEDURE	Restore moving head disk (MHD) x (RST:MHD=x).
MHD x WAS NOT REMOVED SUCCESSFULLY!	Remove MHD x (RMV:MHD=x).
MHD x IS NOT ACCESSIBLE AT THIS TIME	Select another MHD.
ODD BACKUP IN PROGRESS. VFYTXT ABORTING	Retry when office dependent data (ODD) backup is complete.
ODD MEMORY GROWTH IN PROGRESS. VFYTXT ABORTING	Retry when memory growth process is complete.
USE POKE 193	Instead of using the RCV:MENU:VFYTXT input message, use poke 193.
UNINTERPRETABLE ODIN TPREAD RETURN!	Retry entering last input.
VFYTXT TIMED OUT WAITING FOR LAST CMD TO COMPLETE - CMD FOLLOWS	The vfytxt process was waiting for a message to complete but did not receive the completion message within a specified time. This could be caused by the message's taking longer than usual time in completing the task. Retry the RCV:MENU:VFYTXT input message later. If the same problem persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Following messages may indicate serious system problems. If the following messages appear, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Error message:	Explanation:
AN UNRECOGNIZED CMPR:DISK TO CORE COMMAND WAS ENCOUNTERED! VFYTXT ABORTING!	An input message for audit or for compare disk to core was issued by

	vfytxt but it was not recognized by the system for some reason.
CAN NOT CREATE LINKFILE. VFYTXT ABORTING!	Vfytxt cannot create linkfile (/tmp/.vfytxtLINK) which is used as a flag.
CAN NOT CREATE LOCKFILE. VFYTXT ABORTING!	Vfytxt cannot create lockfile (/tmp/.vfytxtLOCK) which is used as a flag. Linkfile and lockfile are linked together (same file with different names).
CAN NOT FOPEN LOCKFILE FOR APPENDING! VFYTXT ABORTING!!	Vfytxt cannot open lockfile for append mode.
CAN NOT FOPEN LOCKFILE FOR WRITING! VFYTXT ABORTING!!	Vfytxt cannot open lockfile for write mode.
CAN'T BYTE SEEK IN CURRENT MTCLOG!	Access to maintenance log failed. Maintenance log (named MTCLOG0 or MTCLOG1) are located in /etc/log or /log/log.
CAN'T BYTE SEEK IN MTCLOG0!	
CAN'T BYTE SEEK IN MTCLOG1!	
CAN'T CHANGE DIRECTORY TO /cft/shl	
CAN'T CREATE TMP FILE FOR SCREEN DUMP!	Vfytxt cannot create a temporary file in /tmp.
CAN'T STAT CURRENT MTCLOG!	Stat() of the current maintenance log failed.
COULD NOT EXEC LAST CMD FROM UAexec_row()!	Vfytxt failed to execute the last message (refer to the last message on the screen).
LAST COMMAND ATTEMPTED WAS:	Vfytxt detected a problem while executing .
COULD NOT KILL CURRENT COPY:BKDISK RELIABLY!	Vfytxt attempted to kill currently running COPY:BKDISK, but is unsure of the result due to unclear return code.
CURRENT MTCLOG SIZE LESS THAN ZERO BYTES!	There is something wrong with the maintenance log.
POSSIBLY SERIOUS CMPR:DISK:CORE OR VFY FILE INCONSISTENCIES!	There were inconsistencies in the results of audit and compare disk.
PREVIOUS COPY:BKDISK MAY STILL BE RUNNING	Vfytxt was unable to identify the process identity of the currently running COPY:BKDISK.
UAgreplog() ABORTED DUE TO ILLEGAL GREP TYPE!	Internal program error--vfytxt is looking for a message type that is not in the program.
UNRECOVERABLE LOGIC ERROR IN UAsetlog()	Possible internal program error.
VFYTXT INTERNAL ERROR EXPRESSION -><- RETURNED ERROR: x	Possible internal program error.
WRITE AT END OF LOCKFILE FAILED! VFYTXT ABORTING!!	Vfytxt cannot write to lockfile (/tmp/.vfytxtLOCK) which is used as a flag.
WRITE AT START OF LOCKFILE FAILED! VFYTXT ABORTING!!	Vfytxt cannot write to lockfile (/tmp/.vfytxtLOCK) which is used as a flag.

The following messages require no action.

Error message:
ABORTED Note: Before this message appears, a message explaining the cause will appear. Look for that message and check the list above.
ALLOWING OTHER VFYTXT PROCESS TO CONTINUE (PID = x ON (ttyname))!
COMPLETED
STARTING
SCREEN DUMP (followed by dump of the sceen at the time)
VFYTXT (pid = x) is ALREADY running on terminal (ttyname) !!

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CMPR:DISK-CORE
RCV:M-VFYTXT
RMV:MHD
RST:MHD
VFY:FILE
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

RCV:SUCCESS

Software Release: 5E10 and later
Message Class: RCVY
Application: 5
Type: Output

1. FORMAT

```
RCV SUCCESS a b c {TERM-ID=d|FM USER:APID=e,BCID=f}
```

2. REASON FOR OUTPUT

To report that a recent change (RC) operation (insert, update, or delete) has been successfully completed for the RC menu mode, text interface, or the facility management (FM) users.

3. VARIABLE FIELD DEFINITIONS

`a` = RC view name that is used for the RC operation.

`b` = RC operation. Valid value(s):
`DELETED`
`INSERTED`
`UPDATED`

`c` = The value of the key(s) for the RC operation on '`a`'.

`d` = The terminal that RC is executing on.

`e` = The application processor (AP) identification number for the FM user.

`f` = The business customer (BC) identification number for the FM user.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RCV:M-APPRC
RCV:APPTEXT
```

MCC Display Page(s):

196 (ODD RCV)

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70. RCVRY

RCVRY:CU

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
RCVRY CU a  COMPLETED
```

2. REASON FOR OUTPUT

To report that the initialization interval of the active control unit (CU) is complete.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

4. ACTION TO BE TAKEN

To determine the cause of the initialization, access the most recent post-mortem dump from PMLOG. (Use the OP:LOG message and specify the current date.)

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LOG
```

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71. REKEY

REKEY:SLK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]    ____________________________________________________________
       REKEY SLK a b STARTED
         SLK a b REKEY REQUEST SENT

[2]    ____________________________________________________________
       REKEY SLK a b ABT
         SLK a b REKEY REQUEST FAILED
```

2. REASON FOR OUTPUT

To respond to the user input message REKEY:SLK. Format 1 indicates that the request for a new key on the link has been accepted.

Format 2 indicates that the request has not been accepted because the message could not be sent.

3. VARIABLE FIELD DEFINITIONS

`a` = Group number.

`b` = Member number.

4. ACTION TO BE TAKEN

In the case of Format 2 check the ERRLOG report for a further self-explanatory message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LOG
REKEY:SLK
```

Other Manual(s):
235-190-120 *Common Channel Signaling Service Feature*

72. REMACS

REMACS:AUD-ERR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REMACS AUD ERR STARTED
        [a], WIN [b], 3B DATA
        [c] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d]
        [c] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d]
        [c] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d]
        REMACS AUD ERR IN PROG
        [a], WIN [b], ND DATA
        [c] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d]
        [c] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d]
        [c] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d] [d]
        REMACS AUD ERR COMPL

[2]   ____________________________________________________________________
      REMACS AUD ERR SUM STARTED
        WIN [a], OFS [e], NODES.  Valid value(s):
        [f] [f] [f] [f] [f] [f] [f] [f] [f] [f]  OTHER [g]
        WIN [a], OFS [e], NODES.  Valid value(s):
        [f] [f] [f] [f] [f] [f] [f] [f] [f] [f]  OTHER [g]
        REMACS AUD ERR SUM IN PROG
        WIN [a], OFS [e], NODES.  Valid value(s):
        [f] [f] [f] [f] [f] [f] [f] [f] [f] [f]  OTHER [g]
        WIN [a], OFS [e], NODES.  Valid value(s):
        [f] [f] [f] [f] [f] [f] [f] [f] [f] [f]  OTHER [g]
        REMACS AUD ERR SUM IN PROG
        WIN [a], OFS [e], NODES.  Valid value(s):
        [f] [f] [f] [f] [f] [f] [f] [f] [f] [f]  OTHER [g]
        [h] [OTHER ERRORS IN [i] NODES]
        REMACS AUD ERR SUM COMPL
```

2. REASON FOR OUTPUT

To report that the remote access subsystem (REMACS) software detected an audit error between replicated data in the administrative module (AM) data memory and the data memory in the nodes on the IMS ring. Normally, the REMACS audits will run continually because of the criticality of the data involved.

Format 1 is used to identify that an audit error has been detected between AM data and the same replicated data in one or more nodes on the IMS ring. Normally, only the first node that responds with the audit error will have its faulty data displayed on the printout. After detecting the audit error, the REMACS software will broadcast correction data to the node(s) to get the AM and node data back into conformity. It is always assumed that the AM data is the correct data while the audit is running.

Format 2 is used to summarize the results of the previous audit cycle in which an audit error was detected. Only as much information as needed is printed out on this summary to give the results of the audit. If no audit errors are detected, messages of this type will not occur.

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3. VARIABLE FIELD DEFINITIONS

`a` = The hexadecimal ring node address of a node on the IMS ring which reported an audit error.

`b` = The hexadecimal window number in which an audit error was detected. REMACS uses window numbers to identify unique sets of data (tables) that are to be audited. To identify the affected data, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

`c` = A hexadecimal address that is relative to the start of the data window.

`d` = Hexadecimal data contents of the AM data or node data at the time the audit error was detected. Compare the differences between the AM data image and the node data image in order to find the byte(s) in error. It is always expected that the AM data is the correct data to be used.

`e` = A hexadecimal address relative to the start of the data window which is start point for a chunk of data to be audited. The relative window address given previously (field '`a`') will be within the range of the chunk of data being audited.

`f` = Specific node ring node addresses for nodes that reported an audit error to the REMACS software.

`g` = If more than 10 nodes are identified for '`f`', this field gives the total number of those nodes exceeding 10.

`h` = Number of audit errors that were detected by the REMACS software, but could not be stored in the audit error buffers because of a lack of resources. The `OTHER ERRORS` line will not print out if there are sufficient audit error buffers to contain the detected audit errors.

`i` = In conjunction with the error count (field '`h`'), the number of nodes that reported audit errors while the audit error buffers were congested.

4. ACTION TO BE TAKEN

The REMACS audit software is designed to automatically correct data inconsistencies between the AM memory and the memory of the affected nodes on the IMS ring, therefore no further action is required. Since the cause of these printouts is most likely a software problem in the AM or the nodes, collect printouts and notify the next level of technical support.

The EXC:REMACS input message can be used to control the execution environment for the audit. It may also be used to initiate a single audit cycle while the audit is in a disabled state.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:REMACS
```

Output Message(s):

```
EXC:REMACS
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

73. REPT:3

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REPT:3BN-DMA

Software Release: 5E10 and later
Message Class: SWM01
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT 3BN DMA RSTRT
        UNEXPECTED ERR DURING DLN DMA RESTART ON a b, STATE = c

[2]   ____________________________________________________________
      REPT 3BN DMA RSTRT
        a b RESTART DMA TIMEOUT
```

2. REASON FOR OUTPUT

Format 1 is printed when a hardware message fails in the sequence of direct memory access (DMA) restart on the specified node. Format 2 is printed when the sequence of restart DMA on the specified node times out.

3. VARIABLE FIELD DEFINITIONS

Note: An administrative module (AM) node is defined to be a node that is not a ring peripheral controller (RPC) and yet is connected directly to the AM.

a = The AM node name [such as, direct link node (DLN)] and group number.

b = The AM node member number.

c = The reason for the complaint. Valid value(s):

- 1 = Attach interrupt failure.
- 2 = Clear duplex dual serial bus selector (DDSBS) failure.
- 3 = Cannot send reset 3BI pio.
- 4 = Fail to program the direct memory access controller (DMAC) to the user's area.
- 5 = Cannot enable interrupt.
- 6 = Cannot send node processor (NP) level 1 restart pio.

4. ACTION TO BE TAKEN

For Formats 1 and 2, use normal maintenance procedures, diagnose the AM node. If all tests passed (ATP), contact interprocess message switch (IMS) technical personnel and restore the node to service. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Note: Unless inhibited, the automatic ring recovery (ARR) routine, will attempt (up to 3 times) automatic recovery of out-of-service (OOS) AM nodes if the node maintenance state is not marked MANUAL.

5. ALARMS

None.

6. REFERENCES

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Input/Output Messages:

None.

74. REPT:A

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REPT:ACCED-ACCDIC

Software Release: 5E10 and later
Message Class: DB
Application: 5
Type: Output

1. FORMAT

[1]

```
REPT ACCED ACCDICT {AM|SM=a|CMP=b-c {PRIM|MATE}} REL=d VER=e ACCID=f
                                                 MTYPE=l[2] ACCTYPE=CIND
    ACCDICT:          ACCCIND:
  RID         g     RID            g
  RCNT        h     DSZE           p
  WFLG        i     TMAX           q
  REORG       j     ISZE           r
  NIDX        k     MAXELT         s     s     s
  BIDX        l     ELTSIZE        t     t     t
  HSZE        m     KEYLEN         u
  HEAD        n     SK_LEN         v     v     v     v     v     v
  STATE       o     CKSPLIT        w     w     w
                    BYTEOFF        x     x     x     x     x     x
                    BITOFF         y     y     y     y     y     y
                    CVNLEN         z     z     z     z     z     z
                    KSTORE         a[1]
                    ITYPE          b[1]
```

[2]

```
REPT ACCED ACCDICT {AM|SM=a|CMP=b-c {PRIM|MATE}} REL=d VER=e ACCID=f
                                                 MTYPE=l[2] ACCTYPE=HASH>
    ACCDICT:          ACCHASH:
  RID         g     RID            g
  RCNT        h     OFLG           c[1]
  WFLG        i     FOLDTYP        d[1]
  REORG       j     PROBEDEPTH     e[1]
  NIDX        k     TPAG           f[1]
  BIDX        l     DSZE           p
  HSZE        m     NPAG           g[1]  g[1]  g[1]  g[1]  g[1]
  HEAD        n     TMAX           q
  STATE       o     TOTP           h[1]
```

[3]

```
REPT ACCED ACCDICT {AM|SM=a|CMP=b-c {PRIM|MATE}} REL=d VER=e ACCID=f
                                                 MTYPE=l[2] ACCTYPE=IND
    ACCDICT:          ACCIND:
  RID         g     RID            g
  RCNT        h     ACCTYP         i[1]
  WFLG        i     IND_LEN        j[1]
  REORG       j     DSZE           p
  NIDX        k     KSHFT          k[1]
  BIDX        l     TMAX           q
  HSZE        m     ELTSIZE        t     t
```

HEAD	n	MAXELT	s	s			
STATE	o	KEYLEN	l^1	l^1	l^1		
		BYTEOFF	m^1	m^1	m^1	m^1	m^1
		BITOFF	n^1	n^1	n^1	n^1	n^1

[4]

```
REPT ACCED ACCDICT {AM|SM=a|CMP=b-c {PRIM|MATE}} REL=d VER=e ACCID=f
                                                 MTYPE=l2 ACCTYPE=LIN
```

ACCDICT:		ACCLIN:	
RID	g	RID	g
RCNT	h	TPAG	f^1
WFLG	i	NPAG	g^1
REORG	j	DSZE	p
NIDX	k	TMAX	q
BIDX	l		
HSZE	m		
HEAD	n		
STATE	o		

[5]

```
REPT ACCED ACCDICT {AM|SM=a|CMP=b-c {PRIM|MATE}} REL=d VER=e ACCID=f
                                                 MTYPE=l2 ACCTYPE=GK
```

ACCDICT:		ACCGK:					
RID	g	RID	g				
RCNT	h	STGSZ	o^1	o^1	o^1	o^1	o^1
WFLG	i	DSZE	p				
REORG	j	ISZE	r				
NIDX	k	REVID	p^1				
BIDX	l	MAXELT	s	s	s		
HSZE	m	ELTSIZE	t	t	t		
HEAD	n	KEYLEN	u				
STATE	o	CKSPLIT	w	w	w		
		PROBEDEPTH	e^1				
GKCTRL:		PARID	q^1				
RID	g	PARCNT	r^1				
PRMCNT	w^1	FOLDTYP	d^1				
GPID		ITYPE	b^1				
PROCNO	x^1	OFLG	c^1				
PCRID	y^1	ACCLASTVAL	s^1				
UNIQ	z^1	TMAX	q				
WAIT		LASTAGK	t^1				
TOD	a^2	FREEGK	u^1				
DAY	b^2	DELCNT	v^1				
GCDONE	c^2						
PERCENT	d^2						
DELCNT	e^2						
LASTAGK	f^2						
FREEGK	g^2						
LASTVAL	h^2						
GKPRNT:							

```
PRNTID =     i2        TPOS =     j2     SHFT =     k2
   .                      .                 .
   .                      .                 .
   .                      .                 .
```

2. REASON FOR OUTPUT

To report access dictionary information for a relation. Each relation has a common access dictionary (ACCDICT) and an access-type specific dictionary. The request was issued from within the ACCED tool, which is invoked by the RCV:M-ACCED input message.

Format 1 reports the access dictionaries for a relation of access type DBACC_CIND.

Format 2 reports the access dictionaries for a relation of access type DBACC_HASH.

Format 3 reports the access dictionaries for a relation of access type DBACC_IND.

Format 4 reports the access dictionaries for a relation of access type DBACC_LIN.

Format 5 reports the access dictionaries for a relation of access type DBACC_GK.

3. VARIABLE FIELD DEFINITIONS

`AM` = Administrative module.

`MATE` = CMP is mate (standby).

`PRIM` = CMP is primary (active).

`a` = Switching module (SM) number.

`b` = Message switch side.

`c` = Communication module processor (CMP) number.

`d` = Relation name.

`e` = Dictionary version. Valid value(s):
- `ANY` = Arbitrary version identified by the access dictionary index (ACCID).
- `CURRENT` = Current version.
- `ODD` = Office-dependent data (ODD) version.

`f` = Access dictionary index, non-negative integer.

`g` = Relation ID (acc_rid), non-negative integer.

`h` = Number of processes currently reading dictionary. Reader count (acc_rcnt).

`i` = Write flag (acc_wflg). Valid value(s):
- `DBNO` = The access dictionary is not currently waiting on the Memory Manager (MEMMAN) DBdo_acc list.
- `DBYES` = The access dictionary is waiting on MEMMAN DBdo_acc list.

`j` = "Relation is being reorganized" flag (acc_reorg). Valid value(s):

DBNO = This access dictionary is not currently being reorganized.
DBYES = Hashed reorganization is currently taking place on this dictionary.

k = Forward version list index into access dictionary (acc_nidx), non-negative integer.

l = Backward version list index into access dictionary (acc_bidx), non-negative integer.

m = Head table size in bytes (rel_hsze), non-negative integer.

n = Head table block ID (acc_head), non-negative integer.

o = Current state of this copy of the access dictionary (acc_state). Valid value(s):
CURRENT = Entry is the current version.
FUTURE = Entry is an updater's future version.
GARBAGE = Entry is on the garbage collect list.
IDLE = Entry is not currently used.
READER = Entry is not current but still has readers.

p = Data page size in bytes (rel_dsze).

q = Maximum number of tuples (rel_tmax).

r = Intermediate data page size in bytes (rel_size).

s = Elements per page per level (inc_maxelt).

t = Element size in bytes per page per level (inc_eltsize).

u = Original length in bytes of key elements (inc_keylen).

v = Subkey length in bytes (sk_len).

w = Bits of key per level (inc_cksplit).

x = Subkey byte offset (sk_byteoff).

y = Subkey bit offset (sk_bitoff).

z = Number of bytes for ASCII-to-binary conversion (sk_cvnlen).

a[1] = "Are keys stored" flag (inc_kstore). Valid value(s):
DBNO = Tuple key is not stored with tuple.
DBYES = Tuple key is stored with tuple.

b[1] = Indexing type (inc_itype). Valid value(s):
IND1 = Relation is one-level indexed.
IND2 = Relation is two-level indexed.
IND3 = Relation is three-level indexed.

c[1] = "Hashing gone into overflow" flag (acc_oflg). Valid value(s):
DBNO = There are no tuples in overflow for this relation.
DBYES = There is at least one tuple in overflow for this relation.

d[1] = Folding algorithm (acc_foldtyp), G16 or G31.

e[1] = Maximum search depth per stage (acc_probedepth).

f[1] = Number of tuples per page (acc_tpag).

g[1] = Number of data pages (per stage for DBACC_HASH) (acc_npag).

h[1] = Total number of pages in all 5 stages (acc_totp).

i[1] = Indexing method (ind_acctyp). Valid value(s):
IND1 = Relation is one-level indexed.
IND2 = Relation is two-level indexed.

j[1] = Length in bytes of first index (ind_len).

k[1] = Key shift for dynamic relations (rel_kshft). Key shift is a value to add to a logical key to arrive at a physical key.

l[1] = Length in bytes of attributes forming key (ind_keylen).

m[1] = Byte offsets of attributes forming key (key_byteoff).

n[1] = Bit offsets of attributes forming key (key_bitoff).

o[1] = Number of pages per hash stage (gk_stgsz).

p[1] = Reverse index relation ID (gk_revid).

q[1] = Index into GK parent dictionary (acc_parid).

r[1] = Number of entries in parent dictionary (acc_parcnt).

s[1] = This field is not used.

t[1] = ODD copy of DB_GKCTRL.gk_lastagk (acc_lastagk).

u[1] = ODD copy of DB_GKCTRL.gk_freegk (acc_freegk).

v[1] = ODD copy of DB_GKCTRL.gk_delcnt (acc_delcnt).

w[1] = Number of processes accessing relations (gk_prmcnt).

x[1] = Process ID of active garbage collection process on relation (gk_gpid.procno).

y[1] = Processor ID of active garbage collection process on relation (gk_gpid.pcrid).

z[1] = Uniqueness field of active garbage collection process on relation (gk_gpid.uniq).

a[2] = Time (in milliseconds) to wait before reducing gk_prmcnt by force (gk_wait.tod).

b[2] = Number of days to wait before reducing gk_prmcnt by force (gk_wait.day).

c[2] = Progress marker for the generated key collection and compaction routine (GKCCR). Garbage

collection has been done for this relation (gk_gcdone). Valid value(s):
`DBNO` = Progress marker is not set.
`DBYES` = Progress marker is set.

`d`[2] = Percentage of potential GK reference deletions collected in last garbage collection pass (gk_percent).

`e`[2] = This field is not used.

`f`[2] = This field is not used.

`g`[2] = This field is not used.

`h`[2] = This field is not used.

`i`[2] = Relation dictionary index of parent relation (gk_prntid).

`j`[2] = Link field byte offset in parent tuple (gk_tpos).

`k`[2] = Link field bit offset in byte; right shift (gk_shft).

`l`[2] = Memory type of relation. Valid value(s):
`DISK` = Relation resides on disk.
`NRAM` = Relation resided in non-redundant random access memory (RAM).
`PRAM` = Relation resides in protected RAM.
`RRAM` = Relation resides in redundant RAM.
`URAM` = Relation resides in unprotected RAM.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RCV:M-ACCED
```

Output Message(s):

```
REPT:ACCED-DATA
REPT:ACCED-DESTRO
REPT:ACCED-HASHSI
REPT:ACCED-INFO
REPT:ACCED-OVERWR
REPT:ACCED-REORG
REPT:ACCED-SCAN
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

REPT:ACCED-DATA

Software Release: 5E10 and later
Message Class: DB
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT ACCED DATA ADDRESS {AM|SM=a|CMP=b-c {PRIM|MATE}} MEMTYPE=d (e of f)
        START ADDR:  g (RELATIVE), h (ABSOLUTE)

[2]   ____________________________________________________________
      REPT ACCED DATA BID {AM|SM=a|CMP=b-c {PRIM|MATE}} MEMTYPE=d BID=j (e of f)
        START ADDR:  g (RELATIVE), h (ABSOLUTE)

[3]   ____________________________________________________________
      REPT ACCED DATA DP {AM|SM=a|CMP=b-c {PRIM|MATE}} REL=k IDP=l DP=m (e of f)
        START ADDR:  g (RELATIVE), h (ABSOLUTE)

[4]   ____________________________________________________________
      REPT ACCED DATA HEADTBL {AM|SM=a|CMP=b-c {PRIM|MATE}} REL=k (e of f)
        START ADDR:  g (RELATIVE), h (ABSOLUTE)

[5]   ____________________________________________________________
      REPT ACCED DATA IDP {AM|SM=a|CMP=b-c {PRIM|MATE}} REL=k IDP=l (e of f)
        START ADDR:  g (RELATIVE), h (ABSOLUTE)
```

2. REASON FOR OUTPUT

To display a section of memory office-dependent data (ODD) or a section of disk ODD. Data may be displayed:

- Format 1 dumps memory given the starting absolute address. The data is printed as hexadecimal words.
- Format 2 dumps memory given the starting block ID. The data is printed as hexadecimal words.
- Format 3 dumps the data page containing a tuple given the relation name and tuple key. The data is printed as hexadecimal words.
- Format 4 dumps the head table for a relation given the relation name. The data is printed as short integers.
- Format 5 dumps the intermediate data page containing a tuple given the relation name and tuple key. The data is printed as short integers.

The review request was issued from within the ACCED tool, which is invoked by the RCV:M-ACCED input message.

3. VARIABLE FIELD DEFINITIONS

`AM` = Administrative module.

`MATE` = CMP is mate (standby).

`PRIM` = CMP is primary (active).

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a = Switching module (SM) number.

b = Message switch side.

c = Communication module processor (CMP) number.

d = Type of memory reviewed. Valid value(s):

DISK	= Office-dependent data resident on the disk.
NRAM/URAM	= Unprotected random access memory (RAM), or SM and CMP non-redundant ODD.
PRAM	= AM ODD.
RRAM	= SM ODD.

e = Current output page number.

f = Total number of output pages.

g = Starting relative address of data. Relative address is a decimal number and is always 0 (zero) for first page of output.

h = Starting absolute address of data. Absolute address is a hexadecimal number.

i = Data as dumped from memory in hexadecimal format.

j = Block ID where review started.

k = Relation name.

l = Intermediate data page number, which is relevant for 3-level indexed relations.

m = Data page number.

n = Data as dumped from memory in decimal format.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RCV:M-ACCED
```

Output Message(s):

```
REPT:ACCED-ACCDIC
REPT:ACCED-DESTRO
```

```
REPT:ACCED-HASHSI
REPT:ACCED-INFO
REPT:ACCED-OVERWR
REPT:ACCED-REORG
REPT:ACCED-SCAN
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

REPT:ACCED-DESTRO

Software Release: 5E10 and later
Message Class: DB
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT ACCED DESTROY {AM|SM=a|CMP=b} REL=c WHOLE

[2]   ____________________________________________________________
      REPT ACCED DESTROY {AM|SM=a|CMP=b} REL=c IDP=d BID=e

[3]   ____________________________________________________________
      REPT ACCED DESTROY {AM|SM=a|CMP=b} REL=c [IDP=f] DP=g BID=e

[4]   ____________________________________________________________
      REPT ACCED DESTROY REL=c WHOLE
        SM NUMBERS
        a     a     a     a     a     a     a     a
        .
        .
        .
```

2. REASON FOR OUTPUT

To report the status of a destroy operation on a relation or part of a relation. The destroy request was issued from within the ACCED tool, which is invoked by the RCV:M-ACCED input message.

Format 1 reports that the whole relation was destroyed on a single processor.

Format 2 reports that an intermediate data page (IDP) of the relation was destroyed on a single processor.

Format 3 reports that a data page (DP) of the relation was destroyed on a single processor.

Format 4 reports that the whole relation was destroyed on all available SMs. The SM numbers on which the relation was destroyed are listed.

3. VARIABLE FIELD DEFINITIONS

`AM` = Administrative module.

`a` = Switching module (SM) number.

`b` = Communication module processor (CMP) number. CMP is always primary (active) for DESTROY operation.

`c` = Relation name.

`d` = Number of the IDP destroyed.

`e` = Block ID of the destroyed page.

`f` = Intermediate data page number that points to the DP destroyed. This appears in the output only

for 3-level indexed relations, that is, only for relations whose access dictionary contains an inc_itype value of IND3 (refer to the REPT:ACCED-ACCDIC output message).

`g` = Number of the DP destroyed.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RCV:M-ACCED
```

Output Message(s):

```
REPT:ACCED-ACCDIC
REPT:ACCED-DATA
REPT:ACCED-HASHSI
REPT:ACCED-INFO
REPT:ACCED-OVERWR
REPT:ACCED-REORG
REPT:ACCED-SCAN
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

REPT:ACCED-HASHSI

Software Release: 5E10 and later
Message Class: DB
Application: 5
Type: Output

1. FORMAT

```
REPT ACCED HASHSIM {AM|SM=a|CMP=b} REL=c ACC_TYPE=d

  {HASH|GK} STAGED SIMULATION PROBE DEPTH=e [PSZE=f] FOLDTYPE=g
                                                        PAGE h of i

  STAGE NUMBER:           1       2       3       4       5
  j RESERVED:             k       l       m       n       o TOTAL = p
  j ALLOCATED:            q       r       s       t       u TOTAL = v
  PERCENT OCCUPIED:       w       x       y       z       a1

  TUPLES  =          b1       PAGES   =     c1    SEARCH  =          d1
  TMAX    =          e1       TPAG    =     f1    LOAD    =          g1
  OVFLW   =          h1       MSEARCH =     i1    K-BYTES =          j1
  HSZE    =          k1       IHSZE   =     l1    DSZE    =          m1
  SCORE   =              n1
  [WARNING: VALUES THAT GENERATE OVERFLOW SHOULD NOT BE USED]
```

2. REASON FOR OUTPUT

To report the hashing statistical information for selected values of rel_tmax (maximum number of tuples) and rel_dsze (data page size). For range values of rel_tmax and/or rel_dsze, the three best combinations of rel_tmax and rel_dsze for a relation are reported. The hashing simulation request is issued from within the ACCED tool, which is invoked by the RCV:M-ACCED input message.

3. VARIABLE FIELD DEFINITIONS

AM = Administrative module.

GK = Simulation was performed on a generated key relation.

HASH = Simulation was performed on a hashed relation.

a = Switching module (SM) number.

b = Communication module processor (CMP) number. CMP is always primary (active) for HASHSIM operation.

c = Relation name.

d = Access type of relation (DBACC_HASH or DBACC_GK).

e = Probe depth (maximum search depth per stage). Valid value(s):

If 'd' =	Probe depth =
DBACC_HASH	The maximum number of element searches on a data page.
DBACC_GK	The target size for each generated key bucket. This target value may be exceeded slightly for short

periods without harm.

`f` = Physical tuple size (in bytes).

`g` = Foldtype used in hashing (DBDEFAULT or G31).

`h` = Current output page number.

`i` = Total number of output pages to display.

`j` = Type of space allocated. Valid value(s):
`BUCKETS` = Generated key buckets.
`PAGES` = Data pages.

`k` = Total number of pages reserved for use in the first hashing stage.

`l` = Total number of pages reserved for use in the second hashing stage.

`m` = Total number of pages reserved for use in the third hashing stage.

`n` = Total number of pages reserved for use in the fourth hashing stage.

`o` = Total number of pages reserved for use in the fifth hashing stage.

`p` = Total number of pages reserved for stages 1-5.

`q` = Number of pages used in the first hashing stage.

`r` = Number of pages used in the second hashing stage.

`s` = Number of pages used in the third hashing stage.

`t` = Number of pages used in the fourth hashing stage.

`u` = Number of pages used in the fifth hashing stage.

`v` = Total number of pages used in stages 1-5.

`w` = Percentage of space occupied in the first stage.

`x` = Percentage of space occupied in the second stage.

`y` = Percentage of space occupied in the third stage.

`z` = Percentage of space occupied in the fourth stage.

`a`[1] = Percentage of space occupied in the fifth stage.

`b`[1] = Number of tuples in relation.

`c`[1] = Number of data pages generated, including overflow pages.

`d`[1] = Average number of accesses required to locate or place a tuple.

`e`[1] = Maximum number of tuples for the relation.

f^1 = Tuples per data page. If 'd' = DBACC_GK, then 'f^1' = 0 because TPAG (acc_tpag) is not defined for relations of access type DBACC_GK.

g^1 = Percent of space allocated that was actually occupied. This value includes the overflow pages.

h^1 = Number of tuples in overflow.

i^1 = Maximum number of accesses required to locate or place a tuple.

j^1 = Total amount of memory used, including overflow, expressed in Kilo-bytes. (Bytes = K-bytes * 1024)

k^1 = Head table size expressed in bytes.

m^1 = Intermediate data page size expressed in bytes. If 'd' = DBACC_HASH, then 'm^1' = 0 because IHSZE (rel_isze) is not defined for relations of access type DBACC_HASH.

m^1 = Data page size expressed in bytes.

n^1 = A weighted value based on ovflw, load, search, msearch, and K-bytes. Used to determine "best" simulation values. Lower scores indicate better values.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RCV:M-ACCED
```

Output Message(s):

```
REPT:ACCED-ACCDIC
REPT:ACCED-DATA
REPT:ACCED-DESTRO
REPT:ACCED-INFO
REPT:ACCED-OVERWR
REPT:ACCED-REORG
REPT:ACCED-SCAN
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

REPT:ACCED-INFO

Software Release: 5E10 and later
Message Class: DB
Application: 5
Type: Output

1. FORMAT

```
REPT ACCED INFO {AM|SM=a|CMP=b-c {PRIM|MATE}} REL=d MEMTYPE=e
 [HT ADDRESS                     f]
 [HT BLOCK ID                    g]
 [IDP NUMBER                     h]
 [IDP ADDRESS                    i]
 [IDP BLOCK ID                   j]
  DP NUMBER                      k
  DP ADDRESS                     l
  DP BLOCK ID                    m
  TUPLE ADDRESS                  n
  TUPLE NUMBER                   o
  PHYS TUPLE SIZE                p
  LOGICAL TUPLE SIZE             q
```

2. REASON FOR OUTPUT

To report information about a tuple within a relation. The request for tuple information was issued from within the ACCED tool, which is invoked using the RCV:M-ACCED input message.

3. VARIABLE FIELD DEFINITIONS

`AM` = Administrative module.

`MATE` = CMP is mate (standby).

`PRIM` = CMP is primary (active).

`a` = Switching module (SM) number.

`b` = Message switch side.

`c` = Communication module processor (CMP) number.

`d` = Relation name.

`e` = Memory type of relation. Valid value(s):

- `DISK` = Relation resides on disk.
- `NRAM` = Relation resided in non-redundant RAM.
- `PRAM` = Relation resides in protected random access memory (RAM).
- `RRAM` = Relation resides in redundant RAM.
- `URAM` = Relation resides in unprotected RAM.

`f` = Address, in hexadecimal, of head table under which the tuple is located.

`g` = Block ID of head table under which the tuple is located.

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`h` = Intermediate data page (IDP) number where tuple is located.

`i` = Address, in hexadecimal, of intermediate data page under which the tuple is located.

`j` = Block ID of intermediate data page under which the tuple is located.

`k` = Data page (DP) number where tuple is located.

`l` = Address, in hexadecimal, of data page under which the tuple is located.

`m` = Block ID of data page under which the tuple is located.

`n` = Physical address, in hexadecimal, of tuple on the data page.

`o` = Tuple number of tuple on the data page.

`p` = Physical (compacted) tuple size of the relation in bytes.

`q` = Logical (uncompacted) tuple size of the relation in bytes.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RCV:M-ACCED
```

Output Message(s):

```
REPT:ACCED-ACCDIC
REPT:ACCED-DATA
REPT:ACCED-DESTRO
REPT:ACCED-HASHSI
REPT:ACCED-OVERWR
REPT:ACCED-REORG
REPT:ACCED-SCAN
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

REPT:ACCED-OVERWR

Software Release: 5E10 and later
Message Class: DB
Application: 5
Type: Output

1. FORMAT

```
REPT ACCED OVERWRITE {AM|SM=a|CMP=b} {DISK|MEMORY}
  ADDRESS            c
  OLD DATA           d
  NEW DATA           e
```

2. REASON FOR OUTPUT

To report the status of a memory or disk overwrite operation. The overwrite request was issued from within the ACCED tool, which is invoked using the RCV:M-ACCED input message.

The report occurs when the memory or disk overwrite operation is successful. The following information is provided in the output message: the physical address where the overwrite occurred, the old data at that location, and new data at that location. The physical address and data values are printed in hexadecimal notation.

3. VARIABLE FIELD DEFINITIONS

AM	= Administrative module.
DISK	= Disk office dependent data (disk ODD) is overwritten.
MEMORY	= Memory ODD is overwritten.
a	= Switching module (SM) number.
b	= Communication module processor (CMP) number. CMP is always primary (active) for OVERWRITE operation.
c	= Starting physical address (hexadecimal) of overwritten storage.
d	= Old data (hexadecimal) at that storage location.
e	= New data (hexadecimal) at that storage location.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

RCV:M-ACCED

Output Message(s):

```
REPT:ACCED-ACCDIC
REPT:ACCED-DATA
REPT:ACCED-DESTRO
REPT:ACCED-HASHSI
REPT:ACCED-INFO
REPT:ACCED-REORG
REPT:ACCED-SCAN
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

REPT:ACCED-REORG

Software Release: 5E10 and later
Message Class: DB
Application: 5
Type: Output

1. FORMAT

[1]

```
REPT ACCED REORG {AM|SM=a|CMP=b} REL=c TYPE=HASH d
[j1]
  THE FOLLOWING ACCESS DICTIONARIES WERE USED FOR REORG:
    ACCDICT:          ACCHASH:
  RID         e     RID            e
  RCNT        f     OFLG           n
  WFLG        g     FOLDTYP        o
  REORG       h     PROBEDEPTH     p
  NIDX        i     TPAG           q
  BIDX        j     DSZE           r
  HSZE        k     NPAG           s     s     s     s     s
  HEAD        l     TMAX           t
  STATE       m     TOTP           u
```

[2]

```
REPT ACCED REORG {AM|SM=a|CMP=b} REL=c TYPE=GK d
[j1]
  THE FOLLOWING ACCESS DICTIONARIES WERE USED FOR REORG:
    ACCDICT:               ACCGK:
  RID         e          RID          e
  RCNT        f          STGSZ        v     v     v     v     v
  WFLG        g          DSZE         r
  REORG       h          ISZE         w
  NIDX        i          REVID        x
  BIDX        j          MAXELT       y     y     y
  HSZE        k          ELTSIZE      z     z     z
  HEAD        l          KEYLEN       a1
  STATE       m          CKSPLIT      b1    b1    b1
                         PROBEDEPTH   p
                         PARID        c1    c1    c1
                         PARCNT       d1
                         FOLDTYP      o
                         ITYPE        e1
                         OFLG         n
                         ACCLASTVAL   f1
                         TMAX         t
                         LASTAGK      g1
                         FREEGK       h1
                         DELCNT       i1
```

2. REASON FOR OUTPUT

To report the status of a reorganization operation on a relation. The reorganization request was issued from within

the ACCED tool, which is invoked by the RCV:M-ACCED input message.

3. VARIABLE FIELD DEFINITIONS

`AM` = Administrative module.

`a` = Switching module (SM) number.

`b` = Communication module processor (CMP) number. CMP is always primary (active) for REORG operation.

`c` = Relation name.

`d` = Termination report. Valid value(s):

- `ABORTED` = Relation cannot be reorganized due to corrupted data in current copy of relation.
- `CANCELED` = Relation cannot be reorganized due to overflow tuple in new copy of relation.
- `COMPLETE` = Relation has been reorganized.
- `COMPLETED CONDITIONALLY` = Relation has been reorganized but failed to log for CMP generated key (GK) relation.
- `FAILED` = Relation cannot be reorganized due to system failure.
- `NEEDED` = Reorganization was run under inhibit mode, and reorganization is needed.
- `STOPPED` = Relation could not be reorganized due to low ODD space.

For the `COMPLETED` and `COMPLETED CONDITIONALLY` termination reports, the access dictionaries that follow in the output message reflect new changes to the access dictionaries for the relation.

For the remaining termination reports, the access dictionaries that follow in the output message represent the access dictionaries that would have resulted had the reorganization not failed for the relation.

`e` = Relation ID (acc_rid), non-negative integer.

`f` = Reader count (acc_rcnt), non-negative integer.

`g` = Writer flag (acc_wflg). Valid value(s):

- `DBNO` = The access dictionary is not currently waiting on the memory manager (MEMMAN) DBdo_acc list.
- `DBYES` = The access dictionary is waiting on MEMMAN DBdo_acc list.

`h` = Relation is being reorganized flag (acc_reorg). Valid value(s):

- `DBNO` = This access dictionary is not currently being reorganized.
- `DBYES` = Hashed reorganization is currently taking place on this dictionary.

`i` = Forward version list index into access dictionary (acc_nidx), non-negative integer.

`j` = Backward version list index into access dictionary (acc_bidx), non-negative integer.

`k` = Head table size in bytes (rel_hsze), non-negative integer.

`l` = Head table block ID (acc_head), non-negative integer.

`m` = Current state this copy of the access dictionary (acc_state). Valid value(s):

`CURRENT`	= Entry is the current version.
`FUTURE`	= Entry is an updater's future version.
`GARBAGE`	= Entry is on the garbage collect list.
`IDLE`	= Entry is not currently used.
`READER`	= Entry is not current but still has readers.

`n` = Hashing gone into overflow flag (acc_oflg). Valid value(s):

`DBNO`	= There are no tuples in overflow for this relation.
`DBYES`	= There is at least on tuple in overflow for this relation.

`o` = Folding algorithm (acc_foldtyp), one of G16 or G31.

`p` = Maximum search depth per stage (acc_probedepth), non-negative integer.

`q` = Number of tuples per page (acc_tpag), non-negative integer.

`r` = Data page size in bytes (rel_dsze), non-negative integer.

`s` = Number of pages per stage (acc_npag), non-negative integer.

`t` = Maximum number of tuples (rel_tmax), non-negative integer.

`u` = Total number of pages in all stages (acc_totp), non-negative integer.

`v` = Number of pages per hash stage (gk_stgsz), non-negative integer.

`w` = Intermediate data page size in bytes (rel_size), non-negative integer.

`x` = Reverse index relation ID (gk_revid), non-negative integer.

`y` = Elements per page per index level (inc_maxelt), non-negative integer.

`z` = Element size in bytes per page per index level (inc_eltsize), non-negative integer.

`a`[1] = Original length in bytes of key elements (inc_keylen), non-negative integer.

`b`[1] = Bits of key per index level (inc_cksplit), non-negative integer.

`c`[1] = Index into GK parent dictionary (acc_parid), non-negative integer.

`d`[1] = Number of entries in parent dictionary (acc_parcnt), non-negative integer.

`e`[1] = Indexing type (inc_itype). Valid value(s):

`IND1`	= Relation is one-level indexed.
`IND2`	= Relation is two-level indexed.
`IND3`	= Relation is three-level indexed.

`f`[1] = This field is currently not used.

`g`[1] = ODD copy of DB_GKCTRL.gk_lastagk - last allocated GK (acc_lastagk), non-negative integer.

`h`[1] = ODD copy of DB_GKCTRL.gk_freegk - first element on free list (acc_freegk), non-negative

integer.

i[1] = ODD copy of DB_GKCTRL.gk_delcnt (acc_delcnt), non-negative integer.

j[1] = Additional information qualifying termination report. Valid value(s):

ANOTHER REORG IS RUNNING ON PCR (current processor)
BAD STATE FOR GENERATED KEY REORG
CANNOT BEGIN A TRANSACTION
CANNOT CREATE A HASHED RELATION
CANNOT END TRANSACTION
CANNOT GET OPEN DICT POINTER
CANNOT OPEN RELATION
CANNOT OPEN HASHED RELATION
CANNOT READ FIRST TUPLE OF OLD COPY
CANNOT READ SUBSEQUENT TUPLE OF OLD COPY
CANNOT REORG SKELETON RELATION
CANNOT START A TRANSACTION
CANNOT TURN OFF DUPLICATE
CANNOT WRITE NEW COPY OF RELATION
CAN NOT FREE LOG
DB RESOURCE PROBLEM
DISK/URAM RELATION
FAILED TO LOG FOR CMP IN REORG (generated key relations only)
GENERATED KEY BEING INSERTED
LOW ODD SPACE
NOT A HASHED RELATION
ODD BACKUP IS IN SECOND PHASE
OVERFLOW IN GENERATED KEY STORE
RELATION DOES NOT EXIST ON PCR
RELATION EMPTY
RELATION ID OUT OF RANGE
SEND MSG FAILED FROM UNIX TO PCR
SYSTEM ERROR
TERMINAL PROCESS DEAD
TIME OUT WAITING FOR RESPONSE FROM PCR
TUPLE IN OVERFLOW
UNPROTECTED RELATION
WRONG DISTRIBUTION TYPE

4. ACTION TO BE TAKEN

If 'd' =	Action
ABORTED	Fix data corruption and run manual reorganization.
CANCELED	Run hashing simulation and manual reorganization.
COMPLETED CONDITIONALLY	Run manual reorganization to make sure logging is done for CMP.
FAILED	Run the manual reorganization again.
NEEDED	Enter the ALW:REORG input message to allow automatic reorganization.
STOPPED	An ODD growth is recommended, but, unconditional manual reorganization can be requested.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:REORG
RCV:M-ACCED
```

Output Message(s):

```
REPT:ACCED-ACCDIC
REPT:ACCED-DATA
REPT:ACCED-DESTRO
REPT:ACCED-HASHSI
REPT:ACCED-INFO
REPT:ACCED-OVERWR
REPT:ACCED-SCAN
```

Other Manual(s):

235-070-100 *Switch Administration Guidelines*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

REPT:ACCED-SCAN

Software Release: 5E10 and later
Message Class: DB
Application: 5
Type: Output

1. FORMAT

```
REPT ACCED SCAN {AM|SM=a|CMP=b} REL=c [IDP=d] DP=e
 [CORRUPT IDP                  f]
 [CORRUPT IDP BID              g]
  CORRUPT DP                   h
  CORRUPT DP BID               i
  TUPLE ADDR                   j
  TUPLE NUMBER                 k
  PHYS TUPLE SIZE              l
```

2. REASON FOR OUTPUT

To report the status of scan operation on a relation. The scan request was issued from within the ACCED tool, which is invoked by the RCV:M-ACCED input message.

The report indicates that, starting from the designated data page, the relation was scanned until an error was detected. Information on the corrupted tuple, corrupted data page, and corrupted intermediate data page (if relation is 3-level indexed) is provided.

3. VARIABLE FIELD DEFINITIONS

`AM` = Administrative module.

`a` = Switching module (SM) number.

`b` = Communication module processor (CMP) number. CMP is always primary (active) for SCAN operation.

`c` = Relation name.

`d` = Intermediate data page (IDP) number where the scan started.

`e` = Data page (DP) number where the scan started.

`f` = Intermediate data page number where corrupted data was found.

`g` = Block ID of intermediate data page where corrupted data was found.

`h` = Data page number where corrupted data was found.

`i` = Block ID of data page where corrupted data was found.

`k` = Tuple number of corrupted tuple.

`k` = Address, in hexadecimal, of corrupted tuple.

`l` = Physical size, in bytes, of corrupted tuple.

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4. ACTION TO BE TAKEN

Investigate office-dependent data (ODD) corruption and correct corruption using the ACCED tool (RCV:M-ACCED).

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RCV:M-ACCED
```

Output Message(s):

```
REPT:ACCED-ACCDIC
REPT:ACCED-DATA
REPT:ACCED-DESTRO
REPT:ACCED-HASHSI
REPT:ACCED-INFO
REPT:ACCED-OVERWR
REPT:ACCED-REORG
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

REPT:ACP-APP-SM

Software Release: 5E10 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT:ACP   APP = a     b     SM = c
        CALLED=d  TRUNK GROUP=e  TRUNK MEMBER=f

[2]   ____________________________________________________________________
      REPT:ACP   APP = a     b     SM = c
        PARSING ERROR=g
        RAW CCITT TCAP MESSAGE
        h

[3]   ____________________________________________________________________
      REPT:ACP   APP = a     b     SM = c
        CALLED=d  ANI=i
        [ANNOUNCEMENT=j] [ACG=k]
        [ERROR CODE=l|PROBLEM CODE=m]FAILURE CODE=n]
```

2. REASON FOR OUTPUT

To report the occurrence of a software defined network (SDN) and leased network (LN) trapped event at an action control point (ACP). This message is in response to the SET:DSE input message.

Format 1 is used for the NCANI, and NOCANI events, Format 2 is used for the GTCAP event, and Format 3 is used for the remaining events.

3. VARIABLE FIELD DEFINITIONS

`a` = The feature application type. Valid value(s):
- `LN` = Leased network.
- `SDN` = Software defined network.

`b` = The event trapped. Valid value(s):
- `BAS--QUERY BLOCK BY ACG` = (automatic call gap) Call failed due to the query's being blocked at the switch.
- `BN--QUERY BLOCK IN CCS NETWORK` = Call failed due to the query's being blocked in the common channel signaling (CCS) network.
- `GTCAP--GARBLED TCAP MESSAGE` = A garbled transaction capability application part (TCAP) message was received. The message cannot be parsed.
- `NCANI--CAMA TRUNK DIDN'T RECEIVE ANI` = Centralized automatic message accounting (CAMA) call failed due to CAMA trunk's not providing automatic number identification (ANI) for query.
- `NCFA--CALL FAILED TRANS ACTIVE` = Call failed for some reason, while the transaction with the network control point (NCP) was active.
- `NCFI--CALL FAILED TRANS INACTIVE` = Call failed for some reason, while the transaction with the NCP was inactive.
- `NOCANI--CAMA TRUNK DIDN'T RECEIVE ONI` = CAMA call failed due to CAMA trunk's not

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providing ANI, and failed to obtain the number through the operator number identification (ONI), for query.

`RER--NCP RETURN ERROR RECEIVED` = Call failed because the conversation with the NCP resulted in a return error response.

`RR--NCP REJECT RECEIVED` = Call failed because the conversation with the NCP resulted in a reject response.

`TIM--NCP DIDN'T REPLY IN TIME` = Call failed because the query was not answered in time by the NCP.

`TRF--NCP TERMINATED CALL` = Call failed because the NCP answered with a terminate request.

`c` = Number of the switching module (SM) on which the trapped event occurred.

`d` = Seven or ten-digit dialed number which caused the event to occur.

Note: If the query returns from the NCP with a new destination dialed number, that new number is used instead of the dialed number.

`e` = Four-digit trunk group number which caused the event.

`f` = Four-digit trunk member number which caused the event.

`g` = Parsing error code. Valid value(s):

```
APPLICATION PROTOCOL VIOLATION
BADLY FORMATTED TRANSACTION PORTION
BADLY STRUCTURED COMPONENT
CALLER ABANDON
CAPABILITIES MISMATCH
DATA UNAVAILABLE
DUPLICATE INVOKE ID
INCORRECT COMPONENT
INCORRECT TRANSACTION
INITIATING RELEASE
MISSING PARAMETER(S)
RESOURCE LIMITATION
TASK REFUSED
TRANSACTION TIMEOUT
UNABLE TO PARSE TCAP MESSAGE
UNAVAILABLE RESOURCE
UNEXPECTED COMPONENT SEQUENCE
UNEXPECTED DATA VALUE
UNEXPECTED ERROR
UNEXPECTED LINKED OPERATION
UNEXPECTED LINKED RESPONSE
UNEXPECTED PARAMETER(S)
UNEXPECTED RETURN ERROR
UNEXPECTED RETURN RESULT
UNKNOWN USER PROBLEM
UNRECOGNIZED COMPONENT
UNRECOGNIZED ERROR
UNRECOGNIZED INVOKE ID IN RETURN ERROR
UNRECOGNIZED INVOKE ID IN RETURN RESULT
UNRECOGNIZED LINKED ID
UNRECOGNIZED MESSAGE TYPE
UNRECOGNIZED OPERATION CODE
UNRECOGNIZED PARAM. TAG IN INVOKE
```

UNRECOGNIZED PARAM. TAG IN RETURN ERROR
UNRECOGNIZED PARAM. TAG IN RETURN RESULT
UNRECOGNIZED TRANSACTION ID

h = Raw, garbled International Telecommunication Union - Telecommunication, Standardization Sector (ITU-TS) (formerly CCITT) TCAP message.

i = Ten-digit ANI of the calling party.

j = Announcement code. If 'b'= TRF--NCP TERMINATED CALL, 'j'=:
AUDIBLE RINGING
BUSY
DISCONNECTED NUMBER
FAST BUSY
NO CIRCUIT AVAILABLE
OUT OF BAND
REORDER
VACANT CODE

k = Automatic call gap (ACG) indicator. If 'b'= BAS--QUERY BLOCK BY ACG, 'k'=:
DATABASE OVERLOAD
DESTINATION MASS CALLING
OSS INITIATED
OUT OF BANK
VACANT CODE

l = Error code specifier. If 'b'= RER--NCP RETURN ERROR RECEIVED, 'l'=:
CAPABILITIES MISMATCH
DATA ALREADY EXISTS
DATA UNAVAILABLE
IMPROPER CALLER RESPONSE
MISSING CUSTOMER RECORD
MISSING PARAMETER(S)
NO QUEUE
QUEUE FULL
TASK REFUSED
TIMER EXPIRED
UNAUTHORIZED REQUEST
UNAVAILABLE RESOURCE
UNEXPECTED COMPONENT SEQUENCE
UNEXPECTED DATA VALUE
UNEXPECTED PARAMETER(S)
UNRECOGNIZED TYPE

m = Problem code specifier. If 'b'= RR--NCP REJECT RECEIVED, 'm'=:
BADLY STRUCTURED COMPONENT
DUPLICATE INVOKE ID.
INCORRECT COMPONENT
INITIATING RELEASE
RESOURCE LIMITATION
UNEXPECTED ERROR
UNEXPECTED LINKED OPERATION
UNEXPECTED LINKED RESPONSE

```
UNEXPECTED RETURN ERROR
UNEXPECTED RETURN RESULT
UNRECOGNIZED COMPONENT
UNRECOGNIZED ERROR
UNRECOGNIZED INVOKE ID.
UNRECOGNIZED LINKED ID.
UNRECOGNIZED OPERATION CODE
UNRECOGNIZED PARAMETER TAG
UNRECOGNIZED TYPE
```

`n` = Failure code specifier. If 'b'= `BN--QUERY BLOCK IN CCS NETWORK`, 'n'=:

```
NETWORK CONGESTION
NETWORK FAILURE
NO TRANSLATION FOR AN ADDRESS OF SUCH NATURE
NO TRANSLATION FOR SUCH ADDRESS
SUBSYSTEM CONGESTION
SUBSYSTEM PROHIBITED
SUBSYSTEM UNEQUIPPED
```

4. ACTION TO BE TAKEN

If the raw, garbled TCAP message appears, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. Otherwise, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:DSE
OP:ST-DSE
SET:DSE
```

Output Message(s):

```
OP:ST-DSE
REPT:DSE
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

REPT:ACTIVE-FOIAF

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT ACTIVE FPC ONTC INTERRUPT ALLOW FAILED EVENTNO=a
```

2. REASON FOR OUTPUT

To indicate that an office network and timing complex (ONTC) interrupt allow command, sent to the active foundation peripheral controller (FPC), returned fail to the FPC handler.

3. VARIABLE FIELD DEFINITIONS

`a` = Event number (0-65,535).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:ACTIVE-FOIAM

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT ACTIVE FPC ONTC INTERRUPT ALLOW MESSAGE TIMEOUT EVENTNO=a
```

2. REASON FOR OUTPUT

To indicate that an office network and timing complex (ONTC) interrupt allow command, sent to the active foundation peripheral controller (FPC), was not acknowledged and, therefore, was timed out by the FPC handler.

3. VARIABLE FIELD DEFINITIONS

`a` = Event number (0-65,535).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:ACTIVE-FOIIF

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT ACTIVE FPC ONTC INTERRUPT INHIBIT FAILED EVENTNO=ab
```

2. REASON FOR OUTPUT

To indicate that an office network and timing complex (ONTC) interrupt inhibit command, sent to the active foundation peripheral controller (FPC), returned fail to the FPC handler.

3. VARIABLE FIELD DEFINITIONS

`a` = Event number (0-65,535).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:ACTIVE-FOIIM

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT ACTIVE FPC ONTC INTERRUPT INHIBIT MESSAGE TIMEOUT EVENTNO=a
```

2. REASON FOR OUTPUT

To indicate that an office network and timing complex (ONTC) interrupt inhibit command, sent to the active foundation peripheral controller (FPC), was not acknowledged and, therefore, was timed out by the FPC handler.

3. VARIABLE FIELD DEFINITIONS

`a` = Event number (0-65,535).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:ADP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT ADP AUTORST FAILURE FOR a b [c] [d]

[2]   ____________________________________________________________
      REPT ADP MAJOR ALARM AUTORST FAILURE FOR a b [c] [d]

[3]   ____________________________________________________________
      REPT ADP MINOR ALARM AUTORST FAILURE FOR a b [c] [d]

[4]   ____________________________________________________________
      REPT ADP NO AUTORST, UNIT IS MAN RMV FOR a b [c] [d]

[5]   ____________________________________________________________
      REPT ADP NO AUTORST, UNIT IS FLT RMV FOR a b [c] [d]

[6]   ____________________________________________________________
      REPT ADP NO AUTORST, UNIT IS NOT OOS FOR a b [c] [d]
```

2. REASON FOR OUTPUT

To report that the automatic diagnostic process (ADP) after-fault branch was unable to restore a faulty hardware unit and that it will no longer attempt to diagnose or restore the specified hardware unit or community.

Format 1 is output to report that the suspected faulty hardware unit or community of units has exceeded its error threshold.

Format 2 is output when the specified hardware unit or community is essential.

Format 3 is output when the hardware unit or community is a unit or community whose top unit is an input/output processor (IOP) (that is, the unit is an IOP peripheral controller - IOPPC).

Format 4 is output to report that the unit will not be autorestored because it was manually removed.

Format 5 is output to report that the unit will not be autorestored because it was fault removed.

Format 6 is output to report that the unit will not be autorestored because it was not out of service.

3. VARIABLE FIELD DEFINITIONS

`a` = Unit name.

`b` = Unit number.

`c` = Subunit name.

`d` = Subunit number.

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4. ACTION TO BE TAKEN

For Format 1, manual action is required to diagnose, repair, and restore the hardware unit or community to service.

For Formats 2 and 3, if the hardware unit or community actually failed the restore, manual action is required to diagnose, repair, and restore the hardware unit or community to service.

The maintenance input request administration (MIRA) process might not start or complete ADP's restore requests for one of the following reasons [use the OP:DMQ input message to check the deferred maintenance queue (DMQ)]:

- The DMQ already has a restore request for the hardware unit, community, or top unit. MIRA canceled ADP's restore request as a duplicate.
- Request source ADP is inhibited in the DMQ. Determine why ADP was inhibited and, if practical, use the ALW:DMQ input message to remove the inhibit.
- An initialization interval is in the progress. MIRA aborted tasks in the active queue. Tasks in the waiting queue are started at the end of the initialization interval. ADP may generate another restore request.
- ADP's internal request timer may have expired if there is a large number of manual requests and/or there is a high system load. ADP's request might still be in the DMQ. MIRA defers ADP requests in favor of manual requests, and part of the active queue is for manual requests only.

Request a restore on the hardware unit or community if the hardware unit, community, or top unit does not have a restore request in the queue. No further action is required if the restore is successful.

For format 4, if the hardware unit should be restored, then restore the unit manually.

For format 5, if the hardware unit should be restored, determine what is wrong with the unit using diagnostics, correct the problem, and manually restore the unit.

For format 6, if the hardware unit is not active and not out-of-service (OOS), and if the hardware unit should be restored, then move the unit to OOS using RC/V and manually restore the unit.

5. ALARMS

There is no alarm for an automatically-generated report.

If a minor alarm occurs, take action as indicated in the report.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1, 4, 5, 6	474
2	475
3	476

Input Message(s):

```
ALW:DMQ
DGN:CU
DGN:DFC
```

```
DGN:DUIC
DGN:HSDC
DGN:MHD
DGN:MTC
DGN:MTTYC
DGN:SCSDC
DGN:SDLC
DGN:TTYC
OP:DMQ
RST:CU
RST:DFC
RST:DUI
RST:DUIC
RST:HSD
RST:HSDC
RST:IOP
RST:MHD
RST:MT
RST:MTC
RST:MTTY
RST:MTTYC
RST:ROP
RST:SBUS
RST:SCC
RST:SCSDC
RST:SDL
RST:SDLC
RST:TTY
RST:TTYC
```

Output Message(s):

```
DGN:AUDIT
DGN:CU
DGN:CU-MASC
DGN:DFC
DGN:DUIC
DGN:HSDC
DGN:IOP
DGN:MHD
DGN:MTC
DGN:MTTYC
DGN:SCSDC
DGN:SDLC
DGN:TTYC
OP:DMQ
REPT:ADPAB
REPT:AUTORST
RMV:CU
RMV:DFC
RMV:DUI
RMV:DUIC
RMV:HSD
RMV:HSDC
RMV:IOP
```

```
RMV:MHD
RMV:MT
RMV:MTC
RMV:MTTY
RMV:MTTYC
RMV:ROP
RMV:SBUS
RMV:SCC
RMV:SCSDC
RMV:SDL
RMV:SDLC
RMV:TTY
RMV:TTYC
RST:CU
RST:DFC
RST:DUI
RST:DUIC
RST:HSD
RST:HSDC
RST:IOP
RST:MHD
RST:MT
RST:MTC
RST:MTTY
RST:MTTYC
RST:ROP
RST:SBUS
RST:SCC
RST:SCSDC
RST:SDL
RST:SDLC
RST:TTY
RST:TTYC
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

REPT:ADP-AUTORST

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
REPT ADP AUTORST THRESHOLD EXCEEDED FOR a b [c] [d]
```

2. REASON FOR OUTPUT

To report that the specified faulty hardware unit or community of units has exceeded its error threshold. The automatic diagnostic process (ADP) will no longer attempt to diagnose or restore the unit or community of units. The maximum number of restorations allowed is found in the max_restorable field in the ucbdyn form in the equipment configuration database (ECD).

Note: The ucbdyn form is a review-only form.

3. VARIABLE FIELD DEFINITIONS

a = Unit name.
b = Unit number.
c = Subunit name.
d = Subunit number.

4. ACTION TO BE TAKEN

Manual diagnosis and restoration of the unit is required. This can be accomplished by using the RST input message for a restoration on a specified unit with or without diagnostics being run. The DGN input message will run diagnostics on the specified unit with no restoration.

5. ALARMS

None. This automatically-generated report requires no action.

6. REFERENCES

Input Message(s):

```
DGN:CU
DGN:DFC
DGN:DUIC
DGN:HSDC
DGN:MHD
DGN:MTC
DGN:MTTYC
DGN:SCSDC
DGN:SDLC
DGN:TTYC
RST:CU
RST:DFC
RST:DUI
RST:DUIC
```

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```
RST:HSD
RST:HSDC
RST:IOP
RST:MHD
RST:MT
RST:MTC
RST:MTTY
RST:MTTYC
RST:ROP
RST:SBUS
RST:SCC
RST:SCSDC
RST:SDL
RST:SDLC
RST:TTY
RST:TTYC
```

REPT:ADP-INHIBIT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT ADP INHIBIT ACTIVE a b [c] [d]
```

2. REASON FOR OUTPUT

To report that the automatic diagnostic process (ADP) attempted to diagnose and restore the specified hardware unit or community but was inhibited from doing so by the diagnostics subsystem maintenance input request administrator (MIRA).

3. VARIABLE FIELD DEFINITIONS

`a` = Unit name.

`b` = Unit number.

`c` = Subunit name.

4. ACTION TO BE TAKEN

Manual action is required to diagnose, repair, and restore the unit to service. Diagnostic inhibit status can be determined by the OP:DMQ input message. The diagnostic inhibit on ADP can be allowed by the ALW:DMQ input message.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	405

Input Message(s):

```
ALW:DMQ
DGN:[unit]
INH:DMQ
OP:DMQ
RST:[unit]
```

Output Message(s):

```
DGN:[unit]
OP:DMQ
REPT:ADP
```

```
REPT:ADPAB
REPT:AUTORST
REPT:DMQ
RMV:[unit]
RST:[unit]
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

REPT:ADP-INTER

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT ADP INTERFACE ERROR a [b][c][d][e][f]
```

2. REASON FOR OUTPUT

To report that the automatic diagnostic process (ADP) has encountered a problem interfacing with another part of the DMERT system while attempting to restore a hardware unit or community of units.

3. VARIABLE FIELD DEFINITIONS

`a` = Message. Valid value(s):
`INHIBIT ACTIVE` = ADP has been inhibited from running diagnostics.
`INTERFACE ERROR` = ADP has encountered a problem interfacing with another part of the DMERT system.

`b` = Error codes. Valid value(s):
`1` = ADP could not open the equipment configuration database (ECD).
`2` = ADP could not obtain a unit control block (UCB).
`3` = ADP could not set a value in a UCB.
`4` = ADP could not enable messages.
`5` = ADP could not send a message to the port that is assigned to the maintenance input request administrator (MIRA).
`6` = MIRA could not execute a request that was sent to it by ADP.
`7` = ADP could not retrieve an input/output processor (IOP) peripheral controller (IOPPC) UCB.

`c` = Unit name.

`d` = Unit number.

`e` = Subunit name.

`f` = Subunit number.

4. ACTION TO BE TAKEN

For error code 6, use the OP:DMQ input message to determine the status of the MIRA process. If automatic diagnostics are inhibited in MIRA, the ALW:DMQ input message may be used to remove the inhibit. If the problem persists, obtain technical assistance.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

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6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	405

Input Message(s):

```
ALW:DMQ
OP:DMQ
```

Output Message(s):

```
OP:DMQ
REPT:AUTORST
RMV:[unit]
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

REPT:ADPAB

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT ADPAB MAJOR ALARM RESTORE FAILURE
        FOR a b [c] [d]

[2]   ____________________________________________________________________
      REPT ADPAB MINOR ALARM RESTORE FAILURE
        FOR a b [c] [d]
```

2. REASON FOR OUTPUT

To report that the automatic diagnostic process (ADP) after-boot (AB) branch was unable to restore a hardware unit left out of service after a bootstrap. ADPAB will no longer try to diagnose or restore the specified hardware unit or community.

Format 1 is output when the specified hardware unit or community is essential.

Format 2 is output when the hardware unit or community is a unit or community whose top unit is an input/output processor (IOP), that is, the unit is an IOP peripheral controller (IOPPC).

3. VARIABLE FIELD DEFINITIONS

`a` = Unit name.

`b` = Unit number.

`c` = Subunit name.

`d` = Subunit number.

4. ACTION TO BE TAKEN

If the hardware unit or community actually failed the restore, manual action is required to diagnose, repair, and restore the hardware unit or community to service.

The maintenance input request administration (MIRA) process might not start or complete ADPAB's restore requests for one of the following reasons [use the OP:DMQ input message to check the deferred maintenance queue (DMQ)]:

- The DMQ already has a restore request for the hardware unit, community, or top unit. MIRA canceled ADP's restore request as a duplicate.
- Request source ADP is inhibited in the DMQ. Determine why ADP was inhibited and, if practical, use the ALW:DMQ input message to remove the inhibit.
- An initialization interval is in the progress. MIRA aborted tasks in the active queue. Tasks in the waiting queue are started at the end of the initialization interval. ADP may generate another restore request.
- ADP's internal request timer may have expired if there is a large number of manual requests and/or there is a high system load. ADP's request might still be in the DMQ. MIRA defers ADP requests in

favor of manual requests, and part of the active queue is for manual requests only.

Request a restore on the hardware unit or community if the hardware unit, community, or top unit does not have a restore request in the queue. No further action is required if the restore is successful.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:DMQ
DGN:[unit]
OP:DMQ
RST:[unit]
```

Output Message(s):

```
DGN:[unit]
OP:DMQ
REPT:ADP
REPT:AUTORST
RMV:[unit]
RST:[unit]
```

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REPT:AIU-TCOF-A

Software Release: 5E11 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT AIUCOM=a-b-c d, e TRBL PICB CONTROL FAILURE EVENT=f
  g RECOVERY ACTION h
                                        TIME = i

  IMPLICATED       ERROR  THRESHOLD   NEXT RECOVERY
  CIRCUITS         LEVEL  LEVEL       ACTION
  j                k      l           m

  SOURCE ANALYSIS DATA:
  n
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the access interface unit (AIU).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = AIU number.

`c` = Common data and control (COMDAC) number.

`d` = Line unit status. Valid value(s):

`ACT`	= Active.
`MAJOR`	= Active major.
`MINOR`	= Active minor.
`OOS`	= Out of service.

`e` = Circuit equipment status qualifier. Valid value(s):

`AUOOS`	= On recovery queue.
`CAMPON`	= Camped-on.
`CDNY`	= Customer denied.
`DGN`	= Diagnose.
`DGR`	= Degraded.
`FE`	= Family of equipment.
`FLT`	= Fault.
`NULL`	= Null value.
`PROOS`	= Pre-out of service.
`REX`	= Routine exercise.
`RMV`	= Removed.
`TBLA`	= Trouble analysis.

`f` = Event number.

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`g` = Error type. Valid value(s):
`CI RECEIVED BAD PARITY` = A peripheral reply message has bad parity.
`CI RECEIVED BAD START CODE` = A peripheral reply message has a bad start code.
`CI TIME OUT` = A peripheral unit failed to reply to a message from the control interface (CI).
`PER DETECTED BAD ADDRESS` = A peripheral detected an addressing error in its own circuitry while attempting to do a scan or distribute operation requested by the CI.
`PER DETECTED BAD PARITY` = A peripheral received bad parity in a message from the CI.
`PER DETECTED BAD START CODE` = A peripheral received a bad start code in a message from the CI.
`SOFTWARE BAD ADDRESS ERROR` = The address does not exist in relation RLcktdata or the address being accessed is in the software bad address range.

`h` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = This report is provided for reference only.
`RE-INHIBIT ERROR` = The failing circuit has been inhibited and error are still detected. circuit is on out-of-service state.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`i` = System time when the fault happened, formatted in hh:mm:ss.msec

`j` = External logical circuit name in the fault. More than one circuit may be listed when multiple circuits can be blamed for the trouble.

`k` = Number of recent failures of this error type (variable '`g`') on this AIU failing circuit (in decimal).

`l` = Error count threshold.

`m` Next recovery action, the same actions are possible as in "Recovery action: (variable '`h`')"

`n` = Source analysis data.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the failing circuit from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:AIUCOM
RMV:AIUCOM
RST:AIUCOM
```

Other Manual(s):

235-105-220 *Corrective Maintenance*

REPT:AIU-TCOF-B

Software Release: 5E12 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT AIUCOM=a-b-c d, e TRBL PICB CONTROL FAILURE EVENT=f
  g RECOVERY ACTION h
                                        TIME = i

  IMPLICATED       ERROR  THRESHOLD   NEXT RECOVERY
  CIRCUITS         LEVEL  LEVEL       ACTION
  j                k      l           m

  SOURCE ANALYSIS DATA:
  n
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the access interface unit (AIU).

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = AIU number.

c = Common data and control (COMDAC) number.

d = Line unit status. Valid value(s):

ACT	= Active.
MAJOR	= Active major.
MINOR	= Active minor.
OOS	= Out of service.

e = Circuit equipment status qualifier. Valid value(s):

AUOOS	= On recovery queue.
BLKD	= Communication blocked.
CAMPON	= Camped-on.
CDNY	= Customer denied.
DGN	= Diagnose.
DGR	= Degraded.
FE	= Family of equipment.
FLT	= Fault.
NULL	= Null value.
PROOS	= Pre-out of service.
REX	= Routine exercise.
RMV	= Removed.
TBLA	= Trouble analysis.

`f` = Event number.

`g` = Error type. Valid value(s):
`CI RECEIVED BAD PARITY` = A peripheral reply message has bad parity.
`CI RECEIVED BAD START CODE` = A peripheral reply message has a bad start code.
`CI TIME OUT` = A peripheral unit failed to reply to a message from the control interface (CI).
`PER DETECTED BAD ADDRESS` = A peripheral detected an addressing error in its own circuitry while attempting to do a scan or distribute operation requested by the CI.
`PER DETECTED BAD PARITY` = A peripheral received bad parity in a message from the CI.
`PER DETECTED BAD START CODE` = A peripheral received a bad start code in a message from the CI.
`SOFTWARE BAD ADDRESS ERROR` = The address does not exist in relation RLcktdata or the address being accessed is in the software bad address range.

`h` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = This report is provided for reference only.
`RE-INHIBIT ERROR` = The failing circuit has been inhibited and error are still detected. circuit is on out-of-service state.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`i` = System time when the fault happened, formatted in hh:mm:ss.msec

`j` = External logical circuit name in the fault. More than one circuit may be listed when multiple circuits can be blamed for the trouble.

`k` = Number of recent failures of this error type (variable '`g`') on this AIU failing circuit (in decimal).

`l` = Error count threshold.

`m` Next recovery action, the same actions are possible as in "Recovery action: (variable '`h`')"

`n` = Source analysis data.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the failing circuit from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:AIUCOM
RMV:AIUCOM
RST:AIUCOM
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:AIU-THF-A

Software Release: 5E11 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT AIU a b, c TRBL HARDWARE FAILURE EVENT = d
  e RECOVERY ACTION f
                                        TIME=g

  IMPLICATED       ERROR  THRESHOLD   NEXT RECOVERY
  CIRCUITS         LEVEL  LEVEL       ACTION
    h              i      j           k
    .              .      .           .
    .              .      .           .
    .              .      .           .

  SOURCE ANALYSIS DATA:
  l
```

2. REASON FOR OUTPUT

To report failure during a PC background process on an access interface unit (AIU), application pack (AP), common data and control (COMDAC), or peripheral interface data bus (PIDB). This report indicates what recovery action was taken and gives the current fault counts against the circuit specified in the report. Refer to variable '`f`' to determine the effect the fault recovery activity had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = AIU circuit type. Valid value(s):

COM=m-n-o
LC=m-n-q-r
LP=m-n-q
PIDB=m-n-o-p
RG=m-n-s

`b` = Line unit status. Valid value(s):

ACT	= Active.
MAJOR	= Active Major.
MINOR	= Active Minor.
OOS	= Out of service.

`c` = Circuit equipment status qualifier. Valid value(s):

AUOOS	= On recovery queue.
CAMPON	= Camped-on.
CDNY	= Customer denied.
DGN	= Diagnose.
DGR	= Degraded.
FE	= Family of equipment.
FLT	= Fault.
NULL	= Null value.

PROOS = Pre-out of service.
REX = Routine exercise.
RMV = Removed.
TBLA = Trouble analysis.

d = Event number.

e = Error type. Valid value(s):

```
AP BAD REPORT
AP JOB LOSS
AP OUTGOING MESSAGE LOSS
AP UART BIT ERROR
AP UART BIT ERROR
CIRCUIT HARD RESET FAILURE
COMDAC BAD REPORT
COMDAC DOWNSTREAM FIFO FRAMING ERROR
COMDAC OUT OF SYNC
COMDAC PICB INTERRUPT THROUGH MASK
COMDAC RETURN MESSAGE LOSS
COMDAC TIMING SOURCE FAILUR
COMDAC TO SMP FIFO FULL
COMDAC UART BIT ERROR
COMDAC UART FRAMING ERROR
DOWNSTREAM MESSAGE TO AP LOSS
DOWNSTREAM MESSAGE TO COMDAC LOSS
INTERNAL SOFTWARE FAILURE REPORT
JOB OVERFLOW
LONG JOB DETECTED BY SCHEDULER
MATE COMDAC ERROR
MESSAGE FRAMING ERROR IN COMDAC FIFO
PIF INTERRUPT NO SOURCE
RG BAD PARAMETERS ERROR
RG BUS SHORTAGE FAILURE
RG OVER CURRENT STUCK FAULT
RG VOLTAGE IS LOW
RG VOLTAGE SHUTDOWN
RG VOLTAGE TEST FAILURE
SCHEDULER RESTART FAILURE
SMP TO COMDAC FIFO FULL
SOFTWARE INITIALIZATION ERROR
TIGHT LOOP DETECTED BY SCHEDULER
TIP RING CABLE PULLED
UART INTERRUPT NO SOURCE ERROR
UART INTERRUPT THROUGH MASK
UNSUPPORTED PROCESSOR INTERRUPT
UPSTREAM UART MESSAGE LOSS
UPSTREAM UART RECEIVE BREAK
```

f = Recovery action Valid value(s):
ANALYSIS ONLY = This report is provided for reference only.
ASSERT TO SYSTEM INTEGRITY = A software failure has been detected and system integrity has been notified by an assert.
NO RECOVERY ACTION TAKEN = This report is provided for reference only.

`RE-INHIBIT ERROR` = The failing circuit has been inhibited and error are still detected.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.
`UNCONDITIONAL RST PREEMPT` = The failing circuit was preempted and restored without scheduling any diagnostic.

`g` = System time when the fault happened, formatted in hh:mm:ss.msec

`h` = External logical circuit name in the fault. More than one circuit may be listed when multiple circuits can be blamed for the trouble.

`i` = Number of recent failures of this error type (variable '`e`') on this AIU faulty circuit (in decimal).

`j` = Error count threshold.

`k` = Next recovery action, the same actions are possible as in "Recovery action: (variable '`f`')"

`l` = Source analysis data.

`m` = SM number.

`n` = AIU number.

`o` = COMDAC number.

`p` = PIDB number.

`q` = LP number.

`r` = LC number.

`s` = RG number.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the failing circuit from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RMV:AIULC
RMV:AIULP
RMV:AIURG
RMV:AIUCOM
RMV:AIUPIDB
RST:AIULC
RST:AIULP
RST:AIURG
```

```
RST:AIUCOM
RST:AIUPIDB
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:AIU-THF-B

Software Release: 5E12 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT AIU a b, c TRBL HARDWARE FAILURE EVENT = d
  e RECOVERY ACTION f
                                        TIME=g

  IMPLICATED       ERROR  THRESHOLD   NEXT RECOVERY
  CIRCUITS         LEVEL  LEVEL       ACTION
    h              i      j           k
    .              .      .           .
    .              .      .           .
    .              .      .           .

  SOURCE ANALYSIS DATA:
  l
```

2. REASON FOR OUTPUT

To report failure during a PC background process on an access interface unit (AIU), application pack (AP), common data and control (COMDAC), or peripheral interface data bus (PIDB). This report indicates what recovery action was taken and gives the current fault counts against the circuit specified in the report. Refer to variable '`f`' to determine the effect the fault recovery activity had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = AIU circuit type. Valid value(s):

COM=m-n-o
LC=m-n-q-r
LP=m-n-q
PIDB=m-n-o-p
RG=m-n-s

`b` = Line unit status. Valid value(s):

ACT	= Active.
MAJOR	= Active Major.
MINOR	= Active Minor.
OOS	= Out of service.

`c` = Circuit equipment status qualifier. Valid value(s):

AUOOS	= On recovery queue.
BLKD	= Communication blocked.
CAMPON	= Camped-on.
CDNY	= Customer denied.
DGN	= Diagnose.
DGR	= Degraded.
FE	= Family of equipment.
FLT	= Fault.

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NULL	= Null value.
PROOS	= Pre-out of service.
REX	= Routine exercise.
RMV	= Removed.
TBLA	= Trouble analysis.

d = Event number.

e = Error type. Valid value(s):

```
AP BAD REPORT
AP JOB LOSS
AP OUTGOING MESSAGE LOSS
AP UART BIT ERROR
AP UART FRAMING ERROR
CIRCUIT HARD RESET FAILURE
CLOCK FINITE MACHINE FIXED AN ERROR
COMDAC BAD REPORT
COMDAC DOWNSTREAM FIFO FRAMING ERROR
COMDAC OUT OF SYNC
COMDAC PICB INTERRUPT THROUGH MASK
COMDAC RETURN MESSAGE LOSS
COMDAC SWITCH
COMDAC TIMING SOURCE FAILUR
COMDAC TO SMP FIFO FULL
COMDAC UART BIT ERROR
COMDAC UART FRAMING ERROR
CROSS COUPLE CLOCK LOST
DOWNSTREAM MESSAGE TO AP LOSS
DOWNSTREAM MESSAGE TO COMDAC LOSS
INHIBITED ALARM REPORTED ERROR
INTERNAL SOFTWARE FAILURE REPORT
JOB OVERFLOW
LINE CIRCUIT POWER CONTROL DISSIPATING EXCESS POWER
LONG JOB DETECTED BY SCHEDULER
MATE COMDAC ERROR
MESSAGE FRAMING ERROR IN COMDAC FIFO
PIF INTERRUPT NO SOURCE
REFERENCE TIMING LOST
RG BAD PARAMETERS ERROR
RG BUS SHORTAGE FAILURE
RG OVER CURRENT STUCK FAULT
RG VOLTAGE IS LOW
RG VOLTAGE SHUTDOWN
RG VOLTAGE TEST FAILURE
SCHEDULER RESTART FAILURE
SMP TO COMDAC FIFO FULL
SOFTWARE INITIALIZATION ERROR
TIGHT LOOP DETECTED BY SCHEDULER
UART INTERRUPT NO SOURCE ERROR
UART INTERRUPT THROUGH MASK
UNSUPPORTED PIF REGISTER
UNSUPPORTED PROCESSOR INTERRUPT
UPSTREAM UART MESSAGE LOSS
UPSTREAM UART RECEIVE BREAK
```

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`f` = Recovery action Valid value(s):
`ANALYSIS ONLY` = This report is provided for reference only.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified by an assert.
`NO RECOVERY ACTION TAKEN` = This report is provided for reference only.
`RE-INHIBIT ERROR` = The failing circuit has been inhibited and error are still detected.
`SOFT SWITCH` = The reported circuit was switched from minor to major.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.
`UNCONDITIONAL RST PREEMPT` = The failing circuit was preempted and restored without scheduling any diagnostic.

`g` = System time when the fault happened, formatted in hh:mm:ss.msec

`h` = External logical circuit name in the fault. More than one circuit may be listed when multiple circuits can be blamed for the trouble.

`i` = Number of recent failures of this error type (variable '`e`') on this AIU faulty circuit (in decimal).

`j` = Error count threshold.

`k` = Next recovery action, the same actions are possible as in "Recovery action: (variable '`f`')"

`l` = Source analysis data.

`m` = SM number.

`n` = AIU number.

`o` = COMDAC number.

`p` = PIDB number.

`q` = LP number.

`r` = LC number.

`s` = RG number.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the failing circuit from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RMV:AIULC
RMV:AIULP
RMV:AIURG
RMV:AIUCOM
RMV:AIUPIDB
RST:AIULC
RST:AIULP
RST:AIURG
RST:AIUCOM
RST:AIUPIDB
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:AIU-TPCTF-A

Software Release: 5E11 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT AIU a b, c TRBL PER CALL TEST FAILURE EVENT=d
  e RECOVERY ACTION f
                                TIME = g

  IMPLICATED            ERROR  THRESHOLD   NEXT RECOVERY
  CIRCUITS              LEVEL  LEVEL       ACTION
  h                     i      j           k
  .                     .      .           .
  .                     .      .           .
  .                     .      .           .

  SOURCE ANALYSIS DATA:
  l
```

2. REASON FOR OUTPUT

To report failure during a per call test (such as call setup) on an access interface unit (AIU), line circuit (LC), application pack (AP), common data and control (COMDAC), or peripheral interface data bus (PIDB). This report indicates what recovery action was taken and gives the current fault counts against a circuit.

3. VARIABLE FIELD DEFINITIONS

a = AIU circuit type. Valid value(s):

COM=m-n-v
LC=m-n-x-y
LP=m-n-x
PIDB=m-n-v-w
RG=m-n-z

b = Line unit status. Valid value(s):

ACT	= Active.
MAJOR	= Active Major.
MINOR	= Active Minor.
OOS	= Out of service.

c = Circuit equipment status qualifier. Valid value(s):

AUOOS	= On recovery queue.
CAMPON	= Camped-on.
CDNY	= Customer denied.
DGN	= Diagnose.
DGR	= Degraded.
FE	= Family of equipment.
FLT	= Fault.
NULL	= Null value.
PROOS	= Pre-out of service.

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`REX` = Routine exercise.
`RMV` = Removed.
`TBLA` = Trouble analysis.

`d` = Event number.

`e` = Error type. Valid value(s):

```
COIN COLLECT TEST FAILURE
COIN PRESENT TEST FAILURE
COIN RETURN TEST FAILURE
DIGITAL LOOP-BACK FAILURE
FALSE RING TRIP FAILURE
INITIAL DEPOSIT TEST FAILURE
NO RINGING PRESENT ERROR
SHORT SUPERVISION TRANSPORT FAILURE
STUCK OFF HOOK FAILURE
STUCK ON HOOK FAILURE
```

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = This report is provided for reference only.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified by an assert.
`NO RECOVERY ACTION TAKEN` = This report is provided for reference only.
`RE-INHIBIT ERROR` = The failing circuit has been inhibited and error are still detected.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.
`UNCONDITIONAL RST PREEMPT` = The failing circuit was preempted and restored without diagnostic being scheduled.

`g` = System Time when the fault happened, formatted in hh:mm:ss.msec

`h` = External logical circuit name in the fault. More than one circuit may be listed when multiple circuits can be blamed for the trouble.

`i` = Number of recent failures of this error type (variable '`e`') on this AIU failing circuit (in decimal).

`j` = Error count threshold.

`k` = Next recovery action, the same actions are possible as in "Recovery action: (variable '`f`')"

`l` = Source analysis data.

`m` = SM number.

`n` = AIU number.

`v` = COMDAC number.

`w` = PIDB number.

`x` = LP number.

`y` = LC number.

`z` = RG number.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the failing circuit from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:AIULC
DGN:AIULP
DGN:AIURG
DGN:AIUCOM
DGN:AIUPIDB
RMV:AIULC
RMV:AIULP
RMV:AIURG
RMV:AIUCOM
RMV:AIUPIDB
RST:AIULC
RST:AIULP
RST:AIURG
RST:AIUCOM
RST:AIUPIDB
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:AIU-TPCTF-B

Software Release: 5E12 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT AIU a b, c TRBL PER CALL TEST FAILURE EVENT=d
  e RECOVERY ACTION f
                                TIME = g

  IMPLICATED            ERROR  THRESHOLD   NEXT RECOVERY
  CIRCUITS              LEVEL  LEVEL       ACTION
  h                     i      j           k
  .                     .      .           .
  .                     .      .           .
  .                     .      .           .

  SOURCE ANALYSIS DATA:
  l
```

2. REASON FOR OUTPUT

To report failure during a per call test (such as call setup) on an access interface unit (AIU), line circuit (LC), application pack (AP), common data and control (COMDAC), or peripheral interface data bus (PIDB). This report indicates what recovery action was taken and gives the current fault counts against a circuit.

3. VARIABLE FIELD DEFINITIONS

a = AIU circuit type. Valid value(s):

COM=m-n-v
LC=m-n-x-y
LP=m-n-x
PIDB=m-n-v-w
RG=m-n-z

b = Line unit status. Valid value(s):

ACT	= Active.
MAJOR	= Active Major.
MINOR	= Active Minor.
OOS	= Out of service.

c = Circuit equipment status qualifier. Valid value(s):

AUOOS	= On recovery queue.
BLKD	= Communication blocked.
CAMPON	= Camped-on.
CDNY	= Customer denied.
DGN	= Diagnose.
DGR	= Degraded.
FE	= Family of equipment.
FLT	= Fault.
NULL	= Null value.

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PROOS = Pre-out of service.
REX = Routine exercise.
RMV = Removed.
TBLA = Trouble analysis.

d = Event number.

e = Error type. Valid value(s):

```
COIN COLLECT TEST FAILURE
COIN PRESENT TEST FAILURE
COIN RETURN TEST FAILURE
DETECTED BAD BITS SET
DIGITAL LOOP-BACK FAILURE
FALSE RING TRIP FAILURE
INITIAL DEPOSIT TEST FAILURE
LAYER 1 PROTOCOL FAILURE
LINE CIRCUIT LOOPBACK FAILURE
NO RINGING PRESENT ERROR
SHORT SUPERVISION TRANSPORT FAILURE
STUCK OFF HOOK FAILURE
STUCK ON HOOK FAILURE
```

f = Recovery action. Valid value(s):
ANALYSIS ONLY = This report is provided for reference only.
ASSERT TO SYSTEM INTEGRITY = A software failure has been detected and system integrity has been notified by an assert.
NO RECOVERY ACTION TAKEN = This report is provided for reference only.
RE-INHIBIT ERROR = The failing circuit has been inhibited and error are still detected.
RST PREEMPT = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.
UNCONDITIONAL RST PREEMPT = The failing circuit was preempted and restored without diagnostic being scheduled.

g = System Time when the fault happened, formatted in hh:mm:ss.msec

h = External logical circuit name in the fault. More than one circuit may be listed when multiple circuits can be blamed for the trouble.

i = Number of recent failures of this error type (variable 'e') on this AIU failing circuit (in decimal).

j = Error count threshold.

k = Next recovery action, the same actions are possible as in "Recovery action: (variable 'f')"

l = Source analysis data.

m = SM number.

n = AIU number.

v = COMDAC number.

w = PIDB number.

x = LP number.

y = LC number.

z = RG number.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the failing circuit from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:AIULC
DGN:AIULP
DGN:AIURG
DGN:AIUCOM
DGN:AIUPIDB
RMV:AIULC
RMV:AIULP
RMV:AIURG
RMV:AIUCOM
RMV:AIUPIDB
RST:AIULC
RST:AIULP
RST:AIURG
RST:AIUCOM
RST:AIUPIDB
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:AIU-TPPF-A

Software Release: 5E11 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT AIU a b, c TRBL d EVENT = e
  PIDB PARITY TROUBLE RECOVERY ACTION g
                                     TIME=h

  IMPLICATED       ERROR   THRESHOLD   NEXT RECOVERY
  CIRCUITS         LEVEL   LEVEL       ACTION
    i              j       k           l
    .              .       .           .
    .              .       .           .
    .              .       .           .

  SOURCE ANALYSIS DATA:
  m
```

2. REASON FOR OUTPUT

To respond to either a time-slot interchange (TSI) interrupt caused by peripheral interface data bus (PIDB) parity errors or a packet-switch unit (PSU) interrupt caused by directly connected peripheral interface data bus (DPIDB) parity errors in the access interface unit (AIU).

3. VARIABLE FIELD DEFINITIONS

a = AIU circuit type. Valid value(s):

COM=n-o-p
PIDB=n-o-p-q

b = Line unit status. Valid value(s):

ACT	= Active.
MAJOR	= Active major.
MINOR	= Active minor.
OOS	= Out of service.

c = Circuit equipment status qualifier. Valid value(s):

AUOOS	= On recovery queue.
CAMPON	= Camped-on.
CDNY	= Customer denied.
DGN	= Diagnose.
DGR	= Degraded.
FE	= Family of equipment.
FLT	= Fault.
NULL	= Null value.
PROOS	= Pre-out of service.
REX	= Routine exercise.
RMV	= Removed.

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TBLA = Trouble analysis.

d = Type of trouble report. Valid value(s):

DPIDB PARITY FAILURE
PIDB PARITY FAILURE

e = Event number.

g = Recovery action. Valid value(s):
ANALYSIS ONLY = This report is provided for reference only.
ASSERT TO SYSTEM INTEGRITY = A software failure has been detected and system integrity has been notified by an assert.
NO RECOVERY ACTION TAKEN = This report is provided for reference only.
RE-INHIBIT ERROR = The failing circuit has been inhibited and error are still detected.
RST PREEMPT = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.
UNCONDITIONAL RST PREEMPT = The failing circuit was preempted and restored without scheduling any diagnostic.

h = System time when the fault happened, formatted in hh:mm:ss.msec

i = External logical circuit name in the fault. More than one circuit may be listed when multiple circuits can be blamed for the trouble.

j = Number of recent failures of this error type on this AIU failing circuit (in decimal).

k = Error count threshold.

l = Next recovery action, the same actions are possible as in variable 'g'.

m = Source analysis data.

n = SM number.

o = AIU number.

p = Common data and control controller (COMDAC) number.

q = PIDB number.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the failing circuit from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:AIUPIDB
DGN:AIUCOM
RMV:AIUPIDB
RMV:AIUCOM
RST:AIUPIDB
RST:AIUCOM
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:AIU-TPPF-B

Software Release: 5E12 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT AIU a b, c TRBL d EVENT = e
  f RECOVERY ACTION g
                                          TIME=h

  IMPLICATED        ERROR   THRESHOLD   NEXT RECOVERY
  CIRCUITS          LEVEL   LEVEL       ACTION
    i               j       k           l
    .               .       .           .
    .               .       .           .
    .               .       .           .

  SOURCE ANALYSIS DATA:
  m
```

2. REASON FOR OUTPUT

To respond to either a time-slot interchange (TSI) interrupt caused by peripheral interface data bus (PIDB) parity errors or a packet-switch unit (PSU) interrupt caused by directly connected peripheral interface data bus (DPIDB) parity errors in the access interface unit (AIU).

3. VARIABLE FIELD DEFINITIONS

a = AIU circuit type. Valid value(s):

COM=n-o-p
PIDB=n-o-p-q

b = Line unit status. Valid value(s):

ACT	= Active.
MAJOR	= Active major.
MINOR	= Active minor.
OOS	= Out of service.

c = Circuit equipment status qualifier. Valid value(s):

AUOOS	= On recovery queue.
BLKD	= Communication blocked.
CAMPON	= Camped-on.
CDNY	= Customer denied.
DGN	= Diagnose.
DGR	= Degraded.
FE	= Family of equipment.
FLT	= Fault.
NULL	= Null value.
PROOS	= Pre-out of service.
REX	= Routine exercise.

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RMV = Removed.
TBLA = Trouble analysis.

d = Type of trouble report. Valid value(s):

DPIDB PARITY FAILURE
PIDB PARITY FAILURE

e = Event number.

f = Error type. Valid value(s):

PIDB PARITY TROUBLE

g = Recovery action. Valid value(s):
ANALYSIS ONLY = This report is provided for reference only.
ASSERT TO SYSTEM INTEGRITY = A software failure has been detected and system integrity has been notified by an assert.
NO RECOVERY ACTION TAKEN = This report is provided for reference only.
RE-INHIBIT ERROR = The failing circuit has been inhibited and error are still detected.
RST PREEMPT = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.
UNCONDITIONAL RST PREEMPT = The failing circuit was preempted and restored without scheduling any diagnostic.

h = System time when the fault happened, formatted in hh:mm:ss.msec

i = External logical circuit name in the fault. More than one circuit may be listed when multiple circuits can be blamed for the trouble.

j = Number of recent failures of this error type (variable 'e') on this AIU failing circuit (in decimal).

k = Error count threshold.

l = Next recovery action, the same actions are possible as in variable 'f'.

m = Source analysis data.

n = SM number.

o = AIU number.

p = COMDAC number.

q = PIDB number.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the failing circuit from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:AIUPIDB
DGN:AIUCOM
RMV:AIUPIDB
RMV:AIUCOM
RST:AIUPIDB
RST:AIUCOM
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

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REPT:AIU-TRBL

Software Release: 5E11 and later
Message Class:
Application: 5
Type: Output

1. FORMAT

```
REPT AIUCOM=a-b-c   d, e TRBL f EVENT=g
  h RECOVERY ACTION i
                                TIME = j

  IMPLICATED            ERROR  THRESHOLD   NEXT RECOVERY
  CIRCUITS              LEVEL  LEVEL       ACTION
  AIUCOM=a-b-c          k      l           m

  SOURCE ANALYSIS DATA:
  n
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within the SM (switching module) caused by failure of the communication path through the EAIU (extended access interface circuit, COMDAC (common data and control). This report indicates what recovery action was taken and gives the current fault counts against a circuit.

3. VARIABLE FIELD DEFINITIONS

a = SM number.

b = EAIU number.

c = COMDAC number.

d = Line unit status. Valid value(s):

ACT	= Active.
MAJOR	= Active Major.
MINOR	= Active Minor.
OOS	= Out of service.

e = Circuit equipment status qualifier. Valid value(s):

AUOOS	= On recovery queue.
BLKD	= Communication blocked
CAMPON	= Camped-on.
CDNY	= Customer denied.
DGN	= Diagnose.
DGR	= Degraded.
FE	= Family of equipment.
FLT	= Fault.
NULL	= Null value.
PROOS	= Pre-out of service.
REX	= Routine exercise.
RMV	= Removed.

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TBLA = Trouble analysis.

f = Report error type. Valid value(s):

```
MH CHANNEL DEACTIVATED
MH CRITICAL ERROR
MH ERROR REPORT
MH INACTIVE CHAN INIT
MH INITIATED OSR
MH RESTART OF CHANNEL
MH RESTART OF LAYER 2
MT EVENT REPORT
NON-CRITICAL SOFTWARE FAILURE
OPERATIONAL FAILURE
PCT LINK COMMUNICATION FAILURE
```

g = Event number.

h = Error type. Valid value(s):

```
MH SENT BAD MESSAGE
LAYER 2 DOWN FOR JOB SENDING
MH BAD CRC
MH CHANNEL TRACKS VARIABLE SET DURING OSR
MH END OF IDLE DETECTED
MH EXPECTED INFORMATION FIELD NOT PRESENT
MH FRAME ABORTED DURING RECEPTION/TRANSMISSION
MH FRAME REJECT RECEIVED
MH IDLE DETECTED
MH IDLE TIMER EXPIRED
MH ILLEGAL ADDRESS
MH INFORMATION FIELD EXCEEDED MAXIMUM SIZE
MH INVALID COMMAND/RESPONSE FIELD
MH INVALID EA BIT
MH INVALID HEADER FIELD
MH INVALID INFORMATION FIELD
MH INVALID POLL/FINAL FIELD
MH INVALID SAPI
MH INVALID TEI
MH LAYER 2 ESTABLISHED INDICATION
MH LAYER 2 RELEASED ERROR INDICATION
MH LAYER 2 RELEASED INDICATION
MH LOGICAL LINK RESTART DETECTED
MH LOGICAL LINK TRACKS VARIABLE SET DURING OSR
MH LONG OR SHORT FRAME OR BAD BIT COUNT
MH MAXIMUM FRAME SIZE EXCEEDED
MH OUT OF SEQUENCE
MH SEQUENCE FIELD INVALID
MH TRANSMISSION RETRY COUNT EXCEEDED
MH UNEXPECTED FRAME
MH UNEXPECTED FRAME FOR CURRENT LOG
MH UNEXPECTED INFORMATION FIELD
MH UNEXPECTED UNNUMBERED FRAME
MH UNKNOWN FRAME TYPE
```

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NO ERROR SOURCE FOUND

i = Recovery action. Valid value(s):
ANALYSIS ONLY = This report is provided for reference only.
ASSERT TO SYSTEM INTEGRITY = A software failure has been detected and system integrity has been notified by an assert.
NO RECOVERY ACTION TAKEN = This report is provided for reference only.
RE-INHIBIT ERROR = The failing circuit has been inhibited and error are still detected.
RST PREEMPT = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.
UNCONDITIONAL RST PREEMPT = The failing circuit was preempted and restored without diagnostic being scheduled.

j = System Time when the fault happened, formatted in hh:mm:ss.msec

k = Number of recent failures of this error type (variable 'h') on this EAIU failing circuit (in decimal).

l = Error count threshold.

m = Next recovery action, the same actions are possible as in "Recovery action: (variable 'g')"

n = Source analysis data.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the failing circuit from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:AIUCOM
RMV:AIUCOM
RST:AIUCOM
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:AIU-TSF-A

Software Release: 5E11 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT AIU a b, c TRBL SOFTWARE FAILURE EVENT = d
  e RECOVERY ACTION f
                                        TIME=g

  IMPLICATED       ERROR  THRESHOLD   NEXT RECOVERY
  CIRCUITS         LEVEL  LEVEL       ACTION
  h                i      j           k
  .                .      .           .
  .                .      .           .
  .                .      .           .

  SOURCE ANALYSIS DATA:
  l
```

2. REASON FOR OUTPUT

To report failure during a client process or peripheral fault recovery (PFR) test process on an access interface unit (AIU), line circuit (LC), application pack (AP), common data and control (COMDAC), or peripheral interface data bus (PIDB). This report indicates what recovery action was taken and gives the current fault counts against the circuit specified in the report. Refer to variable '`f`' to determine the effect the fault recovery activity had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = AIU circuit type. Valid value(s):

COM=m-n-o
PIDB=m-n-o-p
LP=m-n-q
LC=m-n-q-r
RG=m-n-s

`b` = Line unit status. Valid value(s):

ACT	= Active.
MAJOR	= Active major.
MINOR	= Active minor.
OOS	= Out of service.

`c` = Circuit equipment status qualifier. Valid value(s):

AUOOS	= On recovery queue.
CAMPON	= Camped-on.
CDNY	= Customer denied.
DGN	= Diagnose.
DGR	= Degraded.
FE	= Family of equipment.
FLT	= Fault.
NULL	= Null value.

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PROOS = Pre-out of service.
REX = Routine exercise.
RMV = Removed.
TBLA = Trouble analysis.

d = Event number.

e = Error type. Valid value(s):

```
AP JOB TIMEOUT FAILURE
AP SANITY CHECK FAILURE
COMDAC JOB TIMEOUT FAILURE
COMDAC SANITY CHECK FAILURE
PICB INTERRUPT THROUGH MASK
```

f = Recovery action. Valid value(s):
ANALYSIS ONLY = This report is provided for reference only.
ASSERT TO SYSTEM INTEGRITY = A software failure has been detected and system integrity has been notified by an assert.
NO RECOVERY ACTION TAKEN = This report is provided for reference only.
RE-INHIBIT ERROR = The failing circuit has been inhibited and error are still detected.
RST PREEMPT = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.
UNCONDITIONAL RST PREEMPT = The failing circuit was preempted and restored without scheduling any diagnostic.

g = System Time when the fault happened in the form: hh:mm:ss.msec

h = External logical circuit name in the fault. More than one circuit may be listed when multiple circuits can be blamed for the trouble.

i = Number of recent failures of this error type (variable 'e') on this AIU failing circuit (in decimal).

j = Error count threshold.

k = Next recovery action, the same actions are possible as in "Recovery Action: (variable 'f')".

l = Source analysis data.

m = SM number.

n = AIU number.

o = COMDAC number.

p = PIDB number.

q = LP number.

r = LC number.

s = RG number.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the failing circuit from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:AIULC
DGN:AIULP
DGN:AIURG
DGN:AIUCOM
DGN:AIUPIDB
RMV:AIULC
RMV:AIULP
RMV:AIURG
RMV:AIUCOM
RMV:AIUPIDB
RST:AIULC
RST:AIULP
RST:AIURG
RST:AIUCOM
RST:AIUPIDB
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:AIU-TSF-B

Software Release: 5E12 - 5E13
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT AIU a b, c TRBL SOFTWARE FAILURE EVENT = d
  e RECOVERY ACTION f
                                        TIME=g

  IMPLICATED       ERROR  THRESHOLD   NEXT RECOVERY
  CIRCUITS         LEVEL  LEVEL       ACTION
  h                i      j           k
  .                .      .           .
  .                .      .           .
  .                .      .           .

  SOURCE ANALYSIS DATA:
  l
```

2. REASON FOR OUTPUT

To report failure during a client process or peripheral fault recovery (PFR) test process on an access interface unit (AIU), line circuit (LC), application pack (AP), common data and control (COMDAC), or peripheral interface data bus (PIDB). This report indicates what recovery action was taken and gives the current fault counts against the circuit specified in the report. Refer to variable '`f`' to determine the effect the fault recovery activity had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = AIU circuit type. Valid value(s):

COM=m-n-o
PIDB=m-n-o-p
LP=m-n-q
LC=m-n-q-r
RG=m-n-s

`b` = Line unit status. Valid value(s):

ACT	= Active.
MAJOR	= Active major.
MINOR	= Active minor.
OOS	= Out of service.

`c` = Circuit equipment status qualifier. Valid value(s):

AUOOS	= On recovery queue.
BLKD	= Communication blocked.
CAMPON	= Camped-on.
CDNY	= Customer denied.
DGN	= Diagnose.
DGR	= Degraded.
FE	= Family of equipment.
FLT	= Fault.

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NULL = Null value.
PROOS = Pre-out of service.
REX = Routine exercise.
RMV = Removed.
TBLA = Trouble analysis.

d = Event number.

e = Error type. Valid value(s):

```
AP JOB TIMEOUT FAILURE
AP SANITY CHECK FAILURE
COMDAC JOB TIMEOUT FAILURE
COMDAC SANITY CHECK FAILURE
PICB INTERRUPT THROUGH MASK
```

f = Recovery action. Valid value(s):
ANALYSIS ONLY = This report is provided for reference only.
ASSERT TO SYSTEM INTEGRITY = A software failure has been detected and system integrity has been notified by an assert.
NO RECOVERY ACTION TAKEN = This report is provided for reference only.
RE-INHIBIT ERROR = The failing circuit has been inhibited and error are still detected.
RST PREEMPT = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.
UNCONDITIONAL RST PREEMPT = The failing circuit was preempted and restored without scheduling any diagnostic.

g = System Time when the fault happened in the form: hh:mm:ss.msec

h = External logical circuit name in the fault. More than one circuit may be listed when multiple circuits can be blamed for the trouble.

i = Number of recent failures of this error type (variable 'e') on this AIU failing circuit (in decimal).

j = Error count threshold.

k = Next recovery action, the same actions are possible as in "Recovery Action: (variable 'f')".

l = Source analysis data.

m = SM number.

n = AIU number.

o = COMDAC number.

p = PIDB number.

q = LP number.

r = LC number.

s = RG number.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the failing circuit from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:AIULC
DGN:AIULP
DGN:AIURG
DGN:AIUCOM
DGN:AIUPIDB
RMV:AIULC
RMV:AIULP
RMV:AIURG
RMV:AIUCOM
RMV:AIUPIDB
RST:AIULC
RST:AIULP
RST:AIURG
RST:AIUCOM
RST:AIUPIDB
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:AIU-TSF-C

Software Release: 5E14 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT AIU a b, c TRBL SOFTWARE FAILURE EVENT = d
  e RECOVERY ACTION f
                                        TIME=g

  IMPLICATED       ERROR  THRESHOLD   NEXT RECOVERY
  CIRCUITS         LEVEL  LEVEL       ACTION
  h                i      j           k
  .                .      .           .
  .                .      .           .
  .                .      .           .

  SOURCE ANALYSIS DATA:
  l
```

2. REASON FOR OUTPUT

To report failure during a client process or peripheral fault recovery (PFR) test process on an access interface unit (AIU), line circuit (LC), application pack (AP), common data and control (COMDAC), or time slot group (TSGRP). This report indicates what recovery action was taken and gives the current fault counts against the circuit specified in the report. Refer to variable '`f`' to determine the effect the fault recovery activity had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = AIU circuit type. Valid value(s):

COM=m-n-o
TSGRP=m-n-o-p
LP=m-n-q
LC=m-n-q-r
RG=m-n-s

`b` = Line unit status. Valid value(s):

ACT	= Active.
MAJOR	= Active major.
MINOR	= Active minor.
OOS	= Out-of-service.

`c` = Circuit equipment status qualifier. Valid value(s):

AUOOS	= On recovery queue.
BLKD	= Communication blocked.
CAMPON	= Camped-on.
CDNY	= Customer denied.
DGN	= Diagnose.
DGR	= Degraded.
FE	= Family of equipment.
FLT	= Fault.

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NULL = Null value.
PROOS = Pre-out-of-service.
REX = Routine exercise.
RMV = Removed.
TBLA = Trouble analysis.

d = Event number.

e = Error type. Valid value(s):
AP JOB TIMEOUT FAILURE
AP SANITY CHECK FAILURE
COMDAC JOB TIMEOUT FAILURE
COMDAC SANITY CHECK FAILURE
FPIDB PARITY ERROR
PICB INTERRUPT THROUGH MASK

f = Recovery action. Valid value(s):
ANALYSIS ONLY = This report is provided for reference only.
ASSERT TO SYSTEM INTEGRITY = A software failure has been detected and system integrity has been notified by an assert.
NO RECOVERY ACTION TAKEN = This report is provided for reference only.
RE-INHIBIT ERROR = The failing circuit has been inhibited and error are still detected.
RST PREEMPT = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.
UNCONDITIONAL RST PREEMPT = The failing circuit was preempted and restored without scheduling any diagnostic.

g = System Time when the fault happened in the form: hh:mm:ss.msec

h = External logical circuit name in the fault. More than one circuit may be listed when multiple circuits can be blamed for the trouble.

i = Number of recent failures of this error type (variable 'e') on this AIU failing circuit (in decimal).

j = Error count threshold.

k = Next recovery action, the same actions are possible as in "Recovery Action: (variable 'f')".

l = Source analysis data.

m = SM number.

n = AIU number.

o = COMDAC number.

p = TSGRP number.

q = LP number.

r = LC number.

`s` = RG number.

4. ACTIONS TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the failing circuit from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:AIULC
DGN:AIULP
DGN:AIURG
DGN:AIUCOM
DGN:AIUPIDB
RMV:AIULC
RMV:AIULP
RMV:AIURG
RMV:AIUCOM
RMV:AIUPIDB
RST:AIULC
RST:AIULP
RST:AIURG
RST:AIUCOM
RST:AIUPIDB
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:AIU-TSFE

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT AIU a TRBL SP FAILURE EVENT=b
  SP FIFO OVERFLOW FAILURE RECOVERY ACTION c
  d e f
  gggghhhh iiiijjjj kkkkllll
```

2. REASON FOR OUTPUT

To respond to a signal processor (SP) error caused by the SP first-in first-out (FIFO) buffer's overflowing.

3. VARIABLE FIELD DEFINITIONS

`a` = AIU circuit type. Valid value(s):

`LP=m-n-o`
`LC=m-n-o-p`

`b` = Event number.

`c` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = This recovery action applies to all circuits and all errors. A particular circuit or circuits are failing, but the error counts have not reached a threshold for action.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`d` = External logical circuit name in the fault. More than one circuit (refer to variable '`a`') may be listed when multiple circuits can be blamed for the trouble.

`e` = Number of recent failures of this error on this AIU failing circuit (variable '`d`'), in decimal.

`f` = Error count threshold, above which the recovery action will become stronger, in decimal.

`g` = Time slot number that had the most entries in the FIFO, in hexadecimal.

`h` = Total number of entries in the FIFO for time slot '`g`', in hexadecimal.

`i` = Total number of time slots on the high-runner time slot interchange (TSI) link with entries in the FIFO, in hexadecimal.

`j` = Contents of the current internal fault recovery error counter, in hexadecimal.

`k` = Total number of failures reported on unlinked timeslots, in hexadecimal.

`l` = SP number, in hexadecimal.

`m` = Switching module (SM) number.

`n` = Access interface unit (AIU) number.

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o = Line pack (LP) number.

p = Line circuit (LC) number.

4. ACTION TO BE TAKEN

Monitor the progress of software recovery. Initiate manual actions if the recovery does not proceed as expected.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
ALW:HDW-MCTSI
INH:HDW-MCTSI
RST:AIULC
RST:AIULP
```

REPT:ALE-LEVEL1-A

Software Release: 5E10 - 5E11
Message Class: PRFM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT ALE LEVEL 1 a b

[2]   ____________________________________________________________
      REPT ALE LEVEL 1 a b [- SEGMENT c:]
                                 -------ES------- -------SES------
        EQUIPMENT NUMBER   CIF CNT   UP   DWN  THRS   UP   DWN  THRS
        ---------------- - ------- ----- ----- ---- ----- ----- ----
        d                l [*] m     n     o   [p]   [q]   [r]  [s]
        .                .  .  .     .     .    .     .     .    .
        .                .  .  .     .     .    .     .     .    .
        .                .  .  .     .     .    .     .     .    .

[3]   ____________________________________________________________
      REPT ALE LEVEL 1 a b: TOTAL OF t SEGMENTS PRINTED

[4]   ____________________________________________________________
      REPT ALE LEVEL 1 a - THE FOLLOWING SM'S DATA MAY BE
        INCOMPLETE OR UNAVAILABLE
        e  [e]  [e]  [e]  [e]  [e]  [e]  [e]
        .   .    .    .    .    .    .    .
        .   .    .    .    .    .    .    .
        .   .    .    .    .    .    .    .
```

2. REASON FOR OUTPUT

To indicate that an automatic level 1 automatic line evaluation (ALE) event has occurred. Three automatic level 1 tasks can be performed: hourly alert, daily alert, and interval transfer.

An hourly alert task event is generated when a digital subscriber line (DSL) exceeds its defined hourly alert errored second (ES) or severely errored seconds (SES) thresholds. This task is invoked immediately upon detection of the threshold exception.

A daily alert task event is executed each hour. The daily alert task will generate a report for each DSL that exceeds its defined daily alert ES or SES thresholds. If no DSL is found to exceed the daily alert thresholds, then no reports are generated.

An interval transfer task event is executed each interval. This task transfers the ALE level 1 interval information from the switching modules (SM) to the administrative module (AM) disk file storage system.

Format 1 indicates the ALE level 1 task completion status.

Format 2 reports the level 1 errored seconds and severely errored seconds for the indicated DSLs generating an alert event. Up to 11 DSLs may be reported in a single message.

Format 3 outputs the completion status of the ALE level 1 session indicating the number of ALE level 1 message segments printed.

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Format 4 indicates that some switching modules (SMs) did not execute the ALE task successfully or the data is incomplete.

3. VARIABLE FIELD DEFINITIONS

`ILEN` = Integrated digital carrier unit line equipment number.

`LCEN` = Integrated services line card equipment number.

`*` = Corruption indication flag (CIF). When set, the counts may not be complete since this indicates that the counters have stopped because the line card was removed from service, a cyclic redundancy check (CRC) test has been run, or layer 1 was not operational. This flag is not valid for basic rate interface transmission extension (BRITE) channel units (CU).

`a` = Report type. Valid value(s):
`DAILY ALERT` = Indicates a daily level 1 alert job.
`HOURLY ALERT` = Indicates an hourly level 1 alert job.
`INTERVAL TRANSFER` = Indicates an interval transfer job.

`b` = Job completion status. Valid value(s):
`COMPLETED` = Job completed normally.
`STOPPED` = Session stopped due to manual request.

`c` = Segment number of the message. Segments are numbered sequentially starting from 1.

`d` = Equipment number. Valid value(s):

```
ILEN e-i-j-k
LCEN e-f-g-h
```

`e` = Switching module number.

`f` = Integrated services line unit number.

`g` = Line group controller number.

`h` = Line card number.

`e` = Switching module number.

`i` = Integrated digital carrier unit number.

`j` = Remote terminal number.

`k` = Channel unit number.

`l` = The DSL interface type. Valid value(s):
`A` = *ANSI*® standard U-interface.
`U` = Alternate mark inversion (AMI) U-interface.

`m` = The count set being reported. Valid value(s):
`CD` = Current day.

`CH` = Current hour.

`n` = Number of upstream error seconds. An errored second occurs when at least one CRC block error occurs in a second.

`o` = Number of downstream error seconds.

`p` = Number of errored seconds alerting threshold.

`q` = Number of upstream severely error seconds. A severely errored second occurs when a fixed number of CRC block errors occurs in a second. The parameter defining a severely errored second is specified on RC/V View 8.1.

`r` = Number of downstream severely error seconds.

`s` = The severely errored seconds alerting threshold.

`t` = Total number of segments printed.

4. ACTION TO BE TAKEN

Inspect the REPT:ALE-LVL1 output message for ALE information indicating DSL line problems.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:ALE
INH:ALE
OP:ALE
STP:ALE
```

Output Message(s):

```
ALW:ALE
EXC:ALE
EXC:ALE-LVL1
INH:ALE
OP:ALE
STP:ALE-COMPL
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-900-321 *ISDN Basic Rate Interface Specification*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]

REPT:ALE-LEVEL1-B

Software Release: 5E12 and later
Message Class: PRFM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT ALE LEVEL 1 a b

[2]   ____________________________________________________________
      REPT ALE LEVEL 1 a b [- SEGMENT c:]
                                 -------ES------- -------SES------
        EQUIPMENT NUMBER   CIF CNT   UP   DWN  THRS   UP   DWN  THRS
        ---------------- - ------- ----- ----- ---- ----- ----- ----
        d                l [*] m     n     o   [p]   [q]   [r]  [s]
        .                .  .  .     .     .    .     .     .    .
        .                .  .  .     .     .    .     .     .    .
        .                .  .  .     .     .    .     .     .    .

[3]   ____________________________________________________________
      REPT ALE LEVEL 1 a b: TOTAL OF t SEGMENTS PRINTED

[4]   ____________________________________________________________
      REPT ALE LEVEL 1 a - THE FOLLOWING SM'S DATA MAY BE
        INCOMPLETE OR UNAVAILABLE
        e  [e]  [e]  [e]  [e]  [e]  [e]  [e]
        .   .    .    .    .    .    .    .
        .   .    .    .    .    .    .    .
        .   .    .    .    .    .    .    .
```

2. REASON FOR OUTPUT

To indicate that an automatic level 1 automatic line evaluation (ALE) event has occurred. Three automatic level 1 tasks can be performed: hourly alert, daily alert, and interval transfer.

An hourly alert task event is generated when a digital subscriber line (DSL) exceeds its defined hourly alert errored second (ES) or severely errored seconds (SES) thresholds. This task is invoked immediately upon detection of the threshold exception.

A daily alert task event is executed each hour. The daily alert task will generate a report for each DSL that exceeds its defined daily alert ES or SES thresholds. If no DSL is found to exceed the daily alert thresholds, then no reports are generated.

An interval transfer task event is executed each interval. This task transfers the ALE level 1 interval information from the switching modules (SM) to the administrative module (AM) disk file storage system.

Format 1 indicates the ALE level 1 task completion status.

Format 2 reports the level 1 errored seconds and severely errored seconds for the indicated DSLs generating an alert event. Up to 11 DSLs may be reported in a single message.

Format 3 outputs the completion status of the ALE level 1 session indicating the number of ALE level 1 message segments printed.

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Format 4 indicates that some switching modules (SMs) did not execute the ALE task successfully or the data is incomplete.

3. VARIABLE FIELD DEFINITIONS

`ILEN` = Integrated digital carrier unit line equipment number.

`INEN` = IDLC network equipment number

`LCEN` = Integrated services line card equipment number.

`*` = Corruption indication flag (CIF). When set, the counts may not be complete since this indicates that the counters have stopped because the line card was removed from service, a cyclic redundancy check (CRC) test has been run, or layer 1 was not operational. This flag is not valid for basic rate interface transmission extension (BRITE) channel units (CU).

`a` = Report type. Valid value(s):
`DAILY ALERT` = Indicates a daily level 1 alert job.
`HOURLY ALERT` = Indicates an hourly level 1 alert job.
`INTERVAL TRANSFER` = Indicates an interval transfer job.

`b` = Job completion status. Valid value(s):
`COMPLETED` = Job completed normally.
`STOPPED` = Session stopped due to manual request.

`c` = Segment number of the message. Segments are numbered sequentially starting from 1.

`d` = Equipment number. Valid value(s):

`ILEN e-i-j-k INEN e-u-j-k LCEN e-f-g-h`

`e` = Switching module number.

`f` = Integrated services line unit number.

`g` = Line group controller number.

`h` = Line card number.

`e` = Switching module number.

`i` = Integrated digital carrier unit number.

`j` = Remote terminal (RT) number.

`k` = RT line number.

`l` = The DSL interface type. Valid value(s):
`A` = *ANSI*® standard U-interface.
`U` = Alternate mark inversion (AMI) U-interface.

`m` = The count set being reported. Valid value(s):

`CD` = Current day.
`CH` = Current hour.

`n` = Number of upstream error seconds. An errored second occurs when at least one CRC block error occurs in a second.

`o` = Number of downstream error seconds.

`p` = Number of errored seconds alerting threshold.

`q` = Number of upstream severely error seconds. A severely errored second occurs when a fixed number of CRC block errors occurs in a second. The parameter defining a severely errored second is specified on RC/V View 8.1.

`r` = Number of downstream severely error seconds.

`s` = The severely errored seconds alerting threshold.

`t` = Total number of segments printed.

`u` = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

4. ACTION TO BE TAKEN

Inspect the REPT:ALE-LVL1 output message for ALE information indicating DSL line problems.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:ALE
INH:ALE
OP:ALE
STP:ALE
```

Output Message(s):

```
ALW:ALE
EXC:ALE
EXC:ALE-LVL1
INH:ALE
OP:ALE
STP:ALE-COMPL
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-900-321 *ISDN Basic Rate Interface Specification*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]

REPT:ALE-PER-LOG

Software Release: 5E10 and later
Message Class: PRFM
Application: 5
Type: Output

1. FORMAT

```
REPT ALE PER LOG CAPACITY - SEGMENT a
  SM        USAGE(%)        INDICATOR     TIME
  a         b               [c]           [dd/dd ee:ee:ee]
```

2. REASON FOR OUTPUT

To report that a switching module (SM) protocol error record (PER) logging buffer has achieved a prespecified capacity usage threshold. Refer to the Protocol Error Record Descriptions manual for additional information about a specific PER.

Three thresholds have been defined:

Indicator	Usage(%)
CAUTION	80
WARNING	90
FULL	100

In addition to reporting the indication level, the time of day when that level was reached is also reported.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = Percentage of PER logging buffer currently in use (0-100).

`c` = Indication level. Valid value(s):
- `CAUTION` = First level of indication preset at 80% capacity.
- `FULL` = Third and final level of indication preset at 100% capacity.
- `WARNING` = Second level of indication preset at 90% capacity.

`d` = Date the report was prepared, in the form month/day.

`e` = Time the report was prepared, in the form hours:minutes:seconds.

4. ACTION TO BE TAKEN

None. The PER logging buffer may be reset at any time by using the EXC:ALE input message, however this will purge all data from memory or send to the receive-only printer (ROP) before the purge pending the type of reset requested.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
ALW:ALE
EXC:ALE
INH:ALE
OP:ALE
```

Output Message(s):

```
ALW:ALE
EXC:ALE
INH:ALE
OP:ALE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-600-755 *Protocol Error Record Descriptions*

REPT:ALE-PTE-A

Software Release: 5E10 - 5E11
Message Class: LINE
Application: 5
Type: Output

1. FORMAT

```
REPT ALE PER THRESHOLD EXCEEDED - COUNT=a
  DSLGM=b-c-d e [p] [r] [CH=w] [x]
```

2. REASON FOR OUTPUT

To report that an integrated services digital network (ISDN) channel has exceeded a prespecified threshold of protocol error records (PER). This indicates that an ISDN channel may be receiving marginal service due to excessive protocol errors.

Refer to the Protocol Error Record Descriptions manual for additional information about a specific PER.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`+` = Assigned to a multipoint interface.

`a` = Number of PERs recorded since the count was last cleared.

`b` = Switching module (SM) number.

`c` = DSL group number [protocol handler (PH) channel group].

`d` = DSL member number (PH channel).

`e` = Equipment number. Valid value(s):

DEN=b-f-g-h
EOC=b-l-m-o
ILEN=b-l-m-n
LCEN=b-i-j-k
LCKEN=b-y-z-a[1]-b[1]
NEN=b-c[1]-d[1]-e[1]-f[1]-g[1]
TMC=b-l-m-o

`f` = Digital line and trunk unit (DLTU) number.

`g` = Digital facility interface number.

`h` = Digital channel number.

`i` = Integrated services line unit number.

`j` = Line group controller number.

`k` = Line card number.

`l` = Integrated digital carrier unit number.

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m = Remote terminal number.

o = Primary/protection identifier.

p = Directory number. Valid value(s):

DN=q[+]
PKTDN=q[+]

q = Seven-digit directory number.

r = Service group and member numbers. Valid value(s):

MLHG=s-t
TKGMN=u-v

s = Multi-line hunt group number.

t = Multi-line hunt group member number.

u = Trunk group number.

v = Trunk group member number.

w = Channel type (CH). Valid value(s):
- B1 = Channel B1.
- B2 = Channel B2.
- D = D channel.

x = Packet service capability. Valid value(s):
- ODP = On-demand packet service.
- PPB = Permanent packet B-channel service.
- PPD = Permanent packet D-channel service.

y = Integrated service line unit 2 (ISLU2) number.

z = Line group number.

a[1] = Line board number.

b[1] = Line circuit number.

c[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

d[1] = Data group (DG) number.

e[1] = Synchronous transport signal (STS) number.

f[1] = Virtual tributary (VT1.5) number.

g[1] = Digital signal level 0 (DS0) number.

4. ACTION TO BE TAKEN

Execute the demand ALE input message EXC:ALE on the indicated channel to get a listing of the PERs that have been generated on that channel. Review the PERs and take the necessary corrective action, if possible.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:ALE
EXC:ALE
INH:ALE
OP:ALE
```

Output Message(s):

```
ALW:ALE
EXC:ALE
INH:ALE
OP:ALE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-600-755 *Protocol Error Record Descriptions*

REPT:ALE-PTE-B

Software Release: 5E12 only
Message Class: LINE
Application: 5
Type: Output

1. FORMAT

```
REPT ALE PER THRESHOLD EXCEEDED - COUNT=a
  DSLGM=b-c-d e [p] [r] [CH=w] [x]
```

2. REASON FOR OUTPUT

To report that an integrated services digital network (ISDN) channel has exceeded a prespecified threshold of protocol error records (PER). This indicates that an ISDN channel may be receiving marginal service due to excessive protocol errors.

Refer to the Protocol Error Record Descriptions manual for additional information about a specific PER.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`+` = Assigned to a multipoint interface.

`a` = Number of PERs recorded since the count was last cleared.

`b` = Switching module (SM) number.

`c` = DSL group number [protocol handler (PH) channel group].

`d` = DSL member number (PH channel).

`e` = Equipment number. Valid value(s):

AIUEN=b-h[1]-i[1]-j[1]
DEN=b-f-g-h
DNUSEOC=b-c[1]-m-o
IDCUEOC=b-l-m-o
IDCUTMC=b-l-m-o
ILEN=b-l-m-n
INEN=b-c[1]-m-n
LCEN=b-i-j-k
LCKEN=b-y-z-a[1]-b[1]
NEN=b-c[1]-d[1]-e[1]-f[1]-g[1]

`f` = Digital line and trunk unit (DLTU) number.

`g` = Digital facility interface number.

`h` = Digital channel number.

`i` = Integrated services line unit number.

j = Line group controller number.

k = Line card number.

l = Integrated digital carrier unit number.

m = Remote terminal (RT) number.

n = RT line number.

o = Primary/protection identifier.

p = Directory number. Valid value(s):

```
DN=q[+]
 PKTDN=q[+]
```

q = Directory number.

r = Service group and member numbers. Valid value(s):

```
MLHG=s-t
 TKGMN=u-v
```

s = Multi-line hunt group number.

t = Multi-line hunt group member number.

u = Trunk group number.

v = Trunk group member number.

w = Channel type (CH). Valid value(s):

- B1 = Channel B1.
- B2 = Channel B2.
- D = D channel.

x = Packet service capability. Valid value(s):

- ODP = On-demand packet service.
- PPB = Permanent packet B-channel service.
- PPD = Permanent packet D-channel service.

y = Integrated service line unit 2 (ISLU2) number.

z = Line group number.

a[1] = Line board number.

b[1] = Line circuit number.

c[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

d[1] = Data group (DG) number.

e[1] = Synchronous transport signal (STS) number.

`f`[1] = Virtual tributary (VT1.5) number.

`g`[1] = Digital signal level 0 (DS0) number.

`h`[1] = Access interface unit (AIU) number.

`i`[1] = AIU pack number.

`j`[1] = AIU circuit number.

4. ACTION TO BE TAKEN

Execute the demand ALE input message EXC:ALE on the indicated channel to get a listing of the PERs that have been generated on that channel. Review the PERs and take the necessary corrective action, if possible.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:ALE
EXC:ALE
INH:ALE
OP:ALE
```

Output Message(s):

```
ALW:ALE
EXC:ALE
INH:ALE
OP:ALE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-600-755 *Protocol Error Record Descriptions*

REPT:ALE-PTE-C

Software Release: 5E13 and later
Message Class: LINE
Application: 5
Type: Output

1. FORMAT

```
REPT ALE PER THRESHOLD EXCEEDED - COUNT=a
  DSLGM=b-c-d e [p] [r] [CH=w] [x]
```

2. REASON FOR OUTPUT

To report that an integrated services digital network (ISDN) channel has exceeded a prespecified threshold of protocol error records (PER). This indicates that an ISDN channel may be receiving marginal service due to excessive protocol errors.

Refer to the Protocol Error Record Descriptions manual for additional information about a specific PER.

3. VARIABLE FIELD DEFINITIONS

+ = Assigned to a multipoint interface.

a = Number of PERs recorded since the count was last cleared.

b = Switching module (SM) number.

c = DSL group number [protocol handler (PH) channel group].

d = DSL member number (PH channel).

e = Equipment number. Valid value(s):

AIUEN=b-h^1-i^1-j^1
DEN=b-f-g-h
DNUSEOC=b-c^1-m-o
DNUSTMC=b-c^1-m-o
IDCUEOC=b-l-m-o
IDCUTMC=b-l-m-o
ILEN=b-l-m-n
INEN=b-c^1-m-n
LCEN=b-i-j-k
LCKEN=b-y-z-a^1-b^1
NEN=b-c^1-d^1-k^1-e^1-f^1-l^1-g^1

f = Digital line and trunk unit (DLTU) number.

g = Digital facility interface number.

h = Digital channel number.

i = Integrated services line unit number.

j = Line group controller number.

k = Line card number.

l = Integrated digital carrier unit number.

m = Remote terminal (RT) number.

n = RT line number.

o = Primary/protection identifier.

p = Directory number. Valid value(s):

```
DN=q[+]
 PKTDN=q[+]
```

q = Directory number.

r = Service group and member numbers. Valid value(s):

```
MLHG=s-t
 TKGMN=u-v
```

s = Multi-line hunt group number.

t = Multi-line hunt group member number.

u = Trunk group number.

v = Trunk group member number.

w = Channel type (CH). Valid value(s):

- B1 = Channel B1.
- B2 = Channel B2.
- D = D channel.

x = Packet service capability. Valid value(s):

- ODP = On-demand packet service.
- PPB = Permanent packet B-channel service.
- PPD = Permanent packet D-channel service.

y = Integrated service line unit 2 (ISLU2) number.

z = Line group number.

a[1] = Line board number.

b[1] = Line circuit number.

c[1] = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

d[1] = Data group (DG) number.

e[1] = Synchronous transport signal (STS) facility number.

`f`[1] = Virtual tributary group (VTG) number.

`g`[1] = Digital signal level 0 (DS0) number.

`h`[1] = Access interface unit (AIU) number.

`i`[1] = AIU pack number.

`j`[1] = AIU circuit number.

`k`[1] = SONET termination equipment (STE) facility number.

`l`[1] = Virtual tributary member (VTM) number.

4. ACTIONS TO BE TAKEN

Execute the demand ALE input message EXC:ALE on the indicated channel to get a listing of the PERs that have been generated on that channel. Review the PERs and take the necessary corrective action, if possible.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:ALE
EXC:ALE
INH:ALE
OP:ALE
```

Output Message(s):

```
ALW:ALE
EXC:ALE
INH:ALE
OP:ALE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-600-755 *Protocol Error Record Descriptions*

REPT:ALINK-TLOT

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT ALINK=a-b-c-d-e TRBL LU OPERATIONAL TEST FAILURE f
  g  RECOVERY ACTION h
  i  i  i  i
  j  k  l
  m  n  o
```

2. REASON FOR OUTPUT

To respond to an operational test failure (during call setup or disconnect) on a line unit where the grid board A-link (ALINK) is suspect.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Grid number.

`d` = Grid board number.

`e` = ALINK number.

`f` = Event number, which is the time sequence indicator.

`g` = Secondary error type. Valid value(s):

`3 OPEN GDX NTWK PATHS - SUSPECT GRID FAILURE` = 3 open GDX network paths have been found; suspect parent grid failure. Refer to 4ACTION TO BE TAKEN. (Not available for model 1 line unit.)

`CUTOFF GDX NTWK LATCH` = During line disconnect, a gated diode crosspoint (GDX) network latch was found to be open indicating a suspected cut off call. Plant measurement report "CUT OFF CALLS, GDX" is pegged in function PCflt_rpt. Refer to variable field '`o`'. (Not available for model 1 line unit.)

`FCG TEST FAILURE` = During a call setup or line disconnect, a false cross and ground test failure had occurred. Refer to 4ACTION TO BE TAKEN.

`OPEN GDX NTWK PATH` = During line disconnect, a GDX network path was found to be open but the associated GDX latches were closed. Refer to variable field '`o`'. (Not available for model 1 line unit.)

`h` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is provided but the error count has not reached a threshold that requires an automatic recovery action.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.

`REPORT TO TERMINAL MAINT` = Terminal maintenance has been notified of the failure.

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RMV = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

RST AUTO CAMPON = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.

RST PREEMPT = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

i = Logical circuit name, in order of output. Valid value(s):

ALINK = Line unit A-link.

LEN = Line equipment number.

LUCHAN = Line unit channel.

LUHLSC = Line unit high level service circuit.

j = External logical circuit name.

k = Current decimal number of errors recorded.

l = Error count threshold, above which further automatic recovery action will be taken.

m = Hexadecimal data in the form xxxxyyyy.

xxxx = LUCHAN attribute 'name' as identified in relation CKTDATA.

yyyy = LUHLSC attribute 'name' as identified in relation CKTDATA.

n = Hexadecimal data in the form xxxxyyyy.

xxxx = Ignore.

yyyy = LEN hexadecimal port name.

o = When variable 'g' = OPEN GDX NTWK PATH or CUTOFF GDX NTWK LATCH, a network path test executed in function JB2disc has failed. The first and second characters of the format xxyyzzzz identify the type of call being disconnected, the third and forth characters must be converted to binary to identify the fault. Following is an explanation of the format:

Type of call being disconnected:

If yy =	**Call type =**
02	Normal originating or unanswered terminating call
04	Supervision transfer detected in function JB2orig
08	Terminating answered call
10	Abandon during dialing
40	Ringing current failure detected in LPstop_r

(The following is true if the binary bit value = 1.) Type of fault detected:

If yy =	**Call type =**
bit 0	Channel break ckt opened during disconnect but closed OK - only tested if customers line is off hook, a pattern pointing to one channel could indicate a defective TN335.
bit 1	Customers line tested off hook at scanner.
bit 2	Restore verify test (RVF) failed - loop start lines tested using high level service circuit (HLSClcw ip-to-ring 619 ohm short, ground start lines tested using HLSC 2.2k ring ground: scanner expected to be off hook.
bit 3	Open GDX grid path - if customers line was off hook, tested using scanner to reversed channel: channel expected to be off hook - else tested using RVF.
bit 4	Open GDX access (fwd/rev) path tested using HLSC tip-to-ring 619 ohm short: channel expected to be off hook.

bit 5	1st stage GDX latch reads open. Plant measurement report CUT OFF CALLS, GDX is pegged.
bit 6	2nd stage GDX latch reads open. Plant measurement report CUT OFF CALLS, GDX is pegged.
bit 7	Access (fwd/rev) GDX latch reads open. Plant measurement report CUT OFF CALLS, GDX is pegged.

4. ACTION TO BE TAKEN

Use pattern analysis to determine possible faulty hardware or software related problems. Use input message TST:LEN and TST:GRIDBD to verify failures. Refer to the Corrective Maintenance manual, sections: "Maintenance Procedures", "Clear Diagnostic Failure in Hardware".

If the secondary error type is `3 OPEN GDX NTWK PATHS - SUSPECT GRID FAILURE`, diagnose and replace the parent grid of the ALINKs.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
TST:LEN
TST:GRIDBD
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:ALIT-TMPSF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT ALIT=a-b-c-d TRBL MSU PATH SETUP FAILURE e
  f RECOVERY ACTION g
```

2. REASON FOR OUTPUT

To indicate that peripheral control (PC) has detected a faulty automatic line insulation test (ALIT) circuit pack.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = MSU board number.

`e` = Event number.

`f` = Error type.

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post-mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RMV` = The failing circuit will be removed from service. The state of the circuit must be changed manually. A message from the SM maintenance request administrator (MRA) will follow after the circuit is removed.

4. ACTION TO BE TAKEN

Remove the circuit from service, diagnose the trouble, and repair the circuit.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:ALIT-TPCF-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT ALIT=a-b-c-d TRBL PICB CONTROL FAILURE EVENT=e
  f  RECOVERY ACTION g
  h  i  j  k
  l  m  n
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt in the automatic line insulation test (ALIT) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = MSU board number.

`e` = Event number.

`f` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is provided.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`i` = Read/Write (uppermost) bit and address in hexadecimal to which the CI was writing when the failure occurred.

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`j` = Data being written to the periphery by the CI.

`k` = Contents of the CI error source register.

`l` = External logical circuit name.

Note: Up to two logical circuit names, recent failure counts, and error thresholds (variables '`l`'-'`n`') may be printed.

`m` = Current decimal number of recent failures of this type recorded.

`n` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the ALIT from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:ALIT-TPCF-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT ALIT=a-b-c-d TRBL PICB CONTROL FAILURE EVENT=e
  f  RECOVERY ACTION g
  h  i  j  k
  l  m  n  o
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt in the automatic line insulation test (ALIT) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = MSU board number.

`e` = Event number.

`f` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is provided.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`i` = System PICB number in hexadecimal that was being written when the failure occurred.

`j` = Read/write (uppermost) bit and address in hexadecimal to which the CI was writing when the

failure occurred.

k = Data being written to the periphery by the CI.

l = Contents of the CI error source register.

m = External logical circuit name.

Note: Up to two logical circuit names, recent failure counts, and error thresholds (variables 'm'-'o') may be printed.

n = Current decimal number of recent failures of this type recorded.

o = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the ALIT from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:ALIT-TUSR

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT ALIT=a-b-c-d TRBL UNEXPECTED SERVICE REQUEST e
  MSU OPERATIONAL SERVICE REQ RECOVERY ACTION f
  g
  h     i     j
```

2. REASON FOR OUTPUT

To report an unexpected service request on the automatic line insulation test (ALIT) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = MSU board number.

`e` = Event number.

`f` = Recovery action.

`ANALYSIS ONLY` = A post mortem report is generated.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.

`INITIALIZE` = The failing circuit has been reinitialized.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.

`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`REPT TO TERMINAL MAINT` = Terminal maintenance has been notified of the failure.

`g` = Source analysis data (optional).

`h` = External logical circuit name.

`i` = Current decimal number of recent failures of this type recorded.

`j` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

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None.

5. ALARMS

None.

6. REFERENCES

None.

REPT:ALM-A

Software Release: 5E10 - 5E11
Message Class: BPSC
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT ALM b[c][d][CLEARED]

[2]   ____________________________________________________________
      REPT ALM [CLR]e{MCTSI|DLI|RLI|SM}=f[-g][h][AISLE=m]

[3]   ____________________________________________________________
      REPT ALM [a]RBPSC [i] d SM f

[4]   ____________________________________________________________
      REPT ALM [a]RISLUSC SM f RISLU j l SITE k

[5]   ____________________________________________________________
      REPT ALM [a]RIBMSC c d SITE k
```

2. REASON FOR OUTPUT

To report changes in alarm scan point states, according to type. Format 1 is for the administrative module (AM). Format 2 reports changes in fan, fuse, and power status of switching module (SM) units. Format 3 is for remote switching module (RSM), optical remote module (ORM), or two-mile remote module (TRM) alarms and is available only in RSM, ORM or TRM that has the alarm input option. Format 4 is for remote integrated services line unit (RISLU) fan, fuse, power and battery alarm scan points (RISLUSC). Format 5 is for remote integrated services line unit (RISLU) building/miscellaneous alarms.

3. VARIABLE FIELD DEFINITIONS

`CLEARED` = Alarm condition no longer exists.

`CLR` = Alarm condition no longer exists.

`DLI` = Dual link interface.

`MCTSI` = Module controller/time slot interchange.

`RLI` = Remote link interface.

`a` = Alarm status. Valid value(s):
- `AUTOINH` = Reporting is automatically inhibited because a possible chattering scan point input has been detected.
- `AUTOINH CLEAR` = Reporting on a scan point that was previously automatically inhibited is now allowed.
- `CLEAR` = Normal state (unalarmed).
- `ERROR` = A discrepancy exists between duplex scan point states.
- `SCAN PTS UNREADABLE` = Scan points are unreadable.

`b` = Alarm type. Valid value(s):

BPSC = Building/power MSU scan point.
CNI = Common network interface.
ESM = External sanity monitor.
MISC = Miscellaneous IOP scan point.
MSGS = Message switch.
ONTC = Office network and timing complex.
SCSDC = Scanner and signal distributor control.
TMS = Time-multiplexed switch.

c = Unit or scan point number. If 'b' is CNI or ESM, 'c' is null.

d = Alarm name (or tag)- fixed or office assignable character string that identifies the particular scan point. Valid value(s):

Note: The word in square brackets is not part of the variable 'd'. It may be a keyword in one of the five formats as shown or it may be a part of one or more other variables.

ALM BAT = Alarm battery.
BAT LOW VLTG = Low voltage on battery.
[CNI] FAN ALM = Common network interface fan alarm.
[CNI] PWR/FUSE = Common network interface power/fuse alarm.
[CNI]/DFA FUSE = Common network interface/digital facility access fuse alarm.
CO BAT DSCHG = Central office (CO) battery discharged.
COM PWR FAIL = Commercial power failure.
DISCH FUSE = Discharge fuse alarm.
[ESM] POWER = External sanity monitor power alarm.
FIRE = Fire alarm.
FIR ALM TBL = Fire alarm trouble.
FS PDF0 = Power distribution frame 0 fuse alarm.
FS PDF1 = Power distribution frame 1 fuse alarm.
FS PDF2 = Power distribution frame 2 fuse alarm.
FS PDF3 = Power distribution frame 3 fuse alarm.
FS PDF4 = Power distribution frame 4 fuse alarm.
FS PDF5 = Power distribution frame 5 fuse alarm.
FS PDF6 = Power distribution frame 6 fuse alarm.
FS PDF7 = Power distribution frame 7 fuse alarm.
HIGH VOLTAGE = High voltage alarm.
INV FAIL = Inverter failure.
INV XFER = Inverter transfer.
[MISC] FR FAN = Miscellaneous frame fan alarm.
[MISC] FR FS0 = Miscellaneous frame fuse 0 alarm.
[MISC] FR FS1 = Miscellaneous frame fuse 1 alarm.
[MISC] PWR = Miscellaneous power source alarm.
[MSGS0] FAN FS = Message switch 0 fan fuse alarm.
[MSGS0] FANALM = Message switch 0 fan alarm.
[MSGS1] FAN FS = Message switch 1 fan fuse alarm.
[MSGS1] FANALM = Message switch 1 fan alarm.
[ONTC0] FAN FS = Office and network timing complex 0 fan fuse alarm.
[ONTC0] FANALM = Office and network timing complex 0 fan alarm.
[ONTC1] FAN FS = Office and network timing complex 1 fan fuse alarm.
[ONTC1] FANALM = Office and network timing complex 1 fan alarm.
RECT FAIL = Rectifier failure.

STBYPLT FAIL = Standby plant failure.
STBYPLT FUEL = Standby plant out of fuel.
STBYPLT OPER = Standby plant operation alarm.
STBYPLT RECT = Standby plant rectifier alarm.
[TMS0] FAN FS = Time multiplexed switch 0 fan fuse alarm.
[TMS0] FANALM = Time multiplexed switch 0 fan alarm.
[TMS1] FAN FS = Time multiplexed switch 1 fan fuse alarm.
[TMS1] FANALM = Time multiplexed switch 1 fan alarm.

e = Alarm scan point name. Valid value(s):

```
FAN
PERIPHERY FS
PWR
PWR SW FAIL
```

f = Switching module (SM) number.

g = Side number (0 or 1).

h = Module control unit identifier. Valid value(s):

```
ALARM STATUS CIRCUIT
PWR BUS0
PWR BUS1
REMOTE ALARM UNIT
```

i = Remote building/power MSU scan point (RBPSC) number or RISLU building/miscellaneous scan point number.

j = RISLU number.

k = RISLU site number.

l = Alarm scan point name. Valid value(s):

```
BATTERY
FAN
FUSE
POWER
```

m = Aisle number for SM fan or fuse report. If the fan unit or fuse bus is physically wired to scan points at the switching module controller (SMC) cabinet, the aisle number is that of the SMC. If the cabinet housing the fan or fuse is remotely located (not in the same cabinet lineup as the SMC cabinet for that SM) and is wired to a PCT-based peripheral unit which reports fan and fuse status (such as, a DNU-S), the aisle number represents the aisle of this PCT-based unit.

4. ACTION TO BE TAKEN

For an ALM AUTOINH CLEAR or ALM CLEAR, no action need be taken.

For an `ALM`, investigate the cause of the alarm and take corrective action.

For an `ALM AUTOINH`, investigate the cause of the chattering input.

For an `ALM ERROR`, check for:
- Open or shorted input to the scan point on one input.
- Malfunctioning metallic service unit (MSU) scan board.
- Alarm input is wired incorrectly.

For an `ALM SCAN PTS UNREADABLE`, both the MSU service groups are being reported out of service. Investigate the cause of the alarm and take corrective action.

5. ALARMS

Critical, major, or minor as assigned. An **ALM ERROR** or **ALM AUTOINH** will be reported at the same alarm level as an ALM.

6. REFERENCES

Input Message(s):

```
ALW:ALM
INH:ALM
OP:ALM
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-210 *Routine Operations and Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

105,106 (BLDG/POWER & ALARM CNTRLS)
1420,SZ (RISLU BLDG/PWR ALARMS)
1630 (RISLU SITE INDEX)
1400,X (RSM BLDG/PWR ALARMS)

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REPT:ALM-B

Software Release: 5E12 - 5E13
Message Class: BPSC
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT ALM b[c][d][CLEARED]

[2]   ____________________________________________________________
      REPT ALM [CLR]e{MCTSI|DLI|RLI|SM}=f[-g][h][AISLE=m]

[3]   ____________________________________________________________
      REPT ALM [a]RBPSC [i] d SM f

[4]   ____________________________________________________________
      REPT ALM [a]RP {EAIU|RISLU}=f-j l [d]SITE k

[5]   ____________________________________________________________
      REPT ALM [a]RAS SCPT i d SITE k
```

2. REASON FOR OUTPUT

To report changes in alarm scan point states, according to type. Format 1 is for the administrative module (AM). Format 2 reports changes in fan, fuse, and power status of switching module (SM) units. Format 3 is for remote switching module (RSM), optical remote module (ORM), or two-mile remote module (TRM) alarms and is available only in an RSM, ORM or TRM that has the alarm input option. Format 4 is for remote peripheral alarm scan points. Format 5 is for remote alarm section (RAS) scan points.

3. VARIABLE FIELD DEFINITIONS

`CLEARED` = Alarm condition no longer exists.

`CLR` = Alarm condition no longer exists.

`DLI` = Dual link interface.

`EAIU` = Expansion access interface unit.

`MCTSI` = Module controller/time slot interchange.

`RBPSC` = Remote building/power scan point.

`RISLU` = Remote integrated services line unit.

`RLI` = Remote link interface.

`RP` = Remote peripheral.

`SCPT` = Scan point.

`a` = Alarm status. Valid values are:
`AUTOINH` = Reporting is automatically inhibited because a possible chattering scan point

input has been detected.
AUTOINH CLEAR = Reporting on a scan point that was previously automatically inhibited is now allowed.
CLEAR = Normal state (unalarmed).
ERROR = A discrepancy exists between duplex scan point states.
SCAN PTS UNREADABLE = Scan points are unreadable.

b = Alarm type. Valid values are:
BPSC = Building/power IOP scan point.
CNI = Common network interface.
ESM = External sanity monitor.
MISC = Miscellaneous IOP scan point.
MSGS = Message switch.
ONTC = Office network and timing complex.
SCSDC = Scanner and signal distributor controller.
TMS = Time-multiplexed switch.

c = Unit or scan point number. If 'b' is CNI or ESM, 'c' is null.

d = Alarm name (or tag)- fixed or office assignable character string that identifies the particular scan point. Valid values are:
Note: The word in square brackets is not part of the variable 'd'. It may be a keyword in one of the five formats as shown or it may be a part of one or more other variables.

ALM BAT = Alarm battery.
BAT LOW VLTG = Low voltage on battery.
[CNI] FAN ALM = Common network interface fan alarm.
[CNI] PWR/FUSE = Common network interface power/fuse alarm.
[CNI]/DFA FUSE = Common network interface/digital facility access fuse alarm.
CO BAT DSCHG = Central office (CO) battery discharged.
COM PWR FAIL = Commercial power failure.
DISCH FUSE = Discharge fuse alarm.
[ESM] POWER = External sanity monitor power alarm.
FIRE = Fire alarm.
FIR ALM TBL = Fire alarm trouble.
FS PDF0 = Power distribution frame 0 fuse alarm.
FS PDF1 = Power distribution frame 1 fuse alarm.
FS PDF2 = Power distribution frame 2 fuse alarm.
FS PDF3 = Power distribution frame 3 fuse alarm.
FS PDF4 = Power distribution frame 4 fuse alarm.
FS PDF5 = Power distribution frame 5 fuse alarm.
FS PDF6 = Power distribution frame 6 fuse alarm.
FS PDF7 = Power distribution frame 7 fuse alarm.
HIGH VOLTAGE = High voltage alarm.
INV FAIL = Inverter failure.
INV XFER = Inverter transfer.
[MISC] FR FAN = Miscellaneous frame fan alarm.
[MISC] FR FS0 = Miscellaneous frame fuse 0 alarm.
[MISC] FR FS1 = Miscellaneous frame fuse 1 alarm.
[MISC] PWR = Miscellaneous power source alarm.

`[MSGS0] FAN FS` = Message switch 0 fan fuse alarm.
`[MSGS0] FANALM` = Message switch 0 fan alarm.
`[MSGS1] FAN FS` = Message switch 1 fan fuse alarm.
`[MSGS1] FANALM` = Message switch 1 fan alarm.
`[ONTC0] FAN FS` = Office and network timing complex 0 fan fuse alarm.
`[ONTC0] FANALM` = Office and network timing complex 0 fan alarm.
`[ONTC1] FAN FS` = Office and network timing complex 1 fan fuse alarm.
`[ONTC1] FANALM` = Office and network timing complex 1 fan alarm.
`RECT FAIL` = Rectifier failure.
`STBYPLT FAIL` = Standby plant failure.
`STBYPLT FUEL` = Standby plant out of fuel.
`STBYPLT OPER` = Standby plant operation alarm.
`STBYPLT RECT` = Standby plant rectifier alarm.
`[TMS0] FAN FS` = Time multiplexed switch 0 fan fuse alarm.
`[TMS0] FANALM` = Time multiplexed switch 0 fan alarm.
`[TMS1] FAN FS` = Time multiplexed switch 1 fan fuse alarm.
`[TMS1] FANALM` = Time multiplexed switch 1 fan alarm.

`e` = Alarm scan point name. Valid values are:

```
FAN
PERIPHERY FS
PWR
PWR SW FAIL
```

`f` = Switching module (SM) number.

`g` = Side number (0 or 1).

`h` = Module control unit identifier. Valid values are:

```
ALARM STATUS CIRCUIT
PWR BUS0
PWR BUS1
REMOTE ALARM UNIT
```

`i` = Remote building/power MSU scan point (RBPSC) number or RAS scan point number.

`j` = Remote peripheral unit number.

`k` = Remote peripheral site number.

`l` = Alarm scan point name. Valid values are:
`BATTERY` = Battery alarm.
`FAN` = Fan alarm.
`FUSE` = Fuse alarm.
`POWER` = Power alarm.
`SCPT0` = Miscellaneous scan point 0.
`SCPT1` = Miscellaneous scan point 1.
`SCPT2` = Miscellaneous scan point 2.
`SCPT3` = Miscellaneous scan point 3.

`SCPT4` = Miscellaneous scan point 4.
`SCPT5` = Miscellaneous scan point 5.

`m` = Aisle number for SM fan or fuse report. If the fan unit or fuse bus is physically wired to scan points at the switching module controller (SMC) cabinet, the aisle number is that of the SMC. If the cabinet housing the fan or fuse is remotely located (not in the same cabinet lineup as the SMC cabinet for that SM) and is wired to a PCT-based peripheral unit which reports fan and fuse status (such as a DNU-S), the aisle number represents the aisle of this PCT-based unit.

4. ACTION TO BE TAKEN

For an `ALM AUTOINH CLEAR` or `ALM CLEAR`, no action need be taken.

For an `ALM`, investigate the cause of the alarm and take corrective action.

For an `ALM AUTOINH`, investigate the cause of the chattering input.

For an `ALM ERROR`, check for:
- Open or shorted input to the scan point on one input.
- Malfunctioning metallic service unit (MSU) scan board.
- Alarm input is wired incorrectly.

For an `ALM SCAN PTS UNREADABLE`, both the MSU service groups are being reported out of service. Investigate the cause of the alarm and take corrective action.

5. ALARMS

Critical, major, or minor as assigned. An **ALM ERROR** or **ALM AUTOINH** will be reported at the same alarm level as an ALM.

6. REFERENCES

Input Message(s):

```
ALW:ALM
INH:ALM
OP:ALM
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-210 *Routine Operations and Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

105/106 (BLDG/POWER & ALARM CNTRLS)
119 (MISCELLANEOUS ALARMS)
1400 (RSM BLDG/PWR ALARMS)
1420 (RAS ALARMS)
1620 (REMOTE PERPH SITE STATUS)
1640 (REMOTE PERPH MISC ALARMS)

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REPT:ALM-C

Software Release: 5E14 and later
Message Class: BPSC
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT ALM b[c][d][CLEARED]

[2]   ____________________________________________________________
      REPT ALM [CLR]e{MCTSI|DLI|RLI|SM}=f[-g][h][AISLE=m]

[3]   ____________________________________________________________
      REPT ALM [a]RBPSC [i] d SM f

[4]   ____________________________________________________________
      REPT ALM [a]RP {EAIU|RISLU}=f-j l [d]SITE k

[5]   ____________________________________________________________
      REPT ALM [a]RAS SCPT i d SITE k

[6]   ____________________________________________________________
      REPT ALM [CLEAR] XAIU=f-n {FAN|FUSE} AISLE p
```

2. REASON FOR OUTPUT

To report changes in alarm scan point states, according to type. Format 1 is for the administrative module (AM). Format 2 reports changes in fan, fuse, and power status of switching module (SM) units. Format 3 is for remote switching module (RSM), optical remote module (ORM), or two-mile remote module (TRM) alarms and is available only in an RSM, ORM or TRM that has the alarm input option. Format 4 is for remote peripheral alarm scan points. Format 5 is for remote alarm section (RAS) scan points. Format 6 is for MultipleXed Access Interface Unit (XAIU) fan and fuse alarm scan points.

3. VARIABLE FIELD DEFINITIONS

`a` = Alarm status. Valid values are:

- `AUTOINH` = Reporting is automatically inhibited because a possible chattering scan point input has been detected.
- `AUTOINH CLEAR` = Reporting on a scan point that was previously automatically inhibited is now allowed.
- `CLEAR` = Normal state (unalarmed).
- `ERROR` = A discrepancy exists between duplex scan point states.
- `SCAN PTS UNREADABLE` = Scan points are unreadable.

`b` = Alarm type. Valid values are:

- `BPSC` = Building/power IOP scan point.
- `CNI` = Common network interface.
- `ESM` = External sanity monitor.
- `MISC` = Miscellaneous IOP scan point.
- `MSGS` = Message switch.
- `ONTC` = Office network and timing complex.

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SCSDC = Scanner and signal distributor controller.
TMS = Time-multiplexed switch.

c = Unit or scan point number. If 'b' is CNI or ESM, 'c' is null.

d = Alarm name (or tag)- fixed or office assignable character string that identifies the particular scan point. Valid values are:

Note: The word in square brackets is not part of the variable 'd'. It may be a keyword in one of the five formats as shown or it may be a part of one or more other variables.

ALM BAT = Alarm battery.
BAT LOW VLTG = Low voltage on battery.
[CNI] FAN ALM = Common network interface fan alarm.
[CNI] PWR/FUSE = Common network interface power/fuse alarm.
[CNI]/DFA FUSE = Common network interface/digital facility access fuse alarm.
CO BAT DSCHG = Central office (CO) battery discharged.
COM PWR FAIL = Commercial power failure.
DISCH FUSE = Discharge fuse alarm.
[ESM] POWER = External sanity monitor power alarm.
FIRE = Fire alarm.
FIR ALM TBL = Fire alarm trouble.
FS PDF0 = Power distribution frame 0 fuse alarm.
FS PDF1 = Power distribution frame 1 fuse alarm.
FS PDF2 = Power distribution frame 2 fuse alarm.
FS PDF3 = Power distribution frame 3 fuse alarm.
FS PDF4 = Power distribution frame 4 fuse alarm.
FS PDF5 = Power distribution frame 5 fuse alarm.
FS PDF6 = Power distribution frame 6 fuse alarm.
FS PDF7 = Power distribution frame 7 fuse alarm.
HIGH VOLTAGE = High voltage alarm.
INV FAIL = Inverter failure.
INV XFER = Inverter transfer.
[MISC] FR FAN = Miscellaneous frame fan alarm.
[MISC] FR FS0 = Miscellaneous frame fuse 0 alarm.
[MISC] FR FS1 = Miscellaneous frame fuse 1 alarm.
[MISC] PWR = Miscellaneous power source alarm.
[MSGS0] FAN FS = Message switch 0 fan fuse alarm.
[MSGS0] FANALM = Message switch 0 fan alarm.
[MSGS1] FAN FS = Message switch 1 fan fuse alarm.
[MSGS1] FANALM = Message switch 1 fan alarm.
[ONTC0] FAN FS = Office and network timing complex 0 fan fuse alarm.
[ONTC0] FANALM = Office and network timing complex 0 fan alarm.
[ONTC1] FAN FS = Office and network timing complex 1 fan fuse alarm.
[ONTC1] FANALM = Office and network timing complex 1 fan alarm.
RECT FAIL = Rectifier failure.
STBYPLT FAIL = Standby plant failure.
STBYPLT FUEL = Standby plant out of fuel.
STBYPLT OPER = Standby plant operation alarm.
STBYPLT RECT = Standby plant rectifier alarm.

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`[TMS0] FAN FS` = Time multiplexed switch 0 fan fuse alarm.
`[TMS0] FANALM` = Time multiplexed switch 0 fan alarm.
`[TMS1] FAN FS` = Time multiplexed switch 1 fan fuse alarm.
`[TMS1] FANALM` = Time multiplexed switch 1 fan alarm.

`e` = Alarm scan point name. Valid values are:
`FAN`
`PERIPHERY FS`
`PWR`
`PWR SW FAIL`

`f` = Switching module (SM) number.

`g` = Side number (0 or 1).

`h` = Module control unit identifier. Valid values are:
`ALARM STATUS CIRCUIT`
`PWR BUS0`
`PWR BUS1`
`REMOTE ALARM UNIT`

`i` = Remote building/power MSU scan point (RBPSC) number or RAS scan point number.

`j` = Remote peripheral unit number.

`k` = Remote peripheral site number.

`l` = Alarm scan point name. Valid values are:

`BATTERY`	= Battery alarm.
`FAN`	= Fan alarm.
`FUSE`	= Fuse alarm.
`POWER`	= Power alarm.
`SCPT0`	= Miscellaneous scan point 0.
`SCPT1`	= Miscellaneous scan point 1.
`SCPT2`	= Miscellaneous scan point 2.
`SCPT3`	= Miscellaneous scan point 3.
`SCPT4`	= Miscellaneous scan point 4.
`SCPT5`	= Miscellaneous scan point 5.

`m` = Aisle number for SM fan or fuse report. If the fan unit or fuse bus is physically wired to scan points at the switching module controller (SMC) cabinet, the aisle number is that of the SMC. If the cabinet housing the fan or fuse is remotely located (not in the same cabinet lineup as the SMC cabinet for that SM) and is wired to a PCT-based peripheral unit which reports fan and fuse status (such as a DNU-S), the aisle number represents the aisle of this PCT-based unit.

`n` = XAIU number.

`p` = Aisle number of XAIU reporting on a fan or fuse alarm condition.

4. ACTIONS TO BE TAKEN

For an `ALM AUTOINH CLEAR` or `ALM CLEAR`, no action need be taken.

For an `ALM`, investigate the cause of the alarm and take corrective action.

For an `ALM AUTOINH`, investigate the cause of the chattering input.

For an `ALM ERROR`, check for:
- Open or shorted input to the scan point on one input.
- Malfunctioning metallic service unit (MSU) scan board.
- Alarm input is wired incorrectly.

For an `ALM SCAN PTS UNREADABLE`, both the MSU service groups are being reported out-of-service. Investigate the cause of the alarm and take corrective action.

5. ALARMS

Critical, major, or minor as assigned. An `ALM ERROR` or `ALM AUTOINH` will be reported at the same alarm level as an ALM.

6. REFERENCES

Input Message(s):

```
ALW:ALM
INH:ALM
OP:ALM
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-210 *Routine Operations and Maintenance*
235-105-250 *System Recovery Procedures*

MCC Display Page(s):

105/106 (BLDG/POWER & ALARM CNTRLS)
119 (MISCELLANEOUS ALARMS)
1320 (AIU SUMMARY)
1400 (RSM BLDG/PWR ALARMS)
1420 (RAS ALARMS)
1620 (REMOTE PERPH SITE STATUS)
1640 (REMOTE PERPH MISC ALARMS)

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REPT:ALM-MISC-MSU-A

Software Release: 5E10 - 5E12
Message Class: BPSC
Application: 5
Type: Output

1. FORMAT

```
REPT ALM [CLR] MISC MSU SPN=a-b-c-d-e [f]
```

2. REASON FOR OUTPUT

To report a state change of a metallic service unit (MSU) scan point (SPN).

3. VARIABLE FIELD DEFINITIONS

`CLR`	= Alarm is cleared.
`a`	= Switching module (SM) number.
`b`	= MSU or modular MSU (MMSU) number.
`c`	= Service group.
`d`	= Slot number.
`e`	= Scan point number.
`f`	= Optional facility name or alarm text string (12-character tag).

4. ACTIONS TO BE TAKEN

Report alarm conditions to appropriate local maintenance personnel.

5. ALARMS

Major or minor.

6. REFERENCES

Other Manual(s):
235-100-125 *System Description*
235-900-113 *Product Specification*
235-900-115 *Local and Toll System Features*

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REPT:ALM-MISC-MSU-B

Software Release: 5E13 and later
Message Class: BPSC
Application: 5
Type: Output

1. FORMAT

```
REPT ALM [CLR] MISC g SPN=a-b-c-d-e [f]
```

2. REASON FOR OUTPUT

To report a state change of a metallic service unit (MSU) scan point (SPN).

3. VARIABLE FIELD DEFINITIONS

`CLR`	= Alarm is cleared.
`a`	= Switching module (SM) number.
`b`	= MSU or modular MSU (MMSU) number.
`c`	= Service group.
`d`	= Slot number.
`e`	= Scan point number.
`f`	= Optional facility name or alarm text string (12-character tag).
`g`	= Unit type - MSU or MMSU.

4. ACTIONS TO BE TAKEN

Report alarm conditions to appropriate local maintenance personnel.

5. ALARMS

Major or minor.

6. REFERENCES

Other Manual(s):
235-100-125 *System Description*
235-900-113 *Product Specification*
235-900-115 *Local and Toll System Features*

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REPT:ALM-ST-RBPSC

Software Release: 5E10 and later
Message Class: BPSC
Application: 5
Type: Output

1. FORMAT

```
REPT ALM STATUS RBPSC a SM b
```

2. REASON FOR OUTPUT

To report an undesirable state of the remote alarm process. Normally this is due to the alarm scan boards in both metallic service unit (MSU) service groups' being unavailable, so that no building, power, or miscellaneous alarms can be monitored. This message is available only in a multimodule remote switching module (RSM) that has the alarm input option.

3. VARIABLE FIELD DEFINITIONS

`a` = Explanation of the perceived problem.

`b` = Switching module (SM) number.

4. ACTION TO BE TAKEN

Investigate and correct the problem (normally returning at least one metallic service unit (MSU) service group (SG) to service).

5. ALARMS

Major.

6. REFERENCES

Other Manual(s):
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1400 (RSM BLDG/PWR ALARMS)

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REPT:ALMMDE-A

Software Release: 5E10 - 5E11
Message Class: BPSC
Application: 5
Type: Output

1. FORMAT

```
[1]
REPT ALMMDE=a

[2]
REPT ALMMDE=a b SM=c

[3]
REPT ALMMDE=a RAS SITE=d
```

2. REASON FOR OUTPUT

To report a change in the alarm retire mode (ALMMDE) at host and remote sites. Format 1 is for host site. Format 2 is for remote switching module (RSM) remote sites or remote integrated services line unit (RISLU) sites. Format 3 is for RISLU sites equipped with a RISLU link adapter unit (LAU) remote alarm section (RAS). For RSM and RISLU sites this message is generated when the alarm retire mode switch on the remote alarm and status panel has been manually depressed.

3. VARIABLE FIELD DEFINITIONS

`a` = Alarm retire mode selected. Valid value(s):

- `AUTO` = Automatic retire mode. Audible alarms will retire automatically in five seconds or when manually retired, whichever occurs first. For RSM building/power metallic service units scan points (RBPSC) and RISLU RAS, audible alarms will retire automatically in five seconds to five minutes or when manually retired, whichever occurs first. An office definable parameter specifies the time interval.
- `MAN` = Manual retire mode. Critical and major audibles will sound until manually retired. At the Master Control Center (MCC), use the alarm retire function key to retire alarms. For RBPSC and RISLU RAS, the critical, major, and minor audibles will sound until manually retired or the alarm retire mode is set to AUTO. At a remote site, press the alarm retire button on the remote alarm and status panel.

`b` = Alarm type. Valid value(s):

- `RBPSC` = RSM building/power metallic service units scan points.
- `RIBMSC` = RISLU building/miscellaneous scan points.

`c` = Switching module (SM) number.

`d` = RISLU site number.

4. ACTION TO BE TAKEN

None.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
SET:ALMMDE
```

Output Message(s):

```
SET:ALMMDE
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

105,106 (BLDG/POWER & ALARM CNTRLS)
1400,X (RSM BLDG/PWR ALARMS)
1420,SZ (RISLU BLDG/PWR ALARMS)
1630 (RISLU SITE INDEX)

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REPT:ALMMDE-B

Software Release: 5E12 and later
Message Class: BPSC
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT ALMMDE=a RBPSC SM=b

[2]   ____________________________________________________________
      REPT ALMMDE=a RAS SITE=c
```

2. REASON FOR OUTPUT

To report a change in the alarm retire mode (ALMMDE) at a remote site. Format 1 is for remote switching module (RSM), optical remote module (ORM), or two-mile remote module (TRM) sites that have the alarm output option. Format 2 is for remote peripheral sites equipped with a remote alarm section (RAS). This message is generated when the alarm retire mode switch on the remote alarm and status panel has been manually depressed.

3. VARIABLE FIELD DEFINITIONS

`a` = Alarm retire mode selected. Valid values are:

- `AUTO` = Automatic retire mode. Audible alarms will retire automatically in five seconds to five minutes or when manually retired--whichever occurs first.
- `MAN` = Manual retire mode. Audible alarms will sound until manually retired by pressing the alarm retire button on the remote alarm and status panel.

`b` = Switching module (SM) number.

`c` = Remote peripheral site number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`SET:ALMMDE`

Output Message(s):

`SET:ALMMDE`

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Other Manual(s):
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1400 (RSM BLDG/PWR ALARMS)
1420 (RAS ALARMS)

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REPT:ALMPG

Software Release: 5E10 and later
Message Class: TM
Application: 5
Type: Output

1. FORMAT

```
REPT ALMPG a b - - - [c] d
```

2. REASON FOR OUTPUT

To report pair gain alarm occurrences for the repair service bureau and local users.

3. VARIABLE FIELD DEFINITIONS

`a` = Pair gain system type. Valid value(s):
- `SLC40` = *SLC*® 40
- `SLC96` = *SLC*® 96

`b` = Circuit identification number.

`c` = Optional facility name (12-character tag).

`d` = Alarm state. Valid value(s):
- `ACT` = Active state.
- `RET` = Retired state.

4. ACTION TO BE TAKEN

Report alarm conditions to appropriate local maintenance personnel.

5. ALARMS

Minor.

6. REFERENCES

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-190-115 *Local and Toll System Features*
235-105-110 *Systems Maintenance Requirements And Tools*
235-600-100 *Translation Data Manual*
235-900-113 *Product Specification*

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REPT:AM-DOWNTIME

Software Release: 5E10 and later
Message Class: SED_MON
Application: 5
Type: Output

1. FORMAT

```
REPT AM DOWNTIME=aa:aa:aa EVENT=b
```

2. REASON FOR OUTPUT

To report outage time in the administrative module (AM). (Minor outages- less than 30seconds- will not be reported by this output message but will be included in the plant measurement 24-hour report.)

3. VARIABLE FIELD DEFINITIONS

`a` = Outage time, in the form hours:minutes:seconds.

`b` = Event number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:AM-INTER

Software Release: 5E10 and later
Message Class: SED_MON
Application: 5
Type: Output

1. FORMAT

```
REPT AM (0,a) INTERRUPT STACK TRACE EVENT=b
  UTIL=c   PROCESS=d   PSW=e
  PA=f     PSBR=g      SSBR=h
  REGS=iii  iii  iii  iii  iii  iii  iii  iii
       iii  iii  iii  iii  iii  iii  iii  iii
```

2. REASON FOR OUTPUT

To provide debugging information when the application integrity monitor detects a lack of activity.

3. VARIABLE FIELD DEFINITIONS

a = Active processor side (0 or 1).

b = Event number.

c = DMERT utility identification.

d = DMERT process identification.

e = Processor status word.

f = Program address.

g = Primary segment base register.

h = Secondary segment base register.

i = General purpose registers.

4. ACTION TO BE TAKEN

This dump can be used to determine the processes that were active at the time of the interruption and where the execution was occurring.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:AMA-CONFIG

Software Release: 5E10 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT AMA CONFIG FILE
        STREAM INDICATOR INVALID OR MISSING

[2]   ____________________________________________________________________
      REPT AMA CONFIG FILE FOR STREAM a
        b

[3]   ____________________________________________________________________
      REPT AMA CONFIG FILE FOR STREAM a
        RETRY EQUIP/UNEQUIP REQUEST LATER
        c

[4]   ____________________________________________________________________
      REPT AMA CONFIG FILE FOR STREAM a
        NUMBER OF EQUIPPED PARTITIONS d
        TOTAL NUMBER OF AMA BLOCKS e
        [ f g h ]
```

2. REASON FOR OUTPUT

To provide responses to either the OP:AMA-CONFIG or the SET:AMA-CONFIG input message, and to report problems, if any, with the configuration file.

If Format 1 is printed, either ST1 or ST2 should be included in the input message.

If Format 2 is printed, the status message indicated by '`b`' occurred while the input message was being executed.

If Format 3 is printed, the error indicated by '`c`' occurred while the input message was being executed.

If Format 4 is printed, the partition has been successfully equipped or unequipped.

Note: After this message is displayed, make backup tapes to prevent loss of the updated automatic message accounting (AMA) configuration files in the event of a reload from tape.

3. VARIABLE FIELD DEFINITIONS

`a` = Data stream. Valid value(s):
- `ST1` = ST1 data stream.
- `ST2` = ST2 data stream.

`b` = Text phrase indicating the outcome of the operation requested by either the OP:AMA-CONFIG or SET:AMA-CONFIG input message. Refer to the ACTION TO BE TAKEN section.

`c` = Text phrase indicating why the EQUIP or UNEQUIP request must be tried again at a later time.

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Refer to the ACTION TO BE TAKEN section.

d = Number of AMA partitions equipped for this stream.

e = Total number of AMA blocks for this stream.

f = AMA partition number.

g = AMA partition file name.

h = Number of AMA blocks in this partition.

4. ACTION TO BE TAKEN

If Format 1 is printed, the SET:AMA-CONFIG message should be tried again, and either ST1 or ST2 should be specified, depending on which AMA data stream the user wishes to set.

For Format 2,

If 'b' =	Action:
COULD NOT ATTACH TO ECD DATABASE	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
COULD NOT OBTAIN INFORMATION ABOUT THE PARTITION	In the SG database for the FP form make sure partitions 1, 41, 42, and 63 are populated correctly. For the FSB form, make sure your volume table of contents (VTOC) is populated correctly. Refer to the references at the end of this page. For further help, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
COULD NOT RELEASE ECD DATABASE	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
COULD NOT RETRIEVE ECD DATABASE	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
COULD NOT RETRIEVE ECD ORIGIN RECORD AND RELEASE ECD DATABASE	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
COULD NOT RETRIEVE MDCT RECORD	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
COULD NOT RETRIEVE UCB RECORD	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
CONFIG FILE COULD NOT BE OPENED	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
CONFIG FILE COULD NOT BE READ	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
DEVICE DOES NOT HAVE MAJOR/MINOR NUMBERS	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
EQUIP OR UNEQUIP OPTION MISSING FROM INPUT MESSAGE	Reenter the SET:AMA-CONFIG input message and be sure to include either the EQUIP or UNEQUIP option.
INVALID COMBINATION OF INPUT PARAMETERS	Check for one of these two errors in the SET:AMA-CONFIG message.
INVALID COMBINATION OF INPUT PARAMETERS	Check for one of these two errors in the SET:AMA-CONFIG message. - Make sure only one of the following options is used: EQUIP or UNEQUIP, not both. - Make sure the NOINIT option is not being used with the UNEQUIP option. Then try the message again.
INVALID ERROR CODE RECEIVED	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
INVALID KEYWORD IN INPUT MESSAGE	Check the last SET:AMA-CONFIG message to determine which keyword is invalid, and reenter the input message using the valid keyword.

INVALID PARTITION NUMBERING INPUT MESSAGE	The SET:AMA-CONFIG input message should be reentered using a valid AMA partition number.
INVALID SPECIAL DEVICE TYPE	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
NO INPUT DATA SPECIFIED	Reenter the SET:AMA-CONFIG input message.
NO UCB FOR THE DEVICE	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
PARTITION x WAS SUCCESSFULLY UNEQUIPPED	Where 'x' is the partition number, this text indicates that the specified partition was successfully unequipped. No action is necessary.
PARTITION NOT EQUIPPED FOR THIS STREAM	The AMA partition specified in the SET:AMA-CONFIG message is not equipped for the requested stream. Enter the OP:AMA-CONFIG input message to determine the state of the configuration file(s) and proceed accordingly.
PARTITION NUMBER MISSING FROM INPUT MESSAGE	Reenter the SET:AMA-CONFIG input message and be sure to specify the PART keyword and a valid AMA partition number.
REQUESTED PARTITION IS ALREADY EQUIPPED	The SET:AMA-CONFIG input message attempted to equip an already equipped partition.
TEMPORARY FILE COULD NOT BE CREATED	A file could not be created to print the output message. Enter the OP:AMA-CONFIG input message to determine the state of the configuration file(s) and proceed accordingly.
UNEQUIP REQUEST STOPPED THERE IS PRIMARY DATA ON THIS PARTITION	The UNEQUIP operation was stopped because there is primary data on the partition. When all primary data has been marked secondary by either a tape or teleprocessing session, the partition can be unequipped.
WARNING-AMA PARTITION COULD NOT BE OPENED UNEQUIP OPERATION CONTINUING	The AMA partition map could not be opened to determine if there was any primary data on the partition; therefore, the next time this partition is equipped, it should be equipped using the NOINIT option so any primary data can be retrieved. If the NOINIT option is not used, any primary data that was on this partition will be lost.
WARNING-AMA PARTITION COULD NOT BE READ UNEQUIP OPERATION CONTINUING	The AMA partition map could not be read to determine if there was any primary data on the partition; therefore, the next time this partition is equipped it should be equipped using the NOINIT option so any primary data can be retrieved. If the NOINIT option is not used, any primary data that was on this partition will be lost.
WARNING-REQUESTED STREAM CONFLICTS WITH CURRENT AMA STREAM INDICATOR EQUIPPING PROCESS IS IN PROGRESS LOOK FOR FURTHER OUTPUT	This message indicates that an AMA partition is being equipped for an AMA stream that currently does not exist in the office. No action need be taken.

For Format 3,

If 'c' =	**Action:**
AMA PARTITION COULD NOT BE OPENED	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
AMA PARTITION COULD NOT BE WRITTEN	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
CONFIG FILE COULD NOT BE OPENED	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
CONFIG FILE COULD NOT BE READ	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
CONFIG FILE COULD NOT BE WRITTEN	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
COULD NOT ATTACH TO PAS	Could not attach to protected application segment. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
DISK NOT AVAILABLE FOR NORMAL OPERATIONS	For the disk on which the requested AMA partition resides, use recent change (RC) to return the disk to the ACTIVE or STANDBY state. The AMA partition can then be equipped or unequipped using the SET:AMA-CONFIG input message.
ST1 CONFIG FILE COULD NOT BE OPENED	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
ST1 CONFIG FILE COULD NOT BE READ	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
ST1 CONFIG FILE COULD NOT BE WRITTEN	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

ST2 CONFIG FILE COULD NOT BE OPENED	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
ST2 CONFIG FILE COULD NOT BE READ	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
ST2 CONFIG FILE COULD NOT BE WRITTEN	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
VTOC ENTRY FOR PARTITION IS CORRUPT	The volume table of contents (VTOC) entry for the AMA partition being equipped is corrupt. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
VTOC FILE COULD NOT BE OPENED	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
VTOC FILE COULD NOT BE READ	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 4, no action is required.

5. ALARMS

This message itself does not cause any alarms, but is accompanied by critical and minor alarmed messages from the AMA diskwriter. The purpose of these alarms is to alert the user that the AMA diskwriter has been killed as a result of the SET:AMA:CONFIG input message. Since killing the AMA diskwriter may result in a delay in writing AMA data to the disk, the user must be notified. The diskwriter is killed because it must immediately reinitialize on the new disk maps created by the change in the configuration files. If it were not killed, the resulting delay in initialization could cause primary data to be lost. As a result of killing and restarting the diskwriter, PRMs are also generated.

6. REFERENCES

Input Message(s):

```
OP:AMA-CONFIG
OP:AMA-STREAM
SET:AMA-CONFIG
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-105-250 *System Recovery*
235-600-31x *ECD/SG Data Base*
235-600-601 *Processor Recovery Messages*

REPT:AMA-CONT-A

Software Release: 5E10 - 5E11
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT AMA CONTROL FILE FOR STREAM a
        OFFICE ID b
        DAYS UNTIL EXPIRATION c
        PROCESS START TIME d
        PROCESS STOP TIME e
        DEFAULT MT FOR AUTO TAPE START f

        g

        h
        AMAT PASSWORD i
        HOC PASSWORD j
        BACKUP HOC PASSWORD k
        PASSWORD FROM LAST SESSION l
        m
        n
        o
        TAPE SEQUENCE NUMBER p
        TAPE DATA SET ID q

[2]   ____________________________________________________________________
      REPT AMA CONTROL FILE FOR STREAM a
        TEMPORARY FILE COULD NOT BE CREATED

[3]   ____________________________________________________________________
      REPT AMA CONTROL FILE FOR STREAM a
        INVALID INPUT DATA SPECIFIED

[4]   ____________________________________________________________________
      REPT AMA CONTROL FILE FOR STREAM a
        NO INPUT DATA SPECIFIED

[5]   ____________________________________________________________________
      REPT AMA CONTROL FILE FOR STREAM a
        INVALID NUMBER OF CHARACTERS
        IN AN INPUT FIELD

[6]   ____________________________________________________________________
      REPT AMA CONTROL FILE FOR STREAM a
        INVALID KEYWORD IN INPUT MESSAGE
```

2. REASON FOR OUTPUT

To report the current state of the automatic message accounting (AMA) control file (Format 1). Format 2 indicates that the system could not allocate a temporary file to print the control file information.

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Formats 3, 4, 5, and 6 print in response to input message SET:AMA-CONTROL and indicate that the user made an error while entering that input message.

3. VARIABLE FIELD DEFINITIONS

a = Data stream. Valid value(s):
- ST1 = Indicates the control file data is for the ST1 data stream.
- ST2 = Indicates the control file data is for the ST2 data stream.

b = Office identification.

c = Number of days until tape expires.

d = Start time in hours and minutes for automatic tape writing or teleprocessing.

e = Stop time in hours and minutes for automatic tape writing or teleprocessing.

f = Default tape drive for AMA function.

g = Indicates the option in effect.

h = Indicates whether or not the AMA data transfer sessions have been manually inhibited by the INH:AMA-SESSION input message.

i = AMA teleprocessing (AMAT) password.

j = Host collector (HOC) password.

k = Backup HOC password.

l = Password of last HOC that polled this AMAT.

m = Indicates whether or not a tape writing or verification session is currently in progress.

n = Indicates whether or not a teleprocessing session is currently in progress.

o = Indicates whether or not automatic tape writing has been inhibited by the INH:AMA-AUTOST input message.

p = Next AMA tape sequence number.

q = Data set ID used by the revenue accounting office (RAO).

4. ACTIONS TO BE TAKEN

If Format 1 is output, take no action.

If Format 2 is output, re-enter the OP:AMA-CONTROLF input message.

If Formats 3, 4, 5, or 6 are output, re-enter input message SET:AMA-CONTROL.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ALW:AMA-AUTOST
ALW:AMA-SESSION
INH:AMA-AUTOST
INH:AMA-SESSION
OP:AMA-CONTROLF
SET:AMA-CONTROL
```

Output Message(s):

```
REPT:AMA-CONT
```

REPT:AMA-CONT-B

Software Release: 5E12 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT AMA CONTROL FILE FOR STREAM a
  OFFICE ID b
  DAYS UNTIL EXPIRATION c
  PROCESS START TIME d
  PROCESS STOP TIME e
  DEFAULT MT FOR AUTO TAPE START f

  g

  h
  AMAT PASSWORD i
  HOC PASSWORD j
  BACKUP HOC PASSWORD k
  PASSWORD FROM LAST SESSION l
  m
  n
  o
  TAPE SEQUENCE NUMBER p
  TAPE DATA SET ID q
```

[2]
```
REPT AMA CONTROL FILE FOR STREAM a
  TEMPORARY FILE COULD NOT BE CREATED
```

[3]
```
REPT AMA CONTROL FILE FOR STREAM a
  INVALID INPUT DATA SPECIFIED
```

[4]
```
REPT AMA CONTROL FILE FOR STREAM a
  NO INPUT DATA SPECIFIED
```

[5]
```
REPT AMA CONTROL FILE FOR STREAM a
  INVALID NUMBER OF CHARACTERS
  IN AN INPUT FIELD
```

[6]
```
REPT AMA CONTROL FILE FOR STREAM a
  INVALID KEYWORD IN INPUT MESSAGE
```

[7]
```
REPT AMA CONTROL FILE FOR STREAM a
  SPECIFIED OPTION=AMADNS1 NOT ALLOWED
```

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2. REASON FOR OUTPUT

To report the current state of the automatic message accounting (AMA) control file (Format 1). Format 2 indicates that the system could not allocate a temporary file to print the control file information.

Formats 3, 4, 5, 6, and 7 print in response to input message SET:AMA-CONTROL and indicate that the user made an error while entering that input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Data stream. Valid value(s):
- `ST1` = Indicates the control file data is for the ST1 data stream.
- `ST2` = Indicates the control file data is for the ST2 data stream.

`b` = Office identification.

`c` = Number of days until tape expires.

`d` = Start time in hours and minutes for automatic tape writing or teleprocessing.

`e` = Stop time in hours and minutes for automatic tape writing or teleprocessing.

`f` = Default tape drive for AMA function.

`g` = Indicates the option in effect.

`h` = Indicates whether or not the AMA data transfer sessions have been manually inhibited by the INH:AMA-SESSION input message.

`i` = AMA teleprocessing (AMAT) password.

`j` = Host collector (HOC) password.

`k` = Backup HOC password.

`l` = Password of last HOC that polled this AMAT.

`m` = Indicates whether or not a tape writing or verification session is currently in progress.

`n` = Indicates whether or not a teleprocessing session is currently in progress.

`o` = Indicates whether or not automatic tape writing has been inhibited by the INH:AMA-AUTOST input message.

`p` = Next AMA tape sequence number.

`q` = Data set ID used by the revenue accounting office (RAO).

4. ACTIONS TO BE TAKEN

If Format 1 is output, take no action.

If Format 2 is output, re-enter the OP:AMA-CONTROLF input message.

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If Formats 3, 4, 5, or 6 are output, re-enter input message SET:AMA-CONTROL.

If Format 7 is output, set field 45, "AMADNS ACTIVE" on RC/V view 8.1 to "Y" and re-enter input message SET:AMA-CONTROL.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:AMA-AUTOST
ALW:AMA-SESSION
INH:AMA-AUTOST
INH:AMA-SESSION
OP:AMA-CONTROLF
SET:AMA-CONTROL
```

Output Message(s):

```
REPT:AMA-CONT
```

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]

REPT:AMA-CONT-FA

Software Release: 5E10 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT AMA CONTROL FILE AUDIT FOR STREAM a
        OFFICE ID b
        DAYS UNTIL EXPIRATION c
        PROCESS START TIME d
        PROCESS STOP TIME e
        DEFAULT MT FOR AUTO TAPE START f
        g
        h
        AMAT PASSWORD i
        HOC PASSWORD j
        BACKUP HOC PASSWORD k
        PASSWORD FROM LAST SESSION l
        m
        n
        o
        DISK SPACE OCCUPANCY p%
        TAPE SEQUENCE NUMBER q
        TAPE DATA SET ID r

[2]   ____________________________________________________________
      REPT AMA CONTROL FILE AUDIT FOR STREAM a
        AMA CONTROL FILE COULD NOT BE {OPENED|READ}

[3]   ____________________________________________________________
      REPT AMA CONTROL FILE AUDIT FOR STREAM a
        TEMPORARY FILE COULD NOT BE CREATED
```

2. REASON FOR OUTPUT

To indicate the state of the automatic message accounting (AMA) control file after its audit has been run (Format 1), that the control file could not be opened or read (Format 2), or that the system could not allocate a temporary file to print the audit results (Format 3).

3. VARIABLE FIELD DEFINITIONS

`OPENED` = Control file could not be opened.

`READ` = Control file could not be read.

`a` = Data stream. Valid value(s):
- `ST1` = Indicates the control file data is for the ST1 data stream.
- `ST2` = Indicates the control file data is for the ST2 data stream.

b = Office ID.

c = Number of days until the tape expires.

d = Start time in hours and minutes for automatic tape writing or teleprocessing.

e = Stop time in hours and minutes for automatic tape writing or teleprocessing.

f = Default tape drive for the AMA function.

g = The AMA option that is in effect.

h = Indication of whether AMA data transfer sessions have been manually inhibited.

i = Automatic message accounting teleprocessing (AMAT) password.

j = Host collector (HOC) password.

k = Backup HOC password.

l = Password of the last HOC that polled this AMAT.

m = Indicates whether or not a tape writing or verification session is currently in progress.

n = Indicates whether or not a teleprocessing session is currently in progress.

o = Indicates whether or not automatic tape writing has been inhibited by the INH:AMA-AUTOST input message.

p = Percent of current AMA disk space occupancy.

q = Next AMA tape sequence number.

r = Data set ID used by the revenue accounting office (RAO).

4. ACTIONS TO BE TAKEN

For Format 1, examine the values that the audit assigned to the fields in the control file. If any values need to be corrected, use the input messages listed under References.

If Format 2 prints, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

If Format 3 prints, use the OP:AMA-CONTROLF input message to check the contents of the control file. If any of the values are invalid, correct them using the input messages listed under References.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:AMA-AUTOST
ALW:AMA-SESSION
```

```
INH:AMA-AUTOST
INH:AMA-SESSION
OP:AMA-CONTROLF
SET:AMA-CONTROL
```

REPT:AMA-CRIT

Software Release: 5E10 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT AMA CRIT ALARM DOWNGRADED TO A MAJOR ALARM FOR STREAM a
        DISK IS b% FULL

[2]   ____________________________________________________________
      REPT AMA CRITICAL ALARM DOWNGRADED TO A MINOR ALARM FOR STREAM a
        DISK IS b% FULL
```

2. REASON FOR OUTPUT

If Format 1 is printed, this reports that automatic message accounting (AMA) disk space occupancy has dropped to between the percentages indicated by the MAJ AMA ALRM value minus 1 inclusive and CRIT AMA ALRM value minus 1 on RC/V view 8.1. A major alarm is sounded.

If Format 2 is printed, this reports that AMA disk space occupancy has dropped to between the percentages indicated by the MIN AMA ALRM value minus 1 inclusive and MAJ AMA ALRM value minus 1 on RC/V view 8.1. A minor alarm is sounded.

3. VARIABLE FIELD DEFINITIONS

`a` = Data stream. Valid value(s):
- `ST1` = The information is for the ST1 data stream.
- `ST2` = The information is for the ST2 data stream.

`b` = Percent of disk space occupancy.

4. ACTION TO BE TAKEN

None.

5. ALARMS

MAJOR, MINOR.

6. REFERENCES

Input Message(s):

```
OP:AMA-DISK
```

Output Message(s):

```
REPT:AMA-DISK-STO
REPT:AMA-DISK-SUM
```

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```
REPT:AMA-MAJOR
REPT:AMA-MINOR
REPT:AMA-CRIT
```

Other Manual(s):
235-100-125 *System Description*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]

REPT:AMA-DISK-ALM-A

Software Release: 5E10 - 5E13
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
REPT AMA DISK ALARM CONDITION HAS BEEN CLEARED FROM STREAM a
  DISK IS b % FULL
```

2. REASON FOR OUTPUT

To inform the user that the automatic message accounting(AMA) disk space occupancy has dropped to below the MIN AMA ALRM value minus 1, when the previous alarm level is either major or critical. The minor, major and critical AMA alarm values are given on recent change (RC) view 8.1 (MIN AMA ALRM, MAJ AMA ALRM and CRIT AMA ALRM).

3. VARIABLE FIELD DEFINITIONS

`a` = Data stream. Valid value(s):
- `ST1` = Indicates that the information is for the ST1 data stream.
- `ST2` = Indicates that the information is for the ST2 data stream.

`b` = Current percentage of AMA disk space occupied by primary data.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:AMA-DISK
```

Output Message(s):

```
REPT:AMA-DISK-STO
REPT:AMA-DISK-SUM
REPT:AMA-CRIT
REPT:AMA-MAJOR
```

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]

REPT:AMA-DISK-ALM-B

Software Release: 5E14 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
[1]    REPT AMA DISK MAJOR ALARM CONDITION HAS BEEN CLEARED FROM STREAM a>

         DISK IS b % FULL>

[2]    REPT AMA DISK CRITICAL ALARM CONDITION HAS BEEN CLEARED FROM STREAM a>

         DISK IS b % FULL>
```

2. REASON FOR OUTPUT

To inform the user that the automatic message accounting(AMA) disk space occupancy has dropped to below the MIN AMA ALRM value minus 1, when the previous alarm level is either major or critical. The minor, major and critical AMA alarm values are given on recent change (RC) view 8.1 (MIN AMA ALRM, MAJ AMA ALRM and CRIT AMA ALRM).

3. VARIABLE FIELD DEFINITIONS

`a` = Data stream. Valid value(s):

- `ST1` = Indicates that the information is for the ST1 data stream.
- `ST2` = Indicates that the information is for the ST2 data stream.

`b` = Current percentage of AMA disk space occupied by primary data.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:AMA-DISK
```

Output Message(s):

```
REPT:AMA-DISK-STO
REPT:AMA-DISK-SUM
REPT:AMA-CRIT
```

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```
REPT:AMA-MAJOR
```

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]

REPT:AMA-DISK-MAP

Software Release: 5E10 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT AMA DISK MAPS FOR STREAM a
  WRITE PARTITION b READ PARTITION c
  PARTITION d DISK MAP:
  FPO:       e  LPO:       f  FPS:       g  LPS:       h
  FSO:       i  LSO:       j  FSS:       k  LSS:       l
  FBO:       m  LBO:       n  FBS:       o  LBS:       p
```

[2]
```
REPT AMA DISK MAPS FOR STREAM a
  q
```

[3]
```
REPT AMA DISK MAPS FOR STREAM a
  GLOBAL MAP NOT AVAILABLE
```

[4]
```
REPT AMA DISK MAPS FOR STREAM a
  WRITE PARTITION b READ PARTITION c
  PARTITION d DISK MAP r
```

2. REASON FOR OUTPUT

To respond to input message OP:AMA-MAPS, which prints the contents of the disk maps for all partitions and prints the contents of the global maps for each stream.

Format 1; indicates the status of the global and disk maps.

Format 2; is used to indicate that the system could not create a temporary file to print the outcome of the verification process, or the configuration file used to obtain a list of partitions to search for disk maps could not be opened or read.

Format 3; is used to indicate that the global map file used to identify the read and write partitions could not be opened or read.

Format 4; is used when the partition from which the disk map is being read cannot be opened or read.

3. VARIABLE FIELD DEFINITIONS

`a` = Data stream. Valid value(s):
- `ST1` = Indicates that the information is for the ST1 data stream.
- `ST2` = Indicates that the information is for the ST2 data stream.

`b` = Partition number in which the disk writer will write AMA data.

`c` = Partition number from which AMA data will be taken during a teleprocessing or tape session.

`d` = Partition number from which the disk map is read.

Note: Offsets are measured in disk blocks from the beginning of the partition. Each disk block is 512 bytes in size.

Note: Sequence numbers are at the corresponding AMA block taken from the disk map. Each AMA block is 1536 bytes in size.

`e` = First primary offset (FPO).

`f` = Last primary offset (LPO).

`g` = First primary sequence (FPS) number.

`h` = Last primary sequence (LPS) number.

`i` = First secondary offset (FSO).

`j` = Last secondary offset (LSO).

`k` = First secondary sequence (FSS) number.

`l` = Last secondary sequence (LSS) number.

`m` = First block offset (FBO).

`n` = Last block offset (LBO).

`o` = First block sequence (FBS) number.

`p` = Last block sequence (LBS) number.

`q` = Reason the contents of the disk maps could not be output. Valid value(s):

```
COULD NOT OPEN CONFIGURATION FILE
COULD NOT READ CONFIGURATION FILE
TEMPORARY FILE COULD NOT BE CREATED
```

`r` = Reason why the disk map cannot be opened or read. Valid value(s):

```
UNAVAILABLE
NOT READABLE
```

4. ACTION TO BE TAKEN

Format 1 requires no action. If Formats 2, 3, and 4 occur repeatedly, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:AMA-CONFIG
OP:AMA-DISK
OP:AMA-MAPS
OP:AMA-STREAM
SET:AMA-STREAM
```

REPT:AMA-DISK-REA-A

Software Release: 5E10 only
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT AMA DISK READER FOR STREAM a PARTITION b
        AMA BLOCK WITH SEQ NO c IS OUT OF SEQUENCE.
        EXPECTED SEQUENCE NUMBER IS d
        OFFSET OF BLOCK INTO AMA PARTITION IS e DISK BLOCK

[2]   ____________________________________________________________________
      REPT AMA DISK READER FOR STREAM a PARTITION b
        AMA BLOCK WITH SEQ NO c IS BEING IGNORED

[3]   ____________________________________________________________________
      REPT AMA DISK READER FOR STREAM a PARTITION b,
        SIZE OF d DATA AREA IS NOT A MULTIPLE OF 3 DISK BLOCKS

[4]   ____________________________________________________________________
      REPT AMA DISK READER FOR STREAM a
        END OF SESSION UPDATING OF DISK MAPS FAILED.
        SEQUENCE NUMBERS e THROUGH f
        MUST BE RETRIEVED AGAIN AS SECONDARY DATA

[5]   ____________________________________________________________________
      REPT AMA DISK READER FOR STREAM a
        COULD NOT ASSIGN SPECIAL DIAGNOSTIC FILE FOR MHD g

[6]   ____________________________________________________________________
      REPT AMA DISK READER FOR STREAM a
        COULD NOT RELEASE SPECIAL DIAGNOSTIC FILE FOR MHD g

[7]   ____________________________________________________________________
      REPT AMA DISK READER FOR STREAM a
        h

[8]   ____________________________________________________________________
      REPT AMA DISK READER FOR STREAM a
        i
```

2. REASON FOR OUTPUT

To report that an automatic message accounting (AMA) block is out of sequence and to report the disposition of the block. This message also reports problems in accessing configuration files and global (partition) maps, or with assigning or releasing diagnostic files for moving head disks (MHDs) during AMA offline sessions for software transitions.

3. VARIABLE FIELD DEFINITIONS

`a` = Data stream. Valid value(s):

`ST1` = Indicates that the information is for the ST1 data stream.
`ST2` = Indicates that the information is for the ST2 data stream.

`b` = The partition number in which the error occurred.

`c` = Sequence number which is being ignored.

`d` = Type of data area being processed by the disk reader when an error occurred. Valid value(s):
`PRIMARY`
`SECONDARY`

`e` = Sequence number where disk reader started to read primary data.

`f` = Sequence number where disk reader finished reading primary data.

`g` = For software transitions, the even MHD that could not be assigned or released when the offline disks are being read on the new generic release.

`h` = Errors which can occur during an offline session during software transitions. Valid value(s):
`CANNOT OPEN CONFIGURATION FILE`
`CANNOT OPEN GLOBAL MAP`
`CANNOT READ CONFIGURATION FILE`

`i` = Error message that occurs when an incorrect sequence number block is read in from either the even or odd MHD that the current AMA read partition is located on. This message only occurs following a message of format type 1 when a read has failed a sequence number check. This message is only printed once on the first failed attempt for given set of blocks read in. Valid value(s):
`DETECTING SEQUENCE NUMBER MISMATCH - RETRYING`

4. ACTIONS TO BE TAKEN

The quantity of out-of-sequence messages is defined in Switch Administration Guidelines manual.

When the message(s) for releasing or assigning the diagnostic file is seen during software transitions, look in the /tmp directory for files of the form ecdMHDx. For all such files, execute the command 'udgnnm MHD x' in the /tmp directory on the *UNIX*® terminal to release the associated diagnostic file.

If the configuration file cannot be opened, or the global map cannot be open or read, then backout in software transitions is necessary. This should be a very rare occurrence and if it did happen, there is a problem with the overall process for software transitions that copies files with information about the old release over to the new release.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:AMA-CONFIG
OP:AMA-MAPS
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*
235-105-210 *Routine Maintenance Procedures*

REPT:AMA-DISK-REA-B

Software Release: 5E11 - 5E12
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT AMA DISK READER FOR STREAM a PARTITION b
        AMA BLOCK WITH SEQ NO c IS OUT OF SEQUENCE.
        EXPECTED SEQUENCE NUMBER IS d
        OFFSET OF BLOCK INTO AMA PARTITION IS e DISK BLOCK

[2]   ____________________________________________________________________
      REPT AMA DISK READER FOR STREAM a PARTITION b
        AMA BLOCK WITH SEQ NO c IS BEING IGNORED

[3]   ____________________________________________________________________
      REPT AMA DISK READER FOR STREAM a PARTITION b,
        SIZE OF d DATA AREA IS NOT A MULTIPLE OF 3 DISK BLOCKS

[4]   ____________________________________________________________________
      REPT AMA DISK READER FOR STREAM a
        END OF SESSION UPDATING OF DISK MAPS FAILED.
        SEQUENCE NUMBERS e THROUGH f
        MUST BE RETRIEVED AGAIN AS SECONDARY DATA

[5]   ____________________________________________________________________
      REPT AMA DISK READER FOR STREAM a
        COULD NOT ASSIGN SPECIAL DIAGNOSTIC FILE FOR MHD g

[6]   ____________________________________________________________________
      REPT AMA DISK READER FOR STREAM a
        COULD NOT RELEASE SPECIAL DIAGNOSTIC FILE FOR MHD g

[7]   ____________________________________________________________________
      REPT AMA DISK READER FOR STREAM a
        h

[8]   ____________________________________________________________________
      REPT AMA DISK READER FOR STREAM a
        i
```

2. REASON FOR OUTPUT

To report that an automatic message accounting (AMA) block is out of sequence and to report the disposition of the block. This message also reports problems in accessing configuration files and global (partition) maps, or with assigning or releasing diagnostic files for moving head disks (MHDs) during AMA offline sessions for software transitions.

3. VARIABLE FIELD DEFINITIONS

`a` = Data stream. Valid value(s):
- `ST1` = Indicates that the information is for the ST1 data stream.

`ST2` = Indicates that the information is for the ST2 data stream.

`b` = The partition number in which the error occurred.

`c` = Sequence number which is being ignored.

`d` = Type of data area being processed by the disk reader when an error occurred. Valid value(s):
`PRIMARY`
`SECONDARY`

`e` = Sequence number where disk reader started to read primary data.

`f` = Sequence number where disk reader finished reading primary data.

`g` = For software transitions, the even MHD that could not be assigned or released when the offline disks are being read on the new generic release.

`h` = Errors which can occur during an offline session during software transitions. Valid value(s):
`CANNOT OPEN CONFIGURATION FILE`
`CANNOT OPEN GLOBAL MAP`
`CANNOT READ CONFIGURATION FILE`

`i` = Error message that occurs when an incorrect sequence number block is read in from either the even or odd MHD that the current AMA read partition is located on. This message only occurs following a message of format type 1 when a read has failed a sequence number check. This message is only printed once on the first failed attempt for given set of blocks read in. Valid value(s):
`DETECTING SEQUENCE NUMBER MISMATCH - RETRYING`

4. ACTIONS TO BE TAKEN

The quantity of out-of-sequence messages is defined in Switch Administration Guidelines manual.

When the message(s) for releasing or assigning the diagnostic file is seen during software transitions, look in the /tmp directory for files of the form ecdMHDx. For all such files, execute the command 'udgnnm MHD x' in the /tmp directory on the *UNIX*® terminal to release the associated diagnostic file.

If the configuration file cannot be opened, or the global map cannot be open or read, then backout in software transitions is necessary. This should be a very rare occurrence and if it did happen, there is a problem with the overall process for software transitions that copies files with information about the old release over to the new release.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:AMA-CONFIG`

```
OP:AMA-MAPS
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*
235-105-210 *Routine Maintenance Procedures*

REPT:AMA-DISK-REA-C

Software Release: 5E13 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT AMA DISK READER FOR STREAM a PARTITION b
        AMA BLOCK WITH SEQ NO c IS OUT OF SEQUENCE.
        EXPECTED SEQUENCE NUMBER IS d
        OFFSET OF BLOCK INTO AMA PARTITION IS e DISK BLOCK

[2]   ____________________________________________________________________
      REPT AMA DISK READER FOR STREAM a PARTITION b
        AMA BLOCK WITH SEQ NO c IS BEING IGNORED

[3]   ____________________________________________________________________
      REPT AMA DISK READER FOR STREAM a PARTITION b,
        SIZE OF d DATA AREA IS NOT A MULTIPLE OF 3 DISK BLOCKS

[4]   ____________________________________________________________________
      REPT AMA DISK READER FOR STREAM a
        END OF SESSION UPDATING OF DISK MAPS FAILED.
        SEQUENCE NUMBERS e THROUGH f
        MUST BE RETRIEVED AGAIN AS SECONDARY DATA

[5]   ____________________________________________________________________
      REPT AMA DISK READER FOR STREAM a
        COULD NOT RELEASE SPECIAL RVTOC FILE FOR MHD g

[6]   ____________________________________________________________________
      REPT AMA DISK READER FOR STREAM a
        COULD NOT ASSIGN SPECIAL RVTOC FILE FOR MHD g

[6]   ____________________________________________________________________
      REPT AMA DISK READER FOR STREAM a
        DEVICE ALREADY EXISTS FOR MHD g PARTITION h TMP FILE i ERRNO j

[6]   ____________________________________________________________________
      REPT AMA DISK READER FOR STREAM a
        COULD NOT MAKE SPECIAL AMA FILE FOR MHD g PARTITION h TMP FILE i ERRNO j

[7]   ____________________________________________________________________
      REPT AMA DISK READER FOR STREAM a
        k
```

2. REASON FOR OUTPUT

To report that an automatic message accounting (AMA) block is out of sequence and to report the disposition of the block. This message also reports problems with assigning or rvtoc and special AMA files for moving head disks (MHDs) during AMA offline sessions for software transitions.

3. VARIABLE FIELD DEFINITIONS

a = Data stream. Valid value(s):
`ST1` = Indicates that the information is for the ST1 data stream.
`ST2` = Indicates that the information is for the ST2 data stream.

b = The partition number in which the error occurred.

c = Sequence number which is being ignored.

d = Type of data area being processed by the disk reader when an error occurred. Valid value(s):
`PRIMARY`
`SECONDARY`

e = Sequence number where disk reader started to read primary data.

f = Sequence number where disk reader finished reading primary data.

g = For software transitions, the even MHD that could not be assigned or released when the offline disks are being read on the new generic release.

h = For software transitions, the AMA partition on the even MHD that could not be assigned or released, when the offline disks are being read on the new generic release.

i = For software transitions, the pointer file to the AMA partition on the even MHD, that could not be assigned or released when the offline disks are being read on the new generic release.

j = For software transitions, the RTR error reported for the pointer file to the AMA partition on the even MHD that could not be assigned or released when the offline disks are being read on the new generic release.

k = Error message that occurs when an incorrect sequence number block is read in from either the even or odd MHD that the current AMA read partition is located on. This message only occurs following a message of format type 1 when a read has failed a sequence number check. This message is only printed once on the first failed attempt for given set of blocks read in. Valid value(s):
`DETECTING SEQUENCE NUMBER MISMATCH - RETRYING`

4. ACTIONS TO BE TAKEN

The quantity of out-of-sequence messages is defined in Switch Administration Guidelines manual.

When the message(s) for releasing or assigning the offline rvtoc file is seen during software transitions, look in the /dev directory for files of the form rvtocx. These files should have been created during the software transitions, and backout in software transitions is necessary if they don't exist when the offline AMA process accesses them. This should be a very rare occurrence, and if it did happen, there is a problem with the overall process for software transitions that creates these files.

If the device does not exist message is reported for software transitions, this is not a problem. This means the pointer files /tmp/amax which allow access to the offline AMA partitions and are created by the AMA offline process already exist, and are being removed and recreated. This should not interfere with the oncoming offline AMA process, and the offline AMA data should be readable off disk.

If the AMA files (/tmp/amax) could not be created message is reported for software transitions, then backout in software transitions is necessary. This should be a very rare occurrence, and if it did happen, there is a problem with the overall process for software transitions that creates these files.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:AMA-CONFIG
OP:AMA-MAPS
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*
235-105-210 *Routine Maintenance Procedures*

REPT:AMA-DISK-STO

Software Release: 5E10 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
REPT AMA DISK STORAGE IS a% FULL FOR STREAM b
```

2. REASON FOR OUTPUT

To report the potential loss of billing data. A major, minor, or critical alarm may accompany this message.

3. VARIABLE FIELD DEFINITIONS

`a` = Percentage of automatic message accounting (AMA) disk space occupied by primary data.

Note: If '`a`' is between the minor AMA alarm value (inclusive) and the major AMA alarm value, a minor alarm occurs. If '`a`' is between the major AMA alarm value inclusive and the critical AMA alarm value, a major alarm occurs. If '`a`' is greater than or equal to the critical AMA alarm value, a critical alarm occurs.

The minor AMA alarm, major AMA alarm, and the critical AMA alarm appear as parameters on recent change (RC) View 8.1 (MIN AMA ALRM, MAJ AMA ALRM and CRIT AMA ALRM).

`b` = Data stream. Valid value(s):

`ST1` = Indicates that the information is for the ST1 data stream.
`ST2` = Indicates that the information is for the ST2 data stream.

4. ACTION TO BE TAKEN

Notify personnel at the host collector (HOC) immediately. Poll the switch AMAT as soon as possible to avoid the loss of AMA data.

5. ALARMS

Major.
Minor.
Critical.

6. REFERENCES

Input Message(s):

```
OP:AMA-DISK
```

Output Message(s):

```
REPT:AMA-CRIT
REPT:AMA-DISK-ALM
```

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```
REPT:AMA-MAJOR
REPT:AMA-MINOR
```

MCC Display Page(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]

REPT:AMA-DISK-SUM-A

Software Release: 5E10 - 5E12
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT AMA DISK SUMMARY FOR STREAM a
  DISK IS CURRENTLY b% FULL
  NUMBER OF PRIMARY AMA BLOCKS IN USE IS APPROXIMATELY:c
```

[2]
```
REPT AMA DISK SUMMARY FOR STREAM a
  DISK IS CURRENTLY b% FULL
  NUMBER OF PRIMARY AMA BLOCKS IN USE IS APPROXIMATELY:c
REPT AMA DISK STORAGE IS CURRENTLY b% FULL FOR STREAM a
```

[3]
```
REPT AMA DISK SUMMARY FOR STREAM a
  DISK IS CURRENTLY b% FULL
  NUMBER OF PRIMARY AMA BLOCKS IN USE IS APPROXIMATELY:c
REPT AMA CRIT ALARM DOWNGRADED TO A MAJOR ALARM FOR STREAM a
  DISK IS b% FULL
```

[4]
```
REPT AMA DISK SUMMARY FOR STREAM a
  DISK IS CURRENTLY b% FULL
  NUMBER OF PRIMARY AMA BLOCKS IN USE IS APPROXIMATELY:c
REPT AMA CRITICAL ALARM DOWNGRADED TO A MINOR ALARM FOR STREAM s
  DISK IS b% FULL
```

[5]
```
REPT AMA DISK SUMMARY FOR STREAM a
  DISK IS CURRENTLY b% FULL
  NUMBER OF PRIMARY AMA BLOCKS IN USE IS APPROXIMATELY:c
REPT AMA MAJOR ALARM DOWNGRADED TO A MINOR ALARM FOR STREAM a
  DISK IS b% FULL
```

[6]
```
REPT AMA DISK SUMMARY FOR STREAM a
  DISK IS CURRENTLY b% FULL
  NUMBER OF PRIMARY AMA BLOCKS IN USE IS APPROXIMATELY:c
REPT AMA MINOR ALARM HAS BEEN RETIRED FOR STREAM a
  DISK IS b% FULL
```

[7]
```
REPT AMA DISK SUMMARY FOR STREAM a
  DISK IS CURRENTLY b% FULL
  NUMBER OF PRIMARY AMA BLOCKS IN USE IS APPROXIMATELY:c
REPT AMA DISK ALARM CONDITION HAS BEEN CLEARED FROM STREAM a
  DISK IS b% FULL
```

[8]

```
      REPT AMA DISK SUMMARY FOR STREAM a
        NO RESPONSE FROM MONITOR - RETRY LATER

[9]   ____________________________________________________________________
      REPT AMA DISK SUMMARY FOR STREAM a
        CONFIG FILE COULD NOT BE OPENED

[10]  ____________________________________________________________________
      REPT AMA DISK SUMMARY FOR STREAM a
        CONFIG FILE COULD NOT BE READ

[11]  ____________________________________________________________________
      REPT AMA DISK SUMMARY FOR STREAM a
        PERCENT ON DISK NOT KNOWN
        THERE COULD BE PRIMARY DATA ON DISK

[12]  ____________________________________________________________________
      REPT AMA DISK SUMMARY FOR STREAM a
        DISK IS CURRENTLY b% FULL
        NUMBER OF PRIMARY AMA BLOCKS IN USE IS APPROXIMATELY:c
        ALL THE DATA ON THE OFFLINE SIDE HAS BEEN READ
        THE AMA PROCESS HAS BEEN TRANSITIONED TO THE ACTIVE SIDE

[13]  ____________________________________________________________________
      REPT AMA DISK SUMMARY  FOR STREAM a
      TEMPORARY FILE COULD NOT BE CREATED
```

2. REASON FOR OUTPUT

To report the amount of automatic message accounting (AMA) disk space currently occupied by the primary AMA records. In addition, the message also reports the number of primary AMA blocks in use on the disk. This message prints in response to the OP:AMA-DISK input message. An additional message possibly accompanied by an alarm will be printed in the event a change to the alarm levels in recent change (RC) caused a change in alarm status.

If Format 1 is printed, then only the amount of AMA disk space currently occupied by the primary AMA records is printed. No change in alarm status occurred.

If Format 2 is printed, then the amount of AMA space currently occupied by the primary AMA records is printed. A similar message is printed again to report the percentage occupancy of billing data on disk, if alarm status has changed. A major, minor, or critical alarm will accompany this message. This message is printed because a change to the alarm levels caused a change in alarm status.

If Format 3 is printed, then the amount of AMA disk space currently occupied by the primary AMA records is printed. The second message reports that the AMA disk space occupancy has dropped to between the percentages indicated by the MAJ AMA ALRM minus 1 inclusive and CRIT AMA ALRM value minus 1 on RC view 8.1. A major alarm is sounded. This message is printed because a change to the alarm levels in RC caused a change in alarm status.

If Format 4 is printed, then the amount of AMA disk space currently occupied by the primary AMA records is printed. The second message reports that the AMA disk space occupancy has dropped to between the percentages indicated by the MIN AMA ALRM value minus 1 inclusive and MAJ AMA ALRM value minus 1 on RC view 8.1. A minor alarm is sounded. This message is printed because a change to the alarm levels in RC caused a change in alarm status. In this case, the previous alarm status was critical.

If Format 5 is printed, then the amount of AMA disk space currently occupied by the primary AMA records is printed.

The second message reports that the AMA disk space occupancy has dropped below the percentage indicated by the MAJ AMA ALRM value minus 1 and is greater than or equal to the MIN AMA ALRM value minus 1 on RC view 8.1. A minor alarm is sounded. This message is printed because a change to the alarm levels in RC caused a change in alarm status. In this case, the previous alarm status was major.

If Format 6 is printed, then the amount of AMA disk space currently occupied by the primary AMA records is printed. The second message reports that the AMA disk space occupancy has dropped below the percentage indicated by the MIN AMA ALRM value minus 1 on RC view 8.1. This message is printed because a change to the alarm levels in RC caused a change in alarm status. The previous alarm status was minor.

If Format 7 is printed, then the amount of AMA disk space currently occupied by the primary AMA records is printed. The second message reports that the AMA disk space occupancy has dropped to below the MIN AMA ALRM value minus 1, when the previous alarm level is either major or critical. The major and critical AMA alarm values are given on RC view 8.1 (MAJ AMA ALRM and CRIT AMA ALRM). This message is printed because a change to the alarm levels in RC caused a change in alarm status. If Format 8 is printed, then contact with the AMonitor process failed and primary disk storage capacity was not determined. The user should retry the command later to obtain this information.

If Format 9 is printed, then during transitions when the offline disks are being accessed, the configuration file for the old software release could not be opened.

If Format 10 is printed, then during transitions when the offline disks are being accessed, the configuration file for the old software release could not be read.

If Format 11 is printed, then during software transitions on the new software release prior to the point where the disks are being accessed in an offline AMA session, the percent and number of blocks on disk could not be determined.

If Format 12 is printed, then after software transitions on the new software release there is no more AMA data on the offline side and the AMA process has been transitioned to the active online side. In this case, both the '`b`' and '`c`' values should be zero.

If Format 13 is printed, then the system could not allocate a temporary file to print the disk summary information.

3. VARIABLE FIELD DEFINITIONS

`a` = Data stream. Valid value(s):

- `ST1` = Indicates that the information is for the ST1 data stream.
- `ST2` = Indicates that the information is for the ST2 data stream.

`b` = Percentage of disk space occupied by primary AMA records. The true occupancy of the disk is between '`b`' and ('`b`'+1)%. Therefore, if 0% is displayed, there may be primary data on the disk. To permit the positioning of pointer values, the last block of primary data cannot be read at this time.

`c` = Number of primary AMA blocks in use for the stream. Since data is being written continuously to the disk, and since the AMA pointer values change frequently, this number may overstate the actual number of primary AMA blocks in use on the disk at the time this message is printed.

4. ACTIONS TO BE TAKEN

If Formats 8, 9, 10, or 11 is generated several times in succession, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:AMA-DISK
OP:AMA-MAPS
```

Output Message(s):

```
REPT:AMA-CRIT
REPT:AMA-MAJOR
REPT:AMA-MINOR
```

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-105-24x *Generic Retrofit Procedures*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]

REPT:AMA-DISK-SUM-B

Software Release: 5E13 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT AMA DISK SUMMARY FOR STREAM a
        DISK IS CURRENTLY b% FULL
        NUMBER OF PRIMARY AMA BLOCKS IN USE IS APPROXIMATELY:c

[2]   ____________________________________________________________________
      REPT AMA DISK SUMMARY FOR STREAM a
             DISK IS CURRENTLY b% FULL
             NUMBER OF PRIMARY AMA BLOCKS IN USE IS APPROXIMATELY:c
        REPT AMA DISK STORAGE IS CURRENTLY b% FULL FOR STREAM a

[3]   ____________________________________________________________________
      REPT AMA DISK SUMMARY FOR STREAM a
             DISK IS CURRENTLY b% FULL
             NUMBER OF PRIMARY AMA BLOCKS IN USE IS APPROXIMATELY:c
        REPT AMA CRIT ALARM DOWNGRADED TO A MAJOR ALARM FOR STREAM a
             DISK IS b% FULL

[4]   ____________________________________________________________________
      REPT AMA DISK SUMMARY FOR STREAM a
             DISK IS CURRENTLY b% FULL
             NUMBER OF PRIMARY AMA BLOCKS IN USE IS APPROXIMATELY:c
        REPT AMA CRITICAL ALARM DOWNGRADED TO A MINOR ALARM FOR STREAM s
             DISK IS b% FULL

[5]   ____________________________________________________________________
      REPT AMA DISK SUMMARY FOR STREAM a
             DISK IS CURRENTLY b% FULL
             NUMBER OF PRIMARY AMA BLOCKS IN USE IS APPROXIMATELY:c
        REPT AMA MAJOR ALARM DOWNGRADED TO A MINOR ALARM FOR STREAM a
             DISK IS b% FULL

[6]   ____________________________________________________________________
      REPT AMA DISK SUMMARY FOR STREAM a
             DISK IS CURRENTLY b% FULL
             NUMBER OF PRIMARY AMA BLOCKS IN USE IS APPROXIMATELY:c
        REPT AMA MINOR ALARM HAS BEEN RETIRED FOR STREAM a
             DISK IS b% FULL

[7]   ____________________________________________________________________
      REPT AMA DISK SUMMARY FOR STREAM a
             DISK IS CURRENTLY b% FULL
             NUMBER OF PRIMARY AMA BLOCKS IN USE IS APPROXIMATELY:c
        REPT AMA DISK ALARM CONDITION HAS BEEN CLEARED FROM STREAM a
             DISK IS b% FULL

[8]   ____________________________________________________________________
```

```
      REPT AMA DISK SUMMARY FOR STREAM a
        NO RESPONSE FROM MONITOR - RETRY LATER

[9]   ____________________________________________________________________
      REPT AMA DISK SUMMARY FOR STREAM a
        GLOBAL MAP FILE COULD NOT BE OPENED

[10]  ____________________________________________________________________
      REPT AMA DISK SUMMARY FOR STREAM a
        GLOBAL MAP FILE COULD NOT BE READ

[11]  ____________________________________________________________________
      REPT AMA DISK SUMMARY FOR STREAM a
        CONFIG FILE COULD NOT BE OPENED

[12]  ____________________________________________________________________
      REPT AMA DISK SUMMARY FOR STREAM a
        CONFIG FILE COULD NOT BE READ

[13]  ____________________________________________________________________
      REPT AMA DISK SUMMARY FOR STREAM a
        PERCENT ON DISK NOT KNOWN
        THERE COULD BE PRIMARY DATA ON DISK

[14]  ____________________________________________________________________
      REPT AMA DISK SUMMARY FOR STREAM a
        DISK IS CURRENTLY b% FULL
        NUMBER OF PRIMARY AMA BLOCKS IN USE IS APPROXIMATELY:c
        ALL THE DATA ON THE OFFLINE SIDE HAS BEEN READ
        THE AMA PROCESS HAS BEEN TRANSITIONED TO THE ACTIVE SIDE

[15]  ____________________________________________________________________
      REPT AMA DISK SUMMARY  FOR STREAM a
        TEMPORARY FILE COULD NOT BE CREATED
```

2. REASON FOR OUTPUT

To report the amount of automatic message accounting (AMA) disk space currently occupied by the primary AMA records. In addition, the message also reports the number of primary AMA blocks in use on the disk. This message prints in response to the OP:AMA-DISK input message. An additional message possibly accompanied by an alarm will be printed in the event a change to the alarm levels in recent change (RC) caused a change in alarm status.

If Format 1 is printed, then only the amount of AMA disk space currently occupied by the primary AMA records is printed. No change in alarm status occurred.

If Format 2 is printed, then the amount of AMA space currently occupied by the primary AMA records is printed. A similar message is printed again to report the percentage occupancy of billing data on disk, if alarm status has changed. A major, minor, or critical alarm will accompany this message. This message is printed because a change to the alarm levels caused a change in alarm status.

If Format 3 is printed, then the amount of AMA disk space currently occupied by the primary AMA records is printed. The second message reports that the AMA disk space occupancy has dropped to between the percentages indicated by the MAJ AMA ALRM minus 1 inclusive and CRIT AMA ALRM value minus 1 on RC view 8.1. A major alarm is sounded. This message is printed because a change to the alarm levels in RC caused a change in alarm status.

If Format 4 is printed, then the amount of AMA disk space currently occupied by the primary AMA records is printed. The second message reports that the AMA disk space occupancy has dropped to between the percentages indicated by the MIN AMA ALRM value minus 1 inclusive and MAJ AMA ALRM value minus 1 on RC view 8.1. A minor alarm is sounded. This message is printed because a change to the alarm levels in RC caused a change in alarm status. In this case, the previous alarm status was critical.

If Format 5 is printed, then the amount of AMA disk space currently occupied by the primary AMA records is printed. The second message reports that the AMA disk space occupancy has dropped below the percentage indicated by the MAJ AMA ALRM value minus 1 and is greater than or equal to the MIN AMA ALRM value minus 1 on RC view 8.1. A minor alarm is sounded. This message is printed because a change to the alarm levels in RC caused a change in alarm status. In this case, the previous alarm status was major.

If Format 6 is printed, then the amount of AMA disk space currently occupied by the primary AMA records is printed. The second message reports that the AMA disk space occupancy has dropped below the percentage indicated by the MIN AMA ALRM value minus 1 on RC view 8.1. This message is printed because a change to the alarm levels in RC caused a change in alarm status. The previous alarm status was minor.

If Format 7 is printed, then the amount of AMA disk space currently occupied by the primary AMA records is printed. The second message reports that the AMA disk space occupancy has dropped to below the MIN AMA ALRM value minus 1, when the previous alarm level is either major or critical. The major and critical AMA alarm values are given on RC view 8.1 (MAJ AMA ALRM and CRIT AMA ALRM). This message is printed because a change to the alarm levels in RC caused a change in alarm status.

If Format 8 is printed, then contact with the AMonitor process failed and primary disk storage capacity was not determined. The user should retry the command later to obtain this information.

If Format 9 is printed, then during transitions when the offline disks are being accessed, the global map file for the old software release could not be opened.

If Format 10 is printed, then during transitions when the offline disks are being accessed, the global map file for the old software release could not be read.

If Format 11 is printed, then during transitions when the offline disks are being accessed, the configuration file for the old software release could not be opened.

If Format 12 is printed, then during transitions when the offline disks are being accessed, the configuration file for the old software release could not be read.

If Format 13 is printed, then during software transitions on the new software release prior to the point where the disks are being accessed in an offline AMA session, the percent and number of blocks on disk could not be determined.

If Format 14 is printed, then after software transitions on the new software release there is no more AMA data on the offline side and the AMA process has been transitioned to the active online side. In this case, both the '`b`' and '`c`' values should be zero.

If Format 15 is printed, then the system could not allocate a temporary file to print the disk summary information.

3. VARIABLE FIELD DEFINITIONS

`a` = Data stream. Valid value(s):

- `ST1` = Indicates that the information is for the ST1 data stream.
- `ST2` = Indicates that the information is for the ST2 data stream.

`b` = Percentage of disk space occupied by primary AMA records. The true occupancy of the disk is

between 'b' and ('b'+1)%. Therefore, if 0% is displayed, there may be primary data on the disk. To permit the positioning of pointer values, the last block of primary data cannot be read at this time.

c = Number of primary AMA blocks in use for the stream. Since data is being written continuously to the disk, and since the AMA pointer values change frequently, this number may overstate the actual number of primary AMA blocks in use on the disk at the time this message is printed.

4. ACTIONS TO BE TAKEN

If Format 9 or 10 is generated, then the backup copy of the global maps in /database/amabfiles needs to be copied into the primary global map location in /database/amafiles. The global map files are ogmfile for stream ST1 and igmfile for stream ST2. If Format 11 or 12 is generated, then the backup copy of the old generic config files in /database/amabfiles needs to be copied into the primary old generic config file locations in /database/amafiles. The old generic config files are config1.oc for stream ST1 and config1.ic for stream ST2. If the configuration file cannot be opened or read, or the global map cannot be open or read, then backout in software transitions will be necessary if both the primary and backup copies of these files are corrupted. This should be a very rare occurrence and if it did happen, there is a problem with the overall process for software transitions that copies files with information about the old release over to the new release. If Format 8 or 13 is generated several times in succession, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:AMA-DISK
OP:AMA-MAPS
```

Output Message(s):

```
REPT:AMA-CRIT
REPT:AMA-MAJOR
REPT:AMA-MINOR
```

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-105-24x *Generic Retrofit Procedures*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]

REPT:AMA-DISK-WRI

Software Release: 5E10 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT AMA DISK WRITER FOR STREAM a INITIALIZATION COMPLETE

[2]   ____________________________________________________________
      REPT AMA DISK WRITER FOR STREAM a ERROR CODE b [c|d]

[3]   ____________________________________________________________
      REPT AMA DISK WRITER FOR STREAM a TERMINATION CODE e
        DISK WRITER IS WAITING f {MINUTES|SECONDS} TO TERMINATE THEN RETRY

[4]   ____________________________________________________________
      REPT AMA DISK WRITER FOR STREAM a FAULT CODE g [VIRT ADDR h]

[5]   ____________________________________________________________
      REPT AMA DISK WRITER FOR STREAM a
        RECORDING TO DISK {SUSPENDED|RESUMED}
```

2. REASON FOR OUTPUT

To report an automatic message accounting (AMA) disk writer related software error or status condition.

Format 1 indicates that the disk writer has completed its initialization sequence and is resuming normal operations.

Format 2 indicates that an error or status condition occurred while the disk writer was either initializing or executing.

Format 3 indicates the event that caused the disk writer to terminate itself.

Format 4 indicates that the disk writer has been notified that a fault has occurred in the system. This happens when either the disk writer or another *UNIX*® RTR kernel process performs an invalid operation, which results in a fault.

Format 5 indicates the disk writer's progress in writing AMA data to the disk. The 'SUSPENDED' message indicates that the disk writer is no longer writing AMA data to the disk. A Format 3 message is printed immediately following this message identifying the termination code. The 'RESUMED' message indicates that the disk writer has initialized and has resumed recording AMA data to disk.

3. VARIABLE FIELD DEFINITIONS

`a` = Data stream. Valid value(s):
- `ST1` = The information printed is for the ST1 data stream.
- `ST2` = The information printed is for the ST2 data stream.

`b` = Disk writer error code. Valid value(s):
- `1` = Unexpected event.
- `2` = Unexpected message.
- `3` = Unused.
- `4` = Primary copy of disk map corrupted.

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5 = Unused.
6 = Both copies of disk map corrupted - map initialized.
7 = Message buffer allocation failure.
8 = ioqueuem failure.
9 = Failed to attach the equipment configuration database (ECD).
10 = Failed to release the ECD.
11 = Failed to read a ucb form from the ECD.
12 = Failed to read eaiopt form from the ECD.
13 = Failed to read an mdct form from the ECD.
14 = FM_STAT message failed for a partition.
15 = Couldn't read disk map for a partition, or a read failed during the binary search.
16 = Couldn't write disk map for a partition.
17 = Couldn't write data from shared data segment buffer.
18 = Couldn't open configuration file.
19 = Couldn't read configuration file.
20 = Configuration file audit failed.
25 = Global map audit failed.
27 = No partitions equipped in configuration file.
28 = Configuration file has been changed - make a backup.
29 = Size of partition was changed.
30 = No partitions are available due to out of service disks.
31 = Partition is unavailable - cannot change size.
33 = Couldn't create configuration file.
34 = Couldn't write configuration file.
35 = Couldn't close configuration file.
36 = Couldn't read volume table of contents (VTOC) file.
37 = Couldn't close VTOC file.

c = Partition number in which the error occurred.

d = Type of map or file. Valid value(s):
BKUP = An error occurred during processing of the backup copy of the map or file.
PRIM = An error occurred during processing of the primary copy of the map or file.

e = Disk writer termination code. Valid value(s):
1 = Port connection failure.
2 = Termination request from other process.
3 = Disk writer was faulted when it was initializing.
4 = Disk writer was faulted during its internal audit.
5 = Disk writer was faulted when it was running.
6 = Disk writer memory corruption.
8 = Too many unexpected faults.
9 = IOBADMSG returned from the disk drive.
10 = FLT_BADOST returned from the disk drive.
11 = BADPORT returned from a kportid() function call.
21 = Sanity check failure.
22 = No usable configuration file.
23 = Audit of the global AMA option (GLAMAOPT) indicates that the disk writer should not be running.
101 = Too many type 1 errors, refer to variable 'b'.

102 = Too many type 2 errors, refer to variable 'b'.
103 = Too many type 3 errors, refer to variable 'b'.
104 = Too many type 4 errors, refer to variable 'b'.
105 = Too many type 5 errors, refer to variable 'b'.
106 = Too many type 6 errors, refer to variable 'b'.
107 = Too many type 7 errors, refer to variable 'b'.
108 = Too many type 8 errors, refer to variable 'b'.

f = Amount of time the disk writer is disabled before termination after which the application integrity monitor (AIM) will recreate the process immediately.

g = Hexadecimal number representing the fault code of the disk writer. Refer to the APP:DFC-I appendix in the Appendixes section of the Output Messages manual.

h = Hexadecimal number representing the virtual address of the instruction the disk writer was executing at the time the fault occurred.

4. ACTION TO BE TAKEN

If 'b' =	Action
1,2,4,7, or 8-14	If problem occurs more than once, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
6	If the system is not restarted from backup disk, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
15, 16, or 17	VTOC or moving head disk (MHD) duplex failure has occurred in the system. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
18, 19, or 20	The configuration file was corrupted or destroyed. It should be repaired using the SET:AMA-CONFIG input message.
25	No action is necessary. The disk writer initializes itself.
27	The disk writer is inoperative for this stream until the SET:AMA-CONFIG message is used to equip a partition for this stream.
28 or 29	Backup tapes should be made.
30	Repair the MHDs indicated to be out of service.
31	Determine whether the indicated partition is valid, and unequip it if it is unusable.
33, 34, 35, 36, or 37	This indicates an internal error, which should be reported to your support organization.

If a Format 5 message is printed which indicates that the disk writer has suspended writing to disk, wait for the Format 3 message and take appropriate action for that termination code. If the 'SUSPENDED' message is not followed by the 'RESUMED' message within five minutes, re-initialize the disk writer, using the INIT:AM-FPI input message.

5. ALARMS

Error code 6 causes a minor alarm.

Termination codes as well as the Format 5 message, which indicates that the disk writer has suspended writing to disk, will cause critical alarms.

6. REFERENCES

Input Message(s):

```
INIT:AM-FPI
OP:AMA-CONFIG
OP:AMA-DISK
OP:AMA-MAPS
SET:AMA-CONFIG
```

Output Message(s):

```
INIT:AM-LVL
```

Output Appendix(es):

```
APP:DFC-I
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-600-31x *ECD/SG Data Base*

REPT:AMA-DISKSDS

Software Release: 5E10 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
REPT AMA DISKSDS FOR STREAM a
       ALL THREE SDS SUBSEGMENTS ARE FULL
  F5     UNABLE TO WRITE TO DISK
```

2. REASON FOR OUTPUT

To report that automatic message accounting (AMA) data cannot be written to disk. A critical alarm will first sound when all three shared data segment (SDS) subsegments become full, provided the AMA disk writer and monitor process are operational. When the AMA disk writer is non-operational, the alarm will sound within 10 minutes of when the SDS subsegments first become full. In both cases (disk writer and monitor process operational or disk writer process non-operational) the alarm will sound at or within every 10 minutes thereafter, while the condition is in effect. When the monitor process is down, it will only print out (and the alarm sound) when the /database partitions are mounted read-only. In this last case, the alarm will sound within 30 seconds of when the SDS subsegments first become full, and every 10 minutes thereafter. The above message will not print out, nor the alarm sound during disk independent operation (DIOP).

3. VARIABLE FIELD DEFINITIONS

`a`	= Data stream. Valid value(s):	
	`ST1`	= ST1 data stream.
	`ST2`	= ST2 data stream.

4. ACTION TO BE TAKEN

If the disk writer is non-operational, try initializing the disk writer using the INIT:AM-FPI input message. If the AMA partitions are full, set up a teleprocessing/tape session to read the data off the disk, and/or equip more AMA partitions. The OP:AMA-DISK command can be used to determine if the disks are full or not. If the /database partitions are mounted read only, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

In all cases, preventive action is necessary, because the risk of losing AMA data is highly likely in this situation. The SM buffers will store some of the data while the SDS subsegments are full, but eventually, they themselves become full. The status of the SDS subsegments is output by the OP:AMA-STATUS input message.

This condition may occur when the disk writer becomes non-operational, when the AMA partitions become full, or when the /database partitions are mounted in the read only state. There are also other situations where the SDS subsegments can become full.

If none of these cases apply, then refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

Critical.

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6. REFERENCES

Input Message(s):

```
INIT:AM-FPI
OP:AMA-DISK
OP:AMA-MAPS
OP:AMA-STATUS
```

Output Message(s):

```
INIT:AM-LVL
REPT:AMA-DISK-STO
REPT:AMA-DISK-MAP
REPT:AMA-STATUS
```

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REPT:AMA-FILES

Software Release: 5E10 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
REPT AMA FILES FOR STREAM a
  CONFIGURATION FILE IS MISSING
```

2. REASON FOR OUTPUT

To report missing automatic message accounting (AMA) configuration files.

3. VARIABLE FIELD DEFINITIONS

a	= Data stream. Valid value(s):
	ST1 = ST1 data stream.
	ST2 = ST2 data stream.

4. ACTION TO BE TAKEN

For help in rebuilding the configuration file for the indicated stream, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

Major.

6. REFERENCES

Input Message(s):

OP:AMA-CONFIG

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REPT:AMA-FORMATTR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT AMA FORMATTER a
```

2. REASON FOR OUTPUT

To report that an automatic message accounting (AMA) formatting process has detected an abnormal condition.

3. VARIABLE FIELD DEFINITIONS

a = Condition. Valid value(s):

```
COULD NOT CONNECT PROTECTED AREA SEGMENT b
COULD NOT CONNECT TO MESSAGE PORT
COULD NOT ENABLE MESSAGES
JUST KILLED THE AMA DISK WRITER
LOST AN AMA RECORD DUE TO INVALID CALL TYPE
LOST AN AMA RECORD-CALL TYPE c LENGTH d
PROCESS CREATED
PROCESS TERMINATED
TERMINATING DUE TO DISK WRITER INTERFACE ERRORS
```

b = Valid value(s):

```
1
2
```

c = Call type.

d = Length of the lost record.

4. ACTION TO BE TAKEN

If message is an isolated occurrence, take no action. If errors persist, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:AMA-MAINT-A

Software Release: 5E10 - 5E11
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT AMA MAINTFILE FOR STREAM a
        b

[2]   ____________________________________________________________________
      REPT AMA MAINTFILE REPORT FOR STREAM a
        c
        ********************************************************************
           OFFICE NAME - d   SENSOR ID - e
                                DATA LINK CONTROL DATA
                                ----------------------
        RECORD CRC  ADAPT LVL2 LVL3 T1  FRAME  FRAME  PAC    PAC     PAC
        DATE  ERRS  ERRS  ERRS ERRS EXP SENT   REC    SENT   REC    TM/OUT FG
        --------------------------------------------------------------------
        ff-ff g     h     i    j    k   l      m      n      o       p     q
        .     .     .     .    .    .   .      .      .      .       .     .
        .     .     .     .    .    .   .      .      .      .       .     .
        .     .     .     .    .    .   .      .      .      .       .     .

                                CALL ASSEMBLY AND TELEPROCESSING

                                -------------------------------

        RECORD         NOT      TO       TO      LONG

        DATE  COMPT   COMPT    DISK     LINK     DUR   LOST  ORIGIN  RUINED

        ------------------------------------------------------------------

        ff-ff r       s        t        u        v     w     x       y

              MINUTES -   CRITICAL - z      MAJOR - a1       MINOR - b1>

        .     .       .        .        .        .     .     .       .

              .           .          .      .       .        .       .

        .     .       .        .        .        .     .     .       .

              .           .          .      .       .        .       .

        .     .       .        .        .        .     .     .       .

              .           .          .      .       .        .       .
```

2. REASON FOR OUTPUT

To print the last 7 days of automatic message accounting (AMA) maintenance data in response to the OP:AMA-MAINT input message, and to report problems, if any, with the AMA maintenance file.

If Format 1 is printed, the error message indicated by 'b' occurred while the input message was being executed. If Format 2 is printed, the AMA maintenance data has been successfully printed.

Note: For Format 2, the counts in the Data Link Control section (variables 'g' through 'q') will always be zero. The OP:LOG,IODRVLOG command can be used to diagnose problems that have occurred with the AMA data link over the past 24 hours.

3. VARIABLE FIELD DEFINITIONS

a = Data stream ID.

b = Text phrase indicating why the AMA maintenance data failed to be printed.

c = Text phrase indicating that less than 7 days of AMA maintenance data will be printed.

d = Office name.

e = Office ID.

f = Date.

g = Number of CRC errors that occurred.

h = Number of data link adapter errors that occurred.

i = Number of level 2 errors that occurred.

j = Number of level 3 errors that occurred.

k = Number of times the T1 timer expired.

l = Number of frames that were transmitted.

m = Number of frames that were received.

n = Number of packets that were transmitted.

o = Number of packets that were received.

p = Number of packet time outs that occurred.

q = Audit flag.

r = Number of answered calls.

s = Number of calls where dialing was complete but no answer was received.

t = Number of records written to disk.

u = Number of records sent to the data link.

v = Number of long duration calls in progress.

w = Number of records lost.

x = Number of calls where dialing was complete and AMA treatment was required.

y = Number of records containing mutilated data.

z = Number of minutes that the percentage of primary data on disk equals or exceeds the critical AMA alarm value.

a[1] = Number of minutes that the percentage of primary data on disk equals or exceeds the major AMA alarm value.

b[1] = Number of minutes that the percentage of primary data on disk equals or exceeds the minor AMA alarm value.

4. ACTIONS TO BE TAKEN

For Format 1:

If 'b' =	Action:
CANNOT OPEN AMA MAINTENANCE FILE FOR READING	If an office has been on the tape option since cutover, then the AMA maintenance file will not exist. Also, while the site file exists during software transitions, the maintenance file cannot be created. Thus, the maintenance file may not exist for up to 24 hours after the site file is removed. Thus, it cannot be opened for reading. Otherwise, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
AMA MAINTENANCE FILE CONTAINS NO RECORDS	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
TEMPORARY FILE COULD NOT BE CREATED	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 2, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:AMA-MAINT
OP:AMA-SESSION
OP:AMA-SUMMARY
OP:LOG
```

Output Message(s):

```
REPT:AMA-TAPE-SES
REPT:AMA-TELE-SE
```

REPT:AMA-MAINT-B

Software Release: 5E12 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT AMA MAINTFILE FOR STREAM a

        b

[2]   ____________________________________________________________________
      REPT AMA MAINTFILE REPORT FOR STREAM a

        c

        ********************************************************************

           OFFICE NAME - d   SENSOR ID - e

                                 DATA LINK CONTROL DATA

                                 ----------------------

        RECORD CRC  ADAPT LVL2 LVL3 T1  FRAME  FRAME  PAC    PAC     PAC

        DATE  ERRS  ERRS  ERRS ERRS EXP SENT   REC    SENT   REC    TM/OUT FG

        --------------------------------------------------------------------

        ff-ff g     h     i    j    k   l      m      n      o       p     q

        .     .     .     .    .    .   .      .      .      .       .     .

        .     .     .     .    .    .   .      .      .      .       .     .

        .     .     .     .    .    .   .      .      .      .       .     .

                                 CALL ASSEMBLY AND TELEPROCESSING

                                 --------------------------------

        RECORD         NOT      TO       TO      LONG

        DATE  COMPT   COMPT    DISK     LINK     DUR   LOST  ORIGIN  RUINED

        -------------------------------------------------------------------

        ff-ff r       s        t        u        v     w     x       y

              MINUTES -   CRITICAL - z      MAJOR - a1       MINOR - b1
```

```
        .     .       .        .        .        .     .     .       .

              .           .          .      .       .        .       .

        .     .       .        .        .        .     .     .       .

              .           .          .      .       .        .       .

        .     .       .        .        .        .     .     .       .

              .           .          .      .       .        .       .

[3]     ____________________________________________________________________
      REPT AMA MAINTFILE REPORT FOR STREAM a AMADNS ACTIVE

        c

        ***********************************************************************

           OFFICE NAME - d   SENSOR ID - e

                                CALL ASSEMBLY AND TELEPROCESSING

                                --------------------------------

        RECORD         NOT      TO       TO      LONG

        DATE  COMPT   COMPT    DISK     LINK     DUR   LOST  ORIGIN  RUINED

        ---------------------------------------------------------------------

        ff-ff r       s        t        u        v     w     x       y

              MINUTES -   CRITICAL - z      MAJOR - a1       MINOR - b1

        .     .       .        .        .        .     .     .       .

              .           .          .      .       .        .       .

        .     .       .        .        .        .     .     .       .

              .           .          .      .       .        .       .

        .     .       .        .        .        .     .     .       .

              .           .          .      .       .        .       .
```

2. REASON FOR OUTPUT

To print the last 7 days of automatic message accounting (AMA) maintenance data in response to the OP:AMA-MAINT input message, and to report problems, if any, with the AMA maintenance file.

If Format 1 is printed, the error message indicated by 'b' occurred while the input message was being executed.

If Formats 2 or 3 are printed, the AMA maintenance data has been successfully printed. Format 3 will only be printed if AMA data networking services processing is active.

Note: For Format 2, the counts in the Data Link Control section (variables 'g' through 'q') will always be zero. The OP:LOG,IODRVLOG command can be used to diagnose problems that have occurred with the AMA data link over the past 24 hours.

3. VARIABLE FIELD DEFINITIONS

a = Data stream ID.

b = Text phrase indicating why the AMA maintenance data failed to be printed.

c = Text phrase indicating that less than 7 days of AMA maintenance data will be printed.

d = Office name.

e = Office ID.

f = Date.

g = Number of CRC errors that occurred.

h = Number of data link adapter errors that occurred.

i = Number of level 2 errors that occurred.

j = Number of level 3 errors that occurred.

k = Number of times the T1 timer expired.

l = Number of frames that were transmitted.

m = Number of frames that were received.

n = Number of packets that were transmitted.

o = Number of packets that were received.

p = Number of packet time outs that occurred.

q = Audit flag.

r = Number of answered calls.

s = Number of calls where dialing was complete but no answer was received.

t = Number of records written to disk.

u = Number of records sent to the data link.

v = Number of long duration calls in progress.

w = Number of records lost.

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x = Number of calls where dialing was complete and AMA treatment was required.

y = Number of records containing mutilated data.

z = Number of minutes that the percentage of primary data on disk equals or exceeds the critical AMA alarm value.

a[1] = Number of minutes that the percentage of primary data on disk equals or exceeds the major AMA alarm value.

b[1] = Number of minutes that the percentage of primary data on disk equals or exceeds the minor AMA alarm value.

4. ACTIONS TO BE TAKEN

For Format 1:

If 'b' =	Action:
CANNOT OPEN AMA MAINTENANCE FILE FOR READING	If an office has been on the tape option since cutover, then the AMA maintenance file will not exist. Also, while the site file exists during software transitions, the maintenance file cannot be created. Thus, the maintenance file may not exist for up to 24 hours after the site file is removed. Thus, it cannot be opened for reading. Otherwise, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
AMA MAINTENANCE FILE CONTAINS NO RECORDS	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
TEMPORARY FILE COULD NOT BE CREATED	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Formats 2 and 3, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:AMA-MAINT
OP:AMA-SESSION
OP:AMA-SUMMARY
OP:LOG
```

Output Message(s):

```
REPT:AMA-TAPE-SES
REPT:AMA-TELE-SE
```

REPT:AMA-MAJOR

Software Release: 5E10 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
REPT AMA MAJOR ALARM DOWNGRADED TO A MINOR ALARM FOR a STREAM
  DISK IS b% FULL
```

2. REASON FOR OUTPUT

To report that the automatic message accounting (AMA) disk space occupancy has dropped to below the percentage indicated by the MAJ AMA ALRM value minus 1 and above the percentage indicated by the MIN AMA ALRM value minus 1 inclusive on RC/V View 8.1. A minor alarm is sounded.

3. VARIABLE FIELD DEFINITIONS

`a` = Data stream. Valid value(s):
- `ST1` = Indicates that the information is for the ST1 data stream.
- `ST2` = Indicates that the information is for the ST2 data stream.

`b` = Percent of current AMA disk space occupancy.

4. ACTION TO BE TAKEN

None.

5. ALARMS

Minor.

6. REFERENCES

Input Message(s):

```
OP:AMA-DISK
```

Output Message(s):

```
REPT:AMA-CRIT
REPT:AMA-DISK-STO
REPT:AMA-DISK-SUM
REPT:AMA-MINOR
```

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]

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REPT:AMA-MINOR

Software Release: 5E10 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
REPT AMA MINOR ALARM HAS BEEN RETIRED FOR STREAM a
  DISK IS b% FULL
```

2. REASON FOR OUTPUT

To report that the automatic message accounting (AMA) disk space occupancy has dropped below the percentage indicated by the MIN AMA ALRM value minus 1 on RC/V View 8.1.

3. VARIABLE FIELD DEFINITIONS

`a` = Data stream. Valid value(s):
- `ST1` = Indicates that the information is for the ST1 data stream.
- `ST2` = Indicates that the information is for the ST2 data stream.

`b` = Percent of current AMA disk space occupancy.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:AMA-DISK
```

Output Message(s):

```
REPT:AMA-CRIT
REPT:AMA-DISK-STO
REPT:AMA-DISK-SUM
REPT:AMA-MAJOR
```

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]

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REPT:AMA-MONITOR-A

Software Release: 5E10 only
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
REPT AMA MONITOR FOR STREAM a b
 [c]
 [d]
```

2. REASON FOR OUTPUT

To report an automatic message accounting (AMA) input message or an event detected by the AMA monitor process.

3. VARIABLE FIELD DEFINITIONS

`a` = Data stream. Valid value(s):
- `ST1` = The information is for the ST1 data stream.
- `ST2` = The information is for the ST2 data stream.

`b` = Error message. Valid value(s):
- `AMA AUTO TAPE SESSION ABORTED` = The automatic tape session was not successfully started or was terminated abnormally.
- `AMA MAINTENANCE FILE INITIALIZED` = The AMA maintenance file could not be opened. A new maintenance file was created and initialized.
- `AMA SESSION ABORTED` = A tape or teleprocessing session was not successfully started or was terminated abnormally.
- `CANNOT CREATE AMA MAINTENANCE FILE` = The AMA maintenance file could not be opened and a new file could not be created.
- `CONTROL FILE BACKUP FAILED` = The memory copy of the AMA control file could not be backed up to disk; if this prints in response to an input message, the most recent change to the control file will probably not be permanent.
- `CONTROL FILE CHANGE ABORTED` = The control file was not updated because an AMA session was in progress or because the control file was audited.
- `CONTROL FILE INITIALIZED` = During initialization, the disk copy of the control file did not exist or was unreadable; a new control file was created and initialized with default values.
- `INIT COMPLETE` = The AMA monitor process was successfully started or restarted.
- `INIT FAILED` = The AMA monitor process was not successfully started or restarted.
- `INVALID MESSAGE RECEIVED FROM DISK WRITER` = A disk occupancy message from the AMA disk writer process contained garbled information. The disk occupancy information reported by the REPT AMA DISK SUMMARY output message may no longer be accurate.
- `SANITY CHECK FAILURE` = An internal sanity check failed.
- `SOME AMA MTC RECORDS UNREADABLE` = Some or all of the AMA maintenance file could not be read. Attempt to read maintenance file returned less than 7 full maintenance records. using the SET:AMA:STREAM input message.
- `CONTROL FILE COULD NOT BE COPIED INTO PAS` = During transitions, the disk copy of the control file could not be copied into PAS memory. The control file in PAS is therefore created and initialized with default values.

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c = Reason for abort or failure. Valid value(s):

```
AMA SESSION ALREADY IN PROGRESS
AMA SESSION IN PROGRESS
AMA SESSIONS ARE INHIBITED
BAD PROCESS-TYPE PARAMETER IN AMSTART_PROC
BAD TIME PARAMETER IN AMTIME_UNTIL
BAD TIMER DURATION PARAMETER IN AMSET_TIMER
BAD TIMER INDEX PARAMETER IN AMSET_TIMER
CONTROL FILE WAS AUDITED
COULD NOT ATTACH TO PROTECTED APPLICATION SEGMENT
COULD NOT ATTACH TO THE ODD
COULD NOT CONNECT TO MESSAGE PORT
COULD NOT CREATE PROCESS
COULD NOT ENABLE MESSAGE RECEPTION
COULD NOT INITIALIZE CONTROL FILE
COULD NOT INITIALIZE STREAM FILE
COULD NOT START WITHIN AUTOSTART WINDOW
INTERNAL INCONSISTENCY FOLLOWING
CONTROL FILE AUDIT
OFFICE OPTION IS NOT TAPE
OFFICE-DEPENDENT VALUES MUST BE RESET
RECVW CALL FAILED
SANITY TIMER RUNOUT
STREAM VALUE MUST BE RESET
```

d = Message. Valid value(s):

```
MONITOR PROCESS TERMINATING AND RESTARTING
MONITOR PROCESS TERMINATING AND RESTARTING AFTER 60 SECONDS
```

4. ACTION TO BE TAKEN

If 'b' =	If 'c' =	Action:
INIT FAILED, AMA MAINTENANCE FILE INITIALIZED, CANNOT CREATE AMA MAINTENANCE FILE, SOME AMA MTC RECORDS UNREADABLE, or INVALID MESSAGE RECEIVED FROM DISK WRITER		Take no action for isolated instances. If the problem persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
AMA SESSION ABORTED	AMA SESSION ALREADY IN PROGRESS	Take no action.
AMA SESSION ABORTED	OFFICE OPTION IS NOT TAPE or AMA SESSIONS ARE INHIBITED	Change the appropriate item in the control file and retry the operation.
AMA SESSION ABORTED	COULD NOT CREATE PROCESS	Retry the operation and, if the error persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
AMA SESSION ABORTED	SANITY TIMER RUNOUT	For tape, restart the tape session. For teleprocessing, the

		session is automatically restarted.
AMA AUTO TAPE SESSION ABORTED	COULD NOT START WITHIN AUTOSTART WINDOW	Manually establish a tape session if one is desired before the next scheduled auto tape session.
AMA AUTO TAPE SESSION ABORTED	AMA SESSIONS ARE INHIBITED	AMA sessions must first be allowed, and then a session must be manually established if one is desired before the next scheduled auto tape session. If automatic tape sessions are not desired at all, then the autostart feature should be inhibited to suppress this message in the future.
AMA AUTO TAPE SESSION ABORTED	CONTROL FILE WAS AUDITED	Verify that the control file is correct following the audit, by the OP:AMA:CONTROLFILE input message. Then manually establish a tape session if one is desired before the next scheduled auto tape session.
CONTROL FILE CHANGE ABORTED	AMA SESSION IN PROGRESS	Retry the operation after the AMA session is complete.
CONTROL FILE CHANGE ABORTED	CONTROL FILE WAS AUDITED	Verify that the control file is correct following the audit, by the OP:AMA:CONTROLFILE input message. Then retry the operation.
CONTROL FILE BACKUP FAILED		The most recent changes to the control file may not be permanent and may have to be redone if the AMA monitor process restarts for any reason. If the problem persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
CONTROL FILE INITIALIZED		Set office-dependent data before any AMA sessions are established. The control file will contain default values. If the office option is tape, notify the Regional Accounting Office that the tape sequence number has been reset to 1.
SANITY CHECK FAILURE		Refer to sanity timer recovery procedure for resolution.
STREAM FILE INITIALIZED		Set the AMA stream value using the SET:AMA:STREAM input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:AMA-AUTOST
ALW:AMA-SESSION
INH:AMA-AUTOST
INH:AMA-SESSION
OP:AMA-CONTROLF
OP:AMA-DISK
SET:AMA-CONTROL
```

Output Message(s):

```
REPT:AMA-CONT
REPT:AMA-DISK-SUM
REPT:AMATAPE-ERR
REPT:AMATAPE-VER
```

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-105-210	*Routine Operations and Maintenance*
235-105-220	*Corrective Maintenance*
235-105-24x	*Generic Retrofit Procedures*

REPT:AMA-MONITOR-B

Software Release: 5E11 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
REPT AMA MONITOR FOR STREAM a b
 [c]
 [d]
```

2. REASON FOR OUTPUT

To report an automatic message accounting (AMA) input message or an event detected by the AMA monitor process.

3. VARIABLE FIELD DEFINITIONS

`a` = Data stream. Valid value(s):
- `ST1` = The information is for the ST1 data stream.
- `ST2` = The information is for the ST2 data stream.

`b` = Error message. Valid value(s):
- `AMA AUTO TAPE SESSION ABORTED` = The automatic tape session was not successfully started or was terminated abnormally.
- `AMA MAINTENANCE FILE INITIALIZED` = The AMA maintenance file could not be opened. A new maintenance file was created and initialized.
- `AMA SESSION ABORTED` = A tape or teleprocessing session was not successfully started or was terminated abnormally.
- `CANNOT CREATE AMA MAINTENANCE FILE` = The AMA maintenance file could not be opened and a new file could not be created.
- `CONTROL FILE BACKUP FAILED` = The memory copy of the AMA control file could not be backed up to disk; if this prints in response to an input message, the most recent change to the control file will probably not be permanent.
- `CONTROL FILE CHANGE ABORTED` = The control file was not updated because an AMA session was in progress or because the control file was audited.
- `CONTROL FILE COULD NOT BE COPIED INTO PAS` = During transitions, the disk copy of the control file could not be copied into PAS memory. The control file in PAS is therefore created and initialized with default values.
- `CONTROL FILE INITIALIZED` = During initialization, the disk copy of the control file did not exist or was unreadable; a new control file was created and initialized with default values.
- `COULD NOT ATTACH TO THE ODD` = The AMA monitor process was unable to attach to the ODD [the AMA monitor process accesses global recent change (RC) variables and therefore needs to attach to the ODD].
- `INIT COMPLETE` = The AMA monitor process was successfully started or restarted.
- `INIT FAILED` = The AMA monitor process was not successfully started or restarted.
- `INVALID MESSAGE RECEIVED FROM DISK WRITER` = A disk occupancy message from the AMA disk writer process contained garbled information. The disk occupancy information reported by the REPT AMA DISK SUMMARY output message may no longer be accurate.
- `SANITY CHECK FAILURE` = An internal sanity check failed.

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SOME AMA MTC RECORDS UNREADABLE = Some or all of the AMA maintenance file could not be read. Attempt to read maintenance file returned less than 7 full maintenance records. using the SET:AMA:STREAM input message.

c = Reason for abort or failure. Valid value(s):

```
AMA SESSION ALREADY IN PROGRESS
AMA SESSION IN PROGRESS
AMA SESSIONS ARE INHIBITED
BAD PROCESS-TYPE PARAMETER IN AMSTART_PROC
BAD TIME PARAMETER IN AMTIME_UNTIL
BAD TIMER DURATION PARAMETER IN AMSET_TIMER
BAD TIMER INDEX PARAMETER IN AMSET_TIMER
CONTROL FILE AUDIT
CONTROL FILE WAS AUDITED
COULD NOT ATTACH TO PROTECTED APPLICATION SEGMENT
COULD NOT CONNECT TO MESSAGE PORT
COULD NOT CREATE PROCESS
COULD NOT ENABLE MESSAGE RECEPTION
COULD NOT INITIALIZE CONTROL FILE
COULD NOT INITIALIZE STREAM FILE
COULD NOT START WITHIN AUTOSTART WINDOW
INTERNAL INCONSISTENCY FOLLOWING
OFFICE OPTION IS NOT TAPE
OFFICE-DEPENDENT VALUES MUST BE RESET
RECVW CALL FAILED
SANITY TIMER RUNOUT
STREAM VALUE MUST BE RESET
```

d = Message. Valid value(s):

```
MONITOR PROCESS TERMINATING AND RESTARTING
MONITOR PROCESS TERMINATING AND RESTARTING AFTER 60 SECONDS
```

4. ACTION TO BE TAKEN

If 'b' =	If 'c' =	Action:
INIT FAILED, AMA MAINTENANCE FILE INITIALIZED, CANNOT CREATE AMA MAINTENANCE FILE, SOME AMA MTC RECORDS UNREADABLE, or INVALID MESSAGE RECEIVED FROM DISK WRITER		Take no action for isolated instances. If the problem persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
AMA SESSION ABORTED	AMA SESSION ALREADY IN PROGRESS	Take no action.
AMA SESSION ABORTED	OFFICE OPTION IS NOT TAPE or AMA SESSIONS ARE INHIBITED	Change the appropriate item in the control file and retry the operation.
AMA SESSION ABORTED	COULD NOT CREATE PROCESS	Retry the operation and, if the error persists, refer to the TECHNICAL ASSISTANCE portion of the

		INTRODUCTION section of the Output Messages manual.
AMA SESSION ABORTED	SANITY TIMER RUNOUT	For tape, restart the tape session. For teleprocessing, the session is automatically restarted.
AMA AUTO TAPE SESSION ABORTED	COULD NOT START WITHIN AUTOSTART WINDOW	Manually establish a tape session if one is desired before the next scheduled auto tape session.
AMA AUTO TAPE SESSION ABORTED	AMA SESSIONS ARE INHIBITED	AMA sessions must first be allowed, and then a session must be manually established if one is desired before the next scheduled auto tape session. If automatic tape sessions are not desired at all, then the autostart feature should be inhibited to suppress this message in the future.
AMA AUTO TAPE SESSION ABORTED	CONTROL FILE WAS AUDITED	Verify that the control file is correct following the audit, by the OP:AMA:CONTROLFILE input message. Then manually establish a tape session if one is desired before the next scheduled auto tape session.
CONTROL FILE CHANGE ABORTED	AMA SESSION IN PROGRESS	Retry the operation after the AMA session is complete.
CONTROL FILE CHANGE ABORTED	CONTROL FILE WAS AUDITED	Verify that the control file is correct following the audit, by the OP:AMA:CONTROLFILE input message. Then retry the operation.
CONTROL FILE BACKUP FAILED		The most recent changes to the control file may not be permanent and may have to be redone if the AMA monitor process restarts for any reason. If the problem persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
CONTROL FILE INITIALIZED		Set office-dependent data before any AMA sessions are established. The control file will contain default values. If the office option is tape, notify the Regional Accounting Office that the tape sequence number has been reset to 1.
INIT COMPLETE		Take no action.
SANITY CHECK FAILURE		Refer to sanity timer recovery procedure for resolution.
STREAM FILE INITIALIZED		Set the AMA stream value using the SET:AMA:STREAM input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:AMA-AUTOST
ALW:AMA-SESSION
INH:AMA-AUTOST
INH:AMA-SESSION
OP:AMA-CONTROLF
OP:AMA-DISK
SET:AMA-CONTROL
```

Output Message(s):

```
REPT:AMA-CONT
REPT:AMA-DISK-SUM
```

```
REPT:AMATAPE-ERR
REPT:AMATAPE-VER
```

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-105-210	*Routine Operations and Maintenance*
235-105-220	*Corrective Maintenance*
235-105-24x	*Generic Retrofit Procedures*

REPT:AMA-SEQ

Software Release: 5E10 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT AMA SEQ FOR STREAM a
  THE AMA PARTITION IS b
  THE BLOCK SEQUENCE NUMBER IS c
  THE CORRESPONDING DISK BLOCKS ARE d e f
  DATA FOR DISK BLOCK d
            g
  DATA FOR DISK BLOCK e
            h
  DATA FOR DISK BLOCK f
            i
```

[2]
```
REPT AMA SEQ FOR STREAM a
  j
```

[3]
```
REPT AMA SEQ FOR STREAM a
  THE BLOCK SEQUENCE NUMBER c IS NOT AVAILABLE
```

[4]
```
REPT AMA SEQ FOR STREAM a
  THE BLOCK SEQUENCE NUMBER c IS NOT AVAILABLE
  THE FOLLOWING AMA PARTITION DISK MAPS ARE UNAVAILABLE
  k
```

[5]
```
REPT AMA SEQ FOR STREAM a
  THE BLOCK SEQUENCE NUMBER c IS NOT AVAILABLE
  THE FOLLOWING AMA PARTITION DISK MAPS ARE NOT READABLE
  l
```

[6]
```
REPT AMA SEQ FOR STREAM a
  THE BLOCK SEQUENCE NUMBER c IS NOT AVAILABLE
  THE FOLLOWING AMA PARTITION DISK MAPS FAILED AUDIT
  m
```

[7]
```
REPT AMA SEQ FOR STREAM a
  THE BLOCK SEQUENCE NUMBER c IS NOT AVAILABLE
  THE FOLLOWING AMA PARTITION DISK MAPS ARE UNAVAILABLE
  k
  THE FOLLOWING AMA PARTITION DISK MAPS ARE NOT READABLE
  l
```

[8]

```
      REPT AMA SEQ FOR STREAM a
        THE BLOCK SEQUENCE NUMBER c IS NOT AVAILABLE
        THE FOLLOWING AMA PARTITION DISK MAPS ARE NOT READABLE
        l
        THE FOLLOWING AMA PARTITION DISK MAPS FAILED AUDIT
        m

[9]   ____________________________________________________________________
      REPT AMA SEQ FOR STREAM a
        THE BLOCK SEQUENCE NUMBER c IS NOT AVAILABLE
        THE FOLLOWING AMA PARTITION DISK MAPS ARE UNAVAILABLE
        k
        THE FOLLOWING AMA PARTITION DISK MAPS FAILED AUDIT
        m

[10]  ____________________________________________________________________
      REPT AMA SEQ FOR STREAM a
        THE BLOCK SEQUENCE NUMBER c IS NOT AVAILABLE
        THE FOLLOWING AMA PARTITION DISK MAPS ARE UNAVAILABLE
        k
        THE FOLLOWING AMA PARTITION DISK MAPS ARE NOT READABLE
        l
        THE FOLLOWING AMA PARTITION DISK MAPS FAILED AUDIT
        m

[11]  ____________________________________________________________________
      REPT AMA SEQ FOR STREAM a
        THE BLOCK SEQUENCE NUMBER c IS NOT READABLE
        COULD NOT OPEN AMA PARTITION b

[12]  ____________________________________________________________________
      REPT AMA SEQ FOR STREAM a
        THE BLOCK SEQUENCE NUMBER c IS NOT READABLE
        COULD NOT READ AMA PARTITION b
```

2. REASON FOR OUTPUT

To report the current status or result of executing an OP:AMA-SEQ input message.

Format 1 occurs when there are disk blocks on the automatic message accounting (AMA) partitions corresponding to the block sequence number on a given stream. This results in the output of the three disk blocks defined by the corresponding block sequence number. These are the disk block numbers for the block sequence number on the AMA partition.

Format 2 indicates that the system could not create a temporary file to print the outcome of the verification process, or the configuration file used to obtain a list of AMA partitions to search for disk maps that could not be opened or read.

Formats 3 through 10 occur when the block sequence number listed is not found on any AMA partition on a given stream.

Formats 4 through 10 will result if there are any AMA partitions that are unavailable, unreadable, and/or fail audit on the stream, and no disk blocks were found.

Format 3 will result if all AMA partitions are available, readable, and pass audit, and if no disk blocks are found.

Formats 11 and 12 occur when the block is on the AMA partition, but it cannot be read because the AMA partition cannot be opened or read.

3. VARIABLE FIELD DEFINITIONS

`a` = Data stream. Valid value(s):

- `ST1` = Indicates that the information is for the ST1 data stream.
- `ST2` = Indicates that the information is for the ST2 data stream.

`b` = The partition number on which the AMA data is found.

`c` = The block sequence number for which disk blocks are to be found.

`d` = The first disk block corresponding to the given block sequence number.

`e` = The second disk block corresponding to the given block sequence number.

`f` = The third disk block corresponding to the given block sequence number.

`g` = The first disk block corresponding to the given block sequence number listed in binary coded decimal.

`h` = The second disk block corresponding to the given block sequence number listed in binary coded decimal.

`i` = The third disk block corresponding to the given block sequence number listed in binary coded decimal.

`j` = Reason the contents of the disk maps could not be output. Valid value(s):

```
COULD NOT OPEN CONFIGURATION FILE
COULD NOT READ CONFIGURATION FILE
TEMPORARY FILE COULD NOT BE CREATED
```

`k` = List of AMA partition disk maps that are unavailable.

`l` = List of AMA partition disk maps that are not readable.

`m` = List of AMA partition disk maps that failed audit.

4. ACTION TO BE TAKEN

If there is a sequence number gap on the partition for consecutive blocks on a disk, then execute the OP:AMA-SEQ input message. This type of output should occur very rarely, since the AMA disk writer is designed so that data can be read in sequence block number order either using tape or teleprocessing.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:MHD-BLOCK
DUMP:MHD-VTOC
OP:AMA-DISK
OP:AMA-MAPS
OP:AMA-SEQ
```

Output Message(s):

```
DUMP:MHD-BLOCK
DUMP:MHD-VTOC
REPT:AMA-DISK-MAP
```

REPT:AMA-SESS-CF

Software Release: 5E10 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
REPT AMA SESSION CONNECT FAILED FOR STREAM a
  REASON b
```

2. REASON FOR OUTPUT

To report that an automatic message accounting (AMA) teleprocessing session could not be started. A minor alarm is sounded.

3. VARIABLE FIELD DEFINITIONS

`a` = Data stream. Valid value(s):
- `ST1` = Indicates that the information is for the ST1 data stream.
- `ST2` = Indicates that the information is for the ST2 data stream.

`b` = Reason for failure. Valid value(s):

```
AMAT PORT UNAVAILABLE
HIGHER LEVEL FAILURE
INCORRECT PASSWORD
INVALID SESSION CONNECT MESSAGE
UNRECOGNIZABLE MESSAGE RECEIVED
```

4. ACTION TO BE TAKEN

Notify host collector (HOC) personnel if '`a`' is `INVALID SESSION CONNECT MESSAGE`, `INCORRECT PASSWORD`, or `UNRECOGNIZABLE MESSAGE RECEIVED`. If the `INCORRECT PASSWORD` message is received then the HOC password on the *5ESS*®-2000 switch end does not match the HOC password on the HOC end. The HOC password on the *5ESS*®-2000 switch end can be set using the HOCPSWD field with the input message SET:AMA-CONTROLF. `AMAT PORT UNAVAILABLE` is reported either because polling is not allowed between the process start and stop time as listed in REPT:AMA-CONT, or because AMA sessions are inhibited during software transitions when the retrofit site file exists.

5. ALARMS

Minor.

6. REFERENCES

Input Message(s):

```
ALW:AMA-SESSION
```

Output Message(s):

```
REPT:AMA-SESS-EST
```

REPT:AMA-SESS-EST

Software Release: 5E10 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
REPT AMA SESSION ESTABLISHED FOR STREAM a
```

2. REASON FOR OUTPUT

To indicate the start of an automatic message accounting (AMA) teleprocessing session.

3. VARIABLE FIELD DEFINITIONS

a	= Data stream. Valid value(s):	
	ST1	= Indicates that the information is for the ST1 data stream.
	ST2	= Indicates that the information is for the ST2 data stream.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:AMA-SESSION
```

Output Message(s):

```
REPT:AMA-SESS-CF
```

REPT:AMA-SESS-TER-A

Software Release: 5E10 - 5E12
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT AMA SESSION TERMINATED FOR STREAM a

[2]   ____________________________________________________________________
      REPT AMA SESSION TERMINATED FOR STREAM a
        b TERMINATION [c]
        FIRST BLOCK TRANSMITTED d
        LAST BLOCK TRANSMITTED e
        BLOCKS TRANSMITTED f
        AMA RECORDS TRANSMITTED g
        PRIMARY POLLS REJECTED h
        SECONDARY POLLS REJECTED i
        CURRENT DISK SPACE OCCUPANCY IS j
        SESSION START TIME kkk ll mm:nn:oo
        SESSION STOP TIME ppp qq rr:ss:tt
        SESSION LENGTH uu:vv:ww

[3]   ____________________________________________________________________
      REPT AMA SESSION TERMINATED FOR STREAM a
        b TERMINATION [c]
        FIRST BLOCK TRANSMITTED d
        LAST BLOCK TRANSMITTED e
        BLOCKS TRANSMITTED f
        AMA RECORDS TRANSMITTED g
        PRIMARY POLLS REJECTED h
        SECONDARY POLLS REJECTED i
        CURRENT DISK SPACE OCCUPANCY IS NOT KNOWN
        SESSION START TIME kkk ll mm:nn:oo
        SESSION STOP TIME ppp qq rr:ss:tt
        SESSION LENGTH uu:vv:ww

[4]   ____________________________________________________________________
      REPT AMA SESSION TERMINATED FOR STREAM a
        TEMPORARY FILE COULD NOT BE CREATED
```

2. REASON FOR OUTPUT

To report the termination of a teleprocessing session (Format 1 and Format 2 or Format 1 and Format 3). The Format 1 occurs when the termination is abnormal and is accompanied by minor alarm or when the AMADNS teleprocessing session gets terminated after offline data was read during software transitions. Formats 2 and 3 occur for both normal and abnormal terminations. Format 3 will occur when reading the offline side during software transitions when the percentage of automatic message accounting (AMA) data left on disk is not known. Format 4 indicates that the system could not create a temporary file to print the termination message.

3. VARIABLE FIELD DEFINITIONS

a = Data stream. Valid value(s):

ST1 = Indicates that the information is for the ST1 data stream.

ST2 = Indicates that the information is for the ST2 data stream.

b = Type of termination. Valid value(s):

ABNORMAL

NORMAL

c = Text phrase that prints if 'b' is ABNORMAL. Valid value(s):

REASON HIGHER LEVEL ERROR = This message is encountered if the disk writer is unable to mark the data just read during a teleprocessing session as secondary data.

REASON HIGHER LEVEL FAILURE = This message is encountered if a AMA teleprocessing session fails for some other reason than a failure to transmit to or from the host collector (HOC) [such as, AMA data link put out-of-service (OOS) from the active state, or the HOC-switch connection is severed]. Also, this failure will occur when a file level message other than file confirm, file reject, file interrupt, poll or repoll is received from the HOC, because of an inability to read or open the testfile transmitted to the HOC by the switch, or an inability to physically read data off disk, or a bad sequence number (AMA block number out of sequence) was encountered more than once. During software transitions when the retrofit site file exists, this failure reason can also occur if one of the even MHDs being accessed is not offline, an even MHD cannot be accessed even though it is offline, or the prior release config files or the global map files are missing. A higher level failure encompasses the TR385 categories of "Higher Level Failure" and "No Information Available" for abnormal AMA teleprocessing terminations.

REASON MESSAGE NOT ALLOWED = This message is encountered if a file layer or session level message not allowed or not in sequence is encountered. A "Message Not Allowed" encompasses the TR385 categories of "Message Not Allowed", "Data Not Allowed" and "Message Out of Sequence" for abnormal terminations of AMA teleprocessing sessions.

REASON UNRECOGNIZABLE MESSAGE = This message is encountered if a session level or file layer message is in improper format or has an illegal length. It can also be obtained if the test file to be transmitted by the switch cannot be open or read.

REASON TIMEOUT OR ATTEMPT COUNTER REACHED = This message is encountered when, during an AMA teleprocessing session, the switch takes longer than 60 seconds to read or write a message from the HOC. In addition, it can be obtained if the HOC rejects the session, because the AMA teleprocessing (AMAT) password is invalid (the OP:AMA-CONTROLF input message lists the AMAT password for the stream). The HOC AMAT password needs to be compared with the AMAT password. If they are different corrections need to be made. The first four digits of the password are the stream identifier (0080 for stream 1 or 0081 for stream 2), and the last six digits are the office ID of the particular office being polled. This is set using the OFFICEID field of the SET:AMA-CONTROLF input message.

d = Sequence number of the first block transmitted. For secondary data, it is not possible to transmit the oldest 51 blocks of secondary data. Therefore, this number may not reflect the actual first block of secondary data transmitted in the case where the first block falls in this range. To determine the oldest secondary block of data, use OP:AMA-MAPS and determine the FSS from the right side of the maps for the WRITE PARTITION listed at the top of the OP:AMA-MAPS output. This block plus the 50 blocks following cannot be accessed. This is necessary since the oldest secondary AMA data could be overwritten by primary AMA data while a secondary session is in progress.

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e = Sequence number of the last block transmitted.

f = Total number of blocks transmitted.

g = Total number of AMA records transmitted.

h = Total number of primary polls rejected.

i = Total number of secondary polls rejected.

j = Percentage of primary data remaining on disk.

k = Start month.

l = Start day.

m = Start hour.

n = Start minute.

o = Start second.

p = Stop month.

q = Stop day.

r = Stop hour.

s = Stop minute.

t = Stop second.

u = Hours of session length.

v = Minutes of session length.

w = Seconds of session length.

4. ACTIONS TO BE TAKEN

Notify the HOC personnel if the session terminated abnormally and instruct them to repoll the switch using the last block number received and note where polling data begins so that they do not process duplicate primary data. If Format 3 is output, then another AMA session is indicated during retrofit, since the percentage on disk could not be determined (there could be AMA data on disk). If Format 4 was output, use the OP:AMA-SESSION input message to get information on the status of the session.

5. ALARMS

Minor.

6. REFERENCES

Input Message(s):

```
INIT:AM-FPI
```

```
OP:AMA-CONTROLF
OP:AMA-SESSION
OP:AMA-MAPS
```

Output Message(s):

```
REPT:AMA-TELE-SE
REPT:AMA-DISK-MAP
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-105-24x *Generic Retrofit Procedures*

REPT:AMA-SESS-TER-B

Software Release: 5E13 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT AMA SESSION TERMINATED FOR STREAM a

[2]   ____________________________________________________________________
      REPT AMA SESSION TERMINATED FOR STREAM a
        b TERMINATION [c]
        FIRST BLOCK TRANSMITTED d
        LAST BLOCK TRANSMITTED e
        BLOCKS TRANSMITTED f
        AMA RECORDS TRANSMITTED g
        PRIMARY POLLS REJECTED h
        SECONDARY POLLS REJECTED i
        CURRENT DISK SPACE OCCUPANCY IS j
        SESSION START TIME kkk ll mm:nn:oo
        SESSION STOP TIME ppp qq rr:ss:tt
        SESSION LENGTH uu:vv:ww

[3]   ____________________________________________________________________
      REPT AMA SESSION TERMINATED FOR STREAM a
        b TERMINATION [c]
        FIRST BLOCK TRANSMITTED d
        LAST BLOCK TRANSMITTED e
        BLOCKS TRANSMITTED f
        AMA RECORDS TRANSMITTED g
        PRIMARY POLLS REJECTED h
        SECONDARY POLLS REJECTED i
        CURRENT DISK SPACE OCCUPANCY IS NOT KNOWN
        SESSION START TIME kkk ll mm:nn:oo
        SESSION STOP TIME ppp qq rr:ss:tt
        SESSION LENGTH uu:vv:ww

[4]   ____________________________________________________________________
      REPT AMA SESSION TERMINATED FOR STREAM a
        TEMPORARY FILE COULD NOT BE CREATED
```

2. REASON FOR OUTPUT

To report the termination of a teleprocessing session (Format 1 and Format 2 or Format 1 and Format 3). The Format 1 only occurs when the termination is abnormal and is accompanied by a minor alarm. Formats 2 and 3 occur for both normal and abnormal terminations. Format 3 will occur when reading the offline side during software transitions when the percentage of automatic message accounting (AMA) data left on disk is not known. Format 4 indicates that the system could not create a temporary file to print the termination message.

3. VARIABLE FIELD DEFINITIONS

`a` = Data stream. Valid value(s):

ST1 = Indicates that the information is for the ST1 data stream.
ST2 = Indicates that the information is for the ST2 data stream.

b = Type of termination. Valid value(s):
ABNORMAL
NORMAL

c = Text phrase that prints if 'b' is ABNORMAL. Valid value(s):
REASON HIGHER LEVEL ERROR = This message is encountered if the disk writer is unable to mark the data just read during a teleprocessing session as secondary data.
REASON HIGHER LEVEL FAILURE = This message is encountered if a AMA teleprocessing session fails for some other reason than a failure to transmit to or from the host collector (HOC) [such as, AMA data link put out-of-service (OOS) from the active state, or the HOC-switch connection is severed]. Also, this failure will occur when a file level message other than file confirm, file reject, file interrupt, poll or repoll is received from the HOC, because of an inability to read or open the testfile transmitted to the HOC by the switch, or an inability to physically read data off disk, or a bad sequence number (AMA block number out of sequence) was encountered more than once, or there is a cabling problem. During software transitions when the retrofit site file exists, this failure reason can also occur if one of the even MHDs being accessed is not offline, an even MHD cannot be accessed even though it is offline, or the prior release config files or the global map files are missing. A higher level failure encompasses the TR385 categories of "Higher Level Failure" and "No Information Available" for abnormal AMA teleprocessing terminations.
REASON MESSAGE NOT ALLOWED = This message is encountered if a file layer or session level message not allowed or not in sequence is encountered. A "Message Not Allowed" encompasses the TR385 categories of "Message Not Allowed", "Data Not Allowed" and "Message Out of Sequence" for abnormal terminations of AMA teleprocessing sessions.
REASON UNRECOGNIZABLE MESSAGE = This message is encountered if a session level or file layer message is in improper format or has an illegal length. It can also be obtained if the test file to be transmitted by the switch cannot be open or read.
REASON TIMEOUT OR ATTEMPT COUNTER REACHED = This message is encountered when, during an AMA teleprocessing session, the switch takes longer than 60 seconds to read or 20 seconds to write a message from the HOC. In addition, it can be obtained if the HOC rejects the session, because the AMA teleprocessing (AMAT) password is invalid (the OP:AMA-CONTROLF input message lists the AMAT password for the stream). The HOC AMAT password needs to be compared with the AMAT password. If they are different corrections need to be made. The first four digits of the password are the stream identifier (0080 for stream 1 or 0081 for stream 2), and the last six digits are the office ID of the particular office being polled. This is set using the OFFICEID field of the SET:AMA-CONTROLF input message. This message can also occur if the HOC does not send the session message confirm message after every fifth block of AMA data is transmitted.

d = Sequence number of the first block transmitted. For secondary data, it is not possible to transmit the oldest 51 blocks of secondary data. Therefore, this number may not reflect the actual first block of secondary data transmitted in the case where the first block falls in this range. To determine the oldest secondary block of data, use OP:AMA-MAPS and determine the FSS from the right side of the maps for the WRITE PARTITION listed at the top of the OP:AMA-MAPS output. This block plus the 50 blocks following cannot be accessed. This is necessary since the oldest secondary AMA

data could be overwritten by primary AMA data while a secondary session is in progress.

e = Sequence number of the last block transmitted.

f = Total number of blocks transmitted.

g = Total number of AMA records transmitted.

h = Total number of primary polls rejected.

i = Total number of secondary polls rejected.

j = Percentage of primary data remaining on disk.

k = Start month.

l = Start day.

m = Start hour.

n = Start minute.

o = Start second.

p = Stop month.

q = Stop day.

r = Stop hour.

s = Stop minute.

t = Stop second.

u = Hours of session length.

v = Minutes of session length.

w = Seconds of session length.

4. ACTIONS TO BE TAKEN

Notify the HOC personnel if the session terminated abnormally and instruct them to repoll the switch using the last block number received and note where polling data begins so that they do not process duplicate primary data. If Format 3 is output, then another AMA session is indicated during retrofit, since the percentage on disk could not be determined (there could be AMA data on disk). If Format 4 was output, use the OP:AMA-SESSION input message to get information on the status of the session. Primary/Secondary Polls can be rejected if the HOC detects a AMAT password mismatch on their end. If this happens then either the HOC or AMAT will have to reset the AMAT password so that both ends are using the same AMAT password.

5. ALARMS

Minor.

6. REFERENCES

Input Message(s):

```
INIT:AM-FPI
OP:AMA-CONTROLF
OP:AMA-SESSION
OP:AMA-MAPS
```

Output Message(s):

```
REPT:AMA-TELE-SE
REPT:AMA-DISK-MAP
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-105-24x *Generic Retrofit Procedures*

REPT:AMA-SESSIONS

Software Release: 5E10 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
REPT AMA SESSIONS ARE MANUALLY INHIBITED FOR STREAM a
```

2. REASON FOR OUTPUT

To indicate that automatic message accounting(AMA) data transfers (teleprocessing or administrative module (AM) tape writing) have been inhibited for a particular AMA data stream.

3. VARIABLE FIELD DEFINITIONS

a	= Data stream. Valid value(s):	
	ST1	= Indicates that the information is for the ST1 data stream.
	ST2	= Indicates that the information is for the ST2 data stream.

4. ACTION TO BE TAKEN

Remove the inhibit. Allow AMA data transfers using the ALW:AMA-SESSION input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:AMA-SESSION
INH:AMA-SESSION
```

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REPT:AMA-STATUS

Software Release: 5E10 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT AMA STATUS FOR STREAM a
        SEGMENT       STATUS
        -------       ------
          b          { EMPTY|FULL|c% FULL (d RECORDS) }
          .              .
          .              .
          .              .
        LAST TIME DISK WRITER WROTE TO DISK   e:f   g/h

[2]   ____________________________________________________________________
      REPT AMA STATUS FOR STREAM a
        SEGMENT       STATUS
        -------       ------
          b          { EMPTY|FULL|c% FULL (d RECORDS) }
          .              .
          .              .
          .              .
        i

[3]   ____________________________________________________________________
      REPT AMA STATUS - j
```

2. REASON FOR OUTPUT

To report the status of automatic message accounting (AMA) records in the administrative module (AM) buffer. This message is in response to an OP:AMA-STATUS input message.

Format 1; indicates the status of the AM buffer and the last time data was written to disk. Format 2; indicates that the configuration file or partition disk map used to obtain the last time the disk writer wrote to disk could not be opened, read or was unavailable. Format 3; indicates either that the system could not open a temporary file to store the outcome of the status report or that the address of the AM buffer was not obtained.

3. VARIABLE FIELD DEFINITIONS

a = Data stream. Valid value(s):
- ST1 = The information is for the ST1 data stream.
- ST2 = The information is for the ST2 data stream.

b = The subsegment number in the AM buffer.

c = The percentage full of the AM buffer.

d = The number of records in the AM buffer.

e = The last time the disk writer wrote to disk (HOUR).

`f` = The last time the disk writer wrote to disk (MINUTES).

`g` = The last date the disk writer wrote to disk (MONTH).

`h` = The last date the disk writer wrote to disk (DAY).

`i` = Reasons why the record of the last time the disk writer wrote to disk could not be output. Valid value(s):

```
COULD NOT OPEN CONFIGURATION FILE
COULD NOT READ CONFIGURATION FILE
PARTITION 'x' DISK MAP NOT READABLE
PARTITION 'x' FAILED TO READ AMA BLOCK
```

`j` = Reasons why the status report could not be printed. Valid value(s):

```
COULD NOT OPEN FOR WRITING
GETSEGS DID NOT GET CORRECT ADDRESS
```

4. ACTION TO BE TAKEN

For Format 1, none.

If Format 2 or 3 occurs more than once, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:AMA-STATUS
```

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-100-125 *System Description*
235-900-113 *Product Specification*

REPT:AMA-STREAM

Software Release: 5E10 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
REPT AMA STREAM INDICATOR IS a
```

2. REASON FOR OUTPUT

To indicate whether the office is a dual or a single data stream automatic message accounting (AMA) office.

3. VARIABLE FIELD DEFINITIONS

a	= Data stream indicator. Valid value(s):	
	DUAL	= Indicates both an ST1 and an ST2 AMA data stream.
	INVALID	= Indicates an invalid value was found.
	ST1	= Indicates that the information is for the ST1 data stream.
	ST2	= Indicates that the information is for the ST2 data stream.

4. ACTION TO BE TAKEN

If the data stream indicator is INVALID, use input message SET:AMA-STREAM to set the indicator to the proper value.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

SET:AMA-STREAM

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REPT:AMA-TAPE-RL-A

Software Release: 5E10 - 5E13
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
REPT AMA TAPE a RECORDS LOST AT BLOCK b FOR STREAM c
```

2. REASON FOR OUTPUT

To report that either the length of the automatic message accounting (AMA) block, the length of the individual AMA records, or the number of AMA records for the AMA block currently being written to tape is corrupt.

3. VARIABLE FIELD DEFINITIONS

`a` = Number of records in the AMA block which could not be written to tape.

`b` = Sequence number of the AMA block.

`c` = Data stream. Valid value(s):
- `ST1` = Indicates that the information is for the ST1 data stream.
- `ST2` = Indicates that the information is for the ST2 data stream.

4. ACTION TO BE TAKEN

If this problem persists, locate the corrupt AMA record and follow the normal channels of escalation so that the problem can be corrected.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:AMA-TAPE-RL-B

Software Release: 5E14 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
REPT AMA TAPE a RECORDS LOST AT BLOCK b FOR STREAM c
```

2. REASON FOR OUTPUT

To report that either the length of the automatic message accounting (AMA) block, the length of the individual AMA records, or the number of AMA records for the AMA block currently being written to tape is corrupt.

3. VARIABLE FIELD DEFINITIONS

`a` = Number of records in the AMA block which could not be written to tape.

`b` = Sequence number of the AMA block.

`c` = Data stream. Valid value(s):

- `ST1` = Indicates that the information is for the ST1 data stream.
- `ST2` = Indicates that the information is for the ST2 data stream.

4. ACTIONS TO BE TAKEN

If this problem persists, locate the corrupt AMA record and follow the normal channels of escalation so that the problem can be corrected.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:AMA-TAPE-SES

Software Release: 5E10 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
[1]
REPT AMA TAPE SESSION FOR STREAM a
  b AMA TAPE SESSION STATUS
  VOL SER NUMBER c
  START TIME d
  e
  FIRST BLOCK f g
  LAST BLOCK h i
  TAPE is j% FULL
  RECORDS WRITTEN k
  [l]

[2]
REPT AMA TAPE SESSION FOR STREAM a
  TEMPORARY FILE COULD NOT BE CREATED
```

2. REASON FOR OUTPUT

To output the status of the current or most recent automatic message accounting (AMA) tape session if the tape option is in effect. This message prints in response to the OP:AMA-SESSION input message.

3. VARIABLE FIELD DEFINITIONS

a = Data stream. Valid value(s):
- ST1 = Indicates that the information is for the ST1 data stream.
- ST2 = Indicates that the information is for the ST2 data stream.

b = Status of tape session. Valid value(s):
- CURRENT = Tape writing is currently in progress.
- PREVIOUS = Tape writing is not currently in progress.

c = Serial number of the tape.

d = Start time in month, day, hours, minutes, and seconds.

e = Indicates whether primary or secondary data was written to tape.

f = Sequence number of the first block of data written to tape. For secondary data, it is not possible to transmit the oldest 51 blocks of secondary data. Therefore, this number may not reflect the actual first block of secondary data transmitted in the case where the first block falls in that range. To determine the oldest secondary block of data, use OP:AMA-MAPS and determine the FSS from the right side of the maps for the WRITE PARTITION listed at the top of the OP:AMA-MAPS output. This block plus the 50 blocks following cannot be accessed. This is necessary since the oldest secondary AMA data could be overwritten by primary AMA data while a secondary session is in

progress.

g = Time of first block in month, day, hour, and minute.

h = Sequence number of the last block of data written to tape.

i = Time of last block in month, day, hour, and minute.

j = Current percentage of tape occupancy.

k = Total number of AMA records written to tape.

l = Text phrase indicating the outcome of the previous AMA tape writing session. This variable prints if this is the status of the previous session. Valid value(s):

```
NORMAL TERMINATION-MORE DATA REQUESTED THAN AVAILABLE
NORMAL TERMINATION-AMA TAPE FULL - MORE DATA TO BE WRITTEN
NORMAL TERMINATION-NO MORE DATA
TERMINATION REQUESTED VIA STP:AMATAPE MESSAGE
TRAILER LABELS COULD NOT BE WRITTEN
AUTOMATIC TAPE WRITING STOP TIME WAS REACHED
TAPE WRITING STOPPED FOR REX DGNS
NEXT AMA PARTITION UNAVAILABLE
INVALID TERMINATION REASON SPECIFIED
```

4. ACTION TO BE TAKEN

For Format 1, no action is required.

For Format 2, re-enter the OP:AMA-SESSION input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:AMA-SESSION
STP:AMATAPE
OP:AMA-MAPS
```

Output Message(s):

```
REPT:AMA-TAPE-SUM
REPT:AMA-DISK-MAP
```

REPT:AMA-TAPE-SUM

Software Release: 5E10 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT AMA TAPE SUMMARY FOR STREAM a
  SESSIONS b
  NORMAL TERMINATIONS c
  ABNORMAL TERMINATIONS d
  PRIMARY RECORDS WRITTEN e
  SECONDARY RECORDS WRITTEN f
  ORIGINATIONS g
  ANSWERED CALLS h
  UNANSWERED CALLS i
  MUTILATED RECORDS j
  LONG DURATION CALLS k
  RECORDS LOST l
  TOTAL BLOCKS WRITTEN m
  RECORDS WRITTEN TO DISK n
```

[2]
```
REPT AMA TAPE SUMMARY FOR STREAM a
  TEMPORARY FILE COULD NOT BE CREATED
```

2. REASON FOR OUTPUT

To output a summary of automatic message accounting (AMA) tape activity for one day (Format 1). This message prints automatically, once every 24 hours. Format 2 indicates that the system could not create a temporary file to print the summary information.

3. VARIABLE FIELD DEFINITIONS

a = Data stream. Valid value(s):
- ST1 = Indicates that the information is for the ST1 data stream.
- ST2 = Indicates that the information is for the ST2 data stream.

b = Total number of AMA tape sessions conducted today.

c = Total number of AMA tape sessions that terminated normally.

d = Total number of AMA tape sessions that terminated abnormally.

e = Number of primary records written to tape.

f = Number of secondary records written to tape.

g = Number of calls where dialing is complete and AMA treatment is required.

h = Number of answered calls.

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`i` = Number of calls where dialing is complete but no answer was received.

`j` = Number of records containing mutilated data.

`k` = Number of long duration calls in progress.

`l` = Number of records lost.

`m` = Total number of blocks written to tape over the past 24 hours.

`n` = Number of records written to disk.

4. ACTION TO BE TAKEN

For Format 2, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:AMA-SESSION
```

Output Message(s):

```
REPT:AMA-SESS-TER
REPT:AMA-TAPE-SES
```

REPT:AMA-TAPE-WHB

Software Release: 5E10 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
REPT AMA TAPE WRITING HAS BEGUN FOR STREAM a
```

2. REASON FOR OUTPUT

To report that the automatic message accounting (AMA) tape writing has begun.

3. VARIABLE FIELD DEFINITIONS

a	= Data stream. Valid value(s):	
	ST1	= Indicates that the information is for the ST1 data stream.
	ST2	= Indicates that the information is for the ST2 data stream.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:AMA-AUTOST
```

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REPT:AMA-TELE-SE-A

Software Release: 5E10 - 5E12
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT AMA TELEPROCESSING SESSION FOR STREAM a
        b AMA TELEPROCESSING SESSION STATUS
        START TIME c
        d TIME e
        BLOCKS TRANSMITTED f
        UNTRANSMITTED PRIMARY BLOCKS g
        PRIMARY POLLS REJECTED h
        SECONDARY POLLS REJECTED i
       [j]

[2]   ____________________________________________________________________
      REPT AMA TELEPROCESSING SESSION FOR STREAM a
        TEMPORARY FILE COULD NOT BE CREATED
```

2. REASON FOR OUTPUT

To report the status of the current or previous automatic message accounting (AMA) teleprocessing session (Format 1). This message prints in response to the OP:AMA-SESSION input message if the teleprocessing option is in effect. Format 2 indicates that the system could not create a temporary file to print the status information. In the case of abnormal termination (refer to variable '`j`') this message is accompanied by a minor alarm.

3. VARIABLE FIELD DEFINITIONS

`a` = Data stream. Valid value(s):
- `ST1` = Indicates that the information is for the ST1 data stream.
- `ST2` = Indicates that the information is for the ST2 data stream.

`b` = Session status. Valid value(s):
- `CURRENT` = Session is in progress at this time.
- `PREVIOUS` = No session is in progress now.

`c` = Start time in month, day, hour, minute, and second.

`d` = Session status. Valid value(s):
- `CURRENT` = Session is in progress at this time.
- `STOP` = This report is for the previous session.

`e` = Current time or stop time in month, day, hour, minute, and second.

`f` = Total number of blocks transmitted.

`g` = Total number of primary data blocks remaining on disk.

`h` = Number of primary file polls that were rejected.

`i` = Number of secondary file polls that were rejected.

`j` = Text phrase indicating the outcome of the previous AMA teleprocessing session. This message only prints if this is the status of the previous session. Valid value(s):

`ABNORMAL TERMINATION-HIGHER LEVEL ERROR` = This message is encountered if the disk writer is unable to mark the data just read during a teleprocessing session as secondary.

`ABNORMAL TERMINATION-HIGHER LEVEL FAILURE` = This message is encountered if an AMA teleprocessing session with the link fails for some other reason than a failure to transmit to or from the host collector (HOC) (such as, AMA data link put out-of-service (OOS) from the active state, or the HOC-switch connection is severed). Also, this failure will occur when a file level message other than file confirm, file reject, file interrupt, poll or repoll is received from the HOC, because of an inability of the switch to read or open the testfile in order to transmit it to the HOC by the switch, or an inability to physically read data off disk, or a bad sequence number (AMA block number out of sequence) was encountered more than once. During software transitions when the retrofit site file exists, this failure reason can also occur if one of the even moving head disks (MHDs) being accessed is not offline, an even MHD cannot be accessed even though it is offline, or the prior release config files or global map files are missing. A "Higher Level Failure" encompasses the TR385 categories of "Higher Level Failure" and "No Information Available" for abnormal teleprocessing terminations.

`ABNORMAL TERMINATION-MESSAGE NOT ALLOWED` = This message is encountered if a file layer or session level message not allowed or not in sequence is encountered. A "Message Not Allowed" encompasses the TR385 categories of "Message Not Allowed", "Data Not Allowed" and "Message Out of Sequence" for abnormal terminations of AMA teleprocessing (AMAT) sessions.

`ABNORMAL TERMINATION-UNRECOGNIZABLE MESSAGE` = This message is encountered if an session level or file layer message is in improper format or has an illegal length. It can also be obtained if the switch is unable to read or open a testfile in order to transmit it to the HOC.

`ABNORMAL TERMINATION-TIMEOUT OR ATTEMPT COUNTER REACHED` = This message is encountered when, during an AMA teleprocessing session, the data link remains idle for a 60 second interval with no message sent or received during this interval. In addition, it can be obtained if the AMAT password transmitted by the HOC was incorrect (use the OP:AMA-CONTROLF input message to determine the correct AMAT password for the stream). The HOC AMAT password needs to be compared with the AMAT password. If they are different corrections need to be made. The first four digits of the password are the stream identifier (0080 for stream 1 or 0081 for stream 2), and the last six digits are the office ID of the particular office being polled. This is set using the OFFICEID field of the SET:AMA-CONTROLF input message.

`NORMAL TERMINATION`

4. ACTIONS TO BE TAKEN

For Format 1, no action is required.

For Format 2, re-enter the OP:AMA-SESSION input message. If polling fails after several attempts, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:AMA-CONTROLF
OP:AMA-SESSION
```

Output Message(s):

```
INIT:AM-LVL
```

REPT:AMA-TELE-SE-B

Software Release: 5E13 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT AMA TELEPROCESSING SESSION FOR STREAM a
        b AMA TELEPROCESSING SESSION STATUS
        START TIME c
        d TIME e
        BLOCKS TRANSMITTED f
        UNTRANSMITTED PRIMARY BLOCKS g
        PRIMARY POLLS REJECTED h
        SECONDARY POLLS REJECTED i
        [j]

[2]   ____________________________________________________________________
      REPT AMA TELEPROCESSING SESSION FOR STREAM a
        TEMPORARY FILE COULD NOT BE CREATED
```

2. REASON FOR OUTPUT

To report the status of the current or previous automatic message accounting (AMA) teleprocessing session (Format 1). This message prints in response to the OP:AMA-SESSION input message if the teleprocessing option is in effect. Format 2 indicates that the system could not create a temporary file to print the status information. In the case of abnormal termination (refer to variable '`j`') this message is accompanied by a minor alarm.

3. VARIABLE FIELD DEFINITIONS

`a` = Data stream. Valid value(s):
- `ST1` = Indicates that the information is for the ST1 data stream.
- `ST2` = Indicates that the information is for the ST2 data stream.

`b` = Session status. Valid value(s):
- `CURRENT` = Session is in progress at this time.
- `PREVIOUS` = No session is in progress now.

`c` = Start time in month, day, hour, minute, and second.

`d` = Session status. Valid value(s):
- `CURRENT` = Session is in progress at this time.
- `STOP` = This report is for the previous session.

`e` = Current time or stop time in month, day, hour, minute, and second.

`f` = Total number of blocks transmitted.

`g` = Total number of primary data blocks remaining on disk.

`h` = Number of primary file polls that were rejected.

`i` = Number of secondary file polls that were rejected.

`j` = Text phrase indicating the outcome of the previous AMA teleprocessing session. This message only prints if this is the status of the previous session. Valid value(s):

`ABNORMAL TERMINATION-HIGHER LEVEL ERROR` = This message is encountered if the disk writer is unable to mark the data just read during a teleprocessing session as secondary.

`ABNORMAL TERMINATION-HIGHER LEVEL FAILURE` = This message is encountered if an AMA teleprocessing session with the link fails for some other reason than a failure to transmit to or from the host collector (HOC) (such as, AMA data link put out-of-service (OOS) from the active state, or the HOC-switch connection is severed). Also, this failure will occur when a file level message other than file confirm, file reject, file interrupt, poll or repoll is received from the HOC, because of an inability of the switch to read or open the testfile in order to transmit it to the HOC by the switch, or an inability to physically read data off disk, or a bad sequence number (AMA block number out of sequence) was encountered more than once, or there is a cabling problem. During software transitions when the retrofit site file exists, this failure reason can also occur if one of the even moving head disks (MHDs) being accessed is not offline, an even MHD cannot be accessed even though it is offline, or the prior release config files or global map files are missing. A "Higher Level Failure" encompasses the TR385 categories of "Higher Level Failure" and "No Information Available" for abnormal teleprocessing terminations.

`ABNORMAL TERMINATION-MESSAGE NOT ALLOWED` = This message is encountered if a file layer or session level message not allowed or not in sequence is encountered. A "Message Not Allowed" encompasses the TR385 categories of "Message Not Allowed", "Data Not Allowed" and "Message Out of Sequence" for abnormal terminations of AMA teleprocessing (AMAT) sessions.

`ABNORMAL TERMINATION-UNRECOGNIZABLE MESSAGE` = This message is encountered if an session level or file layer message is in improper format or has an illegal length. It can also be obtained if the switch is unable to read or open a testfile in order to transmit it to the HOC.

`ABNORMAL TERMINATION-TIMEOUT OR ATTEMPT COUNTER REACHED` = This message is encountered when, during an AMA teleprocessing session, the data link remains idle for a 60 second interval with no message received during this interval or for 20 seconds with no message sent during this interval. In addition, it can be obtained if the AMAT password transmitted by the HOC was incorrect (use the OP:AMA-CONTROLF input message to determine the correct AMAT password for the stream). The HOC AMAT password needs to be compared with the AMAT password. If they are different corrections need to be made. The first four digits of the password are the stream identifier (0080 for stream 1 or 0081 for stream 2), and the last six digits are the office ID of the particular office being polled. This is set using the OFFICEID field of the SET:AMA-CONTROLF input message. This message can also occur if the HOC does not send the session message confirm message after every fifth block of AMA data is transmitted.

`NORMAL TERMINATION`

4. ACTIONS TO BE TAKEN

For Format 1, no action is required.

For Format 2, re-enter the OP:AMA-SESSION input message. If polling fails after several attempts, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. Primary/Secondary Polls can be rejected if the HOC detects a AMAT password mismatch on their end. If this happens then either the HOC or AMAT will have to reset the AMAT password so that both ends are using the same AMAT password.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:AMA-CONTROLF
OP:AMA-SESSION
```

Output Message(s):

```
INIT:AM-LVL
```

REPT:AMA-TELE-SU-A

Software Release: 5E10 - 5E11
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT AMA TELEPROCESSING SUMMARY FOR STREAM a
  SESSIONS b
  NORMAL TERMINATIONS c
  ABNORMAL TERMINATIONS d
  SESSIONS REJECTED e
  PRIMARY BLOCKS TRANSMITTED f
  SECONDARY BLOCKS TRANSMITTED g
  PRIMARY POLLS REJECTED h
  SECONDARY POLLS REJECTED i
  ORIGINATIONS j
  ANSWERED CALLS k
  UNANSWERED CALLS l
  MUTILATED RECORDS m
  RECORDS WRITTEN TO DISK n
  RECORDS SENT TO LINK o
  LONG DURATION CALLS p
  RECORDS LOST q
  MINOR DISK ALARMS r
  MAJOR DISK ALARMS s
  CRITICAL DISK ALARMS t
  FIRST BLOCK TRANSMITTED u
  LAST BLOCK TRANSMITTED v
```

[2]
```
REPT AMA TELEPROCESSING SUMMARY FOR STREAM a
  TEMPORARY FILE COULD NOT BE CREATED
```

2. REASON FOR OUTPUT

To summarize automatic message accounting (AMA) teleprocessing activity for the past 24 hours (Format 1;). If Format 2 is output, the system could not create a temporary file to print the summary information.

3. VARIABLE FIELD DEFINITIONS

a = Data stream. Valid value(s):
- ST1 = Indicates that the information is for the ST1 data stream.
- ST2 = Indicates that the information is for the ST2 data stream.

b = Total number of AMA teleprocessing sessions conducted today.

c = Number of sessions that terminated normally.

d = Number of sessions that terminated abnormally.

e = Number of sessions that were rejected.

f = Number of primary data blocks transmitted.

g = Number of secondary data blocks transmitted.

h = Number of primary file polls that were rejected.

i = Number of secondary file polls that were rejected.

j = Number of calls where dialing is complete and AMA treatment is required.

k = Number of answered calls.

l = Number of calls where dialing is completed but answer was not received.

m = Number of records containing mutilated data.

n = Number of records written to disk.

o = Number of records sent to the data link.

p = Number of long duration calls in progress.

q = Number of records lost.

r = Number of minutes that the percentage of primary data on disk equals or exceeds the minor AMA alarm value. (MIN AMA ALRM on RC/V View 8.1)

s = Number of minutes that the percentage of primary data on disk equals or exceeds the major AMA alarm value. (MAJ AMA ALRM on RC/V View 8.1)

t = Number of minutes that the percentage of primary data on disk equals or exceeds the critical AMA alarm value. (CRIT AMA ALRM on RC/V View 8.1)

u = Sequence number of first primary block transmitted over the past 24 hours.

v = Sequence number of last primary block transmitted over the past 24 hours.

4. ACTIONS TO BE TAKEN

For Format 2, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:AMA-TELE
```

Output Message(s):

```
REPT:AMA-CRIT
REPT:AMA-MAJOR
REPT:AMA-MINOR
```

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]

REPT:AMA-TELE-SU-B

Software Release: 5E12 only
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT AMA TELEPROCESSING SUMMARY FOR STREAM a
  SESSIONS b
  NORMAL TERMINATIONS c
  ABNORMAL TERMINATIONS d
  SESSIONS REJECTED e
  PRIMARY BLOCKS TRANSMITTED f
  SECONDARY BLOCKS TRANSMITTED g
  PRIMARY POLLS REJECTED h
  SECONDARY POLLS REJECTED i
  ORIGINATIONS j
  ANSWERED CALLS k
  UNANSWERED CALLS l
  MUTILATED RECORDS m
  RECORDS WRITTEN TO DISK n
  RECORDS SENT TO LINK o
  LONG DURATION CALLS p
  RECORDS LOST q
  MINOR DISK ALARMS r
  MAJOR DISK ALARMS s
  CRITICAL DISK ALARMS t
  FIRST BLOCK TRANSMITTED u
  LAST BLOCK TRANSMITTED v
```

[2]
```
REPT AMA TELEPROCESSING SUMMARY FOR STREAM a
  TEMPORARY FILE COULD NOT BE CREATED
```

[3]
```
REPT AMA TELEPROCESSING SUMMARY FOR STREAM a AMADNS ACTIVE
  PRIMARY BLOCKS TRANSMITTED TO ASM f
  ORIGINATIONS j
  ANSWERED CALLS k
  UNANSWERED CALLS l
  MUTILATED RECORDS m
  RECORDS WRITTEN TO DISK n
  LONG DURATION CALLS p
  RECORDS LOST q
  MINOR DISK ALARMS r
  MAJOR DISK ALARMS s
  CRITICAL DISK ALARMS t
```

[4]
```
REPT AMA TELEPROCESSING SUMMARY FOR AMADNS
  SESSIONS b
  NORMAL TERMINATIONS c
```

```
ABNORMAL TERMINATIONS d
SESSIONS REJECTED e
PRIMARY FILES TRANSMITTED w
SECONDARY FILES TRANSMITTED x
PRIMARY FILE REQUESTS REJECTED y
SECONDARY FILE REQUESTS REJECTED z
MINOR DISK ALARMS a[1]
MAJOR DISK ALARMS b[1]
CRITICAL DISK ALARMS c[1]
FIRST FILE TRANSMITTED d[1]
LAST FILE TRANSMITTED e[1]
```

2. REASON FOR OUTPUT

When automatically output, this summarizes automatic message accounting (AMA) teleprocessing or AMADNS activity for the past 24 hours. When manually output after the output of WRT:AMADATA, this reflects automatic message accounting (AMA) teleprocessing or AMADNS activity since the output of the last automatic report (Formats 1, 3 and 4). A WRT:AMADATA; input is required to ensure that tracer counts are updated to include the latest records produced on the SM. If Format□ is output, the system could not create a temporary file to print the summary information. Format 4 is output to report teleprocessing activity for the AMA data networking services(AMADNS) data server application.

3. VARIABLE FIELD DEFINITIONS

a = Data stream. Valid value(s):
- ST1 = Indicates that the information is for the ST1 data stream.
- ST2 = Indicates that the information is for the ST2 data stream.

b = Total number of AMA teleprocessing sessions conducted today.

c = Number of sessions that terminated normally.

d = Number of sessions that terminated abnormally.

e = Number of sessions that were rejected.

f = Number of primary data blocks transmitted.

g = Number of secondary data blocks transmitted.

h = Number of primary file polls that were rejected.

i = Number of secondary file polls that were rejected.

j = Number of calls where dialing is complete and AMA treatment is required.

k = Number of answered calls.

l = Number of calls where dialing is completed but answer was not received.

m = Number of records containing mutilated data.

n = Number of records written to disk.

o = Number of records sent to the data link.

p = Number of long duration calls in progress.

q = Number of records lost.

r = Number of minutes that the percentage of primary data on disk equals or exceeds the minor AMA alarm value. (MIN AMA ALRM on RC/V View 8.1)

s = Number of minutes that the percentage of primary data on disk equals or exceeds the major AMA alarm value. (MAJ AMA ALRM on RC/V View 8.1)

t = Number of minutes that the percentage of primary data on disk equals or exceeds the critical AMA alarm value. (CRIT AMA ALRM on RC/V View 8.1)

u = Sequence number of first primary block transmitted over the past 24 hours.

v = Sequence number of last primary block transmitted over the past 24 hours.

w = Number of primary files transmitted.

x = Number of secondary files transmitted.

y = Number of primary file requests rejected.

z = Number of secondary file requests rejected.

a[1] = Number of minutes that the percentage of primary data used or sequence numbers used is greater than or equal to the amamin administrative parameter on the AMADNS data server application.

b[1] = Number of minutes that the percentage of primary data used or sequence numbers used is greater than or equal to the amamaj administrative parameter on the AMADNS data server application.

c[1] = Number of minutes that the percentage of primary data used or sequence numbers used is greater than or equal to the amacrit administrative parameter on the AMADNS data server application.

d[1] = Name of the first file transmitted during the current day.

e[1] = Name of the last file transmitted during the current day.

4. ACTIONS TO BE TAKEN

For Formats 1, 3, and 4, none.

For Format 2, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:AMA-TELE
WRT:AMADATA
```

Output Message(s):

```
REPT:AMA-CRIT
REPT:AMA-MAJOR
REPT:AMA-MINOR
WRT:AMA-DATA
```

Other Manual(s):

235-190-300 *Billing Features and Specifications*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]

REPT:AMA-TELE-SU-C

Software Release: 5E13 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT AMA TELEPROCESSING SUMMARY FOR STREAM a
  SESSIONS b
  NORMAL TERMINATIONS c
  ABNORMAL TERMINATIONS d
  SESSIONS REJECTED e
  PRIMARY BLOCKS TRANSMITTED f
  SECONDARY BLOCKS TRANSMITTED g
  PRIMARY POLLS REJECTED h
  SECONDARY POLLS REJECTED i
  ORIGINATIONS j
  ANSWERED CALLS k
  UNANSWERED CALLS l
  MUTILATED RECORDS m
  RECORDS WRITTEN TO DISK n
  RECORDS SENT TO LINK o
  LONG DURATION CALLS p
  RECORDS LOST q
  MINOR DISK ALARMS r
  MAJOR DISK ALARMS s
  CRITICAL DISK ALARMS t
  FIRST BLOCK TRANSMITTED u
  LAST BLOCK TRANSMITTED v
```

[2]
```
REPT AMA TELEPROCESSING SUMMARY FOR STREAM a
  TEMPORARY FILE COULD NOT BE CREATED
```

[3]
```
REPT AMA TELEPROCESSING SUMMARY FOR STREAM a AMADNS ACTIVE
  PRIMARY BLOCKS TRANSMITTED TO ASM f
  ORIGINATIONS j
  ANSWERED CALLS k
  UNANSWERED CALLS l
  MUTILATED RECORDS m
  RECORDS WRITTEN TO DISK n
  LONG DURATION CALLS p
  RECORDS LOST q
  MINOR DISK ALARMS r
  MAJOR DISK ALARMS s
  CRITICAL DISK ALARMS t
```

[4]
```
REPT AMA TELEPROCESSING SUMMARY FOR AMADNS
  SESSIONS b
  NORMAL TERMINATIONS c
```

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```
ABNORMAL TERMINATIONS d
SESSIONS REJECTED e
PRIMARY FILES TRANSMITTED w
SECONDARY FILES TRANSMITTED x
PRIMARY FILE REQUESTS REJECTED y
SECONDARY FILE REQUESTS REJECTED z
MINOR DISK ALARMS a[1]
MAJOR DISK ALARMS b[1]
CRITICAL DISK ALARMS c[1]
FIRST FILE TRANSMITTED d[1]
LAST FILE TRANSMITTED e[1]
```

2. REASON FOR OUTPUT

To summarize automatic message accounting (AMA) teleprocessing activity for the past 24 hours (Formats 1 and 3). If Format 2 is output, the system could not create a temporary file to print the summary information. Format 4 is output to report teleprocessing activity for the AMA data networking services(AMADNS) data server application.

3. VARIABLE FIELD DEFINITIONS

a = Data stream. Valid value(s):
- ST1 = Indicates that the information is for the ST1 data stream.
- ST2 = Indicates that the information is for the ST2 data stream.

b = Total number of AMA teleprocessing sessions conducted today.

c = Number of sessions that terminated normally.

d = Number of sessions that terminated abnormally.

e = Number of sessions that were rejected.

f = Number of primary data blocks transmitted.

g = Number of secondary data blocks transmitted.

h = Number of primary file polls that were rejected.

i = Number of secondary file polls that were rejected.

j = Number of calls where dialing is complete and AMA treatment is required.

k = Number of answered calls.

l = Number of calls where dialing is completed but answer was not received.

m = Number of records containing mutilated data.

n = Number of records written to disk.

o = Number of records sent to the data link.

p = Number of long duration calls in progress.

q = Number of records lost.

r = Number of minutes that the percentage of primary data on disk equals or exceeds the minor AMA alarm value. (MIN AMA ALRM on RC/V View 8.1)

s = Number of minutes that the percentage of primary data on disk equals or exceeds the major AMA alarm value. (MAJ AMA ALRM on RC/V View 8.1)

t = Number of minutes that the percentage of primary data on disk equals or exceeds the critical AMA alarm value. (CRIT AMA ALRM on RC/V View 8.1)

u = Sequence number of first primary block transmitted over the past 24 hours.

v = Sequence number of last primary block transmitted over the past 24 hours.

w = Number of primary files transmitted.

x = Number of secondary files transmitted.

y = Number of primary file requests rejected.

z = Number of secondary file requests rejected.

a[1] = Number of minutes that the percentage of primary data used or sequence numbers used is greater than or equal to the amamin administrative parameter on the AMADNS data server application.

b[1] = Number of minutes that the percentage of primary data used or sequence numbers used is greater than or equal to the amamaj administrative parameter on the AMADNS data server application.

c[1] = Number of minutes that the percentage of primary data used or sequence numbers used is greater than or equal to the amacrit administrative parameter on the AMADNS data server application.

d[1] = Name of the first file transmitted during the current day.

e[1] = Name of the last file transmitted during the current day.

4. ACTIONS TO BE TAKEN

For Formats 1, 3, and 4, none.

For Format 2, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. Primary/Secondary Polls can be rejected if the HOC detects a AMAT password mismatch on their end. If this happens then either the HOC or AMAT will have to reset the AMAT password so that both ends are using the same AMAT password.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:AMA-TELE
```

Output Message(s):

```
REPT:AMA-CRIT
REPT:AMA-MAJOR
REPT:AMA-MINOR
```

Other Manual(s):
190-136-166 *Billdats Data Server - High Speed Billing Operations Guide*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]

REPT:AMA-TELE-SUM-A

Software Release: 5E10 - 5E11
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT AMA TELEPROCESSING SUMMARY FOR STREAM a
  SESSIONS b
  NORMAL TERMINATIONS c
  ABNORMAL TERMINATIONS d
  SESSIONS REJECTED e
  PRIMARY BLOCKS TRANSMITTED f
  SECONDARY BLOCKS TRANSMITTED g
  PRIMARY POLLS REJECTED h
  SECONDARY POLLS REJECTED i
  ORIGINATIONS j
  ANSWERED CALLS k
  UNANSWERED CALLS l
  MUTILATED RECORDS m
  RECORDS WRITTEN TO DISK n
  RECORDS SENT TO LINK o
  LONG DURATION CALLS p
  RECORDS LOST q
  MINOR DISK ALARMS r
  MAJOR DISK ALARMS s
  CRITICAL DISK ALARMS t
  FIRST BLOCK TRANSMITTED u
  LAST BLOCK TRANSMITTED v
```

[2]
```
REPT AMA TAPE SUMMARY FOR STREAM a
  SESSIONS b
  NORMAL TERMINATIONS c
  ABNORMAL TERMINATIONS d
  PRIMARY RECORDS WRITTEN w
  SECONDARY RECORDS WRITTEN x
  ORIGINATIONS j
  ANSWERED CALLS k
  UNANSWERED CALLS l
  MUTILATED RECORDS m
  LONG DURATION CALLS p
  RECORDS LOST q
  TOTAL BLOCKS WRITTEN y
  RECORDS WRITTEN TO DISK n
```

2. REASON FOR OUTPUT

To report a summary of automatic message accounting (AMA) tape and teleprocessing activity. The message prints automatically once every hour and any time on demand.

3. VARIABLE FIELD DEFINITIONS

a = Data stream. Valid value(s):
ST1 = The information is for the ST1 data stream.
ST2 = The information is for the ST2 data stream.

b = Total number of AMA teleprocessing/tape sessions.

c = Number of AMA sessions that terminated normally.

d = Number of AMA sessions that terminated abnormally.

e = Number of AMA sessions that were rejected.

f = Number of primary data blocks that were transmitted.

g = Number of secondary data blocks that were transmitted.

h = Number of primary file polls that were rejected.

i = Number of secondary file polls that were rejected.

j = Number of calls where dialing was complete and AMA treatment was required.

k = Number of answered calls.

l = Number of calls where dialing was complete but no answer was received.

m = Number of records containing mutilated data.

n = Number of records written to disk.

o = Number of records sent to the data link.

p = Number of long duration calls in progress.

q = Number of records lost.

r = Number of minutes that the percentage of primary data on disk equals or exceeds the minor AMA alarm value (MIN AMA ALRM on RC/V View 8.1)

s = Number of minutes that the percentage of primary data on disk equals or exceeds the major AMA alarm value (MAJ AMA ALRM on RC/V View 8.1)

t = Number of minutes that the percentage of primary data on disk equals or exceeds the critical AMA alarm value (CRIT AMA ALRM on RC/V View 8.1)

u = Sequence number of first primary block transmitted over the past hour.

v = Sequence number of last primary block transmitted over the past hour.

w = Number of primary records written to tape.

x = Number of secondary records written to tape.

y = Total number of blocks of written to tape over the past hour.

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4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:AMA-SUMMARY
```

Output Message(s):

```
REPT:AMA-CRIT
REPT:AMA-MAJOR
REPT:AMA-MINOR
REPT:AMA-TAPE-SUM
```

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]

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REPT:AMA-TELE-SUM-B

Software Release: 5E12 only
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT AMA TELEPROCESSING SUMMARY FOR STREAM a
  SESSIONS b
  NORMAL TERMINATIONS c
  ABNORMAL TERMINATIONS d
  SESSIONS REJECTED e
  PRIMARY BLOCKS TRANSMITTED f
  SECONDARY BLOCKS TRANSMITTED g
  PRIMARY POLLS REJECTED h
  SECONDARY POLLS REJECTED i
  ORIGINATIONS j
  ANSWERED CALLS k
  UNANSWERED CALLS l
  MUTILATED RECORDS m
  RECORDS WRITTEN TO DISK n
  RECORDS SENT TO LINK o
  LONG DURATION CALLS p
  RECORDS LOST q
  MINOR DISK ALARMS r
  MAJOR DISK ALARMS s
  CRITICAL DISK ALARMS t
  FIRST BLOCK TRANSMITTED u
  LAST BLOCK TRANSMITTED v
```

[2]
```
REPT AMA TAPE SUMMARY FOR STREAM a
  SESSIONS b
  NORMAL TERMINATIONS c
  ABNORMAL TERMINATIONS d
  PRIMARY RECORDS WRITTEN w
  SECONDARY RECORDS WRITTEN x
  ORIGINATIONS j
  ANSWERED CALLS k
  UNANSWERED CALLS l
  MUTILATED RECORDS m
  LONG DURATION CALLS p
  RECORDS LOST q
  TOTAL BLOCKS WRITTEN y
  RECORDS WRITTEN TO DISK n
```

[3]
```
REPT AMA TELEPROCESSING SUMMARY FOR STREAM a AMADNS ACTIVE
  PRIMARY BLOCKS TRANSMITTED TO ASM f
  ORIGINATIONS j
  ANSWERED CALLS k
  UNANSWERED CALLS l
```

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```
  MUTILATED RECORDS m
  RECORDS WRITTEN TO DISK n
  LONG DURATION CALLS p
  RECORDS LOST q
  MINOR DISK ALARMS r
  MAJOR DISK ALARMS s
  CRITICAL DISK ALARMS t
```

[4]

```
REPT AMA TELEPROCESSING SUMMARY FOR AMADNS
  SESSIONS b
  NORMAL TERMINATIONS c
  ABNORMAL TERMINATIONS d
  SESSIONS REJECTED e
  PRIMARY FILES TRANSMITTED z
  SECONDARY FILES TRANSMITTED a1
  PRIMARY FILE REQUESTS REJECTED b1
  SECONDARY FILE REQUESTS REJECTED c1
  MINOR DISK ALARMS d1
  MAJOR DISK ALARMS e1
  CRITICAL DISK ALARMS f1
  FIRST FILE TRANSMITTED g1
  LAST FILE TRANSMITTED h1
```

2. REASON FOR OUTPUT

To report a summary of automatic message accounting (AMA) tape and teleprocessing activity. The message prints automatically once every hour and any time on demand.

Formats 3 and 4 will only be printed if AMA data networking services(AMADNS) processing is active. Format 4 is printed in response to execution of the display-tpsum command on the AMADNS data server application.

3. VARIABLE FIELD DEFINITIONS

a = Data stream. Valid value(s):
- ST1 = The information is for the ST1 data stream.
- ST2 = The information is for the ST2 data stream.

b = Total number of AMA teleprocessing/tape sessions.

c = Number of AMA sessions that terminated normally.

d = Number of AMA sessions that terminated abnormally.

e = Number of AMA sessions that were rejected.

f = Number of primary data blocks that were transmitted.

g = Number of secondary data blocks that were transmitted.

h = Number of primary file polls that were rejected.

i = Number of secondary file polls that were rejected.

j = Number of calls where dialing was complete and AMA treatment was required.

k = Number of answered calls.

l = Number of calls where dialing was complete but no answer was received.

m = Number of records containing mutilated data.

n = Number of records written to disk.

o = Number of records sent to the data link.

p = Number of long duration calls in progress.

q = Number of records lost.

r = Number of minutes that the percentage of primary data on disk equals or exceeds the minor AMA alarm value (MIN AMA ALRM on RC/V View 8.1)

s = Number of minutes that the percentage of primary data on disk equals or exceeds the major AMA alarm value (MAJ AMA ALRM on RC/V View 8.1)

t = Number of minutes that the percentage of primary data on disk equals or exceeds the critical AMA alarm value (CRIT AMA ALRM on RC/V View 8.1)

u = Sequence number of first primary block transmitted over the past hour.

v = Sequence number of last primary block transmitted over the past hour.

w = Number of primary records written to tape.

x = Number of secondary records written to tape.

y = Total number of blocks of written to tape over the past hour.

z = Number of primary files transmitted.

a[1] = Number of secondary files transmitted.

b[1] = Number of primary file requests rejected.

c[1] = Number of secondary file requests rejected.

d[1] = Number of minutes that the percentage of primary data used or sequence numbers used is greater than or equal to the amamin administrative parameter on the AMADNS data server application.

e[1] = Number of minutes that the percentage of primary data used or sequence numbers used is greater than or equal to the amamaj administrative parameter on the AMADNS data server application.

f[1] = Number of minutes that the percentage of primary data used or sequence numbers used is greater than or equal to the amacrit administrative parameter on the AMADNS data server application.

g[1] = Name of the first file transmitted during the current day.

h[1] = Name of the last file transmitted during the current day.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:AMA-SUMMARY
```

Output Message(s):

```
REPT:AMA-CRIT
REPT:AMA-MAJOR
REPT:AMA-MINOR
REPT:AMA-TAPE-SUM
```

Other Manual(s):
190-136-166 *Billdats Data Server - High Speed Billing Operations Guide*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]

REPT:AMA-TELE-SUM-C

Software Release: 5E13 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT AMA TELEPROCESSING SUMMARY FOR STREAM a
  SESSIONS b
  NORMAL TERMINATIONS c
  ABNORMAL TERMINATIONS d
  SESSIONS REJECTED e
  PRIMARY BLOCKS TRANSMITTED f
  SECONDARY BLOCKS TRANSMITTED g
  PRIMARY POLLS REJECTED h
  SECONDARY POLLS REJECTED i
  ORIGINATIONS j
  ANSWERED CALLS k
  UNANSWERED CALLS l
  MUTILATED RECORDS m
  RECORDS WRITTEN TO DISK n
  RECORDS SENT TO LINK o
  LONG DURATION CALLS p
  RECORDS LOST q
  MINOR DISK ALARMS r
  MAJOR DISK ALARMS s
  CRITICAL DISK ALARMS t
  FIRST BLOCK TRANSMITTED u
  LAST BLOCK TRANSMITTED v
```

[2]
```
REPT AMA TAPE SUMMARY FOR STREAM a
  SESSIONS b
  NORMAL TERMINATIONS c
  ABNORMAL TERMINATIONS d
  PRIMARY RECORDS WRITTEN w
  SECONDARY RECORDS WRITTEN x
  ORIGINATIONS j
  ANSWERED CALLS k
  UNANSWERED CALLS l
  MUTILATED RECORDS m
  LONG DURATION CALLS p
  RECORDS LOST q
  TOTAL BLOCKS WRITTEN y
  RECORDS WRITTEN TO DISK n
```

[3]
```
REPT AMA TELEPROCESSING SUMMARY FOR STREAM a AMADNS ACTIVE
  PRIMARY BLOCKS TRANSMITTED TO ASM f
  ORIGINATIONS j
  ANSWERED CALLS k
  UNANSWERED CALLS l
```

```
  MUTILATED RECORDS m
  RECORDS WRITTEN TO DISK n
  LONG DURATION CALLS p
  RECORDS LOST q
  MINOR DISK ALARMS r
  MAJOR DISK ALARMS s
  CRITICAL DISK ALARMS t
```

[4]

```
REPT AMA TELEPROCESSING SUMMARY FOR AMADNS
  SESSIONS b
  NORMAL TERMINATIONS c
  ABNORMAL TERMINATIONS d
  SESSIONS REJECTED e
  PRIMARY FILES TRANSMITTED z
  SECONDARY FILES TRANSMITTED a1
  PRIMARY FILE REQUESTS REJECTED b1
  SECONDARY FILE REQUESTS REJECTED c1
  MINOR DISK ALARMS d1
  MAJOR DISK ALARMS e1
  CRITICAL DISK ALARMS f1
  FIRST FILE TRANSMITTED g1
  LAST FILE TRANSMITTED h1
```

2. REASON FOR OUTPUT

To report a summary of automatic message accounting (AMA) tape and teleprocessing activity. The message prints automatically once every hour and any time on demand.

Formats 3 and 4 will only be printed if AMA data networking services(AMADNS) processing is active. Format 4 is printed in response to execution of the display-tpsum command on the AMADNS data server application.

3. VARIABLE FIELD DEFINITIONS

a = Data stream. Valid value(s):
- ST1 = The information is for the ST1 data stream.
- ST2 = The information is for the ST2 data stream.

b = Total number of AMA teleprocessing/tape sessions.

c = Number of AMA sessions that terminated normally.

d = Number of AMA sessions that terminated abnormally.

e = Number of AMA sessions that were rejected.

f = Number of primary data blocks that were transmitted.

g = Number of secondary data blocks that were transmitted.

h = Number of primary file polls that were rejected.

i = Number of secondary file polls that were rejected.

j = Number of calls where dialing was complete and AMA treatment was required.

k = Number of answered calls.

l = Number of calls where dialing was complete but no answer was received.

m = Number of records containing mutilated data.

n = Number of records written to disk.

o = Number of records sent to the data link.

p = Number of long duration calls in progress.

q = Number of records lost.

r = Number of minutes that the percentage of primary data on disk equals or exceeds the minor AMA alarm value (MIN AMA ALRM on RC/V View 8.1)

s = Number of minutes that the percentage of primary data on disk equals or exceeds the major AMA alarm value (MAJ AMA ALRM on RC/V View 8.1)

t = Number of minutes that the percentage of primary data on disk equals or exceeds the critical AMA alarm value (CRIT AMA ALRM on RC/V View 8.1)

u = Sequence number of first primary block transmitted over the past hour.

v = Sequence number of last primary block transmitted over the past hour.

w = Number of primary records written to tape.

x = Number of secondary records written to tape.

y = Total number of blocks of written to tape over the past hour.

z = Number of primary files transmitted.

a[1] = Number of secondary files transmitted.

b[1] = Number of primary file requests rejected.

c[1] = Number of secondary file requests rejected.

d[1] = Number of minutes that the percentage of primary data used or sequence numbers used is greater than or equal to the amamin administrative parameter on the AMADNS data server application.

e[1] = Number of minutes that the percentage of primary data used or sequence numbers used is greater than or equal to the amamaj administrative parameter on the AMADNS data server application.

f[1] = Number of minutes that the percentage of primary data used or sequence numbers used is greater than or equal to the amacrit administrative parameter on the AMADNS data server application.

g[1] = Name of the first file transmitted during the current day.

h[1] = Name of the last file transmitted during the current day.

4. ACTIONS TO BE TAKEN

For Format 1, Primary/Secondary Polls can be rejected if the HOC detects a AMAT password mismatch on their end. If this happens then either the HOC or AMAT will have to reset the AMAT password so that both ends are using the same AMAT password.

For Formats 2, 3, and 4, none.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:AMA-SUMMARY
```

Output Message(s):

```
REPT:AMA-CRIT
REPT:AMA-MAJOR
REPT:AMA-MINOR
REPT:AMA-TAPE-SUM
```

Other Manual(s):
190-136-166 *Billdats Data Server - High Speed Billing Operations Guide*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]

REPT:AMA-TELEP-A

Software Release: 5E10 - 5E11
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
REPT AMA TELEPROCESSING FOR STREAM a
  b
```

2. REASON FOR OUTPUT

To report the detection of an abnormal condition for the automatic message accounting (AMA) teleprocessing operation.

3. VARIABLE FIELD DEFINITIONS

`a` = Data stream. Valid value(s):
- `ST1` = The information is for the ST1 data stream.
- `ST2` = The information is for the ST2 data stream.

`b` = Cause of condition. Valid value(s):
- `AMA MAINTENANCE FILE UNREADABLE`
- `CANNOT CREATE MAINTENANCE FILE`
- `CANNOT READ AMA DATA - DISK OUT OF SERVICE`
- `ERROR DURING OPEN OF AMA TEST FILE`
- `ERROR DURING WRITE OF AMA MAINTENANCE FILE`
- `ERROR IN READING AMA TEST FILE`
- `FAILED TO ATTACH TO PAS` = Cannot attach to protected application segment (PAS).
- `FAILED TO CREATE TEST FILE`
- `FAILED TO WRITE ENTIRE TEST FILE`
- `FILE REJECTED BY HOC` = Host collector (HOC) rejected file.
- `HOC REJECTED SESSION - CHECK AMAT PASSWORD` = Host collector (HOC) rejected session; check AMA teleprocessing password.
- `INCORRECT SUN REQUESTED` = Sending unit (SUN) of host collector does not match the designated sending unit on the switch.
- `INITIALIZATION COMPLETED`
- `MAINTENANCE FILE INITIALIZED`
- `NO AMA TELEPROCESSING DEVICE EXISTS FOR THIS STREAM`
- `SOME MTC RECORDS UNREADABLE`
- `UNEXPECTED DISK READER FAILURE`

4. ACTIONS TO BE TAKEN

If 'b' = `INCORRECT SUN REQUESTED`, notify the HOC to send another session connect using SUN0 if configured for ST1, or SUN1 if configured for ST2. An INVALID PASSWORD message will follow immediately after the INCORRECT SUN REQUESTED message. Take no action for the INCORRECT PASSWORD message until the session connect is sent with the correct SUN specified.

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For other failure conditions, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT:AMA-TELE-SE
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

REPT:AMA-TELEP-B

Software Release: 5E12 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
REPT AMA TELEPROCESSING FOR STREAM a
  b
```

2. REASON FOR OUTPUT

To report the detection of an abnormal condition for the automatic message accounting (AMA) teleprocessing operation.

3. VARIABLE FIELD DEFINITIONS

`a` = Data stream. Valid value(s):
- `ST1` = The information is for the ST1 data stream.
- `ST2` = The information is for the ST2 data stream.

`b` = Cause of condition. Valid value(s):
- `AMA MAINTENANCE FILE UNREADABLE`
- `CANNOT CREATE MAINTENANCE FILE`
- `CANNOT READ AMA DATA - DISK OUT OF SERVICE`
- `ERROR DURING OPEN OF AMA TEST FILE`
- `ERROR DURING WRITE OF AMA MAINTENANCE FILE`
- `ERROR IN READING AMA TEST FILE`
- `FAILED TO ATTACH TO SHARED SEGMENT - UNABLE TO READ MESSAGE`
- `FAILED TO ATTACH TO PAS` = Cannot attach to protected application segment (PAS).
- `FAILED TO CONNECT TO AMHISP PORT - AMHISP EXITING`
- `FAILED TO CREATE TEST FILE`
- `FAILED TO WRITE ENTIRE TEST FILE`
- `FILE REJECTED BY AMADNS DATA SERVER`
- `FILE REJECTED BY HOC` = Host collector (HOC) rejected file.
- `HOC REJECTED SESSION - CHECK AMAT PASSWORD` = Host collector (HOC) rejected session; check AMA teleprocessing password.
- `INCORRECT SUN REQUESTED` = Sending unit (SUN) of host collector does not match the designated sending unit on the switch.
- `INITIALIZATION COMPLETED`
- `MAINTENANCE FILE INITIALIZED`
- `NO AMA TELEPROCESSING DEVICE EXISTS FOR THIS STREAM`
- `SOME MTC RECORDS UNREADABLE`
- `UNEXPECTED DISK READER FAILURE`
- `ALL THE DATA ON THE OFFLINE SIDE HAS BEEN READ`
- `THE AMA PROCESS HAS BEEN TRANSITIONED TO THE ACTIVE SIDE` = This message is printed when AMADNS teleprocessing is in progress during software transitions on the new software release to inform the craft that there is no more AMA data on the offline side and the AMA process has been transitioned to the active online side.

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4. ACTIONS TO BE TAKEN

If 'b' = `INCORRECT SUN REQUESTED`, notify the HOC to send another session connect using SUN0 if configured for ST1, or SUN1 if configured for ST2. An INVALID PASSWORD message will follow immediately after the INCORRECT SUN REQUESTED message. Take no action for the INCORRECT PASSWORD message until the session connect is sent with the correct SUN specified.

For other failure conditions, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT:AMA-TELE-SE
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

REPT:AMA-TRANSFER

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT AMA TRANSFER BUFFER OVERFLOW
```

2. REASON FOR OUTPUT

To report that the automatic message accounting (AMA) data buffer between the switch and administrative module (AM) is full. A minor alarm is sounded.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

None.

5. ALARMS

Minor.

6. REFERENCES

None.

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REPT:AMADNS-TELEP

Software Release: 5E12 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT AMADNS TELEPROCESSING
      ERROR STORING BILLING DATA

[2]   ____________________________________________________________________
      REPT AMADNS TELEPROCESSING
      CORRUPTED BILLING DATA RECEIVED

[3]   ____________________________________________________________________
      REPT AMADNS TELEPROCESSING
      PRIMARY BILLING IS USING a % OF AVAILABLE SPACE
      PRIMARY BILLING IS USING b % OF AVAILABLE FILE SEQUENCE NUMBERS

[4]   ____________________________________________________________________
      REPT AMADNS TELEPROCESSING
      FAILED TO ESTABLISH c DDI SESSION

[5]   ____________________________________________________________________
      REPT AMADNS TELEPROCESSING
      ERROR WHILE TRANSMITTING DATA TO THE DPMS

[6]   ____________________________________________________________________
      REPT AMADNS TELEPROCESSING
      AMADNS DATA SERVER APPLICATION SHUTTING DOWN DUE TO ERRORS

[7]   ____________________________________________________________________
      REPT AMADNS TELEPROCESSING
      UNABLE TO ESTABLISH BILLING DATA CONNECTION
```

2. REASON FOR OUTPUT

To report errors occurring on the Automatic Message Accounting Data Networking System(AMADNS) Data Server Application that require corrective action.

3. VARIABLE FIELD DEFINITIONS

a = Percentage of storage space occupied by primary data.

b = Percentage of file sequence numbers used by primary data files.

c = Type of data server/data processing management system interface(DDI) session. Valid values:
Sender Initiated
Receiver Initiated

4. ACTIONS TO BE TAKEN

The action to be taken depends on the format of the message.

For Format 1, check file system space on the AMADNS Data Server Application. If the /bafblks file system is out of space check for and remove any non-application related files. Also, use the pkgchk command on the AMADNS Data Server Application to verify that the bafblks directory structure is intact.

For Format 2, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Message manual.

For Format 3, primary data needs to be transmitted to the data processing and management system(DPMS). Check that a DDI session will occur soon. For sender-initiated DDI, this will happen if transmission is either set to be continuous or is scheduled soon. For receiver-initiated DDI, the DPMS must initiate a DDI session. If transmission is being attempted, but failing, verify the administrative parameters related to DDI transmission with the DPMS administrator. Usage of file sequence numbers can be reduced by having the AMADNS Data Server Application create larger files. File size is controlled by the values of the bill_latency, bill_size, and max_dcni_recs AMADNS Data Server Application administrative parameters.

For Format 4, use the ver-dpms, enter-dpms, and delete-dpms commands on the AMADNS Data Server Application, to check, add, and delete one or more DPMS systems. Use the ver-admnparm and change-admnparm command on the AMADNS Data Server Application to check and correct as necessary all data parameters associated with the connection to each DPMS. These parameters include ddi_login, ddi_password, ddi_passive, and ddi_ftp_port. The values of each of these parameters must agree between the AMADNS Data Server Application and each DPMS.

For Format 5, re-transmission will automatically be attempted at a later time. If the condition persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Message manual.

For Format 6, previous AMADNS TELEPROCESSING messages will indicate the specific error and the action to be taken.

For Format 7, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Message manual.

5. ALARMS

For Format 3, the alarm is Critical if the percentage of available storage used or file sequence numbers used is greater than or equal to the value of the amacrit AMADNS Data Server Application administrative parameter. If the percentage of available storage used or file sequence numbers used is greater than or equal to the value of the amamaj parameter then the alarm is Major. If the percentage of available storage used or file sequence numbers used is greater than or equal to the value of the amamin parameter then the alarm is Minor. Format 3 will be printed as an information only message if one of the thresholds is crossed in the decreasing direction.

Major for Formats 1, 2, 4, 5, 6, and 7.

6. REFERENCES

Other Manual(s):
190-136-166 *Billdats Data Server - High Speed Billing Operations Guide*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]

REPT:AMAIRR

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
REPT AMAIRR
  FAILURE READING a        CHARGE_INDEX=b
  CALL_TYPE=c
  STUDIES=d
  FREETERM=e
              ORIGINATOR     TERMINATOR
  DN:         f              g
  SM/PORT:    h/i            j/k
  COS:        l              m
```

2. REASON FOR OUTPUT

To print data for an automatic message accounting irregularity (AMAIRR). When this occurs the AMAIRR peg count on the plant measurements reports is incremented. This information can be analyzed as to the source of the billing problem.

The AMAIRR report is written to the AMAERLOG log file. The AMAERLOG log file is always updated even when the AMAIRR report is deactivated.

3. VARIABLE FIELD DEFINITIONS

a = The name of the database relation which could not be read. Valid value(s):
- RLAMCALL = Automatic message accounting (AMA) call type relation.
- RLCHRGIDXEXP = Charge index expansion relation.

b = The charge index.

c = The AMA call type. Refer to the Business And Residence Modular Features manual.

d = Special studies in effect on the originating directory number (DN). Valid value(s):
- COMPLAINT = Complaint observing.
- DETAIL = Optional detail billing.
- NONE = No special studies in effect.
- SLUS = Subscriber line usage study.
- TRAFFIC = Traffic sampling.

e = Free termination indicator. Valid value(s):
- NO = No free termination.
- YES = Free termination.

f = The directory number of the call's originator.

g = The dialed directory number.

`h` = The number of the originating switching module (SM).

`i` = The number of the originating port in hexadecimal.

`j` = The number of the terminating SM.

`k` = The number of the terminating port in hexadecimal.

`l` = The originating class of service (COS). Refer to the Translations Data manual for a complete list of possible service classes used in domain SERVCLASS.

`m` = The terminating COS.

4. ACTION TO BE TAKEN

None.

5. ALARMS

If the field AMA ERROR MIN ALRM in RC/V View 8.1 is set to YES, a minor alarm is generated when the AMA irregularity report is written to the ROP.

6. REFERENCES

Input Message(s):

```
ALW:AMAIRR
INH:AMAIRR
OP:AMAIRR
```

Output Message(s):

```
OP:AMAIRR
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-070-100 *Switch Administration and Engineering Guidelines*
235-190-103 *Business and Residence Feature Description*
235-600-10x *Translations Data Manual*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]

REPT:AMALOST

Software Release: 5E10 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT AMALOST  a RECORD(S) - b
        AMATRC   c
        NO CALL INFORMATION AVAILABLE

[2]   ____________________________________________________________________
      REPT AMALOST  a RECORD(S) - b
        AMATRC   c

        CALLTYPE: d

        STRUCTURE CODE: e        CHARGE INDEX: f

              ANSWER: g       h     TIME: ii:ii:ii.i
             ELAPSED TIME: jj:jj.j
              STUDIES: k
               ORIGINATOR    TERMINATOR
              DN:         [l]            m
              SM/PORT:    n/o           p/q
              COS:         r             s
```

2. REASON FOR OUTPUT

To report specific information related to a lost automatic message accounting (AMALOST) record when such a loss occurs.

Format 1 is printed when there is no call information available.

Format 2 is printed when call information is available. The AMALOST report is written to the AMAERLOG log file. The AMAERLOG log file is always updated even when the AMALOST report is deactivated.

3. VARIABLE FIELD DEFINITIONS

`a` = Number of AMA records lost.

`b` = Reason why the records were lost. Valid value(s):

`COULD NOT FORMAT CARRIER CONNECT TIME FIELD` = Refer to the System Description manual and the Billing Features manual.

`COULD NOT FORMAT OPERATOR ACTION FIELD` = Refer to the System Description manual and the Billing Features manual.

`COULD NOT FORMAT TERMINATING NUMBER FIELD` = Refer to the System Description manual and the Billing Features manual.

`COULD NOT GET CALL RECORD`

`COULD NOT LOAD SM BUFFER`

`INVALID AMA MESSAGE LENGTH`

`INVALID CALL CONDITION` = Refer to the Billing Features manual.

INVALID CALL TYPE = Refer to the Billing Features manual.
INVALID EBAF TYPE = Refer to the Billing Features manual.
INVALID STRUCTURE CODE = Refer to the Billing Features manual.
INVALID STRUCTURE CODE FAMILY = Refer to the Billing Features manual.
INVALID STRUCTURE CONDITION = Refer to the Billing Features manual.
LOCAL ANSWER RECORDING INHIBITED - HALTING REPORTS = Office parameter for local answer AMA recording (LOCANSW) set to N (NO). AMA record generation was inhibited. Refer to the Recent Change Procedures Menu Mode manual and the global parameter Gllocans in the Translations Data manual. This feature is automatically halted when LOCANSW is set to N. The AMALOST report that produces this reason for the lost AMA record will have a critical alarm associated with it.
ODB CHANNEL RECORDING INHIBITED = Office parameter for on-demand b-channel recording (ODB AMA) set to N (NO). Refer to the Recent Change Procedures Menu Mode manual and the global parameter Glodbama in the Translations Data manual.
SHARED DATA SEGMENT FULL
SHARED DATA SEGMENT POINTER INVALID
SM STANDALONE MEMORY FULL
TERM ACCESS RECORDING INHIBITED - HALTING REPORTS = Office parameter for terminating interLATA carrier AMA recording (ICTERM) set to N (NO). AMA record generation was inhibited. Refer to the Recent Change Procedures Menu Mode manual and the global parameter Glicterm in the Translations Data manual. This feature is automatically halted when ICTERM is set to N. The AMALOST report that produces this reason for the lost AMA record will have a critical alarm associated with it.

c = AMA record tracing status. Valid value(s):
NOT REQUESTED
REQUESTED - NOT AVAILABLE
REQUESTED - PRINTOUT FOLLOWS = One AMATRC printout will be generated when more than one AMA record is lost in the AM.

d = AMA call type. Refer to the Billing Features manual for a complete list of AMA call types.

e = AMA record structure code. Refer to the Billing Features manual for a complete list of AMA record structure codes.

f = Charge index.

g = Answer indicator. Valid value(s):
NO = The call was not answered. Circuit time will be given.
YES = The call was answered. Answer time will be given.

h = Modifier (type) of "TIME". Valid value(s):
ANSWER = Call was answered.
CIRCUIT = Call was not answered.

i = Time when call was answered or circuit was released (for an unanswered call), in the form hours (two digits):minutes (two digits):seconds (two digits):and tenths of seconds (one digit).

j = Elapsed time of an answered call, in the form minutes (five digits): seconds (two digits):and tenths of seconds (one digit).

k	= Special studies in effect on the originating directory number (DN). Valid value(s):	
	COMPLAINT	= Complaint observing.
	DETAIL	= Optional detail billing.
	NONE	= No special studies in effect.
	SLUS	= Subscriber line usage study.
	TRAFFIC	= Traffic sampling.
l	= Directory number of the call's originator (supplied only for line originations).	
m	= Dialed directory number.	
n	= Number of the switching module (SM) at which the call originated.	
o	= Number of the originating port, in hexadecimal.	
p	= Number of the switching module (SM) at which the call terminated.	
q	= Number of the terminating port, in hexadecimal.	
r	= Originating class of service (COS). Refer to the Translations Data manual for a complete list of service classes used in domain SERVCLASS.	
s	= Terminating COS.	

4. ACTION TO BE TAKEN

If a steadily increasing number of AMALOST report messages is generated, then save a copy of the output message(s) and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

AMALOST reports generated due to "LOCAL ANSWER RECORDING INHIBITED" and "TERM ACCESS RECORDING INHIBITED" will cause a critical alarm. If the field AMA ERROR MIN ALRM in RC/V View 8.1 is set to YES, a minor alarm is generated when the AMALOST report is written to the ROP.

6. REFERENCES

Input Message(s):

```
ALW:AMALOST
ALW:AMATRC
INH:AMALOST
OP:AMALOST
```

Output Message(s):

```
OP:AMALOST
REPT:AMATRC
```

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-100-125 *System Description*
235-118-2xx *Recent Change Procedures*
235-190-300 *Billing Features and Specifications*
235-600-10x *Translations Data*
235-600-21x *Translations and Dynamic Data Domain Description*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]

REPT:AMATAPE-COMP

Software Release: 5E10 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT AMATAPE COMPLETE FOR STREAM a
  VOL SER NUMBER b
  TAPE DRIVE NUMBER c
  START TIME dd:dd:dd
  e
  START BLOCK f g
  END BLOCK h i
  RECORDS WRITTEN j
  TAPE SEQUENCE NUMBER k
  l
```

[2]
```
REPT AMATAPE COMPLETE FOR STREAM a
  TEMPORARY FILE COULD NOT BE CREATED
```

2. REASON FOR OUTPUT

To report the termination of an automatic message accounting (AMA) tape writing session.

Format 1 indicates the outcome of the tape writing session.

Format 2 indicates that the system could not create a temporary file to print the outcome of the tape writing session.

3. VARIABLE FIELD DEFINITIONS

`a` = Data stream. Valid value(s):
- `ST1` = The information printed is for the ST1 data stream.
- `ST2` = The information printed is for the ST2 data stream.

`b` = Serial number of the tape.

`c` = Tape drive number.

`d` = Start time in month, day, hours, minutes, and seconds.

`e` = Type of data written to tape, primary or secondary.

`f` = Sequence number of the first block of data written to tape. For secondary data, it is not possible to transmit the oldest 51 blocks of secondary data. Therefore, this number may not reflect the actual first block of secondary data transmitted in the case where the first block falls in that range. To determine the oldest secondary block of data, use OP:AMA-MAPS and determine the FSS from the right side of the maps for the WRITE PARTITION listed at the top of the OP:AMA-MAPS output. This block plus the 50 blocks following cannot be accessed. This is necessary since the oldest secondary AMA data could be overwritten by primary AMA data while a secondary session is in progress.

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g = Time stamp for start block in month, day, hour, and minute.

h = Sequence number of the last block of data written to tape.

i = Time stamp for last block in month, day, hour, and minute.

j = Total number of AMA records written to tape.

k = AMA tape sequence number.

l = Text phrases indicating the outcome of the tape writing session. Valid value(s):

```
NORMAL TERMINATION-MORE DATA REQUESTED THAN AVAILABLE
NORMAL TERMINATION-MORE DATA TO BE WRITTEN MOUNT ANOTHER TAPE AND
CONTINUE WITH COPY AMATAPE
NORMAL TERMINATION-NO MORE DATA
TERMINATION REQUESTED VIA STP:AMATAPE MESSAGE
TRAILER LABELS COULD NOT BE WRITTEN
AUTOMATIC TAPE WRITING STOP TIME WAS REACHED
TAPE WRITING STOPPED FOR REX DGNS
NEXT AMA PARTITION UNAVAILABLE
INVALID TERMINATION REASON SPECIFIED
```

4. ACTION TO BE TAKEN

If a normal termination occurs and more AMA data is to be written to tape, then mount, verify, and write a new tape. If the trailer labels could not be written, the tape should be discarded. If the session terminated for any other reason then no action is required.

For Format 2, enter the OP:AMA-SESSION input message to determine the outcome of the tape writing session. Determine the final disposition of the tape based on the text phrase that shows how the tape session was terminated.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CPY:AMATAPE
OP:AMA-SESSION
STP:AMATAPE
VFY:AMATAPE
OP:AMA-MAPS
```

Output Message(s):

```
REPT:AMA-DISK-MAP
```

REPT:AMATAPE-ERR-A

Software Release: 5E10 - 5E12
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
REPT AMATAPE ERROR-a FOR STREAM b
```

2. REASON FOR OUTPUT

To report that an error has occurred during the automatic message accounting (AMA) tape writing process. A minor alarm occurs.

3. VARIABLE FIELD DEFINITIONS

`a` = Text phrases indicating the AMA tape error that was found. Valid value(s):

```
COULDN'T MARK BLOCKS SECONDARY
DATA IS NOT RETRIEVABLE
DATA WRITTEN, TAPE NOT READABLE
NONSTANDARD TAPE LABELS
TAPE ABORTED BY OPERATOR
TAPE COULD NOT BE CLOSED
TAPE COULD NOT BE OPENED
TAPE COULD NOT BE READ
TAPE COULD NOT BE WRITTEN
TAPE HAS NOT EXPIRED
THIS IS NOT AN AMA TAPE
AMA PARTITION UNAVAILABLE
COULD NOT ATTACH TO PAS
COULD NOT ATTACH TO PORT
INVALID ERROR CODE RECEIVED
```

`b` = Data stream. Valid value(s):

`ST1` = Indicates that the information is for the ST1 data stream.
`ST2` = Indicates that the information is for the ST2 data stream.

4. ACTIONS TO BE TAKEN

Mount and verify another tape before writing any more AMA data. If the output message occurs more than once, then refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

Minor.

6. REFERENCES

Input Message(s):

```
CPY:AMATAPE
VFY:AMATAPE
```

REPT:AMATAPE-ERR-B

Software Release: 5E13 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
REPT AMATAPE ERROR-a FOR STREAM b
```

2. REASON FOR OUTPUT

To report that an error has occurred during the automatic message accounting (AMA) tape writing process. A minor alarm occurs.

3. VARIABLE FIELD DEFINITIONS

`a` = Text phrases indicating the AMA tape error that was found. Valid value(s):

```
COULDN'T MARK BLOCKS SECONDARY
DATA IS NOT RETRIEVABLE
DATA WRITTEN, TAPE NOT READABLE
NONSTANDARD TAPE LABELS
TAPE ABORTED BY OPERATOR
TAPE COULD NOT BE CLOSED
TAPE COULD NOT BE OPENED
TAPE COULD NOT BE READ
TAPE COULD NOT BE WRITTEN
TAPE HAS NOT EXPIRED
THIS IS NOT AN AMA TAPE
AMA PARTITION UNAVAILABLE
COULD NOT ATTACH TO PAS
COULD NOT ATTACH TO PORT
INVALID ERROR CODE RECEIVED
```

`b` = Data stream. Valid value(s):

`ST1` = Indicates that the information is for the ST1 data stream.
`ST2` = Indicates that the information is for the ST2 data stream.

4. ACTIONS TO BE TAKEN

Mount and verify another tape before writing any more AMA data. If the output message occurs more than once, then refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

Minor.

6. REFERENCES

Input Message(s):

```
CPY:AMATAPE
VFY:AMATAPE
```

REPT:AMATAPE-VER

Software Release: 5E10 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT AMATAPE VERIFY FOR STREAM a
        VOL SER NUMBER b
        DATA SET ID cccccccccccccccc
        EXPIRATION DATE dd-eee
        TAPE DRIVE NUMBER f
        g

[2]   ____________________________________________________________
      REPT AMATAPE VERIFY FOR STREAM a
        TEMPORARY FILE COULD NOT BE CREATED
```

2. REASON FOR OUTPUT

To print in response to input message VFY:AMATAPE.

Format 1 indicates the outcome of the verification process.

Format 2 is used to indicate that the system could not create a temporary file to print the outcome of the verification process.

3. VARIABLE FIELD DEFINITIONS

`a` = Data stream. Valid value(s):
- `ST1` = Indicates that the information is for the ST1 data stream.
- `ST2` = Indicates that the information is for the ST2 data stream.

`b` = Serial number of the tape. In the form:
- `xx...xx` = Tape header is not in correct format.

`c` = Data set ID. In the form:
- `xx...xx` = Tape header is not in correct format.

`d` = Year of expiration date. In the form:
- `xx` = Tape header is not in correct format.

`e` = Day of expiration (1-365). In the form:
- `xxx` = Tape header is not in correct format.

`f` = Tape drive number.

`g` = Text phrase that indicates the outcome of the verification process. Valid value(s):

```
AMA TAPE CAN BE WRITTEN
EXPIRATION DATE HAS NOT BEEN MET
TAPE COULD NOT BE CLOSED
TAPE COULD NOT BE OPENED
TAPE COULD NOT BE READ
TAPE COULD NOT BE WRITTEN
TAPE LABELS ARE INVALID
THIS IS NOT AN AMA TAPE
```

4. ACTION TO BE TAKEN

If an error has been detected, mount and verify another tape. If the automatic message accounting (AMA) tape can be written, manually initiate the writing process using the CPY:AMATAPE input message. If Format 2 prints, re-verify the tape before re-attempting to write the AMA data to it.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CPY:AMATAPE
VFY:AMATAPE
```

REPT:AMATRC

Software Release: 5E10 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT AMATRC a
         [ORIGINATING SM/PORT = b/c        TERMINATING SM/PORT = d/e]
        ------------------------------------------------------------
             Field Name      Char.   Value          Meaning
        RECORD DESCRIPTOR    1-8     f            RDW
        RECORD HEADER        1-2     g
        STRUCTURE CODE       1-5     h            Structure Code
              i              j       k            l
              .              .       .            .
              .              .       .            .
              .              .       .            .
        >>>>>  End of Record
        ------------------------------------------------------------

[2]   ____________________________________________________________________
      REPT AMATRC PROCESS DID NOT RECOGNIZE STRUCTURE CODE = h

[3]   ____________________________________________________________________
      REPT AMATRC a
         [ORIGINATING SM/PORT = b/c        TERMINATING SM/PORT = d/e]
        ------------------------------------------------------------

      >>>>  End of Record
        ------------------------------------------------------------
```

2. REASON FOR OUTPUT

To report an automatic message accounting (AMA) record has been generated for an existing AMATRC entry. One report is normally created for each AMA record as it is generated. Format 2; indicates that the AMA record generated contains a structure code that the AMA trace process does not recognize. One report is normally created for each AMA record as it is generated.

3. VARIABLE FIELD DEFINITIONS

`a` = Message qualifier. Valid value(s):

`AMA RECORD ON REQUESTED DIRECTORY NUMBER` = This is printed when the AMATRC feature is allowed.

`OF LOST AMA RECORD` = This is printed when an AMATRC report accompanies an AMALOST report. Only one AMATRC printout is generated when the associated AMALOST report indicates that more than one AMA record is lost in the administrative module (AM). The lost record that is reported is the first in the set of lost records.

`b` = The number of the originating switching module (SM). The line containing this field will not be printed if the AMATRC was initiated from the administrative module (AM) or if the report is not

associated with a port (such as, aggregate AMA record).

`c` = The number of the originating port in hexadecimal. The line containing this field will not be printed if the AMATRC was initiated from the AM or if the report is not associated with a port (such as, aggregate AMA record).

`d` = The number of the terminating SM. The line containing this field will not be printed if the AMATRC was initiated from the AM or if the report is not associated with a port (such as, aggregate AMA record).

`e` = The number of the terminating port in hexadecimal. The line containing this field will not be printed if the AMATRC was initiated from the AM or if the report is not associated with a port (such as, aggregate AMA record).

`f` = The value of the record descriptor word as it exists in the AMA record.

`g` = Record header. Valid value(s):
- `aa` = No fill char expected in this record.
- `ab` = Fill char expected in this record.

`h` = Structure code as it exists in the AMA record.

`i` = Field name. Refer to the Billing Features manual for a complete list of possible AMA field names.

`j` = The range of characters comprising the field '`i`' in the AMA record.

`k` = The numerical value of the field '`i`' in the AMA record.

`l` = The meaning of the translated field '`i`'.

`m` = A hexadecimal representation of the AMA record.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:AMALOST
ALW:AMATRC
INH:AMATRC
OP:AMATRC
```

Output Message(s):

```
OP:AMATRC
```

Other Manual(s):
235-190-300 *Billing Features and Specifications*

REPT:AML-REACH-A

Software Release: 5E10 only
Message Class: ATL
Application: 5
Type: Output

1. FORMAT

```
REPT AML REACHED TG a SZ b OOS c AML d AMLOOS e
```

2. REASON FOR OUTPUT

To report when a given two-way or outgoing trunk group's total out-of-service (OOS) count or automatic maintenance limit OOS (AMLOOS) count has reached the automatic maintenance limit (AML) set for that trunk group. No additional trunks in the group can be removed automatically for reasons that count against the AML if the AML has been reached by the AMLOOS count.

3. VARIABLE FIELD DEFINITIONS

a	= Trunk group number.
b	= Number of trunks in the trunk group.
c	= Total number of OOS trunks in the trunk group.
d	= Current AML for the trunk group.
e	= Number of trunks OOS for reasons that count against the group AML.

4. ACTIONS TO BE TAKEN

Investigate the test equipment for the failure, or confirm the condition of the trunks.

5. ALARMS

The alarm level is changeable to minor, major or critical using recent change by updates or inserts on the recent change trunk group view. Refer to the circuit limit (CKTLIM) indicator at the Master Control Center (MCC) display for the alarm level generated.

6. REFERENCES

Input Message(s):

```
OP:AML
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:AML-REACH-B

Software Release: 5E11 and later
Message Class: ATL
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT AML REACHED TG a SZ b OOS c AML d AMLOOS e

[2]   ____________________________________________________________
      REPT AML REACHED AND THE ENTIRE TRUNK GROUP IS OUT-OF-SERVICE
       TG a SZ b OOS c AML d AMLOOS e
```

2. REASON FOR OUTPUT

Format 1 reports that a given two-way or outgoing trunk group's total out-of-service (OOS) count or automatic maintenance limit OOS (AMLOOS) count has reached the automatic maintenance limit (AML) set for that trunk group. No additional trunks in the group can be removed automatically for reasons that count against the AML if the AML has been reached by the AMLOOS count.

Format 2 reports that a given trunk group's total out-of-service (OOS) count has reached 100%. The entire trunk group is out-of-service.

3. VARIABLE FIELD DEFINITIONS

`a` = Trunk group number.

`b` = Number of trunks in the trunk group.

`c` = Total number of OOS trunks in the trunk group.

`d` = Current AML for the trunk group.

`e` = Number of trunks OOS for reasons that count against the group AML.

4. ACTIONS TO BE TAKEN

Investigate the test equipment for the failure, or confirm the condition of the trunks.

5. ALARMS

The alarm level for format 1 is changeable to minor, major or critical using recent change by updates or inserts on the recent change trunk group view. Refer to the circuit limit (CKTLIM) indicator at the Master Control Center (MCC) display for the alarm level generated.

The alarm level for format 2 is critical.

6. REFERENCES

Input Message(s):

`OP:AML`

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Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:ANALY-TLP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT ANALY TLP NULL PACK LIST

[2]   ____________________________________________________________
      REPT ANALY TLP CANNOT FIND PACK LOCATION a

[3]   ____________________________________________________________
      REPT ANALY TLP UNABLE TO OPEN TLDB b

[4]   ____________________________________________________________
      REPT ANALY TLP UNABLE TO READ HEADER FROM DATA BASE=b

[5]   ____________________________________________________________
      REPT ANALY TLP ILLEGAL ARGUMENT c

[6]   ____________________________________________________________
      REPT ANALY TLP CONNSEG FAILED ERRNO d

[7]   ____________________________________________________________
      REPT ANALY TLP CANNOT OPEN INPUT FILE e

[8]   ____________________________________________________________
      REPT ANALY TLP CANNOT OPEN DIRECTORY ../datatbl/tlp/misc

[9]   ____________________________________________________________
      REPT ANALY TLP NO KEYS SET FOR INPUT TO TLP
```

2. REASON FOR OUTPUT

To report error conditions encountered by a trouble locating process (TLP).

Format 1 is printed when a search of the trouble location database (TLDB) found no suspected faulty circuit packs. The fault signature from first failing phase is substantially different from fault signatures in the trouble location data base file.

Format 2 is printed when a circuit-pack location cannot be found by the TLP.

Format 3 is printed when the TLP search program cannot open the trouble-locating data base file associated with the diagnostic phase that failed.

Format 4 is printed when the trouble-locating data base could be opened, but the header information was not there.

Format 5 is printed when the diagnostic monitor (DIAMON) passes an illegal argument to TLP.

Format 6 is printed when TLP cannot connect to the diagnostic control block segment.

Format 7 is printed when TLP cannot open the file created by the diagnostic control process, which contains the diagnostic fault signatures.

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Format 8 is printed when the directory /diag/datatbl/tlp/misc cannot be opened. This directory contains the pack location file for each subunit.

Format 9 is printed when a diagnostic failure did not set any tlp keys and consequently sent a null signature to TLP.

3. VARIABLE FIELD DEFINITIONS

a = Pack number.

b = Pathname that specifies the filename of the TLDB.

c = Illegal argument passed by DIAMON to TLP.

d = Error code returned by the system function connseg. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

e = Name of TLP file containing the diagnostic fault signatures.

4. ACTION TO BE TAKEN

Retry the request to determine if condition is repeatable. If it is, perform the actions below appropriate for each output message format. If that fails to clear the problem, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Formats 1, 2, 5, 6, and 7, check trouble location process file, /diag/dgnc/tlp and restore from backup file system.

For Formats 1, 3, and 4, check TLDB file and restore from backup file system. TLDB files are in directory /diag/datatbl/tlp/"unit[c|e|s|v|x]" and are named "unitphase.db", for example: /diag/databl/tlp/dmac/dca10.db (refer to the unit/subunit UCB mv value and the "tldb" lines in the /diag/util/cu|pu/"unit" file for the TLDB directory).

For Formats 1 and 9, check diagnostic data table file and off line main store file, if applicable, restore from backup file system. Data table files are in directories under /diag/datatbl (refer to the unit/subunit UCB mv value and the "dgn" lines in the unit/subunit util file under /diag/util for the dpt file name, then the dpt file under /diag/dtp for the data table file names). Off line main store files are in directories under /diag/offcode/mas (refer to the "excofl" statements in the diagnostic listing file to identify the off line main store files - executed).

For Formats 5, 6, and 7, check diagnostic monitor process file, /diag/dgnc/ppdiamon, restore from backup file system.

For Format 2, check pack location file, restore from backup file system. Pack location files are in /diag/datatbl/tlp/misc and are named "p.unit_number_number", examples: p.cu.0_10 and p.dfc.21_22.

For Format 8, check directory and files exist and have correct permissions. Restore directory and files from backup file system.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	21

2, 6	22
3, 4, 5, 7	20

Output Message(s):

```
ANALY:TLPFILE
```

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:AP-COM-LOST

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
REPT AP COMMUNICATION LOST ON LINK APDLaa
```

2. REASON FOR OUTPUT

To report the loss of an application processor (AP) communication data link (APDL).

3. VARIABLE FIELD DEFINITIONS

`a` = Identity of the AP data links. The valid codes are two-digit numbers from 01 to 32.

4. ACTION TO BE TAKEN

Determine the source of failure and repair the link as soon as possible. For more information, refer to MCC display page 117.

5. ALARMS

Major.

6. REFERENCES

Output Message(s):

```
REPT:SDL
```

MCC Display Page(s):

117 (IOP AP DATA LINKS)

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REPT:AP-COM-PLAN

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT AP COMMUNICATION PLANNED DOWN ON LINK APDLaa
        FOR bb HOURS cc MINUTES

[2]   ____________________________________________________________________
      REPT AP COMMUNICATION PLANNED DOWN ON AP aa
        FOR bb HOURS cc MINUTES
```

2. REASON FOR OUTPUT

To report that an application processor (AP) is unavailable for a scheduled period.

Format 1 appears when the AP data line (APDL) is affected.

Format 2 appears when the AP itself is affected.

3. VARIABLE FIELD DEFINITIONS

`a` = Identity of the APDL or the AP. The valid codes are two-digit numbers from 01 to 32 for APDL or from 01 to 99 for AP.

`b` = Hours of scheduled down-time.

`c` = Minutes of scheduled down-time.

4. ACTION TO BE TAKEN

If the link is not back up after the scheduled down time, it should be brought up as soon as possible. If the AP hardware is in service, the software on the switch will reconnect the session. Restoring the synchronous data link controller (SDLC) hardware will also initiate a reconnect request. If the AP hardware is not in service, request that it be put back in service.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

`REPT:SDL`

REPT:APPTEXT

Software Release: 5E10 and later
Message Class: RCVY
Application: 5
Type: Output

1. FORMAT

```
REPT APPTEXT - RCV FATAL a TERM-ID = b
  FILE = c        LINE NUMBER = d
  USER SESSION TERMINATED DUE TO ERROR = e
```

2. REASON FOR OUTPUT

To specify the termination status of an RCV:APPTEXT input message.

3. VARIABLE FIELD DEFINITIONS

`a` = The type of fatal error detected. The error is either a fatal user or a fatal internal error. Valid value(s):
`INTERNAL` = System error.
`USER ERROR` = Incorrect information input.

`b` = Name of the terminal that was executing RCV:APPTEXT.

`c` = The software file reporting the fatal error.

`d` = The line number at which the software file is reporting the fatal error.

`e` = The error which caused RCV:APPTEXT to terminate. Valid value(s):
`APTXT:U1 - USER ERROR` = Parameter VFYNMVAL is not allowed for DEVICE=ROP or DEVICE={ttyname}.
`APTXT:U2 - USER ERROR` = Parameter VFYIMMED is not allowed for DEVICE=STDOUT or DEVICE={ttyname}, where ttyname is the user's terminal name.
`APTXT:U3 - USER ERROR` = Parameter VFYIMMED is not allowed for DEVICE=FILE.
`APTXT:U4 - USER ERROR` = Specified parameters VFYSCIMG and VFYIMMED cannot use DEVICE=ROP or DEVICE=FILE.
`APTXT:U5 - USER ERROR` = Parameter VFYNMVAL is not allowed for DEVICE=STDOUT. Please use DEVICE=FILE.
`APTXT:U6 - USER ERROR` = Electronic users are not allowed to use DEVICE=FILE.
`APTXT:U7 - USER ERROR` = Parameter "DEVICE=" was specified without any value.
`APTXT:U8 - USER ERROR` = Parameter VFYIMMED is not allowed for the SCC.
`APTXT:U9 - USER ERROR` = EOF (end of file) on input is detected.
`APTXT:U10 - USER ERROR` = Parameter "VERSION=" was specified without any value.
`APTXT:U11 - USER ERROR` = Parameter "VERSION=" was specified with an invalid value.
`APTXT:U13 - USER ERROR` = Parameters VFYIMMED and "DEVICE=STDOUT" must be used on a *UNIX*® terminal.
`APTXT:I1 - INTERNAL ERROR` = Cannot open log file "rcvapptlog" for spooling to the ROP.
`APTXT:I2 - INTERNAL ERROR` = Cannot create/open temporary file.
`APTXT:I3 - INTERNAL ERROR` = Environmental variable for user input message is not set.
`APTXT:I4 - INTERNAL ERROR` = Cannot open temporary file for verify output.
`APTXT:I5 - INTERNAL ERROR` = Cannot open log file "rcvapptlog" for writing.

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`APTXT:I6 - INTERNAL ERROR` = Craft error while reading user input.
`APTXT:I7 - INTERNAL ERROR` = Fatal return from ODIN while processing the current form.
`APTXT:I8 - INTERNAL ERROR` = Unable to determine if recent change has been inhibited.
`APTXT:I9 - INTERNAL ERROR` = Pathname for form exceeds defined limits.
`APTXT:I10 - INTERNAL ERROR` = Unable to open the data base to process recent change request(s).
`APTXT:I11 - INTERNAL ERROR` = Unable to dynamically request space for the current form.
`APTXT:I12 - INTERNAL ERROR` = Unable to determine free space available in the /rclog partition.
`APTXT:I13 - INTERNAL ERROR` = Unable to determine verify output file size.
`APTXT:I14 - INTERNAL ERROR` = Unable to remove user's zero length verify output file.
`APTXT:I15 - INTERNAL ERROR` = Cannot allocate space for internal options.
`APTXT:I16 - INTERNAL ERROR` = Space exceeded in mtsrch_act().
`APTXT:I17 - INTERNAL ERROR` = Error occurred in mtprcs_fld() while processing ASDFLT action.
`APTXT:I18 - INTERNAL ERROR` = Invalid TR_COND in action table.
`APTXT:I19 - INTERNAL ERROR` = Not enough space for non-key fields for translated session.
`APTXT:I20 - INTERNAL ERROR` = Null file pointer found for action table file.
`APTXT:I21 - INTERNAL ERROR` = Unable to allocate space for Mname_loc array.
`APTXT:I22 - INTERNAL ERROR` = Action table corrupt. Field separator not found.
`APTXT:I23 - INTERNAL ERROR` = Unable to allocate space for Mname_loc.name.
`APTXT:I24 - INTERNAL ERROR` = Unable to allocate space for ACT_TBL entry.
`APTXT:I25 - INTERNAL ERROR` = Unable to "seek" in action table for current form.
`APTXT:I26 - INTERNAL ERROR` = Unable to retrieve line from action table for this form.
`APTXT:I27 - INTERNAL ERROR` = Unable to allocate space for old field name.
`APTXT:I28 - INTERNAL ERROR` = Action table corrupt. Multiple entries found for a field requiring no translation.
`APTXT:I29 - INTERNAL ERROR` = Action table corrupt. Multiple entries found for a field that is not supported for translation.
`APTXT:I30 - INTERNAL ERROR` = Space exceeded in mtld_buf().
`APTXT:I31 - INTERNAL ERROR` = Invalid proc_info found in the ACT_TBL entry for a field on a form.
`APTXT:I32 - INTERNAL ERROR` = Invalid action found in the ACT_TBL for a field on a form.
`APTXT:I33 - INTERNAL ERROR` = Invalid condition found in the ACT_TBL for a field on a form.
`APTXT:I34 - INTERNAL ERROR` = Unable to allocate space for "new" field name.
`APTXT:I35 - INTERNAL ERROR` = Unable to allocate space for "old" field value.
`APTXT:I36 - INTERNAL ERROR` = Unable to allocate space for "new" field value.
`APTXT:I37 - INTERNAL ERROR` = Unable to allocate space for "else" field name.
`APTXT:I38 - INTERNAL ERROR` = Unable to allocate space for "else" field value.
`APTXT:I39 - INTERNAL ERROR` = mtsrch_act() called with incompatible parameters.
`APTXT:I40 - INTERNAL ERROR` = Errors occurred in mtostran().
`APTXT:I41 - INTERNAL ERROR` = mtprcs_new() called with an invalid action.
`APTXT:I42 - INTERNAL ERROR` = Not enough space for key storage for translated session.
`APTXT:I43 - INTERNAL ERROR` = Not able to read ECD forms.

4. ACTION TO BE TAKEN

Refer to the appropriate Recent Change Manual to identify user input errors. Contact next level of support for assistance with resolving internal errors.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RCV:APPTEXT
```

Output Message(s):

```
REPT:RCV
```

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-900-304 *Recent Change Operations Systems Interface*
235-118-22x *Recent Change Menu Mode/Text Interface*

REPT:APT-ABANDON

Software Release: 5E10 and later
Message Class: ATL
Application: 5
Type: Output

1. FORMAT

```
REPT APT ABANDON TKG a     VOICE ENCOUNTERED     OPDN b
```

2. REASON FOR OUTPUT

To inform the user that automatic (trunk) progression testing (APT) has aborted an entire trunk group because "VOICE" was encountered while testing. This happened because the far end test line number that APT outpulsed was invalid.

If brevity control has not been inhibited for this message class, this message may or may not appear on the receive-only printer (ROP), depending on whether the threshold of messages for this message class has been reached in a 15-minute interval.

3. VARIABLE FIELD DEFINITIONS

a = Trunk group that will be skipped (abandoned) from APT testing.

b = Digits that were outpulsed when the result from the test was "VOICE".

4. ACTION TO BE TAKEN

Investigate the digits that are being outpulsed over this trunk group. Correct the relation TM_ATTTN if the digits are not correct for this type of trunk. Then verify the correct OPDN with the TST:TRK input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
SCHED:APT
STP:APT
TST:TRK
```

Output Message(s):

```
REPT:APT-ABANDON
REPT:APT-ABORT
REPT:APT-COMPL
REPT:APT-FAIL
REPT:APT-RESUME
REPT:APT-START
REPT:APT-STOP
REPT:APT-SUSPEND
```

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Other Manual(s):
235-900-101 *Technical Specification and System Description*

REPT:APT-ABORT

Software Release: 5E10 and later
Message Class: ATL
Application: 5
Type: Output

1. FORMAT

```
REPT APT ABORTED LAST TKGMN TESTED a b c
```

2. REASON FOR OUTPUT

To report that the automatic progression testing (APT) was aborted during its scheduled testing session.

If brevity control has not been inhibited for this message class, this message may or may not appear on the receive-only printer (ROP), depending on whether the threshold of messages for this message class has been reached in a 15-minute interval.

3. VARIABLE FIELD DEFINITIONS

`a` = Trunk group last tested.

`b` = Trunk group member number of the last trunk tested.

`c` = Reason for abort. Valid value(s):

- `(blank)` = Indicates system resource failure or system is in minimum (MIN) mode.
- `MIN MODE` = Aborted because the system was in MIN mode at the time the APT session began.
- `OVERLOAD` = The administrative module (AM) or switching module (SM) is in overload.
- `SOFTWARE` = Aborted due to internal system problems.
- `TERMINAL PROCESS TIMEOUT` = Aborted due to APT's terminal process timing out.

4. ACTION TO BE TAKEN

Reschedule APT at another time.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
SCHED:APT
```

Output Message(s):

```
REPT:APT-SUSPEND
```

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REPT:APT-COMPL

Software Release: 5E10 and later
Message Class: ATL
Application: 5
Type: Output

1. FORMAT

```
REPT APT COMPLETE        LAST TKGMN TESTED a b c
```

2. REASON FOR OUTPUT

To report that the automatic progression testing (APT) has completed testing and ran to completion. The APT session ended because it cycled through to the end of the list of trunks to be tested.

If brevity control has not been inhibited for this message class, this message may or may not appear on the receive-only printer (ROP), depending on whether the threshold of messages for this message class has been reached in a 15-minute interval.

3. VARIABLE FIELD DEFINITIONS

`a` = Trunk group number of the last trunk tested.

`b` = Trunk group member number of the last trunk tested.

`c` = The current trunk group is completely tested. Valid value(s):
`(blank)` = Indicates the test has run to completion.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

`REPT:APT-START`

Other Manual(s):
235-900-101 *Technical Specification and System Description*

REPT:APT-FAIL-A

Software Release: 5E10 - 5E12
Message Class: ATL
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT APT FAILED TKGMN a b TEN c d e f g OPDN h TYPE i n

[2]   ____________________________________________________________
      REPT APT FAILED TKGMN a b DEN c k l m OPDN h TYPE i n

[3]   ____________________________________________________________
      REPT APT FAILED TKGMN a b NEN c p q r s t OPDN h TYPE i n
```

2. REASON FOR OUTPUT

To report that the indicated trunk failed on operational test during automatic progression testing (APT).

If brevity control has not been inhibited for this message class, this message may or may not appear on the receive-only printer (ROP), depending on whether the threshold of messages for this message class has been reached in a 15-minute interval.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`a` = Trunk group number.

`b` = Trunk member number.

`c` = Switching module (SM) number.

`d` = Trunk unit number.

`e` = Service group number.

`f` = Channel board number.

`g` = Circuit number.

`h` = Digits outpulsed for the test call.

`i` = Type of test performed. Valid value(s):

`103`	= 103 operational test.
`CONT`	= Continuity test.
`CTX2`	= Centrex phase II test line.
`CTX3`	= Centrex phase III test line.
`LBK`	= Loopback test.
`LBKINV`	= Loopback inverting test.
`NSYNC`	= Nonsynchronous test.
`PERM`	= Permanent busy test.

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SXS	= Step-by-step test line.
SYNC	= Synchronous test.

k	= Digital line and trunk unit (DLTU) number.
l	= Digital facility interface number.
m	= Channel number.
n	= Reason for failure. For a description of this printout, refer to the TST:TRK output message.
p	= Digital network unit - synchronous optical network (SONET) (DNU-S) number.
q	= Data group (DG) number.
r	= Synchronous transport signal (STS) number.
s	= Virtual tributary 1.5 (VT1.5) number.
t	= Digital signal level 0 (DS0) number.

4. ACTION TO BE TAKEN

When a trunk fails an operational test during APT, the trunk is taken out-of-service (OOS) but the trunk maintenance personnel may want to write a trouble report against the trunk if it is faulty. If an internal switch software error occurs repeatedly, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
SCHED:APT
STP:APT
```

Output Message(s):

```
REPT:APT-ABANDON
REPT:APT-ABORT
REPT:APT-COMPL
REPT:APT-RESUME
REPT:APT-START
REPT:APT-STOP
REPT:APT-SUSPEND
SCHED:APT
STP:APT
TST:TRK
```

Other Manual(s):

235-900-101 *Technical Specification and System Description*

REPT:APT-FAIL-B

Software Release: 5E13 and later
Message Class: ATL
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT APT FAILED TKGMN a b TEN c d e f g OPDN h TYPE i n

[2]   ____________________________________________________________
      REPT APT FAILED TKGMN a b DEN c k l m OPDN h TYPE i n

[3]   ____________________________________________________________
      REPT APT FAILED TKGMN a b NEN c p q r s t u v OPDN h TYPE i n
```

2. REASON FOR OUTPUT

To report that the indicated trunk failed on operational test during automatic progression testing (APT).

If brevity control has not been inhibited for this message class, this message may or may not appear on the receive-only printer (ROP), depending on whether the threshold of messages for this message class has been reached in a 15-minute interval.

3. VARIABLE FIELD DEFINITIONS

`a` = Trunk group number.

`b` = Trunk member number.

`c` = Switching module (SM) number.

`d` = Trunk unit number.

`e` = Service group number.

`f` = Channel board number.

`g` = Circuit number.

`h` = Digits outpulsed for the test call.

`i` = Type of test performed. Valid value(s):

`103`	= 103 operational test.
`CONT`	= Continuity test.
`CTX2`	= Centrex phase II test line.
`CTX3`	= Centrex phase III test line.
`LBK`	= Loopback test.
`LBKINV`	= Loopback inverting test.
`NSYNC`	= Nonsynchronous test.
`PERM`	= Permanent busy test.
`SXS`	= Step-by-step test line.
`SYNC`	= Synchronous test.

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`k` = Digital line and trunk unit (DLTU) number.

`l` = Digital facility interface number.

`m` = Channel number.

`n` = Reason for failure. For a description of this printout, refer to the TST:TRK output message.

`p` = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

`q` = Data group (DG) number.

`r` = SONET termination equipment (STE) facility number.

`s` = Synchronous transport signal (STS) facility number.

`t` = Virtual tributary group (VTG) number.

`u` = Virtual tributary member (VTM) number.

`v` = Digital signal level 0 (DS0) number.

4. ACTIONS TO BE TAKEN

When a trunk fails an operational test during APT, the trunk is taken out-of-service (OOS) but the trunk maintenance personnel may want to write a trouble report against the trunk if it is faulty. If an internal switch software error occurs repeatedly, refer to the TECHNICAL ASSISTANCE secton of the INTRODUCTION.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
SCHED:APT
STP:APT
```

Output Message(s):

```
REPT:APT-ABANDON
REPT:APT-ABORT
REPT:APT-COMPL
REPT:APT-RESUME
REPT:APT-START
REPT:APT-STOP
REPT:APT-SUSPEND
SCHED:APT
STP:APT
TST:TRK
```

Other Manual(s):

235-900-101 *Technical Specification and System Description*

REPT:APT-RESUME

Software Release: 5E10 and later
Message Class: ATL
Application: 5
Type: Output

1. FORMAT

```
REPT APT RESUMED        LAST TKGMN TESTED a b c
```

2. REASON FOR OUTPUT

To report that the automatic progression testing (APT) is resumed after a suspension.

If brevity control has not been inhibited for this message class, this message may or may not appear on the receive-only printer (ROP), depending on whether the threshold of messages for this message class has been reached in a 15-minute interval.

3. VARIABLE FIELD DEFINITIONS

`a` = Trunk group number of the last trunk tested.

`b` = Trunk group member number of the last trunk tested.

`c` = System is no longer in overload and/or minimum (MIN) mode. Valid value(s):
`(blank)` = Indicates resumption of testing.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT:APT-SUSPEND
```

Other Manual(s):
235-900-101 *Technical Specification and System Description*

REPT:APT-START

Software Release: 5E10 and later
Message Class: ATL
Application: 5
Type: Output

1. FORMAT

```
REPT APT STARTED      FIRST  TKGMN TESTED a b c
```

2. REASON FOR OUTPUT

To indicate that automatic progression testing (APT) has started the testing session. The APT was either scheduled automatically by the switch or manually by the SCHED:APT input messages.

If brevity control has not been inhibited for this message class, this message may or may not appear on the receive-only printer (ROP), depending on whether the threshold of messages for this message class has been reached in a 15-minute interval.

3. VARIABLE FIELD DEFINITIONS

`a` = Trunk group number of the first trunk tested.
Note: Since APT tests 2 trunk groups at a time, the variable '`a`' represents the numerically smaller trunk group number that were about to be tested when APT was stopped the last time. Together, '`a`' and '`b`' represent the trunk at which testing started for the current running of APT.

`b` = Trunk group member number of the first trunk tested.

`c` = Schedule of APT. Valid value(s):
`MANUAL` = Manual override of normal APT schedule using SCHED:APT messages.
`NORMAL` = APT started on normal schedule.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`SCHED:APT`

Other Manual(s):
235-900-101 *Technical Specification and System Description*

REPT:APT-STOP

Software Release: 5E10 and later
Message Class: ATL
Application: 5
Type: Output

1. FORMAT

```
REPT APT STOPPED        LAST TKGMN TESTED a b c
```

2. REASON FOR OUTPUT

To indicate that automatic progression testing (APT) ran until the duration timer expired. The next APT session begins with the next trunk group and member number specified in variables '`a`' and '`b`'.

If brevity control has not been inhibited for this message class, this message may or may not appear on the receive-only printer (ROP), depending on whether the threshold of messages for this message class has been reached in a 15-minute interval.

3. VARIABLE FIELD DEFINITIONS

`a` = Trunk group number of the last trunk tested.

`b` = Trunk group member number of the last trunk tested.

`c` = The test has stopped. Valid value(s):
`(blank)` = Indicates the test has run until the duration timer expired.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT:APT-START
```

Other Manual(s):
235-900-101 *Technical Specification and System Description*

REPT:APT-SUSPEND

Software Release: 5E10 and later
Message Class: ATL
Application: 5
Type: Output

1. FORMAT

```
REPT APT SUSPENDED        LAST TKGMN TESTED a b c
```

2. REASON FOR OUTPUT

To report that the automatic progression testing (APT) has been suspended due to an overload or minimum mode (MINMODE) condition. If the system does not return to normal within two hours after the suspension, APT will be aborted. If the system returns to normal within two hours, APT will resume the testing session.

If brevity control has not been inhibited for this message class, this message may or may not appear on the receive-only printer (ROP), depending on whether the threshold of messages for this message class has been reached in a 15-minute interval.

3. VARIABLE FIELD DEFINITIONS

`a` = Trunk group number of the last trunk tested.

`b` = Trunk group member number of the last trunk tested.

`c` = Reason APT has been suspended. Valid value(s):
`MIN MODE` = Administrative module (AM) or switching module (SM) went into MIN MODE.
`OVERLOAD` = The AM or an SM is in overload.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT:APT-ABORT
REPT:APT-RESUME
```

Other Manual(s):
235-900-101 *Technical Specification and System Description*

REPT:ARR-AUTORST

Software Release: 5E10 and later
Message Class: SWM01
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT ARR AUTORST
        ACTIVATED

[2]   ____________________________________________________________
      REPT ARR AUTORST
        a b FOR c d

[3]   ____________________________________________________________
      REPT ARR AUTORST
        RECOVERY THRESHOLD EXCEEDED FOR c

[4]   ____________________________________________________________
      REPT ARR AUTORST
        TIMEOUT AWAITING MIRA FOR c

[5]   ____________________________________________________________
      REPT ARR AUTORST
        a b FOR c STOPPED

[6]   ____________________________________________________________
      REPT ARR AUTORST
        ACNR CONFIGURATION REQUEST TO INCLUDE c e
        f
```

2. REASON FOR OUTPUT

To report the result of an automatic ring recovery (ARR) routine of the interprocess message switch (IMS).

Format 1 reports that the timing interval following an IMS level 3 or 4 initialization has expired and that the ARR system of the IMS driver is now active for recovery of inactive nodes. During the timing interval, ARR will recover only those inactive nodes that are designated by application critical node recovery (ACNR).

Format 2 reports the state of an automatic restoration of the specified ring node.

Format 3 reports that the restoration count for the specified ring node has exceeded its threshold value (3). No further action will be taken by ARR. The node is placed in the manual state awaiting user intervention.

Format 4 reports that a timeout has occurred awaiting a reply from the maintenance input request administrator (MIRA) regarding the disposition of a conditional restoration requested by the ARR routine. The node is placed in the manual state awaiting user intervention.

Format 5 reports that a nominated critical node could not be restored, probably because the input message INH:DMQ with the SRC=ALL option has been entered. The ring recovery software cannot proceed until manual action is taken to restore the node or mark it manual.

3. VARIABLE FIELD DEFINITIONS

a = Source of the recovery. Valid value(s):

- ACNR = Application critical node recovery.
- ARR = IMS automatic ring recovery.
- CNR = IMS critical node recovery for inactive beginning of isolated segment and end of isolated segment (BISO/EISO).

b = Type of recovery. Valid value(s):

- CONDRST = Conditional restoration.
- RSTRT = Restart.
- UCLRST = Unconditional restoration.

c = Ring node (RN) name (for example, RPCN000).

d = The state of an automatic restoration of the specified ring node. Valid value(s):

- ABORTED = Reports that an automatic restoration requested by an ARR routine has been aborted, but without discovering a problem with the node. ARR will reattempt a restoration of the node at a later time, unless the restoration count for the node has exceeded its threshold value (3).
- FAILED = Reports that an automatic restoration requested by the ARR routine has failed, due to a failing diagnostic phase. No further action will be taken by ARR. The node is placed in the manual state awaiting user intervention.
- STARTED = Reports that a node recovery has started.
- SUCCEEDED = Reports that a node recovery has succeeded.

e = Configuration inclusion direction. Valid value(s):

- IN BISO DIRECTION = Attempt to configure ACNR node into the BISO end of the active ring.
- IN EISO DIRECTION = Attempt to configure ACNR node into the EISO end of the active ring.
- IN EISO DIRECTION = Normal ring is requested.

f = The value of the real-time clock at the time the report is formatted. The real-time clock has a granularity of 1ms. Used in correlation with other reports.

4. ACTION TO BE TAKEN

For Formats 1 and 2, no action is required.

For Formats 2 and 3, manually diagnose and restore the ring node by using the RST input messages for a restoration on a specified ring node with or without diagnostics being run. The DGN input messages will run diagnostics on the specified node with no restoration.

For Format 4, abort the automatic restoration request by using the OP:DMQ and STOP:DMQ input messages. Then manually diagnose and restore the specified ring node as described for Format 2.

For Format 5, remove the inhibits against ARR or ALL as soon as possible and manually restore the specified node. This is important to restarting the automatic ring recovery software.

For Format 6, none.

5. ALARMS

Minor.

6. REFERENCES

Input Message(s):

```
DGN:LN
DGN:RPCN
INH:DMQ
OP:DMQ
RST:LN
RST:RPCN
STOP:DMQ
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

118 (CNI FRAME AND CCS LINK STATUS)

REPT:AS-AMA-DISK

Software Release: 5E10 and later
Message Class: ALRM
Application: 5
Type: Output

1. FORMAT

```
REPT AS AMA DISK FULL
```

2. REASON FOR OUTPUT

To report that the automatic message accounting CAMA partition on the disk is full. A major alarm occurs.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

Determine the reason why data is not being taken off the disk. If localized AMA (LAMA) office, write to tape. If teleprocessing office, use data link to host collector (HOC).

5. ALARMS

Major.

6. REFERENCES

None.

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REPT:AS-AMA-LDC

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
REPT AS AMA LDC a b
  PORT   MODULE   MID   PID
  c      d        e     f - g - h
```

2. REASON FOR OUTPUT

To report long duration calls (LDCs), which are calls that have been continuously in the talk state at a scheduled record generation time for more than 24 hours.

3. VARIABLE FIELD DEFINITIONS

a = Sequence number of this message.

b = Continuation indicator. Valid value(s):
- + = Yes.
- - = No.

c = Port member number (in hexadecimal).

d = Module number.

e = Number of midnights that have elapsed.

f = Process number of controlling process.

g = Process identifier (PID) of controlling process.

h = Uniqueness field of controlling process.

4. ACTION TO BE TAKEN

Attempt to verify that the call is valid; if not, idle the call. Notify the billing center if the call is idled.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
TRC:UTIL
```

Other Manual(s):

235-100-125 *System Description*
235-900-113 *Product Specification*

REPT:ASM

Software Release: 5E12 and later
Message Class: SFTW,ASM
Application: 5
Type: Output

1. FORMAT

```
REPT ASM a
```

2. REASON FOR OUTPUT

The ASM process manager sends these messages to report various requests it received and various activities it performed.

The SFTW message class applies to 5E12. The ASM message class applies to 5E13 and later.

3. VARIABLE FIELD DEFINITIONS

a = This is the list of requests/activities ASM process manager received/performed.

Minor Alarm Messages:

RECEIVED REQUEST TO SHUTDOWN
RECEIVED REQUEST TO START
RECEIVED REQUEST TO REBOOT
FAILED REQUEST TO SHUTDOWN
FAILED REQUEST TO START
FAILED REQUEST TO REBOOT
SHUTDOWN COMPLETED
START COMPLETED
REBOOT COMPLETED

Information Messages:

STARTING APPLICATION PROCESSES
STOPPING APPLICATION PROCESSES
CLOCK SYNCHRONIZED TO AM CLOCK

4. ACTIONS TO BE TAKEN

In most cases, the ASM will attempt to correct the problem. For failed messages, refer to the Corrective Maintenance Procedure 235-105-220.

5. ALARMS

Minor alarms as indicated.

6. REFERENCES

MCC Display Page(s):

124 page

REPT:ASM-ASP

Software Release: 5E12 and later
Message Class: SFTW,ASM
Application: 5
Type: Output

1. FORMAT

```
REPT ASM AMP STATUS a
```

2. REASON FOR OUTPUT

To report various activities performed by DSamp, a unix process on the 3B side.

The SFTW message class applies to 5E12.

The ASM message class applies to 5E13 and later.

3. VARIABLE FIELD DEFINITIONS

a = This is the list of activities DSAMP received/performed.

Major Alarm Message:

ASM DISK MIRROR BROKEN

Minor Alarm Message:

RESTART DSCMDC PROCESS
RESTART EAKS PROCESS
RESTART VTTY PROCESS
RESTORE/RESTART DCI DRIVER IN PROGRESS
ASM DISK RESYNCHRONIZING
ASM DISK MIRROR BROKEN FOR MAINTANENCE
ALL COPIES OF MIRRORED PARTITION LOST ON ASM DISK
ASM FAN FAULT

Information Messages:

CHECK LICENCE FAILED ON ASM
LEVEL 3 HEART BEAT IS UP
LEVEL 3 HEART BEAT IS DOWN
ASM IS UNAVAILABLE
AMP FAILED WHILE RESTARTING THE PROCESS
AMP SUCCESSFULLY RESTARTED THE PROCESS
VERSION MISMATCH ON ASM AND 3B

4. ACTIONS TO BE TAKEN

In most cases, the ASM will attempt to correct the problem. For failed messages, refer to the Corrective Maintenance Procedures 235-105-220.

5. ALARMS

Major and minor alarms as indicated.

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6. REFERENCES

MCC Display Page(s):

124 page

REPT:ASM-DUMP

Software Release: 5E12 and later
Message Class: SFTW,ASM
Application: 5
Type: Output

1. FORMAT

```
REPT ASM DUMP REPORT FROM a, PART n of m
 [FILE b]
  c
```

2. REASON FOR OUTPUT

This report is the result of dsrop command being run on the ASM - which sends a string or ascii file to the ROP.

The SFTW message class applies to 5E12.

The ASM message class applies to 5E13 and later.

3. VARIABLE FIELD DEFINITIONS

a	= This identifies the application name or user login name
b	= This identifies the file name from which the report is printed
c	= Contents of report
n	= This identifies the current section number
m	= This identifies the total section number

4. ACTIONS TO BE TAKEN

none

5. ALARMS

None.

6. REFERENCES

None.

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REPT:ASM-SERVER

Software Release: 5E12 and later
Message Class: SFTW,ASM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT ASM SERVER a
        Unauthorized invocation

[2]   ____________________________________________________________
      REPT ASM SERVER a
        b
```

2. REASON FOR OUTPUT

Format 1 indicates the Server was started outside of ASM control and it exits.

Format 2 reports various unexpected or internal error conditions encountered by the Server. The Server will take corrective actions. If necessary the Server will restart.

The SFTW message class applies to 5E12.

The ASM message class applies to 5E13 and later.

3. VARIABLE FIELD DEFINITIONS

a = This identifies the server name. Valid value(s):
CMDC
EAKS
VTTY

b = This lists the list of activities performed by the Server.

4. ACTIONS TO BE TAKEN

An occasional message indicates a trascient or corrected condition. If multiple error reports are seen, contact next level of technical support.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:ASM-SPSC

Software Release: 5E12 and later
Message Class: SFTW,ASM
Application: 5
Type: Output

1. FORMAT

```
REPT ASM SYSTEM PROCESS SHUTDOWN COMPLETE a b
```

2. REASON FOR OUTPUT

To report the completion of a graceful system process shutdown on the Administrative Service Module.

The SFTW message class applies to 5E12.

The ASM message class applies to 5E13 and later.

3. VARIABLE FIELD DEFINITIONS

a = This identifies the application name.

b = This identifies the process name.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:ASP-A

Software Release: 5E10 only
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT ASP a TRAPPED b RECEIVED
        k c   [d|e]    [f]   [l]

[2]   ____________________________________________________________________
      REPT ASP ASPACGCOMP  TRAPPED b RECEIVED
        k c        [l]

      ACG OPERATION      ACG CAUSE   GAP DURATION
        g                h           i   j
```

2. REASON FOR OUTPUT

To report the occurrence of a service switching point (SSP) advanced services platform (ASP) event trap. This message is in response to a SET:DSE input message when an SSP or service control point (SCP) originated message causes a trap set by the SET:DSE input message to be hit.

Format 1 displays one of the following trappable events: a query blocked by network management (NM), a query or conversation returned by the network, a reply overdue from SCP, a reject, a play announcement, a send notification component, a termination notification, a return error, and an abort.

Format 2 displays the format for an event trap that has an automatic call gap (ACG) component in a unidirectional or response message from the SCP.

3. VARIABLE FIELD DEFINITIONS

`a` = The event that was trapped. Valid value(s):

- `ASPACGCOMP` = The trap included an SCP response or unidirectional message with an ACG component received at the switch.

  When the event trap for a received ACG component is set and a test query response or unidirectional message arrives with an ACG component, two messages are sent to the originating input/output channel. The first is a test query response message and the second is an ACG event trap message.
- `ASPBADRESP` = The trap includes an SCP response message received with invalid data.
- `ASPNORTEMSG` = The trap includes a reject message, a return error, an abort, and a play announcement received at the switch from the SCP.
- `ASPQRYFAIL` = The trap includes a query blocked by NM ACG, a returned query or conversation received at the switch or a timeout received in call processing.
- `ASPSNCOMP` = The trap includes an SCP response message with a send notification component received at the switch.
- `ASPTNMSG` = The trap includes a termination notification message sent from the switch to the SCP.

`b` = The subclass of the event trapped. Valid value(s):

ABORT = This is a type of ASPNORTEMSG trap. It occurs when an abort message is received at the switch from the SCP.
ACG_BLKD = This is a type of ASPQRYFAIL trap and it occurs when a query is blocked by NM ACG in the administrative module (AM) or direct link node (DLN).
AMORDLN_INV = This is a type of ASPBADRESP trap and it occurs when an SCP response message with invalid data is received in the AM or DLN.
ANNOUNCEMENT = This is a type of ASPNORTEMSG trap and it occurs when a play announcement is received at the switch from the SCP.
NULL = This is a type of ASPACGCOMP trap and it occurs when the SCP sends an ACG component to perform ACG administration (install/update/delete controls) at the SSP.
REJECT = This is a type of ASPNORTEMSG trap and it occurs when a reject message is received at the switch from the SCP.
RETURN ERROR = This is a type of ASPNORTEMSG trap and it occurs when a return error message is received at the switch from the SCP.
RTRN_QRY = This is a type of ASPQRYFAIL trap and it occurs when a query or conversation does not reach the SCP and is returned to the originating switch.
SM_INV = This is a type of ASPBADRESP trap and it occurs when an SCP response message with invalid data is received in the SM.
SN_COMP = This is a type of ASPSNCOMP trap and it occurs when a response message with a send notification component is received at the switch.
TIMEOUT = This is a type of ASPQRYFAIL trap and it occurs when a timeout is received in call processing.
TN_MSG = This is a type of ASPTNMSG trap and it occurs when a termination notification message is sent from the switch to the SCP.

c = The number that caused an event to occur. If 'a' is ASPACGCOMP, then 'c' will be the first 3, 6, 7, 8, 9, or 10 digits of the controlled number.

If 'a' =	and 'k' =	then 'c' =
ASPQRYFAIL		The first 3, 6, 7, 8, 9, or 10 digits of the controlled number.
ASPQRYFAIL		The entire 10 digit global title address, regardless of the length of the controlled number.
ASPSNCOMP or ASPTNMSG	DIGIT TYPE ANI	10 digits (subscribed originating trigger)
ASPSNCOMP or ASPTNMSG	DIGIT TYPE DNT	3, 6, or 10 digits (non-subscribed 3/6/10 trigger)
ASPSNCOMP or ASPTNMSG	DIGIT TYPE CALLED NUMBER	10 digits (TAT trigger)

d = Additional data associated with the trapped event. Valid value(s):
BADLY STRUCTURED COMPONENT PORTION = Unrecognized component in the transaction capability application part (TCAP) message.
BADLY STRUCTURED TRANSACTION PORTION = Unrecognized transaction component in the TCAP message.
DATABASE OVERLOAD = SCP database overload.
DATA UNAVAILABLE = Switch unable to acknowledge SCP request for resource.
DESTINATION MASS CALLING = ACG control due to mass calling.
DUPLICATE INVOKE ID = The ID has already become assigned to another operation in progress.
FAR END SUBSYSTEM CONGESTION = Far end subsystem congestion (refers to SCP).
FAR END SUBSYSTEM PROHIBITED = Far end subsystem prohibited (refers to SCP).
FAR END SUBSYSTEM UNEQUIPPED = Far end subsystem unequipped (refers to SCP).
INCORRECT COMPONENT PORTION = Invalid component received in the TCAP message.
INCORRECT INVOKE PARAMETER = Unrecognized parameter in the TCAP message.

INCORRECT RETURN ERROR PARAMETER = Unrecognized parameter in the return error message.
INCORRECT RETURN RESULT PARAMETER = Unrecognized parameter in the return result message.
INCORRECT TRANSACTION PORTION = Unrecognized transaction portion in the TCAP message.
MESSAGE RETURNED FROM CNI = CNI ring unable to deliver TCAP message to the network.
MISSING CONDITIONAL PARAMETER = Conditional parameter is missing in the component.
MISSING CUSTOMER RECORD = Service key is missing from the SCP database.
MISSING MANDATORY INVOKE PARAMETER = Mandatory invoke parameter is missing from the invoke component.
MISSING MANDATORY RETURN ERROR PARAMETER = Mandatory return error parameter is missing from the return error component.
MISSING MANDATORY RETURN RESULT PARAMETER = Mandatory return result parameter is missing from the return result component.
NETWORK CONGESTION = Could not route TCAP message to SCP because of congested network.
NETWORK FAILURE = Could not route TCAP message to SCP because of network problems.
NO TRANSLATION FOR GLOBAL TYPE = No translation global type in the TCAP message.
OUT OF BAND = SCP instructed SSP to cut back on calls to nonpurchased numbering plan areas.
PERMISSION TO RELEASE PROBLEM = Permission was not given to release the transaction.
REPLY OVERDUE = SSP did not receive a response from the SCP in the allotted time.
SMS INITIATED = Control initiated by the service management.
TRANSLATION FAIL OF GLOBAL ADDRESS = Unable to decipher global address in the SCCP header.
UNAVAILABLE NETWORK RESOURCE = SCP was unable to access a resource requested at the SSP.
UNEXPECTED COMMUNICATION = SCP received a message with a package type that is not allowed.
UNEXPECTED COMPONENT SEQUENCE = Unexpected component in the TCAP message.
UNEXPECTED DATA VALUE = Unexpected data value in the TCAP message.
UNEXPECTED ERROR = Unexpected error in the TCAP message.
UNEXPECTED MESSAGE = An unexpected message was detected by the SCP.
UNEXPECTED MESSAGE SEQUENCE = The call-related message is not the first message in the TCAP package.
UNEXPECTED PARAMETER SEQUENCE = The parameters in the message are recognized but do not appear in the correct sequence.
UNEXPECTED RETURN ERROR = Unexpected return error message from the SCP.
UNEXPECTED RETURN RESULT = Unexpected return result message from the SCP.
UNRECOGNIZED COMPONENT = Unrecognized component in the TCAP message.
UNRECOGNIZED ERROR = Unrecognized error in the TCAP message.
UNRECOGNIZED INVOKE CORRELATION ID = Unrecognized correlation ID in the TCAP message.
UNRECOGNIZED OPERATION CODE = Unrecognized operation code in the TCAP message.
UNRECOGNIZED PACKAGE TYPE = Unrecognized package type in the TCAP message.
UNRECOGNIZED RETURN ERROR CORRELATION ID = Unrecognized correlation ID in the return error message.
UNRECOGNIZED RETURN RESULT CORRELATION ID = Unrecognized correlation ID in the return result message.
UNRECOGNIZED TRANSACTION ID = Unrecognized transaction ID in the TCAP message.

e = Additional data associated with the trapped event. Valid value(s):

If 'a' =	**And 'b' =**	**'e' =**
ASPSNCOMP or ASPTNMSG	-	The SCP subsystem number.

ASPNORTEMSG	ANN MSG	The play announcement code.
ASPQRYFAIL	TIMEOUT	The SM number.

f = Additional data associated with the trapped event. If 'a' is ASPSNCOMP or ASPTNMSG, then 'f' is the hex value of the SCP point code.

g = ACG operation to be performed at the SSP. Valid value(s):
DELETE CNTL = Delete an ACG control.
INFINITE DUR = Install an infinite ACG duration.
INFINITE GAP = Install an infinite ACG gap.
INSTALL CNTL = Install an ACG control.

h = ACG cause. Valid value(s):
DATABASE OVLD = Control initiated by the SCP.
SMS INITIATED = Control initiated by the service management system (that is, allow/disallow ASP calls).

i = Gap interval in seconds.

j = Duration interval in seconds.

k = The control digit type. Valid value(s):
DIGIT TYPE ANI = Calling number associated with the event that caused an event to occur.
DIGIT TYPE CALLED NUMBER = Called number associated with the event that caused an event to occur.
DIGIT TYPE DNT = Dialed number trigger associated with the event that caused an event to occur.
DIGIT TYPE GTA = Global title address associated with the event that caused an event to occur.
NO DIGIT TYPE = No digit type available with the event that caused an event to occur.

l = Additional data associated with the trapped event. Valid value(s):

If 'a' =	**And 'b' =**	**'l' =**
ASPQRYFAIL	ACG_BLKD	The translation type. (No ranges displayed only for ASP0.1)
ASPACGCOMP	NULL	The translation type. (No ranges displayed only for ASP0.1)

4. ACTION TO BE TAKEN

The purpose of this message is to report the result of the action requested by the corresponding manually requested input message. No specific action is indicated.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

CLR:DSE

```
OP:ST-DSE
SET:DSE
```

Output Message(s):

```
OP:ST-DSE
```

Other Manual(s):
235-070-100 *Switch Administration and Engineering Guidelines*
235-190-120 *Common Channel Signaling Services Features*

REPT:ASP-B

Software Release: 5E11 only
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT ASP a TRAPPED b RECEIVED
        k c   [d|e]    [f]   [l]

[2]   ____________________________________________________________________
      REPT ASP ASPACGCOMP  TRAPPED b RECEIVED
        k c        [l]

      ACG OPERATION      ACG CAUSE   GAP DURATION
        g                h           i   j
```

2. REASON FOR OUTPUT

To report the occurrence of a service switching point (SSP) advanced services platform (ASP) event trap. This message is in response to a SET:DSE input message when an SSP or service control point (SCP) originated message causes a trap set by the SET:DSE input message to be hit.

Format 1 displays one of the following trappable events: a query blocked by network management (NM), a query or conversation returned by the network, a reply overdue from SCP, a reject, a play announcement, a send notification component, a termination notification, a return error, and an abort.

Format 2 displays the format for an event trap that has an automatic call gap (ACG) component in a unidirectional or response message from the SCP.

3. VARIABLE FIELD DEFINITIONS

`a` = The event that was trapped. Valid value(s):

- `ASPACGCOMP` = The trap included an SCP response or unidirectional message with an ACG component received at the switch.

  When the event trap for a received ACG component is set and a test query response or unidirectional message arrives with an ACG component, two messages are sent to the originating input/output channel. The first is a test query response message and the second is an ACG event trap message.
- `ASPBADRESP` = The trap includes an SCP response message received with invalid data.
- `ASPNORTEMSG` = The trap includes a reject message, a return error, an abort, and a play announcement received at the switch from the SCP.
- `ASPQRYFAIL` = The trap includes a query blocked by NM ACG, a returned query or conversation received at the switch or a timeout received in call processing.
- `ASPSNCOMP` = The trap includes an SCP response message with a send notification component received at the switch.
- `ASPTNMSG` = The trap includes a termination notification message sent from the switch to the SCP.

`b` = The subclass of the event trapped. Valid value(s):

ABORT = This is a type of ASPNORTEMSG trap. It occurs when an abort message is received at the switch from the SCP.
ACG_BLKD = This is a type of ASPQRYFAIL trap and it occurs when a query is blocked by NM ACG in the administrative module (AM) or direct link node (DLN).
AMORDLN_INV = This is a type of ASPBADRESP trap and it occurs when an SCP response message with invalid data is received in the AM or DLN.
ANNOUNCEMENT = This is a type of ASPNORTEMSG trap and it occurs when a play announcement is received at the switch from the SCP.
NULL = This is a type of ASPACGCOMP trap and it occurs when the SCP sends an ACG component to perform ACG administration (install/update/delete controls) at the SSP.
REJECT = This is a type of ASPNORTEMSG trap and it occurs when a reject message is received at the switch from the SCP.
RETURN ERROR = This is a type of ASPNORTEMSG trap and it occurs when a return error message is received at the switch from the SCP.
RTRN_QRY = This is a type of ASPQRYFAIL trap and it occurs when a query or conversation does not reach the SCP and is returned to the originating switch.
SM_INV = This is a type of ASPBADRESP trap and it occurs when an SCP response message with invalid data is received in the SM.
SN_COMP = This is a type of ASPSNCOMP trap and it occurs when a response message with a send notification component is received at the switch.
TIMEOUT = This is a type of ASPQRYFAIL trap and it occurs when a timeout is received in call processing.
TN_MSG = This is a type of ASPTNMSG trap and it occurs when a termination notification message is sent from the switch to the SCP.

c = The number that caused an event to occur. If 'a' is ASPACGCOMP, then 'c' will be the first 3, 6, 7, 8, 9, or 10 digits of the controlled number.

If 'a' =	and 'k' =	then 'c' =
ASPQRYFAIL		The first 3, 6, 7, 8, 9, or 10 digits of the controlled number.
ASPQRYFAIL		The entire 10 digit global title address, regardless of the length of the controlled number.
ASPSNCOMP or ASPTNMSG	DIGIT TYPE ANI	10 digits (subscribed originating trigger)
ASPSNCOMP or ASPTNMSG	DIGIT TYPE DNT	3, 6, or 10 digits (non-subscribed 3/6/10 trigger)
ASPSNCOMP or ASPTNMSG	DIGIT TYPE CALLED NUMBER	10 digits (TAT trigger)

d = Additional data associated with the trapped event. Valid value(s):
BADLY STRUCTURED COMPONENT PORTION = Unrecognized component in the transaction capability application part (TCAP) message.
BADLY STRUCTURED TRANSACTION PORTION = Unrecognized transaction component in the TCAP message.
DATABASE OVERLOAD = SCP database overload.
DATA UNAVAILABLE = Switch unable to acknowledge SCP request for resource.
DESTINATION MASS CALLING = ACG control due to mass calling.
DUPLICATE INVOKE ID = The ID has already become assigned to another operation in progress.
FAR END SUBSYSTEM CONGESTION = Far end subsystem congestion (refers to SCP).
FAR END SUBSYSTEM PROHIBITED = Far end subsystem prohibited (refers to SCP).
FAR END SUBSYSTEM UNEQUIPPED = Far end subsystem unequipped (refers to SCP).
INCORRECT COMPONENT PORTION = Invalid component received in the TCAP message.
INCORRECT INVOKE PARAMETER = Unrecognized parameter in the TCAP message.

`INCORRECT RETURN ERROR PARAMETER` = Unrecognized parameter in the return error message.
`INCORRECT RETURN RESULT PARAMETER` = Unrecognized parameter in the return result message.
`INCORRECT TRANSACTION PORTION` = Unrecognized transaction portion in the TCAP message.
`MESSAGE RETURNED FROM NETWORK INTERFACE` = Unable to deliver TCAP message to the network. network.
`MISSING CONDITIONAL PARAMETER` = Conditional parameter is missing in the component.
`MISSING CUSTOMER RECORD` = Service key is missing from the SCP database.
`MISSING MANDATORY INVOKE PARAMETER` = Mandatory invoke parameter is missing from the invoke component.
`MISSING MANDATORY RETURN ERROR PARAMETER` = Mandatory return error parameter is missing from the return error component.
`MISSING MANDATORY RETURN RESULT PARAMETER` = Mandatory return result parameter is missing from the return result component.
`NETWORK CONGESTION` = Could not route TCAP message to SCP because of congested network.
`NETWORK FAILURE` = Could not route TCAP message to SCP because of network problems.
`NO TRANSLATION FOR GLOBAL TYPE` = No translation global type in the TCAP message.
`OUT OF BAND` = SCP instructed SSP to cut back on calls to nonpurchased numbering plan areas.
`PERMISSION TO RELEASE PROBLEM` = Permission was not given to release the transaction.
`REPLY OVERDUE` = SSP did not receive a response from the SCP in the allotted time.
`SMS INITIATED` = Control initiated by the service management.
`TRANSLATION FAIL OF GLOBAL ADDRESS` = Unable to decipher global address in the SCCP header.
`UNAVAILABLE NETWORK RESOURCE` = SCP was unable to access a resource requested at the SSP.
`UNEXPECTED COMMUNICATION` = SCP received a message with a package type that is not allowed.
`UNEXPECTED COMPONENT SEQUENCE` = Unexpected component in the TCAP message.
`UNEXPECTED DATA VALUE` = Unexpected data value in the TCAP message.
`UNEXPECTED ERROR` = Unexpected error in the TCAP message.
`UNEXPECTED MESSAGE` = An unexpected message was detected by the SCP.
`UNEXPECTED MESSAGE SEQUENCE` = The call-related message is not the first message in the TCAP package.
`UNEXPECTED PARAMETER SEQUENCE` = The parameters in the message are recognized but do not appear in the correct sequence.
`UNEXPECTED RETURN ERROR` = Unexpected return error message from the SCP.
`UNEXPECTED RETURN RESULT` = Unexpected return result message from the SCP.
`UNRECOGNIZED COMPONENT` = Unrecognized component in the TCAP message.
`UNRECOGNIZED ERROR` = Unrecognized error in the TCAP message.
`UNRECOGNIZED INVOKE CORRELATION ID` = Unrecognized correlation ID in the TCAP message.
`UNRECOGNIZED OPERATION CODE` = Unrecognized operation code in the TCAP message.
`UNRECOGNIZED PACKAGE TYPE` = Unrecognized package type in the TCAP message.
`UNRECOGNIZED RETURN ERROR CORRELATION ID` = Unrecognized correlation ID in the return error message.
`UNRECOGNIZED RETURN RESULT CORRELATION ID` = Unrecognized correlation ID in the return result message.
`UNRECOGNIZED TRANSACTION ID` = Unrecognized transaction ID in the TCAP message.

`e` = Additional data associated with the trapped event. Valid value(s):

If 'a' =	And 'b' =	'e' =
ASPSNCOMP or ASPTNMSG	-	The SCP subsystem number.
ASPNORTEMSG	ANN MSG	The play announcement code.
ASPQRYFAIL	TIMEOUT	The SM number.

f = Additional data associated with the trapped event. If 'a' is ASPSNCOMP or ASPTNMSG, then 'f' is the hex value of the SCP point code.

g = ACG operation to be performed at the SSP. Valid value(s):
DELETE CNTL = Delete an ACG control.
INFINITE DUR = Install an infinite ACG duration.
INFINITE GAP = Install an infinite ACG gap.
INSTALL CNTL = Install an ACG control.

h = ACG cause. Valid value(s):
DATABASE OVLD = Control initiated by the SCP.
SMS INITIATED = Control initiated by the service management system (that is, allow/disallow ASP calls).

i = Gap interval in seconds.

j = Duration interval in seconds.

k = The control digit type. Valid value(s):
DIGIT TYPE ANI = Calling number associated with the event that caused an event to occur.
DIGIT TYPE CALLED NUMBER = Called number associated with the event that caused an event to occur.
DIGIT TYPE DNT = Dialed number trigger associated with the event that caused an event to occur.
DIGIT TYPE GTA = Global title address associated with the event that caused an event to occur.
NO DIGIT TYPE = No digit type available with the event that caused an event to occur.

l = Additional data associated with the trapped event. Valid value(s):

If 'a' =	And 'b' =	'l' =
ASPQRYFAIL	ACG_BLKD	The translation type. (No ranges displayed only for ASP 0.1)
ASPACGCOMP	NULL	The translation type. (No ranges displayed only for ASP 0.1)

4. ACTION TO BE TAKEN

The purpose of this message is to report the result of the action requested by the corresponding manually requested input message. No specific action is indicated.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:DSE
OP:ST-DSE
SET:DSE
```

Output Message(s):

```
OP:ST-DSE
```

Other Manual(s):
235-070-100 *Switch Administration and Engineering Guidelines*
235-190-120 *Common Channel Signaling Services Features*

REPT:ASP-C

Software Release: 5E12 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT ASP a TRAPPED b RECEIVED   [m]
        k c   [d|e]    [f]   [l]

[2]   ____________________________________________________________________
      REPT ASP ASPACGCOMP  TRAPPED b RECEIVED   [m]
        k c        [l]

      ACG OPERATION      ACG CAUSE   GAP DURATION
        g                h           i   j
```

2. REASON FOR OUTPUT

To report the occurrence of a service switching point (SSP) advanced services platform (ASP) event trap. This message is in response to a SET:DSE input message when an SSP or service control point (SCP) originated message causes a trap set by the SET:DSE input message to be hit.

Format 1 displays one of the following trappable events: a query blocked by network management (NM), a query or conversation returned by the network, a reply overdue from SCP, a reject, a play announcement, a send notification component, a termination notification, a return error, and an abort.

Format 2 displays the format for an event trap that has an automatic call gap (ACG) component in a unidirectional or response message from the SCP.

3. VARIABLE FIELD DEFINITIONS

`a` = The event that was trapped. Valid value(s):

- `ASPACGCOMP` = The trap included an SCP response or unidirectional message with an ACG component received at the switch.

  When the event trap for a received ACG component is set and a test query response or unidirectional message arrives with an ACG component, two messages are sent to the originating input/output channel. The first is a test query response message and the second is an ACG event trap message.
- `ASPBADRESP` = The trap includes an SCP response message received with invalid data.
- `ASPNORTEMSG` = The trap includes a reject message, a return error, an abort, and a play announcement received at the switch from the SCP.
- `ASPQRYFAIL` = The trap includes a query blocked by NM ACG, a returned query or conversation received at the switch or a timeout received in call processing.
- `ASPSNCOMP` = The trap includes an SCP response message with a send notification component received at the switch.
- `ASPTNMSG` = The trap includes a termination notification message sent from the switch to the SCP.

`b` = The subclass of the event trapped. Valid value(s):

ABORT = This is a type of ASPNORTEMSG trap. It occurs when an abort message is received at the switch from the SCP.
ACG_BLKD = This is a type of ASPQRYFAIL trap and it occurs when a query is blocked by NM ACG in the administrative module (AM) or direct link node (DLN).
AMORDLN_INV = This is a type of ASPBADRESP trap and it occurs when an SCP response message with invalid data is received in the AM or DLN.
ANNOUNCEMENT = This is a type of ASPNORTEMSG trap and it occurs when a play announcement is received at the switch from the SCP.
NULL = This is a type of ASPACGCOMP trap and it occurs when the SCP sends an ACG component to perform ACG administration (install/update/delete controls) at the SSP.
REJECT = This is a type of ASPNORTEMSG trap and it occurs when a reject message is received at the switch from the SCP.
RETURN ERROR = This is a type of ASPNORTEMSG trap and it occurs when a return error message is received at the switch from the SCP.
RTRN_QRY = This is a type of ASPQRYFAIL trap and it occurs when a query or conversation does not reach the SCP and is returned to the originating switch.
SM_INV = This is a type of ASPBADRESP trap and it occurs when an SCP response message with invalid data is received in the SM.
SN_COMP = This is a type of ASPSNCOMP trap and it occurs when a response message with a send notification component is received at the switch.
TIMEOUT = This is a type of ASPQRYFAIL trap and it occurs when a timeout is received in call processing.
TN_MSG = This is a type of ASPTNMSG trap and it occurs when a termination notification message is sent from the switch to the SCP.

c = The number that caused an event to occur. If 'a' is ASPACGCOMP, then 'c' will be the first 3, 6, 7, 8, 9, or 10 digits of the controlled number.

If 'a' =	and 'k' =	then 'c' =
ASPQRYFAIL		The first 3, 6, 7, 8, 9, or 10 digits of the controlled number.
ASPQRYFAIL		The entire 10 digit global title address, regardless of the length of the controlled number.
ASPSNCOMP or ASPTNMSG	DIGIT TYPE ANI	10 digits (subscribed originating trigger)
ASPSNCOMP or ASPTNMSG	DIGIT TYPE DNT	3, 6, or 10 digits (non-subscribed 3/6/10 trigger)
ASPSNCOMP or ASPTNMSG	DIGIT TYPE CALLED NUMBER	10 digits (TAT trigger)

d = Additional data associated with the trapped event. Valid value(s):
BADLY STRUCTURED COMPONENT PORTION = Unrecognized component in the transaction capability application part (TCAP) message.
BADLY STRUCTURED TRANSACTION PORTION = Unrecognized transaction component in the TCAP message.
DATABASE OVERLOAD = SCP database overload.
DATA UNAVAILABLE = Switch unable to acknowledge SCP request for resource.
DESTINATION MASS CALLING = ACG control due to mass calling.
DUPLICATE INVOKE ID = The ID has already become assigned to another operation in progress.
FAR END SUBSYSTEM CONGESTION = Far end subsystem congestion (refers to SCP).
FAR END SUBSYSTEM PROHIBITED = Far end subsystem prohibited (refers to SCP).
FAR END SUBSYSTEM UNEQUIPPED = Far end subsystem unequipped (refers to SCP).
INCORRECT COMPONENT PORTION = Invalid component received in the TCAP message.
INCORRECT INVOKE PARAMETER = Unrecognized parameter in the TCAP message.

`INCORRECT RETURN ERROR PARAMETER` = Unrecognized parameter in the return error message.
`INCORRECT RETURN RESULT PARAMETER` = Unrecognized parameter in the return result message.
`INCORRECT TRANSACTION PORTION` = Unrecognized transaction portion in the TCAP message.
`MESSAGE RETURNED FROM NETWORK INTERFACE` = Unable to deliver TCAP message to the network.
`MISSING CONDITIONAL PARAMETER` = Conditional parameter is missing in the component.
`MISSING CUSTOMER RECORD` = Service key is missing from the SCP database.
`MISSING MANDATORY INVOKE PARAMETER` = Mandatory invoke parameter is missing from the invoke component.
`MISSING MANDATORY RETURN ERROR PARAMETER` = Mandatory return error parameter is missing from the return error component.
`MISSING MANDATORY RETURN RESULT PARAMETER` = Mandatory return result parameter is missing from the return result component.
`NETWORK CONGESTION` = Could not route TCAP message to SCP because of congested network.
`NETWORK FAILURE` = Could not route TCAP message to SCP because of network problems.
`NO TRANSLATION FOR GLOBAL TYPE` = No translation global type in the TCAP message.
`OUT OF BAND` = SCP instructed SSP to cut back on calls to nonpurchased numbering plan areas.
`PERMISSION TO RELEASE PROBLEM` = Permission was not given to release the transaction.
`REPLY OVERDUE` = SSP did not receive a response from the SCP in the allotted time.
`SMS INITIATED` = Control initiated by the service management.
`TRANSLATION FAIL OF GLOBAL ADDRESS` = Unable to decipher global address in the SCCP header.
`UNAVAILABLE NETWORK RESOURCE` = SCP was unable to access a resource requested at the SSP.
`UNEXPECTED COMMUNICATION` = SCP received a message with a package type that is not allowed.
`UNEXPECTED COMPONENT SEQUENCE` = Unexpected component in the TCAP message.
`UNEXPECTED DATA VALUE` = Unexpected data value in the TCAP message.
`UNEXPECTED ERROR` = Unexpected error in the TCAP message.
`UNEXPECTED MESSAGE` = An unexpected message was detected by the SCP.
`UNEXPECTED MESSAGE SEQUENCE` = The call-related message is not the first message in the TCAP package.
`UNEXPECTED PARAMETER SEQUENCE` = The parameters in the message are recognized but do not appear in the correct sequence.
`UNEXPECTED RETURN ERROR` = Unexpected return error message from the SCP.
`UNEXPECTED RETURN RESULT` = Unexpected return result message from the SCP.
`UNRECOGNIZED COMPONENT` = Unrecognized component in the TCAP message.
`UNRECOGNIZED ERROR` = Unrecognized error in the TCAP message.
`UNRECOGNIZED INVOKE CORRELATION ID` = Unrecognized correlation ID in the TCAP message.
`UNRECOGNIZED OPERATION CODE` = Unrecognized operation code in the TCAP message.
`UNRECOGNIZED PACKAGE TYPE` = Unrecognized package type in the TCAP message.
`UNRECOGNIZED RETURN ERROR CORRELATION ID` = Unrecognized correlation ID in the return error message.
`UNRECOGNIZED RETURN RESULT CORRELATION ID` = Unrecognized correlation ID in the return result message.
`UNRECOGNIZED TRANSACTION ID` = Unrecognized transaction ID in the TCAP message.

`e` = Additional data associated with the trapped event. Valid value(s):

If 'a' =	And 'b' =	'e' =
ASPSNCOMP or ASPTNMSG	-	The SCP subsystem number.
ASPNORTEMSG	ANN MSG	The play announcement code.
ASPQRYFAIL	TIMEOUT	The SM number.

f = Additional data associated with the trapped event. If 'a' is ASPSNCOMP or ASPTNMSG, then 'f' is the hex value of the SCP point code.

g = ACG operation to be performed at the SSP. Valid value(s):
DELETE CNTL = Delete an ACG control.
INFINITE DUR = Install an infinite ACG duration.
INFINITE GAP = Install an infinite ACG gap.
INSTALL CNTL = Install an ACG control.

h = ACG cause. Valid value(s):
DATABASE OVLD = Control initiated by the SCP.
SMS INITIATED = Control initiated by the service management system (that is, allow/disallow ASP calls).

i = Gap interval in seconds.

j = Duration interval in seconds.

k = The control digit type. Valid value(s):
DIGIT TYPE ANI = Calling number associated with the event that caused an event to occur.
DIGIT TYPE CALLED NUMBER = Called number associated with the event that caused an event to occur.
DIGIT TYPE DNT = Dialed number trigger associated with the event that caused an event to occur.
DIGIT TYPE GTA = Global title address associated with the event that caused an event to occur.
NO DIGIT TYPE = No digit type available with the event that caused an event to occur.

l = Additional data associated with the trapped event. Valid value(s):

If 'a' =	And 'b' =	'l' =
ASPQRYFAIL	ACG_BLKD	The translation type. (No ranges displayed only for ASP 0.1)
ASPACGCOMP	NULL	The translation type. (No ranges displayed only for ASP 0.1)

m = Processor where the event was trapped. If 'a' is ASPQRYFAIL and 'b' is TIMEOUT then 'm' will be blank. Valid value(s):
CNI The event was trapped on a common network interface (CNI) platform.
GSM The event was trapped on a packet switching unit (PSU) platform but was unable to obtain the global switch module (GSM) number, missing or bad data.
GSM=n The event was trapped on a PSU platform, where 'n' is the number of the GSM where the event was trapped.

4. ACTION TO BE TAKEN

The purpose of this message is to report the result of the action requested by the corresponding manually requested

input message. No specific action is indicated.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:DSE
OP:ST-DSE
SET:DSE
```

Output Message(s):

```
OP:ST-DSE
```

Other Manual(s):
235-070-100 *Switch Administration and Engineering Guidelines*
235-190-120 *Common Channel Signaling Services Features*

REPT:ATTS

Software Release: 5E10 and later
Message Class: APT, ATL
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT ATTS [SCHED=a] [WEEK=b] [DAY=c] [TGID=d] [STAT=e]
        NO TEST RESULTS MATCH INPUT PARAMETERS

[2]   ____________________________________________________________________
      REPT ATTS {SCHED=a|ALL ACTIVE SCHEDULES} {RESTARTED|STOPPED}
        g

[3]   ____________________________________________________________________
      REPT ATTS INTERNAL ERROR h
        i

[4]   ____________________________________________________________________
      REPT ATTS j
        SCHED=a WEEK=b DAY=c   START=k
        l

[5]   ____________________________________________________________________
      REPT ATTS LOG FILE m {n|o}
```

2. REASON FOR OUTPUT

Format 1 reports test results matching the DUMP:ATLOG input request do not exist.

Formats 2 through 5 report automatically-detected internal errors or off-normal system conditions affecting ATTS operation.

3. VARIABLE FIELD DEFINITIONS

`a` = Schedule number (1 - 20 or none).

`b` = Schedule week number (1 - 8 or none).

`c` = Schedule day number (1 - 7 or none).

`d` = Identity of trunk group to be tested.

`e` = Status type indicating what results will be printed. Valid value(s):

`A`	= Print ABORTED trunk test results only.
`FA`	= Print FAILED or ABORTED trunk tests results only.
`FU`	= Print FAILED and/or UNAVAILABLE trunk test results only.
`F`	= Print FAILED trunk test results only.
`PFA`	= Print all trunk test results.
`P`	= Print PASSED trunk test results only.

`f` = Type of operational test executed.

`g` = Description of reported condition.

`h` = Coded numeric data that indicates where ATTS software detected reported condition. You may not have the resources to interpret the data. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

`i` = Description of reported condition. Valid value(s):

```
ERROR IN LOG FILE CONTROL DATA
ERROR IN LOG FILE I/O -- LOGGING
ERROR IN LOG FILE I/O -- RETRIEVAL
ERROR IN SHARED SEGMENT ALLOCATION
FILE SYSTEM ERROR -- /dev/atts NOT MOUNTED
INTERPROCESS MESSAGE COMMUNICATION PROBLEM
INVALID DAY NUMBER
INVALID SCHEDULE NUMBER
INVALID TEST DATA
INVALID TEST TYPE
MEMORY MANAGEMENT FAULT
NEW TEST TYPE FOR SCHEDULE
TEST RESULT MAXIMUM EXCEEDED
TRUNK GROUP MAXIMUM EXCEEDED
UNABLE TO CONNECT TO COMMUNICATION PORT
UNABLE TO SPOOL OUTPUT DATA
```

`j` = Action as result of reported problem. Valid value(s):

`TEST SESSION ABORTING` = The indicated ATTS test session is terminating prematurely.

`TEST SESSION ABORTING, SESSION DATA PROBLEM` = The indicated ATTS test session is terminating prematurely as a result of a problem detected in the session's ATTS test schedule database entry. Severity of the problem could not be automatically minimized. The problem requires manual database administrative action to correct.

`TEST SESSION DATA PROBLEM` = A problem has been detected in the ATTS test schedule database entry associated with the indicated test session. Severity of the problem has been automatically minimized by ATTS at run time to eliminate need for aborting the session. However, the problem requires manual database administrative action to correct permanently.

`k` = Session's scheduled starting time.

`l` = Description of detected problem.

`m` = Name of LOG file.

`n` = IS APPROACHING MAXIMUM SIZE.

`o` = IS CORRUPT, SOME DATA MAY BE LOST.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:ATDTA
DUMP:ATLOG
DUMP:ATPRM
OP:ATTS
ST:ATTS
STP:ATTS
```

Output Message(s):

```
DUMP:ATDTA
DUMP:ATLOG
DUMP:ATPRM
OP:ATTS
REPT:ATTS
ST:ATTS
STP:ATTS
```

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-100-125 *System Description*
235-105-210 *Routine Operations and Maintenance*
235-118-25x *Recent Change Procedures*
235-118-25x *Recent Change Reference*

RC/V View(s):

14.9 (ATTS TEST SESSION SCHEDULE DATA)
14.10 (ATTS TEST SCHEDULE PARAMETER)

REPT:AUDSTAT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT AUDSTAT a
        ROUTINE AUDIT SCHEDULING IS b
        INHIBITED AND/OR BLOCKED AUDITS:
           AUDIT    AUDIT INSTANCES INHIBITED/BLOCKED
        NAME    MBR  INH  NAME                 INH BLK
        [c]     [d]  [e]   [f]                 [g] [h]
         .       .    .     .                   .   .
         .       .    .     .                   .   .
         .       .    .     .                   .   .

[2]   ____________________________________________________________________
      REPT AUDSTAT COMPLETED
        ROUTINE AUDIT SCHEDULING IS b

[3]   ____________________________________________________________________
      REPT AUDSTAT ABORTED ECD INTERFACE ERROR i [AUDIT RID j]

[4]   ____________________________________________________________________
      REPT AUDSTAT ABORTED CANNOT OPEN OUTPUT FILE k

[5]   ____________________________________________________________________
      REPT AUDSTAT ABORTED CANNOT WRITE OUTPUT FILE k

[6]   ____________________________________________________________________
      REPT AUDSTAT ABORTED CANNOT CREATE TEMPORARY FILE
```

2. REASON FOR OUTPUT

Formats 1 and 2 print the status of audits controlled by the system integrity monitor (SIM). Inhibited audits whose mode permissions prevent them from executing in routine or software request modes will not appear in the output message, unless the blocking state causes the audit to appear. In this case, the inhibit source will be enclosed in parentheses.

Blocked audits whose mode permissions prevent them from executing in any mode will not appear in the output message.

Format 3 reports an equipment configuration database (ECD) interface error.

Format 4 reports an error when creating a temporary file.

Format 5 reports an error when writing to a temporary output file.

Format 6 reports an error when unable to create a uniquely-named temporary file.

3. VARIABLE FIELD DEFINITIONS

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a = Output message status. Valid value(s):
- COMPLETED = Last or only segment of message.
- IN PROGRESS = Intermediate segment(s) of message.
- STARTED = First segment of message.

b = Master audit inhibit status for all audits controlled by SIM. Valid value(s):

```
ALLOWED
AUTOMATICALLY INHIBITED
IN UNKNOWN STATE
MANUALLY INHIBITED
```

c = Audit name. This field is blank for all instances after the first.

d = Member number. This field is blank for all instances after the first.

e = Inhibit state of the audit. Valid value(s):
- AUTO = Automatic action.
- MAN = Manual request.
- ??? = Unrecognized reason.

If the audit is not inhibited, this field is blank. This field is also blank for all instances after the first.

f = Instance name. This field may be blank.

g = Inhibit state of a given instance of the audit blank if the audit is not inhibited. Valid value(s):
- AUTO = Automatic request.
- MAN = Manual request.
- ??? = Unrecognized reason.

h = Y, if this instance of the audit is blocked. This field is blank if this instance of the audit is not blocked.

i = ECD interface error number. Valid value(s):
- 10 = Cannot open audit record sequence.
- 11 = Cannot sequence through audit records.
- 20 = Cannot open audit instance record sequence.
- 21 = Cannot sequence through instance records.
- 30 = Cannot open audit instance record sequence.
- 31 = Cannot sequence through instance records.

j = Associated audit record ID (RID).

k = Name of temporary file.

4. ACTION TO BE TAKEN

For Formats 1, 2, and 3, use the OP:AUD input message to obtain additional status on the audits. Use the ALW:AUD input message to allow audits that should be allowed.

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For Format 4, all the inodes of the tmp file system are being used. Clean up unused files in the tmp file system using the CLR:FSYS-FILE input message before retrying the input message.

For Format 5, all tmp file system space has been used. Clean up unused files in the tmp file system using the CLR:FSYS-FILE input message before retrying the input message.

For Format 6, system resources do not permit of the OP:AUDERR input message at this time. Retry later. If the command continues to fail, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	440
2	441
3	435
4	438
5	628
6	667

Input Message(s):

```
ALW:AUD
CLR:FSYS-FILE
OP:AUD
```

Output Message(s):

```
OP:AUD
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-600-400 *Audits*

REPT:AUTH

Software Release: 5E10 and later
Message Class: LINE
Application: AEWNC
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT AUTH MANAGEMENT
        AUTHENTICATION FAILURE THRESHOLD EXCEEDED
        DN = a b

[2]   ____________________________________________________________
      REPT AUTH MANAGEMENT
        UPDATE SHARED SECRET DATA RESULT
        DN = a b
```

2. REASON FOR OUTPUT

To report on the authentication status for a subscriber's wireless handset. The report will indicate either the results of the UPD:SSD input message or that the wireless subscriber has exceeded the number of consecutive authentication failures allowed.

3. VARIABLE FIELD DEFINITIONS

`a` = Wireless subscriber's directory number.

`b` = Status. Valid value(s):

- `COMPLETED` = Update of shared secret data has been successfully completed. The subscriber's wireless handset is available for usage.
- `FAILED:RETRY LATER, HANDSET DISABLED` = Update of shared secret data has failed. The subscriber's wireless handset remains disabled.
- `FAILED:RETRY LATER, HANDSET AVAILABLE` = Update of shared secret data has failed. The subscriber's wireless handset remains active.
- `HANDSET DISABLED` = The subscriber's wireless handset has been disabled. No access attempts to the switch will be allowed until a UPD:SSD input message has been successfully executed.

4. ACTION TO BE TAKEN

Execute the UPD:SSD input message for failure conditions or when the handset has been disabled. If repeated attempts fail, then the wireless subscriber will need to return the handset back to the service provider for repair.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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UPD:SSD

Other Manual(s):
230-701-100 *Air Extension^{SM} Reference Guide*
230-701-120 *Air Extension^{SM} User Guide*

REPT:AUTOINH

Software Release: 5E10 and later
Message Class: BPSC
Application: 5
Type: Output

1. FORMAT

```
REPT AUTOINH a [b] c [CLEARED]
```

2. REASON FOR OUTPUT

To report an automatic inhibit of a chattering scan point, or to report when the inhibit has been cleared automatically.

3. VARIABLE FIELD DEFINITIONS

a = Alarm type. Valid value(s):

BPSC	= Building/power scan point.
CNI	= Common network interface.
ESM	= External sanity monitor.
MFFUSE	= Miscellaneous frame fuse.
MISC	= Miscellaneous.
MSGS	= Message switch.
ONTC	= Office network and timing complex.
SCSDC	= Scan and signal distributor controller.
TMS	= Time-multiplexed switch.

b = Scan point number or unit number. Valid value(s):

If 'a' =	**'b' =**
BPSC or MISC	Scan point number 0 through 47.
MFFUSE, MSGS, or TMS	Unit number 0 or 1.
ESM	Null.

c = Alarm label (office assigned).

Note: The inhibit will be automatically removed at 15 minute intervals. If the condition still exists, the scan point will be reinhibited. The inhibit may be removed at any time using the ALW:ALM message.

4. ACTION TO BE TAKEN

Investigate alarm conditions and take corrective measures.

The usual causes for chattering are defective wiring and/or bad contacts on the relay that controls this scan point. Corrective action will normally consist of checking the complete circuit.

5. ALARMS

Assigned alarm level of scan point.

6. REFERENCES

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Input Message(s):

```
ALW:ALM
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:AUTORST

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT AUTORST FAILURE FOR a b [c] [d]
```

2. REASON FOR OUTPUT

To report that the automatic diagnostic process (ADP) was unable to restore a faulty hardware unit, and that it will no longer attempt to diagnose or restore the specified hardware unit or community.

3. VARIABLE FIELD DEFINITIONS

`a` = Unit name.

`b` = Unit number.

`c` = Subunit name.

`d` = Subunit number.

4. ACTION TO BE TAKEN

Manual action is required to diagnose, repair, and restore the unit to service.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	474

Input Message(s):

```
DGN:[unit]
RST:[unit]
```

Output Message(s):

```
DGN:[unit]
REPT:ADP
REPT:ADPAB
RMV:[unit]
RST:[unit]
```

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Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

75. REPT:B

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REPT:BALANCE

Software Release: 5E11 and later
Message Class: PFR_RSP,BALANCE
Application: 5
Type: Output

1. FORMAT

```
REPT BALANCE a b c d
```

2. REASON FOR OUTPUT

To report data about originating or terminating blocked calls.

The PFR_RSP message class applies to 5E11 and 5E12. The BALANCE message class applies to 5E13 and later.

3. VARIABLE FIELD DEFINITIONS

`a` = Date and time in the form YYMMDDhhmmss, where:

- `YY` = Year.
- `MM` = Month.
- `DD` = Day.
- `hh` = Hour.
- `mm` = Minutes.
- `ss` = Seconds.

`b` = Originating/Terminating DN in the form AAABBBCCCC, where:

- `AAA` = NPA (area code).
- `BBB` = NXX (exchange).
- `CCCC` = Number.

`c` = SM and Originating/Terminating LEN in the form SMNUUGHSL, where:

- `SMN` = Switching module number.
- `UU` = Unit.
- `G` = Grid.
- `H` = Half grid.
- `S` = Switch.
- `L` = Level.

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`d` = 4 A-links and blocked side in the form PPQQRRSST, where:

- `PP` = 1st A-link switch and level.
- `QQ` = 2nd A-link switch and level.
- `RR` = 3rd A-link switch and level.
- `SS` = 4th A-link switch and level. A switch is in a range 0-7 and a level in 0-3, but these fields may provide additional information:
- `T` = Blocked side. Valid value(s):
  - `0` = Originating.
  - `1` = Terminating.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):

235-120-120 *VCDX User's Guide*
235-040-100 *OA&M Planning Guide*
235-070-100 *Engineering and Administration Guidelines*
235-070-100A1 *Traffic and Plant Measurements*
235-080-100 *TG-5*
235-100-125 *System Description*
235-105-210 *Routine Operations and Maintenance*
235-105-231 *Hardware Growth Procedures*
235-105-331 *Hardware Degrowth Procedures*
235-190-115 *Local and Toll System Features Description*

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REPT:BASIC-911

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT BASIC 911 a TIMEOUT LINE EQPT NO=b-c-d-e-f-g
```

2. REASON FOR OUTPUT

To indicate that an attempt to originate from a basic 911 (denied origination) line has continued for 6 minutes or more and that it has been placed on the high and wet list, or that a forced-held, line-originated call to the 911 Emergency Service Bureau has been torn down because the calling party has been on-hook for more than 45 minutes.

3. VARIABLE FIELD DEFINITIONS

`a` = Time-out descriptor. Valid value(s):
`FORCED HOLD` = A 45-minute "forced hold" time-out has occurred.
`ORIGINATION` = A 6-minute "denied origination" time-out has occurred.

`b` = Switching module number.

`c` = Line unit.

`d` = Grid.

`e` = Switch board.

`f` = Switch.

`g` = Level.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-190-115 *Local and Toll System Features*

REPT:BCI

Software Release: 5E10 and later
Message Class: TRFM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT BCI {ORIG|TERM} {LEN|ILEN}=a-b-c-d{-e-f}  g/h

[2]   ____________________________________________________________
      REPT BCI {ORIG|TERM} SM=i REPORTING TERMINATED

[3]   ____________________________________________________________
      REPT BCI {ORIG|TERM} REPORTING TERMINATED
```

2. REASON FOR OUTPUT

To report originating or terminating blocked call indications (BCI), and to indicate when reporting has been completed both for a given switching module (SM) and for the entire switch.

Format 1 reports that a call has experienced A- or B-link blockage in a line unit concentrator [for line equipment numbers (LENs)], or digital signal level 1 (DS1) or peripheral interface controller bus (PID) time slot blockage on an integrated digital carrier unit (IDCU) [for IDCU line equipment numbers (ILENs)]. If the feature is turned on in a given SM, blockages that occur will be reported in four-second cycles. Up to eight equipment numbers (LENs or ILENs) each for originating and terminating calls will be reported as blocked during each cycle. An originating or terminating LEN or ILEN that is blocked more than once during a four-second interval will be reported only once in that interval.

Format 2 reports the number of an SM that has just completed reporting the maximum number of call blockage messages for either originating or terminating calls.

Format 3 reports that all SMs in the selected range of SMs have completed their call blockage reporting, making the feature inactive.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = Line unit number or IDCU number.

`c` = Concentrator number or remote terminal (RT) number.

`d` = Switch group/half-grid number or RT line number.

`e` = Switch number.

`f` = Level number.

`g` = Sequential number of the message being output from a given SM.

`h` = Maximum number of messages allowed for each included SM.

`i` = Number of the SM that has just completed its blocked call reporting.

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4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:BCI
OP:BCI
STP:BCI
```

Output Message(s):

```
OP:BCI
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

REPT:BDG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT BDG CANNOT CLOSE DEVICE a STATUS b

[2]   ____________________________________________________________
      REPT BDG CANNOT OPEN DEVICE a STATUS b

[3]   ____________________________________________________________
      REPT BDG WRONG FILE TYPE a

[4]   ____________________________________________________________
      REPT BDG UNEXPECTED ACK RECEIVED FROM c

[5]   ____________________________________________________________
      REPT BDG FATAL FAULT CODE d PA e
```

2. REASON FOR OUTPUT

To report an error condition or a fault condition resulting from the BDG process execution.

3. VARIABLE FIELD DEFINITIONS

a = Device name.

b = System error code. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

c = Process ID.

d = Fault code.

e = Program address where the fault occurred.

4. ACTION TO BE TAKEN

For Formats 2 through 5, or if Format 1 is printed repeatedly, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1 - 4	303

5	311

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

REPT:BTSR-TPPT

Software Release: 5E10 and later
Message Class: HW,SM
Application: 5
Type: Output

1. FORMAT

```
REPT BTSR=a TRBL PIDB PARITY TROUBLE [EVENT=]b
  c RECOVERY ACTION d
```

2. REASON FOR OUTPUT

To respond to a time-slot interchange (TSI) interrupt caused by peripheral interface data bus (PIDB) parity errors in the bootstrapper (BTSR) board. This output message is used by switching modules (SM)s with pre-MCTU2 module controller architecture.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = Event number, which is the time sequence indicator.

`c` = Error type, which indicates PIDB parity trouble.

`d` = Recovery action. Valid value(s):
`INHIBIT HDWCHKS` = Bootstrapper PIDB parity errors have been inhibited at the TSI.

4. ACTION TO BE TAKEN

The BTSR should be diagnosed. Refer to the DGN:BTSR input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`DGN:BTSR`

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REPT:BWMINT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT BWMINT a
```

2. REASON FOR OUTPUT

To report error messages when errors occur during a field update.

3. VARIABLE FIELD DEFINITIONS

`a` = The specific error that occurred. Refer to the APP:ERRORCODE-FU appendix in the Appendixes section of the Output Messages manual for explanations of error codes that may appear in error messages.

4. ACTION TO BE TAKEN

Correct the error and continue the field update. If the error cannot be corrected and the update cannot be continued, the update should then be reset. If the update cannot be reset, the update must be omitted before another update can be applied.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:APPLY-BYTER
UPD:APPLY-FILER
UPD:APPLY-FUNCR
UPD:BKOUT
UPD:PERM
UPD:RESET
```

Output Message(s):

```
UPD:BKOUT
UPD:REPT
```

Output Appendix(es):

```
APP:ERRCODE-FU
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

76. REPT:C

REPT:CALLMON-CMR

Software Release: 5E10 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
REPT CALLMON CURRENT a MINUTE REPORT
  CALLMON PRINTMODE = b
  CALLMON STATE = c
  NON-CCS TEST CALL COMPLETION SUMMARY
  PASSED  FAILED  INDETERMINATE  NOT-ATTEMPTED  LAST-TRKG-PASSED
  d       e       f              g              h
  CCS TEST CALL COMPLETION SUMMARY
  PASSED  FAILED  INDETERMINATE  NOT-ATTEMPTED  LAST-TRKG-PASSED
  i       j       k              l              m
  TOP FIVE HIGHRUNNER FAILURE TYPES
  FAILURE-CODE    NUMBER-OF-OCCURRENCES
  H'n             o
  H'n             o
  H'n             o
  H'n             o
  H'n             o
```

2. REASON FOR OUTPUT

To report call completion analysis failures from the call monitor.

3. VARIABLE FIELD DEFINITIONS

`a` = The time interval for the analysis. Valid value(s):
- `5` = Five-minute analysis
- `15` = Fifteen-minute analysis

`b` = The print mode of the monitor. Valid value(s):
- `NORMAL` = Default state prints failures only.
- `VERBOSE` = Verbose mode prints all reports and per-test-call results.

`c` = CALLMON state. Valid value(s):

```
ALLOWED
INHIBITED
```

`d` = The number of non-CCS test calls that have passed in the indicated time interval.

`e` = The number of non-CCS test calls that have failed in the indicated time interval.

`f` = The number of indeterminate non-CCS test call results in the indicated time interval.

`g` = The number of not attempted non-CCS test call results in the indicated time interval.

h = The last non-CCS trunk group number (decimal) that passed a test call. If the number is 2002, then no test calls have passed since the monitor was last initialized.

i = The number of CCS test calls that have passed in the indicated time interval.

j = The number of CCS test calls that have failed in the indicated time interval.

k = The number of indeterminate CCS test call results in the indicated time interval.

l = The number of not-attempted-CCS-test-call results in the indicated time interval.

m = The last CCS trunk group number (decimal) that passed a test call. If the number is 2002, then no test calls have passed since the monitor was last initialized.

n = Failure code. If zero, then no failure code stored. Refer to the APP:CALLMON appendix in the Appendixes section of the Output Messages manual.

o = Number of occurrences for failure code.

4. ACTION TO BE TAKEN

Analyze the output and take action according to the procedures in the System Maintenance Requirements and Tools manual and the Routine Operations and Maintenance manual.

5. ALARMS

The **REPT CALLMON CURRENT [5|15] MINUTE REPORT** in the normal mode will either print no alarm, a minor alarm, or a major alarm if the call completion analysis fails. The criteria for failure is less than or equal to 50% for the 5 minute report and less than or equal to 90% for the 15 minute report. The criteria for major alarms are greater than or equal to 40% "operational test failures" for the 5 minute report and greater than or equal to 50% for the 15 minute report. The criteria for minor alarms are greater than or equal to 70% "indeterminate" plus "not attempted" failures for both the 5 and 15 minute reports. If no alarm criteria is met no alarm will be printed with the analysis report. In the verbose mode this message will still print even if the analysis passes. The ALARM indicator in the Call Monitor display box on the Miscellaneous page (116) will be backlit. This may be retired by typing the input message RTR:CALLMON,ALARM.

6. REFERENCES

Input Message(s):

```
ALW:CALLMON
CLR:CALLMON
INH:CALLMON
OP:CALLMON
RTR:CALLMON
SET:CALLMON
```

Output Message(s):

```
OP:CALLMON
REPT:CALLMON-VTC
```

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

116 (MISCELLANEOUS)

REPT:CALLMON-VTC

Software Release: 5E10 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
REPT CALLMON VERBOSE TEST CALL
  SM = a                          PORT = b
  TRUNK GROUP = c                  MEMBER = d
  SIGNALING TYPE = e         TEST TYPE = f
  RESULT = g
  RETURN CODE = h
```

2. REASON FOR OUTPUT

To report per test call results from the call monitor.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number or 0 if a null SM number.

b = Port number (hexadecimal) or 0 if a null port number.

c = Trunk group number

d = Trunk group member number or 4096 if a null trunk group member number.

e = Signaling type. Valid value(s):

0	= TOUCH-TONE.
1	= Multi-frequency.
2	= Dial pulse.
10	= Common Channel Interoffice Signaling System 6 (CCIS6) signaling.
11	= International Telecommunication Union - Telecommunication, Standardization Sector (ITU-TS) (formerly CCITT) common channel signaling system 7 (CCS7) telephone user part (TUP) signaling.
12	= Integrated services user part (ISUP) signaling.

f = Test type. Valid value(s):

4	= SYNCHRONOUS test.
5	= NONSYNCHRONOUS test.
6	= PERMANENT BUSY test.
24	= 103 test.
26	= Code answer test line (CATL) test.
27	= Voice path assurance (VPA) CONTINUITY test.
30	= Loopback test.
31	= Loopback inverted test.

g = Test result. Valid value(s):

```
INDETERMINATE - BAD TEST RESULT
INDETERMINATE - INTERNAL FAILURE
```

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`INDETERMINATE - TEST ABORTED`
`NO ATTEMPT - BAD DATA`
`NO ATTEMPT - CNI INIT IN PROGRESS`
`NO ATTEMPT - DSIG OFF NORMAL` = Direct signaling (DSIG) is unequipped or out-of-service (OOS).
`NO ATTEMPT - RESOURCE FAILURE`
`NO ATTEMPT - TEST SKIPPED`
`NO ATTEMPT - TSIG OFF NORMAL` = Trunk signaling (TSIG) is unequipped or OOS.
`NO CCS TEST - CNI MIN MODE`
`NO IN-SERVICE IDLE MEMBER FOUND`
`NO TEST - AM MIN MODE`
`NO TEST - ASSERT ENCOUNTERED`
`OPERATIONAL TEST FAILURE`
`PASSED`

`h` = Test result return code. Refer to the APP:CALLMON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

Analyze the output and take action according to procedures in the System Maintenance Requirements and Tools manual and the Routine Operations and Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:CALLMON
CLR:CALLMON
INH:CALLMON
OP:CALLMON
RTR:CALLMON
SET:CALLMON
```

Output Message(s):

```
OP:CALLMON
REPT:CALLMON-CMR
```

Output Appendix(es):

```
APP:CALLMON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

116 (MISCELLANEOUS)

REPT:CAMPON-A

Software Release: 5E10 only
Message Class: LINE,TRK
Application: 5
Type: Output

1. FORMAT

```
REPT CAMPON a [b] [PKT] c [d] [PRIGRP=e]
```

2. REASON FOR OUTPUT

To report that a camp-on is in progress for the indicated line, trunk, data link, or Operator Services Position System port (OSPSPORT). The camp-on activity has resulted from a manual attempt to remove or restore the line, trunk, data link, or OSPSPORT.

The camp-on can be stopped by using a STP:CAMPON input message. A list of lines, trunks, data links, and OSPSPORTs that have been camped on as a result of a manual request (RMV or RST) can be obtained using the OP:CAMPON input message.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`+` = Indicates the line is a party line.

`a` = Equipment number or identifier. Valid value(s):
`AQEST=f`
`AQM=g-h`
`DN=f[-i][+]`
`PKTDN=f`
`TKGMN=j-k`
`XDB=g-h`

`b` = Channel identifier: D, B1, or B2. Used only for integrated services line unit (ISLU) digital subscriber line (DSL) lines.

`c` = Equipment number or identifier. Valid value(s):
`DEN=l-m-n-o`
`ILEN=l-p-q-r`
`LCEN=l-s-u`^{1}`-u`
`LCKEN=l-s-t-m`^{1}`-n`^{1}
`LEN=l-s-v-w-x-y`
`LTP=l-z`
`NEN=l-h`^{1}`-i`^{1}`-j`^{1}`-k`^{1}`-l`^{1}
`PSUEN=l-o`^{1}`-p`^{1}`-q`^{1}`-r`^{1}
`RAF=l-s`^{1}`-t`^{1}
`SAS=l-s`^{1}`-t`^{1}
`SLEN=l-a`^{1}`-q-r`
`TEN=l-b`^{1}`-c`^{1}`-d`^{1}`-e`^{1}

`d` = Equipment number or identifier. Valid value(s):
`ICB=f`^{1}

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ICD=g[1]

e = Primary rate interface (PRI) group number.

f = Telephone number.

g = Data link (group) number.

h = Relative link (member) number.

i = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

j = Trunk group number.

k = Trunk member number.

l = Switching module (SM) number.

m = Digital line and trunk unit (DLTU) number.

n = Digital facility interface (DFI) number.

o = Channel number.

p = IDCU number.

q = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

r = RT line number or PUB43801 channel.

s = Line unit number.

t = Line group number.

u = Line card number.

v = Line grid number.

w = Switch board number.

x = Switch number.

y = Level number.

z = Logical test port number.

a[1] = Digital carrier line unit number.

b[1] = Trunk unit number.

c[1] = Service group number.

d[1] = Channel board number.

e[1] = Circuit number.

f[1] = Identifying number of the FGB carrier which can be up to 4 digits. If present, this variable indicates a direct trunk to a carrier.

g[1] = Identifying number of the FGD carrier which can be up to 4 digits. If present, this variable indicates a direct trunk to a carrier.

h[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

i[1] = Data group number.

j[1] = Synchronous transport signal (STS) number.

k[1] = Virtual tributary 1.5 (VT1.5) number.

l[1] = Digital signal level 0 (DS0).

m[1] = Line board number.

n[1] = Line circuit number.

o[1] = PSU unit number.

p[1] = PSU shelf number.

q[1] = PSU channel group number.

r[1] = PSU channel group member number.

s[1] = RAF or SAS unit number.

t[1] = RAF or SAS announcement channel number.

u[1] = Line group controller number.

4. ACTION TO BE TAKEN

None. Refer to the message output for pertinent status and information, and implement requested action based on the information received, if necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CAMPON
RMV:DATALINK
RMV:LINE
RMV:OSPSPORT
RMV:TRK
RST:DATALINK
RST:LINE
RST:OSPSPORT
```

```
RST:TRK
STP:CAMPON
```

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

REPT:CAMPON-B

Software Release: 5E11 - 5E12
Message Class: LINE,TRK
Application: 5
Type: Output

1. FORMAT

```
REPT CAMPON a [b] [PKT] c [d] [PRIGRP=e]
```

2. REASON FOR OUTPUT

To report that a camp-on is in progress for the indicated line, trunk, data link, or Operator Services Position System port (OSPSPORT). The camp-on activity has resulted from a manual attempt to remove or restore the line, trunk, data link, or OSPSPORT.

The camp-on can be stopped by using a STP:CAMPON input message. A list of lines, trunks, data links, and OSPSPORTs that have been camped on as a result of a manual request (RMV or RST) can be obtained using the OP:CAMPON input message.

3. VARIABLE FIELD DEFINITIONS

`+` = Indicates the line is a party line.

`a` = Equipment number or identifier. Valid value(s):

`b` Valid value(s):

AQEST=f
AQM=g-h
DN=f[-i][+]
PKTDN=f
TKGMN=j-k
XDB=g-h

= Channel identifier: D, B1, or B2. Used only for integrated services line unit (ISLU) digital subscriber line (DSL) lines.

`c` = Equipment number or identifier. Valid value(s):

AIUEN=l-v[1]-w[1]-x[1]	MLHG=y[1]-z[1]
DEN=l-m-n-o	NEN=l-h[1]-i[1]-j[1]-k[1]-l[1]
ILEN=l-p-q-r	PSUEN=l-o[1]-p[1]-q[1]-r[1]
INEN=l-h[1]-q-r	RAF=l-s[1]-t[1]
LCEN=l-s-u[1]-u	SAS=l-s[1]-t[1]
LCKEN=l-s-t-m[1]-n[1]	SLEN=l-a[1]-q-r
LEN=l-s-v-w-x-y	TEN=l-b[1]-c[1]-d[1]-e[1]
LTP=l-z	

`d` = Equipment number or identifier. Valid value(s):

ICB=f[1]
ICD=g[1]

`e` = Primary rate interface (PRI) group number.

f = Telephone number.

g = Data link (group) number.

h = Relative link (member) number.

i = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

j = Trunk group number.

k = Trunk member number.

l = Switching module (SM) number.

m = Digital line and trunk unit (DLTU) number.

n = Digital facility interface (DFI) number.

o = Channel number.

p = IDCU number.

q = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

r = RT line number or PUB43801 channel.

s = Line unit number.

t = Line group number.

u = Line card number.

v = Line grid number.

w = Switch board number.

x = Switch number.

y = Level number.

z = Logical test port number.

a[1] = Digital carrier line unit number.

b[1] = Trunk unit number.

c[1] = Service group number.

d[1] = Channel board number.

e[1] = Circuit number.

f[1] = Identifying number of the FGB carrier which can be up to 4 digits. If present, this variable indicates a direct trunk to a carrier.

g[1] = Identifying number of the FGD carrier which can be up to 4 digits. If present, this variable

indicates a direct trunk to a carrier.

h[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

i[1] = Data group number.

j[1] = Synchronous transport signal (STS) number.

k[1] = Virtual tributary 1.5 (VT1.5) number.

l[1] = Digital signal level 0 (DS0).

m[1] = Line board number.

n[1] = Line circuit number.

o[1] = PSU unit number.

p[1] = PSU shelf number.

q[1] = PSU channel group number.

r[1] = PSU channel group member number.

s[1] = RAF or SAS unit number.

t[1] = RAF or SAS announcement channel number.

u[1] = Line group controller number.

v[1] = Access interface unit (AIU) number.

w[1] = AIU pack number.

x[1] = AIU circuit number.

y[1] = Multi-line hunt group number.

z[1] = Multi-line hunt group member number.

4. ACTIONS TO BE TAKEN

None. Refer to the message output for pertinent status and information, and implement requested action based on the information received, if necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CAMPON
RMV:DATALINK
RMV:LINE
```

```
RMV:OSPSPORT
RMV:TRK
RST:DATALINK
RST:LINE
RST:OSPSPORT
RST:TRK
STP:CAMPON
```

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

REPT:CAMPON-C

Software Release: 5E13 and later
Message Class: LINE,TRK
Application: 5
Type: Output

1. FORMAT

```
REPT CAMPON a [b] [PKT] c [d] [PRIGRP=e]
```

2. REASON FOR OUTPUT

To report that a camp-on is in progress for the indicated line, trunk, data link, or Operator Services Position System port (OSPSPORT). The camp-on activity has resulted from a manual attempt to remove or restore the line, trunk, data link, or OSPSPORT.

The camp-on can be stopped by using a STP:CAMPON input message. A list of lines, trunks, data links, and OSPSPORTs that have been camped on as a result of a manual request (RMV or RST) can be obtained using the OP:CAMPON input message.

3. VARIABLE FIELD DEFINITIONS

`+` = Indicates the line is a party line.

`a` = Equipment number or identifier. Valid value(s):

AQEST=f
AQM=g-h
DN=f[-i][+]
PKTDN=f
TKGMN=j-k
XDB=g-h

`b` = Channel identifier: D, B1, or B2. Used only for integrated services line unit (ISLU) digital subscriber line (DSL) lines.

`c` = Equipment number or identifier. Valid value(s):

AIUEN=l-v[1]-w[1]-x[1]	MLHG=y[1]-z[1]
DEN=l-m-n-o	NEN=l-h[1]-i[1]-a[2]-j[1]-k[1]-b[2]-l[1]
ILEN=l-p-q-r	PSUEN=l-o[1]-p[1]-q[1]-r[1]
INEN=l-h[1]-q-r	RAF=l-s[1]-t[1]
LCEN=l-s-u[1]-u	SAS=l-s[1]-t[1]
LCKEN=l-s-t-m[1]-n[1]	SLEN=l-a[1]-q-r
LEN=l-s-v-w-x-y	TEN=l-b[1]-c[1]-d[1]-e[1]
LTP=l-z	

`d` = Equipment number or identifier. Valid value(s):

ICB=f[1]
ICD=g[1]

`e` = Primary rate interface (PRI) group number.

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f = Telephone number.

g = Data link (group) number.

h = Relative link (member) number.

i = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

j = Trunk group number.

k = Trunk member number.

l = Switching module (SM) number.

m = Digital line and trunk unit (DLTU) number.

n = Digital facility interface (DFI) number.

o = Channel number.

p = IDCU number.

q = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

r = RT line number or PUB43801 channel.

s = Line unit number.

t = Line group number.

u = Line card number.

v = Line grid number.

w = Switch board number.

x = Switch number.

y = Level number.

z = Logical test port number.

a[1] = Digital carrier line unit number.

b[1] = Trunk unit number.

c[1] = Service group number.

d[1] = Channel board number.

e[1] = Circuit number.

f[1] = Identifying number of the FGB carrier which can be up to 4 digits. If present, this variable indicates a direct trunk to a carrier.

g[1] = Identifying number of the FGD carrier which can be up to 4 digits. If present, this variable

indicates a direct trunk to a carrier.

h[1] = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

i[1] = Data group number.

j[1] = Synchronous transport signal (STS) number.

k[1] = Virtual tributary group number.

l[1] = Digital signal level 0 (DS0).

m[1] = Line board number.

n[1] = Line circuit number.

o[1] = PSU unit number.

p[1] = PSU shelf number.

q[1] = PSU channel group number.

r[1] = PSU channel group member number.

s[1] = RAF or SAS unit number.

t[1] = RAF or SAS announcement channel number.

u[1] = Line group controller number.

v[1] = Access interface unit (AIU) number.

w[1] = AIU pack number.

x[1] = AIU circuit number.

y[1] = Multi-line hunt group number.

z[1] = Multi-line hunt group member number.

a[2] = SONET termination equipment (STE) number.

b[2] = Virtual tributary member number.

4. ACTIONS TO BE TAKEN

None. Refer to the message output for pertinent status and information, and implement requested action based on the information received, if necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CAMPON
RMV:DATALINK
RMV:LINE
RMV:OSPSPORT
RMV:TRK
RST:DATALINK
RST:LINE
RST:OSPSPORT
RST:TRK
STP:CAMPON
```

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

REPT:CCS-APC-A

Software Release: 5E11 only
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
REPT CCS APC SM=a OPC=b  APC=c  d
```

2. REASON FOR OUTPUT

To report an adjacent point code (APC) that has become accessible or inaccessible. This report is used to indicate that an APC, adjacent office, has become accessible or inaccessible to a global switching module (GSM). When the APC becomes inaccessible to a GSM, calls normally using that office will be rerouted or blocked automatically until the APC becomes accessible again.

Note: This report applies only to APCs connected to links on the packet switching unit (PSU) signaling platform.

3. VARIABLE FIELD DEFINITIONS

`a` = Common channel signaling (CCS) GSM number.

`b` = Originating point code (OPC) number. OPC number consists of three items, each being three digits in length. They are, respectively, the OPC network, OPC cluster, and OPC member.

`c` = APC of the office that this link goes to.

`d` = APC status. Valid value(s):

```
ACCESSIBLE
INACCESSIBLE
```

4. ACTION TO BE TAKEN

None, if an APC has become accessible.

If an alarm occurs, determine why the signaling links to the APC are down. To make the APC accessible, the signaling links to the APC must be restored.

5. ALARMS

CRITICAL when an APC becomes inaccessible. None when an APC is accessible.

6. REFERENCES

Output Message(s):

```
REPT:CCS-DPC
```

Other Manual(s):

235-120-120 *VCDX Users Guide*
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

1532 (CCS LINK SET SUMMARY)
1533 (CCS LINK SET MEMBER)

REPT:CCS-APC-B

Software Release: 5E12 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
REPT CCS APC SM=a OPC=b  APC=c  d
```

2. REASON FOR OUTPUT

To report an adjacent point code (APC) that has become accessible or inaccessible to a global switching module (GSM). When the APC becomes inaccessible to a GSM, signalling normally using that office will be rerouted or blocked automatically until the APC becomes accessible again.

Note: This report applies only to APCs connected to links on the packet switching unit (PSU) signaling platform.

3. VARIABLE FIELD DEFINITIONS

`a` = Common channel signaling (CCS) GSM number.

`b` = Originating point code (OPC) number associated with the GSM. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual for interpretation.

`c` = Adjacent point code (APC) number. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual for interpretation.

`d` = APC status. Valid value(s):

```
ACCESSIBLE
INACCESSIBLE
```

4. ACTION TO BE TAKEN

None, if an APC has become accessible.

If an alarm occurs, determine why the signaling links to the APC are down. To make the APC accessible, the signaling links to the APC must be restored.

5. ALARMS

CRITICAL alarm when an APC becomes inaccessible. No alarm when an APC becomes accessible.

6. REFERENCES

Output Message(s):

```
REPT:CCS-DPC
```

Output Appendix(es):

```
APP:POINT-CODE
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

1532 (CCS LINK SET SUMMARY)
1533 (CCS LINK SET MEMBER)

REPT:CCS-DOC

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
REPT CCS DOC TIME-OUT
  MCa     TG b
```

2. REASON FOR OUTPUT

To report that the system has deactivated a dynamic overload control (DOC) because the controlling office has not refreshed this office. This message is only applicable to DOC on CCIS6 trunk groups.

3. VARIABLE FIELD DEFINITIONS

`a` = DOC level deactivated. Valid value(s):
- `1` = Machine congestion level 1.
- `2` = Machine congestion level 2.
- `3` = Machine congestion level 3.

`b` = Trunk group number.

4. ACTION TO BE TAKEN

No action is needed for an automatically generated condition.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-190-100 *Feature Descriptions Manual*

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REPT:CCS-DPC-A

Software Release: 5E11 only
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT CCS DPC SM=a  OPC=b DPC=[c]
 [THE OFFICE IS ISOLATED]      [d]
```

2. REASON FOR OUTPUT

To report that a destination point code (DPC) has become unavailable to an office. When the DPC becomes unavailable to an office, calls normally terminating to that DPC will be rerouted or blocked automatically until the DPC becomes available again.

Note: This report applies only to DPCs connected to links on the PSU signaling platform.

3. VARIABLE FIELD DEFINITIONS

`a` = Common channel signaling (CCS) global switching module (GSM) number.

`b` = Originating point code (OPC) number. OPC number consists of three items, each being three digits in length. They are, respectively, the OPC network, OPC cluster, and OPC member.

`c` = DPC number. DPC number consists of three items, each being three digits in length. They are, respectively, the DPC network, DPC cluster, and DPC member.

`d` = DPC status. This variable is never printed with output "`THE OFFICE IS ISOLATED`". Valid value(s):
`MULTIPLE DPCS UNAVAILABLE` = States that multiple DPCs have become unavailable due to the linkset or CLS serving the DPC(s) is not available. Refer to the OP:CCS-DPC input message to determine which DPCs are unavailable.
`ONE DPC UNAVAILABLE` = States that a DPC has become unavailable.

4. ACTION TO BE TAKEN

For any report, an attempt should be made locally to restore the primary or alternate signaling route to affected DPCs. Refer to RC/V view 16.10 to determine the primary/alternate link sets associated with a given DPC.

5. ALARMS

No alarm is produced, unless the office completely isolated. In the latter case, a critically alarmed message is produced, and that message is repeated every 15 minutes (also critically alarmed), until a DPC becomes accessible.

6. REFERENCES

Input Message(s):

`OP:CCS-DPC`

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Other Manual(s):
235-120-120 *VCDX Users Guide*
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

1532 (CCS LINK SET SUMMARY)
1533 (CCS LINK SET MEMBER)

RC/V View(s):

16.10 (SIGNALING POINT CODE)

REPT:CCS-DPC-B

Software Release: 5E12 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT CCS DPC SM=a  OPC=b DPC=[c]
 [d]
```

2. REASON FOR OUTPUT

To report that a destination point code (DPC) has become inaccessible to a global switching module (GSM). When the DPC becomes inaccessible, signaling to that DPC will be blocked automatically until the DPC becomes accessible again.

Note: This report applies only to the accessibility of DPCs associated with a PSU signaling platform.

3. VARIABLE FIELD DEFINITIONS

`a` = Common channel signaling (CCS) GSM number.

`b` = Originating point code (OPC) number associated with the GSM. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual for interpretation.

`c` = DPC number. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual for interpretation. This variable will not be printed if multiple DPCs are impacted.

`d` = DPC status. Valid value(s):
`DPC ACCESSIBLE` = States that the specified DPC has become accessible.
`MULTIPLE DPCS INACCESSIBLE` = States that multiple DPCs have become inaccessible as a result of the some event in the network. Refer to the OP:CCS-DPC input message to determine which DPCs are inaccessible.
`ONE DPC INACCESSIBLE` = States that the specified DPC has become inaccessible.
`THE GSM IS ISOLATED` = All DPCs associated with the specified GSM/OPC are inaccessible.

4. ACTION TO BE TAKEN

For any report indicating one/more DPCs are unavailable, an attempt should be made locally to restore the primary or alternate signaling route to affected DPCs. Refer to RC/V view 16.10 to determine the primary/alternate link sets associated with a given DPC.

5. ALARMS

A major alarm is produced if one/more DPCs become unavailable, unless the office is completely isolated. In the latter case, a critically alarmed message is produced, and that message is repeated every 15 minutes (also critically alarmed), until at least one DPC becomes accessible. No alarm is produced when DPCs become available.

6. REFERENCES

Input Message(s):

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```
OP:CCS-DPC
```

Output Appendix(es):

```
APP:POINT-CODE
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

1532 (CCS LINK SET SUMMARY)
1533 (CCS LINK SET MEMBER)

RC/V View(s):

16.10 (SIGNALING POINT CODE)

REPT:CCS-MRVR

Software Release: 5E13 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT CCS MRVR

  MRVR RECEIVED FROM: a

  ERROR DETECTED: b c

  SUPPLEMENTAL INFO:

  d d d d d

  d d d d d

  d d d d d
```

2. REASON FOR OUTPUT

To report an unexpected MRVR. An MRVR is unexpected if it is not associated with any current running MRVT.

3. VARIABLE FIELD DEFINITIONS

a = Point code that sent the MRVR message.

b = Reason for the MRVR message:

ERROR	DEFINITION
LOOP	The point code of the intermediate signaling point (STP) to which an MRVT would be sent is already present in the STPs crossed list in the received MRVT message.
EXCESSIVE LENGTH ROUTE	The maximum number of STPs crossed has been reached and the signaling point is not the tested destination.
UNKNOWN DESTINATION	The signaling point does not have a signaling route defined to the MRVT test destination.
INACCESSIBLE ROUTE	The MRVT could not be sent due to network blockage or network congestion.
LOCAL CONDITIONS	The MRVT test cannot proceed due to local conditions (e.g., processor outage or overload) at the receiving signaling point.
UNKNOWN INITIATING POINT CODE	The signaling point cannot route an MRVR message back to the test initiator.
TIMER EXPIRED	Expected MRVAs were not received within the Failed Link Craft Referral Timer Expired (T1.116/T1).
WRONG SP	The MRVT message has arrived at a signaling point that does not have STP functionality and is not the tested destination.
UNKNOWN ERROR CODE	Failure codes above value 8 and higher are considered unknown by the switch.

Note: If multiple errors were detected, item 'e' will be printed for each error received.

f = The value "f" identifies the unknown failure code returned in item "e".

g = List of point codes. See APP:POINT-CODE for formats.

ERROR	EXPLANATION
LOOP	The point codes of the STPs that are in the loop.
EXCESSIVE LENGTH ROUTE	The point codes of the STPs crossed.
UNKNOWN DESTINATION	The point codes of the STPs crossed.
INACCESSIBLE ROUTE	The point code of the inaccessible signaling point.
LOCAL CONDITIONS	The point code of the signaling point where the test cannot proceed.
UNKNOWN INITIATING POINT CODE	Point code of the SP that does not recognize the initiating SP.
TIMER EXPIRED	The point code of the signaling point(s) from which one or more expected MRVA messages are not received before the T1 timer expired.
WRONG SP	The point codes of the STPs crossed.
UNKNOWN ERROR CODE	The point code of the signaling point returning the unknown error code.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

APP:POINT-CODE

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

REPT:CCS-MTC

Software Release: 5E14 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]    REPT CCS MESSAGE TRANSPORT CONNECTIVITY CHANGE
         GSM=a OPC=b ACCESSIBLE

         TIMESTAMP: d

         NGSMS AFFECTED: a

[2]    REPT CCS MESSAGE TRANSPORT CONNECTIVITY CHANGE
         GSM=a OPC=b  ALL CMT CONNECTIVITY LOST

         TIMESTAMP: c
```

2. REASON FOR OUTPUT

Format 1 reports when a global switching module (GSM) has regained intra-SM CCS Message Transport (CMT) connectivity, initializing the intra-SM message delivery (MD) link.

Format 2 reports when CMT associated with a ISLAND GSM becomes totally unavailable. This message will be repeated automatically every 15 minutes until the problem is cleared.

3. VARIABLE FIELD DEFINITIONS

`a` = GSM number. Refer to the APP:RANGES appendix in the Appendixes section of the Output Messages manual.

`b` = Originating point code (9-digit OPC associated with the GSM). Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual, for a description of ANSI and AT&T/UNITEL formats.

`c` = Timestamp when the initial CMT loss/recovery occurred (hh:mm:ss).

4. ACTIONS TO BE TAKEN

Refer to the corrective maintenance procedures in the 235-190-120 if total connectivity loss is reported.

5. ALARMS

For Format 2, the message will usually be CRITICALLY alarmed (no alarm after initial intra-SM MD link provisioning). A critically alarmed message will be repeated automatically every 15 minutes, until the problem is cleared.

6. REFERENCES

Input Message(s):

`RST:MD`

```
RMV:MD
```

Output Message(s):

```
REPT MD
```

Output Appendix(es):

```
APP:RANGES
APP:POINT CODE
```

Other Manual(s):
235-190-120 *Common Channel Signaling Service Features*

MCC Display Page(s):

1540 (GSM CMT STATUS)

REPT:CCS-OMAP

Software Release: 5E13 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT CCS OMAP GSM=a
  b
  c c c c c
  c c c c c
```

2. REASON FOR OUTPUT

To report when one or more responding MRVR/SRVR messages cannot be sent because no provisioned member route set exists to the message's destination.

3. VARIABLE FIELD DEFINITIONS

`a` = GSM where the routing failure was discovered.

`b` = Reason for the report: CANNOT ROUTE MRVR/SRVR TO TEST INITIATOR

`c` = One or more test initiator point codes for which no MTP route set exists. Unique unknown initiator point codes, up to a maximum of 10 point codes, are to be recorded within 15 seconds of the first detected routing error. See APP:POINT-CODE for formats.

4. ACTIONS TO BE TAKEN

If MRVR or SRVR messages cannot be sent, investigate the MTP routing data based on the fact that no provisioned member route set exists to the message's destination.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

`APP:POINT-CODE`

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

REPT:CCS-SM-A

Software Release: 5E11 only
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT CCS SM=a ODD BACKUP WARNING
        LINKSET-MEMBER b-c HAS BEEN d
        ODD BACKUP IS NEEDED TO PREVENT A RECENT CHANGE
        ROLL FORWARD FAILURE IN CASE OF A FULL INITIALIZATION

[2]   ____________________________________________________________
      REPT CCS SM=a ODD BACKUP WARNING
        MD LINK ON SM a HAS BEEN d
        ODD BACKUP IS NEEDED TO PREVENT A RECENT CHANGE
        ROLL FORWARD FAILURE IN CASE OF A FULL INITIALIZATION
```

2. REASON FOR OUTPUT

To report a reliability warning that indicates a recent change roll forward failure will result if a full initialization occurs on this switching module (SM) before an office-dependent data (ODD) backup is conducted.

Format 1 is printed when a signaling link is inserted or deleted.

Format 2 is printed when a message delivery (MD) link is inserted or deleted.

3. VARIABLE FIELD DEFINITIONS

`a` = Common channel signaling (CCS) global SM (GSM) number.

`b` = linkset number.

`c` = linkset member number.

`d` = Recent change operation performed on a link. Valid value(s):
- `DELETED` = A link has been deleted.
- `INSERTED` = A link has been inserted.
- `UPDATED` = A link has been updated.

4. ACTION TO BE TAKEN

Conduct an ODD backup so a full initialization does not cause any recent change roll forward errors.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):

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235-120-120 *VCDX Users Guide*
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

1530 (GLOBAL SM MESSAGE DELIVERY STATUS)
1532 (CCS LINK SET SUMMARY)
1533 (CCS LINK SET MEMBER)

REPT:CCS-SM-B

Software Release: 5E12 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT CCS SM=a ODD BACKUP WARNING
  LINKSET-MEMBER b-c HAS BEEN d
  ODD BACKUP IS NEEDED TO PREVENT A RECENT CHANGE
  ROLL FORWARD FAILURE IN CASE OF A FULL INITIALIZATION
```

[2]
```
REPT CCS SM=a ODD BACKUP WARNING
  MD LINK ON SM a HAS BEEN d
  ODD BACKUP IS NEEDED TO PREVENT A RECENT CHANGE
  ROLL FORWARD FAILURE IN CASE OF A FULL INITIALIZATION
```

2. REASON FOR OUTPUT

To report a reliability warning that indicates a recent change roll forward failure will result, if a full initialization occurs on this switching module (SM) before an office-dependent data (ODD) backup is conducted.

Format 1 is printed when a signaling link is inserted, deleted, or updated.

Format 2 is printed when a message delivery (MD) link is inserted or deleted.

3. VARIABLE FIELD DEFINITIONS

`a` = Common channel signaling (CCS) global SM (GSM) number.

`b` = Linkset number.

`c` = Linkset member number.

`d` = Recent change operation performed on a link. Valid value(s):
- `DELETED` = A signaling or MD link has been deleted.
- `INSERTED` = A signaling or MD link has been inserted.
- `UPDATED` = A signaling link has been updated.

4. ACTION TO BE TAKEN

Conduct an ODD backup immediately, to ensure that a full initialization does not cause any recent change roll forward errors.

5. ALARMS

None.

6. REFERENCES

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Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

1530 (GLOBAL SM MESSAGE DELIVERY STATUS)
1532 (CCS LINK SET SUMMARY)
1533 (CCS LINK SET MEMBER)

REPT:CCS7

Software Release: 5E10 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT CCS7 POINT CODE a b c d e

[2]   ____________________________________________________________
      REPT CCS7 CLUSTER a b c d
```

2. REASON FOR OUTPUT

Format 1 reports a change in the condition of a directly connected signaling point in the common channel signaling system 7 (CCS7) network. A directly connected signaling point is an office that is connected to this office with one or more CCS7 trunk groups. The point code itself will be printed in *ANSI*® format except in the case of an Network Services Division (NSD) office reporting a failure to another NSD office. The point code will then be printed in NSD format.

Format 2 reports a change in the condition of a cluster in the network. This report is printed when all members of the cluster change states due to network connectivity. This report may not be for a cluster containing an office that is directly connected. The cluster code itself will be printed in *ANSI*® format expect in the case of an NSD cluster reporting a failure to an NSD office. The cluster code will then be printed in NSD format.

3. VARIABLE FIELD DEFINITIONS

`a` = The condition of the affected signaling point. Valid value(s):
`FAILURE` = The signaling point has become inaccessible.
`RECOVERED` = The signaling point has returned to service.

`b` = The decimal network indicator of the signaling point.

`c` = The decimal region indicator of the signaling point. This number will be zero if point code is in *ANSI*® format.

`d` = The decimal cluster indicator of the signaling point if in *ANSI*® format. The decimal cluster ID indicator of the signaling point if in NSD format.

`e` = The decimal member indicator of the signaling point.

4. ACTION TO BE TAKEN

This message reports a condition in another signaling office or in the CCS7 network which may prevent CCS7 calls from completing. Take appropriate action with signal transfer point (STP) maintenance staff and far end switch maintenance staff to resolve the problem.

5. ALARMS

Major, if the condition being reported is FAILURE.

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6. REFERENCES

Input Message(s):

`OP:C7NET`

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

118 (CNI FRAME AND CCS STATUS)

REPT:CCSINIT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT CCSINIT  a  INIT LVL=b
  STIMULUS=c  ASSOC CHILD PROCESS=d
  INIT SOURCE=e  CNI MODE=f
  CREATION FAILURE CODE=g  EVENT=h
```

2. REASON FOR OUTPUT

To report an internal common network interface (CNI) initialization, AM-wide initialization, or any other situation except manual CNI init. This message reports any initialization level in progress, reason for outputting this message, any child process of CCSINIT which is responsible or is associated with this message in some way, the initialization source if any, the CNI mode, the process manager creation failure code in case of child process creation failure, and the event describing the message. This message will be output by the CCSINIT process.

3. VARIABLE FIELD DEFINITIONS

`a` = The completion report. Valid value(s):

```
CCSINIT-CREATION-STATE-FAILED
CCSINIT-SYSTEM-ABORT-FAILED
CCSINIT-SYSTEM-ABORTING
CCSINIT-SYSTEM-INIT-FAILED
CCSINIT-SYSTEM-INIT-SUCCESSFUL
CNI-AUDIT-LEVEL-BEGINS
CNI-SYSTEM-AUDITS-COMPLETE
ESCALATING-TO-RCVRY-LEVEL
NO-ESCALATION-OF-INIT-LEVEL
```

`b` = CNI initialization level. Valid value(s):

- `AUD` = Audit level (CNI level 0). This is the lowest level. The audits have been run on the CNI system during this level.
- `FI` = Full initialization (CNI level 4). This level is equivalent to the FPI. In addition, all memory is initialized.
- `FPI` = Full process initialization (CNI level 3). CCSINIT system processes have been recreated during this level and initialized.
- `NO-INIT` = No initialization in progress.
- `RCVRY` = Recovery level (CNI level 1). This level indicates the restart of the interprocess message switch (IMS) driver and cleaning of the IMS buffers. CCS traffic is suspended during this level.
- `SINGLE-PROCESS-ABORT` = No specific level is running. Rather, the system is in init state due to single process abort.

`c` = Stimulus for this output message. Valid value(s):

```
CAN-NOT-INFORM-AIM-STATE-COMPL
```

```
CCSINIT-SYSTEM-INTERNAL-ESCALATION
CHILD-PORT-CAN-NOT-BE-CLEARED
CHILD-PROCESS-ABORTING
CHILD-PROCESS-CREATION-ACK-FAILED
CHILD-PROCESS-CREATION-FAILED
CHILD-PROCESS-INIT-ACK-FAILED
CHILD-PROCESS-TERMINATED
CHILD-PROCESS-TERMINATION-FAILED
COULD-NOT-CONNECT-TO-PORT
CNI-AUDITS-COMPLETED
FAULT-ENTRY-RECURSIVELY-ENTERED
FAULT-THRESHOLD-EXCEEDED
FLT-SINIT-RECEIVED
FULLY-OP-EVENT-SENDING-FAILED
INIT-SEQUENCE-FAILED
INITIALIZATION-TIME-OUT
INTERNAL-INIT-REQUEST
MESSAGE-QUEUING-TO-CNIINIT-FAILED
NO-INTERNAL-TIMER-AVAIL
NO-TERMINATE-MESSAGE-BUFFER-AVAIL
NO-UNIX-RTR-MESG-BUF-AVAILABLE
SUCCESSFUL-INIT
TERMINATION-MESG-QUEUING-FAILED
TIME-OUT-FOR-CHILD-CREATION
UNIX-RTR-EVENT-SENDING-FAILED
UNIX-RTR-FAULT-SENDING-FAILED
```

`d` = Any CCSINIT child process associated with this message in any way. Valid value(s):

```
CNIINIT
RINGMON
NONE
```

`e` = Source of initialization. Valid value(s):

`AM-WIDE` = Indicates that the message is being output in response to an AM-wide initialization, that is, 52, 53 or 54.

`CCSINIT-INTERNAL` = Indicates that the message is being output in response to some initialization action internal to the CCSINIT system.

`NO-INIT` = Indicates that no initialization is in progress.

`f` = CNI mode. Valid value(s):

`MIN` = In min mode the automatic fault recovery activities of the CNI system are inhibited and the common channel signaling (CCS) traffic is stopped.

`OPERATIONAL` = This is the normal operating mode for the CNI, with CCS traffic being sent and received.

`g` = Process manager creation failure code in decimal, if applicable.

`h` = Event number associated with this message.

4. ACTION TO BE TAKEN

If this message is accompanied with a critical alarm, the CNI system can not recover on its own. The critical alarm will accompany creation failures, init failure at FPI or FI levels, abort failures, etc. In these cases, user intervention is required to initialize CNI at a higher level. Refer to the INIT:CNI input message in the References section for this. The *UNIX*® RTR phase 52, 53 or 54 might be necessary if CNI-only manual initialization keeps on failing repeatedly.

5. ALARMS

Critical or none.

6. REFERENCES

Input Message(s):

```
INIT:CNI
```

Output Message(s):

```
INIT:CNI-LVL
```

Other Manual(s):
235-600-601 *Processor Recovery Messages*

MCC Display Page(s):

118 (CNI FRAME AND LINK STATUS DISPLAY PAGE)

REPT:CCSINIT-PART

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT CCSINIT PARTITION=a  REPORT=b
  EVENT=c REASON=d  ERROR CODE=e
```

2. REASON FOR OUTPUT

To indicate whether the CNI system partition "/cmp" could or could not be mounted successfully during CNI initialization. This message also shows any reason for the failure, and the file manager error code, in case of failure.

3. VARIABLE FIELD DEFINITIONS

a = CNI partition name: /cmp.

b = Report indicating whether partition could or could not be mounted. Valid value(s):

```
COULD-NOT-BE-MOUNTED
MOUNTED-SUCCESSFULLY
```

c = Event number used to correlate messages associated with a single stimulus.

d = Reason for failure, if any. Valid value(s):

```
FILE-MANAGER-ACK-ERROR
NO-UNIX-RTR-MESSAGE-BUFFER-AVAILABLE
NONE
UNIX-RTR-MESSAGE-COULD-NOT-BE-QUEUED
```

e = File manager ack error code, if applicable.

4. ACTION TO BE TAKEN

In case of file manager error, action should be taken based on error code. These error codes are described in the Processor Recovery Messages manual. In any other failure, attempt should be made to initialize CNI system at full process init (FPI) or full init (FI) level, using the input messages given in the References section. In case that attempt also fails, *UNIX*® RTR phase 52, 53 or 54 should be tried.

5. ALARMS

Critical alarm in the case of mount failure. Otherwise, none.

6. REFERENCES

Input Message(s):

```
INIT:CNI
```

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Output Message(s):

```
INIT:CNI-LVL
REPT:CCSINIT
```

Other Manual(s):
235-600-601 *Processor Recovery Messages*

MCC Display Page(s):

118 (CNI FRAME AND LINK STATUS DISPLAY PAGE)

REPT:CCSINIT-SUM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT CCSINIT SUMMARY     LVL=a       EVENT=b
  PROCESS    CREATED    INITIALIZED  ABORTED
     c         d            e           f
  CNI MODE=g
```

2. REASON FOR OUTPUT

To provide a final status report of the CCSINIT system processes after a common network interface (CNI) full process init (FPI) or full init (FI) were carried out.

3. VARIABLE FIELD DEFINITIONS

`a` = CNI level of initialization. Valid value(s):
- `FI` = Full initialization.
- `FPI` = Full process initialization.

`b` = Event number associated with the initialization stimulus.

`c` = Name of the CCSINIT child process. Valid value(s):
- `CCRINGMON` = Ring monitor process.
- `CNIINIT` = CNI initialization process.

`d` = Creation status of the child process. Valid value(s):
- `FAIL` = The child process failed to get created.
- `IN PROGRESS` = The child process creation was in progress at the time of outputting the summary message.
- `NO ATTEMPT` = No attempt was made to create the child process.
- `SUCCESS` = The child process was created successfully.

This field is not applicable for the child process. This will happen if the child process is in an abort state.

`e` = Initialization status of the child process. Valid value(s):
- `FAIL` = The child process failed to get initialized.
- `IN PROGRESS` = The child process initialization was in progress at the time of outputting the summary message.
- `NO ATTEMPT` = No attempt was made to initialize the child process.
- `SUCCESS` = The child process was initialized successfully.

This field is not applicable for the child process. This will happen if the child process is in an abort state.

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`f` = Abort status of the child process. Valid value(s):

- `FAIL` = The child process failed to get aborted.
- `IN PROGRESS` = The child process abort was in progress at the time of outputting the summary message.
- `SUCCESS` = The child process was aborted successfully.

This field is not applicable for the child process since it is not aborting.

`g` = CNI mode. Valid value(s):

- `MIN` = In MIN mode, the automatic fault recovery of the CNI ring is inhibited, and the common channel signaling (CCS) traffic is not being handled by the CNI system.
- `OPERATIONAL` = In OPERATIONAL mode, the CNI system is operational and is handling the CCS traffic.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:MINMODE-SM
INIT:CNI
SET:MINMODE-CNI
```

Output Message(s):

```
INIT:CNI
REPT:CCSINIT
```

MCC Display Page(s):

(CNI STATUS PAGE)

REPT:CCSLK-A

Software Release: 5E11 only
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT CCSLK LS=a-b SM=c OPC=d
  e  f [g][h][i]
  [j] [PSUPH=k-l-m-n] [DEN=o-p-q-r | NEN=s-t-u-v-w-x]
```

2. REASON FOR OUTPUT

To report additional information of an RMV:CCSLK or RST:CCSLK input message or an automatic action that changes the state of a common channel signaling (CCS) signaling link.

3. VARIABLE FIELD DEFINITIONS

`a` = Link set (LS) number.

`b` = Linkset member number.

`c` = CCS global switching module (GSM) number.

`d` = Originating point code (OPC) number. OPC number consists of three items, each being three digits in length. They are, respectively, the OPC network, OPC cluster, and OPC member.

`e` = Basic link state. Valid value(s):
- `AVAIL` = Available (in-service).
- `UNAVAIL` = Unavailable (out of service).

`f` = Link mode. Valid value(s):
- `AUTO` = Normal operation caused link status change.
- `MAN` = Link status change was requested manually by a RMV:CCSLK or RST:CCSLK input message.

`g` = Qualifier. Valid value(s):
- `LOCAL BLK` = All traffic is locally blocked from using this link.
- `LOCAL INH` = All traffic is locally inhibited on this link except for test and maintenance traffic.
- `LOCAL UNBLK` = Link is locally unblocked.
- `LOCAL UNINH` = Link is locally uninhibited.
- `MTCE` = Link is out of service.
- `REMOTE BLK` = All traffic is remotely blocked from using this link.
- `REMOTE INH` = All traffic is remotely inhibited on this link except for test and maintenance traffic.
- `REMOTE UNBLK` = Link is remotely unblocked.
- `REMOTE UNINH` = Link is remotely uninhibited.
- `RESTORED,STILL INH` = Link is restored and is still inhibited.
- `SRC-ATT UNINH FAIL` = Switch is unable to uninhibit the link.

`h` = Operational restriction. Valid value(s):

DL = No signaling (data link) is available for signaling link use.
DSBLD = Link is manually deactivated.
LKER-L1 = Level one failure (no network time slot available).
LKER-L2 = Level two failure (level two failed alignment).
LKER-L3 = Level three failure (link test failed).
OOSF-PH = Channel group is unassigned.

i = Congestion. Valid value(s):
LOCAL CONG LVL1 = The link is in the first level of local congestion using the multiple congestion levels feature.
LOCAL CONG LVL2 = The link is in the second level of local congestion using the multiple congestion levels feature.
LOCAL CONG LVL3 = The link is in the third level of local congestion using the multiple congestion levels feature.
REMOTE CONG = The link is in remote congestion.

j = Signal link fail reason. Valid value(s):
EXCESS DELAY ACK = Excessive delay of acknowledgement
EXCESS DURATION CONG = Excessive duration of congestion
EXCESS ERROR RATE AERM = Excessive error rate alignment error rate monitor (AERM) checks an aligning link and prints the error rate message when the threshold level of the monitor is exceeded.
EXCESS ERROR RATE SUERM = Excessive error rate signaling unit error rate monitor (SUERM) checks an active link and prints the error rate message when the threshold level is exceeded.
INVALID BSN THRESHOLD EXCEEDED = The link is out of service due to exceeding the invalid backward sequence number (BSN) threshold using the basic error correction method.
INVALID FIB THRESHOLD EXCEEDED = The link is out of service due to exceeding the invalid forward indicator bit (FIB) threshold.
INVALID LEVEL 2 LINK STATE = The link is out of service due to an invalid level 2 link state control state.
INVALID LEVEL 2 PROFILE = The link is out of service due to an invalid level 2 profile.
INVALID SU THRESHOLD EXCEEDED = The link is out of service due to exceeding the invalid signal unit (SU) threshold using the preventive cyclic retransmission error correction method.
LEVEL 3 LINK TEST FAILURE = The level 3 link test has failed due to either a timeout waiting for the SLTA or the SLTA contained incorrect information.
PH INITIALIZATION = The link is out of service due to an initialization occurring on the protocol handler.
REMOTE OUT OF SERVICE = The link is out of service due to the reception of an SIOS LSSU from the remote office.
RESOURCE EXHAUSTION- NO FREE RFD = The link is out of service due to no available receive frame descriptors.
ROUTING DATA PROBLEM = An inconsistency has been detected between the level 2 link state and the routing data in the PH. The signaling link will be removed and restored to correct the inconsistency.

Note: No signal link fail reason will be reported for manually requested output message.

Note: Variables 'm' through 'z' are printed when the signaling link is restored to the available state.

k = SM number of packet switch unit (PSU).

l = Unit number of PSU in SM.

m = Shelf number in PSU.

n = PH number on shelf.

o = SM number.

p = Digital line and trunk unit (DLTU) number of the SDL DFI.

q = DFI number of the SDL DFI.

r = Channel number of the SDL DFI.

s = SM number of digital network unit - synchronous optical network (SONET) (DNU-S) number.

t = DNU-S number.

u = Data group number.

v = Synchronous transport signal (STS) number.

w = Virtual tributary 1.5 (VT1.5) number.

x = Digital signal level 0 (DS0).

4. ACTION TO BE TAKEN

None, unless a major alarm occurs, then restore the link to service.

5. ALARMS

A major alarm occurs if the link goes out of service (though not as a result of manual request).

6. REFERENCES

Input Message(s):

```
RMV:CCSLK
RST:CCSLK
```

Other Manual(s):
235-120-120 *VCDX Users Guide*
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

1532 (CCS LINK SET SUMMARY)
1533 (CCS LINK SET MEMBER)

REPT:CCSLK-B

Software Release: 5E12 only
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT CCSLK LS=a-b SM=c OPC=d
  e  f [g][h][i]
 [j] [PSUPH=k-l-m-n] [DEN=o-p-q-r | NEN=s-t-u-v-w-x]
```

2. REASON FOR OUTPUT

To report additional information of an RMV:CCSLK or RST:CCSLK input message or an automatic action that changes the state of a common channel signaling (CCS) signaling link.

3. VARIABLE FIELD DEFINITIONS

`a` = Linkset (LS) number.

`b` = Linkset member number.

`c` = CCS global switching module (GSM) number.

`d` = Originating point code (OPC) number associated with the GSM. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual for interpretation.

`e` = Basic link state. Valid value(s):
- `AVAIL` = Available (active). Note that the link may still not be capable of carrying traffic due to inhibited or blocked qualifiers.
- `UNAVAIL` = Unavailable (out-of-service).

`f` = Source of link reconfiguration. Valid value(s):
- `AUTO` = Automatic recovery caused the link status change.
- `MAN` = Link status change was requested manually by a RMV:CCSLK or RST:CCSLK input message.

`g` = Qualifier. Valid value(s):
- `LOCAL BLK` = All traffic is locally blocked from using this link.
- `LOCAL INH` = All traffic is locally inhibited on this link except for test and maintenance traffic.
- `LOCAL UNBLK` = Link is locally unblocked.
- `LOCAL UNINH` = Link is locally uninhibited.
- `MTCE` = Link is out of service due to maintenance action.
- `REMOTE BLK` = All traffic is remotely blocked from using this link.
- `REMOTE INH` = All traffic is remotely inhibited on this link except for test and maintenance traffic.
- `REMOTE UNBLK` = Link is remotely unblocked.
- `REMOTE UNINH` = Link is remotely uninhibited.
- `RESTORED,STILL INH` = Link is restored to an active state, but it is still inhibited.
- `SRC-ATT UNINH FAIL` = GSM is unable to uninhibit the link.

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`h` = Operational restriction. Valid value(s):

- `DL` = No signaling data link (SDL) is available for use.
- `DACT` = Link is manually deactivated.
- `LKER-L1` = Level one failure (no network time slot available).
- `LKER-L2` = Level two failure (level two failed alignment).
- `LKER-L3` = Level three failure (link test failed).
- `OOSF-PH` = Channel group is unassigned.

`i` = Congestion. Valid value(s):

- `LOCAL CONG LVL1` = The link is in the first level of local congestion using the multiple congestion levels feature.
- `LOCAL CONG LVL2` = The link is in the second level of local congestion using the multiple congestion levels feature.
- `LOCAL CONG LVL3` = The link is in the third level of local congestion using the multiple congestion levels feature.
- `REMOTE CONG` = The link is in remote congestion.

`j` = Signal link fail reason. Valid value(s):

- `EXCESS DELAY ACK` = Excessive delay of acknowledgement
- `EXCESS DURATION CONG` = Excessive duration of congestion
- `EXCESS ERROR RATE AERM` = Alignment error rate monitor (AERM) checks an aligning link and prints the error rate message when the threshold level of the monitor is exceeded.
- `EXCESS ERROR RATE SUERM` = Signaling unit error rate monitor (SUERM) checks an active link and prints the error rate message when the threshold level is exceeded.
- `INVALID BSN THRESHOLD EXCEEDED` = The link is out of service due to exceeding the invalid backward sequence number (BSN) threshold using the basic error correction method.
- `INVALID FIB THRESHOLD EXCEEDED` = The link is out of service due to exceeding the invalid forward indicator bit (FIB) threshold.
- `INVALID LEVEL 2 LINK STATE` = The link is out of service due to an invalid level 2 link control state.
- `INVALID LEVEL 2 PROFILE` = The link is out of service due to an invalid level 2 profile.
- `INVALID SU THRESHOLD EXCEEDED` = The link is out of service due to exceeding the invalid signal unit (SU) threshold using the preventive cyclic retransmission error correction method.
- `LEVEL 3 LINK TEST FAILURE` = The level 3 link test has failed due to either a timeout waiting for the SLTA or the SLTA contained incorrect information.
- `PH INITIALIZATION` = The link is out of service due to an initialization occurring on the protocol handler.
- `REMOTE OUT OF SERVICE` = The link is out of service due to the reception of an SIOS LSSU from the remote office.
- `RESOURCE EXHAUSTION- NO FREE RFD` = The link is out of service due to no available receive frame descriptors.
- `ROUTING DATA PROBLEM` = An inconsistency has been detected between the level 2 link state and the routing data in the PH. The signaling link will be removed and restored to correct the inconsistency.

Note: No signal link fail reason will be reported for manually requested output message.

Note: The PSUPH and EN are printed when the signaling link is restored to the available state.

k = SM number of packet switch unit (PSU).

l = Unit number of PSU in SM.

m = Shelf number in PSU.

n = PH number on shelf.

o = SM number.

p = Digital line and trunk unit (DLTU) number of the SDL.

q = DFI number of the SDL.

r = DFI Channel number of the SDL.

s = SM number of digital network unit - synchronous optical network (DNU-S) number.

t = DNU-S number of the SDL.

u = DNU-S data group number of the SDL.

v = DNU-S synchronous transport signal (STS) number of the SDL.

w = DNU-S virtual tributary 1.5 (VT1.5) number of the SDL.

x = DNU-S VT1.5 channel number of the SDL.

4. ACTIONS TO BE TAKEN

If a major alarm occurs, determine the cause of link failure and restore it to service.

5. ALARMS

A major alarm occurs if the link goes out of service (which is not as the result of a manual action).

6. REFERENCES

Input Message(s):

```
RMV:CCSLK
RST:CCSLK
```

Output Appendix(es):

```
APP:POINT-CODE
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

1532 (CCS LINK SET SUMMARY)

1533 (CCS LINK SET MEMBER)

REPT:CCSLK-C

Software Release: 5E13 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT CCSLK LS=a-b SM=c OPC=d
  e  f [g][h][i]
  [j] [PSUPH=k-l-m-n] [DEN=o-p-q-r | NEN=s-t-u-v-w-x-y-z]
```

2. REASON FOR OUTPUT

To report additional information of an RMV:CCSLK or RST:CCSLK input message or an automatic action that changes the state of a common channel signaling (CCS) signaling link.

3. VARIABLE FIELD DEFINITIONS

`a` = Linkset (LS) number.

`b` = Linkset member number.

`c` = CCS global switching module (GSM) number.

`d` = Originating point code (OPC) number associated with the GSM. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual for interpretation.

`e` = Basic link state. Valid value(s):
- `AVAIL` = Available (active). Note that the link may still not be capable of carrying traffic due to inhibited or blocked qualifiers.
- `UNAVAIL` = Unavailable (out-of-service).

`f` = Source of link reconfiguration. Valid value(s):
- `AUTO` = Automatic recovery caused the link status change.
- `MAN` = Link status change was requested manually by a RMV:CCSLK or RST:CCSLK input message.

`g` = Qualifier. Valid value(s):
- `LOCAL BLK` = All traffic is locally blocked from using this link.
- `LOCAL INH` = All traffic is locally inhibited on this link except for test and maintenance traffic.
- `LOCAL UNBLK` = Link is locally unblocked.
- `LOCAL UNINH` = Link is locally uninhibited.
- `MTCE` = Link is out of service due to maintenance action.
- `REMOTE BLK` = All traffic is remotely blocked from using this link.
- `REMOTE INH` = All traffic is remotely inhibited on this link except for test and maintenance traffic.
- `REMOTE UNBLK` = Link is remotely unblocked.
- `REMOTE UNINH` = Link is remotely uninhibited.
- `RESTORED,STILL INH` = Link is restored to an active state, but it is still inhibited.
- `SRC-ATT UNINH FAIL` = GSM is unable to uninhibit the link.

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h = Operational restriction. Valid value(s):

- DL = No signaling data link (SDL) is available for use.
- DACT = Link is manually deactivated.
- LKER-L1 = Level one failure (no network time slot available).
- LKER-L2 = Level two failure (level two failed alignment).
- LKER-L3 = Level three failure (link test failed).
- OOSF-PH = Channel group is unassigned.

i = Congestion. Valid value(s):

- LOCAL CONG LVL1 = The link is in the first level of local congestion using the multiple congestion levels feature.
- LOCAL CONG LVL2 = The link is in the second level of local congestion using the multiple congestion levels feature.
- LOCAL CONG LVL3 = The link is in the third level of local congestion using the multiple congestion levels feature.
- REMOTE CONG = The link is in remote congestion.

j = Signal link fail reason. Valid value(s):

- EXCESS DELAY ACK = Excessive delay of acknowledgement
- EXCESS DURATION CONG = Excessive duration of congestion
- EXCESS ERROR RATE AERM = Alignment error rate monitor (AERM) checks an aligning link and prints the error rate message when the threshold level of the monitor is exceeded.
- EXCESS ERROR RATE SUERM = Signaling unit error rate monitor (SUERM) checks an active link and prints the error rate message when the threshold level is exceeded.
- INVALID BSN THRESHOLD EXCEEDED = The link is out of service due to exceeding the invalid backward sequence number (BSN) threshold using the basic error correction method.
- INVALID FIB THRESHOLD EXCEEDED = The link is out of service due to exceeding the invalid forward indicator bit (FIB) threshold.
- INVALID LEVEL 2 LINK STATE = The link is out of service due to an invalid level 2 link control state.
- INVALID LEVEL 2 PROFILE = The link is out of service due to an invalid level 2 profile.
- INVALID SU THRESHOLD EXCEEDED = The link is out of service due to exceeding the invalid signal unit (SU) threshold using the preventive cyclic retransmission error correction method.
- LEVEL 3 LINK TEST FAILURE = The level 3 link test has failed due to either a timeout waiting for the SLTA or the SLTA contained incorrect information.
- PH INITIALIZATION = The link is out of service due to an initialization occurring on the protocol handler.
- REMOTE OUT OF SERVICE = The link is out of service due to the reception of an SIOS LSSU from the remote office.
- RESOURCE EXHAUSTION- NO FREE RFD = The link is out of service due to no available receive frame descriptors.
- ROUTING DATA PROBLEM = An inconsistency has been detected between the level 2 link state and the routing data in the PH. The signaling link will be removed and restored to correct the inconsistency.
- FAILED LINK CRAFT REFERRAL TIMER EXPIRED = The failed link has not aligned/activated within the desired time provisioned by Recent Change view 16.2 link timer FAILED CRAFT REF (T1.111.4/T19).
- FALSE LINK CONGESTION DETECTED = The link is out of service because it stayed in the same congestion level for too long and provisioned RC view 16.2 link timer FALSE LNK

CON (T1.111.4/T31) has expired. The congestion level is indicated above (field 'i').

Note: No signal link fail reason will be reported for manually requested output message.

Note: The PSUPH and EN are printed when the signaling link is restored to the available state.

`k` = SM number of packet switch unit (PSU).

`l` = Unit number of PSU in SM.

`m` = Shelf number in PSU.

`n` = PH number on shelf.

`o` = SM number.

`p` = Digital line and trunk unit (DLTU) number of the SDL.

`q` = DFI number of the SDL.

`r` = DFI Channel number of the SDL.

`s` = SM number of digital network unit - synchronous optical network (DNU-S) number.

`t` = DNU-S number of the SDL.

`u` = DNU-S data group number of the SDL.

`v` = DNU-S sonet terminating equipment(STE) number of the SDL.

`w` = DNU-S synchronous transport signal(STS) number of the SDL.

`x` = DNU-S virtual tributary 1.5 group(VTGRP) number of the SDL.

`y` = DNU-S virtual tributary 1.5 member(VTGRM) number of the SDL.

`z` = DNU-S VT1.5 channel number of the SDL.

4. ACTIONS TO BE TAKEN

If a major alarm occurs, determine the cause of link failure and restore it to service.

5. ALARMS

A major alarm occurs if the link goes out of service (which is not as the result of a manual action).

6. REFERENCES

Input Message(s):

```
RMV:CCSLK
RST:CCSLK
```

Output Appendix(es):

```
APP:POINT-CODE
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

1532 (CCS LINK SET SUMMARY)
1533 (CCS LINK SET MEMBER)

REPT:CD-CIA

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    ____________________________________________________________
       REPT C/D CIA CANNOT OPEN DEVICE a

[2]    ____________________________________________________________
       REPT C/D CIA CANNOT GET PROCESS ID OF DAP

[3]    ____________________________________________________________
       REPT C/D CIA CANNOT SEND A MESSAGE TO DAP
```

2. REASON FOR OUTPUT

Format 1 informs the user that the current state of the Switching Control Center (SCC) links indicates that the equipment configuration database (ECD) must be updated in order for the SCC to become active.

Formats 2 and 3 indicate that the critical indicators administrator (CIA) could not communicate with the display administration process (DAP).

3. VARIABLE FIELD DEFINITIONS

`a` = Device filename.

4. ACTION TO BE TAKEN

For Format 1, the status of the SCC links in the ECD are something other than ACT, STBY, OOS or INIT. If the SCC is not needed, use recent change/verify (RC/V) to delete the ULARP record for CIA to prohibit ULARP from trying to restart the CIA process. If the SCC link is needed, follow growth procedures to activate the link.

For Formats 2 or 3, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1 - 3	273

Output Appendix(es):

`APP:OMDB-X-REF`

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REPT:CD-ERROR

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT C/D ERROR 1 a [PID b] [APPLICATION NOTIFICATION FAILURE]

[2]   ____________________________________________________________________
      REPT C/D ERROR 2 c d [e]

[3]   ____________________________________________________________________
      REPT C/D ERROR 3 f g

[4]   ____________________________________________________________________
      REPT C/D ERROR 4 h {i|m} [ERRNO j] [k]

[5]   ____________________________________________________________________
      REPT C/D ERROR 5 1 DAP EXITING RECEIVED SIGNAL l
```

2. REASON FOR OUTPUT

To inform the user that control/display (C/D) detected an exceptional condition while trying to process a message or poke request from the maintenance cathode ray terminal (CRT).

For Format 1, error types 1, 2, and 3 indicate severe problems in which DAP died upon initialization and will have been restarted by ULARP. Error types 4, 5, 6, and 7 can be ignored unless persistent, which indicates technical assistance should be obtained. Error type 8 indicates that the display administration process (DAP) was unable to read the ECD CFTINFO form and will initialize using the system default values.

Format 2 indicates that the DAP is overloaded with outstanding writes. This may indicate an iodriver or system overload, or that more requests for change to displays are arriving than DAP can handle.

For Format 3, error types 1, 2, and 4 indicate that DAP could not allocate memory or process a file for the creation of a page; or that DAP could not allocate memory or process the transtab file and that a default translation table will be used. Error type 3 indicates that tty information is missing for a particular terminal and that DAP is using default information for the terminal.

For Format 4, error types 3, 4, 5, and 7 indicate an error while attempting to attach a device. Error type 1 indicates that DAP could not open the translation table and that a default is being used. Error type 2 indicates that DAP incurred a write error and data for a terminal has been lost. Error type 6 indicates that a problem occurred in finding or updating an indicator for a page. Error type 8 indicates that DAP was unable to request new memory to buffer output destined for a terminal and that data has been lost.

Format 5 will occur when DAP dies from a signal and could indicate a problem that should be noted.

3. VARIABLE FIELD DEFINITIONS

`a` = Error type. Valid value(s):
- `1` = Unable to attach to C/D port.
- `2` = Cannot enable message reception.
- `3` = Unable to get shared segment or fork/exec critical indicator administrator (CIA).

4 = Invalid C/D administrative request received.
5 = Unable to send DAP status to application.
6 = Unable to send message to page owner.
7 = Invalid C/D poke operation request received.
8 = Unable to access ECD CFTINFO form.

b = Process ID of the process which sent the bad message.

c = Error type. Valid value(s):
2 = Write error

d = Text phrase. Valid value(s):

```
DAP LOCAL DEVICE I/O BUFFER OVERFLOW e
DAP PROCESS I/O BUFFER OVERFLOW
```

e = Device ID which is a single character (lower case letter) suffix representing a control display device. For example, if a logical device is defined as /dev/cda, then "a" is the device ID.

f = Error type. Valid value(s):
1 = File format error.
2 = File read failure.
3 = Gettrap returned no data.
4 = Memory request failure.

g = Valid value(s):

If 'f' =	**'g' =**
3	Device ID which is a single character (lower case letter) suffix representing a control display device. For example, if a logical device is defined as /dev/cda, then "a" is the device ID.
1 or 2	File name.
4	CANNOT ALLOCATE MEMORY FOR PAGE INITIALIZATION

h = Error type. Valid value(s):
1 = File open error.
2 = Write error.
3 = Attach settrap error.
4 = Attach gettrap error.
5 = Attach incore equipment configuration database (ECD) error.
6 = Indicator operation error.
7 = Retrieve incore ECD device record error.
8 = Error when attempting to allocate memory.

i = Valid value(s):

If 'h' =	**'i' =**
1	File name.
8	DAPMALLOC FAILED DATA LOST FOR DEVICE

j = System error code; refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

`k` = Device ID which is a single character (lower case letter) suffix representing a control display device. For example, if a logical device is defined as /dev/cda then "a" is the device ID.

`l` = Signal received.

`m` = Device ID which is a single character (lower case letter) suffix representing a control display device. For example, if a logical device is defined as /dev/cda, then "a" is the device ID.

4. ACTION TO BE TAKEN

For Format 1, error types 1, 2, and 3 indicate severe problems in which DAP died upon initialization and will have been restarted by ULARP. Error types 4, 5, 6, and 7 can be ignored unless persistent, which indicates technical assistance should be obtained. Error type 8 indicates a possible ECD problem; technical assistance should be obtained.

For Format 4, error types 3, 4, 5, and 7 indicate an error while attempting to attach a device. The terminal should be power cycled for these conditions. If the problem persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Formats 2 - 5, except where noted for Format 4 above, if the message is intermittent, take no action. If the message persists for a local terminal, power cycle the terminal. If it persists for a removed terminal, terminate and re-establish the terminal's connections.

5. ALARMS

None.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1-5	175

Output Appendix(es):

`APP:OMDB-X-REF`
`APP:SYSERR`

REPT:CD-GETTY

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT C/D GETTY UNABLE TO RETRIEVE LCHAN FROM ENVIRONMENT

[2]   ____________________________________________________________
      REPT C/D GETTY UNABLE TO ACCESS ECD FOR a

[3]   ____________________________________________________________
      REPT C/D GETTY FAILED TO OPEN DEVICE a FOR WRITING

[4]   ____________________________________________________________
      REPT C/D GETTY UNABLE TO COMMUNICATE WITH DAP PORT b

[5]   ____________________________________________________________
      REPT C/D GETTY FOR DEVICE a FAILED TO CREATE c

[6]   ____________________________________________________________
      REPT C/D GETTY PATHNAME NOT IN THE ECD FOR a
```

2. REASON FOR OUTPUT

To inform the user that the CDGETTY process has encountered an error while trying to process initialization information for control/display devices following terminal restores. The messages may appear on the originating device, or the receive-only printer (ROP).

3. VARIABLE FIELD DEFINITIONS

`a` = Device ID which is a single character (lower case letter) suffix representing a control display device. For example, if a logical device is defined as /dev/cda, then "a" is the device ID.

`b` = Port ID.

`c` = Pathname of the process to be created.

4. ACTION TO BE TAKEN

Format 1 indicates that the *UNIX*® process /prc/init is not setting the proper environment for getty. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Format 2 indicates that either it could not attach to the incore database or it failed to get the required record; for example, the getty record. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Format 3 indicates that it cannot open the acknowledgement channel for the listed device. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Format 4 indicates that the display administration process (DAP) is not connected to its port. To verify that the DAP

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is currently running, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Formats 5 and 6 indicate that they could not execute the shell listed in the getty record. Verify the correctness of the getty record in the incore database and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. This automatically-generated report requires no action.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1, 2, 4, and 6	273
3 and 5	313

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:CD-POKER

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT C/D POKER UNRECOGNIZED SIGNAL b ERRNO f

[2]   ____________________________________________________________
      REPT C/D POKER CAN NOT OPEN c ERRNO f

[3]   ____________________________________________________________
      REPT C/D POKER GETPORT ERROR PORT d
        ERRNO f

[4]   ____________________________________________________________
      REPT C/D POKER FAILED TO GET TTOPTS FOR e
        ERRNO f

[5]   ____________________________________________________________
      REPT C/D POKER MESSAGE NOT RECEIVED BY DAP FOR DEVICE e

[6]   ____________________________________________________________
      REPT C/D POKER INVALID PAGENAME SPECIFIED IN THE ECD
        FOR DEVICE

[7]   ____________________________________________________________
      REPT C/D POKER PAGE OWNER FAILED TO CONNECT TO PORT d

[8]   ____________________________________________________________
      REPT C/D POKER DAP CAN NOT ATTACH TO DEVICE e

[9]   ____________________________________________________________
      REPT C/D POKER FIFO WRITE ERROR, RTN = a ERRNO f

[10]  ____________________________________________________________
      REPT C/D POKER UNABLE TO SEND MSG ERRNO f

[11]  ____________________________________________________________
      REPT C/D POKER SWITCH DIVERT WRITE ERROR RTN a

[12]  ____________________________________________________________
      REPT C/D POKER OPENCH FAILURE FOR DEVICE e

[13]  ____________________________________________________________
      REPT C/D POKER CSOP FAILED TO CONNECT TO PORT d
```

2. REASON FOR OUTPUT

To report errors detected by poker associated with control/display devices. Formats 1, 9, and 11 indicate errors in setting up or diverting output to a secondary reader [that is, recent change and verify (RCV)/equipment configuration database (ECD)].

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Formats 2, 4 - 8, 12 and 13 indicate poker initialization errors.

Format 10 indicates an error with sending poke input to display administration process (DAP) from a dialogue terminal.

3. VARIABLE FIELD DEFINITIONS

`a` = Failure return from write().

`b` = Signal number.

`c` = File name.

`d` = Port number.

`e` = Device ID which is a single character (lower case letter) suffix representing a control display device. For example, if a logical device is defined as /dev/cda, then '`a`' is the device ID.

`f` = System error numbers. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

For Formats 1, 2, 5, and 7 - 11, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 3 if DAP is running, execute menu 807 from the C/D Update page to restart the poker. If DAP is not running, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 4 verify correctness of 'ttopt' form for this device, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 6 to verify correctness of pagename field found in the 'getty' form for this device, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. If correct, take no action; message was the result of a request to display an uninitialized page at time of request.

For Format 12, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual to verify correctness of channel ID field found in the 'logdev' form for this device.

For Format 13, if the coordinator of spooler output processes (CSOP) is running, display page 103 and execute menu 807 to restart the poker. If CSOP is not running, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. These automatically-generated reports require no action.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):

1 - 8, 11, 12	296
9 - 10	317
13	None.

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

MCC Display Page(s):

(C/D UPDATE)

REPT:CD-STARTER

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT C/D STARTER SIGNAL TO d FAILED ERRNO f

[2]   ____________________________________________________________
      REPT C/D STARTER DAP REQUEST FAILED PORT e
       ERRNO f

[3]   ____________________________________________________________
      REPT C/D STARTER TMP FILE SYSTEM NOT ACCESSIBLE
       [ERRNO f]

[4]   ____________________________________________________________
      REPT C/D STARTER CHILD TERMINATION STATUS b
       [SIGNAL g]

[5]   ____________________________________________________________
      REPT C/D STARTER FAILED TO OPEN a ERRNO f

[6]   ____________________________________________________________
      REPT C/D STARTER FAILED TO EXECUTE c ERRNO f

[7]   ____________________________________________________________
      REPT C/D STARTER FAILED TO CREATE PIPE a
       ERRNO f

[8]   ____________________________________________________________
      REPT C/D STARTER FORK FAILED ERRNO f

[9]   ____________________________________________________________
      REPT C/D STARTER ALREADY ACTIVE STARTER ON h

[10]  ____________________________________________________________
      REPT C/D STARTER ARGUMENT ERROR

[11]  ____________________________________________________________
      REPT C/D STARTER ALREADY RUNNING ON TERMINAL h
```

2. REASON FOR OUTPUT

To report the control/display (C/D) starter process encountered an error while attempting to set up the device for a secondary input read process; for example, recent change and verify (RCV).

3. VARIABLE FIELD DEFINITIONS

a = File name.

b = Child exit status.

`c` = Pathname of secondary input read process (RCV).

`d` = Poker process ID.

`e` = Display administration process (DAP) port number.

`f` = System error number. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

`g` = Signal which terminated the child.

`h` = Device ID which is a single character (lower case letter) suffix representing a control display device. For example, if a logical device is defined as /dev/cda, then "a" is the device ID.

4. ACTION TO BE TAKEN

For Formats 1 and 2, if the message is printed for a local terminal, power cycle the terminal. If the message is printed for a remote terminal, terminate and re-establish the terminal's connection.

For Format 3, if the system initialization is in progress, wait and re-enter the menu later to re-start the STARTER process. If system initialization is not in progress, mount the /tmp filesystem or refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Format 4 indicates the child process of STARTER terminated abnormally. If STATUS is specified, then refer to the documentation specific to the process shown in variable '`c`'. If SIGNAL is specified, then refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Formats 5 - 10, re-enter the menu to try to restart the STARTER process. If this fails again, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Format 11 indicates that an active child process is running on the named terminal. Use the PF3 key to resume communication with that process.

5. ALARMS

None. This is an automatically-generated report.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	275

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

REPT:CDFI-TFPT

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT CDFI=a-b-c TRBL FIDB PARITY FAILURE d
  FIDB PARITY TROUBLE RECOVERY ACTION e
  f g h
```

2. REASON FOR OUTPUT

To respond to a remote link interface (RLI) (in particular a facility interface (FI)) interrupt caused by facility interface data bus (FIDB) parity errors in an inter-remote switching module (RSM) communication link digital facilities interface (CDFI) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line/trunk unit number.

`c` = CDFI number.

`d` = Event number.

`e` = Recovery action taken. Valid value(s):
`ANALYSIS ONLY` = A post mortem report generated.
`INITIALIZE` = The failing circuit has been initialized.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A DGN:CDFI message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A DGN:CDFI message will be printed with the result of the diagnostic.

`f` = Logical unit ID.

`g` = Number of errors.

`h` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:CDFI
RST:CDFI
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

REPT:CDFI-TPCF-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT CDFI=a-b-c TRBL PICB CONTROL FAILURE EVENT=d
    e RECOVERY ACTION f
  g h i j k
  l m
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt in an inter-remote switching module (RSM) communication link digital facilities interface (CDFI) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line/trunk unit number.

`c` = CDFI number.

`d` = Event number.

`e` = Error type. Valid value(s):
`CI RECEIVED BAD PARITY` = Controller interface received a bad parity bit.
`CI RECEIVED BAD START CODE` = Controller interface received a bad start code.
`PER DETECTED BAD ADDRESS` = Protocol error record detected a bad address.
`PER DETECTED BAD PARITY` = Protocol error record detected bad parity bit.
`PER DETECTED BAD START CODE` = Protocol error record detected a bad start code.
`SOFTWARE BAD ADDRESS ERROR` = A bad software address was detected.

`f` = Recovery action taken. Valid value(s):
`ANALYSIS ONLY` = A post mortem report generated.
`INITIALIZE` = The failing circuit has been initialized.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A DGN:CDFI message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A DGN:CDFI message will be printed with the result of the diagnostic.

`g` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`h` = Read/write (uppermost) bit and address in hexadecimal to which the CI was writing when the failure occurred.

`i` = Data being written to the periphery by the CI.

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`j` = Contents of the CI error source register.

`k` = External logical circuit name.

Note: Up to two logical circuit names, recent failure counts, and error thresholds (variables '`l`'-'`m`') may be printed.

`l` = Current decimal number of recent failures of this type recorded.

`m` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:CDFI
RST:CDFI
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

REPT:CDFI-TPCF-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT CDFI=a-b-c TRBL PICB CONTROL FAILURE EVENT=d
    e RECOVERY ACTION f
  g h i j k
  l m n
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt in an inter-remote switching module (RSM) communication link digital facilities interface (CDFI) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line/trunk unit number.

`c` = CDFI number.

`d` = Event number.

`e` = Error type. Valid value(s):
`CI RECEIVED BAD PARITY` = Controller interface received a bad parity bit.
`CI RECEIVED BAD START CODE` = Controller interface received a bad start code.
`PER DETECTED BAD ADDRESS` = Protocol error record detected a bad address.
`PER DETECTED BAD PARITY` = Protocol error record detected bad parity bit.
`PER DETECTED BAD START CODE` = Protocol error record detected a bad start code.
`SOFTWARE BAD ADDRESS ERROR` = A bad software address was detected.

`f` = Recovery action taken. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`INITIALIZE` = The failing circuit has been initialized.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A DGN:CDFI message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A DGN:CDFI message will be printed with the result of the diagnostic.

`g` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`h` = System PICB number in hexadecimal that was being written when the failure occurred.

`i` = Read/write (uppermost) bit and address in hexadecimal to which the CI was writing when the failure occurred.

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`j` = Data being written to the periphery by the CI.

`k` = Contents of the CI error source register.

`l` = External logical circuit name.

Note: Up to two logical circuit names, recent failure counts, and error thresholds (variables '`m`'-'`n`') may be printed.

`m` = Current decimal number of recent failures of this type recorded.

`n` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:CDFI
RST:CDFI
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

REPT:CDFI-TRBL

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT CDFI=a-b-c TRBL d  EVENT=e
  f RECOVERY ACTION g
  h i j
  [k] . . .
```

2. REASON FOR OUTPUT

To report the occurrence of a hardware error in an inter-remote switching module (RSM) communication link digital facilities interface (CDFI) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line/trunk unit number.

`c` = Circuit number.

`d` = Error report (refer to Exhibit A).

`e` = Event number.

`f` = Error type qualifying the error report (refer to Exhibit A).

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`INITIALIZE` = The failing circuit has been initialized.
`RMV` = The failing circuit will be removed from service. Manual intervention is required to restore the circuit to service.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A DGN:DFI message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A DGN:DFI message will be printed with the result of the diagnostic.

`h` = External logical circuit name.

`i` = Current decimal number of errors of this type recorded.

`j` = Error count threshold above which the recovery action will be escalated.

`k` = Register contents.

NOTE: Skip bytes 1 and 2, '`k`' value starts from byte 3.

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'd' value =	'f' value =	'k' value =
DFI CCB ERR = A communication control buffer (CCB) error was detected by the DFI. or DFI UCI ERR = A unified control interface (UCI) error was detected by the DFI.	INTERNAL DATA TROUBLE	0x0095 = Transmit formatter exercise alarm data. 0x0096 = Receive synchronizer exercise alarm data. 0x0097 = Framer exercise alarm data.
DFI CCB ERR = A communication control buffer (CCB) error was detected by the DFI. or DFI UCI ERR = A unified control interface (UCI) error was detected by the DFI.	INTERNAL CONTROL TROUBLE	0x0090 = Firmware fault register data. 0x009b = CCB or UCI status alarm.
DFI CCB ERR = A communication control buffer (CCB) error was detected by the DFI. or DFI UCI ERR = A unified control interface (UCI) error was detected by the DFI.	SANITY TIMEOUT DFI PIDB LOSS OF CLOCK ALARM REDUNDANT TM SERV REQ UNUSED CCB REG ACTIVITY DUAL PORT RAM ERROR INTERRUPT THRU DFI MASK	
UNEXPECTED SERVICE REQUEST = Illegal derived data link (DDL) message occurring between HSM-RSM digital facility interface (DFI) circuits, or between CDFI circuits.	ILLEGAL DDL RECEIVED	Source analysis data 24 bytes. Bytes three and four contain the number of DDL bytes received by PERFR. Bytes 5 to 24 contain data.
FIDB PARITY FAILURE = Remote link interface (RLI) [in particular a facility interface (FI)] interrupt caused by facility interface data bus (FIDB) errors on an inter-RSM communication link CDFI or an RDFI circuit.	FIDB PARITY TROUBLE	FIDB number.
REMOTING FACILITY DATA PATH FAULT	EBIT CONTINUITY FAILURE	Time slot number
PIDB PARITY FAILURE = TSI interrupt caused by PIDB parity errors in the DFI.	PIDB PARITY TROUBLE	Total number of errored channels
DFI STATUS ERROR = Trouble indication in the DFI circuit microprocessor.	SANITY TIMEOUT INTERRUPT THRU DFI MASK	
INTERNAL DATA PATH FAULT = a digital signal interface (DSI) loopback was detected by the DFI.	SANITY TIMEOUT INTERRUPT THRU DFI MASK	

4. ACTION TO BE TAKEN

An error report indicates an error condition which could cause the removal of a unit. Any removed unit should be repaired and restored to service. Additional messages which provide useful data may be output.

5. ALARMS

An alarm will be displayed if the recovery action results in the circuit being removed from service. CDFIs will display a minor alarm for the first facility which is removed from service and a major alarm if more than one facility is out of

service.

6. REFERENCES

Input Message(s):

```
ALW:HDW-CDFI
DGN:CDFI
INH:HDW-CDFI
RST:DFI
```

Output Message(s):

```
DGN:CDFI
DGN:DFI
RST:DFI
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-600-500 *Asserts*

REPT:CDFI-TRFP

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT CDFI=a-b-c TRBL REMOTING FACILITY DATA PATH FAULT d
  EBIT CONTINUITY FAILURE RECOVERY ACTION ANALYSIS ONLY
  e
  f f f f f f f f
```

2. REASON FOR OUTPUT

To respond to E-bit continuity errors occurring between inter-remote switching module (RSM) communication link digital facilities interface (CDFI) circuits.

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number.
b	= Digital line/trunk unit number.
c	= CDFI number.
d	= Event number.
e	= Logical circuit ID.
f	= The number(s) of the faulty time slot(s) (in hexadecimal format) at the remote end.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:CDFI
RST:CDFI
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

REPT:CDFI-TSE

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT CDFI=a-b-c TRBL DFI STATUS ERROR d
  SANITY TIMEOUT RECOVERY ACTION e
  f g h
  i
```

2. REASON FOR OUTPUT

To respond to a trouble indication in the inter-remote switching module (RSM) communication link digital facilities interface (CDFI) circuit microprocessor.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line/trunk unit number.

`c` = CDFI number.

`d` = Event number.

`e` = Recovery action taken. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`INITIALIZE` = The failing circuit has been initialized.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A DGN:CDFI output message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A DGN:CDFI output message will be printed with the results of the diagnostic.

`g` = Logical circuit name.

`h` = Error count threshold, above which the recovery action will be escalated.

`i` = Hexadecimal value of CDFI status register contents.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

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```
DGN:CDFI
RST:CDFI
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

REPT:CDFI-TUSR

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT CDFI=a-b-c TRBL UNEXPECTED SERVICE REQUEST d
  INTERRUPT THRU DFI MASK RECOVERY ACTION e
  [f]
  g h i
```

2. REASON FOR OUTPUT

To respond to an unexpected service request on an inter-remote switching module (RSM) communication link digital facilities interface (CDFI) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line/trunk unit number.

`c` = CDFI number.

`d` = Event number.

`e` = Recovery action taken. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`INITIALIZE` = The failing circuit has been initialized.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A DGN:CDFI message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A DGN:CDFI message will be printed with the result of the diagnostic.

`f` = Source analysis data if available, else line will be blank.

`g` = Logical circuit ID.

`h` = Total decimal error count recorded in the last 5 minutes.

`i` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:CDFI
RST:CDFI
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

REPT:CDI-TPCF-A

Software Release: 5E10 only
Message Class: HW_MON
Application: 5
Type: Output

1. FORMAT

```
REPT CDI=a-b-c TRBL PICB CONTROL FAILURE EVENT=d
  e  RECOVERY ACTION f
  g  h  i  j
  k  l  m
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt in the control data interface (CDI).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Trunk unit number.

`c` = Service group number.

`d` = Event number, which is the time sequence indicator.

`e` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`f` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is provided.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.

`INITIALIZE` = The failing circuit has been reinitialized.

`REPORT TO TERMINAL MAINT` = Terminal maintenance has been notified of the failure.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

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`h` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`i` = Data being written to the periphery by the CI.

`j` = Contents of the CI error source register.

Note: Up to two logical circuit names, error counts, and error thresholds (variables '`k`' - '`m`') may be printed.

`k` = External logical circuit name.

`l` = Current decimal number of recent failures of this type recorded.

`m` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:CDI-TPCF-B

Software Release: 5E11 and later
Message Class: HW_MON
Application: 5
Type: Output

1. FORMAT

```
REPT CDI=a-b-c TRBL PICB CONTROL FAILURE EVENT=d
  e  RECOVERY ACTION f
  g  h  i  j
  k  l  m  n
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt in the control data interface (CDI).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Trunk unit number.

`c` = Service group number.

`d` = Event number, which is the time sequence indicator.

`e` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`f` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is provided.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.

`INITIALIZE` = The failing circuit has been reinitialized.

`REPORT TO TERMINAL MAINT` = Terminal maintenance has been notified of the failure.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

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`h` = System PICB number in hexadecimal that was being written when the failure occurred.

`i` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`j` = Data being written to the periphery by the CI.

`k` = Contents of the CI error source register.

Note: Up to two logical circuit names, error counts, and error thresholds (variables '`l`' - '`n`') may be printed.

`l` = External logical circuit name.

`m` = Current decimal number of recent failures of this type recorded.

`n` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:CDI-TPPF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT CDI=a-b-c TRBL PIDB PARITY FAILURE d
  e RECOVERY ACTION f
  g h
  iiiiiiii j
  0klm   8klm   16klm   24klm
  1klm   9klm   17klm   25klm
  2klm  10klm   18klm   26klm
  3klm  11klm   19klm   27klm
  4klm  12klm   20klm   28klm
  5klm  13klm   21klm   29klm
  6klm  14klm   22klm   30klm
  7klm  15klm   23klm   31klm
```

2. REASON FOR OUTPUT

To respond to a time slot interchange (TSI) interrupt caused by peripheral interface data bus (PIDB) parity errors in the control data interface (CDI).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Trunk unit number.

`c` = Switch group number.

`d` = Event number.

`e` = Error type, which indicates PIDB trouble.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the result of the diagnostic.

`g` = Common board error count.

`h` = Common board threshold, above which the recovery action will be escalated.

`i` = Channel board error count. Left most '`i`' refers to board 0.

`j` = Channel board threshold, above which the recovery action will be escalated.

`k` = Number of parity errors in frame.

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`l` = Channel error count.

`m` = Channel threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:CDI
RMV:CDI
RST:CDI
```

REPT:CDI-TSF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT CDI=a-b-c TRBL SP FAILURE d
  SP FIFO OVERFLOW FAILURE RECOVERY ACTION e
  f g
  h i j
```

2. REASON FOR OUTPUT

To respond to a signal processor (SP) interrupt caused by the SP first-in first-out (FIFO) overflowing due to showering trunk circuits in the service group.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Trunk unit number.

`c` = Service group number.

`d` = Event number, which is the time sequence indicator.

`e` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`f` = Internal timeslot number.

`g` = Number of entries in the SP FIFO for this circuit.

`h` = External logical circuit name.

`i` = Current decimal number of recent failures of this type recorded.

`j` = Error count threshold, above which the recovery action will be escalated.

Note: Up to three logical circuit names, error counts, and error thresholds (variables '`i`'-'`k`') may be printed.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Output Message(s):

```
RMV:CDI
RST:CDI
```

REPT:CDI-TTSRF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT CDI=a-b-c TRBL TU SERV REQ FAILURE d
  e RECOVERY ACTION f
  g h i
  j k
```

2. REASON FOR OUTPUT

To respond to maintenance service requests from the trunk unit control and data interface (CDI) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Trunk unit number.

`c` = Service group number.

`d` = Event number.

`e` = Error type. Valid value(s):

```
CDI CLOCK OR SYNC FAILURE
GBIT OR START CODE FAILURE
SERV REQ REPORTED, NOT FOUND
```

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`INHIBIT HDWCHKS` = All maintenance type interrupts are blocked on the circuit.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = External logical circuit name.

`h` = Error count.

`i` = Error count threshold, above which the recovery action will be escalated.

`j` = Contents of the trunk unit CDI error source register.

`k` = Software image of the trunk unit CDI mask data.

4. ACTION TO BE TAKEN

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If variable 'e' is GBIT OR START CODE FAILURE, then interrupts are inhibited on the CDI specified by variables 'a', 'b', and 'c' and the test and access circuit (TAC) also specified by variables 'a', 'b', and 'c' is removed from service. A request to restore the TAC will be denied until interrupts are allowed on the CDI.

If the GBIT OR START CODE FAILURE message occurs again, then the CDI should be removed and diagnosed to locate the failure (refer to the RMV:CDI and DGN:CDI input messages). Since the failure of the CDI is not service-affecting, it should be removed when traffic is low.

When the failure is located and corrected, enter the RST:CDI message to restore the CDI. Once this is done the TAC should be restored by entering the RST:TAC input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:CDI
DGN:TAC
RMV:CDI
RMV:TAC
RST:CDI
RST:TAC
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:CDI-TUSR

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT CDI=a-b-c TRBL UNEXPECTED SERVICE REQUEST d
  TU OPERATIONAL SERVICE REQ RECOVERY ACTION e
  f
  g    h    i
```

2. REASON FOR OUTPUT

To report an unexpected service request on the control data interface (CDI).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Trunk unit number.

`c` = Service group number.

`d` = Event number.

`e` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`INITIALIZE` = The failing circuit has been reinitialized.
`REPT TO TERMINAL MAINT` = Terminal maintenance has been notified of the failure.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`f` = Source analysis data (optional).

`g` = External logical circuit name.

`h` = Current decimal number of recent failures of this type recorded.

`i` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:CDI
RMV:CDI
RST:CDI
```

REPT:CEHDLR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT CEHDLR
  DISCARDED  a EVENTS, FAILURE CODE=X'b
```

2. REASON FOR OUTPUT

To report the discard of CCS Network Critical Events by the Critical Event Handler (CEHDLR).

3. VARIABLE FIELD DEFINITIONS

`a` = Number of critical events dropped.

`b` = Reason for failure. Valid value(s):

- `1` = A message buffer cannot be allocated, the message queue to the csop is full, or the csop does not exist.
- `1000` = *UNIX*® RTR message buffer overload.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:CFT-LIB

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT CFT LIB UNABLE TO OPEN AUTHORITY GROUPS FILE

[2]   ____________________________________________________________________
      REPT CFT LIB AUTHORITY GROUPS FILE READ ERROR

[3]   ____________________________________________________________________
      REPT CFT LIB AUTHORITY GROUPS FILE TOO MANY GROUPS

[4]   ____________________________________________________________________
      REPT CFT LIB UNABLE TO OPEN AUTHORITY FILE

[5]   ____________________________________________________________________
      REPT CFT LIB AUTHORITY FILE READ ERROR

[6]   ____________________________________________________________________
      REPT CFT LIB UNABLE TO RETRIEVE DATE FORMAT FROM ECD a

[7]   ____________________________________________________________________
      REPT CFT LIB ILLEGAL DATE FORMAT IN ECD

[8]   ____________________________________________________________________
      REPT CFT LIB UNABLE TO RETRIEVE IM FOR ECHO

[9]   ____________________________________________________________________
      REPT CFT LIB IA01 RMOVSEG FAILED ERRNO b

[10]  ____________________________________________________________________
      REPT CFT LIB GETSEG FAILED ERRNO b

[11]  ____________________________________________________________________
      REPT CFT LIB UNABLE TO PLACE INPUT MESSAGE IN ENVIRONMENT

[12]  ____________________________________________________________________
      REPT CFT LIB CLEARING SEMAPHORE

[13]  ____________________________________________________________________
      REPT CFT LIB CANNOT ACCESS ECD PDS ASSUMED
```

2. REASON FOR OUTPUT

To report a craft library (CFT LIB) related occurrence or error.

Format 1 indicates that the craft library could not access the file that contains the currently valid input message authority groups.

Format 2 indicates that the craft library encountered a read error when attempting to read the input message authority groups file.

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Format 3 indicates that an error has been detected in the input message authority groups file. This can occur if there are too many authority groups specified (more than the defined maximum, currently 91) or if the wrong file is read.

Format 4 indicates that the craft library could not access the file that contains the current assignments of authority groups to persons and terminals.

Format 5 indicates that the craft library encountered a read error when attempting to read the authority assignment file.

Format 6 indicates that the craft library could not retrieve the date format from the eaiopt record in the equipment configuration database (ECD).

Format 7 prints when the craft library detects an error in the layout of the date found in the eaiopt record in the ECD. The layout must include the desired position of the month (m), day (d), and year (y) with optional separators (for example; ":", "-"). Some example layouts include: m:d:y and d-m-y.

Format 8 prints when the craft library is unable to retrieve an input message string from the calling process' environment.

Format 9 indicates that the craft library failed to remove the incore ECD data segment(s) from its address space.

Format 10 indicates that the craft library failed to add the incore ECD data segment(s) to its address space.

Format 11 indicates that the craft library failed to put the input message into the client process environment.

Format 12 indicates that the craft library is releasing a locked semaphore.

Format 13 is printed when the craft library is either unable to attach to the ECD or unable to read the splrinfo record in the ECD to determine whether the system is in PDS or MML mode. PDS mode is assumed.

3. VARIABLE FIELD DEFINITIONS

a = Reason for failure to obtain date format from the ECD. Valid value(s):

- 1 = Could not attach ECD segment to process.
- 2 = Failure attaching to database.
- 3 = Could not get ECD origin.
- 4 = Could not get UCB record.
- 5 = Could not get IOPT record.
- 6 = Could not get EAIOPT record.
- 7 = Failure releasing database.
- 8 = Could not remove ECD segment from process.

b = System error number. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

For Formats 1 through 11, no action is needed.

For Format 12, check the /cdmp directory for a dump file of the process that had the semaphore locked. If a file is present, save the file for future analysis.

5. ALARMS

None. This alarm is a manually-requested report.

If a minor alarm occurs, take action as indicated in the report. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1 - 5, 8 - 12	290
6, 7	291

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

REPT:CFT-LPR

Software Release: 5E10 and later
Message Class: NULLDEV
Application: 5
Type: Output

1. FORMAT

```
REPT CFT: LPR LOGNAME a, JOB b,        PART c
 [d]
```

2. REASON FOR OUTPUT

To print the contents of a file that was requested from the LPR.

3. VARIABLE FIELD DEFINITIONS

a	= Login name that requested the print.
b	= Job number that was returned from the lpr command.
c	= Part number.
d	= Contents of file.

4. ACTION TO BE TAKEN

If the printout was requested by a person in the office, give the person the printout. If the printout is the result of a procedure, follow the directions given in the contents of the file.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-700-200 *UNIX® System Reference*

REPT:CFTSHL-A

Software Release: 5E10 - 5E11
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPTCFTSHL TERMINAL IN SERVICE *** f
        CAPABILITY MODE / MML

[2]   ____________________________________________________________
      REPT CFTSHL EOF ENCOUNTERED

[3]   ____________________________________________________________
      REPT CFTSHL UNABLE TO READ LINE a OF .pname file
        INSTALL A .pname FILE in DIRECTORY i AND
        SHELL WILL RECOVER

[4]   ____________________________________________________________
      REPT CFTSHL CANNOT CHANGE DIRECTORY TO b

[5]   ____________________________________________________________
      REPT CFTSHL SETGID TO c FAILED

[6]   ____________________________________________________________
      REPT CFTSHL SETUID TO d FAILED

[7]   ____________________________________________________________
      REPT CFTSHL CANNOT CREATE e AS ALTERNATE SHELL

[8]   ____________________________________________________________
      REPT CFTSHL INTERRUPT RECEIVED

[9]   ____________________________________________________________
      REPT CFTSHL INVALID ENVIRONMENT ARGUMENT PASSED
        TO ALTERNATE SHELL

[10]  ____________________________________________________________
      REPT CFTSHL UNABLE TO READ LINE a OF .pname FILE FOR
        ALTERNATE SHELL AND ENVIRONMENT ARGUMENT MISSING

[11]  ____________________________________________________________
      REPT CFTSHL CANNOT CREATE SEGMENT FOR INPUT AND OUTPUT

[12]  ____________________________________________________________
      REPT CFTSHL ON MTTY WILL USE DEFAULT .PNAME FILE

[13]  ____________________________________________________________
      REPT CFTSHL CRAFT SHELL IS IN LIMP CAPABILITY MODE
```

2. REASON FOR OUTPUT

To report a craft (CFT) shell-related occurrence or error. The messages may appear on the inputting (requesting)

terminal, the receive-only printer (ROP), or both depending on the mode (terminal reading/background execution) of the craft shell (CFTSHL). Some messages may be appended to an input message.

Format 1 indicates the CFTSHL is ready to accept input.

Format 2 indicates the CFTSHL has been terminated. This message appears when a key.

Format 9 is printed when CFTSHL is executed from another process (shell) and an improper environment is passed as argument two.

Format 10 is printed when an alternate CFTSHL is invoked and the request environment cannot be read from the .pname file.

Format 11 is printed when CFTSHL fails to allocate a memory segment for I/O buffer using *UNIX*® RTR system call makeseg().

Format 12 is printed when CFTSHL is invoked for a maintenance terminal and the .pname file cannot be found in the current working directory. The CFTSHL then uses a default .pname file.

Format 13 indicates that the CFTSHL cannot attach to the input message catalog.

3. VARIABLE FIELD DEFINITIONS

`a` = Label of line.

`b` = Name of the requested directory.

`c` = Name of the requested group ID.

`d` = Name of the requested user ID.

`e` = Pathname of the alternate shell process.

`f` = CFTSHL capability mode. Valid value(s):

```
FULL
LIMP
PART
```

4. ACTION TO BE TAKEN

For Format 3, the input message or the .pname file is in error and must be corrected. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

For Formats 1, 2, 4, 5, 6, and 7, none. These are automatically generated reports.

For Formats 3, 9, and 10, action alarm. Take action as indicated in the report.

For Format 8, manual alarm. This report is the result of manual input.

For Formats 11 and 13, minor alarm. Take action as indicated in the report.

For Format 12, critical alarm. Take immediate action as indicated in the report. If needed, refer to the TECHNICAL

ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
11, 13	299
12	298

Input Message(s):

```
UPD:IMCAT
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-700-200 *UNIX® System Reference Manual*

REPT:CFTSHL-B

Software Release: 5E12 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

[1]
```
REPTCFTSHL TERMINAL IN SERVICE *** f
  CAPABILITY MODE / MML
```

[2]
```
REPT CFTSHL EOF ENCOUNTERED
```

[3]
```
REPT CFTSHL UNABLE TO READ LINE a OF .pname file
  INSTALL A .pname FILE in DIRECTORY i AND
  SHELL WILL RECOVER
```

[4]
```
REPT CFTSHL CANNOT CHANGE DIRECTORY TO b
```

[5]
```
REPT CFTSHL SETGID TO c FAILED
```

[6]
```
REPT CFTSHL SETUID TO d FAILED
```

[7]
```
REPT CFTSHL CANNOT CREATE e AS ALTERNATE SHELL
```

[8]
```
REPT CFTSHL INTERRUPT RECEIVED
```

[9]
```
REPT CFTSHL INVALID ENVIRONMENT ARGUMENT PASSED
  TO ALTERNATE SHELL
```

[10]
```
REPT CFTSHL UNABLE TO READ LINE a OF .pname FILE FOR
  ALTERNATE SHELL AND ENVIRONMENT ARGUMENT MISSING
```

[11]
```
REPT CFTSHL CANNOT CREATE SEGMENT FOR INPUT AND OUTPUT
```

[12]
```
REPT CFTSHL ON MTTY WILL USE DEFAULT .PNAME FILE
```

[13]
```
REPT CFTSHL CRAFT SHELL IS IN LIMP CAPABILITY MODE
```

[14]
```
REPT CFTSHL HIGH PRIORITY TERMINAL FEATURE HAS BEEN DEACTIVATED
```

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2. REASON FOR OUTPUT

To report a craft (CFT) shell-related occurrence or error. The messages may appear on the inputting (requesting) terminal, the receive-only printer (ROP), or both depending on the mode (terminal reading/background execution) of the craft shell (CFTSHL). Some messages may be appended to an input message.

Format 1 indicates the CFTSHL is ready to accept input.

Format 2 indicates the CFTSHL has been terminated. This message appears when a key.

Format 9 is printed when CFTSHL is executed from another process (shell) and an improper environment is passed as argument two.

Format 10 is printed when an alternate CFTSHL is invoked and the request environment cannot be read from the .pname file.

Format 11 is printed when CFTSHL fails to allocate a memory segment for I/O buffer using *UNIX*® RTR system call makeseg().

Format 12 is printed when CFTSHL is invoked for a maintenance terminal and the .pname file cannot be found in the current working directory. The CFTSHL then uses a default .pname file.

Format 13 indicates that the CFTSHL cannot attach to the input message catalog.

Format 14 is printed when CFTSHL deactivates the high priroity terminal feature on either a timeout of the SET:HPRI input command or when the feature is manually deactivated from a maintenance terminal.

3. VARIABLE FIELD DEFINITIONS

`a` = Label of line.

`b` = Name of the requested directory.

`c` = Name of the requested group ID.

`d` = Name of the requested user ID.

`e` = Pathname of the alternate shell process.

`f` = CFTSHL capability mode. Valid value(s):

```
FULL
LIMP
PART
```

4. ACTION TO BE TAKEN

For Format 3, the input message or the .pname file is in error and must be corrected. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

For Formats 1, 2, 4, 5, 6, and 7, none. These are automatically generated reports.

For Formats 3, 9, and 10, action alarm. Take action as indicated in the report.

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For Format 8, manual alarm. This report is the result of manual input.

For Formats 11 and 13, minor alarm. Take action as indicated in the report.

For Format 12, critical alarm. Take immediate action as indicated in the report. If needed, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
11, 13	299
12	298

Input Message(s):

```
UPD:IMCAT
SET:HPRI
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-700-200 *UNIX® System Reference Manual*

REPT:CGA-A

Software Release: 5E10 - 5E11
Message Class: TM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT CGA DFIH=a-b-c f [g]

[2]   ____________________________________________________________________
      REPT CGA FAC=a-b-c-d f [g] [OSPS-PRI]

[3]   ____________________________________________________________________
      REPT CGA SPN=a-h-i-j-k l m [g]

[4]   ____________________________________________________________________
      REPT CGA IFAC=a-n-o f [g]

[5]   ____________________________________________________________________
      REPT CGA SDFI=a-e-c

[6]   ____________________________________________________________________
      REPT CGA STEFAC=a-p-q-r [g]

[7]   ____________________________________________________________________
      REPT CGA STEFAC=a-p-q-r f v [g]
        STSFAC         s

[8]   ____________________________________________________________________
      REPT CGA STEFAC=a-p-q-r f v [g]
        1  2  3  4  5  6  7  8  9 10 11 12 13 14

        VT1FAC         t  t  t  t  t  t  t  t  t  t  t  t  t  t

        DS1SFAC        u  u  u  u  u  u  u  u  u  u  u  u  u  u

        15 16 17 18 19 20 21 22 23 24 25 26 27 28

        VT1FAC         t  t  t  t  t  t  t  t  t  t  t  t  t  t

        DS1SFAC        u  u  u  u  u  u  u  u  u  u  u  u  u  u
```

2. REASON FOR OUTPUT

To report:

- A carrier group alarm (CGA) thats a transition for non digital networking unit-synchronous optical network (SONET) (DNU-S) digital facilities.
- Reporting a change in CGA alarm level for DNU-S facilities.
- For analog channel bank (ANCB) and digital channel bank (DTCB) for metallic service unit (MSU) facilities.

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Format 1 is for remote integrated services line unit (RISLU) digital facility interface (DFI) handler (DFIH) related messages.

Format 2 is for DFI terminating facility (FAC) related messages.

Format 3 is for MSU scan point number (SPN) related messages.

Format 4 is for integrated digital carrier unit (IDCU) facility (IFAC) related messages.

Format 5 is for *SLC*® 96 DFI (SDFI) related messages.

Format 6,7 and 8 are for DNU-S digital facilities. For STE alarms, Format 6 will print. For STS-1 alarms, Format 7 will print. For VT1.5 and DS1 alarms, Format 8 will print.

3. VARIABLE FIELD DEFINITIONS

`OSPS-PRI` = The carrier group contains Operator Services Position System (OSPS) primary rate interface (PRI) trunks.

`a` = Switching module (SM) number.

`b` = Digital line and trunk unit (DLTU) number.

`c` = DFI number.

`d` = FAC number.

`e` = DCLU number.

`f` = Reason for message. The following are for DFI-1, DFI-2, DFIH, SDFI, and DNU-S unless stated otherwise. Valid value(s):

- `AIS` = Alarm indication signal. Facilities are removed from service. Except for STE, STS-1 and VT1.5 facilities when an AIS alarm has been triggered, an AIS alarm is reported with loss of frame alignment (LOFA) and an all ones event. An all ones event begins when the density of "1"s exceeds .9948.
- `ASC` = Alarm signal clear. The AIS alarm has been cleared. Except for STE, STS-1 and VT1.5 facilities when an AIS alarm has been cleared without LOFA or all ones events. An all ones event ends when the density of ones is less than .9948. Facilities are restored to service if no red or yellow alarms exist.
- `CRITICAL` = If six DNU-S VT1.5 or DS1sor a combination of the two have CGA events then it is reported as a critical alarm.
- `LAC` = Local alarm clear. The local (red) alarm on a facility has cleared. Facilities are restored to service provided no other alarms exist which would cause the facility to remain out of service.
- `LCA` = Local alarm. The local (red) alarm has been triggered on a facility. Facilities are removed from service.
- `MAJOR` = If two DNU-S VT1.5, DS1s or a combination of the two have CGA events then it is reported as a major alarm.
- `MINOR` = If a single DNU-S VT1.5 or DS1s has a CGA event then it is reported as a minor alarm.
- `RAC` = Remote alarm clear. This does not apply to the SDFI or the STEFAC. Facilities are restored to service.
- `RMA` = Remote alarm. This does not apply to the SDFI or the STEFAC. The remote (yellow) alarm has been triggered on a facility. Except for STE, STS-1 and VT1.5 facilities for D4 mode, a yellow alarm is indicated when bit 2 is 0. For FE mode, a yellow alarm is indicated by eight "1"s followed by eight "0"s. Facilities are removed from service.

`g` = Optional facility name - CLFI. CLFI is a customer-supplied variable string. The identifier has a

maximum length of 12 for DFI-1s and 25 for any other type.

h = MSU number.

i = Service group number.

j = Board number.

k = Scan point number.

l = MSU scan point reasons. Valid value(s):

- CAC = Carrier group alarm has cleared.
- CAR = Carrier group alarm has occurred.

m = MSU type. Valid value(s):

- A = Analog.
- D = Digital.

n = IDCU number.

o = IFAC number.

p = DNU-S number.

q = Data group (DG) number.

r = STE number.

s = STS-1 alarm is active. The highest color alarms will print. If this alarm exist then 't' and 'u' (a VT1.5 and DS1 alarm) will not print. Possible alarms are:

- A = AIS alarm active.
- L = Local alarm active.
- R = Remote alarm active.

t = VT1.5 alarm is active. The highest color alarms will print. If this alarm exist then 'u' (a DS1 alarm) will not print. If a DS1 prints then no VT1.5 exists. Possible alarms are:

- A = AIS alarm active.
- L = Local alarm active.
- R = Remote alarm active.

u = DS1 alarm. The highest color alarm will print. If this alarm exist then 't' (VT1.5 alarm) does not exist. Possible alarms are:

- A = AIS alarm active.
- L = Local alarm active.
- R = Remote alarm active.

v = Valid value(s):

- SET = Set alarm. A CGA alarm is currently on for identified unit. This does not apply for STEFAC.
- CLR = Clear alarm. A CGA alarm is cleared for identified unit. This does not apply for STEFAC.

4. ACTION TO BE TAKEN

If you have a RMA or AIS alarm, check the status of the far-end switch. A LCA indicates a complete loss of framing except for STS and VT1.5 it is loss of pointer. Multiple LCA indicate a probable transmission facility failure (for example, severed cable). All non-DNU-S VT1.5/DS1s are printed per event. All DNU-S VT1.5/DS1s are summary, where 1 alarm is a minor, two alarms is a major and six alarms is critical. When a CGA clears/occurs an OP:CGA should be executed.

5. ALARMS

A LCA, AIS, or RMA carrier group alarm causes a CGA alarm. Otherwise, none.

6. REFERENCES

Input Message(s):

```
INIT:FAC
OP:CGA
OP:FAC
```

Output Message(s):

```
INIT:FAC
OP:CGA
OP:FAC
```

Other Manual(s):
235-190-115 *Local and Toll System Features*
235-105-110 *System Maintenance Requirements and Tools*

REPT:CGA-B

Software Release: 5E12 only
Message Class: TM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT CGA DFIH=a-b-c f [g]

[2]   ____________________________________________________________________
      REPT CGA FAC=a-b-c-d f [g] [OSPS-PRI]

[3]   ____________________________________________________________________
      REPT CGA SPN=a-h-i-j-k l m [g]

[4]   ____________________________________________________________________
      REPT CGA IFAC=a-n-o f [g]

[5]   ____________________________________________________________________
      REPT CGA SDFI=a-e-c [g]

[6]   ____________________________________________________________________
      REPT CGA STEFAC=a-p-q-r [g]

[7]   ____________________________________________________________________
      REPT CGA STEFAC=a-p-q-r f v [g]
        STSFAC         s

[8]   ____________________________________________________________________
      REPT CGA STEFAC=a-p-q-r f v [g]
        1  2  3  4  5  6  7  8  9 10 11 12 13 14

        VT1FAC         t  t  t  t  t  t  t  t  t  t  t  t  t  t

        DS1SFAC        u  u  u  u  u  u  u  u  u  u  u  u  u  u

        15 16 17 18 19 20 21 22 23 24 25 26 27 28

        VT1FAC         t  t  t  t  t  t  t  t  t  t  t  t  t  t

        DS1SFAC        u  u  u  u  u  u  u  u  u  u  u  u  u  u
```

2. REASON FOR OUTPUT

To report:

- A carrier group alarm (CGA) that is a transition for non digital networking unit-synchronous optical network (SONET) (DNU-S) digital facilities.
- Reporting a change in CGA alarm level for DNU-S facilities.
- For analog channel bank (ANCB) and digital channel bank (DTCB) for metallic service unit (MSU) facilities.

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Format 1 is for remote integrated services line unit (RISLU) digital facility interface (DFI) handler (DFIH) related messages.

Format 2 is for DFI terminating facility (FAC) related messages.

Format 3 is for MSU scan point number (SPN) related messages.

Format 4 is for integrated digital carrier unit (IDCU) facility (IFAC) related messages.

Format 5 is for *SLC*® 96 DFI (SDFI) related messages.

Format 6,7 and 8 are for DNU-S digital facilities. For STE alarms, Format 6 will print. For STS-1 alarms, Format 7 will print. For VT1.5 and DS1 alarms, Format 8 will print.

3. VARIABLE FIELD DEFINITIONS

`OSPS-PRI` = The carrier group contains Operator Services Position System (OSPS) primary rate interface (PRI) trunks.

`a` = Switching module (SM) number.

`b` = Digital line and trunk unit (DLTU) number.

`c` = DFI number.

`d` = FAC number.

`e` = DCLU number.

`f` = Reason for message. The following are for DFI-1, DFI-2, DFIH, SDFI, and DNU-S unless stated otherwise. Valid value(s):

- `AIS` = Alarm indication signal. Facilities are removed from service. Except for STE, STS-1 and VT1.5 facilities when an AIS alarm has been triggered, an AIS alarm is reported with loss of frame alignment (LOFA) and an all ones event. An all ones event begins when the density of "1"s exceeds .9948.
- `ASC` = Alarm signal clear. The AIS alarm has been cleared. Except for STE, STS-1 and VT1.5 facilities when an AIS alarm has been cleared without LOFA or all ones events. An all ones event ends when the density of ones is less than .9948. Facilities are restored to service if no red or yellow alarms exist.
- `CRITICAL` = If six DNU-S VT1.5 or DS1sor a combination of the two have CGA events then it is reported as a critical alarm.
- `LAC` = Local alarm clear. The local (red) alarm on a facility has cleared. Facilities are restored to service provided no other alarms exist which would cause the facility to remain out of service.
- `LCA` = Local alarm. The local (red) alarm has been triggered on a facility. Facilities are removed from service.
- `MAJOR` = If two DNU-S VT1.5, DS1s or a combination of the two have CGA events then it is reported as a major alarm.
- `MINOR` = If a single DNU-S VT1.5 or DS1s has a CGA event then it is reported as a minor alarm.
- `RAC` = Remote alarm clear. This does not apply to the SDFI or the STEFAC. Facilities are restored to service.
- `RMA` = Remote alarm. This does not apply to the SDFI or the STEFAC. The remote (yellow) alarm has been triggered on a facility. Except for STE, STS-1 and VT1.5 facilities for D4 mode, a yellow alarm is indicated when bit 2 is 0. For FE mode, a yellow alarm is indicated by eight "1"s followed by eight "0"s. Facilities are removed from service.
- `TRANSIENT` = CGA Set and Clear. Software and hardware equipment states now indicate no CGA. There has been a CGA that was set and has already been cleared. This

message notifies the user that an automatic reconditioning of RISLU hardware has occurred due to a short duration CGA.

g = Optional facility name - CLFI. CLFI is a customer-supplied variable string. The identifier has a maximum length of 12 for DFI-1s and 25 for any other type.

h = MSU number.

i = Service group number.

j = Board number.

k = Scan point number.

l = MSU scan point reasons. Valid value(s):

- CAC = Carrier group alarm has cleared.
- CAR = Carrier group alarm has occurred.

m = MSU type. Valid value(s):

- A = Analog.
- D = Digital.

n = IDCU number.

o = IFAC number.

p = DNU-S number.

q = Data group (DG) number.

r = STE number.

s = STS-1 alarm is active. The highest color alarms will print. If this alarm exists then the 't' and 'u' (a VT1.5 and DS1 alarm) fields will not print. Possible alarms are:

- A = AIS alarm active.
- L = Local alarm active.
- R = Remote alarm active.

t = VT1.5 alarm is active. The highest color alarms will print. If this alarm exists then the 'u' (a DS1 alarm) field will not print. Possible alarms are:

- A = AIS alarm active.
- L = Local alarm active.
- R = Remote alarm active.

u = DS1 alarm. The highest color alarm will print. If this alarm exists then the 't' (VT1.5 alarm) field does not print. If a DS1 alarm prints then no VT1.5 alarm exists. Possible alarms are:

- A = AIS alarm active.
- L = Local alarm active.
- R = Remote alarm active.

v = Valid value(s):

- SET = Set alarm. A CGA alarm is currently on for identified unit. This does not apply for STEFAC.
- CLR = Clear alarm. A CGA alarm is cleared for identified unit. This does not apply for STEFAC.

4. ACTION TO BE TAKEN

If you have a RMA or AIS alarm, check the status of the far-end switch. A LCA indicates a complete loss of framing except for STS and VT1.5 it is loss of pointer. Multiple LCA indicate a probable transmission facility failure (for example, severed cable). All non-DNU-S VT1.5/DS1s are printed per event. All DNU-S VT1.5/DS1s are summary,

where 1 alarm is a minor, two alarms is a major and six alarms is critical. When a CGA clears/occurs an OP:CGA should be executed.

5. ALARMS

A LCA, AIS, or RMA carrier group alarm causes a CGA alarm. Otherwise, none.

6. REFERENCES

Input Message(s):

```
INIT:FAC
OP:CGA
OP:FAC
```

Output Message(s):

```
INIT:FAC
OP:CGA
OP:FAC
```

Other Manual(s):
235-190-115 *Local and Toll System Features*
235-105-110 *System Maintenance Requirements and Tools*

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REPT:CGA-C

Software Release: 5E13 and later
Message Class: TM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT CGA DFIH=a-b-c f [g]

[2]   ____________________________________________________________________
      REPT CGA FAC=a-b-c-d f [g] [OSPS-PRI]

[3]   ____________________________________________________________________
      REPT CGA SPN=a-h-i-j-k l m [g]

[4]   ____________________________________________________________________
      REPT CGA IFAC=a-n-o f [g]

[5]   ____________________________________________________________________
      REPT CGA SDFI=a-e-c f [g]

[6]   ____________________________________________________________________
      REPT CGA EC1STE=a-p-q-r f [g]

[7]   ____________________________________________________________________
      REPT CGA STSFAC=a-p-q-r-w CRITICAL v [g]
        STSFAC         s

[8]   ____________________________________________________________________
      REPT CGA STSFAC=a-p-q-r-w x v [g]
                 1-1  2-1  3-1  4-1  5-1  6-1  7-1
        VT1FAC    t    t    t    t    t    t    t
        DS1SFAC   u    u    u    u    u    u    u
                 1-2  2-2  3-2  4-2  5-2  6-2  7-2
        VT1FAC    t    t    t    t    t    t    t
        DS1SFAC   u    u    u    u    u    u    u
                 1-3  2-3  3-3  4-3  5-3  6-3  7-3
        VT1FAC    t    t    t    t    t    t    t
        DS1SFAC   u    u    u    u    u    u    u
                 1-4  2-4  3-4  4-4  5-4  6-4  7-4
        VT1FAC    t    t    t    t    t    t    t
        DS1SFAC   u    u    u    u    u    u    u
```

2. REASON FOR OUTPUT

To report:

- A carrier group alarm (CGA) that is a transition for non digital networking unit-synchronous optical network (SONET) (DNU-S) digital facilities.
- Reporting a change in CGA alarm level for DNU-S facilities.
- For analog channel bank (ANCB) and digital channel bank (DTCB) for metallic service unit (MSU)

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facilities. Format 1 is for remote integrated services line unit (RISLU) digital facility interface (DFI) handler (DFIH) related messages. Format 2 is for DFI terminating facility (FAC) related messages. Format 3 is for MSU scan point number (SPN) related messages. Format 4 is for integrated digital carrier unit (IDCU) facility (IFAC) related messages. Format 5 is for *SLC*® 96 DFI (SDFI) related messages. Format 6,7 and 8 are for DNU-S digital facilities. For electrical carrier level 1 SONET termination equipment (EC1STE) alarms, Format 6 will print. For synchronous transport signal (STS) alarms, Format 7 will print. For virtual tributary (VT) and digital signal 1 (DS1) alarms, Format 8 will print.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line and trunk unit (DLTU) number.

`c` = DFI number.

`d` = FAC number.

`e` = DCLU number.

`f` = Reason for message. The following are for DFI-1, DFI-2, DFIH, SDFI, and DNU-S unless stated otherwise. Valid value(s):

- `AIS` = Alarm indication signal. The AIS alarm has been triggered on a facility. Facilities are removed from service.
- `ASC` = Alarm signal clear. The AIS alarm has been cleared. Facilities are restored to service provided no other alarms exist which would cause the facility to remain out-of-service.
- `LAC` = Local alarm clear. The local (red) alarm on a facility has cleared. Facilities are restored to service provided no other alarms exist which would cause the facility to remain out-of-service.
- `LCA` = Local alarm. The local (red) alarm has been triggered on a facility. Facilities are removed from service.
- `RAC` = Remote alarm clear. This does not apply to the SDFI or the EC1STE. Facilities are restored to service provided no other alarms exist which would cause the facility to remain out-of-service.
- `RMA` = Remote alarm. This does not apply to the SDFI or the EC1STE. The remote (yellow) alarm has been triggered on a facility. Facilities are removed from service.
- `TRANSIENT` = CGA Set and Clear. Software and hardware equipment states now indicate no CGA. There has been a CGA that was set and has already been cleared. This message notifies the user that an automatic reconditioning of RISLU hardware has occurred due to a short duration CGA.

`g` = Optional facility name - common language facility identifier (CLFI). CLFI is a customer-supplied variable string. The identifier has a maximum length of 12 for DFI-1s and 25 for any other type.

`h` = MSU number.

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i = Service group number.

j = Board number.

k = Scan point number.

l = MSU scan point reasons. Valid value(s):
- CAC = Carrier group alarm has cleared.
- CAR = Carrier group alarm has occurred.

m = MSU type. Valid value(s):
- A = Analog.
- D = Digital.

n = IDCU number.

o = IFAC number.

p = DNU-S number.

q = Data group (DG) number.

r = SONET termination equipment (STE) number.

s = STS-1 alarm is active. The highest color alarms will print. If this alarm exists then the 't' and 'u' (a VT1.5 and DS1 alarm) fields will not print. Possible alarms are:
- A = AIS alarm active.
- L = Local alarm active.
- R = Remote alarm active.

t = VT1.5 alarm is active. The highest color alarms will print. If this alarm exists then the 'u' (a DS1 alarm) field will not print. Possible alarms are:
- A = AIS alarm active.
- L = Local alarm active.
- R = Remote alarm active.

u = DS1 alarm. The highest color alarm will print. If this alarm exists then the 't' (VT1.5 alarm) field does not print. If a DS1 alarm prints then no VT1.5 alarm exists. Possible alarms are:
- A = AIS alarm active.
- L = Local alarm active.
- R = Remote alarm active.

v = Valid value(s):
- SET = Set alarm. A CGA alarm is currently on for identified unit. This does not apply for EC1STE.
- CLR = Clear alarm. A CGA alarm is cleared for identified unit. This does not apply for EC1STE.

w = STS number.

`x` = DNU-S VT/DS1 alarm threshold level. Valid values are:

- `CRITICAL` = If six DNU-S VT1.5 or DS1s or a combination of the two (on the same STS) have CGA events then it is reported as a critical alarm.
- `MAJOR` = If two DNU-S VT1.5, DS1s or a combination of the two (on the same STS) have CGA events then it is reported as a major alarm.
- `MINOR` = If only one DNU-S VT1.5 or DS1 on an STS has a CGA event then it is reported as a minor alarm.

4. ACTIONS TO BE TAKEN

If you have a RMA or AIS alarm, check the status of the far-end switch. A LCA indicates a complete loss of framing except for STS and VT1.5 it is loss of pointer. Multiple LCA indicate a probable transmission facility failure (for example, severed cable). All non-DNU-S VT1.5/DS1s are printed per event. All DNU-S VT1.5/DS1s are summary, where 1 alarm is a minor, two alarms is a major and six alarms is critical. When a CGA clears/occurs an OP:CGA should be executed.

5. ALARMS

A LCA, AIS, or RMA carrier group alarm causes a CGA alarm. Otherwise, none.

6. REFERENCES

Input Message(s):

```
INIT:FAC
OP:CGA
OP:FAC
```

Output Message(s):

```
INIT:FAC
OP:CGA
OP:FAC
```

Other Manual(s):

235-190-115 *Local and Toll System Features*
235-105-110 *System Maintenance Requirements and Tools*

REPT:CLUCREAT

Software Release: 5E10 and later
Message Class: SWM01
Application: 5,CNI
Type: Output

1. FORMAT

```
REPT CLUCREAT
  CLUSTER/MEMBER INITIALIZATION COMPLETE
```

2. REASON FOR OUTPUT

This message indicates that new disk files for cluster/member routing data were created with default values. These disk files are read into the administrative module (AM) protected application segment (PAS) during initialization.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:CM-ISOLATED

Software Release: 5E10 and later
Message Class: MSGS
Application: 5
Type: Output

1. FORMAT

```
REPT CM ISOLATED FROM AM
```

2. REASON FOR OUTPUT

To report that the communication module (CM) is isolated from the administrative module (AM). While the switch is operating in this manually initiated mode, the AM cannot communicate with the CM or switching modules (SMs). Call processing functionality that requires the AM (such as common channel signaling calls) is not available. Calls that do not require the AM may still complete.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

Take manual action to remedy the problem that required manual isolation of the CM from the AM. Then re-establish AM/CM communication by following the procedure given in the System Recovery manual.

5. ALARMS

Critical.

6. REFERENCES

Input Message(s):

```
CLR:ISOL-CM

SET:ISOL-CM
```

Other Manual(s):
235-105-250 *System Recovery Procedures*

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REPT:CM-RE-SYNC

Software Release: 5E10 and later
Message Class: MSGS
Application: 5
Type: Output

1. FORMAT

```
REPT CM RE-SYNCHRONIZATION WITH AM ABORTED
 [a]
```

2. REASON FOR OUTPUT

To report that an attempt to re-synchronize the communication module (CM) with the administrative module (AM) failed. The CM remains isolated from the AM and the AM cannot communicate with the CM or switching modules (SMs). Call processing functionality that requires the AM (such as common channel signaling calls) is not available. Calls that do not require the AM may still complete.

3. VARIABLE FIELD DEFINITIONS

`a` = Additional data qualifying the failure reason. Valid value(s):

`DUE TO MANUAL CM ISOLATION REQUEST` = The manual command to set CM isolation was entered while re-synch was in progress and aborted the re-synch.

`FAILURE DUE TO CMP` = Could not obtain an active communication module processor (CMP).

`FAILURE DUE TO DLI` = Dual link interface configuration process (DLICON) communication failed with re-synch control process (RCON) in the AM.

`FAILURE DUE TO FPC` = The original active foundation peripheral controller (FPC) was not found.

`FAILURE DUE TO INTERNAL ERROR` = A software error occurred.

`FAILURE DUE TO LACK OF CRITICAL CM FUNCTIONALITY` = A check for critical functionality was made at the end of re-synch and determined that no inter-module call processing was possible.

`FAILURE DUE TO MMP and QGP` = No active module message processor (MMP) or quad link packet switch gateway processor (QGP) was found.

`FAILURE DUE TO MSCU` = No active message switch control unit (MSCU) was found.

`FAILURE DUE TO NC` = The original major network clock (NC) was not found.

`FAILURE DUE TO QGP and MMP` = No ACT QGP or MMP was found.

`FAILURE DUE TO TMS` = Communication with the time multiplexed switch (TMS) failed.

`NO ACTIVE MAJOR ONTC` = The original ACTIVE MAJOR office network and timing complex (ONTC) could not be determined.

`ODD FAILURE/BAD DATA` = The office dependent data is not internally consistent.

`OVERALL RE-SYNCHRONIZATION TIMER EXPIRED` = A long timer (about 2 minutes) which was taken out at the start of normal mode resynch expired. Re-synch could not complete because of a software error.

4. ACTION TO BE TAKEN

Take manual action to remedy the problem that prevented re-synchronization of the CM with the AM. Then re-establish AM/CM communication by following the procedure given in the System Recovery manual.

5. ALARMS

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Critical.

6. REFERENCES

Input Message(s):

```
CLR:ISOL-CM
```

Output Appendix(es):

```
APP:MAINT-RESP
APP:OMDB-X-REF
APP:TLP-NOTE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

REPT:CMDLOG

Software Release: 5E10 and later
Message Class: PSSWD
Application: 5
Type: Output

1. FORMAT

```
REPT CMDLOG [a] [b] c d
  e
 [f]
```

2. REASON FOR OUTPUT

To report detailed information about an input request. The report is formatted like a CMDLOG logfile entry. It contains the input request, the requesting user identity, and the date and time of the request. This output message appears only for input requests from command groups that the system administrator has specified to be reported.

This output message is associated with maintenance interface security. Refer to the Routine Operations and Maintenance manual for further information.

3. VARIABLE FIELD DEFINITIONS

`a` = Person identity of the user who entered the input request, if known. The person identity was created from the ADD:PAUTH input message.

`b` = Teletypewriter (TTY) name of the device from which the input request was entered, if known.

`c` = Date of input request (YY-MM-DD).

`d` = Time of input request (HH:MM).

`e` = Text of input request. If the request was a command poke, the corresponding input message for the command poke is provided.

`f` = Input acknowledgement, if the request was rejected because of restrictions.

4. ACTION TO BE TAKEN

If '`f`' is "`NG - INSUFFICIENT AUTHORITY`" or "`NG-NO AUTHORITY`", verify that user '`a`' attempting to execute input request '`e`' on tty '`b`' is not a security violation. If the user requires permission to execute the input request, authority can be provided from the ADD:PCGRP and/or ADD:TCGRP input messages.

5. ALARMS

The alarm level varies depending on settings in the Equipment Configuration Database (ECD) Authority Definition (authdef) records.

6. REFERENCES

Input Message(s):

```
ADD:PAUTH
ADD:PCGRP
```

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```
ADD:TCGRP
VFY:PAUTH
VFY:PCGRP
VFY:TCGRP
```

Output Message(s):

```
VFY:PAUTH
VFY:PCGRP
VFY:TCGRP
```

Other Manual(s):

Where 'x' is the release-specific version of the specified document.

235-105-210 *Routine Operations and Maintenance*
235-105-250 *System Recovery*
235-600-31x *ECD/SG Data Base Manual*

REPT:CMMSADM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT CMMSADM
  a
```

2. REASON FOR OUTPUT

To report when significant events occur in CMMSADM. CMMSADM is a kernel level process that collects the measurement data and provides the network administrative clock message handling.

3. VARIABLE FIELD DEFINITIONS

`a` = The field labeled '`a`' represents the body of the message. The next section lists all the possible messages, with the action to be taken when each is encountered.

4. ACTION TO BE TAKEN

If '`a`' =	Action:
`_MEDCSTRT EVENT BEFORE START_PROC, SKIP A PDC`	The _MEDCSTRT event was received before the start processing signal from CNIINIT. MEDCSTRT indicates the beginning of the periodic data collection period (PDC). Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`x EVENT BEFORE START_PROC`	Event "x" was received before the start processing signal from CNIINIT. The event may be _MSG_WAIT, which indicates an IMS message has been received, or _MEDCDONE, which indicates the end of a periodic data collection period. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`MASTER CLOCK NODE HAS NOT RESPONDED TO n REQUESTS FOR THE TIME`	No response has been received to '`n`' query requests to the master clock node for the network time. Refer to the TECHNICAL ASSISTANCE portion of the Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`QUERYING MASTER CLOCK NODE.  HOURLY TIME MESSAGE NOT RECEIVED FROM MASTER CLOCK NODE`	The master clock node has not sent the hourly time message. The local node will query the master and if no response is received, the preceding message will be displayed. No action is required unless a response to the query is not received.
`COMPLETED INITIALIZATION OF NETWORK CLOCK: MASTER CLOCK NODE IS x`	The local clock node has received response to a query request and has determined the master clock node to be '`x`'. No action is required.
`UPDATED SYSTEM CLOCK:TIME DIFFERENCE (MSEC)= xx:xx:xx`	The network time has been updated for the node. The time difference between the master clock node and the local node is provided as '`xx:xx:xx`'. No action is required.
`RECEIVED FORCED SWITCH MESSAGE:MASTER CLOCK NODE IS x`	The mate clock node is informing the local node that the master clock node has gone out of service. The local node marks the mate clock node as the new master. No action is required.

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MASTER CLOCK IS OUT OF SERVICE:FORCED SWITCH BROADCAST TO ALL ADJACENT NODES	The mate clock node has detected that the master clock node has gone out of service. Forced switch messages will be broadcast to all adjacent nodes. No action is required.
BROADCAST HOURLY TIME TO ALL NETWORK NODESLTIME (MSEC)= xx:xx:xx	Each hour, the current network time is broadcast from the master clock node to its adjacent nodes for distribution to all network nodes. No action is required.
RECEIVED TIME MESSAGE FROM THE MATE CLOCK:FORCING SWITCH TO x	The time message received was from the mate clock node rather than the master clock as expected. The forced switch message was not received by this node. No action is required.
MATE CLOCK THINKS IT'S MASTER: SWITCHING TO THE MATE FUNCTION	Both STPs are performing the master clock function. The first point code listed in the clkdata file switches to the mate function when it receives the hourly time message from what it thinks is the mate clock node. No action is required.
UNEXPECTED FORCED SWITCH MESSAGE RECEIVED FROM pc	The forced switch message was received by the master clock node from the mate clock node, the forced switch message was received by the mate clock node from what it thought was the master clock node, or the forced switch message was received by a slave node from a clock node other than the one it thought was the mate clock node. For all of the above cases, no action is required.

5. ALARMS

None

6. REFERENCES

None.

REPT:CMMSDP-A

Software Release: 5E10 only
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT CMMSDP
  a
```

2. REASON FOR OUTPUT

To report when a system error is encountered or an unexpected problem with CMMSDP. CMMSDP is a kernel level process that accumulates the measurement data into the history files as specified in the measurement output control (MOC) history file descriptor table and generates the reports as specified in the MOC schedule table.

3. VARIABLE FIELD DEFINITIONS

`a` = The field labeled '`a`' represents the body of the message. The next section lists all the possible messages, with the action to be taken when each is encountered.

4. ACTION TO BE TAKEN

Below are the possible messages and the appropriate action to be taken for each message.

If '`a`' =	**Action:**
`IMS MEASUREMENTS ARE CURRENTLY INHIBITED`	Certain interprocess message switch (IMS) measurements will not be collected or accumulated during the period that IMS measurements are inhibited. The IMS measurement inhibit flag may be turned on or off using the INH:IMSMEAS input message.
`CAN'T ATTACH TO PT_CMMSDP PORT`	Was unsuccessful in connecting to the CMMSDP port. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`GOT AN ABORT SIGNAL`	Received an abort request, or a fatal error occurred and CMMSDP should abort. Other output displayed on the receive only printer (ROP) will detail the reason. Action to be taken depends on the cause of the abort.
`BAD DISP FIELD IN HFDT FOR history_file_name`	The disposition field in the history file descriptor table for the history file name record is not HFDT_STOP or HFDT_CONT. Use recent change to restore the table to its proper value or refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`BAD ACTION FIELD IN HFDT FOR history_file_name`	The action field in the history file descriptor table for the history file name record is not HFDT_ADD or HFDT_COPY. Use recent change to restore the table to its proper value or refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`ACTION FIELD IN HFDT FOR history_file_name MUST BE COPY`	The action field in the history file descriptor table for a non-repeatable history file must be ADD_COPY. Use recent change to change the record setting the action to "copy" or refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`CAN NOT FORK FOR report_name`	CMMSDP cannot fork a copy of itself. This error usually occurs if memory space is limited and there is not enough left for a copy of

	CMMSDP. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`INVALID SCHD ENTRY report_name`	A history file table (HFDT) entry for the history file name in the source field of the schedule report record (in the scheduler table SCHD) does not exist. Use recent change to add the history file entry or refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`THE FILE file_name IS NOT UPDATED`	The file named in the message could not be created and the measurements could not be accumulated. This indicated that disk space did not exist for the file. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`FCODE fault_code`	The fault code received by the fault handler was not FLT_SINIT. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`UPDATE TE:BAD PROTO protocol LINK link_no TE NOT UPDATED`	The protocol for the link specified was not 6 (CCS6) or 7 (CCS7), 8 (D-channel), or 9 (SADC). Verify the link data and recent change if necessary. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`OUT OF PER NODE MEAS BLOCK`	The match blocks are all in use. This is a critical error. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`BAD PROTO protocol IN file_name RNA ring_node`	The protocol of the link specified as read from the file was not 6 (CCS6), 7 (CCS7), 8 (D-channel), or 9 (SADC). Verify the link data and recent change is necessary. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`CANNOT CREATE file_name WITH MODE mode`	The file name specified could not be created and the data could not be accumulated. The disk space is not sufficient for the data to be stored. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`CANNOT EXECUTE file_name`	The CMMSDP process forked off could not be overlaid with its child process CMNRGEN to produce a measurement report. This indicates there is not enough memory swap space available. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`CANNOT GET PID CONNECTED TO PORT port_number`	The process ID for the CNIINIT process could not be retrieved. Therefore, the required event could not be sent to CNIINIT which should time out. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`CANNOT OPEN file_name MODE mode`	The file specified could not be opened. If the priority of action is MAJOR, the file should exist and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. If the priority of action is NONE, the file will be created.
`CANNOT LOCK PROCESS IN MEM. FLAG flag_number`	This CMMSDP process could not be locked in memory (flag_number is 1) for dart purposes. No action is required.
`CANNOT READ file_name`	The file specified could not be read. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`CANNOT SEND TO PID process_id EVENTS Xevent_number`	An event could not be sent to the CNIINIT process which should time out. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`CANNOT SET TRAP FOR SIGNAL signal_number`	CMMSDP failed to set a trap for the specified signal. Should this signal be received, the process would terminate. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`CANNOT WRITE file_name`	The file specified could not be written. Refer to the TECHNICAL

	ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`CANNOT OPEN ECD ecd_path`	The equipment configuration data (ECD) could not be accessed. Determine if the ECD resides at the path specified. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. The time zone will not be set in the environment so all measurement reports will show the local time as eastern standard time (EST).
`CANNOT GET SYSNAME FROM ECD; RETURN CODE IS return_code`	The call to access the system name in the ECD failed. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. The time zone will not be set in the environment so all measurement reports will show the local time as EST.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`INH:IMSMEAS`

REPT:CMMSDP-B

Software Release: 5E11 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT CMMSDP
a
```

2. REASON FOR OUTPUT

To report when a system error is encountered or an unexpected problem with CMMSDP. CMMSDP is a kernel level process that accumulates the measurement data into the history files as specified in the measurement output control (MOC) history file descriptor table and generates the reports as specified in the MOC schedule table.

3. VARIABLE FIELD DEFINITIONS

`a` = The field labeled '`a`' represents the body of the message. The next section lists all the possible messages, with the action to be taken when each is encountered.

4. ACTION TO BE TAKEN

Below are the possible messages and the appropriate action to be taken for each message.

If '`a`' =	**Action:**
`MEASUREMENT REPORTS ARE INHIBITED`	This message results if the craft previously input the command INH:REPORT:ON. Consequently, measurement reports that would normally be generated by CNI will not be generated. This message will print about once every 30 minutes from the time the reports are inhibited. The CNI report inhibit flag may be turned on or off using the INH:REPORT input message. Note that CNI measurements will continue to be collected, only the reporting of them is inhibited.
`IMS MEASUREMENTS ARE CURRENTLY INHIBITED`	Certain interprocess message switch (IMS) measurements will not be collected or accumulated during the period that IMS measurements are inhibited. The IMS measurement inhibit flag may be turned on or off using the INH:IMSMEAS input message.
`CAN'T ATTACH TO PT_CMMSDP PORT`	Was unsuccessful in connecting to the CMMSDP port. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`GOT AN ABORT SIGNAL`	Received an abort request, or a fatal error occurred and CMMSDP should abort. Other output displayed on the receive only printer (ROP) will detail the reason. Action to be taken depends on the cause of the abort.
`BAD DISP FIELD IN HFDT FOR history_file_name`	The disposition field in the history file descriptor table for the history file name record is not HFDT_STOP or HFDT_CONT. Use recent change to restore the table to its proper value or refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`BAD ACTION FIELD IN HFDT FOR history_file_name`	The action field in the history file descriptor table for the history file name record is not HFDT_ADD or HFDT_COPY. Use recent change to restore the table to its proper value or refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

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ACTION FIELD IN HFDT FOR history_file_name MUST BE COPY	The action field in the history file descriptor table for a non-repeatable history file must be ADD_COPY. Use recent change to change the record setting the action to "copy" or refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
CAN NOT FORK FOR report_name	CMMSDP cannot fork a copy of itself. This error usually occurs if memory space is limited and there is not enough left for a copy of CMMSDP. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
INVALID SCHD ENTRY report_name	A history file table (HFDT) entry for the history file name in the source field of the schedule report record (in the scheduler table SCHD) does not exist. Use recent change to add the history file entry or refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
THE FILE file_name IS NOT UPDATED	The file named in the message could not be created and the measurements could not be accumulated. This indicated that disk space did not exist for the file. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
FCODE fault_code	The fault code received by the fault handler was not FLT_SINIT. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
UPDATE TE:BAD PROTO protocol LINK link_no TE NOT UPDATED	The protocol for the link specified was not 6 (CCS6) or 7 (CCS7), 8 (D-channel), or 9 (SADC). Verify the link data and recent change if necessary. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
OUT OF PER NODE MEAS BLOCK	The match blocks are all in use. This is a critical error. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
BAD PROTO protocol IN file_name RNA ring_node	The protocol of the link specified as read from the file was not 6 (CCS6), 7 (CCS7), 8 (D-channel), or 9 (SADC). Verify the link data and recent change is necessary. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
CANNOT CREATE file_name WITH MODE mode	The file name specified could not be created and the data could not be accumulated. The disk space is not sufficient for the data to be stored. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
CANNOT EXECUTE file_name	The CMMSDP process forked off could not be overlaid with its child process CMNRGEN to produce a measurement report. This indicates there is not enough memory swap space available. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
CANNOT GET PID CONNECTED TO PORT port_number	The process ID for the CNIINIT process could not be retrieved. Therefore, the required event could not be sent to CNIINIT which should time out. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
CANNOT OPEN file_name MODE mode	The file specified could not be opened. If the priority of action is MAJOR, the file should exist and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. If the priority of action is NONE, the file will be created.
CANNOT LOCK PROCESS IN MEM. FLAG flag_number	This CMMSDP process could not be locked in memory (flag_number is 1) for dart purposes. No action is required.
CANNOT READ file_name	The file specified could not be read. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

CANNOT SEND TO PID process_id EVENTS Xevent_number	An event could not be sent to the CNIINIT process which should time out. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
CANNOT SET TRAP FOR SIGNAL signal_number	CMMSDP failed to set a trap for the specified signal. Should this signal be received, the process would terminate. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
CANNOT WRITE file_name	The file specified could not be written. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:IMSMEAS
INH:REPORT
```

REPT:CMON

Software Release: 5E10 and later
Message Class: MAINT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT CMON SETCLASS FAILED

[2]   ____________________________________________________________
      REPT CMON CAN'T ENABLE MESSAGES

[3]   ____________________________________________________________
      REPT CMON CAN'T CONNECT TO DAP MESSAGE PORT

[4]   ____________________________________________________________
      REPT CMON CAN'T OPEN CONTROL FILE (a)

[5]   ____________________________________________________________
      REPT CMON ERROR SCANNING LINE (b)

[6]   ____________________________________________________________
      REPT CMON INVALID PROCESS PATH (c)

[7]   ____________________________________________________________
      REPT CMON {NONEXISTENT|NONREGULAR|NONEXECUTABLE} PROCESS FILE (d)

[8]   ____________________________________________________________
      REPT CMON INVALID ACTION KEY (e)

[9]   ____________________________________________________________
      REPT CMON INVALID [KILL] CHAIN NUMBER (f)

[10]  ____________________________________________________________
      REPT CMON INVALID [KILL] SEQUENCE NUMBER (g)

[11]  ____________________________________________________________
      REPT CMON INVALID CONTROL FILE (a)

[12]  ____________________________________________________________
      REPT CMON NO PROCESSES TO MONITOR

[13]  ____________________________________________________________
      REPT CMON PROCESS (h) ACKNOWLEDGMENT FAILED

[14]  ____________________________________________________________
      REPT CMON RECEIVED TERMINATION SIGNAL

[15]  ____________________________________________________________
      REPT CMON FORK FAILED

[16]  ____________________________________________________________
      REPT CMON CHDIR FAILED (i)
```

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```
[17]  ____________________________________________________________
      REPT CMON EXEC FAILED (h)

[18]  ____________________________________________________________
      REPT CMON NO DAP INITIALIZATION MESSAGE

[19]  ____________________________________________________________
      REPT CMON UNRECOGNIZED SIGNAL (j)

[20]  ____________________________________________________________
      REPT CMON PROCESS (h) STARTED (PID=l)

[21]  ____________________________________________________________
      REPT CMON PROCESS (h) TERMINATED (EXECERR)

[22]  ____________________________________________________________
      REPT CMON PROCESS (h) TERMINATED (UFATAL)

[23]  ____________________________________________________________
      REPT CMON PROCESS (h) TERMINATED (SIG=j) [WITH CORE DUMP]

[24]  ____________________________________________________________
      REPT CMON PROCESS (h) TERMINATED (EXIT=m)

[25]  ____________________________________________________________
      REPT CMON PROCESS (h) [NOT] RESTARTED

[26]  ____________________________________________________________
      REPT CMON PROCESS (h) [CRAFT] RECOVERY STARTED

[27]  ____________________________________________________________
      REPT CMON PROCESS (h) UNDEFINED ACTION (e)

[28]  ____________________________________________________________
      REPT CMON DAP RESTARTED
```

2. REASON FOR OUTPUT

To report diagnostic or error information as the result of the craft interface integrity monitor (CMON) process execution.

Formats 1-3 report failures of setting up CMON process itself.

Formats 4-12 report failures on opening or reading the CMON control file (/no5text/hm/cmon.ctl).

Format 13 reports child of the specified process failed to acknowledge.

Format 14 reports a termination signal is received.

Formats 15-17 report failures on starting up a process.

Formats 18-19 require no action.

Formats 20-28 report execution results for a process identified in the CMON control file.

3. VARIABLE FIELD DEFINITIONS

a	= Name of the CMON control file.
b	= Input line string from the CMON control file.
c	= Path of the process.
d	= Name of the process file.
e	= Identifier of the action.
f	= Chain number.
g	= Sequence number.
h	= The process name.
i	= The process directory.
j	= Signal type.
l	= Process identification number.
k	= Kill processes in chain.
m	= Other exit codes of the dead process.
n	= Take no action if the process dies.
r	= Restart the process if it dies.
s	= Have CMON commit suicide after killing its child processes.

4. ACTION TO BE TAKEN

For Formats 4-11, check the "/no5text/hm/cmon.ctl" file for correctness. Minimum *UNIX*® RTR user processes will have been executed.

For Format 25 without option NOT, CMON will be restarted automatically, therefore no action is required.

For Format 25 with option NOT, CMON will have exited and will not be restarted by user level automatic restart process (ULARP). To restart CMON, user initialization or the INIT:ULARP input message must be executed so that CMON can be reinitialized.

For Formats 12-24 or 26-28, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INIT:ULARP
```

Other Manual(s):
235-105-250 *System Recovery*

REPT:CMP-CALL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT CMP CALL PROCESSING DOWNTIME
DOWNTIME=aa:aa:aa EVENT=b
```

2. REASON FOR OUTPUT

To report inter-module call processing outages related to recovery actions required for a communication module processor. Minor outages (less than 3-seconds duration) will not be reported by this output message but will be included in the plant measurement 24-hour report.

3. VARIABLE FIELD DEFINITIONS

`a` = Outage time, in the form hours:minutes:seconds.

`b` = Event number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-105-250 *System Recovery*

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REPT:CMP-ENV-HF

Software Release: 5E10 and later
Message Class: INT
Application: 5
Type: Output

1. FORMAT

```
REPT CMP=a ENV=b HASHSUM FAILURE [AM-EVENT=d]
     FAILING ADDRESS RANGES:
     e   e
     .   .
     .   .
     .   .
```

2. REASON FOR OUTPUT

To notify the user that hashsum checks of the communications module processor (CMP) memory failed. Hashsum checks are made during communications module processor pump (automatic or manual) and routinely.

Failure of hashsum checks may indicate that the hashsum tables are in error, or it may be that the memory is bad. The address ranges for the blocks that had bad hashsums are provided.

3. VARIABLE FIELD DEFINITIONS

`a` = CMP number.

`b` = CMP environment where fault occurred. Valid value(s):
`CMP-AP` = Application processor.
`CMP-MSGH` = Message handler.

`d` = The AM event number. This only prints when the CMP environment is CMP-MSGH.

`e` = The starting/ending address pair of the failing address range.

4. ACTION TO BE TAKEN

Investigate the cause of the failure. It may be the result of a bad memory or a bad hashsum table. Make any necessary repairs. This condition may prevent the CMP from going duplex.

If replacing the boards does not clear up the problem, there might be a difference between the ACTIVE memory and the hashsum table. If the CMP mode indicator says HASH ERR, it is very likely that the memory hashsums do not agree with the hashsum table. Resolve any differences between the memory and the hashsum table. This problem can occur when certain utility commands are used that change the contents of memory, but not the hashsum table. Refer to the LOAD:UT-CMP and WHEN:UT-CMP input messages for additional information.

It is possible for a CMP restoration to succeed even when the CMP is reporting hashsum failures when the failures are in certain ranges. That is, a CMP restoration does not check all memory; so if the CMP has ranges failing that are not in the set of memory checked, a restoration may succeed.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
DGN:CMP
LOAD:UT-CMP
WHEN:UT-CMP
```

Other Manual(s):
235-105-250 *System Recovery*

REPT:CMP-ENV-LVL

Software Release: 5E10 and later
Message Class: INT
Application: 5
Type: Output

1. FORMAT

```
REPT CMP=a ENV=b LVL=c [MSGH-|AM-]EVENT=d e
FAILING-ADDR=f  CMP-MODE=g  TIME=hh:hh.h
PROCESS: BG=i,j,k[,l]  INTJ=m  FG=n,[o]
ERR SRC = q
LOADQP=r  UNLOADQP=s
ADDR-RNG = [t]   [QUEUE = u]
68030-REGISTERS:
SSP=v   PC=w   SR=x
USP=y   FP=z   A0=a1
A1 =b1        A2=c1        A3=d1
A4 =e1        A5=f1        D0=g1
D1 =h1        D2=i1        D3=j1
D4 =k1        D5=l1        D6=m1
D7 =n1

PIC-REGISTERS:
ESBR:  o1
IMBR:  p1
ISRR:  q1
```

2. REASON FOR OUTPUT

To provide information about the type and source of an error that occurred in the communications module processor (CMP) and the resulting level of initialization.

3. VARIABLE FIELD DEFINITIONS

`a` = CMP number.

`b` = CMP environment where fault occurred. Valid value(s):

`CMP-AP`	= Applications processor.
`CMP-MSGH`	= Message handler.
`CMP-UNK`	= Environment unknown.

`c` = Level of CMP initialization. Valid value(s):

`FI`	= Full initialization.
`FI,PUMP`	= Full initialization with full pump.
`PGI`	= Purging initialization.
`REL`	= Raise the error-lead request.
`RPI`	= Return to point of interrupt.
`SI`	= Selective initialization.
`SPP`	= Single process purge.
`UNK`	= Level unknown.

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`d` = Event number.

`e` = Termination report. Valid value(s):

`ABORTED`	= The job did not complete before being interrupted by another stimulus.
`COMPLETED`	= The action has completed.
`IN PROGRESS`	= The action has started.
`NOT STARTED`	= The action was not started.

`f` = Failing address.

`g` = Mode of the communication module processor operation. Valid value(s):

`CONSISTENT`	= Hardware consistent with software.
`ESSENTIAL`	= Essential jobs operational.
`NORMAL`	= Normal operation.
`OPFULL`	= All jobs are operational.
`PHASE_2`	= Phase 2 initialization.
`RAMDYN`	= Dynamic memory consistent.
`RAMTXT`	= Text and data consistent.
`RAMWP`	= Write protection has been restored.
`SYSPROC`	= All system processes initialized.
`UNKNOWN`	= Mode unknown.

`h` = Time when the event occurred, in the form minutes: seconds.tenths of a second.

`i` = Process number of the running background (BG) process.

`j` = Uniqueness of the running background process.

`k` = The running background process address.

`l` = The recovery action taken. Valid value(s):

`blank`	= No recovery action taken because the target was not active.
`PURGED`	= The single target job or process was purged.
`RPI`	= Return to the point of interrupt.

`m` = Interject state. Valid value(s):

`AMA`	= Automatic message accounting.
`AML`	= Automatic maintenance limit.
`BASE`	= Communication package.
`BCST`	= Message broadcast.
`CCS`	= Common channel signaling.
`CICO`	= CMP integrity control.
`CTST`	= Communication test processing.
`DD`	= Data delivery.
`INTMON`	= Integrity monitor.
`NONE`	= Interject was not running.
`PC`	= Peripheral network control.
`PR`	= Packet routing.
`PS`	= Packet switching.

RTA = Routing and terminal allocation.
TIME = Operating system time synchronization.

n = State of foreground (FG) activity. Valid value(s):
CM = Communication package was executing.
CM_INTMON = Communication package and integrity monitor was executing.
FAILURE = Unable to determine foreground activity.
INTMON = System integrity monitor was executing.
NONE = Foreground (ID - millisecond interrupt) was not being served.
NONPC = Foreground was being served for an indeterminable job other than PC.
OSDS = OSDS work for 10 millisecond interrupt was executing.
PC = Peripheral control foreground was executing.

o = Foreground recovery action. Valid value(s):
CLEAR = All scheduled jobs were aborted.
PURGED = The indicated process is being purged.
RPI = Return to the point of interrupt.

q = Source of the error that caused the interrupt. Valid value(s):
ADDR-ERROR = A word access was attempted on an odd-byte boundary.
ADDR-OOR = An out-of-range address was detected.
AP-MSGH-SANITY-TIMER = The application processor (AP) has detected a failure by the message handler (MSGH) to update the interprocessor sanity timer bit.
BASE-PRIORITY-QUEUE-ERR-AP = The AP has detected a problem with the base-priority message queue.
BASE-PRIORITY-QUEUE-ERR-MSGH = The MSGH has detected a problem with the base-priority message queue.
BUS-ERROR = A 68030 bus error exception occurred.
BUS-ERR-TRANSLATION-TABLE = A bus error has occurred during an address translation search.
BUS-PARITY-ERR = A read parity error has occurred on the data bus.
CORR-BIT-ERR = A single bit error was detected in memory and corrected by the Hamming code.
EXT-BOARD-ADDR-PARITY-ERR = The memory board has detected bad parity on the address bus.
EXT-BOARD-BUS-ERR = A bus error was detected on an external board.
EXT-BOARD-DATA-PARITY-ERR = The memory board has detected bad parity on data.
EXT-BOARD-NON-CORR-MEM-ERR-ON-ACCESS = A multiple-bit error was detected during memory access on the memory board.
FORMAT-ERROR = A validity check of co-processor state frame format or word stack frame format has failed.
HIGH-PRIORITY-QUEUE-ERR-AP = The AP has detected a problem with the high-priority message queue.
HIGH-PRIORITY-QUEUE-ERR-MSGH = The MSGH has detected a problem with the high-priority message queue.
ILL-ACCESS-SUPV-PROT-REGION = The memory management unit (MMU) has detected illegal access of a supervisor-protected region.
ILLEGAL-AUTOVECTOR = One of the unused interrupt (0-4) counts was incremented at the 68000 processor.
ILLEGAL-INSTRUCTION = The processor attempted to execute an invalid instruction.
LINE-1010-EMULATOR = The processor attempted to execute an invalid instruction. This is an illegal instruction with bits 15 through 12 of the first word of the instruction equal to

0xA.

`LINE-1111-EMULATOR` = The processor attempted to execute an invalid instruction. This is an illegal instruction with bits 15 through 12 of the first word of the instruction equal to 0xF.

`MEM-BOARD-INIT-FAIL` = Software has detected that the memory board dynamic random access memory (RAM) controller (DRC) registers are programmed incorrectly on a non-memory clearing reset. This error will result in escalation to a memory-clearing initialization.

`MMU-CONFIG-ERR` = An attempt was made to move invalid data into an MMU register.

`MMU-WRITE-PROT-VIOLATION` = The MMU has detected a write-protect violation.

`MSGH-AP-SANITY-TIMER` = The MSGH has detected a failure by the AP to update the interprocessor sanity timer bit.

`NON-CORR-MEM-ERR-ON-ACCESS` = A multiple-bit error was detected during memory access.

`NON-CORR-MEMORY-ERR-ON-REFRESH` = A multiple-bit error was detected during memory refresh cycle.

`NON-MASKABLE-INT` = A non-maskable interrupt has been detected.

`PARITY-ERROR-WHILE-READING-DAM` = An error has been detected in dual-access memory (DAM).

`PRIVILEGE-VIOLATION` = An attempt to execute a privileged instruction while at user privilege level was detected.

`SOFTWARE-RESET` = The communications module processor software caused an entry to the reset handler.

`SPURIOUS-INTERRUPT` = A device did not respond to an interrupt acknowledge cycle.

`STACK-PROTECT-ERR` = The MMU has detected a stack protect error.

`UNEXPECTED-INTERRUPT` = An unexpected interrupt was received by the fault handler.

`UNIDENTIFIED-EXCEPTION` = An unidentified exception was received by the fault handler.

`UNK` = The source of the error cannot be determined.

`UNRECOG-UT-TRAP` = One of the exceptions assigned to generic utilities was raised, but the utilities (UT) subsystem did not accept the exception.

`UNUSED-EXCEPTION` = A processor exception that is not used by the software release occurred.

`UNUSED-SW-TRAP` = A TRAP instruction that is not used by the current software release was executed.

`UNUSED-TEXT-EXEC` = A bad transfer vector (TV) slot was used or a wild transfer occurred, causing memory not used by the current software release code to be executed.

`WATCHDOG-TIMER-EXPIRE` = The bus watchdog timer expired.

`WRITE-PROT-VIOLATION` = The processor attempted to write to an address below the hardware write-protect threshold.

`ZERO-DIVIDE` = An attempt was made to divide by zero.

`r` = Pointer to message communications load queue offset.

`s` = Pointer to message communications unload queue offset.

`t` = Type of memory referenced by failing address. Valid value(s):

`AUX-IO` = Address range for accessing memory board hardware.

`AUXRAM` = Memory board read/write memory.

`DAM` = Dual-access memory that provides communication between CMP and message switch control unit (MSCU).

`DDRAM` = Read/write memory using dual dynamic RAM devices.

`DSRAM` = Read/write memory using dual static RAM devices.

`IO` = Address range for accessing hardware.

`LSRAM` = Read/write memory using local static RAM devices.

OOR	= Address is outside of a valid range.
ROM	= Read-only memory.

u = Identity of queue where error was detected. Valid value(s):

AP-MSGH	= AP-to-MSGH queue (detected by AP).
MSGH-AP	= MSGH-to-AP queue (detected by MSGH).
MSGH-MSCU	= MSGH-to-MSCU (detected by MSGH).

Note: Variables 'v' - 'q^1' are printed in hexadecimal.

v = System stack pointer (SSP) number.

w = Program counter (PC) number.

x = Status register (SR) number.

y = User stack pointer (USP) number.

z = Frame pointer (FP) number.

a^1 = Contents of address register 5.

b^1 = Contents of address register 4.

c^1 = Contents of address register 0.

d^1 = Contents of address register 1.

e^1 = Contents of address register 2.

f^1 = Contents of address register 3.

g^1 = Contents of data register 0.

h^1 = Contents of data register 1.

i^1 = Contents of data register 2.

j^1 = Contents of data register 3.

k^1 = Contents of data register 4.

l^1 = Contents of data register 5.

m^1 = Contents of data register 6.

n^1 = Contents of data register 7.

o^1 = Contents of event source bit register (ESBR).

p^1 = Contents of interrupt mask bit register (IMBR).

q^1 = Contents of interrupt service request register (ISRR).

4. ACTION TO BE TAKEN

Monitor the progress of software recovery. Initiate manual actions if the recovery does not proceed as expected.

If the error is related to the memory system (variable 'q' is CORR-BIT-ERR) and the type of memory referenced is not OOR (variable 't'), there may be something wrong with the memory system hardware. A certain number of CORR-BIT-ERR is normal. A CORR-BIT-ERR indicates that one bit within a word of memory was changed, detected and corrected. It may be considered normal if: (1) the errors are scattered randomly among SMs throughout the office and (2) a CMP is not removed due to CORR-BIT-ERR. If the errors recur but without sufficient frequency to invoke the CMP diagnostic, invoke the CMP diagnostic manually.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:CMP
INIT:CMP
OP:LOG
OP:POSTMORT
```

Output Message(s):

```
DGN:CMP
REPT:CMP-HW-REGS
REPT:STACK-FRAME
REPT:STACK-TRACE
```

Other Manual(s):
235-105-250 *System Recovery*

MCC Display Page(s):

1850/1851 (CMP INH & RCVRY CNTL)

REPT:CMP-HW-REGS

Software Release: 5E10 and later
Message Class: INT
Application: 5
Type: Output

1. FORMAT

```
REPT CMP=a HW REGS ENV=CMP-AP EVENT=b
CACR=c       DRACK=d      DRCAS=e
DRDAT=f      DRFLT=g      DRRAS=h
DRRCF=i      DRSTR=j      DRSCF=k
ECL1=l       ECL2=m       ECL3=n
ECL4=o       ECL5=p       ECL6=q
ECL7=r       EDCTL=s      EXCEP=t
ILRR=u       RSBR=v       SHWP=w
MBEDC=x      MBESR=y      MBWP=z
```

2. REASON FOR OUTPUT

To provide information about specific communications module processor (CMP) hardware registers for trouble analysis. This message is automatically generated by the system when a fault is detected. A REPT:CMP-LVL output message and others will appear with the same event number to report other details of the error.

3. VARIABLE FIELD DEFINITIONS

a = CMP number.

b = Event number.
Note: Variables 'c' - 'a[1]' are in hexadecimal, except variable 't'.

c = Contents of the cache control register (CACR). Refer to the global header smim/PP_cacr.h for further information.

d = Contents of the dynamic random access memory (RAM) acknowledgement register (DRACK). Refer to the global header smim/PPdr_ack.h for further information.

e = Contents of the dynamic RAM column address strobe (CAS) register (DRCAS). Refer to the global header smim/PPdr_cas.h for further information.

f = Contents of the dynamic RAM data register (DRDAT). Refer to the global header smim/PPdr_data.h for further information.

g = Contents of the dynamic RAM fault register (DRFLT). Refer to the global header smim/PPdr_flt.h for further information.

h = Contents of the dynamic RAM row address strobe (RAS) register (DRRAS). Refer to the global header smim/PPdr_ras.h for further information.

i = Contents of the dynamic RAM refresh configuration register (DRRCF). Refer to the global header smim/PPdr_rfcfg.h for further information.

j = Contents of the dynamic RAM start register (DRSTR). Refer to the global header smim/PPdr_start.h for further information.

k = Contents of the dynamic RAM system configuration register (DRSCF). Refer to the global header smim/PPdr_syscf.h for further information.

l = Contents of the equipment configuration level 1 register (ECL1). Refer to the global header smim/PP_ecl1.h for further information.

m = Contents of the equipment configuration level 2 register (ECL2). Refer to the global header smim/PP_ecl2.h for further information.

n = Contents of the equipment configuration level 3 register (ECL3). Refer to the global header smim/PP_ecl3.h for further information.

o = Contents of the equipment configuration level 4 register (ECL4). Refer to the global header smim/PP_ecl4.h for further information.

p = Contents of the equipment configuration level 5 register (ECL5). Refer to the global header smim/PP_ecl5.h for further information.

q = Contents of the equipment configuration level 6 register (ECL6). Refer to the global header smim/PP_ecl6.h for further information.

r = Contents of the equipment configuration level 7 register (ECL7). Refer to the global header smim/PP_ecl7.h for further information.

s = Contents of the error detection and correction register (EDCTL). Refer to the global header smim/PPedc_ctrl.h for further information.

t = Exception vector number (in decimal). Refer to the global header smim/PPerrty.h for further information.

u = Contents of the interrupt level request register (ILRR). Refer to the global header smim/PP_ilrr.h for further information.

v = Contents of the reset/set bit register (RSBR). Refer to the global header smim/PP_rsbr.h for further information.

w = Contents of the shadow (read) write protect register (SHWP). Refer to the global header smim/PP_shwr.h for further information.

x = Contents of the memory board error detection and correction register (MBEDC). Refer to the global header smim/PPmb_edc.h for further information.

y = Contents of the memory board error source register (MBESR). Refer to the global header smim/PPmb_esr.h for further information.

z = Contents of the memory board shadow (read) write protect register (MBWP). Refer to the global header smim/PPmb_wpthr.h for further information.

4. ACTION TO BE TAKEN

Monitor the progress of the software recovery. Initiate manual actions if the recovery does not proceed as expected.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT:CMP-ENV-LVL
```

Other Manual(s):
235-105-250 *System Recovery*

REPT:CMP-INIT

Software Release: 5E10 and later
Message Class: INT
Application: 5
Type: Output

1. FORMAT

```
REPT CMP=a-b c INITIALIZATION TRIGGER=d
```

2. REASON FOR OUTPUT

To report that a communications module processor (CMP) is beginning a high-level initialization and to report the cause of that initialization. This is the first report on the initialization and immediate attention is required.

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch side (MSGS).

`b` = Physical CMP number.

`c` = Processor being reported on. Valid value(s):

`MATE`	= Mate CMP.
`PRIM`	= Primary CMP.

`d` = Phase trigger for the initialization. Valid value(s):

`AM-REQUEST`	= An administrative module-requested initialization.
`AP-REL`	= Request to raise the error-lead as a result of a CMP application processor (AP) error.
`ASRT-C-SPP`	= A count of Assert-C-requested deferred single process purge initializations has exceeded the threshold.
`ASRT-ERR`	= An error occurred while handling an Assert.
`ASRT-SI`	= Assert requested selective initialization.
`EX-AUD-SPP`	= A count of audit requested single process purge initializations has exceeded the threshold.
`EX-DCF-SPP`	= A count of defensive check failure (Assert) requested single process purge initializations has exceeded the threshold.
`EX-DIR-AUD`	= Excessive directed audits occurred, forcing a higher level initialization.
`EX-DMD-SPP`	= An excessive amount of demand single process purges (SPP) has been requested which exceeded the threshold.
`EX-ERR`	= A count of returning interrupts has exceeded the threshold.
`EX-ERR-50`	= 50 stimuli occurred, forcing a higher level initialization.
`EX-ERR-100`	= 100 stimuli occurred, forcing a higher level initialization.
`EX-FR-SPP`	= A count of switch maintenance requested single process purge initializations has exceeded the threshold.
`EX-RPI`	= A count of return to the point of interrupt initializations has exceeded the threshold.
`EX-SELINIT`	= A count of excessive selective initializations has exceeded the threshold.
`EX-SPP`	= A count of single process purge initializations has exceeded the threshold.
`FR-SELINIT`	= Switch maintenance requested selective initialization.
`HPQ-REL`	= Fault taken during handling of a high priority queue (HPQ) interrupt.
`LOCK-OUT`	= Call processing lock-out.

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`MANUAL-REQUEST` = A user-initiated initialization.
`MCB-EXHST` = Message control block resource exhaustion.
`MSGH-REL` = Request to raise the error lead as a result of CMP message handler (MSGH) excessive return to the point of interrupt (RPI) errors.
`NEG-PROG` = Negative progress was detected during an initialization.
`NESTD-ASRT` = Nested Asserts occurred.
`PCB-EXHST` = Process control block resource exhaustion.
`POWER-UP` = The processor was power-cycled.
`PRC-TIMOUT` = Process initialization time-out.
`PROG-LOOP` = A program loop was not allowing the integrity monitor to run its background progress.
`PURGE-FAIL` = Purging initialization failed; the CMP is in an initialization.
`REX-REQUEST` = Routine exercises (REX) requested initialization.
`RSRC-EXHST` = Resource shortage error occurred.
`SCB-EXHST` = Stack control block resource exhaustion.
`SCB32EXHST` = Big stack control block resource exhaustion.
`SFTSW-FAIL` = An attempt to soft switch has failed.
`SW-REQUEST` = CMP switch requested initialization.
`TCB-EXHST` = Timer control block resource exhaustion.

4. ACTION TO BE TAKEN

Immediately analyze the cause of the initialization and verify that the system recovers properly. Use the output message INIT:CMP-LVL or access MCC display pages 1850/1851 to verify the system recovery.

5. ALARMS

For the primary CMP, this message generates a critical alarm. For the mate CMP, it carries no alarm.

6. REFERENCES

Output Message(s):

`INIT:CMP-LVL`

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1850/1 (CMP INHIBIT AND RECOVERY CONTROL)

REPT:CMP-POSTMORT

Software Release: 5E10 and later
Message Class: INT
Application: 5
Type: Output

1. FORMAT

```
REPT CMP=a-b c POSTMORT STIMULUS=d EVENT=e
CURRENT STATE:
LVL=f   PROG-MARK=g   PROG-COUNT=h
PREVIOUS STATE:
LVL=i   PROG-MARK=j   PROG-COUNT=k
PROCESS: BG=l,m,n  INTJ=o  FG=p
CMP-MODE=q
```

2. REASON FOR OUTPUT

To indicate that a communication module processor (CMP) has internally escalated to a high-level initialization. This message describes the state of the CMP at the time of the escalation, the reason for the escalation, and indicates the level of recovery action that was taken.

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch side (MSGS).

`b` = Physical CMP number.

`c` = Processor being reported on. Valid value(s):
- `MATE` = Mate CMP.
- `PRIM` = Primary CMP.

`d` = Description of the software stimulus reason. Valid value(s):
- `AM-REQ-POWER-UP` = An administrative module-requested power up initialization.
- `AM-REQUEST` = An administrative module-requested initialization.
- `AP-REL` = Request to raise the error-lead as a result of a CMP application processor (AP) error.
- `ASRT-C-SPP` = A count of assert-C-requested deferred single process purge initializations has exceeded the threshold.
- `ASRT-ERR` = An error occurred while handling an assert.
- `ASRT-SI` = Assert requested selective initialization.
- `EX-AUD-SPP` = A count of audit-requested single process purge initializations has exceeded the threshold.
- `EX-DCF-SPP` = A count of defensive check failure (assert)-requested single process purge initializations has exceeded the threshold.
- `EX-DIR-AUD` = Excessive directed audits occurred, forcing a higher level initialization.
- `EX-DMD-SPP` = An excessive number of demand single process purges (SPP) has been requested which exceeded the threshold.
- `EX-ERR` = A count of returning interrupts has exceeded the threshold.
- `EX-ERR-50` = 50 stimuli occurred, forcing a higher level initialization.
- `EX-ERR-100` = 100 stimuli occurred, forcing a higher level initialization.
- `EX-FR-SPP` = A count of switch maintenance-requested single process purge initializations has

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exceeded the threshold.

`EX-RPI` = A count of return-to-the-point-of-interrupt initializations has exceeded the threshold.

`EX-SELINIT` = A count of excessive selective initializations has exceeded the threshold.

`EX-SPP` = A count of single-process purge initializations has exceeded the threshold.

`FR-SELINIT` = Switch maintenance-requested selective initialization.

`HPQ-REL` = Fault taken during handling of a high priority queue (HPQ) interrupt.

`LOCK-OUT` = Call processing lock-out.

`MANUAL-REQ-POWER-UP` = A user-initiated power up initialization.

`MANUAL-REQUEST` = A user-initiated initialization.

`MCB-EXHST` = Message control block resource exhaustion.

`MSGH-REL` = Request to raise the error lead as a result of CMP message handler (MSGH) excessive return-to-the-point-of-interrupt (RPI) errors.

`NEG-PROG` = Negative progress was detected during an initialization.

`NESTD-ASRT` = Nested asserts occurred.

`NO-PROGRESS` = No progress was detected during an initialization.

`PCB-EXHST` = Process control block resource exhaustion.

`PRC-TIMEOUT` = Process initialization time-out.

`PROG-LOOP` = A program loop was not allowing the integrity monitor to run its background progress.

`PURGE-FAIL` = Purging initialization failed; the CMP is in an initialization.

`REX-REQUEST` = Routine exercises (REX)-requested initialization.

`RSRC-EXHST` = Resource shortage error occurred.

`SCB-EXHST` = Stack control block resource exhaustion.

`SCB32EXHST` = Big stack control block resource exhaustion.

`SFTSW-FAIL` = An attempt to soft switch has failed.

`SW-REQUEST` = CMP switch requested initialization.

`TCB-EXHST` = Timer control block resource exhaustion.

`e` = Event number.

`f` = Current initialization level. Valid value(s):

`FI` = Full initialization.

`FI,PUMP` = Full initialization with full pump.

`REL` = Raise the error-lead request.

`SI` = Selective initialization.

`g` = Current program type number.

`h` = Current program counter number.

`i` = Previous initialization level. Valid value(s):

`FI` = Full initialization.

`FI,PUMP` = Full initialization with full pump.

`NOINIT` = No initialization.

`REL` = Raise the error-lead request.

`SI` = Selective initialization.

`j` = Previous program type number.

`k` = Previous program counter number.

`l` = Process number of the running background process.

`m` = Uniqueness of the running background process.

`n` = The running background process address.

`o` = The interject state. Valid value(s):

`AMA`	= Automatic message accounting.
`AML`	= Automatic maintenance limit.
`BASE`	= Communication package.
`BCST`	= Message broadcast.
`CCS`	= Common channel signaling.
`CICO`	= CMP integrity control.
`CTST`	= Communication test processing.
`DD`	= Data delivery.
`INTMON`	= Integrity monitor.
`NONE`	= Interject was not running.
`PC`	= Peripheral network control.
`PR`	= Packet routing.
`PS`	= Packet switching.
`RTA`	= Routing and terminal allocation.
`TIME`	= Operating system time synchronization.

`p` = State of foreground activity. Valid value(s):

`CM`	= Communication package.
`CM_INTMON`	= Communication package and integrity monitor.
`FAILURE`	= Unable to determine foreground activity.
`INTMON`	= Integrity monitor.
`NONE`	= Foreground was not being served.
`UNK`	= Unknown foreground activity.

`q` = Mode of the communication module processor operation (in the order of occurrence). Valid value(s):

`CONSISTENT`	= Hardware consistent with software.
`ESSENTIAL`	= Essential jobs operational.
`NORMAL`	= Normal operation.
`OPFULL`	= All jobs are operational.
`RAMDYN`	= Dynamic memory consistent.
`RAMTXT`	= Text and data consistent.
`RAMWP`	= Write protection has been restored.
`SYSPROC`	= All system processes initialized.
`UNKNOWN`	= Mode unknown.

4. ACTION TO BE TAKEN

Monitor the progress of the software recovery. Initiate manual actions if the recovery does not proceed as expected.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INIT:CMP
OP:POSTMORT
```

Output Appendix(es):

```
INIT:CMP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1850/1851 (CMP INHIBIT AND RECOVERY CONTROL)

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REPT:CMP-SW

Software Release: 5E10 and later
Message Class: MSGS
Application: 5
Type: Output

1. FORMAT

```
REPT CMP SW a b EVENT=c
```

2. REASON FOR OUTPUT

To report the status of switch functionalities affected by an in-progress communication module processor (CMP) switch request. It reports when various switch functionalities are suspended, inhibited, resumed or allowed automatically.

3. VARIABLE FIELD DEFINITIONS

a = Functionalities. Valid value(s):

```
CMP PROGRAM UPDATE
RECENT CHANGE/VERIFY
```

b = Action that is taken. Valid value(s):

```
ALLOWED
INHIBITED
RESUMED
SUSPENDED
```

c = Event number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
SW:CMP
```

Output Message(s):

```
SW:CMP
```

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1241/51 (MSGS COMMUNITIES 0-1, 8-9)

REPT:CMRCV-A

Software Release: 5E10 only
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT CMRCV
      PROCESSING RC ORDER OF TYPE a

[2]   ____________________________________________________________
      REPT CMRCV
      RC ORDER COMPLETE

[3]   ____________________________________________________________
      REPT CMRCV
      UNABLE TO PCREAT CMRCVK, ERRNO = b

[4]   ____________________________________________________________
      REPT CMRCV
      CAN'T OPEN c DISK FILE

[5]   ____________________________________________________________
      REPT CMRCV
      RESPONSE = OPEN FAIL

[6]   ____________________________________________________________
      REPT CMRCV
      CMRCV IS ABORTING
```

2. REASON FOR OUTPUT

To report on the CMRCV process.

Format 1 indicates that the CNI is beginning to activate the recent change request.

Format 2 completion report for recent change activation.

Format 3 indicates an error occurred during an attempt to create the process CMRCVK.

Format 4 indicates an error occurred during an attempt to open a disk file.

Format 5 indicates the recent change failed because of errors during attempts to open disk files.

Format 6 indicates that CMRCV is terminating due to the receipt of a SIGTERM signal.

3. VARIABLE FIELD DEFINITIONS

a = Type of recent change requested. Valid value(s):
- 55 = Add entries to the Critical Event table.
- 56 = Delete entries from the Critical Event table.
- 57 = Update entries in the Critical Event table.
- 58 = Add entries to the History File Descriptor table.

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`59` = Delete entries from the History File Descriptor table.
`60` = Update entries in the History File Descriptor table.
`61` = Add entries to the Scheduler table.
`62` = Delete entries from the Scheduler table.
`63` = Updates entries in the Scheduler table.
`64` = Add entries to the Exception table.
`65` = Delete entries from the Exception table.
`66` = Updates entries in the Exception table.
`67` = Add an entry to the User View Descriptor table.
`68` = Delete an entry from the User View Descriptor table.
`69` = Add measurements to an entry in the User View Descriptor table.
`70` = Delete measurements from an entry to the User View Descriptor table.
`94` = Update the Critical Event table on disk.
`95` = Update the Exception table on disk.
`96` = Update the Distory File Descriptor table on disk.
`97` = Update the Scheduler table on disk.
`98` = Update the User View Descriptor table on disk.

`b` = Error number.

`c` = The disk file which could not be opened.
`/datamp/cni/odata/cet` = Critical Event table.
`/datamp/cni/odata/excp` = Exception table.
`/datamp/cni/odata/hfdt` = History File Descriptor table.
`/datamp/cni/odata/schd` = Scheduler table.
`/datamp/cni/odata/uvdt` = User View Descriptor table.

4. ACTION TO BE TAKEN

For Formats 3, 4, and 5, the recent change order has failed. The error messages can be examined using the error option of the adm command under the recent change system.

For Format 3, also refer to the error code as described in *UNIX*® RTR.

5. ALARMS

None.

6. REFERENCES

None.

REPT:CMRCV-B

Software Release: 5E11 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT CMRCV
      PROCESSING RC ORDER OF TYPE a

[2]   ____________________________________________________________
      REPT CMRCV
      RC ORDER COMPLETE

[3]   ____________________________________________________________
      REPT CMRCV
      UNABLE TO PCREAT CMRCVK, ERRNO = b

[4]   ____________________________________________________________
      REPT CMRCV
      CAN'T OPEN c DISK FILE

[5]   ____________________________________________________________
      REPT CMRCV
      RESPONSE = OPEN FAIL

[6]   ____________________________________________________________
      REPT CMRCV
      CMRCV IS ABORTING
```

2. REASON FOR OUTPUT

To report on the CMRCV process.

Format 1 indicates that the CNI is beginning to activate the recent change request.

Format 2 completion report for recent change activation.

Format 3 indicates an error occurred during an attempt to create the process CMRCVK.

Format 4 indicates an error occurred during an attempt to open a disk file.

Format 5 indicates the recent change failed because of errors during attempts to open disk files.

Format 6 indicates that CMRCV is terminating due to the receipt of a SIGTERM signal.

3. VARIABLE FIELD DEFINITIONS

a	= Type of recent change requested. Valid value(s):	
	105	= Add entries to the Critical Event table.
	106	= Delete entries from the Critical Event table.
	107	= Update entries in the Critical Event table.
	108	= Add entries to the History File Descriptor table.

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`109` = Delete entries from the History File Descriptor table.
`110` = Update entries in the History File Descriptor table.
`111` = Add entries to the Scheduler table.
`112` = Delete entries from the Scheduler table.
`113` = Updates entries in the Scheduler table.
`114` = Add entries to the Exception table.
`115` = Delete entries from the Exception table.
`116` = Updates entries in the Exception table.
`117` = Add an entry to the User View Descriptor table.
`118` = Delete an entry from the User View Descriptor table.
`119` = Add measurements to an entry in the User View Descriptor table.
`120` = Delete measurements from an entry to the User View Descriptor table.
`134` = Updates entries in the User View Descriptor Table.
`135` = Update entries in the Threshold Table.
`136` = Update the Threshold Table on disk.
`204` = Update the Critical Event table on disk.
`205` = Update the Exception table on disk.
`206` = Update the History File Descriptor table on disk.
`207` = Update the Scheduler table on disk.
`208` = Update the User View Descriptor table on disk.

`b` = Error number.

`c` = The disk file which could not be opened.
`/datamp/cni/odata/cet` = Critical Event table.
`/datamp/cni/odata/excp` = Exception table.
`/datamp/cni/odata/hfdt` = History File Descriptor table.
`/datamp/cni/odata/schd` = Scheduler table.
`/datamp/cni/odata/uvdt` = User View Descriptor table.

4. ACTION TO BE TAKEN

For Formats 3, 4, and 5, the recent change order has failed. The error messages can be examined using the error option of the adm command under the recent change system.

For Format 3, also refer to the error code as described in *UNIX*® RTR.

5. ALARMS

None.

6. REFERENCES

None.

REPT:CMRCVK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT CMRCVK
PROCESSING COMPLETE
```

2. REASON FOR OUTPUT

To report that the tables in the AM shared library have been updated as specified in the recent change request.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:CNCE-A

Software Release: 5E10 - 5E11
Message Class: TRK_MON
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT CNCE
      a bb:bb:bb:bbb d [m] [o] [p]

[2]   ____________________________________________________________________
      REPT CNCE
      a bb:bb:bb:bbb c d e k l [m|n|o|p|s [q]]

[3]   ____________________________________________________________________
      REPT CNCE
      a bb:bb:bb:bbb d [o [r]]
```

2. REASON FOR OUTPUT

To report common channel interoffice signaling (CCIS) network critical events (CNCE).

Format 1 prints for signaling link (SLK) events.

Format 2 prints for point code (PTC) events.

Format 3 prints for data routing events.

3. VARIABLE FIELD DEFINITIONS

`a` = Name of critical event. Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.

`b` = Network time when the event occurred, in the form hours:minutes:seconds:milliseconds.

`c` = Link protocol: layer 6 or 7.

`d` = Association field. A 9-character field with blanks padded to the right. This field represents either a signaling link of the form "xx-yy" (where 'x' equals group number and 'y' equals member number), a link set, or a point code.

`e` = CLLI code. The format of this field is: `f_g_h_i_j`

`f` = City abbreviation.

`g` = State abbreviation.

`h` = Building abbreviation.

`i` = Subdivision abbreviation.

`j` = Link layer number.

`k` = Link speed. Valid value(s):

	4.8	= 4.8 KBS link.
	56.	= 56 KBS link.
l	= Link type. Valid value(s):	
	A	= Switching office to signal transfer point (STP).
	E	= Switching office to STP in adjacent regions.
m	= Voice frequency link (VFL) identifier (A or B).	
n	= Function number (00001 - 32767).	
o	= Subsystem number (001 - 255).	
p	= Declared failure diagnostic code (00000000-ffffffff).	
q	= Affected destination point code.	
r	= Service indicator from the service information octet (SIO).	
s	= Declared failure diagnostic code. Valid value(s):	

```
CHANGEBACK
CHANGEOVER
REROUTE
```

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

```
APP:CNI
```

Other Manual(s):
235-118-25x *Recent Change Reference Manual*
235-190-120 *Common Channel Signaling Services Features*

REPT:CNCE-B

Software Release: 5E12 and later
Message Class: TRK_MON
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT CNCE
        a             bb:bb:bb:bbb d[m]       [o] [p]

[2]   ____________________________________________________________________
      REPT CNCE
        a             bb:bb:bb:bbb c d e k l [m|n|o|p|s [q]]

[3]   ____________________________________________________________________
      REPT CNCE
        a             bb:bb:bb:bbb d [o [r]]
```

2. REASON FOR OUTPUT

To report common channel signaling (CCS) network critical events (CNCE).

Format 1 prints for signaling link (SLK) events.

Format 2 prints for point code (PTC) events.

Format 3 prints for data routing events.

3. VARIABLE FIELD DEFINITIONS

`a` = Name of critical event. Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.

`b` = Network time when the event occurred, in the form hours:minutes:seconds:milliseconds.

`c` = Link protocol: layer 6 or 7.

`d` = Association field. A 9-character field with blanks padded to the right. This field represents either a signaling link of the form "xx-yy" (where 'x' equals group number and 'y' equals member number), a link set, or a point code.

`e` = CLLI code. The format of this field is: `f_g_h_i_j`

`f` = City abbreviation.

`g` = State abbreviation.

`h` = Building abbreviation.

`i` = Subdivision abbreviation.

`j` = Link layer number.

`k` = Link speed. Valid value(s):

	4.8	= 4.8 KBS link.
	56.	= 56 KBS link.
l	= Link type. Valid value(s):	
	A	= Switching office to signal transfer point (STP).
	E	= Switching office to STP in adjacent regions.
	F	= Switching office to switching office.
m	= Voice frequency link (VFL) identifier (A or B).	
n	= Function number (00001 - 32767).	
o	= Subsystem number (001 - 255).	
p	= Declared failure diagnostic code (00000000-ffffffff).	
q	= Affected destination point code.	
r	= Service Indicator from the Service Information Octet (SIO).	
s	= Declared failure diagnostic code. Valid value(s):	
	CHANGEBACK	
	CHANGEOVER	
	REROUTE	

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

APP:CNI

Other Manual(s):
235-118-25x *Recent Change Reference Manual*
235-190-120 *Common Channel Signaling Services Features*

REPT:CNI-RING

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT CNI RING STATUS=START TRAFFIC FAILURE

[2]   ____________________________________________________________________
      REPT CNI RING STATUS=a b
      REASON=c   d DURATION=e SECONDS
```

2. REASON FOR OUTPUT

To indicate a change in status of the common network interface (CNI) ring. This message will appear if the CNI is unable to start handling common channel signaling (CCS) traffic after a CNI initialization (Format 1), the CCS direct signaling, trunk signaling, or transaction capabilities application part (TCAP) signaling is put back into service when some abnormal condition improves (Format 2), the CCS direct signaling, trunk signaling, or TCAP signaling is put back into service but is not fully operational until some abnormal condition improves (Format 2), or the CCS direct signaling, trunk signaling, or TCAP signaling is taken out of service due to some abnormal condition (Format 3).

If CCS signaling is taken out of service or made degraded, the abnormal condition that caused the outage will be listed. Also, CCS signaling may be taken out of service or put into service by an internal audit.

3. VARIABLE FIELD DEFINITIONS

`a` = Status indicator. Valid value(s):
- `DIRECT SIGNALING` = CCS direct signaling is being put into service, made degraded or, taken out of service.
- `TCAP SIGNALING` = CCS TCAP signaling is being put into service, made degraded or, taken out of service.
- `TRUNK SIGNALING` = CCS trunk signaling is being put into service, made degraded or, taken out of service.

`b` = Current status of signaling type. Valid value(s):
- `IN-SERVICE` = Signaling is fully operational.
- `DEGRADED` = Signaling is available but some condition exists to prevent full signaling capability.
- `OUT-OF-SERVICE` = Signaling of this type is not available.
- `UNEQUIPPED` = No data exists for this signaling type.

`c` = Abnormal condition being reported. Valid value(s):
- `AUDIT ERROR` = Audit detected an error in the signaling state and has corrected the problem.
- `CNI INIT` = CNI is performing an initialization.
- `DLN CONG/OVRLD` = The DLN is either congested or overloaded.
- `DLN QUEUE UNAVAIL` = Direct link node-administrative module (DLN-AM) queues are not accessible.
- `DLN UNAVAIL` = Both direct link nodes (DLNs) are out of service.
- `GT STP UNAVAIL` = A pair of Global Title translation number 2 signal transfer points (2STPs) cannot be accessed.

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`LINK CONGESTION` = One or more CCS links are congested.
`LINK UNAVAIL` = All CCS links to neighboring 2STPs have failed.
`POOL UNAVAIL` = All CCIS6 logical connections to neighboring 2STPs have failed.
`STP CONGESTION` = A pair of neighboring 2STPs are congested.
`SUBSYSTEM UNAVAIL` = At least one TCAP feature is out-of-service.

`d` = Previous state of signaling type that a duration is printed. Valid value(s):
`DGR` = Degraded.
`OOS` = Out-of-service.

`e` = Duration. Number of seconds that signaling has been affected since the corresponding out-of-service or degraded message.

4. ACTION TO BE TAKEN

No action is required if CCS signaling is being put in service.

If CCS signaling is taken out of service or made degraded, consult the CNI display page for additional information. The action taken depends on the abnormal condition. If the abnormal condition is LINK UNAVAIL, restore all equipped link nodes using the input message RST:LN. If the abnormal condition is DLN UNAVAIL, restore both DLNs using the input message RST:LN.

Normally, no action is required for any other abnormal condition. However, if CCS signaling remains out of service for very long (for example, 5 to 10 minutes), check for failing diagnostics, correct any hardware problems, and then reinitialize the CNI if necessary.

Diagnostics are reported by the DGN:LN and DGN:RPCN output messages. If diagnostics aren't running, the CNI can be diagnosed using the DGN:LN and DGN:RPCN input messages.

If a START TRAFFIC FAILURE occurs, the CNI should be reinitialized. Use the INIT:CNI input message to initialize the CNI. Also, the CNI can be initialized and placed in min mode by using the SET:MINMODE input message with CNI parameter. The CNI can be initialized and taken out of min mode by using the input message CLR:MINMODE with the CNI parameter.

5. ALARMS

Major if '**a**' = **START TRAFFIC FAILURE**, **DIRECT SIGNALING OUT OF SERVICE**, **TRUNK SIGNALING OUT OF SERVICE**, or **TCAP SIGNALING OUT OF SERVICE**.

Otherwise, none.

6. REFERENCES

Input Message(s):

```
CLR:MINMODE-SM
DGN:LN
DGN:RPCN
INIT:CNI
RST:LN
RST:RPCN
SET:MINMODE-CNI
```

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Output Message(s):

```
DGN:LN
DGN:RPCN
```

REPT:CNIDBA

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT CNIDBA
      PROCESSING RC ORDER OF TYPE a

[2]   ____________________________________________________________
      REPT CNIDBA
      RC ORDER COMPLETE

[3]   ____________________________________________________________
      REPT CNIDBA
      RC DISK UPDATE COMPLETE

[4]   ____________________________________________________________
      REPT CNIDBA
      RC DISK UPDATE FAILED

[5]   ____________________________________________________________
      REPT CNIDBA
      RC UPDATE FAILED

[6]   ____________________________________________________________
      REPT CNIDBA
      RC ERROR CHECKS FAILED

[7]   ____________________________________________________________
      REPT CNIDBA
      RC DISK ERROR CHECKS FAILED

[8]   ____________________________________________________________
      REPT CNIDBA
      b

[9]   ____________________________________________________________
      REPT CNIDBA
      CNIDBA IS ABORTING
```

2. REASON FOR OUTPUT

To report on the common network interface database administrator (CNIDBA) process.

Format 1 indicates that the common network interface (CNI) is beginning to activate the recent change request.

Formats 2; and 3 are completion reports for recent change activation in the administrative module (AM) and disk files, respectively.

Format 4 reports failure to activate the recent change request in the disk file. It is followed by output message(s) in Format8.

Format 5 reports failure to activate the recent change request in the AM file. It is followed by output message(s) in Format8.

Formats 6; and 7 are reports of failed error checks for recent change activation in the AM and disk files, respectively. They are followed by output message(s) in Format8.

Format8 describes the cause of the failed recent change activation. This failure may be caused by failed error checks or problems with the disk files.

Format9 reports the successful termination (by the application) of an old CNIDBA process. Output messages of Format9 should occur quite infrequently.

3. VARIABLE FIELD DEFINITIONS

a = Type of recent change requested. Valid value(s):

- 100 = Link data recent change (AM and nodes).
- 101 = Add a virtual link assignment (AM).
- 102 = Delete a virtual link assignment (AM).
- 103 = Change the office ID data (AM and nodes).
- 104 = Add the office ID data (AM and nodes).
- 121 = Update a member in a local populated cluster (AM).
- 122 = Add a local populated cluster (AM).
- 123 = Update a remote populated cluster (AM).
- 124 = Use linkset routing for a populated cluster (PC) AM.
- 125 = Use combined linkset routing for a PC (AM).
- 127 = Update the subsystem tables (AM and nodes).
- 128 = Delete a subsystem (AM and nodes)
- 129 = Add permanent relations (AM).
- 130 = Remove permanent relations (AM).
- 131 = Delete a PC and associated permanent relations (AM).
- 137 = Update the broadcast list table.
- 141 = Add a network identifier.
- 142 = Delete a network identifier.
- 143 = Update a combined linkset.
- 145 = Change the global title translation table.
- 146 = Delete entries from the global title translation table for a particular service.
- 147 = Add/Delete entries for small network populated cluster.
- 201 = Copy the logical-physical tables to disk.
- 202 = Update the office ID data on disk.
- 203 = Update the link data on disk for a given link.
- 209 = Copy the cluster/member routing info to disk.
- 210 = Update the subsystem disk files.
- 211 = Update the permanent relations disk file.
- 212 = Update the broadcast list disk file.
- 214 = Update the network interconnect data on disk.
- 215 = Update the global title translation data on disk.

b = Text string describing the failed error checks.

4. ACTION TO BE TAKEN

For Formats 1, 2, and 3, no action is required.

For Formats 4 and 5, correct the problem and re-enter the recent change.

For Formats 6 and 7, no action is required if the recent change was originated from a remote site. However, if the recent change was originated locally, correct the erroneous data and re-enter the recent change.

Format 8 describes the cause of the failed recent change activation noted by an output message of Format 4, 5, 6, or 7.

For Format 9, no action is required.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-118-21x *Recent Change Menu Mode/Text Interface*

REPT:CNIDBAK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT CNIDBAK
PROCESSING COMPLETE
```

2. REASON FOR OUTPUT

To report that the tables in the AM shared library have been updated as specified in the recent change request.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:CNIER

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT CNIER
      CRITICAL EVENTS LOST BY CE BUFFER OVERFLOW: a

[2]   ____________________________________________________________________
      REPT CNIER
      CRITICAL EVENTS LOST BY CONTENTION: b

[3]   ____________________________________________________________________
      REPT CNIER
      CRITICAL EVENTS LOST
      CE BUFFER OVERFLOW: a; CONTENTION: b
```

2. REASON FOR OUTPUT

At intervals of 5-minutes, the CNIER process issues one of these messages if, in the interval just past, at least one attempt to generate a critical event (CE) message failed. The length of an interval can exceed 5 minutes; the interval continues past the 5-minute mark until the next time the CNIER process runs.

For Format 1, one or more attempts by the SLMK process to generate a critical event message failed because the critical event buffer was full.

For Format 2, one or more attempts by an application process to generate a critical event message failed because the SLMK process had a lock on the critical event buffer for the purpose of writing a critical event message of its own.

For Format 3, both of the above events occurred.

3. VARIABLE FIELD DEFINITIONS

`a` = Number of times in a 5-minute interval that an attempt to generate a critical event message failed because the critical event buffer was full.

`b` = Number of times in a 5-minute interval that an attempt to generate a critical event message failed because the SLMK process had a lock on the critical event buffer.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT:CNCE
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

REPT:CNIINIT-A

Software Release: 5E10 only
Message Class: SWM01
Application: 5,CNI
Type: Output

1. FORMAT

[1]
```
REPT CNIINIT
CNI GENERIC a
```

[2]
```
REPT CNIINIT
ALL CHILD PROCESSES HAVE BEEN CREATED
```

[3]
```
REPT CNIINIT ERR
T/O while waiting for user response, b continuing at c
```

[4]
```
REPT CNIINIT FLT
FLT: d, ACTIVE, PA: e, EV: f
PSW: g, PSBR: h SSBR: i
CNIINIT SAVED REGISTERS FOLLOW.
```

[5]
```
REPT CNIINIT REGS
j k l m
n o p q
r s t u
```

[6]
```
REPT CNIINIT ERR
KEVENT-UNRECOGNIZED MESSAGE TYPE:
 MSGHDR STRUCTURE FIELDS FOLLOW:
  ms_from=v
  ms_to=w
  ms_flags=x
  ms_type=y
  ms_stat=z
  ms_otype=a1
  ms_ident=b1
```

[7]
```
REPT CNIINIT ERR
NON-ZERO MESSAGE STATUS RECEIVED,
 ACKNOW-MSGHDR STRUCTURE FIELDS FOLLOW:
  ms_from=v
  ms_to=w
  ms_flags=x
  ms_type=y
  ms_stat=z
  ms_otype=a1
```

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```
        ms_ident=b1

[8]     ____________________________________________________________
        REPT CNIINIT
        Requesting self termination at c

[9]     ____________________________________________________________
        REPT CNIINIT
        state       c1
        old_state   d1
        tod         c

[10]    ____________________________________________________________
        REPT CNIINIT
        e1:  f1 tout1=g1 tout2=h1 pr_flags=0xi1
           pid=j1 tid=k1 p_state=l1 next_cr=m1
           next_srt=n1 next_stp=o1 rc_type=p1

[11]    ____________________________________________________________
        REPT CNIINIT
        e1:  q1 tout1=g1 tout2=h1 pr_flags=0xi1

        tid=k1 p_state=l1 cr_crit=r1 cr_ncrit=s1

         next_stp=o1 rc_type=p1

[12]    ____________________________________________________________
        REPT CNIINIT
        [e1] q1 |r1|s1|t1|pflg=0xi1 uid=u1 ps=l1 tflg=v1 pid=j1

[13]    ____________________________________________________________
        REPT CNIINIT
        no USER:  assume lab condition w1

[14]    ____________________________________________________________
        REPT CNIINIT
        Recreate of process q1 FAILED.  x1

[15]    ____________________________________________________________
        REPT CNIINIT
        Unable to create process q1
        x1

[16]    ____________________________________________________________
        REPT CNIINIT ERR
        Timeout waiting to [re]create process q1

[17]    ____________________________________________________________
        REPT CNIINIT ERR
        Timeout waiting to start process q1, will retry later

[18]    ____________________________________________________________
        REPT CNIINIT
```

```
      BEGINNING z1 initialization at w1

[19]  ____________________________________________________________
      REPT CNIINIT
      COMPLETES z1 initialization at w1

[20]  ____________________________________________________________
      REPT CNIINIT
      UNABLE to COMPLETE z1 initialization at w1 a2

[21]  ____________________________________________________________
      REPT CNIINIT
      RESCHEDULING z1 initialization at w1
```

2. REASON FOR OUTPUT

The REPT CNIINIT message originates from the CNIINIT process. This message may be output because of errors in common network interface (CNI) detected by CNIINIT, errors internal to CNIINIT itself, or status information.

Format 1 identifies the current CNI generic.

Format 2 is output when all CNIINIT child processes have been created. It should be considered a benchmark during initialization.

Format 3 is output when the user fails to send CNIINIT the message to begin the non-critical initialization. CNIINIT has "timed out" and started the non-critical initialization on its own.

Format 4 provides state information about CNIINIT when a *UNIX*® RTR system fault is received by CNIINIT. These values are assigned and defined by the *UNIX*® RTR system.

Format 5 provides additional state information following a *UNIX*® RTR fault.

Format 6 is printed when the CNIINIT process receives a *UNIX*® RTR system message in which the message type is not recognized.

Format 7 is printed when the CNIINIT process receives a *UNIX*® RTR system acknowledgement message that contains an error. Acknowledgement messages are expected following process creations.

Format 8 is printed when CNIINIT has nearly completed an abort sequence. CNIINIT has requested the termination of all its child processes and is about to request termination of itself from the operating system.

For Formats 9-12, some combination of these messages can be printed when CNIINIT is dumping state information. The information concerns state and status information kept by CNIINIT about its child processes. In general, these messages will appear very rarely.

Format 13 is printed when CNIINIT is unable to detect a CNI USER Process at boot time. CNIINIT makes the assumption that it is in a lab and follows through with the initialization on its own. This message should not appear in a field site, if it does, it should be considered an error.

For Formats 14-15, either of these can be printed when CNIINIT is having difficulty recreating a child process. Typically, CNIINIT will reschedule another attempt for later. In some cases, the message will indicate the minimum amount of time that must pass before another attempt can be made.

For Formats 16-17, either of these can be printed when CNIINIT times out while (re)creating a child process. Typically, CNIINIT will reschedule another attempt for later. However, if the process that was being (re)created was

of a critical nature, then a boot initialization may occur.

Format 18 is printed when CNIINIT is beginning some form or level of initialization. The meaning of the message should be self-evident.

Format 18 is printed when CNIINIT is beginning some form or level of initialization. The meaning of the message should be self-evident.

Format 19 is printed when CNIINIT completes some form or level of initialization. The meaning of the message should be self-evident.

Format 20 is printed when CNIINIT is unable to complete some form or level of initialization. This could mean that initialization and recovery activities are considered complete, but call handling may not be working.

Format 21 is printed when the non-critical initialization sequence was interrupted for some other level of initialization. The non-critical initialization will be completed at a later time.

3. VARIABLE FIELD DEFINITIONS

a	= Present CNI release.
b	= The phrase "min-mode" or nothing (spaces).
c	= The value of the real-time clock at the time the message was generated.
d	= The *UNIX*® RTR fault code.
e	= The location (relative address) where CNIINIT was executing at when the fault occurred.
f	= A value representing the event flag at the time the fault occurred.
g	= A value representing the contents of the CNIINIT process program status word (PSW).
h	= A value representing the contents of the CNIINIT process primary segment base register (PSBR).
i	= A value representing the contents of the CNIINIT process secondary segment base register (SSBR).
j-u	= General purpose registers 0 through 11.
v	= The process ID (PID) of the process that sent the message to CNIINIT.
w	= The PID of the receiving process (CNIINIT).
x	= The message flags.
y	= The message type.
z	= The message status field.
a^1	= The old message type.
b^1	= The identification field.
c^1	= The "state" that CNIINIT's finite state machine was in at the time the message was printed.
d^1	= The "state" that CNIINIT's finite state machine was in PRIOR to the current state.

e^1 = Index into CNIINIT's child process table. It points to the entry of one of CNIINIT's child processes.

f^1 = Full pathname of the child process pointed to by 'e^1'.

g^1 = Timeout value 1, used by all child processes, this is the primary timer value for each process. It is used for process creation timing and general handshake timing.

h^1 = Timeout value 2, used only by the child process "imsdrv.p". It guards the entire boot sequence (early generics) or the critical portion of the boot (later generics).

i^1 = Timeout value 3, used only by the child process "imsdrv.p". It guards the non-critical boot sequence.

j^1 = The PID of the child process identified by 'e^1'.

k^1 = A value representing the timer ID or "TID" of the process identified by 'e^1'.

l^1 = The "process state" of the process identified by 'e^1'.

m^1 = A forward link or index in the process table that points to the next process to be created.

n^1 = A forward link or index in the process table that points to the next process to receive the "START_PROC" event.

o^1 = A forward link or index in the process table that points to the next process to receive the "STOP_PROC" event.

p^1 = A value that represents the "recreation type" of the process.

q^1 = The p-name of the child process pointed to by 'e^1'.

r^1 = A forward link or index in the process table that points to the next CRITICAL process to be created.

s^1 = A forward link or index in the process table that points to the next NON-CRITICAL process to be created.

t^1 = A forward link or index in the process table that points to the next process to receive the "STOP_PROC" or "START_PROC" event.

u^1 = The utility ID of the process identified by 'e^1'.

v^1 = A value representing the "track flags" of the process identified by 'e^1'.

w^1 = The phrase "at c" (refer to variable 'c') or nothing (spaces).

x^1 = One of these phrases: "Will retry later"; "Retry in y^1 s"; or "Will retry in y^1 seconds."

y^1 = The minimum number of seconds until the process is retried.

z^1 = A combination of:

```
CRITICAL
NON-CRITICAL
[MINMODE]
```

```
level 0
level 1
level 2
level 3
level 4
```

4. ACTION TO BE TAKEN

For Formats 1, 2, 3, 8, 18, and 19, take no action.

For Formats 4 - 7 and 9 - 13, information should be retained. These provide valuable information pertaining to the fault or error that just occurred. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Formats 14, 15, 16, and 17, verify that the process in question ('q^1') is eventually recreated.

For Format 20, appropriate tests should be made to see if call handling is functional. If it is, then the message may be ignored. If call handling is not functional, then the next higher level of initialization should be manually initiated. In any case, the information should be retained. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 21, insure that the non-critical initialization eventually completes. This can be determined by the presence of the "COMPLETES NON-CRITICAL" message, by full functionality of the CNI display pages and CNI measurements. If the non-critical sequence does not complete, then the next higher level of initialization should be initiated during a period of low traffic.

Note: Information output by CNIINIT may not be useful to the user. This information is intended for use by development/support personnel when diagnosing CNIINIT errors or faults.

5. ALARMS

For Formats 1-17 and 19-21, no alarms are sounded.

For Format 18, a major alarm is sounded with the Level 1 initialization. A critical alarm is sounded with the Level 3 or Level 4 initialization.

6. REFERENCES

None.

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REPT:CNIINIT-B

Software Release: 5E11 and later
Message Class: SWM01
Application: 5,CNI
Type: Output

1. FORMAT

[1]
```
REPT CNIINIT
CNI GENERIC a
```

[2]
```
REPT CNIINIT
ALL CHILD PROCESSES HAVE BEEN CREATED
```

[3]
```
REPT CNIINIT ERR
T/O while waiting for user response, b continuing at c
```

[4]
```
REPT CNIINIT FLT
FLT: d, ACTIVE, PA: e, EV: f
PSW: g, PSBR: h SSBR: i
CNIINIT SAVED REGISTERS FOLLOW.
```

[5]
```
REPT CNIINIT REGS
j k l m
n o p q
r s t u
```

[6]
```
REPT CNIINIT ERR
KEVENT-UNRECOGNIZED MESSAGE TYPE:
 MSGHDR STRUCTURE FIELDS FOLLOW:
  ms_from=v
  ms_to=w
  ms_flags=x
  ms_type=y
  ms_stat=z
  ms_otype=a[1]
  ms_ident=b[1]
```

[7]
```
REPT CNIINIT ERR
NON-ZERO MESSAGE STATUS RECEIVED,
 ACKNOW-MSGHDR STRUCTURE FIELDS FOLLOW:
  ms_from=v
  ms_to=w
  ms_flags=x
  ms_type=y
  ms_stat=z
  ms_otype=a[1]
```

```
        ms_ident=b1

[8]     ____________________________________________________________
        REPT CNIINIT
        Requesting self termination at c

[9]     ____________________________________________________________
        REPT CNIINIT
        state       c1
        old_state   d1
        tod         c

[10]    ____________________________________________________________
        REPT CNIINIT
        e1:  f1 tout1=g1 tout2=h1 pr_flags=0xi1
           pid=j1 tid=k1 p_state=l1 next_cr=m1
           next_srt=n1 next_stp=o1 rc_type=p1

[11]    ____________________________________________________________
        REPT CNIINIT
        e1:  q1 tout1=g1 tout2=h1 pr_flags=0xi1


         tid=k1 p_state=l1 cr_crit=r1 cr_ncrit=s1


         next_stp=o1 rc_type=p1


        [12]    ____________________________________________________
                REPT CNIINIT
                [e1] q1 |r1|s1|t1|pflg=0xi1 uid=u1 ps=l1 tflg=v1 pid=j1 wrkg_cnt=a2 nxtr
                y=b2


        [13]    ____________________________________________________
                REPT CNIINIT
                no USER:  assume lab condition w1


        [14]    ____________________________________________________
                REPT CNIINIT
                Recreate of process q1 FAILED.  x1


        [15]    ____________________________________________________
                REPT CNIINIT
                Unable to create process q1
                x1


        [16]    ____________________________________________________
                REPT CNIINIT ERR
```

```
        Timeout waiting to [re]create process q1

[17]    ____________________________________________________________
        REPT CNIINIT ERR
        Timeout waiting to start process q1, will retry later

[18]    ____________________________________________________________
        REPT CNIINIT
        BEGINNING z1 initialization at w1

[19]    ____________________________________________________________
        REPT CNIINIT
        COMPLETES z1 initialization at w1

[20]    ____________________________________________________________
        REPT CNIINIT
        UNABLE to COMPLETE z1 initialization at w1 [errcode=c2]

[21]    ____________________________________________________________
        REPT CNIINIT
        RESCHEDULING z1 initialization at w1
```

2. REASON FOR OUTPUT

The REPT CNIINIT message originates from the CNIINIT process. This message may be output because of errors in common network interface (CNI) detected by CNIINIT, errors internal to CNIINIT itself, or status information.

Format 1 identifies the current CNI generic.

Format 2 is output when all CNIINIT child processes have been created. It should be considered a benchmark during initialization.

Format 3 is output when the user fails to send CNIINIT the message to begin the non-critical initialization. CNIINIT has "timed out" and started the non-critical initialization on its own.

Format 4 provides state information about CNIINIT when a *UNIX*® RTR system fault is received by CNIINIT. These values are assigned and defined by the *UNIX*® RTR system.

Format 5 provides additional state information following a *UNIX*® RTR fault.

Format 6 is printed when the CNIINIT process receives a *UNIX*® RTR system message in which the message type is not recognized.

Format 7 is printed when the CNIINIT process receives a *UNIX*® RTR system acknowledgement message that contains an error. Acknowledgement messages are expected following process creations.

Format 8 is printed when CNIINIT has nearly completed an abort sequence. CNIINIT has requested the termination of all its child processes and is about to request termination of itself from the operating system.

For Formats 9-12, some combination of these messages can be printed when CNIINIT is dumping state information.

The information concerns state and status information kept by CNIINIT about its child processes. In general, these messages will appear very rarely.

Format 13 is printed when CNIINIT is unable to detect a CNI USER Process at boot time.CNIINIT makes the assumption that it is in a lab and follows through with the initialization on its own. This message should not appear in a field site, if it does, it should be considered an error.

For Formats 14-15, either of these can be printed when CNIINIT is having difficulty recreating a child process. Typically, CNIINIT will reschedule another attempt for later. In some cases, the message will indicate the minimum amount of time that must pass before another attempt can be made.

For Formats 16-17, either of these can be printed when CNIINIT times out while (re)creating a child process. Typically, CNIINIT will reschedule another attempt for later. However, if the process that was being (re)created was of a critical nature, then a boot initialization may occur.

Format 18 is printed when CNIINIT is beginning some form or level of initialization. The meaning of the message should be self-evident.

Format 19 is printed when CNIINIT completes some form or level of initialization. The meaning of the message should be self-evident.

Format 20 is printed when CNIINIT is unable to complete some form or level of initialization. This could mean that initialization and recovery activities are considered complete, but call handling may not be working.

Format 21 is printed when the non-critical initialization sequence was interrupted for some other level of initialization. The non-critical initialization will be completed at a later time.

3. VARIABLE FIELD DEFINITIONS

a	= Present CNI release.
b	= The phrase "min-mode" or nothing (spaces).
c	= The value of the real-time clock at the time the message was generated.
d	= The *UNIX*® RTR fault code.
e	= The location (relative address) where CNIINIT was executing at when the fault occurred.
f	= A value representing the event flag at the time the fault occurred.
g	= A value representing the contents of the CNIINIT process program status word (PSW).
h	= A value representing the contents of the CNIINIT process primary segment base register (PSBR).
i	= A value representing the contents of the CNIINIT process secondary segment base register (SSBR).
j-u	= General purpose registers 0 through 11.
v	= The process ID (PID) of the process that sent the message to CNIINIT.
w	= The PID of the receiving process (CNIINIT).
x	= The message flags.

y = The message type.

z = The message status field.

a^1 = The old message type.

b^1 = The identification field.

c^1 = The "state" that CNIINIT's finite state machine was in at the time the message was printed.

d^1 = The "state" that CNIINIT's finite state machine was in PRIOR to the current state.

e^1 = Index into CNIINIT's child process table. It points to the entry of one of CNIINIT's child processes.

f^1 = Full pathname of the child process pointed to by 'e^1'.

g^1 = Timeout value 1, used by all child processes, this is the primary timer value for each process. It is used for process creation timing and general handshake timing.

h^1 = Timeout value 2, used only by the child process "imsdrv.p". It guards the entire boot sequence (early generics) or the critical portion of the boot (later generics).

i^1 = Timeout value 3, used only by the child process "imsdrv.p". It guards the non-critical boot sequence.

j^1 = The PID of the child process identified by 'e^1'.

k^1 = A value representing the timer ID or "TID" of the process identified by 'e^1'.

l^1 = The "process state" of the process identified by 'e^1'.

m^1 = A forward link or index in the process table that points to the next process to be created.

n^1 = A forward link or index in the process table that points to the next process to receive the "START_PROC" event.

o^1 = A forward link or index in the process table that points to the next process to receive the "STOP_PROC" event.

p^1 = A value that represents the "recreation type" of the process.

q^1 = The p-name of the child process pointed to by 'e^1'.

r^1 = A forward link or index in the process table that points to the next CRITICAL process to be created.

s^1 = A forward link or index in the process table that points to the next NON-CRITICAL process to be created.

t^1 = A forward link or index in the process table that points to the next process to receive the "STOP_PROC" or "START_PROC" event.

u^1 = The utility ID of the process identified by 'e^1'.

v^1 = A value representing the "track flags" of the process identified by 'e^1'.

w^1 = The phrase "at c" (refer to variable 'c') or nothing (spaces).

x^1 = One of these phrases: "Will retry later"; "Retry in y^1 s"; or "Will retry in y^1 seconds."

y^1 = The minimum number of seconds until the process is retried.

z^1 = Valid value(s):

```
CRITICAL
NON-CRITICAL
[MINMODE]
level 0
level 1
level 2
level 3
level 4
```

a^2 = Working counter, used in retry logic.

b^2 = Variable used to select recovery action against a non-critical process.

c^2 = A value (1-6) representing the error condition that prevented CNIINIT from completing some form or level of initialization.

4. ACTION TO BE TAKEN

For Formats 1, 2, 3, 8, 18, and 19, take no action.

For Formats 4 - 7 and 9 - 13, information should be retained. These provide valuable information pertaining to the fault or error that just occurred. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Formats 14, 15, 16, and 17, verify that the process in question ('q^1') is eventually recreated.

For Format 20, appropriate tests should be made to see if call handling is functional. If it is, then the message may be ignored. If call handling is not functional, then the next higher level of initialization should be manually initiated. In any case, the information should be retained. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 21, insure that the non-critical initialization eventually completes. This can be determined by the presence of the "COMPLETES NON-CRITICAL" message, by full functionality of the CNI display pages and CNI measurements. If the non-critical sequence does not complete, then the next higher level of initialization should be initiated during a period of low traffic.

Note: Information output by CNIINIT may not be useful to the user. This information is intended for use by development/support personnel when diagnosing CNIINIT errors or faults.

5. ALARMS

For Formats 1-17 and 19-21, no alarms are sounded.

For Format 18, a major alarm is sounded with the Level 1 initialization. A critical alarm is sounded with the Level 3 or Level 4 initialization.

6. REFERENCES

None.

REPT:COM100

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT COM100 TBL
        IMSDRV(kfault.c:line): INTERNAL ERROR
        RECEIVED FAULT MSG a

[2]   ____________________________________________________________
      REPT COM100 TBL
        IMSDRV(kfault.c:line): INTERNAL ERROR
        FLT_QMSAUD - FCODE X'a NMSG b
        MSG c: d  e  f  g  h  i  j  k  l  m
        MSG c: d  e  f  g  h  i  j  k  l  m
        REPT COM100 TBL
        IMSDRV(kfault.c:line): INTERNAL ERROR
        FLT_QMSAUD - CONTINUED
        MSG c: d  e  f  g  h  i  j  k  l  m
        MSG c: d  e  f  g  h  i  j  k  l  m

[3]   ____________________________________________________________
      REPT COM100 TBL
        n ( o:p ): INTERNAL ERROR
        q
```

2. REASON FOR OUTPUT

To report a fault detected by the interprocess message switch (IMS) driver process.

Format 1 reports that a fault message was received by the IMS driver process. Format 1; messages are normally associated with REPT:IMSDR-FLT messages.

Format 2 reports details of a FLT_QMSAUD fault received by the IMS driver process. This message will normally follow a Format 1; message. This fault type complains of *UNIX*®RTR message buffers held for an unreasonable length of time.

Format 3 reports that the occurrence of an internal problem or bug.

3. VARIABLE FIELD DEFINITIONS

a = *UNIX*® RTR fault code.

b = Old message number.

c = Consecutively assigned number, starting from 1, to associate the continuations in proper order.

d = Sending process number.

e = Receiving process number.

`f` = Message size (including header) in blocks.

`g` = Message header flags.

`h` = Message type.

`i` = Message status.

`j` = Message size (including header) in bytes specified by sender.

`k` = Original message type of an acknowledgment message.

`l` = Message sequence number.

`m` = Message identification used by sender.

`n` = Name of process which experienced the trouble.

`o` = Name of source code file where trouble occurred.

`p` = Source code line number where trouble occurred.

`q` = Short statement describing the trouble or conditions existing when the trouble occurred.

4. ACTION TO BE TAKEN

Format 1 messages indicate software problems. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. Each line identified by "MSG" shows the contents of the report message header of a message that was held too long. The nature of these messages may implicate particular software modules.

Format 3 messages supplement the REPT:IMSDRV-FLT messages and should be analyzed with those messages.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT:IMSDRV-FLT
```

REPT:COM101

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT COM101 TBL
  a ( b:c ) d
  d
```

2. REASON FOR OUTPUT

To report trouble (TBL) detected by the interprocessor message switch (IMS) driver process. This indicates the occurrence of an internal problem or bug.

3. VARIABLE FIELD DEFINITIONS

a	= Name of process that experienced the trouble.
b	= Name of source code file where the trouble occurred.
c	= Line number in the source code file where the trouble occurred.
d	= Short statement that describes the trouble or conditions that existed when the trouble occurred.

4. ACTION TO BE TAKEN

This message indicates software problems. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:COMM-FAIL

Software Release: 5E10 and later
Message Class: SED_MON
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT COMMUNICATION FAILURE: CMP=a-b c TO AM
        CMP MODE: d  AUTO RECOVERY REQUESTED

[2]   ____________________________________________________________________
      REPT COMMUNICATION FAILURE: SM e TO AM
        FAILURE TYPE: f  SM MODE: d  FAIL TIME: gg:gg:gg
        LOGICAL LINK:  h [i] [l] [m] [n] [o]
        PHYSICAL LINK: j [k] [p] [q] [r] [s]
        AUTO RECOVERY REQUESTED
```

2. REASON FOR OUTPUT

To report a communication failure between the administrative module (AM) and a communications module processor (CMP) or a switching module (SM). Format 1 is used by the AM to report a loss of communication with a CMP. Format 2 is used for SM communication failures.

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch side number.

`b` = Physical CMP address/number.

`c` = Processor being reported on. Valid value(s):

`MATE`	= Mate CMP.
`PRIM`	= Primary CMP.

`d` = Last known mode of processor operation at the time that communication was lost with the AM. Valid value(s):

`CONSISTENT`	= Hardware consistent with software.
`ESSENTIAL`	= Essential jobs operational.
`NORMAL`	= Normal operation.
`OPFULL`	= All jobs are operational.
`RAMDYN`	= Dynamic memory consistent.
`RAMTXT`	= Text and data consistent.
`RAMWP`	= Write protection has been restored.
`SYSPROC`	= System processes initialized.
`UNKNOWN`	= Mode unknown.

`e` = SM number.

`f` = Type of SM communication failure. Valid value(s):

`DUPLEX`	= Both logical communication links (CLNKs) to the AM have failed.
`QUADPLEX`	= All logical quad-link packet switch (QLPS) links (QLNKs) to the AM have failed.

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SIMPLEX = At least one but not all of the logical links to the AM has failed.
TOTAL = Both a DUPLEX and a QUADPLEX link communication failure has occurred.

g = Failure duration, in the form hours:minutes:seconds.

h,i,l,m,n,o = The failing logical links. Valid value(s):
0 = Logical CLNK 0.
1 = Logical CLNK 1.
2 = Logical QLNK 2.
3 = Logical QLNK 3.
4 = Logical QLNK 4.
5 = Logical QLNK 5.

j,k,p,q,r,s = The physical links that are mapped to the failing logical links.

For CLNKs, valid values are:
0A = Time-multiplexed switch 0 (TMS), even time slot.
1A = TMS 1, even time slot.
0B = TMS 0, odd time slot.
1B = TMS 1, odd time slot.

For QLNKs, the following values are valid (certain combinations might be valid only for certain QGP configurations):
0000 = QLPS network 0, ONTC 0, QGP 0, MSCU 0
0001 = QLPS network 0, ONTC 0, QGP 0, MSCU 1
0010 = This combination is currently not allowed.
0011 = This combination is currently not allowed.
0100 = QLPS network 0, ONTC 1, QGP 0, MSCU 0
0101 = QLPS network 0, ONTC 1, QGP 0, MSCU 1
0110 = This combination is currently not allowed.
0111 = This combination is currently not allowed.
1000 = QLPS network 1, ONTC 0, QGP 0, MSCU 0
1001 = QLPS network 1, ONTC 0, QGP 0, MSCU 1
1010 = QLPS network 1, ONTC 0, QGP 1, MSCU 0
1011 = QLPS network 1, ONTC 0, QGP 1, MSCU 1
1100 = QLPS network 1, ONTC 1, QGP 0, MSCU 0
1101 = QLPS network 1, ONTC 1, QGP 0, MSCU 1
1110 = QLPS network 1, ONTC 1, QGP 1, MSCU 0
1111 = QLPS network 1, ONTC 1, QGP 1, MSCU 1

4. ACTION TO BE TAKEN

For CMP communication failures, monitor the progress of automatic CMP recovery actions on the receive-only printer (ROP) and appropriate Master Control Center (MCC) display page (such as, 1850/1851). If the CMP status returns to normal, no further action is needed. However, if the failing CMP does not recover automatically, take appropriate manual actions to restore the failing CMP. These actions are described in the System Recovery manual.

For SM communication failures, monitor the progress of automatic link recovery actions and the SM communication

status on the ROP and appropriate MCC display page (such as, pages 141-144, 1010, 1800, 1900, and so forth). If the SM communication returns to normal, no further action is needed. However, if this message is subsequently followed by a REPT:SM-ISOL message, take appropriate manual actions to restored communication to the isolated SM. These actions are described in the System Recovery manual.

5. ALARMS

For an SM, the alarm level due to a communication failure is dependent on the number of links that fail to the SM. The level is also dependent on whether or not the SM has QLNKS.

For SMs with QLNKs, alarm levels that may occur are:
TOTAL or QUADPLEX failure = Critical alarm.
DUPLEX failure = Major alarm.
SIMPLEX failure = Minor alarm.

For SMs without QLNKs, these alarm levels can occur:
DUPLEX failure = critical alarm
SIMPLEX failure = major alarm

For the first SM communication failure report, an alarm occurs. For subsequent reports until the SM becomes isolated, no alarm occurs.

For CMP communication failures, a major alarm occurs.

6. REFERENCES

Output Message(s):

```
REPT:COMM-REST
REPT:SM-ISOL
```

Other Manual(s):
235-105-250 *System Recovery*

REPT:COMM-REST-A

Software Release: 5E10 - 5E13
Message Class: SED_MON
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT COMMUNICATION RESTORED: AM TO CMP=a-b c

[2]   ____________________________________________________________________
      REPT COMMUNICATION RESTORED: AM TO d=e

[3]   ____________________________________________________________________
      REPT COMMUNICATION RESTORED: d=e TO AM
        SM MODE:[f]  EVENTS:{g TO h|NONE}  POST MORTEM DUMP:i
        STAND ALONE BILLING DURATION: jj:jj:jj
        BILLING MEMORY SIZE: k, IN USE: l (m PERCENT)
```

2. REASON FOR OUTPUT

To report that communication between the administrative module (AM) and the communication module processor (CMP) or a switching module (SM) has been restored. Format 1 is printed by the AM when it detects restored communication to a CMP. Format 2 is printed by the AM when it detects restored communication to an SM.

Format 3 is printed when a SM detects restored communication with the AM and transitions from stand alone billing mode to linked billing mode.

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch side number.

`b` = Physical CMP address/number.

`c` = Processor being reported on. Valid value(s):
- `MATE` = Mate CMP.
- `PRIM` = Primary CMP.

`d` = Switching module type. Valid value(s):
- `HSM` = Host switching module.
- `LSM` = Local switching module.
- `ORM` = Optically remote switching module.
- `PSM` = Position switching module.
- `RSM` = Remote switching module.
- `TRM` = Two-mile remote switching module.

`e` = SM number.

`f` = Mode of processor operation at the time that communication was restored with the AM. Valid value(s):
- `blank` = Mode unknown.

CONSISTENT	= Hardware consistent with software.
ESSENTIAL	= Essential jobs operational.
NORMAL	= Normal operation.
OPFULL	= All jobs are operational.
RAMDYN	= Dynamic memory consistent.
RAMTXT	= Text and data consistent.
RAMWP	= Write protection has been restored.
SYSPROC	= System processes initialized.

g = First event that occurred during AM isolation interval (if any).

h = Last event that occurred during AM isolation interval (if any).

i = Indicator whether the SM will dump the current post mortem buffers. If events occurred during the AM isolation interval and the buffers are still locked (that is, it has been less than one hour since the last SM initialization), the SM will dump its buffers. To unlock the buffers, refer to the RLS:POSTMORT input message. Valid value(s):

INH	= Post mortem dumping is inhibited during AM
NO	= No post mortems will be dumped.
YES	= Post mortems will be dumped. isolation initiated due to manual actions (such as, software release difference, min-mode, etc.).

j = Duration of AM isolation, in the form hours:minutes:seconds.

k = Current size of SM billing memory, in bytes. Minimum size is 50K bytes.

l = Amount of billing memory used during AM isolation interval, in bytes.

m = Percentage of billing memory used during AM isolation interval.

4. ACTIONS TO BE TAKEN

Check the amount of billing memory used during AM isolation intervals. If the percentage of memory used is at or near 100%, notify office engineering so that the amount of engineering billing memory can be verified and/or properly configured (refer to the VFY:SAMEM and CFR:SAMEM input messages).

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CFR:SAMEM
RLS:POSTMORT
VFY:SAMEM
```

Output Message(s):

```
REPT:COMM-FAIL
```

Other Manual(s):
235-105-250 *System Recovery*

REPT:COMM-REST-B

Software Release: 5E14 and later
Message Class: SED_MON
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT COMMUNICATION RESTORED: AM TO CMP=a-b c

[2]   ____________________________________________________________________
      REPT COMMUNICATION RESTORED: AM TO d=e

[3]   ____________________________________________________________________
      REPT COMMUNICATION RESTORED: d=e TO AM
        SM MODE:[f]  EVENTS:{g TO h|NONE}  POST MORTEM DUMP:i
        STAND ALONE BILLING DURATION: jj:jj:jj
        BILLING MEMORY SIZE: k, IN USE: l (m PERCENT)
```

2. REASON FOR OUTPUT

To report that communication between the administrative module (AM) and the communication module processor (CMP) or a switching module (SM) has been restored. Format 1 is printed by the AM when it detects restored communication to a CMP. Format 2 is printed by the AM when it detects restored communication to an SM.

Format 3 is printed when a SM detects restored communication with the AM and transitions from stand alone billing mode to linked billing mode.

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch side number.

`b` = Physical CMP address/number.

`c` = Processor being reported on. Valid value(s):
- `MATE` = Mate CMP.
- `PRIM` = Primary CMP.

`d` = Switching module type. Valid value(s):
- `HSM` = Host switching module.
- `LSM` = Local switching module.
- `ORM` = Optically remote switching module.
- `PSM` = Position switching module.
- `RSM` = Remote switching module.
- `TRM` = Two-mile remote switching module.

`e` = SM number.

`f` = Mode of processor operation at the time that communication was restored with the AM. Valid value(s):
- `blank` = Mode unknown.

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CONSISTENT	= Hardware consistent with software.
ESSENTIAL	= Essential jobs operational.
NORMAL	= Normal operation.
OPFULL	= All jobs are operational.
RAMDYN	= Dynamic memory consistent.
RAMTXT	= Text and data consistent.
RAMWP	= Write protection has been restored.
SYSPROC	= System processes initialized.

g = First event that occurred during AM isolation interval (if any).

h = Last event that occurred during AM isolation interval (if any).

i = Indicator whether the SM will dump the current post mortem buffers. If events occurred during the AM isolation interval and the buffers are still locked (that is, it has been less than one hour since the last SM initialization), the SM will dump its buffers. To unlock the buffers, refer to the RLS:POSTMORT input message. Valid value(s):

INH	= Post mortem dumping is inhibited during AM
NO	= No post mortems will be dumped.
YES	= Post mortems will be dumped. isolation initiated due to manual actions (such as, software release difference, min-mode, etc.).

j = Duration of AM isolation, in the form hours:minutes:seconds.

k = Current size of SM billing memory, in bytes. Minimum size is 50K bytes.

l = Amount of billing memory used during AM isolation interval, in bytes.

m = Percentage of billing memory used during AM isolation interval.

4. ACTIONS TO BE TAKEN

Check the amount of billing memory used during AM isolation intervals. If the percentage of memory used is at or near 100%, notify office engineering so that the amount of engineering billing memory can be verified and/or properly configured (refer to the VFY:SAMEM and CFR:SAMEM input messages).

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CFR:SAMEM
RLS:POSTMORT
VFY:SAMEM
```

Output Message(s):

```
REPT:COMM-FAIL
```

Other Manual(s):
235-105-250 *System Recovery*

REPT:CONFIG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

[1]
```
REPT CONFIG FAULT TYPE a UNIT = b PID = c ASSERT = d
```

[2]
```
REPT CONFIG FAULT TYPE a INACCESSIBLE RID = e PID = c
  ASSERT = d
```

2. REASON FOR OUTPUT

To report a fault condition in the configuration (CONFIG) library.

Format 1 is printed whenever the name of the unit can be determined. If not, Format 2 is printed.

3. VARIABLE FIELD DEFINITIONS

a = One or more fault types. Valid value(s):

AMB	= Could not allocate a message buffer.
CI	= CONFIG internal failure.
EA	= Equipment configuration data base (ECD) access problem.
ED	= ECD data invalid.
FSM	= Could not fault a process or send a message to a process.
IA	= Possible invalid argument.
PA	= Plant measurements data base access problem.
PS	= Unit in protected state.

b = Name and number of unit.

c = Process number of the process which called the CONFIG function.

d = Identification number (ASSERT number) of the fault in CONFIG.

e = Record ID (RID) of the unit control block (UCB) record in the equipment configuration data base (ECD) of the unit.

4. ACTION TO BE TAKEN

Consider bootstrapping for fault types EA, ED, and PA. Fault types AMB and FSM suggest that the system is in overload. In all cases, save a copy of the output message and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

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6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	447
2	418

Output Appendix(es):

APP:OMDB-X-REF

REPT:CONFIG-RECON

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT CONFIG RECONFIGURATION TYPE a UNIT b PID = c
```

2. REASON FOR OUTPUT

To report a successfully executed reconfiguration requested by CONFIG when the indicated unit has exceeded an error threshold and cannot be removed or replaced.

3. VARIABLE FIELD DEFINITIONS

`a` = Reconfiguration type (or action). Valid value(s):
`SWCU` = Softswitch.

`b` = Name and number of the unit causing reconfiguration.

`c` = Process ID of the process calling CONFIG.

4. ACTION TO BE TAKEN

The softswitch will eliminate the errors associated with the indicated unit only if the error sources are in the direct memory access (DMA) or the dual serial channel (DSCH) subunits of the now standby control unit (CU) or in the duplex dual serial bus selector (DDSBS) of the unit. If this is the case repair the appropriate DMA, DSCH, or DDSBS.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	419

Output Appendix(es):

APP:OMDB-X-REF

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REPT:COT-BUF

Software Release: 5E10 and later
Message Class: ASRT
Application: 5
Type: Output

WARNING: INAPPROPRIATE USE OF THIS MESSAGE MAY INTERRUPT OR DEGRADE SERVICE. READ PURPOSE CAREFULLY.

1. FORMAT

```
REPT COT BUF a PERCENT FULL
```

2. REASON FOR OUTPUT

To report that local area signaling services (LASS) customer-originated trace (COT) trace buffer is 50% or 100% full.

3. VARIABLE FIELD DEFINITIONS

`a` = Percentage full of COT message buffer. Valid value(s):

- `50` = COT trace buffer is more than 50% and less than 100% full.
- `100` = COT trace buffer is 100% full. COT feature is not available to user until COT data link is up.

4. ACTION TO BE TAKEN

Check COT data link status. Put COT data link in service as soon as possible. To check status of the COT data link, poke 199 from the Master Control Center (MCC). Look at the unit control block (UCB), giving a key of TTY45 (all capital). Refer to the SET:COT input message for recovery techniques.

WARNING: DO NOT ATTEMPT TO MODIFY OR REMOVE THE COT BUFFER (/log/COTbuffer).

5. ALARMS

Major or Minor.

6. REFERENCES

Input Message(s):

```
OP:COT-STATUS
SET:COT
```

Output Message(s):

```
REPT:COT-BUF
```

Other Manual(s):
235-190-130 *Local Area Signaling Services*

MCC Display Page(s):

199 (RCV ECD PARAMETER INFO)

REPT:COT-MANUAL

Software Release: 5E10 and later
Message Class: ASRT
Application: 5
Type: Output

1. FORMAT

```
REPT COT MANUAL ACTION
  a
```

2. REASON FOR OUTPUT

To report that a defensive check failure (assert) has occurred in a local area signaling services (LASS) customer-originated trace (COT) feature that requires manual action.

3. VARIABLE FIELD DEFINITIONS

a = One of the following error types. Valid value(s):

```
AScotsys process cannot create /log/COTbuffer.
AScotsys process cannot open /log/COTbuffer.
AScotsys process cannot read /log/COTbuffer.
AScotsys process cannot receive acknowledgement message from CMKP.
AScotsys process cannot receive message from SMaprts.
AScotsys process cannot send message to communication package kernel
(CMKP) process.
AScotsys process cannot send message to switch maintenance application
real time (SMaprts) process.
AScotsys process cannot write /log/COTbuffer.
AScotsys process detects /log is not mounted.
COT data link is in an invalid state.  The COT feature has been
disabled, to re-enable COT, correct the state of TTY 45 and enter the
INIT:ULARP input message.
/log/COTbuffer corrupted.
```

4. ACTION TO BE TAKEN

When AScotsys process can not send/receive messages to/from SMaprts process, verify that SMaprts process is running using OP:ST-PROC input message.

When AScotsys process can not send/receive messages to/from CMKP process, verify that CMKP process is running using OP:ST-PROC input message.

When /log is not mounted or AScotsys process can not create /log/COTbuffer, use the OP:AVAILLOG input message to ensure that /log is mounted and that 27K bytes of disk space is available.

When AScotsys process can not open, read or write /log/COTbuffer, verify that /log/COTbuffer file mode is 0644.

When COT data link is in an unknown state put the COT data link in service.

When AScotsys process terminates due to above errors, COT feature is inactive. After the error is resolved, use INIT:ULARP input message to restart AScotsys process.

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When the /log/COTbuffer is corrupted a copy of it is placed into /tmp/COTbuffer, and an empty /log/COTbuffer is created. The /tmp/COTbuffer can be manually examined to see what may have caused it to become corrupted. The main cause of corruption is human modification of the file. Remove /tmp/COTbuffer when done. Do not remove or modify /log/COTbuffer.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INIT:ULARP
OP:AVAILLOG
OP:ST-PROC
```

Output Message(s):

```
OP:AVAILLOG
OP:ST-PROC
REPT:ULARP
```

Other Manual(s):
235-190-130 *LASS Features*

REPT:CRITICAL-POC-A

Software Release: 5E11 only
Message Class: OVLD
Application: 5
Type: Output

1. FORMAT

```
REPT CRITICAL PH OVERLOAD CONDITION
  PSUPH=a-b-c-d CHGRP=e
```

2. REASON FOR OUTPUT

To report PHs (protocol handlers) that have exceeded critical resource utilization level and have gone into critical overload.

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number.
b	= Packet switching unit (PSU) number.
c	= PSU shelf number.
d	= PH number.
e	= Channel group number (logical PH number).

4. ACTION TO BE TAKEN

If the same PH consistently appears in a critical PH overload report, a reengineering of the signaling links on that PH is required.

Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

To find the status of the overloaded packet interface (PI) and/or packet handlers (PHs), use the OP:TRFC30 or OP:ST input messages.

If hardware checks are inhibited in an SM especially with data cache equipped, the impact could be a real time overload condition. Hardware checks should be allowed unless there is an overriding reason to inhibit the hardware checks.

5. ALARMS

Minor.

6. REFERENCES

Input Message(s):

```
OP:OVRLD-AM-SM
OP:ST
OP:STATUS
OP:TRFC30
```

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Output Message(s):

```
OP:OVRLD
```

Output Appendix(es):

```
APP:RESOURCES
```

Other Manual(s):
235-070-100 *Switch Administration and Engineering Guidelines*

REPT:CRITICAL-POC-B

Software Release: 5E12 and later
Message Class: OVLD
Application: 5
Type: Output

1. FORMAT

```
REPT CRITICAL PH OVERLOAD CONDITION
  PSUPH=a-b-c-d CHGRP=e
  RESOURCE f [f] [f] [f] [f] [f]
```

2. REASON FOR OUTPUT

To report PHs (protocol handlers) that have exceeded critical resource utilization level and have gone into critical overload.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Packet switching unit (PSU) number.

`c` = PSU shelf number.

`d` = PH number.

`e` = Channel group number (logical PH number).

`f` = PH resources that are overloaded (up to six). Valid value(s):

`PHCELL`	= PH Dropped Cell.
`PHGPBD`	= PH General Purpose Buffer Descriptor.
`PHLRFD`	= PH LAN-side Received Frame Descriptor.
`PHRT`	= PH Real-time (based on interject cycles).
`PHSRFD`	= PH SPYDER-side Received Frame Descriptor.
`PHSTFD`	= PH SPYDER-side Transmit Frame Descriptor.

4. ACTION TO BE TAKEN

If the same PH consistently appears in a critical PH overload report, a reengineering of the signaling links on that PH is required.

Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

To find the status of the overloaded packet interface (PI) and/or packet handlers (PHs), use the OP:TRFC30 or OP:ST input messages.

If hardware checks are inhibited in an SM especially with data cache equipped, the impact could be a real time overload condition. Hardware checks should be allowed unless there is an overriding reason to inhibit the hardware checks.

5. ALARMS

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Minor.

6. REFERENCES

Input Message(s):

```
OP:OVRLD-AM-SM
OP:ST
OP:STATUS
OP:TRFC30
```

Output Message(s):

```
OP:OVRLD
```

Output Appendix(es):

```
APP:RESOURCES
```

Other Manual(s):
235-070-100 *Switch Administration and Engineering Guidelines*

REPT:CSOP

Software Release: 5E10 and later
Message Class: MAINT,VAR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT CSOP BAD DEVICE DEFINITIONS IN ECD
        a b

[2]   ____________________________________________________________________
      REPT CSOP CANNOT ACCESS ACKDB

[3]   ____________________________________________________________________
      REPT CSOP CANNOT ACCESS PMS DATABASE

[4]   ____________________________________________________________________
      REPT CSOP CANNOT CHANGE PERMISSIONS TO R/W ON
        NAMED OMDB SEGMENT

[5]   ____________________________________________________________________
      REPT CSOP CANNOT CREATE COMMON ENUM SEGMENT

[6]   ____________________________________________________________________
      REPT CSOP CANNOT CREATE DLGSOF DEV a
        -NO SF_TEMP SOP

[7]   ____________________________________________________________________
      REPT CSOP CANNOT CREATE NAMED OMDB SEGMENT

[8]   ____________________________________________________________________
      REPT CSOP CANNOT CREATE OMDB BUFFER SEGMENT

[9]   ____________________________________________________________________
      REPT CSOP CANNOT CREATE SHARED SEGMENT---CSOP DYING

[10]  ____________________________________________________________________
      REPT CSOP CANNOT FREE OMDB SEGMENT

[11]  ____________________________________________________________________
      REPT CSOP CANNOT GET MEMORY TO SAVE STACK

[12]  ____________________________________________________________________
      REPT CSOP CANNOT GET PID OF RTS

[13]  ____________________________________________________________________
      REPT CSOP CANNOT GROW NAMED OMDB SEGMENT

[14]  ____________________________________________________________________
      REPT CSOP CANNOT INITIALIZE COMMON ENUM SEGMENT

[15]  ____________________________________________________________________
      REPT CSOP CANNOT INITIALIZE NAMED OMDB SEGMENT
```

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[16] _____
REPT CSOP CANNOT INITIALIZE PMS DATABASE

[17] _____
REPT CSOP CANNOT OPEN e

[18] _____
REPT CSOP CANNOT READ DATABASE HEADER FROM e

[19] _____
REPT CSOP CANNOT REMOVE FILE e

[20] _____
REPT CSOP CANNOT SEND MSG TO c a ERRNO f

[21] _____
REPT CSOP CANNOT UPDATE PMS DATABASE

[22] _____
REPT CSOP CANNOT WRITE e

[23] _____
REPT CSOP CREATED PID c
d

[24] _____
REPT CSOP DELETED DEVICE

[25] _____
REPT CSOP EXEC FAILED FOR /cft/spl/sop a

[26] _____
REPT CSOP FAILED TO OPEN /dev/rop0 ERRNO f

[27] _____
REPT CSOP FAILED TO OPEN e

[28] _____
REPT CSOP FAILED TO REMOVE FILE e

[29] _____
REPT CSOP FORK ERROR

[30] _____
REPT CSOP JOB LIST ERROR f NOT IN LIST FOR a

[31] _____
REPT CSOP MASTER WORK QUEUE ALLOCATION
FAILED---CSOP DYING

[32] _____
REPT CSOP MASTER WORK QUEUE OVERLOAD ERROR

[33] _____
REPT CSOP MASTER WORK QUEUE OVERLOAD CLEARED

[34] _____

```
      REPT CSOP MESSAGE ENABLE FAILED---CSOP DYING

[35]  ____________________________________________________________________
      REPT CSOP NEW DEVICE DEFINED

[36]  ____________________________________________________________________
      REPT CSOP NO DEVICES IN CLASS a

[37]  ____________________________________________________________________
      REPT CSOP NO QUEUE ENTRY OUTPUT ERROR g f h a

[38]  ____________________________________________________________________
      REPT CSOP OLD SOF KILLED FOR a

[39]  ____________________________________________________________________
      REPT CSOP PORT CONNECT FAILURE

[40]  ____________________________________________________________________
      REPT CSOP SEND NEW CONFIG TO a

[41]  ____________________________________________________________________
      REPT CSOP SOF EXIT FOR a

[42]  ____________________________________________________________________
      REPT CSOP SOF INIT c a i j

[43]  ____________________________________________________________________
      REPT CSOP SOP OUTPUT ERROR
        COMPLETION CODE: g  ERRNO: f  JOBID: h  DEVICE: a
        PREHDR LOC n   ADDR n
        TBLHDR LOC n   ADDR n
        POSTHDR LOC n   ADDR n

[44]  ____________________________________________________________________
      REPT CSOP SOPMSG ERROR a NOT FOUND

[45]  ____________________________________________________________________
      REPT CSOP STORE ERROR INMSG MGRERR=l

[46]  ____________________________________________________________________
      REPT CSOP STORE ERROR UFILE MGRERR=l

[47]  ____________________________________________________________________
      REPT CSOP TOO MANY OUTSTANDING MESSAGES TO FIT
        INTO NEW QUEUE

[48]  ____________________________________________________________________
      REPT CSOP UNABLE TO ACCESS CLASS RECORDS IN ECD

[49]  ____________________________________________________________________
      REPT CSOP UNABLE TO ACCESS DEVICE RECORDS IN ECD

[50]  ____________________________________________________________________
      REPT CSOP UNABLE TO ALLOCATE TTY ENTRY
        FOR a ---CSOP DYING

[51]  ____________________________________________________________________
```

```
      REPT CSOP UNABLE TO ALLOCATE TTY LIST FOR CLASS k

[52]  ____________________________________________________________
      REPT CSOP UNABLE TO ALLOCATE WORK Q FOR a

[53]  ____________________________________________________________
      REPT CSOP UNABLE TO ATTACH TO ECD

[54]  ____________________________________________________________
      REPT CSOP UNABLE TO CREATE NAMED WORK Q SEGMENT

[55]  ____________________________________________________________
      REPT CSOP UNABLE TO DEFINE NEW DEVICE a

[56]  ____________________________________________________________
      REPT CSOP UNABLE TO REMOVE UNKNOWN DEVICE a

[57]  ____________________________________________________________
      REPT CSOP UNABLE TO RETRIEVE EAI OPTIONS FROM ECD

[58]  ____________________________________________________________
      REPT CSOP UNABLE TO RETRIEVE SPOOLER INFORMATION FROM ECD

[59]  ____________________________________________________________
      REPT CSOP UNKNOWN TTY--SOP EXIT CODE f PID c

[60]  ____________________________________________________________
      REPT CSOP WILL NOT OVERWRITE FILE e

[61]  ____________________________________________________________
      REPT CSOP DIOP STATE CHANGE TO FLT_SIMPLEX - MAX_DB_SEGS_INCORE = m

[62]  ____________________________________________________________
      REPT CSOP DIOP STATE CHANGE TO FLT_DUPLEX - MAX_DB_SEGS_INCORE = m

[63]  ____________________________________________________________
      REPT CSOP STORE ERROR NO COMMON SEGMENT SPACE MGRERR=l

[64]  ____________________________________________________________
      REPT CSOP CANNOT RETRIEVE FILENAME FROM n LOCATION
        MGRERR: l JOBID: h UTILID: p [OMDB KEY:q]
        LOCATION           ADDRESS
        PREHDR LOC n   ADDR o
        TBLHDR LOC n   ADDR o
        POSTHDR LOC n   ADDR o
```

2. REASON FOR OUTPUT

To report errors detected by the spooler during initialization.

When formats having no OMDB key value are printed, other output messages may then appear in primitive mode.

Format 1 is printed if the equipment configuration database (ECD) contains inconsistent device definitions.

Formats 2 and 9 are printed if the ACKDB failed to be initialized from the disk or could not be added to the invoking process' address space.

Formats 3, 16, and 21 are printed if coordinator of spooler processes (CSOP) cannot access the plant measurements database.

Formats 4, 5, 7, 8, 9, 10, 13, 14, 15, 17, and 18 are printed if errors occur while trying to read an OMDB key into memory.

Format 6 is printed if there is an inconsistency in the ECD device definition. Either the terminal should be a dialogue device and is not or the SOP should be temporary and is not.

Format 11 is printed is CSOP fails to save the stack in preparation for handling a phase 1.

Format 12 is printed if CSOP is unable to create a dialogue shell.

Format 19 is printed when CSOP cannot remove the output file associated with Format 21.

Format 20 is printed if CSOP cannot send a message to SOP '`c`'.

Formats 22 and 27 are printed when CSOP cannot open or write the output file.

Format 23 is printed when CSOP creates a new spooler output process.

Format 24 is printed when a device record is deleted in the ECD.

Formats 25 and 29 are printed when CSOP is unable to create a new spooler output process.

Format 26 is printed if CSOP is unable to print to the receive-only printer (ROP).

Format 28 is printed if CSOP is unable to remove a file.

Format 29 is printed if CSOP is unable to fork a SOP process.

Formats 30, 43, 44, and 59 indicate a SOP work queue error. In the case of 43, the locations and addresses of the message headers are printed.

Format 31 is printed if memory cannot be allocated for CSOP's master work queue. This is a fatal error since no messages can be stored internally for later output.

Formats 32, 45, and 46 are printed when CSOP is unable to queue incoming messages; therefore, messages will be lost.

Format 33 is printed when the overload condition has been cleared.

Format 34 is printed if CSOP cannot enable the receipt of messages.

Format 35 is printed when a new device record is defined in the ECD.

Format 36 is printed if a class is defined that contains no output devices.

Format 37 is printed when there was no entry in the work queue for '`a`'.

Formats 38 and 41 are printed when a dialogue shell is terminated.

Format 39 is printed if port one is not free. CSOP will attempt to kill the process that is attached to port one and connect itself.

Format 40 is printed when the ECD record for a device or class is changed.

Format 42 is printed when a dialogue shell is created.

Format 47 is printed if the queue size for a device changed and it is not large enough to hold all the current outstanding messages.

Format 48, 49, and 57 indicate ECD record problems.

Format 50 is printed if CSOP can not get enough memory to store the definition of an output device.

Format 51 is printed when CSOP does not have enough memory to store the definition of a class.

Format 52 is printed if CSOP in unable to allocate memory for the work queue associated with a particular SOP.

Format 53 is printed if CSOP was unable to attach to the ECD. If this appears before CSOP initializes the master work queue, the message will go to the spooler log until CSOP is restarted.

Formats 53, 57 and 58 indicate ECD access and/or update errors.

Format 54 is printed when the common segment to exchange work queue information between CSOP and SIP cannot be created.

Format 55 is printed when CSOP is unable to allocate space to store information about a new tty entry.

Format 56 is printed when a tty entry is requested to be removed from CSOP's internal tty list and it cannot find an entry for the specified device or class.

Format 59 is printed by CSOP when cleaning up after a dead SOP if it cannot find a tty entry associated with the SOP.

Format 60 is printed when CSOP finds that the output file is not empty. This is done to ensure that existing files are not destroyed or inappropriately changed.

Formats 61 and 62 go to the spooler log to indicate that a state change has occurred in the system. Format 61 indicates that the system is in the SIMPLEX mode and format 62 indicates that the system is in DUPLEX mode.

Format 63 indicates that CSOP has run out of common segment space. This space is used to store output messages that are being formatted or formatted messages that have not yet been output.

Format 64 indicates that CSOP cannot retrieve the name of a file from its common segment. CSOP needs the filename so that the file can be removed.

3. VARIABLE FIELD DEFINITIONS

`a` = Name of an output device or class.

`b` = Reason a device could not be added to CSOP's device table.

`c` = Process ID of SOP.

`d` = String containing additional information.

`e` = Filename.

`f` = System error number.

`g` = Completion code.

`h` = Job ID.

`i` = Pathname.

`j` = Segment name.

`k` = Spooler output class.

`l` = Error number assigned by CSOP.

`m` = Maximum number of active OMDB segments.

`n` = String identifying where data is stored. "`NO TEXT`" indicates that there is no data stored.

`o` = Address in CSOP's common segment.

`p` = Utility ID.

`q` = OMDB key of the report.

4. ACTION TO BE TAKEN

For messages appearing on the ROP in the event of a fatal fault, CSOP will be restarted. This clears the problem. No action should be taken unless the message is repeated. To restore system sanity, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Messages written to the spooler log require no action.

For Format 19, the file should be removed manually.

For Format 60, determine the input message that specified this output file and retry that message with a different filename option.

Formats 2, 4 - 11, 13 - 15, 17, 18, 31 - 34, 39, 45, 46, 50 - 54, and 63 do not have OMDB keys. These are output messages that cannot be formatted and spooled, due to the state of the system at the time of printing.

For Format 64, if /tmp space is limited, check for files in the form "/tmp/OM" and remove any of these that do not have a time stamp within the last six hours.
Note: There is one report of Format 64 for each file to be removed.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	599
2, 4 - 11, 13, 14, 15, 17, 18, 31 - 34, 39, 45, 46, 50 - 54, 63	None
3, 12, 16, 21, 23 - 25, 28, 29, 35, 36, 38, 40, 41, 47, 49, 55 - 58, 61, 62	201
19, 22, 26, 27, 30, 44, 59, 60	202
20	203
37	204
42	205

43	206
64	745

Input Message(s):

```
OP:LOG
OP:ST-PORTS
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

REPT:CSOP-FORMAT

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT CSOP FORMATTING
        BAD KEY PASSED BY CLIENT
        KEY:  a PID:  b  UTILITY ID:   c

[2]   ____________________________________________________________
      REPT CSOP FORMATTING
        CLIENT PARAMETER ACCESS PROBLEM
        KEY:  a PID:  b  UTILITY ID:  c

[3]   ____________________________________________________________
      REPT CSOP FORMATTING
        INCONSISTENT CLIENT DATA
        KEY:  a PID:  b  UTILITY ID:  c

[4]   ____________________________________________________________
      REPT CSOP FORMATTING
        UNKNOWN ENUMERATION VALUE
        KEY:  a PID:  b  UTILITY ID:  c

[5]   ____________________________________________________________
      REPT CSOP FORMATTING
        BAD HANDLING PRIORITY PASSED BY CLIENT
        KEY:  a PID:  b  UTILITY ID:  c

[6]   ____________________________________________________________
      REPT CSOP FORMATTING
        PROBLEM STORING MESSAGE TEXT
        KEY:  a PID:  b  UTILITY ID:  c

[7]   ____________________________________________________________
      REPT CSOP FORMATTING
        BAD TRANSLATION TYPE
        KEY:  a PID:  b  UTILITY ID:  c

[8]   ____________________________________________________________
      REPT CSOP FORMATTING
        INVALID LANGUAGE PASSED BY CLIENT
        KEY:  a PID:  b  UTILITY ID:  c

[9]   ____________________________________________________________
      REPT CSOP FORMATTING
        PROBLEM ALLOCATING MEMORY
        KEY:  a PID:  b  UTILITY ID:  c
```

2. REASON FOR OUTPUT

To report that an error has occurred during the formatting of a format-and-spool request.

3. VARIABLE FIELD DEFINITIONS

`a` = The key that was requested.

`b` = The process ID of the requesting process.

`c` = The utility ID of the requesting process.

All variables for REPT:CSOP-FORMAT messages are taken from the information passed by the requesting (client) process.

4. ACTION TO BE TAKEN

For Formats 1 - 5, a problem in requesting process code is indicated. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 6, coordinator of spooler output process (CSOP) is unable to store the formatted text. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. CSOP will attempt to store the text in a file in /tmp if CSOP's common segment is full. This message indicates that the attempted use of a file failed.

For Format 7, a software problem with the output message database (OMDB) is indicated. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 8, a software error in the language passed to CSOP is indicated. There are currently two valid values, P Format 9 indicates a failure in CSOP to allocate memory while processing the output message. This indicates that memory resources are temporarily unavailable resulting in the loss of the requested output message.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
All	11

Output Appendix(es):

`APP:OMDB-X-REF`

REPT:CSOP-IN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT CSOP IN SERVICE
  OMDB SEGMENTS:
  TOTAL      ACTIVE
    a          b
```

2. REASON FOR OUTPUT

To report initialization of the coordinator of spooler output processors (CSOP) process.

3. VARIABLE FIELD DEFINITIONS

`a` = Total number of segments that the output message database (OMDB) requires.

`b` = Number of segments that are active (incore).

Note: The number of segments is variable depending on the current state of the system and the equipment configuration database (ECD) setup. When the system is in DUPLEX mode, the number of active segments are determined from the splrinfo record information in the ECD. When the system is in SIMPLEX mode, the number of active segments are in the total number of output buffer segments required by the OMDB.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
All	0

Output Appendix(es):

`APP:OMDB-X-REF`

REPT:CSOP-PRIM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT CSOP PRIMITIVE MODE FOR KEY a
  0xbbbb:  cccccccc  [cccccccc  cccccccc  cccccccc]
```

2. REASON FOR OUTPUT

To report that the output message data base (OMDB) cannot be accessed and therefore a message cannot be formatted. Variables passed by the requesting process are given in the form of a hex dump.

3. VARIABLE FIELD DEFINITIONS

`a` = The key that was requested.

`b` = The offset of the first byte of the line.

`c` = A hex dump of one memory word. (Due to limits of the primitive mode buffer, this may not be a complete dump of all variables.)

4. ACTION TO BE TAKEN

Primitive mode indicates a problem in accessing the incore OMDB. The current status of the file /cft/spl/omdb and disk availability should be checked. If the file exists and the disk is ACTIVE, execute the ACTV:OMDB message. If this is not successful, the problem may be insufficient memory available to bring the OMDB incore; refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

Output Appendix(es):

`APP:OMDB-X-REF`

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REPT:CU-A

Software Release: 5E10 only
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

[1]
```
REPT CU a b
```

[2]
```
REPT CU a ERROR INTERRUPT c d
```

[3]
```
REPT CU a MAINTENANCE INTERRUPT d
```

2. REASON FOR OUTPUT

To indicate the status of the specified control unit (CU).

Format 1 is printed as the result of a change in the major state of the CU, while Formats 2 and 3 indicate that an error interrupt has occurred.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number (0 or 1).

`b` = Major state. Valid value(s):
- `ACTIVE` = Processor is online and not in a recovery state.
- `INITIALIZING` = Processor has undergone an initialization, and the initialization interval has not elapsed.
- `OUT OF SERVICE` = Processor is available for use but its memory is not up-to-date.
- `STANDBY` = Processor is updated and available for use.
- `UNAVAILABLE` = Processor is unavailable under any circumstance (for example, forced off-line).

`c` = Interrupt type, in hexadecimal notation. Valid value(s):
- `2` = Emergency action interface (EAI) error.
- `8` = Noncorrectable parity failure in main store (my store C).
- `0B` = Invalid maintenance channel order.
- `0C` = Other store controller error (other store A).
- `0D` = Other store refresh or correctable parity failure (other store D).
- `0E` = Other store noncorrectable memory failure (other store C).
- `0F` = Other store timeout.
- `10` = Channel error.
- `11` = IO response error.
- `12` = IO addressing error.
- `13` = Parity divert error.
- `14` = Refresh or correctable parity memory failure (my store D).
- `15` = Protection violation.
- `16` = Virtual address out of range (very large main memory (VLMM) only).
- `17` = Out-of-range memory reference.

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18 = Out-of-range memory reference (other store).
19 = Privilege violation.
1A = Bad alignment on memory reference.
1B = Illegal operand.
1C = Illegal instruction.
1D = Illegal stack switch.
1E = No interrupt source set when microcode interrupt handler entered.
20 = Direct memory access (DMA) detected fatal hardware fault in on-line main store.
21 = DMA detected out-of-range memory reference.
22 = DMA detected noncorrectable parity failure in main store.
25 = DMA error: bad parity on direct I/O bus (DIO).
26 = DMA error: bad parity on read.
27 = DMA error: DMA random access memory (RAM) parity failure.
28 = DMA error: DMA incrementer parity failure.
29 = DMA error: DIO ready failure.
2A = DMA error: DIO all seems well failure.
2B = DMA error: DIO acknowledge failure.
2C = DMA error: central control input output (CCIO) data parity failure.
2D = DMA error: CCIO message failure.
2E = DMA error: DMA read only message (ROM) sequencer parity failure.
2F = DMA error: Address error.
30 = DMA error: Channel request error.
32 = Processor error interrupt but no bits are set in error registers.
33 = Bad operating system trap (OST) detected by the kernel.

d = If supplemental data is gathered for this error, it will be placed on the appropriate logfile. This identification flag can be used to find the entry on the logfile.

For Format 2, the error data will be in either the ERLOG or MEMLOG logfile. The logfile name is given in the Action To Be Taken for each interrupt type.

For Format 3, the entry is always in the PMLOG file.

Items can be extracted from a logfile using the OP:LOG input message, where ERLOG or MEMLOG is the logfile being searched and the keyword (KW) argument is 'd'-the sequence number given above.

4. ACTION TO BE TAKEN

If a Format 2 message is output, follow the appropriate instructions for the specified interrupt type as given in Exhibit A.

Exhibit A: Interrupt Action Table

Interrupt Type	Action
2	This interrupt occurs only on 3B21D machines. It indicates that an error has occurred on the on-line CC EAI circuitry. Analyze the accompanying REPT-ERSLOT output message and take appropriate action as stated in the REPT-ERSLOT output manual pages.
8	This error typically implicates a memory array board. Refer to the Error Interrupt Handler Faults Table in manual 235-105-220, Corrective Maintenance, to determine the faulty memory array board. Run all the phases of the main store controller (MASC) diagnostics, including the demand phases. If a failure occurs, replace the faulty pack. If there is no failure, but there are repeated

	errors, try rotating the pack to another slot to see if the error follows the pack.
0B	If this is an isolated failure, no action is required. If repeated failures occur, the maintenance channel may have a fault. Check the cabling and run diagnostics. The error entry is in ERLOG.
0C	This error may implicate the store controller or a store array. Calculate the faulty store array and run diagnostics as for interrupt type 8. If there is no fault, restore the unit to service.
0D	This error typically implicates a memory array board. Refer to the Error Interrupt Handler Faults Table in manual 235-105-220, Corrective Maintenance, to determine the faulty memory array board.
0E	This error typically implicates a memory array board. Refer to the Error Interrupt Handler Faults Table in manual 235-105-220, Corrective Maintenance, to determine the faulty memory array board.
0F	Check the update cables and run diagnostics on the off-line main store and update circuits. The error data is in ERLOG.
10	Get the channel number and channel address from the corresponding entry in ERLOG. If the address corresponds to a 3x6 code but the channel is unequipped, the data base may contain an incorrect entry. If the address corresponds to a valid channel, run diagnostics on that channel and check the cabling. If the address does not correspond to a valid 3x6 code, check the data base. If the error occurs on one processor and not the other, run diagnostics on the processor that encounters the fault.
11	Get the hardware status register from the corresponding entry in ERLOG. The channel address can be determined as follows: channel address= (hardware status register & 0x3f0)<<4. If the address corresponds to a 3x6 code but the channel is unequipped, the data base may contain an incorrect entry. If the address corresponds to a valid channel, run diagnostics on that channel and check the cabling. If the address does not correspond to a valid 3x6 code, check the data base. If the error occurs on one processor and not the other, run diagnostics on the processor that encounters the fault.
12	Get the hardware status register from the corresponding entry in ERLOG. The channel address can be determined as follows: channel address= (hardware status register & 0x3f0)<<4. If the address corresponds to a 3x6 code but the channel is unequipped, the data base may contain an incorrect entry. If the address corresponds to a valid channel, run diagnostics on that channel and check the cabling. If the address does not correspond to a valid 3x6 code, check the data base. If the error occurs on one processor and not the other, run diagnostics on the processor that encounters the fault.
13	Get the hardware status register from the corresponding entry in ERLOG. The channel address can be determined as follows: channel address= (hardware status register & 0x3f0)<<4. If the address corresponds to a 3x6 code but the channel is unequipped, the data base may contain an incorrect entry. If the address corresponds to a valid channel, run diagnostics on that channel and check the cabling. If the address does not correspond to a valid 3x6 code, check the data base. If the error occurs on one processor and not the other, run diagnostics on the processor that encounters the fault.
14	This error typically implicates a memory array board. Refer to the Error Interrupt Handler Faults Table in manual 235-105-220, Corrective Maintenance, to determine the faulty memory array board.
15	This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, pa and psw, should be reported according to local procedures, including the error log data.
16	This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, pa and psw, should be reported according to local procedures, including the error log data.
17	This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, pa and psw, should be reported according to local procedures, including the error log data.
18	This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, pa and psw, should be reported according to local procedures, including the error log data.
19	This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, pa and psw, should be reported according

	to local procedures, including the error log data.
1A	This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, pa and psw, should be reported according to local procedures, including the error log data.
1C	This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, pa and psw, should be reported according to local procedures, including the error log data.
1D	This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, pa and psw, should be reported according to local procedures, including the error log data.
1E	If repeated failures occur, run diagnostics on the processor encountering the fault. The error data is recorded in ERLOG.
20	This error can occur only if hardware checks are blocked. The corresponding ERLOG entry contains the direct memory access (DMA) store data register. This can be used to determine the bad memory location. Diagnose the main store if there are multiple errors of this type.
21	This error is the same as 15, except it was detected by the DMA and is a fatal DMA error. Action is the same as 15. The error data is recorded in ERLOG.
22	This error is the same as 8, except that it was detected by the DMA and is a fatal DMA error. Action is the same as 8. The error data is recorded in ERLOG.
25	This error is in a channel under the DMA but is detected by the DMA. The corresponding entry in ERLOG indicates the channel which caused the error and gives the contents of its status register when the error occurred. Diagnose the channel if there are multiple errors.
26	This is a DMA internal error. The corresponding entry in ERLOG contains data which may help in determining the error. Run diagnostics on the indicated DMA.
27	This is a DMA internal error. The corresponding entry in ERLOG contains data which may help in determining the error. Run diagnostics on the indicated DMA.
28	This is a DMA internal error. The corresponding entry in ERLOG contains data which may help in determining the error. Run diagnostics on the indicated DMA.
29	This error is in a channel under the DMA but is detected by the DMA. The corresponding entry in ERLOG indicates the channel which caused the error and gives the contents of its status register when the error occurred. Diagnose the channel if there are multiple errors.
2A	This error is in a channel under the DMA but is detected by the DMA. The corresponding entry in ERLOG indicates the channel which caused the error and gives the contents of its status register when the error occurred. Diagnose the channel if there are multiple errors.
2B	This error is in a channel under the DMA but is detected by the DMA. The corresponding entry in ERLOG indicates the channel which caused the error and gives the contents of its status register when the error occurred. Diagnose the channel if there are multiple errors.
2C	This is a DMA internal error. The corresponding entry in ERLOG contains data which may help in determining the error. Run diagnostics on the indicated DMA.
2D	This is a DMA internal error. The corresponding entry in ERLOG contains data which may help in determining the error. Run diagnostics on the indicated DMA.
2E	This is a DMA internal error. The corresponding entry in ERLOG contains data which may help in determining the error. Run diagnostics on the indicated DMA.
2F	This error is in a channel under the DMA but is detected by the DMA. The corresponding entry in ERLOG indicates the channel which caused the error and gives the contents of its status register when the error occurred. Diagnose the channel if there are multiple errors.
30	This error is in a channel under the DMA but is detected by the DMA. The corresponding entry in ERLOG indicates the channel which caused the error and gives the contents of its status register when the error occurred. Diagnose the channel if there are multiple errors.
32	If this problem persists, diagnose the faulty CU. This can be an improperly wired interrupt source register. The error data is recorded in ERLOG.
33	The kernel has detected a bad operating system trap. Identification of the offending process is possible by examining the ERLOG logfile or the corresponding error data printed on the receive-only printer (ROP).

For Format 3 errors, refer to the Corrective Maintenance manual for analysis of maintenance interrupt data. The analysis is done similarly to the postmortem analysis and includes:

- The source will always be software or hardware.
- For software sources, the utility id and panic code determine the cause (Refer to the Corrective

Maintenance manual).

- For hardware sources, examine the MICROCODE SAVE STATE for
  - -- Stop and switch errors in the error register.
  - -- A 1 in bits 6 or 7 of the timer register (TMR), indicating the sanity timer fired.
  - -- A micro-interrupt error with either interrupts blocked system status register (SSR) or execution at level 15 process status word (PSW).

Any hardware error implicates the sanity of the faulty CU while, in general, software errors are caused by program malfunctions. However, any recurring error on one CU implicates that CU. Run diagnostics, including demand phases if necessary.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
3	425

Input Message(s):

```
DEL:LOG
DGN:CU
OP:LOG
OP:MEMERRS
```

Output Message(s):

```
DGN:CU
DGN:CU-MASC
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:CU-B

Software Release: 5E11 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

[1]
```
REPT CU a b
```

[2]
```
REPT CU a ERROR INTERRUPT c d
```

[3]
```
REPT CU a MAINTENANCE INTERRUPT d
```

2. REASON FOR OUTPUT

To indicate the status of the specified control unit (CU).

Format 1 is printed as the result of a change in the major state of the CU, while Formats 2 and 3 indicate that an error interrupt has occurred.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number (0 or 1).

`b` = Major state. Valid value(s):
- `ACTIVE` = Processor is online and not in a recovery state.
- `INITIALIZING` = Processor has undergone an initialization, and the initialization interval has not elapsed.
- `OUT OF SERVICE` = Processor is available for use but its memory is not up-to-date.
- `REMOVED` = Processor state has been changed to `OUT OF SERVICE` or `UNAVAILABLE`.
- `STANDBY` = Processor is updated and available for use.
- `UNAVAILABLE` = Processor is unavailable under any circumstance (for example, forced off-line).

`c` = Interrupt type, in hexadecimal notation. Valid value(s):
- `2` = Emergency action interface (EAI) error.
- `8` = Noncorrectable parity failure in main store (my store C).
- `0B` = Invalid maintenance channel order.
- `0C` = Other store controller error (other store A).
- `0D` = Other store refresh or correctable parity failure (other store D).
- `0E` = Other store noncorrectable memory failure (other store C).
- `0F` = Other store timeout.
- `10` = Channel error.
- `11` = IO response error.
- `12` = IO addressing error.
- `13` = Parity divert error.
- `14` = Refresh or correctable parity memory failure (my store D).
- `15` = Protection violation.
- `16` = Virtual address out of range (very large main memory (VLMM) only).

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17 = Out-of-range memory reference.
18 = Out-of-range memory reference (other store).
19 = Privilege violation.
1A = Bad alignment on memory reference.
1B = Illegal operand.
1C = Illegal instruction.
1D = Illegal stack switch.
1E = No interrupt source set when microcode interrupt handler entered.
20 = Direct memory access (DMA) detected fatal hardware fault in on-line main store.
21 = DMA detected out-of-range memory reference.
22 = DMA detected noncorrectable parity failure in main store.
25 = DMA error: bad parity on direct I/O bus (DIO).
26 = DMA error: bad parity on read.
27 = DMA error: DMA random access memory (RAM) parity failure.
28 = DMA error: DMA incrementer parity failure.
29 = DMA error: DIO ready failure.
2A = DMA error: DIO all seems well failure.
2B = DMA error: DIO acknowledge failure.
2C = DMA error: central control input output (CCIO) data parity failure.
2D = DMA error: CCIO message failure.
2E = DMA error: DMA read only message (ROM) sequencer parity failure.
2F = DMA error: Address error.
30 = DMA error: Channel request error.
32 = Processor error interrupt but no bits are set in error registers.
33 = Bad operating system trap (OST) detected by the kernel.

d = If supplemental data is gathered for this error, it will be placed on the appropriate logfile. This identification flag can be used to find the entry on the logfile.

For Format 2, the error data will be in either the ERLOG or MEMLOG logfile. The logfile name is given in the Action To Be Taken for each interrupt type.

For Format 3, the entry is always in the PMLOG file.

Items can be extracted from a logfile using the OP:LOG input message, where ERLOG or MEMLOG is the logfile being searched and the keyword (KW) argument is 'd'-the sequence number given above.

4. ACTION TO BE TAKEN

If a Format 2 message is output, follow the appropriate instructions for the specified interrupt type as given in Exhibit A.

Exhibit A: Interrupt Action Table

Interrupt Type	Action
2	This interrupt occurs only on 3B21D machines. It indicates that an error has occurred on the on-line CC EAI circuitry. Analyze the accompanying REPT-ERSLOT output message and take appropriate action as stated in the REPT-ERSLOT output manual pages.
8	This error typically implicates a memory array board. Refer to the Error Interrupt Handler Faults Table in manual 235-105-220, Corrective Maintenance, to determine the faulty memory array board. Run all the phases of the main store controller (MASC) diagnostics, including the demand

	phases. If a failure occurs, replace the faulty pack. If there is no failure, but there are repeated errors, try rotating the pack to another slot to see if the error follows the pack.
0B	If this is an isolated failure, no action is required. If repeated failures occur, the maintenance channel may have a fault. Check the cabling and run diagnostics. The error entry is in ERLOG.
0C	This error may implicate the store controller or a store array. Calculate the faulty store array and run diagnostics as for interrupt type 8. If there is no fault, restore the unit to service.
0D	This error typically implicates a memory array board. Refer to the Error Interrupt Handler Faults Table in manual 235-105-220, Corrective Maintenance, to determine the faulty memory array board.
0E	This error typically implicates a memory array board. Refer to the Error Interrupt Handler Faults Table in manual 235-105-220, Corrective Maintenance, to determine the faulty memory array board.
0F	Check the update cables and run diagnostics on the off-line main store and update circuits. The error data is in ERLOG.
10	Get the channel number and channel address from the corresponding entry in ERLOG. If the address corresponds to a 3x6 code but the channel is unequipped, the data base may contain an incorrect entry. If the address corresponds to a valid channel, run diagnostics on that channel and check the cabling. If the address does not correspond to a valid 3x6 code, check the data base. If the error occurs on one processor and not the other, run diagnostics on the processor that encounters the fault.
11	Get the hardware status register from the corresponding entry in ERLOG. The channel address can be determined as follows: channel address= (hardware status register). If the address corresponds to a 3x6 code but the channel is unequipped, the data base may contain an incorrect entry. If the address corresponds to a valid channel, run diagnostics on that channel and check the cabling. If the address does not correspond to a valid 3x6 code, check the data base. If the error occurs on one processor and not the other, run diagnostics on the processor that encounters the fault.
12	Get the hardware status register from the corresponding entry in ERLOG. The channel address can be determined as follows: channel address= (hardware status register). If the address corresponds to a 3x6 code but the channel is unequipped, the data base may contain an incorrect entry. If the address corresponds to a valid channel, run diagnostics on that channel and check the cabling. If the address does not correspond to a valid 3x6 code, check the data base. If the error occurs on one processor and not the other, run diagnostics on the processor that encounters the fault.
13	Get the hardware status register from the corresponding entry in ERLOG. The channel address can be determined as follows: channel address= (hardware status register). If the address corresponds to a 3x6 code but the channel is unequipped, the data base may contain an incorrect entry. If the address corresponds to a valid channel, run diagnostics on that channel and check the cabling. If the address does not correspond to a valid 3x6 code, check the data base. If the error occurs on one processor and not the other, run diagnostics on the processor that encounters the fault.
14	This error typically implicates a memory array board. Refer to the Error Interrupt Handler Faults Table in manual 235-105-220, Corrective Maintenance, to determine the faulty memory array board.
15	This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, pa and psw, should be reported according to local procedures, including the error log data.
16	This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, pa and psw, should be reported according to local procedures, including the error log data.
17	This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, pa and psw, should be reported according to local procedures, including the error log data.
18	This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, pa and psw, should be reported according to local procedures, including the error log data.
19	This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those

	implicating the same process as determined by utility ID, pa and psw, should be reported according to local procedures, including the error log data.
1A	This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, pa and psw, should be reported according to local procedures, including the error log data.
1C	This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, pa and psw, should be reported according to local procedures, including the error log data.
1D	This is a software error. Obtain the entry from ERLOG concerning the error. Persistent errors, those implicating the same process as determined by utility ID, pa and psw, should be reported according to local procedures, including the error log data.
1E	If repeated failures occur, run diagnostics on the processor encountering the fault. The error data is recorded in ERLOG.
20	This error can occur only if hardware checks are blocked. The corresponding ERLOG entry contains the direct memory access (DMA) store data register. This can be used to determine the bad memory location. Diagnose the main store if there are multiple errors of this type.
21	This error is the same as 15, except it was detected by the DMA and is a fatal DMA error. Action is the same as 15. The error data is recorded in ERLOG.
22	This error is the same as 8, except that it was detected by the DMA and is a fatal DMA error. Action is the same as 8. The error data is recorded in ERLOG.
25	This error is in a channel under the DMA but is detected by the DMA. The corresponding entry in ERLOG indicates the channel which caused the error and gives the contents of its status register when the error occurred. Diagnose the channel if there are multiple errors.
26	This is a DMA internal error. The corresponding entry in ERLOG contains data which may help in determining the error. Run diagnostics on the indicated DMA.
27	This is a DMA internal error. The corresponding entry in ERLOG contains data which may help in determining the error. Run diagnostics on the indicated DMA.
28	This is a DMA internal error. The corresponding entry in ERLOG contains data which may help in determining the error. Run diagnostics on the indicated DMA.
29	This error is in a channel under the DMA but is detected by the DMA. The corresponding entry in ERLOG indicates the channel which caused the error and gives the contents of its status register when the error occurred. Diagnose the channel if there are multiple errors.
2A	This error is in a channel under the DMA but is detected by the DMA. The corresponding entry in ERLOG indicates the channel which caused the error and gives the contents of its status register when the error occurred. Diagnose the channel if there are multiple errors.
2B	This error is in a channel under the DMA but is detected by the DMA. The corresponding entry in ERLOG indicates the channel which caused the error and gives the contents of its status register when the error occurred. Diagnose the channel if there are multiple errors.
2C	This is a DMA internal error. The corresponding entry in ERLOG contains data which may help in determining the error. Run diagnostics on the indicated DMA.
2D	This is a DMA internal error. The corresponding entry in ERLOG contains data which may help in determining the error. Run diagnostics on the indicated DMA.
2E	This is a DMA internal error. The corresponding entry in ERLOG contains data which may help in determining the error. Run diagnostics on the indicated DMA.
2F	This error is in a channel under the DMA but is detected by the DMA. The corresponding entry in ERLOG indicates the channel which caused the error and gives the contents of its status register when the error occurred. Diagnose the channel if there are multiple errors.
30	This error is in a channel under the DMA but is detected by the DMA. The corresponding entry in ERLOG indicates the channel which caused the error and gives the contents of its status register when the error occurred. Diagnose the channel if there are multiple errors.
32	If this problem persists, diagnose the faulty CU. This can be an improperly wired interrupt source register. The error data is recorded in ERLOG.
33	The kernel has detected a bad operating system trap. Identification of the offending process is possible by examining the ERLOG logfile or the corresponding error data printed on the receive-only printer (ROP).

For Format 3 errors, refer to the Corrective Maintenance manual for analysis of maintenance interrupt data. The analysis is done similarly to the postmortem analysis and includes:

- The source will always be software or hardware.

- For software sources, the utility id and panic code determine the cause (Refer to the Corrective Maintenance manual).
- For hardware sources, examine the MICROCODE SAVE STATE for
  - -- Stop and switch errors in the error register.
  - -- A 1 in bits 6 or 7 of the timer register (TMR), indicating the sanity timer fired.
  - -- A micro-interrupt error with either interrupts blocked system status register (SSR) or execution at level 15 process status word (PSW).

Any hardware error implicates the sanity of the faulty CU while, in general, software errors are caused by program malfunctions. However, any recurring error on one CU implicates that CU. Run diagnostics, including demand phases if necessary.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
3	425

Input Message(s):

```
DEL:LOG
DGN:CU
OP:LOG
OP:MEMERRS
```

Output Message(s):

```
DGN:CU
DGN:CU-MASC
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:CURSTRMV

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]  ____________________________________________________________
     REPT CURSTRMV FAULT TYPE a UNIT = b ASSERT  = c

[2]  ____________________________________________________________
     REPT CURSTRMV FAULT TYPE a UNIT = b
       MICROSTORE PUMP FAILED

[3]  ____________________________________________________________
     REPT CURSTRMV FAULT TYPE a UNIT = b
       PHYSICAL MEMORY PUMP FAILED

[4]  ____________________________________________________________
     REPT CURSTRMV FAULT TYPE a UNIT = b
       UPDATE FAILED IN MEMORY BLOCK d

[5]  ____________________________________________________________
     REPT CURSTRMV FAULT TYPE a INACCESSIBLE RID = e
       ASSERT  = c

[6]  ____________________________________________________________
     REPT CURSTRMV FAULT TYPE a CHECKSUM FAILED IN SLOT f
       ASSERT = c

[7]  ____________________________________________________________
     REPT CURSTRMV CU RESTORE CONTINUING,DIAGNOSTIC
       FAILURE IN NDN-CRITICAL UNIT

[8]  ____________________________________________________________
     REPT CURSTRMV FAULT TYPE a UNIT = b
       OOS CU FORCED OFFLINE
```

2. REASON FOR OUTPUT

To report a fault condition in the control unit restore/remove (CURSTRMV) process. Format 5 is printed when the name of the unit can not be determined in response to manual and automatic RMV/RST request.

3. VARIABLE FIELD DEFINITIONS

a = One or more of the following fault types. Valid value(s):

- BOOT = Bootfile access problem.
- CURS = CURSTRMV internal failure.
- ECDA = Equipment configuration data base (ECD) access problem.
- ECDD = ECD data invalid.
- EEIH = Processor control process error interrupt handler (PCPEIH) error.
- EMEM = Memory size from ECD different from equipped memory size.
- EMM = EMM straps do not match on both control units (CU).

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EPCP	= Processor control process maintenance driver (PCPMD) error.
FOFL	= Problem with the system status register (SSR) forced offline bit.
IARG	= Invalid argument.
MPF	= Microstore pump failed.
OPCP	= Can't open process control process maintenance driver(PCPMD).
OSPL	= Can't open spooler.
PMPF	= Physical memory pump failed.
RSTCOD	= Restore code access problem.
RTS	= Could not send message to RTS.
UCOD	= Could not load micro code.
UF	= Update failed.
VTOC	= Volume table of contents (VTOC) access problem.

b = Name and number of unit.

c = Identification number (ASSERT number) of the fault in the CURSTRMV process.

d = Starting address of the memory block.

e = Record ID (RID) of the unit control block (UCB) record in the equipment configuration data base (ECD).

f = Microstore slot number of failing checksum.

4. ACTION TO BE TAKEN

Messages referring to a microstore pump failure, a physical memory pump failure, or an update failure generally indicate hardware problems with the off-line CU. If the message indicates the off-line CU is forced, clear the force from the emergency action interface (EAI) page on the maintenance terminal. For the EMM type message, make sure the EMM straps are either "on" or "off" on both CUs. For other cases, save a copy of the output message and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	421
2, 3, 4, 8	422
5	420
6	423
7	433

Output Appendix(es):

APP:OMDB-X-REF

77. REPT:D

REPT:DAP-ABORT-LE

Software Release: 5E10 and later
Message Class: INT
Application: 5
Type: Output

1. FORMAT

```
REPT DAP ABORT LIMIT EXCEEDED              DAP = a
  PROCESS WILL ATTEMPT RESTART IN b MINUTES
```

2. REASON FOR OUTPUT

This message is generated when a DMERT application process (DAP) has aborted and will not be immediately recreated because a threshold number of attempts has already been attempted.

This message pertains to DAPs that can abort without causing an escalation to a system-wide initialization or can include these "essential" DAPs if the emergency action interface (EAI) software checks are inhibited.

Initially, when such a DAP aborts, it is restarted immediately; however, when a specified limit on the number recreations is exceeded, the recreation is delayed in order to conserve system resources. When the DAP is in this delayed creation state, it can be immediately recreated manually.

3. VARIABLE FIELD DEFINITIONS

a	= DAP aborted. Valid value(s):	
	AMDW1	= Automatic message accounting (AMA) disk writer kernel process stream 1.
	AMDW2	= Automatic message accounting (AMA) disk writer kernel process stream 2.
	APDL	= Attached processor data link process.
	CNIINIT	= Common network interface initialization kernel process.
	PUCR	= Pump control supervisor process.
	SMDIMP	= Switch maintenance diagnostic input message process.
	SMPSM	= Switch maintenance power switch monitor process.
b	= Restart delay time (in minutes).	

4. ACTION TO BE TAKEN

Refer to the output message REPT:DAP-ABORT-LE, and, using the input messages listed in the references section of the Output Messages manual page as a guide, enter an input message to reinitialize the aborted DAP if immediate recreation is desired. Otherwise the DAP is restarted automatically in the specified time.

5. ALARMS

Major.

6. REFERENCES

Input Message(s):

```
CLR:MINMODE-SM
INIT:AM-FPI
```

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```
INIT:CNI
SET:MINMODE-CNI
```

Other Manual(s):
235-105-250 *System Recovery*
235-190-120 *Common Channel Signaling Services Features*

REPT:DAP-INIT

Software Release: 5E10 and later
Message Class: INT
Application: 5
Type: Output

1. FORMAT

```
REPT DAP INIT FAILURE   DAP = a        EVENT = b
  SEQ STATE = c   REASON = d [e]
```

2. REASON FOR OUTPUT

To report that a DMERT application process (DAP) has failed to initialize and will not be automatically reinitialized by the application integrity monitor (AIM) process. This message will be generated if a DAP fails to get created due to a process manager error, if a DAP times out while either being created or while initializing, or if a DAP fails to complete some initialization sequence state.

3. VARIABLE FIELD DEFINITIONS

`a` = DAP that failed. Valid value(s):

`AMDW1`	= Automatic message accounting disk writer kernel process Number 1.
`AMDW2`	= Automatic message accounting disk writer kernel process Number 2.
`CCSINIT`	= Common channel signaling initialization kernel process.
`DMAN`	= Deferred maintenance administration and monitor *UNIX*® B process.
`PUCR`	= Pump control supervisor process.

`b` = Event number. Used to correlate several output messages with a given input message.

`c` = Sequence state of DAP that failed. Valid value(s):

```
COMMUNICATION-LINK-INIT
CREATE
ENABLE-FAULT-RECOVERY
ESSENTIAL-JOBS-OPERATIONAL
FULLY-OPERATIONAL
HARDWARE-INIT
SOFTWARE-INIT
```

`d` = Reason for DAP's failure. Valid value(s):

```
PMGR-ERROR
SEQ-STATE-UNSUCC
TIME-OUT
```

`e` = If '`d`' = `PMGR-ERROR`, error code passed to AIM from the process manager. Refer to the REPT:PMGR-ERR output message for an explanation.

4. ACTION TO BE TAKEN

In case of a process manager error, a REPT:PMGR-ERR output message will also be generated. Consult the

REPT:PMGR-ERR manual page for the action to be taken in this case. In case of a time-out or a sequence state failure, the DAP that failed should be reinitialized using one of the input messages listed below.

5. ALARMS

Major.

6. REFERENCES

Input Message(s):

```
CLR:MINMODE-CNI
INIT:CNI
SET:MINMODE-CNI
```

Output Message(s):

```
REPT:PMGR-ERROR
```

REPT:DATA-A

Software Release: 5E10 only
Message Class: ASRTMON,INT_MON, GENRMON
Application: 5
Type: Output

1. FORMAT

```
REPT {AM|SM=a|CMP=b-c d|MCTSI=a-b d|QGP=b-e|UNK UNK} DATA=f,g ENV=h SRC=i EVENT=j
  ADDR=k
  l [l...]
      .
      .
      .
```

2. REASON FOR OUTPUT

To report data automatically after a high-level initialization in the administrative module (AM), switching module (SM), communication module processor (CMP), or quad-link gateway processor (QGP), or after an SM or CMP offline verification during a retrofit.

This message is normally logged, but will also print in response to input message OP:POSTMORT.

During a retrofit the GENRMON message class is used. The ASRTMON message class is used for defensive check failure errors, otherwise, the INT_MON message class is used.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`UNK` = Unknown unit.

`a` = SM number.

`b` = Message switch (MSGS) side or MCTSI side.

`c` = Physical CMP number.

`d` = Processor being reported on. Valid value(s):

- `MATE` = Mate CMP.
- `MH0` = Message handler 0.
- `MH1` = Message handler 1.
- `MH2` = Message handler 2.
- `PRIM` = Primary CMP.

`e` = QGP number

`f` = Data dump type. Valid value(s):

- `ACCSDB` = The data dump consists of the toll and assistance automated calling card services data block indicated by the process control block (PCB) and process control block link area (PCBLA) data dumps with the same event number.
- `DCF-DATA` = The data dump relates to a defensive check in associated output messages.

EIS_LNK = The data dump consists of the External Information System (EIS) data block corresponding to the process identification (PID) indicated by the PCB and PCBLA data dumps with the same event number.
ESCAL-CNTS = The data dump consists of postmortem data from system integrity that identifies the values of escalation counters previous to the last high-level initialization.
INTJ-MSG = The data dump consists of the interject message being processed at the time of either an SPP or high-level initialization when interject was running.
LLCB = Raw data from the logical link control block (LLCB).
LMDB = Raw data from the link map data block (LMDB).
MH0-PM-DUMP = Raw data dump of unrecognizable post mortem messages.
OFFLINE-ESCAL-HIST = The data dump consists of postmortem data from system integrity, that identifies the values of escalation counts logged during the offline verification on the offline side of the SM.
OFFLINE-SPP-HIST = The data dump consists of postmortem data from system integrity that identifies all single process purges (SPPs) that occurred during the offline verification on the offline side of the SM.
PCB = The data dump consists of the process control block of the operating system for distributed switching (OSDS) process whose process ID (PID) is the block number field.
PCBLA = The data dump consists of the process control block linkage area of the OSDS process whose PID is the block number field.
POSDB = The data dump consists of the position data block of the position corresponding to the PID indicated by the PCB and PCBLA data dumps with the same event number.
SPP-HIST = The data dump consists of postmortem data from system integrity that identifies the SPP events previous to the most recent high-level initialization.
TAPOSDB = The data dump consists of the toll and assistance position data block of the position corresponding to the PID indicated by the PCB and PCBLA data dumps with the same event number.
UNKNOWN = The data dump consists of an unknown type.

g = The sequence number of the data being output in the message.

h = Environment in which the request was stimulated. Refer to the APP:ENVIR appendix in the Appendixes section of the Output Messages manual.

i = Source of the dump request. Valid value(s):
AUDR = Audit of the associated data structure.
DCF = Defensive check failure request.
DCFSPP = DCF deferred single process purge.
FR = Fault recovery.
SI = System integrity data.
SPP = Single process purge.
UNKNOWN = Unknown source.

j = Event number.

k = Physical address in hexadecimal of the block being dumped.

l = Data being reported in hexadecimal. Depending on the data dump type and the amount of data, this output could vary significantly. The greatest number of lines is five, while the greatest number of columns is eight. Each event is represented by two segments of data; therefore, each message at

most contains 20 events worth of information.

4. ACTION TO BE TAKEN

This information should be sent along with any trouble report concerning AM, SM, CMP, or QGP initialization to an appropriate technical support organization. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INIT:CMP-SPP
INIT:DSL
INIT:SM-SPP
OP:POSTMORT
```

Output Appendix(es):

```
APP:ENVIR
```

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-105-220 *Corrective Maintenance*
235-105-24x *Software Release Retrofit*

REPT:DATA-B

Software Release: 5E11 and later
Message Class: ASRTMON,INT_MON, GENRMON
Application: 5
Type: Output

1. FORMAT

```
REPT {AM|SM=a|CMP=b-c d|MCTSI=a-b d|QGP=b-e|UNK UNK} DATA=f,g ENV=h SRC=i EVENT=j
  ADDR=k
  l [l...]
      .
      .
      .
```

2. REASON FOR OUTPUT

To report data automatically after a high-level initialization in the administrative module (AM), switching module (SM), communication module processor (CMP), or quad-link gateway processor (QGP), or after an SM or CMP offline verification during a retrofit.

This message is normally logged, but will also print in response to input message OP:POSTMORT.

During a retrofit the GENRMON message class is used. The ASRTMON message class is used for defensive check failure errors, otherwise, the INT_MON message class is used.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`UNK` = Unknown unit.

`a` = SM number.

`b` = Message switch (MSGS) side or MCTSI side.

`c` = Physical CMP number.

`d` = Processor being reported on. Valid value(s):

- `MATE` = Mate CMP.
- `MH0` = Message handler 0.
- `MH1` = Message handler 1.
- `MH2` = Message handler 2.
- `PRIM` = Primary CMP.

`e` = QGP number

`f` = Data dump type. Valid value(s):

- `ACCSDB` = The data dump consists of the toll and assistance automated calling card services data block indicated by the process control block (PCB) and process control block link area (PCBLA) data dumps with the same event number.
- `DCF-DATA` = The data dump relates to a defensive check in associated output messages.

EIS_LNK = The data dump consists of the External Information System (EIS) data block corresponding to the process identification (PID) indicated by the PCB and PCBLA data dumps with the same event number.
ESCAL-CNTS = The data dump consists of postmortem data from system integrity that identifies the values of escalation counters previous to the last high-level initialization.
INTJ-MSG = The data dump consists of the interject message being processed at the time of either an SPP or high-level initialization when interject was running.
LLCB = Raw data from the logical link control block (LLCB).
LMDB = Raw data from the link map data block (LMDB).
MH0-PM-DUMP = Raw data dump of unrecognizable post mortem messages.
OFFLINE-ESCAL-HIST = The data dump consists of postmortem data from system integrity, that identifies the values of escalation counts logged during the offline verification on the offline side of the SM.
OFFLINE-SPP-HIST = The data dump consists of postmortem data from system integrity that identifies all single process purges (SPPs) that occurred during the offline verification on the offline side of the SM.
PCB = The data dump consists of the process control block of the operating system for distributed switching (OSDS) process whose PID is the block number field.
PCBLA-1 = The data dump consists of part one of the process control block linkage area of the OSDS process whose PID is the block number field.
PCBLA-2 = The data dump consists of part two of the process control block linkage area of the OSDS process whose PID is the block number field.
POSDB = The data dump consists of the position data block of the position corresponding to the PID indicated by the PCB and PCBLA data dumps with the same event number.
SPP-HIST = The data dump consists of postmortem data from system integrity that identifies the SPP events previous to the most recent high-level initialization.
TAPOSDB = The data dump consists of the toll and assistance position data block of the position corresponding to the PID indicated by the PCB and PCBLA data dumps with the same event number.
UNKNOWN = The data dump consists of an unknown type.

g = The sequence number of the data being output in the message.

h = Environment in which the request was stimulated. Refer to the APP:ENVIR appendix in the Appendixes section of the Output Messages manual.

i = Source of the dump request. Valid value(s):
AUDR = Audit of the associated data structure.
DCF = Defensive check failure request.
DCFSPP = DCF deferred single process purge.
FR = Fault recovery.
SI = System integrity data.
SPP = Single process purge.
UNKNOWN = Unknown source.

j = Event number.

k = Physical address in hexadecimal of the block being dumped.

l = Data being reported in hexadecimal. Depending on the data dump type and the amount of data, this output could vary significantly. The greatest number of lines is five, while the greatest number of

columns is eight. Each event is represented by two segments of data; therefore, each message at most contains 20 events worth of information.

4. ACTION TO BE TAKEN

This information should be sent along with any trouble report concerning AM, SM, CMP, or QGP initialization to an appropriate technical support organization. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INIT:CMP-SPP
INIT:DSL
INIT:SM-SPP
OP:POSTMORT
```

Output Appendix(es):

```
APP:ENVIR
```

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-105-220 *Corrective Maintenance*
235-105-24x *Software Release Retrofit*

REPT:DATA-DUMP

Software Release: 5E10 and later
Message Class: ASRTMON
Application: 5
Type: Output

1. FORMAT

```
REPT DATA DUMP REPORT PCR=a EVENT=b
  CALL PROCESSING ERROR OCCURRED AT FUNCTION c LINE d
  A DATA DUMP WAS SENT TO /log/log/CALLPLOG1
```

2. REASON FOR OUTPUT

To provide information about a data dump being sent to the *UNIX*® RTR /log/log/CALLPLOG1 file.

3. VARIABLE FIELD DEFINITIONS

`a` = Processor where data dump occurred.

`b` = Event number.

`c` = Function where data dump occurred.

`d` = Source line number in function where data dump occurred.

4. ACTION TO BE TAKEN

A data dump was sent to the *UNIX*® RTR /log/log/CALLPLOG1 file. The data dump information is needed by the technical assistance organization for further analysis of the problem. Use the EVENT number to locate the related data dump(s) in the CALLPLOG1 file. The data dump might follow or precede a craft assert, an assert or an RTA DCF assert. The event number will match between this file message and its corresponding assert.

NOTE: The total information stored in the CALLPLOG files is 250K bytes. Data dump information might be lost if not retrieved in time. CALLPLOG1 has a size limit of 125K bytes. When CALLPLOG1 reaches its limit, it will be renamed CALLPLOG0(125K bytes); when further information is to be stored, it will be written to an empty version of CALLPLOG1.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-600-510 *Software Analysis Guide*

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REPT:DB-INIT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT DB INIT ERR
        UCB POINTER OF MDCT a IS IDNULL

[2]   ____________________________________________________________
      REPT DB INIT ERR
        RPC UNIT_NUMBER INVALID b

[3]   ____________________________________________________________
      REPT DB INIT ERR
        IUN UNIT_NUMBER INVALID b

[4]   ____________________________________________________________
      REPT DB INIT ERR
        CANNOT CONVERT b TO PNI

[5]   ____________________________________________________________
      REPT DB INIT ERR
        U_DID NUMBER c OUT OF RANGE - b

[6]   ____________________________________________________________
      REPT DB INIT ERR
        DUPLICATED U_DID NUMBER c - b, d

[7]   ____________________________________________________________
      REPT DB INIT ERR
        DUPLICATED PNI e - b, d
```

2. REASON FOR OUTPUT

To report a discrepancy that was noted in the contents of the equipment configuration database (ECD) records for equipped ring nodes during a system-wide initialization.

Format 1 reports that fields 9 and 10 of the MDCT record identified in the output message contain no pointer to the associated unit control block (UCB) record.

Format 2 reports that a UCB record containing the entry ring processor controller (RPC) in the device_type field has been assigned a member number other than 0 in the unit_number field. RPC member numbers must be 0.

Format 3 reports that a UCB record containing the entry RUN in the device_type field has been assigned the member number 0 in the unit_number field. IUN member numbers must not be 0.

Format 4 reports that the last two characters entered in the UCB record unit_name field are not numbers or are out-of-range, and/or the member number entered in the unit_number field is out-of-range.

Format 5 reports that the entry in the internal_device field of an RPC UCB record is out-of-range.

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Format 6 reports that the entry in the internal_device field of an RPC UCB record is a duplicate of the entry in another equipped RPC UCB record. All equipped RPC UCB records must contain different internal_device values.

Format 7 reports that the last two numbers in the UCB record unit_name field and the member number in the unit_number field are identical to those of another equipped ring node UCB record.

3. VARIABLE FIELD DEFINITIONS

a = Identifies the MDCT record name (for example, rpcn00m0).

b = Identifies the ring node group and member (for example, RPCN00=0).

c = A decimal value representing the internal_device field entry found in the UCB record.

d = Same as for 'b'.

e = The converted physical node identifier.

4. ACTION TO BE TAKEN

The detection of any of the above discrepancies will cause the interface or switching module system (IMS or SMS) system-wide initialization to abort. The discrepancy in the ECD must be corrected as follows before a successful system-wide initialization can be performed.

For Format 1, enter the name of the associated UCB record into fields 9 and 10 of the MDCT record using DMERT recent change and verify (RC/V).

For Formats 2-4, delete the UCB record defined by 'b' in the output message from the ECD using DMERT RC/V. Determine the discrepancy in the UCB and insert a corrected version back into the ECD.

For Format 5, update the UCB record defined by 'b' in the output message to the correct device_id value using DMERT RC/V.

For Format 6, determine whether the UCB record defined by 'b' or 'd' is incorrect and update this record to the correct device_id value using DMERT RC/V.

For Format 7, determine whether the UCB record defined by 'b' or 'd' is incorrect and delete this UCB record from the ECD using DMERT RC/V. A corrected version of the UCB record should then be inserted back into the ECD.

5. ALARMS

Major.

6. REFERENCES

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-600-31x *ECD/SG*

REPT:DCGRPT

Software Release: 5E10 and later
Message Class: TRFM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT DCGRPT     DEFAULT CELL GROUPING
                    ORIGINATOR         TERMINATOR
        DN:         a                  b
        SM:         c                  d
        PORT:       e                  f
       [TG:         g                  h]

[2]   ____________________________________________________________________
      REPT DCGRPT     MANUAL TERMINATION

[3]   ____________________________________________________________________
      REPT DCGRPT     AUTO TERMINATION
```

2. REASON FOR OUTPUT

To provide originating and terminating information for calls pegging the zero (default) cell group in response to the ALW:DCGRPT input message. The use of the words "zero cell group" and "default cell group" are interchangeable. Cell groups are used for division of revenue traffic separation. Calls pegging the zero cell group are due to division of revenue translation errors. The information provided by this report assists in tracing down the lines with incorrect or unassigned translations.

Format 1 reports specific information related to calls pegging the default cell group (DCG). This information can be analyzed to find the source of the problem.

Format 2 reports when the default cell group report was terminated due to a manual request to stop the report.

Format 3 reports when the default cell group report was terminated automatically. The report terminates automatically after producing 32 reports.

3. VARIABLE FIELD DEFINITIONS

a = The directory number of the call's originator (supplied only for line originations).

b = The dialed directory number. For trunk originations it will be the four digit line number.

c = The number of the switching module (SM) where the call originated.

d = The number of the SM where the call terminated.

e = The number of the originating port in hexadecimal.

f = The number of the terminating port in hexadecimal.

g = The trunk group number where the call originated (supplied only for trunk originations.)

h = The trunk group number where the call terminated (supplied only for trunk terminations.)

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4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:DCGRPT
STP:DCGRPT
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines TG-5 Translation Guide*

REPT:DCI

Software Release: 5E10 and later
Message Class: DSKSYS
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT DCIDRV  INFO  CODE a b c

[2]   ____________________________________________________________
      REPT DCIDRV  ERROR  CODE a b c

[3]   ____________________________________________________________
      REPT d e  ERROR  CODE a b c

[4]   ____________________________________________________________
      REPT d e  ERROR  COMPLETION CODE f:

[5]   ____________________________________________________________
      REPT d e  ERROR - g STATUS h

[6]   ____________________________________________________________
      REPT d e  FAULT  CODE i j

[7]   ____________________________________________________________
      REPT d e  UNIDENTIFIED RESPONSE  WD1=k

[8]   ____________________________________________________________
      REPT d e  ERROR  STATUS l MASK m EXP n

[9]   ____________________________________________________________
      REPT d e  INFO  CODE a b c

[10]  ____________________________________________________________
      REPT d e  AUTONOMOUS RESPONSE o

[11]  ____________________________________________________________
      REPT d e  CHANNEL p q  CODE a b c

[12]  ____________________________________________________________
      REPT DCIDRV  RECEIVED UNKNOWN RCV MESSAGE r e s
```

2. REASON FOR OUTPUT

To specify the error condition detected by the dual serial channel interconnect (DCI) driver.

3. VARIABLE FIELD DEFINITIONS

a = An error code or information code number. Refer to the APP:DFC-A appendix in the Appendixes section of the Output Messages manual for the meaning of error or information code.

b = Supplemental data for previous REPT:DCIDRV message, providing further information to Software developer.

c = Supplemental data for previous REPT:DCIDRV message, providing further information to Software developer.

d = DCI unit name

e = DCI unit number

f = One word completion report. It contains information like completion code, job ID (DMA job number), size of data.

g = Can be either CHAN, DBS or BIC register. For more information, refer to variable 'h'.

h Supplemental data for the previous message. Valid value(s):

If 'f' =	Explanation:
CHAN	Refer to the APP:DCI-C appendix in the Appendixes section of the Output Messages manual.
DBS	Refer to the APP:DCI-D appendix in the Appendixes section of the Output Messages manual.
BIC REGISTER	Refer to the APP:DCI-E appendix in the Appendixes section of the Output Messages manual.

i = Fault code, in hexadecimal notation. Refer to the APP:DFC-H appendix in the Appendixes section of the Output Messages manual.

j = In case of software faults in 'i', it contains the program address where fault occurred.

k = One word completion report. It contains information like completion code, job ID (DMA job number), size of data.

l = Bic status in hexadecimal notation. Refer to the APP:DCI-E appendix in the Appendixes section of the Output Messages manual.

m = Mask.

n = Expected value of l after being masked with l.

o = Autonomous response special completion code. Refer to the APP:DCI-B appendix in the Appendixes section of the Output Messages manual.

p = Channel number on which error occurred.

q = Can be either INFO on the channel or an ERROR on channel.

r = The unit_name of the device which received unknown message.

s = The number of message in hexadecimal notation.

4. ACTION TO BE TAKEN

An error report indicates an error condition which could cause the removal of a unit. Any removed unit should be repaired and restored to service. Additional messages which provide useful data may be output.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	724
2	726
3	727
4	728
5	730
6	731
7	732
8	733
9	725
10	734
11	740
12	737

Input Message(s):

```
DGN:DCI
RMV:DCI
RST:DCI
```

Output Message(s):

```
DGN:DCI
RMV:DCI
RST:DCI
```

Output Appendix(es):

```
APP:DCI-A
APP:DCI-B
APP:DCI-C
APP:DCI-D
APP:DCI-E
APP:DCI-F
APP:DCI-I
APP:OMDB-X-REF
```

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REPT:DCIDIP

Software Release: 5E11 and later
Message Class: MAINT
Application: 3B
Type: Output

1. FORMAT

```
REPT DCIDIP ERROR a [b]
```

2. REASON FOR OUTPUT

To report an error condition encountered by the DCIDIP process.

3. VARIABLE FIELD DEFINITIONS

`a` = Process step or reason. Valid value(s):

`f00`	= sendw() failed to send message to DMERT application process (DAP).
`f06`	= Received invalid message type.
`f0c`	= Failed to open the equipment configuration database (ECD).
`f12`	= Failed to attach the ECD.
`f18`	= Failed to get minor device configuration table (MDCT) record for physical teletypewriter (TTY).
`f1e`	= MDCT record identification number (RID) for physical TTY not known.
`f24`	= Failed to get unit control block (UCB) record.
`f2a`	= UCB RID for physical TTY not known.
`f30`	= No RID in message from DCI driver.
`f36`	= Failed to get UCB record.
`f3c`	= Unit not supported by DCIDIP.
`f42`	= Out of range DCI unit number.
`f48`	= Failed to get DCIOPT record.
`f4e`	= Invalid UCB RID for DCI.
`f54`	= Invalid UCB RID for physical TTY.
`f6a`	= No data in poke message.
`f70`	= Too many arguments in poke message.
`f76`	= Poke number is not supported.
`f7c`	= Option not supported by remove TTY.
`f82`	= Invalid option for restore TTY.
`f88`	= Failed to execute craft shell.

`b` = System error code number. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

This message is printed when the DCIDIP process encounters an error either during initialization or when processing a client process. If the error condition persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

This alarm is an automatically-generated report. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	765

Input Message(s):

```
RST:TTY
RMV:TTY
```

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

MCC Display Page(s):

DCI STATUS PAGE

REPT:DCLU-TDSRF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DCLU=a-b-c TRBL DCLU SERVICE REQUEST FAILURE d
  e RECOVERY ACTION f
  [g h][i j k l m n] [o] [p]
  q r s
```

2. REASON FOR OUTPUT

To report a service request failure on a digital carrier line unit (DCLU) service group.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DCLU number.

`c` = Service group number.

`d` = Event number.

`e` = Error type. Valid value(s):

`DCLU ERROR REPORTED, NOT FOUND` = A DCLU service group error was reported but none was found. Variables '`g`' and '`h`' are reported with this error type, but variables '`i`' through '`p`' are not.

`IPIDB ERROR REPORTED, NOT FOUND` = An internal peripheral interface data bus (PIDB) parity error was reported but none was found or it could not be traced to the *SLC*®96 digital facility interface (SDFI) using the IPIDB time slot. An internal PIDB is the PIDB between the DCLU and the SDFIs. Variables '`g`' and '`h`' will be reported with this error type, while variables '`i`' through '`p`' may or may not be reported, depending on available valid information.

`SDFI SERV. REQ. REPORTED, NOT FOUND` = An S-DFI service request was reported but none was found. These service requests are sent through the controlling service group. Variables '`g`' through '`p`' are not reported with this error type.

`f` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is generated.

`RST PREEMPT` = The failing circuit has been preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

Note: Fields '`g`' through '`p`' are reported as hexadecimal data, where each field is a short.

`g` = Contents of the DCLU error source register (ESR).

`h` = Contents of the DCLU ESR mask.

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`i` = PIDB 0 time slot 0 to 15 parity status. A bit set means the S-DFI using that PIDB time slot is generating bad parity.

`j` = PIDB 0 time slot 16 to 31 parity status, similar to '`i`'.

`k` = PIDB 1 time slot 0 to 15 parity status, similar to '`i`'.

`l` = PIDB 1 time slot 16 to 31 parity status, similar to '`i`'.

`m` = DCLU service group internal circuit name.

`n` = PIDB number (0 or 1). That is, PIDB 0 means the first PIDB assigned to the DCLU. PIDB 1 means the optional second DCLU PIDB.

`o` = Internal PIDB time slot number. If the variables '`o`' and '`p`' are not reported, then the DCLU PIDB time slot error registers either contained invalid data or could not be read.

`p` = SDFI select value assigned to the internal PIDB timeslot; this number is expected to be an illegal value, for example, equal to F or < = 1F (hexadecimal). If variable '`p`' = FF (hexadecimal), then that internal PIDB timeslot was idle when the DCLU timeslot select register was not read. If the '`p`' variable is not reported (but the '`o`' variable is reported), the DCLU timeslot select register could not be read.

`q` = External circuit name for the implicated circuit.

`r` = Current decimal number of recent failures of this type recorded.

`s` = Decimal error count threshold for this type of error on this circuit, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

No action is necessary if the recovery action is `ANALYSIS ONLY`.

If the DCLU reaches its threshold such that it is removed and restored several times, the DCLU packs should be replaced, regardless of the diagnostic results.

If replacing the DCLU packs does not clear up the problem and the error type is `IPIDB ERROR REPORTED, NOT FOUND` or `SDFI SERV. REQ. REPORTED, NOT FOUND`, most likely one or more of the SDFI packs is at fault and should then be replaced one by one until the problem is cleared.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT:DCLU-TIPPE
REPT:SDFI-TIPP
```

REPT:DCLU-TIPPE

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DCLU=a-b-c TRBL INTERNAL PIDB PARITY ERROR d
  INTERNAL PIDB PARITY ERROR  RECOVERY ACTION e
  f g h i j k l m n o p q r s t u
  v
  w x y
```

2. REASON FOR OUTPUT

To indicate that a parity error has occurred on an internal peripheral interface data bus (PIDB), which is between the digital carrier line unit (DCLU) service group and a *SLC*® 96 digital facility interface (S-DFI).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DCLU number.

`c` = Service group number.

`d` = Event number.

`e` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`RST PREEMPT` = The failing circuit has been preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

Note: Fields '`f`' through '`v`' are reported as hexadecimal data, where each field is a short (4 digits).

`f` = Contents of the DCLU error source register (ESR).

`g` = Contents of the DCLU ESR mask.

`h` = PIDB 0 time slot 0 to 15 parity status. A bit set means the S-DFI using the PIDB time slot is generating bad parity.

`i` = PIDB 0 time slot 16 to 31 parity status, similar to '`h`'.

`j` = PIDB 1 time slot 0 to 15 parity status, similar to '`h`'.

`k` = PIDB 1 time slot 16 to 31 parity status, similar to '`h`'.

`l` = DCLU service group internal circuit name.

`m` = PIDB (0 or 1). That is, PIDB 0 is the first PIDB assigned to the DCLU. PIDB 1 means the optional second DCLU PIDB.

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`n` = Internal PIDB time slot number.

`o` = S-DFI select value assigned to the internal PIDB time slot.

`p` = Internal circuit name of the S-DFI assigned to the internal PIDB time slot.

`q` = Internal circuit name of the port connected to the internal PIDB time slot. Equal to zero if no port was connected to the time slot.

`r` = Logical port type of the port connected to the internal PIDB time slot. Equal to zero if no port was connected to the time slot or if the port information could not be accessed.

`s` = Service class of the port connected to the internal PIDB time slot. Equal to FFFF (hexadecimal) if no port was connected to the time slot or if the port information could not be accessed.

`t` = Contents of the entry for the internal PIDB time slot in the receive control (RC) random access memory (RAM) of the S-DFI time slot interchanger (TSI). Equal to FFFF (hexadecimal) if the RAM could not be accessed.

`u` = Contents of the entry for the T1 time slot in the transmit control (XC) RAM in the S-DFI TSI. Equal to FFFF (hexadecimal) if the RAM could not be accessed.

`v` = S-DFI select value for the same time slot on the other PIDB assigned to the DCLU service group. Equal to FFFF (hexadecimal) if the select value was not the same as the select value in field '`o`'.

`w` = External circuit name for the implicated circuit.

`x` = Current decimal number of recent failures of this type recorded for this circuit.

`y` = Decimal error count threshold for this type of error on this circuit, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

No action is necessary if the recovery action is `ANALYSIS ONLY`.

If the DCLU reaches its threshold such that it is removed and restored several times, the DCLU packs should be replaced, regardless of the diagnostic results.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT:SDFI-TIPP
```

REPT:DCLU-TPCF-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DCLU=a-b-c TRBL PICB CONTROL FAILURE EVENT=d
  e RECOVERY ACTION f
  g h i j
  k l m
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the digital carrier line unit (DCLU) service group common board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DCLU number.

`c` = Service group number.

`d` = Event number.

`e` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is printed.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RST PREEMPT` = The failing circuit has been preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`h` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`i` = Data being written to the periphery by the CI.

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`j` = Contents of the CI error source register.

`k` = External logical circuit name.

`l` = The current decimal number of the recent failures of this type recorded.

`m` = Error count threshold, above which the recovery action will be taken.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:DCLU-TPCF-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DCLU=a-b-c TRBL PICB CONTROL FAILURE EVENT=d
  e RECOVERY ACTION f
  g h i j
  k l m n
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the digital carrier line unit (DCLU) service group common board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DCLU number.

`c` = Service group number.

`d` = Event number.

`e` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is printed.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RST PREEMPT` = The failing circuit has been preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`h` = System PICB number in hexadecimal that was being written when the failure occurred.

`i` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

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`j` = Data being written to the periphery by the CI.

`k` = Contents of the CI error source register.

`l` = External logical circuit name.

`m` = The current decimal number of the recent failures of this type recorded.

`n` = Error count threshold, above which the recovery action will be taken.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:DCLU-TPPF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DCLU=a-b-c TRBL PIDB PARITY FAILURE d
  e RECOVERY ACTION f
  g h i j
```

2. REASON FOR OUTPUT

To respond to a time slot interchange (TSI) interrupt caused by peripheral interface data bus (PIDB) parity errors in the digital carrier line unit (DCLU) service group.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DCLU number.

`c` = Service group number.

`d` = Event number.

`e` = Error type. Valid value(s):
`PIDB 0 PARITY TROUBLE` = TSI parity errors detected on PIDB 0 of the DCLU service group.
`PIDB 1 PARITY TROUBLE` = TSI parity errors detected on PIDB 1 of the DCLU service group.
`PIDB 0 AND 1 PARITY TROUBLE` = TSI parity errors detected on both PIDB 0 and PIDB 1 of the DCLU service group.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RST PREEMPT` = The failing circuit has been preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = External logical circuit name.

`h` = The number of parity errors in this frame. There may be two lines of data here. If there are, the first line is for errors on PIDB0 and the second line is for errors on PIDB1.

`i` = The current count of parity errors against this PIDB.

`j` = Error count threshold, above which the recovery action will be taken.

4. ACTION TO BE TAKEN

None.

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5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:DCLU-TSF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DCLU=a-b-c TRBL SP FAILURE EVENT=d
  SP FIFO OVERFLOW FAILURE RECOVERY ACTION e
  f g
  h i j
```

2. REASON FOR OUTPUT

To respond to a signal processor (SP) interrupt, caused by the SP first-in first-out (FIFO) overflowing, due to a showering *SLC*® port.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital carrier line unit (DCLU) number.

`c` = Service group number.

`d` = Event number.

`e` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A postmortem report is generated.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`f` = Internal timeslot number.

`g` = Number of entries in the SP FIFO for this circuit.

`h` = External logical circuit name.

`i` = Decimal number of failures of this type that occurred in the last five minutes.

`j` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

Fault recovery automatically requests a conditional restore on the circuit when the error threshold is met. Subsequent DGN:DCLU and RST:DCLU messages indicate success or failure of diagnostic when recovery action (variable '`e`') is `RST PREEMPT`.

5. ALARMS

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None.

6. REFERENCES

Output Message(s):

```
ALW:HDW-MCTSI
DGN:DCLU
INH:HDW-MCTSI
RMV:DCLU
RST:DCLU
```

REPT:DCLU-TSSRF

Software Release: 5E10 and later
Message Class: HW_MON, PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DCLU=a-b-c TRBL SDFI SERVICE REQUEST FAILURE d
  e RECOVERY ACTION f
  g h i
```

2. REASON FOR OUTPUT

To respond to the failure to find a *SLC*® 96-digital facility interface (S-DFI) service request when one is indicated by the controlling service group. Both the S-DFI and the controlling digital carrier line unit (DCLU) service group are implicated.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DCLU number.

`c` = Service group number.

`d` = Event number.

`e` = Error type. Valid value(s):
`SDFI ESR ACT. REPORTED, NOT FOUND` = Both the S-DFI and the DCLU service group are implicated.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RST PREEMPT` = The failing circuit has been preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = External logical circuit name. (There will be two lines of data.)

`h` = The current decimal number of the recent failures of this type recorded.

`i` = Error count threshold, above which the recovery action will be taken.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Input/Output Messages:

None.

REPT:DCLU-TUSR

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DCLU=a-b-c TRBL UNEXPECTED SERVICE REQUEST d
  e RECOVERY ACTION f
  g h [i]
  j k l
```

2. REASON FOR OUTPUT

To report an unexpected service request on a digital carrier line unit (DCLU) service group.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DCLU number.

`c` = Service group number.

`d` = Event number.

`e` = Error type. Valid value(s):
`DCLU SDFI LOOPBACK HRDWR. ERROR` = An S-DFI is looped back to the DCLU service group because of a hardware error.
`DCLU SDFI LOOPBACK SFTWR. ERROR` = An S-DFI was looped back to the DCLU service group because of a software error; this condition was corrected.
`DCLU SDFI SELECT PARITY ERROR` = *SLC*® 96-data facility interface (S-DFI) select register (in the DCLU service group) parity error.
`DCLU TSSR MEMORY PARITY ERROR` = Time slot select register memory parity error.
`DCLU TSSR PARITY ERROR` = Time slot select register parity error.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RST PREEMPT` = The failing circuit has been preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = DCLU error source register (ESR) value.

`h` = DCLU ESR mask value.

`i` = PIDB (0 or 1).

`j` = External logical circuit name.

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`k` = Current decimal number of recent failures of this type recorded.

`l` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:DCS-ECP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT DCS-ECP COMMUNICATION a
```

2. REASON FOR OUTPUT

To report a change in the communication status between the *5ESS*®-2000 Digital Cellular Switch and the *Autoplex*® Executive Cellular Processor.

3. VARIABLE FIELD DEFINITIONS

`a` = Communication status. Valid value(s):
- `LOST` = Communication lost.
- `RESTORED` = Communication restored.

4. ACTION TO BE TAKEN

If communication is lost, check status of CCS links and notify *Autoplex*® ECP office of problem.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:DCTUCOM-TDIT

Software Release: 5E10 and later
Message Class: HW_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DCTUCOM (a,b) TRBL DCTU INTERNAL TROUBLE c
  d RECOVERY ACTION e
  f g h
```

2. REASON FOR OUTPUT

To report a trouble detected by the operational software indicating a problem with the directly connected test unit common board (DCTUCOM) or one of its subtending circuits.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DCTU number.

`c` = Event number, which is the time sequence indicator.

`d` = Error type. Valid value(s):
`DCTU EQUIPMENT MALFUNCTION` = The operational software received an abnormal response from the DCTU.
`DCTU PROTOCOL FAILURE` = A failure occurred in the communication protocol between the DCTU and the interface or switching module.
`DCTU TIMEOUT FAILURE` = The operational software timed-out while waiting for a response from the DCTU.
`PORT DIODE RELAY FAILURE` = A failure occurred when the DCTU attempted to control a DCTU port diode relay.

`e` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`f` = External logical circuit name. This report may contain two circuits when more than one circuit could be the cause of the trouble.

`g` = Current decimal number of recent failures of this type recorded.

`h` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

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5. ALARMS

None.

6. REFERENCES

None.

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REPT:DCTUCOM-TDM

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DCTUCOM=a-b TRBL DCTU MESSAGE c
  d RECOVERY ACTION e
  DCTUCOM=a-b f g
      .
      .
      .
```

2. REASON FOR OUTPUT

To respond to a trouble message sent by the directly connected test unit (DCTU) in regard to the DCTU common board. The DCTU common board detected a problem internally and sent a message to indicate the nature of the trouble.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Directly connected test unit number.

`c` = Event number.

`d` = Error type. Valid value(s):
`DCTU PROTOCOL FAILURE` = A failure occurred in the communication protocol between the DCTU and the switching module.
`EQUIP ERR THRESHOLD FAILURE` = A DCTU circuit has exceeded its internal error threshold.
`RESET MESSAGE` = The DCTU common board or PMU reset internally.
`TEST FAILURE` = An operational test failed while using the DCTU common board.
`TRAP MESSAGE` = The DCTU common board or PMU microprocessor trapped.

`e` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`f` = Current decimal number of recent failures of this type recorded.

`g` = Error count threshold, at which the recovery action will be escalated.

4. ACTION TO BE TAKEN

No action required. Fault recovery automatically requests a conditional restoration of the circuit when the error

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threshold is met. Subsequent DGN:DCTUCOM and RST:DCTUCOM messages indicate success or failure of diagnostic when recovery action is `RST AUTO CAMPON` or `RST PREEMPT`.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:DCTUCOM
RST:DCTUCOM
```

Output Message(s):

```
DGN:DCTUCOM
RST:DCTUCOM
```

REPT:DCTUCOM-TDSR

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DCTUCOM=a-b TRBL DCTU SERVICE REQUEST FAILURE c
  d RECOVERY ACTION e
  DCTUCOM=a-b f g
          .
          .
          .
```

2. REASON FOR OUTPUT

To respond to a maintenance service request pertaining to a directly connected test unit common board (DCTUCOM).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DCTU number.

`c` = Event number.

`d` = Error type. Valid value(s):
`DCTU INSANITY ERROR` = The DCTUCOM has reset internally and now is insane.
`INTERRUPT THRU MASK FAILURE` = A service request was detected from the DCTU despite being inhibited in the DCTU.

`e` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`f` = Current decimal number of recent failures of this type recorded.

`g` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
DGN:DCTUCOM
RST:DCTUCOM
```

Output Message(s):

```
DGN:DCTUCOM
RST:DCTUCOM
```

REPT:DCTUPORT-TDI

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DCTUPORT=a-b-c TRBL DCTU INTERNAL TROUBLE d
  e RECOVERY ACTION f
  g h i
```

2. REASON FOR OUTPUT

To report a trouble detected by the operational software that uses the directly connected test unit (DCTU) port circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DCTU number.

`c` = DCTU port number.

`d` = Event number, which is the time sequence indicator.

`e` = Error type. Valid value(s):
`DCTU EQUIPMENT MALFUNCTION` = A DCTU trouble was detected by the operational software using the DCTU port.
`DCTU TIMEOUT FAILURE` = The operational software timed out while waiting for a response from the DCTU port.
`PORT DIODE RELAY FAILURE` = A failure response from the DCTU occurred when attempting to control a DCTU port diode relay.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = External logical circuit name. Two circuits may be listed with this report if both could be the cause of the trouble.

`h` = Current decimal number of recent failures of this type recorded.

`i` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

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5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:DCTUPORT-TDM

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DCTUPORT=a-b-c TRBL DCTU MESSAGE d
  e RECOVERY ACTION f
  [g h i]
     .
     .
     .
```

2. REASON FOR OUTPUT

To report a spurious trouble message sent by the directly connected test unit (DCTU) in regard to a DCTU port circuit. The common board detected a problem and sent a message to indicate the nature of the trouble.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Directly connected test unit number.

`c` = DCTU port number.

`d` = Event number.

`e` = Error type. Valid value(s):
`EQUIPMENT ERROR THRESHOLD EXCEEDED` = A DCTU port circuit exceeded its internal error threshold.
`TEST FAILURE` = An operational test failed while using this DCTU port.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = External logical circuit name. More than one circuit may be listed when multiple circuits can be blamed for the trouble.

`h` = Current decimal number of recent failures of this type recorded.

`i` = Error count threshold, at which the recovery action will be escalated.

4. ACTION TO BE TAKEN

No action required. Fault recovery automatically requests a conditional restore on the circuit when the error

threshold is met. Subsequent DGN:DCTU PORT and RST:DCTU PORT messages indicate success or failure of diagnostic when recovery action is `RST AUTOCAMPON` or `RST PREEMPT`.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:DCTUPORT
RST:DCTUPORT
```

Output Message(s):

```
DGN:DCTUPORT
RST:DCTUPORT
```

REPT:DEBUG

Software Release: 5E10 and later
Message Class: DEBUG
Application: 5
Type: Output

1. FORMAT

```
REPT DEBUG: a  b
 [c]
```

2. REASON FOR OUTPUT

To report that a debugging trap was entered.

3. VARIABLE FIELD DEFINITIONS

`a` = Filename of the debugging trap.

`b` = Line number of the debugging trap.

`c` = Developer-defined data.

4. ACTION TO BE TAKEN

If system personnel are on site, notify them of this output. If not, use recent change/verify (RC/V) to change the equipment configuration database (ECD) to suppress the printing of this message class.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:DEF-CHK-FAIL

Software Release: 5E10 and later
Message Class: IOC,INT
Application: 5
Type: Output

1. FORMAT

```
REPT {AM|SM=a|CMP=b-c d|MCTSI=a-b d|QGP=b-e} DEF-CHK-FAIL MESSAGE SUMMARY
  AUTOMATIC DCF MESSAGE BREVITY CONTROL=f
  DEF-CHK-FAIL CODE : NUMBER OF OCCURRENCES : DISCARDED
           g        :        h              :     i
          [j]
```

2. REASON FOR OUTPUT

To summarize the status of the assert messages printed during an unspecified interval. The initialization (INT) message class is used when the message is printed as the result of a manual request. The off-normal (IOC) message class is used at all other times.

3. VARIABLE FIELD DEFINITIONS

`AM` = Administrative module.

`CMP` = Communication module processor.

`MCTSI` = Module controller/time slot interchange unit.

`QGP` = Quad-link gateway processor.

`SM` = Switching module.

`a` = SM number.

`b` = Message switch side (MSGS) or MCTSI side.

`c` = Physical CMP number.

`d` = Processor being reported on. Valid value(s):
- `MATE` = Mate CMP.
- `MH0` = Message handler 0.
- `MH1` = Message handler 1.
- `MH2` = Message handler 2.
- `PRIM` = Primary CMP.

`e` = QGP number.

`f` = Brevity control. Valid value(s):
- `INHIBITED` = System will not abbreviate the amount of defensive check failure (DCF) printout.
- `ON` = System will abbreviate the amount of DCF printout.

`g` = DCF error code.

`h` = Number of occurrences of the error code.

`i` = Number of occurrences of the specified error code that have been discarded.
Note: This number, when added to the number of occurrences that printed on the receive-only printer (ROP) or were written on the log file, may not equal the total number of occurrences (variable '`h`'). This discrepancy may occur during overload, initialization, or if the communication links are down.

`j` = Error message. Valid value(s):
`DCF MESSAGE OVERFLOW` = More codes occurred than could be printed in this report.

4. ACTION TO BE TAKEN

Look up DCF error code in the Asserts manual, and then take corrective action.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-600-400 *Audits*
235-600-500 *Asserts*

REPT:DEF-CHK-FM-A

Software Release: 5E10 only
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
REPT DEF-CHK-FAIL=a MCTSI=b-c PI EVENT=d
  EVENT-REPORTED-FROM-MCTSI,PI=b-e
  ACTIVE-PSUCOM=f [PSU-COM-ERROR-SOURCE=g]
  PROCESS=h  MESSAGE-NO=i [TIME=jj:jj kk/kk/kk]
  STIMULUS=l RCVY=m [AUD-SCHED=n] [PS DATA PRESERVING]
  FAIL-ADDR=o PP-MODE=p ASSERT-COUNT=q
  [STACK TRACE: r[ r[ r[ r[ r[ r[ r[ r]]]]]]]]
  IMAGE=s [EXPECTED-IMAGE=PI IMAGE]
```

2. REASON FOR OUTPUT

To report the occurrence of a defensive check failure (assert) in the module controller/time slot interchanger packet interface (MCTSIPI). The message prints only when the printmode is turned on. The message is stored in a buffer and can be printed on request (OP:HISTORY).

3. VARIABLE FIELD DEFINITIONS

`PS DATA PRESERVING` = Packet switching data as preserved.

`a` = Assert error code.

`b` = Switching module (SM) number.

`c` = Unit number.

`d` = Event number.

`e` = MCTSIPI side number in which the event occurred.

`f` = Active packet bus ID.

`g` = Packet bus on which error occurred.

`h` = Process number

`i` = Message number.

`j` = Time of the day the assert occurred, in the form hour:minute.

`k` = Date the assert occurred, in the form month/day/year.

`l` = Stimulus of recovery action. Refer to the APP:RCVRY-ACTION appendix in the Appendixes section of the Output Messages manual for a list of recovery action stimulus and their definitions.

`m` = Recovery action that occurred. Valid value(s):
- `FI` = Full initialization.
- `NONE` = No recovery action.

PRINT = Report only; no escalation.
PSI = Autonomous PS initialization.
RPI = Return to point of interrupt.
SI = Selective initialization.
SPP = Single process purge.

n = Name of the audits scheduled to clean up after the single process purge. Valid value(s):
ALCB = The access line control block was scheduled.
ALDB = The access line data block was scheduled.
BD = The buffer descriptor was scheduled.
DCCB = The D-channel control block was scheduled.
DCDB = The D-channel data block was scheduled.
IFD = The internal frame descriptors was scheduled.
L2TL = The level 2 timing list was scheduled.
L3TE = The level 3 timing element was scheduled.
L3TL = The level 3 timing list was scheduled.
LCCB = The logical channel control block was scheduled.
LLCB = The logical link control block was scheduled.
PSHC = The packet switch head cell was scheduled.
PVC = The permanent virtual circuit was scheduled.
RFD = The receive frame descriptor was scheduled.
TFD = The transmit frame descriptor was scheduled.

o = Failing address where event occurred.

p = Port processor mode. Valid value(s):
CONSISTENT = Hardware and software are consistent.
ESSENTIAL = Essential jobs operational.
NORMAL = Normal operational mode.
OPFULL = All jobs operational.
POST_RCVY = Post recovery.
RAMDYN = Dynamic memory consistent.
RAMTXT = Read access memory text consistent.
RAMWP = Text and data consistent.
SW-RCVY = Software recovery.
SYSPROC = System processes operational.
UNKNOWN = Unknown source.

q = Assert count (number of nested ASSERTS).

r = Stack trace (up to eight addresses). (Technical assistance may be required to interpret this field).

s = Image type in the PI at the time of the assert. Valid value(s):
ERROR IMAGE = The image contained an error.
NULL IMAGE = No image was loaded.
PH1 GATEWAY IMAGE = Image used for all features on a PH1 was loaded.
PH2 ACCESS IMAGE = All features (other than X.75' or X.75) on a PH2 were loaded.
PH2 GATEWAY IMAGE = X.75' or X.75 features on a PH2 were loaded.
PH3 COMMON IMAGE = All features on a PH3 were loaded. This image contains both access and gateway.

`PH4 ISDN AP IMAGE` = Image used for PH4 ISDN AP was loaded.
`PH4 ISDN IOP IMAGE` = Image used for PH4 ISDN IOP was loaded.
`PH4 FRPH IOP IMAGE` = Image used for PH4 FRPH IOP was loaded.
`PHV1 CDMA IMAGE` = Image used for PHV1 CDMA was loaded.
`PI IMAGE` = Image used for PI was loaded.
`PI2 IMAGE` = Image used for PI2 was loaded.

4. ACTION TO BE TAKEN

Look up assert error code in the Asserts Manual and take corrective action. If the error code is not listed in the this manual, technical assistance is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:HISTORY
```

Other Manual(s):
235-600-500 *Asserts*

REPT:DEF-CHK-FM-B

Software Release: 5E11 - 5E12
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
REPT DEF-CHK-FAIL=a MCTSI=b-c PI EVENT=d
  EVENT-REPORTED-FROM-MCTSI,PI=b-e
  ACTIVE-PSUCOM=f [PSU-COM-ERROR-SOURCE=g]
  PROCESS=h  MESSAGE-NO=i [TIME=jj:jj kk/kk/kk]
  STIMULUS=l RCVY=m [AUD-SCHED=n] [PS DATA PRESERVING]
  FAIL-ADDR=o PP-MODE=p ASSERT-COUNT=q
 [STACK TRACE: r[ r[ r[ r[ r[ r[ r[ r]]]]]]]]
  IMAGE=s [EXPECTED-IMAGE=PI IMAGE]
```

2. REASON FOR OUTPUT

To report the occurrence of a defensive check failure (assert) in the module controller/time slot interchanger packet interface (MCTSIPI). The message prints only when the printmode is turned on. The message is stored in a buffer and can be printed on request (OP:HISTORY).

3. VARIABLE FIELD DEFINITIONS

`PS DATA PRESERVING` = Packet switching data as preserved.

`a` = Assert error code.

`b` = Switching module (SM) number.

`c` = Unit number.

`d` = Event number.

`e` = MCTSIPI side number in which the event occurred.

`f` = Active packet bus ID.

`g` = Packet bus on which error occurred.

`h` = Process number

`i` = Message number.

`j` = Time of the day the assert occurred, in the form hour:minute.

`k` = Date the assert occurred, in the form month/day/year.

`l` = Stimulus of recovery action. Refer to the APP:RCVRY-ACTION appendix in the Appendixes section of the Output Messages manual for a list of recovery action stimulus and their definitions.

`m` = Recovery action that occurred. Valid value(s):
- `FI` = Full initialization.
- `NONE` = No recovery action.

PRINT = Report only; no escalation.
PSI = Autonomous PS initialization.
RPI = Return to point of interrupt.
SI = Selective initialization.
SPP = Single process purge.

n = Name of the audits scheduled to clean up after the single process purge. Valid value(s):
ALCB = The access line control block was scheduled.
ALDB = The access line data block was scheduled.
BD = The buffer descriptor was scheduled.
DCCB = The D-channel control block was scheduled.
DCDB = The D-channel data block was scheduled.
IFD = The internal frame descriptors was scheduled.
L2TL = The level 2 timing list was scheduled.
L3TE = The level 3 timing element was scheduled.
L3TL = The level 3 timing list was scheduled.
LCCB = The logical channel control block was scheduled.
LLCB = The logical link control block was scheduled.
PSHC = The packet switch head cell was scheduled.
PVC = The permanent virtual circuit was scheduled.
RFD = The receive frame descriptor was scheduled.
TFD = The transmit frame descriptor was scheduled.

o = Failing address where event occurred.

p = Port processor mode. Valid value(s):
CONSISTENT = Hardware and software are consistent.
ESSENTIAL = Essential jobs operational.
NORMAL = Normal operational mode.
OPFULL = All jobs operational.
POST_RCVY = Post recovery.
RAMDYN = Dynamic memory consistent.
RAMTXT = Read access memory text consistent.
RAMWP = Text and data consistent.
SW-RCVY = Software recovery.
SYSPROC = System processes operational.
UNKNOWN = Unknown source.

q = Assert count (number of nested ASSERTS).

r = Stack trace (up to eight addresses). (Technical assistance may be required to interpret this field).

s = Image type in the PI at the time of the assert. Valid value(s):
ERROR IMAGE = The image contained an error.
NULL IMAGE = No image was loaded.
PI IMAGE = Image used for PI was loaded.
PI2 IMAGE = Image used for PI2 was loaded.

4. ACTIONS TO BE TAKEN

Look up assert error code in the Asserts Manual and take corrective action. If the error code is not listed in the this manual, technical assistance is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:HISTORY
```

Other Manual(s):
235-600-500 *Asserts*

REPT:DEF-CHK-FM-C

Software Release: 5E13 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
REPT DEF-CHK-FAIL=a MCTSI=b-c PI EVENT=d
  EVENT-REPORTED-FROM-MCTSI,PI=b-e
  PSUCA=f ACTIVE-PSUCOM=g
  PROCESS=h  MESSAGE-NO=i [TIME=jj:jj kk/kk/kk]
  STIMULUS=l RCVY=m [AUD-SCHED=n]
  FAIL-ADDR=o PP-MODE=p ASSERT-COUNT=q
  [STACK-TRACE: r[ r[ r[ r[ r[ r]]]]]]
  [             r[ r[ r[ r[ r[ r]]]]]]
  IMAGE=s
```

2. REASON FOR OUTPUT

To report the occurrence of a defensive check failure (assert) in the module controller/time slot interchanger packet interface (MCTSIPI). The message prints only when the printmode is turned on. The message is stored in a buffer and can be printed on request (OP:HISTORY).

3. VARIABLE FIELD DEFINITIONS

`a` = Assert error code.

`b` = Switching module (SM) number.

`c` = Unit number.

`d` = Event number.

`e` = MCTSIPI side number in which the event occurred.

`f` = PSU community address.

`g` = Active packet bus.

`h` = Process number

`i` = Message number.

`j` = Time of the day the assert occurred, in the form hour:minute.

`k` = Date the assert occurred, in the form month/day/year.

`l` = Stimulus of recovery action. Refer to the APP:RCVRY-ACTION appendix in the Appendixes section of the Output Messages manual for a list of recovery action stimulus and their definitions.

`m` = Recovery action that occurred. Valid value(s):

- `FI` = Full initialization.
- `NONE` = No recovery action.
- `PRINT` = Report only; no escalation.

PSI = Autonomous PS initialization.
RPI = Return to point of interrupt.
SI = Selective initialization.
SPP = Single process purge.

n = Name of the audits scheduled to clean up after the single process purge. Valid value(s):
ALCB = The access line control block was scheduled.
ALDB = The access line data block was scheduled.
BD = The buffer descriptor was scheduled.
DCCB = The D-channel control block was scheduled.
DCDB = The D-channel data block was scheduled.
IFD = The internal frame descriptors was scheduled.
L2TL = The level 2 timing list was scheduled.
L3TE = The level 3 timing element was scheduled.
L3TL = The level 3 timing list was scheduled.
LCCB = The logical channel control block was scheduled.
LLCB = The logical link control block was scheduled.
PSHC = The packet switch head cell was scheduled.
PVC = The permanent virtual circuit was scheduled.
RFD = The receive frame descriptor was scheduled.
TFD = The transmit frame descriptor was scheduled.

o = Failing address where event occurred.

p = Port processor mode. Valid value(s):
CONSISTENT = Hardware and software are consistent.
ESSENTIAL = Essential jobs operational.
NORMAL = Normal operational mode.
OPFULL = All jobs operational.
POST_RCVY = Post recovery.
RAMDYN = Dynamic memory consistent.
RAMTXT = Read access memory text consistent.
RAMWP = Text and data consistent.
SW-RCVY = Software recovery.
SYSPROC = System processes operational.
UNKNOWN = Unknown source.

q = Assert count (number of nested ASSERTS).

r = Stack trace (up to twelve addresses). (Technical assistance may be required to interpret this field).

s = Image type in the PI at the time of the assert. Valid value(s):
ERROR IMAGE = The image contained an error.
NULL IMAGE = No image was loaded.
PI IMAGE = Image used for PI was loaded.
PI2 IMAGE = Image used for PI2 was loaded.

4. ACTIONS TO BE TAKEN

Look up assert error code in the Asserts Manual and take corrective action. If the error code is not listed in the this manual, technical assistance is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:HISTORY
```

Other Manual(s):
235-600-500 *Asserts*

REPT:DEF-CHK-FP-A

Software Release: 5E10 only
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
REPT DEF-CHK-FAIL=a PSUPH=b-c-d-e [CHNG=b-c-d-f] EVENT=g
  EVENT-REPORTED-FROM-PSUPH=b-c-d-h
  ACTIVE-PSUCOM=i [PSU-COM-ERROR-SOURCE=j]
  PROCESS=k MESSAGE-NO=l [TIME=mm:mm nn/nn/nn]
  STIMULUS=o RCVY=p [AUD-SCHED=q] [PS DATA PRESERVING]
  FAIL-ADDR=r PP-MODE=s ASSERT-COUNT=t
  [STACK TRACE: u[ u[ u[ u[ u[ u[ u[ u]]]]]]]]
  IMAGE=v [EXPECTED-IMAGE=w]
  [x=y]
   .  .
   .  .
   .  .
```

2. REASON FOR OUTPUT

To report the occurrence of a defensive check failure (assert) in the packet switch unit protocol handler (PSUPH). The message prints only when the printmode is turned on. The message is stored in a buffer and can be printed on request (OP:HISTORY).

3. VARIABLE FIELD DEFINITIONS

`PS DATA PRESERVING` = Packet switching data as preserved.

`a` = Assert error code.

`b` = Switching module (SM) number.

`c` = Packet switching unit (PSU) number.

`d` = PSU shelf number.

`e` = PSUPH number.

`f` = Channel group (CHNG) number.

`g` = Event number.

`h` = PSUPH number in which the event occurred.

`i` = Active packet bus.

`j` = Packet bus on which error occurred.

`k` = Process number.

`l` = Message number.

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`m` = Time of day the assert occurred, in the form hour:minute.

`n` = Date the assert occurred, in the form month/day/year.

`o` = Stimulus of recovery action. Refer to the APP:RCVRY-ACTION appendix in the Appendixes section of the Output Messages manual for a list of recovery action stimulus and their definitions.

`p` = Recovery action that occurred. Valid value(s):

`FI`	= Full initialization.
`NONE`	= No recovery action.
`PRINT`	= Report only; no escalation.
`PSI`	= Autonomous PS initialization.
`RPI`	= Return to point of interrupt.
`SI`	= Selective initialization.
`SPP`	= Single process purge.

`q` = Name of the audits scheduled to clean up after the single process purge. Valid value(s):

`ALCB`	= The access line control block was scheduled.
`ALDB`	= The access line data block was scheduled.
`BD`	= The buffer descriptor was scheduled.
`DCCB`	= The D-channel control block was scheduled.
`DCDB`	= The D-channel data block was scheduled.
`IFD`	= The internal frame descriptors was scheduled.
`L2TL`	= The level 2 timing list was scheduled.
`L3TE`	= The level 3 timing element was scheduled.
`L3TL`	= The level 3 timing list was scheduled.
`LCCB`	= The logical channel control block was scheduled.
`LLCB`	= The logical link control block was scheduled.
`PSHC`	= The packet switch head cell was scheduled.
`PVC`	= The permanent virtual circuit was scheduled.
`RFD`	= The receive frame descriptor was scheduled.
`TFD`	= The transmit frame descriptor was scheduled.

`r` = Failing address where event occurred.

`s` = Port processor mode. Valid value(s):

`CONSISTENT`	= Hardware and software are consistent
`ESSENTIAL`	= Essential jobs operational.
`NORMAL`	= Normal operational mode.
`OPFULL`	= All jobs operational.
`POST_RCVY`	= Post recovery.
`RAMDYN`	= Dynamic memory consistent.
`RAMTXT`	= Read access memory text consistent.
`RAMWP`	= Text and data consistent.
`SW-RCVY`	= Software recovery.
`SYSPROC`	= System processes operational.
`UNKNOWN`	= Unknown source.

`t` = Assert count (number of nested ASSERTS).

u = Stack trace (up to eight addresses). Assistance may be required to interpret this field. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

v = Image type in the PH. Valid value(s):

`ERROR IMAGE` = The image contained an error.
`NULL IMAGE` = No image was loaded.
`PH1 GATEWAY IMAGE` = Image used for all features on a PH1 was loaded.
`PH2 ACCESS IMAGE` = All features (other than X.75' or X.75) on a PH2 were loaded.
`PH2 GATEWAY IMAGE` = X.75' or X.75 features on a PH2 were loaded.
`PH3 COMMON IMAGE` = All features on a PH3 were loaded. This image contains both access and gateway.
`PH4 ISDN AP IMAGE` = Image used for PH4 ISDN AP was loaded.
`PH4 ISDN IOP IMAGE` = Image used for PH4 ISDN IOP was loaded.
`PH4 FRPH IOP IMAGE` = Image used for PH4 FRPH IOP was loaded.
`PHV1 CDMA IMAGE` = Image used for PHV1 CDMA was loaded.
`PHA1A IMAGE` = Image used for PHA1A was loaded.
`PI IMAGE` = Image used for PI was loaded.
`PI2 IMAGE` = Image used for PI2 was loaded.

w = Image type expected. Valid value(s):

`PH1 GATEWAY IMAGE` = Image used for all features on a PH1 was loaded.
`PH2 ACCESS IMAGE` = All features (other than X.75' or X.75) on a PH2 were loaded.
`PH2 GATEWAY IMAGE` = X.75' or X.75 features on a PH2 were loaded.
`PH3 COMMON IMAGE` = All features on a PH3 were loaded. This image contains both access and gateway.
`PH4 ISDN AP IMAGE` = Image used for PH4 ISDN AP was loaded.
`PH4 ISDN IOP IMAGE` = Image used for PH4 ISDN IOP was loaded.
`PH4 FRPH IOP IMAGE` = Image used for PH4 FRPH IOP was loaded.
`PHV1 CDMA IMAGE` = Image used for PHV1 CDMA was loaded.
`PHA1A IMAGE` = Image used for PHA1A was loaded.

x = Identifier of a packet switching data structure that is recovered as part of the non-returning fault recovery action. Valid value(s):

```
LOGICAL CHANNEL
RECEIVING ACCESS LINE
RECEIVING LOGICAL LINK
SENDING ACCESS LINE
SENDING LOGICAL LINK
```

y = Given a data structure type above, this numerical value is the index into the data structure array. If the implicated data structure type is the receiving or sending logical link, this is to be an index into the logical link control block (LLCB) data structure array. If the implicated data structure type is the receiving or sending access line, this is an index into the access line control block (ALCB) data structure array. If the implicated data structure type is the logical channel, this is an index into the logical channel control block (LCCB).

Note: For the '`x`' and '`y`' fields above, a maximum of five switching data structures can be recovered as part of the assert recovery action.

4. ACTION TO BE TAKEN

Look up assert error code in the Asserts Manual and take corrective action. If the error code is not listed in the this manual, technical assistance is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:HISTORY
```

Other Manual(s):
235-600-500 *Asserts*

REPT:DEF-CHK-FP-B

Software Release: 5E11 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
REPT DEF-CHK-FAIL=a PSUPH=b-c-d-e [CHNG=b-c-d-f] EVENT=g
  EVENT-REPORTED-FROM-PSUPH=b-c-d-h
  ACTIVE-PSUCOM=i [PSU-COM-ERROR-SOURCE=j]
  PROCESS=k MESSAGE-NO=l [TIME=mm:mm nn/nn/nn]
  STIMULUS=o RCVY=p [AUD-SCHED=q] [PS DATA PRESERVING]
  FAIL-ADDR=r PP-MODE=s ASSERT-COUNT=t
  [STACK TRACE: u[ u[ u[ u[ u[ u[ u[ u]]]]]]]]
  IMAGE=v [EXPECTED-IMAGE=w]
  [x=y]
   .  .
   .  .
   .  .
```

2. REASON FOR OUTPUT

To report the occurrence of a defensive check failure (assert) in the packet switch unit protocol handler (PSUPH). The message prints only when the printmode is turned on. The message is stored in a buffer and can be printed on request (OP:HISTORY).

3. VARIABLE FIELD DEFINITIONS

`PS DATA PRESERVING` = Packet switching data as preserved.

`a` = Assert error code.

`b` = Switching module (SM) number.

`c` = Packet switching unit (PSU) number.

`d` = PSU shelf number.

`e` = PSUPH number.

`f` = Channel group (CHNG) number.

`g` = Event number.

`h` = PSUPH number in which the event occurred.

`i` = Active packet bus.

`j` = Packet bus on which error occurred.

`k` = Process number.

`l` = Message number.

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`m` = Time of day the assert occurred, in the form hour:minute.

`n` = Date the assert occurred, in the form month/day/year.

`o` = Stimulus of recovery action. Refer to the APP:RCVRY-ACTION appendix in the Appendixes section of the Output Messages manual for a list of recovery action stimulus and their definitions.

`p` = Recovery action that occurred. Valid value(s):

`FI`	= Full initialization.
`NONE`	= No recovery action.
`PRINT`	= Report only; no escalation.
`PSI`	= Autonomous PS initialization.
`RPI`	= Return to point of interrupt.
`SI`	= Selective initialization.
`SPP`	= Single process purge.

`q` = Name of the audits scheduled to clean up after the single process purge. Valid value(s):

`ALCB`	= The access line control block was scheduled.
`ALDB`	= The access line data block was scheduled.
`BD`	= The buffer descriptor was scheduled.
`DCCB`	= The D-channel control block was scheduled.
`DCDB`	= The D-channel data block was scheduled.
`IFD`	= The internal frame descriptors was scheduled.
`L2TL`	= The level 2 timing list was scheduled.
`L3TE`	= The level 3 timing element was scheduled.
`L3TL`	= The level 3 timing list was scheduled.
`LCCB`	= The logical channel control block was scheduled.
`LLCB`	= The logical link control block was scheduled.
`PSHC`	= The packet switch head cell was scheduled.
`PVC`	= The permanent virtual circuit was scheduled.
`RFD`	= The receive frame descriptor was scheduled.
`TFD`	= The transmit frame descriptor was scheduled.

`r` = Failing address where event occurred.

`s` = Port processor mode. Valid value(s):

`CONSISTENT`	= Hardware and software are consistent
`ESSENTIAL`	= Essential jobs operational.
`NORMAL`	= Normal operational mode.
`OPFULL`	= All jobs operational.
`POST_RCVY`	= Post recovery.
`RAMDYN`	= Dynamic memory consistent.
`RAMTXT`	= Read access memory text consistent.
`RAMWP`	= Text and data consistent.
`SW-RCVY`	= Software recovery.
`SYSPROC`	= System processes operational.
`UNKNOWN`	= Unknown source.

`t` = Assert count (number of nested ASSERTS).

u = Stack trace (up to eight addresses). Assistance may be required to interpret this field. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

v = Image type in the PH. Valid value(s):
`ERROR IMAGE` = The image contained an error.
`NULL IMAGE` = No image was loaded.
`PH2 ACCESS IMAGE` = All features (other than X.75' or X.75) on a PH2 were loaded.
`PH2 GATEWAY IMAGE` = X.75' or X.75 features on a PH2 were loaded.
`PH3 CCS IMAGE` = Image used for common channel signaling (CCS) features on a PH3 was loaded.
`PH3 ISDN IMAGE` = Image used for ISDN features on a PH3 was loaded.
`PH4 ISDN AP IMAGE` = Image used for PH4 ISDN AP was loaded.
`PH4 ISDN IOP IMAGE` = Image used for PH4 ISDN IOP was loaded.
`PH4 FRPH IOP IMAGE` = Image used for PH4 FRPH IOP was loaded.
`PHV1 CDMA IMAGE` = Software used for PHV CDMA with ROM-based DSPs was loaded.
`PHV3 RAM-BASED CDMA IMAGE` = Software used for PHV3 CDMA with downloadable DSPs was loaded.
`PHV3 WITH 8K DSP CDMA IMAGE` = Software used for PHV3 CDMA with the 8K DSP algorithm was loaded.
`PHV3 WITH 13K DSP CDMA IMAGE` = Software used for PHV3 CDMA with the 13K DSP algorithm was loaded.
`PHV3 WITH EVRC DSP CDMA IMAGE` = Software used for PHV3 CDMA with the EVRC DSP algorithm was loaded.
`PHA1A IMAGE` = Image used for PHA1A was loaded.

w = Image type expected. Valid value(s):
`PH2 ACCESS IMAGE` = All features (other than X.75' or X.75) on a PH2 were loaded.
`PH2 GATEWAY IMAGE` = X.75' or X.75 features on a PH2 were loaded.
`PH3 CCS IMAGE` = Image used for CCS features on a PH3 was loaded.
`PH3 ISDN IMAGE` = Image used for ISDN features on a PH3 was loaded.
`PH4 ISDN AP IMAGE` = Image used for PH4 ISDN AP was loaded.
`PH4 ISDN IOP IMAGE` = Image used for PH4 ISDN IOP was loaded.
`PH4 FRPH IOP IMAGE` = Image used for PH4 FRPH IOP was loaded.
`PHV1 CDMA IMAGE` = Software used for PHV CDMA with ROM-based DSPs was loaded.
`PHV3 RAM-BASED CDMA IMAGE` = Software used for PHV3 CDMA with downloadable DSPs was loaded.
`PHV3 WITH 8K DSP CDMA IMAGE` = Software used for PHV3 CDMA with the 8K DSP algorithm was loaded.
`PHV3 WITH 13K DSP CDMA IMAGE` = Software used for PHV3 CDMA with the 13K DSP algorithm was loaded.
`PHV3 WITH EVRC DSP CDMA IMAGE` = Software used for PHV3 CDMA with the EVRC DSP algorithm was loaded.
`PHA1A IMAGE` = Image used for PHA1A was loaded.

x = Identifier of a packet switching data structure that is recovered as part of the non-returning fault recovery action. Valid value(s):

```
LOGICAL CHANNEL
RECEIVING ACCESS LINE
RECEIVING LOGICAL LINK
```

```
SENDING ACCESS LINE
SENDING LOGICAL LINK
```

`y` = Given a data structure type above, this numerical value is the index into the data structure array. If the implicated data structure type is the receiving or sending logical link, this is to be an index into the logical link control block (LLCB) data structure array. If the implicated data structure type is the receiving or sending access line, this is an index into the access line control block (ALCB) data structure array. If the implicated data structure type is the logical channel, this is an index into the logical channel control block (LCCB).

Note: For the '`x`' and '`y`' fields above, a maximum of five switching data structures can be recovered as part of the assert recovery action.

4. ACTION TO BE TAKEN

Look up assert error code in the Asserts Manual and take corrective action. If the error code is not listed in the this manual, technical assistance is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:HISTORY
```

Other Manual(s):
235-600-500 *Asserts*

REPT:DEF-CHK-FP-C

Software Release: 5E12 only
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
REPT DEF-CHK-FAIL=a PSUPH=b-c-d-e [CHNG=b-c-d-f] EVENT=g
  EVENT-REPORTED-FROM-PSUPH=b-c-d-h
  ACTIVE-PSUCOM=i [PSU-COM-ERROR-SOURCE=j]
  PROCESS=k MESSAGE-NO=l [TIME=mm:mm nn/nn/nn]
  STIMULUS=o RCVY=p [AUD-SCHED=q] [PS DATA PRESERVING]
  FAIL-ADDR=r PP-MODE=s ASSERT-COUNT=t
 [STACK TRACE: u[ u[ u[ u[ u[ u[ u[ u]]]]]]]]
  IMAGE=v [EXPECTED-IMAGE=w]
 [x=y]
  .  .
  .  .
  .  .
```

2. REASON FOR OUTPUT

To report the occurrence of a defensive check failure (assert) in the packet switch unit protocol handler (PSUPH). The message prints only when the printmode is turned on. The message is stored in a buffer and can be printed on request (OP:HISTORY).

3. VARIABLE FIELD DEFINITIONS

`PS DATA PRESERVING` = Packet switching data as preserved.

`a` = Assert error code.

`b` = Switching module (SM) number.

`c` = Packet switching unit (PSU) number.

`d` = PSU shelf number.

`e` = PSUPH number.

`f` = Channel group (CHNG) number.

`g` = Event number.

`h` = PSUPH number in which the event occurred.

`i` = Active packet bus.

`j` = Packet bus on which error occurred.

`k` = Process number.

`l` = Message number.

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`m` = Time of day the assert occurred, in the form hour:minute.

`n` = Date the assert occurred, in the form month/day/year.

`o` = Stimulus of recovery action. Refer to the APP:RCVRY-ACTION appendix in the Appendixes section of the Output Messages manual for a list of recovery action stimulus and their definitions.

`p` = Recovery action that occurred. Valid value(s):

`FI`	= Full initialization.
`NONE`	= No recovery action.
`PRINT`	= Report only; no escalation.
`PSI`	= Autonomous PS initialization.
`RPI`	= Return to point of interrupt.
`SI`	= Selective initialization.
`SPP`	= Single process purge.

`q` = Name of the audits scheduled to clean up after the single process purge. Valid value(s):

`ALCB`	= The access line control block was scheduled.
`ALDB`	= The access line data block was scheduled.
`BD`	= The buffer descriptor was scheduled.
`DCCB`	= The D-channel control block was scheduled.
`DCDB`	= The D-channel data block was scheduled.
`IFD`	= The internal frame descriptors was scheduled.
`L2TL`	= The level 2 timing list was scheduled.
`L3TE`	= The level 3 timing element was scheduled.
`L3TL`	= The level 3 timing list was scheduled.
`LCCB`	= The logical channel control block was scheduled.
`LLCB`	= The logical link control block was scheduled.
`PSHC`	= The packet switch head cell was scheduled.
`PVC`	= The permanent virtual circuit was scheduled.
`RFD`	= The receive frame descriptor was scheduled.
`TFD`	= The transmit frame descriptor was scheduled.

`r` = Failing address where event occurred.

`s` = Port processor mode. Valid value(s):

`CONSISTENT`	= Hardware and software are consistent
`ESSENTIAL`	= Essential jobs operational.
`NORMAL`	= Normal operational mode.
`OPFULL`	= All jobs operational.
`POST_RCVY`	= Post recovery.
`RAMDYN`	= Dynamic memory consistent.
`RAMTXT`	= Read access memory text consistent.
`RAMWP`	= Text and data consistent.
`SW-RCVY`	= Software recovery.
`SYSPROC`	= System processes operational.
`UNKNOWN`	= Unknown source.

`t` = Assert count (number of nested ASSERTS).

u = Stack trace (up to eight addresses). Assistance may be required to interpret this field. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

v = Image type in the PH. Valid value(s):
`ERROR IMAGE` = The image contained an error.
`NULL IMAGE` = No image was loaded.
`PH2 ACCESS IMAGE` = All features (other than X.75' or X.75) on a PH2 were loaded.
`PH2 GATEWAY IMAGE` = X.75' or X.75 features on a PH2 were loaded.
`PH3 CCS IMAGE` = Image used for common channel signaling (CCS) features on a PH3 was loaded.
`PH3 ISDN IMAGE` = Image used for ISDN features on a PH3 was loaded.
`PH4 ISDN AP IMAGE` = Image used for PH4 ISDN AP was loaded.
`PH4 ISDN IOP IMAGE` = IOP image used for ISDN features on a PH4 was loaded.
`PH4 FR IOP IMAGE` = IOP image used for packet pipe features on a frame relay PH4 was loaded.
`PH4 ISDN FR IOP IMAGE` = IOP image used for ISDN features on a frame relay PH4 was loaded.
`PHV1 CDMA IMAGE` = Software used for PHV CDMA with ROM-based DSPs was loaded.
`PHV3 RAM-BASED CDMA IMAGE` = Software used for PHV3 CDMA with downloadable DSPs was loaded.
`PHV3 WITH 8K DSP CDMA IMAGE` = Software used for PHV3 CDMA with the 8K DSP algorithm was loaded.
`PHV3 WITH 13K DSP CDMA IMAGE` = Software used for PHV3 CDMA with the 13K DSP algorithm was loaded.
`PHV3 WITH EVRC DSP CDMA IMAGE` = Software used for PHV3 CDMA with the EVRC DSP algorithm was loaded.
`PHV3 ACELP DSP TDMA IMAGE` = Software used for PHV3 TDMA with the ACELP DSP algorithm was loaded.
`PHV3 VSELP DSP TDMA IMAGE` = Software used for PHV3 TDMA with the VSELP DSP algorithm was loaded.
`PHV4 RAM-BASED CDMA IMAGE` = Software used for PHV4 CDMA with downloadable DSP's was loaded.
`PHV4 WITH 8K DSP CDMA IMAGE` = Software used for PHV4 CDMA with 8K DSP algorithm was loaded.
`PHV4 WITH 13K DSP CDMA IMAGE` = Software used for PHV4 CDMA with 13K DSP algorithm was loaded.
`PHV4 WITH EVRC DSP CDMA IMAGE` = Software used for PHV4 CDMA with EVRC DSP algorithm was loaded.
`PHV4 WITH ACELP DSP TDMA IMAGE` = Software used for PHV4 TDMA with ACELP DSP algorithm was loaded.
`PHV4 WITH VSELP DSP TDMA IMAGE` = Software used for PHV4 TDMA with VSELP DSP algorithm was loaded.
`PHA1A IMAGE` = Image used for PHA1A was loaded.

w = Image type expected. Valid value(s):
`PH2 ACCESS IMAGE` = All features (other than X.75' or X.75) on a PH2 were loaded.
`PH2 GATEWAY IMAGE` = X.75' or X.75 features on a PH2 were loaded.
`PH3 CCS IMAGE` = Image used for CCS features on a PH3 was loaded.
`PH3 ISDN IMAGE` = Image used for ISDN features on a PH3 was loaded.
`PH4 ISDN AP IMAGE` = Image used for PH4 ISDN AP was loaded.
`PH4 ISDN IOP IMAGE` = IOP image used for ISDN features on a PH4 was loaded.

`PH4 FR IOP IMAGE` = IOP image used for packet pipe features on a frame relay PH4 was loaded.
`PH4 ISDN FR IOP IMAGE` = IOP image used for ISDN features on a frame relay PH4 was loaded.
`PHV1 CDMA IMAGE` = Software used for PHV CDMA with ROM-based DSPs was loaded.
`PHV3 RAM-BASED CDMA IMAGE` = Software used for PHV3 CDMA with downloadable DSPs was loaded.
`PHV3 WITH 8K DSP CDMA IMAGE` = Software used for PHV3 CDMA with the 8K DSP algorithm was loaded.
`PHV3 WITH 13K DSP CDMA IMAGE` = Software used for PHV3 CDMA with the 13K DSP algorithm was loaded.
`PHV3 WITH EVRC DSP CDMA IMAGE` = Software used for PHV3 CDMA with the EVRC DSP algorithm was loaded.
`PHV3 ACELP DSP TDMA IMAGE` = Software used for PHV3 TDMA with the ACELP DSP algorithm was loaded.
`PHV3 VSELP DSP TDMA IMAGE` = Software used for PHV3 TDMA with the VSELP DSP algorithm was loaded.
`PHV4 RAM-BASED CDMA IMAGE` = Software used for PHV4 CDMA with downloadable DSP's was loaded.
`PHV4 WITH 8K DSP CDMA IMAGE` = Software used for PHV4 CDMA with 8K DSP algorithm was loaded.
`PHV4 WITH 13K DSP CDMA IMAGE` = Software used for PHV4 CDMA with 13K DSP algorithm was loaded.
`PHV4 WITH EVRC DSP CDMA IMAGE` = Software used for PHV4 CDMA with EVRC DSP algorithm was loaded.
`PHV4 WITH ACELP DSP TDMA IMAGE` = Software used for PHV4 TDMA with ACELP DSP algorithm was loaded.
`PHV4 WITH VSELP DSP TDMA IMAGE` = Software used for PHV4 TDMA with VSELP DSP algorithm was loaded.
`PHA1A IMAGE` = Image used for PHA1A was loaded.

`x` = Identifier of a packet switching data structure that is recovered as part of the non-returning fault recovery action. Valid value(s):

```
LOGICAL CHANNEL
RECEIVING ACCESS LINE
RECEIVING LOGICAL LINK
SENDING ACCESS LINE
SENDING LOGICAL LINK
```

`y` = Given a data structure type above, this numerical value is the index into the data structure array. If the implicated data structure type is the receiving or sending logical link, this is to be an index into the logical link control block (LLCB) data structure array. If the implicated data structure type is the receiving or sending access line, this is an index into the access line control block (ALCB) data structure array. If the implicated data structure type is the logical channel, this is an index into the logical channel control block (LCCB).

Note: For the '`x`' and '`y`' fields above, a maximum of five switching data structures can be recovered as part of the assert recovery action.

4. ACTIONS TO BE TAKEN

Look up assert error code in the Asserts Manual and take corrective action. If the error code is not listed in the this

manual, technical assistance is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:HISTORY
```

Other Manual(s):
235-600-500 *Asserts*

REPT:DEF-CHK-FP-D

Software Release: 5E13 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
REPT DEF-CHK-FAIL=a PSUPH=b-c-d-e [CHNG=b-c-d-f] EVENT=g
  EVENT-REPORTED-FROM-PSUPH=b-c-d-h
  PSUCA=i ACTIVE-PSUCOM=j
  PROCESS=k MESSAGE-NO=l [TIME=mm:mm nn/nn/nn]
  STIMULUS=o RCVY=p [AUD-SCHED=q]
  FAIL-ADDR=r PP-MODE=s ASSERT-COUNT=t
  [STACK-TRACE: u[ u[ u[ u[ u[ u]]]]]]
  [             u[ u[ u[ u[ u[ u]]]]]]
  IMAGE=v [w]
  [x=y]
   .  .
   .  .
   .  .
```

2. REASON FOR OUTPUT

To report the occurrence of a defensive check failure (assert) in the packet switch unit protocol handler (PSUPH). The message prints only when the printmode is turned on. The message is stored in a buffer and can be printed on request (OP:HISTORY).

3. VARIABLE FIELD DEFINITIONS

`a` = Assert error code.

`b` = Switching module (SM) number.

`c` = Packet switching unit (PSU) number.

`d` = PSU shelf number.

`e` = PSUPH number.

`f` = Channel group (CHNG) number.

`g` = Event number.

`h` = PSUPH number in which the event occurred.

`i` = PSU community address.

`j` = Active packet bus.

`k` = Process number.

`l` = Message number.

`m` = Time of day the assert occurred, in the form hour:minute.

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n = Date the assert occurred, in the form month/day/year.

o = Stimulus of recovery action. Refer to the APP:RCVRY-ACTION appendix in the Appendixes section of the Output Messages manual for a list of recovery action stimulus and their definitions.

p = Recovery action that occurred. Valid value(s):

FI	= Full initialization.
NONE	= No recovery action.
PRINT	= Report only; no escalation.
PSI	= Autonomous PS initialization.
RPI	= Return to point of interrupt.
SI	= Selective initialization.
SPP	= Single process purge.

q = Name of the audits scheduled to clean up after the single process purge. Valid value(s):

ALCB	= The access line control block was scheduled.
ALDB	= The access line data block was scheduled.
BD	= The buffer descriptor was scheduled.
DCCB	= The D-channel control block was scheduled.
DCDB	= The D-channel data block was scheduled.
IFD	= The internal frame descriptors was scheduled.
L2TL	= The level 2 timing list was scheduled.
L3TE	= The level 3 timing element was scheduled.
L3TL	= The level 3 timing list was scheduled.
LCCB	= The logical channel control block was scheduled.
LLCB	= The logical link control block was scheduled.
PSHC	= The packet switch head cell was scheduled.
PVC	= The permanent virtual circuit was scheduled.
RFD	= The receive frame descriptor was scheduled.
TFD	= The transmit frame descriptor was scheduled.

r = Failing address where event occurred.

s = Port processor mode. Valid value(s):

CONSISTENT	= Hardware and software are consistent
ESSENTIAL	= Essential jobs operational.
NORMAL	= Normal operational mode.
OPFULL	= All jobs operational.
POST_RCVY	= Post recovery.
RAMDYN	= Dynamic memory consistent.
RAMTXT	= Read access memory text consistent.
RAMWP	= Text and data consistent.
SW-RCVY	= Software recovery.
SYSPROC	= System processes operational.
UNKNOWN	= Unknown source.

t = Assert count (number of nested ASSERTS).

u = Stack trace (up to twelve addresses). Assistance may be required to interpret this field. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages

manual.

`v` = Image type in the PH.

`w` = PH IOP image type.

`x` = Identifier of a packet switching data structure that is recovered as part of the non-returning fault recovery action. Valid value(s):

```
LOGICAL CHANNEL
RECEIVING ACCESS LINE
RECEIVING LOGICAL LINK
SENDING ACCESS LINE
SENDING LOGICAL LINK
```

`y` = Given a data structure type above, this numerical value is the index into the data structure array. If the implicated data structure type is the receiving or sending logical link, this is to be an index into the logical link control block (LLCB) data structure array. If the implicated data structure type is the receiving or sending access line, this is an index into the access line control block (ALCB) data structure array. If the implicated data structure type is the logical channel, this is an index into the logical channel control block (LCCB).

Note: For the '`x`' and '`y`' fields above, a maximum of five switching data structures can be recovered as part of the assert recovery action.

4. ACTIONS TO BE TAKEN

Look up assert error code in the Asserts Manual and take corrective action. If the error code is not listed in the this manual, technical assistance is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:HISTORY
```

Other Manual(s):
235-600-500 *Asserts*

REPT:DEGROWTH

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT DEGROWTH a b c [ d ]
```

2. REASON FOR OUTPUT

To indicate that a unit has been dynamically degrown by a user.

3. VARIABLE FIELD DEFINITIONS

`a` = Unit name.

`b` = Unit number.

`c` = Status of report. Valid value(s):

```
COMPLETED
FAILED
IN PROGRESS
```

`d` = Gives the reason for failure. For an IOP unit, refer to the APP:IOP-J appendix in the Appendixes section of the Output Messages manual for an explanation of the error code.

For a DFC unit refer to the APP:DFC-A appendix in the Appendixes section of the Output Messages manual for an explanation of the error code.

4. ACTION TO BE TAKEN

If 'c' =	Action:
COMPLETED or IN PROGRESS	No action is needed.
FAILED	Check the error code to determine action.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	197

Output Appendix(es):

```
APP:DFC-A
APP:IOP-J
APP:OMDB-X-REF
```

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REPT:DFC

Software Release: 5E10 and later
Message Class: DSKSYS
Application: 5,3B
Type: Output

1. FORMAT

[1]
```
REPT DFC a ERROR COMPLETION CODE b DEVICE STATUS c
```

[2]
```
REPT DFC a ERROR DEVICE STATUS c
```

[3]
```
REPT DFC a ERROR CHAN STATUS d
```

[4]
```
REPT DFC a ERROR DBS STATUS e
```

[5]
```
REPT DFC a ERROR BIC REGISTER STATUS f
```

[6]
```
REPT DFC a ERROR STATUS f MASK g EXP h
```

[7]
```
REPT DFC a ERROR DATA i
```

[8]
```
REPT DFC a FAULT CODE j
```

[9]
```
REPT DFC a UNIDENTIFIED RESPONSE WD1= k WD2= l
```

[10]
```
REPT DFC a AUTONOMOUS RESPONSE m
```

[11]
```
REPT DFC a INFO HA SHADOW REGISTER STATUS n
```

[12]
```
REPT DFC a INFO CODE o
```

[13]
```
REPT DFC a DMA ADDRESS ERROR
  JOBID u INUSE v MSGV w PID x UID y
  IO_PA z IO_BO a1 IO_BC b1
  JOB_BCNT c1 JOB_PA d1 SEG_SZ e1
```

2. REASON FOR OUTPUT

To specify the error condition detected by the disk file controller (DFC).

3. VARIABLE FIELD DEFINITIONS

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a = Unit number.

b = Command completion status word in hexadecimal notation. The completion word is eight hexadecimal digits of the form: ppqqrstt.

c = Device status, in hexadecimal notation. Refer to the APP:DFC-C appendix in the Appendixes section of the Output Messages manual.

d = Channel status, in hexadecimal notation. Refer to the APP:DFC-D appendix in the Appendixes section of the Output Messages manual.

e = Bus selector status, in hexadecimal notation. Refer to the APP:DFC-E appendix in the Appendixes section of the Output Messages manual.

f = BIC status, in hexadecimal notation. Refer to the APP:DFC-F appendix in the Appendixes section of the Output Messages manual.

g = Mask.

h = Expected value of 'f' after being masked with 'g'.

i = Supplemental data for a previous REPT:DKDRV output message.

j = Fault code, in hexadecimal notation. Refer to the APP:DFC-I appendix in the Appendixes section of the Output Messages manual.

k = First word of an unidentifiable completion report. This would normally be the completion word.

l = Second word of an unidentifiable completion report. This would normally be the device status word.

m = Autonomous response special completion code (eight hexadecimal digits). The explanation of the hexadecimal digits is the same as the completion code described previously for variable 'b'. The 'y' hexadecimal digit provides the reason for the autonomous response. Refer to the Autonomous Response Special Completion Code exhibit in the APP:DFC-B appendix in the Appendixes section of the Output Messages manual.

o = The small computer system interface (SCSI) host adapter (HA) shadow register status, in hexadecimal notation. Refer to the APP:DFC-P appendix in the Appendixes section of the Output Messages manual.

p = Command completion code. Refer to the DFC Error Codes and the Conditional Success Codes exhibits in the APP:DFC-B appendix in the Appendixes section of the Output Messages manual.

q = Number of blocks read or written.

r = Device identification (ID) number.

s = Special completion code; valid only when 'tt' is 00. Refer to the Autonomous Response Special Completion Code exhibit in the APP:DFC-B appendix in the Appendixes section of the Output Messages manual.

t = DMA job number (job ID).

s = Information code. Refer to the APP:DFC-A appendix in the Appendixes section of the Output

Messages manual.

u = DMA job ID number.

v = Job ID in use indicator. Y indicates valid job ID.

w = Message buffer indicator. Valid value(s):
- N = A message buffer was not found and fields 'x' through 'b[1]' are not valid.
- Y = A message buffer was found and fields 'x' through 'b[1]' are from the message buffer.

x = Process ID of the process requesting I/O.

y = Utility ID of the process requesting I/O.

z = Page table address of I/O memory segment provided by the client.

a[1] = Offset into the memory segment.

b[1] = Number of bytes requested by the client for I/O transfer.

c[1] = Page table address of I/O memory segment used by the driver.

d[1] = Number of bytes used by the driver for I/O transfer.

e[1] = Client's I/O memory segment size.

4. ACTION TO BE TAKEN

An error report indicates an error condition which could cause the removal of a unit. Any removed unit should be repaired and restored to service. Additional messages which provide useful data may be output.

5. ALARMS

There is no alarm for an automatically-generated report.

If a minor alarm occurs, take action as indicated in the report.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	232, 244
2 - 5	233
6	236
7	231
8	234
9	235
10	237, 238, 239
11	200
12	199
13	none

Input Message(s):

```
DGN:DFC
DGN:MHD
DGN:MT
RMV:DFC
RMV:MHD
RMV:MT
RMV:SBUS
RST:DFC
RST:MHD
RST:MT
RST:SBUS
```

Output Message(s):

```
DGN:DFC
DGN:MHD
DGN:MT
REPT:DKDRV
RMV:DFC
RMV:MHD
RMV:MT
RST:DFC
RST:MHD
RST:MT
```

Output Appendix(es):

```
APP:DFC-A
APP:DFC-B
APP:DFC-C
APP:DFC-D
APP:DFC-E
APP:DFC-F
APP:DFC-I
APP:DFC-P
APP:OMDB-X-REF
```

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REPT:DFC-PUMP

Software Release: 5E10 and later
Message Class: DSKSYS
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT DFC a AUTO PUMP NOT STARTED

[2]   ____________________________________________________________________
      REPT DFC a AUTO PUMP STARTED

[3]   ____________________________________________________________________
      REPT DFC a AUTO PUMP IN PROGRESS

[4]   ____________________________________________________________________
      REPT DFC a AUTO PUMP ABORTED

[5]   ____________________________________________________________________
      REPT DFC a AUTO PUMP COMPLETED

[6]   ____________________________________________________________________
      REPT DFC a AUTO PUMP INHIBITED

[7]   ____________________________________________________________________
      REPT DFC a PUMPCODE REMOVED
```

2. REASON FOR OUTPUT

To report the result of disk driver (DKDRV) automatically downloading the pumpcode to the disk file controller (DFC) or the removal of the pumpcode from the small computer system interface (SCSI) host adaptor (HA).

3. VARIABLE FIELD DEFINITIONS

`a` = Member number of the DFC.

4. ACTION TO BE TAKEN

If a termination report specifies that the pump could not be completed, refer to the DKDRV's error messages to determine the reason of the failure. If the problem is caused by the resource limitation, the limitation should be cleared so that the pump can be successfully completed when DKDRV retries. A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

Format 6 indicates that the DKDRV will not try to initiate any more pumpcode downloading on this DFC. The DFC pump has to be manually requested.

Format 7 informs the user that the pumpcode has been removed from the SCSI HA and the SCSI DFC is running with the operational firmware. This occurred because the SCSI DFC was having operational problem(s) with the running pumpcode. The pumpcode residing on disk should be verified and redownloaded manually.

5. ALARMS

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There is no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	577

Input Message(s):

```
LOAD:DFC-PUMP
```

Output Message(s):

```
LOAD:DFC-PUMP
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

REPT:DFCE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

[1]
```
REPT DFCE a
  ooooppppp qqqqrrrr ssssssss ttttuuuu vvvvwwww k1k1k1k1yyyy zzzzj1j1j1j1
```

[2]
```
REPT DFCE a DATA b-c X' d
```

2. REASON FOR OUTPUT

To print the enhanced information report (EIR) provided by the disk file controller (DFC).

Format 1 is output when the short form of the EIR is requested.

Format 2 is output when the long form of the EIR is requested.

3. VARIABLE FIELD DEFINITIONS

a = Unit number.

b = Segment number of error report. Valid value(s):

If 'b' =	Format =
1	xxxxxxxx a1a1a1a1a1a1a1a1 a1a1a1a1a1a1a1a1 a1a1a1a1a1a1a1a1 a1a1a1a1a1a1a1a1 b1b1b1b1b1b1b1b1 b1b1b1b1b1b1b1b1 b1b1b1b1b1b1b1b1 b1b1b1b1b1b1b1b1 c1c1c1c1d1d1d1d1 e1f1g1g1xxxx h1h1h1h1i1i1i1i1 i1i1i1i1i1i1i1i1i1i1i1i1i1i1i1i1 i1i1i1i1xxxx xxxxxxxx
2	l1l1l1l1m1m1m1m1 xxxxxxxx xxxxxxxx n1n1n1n1xxxx o1o1o1o1o1o1o1o1 xxxxxxxx p1p1p1p1q1q1q1q1 q1q1q1q1q1q1q1q1 q1q1q1q1xxxx xxxxxxxx xxxxxxxx xxxxxxxx xxxxxxxx xxxxxxxx xxxxxxxx xxxxxxxx
3, 4	r1r1r1r1r1r1r1r1 r1r1r1r1r1r1r1r1 r1r1r1r1r1r1r1r1 r1r1r1r1r1r1r1r1 r1r1r1r1r1r1r1r1 r1r1 r1r1r1r1r1r1r1 r1r1r1r1r1r1r1r1 r1r1r1r1r1r1r1r1 r1r1r1r1r1r1r1r1 r1r1r1r1r1r1r1r1 r1r1r1r1r1r1r1r1 r1r1r1r1r1r1r1r1 r1r1r1r1r1r1r1r1 r1r1 r1r1r1r1r1r1r1 r1r1r1r1r1r1r1r1 r1r1r1r1r1r1r1r1
5	s1s1s1s1t1t1t1t1 u1u1u1u1u1u1u1u1 u1u1u1u1u1u1u1u1

	$u^1u^1u^1u^1u^1u^1u^1u^1$ $u^1u^1u^1u^1u^1u^1u^1u^1$ v^1v^1 $v^1v^1v^1v^1v^1v^1$ $v^1v^1v^1v^1v^1v^1v^1v^1$ $v^1v^1v^1v^1v^1v^1v^1v^1$ $v^1v^1v^1v^1v^1v^1v^1v^1$ $w^1w^1w^1w^1$xxxx $y^1y^1y^1y^1y^1y^1y^1y^1$ $z^1z^1z^1z^1a^1a^1a^1a^1$ $a^1a^1a^1a^1a^1a^1a^1a^1$ $a^1a^1a^1a^1a^1a^1a^1a^1$ $a^1a^1a^1a^1$xxxx $b^1b^1b^1b^1c^1c^1c^1c^1$
6	$d^2d^2d^2d^2e^2e^2e^2e^2$ $f^2f^2f^2f^2g^2g^2g^2g^2$ $h^2h^2h^2h^2$xxxx xxxx$i^2i^2i^2i^2$ $j^2j^2j^2j^2j^2j^2j^2j^2$ $k^2k^2k^2k^2$xxxx xxxxxxxx xxxxxxxx xxxxxxxx $l^2l^2l^2l^2m^2m^2m^2m^2$ $n^2n^2n^2n^2o^2o^2o^2o^2$ xxxx$p^2p^2p^2p^2$ $q^2q^2q^2q^2r^2r^2r^2r^2$ xxxxxxxx xxxxxxxx xxxxxxxx
7, 9	$s^2s^2s^2s^2s^2s^2s^2s^2$ $s^2s^2s^2s^2s^2s^2s^2s^2$ $s^2s^2s^2s^2s^2s^2s^2s^2$ $s^2s^2s^2s^2s^2s^2s^2s^2$ $s^2s^2s^2s^2s^2s^2s^2s^2$ s^2s^2 $s^2s^2s^2s^2s^2s^2$ $s^2s^2s^2s^2s^2s^2s^2s^2$ $s^2s^2s^2s^2s^2s^2s^2s^2$ $s^2s^2s^2s^2s^2s^2s^2s^2$ $s^2s^2s^2s^2s^2s^2s^2s^2$ $s^2s^2s^2s^2s^2s^2s^2s^2$ $s^2s^2s^2s^2s^2s^2s^2s^2$ $s^2s^2s^2s^2s^2s^2s^2s^2$ s^2s^2 $s^2s^2s^2s^2s^2s^2$ $s^2s^2s^2s^2s^2s^2s^2s^2$ $s^2s^2s^2s^2s^2s^2s^2s^2$ Note: There may be from 1 to 16 fields in segment 9.
8	xxxx$t^2t^2t^2t^2$ $u^2u^2u^2u^2v^2v^2v^2v^2$ $w^2w^2w^2w^2x^2x^2y^2y^2$ $z^2z^2z^2z^2a^3a^3a^3a^3$ $b^3b^3b^3b^3c^3c^3c^3c^3$ $d^3d^3d^3d^3e^3e^3e^3e^3$ $w^2w^2w^2w^2x^2x^2y^2y^2$ $z^2z^2z^2z^2a^3a^3a^3a^3$ $b^3b^3b^3b^3c^3c^3c^3c^3$ $d^3d^3d^3d^3e^3e^3e^3e^3$ $w^2w^2w^2w^2x^2x^2y^2y^2$ $z^2z^2z^2z^2a^3a^3a^3a^3$ $b^3b^3b^3b^3c^3c^3c^3c^3$ d^3d^3 $d^3d^3e^3e^3e^3e^3$ $w^2w^2w^2w^2x^2x^2y^2y^2$ $z^2z^2z^2z^2a^3a^3a^3a^3$

c = Number of segments of information report.

d = Sequence number for this report.

e = Command completion code. Values for autonomous completion codes are:

- X'0000 = Instrumentation data.
- X'0100 = Diagnostic failure.
- X'0200 = Moving head disk (MHD) exerciser failure.
- X'0300 = sysgen response.
- X'0400 = Boot complete response.
- X'0500 = DFC idle (old abort) response.
- X'0600 = Illegal message/parameters.
- X'0700 = High temperature.
- X'0800 = Not used.

Values for non-autonomous completion codes are:

- X'0000 = Successful completion code.
- X'0400 = Verify completed. Errors detected, however.

X'8100 = Peripheral interface controller (PIC) random access memory (RAM) boundary error.
X'8300 = "Seek" error on disk.
X'8500 = No index detected on disk.
X'8900 = MHD status error.
X'8B00 = Uncorrectable data error.
X'8D00 = Disk boundary overflow.
X'8F00 = Head-sector mismatch error.
X'9100 = Wrong disk selected.
X'9300 = No disk selected.
X'9500 = Head positioning error.
X'9700 = Head selection error.
X'9900 = Bus interface controller (BIC) parity error.
X'9B00 = BIC-PIC soft error.
X'9D00 = PIC error.
X'9F00 = DMA setup overwrite.
X'A100 = Early end of tape (EOT) from DMA.
X'A300 = No EOT from DMA.
X'A700 = Parallel serial data interface (PSDI) first-in,first-out (FIFO) parity error.
X'A900 = PSDI FIFO underflow error.
X'AB00 = PSDI FIFO overflow error.
X'AD00 = PSDI acknowledge failure.
X'AF00 = Extra data in PSDI FIFO.
X'B100 = Disk data buffer error.
X'B300 = Main store address error.
X'B500 = Disk time out error.
X'B700 = DMA time out error.
X'BB00 = Uncorrectable data error in manufacturer (MFGR) defect table.
X'BD00 = Defect table overflow.
X'BF00 = Command for defective disk.
X'C100 = Unable to create our defect table on the disk.
X'C300 = MFGR specified more than the maximum number of defects allowed.
X'C500 = Uncorrectable data error on area that is guaranteed to be error free.
X'C700 = Invalid data in defect table.
X'C900 = Invalid data in RAM.
X'CB00 = Invalid manufacturer defect table.
X'CD00 = Uncorrectable data error in defect table.
X'CF00 = Unable to read defect table.
X'E100 = Bad version information in pump file.
X'E500 = Pump timeout.
X'D100 = Unable to read MFGR's defect table.
X'D300 = Unable to write defect table on the disk.
X'D500 = ramreg has incorrect value.
X'D700 = Uncorrectable data error and read temp list failed.
X'D900 = Uncorrectable data error and temp list overflow.
X'DA00 = Uncorrectable data error and the attempt to write the temp list failed.

f = Error code status flag. Valid value(s):
X'0 = Instrumentation data has not been saved.
X'4 = Instrumentation data has been saved.

X'8 = Autonomous response.
X'C = Autonomous response with instrumentation data saved.

g = Internal DFC error code. Valid value(s):
X'001 = REX verify not inserted.
X'002 = DGN drive number out of range.
X'003 = Defect table read not inserted.
X'004 = Read not inserted.
X'005 = "Seek" not inserted.
X'006 = Verify not inserted.
X'007 = Write not inserted.
X'008 = DFC online when DGN requested.
X'009 = MHD online when DGN requested.
X'00A = Run on board over run.
X'00B = Invalid DGN message pointer.
X'00C = Invalid system requested DGN message.
X'00D = Invalid routine exercise message.
X'00E = Invalid DGN message type.
X'00F = No subroutine requested by diagnostic.
X'010 = Invalid put response table pointer.
X'011 = putrsp in wrong state.
X'012 = RAM board failure.
X'013 = No response from RAM board.
X'014 = Invalid divide masks detected by axlate.
X'015 = Invalid current state for putrsp.
X'016 = Invalid return code from oncyldp.
X'017 = Invalid return code from skcylnd.
X'018 = Invalid return code from skcylnd.
X'019 = Invalid return code from skcylnd.
X'01A = Invalid data in DTSTAT0.
X'01B = Invalid return code from skcylnd.
X'01C = Invalid input to dtsetp.
X'01D = schdlr detected invalid DFC state.
X'01E = Error detected by dtsetp.
X'01F = Read RAM boundary error.
X'020 = Write RAM boundary error.
X'021 = Attempt to cmsmhd when DFC offline.
X'022 = Attempt to cmsmhd to online-unit not ready.
X'023 = Select drive in priority sel/rel failed.
X'024 = Unit not ready- priority release.
X'025 = Unclearable fault- priority release.
X'026 = Defect table not in memory (dfctmg).
X'027 = Disk maximum address exceeded- axlate.
X'028 = No end code in RAM defect table (dfctmg).
X'029 = Bad cylinder translation (dfctmg).
X'02A = Bad sector for MFGR head (dmngmt).
X'02B = Bad sector for TEMP head (dmngmt).
X'02C = Bad head for copy request (dmngmt).
X'02D = Bad dtstat0 options (dmngmt).
X'02E = Update defect table write failed (dmngmt).

X'02F = TEMP defect table write failed (dmngmt).
X'030 = Not defect management job (dmngmt).
X'031 = No defects for this drive (cpyupd).
X'032 = max head exceeded in MFGR table (cpyupd).
X'033 = max cyl exceeded in MFGR table (cpyupd).
X'034 = max sector exceeded in MFGR table (cpyupd).
X'035 = No end code for MFGR defect table (cpyupd).
X'036 = Bad defects order in MFGR table (cpyupd).
X'037 = No end code for TEMP defect table (cpytmp).
X'039 = Bad TEMP defect table start code (cpytmp).
X'03B = No end code for COMB defect table (prcdfj).
X'03C = Defect hash code does not match (prcdfj).
X'03D = Bad COMB defect table start code (prcdfj).
X'03E = Read defect table failed (drdchk).
X'03F = Bad version information in pump data.
X'050 = Missing routine.
X'051 = Time-out no sector/index intr in 600 us.
X'052 = On-cylinder could not select disk.
X'053 = On-cylinder detected "seek" time-out.
X'054 = Maximum cylinder number exceeded.
X'055 = Cylinder mismatch (expected != read).
X'056 = Head/sector mismatch (expected != read).
X'057 = Physical address not updated in time.
X'058 = PSDI FIFO time-out (first address word).
X'059 = PSDI FIFO time-out (second address word).
X'05A = PSDI FIFO time-out (reading data).
X'05B = PSDI status error during read.
X'05C = Read gate turn off time out.
X'05D = Data buffer pointer error (diff> size).
X'05E = Missed an error correction circuit (ECC) interrupt.
X'05F = Uncorrectable data error.
X'060 = ECC/Addr buffer full.
X'061 = Address update done too late (during write).
X'062 = Data buffer pointer error (diff> size).
X'063 = No disk acknowledgment received.
X'064 = Multiple disk responded (first select).
X'065 = Wrong or multiple disks responded.
X'066 = Can't clear drive fault.
X'067 = "Seek" error in disk status set.
X'068 = "Seek" did not start.
X'069 = PSDI did not start during a read.
X'06A = PSDI did not start during a write.
X'06B = "Seek" time-out (detected by skcylnd).
X'06C = Sector/index interrupt time-out (read).
X'06D = Sector/index interrupt time-out (write).
X'06E = "Seek" error on new cylinder.
X'06F = Index time out on new cylinder.
X'070 = PSDI FIFO error during write.
X'071 = PSDI FIFO unload time before head select.
X'072 = Job start sector/index interrupt time out.
X'073 = Time-out waiting for ECC (new cylinder).

X'074 = Time-out waiting for write to go off.
X'075 = Uncorrectable data error during verify.
X'076 = Address mismatch failure during verify.
X'077 = Disk access job aborted due to DMA error.
X'078 = "Seek" error detected by select routine.
X'079 = Drive fault during write operation.

h = Status flags. Bit field definitions are:
X'01 = Multiple drives responded.
X'02 = Wrong drive responded.
X'04 = No drive responded.
X'08 = Cannot clear drive fault.
X'10 = "Seek" error set when drive was selected.
X'20 = Cannot make selected drive "ready."
X'40 = Fatal error during drive select.
X'80 = Some kind of drive select error occurred.

i = Disk status register. Bit field definitions are:
X'01 = Heads have not been loaded.
X'02 = On cylinder.
X'04 = Unit ready.
X'08 = High temperature warning.
X'10 = "Seek" error.
X'20 = Fault flag.
X'40 = Sector mark flag.
X'80 = Index mark flag.

If the disk status register subfield contains the value FF, then the disk register subfield should be ignored.

j = Command completion code. Values for autonomous completion codes are:
X'0000 = Instrumentation data.
X'0100 = Diagnostic failure.
X'0200 = MHD exerciser failure.
X'0300 = sysgen response.
X'0400 = Boot complete response.
X'0500 = DFC idle response.
X'0600 = Illegal message/parameters.
X'0700 = High temperature.
X'0800 = Not used.

Values for non-autonomous completion codes are:
X'0000 = Successful completion code.
X'0400 = Verify completed. Errors detected, however.
X'8100 = PIC RAM boundary error.
X'8300 = "Seek" error on disk.
X'8500 = No index detected on disk.
X'8900 = MHD status error.
X'8B00 = Uncorrectable data error.

X'8D00 = Disk boundary overflow.
X'8F00 = Head-sector mismatch error.
X'9100 = Wrong disk selected.
X'9300 = No disk selected.
X'9500 = Head positioning error.
X'9700 = Head selection error.
X'9900 = BIC parity error.
X'9B00 = BIC-PIC soft error.
X'9D00 = PIC error.
X'9F00 = DMA setup overwrite.
X'A100 = Early EOT from DMA.
X'A300 = No EOT from DMA.
X'A700 = PSDI FIFO parity error.
X'A900 = PSDI FIFO underflow error.
X'AB00 = PSDI FIFO overflow error.
X'AD00 = PSDI acknowledge failure.
X'AF00 = Extra data in PSDI FIFO.
X'B100 = Disk data buffer error.
X'B300 = Main store address error.
X'B500 = Disk time out error.
X'B700 = DMA time out error.
X'BB00 = Uncorrectable data error in MFGR defect table.
X'BD00 = Defect table overflow.
X'BF00 = Command for defective disk.
X'C100 = Unable to create our defect table on the disk.
X'C300 = Manufacturer specified more than the maximum number of defects allowed.
X'C500 = Uncorrectable data error on area that is guaranteed to be error free.
X'C700 = Invalid data in defect table.
X'C900 = Invalid data in RAM.
X'CB00 = Invalid MFGR defect table.
X'CD00 = Uncorrectable data error in defect table.
X'CF00 = Unable to read defect table.
X'E100 = Bad version information in pump file.
X'E500 = Pump timeout.
X'D100 = Unable to read MFGR's defect table.
X'D300 = Unable to write defect table on the disk.
X'D500 = ramreg has incorrect value.
X'D700 = Uncorrectable data error and read TEMP list failed.
X'D900 = Uncorrectable data error and TEMP list overflow.
X'DA00 = Uncorrectable data error and the attempt to write the TEMP list failed.

k = Error code status flag. Valid value(s):
X'0 = Instrumentation data has not been saved.
X'4 = Instrumentation data has been saved.
X'8 = Autonomous response.
X'C = Autonomous response with instrumentation data saved.

l = Internal DFC error code. Valid value(s):
X'001 = REX verify not inserted.
X'002 = DGN drive number out of range.

X'003 = Defect table read not inserted.
X'004 = Read not inserted.
X'005 = "Seek" not inserted.
X'006 = Verify not inserted.
X'007 = Write not inserted.
X'008 = DFC online when DGN requested.
X'009 = MHD online when DGN requested.
X'00A = Run on board over run.
X'00B = Invalid DGN message pointer.
X'00C = Invalid system requested DGN message.
X'00D = Invalid routine exercise message.
X'00E = Invalid DGN message type.
X'00F = No subroutine requested by diagnostic.
X'010 = Invalid put response table pointer.
X'011 = putrsp in wrong state.
X'012 = RAM board failure.
X'013 = No response from RAM board.
X'014 = Invalid divide masks detected by axlate.
X'015 = Invalid current state for putrsp.
X'016 = Invalid return code for oncyldp.
X'017 = Invalid return code from skcylnd.
X'018 = Invalid return code from skcylnd.
X'019 = Invalid return code from skcylnd.
X'01A = Invalid data in DTSTAT0.
X'01B = Invalid return code from skcylnd
X'01C = Invalid input to dtsetp.
X'01D = schdlr detected invalid DFC state.
X'01E = Error detected by dtsetp.
X'01F = Read RAM boundary error.
X'020 = Write RAM boundary error.
X'021 = Attempt to cmsmhd when DFC offline.
X'022 = Attempt to cmsmhd to online-unit not ready.
X'023 = Select drive in priority sel/rel failed.
X'024 = Unit not ready - priority release.
X'025 = Unclearable fault - priority release.
X'026 = Defect table not in memory (dfctmg).
X'027 = Disk maximum address exceeded - axlate.
X'028 = No end code in RAM defect table (dfctmg).
X'029 = Bad cylinder translation (dfctmg).
X'02A = Bad sector for MFGR head (dmngmt).
X'02B = Bad sector for TEMP head (dmngmt).
X'02C = Bad head for copy request (dmngmt).
X'02D = Bad dtstat0 options (dmngmt).
X'02E = Update defect table write failed (dmngmt).
X'02F = TEMP defect table write failed (dmngmt).
X'030 = Not defect management job (dmngmt).
X'031 = No defects for this drive (cpyupd).
X'032 = max head exceeded in MFGR table (cpyupd).
X'033 = Maximum cylinder exceeded in MFGR table (cpyupd).
X'034 = Maximum sector exceeded in MFGR table (cpyupd).
X'035 = No end code for MFGR defect table (cpyupd).

X'036	= Bad defects order in MFGR table (cpyupd).
X'037	= No end code for TEMP defect table (cpytmp).
X'039	= Bad TEMP defect table start code (cpytmp).
X'03B	= No end code for COMB defect table (prcdfj).
X'03C	= Defect hash code does not match (prcdfj).
X'03D	= Bad COMB defect table start code (prcdfj).
X'03E	= Read defect table failed (drdchk).
X'03F	= Bad version information in pump data.
X'050	= Missing routine.
X'051	= Time-out no sector/index intr in 600 us.
X'052	= On-cylinder could not select disk.
X'053	= On-cylinder detected "seek" time-out.
X'054	= Maximum cylinder number exceeded.
X'055	= Cylinder mismatch (expected != read).
X'056	= Head/sector mismatch (expected != read).
X'057	= Physical address not updated in time.
X'058	= PSDI FIFO time-out (first address word).
X'059	= PSDI FIFO time-out (second address word).
X'05A	= PSDI FIFO time-out (reading data).
X'05B	= PSDI status error during read.
X'05C	= Read gate turn off time out.
X'05D	= Data buffer pointer error (diff < size).
X'05E	= Missed an ECC interrupt.
X'05F	= Uncorrectable data error.
X'060	= ECC/Addr buffer full.
X'061	= Address update done too late (during write).
X'062	= Data buffer pointer error (diff < size).
X'063	= No disk acknowledgement received.
X'064	= Multiple disk responded (first select).
X'065	= Wrong or multiple disks responded.
X'066	= Can't clear drive fault.
X'067	= "Seek" error in disk status set.
X'068	= "Seek" did not start.
X'069	= PSDI did not start during a read.
X'06A	= PSDI did not start during a write.
X'06B	= "Seek" time-out (detected by skcylnd).
X'06C	= Sector/index interrupt time-out (read).
X'06D	= Sector/index interrupt time-out (write).
X'06E	= "Seek" error on new cylinder.
X'06F	= Index time out on new cylinder.
X'070	= PSDI FIFO error during write.
X'071	= PSDI FIFO unload time before head select.
X'072	= Job start sector/index interrupt time out.
X'073	= Time-out waiting for ECC (new cylinder).
X'074	= Time-out waiting for write to go off.
X'075	= Uncorrectable data error during verify.
X'076	= Address mismatch failure during verify.
X'077	= Disk address job aborted due to DMA error.
X'078	= "Seek" error detected by select routine.
X'079	= Drive fault during write operation.

m = Status flags. Bit field definitions are:

X'01	= Multiple drives responded.
X'02	= Wrong drive responded.
X'04	= No drive responded.
X'08	= Cannot clear drive fault.
X'10	= "Seek" error set when drive was selected.
X'20	= Cannot make selected drive "ready."
X'40	= Fatal error during drive select.
X'80	= Some kind of drive select error occurred.

n = Disk status register. Bit field definitions are:

X'01	= Heads have not been loaded.
X'02	= On cylinder.
X'04	= Unit ready.
X'08	= High temperature warning.
X'10	= "Seek" error.
X'20	= Fault flag.
X'40	= Sector mark flag.
X'80	= Index mark flag.

If the disk status register subfield contains the value FF, then the disk status register subfield should be ignored.

o = Data flags. Bit field definitions for "dflags" word are:

X'8000	= Defect table in memory flag (1-in, 0-out).
X'4000	= Routine exerciser (REX) allowed flag (1-alw, 0-inh).
X'2000	= Drive in-service indicator (1-out, 0-in).
X'1000	= Optimization bit (1-on).
X'0800	= Uncorrectable data error.
X'0400	= Defect management update write job.

p = Drive table status word 0. Bit field definitions for "dtstat word 0" are:

X'8000	= Disk access required flag.
X'4000	= "Seek" only message flag.
X'2000	= Non-disk access message present flag.
X'1000	= Defect table setup only. No disk access.
X'0800	= "Seek" required flag.
X'0400	= Call to dtsetp required.
X'0200	= "Seek" pending flag.
X'0100	= Do not enter defect management if set [for diagnose (DGN)].
X'0080	= No work.

q = Drive table status word 1. Bit field definitions for "dtstat word 1" are:

X'8000	= Go indication flag.
X'4000	= Not used.
X'2000	= Direct memory access (DMA) operation completed successfully.
X'1000	= DMA operation detected error.
X'0800	= Marker read flag.
X'0400	= Boot request active flag.

`X'0200` = Segment break flag.
`X'0100` = Enable segment breaks.
`X'0080` = 0-read, boot, verify 1-write, initialize.
`X'0040` = Verify message flag.
`X'0020` = Initialization message flag.
`X'0010` = No marker read-wait for index flag.
`X'0008` = DMA required flag.
`X'0004` = Address mismatch flag (read only).
`X'0004` = Write gate off flag (write only).
`X'0002` = Skip defect management check.
`X'0001` = First sector flag for read.

`r` = ID plug number.

`s` = Completion and enhanced error codes.

This field consists of three subfields: the completion code, the error code status flag, and the internal DFC error code.

The meaning of completion code subfield value is found in one of two completion code lists. The list to reference is determined by the value in the error code status flag subfield. If the error code status flag value indicates an autonomous response, then reference the autonomous completion code list; otherwise, reference the non-autonomous completion code list.

The completion and enhanced error code field is eight hexadecimal digits in the form: `eeeefggg`.

`t` = Disk status register and flags.

This field consists of two subfields, the status flags and the disk status register in the form: `hhii`.

`u` = Starting cylinder of current job.

`v` = Starting head of current job.

`w` = Starting sector of current job.

`x` = Not used.

`y` = Current cylinder.

`z` = Current head.

`a`[1] = Current DFC related message.

`b`[1] = Previous DFC related message.

`c`[1] = DFC copy of response queue load pointer.

`d`[1] = Version number of the DFC firmware. Layout of version words from left to right are:
`4 bits`[1] = DFC generic number.
`6 bits`[1] = DFC issue number.
`6 bits`[1] = DFC point issue number.

e^1 = Tens digit of DFC EDI.

f^1 = Units digit of DFC EDI.

g^1 = ASCII letter of DFC EDI.

h^1 = DFC code (FFFO).

i^1 = Internal list pointers.

k^1 = Number of sectors in current job.

j^1 = Current sector.

l^1 = Current DFC state. Values the "cstate" may assume are:

X'0001	= Initial state after a reset.
X'0002	= Firmware initialization state.
X'0004	= Normal operating state in the asynchronous mode.
X'0008	= Normal operating state in the synchronous mode.
X'0010	= Sleep state in the synchronous mode.
X'0020	= Sleep state in the asynchronous mode.
X'0040	= Job completion state in the initialization mode.
X'0080	= Job completion state in the synchronous mode.
X'0100	= Job failure state in the asynchronous mode.
X'FE00	= Invalid state mask.

m^1 = Data flags. Bit field definitions for "dflags" word are:

X'8000	= Defect table in memory flag (1-in, 0-out).
X'4000	= REX allowed flag (1-alw, 0-inh).
X'2000	= Drive in-service indicator (1-out, 0-in).
X'1000	= Optimization bit (1-on).
X'0800	= Uncorrectable data error.
X'0400	= Defect management update write job.

n^1 = Pointer to drive table of currently active drive.

o^1 = Completion and enhanced error codes.

This field consists of three subfields: the completion code, the error code status flag, and the internal DFC error code.

The meaning of the completion code subfield value is found in one of two completion code lists. The list to reference is determined by the value in the error code status flag subfield. If the error code status flag value indicates an autonomous response, then reference the autonomous completion code list; otherwise reference the non-autonomous completion code list.

The completion and enhanced error code field is 8 hexadecimal digits of the form: `jjjjklll`.

p^1 = Size of disk data buffer (16-bit words).

q^1 = Initialization pattern.

r^1 = Routine trace buffer.

s[1] = Drive table status word 0. Bit field definitions for "dtstat word 0" are:

X'8000	= Disk access required flag.
X'4000	= "Seek" only message flag.
X'2000	= Non-disk access message present flag.
X'1000	= Defect table setup only. No disk access.
X'0800	= "Seek" required flag.
X'0400	= Call to dtsetp required.
X'0200	= "Seek" pending flag.
X'0100	= Do not enter defect management if set (for DGN).
X'0080	= No work.

t[1] = Drive table status word 1. Bit field definitions for "dtstat word 1" are:

X'8000	= Go indication flag.
X'4000	= Not used.
X'2000	= DMA operation completed successfully.
X'1000	= DMA operation detected error.
X'0800	= Marker read flag.
X'0400	= Boot request active flag.
X'0200	= Segment break flag.
X'0100	= Enable segment breaks.
X'0080	= 0-read, boot, verify 1-write, initialize.
X'0040	= Verify message flag.
X'0020	= Initialize message flag.
X'0010	= No marker read-wait for index flag.
X'0008	= DMA required flag.
X'0004	= Address mismatch flag (read only).
X'0004	= Write gate off flag (write only).
X'0002	= Skip defect management check.
X'0001	= First sector flag for read.

u[1] = Current drive table message.

v[1] = Previous drive table message.

w[1] = Number of cylinders on this drive.

x[1] = Number of tracks per cylinder.

y[1] = Division masks for converting block number to cylinder, head, and sector.

z[1] = Drive number.

a[2] = Internal list pointers.

b[2] = Maximum number of readable cylinders.

c[2] = Maximum number of verifiable cylinders.

d[2] = Port number associated with this drive.

e[2] = Data flags. Bit field definitions for "dflags" word are:

X'8000	= Defect table in memory flag (1-in, 0-out).

X'4000 = REX allowed flag (1-alw, 0-inh).
X'2000 = Drive in-service indicator (1-out, 0-in).
X'1000 = Optimization bit (1-on).
X'0800 = Uncorrectable data error.
X'0400 = Defect management update write job.

f^2 = Current direction of heads.

g^2 = Next cylinder for routine exercises.

h^2 = Next head for routine exercises.

i^2 = Pointer to initialization pattern.

j^2 = Completion and enhanced error codes.

Refer to the "Completion and enhanced error codes" field described in segment 2 of this report for a description of this field and the completion code values.

k^2 = Disk status register and flags. This field consist of two subfields, the status flags and the disk status register in the form: mmnn.

l^2 = Starting cylinder of current job.

m^2 = Starting head of current job.

n^2 = Starting sector of current job.

o^2 = Number of sectors in current job.

p^2 = Current cylinder.

q^2 = Current head

r^2 = Current sector.

s^2 = ECC buffer

t^2, u^2, v^2 = Pointers into ECC table.

w^2 = Cylinder from disk.

x^2 = Track from disk.

y^2 = Sector from disk.

z^2 = Expected cylinder.

a^3 = Expected track.

b^3 = Expected sector.

c^3 = Block.

d^3 = Word.

e^3 = Correction code.

4. ACTION TO BE TAKEN

This report provides supplemental data associated with a response returned to the administrative module (AM). The messages printed on the receive-only printer (ROP) around the report should be checked to determine the significance of the report.

A two-segment report is generated after a SYSGEN message has been received from the AM and before the response for the SYSGEN message is returned to the AM. All of the data in this particular report should be ignored.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:DFC
DGN:MHD
RMV:DFC
RMV:MHD
RST:DFC
RST:MHD
```

Output Message(s):

```
DGN:DFC
DGN:MHD
RMV:DFC
RMV:MHD
RST:DFC
RST:MHD
```

REPT:DFCI

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT DFCI m
        aaaaaaaa bbbbbbbb cccccccc ddddddd eeeeffgg hhhhhhhh iiiiiiii jjjjjjjj
        kkkkkkkk kkkkkkkk kkkkkkkkk kkkkkkkk llllllll llllllll llllllll llllllll

[2]   ____________________________________________________________________
      REPT DFCI m DATA n-o X' p
```

2. REASON FOR OUTPUT

To print the enhanced information report (EIR) provided by the small computer system interface (SCSI) disk file controller (DFC).

Format 1 is output when the short form of the EIR is requested and Format 2 is output when the long form is requested.

3. VARIABLE FIELD DEFINITIONS

`a` = Command completion word. The completion word is 8 hexadecimal digits of the form: `qqrrstuu`

`b` = Device status word. Refer to the APP:DFC-C appendix in the Appendixes section of the Output Messages manual.

`c` = Operational firmware version. Refer to the APP:DFC-O appendix in the Appendixes section of the Output Messages manual.

`d` = Pumpcode version. Refer to the APP:DFC-O appendix in the Appendixes section of the Output Messages manual.

`e` = Enhanced completion code. Refer to the APP:DFC-B appendix in the Appendixes section of the Output Messages manual.

`f` = Target controller command status byte. Valid value(s):

`0x00`	= Good.
`0x02`	= Check condition.
`0x04`	= Condition met.
`0x08`	= Busy.
`0x10`	= Intermediate.
`0x14`	= Intermediate - condition met.
`0x18`	= Reservation conflict.
`0x22`	= Command terminated.
`0x28`	= Queue full.
`0xFF`	= Status not available.

`g` = Firmware/driver communications register. Refer to the APP:DFC-B appendix in the Appendixes

section of the Output Messages manual.

h = HA status register. Refer to the APP:DFC-N appendix in the Appendixes section of the Output Messages manual.

i = BIC status register. Refer to the APP:DFC-F appendix in the Appendixes section of the Output Messages manual.

j = Previous command received from the administrative module (AM). Refer to the APP:DFC-M appendix in the Appendixes section of the Output Messages manual. This information may not be useful when pumpcode is running.

k = Failing command received from the AM. Refer to the APP:DFC-M appendix in the Appendixes section of the Output Messages manual.

l = Extended sense data. Refer to the APP:DFC-J appendix in the Appendixes section of the Output Messages manual.

m = Unit number.

n = Segment number of information report.

If n **=**	**Format =**
1	xxxxxxxx yyyyyyyy zzzzzzzz $a^1a^1a^1a^1a^1a^1a$ $b^1b^1b^1b^1c^1d^1e^1e^1$ $f^1f^1f^1f^1f^1f^1f^1f^1$ $g^1g^1g^1g^1g^1g^1g^1g^1$ $h^1h^1h^1h^1h^1h^1h^1h^1$ $i^1i^1i^1i^1i^1i^1i^1i^1$ $i^1i^1i^1i^1i^1i^1i^1i^1$ $i^1i^1i^1i^1i^1i^1i^1i^1$ $i^1i^1i^1i^1i^1i^1i^1i^1$ $j^1j^1j^1j^1j^1j^1j^1j^1$ j^1j^1 $j^1j^1j^1j^1j^1j^1$ $j^1j^1j^1j^1j^1j^1j^1j^1$ $j^1j^1j^1j^1j^1j^1j^1$
2	$k^1k^1l^1l^1m^1m^1n^1n^1$ $o^1o^1o^1o^1o^1o^1o^1o^1$ $p^1p^1p^1p^1p^1p^1p^1p^1$ $q^1q^1q^1q^1q^1q^1q^1q^1q^1q^1q^1q^1q^1q^1q^1q^1$ q^1q^1 $q^1q^1q^1q^1q^1q^1$ $q^1q^1q^1q^1q^1q^1q^1q^1$ $r^1r^1r^1r^1r^1r^1r^1r^1$ $r^1r^1r^1r^1r^1r^1r^1r^1$ $r^1r^1r^1r^1r^1r^1r^1r^1$ $r^1r^1r^1r^1r^1r^1r^1r^1$ $r^1r^1r^1r^1r^1r^1r^1r^1$ $r^1r^1r^1r^1r^1r^1r^1r^1$ r^1r^1 $r^1r^1r^1r^1r^1r^1$ $r^1r^1r^1r^1r^1r^1r^1r^1$ $r^1r^1r^1r^1r^1r^1r^1$
3	$s^1s^1s^1s^1s^1s^1s^1s^1$ $s^1s^1s^1s^1s^1s^1s^1s^1$ $s^1s^1s^1s^1s^1s^1s^1s^1$ $s^1s^1s^1s^1s^1s^1s^1s^1s^1s^1s^1s^1s^1s^1s^1s^1$ s^1s^1 $s^1s^1s^1s^1s^1s^1$ $s^1s^1s^1s^1s^1s^1s^1s^1$ $s^1s^1s^1s^1s^1s^1s^1$ $s^1s^1s^1s^1s^1s^1s^1s^1$ $s^1s^1s^1s^1s^1s^1s^1s^1$ $s^1s^1s^1s^1s^1s^1s^1s^1$ $s^1s^1s^1s^1s^1s^1s^1s^1$ $t^1t^1t^1t^1t^1t^1t^1t^1$ t^1t^1 $t^1t^1t^1t^1t^1t^1$ $t^1t^1t^1t^1t^1t^1t^1t^1$ $u^1u^1u^1u^1u^1u^1u^1$
4	$v^1v^1v^1v^1v^1v^1v^1v^1$ $v^1v^1v^1v^1v^1v^1v^1v^1$ $v^1v^1v^1v^1v^1v^1v^1v^1$ $v^1v^1v^1v^1v^1v^1v^1v^1$ $v^1v^1v^1v^1v^1v^1v^1v^1$ v^1v^1 $v^1v^1v^1v^1v^1v^1$ $v^1v^1v^1v^1v^1v^1v^1v^1$ $v^1v^1v^1v^1v^1v^1v^1$

	$v^1v^1v^1v^1v^1v^1v^1v^1$ $v^1v^1v^1v^1v^1v^1v^1v^1$ $v^1v^1v^1v^1v^1v^1v^1v^1$ $v^1v^1v^1v^1v^1v^1v^1v^1$ $w^1w^1w^1w^1w^1w^1w^1w^1$ w^1w^1 $w^1w^1w^1w^1w^1w^1$ $w^1w^1w^1w^1w^1w^1w^1w^1$ $x^1x^1x^1x^1x^1x^1x^1x^1$
5	$y^1y^1y^1y^1y^1y^1y^1y^1$ $y^1y^1y^1y^1y^1y^1y^1y^1$ $y^1y^1y^1y^1y^1y^1y^1y^1$ $y^1y^1y^1y^1y^1y^1y^1y^1$ $y^1y^1y^1y^1y^1y^1y^1y^1$ y^1y^1 $y^1y^1y^1y^1y^1y^1$ $y^1y^1y^1y^1y^1y^1y^1y^1$ $y^1y^1y^1y^1y^1y^1y^1y^1$ $y^1y^1y^1y^1y^1y^1y^1y^1$ $y^1y^1y^1y^1y^1y^1y^1y^1$ $y^1y^1y^1y^1y^1y^1y^1y^1$ $y^1y^1y^1y^1y^1y^1y^1y^1$ $z^1z^1z^1z^1z^1z^1z^1z^1$ z^1z^1 $z^1z^1z^1z^1z^1z^1$ $z^1z^1z^1z^1z^1z^1z^1z^1$ $z^1z^1z^1z^1z^1z^1z^1z^1$
6	$a^2a^2a^2a^2a^2a^2a^2a^2$ $b^2b^2b^2b^2b^2b^2b^2b^2$ $c^2c^2c^2c^2c^2c^2c^2c^2$ $t^2t^2t^2t^2t^2t^2t^2t^2$ $u^2u^2u^2u^2u^2u^2u^2u^2$ u^2u^2 $u^2u^2u^2u^2u^2u^2$ $v^2v^2v^2v^2v^2v^2v^2v^2$ $v^2v^2v^2v^2v^2v^2v^2v^2$ $v^2v^2v^2v^2v^2v^2v^2v^2$ $v^2v^2v^2v^2v^2v^2v^2v^2$ $v^2v^2v^2v^2v^2v^2v^2v^2$ $v^2v^2v^2v^2v^2v^2v^2v^2$ $v^2v^2v^2v^2v^2v^2v^2v^2$ w^2w^2 $w^2w^2w^2w^2w^2w^2$ $w^2w^2w^2w^2w^2w^2w^2w^2$ $w^2w^2w^2w^2w^2w^2w^2w^2$
7	$d^2d^2e^2e^2f^2f^2g^2g^2$ $h^2h^2h^2h^2h^2h^2h^2h^2$ $i^2i^2i^2i^2i^2i^2i^2i^2$ $j^2j^2j^2j^2j^2j^2j^2j^2$ $j^2j^2j^2j^2j^2j^2j^2j^2$ j^2j^2 $j^2j^2j^2j^2j^2j^2$ $j^2j^2j^2j^2j^2j^2j^2j^2$ $k^2k^2k^2k^2k^2k^2k^2k^2$ $k^2k^2k^2k^2k^2k^2k^2k^2$ $k^2k^2k^2k^2k^2k^2k^2k^2$ $k^2k^2k^2k^2k^2k^2k^2k^2$ $k^2k^2k^2k^2k^2k^2k^2k^2$ $k^2k^2k^2k^2k^2k^2k^2k^2$ k^2k^2 $k^2k^2k^2k^2k^2k^2$ $k^2k^2k^2k^2k^2k^2k^2k^2$ $k^2k^2k^2k^2k^2k^2k^2k^2$
8	$l^2l^2l^2l^2l^2l^2l^2l^2$ $l^2l^2l^2l^2l^2l^2l^2l^2$ $l^2l^2l^2l^2l^2l^2l^2l^2$ $l^2l^2l^2l^2l^2l^2l^2l^2$ $l^2l^2l^2l^2l^2l^2l^2l^2$ l^2l^2 $l^2l^2l^2l^2l^2l^2$ $l^2l^2l^2l^2l^2l^2l^2l^2$ $l^2l^2l^2l^2l^2l^2l^2l^2$ $l^2l^2l^2l^2l^2l^2l^2l^2$ $l^2l^2l^2l^2l^2l^2l^2l^2$ $l^2l^2l^2l^2l^2l^2l^2l^2$ $l^2l^2l^2l^2l^2l^2l^2l^2$ $m^2m^2m^2m^2m^2m^2m^2m^2$ m^2m^2 $m^2m^2m^2m^2m^2m^2$ $m^2m^2m^2m^2m^2m^2m^2m^2$ $n^2n^2n^2n^2n^2n^2n^2n^2$
9	$o^2o^2o^2o^2o^2o^2o^2o^2$ $o^2o^2o^2o^2o^2o^2o^2o^2$ $o^2o^2o^2o^2o^2o^2o^2o^2$ $o^2o^2o^2o^2o^2o^2o^2o^2$ $o^2o^2o^2o^2o^2o^2o^2o^2$ o^2o^2 $o^2o^2o^2o^2o^2o^2$ $o^2o^2o^2o^2o^2o^2o^2o^2$ $o^2o^2o^2o^2o^2o^2o^2o^2$ $o^2o^2o^2o^2o^2o^2o^2o^2$ $o^2o^2o^2o^2o^2o^2o^2o^2$ $o^2o^2o^2o^2o^2o^2o^2o^2$ $o^2o^2o^2o^2o^2o^2o^2o^2$ $p^2p^2p^2p^2p^2p^2p^2p^2$ p^2p^2 $p^2p^2p^2p^2p^2p^2$ $p^2p^2p^2p^2p^2p^2p^2p^2$ $q^2q^2q^2q^2q^2q^2q^2q^2$
10	$r^2r^2r^2r^2r^2r^2r^2r^2$ $r^2r^2r^2r^2r^2r^2r^2r^2$ $r^2r^2r^2r^2r^2r^2r^2r^2$

```
r2r2r2r2r2r2r2r2r2 r2r2r2r2r2r2r2r2r2 r2r2 r2r2r2r2r2r2r2 r2r2r2r2r2r2r2r2r2
r2r2r2r2r2r2r2r2r2

r2r2r2r2r2r2r2r2r2 r2r2r2r2r2r2r2r2r2 r2r2r2r2r2r2r2r2r2

r2r2r2r2r2r2r2r2r2 s2s2s2s2s2s2s2s2s2 s2s2 s2s2s2s2s2s2s2 s2s2s2s2s2s2s2s2s2
s2s2s2s2s2s2s2s2s2
```

o = Number of segments of information report.

p = Sequence number for this report.
Note 1: Variable 'p' is only valid when 'qq' is zero.

q = Completion code. Refer to the APP:DFC-B appendix in the Appendixes section of the Output Messages manual.

r = Number of blocks read/written on short failure of read/write command.

s = Bus/device ID number of the device associated with the activity identified by this response. If the activity references the host adapter, this field is not used by the DFC.

t = Autonomous completion code. Refer to the APP:DFC-B appendix in the Appendixes section of the Output Messages manual.

u = Job ID number.

v = SCSI bus enabled status. Valid value(s):
0 = Bus is not enabled.
1 = Bus is enabled.

w = Host adapter (HA) ID number.

x = Command completion word: The completion word is 8 hexadecimal digits of the form: qqrrstuu

y = Device status word. Refer to the APP:DFC-C appendix in the Appendixes section of the Output Messages manual.

z = Operational firmware version. Refer to the APP:DFC-O appendix in the Appendixes section of the Output Messages manual.

a^1 = Pumpcode version. Refer to the APP:DFC-O appendix in the Appendixes section of the Output Messages manual.

b^1 = Enhanced completion code. Refer to the APP:DFC-B appendix in the Appendixes section of the Output Messages manual.

c^1 = SCSI bus A enabled status and host adapter ID number. It is comprised of 4 bits of the form: vwww.

d^1 = SCSI bus B status and host adapter ID number. It is comprised of 4 bits of the form: vwww.

e^1 = Firmware/driver communications register. Refer to the APP:DFC-B appendix in the Appendixes section of the Output Messages manual.

f[1] = Host adapter status register. Refer to the APP:DFC-N appendix in the Appendixes section of the Output Messages manual.

g[1] = BIC status register. Refer to the APP:DFC-F appendix in the Appendixes section of the Output Messages manual.

h[1] = Routine exerciser failing block number.

i[1] = Failing command received from the AM. Refer to the APP:DFC-M appendix in the Appendixes section of the Output Messages manual.

j[1] = Previous command received from the AM. Refer to the APP:DFC-M appendix in the Appendixes section of the Output Messages manual. This information may not be useful when pumpcode is running.

k[1] = Device number.

l[1] = Other device number.

m[1] = Job type pending. Refer to the APP:DFC-B appendix in the Appendixes section of the Output Messages manual.

n[1] = Device maintenance mode. Valid value(s):
0 = Device is online.
1 = Device is offline.

o[1] = Last logical block address of the device.

p[1] = Target controller's logical block size in bytes.

q[1] = Extended sense data. Refer to the APP:DFC-J appendix in the Appendixes section of the Output Messages manual.

r[1] = Inquiry data. Refer to the APP:DFC-L appendix in the Appendixes section of the Output Messages manual.

s[1] = First SCSI job block (SJB) structure. Refer to the APP:DFC-K appendix in the Appendixes section of the Output Messages manual.

t[1] = SCSI command. Refer to Note 2.

u[1] = Retry count.

v[1] = Second SJB structure. Refer to the APP:DFC-K appendix in the Appendixes section of the Output Messages manual.

w[1] = Second SCSI command. Refer to Note 2.

x[1] = Location of the routine exerciser on the device in logical blocks.

y[1] = Third SJB structure. Refer to the APP:DFC-K appendix in the Appendixes section of the Output Messages manual.

z[1] = Command received from the AM. Refer to the APP:DFC-M appendix in the Appendixes section of

the Output Messages manual.

a[2] = Device "busy condition" at time of job termination. Valid value(s):
0 = Device was not in a "busy condition".
1 = Device was in a "busy condition".

b[2] = Timer ID associated with "busy condition".

c[2] = HA data buffer address.

d[2] = Device number.

e[2] = Other device number.

f[2] = Job type pending. Refer to the APP:DFC-B appendix in the Appendixes section of the Output Messages manual.

g[2] = Device maintenance mode. Valid value(s):
0 = Device is online.
1 = Device is offline.

h[2] = Last logical block address of the device.

i[2] = Target controller's logical block size in bytes.

j[2] = Extended sense data. Refer to the APP:DFC-J appendix in the Appendixes section of the Output Messages manual.

k[2] = Inquiry sense data. Refer to the APP:DFC-L appendix in the Appendixes section of the Output Messages manual.

l[2] = First SJB structure. Refer to the APP:DFC-K appendix in the Appendixes section of the Output Messages manual.

m[2] = SCSI command. Refer to Note 2.

n[2] = Retry count.

o[2] = Second SJB structure. Refer to the APP:DFC-K appendix in the Appendixes section of the Output Messages manual.

p[2] = Second SCSI command. Refer to Note 2.

q[2] = Location of the routine exerciser on the device in logical blocks.

r[2] = Third SJB structure. Refer to the APP:DFC-K appendix in the Appendixes section of the Output Messages manual.

s[2] = Command received from the AM. Refer to the APP:DFC-M appendix in the Appendixes section of the Output Messages manual.

t[2] = Slow job function pointer.

u[2] = Sequential access device record information.

v[2] = Data transfer control information.

w[2] = Not used.

Note 2: There are normally one, five, or nine segments of data output.

4. ACTION TO BE TAKEN

An information report provides additional information about a condition which could cause the removal of a unit. Any removed unit should be repaired and restored to service. Additional messages which provide useful data may be output.

If the output contains task entry data or SCSI commands, collect the output and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:DFC
DGN:MHD
DGN:MT
RMV:DFC
RMV:MHD
RMV:SBUS
RMV:MT
RST:DFC
RST:MHD
RST:SBUS
RST:MT
```

Output Message(s):

```
DGN:DFC
DGN:MHD
DGN:MT
RMV:DFC
RMV:MHD
RMV:SBUS
RMV:MT
RST:DFC
RST:MHD
RST:SBUS
RST:MT
```

Output Appendix(es):

```
APP:DFC-B
APP:DFC-C
```

```
APP:DFC-F
APP:DFC-J
APP:DFC-K
APP:DFC-L
APP:DFC-M
APP:DFC-N
APP:DFC-O
```

REPT:DFI-TDCE

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DFI=a-b-c TRBL DFI CCB ERROR d
  e RECOVERY ACTION f
  g h i
  j k [l]
```

2. REASON FOR OUTPUT

To report a trouble indication in the digital facility interface (DFI) microprocessor.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line/trunk unit number.

`c` = DFI number.

`d` = Event number.

`e` = Secondary error type. Valid value(s):
`DFI PIDB LOSS OF CLOCK ALARM` = Digital facility interface peripheral interface database loss of clock alarm.
`INTERNAL CONTROL TROUBLE`
`INTERNAL DATA TROUBLE`
`REDUNDANT TM SERV REQ` = Redundant terminal maintenance service request.
`UNUSED CCB REG ACTIVITY` = Unused control communication buffer register activity.

For a further explanation of htese error types, refer to variable '`k`'.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`INITIALIZE` = The failing circuit has been reinitialized.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = External logical circuit name.

`h` = Current decimal number of errors of this type recorded.

`i` = Error count threshold, above which the recovery action will be escalated.

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j = Code indication whether error is associated with the facility or board, and identifying the DFI hardware type. Valid value(s):

0001 = Facility 0, DFI-1.
0002 = Facility 0, DFI-2.
0102 = Facility 1, DFI-2.
ff01 = Board, DFI-1.
ff02 = Board, DFI-2.

k = Hexadecimal value passed from peripheral control. Valid value(s):

If 'e' =	**'k' =**
INTERNAL DATA TROUBLE	A hexadecimal number. Valid value(s): 0x95 = Transmit formatter exercise alarm. 0x96 = Receive synchronizer exercise alarm. 0x97 = Framer exercise alarm. 0x98 = Audit latch failure alarm.
INTERNAL CONTROL TROUBLE	A hexadecimal number. Valid value(s): 0x90 = Firmware fault. 0x9b = Control communication burrer status alarm.
REDUNDANT TM SERV REQ	0x1ff
DFI PIDB LOSS OF CLOCK ALARM	0x9c
UNUSED OR UNEXPECTED ACT.	The address of the unused register.

l = CCB register data. This is only valid for INTERNAL DATA TROUBLE and INTERNAL CONTROL TROUBLE.

4. ACTION TO BE TAKEN

Analyze and evaluate the data and take appropriate corrective action.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

MCC Display Page(s):

112y,x (DIGITAL LINE & TRUNK UNIT)

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REPT:DFI-TDSE

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DFI=a-b-c TRBL DFI STATUS ERROR d
  SANITY TIMEOUT RECOVERY ACTION  e
  f  g
  h  i  j
```

2. REASON FOR OUTPUT

To report a trouble indication in the digital facility interface (DFI) microprocessor.

3. VARIABLE FIELD DEFINITIONS

`SANITY TIMEOUT` = The internal microprocessor failed to reset the timer, which indicates that either the program is not functioning or the microprocessor is insane.

`a` = Switching module (SM) number.

`b` = Digital line/trunk unit number.

`c` = DFI number.

`d` = Event number.

`e` = Recovery action. Valid value(s):
- `ANALYSIS ONLY` = A post mortem report is generated.
- `INITIALIZE` = The failing circuit has been reinitialized.
- `RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
- `RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
- `RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`f` = Hexadecimal value pass from the peripheral controller (PC). Valid value(s):
`0xbe`

`g` = Communications control buffer (CCB) register data.

`h` = External logical circuit name.

`i` = Current decimal number of errors of this type recorded.

`j` = Error count threshold, above which the recovery action will be escalated.

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4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:DFI-TIDPF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DFI-a-b-c TRBL INTERNAL DATA PATH FAULT d
  SANITY TIMEOUT RECOVERY ACTION e
  f g h
  iiiijjjj kkkkllll
```

2. REASON FOR OUTPUT

A digital facility interface (DFI) has its data path internally looped.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Digital line and trunk unit number.

`c` = Digital facility interface board number.

`d` = Event number.

`e` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`INITIALIZE` = The failing circuit has been reinitialized.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`f` = External logical circuit name.

`g` = Number of recent failures of this type recorded, in decimal.

`h` = Error count threshold, above which the recovery action will be escalated, in decimal.

`i` = Code identifying the DFI hardware type. Valid value(s):
`ff01` = DFI-1 hardware type.
`ff02` = DFI-2 hardware type.

`j` = Hexadecimal error code identifying point of failure. Valid value(s):
`fff9` = Hardware current status register read failure.
`fffa` = Insane firmware.
`fffb` = Talkback register read failure.
`fffc` = Firmware response timeout.
`fffd` = Bad unit type determined from database read.
`fffe` = Bad PICH determined from database read.
`ffff` = DFI-1 data path internally looped.

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`k` = Hexadecimal hardware status code. Not used.

`l` = DFI status mask. Not used.

4. ACTION TO BE TAKEN

None. This message may indicate the presence of a hardware fault, so the user may wish to monitor for occurrence of other messages.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

REPT:DFI-TPCF-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DFI=a-b-c TRBL PICB CONTROL FAILURE EVENT=d
  e RECOVERY ACTION f
  g h i j
  k l m
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the digital facility interface (DFI) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Active module processor side.

`c` = DFI number.

`d` = Event number.

`e` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is printed.
`ASSERT TO SYSTEM INTEGRITY` = A defensive check failure (assert) has been detected and system integrity has been notified.
`RST PREEMPT` = The failing circuit has been preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`h` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`i` = Data in hexadecimal being written to the periphery by the CI.

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`j` = Contents of the CI error source register in hexadecimal.

`k` = External logical circuit name.

`l` = Current decimal number of the recent failures of this type recorded.

`m` = Error count threshold, above which the recovery action will be taken.

4. ACTION TO BE TAKEN

None. This message may indicate the presence of a hard fault, so the user may wish to monitor for the occurrence of other messages.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:DFI-TPCF-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DFI=a-b-c TRBL PICB CONTROL FAILURE EVENT=d
  e RECOVERY ACTION f
  g h i j
  k l m n
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the digital facility interface (DFI) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Active module processor side.

`c` = DFI number.

`d` = Event number.

`e` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is printed.
`ASSERT TO SYSTEM INTEGRITY` = A defensive check failure (assert) has been detected and system integrity has been notified.
`RST PREEMPT` = The failing circuit has been preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`h` = System PICB number in hexadecimal that was being written when the failure occurred.

`i` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

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`j` = Data in hexadecimal being written to the periphery by the CI.

`k` = Contents of the CI error source register in hexadecimal.

`l` = External logical circuit name.

`m` = Current decimal number of the recent failures of this type recorded.

`n` = Error count threshold, above which the recovery action will be taken.

4. ACTION TO BE TAKEN

None. This message may indicate the presence of a hard fault, so the user may wish to monitor for the occurrence of other messages.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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REPT:DFI-TPPF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DFI=a-b-c TRBL PIDB PARITY FAILURE d
  e RECOVERY ACTION f
  g h i j
```

2. REASON FOR OUTPUT

To respond to a time-slot interchange (TSI) interrupt caused by peripheral interface data bus (PIDB) parity errors in the digital facility interface (DFI).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line trunk unit number.

`c` = DFI number.

`d` = Event number.

`e` = Error type, which indicates PIDB trouble.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the result of the diagnostic.

`g` = External logical circuit name.

`h` = Number of parity errors in frame.

`i` = Error count.

`j` = Error threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
DGN:DFI
RMV:DFI
RST:DFI
```

REPT:DFI-TUSR

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DFI=a-b-c TRBL UNEXPECTED SERVICE REQUEST d
  DFI OPERATIONAL SERVICE REQ RECOVERY ACTION e
  f
  g    h    i
```

2. REASON FOR OUTPUT

To report an unexpected service request on the digital facility interface (DFI).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line and trunk unit (DLTU) number.

`c` = DFI number.

`d` = Event number, which is the time sequence indicator.

`e` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`INITIALIZE` = The failing circuit has been reinitialized.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`f` = Source analysis data (optional).

`g` = External logical circuit name.

`h` = Current decimal number of recent failures of this type recorded.

`i` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

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5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:DFIH-TRBL

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DFIH=a-b-c TRBL d e
  f RECOVERY ACTION g
  [h]
  i j k
```

2. REASON FOR OUTPUT

To report a trouble indication detected in the microprocessors of a remote integrated services line unit (RISLU) host/remote digital facility interface circuit pair (DFIH).

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = RISLU digital line and trunk unit (DLTU) number.

c = DFIH number.

d = Error report. Valid value(s):

```
PICB CONTROL FAILURE
PIDB PARITY FAILURE
REMOTE PICB CONTROL FAILURE
REMOTE PIDB PARITY FAILURE
RISLU DFI CCB ERROR
RISLU DFI STATUS ERROR
RISLU DFI UCI ERROR
UNEXPECTED SERVICE REQUEST
```

e = Event number.

f = Error type qualifying the error report. Valid value(s):

```
CI RECEIVED BAD PARITY
CI TIMEOUT
CONTROL LINK TEST FAILURE
FATAL XPC-8 INTERRUPT
FIRMWARE BAD ADDRESS ERROR
HOST INTERNAL CONTROL TROUBLE
HOST INTERNAL DATA TROUBLE
HOST MEMORY TROUBLE
HOST-1 BYPASS FIFO TROUBLE
HOST-1 UCI FIFO TROUBLE
HOST-1 UCI HW ERR REG FAILURE
HOST-1 UCI MAILBOX TROUBLE
HOST-1 UCI PARITY FAILURE
```

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```
IMPROPER CCB REG DATA
INTERRUPT THRU MASK
INVALID  XPC-8 INTERRUPT CODE
NO REFERENCE 0 OUTPUT
NO REFERENCE 1 OUTPUT
NO SERVICE REQUEST FOUND
NON FATAL XPC-8 INTERRUPT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
PIDB LOSS OF CLOCK
PIDB PARITY TROUBLE
REDUNDANT TM SER REQ
REMOTE DFI FAULT
REMOTE INTERNAL CONTROL TROUBLE
REMOTE INTERNAL DATA TROUBLE
REMOTE LOSS OF CLOCK 0
REMOTE LOSS OF CLOCK 1
REMOTE MEMORY TROUBLE
REMOTE PMTG AUDIT ALARM
REMOTE SANITY TIMEOUT
REMOTE SELF INITIALIZATION
REMOTE-1 CI FAULT
SMP UCI PARITY ERROR
SOFTWARE BAD ADDRESS ERROR
STUCK CCB BIT
UNEXPECTED CCB FLAG
UNUSED CCB REG ACTIVITY
```

`g` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A postmortem report is generated.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.

`INITIALIZE` = The failing circuit has been re-initialized.

`RST PREEMPT` = The failing circuit has been preempted and a diagnostic has been scheduled. A message will be printed with the results of the diagnostic.

`h` = Contents of 1 to 10 registers.

`i` = External logical circuit name.

`j` = Current decimal number of errors of this type recorded.

`k` = Error count threshold above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

If trouble is reported repeatedly, manually diagnose the DFIH and replace the faulty circuit pack as indicated by the diagnostic results. If it is not possible to take the circuit out of service (OOS), it may be necessary to inhibit hardware checks on it using the INH:HDW-DFIH input message. The circuit should not be inhibited any longer than necessary.

If unexpected results occur, refer to the Corrective Maintenance and the System Recovery manuals.

5. ALARMS

A critical, major, or minor alarm can result when either of the recovery actions **INITIALIZE** or **RST PREEMPT** fails, leaving the DFIH circuit OOS. There are no alarms associated with the other recovery actions.

6. REFERENCES

Input Message(s):

```
ALW:HDW-DFIH
DGN:DFIH
INH:HDW-DFIH
RMV:DFIH
RST:DFIH
```

Output Message(s):

```
DGN:DFIH
RST:DFIH
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

REPT:DFRMVRST

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT DFRMVRST ERROR a b
```

2. REASON FOR OUTPUT

To report an error condition in the DFRMVRST user process.

3. VARIABLE FIELD DEFINITIONS

a = Function call failure type. Valid value(s):
- 1 = Message enable.
- 2 = Receive wait.
- 3 = Send to port.

b = System error code. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

An operating system function call is failing. Obtain technical assistance to clear the trouble.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	58

Input Message(s):

```
DGN:DFC
DGN:MHD
RMV:DFC
RMV:MHD
RST:DFC
RST:MHD
```

Output Message(s):

```
DGN:DFC
DGN:MHD
RMV:DFC
```

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```
RMV:MHD
RST:DFC
RST:MHD
```

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

REPT:DGN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT DGN CU ERROR a
  DRIVER DATA
  X = b  ERRNO = c  IL = d  IR = e
  MCH STATUS
  ONL = f  OFL = g
  PHASE DATA
  T = h  A = i  S = j  I = k
  OFFLINE CU CRITICAL REGISTERS
  [WARNING: READ PROBLEMS - SOME REGISTERS MAY BE INCORRECT ]
  MCB  = l   MCS = m   BGB  = n   MDH  = o
  MDL  = p   PSW = u   HSR  = v   ER   = w
  SSR  = x   DST = y   SRC  = z   BGR  = a1
  PPR  = b1  ONE = c1  CDR  = d1  IM   = e1
  IS   = f1  RTC = g1  TMR  = h1  SAR  = i1
  PA   = j1  SCR = k1  ATB  = l1  SDR  = m1
  SIR  = n1  IB  = o1  HM   = p1
  G0   = q1  G1   = q1  G2  = q1  G3   = q1
  G4   = q1  G5   = q1  G6  = q1  G7   = q1
  G8   = q1  G9   = q1  G10 = q1  G11  = q1
  G12  = q1  G13  = q1  G14 = q1  G15  = q1
  F0   = r1  F1   = r1  F2  = r1  F3   = r1
  F4   = r1  F5   = r1  F6  = r1  F7   = r1
  F8   = r1  F9   = r1  F10 = r1  F11  = r1
  F12  = r1  F13  = r1  F14 = r1  F15  = r1
  T0   = s1  T1   = s1  T2  = s1  T3   = s1
  T4   = s1  T5   = s1  T6  = s1  T7   = s1
  T8   = s1  T9   = s1  T10 = s1  T11  = s1
  T12  = s1  T13  = s1  T14 = s1  T15  = s1

  MSA  = q   MSA1 = r   MSA2 = r MSA3 = r
  [MSA4 = r   MSA5 = r   MSA6 = r MSA7 = r
  MSA8 = r

  MCMD  = t1  MSTAT = t1  MADD = t1  MER  = t1
  DCMD  = t1  DSTAT = t1  MDAT = t1  MMR  = t1
  BNK0  = t1   BNK1 = t1  BNK1 = t1  BNK3 = t1
  BNK4  = t1   BNK5 = t1  BNK6 = t1  BNK7 = t1
  CRA   = u1   CRB  = u1  CRC  = u1  CRD  = u1
  CRE   = u1   CRF  = u1  CRG = u1]

  ONLINE CU CRITICAL REGISTERS
  PSW  = u   HSR = v   SSR  = x   ER   = w
```

```
[WARNING: THE OFFLINE CU HAS INITIALIZED ]
```

2. REASON FOR OUTPUT

To report an error encountered by the control unit (CU) diagnostic programs. Critical registers are displayed for error codes marked.

If the message `WARNING: READ PROBLEMS - SOME REGISTERS MAY BE INCORRECT` appears, maintenance channel failures were encountered while reading some of the offline CU registers. Although the registers involved are not indicated, registers containing all zeroes are particularly suspect.

If the message `WARNING: THE OFFLINE CU HAS INITIALIZED` appears, the ten temporary registers indicated under the variable '`s`' field will contain a snapshot taken at the time of the reset (maintenance reset function).

3. VARIABLE FIELD DEFINITIONS

`a` = Error code, in hexadecimal notation. Refer to the description in the Error Code exhibit in the 4ACTION TO BE TAKEN section of this manual page.

`b` = Index into PCP table.

`c` = Error number returned from process control process maintenance driver (PCPMD). Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

`d` = Left half of instruction to PCPMD, in hexadecimal notation.

`e` = Right half of instruction to PCPMD, in hexadecimal notation.

`f` = On-line maintenance channel status, in hexadecimal notation.

`g` = Off-line maintenance channel status, in hexadecimal notation.

`h` = Last test executed.

`i` = Data table address.

`j` = Data table statement number.

`k` = Task routine index.

`l` = Maintenance channel buffer.

`m` = Maintenance channel status.

`n` = Bidirectional gating bus.

`o` = Microstore data register high half.

`p` = Microstore data register low half.

`q` = Microstore address register.

`r` = Microstore address stack entry.

`u` = Processor status word.

v = Hardware status register.

w = Error register.

x = System status register.

y = Destination bus.

z = Source bus.

a[1] = Bidirectional gating register.

b[1] = Pulse point register.

c[1] = Ones register.

d[1] = Channel data register.

e[1] = Interrupt mask.

f[1] = Interrupt source register.

g[1] = Real time counter.

h[1] = Timers register.

i[1] = Store address register.

j[1] = Present address register.

k[1] = Store control register.

l[1] = Address translation buffer.

m[1] = Store data register.

n[1] = Store instruction register.

o[1] = Instruction buffer.

p[1] = Halfword multiplexor.

q[1] = General registers (0-15).

r[1] = Firmware registers (0-15).

s[1] = Temporary registers (0-15). Valid value(s):

- T0 = Store address register.
- T1 = System status register.
- T2 = Processor status word.
- T3 = Store control register.
- T4 = Error register.
- T5 = Pulse point register.
- T6 = Hardware status register.
- T7 = Store data register.
- T10 = Real time counter.

T11 = Timers register.

t[1] = Main memory registers. Valid value(s):

- BNK0 = MCERT MC bank address register 0.
- BNK1 = MCERT MC bank address register 1.
- BNK2 = MCERT MC bank address register 2.
- BNK3 = MCERT MC bank address register 3.
- BNK4 = MCERT MC bank address register 4.
- BNK5 = MCERT MC bank address register 5.
- BNK6 = MCERT MC bank address register 6.
- BNK7 = MCERT MC bank address register 7.
- DCMD = MCERT DP message register.
- DSTAT = MCERT DP status register.
- MADD = MCERT MC error address register.
- MCMD = MCERT MC message register.
- MDAT = MCERT DP error data register.
- MER = MCERT MC error flags register.
- MMR = Main memory register.
- MSTAT = MCERT MC status register.

u[1] = Cache registers. Valid value(s):

- CRA = Cache error register A.
- CRB = Cache error register B.
- CRC = Cache error register C.
- CRD = Cache error register D.
- CRE = Cache error register E.
- CRF = Cache error register F.
- CRG = Cache status register G.

4. ACTION TO BE TAKEN

An explanation of the error encountered and the appropriate action to be taken are shown in the following table. Critical registers are displayed for error codes marked with an asterisk (*).

Error Codes

If 'a' =	Explanation/	Action to be Taken
41	The test count specified at the end of the phase does not agree with number of tests actually executed.	Either an errant transfer was taken during the execution of the phase or the phase data table has been mutilated. Rerun the phase. If the problem remains, the data table file may be corrupted refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
*42	Offline diagnostic microcode timed out.	A specified time limit is set for running microcode to prevent infinite loops. Problems could be due to the microstore not being loaded properly, an offline maintenance reset function (MRF) occurred, or the microcode got stuck in an infinite loop. Usually a retry will correct any microcode timeout problem. If the central control (CC) diagnostic was not run before the abort occurred, running it might find the problem.
*43	There is an error in a setarg option at the indicated data table	The number of arguments passed to the offline main store routine does not match the number declared in the setarg option. Rerun the

	location in the phase where the abort occurred.	phase. If the problem remains, the indicated data table file may be corrupted refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
*44	Offline main store code execution timed out.	The calling phase sets a specified time limit in which this offline code should execute. Problems can occur if the halt bit was not set when the code finished executing, or if hardware problems prevent running offline code, or a MRF occurred in the offline CU. If the CC and main store diagnostic was not run previous to where the abort occurred, running them might find the problem. If any other offline main store code ran successfully, the offline code file on the disk might be bad. Rerun the phase. If the problem remains, the indicated data table file may be corrupted refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
*45	The verify failed after a pump to the offline microstore by the mcexec data table option.	After the microcode pump is completed, the code is pumped back to the online for verification. This error means the returned file did not match the file sent. Problem could be in microstore or in the communication between online and offline processors. If the CC diagnostic was not run previous to where the abort occurred, running it might find the problem.
46	The object file specified in an excofl data table option could not be opened for reading or it is not the proper type of file for running offline main store code. Also, file I/O function (lseek) might not have been able to "seek" to the desired location in the object file.	This can be due to mutilation of the specified object file. Rerun the phase. If the problem remains, the indicated object file may be corrupted refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
*47	Offline main store object file could not be copied from online processor to offline processor.	The maintenance driver library function pcpyto is used to do the copy. The online or offline maintenance channel could be faulty. The PCPMD error code, which appears under the heading DRIVER DATA, could help determine the cause of the problem.
*48	Could not set stack register or argument register in offline CU for offline main store execution.	Failure to connect to the equipment configuration database (ECD), unit control block (UCB) record ID points to the online control unit (CU), or CU was not OUT OF SERVICE. Make sure the maintenance request is for the offline CU and that the offline CU is out-of-service. If this is not the problem, use the RCV input message to examine the ECD paying particular attention to the UCB for the unit being diagnosed.
*49	Cannot setup stack argument count and program counter or address pointer in offline main store.	Some of the things to look for are as follows: The offline CU was not OUT OF SERVICE, the pointer to the UCB is not valid or does not point to a CU UCB in the ECD database, the UCB record ID was pointing to the online processor, or the maintenance channel did not execute the expected number of bytes. Make sure the maintenance request is for the offline CU and that the offline CU is out-of-service. If this is not the problem, use the RCV input message to examine the ECD paying particular attention to the UCB for the unit being diagnosed. Also, run CC diagnostic phases 1 through 4 to verify communication between the online and offline maintenance channels.
*4A	The test routine loaded in the offline main store did not execute properly.	The PCPMD function pexecothr is used to start execution. The pointer passed to it from cudiagc was not recognized as a valid pointer or did not point to a CU UCB in the ECD. Retry the maintenance request. If the problem remains, use the RCV input message to examine the ECD paying particular attention to the UCB for the unit being

		diagnosed. The file may be corrupted refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
*4B	The test routine loaded in the online microstore and/or mainstore did not execute properly.	The PCPMD function pexeconl is used to start online execution. Retry the maintenance request, and if the problem remains, use the number printed in ERRNO to look up the source of the problem in the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.
4C	The ECD manager could not be opened for a special unit control block request.	Verify that file /dev/ecd exists.
4D	Illegal helper unit requested.	Not used.
4E	The member version or equipage fields of the ECD for the main store are incorrect.	Use the RCV input message to examine the UCD for the mainstore being diagnosed. Verify that there is 1 equipage bit set (starting at bit 0) for each memory array equipped. Also, verify that the low order nibble (4-bits) of the MV field has one of the following values: 1 = TN07 3 = TN14 4 = TN28 5 = TN56 Bit 5 of the MV field should be: 0 = UN39, UN40 1 = UN59
4F	Could not setup UCB for maintenance driver access. Appears only when the host is a *UNIX*® RTR machine.	Function psetup failed to pass a pointer to the top of the UCB to PCPMD. Use RCV to verify ECD is consistent and up to date for the control unit under test.
50	An invalid parameter was input when running diagnostics using the interactive mode of operation.	The interactive mode is used for main store phase 95. Three types of input errors could cause this problem. - The starting address is larger than the ending address. - The starting address is larger than the highest possible address. - The refresh rate is invalid. The valid refresh rates are from 2 to 16 milliseconds in steps of 2 and 32 to 60 milliseconds in steps of 4. Refer to the EX input messages in the Input Message manual.
52	The special ECDMAN function (ursvucb) could not reserve the specified UCB.	Check that the u_admin field of the UCB is 1 (not reserved). If it is reserved, refer to the REPT:MIRA output message (reason 2). If it is not reserved, rerunning the diagnostic should clear the problem.
53	Cannot release a previously reserved UCB through the special ECDMAN function urelucb.	Display the contents of the UCB for the unit being diagnosed. If the u_admin variable is a 0, the UCB is still reserved. Refer to the REPT:MIRA output message (reason 2). If it is not reserved, rerunning the diagnostic should clear the problem.
54	Cannot find UCB for helper unit.	The getucb function could not find the UCB for helper unit. Verify that the helper unit was specified correctly in the input message. Use RCV to verify that helper unit UCB exists and is correct. If the problem remains, the data table file may be corrupted; refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
56	Illegal instruction signal received from operating system.	Rerun the diagnostic phase which caused this error. If the problem remains, the data table file for the indicated phase or the file /diag/dgnc/cudiagc may be corrupted; refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
57	Bus error signal received from	Rerun the diagnostic phase which caused this error. If the problem

	operating system.	remains, the data table file for the indicated phase or the file /diag/dgnc/cudiagc may be corrupted; refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
58	Segment violation signal received from operating system.	Rerun the diagnostic phase which caused this error. If the problem remains, the data table file for the indicated phase or the file /diag/dgnc/cudiagc may be corrupted; refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
59	Error on system call signal received from operating system.	Rerun the diagnostic phase which caused this error. If the problem remains, the data table file for the indicated phase or the file /diag/dgnc/cudiagc may be corrupted; refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
5A	The ECD Manager failed to fill in the special device file path name.	Use the RCV input message to verify that the special device file exist in the LOGDEV.
5B	Could not open the special device file used to talk with the hardware.	The ECD manager must be reinitialized. This ECD function is used only in peripheral (IOP or DFC) units where the unique field in the UCB is ON. Other units may still be diagnosed in the face of this problem.
5C	The ECD manager failed to release a special device file used for communication with the peripheral hardware.	If the special device file was already released, a retry of the request should correct the problem. A second abort means the ECD manager has an internal software problem that can only be corrected by restoring the ECD manager.
61	The control unit diagnostic controller failed to open processor control process maintenance driver (PCPMD).	Verify that file /dev/cu exists.
*62	A write to the diagnostic driver (PCPMD) has failed.	The function endblk in cudiagc sends a buffer of maintenance channel messages to the offline maintenance channel using the PCPMD function pexmch. pexmch has failed. The PCPMD error code, that appears under the heading DRIVER DATA, will indicate the cause of the problem. Run CC diagnostic phases 1 through 4 to verify operation of the maintenance channel.
63	This code is an indication to the diagnostic monitor that a phase of the diagnostic completed normally.	This is not an error code and will not cause an abort.
64	Could not open data table file or micro code program file.	Verify the existence of the file being opened. If the statement (S) is zero, a data table file could not be opened. The name of the file (relative to directory /diag/dgnc) is specified in the (P+1)th line in the file /diag/dpt/cu/(file) where P = the phase that aborted, file is selected by the "dgn" line(s) in /diag/util/cu/(unit) and possibly the "mv" field of the UCB, and unit = the name of the unit being diagnosed. If the index (I) is 17 or 2a, the name of the file is /diag/offcode/mic/(file).u where file = the file name specified at statement S in the listing of the phase which aborted.
65	The diagnostic control buffer could not be shared by cudiagc from the diagnostic monitor.	The connseg system call has failed. The ERRNO item will indicated the system error reason.
66	The diagnostic control program has encountered an invalid index or argument in a data table.	Rerun the phase. If the problem remains, the data table file for the indicated phase may be corrupted; refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
67	The diagnostic control program was spawned by the diagnostic	Rerun the diagnostic.

	monitor with the wrong number of arguments.	
68	The diagnostic control program could not setup the spooler control string for buffered output to the TTY from which the diagnostic request was input.	Rerun the diagnostic. If the problem remains, reinitialize the craft interface (key 15 on the emergency action interface (EAI) page at the maintenance terminal).
69	The histogram format print file for the main store diagnostic failed to be opened.	This file should be located in the directory /diag/dgnc under the name dgnff. Verify that this file does exist and has read permission.
6A	An illegal option was input while running diagnostics in the interactive mode (that is, EX input message).	Verify that the input message syntax is correct. Refer to the EX input messages in the input message manual.
*6B	Offline register could not be read back to online processor.	This is probably due to a maintenance channel error. Rerun the diagnostic. If the problem remains, run CC diagnostic phases 1 through 4 to test the maintenance channel.
6C	Cannot open file for trouble location process.	The problem could be that there is not enough file space in /tmp. Rerun the diagnostic.
*6D	The off-line control unit (CU) has reset by the maintenance reset function (MRF).	Examine the error register to determine if a hardware error occurred and, if so, its cause. The MSA, MSA1, MSA2 and MSA3 registers form a push-down stack with MSA at the top. The highest register that does not contain 0 or 2b is the microstore address being executed when the MRF occurred. The program address (PA) contains the mainstore address being executed when the MRF occurred.
6E	The datatbl file contains instructions which are not supported on this hardware platform.	Verify that the umodel field in the unit's top-level UCB record is correct. Otherwise, the datatbl file is incorrect or the wrong datatbl file is being invoked. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual to correct these problems.

5. ALARMS

This alarm is automatically generated. Action may or may not be required. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	34, 36, 743

Input Message(s):

```
DGN:CU
```

Output Message(s):

```
REPT:MIRA
```

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

REPT:DGN-AUDIT

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

[1]
```
REPT DGN AUDIT a
  R = b
  DRIVER DATA
  D = m
  PHASE DATA
  T = i A = j S = k I = l
```

[2]
```
REPT DGN AUDIT a
  R = b
  SYSTEM DATA
  D = n
  PHASE DATA
  T = i A = j S = k I = l
```

[3]
```
REPT DGN AUDIT a
  R = b
  LEXEC DATA
  D = o errno = p
  PHASE DATA
  T = i A = j S = k I = l
```

2. REASON FOR OUTPUT

Each of the formats has a separate purpose.

Format 1 is used to report a peripheral driver error encountered by the peripheral diagnostic programs.

Format 2 is used to report an error encountered by the peripheral diagnostic programs.

Format 3 is used to report a LEXEC function failure encountered by the peripheral diagnostic programs.

3. VARIABLE FIELD DEFINITIONS

`a` = Diagnostic reporting the error for the disk file controller (DFC), input/output processor (IOP), and dual serial channel/computer interconnect (DCI).

`b` = Reason for audit, in hexadecimal notation. Valid value(s):

- `41` = Open special device file failed. For storage module drive (SMD) moving head disks (MHDs) with unit control block (UCB) device_id field = 0 (first MHD on DFC, usually MHD 0 or 1): MHD type read from DFC backplane may not agree with MHD UCB equipage field or may not be read correctly by DFC TN65 or UN64 board.
- `42` = SETIO failed.
- `43` = makeseg failed.

44	= sendpw failed.
45	= Read PC pump file failed.
46	= Driver operation failed.
47	= Open PC pump file failed.
48	= msgenab failure.
49	= msgdisab failure.
4A	= Open processor control process maintenance driver (PCPMD) failed.
4B	= Write to PCPMD failed.
4C	= excofl timed out.
4D	= Open equipment configuration database (ECD) manager failed.
4E	= Function "ugucbn" failed.
4F	= Peripheral interface controller (PIC) microstore size not in UCB.
50	= Receive wait failed.
51	= LEXEC function failed.
52	= e_host of UCB not initialized.
53	= lseek function failure.
54	= Drive size not 5 or 19 tracks.
55	= makeseg failed for disk read/write buffer.
56	= Write/read segment too small.
57	= Function ugetucb failed.
58	= DFC not active.
59	= IOP not active.
61	= Small computer system interface (SCSI) bus not active.
64	= Cannot open data table file or micro program file.
65	= Cannot share DCB from DIAMON.
66	= Error in the data table.
67	= Invalid number of parameters from DIAMON.
68	= Open spooler failed.
6A	= Invalid interactive mode command.
6C	= Open tlpfile failed.
6D	= Signal: illegal instruction.
6E	= Signal: bus error.
6F	= Signal: segment violation.
70	= Signal: software termination.

i = Last test executed, in decimal notation.

j = Data table address, in hexadecimal notation.

k = Data table statement number, in decimal notation.

l = Task routine index, in hexadecimal notation.

m = Peripheral driver error code, in hexadecimal notation. Refer to the APP:DFC-A appendix in the Appendixes section of the Output Messages manual for DFC information/error codes.

Refer to the APP:IOP-G appendix in the Appendixes section of the Output Messages manual for IOP error codes.

Refer to the APP:DCI-A appendix in the Appendixes section of the Output Messages manual for DCI information/error codes.

n = Error code returned on a failing system call or ECD function call, in decimal notation. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

o = Error code returned by LEXEC function call, in decimal notation. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

p = Error code from a PCPMD (the CU maintenance driver) function call, in decimal notation. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If 'b' =	Action:
58, 59, 61	Restore the appropriate unit.
6A	Check the syntax of the command.
For all other reasons or if audit continues.	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

This alarm is automatically generated. Action may or may not be required. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	56

Input Message(s):

```
DGN:DCI
DGN:DFC
DGN:DUIC
DGN:HSDC
DGN:IOP
DGN:MHD
DGN:MTC
DGN:MTTYC
DGN:SCSDC
DGN:SDLC
DGN:TTYC
```

Output Message(s):

```
DGN:DCI
DGN:DFC
DGN:DUIC
DGN:HSDC
DGN:IOP
DGN:MHD
DGN:MTC
DGN:MTTYC
DGN:SCSDC
```

```
DGN:SDLC
DGN:TTYC
```

Output Appendix(es):

```
APP:DCI-A
APP:DFC-A
APP:IOP-G
APP:OMDB-X-REF
APP:SYSERR
```

REPT:DIAGC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT DIAGC a b
```

2. REASON FOR OUTPUT

To report that the diagnostic controller (DIAGC) has aborted a diagnostic. This message indicates that the requested diagnostic aborted because of an internal problem and indicates the nature of the problem.

3. VARIABLE FIELD DEFINITIONS

a = Error number.

b = Reason for error.

If 'a' =	'b' =	Action:
1	TIMEOUT	Rerun diagnostic.
2	BAD ACK MESSAGE FROM AM	Rerun diagnostic.
3	BAD PHASE COMPLETION CODE	Rerun diagnostic.
4	Not used.	N/A.
5	BAD DATA ON REQUEST	Rerun diagnostic.
6	Not used.	N/A.
7	MANUAL STOP REQUEST	N/A.
8	Not used.	N/A.
9	Not used.	N/A.
10	SEIZED RESOURCE UNAVAILABLE	Rerun diagnostic.
11	USED RESOURCE NOT DEFINED	Rerun diagnostic.
12	RESOURCE NAME REUSED	Rerun diagnostic.
13	PHASE TABLE ERROR	Rerun diagnostic.
14	UNDEFINED DATA IN GETDATA	Rerun diagnostic.
15	UNDEFINED FUNCTION IN OP STMT	Rerun diagnostic.
16	DATA BASE READ ERROR	Rerun diagnostic.
17	Not used.	N/A.
18	Not used.	N/A.
19	SAVE AREA OVERFLOW	Rerun diagnostic.
20	UNABLE TO RECEIVE MESSAGES	Rerun diagnostic.
21	UNABLE TO SEND MESSAGES	Diagnose message switch control unit (MSCU) and input/output processor (IOP).
22		Rerun diagnostic.
23	DRIVER ERROR IN MESSAGE PORT	Diagnose message switch (MSGS) and IOP.
24	FAILURE TO OPEN PUMP FILE	Check '/no5text/diag/dgnc'.
25	FAILURE TO READ PUMP FILE	Check '/no5text/diag/dgnc'.
26	BAD PHASE NUMBER IN BGNPHASE	Rerun diagnostic.
27	NO HOST PROCESSOR FOUND	Rerun diagnostic.
28	BAD REQUEST FROM FPC	Diagnose MSCU and FPC.
29	UNABLE TO OPEN DATA BASE	Check '/dev/ecd'.
30	UNABLE TO CLOSE DATA BASE	Check '/dev/ecd'.
31	Not used.	N/A.
32	Not used.	N/A.
33		Diagnose MSCU and FPC.
34	BAD REPLY FROM FPC EXECUTION	Diagnose MSCU and FPC.
35	BAD CHANNEL STATUS IN FPC	Diagnose MSCU and FPC.
36	Not used.	N/A.
37	ERROR DURING PC WRITE	Diagnose MSCU and FPC.
38	ERROR DURING PC READ	
39	Not used.	N/A.
40	Not used.	N/A.

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41	Not used.	N/A.
42	Not used.	N/A.
43	Not used.	N/A.
44	Not used.	N/A.
45	UNABLE TO READ DCB	Rerun diagnostic.
46	WRITE DCB FAILURE	Rerun diagnostic.
47	TLP BOARD LIST OVERFLOW	Rerun diagnostic.
48	TLP BOARD DATA ERROR	Check database.
49	Not used.	N/A.
50	Not used.	N/A.
51		Rerun diagnostic.
52	UNABLE TO RELEASE RESOURCE	Rerun diagnostic.
53		N/A.
54	Not used.	N/A.
55	Not used.	N/A.
56	UNABLE TO TRANSFER RAW DATA	Diagnose MSCU and FPC.
57	UNABLE TO PUMP PHASE	Diagnose MSCU and FPC.
58	UNABLE TO SEND ADDRESS DATA	Diagnose MSCU and FPC.
59	UNABLE TO TRANSFER DCB	Diagnose MSCU and FPC.
60	UNABLE TO SEND INTERACTIVE MESSAGE	Diagnose MSCU and FPC.
61	UNABLE TO PUMP CLEANUP ROUTINE	Diagnose MSCU and FPC.
62	UNABLE TO SEND COMPLETION DATA	Diagnose MSCU and FPC.
63	UNABLE TO UPDATE DCB	Diagnose MSCU and FPC.
64	REJECT EXERCISE MESSAGE	Diagnose MSCU and FPC.
65	BAD CIRCUIT TYPE	Rerun diagnostic.
66	FAILURE OF SCAN POINT	Diagnose MSCU and FPC.
67	UNABLE TO RETRIEVE DATA	Rerun diagnostic.
68		Rerun diagnostic.
69	Not used.	N/A.
70	Not used.	N/A.
71	BAD DATA PUMP TO PC	Diagnose MSCU and FPC.
72	BAD PC COMMUNICATIONS	Diagnose MSCU and FPC.
73	BAD RANGE ON SEIZE STATEMENT	Rerun diagnostic.
74		Rerun diagnostic.
75		Rerun diagnostic.
76		Diagnose MSCU and FPC.
77	SEIZED PC UNEQUIPPED	Check database.
78		Diagnose MSCU and FPC.
79		Diagnose MSCU and FPC.
80		Diagnose FPC and MSCU.
81		Rerun diagnostic.
82		Rerun diagnostic.
83	DB READ FAILED IN SPC RELATION	Rerun diagnostic.
84	DB READ FAILED IN SLNKTMS RELATION	Rerun diagnostic.
85	DB READ FAILED IN SCORE RELATION	Rerun diagnostic.
86	DB READ FAILED IN SLNKTMS RELATION	Rerun diagnostic.
87	DB READ FAILED IN SLNKTMS RELATION	Rerun diagnostic.
88	DB READ FAILED IN SPC RELATION	Rerun diagnostic.
89	DB READ FAILED IN SCORE RELATION	Rerun diagnostic.
90	DB READ FAILED IN SPC RELATION	Rerun diagnostic.
91	DB READ FAILED IN SPC RELATION	Rerun diagnostic.
92	DB READ FAILED IN SPC RELATION	Rerun diagnostic.
93	DB READ FAILED IN SCORE RELATION	Rerun diagnostic.
94	DB READ FAILED IN MODATT RELATION	Rerun diagnostic.
95	INVALID NUMBER OF ONTC SIDE	Rerun diagnostic.
96	DB READ FAILED IN SNCREF RELATION	Rerun diagnostic.
97	INVALID EQSTATE IN SNCREF RELATION	Check relation and rerun diagnostic.
98	DB READ FAILED IN SNCREF RELATION	Rerun diagnostic.
99	PAS READ FAILED FOR NC OSC STATE	Rerun diagnostic.
100	PAS READ FAILED TO GET NC OSC STATE	Rerun diagnostic.
101	PAS READ FAILED FOR MSCU STATE	Rerun diagnostic.
102	PAS READ FAILED FOR MATE MSCU STATE	Rerun diagnostic.
103	DB FAILED OPEN MESSAGE INTERFACE	Rerun diagnostic.
104	DB FAILED CLOSE MESSAGE INTERFACE	Rerun diagnostic.
105	PAS READ FAILED FOR PC STATE	Rerun diagnostic.
106	INVALID NC REFERENCE	
107	PAS READ FAILED FOR NC REF STATE	Rerun diagnostic.
108	PAS READ FAILED FOR PC STATE	Rerun diagnostic.
109	DB FAILED OPEN MESSAGE INTERFACE	Rerun diagnostic.
110	DB FAILED CLOSE MESSAGE INTERFACE	Rerun diagnostic.
111	PAS READ FAILED FOR PC STATE	Rerun diagnostic.
112	DB READ FAILED IN SPC RELATION	Rerun diagnostic.

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113		Rerun diagnostic.
114		Rerun diagnostic.
115	BAD CLI DATA IN FPCDIAGC	Rerun diagnostic.
116		Rerun diagnostic.
117	Not used.	N/A.
118	Not used.	N/A.
119	FAILURE DURING DB READ	Rerun diagnostic.
120		
121	UNABLE TO GET CPDIAGC PORT	Rerun diagnostic.
122	CMP PUMP FAILED DUE TO AM DISK READ FAILURE	Rerun diagnostic. Clear disk problem first.

4. ACTION TO BE TAKEN

In errors where the action is "Rerun diagnostic", if the problem persists, contact the next level of maintenance support.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:CMP
DGN:DLI
DGN:FPC
DGN:LI
DGN:MI
DGN:MMP
DGN:MSCU
DGN:MSGS
DGN:NC
DGN:ONTC
DGN:ONTCCOM
DGN:PPC
DGN:QGP
DGN:QLPS
DGN:TMS
RST:DLI
RST:FPC
RST:MMP
RST:MSCU
RST:MSGS
RST:ONTC
RST:ONTCCOM
RST:PPC
RST:QGP
RST:QLPS
```

Output Message(s):

```
DGN:CMP
DGN:DLI
DGN:FPC
DGN:LI
```

```
DGN:MI
DGN:MMP
DGN:MSCU
DGN:MSGS
DGN:NC
DGN:ONTC
DGN:ONTCCOM
DGN:PPC
DGN:QGP
DGN:QLPS
DGN:TMS
RST:DLI
RST:FPC
RST:MMP
RST:MSCU
RST:MSGS
RST:ONTC
RST:ONTCCOM
RST:PPC
RST:QGP
RST:QLPS
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:DIAMON

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT DIAMON  ERROR = a  ERRNO = b
```

2. REASON FOR OUTPUT

To report that the diagnostic monitor (DIAMON) has aborted one or more diagnostic control processes due to an error condition.

3. VARIABLE FIELD DEFINITIONS

a = Error code, in hexadecimal notation. Refer to Exhibit A for error codes and their explanation.

b = System error code number. Refer to the system error codes in the APP:SYSERR appendix in the Appendixes section of the Output Messages manual. A system error code of zero means that no system error was reported.

4. ACTION TO BE TAKEN

An explanation of the error encountered and the appropriate action to be taken are shown in Exhibit A.

If 'a' =	Explanation:	Action to be Taken:
41	A manual request to terminate the maintenance request was entered at the maintenance terminal (MCRT).	Rerun the maintenance request.
42	The diagnostic monitor could not send an event to the diagnostic controller.	The AM system call sendev believes the diagnostic controller process does not exist. Check that this process exists in the directory /diag/dgnc under the name cudiagc for a control unit diagnostic, dfdiag for a disk file controller (DFC) or moving head disk (MHD) diagnostic, or iodiag for a direct user interface controller (DUIC), input/output processor (IOP), magnetic tape controller (MTC), maintenance teletypewriter controller (MTTYC), scanner and signal distributor controller (SCSDC), synchronous data link controller (SDLC), or teletypewriter controller (TTYC) diagnostic. Verify line one of the diagnostic phase table (DPT) file identifies a valid diagc process. The DPT file is /diag/dpt/(type)/(unit) where unit=the unit type specified in the input request; type = 'cu' if the unit is within a control unit (CU), or 'pu' if the unit is within an IOP or DFC. Restore files from the backup file system.
43	Could not find trouble location process (TLP) pathname in the util file.	A TLP file should be specified in the file /diag/util/cu/unit_name for a control unit diagnostic or /diag/util/pu/unit_name for a peripheral unit diagnostic. For an

		example of a util file, refer to error code 5A. Restore file from backup file system.
44	The AM system call (lcall) could not find the trouble location process, or there is no execute permission on the file.	Verify that the file /diag/dgnc/tlp exists and has execute permission. Restore file from backup file system.
45	The diagnostic monitor failed to receive a message from the remove process.	Errors may occur if the remove process has not enabled message reception, or the requested type or size is invalid. Retry the request.
46	The diagnostic monitor could not create a segment of memory to be shared with the diagnostic controller.	The problem could be insufficient swap space or address space in the user's address space for the segment. Retry the diagnostic until enough user space is free to create a segment.
47	The messages queue, maintained by the operating system, was not available for diagnostic usage.	Too many messages are being input at this time for the operating system to handle. Retry the request until the message queue frees up.
48	The input message from the maintenance input request administrator (MIRA) through the operating system to the diagnostic monitor failed.	Retry the request.
49	The diagnostic monitor could not set up the spooler control string for buffered output to the TTY that originated the request.	
4A	The diagnostic monitor format file for the maintenance output process has an invalid spooler tag.	Retry the request. If the problem remains, the file /diag/dgnc/fmat has been mutilated and must be restored from a backup file system.
4B	An error occurred when trying to open the equipment configuration database (ECD).	Verify that file /dev/ecd exists.
4C	The input request had valid syntax, but one or more fields were found to be incorrect.	Check the input message for correctness. Perhaps a nonexistent unit type or phase number was specified. Retry the request. Refer to the input messages manual for a description of the maintenance messages.
4D	DIAMON could not find the location of the remove process in the diagnostic utility file.	A RMV file should be specified in the file /diag/util/cu/unit_name for a control unit diagnostic or /diag/util/pu/unit_name for a peripheral unit diagnostic. For an example of a util file, refer to error code 5A. Restore file from backup file system.
4E	Could not find the location of the restore process in the diagnostic utility file.	A RST file should be specified in the file /diag/util/cu/unit_name for a control unit diagnostic or /diag/util/pu/unit_name for a peripheral unit diagnostic. For an example of a util file, refer to error code 5A. Restore file from backup file system.
4F	Failed to spawn the process for removing a unit from service.	The file was either not found or it did not have execute permission. To verify the remove process for a control unit diagnostic, use the OP:STATUS:LISTDIR input message with the filename /unixutil/cu/curstrmv. For a peripheral unit diagnostic, the same input message with the file name /diag/dgnc/iormv or /diag/dgnc/dfrmv will verify the remove process. If the remove process exists and has execute permission, the system might be out of space. Retry the request until the system process space frees up.
50	Failed to spawn the process for restoring a unit to service.	The file was either not found, or it did not have execute permission. Refer to error code 4F for the action to be taken since the restore and remove use the same process.
51	An invalid return value was received from the remove process.	Retry the request.
52	An invalid return value was received from the restore	Retry the request.

	process.	
53	The remove process failed to receive a message.	The remove process did not enable message reception, the type specified is not valid, or most likely, the remove process has an excessive amount of messages outstanding on its queue. Retry the request.
54	The restore process failed to receive a message.	The restore process did not enable message reception, the type specified is not valid, or most likely, the restore process has an excessive amount of messages outstanding on its queue. Retry the request.
55	An illegal maintenance input request was received from the maintenance input administrator.	Check the input message for correctness. Retry the request. Refer to the input messages manual for a description of the maintenance messages.
56	The unit requested to be restored is not a restorable unit.	Check the input message for correctness. Retry the request. If the unit is being falsely taken as unrestorable, use the RCV input message to update the u_restorable field in the unit control block (UCB) for the unit from OFF to ON.
57	The utility file for the remove, restore, diagnose, or trouble location process could not be opened.	Verify the utility file exists with read permission. The file is named /diag/util/ (type)/(unit) where unit=the unit specified in the input request; type = 'cu' if the unit is within a CU, or 'pu' if the unit is within an IOP or DFC. Restore file from backup file system.
58	The unit control block could not be released by the ECD manager.	Either the UCB was not reserved, or an error occurred when trying to release it. Retry the request.
59	The result of the diagnostic could not be sent from DIAMON to the MIRA.	Errors can occur if MIRA did not enable message reception, an invalid message was sent, or MIRA has an excessive amount of messages outstanding on its queue. Retry the request.

5A	The tag in the utility file for the remove, restore, diagnose, or the trouble location process could not be found.	Examine the utility file for the unit specified in the input request. It should look like the following example of the central control utility file:
		`dgn:../dpt/cu/cc`
		`rst:/unixutil/cu/curstrmv`
		`rmv:/unixutil/cu/curstrmv`
		`tlp:tlp`
		The file named /diag/util/ (type)/(unit) where unit=the unit specified in the input request; type = 'cu' if the unit is within a CU, or 'pu' if the unit is within an IOP or DFC. Restore file from backup file system.

62	Internal interface error in the diagnostic request message. The repeat counter has a value greater than 0 but the RPT option was not specified.	Manually, retry the request.
63	A death of child signal was received by the diagnostic monitor, but the diagnostic monitor could not determine which child process was active.	This error indicates an internal problem in the diagnostic monitor. Retry the request.
64	A death of child signal was received for the diagc process indicating an exec failure.	The diagc process could not be executed. Retry the request. If the error continues to occur, restore the diagc process from the backup file system. The diagc processes are found in the directory /diag/dgnc. The names of the diagc processes are cudiagc (for CU diagnostics) dfdiag (for DFC diagnostics) and iodiag (for IOP diagnostics). Verify line one of the DPT file

		identifies a valid diagc process. The DPT file is /diag/dpt/(type)/(unit) where unit=the unit type specified in the input request; type = 'cu' if the unit is within a CU, or 'pu' if the unit is within an IOP or DFC. Restore files from the backup file system.
65	A death of child signal was received by the diagnostic monitor; however, no child process was being monitored.	Retry the request.
66	Incorrect version specification in utility file.	Examine the multiple version lines of the appropriate utility file for incorrect version number representations like octal 8 (08). Also, verify that each tag has a multiple version line that has a value that is less than or equal to the MV in the UCB for that subunit. Multiple version utility file lines look like: `tlp:0x0:tlp`
67	Could not remove specified unit/subunit. Error return received from remove process.	Verify correctness of input unit specification. For example: CU0, CC0 is not valid. Further information can be obtained from remove process output messages.
68	Could not restore specified unit/subunit.	Verify correctness of input unit specification. For example: CU 0, CC 0 is not valid. Further information can be obtained from restore process output messages.
69	No trouble location process (TLP) exists for the unit requested.	Do not use the TLP option for this unit.
6A	No diagnostic exists for the unit requested.	Do not use the DGN or EX input messages with this unit.
6B	The ECD manager failed to write the u_util field in the UCB.	Use the RCV input message to verify that the u_util field in the UCB for the unit specified in the input request is of the form cu/(unit) or pu/(unit).
6C	The ECD manager failed to release a special device file used for communication with the peripheral hardware.	If the special device file was already released, a retry of the request should correct the problem. A second abort means the ECD manager has an internal software problem that can only be corrected by restoring the ECD manager.
6D	Diagnostic monitor could not open the format file for the maintenance output process.	Verify the file /diag/dgnc/fmat exists with read permission.
6E	Could not open the DPT file for the requested unit.	Verify the DPT file exists with read permission. The file is named /diag/dpt/(type)/(unit) where unit = the unit specified in the input request; type = 'cu' if the unit is within a CU, or 'pu' if the unit is within an IOP or DFC. Restore file from backup file system.
6F	DIAMON failed to open the ECD manager.	Verify that file /dev/ecd exists.
70	The unit control block for the unit under test was not found.	An invalid equipment ID was entered in the input request, or a ECD problem exists. Check the input message for correctness. Retry the request. Refer to the input messages manual for a description of the maintenance messages. Verify the database correctness using the recent change and verify input message RCV:MENU:BROWSE.
71	Could not get the next unit control block in the diagnostic hierarchy from the ECD manager.	Verify the database correctness using the recent change and verify input message RCV:MENU:BROWSE.
72	The DPT file could not be read.	Verify the DPT file exists with read permission. The file is named /diag/dpt/(type)/(unit) where unit=the unit

		specified in the input request; type = 'cu' if the unit is within a CU, or 'pu' if the unit is within an IOP or DFC.
73	The diagnostic monitor could not spawn the diagnostic control process (DIAGC) for the unit specified in the input request.	Verify the DIAGC file exists with the execute permission. The file is named /diag/dgnc/(name) where name='cudiagc' if the unit is within a CU, 'iodiag' if the unit is within an IOP, or 'dfdiag' if the unit is within a DFC. Restore file from backup file system. The system may be at its process limit. Retry the request when the system process space frees up.
74	An illegal phase number was specified in the diagnostic input request.	Check the input request for correctness. Retry the request. Refer to the input messages manual for a description of the maintenance messages. Verify the DPT file has active phases. The DPT file is /diag/dpt/(type)/(unit) where unit=the unit type specified in the input request; type = 'cu' if the unit is within a CU, or 'pu' if the unit is within an IOP or DFC. Restore file from the backup file system.
75	The UCB for the unit to be diagnosed is already reserved by another maintenance client not under the control of MIRA, or a previous maintenance request failed to release the UCB.	Refer to the Output Message manual entry REPT:MIRA.
76	Could not open special device file used to talk with hardware.	The ECD manager must be reinitialized. This ECD function is used only in peripheral (IOP or DFC) units where the unique field in the UCB is ON. Other units may still be diagnosed in the face of this problem.
77	An invalid message was sent from the Maintenance Input Request Administrator or the Diagnostic Controller.	Retry the request.
78	The diagnostic monitor was sent an invalid type of request.	Retry the request.
79	The diagnostic controller returned an invalid result after a diagnostic phase completed.	Retry the request.
7A	The diagnostic controller returned an invalid result after a unit diagnostic completed.	Retry the request.
7B	A request to the ECD manager to update the minor device state has failed.	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
7C	The user has attempted to execute diagnostics on an IOP tape device. This is valid only for DFC tape devices.	The unit name or number is incorrect. If the tape device is an IOP sub-device, the MTC should be diagnosed. If the tape device is a DFC sub-device, the unit number is incorrect. Correct the input message and retry the request.
7D	The user has attempted to diagnose the cash storage unit (CSU) or store address translator (SAT). These units are part of the central control (CC) on this hardware platform.	Use the DGN:CU input message to diagnose the CC.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:CU
DGN:DFC
```

```
DGN:DUIC
DGN:HSDC
DGN:MHD
DGN:MTC
DGN:MTTYC
DGN:SCSDC
DGN:SDLC
DGN:TTYC
OP:ST-LISTDIR
RCV:M-BROWSE
```

Output Appendix(es):

```
APP:SYSERR
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-190-120 *Common Channel Signaling Services Features*

REPT:DIOP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT DIOP DIOPNKILL UNSWAP FAILURE a

[2]   ____________________________________________________________
      REPT DIOP DIOPNKILL SWAP FAILURE a

[3]   ____________________________________________________________
      REPT DIOP SIMPLEX UNSWAP FAILURE a
        REPT DIOP SIMPLEX PROCESSING FAILURE

[4]   ____________________________________________________________
      REPT DIOP SIMPLEX PROCESSING COMPLETED

[5]   ____________________________________________________________
      REPT DIOP DUPLEX SWAP FAILURE a

[6]   ____________________________________________________________
      REPT DIOP DUPLEX PROCESSING COMPLETED

[7]   ____________________________________________________________
      REPT DIOP ALL NONESSENTIAL IMS PROCESSES TERMINATED
```

2. REASON FOR OUTPUT

Format 1 reports that a process has requested that it be made disk independent operation (DIOP) essential while the AM disks are simplex, but the kernel cannot swap it in or make it nonswappable.

Format 2 reports that a process has requested that it be made disk independent operation nonessential, but the kernel cannot make it swappable.

Format 3 reports that a swappable disk independent operation essential process cannot be made nonswappable in the AM disk simplex mode.

Format 4 reports the successful execution of the disk simplex operation. All swappable disk simplex essential processes have been swapped in and made nonswappable.

Format 5 reports that while attempting to reenter AM disk duplex operation, a process that was made nonswappable because it was disk independent operation essential cannot be made swappable.

Format 6 reports that AM disk duplex operation has been restored. All processes that were made nonswappable because of AM disk simplex operation have been made swappable.

Format 7 reports that the switch has been placed in the DIOP mode. All nonessential interprocess message switch (IMS) processes have been terminated. This message is reported every 15 minutes as long as IMS is in the DIOP mode.

3. VARIABLE FIELD DEFINITIONS

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a = Pcode portion of the process's utility ID.

4. ACTION TO BE TAKEN

For Format 7, an IMS level 3 or level 4 initialization is required to bring the IMS out of the DIOP mode and restore its full capabilities.

5. ALARMS

None.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1-6	334

Output Appendix(es):

APP:OMDB-X-REF

REPT:DIST-TPCF-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DISTRIBUTE=a-b-c-d TRBL PICB CONTROL FAILURE EVENT=e
  f  RECOVERY ACTION g
  h  i  j  k
  l  m  n
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the distribute point board (DISTRIBUTE).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = Board number.

`e` = Event number.

`f` = Error type. Valid value(s):

```
PER DETECTED BAD ADDRESS
SOFTWARE BAD ADDRESS ERROR
```

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is provided.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`i` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`j` = Data being written to the periphery by the CI.

`k` = Contents of the CI error source register.

`l` = External logical circuit name.

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Note: Up to two logical circuit names, recent failure counts, and error thresholds (variables '`l`'-'`n`') may be printed.

`m` = Current decimal number of recent failures of this type recorded.

`n` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the distribute point board from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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REPT:DIST-TPCF-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DISTRIBUTE=a-b-c-d TRBL PICB CONTROL FAILURE EVENT=e
  f  RECOVERY ACTION g
  h  i  j  k
  l  m  n  o
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the distribute point board (DISTRIBUTE).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = Board number.

`e` = Event number.

`f` = Error type. Valid value(s):

```
PER DETECTED BAD ADDRESS
SOFTWARE BAD ADDRESS ERROR
```

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is provided.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`i` = System PICB number in hexadecimal that was being written when the failure occurred.

`j` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`k` = Data being written to the periphery by the CI.

`l` = Contents of the CI error source register.

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m = External logical circuit name.
Note: Up to two logical circuit names, recent failure counts, and error thresholds (variables 'm'-'o') may be printed.

n = Current decimal number of recent failures of this type recorded.

o = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the distribute point board from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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REPT:DIST-TUSR

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DISTRIBUTE=a-b-c-d TRBL UNEXPECTED SERVICE REQUEST e
  MSU OPERATIONAL SERVICE REQ RECOVERY ACTION g
  h
  i    j    k
```

2. REASON FOR OUTPUT

To report an unexpected service request on the distribute point board (DISTRIBUTE).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = Board number.

`e` = Event number.

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`INITIALIZE` = The failing circuit has been reinitialized.
`REPT TO TERMINAL MAINT` = Terminal maintenance has been notified of the failure.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Source analysis data (optional).

`i` = External logical circuit name.

`j` = Current decimal number of recent failures of this type recorded.

`k` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

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None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:DKDIP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

[1]
```
REPT DKDIP MESSAGE
  REPT DKDIP ERROR a [b]
```

[2]
```
REPT DKDIP MESSAGE
  c
```

2. REASON FOR OUTPUT

Format 1 reports an error condition encountered by the DKDIP process.

Format 2 reports the status of a poke request invoked from the data file system access (DFSA) display page during disk independent operation (DIOP).

3. VARIABLE FIELD DEFINITIONS

a = Process step or reason. Valid value(s):

d04	= DKDIP was restarted due to phase 1.
d08	= Poke 620 aborted due to phase 1.
d0c	= Poke 600 or 601 aborted due to phase 1.
d10	= Poke 603 aborted due to phase 1.
d14	= Poke 602 or 604 aborted due to phase 1.
d18	= Received invalid message type. Message ignored.
d30	= Failed to open the equipment configuration database (ECD).
d34	= Failed to attach to the ECD.
d38	= Failed to initialize ackdb segment.
d50	= Failed to get unit control block (UCB) record by record ID (RID).
d60	= Failed to get UCB record by RID.
d63	= UCB returned is not a disk file controller (DFC) UCB.
d66	= Invalid DFC UCB model field.
d70	= Virtual address translation failure.
d80	= Failed to get UCB record by RID.
d83	= Invalid DFC sub-device type.
d86	= Failed to get UCB record by RID.
d89	= Invalid peripheral device type.

b = System error code number. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

c = Reference to another output message in the Output Messages manual.

4. ACTION TO BE TAKEN

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For Format 1, the DKDIP process encounters an error condition either during initialization or when processing a client request. If the error condition persists, contact the next level of technical assistance.

For Format 2, appropriate actions can be found under the appropriate output message pages in the output manual.

5. ALARMS

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	259
2	154, 253-258, 266 - 268, 574-576, 609, 653, 654, 662, 664

Output Message(s):

```
DUMP:MHD-DEFECT
INIT:MHD
LOAD:MHD
RMV:SBUS
RST:DFC
RST:SBUS
VFY:MHD
```

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

MCC Display Page(s):

(DISK FILE SYSTEM ACCESS)

REPT:DKDRV

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT DKDRV INFO CODE a

[2]   ____________________________________________________________
      REPT DKDRV ERROR DATA b

[3]   ____________________________________________________________
      REPT DKDRV RECEIVED UNKNOWN RCV MESSAGE c d e

[4]   ____________________________________________________________
      REPT DKDRV WARNING, MHD d PARTITION f IS WRITE RESTRICTED
        VIOLATING PID g

[5]   ____________________________________________________________
      REPT DKDRV WARNING, MHD d EXCEEDS LONG TERM FAILURE THRESHOLD
```

2. REASON FOR OUTPUT

Format 1 reports a disk file controller (DFC) or disk driver (DKDRV) related error condition.

Format 2 provides additional data for a preceding REPT:DKDRV output message.

Format 3 reports that the disk driver received notification from recent/change and verify (RCV) that the equipment configuration database (ECD) changed, but the change type is not recognized.

Format 4 reports the process identifier (PID) of the violating process that tries to access the write restricted partition.

Format 5 reports that the disk exceeds the failure threshold. Action may be necessary to prevent a system outage.

3. VARIABLE FIELD DEFINITIONS

`a` = Disk driver information code. Refer to the APP:DFC-A appendix in the Appendixes section of the Output Messages manual.

`b` = Supplemental data for previous REPT:DKDRV message.

`c` = Unit name.

`d` = Unit number.

`e` = RCV operation code.

`f` = Partition number.

`g` = PID of the violating process.

4. ACTION TO BE TAKEN

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For Format 1, reference the disk driver code in the APP:DFC-A appendix in the Appendixes section of the Output Messages manual. If hardware is implicated, replace the faulty hardware using standard maintenance procedures. If a software or data malfunction is indicated, then try to correct the problem, if possible.

For Formats 2, 3, and 4, save the receive-only printer (ROP) output, then contact your technical assistance organization. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 5, refer to the Routine Operations and Maintenance manual for handling disk media access errors.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	230
2	192
3	240
4	547
5	554

Input Message(s):

```
CLR:MHD-MAEC
DGN:DFC
DGN:MHD
INIT:MHD
LOAD:MHD
OP:DFCELOG
RMV:DFC
RMV:MHD
RST:DFC
RST:MHD
```

Output Message(s):

```
DGN:DFC
DGN:MHD
RMV:DFC
RMV:MHD
RST:DFC
RST:MHD
```

Output Appendix(es):

```
APP:DFC-A
APP:OMDB-X-REF
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:DLGGETTY

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT DLGGETTY UNABLE TO ACCESS ECD FOR a

[2]   ____________________________________________________________
      REPT DLGGETTY CANNOT READ GETTY RECORD FOR a

[3]   ____________________________________________________________
      REPT DLGGETTY UNABLE TO CHANGE DIRECTORY TO b

[4]   ____________________________________________________________
      REPT DLGGETTY FAILED TO EXECUTE c

[5]   ____________________________________________________________
      REPT DLGGETTY FAILED TO OPEN d

[6]   ____________________________________________________________
      REPT DLGGETTY CHANID FOUND IN LOGDEV RECORD a

[7]   ____________________________________________________________
      REPT DLGGETTY UNABLE TO RETRIEVE LCHAN FROM ENVIRONMENT
```

2. REASON FOR OUTPUT

To report that the DLGGETTY process has encountered an error while trying to process initialization information for a device. The message will appear on the originating device only.

3. VARIABLE FIELD DEFINITIONS

a = Teletypewriter (TTY) device against which the dlggetty is executing.

b = The directory which the dlggetty could not access.

c = Pathname of the process to be executed.

d = Special device file which could not be opened.

4. ACTION TO BE TAKEN

For format 1 or 2, verify that the getty record in the equipment configuration database (ECD) for the indicated TTY device is correct.

For Format 3, verify that the directory indicated in the getty record exists.

For Format 4, verify that the process which could not be executed exists and is executable.

For Format 5, 6, or 7, or the errors persist after taking actions indicated above, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

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5. ALARMS

None.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	312

Output Appendix(es):

APP:OMDB-X-REF

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:DLGSHL

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT DLGSHL DEVICE a CANNOT ENABLE MESSAGE
        RECEPTION

[2]   ____________________________________________________________
      REPT DLGSHL DEVICE a CREATE SEGMENT ERROR

[3]   ____________________________________________________________
      REPT DLGSHL DEVICE a UNABLE TO INITIATE I/O

[4]   ____________________________________________________________
      REPT DLGSHL DEVICE a TERMINAL OPEN ERROR

[5]   ____________________________________________________________
      REPT DLGSHL DEVICE a TERMINAL READING ERROR

[6]   ____________________________________________________________
      REPT DLGSHL DEVICE a TERMINAL WRITING ERROR

[7]   ____________________________________________________________
      REPT DLGSHL DEVICE a UNIDENTIFIED ERROR

[8]   ____________________________________________________________
      REPT DLGSHL DEVICE a UNABLE TO FORK CSDIP

[9]   ____________________________________________________________
      REPT DLGSHL DEVICE a UNABLE TO EXECUTE CSDIP

[10]  ____________________________________________________________
      REPT DLGSHL DEVICE a GETTRAP FAILED

[11]  ____________________________________________________________
      REPT DLGSHL DEVICE a SETTRAP FAILED

[12]  ____________________________________________________________
      REPT DLGSHL DEVICE a STATIO FAILED

[13]  ____________________________________________________________
      REPT DLGSHL DEVICE a NO CSDIP PROCESS

[14]  ____________________________________________________________
      REPT DLGSHL DEVICE a UNABLE TO ACCESS
        ECD DATA

[15]  ____________________________________________________________
      REPT DLGSHL DEVICE a UNABLE TO ACCESS
        AUTHORITY ADMINISTRATION
```

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```
[16]  ____________________________________________________________
      REPT DLGSHL DEVICE a UNABLE TO RETRIEVE
        AUTHORITY GROUPS

[17]  ____________________________________________________________
      REPT DLGSHL DEVICE a NO SOP/CSOP COMMUNICATION
        POSSIBLE

[18]  ____________________________________________________________
      REPT DLGSHL DEVICE a UNABLE TO RETRIEVE LCHAN
        FROM ENVIRONMENT

[19]  ____________________________________________________________
      REPT DLGSHL DEVICE a EOF ENCOUNTERED

[20]  ____________________________________________________________
      REPT DLGSHL TERMINAL IN SERVICE *** b
        CAPABILITY MODE / c

[21]  ____________________________________________________________
      REPT DLGSHL UNABLE TO READ LINE d OF .pname
        FILE

[22]  ____________________________________________________________
      REPT DLGSHL CANNOT CHANGE DIRECTORY TO e

[23]  ____________________________________________________________
      REPT DLGSHL SETGID TO f FAILED

[24]  ____________________________________________________________
      REPT DLGSHL SETUID TO g FAILED

[25]  ____________________________________________________________
      REPT DLGSHL UNABLE TO ACCESS SPLRINFO FORM

[26]  ____________________________________________________________
      REPT DLGSHL CRAFT SHELL IS IN LIMP CAPABILITY MODE

[27]  ____________________________________________________________
      REPT DLGSHL ON MTTY WILL USE DEFAULT .PNAME
        FILE
```

2. REASON FOR OUTPUT

To report a dialogue shell (DLGSHL) related occurrence or error.

Format 1 indicates that the DLGSHL cannot receive messages.

Format 2 indicates that the DLGSHL cannot create or open a segment.

Format 3 indicates that a call to setio() failed.

Format 4 indicates that the DLGSHL cannot open the specified device.

Format 5 indicates that the DLGSHL cannot read from the specified device.

Format 6 indicates that the DLGSHL cannot write to the specified device.

Format 7 is printed when the DLGSHL encounters an unknown error, such as an illegal enumeration value.

Format 8 is printed when the synchronous DLGSHL fails to fork the character special device interface process (CSDIP).

Format 9 is printed when the synchronous DLGSHL fails to execute the CSDIP.

Format 10 indicates that the terminal options for the specific device could not be retrieved.

Format 11 indicates that the terminal options for the specified device could not be set.

Format 12 indicates that a call to statio() failed.

Format 13 indicates that the CSDIP process on the specified device has died.

Format 14 indicates that the DLGSHL cannot access the equipment configuration database (ECD).

Format 15 indicates that the DLGSHL cannot access information relating to terminal and personal authority.

Format 16 indicates that the DLGSHL cannot retrieve information relating to input message authority groups.

Format 17 indicates that communication between the coordinator of spooler output processes (CSOP) and the DLGSHL spooler output function (SOF) have been corrupted.

Format 18 is printed when the DLGSHL cannot retrieve the LCHAN environment variable.

Format 19 indicates that the DLGSHL has been terminated.

Format 20 indicates that the DLGSHL has been initiated. A dialogue request character must be typed and, possibly, a password entered before the DLGSHL is ready to accept input messages (refer to the Craft Interface User's Guide).

Format 21 indicates that a message has requested a change to an environment that does not exist in the .pname file (refer to the Craft Interface User's Guide).

Format 22 indicates that a request to change an execution directory as a result of an environment change has not been honored.

Format 23 indicates that an attempt to change the group ID of the DLGSHL failed. This usually occurs as a result of attempts to change the environment.

Format 24 indicates that an attempt to change the user ID of the DLGSHL failed. This usually occurs as a result of attempts to change the environment.

Format 25 indicates that the DLGSHL cannot access the splrinfo record in the ECD.

Format 26 indicates that the DLGSHL cannot attach to the Input Message Catalog.

Format 27 indicates that the DLGSHL attached to the maintenance teletypewriter (MTTY) cannot read the .pname file and will, therefore, use a default .pname file containing the following: "0:..../cmds1:/cft/shl/cmds".

3. VARIABLE FIELD DEFINITIONS

`a` = Device name.

`b` = DLGSHL capability mode.

```
FULL
LIMP
PART
```

c = Input message syntax. Valid value(s):

```
MML
```

d = Label of line.

e = Name of the requested directory.

f = Name of the requested group ID.

g = Name of the requested user ID.

4. ACTION TO BE TAKEN

Formats 1-8, 10-14, 17-19, and 22-24 all represent internal errors. Most of these errors cause the dialogue session to be terminated. This should recover from the problem automatically. If the error is printed only once or twice, take no action.

For Format 9, verify that /cft/bin/csdip exists and can be executed using the OP:STATUS-LISTDIR input message. The permissions on the file can be changed using the ALW:FSYS-ACCESS input message.

For Format 15, verify the existence of /etc/dlg/authfile using the OP:STATUS-LISTDIR input message.

For Format 16 indicates a login failure. This usually indicates a typing error. Attempt to initiate another dialogue session.

Format 20 indicates that the dialogue session has been started. Take no action.

For Format 21 to fix either the .pname file or the command which was last executed, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 25, verify the existence of the SPLRINFO record using the RCV:MENU-RCVECD input message.

For Format 26, verify the existence of /cft/shl/imcatlg using the OP:STATUS-LISTDIR input message.

For Format 27 to determine if this is a result of a database problem, or if the file should exist, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

If any of these messages persists and the appropriate action has already been taken, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

Critical alarm. Take immediate action as indicated in the report. If needed, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Minor alarm. Take action as indicated in the report.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1-24	301
25, 26	299
27	298

Input Message(s):

```
ALW:FSYS-ACCESS
OP:ST-LISTDIR
RCV:M-RCVECD
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:DLN

Software Release: 5E10 and later
Message Class: INT_MON
Application: 5
Type: Output

1. FORMAT

```
REPT  DLN a-b   DEF-CHK-FAIL   MESSAGE  SUMMARY
  AUTOMATIC DCF MESSAGE BREVITY CONTROL
  DEF-CHK-FAIL CODE    OCCURRENCES    DISCARDED
          c                 d             e
          .                 .             .
          .                 .             .
          .                 .             .
   [DCF MESSAGE OVERFLOW]
```

2. REASON FOR OUTPUT

To report the summary of direct link node (DLN) defensive check failure (DCF) errors that have occurred during the previous 15-minute interval. DCF MESSAGE OVERFLOW will be printed if the maximum allowable number of table entries was exceeded.

3. VARIABLE FIELD DEFINITIONS

a = DLN ring node address group number.

b = DLN ring node address member number.

c = Defensive check failure error codes. Refer to the Asserts Manual for specific code information.

d = The total number of defensive check failures of this type that have occurred during the previous 15-minute interval.

e = The total number of defensive check failures of this type that have been discarded by brevity controls during the previous 15-minute interval.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
INIT:DLN
REPT:DLN-DATA
REPT:DLN-STACK-FS
REPT:DLN-STACK-TS
```

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Other Manual(s):

235-600-500 Asserts

REPT:DLN-CNGST

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

[1]
```
REPT DLN CNGST
  DLN a b CNGST SUMMARY
  CNI c d e f
  APP g h i j
```

[2]
```
REPT DLN CNGST
  DLN a b CNGST ABATED
```

2. REASON FOR OUTPUT

To report that the active direct link node (DLN) is or has been in congestion.

Format 1 is printed five minutes after DLN congestion was first detected. The second line indicates the source of the congestion. The third line indicates the common network interface (CNI) level of congestion, and the fourth line indicates the application level of congestion. The application congestion level supersedes the CNI congestion level and it determines how much traffic is throttled by the link nodes. The severity of the congestion is determined by the number of seconds in the congestion levels.

Format 2 is printed five minutes after a Format 1 congestion summary message to indicate that DLN congestion has abated.

3. VARIABLE FIELD DEFINITIONS

a = DLN's group number.

b = DLN's member number.

c = The number of seconds of CNI level 1 congestion.

d = The number of seconds of CNI level 2 congestion.

e = The number of seconds of CNI level 3 congestion.

f = The number of seconds of CNI level 4 congestion.

g = The number of seconds of application level 1 congestion.

h = The number of seconds of application level 2 congestion.

i = The number of seconds of application level 3 congestion.

j = The number of seconds of application level 4 congestion.

All numbers are cumulative based on 100ms sampling over the 5-minute interval preceding the report.

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4. ACTION TO BE TAKEN

This report is purely informational. It indicates that the DLN is at or near processing capacity and attempting to shed load. If this message appears consistently, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

IM/OM References:

None.

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REPT:DLN-DATA

Software Release: 5E10 and later
Message Class: INT_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DLN=a,b    DATA=c,d    ADDR=e    SRC=f    EVENT=g
  hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh
  hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh
```

2. REASON FOR OUTPUT

To provide additional information about errors detected in the direct link node (DLN). This message may follow other messages associated with an error detected in the DLN or it may appear alone to provide a postmortem dump in the event that a fatal error occurred. A total of three of these messages may print out in response to a single defensive check failure. You may not have the resources to interpret the data. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

3. VARIABLE FIELD DEFINITIONS

`a` = The ring node (RN) group number of the reporting direct link node (DLN) (00-63).

`b` = The ring node member number of the reporting DLN (1-15).

`c` = Data dump type. Valid value(s):

- `DCF-DATA` = The dump consists of data that relates to a defensive check failure event which is documented in associated output messages.
- `PCB` = The data dump consists of the process control block of the operating system for distributed switching (OSDS) process whose process identification (PID) is the block number field (refer to variable '`d`'). This dump should follow an INIT DLN message for which the level of initialization initiated was single process purge (SPP).
- `POST-MORT` = The data dump consists of postmortem data from the DLN associated with the previous fault causing a switch to the standby DLN.

`d` = The sequence number (1, 2, or 3) of the block as defined for this defensive check failure.

`e` = Physical address, in hexadecimal, of the block being dumped.

`f` = Source of the dump request. Valid value(s):

- `DCF` = Defensive check failure request.
- `PE` = Processor exception request.

`g` = Event number.

`h` = 32-bit word representations of the data in hexadecimal.

4. ACTION TO BE TAKEN

This information should be sent along with any trouble report concerning DLN initialization to the technical support

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organization.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
INIT:DLN
REPT:DLN-STACK-FS
REPT:DLN-STACK-TS
```

REPT:DLN-STACK-TS

Other Manual(s):
235-600-500 *Asserts*

REPT:DLN-RCF-A

Software Release: 5E10 only
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
REPT DLN a          RECENT CHANGE FAILURE b
  TAKE MANUAL RECOVERY ACTION
```

2. REASON FOR OUTPUT

To report that a problem has been encountered while trying to modify a relation in the direct link node (DLN) during a recent change operation. This output message occurs only in offices equipped with a DLN.

3. VARIABLE FIELD DEFINITIONS

`a` = DLN that failed. Valid value(s):

```
ACT/STBY
ACTIVE
STANDBY
```

`b` = Name of the relation being modified by recent change when the problem occurred. Valid value(s):

`DS_APP`	= Translates a common channel signaling (CCS) direct signaling appreciation into a subsystem number and translation type.
`DS_SSN`	= Translates a CCS direct signaling subsystem number into an appreciation.
`LAB6_PCI`	= Translates a common channel signaling version 6 (CCS6) link pair into a point code index (PCI).
`LAB7_PCI`	= Translates a common channel signaling version 7 (CCS7) link pair into a PCI.
`PCI_PRT`	= Translates the PCI and circuit code of a CCS6 or CCS7 into the module and port of the trunk.

4. ACTION TO BE TAKEN

Manual recovery action required. If the active DLN failed, switch the standby DLN into active mode and initiate recovery action on the faulty DLN. If only the standby DLN failed, initiate manual recovery action only on the standby DLN. If both the active and standby DLN failed, the DLNs went into recovery during recent change, leaving the DLN database in an unknown state. Initialize both DLNs one at a time and retry recent change after initialization.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

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REPT:DLN-RCF-B

Software Release: 5E11 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
REPT DLN a          RECENT CHANGE FAILURE b
  TAKE MANUAL RECOVERY ACTION
```

2. REASON FOR OUTPUT

To report that a problem has been encountered while trying to modify a relation in the direct link node (DLN) during a recent change operation. This output message occurs only in offices equipped with a DLN.

3. VARIABLE FIELD DEFINITIONS

`a` = DLN that failed. Valid value(s):

```
ACT/STBY
ACTIVE
STANDBY
```

`b` = Name of the relation being modified via recent change when the problem occurred. Valid value(s):

`DS_APP`	= Translates a common channel signaling (CCS) direct signaling appreciation into a subsystem number and translation type.
`DS_SSN`	= Translates a CCS direct signaling subsystem number into an appreciation.
`LAB6_PCI`	= Translates a common channel signaling version 6 (CCS6) link pair into a point code index (PCI).
`LAB7_PCI`	= Translates a common channel signaling version 7 (CCS7) link pair into a PCI.
`MLT_LATA`	= Translates a LATA number and CCS direct signaling application into a translation type and two destination point codes (DPC) of the signaling transfer point (STP).
`PCI_PRT`	= Translates the PCI and circuit code of a CCS6 or CCS7 into the module and port of the trunk.

4. ACTION TO BE TAKEN

Manual recovery action required. If the active DLN failed, switch the standby DLN into active mode and initiate recovery action on the faulty DLN. If only the standby DLN failed, initiate manual recovery action only on the standby DLN. If both the active and standby DLN failed, the DLNs went into recovery during recent change, leaving the DLN database in an unknown state. Initialize both DLNs one at a time and retry recent change after initialization.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

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REPT:DLN-STACK-FS

Software Release: 5E10 and later
Message Class: INT_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DLN=a,b  STACK FRAME    SRC=c    EVENT=d
  FUNC ADDR:    eeeeeeee
  PARAMETERS:   ffffffff ffffffff ffffffff ffffffff ffffffff
                ffffffff ffffffff ffffffff ffffffff ffffffff
  LOCAL DATA:   gggggggg gggggggg gggggggg gggggggg gggggggg
                gggggggg gggggggg gggggggg gggggggg gggggggg
                gggggggg gggggggg gggggggg gggggggg gggggggg
                gggggggg gggggggg gggggggg gggggggg gggggggg
                gggggggg gggggggg gggggggg gggggggg gggggggg
                gggggggg gggggggg gggggggg gggggggg gggggggg
                gggggggg gggggggg gggggggg gggggggg gggggggg
                gggggggg gggggggg gggggggg gggggggg gggggggg
```

2. REASON FOR OUTPUT

To report the contents of a stack frame associated with a previous REPT:DLN-STACK-TS Two of these messages may print in response to a single defensive check failure.

3. VARIABLE FIELD DEFINITIONS

`a` = The ring node (RN) group number of the reporting direct link node (DLN) (00-63).

`b` = The ring node member number of the reporting DLN (1-15).

`c` = Source of stack trace request. Valid value(s):
- `DCF` = Defensive check failure.
- `PE` = Processor exception recovery action.

`d` = Event number.

`e` = Address, in hexadecimal, of the function to which this stack frame belongs and whose data follows.

`f` = Hexadecimal dump of the function's parameters in groups of 32 bits. This data is arranged in order of the parameter list of the function with the first parameter first. A single parameter is listed with the most significant 8 bits followed by the next significant 8 bits, etc.

`g` = Hexadecimal dump of function's local data in groups of 32 bits. This data is arranged in order of the local variable list of the function with the first local variable first. A single local variable is listed with its least significant 8 bits first, followed by the next 8 bits, etc.

4. ACTION TO BE TAKEN

None.

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5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
INIT:DLN
REPT:DLN-DATA
REPT:DLN-STACK-TS
```

Other Manual(s):
235-600-500 *Asserts*

REPT:DLN-STACK-TS

Software Release: 5E10 and later
Message Class: INT_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DLN=a,b  STACK TRACE    SRC=c    EVENT=d
  USER:   eeeeeeee eeeeeeee eeeeeeee eeeeeeee eeeeeeee eeeeeeee
          eeeeeeee eeeeeeee eeeeeeee eeeeeeee eeeeeeee eeeeeeee
          eeeeeeee eeeeeeee eeeeeeee eeeeeeee eeeeeeee eeeeeeee
  SYS:    ffffffff ffffffff ffffffff ffffffff ffffffff ffffffff
          ffffffff ffffffff ffffffff ffffffff ffffffff ffffffff
          ffffffff ffffffff ffffffff ffffffff ffffffff ffffffff
```

2. REASON FOR OUTPUT

To report a trace of the system and user stacks as a result of system recovery. This message is used for debugging. You may not have the resources to interpret the data. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

3. VARIABLE FIELD DEFINITIONS

`a` = The ring node (RN) group number of the reporting direct link node (DLN).

`b` = The ring node member number of the reporting DLN.

`c` = Source of stack trace request. Valid value(s):
- `DCF` = Defensive check failure.
- `PE` = Processor exception recovery action.

`d` = Event number.

`e` = List of addresses, in hexadecimal, stored in the user stack if there are any; otherwise all these fields are absent.

`f` = List of addresses, in hexadecimal, stored in the operating system for distributed switching (OSDS) system stack if there are any; otherwise all these fields are absent.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

`INIT:DLN`

```
REPT:DLN-DATA
REPT:DLN-STACK-FS
```

Other Manual(s):
235-600-500 *Asserts*

REPT:DLNHB

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT DLNHB IS MANUALLY INHIBITED
```

2. REASON FOR OUTPUT

To respond to a manual direct link node (DLN) heartbeat test inhibit. This message will appear every 15 minutes until automatic testing is allowed.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

None. If automatic tests are to be run it can be turned on using the ALW:DLNHB command.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:DLNHB

INH:DLNHB
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

REPT:DMON

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT DMON a b [c]
```

2. REASON FOR OUTPUT

To report that the diagnostic monitor (DMON) has aborted a diagnostic. This message indicates that the requested diagnostic aborted because of an internal problem and indicates the nature of the problem.

3. VARIABLE FIELD DEFINITIONS

a = Error number.

b = Reason for error.

c = Supplementary information.

4. ACTION TO BE TAKEN

Refer to Exhibit A for action to be taken. In errors where the action is "Rerun diagnostic", if the problem persists, then contact the next level of maintenance assistance.

Error	Explanation	Action
250	Manual request to abort DMON.	N/A.
251	Cannot send message to diagnostic controller (DIAGC).	Rerun diagnostic.
252	TLP pathname missing in UTIL file.	Check '/no5text/diag/util/pu'.
253	Spawn of trouble locating procedure (TLP) process failed.	Rerun diagnostic.
254	Timeout while trying to send message.	Rerun diagnostic.
255	Cannot make memory segment.	Rerun diagnostic.
256	Cannot receive messages from deferred maintenance administrator and monitor (DMAM).	Rerun diagnostic.
257	Cannot receive messages from DMAM.	Rerun diagnostic.
258	Unused.	N/A.
259	Unused.	N/A.
260	Unused.	N/A.
261	Unused.	N/A.
262	Unused.	N/A.
263	Unused.	N/A.
264	Unused.	N/A.
265	Unused.	N/A.
266	Unused.	N/A.
267	Unused.	N/A.
268	Unused.	N/A.
269	Unused.	N/A.
270	Invalid user request.	Correct and reenter.
271	Unused.	N/A.
272	dUnable to find utility file on disk.	Check '/no5text/diag/util/pu'.
273	Unused.	N/A.
274	Cannot send diagnostic result to DMAM.	Rerun diagnostic.
275	Cannot match tag in utility file.	Check '/no5text/diag/util/pu'.
276	Cannot read helper unit status.	Rerun diagnostic.
277	Diagnostic directory missing on administrative mode (AM).	Check '/no5text/diag'.
278	Illegal 'tag' format.	Check '/no5text/diag/util/pu'.
279	Cannot remove subunit.	Rerun diagnostic.
280	Cannot restore subunit.	Rerun diagnostic.

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281	TLP process or database missing.	Rerun diagnostic.
282	DGN tag missing in utility file.	Check '/no5text/diag/util/pu'.
283	Unused.	N/A.
284	Unused.	N/A.
285	Unable to find format file on disk.	Check '/no5text/diag/dgnc'.
286	Phase table file missing on disk.	Check '/no5text/diag/dpt/pu'.
287	Unused.	N/A.
288	Failed to read 'ucb'.	Rerun diagnostic.
289	Failed to read 'ucb'.	Rerun diagnostic.
290	Phase table missing on AM.	Check '/no5text/diag/dpt/pu'.
291	DIAGC program missing on AM.	Check '/no5text/diag/dgnc'.
292	Requested phase number invalid.	Correct and rerun.
293	Unused.	N/A.
294	Unused.	N/A.
295	Invalid message from DMAM.	Rerun diagnostic.
296	Invalid message from DMAM.	Rerun diagnostic.
297	Invalid phase result from DIAGC.	Rerun diagnostic.
298	Unused.	N/A.
299	Unused.	N/A.
300	Unused.	N/A.
301	Message switch control unit (MSCU) is powered down.	Power up MSCU.
302	OOS MSCU helper cannot be removed.	Rerun diagnostic.
303	OOS MSCU helper cannot be removed.	Rerun diagnostic.
304	Cannot initialize MSCU equipment configuration database (ECD) parameters.	Diagnose MSCU.
305	Cannot disable MSCU interrupts.	Diagnose MSCU.
306	Cannot clear DDSBS.	Diagnose MSCU.
307	Cannot clear DDSBS maintenance mode.	Diagnose MSCU.
308	Cannot clear bus interface controller (BIC) word mode.	Diagnose MSCU.
309	Cannot enable BIC or peripheral interface controller (PIC) interface.	Diagnose MSCU.
310	Cannot enable MSCU interrupts.	Diagnose MSCU.
311	Unable to initialize MSCU.	Diagnose MSCU.
327	DMON received signal 'c'.	Rerun diagnostic.
376	Superordinate MSCU unavailable.	Restore MSCU.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:CMP
DGN:DLI
DGN:FPC
DGN:LI
DGN:MI
DGN:MMP
DGN:MSCU
DGN:MSGS
DGN:NC
DGN:ONTC
DGN:ONTCCOM
DGN:PPC
DGN:QGP
DGN:QLPS
DGN:TMS
RST:DLI
RST:FPC
RST:MMP
RST:MSCU
```

```
RST:MSGS
RST:ONTC
RST:ONTCCOM
RST:PPC
RST:QGP
RST:QLPS
```

Output Message(s):

```
DGN:CMP
DGN:DLI
DGN:FPC
DGN:LI
DGN:MI
DGN:MMP
DGN:MSCU
DGN:MSGS
DGN:NC
DGN:ONTC
DGN:ONTCCOM
DGN:PPC
DGN:QGP
DGN:QLPS
DGN:TMS
RST:DLI
RST:FPC
RST:MMP
RST:MSCU
RST:MSGS
RST:ONTC
RST:ONTCCOM
RST:PPC
RST:QGP
RST:QLPS
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:DMQ

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT DMQ INHIBIT a ACTIVE
       [,REMAINING TIME b MIN.]

[2]   ____________________________________________________________
      REPT DMQ ATTEMPT TO DISABLE INHIBIT a FAILED
```

2. REASON FOR OUTPUT

Format 1 reports inhibited maintenance request sources. The source may have been disallowed for an infinite time span or a finite time span.

Format 2 reports that inhibited maintenance request source '`a`' reached the end of its inhibited time, but the clear of the inhibit failed.

3. VARIABLE FIELD DEFINITIONS

`a` = Source of maintenance requests; for example, automatic diagnostic process (ADP).

`b` = Time, in minutes, left until requests will be allowed from source '`a`'.

4. ACTION TO BE TAKEN

Format 1 requires no action.

For Format 2, use the ALW:DMQ input message to manually allow the inhibited request source '`a`'. For the cause of the problem, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	92, 93
2	92

Input Message(s):

```
ALW:DMQ
INH:DMQ
OP:DMQ
```

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Output Message(s):

```
ALW:DMQ
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:DNUSCC-TBTF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DNUSCC=a-b-c [d] TRBL BACKGROUND TEST FAILURE EVENT=e
  f RECOVERY ACTION g
  hhiijjjj kkkkllll mmmmnnnn nnnnnnnn
  [DNUSCC=a-b-c o p]
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within the switching module (SM) caused by failure of a common control (CC) board in the digital networking unit - synchronous optical network SONET (DNU-S). The fault was detected and reported by the routine background test process. The message indicates what recovery action was taken and gives the current fault counts against the circuit specified in the message. Refer to field '`g`' to determine the effect the fault recovery activity had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = DNU-S unit number.

`c` = DNU-S CC number.

`d` = DNU-S CC equipment status. Valid value(s):

- `ACTIVE` = The CC is in service and a fault has been detected.
- `OOS` = The CC is marked as out-of-service, but fault stimuli are still being detected.
- `PRE-OOS` = Fault recovery has notified the maintenance request administrator (MRA) to remove this CC from service. However, fault stimuli are still being detected from the circuit indicating that the CC has not been completely removed from service.
- `STANDBY` = The CC is in standby and a fault has been detected.

`e` = Event number.

`f` = Error type. Valid value(s):

- `ACTIVE CC HEART BEAT ERROR` = A routine check found that the CC failed to respond to a functional check.
- `MATE CC ACCESS BUS VERIFY ERROR` = A routine check found that the mate CC failed an access test.
- `NO ERROR SOURCE FOUND` = A message was sent to peripheral fault recovery (PFR) software indicating a routine background test failure. However, PFR software analysis revealed no such failure condition.

`g` = Recovery action. Valid value(s):

- `ANALYSIS ONLY` = This recovery action applies to all circuits and all errors. A particular circuit or circuits are failing, but the error counts have not reached a threshold for action.
- `HARD RESET` = The circuit has been hard reset without scheduling diagnostics.

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`INHIBIT HDWCHKS` = The circuit has been inhibited because of excessive errors.
`INITIALIZE` = This recovery action is used to re-initialize a circuit without scheduling diagnostics.
`NO RECOVERY ACTION TAKEN` = This event needed no recovery action.
`PRE-OOS THRESHOLD EXCEEDED` = The CC was preempted and is still detecting errors.
`PRE-OOS, RE-INHIBIT HDWCHKS` = The CC has been preempted and is still detecting errors, inhibit has been re-applied on the CC.
`RE-INHIBIT ERROR` = The CC has been inhibited and error are still detected. Inhibit has been re-applied on the CC.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A DGN:DNUSCC output message will be printed with the results of the diagnostic.
`SWITCH` = An attempt was made to gain control of the hardware by changing configuration without removing circuits from service. Its purpose is to avoid removing circuits from service that normally could remain in service under some fault conditions and/or to help isolate the fault before isolating customers.

`h` = DNU-S message type.

`i` = Message handler (MH) number and MH channel number, in a bit-packed representation. The first three bits indicate the MH number, and the next five bits indicate the MH channel number.

`j` = Internal circuit name of DNUSCC.

`k` = Fault type.

`l` = Internal circuit index of DNUSCC.

`m` = Internal DNU-S command return code if field '`f`' = '`MATE CC ACCESS BUS VERIFY ERROR`'. Otherwise, unused.

`n` = Currently unused.

`o` = Number of recent failures of this error type (variable '`f`') on this DNUSCC circuit (in decimal).

`p` = Error count threshold above which the recovery action will become stronger.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the DNUSCC from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:DNUSCC
RMV:DNUSCC
RST:DNUSCC
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-600-500 *Asserts*

REPT:DNUSCC-TCTC

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT DNUSCC=a-b-c [d] TRBL CHANGE TO CC RECOV TO NOT DPLX FAIL CD EVENT=e
        f RECOVERY ACTION g
        hhiijjjj kkkkllll mmmmnnnn
        [DNUSCC=a-b-c s t]
        [DNUSCD=a-b-u-v w x]

[2]   ____________________________________________________________
      REPT DNUSCC=a-b-c [d] TRBL CHANGE TO CC RECOV TO NOT DPLX FAIL CD EVENT=e
        f RECOVERY ACTION g
        ooooppqq rrrrrrrr rrrrrrrr rrrrrrrr rrrrrrrr rrrrrrrr rrrrrrrr rrrrrrrr
        rrrrrrrr rrrrrrrr rrrrrrrr rrrrrrrr rrrrrrrr rrrrrrrr rrrrrrrr rrrrrrrr
        rrrrrrrr rrrrrrrr rrrrrrrr rrrrrrrr
        [DNUSCC=a-b-c s t]
        [DNUSCD=a-b-u-v w x]
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within the switching module (SM) caused by failure in the communication path between the common controller (CC) and common data (CD) boards in the digital networking unit - synchronous optical network (SONET) (DNU-S). The fault was detected and reported by SM scanning software or by message handler (MH) fault recovery software. Although the fault is pegged against both the CC and CD circuits, recovery was done against the CC circuit to avoid duplex failing the CDs. The message indicates what recovery action was taken and gives the current fault counts against the circuit specified in the message. Refer to field '`g`' to determine the effect the fault recovery activity had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = DNU-S unit number.

`c` = DNU-S CC number.

`d` = DNU-S CC equipment status. Valid value(s):

`ACTIVE`	= The CC is in service and a fault has been detected.
`OOS`	= The CC is marked as out-of-service, but fault stimuli are still being detected.
`PRE-OOS`	= Fault recovery has notified the maintenance request administrator (MRA) to remove this CC from service. However, fault stimuli are still being detected from the circuit indicating that the CC has not been completely removed from service.
`STANDBY`	= The CC is in standby and a fault has been detected.

`e` = Event number.

`f` = Error type. Valid value(s):

```
HDLC ERROR AT CD
LOGICAL LINK RESTART FROM CC END
MH BAD CRC
MH CHAN TRACKS VAR SET DURING OSR
MH END OF IDLE DETECTED
MH EXPECTED INFO FIELD NOT PRESENT
MH FRAME ABT DURING RECEIVE/TRANS
MH FRAME REJECT RECEIVED
MH IDLE DETECTED
MH IDLE TIMER EXPIRED
MH ILLEGAL ADDRESS
MH INFO FIELD EXCEEDED MAX SIZE
MH INVALID COMMAND/RESPONSE FIELD
MH INVALID EA BIT
MH INVALID HEADER FIELD
MH INVALID INFORMATION FIELD
MH INVALID POLL/FINAL FIELD
MH INVALID SAPI
MH INVALID TEI
MH LAYER 2 ESTABLISHED INDICATION
MH LAYER 2 RELEASED INDICATION
MH LOGICAL LINK TRACKS VAR DURING OSR
MH LONG/SHORT FRAME OR BAD BIT COUNT
MH LOST LAYER 2-NO RESP FROM FAR END
MH MAXIMUM FRAME SIZE EXCEEDED
MH OUT OF SEQUENCE
MH SEQUENCE FIELD INVALID
MH TRANS RETRY COUNT EXCEEDED
MH UNEXPECTED FRAME
MH UNEXPECTED FRM CURR LOG LINK STATE
MH UNEXPECTED INFORMATION FIELD
MH UNEXPECTED UNUMBERED FRAME
MH UNKNOWN FRAME TYPE
NO ERROR SOURCE FOUND
PCAMB PARITY ERRORS
SANITY TIMER TIMEOUT
```

`g` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = This recovery action applies to all circuits and all errors. A particular circuit or circuits are failing, but the error counts have not reached a threshold for action.

`HARD RESET` = The circuit has been hard reset without scheduling diagnostics.

`INHIBIT HDWCHKS` = The circuit has been inhibited because of excessive errors.

`INITIALIZE` = This recovery action is used to re-initialize a circuit without scheduling diagnostics.

`NO RECOVERY ACTION TAKEN` = No automatic recovery action performed.

`PRE-OOS THRESHOLD EXCEEDED` = The CC was preempted and is still detecting errors.

`PRE-OOS, RE-INHIBIT HDWCHKS` = The CC has been preempted and is still detecting errors, inhibit has been re-applied on the CC.

`RE-INHIBIT ERROR` = The CC has been inhibited and error are still detected. Inhibit has been re-applied on the CC.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A DGN:DNUSCC output message will be printed with the results of the diagnostic.

`SWITCH` = An attempt was made to gain control of the hardware by changing configuration without removing circuits from service. Its purpose is to avoid removing circuits

from service that normally could remain in service under some fault conditions and/or to help isolate the fault before isolating customers.

Note: Format 1 only gets printed if field 'f' = 'PCAMB PARITY ERRORS', 'HDLC ERROR AT CD' or 'SANITY TIMER TIMEOUT'. This format is for errors detected by SM scanning software. Otherwise, Format 2 gets printed. This format is for errors detected by MH fault recovery software.

h = DNU-S message type.

i = Currently unused.

j = Internal CC circuit name.

k = Internal CD circuit name.

l = Unmasked peripheral error source information.

m = Raw peripheral error source information.

n = Peripheral error mask information.

Note: Fields 'o' through 'r' contain up to twenty of the last MH events. Fields 'o' through 'q' constitute a single MH event, and each block of eight hex characters of field 'r' constitutes an additional MH event, with a similar layout to fields 'o' through 'q'. The MH events are arranged from least recent to most recent, so fields 'o' through 'q' represent the least recent event, and the last eight hex characters of field 'r' is the most recent event.

o = Contains a time stamp.

p = Layer 2 logical link number and MH channel number, in a bit-packed representation. The first three bits indicate the layer 2 logical link number, and the next five bits indicate the MH channel number.

q = MH internal inhibit status and MH error type, in a bit-packed representation. The first bit indicates the MH internal inhibit status, and the next seven bits indicate the MH error type.

r = Up to nineteen additional MH events with a similar layout to fields 'o' through 'q'. The last eight hex characters this field represent the most recent MH event.

s = Number of recent failures of this error type (field 'f') on this DNUSCC circuit (in decimal).

t = Error count threshold if the circuit is a DNUSCC.

u = DNU-S data group number.

v = DNU-S CD number.

w = Number of recent failures of this error type (field 'f') on this DNUSCD circuit (in decimal).

x = Error count threshold if the circuit is a DNUSCD.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the DNUSCC from service during a period

of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:DNUSCC
RMV:DNUSCC
RST:DNUSCC
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-600-500 *Asserts*

REPT:DNUSCC-TFM

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DNUSCC=a-b-c [d] TRBL FAULT MESSAGE EVENT=e
  f RECOVERY ACTION g
  hhiijjjj kkllmmmm mmmmmmmm mmmmmmmm mmmmmmmm mmmmmmmm mmmmmmmm mmmmmmmm
  [DNUSCC=a-b-c n o]
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within the switching module (SM) caused by failure of a common control (CC) board in the digital networking unit - synchronous optical network (SONET) (DNU-S). The fault was detected and reported by resident DNU-S fault recovery software. The message indicates what recovery action was taken and gives the current fault counts against the circuit specified in the message. Refer to field 'g' to determine the effect the fault recovery activity had on the system.

3. VARIABLE FIELD DEFINITIONS

a = Switching module number.

b = DNU-S unit number.

c = DNU-S CC number.

d = DNU-S CC equipment status. Valid value(s):

- ACTIVE = The CC is in service and a fault has been detected.
- OOS = The CC is marked as out-of-service, but fault stimuli are still being detected.
- PRE-OOS = Fault recovery has notified the maintenance request administrator (MRA) to remove this CC from service. However, fault stimuli are still being detected from the circuit indicating that the CC has not been completely removed from service.
- STANDBY = The CC is in standby and a fault has been detected.

e = Event number.

f = Error type. Valid value(s):

```
CC ADDRESSED NON-EXISTENT UCI ADDRESS
CC DETECTED BAD MESSAGE SEQUENCE
CC ILLEGAL MATE ACCESS
CC UCI PARITY ERROR
CCEST DATA INCONSISTENT
CCP ADDRESS ERROR IN SUP MODE
CCP ADDRESS ERROR IN USER MODE
CCP BUS ERROR IN SUP MODE
CCP BUS ERROR IN USER MODE
CCP FORMAT ERROR
CD CC INTERFACE PARITY ERROR
CD INVALID ADDR ACCESS BY CC ERR
CD SMP INTERFACE PARITY ERROR
```

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```
EXCESSIVE TMUX IDLE TDB REPORTS
FAULT TABLE ENTRY ERROR
FORCED INTERRUPT EXCEPTION
HASHSUM FAILURE ON ROUTINE CHECK
ICB ADDRESS PARITY ERROR
ICB DATA PARITY ERROR
ICB IMPROPER ADDRESS SELECT
ICB LINK ADDRESS ERROR
ICB MULTIPLEXER SELECTION ERROR
ICB TIMED OUT ERROR
INHIBIT ALL HARDWARE CHECKS
INTERRUPT EXCEPTION
INTERRUPT THRU MASK
INVALID INTERRUPT EXCEPTION
IO TIMER VIOLATION
MATE I/O TIMER VIOLATION
MATE MEMORY PARITY FAILURE
MATE NOT IN HOLD
MATE WRITE PROTECT VIOLATION
MEMORY PARITY FAILURE
MT AUDIT COMPLETION REPORT
MT AUDIT ERROR REPORT
NO ERROR SOURCE FOUND
PERIPH COMMAND TIMEOUT
PERIPH TASK TIMEOUT
PERIPHERAL BAD PARITY
PERIPHERAL BAD START CODE
PERIPHERAL DETECTED BAD ADDRESS
PERIPHERAL DETECTED BAD PARITY
PERIPHERAL DETECTED BAD START CODE
RESIDENT PROCESS PURGED
SANITY TIMER TIME OUT
SMP SENT BAD MESSAGE
SOFT RESET THRESHOLD EXCEEDED
STACK OVERFLOW
STUCK MAILBOX FLAG
SYSTEM DETECTED SOFTWARE PROBLEM
USER TASK PURGED THRESHOLD EXCEEDED
WRITE PROTECT VIOLATION
```

`g` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = This recovery action applies to all circuits and all errors. A particular circuit or circuits are failing, but the error counts have not reached a threshold for action.

`HARD RESET` = The circuit has been hard reset without scheduling diagnostics.

`INHIBIT HDWCHKS` = The circuit has been inhibited because of excessive errors.

`INITIALIZE` = This recovery action is used to re-initialize a circuit without scheduling diagnostics.

`NO RECOVERY ACTION TAKEN` = This event needed no recovery action.

`PRE-OOS THRESHOLD EXCEEDED` = The CC was preempted and is still detecting errors.

`PRE-OOS, RE-INHIBIT HDWCHKS` = The CC has been preempted and is still detecting errors, inhibit has been re-applied on the CC.

`RE-INHIBIT ERROR` = The CC has been inhibited and error are still detected. Inhibit has been re-applied on the CC.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A

DGN:DNUSCC output message will be printed with the results of the diagnostic.

`SWITCH` = An attempt was made to gain control of the hardware by changing configuration without removing circuits from service. Its purpose is to avoid removing circuits from service that normally could remain in service under some fault conditions and/or to help isolate the fault before isolating customers.

`h` = DNU-S message type.

`i` = Message handler (MH) number and MH channel number, in a bit-packed representation. The first three bits indicate the MH number, and the next five bits indicate the MH channel number.

`j` = Internal DNUSCC circuit name.

`k` = Unit type.

`l` = Number of information words sent from DNU-S fault recovery.

`m` = Information sent from DNU-S fault recovery. The data sent is dependent on the type of error (that is, the value of field '`f`').

`n` = Number of recent failures of this error type (field '`f`') on this DNUSCC circuit (in decimal).

`o` = Error count threshold above which the recovery action will become stronger.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the DNUSCC from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:DNUSCC
RMV:DNUSCC
RST:DNUSCC
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-600-500 *Asserts*

REPT:DNUSCC-TOF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DNUSCC=a-b-c [d] TRBL OPERATIONAL FAILURE EVENT=e
  f RECOVERY ACTION g
  iijjkkkk llllmmmm
  [DNUSCC=a-b-c n o]
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within the switching module (SM) caused by failure of a common control (CC) board in the digital networking unit - synchronous optical network (SONET) (DNU-S). The fault was detected and reported by operational software in the SM. The message indicates what recovery action was taken and gives the current fault counts against the circuit specified in the message. Refer to field '`g`' to determine the effect the fault recovery activity had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = DNU-S unit number.

`c` = DNU-S CC number.

`d` = DNU-S CC equipment status. Valid value(s):
- `ACTIVE` = The CC is in service and a fault has been detected.
- `OOS` = The CC is marked as out-of-service, but fault stimuli are still being detected.
- `PRE-OOS` = Fault recovery has notified the maintenance request administrator (MRA) to remove this CC from service. However, fault stimuli are still being detected from the circuit indicating that the CC has not been completely removed from service.
- `STANDBY` = The CC is in standby and a fault has been detected.

`e` = Event number.

`f` = Error type. Valid value(s):
- `CC SENT BAD MESSAGE` = DNU-S sent garbled message to SM operational software.
- `IDLE TASK RESPONDED` = Received task return from DNU-S resident software but SM operational software could find no client for task return.
- `LAYER TWO DOWN FOR TASK SENDING` = Protocol for sending tasks not operational.
- `TASK HAS BAD HEADER ON RETURN` = Task return from DNU-S contained a garbled header field.
- `TASK TIMED OUT` = Operational software timed out waiting for return from DNU-S resident software.
- `USER TASK PURGED THRESHOLD EXCEEDED` = Task sent to DNU-S was purged.

`g` = Recovery action. Valid value(s):
- `ANALYSIS ONLY` = This recovery action applies to all circuits and all errors. A particular circuit or

circuits are failing, but the error counts have not reached a threshold for action.

`HARD RESET` = The circuit has been hard reset without scheduling diagnostics.

`INHIBIT HDWCHKS` = The circuit has been inhibited because of excessive errors.

`INITIALIZE` = This recovery action is used to re-initialize a circuit without scheduling diagnostics.

`NO RECOVERY ACTION TAKEN` = This event needed no recovery action.

`PRE-OOS THRESHOLD EXCEEDED` = The CC was preempted and is still detecting errors.

`PRE-OOS, RE-INHIBIT HDWCHKS` = The CC has been preempted and is still detecting errors, inhibit has been re-applied on the CC.

`RE-INHIBIT ERROR` = The CC has been inhibited and error are still detected. Inhibit has been re-applied on the CC.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A DGN:DNUSCC output message will be printed with the results of the diagnostic.

`SWITCH` = An attempt was made to gain control of the hardware by changing configuration without removing circuits from service. Its purpose is to avoid removing circuits from service that normally could remain in service under some fault conditions and/or to help isolate the fault before isolating customers.

`i` = DNU-S message type.

`j` = Message handler (MH) number and MH channel number, in a bit-packed representation. The first three bits indicate the MH number, and the next five bits indicate the MH channel number.

`k` = DNU-S CC circuit name.

`l` = For field '`f`' = '`LAYER TWO DOWN FOR TASK SENDING`' or '`TASK TIMED OUT`', field '`l`' is the task type. Otherwise field '`l`' bit packs the termination code, fault class, completion code, and task pass/fail indication.

`m` = For field '`f`' = '`LAYER TWO DOWN FOR TASK SENDING`' or '`TASK TIMED OUT`', field '`m`' bit packs a task data block (TDB) uniqueness value with the TDB number. Otherwise, field '`m`' bit packs the task return type, TDB uniqueness value, and TDB number.

`n` = Number of recent failures of this error type (field '`f`') on this DNUSCC circuit (in decimal).

`o` = Error count threshold above which the recovery action will become stronger.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the DNUSCC from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:DNUSCC
RMV:DNUSCC
RST:DNUSCC
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-600-500 *Asserts*

REPT:DNUSCC-TPLC

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DNUSCC=a-b-c [d] TRBL PCT LINK COMMUNICATION FAULT EVENT=e
  f RECOVERY ACTION g
  hhiijjjj kkkkllll mmmmnnnn
  [DNUSCC=a-b-c o p]
  [DNUSCD=a-b-q-r s t]
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within the switching module (SM) caused by failure of a common control (CC) board in the digital networking unit - synchronous optical network (SONET) (DNU-S). The fault was detected and reported by SM scanning software. The message indicates what recovery action was taken and gives the current fault counts against the CC circuit and the common data (CD) circuit specified in the message. Refer to field '`g`' to determine the effect the fault recovery activity had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = DNU-S unit number.

`c` = DNU-S CC number.

`d` = DNU-S CC equipment status. Valid value(s):
- `ACTIVE` = The CC is in service and a fault has been detected.
- `OOS` = The CC is marked as out-of-service, but fault stimuli are still being detected.
- `PRE-OOS` = Fault recovery has notified the maintenance request administrator (MRA) to remove this CC from service. However, fault stimuli are still being detected from the circuit indicating that the CC has not been completely removed from service.
- `STANDBY` = The CC is in standby and a fault has been detected.

`e` = Event number.

`f` = Error type. Valid value(s):
- `HDLC ERROR AT CD` = High level data link control errors were detected.
- `NO ERROR SOURCE FOUND` = A message was sent to peripheral fault recovery (PFR) software indicating a scanned communication failure. However, PFR software analysis revealed no such failure condition.
- `PCAMB PARITY ERRORS` = Peripheral control and maintenance bus parity errors were detected.
- `SANITY TIMER TIMEOUT` = The sanity timer expired on the CC.

`g` = Recovery action. Valid value(s):
- `ANALYSIS ONLY` = This recovery action applies to all circuits and all errors. A particular circuit or circuits are failing, but the error counts have not reached a threshold for action.
- `HARD RESET` = The circuit has been hard reset without scheduling diagnostics.

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`INHIBIT HDWCHKS` = The circuit has been inhibited because of excessive errors.
`INITIALIZE` = This recovery action is used to re-initialize a circuit without scheduling diagnostics.
`NO RECOVERY ACTION TAKEN` = This event needed no recovery action.
`PRE-OOS THRESHOLD EXCEEDED` = The CC was preempted and is still detecting errors.
`PRE-OOS, RE-INHIBIT HDWCHKS` = The CC has been preempted and is still detecting errors, inhibit has been re-applied on the CC.
`RE-INHIBIT ERROR` = The CC has been inhibited and error are still detected. Inhibit has been re-applied on the CC.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A DGN:DNUSCC output message will be printed with the results of the diagnostic.
`SWITCH` = An attempt was made to gain control of the hardware by changing configuration without removing circuits from service. Its purpose is to avoid removing circuits from service that normally could remain in service under some fault conditions and/or to help isolate the fault before isolating customers.

`h` = DNU-S message type.

`i` = Currently unused.

`j` = Internal CC circuit name.

`k` = Internal CD circuit name or unused, depending on the type of error (field '`f`').

`l` = Unmasked peripheral error source information.

`m` = Raw peripheral error source information.

`n` = Peripheral error mask information.

`o` = Number of recent failures of this error type (field '`f`') on this DNUSCC circuit (in decimal).

`p` = Error count threshold above which the recovery action will become stronger on the DNUSCC circuit.

`q` = DNU-S data group number.

`r` = DNU-S CD number.

`s` = Number of recent failures of this error type (field '`f`') on this DNUSCD circuit (in decimal).

`t` = Error count threshold above which the recovery action will become stronger on the DNUSCD circuit.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the DNUSCC from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:DNUSCC
RMV:DNUSCC
RST:DNUSCC
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-600-500 *Asserts*

REPT:DNUSCC-TRBL

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DNUSCC=a-b-c [d] TRBL e EVENT=f
  g RECOVERY ACTION h
  iiiijjkk llllllll llllllll llllllll llllllll llllllll llllllll llllllll
  llllllll llllllll llllllll llllllll llllllll llllllll llllllll llllllll
  llllllll llllllll llllllll llllllll
  [DNUSCC=a-b-c m n]
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within the switching module (SM) caused by failure of the communication path to the common control (CC) board in the digital networking unit - synchronous optical network (SONET) (DNU-S). The fault was detected and reported by message handler (MH) fault recovery software, and preliminary recovery was taken by MH fault recovery software. The message also indicates what recovery action was taken by peripheral fault recovery and gives the current fault counts against the circuit specified in the message. Refer to field '`h`' to determine the effect the fault recovery activity had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = DNU-S unit number.

`c` = DNU-S CC number.

`d` = DNU-S CC equipment status. Valid value(s):

`ACTIVE`	= The CC is in service and a fault has been detected.
`OOS`	= The CC is marked as out-of-service, but fault stimuli are still being detected.
`PRE-OOS`	= Fault recovery has notified the maintenance request administrator (MRA) to remove this CC from service. However, fault stimuli are still being detected from the circuit indicating that the CC has not been completely removed from service.
`STANDBY`	= The CC is in standby and a fault has been detected.

`e` = MH preliminary recovery action. Valid value(s):

```
MH CHANNEL DEACTIVATED
MH CRITICAL ERROR
MH ERROR REPORT
MH INACTIVE CHAN INIT
MH INITIATED OSR
MH RESTART OF CHANNEL
MH RESTART OF LAYER 2
MT EVENT REPORT
```

`f` = Event number.

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g = Error type. Valid value(s):

```
LOGICAL LINK RESTART FROM CC END
MH BAD CRC
MH CHAN TRACKS VAR SET DURING OSR
MH END OF IDLE DETECTED
MH EXPECTED INFO FIELD NOT PRESENT
MH FRAME ABT DURING RECEIVE/TRANS
MH FRAME REJECT RECEIVED
MH IDLE DETECTED
MH IDLE TIMER EXPIRED
MH ILLEGAL ADDRESS
MH INFO FIELD EXCEEDED MAX SIZE
MH INVALID COMMAND/RESPONSE FIELD
MH INVALID EA BIT
MH INVALID HEADER FIELD
MH INVALID INFORMATION FIELD
MH INVALID POLL/FINAL FIELD
MH INVALID SAPI
MH INVALID TEI
MH LAYER 2 ESTABLISHED INDICATION
MH LAYER 2 RELEASED INDICATION
MH LOGICAL LINK TRACKS VAR DURING OSR
MH LONG/SHORT FRAME OR BAD BIT COUNT
MH LOST LAYER 2-NO RESP FROM FAR END
MH MAXIMUM FRAME SIZE EXCEEDED
MH OUT OF SEQUENCE
MH SEQUENCE FIELD INVALID
MH TRANS RETRY COUNT EXCEEDED
MH UNEXPECTED FRAME
MH UNEXPECTED FRM CURR LOG LINK STATE
MH UNEXPECTED INFORMATION FIELD
MH UNEXPECTED UNUMBERED FRAME
MH UNKNOWN FRAME TYPE
NO ERROR SOURCE FOUND
```

h = Recovery action taken by peripheral fault recovery. Valid value(s):

`ANALYSIS ONLY` = This recovery action applies to all circuits and all errors. A particular circuit or circuits are failing, but the error counts have not reached a threshold for action.

`HARD RESET` = The circuit has been hard reset without scheduling diagnostics.

`INHIBIT HDWCHKS` = The circuit has been inhibited because of excessive errors.

`INITIALIZE` = This recovery action is used to re-initialize a circuit without scheduling diagnostics.

`NO RECOVERY ACTION TAKEN` = No automatic recovery was performed.

`PRE-OOS THRESHOLD EXCEEDED` = The CC was preempted and is still detecting errors.

`PRE-OOS, RE-INHIBIT HDWCHKS` = The CC has been preempted and is still detecting errors, inhibit has been re-applied on the CC.

`RE-INHIBIT ERROR` = The CC has been inhibited and error are still detected. Inhibit has been re-applied on the CC.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A DGN:DNUSCC output message will be printed with the results of the diagnostic.

`SWITCH` = An attempt was made to gain control of the hardware by changing configuration without removing circuits from service. Its purpose is to avoid removing circuits from service that normally could remain in service under some fault conditions

and/or to help isolate the fault before isolating customers.

Note: Fields 'i' through 'l' contain up to twenty of the last MH events. Fields 'i' through 'k' constitute a single MH event, and each block of eight hex characters of field 'l' constitutes an additional MH event, with a similar layout to fields 'i' through 'k'. The MH events are arranged from least recent to most recent, so fields 'i' through 'k' represent the least recent event, and the last eight hex characters of field 'l' is the most recent event.

i = Contains a time stamp.

j = Layer 2 logical link number and MH channel number, in a bit-packed representation. The first three bits indicate the layer 2 logical link number, and the next five bits indicate the MH channel number.

k = MH internal inhibit status and MH error type, in a bit-packed representation. The first bit indicates the MH internal inhibit status, and the next seven bits indicate the MH error type.

l = Up to nineteen additional MH events with a similar layout to fields 'i' through 'k'. The last eight hex characters this field represent the most recent MH event.

m = Number of recent failures of this error type (field 'g') on this DNUSCC circuit (in decimal).

n = Error count threshold.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the DNUSCC from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:DNUSCC
RMV:DNUSCC
RST:DNUSCC
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-600-500 *Asserts*

REPT:DNUSCD-TBTF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DNUSCD=a-b-c-d [e] TRBL BACKGROUND TEST FAILURE EVENT=f
  g RECOVERY ACTION h
  iijjkkkk llllmmmm nnnnoooo ooooooooo
  [DNUSCD=a-b-c-d p q]
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within the switching module (SM) caused by failure of a common data (CD) board in the digital networking unit - synchronous optical network (SONET) (DNU-S). The fault was detected and reported by the routine background test process. The message indicates what recovery action was taken and gives the current fault counts against the circuit specified in the message. Refer to field 'h' to determine the effect the fault recovery activity had on the system.

3. VARIABLE FIELD DEFINITIONS

a = Switching module number.

b = DNU-S unit number.

c = DNU-S data group number.

d = DNU-S CD number.

e = DNU-S CD equipment status. Valid value(s):
- ACTIVE = The CD is in service and a fault has been detected.
- OOS = The CD is marked as out-of-service, but fault stimuli are still being detected.
- PRE-OOS = Fault recovery has notified the maintenance request administrator (MRA) to remove this CD from service. However, fault stimuli are still being detected from the circuit indicating that the CD has not been completely removed from service.
- STANDBY = The CD is in standby and a fault has been detected.

f = Event number.

g = Error type. Valid value(s):
- CD HEART BEAT ERROR = A routine check found that the CD failed to respond to a functional check.
- NO ERROR SOURCE FOUND = A message was sent to peripheral fault recovery (PFR) software indicating a routine background test failure. However, PFR software analysis revealed no such failure condition.
- PCT LOOP BACK FAIL SMP TO CD = The CD failed to respond to an SMP direct communication check.

h = Recovery action. Valid value(s):
- ANALYSIS ONLY = This recovery action applies to all circuits and all errors. A particular circuit or

circuits are failing, but the error counts have not reached a threshold for action.

`HARD RESET` = The circuit has been hard reset without scheduling diagnostics.

`INHIBIT HDWCHKS` = The circuit has been inhibited because of excessive errors.

`INITIALIZE` = This recovery action is used to re-initialize a circuit without scheduling diagnostics.

`NO RECOVERY ACTION TAKEN` = This event needed no recovery action.

`PRE-OOS THRESHOLD EXCEEDED` = The CD was preempted and is still detecting errors.

`PRE-OOS, RE-INHIBIT HDWCHKS` = The CD has been preempted and is still detecting errors, inhibit has been re-applied on the CD.

`RE-INHIBIT ERROR` = The CD has been inhibited and error are still detected. Inhibit has been re-applied on the CD.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A DGN:DNUSCD output message will be printed with the results of the diagnostic.

`SWITCH` = An attempt was made to gain control of the hardware by changing configuration without removing circuits from service. Its purpose is to avoid removing circuits from service that normally could remain in service under some fault conditions and/or to help isolate the fault before isolating customers.

`i` = DNU-S message type.

`j` = Message handler (MH) number and MH channel number, in a bit-packed representation. The first three bits indicate the MH number, and the next five bits indicate the MH channel number.

`k` = Internal circuit name of DNUSCD.

`l` = Fault type.

`m` = Internal circuit index of DNUSCD.

`n` = Internal DNU-S command return code.

`o` = Currently unused.

`p` = Number of recent failures of this error type (field '`g`') on this DNUSCD circuit (in decimal).

`q` = Error count threshold above which the recovery action will become stronger.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the DNUSCD from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:DNUSCD
RMV:DNUSCD
RST:DNUSCD
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-600-500 *Asserts*

REPT:DNUSCD-TCTC

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT DNUSCD=a-b-c-d e TRBL CHANGE TO CD RECOV TO NOT DPLX FAIL CC EVENT=f
  g RECOVERY ACTION h
  iijjkkkk llllmmmm nnnnoooo
  [DNUSCC=a-b-t u v]
  [DNUSCD=a-b-c-d w x]
```

[2]
```
REPT DNUSCD=a-b-c-d e TRBL CHANGE TO CD RECOV TO NOT DPLX FAIL CC EVENT=f
  g RECOVERY ACTION h
  ppppqqrr ssssssss ssssssss ssssssss ssssssss ssssssss ssssssss ssssssss
  ssssssss ssssssss ssssssss ssssssss ssssssss ssssssss ssssssss ssssssss
  ssssssss ssssssss ssssssss ssssssss
  [DNUSCC=a-b-t u v]
  [DNUSCD=a-b-c-d w x]
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within the switching module (SM) caused by failure in the communication path between the common controller (CC) and common data (CD) boards in the digital networking unit - synchronous optical network (SONET) (DNU-S). The fault was detected and reported by SM scanning software or by message handler (MH) fault recovery software. Although the fault is pegged against both the CC and CD circuits, recovery was done against the CD circuit to avoid duplex failing the CCs. The message indicates what recovery action was taken and gives the current fault counts against the circuit specified in the message. Refer to field '`h`' to determine the effect the fault recovery activity had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = DNU-S unit number.

`c` = DNU-S data group number.

`d` = DNU-S CD number.

`e` = DNU-S CD equipment status. Valid value(s):

`ACTIVE`	= The CD is in service and a fault has been detected.
`OOS`	= The CD is marked as out-of-service, but fault stimuli are still being detected.
`PRE-OOS`	= Fault recovery has notified the maintenance request administrator (MRA) to remove this CD from service. However, fault stimuli are still being detected from the circuit indicating that the CD has not been completely removed from service.
`STANDBY`	= The CD is in standby and a fault has been detected.

`f` = Event number.

g = Error type. Valid value(s):

```
HDLC ERROR AT CD
LOGICAL LINK RESTART FROM CC END
MH BAD CRC
MH CHAN TRACKS VAR SET DURING OSR
MH END OF IDLE DETECTED
MH EXPECTED INFO FIELD NOT PRESENT
MH FRAME ABT DURING RECEIVE/TRANS
MH FRAME REJECT RECEIVED
MH IDLE DETECTED
MH IDLE TIMER EXPIRED
MH ILLEGAL ADDRESS
MH INFO FIELD EXCEEDED MAX SIZE
MH INVALID COMMAND/RESPONSE FIELD
MH INVALID EA BIT
MH INVALID HEADER FIELD
MH INVALID INFORMATION FIELD
MH INVALID POLL/FINAL FIELD
MH INVALID SAPI
MH INVALID TEI
MH LAYER 2 ESTABLISHED INDICATION
MH LAYER 2 RELEASED INDICATION
MH LOGICAL LINK TRACKS VAR DURING OSR
MH LONG/SHORT FRAME OR BAD BIT COUNT
MH LOST LAYER 2-NO RESP FROM FAR END
MH MAXIMUM FRAME SIZE EXCEEDED
MH OUT OF SEQUENCE
MH SEQUENCE FIELD INVALID
MH TRANS RETRY COUNT EXCEEDED
MH UNEXPECTED FRAME
MH UNEXPECTED FRM CURR LOG LINK STATE
MH UNEXPECTED INFORMATION FIELD
MH UNEXPECTED UNUMBERED FRAME
MH UNKNOWN FRAME TYPE
NO ERROR SOURCE FOUND
PCAMB PARITY ERRORS
PCT LOOP BACK FAIL SMP TO CD
SANITY TIMER TIMEOUT
```

h = Recovery action. Valid value(s):

`ANALYSIS ONLY` = This recovery action applies to all circuits and all errors. A particular circuit or circuits are failing, but the error counts have not reached a threshold for action.

`HARD RESET` = The circuit has been hard reset without scheduling diagnostics.

`INHIBIT HDWCHKS` = The circuit has been inhibited because of excessive errors.

`INITIALIZE` = This recovery action is used to re-initialize a circuit without scheduling diagnostics.

`NO RECOVERY ACTION TAKEN` = This event needed no recovery action.

`PRE-OOS THRESHOLD EXCEEDED` = The CD was preempted and is still detecting errors.

`PRE-OOS, RE-INHIBIT HDWCHKS` = The CD has been preempted and is still detecting errors, inhibit has been re-applied on the CD.

`RE-INHIBIT ERROR` = The CD has been inhibited and error are still detected. Inhibit has been re-applied on the CD.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A DGN:DNUSCD output message will be printed with the results of the diagnostic.

`SWITCH` = An attempt was made to gain control of the hardware by changing configuration without removing circuits from service. Its purpose is to avoid removing circuits from service that normally could remain in service under some fault conditions and/or to help isolate the fault before isolating customers.

Note: Format 1 only gets printed if field '`g`' = '`PCAMB PARITY ERRORS`', '`HDLC ERROR AT CD`' or '`SANITY TIMER TIMEOUT`'. This format is for errors detected by SM scanning software. Otherwise, Format 2 is printed. This format is for errors detected by MH fault recovery software.

`i` = DNU-S message type.

`j` = Currently unused.

`k` = Internal CC circuit name.

`l` = Internal CD circuit name.

`m` = Unmasked peripheral error source information.

`n` = Raw peripheral error source information.

`o` = Peripheral error mask information.

Note: Fields '`p`' through '`s`' contain up to twenty of the last MH events. Fields '`p`' through '`r`' constitute a single MH event, and each block of eight hex characters of field '`s`' constitutes an additional MH event, with a similar layout to fields '`p`' through '`r`'. The MH events are arranged from least recent to most recent, so fields '`p`' through '`r`' represent the least recent event, and the last eight hex characters of field '`s`' is the most recent event.

`p` = Contains a time stamp.

`q` = Layer 2 logical link number and MH channel number, in a bit-packed representation. The first three bits indicate the layer 2 logical link number, and the next five bits indicate the MH channel number.

`r` = MH internal inhibit status and MH error type, in a bit-packed representation. The first bit indicates the MH internal inhibit status, and the next seven bits indicate the MH error type.

`s` = Up to nineteen additional MH events with a similar layout to fields '`p`' through '`r`'. The last eight hex characters this field represent the most recent MH event.

`t` = DNU-S CC circuit number.

`u` = Number of recent failures of this error type (field '`g`') on this DNUSCC circuit (in decimal).

`v` = Error count threshold above which the recovery action will become stronger against the DNUSCC circuit.

`w` = Number of recent failures of this error type (field '`g`') on this DNUSCD circuit (in decimal).

`x` = Error count threshold above which the recovery action will become stronger against the DNUSCD circuit.

4. ACTIONS TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the DNUSCD from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:DNUSCD
RMV:DNUSCD
RST:DNUSCD
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-600-500 *Asserts*

REPT:DNUSCD-TFM

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DNUSCD=a-b-c-d [e] TRBL FAULT MESSAGE EVENT=f
  g RECOVERY ACTION h
  iijjkkkk llmmnnnn nnnnnnnn nnnnnnnn nnnnnnnn nnnnnnnn nnnnnnnn nnnnnnnn
  [DNUSCD=a-b-c-d o p]
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within the switching module (SM) caused by failure of a common data (CD) board in the digital networking unit - synchronous (SONET) (DNU-S). The fault was detected and reported by resident DNU-S fault recovery software. The message indicates what recovery action was taken and gives the current fault counts against the circuit specified in the message. Refer to field 'h' to determine the effect the fault recovery activity had on the system.

3. VARIABLE FIELD DEFINITIONS

a = Switching module number.

b = DNU-S unit number.

c = DNU-S data group number.

d = DNU-S CD number.

e = DNU-S CD equipment status. Valid value(s):

ACTIVE	= The CD is in service and a fault has been detected.
OOS	= The CD is marked as out-of-service, but fault stimuli are still being detected.
PRE-OOS	= Fault recovery has notified the maintenance request administrator (MRA) to remove this CD from service. However, fault stimuli are still being detected from the circuit indicating that the CD has not been completely removed from service.
STANDBY	= The CD is in standby and a fault has been detected.

f = Event number.

g = Error type. Valid value(s):

```
CD 4 MHZ LOOP SLIP ERROR
CD 6 MILLISECOND SYNC ERROR
CD ADDRESSING ERROR
CD BPIDB ERROR
CD CC INTERFACE PARITY ERROR
CD INVALID ADDR ACCESS BY CC ERR
CD PCI BUS READ/WRITE ERROR
CD REC DIRECTION INTERNAL PAR ERR
CD SLIP ERROR ON MASTER LOOP
CD SMP INTERFACE PARITY ERROR
CD TRANS DIRECTION BUFF CHECK ERR
```

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```
CD TRANS DIRECTION FRAME ERR
CD TRANS DIRECTION LINK CRC ERR
CD TRANS DIRECTION OUT-OF-FRAME ERR
CD TRANS DIRECTION SUPERFRAME ERR
CIRCUIT ACCESS FAILURE
FAULT TABLE ENTRY ERROR
FORCED INTERRUPT EXCEPTION
ICB TIMED OUT ERROR
INTERRUPT THRU MASK
INVALID INTERRUPT EXCEPTION
NO ERROR SOURCE FOUND
PCAMB PARITY ERRORS
PCT LOOP BACK FAIL SMP TO CD
PERIPHERAL BAD PARITY
PERIPHERAL BAD START CODE
PERIPHERAL DETECTED BAD ADDRESS
PERIPHERAL DETECTED BAD PARITY
PERIPHERAL DETECTED BAD START CODE
PHASE LOCK LOOP ERROR
SPARING SIDE SELECT FAILURE
TIDB LINK FRAMING ERROR
TMUX INTER-VITTAS PIDB PAR ERR
TMUX PHASE LOCK LOOP LOSS OF LOCK
TMUX STSPP DEVICE MONITOR ERROR
TMUX VIPPR DEVICE MONITOR ERROR
TMUX VITTAS BPIDB PARITY ERROR
TMUX VITTAS TRANS LOSS OF TIMING
TMUX VITTAS VT BIP-2 PARITY ERROR
```

`h` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = This recovery action applies to all circuits and all errors. A particular circuit or circuits are failing, but the error counts have not reached a threshold for action.

`HARD RESET` = The circuit has been hard reset without scheduling diagnostics.

`INHIBIT HDWCHKS` = The circuit has been inhibited because of excessive errors.

`INITIALIZE` = This recovery action is used to re-initialize a circuit without scheduling diagnostics.

`NO RECOVERY ACTION TAKEN` = No automatic recovery was performed.

`PRE-OOS THRESHOLD EXCEEDED` = The CD was preempted and is still detecting errors.

`PRE-OOS, RE-INHIBIT HDWCHKS` = The CD has been preempted and is still detecting errors, inhibit has been re-applied on the CD.

`RE-INHIBIT ERROR` = The CD has been inhibited and error are still detected. Inhibit has been re-applied on the CD.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A DGN:DNUSCD output message will be printed with the results of the diagnostic.

`SWITCH` = An attempt was made to gain control of the hardware by changing configuration without removing circuits from service. Its purpose is to avoid removing circuits from service that normally could remain in service under some fault conditions and/or to help isolate the fault before isolating customers.

`i` = DNU-S message type.

`j` = Message handler (MH) number and MH channel number, in a bit-packed representation. The first three bits indicate the MH number, and the next five bits indicate the MH channel number.

`k` = Internal DNUSCD circuit name.

`l` = Unit type.

`m` = Number of information words sent from DNU-S fault recovery.

`n` = Information sent from DNU-S fault recovery. The data sent is dependent on the type of error (that is, the value of field '`g`').

`o` = Number of recent failures of this error type (field '`g`') on this DNUSCD circuit (in decimal).

`p` = Error count threshold.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the DNUSCD from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:DNUSCD
RMV:DNUSCD
RST:DNUSCD
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-600-500 *Asserts*

REPT:DNUSCD-TPE

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DNUSCD=a-b-c-d [e] TRBL PLI ERROR EVENT=f
  g RECOVERY ACTION h
  iiiiiiii jjjjjjjj kkkkllll mmmmnnnn oooooooo oooooooo oooooooo oooooooo
  oooooooo oooooooo
  [DNUSCD=a-b-c-d  p  q]
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within the switching module (SM) caused by failure of a peripheral link interface (PLI) which services a common data (CD) board in the digital networking unit - synchronous optical network (SONET) (DNU-S). The fault was detected and reported by module control unit fault recovery (MCUFR). The message indicates what recovery action was taken and gives the current fault counts against the circuit specified in the message. Refer to field '`h`' to determine the effect the fault recovery activity had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = DNU-S unit number.

`c` = DNU-S data group number.

`d` = DNU-S CD number.

`e` = DNU-S CD equipment status. Valid value(s):

- `ACTIVE` = The CD is in service and a fault has been detected.
- `OOS` = The CD is marked as out-of-service, but fault stimuli are still being detected.
- `PRE-OOS` = Fault recovery has notified the maintenance request administrator (MRA) to remove this CD from service. However, fault stimuli are still being detected from the circuit indicating that the CD has not been completely removed from service.
- `STANDBY` = The CD is in standby and a fault has been detected.

`f` = Event number.

`g` = Error type. Valid value(s):

- `IF CRC ERR ON DATA RECEIVED FROM PLI` = The module controller detected a bad CRC on the PLI servicing the CD.
- `IF LOSS OF CLOCK FROM THE PLI` = The module controller detected a loss of data clock on the PLI servicing the CD.
- `IF LOSS OF CLOCK REFERENCE` = The module controller detected a loss of clock reference on the PLI servicing the CD.
- `IF PAR ERR ON OVERHEAD BYTES FROM PLI` = The module controller detected a parity error on the overhead bytes from the PLI servicing the CD.
- `IF SYNCHRONIZATION ERROR WITH PLI` = The module controller detected a synchronization error with the PLI servicing the CD.

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`NO ERROR SOURCE FOUND` = A message was sent to peripheral fault recovery (PFR) software indicating a PLI fault is present. However, PFR software analysis revealed no such fault indication.
`PCT LOOP BACK FAIL SMP TO CD` = The CD failed to respond to an SMP direct communication check.
`PLI BAD FRAME WORD ON INCOMING LINK` = A bad frame word has been detected on the incoming PLI.
`PLI BAD PARITY INCOM OVERHEAD BYTES` = Parity error has been detected on overhead data received from the TSI.
`PLI BAD SUPERFRAME ON INCOMING LINK` = A bad superframe byte has been detected on the incoming PLI.
`PLI DETECTED BAD CRC FROM ACTIVE MCTSI` = A bad CRC has been detected from the MCTSI at the PLI.
`PLI INTERNAL DATA PARITY ERROR` = PLI has detected an internal parity error.
`PLI IS SOURCING BAD CRC` = A PLI servicing the CD has detected it is sourcing a bad CRC.
`PLI LINK TO BE OUT-OF-FRAME` = Proper framing cannot be established on the incoming PLI.
`PLI OUTGOING BUFFER CHECK ERROR` = Buffer check error has been detected on the PLI.
`PLI PARITY ERRORS ON DATA FROM CD` = PLI has detected a parity error in data it receives from the CD.

`h` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = This recovery action applies to all circuits and all errors. A particular circuit or circuits are failing, but the error counts have not reached a threshold for action.
`HARD RESET` = The circuit has been hard reset without scheduling diagnostics.
`INHIBIT HDWCHKS` = The circuit has been inhibited because of excessive errors.
`INITIALIZE` = This recovery action is used to re-initialize a circuit without scheduling diagnostics.
`NO RECOVERY ACTION TAKEN` = This event needed no recovery action.
`PRE-OOS, RE-INHIBIT HDWCHKS` = The CD has been preempted and is still detecting errors, inhibit has been re-applied on the CD.
`PRE-OOS THRESHOLD EXCEEDED` = The CD was preempted and is still detecting errors.
`RE-INHIBIT ERROR` = The CD has been inhibited and error are still detected. Inhibit has been re-applied on the CD.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A DGN:DNUSCD output message will be printed with the results of the diagnostic.
`SWITCH` = An attempt was made to gain control of the hardware by changing configuration without removing circuits from service. Its purpose is to avoid removing circuits from service that normally could remain in service under some fault conditions and/or to help isolate the fault before isolating customers.

`i` = IF error source register.

`j` = IF error mask register.

`k` = PLI error source register.

`l` = PLI error mask register.

`m` = DNU-S message type.

`n` = Number of PLI fault messages sent from MCUFR to peripheral fault recovery, contained in field '`o`'.

o = Up to six PLI fault messages sent from MCUFR to peripheral fault recovery. Each PLI fault message consists of eight hex characters.

p = Number of recent failures of this error type (variable 'g') on this DNUSCD circuit (in decimal).

q = Error count threshold above which the recovery action will become stronger.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the DNUSCD from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:DNUSCD
RMV:DNUSCD
RST:DNUSCD
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-600-500 *Asserts*

REPT:DNUSCD-TPLC

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DNUSCD=a-b-c-d [e] TRBL PCT LINK COMMUNICATION FAULT EVENT=f
  g RECOVERY ACTION h
  iijjkkkk llllmmmm nnnnoooo
  [DNUSCC=a-b-p q r]
  [DNUSCD=a-b-c-d s t]
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within the switching module (SM) caused by failure of a common data (CD) board in the digital networking unit - synchronous optical network (SONET) (DNU-S). The fault was detected and reported by SM scanning software. The message indicates what recovery action was taken and gives the current fault counts against the common control (CC) circuit and the CD circuit specified in the message. Refer to field '`h`' to determine the effect the fault recovery activity had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = DNU-S unit number.

`c` = DNU-S data group number.

`d` = DNU-S CD number.

`e` = DNU-S CD equipment status. Valid value(s):

- `ACTIVE` = The CD is in service and a fault has been detected.
- `OOS` = The CD is marked as out-of-service, but fault stimuli are still being detected.
- `PRE-OOS` = Fault recovery has notified the maintenance request administrator (MRA) to remove this CD from service. However, fault stimuli are still being detected from the circuit indicating that the CD has not been completely removed from service.
- `STANDBY` = The CD is in standby and a fault has been detected.

`f` = Event number.

`g` = Error type. Valid value(s):

- `HDLC ERROR AT CD` = High level data link control errors were detected.
- `IF LOSS OF CLOCK REFERENCE` = Peripheral Link Interface receive errors were detected.
- `NO ERROR SOURCE FOUND` = A message was sent to peripheral fault recovery (PFR) software indicating a scanned communication failure. However, PFR software analysis revealed no such failure condition.
- `PCAMB PARITY ERRORS` = Peripheral control and maintenance bus parity errors were detected.
- `PCT LOOP BACK FAIL SMP TO CD` = The CD failed to respond to an SMP direct communication check.
- `PLI OUTGOING BUFFER CHECK ERROR` = Peripheral Link Interface transmit errors were detected.

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SANITY TIMER TIMEOUT = The sanity timer expired on the CD.

h = Recovery action. Valid value(s):

ANALYSIS ONLY = This recovery action applies to all circuits and all errors. A particular circuit or circuits are failing, but the error counts have not reached a threshold for action.

HARD RESET = The circuit has been hard reset without scheduling diagnostics.

INHIBIT HDWCHKS = The circuit has been inhibited because of excessive errors.

INITIALIZE = This recovery action is used to re-initialize a circuit without scheduling diagnostics.

NO RECOVERY ACTION TAKEN = This event needed no recovery action.

PRE-OOS THRESHOLD EXCEEDED = The CD was preempted and is still detecting errors.

PRE-OOS, RE-INHIBIT HDWCHKS = The CD has been preempted and is still detecting errors, inhibit has been re-applied on the CD.

RE-INHIBIT ERROR = The CD has been inhibited and error are still detected. Inhibit has been re-applied on the CD.

RST PREEMPT = The failing circuit was preempted and a diagnostic was scheduled. A DGN:DNUSCD output message will be printed with the results of the diagnostic.

SWITCH = An attempt was made to gain control of the hardware by changing configuration without removing circuits from service. Its purpose is to avoid removing circuits from service that normally could remain in service under some fault conditions and/or to help isolate the fault before isolating customers.

i = DNU-S message type.

j = Currently unused.

k = Internal CC circuit name.

l = Internal CD circuit name or unused, depending on the type of error (field 'g').

m = Unmasked peripheral error source information.

n = Raw peripheral error source information.

o = Peripheral error mask information.

p = DNU-S CC circuit number.

q = Number of recent failures of this error type (field 'g') on this DNUSCC circuit (in decimal).

r = Error count threshold above which the recovery action will become stronger on the DNUSCC circuit.

s = Number of recent failures of this error type (field 'g') on this DNUSCD circuit (in decimal).

t = Error count threshold above which the recovery action will become stronger on the DNUSCD circuit.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the DNUSCD from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:DNUSCD
RMV:DNUSCD
RST:DNUSCD
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-600-500 *Asserts*

REPT:DNUSCD-TRBL

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DNUSCD=a-b-c-d [e] TRBL f EVENT=g
  h RECOVERY ACTION i
  jjjjkkll mmmmmmmm mmmmmmmm mmmmmmmm mmmmmmmm mmmmmmmm mmmmmmmm mmmmmmmm
  mmmmmmmm mmmmmmmm mmmmmmmm mmmmmmmm mmmmmmmm mmmmmmmm mmmmmmmm mmmmmmmm
  mmmmmmmm mmmmmmmm mmmmmmmm mmmmmmmm
  [DNUSCD=a-b-c-d n o]
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within the switching module (SM) caused by failure of the communication path to the common control (CC) board in the digital networking unit - synchronous optical network (SONET) (DNU-S). The fault was detected and reported by message handler (MH) fault recovery software, and preliminary recovery was taken by MH fault recovery software. The message also indicates what recovery action was taken by peripheral fault recovery and gives the current fault counts against the circuit specified in the message. Refer to field '`i`' to determine the effect the fault recovery activity had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = DNU-S unit number.

`c` = DNU-S data group number.

`d` = DNU-S CD number.

`e` = DNU-S CD equipment status. Valid value(s):

`ACTIVE`	= The CD is in service and a fault has been detected.
`OOS`	= The CD is marked as out-of-service, but fault stimuli are still being detected.
`PRE-OOS`	= Fault recovery has notified the maintenance request administrator (MRA) to remove this CD from service. However, fault stimuli are still being detected from the circuit indicating that the CD has not been completely removed from service.
`STANDBY`	= The CD is in standby and a fault has been detected.

`f` = MH preliminary recovery action. Valid value(s):

```
MH CHANNEL DEACTIVATED
MH CRITICAL ERROR
MH ERROR REPORT
MH INACTIVE CHAN INIT
MH INITIATED OSR
MH RESTART OF CHANNEL
MH RESTART OF LAYER 2
MT EVENT REPORT
```

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g = Event number.

h = Error type. Valid value(s):

LOGICAL LINK RESTART FROM CC END
MH BAD CRC
MH CHAN TRACKS VAR SET DURING OSR
MH END OF IDLE DETECTED
MH EXPECTED INFO FIELD NOT PRESENT
MH FRAME ABT DURING RECEIVE/TRANS
MH FRAME REJECT RECEIVED
MH IDLE DETECTED
MH IDLE TIMER EXPIRED
MH ILLEGAL ADDRESS
MH INFO FIELD EXCEEDED MAX SIZE
MH INVALID COMMAND/RESPONSE FIELD
MH INVALID EA BIT
MH INVALID HEADER FIELD
MH INVALID INFORMATION FIELD
MH INVALID POLL/FINAL FIELD
MH INVALID SAPI
MH INVALID TEI
MH LAYER 2 ESTABLISHED INDICATION
MH LAYER 2 RELEASED INDICATION
MH LOGICAL LINK TRACKS VAR DURING OSR
MH LONG/SHORT FRAME OR BAD BIT COUNT
MH LOST LAYER 2-NO RESP FROM FAR END
MH MAXIMUM FRAME SIZE EXCEEDED
MH OUT OF SEQUENCE
MH SEQUENCE FIELD INVALID
MH TRANS RETRY COUNT EXCEEDED
MH UNEXPECTED FRAME
MH UNEXPECTED FRM CURR LOG LINK STATE
MH UNEXPECTED INFORMATION FIELD
MH UNEXPECTED UNUMBERED FRAME
MH UNKNOWN FRAME TYPE
NO ERROR SOURCE FOUND
PCT LOOP BACK FAIL SMP TO CD = This error may cause the DNUSCCs to duplex fail. The DNUSCCs duplex failing will not effect customer service on the DNUS. The DNUSCCs should recover and recovery action on the DNUSCD will occur. If the DNUSCC do not recover on their own replace the DNUSCD=a-b-c-d in the fault report. refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

i = Recovery action taken by peripheral fault recovery. Valid value(s):

ANALYSIS ONLY = This recovery action applies to all circuits and all errors. A particular circuit or circuits are failing, but the error counts have not reached a threshold for action.
HARD RESET = The circuit has been hard reset without scheduling diagnostics.
INHIBIT HDWCHKS = The circuit has been inhibited because of excessive errors.
INITIALIZE = This recovery action is used to re-initialize a circuit without scheduling diagnostics.
NO RECOVERY ACTION TAKEN = This event needed no recovery action.
PRE-OOS THRESHOLD EXCEEDED = The CD was preempted and is still detecting errors.
PRE-OOS, RE-INHIBIT HDWCHKS = The CD has been preempted and is still detecting errors, inhibit has been re-applied on the CD.

`RE-INHIBIT ERROR` = The CD has been inhibited and error are still detected. Inhibit has been re-applied on the CD.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A DGN:DNUSCD output message will be printed with the results of the diagnostic.

`SWITCH` = An attempt was made to gain control of the hardware by changing configuration without removing circuits from service. Its purpose is to avoid removing circuits from service that normally could remain in service under some fault conditions and/or to help isolate the fault before isolating customers.

Note: Fields '`j`' through '`m`' contain up to twenty of the last MH events. Fields '`j`' through '`l`' constitute a single MH event, and each block of eight hex characters of field '`m`' constitutes an additional MH event, with a similar layout to fields '`j`' through '`l`'. The MH events are arranged from least recent to most recent, so fields '`j`' through '`l`' represent the least recent event, and the last eight hex characters of field '`m`' is the most recent event.

`j` = Contains a time stamp.

`k` = Layer 2 logical link number and MH channel number, in a bit-packed representation. The first three bits indicate the layer 2 logical link number, and the next five bits indicate the MH channel number.

`l` = MH internal inhibit status and MH error type, in a bit-packed representation. The first bit indicates the MH internal inhibit status, and the next seven bits indicate the MH error type.

`m` = Up to nineteen additional MH events with a similar layout to fields '`j`' through '`l`'. The last eight hex characters this field represent the most recent MH event.

`n` = Number of recent failures of this error type (field '`h`') on this DNUSCD circuit (in decimal).

`o` = Error count threshold above which the recovery action will become stronger.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the DNUSCD from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:DNUSCD
RMV:DNUSCD
RST:DNUSCD
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-600-500 *Asserts*

REPT:DS1SFAC-A

Software Release: 5E10 - 5E12
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DS1SFAC=a-b-c-d-e TRBL SP FAILURE EVENT=f
  SP FIFO OVERFLOW FAILURE RECOVERY ACTION g
  h i j
  kkkkllll mmmmnnnn ooooppppp
```

2. REASON FOR OUTPUT

To respond to a signal processor (SP) error caused by the SP first-in first-out (FIFO) buffer's overflowing due to a showering digital networking unit - synchronous optical network (SONET) (DNU-S) digital signal level 1 (DS1) facility.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = DNU-S unit number.

`c` = Data group number.

`d` = Synchronous transport signal (STS) incoming facility number.

`e` = Virtual tributary number.

`f` = Event number.

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = This recovery action applies to all circuits and all errors. A particular circuit or circuits are failing, but the error counts have not reached a threshold for action.
`RMV` = The failing facility was removed from service.

`h` = External logical circuit name.

`i` = Number of recent failures of this type recorded against this circuit, in decimal.

`j` = Error count threshold, above which the recovery action will become stronger, in decimal.

`k` = Time slot number that had the most entries in the FIFO, in hexadecimal.

`l` = Total number of entries in the FIFO for time slot '`k`', in hexadecimal.

`m` = Total number of time slots on the high-runner time slot interchange (TSI) link with entries in the FIFO, in hexadecimal.

`n` = Contents of the current internal fault recovery error counter, in hexadecimal.

`o` = Total number of failures reported on unlinked timeslots, in hexadecimal.

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`p` = SP number, in hexadecimal.

4. ACTION TO BE TAKEN

Monitor the progress of software recovery. Initiate manual actions if the recovery does not proceed as expected.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
RST:DS1SFAC
RMV:DS1SFAC
```

REPT:DS1SFAC-B

Software Release: 5E13 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT DS1SFAC=a-b-c-d-e-q-r TRBL SP FAILURE EVENT=f
  SP FIFO OVERFLOW FAILURE RECOVERY ACTION g
  h i j
  kkkkllll mmmmnnnn ooooppppp
```

2. REASON FOR OUTPUT

To respond to a signal processor (SP) error caused by the SP first-in first-out (FIFO) buffer's overflowing due to a showering digital networking unit - synchronous optical network (SONET) (DNU-S) number digital signal level 1 SONET facility (DS1SFAC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = DNU-S unit number.

`c` = Data group number.

`d` = SONET termination equipment (STE) facility number.

`e` = Synchronous transport signal (STS) number.

`f` = Event number.

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = This recovery action applies to all circuits and all errors. A particular circuit or circuits are failing, but the error counts have not reached a threshold for action.
`RMV` = The failing facility was removed from service.

`h` = External logical circuit name.

`i` = Number of recent failures of this type recorded against this circuit, in decimal.

`j` = Error count threshold, above which the recovery action will become stronger, in decimal.

`k` = Time slot number that had the most entries in the FIFO, in hexadecimal.

`l` = Total number of entries in the FIFO for time slot '`k`', in hexadecimal.

`m` = Total number of time slots on the high-runner time slot interchange (TSI) link with entries in the FIFO, in hexadecimal.

`n` = Contents of the current internal fault recovery error counter, in hexadecimal.

`o` = Total number of failures reported on unlinked timeslots, in hexadecimal.

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`p` = SP number, in hexadecimal.

`q` = Virtual tributary group (VTG) number.

`r` = Virtual tributary member (VTM) number.

4. ACTIONS TO BE TAKEN

Monitor the progress of software recovery. Initiate manual actions if the recovery does not proceed as expected.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
RST:DS1SFAC
RMV:DS1SFAC
```

REPT:DSE

Software Release: 5E10 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
REPT DSE [a] INC TRK=[b]
  c
```

2. REASON FOR OUTPUT

To report the occurrence of a direct signaling event (DSE), that may be an inward wide area telecommunications service (INWATS) event or a network call denial (NCD) event. These events will be reported only in response to the input message SET:DSE.

3. VARIABLE FIELD DEFINITIONS

`a` = Digits associated with the call that caused the event to occur. For an INWATS event, these digits are the INWATS number and the originating numbering plan area (NPA). For an NCD event, these digits are the billing number contained in the original query, if available. If the billing number for the original query for an NCD event is not available, variable '`a`' is blank. If the event is a call denied due to NCD, only the NPA-NXX of the billing number are available.

`b` = For INWATS events, this is the incoming trunk associated with the call triggering this event. For NCD events, this is blank.

`c` = Text phrase describing the event that occurred. Valid value(s):

`AT&T—C CALL DENIED AFTER ANSWER` = An NCD deny reply was received and the call was killed after the answer occurred.

`AT&T—C CALL DENIED BEFORE ANSWER` = An NCD deny reply was received and the call was killed before the answer occurred.

`INWATS ALL LINES BUSY` = All lines to the INWATS database are busy.

`INWATS CCIS FAILURE-DESTINATION UNEQUIPPED` = An INWATS query was returned by the common channel signaling (CCS) network indicating the destination is unequipped.

`INWATS CCIS FAILURE-NETWORK BLOCKAGE` = An INWATS query was returned by the CCS network indicating blockage.

`INWATS CCIS FAILURE-NETWORK OVERLOAD` = An INWATS query was returned by the CCS network indicating overload.

`INWATS CCIS FAILURE-NO TRANSLATION DATA` = An INWATS query was returned by the CCS network indicating no data to translate the 800 number.

`INWATS DATABASE OVERLOAD` = An INWATS query was returned due to INWATS database overload.

`INWATS INVALID ORIGINATING NPA` = The originating NPA in the INWATS query is nonexistent or invalid.

`INWATS NONPURCHASED NPA` = The NPA where the 800 number originated is not purchased for the INWATS service.

`INWATS QUERY BLOCKED DUE TO CODE CONTROL FOR INWATS/NCP OVERLOAD` = The INWATS query was not sent because of a code control installed in response to an INWATS network management (NM) message indicating INWATS/NCP overload.

`INWATS QUERY BLOCKED DUE TO DIRECT SIGNALING CODE CONTROL` = The INWATS query was not sent because of a code control installed in response to a CCIS6 network

failure reply.

`NCD CCIS FAILURE-DESTINATION UNEQUIPPED` = An NCD query was returned by the CCS network indicating the destination is unequipped.

`NCD CCIS FAILURE-NETWORK BLOCKAGE` = An NCD query was returned by the CCS network indicating blockage.

`NCD CCIS FAILURE-NETWORK OVERLOAD` = An NCD query was returned by the CCS network indicating overload.

`NCD CCIS FAILURE-NO TRANSLATION DATA` = An NCD query was returned by the CCS network indicating no data to translate the 800 number.

`NCD DENY REPLY RECEIVED` = An NCD deny reply was received in response to the NCD query.

`NCD QUERY BLOCKED DUE TO CODE CONTROL FOR NCD/NCP OVERLOAD` = The NCD query was not sent due to a code control installed in response to NCD/NCP overload.

`NCD QUERY BLOCKED DUE TO DIRECT SIGNALING CODE CONTROL` = The NCD query was not sent due to a code control installed in response to a CCIS6 network failure reply.

`NCD QUERY RETURNED BY THE NCD/NCP` = An NCD query was returned by the NCD/NCP and was not processed.

`TIMEOUT WHILE WAITING FOR A RESPONSE FROM INWATS DATABASE` = A response to the INWATS query was not received within the time limit.

`VACANT LINE NUMBER IN 800 NUMBER` = The line number, XXXX, dialed in the 800-NXX-XXXX number is a vacant number.

`VACANT NXX IN 800-NXX-XXXX` = The NXX in the 800 number of the INWATS query is vacant.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:DSE
OP:ST-DSE
SET:DSE
```

Output Message(s):

```
OP:ST-DSE
```

REPT:DSL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT DSL MSMTCH SUMMARY - SM [a] SEGMENT: [b]
  ----OE----------ODDTYPE  LCTYPE  NT|CU----------------
     [c]           [d]      [e]    [f]  [T/R-REV]  [NEW]
      .             .        .      .       .        .
      .             .        .      .       .        .
      .             .        .      .       .        .
  SM SUMMARY COMPLETED
```

2. REASON FOR OUTPUT

To report the automatic mismatch test result. (Refer to the input message ALW:MISMATCH for more information.) This message prints the list of U-Interface digital subscriber lines (DSLs) with inconsistencies between the circuit type listed in the office-dependent data (ODD) and the type of line card (LC) and network termination (NT) or first basic rate interface transmission extension (BRITE) channel unit (CU) installed. If there are no mismatches nothing is printed.

3. VARIABLE FIELD DEFINITIONS

`NEW` = Is printed to indicate that this is the first time mismatch has been detected on this particular LCEN, since the last running of the automatic mismatch test.

`T/R-REV` = This is not a mismatch. A tip and ring reversal has been detected on the line. This is only valid for AMI-U type of LC.

`a` = Switching module (SM) number.

`b` = Segment number. There can be up to 8 lines listed in each segment.

`c` = Line card equipment number (LCEN) or line circuit equipment number (LCKEN). Valid value(s):

```
LCEN=SM-ISLU-LGC-LC
LCKEN=SM-ISLU-LG-LB-LCKT
```

`d` = Type of U card recorded in ODD. Valid value(s):

- `AMI-U` = LC type of the DSL is alternate mark inversion (AMI) U interface.
- `ANSI-U` = LC type of the DSL is *ANSI*® U-interface.

`e` = Type of LC installed in the ISLU. Valid value(s):

- `AMI-U` = LC type of the DSL is AMI U interface.
- `ANSI-U` = LC type of the DSL is *ANSI*® U-interface.
- `T` = LC type of the DSL is T interface.
- `Z` = LC type is Z card.

`f` = Type of NT that the LC is connected to. Valid value(s):

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`AMI-U`	= Type of NT or first BRITE CU is AMI U interface.
`ANSI-U`	= Type of NT or first BRITE CU is *ANSI*® U-interface.
`UNKNOWN`	= The NT type is unknown.

`g` = Integrated services line unit (ISLU) number.

`h` = Line group number.

`i` = Line card number.

4. ACTION TO BE TAKEN

First, check ODD for the correct type of LC. Depending on the type of mismatch found, either install the correct type of LC, correct type of NT|CU, or correct both.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:MISMATCH
INH:MISMATCH
OP:LIST
TST:DSL
TST:WSSUPV
```

REPT:DUI

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT DUI a {ERROR b [COMPL CODE c] |
        UNIDENTIFIED RESPONSE WD1=d WD2=e}

[2]   ____________________________________________________________________
      REPT DUI a STARTED

[3]   ____________________________________________________________________
      REPT DUI a STOPPED
```

2. REASON FOR OUTPUT

Format 1 reports a direct user interface (DUI) subdevice-related software or hardware error.

Format 2 reports that the DUI has changed state from standby (STBY) to active (ACT). A DUI will change to ACT state when the level 2 connection is established and the data link is in information transfer state.

Format 3 reports that the DUI has changed state from ACT to STBY. A DUI will change to STBY state when the level 2 connection is terminated and the level 1 connection remains established.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Identifies point within the input/output driver (IODRV) where a software or hardware error was detected in hexadecimal notation. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

c = Hardware error type. Refer to the APP:IOP-A appendix in the Appendixes section of the Output Messages manual.

d = First word of an unidentified completion report.

e = Second word of an unidentified completion report.

4. ACTION TO BE TAKEN

The error message in Format 1 indicates error conditions which could cause the removal of a unit. Any removed unit should be repaired and restored to service.

The messages in Formats 2 and 3 are informational messages and indicate that the DUI has changed states. No action is necessary.

5. ALARMS

Format 1 has an alarm level of INFO. Formats 2 and 3 have alarm levels of VAR. This is a variable alarm to be

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determined by the client process. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

Input Message(s):

```
CLR:IODRV
DGN:DUIC
RMV:DUI
RST:DUI
UPD:OMDB
```

Output Message(s):

```
DGN:DUIC
REPT:DUIC
REPT:IOP
REPT:RCVRY-DUI
REPT:RCVRY-DUIC
REPT:RCVRY-IOP
RMV:DUI
RST:DUI
```

Output Appendix(es):

```
APP:IOP-A
APP:IOP-F
APP:OMDB-X-REF
```

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REPT:DUIC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT DUIC a {ERROR b [COMPL CODE c] |
        UNIDENTIFIED RESPONSE WD1=d WD2=e}

[2]   ____________________________________________________________
      REPT DUIC a CODE VERSION X'f
```

2. REASON FOR OUTPUT

Format 1 reports a direct user interface controller (DUIC) related software or hardware error.

Format 2 is output during the restoration of the unit.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Identifies point within input/output processor driver (IODRV) where a software or hardware error was detected, in hexadecimal notation. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

`c` = Hardware error error type, in hexadecimal notation. Refer to the APP:IOP-A appendix in the Appendixes section of the Output Messages manual.

`d` = First word of an unidentifiable completion report.

`e` = Second word of an unidentifiable completion report.

`f` = Peripheral controller pump code version.

4. ACTION TO BE TAKEN

These error messages indicate error conditions that could cause the removal of a unit. Any removed unit must be repaired and restored to service. No action is necessary for the message in Format 2 unless the controller and/or its subdevices are not acting normal, or could not be restored. Contact the service organization with the code version which was used.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):

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1	208
2	220

Input Message(s):

```
CLR:IODRV
DGN:DUIC
RMV:DUIC
RST:DUIC
```

Output Message(s):

```
REPT:IOP
REPT:RCVRY-DUIC
REPT:RCVRY-IOP
```

Output Appendix(es):

```
APP:IOP-A
APP:IOP-F
APP:OMDB-X-REF
```

REPT:DUMP-RCLK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT DUMP RCLK=a-b [c] [d] [EVENT e]
  REMOTE CLOCK a CCB/CLRT REGISTERS X'
  ffgghhii jjkkll00 mmnnoopp qqrrsstt 00000000 00000000 00000000 00000000
  a1b1c1d1 e1f1g1h1 i1j1k1l1 m1n1o1p1 q1r1s1t1 u1v1w1x1 y1z1a2b2 c2d2e2f2
  g2h2i2j2 k2l2m2n2 o2p2q2r2 s2t2u2v2 w2x2y2z2 a3b3c3d3 e3f3g3h3 i3j3k3l3
  m3n3o3p3 q3r3s3t3 u3v3w3x3 y3z3a4b4 c4d4e4f4 g4h4i4j4 k4l4m4n4 o4p4q4r4
  s4t4u4v4 w4x4y4z4 a5b5c5d5 e5f5g5h5 i5j5k5l5 m5n5o5p5 q5r5s5t5 u5v5w5x5
  REMOTE CLOCK a STATUS X'
  y5z5a6b6 c6d6e6f6 00000000 00000000 00000000 00000000 00000000 00000000
```

2. REASON FOR OUTPUT

To dump the specified remote clock (RCLK) communication control buffer and communication link receiver/transmitter (CCB/CLRT) registers and status data in response to a request.

The first 5 fields in the dump message ('f'-'j') deal with the CLRT subaddresses and status.

The rest of the dump message concerns the contents of the CCB. The data in the fields contains information about location and cause of errors, as well as data on the configuration of the remote clock.

Fields 'k' and 'm' through 't' will indicate if there are errors reported by the RCLK to the control interface (CI).

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Remote clock (RCLK) side (0 or 1).

c = Status. Valid value(s):
- COMPLETED = Dump completed normally.
- STOPPED = Dump aborted due to a communication fault with the RCLK.

d = Text string further explaining the error.

e = Event number for requested action.

f = CLRT subaddress 0.

g = CLRT subaddress 1.

h = CLRT subaddress 2.

i = CLRT status upper byte.

j = CLRT status lower byte.

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`k` = Summary of the flag vectors (fields '`m`' through '`t`'). Valid value(s):

`nonzero` = Errors have been reported by the RCLK hardware. Refer to variables '`m`' through '`t`'.

`0` = No errors have been reported by the RCLK hardware.

The bits set in '`k`' point to a specific flag vector. Refer to Exhibit A.

Exhibit A: Values For Flag Vectors

If '`k`' =	**(bit set)**	**flag field**
01	b0	m
02	b1	n
04	b2	o
08	b3	p
10	b4	q
20	b5	r
40	b6	s
80	b7	t

By examining the flag fields specified by the summary vector, '`k`', you may determine the exact location of the error. The combination of the location and the hexadecimal value in the flag vector will point to the field which contains the error report. The bits set serve as flags to the locations; therefore, there may be more than one bit set in any flag field. The values shown below assume only one bit is set at a time in the flag vector. If more than one bit is set, investigate the field pointed to by each flag.

`l` = Not used.

`m-t` = Flag vector fields. These show any errors reported by the RCLK to the control interface (CI). The flag vectors tell which location of the communication control buffer (CCB) is reporting the error.

The report location is found by intersecting the row corresponding to the flag vector location ('`m`' through '`t`') with the value or bit set in that field. Refer to Exhibit B.

Exhibit B: Field Value

Flag	**01**	**02**	**04**	**08**	**10**	**20**	**40**	**80**
Field	**(b0**	**b1**	**b2**	**b3**	**b4**	**b5**	**b6**	**b7)**
m	a^1	b^1	c^1	d^1	e^1	f^1	g^1	h^1
n	i^1	j^1	k^1	l^1	m^1	n^1	o^1	p^1
o	q^1	r^1	s^1	t^1	u^1	v^1	w^1	x^1
p	y^1	z^1	a^2	b^2	c^2	d^2	e^2	f^2
q	g^2	h^2	i^2	j^2	k^2	l^2	m^2	n^2
r	o^2	p^2	q^2	r^2	s^2	t^2	u^2	v^2
s	w^2	x^2	y^2	z^2	a^3	b^3	c^3	d^3
t	e^3	f^3	g^3	h^3	i^3	j^3	k^3	l^3

Example: Field '`k`' contains the value '02' which points to flag vector '`n`'. Then, field '`n`' holds the value '08'. By intersecting row '`n`' of the above table with column '08' (bit 3 set) you are directed to report location 'l^1'. The value in field 'l^1' is '04', or bit 2 is set. By looking at the explanation for 'l^1', [the reference summary error source register (ESR)], if bit 2 is set, then there is an error on reference 3, and the last step of the investigation is to look at field 'h^2' for the type of error reported.

The values in the information bytes of the dump are keyed off of bit position in the data. A byte has its most significant bit (left-most position) as 'b^7', and least significant (right-most position) as b0.

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a[1] = Remote clock configuration.

For field values:	Explanation:
b0	Valid value(s): 0 = Active clock side. 1 = Standby clock side.
b1	Valid value(s): 0 = Cross-couple out of service. 1 = Cross-couple in service.
b3, b4	Valid value(s): 0 = Using multi-module remote switching module (MMRSM) local return. 1 = Using MMRSM remote return. 2 = Using time multiplexed switch (TMS) return (set in AM application).
b5-b7	Valid value(s): 0 = 24 channel (T1 trunk) synchronization. 1 = 30 channel synchronization. 2 = Stand-alone clock.

b[1] = Clock mode and stratum (oscillator type and stability).

For field values:	Explanation:
b0-b2	Valid value(s): 1 = Side locked in normal mode. 3 = Side locked in fast mode. 5 = Side in holdover mode. 7 = Side in free run mode.
b3-b4	Valid value(s): 0 = International high stability oscillator. 1 = International low stability oscillator. 2 = Stratum2 (USA high stability). 3 = Stratum3 (USA medium stability).
b5	Valid value(s): 0 = Master/slave synchronization. 1 = Single-ended mutual synchronization.
b6-b7	Not used.

c[1] = Local and remote oscillator status.

For field values:	Explanation:
b0-b1	Give status of local (same side) oscillator. Valid value(s): 0 = Out of service. 1 = In warning state. 2 = Active. 3 = Standby.
b2-b3	Not used.
b4-b5	Give status of remote (other side) oscillator. Valid value(s): 0 = Out of service. 1 = In warmup state. 2 = Active. 3 = Standby.
b6-b7	Not used.

d[1] = Inverted talkback location. The value in this location should have the logically inverted value from

field 'a^5'. This indicates that the communications to and from the clock are operating properly.

e^1 = Active reference byte. The active reference(s) for the clock side are indicated by a set bit in this field. b0 set means RCREF1 is active, b1 set means RCREF2 is active, etc., for all eight references.

f^1 = Not used.

g^1 = Not used.

h^1 = Not used.

i^1 = Hardware error source register (ESR). A set bit means an error of the noted type has occurred. These errors are detected from the remote clock controller (CNTL) or synchronization (SYNC) circuit pack. Valid value(s):

- b0 = Digital/analog converter (DAC) or voltage-controlled crystal oscillator (VCXO) register error (CNTL).
- b1 = Memory error/firmware fault (CNTL).
- b2 = Local oscillator energy detector error (SYNC0).
- b3 = Remote oscillator energy detector error (SYNC0).
- b4 = Local oscillator energy detector error (SYNC1).
- b5 = Remote oscillator energy detector error (SYNC1).
- b6-b7 = Not used.

j^1 = Oscillator ESR. A set bit means that an error of the noted type has occurred. These errors are detected on the remote clock oscillator circuit pack. Valid value(s):

- b0 = Local oscillator energy detector.
- b1 = Local oscillator frequency.
- b2 = Local oscillator inner oven bit (loss of temperature stability on high stability oscillator).
- b3 = Local oscillator outer oven bit (loss of temperature stability on high stability oscillator).
- b4 = Remote oscillator energy detector.
- b5 = Remote oscillator frequency.
- b6-b7 = Not used.

k^1 = Source ESR. A set bit means that an error of the noted type has occurred. These errors are detected on the remote clock controller circuit pack. Valid value(s):

- b0 = 8 KHz return signal phase difference.
- b1 = Not used.
- b2 = 8 KHz return signal energy detector.
- b3 = Cross-couple energy detector.
- b4 = Cross-couple phase difference.
- b5-b7 = Not used.

l^1 = Reference summary ESR. A set bit means that there is an error on the corresponding reference. For more information, refer to the following fields:

- b0 = RCREF1 refer to 'z^1'.
- b1 = RCREF2 refer to 'd^2'.
- b2 = RCREF3 refer to 'h^2'.
- b3 = RCREF4 refer to 'l^2'.
- b4 = RCREF5 refer to 'p^2'.
- b5 = RCREF6 refer to 't^2'.
- b6 = RCREF7 refer to 'x^2'.
- b7 = RCREF8 refer to 'b^3'.

m^1 = Invalid command address. Indicates that an internal error has occurred and the firmware has

received an invalid request. The location is an internal CCB address (refer to 'n^1').

n^1 = Invalid command data. This is the data that was passed to the firmware in the invalid address ('m^1').

o^1 = Not used.

p^1 = Not used.

q^1 = Time base offset calculation status. This byte indicates what action is taken on the time base offset for the local and remote side.

For field value:	Explanation:
b0	Not used.
b1-b2	Local side. Valid value(s): 0 = No action taken. 1 = Calculate. 2 = Load existing value from memory. 3 = No calculation.
b3-b4	Not used.
b5-b6	Remote side. Valid value(s): 0 = No action taken. 1 = Calculate. 2 = Load existing value from memory. 3 = No calculation.
b7	Not used.

r^1-u^1 = Value of the time base offset. This value is loaded into system memory to be used in the event that an initialization must be done without external references.

v^1-w^1 = Internal reference counts taken on reference errors (upper and lower bytes, respectively).

x^1 = Diagnostic result return value.

y^1 = Reference 1 configuration.

c^2 = Reference 2 configuration.

g^2 = Reference 3 configuration.

k^2 = Reference 4 configuration.

o^2 = Reference 5 configuration.

s^2 = Reference 6 configuration.

w^2 = Reference 7 configuration.

a^3 = Reference 8 configuration. Gives configuration data for each reference.

For field value:	Explanation:
b0	Equipage state. Valid value(s) 0 = Unequipped reference. 1 = Equipped reference.
b1	Reference type. Valid value(s): 0 = Digital reference. 1 = Analog reference.
b2-b5	Reference format. Valid value(s): 0 = International AMI/USA D4 no zero code suppression (ZCS). 2 = International HDB3/USA D$ with B8ZC format. 4 = USA D4 with ZCS. 8 = USA FE no ZCS. a = USA FE B8ZS. c = USA FE with ZCS.
b6	Service status. Valid value(s): 0 = Out-of-service. 1 = In service.

b7	Not used.

z[1] = Reference 1 ESR.
d[2] = Reference 2 ESR.
h[2] = Reference 3 ESR.
l[2] = Reference 4 ESR.
p[2] = Reference 5 ESR.
t[2] = Reference 6 ESR.
x[2] = Reference 7 ESR.
b[3] = Reference 8 ESR.

Individual reference error source registers (ESRs). A set bit in the field means that an error of this type was reported on this reference. Valid value(s):

b0 = Out-of-range of allowed frequency.
b1 = Phase step.
b2 = Excess jitter on the reference.
b3 = Local alarm (loss of reference).
b4 = Low error rate threshold.
b5 = High error rate threshold.
b6 = Low out-of-frame threshold.
b7 = High out-of-frame threshold.

a[2] = Reference 1 parameter.
e[2] = Reference 2 parameter.
i[2] = Reference 3 parameter.
m[2] = Reference 4 parameter.
q[2] = Reference 5 parameter.
u[2] = Reference 6 parameter.
y[2] = Reference 7 parameter.
c[3] = Reference 8 parameter. Used as a development parameter. Has no external meaning.
b[2] = Reference 1 data.
f[2] = Reference 2 data.
j[2] = Reference 3 data.
n[2] = Reference 4 data.
r[2] = Reference 5 data.
v[2] = Reference 6 data.
z[2] = Reference 7 data.
d[3] = Reference 8 data. Used in double-ended mutual synchronization only. No meaning for master/slave or single-ended mutual synchronization schemes.
e[3],f[3] = Phase buildout value (upper and lower bytes, respectively). Used to quickly lock the active major side to the external reference. Internal use only.
g[3],h[3] = Digital/analog converter (DAC) value (upper and lower bytes, respectively). Used to give an analog value to run the voltage controlled oscillator. Internal use only.
i[3],j[3] = Phase detector output. Detects phase difference between the reference signal and the clock output signal (upper and lower bytes, respectively). Internal use only.

The following locations are information passed to the remote clock hardware from the maintenance software through the CI to tell it configuration and pass commands. There is no flag vector manipulation as for the previous information.

k[3] = Not used.
l[3] = Not used.
m[3] = Remote clock configuration.

For field value:	Explanation:
b0	Valid value(s): 0 = Active clock side. 1 = Standby clock side.
b1	Valid value(s): 0 = Cross-couple out of service. 1 = Cross-couple in service.
b2	Not used.
b3-b4	Valid value(s): 0 = Using MMRSM local return. 1 = Using MMRSM remote return. 2 = Using TMS return (set in AM application).
b5-b7	Valid value(s): 0 = 24 channel (T1 trunk) synchronization. 1 = 30 channel synchronization. 2 = Stand-alone clock.

n[3] = Clock mode and stratum (oscillator type and stability).

For field value:	Explanation:
b0-b2	Valid value(s): 1 = Lock side in normal mode. 3 = Lock side in fast mode. 5 = Put side in holdover mode. 7 = Put side in free run mode.
b3-b4	Valid value(s): 0 = International high stability oscillator. 1 = International low stability oscillator. 2 = Stratum 2 (USA high stability). 3 = Stratum 3 (USA medium stability).
b5	Valid value(s): 0 = Master/slave synchronization. 1 = Single-ended mutual synchronization.
b6-b7	Not used.

o[3] = Local and remote oscillator status.

For field value:	Explanation:
b0-b2	Give status of local (same side) oscillator. Valid value(s): 0 = Out of service. 1 = In warmup state. 2 = Active. 3 = Standby. 4 = Active forced.
b3	Not used.
b4-b6	Give status of remote (other side) oscillator. Valid value(s): 0 = Out of service. 1 = In warmup state. 2 = Active. 3 = Standby. 4 = Active forced.
b7	Not used.

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p[3] = Not used.

q[3] = Active reference byte. The active reference(s) for the clock side are indicated a set bit in this field. b0 set means RCREF1 is active, b1 set means RCREF2 is active, etc., for all eight references.

r[3] = Not used.

s[3] = Not used.

t[3] = Diagnostic sub-test selection data (internal use only).

u[3] = Hardware error source register (ESR) pests. A set bit means an error of the noted type is pested. These errors are detected from the remote clock controller (CNTL) or synchronization (SYNC) circuit pack. Valid value(s):

- b0 = Digital/analog converter (DAC) or voltage-controlled crystal oscillator (VCXO) register error (CNTL).
- b1 = Memory error/firmware fault (CNTL).
- b2 = Local oscillator energy detector error (SYNC0).
- b3 = Remote oscillator energy detector error (SYNC0).
- b4 = Local oscillator energy detector error (SYNC1).
- b5 = Remote oscillator energy detector error (SYNC1).
- b6-b7 = Not used.

v[3] = Oscillator ESR pests. A set bit means that an error of the noted type is pested. These errors are detected on the remote clock oscillator circuit pack. Valid value(s):

- b0 = Local oscillator energy detector.
- b1 = Local oscillator frequency.
- b2 = Local oscillator inner oven bit (loss of temperature stability on high stability oscillator).
- b3 = Local oscillator outer oven bit (loss of temperature stability on high stability oscillator).
- b4 = Remote oscillator energy detector.
- b5 = Remote oscillator frequency.
- b6-b7 = Not used.

w[3] = Source ESR pests. A set bit means that an error of the noted type is pested. These errors are detected on the remote clock controller circuit pack. Valid value(s):

- b0 = 8 KHz return signal phase difference.
- b1 = Not used.
- b2 = 8 KHz return signal energy detector.
- b3 = Cross-couple energy detector.
- b4 = Cross-couple phase difference.
- b5-b7 = Not used.

x[3] = Reference summary ESR pests. A set bit means that all errors on the corresponding reference are pested. Valid value(s):

- b0 = RCREF1 refer to 'z[1]'.
- b1 = RCREF2 refer to 'd[2]'.
- b2 = RCREF3 refer to 'h[2]'.
- b3 = RCREF4 refer to 'l[2]'.
- b4 = RCREF5 refer to 'p[2]'.
- b5 = RCREF6 refer to 't[2]'.
- b6 = RCREF7 refer to 'x[2]'.
- b7 = RCREF8 refer to 'b[3]'.

y[3] = Pest invalid command. Refer to 'm[1]'. Valid value(s):

- 00 = Unpested.

FF = Pested.

z[3] = Pest trace. Development only.
a[4] = Not used.
b[4] = Not used.
c[4] = Time base offset calculation status. This byte indicates what action is taken on the time base offset for the local and remote side.

For field value:	Explanation:
b1-b2	Local side. Valid value(s): 0 = No action taken. 1 = Calculate. 2 = Load existing value from memory.
b3-b4	Not used.
b5-b6	Remote side. 0 = No action taken. 1 = Calculate. 2 = Load existing value from memory.
b7	Not used.

d[4]-g[4] = Value of the time base offset. This value is loaded into system memory to be used in the event that an initialization must be done without external references.
h[4] = Requests that internal reference counts be taken on a reference for specific errors. b0 set means request internal reference count on RCREF1, b1 set means request reference count on RCREF2, etc., for all eight references.
i[4] = Specifies the type of reference count to be taken. Valid value(s):
b0 = Out-of-frame count.
b1-b5 = Not used.
b6 = Clear OOF count for all references.
b7 = Clear OOF count for a specific reference.

j[4] = Order to run hardware diagnostics phases. Valid value(s):
0 = EPROM
1 = RAM
2 = CCB
3 = CESR
4 = TBPR
5 = DACC
6 = VCXOPR
7 = MODE
8 = REFINT
9 = REFDIV
a = STBPD
b = SENGD

k[4] = Reference 1 configuration.
o[4] = Reference 2 configuration.
s[4] = Reference 3 configuration.
w[4] = Reference 4 configuration.
a[5] = Reference 5 configuration.
e[5] = Reference 6 configuration.
i[5] = Reference 7 configuration.
m[5] = Reference 8 configuration. Gives configuration data for each reference.

For field value:	Explanation:
b0	Equipage state. Valid value(s): 0 = Unequipped reference. 1 = Equipped reference.
b1	Reference type. Valid value(s): 0 = Digital reference. 1 = Analog reference.
b2-b5	Reference format. Valid value(s): 0 = International AMI/USA D4 no zero code suppression (ZCS). 2 = International HDB3/USA D4 with B8ZC format. 4 = USA D4 with ZCS. 4 = USA FE no ZCS. a = USA FE B8ZS. c = USA FE with ZCS.
b6	Service status. Valid value(s): 0 = Out-of-service. 1 = In service.
b7	Not used.

`l`[4] = Reference 1 ESR pests.
`p`[4] = Reference 2 ESR pests.
`t`[4] = Reference 3 ESR pests.
`x`[4] = Reference 4 ESR pests.
`b`[5] = Reference 5 ESR pests.
`f`[5] = Reference 6 ESR pests.
`j`[5] = Reference 7 ESR pests.
`n`[5] = Reference 8 ESR pests. Individual reference error source registers (ESRs) pests. A set bit in the field means that an error of this type is pested on this reference. Valid value(s):

- `b0` = Out-of-range of allowed frequency.
- `b1` = Phase step.
- `b2` = Excess jitter on the reference.
- `b3` = Local alarm (loss of reference).
- `b4` = Low error rate threshold.
- `b5` = High error rate threshold.
- `b6` = Low out of frame threshold.
- `b7` = High out of frame threshold.

`m`[4] = Reference 1 coefficient.
`q`[4] = Reference 2 coefficient.
`u`[4] = Reference 3 coefficient.
`y`[4] = Reference 4 coefficient.
`c`[5] = Reference 5 coefficient.
`g`[5] = Reference 6 coefficient.
`k`[5] = Reference 7 coefficient.
`o`[5] = Reference 8 coefficient. Used to provide the "reference priority". In master/slave synchronization this means that the order of preference from 1 to '`n`' (with '`n`' the number of equipped references) should be in the appropriate reference coefficient. The most preferred reference should be '1' and the least preferred should be '`n`'. Automatic actions will switch from reference '1' to reference '2' on detection of errors, and so on through all equipped references.

In mutual synchronization this value is a weighting parameter, where the larger the value, the more a reference is taken into consideration when calculating a phase to lock to.

n^4 = Reference 1 data.
r^4 = Reference 2 data.
v^4 = Reference 3 data.
z^4 = Reference 4 data.
d^5 = Reference 5 data.
h^5 = Reference 6 data.
l^5 = Reference 7 data.
p^5 = Reference 8 data. Used in double-ended mutual synchronization only. No meaning for master/slave or single-ended mutual synchronization schemes.
q^5-r^5 = Phase buildout value (upper and lower bytes, respectively). Used to quickly lock the active major side to the external reference. Can be loaded as a desired value for testing. Internal use only.
s^5-t^5 = Digital/analog converter (DAC) value (upper and lower bytes, respectively). Used to give an analog value to run the voltage controlled oscillator. Internal use only.
u^5 = Not used.
v^5 = Data written to test communications from CI to RCLK. Should have the inverted value from field 'd^1'.
w^5 = Not used.
x^5 = Not used.
y^5 = ESR vector summary flag. A set bit means an error has been detected in the corresponding ESR. Valid value(s):

- b0 = Error detected in location 'a^1'.
- b1 = Error detected in location 'b^1'.
- b2 = Error detected in location 'c^1'.
- b3 = Error detected in location 'd^1'.
- b4 = Error detected in location 'e^1'.
- b5-b7 = Not used.

z^5 = ESR vector summary flag. A set bit means an error has been detected in the corresponding ESR. Valid value(s):

- b0 = Error detected in location 'i^1'.
- b1 = Error detected in location 'j^1'.
- b2 = Error detected in location 'k^1'.
- b3 = Error detected in location 'l^1'.
- b4 = Error detected in location 'm^1'.
- b5 = Error detected in location 'n^1'.
- b6-b7 = Not used.

a^6 = ESR vector summary flag. A set bit means an error has been detected in the corresponding ESR. Valid value(s):

- b0 = Error detected in location 'q^1'.
- b1 = Error detected in location 'r^1'.
- b2 = Error detected in location 's^1'.
- b3 = Error detected in location 't^1'.
- b4 = Error detected in location 'u^1'.
- b5 = Error detected in location 'v^1'.
- b6 = Error detected in location 'w^1'.
- b7 = Error detected in location 'x^1'.

b^6 = ESR vector summary flag. A set bit means an error has been detected in the corresponding ESR. Valid value(s):

- b0 = Error detected in location 'y^1'.

b1 = Error detected in location 'z[1]'.
b2 = Error detected in location 'a[2]'.
b3 = Error detected in location 'b[2]'.
b4 = Error detected in location 'c[2]'.
b5 = Error detected in location 'd[2]'.
b6 = Error detected in location 'e[2]'.
b7 = Error detected in location 'f[2]'.

c[6] = ESR vector summary flag. A set bit means an error has been detected in the corresponding ESR.
Valid value(s):
b0 = Error detected in location 'g[2]'.
b1 = Error detected in location 'h[2]'.
b2 = Error detected in location 'i[2]'.
b3 = Error detected in location 'j[2]'.
b4 = Error detected in location 'k[2]'.
b5 = Error detected in location 'l[2]'.
b6 = Error detected in location 'm[2]'.
b7 = Error detected in location 'n[2]'.

d[6] = ESR vector summary flag. A set bit means an error has been detected in the corresponding ESR.
Valid value(s):
b0 = Error detected in location 'o[2]'.
b1 = Error detected in location 'p[2]'.
b2 = Error detected in location 'q[2]'.
b3 = Error detected in location 'r[2]'.
b4 = Error detected in location 's[2]'.
b5 = Error detected in location 't[2]'.
b6 = Error detected in location 'u[2]'.
b7 = Error detected in location 'v[2]'.

e[6] = ESR vector summary flag. A set bit means an error has been detected in the corresponding ESR.
Valid value(s):
b0 = Error in location 'w[2]'.
b1 = Error in location 'x[2]'.
b2 = Error in location 'y[2]'.
b3 = Error in location 'z[2]'.
b4 = Error in location 'a[3]'.
b5 = Error in location 'b[3]'.
b6 = Error in location 'c[3]'.
b7 = Error in location 'd[3]'.

f[6] = ESR vector summary flag. A set bit means an error has been detected in the corresponding ESR.
Valid value(s):
b0 = Error in location 'e[3]'.
b1 = Error in location 'f[3]'.
b2 = Error in location 'g[3]'.
b3 = Error in location 'h[3]'.
b4 = Error in location 'i[3]'.
b5 = Error in location 'j[3]'.
b6-b7 = Not used.

4. ACTION TO BE TAKEN

When an error condition triggers this, an accompanying REPT:RCLK output message related to the error type specified by the variable '`d`' prints to the receive only printer (ROP). Consult the appropriate REPT:RCLK error message and the explanation for the dumped registers for additional information.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT:RCLK-[unit]
```

78. REPT:E

REPT:E911

Software Release: 5E10 and later
Message Class: ALRM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT E911=MDII a TKGMN b c

[2]   ____________________________________________________________
      REPT E911=ASRT d PORT e f

[3]   ____________________________________________________________
      REPT E911=ASRT d PCRID g
```

2. REASON FOR OUTPUT

To indicate that an E911 error has occurred and that output at the receive-only printer (ROP) should be checked for additional details.

Format 1 reports that a machine-detected interoffice irregularity (MDII) has occurred during an E911 call. The trunk group and member associated with the MDII is identified in the message.

Format 2 reports that an assert has occurred during an E911 call. The assert was associated with a physical port and the port is identified in the message.

Format 3 reports that an assert has occurred during an E911 call. The assert was not associated with a physical port. The processor associated with the assert is identified in the message.

3. VARIABLE FIELD DEFINITIONS

`ASRT` = An assert has occurred during an E911 call.

`MDII` = An MDII has occurred during an E911 call.

`a` = MDII mnemonic. Refer to the APP:MDII appendix in the Appendixes section of the Output Messages manual.

`b` = Trunk group number (group identifier of TKGMN) on which the error occurred.

`c` = Trunk group member number (member identifier of TKGMN) on which the error occurred.

`d` = Assert number. Refer to the Asserts manual.

`e` = Switching module (SM) number.

`f` = Port member number, in hexadecimal.

`g` = Processor identifier (PCRID). The variable will contain either the SM number, or the administrative module (AM) number, or the communications module processor (CMP) number, to identify the processor in which the assert occurred.

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4. ACTION TO BE TAKEN

Obtain the error message that appears at the ROP. Analyze the MDII or assert data and take corrective action.

5. ALARMS

Minor.

6. REFERENCES

Input Message(s):

```
OP:CONV
```

Output Appendix(es):

```
APP:MDII
```

Other Manual(s):
235-190-115 *Local and Toll System Features*
235-600-500 *Asserts*

REPT:EADAS-BO

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT EADAS a BUFFER OVERFLOW
```

2. REASON FOR OUTPUT

To report the overflow of the engineering and administrative data acquisition system (EADAS) data from the shared data segment.

3. VARIABLE FIELD DEFINITIONS

`a` = Buffer type (DATA or TIME SYNC).

4. ACTION TO BE TAKEN

Restore the EADAS communication channel.

5. ALARMS

A major alarm occurs. .ta 59

6. REFERENCES

None.

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REPT:EADAS-DL

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
REPT EADAS DATA LINK LOST
```

2. REASON FOR OUTPUT

To report the loss of the Engineering and Administrative Data Acquisition System (EADAS) data link.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

Restore or repair the link immediately or EADAS will be unable to poll the system for traffic reports.

5. ALARMS

Major.

6. REFERENCES

Output Message(s):

```
REPT:SDL
```

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REPT:EADAS-PD

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
REPT EADAS PLANNED DOWN
```

2. REASON FOR OUTPUT

To report that the engineering and administrative data acquisition system (EADAS) is planning on going down shortly for an indefinite period. The 30minute traffic report will not be requested by EADAS during this period.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:EAI-A

Software Release: 5E10 - 5E12
Message Class: MTCE
Application: 5,3B
Type: Output

WARNING: INAPPROPRIATE USE OF THIS MESSAGE MAY INTERRUPT OR DEGRADE SERVICE. READ PURPOSE CAREFULLY.

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT EAI SANITY TIMERS ARE INHIBITED

[2]   ____________________________________________________________________
      REPT EAI BACKUP ROOT SELECTED ON EAI PAGE
        CURRENTLY RUNNING IN ROOT
        PLEASE REMOVE THIS SELECTION
        UNLESS PREPARING TO BOOT BACKUP ROOT

[3]   ____________________________________________________________________
      REPT EAI MINIMUM CONFIGURATION SELECTED ON EAI PAGE
        CURRENTLY RUNNING IN FULL CONFIGURATION
        PLEASE REMOVE THIS SELECTION
        UNLESS PREPARING TO BOOT MINIMUM CONFIGURATION

[4]   ____________________________________________________________________
      REPT EAI ROOT SELECTED ON EAI PAGE
        CURRENTLY RUNNING IN BACKUP ROOT
        PLEASE REMOVE THIS SELECTION
        UNLESS PREPARING TO BOOT ROOT

[5]   ____________________________________________________________________
      REPT EAI ** WARNING ** a ON CU b
        c
        d
        e
```

2. REASON FOR OUTPUT

Format 1 reports that the sanity timers are inhibited.

WARNING: The system's ability to recover from errors is reduced when the sanity timers are inhibited. The sanity timers are not inhibited in normal operation.

Formats 2, 3, and 4 report that root, backup root, or minimum configuration is selected and the system is not currently running in that mode. To avoid inadvertently booting the system in the wrong mode, these selections should only be made just prior to booting the system. Format 5 is applicable only for the 3B21D machines. This has four different messages. These messages are output as a result of either inhibiting emergency action interface (EAI) hardware error reporting using an input message or inhibiting EAI hardware error interrupt due to excessive errors.

Message Type:	Text:
1	REPT EAI ** WARNING ** EAI ERROR THRESHOLD EXCEEDED ON CU b. ** WARNING ** ATTEMPTED SOFT SWITCH FAILED.

	** WARNING ** EAI ERROR REPORTING INHIBITED. ** WARNING ** DIAGNOSE AND REPLACE FAULTY CC BOARD. This indicates that the error threshold was exceeded on the on-line central control (CC) EAI hardware and an attempt to the other CC failed.
2	REPT EAI ** WARNING ** EAI ERROR THRESHOLD EXCEEDED ON CU b. ** WARNING ** SOFT SWITCH COMPLETED. ** WARNING ** EAI ERROR REPORTING INHIBITED. ** WARNING ** DIAGNOSE AND REPLACE FAULTY CC BOARD. This indicates that the error threshold was exceeded on the off-line CC EAI hardware. The machine has switched to the currently-active processor due to the error.
3	REPT EAI ** WARNING ** EAI ERROR INTERRUPT INHIBITED ON CU b. ** WARNING ** USE ALW:EAIINIT COMMAND TO ENABLE THE INTERRUPT. This indicates that EAI error reporting has been inhibited by a software message.
4	REPT EAI ** WARNING ** EAI ERROR REPORTING INHIBITED FOR OVER 24 HOURS ON CU b. ** WARNING ** AUTOMATICALLY ENABLING EAI ERROR REPORTING. This indicates that the EAI error reporting has been inhibited by a software message for over 24 hours. Fault recovery software within the system is automatically enabling this reporting.

3. VARIABLE FIELD DEFINITIONS

a = A string defining one of three possible error types. Valid value(s):
```
** WARNING ** EAI ERROR THRESHOLD EXCEEDED ON CU b.
** WARNING ** EAI ERROR INTERRUPT INHIBITED ON CU b.
** WARNING ** EAI ERROR REPORTING INHIBITED FOR OVER 24 HOURS ON CU b.
```

b = CU member number.

c = A string defining one of four possible error types. Valid value(s):
```
** WARNING ** ATTEMPTED SOFT SWITCH FAILED.
** WARNING ** SOFT SWITCH COMPLETED.
** WARNING ** USE ALW:EAIINT COMMAND TO ENABLE THE INTERRUPT.
** WARNING ** AUTOMATICALLY ENABLING EAI ERROR REPORTING.
```

d = Blank line or a string defining one of two possible error types. Valid value(s):
```
** WARNING ** EAI ERROR REPORTING INHIBITED.
** WARNING ** DIAGNOSE AND REPLACE FAULTY CC BOARD.
```

e = Blank line or the following string. Valid value(s):
```
** WARNING ** DIAGNOSE AND REPLACE FAULTY CC BOARD.
```

4. ACTIONS TO BE TAKEN

For Format 1, remove the inhibit sanity timer selection on the EAI page of the maintenance terminal.

For Formats 2, 3, and 4, remove the root, backup root, or minimum configuration selection on the emergency action interface (EAI) page of the maintenance terminal.

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For Format 5, do the following:

Message Type:	Action:
1	Restore the other CU and switch to that CU. Run diagnostics on the faulty CU. If the diagnostic fails, replace the CC pack that contains the EAI circuitry and restore the CU. Save the diagnostic results, the information from the ERLOG, and the receive only printer (ROP) output. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
2	Restore the other CU and switch to that CU. Run diagnostics on the faulty CU. If the diagnostic fails, replace the CC pack that contains the EAI circuitry and restore the CU. Save the diagnostic results, the information from the ERLOG, and the receive only printer (ROP) output. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
3	Re-enable reporting of the EAI hardware errors.
4	No action is needed.

5. ALARMS

Minor alarm. Take action as indicated in the report.

Major alarm. May not be service affecting, but take immediate action as indicated in the report.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1-3	629, 647
4	692

Output Appendix(es):

APP:OMDB-X-REF

REPT:EAI-B

Software Release: 5E13 and later
Message Class: MTCE
Application: 5,3B
Type: Output

WARNING: INAPPROPRIATE USE OF THIS MESSAGE MAY INTERRUPT OR DEGRADE SERVICE. READ PURPOSE CAREFULLY.

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT EAI SANITY TIMERS ARE INHIBITED

[2]   ____________________________________________________________________
      REPT EAI BACKUP ROOT SELECTED ON EAI PAGE
        CURRENTLY RUNNING IN ROOT
        PLEASE REMOVE THIS SELECTION
        UNLESS PREPARING TO BOOT BACKUP ROOT

[3]   ____________________________________________________________________
      REPT EAI MINIMUM CONFIGURATION SELECTED ON EAI PAGE
        CURRENTLY RUNNING IN FULL CONFIGURATION
        PLEASE REMOVE THIS SELECTION
        UNLESS PREPARING TO BOOT MINIMUM CONFIGURATION

[4]   ____________________________________________________________________
      REPT EAI ROOT SELECTED ON EAI PAGE
        CURRENTLY RUNNING IN BACKUP ROOT
        PLEASE REMOVE THIS SELECTION
        UNLESS PREPARING TO BOOT ROOT

[5]   ____________________________________________________________________
      REPT EAI ** WARNING ** a ON CU b
        c
        d
        e

[6]   ____________________________________________________________________
      REPT EAI APPLICATION PARAMETER f IS SET

[7]   ____________________________________________________________________
      REPT EAI OFF-NORMAL STATUS
        g

[8]   ____________________________________________________________________
      REPT EAI ALTERNATE BOOT DISK MISMATCH X'h
        MTTYC 0 AND MTTYC 1 HARDWARE OR FIRMWARE ARE INCONSISTENT

[9]   ____________________________________________________________________
      REPT EAI BOOT DISK SELECTION CHANGED ON EAI PAGE
        MHD=i STATUS=j [X'k]
        MHD=i STATUS=j [X'k]
```

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```
[10]  ____________________________________________________________________
      REPT EAI BOOT DISK SELECTION CHANGED ON EAI PAGE
        MHD=i STATUS=j [X'k]
        MHD=i STATUS=j [X'k]
        DIFFERS FROM CURRENT DUPLEXED BOOT DISK PAIR
        PLEASE REMOVE THIS SELECTION UNLESS PREPARING TO BOOT
```

2. REASON FOR OUTPUT

Format 1 reports that the sanity timers are inhibited.

WARNING: The system's ability to recover from errors is reduced when the sanity timers are inhibited. The sanity timers are not inhibited in normal operation.

Formats 2, 3, and 4 report that root, backup root, or minimum configuration is selected and the system is not currently running in that mode. To avoid inadvertently booting the system in the wrong mode, these selections should only be made just prior to booting the system.

Format 5 is applicable only for the 3B21D machines. This has four different messages. These messages are output as a result of either inhibiting emergency action interface (EAI) hardware error reporting using an input message or inhibiting EAI hardware error interrupt due to excessive errors.

Message Type:	Text:
1	REPT EAI ** WARNING ** EAI ERROR THRESHOLD EXCEEDED ON CU b. ** WARNING ** ATTEMPTED SOFT SWITCH FAILED. ** WARNING ** EAI ERROR REPORTING INHIBITED. ** WARNING ** DIAGNOSE AND REPLACE FAULTY CC BOARD. This indicates that the error threshold was exceeded on the on-line central control (CC) EAI hardware and an attempt to the other CC failed.
2	REPT EAI ** WARNING ** EAI ERROR THRESHOLD EXCEEDED ON CU b. ** WARNING ** SOFT SWITCH COMPLETED. ** WARNING ** EAI ERROR REPORTING INHIBITED. ** WARNING ** DIAGNOSE AND REPLACE FAULTY CC BOARD. This indicates that the error threshold was exceeded on the off-line CC EAI hardware. The machine has switched to the currently-active processor due to the error.
3	REPT EAI ** WARNING ** EAI ERROR INTERRUPT INHIBITED ON CU b. ** WARNING ** USE ALW:EAIINIT COMMAND TO ENABLE THE INTERRUPT. This indicates that EAI error reporting has been inhibited by a software message.
4	REPT EAI ** WARNING ** EAI ERROR REPORTING INHIBITED FOR OVER 24 HOURS ON CU b. ** WARNING ** AUTOMATICALLY ENABLING EAI ERROR REPORTING. This indicates that the EAI error reporting has been inhibited by a software message for over 24 hours. Fault recovery software within the system is automatically enabling this reporting.

Format 6 reports that an application parameter has been entered, but not followed by a manual initialization. To avoid inadvertently performing a manual initialization with an unknown application parameter set, application parameters should only be input just prior to a manual initialization.

Format 7 reports EAI off-normal selections. One or more fields are displayed whenever an off-normal condition is detected. This message can only be displayed when the hardware platform is configured with the recovery from alternate boot disk feature.

Format 8 reports an inconsistency between the MTTYC0 and MTTYC1 hardware or firmware. This message can

only be displayed when the hardware platform is configured with the recovery from alternate boot disk feature.

Formats 9 and 10 report that an alternate boot disk was selected or deselected and the status of the selected disks. Format 10 indicates that the alternate boot disk selection is different from the disks with which the system was booted. Format 9 is generated when an alternate boot disk selsection is changed to be the same as the current duplexed boot disks. This message can only be displayed when the hardware platform is configured with the recovery from alternate boot disk feature.

3. VARIABLE FIELD DEFINITIONS

`a` = A string defining one of three possible error types. Valid value(s):

```
** WARNING ** EAI ERROR THRESHOLD EXCEEDED ON CU b.
** WARNING ** EAI ERROR INTERRUPT INHIBITED ON CU b.
** WARNING ** EAI ERROR REPORTING INHIBITED FOR OVER 24 HOURS ON CU b.
```

`b` = CU member number.

`c` = A string defining one of four possible error types. Valid value(s):

```
** WARNING ** ATTEMPTED SOFT SWITCH FAILED.
** WARNING ** SOFT SWITCH COMPLETED.
** WARNING ** USE ALW:EAIINT COMMAND TO ENABLE THE INTERRUPT.
** WARNING ** AUTOMATICALLY ENABLING EAI ERROR REPORTING.
```

`d` = Blank line or a string defining one of two possible error types. Valid value(s):

```
** WARNING ** EAI ERROR REPORTING INHIBITED.
** WARNING ** DIAGNOSE AND REPLACE FAULTY CC BOARD.
```

`e` = Blank line or the following string. Valid value(s):

```
** WARNING ** DIAGNOSE AND REPLACE FAULTY CC BOARD.
```

`f` = Application parameter that is currently set.

`g` = Off-normal selection displaying one or more types. Valid value(s):

`ALT BOOT DEV` = An alternate boot device has been selected. View the EAI screen to determine the boot device.
`APPL PARAM` = An application parameter has been entered on the EAI.
`BACKUP ROOT SELECTION IS CLR` = The backup root option has been cleared while running in BROOT.
`BACKUP ROOT SELECTION IS SET` = The backup root option has been selected while running in ROOT.
`CU FORCED ONLINE` = Indicates that a CU is forced on-line. View the EAI screen to determine which CU is selected.
`INH CACHE` = The inhibit cache option has been selected.
`INH ERRCHK` = The inhibit error check option has been selected.
`INH HDWCHK` = The inhibit hardware check option has been selected.
`INH SFTCHK` = The inhibit software check option has been selected.
`INHIBIT SANITY TIMER` = The inhibit sanity timer option has been selected.
`MIN CONFIG` = The min config option has been selsected.
`PRI/SEC DISK` = Either the primary or secondary disk has been selected. View the EAI screen to determine which option has been selected.

h = Equippage status of the MTTYC boards provided by the I/O driver to PCPAUD and an audit of the in-core ECD MTTY UCB equippage field. The equippage status word is eight hexadecimal digits of the form aabbccc.

aa = Equippage value for MTTYC 0.

bb = Equippage value for MTTYC 1.

ccc = Bitfield. Valid value(s):

0001 = The recovery from alternate boot disk (ABD) feature is available.

0002 = System is operating with ABD selected.

0004 = One MTTYC does not have ABD; the other MTTYC does have ABD.

i = MHD unit number Refer to the APP:MEM-NUM appendix in the Appendixes section of the Output Messages manual.

j = MHD status. Valid value(s):

BOOTABLE = The MHD can be used as a boot disk.

NBOOTABLE = The MHD is not bootable. Variable 'k' provides additional information.

RESERVED = The MHD is currently reserved by a system level process. This situation can occur when a maintenance action is in progress, for example, when an MHD is being restored.

UNKNOWN = The status of teh MHD could not be obtained. Check the ROP for error output messages that may help resolve the reason for this status occurring.

k Error code when variable 'j' is equal to NBOOTABLE. Refer to the APP:BOOTDISKCHK appendix in the Appendixes section of the Output Messages manual.

4. ACTIONS TO BE TAKEN

For Format 1, remove the inhibit sanity timer selection on the EAI page of the maintenance terminal.

For Formats 2, 3, and 4, remove the root, backup root, or minimum configuration selection on the emergency action interface (EAI) page of the maintenance terminal.

For Format 5, do the following:

Message Type:	Action:
1	Restore the other CU and switch to that CU. Run diagnostics on the faulty CU. If the diagnostic fails, replace the CC pack that contains the EAI circuitry and restore the CU. Save the diagnostic results, the information from the ERLOG, and the receive only printer (ROP) output. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
2	Restore the other CU and switch to that CU. Run diagnostics on the faulty CU. If the diagnostic fails, replace the CC pack that contains the EAI circuitry and restore the CU. Save the diagnostic results, the information from the ERLOG, and the receive only printer (ROP) output. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
3	Re-enable reporting of the EAI hardware errors.
4	No action is needed.

For Format 6, clear the application parameter using poke 43 (clr Appl Param) or poke 14 (CLR EAI).

For Format 7, no action is necessary.

For Format 8, the MTTYC0 and MTTYC1 should be consistent in terms of the type of hardware circuit packs and the flash memory downloaded on the circuit packs. Determine which circuit pack is causing the inconsistency and either replace it with an MTTYC that supports the recovery from alternate boot disk feature; or, if the circuit pack is the same type, execute diagnostics to download the flash memory. If the ECD contains an invalid equippage value, correct the ECD record.

For Formats 9 and 10, take action based on the description of the error. If the description of the error is not self-explanatory, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

Minor alarm. Take action as indicated in the report.

Major alarm. May not be service affecting, but take immediate action as indicated in the report.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	659
2-4	629, 647
5	692
6	703
7	778
8	775, 776
9-10	771, 772

Output Appendix(es):

```
APP:OMDB-X-REF
APP:BOOTDISKCHK
```

REPT:EAN-TDSM

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT EAN=a-b TRBL DCTU SPURIOUS MESSAGE c
  EQUIPMENT ERROR THRESHOLD EXCEEDED RECOVERY ACTION d
  [e f g]
     .
     .
     .
```

2. REASON FOR OUTPUT

To report a spurious trouble message sent by the directly connected test unit (DCTU) indicating an equipment access network (EAN) in the DCTU. The DCTU common board detected a problem internally and sent a message to indicate the nature of the trouble.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DCTU number.

`c` = Event number.

`d` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`e` = External logical circuit name. More than one circuit may be listed when multiple circuits can be blamed for the trouble.

`f` = Current decimal number of recent failures of this type recorded.

`g` = Error count threshold, at which the recovery action will be escalated.

4. ACTION TO BE TAKEN

No action required. Fault recovery automatically requests a conditional restore on the circuit when the error threshold is met. Subsequent DGN EAN and RST EAN messages indicate success or failure of diagnostic when recovery action is `RST AUTO CAMPON` or `RST PREEMPT`.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
DGN:EAN
RST:EAN
```

Output Message(s):

```
DGN:EAN
RST:EAN
```

REPT:EC1STE

Software Release: 5E13 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT EC1STE=a-b-c-d TRBL SP FAILURE EVENT=e
  SP FIFO OVERFLOW FAILURE RECOVERY ACTION f
  g h i
  jjjjkkkk llllmmmm nnnnoooo
```

2. REASON FOR OUTPUT

To respond to a signal processor (SP) error caused by the SP first-in first-out (FIFO) buffer's overflowing due to a showering digital networking unit-synchronous optical network (SONET) (DNU-S) termination equipment (STE) facility.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Digital Networking Unit - SONET (DNU-S) number.

`c` = Data group (DG) number.

`d` = SONET Termination Equipment (STE) facility number.

`e` = Event number.

`f` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = This recovery action applies to all circuits and all errors. A particular circuit or circuits are failing, but the error counts have not reached a threshold for action.

`RMV` = The failing facility was removed from service.

`g` = External logical circuit name.

`h` = Number of recent failures of this type recorded against this circuit, in decimal.

`i` = Error count threshold, above which the recovery action will become stronger, in decimal.

`j` = Time slot number that had the most entries in the FIFO, in hexadecimal.

`k` = Total number of entries in the FIFO for time slot '`j`', in hexadecimal.

`l` = Total number of time slots on the high-runner time slot interchange (TSI) link with entries in the FIFO, in hexadecimal.

`m` = Contents of the current internal fault recovery error counter, in hexadecimal.

`n` = Total number of failures reported on unlinked timeslots, in hexadecimal.

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- = SP number, in hexadecimal.

4. ACTIONS TO BE TAKEN

Monitor the progress of software recovery. Initiate manual actions if the recovery does not proceed as expected.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
ALW:HDW-MCTSI
INH:HDW-MCTSI
RST:EC1STE
RMV:EC1STE
```

REPT:ECD-BTPARM

Software Release: 5E13 and later
Message Class: MAINT
Application: RTR
Type: Output

1. FORMAT

```
[1]    REPT ECD BTPARM RECORD MODIFIED
         FIELD=a INCORE=b {ROOT=c [ROOTDMLY=d]}
         PLEASE RESTORE THIS FIELD UNLESS PREPARING TO BOOT

[2]    REPT ECD BTPARM RECORD RESTORED WITH VALUES AT LAST BOOT
```

2. REASON FOR OUTPUT

Format 1 reports changes to the btparm records in the root ECD and rootdmly ECD.

Format 2 reports that the btparm records in the root ECD and rootdmly ECD were updated to contain the same values as that which existed at the last boot.

3. VARIABLE FIELD DEFINITIONS

`a` = Field name in hte ECD btparm record.

`b` = Value of '`a`' at the last boot is the current INCORE value.

`c` = ROOT ECD value of '`a`'. This field is only displayed if it differs from '`b`'.

`d` = ROOTDMLY ECD value of '`a`'. This field is only displayed if it differs from '`b`'.

4. ACTIONS TO BE TAKEN

For Format 1, take action as indicated int he report.

For Format 2, no action is required.

5. ALARMS

Format 1 generates a minor alarm.

Format 2 does not generate an alarm.

6. REFERENCES

Other Manual(s):

Lucent Technologies 3B20D and 3B21D Computers *UNIX*® RTR Recent Change and Verify Manual

REPT:ECDMAN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT ECDMAN a
```

2. REASON FOR OUTPUT

To report that equipment configuration data manager (ECDMAN) has reached its maximum fault count.

3. VARIABLE FIELD DEFINITIONS

`a` = Fault count.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	170

Output Appendix(es):

APP:OMDB-X-REF

REPT:EMER-DUMP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT EMERGENCY DUMP PARTITION FULL
```

2. REASON FOR OUTPUT

To report that data has been written into the emergency dump partition on disk.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

Use the OP:EMERSTAT input message to learn the status of the data in the emergency dump partition.

Use the COPY:TAPE-EMERDMP input message to copy the data to magnetic tape.

Use the CLR:EMERDMP input message to zero the indicator flag that triggers this output message.

Send the tape and the status printout to a technical assistance center for analysis.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	450

Input Message(s):

```
CLR:EMERDMP

COPY:TAPE-EMERDMP

OP:EMERSTAT
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

REPT:EMERGENCY

Software Release: 5E11 and later
Message Class: SED
Application: 5
Type: Output

1. FORMAT

```
REPT EMERGENCY 911 CALL ERROR
  ORGINATING SM(s):
  a       a       a       a       a       a       a       a
  .
  .
  .
```

2. REASON FOR OUTPUT

To indicate that an E911 call error has been detected and that output at the receive-only printer (ROP) should be checked for additional details.

Above format reports that an E911 call error has been detected and all originating SMs that have detected an E911 call error are listed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

4. ACTIONS TO BE TAKEN

See the ROP. Investigate the cause of the alarm and take corrective action.

5. ALARMS

Critical.

6. REFERENCES

Output Message(s):

`REPT:EMERGENCY`

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REPT:EMR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT EMR a: SLK b c d
```

2. REASON FOR OUTPUT

To indicate the start or end of an emergency restart (EMR) condition on a signaling link (SLK). Emergency restart means a link is not in service and signaling traffic cannot be routed over any mate link or alternate links. This output message may appear alone or as part of a group of messages, one for each link of a link pair or of a link pool. During an EMR, traffic destined for an affected link is lost.

3. VARIABLE FIELD DEFINITIONS

a	= Status. Valid value(s):	
	END	= End of EMR of either type.
	FEPO	= Start of EMR due to far end processor outage.
	START	= Start of EMR not due to an adjacent processor outage.
b	= Group number of SLK starting or ending EMR (0-63).	
c	= Member number (1-15) of SLK affected by start (or end) of EMR.	
d	= Link type (A-E).	

4. ACTION TO BE TAKEN

As long as the EMR condition persists, give priority to the repair of all affected links and link nodes. If any of these links have been manually removed from service, terminate manual testing immediately and restore the links to service.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:ENTER

Software Release: 5E10 and later
Message Class: GENR
Application: 5
Type: Output

1. FORMAT

```
REPT ENTER ARGUMENTS SUMMARY

  DESTINATION                      DESCRIPTION
  ------------------------------------------------
        a                                b
        .                                .
        .                                .
        .                                .
```

2. REASON FOR OUTPUT

To report warnings resulting from the input of the 701 command poke from Master Control Center (MCC) Display Page 124 - GENERIC RETROFIT. The 701 command poke generates the UPD:G-ENTER input message used to load tapes during a software release retrofit, update, or large terminal growth (LTG). Warnings are output when the retrofit MCC display page process, Suprint, detects that either the required number of tapes for the listed destination is insufficient, or that the listed destination is not in the required duplex state.

3. VARIABLE FIELD DEFINITIONS

a = The destination device file (such as, /dev/vtoc) that this warning is output for.

b = Description of problem with destination device file. Valid value(s):

```
MHD PAIR c NOT ACTIVE
MHD PAIR c SIMPLEX
MISSING DATA SEQUENCE
MISSING TAPE SEQUENCE
MISSING TEXT SEQUENCE
```

c = Moving head disk (MHD) pair number.

4. ACTION TO BE TAKEN

Follow the software release retrofit, update, or LTG manual for the transition type being performed.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:G-READHDR
```

```
OP:G-READLOG
STOP:GEN
UPD:G-APPLPROC
UPD:G-BACKOUT
UPD:G-BEGIN
UPD:G-COMMIT
UPD:G-CONTINUE
UPD:G-END
UPD:G-ENTER
UPD:G-PROCEED
UPD:G-RESTORE
UPD:G-SMBKOUT
UPD:G-SMSWITCH
UPD:G-SWITCHBCK
UPD:G-SWITCHFWD
```

Output Message(s):

```
OP:GEN-READHDR
OP:GEN-READLOG
STOP:GEN
UPD:GEN-APPL
UPD:GEN-BACKOUT
UPD:GEN-BEGIN
UPD:GEN-COMMIT
UPD:GEN-CONTINUE
UPD:GEN-END
UPD:GEN-ENTER
UPD:GEN-PROCEED
UPD:GEN-RESTORE
UPD:GEN-SMBKOUT
UPD:GEN-SMSWITCH
UPD:GEN-SWITCHBK
UPD:GEN-SWITCHFW
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-118-25x *Software Release Retrofit*
235-118-34x *Software Release Update*
235-118-44x *Large Terminal Growth*

MCC Display Page(s):

124 (RETROFIT)

REPT:ERROR

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT ERROR #Ka
        b (c d e) f
        g

[2]   ____________________________________________________________
      REPT ERROR #Ua
        b (c d e) f
        g

[3]   ____________________________________________________________
      REPT ERROR NP:h #Na
        g
```

2. REASON FOR OUTPUT

To report a condition, such as a program bug, which can only be resolved by a program change.

Format 1 reports an error from a AM kernel level process.

Format 2 reports an error from a AM user level process.

Format 3 reports an error from a node processor.

3. VARIABLE FIELD DEFINITIONS

`a` = Decimal ERRLOG sequence number.

`b` = Trace subsystem assigned by an initialization macro at the beginning of the process. Subsystem names are defined in file 'ims/head'tr_stcb.h'.

`c` = Process name assigned by an initialization macro at the beginning of the process.

`d` = Source file name.

`e` = Source file line number.

`f` = Source file SCCS version number.

`g` = User message as ASCII text.

`h` = Node processor number.

4. ACTION TO BE TAKEN

Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

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5. ALARMS

Depending on the source of the error, no alarms, a minor alarm, or a major alarm may be sounded.

6. REFERENCES

None.

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REPT:ERROR-RCL

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
REPT ERROR RCL=a-b-c-d ERROR=e RCVY ACTION=f
  g
```

2. REASON FOR OUTPUT

To report the occurrence of an error in a remote switching module (RSM) inter-RSM communication link (RCL) and any re-configurations or recovery actions taken on that RCL. An RCL resides on an inter-RSM communication link digital facilities interface (CDFI) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line and trunk unit (DLTU) number.

`c` = CDFI number.

`d` = RCL number.

`e` = Error type reported. Valid value(s):

`INVALID DATA IN PACKET HEADER` = This error indicates that some of the information in the header used by the level 3 communication process has been corrupted. If the problem persists the user should consider removing the associated CDFI and diagnosing it.

`LOW LEVEL LINK ASSURANCE FAILURE` = A periodic check called "low level link assurance" sends packets across to the other RSM where it is immediately acknowledged. This acknowledgment did not occur. This can be due to problems in this side's CDFI or on the other side's CDFI.

`NOTHING ARRIVING OVER THIS RCL` = This indicates that the level 3 process has identified an RCL which is not receiving packets even though other RCLs on that set of RCLs are receiving packets. If the problem persists the user should consider removing the associated CDFI and diagnosing it.

`PACKET OUT OF SEQUENCE ON THIS RCL` = This error indicates that some packets between two RSMs in a multi-module remote switching system (MMRSM) were lost. If the problem persists the user should consider removing the associated CDFI and diagnosing it.

`RECEIVED PACKET GREATER THAN 22 BYTES` = This error indicates that the level 3 communication process which handles the RSM to RSM communication while in standalone has received a packet which is too big. If this problem persists the user should consider removing the associated CDFI and diagnosing it.

`RECEIVED PACKET LESS THAN 4 BYTES` = This error indicates that the level 3 communication process which handles the RSM to RSM communication while in standalone has received a packet which is too small. If this problem persists the user should consider removing the associated CDFI and diagnosing it.

`RESET RECEIVED` = This indicates that the far end has requested a reset of the logical channel.

`X.25 MESSAGE FLAG NOT CLEARING ON CDFI` = This indicates that the level 3 process has

identified an RCL that is overflowing. This could be because the far end is not accepting messages. If this persists the user should consider removing the associated CDFI and diagnosing it.

`f` = Recovery action taken on the error. Valid value(s):

`CDFI REMOVED` = This indicates that an automatic request has been made to remove the CDFI and diagnose it. This will only be requested if the RSM has communication with the host complex.

`CFAC REMOVED` = This indicates that an automatic request has been made to remove the communication facility (CFAC) from service. An attempt will be made to restore it to service automatically at a later time.

`RCL HARDWARE INITIALIZED` = This action will result in packets timing out and their messages being re-transmitted.

`RCL REMOVED` = This indicates that an automatic request has been made to remove the RCL from service. An attempt will be made to restore it to service automatically at a later time.

`REPORT ONLY` = This action is self explanatory.

`g` = A hexadecimal dump of post mortem information, typically the X.25 level 3 packet header.

4. ACTION TO BE TAKEN

Monitor the status of the RCL and if necessary remove and diagnose the associated CDFI.

5. ALARMS

If a recovery action is taken on the RCL due to the error threshold being reached, a minor alarm will be associated with this message.

6. REFERENCES

Input Message(s):

```
DGN:CDFI
RMV:CDFI
RST:CDFI
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-600-500 *Asserts*

REPT:ERRPORT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT ERRPORT OPEN FAILURE ERRNO a

[2]   ____________________________________________________________
      REPT ERRPORT READ FAILURE ERRNO a

[3]   ____________________________________________________________
      REPT ERRPORT b MESSAGES LOST

[4]   ____________________________________________________________
      REPT ERRPORT PREPHASE MESSAGE
```

2. REASON FOR OUTPUT

Format 1 is to report that the administrative module (AM) error logging process (errport) is not able to open its special file /dev/errport.

Format 2 is to report that the AM error logging process (errport) has encountered an error in its special file /dev/errport.

Format 3 is to report that the AM error logging process (errport) has received output messages after its internal queue was full. These messages have been lost.

Format 4 is to report that a message existed in the low core first-in, first-out (FIFO) queue before AM phased.

3. VARIABLE FIELD DEFINITIONS

`a` = File access error code. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

`b` = Number of messages lost.

4. ACTION TO BE TAKEN

For Formats 1 and 2, check the status of the file and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. (/dev/errport should be present; it should be a FIFO special file and have read and write permissions.)

For Formats 3 and 4, no action is necessary.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

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OMDB Key(s):

Format(s):	Key(s):
1-3	117

Output Appendix(es):

APP:OMDB-X-REF
APP:SYSERR

REPT:ERSLOT

Software Release: 5E10 and later
Message Class: EIH
Application: 5,3B
Type: Output

1. FORMAT

[1]
```
REPT ERSLOT
  BAD OST X'r1
  FAULTY UNIT:    CU b
  TIME OF ERROR: aa/aa/aa aa:aa:aa
       SAVE STATE
  PA: cccccccc      PSW: ddddddd      PSBR: eeeeeeee      SSBR: ffffffff
    GENERAL REGISTERS
  0: gggggggg       1: gggggggg       2: gggggggg         3: gggggggg
  4: gggggggg       5: gggggggg       6: gggggggg         7: gggggggg
  8: gggggggg       9: gggggggg       A: gggggggg         B: gggggggg
  C: gggggggg       D: gggggggg       E: gggggggg         F: gggggggg
  UTILITY ID: h1h1h1h1h1h1h1h1      PROCESS NUMBER: iiiiiiii
  OST CODE: jjjjjjjj
  OST ARGUMENTS:
  ARG1: kkkkkkkk    ARG2: kkkkkkkk    ARG3: kkkkkkkk      ARG4: kkkkkkkk
  ARG5: kkkkkkkk    ARG6: kkkkkkkk    ARG7: kkkkkkkk
  REAL TIME CLOCK: zzzzzzzz
```

[2]
```
REPT ERSLOT
  IO CHANNEL ERROR X'r1
  ONLINE CU: b
  FAULTY UNIT: l m
  TIME OF ERROR: aa/aa/aa aa:aa:aa
  CHANNEL ADDRESS:  nnnnnnnn    CHANNEL STATUS REGISTER:  oooooooo
  REAL TIME CLOCK: zzzzzzzz
```

[3]
```
REPT ERSLOT
  j1 X'r1
  ONLINE CU: b
  FAULTY UNIT: l m
  TIME OF ERROR: aa/aa/aa aa:aa:aa
  DMA ADDRESS:  pppppppp     DMA STATUS REGISTER:  qqqqqqqq
  DMA RAM:  rrrrrrrr    ssssssss    tttttttt    uuuuuuuu
  DMA STORE ADDRESS REGISTER: s1s1s1s1s1s1s1s1
  DMA STORE DATA REGISTER:  vvvvvvvv
  DMA INCREMENTOR:  wwwwwwww DMA DIO DATA REGISTER: t1t1t1t1t1t1t1t1t1
  DMA BUFFER REGISTER:  xxxxxxxx  DMA MASK REGISTER: u1u1u1u1u1u1u1u1u1
  CHANNEL DATA REGISTER:   yyyyyyyy
  REAL TIME CLOCK: zzzzzzzz
```

[4]
```
REPT ERSLOT
```

```
  k1 X'r1
  ONLINE CU: b
  FAULTY UNIT: l m
  TIME OF ERROR: aa/aa/aa aa:aa:aa
  DMA ADDRESS:  pppppppp     DMA STATUS REGISTER:  qqqqqqqq
  l1
  CHANNEL ADDRESS: nnnnnnnn   CHANNEL STATUS REGISTER: oooooooo
  DMA RAM:  rrrrrrrr    ssssssss    tttttttt    uuuuuuuu
  DMA STORE ADDRESS REGISTER: s1s1s1s1s1s1s1s1
  DMA STORE DATA REGISTER:  vvvvvvvv
  DMA INCREMENTOR:  wwwwwwww DMA DIO DATA REGISTER: t1t1t1t1t1t1t1t1t1
  DMA BUFFER REGISTER:  xxxxxxxx  DMA MASK REGISTER: u1u1u1u1u1u1u1u1
  REAL TIME CLOCK: zzzzzzzz>

[5]  ____________________________________________________________________
     REPT ERSLOT
  o1 X'r1
  ONLINE CU: b
  FAULTY UNIT: l m
  TIME OF ERROR: aa/aa/aa aa:aa:aa
        SAVE STATE
  PA: cccccccc      PSW: dddddddd      PSBR: eeeeeeee      SSBR: ffffffff
    GENERAL REGISTERS
  0: gggggggg       1: gggggggg        2: gggggggg         3: gggggggg
  4: gggggggg       5: gggggggg        6: gggggggg         7: gggggggg
  8: gggggggg       9: gggggggg        A: gggggggg         B: gggggggg
  C: gggggggg       D: gggggggg        E: gggggggg         F: gggggggg
  UTILITY ID: h1h1h1h1h1h1h1h1     PROCESS NUMBER: iiiiiiii
  CHANNEL DATA REGISTER:   yyyyyyyy
  REAL TIME CLOCK: zzzzzzzz

[6]  ____________________________________________________________________
     REPT ERSLOT
  p1 X'r1
  ONLINE CU: b
  FAULTY UNIT: l m
  TIME OF ERROR: aa/aa/aa aa:aa:aa
  HARDWARE STATUS REGISTER:   a1a1a1a1a1a1a1a1
  REAL TIME CLOCK: zzzzzzzz

[7]  ____________________________________________________________________
     REPT ERSLOT
  q1 X'r1
  FAULTY UNIT:    CU b
  TIME OF ERROR: aa/aa/aa aa:aa:aa
       SAVE STATE
  PA: cccccccc      PSW: dddddddd      PSBR: eeeeeeee      SSBR: ffffffff
    GENERAL REGISTERS
  0: gggggggg       1: gggggggg        2: gggggggg         3: gggggggg
  4: gggggggg       5: gggggggg        6: gggggggg         7: gggggggg
  8: gggggggg       9: gggggggg        A: gggggggg         B: gggggggg
  C: gggggggg       D: gggggggg        E: gggggggg         F: gggggggg
  UTILITY ID: h1h1h1h1h1h1h1h1      PROCESS NUMBER: iiiiiiii
```

```
  REAL TIME CLOCK: zzzzzzzz

[8]  ____________________________________________________________________
     REPT ERSLOT
       INVALID MAINTENANCE CHANNEL ORDER X'r1
       ONLINE CU: b
       FAULTY UNIT: l m
       TIME OF ERROR: aa/aa/aa aa:aa:aa
             SAVE STATE
       PA: cccccccc      PSW: ddddddd      PSBR: eeeeeeee      SSBR: ffffffff
          GENERAL REGISTERS
       0: gggggggg       1: gggggggg       2: gggggggg         3: gggggggg
       4: gggggggg       5: gggggggg       6: gggggggg         7: gggggggg
       8: gggggggg       9: gggggggg       A: gggggggg         B: gggggggg
       C: gggggggg       D: gggggggg       E: gggggggg         F: gggggggg
       UTILITY ID: h1h1h1h1h1h1h1h1      PROCESS NUMBER: iiiiiiii
       ONLINE MCH MASTER STATUS:   b1b1b1b1b1b1b1b1
       ONLINE MCH SLAVE STATUS:   v1v1v1v1v1v1v1v1
       ONLINE MCH BUFFER:   w1w1w1w1w1w1w1w1
       ONLINE MCH SLAVE COMMAND:   x1x1x1x1x1x1x1x1
       OFFLINE MCH MASTER STATUS:   y1y1y1y1y1y1y1y1
       OFFLINE MCH SLAVE STATUS:   z1z1z1z1z1z1z1z1
       OFFLINE MCH BUFFER:   a2a2a2a2a2a2a2a2
       REAL TIME CLOCK: zzzzzzzz

[9]  ____________________________________________________________________
     REPT ERSLOT
       OTHER STORE TIME-OUT ERROR   X'r1
       ONLINE CU: b
       FAULTY UNIT: c1 d1 l m
       TIME OF ERROR: aa/aa/aa aa:aa:aa
       REAL TIME CLOCK: zzzzzzzz

[10] ____________________________________________________________________
     REPT ERSLOT
       INVALID ERROR INTERRUPT TYPE IS: e1  X'r1
       ER: f1f1f1f1f1f1f1f1     UER: g1g1g1g1g1g1g1g1     UER1: hhhhhhhh
       REAL TIME CLOCK: zzzzzzzz

[11] ____________________________________________________________________
     REPT ERSLOT
       INVALID ERROR NUMBER: i1 SEQ NO: X'r1

[12] ____________________________________________________________________
     REPT ERSLOT
       MY STORE C DURING DMA X'r1
       ONLINE CU: b
       FAULTY UNIT: c1 d1 l m
       TIME OF ERROR: aa/aa/aa aa:aa:aa
       DMA ADDRESS: pppppppp      DMA STATUS REGISTER: qqqqqqqq
       MAIN STORE CONTROLLER 0
       TRAPPED ADDRESS REGISTER: b2b2b2b2b2b2b2b2
```

ERROR REGISTER 1: $c^2c^2c^2c^2c^2c^2c^2c^2$
ERROR REGISTER 2: $d^2d^2d^2d^2d^2d^2d^2d^2$
MAIN STORE CONTROLLER 1 (MAY NOT BE CONFIGURED)
TRAPPED ADDRESS REGISTER: $e^1e^1e^1e^1e^1e^1e^1e^1$
ERROR REGISTER 1: $f^2f^2f^2f^2f^2f^2f^2f^2$
ERROR REGISTER 2: $g^2g^2g^2g^2g^2g^2g^2g^2$
ERROR DATA: $h^2h^2h^2h^2h^2h^2h^2h^2$
PHYSICAL MEMORY ADDRESS: $i^2i^2i^2i^2i^2i^2i^2i^2$
x^2
REAL TIME CLOCK: zzzzzzzz

[13] _____

REPT ERSLOT
MY STORE C DURING DMA X'r^1
ONLINE CU: b
FAULTY UNIT: c^1 d^1 l m
TIME OF ERROR: aa/aa/aa aa:aa:aa
DMA ADDRESS: pppppppp DMA STATUS REGISTER: qqqqqqqq
MCERT ERROR ADDRESS REGISTER: $j^2j^2j^2j^2j^2j^2j^2j^2$
MCERT ERROR REGISTER: $k^2k^2k^2k^2k^2k^2k^2k^2$....
....MCERT STATUS REGISTER: $l^2l^2l^2l^2l^2l^2l^2l^2$
MCERT COMMAND REGISTER: $m^2m^2m^2m^2m^2m^2m^2m^2$
MCERT STROBE SHAPE REGISTER: $n^2n^2n^2n^2n^2n^2n^2n^2$
MCERT MAIN MEMORY REGISTER: $o^2o^2o^2o^2o^2o^2o^2o^2$
DP ERROR DATA REGISTER: $p^2p^2p^2p^2p^2p^2p^2p^2$
DP STATUS REGISTER: $q^2q^2q^2q^2q^2q^2q^2q^2$....
....DP COMMAND REGISTER: $r^2r^2r^2r^2r^2r^2r^2r^2$
ERROR DATA: $h^2h^2h^2i^2h^2h^2h^2h^2$
PHYSICAL MEMORY ADDRESS: $i^2i^2i^2i^2i^2i^2i^2i^2$
BANK CORRESPONDING TO THE PHYSICAL ADDRESS: s^2s^2
REAL TIME CLOCK: zzzzzzzz

[14] _____

REPT ERSLOT
OTHER STORE HARDWARE ERROR X'r^1
ONLINE CU: b
FAULTY UNIT: c^1 d^1 l m
TIME OF ERROR: aa/aa/aa aa:aa:aa
MAIN STORE CONTROLLER 0
TRAPPED ADDRESS REGISTER: $b^2b^2b^2b^2b^2b^2b^2b^2$
ERROR REGISTER 1: $c^2c^2c^2c^2c^2c^2c^2c^2$
ERROR REGISTER 2: $d^2d^2d^2d^2d^2d^2d^2d^2$
MAIN STORE CONTROLLER 1 (MAY NOT BE CONFIGURED)
TRAPPED ADDRESS REGISTER: $e^2e^2e^2e^2e^2e^2e^2e^2$
ERROR REGISTER 1: $f^2f^2f^2f^2f^2f^2f^2f^2$
ERROR REGISTER 2: $g^2g^2g^2g^2g^2g^2g^2g^2$
REAL TIME CLOCK: zzzzzzzz

[15] _____

REPT ERSLOT

OTHER STORE HARDWARE ERROR X'r^1
ONLINE CU: b
FAULTY UNIT: c^1 d^1 l m
TIME OF ERROR: aa/aa/aa aa:aa:aa
MAIN STORE CONTROLLER 0
MCERT ERROR ADDRESS REGISTER: $j^2j^2j^2j^2j^2j^2j^2j^2$
MCERT ERROR REGISTER: $k^2k^2k^2k^2k^2k^2k^2k^2$....
....MCERT STATUS REGISTER: $l^2l^2l^2l^2l^2l^2l^2l^2$
MCERT COMMAND REGISTER: $m^2m^2m^2m^2m^2m^2m^2m^2$
MCERT STROBE SHAPE REGISTER: $n^2n^2n^2n^2n^2n^2n^2n^2$
MCERT MAIN MEMORY REGISTER: $o^2o^2o^2o^2o^2o^2o^2o^2$
DP ERROR DATA REGISTER: $p^2p^2p^2p^2p^2p^2p^2p^2$
DP STATUS REGISTER: $q^2q^2q^2q^2q^2q^2q^2q^2$....
....DP COMMAND REGISTER: $r^2r^2r^2r^2r^2r^2r^2r^2$
REAL TIME CLOCK: zzzzzzzz

[16] _____

REPT ERSLOT
y^2 X'r^1
ONLINE CU: b
FAULTY UNIT: c^1 d^1 l m
TIME OF ERROR: aa/aa/aa aa:aa:aa
MAIN STORE CONTROLLER 0
TRAPPED ADDRESS REGISTER: $b^2b^2b^2b^2b^2b^2b^2b^2$
ERROR REGISTER 1: $c^2c^2c^2c^2c^2c^2c^2c^2$
ERROR REGISTER 2: $d^2d^2d^2d^2d^2d^2d^2d^2$
MAIN STORE CONTROLLER 1 (MAY NOT BE CONFIGURED)
TRAPPED ADDRESS REGISTER: $e^2e^2e^2e^2e^2e^2e^2e^2$
ERROR REGISTER 1: $f^2f^2f^2f^2f^2f^2g^2f^2$
ERROR REGISTER 2: $g^2g^2g^2g^2g^2g^2g^2g^2$
ERROR DATA: $h^2h^2h^2h^2h^2h^2h^2h^2$
PHYSICAL MEMORY ADDRESS: $i^2i^2i^2i^2i^2i^2i^2i^2$
REAL TIME CLOCK: zzzzzzzz

[17] _____

REPT ERSLOT
y^2 X'r^1
ONLINE CU: b
FAULTY UNIT: c^1 d^1 l m
TIME OF ERROR: aa/aa/aa aa:aa:aa
MAIN STORE CONTROLLER 0
MCERT ERROR ADDRESS REGISTER: $j^2j^2j^2j^2j^2j^2j^2j^2$
MCERT ERROR REGISTER: $k^2k^2k^2k^2k^2k^2k^2k^2$....
....MCERT STATUS REGISTER: $l^2l^2l^2l^2l^2l^2l^2l^2$
MCERT COMMAND REGISTER: $m^2m^2m^2m^2m^2m^2m^2m^2$
MCERT STROBE SHAPE REGISTER: $n^2n^2n^2n^2n^2n^2n^2n^2$
MCERT MAIN MEMORY REGISTER: $o^2o^2o^2o^2o^2o^2o^2o^2$
DP ERROR DATA REGISTER: $p^2p^2p^2p^2p^2p^2p^2p^2$
DP STATUS REGISTER: $q^2q^2q^2q^2q^2q^2q^2q^2$....
....DP COMMAND REGISTER: $r^2r^2r^2r^2r^2r^2r^2r^2$

```
        ERROR DATA:  h2h2h2h2h2h2h2h2h2
        PHYSICAL MEMORY ADDRESS: i2i2i2i2i2i2i2i2i2
        BANK CORRESPONDING TO THE PHYSICAL ADDRESS: s2s2
        REAL TIME CLOCK: zzzzzzzz

[18]  ____________________________________________________________
      REPT ERSLOT
        EAI INTERRUPT: X'r1
        ONLINE CU: b
        FAULTY UNIT: c1 d1 l m
        TIME OF ERROR: aa/aa/aa aa:aa:aa
        EAI ERROR REGISTER: t2t2t2t2t2t2t2t2t2
        REAL TIME CLOCK: zzzzzzzz
```

2. REASON FOR OUTPUT

To report error interrupts handled by the error interrupt handler (EIH) that are not associated with the main memory. Among the errors handled are input/output (I/O) errors, direct memory access (DMA) errors, other control unit (CU) hardware errors, and software errors.

Format 1 indicates that the kernel determined that a process attempted an operating system trap (OST) with a bad argument.

Format 2 indicates that a faulty unit encountered a fatal error condition. The channel status and channel address are provided.

Format 3 has six error types (variable 'j^1').

Format 4 has six error types (variable 'k^1').

Format 5 has eleven error types (variable 'o^1').

Format 6 has two error types (variable 'p^1').

Format 7 has three error types (variable 'q^1').

Format 8 indicates that the maintenance channel is faulty, or a maintenance channel order has been sent to a processor that is not disabled or marked off-line.

Format 9 indicates the off-line CU memory controller has not responded to a memory access.

Format 10 indicates EIH was dispatched to handle an error, but no error bit in the error registers was set.

Format 11 indicates an error type that EIH does not recognize occurred.

Formats 12 and 13 indicate that a non-correctable parity error has occurred during a direct memory access (DMA) read of the memory location on the currently running CU.

Formats 14 and 15 indicate that an error has occurred because the memory controller of the mate processor had a store error A condition. This error occurs in the off-line CU but is detected by the on-line CU.

Formats 16 and 17 have four error types (variable 'y^2').

Format 18 indicates that an error has occurred in the common controller (CC) emergency action interface (EAI) hardware.

3. VARIABLE FIELD DEFINITIONS

a = Date and time, in the form month/day/year hour:minute:second.

b = CU number.

c = The program address (in hexadecimal) at the time of error interrupt. For software-requested initializations, this is the address of the PHASE OST, not the address where the problem was detected.

d = The processor status word (in hexadecimal). Among the information it contains are the execution level and the processor mode: the kernel mode, kernel process, supervisor process, or user process. Refer to the APP:REGISTER appendix, PROCESSOR STATUS WORD (PSW) REGISTER Exhibit, in the Appendixes section of the Output Messages manual.

e = The contents of the primary segment base register (in hexadecimal).

f = The contents of the secondary segment base register (in hexadecimal).

g = The contents of the 16 general-purpose registers (in hexadecimal). Valid value(s):

R9 = Argument pointer.
RA = Frame pointer.
RB = Stack pointer.

h = The contents of the UER1 (in hexadecimal). Refer to the APP:REGISTER appendix, MICROINTERRUPT ERROR REGISTER 1 (UER1) (NOTE) Exhibit, in the Appendixes section of the Output Messages manual.

i = Process number (in hexadecimal).

j = Operating system trap (OST) code (in hexadecimal).

k = OST arguments (in hexadecimal).

l = Unit name.

m = Member number.

n = The input/output address of the channel that caused the problem (in hexadecimal).

o = The contents of the dual serial channel (DSCH) channel status register (in hexadecimal). Refer to the APP:REGISTER appendix, DUAL SERIAL CHANNEL (DSCH) STATUS REGISTER Exhibit, in the Appendixes section of the Output Messages manual.

p = The input/output address of the DMAC that encountered the fault (in hexadecimal).

q = The contents of the DMA status register (in hexadecimal). Refer to the APP:REGISTER appendix, DIRECT MEMORY ACCESS CONTROLLER (DMAC) STATUS REGISTER Exhibits, in the Appendixes section of the Output Messages manual.

r = First word entry in the DMA RAM for the device that failed (in hexadecimal). 0x12345678, when invalid.

s = Second word entry in the DMA RAM for the device that failed (in hexadecimal). 0x12345678,

when invalid.

`t` = Third word entry in the DMA RAM for the device that failed (in hexadecimal). 0x12345678, when invalid.

`u` = Fourth word entry in the DMA RAM for the device that failed (in hexadecimal). 0x12345678, when invalid.

`v` = Internal DMAC register contents (in hexadecimal). This data represents the last data word either written or read from main store.

`w` = Internal DMAC register contents (in hexadecimal). This data represents the value of the DMA counter, which is a counter used by the DMAC to increment the physical address, map address and the transfer count during the store operation.

`x` = Internal DMAC register contents (in hexadecimal). This register is used as a scratch register by microcode during the virtual to physical translation in a DMA access.

`y` = Contents of the channel data register (CDR), also known as the CCIO bus data register (in hexadecimal).

`z` = Value of the real time clock (RTC), in milliseconds and hexadecimal, at the time of the error interrupt.

`a`[1] = Contents of the hardware status register (in hexadecimal).

`b`[1] = On-line maintenance channel master status (in hexadecimal).

`c`[1] = Community name.

`d`[1] = Community number.

`e`[1] = The invalid error interrupt type.

`f`[1] = The contents of the error register (ER) (in hexadecimal). Refer to the APP:REGISTER appendix, ERROR REGISTER (ER) (NOTE) Exhibit, in the Appendixes section of the Output Messages manual.

`g`[1] = The contents of the microinterrupt error register (UER) (in hexadecimal). Refer to the APP:REGISTER appendix, MICROINTERRUPT ERROR REGISTER (UER) (NOTE) Exhibit, in the Appendixes section of the Output Messages manual.

`h`[1] = Process utility ID (in hexadecimal). Refer to the Postmortem Dump Process/Problem Identification Exhibit in the Corrective Maintenance manual.

`i`[1] = The invalid error number (in decimal).

`j`[1] = A string defining possible error types. Valid value(s):

`BAD PARITY ON DMA READ` = The DMAC detected bad parity on its internal bus. This can be caused by a DMAC failure or a request from a device that has not had its DMAC random access memory (RAM) block initialized.

`DMA RAM PARITY FAILURE` = A parity error occurred on the DMAC internal RAM.

`DMA - ROM PARITY FAILURE` = A parity error was detected in the DMAC ROM.

`CCIO - DATA PARITY FAILURE` = A message received by the DMAC on a processor I/O (PIO) operation had bad parity.

MY STORE A DURING DMA = The DMA controller (DMAC) encountered a fatal main memory problem during DMA transfer. Refer to the Corrective Maintenance manual for a description of error bit 6.

MY STORE B DURING DMA = A process attempted to access a location in memory that is not physically equipped. Refer to the Corrective Maintenance manual for a description of error bit 23.

k^1 = A string defining possible error types. Valid value(s):

BAD PARITY ON DIO BUS = The DMAC received bad parity from the named CHANNEL ADDRESS device on data destined for the main memory during a DMA transfer.

DIO - ACKNOWLEDGE FAILURE = Either more than one or no channels responded to the DMAC.

DIO - READY FAILURE = The named channel did not return a READY signal to the DMAC.

DMA - ADDRESS ERROR = During the virtual to physical address translation, the DMAC found that the requested I/O access to physical memory was not permitted, or, during the data transfer, the data would have been written beyond the end of a segment.

DMA - ASW FAILURE = The named channel did not return all-seems-well (ASW) to the DMAC.

DMA - CHANNEL REQUEST ERROR = A device made a request with an invalid DMA RAM entry.

l^1 = Valid value(s):

For:	'l^1' =
Model 1	DMA CHANNEL STATUS REGISTER: m^1 m^1 m^1 m^1 m^1 m^1 m^1 m^1
Model 2	CHANNEL STATUS REGISTER: n^1 n^1 n^1 n^1 n^1 n^1 n^1 n^1

m^1 = Status of the channel under the DMAC that encountered the fault (in hexadecimal). Refer to the APP:REGISTER appendix, DIRECT MEMORY ACCESS CHANNEL (DMCH) STATUS REGISTER Exhibit, in the Appendixes section of the Output Messages manual.

n^1 = The contents of the faulted channels data register (in hexadecimal).

o^1 = A string defining possible error types. Valid value(s):

BAD ALIGNMENT ON MEMORY REFERENCE = This indicates a software fault - the instruction executed with the wrong address (for example, a full-word instruction executed with a half-word address).

CCIO - COMMAND FAILURE = A second programmed I/O order was sent to the DMAC before the first one was completed.

ILLEGAL INSTRUCTION = The data in the instruction buffer did not correspond to a valid instruction.

ILLEGAL OPERAND = One of the operands specified in an instruction is invalid for the opcode.

ILLEGAL STACK SWITCH = The program attempted to switch to a private stack while running on a private stack, or attempted to switch to the kernel stack while it was already running on the kernel stack.

OUT OF RANGE MEMORY REFERENCE = A program tried to access unequipped memory.

OUT OF RANGE MEMORY REFERENCE (OTHER STORE) = The off-line main memory considered the address to be out of range while the on-line memory did not. This usually indicates a problem with the off-line memory.

PARITY DIVERT ERROR = The named unit returned a word with bad parity.

PRIVILEGED INSTRUCTION VIOLATION = The program tried to execute one of the special instructions without a corresponding privilege bit set in the processor status word (PSW).

PROTECTION VIOLATION = A program tried to execute from a segment that did not have execute permission, or tried to write into a segment that did not have write permission.

`VIRTUAL ADDRESS OUT OF RANGE` = Microcode has determined that a virtual address is not mappable in a process's address space.

p^1 = A string defining possible error types. Valid value(s):

`3/6 MAIN CHANNEL ADDRESS SEQUENCING ERROR` = Either an illegal 3-out-of-6 (3/6) code on the central control input/output (CCIO) bus, or more than one I/O pulse point was active in the message to the channel. Refer to the Corrective Maintenance manual for a description of error bit 18.

`3/6 MAIN CHANNEL IO RESPONSE ERROR` = More than one device responded to an input/output address. Refer to the Corrective Maintenance manual for a description of error bit 17.

q^1 = A string defining possible error types. Valid value(s):

`PINV - PAGE INVALID` = A process attempted to access a page that is not in its page table.

`SIND - SEGMENT INDEX TOO LARGE` = Microcode detected a segment index too large for the segment being accessed.

`SINV - SEGMENT INVALID` = A process attempted to access a segment that is not in its segment table.

r^1 = The sequence number (in hexadecimal) at the time of the report.

s^1 = Internal DMAC register contents (in hexadecimal). This register contains the last main store memory accessed by DMA for either a read or write.

t^1 = Internal DMAC register contents (in hexadecimal). This register contains the data being passed between the DMAC and the channels.

u^1 = Internal DMAC register contents (in hexadecimal). This register contains the current channel mask mask set-up.

v^1 = Valid value(s):

For:	'v^1' =
3B21D	One-line maintenance channel slave status (in hexadecimal).
3B20D	This field is meaningless. It is set to 0xffffffff.

w^1 = On-line maintenance channel buffer (in hexadecimal).

x^1 = Valid value(s):

For:	'x^1' =
3B21D	One-line maintenance channel slave status (in hexadecimal).
3B20D	This field is meaningless. It is set to 0xffffffff.

y^1 = Valid value(s):

For:	'y^1' =
3B21D	One-line maintenance channel slave status (in hexadecimal).
3B20D	This field is meaningless. It is set to 0xffffffff.

z^1 = Off-line maintenance channel slave status (in hexadecimal).

a^2 = Off-line maintenance channel buffer (in hexadecimal).

b^2 = If bit 27 of the main store controller 0 trapped address register (TAR0) is set, TAR0 contains the address where the fault occurred (in hexadecimal).

c^2 = The contents of the main store controller 0 error register 1 (ER01) (in hexadecimal). Refer to the APP:REGISTER appendix in the Appendixes section of the Output Messages manual.

d^2 = The contents of the main store controller 0 error register 2 (ER02) (in hexadecimal). Refer to the APP:REGISTER appendix in the Appendixes section of the Output Messages manual.

e^2 = The contents of the main store controller 1 trapped address register (TAR1) (in hexadecimal).

f^2 = The contents of the main store controller 1 error register 1 (ER11) (in hexadecimal). Refer to the APP:REGISTER appendix in the Appendixes section of the Output Messages manual.

g^2 = The contents of the main store controller 1 error register 2 (ER12) (in hexadecimal). Refer to the APP:REGISTER appendix in the Appendixes section of the Output Messages manual.

h^2 = Error data (in hexadecimal).

i^2 = Physical memory address (in hexadecimal).

j^2 = The contents of the memory controller (MCERT) error address register. This is the address where the error occurred.

k^2 = The contents of the MCERT error register. This register has all the relevant information that caused an error B.

l^2 = The contents of the MCERT status register. This indicates the banks that are present, the size of each bank, and the result of the march test.

m^2 = The contents of the MCERT message register.

n^2 = The contents of the MCERT strobe shape register. This register encodes the timing requirements for various operations in the MCERT circuit.

o^2 = The contents of the MCERT main memory register. This register has all the relevant error information.

p^2 = The contents of the data path MCERT error data register. This register contains the data when the error occurred.

q^2 = The contents of the data path MCERT status register. This register contains information that caused the error A, C, or D.

r^2 = The contents of the MCERT data path message register. This register contains application specific information.

s^2 = The bank number corresponding to the physical memory address (in hexadecimal). A value of 0xFF is invalid. This indicates an error in accessing the MCERT.

t^2 = Contents of the EAI error register. This indicates the actual error on the EAI hardware.

x^2 = Valid value(s):

For:	'x^2' =
Model 1	CHANNEL STATUS REGISTER: n^1 n^1 n^1 n^1 n^1 n^1 n^1 n^1

Model 2	A blank line.

y^2 = Error type. Valid value(s):

`MEMORY PARITY FAILURE` = Indicates a correctable memory failure in the on-line processor (my store D).

`NONCORRECTABLE PARITY ERROR ON MEMORY REFERENCE` = Indicates noncorrectable memory parity failure in on-line control unit (CU).

`OTHER STORE READ PARITY E`RROR = Indicates a noncorrectable memory error (other store C) in the mate processor. This type of error can only occur if the mate processor is in the standby state.

`OTHER STORE REFRESH PARITY ER`ROR = Indicates a correctable parity error (other store D) in the mate processor. This type of error can only occur if the mate processor is in the standby state.

4. ACTION TO BE TAKEN

For Format 1, save the receive-only printer (ROP) output. Note the utility ID (UID) of the process that was reported, and inform the next level of support. This is a software problem and requires no diagnostic or board replacements.

For Format 2, examine the DSCH channel status register layout to determine the error type, and run diagnostics on the unit.

For Format 3, for all six error types, run diagnostics on the indicated unit.

For Format 4, for all six error types, run diagnostics on the indicated unit.

For Format 5, run diagnostics on the indicated unit for error types:

```
CCIO - COMMAND FAILURE
PARITY DIVERT ERROR
```

Forward the software log entry information from ERRLOG to the next level of support for error types:

```
BAD ALIGNMENT ON MEMORY REFERENCE
ILLEGAL INSTRUCTION
ILLEGAL OPERAND
ILLEGAL STACK SWITCH
OUT OF RANGE MEMORY REFERENCE
PRIVILEGED INSTRUCTION VIOLATION
PROTECTION VIOLATION
```

For error type, '`OUT OF RANGE MEMORY REFERENCE (OTHER STORE)`,' check the fuses in the off-line memory and replace as needed. Run diagnostics on the off-line memory

For error type, '`VIRTUAL ADDRESS OUT OF RANGE`,' save the information from ERRLOG output. Note the UID of the process that was reported, and inform the next level of support. This is a software problem and requires no diagnostic or board replacements.

For Format 6, run diagnostics on the processor encountering the fault.

For Format 7, save the information from /etc/log/ERRLOG output. Note the UID of the process that was reported, and inform the next level of support. This is a software problem and requires no diagnostic or board replacements.

For Format 8, if the error occurs more than once in 24 hours, run diagnostics on the off-line processor. If no problem is found, switch processors and run diagnostics on the off-line processor.

For Format 9, check the update cables on both processors and run diagnostics on the off-line processor.

For Format 10, run diagnostics on the CU in which the error occurred and forward the information from ERLOG and ROP output to the next level of support.

For Format 11, if possible, switch the processors so that the faulty CU can be diagnosed. Forward the diagnostic results and the information from ERRLOG to the next level of support.

For Formats 12 and 13, if the processor switched as a result of the error, run diagnostics on the processor encountering the fault.

For Formats 14 and 15, diagnose the fault and forward the diagnostic results and the information from ERLOG to the next level of support

For Formats 16 and 17, if the error occurred on the off-line CU, check the update cable on both the processors. In all cases run diagnostics on the faulty processor. Note that to run CU diagnostics the CU that is being diagnosed should be out of service and the other CU active.

Format 18 indicates a fault in the EAI hardware of the CC pack.

Some classes of EAI faults cause hard failures for which there is no automatic recovery of the EAI. An example of this is a stuck microprocessor address/data bit that will causes indeterminate code execution and block internal recovery. Invalid error register contents reported in the error log (such as 00) are an indication that the EAI hardware has detected a fault but is not able to perform fault recovery functions for the EAI. As a result of this hard fault, administrative module (AM) fault recovery code is not able to access the EAI hardware, including the EAI error register. The main symptom of this problem is that the EAI hardware routinely reports errors even after automatic recovery. When this type of error occurs and if the CUs are in ACT/STBY state, a CU switch occurs and the machine continues to run on the non-faulty CU (a CU switch does not occur if the CUs are in ACT/OOS state). Also, all other system functions should continue as normal.

Ensure that the machine is running on the other (non-faulty) CU and run diagnostics on the faulty CU. If the diagnostic fails, replace the CC pack that contains the EAI circuitry and restore the CU. Forward the diagnostic results, the information from the ERLOG, and the ROP output to the next level of support.

5. ALARMS

None.

Format 18 has a major alarm. If a major alarm occurs, it may not be service affecting. Take appropriate action as indicated in the alarm.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	104
2	115
3	381, 382, 384, 386, 391, 393
4	385, 388-390, 394, 395
5	215, 373-380, 392, 465
6	116, 174
7	397-399

8	107
9	114
10	396
11	400
12	383
13	697
14	108
15	680
16	105, 112, 113, 216
17	681-684
18	685

Input Message(s):

```
DGN:CU
DGN:DFC
DGN:DUIC
DGN:HSDC
DGN:MHD
DGN:MTC
DGN:MTTYC
DGN:SCSDC
DGN:SDLC
DGN:TTYC
```

Output Appendix(es):

```
APP:OMDB-X-REF
APP:REGISTER
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:ESA

Software Release: 5E10 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
REPT ESA
  a
  [PRIMARY ESA:     APID=b STATE=c HEALTH=d]
  [SECONDARY ESA:   APID=b STATE=c HEALTH=d]
```

2. REASON FOR OUTPUT

Notification from an automatic enhanced 911 emergency service adjunct (ESA) switch or health status update that indicates what action has taken place and reports the current status of the primary and secondary ESAs.

3. VARIABLE FIELD DEFINITIONS

`a` = Informational text describing what action has occurred. Valid value(s):

`FORCED ACTIVE PRIMARY ESA DELETED - FORCE CLEARED` = The primary ESA that was forced active has been deleted by means of RC/V. The force has been removed. No ESAs are currently defined in the ODD.

`FORCED ACTIVE SECONDARY ESA DELETED - FORCE CLEARED` = The secondary ESA that was forced active has been deleted by means of RC/V. The force has been removed and the primary has been made active.

`NO INFORMATION TEXT` = The informational text was not set correctly in the message. This should be reported as a problem.

`PRIMARY AND SECONDARY ESA HEALTH STATUS INITIALIZED` = Two ESAs are defined in the ODD. The health status for both ESAs were initialized. This could happen because the CMP or system process was initialized or because the data was corrupted.

`PRIMARY ESA DELETED` = The primary ESA has been removed using RC/V. No ESAs are currently defined in the ODD.

`PRIMARY ESA HEALTH STATUS CHANGED` = The health status of the primary ESA has changed. The active/inactive designation of the two ESAs has not changed. The current status of the ESAs will be printed.

`PRIMARY ESA HEALTH STATUS CHANGED - ACTIVE SWITCHED` = The health status of the primary ESA has changed. The active/inactive designation of the two ESAs has changed. The current status of the ESAs will be printed.

`PRIMARY ESA HEALTH STATUS INITIALIZED` = Only the primary ESA is defined in the ODD. The health status for the ESA was initialized. This could happen because the CMP or system process was initialized or because the data was corrupted.

`PRIMARY ESA INSERTED` = The primary ESA was inserted using RC/V.

`SECONDARY ESA DELETED` = The inactive, secondary ESA was removed using RC/V.

`SECONDARY ESA DELETED - DEFAULTING TO PRIMARY ESA` = The secondary ESA was active and has been removed using RC/V. The primary is automatically made active. The current status of the primary ESA will be printed.

`SECONDARY ESA HEALTH STATUS CHANGED` = The health status of the secondary ESA has changed. The active/inactive designation of the two ESAs has not changed. The current status of the ESAs will be printed.

`SECONDARY ESA HEALTH STATUS CHANGED - ACTIVE SWITCHED` = The health status of the

secondary ESA has changed. The active/inactive designation of the two ESAs has changed. The current status of the ESAs will be printed.

`SECONDARY ESA INSERTED` = The secondary ESA was inserted using RC/V. The primary was healthier than or as healthy as the secondary; therefore, the primary remained active.

`SECONDARY ESA INSERTED AND SWITCH COMPLETED` = The secondary ESA was inserted using RC/V. The secondary is healthier than the primary; therefore, the secondary was made active.

`SWITCH DENIED - NO ESA TO SWITCH TO` = A time-based switch attempt was made, but only one ESA was defined so no switch was possible.

`TIME BASED SWITCH COMPLETED` = The hour of the day to automatically switch the active and inactive ESA designations was reached and the switch was successfully completed. The current status will be printed.

`TIME BASED SWITCH NOT DONE - ACTIVE FORCED` = The hour of the day to automatically switch the active and inactive ESA designations was reached and the active ESA was forced active so the switch was not done. The current status will be printed.

`TIME BASED SWITCH NOT DONE - ACTIVE HEALTHIER` = The hour of the day to automatically switch the active and inactive ESA designations was reached and the active ESA was healthier so the switch was not done. The current status will be printed.

`b` = Applications processor identifier (APID) of the ESA. If the APID for the ESA (GLE911APID or GLE911SEC office parameter) is 0, no data for that ESA will be printed.

`c` = Current state of the ESA. Valid value(s):

`ACTIVE` = The ESA is active and receiving queries.

`FORCED` = The ESA is in the forced active state and is receiving queries and cannot be switched to inactive until the force has been removed.

`INACTIVE` = The ESA is not active and is not currently receiving queries.

`d` = Current health value of the ESA. Valid value(s):

`COMM LOST` = The switch is not currently able to send queries to the ESA.

`CRITICAL` = The ESA has a critical alarm.

`MAJOR` = The ESA has a major alarm.

`MINOR` = The ESA has a minor alarm.

`NORMAL` = The ESA is functioning normally with no alarms.

`UNKNOWN` = The health status of the ESA is unknown.

4. ACTION TO BE TAKEN

When the message is printed with the following informational texts, the ESA mentioned has been inserted or deleted through recent change. These messages are printed to inform the craft that this has taken place and mention any other effect it has had - that is, force cleared.

```
FORCED ACTIVE PRIMARY ESA DELETED - FORCE CLEARED
FORCED ACTIVE SECONDARY ESA DELETED - FORCE CLEARED
PRIMARY ESA DELETED
PRIMARY ESA INSERTED
SECONDARY ESA DELETED
SECONDARY ESA DELETED - DEFAULTING TO PRIMARY ESA
SECONDARY ESA INSERTED
```

```
SECONDARY ESA INSERTED AND SWITCH COMPLETED
```

The following informational text values indicate that the health status has been initialized. If this is due to memory corruption, report this as a problem.

```
PRIMARY AND SECONDARY ESA HEALTH STATUS INITIALIZED
PRIMARY ESA HEALTH STATUS INITIALIZED
```

The following informational text values indicate that the health status of the mentioned ESA has changed. If the change is due to a degradation in the health of the ESA, action may need to be taken to correct the problem. This message gives information on the health status only. Other output messages on the switch or the ESA may be available to determine the problem causing the health change.

```
PRIMARY ESA HEALTH STATUS CHANGED
PRIMARY ESA HEALTH STATUS CHANGED - ACTIVE SWITCHED
SECONDARY ESA HEALTH STATUS CHANGED
SECONDARY ESA HEALTH STATUS CHANGED - ACTIVE SWITCHED
```

The following informational text values indicate that either a successful or unsuccessful attempt was made to switch the active and inactive ESA designations at the time specified.

```
SWITCH DENIED - NO ESA TO SWITCH TO
TIME BASED SWITCH COMPLETED
TIME BASED SWITCH NOT DONE - ACTIVE FORCED
TIME BASED SWITCH NOT DONE - ACTIVE HEALTHIER
```

If NO INFORMATION TEXT is the informational text value, report this as a problem.

5. ALARMS

This message will have variable alarm levels.

For health status changes, including health-based switches, the alarm level will correspond to the new health of the ESA. The following table shows the alarm level for each health value:

HEALTH VALUE	ALARM LEVEL
COMM LOST	= Critical
NORMAL	= Automatic
MINOR	= Minor
MAJOR	= Major
CRITICAL	= Critical
UNKNOWN	= Critical

When an ESA is inserted or deleted, the health status of that ESA will then be "UNKNOWN", and the alarm level of those messages will be Critical.

For time-based switching, the message will not be alarmed.

6. REFERENCES

Input Message(s):

```
CLR:ESA
OP:ESA
SET:ESA
```

Output Message(s):

```
CLR:ESA
OP:ESA
SET:ESA
```

Other Manual(s):
235-900-303 *ISDN Applications Processor Interface Specification*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
24.7 [DSL APPLICATIONS PROCESSOR COMMUNICATION DATA]

REPT:EVENTHIST

Software Release: 5E10 and later
Message Class: INT_MON,GENRMON
Application: 5
Type: Output

1. FORMAT

```
REPT EVENTHIST {SM=a|CMP=b-c d|MCTSI=a-b d|QGP=b-e|UNK UNK} DATA=f,g EVENT=h
  i i i i i i
  .
  .
  .
```

2. REASON FOR OUTPUT

To report data automatically because:

- After a high-level initialization in the switching module (SM) or in the communication module processor (CMP).
- After an SM or CMP offline verification during a retrofit.
- As part of a message handler (MH) or quad-link gateway processor (QGP) escalating from a critical error.

This message is normally logged, but will also print in response to input message OP:POSTMORT.

During a retrofit the GENRMON message class is used, otherwise, the INT_MON message class is used.

3. VARIABLE FIELD DEFINITIONS

`MCTSI` = Module controller/time slot interchange.
`a` = SM number.
`b` = Message switch (MSGS) side or MCTSI side.
`c` = Physical CMP number.
`d` = Processor being reported on. Valid value(s):
- `MATE` = Mate CMP.
- `MH0` = Message handler 0.
- `MH1` = Message handler 1.
- `MH2` = Message handler 2.
- `PRIM` = Primary CMP.

`e` = QGP number.
`f` = Data dump type. Valid value(s):
- `OFFLINE` = The data dump consists of postmortem data from system integrity, that identifies all events that occurred during the offline verification on the offline side of the SM.
- `ONLINE` = The data dump consists of postmortem data from system integrity that identifies events leading up to the last high-level initialization. Refer to the APP:EVENT-HIST appendix in the Appendixes section of the Output Messages manual for further explanation on interpreting the data dump.

`g` = The sequence number of the data being output in the message.
`h` = Event number.

`i` = Data being reported in hexadecimal. Each event is represented by three segments of data and each message has 8 lines; therefore, each message contains 16 events worth of information.

4. ACTION TO BE TAKEN

This information should be sent along with any trouble report concerning SM or CMP initialization to an appropriate technical support organization.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:POSTMORT
```

Output Appendix(es):

```
APP:EVENT-HIST
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-246 *Generic Retrofit Procedures*

79. REPT:F

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REPT:FAC-A

Software Release: 5E10 - 5E11
Message Class: PRFM
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT FAC ALERT FAC=a-b-c-d {15MIN|24HR|RATE} [{L|P}] [e] f
```

[2]
```
REPT FAC ALERT FAC=a-b-c-d {15MIN|24HR|RATE} [{L|P}] [e] f
  CI  BES    THR     BPV     THR     COFA    THR     CRC6    THR
  [*] g      h       i       j       k       l       m       n
      ES     THR     FS      THR     SES     THR     SS      THR
      o      p       q       r       s       t       u       v
```

[3]
```
REPT FAC ALERT DFIH=a-b-c {24HR|RATE} [{L|P}] [e] f
```

[4]
```
REPT FAC ALERT IFAC=a-w-x y {15MIN|24HR} [{L|P}] [e] f
  CI  ES    THR   SES   THR   [UAS   THR   FLS   THR   [SS    THR]]
  [*] o     p     s     t     [z     a1    b1    c1    [u     v]]
```

[5]
```
REPT FAC ALERT SDFI=a-d1-c {24HR|RATE} [e] f
```

[6]
```
REPT FAC ALERT STEFAC=a-e1-f1-g1 NE {15MIN|24HR}  S L [e] f
  CI  FI   ES     THR    SES    THR    SEFS   THR
  [*] [*]  o      p      s      t      b1     c1
```

[7]
```
REPT FAC ALERT VT1FAC=a-e1-f1-h1-i1 y {15MIN|24HR} P [e] f
  CI  FI   ES     THR    SES    THR    UAS    THR
  [*] [*]  o      p      s      t      z      a1
```

[8]
```
REPT FAC ALERT DS1SFAC=a-e1-f1-h1-i1 NE {15MIN|24HR} P [e] f
  CI  FI   ES     THR    SES    THR    SEFS   THR
  [*] [*]  o      p      s      t      b1     c1

  UAS    THR    CSS    THR
  z      a1      u      v
```

[9]
```
REPT FAC ALERT LINE FERF STEFAC=a-e1-f1-g1 {SET|CLR} [OVERFLOW]
```

[10]
```
REPT FAC ALERT SLM STSFAC=a-e1-f1-h1 {SET|CLR} RCV=j1 [p1] EXP=k1...
  ...[OVERFLOW]
```

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```
[11]  ____________________________________________________________
      REPT FAC ALERT SLM VT1FAC=a-e1-f1-h1-i1 {SET|CLR} RCV=l1 [q1] EXP=m1...
        ...[OVERFLOW]

[12]  ____________________________________________________________
      REPT FAC ALERT VTGM VT1FAC=a-e1-f1-h1-i1 {SET|CLR} RCV=n1 EXP=o1...
        ...[OVERFLOW]
```

2. REASON FOR OUTPUT

To report that a transmission facility performance monitoring count alert threshold or error rate threshold has been exceeded. Two types of alert threshold crossing reports can be generated: 15-minute and daily alerts. A 15-minute alert is generated when a facility exceeds a 15-minute alert threshold. A daily alert is generated when a facility exceeds a daily alert threshold.

This message is also used to report one of the following autonomous facility alerts from the digital networking unit - synchronous optical network (SONET) (DNU-S):

- Line far end receive failure (FERF) on a STE facility.
- Signal label mismatch on a synchronous transport signal (STS-1) facility.
- Signal label mismatch on a virtual tributary 1.5 (VT1.5) facility.
- VT group size mismatch on a VT1.5 facility.

Format 1 reports a digital signal level 1 (DS1) performance count alert event for a digital facility interface (DFI) facility terminating on a digital line and trunk unit (DLTU).

Format 2 reports a DS1 performance count alert event for a DFI model 2 (DFI-2) facility (DFAC) terminating on a DLTU model 2 (DLTU-2).

Format 3 reports a DS1 performance count alert event for a remote integrated services line unit (RISLU) host DFI (DFIH) facility terminating on a DLTU.

Format 4 reports a DS1 performance count alert event for an integrated digital carrier unit (IDCU) facility (IFAC). Alerts may be generated from the remote terminal (RT) or IDCU end of the facility.

Format 5 reports a DS1 performance count alerts for a *SLC*® DFI facility terminating on a digital carrier line unit (DCLU).

Format 6 reports a performance count alert event for a digital networking unit - synchronous optical network (SONET) (DNU-S) section terminating equipment (STE) facility.

Format 7 reports a performance count alert event for a DNU-S virtual tributary 1.5 (VT1.5) facility.

Format 8 reports a performance count alert event for a DNU-S DS1 facility.

Format 9 reports a Line FERF on a STE facility.

Format 10 reports a signal label mismatch on a STS-1 facility.

Format 11 reports a signal label mismatch on a VT1.5 facility.

Format 12 reports a VT group size mismatch on a VT1.5 facility.

3. VARIABLE FIELD DEFINITIONS

`15MIN` = 15-minute alert threshold crossing. These alerts could be reported up to 2 minutes after their

actual occurrence.

`24HR` = 24-hour alert threshold crossing. These alerts could be reported up to 17 minutes after their actual occurrence.

`CI` = Corruption indicator (CI). Indicates whether the counts for the alerting interval are invalid or incomplete. When a '*' is present on the column below CI, it means at least one PM count is invalid for this interval.

`CLR` = Autonomous facility alert has been cleared.

`FI` = Failure indicator (FI). When a '*' is present on the column below FI, it means there was a failure during this interval.

For example, a CGA occurred during the interval is a failure.

`L` = Line counts. The type of counts being output is line counts.

`OVERFLOW` = Autonomous facility alerts overflow indicator. OVERFLOW indicates that some facility alerts have been lost due to excessive alerts being reported by the DNU-S.

`P` = Path counts. The type of counts being output is path counts.

`RATE` = A rate based performance monitoring event.

`S` = Section counts. The type of counts being output is section counts.

`SET` = Autonomous facility alert has been set.

`THR` = Threshold. This field provides the current PM threshold for the PM count name to its immediate left.

`*` = If present, this indicates that at least one PM count is invalid for this interval.

`a` = Switching module (SM) number.

`b` = DLTU number.

`c` = DFI number.

`d` = Facility number.

`e` = Facility name [a customer-defined string through recent change/verify (RC/V)].

`f` = Count that exceeded threshold or reason for alert. Valid value(s):

- `BES` = Bursty errored seconds. The facility BES threshold has been reached.
- `BPV` = Bi-polar violations. The facility BPV threshold has been reached.
- `BPVC` = BPV clear. BPV condition clear.
- `CFAH` = Change of frame alignment (COFA) high. This event is only for DFI-1 facilities. The facility COFA counter high threshold (511), has been reached. A COFA counter is pegged once for each 10-second interval with one or more COFA events.
- `CFAL` = Change of frame alignment low. This event is only for DFI-1 facilities. The facility COFA low threshold (17), has been reached.
- `COFA` = Change of frame alignment. The facility COFA threshold has been reached.
- `CRC6` = Cyclic redundancy check-6 errors. The facility CRC6 threshold has been reached.

CSS	= Controlled slip seconds errors. The facility CSS threshold has been reached.
DDL	= Derived data link. A loss of the derived data link has occurred.
DDLC	= Derived data link cleared. Loss of the derived data link has been cleared.
ERR3	= Bit error rate has exceeded 1 error in 1,000 bits. ERR3 is based on a 480-millisecond interval for D4 mode and a 1.008 second interval for extended framing (FE) mode. Facilities are removed from service for *SLC*® DFIs (SDFIs), but are not removed from service for DFI-1, DFI-2 and DFIH. IFACs may be removed from service depending on the way service ordering has been done.
ERR4	= Bit error rate has exceeded 1 error in 10,000 bits. ERR4 is based on a 96-millisecond interval. Facilities are removed from service for SDFIs, but are not removed from service for DFI-1, DFI-2, and DFIH. IFACs may be removed from service depending on the way service ordering has been done.
ERR5	= Bit error rate has exceeded 1 error in 100,000 bits. ERR5 is based on a 96-millisecond interval. Facilities are removed from service for SDFIs, but are not removed from service for DFI-1, DFI-2, and DFIH. IFACs may be removed from service depending on the way service ordering has been done.
ERR6	= Bit error rate has exceeded 1 error in 1,000,000 bits. ERR6 is based on a 672-millisecond interval. Facilities are removed from service for SDFIs, but are not removed from service for DFI-1, DFI-2, and DFIH. IFACs may be removed from service depending on the way service ordering has been done.
ERR7	= Bit error rate has exceeded 1 error in 10,000,000 bits. ERR7 is based on a 6.48-seconds interval. Facilities are removed from service for SDFIs, but are not removed from service for DFI-1, DFI-2, and DFIH. IFACs may be removed from service depending on the way service ordering has been done.
ER3C	= Bit error rate is no longer above 1 error in 1,000 bits. Any IDCU or *SLC*®96 facilities removed from service due to an ERR3 are restored provided no other alarms exist which would cause the facility to remain out-of-service (OOS).
ER4C	= Bit error rate is no longer above 1 error in 10,000 bits. Any IDCU or *SLC*®96 facilities removed from service due to an ERR4 are restored provided no other alarms exist which would cause the facility to remain OOS.
ER5C	= Bit error rate is no longer above 1 error in 100,000 bits. Any IDCU or *SLC*®96 facilities removed from service due to an ERR5 are restored provided no other alarms exist which would cause the facility to remain OOS.
ER6C	= Bit error rate is no longer above 1 error in 1,000,000 bits. Any IDCU or *SLC*®96 facilities removed from service due to an ERR6 are restored provided no other alarms exist that would cause the facility to remain OOS.
ER7C	= Bit error rate is no longer above 1 error in 10,000,000 bits. Any IDCU or *SLC*®96 facilities removed from service due to an ERR6 are restored provided no other alarms exist which would cause the facility to remain OOS.
ES	= Errored seconds. The facility ES threshold has been reached.
ESH	= ES high. This event is only for DFI-1 and DFIH facilities. The facility ES high threshold has been reached. An errored second is defined as a second with at least one CRC6 errors, or at least one loss of frame alignment (LOFA), or at least one slip. The high 15-minute threshold is 75. The high 24-hour threshold is 1706.
ESL	= ES low. This event is only for DFI-1 and DFIH facilities. The facility ES low threshold has been reached. The low 15-minute threshold is 14. The low 24-hour threshold is 864. DFIH facilities only support a 24-hour threshold.
FLS	= Frame loss seconds. This event is only for IDCU facilities. The facility FLS threshold has been reached.
FS	= Failed seconds. The facility FS threshold has been reached.
SEFS	= Severely errored framing seconds. The facility SEFS threshold has been reached.

SES	= Severely errored seconds. The facility SES threshold has been reached.
SESH	= SES high. This only applies to DFI-1 in FE mode and DFIH facilities. The facility SES threshold, of 255, has been reached. A CRC6 count is pegged for each 3-millisecond interval with one or more CRC6 errors. An SES is a second with at least 320 CRC6 counts, or at least one LOFA, or at least one slip. This SES report is generated when the number of SESes reaches 255 in a 24-hour period on a DFI-1 facility.
SESL	= SES low. This only applies to DFI-1 facilities. The facility SES low threshold has been reached.
SLH	= Slip seconds high. This event is only for DFI-1 and DFIH facilities. The facility slip count high threshold has been reached. A slip counter is pegged for each 10-second interval with at least one slip. The SLH threshold is 255.
SLL	= Slip seconds low. This event is only for DFI-1 and DFIH facilities. The facility slip count low threshold has been reached. The SLL threshold is 4.
SS	= Slip seconds. The facility slip count threshold has been reached.
UAS	= Unavailable seconds. This event is only for IDCU and DNU-S facilities. The facility UAS threshold has been reached.

g = Number of bursty errored seconds (BESs) for this interval.

h = Current BES threshold for this interval.

i = Number of BPVs for this interval.

j = Current BPV threshold for this interval.

k = Number of COFAs for this interval.

l = Current COFA threshold for this interval.

m = Number of CRC6s for this interval.

n = Current CRC threshold for this interval.

o = Number of ES for this interval.

p = Current ES threshold for this interval.

q = Number of FSes for this interval.

r = Current FS threshold for this interval.

s = Number of SES for this interval.

t = Current SES threshold for this interval.

u = Number of SS or CSS for this interval.

v = Current SS or CSS threshold for this interval.

w = IDCU number.

x = IFAC number.

y = Which end of the facility an alert originated from. Valid value(s):

FE = Far end. The alert originated from the remote end of the facility.
NE = Near end. The alert originated from the switch end of the facility.

z = Number of unavailable seconds (UAS) for this interval.

a[1] = Current UAS threshold for this interval.

b[1] = Number of FLS or SEFS for this interval.

c[1] = Current FLS or SEFS threshold for this interval.

d[1] = DCLU number.

e[1] = DNU-S number.

f[1] = Data group number.

g[1] = STE facility number.

h[1] = Synchronous transport signal (STS) facility number.

i[1] = VT1.5 facility number.

j[1] = STS signal label received. Valid value(s):
ASYNC-DS3 = Asynchronous DS3 mapping (hex value 4).
ASYN-DS4NA = Asynchronous DS4 for North America mapping (3 DS3's to form one 139.264 Mb/s DS4NA) (12).
ASYNC-FDDI = Asynchronous fiber distributed data interface mapping (hex value 15).
ATM-MAP = Asynchronous transport mode mapping (hex value 13).
BYTE-SYNC = Byte observable synchronous (DS3) transmission (SYNTRAN) (hex value 5).
DQDB-MAP = Distributed queue dual bus mapping (hex value 14).
EQ-NONSP = Equipped non-specific payload (hex value 1).
FLOAT-VT = Floating VT (virtual tributary) mode (hex value 2).
LOCK-VT = Locked VT (virtual tributary) mode (hex value 3).
UNEQUIP = Unequipped mode (hex value 0).
UNK-STS-SL = Unknown STS signal label.

k[1] = STS signal label expected. Valid value(s):
FLOAT-VT = Floating VT (virtual tributary) mode (hex value 2).

l[1] = VT1.5 signal label received. Valid value(s):
ASYNC-DS1 = Asynchronous DS1 mapping (hex value 2).
BIT-SYNC = Bit synchronous DS1 mapping (hex value 3).
BYTE-SYNC = Byte synchronous DS1 mapping (hex value 4).
EQ-NONSP = Equipped non-specific payload (hex value 1).
UNEQUIP = Unequipped mode (hex value 0).
UNK-VT-SL = Unknown VT signal label.

m[1] = VT1.5 signal label expected. Valid value(s):
ASYNC-DS1 = Asynchronous DS1 mapping (hex value 2).

n[1] = VT group size received. Valid value(s):

UNK-VTSZ	= Unknown VT group size
VT1.5	= Group size of VT1.5 (bit pattern 11)
VT2	= Group size of VT2 (bit pattern 10)
VT3	= Group size of VT3 (bit pattern 01)
VT6	= Group size of VT6 (bit pattern 00)

o[1] = VT group size expected. Valid value(s):

VT1.5	= Group size of VT1.5 (bit pattern 11)

p[1] = Numeric representation of an unknown received STS signal label value. This field only appears when accompanied by RCV=UNK-STS-SL.

q[1] = Numeric representation of an unknown received VT signal label value. This field only appears when accompanied by RCV=UNK-VT-SL.

4. ACTION TO BE TAKEN

Inspect the output message for performance monitoring information indicating possible facility (STE, VT1.5, DS1) problems. Further information can be gained from executing the OP:FAC input message on the alerting facility.

For Formats 9, 10, 11, and 12:

- If this message contains a SET indication, correct the configuration mismatch between the sending and receiving equipment.
- If this message contains a CLR indication of a signal label mismatch (SLM), by the DNU-S, the following comment applies.

A received signal label value of RCV=EQ-NONSP (equipped non-specific payload) will match any legal expected signal label value except EXP=UNEQUIP (unequipped). In this situation, even though the received and expected signal label values are different, a CLR indication may be sent from the DNU-S. The signal label values are read from hardware registers. The values are a direct reflection of the bit pattern currently being received.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:FAC
INH:FAC
INIT:FAC
OP:FAC
OP:SL
```

Output Message(s):

```
ALW:FAC
INH:FAC
```

```
INIT:FAC
OP:FAC
OP:SL
REPT:CGA
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
20.12 (STS-1 FACILITY PROVISIONING)
20.23 [IDCU FACILITY EQUIPMENT (IFAC)]
20.24 (VT1.5 FACILITY PROVISIONING)
20.25 (DNU-S PERFORMANCE MONITORING THRESHOLD GROUP)
22.15 (PERFORMANCE MONITORING THRESHOLD GROUP)

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REPT:FAC-B

Software Release: 5E12 only
Message Class: PRFM
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT FAC ALERT FAC=a-b-c-d {15MIN|24HR|RATE} [{L|P}] [e] f
```

[2]
```
REPT FAC ALERT FAC=a-b-c-d {15MIN|24HR|RATE} [{L|P}] [e] f
  CI  BES    THR     BPV     THR     COFA    THR     CRC6    THR
  [*] g      h       i       j       k       l       m       n
      ES     THR     FS      THR     SES     THR     SS      THR
      o      p       q       r       s       t       u       v
```

[3]
```
REPT FAC ALERT DFIH=a-b-c {24HR|RATE} [{L|P}] [e] f
```

[4]
```
REPT FAC ALERT {IFAC=a-w-x|DS1SFAC=a-e1-f1-h1-i1} y {15MIN|24HR} [{L|P}] [e] f
  CI  ES    THR   SES   THR   [UAS   THR   FLS   THR   [SS    THR]]
  [*] o     p     s     t     [z     a1    b1    c1    [u     v]]
```

[5]
```
REPT FAC ALERT SDFI=a-d1-c {24HR|RATE} [e] f
  CI  ES    THR   SES   THR   [UAS   THR   FLS   THR   [SS    THR]]
  [*] o     p     s     t     [z     a1    b1    c1    [u     v]]
```

[6]
```
REPT FAC ALERT STEFAC=a-e1-f1-g1 NE {15MIN|24HR}  S L [e] f
  CI  FI   ES     THR    SES    THR    SEFS   THR
  [*] [*]  o      p      s      t      b1     c1
```

[7]
```
REPT FAC ALERT VT1FAC=a-e1-f1-h1-i1 y {15MIN|24HR} P [e] f
  CI  FI   ES     THR    SES    THR    UAS    THR
  [*] [*]  o      p      s      t      z      a1
```

[8]
```
REPT FAC ALERT DS1SFAC=a-e1-f1-h1-i1 y {15MIN|24HR} P [e] f
  CI  FI   ES     THR    SES    THR    SEFS   THR
  [*] [*]  o      p      s      t      b1     c1

  UAS    THR    CSS    THR
  z      a1      u      v
```

[9]
```
REPT FAC ALERT LINE FERF STEFAC=a-e1-f1-g1 {SET|CLR} [OVERFLOW]
```

[10]

```
      REPT FAC ALERT SLM STSFAC=a-e1-f1-h1 {SET|CLR} RCV=j1 [p1] EXP=k1...
        ...[OVERFLOW]

[11]  ____________________________________________________________________
      REPT FAC ALERT SLM VT1FAC=a-e1-f1-h1-i1 {SET|CLR} RCV=l1 [q1] EXP=m1...
        ...[OVERFLOW]

[12]  ____________________________________________________________________
      REPT FAC ALERT VTGM VT1FAC=a-e1-f1-h1-i1 {SET|CLR} RCV=n1 EXP=o1...
        ...[OVERFLOW]
```

2. REASON FOR OUTPUT

To report that a transmission facility performance monitoring count alert threshold or error rate threshold has been exceeded. Two types of alert threshold crossing reports can be generated: 15-minute and daily alerts. A 15-minute alert is generated when a facility exceeds a 15-minute alert threshold. A daily alert is generated when a facility exceeds a daily alert threshold.

This message is also used to report one of the following autonomous facility alerts from the digital networking unit - synchronous optical network (SONET) (DNU-S):

- Line far end receive failure (FERF) on a STE facility.
- Signal label mismatch on a synchronous transport signal (STS-1) facility.
- Signal label mismatch on a virtual tributary 1.5 (VT1.5) facility.
- VT group size mismatch on a VT1.5 facility.

Format 1 reports a digital signal level 1 (DS1) performance count alert event for a digital facility interface (DFI) facility terminating on a digital line and trunk unit (DLTU).

Format 2 reports a DS1 performance count alert event for a DFI model 2 (DFI-2) facility (DFAC) terminating on a DLTU model 2 (DLTU-2).

Format 3 reports a DS1 performance count alert event for a remote integrated services line unit (RISLU) host DFI (DFIH) facility terminating on a DLTU.

Format 4 reports a DS1 performance count alert event for an integrated digital carrier unit (IDCU) facility (IFAC) or a DNU-S DS1 far end (FE) facility. Alerts may be generated from the remote terminal (RT) or IDCU end of the facility.

Format 5 reports a DS1 performance count alerts for a *SLC*® DFI facility terminating on a digital carrier line unit (DCLU).

Format 6 reports a performance count alert event for a digital networking unit - synchronous optical network (SONET) (DNU-S) section terminating equipment (STE) facility.

Format 7 reports a performance count alert event for a DNU-S virtual tributary 1.5 (VT1.5) facility.

Format 8 reports a performance count alert event for a DNU-S DS1 facility.

Format 9 reports a Line FERF on a STE facility.

Format 10 reports a signal label mismatch on a STS-1 facility.

Format 11 reports a signal label mismatch on a VT1.5 facility.

Format 12 reports a VT group size mismatch on a VT1.5 facility.

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3. VARIABLE FIELD DEFINITIONS

`15MIN` = 15-minute alert threshold crossing. These alerts could be reported up to 2 minutes after their actual occurrence.

`24HR` = 24-hour alert threshold crossing. These alerts could be reported up to 17 minutes after their actual occurrence.

`CI` = Corruption indicator (CI). Indicates whether the counts for the alerting interval are invalid or incomplete. When a '*' is present on the column below CI, it means at least one PM count is invalid for this interval.

`CLR` = Autonomous facility alert has been cleared.

`FI` = Failure indicator (FI). When a '*' is present on the column below FI, it means there was a failure during this interval.

For example, a CGA occurred during the interval is a failure.

`L` = Line counts. The type of counts being output is line counts.

`OVERFLOW` = Autonomous facility alerts overflow indicator. OVERFLOW indicates that some facility alerts have been lost due to excessive alerts being reported by the DNU-S.

`P` = Path counts. The type of counts being output is path counts.

`RATE` = A rate based performance monitoring event.

`S` = Section counts. The type of counts being output is section counts.

`SET` = Autonomous facility alert has been set.

`THR` = Threshold. This field provides the current PM threshold for the PM count name to its immediate left.

`*` = If present, this indicates that at least one PM count is invalid for this interval.

`a` = Switching module (SM) number.

`b` = DLTU number.

`c` = DFI number.

`d` = Facility number.

`e` = Facility name [a customer-defined string through recent change/verify (RC/V)].

`f` = Count that exceeded threshold or reason for alert. Valid value(s):

- `BES` = Bursty errored seconds. The facility BES threshold has been reached.
- `BPV` = Bi-polar violations. The facility BPV threshold has been reached.
- `BPVC` = BPV clear. BPV condition clear.
- `CFAH` = Change of frame alignment (COFA) high. This event is only for DFI-1 facilities. The facility COFA counter high threshold (511), has been reached. A COFA counter is pegged once for each 10-second interval with one or more COFA events.
- `CFAL` = Change of frame alignment low. This event is only for DFI-1 facilities. The facility

COFA low threshold (17), has been reached.

COFA = Change of frame alignment. The facility COFA threshold has been reached.

CRC6 = Cyclic redundancy check-6 errors. The facility CRC6 threshold has been reached.

CSS = Controlled slip seconds errors. The facility CSS threshold has been reached.

DDL = Derived data link. A loss of the derived data link has occurred.

DDLC = Derived data link cleared. Loss of the derived data link has been cleared.

ERR3 = Bit error rate has exceeded 1 error in 1,000 bits. ERR3 is based on a 480-millisecond interval for D4 mode and a 1.008 second interval for extended framing (FE) mode. Facilities are removed from service for *SLC*® DFIs (SDFIs), but are not removed from service for DFI-1, DFI-2 and DFIH. IFACs may be removed from service depending on the way service ordering has been done.

ERR4 = Bit error rate has exceeded 1 error in 10,000 bits. ERR4 is based on a 96-millisecond interval. Facilities are removed from service for SDFIs, but are not removed from service for DFI-1, DFI-2, and DFIH. IFACs may be removed from service depending on the way service ordering has been done.

ERR5 = Bit error rate has exceeded 1 error in 100,000 bits. ERR5 is based on a 96-millisecond interval. Facilities are removed from service for SDFIs, but are not removed from service for DFI-1, DFI-2, and DFIH. IFACs may be removed from service depending on the way service ordering has been done.

ERR6 = Bit error rate has exceeded 1 error in 1,000,000 bits. ERR6 is based on a 672-millisecond interval. Facilities are removed from service for SDFIs, but are not removed from service for DFI-1, DFI-2, and DFIH. IFACs may be removed from service depending on the way service ordering has been done.

ERR7 = Bit error rate has exceeded 1 error in 10,000,000 bits. ERR7 is based on a 6.48-seconds interval. Facilities are removed from service for SDFIs, but are not removed from service for DFI-1, DFI-2, and DFIH. IFACs may be removed from service depending on the way service ordering has been done.

ER3C = Bit error rate is no longer above 1 error in 1,000 bits. Any IDCU or *SLC*®96 facilities removed from service due to an ERR3 are restored provided no other alarms exist which would cause the facility to remain out-of-service (OOS).

ER4C = Bit error rate is no longer above 1 error in 10,000 bits. Any IDCU or *SLC*®96 facilities removed from service due to an ERR4 are restored provided no other alarms exist which would cause the facility to remain OOS.

ER5C = Bit error rate is no longer above 1 error in 100,000 bits. Any IDCU or *SLC*®96 facilities removed from service due to an ERR5 are restored provided no other alarms exist which would cause the facility to remain OOS.

ER6C = Bit error rate is no longer above 1 error in 1,000,000 bits. Any IDCU or *SLC*®96 facilities removed from service due to an ERR6 are restored provided no other alarms exist that would cause the facility to remain OOS.

ER7C = Bit error rate is no longer above 1 error in 10,000,000 bits. Any IDCU or *SLC*®96 facilities removed from service due to an ERR6 are restored provided no other alarms exist which would cause the facility to remain OOS.

ES = Errored seconds. The facility ES threshold has been reached.

ESH = ES high. This event is only for DFI-1 and DFIH facilities. The facility ES high threshold has been reached. An errored second is defined as a second with at least one CRC6 errors, or at least one loss of frame alignment (LOFA), or at least one slip. The high 15-minute threshold is 75. The high 24-hour threshold is 1706.

ESL = ES low. This event is only for DFI-1 and DFIH facilities. The facility ES low threshold has been reached. The low 15-minute threshold is 14. The low 24-hour threshold is 864. DFIH facilities only support a 24-hour threshold.

FLS = Frame loss seconds. This event is only for IDCU facilities. The facility FLS threshold has been reached.

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FS	= Failed seconds. The facility FS threshold has been reached.
SEFS	= Severely errored framing seconds. The facility SEFS threshold has been reached.
SES	= Severely errored seconds. The facility SES threshold has been reached.
SESH	= SES high. This only applies to DFI-1 in FE mode and DFIH facilities. The facility SES threshold, of 255, has been reached. A CRC6 count is pegged for each 3-millisecond interval with one or more CRC6 errors. An SES is a second with at least 320 CRC6 counts, or at least one LOFA, or at least one slip. This SES report is generated when the number of SESes reaches 255 in a 24-hour period on a DFI-1 facility.
SESL	= SES low. This only applies to DFI-1 facilities. The facility SES low threshold has been reached.
SLH	= Slip seconds high. This event is only for DFI-1 and DFIH facilities. The facility slip count high threshold has been reached. A slip counter is pegged for each 10-second interval with at least one slip. The SLH threshold is 255.
SLL	= Slip seconds low. This event is only for DFI-1 and DFIH facilities. The facility slip count low threshold has been reached. The SLL threshold is 4.
SS	= Slip seconds. The facility slip count threshold has been reached.
UAS	= Unavailable seconds. This event is only for IDCU and DNU-S facilities. The facility UAS threshold has been reached.

g = Number of bursty errored seconds (BESs) for this interval.

h = Current BES threshold for this interval.

i = Number of BPVs for this interval.

j = Current BPV threshold for this interval.

k = Number of COFAs for this interval.

l = Current COFA threshold for this interval.

m = Number of CRC6s for this interval.

n = Current CRC threshold for this interval.

o = Number of ES for this interval.

p = Current ES threshold for this interval.

q = Number of FSes for this interval.

r = Current FS threshold for this interval.

s = Number of SES for this interval.

t = Current SES threshold for this interval.

u = Number of SS or CSS for this interval.

v = Current SS or CSS threshold for this interval.

w = IDCU number.

x = IFAC number.

y = Which end of the facility an alert originated from. Valid value(s):
- FE = Far end. The alert originated from the remote end of the facility.
- NE = Near end. The alert originated from the switch end of the facility.

z = Number of unavailable seconds (UAS) for this interval.

a[1] = Current UAS threshold for this interval.

b[1] = Number of FLS or SEFS for this interval.

c[1] = Current FLS or SEFS threshold for this interval.

d[1] = DCLU number.

e[1] = DNU-S number.

f[1] = Data group number.

g[1] = STE facility number.

h[1] = Synchronous transport signal (STS) facility number.

i[1] = VT1.5 facility number.

j[1] = STS signal label received. Valid value(s):
- ASYNC-DS3 = Asynchronous DS3 mapping (hex value 4).
- ASYN-DS4NA = Asynchronous DS4 for North America mapping (3 DS3's to form one 139.264 Mb/s DS4NA) (12).
- ASYNC-FDDI = Asynchronous fiber distributed data interface mapping (hex value 15).
- ATM-MAP = Asynchronous transport mode mapping (hex value 13).
- BYTE-SYNC = Byte observable synchronous (DS3) transmission (SYNTRAN) (hex value 5).
- DQDB-MAP = Distributed queue dual bus mapping (hex value 14).
- EQ-NONSP = Equipped non-specific payload (hex value 1).
- FLOAT-VT = Floating VT (virtual tributary) mode (hex value 2).
- LOCK-VT = Locked VT (virtual tributary) mode (hex value 3).
- UNEQUIP = Unequipped mode (hex value 0).
- UNK-STS-SL = Unknown STS signal label.

k[1] = STS signal label expected. Valid value(s):
- FLOAT-VT = Floating VT (virtual tributary) mode (hex value 2).

l[1] = VT1.5 signal label received. Valid value(s):
- ASYNC-DS1 = Asynchronous DS1 mapping (hex value 2).
- BIT-SYNC = Bit synchronous DS1 mapping (hex value 3).
- BYTE-SYNC = Byte synchronous DS1 mapping (hex value 4).
- EQ-NONSP = Equipped non-specific payload (hex value 1).
- UNEQUIP = Unequipped mode (hex value 0).
- UNK-VT-SL = Unknown VT signal label.

m[1] = VT1.5 signal label expected. Valid value(s):
ASYNC-DS1 = Asynchronous DS1 mapping (hex value 2).

n[1] = VT group size received. Valid value(s):
UNK-VTSZ = Unknown VT group size
VT1.5 = Group size of VT1.5 (bit pattern 11)
VT2 = Group size of VT2 (bit pattern 10)
VT3 = Group size of VT3 (bit pattern 01)
VT6 = Group size of VT6 (bit pattern 00)

o[1] = VT group size expected. Valid value(s):
VT1.5 = Group size of VT1.5 (bit pattern 11)

p[1] = Numeric representation of an unknown received STS signal label value. This field only appears when accompanied by RCV=UNK-STS-SL.

q[1] = Numeric representation of an unknown received VT signal label value. This field only appears when accompanied by RCV=UNK-VT-SL.

4. ACTION TO BE TAKEN

Inspect the output message for performance monitoring information indicating possible facility (STE, VT1.5, DS1) problems. Further information can be gained from executing the OP:FAC input message on the alerting facility.

For Formats 9, 10, 11, and 12:

- If this message contains a SET indication, correct the configuration mismatch between the sending and receiving equipment.
- If this message contains a CLR indication of a signal label mismatch (SLM), by the DNU-S, the following comment applies.

A received signal label value of RCV=EQ-NONSP (equipped non-specific payload) will match any legal expected signal label value except EXP=UNEQUIP (unequipped). In this situation, even though the received and expected signal label values are different, a CLR indication may be sent from the DNU-S. The signal label values are read from hardware registers. The values are a direct reflection of the bit pattern currently being received.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:FAC
INH:FAC
INIT:FAC
OP:FAC
OP:SL
```

Output Message(s):

```
ALW:FAC
INH:FAC
INIT:FAC
OP:FAC
OP:SL
REPT:CGA
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
20.12 (STS-1 FACILITY PROVISIONING)
20.23 [IDCU FACILITY EQUIPMENT (IFAC)]
20.24 (VT1.5 FACILITY PROVISIONING)
20.25 (DNU-S PERFORMANCE MONITORING THRESHOLD GROUP)
22.15 (PERFORMANCE MONITORING THRESHOLD GROUP)

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REPT:FAC-C

Software Release: 5E13 and later
Message Class: PRFM
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT FAC ALERT FAC=a-b-c-d {15MIN|24HR|RATE} [{L|P}] [e] f
```

[2]
```
REPT FAC ALERT FAC=a-b-c-d {15MIN|24HR|RATE} [{L|P}] [e] f
  CI  BES    THR     BPV     THR     COFA    THR     CRC6    THR
  [*] g      h       i       j       k       l       m       n
      ES     THR     FS      THR     SES     THR     SS      THR
      o      p       q       r       s       t       u       v
```

[3]
```
REPT FAC ALERT DFIH=a-b-c {24HR|RATE} [{L|P}] [e] f
```

[4]
```
REPT FAC ALERT {IFAC=a-w-x|DS1SFAC=a-e1-f1-g1-h1-i1-r1} y {15MIN|24HR}...
...[{L|P}] [e] f
  CI  ES    THR   SES   THR   [UAS   THR   FLS   THR   [SS    THR]]
  [*] o     p     s     t     [z     a1    b1    c1    [u     v]]
```

[5]
```
REPT FAC ALERT SDFI=a-d1-c {24HR|RATE} [e] f
```

[6]
```
REPT FAC ALERT EC1STE=a-e1-f1-g1 NE {15MIN|24HR}  S L [e] f
  CI  FI   ES     THR    SES    THR    SEFS   THR
  [*] [*]  o      p      s      t      b1     c1
```

[7]
```
REPT FAC ALERT VT1FAC=a-e1-f1-g1-h1-i1-r1 y {15MIN|24HR} P [e] f
  CI  FI   ES     THR    SES    THR    UAS    THR
  [*] [*]  o      p      s      t      z      a1
```

[8]
```
REPT FAC ALERT DS1SFAC=a-e1-f1-g1-h1-i1-r1 y {15MIN|24HR} P [e] f
  CI  FI   ES     THR    SES    THR    SEFS   THR
  [*] [*]  o      p      s      t      b1     c1

  UAS    THR    CSS    THR
  z      a1      u      v
```

[9]
```
REPT FAC ALERT LINE FERF EC1STE=a-e1-f1-g1 {SET|CLR} [OVERFLOW]
```

[10]
```
REPT FAC ALERT SLM STSFAC=a-e1-f1-g1-h1 {SET|CLR} RCV=j1 [p1] EXP=k1...
```

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```
        ...[OVERFLOW]

[11]    ____________________________________________________________
        REPT FAC ALERT SLM VT1FAC=a-e1-f1-g1-h1-i1-r1 {SET|CLR} RCV=l1 [q1] EXP=m1...
        ...[OVERFLOW]

[12]    ____________________________________________________________
        REPT FAC ALERT VTGM VT1FAC=a-e1-f1-g1-h1-i1-r1 {SET|CLR} RCV=n1 EXP=o1...
        ...[OVERFLOW]
```

2. REASON FOR OUTPUT

To report that a transmission facility performance monitoring count alert threshold or error rate threshold has been exceeded. Two types of alert threshold crossing reports can be generated: 15-minute and daily alerts. A 15-minute alert is generated when a facility exceeds a 15-minute alert threshold. A daily alert is generated when a facility exceeds a daily alert threshold.

This message is also used to report one of the following autonomous facility alerts from the digital networking unit - synchronous optical network (SONET) (DNU-S) number:

- Line far end receive failure (FERF) on a STE facility.
- Signal label mismatch on a synchronous transport signal (STS-1) facility.
- Signal label mismatch on a virtual tributary level 1 (VT1FAC) facility.
- VT group size mismatch on a VT1.5 facility.

Format 1 reports a digital signal level 1 SONET facility (DS1SFAC) performance count alert event for a digital facility interface (DFI) facility terminating on a digital line and trunk unit (DLTU).

Format 2 reports a DS1SFAC performance count alert event for a DFI model 2 (DFI-2) facility (DFAC) terminating on a DLTU model 2 (DLTU-2).

Format 3 reports a DS1SFAC performance count alert event for a remote integrated services line unit (RISLU) host DFI (DFIH) facility terminating on a DLTU.

Format 4 reports a DS1SFAC performance count alert event for an integrated digital carrier unit (IDCU) facility (IFAC) or a DNU-S DS1SFAC far end (FE) facility. Alerts may be generated from the remote terminal (RT) or IDCU end of the facility.

Format 5 reports a DS1SFAC performance count alerts for a *SLC*® DFI facility terminating on a digital carrier line unit (DCLU).

Format 6 reports a performance count alert event for a digital networking unit - synchronous optical network (SONET) (DNU-S) SONET termination equipment (STE) facility number.

Format 7 reports a performance count alert event for a DNU-S VT1FAC facility.

Format 8 reports a performance count alert event for a DNU-S DS1SFAC facility.

Format 9 reports a Line FERF on a STE facility.

Format 10 reports a signal label mismatch on a STS-1 facility.

Format 11 reports a signal label mismatch on a VT1FAC facility.

Format 12 reports a VT group size mismatch on a VT1FAC facility.

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3. VARIABLE FIELD DEFINITIONS

`15MIN` = 15-minute alert threshold crossing. These alerts could be reported up to 2 minutes after their actual occurrence.

`24HR` = 24-hour alert threshold crossing. These alerts could be reported up to 17 minutes after their actual occurrence.

`CI` = Corruption indicator (CI). Indicates whether the counts for the alerting interval are invalid or incomplete. When a '*' is present on the column below CI, it means at least one PM count is invalid for this interval.

`CLR` = Autonomous facility alert has been cleared.

`FI` = Failure indicator (FI). When a '*' is present on the column below FI, it means there was a failure during this interval.

For example, a CGA occurred during the interval is a failure.

`L` = Line counts. The type of counts being output is line counts.

`OVERFLOW` = Autonomous facility alerts overflow indicator. OVERFLOW indicates that some facility alerts have been lost due to excessive alerts being reported by the DNU-S.

`P` = Path counts. The type of counts being output is path counts.

`RATE` = A rate based performance monitoring event.

`S` = Section counts. The type of counts being output is section counts.

`SET` = Autonomous facility alert has been set.

`THR` = Threshold. This field provides the current PM threshold for the PM count name to its immediate left.

`*` = If present, this indicates that at least one PM count is invalid for this interval.

`a` = Switching module (SM) number.

`b` = DLTU number.

`c` = DFI number.

`d` = Facility number.

`e` = Facility name [a customer-defined string through recent change/verify (RC/V)].

`f` = Count that exceeded threshold or reason for alert. Valid value(s):

- `BES` = Bursty errored seconds. The facility BES threshold has been reached.
- `BPV` = Bi-polar violations. The facility BPV threshold has been reached.
- `BPVC` = BPV clear. BPV condition clear.
- `CFAH` = Change of frame alignment (COFA) high. This event is only for DFI-1 facilities. The facility COFA counter high threshold (511), has been reached. A COFA counter is pegged once for each 10-second interval with one or more COFA events.

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CFAL	= Change of frame alignment low. This event is only for DFI-1 facilities. The facility COFA low threshold (17), has been reached.
COFA	= Change of frame alignment. The facility COFA threshold has been reached.
CRC6	= Cyclic redundancy check-6 errors. The facility CRC6 threshold has been reached.
CSS	= Controlled slip seconds errors. The facility CSS threshold has been reached.
DDL	= Derived data link. A loss of the derived data link has occurred.
DDLC	= Derived data link cleared. Loss of the derived data link has been cleared.
ERR3	= Bit error rate has exceeded 1 error in 1,000 bits. ERR3 is based on a 480-millisecond interval for D4 mode and a 1.008 second interval for extended framing (FE) mode. Facilities are removed from service for *SLC*® DFIs (SDFIs), but are not removed from service for DFI-1, DFI-2 and DFIH. IFACs may be removed from service depending on the way service ordering has been done.
ERR4	= Bit error rate has exceeded 1 error in 10,000 bits. ERR4 is based on a 96-millisecond interval. Facilities are removed from service for SDFIs, but are not removed from service for DFI-1, DFI-2, and DFIH. IFACs may be removed from service depending on the way service ordering has been done.
ERR5	= Bit error rate has exceeded 1 error in 100,000 bits. ERR5 is based on a 96-millisecond interval. Facilities are removed from service for SDFIs, but are not removed from service for DFI-1, DFI-2, and DFIH. IFACs may be removed from service depending on the way service ordering has been done.
ERR6	= Bit error rate has exceeded 1 error in 1,000,000 bits. ERR6 is based on a 672-millisecond interval. Facilities are removed from service for SDFIs, but are not removed from service for DFI-1, DFI-2, and DFIH. IFACs may be removed from service depending on the way service ordering has been done.
ERR7	= Bit error rate has exceeded 1 error in 10,000,000 bits. ERR7 is based on a 6.48-seconds interval. Facilities are removed from service for SDFIs, but are not removed from service for DFI-1, DFI-2, and DFIH. IFACs may be removed from service depending on the way service ordering has been done.
ER3C	= Bit error rate is no longer above 1 error in 1,000 bits. Any IDCU or *SLC*®96 facilities removed from service due to an ERR3 are restored provided no other alarms exist which would cause the facility to remain out-of-service (OOS).
ER4C	= Bit error rate is no longer above 1 error in 10,000 bits. Any IDCU or *SLC*®96 facilities removed from service due to an ERR4 are restored provided no other alarms exist which would cause the facility to remain OOS.
ER5C	= Bit error rate is no longer above 1 error in 100,000 bits. Any IDCU or *SLC*®96 facilities removed from service due to an ERR5 are restored provided no other alarms exist which would cause the facility to remain OOS.
ER6C	= Bit error rate is no longer above 1 error in 1,000,000 bits. Any IDCU or *SLC*®96 facilities removed from service due to an ERR6 are restored provided no other alarms exist that would cause the facility to remain OOS.
ER7C	= Bit error rate is no longer above 1 error in 10,000,000 bits. Any IDCU or *SLC*®96 facilities removed from service due to an ERR6 are restored provided no other alarms exist which would cause the facility to remain OOS.
ES	= Errored seconds. The facility ES threshold has been reached.
ESH	= ES high. This event is only for DFI-1 and DFIH facilities. The facility ES high threshold has been reached. An errored second is defined as a second with at least one CRC6 errors, or at least one loss of frame alignment (LOFA), or at least one slip. The high 15-minute threshold is 75. The high 24-hour threshold is 1706.
ESL	= ES low. This event is only for DFI-1 and DFIH facilities. The facility ES low threshold has been reached. The low 15-minute threshold is 14. The low 24-hour threshold is 864. DFIH facilities only support a 24-hour threshold.
FLS	= Frame loss seconds. This event is only for IDCU facilities. The facility FLS

threshold has been reached.

FS	= Failed seconds. The facility FS threshold has been reached.
SEFS	= Severely errored framing seconds. The facility SEFS threshold has been reached.
SES	= Severely errored seconds. The facility SES threshold has been reached.
SESH	= SES high. This only applies to DFI-1 in FE mode and DFIH facilities. The facility SES threshold, of 255, has been reached. A CRC6 count is pegged for each 3-millisecond interval with one or more CRC6 errors. An SES is a second with at least 320 CRC6 counts, or at least one LOFA, or at least one slip. This SES report is generated when the number of SESes reaches 255 in a 24-hour period on a DFI-1 facility.
SESL	= SES low. This only applies to DFI-1 facilities. The facility SES low threshold has been reached.
SLH	= Slip seconds high. This event is only for DFI-1 and DFIH facilities. The facility slip count high threshold has been reached. A slip counter is pegged for each 10-second interval with at least one slip. The SLH threshold is 255.
SLL	= Slip seconds low. This event is only for DFI-1 and DFIH facilities. The facility slip count low threshold has been reached. The SLL threshold is 4.
SS	= Slip seconds. The facility slip count threshold has been reached.
UAS	= Unavailable seconds. This event is only for IDCU and DNU-S facilities. The facility UAS threshold has been reached.

g = Number of bursty errored seconds (BESs) for this interval.

h = Current BES threshold for this interval.

i = Number of BPVs for this interval.

j = Current BPV threshold for this interval.

k = Number of COFAs for this interval.

l = Current COFA threshold for this interval.

m = Number of CRC6s for this interval.

n = Current CRC threshold for this interval.

o = Number of ES for this interval.

p = Current ES threshold for this interval.

q = Number of FSes for this interval.

r = Current FS threshold for this interval.

s = Number of SES for this interval.

t = Current SES threshold for this interval.

u = Number of SS or CSS for this interval.

v = Current SS or CSS threshold for this interval.

w = IDCU number.

x = IFAC number.

y = Which end of the facility an alert originated from. Valid value(s):
- FE = Far end. The alert originated from the remote end of the facility.
- NE = Near end. The alert originated from the switch end of the facility.

z = Number of unavailable seconds (UAS) for this interval.

a[1] = Current UAS threshold for this interval.

b[1] = Number of FLS or SEFS for this interval.

c[1] = Current FLS or SEFS threshold for this interval.

d[1] = DCLU number.

e[1] = DNU-S number.

f[1] = Data group number.

g[1] = STE facility number.

h[1] = Synchronous transport signal (STS) facility number.

i[1] = Virtual tributary group (VTG) number.

j[1] = STS signal label received. Valid value(s):
- ASYNC-DS3 = Asynchronous DS3 mapping (hex value 4).
- ASYN-DS4NA = Asynchronous DS4 for North America mapping (3 DS3's to form one 139.264 Mb/s DS4NA) (12).
- ASYNC-FDDI = Asynchronous fiber distributed data interface mapping (hex value 15).
- ATM-MAP = Asynchronous transport mode mapping (hex value 13).
- BYTE-SYNC = Byte observable synchronous (DS3) transmission (SYNTRAN) (hex value 5).
- DQDB-MAP = Distributed queue dual bus mapping (hex value 14).
- EQ-NONSP = Equipped non-specific payload (hex value 1).
- FLOAT-VT = Floating VT (virtual tributary) mode (hex value 2).
- LOCK-VT = Locked VT (virtual tributary) mode (hex value 3).
- UNEQUIP = Unequipped mode (hex value 0).
- UNK-STS-SL = Unknown STS signal label.

k[1] = STS signal label expected. Valid value(s):
- FLOAT-VT = Floating VT (virtual tributary) mode (hex value 2).

l[1] = VT1.5 signal label received. Valid value(s):
- ASYNC-DS1 = Asynchronous DS1SFAC mapping (hex value 2).
- BIT-SYNC = Bit synchronous DS1SFAC mapping (hex value 3).
- BYTE-SYNC = Byte synchronous DS1SFAC mapping (hex value 4).
- EQ-NONSP = Equipped non-specific payload (hex value 1).
- UNEQUIP = Unequipped mode (hex value 0).
- UNK-VT-SL = Unknown VT signal label.

m[1] = VT1.5 signal label expected. Valid value(s):
ASYNC-DS1 = Asynchronous DS1SFAC mapping (hex value 2).

n[1] = VT group size received. Valid value(s):
UNK-VTSZ = Unknown VT group size
VT1.5 = Group size of VT1.5 (bit pattern 11)
VT2 = Group size of VT2 (bit pattern 10)
VT3 = Group size of VT3 (bit pattern 01)
VT6 = Group size of VT6 (bit pattern 00)

o[1] = VT group size expected. Valid value(s):
VT1.5 = Group size of VT1.5 (bit pattern 11)

p[1] = Numeric representation of an unknown received STS signal label value. This field only appears when accompanied by RCV=UNK-STS-SL.

q[1] = Numeric representation of an unknown received VT signal label value. This field only appears when accompanied by RCV=UNK-VT-SL.

r[1] = Virtual tributary member (VTM) number.

4. ACTIONS TO BE TAKEN

Inspect the output message for performance monitoring information indicating possible facility (STE, VT1FAC, DS1SFAC) problems. Further information can be gained from executing the OP:FAC input message on the alerting facility.

For Formats 9, 10, 11, and 12:

- If this message contains a SET indication, correct the configuration mismatch between the sending and receiving equipment.
- If this message contains a CLR indication of a signal label mismatch (SLM), by the DNU-S, the following comment applies.

A received signal label value of RCV=EQ-NONSP (equipped non-specific payload) will match any legal expected signal label value except EXP=UNEQUIP (unequipped). In this situation, even though the received and expected signal label values are different, a CLR indication may be sent from the DNU-S. The signal label values are read from hardware registers. The values are a direct reflection of the bit pattern currently being received.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:FAC
INH:FAC
INIT:FAC
```

```
OP:FAC
OP:SL
```

Output Message(s):

```
ALW:FAC
INH:FAC
INIT:FAC
OP:FAC
OP:SL
REPT:CGA
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
20.12 (STS-1 FACILITY PROVISIONING)
20.23 [IDCU FACILITY EQUIPMENT (IFAC)]
20.24 (VT1.5 FACILITY PROVISIONING)
20.25 (DNU-S PERFORMANCE MONITORING THRESHOLD GROUP)
22.15 (PERFORMANCE MONITORING THRESHOLD GROUP)

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REPT:FAC-TSF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT FAC=a-b-c-d TRBL SP FAILURE EVENT=e
  SP FIFO OVERFLOW FAILURE RECOVERY ACTION f
  g h i
  jjkkllmm nnnnoooo pppp
```

2. REASON FOR OUTPUT

To respond to a signal processor (SP) interrupt caused by the SP first-in first-out (FIFO) buffer's overflowing due to a showering digital T1 facility.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Digital line and trunk unit number.

`c` = Digital facility interface board number.

`d` = Facility number.

`e` = Event number.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`RMV` = The failing facility was removed from service. Within 30 minutes of the failure, a single automatic attempt will be made to restore this facility to service.

`g` = External logical circuit name.

`h` = Number of recent failures of this type recorded, in decimal.

`i` = Error count threshold, above which the recovery action will be escalated, in decimal.

`j` = Facility number.

`k` = DFI board model number.

`l` = Current hardware recovery level, in hexadecimal.

`m` = Contents of the current internal fault recovery error counter, in hexadecimal.

`n` = Total number of failing peripheral interface data buses (PIDBs), in hexadecimal.

`o` = Total number of failures reported on this PIDB, in hexadecimal.

`p` = Total number of failures reported on unlinked timeslots, in hexadecimal.

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4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
ALW:HDW-MCTSI
INH:HDW-MCTSI
RST:FAC
RMV:FAC
```

REPT:FAN

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT FAN INHIBITS CLEARED a b

[2]   ____________________________________________________________
      REPT FAN INHIBITS NOT CLEARED a b

[3]   ____________________________________________________________
      REPT FAN INHIBIT TIMER HAS EXPIRED a b

[4]   ____________________________________________________________
      REPT FAN INHIBITS CLEARED c CABINET

[5]   ____________________________________________________________
      REPT FAN INHIBITS NOT CLEARED c CABINET

[6]   ____________________________________________________________
      REPT FAN INHIBIT TIMER HAS EXPIRED c CABINET

[7]   ____________________________________________________________
      REPT FAN ALARM c CABINET

[8]   ____________________________________________________________
      REPT FAN ALARM CLEARED c CABINET
```

2. REASON FOR OUTPUT

To report on fan alarm scan points.

Formats 1 and 4 report that the fan alarm scan points are no longer inhibited. This is a result of a 30-minute inhibit timer expiring.

Formats 2 and 5 report that the power switch monitor (PSM) failed to remove scan point inhibits.

Formats 3 and 6 report that the inhibit timer has expired and PSM is taking action to allow the points.

Format 7 reports a scan point transition which indicates a fan alarm in one of the cabinets of the administrative module (AM).

Format 8 reports a scan point transition which indicates the fan alarm in one of the cabinets of the AM was cleared.

3. VARIABLE FIELD DEFINITIONS

`a` = Unit name.

`b` = Unit number.

`c` = Basic or growth cabinet.

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4. ACTION TO BE TAKEN

For Formats 1 - 6, if inhibits could not be cleared, information from the REPT:PSM output message will indicate the reason for the failure. Maintenance on the fan units may be required.

For Format 7, determine if the fan units in the indicated cabinet of the AM need to be repaired. If all fan units are operational, the fan alarm is the result of the fan circuitry experiencing excessive heat. This causes the fan to run at high speeds. If necessary, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 8, no action is required.

5. ALARMS

Format 2 can also have a major alarm level for multiple fan failures or a minor alarm level for single fan failures.

Format 5 can also have a critical alarm level for fan alarms within the basic cabinet of the AM or a major level for a fan alarms within the growth cabinet of the AM.

Format 7 has a critical alarm level for fan alarms within the basic cabinet of the AM or a major alarm level for fan alarms within the growth cabinet of the AM.

For a critical alarm, take immediate action to clear the problem. If needed, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. For a major alarm, the problem may not be service affecting, but take immediate action as indicated in the report. For a minor alarm, take action as indicated in the report.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	137
2	135-137
3	137
4	137
5	135, 137, 697
6	137
7	135, 697
8	137

Output Message(s):

```
REPT:PSM
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

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REPT:FAN-ALARM-RS

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT FAN ALARM RETIRED SM a
```

2. REASON FOR OUTPUT

To report that a fan alarm has cleared on the specified switching module (SM) or one of its associated line and trunk peripheral (LTP) units.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:FANALM
```

Output Message(s):

```
REPT:FAN-FAIL-AS
```

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REPT:FAN-FAIL-AS

Software Release: 5E10 and later
Message Class: BPSC
Application: 5
Type: Output

1. FORMAT

```
REPT FAN FAILURE ALARM SM a
```

2. REASON FOR OUTPUT

To report that a fan failure has occurred in the specified switching module (SM) or one of its associated line and trunk peripheral (LTP) units.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

4. ACTION TO BE TAKEN

Reset the alarm. If the alarm reoccurs, the condition should be investigated.

5. ALARMS

Major.

6. REFERENCES

Input Message(s):

```
CLR:FANALM
```

Output Message(s):

```
REPT:FAN-ALARM-RS
```

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REPT:FAN-MULTI

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT FAN MULTIPLE FAILURE a b

[2]   ____________________________________________________________
      REPT FAN MULTIPLE ALARM CLEARED a b
```

2. REASON FOR OUTPUT

Format 1 reports a scan point transition indicating multiple fan failures.

Format 2 reports a scan point transition indicating the fan alarm was cleared.

3. VARIABLE FIELD DEFINITIONS

a = Unit name.

b = Unit number.

4. ACTION TO BE TAKEN

For Format 1, determine if the fans need to be repaired.

For Format 2, no action is needed.

5. ALARMS

Format 1 has a major alarm level. The failure may not be service affecting but take immediate action to clear the problem.

Format 2 has an alarm level of info. This is an automatically-generated report.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	135
2	137

Output Appendix(es):

APP:OMDB-X-REF

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REPT:FAN-SINGLE

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT FAN SINGLE FAILURE a b

[2]   ____________________________________________________________
      REPT FAN SINGLE ALARM CLEARED a b
```

2. REASON FOR OUTPUT

Format 1 reports a scan point transition indicating a single fan failure.

Format 2 reports a scan point transition indicating the fan alarm was cleared.

3. VARIABLE FIELD DEFINITIONS

a = Unit name.

b = Unit number.

4. ACTION TO BE TAKEN

For Format 1, determine if the fan needs to be repaired.

For Format 2, no action is needed.

5. ALARMS

Format 1 has a minor alarm level. Take action as indicated in the report.

Format 2 has an alarm level of info. This is an automatically-generated report.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	136
2	137

Output Appendix(es):

APP:OMDB-X-REF

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REPT:FAULT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT FAULT
        RPCNa 0 FAULTED, TIME b, FAULT CODE c
        3BI STATUS IS d

[2]   ____________________________________________________________
      REPT FAULT
        CONFIG FAULT CODE X'c RCVD BY _RMDFLT FOR RPCNa 0a
        TIME = b

[3]   ____________________________________________________________
      REPT FAULT
        CONFIG FAULT CODE X'c RCVD BY _RMDFLT FOR RPCNa 0
        WHEN RPCNa 0 IS NOT OOS

[4]   ____________________________________________________________
      REPT FAULT
        RPCNa IS RECURSIVELY FAULTED e TIMES

[5]   ____________________________________________________________
      REPT FAULT
        _OP_RSDMA RETURNS OP_BSNQ, TIME b
        RPCNa 0, FLTCODE X'c

[6]   ____________________________________________________________
      REPT FAULT
        _OP_RSDMA RETURNS OP_NCMPLT, TIME b
        RPCNa 0, FLTCODE X'c

[7]   ____________________________________________________________
      REPT FAULT
        _OP_RSDMA RETURNS OP_CMPLT, TIME b
        RPCNa 0, FLTCODE X'c

[8]   ____________________________________________________________
      REPT FAULT
        RCVD FAULT TYPE FLT_NXXXX, CODE X'c, TIME b
```

2. REASON FOR OUTPUT

Format 1 prints when a node hardware fault indication is dispatched to the fault module and the device has been identified. This message also reports the time stamp, the fault code, as well as the current administrative module (AM) interface (3BI) status.

Format 2 reports that the interprocess message switch (IMS) driver received a fault sent from the config library. The time stamp is also printed.

Format 3 reports that the IMS driver received a fault sent from the config library. At the time of the fault arrival, the node involved was not in the out-of-service (OOS) status.

Format 4 prints when a hardware fault indication is dispatched to the fault module while it was handling a fault on the same node.

Format 5 reports the return status from the ring peripheral controller direct memory access (RPC DMA) restart. In this case a bad RPC DMA sequence number is found when the restart process begins.

Format 6 reports the return status from the RPC DMA restart. In this case the RPC has not completed its current DMA job when the restart process begins.

Format 7 reports the return status from the RPC DMA restart. In this case the RPC has completed its current DMA job when the restart process begins.

Format 8 reports that the IMS driver received a fault indication of type FLT_NXXXX. The "XXXX" can be DREP, ADRP or PICP depending on the code value.

3. VARIABLE FIELD DEFINITIONS

a = Node group name in the form RPCNxx, where xx is either the group number 00 or 32.

b = Real-time clock stamp (in milliseconds).

c = Fault code in hexadecimal.

d = 3BI status in hexadecimal.

e = Number of recursive faults received.

4. ACTION TO BE TAKEN

For format 1, if the node is removed, the node should be diagnosed and then restored to service using normal maintenance procedures.

Note: The automatic ring recovery (ARR) routine, unless inhibited, will attempt (up to 3 times) automatic recovery of OOS nodes if the node maintenance state is not marked MANUAL.

The nodes will self-recover from an occasional transient fault unless the error threshold is exceeded. If the threshold is exceeded, the node is removed and the above recommended maintenance action should be taken. Keep a history of such fault occurrences to help in planning maintenance decisions. When clusters of faults occur and the system is not recovering reasonably, save the receive-only printer (ROP) output and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Formats 2 and 3, these messages accompany message Format 1 when config library faults are involved. No action is required.

For Format 4, this message accompanies message Format 1 when a fault occurs while the IMS driver is handling a previous fault on the same node. No action is required.

For Formats 5, 6, and 7, these messages accompany message Format 1 when the fault threshold is not exceeded. No action is required.

For Format 8, this message is for data collection purposes only. No action is required.

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5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT:IMSDRV-FLT
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

REPT:FCG-SUPP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT FCG SUPP INFO a FAULT (PCxray bit 4)
  TST DATA:b[i],c[i],d[i]
  e f g h
```

2. REASON FOR OUTPUT

To report supplemental information associated with false cross or ground (FCG) detection on an analog line unit (model 2 or 3) gated diode cross point(GDX) matrix. The primary output message is
`REPT LUCHAN TRBL LU OPERATIONAL TEST FAILURE - FCG`

The supplemental message described here is output if the FCG supplemental print flag is set (PCxray bit 4 = 1).

3. VARIABLE FIELD DEFINITIONS

`a` = Type of FCG test failure. Valid value(s):

- `HDWE GND` = No GDX cross points were found left up or a hardware problem was detected while attempting to open a GDX cross point. The failing FCG test detected foreign battery or ground on the tip or ring (tested with +50 volts applied to tip and ring using 20k ohms with a 4 milliampere threshold). This is the first FCG test.
- `HDWE SHORT` = No GDX cross points were found left up or a hardware problem was detected while attempting to open a GDX cross point. The failing FCG test detected a tip to ring short (tested with -50 volts applied to the ring and ground applied to the tip using 2.5k ohms with a 6 milliampere threshold). This is the second FCG test.
- `SOFTWARE` = A GDX cross point was found left up as the cause of the FCG. An attempt was made to open it except as noted by RAW data. The cause is expected to be software rather than hardware.

`b` = The results of H link tests executed in function JB2fcg_h, called from functions JB2orig or JB2term. Valid value(s):

- `FWD` = The forward GDX cross point associated with the channel of the failing path was found left up when it should not have been.
- `H-NONE` = No H link GDX cross points were left up.
- `Hj&Bjj` = The GDX cross point at the intersection of the indicated H- and B- links was found left up when it should not have been.
- `REV` = The reverse GDX cross point associated with the channel of the failing path was found left up when it should not have been.

`c` = The results of B-link tests executed in function JB2fcg_b, called from function JB2disc. Valid value(s):

- `B-NONE` = No B-link GDX cross points were left up.
- `Bkk&Akk,GBk-k` = The GDX cross point at the intersection of the indicated B- and A-links was found left up when it should not have been. GBx-x refers to the grid and board of the indicated A-link.
- `Bkk&Hk` = The GDX cross point at the intersection of the indicated B- and H-links was found

left up when it should not have been.

d = The results of A-link tests executed in function JB2fcg_a, called from function JB2disc. Valid value(s):

- A-NONE = No A-link GDX cross points were left up.
- All&Bll = The GDX cross point at the intersection of the indicated A- and B-links was found left up when it should not have been.
- All&GBSLl-l-l-l = The GDX cross point at the intersection of the indicated A-link and line equipment number (LEN) was found left up when it should not have been. GBSLl-l-l-l refers to the grid, board, switch and level of the LEN.

e = Line unit channel (LUCHAN) number.

f = Line unit high level service circuit (LUHLSC) number.

g = Line unit A-link (ALINK) number.

h = Line equipment number.

i = Raw test data in hexadecimal format. RAWx - x is a hexadecimal number, it must be converted to binary.

Bit:	Explanation:
bit 0 = 1	
bit 1 = 1	
bit 2 = 1	
bits 2-0 = 6	
bits 2-0 = 7	

j = The H- and B-link numbers.

k = The B-link, A-link, grid and board number.

l = the A-link, B-link, grid, board, switch and level number.

4. ACTION TO BE TAKEN

Messages can be inhibited by using:

```
DUMP:UT:SM=x,GVAR="PCxray",l=4;
```

Where 'x' = The SM being controlled. Expect a response with the contents of PCxray in hexadecimal. Do the next step only if bit 4 of PCxray = 1 (to prevent other control bits from being changed).

```
COPY:UT:SM=x,GVAR1="PCxray",eq,GVAR2="PCxray",MINUS,VAL3=h'00000010;
```

Messages can be allowed by using:

```
DUMP:UT:SM=x,GVAR="PCxray",l=4;
```

Where 'x' = The SM being controlled. Expect a response with the contents of PCxray in hexadecimal. Do the next step only if bit 4 of PCxray = 0 (to prevent other control bits from being changed).

```
COPY:UT:SM=x,GVAR1="PCxray",eq,GVAR2="PCxray",PLUS,VAL3=h'00000010;
```

If 'a' =	Action:
SOFTWARE	
HDWE	

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
COPY:UT-SM
DUMP:UT-SM
TST:LEN
```

Output Message(s):

```
DUMP:UT-SM
REPT:LUCHAN-TLOT
REPT:LUCHAN-TPCCF
REPT:LUCHAN-TPDCF
REPT:LUCHAN-TPPF
REPT:LUCHAN-TSF
REPT:LUCHAN-TUSR
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

131 (UTILITY CALL TRACE)

REPT:FIELD-MAINT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT FIELD MAINT a
```

2. REASON FOR OUTPUT

To report that a poked input message from a field maintenance message page has failed.

3. VARIABLE FIELD DEFINITIONS

`a` = Reason for failure. Valid value(s):

`DISPLAY PAGE FAILED` = A request for the display administration process to display the input page failed.

`INPUT BUFFER LIMIT EXCEEDED` = Fmctrl could not store all of the input message line in the message buffer.

`INPUT TEXT EXECUTION FAILED` = Failure to communicate with the craft shell when passing the input message for processing.

`MESSAGE NOT RECEIVED` = An attempt to update the screen by sending a message string to the display administration process has failed.

`UNABLE TO SEND MESSAGE TO DAP` = An attempt to communicate with the display administration process failed.

`UNKNOWN INDICATOR` = The input message was not found in the fmctrl message table.

4. ACTION TO BE TAKEN

If the error does not involve the display administration process, retry the message. If the error does involve display administration process (DAP), restart DAP. If this does not correct the problem, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	285

Output Appendix(es):

`APP:OMDB-X-REF`

REPT:FILESYS

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT FILESYS a OVERFLOW   b
```

2. REASON FOR OUTPUT

To report that a *UNIX*® RTR file system is full or nearly full.

3. VARIABLE FIELD DEFINITIONS

`a` = Severity of overflow condition. Valid value(s):
- `CRITICAL` = File system is completely full.
- `WARNING` = File system is in danger of overflowing, possibly within two hours.

`b` = File system name.

4. ACTION TO BE TAKEN

Manual action may be required to remove data from the file system named. In order to remove data safely, the user must know which files in the file system are permanent and which are temporary. Refer to application's specific document for file system maintenance and trouble-clearing procedures.

After the files are removed, the amount of free space in the file system can be displayed by using the *UNIX*® message 'df' or the OP:ST-FREEDISK input message. If the free space is still low, or if the file system overflow condition continues, it is likely that some active processes have opens on files in the file system. The removal of files will not take effect until all opens to the files are closed.

The processes with active opens can be identified by using the *UNIX*® message 'umount' or the INH:FSYS-UMOUNT input message. The 'umount' message and the INH:FSYS-UMOUNT input message will fail to unmount if these are open files in the system.

The processes with active opens may have to be terminated to remove the overflow condition, but discretion is advised. In case of uncertainty, the next level of support personnel should be consulted.

In particular, when an overflow condition is reported for /dev/tmp, it is recommended that a corrective measure be taken to clear the overflow condition. A shortage in /dev/tmp free space may result in loss or mutilation of ROP messages, or other unforeseen malfunctions in the system.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):

1	451

Input Message(s):

```
CLR:FSYS-FILE
DEL:LOG
INH:FSYS-UMOUNT
OP:ST-FREEDISK
OP:ST-LISTDIR
```

Output Message(s):

```
CLR:FSYS-FILE
OP:ST-FREEDISK
OP:ST-LISTDIR
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

REPT:FMC

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
REPT FMC=a IFAMS LINK IS DOWN
```

2. REASON FOR OUTPUT

Reports that the integrated force administration mechanization system (IFAMS) data interface link and its associated forced management center (FMC) position numbers are "DOWN."

3. VARIABLE FIELD DEFINITIONS

`a` = FMC position number.

4. ACTION TO BE TAKEN

Report the problem to operator services position system administrative processor (OAP) FMC administration.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

REPT-FMGR-AWTB

Software Release: 5E10 and later
Message Class: MAINT
Application: 3B
Type: Output

1. FORMAT

```
REPT FMGR ACCESS WINDOW TO BLOCK DEVICE FOR MOUNTED
  FILE SYSTEM IS a
```

2. REASON FOR OUTPUT

To report that the window to access the block device for mounted file system is open/closed for write operation. This message will be produced as a result of the openwd, or closewd *UNIX*® messages.

3. VARIABLE FIELD DEFINITIONS

`a` = Status of access window. Valid value(s):
`CLOSED` = The access window is closed.
`OPEN` = The access window is open.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

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REPT:FMGR-DIR

Software Release: 5E10 and later
Message Class: MAINT
Application: 3B
Type: Output

1. FORMAT

```
REPT FMGR DIR SW FAILED:
  INODE a OPEN BY PID b ON c
```

2. REASON FOR OUTPUT

To report that a directory switch request failed because of a busy inode.

3. VARIABLE FIELD DEFINITIONS

`a` = The busy inode number.

`b` = The process ID of the process which has the inode open.

`c` = The name of the file system that contains the inode.

4. ACTION TO BE TAKEN

Kill the processes which have the inode open and retry the switch. Repeat until all processes which have inodes open in the directory structure have been killed. If the switch still does not succeed, report the problem to *UNIX*® RTR System Support.

5. ALARMS

None.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	678

REPT:FMGR-ECD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT FMGR ECD a PID=b UID=c d
```

2. REASON FOR OUTPUT

To report that the file manager attempted to access an equipment configuration database (ECD) record defining a special device file and in the attempt, something malfunctioned.

3. VARIABLE FIELD DEFINITIONS

`a` = Text phrase. Valid value(s):

- `BAD-DCN` = The major device number is invalid for the specified driver type.
- `BAD-DRIVER` = The driver type is undefined.
- `BAD-FIFO` = The partition number exceeded the maximum allowed for a fifo device.
- `BAD-PERM` = One or more of the file permissions exceeded the value of seven.
- `RETURN-xx` = The lla access function failed, returning '`xx`'. This would normally indicate that the special device file is not in the database.

`b` = Process ID of the process that sent the message to the FMGR.

`c` = Utility ID of the process that sent the message to the FMGR.

`d` = Fully qualified pathname for which the ECD access occurred.

4. ACTION TO BE TAKEN

The driver required information normally extracted from the ECD will instead be used as specified in the special device file contained in the file system. If the special device file information (the mdct-rid, partition, and dcn) is inappropriate, then the ECD must be corrected.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
box	
all	336

Output Appendix(es):

`APP:OMDB-X-REF`

REPT:FMGR-IFS

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
REPT FMGR a IN FILE SYSTEM b
```

2. REASON FOR OUTPUT

To report that space for a file system could not be allocated during falloc() or writetape() (`POSSIBLE CORRUPTION`), or that static data in the root file system incore super block was corrupted but has been recovered (`SUPER BLOCK RECOVERED`).

3. VARIABLE FIELD DEFINITIONS

`a` = Reason for output message. Valid value(s):
`FMGR INCORE SUPER BLOCK RECOVERED` = Static data in root file system incore super block was corrupted but has been recovered.
`POSSIBLE CORRUPTION` = Build of a file system's bitmap failed (during falloc() or writetape()), and file system may be corrupted.

`b` = The name of the file system.

4. ACTION TO BE TAKEN

If 'a' =	Action:
POSSIBLE CORRUPTION	Run file system audits.
FMGR INCORE SUPER BLOCK RECOVERED	File system audit has been requested; examine output when audit completes. If condition persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual, and report audit results and name of the file system.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	518

Input Message(s):

```
AUD:FMGR
AUD:FSBLK
AUD:FSLINK
```

Output Appendix(es):

APP:OMDB-X-REF

REPT:FMGR-MOUNT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT FMGR MOUNT FAILED:
  PROCESS PID=a, UID=b, HAS OPEN MOUNT POINT=c
```

2. REASON FOR OUTPUT

To report that mount failed, and to print the process identifier (PID) number and utility identification (UID) number of the process which has the mount point open.

3. VARIABLE FIELD DEFINITIONS

`a` = The PID number of the process which has the mount point open.

`b` = The UID number of the process which has the mount point open.

`c` = The name of the mount point.

4. ACTION TO BE TAKEN

Kill the processes which have the mount point open, and retry the mount. If the mount still does not succeed, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	651

Output Appendix(es):

`APP:OMDB-X-REF`

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REPT:FMGR-NF

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT FMGR NONTASK FAULT a ADDR b
```

2. REASON FOR OUTPUT

To report that a file manager fault has occurred that was not within a task.

3. VARIABLE FIELD DEFINITIONS

`a` = Fault code. Refer to APP:DFC-I appendix in the Appendixes section of the Output Messages manual.

`b` = Program address at which the fault occurred.

4. ACTION TO BE TAKEN

The fault should have been resolved by the file manager and no further action should be necessary.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	337

Output Appendix(es):

```
APP:DFC-I
APP:OMDB-X-REF
```

REPT:FMGR-PROCESS

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT FMGR PROCESS KILLED BY UNCONDITIONAL MOUNT
  PID=a, UID=b, MOUNT POINT=c
```

2. REASON FOR OUTPUT

To report that the file manager (FMGR))has terminated a process due to an unconditional mount request.

If the FMGR is requested to mount a file system unconditionally, all non-kernel processes that have the mount point open (for example, a process with the mount point at its current working directory) will be terminated.

3. VARIABLE FIELD DEFINITIONS

`a` = Process ID of the terminated process.

`b` = Utility ID of the terminated process.

`c` = Mount point of the unconditional mount request.

4. ACTION TO BE TAKEN

No direct action is required because important system processes should restart automatically. To determine why indicated process had to be terminated, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	602

Output Appendix(es):

APP:OMDB-X-REF

REPT:FMGR-TABLE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT FMGR a TABLE b FAIL
  ERROR = c DATA X'd
```

2. REASON FOR OUTPUT

To report an alteration or a failed attempt to alter the size of the file manager (FMGR) table.

3. VARIABLE FIELD DEFINITIONS

`a` = Name of the FMGR table. Valid value(s):
- `CAPABILITY` = Capability table.
- `FILE` = File table.
- `INODE` = Node table.

`b` = Action taken on FMGR table. Valid value(s):
- `DEGROWTH` = Resources has decreased in size.
- `GROWTH` = Resource has increased in size.

`c` = Reason FMGR was unable to grow. Valid value(s):
- `1` = System is currently in disk independent operation (DIOP).
- `2` = Insufficient time has passed since the last unsuccessful growth attempt.
- `3` = Resource is already at its maximum size
- `4` = Cannot allocate a message buffer for message to the memory manager.
- `5` = Cannot allocate additional memory.
- `6` = Cannot send the message to the memory manager.
- `7` = Another task is growing the resource.

`d` = Status. If non-zero, the status indicates why the memory manager could not allocate memory. If zero, not used.

4. ACTION TO BE TAKEN

In case of resource growth failure, attempt to reduce system load. In case of resource degrowth failure, no action is necessary. The file manager will attempt to deallocate the resource, as needed, at a later time.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:FMGR-TO

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
REPT FMGR: a TABLE OVERLOAD b, COUNT = c
```

2. REASON FOR OUTPUT

To report that one of the file manager tables is approaching an overload condition or to report that the overload condition has been cleared.

3. VARIABLE FIELD DEFINITIONS

`a` = Name of file manager internal table. Valid value(s):
- `CAP` = Capability table.
- `FILE` = File table.
- `INODE` = Inode table.

`b` = Indicates severity of overload. Valid value(s):
- `CLEARED` = A number of table entries have been freed since last warning/critical report.
- `CRITICAL` = Very close to complete exhaustion.
- `WARNING` = Most table entries have been allocated, still a few free entries.

`c` = Number of table entries in use.

4. ACTION TO BE TAKEN

No action is necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
AUD:FMGR
```

Output Message(s):

```
AUD:FMGR2
AUD:FMGR4
AUD:FMGR5
```

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REPT:FMGR-TS

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT FMGR TASK STATUS a, PID=b TYPE=c ADDR=d
```

2. REASON FOR OUTPUT

To report that a file manager task has been prematurely terminated.

3. VARIABLE FIELD DEFINITIONS

`a` = Reason for task termination. Valid value(s):
- `FAULT` = Task was running when a file manager fault occurred.
- `PHASE1` = Task was running when a phase level 1 occurred.
- `TIMEOUT` = Task execution time exceeded limit.

`b` = Process ID of the process that requested the task: in decimal.

`c` = Type of message (from head/mstyp.h) that initiated the task: in decimal.

`d` = Address of resource that a timed out task was waiting for: in hexadecimal.

4. ACTION TO BE TAKEN

An error condition has been resolved by the file manager. No further action is necessary.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	335

Output Appendix(es):

`APP:OMDB-X-REF`

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REPT-FMGR-UDTD

Software Release: 5E10 and later
Message Class: MAINT
Application: 3B
Type: Output

1. FORMAT

```
REPT FMGR a UNMOUNTED DUE TO DISK REMOVAL
```

2. REASON FOR OUTPUT

To report that the file manager has unmounted the named file system due to disk removal (by fault or request).

3. VARIABLE FIELD DEFINITIONS

`a` = The name of the file system unmounted.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RMV:MHD
```

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REPT:FMGR-UNMNT

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT FMGR a UNMOUNTED DUE TO DISK REMOVAL

[2]   ____________________________________________________________________
      REPT FMGR UNMOUNT FAILED:
        PROCESS b HAS OPEN FOR INODE c FOR d
```

2. REASON FOR OUTPUT

Format 1 reports that the file manager has unmounted the named file system due to disk removal (by fault or request).

Format 2 reports that an unmount request failed because the file system is busy, and to specify which processes have locks on files in the file system to be unmounted.

3. VARIABLE FIELD DEFINITIONS

a = The name of the file system unmounted.

b = The process ID of the process which has the inode open.

c = The busy inode number.

d = The name of the file system.

4. ACTION TO BE TAKEN

For Format 1, no action needs to be taken.

For Format 2, support processes such as recent change, audits and measurements may be killed. Kill the processes that have the inodes open and try the unmount again. Some processes affect call processing and should never be killed. If the unmount still does not succeed, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual for assistance in determining which processes may be killed.

5. ALARMS

Formats 1 and 2 are automatically-generated reports. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
2	583

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Input Message(s):

```
RMV:MHD
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

REPT:FPC-DUPLEX

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT FPC a DUPLEX FAIL ADDR X'b
```

2. REASON FOR OUTPUT

To indicate that both foundation peripheral controllers (FPCs) have been removed from service, and a duplex failure condition exists.

3. VARIABLE FIELD DEFINITIONS

`a` = The last FPC (0 or 1) to be removed from service.

`b` = Virtual address, in hexadecimal, of the call to report the duplex failure.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:FPC-FLT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT FPC a FLT PART A
  b c d e f g h i j k l
```

2. REASON FOR OUTPUT

Indicates that the foundation peripheral controller (FPC) has raised its error lead.

3. VARIABLE FIELD DEFINITIONS

All values are printed in hexadecimal.

a	= Side.
b	= Accumulator.
c	= "B" register.
d	= "C" register.
e	= "D" register.
f	= Stack segment register.
g	= Extra segment register.
h	= Data segment.
i	= Stack pointer.
j	= Base pointer.
k	= Stack index.
l	= Data index.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:FPC-MSG-ERR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT FPC a MSG ERR bc ADDR X'd
  e        f g h       i
```

2. REASON FOR OUTPUT

To indicate that the foundation peripheral controller (FPC) handler has encountered an error condition while processing a message. The message may have contained invalid data, or the request action indicated by the message could not be performed because of the state of the system.

3. VARIABLE FIELD DEFINITIONS

a = Unit side.

b = Hexadecimal function code. Valid value(s):
0x120 = CDfpcpmsg.c:pmsgfd3
0x121 = CDfpcprsp.c:prspfd3
0x124 = CDfpcprsp.c:CDmtcrsp
0x125 = CDfpcprsp.c:SMgetpmb
0x126 = CDfpcprsp.c:CDrsfrsp
0x127 = CDfpcprsp.c:SMcallrsf
0x123 = CDfpcprst.c:CDrstfail
0x122 = CDfpcprmv.c:prmvfd3

c = Hexadecimal error indication defined locally in the input/output driver (IODRV). Valid value(s):

Hex	Mnemonic	Definition
0x51	CDUNITSTATE	Unallowable state.
0x59	CDSTYPENG	Subtype incorrect.
0x5a	CDSUNITNG	Subunit incorrect.
0x5b	CDSWHICHNG	Which field incorrect.
0x5c	CDSOURCENG	MS SOURCE wrong value.
0x5f	CDTYPENG	Wrong type.
0x67	CDNOPMBLOC	Not reported post-mortem block location.
0x69	CDMSGOVFL	Message buffer full causing an overflow.
0x6e	CDDCFAIL	Configuration control request when a request is already active.

d = Hexadecimal virtual address of the point of the error in the IODRV.

e = Hexadecimal process ID of the sender of the message. Valid value(s):
0x12 = SMKP.

f = The subtype, in hexadecimal. Valid value(s):

Hex	Mnemonic	Definition
0x1	CDRBLK	Read block.
0x2	CDWBLK	Write block.
0x3	SMACK	Acknowledgment.

0x6	CDCFIG	Configuration request to the specified subunit.
0x6	CDSDCFIG	Configuration request to the specified subunit.
0x10	CDLKSETUP	Link set up.
0x11	CDREMOVE	Remove.
0x12	CDRESTORE	Restore.
0x14	SMCMINIT	Request to initialize the cm portion in IODRV.

g = The subunit, in hexadecimal. Valid value(s):

Hex	Mnemonic	Definition
0x0	CDCMLINK	Communication link.
0x1	CDNC	Network clock.
0x2	CDLI	Link interface.
0x3	CDMI	Message interface.
0x4	CDFPC	Foundation peripheral controller (FPC).
0x5	CDCTS	Control time slot.
0x7	CDTMS	Time multiplex switch (TMS).
0xa	CDMICU	Message interface and clock unit (MICU).

h = Data word one.

i = Data word two.
Note: Data words are supplied by the calling function.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

REPT:FPC-RSP-ERR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT  FPC a RSP ERR bc ADDR X'd
  e         f         g       h
```

2. REASON FOR OUTPUT

To indicate that the foundation peripheral controller (FPC) handler has encountered an error when processing a response from the FPC.

3. VARIABLE FIELD DEFINITIONS

a = Unit side used.

b = Hexadecimal function code. Valid value(s):

- 0x120 = CDfpcpmsg.c:pmsgfd3
- 0x121 = CDfpcprsp.c:prspfd3
- 0x124 = CDfpcprsp.c:CDmtcrsp
- 0x125 = CDfpcprsp.c:SMgetpmb
- 0x126 = CDfpcprsp.c:CDrstrsp
- 0x127 = CDfpcprsp.c:SMcallrsf
- 0x123 = CDfpcprst.c:CDrstfail
- 0x122 = CDfpcprmv.c:prmvfd3

c = Hexadecimal error indication. Valid value(s):

Hex	Mnemonic	Definition
0x51	CDUNITSTATE	Unallowable state.
0x52	CDPCHARD	Incorrect value of the page table.
0x53	CDCCNG	Completion code incorrect.
0x54	CDCNER	Command and response disagree.
0x55	CDRSPNG	Received response of wrong type.
0x5d	CDPTANG	Incorrect value of the page table.
0x65	CDNODMAJOBNO	Can't assign DMA a job number.
0x67	CDNOPMBLOC	Not reported post-mortem block location.

d = Virtual address, in hexadecimal, of the point of error.

e = Response word one.

f = Response word two.

g = Data word one.

h = Data word two. Refer to the virtual address in the input/output driver (IODRV) to locate the point of error and determine what additional data has been provided.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

REPT:FPC-RST-FAIL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT FPC a RST FAIL bc ADDR X'dddd
```

2. REASON FOR OUTPUT

To indicate that the foundation peripheral controller (FPC) handler has failed to restore the indicated FPC to service.

3. VARIABLE FIELD DEFINITIONS

a = Unit side.

b = Hexadecimal function code. Valid value(s):

0x120 = CDfpcpmsg.c:pmsgfd3
0x121 = CDfpcprsp.c:prspfd3
0x124 = CDfpcprsp.c:CDmtcrsp
0x125 = CDfpcprsp.c:SMgetpmb
0x126 = CDfpcprsp.c:CDrsfrsp
0x127 = CDfpcprsp.c:SMcallrsf
0x123 = CDfpcprst.c:CDrstfail
0x122 = CDfpcprmv.c:prmvfd3

c = Hexadecimal error indication. Valid value(s):

Hex	Mnemonic	Definition
0x51	CDUNITSTATE	Unallowable state.
0x52	CDPCHARD	Hard fault in the FPC.
0x53	CDCCNG	Completion code incorrect.
0x54	CDCNER	Command and response disagree.
0x55	CDRSPNG	Received response of wrong type.
0x56	CDBOOTFAIL	Boot preliminary checks failed.
0x57	CDRSTOUT	Process restore failure.
0x5d	CDPTANG	Incorrect value of the page table.
0x64	CDRSTFAIL	Restore fail.
0x65	CDNODMAJOBNO	Can't assign DMA a job number.
0x67	CDNOPMBLOC	Not reported post-mortem block location.
0x68	CDMINMODE	Deny min mode boot or restore.

d = Hexadecimal virtual address of the call to the function reporting the failure to restore.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

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None.

REPT:FUSE-ALARM

Software Release: 5E10 and later
Message Class: MAINT
Application: 3B
Type: Output

1. FORMAT

```
[1]    ____________________________________________________________
       REPT FUSE ALARM a CABINET

[2]    ____________________________________________________________
       REPT FUSE ALARM CLEARED a CABINET
```

2. REASON FOR OUTPUT

To report on fuse alarm scan points.

Format 1 reports a scan point transition which indicates a fuse alarm in one of the cabinets of the administrative module (AM).

Format 2 reports a scan point transition which indicates a fuse alarm was cleared in one of the cabinets of the AM.

3. VARIABLE FIELD DEFINITIONS

`a` = Basic or growth cabinet.

4. ACTION TO BE TAKEN

For Format 1, determine if any of the fuses, within the indicated cabinet of the AM, needs to be repaired.

For Format 2, no action is needed.

5. ALARMS

Format 1 has a major alarm. The problem may not be service affecting, but take immediate action as indicated in the report.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	698
2	747

Output Appendix(es):

`APP:OMDB-X-REF`

Other Manual(s):
235-105-220 *Corrective Maintenance*

80. REPT:G

REPT:GAC

Software Release: 5E10 and later
Message Class: TM
Application: 5
Type: Output

1. FORMAT

```
REPT GAC a b [c] d
```

2. REASON FOR OUTPUT

To report that the group alerting circuit (GAC) alarm has changed state (from major to minor or vice versa).

3. VARIABLE FIELD DEFINITIONS

`a` = Circuit identification number.

`b` = Alarm. Valid value(s):
- `MJ` = Major alarm.
- `MN` = Minor alarm.

`c` = Optional facility name (12-character tag).

`d` = Alarm status. Valid value(s):
- `ACT` = Alarm is active.
- `RET` = Alarm is retired.

4. ACTION TO BE TAKEN

Report alarm conditions to appropriate local maintenance personnel.

5. ALARMS

Major or Minor.

6. REFERENCES

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-600-11x *Translations Data*
235-900-113 *Product Specification*

REPT:GDSF-TDSR

Software Release: 5E10 and later
Message Class: VAR
Application: 5
Type: Output

1. FORMAT

```
REPT GDSF=a-b TRBL c EVENT=d
  e RECOVERY ACTION f
  g h i
  j k l m n [o o o]
  [o o o]
```

2. REASON FOR OUTPUT

To respond to a maintenance service request pertaining to a global digital services function (GDSF).

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = GDSF unit number.

c = High level error type. Valid value(s):

```
DSC3 SERVICE REQUEST FAILURE
DSC3 OPERATIONAL ERROR
```

d = Event number, which is the time sequence indicator.

e = Error type. Valid value(s):

```
DSC3 COMMON MEMORY PACK ERROR
DSC3 CONTROL ORDER FAILURE DURING SA
DSC3 HIGH LEVEL FIRMWARE ERROR
DSC3 INTERNAL COMMUNICATION ERROR
DSC3 INTERNAL DATA ERROR
DSC3 INTERNAL DSP ERROR
DSC3 INTERNAL HARDWARE ERROR
DSC3 INTERRUPT THRU MASK FAILURE
DSC3 LOW LEVEL FIRMWARE ERROR
DSC3 LP ADDRESSING ERROR
DSC3 LP CLOCK FAILURE
DSC3 LP SANITY TIMER TIMEOUT
DSC3 LP UCI READ PARITY ERROR
DSC3 MAINTENANCE PROCESS TIMEOUT
DSC3 MP ADDRESSING ERROR
DSC3 MP UCI READ PARITY ERROR
DSC3 NO ERROR SOURCE FOUND
DSC3 PARITY WRITE PROTECT ERROR
DSC3 PIDB0 SIDE 1 CLOCK OR SYNC FAILURE
DSC3 PIDB0 SIDE 0 CLOCK OR SYNC FAILURE
GDSF IS NOT IDLE
```

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GDSF MAILBOX FULL
GDSF OUT OF SEQUENCE

f = Recovery action. Valid value(s):
ANALYSIS ONLY = A post mortem report is provided.
ASSERT TO SYSTEM INTEGRITY = A software failure has been detected and system integrity has been notified.
INITIALIZED = The failing circuit has been reinitialized.
RMV = The failing circuit is removed from service. Intervention is required to change the state of the circuit. A RMV:GDSF report prints.
RST AUTO CAMPON = The failing circuit is diagnosed when it is available. A DGN report prints.
RST PREEMPT = The failing circuit was preempted and a diagnostic was scheduled. A report prints with the results of the diagnostic.

g = Unit type, SM number and unit number.

h = Error count.

i = Threshold for error.

j = Hardware error source mask register.

k = Hardware error source register.

l = Firmware error source register low byte. Firmware error source mask register high byte.

m = Summary scan mask register.

n = Summary scan register.

o = Type of error. Valid value(s):

If 'e' =	'o' =
DSC3 HIGH LEVEL FIRMWARE ERROR	Descriptor 7 information.
DSC3 LOW LEVEL FIRMWARE ERROR	Descriptor 6 information.
Any other firmware error.	Descriptor 0-5.

4. ACTION TO BE TAKEN

Use the Corrective Maintenance manual to determine what action should be taken with the faulty unit and with any receive-only printer (ROP) output.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:GDSF-TPCF-A

Software Release: 5E10 only
Message Class: VAR
Application: 5
Type: Output

1. FORMAT

```
REPT GDSF=a-b TRBL PICB CONTROL FAILURE EVENT=c
  d RECOVERY ACTION e
  f g h i
  j k l
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the global digital services function (GDSF).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = GDSF unit number.

`c` = Event number (the time sequence indicator).

`d` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`e` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is provided.

`RMV` = The failing circuit is removed from service. Intervention is required to change the state of the circuit. A RMV report prints after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit is diagnosed when it is available. A report prints with the results of the diagnostic.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A report prints with the results of the diagnostic.

`f` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`g` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`h` = Data being written to the periphery by the CI.

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`i` = Contents of the CI error source register.

`j` = External logical circuit name.
Note: Up to two logical circuit names, error counts, and error thresholds (variables '`j`'-'`l`') may be printed.

`k` = Current decimal number of recent failures of this type recorded.

`l` = Error count threshold.

4. ACTION TO BE TAKEN

Use the Corrective Maintenance manual to determine what action should be taken with the faulty unit and with any receive-only printer (ROP) output.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:GDSF-TPCF-B

Software Release: 5E11 and later
Message Class: VAR
Application: 5
Type: Output

1. FORMAT

```
REPT GDSF=a-b TRBL PICB CONTROL FAILURE EVENT=c
  d RECOVERY ACTION e
  f g h i
  j k l m
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the global digital services function (GDSF).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = GDSF unit number.

`c` = Event number (the time sequence indicator).

`d` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`e` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is provided.

`RMV` = The failing circuit is removed from service. Intervention is required to change the state of the circuit. A RMV report prints after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit is diagnosed when it is available. A report prints with the results of the diagnostic.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A report prints with the results of the diagnostic.

`f` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`g` = System PICB number in hexadecimal that was being written when the failure occurred.

`h` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

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`i` = Data being written to the periphery by the CI.

`j` = Contents of the CI error source register.

`k` = External logical circuit name.
Note: Up to two logical circuit names, error counts, and error thresholds (variables '`k`'-'`m`') may be printed.

`l` = Current decimal number of recent failures of this type recorded.

`m` = Error count threshold.

4. ACTION TO BE TAKEN

Use the Corrective Maintenance manual to determine what action should be taken with the faulty unit and with any receive-only printer (ROP) output.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:GDSF-TPPF

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
REPT GDSF=a-b TRBL PIDB PARITY FAILURE c
  d RECOVERY ACTION e
  f g h i
```

2. REASON FOR OUTPUT

To indicate that a parity error occurred on the global digital services function (GDSF) peripheral interface data bus (PIDB).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = GDSF unit number.

`c` = Even number, (the time sequence indicator).

`d` = Error type. Valid value(s):
`DSC3 PARITY FAILURE` = A parity error was detected on a digital service circuit 3 (DSC3) PIDB. A GDSF uses a DSC3 circuit.

`e` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is provided.
`RMV` = The failing circuit is removed from service. Intervention is required to change the state of the circuit. A RMV report prints after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit is diagnosed when it is available. A report prints with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A report prints with the results of the diagnostic.

`f` = External logical circuit name.

`g` = Number of entries in PIDB parity error buffer.

`h` = Current decimal number of recent failures of this type recorded.

`i` = Error count threshold.

4. ACTION TO BE TAKEN

Use the Corrective Maintenance manual to determine what action should be taken with the faulty unit and with any receive-only printer (ROP) output.

5. ALARMS

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None.

6. REFERENCES

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:GDSU-TDCSR

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT GDSU=a-b TRBL DSU COM SERV REQ FAILURE c
  d RECOVERY ACTION e
  f g h i j k l m
  n o p
```

2. REASON FOR OUTPUT

To respond to a maintenance service request pertaining to a digital service unit (DSU) common board on the global DSU (GDSU).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Global digital service unit number.

`c` = Event number.

`d` = Error type. Valid value(s):

`DSC ERROR REPORTED, NONE FOUND` = The software copy of the DSU subtending circuit (DSC) fault or DSC parity error mask does not match the hardware, or the mask is ineffective.

`DSCCOM CLOCK FAILURE` = There are problems with the distribution of the 4 Mhz clock or the 8Khz sync to the DSU common board.

`DSCCOM TS ERR, NO SOURCE DET` = The DSU error source register (variable '`f`') indicates a DSCCOM time slot parity error, but no bit is set in the parity error register.

`DSCCOM TS PARITY ERROR` = There is a failure of the time slot select register on the DSU common board.

`DSCCOM TSSR FAILURE` = There is a failure of the time slot select register on the DSU common board.

`DSU INTERRUPT TEST BIT SET` = This bit should never be set. It is for diagnostic purposes only.

`INTERRUPT THROUGH MASK FAILURE` = The software copy of the DSU common board error source mask register (variable '`k`') does not match the hardware or the mask is ineffective.

`MULTIPLE FAILURE INDICATIONS` = More than one failure was found for a single service request.

`PICB FAILURE DURING DSC SA` = A PICB failure occurred while attempting to read registers on a DSC board.

`PICB FAILURE IN DSCCOM SA` = A PICB failure occurred while attempting to read registers on the DSU common board. Register information is not valid.

`e` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is generated.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has

been notified.

`INITIALIZE` = The failing circuit has been reinitialized.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.

`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`f` = DSU common board error source register (ESR).

`g` = DSU common board DSC fault register.

`h` = DSU common board DSC parity error register.

`i` = DSU common board parity register for DSU common board time slots 16-31.

`j` = DSU common board parity register for DSU common board time slots 0-15.

`k` = Software copy of the DSU common board ESR mask register. The mask register cannot be read.

`l` = Software copy of the DSU common board DSC fault mask register. The mask register cannot be read.

`m` = Software copy of the DSU common board DSC parity error mask register. The mask register cannot be read.

`n` = External logical circuit name.

Note: Up to six logical circuit names, error counts, and error thresholds (variables '`n`'-'`p`') may be printed.

`o` = Current decimal number of recent failures of this type recorded.

`p` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:GDSU-TDDSR

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT GDSU=a-b TRBL DSU DSC SERV REQ FAILURE c
  d RECOVERY ACTION e
  f g h i j
  k l m
  n o p
  ERROR ANALYSIS q r s
```

2. REASON FOR OUTPUT

To respond to a maintenance service request from a digital service unit (DSU) subtending circuit on the global digital service unit (GDSU).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Global digital service unit number.

`c` = Event number.

`d` = Error type. Valid value(s):

`DSC ERROR REPORTED, NONE FOUND` = The software copy of the DSC fault or DSC parity error mask does not match the hardware, or the mask is ineffective.

`DSCCOM CLOCK FAILURE` = There are problems with the distribution of 4Mhz clock or 8Khz sync to DSU common board.

`DSCCOM TS ERR, NO SOURCE DET` = The DSU source error register (variable '`f`') indicates a DSCCOM time slot parity error, but no bit is set in the parity error register.

`DSCCOM TS PARITY ERROR` = There is a failure of the time slot select register on the DSU common board.

`DSCCOM TSSR FAILURE` = There is a failure of the time slot select register on the DSU common board.

`DSU INTERRUPT TEST BIT SET` = This bit should never be set. It is for diagnostic purposes only.

`INTERRUPT THROUGH MASK FAILURE` = The software copy of the DSU common board error source register (variable '`f`') does not match the hardware or the mask is ineffective.

`MULTIPLE FAILURE INDICATIONS` = More than one failure was found for a single service request.

`PICB FAILURE DURING DSC SA` = A PICB failure occurred while attempting to read registers on a DSC board.

`PICB FAILURE IN DSCCOM SA` = A PICB failure occurred while attempting to read registers on the DSU common board. Register information is not valid.

`e` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is generated.

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`ASSERT TO SYSTEM INTEGRITY` = Software failure has been detected and system integrity has been notified.
`INITIALIZE` = The failing circuit has been reinitialized.
`REPORT TO TERMINAL MAINT` = Terminal maintenance has been notified of the failure.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`f` = DSU common board error source register.

`g` = DSU common board DSC fault register.

`h` = DSU common board DSC parity error register.

`i` = DSU common board parity register for DSU common board timeslots 16-31.

`j` = DSU common board parity register for DSU common board timeslot 0-15.

`k` = Software copy of the DSU common board ESR mask register. The mask register cannot be read.

`l` = Software copy of the DSU common board DSC fault mask register. The mask register cannot be read.

`m` = Software copy of the DSU common board DSC parity error mask register. The mask register cannot be read.

`n` = Fault register on the failing DSU subtending circuit.

`o` = Parity register for the data coming to the DSU subtending circuit on DSU time slots 16-31.

`p` = Parity register for the data coming to the DSU subtending circuit on DSU time slots 0-15.

`q` = External logical circuit name.

`r` = Current decimal number of recent failures of this type recorded.

`s` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

The report is provided for long-term error analysis.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:GDSU-TUSR

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT GDSU=a-b TRBL UNEXPECTED SERVICE REQUEST c
  d RECOVERY ACTION e
  f
  g    h    i
```

2. REASON FOR OUTPUT

To report an unexpected service request on the global digital service unit (GDSU).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Global digital service unit number.

`c` = Event number.

`d` = Error type. Valid value(s):

```
DFI OPERATIONAL SERVICE REQ
DSU OPERATIONAL SERVICE REQ
LU OPERATIONAL SERVICE REQ
MSU OPERATIONAL SERVICE REQ
TU OPERATIONAL SERVICE REQ
```

`e` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`INITIALIZE` = The failing circuit has been reinitialized.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.
`REPT TO TERMINAL MAINT` = Terminal maintenance has been notified of the failure.

`f` = Source analysis data (optional).

`g` = External logical circuit name.

`h` = Current decimal number of recent failures of this type recorded.

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`i` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:GDSUCOM-TDCS

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT GDSUCOM=a-b-c TRBL DSU COM SERV REQ FAILURE d
  e RECOVERY ACTION f
  g h i j k l m n
  o p q
```

2. REASON FOR OUTPUT

To respond to a maintenance service request pertaining to a digital service unit (DSU) common board on the global DSU common (GDSUCOM) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Global digital service unit number.

`c` = Service group number.

`d` = Event number.

`e` = Error type. Valid value(s):

`DSC ERROR REPORTED, NONE FOUND` = The software copy of the DSU subtending circuit (DSC) fault or DSC parity error mask does not match the hardware, or the mask is ineffective.

`DSCCOM CLOCK FAILURE` = There are problems with the distribution of the 4 Mhz clock or the 8Khz sync to the DSU common board.

`DSCCOM TS ERR, NO SOURCE DET` = The DSU error source register (variable '`g`') indicates a DSCCOM time slot parity error, but no bit is set in the parity error register.

`DSCCOM TS PARITY ERROR` = There is a failure of the time slot select register on the DSU common board.

`DSCCOM TSSR FAILURE` = There is a failure of the time slot select register on the DSU common board.

`DSU INTERRUPT TEST BIT SET` = This bit should never be set. It is for diagnostic purposes only.

`INTERRUPT THROUGH MASK FAILURE` = The software copy of the DSU common board error source mask register (variable '`l`') does not match the hardware or the mask is ineffective.

`MULTIPLE FAILURE INDICATIONS` = More than one failure was found for a single service request.

`PICB FAILURE DURING DSC SA` = A PICB failure occurred while attempting to read registers on a DSC board.

`PICB FAILURE IN DSCCOM SA` = A PICB failure occurred while attempting to read registers on the DSU common board. Register information is not valid.

`f` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is generated.

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`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`INITIALIZE` = The failing circuit has been reinitialized.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = DSU common board error source register (ESR).

`h` = DSU common board DSC fault register.

`i` = DSU common board DSC parity error register.

`j` = DSU common board parity register for DSU common board time slots 16-31.

`k` = DSU common board parity register for DSU common board time slots 0-15.

`l` = Software copy of the DSU common board ESR mask register. The mask register cannot be read.

`m` = Software copy of the DSU common board DSC fault mask register. The mask register cannot be read.

`n` = Software copy of the DSU common board DSC parity error mask register. The mask register cannot be read.

`o` = External logical circuit name.
Note: Up to six logical circuit names, error counts, and error thresholds (variables '`o`'-'`q`') may be printed.

`p` = Current decimal number of recent failures of this type recorded.

`q` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:GDSUCOM-TDDS

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT GDSUCOM=a-b-c TRBL DSU DSC SERV REQ FAILURE d
  e RECOVERY ACTION f
  g h i j k l m n o p q
  r s t
```

2. REASON FOR OUTPUT

To respond to a maintenance service request from a digital service unit (DSU) subtending circuit on the global digital service unit common (GDSUCOM) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Global digital service unit number.

`c` = Service group number.

`d` = Event number.

`e` = Error type. Valid value(s):
`DSC CLOCK FAILURE` = There are problems with the distribution of the 4MHz clock or the 8KHz sync to the DSU subtending circuit (DSC).
`DSC DETECTED TS PARITY ERROR` = The DSC detected a parity error on data received from the DSU common board.
`DSC FLT REPORTED, NONE FOUND` = A DSC fault is indicated on the DSU common board, but no bits are set in the DSC fault register.
`DSC INTERNAL FAILURE` = An internal failure is detected on the DSC.
`DSC TSSR FAILURE INDICATION` = There is a failure pertaining to the time slot select register (TSSR) on the DSC.
`NO DSC PARITY ERROR FOUND` = A DSC parity error is indicated on the DSU common board, but no bits are set in the DSC parity error register.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = Software failure has been detected and system integrity has been notified.
`INITIALIZE` = The failing circuit has been reinitialized.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

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g = DSU common board error source register (ESR).

h = DSU common board DSC fault register.

i = DSU common board DSC parity error register.

j = DSU common board parity register for DSU common board time slots 16-31.

k = DSU common board parity register for DSU common board time slots 0-15.

l = Software copy of the DSU common board ESR mask register. The mask register cannot be read.

m = Software copy of the DSU common board DSC fault mask register. The mask register cannot be read.

n = Software copy of the DSU common board DSC parity error mask register. The mask register cannot be read.

o = Fault register on the failing DSU subtending circuit.

p = Parity register for the data coming to the DSU subtending circuit on DSU time slots 16-31.

q = Parity register for the data coming to the DSU subtending circuit on DSU time slots 0-15.

r = External logical circuit name.
Note: Up to six logical circuit names, error counts, and error thresholds (variables 'r'-'t') may be printed.

s = Current decimal number of recent failures of this type recorded.

t = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:GDSUCOM-TPCF-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT GDSUCOM=a-b-c TRBL PICB CONTROL FAILURE EVENT=d
  e  RECOVERY ACTION f
  g  h  i  j
  k  l  m
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the global digital service unit common (GDSUCOM) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Global digital service unit number.

`c` = Service group number.

`d` = Event number.

`e` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`f` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is provided.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`h` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

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`i` = Data being written to the periphery by the CI.

`j` = Contents of the CI error source register.

`k` = External logical circuit name.

`l` = Current decimal number of recent failures of this type recorded.

`m` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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REPT:GDSUCOM-TPCF-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT GDSUCOM=a-b-c TRBL PICB CONTROL FAILURE EVENT=d
  e  RECOVERY ACTION f
  g  h  i  j
  k  l  m  n
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the global digital service unit common (GDSUCOM) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Global digital service unit number.

`c` = Service group number.

`d` = Event number.

`e` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`f` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is provided.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`h` = System PICB number in hexadecimal that was being written when the failure occurred.

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`i` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`j` = Data being written to the periphery by the CI.

`k` = Contents of the CI error source register.

`l` = External logical circuit name.

`m` = Current decimal number of recent failures of this type recorded.

`n` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:GDSUCOM-TPPF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT GDSUCOM=a-b-c TRBL PIDB PARITY FAILURE d
  e RECOVERY ACTION f
  g h i j
```

2. REASON FOR OUTPUT

To respond to a time-slot interchange (TSI) interrupt caused by peripheral interface data bus (PIDB) parity errors in the global digital service unit common (GDSUCOM) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Global digital service unit number.

`c` = Service group number.

`d` = Event number.

`e` = Error type, which indicates PIDB trouble.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the result of the diagnostic.

`g` = External logical circuit name.

`h` = Number of parity errors in frame.

`i` = Error count.

`j` = Error threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:GDSUCOM
RMV:GDSUCOM
RST:GDSUCOM
```

REPT:GDSUCOM-TUSR

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT GDSUCOM=a-b-c TRBL UNEXPECTED SERVICE REQUEST d
  DSU OPERATIONAL SERVICE REQ RECOVERY ACTION f
  g
  h    i    j
```

2. REASON FOR OUTPUT

To report an unexpected service request on the global digital service unit (GDSU) common (GDSUCOM) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = GDSU number.

`c` = Service group number.

`d` = Event number.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`INITIALIZE` = The failing circuit has been reinitialized.
`REPT TO TERMINAL MAINT` = Terminal maintenance has been notified of the failure.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = Source analysis data (optional).

`h` = External logical circuit name.

`i` = Current decimal number of recent failures of this type recorded.

`j` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

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5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:GDXACC-TGPA

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT GDXACC=a-b-c TRBL GDXAXS POWER ALARM d
  e RECOVERY ACTION f
  g h i
  [j k l]
```

2. REASON FOR OUTPUT

To respond to a line unit (LU) fault recovery action on the gated diode crosspoint access (GDXACC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Event number.

`e` = Secondary error type. Valid value(s):
- `SR` = Reported but not found.
- `VO` = Source GDXAXS voltage failure.
- `VP` = Source GDXAXS voltage failure.
- `VPP` = Source GDXAXS voltage failure.

Note: If ONLY a VPP alarm is present, the circuit will remain in service but will be marked "DEGRADED" (DGR) as mate GDXACC will supply VPP. If any other errors are present, the GDXACC recovery will advance to the '`RST PREEMPT`' state.

`f` = Recovery action. Valid value(s):
- `ANALYSIS ONLY` = A post mortem report is generated.
- `ASSERT TO SYSTEM INTEGRITY` = Software failure has been detected and system integrity has been notified.
- `INHIBIT INTERRUPTS` = All maintenance type interrupts inhibited.
- `RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
- `RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

Note: Up to two lines of variables '`g`'-'`i`' may be printed.

`g` = Hexadecimal printout of LU error source mask register (COMMSK).

`h` = Hexadecimal printout of LU error source register (COMESR).

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`i` = Hexadecimal printout of LU GDXAXS voltage monitor register (AXSVMR).

`j` = External logical circuit name.

`k` = Current decimal number of recent failures of this type recorded.

`l` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

If the circuit is marked "DEGRADED" due to an VPP error report, replace the faulty pack at first opportunity. The mate will supply power until the faulty pack is replaced. It is not advisable to run extended periods in the degraded condition. When circuit is removed, replaced, diagnosed, and restored, the "DEGRADED" state will be cleared. The "DEGRADED" state will keep circuit on off normal status list.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:GDXACC-TPCF-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT GDXACC=a-b-c TRBL PICB CONTROL FAILURE EVENT=d
  e  RECOVERY ACTION f
  g  h  i  j
  k  l  m
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt in the gated diode crosspoint access (GDXACC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Event number.

`e` = Error type. Valid value(s):

```
PER DETECTED BAD ADDRESS
SOFTWARE BAD ADDRESS ERROR
```

`f` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is provided.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`h` = Read/write (uppermost) bit and address in hexadecimal to which the CI was writing when the failure occurred.

`i` = Data being written to the periphery by the CI.

`j` = Contents of the CI error source register.

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`k` = External logical circuit name.
Note: Up to two logical circuit names, error counts, and error thresholds (variables '`k`' through '`m`') may be printed.

`l` = Current decimal number of recent failures of this type recorded.

`m` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:GDXACC-TPCF-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT GDXACC=a-b-c TRBL PICB CONTROL FAILURE EVENT=d
  e  RECOVERY ACTION f
  g  h  i  j
  k  l  m  n
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt in the gated diode crosspoint access (GDXACC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Event number.

`e` = Error type. Valid value(s):

```
PER DETECTED BAD ADDRESS
SOFTWARE BAD ADDRESS ERROR
```

`f` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is provided.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`h` = System PICB number in hexadecimal that was being written when the failure occurred.

`i` = Read/write (uppermost) bit and address in hexadecimal to which the CI was writing when the failure occurred.

`j` = Data being written to the periphery by the CI.

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`k` = Contents of the CI error source register.

Note: Up to two logical circuit names, error counts, and error thresholds (variables '`l`' through '`n`') may be printed.

`l` = External logical circuit name.

`m` = Current decimal number of recent failures of this type recorded.

`n` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:GDXC-TMPSF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT GDXC=a-b-c-d TRBL MSU PATH SETUP FAILURE e
  GDXC FAILED IN PATH SETUP RECOVERY ACTION g
```

2. REASON FOR OUTPUT

To indicate that peripheral control (PC) has detected a faulty gated diode crosspoint (GDX) compensator pack.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = MSU board position number.

`e` = Event number

`g` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post-mortem report is generated.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.

`RMV` = The failing circuit will be removed from service. The state of the circuit must be changed manually. A message from the interface or switching module maintenance request administrator (MRA) will follow after the circuit is removed.

`RST PREEMPT` = The failing circuit (GDXC) was removed from service and a diagnostic scheduled (refer to the DGN:GDXC input message). A message will be printed with the results of the diagnostic.

4. ACTION TO BE TAKEN

Remove the circuit from service, diagnose the trouble, and repair the circuit.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:GDXC
EX:GDXC
RMV:GDXC
```

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```
RST:GDXC
STP:GDXC
```

Output Message(s):

```
DGN:GDXC
EX:GDXC
RMV:GDXC
RST:GDXC
STP:GDXC
```

REPT:GDXC-TPCF-A

Software Release: 5E10 only
Message Class: HW_MON, PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT GDXC=a-b-c-d TRBL PICB CONTROL FAILURE EVENT=e
  f  RECOVERY ACTION g
  h  i  j  k
  l  m  n
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt in the gated diode crosspoint compensator (GDXC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = MSU board number.

`e` = Event number.

`f` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is provided.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`i` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

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`j` = Data being written to the periphery by the CI.

`k` = Contents of the CI error source register.

Note: Up to two logical circuit names, recent failure counts, and error thresholds (variables '`l`' through '`n`') may be printed.

`l` = External logical circuit name.

`m` = Current decimal number of recent failures of this type recorded.

`n` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the GDXC from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:GDXC-TPCF-B

Software Release: 5E11 and later
Message Class: HW_MON, PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT GDXC=a-b-c-d TRBL PICB CONTROL FAILURE EVENT=e
  f  RECOVERY ACTION g
  h  i  j  k
  l  m  n  o
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt in the gated diode crosspoint compensator (GDXC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = MSU board number.

`e` = Event number.

`f` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is provided.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`i` = System PICB number in hexadecimal that was being written when the failure occurred.

`j` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was

writing when the failure occurred.

k = Data being written to the periphery by the CI.

l = Contents of the CI error source register.

Note: Up to two logical circuit names, recent failure counts, and error thresholds (variables 'm' through 'o') may be printed.

m = External logical circuit name.

n = Current decimal number of recent failures of this type recorded.

o = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the GDXC from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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REPT:GDXC-TUSR

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT GDXC=a-b-c-d TRBL UNEXPECTED SERVICE REQUEST e
  MSU OPERATIONAL SERVICE REQ RECOVERY ACTION f
  g
  h    i    j
```

2. REASON FOR OUTPUT

To report an unexpected service request on the gated diode crosspoint compensator (GDXC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = MSU board number.

`e` = Event number.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`INITIALIZE` = The failing circuit has been reinitialized.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = Source analysis data (optional).

`h` = External logical circuit name.

`i` = Current decimal number of recent failures of this type recorded.

`j` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

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5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:GKCCR

Software Release: 5E10 and later
Message Class: DB,ODD
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT GKCCR {SM=a|CMP=b-c {PRIM|MATE}|AM}
        d e f
        [BY PARENT RELATION g]

[2]   ____________________________________________________________________
      REPT GKCCR SUMMARY {SM=a|CMP=b-c {PRIM|MATE}|AM}
        d   h
        .   .
        .   .
        .   .
```

2. REASON FOR OUTPUT

Format 1 reports errors found by both manual execution (following an EXC:GKCCR input message) and automatic execution of the generated key collection and compression routine (GKCCR) in an individual processor. One or more instances of this message may occur for a single GKCCR if errors are found, and these messages are followed by a single REPT:GKCCR summary message (Format 2).

Format 2 reports a summary which contains the total number of each error type found during an execution of GKCCR in an individual processor. It does not indicate which relations are in error. One instance of this message will occur for each processor on which the GKCCR is executed.

The ODD message class applies to Format 1. The DB message class applies to Format 2.

3. VARIABLE FIELD DEFINITIONS

`AM` = Administrative module.

`MATE` = Mate CMP.

`PRIM` = Primary CMP.

`a` = Switching module (SM) number.

`b` = Message switch side of the communication module (CM) for the specified communications module processor (CMP) (0,1).

`c` = CMP number.

`d` = Number of occurrences of the type of error found.

`e` = Type of error found in one or more generated key relations. Valid value(s):

`CORRUPTED FREE GK TUPLE REFERENCES TO RELATION` = While searching relations that have an attribute containing a generated key (GK) to another relation, the GKCCR found one or more tuples using GK values corresponding to unassigned GK tuples on the free list. This message requires manual recovery of data corruption. Refer to

the Corrective Maintenance manual for appropriate recovery procedures.

`CORRUPTED GK BUCKET LIST TUPLES COLLECTED IN RELATION` = The GKCCR found one or more GK tuples marked as corrupt on a bucket list. Since the GK tuple was not being referenced by other relations, the GKCCR successfully collected the corrupted tuple and placed it on the free list. No manual corrective action is required.

`CORRUPTED GK TUPLES COLLECTED IN RELATION` = The GKCCR found one or more GK tuples marked as corrupt, but that did not exist on either a bucket or free list. Since the GK tuple was not being referenced by other relations, the GKCCR successfully collected the corrupted tuple and placed it on the free list. No manual corrective action is required.

`CORRUPTED GK TUPLE REFERENCES TO RELATION` = While searching relations that have an attribute containing a generated key (GK) to another relation, the GKCCR found one or more tuples with invalid GK values beyond the value of the acc_lastagk rIDBACCGK dictionary attribute. This message requires manual recovery of data corruption. Refer to the Corrective Maintenance manual for appropriate recovery procedures.

`FREE LIST GKS MARKED AS BEING USED IN RELATION` = The GKCCR found one or more GK tuples residing on the free list to be marked as being in use. Because the GKCCR did not find any references to the tuple, it was able to properly recover the GK tuple. No manual corrective action is required.

`GKCCR ABORTED BY GK REORG ROLL FORWARD OF GK RELATION` = The GKCCR has been aborted by the generated key bucket reorg (GKBR) function in the case where the GKBR is in roll forward. Because the GKBR and GKCCR were working on the same relation, and the GKCCR took too much time, the GKBR had to abort GKCCR or otherwise the roll forward would fail. This will not cause any other errors. No manual correction action is required.

`INCOMPLETE GK COLLECTION FOR RELATION` = The GKCCR could not complete collection for the relation indicated. This message may appear in conjunction with other REPT:GKCCR output messages for this same relation. The collection of this relation will be deferred to the next execution of the GKCCR. No manual correction action is required.

`INVALID LINK FIELDS FOUND IN FREE LIST OF RELATION` = The GKCCR found one or more tuples on a free list with either a corrupted forward or backward link value. The list is recovered by terminating the linked list following the last properly linked GK tuple. No manual corrective action is required.

`INVALID LINK FIELDS FOUND IN RELATION` = The GKCCR found one or more tuples on a bucket list with corrupted forward link values. The link value will be set to the link termination value. No manual corrective action is required.

`MISSING DATA PAGES ADDED TO RELATION` = The GKCCR was unable to access one or more data pages in a GK relation. The data page will be inserted into the relation and all tuples with references to them from other relations will be marked as corrupt. Any tuples marked as corrupt will be identified in subsequent REPT:GKCCR output messages. No manual corrective action is required.

`NON-EXISTENT GK TUPLE REFERENCES TO RELATION` = The GKCCR could not retrieve the address of one or more generated key tuples whose GK values are correct. This usually indicates a missing or invalid data page exists in the GK relation. This message requires manual recovery of data corruption. Refer to the Corrective Maintenance manual for appropriate recovery procedures.

`NON-LINKED GK TUPLES COLLECTED IN RELATION` = The GKCCR found one or more GK tuples do not exist on either a bucket or a free list. Since the GK tuple was determined to not contain any references to it, the GKCCR was able to recover the GK tuple. No manual corrective action is required.

`NON-LINKED GK TUPLES RE-INSERTED IN RELATION` = The GKCCR found one or more GK tuples do not exist on either a bucket or a free list. Since the GK tuple has one or more tuples from other relations referencing it, the GKCCR re-inserted the GK tuple back into a bucket list. No manual corrective action is required.

`OLD READ TRANSACTION BLOCKED COLLECTION OF GK RELATION` = The GKCCR could not collect the specified GK relation because the parent relation specified in the output message has a read-only transaction opened on a version of the parent relation that has since been updated. The GKCCR timed out waiting for this transaction to commit. The collection of the GK relation will be deferred to the next execution of the GKCCR. No manual corrective action is required.

`TUPLES SUCCESSFULLY COLLECTED IN RELATION` = The GKCCR found one or more GK tuples that were no longer being referenced by tuples in other relations. These GK tuples have been placed into the free list. This report message does not indicate an error and will only be generated following the EXC:GKCCR input message. No manual corrective action is required.

`UNRECOVERABLE GK TUPLES FOUND IN RELATION` = The GKCCR found one or more GK tuples marked as corrupt, but that did not exist on either a bucket or free list. Because the GK tuple is referenced by one or more tuples in other relations, the GKCCR cannot recover the GK tuples. This message requires manual recovery of data corruption. Refer to the Corrective Maintenance manual for appropriate recovery procedures.

`UNRECOVERABLE GK TUPLES FOUND ON BUCKET LIST OF RELATION` = The GKCCR found one or more GK tuples marked as corrupt that also existed on a bucket list. Because the GK tuple is referenced by one or more tuples in other relations, the GKCCR cannot fully recover the GK tuples. Action is taken to terminate the bucket linked list prior to the corrupted GK tuple. This message requires manual recovery of data corruption. Refer to the Corrective Maintenance manual for appropriate recovery procedures.

`UNRECOVERABLE GK TUPLES ON FREE LIST OF RELATION` = The GKCCR found one or more GK tuples marked as corrupt that also existed on the GK relation's free list. Because the GK tuple is referenced by one or more tuples in other relations, the GKCCR cannot fully recover the GK tuples. Action is taken to terminate the free linked list prior to the corrupted GK tuple. This message requires manual recovery of data corruption. Refer to the Corrective Maintenance manual for appropriate recovery procedures.

`USED GK TUPLES FOUND MARKED AS FREE IN RELATION` = The GKCCR found one or more GK tuples, marked as being free, on a bucket-linked list. The GKCCR changes the GK tuple to be marked as being used. No manual corrective action is required.

`f` = Name of the relation referencing the message.

`g` = Name of the parent relation for relation in named in '`f`'. This name occurs only when corruption is detected in the parent of relation named in '`f`'.

`h` = Type of error found in one or more generated key relations. Each error type in the summary has a one-to-one correspondence with an error type in '`e`'. Refer to variable '`e`' for details.

`CORRUPTED FREE GK TUPLES REFERENCED` = Total number of errors of type `CORRUPTED FREE GK TUPLE REFERENCES TO RELATION` for entire GKCCR.

`CORRUPTED GK BUCKET LIST TUPLES COLLECTED` = Total number of errors of type `CORRUPTED GK BUCKET LIST TUPLES COLLECTED IN RELATION` for entire GKCCR.

`CORRUPTED GK TUPLES COLLECTED` = Total number of errors of type `CORRUPTED GK TUPLES`

COLLECTED IN RELATION for entire GKCCR.

CORRUPTED GK TUPLES REFERENCED = Total number of errors of type CORRUPTED GK TUPLE REFERENCES TO RELATION for entire GKCCR.

FREE LIST GKS MARKED AS BEING USED = Total number of errors of type FREE LIST GKS MARKED AS BEING USED IN RELATION for entire GKCCR.

GK COLLECTIONS BLOCKED BY OLD READ TRANSACTIONS = Total number of errors of type OLD READ TRANSACTION BLOCKED COLLECTION OF GK RELATION for entire GKCCR.

INCOMPLETE GK COLLECTION = Total number of errors of type INCOMPLETE GK COLLECTION FOR RELATION for entire GKCCR.

INVALID LINK FIELDS FOUND = Total number of errors of type INVALID LINK FIELDS FOUND IN RELATION for entire GKCCR.

INVALID LINK FIELDS FOUND IN FREE LIST = Total number of errors of type INVALID LINK FIELDS FOUND IN FREE LIST OF RELATION for entire GKCCR.

MISSING DATA PAGES ADDED = Total number of errors of type MISSING DATA PAGES ADDED TO RELATION for entire GKCCR.

NON-EXISTENT GK TUPLES REFERENCED = Total number of errors of type NON-EXISTENT GK TUPLE REFERENCES TO RELATION for entire GKCCR.

NON-LINKED GK TUPLES COLLECTED = Total number of errors of type NON-LINKED GK TUPLES COLLECTED IN RELATION for entire GKCCR.

NON-LINKED GK TUPLES RE-INSERTED = Total number of errors of type NON-LINKED GK TUPLES RE-INSERTED IN RELATION for entire GKCCR.

TUPLES SUCCESS FULLY COLLECTED = Total number of occurrences of TUPLES SUCCESSFULLY COLLECTED IN RELATION for entire GKCCR.

UNRECOVERABLE GK TUPLES FOUND = Total number of errors of type UNRECOVERABLE GK TUPLES FOUND IN RELATION for entire GKCCR.

UNRECOVERABLE GK TUPLES FOUND ON BUCKET LIST = Total number of errors of type UNRECOVERABLE GK TUPLES FOUND ON BUCKET LIST OF RELATION for entire GKCCR.

UNRECOVERABLE GK TUPLES ON FREE LIST = Total number of errors of type UNRECOVERABLE GK TUPLES ON FREE LIST OF RELATION for entire GKCCR.

USED GK TUPLES FOUND MARKED AS FREE = Total number of errors of type USED GK TUPLES FOUND MARKED AS FREE IN RELATION for entire GKCCR.

4. ACTION TO BE TAKEN

The appropriate action to be taken is indicated for each type of report message. For any manual recovery actions required, refer to the Corrective Maintenance manual for appropriate recovery procedures.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:GKCCR
EXC:GKCCR
INH:GKCCR
```

Output Message(s):

```
EXC:GKCCR
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

REPT:GRASP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT GRASP a b [c]
        REPT GRASP CONDITION TRIGGERED c

[2]   ____________________________________________________________
      REPT GRASP RMBPT d COMPLETED
        BREAKPOINT CLEARED SYSTEM DIRECTIVE #e

[3]   ____________________________________________________________
      REPT GRASP BREAKPOINT f IN CRITICAL PLACE REMOVED

[4]   ____________________________________________________________
      REPT GRASP BREAKPOINT FIRED
        UTILID=g   PID=h   BREAKPOINT=i   FIRENUM=j

[5]   ____________________________________________________________
      REPT GRASP COMPLETED

[6]   ____________________________________________________________
      REPT GRASP NOT STARTED
        INVALID ACTION FIELD

[7]   ____________________________________________________________
      REPT GRASP NOT STARTED
        INVALID ID FIELD  k

[8]   ____________________________________________________________
      REPT GRASP NOT STARTED
        RETRY LATER
```

2. REASON FOR OUTPUT

To report on generic access package (GRASP) conditions of a general or emergency nature.

3. VARIABLE FIELD DEFINITIONS

`a` = Condition reported. Valid value(s):

`DATABUF`	= GRASP dump data is affected.
`DYNAMIC`	= The status of the dynamic timer is changing.
`FLDOP`	= There are other field operation processes with which GRASP cannot coexist. GRASP cannot proceed.
`MESSAGEBUF`	= GRASP completion messages are affected.
`STATIC`	= The static memory area internal to GRASP is affected.
`UC`	= The utility circuit is affected.

`b` = Status. Valid value(s):

ABORT	= GRASP is being terminated. Stop issuing additional commands immediately. Expect no additional message.
FULL	= The trace was stopped as requested in the INIT:UMEM input message. Trace memory is full.
LOST	= If 'a' = DYNAMIC, then the timer override has been lost and the default will take effect with the next debugging session. If 'a' = STATIC, then the static memory area used by GRASP is full, or an internal error occurred in trying to allocate memory from this area.
OVFL	= More data is being produced than can be printed. The oldest data is overwritten with the newest data.
RESET	= The default value of the timer is in effect.
UNAV	= The facility in 'a' is not available.

c = CONDITION RUNNING WAS RUNNING NOW STOPPED. The trace was stopped. Printed only if 'a' = UMEM and 'b' = FULL, or 'l' = "condition triggered."

d,f,i = Numeric identifier (one or more decimal digits) for the breakpoint affected.

e = Generic access package (GRASP) execution sequence number.

g = Utility ID (UID) of the target process.

h = Process ID (PID) of the target process.

j = Firing number (one or more decimal digit) of breakpoint.

k = Range error. Valid value(s):

```
RANGE ERROR (DTIME)
RANGE ERROR (UNTIL)
```

4. ACTION TO BE TAKEN

None.

5. ALARMS

Manual alarm.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	495
2	499
3	501
4	500

Input Message(s):

```
ALW:UTILFLAG
```

```
IN:DTIME
INIT:UMEM
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

REPT:GRC

Software Release: 5E10 and later
Message Class: GRCV
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT GRC BATCH RECENT CHANGE SCHEDULE
      a

[2]   ____________________________________________________________________
      REPT GRC BATCH RECENT CHANGE SCHEDULE
        CLERK NAME   RDATE      RTIME
        b         cc/cc/cc     dd:dd
        .            .           .
        .            .           .
        .            .           .

[3]   ____________________________________________________________________
      REPT GRC GLOBAL RECENT CHANGE SCHEDULE
        GRC_NAME   SECT CLERK_ID   RDATE    RTIME        STATUS        REMAINING
                                                                         UPDATES
        e           f     g      cc/cc/cc   dd:dd          j             k
        .           .     .          .        .            .             .
        .           .     .          .        .            .             .
        .           .     .          .        .            .             .

[4]   ____________________________________________________________________
      REPT GRC GLOBAL RECENT CHANGE SCHEDULE
        l

[5]   ____________________________________________________________________
      REPT GRC NAME = e SECTION = f
        NON UPDATABLE      = m
        UPDATE NOT APPLIED = n
        UPDATE FAILED      = o
        BACKOUT SUCCESSFUL = p
        -------------------------
        REMAINING UPDATE   = q
        UPDATE SUCCESSFUL  = r
        BACKOUT FAILED     = s
        -------------------------
        UPDATED LINES      = t
        TOTAL LINES        = u

[6]   ____________________________________________________________________
      REPT GRC HISTORY

[5]   ____________________________________________________________________
      REPT GRC NAME = e SECTION = f
        GRC NAME=e
        v
```

```
          .
          .
          .

[7]     ____________________________________________________________________
        REPT GRC QUERY SUMMARY
          GRC NAME=e
          w
          .
          .
          .

[8]     ____________________________________________________________________
        REPT GRC UPDATE SUMMARY
          GRC NAME=e  VIEW=x
          y
          .
          .
          .
```

2. REASON FOR OUTPUT

To report the global recent change (GRC) and batch job schedules. Several formats are available depending on the options used on the REPT:GRC input message.

If a GRC NAME is specified on the REPT:GRC input message, only information pertaining to that GRC job will be printed. If GRC NAME is not specified on the REPT:GRC input message, information on all GRC jobs will be printed.

If the GRC job has been split and the SECT is specified on the REPT:GRC input message, only the information about the requested section is printed, otherwise information on all sections is printed.

Format 1 prints when the BATCH option of the REPT:GRC command is specified and there are no batch jobs scheduled.

Format 2 prints when the BATCH option of the REPT:GRC command is specified and there are batch jobs scheduled. It lists each batch job for each clerk name and when they are scheduled to run.

Format 3 prints information GRC jobs. When GRC_NAME is not specified on the REPT:GRC input message, all GRC jobs in the system are listed with the current status for each one. If GRC_NAME is specified on the REPT:GRC input message, only information about that GRC job is printed.

Format 4 prints when there are no GRC jobs scheduled.

Format 5 prints when GRC_NAME is specified on the REPT:GRC input message. It tells how many lines cannot be updated with GRC, how many lines have not had updates applied yet, how many updates failed, how many backouts were successful, how many updates were successful, and how many backouts failed. Subtotals of the number of remaining updates and the number of updated lines are provided as well as a total of the number of lines that matched the query criteria for this job.

Format 6 prints when the HISTORY option of the REPT:GRC command is specified. It gives a history of the scheduling, update, and backout operations for the GRC job(s).

Format 7 prints when the QUERY option of the REPT:GRC command is specified. It lists the query criteria specified for the GRC job(s).

Format 8 prints when the UPDATE option of the REPT:GRC command is specified. It lists the line attributes to be updated by the GRC job.

3. VARIABLE FIELD DEFINITIONS

a	= Information about batch jobs.
b	= Clerk name for batch job.
c	= Scheduled release date, in the form month/day/year.
d	= Scheduled release time, in the form hour:minute.
e	= GRC name.
f	= GRC section number.
g	= Clerk ID for GRC job.
j	= Jobs' operational status.
k	= Lines remaining to be updated.
l	= Information about GRC jobs.
m	= Number of lines that cannot be updated using GRC.
n	= Number of lines that have not had updates applied yet.
o	= Number of lines with updates that failed.
p	= Number of lines with updates backed out successfully.
q	= Number of lines remaining to be updated.
r	= Number of lines successfully updated.
s	= Number of lines with backout failures.
t	= Number of lines with updates successfully applied.
u	= Total number of lines in the keys (or keys.sect) that matched the query criteria.
v	= History of GRC work done.
w	= Query criteria specified for GRC job.
x	= View number used for GRC job.
y	= Update information for GRC job.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
REPT:GRC
```

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-070-100 *Recent Change Reference*
235-118-25x *Recent Change Procedures*
235-118-25x *Recent Change Reference*

REPT:GRID-TGPA

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT GRID=a-b-c-d TRBL GDXCON POWER ALARM e
  POWER ALARM REPORTED, NONE FOUND RECOVERY ACTION f
  g h i j k
```

2. REASON FOR OUTPUT

To report a model two line unit fault recovery action on a grid.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit (LU) number.

`c` = Grid number.

`d` = Grid board number.

`e` = Event number.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = Hexadecimal printout of the line unit (LU) error source mask register.

`h` = Hexadecimal printout of the LU error source register.

`i` = Hexadecimal printout of the gated diode crosspoint control (GDXCTRL) grid power alarm mask register.

`j` = Hexadecimal printout of the GDXCTRL grid power alarm register.

`k` = Hexadecimal printout of the GDX control voltage monitor register.

4. ACTION TO BE TAKEN

This message is service affecting. If the automatic diagnostic fails, replace the appropriate circuit pack.

5. ALARMS

None.

6. REFERENCES

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Input/Output Messages:

None.

REPT:GRID-TIDPF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT GRID=a-b-c TRBL INTERNAL DATA PATH FAULT d
  e RECOVERY ACTION f
  g h
  i j k
```

2. REASON FOR OUTPUT

To respond to a line unit (LU) fault recovery action on the gated diode crosspoint (GDX) grid.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Grid number.

`d` = Event number.

`e` = Secondary error type. Valid value(s):
- Stuck at one fault.
- Stuck at zero fault.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.
`SWITCH GDX CONTROLLERS` = A switch of the GDX controllers was made. Control and data to and from the GDX grids are now provided by the previously standby GDX controller.

`g` = Hexadecimal printout of data pattern sent to LU GDXCOM loop test bit register.

`h` = Hexadecimal printout of data pattern received from LU GDXCOM loop test bit register.

`i` = External logical circuit name.

`j` = Current decimal number of recent failures of this type recorded.

`k` = Error count threshold above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

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5. ALARMS

MAJOR.

6. REFERENCES

Input Message(s):

```
DGN:GRID
RMV:GRID
RST:GRID
```

REPT:GRID-TPCF-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT GRID=a-b-c TRBL PICB CONTROL FAILURE EVENT=d
  e  RECOVERY ACTION f
  g  h  i  j
  k  l  m
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on a line unit in the gated diode crosspoint grid (GRID).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit (LU) number.

`c` = Grid number.

`d` = Event number.

`e` = Error type. Valid value(s):
`PER DETECTED BAD ADDRESS` = The peripheral hardware has detected software writing to an address which is not valid for the peripheral. This is assumed to be a software error.
`SOFTWARE BAD ADDRESS ERROR` = The peripheral hardware has erroneously reported the detection of a bad address. This is assumed to be a hardware problem.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit (refer to the 4ACTION TO BE TAKEN section). A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = Retry status. Valid value(s):
`RETRY SUCCESSFUL` = The restoration was successful, no further action necessary.
`RETRY FAILED` = The restoration failed, further diagnosis needed.

`h` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was

writing when the failure occurred.

`i` = Data being written to the periphery by the CI.

`j` = Contents of the CI error source register.

`k` = External logical circuit name.

Note: Up to three logical circuit names, error counts, and error thresholds (variables '`k`' through '`m`') may be printed.

`l` = Current decimal number of recent failures of this type recorded.

`m` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

This is a service-affecting message. If the automatic diagnostic fails, replace the appropriate circuit pack. If intervention is required, follow diagnostic procedures found in the Corrective Maintenance manual.

5. ALARMS

Major.

6. REFERENCES

Input Message(s):

```
RMV:GRID
RST:GRID
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance Manual*

REPT:GRID-TPCF-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT GRID=a-b-c TRBL PICB CONTROL FAILURE EVENT=d
  e  RECOVERY ACTION f
  g  h  i  j
  k  l  m  n
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on a line unit in the gated diode crosspoint grid (GRID).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit (LU) number.

`c` = Grid number.

`d` = Event number.

`e` = Error type. Valid value(s):
`PER DETECTED BAD ADDRESS` = The peripheral hardware has detected software writing to an address which is not valid for the peripheral. This is assumed to be a software error.
`SOFTWARE BAD ADDRESS ERROR` = The peripheral hardware has erroneously reported the detection of a bad address. This is assumed to be a hardware problem.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit (refer to the 4ACTION TO BE TAKEN section). A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = Retry status. Valid value(s):
`RETRY SUCCESSFUL` = The restoration was successful, no further action necessary.
`RETRY FAILED` = The restoration failed, further diagnosis needed.

`h` = System PICB number in hexadecimal that was being written when the failure occurred.

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`i` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`j` = Data being written to the periphery by the CI.

`k` = Contents of the CI error source register.

`l` = External logical circuit name.

Note: Up to three logical circuit names, error counts, and error thresholds (variables '`l`' through '`n`') may be printed.

`m` = Current decimal number of recent failures of this type recorded.

`n` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

This is a service-affecting message. If the automatic diagnostic fails, replace the appropriate circuit pack. If intervention is required, follow diagnostic procedures found in the Corrective Maintenance manual.

5. ALARMS

Major.

6. REFERENCES

Input Message(s):

```
RMV:GRID
RST:GRID
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance Manual*

REPT:GRIDBD-TGPA

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT GRIDBD=a-b-c-d TRBL GDXGRID POWER ALARM e
  f RECOVERY ACTION g
  h i j k l
  [m n o]
```

2. REASON FOR OUTPUT

To respond to a model two line unit (LU2) fault recovery action on the gated diode crosspoint (GDX) grid.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit (LU) number.

`c` = Grid number.

`d` = Grid board number.

`e` = Event number.

`f` = Secondary error type. Valid value(s):
- `SR` = Reported but none found.
- `VO` = Source GRID voltage failure (minus 5 volt power supply).
- `VP` = Source GRID voltage failure (280 volt power supply).
- `VPP` = Source GRID voltage failure (320 volt power supply) .

`g` = Recovery action. Valid value(s):
- `ANALYSIS ONLY` = A post mortem report is generated.
- `ASSERT TO SYSTEM INTEGRITY` = Software failure has been detected and system integrity has been notified.
- `INHIBIT INTERRUPT` = All maintenance type interrupts will be inhibited.
- `RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
- `RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
- `RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

Note: Up to three lines of variables '`h`' through '`l`' may be printed.

`h` = Hexadecimal printout of LU error source mask register (COMMSK).

i	= Contents of LU error source register (COMESR) in hexadecimal.
j	= Contents of LU GDXCTRL grid power alarm mask register (GRDALMMR) in hexadecimal.
k	= Contents of LU GDXCTRL grid power alarm register (GRDALMR) in hexadecimal.
l	= Contents of LU GDXCOM voltage monitor register (GRDVMR) in hexadecimal.
m	= External logical circuit name.
n	= Current decimal number of recent failures of this type recorded.
o	= Error count threshold, at which the recovery action will be escalated.

4. ACTION TO BE TAKEN

This is a service-affecting message. If the automatic diagnostic fails, replace the appropriate circuit pack.

5. ALARMS

A major alarm is brought up upon the removal of a grid circuit because 32 lines are taken out of service.

6. REFERENCES

Input Message(s):

```
ABT:GRIDBD
DGN:GRIDBD
EX:GRIDBD
RMV:GRIDBD
RST:GRIDBD
STP:GRIDBD
```

Output Message(s):

```
ABT:GRIDBD
DGN:GRIDBD
EX:GRIDBD
RMV:GRIDBD
RST:GRIDBD
STP:GRIDBD
```

REPT:GRIDBD-TPCF-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT GRID=a-b-c-d TRBL PICB CONTROL FAILURE EVENT=e
  f  RECOVERY ACTION g
  h  i  j  k
  l  m  n
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on a model 2 line unit in the gated diode crosspoint grid (GRID).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit (LU) number.

`c` = Grid number.

`d` = Grid board number.

`e` = Event number.

`f` = Error type. Valid value(s):
`PER DETECTED BAD ADDRESS` = The peripheral hardware has detected software writing to an address which is not valid for the peripheral. This is assumed to be a software error.
`SOFTWARE BAD ADDRESS ERROR` = The peripheral hardware has erroneously reported the detection of a bad address. This is assumed to be a hardware problem.

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit (see action to be taken section). A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Retry status. Valid value(s):
`RETRY SUCCESSFUL` = The restoration was successful, no further action necessary.
`RETRY FAILED` = The restoration failed, further diagnosis needed.

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`i` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`j` = Data being written to the periphery by the CI.

`k` = Contents of the CI error source register.

Note: Up to three logical circuit names, error counts, and error thresholds (variables '`l`' through '`n`') may be printed.

`l` = External logical circuit name.

`m` = Current decimal number of recent failures of this type recorded.

`n` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

This is a service-affecting message. If the automatic diagnostic fails, replace the appropriate circuit pack. If intervention is required, follow diagnostic procedures found in the Corrective Maintenance manual.

5. ALARMS

Major.

6. REFERENCES

Input/Output Messages:

None.

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

REPT:GRIDBD-TPCF-B

Software Release: 5E11 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT GRID=a-b-c-d TRBL PICB CONTROL FAILURE EVENT=e
  f  RECOVERY ACTION g
  h  i  j  k
  l  m  n  o
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on a model 2 line unit in the gated diode crosspoint grid (GRID).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit (LU) number.

`c` = Grid number.

`d` = Grid board number.

`e` = Event number.

`f` = Error type. Valid value(s):
`PER DETECTED BAD ADDRESS` = The peripheral hardware has detected software writing to an address which is not valid for the peripheral. This is assumed to be a software error.
`SOFTWARE BAD ADDRESS ERROR` = The peripheral hardware has erroneously reported the detection of a bad address. This is assumed to be a hardware problem.

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit (see action to be taken section). A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Retry status. Valid value(s):
`RETRY SUCCESSFUL` = The restoration was successful, no further action necessary.
`RETRY FAILED` = The restoration failed, further diagnosis needed.

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`i` = System PICB number in hexadecimal that was being written when the failure occurred.

`j` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`k` = Data being written to the periphery by the CI.

`l` = Contents of the CI error source register.

Note: Up to three logical circuit names, error counts, and error thresholds (variables '`m`' through '`o`') may be printed.

`m` = External logical circuit name.

`n` = Current decimal number of recent failures of this type recorded.

`o` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

This is a service-affecting message. If the automatic diagnostic fails, replace the appropriate circuit pack. If intervention is required, follow diagnostic procedures found in the Corrective Maintenance manual.

5. ALARMS

Major.

6. REFERENCES

Input/Output Messages:

None.

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

REPT:GRIDBD-TPCF-C

Software Release: 5E12 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT GRID=a-b-c-d TRBL PICB CONTROL FAILURE EVENT=e
  f  RECOVERY ACTION g
  h  i  j  k
  l  m  n  o
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on a model 2 line unit in the gated diode crosspoint grid (GRID).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit (LU) number.

`c` = Grid number.

`d` = Grid board number.

`e` = Event number.

`f` = Error type. Valid value(s):

`PER DETECTED BAD ADDRESS` = The peripheral hardware has detected software writing to an address which is not valid for the peripheral. This is assumed to be a software error.

`SOFTWARE BAD ADDRESS ERROR` = The peripheral hardware has erroneously reported the detection of a bad address. This is assumed to be a hardware problem.

`MAINTENANCE CUTOFF BIT SET ERROR` = The peripheral hardware has detected one of the maintenance cutoff bits being set in the Common Controller Bit Register.

`g` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is generated.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit (refer to Action To Be Taken section). A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

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`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Retry status. Valid value(s):

`RETRY SUCCESSFUL` = The restoration was successful, no further action necessary.

`RETRY FAILED` = The restoration failed, further diagnosis needed.

`i` = System PICB number in hexadecimal that was being written when the failure occurred.

`j` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`k` = Data being written to the periphery by the CI.

`l` = Contents of the CI error source register.

Note: Up to three logical circuit names, error counts, and error thresholds (variables '`m`' through '`o`') may be printed.

`m` = External logical circuit name.

`n` = Current decimal number of recent failures of this type recorded.

`o` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTIONS TO BE TAKEN

This is a service-affecting message. If the automatic diagnostic fails, replace the appropriate circuit pack. If intervention is required, follow diagnostic procedures found in the Corrective Maintenance manual.

5. ALARMS

Major.

6. REFERENCES

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery Procedures*

REPT:GRIDBD-TUSR

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT GRIDBD=a-b-c-d TRBL UNEXPECTED SERVICE REQUEST e
  LU OPERATIONAL SERVICE REQ RECOVERY ACTION g
  h
  i    j    k
```

2. REASON FOR OUTPUT

To report an unexpected service request on a model two line unit (LU) in the gated diode crosspoint grid (GRIDBD).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit (LU) number.

`c` = Grid number.

`d` = Grid board number.

`e` = Event number.

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`INITIALIZE` = The failing circuit has been reinitialized.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.
`REPT TO TERMINAL MAINT` = Terminal maintenance has been notified of the failure.

`h` = Source analysis data (optional).

`i` = External logical circuit name.

`j` = Current decimal number of recent failures of this type recorded.

`k` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

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This message is service affecting. If the automatic diagnostic fails, replace the appropriate circuit pack.

5. ALARMS

A major alarm is brought up upon the removal of a grid circuit because 64 lines are taken out of service.

6. REFERENCES

Input Message(s):

```
ABT:GRIDBD
DGN:GRIDBD
EX:GRIDBD
RMV:GRIDBD
RST:GRIDBD
STP:GRIDBD
```

Output Message(s):

```
ABT:GRIDBD
DGN:GRIDBD
EX:GRIDBD
RMV:GRIDBD
RST:GRIDBD
STP:GRIDBD
```

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REPT:GROWTH

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT GROWTH a b c [ d ]
```

2. REASON FOR OUTPUT

To report when a unit is grown. This could be either due to normal initialization or due to a user dynamically growing a unit.

3. VARIABLE FIELD DEFINITIONS

a = Unit name.

b = Unit number.

c = Status. Valid value(s):

```
COMPLETED
FAILED
IN PROGRESS
```

d = Reason for failure. The variable 'd' is printed only if variable 'c' equals FAILED.

If 'a' =	Explanation:
IOP	Refer to the APP:IOP-A, APP:IOP-B, and APP:IOP-J appendixes in the Appendixes section of the Output Messages manual for an explanation of the error code.
DFC	Refer to the APP:DFC-F and APP:DFC-A appendix in the Appendixes section of the Output Messages manual for an explanation of the error code.

4. ACTION TO BE TAKEN

If 'c' =	Action:
COMPLETED or IN PROGRESS	No action is needed.
FAILED	Check the error code to determine action.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	197

Output Appendix(es):

```
APP:DFC-A
APP:DFC-F
APP:IOP-A
APP:IOP-B
APP:IOP-J
APP:OMDB-X-REF
```

81. REPT:H

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REPT:HASHSUM

Software Release: 5E10 and later
Message Class: INT,NULLDEV, PFR_MON,SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT DNUSCC=a-b-c HASHSUM FAILURE e [EVENT=f]
        FAILING ADDRESS RANGES:
        g                  h

[2]   ____________________________________________________________________
      REPT ISLUCC=a-b-c HASHSUM FAILURE e [EVENT=f]
        FAILING ADDRESS RANGES:
        g                  h

[3]   ____________________________________________________________________
      REPT IDCU=a-b-c HASHSUM FAILURE e [EVENT=f]
        FAILING ADDRESS RANGES:
        g                  h

[4]   ____________________________________________________________________
      REPT MCTSI=a-c d HASHSUM FAILURE e [EVENT=f]
        FAILING ADDRESS RANGES:
        g                  h

[5]   ____________________________________________________________________
      REPT MCTSI=a-c HASHSUM FAILURE e PI [EVENT=f]
        FAILING ADDRESS RANGES:
        g                  h

[6]   ____________________________________________________________________
      REPT ISTF=a-b HASHSUM FAILURE [EVENT=f]
        FAILING ADDRESS RANGES:
        g                  h

[7]   ____________________________________________________________________
      REPT LDSF=a-b HASHSUM FAILURE [EVENT=f]
        FAILING ADDRESS RANGES:
        g                  h

[8]   ____________________________________________________________________
      REPT LDSU=a-b HASHSUM FAILURE [EVENT=f]
        FAILING ADDRESS RANGES:
        g                  h

[9]   ____________________________________________________________________
      REPT GDSF=a-b HASHSUM FAILURE [EVENT=f]
        FAILING ADDRESS RANGES:
        g                  h

[10]  ____________________________________________________________________
      REPT RAF=a-b HASHSUM FAILURE [EVENT=f]
```

```
        FAILING ADDRESS RANGES:
        g                  h

[11]  ____________________________________________________________________
      REPT SAS=a-b HASHSUM FAILURE [EVENT=f]
        FAILING ADDRESS RANGES:
        g                  h
```

2. REASON FOR OUTPUT

To report that a peripheral unit has failed hashsum checks during its initialization.

To report that an MCTSI subunit has failed hashsum checks during routine checks or during circuit initialization.

Failure of hashsum checks may indicate that the hashsum tables are in error, or that the memory is bad. The address range(s) for the block(s) that had a bad hashsum is provided.

3. VARIABLE FIELD DEFINITIONS

a = The SM number associated with the unit.

b = The unit number.

c = The unit service group number.

d = MH number Valid value(s):

```
MH0
MH1
MH2
```

e = Unit side. The valid values are:

```
ACTIVE
MATE
```

f = Event number. If this field is displayed, then it can be correlated to a related maintenance activity.

g = The starting address of the failing address range.

h = The ending address of the failing address range.

4. ACTION TO BE TAKEN

Investigate the cause of the failure by running diagnostics on the unit side that took the fault. To access the MCC page for any unit, go to the 1000 page and then choose the page that corresponds to the unit of interest.

5. ALARMS

Major alarm.

6. REFERENCES

Output Message(s):

```
DGN:DNUSCC
DGN:ISLUCC
DGN:IDCU
DGN:MCTSI
DGN:ISTF
DGN:LDSF
DGN:LDSU
DGN:GDSF
DGN:RAF
DGN:SAS
```

Other Manual(s):
235-105-250 *System Recovery Procedures*

MCC Display Page(s):

1000 (SM PAGE INDEX)

REPT:HDFI-TRBL

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT HDFI=a-b-c TRBL d  EVENT=e
  f RECOVERY ACTION g
  h i j
  [k] . . .
```

2. REASON FOR OUTPUT

To report the occurrence of a hardware error in a host digital facilities interface (HDFI) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line/trunk unit number.

`c` = Circuit number.

`d` = Error report - refer to Exhibit A.

`e` = Event number.

`f` = Error type qualifying the error report - refer to Exhibit A.

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`INITIALIZE` = The failing circuit has been initialized.
`RMV` = The failing circuit will be removed from service. Manual intervention is required to restore the circuit to service.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A DGN:DFI message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A DGN:DFI message will be printed with the result of the diagnostic.

`h` = External logical circuit name.

`i` = Current decimal number of errors of this type recorded.

`j` = Error count threshold above which the recovery action will be escalated.

`k` = Register contents - refer to Exhibit A.
Note: Skip bytes 1 and 2, '`k`' value starts from byte 3.

'`d`' value =	'`f`' value =	'`k`' value =
`DFI CCB ERR` = A communication	`INTERNAL DATA TROUBLE`	`0x0095` = Transmit formatter exercise

control buffer (CCB) error was detected by the DFI. or DFI UCI ERR = A unified control interface (UCI) error was detected by the DFI.		alarm data. 0x0096 = Receive synchronizer exercise alarm data. 0x0097 = Framer exercise alarm data
DFI CCB ERR = A communication control buffer (CCB) error was detected by the DFI. or DFI UCI ERR = A unified control interface (UCI) error was detected by the DFI.	INTERNAL CONTROL TROUBLE	0x0090 = Firmware fault register data. 0x009b = CCB or UCI status alarm.
DFI CCB ERR = A communication control buffer (CCB) error was detected by the DFI. or DFI UCI ERR = A unified control interface (UCI) error was detected by the DFI.	SANITY TIMEOUT DFI PIDB LOSS OF CLOCK ALARM REDUNDANT TM SERV REQ UNUSED CCB REG ACTIVITY DUAL PORT RAM ERROR INTERRUPT THRU DFI MASK	
UNEXPECTED SERVICE REQUEST = Illegal derived data link (DDL) message occurring between HSM-RSM digital facility interface (DFI) circuits, or between CDFI circuits.	ILLEGAL DDL RECEIVED	Source analysis data 24 bytes. Bytes three and four contain the number of DDL bytes received by PERFR. Bytes 5 to 24 contain data.
FIDB PARITY FAILURE = Remote link interface (RLI) [in particular a facility interface (FI)] interrupt caused by facility interface data bus (FIDB) errors on an inter-RSM communication link CDFI or an RDFI circuit.	FIDB PARITY TROUBLE	FIDB number.
REMOTING FACILITY DATA PATH FAULT	EBIT CONTINUITY FAILURE	Time slot number.
PIDB PARITY FAILURE = TSI interrupt caused by PIDB parity errors in the DFI.	PIDB PARITY TROUBLE	Total number of errored channels.
DFI STATUS ERROR = Trouble indication in the DFI circuit microprocessor.	SANITY TIMEOUT INTERRUPT THRU DFI MASK	
INTERNAL DATA PATH FAULT = A digital signal interface (DSI) loopback was detected by the DFI.	SANITY TIMEOUT INTERRUPT THRU DFI MASK	

4. ACTION TO BE TAKEN

An error report indicates an error condition which could cause the removal of a unit. Any removed unit should be repaired and restored to service. Additional messages which provide useful data may be output.

5. ALARMS

An alarm will be displayed if the recovery action results in the circuit being removed from service. HDFIs will display a minor alarm for the first facility which is removed from service and a major alarm if more than one facility is out of service.

6. REFERENCES

Input Message(s):

```
ALW:HDW-HDFI
ALW:HDW-DFI
DGN:HDFI
DGN:DFI
INH:HDW-HDFI
INH:HDW-DFI
RST:DFI
```

Output Message(s):

```
DGN:HDFI
DGN:DFI
RST:DFI
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-600-500 *Asserts*

REPT:HMMCC-A

Software Release: 5E10 - 5E13
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT HMMCC CAN NOT ACCESS ACKDB

[2]   ____________________________________________________________
      REPT HMMCC CM INIT SENDPW FAIL

[3]   ____________________________________________________________
      REPT HMMCC CM INIT RECVW FAIL

[4]   ____________________________________________________________
      REPT HMMCC CM INIT FAILED

[5]   ____________________________________________________________
      REPT HMMCC SENDPW TO SM a FAILED
```

2. REASON FOR OUTPUT

To report an initialization or communication failure in the HMmcc process.

Format 1 indicates that HMmcc failed to initialize the acknowledgment database (ackdb). The probable cause is a missing or corrupted /cft/shl/ackdb file. Input request (poke) processing will continue to work but "NA BAD ACKDB" acknowledgments may be returned for some input requests.

Formats 2 through 4 indicate that HMmcc failed to initialize the communication path between HMmcc and the Operating System for Distributed Switching (OSDS) through the communication kernel process (CMKP).

Format 5 indicates that HMmcc failed to send an update message to the HMcc process in the switching module (SM).

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

4. ACTION TO BE TAKEN

For Format 1, verify that the file /cft/shl/ackdb exists using the OP:ST-LISTDIR input message. If ackdb exists, enter 15 (craft initialization) on the emergency action interface (EAI) page to restart all processes that use ackdb. If ackdb does not exist or if it exists but the craft initialization does not eliminate the problem, the file system may be corrupted which requires further investigation.

For Formats 2 through 5, no action is required.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
OP:ST-LISTDIR
```

Output Message(s):

```
OP:ST-LISTDIR
```

REPT:HMMCC-B

Software Release: 5E14 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]    REPT HMMCC CAN NOT ACCESS ACKDB

[2]    REPT HMMCC CM INIT SENDPW FAIL

[3]    REPT HMMCC CM INIT RECVW FAIL

[4]    REPT HMMCC CM INIT FAILED

[5]    REPT HMMCC SENDPW TO SM a FAILED

[6]    REPT HMMCC RECEIVED FAILURE CODE -1 from lcalle()

[7]    REPT HMMCC - UXaddr_alloc() could not allocate space and returned NULL
```

2. REASON FOR OUTPUT

To report an initialization or communication failure in the HMmcc process.

Format 1 indicates that HMmcc failed to initialize the acknowledgment database (ackdb). The probable cause is a missing or corrupted /cft/shl/ackdb file. Input request (poke) processing will continue to work but "NA BAD ACKDB" acknowledgments may be returned for some input requests.

Formats 2 through 4 indicate that HMmcc failed to initialize the communication path between HMmcc and the Operating System for Distributed Switching (OSDS) through the communication kernel process (CMKP).

Format 5 indicates that HMmcc failed to send an update message to the HMcc process in the switching module (SM).

Format 6 indicates that HMmcc failed to send a initialization request to ULARP via the lcalle() function.

Format 7 indicates that HMmcc failed to allocate space for the address of an incoming message.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

4. ACTIONS TO BE TAKEN

For Format 1, verify that the file /cft/shl/ackdb exists using the OP:ST-LISTDIR input message. If ackdb exists, enter 15 (end user initialization) on the emergency action interface (EAI) page to restart all processes that use ackdb. If ackdb does not exist or if it exists but the end user initialization does not eliminate the problem, the file system may be corrupted which requires further investigation.

For Formats 2 through 6, no action is required.

For Format 7 obtain technical assistance to clear the trouble.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:ST-LISTDIR
```

Output Message(s):

```
OP:ST-LISTDIR
```

REPT:HRDFI-TCE

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT H/RDFI=a-b-c TRBL CCB ERROR d
  e f
  e g
  e h
  e i
  e j
  e k
  e l
  e m
  n o p
```

2. REASON FOR OUTPUT

To respond to a digital facility interface (DFI) error reported through the control communication buffer (CCB) of the DFI microprocessor.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line/trunk unit (DLTU) number.

`c` = DFI number.

`d` = Event number.

`e` = State of the following register data. Valid value(s):
`RESET` = The register data is old (invalid).
`SET` = The register data is valid.

`f` = Firmware fault register data.

`g` = Transmit formatter exercise alarm data.

`h` = Receive synchronizer exercise alarm data.

`i` = Framer exercise alarm data.

`j` = CCB status alarm data.

`k` = Not used.

`l` = Not used.

`m` = Not used.

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`n` = External logical circuit name.

`o` = Current decimal number of errors of this type recorded.

`p` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:HRDFI-THS

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT H/RDFI=a-b-c TRBL H/RDFI STATUS ERROR d
  SANITY TIMEOUT RECOVERY ACTION e
  f
  g h i
```

2. REASON FOR OUTPUT

To respond to a trouble indication in the status registers of the digital facility interface (DFI) microprocessor.

3. VARIABLE FIELD DEFINITIONS

`SANITY TIMEOUT` = Secondary error type. The internal microprocessor failed to reset the timer, which indicates that either the program is not functioning or the microprocessor is insane.

`a` = Switching module (SM) number.

`b` = Digital line/trunk unit (DLTU) number.

`c` = DFI number.

`d` = Event number.

`e` = Recovery action. Valid value(s):

- `ANALYSIS ONLY` = A post mortem report is generated.
- `INITIALIZE` = The failing circuit has been initialized.
- `RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
- `RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
- `RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`f` = Hexadecimal value of the DFI status register.

`g` = External logical circuit name.

`h` = Current decimal number of errors of this type recorded.

`i` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

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5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:HRDFI-TUSR

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT H/RDFI=a-b-c TRBL UNEXPECTED SERVICE REQUEST d
  DFI ILLEGAL DDL RECEIVED RECOVERY ACTION e
  [f]
  g h i
```

2. REASON FOR OUTPUT

To report an unexpected service request on the digital facility interface (DFI) indicated by an unexpected derived data link (DDL).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line/trunk unit (DLTU) number.

`c` = DFI number.

`d` = Event number.

`e` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`INITIALIZE` = The failing circuit has been initialized.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`f` = Source analysis data (optional).

`g` = External logical circuit name.

`h` = Current decimal number of recent failures of this type recorded.

`i` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

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5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:HSD

Software Release: 5E10 and later
Message Class: MTCE,MAIPR,SPERR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT HSD a {ERR b [c] [COMPL CODE d]|
        UNIDENTIFIED RESPONSE WD1=e WD2=f}

[2]   ____________________________________________________________________
      REPT HSD a WARNING LAST LINK IN DUPLEX LINK
        GROUP BEING REMOVED

[3]   ____________________________________________________________________
      REPT HSD a STARTED

[4]   ____________________________________________________________________
      REPT HSD a STOPPED
```

2. REASON FOR OUTPUT

Format 1 reports a high-speed synchronous data (HSD) link related software or hardware error.

Format 2 reports that the last available link in a duplex link group being removed from service.

Format 3 reports that the HSD has changed state from standby (STBY) to active (ACT). An HSD will change to ACT state when the level 2 connection is established and the data link is in information transfer state.

Format 4 reports that the HSD has changed state from ACT to STBY. An HSD will change to STBY state when the level 2 connection is terminated and the level 1 connection remains established.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Identifies point within input/output processor driver (IODRV) where a software or hardware error was detected, in hexadecimal notation. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

`c` = Character string giving more information about the error identified in variable '`b`'. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual for additional explanation.

`d` = Hardware error type in hexadecimal notation. Refer to the APP:IOP-A appendix in the Appendixes section of the Output Messages manual.

`e` = First word of an unidentified completion report.

`f` = Second word of an unidentified completion report.

4. ACTION TO BE TAKEN

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The error message in Format 1 indicates error conditions which could cause the removal of a unit. Any removed unit should be repaired and restored to service.

For Format 2, removal of the last available link in a duplex link group indicates that no data transmission can take place over the link facility. One of the links in the group should be repaired and restored to service.

Formats 3 and 4 are informational messages and indicate that the HSD has changed states. No action is necessary.

5. ALARMS

Formats 1 has no alarm. This is an automatically generated report.

Format 2 has a major alarm. A major alarm may not be service affecting, but take immediate action as indicated in the report.

Formats 3 and 4 have no fixed priority of action. The software process that generates the message can determine the alarm level.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	208
2	590
3, 4	308

Input Message(s):

```
CLR:IODRV
DGN:HSDC
RMV:HSD
RST:HSD
UPD:OMDB
```

Output Message(s):

```
DGN:HSDC
REPT:HSD
REPT:IOP
REPT:RCVRY-HSD
REPT:RCVRY-HSDC
REPT:RCVRY-IOP
RMV:HSD
RST:HSD
```

Output Appendix(es):

```
APP:IOP-A
APP:IOP-F
APP:OMDB-X-REF
```

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REPT:HSDC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT HSDC a  {ERR b [COMPL CODE c] |
        UNIDENT RESP WD1=d WD2=e}

[2]   ____________________________________________________________
      REPT HSDC a CODE VER X'f

[3]   ____________________________________________________________
      REPT HSDC a FLASH RAM VERSION X'g
```

2. REASON FOR OUTPUT

Format 1 reports a high-speed synchronous data link controller (HSDC) related software or hardware error.

Format 2 is output during the restoration of the unit.

Format 3 is output prior to the update of flash RAM on the unit as requested.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Identifies point within input/output processor driver (IODRV) where a software or hardware error was detected, in hexadecimal notation. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

c = Hardware error type, in hexadecimal notation. Refer to the APP:IOP-A appendix in the Appendixes section of the Output Messages manual.

d = First word of an unidentifiable completion report.

e = Second word of an unidentifiable completion report.

f = Peripheral controller pump code version.

g = Peripheral controller flash RAM version.

4. ACTION TO BE TAKEN

These error messages indicate error conditions which could cause the removal of a unit. Any removed unit should be repaired and restored to service. No action is necessary for the messages in Formats 2 and 3 unless the controller and/or its subdevices are not acting normal, or could not be restored. Contact the service organization with the code version and/or flash RAM which were used.

5. ALARMS

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None.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	208
2, 3	226

Input Message(s):

```
CLR:IODRV
DGN:HSDC
DGN:SDLC
RMV:HSDC
RMV:SDLC
RST:HSDC
RST:SDLC
```

Output Message(s):

```
DGN:HSDC
REPT:IOP
REPT:RCVRY-HSDC
REPT:RCVRY-IOP
RMV:HSDC
RST:HSDC
```

Output Appendix(es):

```
APP:IOP-A
APP:IOP-F
APP:OMDB-X-REF
```

82. REPT:I

REPT:IDCU-TBTF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT IDCU=a-b-c d TRBL BACKGROUND TEST FAILURE EVENT=e
  f RECOVERY ACTION g
  hhhhhhhh
  IDCU=a-b-c i j
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within the switching module (SM) caused by failure in the integrated digital carrier unit (IDCU). The message indicates what recovery action was taken and gives the current fault counts against the circuit specified in the message. Refer to variable '`g`' to determine the effect the fault recovery had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = IDCU unit number.

`c` = IDCU service group number.

`d` = IDCU status. Valid value(s):
`ACTIVE` = The IDCU is in service and a fault has been detected.
`STANDBY` = The mate (standby) IDCU service group detected a fault.

`e` = Event number.

`f` = Error type. Valid value(s):
`ACTIVE CC RAM HASHSUM FAILURE` = Active IDCU service group's random access memory (RAM) has failed hash checks on its contents.
`ACTIVE CC ROM HASHSUM FAILURE` = Active IDCU service group's read only memory (ROM) has failed hash checks on its contents.
`CC HEART BEAT FAILURE` = A routine check found that the IDCU failed to respond to a functional access check.
`CLEAR CC ERROR COUNTS` = Internal error counts have not been automatically cleared within a prescribed time.
`MATE PICB VERIFY FAILED` = This error was detected when the active IDCU wrote to the standby IDCU and got an unexpected response.
`STANDBY CC RAM HASHSUM FAILURE` = Mate's RAM has failed a hash check on its contents.
`STANDBY CC ROM HASHSUM FAILURE` = Mate's ROM has failed a hash check on its contents.
`SUSPECT LATENT FAULTS WHEN ACTIVE` = Internal IDCU operations have detected troubles that should be cleared by IDCU resident code but have not after five minutes.

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = This post mortem report is generated.
`RST PREEMPT` = The failing circuit was preempted, restored, and a diagnostic was scheduled. A

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message will be printed with the results of the diagnostic.

`h` = Hexadecimal dump containing test type value in upper half corresponding to error type (field '`f`').

`i` = Number of recent failures of this error type (field '`f`') on this IDCU circuit.

`j` = Error count threshold equal to or above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None. Fault recovery automatically requests a conditional restore on the circuit when the error threshold is met. Subsequent DGN:IDCU and RST:IDCU messages indicate success or failure of diagnostic when recovery action is '`RST PREEMPT`'.

5. ALARMS

Critical alarm only if IDCU possibly failed duplex.

6. REFERENCES

Output Message(s):

```
DGN:IDCU
RMV:IDCU
RST:IDCU
```

MCC Display Page(s):

186Y,X (SM X IDCU Y CIRCUIT)

REPT:IDCU-TCOF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT IDCU=a-b-c d TRBL CONTROL ORDER FAILURE EVENT=e
  f RECOVERY ACTION g
  hhhhiiii jjjjkkkk
  IDCU=a-b-c l m
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within the switching module (SM) caused by failure in the integrated digital carrier unit (IDCU). The message indicates what recovery action was taken and gives the current fault counts against the circuit specified in the message. Refer to variable '`g`' to determine the effect the fault recovery had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = IDCU unit number.

`c` = IDCU service group number.

`d` = IDCU status. Valid value(s):

- `ACTIVE` = The IDCU is in service and has failed a peripheral interface control bus (PICB) order.
- `OOS` = The IDCU is marked as out-of-service, but fault stimuli are still being detected.
- `PRE-OOS` = Fault recovery has notified the maintenance request administrator (MRA) to remove this IDCU from service. However, fault stimuli are still being detected from the circuit indicating that the IDCU has not been completely removed from service.
- `STANDBY` = The mate (standby) IDCU service group has failed a PICB order.

`e` = Event number.

`f` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
PICB FAILURE
SOFTWARE BAD ADDRESS ERROR
```

`g` Recovery action. Valid value(s):

- `ANALYSIS ONLY` = This post mortem report is generated.
- `ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified by an assert.

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`NO RECOVERY ACTION TAKEN` = Information only, no recovery action will be performed.
`RE-INHIBIT ERROR` = The IDCU have been inhibited and errors are still detected. Re-inhibit has been re-applied on the IDCU.
`RST AUTO CAMPON` = The failing circuit will be restored and diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted, restored, and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Error type ('`f`') in hexadecimal.

`i` = Contents of control interface (CI) address register.

`j` = Contents of CI data register.

`k` = Contents of CI error source register.

`l` = Number of recent failures of this error type ('`f`') on this IDCU circuit.

`m` = Error count threshold equal to or above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None. Fault recovery automatically requests a conditional restore on the circuit when the error threshold is met. Subsequent DGN:IDCU and RST:IDCU messages indicate success or failure of diagnostic when recovery action is '`RST AUTO CAMPON`' or '`RST PREEMPT`'.

5. ALARMS

Critical alarm only if IDCU possibly failed duplex.

6. REFERENCES

Output Message(s):

```
DGN:IDCU
RMV:IDCU
RST:IDCU
```

MCC Display Page(s):

186Y,X (SM X IDCU Y CIRCUIT)

REPT:IDCU-TDPF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT IDCU=a-b-c d TRBL DPIDB PARITY FAILURE     EVENT=e
  f RECOVERY ACTION g
  hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh
  IDCU=a-b-c i j
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within a switching module (SM). A parity error was detected on a directly connected peripheral interface data bus (DPIDB) connected to an integrated digital carrier unit (IDCU). The message indicates what recovery action was taken and gives the current fault counts against the circuit specified in the message. Refer to variable 'g' to determine the effect the fault recovery activity had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = IDCU unit number.

`c` = IDCU service group number.

`d` = IDCU status. Valid value(s):

- `ACTIVE` = The IDCU is in service and a fault has been detected.
- `OOS` = The IDCU is marked as out-of-service, but fault stimuli are still being detected.
- `PRE-OOS` = Fault recovery has notified the maintenance request administrator (MRA) to remove this IDCU from service. However, fault stimuli are still being detected from the circuit indicating that the IDCU has not been completely removed from service.
- `STANDBY` = The mate (standby) IDCU service group detected a fault.

`e` = Event number.

`f` = Error type. Valid value(s):

- `D CHANNEL PARITY ERROR` = A parity error occurred for a D channel on a DPIDB connected to the IDCU.
- `MULTIPLE PIDB PARITY ERROR` = A parity error occurred on more than one DPIDB connected to the IDCU.
- `PIDB ERROR EOC TIMESLOT` = A parity error occurred for an embedded operations channel on a DPIDB connected to the IDCU.
- `PIDB ERROR TMC TIMESLOT` = A parity error occurred for a timeslot management channel on a DPIDB connected to the IDCU.
- `PIDB PARITY ERROR B CHANNEL` = A parity error occurred for a B channel on a DPIDB connected to the IDCU.
- `PIDB PARITY ERRORS MULTIPLE TIMESLOTS` = A parity error occurred for more than one timeslot on a DPIDB connected to the IDCU.

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`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = This post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified by an assert.
`RST AUTO CAMPON` = The failing circuit will be restored and diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted, restored, and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Hexadecimal dump containing information (that is, DPIDB name, port name) regarding the fault.

`i` = Number of recent failures of this error type (field '`f`') on this IDCU circuit.

`j` = Error count threshold equal to or above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None. Fault recovery automatically requests a conditional restore on the circuit when the error threshold is met. Subsequent DGN:IDCU and RST:IDCU messages indicate success or failure of diagnostic when recovery action is '`RST AUTO CAMPON`' or '`RST PREEMPT`'.

5. ALARMS

Critical alarm only if IDCU possibly failed duplex.

6. REFERENCES

Output Message(s):

```
DGN:IDCU
RMV:IDCU
RST:IDCU
```

MCC Display Page(s):

186Y,X (SM X IDCU Y CIRCUIT)

REPT:IDCU-TFM

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT IDCU=a-b-c d TRBL FAULT MESSAGE EVENT=e
  f RECOVERY ACTION g
  hhhhiiii jjjjkkkk llllmmmm nnnnoooo pppppppp pppppppp pppppppp
  IDCU=a-b-c q r
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within the switching module (SM) caused by failure in the integrated digital carrier unit (IDCU). The message indicates what recovery action was taken and gives the current fault counts against the circuit specified in the message. Refer to variable '`g`' to determine the effect the fault recovery had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = IDCU unit number.

`c` = IDCU service group number.

`d` = IDCU status. Valid value(s):

`ACTIVE`	= The IDCU is in service and a fault has been detected.
`OOS`	= The IDCU is marked as out-of-service, but fault stimuli are still being detected.
`PRE-OOS`	= Fault recovery has notified the maintenance request administrator (MRA) to remove this IDCU from service. However, fault stimuli are still being detected from the circuit indicating that the IDCU has not been completely removed from service.
`STANDBY`	= The mate (standby) IDCU service group detected a fault.

`e` = Event number.

`f` = Error type. Valid value(s):

```
CALL FAILED DUE TO PLS IN PROGRESS
CC DETECTED BAD MESSAGE SEQUENCE
CC ILLEGAL MATE ACCESS
CC SENT BAD MESSAGE
CC UCI PARITY FAILURE
CC USER PROCESS HUNG
CCP ADDRESS ERROR IN SUP MODE
CCP ADDRESS ERROR IN USER MODE
CCP BUS ERROR IN SUP MODE
CCP BUS ERROR IN USER MODE
CCP FAILED TASK TIMEOUT TO LSI
CCP FORMAT ERROR
CCP PRIVILEGE VIOLATION
CCP PROM WRITE PROTECT
CCP/PTI PACK PULLED
```

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CLOCK FAILURE
CONTROL SEQUENCER FAILURES
DETECTED BAD BITS SET
DUPLEX UNIT FAILED DURING RECOVERY
ELI PACK PULL FALSE INDICATION
FAULT INSERTION BIT SET
IFAC DDL MSG OVERFLOW
INHIBIT ALL HARDWARE CHECKS
INTERNAL MEMORY PARITY ERROR
INTERRUPT EXCEPTION
INTERRUPT THROUGH MASK
INTERRUPT THRU MASK
IO TIMER VIOLATION
LSI FIRMWARE COMM FAILURE
LSI FIRMWARE DEVICE FAILURE
LSI FIRMWARE DLP FAILURE
LSI FIRMWARE ERRORS
LSI FIRMWARE IDB FAIL
LSI FIRMWARE PROCESSOR ERROR
LSI FIRMWARE TRANSCEIVER TEST FAIL
LSI HARDWARE ERRORS
LSI HDW CC READ/WRITE ERRORS
LSI HDW DLP FAILURE
LSI HDW FIFO A ERROR
LSI HDW FIFO B ERROR
LSI HDW FIFO A OVER ERROR
LSI HDW FIFO B OVER ERROR
LSI HDW FIFO A UNDER ERROR
LSI HDW FIFO B UNDER ERROR
LSI HDW INTERRUPT THRU MASK
LSI HDW LOSS OF 4MGHZ CLOCK
LSI HDW PARITY AT LSI
LSI HDW PARITY ERROR AT CC
LSI HDW READ/WRITE FAILURE
LSI HDW SANITY TIMER
LSI ROM FAULT DETECTED
LSI UCI FLAGS
LSI/DLP HASH ERROR
MATE FAILED DURING SWITCH
MATE I/O TIMER VIOLATION
MATE MEMORY PARITY FAILURE
MATE NOT IN HOLD
MATE WRITE PROTECT VIOLATION
MATEPTI ADDRESS PARITY
MATEPTI CONTROL PARITY
MATEPTI DATA PARITY
MATEPTI I/O WRITE PROTECT
MEMORY PARITY FAILURE
MULTIPLE CKT FAILURE
NO ERROR SOURCE FOUND
PLS DATA POSSIBLY CORRUPT - AUDIT SCHED
PTI ADDRESS PARITY
PTI CI ADDRESS PARITY
PTI CI ADDRESS Se.spect
PTI CI BAD START CODE
PTI CI DATA PARITY

```
PTI CI ERRORS
PTI CI LINK ERROR
PTI CI PERIPHERAL
PTI CI TIME OUT
PTI CLOCK ERRORS
PTI CONTROL PARITY
PTI DATA PARITY
PTI ELI ERRORS
PTI FPGA ERRORS
PTI I/O WRITE PROTECT
PTI INTERRUPT THROUGH MASK
PTI PRF MASTER SYNC ALARMS
PTI PRF PDB PARITY ALARMS
PTI PRF SDB PARITY ALARMS
PTI PRF SUPERFRAME SYNC ALARM
PTI SP ERRORS
PTI SP FIFO OVERFLOW
PTI SP LOGIC ALARM
PTI SP PROCESSOR WRITE PARITY
PTI SP RAM PARITY ALARM
PTI SP TSYN&RSYN ALARM
PTI TSI ERRORS
PTI TSI MEMORY ERROR
PTI TSI PARITY ERRORS
PTI TSI TIMING ERROR
SOFT RESET THRESHOLD EXCEEDED
STACK OVERFLOW
STANDBY CC DETECTED  FAULT
STANDBY COMMUNICATION FAILURES
STUCK MAILBOX FLAG
SYSTEM DETECTED SOFTWARE PROBLEM
USER TASK DETECTED SOFTWARE ERROR
USER TASK PURGED THRESHOLD EXCEEDED
WRITE PROTECT VIOLATION
```

`g` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = This post mortem report is generated.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified by an assert.

`RST AUTO CAMPON` = The failing circuit will be restored and diagnosed when it is available. A message will be printed with the results of the diagnostic.

`RST PREEMPT` = The failing circuit was preempted, restored, and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = The fault message type.

`i` = The IDCU peripheral interface control bus (PICB) number.

`j` = The mailbox number.

`k` = The fault report type.

`l` = The mailbox entry count.

`m` = The mailbox header word with the fault type in the lower three characters.

`n` = The internal IDCU event number.

`o` = The task type if one is running.

`p` = The data of specific error that are sometimes filled in.

`q` = Number of recent failures of this error type ('`f`') on this IDCU circuit.

`r` = Error count threshold equal to or above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None. Fault recovery automatically requests a conditional restore on the circuit when the error threshold is met. Subsequent DGN:IDCU and RST:IDCU messages indicate success or failure of diagnostic when recovery action is '`RST AUTO CAMPON`' or '`RST PREEMPT`'.

5. ALARMS

Critical alarm only if IDCU possibly failed duplex.

6. REFERENCES

Output Message(s):

```
DGN:IDCU
RMV:IDCU
RST:IDCU
```

MCC Display Page(s):

186Y,X (SM X IDCU Y CIRCUIT)

REPT:IDCU-TMSR

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT IDCU=a-b-c d TRBL MAINTENANCE SERVICE REQUEST EVENT=e
  f RECOVERY ACTION g
  hhhhiiii jjjjkkkk llllmmmm nnnnoooo
  IDCU=a-b-c p q
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within the switching module (SM) caused by failure in the integrated digital carrier unit (IDCU). The message indicates what recovery action was taken and gives the current fault counts against the circuit specified in the message. Refer to variable 'g' to determine the effect the fault recovery had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = IDCU unit number.

`c` = IDCU service group number.

`d` = IDCU status. Valid value(s):
- `ACTIVE` = The IDCU is in service and a fault has been detected.
- `OOS` = The IDCU is marked as out-of-service, but fault stimuli are still being detected.
- `PRE-OOS` = Fault recovery has notified the maintenance request administrator (MRA) to remove this IDCU from service. However, fault stimuli are still being detected from the circuit indicating that the IDCU has not been completely removed from service.

`e` = Event number.

`f` = Error type. Valid value(s):
- `CC ADDRESSED NON-EXISTENT UCI ADDRESS` = The IDCU processor attempted to address a invalid memory location in the UCI.
- `CC HALTED` = The IDCU service group's processor has been placed into a hold state and is no longer processing code.
- `DUPLEX UNIT FAILED DURING RECOVERY` = The switch of the IDCU service groups failed to clear the errors and escalated to a duplex failure.
- `FIFO A OPERATED INCORRECTLY` = Invalid instruction to first-in-first-out (FIFO) queue A.
- `FIFO A OVERFLOW` = FIFO A was written when full.
- `FIFO A UNDERFLOW` = FIFO A was read when empty.
- `FIFO B OPERATED INCORRECTLY` = Invalid instruction to FIFO B.
- `FIFO B OVERFLOW` = FIFO B was written when full.
- `FIFO B UNDERFLOW` = FIFO B was read when empty.
- `INHIBIT ALL HARDWARE CHECKS` = The IDCU detected many errors and has set internal error masks in order to prevent rolling error recoveries.
- `SANITY TIMER TIME OUT` = The IDCU processor was unable to satisfy an internal integrity timer. The RTX operating system has a 15-millisecond job cycle. Once each cycle, it must

strobe this timer.
`SMP ADDRESSED NON-EXISTENT UCI ADDRESS` = The SMP processor attempted to address an invalid memory location in the UCI.
`SMP UCI PARITY FAILURE` = A SMP instruction to the IDCU UCI has caused a parity error.

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = This post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified by an assert.
`RST AUTO CAMPON` = The failing circuit will be restored and diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted, restored, and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Error source summary and mask summary.

`i` = Contents of summary service request register.

`j` = Contents of summary service request mask register.

`k` = Status of unit processor.

`l` = Contents of hardware error register.

`m` = Contents of firmware error register.

`n` = Content of hardware error mask register.

`o` = Content of firmware error mask register.

`p` = Number of recent failures of this error type (field '`f`') on this IDCU circuit.

`q` = Error count threshold equal to or above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None. Fault recovery automatically requests a conditional restore on the circuit when the error threshold is met. Subsequent DGN:IDCU and RST:IDCU messages indicate success or failure of diagnostic when recovery action is '`RST AUTO CAMPON`' or '`RST PREEMPT`'.

5. ALARMS

Critical alarm only if IDCU possibly failed duplex.

6. REFERENCES

Output Message(s):

```
DGN:IDCU
RMV:IDCU
RST:IDCU
```

MCC Display Page(s):

186Y,X (SM X IDCU Y CIRCUIT)

REPT:IDCU-TOF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT IDCU=a-b-c d TRBL OPERATIONAL FAILURE EVENT=e
  f RECOVERY ACTION g
  hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh
  IDCU=a-b-c i j
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within the switching module (SM) caused by failure in the integrated digital carrier unit (IDCU). The message indicates what recovery action was taken and gives the current fault counts against the circuit specified in the message. Refer to variable 'g' to determine the effect the fault recovery had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = IDCU unit number.

`c` = IDCU service group number.

`d` = IDCU status. Valid value(s):
- `ACTIVE` = The IDCU is in service and a fault has been detected.
- `OOS` = The IDCU is marked as out-of-service, but fault stimuli are still being detected.
- `PRE-OOS` = Fault recovery has notified the maintenance request administrator (MRA) to remove this IDCU from service. However, fault stimuli are still being detected from the circuit indicating that the IDCU has not been completely removed from service.

`e` = Event number.

`f` = Error type. Valid value(s):
- `CALL FAILED DUE TO PLS IN PROGRESS` = The IDCU protection line switch (PLS) process was active too long and resulted in excessive call blocking.
- `CC SENT BAD MESSAGE` = The task information block returned from the IDCU contains bad data.
- `CCP FAILED TASK TIMEOUT TO LSI` = A task sent from the IDCU processor to the loop side interface (LSI) pack did not return an acknowledgement.
- `IDLE TASK RESPONDED` = The task reply was returned late to the mailbox.
- `IFAC DDL MSG OVERFLOW` = A data delivery link (DDL) on an IDCU facility sent too many messages and overflowed the receiving buffers. The link will be inhibited for 15 minutes since these are transient states only.
- `LSI TASK FAILED` = LSI ran requested task but returned a failure code to the IDCU processor.
- `PLS DATA POSSIBLY CORRUPT - AUDIT SCHED` = The protection line switch process has detected bad data in its facility information.
- `SMP DETECTED BAD MESSAGE SEQUENCE` = The SMP received a reply to an IDCU task in the wrong mailbox location than expected.
- `TASK BLOCKING IN MAILBOX` = The SMP has more messages to send than the IDCU can receive.

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`TASK FAILED` = The IDCU accepted the requested task but has returned a failure indicating that the task did not complete the operation successfully.
`TASK TIMED OUT` = Each task is given a certain amount of time to complete its job. If the task fails to complete within this time, it is aborted and fault recovery is notified of this.
`USER DETECTED SOFTWARE ERROR` = The IDCU resident software has detected a problem during the execution of a requested task.

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = This post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified by an assert.
`RST AUTO CAMPON` = The failing circuit will be restored and diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted, restored, and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Hexadecimal dump containing error information of the faulted circuit.

`i` = Number of recent failures of this error type (field '`f`') on this IDCU circuit.

`j` = Error count threshold equal to or above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None. Fault recovery automatically requests a conditional restore on the circuit when the error threshold is met. Subsequent DGN:IDCU and RST:IDCU messages indicate success or failure of diagnostic when recovery action is '`RST AUTO CAMPON`' or '`RST PREEMPT`'.

5. ALARMS

Critical alarm only if IDCU possibly failed duplex.

6. REFERENCES

Output Message(s):

```
DGN:IDCU
RMV:IDCU
RST:IDCU
```

MCC Display Page(s):

186Y,X (SM X IDCU Y CIRCUIT)

REPT:IDCU-TPPF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT IDCU=a-b-c d TRBL PIDB PARITY FAILURE EVENT=e
  f RECOVERY ACTION g
  hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh
  IDCU=a-b-c i j
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within a switching module (SM). A parity error was detected on a peripheral interface data bus (PIDB) connected to an integrated digital carrier unit (IDCU). The message indicates what recovery action was taken and gives the current fault counts against the circuit specified in the message. Refer to variable '`g`' to determine the effect the fault recovery activity had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = IDCU unit number.

`c` = IDCU service group number.

`d` = IDCU status. Valid value(s):
- `ACTIVE` = The IDCU is in service and a fault has been detected.
- `OOS` = The IDCU is marked as out-of-service, but fault stimuli are still being detected.
- `PRE-OOS` = Fault recovery has notified the maintenance request administrator (MRA) to remove this IDCU from service. However, fault stimuli are still being detected from the circuit indicating that the IDCU has not been completely removed from service.
- `STANDBY` = The mate (standby) IDCU service group detected a fault.

`e` = Event number.

`f` = Error type. Valid value(s):
- `DATA PARITY ERROR` = A parity error occurred on a PIDB connected the IDCU.
- `PIDB PARITY ERRORS MULTIPLE TIMESLOTS` = A parity error occurred for more than one timeslot on a PIDB connected to the IDCU.
- `MULTIPLE PIDB PARITY ERROR` = A parity error occurred on more than one PIDB connected to the IDCU.

`g` = Recovery action. Valid value(s):
- `ANALYSIS ONLY` = This post mortem report is generated.
- `ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified by an assert.
- `RST AUTO CAMPON` = The failing circuit will be restored and diagnosed when it is available. A message will be printed with the results of the diagnostic.
- `RST PREEMPT` = The failing circuit was preempted, restored, and a diagnostic was scheduled. A

message will be printed with the results of the diagnostic.

`h` = Hexadecimal dump containing information (that is, PIDB name, port name) regarding the fault.

`i` = Number of recent failures of this error type ('`f`') on this IDCU circuit.

`j` = Error count threshold equal to or above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None. Fault recovery automatically requests a conditional restore on the circuit when the error threshold is met. Subsequent DGN:IDCU and RST:IDCU messages indicate success or failure of diagnostic when recovery action is '`RST AUTO CAMPON`' or '`RST PREEMPT`'.

5. ALARMS

Critical alarm only if IDCU possibly failed duplex.

6. REFERENCES

Output Message(s):

```
DGN:IDCU
RMV:IDCU
RST:IDCU
```

MCC Display Page(s):

186Y,X (SM X IDCU Y CIRCUIT)

REPT:IDCUELI-TOF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT IDCUELI=a-b-c ACTIVE TRBL OPERATIONAL FAILURE EVENT=d
  ELI PACK PULL FALSE INDICATION  RECOVERY ACTION INHIBIT HDWCHKS
  IDCUELI=a-b-c 1 1
```

2. REASON FOR OUTPUT

This message reports that the integrated digital carrier unit (IDCU) electrical line interface (ELI) pack is indicating that it is pulled but there are no facility alarms to confirm that it is. If the ELI pack is physically removed from the IDCU, the associated facilities would be reporting carrier group alarms.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU unit number.

`c` = IDCU service group number.

`d` = Event number.

4. ACTION TO BE TAKEN

Check the ELI pack and the physical connections of the ELI pack.

5. ALARMS

Critical alarm only if IDCU possibly failed duplex.

6. REFERENCES

Output Message(s):

```
RMV:IDCUELI
RST:IDCUELI
```

MCC Display Page(s):

186Y,X (SM X IDCU Y CIRCUIT)

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REPT:IM-HLSC-BL

Software Release: 5E10 and later
Message Class: SED_MON
Application: 5
Type: Output

1. FORMAT

```
REPT IM a HLSC BLOCKING FACTOR b
  LINE UNIT c INTERVAL d
```

2. REASON FOR OUTPUT

To report that excessive blocking occurred on the high level service circuits associated with the indicated line unit and switching module (SM). This message is printed every 10 minutes as long as the condition remains.

3. VARIABLE FIELD DEFINITIONS

a	= SM number.
b	= Percentage of blocking.
c	= Line unit identification number.
d	= Interval, in the form hours:minutes:seconds.

4. ACTION TO BE TAKEN

None.

5. ALARMS

A critical alarm occurs.

6. REFERENCES

None.

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REPT:IM-HLSC-SH

Software Release: 5E10 and later
Message Class: SED_MON
Application: 5
Type: Output

1. FORMAT

```
REPT IM a HLSC SHORTAGE
  b IN SERVICE AT LINE UNIT c
  UNCONDITIONAL RESTORE 0 1 2 3 4 5 IN PROGRESS
```

2. REASON FOR OUTPUT

To report that a critical shortage of high level service circuits (HLSC) occurred on the indicated line unit. An unconditional restore of the indicated circuits was automatically requested.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Number of HLSCs in service.

`c` = Line unit identification number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

A critical alarm occurs.

6. REFERENCES

None.

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REPT:IMMEDIATE

Software Release: 5E10 and later
Message Class: RCVY
Application: 5
Type: Output

1. FORMAT

```
REPT IMMEDIATE INTERFLOW {ACTIVATION|DEACTIVATION} RECORD:
  SENDING OFFICE ID   :  a
  RECEIVING OFFICE ID :  b
      SENDING OFFICE
       SERVING TEAM
      --------------
              c
```

2. REASON FOR OUTPUT

To report that Operator Services Position System (OSPS) immediate interflow is activated (or deactivated) for serving teams of a sending office.

3. VARIABLE FIELD DEFINITIONS

a = Sending OSPS ID.

b = Receiving OSPS ID.

c = Serving team numbers of sending office.

4. ACTION TO BE TAKEN

The interflow activation/deactivation reports the immediate interflow patterns made from RC/V View 21.7 that have been turned on or off. Compare this message to RC/V View 21.7 and 21.9 and check for consistency.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
250-505-110 *OSPS Maintenance and Growth*

RC/V View(s):

21.7 (OSPS IMMEDIATE INTERFLOW ACTIVATION AND DEACTIVATION)
21.9 (OSPS INTERFLOW STATUS--INTERFLOW DESTINATION MAPPING)

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REPT:IMS-GENERIC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT IMS GENERIC
  RELEASE  a
```

2. REASON FOR OUTPUT

To identify the software release of the interprocess message switch (IMS) subsystem. It is automatically printed during IMS initialization and aborts.

This information is often essential in troubleshooting software. It should be included in all trouble reports. To see it without running an initialization, print the OP:RING input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Generic ID. A line of text which identifies the version of the IMS software.

4. ACTION TO BE TAKEN

Include this information when reporting problems which may be affected by IMS software.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
  OP:RING
```

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REPT:IMSDRV-AUD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT IMSDRV AUD
        RTR REJECTED THE REQUEST TO RUN a b AUDIT
        REPLY CODE = c

[2]   ____________________________________________________________________
      REPT IMSDRV AUD
        RTR REJECTED THE REQUEST TO BLOCK/UNBLOCK a b c AUDIT
        REPLY CODE = c

[3]   ____________________________________________________________________
      REPT IMSDRV AUD
        RTR ABORTED THE REQUEST TO RUN a b AUDIT
        REPLY CODE = d

[4]   ____________________________________________________________________
      REPT IMSDRV AUD
        TIMEOUT FOR REQUEST TO RUN a b AUDIT
        LAST REQUEST e MS AGO - LAST REPLY f MS AGO CODE = c
```

2. REASON FOR OUTPUT

Format 1 is printed when an audit requested by the interprocess message switch (IMS) driver process could not be started and the reply code indicates the reason is not transient.

Format 2 is printed when the IMS driver process could not block or unblock an audit.

Format 3 is printed when an audit requested by the IMS driver process was aborted before completion.

Format 4 is printed when the IMS driver process exceeded a time limit in the process of attempting to run an audit.

3. VARIABLE FIELD DEFINITIONS

`a` = Audit class name. Valid value(s):
- `CNC` = Central node control
- `NODEST` = Node state (node availability map)

`b` = Audit member number (1).

`c` = Acknowledgment code from *UNIX*® RTR operating system. Valid value(s):
- `1` = IMS has received no replies (acknowledgements).
- `3` = Audit system initialization in progress.
- `4` = Audit system initialization failed.
- `5` = Access to audit record in the equipment configuration database (ECD) failed.
- `6` = Requested audit is running.

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7 = Another kernel process requested audit is running.
8 = Maximum number of supervisor audits are running.
9 = Requested audit instance is blocked.
10 = Attempt to initialization or dispatch audit failed.
11 = An audit with the same name is running.
12 = A user-requested audit is running, cannot stop and block.
13 = A system-requested audit is running, cannot stop and block.
14 = Requested audit or instance is inhibited.
15 = System integrity output formatter is dead.
19 = Invalid audit specified.
20 = Invalid audit instance specified.
21 = Mode of request not permitted.
22 = Cannot stop an audit that is not running.
23 = Cannot stop a non-segmented kernel audit.
30 = Request resulted in no change.

d The termination status from *UNIX*® RTR. Valid value(s):
2 = Aborted by the user.
3 = Aborted by the audit.
4 = Aborted by fault -- data integrity in the kernel is now questionable (refer to the 4ACTION TO BE TAKEN section).
5 = System integrity monitor (SIM) abort -- failed to dispatch audit.
6 = SIM abort -- audit control/interface failure.
7 = SIM abort -- audit exceeded time or segment limit.
8 = SIM abort -- aborted by stop-and-block request.
9 = Transient audit process died.
10 = Segmented audit exceeded an error threshold.

e = Time duration (milliseconds) before the timeout the last request was sent.

f = Time duration (milliseconds) before the timeout the last reply was received.

4. ACTION TO BE TAKEN

For Format 1,

If 'c' =	Action:
14	Issue the ALW:AUD command for the audit specified in the fields 'a' and 'b' to allow the audit to be run.
19	Check the audit class name and member number specified in the "auderr", "audinst", and "audrec" records in the ECD for the audit indicated by the fields 'a' and 'b'.
20	Check the audit instance name specified in the "audinst" record in the ECD for the audit indicated by the fields 'a' and 'b'.

If any other value for 'c' is printed, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 2,

If 'c' =	Action:
19	Check the audit class name and member number specified in the "auderr", "audinst", and "audrec" records in the ECD for the audit indicated by the fields 'a' and 'b'.
20	Check the audit instance name specified in the "audinst" record in the ECD for the audit indicated by the fields 'a' and

	'b'.

If any other value for 'c' is printed, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 3,

If 'd' =	Action:
3	Should only occur while IMS is aborting.
4	Rerun the audit and verify that it completes with no errors. If errors are seen after rerunning the audit then refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
6	Can be caused by ECD errors, such as indicating not segmented for a segmented audit in the "audrec" form for the audit indicated in fields 'a' and 'b'.

If any other value for 'd' is printed, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 4, if 'e' is less than 'f' then the timeout occurred because no reply was received for the last request to run the audit. A reply is expected when the request is rejected or completed.

If 'e' is greater than 'f' then the last request to run the audit was rejected for reason 'c' and the time limit on retrying was exceeded.

If 'e' is equal to 'f' and 'c' is equal to 1 then all attempts to send the request failed and time limit on retrying was exceeded.

If any other value for 'e' is printed, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

Minor.

6. REFERENCES

Input Message(s):

```
ALW:AUD
AUD:NODEST
AUD:CNC
OP:AUD
STOP:AUD
```

Output Message(s):

```
OP:AUD
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

REPT:IMSDRV-FLT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT IMSDRV FLT
        EFLAGS=a, FLTCODE=b

[2]   ____________________________________________________________
      REPT IMSDRV FLT
        EFLAGS=a, FLTCODE=b, PA=c
        PSW=d, PSBR=e, SSBR=f
        RTC=g

[3]   ____________________________________________________________
      REPT IMSDRV FLT
        REGISTERS AT RTC=g
        0 'X'h i j k
        4 'X'l m n o
        8 'X'p q r s
```

2. REASON FOR OUTPUT

To report that the interprocess message switch (IMS) driver process has encountered a hardware or software fault.

3. VARIABLE FIELD DEFINITIONS

`a` = Hexadecimal sum of the codes for all *UNIX*® RTR events outstanding for the IMS driver process.

`b` = *UNIX*® RTR fault code.

`c` = Virtual address where the IMS driver process was in execution when the fault was encountered.

`d` = Contents of administrative module (AM) register PSW.

`e` = Contents of AM register PSBR.

`f` = Contents of AM register SSBR.

`g` = Contents of AM real time clock register in 1-msec units.

`h-s` = Contents of AM registers r0-r10, respectively.

4. ACTION TO BE TAKEN

Analyze the fault code (refer to the appendixes listed in this manual page). If the fault is associated with input or output from the ring peripheral controller nodes (RPCNs), there will be message(s) to that effect.

5. ALARMS

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Minor alarm.

6. REFERENCES

Output Message(s):

```
REPT:IODRV-ERR
REPT:IODRV-ERROR
REPT:IODRV-FAULT
```

Output Appendix(es):

```
APP:FAULT-CODE
APP:IOP-E
APP:IOP-F
```

REPT:IMSDRV-INIT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT IMSDRV INIT
        STARTED a [b]
        REQ c ESCF X'd
        AT e

[2]   ____________________________________________________________________
      REPT IMSDRV INIT
        COMPLETED a [b]
        AT e

[3]   ____________________________________________________________________
      REPT IMSDRV INIT
        ABORTED a IN PHASE f SQS g FCODE h
        AT e

[4]   ____________________________________________________________________
      REPT IMSDRV INIT
        IMS LEVEL 2 INITIALIZATION NOT IMPLEMENTED - RUNNING LEVEL 3
        AT e

[5]   ____________________________________________________________________
      REPT IMSDRV INIT
        MIN-MODE INHIBITED a
        REQ c
        AT e
```

2. REASON FOR OUTPUT

Formats 1 - 4 provide progress reports for initialization and abort sequences of the interprocess message switch (IMS).

Format 5 indicates that the IMS encountered a situation which would normally have resulted in an initialization, but the initialization was inhibited because IMS was in min-mode.

3. VARIABLE FIELD DEFINITIONS

a = Initialization or abort sequence. Valid value(s):

```
ABORT SEQUENCE
BOOT INITIALIZATION PROLOGUE
CRITICAL LEVEL 2 INITIALIZATION
CRITICAL LEVEL 3 INITIALIZATION
CRITICAL LEVEL 4 INITIALIZATION
FPI INITIALIZATION PROLOGUE
LEVEL 0 INITIALIZATION
LEVEL 1A INITIALIZATION
```

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```
LEVEL 1B INITIALIZATION
NON-CRITICAL PROCESS CREATIONS
```

b = Indication whether IMS is in MIN-MODE. If 'a' = BOOT INITIALIZATION PROLOGUE or FPI INITIALIZATION PROLOGUE, this variable will not print because it isn't known at that time.

c = Request code. Reason initialization sequence was requested. Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.

d = Escalation flags. If variable 'd' is not zero, it indicates the reason(s) that a request (refer to variable 'c') for an initialization sequence resulted in a more severe initialization or abort than requested. Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.

e = The value of the administrative module's (AM's) real-time clock register in 1 millisecond units. The time elapsed between two events which print these messages can be determined by subtracting the time values from the two messages.

f = Name of the failing phase of the initialization sequence. Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.

g = Progress indicator. Valid value(s):

0 = Sequence requested but not started.
1 = Starting or ending phase.
2 = Waiting for phase completion.
3 = Pausing after completion of phase.
4 = Pausing before retry of phase.
5 = No sequence in progress.

h = A failure code indicating the type of failure that caused the initialization sequence to abort. Refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

Analyze this message in the context of the surrounding messages, including initializations of other subsystems. In many cases these output messages will be the expected results of initializations of *UNIX*® RTR or other subsystems.

When successful, the BOOT INITIALIZATION PROLOGUE and the FPI INITIALIZATION PROLOGUE sequence lacks a completion message because it leads directly into one of the other sequences.

When these messages are found unexpectedly (not in response to a manual request), refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

For Format 1:

If 'a' =	Alarm:
LEVEL 1B INITIALIZATION, ABORT SEQUENCE, or FPI INITIALIZATION PROLOGUE	Major
LEVEL 1A INITIALIZATION	Minor

For Format 3:

If 'a' =	Alarm:
LEVEL 1B INITIALIZATION, CRITICAL LEVEL 2 INITIALIZATION CRITICAL LEVEL 3 INITIALIZATION, or CRITICAL LEVEL 4 INITIALIZATION	Major
LEVEL 1A INITIALIZATION	Minor

For Format 5:

If 'a' =	Alarm:
LEVEL 1B INITIALIZATION, CRITICAL LEVEL 2 INITIALIZATION, CRITICAL LEVEL 3 INITIALIZATION, or CRITICAL LEVEL 4 INITIALIZATION	Major
LEVEL 1A INITIALIZATION	Minor

No alarm will be sounded for Formats 2 and 4.

6. REFERENCES

Input Message(s):

OP:RING

Output Message(s):

REPT:MIN-MODE

Output Appendix(es):

APP:CNI

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

118 (CNI FRAME AND CCS LINK STATUS)

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REPT:IMSDRV-RPCM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT IMSDRV RPCM
        RPCa MESSAGE BUFFER OVERFLOW

[2]   ____________________________________________________________
      REPT IMSDRV RPCM
        NO RPC HEARTBEAT
```

2. REASON FOR OUTPUT

Format 1 reports that the common network interface (CNI) ring peripheral controller (RPC) has been in overflow level 2 or greater for more than 20 seconds. If the RPC remains in this overflow state, this message will be output once every five minutes.

Format 2 reports that there has been no communication between either of the two RPCs and the administrative module (AM) processor for more than twenty seconds (that is, the last four RPC to AM five-second heartbeat messages are missing). If the RPCs both remain in this state beyond the initial output of this message, this message will be output once every minute until a Full Processor Initialization (FPI) is allowed.

3. VARIABLE FIELD DEFINITIONS

`a` = RPC node identifier. Valid value(s):
- `00 0` = Group 00, node 0.
- `32 0` = Group 32, node 0.

4. ACTION TO BE TAKEN

For Format 1, investigate this overflow condition and clear as soon as possible; this condition can result in lost common channel signaling (CCS) messages.

For Format 2, investigate this condition and clear as soon as possible as this can be a symptom of a CCS signaling outage. This condition indicates that communications have been lost between the RPC and the AM This could have been caused by turning the ring token audit off.

5. ALARMS

A major alarm sounds for all forms of this message.

6. REFERENCES

None.

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REPT:IMSRMVRST

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT IMSRMVRST ERROR a b
```

2. REASON FOR OUTPUT

To report an error condition in the interprocess message switch remove/restore (IMSRMVRST) user process. An operating system function call is failing.

3. VARIABLE FIELD DEFINITIONS

`a` = Function call failure type. Valid value(s):
`3` = Send to port.

`b` = Error code returned by the failing function call. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

Obtain technical assistance to clear the trouble.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:LN
DGN:RPCN
RMV:LN
RMV:RPCN
RST:LN
RST:RPCN
```

Output Message(s):

```
DGN:LN
DGN:RPCN
RMV:LN
RMV:RPCN
RST:LN
RST:RPCN
```

Output Appendix(es):

```
APP:SYSERR
```

REPT:INHADM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT INHADM UNABLE TO MAINTAIN INHIBITS

[2]   ____________________________________________________________
      REPT INHADM FAULTED FCODE a

[3]   ____________________________________________________________
      REPT INHADM UNABLE TO SEND INHIBIT
        MESSAGE TO DRIVER b

[4]   ____________________________________________________________
      REPT INHADM CANNOT GET UCB RECORD

[5]   ____________________________________________________________
      REPT INHADM MINOR ALARM FROM INHIBIT
        ADMINISTRATOR
```

2. REASON FOR OUTPUT

For Format 1, to report that the inhibit administrator process attempted to maintain consistency of the error interrupt inhibits between the emergency action interface (EAI) and the unit control blocks (UCBs) in the equipment configuration database (ECD) during an initialization, but failed to access the ECD or could not send a message to a driver. The error interrupt inhibit options selected by the EAI must be propagated to the ECD, on any initialization, to insure consistency.

For Format 2, the inhibit administrator received the fault '`a`'

For Format 3, the inhibit administrator does not inhibit a device directly, it sends a message to the corresponding driver. This error indicates that the "queuemn" system call failed when sending to the driver with process ID (PID) '`a`'

For Format 4, an ECD access function (either lla_opensq or lla_nextseq) failed when accessing a UCB record.

For Format 5, inhibiting hardware checks, software checks, and error interrupts can prevent the system from recovering automatically from hardware or software faults. This error is printed when any of the checks are inhibited as a warning to the user.

3. VARIABLE FIELD DEFINITIONS

`a` = Fault code received by INHADM. Refer to the APP:FAULT-CODE appendix in the Appendixes section of the Output Messages manual.

`b` = PID of driver.

4. ACTION TO BE TAKEN

For Formats 1-4, run ECD audits. If there are no errors in the ECD, refer to the TECHNICAL ASSISTANCE portion

of the INTRODUCTION section of the Output Messages manual.

For Format 5, no action is required.

5. ALARMS

None.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	408
2	407
3	410
4	409
5	411

Input Message(s):

```
OP:ERRCHK
```

Output Message(s):

```
OP:ERRCHK
```

Output Appendix(es):

```
APP:FAULT-CODE
APP:OMDB-X-REF
```

REPT:INHIBIT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT INHIBIT SCAN POINT a ON SCSD b
```

2. REASON FOR OUTPUT

To report that the scanner and signal distributor administrator (SCSDA) has detected a scan point which is chattering (greater than 4 transitions a second).

3. VARIABLE FIELD DEFINITIONS

`a` = Physical scan point number.

`b` = Member number.

4. ACTION TO BE TAKEN

This message indicates that a scan point is changing state continually. This could cause a message buffer overload for the clients of the SCSDA monitoring that point. This scan point should be investigated to determine why it is changing state frequently.

5. ALARMS

Minor.

6. REFERENCES

None.

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REPT:INIT

Software Release: 5E10 and later
Message Class: NONE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT INIT DEVICE STATUS
  a b c
```

2. REASON FOR OUTPUT

To report initial device states obtained from the equipment configuration database (ECD) by the real time status report program.

3. VARIABLE FIELD DEFINITIONS

a = Hardware unit name. Valid value(s):

CSU	= Cache store unit.
CU	= Control unit.
DFC	= Disk file controller.
EAI	= Emergency action interface.
IOP	= Input/output processor.
MHD	= Moving head disk.
MTTY	= Maintenance teletypewriter.
MTTYC	= Maintenance teletypewriter controller.
ROP	= Receive only printer.
SCC	= Switching Control Center.

b = Unit number in decimal notation.

c = Unit status. Valid value(s):

```
ACTIVE
GROWTH IN PROGRESS
INITIALIZING
OFF LINE
OUT OF SERVICE
STANDBY
UNAVAILABLE
UNEQUIPPED
```

4. ACTION TO BE TAKEN

None.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

5. ALARMS

None.

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6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	310

Output Appendix(es):

APP:OMDB-X-REF

REPT:INIT-3BN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT INIT 3BN ERR
        CAN NOT SHUT DOWN DMA FOR NODE a b (c)

[2]   ____________________________________________________________________
      REPT INIT 3BN ERR
        FALSE INTERRUPT, ID = d (c)

[3]   ____________________________________________________________________
      REPT INIT 3BN ERR
        FALSE INTERRUPT, NODE = e (c)

[4]   ____________________________________________________________________
      REPT INIT 3BN ERR
        CAN NOT CLR INTR FOR NODE a b (c)

[5]   ____________________________________________________________________
      REPT INIT 3BN ERR
        SENSE STATUS FAILURE FOR NODE a b (c)

[6]   ____________________________________________________________________
      REPT INIT 3BN ERR
        a b TEST DMA FAILURE, SOURCE = f

[7]   ____________________________________________________________________
      REPT INIT 3BN ERR
        a b INTERRUPTED 3B WITH WRONG STATE

[8]   ____________________________________________________________________
      REPT INIT 3BN ERR
        a b INTERRUPTED 3B WHEN IT IS NOT IN INIT

[9]   ____________________________________________________________________
      REPT INIT 3BN ERR
        a b DMA INITIALIZATION TIMEOUT, STATUS = g (c)

[10]  ____________________________________________________________________
      REPT INIT 3BN ERR
        IMS APPLICATION DID NOT PROVIDE ADDRESS FOR NODE  a b

[11]  ____________________________________________________________________
      REPT INIT 3BN ERR
        UNEXPECTED ERR WHEN SHUT DOWN  a b, STATUS = h, PIOFLG = i

[12]  ____________________________________________________________________
      REPT INIT 3BN ERR
        UNEXPECTED ERR AFTER TEST DMA PASSED, NODE=a b, STATE=j, SOURCE = f
```

```
[13]  ____________________________________________________________________
      REPT INIT 3BN ERR
        UNEXPECTED ERR BEFORE NP RESTART DMA, NODE = a b, STATE=k, SOURCE = f
```

2. REASON FOR OUTPUT

Format 1 prints when the shutdown direct memory access (DMA) job fails.

Format 2 prints when an interrupt is received by the administrative module (AM) with an illegal internal interrupt number.

Format 3 prints when an interrupt is received by the AM with an illegal physical node identification.

Format 4 prints when the command clear interrupt fails.

Format 5 prints when the command sense AM interface (3BI) status fails.

Format 6 prints if test DMA fails for the specified node.

Format 7 prints when the direct link node (DLN) interrupts the AM while it is undergoing the DMA initialization sequence yet the internal substate of this node does not appear to expect such an interrupt.

Format 8 prints when the DLN interrupts the AM yet the node is not currently undergoing the DMA initialization sequence.

Format 9 prints when the DMA initialization sequence on the specified node times out.

Format 10 prints when the DMA initialization sequence detects that the interprocess message switch (IMS) application did not provide the address for the expanded DMA map table.

Format 11 prints if any of the hardware commands executed during the DMA shutdown sequence fails.

Format 12 prints if any of the hardware commands executed fails right after the test DMA procedure has passed.

Format 13 prints if any of the hardware commands executed fails before a node processor (NP) restart DMA fails.

3. VARIABLE FIELD DEFINITIONS

a = The AM node name (such as DLN) and group number.

b = Member number.

c = Internal sequence number for technical error tracking.

d = Internal interrupt number for this DLN. This will probably be an illegal number.

e = Physical node identification for this DLN. This will probably be an illegal identification.

f = Source of the request for the DMA init job. Valid value(s):

g = Reason for timeout. Valid value(s):
- 2 = Test DMA timeout.
- 4 = NP restart DMA timeout.
- 8 = Overall job timeout.

`h` = Error status. Valid value(s):

- `1` = Detach interrupt failure.
- `2` = Clear duplex dual serial bus selector (ddsbs) failure.
- `3` = Cannot send reset 3BI peripheral input/output (PIO).
- `4` = Sense status command failure.
- `5` = Unused.
- `6` = If '`i`' has the value of 0, send `STOP DMA PIO` failure. If '`i`' has a value other than 0, the overall timer cannot be cancelled.
- `7` = If '`i`' has the value of 0, the overall timer cannot be cancelled. If '`i`' has a value other than 0, the DMA restart timer cannot be cancelled.
- `8` = DMA restart timer cannot be cancelled. Only valid when '`i`' has the value of 0.

`i` = Leftover PIO indicator. If the value is 0, there was no leftover PIO command in the 3BI register for the NP when DMA shutdown took place. Otherwise, there was some leftover PIO command.

`j` = Error status. Valid value(s):

- `1` = If '`f`' has the value of 8, the timer cannot be set up. If '`f`' has the value of 2, the memory administration center (MAC) failed to be programmed to the user's area.
- `2` = DMA acknowledgement (ACK) PIO cannot be sent. Only valid when '`f`' has the value of 2.
- `3` = The interrupt handler cannot be switched. Only valid when '`f`' has the value of 2.
- `4` = The timer cannot be set up. Only valid when '`f`' has the value of 2.

`k` = Error status. Valid value(s):

- `1` = Attach interrupt handler.
- `2` = Clear ddsbs failure.
- `3` = Cannot send reset 3BI PIO.
- `4` = Enable interrupt failure.
- `5` = Cannot send NP restart DMA PIO.
- `6` = Cannot set up timer.

4. ACTION TO BE TAKEN

For Formats 1, 4, 5, 7 and 8, using normal maintenance procedures, diagnose the DLN and restore it to service.

For Formats 2 and 3, if any DLN is removed as a result of the interrupt, use normal maintenance procedures, diagnose and restore to service. Messages of Format 8 can also be printed as a result of a node initiated restart. If this is the case, there should be other automatic ring recovery/automatic critical node restoration (ARR/ACNR) messages indicating this fact; there is no action needed to be taken.

For Formats 6 and 10, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Formats 9, 11 12 and 13, use normal maintenance procedures and diagnose the DLN. If all tests pass (ATP), contact technical personnel and restore the DLN to service.

Note: The automatic ring recovery (ARR) routine, unless inhibited, will attempt (up to 3 times) automatic recovery of the out-of-service (OOS) DLN if the node maintenance state is not marked MANUAL.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT:ARR-AUTORST
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

118 (CNI STATUS)

REPT:INTER-MODULE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT INTER-MODULE CALL PROCESSING DOWNTIME
  DOWNTIME=aa:aa:aa EVENT=b
```

2. REASON FOR OUTPUT

To report inter-module call processing outages related to recovery actions required for a communication module.

3. VARIABLE FIELD DEFINITIONS

`a` = Outage time, in the form hours:minutes:seconds.

`b` = Event number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-105-250 *System Recovery Procedures*

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REPT:INTERFLOW

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
REPT INTERFLOW a FAILURE RECORD
  PATTERN ID      PATTERN NAME      STATUS
  ----------      ------------      ------
      b           c                 d
```

2. REASON FOR OUTPUT

To indicate that a scheduled interflow activation or deactivation has failed.

3. VARIABLE FIELD DEFINITIONS

a = Indicates whether an interflow activation or deactivation has been attempted.

b = Pattern ID associated with the scheduled interflow pattern.

c = Name associated with the scheduled interflow pattern.

d = Indicates whether the scheduled interflow failed on the first or second try.

4. ACTION TO BE TAKEN

Refer to the OSPS Administrative Guidelines manual for procedures for a scheduled interflow failure.

5. ALARMS

Major.

6. REFERENCES

Other Manual(s):
235-070-100 *Switch Administration Guidelines*
250-505-100 *OSPS Description and Procedures*
250-570-113 *OSPS Administrative Guidelines*
235-105-250 *System Recovery*

RC/V View(s):

21.8 (OSPS SCHEDULED INTERFLOW ACTIVATION AND DEACTIVATION)
21.9 (OSPS INTERFLOW STATUS--INTERFLOW DESTINATION MAPPING)
21.16 (OSPS AUTOMATIC RECONFIGURATION--TIME)

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REPT:INTERFLOW-CR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT INTERFLOW CALL RECEIVED ON
  CALL QUEUE a
  TO INTERFLOW DESTINATION b IS BLOCKED
  DUE TO NO IN-SERVICE INTERFLOW LINKS
```

2. REASON FOR OUTPUT

To report that a call has been received on call queue '`a`' that is currently interflowed to Operator Services Position System (OSPS) ID '`b`' but there are no in-service interflow links to that destination.

3. VARIABLE FIELD DEFINITIONS

`a` = Serving team number.

`b` = OSPS ID.

4. ACTION TO BE TAKEN

This is a problem with interflow links. The OP:LIST input message can be used to verify the interflow links status, and the RST:TRK input message can be used to restore all the interflow links.

5. ALARMS

Critical.

6. REFERENCES

Input Message(s):

```
OP:LIST
RST:TRK
```

Other Manual(s):
250-505-110 *OSPS Maintenance and Growth*

REPT:INTERFLOW-GP

Software Release: 5E10 and later
Message Class: RCVY
Application: 5
Type: Output

1. FORMAT

```
REPT INTERFLOW GLOBAL PARAMETER GLIFOSPS CAN'T BE
  UPDATED FOR SM a
```

2. REASON FOR OUTPUT

To report that the global parameter GLIFOSPS cannot be updated for a switching module (SM) during Operator Services Position System (OSPS) scheduled interflow activation (or deactivation). The GLIFOSPS cannot be updated because the associated SM is not in a normal condition.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

4. ACTION TO BE TAKEN

Check the SM status using Master Control Center (MCC) page 1800, and take appropriate actions according to the status, for example, EXC:ODDRCVY if the SM is in RCBACKOUT status.

5. ALARMS

Minor.

6. REFERENCES

Input Message(s):

`EXC:ODDRCVY`

Other Manual(s):
250-505-110 *OSPS Maintenance and Growth*
235-105-250 *System Recovery*

MCC Display Page(s):

1800 (INH & RCVY CNTL)

RC/V View(s):

21.7 (OSPS IMMEDIATE INTERFLOW ACTIVATION AND DEACTIVATION)
21.8 (OSPS SCHEDULED INTERFLOW ACTIVATION AND DEACTIVATION)
21.9 (OSPS INTERFLOW STATUS--INTERFLOW DESTINATION MAPPING)
21.16 (OSPS AUTOMATIC RECONFIGURATION--TIME)

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REPT:INTERFLOW-SA

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT INTERFLOW SCHEDULED ACTIVATION OF
  SERVING TEAM a
  TO INTERFLOW DESTINATION b WILL NOT OCCUR
```

2. REASON FOR OUTPUT

To report that a serving team interflow scheduled to a destination Operator Service Position System (OSPS) can not occur as scheduled due to a lack of operational interflow links. This message is printed 15 minutes prior to scheduled interflow.

3. VARIABLE FIELD DEFINITIONS

`a` = Serving team number.

`b` = OSPS ID.

4. ACTION TO BE TAKEN

Check if operators are logging in the destination OSPS, or if there are no in-service interflow links available, by entering the OP:LIST input message.

5. ALARMS

Critical.

6. REFERENCES

Input Message(s):

```
OP:LIST
```

Other Manual(s):
250-505-110 *OSPS Maintenance and Growth*

REPT:INVALID-A

Software Release: 5E11 only
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT INVALID MSU RECEIVED ON a b
  DISCARD REASON: c TIME: d e
  MSU INFORMATION: NI=f SIC=g [H1H0=h] LENGTH=i
  OPC=j DPC=k [CIC=l] [SLC=m]
```

2. REASON FOR OUTPUT

To report on invalid information contained within a message signaling unit (MSU), that results in that MSU being discarded. Provides reason why MSU was considered invalid, and prints other information that was contained in the MSU. The information contained in the MSU may be helpful in identifying and correcting the cause of the original invalid message.

3. VARIABLE FIELD DEFINITIONS

`a` = Packet switching unit protocol handler (PSUPH) identification number.

`b` = Logical protocol handler (PH) number.

`c` = Reason MSU was discarded. Part of MSU that was invalid. Valid value(s):

`INVALID CIC/OPC COMBINATION` = Received a MSU with invalid origination point code/circuit identification code (OPC/CIC) pair in user part message.

`INVALID H1/H0 VALUE` = Received a signaling network management (SNM) or signaling network traffic management (SNTM) message with invalid H1/H0 value.

`INVALID NETWORK INDICATOR` = Received a MSU with invalid network indicator.

`INVALID SERVICE INDICATOR CODE` = Received a MSU with invalid service indicator code.

`SIO+SIF OF MSU TOO SHORT` = Received a short MSU at a signaling point. There are fewer than 5 octets in the combined service information octet (SIO) service information field (SIF).

`STP NOT ALLOWED IN SEP OFFICE` = The originating point code (OPC) indicated in the MSU label does not correspond to this office's point code, and this office does not support signal transfer point (STP) functionality.

`UNDEFINED DPC IN LABEL` = The destination point code (DPC) indicated in MSU label is undefined for this office. Invalid DPC in message.

`UNEQUIPPED LABEL` = Received a MSU with an unequipped circuit identification code.

`d` = Time that event occurred, in hour:minute format.

`e` = Date that event occurred, in month/day/year format.

`f` = Network indicator contained in discarded MSU.

`g` = Service indicator code contained in discarded MSU.

`h` = H1/H0 field contained in discarded MSU.

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`i` = Length of discarded MSU.

`j` = OPC number. OPC number consists of three items, each being three digits in length. They are, respectively, the OPC network, OPC cluster, and OPC member.

`k` = DPC number. DPC number consists of three items, each being three digits in length. They are, respectively, the DPC network, DPC cluster, and DPC member.

`l` = CIC number.

`m` = Signaling link code (SLC) number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

REPT:INVALID-B

Software Release: 5E12 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT INVALID MSU RECEIVED ON a b
  DISCARD REASON: c TIME: d e
  MSU INFORMATION: NI=f SIC=g [H1H0=h] LENGTH=i
  OPC=j DPC=k [CIC=l] [SLC=m]
```

2. REASON FOR OUTPUT

To report on invalid information contained within a message signaling unit (MSU), that results in that MSU being discarded. Provides reason why MSU was considered invalid, and prints other information that was contained in the MSU. The information contained in the MSU may be helpful in identifying and correcting the cause of the original invalid message.

3. VARIABLE FIELD DEFINITIONS

`a` = Packet switching unit protocol handler (PSUPH) identification number.

`b` = Logical protocol handler (PH) number.

`c` = Reason MSU was discarded. Valid reasons are:
`INVALID H1/H0 VALUE` = Received a signaling network management (SNM) or signaling network traffic management (SNTM) message with invalid H1/H0 value.
`INVALID NETWORK INDICATOR` = Received a MSU with invalid network indicator.
`INVALID SERVICE INDICATOR CODE` = Received a MSU with invalid service indicator code.
`SIO+SIF OF MSU TOO SHORT` = Received a short MSU at a signaling point. There are fewer than 8 octets in the combined service information octet (SIO) service information field (SIF).
`STP NOT ALLOWED IN SEP OFFICE` = The destination point code (DPC) indicated in the MSU label does not correspond to this office's point code, and this office does not support signal transfer point (STP) functionality.
`UNEQUIPPED LABEL` = Received a MSU with an unequipped circuit identification code (CIC).

`d` = Time that event occurred, in hour:minute format.

`e` = Date that event occurred, in month/day/year format.

`f` = Network indicator contained in the discarded MSU.

`g` = Service indicator code contained in the discarded MSU.

`h` = H1/H0 field contained in the discarded MSU.

`i` = Length of the discarded MSU.

`j` = OPC number specified in the discarded MSU. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual for interpretation.

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`k` = DPC number specified in the discarded MSU. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual for interpretation.

`l` = CIC number specified in the discarded MSU.

`m` = Signaling link code (SLC) number specified in the discarded MSU.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

`APP:POINT-CODE`

REPT:IODRV-AFU

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT IODRV ATTRIBUTE FILE UPDATED
```

2. REASON FOR OUTPUT

To report that the attribute file for the input/output processor(IOP) driver messages was inconsistent with the IOP driver, and has been updated to the correct settings.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	161

Input Message(s):

```
OP:IODRV
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

REPT:IODRV-ERR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT IODRV ERR H'ld5000 a b c d e f g
```

2. REASON FOR OUTPUT

To report an input/output processor (IOP) related software error.

3. VARIABLE FIELD DEFINITIONS

a = Device type. Refer to the Processor Recovery Messages manual.

b = Real time stamp in eight alphanumericals.

c = Single character for the unit number in hexadecimal.

d = Alphanumerical location code indicating calling function. Valid value(s):

1	= ioccerror
2	= cserror
3	= sserror
4	= dserror
7	= pcnotequip
8	= pcommoff
a	= prtfault
10-13	= kfault
15	= procfmsg
16	= callphase
17	= iopfatal
18	= iop1fatal
19	= feaioprm
20	= seaioprm

e = One to four digit code. Valid value(s):

If 'd' =	**'e' =**
1 - 4 or 7	
8	
10 - 13, or 15	
16	
17 - 20	

f = Additional error code for debugging in hex.

g = Additional error code for debugging in hex.

4. ACTION TO BE TAKEN

An error report is indicative of an error condition which could result in the removal of a unit. Units that are removed should be repaired and restored to service.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
box	
all	585

Input Message(s):

```
CLR:IODRV
DGN:IOP
RMV:IOP
RST:IOP
```

Output Message(s):

```
DGN:IOP
REPT:RCVRY-IOP
RMV:IOP
RST:IOP
```

Output Appendix(es):

```
APP:IOP-E
APP:IOP-F
```

Other Manual(s):
235-600-601 *Processor Recovery Messages*
235-100-125 *System Description*

REPT:IODRV-ERROR

Software Release: 5E10 and later
Message Class:
Application: 5,3B
Type: Output

1. FORMAT

```
REPT IODRV ERROR a [b]
```

2. REASON FOR OUTPUT

To report an input/output processor (IOP) related software error.

3. VARIABLE FIELD DEFINITIONS

`a` = Location code in hexadecimal indicating the fault source. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

`b` = Character string giving more information about the error. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

An error report is indicative of an error condition which could result in the removal of a unit. Units that are removed should be repaired and restored to service.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:IODRV
DGN:IOP
RMV:IOP
RST:IOP
```

Output Message(s):

```
DGN:IOP
REPT:RCVRY-IOP
RMV:IOP
RST:IOP
```

Output Appendix(es):

```
APP:IOP-E
APP:IOP-F
```

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Other Manual(s):
235-100-125 *System Description*

REPT:IODRV-FAULT

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
REPT IODRV FAULT CODE a [b] [VIRTUAL ADDRESS c]
```

2. REASON FOR OUTPUT

To report an input/output processor (IOP) related software error.

3. VARIABLE FIELD DEFINITIONS

`a` = Input/output driver (IODRV) fault code. Refer to the APP:IOP-E appendix in the Appendixes section of the Output Messages manual.

`b` = Sequence number for stack back trace of d5 fault code [bad operating system trap (OST)]. The most recent function called will be listed first.

`c` = Virtual address within IODRV where fault occurred, if IODRV was running at the time. If this message is a d5 fault stack back trace ('`a`' = `d5`), the address is the program address from the stack.

4. ACTION TO BE TAKEN

An error report is indicative of an error condition which could result in the removal of a unit. Units that are removed should be repaired and restored to service.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
box	
all	155

Input Message(s):

```
CLR:IODRV
DGN:IOP
RMV:IOP
RST:IOP
```

Output Message(s):

```
DGN:IOP
REPT:RCVRY-IOP
```

```
RMV:IOP
RST:IOP
```

Output Appendix(es):

```
APP:IOP-E
APP:OMDB-X-REF
```

REPT:IOP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT IOP a ERROR b [q]

[2]   ____________________________________________________________
      REPT IOP a ERROR b COMPL CODE c

[3]   ____________________________________________________________
      REPT IOP a ERROR b CHAN STATUS d

[4]   ____________________________________________________________
      REPT IOP a ERROR b BIC STATUS e

[5]   ____________________________________________________________
      REPT IOP a ERROR b DBS STATUS f

[6]   ____________________________________________________________
      REPT IOP a NOT EQUIPPED g h SLOT i

[7]   ____________________________________________________________
      REPT IOP a PC COMMUNITY j POWER REMOVED

[8]   ____________________________________________________________
      REPT IOP a UNIDENTIFIED RESPONSE  WD1=k WD2=l

[9]   ____________________________________________________________
      REPT IOP a CODE VERSION m

[10]  ____________________________________________________________
      REPT IOP a MEM ALLOC n MEM USED p
```

2. REASON FOR OUTPUT

To report an input/output processor (IOP) related software or hardware error, or the occurrence of an abnormal IOP related event.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Identifies the point within the input/output driver (IODRV) where a software or hardware error was detected, in hexadecimal notation. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

`c` = Hardware error type, in hexadecimal notation. Refer to the APP:IOP-A appendix in the Appendixes section of the Output Messages manual.

`d` = Returned channel status, in hexadecimal notation. Refer to the APP:IOP-B appendix in the

Appendixes section of the Output Messages manual.

`e` = Returned bus interface controller (BIC) status, in hexadecimal notation. Refer to the APP:IOP-C appendix in the Appendixes section of the Output Messages manual.

`f` = Returned duplex bus selector (DBS) status, in hexadecimal notation. Refer to the APP:IOP-D appendix in the Appendixes section of the Output Messages manual.

`g` = Unit name of missing PC.

`h` = Member number of missing PC.

`i` = Pack position of missing PC.

`j` = Identifies PC community that is powered down.

`k` = First word of an unidentifiable completion report.

`l` = Second word of an unidentifiable completion report.

`m` = Version number of code that exists in the device.

`n` = Number of bytes received.

`p` = Number of bytes requested.

`q` = Character string giving more information about the error.

4. ACTION TO BE TAKEN

For Formats 1 through 5 and 8 through 10, the error messages indicate error conditions that could cause the removal of a unit. Any removed unit should be repaired and restored to service.

Formats 6 and 7 indicate improper manual operations.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1, 2, 6, 7	208
3, 4, 5	224
8	228
9	226

Input Message(s):

```
CLR:IODRV
DGN:IOP
RMV:IOP
RST:IOP
```

Output Message(s):

```
DGN:IOP
REPT:RCVRY-IOP
RMV:IOP
RST:IOP
```

Output Appendix(es):

```
APP:IOP-A
APP:IOP-B
APP:IOP-C
APP:IOP-D
APP:IOP-F
APP:OMDB-X-REF
```

REPT:IORMVRST

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT IORMVRST ERROR a b
```

2. REASON FOR OUTPUT

To report an error condition in the IORMVRST user process.

3. VARIABLE FIELD DEFINITIONS

a = Function call failure type. Valid value(s):
- 1 = Message enable.
- 2 = Receive wait.
- 3 = Send to port.

b = Error code returned by the failing function call.

4. ACTION TO BE TAKEN

An operating system function call is failing; obtain technical assistance to clear the trouble.

5. ALARMS

None.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	58

Input Message(s):

```
RMV:DUI
RMV:DUIC
RMV:IOP
RMV:MT
RMV:MTC
RMV:MTTY
RMV:MTTYC
RMV:SDL
RMV:SDLC
RMV:TTY
RMV:TTYC
```

Output Message(s):

```
RMV:DUI
RMV:DUIC
RMV:IOP
RMV:MT
RMV:MTC
RMV:MTTY
RMV:MTTYC
RMV:SDL
RMV:SDLC
RMV:TTY
RMV:TTYC
RST:DUI
RST:DUIC
RST:IOP
RST:MT
RST:MTC
RST:MTTY
RST:MTTYC
RST:SDL
RST:SDLC
RST:TTY
RST:TTYC
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

REPT:ISDN-LOOP

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
REPT ISDN LOOP CUTOFF a      EVENT=b
  DN: c       SM: d       PORT: e
  STACK:   f  [f]  [f]  [f]  [f]  [f]
           .   .    .    .    .    .
 HARDWARE CALL TRACE g
```

2. REASON FOR OUTPUT

To report specific information related to an integrated services digital network (ISDN) loop cutoff when allowed. This information can be analyzed to locate the source of the problem. Each ISDN loop cutoff that occurs will be printed on the receive-only printer (ROP).

This output message is used to inform the user when an ISDN process has been torn down due to loss of layer 2 protocol.

3. VARIABLE FIELD DEFINITIONS

`a` = The ISDN cutoff. Valid value(s):

`ORIGINATOR`
`TERMINATOR`

`b` = Event number.

`c` = The directory number of the port where the call was cut off.

`d` = The number of the switching module (SM) where the call was cut off.

`e` = The number of the port, in hexadecimal, where the call was cut off.

`f` = List of addresses of the functions called which resulted in the loop cutoff call. These function addresses are in hexadecimal.

`g` = Hardware call trace status. Valid value(s):
`IN PROGRESS` = An ALW:SCORPT,TRC input message was entered
`NOT REQUESTED` = An ALW:SCORPT input message was entered.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:SCORPT
INH:SCORPT
OP:TRC
```

Output Message(s):

```
TRC:UTIL-LINE
```

REPT:ISLUCC-TE

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT ISLUCC=a-b-c [d] TRBL e EVENT=f
  g RECOVERY ACTION h
  iiiijjjj kkkkllll mmmmnnnn ooooppppp qqqqrrrr ssssttttt uuuuvvvv
  w  x  y
  .  .  .
  .  .  .
  .  .  .
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within the switching module (SM) caused by failure of a common controller (CC) board in the integrated services line unit (ISLU). The message indicates what recovery action was taken and gives the current fault counts against the circuit specified in the message. Refer to field '`h`' to determine the effect the fault recovery activity had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = ISLU line unit number.

`c` = ISLU service group number.

`d` = ISLU CC equipment status. Valid value(s):

- `ACTIVE` = The CC is in service and a fault has been detected
- `DEGRADED` = The last CC that is in service is detecting faults and is in the process of CC duplex failure.
- `OOS` = The CC is marked as out-of-service, but fault stimuli are still being detected.
- `PRE-OOS` = Fault recovery has notified the maintenance request administrator (MRA) to remove this CC from service. However, fault stimuli are still being detected from the circuit indicating that the CC has not been completely removed from service.
- `STANDBY` = The CC is in standby and a fault has been detected.

`e` = High level error types. Valid value(s):

- `BACKGROUND TEST FAILURE` = An error was detected during a routine background test process being run by fault recovery.
- `CONTROL ORDER FAILURE` = An error occurred when sending information to a circuit within the ISLU.
- `FAULT MESSAGE` = Error detected by ISLU resident software.
- `MAINTENANCE SERVICE REQUEST` = An error was detected on a scheduled routine maintenance service request on the ISLU.
- `OPERATIONAL FAILURE` = Error detected by ISLU call processing.

`f` = Event number.

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g = Error type. Valid value(s):

ACTIVE CC ROM HASHSUM FAILURE = Detected bad hashsum check on the active CC that was cycling in read-only memory (ROM).

ACTIVE CC RAM HASHSUM FAILURE = Detected bad hashsum check on the active CC that was cycling in random access memory (RAM).

ACTIVE DEGRADED STANDBY STATE TIMED OUT = The CC degraded state did not clear within the required time.

CC UCI PARITY FAILURE = The CC processor attempted to address a non-existent memory location in the unified control interface (UCI).

CONTROL ORDER PARITY ERROR = Bad parity was detected on an order sent to a CC.

CONTROL SEQUENCER FAILURES = The control sequencer in the CC lost control of the line group.

CC ADDRESSED NON-EXISTENT UCI ADDRESS = The CC processor attempted to address a non-existent memory location in the UCI.

CC DETECTED BAD MESSAGE SEQUENCE = The mailbox protocol between the switching module processor (SMP) and the ISLU has been violated. The ISLU will resynchronize with the SMP, but a message may have been lost.

CC SENT BAD MESSAGE = The CC unloading driver determined that the information in the message header received from the CC was bad.

CC HALTED =The CC was illegally halted.

CC ILLEGAL MATE ACCESS = An attempt was made to access the mate CC without first getting ownership.

CC HEART BEAT FAILURE = A routine check found that the CC failed to respond to a functional check.

CLEAR CC ERROR COUNTS = The CC error counts are clear because the faults implicate the active CC instead of the standby CC.

CC USER PROCESS HUNG = Active CC background test process has timed out due to failure of CC user process to respond.

CORRELATE CD FAILURES FOUND IN CC = The active CC lost its clock synchronization from the active or active major control data (CD).

DUPLEX UNIT FAILED DURING RECOVERY = The switch of the CC failed to clear the errors and escalated to a CC duplex failure.

ENABLE CONTROLLER FAILURES = Multiple 'enables' were returned in response to a peripheral order.

FIFO B OPERATED INCORRECTLY = This first in, first out (FIFO) was incorrectly operated. This fault could have been caused by the CC or the SMP. FIFO B is the CC's fault reporting mechanism for errors detected on the CC's peripherals.

FIFO B UNDERFLOW = The SMP popped the FIFO when it was empty.

FIFO B OVERFLOW = The CC put too much data into this FIFO.

FIFO A OPERATED INCORRECTLY = This FIFO was incorrectly operated. This fault could have been caused by the CC or the SMP. FIFO A is the mechanism used by the SMP to send tasks and associated data to the CC.

FIFO A UNDERFLOW = The SMP popped the FIFO when it was empty.

FIFO A OVERFLOW = The CC put too much data into this FIFO.

HASHSUM FAILURE ON ROUTINE CHECK = The hashsum check between the SMP and the ISLU does not match.

IDLE TASK RESPONDED = The task reply was returned late to the mailbox.

INTERNAL MEMORY PARITY ERROR = Bad parity was detected on one or more of the internal memory configurations in the CC.

IO TIMER VIOLATION = The CC has a special write protection over registers considered critical to its operation. This protocol was violated.

INHIBIT ALL HARDWARE CHECKS = The ISLU detected a massive number of errors and inhibit hardware checks were applied in the ISLU before sending a preempt message to

the SMP.

`INTERRUPT EXCEPTION` = This is a general purpose error for errors that the 80188 processor has the ability to detect within itself. Some should never occur unless the processor has gone completely insane and others may occur under somewhat less insane conditions. In either case, the processor is in trouble.

`LG INTERRUPT THRU MASK` = An error was detected at the line group (LG) level, but no source was found for interrupt.

`LINE GROUP ERROR` = An error occurred when sending control information to a line group.

`MATE MEMORY PARITY FAILURE` = The CC detected bad parity when accessing the mate CC memory.

`MATE NOT IN HOLD` = The mate CC was not in hold.

`MATE PICB VERIFY FAILED` = This error was detected when the active CC wrote to the standby CC and expected a correct response.

`MATE FAILED DURING SWITCH` = Switch to the mate CC failed. The switch was never completed.

`MATE WRITE PROTECT VIOLATION` = A write-protected location in the mate CC has been violated.

`MEMORY PARITY FAILURE` = The CC detected bad parity when accessing the CC memory.

`MESSAGE PROTOCOL FAILURE` = Fault recovery received a fault message containing an unexpected value.

`MULTIPLE TASKS REQUESTED SAME TDB` = Multiple tasks are assigned to the same task data block (TDB) number.

`OVERLOAD DETECTION` = Overload occurs when a CC is unable to complete all of its assigned work within the 15-millisecond scheduler. This is defined as any critical or routine process was running when the 15-millisecond timer expires. The CC will provide hit timing by counting the number of consecutive RTX cycles that this condition persists for. When the hit time has been exceeded, the overload bit in the UCI is set.

`PIC INTERRUPT THRU MASK` = An error was detected at the peripheral interface controller (PIC), but no source was found for interrupt.

`PICB FAILURE` = A fault has been detected involving the peripheral interface control bus (PICB) that terminates on the ISLUCC.

`RISLU HOST PICB FAILURE` = A fault has been detected involving the remote ISLU (RISLU) CC PICB that terminates on the host-1 digital facility interface (DFI) in the RISLU host digital line and trunk unit (DLTU).

`RISLU REMOTE PICB FAILURE` = A fault has been detected on the PICB that extends from the remote-1 DFI in the RISLU remote DLTU to the RISLU CC.

`SRC INTERRUPT THRU MASK` = An error was detected at the processor source bus (SRC) group level, but no source was found for interrupt.

`STANDBY COMMUNICATION FAILURE` = The active CC detected faults on the standby CC. The fault could be either a parity error on the address or data bus, or a write protect violation on RAM or IO. The data passed here is a code indicating what particular fault the detector is complaining about. If more than one error detector is complaining, the error code should indicate that, but does not have to specify which one was complaining.

`STUCK MAILBOX FLAG` = The mailbox flag was not cleared after the ISLU unloaded the mailbox.

`SMP UCI PARITY FAILURE` = A parity error was detected in the UCI when the SMP was addressing either the RAM or one of the FIFOs.

`SANITY TIMER TIME OUT` = The processor was unable to satisfy an internal integrity timer. The RTX operating system has a 15-millisecond job cycle. Once each cycle, it must strobe this timer.

`STUCK READY LEAD` = The processor ready lead for the internal bus is not being released by some peripheral device. Therefore, external processor circuitry is forcing the processor to

the next instruction in an attempt to continue running.

`SYSTEM DETECTED SOFTWARE PROBLEM` = This is a form of assert that ISLU resident software sends.

`SMP ADDRESSED NON-EXISTENT UCI ADDRESS` = The SMP processor attempted to address a non-existent memory location in the UCI.

`SMP DETECTED BAD MESSAGE SEQUENCE` = This is a form of assert that ISLU resident software sends.

`STANDBY CC ROM HASHSUM FAILURE` = Detected bad hashsum check on the standby CC ROM.

`STANDBY CC RAM HASHSUM FAILURE` = Detected bad hashsum check on the standby CC RAM.

`SUSPECT LATENT FAULTS WHEN ACTIVE` = An error was still detected after a CC switch.

`SOFT RESET THRESHOLD EXCEEDED` = An excessive number of soft resets were detected by the ISLU.

`SOFTWARE BAD ADDRESS ERROR` = A test address is out of range and an error was generated.

`SANITY TIMER FAILURE` = The ISLU sanity timer was not updated within the required time (400 milliseconds).

`TASK TIMED OUT` = Each task is given a certain amount of time to complete its job. If the task fails to complete within this time, it is aborted and fault recovery is notified of this.

`TASK BLOCKING IN MAILBOX` = The SMP has more messages to send than the ISLU can receive.

`TASK FAILED` = The task is returning a failure.

`USER DETECTED SOFTWARE ERROR` = These are faults should have implicated the standby CC, but instead blamed the active CC.

`USER TASK PURGED THRESHOLD EXCEEDED` = An error was detected when an ISLU task was purged.

`WRITE PROTECT VIOLATION` = Write protection is provided within the CC memory to protect text, stacks, and other static data. A corrupted software pointer accessed an illegal memory address or write protection was mismanaged by the CC.

`f` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = This recovery action applies to all circuits and all errors. A particular circuit or circuits are failing, but the error counts have not reached a threshold for action.

`HARD RESET` = The circuit has been hard reset without scheduling diagnostics.

`INHIBIT HDWCHKS` = The circuit has been inhibited because of excessive errors.

`INITIALIZE` = This recovery action is used to re-initialize a circuit without scheduling diagnostics.

`NO RECOVERY ACTION TAKEN` = This report is generated.

`PRE-OOS THRESHOLD EXCEEDED` = The CC was preempted and is still detecting errors.

`PRE-OOS, RE-INHIBIT HDWCHKS` = The CC has been preempted and is still detecting errors, re-inhibit has been re-applied on the CC.

`RE-INHIBIT ERROR` = The CC has been inhibited and error are still detected. Re-inhibit has been re-applied on the CC.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A DGN:ISLUCC output message will be printed with the results of the diagnostic.

`SWITCH` = An attempt was made to gain control of the hardware by changing configuration without removing circuits from service. Its purpose is to avoid removing circuits from service that normally could remain in service under some fault conditions and/or to help isolate the fault before isolating customers.

`i` = ISLU message type.

`j` = PICB number.

`k` = Mail box data.

`l` = Fault report type in the mail box.

`m` = Number of entries in the block.

`n` = ISLU internal: Peripheral fault type.

`o` = ISLU internal: Fault event number.

`p` = ISLU internal: Process ID.

`q` = ISLU internal: CC circuit number.

`r` = ISLU internal: Sub-circuit.

`s` = ISLU internal: Data written to CC.

`t` = ISLU internal: Return data from CC.

`u` = ISLU internal: Unused.

`v` = ISLU internal: Recovery action.

`w` = External logical circuit name. More than one circuit may be listed when multiple circuits can be implicated in the trouble.

`x` = Number of recent failures of this error type (variable '`e`') on this ISLUCC circuit (in decimal).

`y` = Error count threshold above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the ISLUCC from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:ISLUCC
RMV:ISLUCC
RST:ISLUCC
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-600-500 *Asserts*

REPT:ISLUCD-TFME

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT ISLUCD=a-b-c TRBL FAULT MESSAGE EVENT=d
  e RECOVERY ACTION f
  g h i
  . . .
  . . .
  . . .
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within the switching module (SM) caused by failure of a common data (CD) circuit in the integrated services line unit (ISLU). The message indicates what recovery action was taken and gives the current fault counts against the circuit specified in the message. Refer to field '`f`' to determine the effect the fault recovery had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = ISLU line unit number.

`c` = Service group number.

`d` = Event number.

`e` = Error type. Valid value(s):
`CLOCK FAILURE` = A loss of clock was detected on a CD circuit.
`CONTROL FAILURE` = An error occurred when sending information to the CD.
`CONTROL ORDER PARITY` = Bad parity was detected on an order sent to the CD.
`INTERNAL MEMORY PARITY ERROR` = Bad parity was detected on one or more of the internal memory configurations in a circuit.
`LINE GROUP LOST CLOCK SOURCE` = A loss of clock was detected by a line group.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = This post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified by an assert.
`RST AUTO CAMPON` = The failing circuit will be restored and diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted, restored, and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = External logical circuit name of ISLU circuit types. More than one circuit may be listed when multiple circuits can be blamed for the trouble.

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`h` = Number of recent failures of this error type (variable '`e`') on this ISLUCD circuit (in decimal).

`i` = Error count threshold above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None. No action required. Fault recovery automatically requests a conditional restore on the circuit when the error threshold is met. Subsequent DGN:ISLUCD and RST:ISLUCD messages indicate success or failure of diagnostic when recovery action is `RST AUTO CAMPON` or `RST PREEMPT`.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:ISLUCD
RMV:ISLUCD
RST:ISLUCD
```

REPT:ISLUCD-TPPE

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT ISLUCD=a-b-c TRBL PIDB PARITY ERROR EVENT=d
  e RECOVERY ACTION f
  g h i
  . . .
  . . .
  . . .
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within a switching module (SM). A parity error was detected on a peripheral interface data bus (PIDB) connected to an integrated services line unit (ISLU) common data (CD) board. The message indicates what recovery action was taken and gives the current fault counts against the circuit specified in the message. Refer to variable '`f`' to determine the effect the fault recovery activity had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = ISLU line unit number.

`c` = Service group number.

`d` = Event number.

`e` = Error type. Valid value(s):
`D CHANNEL PARITY ERROR` = A parity error occurred on a peripheral interface data bus (PIDB) connecting the ISLUCD to the packet switch interface unit.
`MULTIPLE PIDB PARITY ERROR` = A parity error occurred on more than one PIDB attached to the ISLUCD.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = This post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified by an assert.
`RST AUTO CAMPON` = The failing circuit will be restored and diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted, restored, and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = External logical circuit name of ISLU circuit types. More than one circuit may be listed when multiple circuits can be blamed for the trouble.

`h` = Number of recent failures of this error type (variable '`e`') on this ISLUCD circuit (in decimal).

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`i` = Error count threshold above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None. Fault recovery automatically requests a conditional restore on the circuit when the error threshold is met. Subsequent DGN:ISLUCD and RST:ISLUCD messages indicate success or failure of diagnostic when recovery action is `RST AUTO CAMPON` or `RST PREEMPT`.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:ISLUCD
RMV:ISLUCD
RST:ISLUCD
```

REPT:ISLUHLSC-TFM

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT ISLUHLSC=a-b-c-d [e] TRBL FAULT MESSAGE FAILURE EVENT = f
  g RECOVERY ACTION h
  i
  j  k  l
  .  .  .
  .  .  .
  .  .  .
```

2. REASON FOR OUTPUT

To report fault recovery activity within the switching module (SM) due to a high level service circuit (HLSC) board from the integrated service line unit (ISLU).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = ISLU number.

`c` = ISLU service group number.

`d` = ISLU high level service circuit number.

`e` = Line card equipment status. Valid value(s):

- `ACTIVE` = This line card has/can set up calls to the customer assigned to its ports through this ISLU.
- `DSPARE` = This line card is a designated spare line card. It has received its port assignment from another line card in this ISLU, using recent change. There is a metallic connection between this line card and the line card that is being spared. This line card provides the interface to the ISLU and the rest of the system. The line card being spared provides the interface between the system and the customer. The metallic connection provides the interface between the two line cards.
- `PRE-OOS` = Fault recovery has notified the maintenance request administrator (MRA) to remove this line card from service. However, fault stimuli are still being detected from the circuit indicating that the line card has not been completely removed from service.
- `OOS` = The line card is marked as out-of-service, but fault stimuli are still being detected.
- `SPARED` = This line card's port assignment(s) have been transferred, using recent change, to a designated spare (refer to DSPARE) line card in this ISLU.
- `STANDBY` = This line card is available for service (as a designated spare, refer to DSPARE and SPARED) if an active line card fails in this ISLU.

`f` = Event number.

`g` = Error type. Valid value(s):

```
CONTROL FAILURE
CONTROL ORDER PARITY ERROR
```

`h` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = This report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified by an assert.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`i` = Source analysis data.

`j` = External logical circuit name. More than one circuit may be listed when multiple circuits can be blamed for the trouble.

`k` = Number of recent failures of this error type (variable '`g`') on the ISLUHLSC circuit (in decimal).

`l` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the ISLUHLSC from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:ISLUHLSC
RMV:ISLUHLSC
RST:ISLUHLSC
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:ISLUHLSC-TPC

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT ISLUHLSC=a-b-c-d [e] TRBL PER CALL TEST FAILURE EVENT = f
  g RECOVERY ACTION h
  i
  j  k  l
  .  .  .
  .  .  .
  .  .  .
```

2. REASON FOR OUTPUT

To report failure during a per call test (such as call setup) on the integrated services line unit high level service circuit (ISLUHLSC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Integrated service line unit (ISLU) number.

`c` = ISLU service group number.

`d` = ISLU high level service circuit number.

`e` = Line card equipment status. Valid value(s):

- `ACTIVE` = This line card has/can set up calls to the customer assigned to its ports through this ISLU.
- `STANDBY` = This line card is available for service (as a designated spare, refer to `DSPARE` and `SPARED`) if an active line card fails in this ISLU.
- `PRE-OOS` = Fault recovery has notified the maintenance request administrator (MRA) to remove this line card from service. However, fault stimuli are still being detected from the circuit indicating that the line card has not been completely removed from service.
- `OOS` = The line card is marked as out-of-service, but fault stimuli are still being detected.
- `SPARED` = This line card's port assignment(s) have been transferred, using recent change, to a designated spare (refer to `DSPARE`) line card in this ISLU.
- `DSPARE` = This line card is a designated spare line card. It has received its port assignment from another line card in this ISLU, using recent change. There is a metallic connection between this line card and the line card that is being spared. This line card provides the interface to the ISLU and the rest of the system. The line card being spared provides the interface between the system and the customer. The metallic connection provides the interface between the two line cards.

`f` = Event number.

`g` = Error type. Valid value(s):

```
BRIDGE ATTEMPT FAILURE
COIN COLLECT TEST FAILURE
COIN PRESENT TEST FAILURE
COIN RETURN TEST FAILURE
COIN TOTALIZER FAILURE
FALSE CROSS AND GROUND FAILURE
FALSE RING TRIP
HLSC DATA WRITE W/POWER BIT DISABLED
HLSC DIFFERENTIAL CURRENT OUT OF RANGE
HLSC EXTERNAL CURRENT EXCESSIVE
HLSC HARDWARE RESET OCCURRED
HLSC ILLEGAL LOW LEVEL MODE REQUEST
HLSC INTERNAL FIRMWARE FAULT
HLSC INTERNAL FLT IN DETECTION CIRCUITRY
HLSC INTERNAL HARDWARE FAULT
HLSC OFFICE BATTERY VOLTAGE OUT OF RANGE
HLSC PRIMARY POWER CONVERTER EXCESS CURRENT
HLSC RECEIVED/INTERPRETED ILLEGAL COMMAND
HLSC UNABLE TO AUTO ZERO POWER CONVERTER
HLSC UNDEFINED FAILURE
INITIAL DEPOSIT TEST FAILURE
OPERATIONAL TASK FAILURE
PARTY TEST FAILURE
RINGING FAILURE
SOFTWARE FAILED TO IDLE HLSC REGISTER REQUEST
STUCK ONHOOK
USER SOFTWARE RQT ILLEGAL HLSC BUS C/D
USER SOFTWARE VIOLATED HLSC PROTOCOL
```

`h` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = This report is generated.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified by an assert.

`REPORTED TO TERMINAL MAINT` = Terminal maintenance has been notified of the software failure.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`i` = Source analysis data.

`j` = External logical circuit name. More than one circuit may be listed when multiple circuits can be blamed for the trouble.

`k` = Number of recent failures of this error type (variable '`g`') on this ISLUHLSC circuit (in decimal).

`l` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

If the ISLUHLSC pack fails diagnostic, replace it with a new pack. Restore the new ISLUHLSC pack into service by using conditional restore command. If the ISLUHLSC firmware function not completed is occurring frequently, proceed with trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:ISLUHLSC
RMV:ISLUHLSC
RST:ISLUHLSC
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

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REPT:ISLULBD

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT ISLULBD=a-b-c-d [e] TRBL f EVENT=g
  h RECOVERY ACTION i
  j
  k  l  m
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within the switching module (SM) caused by failure of a ISLU2 line board (ISLULBD). The report indicates what recovery action was taken and gives the current fault counts against the circuit specified in the report.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = ISLU line unit number.

`c` = Line group number.

`d` = Line board number.

`e` = ISLULBD equipment status. Valid value(s):

`ACTIVE`	= The common controller (CC) is in service and a fault has been detected
`OOS`	= The CC is marked as out-of-service, but fault stimuli are still being detected.
`PRE-OOS`	= Fault recovery has notified the maintenance request administrator (MRA) to remove this CC from service. However, fault stimuli are still being detected from the circuit indicating that the CC has not been completely removed from service.

`f` = High level error types. Valid value(s):

```
BACKGROUND TEST FAILURE
DPIDB PARITY FAILURE
MAINTENANCE SERVICE REQUEST
NON CRITICAL HARDWARE FAILURE
OPERATIONAL FAILURE
PER CALL TEST FAILURE
```

`g` = Event number.

`h` = Error type. Valid value(s):

```
CONTROL FAILURE
FALSE CROSS AND GROUND FAILURE
FALSE RING TRIP
FEED SHUTDOWN FAILURE
```

```
LINE BOARD PIDB PARITY ERROR
LINE CARD SCAN LEAD STUCK
LINE CARD TIMESLOT FAILURE
LINE GROUP CONTROL FAILURE
RINGING FAILURE
RLG LB CONTROL PARITY ERROR
RLG LC CONTROL PARITY ERROR
SOFT RESET THRESHOLD EXCEEDED
STUCK OFFHOOK FAILURE
STUCK ONHOOK FAILURE
SUPERVISION TRANSFER FAILURE
```

`i` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = This post mortem report is printed to provide information for analysis.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified by an assert. Refer to the Asserts manual.

`HARD RESET` = A hard reset was executed.

`INHIBIT HDWCHKS` = Hardware checks are inhibited.

`NO RECOVERY ACTION TAKEN` = No recovery action was taken.

`PRE-OOS THRESHOLD EXCEEDED` = The out-of-service (OOS) threshold was exceeded.

`PRE-OOS, RE-INHIBIT HDWCHKS` = The circuit was previously OOS. Hardware checks are re-inhibited.

`RE-INHIBIT ERROR` = An error was found during re-inhibit.

`REMOVE` = The circuit is removed from service.

`RST CAMP-ON` = The failing circuit is restored and diagnosed when it is available. A report prints with the result of the diagnostic.

`RST PREEMPT` = The failing circuit was preempted and restored, then a diagnostic was scheduled. A report prints with the results of the diagnostic.

`SOFT RESET` = A soft reset was executed.

`UNCONDITIONAL RST PREEMPT` = The circuit is restored unconditionally.

`j` = Hexadecimal numbers presenting internal registers containing additional troubleshooting information.

`k` = External logical circuit name. More than one circuit may be listed when multiple circuits can be implicated in the trouble.

`l` = Number of recent failures of this error type (variable '`f`') on this ISLULBD circuit (in decimal).

`m` = Error count threshold above which the recovery action will be to restore the circuit.

4. ACTION TO BE TAKEN

None. Fault recovery automatically requests a conditional restore on the circuit when the error threshold is met. Subsequent DGN:ISLULBD and RST:ISLULBD reports indicate success or failure of diagnostic when recovery action (variable '`i`') is `RST AUTO CAMPON` or `RST PREEMPT`.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:ISLULBD
RST:ISLULBD
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-600-500 *Asserts*

REPT:ISLULC-TLT

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
REPT ISLULC=a-b-c-d TRBL LOOPBACK TEST FAILURE e
  LINE CARD LOOPBACK FAILURE RECOVERY ACTION RST PREEMPT
  f g h
  i j k l m n o p q r s
```

2. REASON FOR OUTPUT

To report that initialization of a D-channel failed or that loss of communication to the D-channel was detected.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Integrated switching line unit (ISLU) number.

`c` = Line group controller (LGC) number.

`d` = Line card number.

`e` = Event number.

`f` = External circuit name of the implicated circuit.

`g` = Current decimal number of failures of this type recorded.

`h` = Error count threshold, above which the recovery action will be escalated.

Note: Variables '`i`' through '`s`' will be reported as hexadecimal data, where each field is 4 digits.

`i` = The number of the active ISLU.

`j` = The number of the active control data (CD).

`k` = The number of the LGC.

`l` = The circuit name of the unit connected to the protocol handler (PH).

`m` = The number of the active packet switching unit common controller (PSUCOM) side.

`n` = The number of the faulty PH.

`o` = The channel group assigned to the PH at the time of the error.

`p` = The member number within the channel group.

`q` = The number representing the circuit type connected to the PH. Valid value(s):
`0x00` = Connected to a digital facility interface (DFI).

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0x01	= Connected to a different switch.
0x02	= Connected to another PH.
0x03	= Connected to a T-card.
0x04	= Connected to a U-card.

r = The implicated PH image type. Valid value(s):

0	= Null PH image.
1	= PH 1 gateway image.
2	= PH 2 gateway image.
3	= PH 2 access image.

s = The implicated PH hardware type. Valid value(s):

0	= PH 1 hardware.
1	= PH 2 hardware.

4. ACTION TO BE TAKEN

None. Automatic diagnostics will be run on the ISLU line card (LC).

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:ISLULC
RST:ISLULC
```

REPT:ISLULC-TPCTF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT ISLULC=a-b-c-d [e] TRBL PER CALL TEST FAILURE EVENT = f
  g RECOVERY ACTION h
  i
  j  k  l
  .  .  .
  .  .  .
  .  .  .
```

2. REASON FOR OUTPUT

To report failure during a per call test (such as call setup) on the integrated service line unit line card (ISLULC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Integrated service line unit (ISLU) number.

`c` = Line group controller number.

`d` = Line card number.

`e` = Line card equipment status. Valid value(s):

- `ACTIVE` = This line card has/can set up calls to the customer assigned to its ports through this ISLU.
- `DSPARE` = This line card is a designated spare line card. It has received its port assignment from another line card in this ISLU, using recent change. There is a metallic connection between this line card and the line card that is being spared. This line card provides the interface to the ISLU and the rest of the system. The line card being spared provides the interface between the system and the customer. The metallic connection provides the interface between the two line cards.
- `OOS` = The line card is marked as out-of-service, but fault stimuli are still being detected.
- `PRE-OOS` = Fault recovery has notified the maintenance request administrator (MRA) to remove this line card from service. However, fault stimuli are still being detected from the circuit indicating that the line card has not been completely removed from service.
- `SPARED` = This line card's port assignment(s) have been transferred, using recent change, to a designated spare (refer to `DSPARE`) line card in this ISLU.
- `STANDBY` = This line card is available for service (as a designated spare, refer to `DSPARE` and `SPARED`) if an active line card fails in this ISLU.

`f` = Event number.

`g` = Error type. Valid value(s):

```
FALSE RING TRIP
FEED SHUTDOWN
LAYER 1 PROTOCOL
STUCK OFFHOOK
STUCK ONHOOK
STUCK SCAN LEAD
TIME SLOT CONFLICT
```

`h` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = This report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified by an assert.
`REPORTED TO TERMINAL MAINT` = Terminal maintenance has been notified of the software failure.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`i` = Source analysis data.

`j` = External logical circuit name. More than one circuit may be listed when multiple circuits can be blamed for the trouble.

`k` = Number of recent failures of this error type (variable '`g`') on this ISLULC circuit (in decimal).

`l` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the line card from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:ISLULC
RMV:ISLULC
RST:ISLULC
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:ISLULC-TPPE

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT ISLULC=a-b-c TRBL PIDB PARITY ERROR EVENT=d
  e RECOVERY ACTION f
  g h i
  . . .
  . . .
  . . .
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within a switching module (SM). A parity error was detected on a peripheral interface data bus (PIDB) connected to an integrated services line unit (ISLU) line card. The message indicates what recovery action was taken and gives the current fault counts against the circuit specified within the message. Refer to variable '`f`' to determine the effect the fault recovery activity had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = ISLU line unit number.

`c` = Service group number.

`d` = Event number.

`e` = Error type. Valid value(s):
`D CHANNEL PARITY ERROR` = Bad parity was detected by the packet switch interface unit.
`DATA PARITY ERROR` = Bad parity was detected on data transmitted by the line card.
`LINE GROUP DATA PARITY ERROR` = Bad parity was detected on data transmitted by more than one line card in the line group.
`MULTIPLE CIRCUIT FAILURE` = Bad parity was detected on more than one connection to this line card.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = This post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified by an assert.
`RST AUTO CAMPON` = The failing circuit will be restored and diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted, restored, and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = External logical circuit name. More than one circuit may be listed when multiple circuits can be blamed for the trouble.

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`h` = Number of recent failures of this error type (field '`e`') on this ISLULC circuit (in decimal).

`i` = Error count threshold above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None. Fault recovery automatically requests a conditional restore on the circuit when the error threshold is met. Subsequent DGN:ISLULC and RST:ISLULC messages indicate success or failure of the diagnostic when recovery action is `RST AUTO CAMPON` or `RST PREEMPT`.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:ISLULC
RMV:ISLULC
RST:ISLULC
```

REPT:ISLULC-TSF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT ISLULC=a-b-c-d [e] TRBL SP FAILURE EVENT = f
  SP FIFO OVERFLOW FAILURE RECOVERY ACTION g
  h  i
  j  k  l
```

2. REASON FOR OUTPUT

To report a signal processor (SP) interrupt caused by the SP first-in first-out (FIFO) overflowing due to multiple on-hook and off-hook transitions in integrated service line unit line card (ISLULC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Integrated service line unit (ISLU) number.

`c` = Line group controller number.

`d` = Line card number.

`e` = Line card equipment status. Valid value(s):

- `ACTIVE` = This line card has/can set up calls to the customer assigned to its ports through this ISLU.
- `DSPARE` = This line card is a designated spare line card. It has received its port assignment from another line card in this ISLU, using recent change. There is a metallic connection between this line card and the line card that is being spared. This line card provides the interface to the ISLU and the rest of the system. The line card being spared provides the interface between the system and the customer. The metallic connection provides the interface between the two line cards.
- `OOS` = The line card is marked as out-of-service, but fault stimuli are still being detected.
- `PRE-OOS` = Fault recovery has notified the maintenance request administrator (MRA) to remove this line card from service. However, fault stimuli are still being detected from the circuit indicating that the line card has not been completely removed from service.
- `SPARED` = This line card's port assignment(s) have been transferred, using recent change, to a designated spare (refer to `DSPARE`) line card in this ISLU.
- `STANDBY` = This line card is available for service (as a designated spare, refer to `DSPARE` and `SPARED`) if an active line card fails in this ISLU.

`f` = Event number.

`g` = Recovery action. Valid value(s):

- `ANALYSIS ONLY` = This report is generated.
- `RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Internal time slot number.

`i` = Number of entries in the SP FIFO for this circuit.

`j` = External logical circuit name. More than one circuit may be listed when multiple circuits can be blamed for the trouble.

`k` = Current decimal number of recent failures of this error type recorded.

`l` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the line card from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:ISLULC
RMV:ISLULC
RST:ISLULC
```

Other Manual(s):
235-105-200 *Precutover and Cutover Procedures*

REPT:ISLULCKT

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT ISLULCKT=a-b-c-d-e [f] TRBL g EVENT=h
  i RECOVERY ACTION j
  k
  l  m  n
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within the switching module (SM) caused by failure of a ISLU2 line circuit (ISLULCKT). The report indicates what recovery action was taken and gives the current fault counts against the circuit specified in the report.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = ISLU line unit number.

`c` = Line group number.

`d` = Line board number.

`e` = Line circuit number.

`f` = ISLULCKT equipment status. Valid value(s):

- `ACTIVE` = The common controller (CC) is in service and a fault has been detected
- `OOS` = The CC is marked as out-of-service, but fault stimuli are still being detected.
- `PRE-OOS` = Fault recovery has notified the maintenance request administrator (MRA) to remove this CC from service. However, fault stimuli are still being detected from the circuit indicating that the CC has not been completely removed from service.

`g` = High level error types. Valid value(s):

- `PER CALL TEST FAILURE` - The per call test gave problems.
- `FAULT MESSAGE` - There was an ISLULCKT fault.
- `DPIDB PARITY FAILURE` - There was a D-channel parity error.

`h` = Event number.

`i` = Error type. Valid value(s):

```
CONTROL FAILURE
CONTROL ORDER PARITY FAILURE
D CHANNEL PARITY ERROR
DATA PARITY ERROR
FALSE CROSS AND GROUND FAILURE
FALSE RING TRIP
```

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```
FEED SHUTDOWN FAILURE
LAYER 1 PROTOCOL FAILURE
LINE BOARD DATA PARITY ERROR
LINE CARD SCAN LEAD STUCK
LINE CARD TIMESLOT FAILURE
LINE GROUP CONTROL FAILURE
LINE GROUP DATA PARITY FAILURE
LINE GROUP ERROR
LINE GROUP PIDB PARITY ERROR
LOSS OF K2 SYNCHRONIZATION
MESSAGE PROTOCOL FAILURE
MULTIPLE CKT FAILURE
NO ERROR SOURCE FOUND
NT1 ACT/DEACTIVATION FAILURE
RINGING FAILURE
RLG LC CONTROL PARITY ERROR
SOFTWARE BAD ADDRESS ERROR
STUCK OFFHOOK FAILURE
STUCK ONHOOK FAILURE
TIME SLOT CONFLICT FAILURE
```

`j` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = This post mortem report is printed to provide information for analysis.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified by an assert. Refer to the Asserts manual.

`HARD RESET` = A hard reset was executed.

`INHIBIT HDWCHKS` = Hardware checks are inhibited.

`NO RECOVERY ACTION TAKEN` = No recovery action was taken.

`PRE-OOS THRESHOLD EXCEEDED` = The out-of-service (OOS) threshold was exceeded.

`PRE-OOS, RE-INHIBIT HDWCHKS` = The circuit was previously OOS.

`RE-INHIBIT ERROR` = An error was found during re-inhibit.

`RST CAMP-ON` = The failing circuit is restored and diagnosed when it is available. A report prints with the result of the diagnostic.

`RST PREEMPT` = The failing circuit was preempted and restored, then a diagnostic was scheduled. A report prints with the results of the diagnostic.

`SOFT RESET` = A soft reset was executed. Hardware checks are re-inhibited.

`UNCONDITIONAL RST PREEMPT` = The circuit is restored unconditionally.

`k` = Hexadecimal numbers presenting internal registers containing additional troubleshooting information.

`l` = External logical circuit name. More than one circuit may be listed when multiple circuits can be implicated in the trouble.

`m` = Number of recent failures of this error type (variable '`g`') on this ISLULCKT circuit (in decimal).

`n` = Error count threshold above which the recovery action will be to restore the circuit.

4. ACTION TO BE TAKEN

None. Fault recovery automatically requests a conditional restore on the circuit when the error threshold is met. Subsequent DGN:ISLULCKT and RST:ISLULCKT reports indicate success or failure of diagnostic when recovery

action (variable '`i`') is `RST AUTO CAMPON` or `RST PREEMPT`.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:ISLULCKT
RST:ISLULCKT
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-600-500 *Asserts*

REPT:ISLULG

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT ISLULG=a-b-c [d] TRBL e EVENT=f
  g RECOVERY ACTION h
  i  j  k
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within the switching module (SM) caused by failure of a ISLU2 line group (ISLULG). The report indicates what recovery action was taken and gives the current fault counts against the circuit specified in the report.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = ISLU line unit number.

`c` = Line group number.

`d` = ISLULG equipment status. Valid value(s):
- `ACTIVE` = The common controller (CC) is in service and a fault has been detected
- `OOS` = The CC is marked as out-of-service, but fault stimuli are still being detected.
- `PRE-OOS` = Fault recovery has notified the maintenance request administrator (MRA) to remove this CC from service. However, fault stimuli are still being detected from the circuit indicating that the CC has not been completely removed from service.

`e` = High level error types. Valid value(s):
- `FAULT MESSAGE` = There was an ISLULG fault.
- `DPIDB PARITY FAILURE` = There was a D-channel parity error.

`f` = Event number.

`g` = Error type. Valid value(s):
- `CONTROL FAILURE` = An error occurred when sending information to a circuit within the ISLU.
- `INTERNAL MEMORY PARITY ERROR` = Bad parity was detected on one or more of the internal memory configurations in the CC.
- `LINE GROUP CONTROL FAILURE` = An error occurred when sending control information to a line group.
- `LINE GROUP DATA PARITY ERROR` = A parity error was detected on the line group.
- `LINE GROUP INTERRUPT THRU MASK` = An error was detected at the line group (LG) level, but no source was found for interrupt.
- `LINE GROUP LOST CLOCK SOURCE` = Line group lost clock source.
- `MESSAGE PROTOCOL FAILURE` = An error occurred in the message that was not within protocol. Fault recovery received a fault message containing an unexpected value.

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`h` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = This post mortem report is printed to provide information for analysis.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified by an assert. Refer to the Asserts manual.
`RST CAMP-ON` = The failing circuit is restored and diagnosed when it is available. A report prints with the result of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and restored, then a diagnostic was scheduled. A report prints with the results of the diagnostic.

`i` = External logical circuit name. More than one circuit may be listed when multiple circuits can be implicated in the trouble.

`j` = Number of recent failures of this error type (variable '`e`') on this ISLULG circuit (in decimal).

`k` = Error count threshold above which the recovery action will be to restore the circuit.

4. ACTION TO BE TAKEN

None. Fault recovery automatically requests a conditional restore on the circuit when the error threshold is met. Subsequent DGN:ISLULG and RST:ISLULG reports indicate success or failure of diagnostic when recovery action (variable '`h`') is `RST AUTO CAMPON` or `RST PREEMPT`.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:ISLULG
RST:ISLULG
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-600-500 *Asserts*

REPT:ISLULGC-TFME

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT ISLULGC=a-b-c TRBL FAULT MESSAGE EVENT=d
  LINE GROUP LOST CLOCK SOURCE RECOVERY ACTION f
  g h i
  . . .
  . . .
  . . .
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within the switching module (SM) caused by failure of a line group controller (LGC) board from the integrated services line unit (ISLU). The message indicates what recovery action was taken and gives the current fault counts against the circuit specified in the message. Refer to variable '`f`' to determine the effect the fault recovery activity had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = ISLU line unit number.

`c` = Service group number.

`d` = Event number.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = This post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified by an assert.
`RST AUTO CAMPON` = The failing circuit will be restored and diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted, restored, and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = External logical name of ISLU circuit types. More than one circuit may be listed when multiple circuits can be blamed for the trouble.

`h` = Number of recent failures of this error type (variable '`e`') on this ISLULGC circuit (in decimal).

`i` = Error count threshold above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None. Fault recovery automatically requests a conditional restore on the circuit when the error threshold is met. Subsequent DGN:ISLULGC and RST:ISLULGC messages indicate success or failure of the diagnostic when

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recovery action is `RST AUTO CAMPON` or `RST PREEMPT`.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:ISLULGC
RMV:ISLULGC
RST:ISLULGC
```

REPT:ISLULGC-TPPE

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT ISLULGC=a-b-c TRBL PIDB PARITY ERROR EVENT=d
  e RECOVERY ACTION f
  g h i
  . . .
  . . .
  . . .
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within the switching module (SM) caused by failure of a common controller (CC) board in the integrated services line unit (ISLU). A parity error was detected on a peripheral interface data bus (PIDB) connected to an ISLU. The message indicates what recovery action was taken and gives the current fault counts against the circuit specified in the message. Refer to variable '`f`' to determine the effect the fault recovery activity had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = ISLU line unit number.

`c` = Service group number.

`d` = Event number.

`e` = Error type. Valid value(s):
`D CHANNEL PARITY ERROR` = Bad parity was detected by the packet switch interface unit on a directly connected PIDB.
`DATA PARITY ERROR` = Bad parity was detected on data transmitted by the line card in this line group.
`LINE GROUP DATA PARITY ERROR` = Bad parity was detected on data transmitted by more than one line card in the line group.
`MULTIPLE CIRCUIT FAILURE` = Bad parity was detected on more than one connection to line cards in this line group.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = This post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified by an assert.
`RST AUTO CAMPON` = The failing circuit will be restored and diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted, restored, and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

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`g` = External logical circuit name of ISLU circuit types. More than one circuit may be listed when multiple circuits can be blamed for the trouble.

`h` = Number of recent failures of this error type (variable '`e`') on this ISLULGC circuit (in decimal).

`i` = Error count threshold above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None. Fault recovery automatically requests a conditional restore on the circuit when the error threshold is met. Subsequent DGN:ISLULGC and RST:ISLULGC messages indicate success or failure of diagnostic when recovery action is `RST AUTO CAMPON` or `RST PREEMPT`.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:ISLULGC
RMV:ISLULGC
RST:ISLULGC
```

REPT:ISLULGC-TSF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT ISLULGC=a-b-c [d] TRBL SP FAILURE EVENT = e
  SP FIFO OVERFLOW FAILURE RECOVERY ACTION f
  g  h
  i  j  k
```

2. REASON FOR OUTPUT

To report a signal processor (SP) interrupt caused by the SP first-in first-out (FIFO) overflowing due to multiple on-hook and off-hook transitions in integrated service line unit line group controller (ISLULGC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Integrated service line unit (ISLU) number.

`c` = Line group controller number.

`d` = Line card equipment status. Valid value(s):

- `ACTIVE` = This line card has/can set up calls to the customer assigned to its ports through this ISLU.
- `STANDBY` = This line card is available for service (as a designated spare, refer to `DSPARE` and `SPARED`) if an active line card fails in this ISLU.
- `PRE-OOS` = Fault recovery has notified the maintenance request administrator (MRA) to remove this line card from service. However, fault stimuli are still being detected from the circuit indicating that the line card has not been completely removed from service.
- `OOS` = The line card is marked as out-of-service, but fault stimuli are still being detected.
- `SPARED` = This line card's port assignment(s) have been transferred, using recent change, to a designated spare (refer to `DSPARE`) line card in this ISLU.
- `DSPARE` = This line card is a designated spare line card. It has received its port assignment from another line card in this ISLU, using recent change. There is a metallic connection between this line card and the line card that is being spared. This line card provides the interface to the ISLU and the rest of the system. The line card being spared provides the interface between the system and the customer. The metallic connection provides the interface between the two line cards.

`e` = Event number.

`f` = Recovery action. Valid value(s):

- `ANALYSIS ONLY` = This report is generated.
- `RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

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`g` = Internal time slot number.

`h` = Number of entries in the SP FIFO for this circuit.

`i` = External logical circuit name. More than one circuit may be listed when multiple circuits can be blamed for the trouble.

`j` = Current decimal number of recent failures of this error type recorded.

`k` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the line group controller from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:ISLULC
RMV:ISLULC
RST:ISLULC
```

Other Manual(s):
235-105-200 *Precutover and Cutover Procedures*

REPT:ISLUMAN-TFMF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT ISLUMAN=a-b-c-d [e] TRBL FAULT MESSAGE FAILURE EVENT = f
  g RECOVERY ACTION h
  i
  j  k  l
  .  .  .
  .  .  .
  .  .  .
```

2. REASON FOR OUTPUT

To report fault recovery activity within the switching module (SM) due to a metallic access network (MAN) board from the integrated service line unit (ISLU).

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = ISLU number.

`c` = ISLU service group number.

`d` = ISLU metallic access network number.

`e` = Line card equipment status. Valid value(s):

- `ACTIVE` = This line card has/can set up calls to the customer assigned to its ports through this ISLU.
- `DSPARE` = This line card is a designated spare line card. It has received its port assignment from another line card in this ISLU, using recent change. There is a metallic connection between this line card and the line card that is being spared. This line card provides the interface to the ISLU and the rest of the system. The line card being spared provides the interface between the system and the customer. The metallic connection provides the interface between the two line cards.
- `OOS` = The line card is marked as out-of-service, but fault stimuli are still being detected.
- `PRE-OOS` = Fault recovery has notified the maintenance request administrator (MRA) to remove this line card from service. However, fault stimuli are still being detected from the circuit indicating that the line card has not been completely removed from service.
- `SPARED` = This line card's port assignment(s) have been transferred, using recent change, to a designated spare (refer to `DSPARE`) line card in this ISLU.
- `STANDBY` = This line card is available for service (as a designated spare, refer to `DSPARE` and `SPARED`) if an active line card fails in this ISLU.

`f` = Event number.

`g` = Error type. Valid value(s):

```
CONTROL FAILURE
CONTROL ORDER PARITY ERROR
NO ERROR SOURCE FOUND
```

`h` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = This report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified by an assert.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`i` = Source analysis data.

`j` = External logical circuit name. More than one circuit may be listed when multiple circuits can be blamed for the trouble.

`k` = Number of recent failures of this error type ('`g`') on the ISLUMAN circuit (in decimal).

`l` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the ISLUMAN from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:ISLUMAN
RMV:ISLUMAN
RST:ISLUMAN
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:ISLUMAN-TPCT

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT ISLUMAN=a-b-c-d [e] TRBL PER CALL TEST FAILURE EVENT = f
  g RECOVERY ACTION h
  i
  j  k  l
  .  .  .
  .  .  .
  .  .  .
```

2. REASON FOR OUTPUT

To report failure during a per call test (such as call setup) on the integrated services line unit metallic access network (ISLUMAN).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Integrated service line unit (ISLU) number.

`c` = ISLU service group number.

`d` = ISLU metallic access network number.

`e` = Line card equipment status. Valid value(s):

- `ACTIVE` = This line card has/can set up calls to the customer assigned to its ports through this ISLU.
- `DSPARE` = This line card is a designated spare line card. It has received its port assignment from another line card in this ISLU, using recent change. There is a metallic connection between this line card and the line card that is being spared. This line card provides the interface to the ISLU and the rest of the system. The line card being spared provides the interface between the system and the customer. The metallic connection provides the interface between the two line cards.
- `OOS` = The line card is marked as out-of-service, but fault stimuli are still being detected.
- `PRE-OOS` = Fault recovery has notified the maintenance request administrator (MRA) to remove this line card from service. However, fault stimuli are still being detected from the circuit indicating that the line card has not been completely removed from service.
- `SPARED` = This line card's port assignment(s) have been transferred, using recent change, to a designated spare (refer to `DSPARE`) line card in this ISLU.
- `STANDBY` = This line card is available for service (as a designated spare, refer to `DSPARE` and `SPARED`) if an active line card fails in this ISLU.

`f` = Event number.

`g` = Error type. Valid value(s):

```
FALSE CROSS AND GROUND FAILURE
FALSE RING TRIP
STUCK ONHOOK
```

`h` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = This report is generated.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified by an assert.

`REPORTED TO TERMINAL MAINT` = Terminal maintenance has been notified of the software failure.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`i` = Source analysis data.

`j` = External logical circuit name. More than one circuit may be listed when multiple circuits can be blamed for the trouble.

`k` = Number of recent failures of this error type ('`g`') on this ISLUMAN circuit (in decimal).

`l` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the ISLUMAN from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:ISLUMAN
RMV:ISLUMAN
RST:ISLUMAN
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:ISLURG-TFMF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT ISLURG=a-b-c [d] TRBL FAULT MESSAGE FAILURE EVENT = e
  f RECOVERY ACTION g
  hhhhiiii jjjjkkkk llllmmmm nnnnoooo ppppqqqq rrrrssss ttttuuuu
  v  w  x
  .  .  .
  .  .  .
  .  .  .
```

2. REASON FOR OUTPUT

To report fault recovery activity within the switching module (SM) due to a ringing generator (RG) board from the integrated service line unit (ISLU).

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = Integrated service line unit number.

`c` = ISLU service group of RG number.

`d` = Line card equipment status. Valid value(s):

- `ACTIVE` = The RG is in service and a fault has been detected.
- `PRE-OOS` = Fault recovery has notified the maintenance request administrator (MRA) to remove this RG from service. However, fault stimuli are still being detected from the circuit indicating that the RG has not been completely removed from service.
- `OOS` = The RG is marked as out-of-service, but fault stimuli are still being detected.

`e` = Event number.

`f` = Error type. Valid value(s):

- `BUS CONNECT FAILURE` = An attempt was made to connect two ringing output buses to the same input bus.
- `CONTROL FAILURE` = The ISLU common controller (CC) detected an error when an order sent to the RG was not returned.
- `FALSE RING TRIP` = The RG hardware detected an off-hook and the software detected an on-hook.
- `OUTPUT BUS FAILURE` = No ringing current was detected at the output bus of the RG.
- `PRIMARY BRIDGE OVER CURRENT FAILURE` = The primary bridge on the RG has sensed a large current drain indicating a possible short across the tip and ring.
- `SANITY TIMER FAILURE` = The sanity time on the RG has not been satisfied in the time requested.

`g` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = This report is generated.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.
`UNCONDITIONAL RST PREEMPT` = The failing circuit was preempted and restored without scheduling any diagnostic.

`h` = ISLU message type.

`i` = Peripheral interface control bus (PICB) number.

`j` = Mail box data.

`k` = Fault report type in the mail box.

`l` = Number of entries in the block.

`m` = ISLU internal peripheral fault type.

`n` = ISLU internal fault event number.

`o` = ISLU internal process ID.

`p` = ISLU internal RG circuit number.

`q` = ISLU internal sub-circuit.

`r` = ISLU internal data written to the RG.

`s` = ISLU internal return data from the RG.

`t` = ISLU internal unused field.

`u` = ISLU internal recovery action.

`v` = External logical circuit name. More than one circuit may be listed when multiple circuits can be blamed for the trouble.

`w` = Number of recent failures of this error type ('`f`') on the ISLU RG circuit (in decimal).

`k` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the ISLU RG from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:ISLURG
RMV:ISLURG
RST:ISLURG
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:ISTF-TDPF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT ISTF=a-b TRBL DATA PARITY FAILURE c
  PIDB PARITY TROUBLE RECOVERY ACTION d
  e f g
```

2. REASON FOR OUTPUT

To indicate that a parity error occurred on the automatic request of the integrated services test function (ISTF) unit peripheral interface control bus (PICB) to the time-slot interchange (TSI).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = ISTF unit number.

`c` = Event number.

`d` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A postmortem report is generated.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. An RMV message will be printed after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic (DGN:ISTF).
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled (DGN:ISTF). A message will be printed with the results of the diagnostic.

`e` = External logical circuit name.

`f` = Current decimal number of recent failures of this type recorded.

`g` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:ISTF-TOE

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT ISTF=a-b TRBL OPERATIONAL ERROR c
  d RECOVERY ACTION e
  fg hi jk lm no pq rs
  t u v
```

2. REASON FOR OUTPUT

To respond to an operational error pertaining to an integrated services test function (ISTF) unit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = ISTF unit number.

`c` = Event number.

`d` = Error type. Valid value(s):

```
FIFO UNDERFLOW
INVALID FIFO REPORT
INVALID REPORT
TERMINAL PROCESS TIMEOUT
UNEXPECTED REPORT
UNEXPECTED FIRST PULSE
```

`e` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A postmortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`INITIALIZE` = The failing circuit has been reinitialized.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. An RMV:ISTF message will occur.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available (DGN:ISTF). A DGN message will occur.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled (DGN:ISTF). A message will be printed with the results of the diagnostic.

`f` = Contents of the hardware error source mask register.

`g` = Contents of the hardware error source register.

`h` = Contents of the firmware error source mask register - upper bit. Contents of the firmware error source register - lower bit.

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i	= Contents of the summary scan mask register.
j	= Contents of the summary scan register.
k-s	= Logical processor (LP) raw data.
Note:	Up to nine logical circuit names, error counts, and error thresholds (variables 't'-'v') may be printed.
t	= External logical circuit name.
u	= Current decimal number of recent failures of this type recorded.
v	= Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:ISTF-TPCF-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT ISTF=a-b TRBL PICB CONTROL FAILURE EVENT=c
  d RECOVERY ACTION e
  f g h i
  j k l
```

2. REASON FOR OUTPUT

An automatic message to respond to a peripheral interface control bus (PICB) control failure interrupt on the integrated services test function (ISTF) unit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = ISTF unit number.

`c` = Event number.

`d` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START
SOFTWARE BAD ADDRESS ERROR
```

`e` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A postmortem report is provided.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. An RMV message will be printed after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available (DGN:ISTF). A message will be printed with the results of the diagnostic.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled (DGN:ISTF). A message will be printed with the results of the diagnostic.

`f` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`g` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`h` = Data being written to the periphery by the CI.

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`i` = Contents of the CI error source register.

Note: Up to two logical circuit names, error counts, and error thresholds (variables '`j`'-'`l`') may be printed.

`j` = External logical circuit name.

`k` = Current decimal number of recent failures of this type recorded.

`l` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:ISTF-TPCF-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT ISTF=a-b TRBL PICB CONTROL FAILURE EVENT=c
  d RECOVERY ACTION e
  f g h i
  j k l m
```

2. REASON FOR OUTPUT

An automatic message to respond to a peripheral interface control bus (PICB) control failure interrupt on the integrated services test function (ISTF) unit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = ISTF unit number.

`c` = Event number.

`d` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START
SOFTWARE BAD ADDRESS ERROR
```

`e` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A postmortem report is provided.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. An RMV message will be printed after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available (DGN:ISTF). A message will be printed with the results of the diagnostic.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled (DGN:ISTF). A message will be printed with the results of the diagnostic.

`f` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`g` = System PICB number in hexadecimal that was being written when the failure occurred.

`h` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

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`i` = Data being written to the periphery by the CI.

`j` = Contents of the CI error source register.

Note: Up to two logical circuit names, error counts, and error thresholds (variables '`k`'-'`m`') may be printed.

`k` = External logical circuit name.

`l` = Current decimal number of recent failures of this type recorded.

`m` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:ISTF-TSRF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT ISTF=a-b TRBL SERV REQ FAILURE c
  d RECOVERY ACTION e
  fg hi jk lm no pq rs
  t u v
```

2. REASON FOR OUTPUT

To respond to an automatically generated maintenance service request from a switching module (SM) pertaining to an integrated services test function (ISTF) unit.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = ISTF unit number.

`c` = Event number.

`d` = Error type. Valid value(s):

```
DATA BUS 0 CLOCK FAILURE
DATA BUS 1 CLOCK FAILURE
EXPANSION PACK ERROR
FIFO ERROR
HIGH LEVEL FIRMWARE ERROR
INTERNAL COMMUNICATION ERROR
INTERNAL DATA ERROR
INTERNAL DSP ERROR
INTERNAL HARDWARE ERROR
INTERRUPT THRU MASK FAILURE
LOW LEVEL FIRMWARE ERROR
LP ADDRESSING ERROR
LP CLOCK FAILURE
LP ERROR
LP MEMORY ERROR
LP READ PARITY ERROR
MAINTENANCE PROCESS TIME OUT
NO ERROR SOURCE FOUND
SM ADDRESSING ERROR
SM READ PARITY ERROR
```

`e` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A postmortem report is generated.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.

`INITIALIZED` = The failing circuit has been reinitialized.

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`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. An RMV:ISTF message will occur.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available (DGN:ISTF). A DGN message will occur.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`f` = Contents of the hardware error source mask register.

`g` = Contents of the hardware error source register.

`h` = Contents of the firmware error source mask register - upper bit. Contents of the firmware error source register - lower bit.

`i` = Contents of the summary scan mask register.

`j` = Contents of the summary scan register.

`k-s` = Logical processor (LP) raw data.

Note: Up to nine logical circuit names, error counts, and error thresholds (variables '`t`'-'`v`') may be printed.

`t` = External logical circuit name.

`u` = Current decimal number of recent failures of this type recorded.

`v` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:ISUP

Software Release: 5E10 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
REPT ISUP ATPUUI
  TKGMN=b-c DIRECTION=d
  OPC=e DPC=f CIC=g
  MSGLENGTH=h ATPLENGTH=i UUILENGTH=j
  MSGTYPE=k
  CALLSTATE=l
```

2. REASON FOR OUTPUT

To report the occurrence of an intergrated services digital network (ISDN) user part (ISUP) event.

3. VARIABLE FIELD DEFINITIONS

`ATPUUI` = Access transport parameter (ATP) user-to-user information (UUI).

`b` = Trunk group number.

`c` = Trunk member number.

`d` = Direction of event. Valid value(s):
- `INCOMING` = Event was moving in the incoming direction when trapped.
- `OUTGOING` = Event was moving in the outgoing direction when trapped.

`e` = Origination point code.

`f` = Destination point code.

`g` = Circuit identification code.

`h` = Length of ISUP message in bytes.

`i` = Access transport parameter length in bytes.

`j` = User-to-user information length in bytes.

`k` = ISUP message type. Valid value(s):
- `ADDRESS COMPLETE` = A message sent in the backward direction indicating that all the address signals required for routing the call to the called party have been received.
- `ANSWER` = A message sent in the backward direction indicating that the call has been answered.
- `CALL PROGRESS` = A message sent in the backward direction indicating that an event has occurred during call setup which should be relayed to the calling party.
- `INFORMATION` = A message sent to convey additional call related information.
- `INITIAL ADDRESS` = A message sent in the forward direction to initiate seizure of an outgoing circuit and to transmit address and other information relating to the routing and

handling of a call.

`RELEASE` = A message sent in either direction indicating that the circuit identified in the message is being released due to the reason (cause) supplied and is ready to be put in the idle state on receipt of the Release Complete message.

`l` = State call was in when ATPUUI was dropped. Valid value(s):

```
IDLE
INCOMING CIRCUIT ANSWERED
INCOMING CIRCUIT NETWORK SUSPEND
OUTGOING CIRCUIT ANSWERED
OUTGOING CIRCUIT NETWORK SUSPEND
WAIT FOR ADDRESS COMPLETE
WAIT FOR ANSWER
WAIT FOR CONTINUITY
WAIT FOR CONTINUITY REPORTS
WAIT FOR RELEASE COMPLETE
WAIT FOR OUTGOING CIRCUIT SELECTION
WAIT FOR OUTGOING CIRCUIT COMPLETE
```

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:ISUP
OP:ST-ISUP
SET:ISUP
```

Output Message(s):

```
OP:ST-ISUP
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

REPT:IUN-INIT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT IUN INIT
        IUN LEVEL 2-3 INITIALIZATION COMPLETED
        a IUNS PLACED IN ACTIVE STATE b IUNS IN THE SYSTEM

[2]   ____________________________________________________________
      REPT IUN INIT
        IUN LEVEL 4 INITIALIZATION STARTED

[3]   ____________________________________________________________
      REPT IUN INIT
        INITIALIZATION OF IUNS OF TYPE c COMPLETED
        d IUNS PLACED IN THE ACTIVE STATE
        e IUNS EQUIPPED

[4]   ____________________________________________________________
      REPT IUN INIT
        IUN LEVEL 4 INITIALIZATION COMPLETED

[5]   ____________________________________________________________
      REPT IUN INIT
        IUN INITIALIZATION IN PROGRESS
```

2. REASON FOR OUTPUT

Format 1 reports, during an interprocess message switch (IMS) level 2 or 3 initialization, the conclusion of the IMS user node (IUN) initialization sequence.

Format 2 prints at the start of the level 4 IUN initialization (pump - download - of IUN(s)) sequence, which is part of an IMS level 4 initialization.

Format 3 prints when the restore of a group of IUN(s), all having one or more files in common, has completed. There may be one or more occurrences of this message. The first instance of a Format 3 message will follow a Format 2 message. This message will only be printed during an IMS level 4 initialization.

Format 4 prints when the level 4 IUN initialization (pump - download - of IUN(s)), which is part of an IMS level 4 initialization, is finished.

Format 5 prints when an initialization of a group of IUN(s), all having one or more files in common, is in progress and has not completed. This message will occur approximately every 2 minutes until the initialization of this group of IUN(s) is finished.

3. VARIABLE FIELD DEFINITIONS

a = Number of IUNs placed in the active state.

b = Number of equipped IUNs in the system.

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`c` = Name of a group of IUN(s), all having one or more files in common (generic spec file name).

`d` = Number of IUN(s), in this group, placed in the active state.

`e` = Number of equipped IUN(s) in this group.

4. ACTION TO BE TAKEN

For Formats 2, 4 and 5, no action is required.

For Formats 1 and 3, if the number of IUN(s) placed in the active state is less than the number of IUN(s) equipped, normal maintenance procedures should be used, after the initialization is finished, to restore any out-of-service (OOS) IUN(s).

Note: The automatic ring recovery (ARR) routine, unless it is inhibited, will attempt automatic recovery of OOS IUN(s) shortly after the level 4 IMS initialization has completed.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT:ARR-AUTORST
REPT:IMSDRV-INIT
```

REPT:IUN-PUMP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT IUN PUMP
        ABORTED PUMP OF IUN a b
        REASON = c, CONTROL CODE = d

[2]   ____________________________________________________________________
      REPT IUN PUMP
        ABORTED PUMP OF IUN ???e b
        REASON = c, CONTROL CODE = d
```

2. REASON FOR OUTPUT

Format 1 prints if a pump of the operational code or the diagnostic code to a single interprocess message switch user node (IUN) is aborted.

Format 2 prints if a pump of the operational code or the diagnostic code to a single IUN is aborted and the ring node name could not be determined.

3. VARIABLE FIELD DEFINITIONS

a = The ring node (RN) name (such as, LN) and group name.

b = The ring node member number.

c = Reason why the pump job has aborted. Valid value(s):

- 1 = Received a source-matched pump message.
- 2 = Received a returned pump message.
- 3 = Insufficient message switch buffer space.
- 4 = Failed to get message switch buffer space.
- 5 = Failed to determine best route to node.
- 6 = Obtained a bad channel from best route.
- 7 = Failed to build relay header.
- 8 = Failed to build interprocess message switch (IMS) message header.
- 9 = Failed to write message.
- 10 = Failed to relay message.
- 11 = Timed out waiting for relay response message.

d = Internal control code.

e = Group number.

4. ACTION TO BE TAKEN

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If 'c' =	Action:
1 or 2	Use normal maintenance procedures to run IUN diagnostic.
3	Wait a few minutes, then try to perform the same restoration or diagnostic action. If the same messages are printed frequently during a 24 hour period, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
10	Use normal maintenance procedures to run IUN diagnostic. If the same messages are printed repeatedly with 'c' = 10, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

If 'c' is any other value, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:LN
RST:LN
```

Output Message(s):

```
DGN:AUDIT-RING
DGN:LN
REPT:IUN-RST
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

REPT:IUN-RESTRT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT IUN RESTRT
  RSTRT FOR IUN a b AP STARTED
```

[2]
```
REPT IUN RESTRT
  RSTRT FOR IUN a b FAILED
  ERROR NUMBER = c
  ERROR CODE (C S) = d e
```

[3]
```
REPT IUN RESTRT
  RSTRT FOR IUN a b AP FAILED
  ERROR NUMBER = f
```

2. REASON FOR OUTPUT

Format 1 prints when the attached processor (AP) of an interprocessor message switch user node (IUN) has started to perform a restart.

Format 2 prints if an IUN restart failed.

Format 3 prints if an IUN's AP restart failed.

3. VARIABLE FIELD DEFINITIONS

a = Ring node (RN) name and group number.

b = RN member number.

c = IUN restart failure code. Valid value(s):

0	= Failed to unquarantine the IUN.
1	= Failed to allocate internal timer.
2	= Failed to send administrative module (AM) path's data.
3	= Failed to allocate internal timer.
4	= Failed to send ring interface (RI) path's data.
5	= Failed to allocate internal timer.
6	= Restart timed out waiting for node processor (NP) response.
7	= Failed to change IUN major state to INIT.
8	= Failed to allocate internal timer.
9	= Failed to allocate internal timer.
10	= Failed the direct memory access (DMA) initialization request.
11	= Failed to change IUN major state to ACT.
13	= Failed the DMA initialization request.
14	= Failed the DMA initialization due to a fault.
15	= Failed the DMA initialization request.

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16 = Restart timed out waiting for AP response.
17 = Failed due to an AP error.
18 = Failed to allocate internal timer.
19 = IUN not in active ring.
20 = IUN restart aborted by request.
21 = Failed to allocate internal timer.
22 = IUN restart guard timer expired.
23 = Failed to change IUN major state to INIT.
24 = Failed to restore create RI paths message.

d = Internal error code.

e = Internal error code.

f = IUN AP restart failure code. Valid value(s):
50 = AP restart threshold has been exceeded.
51 = AP restart failed.
52 = AP restart timed out.
53 = AP restart aborted by request.
54 = Failed to allocate internal timer.
56 = Failed to change IUN major state to INIT.
57 = IUN does not have major state of ACT.
58 = IUN not in the active ring.
59 = AP restart timed out.
60 = Failed to change IUN major state to ACT.
61 = Failed to allocate internal timer.
62 = Failed the DMA initialization request.
63 = Failed the DMA initialization request.
64 = Failed the DMA initialization due to a fault.
65 = Failed to change IUN major state to ACT.
66 = Failed the DMA initialization.

4. ACTION TO BE TAKEN

For Format 1, no action is required.

For Formats 2 and 3, using normal maintenance procedures, the IUN should be restored to service.

Note: The automatic ring recovery (ARR) routine, unless it is inhibited, will attempt automatic recovery of out of service (OOS) IUN(s) shortly after the level 4 inter-process message switch (IMS) initialization has completed.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

RST:LN

Output Message(s):

```
REPT:ARR-AUTORST
RST:LN
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

118 (CNI STATUS)

REPT:IUN-RST

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT IUN RST
        FAILED TO RESTORE IUN a b
        FAILURE CODE = c JOB STATE = d

[2]   ____________________________________________________________
      REPT IUN RST
        FAILED TO RESTORE IUN ???e b
        FAILURE CODE = c JOB STATE = d

[3]   ____________________________________________________________
      REPT IUN RST
        FAILED TO RESTORE IUN(S) OF TYPE f
        FAILURE CODE = c JOB STATE = d

[4]   ____________________________________________________________
      REPT IUN RST
        UNABLE TO SEND AN EXECUTE MESSAGE TO IUN(S) OF TYPE
        f ZERO ELIGIBLE IUN NP(S)

[5]   ____________________________________________________________
      REPT IUN RST
        UNABLE TO SEND AN EXECUTE MESSAGE OF IUN(S) OF TYPE
        f ZERO ELIGIBLE IUN AP(S)

[6]   ____________________________________________________________
      REPT IUN RST
        RESTORE OF IUN a b STOPPED DUE TO IMS INITIALIZATION

[7]   ____________________________________________________________
      REPT IUN RST
        RESTORE OF IUN ???e b STOPPED DUE TO IMS INITIALIZATION

[8]   ____________________________________________________________
      REPT IUN RST
        RESTORE OF IUN a b STOPPED DUE TO FAULT

[9]   ____________________________________________________________
      REPT IUN RST
        RESTORE OF IUN ???e b STOPPED DUE TO FAULT

[10]  ____________________________________________________________
      REPT IUN RST
        RESTORE OF IUN a b STOPPED
        [g]
```

2. REASON FOR OUTPUT

To report the reason one or more interprocessor message switch (IMS) user nodes (IUN) failed to be restored to service.

Format 1 is printed if a single IUN failed to be restored to service

Format 2 is printed if a single IUN failed to be restored to service and the ring node name could not be determined.

Format 3 is printed of a group of IUN(s) file to be restored to service during a level 4 IMS initialization.

Format 4 is printed of there are zero node processor(s), NP(s) in this group of IUN(s) eligible to be sent a message which will cause the IUN NP(s) to be available for service. This message will only be printed during a level 4 IMS initialization.

Format 5 is printed if there are zero attached processor(s), AP(s), in this group of IUN(s) eligible to be sent a message which will cause the IUN AP(s)to be available for service. This message will only be printed during a level 4 IMS initialization.

Format 6 is printed of an IUN is undergoing a DMA channel initialization while being restored during a Level 1A or 1B IMS initialization. The IUN will be left out of service.

Format 7 is printed if an IUN is undergoing a DMA channel initialization while being restored during a Level 1A or 1B IMS initialization and the ring node name could not be determined. The IUN will be left out of service.

Format 8 is printed of a restore is in progress and IMS is notified that a DMA channel error, associated with the IUN has occurred. The IUN will be left out of service.

Format 9 is printed if a restore is in progress and IMS is notified that a DMA channel error, associated with the IUN has occurred and the ring node name could not be determined. The IUN will be left out of service.

Format 10 is printed if a restore of an IUN is started using the `RST:a b:GSFN "filename";UCL` command and the restore is stopped before completing. In most cases the IUN will be left out of service.

3. VARIABLE FIELD DEFINITIONS

`a` = The ring node (RN) name (such as LN) and group number.

`b` = RN member number.

`c` = Failure code. Valid value(s):

- `1` = the IUN restoration job failed to complete.
- `15` = the IUN restoration job was aborted.
- `43` = the IUN restoration job was stopped, but a retry of the restoration may succeed.

`d` = Internal job state at the time of restoration failure. Valid value(s):

- Aborting this restoration job.
- Auditing the IUN(s) major and minor states.
- Changing the IUN(s) major state to the active state.
- Done with executing IUN AP(s).
- Done with executing IUN NP(s).
- Done with the IUN(s) AP reset.
- Failed to restore a group of IUN(s); place all IUN(s) out of service.
- Initializing an IUN's direct memory access (DMA) channel.
- Polling the IUN AP reset status.
- Sending (down loading) an IUN AP a file or files destined only for that IUN (for

example, an IUN specific data file).
- Sending (down loading) the IUN AP(s) a common program or data file.
- Sending (down loading) and IUN NP a file or files destined only for that IUN (such as, an IUN specific data file).
- Sending (down loading) the IUN NP(s) a common program or data file.
- Sending the IUN AP(s) a command to execute the down loaded program.
- Sending the IUN NP the name of the Generic Spec File it was down loaded from, AM paths data and RI paths data.
- Sending the IUN NP(s) AM paths data.
- Sending the IUN NP(s) a command to execute the down loaded program.
- Sending the IUN NP(s) the name of the generic spec file they were down loaded from.
- Sending the IUN NP(s) RI paths data.
- Trying to send the IUN NP its read only memory (ROM) patch load.
- Trying to unquarantine the IUN NP(s).
- Waiting for an IUN NP reset command to complete.
- Waiting for the IUN application processor (AP) reset to complete.
- Waiting for the IUN NP(s) to receive a selective broadcast setup message.

`e` = The group number.

`f` = Name of a group of IUN(s) (all having one or more files in common, generic spec filename).

`g` = The reason the restore of the IUN was stopped. Valid value(s):

```
MIRA ABORTED RESTORE BY REQUEST
MIRA FAILED - ABORT REQUEST OR ERROR
MIRA FAILED - CAN'T SPAN DIAMON
MIRA FAILED - INTERNAL PROBLEM
MIRA FOUND DUPLICATE RESTORE REQUEST ALREADY QUEUED
MIRA OUT OF BUFFERS
MIRA RESTORE SOURCE INHIBITED
RESTORE REQUEST TIMED OUT
```

4. ACTION TO BE TAKEN

For Formats 1, 2, 6, 7, 8, 9, diagnose and restore the IUN to service.

For Formats 3, 4, 5, if the number of IUNs placed in the active state is less than the number of IUNs equipped, as reported by the level 4 IMS IUN initialization message (refer to the REPT:IUN-INIT output message), when the initialization is finished, diagnose and restore any out of service (OOS) IUNs.

For Format 10:

If 'g'=	**Action:**
`MIRA RESTORE SOURCE INHIBITED`	The `RST:a b:GSFN "filename";UCL` command is inhibited. Use the ALW:DMQ input message and resubmit restoration request.
`MIRA OUT OF BUFFERS`	The maintenance input request administrator (MIRA) subsystem is out of buffers (slots) to queue maintenance requests. When a buffer becomes free then resubmit the restore request. Use the OP:DMQ input message to see the contents of MIRA's buffers.

MIRA FOUND DUPLICATE RESTORE REQUEST ALREADY QUEUED	The restoration request is a duplicate or an already-queued maintenance request. No action need be taken, since the link node (LN) will be restored by the existing maintenance request.
MIRA ABORTED RESTORE BY REQUEST	The restoration request was aborted by request (such as, STOP:DMQ). Resubmit the restoration request.
RESTORE REQUEST TIMED OUT	The restoration did not finish before a timer expired. This may be due to other LN maintenance activity. An attempt will be made to abort the restore request. The status of the restoration can be verified with the OP:DMQ command. If the original restoration request is still active it should be stopped using the STOP:DMQ command. Also check (OP:DMQ) for other LN maintenance activity (active or requested). If there is LN maintenance activity, wait until it has completed, then resubmit the restoration request. Otherwise, resubmit the restoration request.

Note: The automatic ring recovery (ARR) routine, unless it is inhibited, will attempt automatic recovery of OOS IUN(s) shortly after the level 4 IMS initialization has completed.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:LN
RST:LN
```

Output Message(s):

```
REPT:ARR-AUTORST
REPT:IMSDRV-INIT
REPT:IUN-INIT
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

REPT:IUN-STRT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT IUN STRT
  CAN NOT RESTART IUN(S) OF TYPE a
```

2. REASON FOR OUTPUT

To report that there are zero interprocessor message switch (IMS) user node (IUNs) in this group. All of these IUNs are eligible to be restarted and have one or more files in common.

This is caused by one of the following factors in any combination:

- A pump (down load) of an IUN's data file failed. This could occur for multiple IUN(s).
- At least one IUN is in the isolated ring segment.
- At least one IUN is faulty and no attempt will be made to pump (down load) it.

This message will only be printed during an IMS Level 4 initialization.

3. VARIABLE FIELD DEFINITIONS

`a` = Name of a group of IUNs having one or more files in common.

4. ACTION TO BE TAKEN

After the initialization is finished, diagnose and restore any out-of-service (OOS) IUNs.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT:IUN-INIT
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

83. REPT:K

REPT:KAUDPRC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT KAUDPRC FAULT CODE a [AUDIT b c]
```

2. REASON FOR OUTPUT

To report that the kernel audit process was faulted.

3. VARIABLE FIELD DEFINITIONS

a = Fault code, in hexadecimal notation.

b = Name of audit running when fault occurred, if an audit was running. Valid value(s):
- MMGR = Memory manager audits.
- MSGBUF = Message buffer audits.
- PROAD = Process administration audits.

c = Audit member. Valid value(s):

If 'b' =	'c' =
MMGR	1 = Segment descriptor table (SDT) audit. 2 = Page table (PGT) audit. 3 = Page descriptor table (PDT) audit. 4 = Segment release audit. 5 = Segment unlock audit.
MSGBUF	1 = Message queue audit. 2 = Message extender audit.
PROAD	1 = Process creation and termination audits.

4. ACTION TO BE TAKEN

Report the occurrence of the message if an audit is identified in the message.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	332

Output Appendix(es):

APP:OMDB-X-REF

Other Manual(s):
235-600-400 *Audits*

84. REPT:L

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REPT:LDSF-TDCS

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LDSF=a-b TRBL DSC3 COM SERV REQ FAILURE c
  d RECOVERY ACTION e
  f g h
  i j k
  ERROR ANALYSIS l m n
```

2. REASON FOR OUTPUT

To respond to a maintenance service request pertaining to a digital service circuit-model 3 (DSC3) of the local digital services function (LDSF).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = LDSF number.

`c` = Event number, which is the time sequence indicator.

`d` = Error type. Valid value(s):

`DSC ERROR REPORTED, NONE FOUND` = The software copy of the circuit (DSC3) fault or DSC3 parity error mask does not match the hardware, or the mask is ineffective.

`DSCCOM CLOCK FAILURE` = There are problems with the distribution of the 4 Mhz clock or the 8 kHz sync to the DS3 circuit.

`DSCCOM TS ERR, NO SOURCE DET` = The DSC3 error source register (variable '`f`') indicates a DSCCOM time slot parity error, but no bit is set in the parity error register.

`DSCCOM TS PARITY ERROR` = There is a failure of the time slot select register on the DSC3.

`DSCCOM TSSR FAILURE` = There is a failure of the time slot select register on the DSC3.

`DSC3 INTERRUPT TEST BIT SET` = This bit should never be set. It is for diagnostic purposes only.

`INTERRUPT THROUGH MASK FAILURE` = The software copy of the DSC3 error source mask register (variable '`k`') does not match the hardware or the mask is ineffective.

`MULTIPLE FAILURE INDICATIONS` = More than one failure was found for a single service request.

`PICB FAILURE DURING DSC3 SRCE ANAL` = A PICB failure occurred while attempting to read registers on a DSC3.

`PICB FAILURE IN DSCCOM SRCE ANAL` = A PICB failure occurred while attempting to read registers on the DSC3. Register information is not valid.

`e` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is provided for additional information.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.

`INITIALIZE` = The failing circuit has been reinitialized.

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`RMV` = The failing circuit is removed from service. Intervention is required to change the state of the circuit. A report from the maintenance request administrator (MRA) prints after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit is diagnosed when it is available. A report prints with the results of the diagnostic.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A report prints with the results of the diagnostic.

`f` = DSC3 error source register (ESR).

`g` = DSC3 fault register.

`h` = DSC3 parity error register.

`i` = Software copy of the DSC3 ESR mask register. The mask register cannot be read.

`j` = Software copy of the DSC3 fault mask register. The mask register cannot be read.

`k` = Software copy of the DSC3 parity error mask register. The mask register cannot be read.

`l` = External logical circuit name.

Note: Up to nine logical circuit names, error counts, and error thresholds (variables '`n`'-'`p`') may be printed.

`m` = Current decimal number of recent failures of this type recorded.

`n` = Error count threshold, above which the unit is conditionally removed.

4. ACTION TO BE TAKEN

Use the Corrective Maintenance manual to determine what action should be taken with the faulty unit and with any receive-only printer (ROP) output.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:LDSF-TDOE

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LDSF=a-b TRBL DSC3 OPERATIONAL ERROR EVENT=c
  d RECOVERY ACTION e
  f g h
  i
```

2. REASON FOR OUTPUT

To respond to an operational error on the local digital services function - model 3 (LDSF3). This report is for SM-2000 only.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = LDSF number.

`c` = Event number (the time sequence indicator).

`d` = Error type. Valid value(s):
`DSC3 TERMINAL PROCESS TIMEOUT` = A peripheral control process timed out waiting for a response from LDSF.
`DSC3 FIFO UNDERFLOW - UCI FIFO` = An attempt was made to read an empty first in first out (FIFO) universal control interface (UCI) mode register.
`DSC3 INVALID FIFO REPORT` = A FIFO report was received for a non-existent LDSF subtending circuit.
`DSC3 INVALID TONE DECODER REPORT` = The contents of the report, received by peripheral control (PC) from a tone decoder was invalid.
`DSC3 INVALID TONE GENERATOR REPORT` = The contents of the report, received by PC from a tone generator was invalid.
`DSC3 INVALID TONE TRANSCEIVER RPT` = An invalid report was received by PC from a tone transceiver.
`DSC3 UNEXPECTED TONE DECODER REPORT` = A service request was received on an idle tone decoder.
`DSC3 UNEXPECTED TONE GENERATOR REPORT` = A service request was received on an idle tone generator.
`DSC3 UNEXPECTED TONE TRANSCEIVER RPT` = A service request was received on an idle tone transceiver.
`DSC3 UNEXPECTED FIRST PULSE` = This fault indicates that two (or more) first dial pulse messages have been received for a single dial pulse reception session.
`DSC3 ERROR TYPE 2` = Control order failure during SA.

`e` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is provided for additional information.
`RMV` = The failing circuit is removed from service. Intervention is required to change the

state of the circuit. A report prints after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit is diagnosed when it is available. A report prints with the results of the diagnostic.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A report prints with the results of the diagnostic.

`f` = External logical circuit name.

`g` = Current decimal number of recent failures of this type recorded.

`h` = Error count threshold, above which the unit is conditionally removed.

`i` = Hexadecimal numbers representing internal registers containing additional troubleshooting information.

4. ACTION TO BE TAKEN

Use the Corrective Maintenance manual to determine what action should be taken with the faulty unit and with any receive-only printer (ROP) output.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:LDSF-TDSR

Software Release: 5E10 and later
Message Class: VAR
Application: 5
Type: Output

1. FORMAT

```
REPT LDSF=a-b TRBL DSC3 SERVICE REQUEST FAILURE EVENT=c
  d RECOVERY ACTION e
  f g h
  i j k l m [n n n]
  [n n n]
```

2. REASON FOR OUTPUT

To respond to a maintenance service request pertaining to a local digital services function - model 3 (LDSF3). This report is for SM-2000 only.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = LDSF number.

c = Event number (the time sequence indicator).

d = Error type. Valid value(s):

```
DSC3 NO ERROR SOURCE FOUND
DSC3 INTERRUPT THRU MASK FAILURE
DSC3 DATA PARITY FAILURE
DSC3 MP UCI READ PARITY ERROR
DSC3 LP UCI READ PARITY ERROR
DSC3 FIFO A UNDERFLOW
DSC3 FIFO A OVERFLOW
DSC3 FIFO B UNDERFLOW
DSC3 FIFO B OVERFLOW
DSC3 FIFO A ERROR
DSC3 FIFO B ERROR
DSC3 MP ADDRESSING ERROR
DSC3 LP ADDRESSING ERROR
DSC3 PARITY WRITE PROTECT ERROR
DSC3 LP CLOCK FAILURE
DSC3 LP SANITY TIMER TIMEOUT
DSC3 PIDB0 SIDE 1 CLOCK OR SYNC FAILURE
DSC3 PIDB0 SIDE 0 CLOCK OR SYNC FAILURE
DSC3 HIGH LEVEL FIRMWARE ERROR
DSC3 LOW LEVEL FIRMWARE ERROR
DSC3 COMMON MEMORY PACK ERROR
DSC3 INTERNAL DATA ERROR
DSC3 MAINTENANCE PROCESS TIMEOUT
DSC3 INTERNAL COMMUNICATION ERROR
DSC3 INTERNAL DSP ERROR
DSC3 INTERNAL HARDWARE ERROR
```

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`e` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is provided for additional information.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`INITIALIZED` = The failing circuit has been reinitialized.
`RMV` = The failing circuit is removed from service. Intervention is required to change the state of the circuit. A RMV:LDSF report prints.
`RST AUTO CAMPON` = The failing circuit is diagnosed when it is available. A DGN report prints.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A report prints with the results of the diagnostic.

`f` = Unit type, SM number and unit number.

`g` = Error count.

`h` = Threshold for error.

`i` = Hardware error source mask register.

`j` = Hardware error source register.

`k` = Firmware error source register low byte. Firmware error source mask register high byte.

`l` = Summary scan mask register.

`m` = Summary scan register.

`n` = Valid value(s):

If 'd' =	'n' =
`DSC3 HIGH LEVEL FIRMWARE ERROR`	Descriptor 7 information.
`DSC3 LOW LEVEL FIRMWARE ERROR`	Descriptor 6 information.
Any other firmware error.	Descriptor 0-5.

4. ACTION TO BE TAKEN

Use the Corrective Maintenance manual to determine what action should be taken with the faulty unit and with any receive-only printer (ROP) output.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
RMV:LDSF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:LDSF-TPCF-A

Software Release: 5E10 only
Message Class: VAR
Application: 5
Type: Output

1. FORMAT

```
REPT LDSF=a-b TRBL PICB CONTROL FAILURE EVENT=c
  d RECOVERY ACTION e
  f g h i
  j k l
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the local digital services function - model 3 (LDSF3). This report is for SM-2000 only.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local digital services function (LDSF) number.

`c` = Event number (the time sequence indicator).

`d` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`e` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is provided for additional information.

`RMV` = The failing circuit is removed from service. Intervention is required to change the state of the circuit. A RMV:LDSF report prints after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit is diagnosed when it is available. A report prints with the results of the diagnostic.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A report prints with the results of the diagnostic.

`f` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`g` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`h` = Data being written to the periphery by the CI.

`i` = Contents of the CI error source register.

Note: Up to two logical circuit names, error counts, and error thresholds (variables '`j`' - '`l`') may be printed.

`j` = External logical circuit name.

`k` = Current decimal number of recent failures of this type recorded.

`l` = Error count threshold, above which unit is conditionally removed.

4. ACTION TO BE TAKEN

Use the Corrective Maintenance manual to determine what action should be taken with the faulty unit and with any receive-only printer (ROP) output.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
RMV:LDSF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:LDSF-TPCF-B

Software Release: 5E11 and later
Message Class: VAR
Application: 5
Type: Output

1. FORMAT

```
REPT LDSF=a-b TRBL PICB CONTROL FAILURE EVENT=c
  d RECOVERY ACTION e
  f g h i
  j k l m
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the local digital services function - model 3 (LDSF3). This report is for SM-2000 only.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local digital services function (LDSF) number.

`c` = Event number (the time sequence indicator).

`d` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`e` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is provided for additional information.

`RMV` = The failing circuit is removed from service. Intervention is required to change the state of the circuit. A RMV:LDSF report prints after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit is diagnosed when it is available. A report prints with the results of the diagnostic.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A report prints with the results of the diagnostic.

`f` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`g` = System PICB number in hexadecimal that was being written when the failure occurred.

`h` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

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`i` = Data being written to the periphery by the CI.

`j` = Contents of the CI error source register.

Note: Up to two logical circuit names, error counts, and error thresholds (variables '`k`' - '`m`') may be printed.

`k` = External logical circuit name.

`l` = Current decimal number of recent failures of this type recorded.

`m` = Error count threshold, above which unit is conditionally removed.

4. ACTION TO BE TAKEN

Use the Corrective Maintenance manual to determine what action should be taken with the faulty unit and with any receive-only printer (ROP) output.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
RMV:LDSF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:LDSF-TPPF

Software Release: 5E10 and later
Message Class: VAR
Application: 5
Type: Output

1. FORMAT

```
REPT LDSF=a-b TRBL PIDB PARITY FAILURE c
  d RECOVERY ACTION e
  f g h i
  fi
```

2. REASON FOR OUTPUT

To indicate that a parity error occurred on the local digital services function - model 3 (LDSF3) peripheral interface data bus (PIDB). This report is for SM-2000 only.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local digital services function (LDSF) number.

`c` = Even number, which is the time sequence indicator.

`d` = Error type. Valid value(s):
`DSC3 PARITY FAILURE` = A parity error was detected on a DSC3 PIDB.

`e` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is provided for additional information.
`RMV` = The failing circuit is removed from service. Intervention is required to change the state of the circuit. A RMV:LDSF report prints after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit is diagnosed when it is available. A report prints with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A report prints with the results of the diagnostic.

`f` = External logical circuit name.

`g` = Number of entries in PIDB parity error buffer.

`h` = Current decimal number of recent failures of this type recorded.

`i` = Error count threshold, above which the unit will be conditionally removed.

4. ACTION TO BE TAKEN

Use the Corrective Maintenance manual to determine what action should be taken with the faulty unit and with any receive-only printer (ROP) output.

5. ALARMS

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None.

6. REFERENCES

Output Message(s):

```
RMV:LDSF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:LDSU-TDCS

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LDSU=a-b TRBL DSU COM SERV REQ FAILURE c
  d RECOVERY ACTION e
  f g h i j
  k l m
  ERROR ANALYSIS n o p
```

2. REASON FOR OUTPUT

To respond to a maintenance service request pertaining to a digital service unit (DSU) common board on the local DSU (LDSU).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = LDSU number.

`c` = Event number.

`d` = Error type. Valid value(s):

`DSC ERROR REPORTED, NONE FOUND` = The software copy of the DSU subtending circuit (DSC) fault or DSC parity error mask does not match the hardware, or the mask is ineffective.

`DSCCOM CLOCK FAILURE` = There are problems with the distribution of the 4 Mhz clock or the 8Khz sync to the DSU common board.

`DSCCOM TS ERR, NO SOURCE DET` = The DSU error source register (variable '`f`') indicates a DSCCOM time slot parity error, but no bit is set in the parity error register.

`DSCCOM TS PARITY ERROR` = There is a failure of the time slot select register on the DSU common board.

`DSCCOM TSSR FAILURE` = There is a failure of the time slot select register on the DSU common board.

`DSU INTERRUPT TEST BIT SET` = This bit should never be set. It is for diagnostic purposes only.

`INTERRUPT THROUGH MASK FAILURE` = The software copy of the DSU common board error source mask register (variable '`k`') does not match the hardware or the mask is ineffective.

`MULTIPLE FAILURE INDICATIONS` = More than one failure was found for a single service request.

`PICB FAILURE DURING DSC SA` = A PICB failure occurred while attempting to read registers on a DSC board.

`PICB FAILURE IN DSCCOM SA` = A PICB failure occurred while attempting to read registers on the DSU common board. Register information is not valid.

`e` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is generated.

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`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`INITIALIZE` = The failing circuit has been reinitialized.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`f` = DSU common board error source register (ESR).

`g` = DSU common board DSC fault register.

`h` = DSU common board DSC parity error register.

`i` = DSU common board parity register for DSU common board time slots 16-31.

`j` = DSU common board parity register for DSU common board time slots 0-15.

`k` = Software copy of the DSU common board ESR mask register. The mask register cannot be read.

`l` = Software copy of the DSU common board DSC fault mask register. The mask register cannot be read.

`m` = Software copy of the DSU common board DSC parity error mask register. The mask register cannot be read.

Note: Up to nine logical circuit names, error counts, and error thresholds (variables '`n`'-'`p`') may be printed.

`n` = External logical circuit name.

`o` = Current decimal number of recent failures of this type recorded.

`p` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

The report is provided for long-term error analysis.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:LDSU-TDPF

Software Release: 5E10 and later
Message Class: VAR
Application: 5
Type: Output

1. FORMAT

```
REPT LDSU=a-b-c TRBL DATA PARITY FAILURE d
  e RECOVERY ACTION f
  g h i
```

2. REASON FOR OUTPUT

To indicate that a parity error occurred on the local digital service unit (LDSU) bus to the time-slot interchange (TSI).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Local DSU2 number.

`c` = Service group number.

`d` = Even number, which is the time sequence indicator.

`e` = Error type. Valid value(s):
`LOCAL DSU2 DATA PARITY FAILURE` = A parity error was detected on the local DSU2 bus.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. An RMV message will be printed after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = External logical circuit name.

`h` = Current decimal number of recent failures of this type recorded.

`i` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Other Manual(s):
235-105-220 *Corrective Maintenance*

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REPT:LDSU-TOEE

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LDSU=a-b-c TRBL OPERATIONAL ERROR EVENT = d
  e RECOVERY ACTION f
  gggghhhh iiiijjkk llllmmmm
  n  o  p
```

2. REASON FOR OUTPUT

To respond to an operational error pertaining to a digital service unit (DSU) common board on the local DSU common (LDSUCOM) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Local DSU number.

`c` = Service group number.

`d` = Event number.

`e` = Error type. Valid value(s):

`FIFO UNDERFLOW - UCI FIFO` = An attempt was made to read an empty first in first out (FIFO) universal control interface (UCI) mode register.

`INVALID FIFO REPORT` = A FIFO report was received for a non-existent LDSU subtending circuit.

`INVALID TONE DECODER REPORT` = The contents of the report, received by peripheral control (PC) from a tone decoder was invalid.

`INVALID TONE GENERATOR REPORT` = The contents of the report, received by PC from a tone generator was invalid.

`INVALID TONE TRANSCEIVER REPORT` = An invalid report was received by PC from a tone transceiver.

`NO ERROR SOURCE FOUND` = An invalid operational fault type was received from PC subsystem.

`TERMINAL PROCESS TIMEOUT` = A peripheral control process timed out waiting for a response from LDSU.

`UNEXPECTED FIRST PULSE` = This fault indicates that two (or more) first dial pulse messages have been received for a single dial pulse reception session.

`UNEXPECTED TONE DECODER REPORT` = A service request was received on an idle tone decoder.

`UNEXPECTED TONE GENERATOR REPORT` = A service request was received on an idle tone generator.

`UNEXPECTED TONE TRANSCEIVER REPORT` = A service request was received on an idle tone transceiver.

`f` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = This report is generated.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

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`g` = Contents of the DSU common board hardware error mask register.

`h` = Contents of the DSU common board hardware error register.

`i` = Contents of the DSU common board firmware error mask register.

`j` = Contents of the DSU common board firmware error source register.

`k` = Contents of the DSU common board summary scan mask register.

`l` = Contents of the DSU common board summary scan register.

`m` = Not used; should always set to 0.

`n` = External logical unit name of the implicated hardware (that is, LSDU=9-0-0 or UTG=1-1-0).

`o` = Number of errors of this type on this logical unit.

`p` = Error threshold for recovery action.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the LDSUCOM from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:LDSUCOM
RMV:LDSUCOM
RST:LDSUCOM
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:LDSU-TPCF-A

Software Release: 5E10 only
Message Class: VAR
Application: 5
Type: Output

1. FORMAT

```
REPT LDSU=a-b-c TRBL PICB CONTROL FAILURE EVENT=d
  e RECOVERY ACTION f
  g h i j
  k l m
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the local digital service unit - model 2 (DSU2).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local DSU2 number.

`c` = Service group number.

`d` = Event number, which is the time sequence indicator.

`e` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`f` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is provided.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A RMV message will be printed after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`h` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

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`i` = Data being written to the periphery by the CI.

`j` = Contents of the CI error source register.

Note: Up to two logical circuit names, error counts, and error thresholds (variables '`k`'-'`m`') may be printed.

`k` = External logical circuit name.

`l` = Current decimal number of recent failures of this type recorded.

`m` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:LDSU-TPCF-B

Software Release: 5E11 and later
Message Class: VAR
Application: 5
Type: Output

1. FORMAT

```
REPT LDSU=a-b-c TRBL PICB CONTROL FAILURE EVENT=d
  e RECOVERY ACTION f
  g h i j
  k l m n
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the local digital service unit - model 2 (DSU2).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local DSU2 number.

`c` = Service group number.

`d` = Event number, which is the time sequence indicator.

`e` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`f` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is provided.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A RMV message will be printed after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`h` = System PICB number in hexadecimal that was being written when the failure occurred.

`i` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was

writing when the failure occurred.

`j` = Data being written to the periphery by the CI.

`k` = Contents of the CI error source register.

Note: Up to two logical circuit names, error counts, and error thresholds (variables '`l`'-'`n`') may be printed.

`l` = External logical circuit name.

`m` = Current decimal number of recent failures of this type recorded.

`n` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:LDSU-TSRF

Software Release: 5E10 and later
Message Class: VAR
Application: 5
Type: Output

1. FORMAT

```
REPT LDSU=a-b-c TRBL SERV REQ FAILURE d
  e RECOVERY ACTION f
  g h i j k l m n
  o p q
```

2. REASON FOR OUTPUT

To respond to a maintenance service request pertaining to a digital service unit - Model 2.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local DSU2 number.

`c` = Service group number.

`d` = Event number, which is the time sequence indicator.

`e` = Error type. Valid value(s):

```
DATA BUS 0 CLOCK FAILURE
DATA BUS 1 CLOCK FAILURE
EXPANSION PACK ERROR
FIFO ERROR
HIGH LEVEL FIRMWARE ERROR
INTERNAL COMMUNICATION ERROR
INTERNAL DATA ERROR
INTERNAL DSP ERROR
INTERNAL HARDWARE ERROR
INTERRUPT THRU MASK FAILURE
LOW LEVEL FIRMWARE ERROR
LP ADDRESSING ERROR
LP CLOCK FAILURE
LP ERROR
LP MEMORY ERROR
LP READ PARITY ERROR
MAINTENANCE PROCESS TIME OUT
MP ADDRESSING ERROR
MP READ PARITY ERROR
NO ERROR SOURCE FOUND
```

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.

`INITIALIZED` = The failing circuit has been reinitialized.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A RMVLDSU message will occur.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A DGN message will occur.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = Hardware error source register.

`h` = Hardware error source mask register.

`i` = Firmware error source register low bit. Firmware error source mask register high bit.

`j-q` = Logical processor raw data.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:LDSUCOM-TDCS

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LDSUCOM=a-b-c TRBL DSU COM SERV REQ FAILURE d
  e RECOVERY ACTION f
  g h i j k l m n
  o p q
```

2. REASON FOR OUTPUT

To respond to a maintenance service request pertaining to a digital service unit (DSU) common board on the local DSU common (LDSUCOM) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local DSU number.

`c` = Service group number.

`d` = Event number.

`e` = Error type. Valid value(s):

`DSC ERROR REPORTED, NONE FOUND` = The software copy of the DSU subtending circuit (DSC) fault or DSC parity error mask does not match the hardware, or the mask is ineffective.

`DSCCOM CLOCK FAILURE` = There are problems with the distribution of the 4 MHz clock or the 8KHz sync to the DSU common board.

`DSCCOM TS ERR, NO SOURCE DET` = The DSU error source register (variable '`g`') indicates a DSCCOM time slot parity error, but no bit is set in the parity error register.

`DSCCOM TS PARITY ERROR` = There is a failure of the time slot select register on the DSU common board.

`DSCCOM TSSR FAILURE` = There is a failure of the time slot select register on the DSU common board.

`DSU INTERRUPT TEST BIT SET` = This bit should never be set. It is for diagnostic purposes only.

`INTERRUPT THROUGH MASK FAILURE` = The software copy of the DSU common board error source mask register (variable '`l`') does not match the hardware or the mask is ineffective.

`MULTIPLE FAILURE INDICATIONS` = More than one failure was found for a single service request.

`PICB FAILURE DURING DSC SA` = A PICB failure occurred while attempting to read registers on a DSC board.

`PICB FAILURE IN DSCCOM SA` = A PICB failure occurred while attempting to read registers on the DSU common board. Register information is not valid.

`f` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is generated.

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`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`INITIALIZE` = The failing circuit has been reinitialized.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = DSU common board error source register (ESR).

`h` = DSU common board DSC fault register.

`i` = DSU common board DSC parity error register.

`j` = DSU common board parity register for DSU common board time slots (16-31).

`k` = DSU common board parity register for DSU common board time slots (0-15).

`l` = Software copy of the DSU common board ESR mask register. The mask register cannot be read.

`m` = Software copy of the DSU common board DSC fault mask register. The mask register cannot be read.

`n` = Software copy of the DSU common board DSC parity error mask register. The mask register cannot be read.

Note: Up to nine logical circuit names, error counts, and error thresholds (variables '`o`'-'`q`') may be printed.

`o` = External logical circuit name.

`p` = Current decimal number of recent failures of this type recorded.

`q` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:LDSUCOM-TDDS

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LDSUCOM=a-b-c TRBL DSU DSC SERV REQ FAILURE d
  e RECOVERY ACTION f
  g h i j k l m n o p q
  r s t
```

2. REASON FOR OUTPUT

To respond to a maintenance service request from a digital service unit (DSU) subtending circuit on the local digital service unit common (LDSUCOM) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local digital service unit number.

`c` = Service group number.

`d` = Event number.

`e` = Error type. Valid value(s):
`DSC CLOCK FAILURE` = There are problems with the distribution of the 4 Mhz clock or the 8 Khz sync to the DSU subtending circuit (DSC).
`DSC DETECTED TS PARITY ERROR` = The DSC detected a parity error on data received from the DSU common board.
`DSC FLT REPORTED, NONE FOUND` = A DSC fault is indicated on the DSU common board, but no bits are set in the DSC fault register.
`DSC INTERNAL FAILURE` = An internal failure is detected on the DSC.
`DSC TSSR FAILURE INDICATION` = There is a failure pertaining to the time slot select register (TSSR) on the DSC.
`NO DSC PARITY ERROR FOUND` = A DSC parity error is indicated on the DSU common board, but no bits are set in the DSC parity error register.

`f` Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = Software failure has been detected and system integrity has been notified.
`INITIALIZE` = The failing circuit has been reinitialized.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

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g = DSU common board error source register (ESR).

h = DSU common board DSC fault register.

i = DSU common board DSC parity error register.

j = DSU common board parity register for DSU common board time slots (16-31).

k = DSU common board parity register for DSU common board time slots (0-15).

l = Software copy of the DSU common board ESR mask register. The mask register cannot be read.

m = Software copy of the DSU common board DSC fault mask register. The mask register cannot be read.

n = Software copy of the DSU common board DSC parity error mask register. The mask register cannot be read.

o = Fault register on the failing DSU subtending circuit.

p = Parity register for the data coming to the DSU subtending circuit on DSU time slots 16-31.

q = Parity register for the data coming to the DSU subtending circuit on DSU time slots 0-15.

Note: Up to nine logical circuit names, error counts, and error thresholds (variables 'r'-'t') may be printed.

r = External logical circuit name.

s Current decimal number of recent failures of this type recorded.

t Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

The report is provided for long-term error analysis.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:LDSUCOM-TLDB

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LDSUCOM=a-b-c TRBL LOCAL DSU BUS ERROR d
  e RECOVERY ACTION f
  ERROR ANALYSIS g h i
```

2. REASON FOR OUTPUT

To indicate that a parity error occurred on the local digital service unit (LDSU) bus to the time-slot interchange (TSI).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local DSU number.

`c` = Service group number.

`d` = Event number.

`e` Error type. Valid value(s):
`LOCAL DSU DATA PARITY ERROR` = A parity error was detected on the local DSU bus into the TSI.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = External logical circuit name.

`h` = Current decimal number of recent failures of this type recorded.

`i` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

This report is provided for long-term error analysis.

5. ALARMS

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None.

6. REFERENCES

Input/Output Messages:

None.

REPT:LDSUCOM-TLDD

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LDSUCOM=a-b-c TRBL LOCAL DSU DATA PARITY FAILURE d
  LOCAL DSU DATA PARITY ERROR RECOVERY ACTION f
  g h i
```

2. REASON FOR OUTPUT

To indicate that a parity error occurred on the local digital service unit (LDSU) bus to the time-slot interchange (TSI).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local DSU number.

`c` = Service group number.

`d` = Event number.

`f` = Recovery action. Valid value(s):
- `ANALYSIS ONLY` = A post mortem report is generated.
- `RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
- `RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
- `RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = External logical circuit name.

`h` = Current decimal number of recent failures of this type recorded.

`i` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:LDSUCOM-TPCF-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LDSUCOM=a-b-c TRBL PICB CONTROL FAILURE EVENT=d
  e  RECOVERY ACTION f
  g  h  i  j
  k  l  m
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the local digital service unit common (LDSUCOM) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local digital service unit number.

`c` = Service group number.

`d` = Event number.

`e` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`f` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is provided.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`h` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

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`i` = Data being written to the periphery by the CI.

`j` = Contents of the CI error source register.

Note: Up to two logical circuit names, error counts, and error thresholds (variables '`k`'-'`m`') may be printed.

`k` = External logical circuit name.

`l` = Current decimal number of recent failures of this type recorded.

`m` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:LDSUCOM-TPCF-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LDSUCOM=a-b-c TRBL PICB CONTROL FAILURE EVENT=d
  e  RECOVERY ACTION f
  g  h  i  j
  k  l  m  n
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the local digital service unit common (LDSUCOM) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local digital service unit number.

`c` = Service group number.

`d` = Event number.

`e` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`f` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is provided.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`h` = System PICB number in hexadecimal that was being written when the failure occurred.

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`i` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`j` = Data being written to the periphery by the CI.

`k` = Contents of the CI error source register.

Note: Up to two logical circuit names, error counts, and error thresholds (variables '`l`'-'`n`') may be printed.

`l` = External logical circuit name.

`m` = Current decimal number of recent failures of this type recorded.

`n` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:LDSUCOM-TUSR

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LDSUCOM=a-b-c TRBL UNEXPECTED SERVICE REQUEST d
  e RECOVERY ACTION f
  g
  h    i    j
```

2. REASON FOR OUTPUT

To report an unexpected service request on the local digital service unit (DSU) common (LDSUCOM) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local DSU number.

`c` = Service group number.

`d` = Event number.

`e` = Error type. Valid value(s):

```
DSU OPERATIONAL SERVICE REQ
MULTIPLE ST PULSES
PARTIAL DIAL
```

`f` Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`INITIALIZE` = The failing circuit has been reinitialized.
`REPT TO TERMINAL MAINT` = Terminal maintenance has been notified of the failure.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`g` = Source analysis data (optional).

`h` = External logical circuit name.

`i` = Current decimal number of recent failures of this type recorded.

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j = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:LEN-TLOT

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LEN=a-b-c-d-e-f TRBL LU OPERATIONAL TEST FAILURE EVENT = g
  h  RECOVERY ACTION i
  j  k  l  m
  n  o  p
  [q]
```

2. REASON FOR OUTPUT

To respond to a reported failure during an operational test (such as call setup) on the line unit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Grid number.

`d` = Switch board number.

`e` = Switch number.

`f` = Level number.

`g` = Event number.

`h` = Secondary error type. Valid value(s):

```
CUTOFF XP STUCK CLOSED
EXERCISE-CLOSED CUTOFF XP
EXERCISE-OPEN CUTOFF XP
SCANNER STUCK OFF HOOK
SCANNER STUCK ON HOOK
SUPRVSN XFER LINE FAILURE
```

`i` Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is generated.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.

`REPORT TO TERMINAL MAINT` = Terminal maintenance has been notified of the failure.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.

`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message

will be printed with the results of the diagnostic.

j	= Line unit channel logical circuit name.
k	= Line unit high level service circuit logical circuit name.
l	= Line unit A-link logical circuit name.
m	= Line equipment number (LEN).
n	= External logical circuit name.
o	= Current decimal number of errors recorded.
p	= Error count threshold, above which the recovery action will be escalated.
q	= Raw data used to compute logical circuit names.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:LIB

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT LIB TEAM   a    b    c    d
```

2. REASON FOR OUTPUT

To report an autonomous change of state for one of the library programs. This message is used when the change of state was not directly tied to a particular input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Team number.

`b` = Administrative module (AM) flag. Valid value(s):
- `Y` = AM is reporting.
- `N` = AM is not reporting.

`c` = Switching module (SM) number. Default is that SM is not reporting.

`d` = Status. Valid value(s):

```
PROGRAM CLEARED
PROGRAM STOPPED NORMALLY
PROGRAM STOPPED ABNORMALLY
```

4. ACTION TO BE TAKEN

No specific action is recommended. Continue with testing based on this report.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:LIBC-ARGU

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
REPT LIBC ARGUMENTS TO FUNC a UTID: b
  c
```

2. REASON FOR OUTPUT

To report arguments to the faulting function and to the function which called the faulting function.

3. VARIABLE FIELD DEFINITIONS

`a` = Address of the faulting instruction or the caller of the faulting function. This will identify the function to which these arguments refer.

`b` = Utility ID of the process that faulted.

`c` = List of arguments to the function (to a maximum of 14) from the stack.

4. ACTION TO BE TAKEN

This is a supplementary message to REPT:LIBC-FAULT. No separate action is required if actions are taken for REPT:LIBC-FAULT message.

5. ALARMS

None. This is an automatically generated report.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	677

Output Message(s):

```
REPT:LIBC-FAULT
REPT:LIBC-PROGRAM
REPT:LIBC-SAVE
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

REPT:LIBC-EFCF

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT LIBC ERROR FORK COPYSEG FAILED RET d
        PNAME:a PID:b UTID:c

[2]   ____________________________________________________________________
      REPT LIBC ERROR FORK ADDSEG FAILED FOR PCB
        PNAME:a PID:b UTID:c

[3]   ____________________________________________________________________
      REPT LIBC ERROR FORK COPYSEG FAILED FOR PCB
        RET d PNAME:a PID:b UTID:c

[4]   ____________________________________________________________________
      REPT LIBC ERROR FORK PFORK1 FAILED
        PNAME:a PID:b UTID:c

[5]   ____________________________________________________________________
      REPT LIBC ERROR FORK PFORK2 FAILED
        PNAME:a PID:b UTID:c
```

2. REASON FOR OUTPUT

To report that an error prevented a *UNIX*® process from creating a new process with the fork system call.

Format 1 is printed when the process could not duplicate all segments of its address space.

Format 2 is printed when the process could not add the new process control block (PCB) segment to its address space.

Format 3 is printed when the process could not create a copy of its PCB segment.

Formats 4 and 5 are printed if the new process could not be created because of other system limitations. This condition may be temporary.

3. VARIABLE FIELD DEFINITIONS

`a` = Process name from the PCB.

`b` = Process number.

`c` = Utility ID.

`d` = Return value from an unsuccessful request.

4. ACTION TO BE TAKEN

If the condition persists, file an operational trouble report accompanied with the output message.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1, 3	350
2, 4, 5	351

Output Appendix(es):

APP:OMDB-X-REF

REPT:LIBC-ESCN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT LIBC ERROR START COULD NOT OPEN ROOT DIRECTORY
  ERRNO d PNAME:a PID:b UTID:c
```

2. REASON FOR OUTPUT

To report that a *UNIX*® process created by the process manager failed to open the root directory of the file system. This occurred during the initialization for the *UNIX*® process.

3. VARIABLE FIELD DEFINITIONS

`a` = Process name from the process control block (PCB).

`b` = Process number.

`c` = Utility ID.

`d` = System error code. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

File an operational trouble report accompanied by the output message.

5. ALARMS

None.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	352

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

REPT:LIBC-EXEC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

[1]
```
REPT LIBC ERROR EXEC ADDSEG FAILED SEG
  NUMBER e FNAME:d PNAME:a PID:b UTID:c
```

[2]
```
REPT LIBC ERROR EXEC ALOCSEG FAILED
  FNAME:d PNAME:a PID:b UTID:c
  SIZE:f SNAME: g
```

[3]
```
REPT LIBC ERROR EXEC CHANGE ATTRIB FAILED
  FNAME:d PNAME:a PID:b UTID:c
  ATTRIB: [stat|dyn] PRI:i TSLICE:j SHLIB:k l
```

[4]
```
REPT LIBC ERROR EXEC SET CLASS FAILED CLASS m
  FNAME:d PNAME:a PID:b UTID:c
```

[5]
```
REPT LIBC ERROR EXEC CHGPCB FAILED PCB SIZE r
  FNAME:d PNAME:a PID:b UTID:c
```

[6]
```
REPT LIBC ERROR EXEC BAD LIB HEAD DATA
  LIBNAME:n FILEMAGIC:s AOUTMAGIV:t SEGMAPS:u
  FNAME:d PNAME:a PID:b UTID:c
```

[7]
```
REPT LIBC ERROR EXEC LIB HEAD READ FAILED
  ERRNO o LIBNAME:n FNAME:d PNAME:a PID:b
  UTID:c
```

[8]
```
REPT LIBC ERROR LIB HEAD OPEN FAILED
  ERRNO o LIBNAME:n FNAME:d PNAME:a
  PID:b UTID:c
```

[9]
```
REPT LIBC ERROR EXEC BAD SHLIB PATH DATA IN
  PFILE HPATH p NAME:d PNAME:a PID:b UTID:c
```

[10]
```
REPT LIBC ERROR EXEC UNAVAILABLE LIB SEGCODE
  ERRNO o LIBNAME:n FNAME:d PNAME:a PID:b UTID:c
```

[11]
```
REPT LIBC ERROR EXEC BAD SEG INDEX
```

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```
        FNAME:d PNAME:a PID:b UTID:c
        INDEX:v SEGDESC:q

[12]    ____________________________________________________________________
      REPT LIBC ERROR EXEC SEGMENT OVERLAY
        FNAME:d PNAME:a PID:b UTID:c
        INDEX:v SEGDESC:q

[13]    ____________________________________________________________________
      REPT LIBC ERROR EXEC BAD PCB INDEX
        FNAME:d PNAME:a PID:b UTID:c
        INDEX:v SEGDESC:q

[14]    ____________________________________________________________________
      REPT LIBC ERROR EXEC SEG READ FAILED ERRNO o
        FNAME:d PNAME:a PID:b UTID:c

[15]    ____________________________________________________________________
      REPT LIBC ERROR EXEC NO AVAILABLE SEG NUMBER
        FNAME:d PNAME:a PID:b UTID:c

[16]    ____________________________________________________________________
      REPT LIBC ERROR EXEC BAD STACK INDEX
        FNAME:d PNAME:a PID:b UTID:c
        INDEX:v SEGDESC:q

[17]    ____________________________________________________________________
      REPT LIBC ERROR EXEV ADDSEG FAILED FOR TEMP
        SEGMENT FNAME:d PNAME:a PID:b UTID:c

[18]    ____________________________________________________________________
      REPT LIBC ERROR EXEV ALOCSEG FAILED FOR TEMP
        SEGMENT FNAME:d PNAME:a PID:b UTID:c
```

2. REASON FOR OUTPUT

To report that a *UNIX*® process was overlaying itself with another image and an unexpected error occurred.

Format 1 is printed when a new segment could not be added to the address space.

Format 2 is printed when a new segment could not be allocated.

Format 3 is printed when the process attributes could not be changed.

Format 4 is printed when the process class could not be set.

Format 5 is printed when CHGPCB failed when setting the profiling address. MAXSEG error occurs when the CHGPCB OST fails to change the segment list size when executing a child with a different number of segments than the parent. PCBSIZE error occurs when the PCB could not be grown or shrunk for the new process identified in FNAME.

Format 6 is printed when a shared library file header contained bad data.

Format 7 is printed when a shared library file could not be read.

Format 8 is printed when a shared library file could not be opened.

Format 9 is printed when the new process image's file contained invalid shared library data.

Format 10 is printed when a segment name template could not be obtained for a shared library file.

Format 11 is printed when a segment index in the file header was invalid.

Format 12 is printed when a segment overlay in the process being executed.

Format 13 is printed when the PCB data in the file header was invalid.

Format 14 is printed when a segment image could not be read from a file.

Format 15 is printed when a segment number for a new segment could not be found.

Format 16 is printed when the stack data in the file header was invalid.

Format 17 is printed when a temporary segment could not be added to the address space.

Format 18 is printed when a temporary segment could not be allocated.

3. VARIABLE FIELD DEFINITIONS

`a` = Process name from the process control block (PCB). For some cases, this may be NULL.

`b` = Process number.

`c` = Utility ID.

`d` = Name of the file in which the error happened. In some cases, the name will have the utility ID as a prefix.

`e` = Segment number of the one that could not be attached.

`f` = Size of the requested segment.

`g` = Name of the requested segment.

`h` = Static or dynamic priority indicator.

`i` = Priority requested.

`j` = Time slice requested.

`k` = Shared library bits.

`l` = Shared library bits.

`m` = Class requested.

`n` = Name of the shared library.

`o` = System error code. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

`p` = Invalid path data.

`q` = File's invalid segment descriptor.

`r` = Profiling address, or the new segment list size, of the new PCB size.

`s` = Magic number in file header.

`t` = Magic number in a.out header.

`u` = Number of segment maps.

`v` = Segment index of bad segment in pfile.

4. ACTION TO BE TAKEN

File an operational trouble report accompanied by the message. Many conditions indicate a file whose data have been damaged.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

```
APP:SYSERR
```

REPT:LIBC-FAULT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT LIBC FAULT IN d FLTCODE e PA f
  PNAME:a PID:b UTID:c
```

2. REASON FOR OUTPUT

To report that a *UNIX*® process caused a software fault that made it terminate.

3. VARIABLE FIELD DEFINITIONS

`a` = Process name from the process control block (PCB).

`b` = Process number.

`c` = Utility ID of the process that faulted.

`d` = A general indicator of what caused the fault. Valid value(s):

`LIB`	= The *UNIX*® portion of the library.
`SBTRACE`	= The stack back trace execution.
`USER`	= The process itself.

`e` = Fault number. Refer to the APP:FAULT-CODE appendix in the Appendixes section of the Output Messages manual.

`f` = Program address at which the fault occurred. In some cases, this value may point at the next instruction.

4. ACTION TO BE TAKEN

File an operational trouble report accompanied by a REPT:LIBC-PROGRAM, REPT:LIBC-SAVE, REPT:LIBC-ARGU or another REPT:LIBC-FAULT output message. In some cases, a file will be created in /cdmp that contains an image of the process when it terminates. The file's name will be the same as variable field '`a`' in the output message.

If variable field '`d`' equals `USER` and variable field '`e`' equals `0xe1` (H'e1), a phase 1 has occurred, and the currently running supervisor or *UNIX*® process (indicated by variable field '`a`') is killed by sending it a phase fault (0xe1). This is part of the phase 1 recovery process, and the process is reporting that it has received a fault. The postmortem should be analyzed to determine the cause of the phase 1. If bit 31 of the process status word (PSW) in the postmortem is 0xa1 and the process indicated in variable field '`a`' was dumped into /cdmp, then save the core dump for analysis.

5. ALARMS

None.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

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6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	338

Output Message(s):

```
REPT:LIBC-ARGU
REPT:LIBC-PROGRAM
REPT:LIBC-SAVE
```

Output Appendix(es):

```
APP:FAULT-CODE
APP:OMDB-X-REF
```

REPT:LIBC-PROGRAM

Software Release: 5E10 and later
Message Class: MAINT
Application: 3B
Type: Output

1. FORMAT

```
REPT LIBC PROGRAM ADDRESS BACKTRACE UTID: a
  b
```

2. REASON FOR OUTPUT

To report the function addresses of the faulting process.

3. VARIABLE FIELD DEFINITIONS

`a` = Utility ID of the process that failed.

`b` = List of program addresses on the stack (to a maximum of 15) when the fault occurred. Listed in order of most recent to first.

4. ACTION TO BE TAKEN

This is a supplementary message to REPT:LIBC-FAULT. No separate action is required if actions are taken for the REPT:LIBC-FAULT message.

5. ALARMS

None.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	675

Output Message(s):

```
REPT:LIBC-ARGU
REPT:LIBC-FAULT
REPT:LIBC-SAVE
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

REPT:LIBC-SAVE

Software Release: 5E10 and later
Message Class: MAINT
Application: 3B
Type: Output

1. FORMAT

```
REPT LIBC SAVE REGISTERS UTID: a
  0-5: b c d e f g
  6-B: h i j k l m
```

2. REASON FOR OUTPUT

To report save-state registers (0 through 12) for the faulting process.

3. VARIABLE FIELD DEFINITIONS

`a` = Utility ID of the process that faulted.

`b-g` = Save-state registers RO, R1, R3, R4, R5.

`h-m` = Save-state registers R6, R7, R8, R9, R10, R11.

4. ACTION TO BE TAKEN

This is a supplementary message to REPT:LIBC-FAULT. No separate action is required if actions are taken for the REPT:LIBC-FAULT output message.

5. ALARMS

None. This is an automatically generated report.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	676

Output Message(s):

```
REPT:LIBC-ARGU
REPT:LIBC-FAULT
REPT:LIBC-PROGRAM
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

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REPT:LINE-PST

Software Release: 5E10 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
REPT LINE PST THRESH a MINUTES b LPST OCCURRENCES
```

2. REASON FOR OUTPUT

This message reports that the number of line permanent signals has exceeded a reporting threshold. Either the 5-minute interval permanent signal threshold or the variable interval (15, 30, 45, or 60 minute) permanent signal threshold has been exceeded.

A permanent signal is defined as a line that has been placed in the out-of-service maintenance high-and-wet (OOS MTCE HW) state. HW indicates that a line has gone off-hook and has not gone back on-hook.

Permanent signal treatment is a term that defines the actions taken after dial tone has been given and the system has timed out waiting for digits. Permanent signal treatment can be a recorded announcement followed by the receiver off-hook (ROH) tone, just the ROH tone, or no announcement or ROH tone. Once permanent signal treatment has been completed on a line, the line will be placed OOS MTCE HW if the line is still off-hook.

Not all lines that are placed OOS MTCE HW receive permanent signal treatment. They can be placed HW as a result of other call failures.

This message reports all occurrences of lines being placed OOS MTCE HW, whether or not permanent signal treatment was given.

3. VARIABLE FIELD DEFINITIONS

`a` = The threshold interval period, in minutes, that has been exceeded. Valid value(s):

- `5` = The five-minute interval threshold was exceeded.
- `15` = The 15-minute variable interval threshold was exceeded.
- `30` = The 30-minute variable interval threshold was exceeded.
- `45` = The 45-minute variable interval threshold was exceeded.
- `60` = The 60-minute variable interval threshold was exceeded.

The interval used for the variable interval is determined by a recent-changeable global office parameter. The threshold values for the 5-minute interval and the variable interval reports are also determined by global office parameters.

`b` = The number of line permanent signals (LPST) that have occurred in the reported interval.

4. ACTION TO BE TAKEN

Determine the cause of the excessive number of permanent signals. This message may indicate a damaged cable. It may be helpful to obtain a list of lines in the permanent signal (high and wet) state by using the input message OP:LIST.

If this switch is monitored by a Switching Control Center (SCC) and a repair service bureau (RSB), then the following may be done: During hours when the RSB is staffed, the SCC may inhibit this alarm from appearing on the alarm

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monitor at the SCC. During unstaffed hours at the RSB, however, refer this alarm to the regional RSB which provides twenty-four hour service.

5. ALARMS

Major.

6. REFERENCES

Input Message(s):

```
OP:LIST
```

REPT:LINKED-CALL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT a b LINKED CALL PROCESSING RESUMED
  STANDALONE DURATION cc:cc:cc EVENTRANGE d-e
```

2. REASON FOR OUTPUT

To inform the user that a switching module (SM) that was previously in stand-alone operation is now linked to the administrative module, and that the SM is able to do communication-linked call processing.

3. VARIABLE FIELD DEFINITIONS

`a` = SM type. Valid value(s):

`HSM`	= Host switching module.
`LSM`	= Local switching module.
`ORM`	= Optical remote switching module.
`RSM`	= Remote switching module.
`TRM`	= Two-mile optical remote switching module.

`b` = SM number.

`c` = Length of time the SM was in the stand-alone mode, in hours, minutes, and seconds.

`d` = First event number of the range.

`e` = Last event number of the range.

4. ACTION TO BE TAKEN

Back up customer-originated recent changes as soon as possible.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-190-100 *Feature Descriptions*
235-190-104 *ISDN Feature Descriptions*

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REPT:LN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT LNa b IS c
```

2. REASON FOR OUTPUT

To report the new state of a link node (LN). The new state change may only be entered through a manual request from the *UNIX*® RTR recent change and verify system (RC/V).

3. VARIABLE FIELD DEFINITIONS

`a` = Ring node (RN) group number.

`b` = Ring node member number.

`c` = New state. Valid value(s):

```
IN THE GROWTH STATE
OFFLINE
OUT OF SERVICE
UNAVAILABLE
UNEQUIPPED
```

4. ACTION TO BE TAKEN

None.

5. ALARMS

Minor alarm whenever a LN is removed from service.

6. REFERENCES

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-600-31x *ECD/SG*
235-190-120 *Common Channel Signaling Services Features*

REPT:LNUPD

Software Release: 5E12 and later
Message Class: SWM01
Application: CNI
Type: Output

1. FORMAT

[1]
```
REPT LNUPD LN

  THERE ARE NO SS7 NODES
```

[2]
```
REPT LNUPD LN

     LNa b IS NOT A SS7 NODE
```

[3]
```
REPT LNUPD LN

     UPDATE OF LNa b SUCCEEDED

     c c
```

[4]
```
REPT LNUPD LN

     UPDATE OF LN a b WAS ABORTED

     c c c c

     c c c c
```

[5]
```
REPT LNUPD LN

     UPDATE OF LNa b FAILED

     c c c c

     c c c c
```

[6]
```
REPT LNUPD LN

     LNUPD LN COMPLETED

     c (d)
```

[7]
```
REPT LNUPD LN

     LNUPD LN STOPPED
```

```
            c (d)

[8]   ____________________________________________________________________
      REPT LNUPD LN

            LNUPD LN ABORTED

            c (d)
```

2. REASON FOR OUTPUT

To print a response to a LNUPD:LN input message. Format 1 prints when ALL is specified in the input message and there are no SS7 nodes equipped. Format 2 prints when LNa b is specified in the input message and LNa b is a non-SS7 node. Format 3 prints when SS7 node LNa b was successfully updated. Format 4 prints when an update attempt on SS7 node LNa b was aborted. This will occur if the node is not an active SS7 node. If the node is active, it will continue to operate on the original node software. That is, a transfer to newly pumped software did not occur. Other than not being an active node, some of the reasons a node update abort can occur are:

- A stop update request was received for this node.
- The pumper process reported an error in pumping new software to this node.
- A checksum made over newly pumped node software failed or was not reported to the Administrative Module (AM).
- A failure occurred in reading the node's generic specification file identification.
- The node moved out of the active state during its update.
- Communication with the SLMK process failed.
- An update software error (ERRLOG condition) occurred.

Format 5 prints when an update attempt on SS7 node LNa b failed. Here, an attempt to transfer node operation to newly pumped node software failed, resulting in the removal of the node from service, or something caused the node to be removed from service immediately after a successful transfer to the new software. Format 6 prints when the SS7 node update initiated by a LNUPD:LN input message has completed. This refers to the aggregate update attempt on every SS7 node for which an update was requested. An update attempt has been made on either all SS7 nodes or a single SS7 node as specified in the LNUPD:LN input message. Note that COMPLETED does not imply that all, or even any, of the SS7 node update attempts were successful. It simply means that an update attempt on every SS7 node requested has completed. Format 7 prints when the SS7 node update initiated by a LNUPD:LN input message is stopped by the STOP:LNUPD input message. Note that a STOP:LNUPD will not undo a node update that has already been completed. This refers to the aggregate update attempt on every SS7 node for which an update was requested. Format 8 prints when the SS7 node update initiated by a LNUPD:LN input message is aborted by some undesirable event. This refers to the aggregate update attempt on every SS7 node for which an update was requested. Some of the undesirable events that can cause a SS7 update to be aborted are:

- Excessive (two) SS7 node update failures.
- Excessive number of ring failures/recoveries during the update.
- Node pumper process creation failures or excessive pumper process deaths/recreations during the update.

- Excessive SS7 node pump time.
- Communication failures with the SLMK process.
- Update software error (ERRLOG condition).

3. VARIABLE FIELD DEFINITIONS

a = Link node group number.

b = Link node member number.

c = A 32-bit hexadecimal word containing internal update information primarily intended for Lucent Technologies, Bell Laboratories use.

d = The AM real-time millisecond clock value when the update completed/stopped/aborted output message was produced.

4. ACTIONS TO BE TAKEN

For Format 1, no action is necessary. There are no equipped SS7 nodes.

For Format 2, check the node identification used in the LNUPD:LN input message since it is not recognized as being a SS7 node.

For Format 3, no action is necessary. The update on this SS7 node was successful.

For Format 4, use the OP:LNUPD input message to determine why the update on this SS7 node was aborted.

For Format 5, use the OP:LNUPD input message to determine why the update on this SS7 node failed.

For Format 6, this output message is printed when the SS7 node update has completed. To determine whether any additional action is needed, review the results of each SS7 node update attempt. Either review the individual LNUPD LN output messages for each SS7 node update attempt or use the OP:LNUPD input message to obtain a summary of the update attempt on all SS7 nodes.

For Format 7, no action is necessary. This output message is printed to confirm that the update has been stopped in response to the STOP:LNUPD input message.

For Format 8, some undesirable event has caused an abort of the SS7 node update. This must be evaluated and understood before any further updates are initiated.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
LNUPD:LN
OP:LNUPD
STOP:LNUPD
```

Output Message(s):

```
LNUPD LN
```

REPT:LOG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
REPT LOG a b c d
  e
```

2. REASON FOR OUTPUT

To output to a logfile a record of certain data or code execution to supplement the analysis of system failures. You may not have the resources to interpret the data. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

3. VARIABLE FIELD DEFINITIONS

a	= Trace subsystem - assigned by an initialization macro at the beginning of the process.
b	= Source file name.
c	= Source file line number.
d	= Real-time clock value.
e	= User message as ASCII text.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:LOGIN

Software Release: 5E10 and later
Message Class: MTCE,PSSWD
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT LOGIN ATTEMPTS TTY a EXCEED LIMITS. VERIFY USER IDENTITY.

[2]   ____________________________________________________________________
      REPT LOGIN UNABLE TO ACCESS AUTHORITY ADMINISTRATION DATABASE

[3]   ____________________________________________________________________
      REPT LOGIN /ETC/UTMP ACCESS ERROR - NO USER RESTRICTIONS

[4]   ____________________________________________________________________
      REPT LOGIN NOT SUPPORTED ON MCC/SCC

[5]   ____________________________________________________________________
      REPT LOGIN SUCCESSFUL LOGIN OF USER b ON TTY a
```

2. REASON FOR OUTPUT

To report a successful login or a failure that occurred during login process execution. Formats 1, 2, 3, and 4 report a failure condition. Format 5 reports a successful login.

Format 1 reports that a user has attempted and failed to gain access to the system on the same teletypewriter (tty) device at least four times within five minutes.

Format 2 reports that the login process failed to access the authority administration database (/etc/dlg/authfile) that is used to verify a user's identity and password. The login attempt failed and the login prompt is redisplayed.

Format 3 reports that the login process failed to access the user accounting database (/etc/utmp) that is used to record user login activity. The login procedure continued but user is not subject to any person authority (PAUTH) restrictions that may have been assigned to the user identity using the ADD:PCGRP input message.

Format 4 reports that the MCC and/or SCC TTY device is configured to run the login process. Login is not supported on the MCC and SCC devices. This report will print once every minute until login is disabled on the MCC and SCC devices.

Format 5 reports that the login process successfully completed for the specified user.

3. VARIABLE FIELD DEFINITIONS

`a` = Teletypewriter (TTY) name of the device on which login was running.

`b` = User identity.

4. ACTION TO BE TAKEN

For Format 1, verify that the user attempting to login on TTY '`a`' is authorized. If the user is authorized, remove and restore the TTY. If the identity of the user cannot be determined, assume that the user is attempting to gain

unauthorized access to the system by systematically entering login and password combinations.

For Format 2, check that the content of the getty records in the equipment configuration database (ECD) is appropriate for the TTY device suffix for which the message is generated. Also check that the /etc/dlg/authfile authority database exists and that the file permissions are set for read and write by root.

For Format 3, verify that user 'b' operating with no person authority (PAUTH) restrictions presents no security risk. If the user should be restricted according to his or her person authority, remove and restore the TTY to terminate the login session. A user's person authority can be verified using the VFY:PCGRP input message.

For Format 4, disable login on the MCC and SCC devices by following Authority Management procedures documented in the System Control Operations Description section of Routine Operations and Maintenance.

5. ALARMS

None. For Format 1, a major alarm is generated because an attempt by unauthorized persons to logon to the system may have occurred.

6. REFERENCES

Input Message(s):

```
ADD:PAUTH
ADD:PCGRP
VFY:PAUTH
VFY:PCGRP
```

Output Message(s):

```
VFY:PAUTH
VFY:PCGRP
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

REPT:LU-TLOT

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LU=a-b TRBL LU OPERATIONAL TEST FAILURE c
  d  RECOVERY ACTION e
  f  f  f  f
  f  g  h
```

2. REASON FOR OUTPUT

To respond to a reported failure during an operational test (such as call setup) on the line unit (LU).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Event number.

`d` = Secondary error type. Valid value(s):

```
CHANNEL STUCK OFF HOOK
CHANNEL STUCK ON HOOK
CHANNEL XP STUCK CLOSED
CUTOFF XP STUCK CLOSED
EXERCISE-CLOSED CUTOFF XP
EXERCISE-CLOSED FIRST STAGE XP
EXERCISE-CLOSED SECOND STAGE XP
EXERCISE-OPEN CUTOFF XP
EXERCISE-OPEN FIRST STAGE XP
EXERCISE-OPEN SECOND STAGE XP
FCG TEST FAILURE
FIRST STAGE XP STUCK CLOSED
GDXAXS XP STUCK CLOSED
SCANNER STUCK OFF HOOK
SCANNER STUCK ON HOOK
SECOND STAGE XP STUCK CLOSED
SST FAILURE
```

`e` Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is generated.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.

`REPORT TO TERMINAL MAINT` = Terminal maintenance has been notified of the failure.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be

printed with the results of the diagnostic.

`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`f` = Logical circuit name, in order of output. Valid value(s):

- `LEN` = Line equipment number.
- `LUALINK` = Line unit A-link.
- `LUCHAN` = Line unit channel.
- `LUHLSC` = Line unit high level service circuit.

Note: Up to three logical circuit names will print. Variables '`g`' and '`h`' are optional depending on the error type.

`g` = Current decimal number of errors recorded.

`h` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

In many cases, failures will be reported that do not result in automatic recovery actions. This report should be used to assist in scheduling manual repairs.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:LU-TUSR

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LU=a-b TRBL UNEXPECTED SERVICE REQUEST c
  d RECOVERY ACTION e
  f
  g    h    i
```

2. REASON FOR OUTPUT

To report an unexpected service request on the line unit (LU).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = LU number.

`c` = Event number.

`d` = Error type. Valid value(s):

```
DFI OPERATIONAL SERVICE REQ
DSU OPERATIONAL SERVICE REQ
LU OPERATIONAL SERVICE REQ
MSU OPERATIONAL SERVICE REQ
TU OPERATIONAL SERVICE REQ
```

`e` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`INITIALIZE` = The failing circuit has been reinitialized.
`REPT TO TERMINAL MAINT` = Terminal maintenance has been notified of the failure.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`f` = Source analysis data (optional).

`g` = External logical circuit name.

`h` = Current decimal number of recent failures of this type recorded.

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`i` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:LUALINK-TLOT

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LUALINK=a-b-c-d TRBL LU OPERATIONAL TEST FAILURE e
  f  RECOVERY ACTION g
  h  h  h  h
  h  i  j  k
```

2. REASON FOR OUTPUT

To respond to a reported failure during an operational test (such as call setup) on the line unit A-link (LUALINK).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Grid number.

`d` = A-link number.

`e` = Event number.

`f` = Secondary error type. Valid value(s):

```
CHANNEL STUCK ON HOOK
EXERCISE-CLOSED FIRST STAGE XP
EXERCISE-CLOSED SECOND STAGE XP
EXERCISE-OPEN FIRST STAGE XP
EXERCISE-OPEN SECOND STAGE XP
FCG TEST FAILURE
FIRST STAGE XP STUCK CLOSED
SECOND STAGE XP STUCK CLOSED
```

`g` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is generated.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.

`REPORT TO TERMINAL MAINT` = Terminal maintenance has been notified of the failure.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.

`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

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`h` = Logical circuit name. Valid value(s):

`LEN`	= Line equipment number.
`LUALINK`	= Line unit A-link.
`LUCHAN`	= Line unit channel.
`LUHLSC`	= Line unit high level service circuit.

Note: Up to three logical circuit names will print. Variables '`i`' and '`j`' are optional depending on the error type.

`i` = Current decimal number of errors recorded.

`j` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

In many cases, failures will be reported that do not result in automatic recovery actions. This report should be used to assist in scheduling manual repairs.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:LUCHAN-TLOT

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LUCHAN=a-b-c-d-e TRBL LU OPERATIONAL TEST FAILURE EVENT=f
  g  RECOVERY ACTION h
  LUCHAN=a-b-c-d-e  LUHLSC=a-b-c-i  ALINK=a-b-j-k  LEN=a-b-j-l-m-n
  o [p  q]
  r  s [t]
```

2. REASON FOR OUTPUT

To respond to an operational test failure (during call setup or disconnect) on a line unit where the channel (LUCHAN) is suspect.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Line unit number.

`c` = Service group number.

`d` = Channel board number.

`e` = Channel number.

`f` = Event number.

`g` = Secondary error type. Valid value(s):

`CHANNEL STUCK OFF HOOK` = During a call set up, the channel failed to report ON HOOK.

`CHANNEL STUCK ON HOOK` = During a call set up, the channel failed to report OFF HOOK.

`CUTOFF GDX NTWK LATCH` = During line disconnect, a gated diode crosspoint (GDX) network latch was found to be open indicating a suspected cut off call. Plant measurement report '`CUT OFF CALLS, GDX`' is pegged in function PCflt_rpt. Refer to variable field '`t`'.
Note: Not available for model 1 line unit.

`FCG TEST FAILURE` = During a call set up the GDX network was found to have a false cross or ground condition (First stage GDX cross points are open during the test so customer line trouble should not cause a failure.)

`OPEN GDX NTWK PATH` = (Not available for model 1 line unit.) During line disconnect, a GDX network path was found to be open but the associated GDX latches were closed. Refer to variable field '`t`'.

`SST FAILURE` = Report of a short supervisory transition (call answered for less than two seconds). This report is manually enabled by loading the value h'5e1 into location PCalwsst and requires SM verbose mode.

`h` = Recovery action. Valid value(s):

ANALYSIS ONLY = A post mortem report is generated.
ASSERT TO SYSTEM INTEGRITY = A software failure has been detected and system integrity has been notified.
REPORT TO TERMINAL MAINT = Terminal maintenance has been notified of the failure.
RMV = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
RST AUTO CAMPON = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
RST PREEMT = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

i = High level service circuit number.

j = Grid number.

k = A-link number.

l = Switch board number.

m = Switch number.

n = Level number.

o = External logical circuit name.

p = Current decimal number of errors recorded.

q = Error count threshold, above which the recovery action will be escalated.

r = Hexadecimal data in the form xxxxyyyy.
xxxx = LUCHAN attribute 'name' as identified in relation CKTDATA.
yyyy = LUHLSC attribute 'name' as identified in relation CKTDATA.

s = Hexadecimal data in the form xxxxyyyy.
xxxx = Ignore.
yyyy = Line equipment number (LEN) hexadecimal port name.

t = When variable 'g' = OPEN GDX NTWK PATH or CUTOFF GDX NTWK LATCH, a network path test executed in function JB2disc has failed. The first and second characters of the format xxyyzzzz identify the type of call being disconnected, the third and fourth characters must be converted to binary to identify the fault. Following is an explanation of the format:
xx = Type of call being disconnected. Valid value(s):
02 = Normal originating or unanswered terminating call.
04 = Supervision transfer detected in function JB2orig.
08 = Terminating answered call.
10 = Abandon during dialing.
40 = Ringing current failure detected in LPstop_r.

yy = Type of fault detected. Valid value(s) (if the binary bit value = 1):

Bit Nbr	Explanation:

0	Channel break circuit opened during disconnect but closed OK - only tested if customer's line is off hook, a pattern pointing to one channel could indicate a defective TN335.
1	Customer's line tested off hook at scanner.
2	Restore verify test (RVF) failed - loop start lines tested using high level service circuit (HLSC) tip-to-ring 619 ohm short, ground start lines tested using HLSC 2.2k ring ground: scanner expected to be off hook.
3	Open GDX grid path - if customer's line was off hook, tested using scanner to reversed channel: channel expected to be off hook - else tested using RVF.
4	Open GDX access (fwd/rev) path tested using HLSC tip-to-ring 619 ohm short: channel expected to be off hook.
5	First stage GDX latch reads open. Plant measurement report CUT OFF CALLS, GDX is pegged.
6	Second stage GDX latch reads open. Plant measurement report CUT OFF CALLS, GDX is pegged.
7	Access (fwd/rev) GDX latch reads open. Plant measurement report CUT OFF CALLS, GDX is pegged.

zzzz ***NOTE:*** Plant measurement report CUT OFF CALLS< GDX is pegged. = Ignore.

4. ACTION TO BE TAKEN

Use pattern analysis to determine possible faulty hardware or software related problems. Use input message TST:LEN to verify open path failures. TST:LEN requires the B-link number as part of the input. The B-link number is computed by multiplying the channel board number (variable 'd') by 8 and adding the channel number (variable 'e'). For example, channel board number 2 and channel number 6 correspond to B-link number 22 (2*8+6=22). Refer to the Corrective Maintenance manual, sections: "Hardware Procedures", "Clear Diagnostic Failure in Hardware".

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:LUCHAN-TPCF-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LUCHAN=a-b-c-d-e TRBL PICB CONTROL FAILURE EVENT=f
  g  RECOVERY ACTION h
  i  j  k  l
  m  n  o
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt in the line unit channel (LUCHAN).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Channel board number.

`e` = Channel number.

`f` = Event number.

`g` = Error type. Valid value(s):

```
PER DETECTED BAD ADDRESS
SOFTWARE BAD ADDRESS ERROR
```

`h` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is provided.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`i` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`j` = Read/Write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`k` = Data being written to the periphery by the CI.

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`l` = Contents of the CI error source register.

Note: Up to two logical circuit names, error counts, and error thresholds (variables '`m`'-'`o`') may be printed.

`m` = External logical circuit name.

`n` = Current decimal number of recent failures of this type recorded.

`o` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

REPT:LUCHAN-TPCF-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LUCHAN=a-b-c-d-e TRBL PICB CONTROL FAILURE EVENT=f
  g  RECOVERY ACTION h
  i  j  k  l  m
  n  o  p
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt in the line unit channel (LUCHAN).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Channel board number.

`e` = Channel number.

`f` = Event number.

`g` = Error type. Valid value(s):

```
PER DETECTED BAD ADDRESS
SOFTWARE BAD ADDRESS ERROR
```

`h` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is provided.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`i` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`j` = System PICB number in hexadecimal that was being written when the failure occurred.

`k` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

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`l` = Data being written to the periphery by the CI.

`m` = Contents of the CI error source register.

Note: Up to two logical circuit names, error counts, and error thresholds (variables '`n`'-'`p`') may be printed.

`n` = External logical circuit name.

`o` = Current decimal number of recent failures of this type recorded.

`p` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

REPT:LUCHAN-TPDCF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LUCHAN=a-b-c-d-e TRBL PIDB CONTROL FAILURE f
  g  RECOVERY ACTION h
  i  j  k  l
  m  n  o
```

2. REASON FOR OUTPUT

To respond to a time-slot interchange (TSI) interrupt caused by peripheral interface data bus (PIDB) parity errors in the line unit channel (LUCHAN).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Channel board number.

`e` = Channel number.

`f` = Event number.

`g` = Error type, which indicates PIDB parity trouble.

`h` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the result of the diagnostic.

`i` = Number of affected channels.

Note: Up to 32 lines of variables '`j`'-'`m`' may be printed.

`j` = Line unit channel number, in decimal.

`k` = Number of parity errors in the last report.

`l` = Total number of parity errors for each channel.

`m` = Error count threshold for each channel, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:LUCHAN-TPPF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LUCHAN=a-b-c-d-e TRBL PIDB PARITY FAILURE f
  g RECOVERY ACTION h
  i j
  kkkkkkkk l
  0mno   8mno   16mno   24mno
  1mno   9mno   17mno   25mno
  2mno  10mno   18mno   26mno
  3mno  11mno   19mno   27mno
  4mno  12mno   20mno   28mno
  5mno  13mno   21mno   29mno
  6mno  14mno   22mno   30mno
  7mno  15mno   23mno   31mno
```

2. REASON FOR OUTPUT

To respond to a time-slot interchange (TSI) interrupt caused by peripheral interface data bus (PIDB) parity errors in the line unit channel (LUCHAN).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Switch group number.

`d` = Channel board number.

`e` = Channel number.

`f` = Event number.

`g` = Error type, which indicates PIDB trouble.

`h` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the result of the diagnostic.

`i` = Common board error count.

`j` = Common board threshold, above which the recovery action will be escalated.

`k` = Channel board error count. Left most '`k`' refers to board 0.

`l` = Channel board threshold, above which the recovery action will be escalated.

`m` = Number of parity errors in frame.

`n` = Channel error count.

`o` = Channel threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

Input Message(s):

```
DGN:LUCHAN
RMV:LUCHAN
RST:LUCHAN
```

REPT:LUCHAN-TSF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LUCHAN=a-b-c-d-e TRBL SP FAILURE f
  SP FIFO OVERFLOW FAILURE RECOVERY ACTION h
  i j
  k l m
```

2. REASON FOR OUTPUT

To respond to a signal processor (SP) interrupt caused by the SP first-in first-out (FIFO) overflowing due to a showering line unit channel (LUCHAN).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Channel board number.

`e` = Channel number.

`f` = Event number.

`h` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`i` = Internal timeslot number.

`j` = Number of entries in the SP FIFO for this circuit.

Note: Up to three logical circuit names, error counts, and error thresholds (variables '`k`'-'`m`') may be printed.

`k` = External logical circuit name.

`l` = Current decimal number of recent failures of this type recorded.

`m` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-MCTSI
INH:HDW-MCTSI
```

Output Message(s):

```
RMV:LUCHAN
RST:LUCHAN
```

REPT:LUCHAN-TUSR

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LUCHAN=a-b-c-d-e TRBL UNEXPECTED SERVICE REQUEST f
  LU OPERATIONAL SERVICE REQ RECOVERY ACTION h
  i
  j    k    l
```

2. REASON FOR OUTPUT

To report an unexpected service request on the line unit channel (LUCHAN).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Channel board number.

`e` = Channel number.

`f` = Event number.

`h` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`INITIALIZE` = The failing circuit has been reinitialized.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`i` = Source analysis data (optional).

`j` = External logical circuit name.

`k` = Current decimal number of recent failures of this type recorded.

`l` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

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None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:LUCHBD-TPPF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LUCHBD=a-b-c-d TRBL PIDB PARITY FAILURE e
  f RECOVERY ACTION g
  h i
  jjjjjjjj  k
  0lmn   8lmn   16lmn   24lmn
  1lmn   9lmn   17lmn   25lmn
  2lmn  10lmn   18lmn   26lmn
  3lmn  11lmn   19lmn   27lmn
  4lmn  12lmn   20lmn   28lmn
  5lmn  13lmn   21lmn   29lmn
  6lmn  14lmn   22lmn   30lmn
  7lmn  15lmn   23lmn   31lmn
```

2. REASON FOR OUTPUT

To respond to a time-slot interchange (TSI) interrupt caused by peripheral interface data bus (PIDB) parity errors in the line unit channel board (LUCHBD).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Trunk unit number.

`c` = Switch group number.

`d` = Channel board number.

`e` = Event number.

`f` = Error type, which indicates PIDB trouble.

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the result of the diagnostic.

`h` = Common board error count.

`i` = Common board threshold, above which the recovery action will be escalated.

`j` = Channel board error count. Left most '`j`' refers to board 0.

`k` = Channel board threshold, above which the recovery action will be escalated.

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`l` = Number of parity errors in frame.

`m` = Channel error count.

`n` = Channel threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:LUCHBD
RMV:LUCHBD
RST:LUCHBD
```

REPT:LUCHBD-TSF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LUCHBD=a-b-c-d TRBL SP FAILURE e
  SP FIFO OVERFLOW FAILURE RECOVERY ACTION g
  h i
  j k l
```

2. REASON FOR OUTPUT

To respond to a signal processor (SP) interrupt caused by the SP first-in first-out (FIFO) overflowing due to showering channel circuits on the line unit channel board (LUCHBD).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Channel board number.

`e` = Event number.

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Internal timeslot number.

Note: Up to three logical circuit names, error counts, and error thresholds (variables '`i`'-'`k`') may be printed.

`i` = Number of entries in the SP FIFO for this circuit.

`j` = External logical circuit name.

`k` = Current decimal number of recent failures of this type recorded.

`l` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:HDW-MCTSI
INH:HDW-MCTSI
```

Output Message(s):

```
RMV:LUCHBD
RST:LUCHBD
```

REPT:LUCHBD-TUSR

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LUCHBD=a-b-c-d TRBL UNEXPECTED SERVICE REQUEST e
  f RECOVERY ACTION g
  h
  i    j    k
```

2. REASON FOR OUTPUT

To report an unexpected service request on the line unit (LU) channel board (LUCHBD).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = LU number.

`c` = Service group number.

`d` = Channel board number.

`e` = Event number.

`f` = Error type. Valid value(s):

```
DFI OPERATIONAL SERVICE REQ
DSU OPERATIONAL SERVICE REQ
LU OPERATIONAL SERVICE REQ
MSU OPERATIONAL SERVICE REQ
TU OPERATIONAL SERVICE REQ
```

`g` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is generated.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.

`INITIALIZE` = The failing circuit has been reinitialized.

`REPT TO TERMINAL MAINT` = Terminal maintenance has been notified of the failure.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.

`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`h` = Source analysis data (optional).

`i` = External logical circuit name.

`j` = Current decimal number of recent failures of this type recorded.

`k` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:LUCOMC-TLCF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LUCOMC=a-b-c TRBL LU CLOCK FAILURE d
  COMDAC CLOCK FAILURE RECOVERY ACTION f
  g h
  [i j k]
```

2. REASON FOR OUTPUT

To respond to a line unit (LU) fault recovery action on the line unit common control (LUCOMC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Event number.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = Software failure has been detected and system integrity has been notified.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = Hexadecimal printout of the LU error source mask register (COMMSK).

`h` = Hexadecimal printout of the LU error source register (COMESR).

`i` = External logical circuit name.

`j` = Current decimal number of recent failures of this type.

`k` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:LUCOMC-TPCF-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LUCOMC=a-b-c TRBL PICB CONTROL FAILURE EVENT=d
  e  RECOVERY ACTION  f
  g  h  i  j
  k  l  m
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt in the line unit common control (LUCOMC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Event number.

`e` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
LU COMDAC ADDRESS FAULT ALARM
MAINTENANCE CUTOFF BIT SET
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`f` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is provided.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

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`h` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`i` = Data being written to the periphery by the CI.

`j` = Contents of the CI error source register.

`k` = External logical circuit name.

`l` = Current decimal number of recent failures of this type recorded.

`m` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:LUCOMC-TPCF-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LUCOMC=a-b-c TRBL PICB CONTROL FAILURE EVENT=d
  e  RECOVERY ACTION  f
  g  h  i  j
  k  l  m  n
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt in the line unit common control (LUCOMC).

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Line unit number.

c = Service group number.

d = Event number.

e = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
LU COMDAC ADDRESS FAULT ALARM
MAINTENANCE CUTOFF BIT SET
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

f = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is provided.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

g = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

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`h` = System PICB number in hexadecimal that was being written when the failure occurred.

`i` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`j` = Data being written to the periphery by the CI.

`k` = Contents of the CI error source register.

`l` = External logical circuit name.

`m` = Current decimal number of recent failures of this type recorded.

`n` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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REPT:LUCOMC-TPPF

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT LUCOMC=a-b-c TRBL PIDB PARITY FAILURE d
  e RECOVERY ACTION f
  g h
  iiiiiiii j
  0klm   8klm   16klm   24klm
  1klm   9klm   17klm   25klm
  2klm  10klm   18klm   26klm
  3klm  11klm   19klm   27klm
  4klm  12klm   20klm   28klm
  5klm  13klm   21klm   29klm
  6klm  14klm   22klm   30klm
  7klm  15klm   23klm   31klm
```

2. REASON FOR OUTPUT

To respond to a time-slot interchange (TSI) interrupt caused by peripheral interface data bus (PIDB) parity errors in the line unit common control (LUCOMC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Trunk unit number.

`c` = Switch group number.

`d` = Event number, which is the time sequence indicator.

`e` = Error type, which indicates PIDB trouble.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the result of the diagnostic.

`g` = Common board error count.

`h` = Common board threshold, above which the recovery action will be escalated.

`i` = Channel board error count. Left most '`i`' refers to board 0.

`j` = Channel board threshold, above which the recovery action will be escalated.

`k` = Number of parity errors in frame.

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`l` = Channel error count.

`m` = Channel threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:LUCOMC
RMV:LUCOMC
RST:LUCOMC
```

REPT:LUCOMC-TSF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LUCOMC=a-b-c TRBL SP FAILURE d
  SP FIFO OVERFLOW FAILURE RECOVERY ACTION f
  g h
  i j k
```

2. REASON FOR OUTPUT

To respond to a signal processor (SP) interrupt caused by the SP first-in first-out (FIFO) overflowing due to showering channel circuits in the line unit service group.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Event number.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = Internal timeslot number.

`h` = Number of entries in the SP FIFO for this circuit.

Note: Up to three logical circuit names, error counts, and error thresholds (variables '`i`'-'`k`') may be printed.

`i` = External logical circuit name.

`j` = Current decimal number of recent failures of this type recorded.

`k` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Output Message(s):

```
RMV:LUCOMC
RST:LUCOMC
```

REPT:LUCOMC-TUSR

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LUCOMC=a-b-c TRBL UNEXPECTED SERVICE REQUEST d
  e RECOVERY ACTION f
  [g]
  h    i    j
```

2. REASON FOR OUTPUT

To report an unexpected service request on the line unit (LU) common control (LUCOMC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Event number.

`e` = Recovery action. Valid value(s):
`FCG TEST FAILURE` = False cross and ground test failed.
`INTERRUPT THRU MASK FAILURE` = Inhibits are not blocking out interrupts.
`LU OPERATIONAL SERV REQ` = Line unit operational service request.
`SR REPORTED BUT NOT FOUND` = Service request reported but not found.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = Source analysis data.

`h` = External logical circuit name.

`i` = Current decimal number of recent failures of this type recorded.

`j` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

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5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:LUCOMD-TPPT

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LUCOMD=a-b-c TRBL PIDB PARITY TROUBLE d
  e  RECOVERY ACTION f
  g  h  i  j
```

2. REASON FOR OUTPUT

To respond to a time-slot interchange (TSI) interrupt caused by peripheral interface data bus (PIDB) parity errors in the line unit common data (LUCOMD).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Event number.

`e` = Error type, which indicates PIDB parity trouble.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the result of the diagnostic.

`g` = Line unit channel number, in decimal.

`h` = Number of parity errors in the last report.

`i` = Total number of parity errors for each channel.

`j` = Error count threshold for each channel, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

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5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:LUHLSC-TLOT

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LUHLSC=a-b-c-d TRBL LU OPERATIONAL TEST FAILURE e
  f  RECOVERY ACTION g
  h h h h
  i j k
  l l l l m n
```

2. REASON FOR OUTPUT

To respond to a reported failure during an operational test (such as call setup) on the line unit high level service circuit (LUHLSC).

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Line unit number.

c = Service group number.

d = High level service circuit number.

e = Event number.

f = Secondary error type. Valid value(s):

```
CHANNEL STUCK ON HOOK
FALSE RING TRIP
FCG TEST FAILURE
HLSC CURRENT THRESHOLD NOT SET UP
HLSC DATA WRITE W/POWER BIT DISABLED
HLSC EXTERNAL CURRENT EXCESSIVE
HLSC FIRMWARE FUNCTION NOT COMPLETED
HLSC HARDWARE RESET OCCURRED
HLSC ILLEGAL LOW LEVEL MODE REQUEST
HLSC INTERNAL FIRMWARE FAULT
HLSC INTERNAL HARDWARE FAULT
HLSC NO FAULT FOUND
HLSC OFFICE BATTERY OUT OF RANGE
HLSC POWER CONVERTER DIDN'T ZERO
HLSC PRIMARY POWER CONVERTER EXCESS CURRENT
HLSC RECEIVED/INTERPRETED ILLEGAL COMMAND
HLSC UNDEFINED FAILURE
INTERNAL HLSC FLT IN DETECTION CIRCUITRY
POWER CROSS FAILURE
RING CURRENT FAILURE
SCANNER STUCK ON HOOK
SECOND STAGE XP STUCK CLOSED
```

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```
SOFTWARE FAILED TO IDLE HLSC REGISTER REQUEST
USER SOFTWARE RQT ILLEGAL HLSC BUS C/D
USER SOFTWARE VIOLATED HLSC PROTOCOL
```

Note: The failure previously described applies to both model one and model two line unit high level service circuits. The following errors apply only to the model two line unit high level service circuit (TN844). Valid value(s):

`C/D`	= Common data
`FCG`	= False cross and grown
`FLT`	= Fault
`GDXAXS`	= Gated diode crosspoint access
`HLSC`	= High level service circuit
`RQT`	= Request
`XP`	= Crosspoint

`g` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is generated.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.

`REPORT TO TERMINAL MAINT` = Terminal maintenance has been notified of the failure.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.

`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Logical circuit name, in order of output. Valid value(s):

`LEN`	= Line equipment number.
`LUALINK`	= Line unit A-link.
`LUCHAN`	= Line unit channel.
`LUHLSC`	= Line unit high level service circuit.

Note: Up to three logical circuit names will print. Variables '`i`' and '`j`' are optional depending on the error type.

`i` = External logical circuit name.

`j` = Current decimal number of errors recorded.

`k` = Error count threshold, above which the recovery action will be escalated.

`l` = Internal circuit name representation of LUCHAN, LUHLSC, LUALINK, or LEN.

`m` = PC foreground job that this error occurred on. Valid value(s):

`0x1`	= Coin fault.
`0x2`	= False cross and ground.
`0x3`	= Power cross.
`0x4`	= Party test.

`0x5`	= Ringing.
`0x6`	= Pre-trip.
`0x7`	= False cross and ground on ringing.
`0x8`	= Bridge.

Note: This data is valid only on the TN844 high level service circuit.

`n` = Contents of the high-level service circuit high-level mode register.

Note: This data is valid only on the TN844 high level service circuit.

4. ACTION TO BE TAKEN

When unit is removed from service and it fails diagnostics, replace it with a new pack. Use the restore conditional message when putting the new pack into service. If `HLSC FIRMWARE FUNCTION NOT COMPLETED` (variable '`f`') message is occurring frequently, notify the next level of switch maintenance support.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:LUHLSC
DGN:LUHLSC
EX:LUHLSC
RMV:LUHLSC
RST:LUHLSC
STP:LUHLSC
```

Output Message(s):

```
ABT:LUHLSC
DGN:LUHLSC
EX:LUHLSC
RMV:LUHLSC
RST:LUHLSC
STP:LUHLSC
```

REPT:LUHLSC-TPCF-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LUHLSC=a-b-c-d TRBL PICB CONTROL FAILURE EVENT=e
  f  RECOVERY ACTION  g
  h  i  j  k
  l  m  n
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt in the line unit high level service circuit (LUHLSC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = High level service circuit number.

`e` = Event number.

`f` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`g` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is provided.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`i` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`j` = Data being written to the periphery by the CI.

`k` = Contents of the CI error source register.

Note: Up to two logical circuit names, error counts, and error thresholds ('`l`'-'`n`') may be printed.

`l` = External logical circuit name.

`m` = Current decimal number of recent failures of this type recorded.

`n` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:LUHLSC-TPCF-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LUHLSC=a-b-c-d TRBL PICB CONTROL FAILURE EVENT=e
  f  RECOVERY ACTION  g
  h  i  j  k
  l  m  n  o
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt in the line unit high level service circuit (LUHLSC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = High level service circuit number.

`e` = Event number.

`f` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`g` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is provided.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

i = System PICB number in hexadecimal that was being written when the failure occurred.

j = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

k = Data being written to the periphery by the CI.

l = Contents of the CI error source register.

Note: Up to two logical circuit names, error counts, and error thresholds ('m'-'o') may be printed.

m = External logical circuit name.

n = Current decimal number of recent failures of this type recorded.

o = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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REPT:LUHLSC-TUSR

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LUHLSC=a-b-c-d TRBL UNEXPECTED SERVICE REQUEST e
  LU OPERATIONAL SERVICE REQ RECOVERY ACTION g
  h
  i    j    k
```

2. REASON FOR OUTPUT

To report an unexpected service request on the line unit high level service circuit (LUHLSC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = High level service circuit number.

`e` = Event number.

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`INITIALIZE` = The failing circuit has been reinitialized.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Source analysis data (optional).

`i` = External logical circuit name.

`j` = Current decimal number of recent failures of this type recorded.

`k` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

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5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:LUHLSCBD-TLO

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LUHLSCBD=a-b-c-d TRBL LU OPERATIONAL TEST FAILURE e
  f  RECOVERY ACTION g
  h h h h
  i j k
  l l l l m n
```

2. REASON FOR OUTPUT

To respond to a reported failure during an operational test (such as call setup) on the line unit high level service circuit board (LUHLSCDB).

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Line unit number.

c = Service group number.

d = High level service circuit board number.

e = Event number.

f = Secondary error type. Valid value(s):

```
CHANNEL STUCK ON HOOK
FALSE RING TRIP
FCG TEST FAILURE
HLSC CURRENT THRESHOLD NOT SET UP
HLSC DATA WRITE W/POWER BIT DISABLED
HLSC EXTERNAL CURRENT EXCESSIVE
HLSC FIRMWARE FUNCTION NOT COMPLETED
HLSC HARDWARE RESET OCCURRED
HLSC ILLEGAL LOW LEVEL MODE REQUEST
HLSC INTERNAL FIRMWARE FAULT
HLSC INTERNAL HARDWARE FAULT
HLSC NO FAULT FOUND
HLSC OFFICE BATTERY OUT OF RANGE
HLSC POWER CONVERTER DIDN'T ZERO
HLSC PRIMARY POWER CONVERTER EXCESS CURRENT
HLSC RECEIVED/INTERPRETED ILLEGAL COMMAND
HLSC UNDEFINED FAILURE
INTERNAL HLSC FLT IN DETECTION CIRCUITRY
POWER CROSS FAILURE
RING CURRENT FAILURE
SCANNER STUCK ON HOOK
SECOND STAGE XP STUCK CLOSED
```

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```
SOFTWARE FAILED TO IDLE HLSC REGISTER REQUEST
USER SOFTWARE RQT ILLEGAL HLSC BUS C/D
USER SOFTWARE VIOLATED HLSC PROTOCOL
```

`g` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is generated.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.

`REPORT TO TERMINAL MAINT` = Terminal maintenance has been notified of the failure.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.

`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Logical circuit name, in order of output. Valid value(s):

`LEN` = Line equipment number.

`LUALINK` = Line unit A-link.

`LUCHAN` = Line unit channel.

`LUHLSC` = Line unit high level service circuit.

Note: Up to three logical circuit names will print. Variables '`i`' and '`j`' are optional depending on the error type.

`i` = External logical circuit name.

`j` = Current decimal number of errors recorded.

`k` = Error count threshold, above which the recovery action will be escalated.

`l` = Internal circuit name representation of LUCHAN, LUHLSC, LUALINK, or LEN.

`m` = PC foreground job that this error occurred on. Valid value(s):

`0x1` = Coin fault.

`0x2` = False cross and ground.

`0x3` = Power cross.

`0x4` = Party test.

`0x5` = Ringing.

`0x6` = Pre-trip.

`0x7` = False cross and ground on ringing.

`0x8` = Bridge.

`n` = Contents of the high-level service circuit high-level mode register.

4. ACTION TO BE TAKEN

When unit is removed from service and it fails diagnostics, replace it with a new pack. Use the restore conditional

message when putting the new pack into service. If `HLSC FIRMWARE FUNCTION NOT COMPLETED` (variable '`f`') message is occurring frequently, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance Manual*

REPT:LUHLSCBD-TPC-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LUHLSCBD=a-b-c-d TRBL PICB CONTROL FAILURE EVENT=e
  f  RECOVERY ACTION  g
  h  i  j  k
  l  m  n
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt in the line unit high level service circuit board (LUHLSCBD).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = High level service circuit board number.

`e` = Event number.

`f` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`g` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is provided.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

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`i` = Read/write (uppermost) bit address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`j` = Data being written to the periphery by the CI.

`k` = Contents of the CI error source register.

Note: Up to two logical circuit names, error counts, and error thresholds ('`l`'-'`n`') may be printed.

`l` = External logical circuit name.

`m` = Current decimal number of recent failures of this type recorded.

`n` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

When unit is removed from service and it fail diagnostics, replace it with a new pack. Use the restore conditional message when putting the new pack into service. If intervention is required, follow diagnostic procedures found in the Corrective Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance Manual*

REPT:LUHLSCBD-TPC-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LUHLSCBD=a-b-c-d TRBL PICB CONTROL FAILURE EVENT=e
  f  RECOVERY ACTION  g
  h  i  j  k
  l  m  n  o
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt in the line unit high level service circuit board (LUHLSCBD).

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Line unit number.

c = Service group number.

d = High level service circuit board number.

e = Event number.

f = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

g = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is provided.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

h = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

i = System PICB number in hexadecimal that was being written when the failure occurred.

j = Read/write (uppermost) bit address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

k = Data being written to the periphery by the CI.

l = Contents of the CI error source register.

Note: Up to two logical circuit names, error counts, and error thresholds ('m'-'o') may be printed.

m = External logical circuit name.

n = Current decimal number of recent failures of this type recorded.

o = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

When unit is removed from service and it fail diagnostics, replace it with a new pack. Use the restore conditional message when putting the new pack into service. If intervention is required, follow diagnostic procedures found in the Corrective Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance Manual*

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REPT:LUHLSCBD-TUS

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT LUHLSCBD=a-b-c-d TRBL UNEXPECTED SERVICE REQUEST e
  LU OPERATIONAL SERVICE REQ RECOVERY ACTION g
  h
  i    j    k
```

2. REASON FOR OUTPUT

To report an unexpected service request on the line unit high level service circuit board (LUHLSCBD).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = High level service circuit board number.

`e` = Event number.

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`INITIALIZE` = The failing circuit has been reinitialized.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Source analysis data (optional).

`i` = External logical circuit name.

`j` = Current decimal number of recent failures of this type recorded.

`k` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

When unit is removed from service and it fails diagnostics, replace it with a new pack. Use the restore conditional

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message when putting the new pack into service. If intervention is required, follow diagnostic procedures found in the Corrective Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance Manual*

85. REPT:M

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REPT:MA-TMPSF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT MA=a-b-c-d TRBL MSU PATH SETUP FAILURE e
  FAILURE IN PROTO TEST RECOVERY ACTION f
  MTB=g
  MA=a-b-c-d h i
  MSUCOM=a-b-c h i
```

2. REASON FOR OUTPUT

To report a trouble with a metallic access (MA) circuit which resides in a metallic service unit (MSU). A protocol test failed while checking the integrity of a metallic connection to the MA circuit. The metallic test bus (MTB) number, the MA circuit and the MSU common circuit board (MSUCOM) are printed to aide in locating the faulty equipment.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = MSU number.

`c` = Service group number.

`d` = MSU board position number.

`e` = Event number.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = This post-mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified by an assert.
`RST AUTO CAMPON` = The failing circuit will be diagnosed as soon as it becomes available. A message (RST:MA or DGN:MA) will then be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message (RST:MA or DGN:MA) will be printed with the results of the diagnostic.

`g` = Metallic test bus number.

`h` = Number of recent failures of this error type (`FAILURE IN PROTO TEST`) on this circuit (in decimal).

`i` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

No action required. When recovery action variable '`f`' is '`RST PREEMPT`' or '`RST AUTO CAMPON`' a subsequent DGN:MA or RST:MA message will indicate the success or failure of the restore request.

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5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:MA
RMV:MA
RST:MA
```

Other Manual(s):
235-900-113 *Product Specification*

REPT:MA-TPCF-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT MA=a-b-c-d TRBL PICB CONTROL FAILURE EVENT=e
  f  RECOVERY ACTION g
  h  i  j  k
  l  m  n
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the metallic access (MA) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = Board number.

`e` = Event number.

`f` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is provided.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RST PREEPMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`i` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`j` = Data being written to the periphery by the CI.

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`k` = Contents of the CI error source register.

Note: Up to two logical circuit names, recent failure counts, and error thresholds ('`l`'-'`n`') may be printed.

`l` = External logical circuit name.

`m` = Current decimal number of recent failures of this type recorded.

`n` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the MA board from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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REPT:MA-TPCF-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT MA=a-b-c-d TRBL PICB CONTROL FAILURE EVENT=e
  f  RECOVERY ACTION g
  h  i  j  k
  l  m  n  o
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the metallic access (MA) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = Board number.

`e` = Event number.

`f` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is provided.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RST PREEPMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`i` = System PICB number in hexadecimal that was being written when the failure occurred.

`j` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

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k = Data being written to the periphery by the CI.

l = Contents of the CI error source register.

Note: Up to two logical circuit names, recent failure counts, and error thresholds ('m'-'o') may be printed.

m = External logical circuit name.

n = Current decimal number of recent failures of this type recorded.

o = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the MA board from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:MA-TUSR

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT MA=a-b-c-d TRBL UNEXPECTED SERVICE REQUEST e
  MSU OPERATIONAL SERVICE REQ RECOVERY ACTION f
  g
  h    i    j
```

2. REASON FOR OUTPUT

To report an unexpected service request on the metallic access (MA) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = Board number.

`e` = Event number.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`INITIALIZE` = The failing circuit has been reinitialized.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.
`REPT TO TERMINAL MAINT` = Terminal maintenance has been notified of the failure.

`g` = Source analysis data (optional).

`h` = External logical circuit name.

`i` = Current decimal number of recent failures of this type recorded.

`j` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:MAB-TMPSF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT MA=a-b-c-d TRBL MSU PATH SETUP FAILURE e
  FAILURE IN PROTO TEST RECOVERY ACTION f
  g  h  i
  .  .  .
  .  .  .
  .  .  .
```

2. REASON FOR OUTPUT

To indicate a trouble with a metallic access bus (MAB) which resides in a metallic service unit (MSU). A protocol test failed while checking the integrity of a metallic connection to the MAB.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = MSU number.

`c` = Service group number.

`d` = MAB number.

`e` = Event number.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = This post-mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RST AUTO CAMPON` = The failing circuit will be diagnosed as soon as it becomes available. A message will then be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = External logical circuit name. More than one circuit may be listed when multiple circuits can be blamed for the trouble.

`h` = Current decimal number of recent failures of this error type (`FAILURE IN PROTO TEST`) on this circuit (MAB).

`i` = Error count threshold, at which the recovery action will be escalated.

4. ACTION TO BE TAKEN

No action required. When recovery action variable '`f`' is '`RST PREEMPT`' or '`RST AUTO CAMPON`', a subsequent DGN:MAB or RST:MAB message will indicate the success or failure of the restore request.

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5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:MAB
RMV:MAB
RST:MAB
```

Other Manual(s):
235-900-113 *Product Specification*

REPT:MAINTENANCE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT MAINTENANCE REQUESTS LOST
```

2. REASON FOR OUTPUT

To report that messages to the maintenance input request administrator (MIRA) were discarded by the system integrity monitor (SIM) in an effort to recover from message buffer overload.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

Expect that requests to remove, diagnose, or restore a unit will not be run. Use the OP:DMQ input message to determine which requests were lost, and then reenter those requests.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

and then reenter those requests.

Format(s):	Key(s):
all	449

Input Message(s):

```
DGN:CU

DGN:DFC

DGN:DUIC

DGN:HSDC

DGN:MHD

DGN:MTC

DGN:MTTYC

DGN:SCSDC

DGN:SDLC
```

DGN:TTYC

OP:DMQ

RMV:CU

RMV:DFC

RMV:DUI

RMV:DUIC

RMV:HSD

RMV:HSDC

RMV:IOP

RMV:MHD

RMV:MT

RMV:MTC

RMV:MTTY

RMV:MTTYC

RMV:ROP

RMV:SBUS

RMV:SCC

RMV:SCSDC

RMV:SDL

RMV:SDLC

RMV:TTY

RMV:TTYC

RST:CU

RST:DFC

RST:DUI

RST:DUIC

RST:HSD

RST:HSDC

RST:IOP

RST:MHD

```
RST:MT

RST:MTC

RST:MTTY

RST:MTTYC

RST:ROP

RST:SBUS

RST:SCC

RST:SCSDC

RST:SDL

RST:SDLC

RST:TTY

RST:TTYC
```

Output Message(s):

```
PRM:0
REPT:SIMCHK
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

REPT:MANUAL

Software Release: 5E10 and later
Message Class: ASRT,CP
Application: 5
Type: Output

1. FORMAT

```
REPT MANUAL ACTION ASSERT=a b EVENT=c
 [MSG-NO=d]
  e AT f g
  h
```

2. REASON FOR OUTPUT

To report that a defensive check failure (assert) has occurred that requires manual action.

The ASRT message class applies to the administrative module (AM), switching module (SM), and communications module processor (CMP).
The CP message class applies to the module controller/time slot interchanger (MCTSI) and packet switching unit (PSU) protocol handler (PSUPH).

3. VARIABLE FIELD DEFINITIONS

`AM UNK` = Unknown administrative module environment.

`AM ENV` = Administrative module environment.

`CHNG` = Channel group.

`CMP` = Communication module processor.

`MCTSI` = A manual action assert occurred in the packet interface (PI) processor.

`PSUPH` = A manual action assert occurred in the PSUPH processor.

`SM` = Switching module.

`UNK` = Unknown environment.

`a` = Assert number in decimal.

`b` = The processor environment where the assert occurred. Valid value(s):

```
AM ENV=h
AM UNK
CMP=i-j k
MCTSI=j-n PI
SM=j
PSUPH=j-o-p-q [CHNG=j-o-p-r]
UNK
```

`c` = Event number.

`d` = Sequence number used to trace the sequence of messages from a given processor.

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`e` = Name of the source file where the defensive check failed.

`f` = Indicates the scope of variable `g`. Valid value(s):
`LINE` = variable `g` is a source file line number.
`REFERENCE` = variable `g` is a programmer defined reference number.

`g` = Decimal line number or decimal reference number in the source file indicating the location of the defensive check.

`h` = Additional information and data referenced by the "Action to be Taken" section for this defensive check failure in the Manual Action Asserts section of the Asserts manual.

`i` = Administrative module environment in which assert occurred. Valid value(s):
`OKP` = Operational kernel process.
`SMKP` = Switch maintenance kernel process.

`j` = SM number.

`k` = CMP message switch side (MSGS).

`l` = Physical CMP number.

`m` = Processor being reported upon. Valid value(s):
`MATE` = Mate CMP.
`PRIM` = Primary CMP.

`n` = The module controller time slot interchange (MCTSI) side that corresponds to the PI side.

`o` = Packet switching unit (PSU) number.

`p` = PSU shelf number.

`q` = PSUPH number.

`r` = Channel group (CHNG) number.

4. ACTION TO BE TAKEN

Use the assert number to find the page in the Manual Action Asserts section of the Asserts manual, which references this defensive check failure. Information from that page will provide the action to be taken.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-600-500 *Asserts*

REPT:MANUAL-RING-A

Software Release: 5E10 only
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT MANUAL RING MODE
  WARNING:  ECD SPECIFIED MANUAL RING MODE
```

2. REASON FOR OUTPUT

To report that the interprocessor message switch (IMS) automatic ring recovery (ARR) routine is inhibited. This message reports periodically when the IMS is in the manual ring mode, but the common network interface (CNI) ring is no longer down, and the CNI ring initialization has been completed successfully. It is printed when the condition stated above is first met and every 30 minutes thereafter as long as the condition remains the same.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTIONS TO BE TAKEN

When the user is ready to return to normal mode, the equipment configuration data base (ECD) manual ring mode flag must be reset to null (off). This is done by modifying the ECD recent change/verify (RC/V) UCB form. Key field 3 (k_unit_name) is UNODS and key field 4 (k_unit_number) is 0. Change field number 22 (equipage) to null.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):

Where (x) is the release-specific version of the specified manual.

235-600-31x *ECD/SG*
235-105-231 *Hardware Change Procedures - Growth*

REPT:MANUAL-RING-B

Software Release: 5E11 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT MANUAL RING MODE
  WARNING:  ECD SPECIFIES MANUAL RING MODE
```

2. REASON FOR OUTPUT

To report that the interprocessor message switch (IMS) automatic ring recovery (ARR) routine is inhibited. This message reports periodically when the IMS is in the manual ring mode, but the common network interface (CNI) ring is no longer down, and the CNI ring initialization has been completed successfully. It is printed when the condition stated above is first met and every 30 minutes thereafter as long as the condition remains the same.

Inhibiting ARR means that the automatic restoration of nodes and the escalation, if needed, to higher levels of ring fault recovery will not take place unless manually requested. Placing the CNI ring into this mode is typically part of a CNI ring growth procedure. Verify that there is no CNI ring growth procedure in progress before returning the CNI ring to its normal mode. An in-service CNI ring that is not undergoing a ring growth should not be left in manual ring mode since, if a CNI problem should occur while in manual ring mode, there is no automatic recovery and an SS7 service outage could result.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTIONS TO BE TAKEN

When the user is ready to return to normal mode, the equipment configuration data base (ECD) manual ring mode flag must be reset to null (off). This is done by modifying the ECD recent change/verify (RC/V) UCB form. Key field 3 (k_unit_name) is UNODS and key field 4 (k_unit_number) is 0. Change field number 22 (equipage) to null.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):

Where (x) is the release-specific version of the specified manual.

235-600-31x *ECD/SG*
235-105-231 *Hardware Change Procedures - Growth*

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REPT:MAPFILE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT MAPFILE.P NOT ACCESSIBLE
```

2. REASON FOR OUTPUT

To report that the coordinator of spooler output processes (CSOP) is not able to access the spooler mapfile.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

Check that /cft/spl/mapfile.p has read/write file permissions.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:FSYS-ACCESS

OP:ST-LISTDIR
```

Output Message(s):

```
ALW:FSYS-ACCESS
OP:ST-LISTDIR
```

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REPT:MAXINTVL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT MAXINTVL a
```

2. REASON FOR OUTPUT

To report the utility ID of a process which requested a time-out exceeding the maximum allowable value.

3. VARIABLE FIELD DEFINITIONS

`a` = Utility ID of process requesting time-out.

4. ACTION TO BE TAKEN

The timeout request will succeed (default) unless failure is requested by the (s)maxintvl call.

The process may use the (s)maxintvl call to eliminate the message.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:MBD

Software Release: 5E10 and later
Message Class: MAINT
Application: 3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT MBD  DATA 1-1
        00000000

[2]   ____________________________________________________________________
      REPT MBD  DATA a-b
        cccccccc cccccccc cccccccc cccccccc cccccccc cccccccc cccccccc cccccccc
        cccccccc cccccccc cccccccc cccccccc cccccccc cccccccc cccccccc cccccccc
```

2. REASON FOR OUTPUT

To print system message buffer data when the disk driver message buffer contains invalid data.

Format 1 prints when the disk driver message buffer pointer is NULL.

Format 2 prints when a critical field in the disk driver message buffer is considered to be invalid.

The message buffer dump (MBD) will always contain the disk driver message buffer that is considered invalid. If it exists, message buffer data preceding the disk driver message buffer will also be printed.

The maximum amount of data printed is the size of the largest message buffer plus the size of the smallest message buffer followed by the disk driver message buffer. The boundaries between message buffers contained in the dump are determined by interpreting the data.

3. VARIABLE FIELD DEFINITIONS

`a` = Current print segment number.

`b` = Total number of print segments in the report.

`c` = Message buffer data in hexadecimal notation.

4. ACTION TO BE TAKEN

Save a copy of the receive-only printer (ROP) and contact the next higher level of technical support. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:MCTSI-HC

Software Release: 5E10 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
REPT MCTSI=a-g  HARDWARE CONTEXT PP EVENT=e
  68040-REGISTERS:
          D0=f            D1=f            D2=f            D3=f
          D4=f            D5=f            D6=f            D7=f
          A0=f            A1=f            A2=f            A3=f
          A4=f            A5=f            USP=f           SSP=f
          PC=f            SR=f            TC=f            MMUSR=f
          ITT0=f          ITT1=f          DTT0=f          DTT1=f
          SRP=f           CACR=f
  BRICPIT-REGISTERS:
          ESBR=f          RSBR=f          ECLR=f
          IMBR=f          TCL0=f          TCL1=f          TCL2=f
          ISRR=f          TCL3=f          TCL4=f          TCL5=f
  PBMAC-REGISTERS:
          PB0ESR=f        PB1ESR=f        PB2ESR=f        PB3ESR=f
```

2. REASON FOR OUTPUT

To provide the contents of the module controller/time slot interchange packet interface 2 (PI2) registers as information for trouble analysis at the time of an interrupt. PI2 employs M68040 as its processor.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Unit number.

`c` = Shelf number.

`d` = Slot number.

`e` = Event number.

`f` = Contents of hardware registers, in hexadecimal.

For the M68040 hardware register, valid values are:

`A0-A5`	= Address registers.
`CACR`	= Cache control register.
`D0-D7`	= Data registers.
`DTT0`	= Data transparent translation 0.
`DTT1`	= Data transparent translation 1.
`ITT0`	= Instruction transparent translation 0.
`ITT1`	= Instruction transparent translation 1.
`MMUSR`	= Memory management unit (MMU) SR.
`PC`	= Program counter.
`SR`	= Status register.

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SRP	= Supervisor root pointer register.
SSP	= System stack pointer.
TC	= Translation control register.
TT0	= Transparent translation 0.
TT1	= Transparent translation 1.
USP	= User stack pointer.
VBR	= Vector base register.

For the BRICPIT status register, valid values are:

ECLR	= Event configuration level register.
ESBR	= Event source bit register.
IMBR	= Interrupt mask bit register.
ISRR	= Interrupt service request register.
PB0ESR	= Packet bus media access control (PBMAC) 0 error source register (ESR).
PB1ESR	= PBMAC 1 ESR.
PB2ESR	= PBMAC 2 ESR.
PB3ESR	= PBMAC 3 ESR.
RSBR	= Reset/set bit register.
TCL0	= Timer control/count 0.
TCL1	= Timer control/count 1.
TCL2	= Timer control/count 2.
TCL3	= Timer control/count 3.
TCL4	= Timer control/count 4.
TCL5	= Timer control/count 5.

g = Active MCTSI side.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CHG:PRNTMODE
OP:HISTORY
```

Output Message(s):

```
REPT:PSUPH-HC
```

Other Manual(s):

235-100-125 *System Description*
235-105-231 *Hardware Change Procedures*
235-105-331 *Hardware Change Procedures - Degrowth*

REPT:MCTSI-LVL

Software Release: 5E10 and later
Message Class: INT
Application: 5
Type: Output

1. FORMAT

```
REPT MCTSI=a-b c LVL=d MH-EVENT=e f
  SM-EVENT=g FAILING-ADDR=h OSJ=i
  ERR-SRC=j ADDR-RNG=k [l]
  CM=m[,CLNK] [NETWORK=n] [LLCB-INDEX=o][,p] [ENDPOINT=q]
  68040-REGISTERS:
        SSP=r  PC=s   SR=t
        USP=u  FP=v   A0=w  A1=w
        A2=w   A3=w   A4=w  A5=w
        D0=x   D1=x   D2=x  D3=x
        D4=x   D5=x   D6=x  D7=x
  PIC-REGISTERS:
        ESBR:    y
        IMBR:    z
        ISRR:    a[1]
```

2. REASON FOR OUTPUT

To indicate that the message handler (MH) has taken an error. This message describes what error occurred, the state of the processor at the time the error occurred, and the recovery action taken.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = MCTSI side.

`c` = Reporting message handler identifier. Valid value(s):
- `MH0` = Message handler 0.
- `MH1` = Message handler 1.
- `MH2` = Message handler 2.

`d` = Recovery action. Valid value(s):
- `CEI` = Critical error interrupt.
- `OSR` = Operational software restart.
- `UNK` = Unknown recovery action requested.

`e` = MH event number.

`f` = Termination report. Valid value(s):
- `ABORTED` = The indicated recovery action did not complete before being interrupted by another stimulus.
- `COMPLETED` = The indicated or requested action has completed.

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g = SM event number.

h = Failing address.

i = Operational software job that was executing at the point the error was taken. Valid value(s):

- AU = Routine audits.
- CM = Communication package.
- INIT = Processor initialization.
- MTUP = Mate update.
- OE = Operating environment.
- PLNK = Peripheral link for MH1 or MH2.
- QL = Quad-link layer 2 manager.
- RHS = Routine hashsum checks.
- SI = System integrity.
- UNK = Unknown or indeterminable running job.

j = Source of the error that caused the interrupt. Valid value(s):

- ADDR-ERROR = A word access was attempted on an odd-byte boundary.
- ADDR-OOR = An out-of-range address was detected.
- APC-INTERFACE-DATA-PARITY-ERROR = An application-specific controller (APC) interface data parity error has occurred.
- APC-LOST-CLOCK-ERROR = An APC lost clock error has occurred.
- APC-LOST-SYNC-ERROR = An APC lost sync error has occurred.
- AUTOVECTOR 1 = A level 1 interrupt autovector was received by the fault handler.
- AUTOVECTOR 2 = A level 2 interrupt autovector was received by the fault handler.
- AUTOVECTOR 3 = A level 3 interrupt autovector was received by the fault handler.
- AUTOVECTOR 4 = A level 4 interrupt autovector was received by the fault handler.
- AUTOVECTOR 5 = A level 5 interrupt autovector was received by the fault handler.
- AUTOVECTOR 6 = A level 6 interrupt autovector was received by the fault handler.
- AUTOVECTOR 7 = A level 7 interrupt autovector was received by the fault handler.
- BLL-SANITY-TIMER-TIME-OUT = The base level loop (BLL) sanity timer has expired.
- BUS-ERROR = A 68040 bus error exception occurred.
- BUS-ERR-TRANSLATION-TABLE = A bus error has occurred during an address translation search.
- FORMAT-ERROR = A validity check of co-processor state frame format or word stack frame format has failed.
- ILLEGAL-INSTRUCTION = The processor attempted to execute an invalid instruction.
- ILL-ACCESS-SUPV-PROT-REGION = The memory management unit (MMU) has detected illegal access of a supervisor-protected region.
- LINE-1010-EMULATOR = Unimplemented A-line opcode.
- LINE-1111-EMULATOR = Unimplemented F-line opcode.
- LP-READ-DATA-PARITY = A local processor (LP) read parity error has occurred on the data bus.
- MATE-READY-TIME-OUT-ERROR = A mate ready timeout error has occurred.
- MH-SANITY-TIMER-ERROR = Switching module processor (SMP) sanity timer for the MH has expired.
- MMU-WRITE-PROT-VIOLATION = The MMU has detected a write-protect violation.
- PRIVILEGE-VIOLATION = An attempt to execute a supervisor only instruction while the processor was in user mode.
- READY-TIMER-TIME-OUT = The bus watchdog (ready) timer expired.
- SMP-MULTIPLE-RESPONSE-ERROR = A SMP multiple response error has occurred.
- SMP-WRITE-ADDRESS-PARITY-ERROR = A SMP write address parity error has occurred.
- SMP-WRITE-DATA-PARITY-ERROR = A SMP write data parity error has occurred.

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SPURIOUS-INTERRUPT = A spurious interrupt was received by the fault handler.
SPYDER-T-READ-DATA-PARITY-ERROR = A SPYDER-T read parity error has occurred.
STACK-PROTECT-ERR = The MMU has detected a stack protect error.
UNEXPECTED-INTERRUPT = An unexpected interrupt was received by the fault handler.
UNIDENTIFIED-EXCEPTION = An unidentified exception was received by the fault handler.
UNINITIALIZED-INTERRUPT = An uninitialized interrupt was received by the fault handler.
UNK = The source of the error cannot be determined.
UNRECOG-UT-TRAP = An unrecognized trap instruction was received by the fault handler.
UNUSED-SW-TRAP = A trap instruction that is not used by the current software release was executed.
UNUSED-TEXT-EXEC = A bad transfer vector (TV) slot was used or a wild transfer occurred, causing memory not used by the current software release code to be executed.
UPDATE-BUS-DATA-PARITY-ERROR = An update bus parity error interrupt was received by the fault handler.
ZERO-DIVIDE = An attempt was made to divide by zero.

k = Type of memory referenced by failing address. Valid value(s):
BRAM = Read/write memory using buffer random access memory (RAM) device.
IO = Input/output memory.
LSRAM = Read/write memory using local static RAM device.
MATE-BRAM = Read/write mate memory using buffer RAM device.
MATE-IO = Input/output mate memory.
MATE-LSRAM = Read/write mate memory using local static RAM device.
OOR = Read/write memory using local static RAM device.

l = Critical error trigger reason. Valid value(s):
EX-FR-ERR = Fault recovery critical error request.
EX-OSR-ERR = Excessive error stimulus.

m = State of the communication package for communication links. Valid value(s):
ACTIVE = Communication package was active but the link and action cannot be determined.
BASE = CM was called from the base level environment.
A-TRANS = Communication link A was transmitting.
B-TRANS = Communication link B was transmitting.
A-RECV = Communication link A was receiving.
B-RECV = Communication link B was receiving.
INACTIVE = Communication package was not active.

n = The QLPS network number.

o = The logical link control block in use when the error occurred.

p = The direction of message transmission. Valid value(s):
RCV = Receive.
SND = Send.

q = The far end network address or endpoint specified when the error occurred.

r = Contents of supervisor stack pointer (SSP).

s = Contents of program counter (PC).

t = Contents of status register (SR).

u = Contents of user stack pointer (USP).

v = Contents of frame pointer (FP).

w = Contents of the address registers 0-5.

x = Contents of the data registers 0-7.

y = Contents of the event source bit register (ESBR).

z = Contents of the interrupt mask bit register (IMBR).

a[1] = Contents of the interrupt service request register (ISRR).

4. ACTION TO BE TAKEN

Monitor the progress of the recovery. Initiate manual actions if the recovery does not proceed as expected.

5. ALARMS

None.

6. REFERENCES

None.

REPT:MCTSI-MESE

Software Release: 5E10 and later
Message Class: INT_MON
Application: 5
Type: Output

1. FORMAT

```
REPT MCTSI=a-b c MH-EVENT=d SM-EVENT=e
  MH-REGISTERS:
          CACR=f  ECL1=g  ECL2=g
          ECL3=g  ECL4=g  ECL5=g
          ECL6=g  ECL7=g  ILRR=h
          RSBR=i  TCL0=j  TCL1=j
          TCL2=j  TCL3=j  TCL4=j
          TCL5=j  ITT0=k  ITT1=k
          DTT0=l  DTT1=l  MMUSR=m
          USRP=n  SRP=o   TCR=p
          EXCEP=q CNFGR=r STATR=s
```

2. REASON FOR OUTPUT

To report, for debugging purposes, the contents of the message handler registers associated with a previous error.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number if reporting processor is MCTSI.

`b` = Module controller/time slot interchange (MCTSI) side.

`c` = Message handler (MH) requesting dump. Valid value(s):
- `MH0` = Message handler 0.
- `MH1` = Message handler 1.
- `MH2` = Message handler 2.

`d` = MH event number.

`e` = SM event number.

`f` = Contents of the cache control register (CACR).

`g` = Contents of the equipment configuration level registers 1-7.

`h` = Contents of the interrupt level request register (ILRR).

`i` = Contents of the reset/set bit register (RSBR).

`j` = Contents of the timer latch count registers 0-5.

`k` = Contents of the memory manager unit (MMU) instruction transparent translation 0 and 1 control registers.

`l` = Contents of the MMU data transparent translation 0 and 1 control registers.

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`m` = Contents of the memory management unit status register (MMUSR).

`n` = Contents of the user root pointer register (USRP).

`o` = Contents of the supervisor root pointer register (SRP).

`p` = Contents of the translation control register (TCR).

`q` = Exception vector number.

`r` = Contents of the configuration register (CNFGR).

`s` = Contents of the SMP status register (STATR).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:MCTSI-TADH

Software Release: 5E10 and later
Message Class: HW
Application: 5
Type: Output

1. FORMAT

```
REPT MCTSI=a-b TRBL AUDIT DETECTED HARDWARE ERROR [EVENT=]c
  BTSR/PUMP HW SELF CHK FAILURE RECOVERY ACTION INHIBIT HDWCHKS
```

2. REASON FOR OUTPUT

To indicate that the bootstrapper hardware self check failed on a simplex module controller and timing unit model 2 (MCTU2). The recovery action taken was to inhibit the active module controller and time slot interchanger (MCTSI's) bootstrapper hardware self check.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = MCTSI side.

`c` = Event number.

4. ACTION TO BE TAKEN

Conditionally restore the mate MCTSI using the RST:MCTSI input message. Then conditionally restore the MCTSI side reported in the output message.

Note: It is possible that after restoring the mate, an automatic MCTSI side switch may occur; diagnostics for the previously active MCTSI may also be queued. If this occurs, a REPT:TRBL-REMOVE output message may be observed.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RST:MCTSI
```

Output Message(s):

```
REPT:TRBL-REMOVE
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:MCTSI-TPPC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
REPT MCTSI=a-b TRBL PORT PROCESSOR COMMUNICATION LOSS EVENT=c
  PP LOSS OF LAYER 2 RECOVERY ACTION d
  e f g
  e f g
  [e f g]
  hi jk lm no pq rs tu vw
  xy z
```

2. REASON FOR OUTPUT

To report the loss of communication from the switching module processor (SMP) to a port processor (PP). A PP can either be a protocol handler (PH) or a packet interface (PI). End-to-end (ETE) check messages detect faults from the SMP through the PI on the packet bus to the PHs. Idle link assurance (ILA) messages detect faults between the PI and the PHs through the packet bus.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = SM processor side.

`c` = Event number.

`d` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = No recovery action was taken.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

Note: An additional circuit name, error count, and error threshold ('`e`'-'`g`') may be printed. Recovery action will be taken only on the first circuit in the list to reach its error threshold.

`e` = External circuit name of the implicated circuit.

`f` = Current decimal number of failures of this type recorded.

`g` = Decimal error count threshold, above which the recovery action will be taken.
Note: Variables '`h`' through '`z`' will be reported as hexadecimal data, where each field is 4 digits.

`h` = Detection source. Valid value(s):
`0` = ETE check failure which is a periodic communication check between the SMP and the PPs.
`1` = ILA failure which ensures layer 2 is up and messages can be sent to the PHs.

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`i` = The number of implicated faulty PPs.

`j` = The implicated PH image type. Valid value(s):
- `0` = Null PH image.
- `1` = PH 2 access image.
- `2` = PH 2 gateway image.
- `3` = PH 3 common image.
- `4` = PH 3 input/output processor (IOP) image.

`k` = The implicated PH hardware type. Valid value(s):
- `1` = PH 2 hardware.
- `2` = PH 3 hardware.

`l` = The number of the faulty PP. For ILA failures only. Valid value(s):
- `0xaf00-0xaf4f` = PH numbers.
- `0x60` = PI side 0.
- `0x61` = PI side 1.

NOTE: Fields '`s`' - '`z`' are not used for ILA failures. Any data in these fields should be ignored for ILA.

`m` For ETE failures: Bitmap of PHs that a response is expected from on shelf 0 (15 -> 00).

For ILA failures: Packet bus enable masks for PHs on shelf 0 (15 -> 00).

`n` For ETE failures: Bitmap of PHs that a response is expected from on shelf 1 (15 -> 00).

For ILA failures: Packet bus enable masks for PHs on shelf 1 (15 -> 00).

`o` For ETE failures: Bitmap of PHs that a response is expected from on shelf 2 (15 -> 00).

For ILA failures: Packet bus enable masks for PHs on shelf 2 (15 -> 00).

`p` For ETE failures: Bitmap of PHs that a response is expected from on shelf 3 (15 -> 00).

For ILA failures: Packet bus enable masks for PHs on shelf 3 (15 -> 00).

`q` For ETE failures: Bitmap of PHs that a response is expected from on shelf 4 (15 -> 00).

For ILA failures: Packet bus enable masks for PHs on shelf 4 (15 -> 00).

`r` = Reserved for future or temporary data.

`s` = For ETE failures: Bitmap of PIs that a response is expected from.

`t` = For ETE failures: Bitmap of PH acknowledgement on shelf 0 (15 -> 00). A zero indicates that the PH did acknowledge. A one indicates that the PH did not acknowledge.

`u` = For ETE failures: Bitmap of PH acknowledgement on shelf 1 (15 -> 00). A zero indicates that the PH did acknowledge. A one indicates that the PH did not acknowledge.

`v` = For ETE failures: Bitmap of PH acknowledgement on shelf 2 (15 -> 00). A zero indicates that the PH did acknowledge. A one indicates that the PH did not acknowledge.

`w` = For ETE failures: Bitmap of PH acknowledgement on shelf 3 (15 -> 00). A zero indicates that the PH did acknowledge. A one indicates that the PH did not acknowledge.

`x` = For ETE failures: Bitmap of PH acknowledgement on shelf 4 (15 -> 00). A zero indicates that the PH did acknowledge. A one indicates that the PH did not acknowledge.

`y` = Reserved for future or temporary data.

`z` = For ETE failures: Bitmap of PI acknowledgement. A zero indicates that the PI did acknowledge. A one indicates that the PI did not acknowledge.

4. ACTION TO BE TAKEN

If 'd' =	Action:
ANALYSIS ONLY	No action is necessary.
RST PREEMPT	Automatic diagnostics will run on the MCTSI. If they pass, run the PSUCOM diagnostics (DGN:PSU).

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:MCTSI
DGN:PSU
RST:MCTSI
RST:PSUCOM
```

Output Message(s):

```
REPT:PSUCOM-TPPC2
REPT:PSUPH-TPPCL
REPT:PSUPH-TPPCL2
```

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REPT:MCTSI-TPPT

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
REPT MCTSI=a-b TRBL PIDB PARITY TROUBLE c
  d RECOVERY ACTION INHIBIT HDWCHKS
```

2. REASON FOR OUTPUT

To respond to a time-slot interchange (TSI) interrupt caused by peripheral interface data bus (PIDB) parity errors in the pump hardware of the switching module processor (SMP) board. This output message is used by SMP20 equipped switching modules (SM)s.

3. VARIABLE FIELD DEFINITIONS

`INHIBIT HDWCHKS` = Pump hardware PIDB parity errors have been inhibited at the TSI.

`a` = Switching module (SM) number.

`b` = Module processor side.

`c` = Event number, which is the time sequence indicator.

`d` = Error type, which indicates PIDB parity trouble.

4. ACTION TO BE TAKEN

The module controller time-slot interchange (MCTSI) should be diagnosed. Refer to DGN:MCTSI input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:MCTSI
```

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REPT:MCTSI-TPSR

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
REPT MCTSI=a-b TRBL PSU SERVICE REQUEST c
  CF ARBITER TIME OUT RECOVERY ACTION d
  e f g
  e f g
  h i j k l m n o p q r [s]
```

2. REASON FOR OUTPUT

To report a maintenance service request pertaining to a packet interface (PI) in the switching module processor (SMP).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = SMP side.

`c` = Event number.

`d` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = This report is generated.
`RE-CONFIG PI` = The PI was re-configured.

`e` = External circuit name for the implicated circuit.

`f` = Current decimal number of failures of this type recorded.
Note: A recovery action will be taken only on the first circuit in the list to reach its error threshold.

`g` = Decimal error count threshold at which a recovery action will be taken.
Note: Variables '`h`' through '`s`' will be reported as hexadecimal data, where each field is 4 digits.

`h` = Control fanout (CF) summary scan register. Valid value(s):

`0x1`	= First in, first out (FIFO) B contains information.
`0x2`	= FIFO A contains information.
`0x4`	= Mailbox flags 0 - 3 summary bit.
`0x8`	= Mailbox flags 4 - 7 summary bit.
`0x10`	= Mailbox flags 8 - 11 summary bit.
`0x20`	= Mailbox flags 12 - 15 summary bit.
`0x100`	= Hardware error summary bit.
`0x200`	= Firmware error summary bit.

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`i` = CF summary scan mask register. Valid value(s):

`0x1`	= Mask FIFO B contains information.
`0x2`	= Mask FIFO A contains information.
`0x4`	= Mask mailbox flags 0 - 3 summary bit.
`0x8`	= Mask mailbox flags 4 - 7 summary bit.
`0x10`	= Mask mailbox flags 8 - 11 summary bit.
`0x20`	= Mask mailbox flags 12 - 15 summary bit.
`0x100`	= Mask hardware error summary bit.
`0x200`	= Mask firmware error summary bit.

`j` = CF hardware error source register. Valid value(s):

`0x40`	= Local processor (LP) unified control interface (UCI) address error.
`0x80`	= MP UCI address error.
`0x100`	= FIFO B error.
`0x200`	= FIFO A error.
`0x400`	= FIFO B overflow.
`0x800`	= FIFO B underflow.
`0x1000`	= FIFO A overflow.
`0x2000`	= FIFO A underflow.
`0x4000`	= LP UCI read parity error.
`0x8000`	= MP UCI read parity error.

`k` = CF hardware error source mask register. Valid value(s):

`0x40`	= Mask LP UCI address error.
`0x80`	= Mask MP UCI address error.
`0x100`	= Mask FIFO B error.
`0x200`	= Mask FIFO A error.
`0x400`	= Mask FIFO B overflow.
`0x800`	= Mask FIFO B underflow.
`0x1000`	= Mask FIFO A overflow.
`0x2000`	= Mask FIFO A underflow.
`0x4000`	= Mask LP UCI read parity error.
`0x8000`	= Mask MP UCI read parity error.

`l` = CF LP hardware error source mask register. Valid value(s):

`0x40`	= Mask LP UCI address error.
`0x80`	= Mask MP UCI address error.
`0x100`	= Mask FIFO B error.
`0x200`	= Mask FIFO A error.
`0x400`	= Mask FIFO B overflow.
`0x800`	= Mask FIFO B underflow.
`0x1000`	= Mask FIFO A overflow.
`0x2000`	= Mask FIFO A underflow.
`0x4000`	= Mask LP UCI read parity error.
`0x8000`	= Mask MP UCI read parity error.

`m` = CF firmware error source register. Valid value(s):

`0x1`	= Arbiter errors.
`0x2`	= Control interconnect bus (CIB) errors.

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	0x4	= Protocol handler (PH) errors.
	0x8	= Data fanout (DF) parity.
	0x10	= DF timing.
	0x20	= Invalid command.
n	= CF firmware error source mask register. Valid value(s):	
	0x1	= Mask arbiter errors.
	0x2	= Mask CIB errors.
	0x4	= Mask PH errors.
	0x8	= Mask DF parity.
	0x10	= Mask DF timing.
	0x20	= Mask invalid command.
o	= Internal circuit name in which first error was found.	
p	= Error detection source. Valid value(s):	
	0	= CF.
	1	= DF.
	2	= PF.
q	= The implicated PH image type. Valid value(s):	
	0	= Null PH image.
	1	= PH 1 gateway image.
	2	= PH 2 gateway image.
	3	= PH 2 access image.
r	= The implicated PH hardware type. Valid value(s):	
	0	= PH 1 hardware.
	1	= PH 2 hardware.
s	= DF timing error mailbox.	

4. ACTION TO BE TAKEN

If 'd' =	Action:
ANALYSIS ONLY	No action is necessary.
RE-CONFIG PI	Automatic diagnostics are run on the module controller time slot interchange (MCTSI) unit. If they pass, run the packet switching unit common controller (PSUCOM) diagnostics (DGN:PSU).

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:MCTSI
DGN:PSU
RST:MCTSI
```

RST:PSUCOM

REPT:MD-A

Software Release: 5E11 only
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT MD REASON=a
  SM=b  PSUPH=c-d-e-f  CHGMEM=g-h
```

2. REASON FOR OUTPUT

To report an intra switching module (SM) message delivery (MD) path has been lost, could not be set up for some reason, or when the MD path has been restored. Automatic retries are made to set up the path.

3. VARIABLE FIELD DEFINITIONS

a = Reason the path came down, could not be set up, or was restored. Valid value(s):

```
NO PHS AVAILABLE
PATH IN SERVICE
PATH REMOVED - INVALID LEVEL 2 LINK STATE
PATH REMOVED - INVALID LEVEL 2 PROFILE
PATH REMOVED - MANUAL
PATH REMOVED - PH INITIALIZATION
PATH REMOVED - RESOURCE EXHAUSTION - NO FREE RFD
MD PATH DOWN NO CCS CALL PROCESSING
PH SWITCH
```

b = Common channel signaling (CCS) global switching module (GSM) number.

c = SM number of packet switching unit (PSU).

d = Unit number of PSU in SM.

e = Shelf number in PSU.

f = Protocol handler (PH) number on shelf.

g = Channel group number (logical PH number on shelf).

h = Logical channel group member number.

4. ACTION TO BE TAKEN

Service for all CCS-controlled trunks in the SM without an MD link cannot be used. Ensure that enough good PHs are in service in the shelf where defined.

5. ALARMS

A critical alarm occurs if the intra SM MD path goes out of service (unless as a result of a manual request). This

message will be reported with critical alarm every 15 minutes until the MD path is restored. An information report occurs if the MD link is removed or restored by a manual request.

6. REFERENCES

Other Manual(s):
235-120-120 *VCDX Users Guide*
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

1530 (GLOBAL SM MESSAGE DELIVERY STATUS)

REPT:MD-B

Software Release: 5E12 - 5E13
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT MD REASON=a
  SM=b  PSUPH=c-d-e-f  CHGMEM=g-h
```

2. REASON FOR OUTPUT

To report an intra global switching module (GSM) message delivery (MD) path has been lost, could not be set up for some reason, or when the MD path has been restored. Automatic retries are made to set up the path.

3. VARIABLE FIELD DEFINITIONS

a = Reason the path came down, could not be set up, or was restored. Valid value(s):

```
NO PHS AVAILABLE
PATH IN SERVICE
PATH REMOVED - INVALID LEVEL 2 LINK STATE
PATH REMOVED - INVALID LEVEL 2 PROFILE
PATH REMOVED - MANUAL
PATH REMOVED - PH INITIALIZATION
PATH REMOVED - RESOURCE EXHAUSTION - NO FREE RFD
MD PATH DOWN NO CCS CALL PROCESSING
PH SWITCH
```

b = Common channel signaling (CCS) global switching module (GSM) number.

c = SM number of packet switching unit (PSU).

d = Unit number of PSU in SM.

e = Shelf number in PSU.

f = Protocol handler (PH) number on shelf.

g = Channel group number (logical PH number on shelf).

h = Logical channel group member number.

4. ACTION TO BE TAKEN

Service for all CCS trunks using PSU platform signaling on the GSM without an MD link cannot be used. If a failure is reported, restoring the MD path to service is critical.

5. ALARMS

A critical alarm occurs if the intra SM MD path goes out of service (unless as a result of a manual request). This message will be reported with critical alarm every 15 minutes until the MD path is restored. An information report

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occurs if the MD link is removed or restored by a manual request.

6. REFERENCES

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

1530 (GLOBAL SM MESSAGE DELIVERY STATUS)

REPT:MD-C

Software Release: 5E14 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT MD REASON=a
  SM=b  PSUPH=c-d-e-f  CHGMEM=g-h
```

2. REASON FOR OUTPUT

To report that an intra global switching module (GSM) message delivery (MD) path has been lost, could not be set up for some reason, or when the MD path has been restored. Automatic retries are made to set up the path.

3. VARIABLE FIELD DEFINITIONS

a = Reason the path came down, could not be set up, or was restored. Valid value(s):

```
NO PHS AVAILABLE

PATH IN SERVICE

PATH REMOVED - INVALID LEVEL 2 LINK STATE

PATH REMOVED - INVALID LEVEL 2 PROFILE

PATH REMOVED - MANUAL

PATH REMOVED - PH INITIALIZATION

PATH REMOVED - RESOURCE EXHAUSTION - NO FREE RFD

PH SWITCH
```

b = Common channel signaling (CCS) global switching module (GSM) number.

c = SM number of packet switching unit (PSU).

d = Unit number of PSU in SM.

e = Shelf number in PSU.

f = Protocol handler (PH) number on shelf.

g = Channel group number (logical PH number on shelf).

h = Logical channel group member number.

4. ACTIONS TO BE TAKEN

Refer to the corrective maintenance procedures in the 235-190-120 if an autonomous failure is reported.

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5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT CCS MESSAGE TRANSPORT CONNECTIVITY CHANGE
```

Other Manual(s):
235-190-120 *Common Channel Signaling Service Features*

MCC Display Page(s):

1540 (GSM CMT STATUS)

REPT:MDII-A

Software Release: 5E10 only
Message Class: MDII,MDIIMON
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT MDII a    SIGTYPE b   c         TKGMN d-e       SZ f    OOS g
        SUPRVSN [h]  TIME ii:ii:ii j           TRIAL k CARRFLAG l  ID [m]
        n    o       CALL  CALLED-NO p CALLING-NO q
        DISCARD r
       [OPC  v]   [DPC  w]   [CIC  x]   [N   y]
       [LCIC z]   [AFFECT-N q1]

[2]   ____________________________________________________________________
      REPT MDII ALARM   SM  a1  INTERVAL  t  THRESHOLD  u
```

2. REASON FOR OUTPUT

To report machine-detected interoffice irregularities (MDIIs) that occur on trunks during a call set-up. This message appears on the receive-only printer (ROP) and is also sent to the Switching Control Center (SCC) to provide the trunk maintenance package (TRUMP) with information concerning the performance of the switch.

Format 1 indicates a MDII has occurred.

Format 2 indicates that an alarm has been generated due to the number of MDII messages output within an interval has met the threshold.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

a = The MDII type reported on a trunk group. Refer to the APP:MDII appendix in the Appendixes section of the Output Messages manual for a list of MDIIs.

b = Signaling type. Valid value(s):

CCS	= CCIS6.
DP	= Dial pulse.
ISDN	= ISDN D-channel signaling.
ISUP	= ISDN user part (ISUP).
MF	= Multi-frequency.
NULL	= No signalling.
RPEO	= Revertive pulsing, end office.
RPTO	= Revertive pulsing, tandem office.
TT	= Touch tone.
TUP	= International Telecommunication Union - Telecommunication, Standardization Sector (ITU-TS) (formerly CCITT) common channel signaling system 7 (CCS7) telephone user port (TUP) signaling.

c = Service circuit. Valid value(s):

LDSU=a^1-b^1-c^1
RVPT=a^1-b^1-c^1-d^1
UTD=a^1-b^1-c^1-d^1
UTG=a^1-b^1-c^1-d^1

d-e = Trunk group and member number identification.

f = Trunk group size.

g = Out-of-service trunk group.

h = Trunk supervision. Valid value(s):
E&M = 2-wire or 4-wire ear and mouth (E&M).
RB = Reverse battery.

For CCS trunks nothing will be printed.

i = Time the report was prepared, in the form hours:minutes:seconds.

j = Trunk or digital equipment number. Valid value(s):

DEN=a^1-e^1-f^1-g^1
ILEN=a^1-h^1-i^1-j^1
NEN=a^1-r^1-s^1-t^1-u^1-v^1
SLEN=a^1-k^1-l^1-m^1
TEN=a^1-n^1-c^1-o^1-p^1

k = Trial number.

l = Carrier flag. Valid value(s):
ICB = Connect to a feature group B (FGB) carrier over a direct trunk.
ICD = Connect to a feature group D (FGD) carrier over a direct trunk.
NC = Connect not carrier-related.
TICB = Connect to an FGB carrier over a tandem trunk.
TICD = Connect to an FGD carrier over a tandem trunk.

m = Identifying number of the FGB or FGD interLATA or international carrier, if any. For FGB and FGD carrier, the number can be up to 4 digits.

n = Call direction. Valid value(s):
ICT = Incoming trunk.
OGT = Outgoing trunk.

o = Test call indicator. Valid value(s):
NORMAL = Plain old telephone service (POTS) call.
TEST = Test call.

p = Called number. This field indicates the digits outpulsed when the MDII was detected. This is typically the number dialed, however, it is possible this field contains the ANI digit string.

q = Calling number. For the ANF2 MDII, the calling number is the automatic number identification

(ANI) that was collected by an operator following a failure to receive ANI on an incoming centralized automatic message accounting (CAMA) trunk. Refer to the APP:MDII appendix in the Appendixes section of the Output Messages manual for a description of the ANF2 MDII.

r = Number of MDII messages discarded since midnight. For example, if the number printed in this field is 2, then it indicates that two REPT:MDII messages were discarded (not printed) in that SM since midnight.

t = Interval in minutes to count MDII messages.

u = Threshold value of MDII messages met to generate the alarm.

v = Origination point code (OPC). This field is printed only for both narrow band (DS0) and wideband (NxDS0) ISUP calls. This field will always contain the point code of the *5ESS*®-2000 switch.

w = Destination point code (DPC). This field is printed only for both narrow band (DS0) and wideband (NxDS0) ISUP calls. This field will always contain the point code of the far end switch.

x = Circuit identification code (CIC). For a wideband call, this is the lowest CIC of a call. This field is printed only for both narrow band (DS0) and wideband (NxDS0) ISUP calls.

y = Number of channel associated with a wideband call (N). This field is printed only for wideband (NxDS0) ISUP calls.

z = Lowest affected CIC. The lowest CIC for which a reset circuit (RSC) or group reset (GRS) message has been received for a wideband call. This field is printed only for wideband (NxDS0) ISUP calls. This field is used exclusively for CRR and RST MDII.

a[1] = Switching module number.

b[1] = Local digit service unit number.

c[1] = Service group number.

d[1] = Digital service unit number.

e[1] = Digital line and trunk unit (DLTU) number.

f[1] = Digital facility interface number.

g[1] = Channel number.

h[1] = Integrated digital carrier unit (IDCU) number.

i[1] = Remote terminal number.

j[1] = Remote terminal line number.

k[1] = Digital carrier line unit number.

l[1] = Remote terminal number.

m[1] = Remote terminal line number.

n[1] = Trunk unit number.

o[1] = Channel board number.

p[1] = Channel circuit number.

q[1] = Number of affected channels. Number of channels for which a reset circuit or group reset message has been received for a wideband call. This field is printed only for wideband (NxDS0) ISUP calls. This field is used exclusively for circuit reset reception (CRR) and reset (RST) MDII.

r[1] = Digital network unit - synchronous optical network (SONET) (DNU-S).

s[1] = Data group (DG).

t[1] = Synchronous transport signal (STS).

u[1] = Virtual tributary 1.5 (VT1.5).

v[1] = Digital signal level 0 (DS0) number.

4. ACTION TO BE TAKEN

Refer to the APP:MDII appendix in the Appendixes section of the Output Messages manual for corrective actions. Analyze and detect possible faulty trunks.

5. ALARMS

Format 1 does not generate an alarm.

Format 2 generates either a minor or major alarm.

6. REFERENCES

Input Message(s):

```
ALW:MDII
INH:MDII
OP:MDII
```

Output Message(s):

```
ALW:MDII
INH:MDII
OP:MDII
```

Output Appendix(es):

```
APP:MDII
```

Other Manual(s):
235-070-100 *Administration and Engineering Guidelines*

REPT:MDII-B

Software Release: 5E11 only
Message Class: MDII,MDIIMON
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT MDII a    SIGTYPE b   c         TKGMN d-e       SZ f    OOS g
        SUPRVSN [h]  TIME ii:ii:ii j           TRIAL k CARRFLAG l  ID [m]
        n    o       CALL  CALLED-NO p CALLING-NO q
        DISCARD r [LRN=w1] [LNP=x1] [JIP=y1]
       [OPC  v]   [DPC  w]   [CIC  x]   [N   y]
       [LCIC z]   [AFFECT-N q1]

[2]   ____________________________________________________________________
      REPT MDII ALARM   SM  a1  INTERVAL  t  THRESHOLD  u
```

2. REASON FOR OUTPUT

To report machine-detected interoffice irregularities (MDIIs) that occur on trunks during a call set-up. This message appears on the receive-only printer (ROP) and is also sent to the Switching Control Center (SCC) to provide the trunk maintenance package (TRUMP) with information concerning the performance of the switch.

Format 1 indicates a MDII has occurred.

Format 2 indicates that an alarm has been generated due to the number of MDII messages output within an interval has met the threshold.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

a = The MDII type reported on a trunk group. Refer to the APP:MDII appendix in the Appendixes section of the Output Messages manual for a list of MDIIs.

b = Signaling type. Valid value(s):

CCS	= CCIS6.
DP	= Dial pulse.
ISDN	= ISDN D-channel signaling.
ISUP	= ISDN user part (ISUP).
MF	= Multi-frequency.
NULL	= No signalling.
RPEO	= Revertive pulsing, end office.
RPTO	= Revertive pulsing, tandem office.
TT	= Touch tone.
TUP	= International Telecommunication Union - Telecommunication, Standardization Sector (ITU-TS) (formerly CCITT) common channel signaling system 7 (CCS7) telephone user port (TUP) signaling.

c = Service circuit. Valid value(s):

LDSU=a^1-b^1-c^1
RVPT=a^1-b^1-c^1-d^1
UTD=a^1-b^1-c^1-d^1
UTG=a^1-b^1-c^1-d^1

d-e = Trunk group and member number identification.

f = Trunk group size.

g = Out-of-service trunk group.

h = Trunk supervision. Valid value(s):
E&M = 2-wire or 4-wire ear and mouth (E&M).
RB = Reverse battery.

For CCS trunks nothing will be printed.

i = Time the report was prepared, in the form hours:minutes:seconds.

j = Trunk or digital equipment number. Valid value(s):

DEN=a^1-e^1-f^1-g^1
ILEN=a^1-h^1-i^1-j^1
NEN=a^1-r^1-s^1-t^1-u^1-v^1
SLEN=a^1-k^1-l^1-m^1
TEN=a^1-n^1-c^1-o^1-p^1

k = Trial number.

l = Carrier flag. Valid value(s):
ICB = Connect to a feature group B (FGB) carrier over a direct trunk.
ICD = Connect to a feature group D (FGD) carrier over a direct trunk.
NC = Connect not carrier-related.
TICB = Connect to an FGB carrier over a tandem trunk.
TICD = Connect to an FGD carrier over a tandem trunk.

m = Identifying number of the FGB or FGD interLATA or international carrier, if any. For FGB and FGD carrier, the number can be up to 4 digits.

n = Call direction. Valid value(s):
ICT = Incoming trunk.
OGT = Outgoing trunk.

o = Test call indicator. Valid value(s):
NORMAL = Plain old telephone service (POTS) call.
TEST = Test call.

p = Called number. This field indicates the digits outpulsed when the MDII was detected. This is typically the number dialed, however, it is possible this field contains the ANI digit string.

q = Calling number. For the ANF2 MDII, the calling number is the automatic number identification

(ANI) that was collected by an operator following a failure to receive ANI on an incoming centralized automatic message accounting (CAMA) trunk. Refer to the APP:MDII appendix in the Appendixes section of the Output Messages manual for a description of the ANF2 MDII.

r = Number of MDII messages discarded since midnight. For example, if the number printed in this field is 2, then it indicates that two REPT:MDII messages were discarded (not printed) in that SM since midnight.

t = Interval in minutes to count MDII messages.

u = Threshold value of MDII messages met to generate the alarm.

v = Origination point code (OPC). This field is printed only for both narrow band (DS0) and wideband (NxDS0) ISUP calls. This field will always contain the point code of the *5ESS*®-2000 switch.

w = Destination point code (DPC). This field is printed only for both narrow band (DS0) and wideband (NxDS0) ISUP calls. This field will always contain the point code of the far end switch.

x = Circuit identification code (CIC). For a wideband call, this is the lowest CIC of a call. This field is printed only for both narrow band (DS0) and wideband (NxDS0) ISUP calls.

y = Number of channel associated with a wideband call (N). This field is printed only for wideband (NxDS0) ISUP calls.

z = Lowest affected CIC. The lowest CIC for which a reset circuit (RSC) or group reset (GRS) message has been received for a wideband call. This field is printed only for wideband (NxDS0) ISUP calls. This field is used exclusively for CRR and RST MDII.

a[1] = Switching module number.

b[1] = Local digit service unit number.

c[1] = Service group number.

d[1] = Digital service unit number.

e[1] = Digital line and trunk unit (DLTU) number.

f[1] = Digital facility interface number.

g[1] = Channel number.

h[1] = Integrated digital carrier unit (IDCU) number.

i[1] = Remote terminal number.

j[1] = Remote terminal line number.

k[1] = Digital carrier line unit number.

l[1] = Remote terminal number.

m[1] = Remote terminal line number.

n[1] = Trunk unit number.

o[1] = Channel board number.

p[1] = Channel circuit number.

q[1] = Number of affected channels. Number of channels for which a reset circuit or group reset message has been received for a wideband call. This field is printed only for wideband (NxDS0) ISUP calls. This field is used exclusively for circuit reset reception (CRR) and reset (RST) MDII.

r[1] = Digital network unit - synchronous optical network (SONET) (DNU-S).

s[1] = Data group (DG).

t[1] = Synchronous transport signal (STS).

u[1] = Virtual tributary 1.5 (VT1.5).

v[1] = Digital signal level 0 (DS0) number.

w[1] = Location routing number (LRN). A 10 digit number used to uniquely identify a switch or a switch/rate center that has ported numbers. Note that LRN is subjet to digit prefixing and deleting (that is, sometimes it may contain fewer or more than 10 digits).

x[1] = Local number portability (LNP) query indicator. Valid value:
`DONE` = LNP processing has been done.

y[1] = Jurisdiction information parameter. This is the indication of geographic origination of the call. It represents NPA and NXX.

4. ACTION TO BE TAKEN

Refer to the APP:MDII appendix in the Appendixes section of the Output Messages manual for corrective actions. Analyze and detect possible faulty trunks.

5. ALARMS

Format 1 does not generate an alarm.

Format 2 generates either a minor or major alarm.

6. REFERENCES

Input Message(s):

```
ALW:MDII
INH:MDII
OP:MDII
```

Output Message(s):

```
ALW:MDII
INH:MDII
OP:MDII
```

Output Appendix(es):

```
APP:MDII
```

Other Manual(s):
235-070-100 *Administration and Engineering Guidelines*

REPT:MDII-C

Software Release: 5E12 only
Message Class: MDII,MDIIMON
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT MDII a    SIGTYPE b  [c]        TKGMN d-e       SZ f    OOS g
        SUPRVSN [h]  TIME ii:ii:ii j           TRIAL k CARRFLAG l  ID [m]
        n    o       CALL  CALLED-NO p CALLING-NO q
        DISCARD r [LRN=w1] [LNP=x1] [JIP=y1] [TNSC=z1]
       [OPC  v]   [DPC  w]   [CIC  x]   [N   y]
       [LCIC z]   [AFFECT-N q1]

[2]   ____________________________________________________________________
      REPT MDII ALARM   SM  a1  INTERVAL  t  THRESHOLD  u
```

2. REASON FOR OUTPUT

To report machine-detected interoffice irregularities (MDIIs) that occur on trunks during a call set-up. This message appears on the receive-only printer (ROP) and is also sent to the Switching Control Center (SCC) to provide the trunk maintenance package (TRUMP) with information concerning the performance of the switch.

Format 1 indicates a MDII has occurred.

Format 2 indicates that an alarm has been generated due to the number of MDII messages output within an interval has met the threshold.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

a = The MDII type reported on a trunk group. Refer to the APP:MDII appendix in the Appendixes section of the Output Messages manual for a list of MDIIs.

b = Signaling type. Valid value(s):

CCS	= CCIS6.
DP	= Dial pulse.
ISDN	= ISDN D-channel signaling.
ISUP	= ISDN user part (ISUP).
MF	= Multi-frequency.
NULL	= No signalling.
RPEO	= Revertive pulsing, end office.
RPTO	= Revertive pulsing, tandem office.
TT	= Touch tone.
TUP	= International Telecommunication Union - Telecommunication, Standardization Sector (ITU-TS) (formerly CCITT) common channel signaling system 7 (CCS7) telephone user port (TUP) signaling.

c = Service circuit. Valid value(s):

LDSU=a^1-b^1-c^1
RVPT=a^1-b^1-c^1-d^1
UTD=a^1-b^1-c^1-d^1
UTG=a^1-b^1-c^1-d^1

d-e = Trunk group and member number identification.

f = Trunk group size.

g = Out-of-service trunk group.

h = Trunk supervision. Valid value(s):
- E&M = 2-wire or 4-wire ear and mouth (E&M).
- RB = Reverse battery.

For CCS trunks nothing will be printed.

i = Time the report was prepared, in the form hours:minutes:seconds.

j = Trunk or digital equipment number. Valid value(s):

DEN=a^1-e^1-f^1-g^1
ILEN=a^1-h^1-i^1-j^1
INEN=a^1-r^1-i^1-j^1
NEN=a^1-r^1-s^1-t^1-u^1-v^1
SLEN=a^1-k^1-l^1-m^1
TEN=a^1-n^1-c^1-o^1-p^1

k = Trial number.

l = Carrier flag. Valid value(s):
- ICB = Connect to a feature group B (FGB) carrier over a direct trunk.
- ICD = Connect to a feature group D (FGD) carrier over a direct trunk.
- NC = Connect not carrier-related.
- TICB = Connect to an FGB carrier over a tandem trunk.
- TICD = Connect to an FGD carrier over a tandem trunk.

m = Identifying number of the FGB or FGD interLATA or international carrier, if any. For FGB and FGD carrier, the number can be up to 4 digits.

n = Call direction. Valid value(s):
- ICT = Incoming trunk.
- OGT = Outgoing trunk.

o = Test call indicator. Valid value(s):
- NORMAL = Plain old telephone service (POTS) call.
- TEST = Test call.

p = Called number. This field indicates the digits outpulsed when the MDII was detected. This is typically the number dialed, however, it is possible this field contains the ANI digit string.

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q = Calling number. For the ANF2 MDII, the calling number is the automatic number identification (ANI) that was collected by an operator following a failure to receive ANI on an incoming centralized automatic message accounting (CAMA) trunk. Refer to the APP:MDII appendix in the Appendixes section of the Output Messages manual for a description of the ANF2 MDII.

r = Number of MDII messages discarded since midnight. For example, if the number printed in this field is 2, then it indicates that two REPT:MDII messages were discarded (not printed) in that SM since midnight.

t = Interval in minutes to count MDII messages.

u = Threshold value of MDII messages met to generate the alarm.

v = Origination point code (OPC). This field is printed only for both narrow band (DS0) and wideband (NxDS0) ISUP calls. This field will always contain the point code of the switch.

w = Destination point code (DPC). This field is printed only for both narrow band (DS0) and wideband (NxDS0) ISUP calls. This field will always contain the point code of the far end switch.

x = Circuit identification code (CIC). For a wideband call, this is the lowest CIC of a call. This field is printed only for both narrow band (DS0) and wideband (NxDS0) ISUP calls.

y = Number of channel associated with a wideband call (N). This field is printed only for wideband (NxDS0) ISUP calls.

z = Lowest affected CIC. The lowest CIC for which a reset circuit (RSC) or group reset (GRS) message has been received for a wideband call. This field is printed only for wideband (NxDS0) ISUP calls. This field is used exclusively for CRR and RST MDII.

a[1] = Switching module number.

b[1] = Local digit service unit number.

c[1] = Service group number.

d[1] = Digital service unit number.

e[1] = Digital line and trunk unit (DLTU) number.

f[1] = Digital facility interface number.

g[1] = Channel number.

h[1] = Integrated digital carrier unit (IDCU) number.

i[1] = Remote terminal number.

j[1] = Remote terminal line number.

k[1] = Digital carrier line unit number.

l[1] = Remote terminal number.

m[1] = Remote terminal line number.

n[1] = Trunk unit number.

o[1] = Channel board number.

p[1] = Channel circuit number.

q[1] = Number of affected channels. Number of channels for which a reset circuit or group reset message has been received for a wideband call. This field is printed only for wideband (NxDS0) ISUP calls. This field is used exclusively for circuit reset reception (CRR) and reset (RST) MDII.

r[1] = Digital network unit - synchronous optical network (SONET) (DNU-S).

s[1] = Data group (DG).

t[1] = Synchronous transport signal (STS).

u[1] = Virtual tributary 1.5 (VT1.5).

v[1] = Digital signal level 0 (DS0) number.

w[1] = Location routing number (LRN). A 10 digit number used to uniquely identify a switch or a switch/rate center that has ported numbers. Note that LRN is subject to digit prefixing and deleting (that is, sometimes it may contain fewer or more than 10 digits).

x[1] = Local number portability (LNP) query indicator. Valid value:
DONE = LNP processing has been done.

y[1] = Jurisdiction information parameter. This is the indication of geographic origination of the call. It represents NPA and NXX.

z[1] = Terminating network selection code. This value is used for routing calls over MINT trunks.

4. ACTION TO BE TAKEN

Refer to the APP:MDII appendix in the Appendixes section of the Output Messages manual for corrective actions. Analyze and detect possible faulty trunks.

5. ALARMS

Format 1 does not generate an alarm.

Format 2 generates either a minor or major alarm.

6. REFERENCES

Input Message(s):

```
ALW:MDII
INH:MDII
OP:MDII
```

Output Message(s):

```
ALW:MDII
INH:MDII
```

```
OP:MDII
```

Output Appendix(es):

```
APP:MDII
```

Other Manual(s):
235-070-100 *Administration and Engineering Guidelines*

REPT:MDII-D

Software Release: 5E13 and later
Message Class: MDII,MDIIMON
Application: 5
Type: Output

1. FORMAT

[1]

```
REPT MDII a    SIGTYPE b  [c]  TKGMN d-e  SZ f  OOS g ID [m]
  SUPRVSN [h]  TIME ii:ii:ii j           TRIAL k CARRFLAG l
  n    o       CALL  CALLED-NO p CALLING-NO q
  DISCARD r [LRN=w1] [LNP=x1] [JIP=y1] [TNSC=z1]
 [OPC  v]   [DPC  w]   [CIC  x]   [N   y]
 [LCIC z]   [AFFECT-N q1]
```

[2]

```
REPT MDII ALARM   SM  a1  INTERVAL  t  THRESHOLD  u
```

2. REASON FOR OUTPUT

To report machine-detected interoffice irregularities (MDIIs) that occur on trunks during a call set-up. This message appears on the receive-only printer (ROP) and is also sent to the Switching Control Center (SCC) to provide the trunk maintenance package (TRUMP) with information concerning the performance of the switch.

Format 1 indicates a MDII has occurred. Format 2 indicates that an alarm has been generated due to the number of MDII messages output within an interval has met the threshold.

3. VARIABLE FIELD DEFINITIONS

a = The MDII type reported on a trunk group. Refer to the APP:MDII appendix in the Appendixes section of the Output Messages manual for a list of MDIIs.

b = Signaling type. Valid value(s):

CCS	= CCIS6.
DP	= Dial pulse.
ISDN	= ISDN D-channel signaling.
ISUP	= ISDN user part (ISUP).
MF	= Multi-frequency.
NULL	= No signalling.
RPEO	= Revertive pulsing, end office.
RPTO	= Revertive pulsing, tandem office.
TT	= Touch tone.
TUP	= International Telecommunication Union - Telecommunication, Standardization Sector (ITU-TS) (formerly CCITT) common channel signaling system 7 (CCS7) telephone user port (TUP) signaling.

c = Service circuit. Valid value(s):

```
LDSU=a1-b1-c1
 RVPT=a1-b1-c1-d1
 UTD=a1-b1-c1-d1
```

```
UTG=a1-b1-c1-d1
```

d-e = Trunk group and member number identification.

f = Trunk group size.

g = Out-of-service trunk group.

= Number of out-of-service (OOS) trunks in the trunk group counted against the automatic maintenance limit (AML). Note that this count is only for the switching module that reported the MDII. OP:AML input command can be used to get the AML data for the entire trunk group.

h = Trunk supervision. Valid value(s):
- E&M = 2-wire or 4-wire ear and mouth (E&M).
- RB = Reverse battery.

For CCS trunks nothing will be printed.

i = Time the report was prepared, in the form hours:minutes:seconds.

j = Trunk or digital equipment number. Valid value(s):

```
DEN=a1-e1-f1-g1
ILEN=a1-h1-i1-j1
INEN=a1-r1-i1-j1
NEN=a1-r1-s1-a2-t1-u1-b2-v1
SLEN=a1-k1-l1-m1
TEN=a1-n1-c1-o1-p1
```

k = Trial number.

l = Carrier flag. Valid value(s):
- ICB = Connect to a feature group B (FGB) carrier over a direct trunk.
- ICD = Connect to a feature group D (FGD) carrier over a direct trunk.
- NC = Connect not carrier-related.
- TICB = Connect to an FGB carrier over a tandem trunk.
- TICD = Connect to an FGD carrier over a tandem trunk.

m = Identifying number of the FGB or FGD interLATA or international carrier, if any. For FGB and FGD carrier, the number can be up to 4 digits.

n = Call direction. Valid value(s):
- ICT = Incoming trunk.
- OGT = Outgoing trunk.

o = Test call indicator. Valid value(s):
- NORMAL = Plain old telephone service (POTS) call.
- TEST = Test call.

p = Called number. This field indicates the digits outpulsed when the MDII was detected. This is

typically the number dialed, however, it is possible this field contains the ANI digit string.

q = Calling number. For the ANF2 MDII, the calling number is the automatic number identification (ANI) that was collected by an operator following a failure to receive ANI on an incoming centralized automatic message accounting (CAMA) trunk. Refer to the APP:MDII appendix in the Appendixes section of the Output Messages manual for a description of the ANF2 MDII.

r = Number of MDII messages discarded since midnight. For example, if the number printed in this field is 2, then it indicates that two REPT:MDII messages were discarded (not printed) in that SM since midnight.

t = Interval in minutes to count MDII messages.

u = Threshold value of MDII messages met to generate the alarm.

v = Origination point code (OPC). This field is printed only for both narrow band (DS0) and wideband (NxDS0) ISUP calls. This field will always contain the point code of the switch.

w = Destination point code (DPC). This field is printed only for both narrow band (DS0) and wideband (NxDS0) ISUP calls. This field will always contain the point code of the far end switch.

x = Circuit identification code (CIC). For a wideband call, this is the lowest CIC of a call. This field is printed only for both narrow band (DS0) and wideband (NxDS0) ISUP calls.

y = Number of channel associated with a wideband call (N). This field is printed only for wideband (NxDS0) ISUP calls.

z = Lowest affected CIC. The lowest CIC for which a reset circuit (RSC) or group reset (GRS) message has been received for a wideband call. This field is printed only for wideband (NxDS0) ISUP calls. This field is used exclusively for CRR and RST MDII.

a[1] = Switching module number.

b[1] = Local digit service unit number.

c[1] = Service group number.

d[1] = Digital service unit number.

e[1] = Digital line and trunk unit (DLTU) number.

f[1] = Digital facility interface number.

g[1] = Channel number.

h[1] = Integrated digital carrier unit (IDCU) number.

i[1] = Remote terminal number.

j[1] = Remote terminal line number.

k[1] = Digital carrier line unit number.

l[1] = Remote terminal number.

m[1] = Remote terminal line number.

n[1] = Trunk unit number.

o[1] = Channel board number.

p[1] = Channel circuit number.

q[1] = Number of affected channels. Number of channels for which a reset circuit or group reset message has been received for a wideband call. This field is printed only for wideband (NxDS0) ISUP calls. This field is used exclusively for circuit reset reception (CRR) and reset (RST) MDII.

r[1] = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

s[1] = Data group (DG).

t[1] = Synchronous transport signal (STS) facility number.

u[1] = Virtual tributary group (VTG) number.

v[1] = Digital signal level 0 (DS0) number.

w[1] = Location routing number (LRN). A 10 digit number used to uniquely identify a switch or a switch/rate center that has ported numbers. Note that LRN is subject to digit prefixing and deleting (that is, sometimes it may contain fewer or more than 10 digits).

x[1] = Local number portability (LNP) query indicator. Valid value:
DONE = LNP processing has been done.

y[1] = Jurisdiction information parameter. This is the indication of geographic origination of the call. It represents NPA and NXX.

z[1] = Terminating network selection code. This value is used for routing calls over MINT trunks.

a[2] = SONET termination equipment (STE) facility number.

b[2] = Virtual tributary member (VTM) number.

4. ACTIONS TO BE TAKEN

Refer to the APP:MDII appendix in the Appendixes section of the Output Messages manual for corrective actions. Analyze and detect possible faulty trunks.

5. ALARMS

Format 1 does not generate an alarm.

Format 2 generates either a minor or major alarm.

6. REFERENCES

Input Message(s):

```
ALW:MDII
INH:MDII
OP:MDII
```

Output Message(s):

```
ALW:MDII
INH:MDII
OP:MDII
```

Output Appendix(es):

```
APP:MDII
```

Other Manual(s):
235-070-100 *Administration and Engineering Guidelines*

REPT:MEASUREMENTS

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
REPT MEASUREMENTS {CLCT|PRINT} AUTO INH
```

2. REASON FOR OUTPUT

To report an automatic-inhibit action caused by either the print or memory usage exceeding the allocated amount for measurement reports.

3. VARIABLE FIELD DEFINITIONS

`CLCT` = The data collection allocation for the 30-minute traffic report had too many sections allowed; some were automatically inhibited.

`PRINT` = The output print allocation for measurements had too many reports or sections allowed; some were automatically inhibited.

4. ACTION TO BE TAKEN

Use the OP:MEASTAT or OP:ST-TRFC30 input message to request the status of either the PRINT or COLLECT allocation usage. If the status report indicates that the desired report or section is inhibited, choose a report (or section) which is not desired and inhibit it. Follow up with the appropriate ALW request to permit collection or printing of the desired report (section).

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:DRHR
ALW:PLNTHR
ALW:TRFC15
ALW:TRFC30
INH:DRHR
INH:PLNTHR
INH:TRFC15
INH:TRFC30
OP:MEASTAT
OP:ST-TRFC30
```

Output Message(s):

```
OP:MEASTAT-CLCT
OP:MEASTAT-PRNT
```

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Other Manual(s):
235-070-100 *Switch Administration Guidelines*

REPT:METALLIC-A

Software Release: 5E12 - 5E13
Message Class: TM
Application: 5
Type: Output

1. FORMAT

```
REPT METALLIC a

  DN=b-c [MLHG=d-e] [TKGMN=f-g] [h]

  i

  FILE=j   LINE=k

  TEST SOURCE: l   JOB TYPE=m [LTP TKGMN=f-g]

  n

  .

  .

  .
```

2. REASON FOR OUTPUT

To report the blockage or failure of a metallic path setup request. This message is only printed if ALW:DEBUG,METALLMSG, ALW:DEBUG,METRESBLK, ALW:DEBUG,METSWBLK, or ALW:DEBUG,METHWFAIL has been entered.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`a` = Indicates the category of the failure. Valid value(s):

`HARDWARE FAILURE` = The metallic path setup was unsuccessful because a hardware failure was detected. This category is activated by input message ALW:DEBUG,METHWFAIL or ALW:DEBUG,METALLMSG.

`RESOURCE BLOCKAGE` = The metallic path setup was unsuccessful because a resource needed was in use, out of service, or unavailable. A resource needed for the metallic path was unavailable. This category is activated by input message ALW:DEBUG,METRESBLK or ALW:DEBUG,METALLMSG.

`SOFTWARE BLOCKAGE` = The metallic path setup was unsuccessful because of a software or database problem. This category is activated by input message ALW:DEBUG,METSWBLK or ALW:DEBUG,METALLMSG.

`b` = Telephone number.

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c = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

d = Multi-line hunt group number.

e = Hunt group member number.

f = Trunk group number.

g = Trunk member number.

h = Equipment number. Valid value(s):

i

AIUEN=o-p-q-r
ILEN=o-s-t-u
INEN=o-v-t-u
LCEN=o-w-x-y
LCKEN=o-w-x-z-a[1]
LEN=o-w-b[1]-c[1]-d[1]-e[1]
SLEN=o-f[1]-g[1]-h[1]
TEN=o-i[1]-j[1]-k[1]-l[1]

= Indicates the blockage or failure reason. Valid value(s):

AC SCAN POINT TEST FAILURE

ALL IDLE DCTUPORTS HAD OOS MTBS

ALL JUNCTORS ON THE GDXC SHELF WERE IN USE OR OOS

ALL JUNCTORS ON THE GIVEN SHELF AND SERVICE GROUP WERE IN USE OR OOS

CLOSED DIODE CONTINUITY TEST FAILURE

CORRUPT DATA IN CKTDATA RELATION

CORRUPT DATA IN MTBDCTU RELATION

CORRUPT DATA IN PGTC RELATION

COULD NOT OBTAIN STATE OF TBCU SCAN OR DISTRIBUTE POINT

DC SCAN POINT AND SD POINT TEST FAILURE

DCTUPORTS WERE ALL IN USE OR OOS

DID NOT RECEIVE MGS96DIODE RESPONSE MESSAGE FROM PC BACKGROUND SCHEDULER

DIODE RELAY TEST FAILURE AT FAR END OF MTB

DYNAMIC DATA CORRUPTION IN PCBLA RELATION

ERROR RECEIVED IN MGS96DIODE MESSAGE

FX LINE UNTESTABLE

GDXC REQUESTED WAS ON ANOTHER SHELF AND MTIBS WERE ALL IN USE OR OOS

GDXC REQUIRES MTIB AND MTIBAX PACK WAS OOS

GDXC WAS ALLOCATED, BUT FAILED WHILE IN LEARNING MODE

GDXCS IN SAME SERVICE GROUP WERE IN USE/OOS AND MTIBS WERE ALL IN USE/OOS

GDXCS WERE ALL IN USE OR OOS

MESSAGE CONTENT IS CORRUPTED

MGINTERRUPT RECEIVED WHILE TRYING TO SETUP METALLIC CONNECTION

MTB CONTINUITY TEST FAILURE

MTB CONTINUITY TEST FAILURE, DETECTED FOREIGN VOLTAGE

MTB CONTINUITY TEST FAILURE, DETECTED GROUND

MTB CONTINUITY TEST FAILURE, DETECTED SHORT

MTB WAS IN USE OR OOS FOR BOTH SERVICE GROUPS

MTIBAX PACK FOR PGTC CONNECTION WAS OOS

MTIBS WERE ALL IN USE OR OOS

MTP ALREADY IN USE, CONTENTION BUS FOUND GROUNDED

NO MTB AVAILABLE FOR METALLIC CONNECTION

NO MTIB AVAILABLE FOR METALLIC CONNECTION

NO PGTC MTB AVAILABLE FOR THIS CONNECTION

OPERATION FAILURE OF METALLIC CROSSPOINT FOR PGTC CONNECTION

ORIGINATING MTBS ARE NULL FOR BOTH SERVICE GROUPS IN THE DATABASE

ORIGINATING MTIBAX PACK WAS OOS

ORIGINATING SIDE MTB WAS IN USE OR OOS

POWER CROSS ON ISLC DROP

POWER CROSS ON LINE DROP

POWER CROSS TEST ON JUNCTOR PLUS MTB FAILURE

PROBLEM ASSOCIATED WITH TEST TRUNK

PROTOCOL CIRCUITS WERE ALL IN USE OR OOS

REQUEST TO RESTORE SLC-96 RT DIODE TO OPEN STATE FAILED

RT IS ALARMED

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STUCK JUNCTOR RELAY TEST FAILURE

TERMINATING MTBS ARE NULL FOR BOTH SERVICE GROUPS IN THE DATABASE

TERMINATING MTIBAX PACK WAS OOS

TERMINATING SIDE MTB WAS IN USE OR OOS

TERMINATING SIDE MTB WAS IN USE OR OOS AND MTIBS WERE ALL IN USE OR OOS

TEST ALARM MESSAGE RECEIVED FROM RT WHEN CONNECTING MTB TO DLC PORT

TEST TRUNK ROUTING FAILURE WHILE TRYING TO SETUP METALLIC CONNECTION

TEST TRUNK TEST FAILURE WHILE TRYING TO SETUP METALLIC CONNECTION

THERE WERE NO PROTOCOL CIRCUITS IN THE DATABASE

TIMED OUT WAITING FOR CLOSE PATH REQUEST MESSAGE

TIMED OUT WAITING FOR CLOSED COMPLETE MESSAGE

TIMED OUT WAITING FOR DIODE OPEN MESSAGE

TIMED OUT WAITING FOR MESSAGE

TIMED OUT WAITING FOR SETUP COMPLETE MESSAGE

TWO DIFFERENT METALLIC NETWORKS

UNABLE TO ACTIVATE LTP FOR ALIT CIRCUIT

UNABLE TO ACTIVATE LTP FOR DC JACK

UNABLE TO ACTIVATE LTP FOR MSU PROCESS

UNABLE TO ACTIVATE LTP FOR PMU DCTUPORT

UNABLE TO ACTIVATE PORT FOR METALLIC TEST

UNABLE TO ACTIVATE TEST TRUNK FOR METALLIC TESTING

UNABLE TO COMMUNICATE WITH RT

UNABLE TO CONNECT CIRCUIT TO MTB

UNABLE TO GET CIRCUIT'S BASE ADDRESS

UNABLE TO GET GDXC CIRCUIT FOR LIT TESTING

UNABLE TO GET OWNERSHIP OF ALIT CIRCUIT

UNABLE TO OPEN CIRCUIT'S DIODE ON MTB

UNABLE TO OPERATE PGTC OR ADD TO METALLIC TEST PATH

UNABLE TO OPERATE TBCU

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UNABLE TO READ CKTDATA RELATION

UNABLE TO READ CKT_PORT RELATION

UNABLE TO READ FC_PORTTYP RELATION

UNABLE TO READ MODATT RELATION

UNABLE TO READ MTBDCTU RELATION

UNABLE TO READ MTBS96 RELATION

UNABLE TO READ MTBTST RELATION

UNABLE TO READ PGTC RELATION

UNABLE TO READ PORT DATA

UNABLE TO READ PORTLA RELATION

UNABLE TO READ RC_EQLOC RELATION

UNABLE TO READ S96DIODE RELATION

UNABLE TO READ UNIT_CKT RELATION

UNABLE TO RESERVE EAIU RSTB FOR SLIM TESTING

UNABLE TO ROUTE TO NEXT PROCESS

UNABLE TO SEND MESSAGE TO NEXT PROCESS

UNEXPECTED MESSAGE RECEIVED FOR REQUEST TO RESTORE SLC-96 RT DIODE TO OPEN

UNKNOWN FAILURE/BLOCKAGE REASON

j = File name where problem detected.

k = Line number in file where problem detected.

l = Indicates where the metallic setup request, which was unsuccessful, originated from. Valid value(s):
ALIT
CSTL
DCTU TO DFTAC
IMLT DCTU
TEST TRUNK
TLWS DC JACK
TLWS DCTU
TLWS SLIM

m = Diode protocol test job type that failed. Valid value(s):
P1_2W = Protocol part 1 for 2-way connection.

P1_1W	= Protocol part 1 for 1-way connection.
P2_2W	= Protocol part 2 for 2-way connection.
P2_1W	= Protocol part 2 for 1-way connection.
SLCPX_1W	= SLC power cross via protocol circuit for 1-way connection.
P1_2W_NDP	= Protocol part 1 for 2-way connection with no diode protocol towards terminating end.
SP1_1W	= Shorted protocol part 1 for a 1-way connection.
SP1_2W_F1	= Facility 1 shorted protocol part 1 for a 2-way connection.
SP1_2W_F2	= Facility 2 shorted protocol part 1 for a 2-way connection.
P1_2W_TBCU	= Part 1 of a 2-way TBCU open diode protocol where facility 1 is grounded on both tip and ring.
P2_2W_TBCU	= Part 2 of a 2-way TBCU open diode protocol where facility 1 is open and facility 2 has a ground on both tip and ring.

Note: Part 1 of protocol contains the protocol circuitry self test, junctor and mtb power cross and continuity tests. Part 1 requires the diode relay at the far end of the mtb(s) to be closed. Part 2 of the protocol tests the metallic path to ensure that the far end diode-resistor's relay is actually open. Part 2 requires the diode relay at the far end of the mtb(s) to be open.

n = List of resources owned when failure or blockage occurred. Valid value(s):

ALIT=o-m^1-n^1-o^1
ORIG MTB=o-m^1-n^1-p^1-q^1
TERM MTB=o-m^1-n^1-p^1-q^1
GDXC=o-m^1-n^1-o^1
PROTOCOL CIRCUIT PROTO=o-m^1-n^1
MTIB=r^1
TBCU SCAN=o-m^1-n^1-s^1
TBCU DIST=o-m^1-n^1-t^1
PGTC MTB=o-m^1-n^1-p^1-q^1
SLIM=o-m^1-n^1-u^1
TEST PACK AIUTSTP=o-v^1-w^1
DCTUPORT=o-x^1-l^1
JUNCTOR MAB=o-m^1-n^1-y^1
DIST=o-m^1-n^1-t^1
SCAN=o-m^1-n^1-s^1
TEST TRUNK TEN=o-i^1-j^1-k^1-l^1
MTB=o-m^1-n^1-p^1-q^1

o = Switching module (SM) number.

p = Access interface unit (AIU) number.

q = AIU line pack number.

r = AIU line circuit number.

s = IDCU number.

t = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

u = RT line number or PUB43801 channel.

v = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

w = Line unit number.

x = Line group number.

y = Line card number.

z = Line board number.

a[1] = Line circuit number.

b[1] = Grid number.

c[1] = Switch board number (LU1, LU2, or LU3).

d[1] = Switch number.

e[1] = Level number.

f[1] = Digital carrier line unit number.

g[1] = RT number.

h[1] = RT line number.

i[1] = Trunk unit number.

j[1] = Service group number.

k[1] = Channel board number.

l[1] = Circuit number.

m[1] = Metallic service unit number.

n[1] = Service group number.

o[1] = Metallic service unit board number.

p[1] = Metallic access board number.

q[1] = Metallic access test bus number.

r[1] = MTIB number.

s[1] = Scan point board number.

t[1] = Distribute board number.

u[1] = Subscriber line instrument measuring (SLIM) unit number.

v[1] = Access interface unit (AIU) number.

w[1] = Line pack (LP) number.

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x[1] = DCTU number.

y[1] = MAB board number.

4. ACTIONS TO BE TAKEN

Investigate the problem reported.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:DEBUG
INH:DEBUG
OP:DEBUG
```

Output Message(s):

```
ALW:DEBUG
INH:DEBUG
OP:DEBUG
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:METALLIC-B

Software Release: 5E14 and later
Message Class: METACC
Application: 5
Type: Output

1. FORMAT

```
REPT METALLIC a
  DN=b-c [MLHG=d-e] [TKGMN=f-g] [h]

  i

  FILE=j   LINE=k

  TEST SOURCE: l   JOB TYPE=m [LTP TKGMN=f-g]

  n
  .
  .
  .
```

2. REASON FOR OUTPUT

To report the blockage, failure, or success of a metallic path setup request. This message is only printed if ALW:DEBUG,METALLMSG, ALW:DEBUG,METRESBLK, ALW:DEBUG,METSWBLK, ALW:DEBUG,METHWFAIL, or ALW:DEBUG,METSUCCESS has been entered.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`a` = Indicates the category of the failure. Valid value(s):

`HARDWARE FAILURE` = The metallic path setup was unsuccessful because a hardware failure was detected. This category is activated by input message ALW:DEBUG,METHWFAIL or ALW:DEBUG,METALLMSG.

`RESOURCE BLOCKAGE` = The metallic path setup was unsuccessful because a resource needed was in use, out of service, or unavailable. A resource needed for the metallic path was unavailable. This category is activated by input message ALW:DEBUG,METRESBLK or ALW:DEBUG,METALLMSG.

`SOFTWARE BLOCKAGE` = The metallic path setup was unsuccessful because of a software or database problem. This category is activated by input message ALW:DEBUG,METSWBLK or ALW:DEBUG,METALLMSG.

`SUCCESSFUL SETUP` = The metallic path setup completed successfully and used the listed metallic resources. This category is activated by input message ALW:DEBUG,METSUCCESS.

`b` = Telephone number.

c = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

d = Multi-line hunt group number.

e = Hunt group member number.

f = Trunk group number.

g = Trunk member number.

h = Equipment number. Valid value(s):

AIUEN=o-p-q-r
ILEN=o-s-t-u
INEN=o-v-t-u
LCEN=o-w-x-y
LCKEN=o-w-x-z-a[1]
LEN=o-w-b[1]-c[1]-d[1]-e[1]
SLEN=o-f[1]-g[1]-h[1]
TEN=o-i[1]-j[1]-k[1]-l[1]

i = Indicates the blockage or failure reason. Valid value(s):

AC SCAN POINT TEST FAILURE

ALL IDLE DCTUPORTS HAD OOS MTBS

ALL JUNCTORS ON THE GDXC SHELF WERE IN USE OR OOS

ALL JUNCTORS ON THE GIVEN SHELF AND SERVICE GROUP WERE IN USE OR OOS

CLOSED DIODE CONTINUITY TEST FAILURE

CORRUPT DATA IN CKTDATA RELATION

CORRUPT DATA IN PGTC RELATION

CORRUPT DATA IN XDCTUMTB RELATION

COULD NOT OBTAIN STATE OF TBCU SCAN OR DISTRIBUTE POINT

DC SCAN POINT AND SD POINT TEST FAILURE

DCTUPORTS WERE ALL IN USE OR OOS

DID NOT RECEIVE MGS96DIODE RESPONSE MESSAGE FROM PC BACKGROUND SCHEDULER

DIODE RELAY TEST FAILURE AT FAR END OF MTB

DYNAMIC DATA CORRUPTION IN PCBLA RELATION

ERROR RECEIVED IN MGS96DIODE MESSAGE

FX LINE UNTESTABLE

GDXC REQUESTED WAS ON ANOTHER SHELF AND MTIBS WERE ALL IN USE OR OOS

GDXC REQUIRES MTIB AND MTIBAX PACK WAS OOS

GDXC WAS ALLOCATED, BUT FAILED WHILE IN LEARNING MODE

GDXCS IN SAME SERVICE GROUP WERE IN USE/OOS AND MTIBS WERE ALL IN USE/OOS

GDXCS WERE ALL IN USE OR OOS

MESSAGE CONTENT IS CORRUPTED

METALLIC SETUP COMPLETE, PATH RESOURCES LISTED BELOW

MGINTERRUPT RECEIVED WHILE TRYING TO SETUP METALLIC CONNECTION

MTB CONTINUITY TEST FAILURE

MTB CONTINUITY TEST FAILURE, DETECTED FOREIGN VOLTAGE

MTB CONTINUITY TEST FAILURE, DETECTED GROUND

MTB CONTINUITY TEST FAILURE, DETECTED SHORT

MTB WAS IN USE OR OOS FOR BOTH SERVICE GROUPS

MTIBAX PACK FOR PGTC CONNECTION WAS OOS

MTIBS WERE ALL IN USE OR OOS

MTP ALREADY IN USE, CONTENTION BUS FOUND GROUNDED

NO MTB AVAILABLE FOR METALLIC CONNECTION

NO MTIB AVAILABLE FOR METALLIC CONNECTION

NO PGTC MTB AVAILABLE FOR THIS CONNECTION

OPERATION FAILURE OF METALLIC CROSSPOINT FOR PGTC CONNECTION

ORIGINATING MTBS ARE NULL FOR BOTH SERVICE GROUPS IN THE DATABASE

ORIGINATING MTIBAX PACK WAS OOS

ORIGINATING SIDE MTB WAS IN USE OR OOS

POWER CROSS ON ISLC DROP

POWER CROSS ON LINE DROP

POWER CROSS TEST ON JUNCTOR PLUS MTB FAILURE

PROBLEM ASSOCIATED WITH TEST TRUNK

PROTOCOL CIRCUITS WERE ALL IN USE OR OOS

REQUEST TO RESTORE SLC-96 RT DIODE TO OPEN STATE FAILED

RT IS ALARMED

STUCK JUNCTOR RELAY TEST FAILURE

TERMINATING MTBS ARE NULL FOR BOTH SERVICE GROUPS IN THE DATABASE

TERMINATING MTIBAX PACK WAS OOS

TERMINATING SIDE MTB WAS IN USE OR OOS

TERMINATING SIDE MTB WAS IN USE OR OOS AND MTIBS WERE ALL IN USE OR OOS

TEST ALARM MESSAGE RECEIVED FROM RT WHEN CONNECTING MTB TO DLC PORT

TEST TRUNK ROUTING FAILURE WHILE TRYING TO SETUP METALLIC CONNECTION

TEST TRUNK TEST FAILURE WHILE TRYING TO SETUP METALLIC CONNECTION

THERE WERE NO PROTOCOL CIRCUITS IN THE DATABASE

TIMED OUT WAITING FOR CLOSE PATH REQUEST MESSAGE

TIMED OUT WAITING FOR CLOSED COMPLETE MESSAGE

TIMED OUT WAITING FOR DIODE OPEN MESSAGE

TIMED OUT WAITING FOR MESSAGE

TIMED OUT WAITING FOR SETUP COMPLETE MESSAGE

TWO DIFFERENT METALLIC NETWORKS

UNABLE TO ACTIVATE LTP FOR ALIT CIRCUIT

UNABLE TO ACTIVATE LTP FOR DC JACK

UNABLE TO ACTIVATE LTP FOR MSU PROCESS

UNABLE TO ACTIVATE LTP FOR PMU DCTUPORT

UNABLE TO ACTIVATE PORT FOR METALLIC TEST

UNABLE TO ACTIVATE TEST TRUNK FOR METALLIC TESTING

UNABLE TO COMMUNICATE WITH RT

UNABLE TO CONNECT CIRCUIT TO MTB

UNABLE TO GET CIRCUIT'S BASE ADDRESS

UNABLE TO GET GDXC CIRCUIT FOR LIT TESTING

UNABLE TO GET OWNERSHIP OF ALIT CIRCUIT

UNABLE TO OPEN CIRCUIT'S DIODE ON MTB

UNABLE TO OPERATE PGTC OR ADD TO METALLIC TEST PATH

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UNABLE TO OPERATE TBCU

UNABLE TO READ CKTDATA RELATION

UNABLE TO READ CKT_PORT RELATION

UNABLE TO READ FC_PORTTYP RELATION

UNABLE TO READ MODATT RELATION

UNABLE TO READ MTBS96 RELATION

UNABLE TO READ MTBTST RELATION

UNABLE TO READ PGTC RELATION

UNABLE TO READ PORT DATA

UNABLE TO READ PORTLA RELATION

UNABLE TO READ RC_EQLOC RELATION

UNABLE TO READ S96DIODE RELATION

UNABLE TO READ UNIT_CKT RELATION

UNABLE TO READ XDCTUMTB RELATION

UNABLE TO RESERVE EAIU RSTB FOR SLIM TESTING

UNABLE TO ROUTE TO NEXT PROCESS

UNABLE TO SEND MESSAGE TO NEXT PROCESS

UNEXPECTED MESSAGE RECEIVED FOR REQUEST TO RESTORE SLC-96 RT DIODE TO OPEN

UNKNOWN FAILURE/BLOCKAGE REASON

j = File name where problem detected.

k = Line number in file where problem detected.

l = Indicates where the metallic setup request, which was unsuccessful, originated from. Valid value(s):

ALIT
CSTL
DCTU TO DFTAC
IMLT DCTU
TEST TRUNK
TLWS DC JACK
TLWS DCTU
TLWS SLIM

m = Diode protocol test job type that failed. Valid value(s):

P1_2W	= Protocol part 1 for 2-way connection.
P1_1W	= Protocol part 1 for 1-way connection.
P2_2W	= Protocol part 2 for 2-way connection.
P2_1W	= Protocol part 2 for 1-way connection.
SLCPX_1W	= SLC power cross via protocol circuit for 1-way connection.
P1_2W_NDP	= Protocol part 1 for 2-way connection with no diode protocol towards terminating end.
SP1_1W	= Shorted protocol part 1 for a 1-way connection.
SP1_2W_F1	= Facility 1 shorted protocol part 1 for a 2-way connection.
SP1_2W_F2	= Facility 2 shorted protocol part 1 for a 2-way connection.
P1_2W_TBCU	= Part 1 of a 2-way TBCU open diode protocol where facility 1 is grounded on both tip and ring.
P2_2W_TBCU	= Part 2 of a 2-way TBCU open diode protocol where facility 1 is open and facility 2 has a ground on both tip and ring.

Note: Part 1 of protocol contains the protocol circuitry self test, junctor and mtb power cross and continuity tests. Part 1 requires the diode relay at the far end of the mtb(s) to be closed. Part 2 of the protocol tests the metallic path to ensure that the far end diode-resistor's relay is actually open. Part 2 requires the diode relay at the far end of the mtb(s) to be open.

n = List of resources owned when failure or blockage occurred. Valid value(s):

ALIT=o-m^1-n^1-o^1
ORIG MTB=o-m^1-n^1-p^1-q^1
TERM MTB=o-m^1-n^1-p^1-q^1
GDXC=o-m^1-n^1-o^1
PROTOCOL CIRCUIT PROTO=o-m^1-n^1
MTIB=r^1
TBCU SCAN=o-m^1-n^1-s^1
TBCU DIST=o-m^1-n^1-t^1
PGTC MTB=o-m^1-n^1-p^1-q^1
SLIM=o-m^1-n^1-u^1
TEST PACK AIUTSTP=o-v^1-w^1
DCTUPORT=o-x^1-l^1
JUNCTOR MAB=o-m^1-n^1-y^1
DIST=o-m^1-n^1-t^1
SCAN=o-m^1-n^1-s^1
TEST TRUNK TEN=o-i^1-j^1-k^1-l^1
MTB=o-m^1-n^1-p^1-q^1

o = Switching module (SM) number.

p = Access interface unit (AIU) number.

q = AIU line pack number.

r = AIU line circuit number.

s = IDCU number.

t = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

u = RT line number or PUB43801 channel.

v = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

w = Line unit number.

x = Line group number.

y = Line card number.

z = Line board number.

a[1] = Line circuit number.

b[1] = Grid number.

c[1] = Switch board number (LU1, LU2, or LU3).

d[1] = Switch number.

e[1] = Level number.

f[1] = Digital carrier line unit number.

g[1] = RT number.

h[1] = RT line number.

i[1] = Trunk unit number.

j[1] = Service group number.

k[1] = Channel board number.

l[1] = Circuit number.

m[1] = Metallic service unit number.

n[1] = Service group number.

o[1] = Metallic service unit board number.

p[1] = Metallic access board number.

q[1] = Metallic access test bus number.

r[1] = MTIB number.

s[1] = Scan point board number.

t[1] = Distribute board number.

u[1] = Subscriber line instrument measuring (SLIM) unit number.

v[1] = Access interface unit (AIU) number.

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w[1] = Line pack (LP) number.

x[1] = DCTU number.

y[1] = MAB board number.

4. ACTIONS TO BE TAKEN

Investigate the problem reported.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:DEBUG
INH:DEBUG
OP:DEBUG
```

Output Message(s):

```
ALW:DEBUG
INH:DEBUG
OP:DEBUG
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:MHD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT MHD a ERROR COMPL CODE b MHD STAT c

[2]   ____________________________________________________________
      REPT MHD a ERROR MHD STAT c

[3]   ____________________________________________________________
      REPT MHD a ERROR CHAN STAT d

[4]   ____________________________________________________________
      REPT MHD a ERROR DBS STAT e

[5]   ____________________________________________________________
      REPT MHD a ERROR BIC STAT f

[6]   ____________________________________________________________
      REPT MHD a ERROR STAT g MASK h EXP i

[7]   ____________________________________________________________
      REPT MHD a ERROR DATA j

[8]   ____________________________________________________________
      REPT MHD a FAULT CODE k

[9]   ____________________________________________________________
      REPT MHD a UNIDENT. RESP. WD1=l WD2=m

[10]  ____________________________________________________________
      REPT MHD a AUTONOMOUS RESP. n

[11]  ____________________________________________________________
      REPT MHD a GROWTH {FAILED|COMPLETED}

[12]  ____________________________________________________________
      REPT MHD a DEGROWTH {FAILED|COMPLETED}

[13]  ____________________________________________________________
      REPT MHD a OUT OF SERVICE
```

2. REASON FOR OUTPUT

To specify an error condition detected on a moving head disk (MHD).

3. VARIABLE FIELD DEFINITIONS

a = Unit number.

b Command completion status word in hexadecimal notation. The completion word is eight hex digits

in the form: `rrsstuvv`

`c` = Status, in hexadecimal notation. Refer to the APP:DFC-C appendix in the Appendixes section of the Output Messages manual.

`d` = Channel status, in hexadecimal notation. Refer to the APP:DFC-D appendix in the Appendixes section of the Output Messages manual.

`e` = Bus selector status, in hexadecimal notation. Refer to the APP:DFC-E appendix in the Appendixes section of the Output Messages manual.

`f` = Bus interface controller (BIC) status, in hexadecimal notation. Refer to the APP:DFC-F appendix in the Appendixes section of the Output Messages manual.

`g` = Bus interface controller status, in hexadecimal notation. Refer to the APP:DFC-F appendix in the Appendixes section of the Output Messages manual.

`h` = Mask.

`i` = Expected value of '`g`' after being masked with '`h`'.

`j` = Supplemental data for previous REPT:DKDRV message.

`k` = Fault code, in hexadecimal notation. Refer to the APP:DFC-I appendix in the Appendixes section of the Output Messages manual.

`l` = First word of an unidentifiable completion report.

`m` = Second word of an unidentifiable completion report.

`n` = Autonomous response special completion code (8 hex digits). The explanation of the hex digits is the same as the completion code described in variable '`b`'. The '`u`' hex digit provides the reason for the autonomous response. Refer to Table 3 in the APP:DFC-B appendix in the Appendixes section of the Output Messages manual.

`r` = Command completion code. Refer to Tables 1 and 2 in the APP:DFC-A appendix in the Appendixes section of the Output Messages manual.

`s` = Number of disk blocks read or written.

`t` = Device ID number.

`u` = Special completion code; valid only when '`vv`' is `00`. Refer to Table 3 in the APP:DFC-B appendix in the Appendixes section of the Output Messages manual.

`v` = DMA job number (job ID).

4. ACTION TO BE TAKEN

Formats 1 - 12 indicate an error condition which could cause the removal of a unit.

Format 13 indicates that an MHD was found in an out-of-service state after an initialization. Any out-of-service unit should be repaired and restored to service. Additional messages may be output which provide useful data.

5. ALARMS

Formats 1 - 12 report no alarms.

Format 13 will report a minor alarm if MHD 14 or 15 (software backup disk) is found out of service, and a major alarm if other MHDs are found out of service, since failure to repair these disks could result in an outage if another initialization occurs.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	232
2, 3, 4, 5	233
6	236
7	231
8	234
9	235
10	237, 238, 239
11, 12	241

Input Message(s):

```
DGN:MHD
RMV:MHD
RST:MHD
```

Output Message(s):

```
DGN:MHD
REPT:DKDRV
RMV:MHD
RST:MHD
```

Output Appendix(es):

```
APP:DFC-A
APP:DFC-B
APP:DFC-C
APP:DFC-D
APP:DFC-E
APP:DFC-F
APP:DFC-I
APP:OMDB-X-REF
```

REPT:MHD-CONFIG

Software Release: 5E10 and later
Message Class: DSKSYS
Application: 5
Type: Output

1. FORMAT

```
REPT MHD CONFIGURATION
  MDCT                DEVICES
  a           MHD b [*]        [[MHD c] *]
  .
  .
  .

  d
  .
  .
  .
```

2. REASON FOR OUTPUT

To report on the system's disk configuration. If it is non-standard, this message provides a periodic warning and is normally printed on the receive-only printer (ROP) approximately every 15 minutes.

3. VARIABLE FIELD DEFINITIONS

`a` = A normal minor device configuration table (MDCT) form name.

`b` = A moving head disk (MHD) that is related to the specified MDCT.

`c` = A MHD that is also related to the specified MDCT.

`d` = One or more lines of text explained as follows.

`AUTO MHD CONFIGURATION IS INHIBITED` = Automatic MHD configuration for this office is inhibited office wide.

`AUTO MHD CONFIGURATION IS INHIBITED ON MHD(s)e...` = The specified moving head disks (MHDs) have been blocked from automatic MHD configuration by manual input message.

`AUTO MHD CONFIGURATION IS NOT PERMITTED` = The default state of automatic MHD configuration for this office is off.

`INDICATES RECONFIGURED MHD` = MHDs with an asterisk ('f5*') are not associated with their normal MDCT form.

`WARNING SYSTEM NOT BOOTABLE` = If the system takes a level 52 or higher recovery, it will likely not recover.

4. ACTION TO BE TAKEN

If 'd' =	**Action:**
`AUTO MHD CONFIGURATION IS INHIBITED ON MHD(s)...`	Verify that this is inhibited for a valid reason (for example, some procedure requires it to be inhibited). If not, allow it with the ALW:AUTOCFG input message.
`AUTO MHD CONFIGURATION IS NOT PERMITTED`	No action required.

* INDICATES RECONFIGURED MHD	If any non-spare MHDs are defective, repair or replace defective MHD(s). Restore MHDs to standard configuration when all the replaced MHDs have been repaired.
WARNING SYSTEM NOT BOOTABLE	If either MHD 0 or MHD 1 is non-defective, use SW:MHD input message to configure one of them as a system primary disk. If both MHD 0 and MHD 1 are defective, repair or replace one of them immediately.

5. ALARMS

Minor if any MHD is reconfigured or if inhibited.

Major if system is not bootable.

6. REFERENCES

Input Message(s):

```
ALW:AUTOCFG
INH:AUTOCFG
OP:MHD-CFG
SW:MHD
```

Output Message(s):

```
OP:MHD
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-600-31x *ECD/SG Data Base*
235-105-210 *Routine Operations and Maintenance*

REPT:MIN-MODE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT MIN-MODE
  IMS IS IN MIN-MODE
```

2. REASON FOR OUTPUT

To report periodically that the interprocess message switch (IMS) is in MIN-MODE to remind the user that the IMS automatic recovery is inhibited.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

When the user is ready to return to normal mode, IMS must be rebooted without the MIN-MODE option.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:MIRA

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT MIRA QUEUE FULL - RETRY LATER

[2]   ____________________________________________________________
      REPT MIRA ERROR a c d [e f] RETRY FAILED

[3]   ____________________________________________________________
      REPT MIRA FAILED TO  CHANGE PRIORITY ERRNO = b

[4]   ____________________________________________________________
      REPT MIRA ECD OPEN FAILED ERRNO = b

[5]   ____________________________________________________________
      REPT MIRA ECDMAN FAILED TO GET TOP UCB RECORD ERRNO = b

[6]   ____________________________________________________________
      REPT MIRA NO UCB FOR EQUIPMENT ID = c d [e f]

[7]   ____________________________________________________________
      REPT MIRA CAN'T LCALL g

[8]   ____________________________________________________________
      REPT MIRA NOTHING TO STOP NO UNITS QUEUED

[9]   ____________________________________________________________
      REPT MIRA CAN'T RECEIVE MESSAGE

[10]  ____________________________________________________________
      REPT MIRA UNIDENTIFIABLE MESSAGE RECEIVED

[11]  ____________________________________________________________
      REPT MIRA NULL MESSAGE RECEIVED

[12]  ____________________________________________________________
      REPT MIRA CAN'T SEND MESSAGE TO g ERRNO = b

[13]  ____________________________________________________________
      REPT MIRA PORT CONNECTION FAILURE

[14]  ____________________________________________________________
      REPT MIRA INVALID UNIT ID IN DIAGNOSTIC ABORT REQUEST
        c d [e f]

[15]  ____________________________________________________________
      REPT MIRA INVALID MESSAGE COMMAND RECEIVED

[16]  ____________________________________________________________
      REPT MIRA a c d [e f] ABORT REQUESTED REASON h
```

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```
[17]  ____________________________________________________________________
      REPT MIRA DIAGNOSTICS ARE NOT IN THE SUSPENDED STATE

[18]  ____________________________________________________________________
      REPT MIRA ILLEGAL REQUEST FOR c d [e f]

[19]  ____________________________________________________________________
      REPT MIRA NO UNITS QUEUED OF THAT TYPE

[20]  ____________________________________________________________________
      REPT MIRA INVALID UNIT ID IN INTERACTIVE REQUEST EX a c d [e f]

[21]  ____________________________________________________________________
      REPT MIRA CANNOT RESERVE UNITS FOR a c d [e f]
```

2. REASON FOR OUTPUT

To report one of the following conditions encountered by the maintenance input request administrator (MIRA).

Format 1 indicates that all slots in the MIRA queue are taken.

Format 2 indicates that the unit control block (UCB) for the unit is reserved.

Format 3 indicates that MIRA could not change to a different *UNIX*® priority.

Format 4 indicates that MIRA could not to open the equipment configuration database (ECD) manager.

Format 5 indicates that the ECD manager failed to locate the top UCB for the request.

Format 6 indicates that the UCB for the requested unit was not found by the ECD manager.

Format 7 indicates that MIRA could not create a child process.

Format 8 indicates that a STOP input message has been received but there are no units queued.

Format 9 indicates that MIRA could not enable message reception.

Format 10 indicates that the message tag is invalid.

Format 11 indicates that an error in the message reception occurred.

Format 12 indicates that MIRA could not send a message to a process.

Format 13 indicates that MIRA could not connect to port 2.

Format 14 indicates that the UCB for the unit ID in a diagnostic abort was not found by the ECD manager.

Format 15 indicates that MIRA could not execute the input message in a message.

Format 16 indicates that an abort of an active diagnostic has been initiated by MIRA.

Format 17 indicates that the input message ALW:DMQ was entered while normal execution of diagnostics was allowed.

Format 18 indicates that the unit cannot be diagnosed or restored because it is a software device.

Format 19 indicates that there is no unit queued of the type requested in the STOP message.

Format 20 indicates that the UCB for the unit ID in the EX request was not matched, no action was taken.

Format 21 is the same as Format 2.

3. VARIABLE FIELD DEFINITIONS

`a` = Type of input request.

`b` = System error number. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

`c` = Unit name.

`d` = Unit number.

`e` = Subunit name.

`f` = Subunit number.

`g` = Name of process in directory /diag/dgnc.

`h` = Reason code for the diagnostic abort. Valid value are:

- `0` = MML STP:DMQ input message was entered.
- `1` = Abort request received from the DMERT fault recovery process.
- `2` = Software diagnostic abort request was received.
- `3` = Operating system signal received by MIRA.
- `4` = Timeout message received from diagnostic timer (dgntimer) process.

4. ACTION TO BE TAKEN

For Format 1, wait until a slot is available (refer to the OP:DMQ input message) or remove a request from the queue. Refer to the STOP:DMQ or STP:DMQ input message. If problem persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Formats 2 and 21, one of the following actions should be taken in the order given in the following Exhibit. If the problem persists, do the next action on the list:

Step:	Action:
1	Wait until the UCB is no longer reserved. The unit specified in the diagnostic request may be in use by another process. Both INIT:MHD (initialize moving head disk) and UPD:GEN (software release update) reserve units. Verify that these processes are not active. Retry the maintenance request.
2	Enter: `RMV:unit=a;` where `unit` is the unit name and `a` is the unit number from the original maintenance request. Retry the maintenance request.
3	Enter: `AUD:ECDOWN=1` to run the ECD audit. Retry the maintenance request.
4	Enter: `OP:STATUS:DATA,PROCESS,ALL;`

	Record the identifications for all processes named "ppdiamon," "cudiagc," "iodiag," and "dfdiag."
	
	Enter:
	
	`STOP:EXC:DATA,ANY,PID=a;`
	
	to kill these processes. Enter:
	
	`AUD:ECDOWN=1`
	
	to run the ECD audit. Try the maintenance request again.

5	Repeat Step 4 using the following input messages: Enter: `STOP:EXC:DATA,USER,PID=a,SIG=9;` This generates a kill that cannot be caught or ignored. Use of this input message will result in the need to reinitialize ularp. INIT:ULARP will restart all monitored processes.
6	If problems persist, Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 3, MIRA can change its priority if it is spawned with an input message line parameter of `prty=x`, where -39(<=x(<=39. MIRA's priority then becomes default priority minus 6x. When '`x`' is negative, the priority increases. When '`x`' is positive, the priority decreases. In no case will MIRA's priority rise above 191 or go below zero. MIRA's input message line can be found in the file /etc/ularpfile. The typical error causing this output will be an out-of-range input message line '`prty`' value.

For Format 4, verify that the file /dev/ecd exists and the access permissions are correct.

For Formats 5 and 6, verify that a valid unit name was entered on the input request. Examine the UCB of the unit requested for correctness, using the recent change and verify input message RCV:M-BROWSE.

For Format 7, verify that process '`g`' exists in the directory /diag/dgnc and is executable. This failure also occurs if insufficient swap space exists.

For Formats 8, 12, 14, 16 - 18, and 20, no action is required.

For Formats 9 and 13, no action is required. MIRA will terminate and be restarted by ULARP.

For Formats 10 and 11, if a manual input message preceded this message, retry the input message.

For Formats 15 and 19, if a manual input message preceded this message, retry the input message.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1, 8-11, 13, 15, 17, 19	59
2, 21	60
3, 4, 5	72
6, 14, 18, 20	73
7	68

12	69
16	86

Input Message(s):

```
ALW:DMQ
DGN:CU
DGN:DFC
DGN:DUIC
DGN:HSDC
DGN:MHD
DGN:MTC
DGN:MTTYC
DGN:SCSDC
DGN:SDLC
DGN:TTYC
EX:CU
EX:DFC
EX:DUIC
EX:HSDC
EX:IOP
EX:LDPARM
EX:LOOP
EX:MHD
EX:MTC
EX:MTTYC
EX:PAUSE
EX:SCSDC
EX:SDLC
EX:STEP
EX:STOP
EX:TTYC
OP:DMQ
OP:ST-PROC
RCV:M-BROWSE
RMV:CU
RMV:DFC
RMV:DUI
RMV:DUIC
RMV:HSD
RMV:HSDC
RMV:IOP
RMV:MHD
RMV:MT
RMV:MTC
RMV:MTTY
RMV:MTTYC
RMV:ROP
RMV:SBUS
RMV:SCC
RMV:SCSDC
RMV:SDL
RMV:SDLC
RMV:TTY
RMV:TTYC
RST:CU
```

```
RST:DFC
RST:DUI
RST:DUIC
RST:HSD
RST:HSDC
RST:IOP
RST:MHD
RST:MT
RST:MTC
RST:MTTY
RST:MTTYC
RST:ROP
RST:SBUS
RST:SCC
RST:SCSDC
RST:SDL
RST:SDLC
RST:TTY
RST:TTYC
STOP:DMQ
STOP:EXC-ANY
STOP:EXC-USER
STP:DMQ
STP:EXC-ANY
STP:EXC-USER
```

Output Message(s):

```
DGN:AUDIT
DGN:CU
DGN:CU-MASC
DGN:DFC
DGN:DUIC
DGN:HSDC
DGN:INHIBIT
DGN:IOP
DGN:MHD
DGN:MTC
DGN:MTTYC
DGN:SCSDC
DGN:SDLC
DGN:TTYC
EX:CU
EX:DFC
EX:DUIC
EX:HSDC
EX:IOP
EX:LDPARM
EX:LOOP
EX:MHD
EX:MTC
EX:MTTYC
EX:PAUSE
EX:SCSDC
EX:SDLC
```

```
EX:STEP
EX:TTYC
OP:DMQ
OP:ST-PROC
RMV:CU
RMV:DFC
RMV:DUI
RMV:DUIC
RMV:HSD
RMV:HSDC
RMV:IOP
RMV:MHD
RMV:MT
RMV:MTC
RMV:MTTY
RMV:MTTYC
RMV:ROP
RMV:SBUS
RMV:SCC
RMV:SCSDC
RMV:SDL
RMV:SDLC
RMV:TTY
RMV:TTYC
RST:CU
RST:DFC
RST:DUI
RST:DUIC
RST:HSD
RST:HSDC
RST:IOP
RST:MHD
RST:MT
RST:MTC
RST:MTTY
RST:MTTYC
RST:ROP
RST:SBUS
RST:SCC
RST:SCSDC
RST:SDL
RST:SDLC
RST:TTY
RST:TTYC
STOP:EXC-USER
```

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-210 *Routine Operations and Maintenance*

REPT:MKDSK

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    ____________________________________________________________________
       REPT MKDSK PLEASE MOUNT NEXT TAPE IN SEQUENCE
         REMEMBER TO PLACE TAPE DROVE ONLINE
         TO RESTART TYPE MKSTART

[2]    ____________________________________________________________________
       MKDSK STILL WAITING FOR NEXT TAPE IN SEQUENCE
         REMEMBER TO PLACE TAPE DROVE ONLINE
         TO RESTART TYPE MKSTART
```

2. REASON FOR OUTPUT

Format 1 reports that another tape should be mounted (multiple tapes are being read).

Format 2 reports that mkdsk has not terminated yet, and there is still a chance to mount the next tape.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

Mount the next tape in the sequence. If a user waits longer than five minutes before mounting the next tape, the process will terminate and the procedure will have to be restarted.

5. ALARMS

None.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1, 2	604

Input Message(s):

```
EXC:ENVIR-UPROC
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

REPT:MMGR001

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT MMGR001 BAD DKDRV STAT a
```

2. REASON FOR OUTPUT

To report that the memory manager has received an acknowledgement message with an invalid response field from the disk driver. Legal responses are: success, failure, retry or bad message. The memory manager, not sure of how to proceed, will retry the Input/Output request.

3. VARIABLE FIELD DEFINITIONS

`a` = Offending status code, in decimal notation.

4. ACTION TO BE TAKEN

There is apparently a software coding error. Unless the condition causing the unusual return clears spontaneously, recovery in the field is remote. Submit an operational trouble report accompanied by the printout of this message.

5. ALARMS

None.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	328

Output Appendix(es):

`APP:OMDB-X-REF`

REPT:MMGR002

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT MMGR002 EXCESSIVE RETRIES FOR I/O SWAP
  SEGID a RETRIED b TIMES
```

2. REASON FOR OUTPUT

To report that the disk driver has returned a message status of 'retry' an unexpectedly large number of times. This message is repeated every 20 times a retry message is received until the Input/Output request is satisfied.

3. VARIABLE FIELD DEFINITIONS

`a` = Segment ID of the segment being swapped. (This might be useful in debugging.)

`b` = Number of times this was retried.

4. ACTION TO BE TAKEN

There is trouble in the disk driver. The swapping function of memory management is probably not working while this condition continues. Diagnose the moving head disk.

5. ALARMS

None.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	329

Input Message(s):

```
DGN:MHD
RMV:MHD
RST:MHD
```

Output Message(s):

```
DGN:MHD
RMV:MHD
RST:MHD
```

Output Appendix(es):

APP:OMDB-X-REF

REPT:MMGR003

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT MMGR003 ADD [EXTENDED] MEMORY FAILED. AVAILABLE MEMORY = a PAGES
  ATTEMPTED TO GROW MEMORY TO b PAGES
  [MUST REGEN SYSTEM TO ADD MEMORY
```

2. REASON FOR OUTPUT

To report that a request to make some added memory available for system use failed. Recent change/verify had requested that the memory manager make some added memory available for system use.

3. VARIABLE FIELD DEFINITIONS

`a` = Amount of usable memory, in pages. One page equals 2048 bytes.

`b` = Number of pages that recent change/verify attempted to make available for system use.

4. ACTION TO BE TAKEN

If recent change/verify attempts to increase the memory size beyond the maximum memory size specified during system generation, the memory manager will attempt to grow memory to '`a`' pages (variable '`a`' should equal the system generation specified maximum memory size). To increase this size, the system must be resysgened, and the administrative module (AM) rebooted to use the additional memory. However, if this is not desirable, then the system can be left to run with the original amount of memory.

If recent change/verify attempts to add memory beyond the physical size of memory the attempt will fail. For VLMM the physical size of memory is 32786; for EMM it is 16384; otherwise, it is 8192. This indicates a faulty recent change/verify request.

If '`b`' is less than or equal to '`a`', then a request was made to add memory with the memory size being equal to the old size or smaller. This could be caused by an error when entering recent change/verify commands.

5. ALARMS

None.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	330

Input Message(s):

```
UPD:BLDBOOT
```

Output Appendix(es):

APP:OMDB-X-REF

REPT:MMGR004

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT MMGR004 SWAP SPACE REQUEST FAILED
  AVAIL BLKS = b REQUESTED BLKS = a
```

2. REASON FOR OUTPUT

Swap disk space is allocated to new segments as they are created, and each segment must get contiguous blocks on the disk. This raises the possibility of fragmentation. That is, there might be enough free space for any given segment, but no single set of contiguous free blocks is large enough by itself. Instead of denying a space request immediately, the Memory Manager will attempt to re-arrange the disk space of existing segments. This can be done reasonably cheaply for all segments that happen to be in main memory at the time.

This message is produced when such a compaction has been done. However, the request that triggered the compaction could NOT be satisfied, even after the compaction.

3. VARIABLE FIELD DEFINITIONS

`a` = The size, in 512-byte disk blocks, of the failing request.

`b` = The size, in 512-byte disk blocks, of the largest free contiguous extent ("hole") after compaction.

4. ACTION TO BE TAKEN

If this message occurs, a request for swap space has been denied. This implies that some process was unable to function properly. Possible urgent action to be taken includes:

- Request a more effective but more expensive compaction using the AUD:MMGR input message. This may be postponed until a time when the load is lighter.
- If the message persists, more disk space may be required. This entails a regeneration of the system, and a re-boot.

Note: The automatic compaction will not be attempted, and this message will not appear, if the system is in a state of absolute swap disk overload (output message `REPT SIMCHK 602 A6` has appeared).

5. ALARMS

None.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	331

Input Message(s):

```
AUD:MMGR
UPD:BLDBOOT
```

Output Message(s):

```
REPT:SIMCHK
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

REPT:MMGR005

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
REPT MMGR005 AVAILABLE [EXTENDED] MEMORY NOW a PAGES
```

2. REASON FOR OUTPUT

To report that real memory was added to the system using recent change/verify (RC/V). The memory manager has made this memory available.

3. VARIABLE FIELD DEFINITIONS

`a` = New size of usable memory, in pages. One page equals 2048 bytes.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	674

Output Appendix(es):

APP:OMDB-X-REF

REPT:MON-SLK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT MON SLK
  SLK a b [c] [d] [e]
          f g
```

2. REASON FOR OUTPUT

To respond to the MON:SLK input request and a link event.

3. VARIABLE FIELD DEFINITIONS

`a` = Group number.

`b` = Member number.

`c` = Far end CLLI code of this link.

`d` = Major link state. Valid value(s):
- `AVL` = Available.
- `UNA` = Unavailable.

`e` = Minor link state. Valid value(s):
- `IS` = In-service.
- `GROW` = Unavailable due to growth state.
- `MOOS` = Manual out of service.
- `OOS` = Out of service.
- `TEST` = Unavailable due to testing.

`f` = ASCII text describing the event (refer to the APP:CNI appendix in the Appendixes section of the Output Messages manual).

`g` = Time that the link event occurred, in milliseconds.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
MON:SLK
```

Output Message(s):

```
MON:SLK
```

Output Appendix(es):

```
APP:CNI
```

REPT:MON-TRAP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT MON_TRAP
        MTRP: CAN'T START TRAP; b; ID = a

[2]   ____________________________________________________________________
      REPT MON_TRAP
        MTRP: TRAP NOT STARTED ON LN; REC'D NEG ACK;
             ID = a RNA = d LN RSN = l

[3]   ____________________________________________________________________
      REPT MON_TRAP
        MTRP: CAN'T START TRAP ON c LN(S); ID = a
               RNA =      d

[4]   ____________________________________________________________________
      REPT MON_TRAP
        MTRP: TRAP STARTED; ID = a

[5]   ____________________________________________________________________
      REPT MON_TRAP
        MTRP: TRAP COMPLETED; ID = a

[6]   ____________________________________________________________________
      REPT MON_TRAP
        MTRP: TRAP REMOVED; ID = a

[7]   ____________________________________________________________________
      REPT MON_TRAP
        MTRP: TRAP TERMINATED; ID = a TRM RSN = n

[8]   ____________________________________________________________________
      REPT MON_TRAP
        MTRP: TRAP ABORTED; ID = a TRM RSN = n

[9]   ____________________________________________________________________
      REPT MON_TRAP
        MTRP: TRAP ABORTED; LAST LN REMOVED FROM TRAP
              ID = a RNA = d RM RSN = m

[10]  ____________________________________________________________________
      REPT MON_TRAP
        MTRP: TRAP ABORTED; INCONSISTENT ID'S IN STATUS CHECK;
              ID'S = e,q RNA = d

[11]  ____________________________________________________________________
      REPT MON_TRAP
        MTRP: NO ACK FROM c NODE(S); ID = a
```

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```
            RNA =      d
        f

[12]  ____________________________________________________________________
      REPT MON_TRAP
        MTRP: TRAP ABORTED IN LN(S); LN TRANSITION
              RNA = d    ID = a

[13]  ____________________________________________________________________
      REPT MON_TRAP
        MTRP: LN REMOVED FROM TRAP; ID = a RNA = d RM RSN = m

[14]  ____________________________________________________________________
      REPT MON_TRAP
        MTRP: LN REMOVED FROM TRAP; REC'D LN ABORT MSG
              ID = a STATE = r RNA = d LN RSN = l

[15]  ____________________________________________________________________
      REPT MON_TRAP
        MTRP: ALL TRAPPED MSG(S) OVERWRITTEN; ID = a NUM_MSG = g

[16]  ____________________________________________________________________
      REPT MON_TRAP
        MTRP: SOME TRAPPED MSG(S) OVERWRITTEN; ID = a NUM_MSG = g

[17]  ____________________________________________________________________
      REPT MON_TRAP
        MTRP: INCORE BUF UNAVAIL; ALL TRAPS ABORTED

[18]  ____________________________________________________________________
      REPT MON_TRAP
        MTRP: DISK FILE SPACE EXHAUSTED; DUE TO NO OVERWRITE

[19]  ____________________________________________________________________
      REPT MON_TRAP
        MTRP: MESSAGE TRAP DISK FILE h PERCENT FULL; i

[20]  ____________________________________________________________________
      REPT MON_TRAP
        MTRP: TUNABLE PARAM EXCEEDS LIMIT; j

[21]  ____________________________________________________________________
      REPT MON_TRAP
        MTRP: RTDSP ERROR; PRINT BUF RESULTS LOST

[22]  ____________________________________________________________________
      REPT MON_TRAP
        MTRP: REC'D UNEXPECTED SIGNAL; SIG = k

[23]  ____________________________________________________________________
      REPT MON_TRAP
        MTRP: MON_TRAP ABORTS; BE RE-CREATED BY CNIINIT

[24]  ____________________________________________________________________
      REPT MON_TRAP
        MTRP: CAN'T SEND RTR MSG; NO EBD OUTPUT; ERRNO = o
```

```
[25]  ____________________________________________________________________
      REPT MON_TRAP
        MTRP: EBD DOES NOT EXIST; NO EBD OUTPUT

[26]  ____________________________________________________________________
      REPT MON_TRAP
        MTRP: NOT ABLE TO CREATE (EXECL) EBD; NO EBD OUTPUT

[27]  ____________________________________________________________________
      REPT MON_TRAP
        MTRP: DISK SPACE RESRC UNAVAIL; FILE = p
              MESSAGE TRAP NOT FUNCTIONAL

[28]  ____________________________________________________________________
      REPT MON_TRAP
        MTRP:  AUTOMATIC DATA DUMP for RNA = d
```

2. REASON FOR OUTPUT

To report the status of the message trap feature (as seen from the MON_TRAP process).

Note: MON_TRAP refers to the permanent message trap process at the administrative module (AM). EBD refers to the enhanced buffer dump process at the AM. The EBD process mentioned in this OM page is a child process of MON_TRAP.

For Format 1, a SET:TRAP input message was entered and processed successfully. When it was time to start the trap, MON_TRAP could not for the reason being displayed. Any trap entry belonging to this trap was removed from the message trap database.

For Format 2, a SET:TRAP input message was entered and processed successfully. When it was time to start the trap, an attempt was made to start the trap on all the given link nodes. However, one of the link nodes sent a negative acknowledgement back to the AM with the reason being displayed. Hence, MON_TRAP removed that link node from the list of link nodes belonging to this trap.

For Format 3, a SET:TRAP input message was entered and processed successfully. When it was time to start the trap, an attempt was made to start the trap on all the link nodes specified in the SET:TRAP input message, but MON_TRAP was not able to start a trap on one or more of the given link nodes. This format gives a listing of the nodes that MON_TRAP fails to start the trap on. The trap would have started on the remaining nodes.

For Format 4, a SET:TRAP input message was entered and processed successfully. MON_TRAP was able to start the trap successfully on one or more of the link nodes specified in the SET:TRAP input message. The trap is in an active state.

For Format 5, a trap has gone to completion gracefully. One of the completion criteria (that is, message count and duration) has been satisfied. The trap is in a completed state.

For Format 6, a trap and its trap entry have been removed from the message trap database. Its trapped results, if any, have been lost. For instance, this will occur when a completed, aborted or terminated trap has been on the message trap database for more than 24 hours.

For Format 7, a trap has terminated with the reason of termination being displayed. The trap is in a terminated state.

For Format 8, a trap has aborted with the reason of termination being displayed. The trap is in an aborted state.

For Format 9, MON_TRAP has removed the last link node from the list of link nodes belonging to this trap due to the

reason being displayed, thereby causing the trap to abort.

For Format 10, during a status check procedure, MON_TRAP found that the trap ID recorded in the link node was different from the trap ID recorded for that link node in the message trap database at the AM. MON_TRAP then aborted the trap.

For Format 11, a SET:TRAP input message was entered and processed successfully. When it was time to start the trap, an attempt was made to start the trap on all the link nodes specified in the SET:TRAP input message. MON_TRAP expects acknowledgements from all the link nodes within certain time interval. MON_TRAP will remove those link nodes that give no acknowledgements or negative acknowledgements from the list of the link nodes belonging to this trap. The trap should have started on the remaining nodes. If all nodes give no or negative acknowledgements, MON_TRAP will abort the trap. This format gives a summary of the condition when MON_TRAP does not receive any acknowledgement from one or more of the given link nodes.

For Format 12, any trap on a node will be disabled when the node has gone from an in-service (IS) state to an out-of-service (OOS) state. This format results when MON_TRAP found that one or more link nodes, which was supposed to have trap on, had gone from IS to OOS at least once during the previous one-minute interval.

Format 13 prints when one of the link nodes belonging to a trap was removed from the trap for the reason displayed.

Format 14 prints when a link node with trap on has sent an abort trap message along with a reason to the AM. MON_TRAP then removes the link node from the list of link nodes belonging to the trap. The reason is printed.

Format 15 prints when an OP:TRAP input message with ID given is being processed and MON_TRAP finds that all the trapped results belonging to the specified trap have been overwritten. The number of lost trapped messages, that belonged to this trap, is printed.

Format 16 prints when an OP:TRAP input message with ID given was being processed and MON_TRAP found that some of the trapped results belonging to the specified trap have been overwritten. The number of lost trapped messages, that belonged to this trap, is printed. The remaining trapped messages should have been displayed.

Format 17 prints when all the message trap incore buffers become unavailable at the AM. These incore buffers are used for collecting trapped results before the results are written to the disk file for long term storage. This condition may be due to a high volume of trapped results, not expected to be handled by this tool, being sent to the AM in a short interval. Hence, MON_TRAP aborts all the traps to stop the excessive incoming traffic.

Format 18 prints when the overwrite option has been disabled and the disk file has been filled with trapped results.

Format 19 reports the percentage usage of the disk file.

Format 20 prints when an application of the message trap feature has tuned one of the application tunable parameters to a value larger than the internal limit allowed by the feature. The value of the parameter is then set to the value of the internal limit that is displayed in this format.

Format 21 prints when an error occurs in the real-time display of trapped results. Part of the results to be displayed is lost.

Format 22 prints when an unexpected *UNIX*® RTR operating system signal is received by MON_TRAP.

Format 23 prints when MON_TRAP aborts. Other message formats may precede this format to explain the reason why MON_TRAP has aborted.

Format 24 prints when MON_TRAP cannot send any a *UNIX*® RTR operating system message to enhanced buffer dump (EBD) due to the unavailability of RTR buffers. Since EBD is responsible for printing out the trap information and results, no output is expected from EBD because MON_TRAP cannot instruct EBD regarding the output of trap information and results.

Format 25 prints when the following scenario occurs. Before MON_TRAP sends a *UNIX*® RTR operating system message to EBD, it checks if EBD exists. If yes, MON_TRAP will build the *UNIX*® RTR message and send it out. EBD is then killed for some reason during this time frame when MON_TRAP is building the *UNIX*® RTR message.

Format 26 prints when MON_TRAP cannot execute the EBD object module using the *UNIX*® RTR operating system call "execl()".

Format 27 prints when MON_TRAP cannot find enough contiguous disk space in the system. Normally, MON_TRAP uses the *UNIX*® RTR operating system call "falloc()" to create the disk file, which contains the contiguous disk space, at the appropriate directory. Message trap cannot carry out its normal trapping activities without enough contiguous disk space.

For Format 28, this output results when a System 7 link node performs an automatic data dump. The MON_TRAP process receives this data and writes it to the file /etc/log/LNDMP_DATA.

3. VARIABLE FIELD DEFINITIONS

`a` = Trap identification number.

`b` = Reason for not starting the trap. Valid values are:

```
ALL LN OCCUPIED
ALL LN OOS OR OCCUPIED
TOO MANY ATTRIBUTES
TRAPPING ON MORE THAN s LINKS
```

`c` = Number of link nodes.

`d` = Ring node address.

`e` = Trap ID recorded at the AM.

`f` = Status of traps. Valid values are:

```
MTRP: TRAP ABORTED DUE TO NO ACK; ID = a
MTRP: TRAP SET ON REMAINING c NODE(S); ID = a
```

`g` = Number of messages lost. Valid values are:

`ALL` = Number of messages lost = number of messages collected.

`SOME` = Number of messages lost = number of messages collected minus the number of messages printed.

`h` = Percentage use of disk space.

`i` = Overwrite status. Valid values are:

`OVERWRITE ENABLED` = Disk file overwrite is enabled.

`OVERWRITE DISABLED` = Disk file overwrite is disabled.

`j` = Maximum parameters. Valid values are:

`MAX DUR (MINUTES)` = Maximum duration.

`MAX MGSZE (BYTES)` = Maximum message size.

`MAX MCNT` = Maximum message count.

`k` = *UNIX*® RTR operating system signal .

`l` = Reason used in abort trap message or negative acknowledgement message from link node. Valid values are:

`1` = A different trap is already running.

`2` = Same trap is already running.

`3` = Ring write for a response failed.

4 = Ring write for a report message failed.
5 = Command's trap ID not matching node's.
6 = Node state is same as the command received.
7 = Undefined command.
8 = Message trap buffer unavailable.
9 = XMIT mbox level 1 or higher congestion.
10 = Real-time level 1 or higher overload.
11 = IMS ring receive buffer (RRB) level 1 or higher congestion.
12 = Ring peripheral control (RPC) level 1 or higher congestion.
13 = Trap buffer at node congested.
14 = Received a AM returned message.
15 = Received a source-matched msg.
16 = RCV mbox level 1 or higher congestion.

m = Reason for removal of a link node from trap. Valid values are:
1 = Link node been through a state transition.
2 = Received an abort_trap message from link node.
3 = Received a returned message destined to link node.
4 = Received an SRC-matched message destined to link node.
5 = Link node occupied by other trap.
6 = Status check indicates link node has aborted trap.
7 = Have not received acknowledgement (of start_trap) from link node.
8 = Received a negative acknowledgement (of start_trap) from link node.

n = Reason for termination. Valid values are:
0 = Unspecified.
1 = The trap has gone to completion gracefully (due to message count).
2 = The trap has gone to completion gracefully (due to duration).
3 = User initiated STOP:TRAP.
4 = Inhibited for too long; abort trap.
5 = Resource problem at the AM.
6 = Frequency of disk write at the AM exceeds threshold.
7 = Disk space exhausted in "no overwrite" mode.
8 = MTRP incore buffers unavailable during disk_write.
9 = CNI level 1 initialization has occurred.
10 = Trap aborted at all concerned link node(s); due to resource or congestion.
11 = All concerned link nodes are OOS.
12 = All concerned link nodes are either OOS or have aborted the trap.
13 = Problem occurred during status check or audit.

o = *UNIX*® RTR error number given when a *UNIX*® RTR operating system call fails.
p = Path and file name of the message trap contiguous disk file.
q = Trap ID recorded at the node.
r = Trap state. Valid values are:
0 FRE = Trap entry is free (not a trap state)
1 ACT = Trap is active
2 PND = Trap has never been started; pending to be activated
3 INH = Trap has been started; is inhibited
4 CMP = Trap has gone to completion as specified in message count/duration
5 ABT = Trap has been aborted prior to the specified completion criteria due to congestion/resource/node_removal problems at link nodes or resource problem at AM

6 TRM = Trap has been explicitly terminated prior to the specified completion criteria by a STOP:TRAP input message

s = Maximum number of links allowed to be trapped on at any time.

4. ACTION TO BE TAKEN

Note: Some actions require more specific knowledge than others. In these instances the user should refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 1,

If 'b' =	Action:
TRAP NEEDS TOO MANY ATTRIBUTES	Input parameters are transformed into trap attributes which will be used by the link nodes to perform message matching. Real-time concerns at link nodes impose a limit on the number of attributes that can be used for trapping. The number of attributes generated from the parameters given in the SET:TRAP input message exceeds that limit. Reduce the number of input parameters given in the SET:TRAP input message.
TRAPPING ON MORE THAN xx LINKS	Maximum number of links that can have trap on at any time has been reached (including this trap). Attempt to: - Retry SET:TRAP input message with fewer links. - Use STOP:TRAP input message to stop any unwanted active or inhibited trap.
ALL LN OOS	All the link nodes of the links specified in the SET:TRAP input message are out of service.
ALL LN OCCUPIED	All the links specified in the SET:TRAP input message are occupied by other traps.
ALL LN OOS OR OCCUPIED	Message is self-explanatory. Refer to previous two items.

For Formats 2, 8-11, 13, 14, 18, message is self-explanatory take appropriate action.

For Formats 3-7, 12, 15, 16, 17, 19, 20, 23, 25, no action is required.

For Format 21, the condition may be due to a relatively high rate of incoming trapped results for this trap which has real-time display on. The message trap real-time display print buffers may become unavailable or EBD is not able to output the trapped results as fast as the trapped results are given to it. May consider turning off the real-time display mode.

For Formats 22 and 24, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 26, check if the object module of the process EBD is in the correct directory; if yes, check if it is executable.

For Format 27, check if the appropriate directory has been created for the disk file that is supposed to contain the contiguous disk space; and check if enough contiguous disk space has been partitioned (or allocated) for the file system related to the directory. If there is no directory but there is enough contiguous disk space in the file system, create the directory and kill the MON_TRAP process which will then be re-created by the CNIINIT process. If there is not enough contiguous disk space in the filesystem, partition enough contiguous disk space (may need to initialize CNI). Initializing the CNI causes call processing downtime. Proper consideration should be taken before this is done.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRAP
INH:TRAP
OP:TRAP
SET:TRAP
STOP:TRAP
```

Output Message(s):

```
ALW:TRAP
INH:TRAP
OP:TRAP
SET:TRAP
STOP:TRAP
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

REPT:MOP

Software Release: 5E10 and later
Message Class:
Application: 5,3B
Type: Output

1. FORMAT

```
REPT MOP CANNOT UNMOUNT DEVICE a ERROR = b
```

2. REASON FOR OUTPUT

To report that the process mop is unable to unmount the off-line partition mounted as device a due to error 2b.

3. VARIABLE FIELD DEFINITIONS

`a` = Name of device.

`b` = Error code. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If mop is unable to unmount device '`a`' because a file on the device is open (busy), close the file and mop will unmount device '`a`' approximately two minutes after most recent report time.

If mop is unable to unmount the device due to an input/output error, kill the current mop process before executing a Format 2 MOP message as documented in administrative module (AM) messages.

5. ALARMS

None.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	542

Input Message(s):

```
CMPR:DISK-CORE
VFY:FILE
```

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

REPT:MRVR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT:MRVR
  a [b]
  c
  .
  .
  .
```

2. REASON FOR OUTPUT

To report the receipt of an unexpected message transfer part (MTP) route verification test (MRVR) message. The output will be directed to the standard output associated with the initiator of the test, and also to those specified for the MTCE message class. If they are the same device, only one printout will occur.

3. VARIABLE FIELD DEFINITIONS

a = Text phrase based on the information received in the MRVR message. Valid value(s):

```
EXCESSIVE LENGTH ROUTE
LOOP
INACCESSIBLE SIGNALING POINT
STPS CROSSED - SIGNALING TRANSFER POINTS CROSSED
TEST CANNOT BE RUN DUE TO LOCAL CONDITIONS
TIMER EXPIRED
UNKNOWN ERROR CODE
UNKNOWN INITIATOR POINT CODE
UNKNOWN TERMINATOR POINT CODE
```

b = Error number. Note that if 'a' is STPS CROSSED, this item will not be included in the output message. Valid value(s):

1 = Detected loop.
2 = Excessive length route.
3 = Unknown resource instance.
4 = Route inaccessible.
5 = Processing failure.
6 = Unknown initiating signaling point (SP).
7 = Timer expired.

c = Point code(s) associated with the failure being reported. Valid value(s):

If 'a' =	**'c' =**
EXCESSIVE LENGTH ROUTE	Point code of the SP detecting the excessive length route followed by the point codes that were in the route up to the detecting SP.
LOOP	Point code of SP detecting the loop followed by the list of point codes in the loop.
INACCESSIBLE SIGNALING POINT	Point code of the SP that cannot access the inaccessible SP followed by the

	point code the point code of the inaccessible SP.
STPS CROSSED	List of STPS crossed.
TEST CANNOT BE RUN DUE TO LOCAL CONDITIONS	Point code of the SP that cannot run the test.
TIMER EXPIRED	Point code of the SP where the timer expired followed by the list of point codes from which expected MRVA messages were not received.
UNKNOWN ERROR CODE	The error number received that is not on the above list.
UNKNOWN INITIATOR POINT CODE	Point code of the reporting SP followed by the point code of the SP that does not know the initiator.
UNKNOWN TERMINATOR POINT CODE	Point code of the SP that doesn't know the terminator, followed by the unknown terminator point code.

4. ACTION TO BE TAKEN

Collect receive-only printer (ROP) data and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

Minor.

6. REFERENCES

Input Message(s):

```
CHG:MRVT
EXC:MRVT-PC
```

Output Message(s):

```
CHG:MRVT
EXC:MRVT-PC-STPS
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

REPT:MS-TRAPPED-A

Software Release: 5E10 - 5E11
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
REPT MS a TRAPPED b
 [c]
 [d] [e f] [g]
```

2. REASON FOR OUTPUT

To report the occurrence of a Message Service System (MSS) trap. This message is in response to the input message SET:DSE.

3. VARIABLE FIELD DEFINITIONS

a = The event trapped. Valid value(s):

- MSFAILRCVD = The trap includes a reject message or a return error message received at the "Client's Switch/VM's Switch" from the "VM's Switch/Client's Switch" respectively.
- MSFAILSENT = The trap includes a reject message or a return error message sent to "Client's Switch/Voice Message System's (VM) Switch" from the "VM's Switch/Client's Switch" respectively.
- MSQRYFAIL = The trap includes a returned query received at the near switch, a time out received in the MSS or failure to send the query.

b = The subclass of the event trapped. Valid value(s):

- REJECT = This is either a MSFAILSENT or MSFAILRCVD trap and it occurs when a reject message is received at or sent from the switch.
- RERR_MSG = This is either a MSFAILSENT or MSFAILRCVD trap and it occurs when a return error message is received at or sent from the switch.
- RTRN_QRY = This is a type of MSQRYFAIL trap and it occurs when a returned query is received at the near switch or failure to send a query.
- TIMEOUT = This is a type of MSQRYFAIL trap and it occurs when a time out is received in MSS.

c = Client's ten-digit directory number (DN) associated with the event.

Note: If 'a' is MSQRYFAIL and 'b' is TIMEOUT then no other reasons are applicable.

d = Additional data associated with the trapped event. Valid value(s):

```
BADLY STRUCTURED COMPONENT PORTION
BADLY STRUCTURED TRANSACTION PORTION
DUPLICATE INVOKE ID
FAILED TO FORMAT QUERY MSG
FAILED TO SEND QUERY TO THE CNI
FAILED VMSRID (Voice Messaging Store and Retrieval ID Number)
FAR END SUBSYSTEM CONGESTION
FAR END SUBSYSTEM PROHIBITED
FAR END SUBSYSTEM UNEQUIPPED
```

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```
INCORRECT COMPONENT PORTION
INCORRECT INVOKE PARAMETER
INCORRECT RETURN ERROR PARAMETER
INCORRECT RETURN RESULT PARAMETER
INCORRECT TRANSACTION PORTION
MSG RETURNED FROM CNI
NETWORK FAILURE
NETWORK CONGESTION
NO TRANSLATION GLOBAL TYPE
NOTIFICATION UNAVAILABLE TO DEST DN
TASK REFUSED
TRANSLATION FAIL OF GLOBAL ADDRESS
UNABLE TO READ RLDS_apps RELATION
UNASSIGNED DN
UNAVAILABLE NETWORK RESOURCE
UNEXPECTED COMPONENT SEQUENCE
UNEXPECTED DATA VALUE
UNEXPECTED ERROR
UNEXPECTED RETURN RESULT
UNEXPECTED RETURN ERROR
UNRECOGNIZED COMPONENT
UNRECOGNIZED ERROR
UNRECOGNIZED OPERATION CODE
UNRECOGNIZED INVOKE CORRELATION ID
UNRECOGNIZED PACKAGE TYPE
UNRECOGNIZED RETURN ERROR CORRELATION ID
UNRECOGNIZED RETURN RESULT CORRELATION ID
UNRECOGNIZED TRANSACTION ID
```

`e` = The decimal value of the inter-switch voice message (ISVM) subsystem number.

`f` = The hexadecimal value of the service transfer point (STP) point code.

`g` = The type of activation request made. Valid value(s):
`ACTIVATE` = Message lamp is activated.
`DEACTIVATE` = Message lamp is deactivated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:DSE
OP:ST-DSE
SET:DSE
```

Output Message(s):

```
OP:ST-DSE
```

REPT:MS-TRAPPED-B

Software Release: 5E12 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
REPT ISVM a TRAPPED b  [h]
 [c]
 [d] [e f] [g]
```

2. REASON FOR OUTPUT

To report the occurrence of a Message Service System (MSS) trap. This message is in response to the input message SET:DSE.

3. VARIABLE FIELD DEFINITIONS

`a` = The event trapped. Valid value(s):

- `MSFAILRCVD` = The trap includes a reject message or a return error message received at the "Client's Switch/VM's Switch" from the "VM's Switch/Client's Switch" respectively.
- `MSFAILSENT` = The trap includes a reject message or a return error message sent to "Client's Switch/Voice Message System's (VM) Switch" from the "VM's Switch/Client's Switch" respectively.
- `MSQRYFAIL` = The trap includes a returned query received at the near switch, a time out received in the MSS or failure to send the query.

`b` = The subclass of the event trapped. Valid value(s):

- `REJECT` = This is either a `MSFAILSENT` or `MSFAILRCVD` trap and it occurs when a reject message is received at or sent from the switch.
- `RERR_MSG` = This is either a `MSFAILSENT` or `MSFAILRCVD` trap and it occurs when a return error message is received at or sent from the switch.
- `RTRN_QRY` = This is a type of `MSQRYFAIL` trap and it occurs when a returned query is received at the near switch or failure to send a query.
- `TIMEOUT` = This is a type of `MSQRYFAIL` trap and it occurs when a time out is received in MSS.

`c` = Client's ten-digit directory number (DN) associated with the event.

Note: If '`a`' is `MSQRYFAIL` and '`b`' is `TIMEOUT` then no other reasons are applicable.

`d` = Additional data associated with the trapped event. Valid value(s):

```
BADLY STRUCTURED COMPONENT PORTION
BADLY STRUCTURED TRANSACTION PORTION
DUPLICATE INVOKE ID
FAILED TO FORMAT QUERY MSG
FAILED TO SEND QUERY TO THE NETWORK
FAILED VMSRID (Voice Messaging Store and Retrieval ID Number)
FAR END SUBSYSTEM CONGESTION
FAR END SUBSYSTEM PROHIBITED
FAR END SUBSYSTEM UNEQUIPPED
```

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```
INCORRECT COMPONENT PORTION
INCORRECT INVOKE PARAMETER
INCORRECT RETURN ERROR PARAMETER
INCORRECT RETURN RESULT PARAMETER
INCORRECT TRANSACTION PORTION
MESSAGE RETURNED FROM THE NETWORK INTERFACE
NETWORK FAILURE
NETWORK CONGESTION
NO TRANSLATION FOR GLOBAL TYPE
NOTIFICATION UNAVAIL TO DEST DN
TASK REFUSED
TIMEOUT
TRANSLATION FAIL OF GLOBAL ADDR
UNABLE TO READ RLdS_apps RELATION
UNASSIGNED DN
UNAVAILABLE RESOURCE
UNEXPECTED COMPONENT SEQUENCE
UNEXPECTED DATA VALUE
UNEXPECTED ERROR
UNEXPECTED RETURN RESULT
UNEXPECTED RETURN ERROR
UNRECOGNIZED COMPONENT
UNRECOGNIZED ERROR
UNRECOGNIZED OPERATION CODE
UNRECOGNIZED INVOKE CORRELATION ID
UNRECOGNIZED PACKAGE TYPE
UNRECOGNIZED RETURN ERROR CORRELATION ID
UNRECOGNIZED RETURN RESULT CORRELATION ID
UNRECOGNIZED TRANSACTION ID
VMSRID FAILED TO MATCH
```

`e` = The decimal value of the inter-switch voice message (ISVM) subsystem number.

`f` = The hexadecimal value of the service transfer point (STP) point code.

`g` = The type of activation request made. Valid value(s):

- `ACTIVATE` = Message lamp is activated.
- `DEACTIVATE` = Message lamp is deactivated.

`h` = Processor where the event was trapped. If '`a`' is `MSQRYFAIL` and '`b`' is `TIMEOUT` then '`h`' will be blank. Valid value(s):

- `CNI` = The event was trapped on a common network interface (CNI) platform.
- `GSM` = The event was trapped on a packet switching unit (PSU) platform but was unable to obtain the global switch module (GSM) number, missing or bad data.
- `GSM=i` = The event was trapped on a PSU platform, where '`i`' is the number of the GSM where the event was trapped.

4. ACTION TO BE TAKEN

None. This message is in response to a manual input request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:DSE
OP:ST-DSE
SET:DSE
```

Output Message(s):

```
OP:ST-DSE
```

REPT:MSCFR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT MSCFR FUSE ALARM FAULT BUS a
```

2. REASON FOR OUTPUT

To report a fuse alarm fault from the miscellaneous frame (MSCFR) when a power failure occurs.

3. VARIABLE FIELD DEFINITIONS

`a` = MSCFR bus identification number.

4. ACTION TO BE TAKEN

Check the fuse on the miscellaneous frame.

5. ALARMS

A major alarm occurs.

6. REFERENCES

None.

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REPT:MSDC-FLT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT MSDC FLT
        EFLAGS=a, FLTCODE=b

[2]   ____________________________________________________________
      REPT MSDC FLT
        EFLAGS=a, FLTCODE=b, PA=[c]
        R0=d, R7=e, R8=f
```

2. REASON FOR OUTPUT

To report that the interprocessor message switch (IMS) fault report measurement process (MSDC) has encountered a hardware or software fault.

3. VARIABLE FIELD DEFINITIONS

`a` = Hexadecimal number that is the sum of the codes for all *UNIX*® RTR operating system events outstanding for the IMS measurement process.

`b` = *UNIX*® RTR operating system fault code.

`c` = If a value is present, then the IMS measurement process was in execution at this virtual address when the fault was encountered.

`d` = Hexadecimal values contained in administrative module (AM) control unit (CU) register R0.

`e` = Hexadecimal values contained in AM CU register R7.

`f` = Hexadecimal values contained in AM CU register R8.

4. ACTION TO BE TAKEN

If the fault is not attributed to a hardware problem, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

Minor alarm.

6. REFERENCES

Output Message(s):

```
REPT:IODRV-AFU
REPT:IODRV-ERR
REPT:IODRV-ERROR
```

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```
REPT:IODRV-FAULT
```

REPT:MSKP-ENVIR

Software Release: 5E10 and later
Message Class: MSGSMON
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT MSKP_ENVIRONMENT:
  a=b[-c] ERR: d [SUP DATA: e f] EVENT=g
  .
  .
  .
```

[2]
```
REPT MSKP_ENVIRONMENT:
  a=b[-c] ABNOR RESP: h h h h EVENT=g
  .
  .
  .
```

[3]
```
REPT MSKP_ENVIRONMENT:
  a=b[-c] HANDLER FAULT: i [SUP DATA: j] EVENT=g
  .
  .
  .
```

[4]
```
REPT MSKP_ENVIRONMENT:
  MSCU=k ERR: d CHAN STATUS FAIL: l EVENT=g
  .
  .
  .
```

[5]
```
REPT MSKP_ENVIRONMENT:
  MSCU=k ERR: d BIC STATUS FAIL: m EVENT=g
  .
  .
  .
```

[6]
```
REPT MSKP_ENVIRONMENT:
  MSCU=k MSPU COMMUNITY p POWER OFF EVENT=g
  .
  .
  .
```

[7]
```
REPT MSKP_ENVIRONMENT:
  DMERT FAULT: n [PA: o] EVENT=g
  .
```

```
        .
        .

[8]     ____________________________________________________________________
        REPT MSKP_ENVIRONMENT:
          MSKP DIAG HANDLER FAULT: i SUP DATA: j EVENT=g
          .
          .
          .

[9]     ____________________________________________________________________
        REPT MSKP_ENVIRONMENT:
          MSKP ENVIOR SW RECOV ESCALATION EVENT=g
          .
          .
          .

[10]    ____________________________________________________________________
        REPT MSKP_ENVIRONMENT:
          MSKP ERR: d [SUP DATA: e f] EVENT=g
          .
          .
          .

[11]    ____________________________________________________________________
        REPT MSKP_ENVIRONMENT:
          MSKP ENVIOR FAULT: i [SUP DATA: j] EVENT=g
          .
          .
          .

[12]    ____________________________________________________________________
        REPT MSKP_ENVIRONMENT:
          CMP=b-c PHASE 1&2 INIT COMPLETION TIME: q TYPE: r EVENT=g
          .
          .
          .

[13]    ____________________________________________________________________
        REPT MSKP_ENVIRONMENT:
          CMP=b-c PHASE 3   INIT COMPLETION TIME: q TYPE: r EVENT=g
          .
          .
          .

[14]    ____________________________________________________________________
        REPT MSKP_ENVIRONMENT:
          3BCMSIM ERR: d [SUP DATA: e f] EVENT=g
          .
          .
          .

[15]    ____________________________________________________________________
        REPT MSKP_ENVIRONMENT:
          AWMSKP ERR: d [SUP DATA: e f] EVENT=g
```

```
          .
          .
          .

[16]  ____________________________________________________________________
      REPT MSKP_ENVIRONMENT:
        EIB_RES LINK RESTARTED EVENT=g
        .
        .
        .

[17]  ____________________________________________________________________
      REPT MSKP_ENVIRONMENT:
        EIB_DLD PUMP FAILURE EVENT=g
        .
        .
        .

[18]  ____________________________________________________________________
      REPT MSKP_ENVIRONMENT:
        EIB_PING PING FAILURE EVENT=g
        .
        .
        .

[19]  ____________________________________________________________________
      REPT MSKP_ENVIRONMENT:
        CMSIM_RES PROCESS RESTARTED EVENT=g
        .
        .
        .
```

2. REASON FOR OUTPUT

To report an error or fault in a unit or software environment.

Format 1 reports a software error or hardware failure detected by the specified unit handler (field '`a`'). The error code identifies a unique point in a message switch kernel process (MSKP) where the error was detected.

Format 2 reports an abnormal completion report or asynchronous error report on the specified unit.

Format 3 reports that the specified handler was faulted.

Format 4 reports a dual serial channel (DSCH) error (hardware failure) during a programmed I/O operation.

Format 5 reports a bus interface controller (BIC) status failure (hardware failure).

Format 6 reports that a message switch peripheral unit (MSPU) has lost power.

Format 7 reports that MSKP was faulted by the *UNIX*™ RTR system (hardware failure or software error).

Format 8 reports that the diagnostic handler was faulted (software error or hardware error).

Format 9 reports that the software error threshold in MSKP was exceeded (four back-to-back faults) and a higher level of escalation has been initiated.

Format 10 reports a software error or hardware failure detected by the MSKP environment. The error code identifies a unique point in MSKP where the error was detected.

Format 11 reports a fault detected in the MSKP environment which is not associated with a particular handler or unit.

Format 12 reports the time it took for the CMP to finish the phase 1 initialization (INIT) (INIT for CMP read-only memory (ROM)) and phase 2 INIT ("little boot" INIT, possibly including pump). It also reports what type of INIT occurred.

Format 13 reports the time it took for the CMP to finish the phase 3 INIT (INIT for CMP INIT for the rest of the INIT). It also reports what type of INIT occurred.

Note: This message is logged for all of the above formats, except Formats 7 and 9. The logged message can print up to five lines each line having a different format. Formats 7 and 9 print one line per message and appear on the receive-only printer (ROP) as well as being logged.

Format 14 reports that the 3BCMSIM handler was faulted (software error or hardware failure).

Format 15 reports that the 3BCMSIM AWMSKP handler was faulted (software error or hardware failure).

Format 16 reports that the EIB link has been restarted due to corrupt messages in queue.

Format 17 reports a download of the eib "coff" Common object format file, is in progress or failed.

Format 18 reports that the ping from the EIB ram failed, no communication is established.

Format 19 reports that the 3BCMSIM process restarted due to an unexpected signal/power failure.

3. VARIABLE FIELD DEFINITIONS

a = Unit name. Valid value(s):

3BCMSIM	= 3B Communication module simulator
AWMSKP	= Automatic workstation message switch kernel processor
CMP	= Communication module processor
FPC	= Foundation peripheral controller
MMP	= Module message processor
MSCU	= Message switch control unit
MSKP	= Message switch kernel process
PPC	= Pump peripheral controller
QGP	= Quad-link gateway processor

b = Unit member side.

c = MMP, QGP or CMP number.

d = Error code. (Refer to the APP:HANDLER-ERR, APP:ERRCODE-DIAG, APP:ERRCODE-FPC, APP:ERRCODE-MMP, APP:ERRCODE-MSCU, APP:ERRCODE-MSKP, APP:ERRCODE-PPC, APP:ERRCODE-QGP, APP:ERRCODE-CMP, APP:ERRCODE-3BCMSIM or APP:ERRCODE-AWMSKP appendixes in the Appendixes section of the Output Messages manual.)

e = Supplementary data word 1.

f = Supplementary data word 2.

g = Event number.

h = Abnormal response or asynchronous report. Each 'h' in this format represents a WORD of data.

The format of an abnormal response format for an MSCU-detected error is:

```
----ttuu -------- -------- --------
```

The dashes indicate data to be ignored. This format is valid only if 'u' is greater than H'f0. (Refer to Exhibits A and B for specifics of an MSCU-detected error.)

Exhibit A

't'	**Error type (valid only when 'u' = H'f7):**
H'01	PC error lead set.
H'10	PC dual access memory (DAM) parity error (read).
H'11	Control signal acknowledgement (CSA) timeout.
H'12	Abort direct memory access (DMA) transfer (PC error).
H'13	Illegal PC to peripheral interface controller (PIC) command.
H'14	Illegal PC to PC message.
H'15	PC base priority input queue full.
H'16	PC high priority input queue full.
H'17	A read of AM memory through DMA exceeded 2048 bytes.
H'18	PC defensive check failure.
H'19	Invalid PC address found in response.
H'1a	Illegal high priority SM message.
H'56	Range error - base priority input queue.
H'57	Range error - base priority output queue.
H'58	Range error - high priority input queue.
H'59	Range error - high priority output queue.
H'a0	PC babble - base priority queue.
H'a1	PC babble - high priority queue.

Exhibit B

'u'	**Completion code type:**
H'f2	Administrative module (AM) message to an out-of-service (OOS) control time slot.
H'f3	AM message to an OOS peripheral controller (PC).
H'f4	AM message to AM message error.
H'f5	AM base priority input queue full.
H'f6	PC community power failure (refer to variable 'b').
H'f7	PC fatal error (refer to variable 'c').
H'f8	Illegal peripheral interface controller (PIC) executable command from PC (CM2 only).
H'f9	Switching module (SM) message to unequipped direct link node (DLN) (CM2 only).
H'fa	AM to SM high priority message (CM2 only).
H'fb	AM base priority command to PIC (CM2 only).
H'fc	DLN/AM queue message to OOS control time slot (CM2 only).
H'fd	DLN/AM input queue full (CM2 only).
H'fe	DLN/AM queue pointer invalid (CM2 only).
H'ff	DLN/AM queue message invalid (CM2 only).

i = *UNIX*™ RTR operating system or internal message switch kernel process (MSKP) fault code. (Refer to the APP:FC-MSKP-DMRT appendix in the Appendixes section of the Output Messages manual.)

j = Supplementary data.

k = Message switch side number.

l = DSCH status. (Refer to the APP:DFC-B appendix in the Appendixes section of the Output Messages manual.)

m = Failing bus interface controller (BIC) status. (Refer to the APP:DFC-F appendix in the Appendixes

section of the Output Messages manual.)

`n` = *UNIX*™ RTR operating system fault code. (Refer to the APP:FC-MSKP-DMRT appendix in the Appendixes section of the Output Messages manual.)

`o` = Program address in hexadecimal where fault occurred (for software faults only).

`p` = The group of peripheral controllers (PCs) sharing a common power source.

`q` = Time to complete in milliseconds (expressed in hex).

`r` = Type of INIT that was requested. Valid value(s):

- `H'0` = Purging INIT with re-isolation. Used during AM INIT to query information in the CMP.
- `H'1` = Purging INIT to link the CMP.
- `H'2` = No pump selective INIT.
- `H'3` = No pump full INIT.
- `H'4` = Partial pump of phase 2 and phase 3 and office-dependent data (ODD) with full INIT.
- `H'5` = Full pump of phase 2 with partial pump of phase 3 and ODD with full INIT.
- `H'6` = Full pump of ODD with partial pump of phase 2 and phase 3 with full INIT.
- `H'7` = Full pump of ODD and phase 2 with partial pump of phase 3 with full INIT.
- `H'8` = Full pump of ODD, phase 2, and phase 3 with full INIT.
- `H'9` = Memory clear CMP then a full pump of ODD, phase 2, and phase 3 with full INIT.
- `H'a` = Off-line pump of CMP with active MHD. Memory clear CMP then a full pump of ODD, phase 2, and phase 3 with full INIT.
- `H'b` = Off-line pump of CMP with off-line MHD. Memory clear CMP then a full pump of ODD, phase 2, and phase 3 with full INIT.

4. ACTION TO BE TAKEN

This information can be found in the daylog under LMSGS message class. Use the OP:LOG input message to retrieve the information. The event numbers are used as sequencing and not used to tie hardware events with software events.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LOG
```

Output Message(s):

```
REPT:PM-CMP
REPT:PM-FPC
REPT:PM-MMP
REPT:PM-MSCU
```

```
REPT:PM-QGP
REPT:TRBL
```

Output Appendix(es):

```
APP:DFC-B
APP:DFC-F
APP:ERRCODE-CMP
APP:ERRCODE-DIAG
APP:ERRCODE-FPC
APP:ERRCODE-MMP
APP:ERRCODE-MSCU
APP:ERRCODE-MSKP
APP:ERRCODE-PPC
APP:ERRCODE-QGP
APP:FC-MSKP-DMRT
APP:HANDLER-ERR
```

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

REPT:MSUCOM-TMPSF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT MSUCOM=a-b-c TRBL MSU PATH SETUP FAILURE d
  e RECOVERY ACTION f
  [MTB=g]
  {MA=a-b-c-h|MSUCOM=a-b-c} i j
```

2. REASON FOR OUTPUT

To report a trouble with a metallic service unit common circuit board (MSUCOM). An error occurred while trying to setup or test a metallic connection. More than one circuit may be listed when multiple circuits can be blamed for the trouble.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = MSU number.

`c` = Service group number.

`d` = Event number.

`e` = Error type. Valid value(s):
`ALIT FAILED IN PATH SETUP` = An automatic line insulation test (ALIT) circuit failed.
`FAILURE IN PROTO TEST` = A protocol test failed.
`GDXC FAILED IN PATH SETUP` = A gated diode crosspoint compensator (GDXC) circuit failed.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = This post-mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified by an assert.
`RST AUTO CAMPON` = The failing circuit will be diagnosed as soon as it becomes available. A message (RST:MSUCOM or DGN:MSUCOM) will then be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message (RST:MSUCOM or DGN:MSUCOM) will be printed with the results of the diagnostic.

`g` = Metallic test bus (MTB) number. This is only printed when the external logical circuit name is a metallic access (MA) circuit.

`h` = MSU board position number.

`i` Number of recent failures of this error type ('`e`') on this MSUCOM circuit (in decimal).

`j` = Error count threshold, at which the recovery action will be escalated.

4. ACTION TO BE TAKEN

No action required. When recovery action variable '`f`' is RSTPREEMPT or RSTAUTOCAMPON, a subsequent DGN:MSUCOM or RST:MSUCOM message will indicate the success or failure of the restore request.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:MSUCOM
RMV:MSUCOM
RST:MSUCOM
```

REPT:MSUCOM-TPCF-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT MSUCOM=a-b-c TRBL PICB CONTROL FAILURE EVENT=d
  e  RECOVERY ACTION f
  g  h  i  j
  k  l  m
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the metallic service unit common (MSUCOM) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit number.

`c` = Service group number.

`d` = Event number.

`e` = Error type. Valid value(s):
`CI RECEIVED BAD PARITY`
`CI RECEIVED BAD START CODE`
`CI TIME OUT`
`PER DETECTED BAD ADDRESS`
`PER DETECTED BAD PARITY`
`PER DETECTED BAD START CODE`
`SOFTWARE BAD ADDRESS ERROR`

`f` Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is provided.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`h` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`i` = Data being written to the periphery by the CI.

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`j` = Contents of the CI error source register.

`k` = External logical circuit name.

`l` = Current decimal number of recent failures of this type recorded.

`m` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the MSUCOM board from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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REPT:MSUCOM-TPCF-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT MSUCOM=a-b-c TRBL PICB CONTROL FAILURE EVENT=d
  e  RECOVERY ACTION f
  g  h  i  j
  k  l  m  n
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the metallic service unit common (MSUCOM) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit number.

`c` = Service group number.

`d` = Event number.

`e` = Error type. Valid value(s):
`CI RECEIVED BAD PARITY`
`CI RECEIVED BAD START CODE`
`CI TIME OUT`
`PER DETECTED BAD ADDRESS`
`PER DETECTED BAD PARITY`
`PER DETECTED BAD START CODE`
`SOFTWARE BAD ADDRESS ERROR`

`f` Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is provided.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`h` = System PICB number in hexadecimal that was being written when the failure occurred.

`i` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

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`j` = Data being written to the periphery by the CI.

`k` = Contents of the CI error source register.

`l` = External logical circuit name.

`m` = Current decimal number of recent failures of this type recorded.

`n` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the MSUCOM board from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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REPT:MSUCOM-TUSR

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT MSUCOM=a-b-c TRBL UNEXPECTED SERVICE REQUEST d
  INTERRUPT THROUGH MSU MASK RECOVERY ACTION e
  f
  g    h    i
```

2. REASON FOR OUTPUT

To report an unexpected service request on the metallic service unit common (MSUCOM) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = Event number.

`e` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`INITIALIZE` = The failing circuit has been reinitialized.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`f` = Source analysis data (optional).

`g` = External logical circuit name.

`h` = Current decimal number of recent failures of this type recorded.

`i` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

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5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:MT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT MT a  {ERROR b [COMPLETED CODE c] |
  UNIDENTIFIED RESPONSE WD1=d WD2=e}
```

2. REASON FOR OUTPUT

To report a magnetic-tape (MT) related software or hardware error.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Identifies point within the input/output driver (IODRV) where a software or hardware error was detected, in hexadecimal notation. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

`c` = Hardware error type, in hexadecimal notation. Refer to the APP:IOP-A appendix in the Appendixes section of the Output Messages manual.

`d` = First word of an unidentifiable completion report.

`e` = Second word of an unidentifiable completion report.

4. ACTION TO BE TAKEN

These error messages indicate error conditions which could cause the removal of a unit. Any removed unit should be repaired and restored to service.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Any removed unit should be repaired and restored to service.

Format(s):	Key(s):
all	208

Input Message(s):

```
CLR:IODRV
DGN:MT
RMV:MT
RST:MT
```

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Output Message(s):

```
DGN:MT
REPT:IOP
REPT:MTC
REPT:RCVRY-IOP
REPT:RCVRY-MT
REPT:RCVRY-MTC
RMV:MT
RST:MT
```

Output Appendix(es):

```
APP:IOP-A
APP:IOP-F
APP:OMDB-X-REF
```

REPT:MTC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

[1]
```
REPT MTC a{ERROR b[COMPL CODE c]|
  UNIDENTIFIED RESPONSE WD1=d WD2=e}
```

[2]
```
REPT MTC a CODE VERSION X'f
```

2. REASON FOR OUTPUT

Format 1 reports a magnetic-tape-controller (MTC) related software or hardware error.

Format 2 is output during the restoration of the unit.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Identifies point within the input/output driver (IODRV) where a software or hardware error was detected, in hexadecimal notation. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

`c` = Hardware error type, in hexadecimal notation. Refer to the APP:IOP-A appendix in the Appendixes section of the Output Messages manual.

`d` = First word of an unidentifiable completion report.

`e` = Second word of an unidentifiable completion report.

`f` = Peripheral controller pump code version.

4. ACTION TO BE TAKEN

These error messages indicate error conditions that could cause the removal of a unit. Any removed unit must be repaired and restored to service. No action is necessary for the message in Format 2 unless the controller and/or its subdevices are not acting normally or could not be restored. Contact the service organization with the code version which was used.

5. ALARMS

None.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):

1	208
2	226

Input Message(s):

```
CLR:IODRV
DGN:MTC
RMV:MTC
RST:MTC
```

Output Message(s):

```
REPT:IOP
REPT:RCVRY-IOP
REPT:RCVRY-MTC
```

Output Appendix(es):

```
APP:IOP-A
APP:IOP-F
APP:OMDB-X-REF
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:MTIB-TMPSF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT MTIB=a-b-c-d TRBL MSU PATH SETUP FAILURE e
  FAILURE IN PROTO TEST RECOVERY ACTION f
  g  h  i
  .  .  .
  .  .  .
  .  .  .
```

2. REASON FOR OUTPUT

To indicate a trouble with a metallic test interconnect bus (MTIB) which resides in a metallic service unit (MSU). A protocol test failed while checking the integrity of a metallic connection to the MTIB.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = MSU number.

`c` = Service group number.

`d` = MTIB number.

`e` = Event number.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY-` = This post-mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RST AUTO CAMPON` = The failing circuit will be diagnosed as soon as it becomes available. A message will then be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = External logical circuit name. More than one circuit may be listed when multiple circuits can be blamed for the trouble.

`h` = Current decimal number of recent failures of this error type (FAILURE IN PROTO TEST) on this circuit (MTIB).

`i` = Error count threshold, at which the recovery action will be escalated.

4. ACTION TO BE TAKEN

If '`f`' =	Action:
`RST PREEMPT` or `RST AUTO CAMPON`	A subsequent DGN:MTIB or RST:MTIB message will indicate the success

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	or failure of the restore request.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:MTIB
RMV:MTIB
RST:MTIB
```

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-900-113 *Product Specification*

REPT:MTTY

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT MTTY a {ERROR b [c] [COMPLETED CODE d] |
        UNIDENTIFIED RESPONSE WD1=e WD2=f}

[2]   ____________________________________________________________________
      REPT MTTY a STARTED

[3]   ____________________________________________________________________
      REPT MTTY a STOPPED
```

2. REASON FOR OUTPUT

Format 1 reports a maintenance-teletypewriter (MTTY) related software or hardware error.

Format 2 reports that the MTTY has changed state from standby (STBY) to active (ACT). An MTTY will change to ACT state when data terminal ready (DTR) is ON.

Format 3 reports that the MTTY has changed state from ACT to STBY. An MTTY will change to STBY state when DTR is OFF.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Identifies point within the input/output driver (IODRV) where a software or hardware error was detected, in hexadecimal notation. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

`c` = Character string giving more information about the error identified in variable '`b`'. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual for additional explanation.

`d` = Hardware error type, in hexadecimal notation. Refer to the APP:IOP-A appendix in the Appendixes section of the Output Messages manual.

`e` = First word of an unidentified completion report.

`f` = Second word of an unidentified completion report.

4. ACTION TO BE TAKEN

The error messages in Format 1 indicate error conditions that could cause the removal of a unit. Any removed unit must be repaired and restored to service.

The messages in Formats 2 and 3 indicate that the MTTY has changed states. These messages will be output when the currently active MTTY changes state to STBY, and the currently standby MTTY changes state to ACT. An

active MTTY will change state to STBY if powered off, and a standby MTTY will change state to ACT when powered up. No action is necessary.

5. ALARMS

Format 1 has an alarm level of INFO. This is an automatically generated report. Formats 2 and 3 have alarm levels of VAR. This is a variable alarm to be determined by the client process.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	208
2, 3	308

Input Message(s):

```
CLR:IODRV
DGN:MTTYC
RMV:MTTY
RST:MTTY
SW:PORTSW
```

Output Message(s):

```
DGN:MTTYC
REPT:IOP
REPT:MTTYC
REPT:RCVRY-IOP
REPT:RCVRY-MTTY
REPT:RCVRY-MTTYC
RMV:MTTY
RST:MTTY
SW:PORTSW
```

Output Appendix(es):

```
APP:IOP-A
APP:IOP-F
APP:OMDB-X-REF
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:MTTYC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT MTTYC a  {ERROR b [COMPLETED CODE c] |
        UNIDENTIFIED RESPONSE WD1=d WD2=e}

[2]   ____________________________________________________________________
      REPT MTTYC a CODE VERSION X'f

[3]   ____________________________________________________________________
      REPT MTTYT a FLASH RAM VERSION X'g
```

2. REASON FOR OUTPUT

Format 1 reports a maintenance teletypewriter controller (MTTYC) related software or hardware error.

Format 2 is an informational message output during unit restoration.

Format 3 is an informational message output prior to the update of flash RAM on the unit as requested by diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Identifies point within input/output driver (IODRV) where a software or hardware error was detected, in hexadecimal notation. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

c = Hardware error type, in hexadecimal notation. Refer to the APP:IOP-A appendix in the Appendixes section of the Output Messages manual.

d = First word of an unidentifiable completion report.

e = Second word of an unidentifiable completion report.

f = Peripheral controller pump code version.

g = Peripheral controller flash RAM version.

4. ACTION TO BE TAKEN

These error messages indicate error conditions which could cause the removal of a unit. Any removed unit should be repaired and restored to service. No action is necessary for the messages in Formats 2 and 3 unless the controller and/or its subdevices are not acting normal, or could not be restored. Contact the service organization with the code version and/or flash RAM version that were used.

5. ALARMS

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None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	208
2, 3	226

Input Message(s):

```
CLR:IODRV
DGN:MTTYC
RMV:MTTYC
RST:MTTYC
```

Output Message(s):

```
CLR:IODRV
DGN:MTTYC
RMV:MTTYC
RST:MTTYC
DGN:MTTYC
REPT:IOP
REPT:RCVRY-IOP
REPT:RCVRY-MTTYC
RMV:MTTYC
RST:MTTYC
```

Output Appendix(es):

```
APP:IOP-A
APP:IOP-F
APP:OMDB-X-REF
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

86. REPT:N

REPT:NAILUP-A

Software Release: 5E10 - 5E11
Message Class: NAILUP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT NAILUP - CONNECTION FAILURE - REASON a
        PORT: {DEN=b c d e|TEN=b f g h i|SLEN=b j k l|ILEN=b m n o|...
        ...NEN=b p q r s t}

[2]   ____________________________________________________________________
      REPT NAILUP - CONNECTION RESTORAL ATTEMPTED
        PORT: {DEN=b c d e|TEN=b f g h i|SLEN=b j k l|ILEN=b m n o|...
        ...NEN=b p q r s t}
```

2. REASON FOR OUTPUT

To report the status of a nail-up connection. A nail-up connection is a connection between two ports which is either set up at system initialization or through recent change.

Format 1 indicates that a nail-up connection cannot be established because of the reason given. This message prints the name of the originating port for the nail-up connection.

Format 2 indicates that the nail-up monitor found a connection down and attempted to restore it.

3. VARIABLE FIELD DEFINITIONS

`a` = Reason for failure. Valid value(s):
- `BLOCKED` = No network path available.
- `INTERRUPTED` = Preempted by maintenance.
- `PATHLOST` = Digital path failure.
- `PORT UNAVAILABLE` = Nail-up software could not get control of port to establish nail-up connection.
- `ROUTING TROUBLE` = Unexpected conditions during setup.
- `TIMEOUT` = Route request timeout.

`b` = Switching module (SM) number.

`c` = Digital line trunk unit (DLTU) number.

`d` = Digital facility interface (DFI) number.

`e` = Channel number.

`f` = Trunk unit number.

`g` = Service group number.

`h` = Channel board number.

`i` = Circuit number.

`j` = Digital carrier line unit (DCLU) number.

`k` = Remote terminal (RT) number.

`l` = RT line number.

`m` = IDCU number.

`n` = RT number or IDCU PUB43801 facility.

`o` = RT line number or IDCU PUB43801 facility channel number.

`p` = DNU-S number.

`q` = Data group number.

`r` = STS number.

`s` = VT1.5 facility number.

`t` = DS0 number.

4. ACTION TO BE TAKEN

Format 1 results from nail-up port connection problems. Use the OP:NAILUP input message to verify the port status of the affected port connection.

Format 2 requires no action.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:NAILUP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:NAILUP-B

Software Release: 5E12 only
Message Class: NAILUP
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT NAILUP - CONNECTION FAILURE - REASON a
  PORT: {DEN=b c d e|TEN=b f g h i|SLEN=b j k l|ILEN=b m n o|...
  ...NEN=b p q r s t|INEN=b p k l}
```

[2]
```
REPT NAILUP - CONNECTION RESTORAL ATTEMPTED
  PORT: {DEN=b c d e|TEN=b f g h i|SLEN=b j k l|ILEN=b m n o|...
  ...NEN=b p q r s t|INEN=b p k l}
```

2. REASON FOR OUTPUT

To report the status of a nail-up connection. A nail-up connection is a connection between two ports which is either set up at system initialization or through recent change.

Format 1 indicates that a nail-up connection cannot be established because of the reason given. This message prints the name of the originating port for the nail-up connection.

Format 2 indicates that the nail-up monitor found a connection down and attempted to restore it.

3. VARIABLE FIELD DEFINITIONS

`a` = Reason for failure. Valid value(s):
- `BLOCKED` = No network path available.
- `INTERRUPTED` = Preempted by maintenance.
- `PATHLOST` = Digital path failure.
- `PORT UNAVAILABLE` = Nail-up software could not get control of port to establish nail-up connection.
- `ROUTING TROUBLE` = Unexpected conditions during setup.
- `TIMEOUT` = Route request timeout.

`b` = Switching module (SM) number.

`c` = Digital line trunk unit (DLTU) number.

`d` = Digital facility interface (DFI) number.

`e` = Channel number.

`f` = Trunk unit number.

`g` = Service group number.

`h` = Channel board number.

`i` = Circuit number.

`j` = Digital carrier line unit (DCLU) number.

`k` = Remote terminal (RT) number.

`l` = RT line number.

`m` = IDCU number.

`n` = RT number or IDCU PUB43801 facility.

`o` = RT line number or IDCU PUB43801 facility channel number.

`p` = DNU-S number.

`q` = Data group number.

`r` = STS number.

`s` = VT1.5 facility number.

`t` = DS0 number.

4. ACTION TO BE TAKEN

Format 1 results from nail-up port connection problems. Use the OP:NAILUP input message to verify the port status of the affected port connection.

Format 2 requires no action.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:NAILUP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:NAILUP-C

Software Release: 5E13 and later
Message Class: NAILUP
Application: 5
Type: Output

1. FORMAT

```
[1]    REPT NAILUP - CONNECTION FAILURE - REASON a
         PORT: {DEN=b c d e|TEN=b f g h i|SLEN=b j k l|ILEN=b m n o|...
         ...NEN=b p q r s t u v|INEN=b p k l}

[2]    REPT NAILUP - CONNECTION RESTORAL ATTEMPTED
         PORT: {DEN=b c d e|TEN=b f g h i|SLEN=b j k l|ILEN=b m n o|...
         ...NEN=b p q r s t u v|INEN=b p k l}
```

2. REASON FOR OUTPUT

To report the status of a nail-up connection. A nail-up connection is a connection between two ports which is either set up at system initialization or through recent change.

Format 1 indicates that a nail-up connection cannot be established because of the reason given. This message prints the name of the originating port for the nail-up connection. Format 2 indicates that the nail-up monitor found a connection down and attempted to restore it.

3. VARIABLE FIELD DEFINITIONS

`a` = Reason for failure. Valid value(s):
- `BLOCKED` = No network path available.
- `INTERRUPTED` = Preempted by maintenance.
- `PATHLOST` = Digital path failure.
- `PORT UNAVAILABLE` = Nail-up software could not get control of port to establish nail-up connection.
- `ROUTING TROUBLE` = Unexpected conditions during setup.
- `TIMEOUT` = Route request timeout.

`b` = Switching module (SM) number.

`c` = Digital line trunk unit (DLTU) number.

`d` = Digital facility interface (DFI) number.

`e` = Channel number.

`f` = Trunk unit number.

`g` = Service group number.

`h` = Channel board number.

`i` = Circuit number.

`j` = Digital carrier line unit (DCLU) number.

`k` = Remote terminal (RT) number.

`l` = RT line number.

`m` = IDCU number.

`n` = RT number or IDCU PUB43801 facility.

`o` = RT line number or IDCU PUB43801 facility channel number.

`p` = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

`q` = Data group (DG) number.

`r` = SONET termination equipment (STE) number.

`s` = Synchronous transport signal (STS) number.

`t` = Virtual tributary group (VTG) number.

`u` = Virtual tributary member (VTM) number.

`v` = Digital signal level 0 (DS0) number.

4. ACTIONS TO BE TAKEN

Format 1 results from nail-up port connection problems. Use the OP:NAILUP input message to verify the port status of the affected port connection.

Format 2 requires no action.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:NAILUP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:NC

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT NC a b c EVENT = d
```

[2]
```
REPT NC a b c EVENT = d
  ASYNCHRONOUS REPT X'
  eeffgghh iijjkkll mmnnoopp qqrrsstt uu000000
  FPC STATUS X'
  vvwwxxyy zza1b1c1 d1e1f1g1 h1i1j1k1 l1000000
```

2. REASON FOR OUTPUT

To report the occurrence of a reference error (REFERR) on the network clock. Format 1 marks the fact that the error occurred. Format 2 will be used along with the DUMP:NC output message that will follow to analyze the error.

3. VARIABLE FIELD DEFINITIONS

a = Network clock side.

b = Network clock reference. Valid value(s):

For	Definitions
NC1	PRIM = Primary reference. SEC = Secondary reference. X-COUPLE = Cross-couple reference.
NC2	Refn = Reference number. X-COUPLE = Cross-couple reference.

c = Error type. Valid value(s):

- FREQ TOLERANCE = The frequency of the reference is outside the allowable limits. If an error of this type is reported more than twice per hour, the reference will be removed automatically.
- HIGH ERROR RATE = The high error rate threshold has been exceeded. The reference will be removed automatically.
- HIGH OOF = The high out-of-frame threshold has been exceeded. The reference will be removed automatically.
- JITTER = The reference has exceeded the acceptable jitter tolerance. If an error of this type is reported more than twice per hour, the reference will be removed automatically.
- LOW ERROR RATE = The low error rate threshold has been exceeded. This is a non-critical error, but the user may choose to investigate.
- LOW OOF = The low out-of-frame rate threshold has been exceeded. This is a non-critical error, but the user may choose to investigate.
- REF OUT = A local alarm (loss of signal) has occurred on the reference. It will be removed automatically.

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d = Event number.

Note: All dump fields are given as hexadecimal values. For an explanation of the variables refer to DUMP:NC output message manual page.

e = Foundation peripheral controller (FPC) to network clock communication error.

f = Flag vector 0.

g = Flag vector 1.

h = Flag vector 2.

i = Flag vector 3.

j = Flag vector 4.

k = Flag vector 5.

m = Flag vector 7.

n = Summary vector.

o = Valid value(s):

For	Definitions
NC1	Configuration.
NC2	Contents of hardware error source register (ESR).

p = Valid value(s):

For	Definitions
NC1	Mode.
NC2	Contents of the timebase ESR.

q = Valid value(s):

For	Definitions
NC1	Digital phase-lock loop (DPLL) status.
NC2	Contents of the source ESR.

r = Valid value(s):

For	Definitions
NC1	Contents of the network clock error source register (ESR).
NC2	Contents of reference ESR.

s = Valid value(s):

For	Definitions
NC1	Digital/analog converter (DAC) input - upper byte.
NC2	Invalid message address.

t = Communication link receiver/transmitter (CLRT) scan point status- first reading.

u = CLRT scan point status-second reading.

v = Peripheral controller sub-device maskable interrupt level.

w = Contents of interrupt controller A status register.

x = Contents of interrupt controller A interrupt request register.

y = Contents of interrupt controller A interrupt service register.

z = Contents of interrupt controller A interrupt mask register.

a[1] = Contents of interrupt controller A interrupt auto clear register.

b[1] = Contents of interrupt controller B status register.

c[1] = Contents of interrupt controller B interrupt request register.

d[1] = Contents of interrupt controller B interrupt service register.

e[1] = Contents of interrupt controller B interrupt mask register.

f[1] = Contents of interrupt controller B interrupt auto clear register.

g[1] = Contents of lower 8 bits of control and diagnostic access circuit (CDAC) address register.

h[1] = Contents of higher 4 bits of CDAC address register.

i[1] = Transmit/receive address location for data memory.

j[1] = Status of time-multiplexed switch (TMS) ready lead and CDAC active lead.

k[1] = Contents of lower 8 bits of prom sequencer.

l[1] = Contents of higher 8 bits of prom sequencer.

4. ACTION TO BE TAKEN

Inspect the office network timing complex (ONTC) backplane to ensure that all the connectors are securely attached. Restore the external references by the RST:NCREF input message if the active major ONTC lost phase lock or restore the ONTC by the RST:ONTC input message if the active minor ONTC lost phase lock.

If the active major network clock (NC) fails to phase lock, switch ONTCs (using the SW:ONTC input message) and determine if the other NC can lock to an external reference.

If the other NC can phase lock to an external reference after the switch, the problem is probably in the NC hardware. Remove the active minor ONTC and diagnose it (using the DGN:NC input message).

If neither NC can lock to the reference, check the T1 links starting at the ONTC back to the reference source (D4 channel bank or DFI) and verify that a reliable DS1 signal is being received. For more information on this procedure refer to the Routine Operations and Maintenance manual.

5. ALARMS

Minor.

6. REFERENCES

Input Message(s):

```
DGN:NC
DUMP:NC
RMV:ONTC
RST:NCREF
RST:ONTC
SW:ONTC
```

Output Message(s):

```
DUMP:NC
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

(NETWORK CLOCK)

REPT:NC-CMBOD

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT NC a COMMAND MAY BE OVERRIDDEN DUE TO AUTO-SYNC EVENT = b
```

2. REASON FOR OUTPUT

Indicates that the automatic restore and synchronization capability of the network clock model 2 (NCLK2) is turned on, and that the previous SET:NC or SW:NCREF input message may be overridden.

3. VARIABLE FIELD DEFINITIONS

`a` = Unit side (0 or 1).

`b` = Event number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
SET:NC
SW:NCREF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

REPT:NC-CST

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT NC a CONFIG SET TO {PRIM|SEC|X-COUPLE} REF EVENT = b
```

2. REASON FOR OUTPUT

To indicate the configuration of the office network timer complex (ONTC) network clock for synchronization.

3. VARIABLE FIELD DEFINITIONS

PRIM	= Primary reference.
SEC	= Secondary reference.
X-COUPLE	= Cross-couple reference.
a	= Unit side (0 or 1).
b	= Event number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

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REPT:NC-CTNCF

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT NC a CP TO NC COMMUNICATION FAULT EVENT = b
```

2. REASON FOR OUTPUT

To indicate when message are not being successfully transferred from the central processor (CP) to the office network and timing complex (ONTC) network clock (NC) communication buffer, or are not being understood correctly by the NC.

3. VARIABLE FIELD DEFINITIONS

`a` = Unit side.

`b` = Event number.

4. ACTION TO BE TAKEN

If one report of this nature is printed to the receive only printer (ROP) then the problem is most likely transient or 'soft' and no action is required. If two or more messages are printed with the same event number, then there is probably a hardware problem. Check the input/output driver, the foundation peripheral controller (FPC) and the ONTC for cabling and communication difficulty. If the problem persists, the FPC and NC should be diagnosed (see References).

5. ALARMS

Minor.

6. REFERENCES

Input Message(s):

```
DGN:FPC
DGN:NC
```

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REPT:NC-FRM

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT NC a FREE RUN MODE ENTERED EVENT = b
```

2. REASON FOR OUTPUT

To indicate that phase lock was not achieved and the last control value cannot hold the oscillator to a reliable frequency.

3. VARIABLE FIELD DEFINITIONS

`a` = Unit side (0 or 1).

`b` = Event number.

4. ACTION TO BE TAKEN

Make a brief inspection of the office network timer complex (ONTC) backplane to ensure that all the connectors are securely attached. Manually restore the primary reference, then restore the secondary reference. These activities will attempt to phase lock the active major network clock (NC).

If the NC fails to phase lock, switch ONTCs and determine if the other ONTC can lock to either external reference.

If the ONTC becoming active major can phase lock, the problem probably lies in the NC hardware. Remove the active minor ONTC and diagnose it.

If the active major NC cannot lock on the switch, check the T1 links starting at the ONTC back to the reference source and verify that a reliable DS1 signal is being received.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RST:NCREF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

REPT:NC-FSM

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT NC a FAST START MODE ENTERED EVENT = b
```

2. REASON FOR OUTPUT

To indicate that the operation of the phase-locked loop of the office network timer complex (ONTC) network clock (NC) was set to the fast-lock mode.

3. VARIABLE FIELD DEFINITIONS

`a` = Unit side (0 or 1).

`b` = Event number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

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REPT:NC-HME

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT NC a HOLDOVER MODE ENTERED EVENT = b
```

2. REASON FOR OUTPUT

To indicate that the operation of the phase-locked loop of the office network timer complex (ONTC) network clock (NC) ceased and that the oscillator was running at the last fixed frequency.

3. VARIABLE FIELD DEFINITIONS

`a` = Unit side (0 or 1).

`b` = Event number.

4. ACTION TO BE TAKEN

If the NC has not been manually set to holdover, determine why phase lock was lost. Check previous reports to isolate the fault. Make a brief inspection of the ONTC backplane making sure all the connectors are securely attached. Manually restore the primary reference; then restore the secondary references. This will attempt to phase lock the active major NC.

If the NC fails to phase lock, switch ONTCs and determine if the other ONTC can lock to either external reference.

If the ONTC becoming active major can phase lock, the problem probably lies in the NC hardware. Remove the active minor ONTC and diagnose it.

If the active major NC cannot lock on the switch, check the T1 links starting at the ONTC back to the reference source and verify that a reliable DS1 signal is being received.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RST:NCREF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

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REPT:NC-IC

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT NC a INCORRECT CONFIG EVENT = b
```

2. REASON FOR OUTPUT

To indicate when the office network timer complex (ONTC) network clock (NC) did not set the configuration to the specified state.

3. VARIABLE FIELD DEFINITIONS

`a` = Unit side.

`b` = Event number.

4. ACTION TO BE TAKEN

Determine if there is faulty communication from the central processor or administrative module to the ONTC network clock. Otherwise, investigate the ONTC network clock control unit. Verify communication between the network clock and foundation peripheral controller (FPC) by executing diagnostics.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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REPT:NC-ID

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT NC a INTERRUPT DATA EVENT = b
  ASYNCHRONOUS REPORT X'
  ccddeeff  gghhiijj  kkllmmnn  ooppqqrr  ss000000
  FPC STATUS X'
  ttuuvvww  xxyyzza1a1  b1c1d1e1  f1g1h1i1  j1000000
```

2. REASON FOR OUTPUT

To report all the data that was in the communication control buffer (CCB) and communication link receiver/transmitter (CLRT) of the network clock (NC) at the time an interrupt occurred. This message also outputs the data in the maskable interrupt information buffer of the foundation peripheral controller (FPC) at the time of the interrupt.

3. VARIABLE FIELD DEFINITIONS

a = Unit side (0 or 1).

b = Event number.

c = Foundation peripheral controller to network clock communication error (0 or 1).

d = Flag vector 0.

e = Flag vector 1.

f = Flag vector 2.

g = Flag vector 3.

h = Flag vector 4.

i = Flag vector 5.

j = Flag vector 6.

k = Flag vector 7.

l = Summary flag.

m = Configuration.

n = Mode.

o = Digital phase-locked loop (DPLL) status.

p = Network clock error source register (ESR) contents.

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q = Digital/analog converter (DAC) input - upper byte.

r = Communication link receiver/transmitter (CLRT) scan point status - first reading.

s = CLRT scan point status - second reading.

t = Peripheral controller sub-device maskable interrupt level.

u = Interrupt controller A status register contents.

v = Interrupt controller A interrupt request register contents.

w = Interrupt controller A interrupt service register contents.

x = Interrupt controller A interrupt mask register contents.

y = Interrupt controller A interrupt auto clear register contents.

z = Interrupt controller B status register contents.

a[1] = Interrupt controller B interrupt request register contents.

b[1] = Interrupt controller B interrupt service register contents.

c[1] = Interrupt controller B interrupt mask register contents.

d[1] = Interrupt controller B interrupt auto clear register contents.

e[1] = Lower 8 bits of control and diagnostic access circuit (CDAC) address register contents.

f[1] = Higher 4 bits of control and diagnostic access circuit address register contents.

g[1] = Transmit/receive address location for data memory.

h[1] = Status of time-multiplexed switch (TMS) ready lead and CDAC active lead.

i[1] = Lower 8 bits of prom sequencer.

j[1] = Higher 8 bits of prom sequencer.

4. ACTION TO BE TAKEN

Use the data to determine which interrupt occurred. To disable the automatic printing of this message, refer to the SET:ONTC input message.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

REPT:NC-LPL

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT NC a LOST PHASE LOCK EVENT = b
```

2. REASON FOR OUTPUT

To report that a transient clear disabled phase lock on the network clock (NC).

3. VARIABLE FIELD DEFINITIONS

`a` = Unit side (0 or 1).

`b` = Event number.

4. ACTION TO BE TAKEN

Monitor the reports concerning the office network timer complex (ONTC) network clock. If the phase lock is not achieved, make a brief inspection of the ONTC backplane to ensure that all the connectors are securely attached. Restore the reference.

If the NC fails to relock, switch ONTCs and determine if the other ONTC can phase lock. If it can lock, the problem probably lies in the NC hardware. Remove and diagnose the ONTC that does not phase lock.

If the active major NC cannot lock on the switch, check the reference source and verify that a reliable DS1 signal is being received.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RST:NCREF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

REPT:NC-MSI

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT NC a MODE SET INCORRECTLY EVENT = b
```

2. REASON FOR OUTPUT

To indicate when the office network timer complex (ONTC) network clock (NC) did not set to the ordered mode of operation.

3. VARIABLE FIELD DEFINITIONS

`a` = Unit side (0 or 1).

`b` = Event number.

4. ACTION TO BE TAKEN

Check the controller unit of the network clock and verify its communication with the foundation peripheral controller by executing diagnostics.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

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REPT:NC-NCUF

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT NC a NETWORK CLOCK UNIT FAULT EVENT = b

[2]   ____________________________________________________________________
      REPT NC a NETWORK CLOCK UNIT FAULT EVENT = b
        ASYNCHRONOUS REPORT X'
        ccddeeff  gghhiijj  kkllmmnn  ooppqqrr  ss000000
        FPC STATUS X'
        ttuuvvww  xxyyzza1  b1c1d1e1  f1g1h1i1  j1000000
```

2. REASON FOR OUTPUT

To report that a general fault with the network clock (NC) is related to a series of recurring transients and not necessarily to the microprocessor or any particular detector (Format 1).

Format 2 is printed only if an asynchronous report occurs.

3. VARIABLE FIELD DEFINITIONS

a = Unit side (0 or 1).

b = Event number.

c = Foundation peripheral controller (FPC) to network clock communication error.

d = Flag vector 0.

e = Flag vector 1.

f = Flag vector 2.

g = Flag vector 3.

h = Flag vector 4.

i = Flag vector 5.

j = Flag vector 6.

k = Flag vector 7.

l = Summary flag.

m = Configuration.

n = Mode.

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o = Digital phase-locked loop (DPLL) status.

p = Network clock error source register (ESR) contents.

q = Digital/analog converter (DAC) input - upper byte.

r = Communication link receiver/transmitter (CLRT) scan point status-first reading.

s = CLRT scan point status-second reading.

t = Peripheral controller sub-device maskable interrupt level.

u = Interrupt controller A status register contents.

v = Interrupt controller A interrupt request register contents.

w = Interrupt controller A interrupt service register contents.

x = Interrupt controller A interrupt mask register contents.

y = Interrupt controller A interrupt auto clear register contents.

z = Interrupt controller B status register contents.

a[1] = Interrupt controller B interrupt request register contents.

b[1] = Interrupt controller B interrupt service register contents.

c[1] = Interrupt controller B interrupt mask register contents.

d[1] = Interrupt controller B interrupt auto clear register contents.

e[1] = Lower 8 bits of control and diagnostic access circuit (CDAC) address register contents.

f[1] = Higher 4 bits of control and diagnostic access circuit address register contents.

g[1] = Transmit/receive address location for data memory.

h[1] = Status of time-multiplexed switch (TMS) ready lead and CDAC active lead.

i[1] = Lower 8 bits of prom sequencer.

j[1] = Higher 8 bits of prom sequencer.

4. ACTION TO BE TAKEN

Monitor the reports for other office network timer complex (ONTC) fault to help isolate the unit. Then repair and restore the ONTC.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

REPT:NC-NER

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT NC a NO EXTERNAL REF EVENT = b

[2]   ____________________________________________________________________
      REPT NC a NO EXTERNAL REF EVENT = b
        ASYNCHRONOUS REPORT X'
        ccddeeff  gghhiijj  kkllmmnn  ooppqqrr  ss000000
        FPC STATUS X'
        ttuuvvww  xxyyzza1  b1c1d1e1  f1g1h1i1  j1000000
```

2. REASON FOR OUTPUT

To report that on initialization or restoration of the office network timer complex (ONTC), no external reference was detected as a reliable timing source (Format 1).

Format 2 is printed only if an asynchronous report occurs.

3. VARIABLE FIELD DEFINITIONS

a = Unit side.

b = Event number.

c = Foundation peripheral controller (FPC) to network clock communication error.

d = Flag vector 0.

e = Flag vector 1.

f = Flag vector 2.

g = Flag vector 3.

h = Flag vector 4.

i = Flag vector 5.

j = Flag vector 6.

k = Flag vector 7.

l = Summary flag.

m = Configuration.

n = Mode.

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o = Digital phase-locked loop (DPLL) status.

p = Network clock error source register (ESR) contents.

q = Digital/analog converter (DAC) input - upper byte.

r = Communication link receiver/transmitter (CLRT) scan point status-first reading.

s = CLRT scan point status-second reading.

t = Peripheral controller sub-device maskable interrupt level.

u = Interrupt controller A status register contents.

v = Interrupt controller A interrupt request register contents.

w = Interrupt controller A interrupt service register contents.

x = Interrupt controller A interrupt mask register contents.

y = Interrupt controller A interrupt auto clear register contents.

z = Interrupt controller B status register contents.

a[1] = Interrupt controller B interrupt request register contents.

b[1] = Interrupt controller B interrupt service register contents.

c[1] = Interrupt controller B interrupt mask register.

d[1] = Interrupt controller B interrupt auto clear register contents.

e[1] = Lower 8 bits of control and diagnostic access circuit (CDAC) address register contents.

f[1] = Higher 4 bits of control and diagnostic access circuit address register contents.

g[1] = Transmit/receive address location for data memory.

h[1] = Status of time-multiplexed switch (TMS) ready lead and CDAC active lead.

i[1] = Lower 8 bits of prom sequencer.

j[1] = Higher 8 bits of prom sequencer.

4. ACTION TO BE TAKEN

Make a brief inspection of the ONTC backplane to ensure that all the connectors are securely attached. Manually restore the primary reference; then restore the secondary reference. This will attempt to phase lock the active major network clock (NC).

If the NC fails to phase lock, switch ONTCs and determine if the other ONTC can lock to either external reference.

If the NC becoming active major can phase lock, then the problem probably lies in the NC hardware. Remove the standby ONTC and diagnose it.

If the active major NC cannot lock on the switch, check the T1 links starting at the ONTC back to the reference

source and verify that a reliable DS1 signal is being received.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RST:NCREF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

REPT:NC-NME

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT NC a NORMAL MODE ENTERED EVENT = b
```

2. REASON FOR OUTPUT

To indicate that the phase-locked loop of the office network timer complex (ONTC) clock is set to the normal lock mode.

3. VARIABLE FIELD DEFINITIONS

`a` = Unit side.

`b` = Event number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

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REPT:NC-NO-XC

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT NC a NO X-COUPLE REF EVENT = b
```

[2]
```
REPT NC a NO X-COUPLE REF EVENT = b
  ASYNCHRONOUS REPORT X'
  ddcceeff  gghhiijj  kkllmmnn  ooppqqrr  ss000000
  FPC STATUS X'
  ttuuvvww  xxyyzza1  b1c1d1e1  f1g1h1i1  j1000000
```

2. REASON FOR OUTPUT

To report that the cross-couple reference was an unreliable timing source on initialization or restoration of the active minor network clock (NC) (Format 1).

Format 2 is printed only if an asynchronous report occurs.

3. VARIABLE FIELD DEFINITIONS

a = Unit side.

b = Event number.

c = Foundation peripheral controller (FPC) to network clock communication error.

d = Flag vector 0.

e = Flag vector 1.

f = Flag vector 2.

g = Flag vector 3.

h = Flag vector 4.

i = Flag vector 5.

j = Flag vector 6.

k = Flag vector 7.

l = Summary flag.

m = Configuration.

n = Mode.

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o = Digital phase-locked loop (DPLL) status.

p = Network clock error source register (ESR) contents.

q = Digital analog converter (DAC) input - upper byte.

r = Communication link receiver/transmitter (CLRT) scan point status-first reading.

s = CLRT scan point status-second reading.

t = Peripheral controller sub-device maskable interrupt level.

u = Interrupt controller A status register contents.

v = Interrupt controller A interrupt request register contents.

w = Interrupt controller A interrupt service register contents.

x = Interrupt controller A interrupt mask register contents.

y = Interrupt controller A interrupt auto clear register contents.

z = Interrupt controller B status register contents.

a[1] = Interrupt controller B interrupt request register contents.

b[1] = Interrupt controller B interrupt service register contents.

c[1] = Interrupt controller B interrupt mask register contents.

d[1] = Interrupt controller B interrupt auto clear register contents.

e[1] = Lower 8 bits of control and diagnostic access circuit (CDAC) address register contents.

f[1] = Higher 4 bits of control and diagnostic access circuit address register contents.

g[1] = Transmit/receive address location for data memory.

h[1] = Status of time-multiplexed switch (TMS) ready lead and CDAC active lead.

i[1] = Lower 8 bits of prom sequencer.

j[1] = Higher 8 bits of prom sequencer.

4. ACTION TO BE TAKEN

Make a brief inspection of the office network timer complex (ONTC) backplane to ensure that connectors are securely attached. Manually restore the ONTC if the active minor NC's cross-couple is out.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

RST:ONTC

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

REPT:NC-NRE

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT NC a NCOSC RANGE EXCEEDED EVENT = d

[2]   ____________________________________________________________________
      REPT NC a NCOSC RANGE EXCEEDED EVENT = d
        ASYNCHRONOUS REPT X'
        eeffgghh iijjkkll mmnnoopp qqrrsstt uu000000
        FPC STATUS X'
        vvwwxxyy zza1b1c1 d1e1f1g1 h1i1j1k1 l1000000
```

2. REASON FOR OUTPUT

To report that the network clock oscillator (NCOSC) frequency has exceeded the allowed tolerance. Format 1; marks the fact that the error occurred. Format 2; will be used along with the DUMP:NC output message that will follow to analyze the error.

3. VARIABLE FIELD DEFINITIONS

a = Network clock oscillator (NCOSC) side.

d = Event number.
Note: All dump fields are given as hexadecimal values. For an explanation of the variables refer to the DUMP:NC output message manual page.

e = Foundation peripheral controller (FPC) to network clock communication error.

f = Flag vector 0.

g = Flag vector 1.

h = Flag vector 2.

i = Flag vector 3.

j = Flag vector 4.

k = Flag vector 5.

l = Flag vector 6.

m = Flag vector 7.

n = Summary vector.

o = Configuration (NC1).

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p = Mode (NC1).

q = Digital phase-lock loop (DPLL) status (NC1).

r = Contents of the network clock error source register (ESR) (NC1).

s = Digital/analog converter (DAC) input-upper byte (NC1).

o = Contents of hardware error source register (ESR).

p = Contents of the timebase ESR.

q = Contents of the source ESR.

r = Contents of reference ESR.

s = Invalid message address.

t = Communication link receiver/transmitter (CLRT) scan point status- first reading.

u = CLRT scan point status- second reading.

v = Peripheral controller sub-device maskable interrupt level.

w = Contents of interrupt controller A status register.

x = Contents of interrupt controller A interrupt request register.

y = Contents of interrupt controller A interrupt service register.

z = Contents of interrupt controller A interrupt mask register.

a[1] = Contents of interrupt controller A interrupt auto clear register.

b[1] = Contents of interrupt controller B status register.

c[1] = Contents of interrupt controller B interrupt request register.

d[1] = Contents of interrupt controller B interrupt service register.

e[1] = Contents of interrupt controller B interrupt mask register.

f[1] = Contents of interrupt controller B interrupt auto clear register.

g[1] = Contents of lower 8 bits of control and diagnostic access circuit (CDAC) address register.

h[1] = Contents of higher 4 bits of CDAC address register.

i[1] = Transmit/receive address location for data memory.

j[1] = Status of time-multiplexed switch (TMS) ready lead and CDAC active lead.

k[1] = Contents of lower 8 bits of prom sequencer.

l[1] = Contents of higher 8 bits of prom sequencer.

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4. ACTION TO BE TAKEN

Check receive only printer (ROP) for past notifications of oscillator defects using REPT:NC output messages. If there are none and no further errors occur, take no action. If errors are present, or the range is continually exceeded, replace oscillator.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RMV:NCOSC
RST:NCOSC
```

Output Message(s):

```
DUMP:NC
REPT:NC
```

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REPT:NC-NWP

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT NC a NCOSC WARMUP PERIOD b EVENT=c
```

2. REASON FOR OUTPUT

To report the status of the warmup period for the network clock (NC) 2; oscillator (NCOSC). For the high-stability oscillator (TN1283), a warmup period of 16 hours is required after power is restored to the unit. In the case of the medium-stability oscillator (TN1285), a warmup period of one hour is required.

This message may occur automatically at the end of the warmup period to inform the user that the oscillator is now ready for use. It may also occur in response to a manual request for a change in oscillator state, to explain why the request has been denied.

3. VARIABLE FIELD DEFINITIONS

`a` = Network clock (NC) side.

`b` = Warmup period status. Valid value(s):
`COMPLETED` = Warmup is complete, and oscillator may be used.
`IN PROGRESS` = Warmup is not completed. The oscillator has not reached its specified frequency stability.

`c` = Event number.

4. ACTION TO BE TAKEN

If warmup is complete, the oscillator may be restored to service for normal operation. If warmup is still in progress, use the other oscillator for the time base, if possible. If this is not possible, the oscillator may be set forced. This action may cause the NC to operate outside the frequency stability range specified for the office and should only be done if the other oscillator is faulty.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RMV:NCOSC
RST:NCOSC
SET:FRC-NCOSC
```

MCC Display Page(s):

1211 (NETWORK CLOCK)

REPT:NC-OFE

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT NC a OSCILLATOR FAULT EVENT = b

[2]   ____________________________________________________________________
      REPT NC a OSCILLATOR FAULT EVENT = b
        ASYNCHRONOUS REPORT X'
        ccddeeff gghhiijj kkllmmnn ooppqqrr ss000000
        FPC STATUS X'
        ttuuvvww xxyyzza1 b1c1d1e1 f1g1h1i1 j1000000
```

2. REASON FOR OUTPUT

To report that no signal is being generated by the sync board oscillator or that the sync board oscillator is faulty (Format 1).

Format 2 is printed only if an asynchronous report occurs.

3. VARIABLE FIELD DEFINITIONS

a = Unit side.

b = Event number.

c = Foundation peripheral controller (FPC) to network clock communication error.

d = Flag vector 0.

e = Flag vector 1.

f = Flag vector 2.

g = Flag vector 3.

h = Flag vector 4.

i = Flag vector 5.

j = Flag vector 6.

k = Flag vector 7.

l = Summary flag.

m = Configuration.

n = Mode.

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o = Digital phase-locked loop (DPLL) status.

p = Network clock error source register (ESR) contents.

q = Digital/analog converter (DAC) input - upper byte.

r = Communication link receiver/transmitter (CLRT) scan point status - first reading.

s = CLRT scan point status - second reading.

t = Peripheral controller sub-device maskable interrupt level.

u = Interrupt controller A status register contents.

v = Interrupt controller A interrupt request register contents.

w = Interrupt controller A interrupt service register contents.

x = Interrupt controller A interrupt mask register contents.

y = Interrupt controller A interrupt auto clear register contents.

z = Interrupt controller B status register contents.

a[1] = Interrupt controller B interrupt request register contents.

b[1] = Interrupt controller B interrupt service register contents.

c[1] = Interrupt controller B interrupt mask register contents.

d[1] = Interrupt controller B interrupt auto clear register contents.

e[1] = Lower 8 bits of control and diagnostic access circuit (CDAC) address register contents.

f[1] = Higher 4 bits of control and diagnostic access circuit address register contents.

g[1] = Transmit/receive address location for data memory.

h[1] = Status of time-multiplexed switch (TMS) ready lead and CDAC active lead.

i[1] = Lower 8 bits of prom sequencer.

j[1] = Higher 8 bits of prom sequencer.

4. ACTION TO BE TAKEN

Determine the reason for the faltering sync board oscillator output signal from the diagnostic results.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

REPT:NC-OTFS

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT NC a ONTC TMS FEEDBACK SIGNAL OUT EVENT = b
  ASYNCHRONOUS REPORT X'
  ccddeeff  gghhiijj  kkllmmnn  ooppqqrr  ss000000
  FPC STATUS X'
  ttuuvvww  xxyyzza1 b1c1d1e1  f1g1h1i1  j1000000
```

2. REASON FOR OUTPUT

To report that the timing signal generated by the office network timer complex (ONTC) time-multiplexed switch (TMS) was not received at the ONTC network clock (NC).

3. VARIABLE FIELD DEFINITIONS

a = Unit side.

b = Event number.

c = Foundation peripheral controller (FPC) to network clock communication error.

d = Flag vector 0.

e = Flag vector 1.

f = Flag vector 2.

g = Flag vector 3.

h = Flag vector 4.

i = Flag vector 5.

j = Flag vector 6.

k = Flag vector 7.

l = Summary flag.

m = Configuration.

n = Mode.

o = Digital phase-locked loop (DPLL) status.

p = Network clock error source register (ESR) contents.

q = Digital/analog converter (DAC) input - upper byte.

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r = Communication link receiver/transmitter (CLRT) scan point status-first reading.

s = CLRT scan point status-second reading.

t = Peripheral controller sub-device maskable interrupt level.

u = Interrupt controller A status register contents.

v = Interrupt controller A interrupt request register contents.

w = Interrupt controller A interrupt service register contents.

x = Interrupt controller A interrupt mask register contents.

y = Interrupt controller A interrupt auto clear register contents.

z = Interrupt controller B status register contents.

a[1] = Interrupt controller B interrupt request register contents.

b[1] = Interrupt controller B interrupt service register contents.

c[1] = Interrupt controller B interrupt mask register contents.

d[1] = Interrupt controller B interrupt auto clear register contents.

e[1] = Lower 8 bits of control and diagnostic access circuit (CDAC) address register contents.

f[1] = Higher 4 bits of control and diagnostic access circuit address register contents.

g[1] = Transmit/receive address location for data memory.

h[1] = Status of time-multiplexed switch (TMS) ready lead and CDAC active lead.

i[1] = Lower 8 bits of prom sequencer.

j[1] = Higher 8 bits of prom sequencer.

4. ACTION TO BE TAKEN

Determine the reason for the ONTC link interface to ONTC network clock feedback signal outage from the diagnostic results and restore the ONTC when feasible.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

235-105-220 *Corrective Maintenance*

REPT:NC-OTNS

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT NC a ONTC TMS NOT SYNCHRONIZED WITH ONTC NC EVENT=b
```

2. REASON FOR OUTPUT

To indicate when the return signal sent from the office network and timing complex (ONTC) time multiplexed switch (TMS) is not in phase with the output from the ONTC network clock (NC). This problem could be caused by a fault in either the TMS or the NC.

3. VARIABLE FIELD DEFINITIONS

`a` = Unit side.

`b` = Event number.

4. ACTION TO BE TAKEN

If the ONTC side has been automatically removed from service and diagnosed, determine the reason for synchronization difficulty from the diagnostic results. Restore the ONTC to service when the fault is repaired (using the RST:ONTC input message). If the problem repeats itself, but the ONTC is not removed from service, then manually remove the side and diagnose the TMS and NC.

5. ALARMS

Minor.

6. REFERENCES

Input Message(s):

```
DGN:NC
DGN:TMS
RST:ONTC
```

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REPT:NC-PF

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT NC a PROCESSOR FAULT EVENT = b
  ASYNCHRONOUS REPORT X'
  ccddeeff gghhiijj kkllmmnn ooppqqrr ss000000
  FPC STATUS X'
  ttuuvvww xxyyzza1 b1c1d1e1 f1g1h1i1 j1000000
```

2. REASON FOR OUTPUT

To report that either the microprocessor sanity timer of the network clock (NC) caused an alarm to occur or that the microprocessor did not respond to input messages correctly.

3. VARIABLE FIELD DEFINITIONS

a = Unit side.

b = Event number.

c = Foundation peripheral controller (FPC) to network clock communication error.

d = Flag vector 0.

e = Flag vector 1.

f = Flag vector 2.

g = Flag vector 3.

h = Flag vector 4.

i = Flag vector 5.

j = Flag vector 6.

k = Flag vector 7.

l = Summary flag.

m = Configuration.

n = Mode.

o = Digital phase-locked loop (DPLL) status.

p = Network clock error source register (ESR) contents.

q = Digital/analog converter (DAC) input - upper byte.

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r = Communication link receiver/transmitter (CLRT) scan point status - first reading.

s = CLRT scan point status - second reading.

t = Peripheral controller sub-device maskable interrupt level.

u = Interrupt controller A status register contents.

v = Interrupt controller A interrupt request register contents.

w = Interrupt controller A interrupt service register contents.

x = Interrupt controller A interrupt mask register contents.

y = Interrupt controller A interrupt auto clear register contents.

z = Interrupt controller B status register contents.

a[1] = Interrupt controller B interrupt request register contents.

b[1] = Interrupt controller B interrupt service register contents.

c[1] = Interrupt controller B interrupt mask register contents.

d[1] = Interrupt controller B interrupt auto clear register contents.

e[1] = Lower 8 bits of control and diagnostic access circuit (CDAC) address register contents.

f[1] = Higher 4 bits of control and diagnostic access circuit address register contents.

g[1] = Transmit/receive address location for data memory.

h[1] = Status of time-multiplexed switch (TMS) ready lead and CDAC active lead.

i[1] = Lower 8 bits of prom sequencer.

j[1] = Higher 8 bits of prom sequencer.

4. ACTION TO BE TAKEN

Determine the reason for the processor fault and restore the office network timer complex (ONTC) when feasible.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

REPT:NC-PLE

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT NC a PHASE LOCKED EVENTNO = b
```

2. REASON FOR OUTPUT

To indicate that the office network timer complex (ONTC) network clock (NC) is phase locked to either an external reference, a cross-couple reference, or an internal timing source.

3. VARIABLE FIELD DEFINITIONS

`a` = Unit side.

`b` = Event number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

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REPT:NC-PLLF

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT NC a PHASE LOCK LOOP FAULT EVENT = b

[2]   ____________________________________________________________________
      REPT NC a PHASE LOCK LOOP FAULT EVENT = b
        ASYNCHRONOUS REPORT X'
        ccddeeff  gghhiijj  kkllmmnn  ooppqqrr  ss000000
        FPC STATUS X'
        ttuuvvww  xxyyzza1  b1c1d1e1  f1g1h1i1  j1000000
```

2. REASON FOR OUTPUT

To report a fault with the digital phase-locked loop unit of the office network time complex (ONTC) that resulted from a phase counter error or a digital-to-analog error (Format 1).

Format 2 is printed only if an asynchronous report occurs.

3. VARIABLE FIELD DEFINITIONS

a = Unit side.

b = Event number.

c = Foundation peripheral controller (FPC) to network clock communication error.

d = Flag vector 0.

e = Flag vector 1.

f = Flag vector 2.

g = Flag vector 3.

h = Flag vector 4.

i = Flag vector 5.

j = Flag vector 6.

k = Flag vector 7.

l = Summary flag.

m = Configuration.

n = Mode.

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o = Digital phase-locked loop (DPLL) status.

p = Network clock error source register (ESR) contents.

q = Digital analog converter (DAC) input - upper byte.

r = Communication link receiver/transmitter (CLRT) scan point status-first reading.

s = CLRT scan point status-second reading.

t = Peripheral controller sub-device maskable interrupt level.

u = Interrupt controller A status register contents.

v = Interrupt controller A interrupt request register contents.

w = Interrupt controller A interrupt service register contents.

x = Interrupt controller A interrupt mask register contents.

y = Interrupt controller A interrupt auto clear register contents.

z = Interrupt controller B status register contents.

a[1] = Interrupt controller B interrupt request register contents.

b[1] = Interrupt controller B interrupt service register contents.

c[1] = Interrupt controller B interrupt mask register contents.

d[1] = Interrupt controller B interrupt auto clear register contents.

e[1] = Lower 8 bits of control and diagnostic access circuit (CDAC) address register contents.

f[1] = Higher 4 bits of control and diagnostic access circuit address register contents.

g[1] = Transmit/receive address location for data memory.

h[1] = Status of timer-multiplexed switch (TMS) ready lead and CDAC active lead.

i[1] = Lower 8 bits of prom sequencer.

j[1] = Higher 8 bits of prom sequencer.

4. ACTION TO BE TAKEN

Determine the reason for the phase-locked loop fault from the report and consult the references.

5. ALARMS

Major

6. REFERENCES

Input/Output Messages:

None.

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

REPT:NC-PLNA

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT NC a PHASE LOCK NOT ACHIEVED EVENT = b
```

2. REASON FOR OUTPUT

To indicate that phase lock could not be achieved by the office network timer complex (ONTC) network clock (NC).

3. VARIABLE FIELD DEFINITIONS

`a` = Unit side.

`b` = Event number.

4. ACTION TO BE TAKEN

Make a brief inspection of the ONTC backplane to ensure that all the connectors are securely attached. Manually restore the references that are out of service if the active minor NC's cross-couple is out, then restore the ONTC.

If phase lock is not achieved on the active major ONTC, switch ONTCs and determine if the other NC can phase lock to an external reference. Monitor the receive-only printer (ROP) for additional reports concerning the active major NC.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RST:NCREF
RST:ONTC
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

REPT:NC-PS

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT NC a PHASE SHIFT EVENT = b
```

2. REASON FOR OUTPUT

To report that a phase difference between the output of the network clock (NC) and the reference to which the NC is phase locked exceeded a certain threshold.

3. VARIABLE FIELD DEFINITIONS

`a` = Unit side.

`b` = Event number.

4. ACTION TO BE TAKEN

Note that a phase shift occurred and how frequently this message is printed.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

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REPT:NC-REF

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT NC a {d}
 {FREQ TOLERANCE|JITTER} EXCEEDED EVENT = b
```

2. REASON FOR OUTPUT

To report that the office network timer complex (ONTC) network clock primary, secondary, or cross-couple reference frequency or jitter exceeded an acceptable tolerance.

3. VARIABLE FIELD DEFINITIONS

`a` = Unit side.

`b` = Event number.

`c` = Reference number.

`d` = Error source register. Valid value(s):

- `FREQ TOLERANCE` = The frequency error source register of the reference exceeded acceptable tolerance.
- `JITTER` = The jitter error source register (ESR) of the reference exceeded acceptable tolerance.
- `PRIM` = Error source register of the primary reference exceeded acceptable tolerance.
- `REFc` = Error source register of the e reference exceeded acceptable tolerance.
- `SEC` = Error source register of the secondary reference exceeded acceptable tolerance.
- `X-COUPLE` = Error source register of the cross-couple reference exceeded acceptable tolerance.

4. ACTION TO BE TAKEN

Make a brief inspection of the ONTC backplane to ensure that all the connectors are securely attached. Manually restore the external references if the active major ONTC lost phase lock or restore the ONTC if the active minor ONTC lost phase lock.

If the active major network clock (NC) fails to phase lock, switch ONTCs and determine if the other NC can lock to an external reference.

If the other NC can phase lock to an external reference after the switch, the problem probably is in the NC hardware. Remove the active minor ONTC and diagnose it.

If the active major NC cannot lock on the switch, check the T1 links starting at the ONTC back to the reference source and verify that a reliable DS1 signal is being received.

If the active minor ONTC cannot phase lock, determine the problem from the diagnostic results.

5. ALARMS

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None.

6. REFERENCES

Input Message(s):

```
RST:NCREF
RST:ONTC
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

REPT:NC-REMOVING

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT NC a REMOVING b [c]
```

2. REASON FOR OUTPUT

To report removal of a network clock reference (NCREF) from service. This message will follow a manual request to remove the reference or an automatic removal due to a detected fault.

3. VARIABLE FIELD DEFINITIONS

a = Network clock side.

b = Network clock reference (NCREF). Valid value(s):

For	Definitions
NC1	PRIM = Primary reference. SEC = Secondary reference. XC0, XC1 = Cross-couple reference.
NC2	Refn = Reference number. XC0, XC1 = Cross-couple reference.

c = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

If this is an expected action (requested removal), then no action is required. If this message is due to an automatic removal, then check the receive-only printer (ROP) for previous error messages using the REPT:NC output message and the NC MCC page for reference status. For further information, refer to the Routine Operations and Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RMV:NCREF
```

Output Message(s):

```
REPT:NC
```

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Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1211 (NETWORK CLOCK)

REPT:NC-SYNC

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT NC a SYNCHRONIZED WITH b [c]
```

2. REASON FOR OUTPUT

To indicate the synchronization configuration of the network clock (NC). This message will follow initialization of an NC side to indicate which reference is being used for synchronization. It will also print when the synchronization is changed from one reference to another.

3. VARIABLE FIELD DEFINITIONS

a = Network clock side.

b = Network clock reference (NCREF). Valid value(s):

For	Definitions
NC1	PRIM = Primary reference. SEC = Secondary reference. XC0, XC1 = Cross-couple reference.
NC2	Refn = Reference number. XC0, XC1 = Cross-couple reference.

c = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

If this is an expected action (requested change of synchronization source), then no action is required. If this message is due to an automatic removal, then check the receive-only printer (ROP) for previous error messages using the REPT:NC output message and the NC MCC page for reference status. For further information, refer to the Routine Operations and Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RST:NCREF
SW:NCREF
```

Output Message(s):

```
REPT:NC
```

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Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

REPT:NC-SYNC-OSC

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT NC a SYNC OSC REF {c} TOLERANCE EXCEEDED EVENTNO=b
```

2. REASON FOR OUTPUT

To indicate that the office network timer complex (ONTC) network clock (NC) synchronous oscillator reference frequency or phase jitter exceeded an acceptable tolerance.

3. VARIABLE FIELD DEFINITIONS

`a` = Unit side.

`b` = Event number.

`c` = Valid value(s):
- `FREQ` = Frequency.
- `JITTER` = Phase jitter.

4. ACTION TO BE TAKEN

Determine the reason for the unreliable signal from the diagnostic results.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
SW:ONTC
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

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REPT:NCOSC

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT a NCOSC b
```

2. REASON FOR OUTPUT

To report a change in the power status of the network clock 2 oscillator (NCOSC).

3. VARIABLE FIELD DEFINITIONS

a = Power status. Valid value(s):

```
POWER OFF
POWER ON
```

b = NCOSC unit side.

4. ACTION TO BE TAKEN

If power is reported to be lost, check direct power feed and power fuse to the network clock oscillator on the given side of the clock.

A high stability oscillator (stratum 2 office- TN1283/TN1285) will require a warmup period of 16 hours after power has been restored and before the unit may be restored to service. The warmup period for a medium stability oscillator (stratum 3 office- TN1284/TN1286) will be one hour. If necessary, an oscillator may be able to be forced active before the warmup time has been completed by the SET:FRC-NCOSC input message. This implies that the oscillator may be used for synchronization, but could cause the network clock (NC) to operate outside of the specified frequency tolerance for the office stratum specifications. This should only be done in the case of a faulty oscillator on the other NC side.

5. ALARMS

Minor.

6. REFERENCES

Input Message(s):

```
RMV:NCOSC
RST:NCOSC
SET:FRC-NCOSC
```

Output Message(s):

```
OP:CFGSTAT
REPT:NC
```

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MCC Display Page(s):

1211 (NETWORK CLOCK)

REPT:NIPMP-A

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT NIPMP SM=a IMAGE=b c
```

2. REASON FOR OUTPUT

To report progress or reason for termination of a non-interfering pump.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Peripheral image name.

`c` = Status. Valid value(s):

`ALREADY IN PROGRESS` = A non-interfering pump request is already in progress.

`COMPLETED` = The non-interfering pump has completed successfully.

`REQUEST IGNORED: IMAGE ALREADY LOADED` = The non-interfering pump request was not executed because the image has been previously loaded.

`REQUEST IGNORED: OFFLINE PUMP IN PROGRESS` = The non-interfering pump request was not executed because an offline pump request is currently running.

`REQUEST IGNORED: RIM REGENERATION NOT COMPLETE` = The non-interfering pump request was not executed because the relocatable image map has not been updated since the SM memory was last reconfigured. An ODD backup is required.

`REQUEST IGNORED: SM NOT FULLY OPERATIONAL` = The non-interfering pump request was not executed because the SM has not yet fully recovered from an initialization.

`STOPPED: ASSERT LOGGED` = The non-interfering pump has terminated abnormally and an assert has been triggered.

`STOPPED: INVALID DATA MESSAGE RECEIVED` = The non-interfering pump has terminated abnormally because two many data messages used to transfer the image were bad.

`STOPPED: NO MEMORY FOR REQUESTED IMAGE` = The non-interfering pump has terminated abnormally since the SM memory layout was not manually configured to include a section for the image requested.

`STOPPED: NOTHING PUMPED` = The non-interfering pump has terminated abnormally because data messages used to transfer the image were empty.

`STOPPED: REQUESTED` = The non-interfering pump has terminated due to a manual request.

`STOPPED: TEXT/DATA REQUEST FAILED` = The non-interfering pump has terminated abnormally due to a failure to send the TEXT/DATA request to the AM.

`STOPPED: TIMED OUT WAITING FOR DATA MESSAGE` = The non-interfering pump has terminated abnormally because the SM timed out waiting for receipt of a data message used to transfer the image.

`STOPPED: TOO MANY FAILING RANGES` = The non-interfering pump has terminated abnormally because hashsum errors were present over more than the maximum number of contiguous ranges.

`STOPPED: TOO MANY PARTIAL PUMPS` = The non-interfering pump has terminated abnormally because hashsum errors were still present after the maximum number of partial

pumps had been attempted.

4. ACTION TO BE TAKEN

Resolve errors as indicated and retry the input message. If errors continue, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. For a minor alarm, take action as indicated in the report.

6. REFERENCES

Input Message(s):

```
ST:NIPMP
STP:NIPMP
ST:OPUMP-SM
STP:OPUMP-SM
```

Output Message(s):

```
REPT:SM-OFFLINE
```

REPT:NIPMP-B

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT NIPMP SM=a IMAGE=b c
```

2. REASON FOR OUTPUT

To report progress or reason for termination of a non-interfering pump.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Peripheral image name.

`c` = Status. Valid value(s):

`ALREADY IN PROGRESS` = A non-interfering pump request is already in progress.

`COMPLETED` = The non-interfering pump has completed successfully.

`REQUEST IGNORED: IMAGE ALREADY LOADED` = The non-interfering pump request was not executed because the image has been previously loaded.

`REQUEST IGNORED: OFFLINE PUMP IN PROGRESS` = The non-interfering pump request was not executed because an offline pump request is currently running.

`REQUEST IGNORED: RIM REGENERATION NOT COMPLETE` = The non-interfering pump request was not executed because the relocatable image map has not been updated since the SM memory was last reconfigured. An ODD backup is required.

`REQUEST IGNORED: SM NOT FULLY OPERATIONAL` = The non-interfering pump request was not executed because the SM has not yet fully recovered from an initialization.

`STOPPED: ASSERT LOGGED` = The non-interfering pump has terminated abnormally and an assert has been triggered.

`STOPPED: INVALID DATA MESSAGE RECEIVED` = The non-interfering pump has terminated abnormally because two many data messages used to transfer the image were bad.

`STOPPED: NO MEMORY FOR REQUESTED IMAGE` = The non-interfering pump has terminated abnormally since the SM memory layout was not manually configured to include a section for the image requested.

`STOPPED: NOTHING PUMPED` = The non-interfering pump has terminated abnormally because data messages used to transfer the image were empty.

`STOPPED: REQUESTED` = The non-interfering pump has terminated due to a manual request.

`STOPPED: TEXT/DATA REQUEST FAILED` = The non-interfering pump has terminated abnormally due to a failure to send the TEXT/DATA request to the AM.

`STOPPED: TIMED OUT WAITING FOR DATA MESSAGE` = The non-interfering pump has terminated abnormally because the SM timed out waiting for receipt of a data message used to transfer the image.

`STOPPED: TOO MANY FAILING RANGES` = The non-interfering pump has terminated abnormally because hashsum errors were present over more than the maximum number of contiguous ranges.

`STOPPED: TOO MANY PARTIAL PUMPS` = The non-interfering pump has terminated abnormally because hashsum errors were still present after the maximum number of partial

pumps had been attempted.

4. ACTION TO BE TAKEN

Resolve errors as indicated and retry the input message. If errors continue, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. For a minor alarm, take action as indicated in the report.

6. REFERENCES

Input Message(s):

```
ST:NIPMP
STP:NIPMP
ST:OPUMP-SM
STP:OPUMP-SM
```

Output Message(s):

```
REPT:SM-OFFLINE
```

REPT:NS-A

Software Release: 5E10 - 5E11
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT NS a TRAPPED [b RECEIVED]
        c
        [d|e [f]]

[2]   ____________________________________________________________________
      REPT NS NSBADRESP TRAPPED AMORDLN_INV RECEIVED
```

2. REASON FOR OUTPUT

To report the occurrence of a service switching point (SSP) number service (NS) trap. This message is in response to the input message SET:DSE.

Format 1 is the general output response. Format 2 is the output response specific to the trap NSBADRESP with AMORDLN_INV; a trap exists either in the administrative module (AM) or the direct link node (DLN) at the switch, which has no additional data displayed.

3. VARIABLE FIELD DEFINITIONS

`a` = The event trapped. Valid value(s):

- `NSACGCOMP` = The trap includes an SCP response message with an ACG component received at the switch.
- `NSBADRESP` = The trap includes an SCP response message with invalid data.
- `NSNONRTEMSG` = The trap includes a reject message, a return error and a play announcement received at the switch from the service control point (SCP).
- `NSQRYFAIL` = The trap includes a query blocked by network management (NM) automatic call gap (ACG), a returned query received at the switch and a time out received in feature control (FC).

  When the trap for a query blocked by NM ACG is set, the output for this trap will also be generated by SSP test queries when a response with an ACG component from the service control point (SCP) is received at the switch.
- `NSSNCOMP` = The trap includes an SCP response message with a send notification received at the switch.
- `NSTNMSG` = The trap includes a termination notification message sent from the switch to the SCP.

`b` = The subclass of the event trapped. Valid value(s):

- `ACG_BLKD` = This is a type of NSQRYFAIL trap and it occurs when a query is blocked by NM ACG in the administrative module (AM) or direct link node (DLN).
- `AMORDLN_INV` = This is a type of NSBADRESP trap and it occurs when an SCP response message with invalid data is received in the administrative module (AM) or the direct link node (DLN) at the switch.
- `ANN_MSG` = This is a type of NSNONRTEMSG trap and it occurs when a play announcement is received at the switch from the SCP.

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NULL	= This is associated with the type of NSACGCOMP and it occurs when the SCP sends an ACG component to perform ACG administration (install/update/delete controls).
REJECT	= This is a type of NSNONRTEMSG trap and it occurs when a reject message is received at the switch from the SCP.
RERR_MSG	= This is a type of NSNONRTEMSG trap and it occurs when a return error message is received at the switch from the SCP.
RTRN_QRY	= This is a type of NSQRYFAIL trap and it occurs when a returned query is received at the switch.
SM_INV	= This is a type of NSBADRESP trap and it occurs when an SCP response message with invalid data is received in the switching module (SM) at the switch.
SN_COMP	= This is a type of NSSNCOMP trap and it occurs when a response message with a send notification component is received at the switch.
TIMEOUT	= This is a type of NSQRYFAIL trap and it occurs when a time out is received in FC.
TN_MSG	= This is a type of NSTNMSG trap and it occurs when a termination notification message is sent from the switch to the SCP.

c = 10-digit dialed number which causes the event to occur.
Note: If 'a' is NSACGCOMP, 'c' is a 6- or 10-digit control number.

d = Additional data associated with the trapped event. Valid value(s):

```
BADLY STRUCTURED COMPONENT PORTION
BADLY STRUCTURED TRANSACTION PORTION
DATA UNAVAILABLE
DATABASE OVERLOAD
DESTINATION MASS CALLING
DUPLICATE INVOKE ID
FAR END SUBSYSTEM CONGESTION
FAR END SUBSYSTEM PROHIBITED
FAR END SUBSYSTEM UNEQUIPPED
INCORRECT COMPONENT PORTION
INCORRECT INVOKE PARAMETER
INCORRECT RETURN ERROR PARAMETER
INCORRECT RETURN RESULT PARAMETER
INCORRECT TRANSACTION PORTION
MISSING CUSTOMER RECORD
MSG RETURNED FROM CNI
NETWORK FAILURE
NETWORK CONGESTION
NO TRANSLATION GLOBAL TYPE
OUT OF BAND
REPLY OVERDUE
SMS INITIATED
TRANSLATION FAIL OF GLOBAL ADDRESS
UNAVAILABLE NETWORK RESOURCE
UNEXPECTED COMPONENT SEQUENCE
UNEXPECTED ERROR
UNEXPECTED DATA VALUE
UNEXPECTED RETURN ERROR
UNEXPECTED RETURN RESULT
UNRECOGNIZED COMPONENT
```

```
UNRECOGNIZED ERROR
UNRECOGNIZED INVOKE CORRELATION ID
UNRECOGNIZED OPERATION CODE
UNRECOGNIZED PACKAGE TYPE
UNRECOGNIZED RETURN ERROR CORRELATION ID
UNRECOGNIZED RETURN RESULT CORRELATION ID
UNRECOGNIZED TRANSACTION ID
VACANT CODE
```

e = Additional data associated with the trapped event. Valid value(s):

If 'a' =	**and 'b' =**	**'e' =**
NSNONRTEMSG or NSTNMSG		Decimal value of the SCP subsystem number.
NSNONRTEMSG	ANN_MSG	The decimal value of the play announcement code.
NSACGCOMP		The decimal value of the gap interval in seconds.
NSQRYFAIL	TIMEOUT	The decimal value of the SM number.

f = Additional data associated with the trapped event. Valid value(s):

If 'a' =	**'f' =**
NSACGCOMP	The hex value of the ACG duration time in seconds.
NSSNCOMP or NSTNMSG	The hex value of the SCP point code.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:DSE
OP:ST-DSE
SET:DSE
TST:NS800
```

Output Message(s):

```
OP:ST-DSE
TST:NS800
```

REPT:NS-B

Software Release: 5E12 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT NS a TRAPPED [b RECEIVED]   [g]
        c
        [d|e [f]]

[2]   ____________________________________________________________________
      REPT NS NSBADRESP TRAPPED AMORDLN_INV RECEIVED   [g]
```

2. REASON FOR OUTPUT

To report the occurrence of a service switching point (SSP) number service (NS) trap. This message is in response to the input message SET:DSE.

Format 1 is the general output response. Format 2 is the output response specific to the trap NSBADRESP with AMORDLN_INV; a trap exists either in the administrative module (AM) or the direct link node (DLN) at the switch, which has no additional data displayed.

3. VARIABLE FIELD DEFINITIONS

`a` = The event trapped. Valid value(s):

- `NSACGCOMP` = The trap includes an SCP response message with an ACG component received at the switch.
- `NSBADRESP` = The trap includes an SCP response message with invalid data.
- `NSNONRTEMSG` = The trap includes a reject message, a return error and a play announcement received at the switch from the service control point (SCP).
- `NSQRYFAIL` = The trap includes a query blocked by network management (NM) automatic call gap (ACG), a returned query received at the switch and a time out received in feature control (FC).

  When the trap for a query blocked by NM ACG is set, the output for this trap will also be generated by SSP test queries when a response with an ACG component from the service control point (SCP) is received at the switch.
- `NSSNCOMP` = The trap includes an SCP response message with a send notification received at the switch.
- `NSTNMSG` = The trap includes a termination notification message sent from the switch to the SCP.

`b` = The subclass of the event trapped. Valid value(s):

- `ACG_BLKD` = This is a type of NSQRYFAIL trap and it occurs when a query is blocked by NM ACG in the administrative module (AM) or direct link node (DLN).
- `AMORDLN_INV` = This is a type of NSBADRESP trap and it occurs when an SCP response message with invalid data is received in the administrative module (AM) or the direct link node (DLN) at the switch.
- `ANN_MSG` = This is a type of NSNONRTEMSG trap and it occurs when a play announcement is received at the switch from the SCP.

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NULL	= This is associated with the type of NSACGCOMP and it occurs when the SCP sends an ACG component to perform ACG administration (install/update/delete controls).
REJECT	= This is a type of NSNONRTEMSG trap and it occurs when a reject message is received at the switch from the SCP.
RERR_MSG	= This is a type of NSNONRTEMSG trap and it occurs when a return error message is received at the switch from the SCP.
RTRN_QRY	= This is a type of NSQRYFAIL trap and it occurs when a returned query is received at the switch.
SM_INV	= This is a type of NSBADRESP trap and it occurs when an SCP response message with invalid data is received in the switching module (SM) at the switch.
SN_COMP	= This is a type of NSSNCOMP trap and it occurs when a response message with a send notification component is received at the switch.
TIMEOUT	= This is a type of NSQRYFAIL trap and it occurs when a time out is received in FC.
TN_MSG	= This is a type of NSTNMSG trap and it occurs when a termination notification message is sent from the switch to the SCP.

c = 10-digit dialed number which causes the event to occur.
Note: If 'a' is NSACGCOMP, 'c' is a 6- or 10-digit control number.

d = Additional data associated with the trapped event. Valid value(s):

```
BADLY STRUCTURED COMPONENT PORTION
BADLY STRUCTURED TRANSACTION PORTION
DATA UNAVAILABLE
DATABASE OVERLOAD
DESTINATION MASS CALLING
DUPLICATE INVOKE ID
FAR END SUBSYSTEM CONGESTION
FAR END SUBSYSTEM PROHIBITED
FAR END SUBSYSTEM UNEQUIPPED
INCORRECT COMPONENT PORTION
INCORRECT INVOKE PARAMETER
INCORRECT RETURN ERROR PARAMETER
INCORRECT RETURN RESULT PARAMETER
INCORRECT TRANSACTION PORTION
MISSING CONDITIONAL PARAMETER
MISSING CUSTOMER RECORD
MISSING MANDATORY INVOKE PARAMETER
MISSING MANDATORY RETURN ERROR PARAMETER
MISSING MANDATORY RETURN RESULT PARAMETER
MESSAGE RETURNED FROM NETWORK INTERFACE
NETWORK FAILURE
NETWORK CONGESTION
NO TRANSLATION FOR GLOBAL TYPE
OUT OF BAND
REPLY OVERDUE
SMS INITIATED
TRANSLATION FAIL OF GLOBAL ADDRESS
UNAVAILABLE NETWORK RESOURCE
UNEXPECTED COMMUNICATION
UNEXPECTED COMPONENT SEQUENCE
```

```
UNEXPECTED DATA VALUE
UNEXPECTED ERROR
UNEXPECTED MESSAGE
UNEXPECTED MESSAGE SEQUENCE
UNEXPECTED PARAMETER SEQUENCE
UNEXPECTED RETURN ERROR
UNEXPECTED RETURN RESULT
UNRECOGNIZED COMPONENT
UNRECOGNIZED ERROR
UNRECOGNIZED INVOKE CORRELATION ID
UNRECOGNIZED OPERATION CODE
UNRECOGNIZED PACKAGE TYPE
UNRECOGNIZED RETURN ERROR CORRELATION ID
UNRECOGNIZED RETURN RESULT CORRELATION ID
UNRECOGNIZED TRANSACTION ID
VACANT CODE
```

e = Additional data associated with the trapped event. Valid value(s):

If 'a' =	**and 'b' =**	**'e' =**
NSNONRTEMSG or NSTNMSG		Decimal value of the SCP subsystem number.
NSNONRTEMSG	ANN_MSG	The decimal value of the play announcement code.
NSACGCOMP		The decimal value of the gap interval in seconds.
NSQRYFAIL	TIMEOUT	The decimal value of the SM number.

f = Additional data associated with the trapped event. Valid value(s):

If 'a' =	**'f' =**
NSACGCOMP	The hex value of the ACG duration time in seconds.
NSSNCOMP or NSTNMSG	The hex value of the SCP point code.

g = Processor where the event was trapped. If 'a' is NSQRYFAIL and 'b' is TIMEOUT then 'g' will be blank. Valid value(s):

- CNI — The event was trapped on a common network interface (CNI) platform.
- GSM — The event was trapped on a packet switching unit (PSU) platform but was unable to obtain the global switch module (GSM) number, missing or bad data.
- GSM=h — The event was trapped on a PSU platform, where 'h' is the number of the GSM where the event was trapped.

4. ACTION TO BE TAKEN

None. This message is in response to a manual input request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:DSE
OP:ST-DSE
SET:DSE
```

```
TST:NS800
```

Output Message(s):

```
OP:ST-DSE
TST:NS800
```

87. REPT:O

REPT:ODD-FILE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT a ODD FILE IS CORRUPT.
```

2. REASON FOR OUTPUT

To report that the administrative module (AM), communications module processor (CMP) or the scratch office-dependent data (ODD) file is corrupt. Immediate technical assistance is needed.

3. VARIABLE FIELD DEFINITIONS

`a` = ODD file type. Valid value(s):
`CPODD.OUT` = The AM ODD file is corrupt.
`CMPODD.OUT` = The CMP ODD file is corrupt.
`AMCMPODD.SCR` = The scratch ODD file is corrupt.

4. ACTION TO BE TAKEN

Immediate technical assistance is needed. It may be necessary to recover the AM or CMP ODD from tape.

5. ALARMS

Major.

6. REFERENCES

Other Manual(s):
235-105-250 *System Recovery*

REPT:OFFLINE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT OFFLINE BOOT IN PROGRESS

[2]   ____________________________________________________________________
      REPT OFFLINE BOOT a
```

2. REASON FOR OUTPUT

These messages are output to report information about the execution of the offline boot feature.

Format 1 is printed every 5 minutes, after the off-line side has booted successfully, to indicate that the system is still in offline boot and is still logically split.

Format 2 is printed after the off-line side has booted successfully and offline boot is being stopped. Whether devices moved to the off-line side are restored or not depends on the abort type.

3. VARIABLE FIELD DEFINITIONS

`a` = Abort type. Valid value(s):

- `ABORTED` = Application request to stop the oflboot procedure; devices moved to the off-line side will be restored.
- `STOPPED` = Manual request to stop the oflboot procedure. If the RST option was specified, devices moved to the off-line side will be restored.
- `TERMINATED` = Administrative module (AM) software-initiated termination of the oflboot procedure; devices moved to the off-line side will not be restored.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. For a minor alarm, take action as indicated in the report. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1, 2	690

Input Message(s):

`EXC:OFLBOOT`

```
STOP:OFLBOOT
SW:OFLBOOT
```

Output Message(s):

```
EXC:OFLBOOT
REPT:OFLBOOT
STOP:OFLBOOT
SW:OFLBOOT
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

REPT:OFFNORMAL-DA

Software Release: 5E10 and later
Message Class: LOFFNRM,IOC_MON
Application: 5
Type: Output

1. FORMAT

```
REPT   OFFNORMAL      DAYLOG         ACTIVITY
  MSGCLS     NUMBER LOGGED    ALARM LEVEL
  a              (b)               c
  .               .                .
  .               .                .
  .               .                .
```

2. REASON FOR OUTPUT

To report the number of output messages entering the DAYLOG file.

3. VARIABLE FIELD DEFINITIONS

`a` = The alphabetic name of the output message class. Refer to the APP:MSGCLS appendix in the Appendixes section of the Output Messages manual for a list of all message class names.

`b` = Number of messages in this class that have been logged in the last 15-minute interval.

`c` = Alarm level of the messages logged are MAJOR, MINOR, NONE.

4. ACTION TO BE TAKEN

No action taken locally under normal circumstances. However, personnel in the Switching Control Center (SCC) or Technical Assistance Center (TAC) may investigate unusually large numbers of output messages by using either the DUMP:DAYLOG or OP:LOG input message.

5. ALARMS

The alarm could be **NONE**, **MINOR**, or **MAJOR** depending on the alarms of the messages within the reported message classes.

6. REFERENCES

Input Message(s):

`OP:LOG`

Output Appendix(es):

`APP:MSGCLS`

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REPT:OFLBOOT

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT OFLBOOT a
        b
        OLBSTATE        LASTATE        FUNCTION        LINE
        c               d              e               f

[2]   ____________________________________________________________
      REPT OFLBOOT a
        { b g h | b i | b j | b k | b o | b q | b v | b w }
        OLBSTATE        LASTATE        FUNCTION        LINE
        c               d              e               f

[3]   ____________________________________________________________
      REPT OFLBOOT a
        b
        PID             TYPE
        i               k
        OLBSTATE        LASTATE        FUNCTION        LINE
        c               d              e               f

[4]   ____________________________________________________________
      REPT OFLBOOT a
        b
        LOCATION        VALUE
        l               m
        OLBSTATE        LASTATE        FUNCTION        LINE
        c               d              e               f

[5]   ____________________________________________________________
      REPT OFLBOOT a
        b
        PID             RID
        i               n
        OLBSTATE        LASTATE        FUNCTION        LINE
        c               d              e               f

[6]   ____________________________________________________________
      REPT OFLBOOT a
        g h [p] b
        OLBSTATE        LASTATE        FUNCTION        LINE
        c               d              e               f

[7]   ____________________________________________________________
      REPT OFLBOOT a
        b r s t AUDITS        REASON u
        OLBSTATE        LASTATE        FUNCTION        LINE
```

c d e f

2. REASON FOR OUTPUT

These messages are output to report information regarding the execution of the offline boot feature.

3. VARIABLE FIELD DEFINITIONS

a = Message type.

- ABORTED = Application requested to stop the oflboot procedure; devices moved to the off-line side will be restored.
- COMPLETED = Indicates offline side boot has completed.
- INFO = Informational dump.
- STOPPED = Manual request to stop the oflboot procedure. If the RST option was specified, devices moved to the off-line side are restored.
- TERMINATED = *UNIX*® RTR software-initiated termination of the oflboot procedure; devices moved to the off-line side will not be restored.

b = Text line. Valid value(s):

1 ABORT DENIED DURING SWITCH = Application-initiated aborts are ignored while SW:OFLBOOT is running.

2 ADP IS NOT RUNNING, CANNOT RESTORE g h = Automatic diagnostic process (ADP) is not running, so the automatic restore of the specified unit will not be done.

3 AIM PRINTING OF PRE-CHECKS OR POST-CHECKS TIMED OUT = Offline boot did not receive results of activities before the timers expired.

4 AIM REPORTED FAILURE TO REDUPLEX = Application integrity monitor (AIM) reported failure to put the system back to its state previous to the offline boot.

5 AIM REPORTED FAILURE TO SPLIT = AIM reported failure to split in preparation for booting off-line.

6 AIM REPORTED FAILURE TO TURN CALL PROCESSING OFF = AIM reported call origination could not be turned off in preparation for side switching. If retrofit was not specified, SW:OFLBOOT will fail.

7 AIM REPORTED FAILURE TO TURN CALL PROCESSING ON = AIM reported call origination could not be turned on.

8 AIM REPORTED PRE-CONFIGURATION FAILURES = AIM reported pre-configuration errors in preparation for booting off-line.

9 CANNOT ACCESS A DIAGNOSTIC/MAINTENANCE SPECIAL DEVICE FILE = There were problems in obtaining a special device file; therefore, a disk file controller (DFC) cannot be removed. Offline boot will be terminated.

10 CANNOT ACCESS ECD = Device information cannot be accessed from the RC/V equipment configuration database (ECD) while booting off-line or side switching. Depending on the function 'e' printed, there are different consequences:

- CHECK_OOS = Cannot get a UCB record to verify that the unit has indeed been

removed as part of *UNIX*® RTR offline boot pre-configuration. Offline boot will be automatically terminated.

`CHG_DFC` = Cannot get a DFC UCB or a DFC sub-unit UCB record before moving it to the out-of-service (OOS) state as part of stopping the offline boot. The DFC or its sub-unit will remain in the GROW state.

`CHG_IOPS` = Cannot get an input/output processor (IOP) UCB or an IOP sub-unit UCB record before moving it to the OOS state as part of stopping the offline boot. The IOP or its sub-unit will remain in the GROW state.

`DEGROW_DFC` = Cannot get a DFC UCB record before unequipping it. The DFC will remain in the OOS state. Offline boot will be automatically terminated.

`DEGROW_IOP` = Cannot get an IOP UCB record before unequipping it. The IOP will remain in the OOS state. Offline boot will be automatically terminated.

`EQUIP_CU` = Cannot get control unit (CU) UCB when equipping the CU community as part of stopping the offline boot. The complete CU community or some of its sub-units will remain in the UNEQIP state.

`GROW_DFC` = Cannot get a DFC UCB or a DFC sub-unit UCB record before equipping it as part of stopping the offline boot. The DFC or its sub-unit will remain in the UNEQIP state.

`GROW_IOPS` = Cannot get an IOP UCB or an IOP sub-unit UCB record before moving it to the OOS state as part of stopping the offline boot. The IOP or its sub-unit will remain in the UNEQIP state.

`OLBCONTROL` = Cannot get CU UCB record before removing the CU community. Offline boot will be automatically terminated.

`RMV_DFC` = Cannot get a DFC UCB record before removing it. Offline boot will be automatically terminated.

`RMV_IOPS` = Cannot get an IOP UCB record before removing it. If more than one IOP was specified in the EXC_OFLBOOT command line, then one or more IOPs may have been moved to the OOS state and remain that way even though offline boot has been automatically terminated. This is because one or more messages to remove IOP may have already been dispatched to the input/output driver (IODRV) before this failure occurred.

`RSTFCN` = Cannot get a CU UCB record before sending ADP a message to restore the CU as part of stopping offline boot. The DFC will remain in the OOS state.

`RST_DFC` = Cannot get a DFC UCB record before sending ADP a message to restore the DFC as part of stopping offline boot. The DFC will remain in the OOS state.

`RST_IOPS` = Cannot get an IOP UCB record before sending ADP a message to restore it as part of stopping offline boot. If more than one IOP was specified in the EXC:OFLBOOT command line, then one or more IOPs may have been restored despite this failure. This is because one or more messages to ADP may have already been dispatched.

`TIM_UNIT` = Cannot get an IOP UCB record or an IOP sub-unit UCB record to report that the IODRV timed out when growing the device. The unknown device will remain in the UNEQIP or GROW state.

`UNRESERVE` = Cannot get a UCB record while stopping offline boot. Some units'

records may remain reserved.

11 `CANNOT CLOSE SPECIAL DEVICE FILE` = Disk driver (DKDRV) could not close a special device file. Consequently, its internal tables are corrupt and indicate a DFC is undergoing maintenance forever.

12 `CANNOT COPY MEMORY AREA FROM OFFLINE CU TO ONLINE CU` = Information cannot be transferred either from the on-line CU to the off-line side or vice versa.

13 `CANNOT COPY MEMORY AREA FROM ONLINE CU TO OFFLINE CU` = Information cannot be transferred either from the on-line CU to the off-line side or vice versa.

14 `CANNOT CREATE VFYDISKECD PROCESS` = The process that checks to see if a disk RC/V ECD session is in progress cannot be created.

15 `CANNOT DETERMINE ACT IOP FOR MTTY OR ROP` = Either the system is missing its maintenance teletypewriter (MTTY) or receive-only printer (ROP) or the RC/V ECD is corrupt. Offline boot cannot be guaranteed under these conditions.

16 `CANNOT DETERMINE IF OFFLINE SIDE IS RUNNING` = The on-line CU cannot determine if the off-line CU is running or not. Before the on-line CU tries to access the off-line CU for a memory copy, it needs to know whether the off-line CU is running. This is done by reading the off-line CU system status register (SSR) through a series of maintenance channel (MCH) instructions. These instructions failed, which indicates problems with the MCH. This condition sometimes results in automatic termination of offline boot.

17 `CANNOT GROW g h` = Prints if a device cannot be grown.

18 `CANNOT OUTPUT POST MORTEM, REASON v` = Error interrupt handler (EIH) could not output the post-mortem for reason '`v`'.

19 `CANNOT PORT SWITCH MTTY` = A message could not be sent to the IODRV to port switch an MTTY or ROP device.

20 `CANNOT PORT SWITCH MTTY OR ROP` = The IODRV did not respond to the port switch message in the allotted time frame. When the timer expired, EIH checked the MTTY and ROP devices and found that they had not been port switched.

21 `CANNOT PORT SWITCH ROP` = A message could not be sent to the IODRV to port switch an MTTY or ROP device.

22 `CANNOT READ OFFLINE CU SSR` = The on-line CU cannot determine if the off-line CU is running. Periodically, the on-line CU checks the off-line CU's SSR to know whether the off-line CU is running or not. This is done by reading the off-line CU SSR through a series of MCH instructions. The instructions failed which indicates problems with the MCH. This condition will result in the automatic termination of offline boot.

23 `CANNOT RECONFIGURE CU COMMUNITY` = Devices could not be reconfigured due to RC/V ECD access or update failures. Another possibility is that the device was properly reconfigured, but a message could not be sent to real time status (RTS) to

update the display pages information.

24 `CANNOT RELEASE AN MDCT RECORD` = While trying to release a minor device chain table (MDCT) RC/V ECD record of type diagnostic that is associated with the disk community, the RC/V ECD could not be accessed or updated.

25 `CANNOT REMOVE DFC` = Units could not be removed in preparation for booting off-line.

26 `CANNOT REMOVE IOP` = Units could not be removed in preparation for booting off-line.

27 `CANNOT RESET SANITY TIMERS` = Sanity timers cannot be reset or cleared.

28 `CANNOT RESTORE TO ORIGINAL STATE g h` = Devices could not be reconfigured due to RC/V ECD access or update failures. Another possibility is that the device was properly reconfigured, but a message could not be sent to RTS to update the display pages information.

29 `CANNOT RESTORE g h` = A message could not be sent to ADP to unconditionally restore a CU, DFC, or IOP community.

30 `CANNOT SEND DEGROWTH MESSAGE TO IODRV` = Degrowth requests cannot be sent to IODRV in preparation for booting off-line.

31 `CANNOT SEND GROWTH MESSAGE TO DKDRV` = Growth requests cannot be sent to DKDRV in order to reduplex the system.

32 `CANNOT SEND GROWTH MESSAGE TO IODRV` = Growth requests cannot be sent to IODRV in order to reduplex the system.

33 `CANNOT SEND IOCLOSE MESSAGE TO DKDRV` = A message cannot be sent to DKDRV requesting it to close a special device file. If the message prints twice, it means DKDRV will not have a chance to close a special device file. Consequently, its internal tables are corrupt and indicate a DFC is undergoing maintenance forever.

34 `CANNOT SEND IOOPEN MESSAGE TO DKDRV` = Message cannot be sent to DKDRV. Usually the reason is that a message buffer cannot be allocated for the message.

35 `CANNOT SEND MESSAGE TO PMPRC` = Message cannot be sent to PMPRC. Usually the reason is that a message buffer cannot be allocated for the message.

36 `CANNOT SEND MESSAGE TO USER PROCESS, PID i` = Message cannot be sent to a user process identified by its process ID. Usually the reason is that a message buffer cannot be allocated for the message.

37 `CANNOT SEND OLBCPOFF MESSAGE TO AIM ERROR o` = Message requesting AIM to turn call origination off failed. Reason for the failure is given by '`o`'.

38 `CANNOT SEND OLBCPON MESSAGE TO AIM ERROR o` = EIH could not send a message to AIM of activity OLBCPON. This message is serious; the system does not have call origination. Reason for the failure is '`o`'.

39 `CANNOT SEND OLBDUPLEX MESSAGE TO AIM ERROR o` = Message requesting AIM to reduplex failed. Reason for the failure is given by '`o`'.

40 `CANNOT SEND OLBPOSTSW MESSAGE TO AIM ERROR o` = Message requesting AIM to take post-switch actions failed. Reason for the failure is given by '`o`'.

41 `CANNOT SEND OLBPRECFG MESSAGE TO AIM ERROR o` = Message requesting AIM to pre-configure for an offline boot failed. Reason for the failure is given by '`o`'.

42 `CANNOT SEND OLBPRECHK MESSAGE TO AIM ERROR o` = Message requesting AIM to perform offline boot pre-checks failed. Reason for the failure is given by '`o`'.

43 `CANNOT SEND OLBPRINT MESSAGE TO AIM ERROR o` = Message requesting AIM to print the results of a previous check failed. Reason for the failure is given by '`o`'.

44 `CANNOT SEND OLBSPLIT MESSAGE TO AIM ERROR o` = Message requesting AIM to unequip application hardware RC/V ECD UCBs failed. Reason for the failure is given by '`o`'.

45 `CANNOT SEND REC_UPDATE MESSAGE TO DKDRV` = Message cannot be sent to DKDRV to update its disk display pages. Usually the reason is that a message buffer cannot be allocated for the message.

46 `CANNOT SEND UNTRMV MESSAGE TO DKDRV` = DFC remove request cannot be sent to DKDRV in preparation for booting off-line.

47 `CANNOT SEND UNTRMV MESSAGE TO IODRV` = IOP remove request cannot be sent to IODRV in preparation for booting off-line.

48 `CANNOT SEND UNTRST MESSAGE TO IODRV` = EIH could not send a message during a side switch to restore an MTTY, ROP, or Switching Control Center (SCC) device.

49 `CANNOT UNEQIP DEVICES` = CU community devices cannot be unequipped.

50 `CANNOT UNEQIP g h` = DFC and IOP devices and their sub-units cannot be unequipped.

51 `CANNOT UPDATE ECD` = The RC/V ECD cannot be updated. The reason is dependent on the function '`e`' printed:

`DFS`	= Could not reserve a unit's UCB record as part of EXC:OFLBOOT pre-checks.
`UNRESERVE`	= Could not unreserve a UCB record while stopping offline boot. Some units' UCB records may remain reserved.

52 `CC_OTHA IN THE ON-LINE` = A level 1 interrupt has occurred. The other central control (CC) hardware has reported a store hardware fault error (ER12). Refer to the APP:REGISTER appendix, ERROR REGISTER (ER) (NOTE), in the Appendixes section of the Output Messages manual for more information on ER12. Offline boot will be terminated because of faulty hardware.

53 `CC_OTHC IN THE ON-LINE` = A level 1 interrupt has occurred. The other CC hardware has reported a read parity fault hardware error (ER14). Refer to the

APP:REGISTER appendix, ERROR REGISTER (ER) (NOTE), in the Appendixes section of the Output Messages manual information on ER14. Offline boot will be terminated because of faulty hardware.

54 `CC_OTHD IN THE ON-LINE` = A level 1 interrupt has occurred. The other CC hardware has reported a refresh parity fault hardware error (ER13). Refer to the APP:REGISTER appendix, ERROR REGISTER (ER) (NOTE), in the Appendixes section of the Output Messages manual for more information on ER13. Offline boot will be terminated because of faulty hardware.

55 `CC_OTHO IN THE ON-LINE` = A level 1 interrupt has occurred. The other CC hardware has reported a store time-out hardware error (ER15). Refer to the APP:REGISTER appendix, ERROR REGISTER (ER) (NOTE), in the Appendixes section of the Output Messages manual for more information on ER15. Offline boot will be terminated because of faulty hardware.

56 `CHANGED DISK FORCES` = The DFC that is now forced on-line is not the same DFC that was forced on-line when the offline boot procedure was started. Offline boot is terminated.

57 `CORRUPT TIMER SLOT` = EIH found that the timer slot did not correspond to the ongoing action. Because EIH cannot use the corrupt time value from the slot, it uses a best guess of the time value instead.

58 `CORRUPT VALUE FOR ABORT TIMER` = The offline boot stop sequence can be started when EIH is performing an action that:

- Does not need a timer to monitor it (NOTIMER).
- Needs a timer to monitor it, but the timer has not been started (NEEDTIMER).
- Needs a timer to monitor it and the timer has been started (RUNNING).

This information (NOTIMER, NEEDTIMER, or RUNNING) has been found to be inconsistent or corrupted in comparison with the ongoing action. EIH will assume the worst case (a timer is RUNNING) and continue with the stop sequence. This assumption may result in this text line printing several times.

59 `COULD NOT PORT SWITCH` = The IODRV returned a port switch request message with a failure code.

60 `COULD NOT TELL SIM TO BLOCK ECD 1 AUDITS` = The EIH process could not tell the system integrity monitor (SIM) process to block the ECD 1 audits.

61 `COULD NOT TELL SIM TO BLOCK ECD 3 AUDITS` = The EIH process could not tell the SIM process to block the ECD 3 audits.

62 `COULD NOT TELL SIM TO BLOCK ECD 2 (APPECD) AUDITS` = The EIH process could not tell the SIM process to block the ECD 2 (appecd) audits.

63 `COULD NOT TELL SIM TO BLOCK ECD 2 (ECD) AUDITS` = The EIH process could not tell the SIM process to block the ECD 2 (ecd) audits.

64 `COULD NOT TELL SIM TO UNBLOCK ECD 1 AUDITS` = The EIH process could

not tell the SIM process to unblock the ECD 1 audits.

65 `COULD NOT TELL SIM TO UNBLOCK ECD 3 AUDITS` = The EIH process could not tell the SIM process to unblock the ECD 3 audits.

66 `COULD NOT TELL SIM TO UNBLOCK ECD 2 (APPECD) AUDITS` = The EIH process could not tell the SIM process to unblock the ECD 2 (appecd) audits.

67 `COULD NOT TELL SIM TO UNBLOCK ECD 2 (ECD) AUDITS` = The EIH process could not tell the SIM process to unblock the ECD 2 (ecd) audits.

68 `DFC PRECHECKS FAILED` = DFC-related checks failed. Offline boot will be terminated.

69 `DISK RC/V ECD SESSION IN PROGRESS` = A disk RC/V ECD session is in progress. Offline boot will be terminated.

70 `DKDRV HAS NOT CLOSED SPECIAL DEVICE FILE FOR g h` = Indicates that *UNIX*® RTR pre-configuration has not completed because the DKDRV has not closed a file used in removing the specified device.

71 `ILLEGAL SW OFLBOOT COMMAND` = A side switch was requested outside of offline boot (that is, offline boot is not running).

72 `INCORRECT OLBSTATE c` = When EIH was processing a system initialization fault, it found that it had to resume offline boot activities. However, the state information was corrupt. Hence, EIH will not be able to resume the offline boot.

73 `INTERNAL DFC NUMBER CORRUPT` = Indicates corruption of EIH's internal offline boot data.

74 `INTERNAL DFC TABLE CORRUPT` = Indicates corruption of EIH's internal offline boot data.

75 `INTERNAL ERROR, BAD OLBSTATE c SEEK TECHNICAL ASSISTANCE` = An illegal instruction in EIH was found during the offline boot procedure.

76 `INTERNAL INITLEVEL CORRUPT` = A system wide initialization (FLT_SINIT) was processed by EIH. EIH found it had to resume offline boot activities, but could not because the specified initialization level (2) might use a corrupt RC/V ECD. Offline boot will be terminated.

77 `INTERNAL IOP TABLE CORRUPT` = Indicates corruption of EIH's internal offline boot data.

78 `INTERNAL LOGIC ERROR` = Indicates a logic error has been encountered. Offline boot will be terminated.

79 `INTERNAL UNITS TABLE CORRUPT` = EIH used an RC/V ECD RID stored internally to read a RC/V ECD UCB record into a local buffer. When EIH tried to verify the buffer information, it found the device type field to be inconsistent. This situation indicates that, although the RID used by EIH was a valid one, it pointed to the incorrect UCB. That is, EIH's RID storage is corrupt. Also this could mean that the RC/V ECD UCB record itself is corrupt.

80 `INVALID MESSAGE RECEIVED` = Invalid message was received from the process identified by its process ID.

81 `INVALID MESSAGE RECEIVED FROM AIM, ACTIVITY j` = Invalid message was received from AIM.

82 `INVALID MESSAGE RECEIVED FROM IODRV, TYPE k` = Invalid message was received from IODRV.

83 `INVALID OLBSTATUS FOR MESSAGE RECEIVED FROM AIM, ACTIVITY j` = The activity carried out by AIM is inconsistent with the current OLBSTATE.

84 `LAST OLBSTATE d INVALID` = During the stop offline boot sequence, state information used to determine how much work needs to be done was found to be corrupt. The stop sequence will assume the highest level of work is needed and continue.

85 `LAST OLBSTATE d INVALID FOR ABORT` = During the stop offline boot sequence, state information used to determine how much work needs to be done was found to be corrupt. The stop sequence will assume the highest level of work is needed and continue.

86 `LATE MESSAGE RECEIVED` = A message was received too late from the process identified by its process ID.

87 `LOW CORE AMODE CORRUPT` = Indicates corruption of low core.

88 `LOW CORE IOPMASK CORRUPT` = EIH cannot interpret the contents of the lowcore IOPMASK value because the contents of lowcore ORIGSIDE is corrupt.

89 `LOW CORE ORIGSIDE CORRUPT` = Indicates corruption of low core.

90 `MEMORY COPY FAILED` = A memory-to-memory copy failed because either the off-line CU never halted to allow the copy or there was a CC_OTHC or CC_OTHTO fault.

91 `MESSAGE FROM PMPRC TOO LATE -- DISCARDING` = Message was received out of time from PMPRC. EIH took a default action, which could include terminating the offline boot procedure.

92 `MESSAGE FROM DKDRV TOO LATE -- DISCARDING` = Message was received out of time from DKDRV. EIH took a default action, which could include terminating the offline boot procedure.

93 `MESSAGE FROM VFYDISKECD TOO LATE -- DISCARDING` = Message was received out of time from the VFYDISKECD process. EIH took a default action, which could include terminating the offline boot procedure.

94 `MESSAGE FROM AIM TOO LATE -- DISCARDING` = Message was received out of time from AIM. EIH took a default action, which could include terminating the offline boot procedure.

95 `MTTY OR ROP NOT ACTIVE FOR ONLINE SIDE` = MTTY, or ROP, or both are not active for the on-line CU. Offline boot is not supported without an MTTY and a ROP. Offline boot will be terminated.

96 `MUST BE ACT TO REMOVE` = A device is in the wrong state to remove. The incorrect state is given by '`p`' which immediately precedes this text line.

97 `MUST BE IN ACT OR INIT STATE TO DEGROW` = A device is in the ACT or INIT states when it should be in a state valid for the degrowth operation (OOS state). The incorrect state is given by '`p`' which immediately precedes this text line.

98 `MUST BE IN ACT OR INIT STATE TO REMOVE` = A device is in the wrong state to remove. The incorrect state is given by '`p`' which immediately precedes this text line.

99 `MUST BE OOS TO RESTORE` = A device is not in the state that the offline boot procedure expects it to be. The incorrect state is given by '`p`' which immediately precedes this text line.

100 `NO DISK FORCED` = There is no DFC forced on-line.

101 `NO TIMER SLOTS AVAILABLE` = Indicates internal timer slots are all used up. Timer slots are freed at this point and the "no timer slots available" message is printed.

102 `NOT ALL UNITS ARE OOS` = Indicates not all units are OOS. Before offline boot moves a device to the off-line side, it first puts the device in the OOS state. One or more of the devices that are to be moved to the off-line side are not in the OOS state. Offline boot will be terminated.

103 `NOT IN GROW STATE` = During the stop offline boot process, a unit has been found that is not in the correct state to allow it to be reconfigured back into service, or the unit in question has already been moved (not by offline boot) to some other unexpected state. In either case, the reconfiguration sequence is not followed for this device. The incorrect state is given by '`p`' which immediately precedes this text line.

104 `NOT IN UNEQIP STATE` = A device is not in the state that the offline boot procedure expects it to be. The incorrect state is given by '`p`' which immediately precedes this text line.

105 `NOT OOS` = EIH is expecting all the devices going to the off-line side to be in the OOS state. However, it has found that one or more of these devices are not in the OOS state. Offline boot will be terminated. The incorrect state is given by '`p`' which immediately precedes this text line.

106 `OFFLINE AIM REPORTED CHECKS FAILURE` = AIM reported pre-check errors.

107 `OFFLINE BOOT TIMED OUT` = The timer set for booting off-line has expired. Another timer will be set with the original timeout value and offline boot will continue until manually stopped or off-line AIM writes the completion word in low core.

108 `OFFLINE CU NOT RUNNING` = Output by the on-line CU, this message indicates that the off-line CU is not running. Offline boot will be terminated.

109 `OFFLINE LOW CORE BOOT STATUS IS CORRUPT` = The periodic monitor that checks whether AIM has written the boot completion word in the off-line low core found the contents of the word corrupt. It will assume that the boot is not done.

110 `OFFLINE RTR CHECKS FAILED ERROR q` = *UNIX*® RTR encountered pre-check errors. Error is given in variable '`q`'.

111 `OFFLINE RTR-AIM COMMUNICATION FAILED` = Indicates EIH could not send a message to AIM in the off-line side or that AIM did not reply on time.

112 `OFFLINE SIDE DID NOT COMPLETE THE LBOOT STEP` = If failure PRMs are present, they will indicate that the disk unit (MHD 0 or MHD 1) used to boot the offline side is bad. Examples of corruption are a bad or non-existent volume table of contents (VTOC) or junk in the LBOOT partition. If failure PRMs are not present, there may be a problem with the MCH or the CU complex.

113 `OLBABORT EVENT RECEIVED -- ABORTING` = Indicates EIH has received an abort event; procedures to stop the offline boot have begun. Procedures will attempt to restore units.

114 `OLBCONFIG EVENT RECEIVED -- ABORTING` = Indicates EIH has received an abort event because an essential device like an SCC or MHD is not active or equipped; procedures to stop the offline boot have begun. Procedures will attempt to restore units.

115 `OLBSTATE c EXPECTED EXC_BOOT OR SW_PRCHK` = A timer expired, but the offline boot state machine was not in the state where the timer is valid. No action will be taken on the message; it will be discarded.

116 `OLBSTATE c NOT EXC_AIMECD` = A timer expired, but the offline boot state machine was not in the state where the timer is valid. No action will be taken on the message; it will be discarded.

117 `OLBSTATE c NOT EXC_CFGAIM` = A timer expired, but the offline boot state machine was not in the state where the timer is valid. No action will be taken on the message; it will be discarded.

118 `OLBSTATE c NOT EXC_POSTSW` = A timer expired, but the offline boot state machine was not in the state where the timer is valid. No action will be taken on the message; it will be discarded.

119 `OLBSTATE c NOT EXC_RMV` = A timer expired, but the offline boot state machine was not in the state where the timer is valid. No action will be taken on the message; it will be discarded.

120 `OLBSTATE c NOT STOP_IOPS` = A timer expired, but the offline boot state machine was not in the state where the timer is valid. No action is taken on the message; it is discarded.

121 `PORT SWITCH NOT DONE` = The IODRV returned a port switch request message with a success code. However, when EIH verified this against the ECD, it found that the devices had not really been port switched.

122 `RC/V ECD SESSION IN PROGRESS` = An incore RC/V ECD session is in progress. Offline boot will be terminated.

123 `RESTORE OF MTTY,ROP,SCC AND/OR SCSDC FAILED AFTER SIDE SWITCH` = During a side-switch, EIH received a message from the IODRV saying that it could not restore an MTTY, ROP, SCC, or scanner and signal distributor controller

(SCSDC) device.

124 `RETROFIT NOT SPECIFIED -- REDUPLEXING` = Call origination could not be turned on in the new on-line side during a side switch. Since the RETROFIT option was not specified, offline boot will be terminated immediately.

125 `RETROFIT SPECIFIED -- CONTINUING` = Call origination could not be turned on in the new on-line side during a side switch. Since the RETROFIT option was specified, the side switch will continue its normal sequence. Note however, there is no call origination going on.

126 `SANITY TIMER NOT CLEARED` = The off-line sanity timer cannot be cleared.

127 `SIM COULD NOT BLOCK r s t AUDITS REASON u` = SIM reported to EIH that it could not block the requested audits. The requested audit name is '`r`' with member number '`s`' and the audit instance name is '`t`'. The reason is explained by the code '`u`'.

128 `SIM COULD NOT UNBLOCK r s t AUDITS REASON u` = SIM reported to EIH that it could not unblock the requested audits. The requested audit name is '`r`' with member number '`s`' and the audit instance name is '`t`'. The reason is explained by the code '`u`'.

129 `SOME TERMINAL(S) UNDER OFF-LINE IOP MAY BE LOCKED` = Some IOP assigned to the off-line side will not have all its subdevices equipped, and as a consequence, some terminal in the office, if any, will appear to be locked, that is, the information displayed is out-dated, and no input is accepted.

130 `STOP DENIED DURING SWITCH` = Offline boot cannot be stopped manually or through application requests during a side switch.

131 `SWITCH CALL PROCESSING OFF FAILED` = AIM reported call origination could not be turned off in preparation for side switching. If retrofit was not specified, SW:OFLBOOT will fail.

132 `SWITCH CALL PROCESSING ON FAILED` = AIM reported call origination could not be turned on.

133 `SWITCH POSTSW FAILED` = AIM reported post-switch work failed. There may be some application recovery needed. For example, it is possible that call origination is still turned off.

134 `SWITCH POSTSW TIMED OUT` = AIM post-switch work timed out. There may be some application recovery needed. For example, it is possible that call origination is still turned off.

135 `SWITCH PRE-CHECK ONLY COMPLETED` = The pre-check only option was specified in the application message requesting the side switch (that is, not a manual request to side switch).

136 `SWITCH TERMINATED` = The side switch was terminated. There may be some application recovery needed. For example, it is possible that call origination is still turned off.

137 `SYSTEM STATUS INCONSISTENT WITH COMMAND LINE OPTIONS` =

Command line options do not match system status. This message will be output if any of the following conditions are true:

- Required unit is OOS and neither OOS nor UCL was specified.
- Specified TTY does not exist.
- Specified IOP does not exist.
- Both IOP 0 and IOP 1 are selected for moving to the off-line side.
- A primary disk was not forced.
- A CU is forced.
- Only one bootable disk is available or one of the bootable disks is not equipped.
- Mate CU state is not STBY or OOS.
- If any RC/V ECD UCB record is reserved.

This list is not exhaustive. Another output message has been output prior to this output message describing the problem.

138 `TIME OUT - AIM POST-BOOT CHECKS` = EIH did not receive results of activities before timers expired. Either the on-line side or the off-line side timer to receive the results from the off-line AIM post-boot checks has expired. These post-boot results will not be available.

139 `TIME OUT - AIM PRECONFIGURATION` = EIH did not receive results of activities before timers expired.

140 `TIME OUT - CANNOT REMOVE EITHER CU, DFC AND/OR IOP` = EIH did not receive all the successful removal confirmation messages when the timer expired. It verified against the RC/V ECD that not all of the units were in the OOS state as expected.

141 `TIME OUT DUPLEX ECD: AIM REPORTED x, RTR REPORTED y` = This message always results in continuing the stop sequence in progress to the point where IOPs are duplexed and to the end part of the STOP. Although AIM is involved in the STOP sequence, it did not cause the timeout. Therefore, the AIM duplex completion value '`x`' is printed. If it is `NOTHING`, AIM had not finished its duplexing at the moment the timeout occurred. If it is `SUCCESS`, AIM had successfully finished its STOP sequence. If it is `FAILURE`, AIM reported errors during its STOP sequence. This timeout was caused by RTR problems when growing DFC units. A value of `NOTHING` for '`y`' means RTR did not complete or report to EIH the status of the grow operations for the DFC units involved in the STOP sequence. A value of `FAILURE` for '`y`' means RTR failed to complete the grow operations for the DFC units involved in the STOP sequence. A value of `SUCCESS` for '`y`' means RTR indicated a successful grow of the DFC units involved in a side switch; a logic error occurred.

142 `TIME OUT FOR RECEIVING RESULTS OF POST-BOOT CHECKS` = EIH did not receive results of activities before timers expired. Either the on-line side or the off-line side timer to receive the results from the off-line AIM post-boot checks has expired. These post-boot results will not be available.

143 `TIME OUT RTR GROW: AIM REPORTED x, RTR REPORTED y` = This message always results in termination of the offline boot procedure. AIM is not involved in the side switch growth of units, so, the value of '`x`' is always `NOTHING`; otherwise, a logic error occurred. A value of `NOTHING` for '`y`' means RTR did not complete or did

not report to EIH the status of the grow operations for the MTTY, ROP, SCC, and SCSDC units units involved in a side switch. A value of `FAILURE` for '`y`' means RTR failed to complete the grow operations for the MTTY, ROP, SCC, and SCSDC units involved in a side switch. A value of `SUCCESS` for '`y`' means RTR indicated a successful grow of the units involved in a side switch; a logic error happened.

144 `TIME OUT SPLIT ECD: AIM REPORTED x, RTR REPORTED y` = This message always results in termination of the offline boot procedure. A value of `NOTHING` for '`x`' or '`y`' means AIM or RTR or both did not complete or did not report to EIH the status of the split operation. A value of `FAILURE` for '`x`' or '`y`' means AIM or RTR or both failed to complete the split operation. A value of `SUCCESS` for '`x`' or '`y`' means AIM or RTR or both indicated a successful split of its units. If both are `SUCCESS` a logic error happened.

145 `TIME OUT WHEN GROWING g h` = EIH did not receive the result of growing an IOP unit or sub-unit. The specified unit and its sub-units, if any, are left in the UNEQIP state.

146 `TRYING TO WRITE INVALID BOOTSTATUS TO LOW CORE` = EIH is trying to write an invalid value to low core.

147 `TRYING TO WRITE INVALID IOPMASK TO LOW CORE` = EIH is trying to write an invalid value to low core.

148 `TRYING TO WRITE INVALID IOPSUBUNIT TO LOW CORE` = EIH is trying to write an invalid value to low core.

149 `TRYING TO WRITE INVALID MODE TO LOW CORE` = EIH is trying to write an invalid value to low core.

150 `TRYING TO WRITE INVALID MODIFIEDECD TO LOW CORE` = EIH is trying to write an invalid value to low core.

151 `TRYING TO WRITE INVALID OFLTTY TO LOW CORE` = EIH is trying to write an invalid value to low core.

152 `TRYING TO WRITE INVALID OLBACK TO LOW CORE` = EIH is trying to write an invalid value to low core.

153 `TRYING TO WRITE INVALID OLBDFC TO LOW CORE` = EIH is trying to write an invalid value to low core.

154 `TRYING TO WRITE INVALID OLBTRACE TO LOW CORE` = EIH is trying to write an invalid value to low core.

155 `TRYING TO WRITE INVALID OLBUCL TO LOW CORE` = EIH is trying to write an invalid value to low core.

156 `TRYING TO WRITE INVALID ORIGSIDE TO LOW CORE` = EIH is trying to write an invalid value to low core.

157 `TRYING TO WRITE INVALID VALUE TO LOW CORE` = EIH is trying to write an invalid value to low core.

158 `UNEXPECTED MESSAGE FROM AIM` = EIH received a message from AIM (type

OFLBOOT) whose activity was OLBPRECHK. However, EIH's internal state information (OLBSTATE) was inconsistent with the value specified in lowcore MODE for the specified activity (OLBPRECHK). This situation indicates either an illegal message was received from AIM or that a message buffer was overwritten and corrupted. EIH drops this message and does not take action on it.

159 `UNEXPECTED MESSAGE RECEIVED FROM` = EIH received a message it cannot identify. The process ID and message type are provided to help identify the message.

160 `UNIT REMOVAL FAILURE` = During a side switch, the following devices are removed from the on-line side: MTTY, ROP, SCC, and SCSDs. The IODRV returned a message stating that one or more of these devices could not be moved to the OOS state. The side switch will continue. Furthermore, to prevent the IODRV from stealing these devices from the new on-line side, their RC/V ECD UCB records will be unequipped and messages are sent to the IODRV to move them to the DEGROW state.

`c` = Current offline boot state.

`d` = Previous offline boot state.

`e` = Name of the function from which the output message originated. This field is used by *UNIX*® RTR in diagnosing offline boot problems.

`f` = Line number in the function ' `f`' from which the output message originated. This field is used by *UNIX*® RTR, in conjunction with fields '`c`', '`d`', and '`e`', to diagnose offline boot problems.

`g` = String giving device type information; CU, DFC, IOP, MHD, TTY, TTYC, and DSCH, for example. Unit names are listed in the APP:MEM-NUM-UNIT Appendix, in this document.

`h` = Device number. A value of zero, which used with '`g`', could form DFC0, for example.

`i` = Process identification number.

`j` = Activity defined in message sent from the AIM process.

`k` = Message type in message sent from the IODRV, AIM, or any other unknown process.

`l` = Memory location where the invalid value '`n`' is being written.

`m` = Invalid value that is being written to low core.

`n` = RID of the RC/V ECD UCB record for the unit that cannot be removed.

`o` = Reason message could not be sent. Valid value(s):

`-1`	= Cannot allocate system message buffer.
`0`	= Process is not attached to its port or port is invalid.
`8192`	= Process cannot queue more messages.

p = Device state.

q = Pre-check errors. Valid value(s):

- 1 = Offline side is running in minimum configuration mode. System must be in full configuration mode for a side switch.
- 2 = Internal DFC table corrupt. Indicates corruption of EIH's internal offline boot data.
- 3 = Cannot get a DFC UCB record to get information for running pre-checks.
- 4 = An offline side DFC or DFC sub-unit is in the INIT state.
- 5 = Corrupt ECD UCB record for a DFC or DFC sub-unit. The device is in the STBY state which is not supported for DFC communities.
- 6 = An offline side DFC or DFC sub-unit either has a non-supported essential field or it is an essential or no_man_rmv device that is not active. For the latter, it could be UNAV, OFL, OOS or GROW.
- 7 = Corrupt ECD UCB record for a DFC or DFC sub-unit. The device has an unsupported major state field in its UCB.
- 10 = Low core IOPMASK corrupt. EIH cannot interpret the contents of the low core IOPMASK value because the contents of low core ORIGSIDE are corrupt.
- 11 = No IOP in the off-line side. Indicates that IOP 0 and IOP 1 are both on the on-line side. The switch will fail because it will not have an MTTY or ROP on the other side.
- 12 = No IOP in the off-line side. Indicates that IOP 0 and IOP 1 are both on the on-line side. The switch will fail because it will not have an MTTY or ROP on the other side.
- 13 = Low core ORIGSIDE corrupt. Indicates corruption of low core.
- 14 = Internal IOP table corrupt. Indicates corruption of EIH's internal offline boot data.
- 15 = Cannot get IOP 0 or 1 UCB record to get information for running pre-checks.
- 16 = Internal units table corrupt. EIH used an RC/V ECD RID stored internally to read a RC/V ECD UCB record into a local buffer. When EIH tried to verify the buffer information, it found the device type field to be inconsistent. This situation indicates that, although the RID used by EIH was a valid one, it pointed to the incorrect UCB. That is, EIH's RID storage is corrupt. Also this could mean that the RC/V ECD UCB record itself is corrupt.
- 17 = Not ACT. The IOP is not in the ACT state.
- 18 = Diagnostics running. Indicates the specified IOP 0 or 1 RC/V ECD UCB record is marked "reserved". Most often this is the case when diagnostics, or other type of maintenance work, are running on a device.
- 19 = The off-line side is running in full disk independent operation (DIOP) mode. The offline boot procedure cannot side switch to an impaired side.
- 20 = Cannot get MTTYC 0 or 1 UCB record to get information for running pre-checks.
- 21 = Internal units table corrupt. EIH used an RC/V ECD RID stored internally to read an MTTY controller RC/V ECD UCB record into a local buffer. When EIH tried to verify the buffer information, it found the device type field to be inconsistent. This situation indicates that, although the RID used by EIH was a valid one, it pointed to the

incorrect UCB. That is, EIH's RID storage is corrupt. Also this could mean that the RC/V ECD UCB record itself is corrupt.

22 = Not ACT. MTTYC 0 or 1 is not in the ACT state.

23 = Diagnostics running. Indicates MTTYC 0 or 1 RC/V ECD UCB record is marked "reserved". Most often this is the case when diagnostics, or other type of maintenance work, are running on a device.

r = Audit name, such as ECD.

s = Audit member number.

t = Audit instance.

u = Possible error codes returned by SIM to the EIH request to block or unblock an ECD audit. Valid value(s):

3 = Audit system initialization in progress.
4 = Audit system initialization failed.
5 = Access to audit record in the ECD failed.
9 = Requested audit instance is blocked.
19 = Invalid audit specified.
20 = Invalid audit instance specified.
30 = Request resulted in no change.

v = Possible reason codes why EIH could not output post-mortem report. Valid value(s):

10 = Cannot copy post-mortem slots from offline CU - the on-line CU is holding information in its slots.
11 = RMF is not running.
12 = Cannot copy offline post-mortem slots.

w = RID of the RC/V ECD UCB record for the unit that cannot be restored automatically.

x = Valid value(s):

```
FAILURE
NOTHING
SUCCESS
```

y = Valid value(s):

```
FAILURE
NOTHING
SUCCESS
```

4. ACTION TO BE TAKEN

Text Line: Action to be Taken:

1 Indicates AIM tried to abort the offline boot while SW:OFLBOOT was executing.

2 Restore the unit manually.

3 No action is required.

4 Wait for offline boot to terminate. Some application devices may be in an incorrect state. If so issue a STOP:OFLBOOT input message with the RST option within one hour. Once the hour is passed, manual actions will be required to restore the application devices to their original states.

5 Wait for offline boot to terminate, clear the problem with the application, and try offline boot again.

6 If retrofit was not specified, offline boot will be terminated on the current on-line side. If retrofit was specified, wait for the side switch to complete, then manually stop offline boot. In either case, after offline boot is stopped or terminated, take whatever manual recovery steps are needed to re-establish call origination.

7 If retrofit was not specified, offline boot will be terminated on the new on-line side. If retrofit was specified, wait for the side switch to complete, then manually stop offline boot. In either case, after offline boot is stopped or terminated, take whatever manual recovery steps are needed to re-establish call origination.

8 Wait for offline boot to terminate, then try offline boot again.

9 Wait for offline boot to terminate, then try offline boot again.

10 Wait for offline boot to be terminated, then run RC/V ECD audits.

11 Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

12 Wait for offline boot to terminate, then try offline boot again.

13 Wait for offline boot to terminate, then try offline boot again.

14 Wait for offline boot to terminate, then try offline boot again.

15 If there is no active MTTY or ROP, restore them and try off-line boot again. Otherwise, RC/V ECD is corrupt and RC/V ECD audits must be run. If the audits pass, try off-line boot again.

16 If the message did not result in an automatic termination of offline boot, manually stop the procedure. Once offline boot is stopped, run the CU diagnostics, phases 1 through 4, 11, and 62; if successful, try offline boot again.

17 Manual recovery is needed to restore the device to its pre-offline boot state.

18 If the reported reason was 10 or 12, the problem is that either the output slot is being used by a higher priority message or EIH is unable to complete the requested copy. In either case, no action is required. A reason of 11 indicates that the recovery message formatter (RMF) process is not running; refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

19 Indicates there were errors in port switching a device. Check device state and restore if needed.

20 Manual recovery is needed to restore the device to its pre-offline boot state.

21 Manual recovery is needed to restore the device to its pre-offline boot state.

22 Wait for offline boot to terminate, then run the CU diagnostics, phases 1 through 4, 11, and 63, to check the maintenance channel. If these particular phases do not reveal anything, then run the complete CU diagnostics before trying offline boot again.

23 Manual recovery may be needed to restore the device(s). This can indicate RC/V ECD corruption. In this case, wait until offline boot is terminated, restore the devices, and run RC/V ECD audits.

24 A scarce system resource (an MDCT record of type diagnostic) has been lost. To recover it, run the ECDOWN audit or manually unreserve the RC/V ECD MDCT record.

25 Check the device to see why it could not be removed, restore it to its pre-offline boot state or state needed to boot off-line, and try offline boot again.

26 Check the device to see why it could not be removed, restore it to its pre-offline boot state or state needed to boot off-line, and try offline boot again.

27 No action is required.

28 Manual recovery may be needed to restore the device(s). This can indicate RC/V ECD corruption. In this case, wait until offline boot is terminated, restore the devices, and run RC/V ECD audits.

29 Manual recovery may be needed to restore the device(s). This can indicate RC/V ECD corruption. In this case, wait until offline boot is terminated, restore the devices, and run RC/V ECD audits.

30 Wait for offline boot to terminate, then try offline boot again.

31 Manual recovery is needed to restore the device to its pre-offline boot state.

32 Manual recovery is needed to restore the device to its pre-offline boot state.

33 This message can occur twice. The first time this message occurs, ignore it; no action is required. The second time this message prints, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

34 Wait for offline boot to terminate, then try offline boot again.

35 Wait for offline boot to terminate, then try offline boot again.

36 No action is required.

37 If retrofit was not specified, the system will remain in offline boot. The side switch may be retried, if desired. If retrofit was specified, the side switch will continue; no action is required.

38 If retrofit was not specified, offline boot will be terminated on the new on-line side. If retrofit was specified, wait for the side switch to complete, then manually stop offline boot. In either case, after offline boot is stopped or terminated, take whatever manual recovery steps are needed to re-establish call origination.

39 Application recovery must be carried out manually.

40 Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

41 Wait for offline boot to terminate, then try offline boot again.

42 The action to be taken depends on the function 'e' output with the message:
`HDL_OLB_OPCODE` = The off-line side EIH could not ask AIM to perform post-boot checks. No action is required.
`OLBCONTROL` = The off-line side EIH could not ask AIM to perform side switch pre-checks; try the side switch again.

43 No action is required.

44 Wait for offline boot to terminate, then try offline boot again.

45 DKDRV did not have a chance to update its disk display pages. Restart the DKDIP process to have the pages show the correct information.

46 Check the device to see why it could not be removed, restore it to its pre-offline boot state or state needed to boot off-line, and try offline boot again.

47 Check the device to see why it could not be removed, restore it to its pre-offline boot state or state needed to boot off-line, and try offline boot again.

48 Manual recovery may be needed to restore the device(s). This can indicate RC/V ECD corruption. In this case, wait until offline boot is terminated, restore the devices, and run RC/V ECD audits.

49 Check to see why the device cannot be unequipped, resolve the problem, and try offline boot again.

50 Check to see why the device cannot be unequipped, resolve the problem, and try offline boot again.

51 The action to be taken depends on the function 'e' output with the message:
`DFS` = Run RC/V ECD audits. If the audits pass, try offline boot again.
`UNRESERVE` = If diagnostics are not running, then the RC/V ECD UCB record is corrupted; in which case, the UCB record needs to be unreserved manually or through the ECDOWN audit.

52 To run diagnostics, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

53 To run diagnostics, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

54 To run diagnostics, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

55 To run diagnostics, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

56 Wait for offline boot to terminate, force a DFC, and try again to boot offline.

57 Notify technical assistance about this occurrence. No other action needs to be taken for STOP:OFLBOOT to complete.

58 Notify technical assistance about this occurrence. No other action needs to be taken for STOP:OFLBOOT to complete.

59 Indicates there were errors in port switching a device. Check device state and restore if needed.

60 No action is required.

61 No action is required.

62 No action is required.

63 No action is required.

64 Save the ROP output and report this incident to technical assistance.
Note: The audits are automatically unblocked in six hours.

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67 Save the ROP output and report this incident to technical assistance.
Note: The audits are automatically unblocked in six hours.

68 Investigate the cause of the pre-check error, resolve the problem indicated, and try offline boot again.

69 Wait for the RC/V ECD session to complete, then try offline boot again.

70 No action is required.

71 If an offline boot was underway, then the low core value of MODE has been corrupted; refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. Otherwise, boot off-line and then side switch.

72 A manual STOP:OFLBOOT will be necessary because offline boot will not continue. Depending on the amount of state information corrupted, the STOP:OFLBOOT may result in cascading error messages; the stop process will complete, however.

73 The action to be taken depends on the function '`e`' output with this message:
`DEGROW_DFC`, `RMV_DFC` = Wait for offline boot to be terminated. Run RC/V ECD audits, then retry offline boot.
`CHG_DFC` = The device will remain in the GROW state. If this was not its original state, wait for offline boot to be terminated, then manually change the device community to the OOS state and restore it to service.
`RST_DFC` = The device will remain in the OOS state. If this was not its original state, wait for offline boot to be terminated, then manually restore the device community to service.

74 The action to be taken depends on the function '`e`' output with this message:
`DEGROW_DFC`, `RMV_DFC` = Wait for offline boot to be terminated. Run RC/V ECD audits, then retry offline boot.
`CHG_DFC` = The device will remain in the GROW state. If this was not its original state, wait for offline boot to be terminated, then manually change the device community to the OOS state and restore it to service.
`RST_DFC` = The device will remain in the OOS state. If this was not its original state, wait for

offline boot to be terminated, then manually restore the device community to service.

75 Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

76 Wait for offline boot to be terminated, restore the CU community, and try offline boot again.

77 The action to be taken depends on the function 'e' output with this message:

`DEGROW_IOPS, RMV_IOPS` = Wait for offline boot to be terminated. Run RC/V ECD audits, then retry offline boot.

`GROW_IOPS` = The device will remain in the UNEQIP state. If this was not its original state, wait for offline boot to be terminated, then manually grow the device community and restore it to service.

`RST_IOPS` = The device will remain in the OOS state. If this was not its original state, wait for offline boot to be terminated, then manually restore the device community to service.

78 Save the ROP output and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

79 The action to be taken depends on the function 'e' output with this message:

`CHECK_OOS, DEGROW_DFC, DEGROW_IOPS, RMV_DFC, RMV_IOPS` = Wait for offline boot to be terminated. Run RC/V ECD audits, then retry offline boot.

`CHG_DFC` = The device will remain in the GROW state. If this was not its original state, wait for offline boot to be terminated, then manually change the device community to the OOS state and restore it to service.

`EQUIP_CU, GROW_DFC, GROW_IOPS` = The device will remain in the UNEQIP state. If this was not its original state, wait for offline boot to be terminated, then manually grow the device community and restore it to service.

`RST_DFC` = The device will remain in the OOS state. If this was not its original state, wait for offline boot to be terminated, then manually restore the device community to service.

`SWPRECHECK` = The side switch will not succeed. To retry the side switch, first, stop offline boot manually; second, start another offline boot; third, try the side switch again once offline boot is complete.

80 Continue the offline boot procedure, save the ROP output, and report this incident to technical assistance.

81 Continue the offline boot procedure, save the ROP output, and report this incident to technical assistance.

82 Continue the offline boot procedure, save the ROP output, and report this incident to technical assistance.

83 Continue the offline boot procedure, save the ROP output, and report this incident to technical assistance.

84 No action is required.

85 Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output

Messages manual.

86 No action is required.

87 Save the ROP output and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

88 If OLBSTATE is EXC_ONLECD, wait for offline boot to be terminated, then try it again.

If the function '`e`' is SWPRECHECK, the side switch will not succeed. To retry to side switch, first, stop offline boot manually; second, start another offline boot; and third, try the side switch again after offline boot completes.

Otherwise, this is happening during the offline boot stop sequence. Some DFCs or IOPs belonging to the off-line side will remain in the UNEQIP, GROW, or OOS state. If these were not the original states, manually move the devices to their original states.

89 If OLBSTATE is EXC_ONLECD, wait for offline boot to be terminated, then try it again.

If the function '`e`' is SWPRECHECK, the side switch will not succeed. To retry to side switch, first, stop offline boot manually; second, start another offline boot; and third, try the side switch again after offline boot completes.

Otherwise, this is happening during the offline boot stop sequence. Some DFCs or IOPs belonging to the off-line side will remain in the UNEQIP, GROW, or OOS state. If these were not the original states, manually move the devices to their original states.

90 No action is required.

91 No action is required.

92 No action is required.

93 No action is required.

94 No action is required.

95 Check the status of the MTTY and ROP, restore the device that is not in the ACT state, and try offline boot again.

96 Check the device to see why it could not be removed, restore it to its pre-offline boot state or state needed to boot off-line, and try offline boot again.

97 This message should read '`CANNOT BE IN ACT OR INIT STATE TO DEGROW`'. Stop offline boot manually, change the state of the device, and try offline boot again.

98 Check the device to see why it could not be removed, restore it to its pre-offline boot state or state needed to boot off-line, and try offline boot again.

99 Manual recovery may be needed to restore the device(s). This can indicate RC/V ECD corruption. In this case, wait until offline boot is terminated, restore the devices, and run RC/V ECD audits.

100 If printed while executing EXC:OFLBOOT, wait for offline boot to terminate, force a DFC, and try again to boot off-line. If this message is printed as part of SW:OFLBOOT, wait for the side switch to fail, force the DFCs as they were at the beginning of the offline boot, and try to side switch again.

101 No action is required.

102 Wait for offline boot to be terminated. Check on why the DFC and all the IOPs to be moved to the off-line side are not in the OOS state. Resolve the problem, and then try offline boot again.

103 After the off-line boot process is terminated, check whether this device requires manual action to be brought back to its original state.

104 No action is required.

105 Wait for offline boot to be terminated. Then, check the states of the devices that were going to the off-line side. If any device is not in the OOS state, investigate why. After resolving any problem, try offline boot again.

106 If post-boot checks failed, no action is required. If side switch pre-checks failed, investigate what caused the pre-check error, resolve the problem, and try the side switch again.

107 Either manually stop offline boot or let it run until it completes. If this message is seen twice or more, offline boot may not complete and manually stopping it is recommended.

108 Check the on-line CU to see why it terminated. There may be some information in the off-line side post-mortem dump if one was output as part of the offline boot termination. If nothing is determined, try offline boot again after the termination is complete.

109 If the failure is part of a side switch, the side switch is aborted if the RETROFIT option is not specified. If the RETROFIT option was specified the system is booted on the side targeted for switching and offline boot terminates.

Note: If the reason for failure indicates bad hardware, it is recommended to stop the oflboot procedure and reschedule it when the hardware has been repaired.

110 The action to be taken depends on the value of '`g`'.

`1` = To side switch, stop oflboot and execute EXC:OFLBOOT without specifying the MINCONFIG option. When this second offline boot completes, try the side switch again.

`2` = Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`3` = The error is in the off-line side ECD which cannot be audited; refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`4` = Wait for the INIT operation to complete and run SW:OFLBOOT again.

`5` = The error is in the off-line side ECD which cannot be audited; refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`6` = If the error is an invalid field then it is in the offline ECD which cannot be audited; refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. ESSENTIAL or NOMANRMV devices in GROW and OFL will always fail the switch; stop offline boot manually and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. ESSENTIAL or NOMANRMV devices in UNAV and OOS should be restored, then run SW:OFLBOOT again. If the restore operations fail, the switch will always fail; stop offline boot manually and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`7` = The error is in the off-line side ECD which cannot be audited; refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output

Messages manual.

10 = Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

11 = Stop offline boot; wait for it to terminate. Try oflboot with IOP 0 or IOP 1 specified. Wait for the off-line side to be booted, then try SW:OFLBOOT again.

12 = Stop offline boot; wait for it to terminate. Try oflboot with IOP 0 or IOP 1 specified. Wait for the off-line side to be booted, then try SW:OFLBOOT again.

13 = Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

14 = Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

15 = The error is in the off-line side ECD which cannot be audited; refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

16 = Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

17 = Restore the IOP and run SW:OFLBOOT again.

18 = Run SW:OFLBOOT again after diagnostics complete.

19 = Stop oflboot, repair the equipment that caused the off-line side to go into DIOP and execute EXC:OFLBOOT. When this second off-line boot completes, try the side switch again.

20 = The error is in the offline side ECD which cannot be audited; refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

21 = If there is no active MTTY controller, restore it and try off-line boot again. Otherwise, RC/V ECD is corrupt and RC/V ECD audits must be run. If the audits pass, try off-line boot again.

22 = Restore the MTTY controller diagnostics complete.

23 = Run SW:OFLBOOT again after MTTY controller diagnostics complete.

111 Check OLBLOG files on the off-line side to determine if AIM has a problem. Do not start a side switch if it does. Also, recover OLBLOG files and send them to technical assistance. If the message was part of a retrofit side switch, watch for correct operation on the new on-line side as AIM was having problems and it may not support call origination.

112 Wait for offline boot to terminate. If a disk is bad do not boot from it. Booting from a corrupted disk can cause an outage; refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. If the CU or MCH appears to be the problem, then run the CU diagnostics, phases 1 through 4, 11, and 63, to check the maintenance channel. If these particular phases do not reveal anything, then run the complete CU diagnostics before trying offline boot again.

113 No action is required.

114 Restore or unequip the affected essential device before trying offline boot again.

115 Save the ROP output and notify technical assistance of this occurrence.

116 Save the ROP output and notify technical assistance of this occurrence.

117 Save the ROP output and notify technical assistance of this occurrence.

118 Save the ROP output and notify technical assistance of this occurrence.

119 Save the ROP output and notify technical assistance of this occurrence.

120 Save the ROP output and notify technical assistance of this occurrence.

121 Indicates there were errors in port switching a device. Check device state and restore if needed.

122 Wait for the RC/V ECD session to complete, then try offline boot again.

123 Manual recovery may be needed to restore the device(s). This can indicate RC/V ECD corruption. In this case, wait until offline boot is terminated, restore the devices, and run RC/V ECD audits.

124 Indicates offline boot has encountered fatal errors and the RETROFIT option was not specified, so offline boot is terminated and the system is immediately reduplexed. When offline boot has terminated, perform whatever manual recovery steps are needed to re-establish call origination.

125 If function 'e' is TIM_CPON, call origination is down. Wait for the side switch to finish, manually stop offline boot, and then take whatever actions are needed to re-establish call origination.

126 No action is required.

127 No action is required.

128 Save the ROP output and report this incident to technical assistance.

NOTE: The audits are automatically unblocked in six hours.

129 No action is required.

130 Wait until the side switch is finished, try STOP:OFLBOOT again on the new on-line side.

131 If retrofit was not specified, the system will remain in offline boot. The side switch may be retried, if desired. If retrofit was specified, the side switch will continue; no action is required.

132 Check OLBLOG files on the off-line side to determine if AIM has a problem. If call origination is turned off, take whatever actions are needed to re-establish call origination.

133 Check to see if manual recovery is needed.

134 Check to see if manual recovery is needed.

135 No action is required.

136 Check to see if manual recovery is needed. It is possible that call origination is still turned off.

137 If this message is preceded by a pre-check failure message, follow the action to be taken specified by the preceding message. If not, then an initialization level of 2 was specified and the CU is in the OOS state. In this case, offline boot cannot continue because the OOS CU memory will be used for booting and it may be corrupt. Either specify a higher initialization level or restore the CU before trying the offline boot again.

138 No action is required.

139 Wait for offline boot to terminate, then try offline boot again.

140 Check the device to see why it could not be removed, restore it to its pre-offline boot state or state needed to boot off-line, and try offline boot again.

141 Wait for offline boot to terminate. Check the ROP for previous messages detailing what could not be grown. Manually grow those units, move them to OOS through RC/V, and restore them. If the message indicates a logic error, save the ROP output and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

142 No action is required.

143 Wait for offline boot to terminate. Check the ROP for previous messages detailing what could not be grown. Manually grow those units, move them to OOS through RC/V, and restore them. If the message indicates a logic error, save the ROP output and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

144 Wait for offline boot to terminate. Check the ROP for previous messages detailing what could not be split. Correct the problems and try offline boot again. If the message indicates a logic error, save the ROP output and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

145 To recover the units, wait for offline boot to terminate, use RC/V to move the units to GROW and then to OOS. Restore the units manually.

146 Save the ROP output and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

147 Save the ROP output and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

148 Save the ROP output and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

149 Save the ROP output and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

150 Save the ROP output and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

151 Save the ROP output and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

152 Save the ROP output and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

153 Save the ROP output and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

154 Save the ROP output and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

155 Save the ROP output and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

156 Save the ROP output and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

157 Save the ROP output and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

158 Save the ROP output and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

159 Save the ROP output and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

160 No action is required.

5. ALARMS

For a minor alarm, take action as indicated in the report.

A major alarm may not be service affecting, but take immediate action as indicated in the report.

For a critical alarm, take immediate action as indicated in the report. If needed, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	704, 707, 719
2	705, 708
3-5	709
6	706
7	696

Input Message(s):

```
EXC:OFLBOOT
STOP:OFLBOOT
SW:OFLBOOT
```

Output Message(s):

```
EXC:OFLBOOT
REPT:OFFLINE
STOP:OFLBOOT
SW:OFLBOOT
```

Output Appendix(es):

```
APP:MEM-NUM-AUD
APP:MEM-NUM-UNIT
APP:OMDB-X-REF
APP:REGISTER
```

REPT:OFLBOOT-ACT

Software Release: 5E10 and later
Message Class: CLNK,MSGS, MTCE,ONTC
Application: 5
Type: Output

1. FORMAT

```
REPT OFLBOOT a [b] ACTIVITY: c EVENT=d
 [e] f
```

2. REASON FOR OUTPUT

To report information regarding the execution of the off-line boot procedure. This message is related to one of three message classes, depending upon the unit identified by variable '`e`'. If the unit is associated with the office network and timing complex (ONTC) unit, the message class will be ONTC. If the unit is associated with a communication link (CLNK), the message class will be CLNK. If the unit is associated with a message switch unit (CMP, FPC, MMP, MSCU, or PPC), the message class will be MSGS.

3. VARIABLE FIELD DEFINITIONS

`a` = The processor environment reporting the information. Valid value(s):
- `AIM` = Application integrity monitor kernel process.
- `MSKP` = Message switch kernel process.
- `RINGMON` = Ring monitor kernel process.
- `SMKP` = Switch maintenance kernel process.

`b` = Type of report. Valid value(s):
- `FAILURE` = A failure has occurred. The off-line boot procedure is stopped.
- `TRBL` = A trouble has been detected.

`c` = The current or last off-line boot activity executed. Valid value(s):
- `CALL PROCESSING OFF` = Call processing is not being processed in the AM.
- `CALL PROCESSING ON` = Call processing is being processed in the AM.
- `OFF-LINE INITIALIZATION` = The current or last activity on the off-line AM side is an initialization.
- `POST SWITCH` = The off-line side is performing operations associated with the SW:OFLBOOT input message.
- `PRECHECK` = Preliminary checks were executed to determine if a condition exists that may fail the off-line boot.
- `PRESPLIT CONFIG` = The system is preparing to split into an on-line and an off-line side.
- `PRINT STATUS` = Print the results of a previous check obtained from the off-line AM processor.
- `REDUPLEX` = The system is being reconfigured to the duplex configuration.
- `SPLIT TO SIMPLEX` = The AM, CM, and CNI is being split.

`d` = Event number.

`e` = Unit identification.

`f` = Additional data qualifying the report referenced by the reporting process indicated in field "`a`". This field provides additional information about why the off-line boot procedure detected an error.

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`SMKP or MSKP` =

`AIM` = Valid value(s):

`ACTIVITY EXECUTING ON WRONG SIDE` = The requested OFLBOOT activity was found to be executing on an inappropriate side.

`AIM REPORTS ERROR` = The AIM process is reporting an error for the current activity. (A report detailing the specific error should follow)

`AIM REPORTS SUCCESS` = The AIM process is reporting success for the current activity.

`AM INIT IN PROGRESS` = The OFLBOOT cannot continue because the on-line side AM is currently initializing.

`BAD APPLICATION PARAMETER` = The application parameter given on the input message is not compatible with the OFLBOOT procedure.

`CNIINIT INITIALIZING` = The CNIINIT process is currently initializing, OFLBOOT cannot proceed.

`CNIINIT NOT ATTACHED TO PORT` = The CNIINIT process is not attached to its communications port. This usually indicates that the process does not exist.

`CNIINIT REPORTS ERROR` = The CNIINIT process is reporting an error to AIM for the current activity. (A report detailing the specific error should follow)

`CNIINIT REPORTS SUCCESS` = The CNIINIT process is reporting success to AIM for the current activity.

`COULD NOT OBTAIN A REASON` = AIM was interrupted before a valid reason could be established.

`COULD NOT SEND MESSAGE TO CNIINIT` = A failure occurred while trying to send an OFLBOOT related message to CNIINIT. AIM will request an abort of OFLBOOT.

`COULD NOT SEND MESSAGE TO EIH` = A failure occurred while trying to send an OFLBOOT related message to the EIH process. AIM will request that OFLBOOT not proceed.

`COULD NOT SEND MESSAGE TO RINGMON` = A failure occurred while trying to send an OFLBOOT related message to the RINGMON process. AIM will request that OFLBOOT not proceed.

`COULD NOT SEND MESSAGE TO SMKP` = A failure occurred while trying to send an OFLBOOT related message to the SMKP process. AIM will request that OFLBOOT not proceed.

`DAP CRITICAL TO OFLBOOT FAILED` = An application process critical to OFLBOOT was found in a failed or initializing state. AIM will request that OFLBOOT not proceed.

`DAP INITIALIZING` = An application process which is not critical to OFLBOOT was found to be initializing. OFLBOOT will not proceed unless the UCL option is specified.

`LOGIC FLOW ERROR` = AIM discovered inconsistent logic flow in a message which was received.

`PREVIOUS BOOT FAILED` = AIM determined that the off-line side initialization has failed.

`RINGMON INITIALIZING` = The RINGMON process is currently initializing, OFLBOOT cannot proceed.

`RINGMON NOT ATTACHED TO PORT` = The RINGMON process is not attached to its communications port. This usually indicates that the process does not exist.

`RINGMON REPORTS ERROR` = The RINGMON process is reporting an error to AIM

for the current activity. (A report detailing the specific error should follow)

`RINGMON REPORTS SUCCESS` = The RINGMON process is reporting success to AIM for the current activity.

`SMKP INITIALIZING` = The SMKP process is currently initializing, OFLBOOT cannot proceed.

`SMKP NOT ATTACHED TO PORT` = The SMKP process is not attached to its communications port. This usually indicates that the process does not exist.

`SMKP REPORTS ERROR` = The SMKP process is reporting an error to AIM for the current activity. (A report detailing the specific error should follow)

`SMKP REPORTS SUCCESS` = The SMKP process is reporting success to AIM for the current activity.

`SUCCESS` = Activity completed successfully.

`RINGMON` = Valid value(s):

`DLN AUDIT ERROR` = An audit found errors with DLN data. RINGMON will request an abort of OFLBOOT.

`DLN CONGESTED` = The DLN is congested, OFLBOOT cannot proceed.

`DLN RECOVERY REQUESTED` = An error has occurred and the mate DLN is needed. RINGMON will request an abort of OFLBOOT.

`OFF-LINE DLN NOT AVAILABLE` = The off-line side DLN will not be available during the OFLBOOT. OFLBOOT cannot proceed.

`ON-LINE DLN NOT AVAILABLE` = The on-line side DLN will not be available during the OFLBOOT. OFLBOOT cannot proceed.

`ON-LINE DLN NOT FOUND` = The on-line side DLN could not be determined. OFLBOOT cannot proceed.

`RETURNED MESSAGE THRESHOLD EXCEEDED` = The returned-message threshold has been exceeded and recovery must take place. RINGMON will request an abort of OFLBOOT.

`RING SILENCE RECOVERY REQUESTED` = RINGMON has detected that the CNI ring is not transmitting messages. Recovery is required. RINGMON will request an abort of OFLBOOT.

`RINGMON INITIALIZING` = The RINGMON process is currently initializing, OFLBOOT cannot proceed.

`SW DLN FAILURE` = A switch of the DLNs has failed to complete. OFLBOOT cannot proceed.

4. ACTION TO BE TAKEN

This message is usually informational only, so no further action may be necessary. Wait for error to clear, then retry the EXC:OFLBOOT or SW:OFLBOOT input message.

It is possible to use the unconditional (UCL) or out-of-service (OOS) option to override the error and continue the procedure. However, be aware that if these options are specified, the system ignores internal requests to abort the procedure and reduplex the system for subsequent failures.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:OFLBOOT
STOP:OFLBOOT
SW:OFLBOOT
```

Output Message(s):

```
EXC:OFLBOOT
REPT:OFLBOOT
REPT:TRBL
STOP:OFLBOOT
SW:OFLBOOT
```

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*
235-190-115 *Local and Toll System Features*

REPT:OFLBOOT-ERR

Software Release: 5E10 and later
Message Class: MAINT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT OFLBOOT ERR
        IMS PRECHECK FAILURE:  a

[2]   ____________________________________________________________
      REPT OFLBOOT ERR
        CNI PRECHECK FAILURE:  b

[3]   ____________________________________________________________
      REPT OFLBOOT ERR
        IMS SPLIT FAILURE:  c

[4]   ____________________________________________________________
      REPT OFLBOOT ERR
        IMS BOOT FAILURE:  d

[5]   ____________________________________________________________
      REPT OFLBOOT ERR
        CNI BOOT FAILURE:  e

[6]   ____________________________________________________________
      REPT OFLBOOT ERR
        CNI MONITOR:  f

[7]   ____________________________________________________________
      REPT OFLBOOT ERR
        IMS DUPLEX FAILURE:  g

[8]   ____________________________________________________________
      REPT OFLBOOT ERR
        CNI h FAILURE:  i
        CAPTURED PRM:  jjjj jjjj jjjj jjjj jj jj jj

[9]   ____________________________________________________________
      REPT OFLBOOT ERR
        TFP'S RECEIVED ABOUT POINT CODE: t k
```

2. REASON FOR OUTPUT

Reports error(s) encountered in an offline boot procedure. Precheck failures would appear after either an execute (EXC:OFLBOOT) or switch (SW:OFLBOOT) *UNIX*® RTR input message. Split and boot failures would occur after an execute input message. A split failure reports difficulty the online side had in splitting the system, while a boot failure reports a problem encountered by the offline side during its boot. The monitor reports would occur for network and link related failures experienced by the online side of a split system. The system will attempt to recover from those failures by aborting the procedure, unless the unconditional (UCL) option was specified on the command line. For that case, the system will remain split. The duplex failures report a problem the online side experienced while reduplexing the system. The system is reduplexed due to either the stop (STOP:OFLBOOT) *UNIX*® RTR input

message or an internal request.

All output from the offline boot procedure should be carefully analyzed to determine the severity of the failure. These messages should be used in conjunction with other system indicators to determine how to proceed.

3. VARIABLE FIELD DEFINITIONS

a = Error encountered during IMS's offline boot precheck. With a few exceptions, these error types are non-overridable. A non-overridable error results in the command with which this precheck is associated being rejected. The exceptions are error types involving ring hardware availability that do not involve total loss of the nodes on the online side. These exceptions, however, may lead to a non-overridable error in other subsystem prechecks.

`INIT IN PROGRESS ON CU: l` = An OFLBOOT may not be performed while an initialization is in progress.

`MAINTENANCE OPERATION IN PROGRESS ON CU: l, OPERATION: n` = An OFLBOOT should be performed on a stable system. The system is not considered stable when the named operation is in progress.

`NODE IN GROW STATE FOUND, NODE: m` = An OFLBOOT is not permitted while nodes are in the grow state.

`RING HARDWARE AVAILABILITY PARTIAL LOSS ON SIDE: i`[1] = If the ring has not been split, there would be partial loss of the ring nodes on side '`i`[1]' upon splitting the ring. If the ring has been split, partial loss of the ring nodes on side '`i`[1]' has occurred.

`RING HARDWARE AVAILABILITY PARTIAL LOSS ON SIDE: i`[1]`, PARTIAL LOSS ON SIDE: j`[1]
= If the ring were to be split, there would be partial loss of the ring nodes on both sides '`i`[1]' and '`j`[1]'.

`RING HARDWARE AVAILABILITY PARTIAL LOSS ON SIDE: i`[1]`, TOTAL LOSS ON SIDE: i`[1]
= If the ring were to be split, there would be partial loss of the ring nodes on side '`i`[1]' and total loss of the ring nodes on side '`j`[1]'.

`RING HARDWARE AVAILABILITY TOTAL LOSS ON SIDE: i`[1] = If the ring has not been split, there would be total loss of the ring nodes on side '`i`[1]' upon splitting the ring. If the ring has been split, total loss of the ring nodes on side '`i`[1]' has occurred.

`RING HARDWARE AVAILABILITY TOTAL LOSS ON SIDE: i`[1]`, TOTAL LOSS ON SIDE: j`[1] = If the ring were to be split, there would be total loss of the ring nodes on both sides '`i`[1]' and '`j`[1]'.

`RING NOT STABLE` = The ring is undergoing either a recovery from a ring failure or a reconfiguration.

`RING SIDE IDENTIFICATION FAILED` = Either the system is unstable, the ring is down, or there is a software problem.

`UNKNOWN FAIL CODE, CODE: o DATA1: p, DATA2: q`

b = Error encountered during CNI's offline boot precheck. This error can either be associated with a specific side or with the entire system. Careful analysis of surrounding output to determine the extent of the problem and, if appropriate, which side of the system is implicated, is important. Valid value(s):

`FAIL TO ACCESS POINT CODE: t` ON BOTH SIDES"
`FAIL TO ACCESS POINT CODE: t ON MY SIDE`
`FAIL TO ACCESS POINT CODE: t ON OTHER SIDE`
`LOCAL LINK: r-s CONGESTION ON MY SIDE`
`LOCAL LINK: r-s CONGESTION ON OTHER SIDE`
`MY SIDE LINK: r-s NOT IN SERVICE`

`NO CCS7 NODES FOR MY SIDE`
`NO CCS7 NODES FOR OTHER SIDE`
`OFFLINE LINK: r-s NOT USABLE FOR SIDE SWITCH` = The link identified is either ring out-of-service or has a link related problem. Either problem prevents this link from being activated to an in-service state on a side switch.
`OTHER SIDE LINK: r-s NOT IN SERVICE`
`SLMK CONGESTED, CSCONGEST: u`
`SLMK INITIALIZING, CSTATE: r`
`TFC RECEIVED ABOUT POINT CODE: t`
`TFP RECEIVED ABOUT POINT CODE: t ON BOTH SIDES`
`TFP RECEIVED ABOUT POINT CODE: t ON MY SIDE`
`TFP RECEIVED ABOUT POINT CODE: t ON OTHER SIDE`
`TOTAL ERRORS FOUND: w, REPORTED: x`
`UNKNOWN FAIL CODE: o, DATA: p`

`c` = Error encountered during IMS's attempt to split the ring. The system will automatically be reduplexed. There are no fail codes associated with these messages. Valid value(s):
`ATTEMPT TO REMOVE A NODE FAILED` = A software problem is indicated.
`CANNOT ESTABLISH WORKING RING` = Either a working ring cannot be established due to having no RPCs or not enough ring capacity, or there is a software problem.
`JOB TO ISOLATE RING FAILED` = The ring config job to isolate the offline side of the ring failed. Ring EAR will attempt to establish a working ring.
`JOB TO ISOLATE RING TIMED OUT` = A software problem is indicated.
`JOB TO MOVE OTHER SIDE NODES TO GROW FAILED` = Indicates either depletion of critical software resource or a software problem.
`JOB TO MOVE OTHER SIDE NODES TO GROW TIMED OUT` = A software problem is indicated.
`MAINTENANCE OPERATION IN PROGRESS, OPERATION: n` = An OFLBOOT should be performed on a stable system. The system is not considered stable when the named operation is in progress.
`RING CONFIG REJECTED ISOLATION REQUEST` = A variety of system or ring conditions can result in a ring config job being rejected. Refer to the CFR RING OM for a list of these conditions.
`RING SIDE IDENTIFICATION FAILED` = Either the system is unstable, the ring is down, or there is a software problem.
`SPLIT STATE CORRUPTED` = A software problem is indicated.
`UNABLE TO ALLOCATE TIMER` = Indicates critical software resources are depleted.

`d` = Error encountered during IMS's attempt to boot the offline control unit (CU).
`ABORTED: y PHASE: z` = The initialization of IMS on the offline CU failed. The level and phase (step) of the initialization are given.
`COULD NOT RECOVER ALL IUNS IN A NODE TYPE` = One or more IMS user nodes (IUNs) of a particular type on the offline side were not made active (ACT).
`COULD NOT RECOVER ALL IUNS` = One or more IUNs on the offline side were not made ACT.
`COULD NOT RECOVER ANY IUNS IN A NODE TYPE` = No IUNs of a particular type on the offline side were made ACT.
`COULD NOT RECOVER ANY IUNS` = No IUNs on the offline side were made ACT.
`FAULTY NODE FOUND, NODE: m` = Initialization procedures found the node indicated to be ring interface faulty.
`IUN TEST FAILURE, NODE: m` = Initialization procedures failed to establish communications with the node indicated.
`LOST WORKING RING` = Initialization procedures established a working ring on the offline side, but a subsequent ring failure resulted in that ring going down.

UNKNOWN FAIL CODE, CODE: o DATA1: p, DATA2: q
WORKING RING NOT ESTABLISHED = Initialization procedures failed to establish a working ring on the offline side. This is most likely due to ring hardware problems.

e = Error encountered during CNI's attempt to boot on the offline side. Valid value(s):

BAD LOCAL NID: e^1, USING AT&T NSD TIMER/THRESHOLD DEFAULTS
BAD NAME FILE IN LINK DATA DIRECTORY
BAD SIZE FILE IN LINK DATA DIRECTORY
CAN'T REMOVE SEGMENT ERROR, RETURN CODE: d^1
CAN'T SEND MESSAGE TO MEMORY MANAGER, RETURN CODE: d^1
CANNOT OPEN FILE: b^1
CLUSTER ENTRY FOR POINT CODE: t DOES NOT EXIST
FILE DESCRIPTOR ERROR, FD: c^1
FILE START.C CLOSE PROBLEM, ERROR CODE: c^1
FILE START.C OPEN PROBLEM, ERROR CODE: c^1
FILE START.C PROBLEM, CHECK POINT: c^1
FILE START.C READ PROBLEM, ERROR CODE: c^1
FILE WITH BAD VERSION NUMBER IN LINK DATA DIRECTORY
FILE: b^1 ERROR: c^1
INVALID ROUTING TYPE FOR POINT CODE: t
LOCAL POINT CODE IS NOT SET
MEMBER MEMORY ALLOCATION FAILED FOR POINT CODE: t
MSACK ERROR, MSTYPE: d^1
NETWORK OR CLUSTER FOR POINT CODE: t INVALID
NOT ENOUGH MEMORY ALLOCATED FOR LINK DATA
SLMK INITIALIZATION REQUEST, REASON: a1
TOTAL ERRORS FOUND: w, REPORTED: x
UNKNOWN FAIL CODE: o, DATA: p

f = Potentially service-affecting problem encountered by CNI's online side monitor during an offline boot procedure. This monitor evaluates network and link-related events, and makes an assessment as to their impact on providing service. These messages are throttled so as not to flood the output devices. If the UCL option was specified on either the execute (EXC:OFLBOOT) or switch (SW:OFLBOOT) *UNIX*® RTR input message, recovery requires manual intervention. There are no fail codes associated with these messages. Valid value(s):

DUE TO LINK SET: f^1 FAILURE, POINT CODE: t INACCESSIBLE
LOCAL LINK: r-s CONGESTION FAILURE
NO CCS7 NODES FOR MY SIDE
TCP RECEIVED ABOUT POINT CODE: t
TFC RECEIVED WITH CONG LEVEL: g^1 ABOUT POINT CODE: t
TFP RECEIVED ABOUT POINT CODE: t

g = Error encountered during IMS's attempt to reduplex the ring. IMS will continue to execute its reduplexing procedure in spite of experiencing any of the difficulties reported here, so that the ring is reduplexed to the fullest extent possible. This contrasts with the handling of errors encountered while splitting the ring. In that case, the splitting procedure is terminated upon the first error. There are no fail codes associated with these messages. Valid value(s):
RING CONFIG JOB TO RECLAIM OFFLINE NODES FAILED, CODE: h^1 = The ring config job to include the offline side nodes into the active ring failed. Ring EAR will attempt to

establish a working ring.

`STATE OF DUPLEX JOB CORRUPTED` = A software problem is indicated.

`STEP TO QUARANTINE ISOLATED NODES FAILED, CODE: h`[1] = The attempt to quarantine all the isolated nodes before including them into the active ring failed. However, this should not be cause for alarm, because the ring config job that includes them will quarantine them.

`TRANSITION OF GROW NODES TO OOS,AUTO FAILED, CODE: h`[1] = A software problem is indicated.

`TRANSITION OF GROW NODES TO OOS,MANUAL FAILED, CODE: h`[1] = A software problem is indicated.

`TRANSITION OF OOS NODES TO AUTO FAILED, CODE: h`[1] = A software problem is indicated.

`UNABLE TO ALLOCATE TIMER` = Indicates critical software resources are depleted.

`h` = Valid value(s):

```
BOOT
PRECHECK
```

`i` = Error message. Valid value(s):

`APPL NOT ATTACHED TO PT_USER` = During the early stages of an initialization, CNIINIT discovered that its parent process (an application process) was not attached to its port.

`CANNOT PROCESS REQUEST, TRY LATER` = CNIINIT received a request for an OFLBOOT activity while it was processing some other CNIINIT job. CNIINIT cannot accept the OFLBOOT request until the other job is complete.

`MSG NOT FROM AIM` = CNIINIT received a request for an OFLBOOT from a process other than the AIM process.

`MSG NOT FROM IMSDRV` = CNIINIT was in the middle of processing some OFLBOOT activity. CNIINIT was expecting a message from IMSDRV, but received a message from some other process.

`MSG NOT FROM SLMK` = CNIINIT was in the middle of processing some OFLBOOT activity. CNIINIT was expecting a message from SLMK, but received a message from some other process.

`NO TEXT AVAILABLE FOR THIS PRM` = This PRM appears infrequently, therefore, the text for it has not been stored in the program.

`T/O, CNIINIT CHILD PROCESS` = CNIINIT was in the middle of processing some OFLBOOT activity. CNIINIT was expecting a message from SLMK or IMSDRV, but a guard timer fired instead.

`UNABLE TO ALLOCATE A TIMER` = CNIINIT was attempting to allocate a timer to guard a message exchange with either SLMK or IMSDRV. No timers were available.

`UNABLE TO ALLOCATE AN RTR MSG BUF` = CNIINIT was attempting to allocate an RTR message buffer to send a message to either AIM, SLMK or IMSDRV. No message buffers were available.

`UNABLE TO GET PID FROM CLIENT PORT` = CNIINIT was attempting to get the process identifier (PID) for AIM, SLMK or IMSDRV from the process's port. A failure was returned by the operating system.

`UNABLE TO READ LOW CORE` = CNIINIT was unable to read low core during the execution of an OFLBOOT request.

`UNABLE TO SEND A MESSAGE TO CLIENT` = CNIINIT attempted to send a message to AIM, SLMK or IMSDRV. A failure was returned by the CNIINIT function "sendmsg".

`UNABLE TO WRITE LOW CORE` = CNIINIT was unable to write low core during the execution of an

OFLBOOT request.

j = A processor recovery message (PRM) digit. Refer to the Processor Recovery Message manual to decode this PRM.

k = Transfer prohibited (TFP) messages indicate that connectivity between the *5ESS*®-2000 switch and the indicated office have been severed.
`ON BOTH SIDES` - During OFLBOOT TFP's received on both sides will not stop the initialization.
`ON MY SIDE` - During OFLBOOT TFP's received on my side will not stop the initialization.
`ON OTHER SIDE` - During OFLBOOT TFP's received on the other side will stop the OFLBOOT procedure because communications can be established through the mate link on the other side on the ring. The boot will be stopped and the CNI RING duplexed in order to get access to the working link.

l = CU identity.

m = Group and member number.

n = Description of operation in progress. Valid value(s):

```
IUN REMOVE
IUN RESTART
IUN RESTORE
NODE DIAGNOSTIC
OP:NPMEM
OPERATION UNKNOWN
RING CHANGE
RING INIT OR RING EAR
RPC REMOVE, RESTORE, OR RESTART
```

o = An unknown fail code. Refer to the corresponding section of the updated REPT OFLBOOT ERR OM provided with the new release to find the meaning of this code.

p = Data associated with unknown fail code.

q = Data associated with unknown fail code.

r = Group number of the link node.

s = Member number of the link node.

t = Point code. Valid value(s):
$j^1k^1l^1$ = *ANSI*® standard.
$j^1m^1n^1l^1$ = AT&T standard.

u = SLMK process congestion indicators (1-7). SLMK process congestion 0 is normal, and the offline boot can proceed. Nonzero values indicate the SLMK process is under an unusually heavy load.

v = SLMK process state (0-23). SLMK process 14 is normal, and the offline boot can proceed. Other values indicate an initialization is in progress.

w = Number of errors found in decimal.

x = Number of errors reported in decimal.

y = Level of IMS initialization that was aborted while booting the offline CU.

z = Phase of the initialization that was aborted.

a[1] = SLMK requested an initialization while attempting to boot on the offline side.

b[1] = File name.

c[1] = Type of file error. Valid value(s):

```
BAD VERSION NUMBER
SIZE WRONG
```

d[1] = Check point number, error code, message type, return code, or file descriptor number.

e[1] = Network identification number (1-255).

f[1] = Link set number (1-511).

g[1] = Congestion level (1-3).

h[1] = Code associated with the named failure.

i[1] = Side of ring. Side 0 is LN00-1 through RPCN32-0. Side 1 is LN32-1 through RPCN00-0.

j[1] = Side of ring which is the opposite of side h[1].

k[1] = The network identifier (1-255).

l[1] = The cluster identifier (0-255).

m[1] = The member identifier (0-255).

n[1] = The region identifier (0-31).

o[1] = The cluster identifier (0-7).

4. ACTION TO BE TAKEN

Failures reported by the offline boot procedure can be significant and difficult to analyze out of context. When these errors occur, the subsystem implicated should be examined to determine the degree and extent of the problem. If a software problem is indicated or suspected, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 1, correct the problem or wait for it to clear, then retry the execute (EXC:OFLBOOT) or switch (SW:OFLBOOT) *UNIX*® RTR input message.

For Format 2, for local problems, correct the node or local link trouble before proceeding or use the UCL option. For remote network problems, either wait for the problem to clear or use the UCL option.

It is possible to use the UCL option to override the failure and continue the procedure. However, be aware that if this option is specified, the system will ignore internal requests to abort the procedure and reduplex the system for

subsequent failures. These failures could be more serious in nature. Therefore, when using this option, one should monitor the operation of the system closely and take manual action for failures significant in nature.

A summary report will be given. Take action on errors reported. Absence of this line indicates no errors either found or reported. However, if there are reports of lost output messages, one should not assume there were no errors. If possible, rerun the procedure to ensure there were no errors. Also, make other system checks, such as running audits and viewing measurements reports and critical events, to determine how to proceed.

For Format 3, correct the problem or wait for it to clear, then retry the execute (EXC:OFLBOOT) *UNIX*® RTR input message.

For Format 4, assess the condition of the system. If it is acceptable, no further action is needed. If it is an unacceptable condition on the offline side, either attempt to correct the condition or use the stop (STOP:OFLBOOT) *UNIX*® RTR input message to reduplex the system.

For Format 5, verify the correctness of both the software release and office-dependent data (ODD) being used for the offline boot and reattempt the input message. Most errors will be caused by an incorrect database. If the error occurs while attempting to update to a new software release, ensure that any retrofit procedure was done correctly. If the error occurs verifying back-up copies of the system, look for missing or out-of-date files.

A summary report will be given. Take action on errors reported. Absence of this line indicates no errors either found or reported. However, if there are reports of lost output messages, one should not assume there were no errors. If possible, rerun the procedure to ensure there were no errors. Also, make other system checks, such as running audits, verifying retrofit procedures, and checking ODD to determine how to proceed.

Error code:	**Action:**
0	For either `SIZE WRONG` or `BAD VERSION NUMBER` file error, verify that the database of the system being used for the offline side is correct.
-14,32-33	The system encountered a problem when attempting to read the named file while booting on the offline side. The error is indicated by the '`z`' field. If attempting to upgrade software releases, rerun the generic retrofit procedure. If doing a system backup check, verify the integrity of the file system.
5-22	Correct and retry.
23-30	Failures of this variety are indicators of major problems while attempting to boot on the offline side. Look for other indicators of failure to determine how to proceed. No attempt should be made to switch to this side until the cause of these errors is resolved.
34-36	The system encountered a problem while attempting to open the named file while booting on the offline side. If attempting to upgrade software releases, rerun the generic retrofit procedure. If doing a system backup check, verify the integrity of the file system. Verify that the named file exists and is readable.

For Format 6, immediately evaluate the reported error's impact on service. If the UCL option was used on either the execute (EXC:OFLBOOT) or switch (SW:OFLBOOT) *UNIX*® RTR input message, automatic recovery by the system is inhibited. Consider using the stop (STOP:OFLBOOT) *UNIX*® RTR input message to manually recover.

For Format 7, assess the condition of the system. If it is acceptable, no further action is needed. If not, issue the stop (STOP:OFLBOOT) *UNIX*® RTR input message again (perhaps using the RST option) or take other appropriate action.

For Format 8, refer to the PRM manual for an explanation of the PRM.

Error code:	**Action:**
2	Take no immediate action. The message may have been "left over" from a previous OFLBOOT execution that failed. If the condition persists, then call your support organization for help.
3,4	There is a fundamental operating system error. Retry the OFLBOOT input message. If you get the same failure again, then call your support organization for help.
5,6	A sequencing error occurred during the execution of OFLBOOT. Wait a few minutes and retry the OFLBOOT input message. If you get the same failure again, then call your support organization for help.
7	IMSDRV or SLMK took longer than the prescribed time to perform the OFLBOOT activity. Wait a few

	minutes and retry the OFLBOOT input message. If you get the same failure again, then call your support organization for help.
8	Wait until CNIINIT completes the job it has in progress and then try the OFLBOOT input message again.
9	The OFLBOOT activity that was in progress will fail. Retry the input message. If it fails once again, then force CNI into a full process initialization (FPI) to clear up old timers. Then try the OFLBOOT input message again.
10	The OFLBOOT activity that was in progress will fail. Retry the input message. If it fails once again, then call your support organization for help to restore message buffers to the system.
11	The OFLBOOT activity that was in progress will fail. Retry the input message. If it fails once again, then force CNI into a FPI initialization. Then try the OFLBOOT input message again.
12	The OFLBOOT activity that was in progress will fail. The operating system was unable to send the message to the process requested by CNIINIT. Retry the input message. If it fails once again, then call your support organization for help.
13	Until this problem is corrected, there will be a loss of CCS7 capability. A major application initialization level should probably be initiated since the problem appears to be in the application. Call your support organization for help.

For Format 9, take no action, the switch will abort the OFLBOOT when indicated to recover CNI RING hardware used by the off-line side during the procedure. If this condition persists and the OFLBOOT procedure fails repeatedly, Call your support organization for help.

5. ALARMS

A major alarm sounds when online monitoring messages are output Format 6.

6. REFERENCES

Input Message(s):

```
EXC:OFLBOOT
STOP:OFLBOOT
SW:OFLBOOT
```

Output Message(s):

```
EXC:OFLBOOT
REPT:OFFLINE
STOP:OFLBOOT
SW:OFLBOOT
APP:MEM-NUM-AUD
APP:MEM-NUM-UNIT
APP:REGISTER
```

REPT:OFLBOOT-TA

Software Release: 5E10 and later
Message Class: CLNK, MSGS, MTCE, ONTC
Application: 5
Type: Output

1. FORMAT

```
REPT OFLBOOT TRACE a ACTIVITY: b EVENT=c
  d
```

2. REASON FOR OUTPUT

To report program trace information regarding the execution of the off-line boot procedure.

3. VARIABLE FIELD DEFINITIONS

`a` = The processor environment reporting the information. Valid value(s):
- `AIM` = Application integrity monitor kernel process.
- `MSKP` = Message switch kernel process.
- `RINGMON` = Ring monitor kernel process.
- `SMKP` = Switch maintenance kernel process.

`b` = The current or last off-line boot activity executed. Valid value(s):
- `CALL PROCESSING OFF` = Call processing is not being processed in the AM.
- `CALL PROCESSING ON` = Call processing is being processed in the AM.
- `OFF-LINE INITIALIZATION` = The current or last activity on the off-line AM side is an initialization.
- `POST SWITCH` = The off-line side is performing operations associated with the SW:OFLBOOT command.
- `PRECHECK` = Preliminary checks were executed to determine if a condition exists that may fail the off-line boot.
- `PRESPLIT CONFIG` = The system is preparing to split into an on-line and an off-line side.
- `PRINT STATUS` = Print the results of a previous check obtained from the off-line AM processor.
- `REDUPLEX` = The system is being reconfigured to the duplex configuration.
- `SPLIT TO SIMPLEX` = The AM, CM, and CNI is being split.

`c` = Event number.

`d` = Program trace data.

4. ACTION TO BE TAKEN

This report is produced only if the TRACE option is used on the EXC:OFLBOOT, SW:OFLBOOT, or STOP:OFLBOOT input messages. This report is expected to be used only if technical assistance is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:OFLBOOT
STOP:OFLBOOT
SW:OFLBOOT
```

Output Message(s):

```
EXC:OFLBOOT
REPT:OFLBOOT
REPT:TRBL
STOP:OFLBOOT
SW:OFLBOOT
```

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

111,112 (AM, AM PERIPHERALS)
1210 [MI/NC 0 & 1 (CM1 only)]
1211 [NETWORK CLOCK (CM2 only)]
1220 (TMS 0 & 1 SUMMARY)
1240,1250 (MSGS 0 & 1 SUMMARY)

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REPT:OLBCONFIG

Software Release: 5E10 and later
Message Class: MAINT
Application: 3B
Type: Output

1. FORMAT

[1]
```
REPT OLBCONFIG FAULT TYPE a UNIT = b PID = c LOCID = d
```

[2]
```
REPT OLBCONFIG FAULT TYPE a INACCESSIBLE RID = e PID = c
  LOCID = d
```

2. REASON FOR OUTPUT

To report a fault condition in the error interrupt handler (EIH) olbconfig function.

Format 1 is printed whenever the name of the unit can be determined. If not, Format 2 is printed.

3. VARIABLE FIELD DEFINITIONS

a = One or more fault types. Valid value(s):

AMB	= Could not allocate a message buffer.
CI	= olbconfig internal failure.
EA	= Equipment configuration database (ECD) access problem.
ED	= ECD data invalid.
FSM	= Could not fault a process or send a message to a process.
IA	= Possible invalid argument.
PA	= Plant measurements database access problem.
PS	= Unit in protected state.

b = Name and number of unit.

c = Process number of the process which called the olbconfig function.

d = Identification number (LOCID number) of the fault in olbconfig.

e = Record ID (RID) of the unit control block (UCB) record in the ECD of the unit.

4. ACTION TO BE TAKEN

If OFLBOOT is automatically terminated, run ECD audit.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	711
2	712

Output Appendix(es):

APP:OMDB-X-REF

REPT:ONTC-NEREE

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT ONTC a NC {PRIM REF|SEC REF|REFc}{LOW|HIGH} ERROR RATE EXCEEDED EVENT=b
```

2. REASON FOR OUTPUT

To report that the framer for the office network timer complex (ONTC) network clock (NC) primary or secondary reference exceeded either the minimum or maximum error rate threshold.

3. VARIABLE FIELD DEFINITIONS

HIGH	= Higher error rate threshold was exceeded.
LOW	= Lower error rate threshold was exceeded.
PRIM	= Primary reference exceeded the error rate threshold.
REFc	= Reference 'c' exceeded the error rate threshold.
SEC	= Secondary reference exceeded the error rate threshold.
a	= Unit side.
b	= Event number.
c	= Reference number.

4. ACTION TO BE TAKEN

Monitor the reports for other details concerning the reference and eliminate the reason for the fault when feasible.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

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REPT:ONTC-NOE

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT ONTC a NC {PRIM REF|SEC REF|REFc}{LOW|HIGH} OOF EVENT=b
```

2. REASON FOR OUTPUT

To report that the out-of-frame counter for the office network timer complex (ONTC) network clock (NC) primary or secondary reference reached either the minimum or maximum threshold.

3. VARIABLE FIELD DEFINITIONS

`HIGH`	= Higher threshold was reached.
`LOW`	= Lower threshold was reached.
`PRIM`	= Primary reference reached the threshold.
`REFc`	= Reference '`c`' reached the threshold.
`SEC`	= Secondary reference reached the threshold.
`a`	= Unit side.
`b`	= Event number.
`c`	= Reference number.

4. ACTION TO BE TAKEN

Determine whether the reason for the erroneous number of out-of-frames can be eliminated. Monitor the reports for other details pertaining to the reference.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

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REPT:ONTC-TATTCEN

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT ONTC a TMS AM TO TMS COMMUNICATION EVENT NUMBER
  MISMATCH EVNT NO. b
```

2. REASON FOR OUTPUT

To print to a log file each occurrence of an event number mismatch of a message received from the foundation peripheral controller (FPC) handler.

3. VARIABLE FIELD DEFINITIONS

`a` = Unit ID.

`b` = Event number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

REPT:ONTC-TATTCFM

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT ONTC a TMS AM TO TMS COMMUNICATION FAULT MESSAGE TIMEOUT
  EVNT NO. b
```

2. REASON FOR OUTPUT

To print to a log file each occurrence of a time-multiplexed switch (TMS) message timing out before being received from the foundation peripheral controller (FPC) handler.

3. VARIABLE FIELD DEFINITIONS

`a` = Unit ID.

`b` = Event number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:OP-DIGTRC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]    REPT OP DIGTRC COMPLETED - SEE FILE a

[2]    REPT OP DIGTRC FAILED: CANNOT CREATE a

[3]    REPT OP DIGTRC FAILED - SEE FILE a

[4]    REPT OP DIGTRC ADNORMAL END - SEE FILE a
```

2. REASON FOR OUTPUT

To report the completion or termination of the OP:DIGTRC input message.

3. VARIABLE FIELD DEFINITIONS

`a` = *UNIX*® RTR file name residing on the administrative module (AM) under the /updtmp directory.
Valid value(s):
`DIGTRC.xxxxxx` = Contains the information requested in the input message.
`DIGERR.xxxxxx` = Indicates an error in processing. Check file for specific error.

`b` = Return code.

4. ACTION TO BE TAKEN

For Format 1, the message completed successfully. No action required.

For Format 2, the *UNIX*® RTR operating system file could not be created. Clean any unnecessary files out of the /updtmp directory.

For Format 3, the reason for the failure will be placed in the DIGERR.xxxxxx file. Valid value(s):

```
CANNOT BEGIN A TRANSACTION
CANNOT OPEN RELATION DAPRLDGT
CANNOT OPEN RELATION DAPRLFNL
CANNOT OPEN RELATION DAPRMDGT
CANNOT OPEN RELATION DAPRMFNL
CANNOT OPEN RELATION DA_AMBIG
CANNOT OPEN RELATION DA_CONFLCT
CANNOT OPEN RELATION DA_DIGSTRT
END VALUE SHOULD BE GREATER OR EQUAL TO START VALUE
FAILED TO SETUP LINKS WITH SMs
INSUFFICIENT DIGITS SUPPLIED IN INPUT MESSAGE
INVALID DAS REQUESTED
INVALID SM REQUESTED
NEED AT LEAST 3 DIGITS TO BEGIN TRANSLATION
```

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```
ONLY ONE LEADING ZERO ALLOWED IN STARTING DIGIT STRING
START DIGIT STRING SHOULD BE SAME LENGTH AS END
UNABLE TO ATTACH TO AM ODD
```

Read error message and take appropriate action.

For Format 4, abnormal end to the input message. Check the DIGERR.xxxxxx file for the reason the message terminated. Valid value(s):

```
DBXFRDTUP OF DA_CONFLCT FAILED - RETURN CODE=b
DBXFRDTUP OF DAPRLDGT FAILED - RETURN CODE=b
DBXFRDTUP OF DAPRLFNL FAILED - RETURN CODE=b
DBXFRDTUP OF DAPRMDGT FAILED - RETURN CODE=b
DBXFRDTUP OF DAPRMFNL FAILED - RETURN CODE=b
DBXFRDTUP OF DA_AMBIG FAILED - RETURN CODE=b
DBXFRDTUP OF DA_DIGSTRT FAILED - RETURN CODE=b
ENCOUNTERED ERROR DURING DIGIT TRANSLATION
ENCOUNTERED ERROR DURING RTI TRACING
INSUFFICIENT DIGITS SUPPLIED IN INPUT MESSAGE
REACHED MAXIMUM ALLOWED SIZE OF OUTPUT FILE
ROLLOVER FROM DIGITS STARTING WITH 0 TO DIGITS STARTING WITH 1-9 NOT ALLOWED
UNEXPECTED VALUE IN DAPRMDGT.ROW
UNEXPECTED VALUE IN DA_CONFLCT.ROW
```

Read error message and take appropriate action.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:DIGTRC
DUMP:F-ALL
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:OP-LOG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT OP LOG NO FILE NAME GIVEN

[2]   ____________________________________________________________
      REPT OP LOG BAD OPTION

[3]   ____________________________________________________________
      REPT OP LOG DATE NONEXISTENT

[4]   ____________________________________________________________
      REPT OP LOG DATE INCORRECT

[5]   ____________________________________________________________
      REPT OP LOG TIME INCORRECT

[6]   ____________________________________________________________
      REPT OP LOG DATE-TIME ERROR

[7]   ____________________________________________________________
      REPT OP LOG INVALID INPUT

[8]   ____________________________________________________________
      REPT OP LOG KEYWORD TOO LONG

[9]   ____________________________________________________________
      REPT OP LOG IDENT WRONG LENGTH

[10]  ____________________________________________________________
      REPT OP LOG IDENT NON-NUMERIC

[11]  ____________________________________________________________
      REPT OP LOG TYPE WRONG LENGTH

[12]  ____________________________________________________________
      REPT OP LOG TYPE NON-NUMERIC

[13]  ____________________________________________________________
      REPT OP LOG LINE LIMIT NON-NUMERIC

[14]  ____________________________________________________________
      REPT OP LOG INVALID CLASS

[15]  ____________________________________________________________
      REPT OP LOG NO MATCH FOUND

[16]  ____________________________________________________________
      REPT OP LOG INVALID TERMINATOR TYPE
```

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```
[17]  ____________________________________________________________________
      REPT OP LOG CANNOT OPEN ECD

[18]  ____________________________________________________________________
      REPT OP LOG CANNOT OPEN LOGFILE

[19]  ____________________________________________________________________
      REPT OP LOG FILE IS NOT A LOGFILE

[20]  ____________________________________________________________________
      REPT OP LOG LOGNAME NOT FOUND

[21]  ____________________________________________________________________
      REPT OP LOG CORRUPT LOGFILE a AT b

[22]  ____________________________________________________________________
      REPT OP LOG TERMINATED - MESSAGE LIMIT c
```

2. REASON FOR OUTPUT

To report that an error occurred when executing the OP:LOG input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Pathname of the file in which corruption was discovered.

`b` = Position in file where corruption was discovered, expressed in characters.

`c` = Maximum number of output entries.

4. ACTION TO BE TAKEN

For Formats 1-16, check command line for correct input. Retry command.

Formats 17-18, check that the given file exists and has read and write permissions. Retry command.

For Format 21, the contents of the corrupt logfile entry will be saved on paper for later reference.

For Format 22, increase limit size and retry command.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DEL:LOG
OP:LOG
```

REPT:OP-PMCR

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT OP PMCR REPORT z 1
        REPORTING OFFICE: a    REPORT INTERVAL: b
        CURRENT GENERIC: c          d REPORT
        DATE: ee/ee/ee   TIME: ff:ff:ff
        REPORT PERIOD: g
        DATA VALID: h
        SYSTEM PERFORMANCE
        ALARMS
             CRITICAL      i
             MAJOR         i            POWER MAJOR    i
             MINOR         i            POWER MINOR    i
        INITIALIZATIONS     (4)         (3)        (2)        (1)
             HARDWARE AUTO               j          j          j
             SOFTWARE AUTO               j          j          j
             MANUAL          j           j          j          j
        INTERRUPTS          (3)         (2)        (1)        (0)
                             k          k          k          k
        AUDITS           ATTEMPTS ERRORS
        l       m        n        o
        EQUIPMENT PERFORMANCE
                                                                DUPLEX
                                      AUTO  MTCE  MTCE  MTCE    MTCE
           QUANTY   FAULTS   ERRORS   DIAGS   ADP   MAN   FLT   USAGE
        CU     p       q        r        s      t     u     v      w
        IOP    p       q        r        s      t     u     v
        DFC    p       q        r        s      t     u     v
        MHD    p       q        r        s      t     u     v
        MTC    p       q        r        s      t     u     v
        MT     p       q        r        s      t     u     v
        ROP    p       q        r        s      t     u     v
        MTTYC  p       q        r        s      t     u     v
        MTTY   p       q        r        s      t     u     v
        TTYC   p       q        r        s      t     u     v
        TTY    p       q        r        s      t     u     v
        SDLC   p       q        r        s      t     u     v
        SCC    p       q        r        s      t     u     v
        SDL    p       q        r        s      t     u     v
        DUIC   p       q        r        s      t     u     v
        DUI    p       q        r        s      t     u     v
        SCSDC  p       q        r        s      t     u     v
        APPLICATION EQUIPMENT PERFORMANCE
        x      y      q       r      s     t      u     v    [w]
        REPT OP PMCR REPORT z 1 COMPLETED
```

```
[2]   ____________________________________________________________________
      REPT OP PMCR REPORT z 2
        REPORTING OFFICE: a   REPORT INTERVAL: b
        CURRENT GENERIC: c              d REPORT
        DATE: ee/ee/ee      TIME: ff:ff:ff
        REPORT PERIOD: g
        DATA VALID: h
        EQUIPMENT PERFORMANCE
                                                          DUPLEX
                                  AUTO  MTCE MTCE  MTCE    MTCE
            UNIT  FAULTS  ERRORS  DIAGS  ADP   MAN   FLT   USAGE
        x     y      q       r      s     t      u     v     [w]
        APPLICATION EQUIPMENT PERFORMANCE
        x      y      q       r      s     t      u     v    [w]
        REPT OP PMCR REPORT z 2 COMPLETED
```

2. REASON FOR OUTPUT

To report system performance statistics.

3. VARIABLE FIELD DEFINITIONS

a = Reporting office.

b = Report interval. Valid value(s):

```
DAILY
DAY TO HOUR
HOURLY
```

c = Current software release running in the reporting office.

d = Report type. Valid value(s):

```
DEMAND
RETAINED
SCHEDULED
```

e = Date on which the report was generated, in the form month/day/year.

f = Time of day, in the form hour:minute:second.

g = Report period: that is, date and time of the beginning and end of the accumulation period of the appropriate report.

h = Data validity field. Valid value(s):

INITIALIZED = Field has been initialized, followed by date and time of the last system initialization.

```
NO
YES
```

`i` = Number of alarms of the specified type.

`j` = Number of system initializations of the specified type and level.

`k` = Number of processor interrupts of the following types. Valid value(s):

- `0` = Active CC.
- `1` = Other CC.
- `2` = Software.
- `3` = EAI.

Type does not indicate priority level.

`l` = Audit name.

`m` = Audit member number.

`n` = Number of audit attempts.

`o` = Number of audit failures.

`p` = Quantity of units of the specified type which have the plant bit set in the appropriate unit control block (UCB).

`q` = Number of requests for the given unit to go to a non-active state due to an error threshold having been exceeded.

`r` = Number of transient errors.

`s` = Number of routine automatic diagnostics.

`t` = The amount of time the unit is in a non-active state due to adp time.

`u` = The amount of time the unit is in a non-active state due to a manual request. Units that are unequipped for offline boot will be reported as non-active due to a manual request on the original online side. On the original offline side, unequipped units for offline boot will not be reported on.

`v` = The amount of time the unit is in a non-active state due to an error threshold having been exceeded.

`w` = The amount of time that the unit is forced active. Valid for CU unit only.

`x` = Unit name.

`y` = Unit number.

`z` = Text. Valid value(s):

```
FORM
```

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Keys:

Format(s):	Key(s):
1	322
2	323

Input Message(s):

```
OP:PMCR
OP:ST-PORTS
```

Output Message(s):

```
OP:PMCR-ERROR
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

REPT:OP-PMCR-ERR

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
REPT OP PMCR ERROR a[,ERRNO = b]
```

2. REASON FOR OUTPUT

To report errors encountered during the execution of the processes which comprise the plant measurements common report (PMCR) capability.

3. VARIABLE FIELD DEFINITIONS

`a` = Four-digit error code. This code consists of a one-digit number that indicates the PMCR process in which the error was detected, a two-digit number that indicates the error type, and a one-digit number that shows the location of the error within the specific process.

Process values are:

`1` = PMCR craft interface.
`2` = PMCR manager.
`3` = PMCR collector.
`4` = PMCR report generator.

Error type values are:

`01` = Could not connect to system port.
`02` = Could not send or receive message.
`03` = Failed 'plib' call.
`04` = Failed 'pl_init' call.
`05` = Failed 'pl_attrec' call.
`06` = Failed 'pl_update' call.
`07` = Failed 'pl_read' call.
`08` = Failed 'lla_iatt' call.
`09` = Failed 'lla_irel' call.
`10` = Failed 'lla_rdget' call.
`11` = Failed 'lla_opensq' call.
`12` = Failed 'lla_nextseq' call.
`13` = Could not execute PMCR collector or PMCR report generator.
`14` = Could not get equipment configuration database (ECD) segments.
`15` = Could not get reporting office name from ECD.
`16` = Computation of maintenance usage time for the specified unit resulted in a time greater than 86,400 seconds (one day).
`17` = Bad arguments received by PMCR report generator.
`18` = Spool error during output of report.
`19` = No data has been collected to output a retained/demand report.
`20` = "fopen" *UNIX*® operating system call failed trying to open the "/etc/pmcrtab" file to initialize the hourly/daily report option flags.

When this error is output, the hourly/daily report flags will be set to the default. This

means that the hourly reports will be output every hour, and the daily reports at midnight.

21 = "create" *UNIX*® call failed trying to create the "/etc/pmcrtab" file.

This will cause the hourly/daily report flags to be reset to the default values, if the PMCR process "/prc/pmcrman" is re-initialized (for example, if a PHASE 2 occurs).

22 = PMDB initialization time reset to current time.
23 = Start time reset to 0.
24 = Start time reset to current time.
25 = Change reason for start time and reset start time to 0.
26 = Start time reset to top unit start time.
27 = Change reason for start time to top unit reason and reset start time to top unit start time.
28 = Hour limit exceeded - time reset to one hour.
29 = Negative time count - time reset to 0.
30 = Day limit exceeded - time reset to one day.
31 = Current value (for example, alarm count) is less than count recorded from previous hour or previous count was invalid.
32 = Open of /etc/log/pmcrlog file failed.
33 = Could not execute pmdbcopy.

Note: For messages 23 through 32, refer to /etc/log/pmcrlog for record name information. These error messages indicate that the count or time for the unit may not be valid.

The log file (/etc/log/pmcrlog) is reset every time a scheduled report runs.

b = Error code returned by the failing function call. Valid value(s):

If 'a' =	**'b' =**
x01x, x02x, x03x, x13x, x14x, x15x, x16x, x181, or x182	Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.
x04x, x05x, x06x, or x07x	The plant measurements error code number.
x17x or x183	The value of the bad arguments passed to the function or process.
x08x, x09x, x10x, x11x, x12x or x19x,	Does not specify an error code.

4. ACTION TO BE TAKEN

The following table shows the action to be taken based on error code 'a'. If the error persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Exhibit A

If 'a' =	**Action:**
x01x	Check port 27, using the OP:STATUS:PORTS input message, to see if another process has control of the port.
x02x	Check that the correct OP:PMCR:ERR input message was entered.
x03x-x07x	Check the usability of the plant measurements database.
x08x-x12x	Check the usability of the ECD.
x13x	heck the usability of the PMCR processes.
x14x-x15x	Check the usability of the ECD.
x16x	Check system clock versus last clean report.
x17x	Check that the correct OP:PMCR input message was entered.
x18x-x32x	No action can be taken.

x33x	Check the usability of the /prc/pmdbcopy process.

5. ALARMS

This alarm is automatically generated. Action may or may not be required.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	213, 319

Input Message(s):

```
OP:ST-PORTS
```

Output Message(s):

```
REPT:OP-PMCR
```

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

REPT:OP-RTITRC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT OP RTITRC COMPLETED - SEE FILE a

[2]   ____________________________________________________________
      REPT OP RTITRC FAILED: CANNOT CREATE a

[3]   ____________________________________________________________
      REPT OP RTITRC FAILED - SEE FILE a

[4]   ____________________________________________________________
      REPT OP RTITRC ADNORMAL END - SEE FILE a
```

2. REASON FOR OUTPUT

To report the completion or termination of the OP:RTITRC input message.

3. VARIABLE FIELD DEFINITIONS

`a` = *UNIX*® RTR operating system file name residing on the administrative module (AM) under the /updtmp directory. There are two possible file names associated with the OP:RTITRC input message:
`RTITRC.xxxxxx` = Contains the information requested in the input message.
`RTIERR.xxxxxx` = Indicates an error in processing. Check file for specific error.

`b` = Return code.

`c` = Route index number.

`d` = Trunk group number.

`e` = Trunk group member number.

`f` = SM number.

4. ACTION TO BE TAKEN

For Format 1, the input message completed successfully.

For Format 2, the *UNIX*® RTR operating system file could not be created. Clean any unnecessary files out of the /updtmp directory.

For Format 3, the reason for the failure will be placed in the RTIERR.xxxxxx file. Valid value(s):

```
CANNOT BEGIN A TRANSACTION
```

```
CANNOT OPEN RELATION DAPRLDGT
CANNOT OPEN RELATION DAPRLFNL
CANNOT OPEN RELATION DAPRMDGT
CANNOT OPEN RELATION DAPRMFNL
CANNOT OPEN RELATION DA_AMBIG
CANNOT OPEN RELATION DA_CONFLCT
CANNOT OPEN RELATION DA_DIGSTRT
CANNOT OPEN RELATION FC_TRUNK
CANNOT OPEN RELATION GROUP_PORT
CANNOT OPEN RELATION RT_ROUTING
CANNOT OPEN RELATION RT_TRKG
END VALUE SHOULD BE GREATER OR EQUAL TO START VALUE
FAILED TO SETUP LINKS WITH SMs
INSUFFICIENT DIGITS SUPPLIED IN INPUT MESSAGE
INVALID DAS REQUESTED
INVALID SM REQUESTED
NEED AT LEAST 3 DIGITS TO BEGIN TRANSLATION
ONLY ONE LEADING ZERO ALLOWED IN STARTING DIGIT STRING
START DIGIT STRING SHOULD BE SAME LENGTH AS END
UNABLE TO ATTACH TO AM ODD
```

Read error message and take appropriate action.

For Format 4, abnormal end to the input message. Check the RTIERR.xxxxxx file for the reason the input message terminated. Valid value(s):

```
DBXFRDTUP OF DAPRLDGT FAILED - RETURN CODE=b
DBXFRDTUP OF DAPRLDGT FAILED - RETURN CODE=b
DBXFRDTUP OF DAPRLFNL FAILED - RETURN CODE=b
DBXFRDTUP OF DAPRMDGT FAILED - RETURN CODE=b
DBXFRDTUP OF DAPRMFNL FAILED - RETURN CODE=b
DBXFRDTUP OF DA_AMBIG FAILED - RETURN CODE=b
DBXFRDTUP OF DA_CONFLCT FAILED - RETURN CODE=b
DBXFRDTUP OF DA_DIGSTRT FAILED - RETURN CODE=b
DBXFRDTUP OF FC_TRUNK FAILED - RETURN CODE=b
DBXFRDTUP OF GROUP_PORT FAILED - RETURN CODE=b
DBXFRDTUP OF RT_ROUTING FAILED - RETURN CODE=b
DBXFRDTUP OF RT_TRKG FAILED - RETURN CODE=b
ENCOUNTERED ERROR DURING DIGIT TRANSLATION
ENCOUNTERED ERROR DURING RTI TRACING
INSUFFICIENT DIGITS SUPPLIED IN INPUT MESSAGE
INSUFFICIENT DIGITS SUPPLIED IN INPUT MESSAGE
INVALID TG = d
NO RT_ROUTING TUPLE FOR ROUTE INDEX = c
REACHED MAXIMUM ALLOWED SIZE OF OUTPUT FILE
ROLLOVER FROM DIGITS STARTING WITH 0 TO DIGITS STARTING
TKGMN d-e DOES NOT EXIST ON SM f
TRUNK GROUP d HAS NO MEMBERS 0 - 9 ON SM f
UNABLE TO CONVERT SM AND TRUNK TO DAS
UNEXPECTED VALUE IN DAPRLDGT.ROW
UNEXPECTED VALUE IN DAPRMDGT.ROW
UNEXPECTED VALUE IN DA_CONFLCT.ROW
WITH 1-9 NOT ALLOWED
```

Read error message and take appropriate action.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:RTITRC
DUMP:F-ALL
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:OP-RTM-FLT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT OP_RTM FLT
        EFLAGS=a, FLTCODE=b

[2]   ____________________________________________________________
      REPT OP_RTM FLT
        EFLAGS=a, FLTCODE=b, PA=c
        RO=d, R7=e, R8=f
```

2. REASON FOR OUTPUT

To report that the interprocess message switch (IMS) realtime process (op_rtm.p) has encountered a hardware or software fault.

3. VARIABLE FIELD DEFINITIONS

`a` = Hexadecimal number which is the sum of the codes for all *UNIX*® RTR Operating System events outstanding for the IMS realtime monitor process.

`b` = *UNIX*® RTR Operating System fault code.

`c` = The IMS realtime monitor was in execution at this virtual address when the fault was encountered.

`d` = Contents of administrative module (AM) register R0.

`e` = Contents of AM register R7.

`f` = Contents of AM register R8.

4. ACTION TO BE TAKEN

Analyze the fault code. If the fault is not attributed to a hardware problem, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

Minor.

6. REFERENCES

Output Message(s):

`REPT:IODRV-FAULT`

Output Appendix(es):

APP:FAULT-CODE

REPT:OSPS-ACQS

Software Release: 5E10 and later
Message Class: OVLD
Application: 5
Type: Output

1. FORMAT

```
REPT OSPS ACQS a
```

2. REASON FOR OUTPUT

To report telephone company administration (TCA) specified queue threshold violations, queue overflows and recovery events involving Operator Services Position System (OSPS) automated charge quotation service (ACQS) message queue.

3. VARIABLE FIELD DEFINITIONS

`a` = Text describing the event that occurred. Valid value(s):
`QUEUE OVERFLOW CONTINUED - b MESSAGES PURGED` = The OSPS ACQS message queue continued to overflow.

`b` = The number of messages purged from the queue since the onset of the previous '`QUEUE OVERFLOW OCCURRED`'.
`QUEUE OVERFLOW OCCURRED` = The OSPS ACQS message queue overflow occurred and a message was purged.
`QUEUE RETURNED TO NORMAL` = The OSPS ACQS message queue became normal and the number of messages in the queue is below the TCA-specified threshold.
`TCA THRESHOLD VIOLATION CONTINUED` = The OSPS ACQS message queue continued to exceed the TCA-specified threshold for a TCA-specified time interval.
`TCA THRESHOLD VIOLATION OCCURRED` = The OSPS ACQS message queue has exceeded the TCA-specified threshold.

4. ACTION TO BE TAKEN

Verify and restore faulty digital subscriber lines (DSLs) serving either a Hotel Billing Information System (HOBIS) or hotel billing information center (HOBIC). If the threshold violation occurs and the DSLs are in service, the threshold may be set too low for the ACQS call volume.

5. ALARMS

If output includes:	Alarm:
`QUEUE OVERFLOW OCCURRED` or `QUEUE OVERFLOW CONTINUED - b MESSAGES PURGED`	Major alarm.
`TCA THRESHOLD VIOLATION OCCURRED` or `TCA THRESHOLD VIOLATION CONTINUED`	Minor alarm.
`OSPS ACQS QUEUE RETURNED TO NORMAL`	None.

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6. REFERENCES

Input Message(s):

```
OP:LIST
RST:DATALINK
```

Output Message(s):

```
OP:LIST-LINES
RST:DATALINK
```

Other Manual(s):
235-900-500 *OSPS ACQS Interface Specification*

MCC Display Page(s):

1460 (DATA LINKS1)
147030 (HOBIS DATA LINKS)
147040 (HOBIS VOICE QUOTE TTY DATA LINKS)
147050 (HOBIS RECORD TTY DATA LINKS)

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REPT:OSPS-ALARM-A

Software Release: 5E10 only
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
REPT OSPS ALARM a      b
```

2. REASON FOR OUTPUT

To report that an Operator Services Position System (OSPS) feature had its successful query rate fall below a threshold. This is a violation of the threshold. The threshold for each feature is an office parameter.

3. VARIABLE FIELD DEFINITIONS

`a` = Feature whose threshold was violated. Valid value(s):

`89CC`	= *ANSI*® TCAP 89/CCC validation application.
`AILS`	= Automated inward line screening (AILS).
`BBNS`	= Billing validation application (BVA) billed number screening.
`BCRD`	= BVA calling card.
`CAS`	= Customer account services (CAS).
`CAS7`	= CAS common channel signaling 7 (CCS7).
`LBNS`	= Line information database (LIDB) billed number screening.
`LCRD`	= LIDB calling card.
`ONAI`	= OSPS network access interrupt (NAI).
`RATE`	= Real-Time Rating System (RTRS).

`b` = The present query success rate threshold value (from 0 to 100 percent).

4. ACTION TO BE TAKEN

This message indicates that too many queries are failing. The successful query rate threshold for each feature is an office parameter. The value should be checked for correctness. Its recent change default value is recommended, though not required. If the value is correct, there may be a problem with the database associated with the feature. Contact the database administrator for assistance.

5. ALARMS

Major.

6. REFERENCES

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

REPT:OSPS-ALARM-B

Software Release: 5E11 only
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
REPT OSPS ALARM a      b
```

2. REASON FOR OUTPUT

To report that an Operator Services Position System (OSPS) feature had its successful query rate fall below a threshold. This is a violation of the threshold. The threshold for each feature is an office parameter.

3. VARIABLE FIELD DEFINITIONS

a = Feature whose threshold was violated. Valid value(s):

89CC	= *ANSI*® TCAP 89/CCC validation application.
AILS	= Automated inward line screening (AILS).
BBNS	= Billing validation application (BVA) billed number screening.
BCRD	= BVA calling card.
CAS	= Customer account services (CAS).
CAS7	= CAS common channel signaling 7 (CCS7).
LBNS	= Line information database (LIDB) billed number screening.
LCRD	= LIDB calling card.
LNP	= OSPS Local Number Portability (LNP).
ONAI	= OSPS network access interrupt (NAI).
RATE	= Real-Time Rating System (RTRS).

b = The present query success rate threshold value (from 0 to 100 percent).

4. ACTIONS TO BE TAKEN

This message indicates that too many queries are failing. The successful query rate threshold for each feature is an office parameter. The value should be checked for correctness. Its recent change default value is recommended, though not required. If the value is correct, there may be a problem with the database associated with the feature. Contact the database administrator for assistance.

5. ALARMS

Major.

6. REFERENCES

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

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REPT:OSPS-ALARM-C

Software Release: 5E12 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
REPT OSPS ALARM a      b
```

2. REASON FOR OUTPUT

To report that an Operator Services Position System (OSPS) feature had its successful query rate fall below a threshold. This is a violation of the threshold. The threshold for each feature is an office parameter.

3. VARIABLE FIELD DEFINITIONS

`a` = Feature whose threshold was violated. Valid value(s):

- `89CC` = *ANSI*® TCAP 89/CCC validation application.
- `AILS` = Automated inward line screening (AILS).
- `BBNS` = Billing validation application (BVA) billed number screening.
- `BCRD` = BVA calling card.
- `CAS` = Customer account services (CAS).
- `CAS7` = CAS common channel signaling 7 (CCS7).
- `LBNS` = Line information database (LIDB) billed number screening.
- `LCRD` = LIDB calling card.
- `LNP` = OSPS Local Number Portability (LNP).
- `OLNS` = OSPS originating line number screening (OLNS).
- `ONAI` = OSPS network access interrupt (NAI).
- `RATE` = Real-Time Rating System (RTRS).

`b` = The present query success rate threshold value (from 0 to 100 percent).

4. ACTIONS TO BE TAKEN

This message indicates that too many queries are failing. The successful query rate threshold for each feature is an office parameter. The value should be checked for correctness. Its recent change default value is recommended, though not required. If the value is correct, there may be a problem with the database associated with the feature. Contact the database administrator for assistance.

5. ALARMS

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Major.

6. REFERENCES

IM/OM References:

None.

Other Manual(s):

250-505-100 *OSPS Description and Procedures*

REPT:OSPS-DSE-A

Software Release: 5E10 only
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
REPT OSPS DSE    {a|b}  cc:cc:cc
  d
  RAO=[e]        [DBTYP=f]
  NCP=[g]        [RTYP=h]
  OPC=[i]
  [j]
```

2. REASON FOR OUTPUT

To report the occurrence of an Operator Services Position System (OSPS) direct signaling event (DSE) that may be either a line applications for consumers (LAC) event, a calling card (CCRD) event, a customer account services (CAS) event, a CAS common channel signaling 7 (CCS7) event, an international credit card validation (ICCV) event, an automated inward line screening (AILS) event, a billed number screening (BNS), or a rating event.

3. VARIABLE FIELD DEFINITIONS

`a` = Digits associated with the call that triggered the event to occur. For an NCD event these numbers are the first six digits of the billing number. For a CCRD event the digits are the first six digits of the calling card number. For a BNS event the digits are the numbering plan area (NPA) and office code (NXX) of the billing number. For a rating event the digits are the NPA and NXX of the originating directory number. For a CAS event the digits are the first six digits of the individual account number. For an AILS event the digits are the first six digits of the billing number. This field will not be printed if the complete calling card number is available; the complete card number, excluding the personal identification number (PIN), is instead printed in field '`b`'. When the change handling of indeterminate reply codes feature (secure feature ID 81) has been activated the full ten digit billing number is printed for a CCRD event and/or BNS event.

`b` = Complete calling card number, excluding PIN, of CAS CCS7 or ICCV events.

`c` = Time of day when the event occurred, in the form hours:minutes:seconds.

`d` = Text describing the event that occurred. Valid value(s):
`AILS GARBLED MESSAGE` = An AILS message received garbled.
`AILS MISROUTED QUERY` = An AILS error - misrouted query.
`AILS TIMEOUT` = An AILS message returned because of timeout.
`AILS TASK REFUSED` = An AILS error - task refused.
`AILS UNEXPECTED INPUT DATA VALUE` = An AILS error - message received with an unexpected input data value.
`CAS DATA BASE OVERLOAD` = A CAS message returned because of database overload.
`CAS DATA BASE UNABLE TO PROCESS` = A CAS message returned because the database was unable to process.
`CAS GARBLED REPLY` = A CAS message received garbled.
`CAS NETWORK BLOCKAGE` = A CAS message returned because of network blockage.
`CAS NETWORK CONGESTION` = A CAS message returned because of network congestion.
`CAS NO ROUTING DATA` = A CAS message returned because of no routing data.

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`CAS TIMEOUT` = A CAS message returned because of timeout.
`CAS UNEQUIPPED DESTINATION` = A CAS message returned because of unequipped destination.
`CAS UNEXPECTED REPLY` = A CAS message received with an unexpected reply.
`CAS7 ABORT MESSAGE` = A CAS CCS7 abort message received.
`CAS7 ACG COMPONENT` = A CAS CCS7 ACG invoke component received.
`CAS7 GARBLED MESSAGE` = A CAS CCS7 message received with invalid format reply.
`CAS7 GATEWAY ERROR` = A CAS CCS7 error - gateway error.
`CAS7 MISROUTED QUERY` = A CAS CCS7 error - misrouted query.
`CAS7 MISSING PARAMETER` = A CAS CCS7 error - message received with missing parameter.
`CAS7 REJECT COMPONENT` = A CAS CCS7 reject component received.
`CAS7 TASK REFUSED` = A CAS CCS7 error - task refused.
`CAS7 TIMEOUT` = A CAS CCS7 query timed out before a reply was received.
`CAS7 UDS NETWORK CONGESTION` = A CAS CCS7 message returned because of network congestion.
`CAS7 UDS NETWORK FAILURE` = A CAS CCS7 message returned because of network failure.
`CAS7 UDS NO ADDRESS NATURE` = A CAS CCS7 message returned - no translation data for address of such nature.
`CAS7 UDS NO ADDRESS SPECIFIC` = A CAS CCS7 message returned - no translation data for this specific address.
`CAS7 UDS SUBSYSTEM CONGESTION` = A CAS CCS7 message returned because of subsystem congestion.
`CAS7 UDS SUBSYSTEM FAILURE` = A CAS CCS7 message returned because of subsystem failure.
`CAS7 UDS UNEQUIPPED USER` = A CAS CCS7 message returned - unequipped user.
`CAS7 UDS UNQUALIFIED` = A CAS CCS7 message returned - unqualified - unknown failure reason.
`CAS7 UNEXPECTED INPUT DATA VALUE` = A CAS CCS7 error - message received with an unexpected input data value.
`CAS7 UNEXPECTED PARAMETER` = A CAS CCS7 error- message received with unexpected parameter
`CAS7 UNEXPECTED REPLY` = A CAS CCS7 message received with unexpected reply.
`CAS7 VACANT CODE` = A CAS CCS7 error - vacant code.
`CCRD DATA BASE OVERLOAD` = A BVA CCRD message returned because of database overload.
`CCRD DATA BASE UNABLE TO PROCESS` = A BVA CCRD message returned because the database was unable to process.
`CCRD GARBLED MESSAGE` = A BVA CCRD message received garbled.
`CCRD NETWORK BLOCKAGE` = A BVA CCRD message returned because of network blockage.
`CCRD NETWORK CONGESTION` = A BVA CCRD message returned because of network congestion.
`CCRD NO ROUTING DATA` = A BVA CCRD message returned because of no routing data.
`CCRD UNEQUIPPED DESTINATION` = A BVA CCRD message returned because of unequipped destination.
`CCRD UNEXPECTED REPLY` = A BVA CCRD message received with an unexpected reply.
`ICCV ABORT MESSAGE` = An ICCV abort message received.
`ICCV DATA BASE UNAVAILABLE` = An ICCV error - message returned - database unavailable.
`ICCV ERROR IN MESSAGE FORMAT` = An ICCV error in message format.
`ICCV GARBLED MESSAGE` = An ICCV message received with invalid format reply.
`ICCV MISSING PARAMETER` = An ICCV error - message received with missing parameter.
`ICCV MISROUTED QUERY` = An ICCV error - misrouted query.
`ICCV REJECT COMPONENT` = An ICCV reject component received.
`ICCV TIMEOUT` = An ICCV query timed out before a reply was received.
`ICCV UDS NETWORK CONGESTION` = An ICCV message returned because of network congestion.
`ICCV UDS NETWORK FAILURE` = An ICCV message returned because of network failure.

`ICCV UDS NO ADDRESS NATURE` = An ICCV message returned - no translation data for address of such nature.
`ICCV UDS NO ADDRESS SPECIFIC` = An ICCV message returned - no translation data for this specific address.
`ICCV UDS SUBSYSTEM CONGESTION` = An ICCV message returned because of subsystem congestion.
`ICCV UDS SUBSYSTEM FAILURE` = An ICCV message returned because of subsystem failure.
`ICCV UDS UNEQUIPPED USER` = An ICCV message returned - unequipped user.
`ICCV UDS UNQUALIFIED` = An ICCV message returned - unqualified - unknown failure reason.
`ICCV UNEXPECTED INPUT DATA VALUE` = An ICCV error - message received with unexpected input data value.
`ICCV UNEXPECTED PARAMETER` = An ICCV error - message received with unexpected parameter.
`ICCV UNEXPECTED REPLY` = An ICCV message received with unexpected reply.
`LAC ABORT MESSAGE` = LAC abort message received.
`LAC ACG COMPONENT` = LAC invoke component received.
`LAC GARBLED MESSAGE` = LAC message received with invalid format.
`LAC MISROUTED QUERY` = LAC error - misrouted query.
`LAC MISSING PARAMETER` = LAC error - message received with missing parameter.
`LAC REJECT COMPONENT` = LAC reject component received.
`LAC TASK REFUSED` = LAC error - task refused.
`LAC TIMEOUT` = LAC query timed out before a reply was received.
`LAC UDS NETWORK CONGESTION` = LAC message returned because of network congestion.
`LAC UDS NETWORK FAILURE` = LAC message returned because of network failure.
`LAC UDS NO ADDRESS SPECIFIC` = LAC message returned - no translation data for this specific address.
`LAC UDS NO ADDRESS NATURE` = LAC message returned - no translation data for address of such nature.
`LAC UDS SUBSYSTEM CONGESTION` = LAC message returned because of subsystem congestion.
`LAC UDS SUBSYSTEM FAILURE` = LAC message returned because of subsystem failure.
`LAC UDS UNEQUIPPED USER` = LAC message returned - unequipped user.
`LAC UDS UNQUALIFIED` = LAC message returned - unqualified.
`LAC UNEXPECTED INPUT DATA VALUE` = LAC error - message received with unexpected input data value.
`LAC UNEXPECTED PARAMETER` = LAC error - message received with unexpected parameter.
`LAC UNEXPECTED REPLY` = LAC unexpected reply.
`LAC VACANT CODE` = LAC error - vacant code.
`LBNS CALL GAPPING` = Received a line information database (LIDB) BNS message with a call gapping indicator present.
`LBNS GARBLED MESSAGE` = Received a LIDB BNS garbled message.
`LBNS MISSING GROUP OR MISROUTED` = Received a LIDB BNS message with return value missing group or misrouted.
`LBNS NETWORK CONGESTION` = Received a LIDB BNS message with return value network congestion.
`LBNS NETWORK FAILURE` = Received a LIDB BNS message with return value network failure.
`LBNS NO ADDRESS NATURE` = Received a LIDB BNS message with return value no translation for an address of such nature.
`LBNS NO ADDRESS SPECIFIC` = Received a LIDB BNS message with return value no translation for this specific address.
`LBNS NON PARTICIPATING GROUP` = Received a LIDB BNS message with return value nonparticipating group.
`LBNS REJECT MESSAGE RECEIVED` = LIDB BNS reject message received.
`LBNS SUBSYSTEM CONGESTION` = Received a LIDB BNS message with return value subsystem

congestion.
`LBNS SUBSYSTEM FAILURE` = Received a LIDB BNS message with return value subsystem failure.
`LBNS TIMEOUT` = LIDB BNS message missed because of timeout.
`LBNS UNEQUIPPED USER` = Received a LIDB BNS message with return value unequipped user.
`LBNS UNEXPECTED REPLY` = Received a LIDB BNS message that was a unexpected reply.
`LCCRD CALL GAPPING` = Received a LIDB CCRD message with a call gapping indicator present.
`LCCRD GARBLED MESSAGE` = Received a LIDB CCRD garbled message.
`LCCRD MISSING GROUP OR MISROUTED` = Received a LIDB CCRD message with return value missing group or misrouted.
`LCCRD NETWORK CONGESTION` = Received a LIDB CCRD message with return value network congestion.
`LCCRD NETWORK FAILURE` = Received a LIDB CCRD message with return value network failure.
`LCCRD NO ADDRESS NATURE` = Received a LIDB CCRD message with return value no translation for an address of such nature.
`LCCRD NO ADDRESS SPECIFIC` = Received a LIDB CCRD message with return value no translation for this specific address.
`LCCRD NON PARTICIPATING GROUP` = Received a LIDB CCRD message with return value nonparticipating group.
`LCCRD REJECT MESSAGE RECEIVED` = LIDB CCRD reject message received.
`LCCRD SUBSYSTEM CONGESTION` = Received a LIDB CCRD message with return value subsystem congestion.
`LCCRD SUBSYSTEM FAILURE` = Received a LIDB CCRD message with return value subsystem failure.
`LCCRD TIMEOUT` = LIDB CCRD message missed because of timeout.
`LCCRD UNEQUIPPED USER` = Received a LIDB CCRD message with return value unequipped user.
`LCCRD UNEXPECTED REPLY` = Received a LIDB CCRD message that was a unexpected reply.
`RATE DATA BASE OVERLOAD` = A rating message returned because of database overload.
`RATE DATA BASE UNABLE TO PROCESS` = A rating message returned because database unable to process.
`RATE GARBLED REPLY` = A rating message received garbled.
`RATE TIMEOUT` = A rating message returned because of timeout.
`RATE UNEXPECTED REPLY` = A rating message received with an unexpected reply.

`e` = Three-digit revenue accounting office (RAO) number.

`f` = Database error type. Valid value(s):

```
CHARGE OVERFLOW
DATABASE OVERLOAD
MISCELLANEOUS
NO RATING DATA
SHORT TERM OVERLOAD
TRANSIENT ERROR
UNRECOGNIZED MESSAGE
```

`g` = Network control point (NCP) function number.

`h` = Rating reply type. Valid value(s):
`BUSY LINE VERIFY`
`END OF CALL`

```
INITIAL COIN
INTERIM COIN
PURCHASE LIMITS INITIAL
PURCHASE LIMITS SUBSEQUENT
```

`PURCHASE LIMITS BLV` = Busy line verify purchase limits.

`RATE QUOTE`

`i` = Originating point code (OPC). This field will print only for LIDB BNS, LIDB CCRD, CAS, CAS CCS7, or ICCV events. The OPC is the point code of the network node which sent the response.

`j` = Reject problem code or abort cause. Valid value(s):

```
CAS U-ABORT - APPLICATION PROTOCOL VIOLATION
CAS U-ABORT - REJECT RECEIVED
CAS U-ABORT - UNKNOWN USER PROBLEM
ICCV U-ABORT - MISTYPED COMPONENT
ICCV U-ABORT - BADLY STRUCTURED COMPONENT
ICCV U-ABORT - UNRECOGNIZED COMPONENT
P-ABORT - BADLY FORMATTED TRANSACTION PORTION
P-ABORT - INCORRECT TRANSACTION PORTION
P-ABORT - RESOURCE LIMITATION
P-ABORT - UNRECOGNIZED MESSAGE TYPE
P-ABORT - UNRECOGNIZED TRANSACTION ID
REJECT - BADLY STRUCTURED COMPONENT
REJECT - DUPLICATE INVOKE ID
REJECT - INITIATING RELEASE
REJECT - MISTYPED COMPONENT
REJECT - MISTYPED PARAMETER
REJECT - RESOURCE LIMITATION
REJECT - UNRECOGNIZED COMPONENT
REJECT - UNRECOGNIZED OPERATION
```

4. ACTION TO BE TAKEN

This message indicates a problem with a database external to the switch. This message may print because of problems with the database or the network connecting the switch to the database.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:DSE
OP:ST-DSE
SET:DSE
```

Output Message(s):

```
OP:ST-DSE
REPT:DSE
```

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

REPT:OSPS-DSE-B

Software Release: 5E11 only
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
REPT OSPS DSE    {a|b}  cc:cc:cc
  d
  RAO=[e]        [DBTYP=f]
  NCP=[g]        [RTYP=h]
  OPC=[i]
 [j]
```

2. REASON FOR OUTPUT

To report the occurrence of an Operator Services Position System (OSPS) direct signaling event (DSE) that may be either a line applications for consumers (LAC) event, a calling card (CCRD) event, a customer account services (CAS) event, a CAS common channel signaling 7 (CCS7) event, an international credit card validation (ICCV) event, an OSPS local number portability (LNP) event, an automated inward line screening (AILS) event, a billed number screening (BNS), or a rating event.

3. VARIABLE FIELD DEFINITIONS

`a` = Digits associated with the call that triggered the event to occur. For an NCD event these numbers are the first six digits of the billing number. For a CCRD event the digits are the first six digits of the calling card number. For a BNS event the digits are the numbering plan area (NPA) and office code (NXX) of the billing number. For a rating event the digits are the NPA and NXX of the originating directory number. For a CAS event the digits are the first six digits of the individual account number. For an AILS event the digits are the first six digits of the billing number. This field will not be printed if the complete calling card number is available; the complete card number, excluding the personal identification number (PIN), is instead printed in field '`b`'. When the change handling of indeterminate reply codes feature (secure feature ID 81) has been activated the full ten digit billing number is printed for a CCRD event and/or BNS event.

`b` = Complete calling card number, excluding PIN, of CAS CCS7 or ICCV events.

`c` = Time of day when the event occurred, in the form hours:minutes:seconds.

`d` = Text describing the event that occurred. Valid value(s):
`AILS GARBLED MESSAGE` = An AILS message received garbled.
`AILS MISROUTED QUERY` = An AILS error - misrouted query.
`AILS TIMEOUT` = An AILS message returned because of timeout.
`AILS TASK REFUSED` = An AILS error - task refused.
`AILS UNEXPECTED INPUT DATA VALUE` = An AILS error - message received with an unexpected input data value.
`CAS DATA BASE OVERLOAD` = A CAS message returned because of database overload.
`CAS DATA BASE UNABLE TO PROCESS` = A CAS message returned because the database was unable to process.
`CAS GARBLED REPLY` = A CAS message received garbled.
`CAS NETWORK BLOCKAGE` = A CAS message returned because of network blockage.
`CAS NETWORK CONGESTION` = A CAS message returned because of network congestion.

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`CAS NO ROUTING DATA` = A CAS message returned because of no routing data.
`CAS TIMEOUT` = A CAS message returned because of timeout.
`CAS UNEQUIPPED DESTINATION` = A CAS message returned because of unequipped destination.
`CAS UNEXPECTED REPLY` = A CAS message received with an unexpected reply.
`CAS7 ABORT MESSAGE` = A CAS CCS7 abort message received.
`CAS7 ACG COMPONENT` = A CAS CCS7 ACG invoke component received.
`CAS7 GARBLED MESSAGE` = A CAS CCS7 message received with invalid format reply.
`CAS7 GATEWAY ERROR` = A CAS CCS7 error - gateway error.
`CAS7 MISROUTED QUERY` = A CAS CCS7 error - misrouted query.
`CAS7 MISSING PARAMETER` = A CAS CCS7 error - message received with missing parameter.
`CAS7 REJECT COMPONENT` = A CAS CCS7 reject component received.
`CAS7 TASK REFUSED` = A CAS CCS7 error - task refused.
`CAS7 TIMEOUT` = A CAS CCS7 query timed out before a reply was received.
`CAS7 UDS NETWORK CONGESTION` = A CAS CCS7 message returned because of network congestion.
`CAS7 UDS NETWORK FAILURE` = A CAS CCS7 message returned because of network failure.
`CAS7 UDS NO ADDRESS NATURE` = A CAS CCS7 message returned - no translation data for address of such nature.
`CAS7 UDS NO ADDRESS SPECIFIC` = A CAS CCS7 message returned - no translation data for this specific address.
`CAS7 UDS SUBSYSTEM CONGESTION` = A CAS CCS7 message returned because of subsystem congestion.
`CAS7 UDS SUBSYSTEM FAILURE` = A CAS CCS7 message returned because of subsystem failure.
`CAS7 UDS UNEQUIPPED USER` = A CAS CCS7 message returned - unequipped user.
`CAS7 UDS UNQUALIFIED` = A CAS CCS7 message returned - unqualified - unknown failure reason.
`CAS7 UNEXPECTED INPUT DATA VALUE` = A CAS CCS7 error - message received with an unexpected input data value.
`CAS7 UNEXPECTED PARAMETER` = A CAS CCS7 error- message received with unexpected parameter
`CAS7 UNEXPECTED REPLY` = A CAS CCS7 message received with unexpected reply.
`CAS7 VACANT CODE` = A CAS CCS7 error - vacant code.
`CCRD DATA BASE OVERLOAD` = A BVA CCRD message returned because of database overload.
`CCRD DATA BASE UNABLE TO PROCESS` = A BVA CCRD message returned because the database was unable to process.
`CCRD GARBLED MESSAGE` = A BVA CCRD message received garbled.
`CCRD NETWORK BLOCKAGE` = A BVA CCRD message returned because of network blockage.
`CCRD NETWORK CONGESTION` = A BVA CCRD message returned because of network congestion.
`CCRD NO ROUTING DATA` = A BVA CCRD message returned because of no routing data.
`CCRD UNEQUIPPED DESTINATION` = A BVA CCRD message returned because of unequipped destination.
`CCRD UNEXPECTED REPLY` = A BVA CCRD message received with an unexpected reply.
`ICCV ABORT MESSAGE` = An ICCV abort message received.
`ICCV DATA BASE UNAVAILABLE` = An ICCV error - message returned - database unavailable.
`ICCV ERROR IN MESSAGE FORMAT` = An ICCV error in message format.
`ICCV GARBLED MESSAGE` = An ICCV message received with invalid format reply.
`ICCV MISSING PARAMETER` = An ICCV error - message received with missing parameter.
`ICCV MISROUTED QUERY` = An ICCV error - misrouted query.
`ICCV REJECT COMPONENT` = An ICCV reject component received.
`ICCV TIMEOUT` = An ICCV query timed out before a reply was received.
`ICCV UDS NETWORK CONGESTION` = An ICCV message returned because of network congestion.

`ICCV UDS NETWORK FAILURE` = An ICCV message returned because of network failure.
`ICCV UDS NO ADDRESS NATURE` = An ICCV message returned - no translation data for address of such nature.
`ICCV UDS NO ADDRESS SPECIFIC` = An ICCV message returned - no translation data for this specific address.
`ICCV UDS SUBSYSTEM CONGESTION` = An ICCV message returned because of subsystem congestion.
`ICCV UDS SUBSYSTEM FAILURE` = An ICCV message returned because of subsystem failure.
`ICCV UDS UNEQUIPPED USER` = An ICCV message returned - unequipped user.
`ICCV UDS UNQUALIFIED` = An ICCV message returned - unqualified - unknown failure reason.
`ICCV UNEXPECTED INPUT DATA VALUE` = An ICCV error - message received with unexpected input data value.
`ICCV UNEXPECTED PARAMETER` = An ICCV error - message received with unexpected parameter.
`ICCV UNEXPECTED REPLY` = An ICCV message received with unexpected reply.
`LAC ABORT MESSAGE` = LAC abort message received.
`LAC ACG COMPONENT` = LAC invoke component received.
`LAC GARBLED MESSAGE` = LAC message received with invalid format.
`LAC MISROUTED QUERY` = LAC error - misrouted query.
`LAC MISSING PARAMETER` = LAC error - message received with missing parameter.
`LAC REJECT COMPONENT` = LAC reject component received.
`LAC TASK REFUSED` = LAC error - task refused.
`LAC TIMEOUT` = LAC query timed out before a reply was received.
`LAC UDS NETWORK CONGESTION` = LAC message returned because of network congestion.
`LAC UDS NETWORK FAILURE` = LAC message returned because of network failure.
`LAC UDS NO ADDRESS SPECIFIC` = LAC message returned - no translation data for this specific address.
`LAC UDS NO ADDRESS NATURE` = LAC message returned - no translation data for address of such nature.
`LAC UDS SUBSYSTEM CONGESTION` = LAC message returned because of subsystem congestion.
`LAC UDS SUBSYSTEM FAILURE` = LAC message returned because of subsystem failure.
`LAC UDS UNEQUIPPED USER` = LAC message returned - unequipped user.
`LAC UDS UNQUALIFIED` = LAC message returned - unqualified.
`LAC UNEXPECTED INPUT DATA VALUE` = LAC error - message received with unexpected input data value.
`LAC UNEXPECTED PARAMETER` = LAC error - message received with unexpected parameter.
`LAC UNEXPECTED REPLY` = LAC unexpected reply.
`LAC VACANT CODE` = LAC error - vacant code.
`LBNS CALL GAPPING` = Received a line information database (LIDB) BNS message with a call gapping indicator present.
`LBNS GARBLED MESSAGE` = Received a LIDB BNS garbled message.
`LBNS MISSING GROUP OR MISROUTED` = Received a LIDB BNS message with return value missing group or misrouted.
`LBNS NETWORK CONGESTION` = Received a LIDB BNS message with return value network congestion.
`LBNS NETWORK FAILURE` = Received a LIDB BNS message with return value network failure.
`LBNS NO ADDRESS NATURE` = Received a LIDB BNS message with return value no translation for an address of such nature.
`LBNS NO ADDRESS SPECIFIC` = Received a LIDB BNS message with return value no translation for this specific address.
`LBNS NON PARTICIPATING GROUP` = Received a LIDB BNS message with return value nonparticipating group.
`LBNS REJECT MESSAGE RECEIVED` = LIDB BNS reject message received.

`LBNS SUBSYSTEM CONGESTION` = Received a LIDB BNS message with return value subsystem congestion.
`LBNS SUBSYSTEM FAILURE` = Received a LIDB BNS message with return value subsystem failure.
`LBNS TIMEOUT` = LIDB BNS message missed because of timeout.
`LBNS UNEQUIPPED USER` = Received a LIDB BNS message with return value unequipped user.
`LBNS UNEXPECTED REPLY` = Received a LIDB BNS message that was a unexpected reply.
`LCCRD CALL GAPPING` = Received a LIDB CCRD message with a call gapping indicator present.
`LCCRD GARBLED MESSAGE` = Received a LIDB CCRD garbled message.
`LCCRD MISSING GROUP OR MISROUTED` = Received a LIDB CCRD message with return value missing group or misrouted.
`LCCRD NETWORK CONGESTION` = Received a LIDB CCRD message with return value network congestion.
`LCCRD NETWORK FAILURE` = Received a LIDB CCRD message with return value network failure.
`LCCRD NO ADDRESS NATURE` = Received a LIDB CCRD message with return value no translation for an address of such nature.
`LCCRD NO ADDRESS SPECIFIC` = Received a LIDB CCRD message with return value no translation for this specific address.
`LCCRD NON PARTICIPATING GROUP` = Received a LIDB CCRD message with return value nonparticipating group.
`LCCRD REJECT MESSAGE RECEIVED` = LIDB CCRD reject message received.
`LCCRD SUBSYSTEM CONGESTION` = Received a LIDB CCRD message with return value subsystem congestion.
`LCCRD SUBSYSTEM FAILURE` = Received a LIDB CCRD message with return value subsystem failure.
`LCCRD TIMEOUT` = LIDB CCRD message missed because of timeout.
`LCCRD UNEQUIPPED USER` = Received a LIDB CCRD message with return value unequipped user.
`LCCRD UNEXPECTED REPLY` = Received a LIDB CCRD message that was a unexpected reply.
`LNP ABORT MESSAGE` = OSPS LNP abort message received.
`LNP ACG COMPONENT` = OSPS LNP ACG invoke component received.
`LNP ERROR CODE` = OSPS LNP error code received.
`LNP GARBLED MESSAGE` = OSPS LNP message received with invalid format reply.
`LNP REJECT COMPONENT` = OSPS LNP reject component received.
`LNP TIMEOUT` = OSPS LNP query which timed out before reply received.
`LNP UDS NETWORK CONGESTION` = OSPS LNP message returned because of network congestion.
`LNP UDS NETWORK FAILURE` = OSPS LNP message returned because of network failure.
`LNP UDS NO ADDRESS NATURE` = OSPS LNP message returned - no translation data for address of such nature.
`LNP UDS NO ADDRESS SPECIFIC` = OSPS LNP message returned - no translation data for this specific address.
`LNP UDS SUBSYSTEM CONGESTION` = OSPS LNP message returned because of subsystem congestion.
`LNP UDS SUBSYSTEM FAILURE` = OSPS LNP message returned because of subsystem failure.
`LNP UDS UNEQUIPPED USER` = OSPS LNP message returned - unequipped user.
`LNP UDS UNQUALIFIED` = OSPS LNP message returned - unqualified.
`LNP UNEXPECTED REPLY` = OSPS LNP message received with unexpected reply.
`RATE DATA BASE OVERLOAD` = A rating message returned because of database overload.
`RATE DATA BASE UNABLE TO PROCESS` = A rating message returned because database unable to process.
`RATE GARBLED REPLY` = A rating message received garbled.

`RATE TIMEOUT` = A rating message returned because of timeout.
`RATE UNEXPECTED REPLY` = A rating message received with an unexpected reply.

`e` = Three-digit revenue accounting office (RAO) number.

`f` = Database error type. Valid value(s):
```
CHARGE OVERFLOW
DATABASE OVERLOAD
MISCELLANEOUS
NO RATING DATA
SHORT TERM OVERLOAD
TRANSIENT ERROR
UNRECOGNIZED MESSAGE
```

`g` = Network control point (NCP) function number.

`h` = Rating reply type. Valid value(s):
`BUSY LINE VERIFY`
`END OF CALL`
`INITIAL COIN`
`INTERIM COIN`
`PURCHASE LIMITS INITIAL`
`PURCHASE LIMITS SUBSEQUENT`
`PURCHASE LIMITS BLV` = Busy line verify purchase limits.
`RATE QUOTE`

`i` = Originating point code (OPC). This field will print only for LIDB BNS, LIDB CCRD, CAS, CAS CCS7, OSPS LNP or ICCV events. The OPC is the point code of the network node which sent the response.

`j` = Reject problem code or abort cause. Valid value(s):
```
CAS U-ABORT - APPLICATION PROTOCOL VIOLATION
CAS U-ABORT - REJECT RECEIVED
CAS U-ABORT - UNKNOWN USER PROBLEM
ICCV U-ABORT - MISTYPED COMPONENT
ICCV U-ABORT - BADLY STRUCTURED COMPONENT
ICCV U-ABORT - UNRECOGNIZED COMPONENT
P-ABORT - BADLY FORMATTED TRANSACTION PORTION
P-ABORT - INCORRECT TRANSACTION PORTION
P-ABORT - RESOURCE LIMITATION
P-ABORT - UNRECOGNIZED MESSAGE TYPE
P-ABORT - UNRECOGNIZED TRANSACTION ID
REJECT - BADLY STRUCTURED COMPONENT
REJECT - DUPLICATE INVOKE ID
REJECT - INITIATING RELEASE
REJECT - MISTYPED COMPONENT
REJECT - MISTYPED PARAMETER
REJECT - RESOURCE LIMITATION
REJECT - UNRECOGNIZED COMPONENT
REJECT - UNRECOGNIZED OPERATION
```

4. ACTIONS TO BE TAKEN

This message indicates a problem with a database external to the switch. This message may print because of problems with the database or the network connecting the switch to the database.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:DSE
OP:ST-DSE
SET:DSE
```

Output Message(s):

```
OP:ST-DSE
REPT:DSE
```

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

REPT:OSPS-DSE-C

Software Release: 5E12 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
REPT OSPS DSE    {a|b}  cc:cc:cc
  d              [k]
  RAO=[e]        [DBTYP=f]
  NCP=[g]        [RTYP=h]
  OPC=[i]
  [j]
```

2. REASON FOR OUTPUT

To report the occurrence of an Operator Services Position System (OSPS) direct signaling event (DSE) that may be either a line applications for consumers (LAC) event, a calling card (CCRD) event, a customer account services (CAS) event, a CAS common channel signaling 7 (CCS7) event, an international credit card validation (ICCV) event, an OSPS local number portability (LNP) event, an automated inward line screening (AILS) event, a billed number screening (BNS), or a rating event.

3. VARIABLE FIELD DEFINITIONS

`a` = Digits associated with the call that triggered the event to occur. For an NCD event these numbers are the first six digits of the billing number. For a CCRD event the digits are the first six digits of the calling card number. For a BNS event the digits are the numbering plan area (NPA) and office code (NXX) of the billing number. For a rating event the digits are the NPA and NXX of the originating directory number. For a CAS event the digits are the first six digits of the individual account number. For an AILS event the digits are the first six digits of the billing number. This field will not be printed if the complete calling card number is available; the complete card number, excluding the personal identification number (PIN), is instead printed in field '`b`'. When the change handling of indeterminate reply codes feature (secure feature ID 81) has been activated the full ten digit billing number is printed for a CCRD event and/or BNS event.

`b` = Complete calling card number, excluding PIN, of CAS CCS7 or ICCV events.

`c` = Time of day when the event occurred, in the form hours:minutes:seconds.

`d` = Text describing the event that occurred. Valid value(s):
`AILS GARBLED MESSAGE` = An AILS message received garbled.
`AILS MISROUTED QUERY` = An AILS error - misrouted query.
`AILS TIMEOUT` = An AILS message returned because of timeout.
`AILS TASK REFUSED` = An AILS error - task refused.
`AILS UNEXPECTED INPUT DATA VALUE` = An AILS error - message received with an unexpected input data value.
`CAS DATA BASE OVERLOAD` = A CAS message returned because of database overload.
`CAS DATA BASE UNABLE TO PROCESS` = A CAS message returned because the database was unable to process.
`CAS GARBLED REPLY` = A CAS message received garbled.
`CAS NETWORK BLOCKAGE` = A CAS message returned because of network blockage.
`CAS NETWORK CONGESTION` = A CAS message returned because of network congestion.

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`CAS NO ROUTING DATA` = A CAS message returned because of no routing data.
`CAS TIMEOUT` = A CAS message returned because of timeout.
`CAS UNEQUIPPED DESTINATION` = A CAS message returned because of unequipped destination.
`CAS UNEXPECTED REPLY` = A CAS message received with an unexpected reply.
`CAS7 ABORT MESSAGE` = A CAS CCS7 abort message received.
`CAS7 ACG COMPONENT` = A CAS CCS7 ACG invoke component received.
`CAS7 GARBLED MESSAGE` = A CAS CCS7 message received with invalid format reply.
`CAS7 GATEWAY ERROR` = A CAS CCS7 error - gateway error.
`CAS7 MISROUTED QUERY` = A CAS CCS7 error - misrouted query.
`CAS7 MISSING PARAMETER` = A CAS CCS7 error - message received with missing parameter.
`CAS7 REJECT COMPONENT` = A CAS CCS7 reject component received.
`CAS7 TASK REFUSED` = A CAS CCS7 error - task refused.
`CAS7 TIMEOUT` = A CAS CCS7 query timed out before a reply was received.
`CAS7 UDS NETWORK CONGESTION` = A CAS CCS7 message returned because of network congestion.
`CAS7 UDS NETWORK FAILURE` = A CAS CCS7 message returned because of network failure.
`CAS7 UDS NO ADDRESS NATURE` = A CAS CCS7 message returned - no translation data for address of such nature.
`CAS7 UDS NO ADDRESS SPECIFIC` = A CAS CCS7 message returned - no translation data for this specific address.
`CAS7 UDS SUBSYSTEM CONGESTION` = A CAS CCS7 message returned because of subsystem congestion.
`CAS7 UDS SUBSYSTEM FAILURE` = A CAS CCS7 message returned because of subsystem failure.
`CAS7 UDS UNEQUIPPED USER` = A CAS CCS7 message returned - unequipped user.
`CAS7 UDS UNQUALIFIED` = A CAS CCS7 message returned - unqualified - unknown failure reason.
`CAS7 UNEXPECTED INPUT DATA VALUE` = A CAS CCS7 error - message received with an unexpected input data value.
`CAS7 UNEXPECTED PARAMETER` = A CAS CCS7 error- message received with unexpected parameter
`CAS7 UNEXPECTED REPLY` = A CAS CCS7 message received with unexpected reply.
`CAS7 VACANT CODE` = A CAS CCS7 error - vacant code.
`CCRD DATA BASE OVERLOAD` = A BVA CCRD message returned because of database overload.
`CCRD DATA BASE UNABLE TO PROCESS` = A BVA CCRD message returned because the database was unable to process.
`CCRD GARBLED MESSAGE` = A BVA CCRD message received garbled.
`CCRD NETWORK BLOCKAGE` = A BVA CCRD message returned because of network blockage.
`CCRD NETWORK CONGESTION` = A BVA CCRD message returned because of network congestion.
`CCRD NO ROUTING DATA` = A BVA CCRD message returned because of no routing data.
`CCRD UNEQUIPPED DESTINATION` = A BVA CCRD message returned because of unequipped destination.
`CCRD UNEXPECTED REPLY` = A BVA CCRD message received with an unexpected reply.
`ICCV ABORT MESSAGE` = An ICCV abort message received.
`ICCV DATA BASE UNAVAILABLE` = An ICCV error - message returned - database unavailable.
`ICCV ERROR IN MESSAGE FORMAT` = An ICCV error in message format.
`ICCV GARBLED MESSAGE` = An ICCV message received with invalid format reply.
`ICCV MISSING PARAMETER` = An ICCV error - message received with missing parameter.
`ICCV MISROUTED QUERY` = An ICCV error - misrouted query.
`ICCV REJECT COMPONENT` = An ICCV reject component received.
`ICCV TIMEOUT` = An ICCV query timed out before a reply was received.
`ICCV UDS NETWORK CONGESTION` = An ICCV message returned because of network congestion.

`ICCV UDS NETWORK FAILURE` = An ICCV message returned because of network failure.
`ICCV UDS NO ADDRESS NATURE` = An ICCV message returned - no translation data for address of such nature.
`ICCV UDS NO ADDRESS SPECIFIC` = An ICCV message returned - no translation data for this specific address.
`ICCV UDS SUBSYSTEM CONGESTION` = An ICCV message returned because of subsystem congestion.
`ICCV UDS SUBSYSTEM FAILURE` = An ICCV message returned because of subsystem failure.
`ICCV UDS UNEQUIPPED USER` = An ICCV message returned - unequipped user.
`ICCV UDS UNQUALIFIED` = An ICCV message returned - unqualified - unknown failure reason.
`ICCV UNEXPECTED INPUT DATA VALUE` = An ICCV error - message received with unexpected input data value.
`ICCV UNEXPECTED PARAMETER` = An ICCV error - message received with unexpected parameter.
`ICCV UNEXPECTED REPLY` = An ICCV message received with unexpected reply.
`LAC ABORT MESSAGE` = LAC abort message received.
`LAC ACG COMPONENT` = LAC invoke component received.
`LAC GARBLED MESSAGE` = LAC message received with invalid format.
`LAC MISROUTED QUERY` = LAC error - misrouted query.
`LAC MISSING PARAMETER` = LAC error - message received with missing parameter.
`LAC REJECT COMPONENT` = LAC reject component received.
`LAC TASK REFUSED` = LAC error - task refused.
`LAC TIMEOUT` = LAC query timed out before a reply was received.
`LAC UDS NETWORK CONGESTION` = LAC message returned because of network congestion.
`LAC UDS NETWORK FAILURE` = LAC message returned because of network failure.
`LAC UDS NO ADDRESS SPECIFIC` = LAC message returned - no translation data for this specific address.
`LAC UDS NO ADDRESS NATURE` = LAC message returned - no translation data for address of such nature.
`LAC UDS SUBSYSTEM CONGESTION` = LAC message returned because of subsystem congestion.
`LAC UDS SUBSYSTEM FAILURE` = LAC message returned because of subsystem failure.
`LAC UDS UNEQUIPPED USER` = LAC message returned - unequipped user.
`LAC UDS UNQUALIFIED` = LAC message returned - unqualified.
`LAC UNEXPECTED INPUT DATA VALUE` = LAC error - message received with unexpected input data value.
`LAC UNEXPECTED PARAMETER` = LAC error - message received with unexpected parameter.
`LAC UNEXPECTED REPLY` = LAC unexpected reply.
`LAC VACANT CODE` = LAC error - vacant code.
`LIDB CALL GAPPING` = Received a line information database (LIDB) message with a call gapping indicator present.
`LIDB GARBLED MESSAGE` = Received a LIDB garbled message.
`LIDB MISSING GROUP OR MISROUTED` = Received a LIDB message with return value missing group or misrouted.
`LIDB NETWORK CONGESTION` = Received a LIDB message with return value network congestion.
`LIDB NETWORK FAILURE` = Received a LIDB message with return value network failure.
`LIDB NO ADDRESS NATURE` = Received a LIDB message with return value no translation for an address of such nature.
`LIDB NO ADDRESS SPECIFIC` = Received a LIDB message with return value no translation for this specific address.
`LIDB NON PARTICIPATING GROUP` = Received a LIDB message with return value nonparticipating group.
`LIDB REJECT MESSAGE RECEIVED` = LIDB reject message received.
`LIDB SUBSYSTEM CONGESTION` = Received a LIDB message with return value subsystem

congestion.
`LIDB SUBSYSTEM FAILURE` = Received a LIDB message with return value subsystem failure.
`LIDB TIMEOUT` = LIDB message missed because of timeout.
`LIDB UNEQUIPPED USER` = Received a LIDB message with return value unequipped user.
`LIDB UNEXPECTED REPLY` = Received a LIDB message that was a unexpected reply.
`LNP ABORT MESSAGE` = OSPS LNP abort message received.
`LNP ACG COMPONENT` = OSPS LNP ACG invoke component received.
`LNP ERROR CODE` = OSPS LNP error code received.
`LNP GARBLED MESSAGE` = OSPS LNP message received with invalid format reply.
`LNP REJECT COMPONENT` = OSPS LNP reject component received.
`LNP TIMEOUT` = OSPS LNP query which timed out before reply received.
`LNP UDS NETWORK CONGESTION` = OSPS LNP message returned because of network congestion.
`LNP UDS NETWORK FAILURE` = OSPS LNP message returned because of network failure.
`LNP UDS NO ADDRESS NATURE` = OSPS LNP message returned - no translation data for address of such nature.
`LNP UDS NO ADDRESS SPECIFIC` = OSPS LNP message returned - no translation data for this specific address.
`LNP UDS SUBSYSTEM CONGESTION` = OSPS LNP message returned because of subsystem congestion.
`LNP UDS SUBSYSTEM FAILURE` = OSPS LNP message returned because of subsystem failure.
`LNP UDS UNEQUIPPED USER` = OSPS LNP message returned - unequipped user.
`LNP UDS UNQUALIFIED` = OSPS LNP message returned - unqualified.
`LNP UNEXPECTED REPLY` = OSPS LNP message received with unexpected reply.
`RATE DATA BASE OVERLOAD` = A rating message returned because of database overload.
`RATE DATA BASE UNABLE TO PROCESS` = A rating message returned because database unable to process.
`RATE GARBLED REPLY` = A rating message received garbled.
`RATE TIMEOUT` = A rating message returned because of timeout.
`RATE UNEXPECTED REPLY` = A rating message received with an unexpected reply.

`e` = Three-digit revenue accounting office (RAO) number.

`f` = Database error type. Valid value(s):
`CHARGE OVERFLOW`
`DATABASE OVERLOAD`
`MISCELLANEOUS`
`NO RATING DATA`
`SHORT TERM OVERLOAD`
`TRANSIENT ERROR`
`UNRECOGNIZED MESSAGE`

`g` = Network control point (NCP) function number.

`h` = Rating reply type. Valid value(s):
`BUSY LINE VERIFY`
`END OF CALL`
`INITIAL COIN`
`INTERIM COIN`
`PURCHASE LIMITS INITIAL`

PURCHASE LIMITS SUBSEQUENT
PURCHASE LIMITS BLV = Busy line verify purchase limits.
RATE QUOTE

i = Originating point code (OPC). This field will print only for LIDB BNS, LIDB CCRD, LIDB OLNS, CAS, CAS CCS7, OSPS LNP or ICCV events. The OPC is the point code of the network node which sent the response.

j = Reject problem code or abort cause. Valid value(s):
CAS U-ABORT - APPLICATION PROTOCOL VIOLATION
CAS U-ABORT - REJECT RECEIVED
CAS U-ABORT - UNKNOWN USER PROBLEM
ICCV U-ABORT - MISTYPED COMPONENT
ICCV U-ABORT - BADLY STRUCTURED COMPONENT
ICCV U-ABORT - UNRECOGNIZED COMPONENT
P-ABORT - BADLY FORMATTED TRANSACTION PORTION
P-ABORT - INCORRECT TRANSACTION PORTION
P-ABORT - RESOURCE LIMITATION
P-ABORT - UNRECOGNIZED MESSAGE TYPE
P-ABORT - UNRECOGNIZED TRANSACTION ID
REJECT - BADLY STRUCTURED COMPONENT
REJECT - DUPLICATE INVOKE ID
REJECT - INITIATING RELEASE
REJECT - MISTYPED COMPONENT
REJECT - MISTYPED PARAMETER
REJECT - RESOURCE LIMITATION
REJECT - UNRECOGNIZED COMPONENT
REJECT - UNRECOGNIZED OPERATION

k = LIDB query type. Valid value(s):
BNS
CCRD
OLNS

4. ACTIONS TO BE TAKEN

This message indicates a problem with a database external to the switch. This message may print because of problems with the database or the network connecting the switch to the database.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

CLR:DSE
OP:ST-DSE
SET:DSE

Output Message(s):

```
OP:ST-DSE
REPT:DSE
```

Other Manual(s):

250-505-100 *OSPS Description and Procedures*

REPT:OSPS-ICCV

Software Release: 5E10 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
REPT OSPS ICCV ALARM [a] [b]
  DBNAME   DBNUMBER   QSENT   RRECVD   THRSHLD
    [c]       [d]       [e]      [f]      [g]
```

2. REASON FOR OUTPUT

The output message reports query success rate threshold violations for international credit card validation (ICCV) databases. Sixteen database identifiers are specified, with database 0 representing all ICCV databases not specifically associated with any of the sixteen specified identifiers.

3. VARIABLE FIELD DEFINITIONS

a = Indicates if this message contains more than one part.

b = The message part number.

c = The name of the database.

d = The number of the database.

e = The number of queries sent.

f = The number of queries received.

g = The query success rate threshold value.

4. ACTION TO BE TAKEN

This message indicates that too many queries are failing. The query success rate threshold is specified for each issuer ID. The value should be checked for correctness. Verify RC/V View 27.60. If the value is correct, there may be a problem with the database.

5. ALARMS

Major.

6. REFERENCES

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

RC/V View(s):

27.60 (ICCV DATABASE)

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REPT:OSPS-ICE

Software Release: 5E10 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
REPT OSPS ICE   a bb:bb:bb
  c TTYPE=d
  e
  CDBS=[f]      OPC=[g]
  SDN=[h]
  CCC=[i]
  SIGTYP=[j]    OPCODE=[k]
  LOP=[l]
```

2. REASON FOR OUTPUT

To report an Operator Services Position System (OSPS) unexpected parameter combination event that occurred during customer account services (CAS) Common Channel Signaling System 7 (CCS7), international credit card validation (ICCV), or line information database (LIDB).

3. VARIABLE FIELD DEFINITIONS

`a` = The card number used for the call, excluding personal identification number (PIN).

`b` = The time of day that the event occurred, in the form hours:minutes:seconds.

`c` = The card type. Valid value(s):

```
CAS CARD
COMMERCIAL CREDIT CARD
LEC CARD
NON-AT&T 89C CARD
```

`d` = The translation type. This field is used in the translation capabilities application part (TCAP) query to indicate to the signaling transfer point (STP) which translation tables should be used to obtain routing information for the query.

`e` = The text describing the event that occurred. Valid value(s):

`CALLING NUMBER RESTRICTIONS ON INWARD CALLS` = Calling number restrictions are not allowed on inward calls.

`CCC AUTHORIZATION CODE IN AN 89C REPLY` = A commercial credit card (CCC) authorization code in an 89C reply.

`CDBS NUMBER WITH EXPIRATION DATE HANDLING` = A query reply was received with a customer defined billing segmentation (CDBS) number and expiration date handling. The call will continue with expiration date handling.

`CDBS NUMBER WITH FTS ROUTING NUMBER` = A CDBS number with a federal telecommunication system (FTS) routing number.

`CDBS NUMBER WITH INCOMPATIBLE OPERATION CODE` = CDBS code in reply to an ICCV query containing an incompatible operation code.

`CDBS NUMBER WITH SDN ROUTING NUMBER` = A CDBS number with a software defined network

(SDN) routing number.

`CDC INFO RECEIVED WITH CDC OFF` = Call duration and charge (CDC) information received with CDC office parameter off. The call will continue as a non-card limit call. Refer to RC View 8.9.

`CGNR RESTRICTIONS ON INWARD CALL` = The calling number restrictions (CGNR) deny reply received from CAS/NCP on inward calls for which calling numbers are not available.

`DL INFO RECEIVED WITH DL OFF` = Duration limit (DL) information received with the DL office parameter off. The call will continue as a non-card limit call. Refer to RC View 8.9.

`FTS NUMBER IN REPLY TO CCC QUERY` = An FTS routing number in reply to a query containing a commercial credit card.

`FTS NUMBER IN REPLY TO NON-AT&T 89C QUERY` = An FTS routing number in reply to a query containing a non-AT&T 89C card.

`FTS NUMBER WITH PL INFORMATION` = An FTS routing number in reply to a query containing PL information.

`FTS ROUTING NUMBER CONFLICT` = The most recently received query either did not contain an FTS routing number or the routing number returned did not match any of the internally stored FTS routing numbers. For a call identified as an FTS call, a valid FTS routing number must be returned.

`LOP NOT SUPPORTED BY OSPS` = The LOP received is greater than the maximum value allowed by OSPS. Refer to RC View 8.9.

`LOP ON INWARD CALL` = The LOP is received on inward calls.

`LOP WITH INVALID PIN OR INVALID CCC` = The LOP is received with invalid PIN or invalid CCC reply code.

`NO SDFN RETURNED ON SPEED DIAL CALL` = A speed dial code (SDC) was sent to the card validation database, but a speed dial forward number (SDFN) was not returned in the reply. Speed dial calls cannot be routed to the forward party without an SDFN.

`PLBQ CALL WITH MISSING OR INVALID CARD LIMIT INFO` = A purchase limit balance quotation (PLBQ) call with missing or invalid card limit (CL) information. The call will continue as a non-card limit call.

`PL INFO RECEIVED WITH PL OFF` = PL information received with the PL office parameter off. The call will continue as a non-card limit call. Refer to the RC/V View 8.9 (OSPS OFFICE PARAMETERS).

`SDN NUMBER IN REPLY TO CCC QUERY` = An SDN routing number in reply to a query containing a commercial credit card.

`SDN NUMBER IN REPLY TO NON-AT&T 89C QUERY` = An SDN routing number in reply to a query containing a non-AT&T 89C card.

`SDN NUMBER WITH PL INFORMATION` = An SDN routing number in reply to a query containing PL information.

`SEQUENCE CALL PIN/CDBS GROUP CONFLICT` = The most recently received query did not contain a CDBS code, but a previous call in this sequence did. For a given account number, if any PIN is associated with a CDBS code, then all PINs for that account number must have a CDBS code. Contact card database administration associated with the specific card mentioned in the output message.

`SL AND CL INFO RECEIVED IN SAME REPLY` = SL and other CL information received in the same reply. The CL information will be ignored but the call will continue as an SL call.

`SL INFO RECEIVED WITH EL OFF` = Single limit (SL) information received with the enhanced limit (EL) office parameter off. The call will continue as a non-card limit call. Refer to RC/V View 8.9.

`VL INFO RECEIVED WITH VL OFF` = Volume limit (VL) information received with the VL office parameter off. The call will continue as a non-card limit call. Refer to RC/V View 8.9.

`f` = The CDBS number or none.

`g` = The originating point code (OPC). The OPC is the point code of the network node sending the response.

`h` = The SDN or FTS routing number or NONE.

`i` = The CCC authorization number or NONE.

`j` = The signaling type. Valid value(s):

- `AT1` = *ANSI*® type 1 signaling.
- `CCS6` = Common channel signaling system 6.
- `CCS7` = Common channel signaling system 7.
- `ICCV` = International credit card validation.
- `LIDB` = line information database.
- `MAN` = Manual.
- `NONE` = No signaling type applicable.

`k` = The operation code. The operation code specifies which ICCV features are active in the switch. Each bit of the 8-bit operation code indicates whether the corresponding ICCV features are activated or not in the switch. The bits in order form low to high and their associated features are:

Feature	Bit Value	Bit Position
Basic Validation	1	0
CDM	2	1
CDBS	4	2
Not used	8	3
Geographic restriction	16	4
Not used	32	5
Not used	64	6
Not used	128	7

The operation code is a sum of the bit values of all applicable ICCV features. For example, if basic validation, CDBS, and geographic restrictions are active, the operation code has a value of 21. This is the sum of 1, 4, and 16. For inward calls, only values 1, 5, 17 and 21 are allowed. The operation code value only applies for ICCV queries. For all other signaling types, this field is not applicable.

`l` = The language value. The LOP parameter received in the reply indicates the language to be used for announcements. The maximum value of the language value is specified in RC/V View 8.9 (refer to the MAX LOP field).

4. ACTION TO BE TAKEN

This message indicates a problem with a database external to the switch. This message may print because of problems with the database or the network connecting the switch to the database. Contact the database administrator for assistance.

5. ALARMS

Minor alarm.

6. REFERENCES

Output Message(s):

```
REPT:DSE
REPT:OSPS-DSE
```

Other Manual(s):
250-500-100 *OSPS General Description*

RC/V View(s):

8.9 (OSPS OFFICE PARAMETERS)

REPT:OTR-A

Software Release: 5E10 only
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
REPT OTR
  DATE aa/aa/aa   TIME bb:bb:bb
     TRBLCD      OPRID    OSC       POS       FWDNUM
     c           d        e         f         [g]
     IPORT       IL/T     IMEMBER   CARRIER   BKNUM
     h           i        j         k l       m
     OPORT       OL/T     OMEMBER   CAMA      OVERSEAS
     n           o        p         q         r
     OSPS_ID     IF_TG    IF_TGM    MECH_OP   MECH_ID
     s           [t]      [u]       [v]       [w]
    [APS_OP]    [APS_ID]
     [x]         [y]
```

2. REASON FOR OUTPUT

To print operator trouble reports (OTR) in response to a keying action of an operator from an operator terminal or operator terminal position. OTRs are used to report an occurrence of trouble that an operator may have experienced while handling a call. The trouble code (TRBLCD) is used to identify the trouble experienced.

3. VARIABLE FIELD DEFINITIONS

a = Date that the report was requested, in the form month/day/year.

b = Time of day that the report was requested, in the form hours:minutes:seconds.

c = Trouble codes, indicators of the type of trouble encountered, are defined by the telephone company administration, except for trouble code 090 which is generated automatically by the system to indicate an automatic number identification failure.

d = Identification of the operator that keyed in the trouble report.

e = Identification of the operator service center.

f = Identification of the operator position at which the operator was working when the trouble report was created.

g = Forward number to which the call was connected when the trouble occurred. In the event that there was no outgoing port, a blank will be printed.

h = Identification of the incoming port to which the operator was connected when the trouble occurred.

i = Identification of the incoming line/trunk to which the operator was connected when the trouble occurred.

j = Identification of the incoming line/trunk member number.

k = Feature group identifier of the carrier used when the call was connected to the operator when the

trouble occurred. This will be a "D" for feature group D carriers, and a "B" for feature group B carriers. A "U" in this field means that the feature group of the carrier is unknown, and it is possible that the carrier identification code in field "l" is unknown or invalid.

`l` = Identification of the carrier used (when the call was connected to the operator) when the trouble occurred.

`m` = Back number of the incoming call to which the operator was connected when the trouble occurred.

`n` = Identification of the outgoing port to which the call was connected when the trouble occurred.

`o` = Identification of the outgoing line/trunk to which the call was connected when the trouble occurred.

`p` = Identification of the outgoing line/trunk member number to which the call was connected when the trouble occurred.

`q` = Indicates if the call is a system or transfer centralized automatic message accounting (CAMA) call. A value of zero indicates the call is a system CAMA call and a value of one indicates the call is a transfer CAMA call.

`r` = Indicates if the call is to an overseas area. A value of zero indicates no and a value of one indicates yes.

`s` = Identification of the Operator Services Position System (OSPS) where the call originated. In the event the call was interflowed, the ID will be that of the sending OSPS.

`t` = Identification of the B-channel trunk group on the receiving interflow switch, if the call was interflowed. In the event the call was not interflowed, a blank will be printed.

`u` = Identification of the B-channel trunk group member on the receiving interflow switch, if the call was interflowed. In the event the call was not interflowed, a blank will be printed.

`v` = Identification of the operator who gave the call more efficient call handling (MECH) treatment. In the event the call did not receive MECH treatment, a blank will be printed.

`w` = Identification of the OSPS that is associated with the operator who gave the call MECH treatment. In the event the call did not receive MECH treatment, a blank will be printed.

`x` = Identification of the Automated Position that was first associated with the call. This field will only be printed if the "OSPS OTR with APS ID" secure feature has been turned on.

`y` = Identification of the OSPS to which the Automated Position System is connected. This field will only be printed if the "OSPS OTR with APS ID" secure feature has been turned on.

4. ACTION TO BE TAKEN

The use and definition of trouble codes are the responsibility of the OSPS administration. Standard procedures set forth by the OSPS administration for a particular trouble code should be consulted.

5. ALARMS

None.

6. REFERENCES

None.

REPT:OTR-B

Software Release: 5E11 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
REPT OTR
  DATE aa/aa/aa   TIME bb:bb:bb
     TRBLCD      OPRID    OSC       POS       FWDNUM
     c           d        e         f         [g]
     IPORT       IL/T     IMEMBER   CARRIER   BKNUM
     h           i        j         k l       m
     OPORT       OL/T     OMEMBER   CAMA      OVERSEAS
     n           o        p         q         r
     OSPS_ID     IF_TG    IF_TGM    MECH_OP   MECH_ID
     s           [t]      [u]       [v]       [w]
    [APS_OP]    [APS_ID] [BKLRN]              [FWDLRN]
     [x]         [y]      [z]                 [a1]
```

2. REASON FOR OUTPUT

To print operator trouble reports (OTR) in response to a keying action of an operator from an operator terminal or operator terminal position. OTRs are used to report an occurrence of trouble that an operator may have experienced while handling a call. The trouble code (TRBLCD) is used to identify the trouble experienced.

3. VARIABLE FIELD DEFINITIONS

a = Date that the report was requested, in the form month/day/year.

b = Time of day that the report was requested, in the form hours:minutes:seconds.

c = Trouble codes, indicators of the type of trouble encountered, are defined by the telephone company administration, except for trouble code 090 which is generated automatically by the system to indicate an automatic number identification failure.

d = Identification of the operator that keyed in the trouble report.

e = Identification of the operator service center.

f = Identification of the operator position at which the operator was working when the trouble report was created.

g = Forward number to which the call was connected when the trouble occurred. In the event that there was no outgoing port, a blank will be printed.

h = Identification of the incoming port to which the operator was connected when the trouble occurred.

i = Identification of the incoming line/trunk to which the operator was connected when the trouble occurred.

j = Identification of the incoming line/trunk member number.

k = Feature group identifier of the carrier used when the call was connected to the operator when the

trouble occurred. This will be a "D" for feature group D carriers, and a "B" for feature group B carriers. A "U" in this field means that the feature group of the carrier is unknown, and it is possible that the carrier identification code in field "l" is unknown or invalid.

l = Identification of the carrier used (when the call was connected to the operator) when the trouble occurred.

m = Back number of the incoming call to which the operator was connected when the trouble occurred.

n = Identification of the outgoing port to which the call was connected when the trouble occurred.

o = Identification of the outgoing line/trunk to which the call was connected when the trouble occurred.

p = Identification of the outgoing line/trunk member number to which the call was connected when the trouble occurred.

q = Indicates if the call is a system or transfer centralized automatic message accounting (CAMA) call. A value of zero indicates the call is a system CAMA call and a value of one indicates the call is a transfer CAMA call.

r = Indicates if the call is to an overseas area. A value of zero indicates no and a value of one indicates yes.

s = Identification of the Operator Services Position System (OSPS) where the call originated. In the event the call was interflowed, the ID will be that of the sending OSPS.

t = Identification of the B-channel trunk group on the receiving interflow switch, if the call was interflowed. In the event the call was not interflowed, a blank will be printed.

u = Identification of the B-channel trunk group member on the receiving interflow switch, if the call was interflowed. In the event the call was not interflowed, a blank will be printed.

v = Identification of the operator who gave the call more efficient call handling (MECH) treatment. In the event the call did not receive MECH treatment, a blank will be printed.

w = Identification of the OSPS that is associated with the operator who gave the call MECH treatment. In the event the call did not receive MECH treatment, a blank will be printed.

x = Identification of the Automated Position that was first associated with the call. This field will only be printed if the "OSPS OTR with APS ID" secure feature has been turned on.

y = Identification of the OSPS to which the Automated Position System is connected. This field will only be printed if the "OSPS OTR with APS ID" secure feature has been turned on.

z = Identification of the Location Routing Number (LRN) associated with the back (calling) number to which the operator was connected when the trouble occurred. The label is printed if the LNP secure feature has been activated and the LRN in OTRs parameter is set to Y. If the label is printed, the data field under it contains the LRN of the back number if one exists; otherwise the data field is blank.

a^1 = Identification of the LRN associated with the forward (called) number to which the operator was connected when the trouble occurred. The label is printed if the LNP secure feature has been activated and the LRN in OTRs parameter is set to Y. If the label is printed, the data field under it contains the LRN of the forward number if one exists; otherwise the data field is blank.

4. ACTION TO BE TAKEN

The use and definition of trouble codes are the responsibility of the OSPS administration. Standard procedures set forth by the OSPS administration for a particular trouble code should be consulted.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:OUTPUT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT OUTPUT MESSAGES LOST
```

2. REASON FOR OUTPUT

To report that messages to the output spooler were discarded by the system integrity monitor (SIM) in an effort to recover from message buffer overload.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

Expect that output messages from preceding input messages will not be printed. Determine which input messages should be reentered, and take action accordingly.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
All	449

Output Message(s):

```
REPT:SIMCHK
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-600-601 *Processor Recovery Messages*

REPT:OVEN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT OVEN FAULT RCOSC=a-b
```

2. REASON FOR OUTPUT

To indicate that there is a fault in the remote clock oscillator (RCOSC) oven. If the RCOSC is active, the RCOSC remove message will accompany this message.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RCOSC side.

4. ACTION TO BE TAKEN

Check the condition of the remote clock (RCLK) and, if necessary, remove and replace the implicated RCOSC.

5. ALARMS

Major, minor.

6. REFERENCES

Input Message(s):

```
DGN:RCLK
RMV:RCOSC
RST:RCOSC
```

Output Message(s):

```
DGN:RCLK
RMV:RCOSC
RST:RCOSC
```

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REPT:OVERLOAD

Software Release: 5E10 and later
Message Class: OVLD
Application: 5
Type: Output

1. FORMAT

```
REPT OVERLOAD HISTORY
  MODULE       REALTIME      RESOURCES
  a               b              c [c] [c] [c] [c] [c] [c]
  .               .              .  .   .   .   .   .   .
  .               .              .  .   .   .   .   .   .
  .               .              .  .   .   .   .   .   .
 [d]
```

2. REASON FOR OUTPUT

To report that an overload occurred in the administrative module (AM), switching module (SM), communications module processor (CMP), direct link node processor (DLN), or quad-link gateway processor (QGP). This message will repeat every 15 minutes, as long as the overload persists. Throttling of call processing or maintenance work may occur.

3. VARIABLE FIELD DEFINITIONS

a = Processor modules. Valid value(s):

```
AM
CMP f-g,h
DLN i-j
QGP k-l
SM e
```

b = Real-time overload status. Valid value(s):

CRITICAL	= Critical real-time overload.
MAJOR	= Major real-time overload.
MINOR	= Minor real-time overload.
NONE	= No real-time overload.

c = Resources that are overloaded (up to seven). Refer to the APP:RESOURCES appendix in the Appendixes section of the Output Messages manual.

d = MORE_OVERLOADED_THAN_REPORTED There were more than 16 switching modules in overload.

e = SM number that has experienced an overload.

f = Message switch control unit (MSCU) side in which the CMP resides.

g = CMP number that has experienced an overload.

h = Processor being reported on. Valid value(s):

MATE	= Mate CMP.
PRIM	= Primary CMP.

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`i` = DLN group number.

`j` = DLN member number.

`k` = Message switch side number.

`l` = QGP number.

4. ACTION TO BE TAKEN

Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

To find the status of the overloaded packet interface (PI) and/or packet handlers (PHs), use the OP:TRFC30 or OP:ST input messages.

If hardware checks are inhibited in an SM especially with data cache equipped, the impact could be a real time overload condition. Hardware checks should be allowed unless there is an overriding reason to inhibit the hardware checks.

5. ALARMS

Critical, major, or minor.

6. REFERENCES

Input Message(s):

```
OP:OVRLD-AM-SM
OP:ST
OP:STATUS
OP:TRFC30
```

Output Message(s):

```
OP:OVRLD
```

Output Appendix(es):

```
APP:RESOURCES
```

Other Manual(s):
235-070-100 *Switch Administration and Engineering Guidelines*

88. REPT:P

REPT:PASSWORD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT PASSWORD BREAK ATTEMPT
  "a" NON-EXISTING PASSWORDS OFFERED AT
  TERMINAL 'b' BY UNKNOWN USER.
```

2. REASON FOR OUTPUT

To report a possible password break attempt.

3. VARIABLE FIELD DEFINITIONS

`a` = Number of passwords entered that do not exist.

`b` = Terminal identity.

4. ACTION TO BE TAKEN

Investigate.

5. ALARMS

Minor.

6. REFERENCES

None.

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REPT:PCPAUD-A

Software Release: 5E10 - 5E12
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
REPT PCPAUD FAULT TYPE a ASSERT = b
```

2. REASON FOR OUTPUT

To report an error during the administrative sequences of processor control process audit (PCPAUD) which are run separate from the audit controller or to report internal errors not concerning the audit controller, during CUSTAT or CUMEM.

3. VARIABLE FIELD DEFINITIONS

`a` = Type of fault found.

Note: If the assert number '`b`' is 0x4002. Refer to the APP:FAULT-CODE appendix in the Appendixes section of the Output Messages manual for fault type information.

Possible faults (in hexadecimal notation). Valid value(s):

`0x2` = Bad data in equipment configuration database (ECD) for a control unit (CU) or subunit.
`0x4` = Could not access the ECD. Possibly a bad record ID (RID).
`0x6` = Maintenance channel failed.
`0x8` = Could not read the offline mainstore.
`0xA` = A call to the KCONFIG library failed.
`0xC` = Erroneous major state for a CU unit or subunit.
`0xE` = Bad on-line system status register (SSR) value.
`0x10` = Bad off-line SSR value.
`0x12` = Bad on-line hardware status register (HSR) value.
`0x14` = Bad off-line HSR value.
`0x18` = Plant measurement library call failed.
`0x1a` = Audit control library call failed.
`0x1c` = Internal error.
`0x1e` = Off-line store access failed.
`0x20` = Memory audit internal error.
`0x28` = Failure to queue message to the power switch monitor (PSM).
`0x2a` = Expanded main memory (EMM) straps do not match on both CUs.
`0x2c` SSR values inconsistent between CUs.

`b` = Assert number associated with the specific cause of the error. Assert numbers 0x3000 to 0x3fff report an error detected during the CU administrative sequences of the PCPAUD process. Assert numbers 0x4000 to 0x4ffff report errors in calling the PCPAUD process or internal logic errors within the PCPAUD process.

Assert Number	Description
0x4000	Call to ACL aud_minit unsuccessful.
0x4001	Call to ACL aud_finis unsuccessful.
0x4002	PCPAUD was faulted, fault code will be printed in field `a`. Refer to the APP:FAULT-CODE appendix in

	the Appendixes section of the Output Messages manual for type of fault information.
0x4003	Call to ACL aud_finis unsuccessful.
0x4004	Call to ACL aud_error unsuccessful.
0x4005	Call to ACL aud_finis unsuccessful.
0x4006	Call to ACL aud_finis unsuccessful.
0x4007	Call to ACL aud_finis unsuccessful.
0x4008	Call to ACL aud_finis unsuccessful.
0x4009	Call to ACL aud_finis unsuccessful.
0x400a	Neither CUSTAT or CUMEM was selected when PCPAUD was called to run an audit.
0x400b	Call to ECD lla_rdget unsuccessful.
0x400c	CUSTAT memory compare starting address is not on a full word boundary (internal error).
0x400d	Call to PCPAUD memtst did not complete successfully (internal error).
0x400e	Call to PCPAUD memtst did not complete successfully (internal error).
0x400f	Call to PCPAUD memtst did not complete successfully (internal error).
0x4010	CUMEM starting address is not on a full-work boundary (internal error).
0x4011	Call to PCPAUD memtst did not complete successfully (internal error).

4. ACTIONS TO BE TAKEN

Some of the faults reported will be corrected by PCPAUD. For others, there is no readily available means for correcting the problem. If the message persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. Some possible actions to specific error types are listed below.

Fault Type	Action
0x4	Run ECD 1 audit.
0x6	Check maintenance channel cable. Run CC diagnostics. The problem could also be in the online maintenance channel. The problem is serious and should be taken care of as soon as possible.
0xe	Take action on this error only if it occurs repeatedly. Switch CUs, run CU diagnostics.
0x10	Take action on this error only if it occurs repeatedly. Run CU diagnostics.
0x12	Take action on this error only if it occurs repeatedly. Either CU could cause bad value in the audited on-line HSR bits. Run CU diagnostics, switch CUs, run CU diagnostics.
0x14	Take action on this error only if it occurs repeatedly. Either CU could cause bad value in the audited off-line HSR bits. Run CU diagnostics, switch CUs, run CU diagnostics.
0x18	Run plant measurements system (PMS) 1 audit.
0x1e	Run CU diagnostics, switch CUs, run CU diagnostics.
0x2a	Clear EAIs with a poke 14 on the EAI page of the MTTY. Take further action on this error only if it occurs repeatedly. Run CU diagnostics, switch CUs, run CU diagnostics.
0x2c	Take action on this error only if it occurs repeatedly. Either CU could cause inconsistent values between the SSRs. Run CU diagnostics, switch CUs, run CU diagnostics.

5. ALARMS

None.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	430

Input Message(s):

```
AUD:CUMEM
AUD:CUSTAT
```

Output Appendix(es):

```
APP:FAULT-CODE
```

APP:OMDB-X-REF

REPT:PCPAUD-B

Software Release: 5E13 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
REPT PCPAUD FAULT TYPE a ASSERT = b
 [.]
 [.]
 [.]
```

2. REASON FOR OUTPUT

To report an error during the administrative sequences of processor control process audit (PCPAUD) which are run separate from the audit controller or to report internal errors not concerning the audit controller, during CUSTAT or CUMEM.

3. VARIABLE FIELD DEFINITIONS

`a` = Type of fault found.

If the assert number '`b`' is 0x4002. Refer to the APP:FAULT-CODE appendix in the Appendixes section of the Output Messages manual for fault type information.

If the assert number, variable '`b`', is 0x3b02 or 0x3b03, refer to the fault type description for a translation of the fault type, variable '`c`'.

Possible faults (in hexadecimal notation). Valid value(s):

`0x0`	
`0x2`	= Bad data in equipment configuration database (ECD) for a control unit (CU) or subunit.
`0x4`	= Could not access the ECD. Possibly a bad record ID (RID).
`0x6`	= Maintenance channel failed.
`0x8`	= Could not read the offline mainstore.
`0xA`	= A call to the KCONFIG library failed.
`0xC`	= Erroneous major state for a CU unit or subunit.
`0xE`	= Bad on-line system status register (SSR) value.
`0x10`	= Bad off-line SSR value.
`0x12`	= Bad on-line hardware status register (HSR) value.
`0x14`	= Bad off-line HSR value.
`0x18`	= Plant measurement library call failed.
`0x1a`	= Audit control library call failed.
`0x1c`	= Internal error.
`0x1e`	= Off-line store access failed.
`0x20`	= Memory audit internal error.
`0x28`	= Failure to allocate or queue message.
`0x2a`	= Expanded main memory (EMM) straps do not match on both CUs.
`0x2c`	SSR values inconsistent between CUs.
`0x2d`	Failure to attach to ECD or to get ECDORG data.
`0x2e`	Failure is related to pcreating another process.

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`0x2f` Timeout error.

`b` = Assert number associated with the specific cause of the error. Assert numbers 0x3000 to 0x3fff report an error detected during the CU administrative sequences of the PCPAUD process. Assert numbers 0x4000 to 0x4ffff report errors in calling the PCPAUD process or internal logic errors within the PCPAUD process.

Assert Number	Description
0x3000	RID for on-line CU is IDNULL.
0x3001	Call to ECD lla_rdget to get on-line CU UCB unsuccessful
0x3002	On-line CU UCB u_dtype (device type) not DEV_CU.
0x3003	RID for on-line CU is the same as RID for off-line CU.
0x3004	Call to ECD lla_rdget to get off-line CU UCB unsuccessful.
0x3005	Off-line CU UCB u_dtpye (device type) not DEV_CU.
0x3006	Call to ECD lla_rdget to get on-line CU minor device chain table (MDCT) unsuccessful.
0x3007	The MDCT for the on-line CU has too many m_minxt entries. This would indicate that there were more than two CUs.
0x3008	The MDCT for the on-line CU has too many m_minxt entries. This would indicate that there were more than two CUs.
0x300a	MDCT m_minxt[0] does not equal the RID for the on-line or off-line CU.
0x300b	MDCT m_minxt[1] does not equal the RID for the on-line or off-line CU.
0x300c	Call to lla_rdget to read in new ECD org structure is unsuccessful. Will continue to use preceding ECD org data.
0x3100	Maintenance channel (MCH) and update circuit not functional; but other CU UCB u_stat is in standby (STBY) state.
0x3101	Call to kconfig fltdrvr to remove other CU unsuccessful.
0x3102	Call to kconfig chgstate to change off-line CU UCB u_stat to UNAV unsuccessful.
0x3104	Call to kconfig chgstate to change off-line CU UCB u_stat to UNAV unsuccessful.
0x3105	Call to ECD lla_rdget to get off-line CU UCB unsuccessful.
0x3107	Call to ECD chucb to change off-line CU UCBs u_manrqst to ON unsuccessful.
0x3108	Call to kconfig chgstate to change off-line CU UCB u_stat to OOS unsuccessful.
0x3109	Call to ECD chucb to change off-line CU UCBs u_manrqst to OFF unsuccessful.
0x310a	Call to ECD lla_rdget to get off-line CU UCB unsuccessful.
0x3200	Other CU is standby (STBY) but should be unavailable (UNAV).
0x3201	Call to ECD chucb to change off-line CU UCBs u_manrqst to ON unsuccessful.
0x3202	Call to kconfig fltdrvr to remove other CU unsuccessful.
0x3203	Call to kconfig chgstate to change off-line CU UCB u_stat to UNAV unsuccessful.
0x3204	Call to ECD chucb to change off-line CU UCBs u_manrqst to ON unsuccessful.
0x3205	Other CU is out-of-service (OOS) or INIT but should be UNAV.
0x3206	Call to ECD chucb to change off-line CU UCBs u_manrqst to ON unsuccessful.
0x3207	Call to kconfig chgstat to change off-line CU UCB u_stat to UNAV unsuccessful.
0x3208	Call to ECD CHUCB to change off-line CU UCBs u_manrqst to OFF unsuccessful.
0x3209	Call to ECD lla_rdget to get off-line CU UCB unsuccessful.
0x320a	Call to ECD lla_rdget to get on-line CU UCB unsuccessful.
0x320b	Call to ECD lla_uprid to change on-line CU UCB unsuccessful.
0x320c	Call to plant measurements unsuccessful (PL_RDGET_ERROR).
0x320d	Call to plant measurements unsuccessful (PL_RCRT_ERROR).
0x320e	Other CU in UNAV, should be OOS.
0x320f	Call to ECD chucb to change off-line CU UCBs u_manrqst to ON unsuccessful.
0x3210	Call to kconfig chgstate to change off-line CU UCB u_stat to OOS unsuccessful.
0x3211	Call to ECD chucb to change off-line CU UCBs u_manrqst to OFF unsuccessful.
0x3212	Call to ECD lla_rdget to get off-line CU UCB unsuccessful.
0x3213	Call to ECD lla_rdget to get on-line CU UCB unsuccessful.
0x3214	Call to ECD lla_uprid to change on-line CU UCB unsuccessful.
0x3215	Call to plant measurements unsuccessful (PL_RDGET_ERROR).
0x3216	Call to plant measurements unsuccessful (PL_RCRT_ERROR).
0x3217	Call to ECD lla_rdget to get off-line CU UCB unsuccessful.
0x3218	Call to ECD lla_uprid to change off-line CU UCB unsuccessful.
0x3300	Call to clrisc to clear off-line CU intelligent serial controller (ISC) bits unsuccessful [system status register (SSR) bits 4 and 5 - SSR_ISC0 and SSR_ISC1].
0x3301	EMM strap is OFF on the on-line CU.
0x3302	EMM strap is OFF on the off-line CU.
0x3402	Call to ECD lla_rdget to get on-line CU CSU 0 UCB unsuccessful; possibly bad cache RID for on-line CU.
0x3403	Call to ECD lla_uprid to change on-line CU CSU 0 UCB u_bypass to ON unsuccessful.
0x3404	Call to ECD lla_rdget to get off-line CU CSU 0 UCB unsuccessful; possible bad cache RID for off-line

	CU.
0x3405	Call to ECD lla_uprid to change off-line CU CSU 0 UCB u_bypass to ON unsuccessful.
0x3406	Call to ECD lla_rdget to get on-line CU CSU 0 UCB unsuccessful; possibly bad cache RID for on-line CU.
0x3407	Call to ECD lla_uprid to change on-line CU CSU 0 UCB u_bypass to OFF unsuccessful.
0x3408	Call to ECD lla_rdget to get off-line CU CSU 0 UCB unsuccessful. possible pad cache RID for off-line CU.
0x3409	Call to ECD lla_uprid to change off-line CU CSU 0 UCB u_bypass to OFF unsuccessful.
0x340a	Call to ECD lla_rdget to get boot device 0 UCB unsuccessful; possibly bad bdev0 RID.
0x340b	Call to ECD lla_rdget to get boot device 1 UCB unsuccessful; possibly bad bdev1 RID.
0x340c	PCPAUD scoflfbd did not complete successfully.
0x340d	Call to PCPAUD scoflfbd unsuccessful; possibly bad communications to off-line CU. scoflfbd adjusts off-line CU SSR force boot device bits (SSR_FBFP and SSR_FBDS, bits 6 and 7) to select the active boot device, if not forced by EAI.
0x340e	Call to PCPAUD scoflfbd unsuccessful; possibly bad communications of off-line CU. scoflfbd adjusts off-line CU SSR force boot device bits (SSR_FBFP and SSR_FBDS, bits 6 and 7) to select the active boot device, if not forced by EAI.
0x3500	Call to PCPAUD syncrtc unsuccessful; possibly bad communications to off-line CU. syncrtc reads the on-line CU real time clock (RTC) and writes it to the off-line CU RTC.
0x3501	Call to PCPAUD coflpso unsuccessful; possibly bad communications to off-line CU. coflpso reads and clears the periodic scanned options in the off-line CU EAI.
0x3702	Off-line CU is in enable update mode (SSR_UPD bit 19 asserted) or off-line CU is isolating its main store bus from the on-line CU (SSR_ISOU bit 21 asserted in the off-line CU).
0x3704	Call to kconfig fltdrvr to remove other CU unsuccessful.
0x3705	Off-line CU UCB u_stat is STBY, but off-line CU UCB u_update is OFF (not updated) or on-line CU SSR is not in enable update mode (SSR_UPD bit 19 not asserted).
0x3706	Call to kconfig fltdrvr to remove other CU unsuccessful.
0x3707	On-line CU not in enable update mode (SSR_UPD bit 19 not asserted), but off-line CU UCB u_update is ON (updated).
0x3708	Call to ECD chucb to change off-line CU UCBs u_update to NO unsuccessful.
0x3709	Call to kconfig fltdrvr to remove other CU unsuccessful.
0x370a	On-line CU SSR not isolating other (off-line) CU from its main store bus (SSR_ISOU bit 21 not asserted).
0x3901	Call to ECD chucb to change off-line CU UCBs u_manrqst to ON unsuccessful.
0x3902	Call to kconfig chgstate to change off-line CU UCB u_stat to OOS unsuccessful.
0x3903	Call to ECD chucb to change off-line CU UCBs u_manrqst ot OFF unsuccessful.
0x3904	Call to ECD lla_rdget to get off-line CU UCB unsuccessful.
0x3b01	Call to PCPAUD send_pm function failed. Unable to pcreate bootdiskchk process.
0x3b02	Error found in PCPAUD admseq11 audit of the DFC0 side alternate boot disk.
0x3b03	Error found in PCPAUD admseq11 audit of the DFC1 side alternate boot disk.
0x3b04	Call to PCPAUD send_pm function failed. Unable to pcreate bootdiskchk process.

The following errors are errors found in calling the PCPAUD process or internal logic errors within the PCPAUD process. They cannot be reported by means of the audit control library (ACL) and otherwise do not fit any of the other categories.

Assert Number	Description
0x4000	Call to ACL aud_minit unsuccessful.
0x4001	Call to ACL aud_finis unsuccessful.
0x4002	PCPAUD was faulted, fault code will be printed in field `a`. Refer to the APP:FAULT-CODE appendix in the Appendixes section of the Output Messages manual for type of fault information.
0x4003	Call to ACL aud_finis unsuccessful.
0x4004	Call to ACL aud_error unsuccessful.
0x4005	Call to ACL aud_finis unsuccessful.
0x4006	Call to ACL aud_finis unsuccessful.
0x4007	Call to ACL aud_finis unsuccessful.
0x4008	Call to ACL aud_finis unsuccessful.
0x4009	Call to ACL aud_finis unsuccessful.
0x400a	Neither CUSTAT or CUMEM was selected when PCPAUD was called to run an audit.
0x400b	Call to ECD lla_rdget unsuccessful.
0x400c	CUSTAT memory compare starting address is not on a full word boundary (internal error).
0x400d	Call to PCPAUD memtst did not complete successfully (internal error).
0x400e	Call to PCPAUD memtst did not complete successfully (internal error).
0x400f	Call to PCPAUD memtst did not complete successfully (internal error).
0x4010	CUMEM starting address is not on a full-work boundary (internal error).
0x4011	Call to PCPAUD memtst did not complete successfully (internal error).

0x4012	PCPAUD has been unsuccessful in executing its event entry at least 8 times or Call to queuemn unsuccessful (system error). PCPAUD could not return the PSM message to PSM after CU power-up initialization delay.
0x4013	PCPAUD has been unsuccessful in executing its fault entry at least 5 times.
0x4014	Call to queuemn unsuccessful (system error). PCPAUD could not return the PSM message to PSM after CU power-up initialization delay.
0x4015	Call to queuemn unsuccessful (system error). PCPAUD could not return the PSM message to PSM for false CU power-up.
0x4016	Call to ACL aud_finis unsuccessful.
0x4017	PCPAUD received an OST of a type not processed by PCPAUD.
0x4018	Call to lla_iatt unsuccessful (system error).
0x4019	Call to lla_rdget unsuccessful (system error). Unable to read new ECD org structure.
0x401a	PCPAUD received an unexpected event from the IODRV.
0x401b	Call to create a process was unsuccessful.
0x401c	PCPAUD received a message from a non-existent process.
0x401d	Call to lla_iatt unsuccessful (system error).
0x401e	Call to lla_rdget unsuccessful (system error). Unable to read new ECD org structure.
0x401f	Call to alocmsg unsuccessful (system error). PCPAUD could not allocate space for the message to terminate the bootdiskchk process.
0x4020	Call to queuemn unsuccessful (system error). PCPAUD could not queue the message to terminate the bootdiskchk process.
0x4021	Timed out while waiting for results from the bootdiskchk process.
0x4022	Timed out while waiting for results from the bootdiskchk process.
0x4023	Call to lla_rdget unsuccessful (system error). Unable to read ECD btparm structure used with REPT:ECD report.
0xc001000z	Call to lla_rdget failed. Unable to get the MHD UCB for the MHD number in field z.
0xc002000z	Call to lla_rdget failed. Unable to get the SBUS UCB for the MHD number in field z.
0xc003000z	Call to lla_rdget failed. Unable to get the DFC UCB for the MHD number in field z.
0xc004000z	Call to lla_rdget failed. Unable to get the SBUS UCB for the MHD number in field z.
0xc005000z	The SBUS device ID for MHD z did not match that in the SBUS UCB.
0xc006000z	Call to lla_rdget failed. Unable to get the MHD UCB for the MHD number in field z.
0xc007000z	The MHD device ID for MHD z did not match that in the MHD UCB.
0xc008000z	The unit number in the MHD UCB did not match MHD z.

4. ACTIONS TO BE TAKEN

Some of the faults reported will be corrected by PCPAUD. For others, there is no readily available means for correcting the problem. If the message persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. Some possible actions to specific error types are listed below.

Fault Type	Action
0x4, 0x2d	Run ECD 1 audit.
0x6	Check maintenance channel cable. Run CC diagnostics. The problem could also be in the online maintenance channel. The problem is serious and should be taken care of as soon as possible.
0xe	Take action on this error only if it occurs repeatedly. Switch CUs, run CU diagnostics.
0x10	Take action on this error only if it occurs repeatedly. Run CU diagnostics.
0x12	Take action on this error only if it occurs repeatedly. Either CU could cause bad value in the audited on-line HSR bits. Run CU diagnostics, switch CUs, run CU diagnostics.
0x14	Take action on this error only if it occurs repeatedly. Either CU could cause bad value in the audited off-line HSR bits. Run CU diagnostics, switch CUs, run CU diagnostics.
0x18	Run plant measurements system (PMS) 1 audit.
0x1e	Run CU diagnostics, switch CUs, run CU diagnostics.
0x2a	Clear EAIs with a poke 14 on the EAI page of the MTTY. Take further action on this error only if it occurs repeatedly. Run CU diagnostics, switch CUs, run CU diagnostics.
0x2c	Take action on this error only if it occurs repeatedly. Either CU could cause inconsistent values between the SSRs. Run CU diagnostics, switch CUs, run CU diagnostics.

5. ALARMS

None.

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6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	430

Input Message(s):

```
AUD:CUMEM
AUD:CUSTAT
```

Output Appendix(es):

```
APP:FAULT-CODE
APP:OMDB-X-REF
```

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REPT:PCPMD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT PCPMD FAULT TYPE a UNIT = b ASSERT  = c

[2]   ____________________________________________________________________
      REPT PCPMD FAULT TYPE a INACCESSIBLE RID = d ASSERT  = c
```

2. REASON FOR OUTPUT

To report an error condition in the processor control process maintenance driver (PCPMD). Format 1 is printed whenever the name of the unit can be determined. If not, Format 2 is printed.

3. VARIABLE FIELD DEFINITIONS

`a` = Fault type. Valid value(s):

- `BOFL` = Maintenance channel (MCH) buffer overflow.
- `ECDA` = Equipment configuration database (ECD) access problem.
- `EMCH` = Incorrect number of MCH orders executed.
- `EONL` = Bad return from on-line diagnostic.
- `ESIM` = Could not fault system integrity monitor (SIM).
- `IARG` = Invalid argument.
- `IDCP` = PCPMD internal error.
- `SPRC` = Slave processor.
- `WAKE` = Supervisor wakeup failed.

`b` = Unit name.

`c` = Identification number (ASSERT number) of the FAULT in PCPMD.

`d` = Record ID (RID) of the unit control block (UCB) record in the ECD.

4. ACTION TO BE TAKEN

Consider bootstrapping for fault type ECDA. For other cases, save a copy of the output message and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):

1	432
2	431

Output Appendix(es):

APP:OMDB-X-REF

REPT:PCTDX-TBTF

Software Release: 5E14 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT PCTDX=a-b-c d TRBL BACKGROUND TEST FAILURE EVENT=e
  f RECOVERY ACTION g
  hhhhiiii jjjjkkkk llllmmmm nnnnoooo
  PCTDX=a-b-c p q
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within the switching module (SM) caused by failure in the PDXU. The message indicates what recovery action was taken and gives the current fault counts against the circuit specified in the message. Refer to variable '`g`' to determine the effect the fault recovery had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = Switch module (SM) number.

`b` = Peripheral control and riming data eXchanger unit (PDXU) number.

`c` = Peripheral control and riming data eXchanger (PCTDX) number.

`d` = Peripheral control and riming data eXchanger (PCTDX) status. Valid value(s):

`ACTIVE` = The PCTDX is in-service and a fault has been detected.

`e` = Event number.

`f` = Error type. Valid value(s):

`PCT LOOP BACK FAIL SMP TO CD` = PCTDX loop back word failure.

`g` = Recovery action. Valid value(s):

`RST PREEMPT` = The failing circuit was preempted, restored, and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Hexadecimal dump containing message type.

`i` = Hexadecimal dump containing circuits name.

`j` = Hexadecimal dump containing high level error type.

`k` = Hexadecimal dump containing PCTDX circuit name.

`l` = Hexadecimal dump containing TSI link number.

`m` = Hexadecimal dump containing miscellaneous data.

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`n` = Hexadecimal dump containing miscellaneous data.

`o` = Hexadecimal dump containing miscellaneous data.

`p` = Number of recent failures of this error type.

`q` = Error count threshold equal to or above which the recovery action will be escalated.

4. ACTIONS TO BE TAKEN

None. Fault recovery automatically requests a conditional restore on the circuit when the error threshold is met. Subsequent DGN:PCTDX and RST:PCTDX messages indicate success or failure of diagnostic when recovery action is '`RST PREEMPT`'.

5. ALARMS

Critical alarm only if both PCTDX's on a PDXU are out-of-service.

6. REFERENCES

Output Message(s):

```
DGN:PCTDX
RMV:PCTDX
RST:PCTDX
```

Output Appendix(es):

```
APP:MAINT-RESP
```

MCC Display Page(s):

1330,Y (Y PDXU)

REPT:PCTDX-TPE

Software Release: 5E14 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT PCTDX=a-b-c d TRBL PLI ERROR EVENT=e
  f RECOVERY ACTION g
  hhhhiiii jjjjkkkk llllmmmm nnnnoooo ppppqqqq
  PCTDX=a-b-c r s
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within the switching module (SM) caused by failure in the PDXU. The message indicates what recovery action was taken and gives the current fault counts against the circuit specified in the message. Refer to variable '`g`' to determine the effect the fault recovery had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = Switch module (SM) number.

`b` = Peripheral control and timing data eXchanger unit (PDXU) number.

`c` = Peripheral control and timing data eXchanger (PCTDX) number.

`d` = Peripheral control and timing data eXchanger (PCTDX) status. Valid value(s):

`ACTIVE` = The PCTDX is in-service and a fault has been detected.

`e` = Event number.

`f` = Error type. Valid value(s):

`IF LOSS OF CLOCK REFERENCE` = PLI has detected loss of clock.

`IF SYNCHRONIZATION ERROR WITH PLI` = PLI cannot synchronize with IF.

`IF LOSS OF CLOCK FROM THE PLI` = IF has detected loss of clock.

`IF PAR ERR ON OVERHEAD BYTES FROM PLI` = IF has detected bad parity on the overhead bytes.

`PLI BAD PARITY INCOM OVERHEAD BYTES` = PLI has detected bad parity on the overhead bytes.

`IF CRC ERR ON DATA RECEIVED FROM PLI` = IF has detected bad CRC.

`PLI LINK TO BE OUT-OF-FRAME` = PLI cannot frame up.

`PLI BAD SUPERFRAME ON INCOMING LINK` = PLI cannot frame up on superframe.

`PLI BAD FRAME WORD ON INCOMING LINK` = PLI has detected a bad fram word.

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`PLI OUTGOING BUFFER CHECK ERROR` = PLI failed outgoing buffer check.

`PLI INTERNAL DATA PARITY ERROR` = PLI has detected bad internal parity.

`PLI PARITY ERRORS ON DATA FROM CD` = PLI has detected parity errors from far end.

`PLI IS SOURCING BAD CRC` = Far end is reporting bad CRC.

`PLI DETECTED BAD CRC FROM ACTIVE MCTSI` = PLI detected bad CRC from the active MCTSI side.

`PLI IMPICATED BY BACKGROUND CHECK` = Background test failure has implicated the PLI.

`NO ERROR SOURCE FOUND` = No error reported with the interupt.

`g` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = This recovery action applies to all circuits and all errors. A particular circuit or circuits are failing, but the error counts have not reached a threshold for action.

`INHIBIT HDWCHKS` = The circuit has been inhibited because of excessive errors.

`NO RECOVERY ACTION TAKEN` = This event needed no recovery action.

`RE-INHIBIT ERROR` = The circuit has been inhibited and errors are still detected. Inhibit has been re-applied on the PCTDX circuit.

`RST PREEMPT` = The failing circuit was preempted, restored, and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Hexadecimal dump containing the highlevel upper bytes of the IF error source.

`i` = Hexadecimal dump containing the highlevel lower bytes of the IF error source.

`j` = Hexadecimal dump containing the highlevel upper bytes of the IF error mask.

`k` = Hexadecimal dump containing the highlevel lower bytes of the IF error mask.

`l` = Hexadecimal dump containing the PLI error source.

`m` = Hexadecimal dump containing the PLI error mask.

`n` = Hexadecimal dump containing the internal message type.

`o` = Hexadecimal dump containing the number of PLI entries passed.

`p` = Hexadecimal dump containing miscellaneous data.

`q` = Hexadecimal dump containing miscellaneous data.

`r` = Number of recent failures of this error type.

`s` = Error count threshold equal to or above which the recovery action will be escalated.

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4. ACTIONS TO BE TAKEN

None. Fault recovery automatically requests a conditional restore on the circuit when the error threshold is met. Subsequent DGN:PCTDX and RST:PCTDX messages indicate success or failure of diagnostic when recovery action is '`RST PREEMPT`'.

5. ALARMS

Critical alarm only if both PCTDX's on a PDXU are out-of-service .

6. REFERENCES

Output Message(s):

```
DGN:PCTDX
RMV:PCTDX
RST:PCTDX
```

Output Appendix(es):

```
APP:MAINT-RESP
```

MCC Display Page(s):

1330,Y (Y PDXU)

REPT:PCTDX-TPLCF

Software Release: 5E14 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT PCTDX=a-b-c d TRBL PCT LINK COMMUNICATION FAULT EVENT=e
  f RECOVERY ACTION g
  hhhhiiii jjjjkkkk llllmmmm nnnnoooo
  PCTDX=a-b-c p q
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within the switching module (SM) caused by failure in the PDXU. The message indicates what recovery action was taken and gives the current fault counts against the circuit specified in the message. Refer to variable '`g`' to determine the effect the fault recovery had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = Switch module (SM) number.

`b` = Peripheral control and timing data eXchanger unit (PDXU) number.

`c` = Peripheral control and timing data eXchanger (PCTDX) number.

`d` = Peripheral control and timing data eXchanger (PCTDX) status. Valid value(s):

`ACTIVE` = The PCTDX is in-service and a fault has been detected.

`e` = Event number.

`f` = Error type. Valid value(s):

`PCT LOOP BACK FAIL SMP TO CD` = The loop back test failed on this PCTDX.

`CD OUT-OF-FRAME ERR` = The PCTDX has detected an out-of-frame condition.

`CD LINK CRC ERR` = The PCTDX has detected an CRC error.

`NO ERROR SOURCE FOUND` = The PCTDX found no error source.

`g` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = This recovery action applies to all circuits and all errors. A particular circuit or circuits are failing, but the error counts have not reached a threshold for action.

`NO RECOVERY ACTION TAKEN` = This event needed no recovery action.

`RE-INHIBIT ERROR` = The circuit has been inhibited and errors are still detected. Inhibit has been re-applied on the PCTDX circuit.

`RST PREEMPT` = The failing circuit was preempted, restored, and a diagnostic was scheduled. A

message will be printed with the results of the diagnostic.

`h-o` = Hexadecimal dumps containing data. The size of the dump will vary.

`p` = Number of recent failures of this error type.

`q` = Error count threshold equal to or above which the recovery action will be escalated.

4. ACTIONS TO BE TAKEN

None. Fault recovery automatically requests a conditional restore on the circuit when the error threshold is met. Subsequent DGN:PCTDX and RST:PCTDX messages indicate success or failure of diagnostic when recovery action is '`RST PREEMPT`'.

5. ALARMS

Critical alarm only if both PCTDX's on a PDXU are out-of-service .

6. REFERENCES

Output Message(s):

```
DGN:PCTDX
RMV:PCTDX
RST:PCTDX
```

Output Appendix(es):

```
APP:MAINT-RESP
```

MCC Display Page(s):

1330,Y (Y PDXU)

REPT:PCTF-A

Software Release: 5E10 only
Message Class: PCTFRCF,PCTFINDV, SCCS
Application: 5
Type: Output

1. FORMAT

```
REPT PCTF [a] b DN c[-d][f][+] e [MLHG=s-t] [u]
```

2. REASON FOR OUTPUT

To report per-call test failures (PCTFs) that occur on lines during call set-ups.

The output message generated in response to a PCTF occurrence depends on whether the PCTF verbose mode is inhibited (INH:PCTF) or allowed (ALW:PCTF) on the switching module (SM) where the PCTF occurred. On an SM which has the PCTF verbose mode inhibited, only the first and tenth PCTF occurrences of a given type on a line will be reported daily. The first PCTF occurrence will result in a "REPT PCTF FIRST" output message, and the tenth PCTF occurrence will result in a "REPT PCTF TENTH" output message. An SM which has the PCTF verbose mode allowed will generate a REPT:PCTF report for each occurrence. This applies to all the PCTFs except the TOUCH-TONE fraud (TTF) PCTF.

The ring continuity failure (RCF) PCTF uses a separate message class PCTFRCF (classdef 85). The default for this class is DAYLOG. The routing can be changed to go to the equipment configuration database (ECD) destinations using the CHG:LPS-MSGCLS input message. The default ECD destinations for this message class are Switching Control Center System (SCCS) and repair service bureau (RSB). The receive-only printer (ROP) can be added as a destination if the REPT:PCTF message needs to be printed on the ROP. Having a separate message class for RCF PCTF gives the user the provision to turn off the RCF PCTFs from printing especially as the RCF PCTFs sometimes can be in large numbers.

All PCTFs except the RCF and the TTF PCTF use the message class PCTFINDV (classdef 86), whose default destination is DAYLOG.

The reporting of TTF failures is slightly different from the other PCTF types in that all TTF failures are always reported, even when the PCTF verbose mode is inhibited. TTF failures use the SCCS message class (classdef 174).

3. VARIABLE FIELD DEFINITIONS

`DN` = Directory number.

`ILEN` = Integrated digital carrier unit (IDCU) line equipment number.

`LCEN` = Integrated services line card equipment number.

`LEN` = Line unit equipment number.

`SLEN` = *SLC*® line equipment number.

`LUHLSC` = Line unit HLSC identification of the HLSC involved with this occurrence of the per-call test. The HLSC is not identified for per-call test failures for which an HLSC is not associated at the time of the failure.

`ISLUHLSC` = ISLU high level service circuit (HLSC) identification of the HLSC involved with this occurrence of the per-call test. The HLSC is not identified for per-call test failures for which an HLSC is not

associated at the time of the failure.

`MLHG` = Multi-line hunt group identification of the line.

`+` = Indicates the line is a party line.

`a` = Specific PCTF incident for which this report was generated. Used only when the PCTF verbose mode is inhibited on the SM where the PCTF occurred. Valid value(s):

- `FIRST` = First occurrence of this type of fault today.
- `TENTH` = Tenth occurrence of this type of fault today.

`b` = PCTF type. Valid value(s):

- `LLR` = Low line resistance failure.
- `LSS` = Line security scan failure.
- `PX` = Power cross failure.
- `RCF` = Ringing continuity failure.
- `RVF` = Restore and verify failure.
- `TTF` = TOUCH-TONE fraud failure.

`c` = Telephone number.

`d` = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

`e` = Valid value(s):

```
ILEN f r p q
LCEN f g h i
LEN f j k l m n
SLEN f o p q
```

`f` = SM number.

`g` = Integrated services line unit (ISLU) number.

`h` = Line group number.

`i` = Line card number.

`j` = Line unit number.

`k` = Grid number.

`l` = Switch board number (LU1, LU2, LU3) or half grid number (LU4).

`m` = Switch number.

`n` = Level number.

`o` = Digital carrier line unit.

`p` = Remote terminal (RT) number.

`q` = RT line number.

`r` = IDCU number.

`s` = Multi-line hunt group number.

`t` = Multi-line hunt member number.

`u` = Valid value(s):

```
ISLUHLSC f g v w
LUHLSC f j v w
```

`v` = Service group number.

`w` = HLSC number.

4. ACTION TO BE TAKEN

This message is intended to be used for analysis purposes to detect problems associated with individual lines.

Power cross (PX) failures indicate the existence of a dangerous voltage present on the line and should be investigated promptly.

RCF indicate that the line appeared as a DC open when trying to ring the line. This could be caused by a cut loop and should be investigated if a large number of RCF suddenly begin occurring, since this could indicate a cut cable. Normally, an RCF simply indicates that an individual phone has been disconnected at the customer's premises, and should be ignored.

A TTF failure indicates that a TOUCH-TONE phone has been used on a line that is not marked as a TOUCH-TONE line. TTF's should be handled according to local practice.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PCTF
CHG:LPS-MSGCLS
INH:PCTF
OP:LOG
OP:PCTF
```

Output Message(s):

```
ALW:PCTF
INH:PCTF
OP:PCTF
REPT:PCTF-SUMMARY
```

Other Manual(s):

235-105-220 *Corrective Maintenance*

REPT:PCTF-B

Software Release: 5E11 only
Message Class: PCTFRCF,PCTFINDV, SCCS
Application: 5
Type: Output

1. FORMAT

```
REPT PCTF [a] b DN c[-d][f][+] e [MLHG=s-t] [u]
```

2. REASON FOR OUTPUT

To report per-call test failures (PCTFs) that occur on lines during call set-ups.

The output message generated in response to a PCTF occurrence depends on whether the PCTF verbose mode is inhibited (INH:PCTF) or allowed (ALW:PCTF) on the switching module (SM) where the PCTF occurred. On an SM which has the PCTF verbose mode inhibited, only the first and tenth PCTF occurrences of a given type on a line will be reported daily. The first PCTF occurrence will result in a "REPT PCTF FIRST" output message, and the tenth PCTF occurrence will result in a "REPT PCTF TENTH" output message. An SM which has the PCTF verbose mode allowed will generate a REPT:PCTF report for each occurrence. This applies to all the PCTFs except the TOUCH-TONE fraud (TTF) PCTF.

The ring continuity failure (RCF) PCTF uses a separate message class PCTFRCF (classdef 85). The default for this class is DAYLOG. The routing can be changed to go to the equipment configuration database (ECD) destinations using the CHG:LPS-MSGCLS input message. The default ECD destinations for this message class are switching control center system (SCCS) and repair service bureau (RSB). The receive-only printer (ROP) can be added as a destination if the REPT:PCTF message needs to be printed on the ROP. Having a separate message class for RCF PCTF gives the user the provision to turn off the RCF PCTFs from printing especially as the RCF PCTFs sometimes can be in large numbers.

All PCTFs except the RCF and the TTF PCTF use the message class PCTFINDV (classdef 86), whose default destination is DAYLOG.

The reporting of TTF failures is slightly different from the other PCTF types in that all TTF failures are always reported, even when the PCTF verbose mode is inhibited. TTF failures use the SCCS message class (classdef 174).

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`+` = Indicates the line is a party line.

`a` = Specific PCTF incident for which this report was generated. Used only when the PCTF verbose mode is inhibited on the SM where the PCTF occurred. Valid value(s):

`FIRST`	= First occurrence of this type of fault today.
`TENTH`	= Tenth occurrence of this type of fault today.

`b` = PCTF type. Valid value(s):

`LLR`	= Low line resistance failure.
`LSS`	= Line security scan failure.
`PX`	= Power cross failure.

RCF = Ringing continuity failure.
RVF = Restore and verify failure.
TTF = TOUCH-TONE fraud failure.

c = Telephone number.

d = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

e = Valid value(s):
AIUEN f x y z
ILEN f r p q
LCEN f g h i
LEN f j k l m n
SLEN f o p q

f = SM number.

g = Integrated services line unit (ISLU) number. The HLSC is not identified for per-call test failures for which an HLSC is not associated at the time of the failure.

h = Line group number.

i = Line card number.

j = Line unit number.

k = Grid number.

l = Switch board number (LU1, LU2, or LU3).

m = Switch number.

n = Level number.

o = Digital carrier line unit.

p = Remote terminal (RT) number.

q = RT line number.

r = IDCU number.

s = Multi-line hunt group number.

t = Multi-line hunt member number.

u = Valid value(s):
ISLUHLSC f g v w
LUHLSC f j v w

v = Service group number.

w = HLSC number. The HLSC is not identified for per-call test failures for which an HLSC is not associated at the time of the failure.

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x = Access interface unit equipment number.

y = AIU pack number.

z = AIU circuit number.

4. ACTION TO BE TAKEN

This message is intended to be used for analysis purposes to detect problems associated with individual lines.

Power cross (PX) failures indicate the existence of a dangerous voltage present on the line and should be investigated promptly.

RCF indicate that the line appeared as a DC open when trying to ring the line. This could be caused by a cut loop and should be investigated if a large number of RCF suddenly begin occurring, since this could indicate a cut cable. Normally, an RCF simply indicates that an individual phone has been disconnected at the customer's premises, and should be ignored.

A TTF failure indicates that a TOUCH-TONE phone has been used on a line that is not marked as a TOUCH-TONE line. TTF's should be handled according to local practice.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PCTF
CHG:LPS-MSGCLS
INH:PCTF
OP:LOG
OP:PCTF
```

Output Message(s):

```
ALW:PCTF
INH:PCTF
OP:PCTF
REPT:PCTF-SUMMARY
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:PCTF-C

Software Release: 5E12 and later
Message Class: PCTFRCF,PCTFINDV, SCCS
Application: 5
Type: Output

1. FORMAT

```
REPT PCTF [a] b DN c[-d][f][+] e [MLHG=s-t] [u]
```

2. REASON FOR OUTPUT

To report per-call test failures (PCTFs) that occur on lines during call set-ups.

The output message generated in response to a PCTF occurrence depends on whether the PCTF verbose mode is inhibited (INH:PCTF) or allowed (ALW:PCTF) on the switching module (SM) where the PCTF occurred. On an SM which has the PCTF verbose mode inhibited, only the first and tenth PCTF occurrences of a given type on a line will be reported daily. The first PCTF occurrence will result in a "REPT PCTF FIRST" output message, and the tenth PCTF occurrence will result in a "REPT PCTF TENTH" output message. An SM which has the PCTF verbose mode allowed will generate a REPT:PCTF report for each occurrence. This applies to all the PCTFs except the TOUCH-TONE fraud (TTF) PCTF.

The ring continuity failure (RCF) PCTF uses a separate message class PCTFRCF (classdef 85). The default for this class is DAYLOG. The routing can be changed to go to the equipment configuration database (ECD) destinations using the CHG:LPS-MSGCLS input message. The default ECD destinations for this message class are switching control center system (SCCS) and repair service bureau (RSB). The receive-only printer (ROP) can be added as a destination if the REPT:PCTF message needs to be printed on the ROP. Having a separate message class for RCF PCTF gives the user the provision to turn off the RCF PCTFs from printing especially as the RCF PCTFs sometimes can be in large numbers.

All PCTFs except the RCF and the TTF PCTF use the message class PCTFINDV (classdef 86), whose default destination is DAYLOG.

The reporting of TTF failures is slightly different from the other PCTF types in that all TTF failures are always reported, even when the PCTF verbose mode is inhibited. TTF failures use the SCCS message class (classdef 174).

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`+` = Indicates the line is a party line.

`a` = Specific PCTF incident for which this report was generated. Used only when the PCTF verbose mode is inhibited on the SM where the PCTF occurred. Valid value(s):

`FIRST`	= First occurrence of this type of fault today.
`TENTH`	= Tenth occurrence of this type of fault today.

`b` = PCTF type. Valid value(s):

`LLR`	= Low line resistance failure.
`LSS`	= Line security scan failure.
`PX`	= Power cross failure.

RCF = Ringing continuity failure.
RVF = Restore and verify failure.
TTF = TOUCH-TONE fraud failure.

c = Telephone number.

d = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

e = Valid value(s):
AIUEN f x y z
ILEN f r p q
INEN f a[1] p q
LCEN f g h i
LEN f j k l m n
SLEN f o p q

f = SM number.

g = Integrated services line unit (ISLU) number. The HLSC is not identified for per-call test failures for which an HLSC is not associated at the time of the failure.

h = Line group number.

i = Line card number.

j = Line unit number.

k = Grid number.

l = Switch board number (LU1, LU2, or LU3).

m = Switch number.

n = Level number.

o = Digital carrier line unit.

p = Remote terminal (RT) number.

q = RT line number.

r = IDCU number.

s = Multi-line hunt group number.

t = Multi-line hunt member number.

u = Valid value(s):
ISLUHLSC f g v w
LUHLSC f j v w

v = Service group number.

w = HLSC number. The HLSC is not identified for per-call test failures for which an HLSC is not

associated at the time of the failure.

`x` = Access interface unit equipment number.

`y` = AIU pack number.

`z` = AIU circuit number.

`a`[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

4. ACTION TO BE TAKEN

This message is intended to be used for analysis purposes to detect problems associated with individual lines.

Power cross (PX) failures indicate the existence of a dangerous voltage present on the line and should be investigated promptly.

RCF indicate that the line appeared as a DC open when trying to ring the line. This could be caused by a cut loop and should be investigated if a large number of RCF suddenly begin occurring, since this could indicate a cut cable. Normally, an RCF simply indicates that an individual phone has been disconnected at the customer's premises, and should be ignored.

A TTF failure indicates that a TOUCH-TONE phone has been used on a line that is not marked as a TOUCH-TONE line. TTF's should be handled according to local practice.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:PCTF
CHG:LPS-MSGCLS
INH:PCTF
OP:LOG
OP:PCTF
```

Output Message(s):

```
ALW:PCTF
INH:PCTF
OP:PCTF
REPT:PCTF-SUMMARY
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:PCTF-SUMMARY-A

Software Release: 5E10 only
Message Class: PCTFSUM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT PCTF SUMMARY SEGMENT a b
                                        LLR LSS  PX RCF RVF TTF
       [[DNc[-d][+]] [e]   t   t   t   t   t   t]
                        .           .
                        .           .
                        .           .

[2]   ____________________________________________________________________
      REPT PCTF SUMMARY - DATA FROM THE FOLLOWING SM's WAS NOT REPORTED
        u  [u]  [u]  [u]  [u]  [u]  [u]  [u]
                                  .
                                  .
                                  .
```

2. REASON FOR OUTPUT

To periodically print a summary list of all per-call test failures (PCTFs). Each port or high-level service circuit (HLSC) identified in the summary (Format 1) has been implicated in at least one PCTF occurrence since the last automatic PCTF summary was generated. The list, if long, will be broken into segments.

The interval for PCTF summary reports generation is specified on the RC/V 8.1, field number 137 (office parameters view). Refer to the Recent Change manuals for further information.

Format 2 identifies switching modules (SMs) that were not reported in the associated REPT:PCTF-SUMMARY output because they could not be queried for PCTF data.

3. VARIABLE FIELD DEFINITIONS

`DN` = Directory number.

`ILEN` = Integrated digital carrier unit (IDCU) line equipment number.

`LCEN` = Integrated services line card equipment number.

`LEN` = Line unit equipment number.

`SLEN` = *SLC*® line equipment number.

`LLR` = Low line-resistance failures.

`LUHLSC` = Line unit HLSC. The summary counts indicate the number of PCTF occurrences that involved the identified HLSC.

`ISLUHLSC` = ISLU high-level service circuit (HLSC). The summary counts indicate the number of PCTF occurrences that involved the identified HLSC.

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`LSS` = Line security scan failures.

`PX` = Power cross failures.

`RCF` = Ringer continuity failures.

`RFV` = Restore and verify failures.

`TTF` = TOUCH-TONE fraud failures.

`+` = Indicates the line is a party line.

`a` = Segment number of this segment of the list. Segments are numbered sequentially starting from 1.

`b` = Completion report. Valid value(s):

- `COMPLETED` = All the PCTF information has been output.
- `CONTINUED` = Identifies second and subsequent segments of a list that was too long to be printed in a single segment.
- `NO PCTFS` = No per-call test failures have occurred since the previous periodic report was generated.
- `STARTED` = Indicates the first segment in the list. This does not necessarily imply that additional segments will be required.
- `STOPPED` = The list was stopped by manual action.
- `SYSTEM ERROR` = An unspecified internal system error occurred which prevented further processing.

`c` = Telephone number of the line.

`d` = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

`e` = Valid value(s):

```
ILEN f v p q
LCEN f g h i
LEN f j k l m n
SLEN f o p q
LUHLSC f j r s
ISLUHLSC f g r s
```

`f` = SM number.

`g` = Integrated services line unit (ISLU) number.

`h` = Line group number.

`i` = Line card number.

`j` = Line unit number.

`k` = Grid number.

`l` = Switch board number (LU1, LU2, LU3) or half grid number (LU4).

`m` = Switch number.

n = Level number.

o = Digital carrier line unit.

p = Remote terminal (RT).

q = RT line.

r = Service group number.

s = HLSC number.

t = The number of occurrences of a given PCTF type.

u = SM number for which PCTF data could not be obtained.

v = IDCU number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PCTF
```

Output Message(s):

```
OP:PCTF
```

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-105-220 *Corrective Maintenance*
235-105-210 *Routine Operations and Maintenance*
235-118-25x *Recent Change Procedures*
235-118-25x *Recent Change Reference*

REPT:PCTF-SUMMARY-B

Software Release: 5E11 only
Message Class: PCTFSUM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT PCTF SUMMARY SEGMENT a b
                                        LLR LSS  PX RCF RVF TTF
       [[DNc[-d][+]] [e]   t   t   t   t   t   t]
                        .            .
                        .            .
                        .            .

[2]   ____________________________________________________________________
      REPT PCTF SUMMARY - DATA FROM THE FOLLOWING SM's WAS NOT REPORTED
        u  [u]  [u]  [u]  [u]  [u]  [u]  [u]
                                  .
                                  .
                                  .
```

2. REASON FOR OUTPUT

To periodically print a summary list of all per-call test failures (PCTFs). Each port or high-level service circuit (HLSC) identified in the summary (Format 1) has been implicated in at least one PCTF occurrence since the last automatic PCTF summary was generated. The list, if long, will be broken into segments.

The interval for PCTF summary reports generation is specified on the RC/V 8.1, field number 137 (office parameters view). Refer to the Recent Change manuals for further information.

Format 2 identifies switching modules (SMs) that were not reported in the associated REPT:PCTF-SUMMARY output because they could not be queried for PCTF data.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`+` = Indicates the line is a party line.

`a` = Segment number of this segment of the list. Segments are numbered sequentially starting from 1.

`b` = Completion report. Valid value(s):

- `COMPLETED` = All the PCTF information has been output.
- `CONTINUED` = Identifies second and subsequent segments of a list that was too long to be printed in a single segment.
- `NO PCTFS` = No per-call test failures have occurred since the previous periodic report was generated.
- `STARTED` = Indicates the first segment in the list. This does not necessarily imply that additional segments will be required.
- `STOPPED` = The list was stopped by manual action.
- `SYSTEM ERROR` = An unspecified internal system error occurred which prevented further

processing.

c = Telephone number of the line.

d = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

e = Valid value(s):

```
AIUEN f w x y
ILEN f v p q
ISLUHLSC f g r s
LCEN f g h i
LEN f j k l m n
LUHLSC f j r s
SLEN f o p q
```

f = SM number.

g = Integrated services line unit (ISLU) number. The summary counts indicate the number of PCTF occurrences that involved the identified HLSC.

h = Line group number.

i = Line card number.

j = Line unit number.

k = Grid number.

l = Switch board number (LU1, LU2, or LU3).

m = Switch number.

n = Level number.

o = Digital carrier line unit.

p = Remote terminal (RT).

q = RT line.

r = Service group number.

s = HLSC number. The summary counts indicate the number of PCTF occurrences that involved the identified HLSC.

t = The number of occurrences of a given PCTF type.

u = SM number for which PCTF data could not be obtained.

v = IDCU number.

w = Access interface unit equipment number.

x = AIU pack number.

`y` = AIU circuit number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PCTF
```

Output Message(s):

```
OP:PCTF
```

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-105-220 *Corrective Maintenance*
235-105-210 *Routine Operations and Maintenance*
235-118-25x *Recent Change Procedures*
235-118-25x *Recent Change Reference*

REPT:PCTF-SUMMARY-C

Software Release: 5E12 and later
Message Class: PCTFSUM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT PCTF SUMMARY SEGMENT a b
                                        LLR LSS  PX RCF RVF TTF
       [[DNc[-d][+]] [e]   t   t   t   t   t   t]
                        .            .
                        .            .
                        .            .

[2]   ____________________________________________________________________
      REPT PCTF SUMMARY - DATA FROM THE FOLLOWING SM's WAS NOT REPORTED
        u  [u]  [u]  [u]  [u]  [u]  [u]  [u]
                                  .
                                  .
                                  .
```

2. REASON FOR OUTPUT

To periodically print a summary list of all per-call test failures (PCTFs). Each port or high-level service circuit (HLSC) identified in the summary (Format 1) has been implicated in at least one PCTF occurrence since the last automatic PCTF summary was generated. The list, if long, will be broken into segments.

The interval for PCTF summary reports generation is specified on the RC/V 8.1, field number 137 (office parameters view). Refer to the Recent Change manuals for further information.

Format 2 identifies switching modules (SMs) that were not reported in the associated REPT:PCTF-SUMMARY output because they could not be queried for PCTF data.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`+` = Indicates the line is a party line.

`a` = Segment number of this segment of the list. Segments are numbered sequentially starting from 1.

`b` = Completion report. Valid value(s):

- `COMPLETED` = All the PCTF information has been output.
- `CONTINUED` = Identifies second and subsequent segments of a list that was too long to be printed in a single segment.
- `NO PCTFS` = No per-call test failures have occurred since the previous periodic report was generated.
- `STARTED` = Indicates the first segment in the list. This does not necessarily imply that additional segments will be required.
- `STOPPED` = The list was stopped by manual action.
- `SYSTEM ERROR` = An unspecified internal system error occurred which prevented further

processing.

c = Telephone number of the line.

d = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

e = Valid value(s):

```
AIUEN f w x y
ILEN f v p q
INEN f z p q
ISLUHLSC f g r s
LCEN f g h i
LEN f j k l m n
LUHLSC f j r s
SLEN f o p q
```

f = SM number.

g = Integrated services line unit (ISLU) number. The summary counts indicate the number of PCTF occurrences that involved the identified HLSC.

h = Line group number.

i = Line card number.

j = Line unit number.

k = Grid number.

l = Switch board number (LU1, LU2, or LU3).

m = Switch number.

n = Level number.

o = Digital carrier line unit.

p = Remote terminal (RT).

q = RT line.

r = Service group number.

s = HLSC number. The summary counts indicate the number of PCTF occurrences that involved the identified HLSC.

t = The number of occurrences of a given PCTF type.

u = SM number for which PCTF data could not be obtained.

v = IDCU number.

w = Access interface unit equipment number.

`y` = AIU circuit number.

`z` = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PCTF
```

Output Message(s):

```
OP:PCTF
```

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-105-220	*Corrective Maintenance*
235-105-210	*Routine Operations and Maintenance*
235-118-25x	*Recent Change Procedures*
235-118-25x	*Recent Change Reference*

REPT:PDERR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT:PDERR a b [c d]
```

2. REASON FOR OUTPUT

To indicate that a manual power down request was denied because the specified unit (MICU, MHD, PDF, etc.) unit was in service.

3. VARIABLE FIELD DEFINITIONS

a	= Unit name.
b	= Unit number.
c	= Subunit name.
d	= Subunit number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

A critical or major alarm occurs.

6. REFERENCES

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REPT:PERIPH-FARS

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT PERIPHERY FUSE ALARM RETIRED SM a b
```

2. REASON FOR OUTPUT

To report that the fuse alarm on the specified module controller/time-slot interchange (MCTSI) power bus has cleared.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = MCTSI number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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REPT:PERIPH-FAS

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT PERIPHERY FUSE ALARM SM a b
```

2. REASON FOR OUTPUT

To report a periphery fuse alarm in the specified module controller/time-slot interchange (MCTSI) power bus.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = MCTSI number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

A major alarm occurs.

6. REFERENCES

Input/Output Messages:

None.

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REPT:PHASE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT PHASE a IN PROGRESS
```

2. REASON FOR OUTPUT

To report the occurrence of a system phase.

3. VARIABLE FIELD DEFINITIONS

a = Phase level number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

Major alarm. May not be service affecting, but take immediate action as indicated in the report.

Critical alarm. Take immediate action as indicated in the report. If needed, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	246
2 - 4	166

Output Appendix(es):

APP:OMDB-X-REF

REPT:PLDMON-ERROR

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]  ____________________________________________________________________
     REPT PLDMON ERROR a ERRNO b

[2]  ____________________________________________________________________
     REPT PLDMON ERROR a UNIT c d
```

2. REASON FOR OUTPUT

To report errors discovered by pldmon while attempting to update the administrative module (AM) Plant Measurements System (PMS) database.

3. VARIABLE FIELD DEFINITIONS

a = Error code. Valid value(s):

- 1 = Cannot initialize PMS database.
- 2 = Cannot update setid record.
- 3 = Cannot read maintenance usage records.
- 4 = Cannot attach to maintenance usage record.
- 5 = Cannot update maintenance usage record.
- 6 = ptimer call failed.
- 7 = Negative maintenance usage time found for the out-of-service (OOS) unit named or the plant database record for the OOS unit named was updated more than fifteen minutes ago.
- 8 = Cannot allocate message buffer for scheduling hourly report.
- 9 = Cannot get process ID for plant measurement common report (PMCR) port.
- 10 = Cannot queue message for scheduling hourly report.
- 11 = Unknown fault message buffer released.

b = Error type returned for technical evaluation. For interpretation, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

c = Unit name.

d = Unit number.

4. ACTION TO BE TAKEN

If 'a' =	Action:
1 - 5	Check the usability of the PMS database.
6	pldmon will not run again until a system phase occurs. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
7	If the error is printed due to a negative maintenance usage time for an OOS unit, it may be because of a change in the system clock. The start time for that unit in the database will be set to the current time. No action is needed. The error message is printed to warn that a discrepancy might be reflected for that unit in

	the daily and hourly OP:PMCR report. This error code may also print due to an OOS unit record in the plant database not being updated for more than 15 minutes. Upon a boot and every quarter hour (4:15, 4:30, 4:45, for example) pldmon audits the database to ensure that records for OOS units have been updated every 15 minutes. When the system boots, a copy of the plant database is copied from the disk into memory. If the database on disk has a timestamp more than 15 minutes older than the system clock at boot time, pldmon assumes that records for OOS units have not been updated for more than 15 minutes and the error will print out. The incore database is copied to disk once an hour on the hour. You should not see this error message again if you do not plan to boot before the top of the hour. If you do plan to boot before the top of the hour and do not want to see this error message, you can copy the incore database to disk by executing "/prc/pmdbcopy" from the *UNIX*® RTR shell.
8 - 10	A problem exists with pldmon sending a message to pmcrman to collect data (pmcrcol). Copy the incore PMS database to disk using the "/prc/pmdbcopy" *UNIX*® shell message and manually run the hourly scheduled reports. If the error persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
11	An unknown fault message (other than a message buffer audit fault) was found and removed from the buffer. If the error persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

The output is automatically generated. Action may or may not be required. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	212

Output Appendix(es):

APP:OMDB-X-REF

REPT:PM-CLNK-MMP1

Software Release: 5E10 and later
Message Class: CLNKMON
Application: 5
Type: Output

1. FORMAT

```
REPT POST MORTEM  CLNK=a-b-c-d EVENT= e
  0000FE10 05090010 06ffgggg hhhhiiii jjkkllmm nnnnoooo ppqqrrss ttuuvvww
  xxyyzza1 b1c1d1e1 f1g1h1i1 j1k1l1m1 n1o1p1q1 r1s1t1u1 v1w1x1y1 y1y1y1y1
  y1y1y1y1 y1y1y1y1 y1y1y1y1 y1y1y1y1 y1y1y1y1 y1y1y1y1 y1y1y1y1 y1y1z1a2
  b2b2b2b2
```

2. REASON FOR OUTPUT

To report the raw data associated with communication link (CLNK) errors. The module message processor in a CM1 environment (MMP1) is reporting the error. All the variables '`f`' through 'b^2' are represented in hexadecimal.

3. VARIABLE FIELD DEFINITIONS

`FE10` = Processor identifier and uniqueness number for the MMP.

`0000` = Error source -- '`0000`' indicates the MMP.

`05090010` = Message type, priority, and length.

`06` = Unit type (MMP).

`a` = Switching module (SM) number.

`b` = Time multiplex switch (TMS) side.

`c` = MMP side. Valid value(s):
- `0` = Even.
- `1` = Odd.

`d` = Message switch (MSGS) side.

`e` = Event number.

`f` = MSCU side.

`g` = Physical MMP number.

`h` = Not used.

`i` = Not used.

`j` = The error threshold exceeded. Valid value(s):
- `0x00 SM_XMIT_INTR` = Early transmit interrupt.
- `0x01 SM_DMA_UND` = Direct memory access (DMA) underrun.
- `0x02 SM_CLR_ERR` = Clear to send error.

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0x03 SM_CMP_ABORT = Abort complete.
0x04 SM_CRC_ERR = Check sum (CRC) error.
0x05 SM_DET_ABORT = Abort detected.
0x06 SM_IDLE_DETE = Idle detect.
0x07 SM_EOP_DETEC = End of protocol (EOP) detected.
0x08 SM_ILL_FRAME = Frame less than 32 bits.
0x09 SM_R_DMA_OVR = DMA overrun detected.
0x0a SM_BUF_OVRFL = Memory buffer overflow.
0x0b SM_CARR_FAIL = Carrier detect failure.
0x0c SM_RCV_INTR = Receive interrupt overrun.
0x0d SM_TRANSINTR = Abnormal transmit interrupt.
0x0e SM_REC_INTR = Abnormal receive interrupt.
0x0f SM_TIM_TMOUT = Message timer timeout.
0x10 SM_INVAL_SEQ = Sequence error.
0x11 SM_SABM_TIMOUT = Set asynchronous balanced mode (SABM) timer timeout.
0x12 SM_RET_HD_EX = Retransmission threshold exceeded.
0x13 SM_DISCN_REQ = Disconnect request.
0x14 SM_LK_RE_REQ = Link restart request.
0x15 SM_LK_PROTOC = Link protocol restart.
0x16 SM_LEV3_FAIL = Level 3 failure.
0x17 SM_UNREC_FRA = Unrecognizable frame.
0x18 SM_TM_P_SDLC = Timeout while programming the synchronous data link controller (SDLC).
0x19 SM_SDLC_XMINT = SDLC interrupt timeout.
0x1a SM_CMDQFULL = Command queue overflow.
0x1b SMDATALOOPBACK = Data loopback.
0x1c SMRLIFRREQUEST = Remote link interface (RLI) has bad reference.
0x1d SM_NULIF = Null information (I) frame received.
0x1e SM_FRMRREC = Frame reject (FRMR) received.
0x1f SM_XIDR = Password exchange.
0x20 SM_FRMR_SABM = SABM received after a FRMR.
0x21 SM_UA_REC = Received a UA while the link is up.
0x22 SM_LEV2UP = Only level 2 is up.

k = Action taken. Valid value(s):
0x00 SMLKRESTART = The CLNK was restarted.
0x01 SMLKREMOVE = The CLNK was removed.

l = The SDLC number.

m = Not used.

n = Hexadecimal address of the MMP buffer that contained the level 2 protocol error counts for this SDLC.

o = The size of the MMP buffer (in bytes).

p = Number of early transmit interrupts.

q = Number of DMA underruns.

r = Number of clear to send errors.

s = Number of abort complete errors.

t = Number of CRC errors.

u = Number of aborts detected.

v = Number of idles detected.

w = Number of EOPs detected.

x = Number of frames less than 32 bits.

y = Number of DMA overruns detected.

z = Number of memory buffer overflows.

a^1 = Number of carrier detect failures.

b^1 = Number of receive interrupt overruns.

c^1 = Total number of abnormal transmit interrupts.

d^1 = Total number of abnormal receive interrupts.

e^1 = Number of message timer timeouts.

f^1 = Number of message sequence errors.

g^1 = Number of SABM timer timeouts.

h^1 = Number of retransmission thresholds exceeded.

i^1 = Number of disconnect requests.

j^1 = Number of link restarts.

k^1 = Number of link protocol restarts.

l^1 = Number of level 3 failures.

m^1 = Number of unrecognizable frames.

n^1 = Number of timeouts while programming the SDLC.

o^1 = Number of SDLC interrupt timeouts.

p^1 = Number of message queue overflows.

q^1 = Number of data loopbacks.

r^1 = Number of RLI fault recovery requests.

s^1 = Number of null I frames.

t^1 = Number of frame rejects.

u^1 = Number of password exchanges.

v[1] = Number of SABMs received after a FRMR.

w[1] = Number of UAs received a while the link is up.

x[1] = Number of indications that only level 2 is up (end-to-end is down).

y[1] = Not used.

z[1] = Physical link associated with logical link 0 in the administrative module (AM).

a[2] = Physical link associated with logical link 1 in the AM.

b[2] = AM status of physical links 0-7 (one digit/link). Valid value(s):

- 0 = Idle (link hardware is available).
- 1 = MI switches are set.
- 2 = Ready for level 2 protocol.
- 3 = RSM standby.
- 4 = Active.
- 5 = Out-of-service (OOS) due to CLNK fault recovery.
- 6 = OOS due to associated hardware.
- 7 = OOS due to a manual request.
- 8 = SM is in special growth.
- 9 = Unequipped.

4. ACTION TO BE TAKEN

Since this message is logged, analyze this logged data by retrieving information off of the disk. The input message for dumping the daylog is OP:LOG:LG="DAYLOG",MSGCLS=CLNKMON. Correlate the event number with the REPT:TRBL output message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LOG
```

Output Message(s):

```
REPT:TRBL
```

REPT:PM-CLNK-MMP2

Software Release: 5E10 and later
Message Class: CLNKMON
Application: 5
Type: Output

1. FORMAT

```
REPT POST MORTEM  CLNK=a-b-c-d EVENT= e
  0000FE10 05090010 06ffgggg hhhhiiii jjkkllmm nnnnoooo ppqqrrss ttuuvvww
  xxyyzza1 b1c1d1e1 f1g1h1i1 j1k1l1m1 n1o1p1q1 r1s1t1u1 v1w1x1y1 z1a2b2c2
  d2e2f2g2 h2i2j2k2 l2m2n2o2 p2p2p2p2 p2p2p2p2 p2p2p2p2 p2p2p2p2 p2p2q2r2
  s2s2s2s2
```

2. REASON FOR OUTPUT

To report the raw data associated with communication link (CLNK) errors. The module message processor in a CM2 environment (MMP2) is reporting the error. All the variables `f` through s^2 are represented in hexadecimal.

3. VARIABLE FIELD DEFINITIONS

`FE10` = Processor identifier and uniqueness number for the MMP.

`0000` = Error source - `0000` indicates the MMP.

`05090010` = Message type, priority, and length.

`06` = Unit type (MMP).

`a` = Switching module (SM) number.

`b` = Time multiplex switch (TMS) side.

`c` = MMP side. Valid value(s):
- `0` = Even.
- `1` = Odd.

`d` = Message switch (MSGS) side.

`e` = Event number.

`f` = MSCU side.

`g` = Physical MMP number.

`h` = Not used.

`i` = Not used.

`j` = The error threshold exceeded. Valid value(s):
- `0x00SM_XMIT_INTR` = Early transmit interrupt.
- `0x01SM_DMA_UND` = Direct memory access (DMA) underrun.
- `0x02SM_CLR_ERR` = Clear to send error.

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`0x03SM_CMP_ABORT` = Abort complete.
`0x04SM_CRC_ERR` = Check sum (CRC) error.
`0x05SM_DET_ABORT` = Abort detected.
`0x06SM_IDLE_DETE` = Idle detect.
`0x07SM_EOP_DETEC` = End of protocol (EOP) detected.
`0x08SM_ILL_FRAME` = Frame less than 32 bits.
`0x09SM_R_DMA_OVR` = DMA overrun detected.
`0x0aSM_BUF_OVRFL` = Memory buffer overflow.
`0x0bSM_CARR_FAIL` = Carrier detect failure.
`0x0cSM_RCV_INTR` = Receive interrupt overrun.
`0x0dSM_TRANSINTR` = Abnormal transmit interrupt.
`0x0eSM_REC_INTR` = Abnormal receive interrupt.
`0x0fSM_TIM_TMOUT` = Message timer timeout.
`0x10SM_INVAL_SEQ` = Sequence error.
`0x11SM_SABM_TIMOUT` = Set asynchronous balanced mode (SABM) timer timeout.
`0x12SM_RET_HD_EX` = Retransmission threshold exceeded.
`0x13SM_DISCN_REQ` = Disconnect request.
`0x14SM_LK_RE_REQ` = Link restart request.
`0x15SM_LK_PROTOC` = Link protocol restart.
`0x16SM_LEV3_FAIL` = Level 3 failure.
`0x17SM_UNREC_FRA` = Unrecognizable frame.
`0x18SM_TM_P_SDLC` = Timeout while programming the synchronous data link controller (SDLC).
`0x19SM_SDLC_XMINT` = SDLC interrupt timeout.
`0x1aSM_CMDQFULL` = Command queue overflow.
`0x1bSMDATALOOPBACK` = Data is looped back.
`0x1cSMRLIFRREQUEST` = RLI fault recovery (FR) request.
`0x1dSM_NULIF` = Null information (I) frame received.
`0x1eSM_FRMRREC` = Frame reject (FRMR) received.
`0x1fSM_XIDR` = Password exchange.
`0x20SM_FRMR_SABM` = SABM received after a FRMR.
`0x21SM_UA_REC` = Received an unnumbered acknowledgement (UA) while the link was up.
`0x22SM_LEV2UP` = Level 2 is up.
`0x23SM_REC_SABM` = Received a SABM while the link was up.
`0x24SM_DM_REC` = Disconnect mode received.
`0x25SMFRMRXW` = Frame reject transmitted.
`0x26SMFRMRXX` = Frame reject transmitted.
`0x27SMFRMRXY` = Frame reject transmitted.
`0x28SMFRMRXZ` = Frame reject transmitted.
`0x29SM_RF1P` = Wrong final bit set.
`0x2aSM_LSTIN` = Lost interrupt.
`0x2bSM_NOXIDR` = Transmitted a password.
`0x2cSM_DATASET` = Data set error.
`0x2dSM_CAR_FIND` = Receive carrier was found.
`0x2eSM_INVLINTR` = Invalid interrupt received.
`0x2fSM_INCONSISTENT` = Inconsistent state or data.
`0x30SM_HDWHPE` = Hardware parity error.
`0x31SM_LKDN_TIM` = Timeout waiting for the link to go down.
`0x32SM_ER_TIM` = Timeout waiting for an error.
`0x33SM_LK_DOWN` = The link went down.

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`k` = Action taken. Valid value(s):
`0x00 SMLKRESTART` = The CLNK was restarted.
`0x01 SMLKREMOVE` = The CLNK was removed.

`l` = The SDLC number.

`m` = Not used.

`n` = The hexadecimal address of the MMP buffer that contained the level 2 protocol error counts for this SDLC.

`o` = The size of the MMP buffer (in bytes).

`p` = Number of early transmit interrupts.

`q` = Number of DMA underruns.

`r` = Number of clear to send errors.

`s` = Number of abort complete errors.

`t` = Number of CRC errors.

`u` = Number of aborts detected.

`v` = Number of idles detected.

`w` = Number of EOPs detected.

`x` = Number of frames less than 32 bits.

`y` = Number of DMA overruns detected.

`z` = Number of memory buffer overflows.

`a`[1] = Number of carrier detect failures.

`b`[1] = Number of receive interrupt overruns.

`c`[1] = Total number of abnormal transmit interrupts.

`d`[1] = Total number of abnormal receive interrupts.

`e`[1] = Number of message timer timeouts.

`f`[1] = Number of message sequence errors.

`g`[1] = Number of SABM timer timeouts.

`h`[1] = Number of retransmission thresholds exceeded.

`i`[1] = Number of disconnect requests.

`j`[1] = Number of link restarts.

`k`[1] = Number of link protocol restarts.

l^1 = Number of level 3 failures.

m^1 = Number of unrecognizable frames.

n^1 = Number of timeouts while programming the SDLC.

o^1 = Number of SDLC interrupt timeouts.

p^1 = Number of message queue overflows.

q^1 = Number of data loopbacks.

r^1 = Number of RLI fault recovery requests.

s^1 = Number of null I frames.

t^1 = Number of frame rejects received.

u^1 = Number of password exchanges.

v^1 = Number of SABMs received after a FRMR.

w^1 = Number of UAs received while the link is up.

x^1 = Number of indications that only level 2 is up (end-to-end is down).

y^1 = Number of SABMs received while link is up.

z^1 = Number of disconnect modes received.

a^2 = Number of frame rejects transmitted.

b^2 = Number of frame rejects transmitted.

c^2 = Number of frame rejects transmitted.

d^2 = Number of frame rejects transmitted.

e^2 = Number of messages received with a wrong final bit.

f^2 = Number of lost interrupts.

g^2 = Number of times a password exchange was never received.

h^2 = Number of data set errors.

i^2 = Number of carrier found errors.

j^2 = Number of invalid interrupts.

k^2 = Number of inconsistent software states.

l^2 = Number of hardware parity errors.

m^2 = Number of timeouts waiting for the link to go down.

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n[2] = Number of timeouts waiting for an error, while the link went down.

o[2] = Number of links down.

p[2] = Not used.

q[2] = Physical link associated with logical link 0 in the administrative module (AM).

r[2] = Physical link associated with logical link 1 in the AM.

s[2] = AM status of physical links (one digit/link). Valid value(s):

- 0 = Idle (link hardware is available).
- 1 = MI switches are set.
- 2 = Ready for level 2 protocol.
- 3 = RSM standby.
- 4 = Active.
- 5 = Out-of-service (OOS) due to CLNK fault recovery..
- 6 = OOS due to associated hardware.
- 7 = OOS due to a manual request.
- 8 = SM is in special growth.
- 9 = Unequipped.

4. ACTION TO BE TAKEN

Since this message is logged, analyze this logged data by retrieving information off of the disk. The input message for dumping the daylog is OP:LOG:LG="DAYLOG",MSGCLS=CLNKMON. Correlate the event number with the REPT:TRBL output message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LOG
```

Output Message(s):

```
REPT:TRBL
```

REPT:PM-CLNK-SI

Software Release: 5E10 and later
Message Class: CLNKMON
Application: 5
Type: Output

1. FORMAT

```
REPT POST MORTEM  CLNK=a-b-c-d EVENT= e
  002CC100 050C060C 0Bffgggg hhhhiiii jjkkllmm mmmmmmmm mmmmmmmm mmmmmmmm
  mmmmmmmm mmmmmmmm mmmmmmmm mmmmmmmm mmmmmmmm mmmmmmmm mmmmmmmm mmmmmmmm
  mmmmmmmm mmmmmmmm mmmmmmmm mmmmmmmm mmmmmmmm mmmmmmmm mmmmmmmm mmmmnnoo
  pppppppp
```

2. REASON FOR OUTPUT

To report the raw data associated with communication link (CLNK) errors. System integrity (SI) in the administrative module (AM) is reporting the error. All of the variables '`f`' through '`p`' are represented in hexadecimal.

3. VARIABLE FIELD DEFINITIONS

`C100` = Processor identifier and uniqueness for the operational kernel process (OKP) in the AM.

`0B` = Unit type (CLNK).

`002C` = Error source -- `002C` indicates SI.

`050C060C` = Message type, priority, and length.

`a` = Switching module (SM) number.

`b` = Time multiplex switch (TMS) side.

`c` = Module message processor (MMP) side. Valid value(s):
- `0` = Even.
- `1` = Odd.

`d` = Message switch (MSGS) side.

`e` = Event number.

`f` = SM number.

`g` = Physical link number.

`h` = Not used.

`i` = Not used.

`j` = Error type. Valid value(s):
- `0x00 - SMLKFAIL` = Level 3 communication failure.
- `0x01 - SMLOGLKM` = Logical link map reversal.
- `0x02 - SMSMLKD` = SM dangling logical link.
- `0x03 - SMAMLKD` = AM dangling logical link.

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0x04 - SMONTCBD = Remote SM (RSM) logical link on incorrect ONTC.
0x05 - SMCRC_LK = Test message on CLNK corrupted in transit.

k = Physical link. Valid value(s):
0x00 = Link 0A.
0x01 = Link 0A.
0x02 = Link 0B.
0x03 = Link 0B.
0x04 = Link 1A.
0x05 = Link 1A.
0x06 = Link 1B.
0x07 = Link 1B.

l = Logical link. Valid value(s):
0x00 - SMLOG0 = Logical link 0.
0x01 - SMLOG1 = Logical link 1.

m = Not used.

n = Physical link associated with logical link 0 in the AM.

o = Physical link associated with logical link 1 in the AM.

p = AM status of physical links 0-7 (one digit/link). Valid value(s):
0 = Idle (link hardware is available).
1 = Message interface (MI) switches are see.
2 = Ready for level 2 protocol.
3 = RSM standby.
4 = Active.
5 = Out-of-service (OOS) due to CLNK fault recovery.
6 = OOS due to associated hardware.
7 = OOS due to a manual request.
8 = SM is in special growth.
9 = Unequipped.

4. ACTION TO BE TAKEN

Since this message is logged, analyze the logged data by retrieving information off of the disk. To dump the daylog see the OP:LOG input message. Correlate the error event with the REPT:TRBL output message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LOG
```

Output Message(s):

```
REPT:TRBL
```

REPT:PM-CLNK-SM

Software Release: 5E10 and later
Message Class: CLNKMON
Application: 5
Type: Output

1. FORMAT

[1]

```
REPT POST MORTEM  CLNK=a-b-c-d EVENT= e

  FFFF0000 05080058 ffgghhhh iijjjjjj kkkkllll mmmmnnnn ooooppppp qqqqrrrr

  ssssttttt uuuuvvvv wwwwxxxx yyyyzzzz a1a1b1b1 c1c1d1d1 e1e1f1f1 g1g1h1h1

  i1i1j1j1 k1k1l1l1 m1m1n1n1 o1o1p1p1 q1q1r1r1 s1s1t1t1 u1v1w1x1 y1y1z1a2

  b2b2b2b2
```

[2]

```
REPT POST MORTEM  CLNK=a-b-c-d EVENT= e>

  FFFF0000 05080058 ffgghhhh 34jjjjjj c2c2d2d2 d2d2d2d2 d2d2d2d2 d2d2d2d2

  d2d2d2d2 d2d2d2d2 d2d2d2d2 d2d2d2d2 d2d2d2d2 d2d2d2d2 d2d2d2d2 d2d2d2d2

  d2d2d2d2 d2d2d2d2 d2d2d2d2 d2d2d2d2 d2d2d2d2 d2d2t1t1 u1v1w1x1 y1y1z1a2

  b2b2b2b2
```

2. REASON FOR OUTPUT

To report the raw data associated with communication link (CLNK) errors. The switching module (SM) is reporting the error. All of the variables '`f`' through 'd^2' are hexadecimal numbers.

Format 1 prints in most cases, except when variable field '`i`' has a value of 34.

Format 2 prints when variable field '`i`' has a value of 34, which indicates the contents of a test message received in the SM was corrupted. This format dumps the contents of the test message instead of the protocol error record (PER) error counts.

3. VARIABLE FIELD DEFINITIONS

`FFFF` = Error source indicates the SM.

`0000` = Processor identifier and uniqueness number for the SM.

`05080058` = Message type, priority, and length.

`a` = SM number.

`b` = Time multiplex switch (TMS) side.

c = Module message processor (MMP) side. Valid value(s):
- 0 = Even.
- 1 = Odd.

d = Message switch (MSGS) side.

e = Event number.

f = The SM read-only memory (ROM) software release retrofit ID.

g = The SM RAM software release retrofit ID.

h = The first byte is the physical ID of the module message processor (MMP) that received the error message. The second byte is the synchronous data link controller (SDLC) (CM-1) or X.25 protocol controller (XPC) (CM-2) number within the MMP.

i = The error threshold exceeded. Valid value(s):
- 00 = Early transmit interrupt.
- 01 = Direct memory access (DMA) underrun.
- 02 = Clear to send error.
- 03 = Abort complete.
- 04 = Check sum (CRC) error.
- 05 = Abort detected.
- 06 = Idle detected.
- 07 = End of protocol (EOP) detected.
- 08 = Frame less than 32 bits.
- 09 = DMA overrun detected.
- 0a = Memory buffer overflow.
- 0b = Carrier detect failure.
- 0c = Receive interrupt overrun.
- 0d = Abnormal transmit interrupt.
- 0e = Abnormal receive interrupt.
- 0f = Message timer timeout.
- 10 = Sequence error.
- 11 = Set asynchronous balanced mode (SABM) timer timeout.
- 12 = Retransmission threshold exceeded.
- 13 = Disconnect request.
- 14 = Link restart request.
- 15 = Link protocol restart.
- 16 = Level 3 failure.
- 17 = Unrecognizable frame.
- 18 = Timeout while programming the synchronous data link controller (SDLC).
- 19 = SDLC interrupt timeout.
- 1a = Command queue overflow.
- 1b = Data loopback.
- 1c = Remote link interface (RLI) has bad reference.
- 1d = Null information (I) frame received.
- 1e = Frame reject (FRMR) received.
- 1f = Password exchange.
- 20 = SABM received after FRMR.
- 21 = Received an unnumbered acknowledgement (UA) while link is up.
- 22 = Only level 2 is up.

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34 = A test message on the CLNK was corrupted in transit.

j = Not used.

k = Number of early transmit interrupts.

l = Number of DMA underruns.

m = Number of clear to send errors.

n = Number of aborts complete.

o = Number of CRC errors in the message.

p = Number of aborts detected.

q = Number of idles detected.

r = Number of EOPs detected.

s = Number of frames less than 32 bits.

t = Number of DMA overruns detected.

u = Number of memory buffer overflows.

v = Number of carrier detect failures.

w = Number of receive interrupt overruns.

x = Total number of abnormal transmit interrupts.

y = Total number of abnormal receive interrupts.

z = Number of message timer timeouts.

a^1 = Number of message sequence errors.

b^1 = Number of SABM timer timeouts.

c^1 = Number of retransmission thresholds exceeded.

d^1 = Number of disconnect requests.

e^1 = Number of link restarts.

f^1 = Number of link protocol restarts.

g^1 = Number of level 3 failures.

h^1 = Number of unrecognizable frames.

i^1 = Number of timeouts while programming the SDLC chip.

j^1 = Number of SDLC interrupt timeouts.

k[1] = Number of message queue overflows.

l[1] = Number of data loopbacks.

m[1] = Number of RLI fault recovery requests.

n[1] = Number of null I frames.

o[1] = Number of frame rejects.

p[1] = Number of password exchanges.

q[1] = Number of SABMs received after a FRMR.

r[1] = Number of UAs received while the link is up.

s[1] = Number of indications that only level 2 is up (end-to-end is down).

t[1] = Not used.

u[1] = Action taken on the CLNK. Valid value(s):
0 = The CLNK was restarted.
1 = The CLNK was removed.

v[1] = Active module processor (MP) side (0 or 1).

w[1] = The SM's SDLC ID. Valid value(s):
0 = SDLC A.
1 = SDLC B.

x[1] = The link ID. Valid value(s):
0 = Link 0A.
1 = Link 1A.
2 = Link 0B.
3 = Link 1B.

y[1] = Not used.

z[1] = Physical link associated with logical link 0 in the administrative module (AM).

a[2] = Physical link associated with logical link 1 in the AM.

b[2] = AM status of physical links 0-7 (one digit/link). Valid value(s):
0 = Idle (link hardware is available).
1 = MI switches are set.
2 = Ready for level 2 protocol.
3 = RSM standby.
4 = Active.
5 = Out-of-service (OOS) due to CLNK fault recovery.
6 = OOS due to associated hardware.
7 = OOS due to a manual request.
8 = SM is in special growth.

9 = Unequipped.

c[2] = The logical link the test message was sent on.

d[2] = The contents of the test message that was corrupted. The test message is a sequence of bytes incremented by 1 (that is, 0102030405060708090A.....). If the message is corrupted, the portion of the message surrounding the error is dumped.

4. ACTION TO BE TAKEN

Since this message is logged, analyze the logged data by retrieving information off of the disk. The input message for dumping the daylog is OP:LOG. Correlate the event number with the REPT:TRBL message. Refer to these manual pages for additional information.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LOG
```

Output Message(s):

```
REPT:TRBL
```

REPT:PM-CMP

Software Release: 5E10 and later
Message Class: MSGSMON
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT POST MORTEM CMP=a-b EVENTNO=c

  dddddddd eeeeffff gggghhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh

  hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh

  hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh

  hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh

  hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh

  hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh

  hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh
```

[2]
```
REPT POST MORTEM CMP=a-b EVENTNO=c

  00000300 iiiiiiii jjkkllmm iiiiiiii iiiinnnn
```

[3]
```
REPT POST MORTEM CMP=a-b EVENTNO=c

  00000300 iiiiiiii jjkkllmm iiiiiiii iiiinnnn 00000400 ooppiiii iiiiiiii

  oorriiii iiiiiiii ssttuuii vvwwxxii yyzza$^1$b$^1$ c$^1$d$^1$e$^1$f$^1$ g$^1$h$^1$i$^1$j$^1$
```

[4]
```
REPT POST MORTEM CMP=a-b EVENTNO=c

  00000400 ooppiiii iiiiiiii oorriiii iiiiiiii ssttuuii vvwwxxii yyzza$^1$b$^1$

  c$^1$d$^1$e$^1$f$^1$ g$^1$h$^1$i$^1$j$^1$
```

[5]
```
REPT POST MORTEM CMP=a-b EVENTNO=c

  FACEFACE k$^1$k$^1$k$^1$k$^1$ k$^1$k$^1$k$^1$k$^1$ k$^1$k$^1$k$^1$k$^1$ ECAFECAF 00000000 00000000 00000000

  00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000

  00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000
```

```
00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000

00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000

00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000

00000000 00000000
```

2. REASON FOR OUTPUT

To report a communication module processor (CMP) error associated with communication module (CM) 1 or CM 2. This post-mortem data is put in the log file. To dump this, refer to the OP:LOG input message for additional information.

Format 1 prints when the post-mortem originator identification is read-only memory (ROM), Phase 2 random access memory (RAM), or Phase 3 RAM.

Format 2 prints when the post-mortem originator identification is from the CMP during the administrative module (AM) initialization.

Format 3 prints when a CMP fails to link during AM initialization.

Format 4 prints level 3 error information.

Format 5 prints when the contents of a test message received in the CMP was corrupted. This format dumps the contents of the test message.

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch side number.

`b` = CMP number.

`c` = AM event number.

`d` = Post-mortem originator identification. Valid value(s):
`X'00000001-X'000000ff` = Read-only memory.
`X'00000100-X'000001ff` = Phase 2 RAM.
`X'00000200-X'000002ff` = Phase 3 RAM.

`e` = Error type.

`f` = Number of bytes of post-mortem data.

`g` = CMP event number.

`h` = Post-mortem data, in hexadecimal. This data contains post mortem header information, CMP fault recovery messages, stack frames, stack traces, and event histories.

`i` = Unused data.

`j` = CMP number.

`k` = Generic ID.

l = Status of hardware and software checks. Expand to binary form and interpret as shown

7	6	5	4	3	2	1	0

Bit	Description
7	1 = CMP is abnormal. 0 = CMP is normal.
6	1 = Hardware checks manually inhibited.
5	1 = Hardware checks automatically inhibited. 0 = Hardware checks allowed.
4	1 = Software checks manually inhibited.
3	1 = Software checks automatically inhibited. 0 = Software checks allowed.
2	Not used.
1	Not used.
0	1 = Communication successful to CMP firmware. 0 = Communication failure to CMP firmware.

m = CMP maintenance state. Valid value(s):
- 00 = Out-of-service (OOS).
- 01 = Active (ACT).
- 05 = Standby (STBY).
- 0f = Initialization (INIT).
- 29 = Standby update.
- 2b = Standby deactivation.
- 30 = Level 4 initialization during retrofit.
- 31 = Level 4 initialization.

n = Event number for CMP.

NOTE: If event number is equal to zero, then the software failed to retrieve query for this CMP.

o = CMP unit name.

p = Primary CMP system side.

r = Mate CMP system side.

s = Base state for primary CMP. Valid value(s):
- 01 = OOS state.
- 02 = ACT state.
- 04 = STBY state.
- 05 = Unavailable (UNAV) state.
- 06 = INIT state.

t = First state qualifier for primary CMP. Valid value(s):
- 03 = Manual (MAN).
- 04 = Automatic (AUTO).
- 0d = Deactivated (DACT). (Used for generic retrofit.)

u = Second state qualifier for primary CMP. Valid value(s):

0x00	= None (NULL).
01	= Diagnosing (DGN).
02	= Exercise (EX).
03	= Family of equipment (FE).
04	= Diagnostic found faulty (FLT).
08	= Power Off (PWROFF).
09	= Routine exercise (REX).
0a	= Removed (RMV).
0b	= Trouble analysis (TBLA).
0d	= Power alarm (PWRALM).
0f	= Updating (UPD).
10	= System initialization in progress (INIT)

v = Base state for mate CMP. Refer to variable 's' for values.

w = First state qualifier for mate CMP. Refer to variable 't' for values.

x = Second state qualifier for mate CMP. Refer to variable 'u' for values.

y = Logical link map (LLM) entry zero for primary CMP.

z = LLM entry one for primary CMP.

a[1] = LLM entry zero for mate CMP.

b[1] = LLM entry one for mate CMP.

c[1] = Message switch controller unit translation table (MTT) entry zero for system side zero for the primary CMP.

d[1] = MTT entry one for system side zero for the primary CMP.

e[1] = MTT entry zero for system side zero for the mate CMP.

f[1] = MTT entry one for system side zero for the mate CMP.

g[1] = MTT entry zero for system side one for the primary CMP.

h[1] = MTT entry one for system side one for the primary CMP.

i[1] = MTT entry zero for system side one for the mate CMP.

j[1] = MTT entry one for system side one for the mate CMP.

k[1] = The contents of the test message that was corrupted. The test message is a sequence of bytes incremented by 1 (that is 0102030405060708090A.....). If the message is corrupted the portion of the message surrounding the corrupted byte(s) is dumped.

4. ACTION TO BE TAKEN

Interpreting this data requires detailed knowledge of switch internals. Retain this data for further reference. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LOG
```

Output Message(s):

```
REPT:MSKP-ENVIR
REPT:TRBL
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

REPT:PM-FPC

Software Release: 5E10 and later
Message Class: MSGSMON
Application: 5
Type: Output

1. FORMAT

```
REPT POST MORTEM FPC=a EVENT=b
  ccccdddd eeeeffff gggghhhh iiiijjjj kkkkllll mmmmnnnn ooooppppp qqqqqqqq
  qqqqqqqq qqqqqqqq qqqqqqqq qqqqqqqq qqqqqqqq qqqqqqqq qqqqqqqq qqqqqqqq
  qqqqqqqq rrssssstt uuj2vvvv wwwwxxyy za1b1c1 d1d1e1e1 f1g1h1i1 j1k1l1m1
  n1o1p1q1 r1s1t1u1 v1w1x1x1 z1z1a2a2 b2b2c2c2 d2d2e2e2 f2f2g2g2 h2h2i2j2
```

2. REASON FOR OUTPUT

To report the foundation peripheral controller (FPC) post mortem memory as a result of an error.

Note: All variables are printed in hexadecimal. You may not have the resources to interpret the data. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

3. VARIABLE FIELD DEFINITIONS

a = FPC side.
b = Event number.
c = Contents of 8086 accumulator register (register name - ax).
d = Contents of 8086 base register (register name - bx).
e = Contents of 8086 count register (register name - cx).
f = Contents of 8086 data register (register name - dx).
g = Contents of 8086 stack segment register (register name - ss).
- MD = (Monitor debugger) 0x1000
- PC = (Peripheral controller) 0x1600

h = Contents of 8086 extra segment register (register name - es).
- MD = 0x1000.
- PC = 0x2600.

i = Contents of 8086 data segment register (register name - ds). Valid value(s):
- MD = 0x1000.
- PC = 0x1600.

j = Contents of 8086 stack pointer register (register name - sp). Valid value(s):
- MD = 0x4fxx.
- PC = 0x1fxx.

k = Contents of 8086 base pointer register (register name - bp).
l = Contents of 8086 source index register (register name - si).
m = Contents of source index register (register name - si).
n = Contents of 8086 instruction pointer register (register name - ip).
o = Contents of 8086 code segment register (register name - cs). Valid value(s):
- MD = 0x1000.
- PC = 0x0000.

p = Contents of 8086 flags register (register name - fg).
q = Contents of most recent stack frames.
r = Interrupt level error in 8086 processor. Valid value(s):
- 0x0 = Divide by zero-invalid division.
- 0x2 = Non-maskable interrupt (NMI) in 8086 processor - hardware error.
- 0x4 = Interrupt on overflow.
- 0xFD = Defensive check failure.
- 0xFE = 10-millisecond interrupts not occurring.
- 0xFF = Unassigned vector table entry.

s = Error code. Values for FPC maintenance. Valid value(s):
- 0x22 = Invalid subdevice unit name (CDACBADSD).
- 0x23 = Bad subdevice side given (CDBADSIDE).
- 0x25 = High priority queue pointer out of range.
- 0x26 = Address not within bounds (CDADDR_OOB).
- 0x2a = Subdevice byte count invalid (CDBBCNT).
- 0x2B = Either a bad subdevice or a bad or side was given to subdevice i/o (CDCALLERR).
- 0x3C = CDAC fault in FPC (some bits set in control data access circuit (CDAC) ESR).
- 0x3F = CDAC error source register (ESR) cannot clear.
- 0x44 = FPC RAM detected QLPS sequence error (CDQLSEQERR). QLPS global data is corrupted. The QLPS global data is displayed in fields 'x' through 'h' of the FPC post mortem.
- 0x50 = FPC subdevice state (sdstate) is invalid (CDSDSTNG), while the FPC was completing an ONTC read block or write block DMA action.
- 0x80 = CDAC busy too long.
- 0x28a = The FPC ROM code has detected an hardware non maskable/maskable interrupt.

All other error codes are assert numbers. Refer to the Asserts Manual for detailed information concerning each assert.

t = Contents of circuit pack TN856 status 1 register.
u = Contents of circuit pack TN856 status 2 register.
v = Contents of circuit pack TN856 ESR register (low byte, high byte).
w = Contents of circuit pack TN856 ESR mask register (low byte).
x = Peripheral controller identity (PCID). Valid value(s):
- 0 = FPC 0.
- 1 = FPC 1.

y = System state. Valid value(s):
- 0x00 = Normal standby.
- 0x7B = Normal active.
- 0x7D = Out-of-service.

z = Pump state. Valid value(s):
- 0x7B = Normal.
- 0x7D = Not pumped.

a^1 = Sanity timer flag. Valid value(s):
- 0x7f = Idle.
- 0x7e = Reset sanity timer.

b^1 = Timed job indicator. Valid value(s):
- 0x7F = Idle.
- 0xD = In progress (IP).

c^1 = Diagnostics (DGN) in progress flag. Valid value(s):
- 0x7F = Idle.
- 0xD = Diagnostics in progress.

d^1 = Sanity timer count (used to reset sanity timer).
e^1 = 10-millisecond count (used to check if 10-millisecond interrupts are occurring).
f^1 = PC subdevice interrupt level.
g^1 = Contents of interrupt controller A status register - ESR.
h^1 = Contents of controller A request register.
i^1 = Contents of interrupt controller A service register.
j^1 = Contents of interrupt controller A mask register.
k^1 = Contents of interrupt controller A auto clear register.
l^1 = Contents of interrupt controller B status register - ESR.
m^1 = Contents of interrupt controller B request register.
n^1 = Contents of interrupt controller B service register.
o^1 = Contents of interrupt controller B mask register.
p^1 = Contents of interrupt controller B auto clear register.
q^1 = Contents of low 8 bits of CDAC address register (CDACD40).
r^1 = Contents of high 4 bits of CDAC address register (CDACD41).
s^1 = Address location for data memory xmit-rcv (CDACD42).
t^1 = Status of CDAC active leads and TMs active leads (CDACD43).
u^1 = Contents of low 8 bits of programmable ROM (PROM) sequencer (CDACD46).
v^1 = Contents of high 8 bits of PROM sequencer (CDACD47).
w^1 = Contents of CDAL error source register (ESR) (CDACD48).
x^1 = The meaning of this variable depends on the value of variable 's'. Valid value(s):

If 's' =	**'x^1' =**
CMFTMS1OPC or CMFUNITS and CMFBADMSG	CM code data dump - startpat (start pattern).
CMFTMS1OPC, CMFTMS1CNT, CMFTMS2OPC, CMFTMS2CNT, or CMFSSOPC	PFC code data dump - startpat (start pattern).
CMFINVRET	PFC code data dump - startpat (start pattern).
CMFFPCCNT	PFC code data dump - startpat (start pattern).
CDOLSEQERR	PFC code data dump - startpat (start pattern).

z^1 = The meaning of this variable depends on the value of variable 's'. Valid value(s):

If 's' =	**'z^1' =**
CMFTMS1OPC or CMFUNITS and CMBADMSG	CM code data dump - assert code (CM assert code).
CMFTMS1OPC, CMFTMS1CNT, CMFTMS2OPC, CMFTMS2CNT, or CMFSSOPC	FPC code data dump - assert code (FPC assert code).
CMFINVRET	FPC code data dump - assert code (FPC assert code).

CMFFPCCNT	FPC code data dump - assert code (FPC assert code).
CDOLSEQERR	FPC code data dump - assert code (CDQLSEQERR).

a^2 = The meaning of this variable depends on the value of variable 's'. Valid value(s):

If 's' =	**'a^2' =**
CMFTMS1OPC or CMFUNITS and CMFBADMSG	CM code data dump - top (base priority input queue (BPINQ) top pointer).
CMFTMS1OPC, CMFTMS1CNT, CMFTMS2OPC, CMFTMS2CNT, or CMFSSOPC	FPC code data dump - time slot (connect order time slot).
CMFINVRET	FPC code data dump - side (FPC side).
CMFFPCCNT	FPC code data dump - time slot (connect order time slot).
CDOLSEQERR	FPC code data dump - opcode (QLPS opcode).

b^2 = The meaning of this variable depends on the value of variable 's'. Valid value(s):

If 's' =	**'b^2' =**
CMFTMS1OPC or CMFUNITS and CMFBADMSG	CM code data dump - bottom (BPINQ bottom pointer).
CMFTMS1OPC, CMFTMS1CNT, CMFTMS2OPC, CMFTMS2CNT, or CMFSSOPC	FPC code data dump - in_link (connect order in_link).
CMFINVRET	FPC code data dump - systate flag (call processing allowed = 7b or inhibited = 0).
CMFFPCCNT	FPC code data dump - in_link (connect order in_link).
0x44 (CDOLSEQERR)	FPC code data dump - qlnknum (QLPS quad link number).

c^2 = The meaning of this variable depends on the value of variable 's'. Valid value(s):

If 's' =	**'c^2' =**
MFTMS1OPC or CMFUNITS and CMFBADMSG	CM code data dump - load (BPINQ load pointer).
CMFTMS1OPC, CMFTMS1CNT, CMFTMS2OPC, CMFTMS2CNT, or CMFSSOPC	FPC code data dump - out_link (connect order out_link).
CMFINVRET	FPC code data dump - cptr->data[5] (ONTC inhibit code).
CMFFPCCNT	FPC code data dump - out_link (connect order out_link).
CDOLSEQERR	FPC code data dump - actstby (QLPS state, active or standby).

d^2 = The meaning of this variable depends on the value of variable 's'. Valid value(s):

If 's' =	**'d^2' =**
CMFTMS1OPC or CMFUNITS and CMFBADMSG	CM code data dump - unload (BPINQ unload pointer).
CMFTMS1OPC, CMFTMS1CNT, CMFTMS2OPC, CMFTMS2CNT, or CMFSSOPC	FPC code data dump - message type (type of message sent to FPC).
CMFINVRET	FPC code data dump - cptr->data[4] (ONTC side to inhibit).
CMFFPCCNT	FPC code data dump - message type (type of message sent to FPC).
CDOLSEQERR	FPC code data dump - brdcstnum (QLPS broadcast message number).

e^2 = The meaning of this variable depends on the value of variable 's'. Valid value(s):

If 's' =	**'e^2' =**
CMFTMS1OPC or CMFUNITS and CMFBADMSG	CM code data dump - msgptr (message pointer).
CMFTMS1OPC, CMFTMS1CNT, CMFTMS2OPC, CMFTMS2CNT, or CMFSSOPC	FPC code data dump - CDcoc (number of connect orders received by the active FPC).
CMFINVRET	FPC code data dump - CDcoc (number of connect orders received by the active FPC).
CMFFPCCNT	FPC code data dump - CDbpernt (number of bad connect orders received by the active FPC in 30 seconds).
0x44 (CDOLSEQERR)	FPC code data dump - qlps_act (QLPS action, QLPS soft switch or QLPS simplex remove).

f^2 = The meaning of this variable depends on the value of variable 's'. Valid value(s):

If 's' =	**'f^2' =**
CMFTMS1OPC or CMFUNITS and	CM code data dump - cmmsgptr (start of CM part of message).

CMFBADMSG	
CMFTMS1OPC, CMFTMS1CNT, CMFTMS2OPC, CMFTMS2CNT, or CMFSSOPC	FPC code data dump - CDtmsconn (ONTC "side" to send connect orders to 0, 1, 2 = both) or tms_op (connect order TMS opcode). This corresponds with the error code detected by the FPC.
CMFINVRET	FPC code data dump - CDtmsconn (ONTC "side" to send connect orders to 0, 1, 2 = both).
CMFFPCCNT	FPC code data dump - Assert code of 16 byte message (CMFTMS1OPC) or 32 byte (CMFTMS2OPC) message received in the FPC.
CDOLSEQERR	FPC code data dump - side (TMS side the FPC was working on).

g^2 = The meaning of this variable depends on the value of variable 's'. Valid value(s):

If 's' =	**'g^2' =**
CMFTMS1OPC or CMFUNITS and CMFBADMSG	CM code data dump - data (data relevant to error).
CMFTMS1OPC, CMFTMS1CNT, CMFTMS2OPC, CMFTMS2CNT, or CMFSSOPC	FPC code data dump - tms_op or CDtmsconn (data relevant to error). This corresponds with the error code detected by the FPC.
CMFINVRET	FPC code data dump - rtype (return type from inhibiting interrupts on the ONTC).
CMFFPCCNT	FPC code data dump - tms_op (TMS opcode, data relevant to error).
0x44 (CDOLSEQERR)	FPC code data dump - qlps_seq (QLPS sequence the FPC was in at the time of the error.)

h^2 = The meaning of this variable depends on the value of variable 's'. Valid value(s):

If 's' =	**'h^2' =**
CMFTMS1OPC or CMFUNITS and CMFBADMSG	CM code data dump - endpat (end pattern).
CMFTMS1OPC, CMFTMS1CNT, CMFTMS2OPC, CMFTMS2CNT, or CMFSSOPC	FPC code data dump - endpat (end pattern).
CMFINVRET	FPC code data dump - endpat (end pattern).
CMFFPCCNT	FPC code data dump - endpat (end pattern).
CDOLSEQERR	PC code data dump - endpat (end pattern).

i^2 = Contents of post mortem for the base level loop count (PMBASCNT).
j^2 = Not used.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-600-500 *Asserts*

REPT:PM-ISMQLNK

Software Release: 5E10 and later
Message Class: CLNKMON
Application: 5
Type: Output

1. FORMAT

```
REPT POST MORTEM  ISMQLNK=a-b-c-d-e-f EVENT=g
  14FBhhhh iijjkkkk llllhhhh mm3Cnnoo hhppqqrr sstthuvw xxyyzza1 hhhhb1hh
  hhc1d1e1 f1g1hhhh h1i1j1k1 l1m1n1o1 p1hhq1r1 s1t1u1v1 hhhhhhhh w1w1hhhh
  x1hhhhhh y1y1y1y1 z1z1z1z1 hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh
  hhhhhhhh a2hhhhhh hhhhhhhh hhhhb2c2
```

2. REASON FOR OUTPUT

To report data associated with a quad link packet switch (QLPS) inter-switching module communication link (ISMQLNK) error reported by QLNK fault recovery (QLFR) in a switching module (SM). All of the variables 'i' through 'c^2' are represented in hexadecimal.

3. VARIABLE FIELD DEFINITIONS

14FB = Message type (MGQLSP2AM) indicating that the error was reported by a switching module.

3C Unit type (ISMQLNK).

a = SM number.

b = Active module controller/time slot interchange (MCTSI) side at the time the error was reported.

c = QLPS network.

d = Office network and timing complex (ONTC) side.

e = Far-end SM number.

f = Far-end SM's active MCTSI side at the time the error was reported.

g = Administrative module (AM) event number.

h = Not used.

i = The error classification. Valid value(s):
- 0D = ISMQLNK level 2 error.
- 1A = ISMQLNK establishment sequence error.
- 3E = ISMQLNK level 3 error.

j = ONTC side (SM perspective at time error was reported).

k = QLPS network.

l = Far-end QLPS endpoint (SM) number.

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m = Error source. Valid value(s):
- CC = Switching module processor (SMP).
- FF = Message handler (MH).

n = Error that exceeded fault recovery threshold. Valid value(s):

If 'i'=	'n' =
0D	02 = Far-end response timeout (no response to RR or SABM frames). 06 = QLFR-SMP or the LLCB audit in the MH detected invalid or inconsistent SMP/MH ISMQLNK data. 0B = MH-detected full transmit queue. 0C = RR frame re-try threshold exceeded. 0D = Frame with invalid poll/final bit. 0E = Frame with invalid message/response bit. 0F = Frame with unknown packet type. 10 = Frame with unknown frame type. 11 = Frame with inconsistent packet and frame types. 12 = SABM on a link in the multi-frame establish or timer recovery state. 13 = Valid frame on a link that was in a state for which the frame was not expected. 15 = Out-of-sequence frame received. 16 = MH-detected frame reject condition. 17 = Attempt to send a frame to an endpoint that is not available in the MH routing table.
1A	09 = QLFR-MH reported establishment of level 2 communication on an ISMQLNK when the SMP thought level 2 was already up. 0A = The SM received a new ISMQLNK LE message after acknowledging receipt of a previous LE message. This implies the far-end SM either didn't receive the acknowledgement on time or re-started the ISMQLNK. 0B = The SM received a new ISMQLNK LE message on an ISMQLNK that successfully completed the link establishment protocol. This implies the far-end SM re-started the ISMQLNK. 0C = ISMQLNK LE sequence timed out.
3E	0F = Level 3 error reported by integrity monitor in the SMP.

o = SM number (the SM reporting the error).

p = Active MCTSI side at the time the error occurred.

q = QLFR-SMP flag indicating status of post-mortem data.

If 'm' =	'q' =
FF	Valid value(s): 00 = Post-mortem data was already sent to the AM. Multiple errors have occurred, and some data associated with this error may be reported by a previous REPT POST MORTEM output message. 01 = Post-mortem data was not sent to the AM previously (normal case).
CC	This field is not used.

r = QLFR-SMP post-mortem over-write counter.

s = Recovery action performed by QLFR-SMP. Valid value(s):
- 00 = No action.
- 03 = Request level 3 re-start.
- 04 = Request level 2 re-start.
- 05 = Request removal (with deferred re-start).

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t = Recovery action performed by QLFR-MH. Valid value(s):
- 00 = No action.
- 02 = Notify SM of loss of level 2 communication and periodically attempt to re-establish it.
- 06 = Initiate level 2 protocol re-start due to level 2 errors.

u = The SMP-resident state of the MH QPIPE at the time the error occurred. Valid value(s):
- 0 = the QPIPE is unequipped.
- 1 = A QPIPE initialization failed and autonomous recovery is in progress.
- 2 = The QPIPE is active.
- 3 = The QPIPE is out-of-service due to a suspected communication module (CM) problem.
- 4 = The QPIPE is out-of-service due to a software problem and autonomous recovery is in progress.
- 5 = The QPIPE is out-of-service and periodic attempts to pass a loopback test to the active QLPS are in progress.
- 6 = The QPIPE is out-of-service and is configured for fault isolation testing [attempting to pass a local loopback test to the time slot interchange (TSI)].
- 7 = The QPIPE is out-of-service due to a local loopback test failure.
- 8 = The QPIPE has been implicated in causing a MH operational software restart (OSR) and will be re-initialized after software recovery completes.

v = The SM-resident ISMQLNK level 3 state at the time the error occurred. Valid value(s):
- 0 = The ISMQLNK is unequipped.
- 1 = The ISMQLNK is in-service (routing is enabled).
- 2 = The ISMQLNK is out-of-service (level 2 is down and routing is disabled).
- 3 = An LE message has been sent to the far-end and the SM is waiting for an acknowledgement.
- 4 = An LE acknowledgement message has been sent to the far-end in response to an LE message, but an LE acknowledgement has not yet been received.
- 5 = An LE acknowledgement message has been received from the far-end and an MH routing update is in progress.
- 6 = Routing has been disabled due to a pending manual request that will cause the ISMQLNK to go out-of-service. This is a transient state.

w = The SM-resident ISMQLNK level 2 state at the time the error occurred. Valid value(s):
- 0 = The ISMQLNK is unequipped.
- 1 = Level 2 is up.
- 2 = Level 2 is down.

x = Number of times QLFR-MH reported establishment of level 2 communication on an ISMQLNK when the SMP thought level 2 was already up (SMQTSEQERR).

y = Number of times the SM received a new ISMQLNK LE message after acknowledging receipt of a previous LE message. This implies that the far-end SM either didn't receive the acknowledgement on time or re-started the ISMQLNK (SMQTLE1ERR).

z = Number of times the SM received a new ISMQLNK LE message on an ISMQLNK that successfully completed the link establishment protocol. This implies that the far-end SM re-started

the ISMQLNK (SMQTLEISERR).

a[1] = Number of ISMQLNK link establishment (LE) sequence timeouts (SMQTLESTOUT).

b[1] = Number of level 3 errors reported by integrity monitor in the SMP (SMQTDQL3FAIL).

c[1] = Summary count of SM-detected ISMQLNK LE sequence errors (SMQSLESEQ).

d[1] = Number of SMP-initiated level 3 re-starts (or level 3 re-starts escalated to more severe recovery actions) performed (SMQIL3RSTRT).

e[1] = Number of SMP-initiated level 2 re-starts (or level 2 re-starts escalated to more severe recovery actions) performed (SMQIL2RSTRT).

f[1] = Number of SMP-initiated ISMQLNK removals (with deferred level 2 re-start) (SMQIRMVDFR).

g[1] = Number of MH-initiated level 2 protocol re-starts due to level 2 errors (SMQILLRSTRT).

h[1] = Number of MH-detected transmit queue full errors (SMQTQUEFULL).

i[1] = Number of times the RR frame re-try threshold was exceeded (SMQTXRETRY).

j[1] = Number of frames received with an invalid poll/final bit (SMQTINVPF).

k[1] = Number of frames received with an invalid message/response bit (SMQTINVCR).

l[1] = Number of frames received with an unknown packet type (SMQTUNKPKT).

m[1] = Number of frames received with an unknown frame type (SMQTUNKFRM).

n[1] = Number of frames received with inconsistent packet and frame types (SMQTINCPKT).

o[1] = Number of SABMs received while the link was in the multi-frame establish or timer recovery state (SMQTRESTART).

p[1] = Number of valid frames received on a link that was in a state for which the frame was not expected (SMQTUXPFRM).

q[1] = Number of out-of-sequence frames received (SMQTUXPSEQ).

r[1] = Number of MH-detected frame reject conditions (SMQTFRAMREJ).

s[1] = Number of attempts to send a frame to an endpoint that is not available in the MH link map (routing table) (SMQTLMRFSH).

t[1] = Summary count of MH level 2 transmit errors (SMQSL2SEND).

u[1] = Summary count of MH level 2 receive errors (SMQSL2RECV).

v[1] = Summary count of MH level 2 synchronization errors (SMQSL2SYNCH).

w[1] = SM event number.

x[1] = SM-reported alarm level. Valid value(s):

01 = Information only.

03 = Minor.

05 = Major.
06 = Critical.

y[1] = AM state of the reporting SM's parent MH QPIPE.

z[1] = AM state of the far-end SM's parent MH QPIPE.

a[2] = Initial QLFR-AM error sub-type. Valid value(s):
0D = ISMQLNK level 2 error.
13 = MH link map refresh.
1A = ISMQLNK establishment sequence error.
3E = ISMQLNK level 3 error.

b[2] = Number of equipped QGPs (Gl_qgp).

c[2] = Operational QGP configuration (Glqgpoper).

4. ACTION TO BE TAKEN

Since this message is logged, analyze the logged data by retrieving information off of the disk. The input message for dumping the daylog is `OP:LOG:LG="DAYLOG",MSGCLS=CLNKMON`. Correlate the event number with the REPT:TRBL message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LOG
```

Output Message(s):

```
REPT:TRBL
```

REPT:PM-MCTSI-A

Software Release: 5E10 - 5E12
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
REPT POSTMORT MCTSI=a-b PI EVENT=c
  EVENT-REPORTED-FROM-MCTSI,PI=a-d
  ACTIVE-PSUCOM=e [PSU-COM-ERROR-SOURCE=f]
  PROCESS=g MESSAGE-NO=h [TIME=ii:ii jj/jj/jj]
  STIMULUS=k RCVY=l [PS DATA PRESERVING]
  FAIL-ADDR=m PP-MODE=n ASSERT-COUNT=o
  IMAGE=p [EXPECTED-IMAGE=PI IMAGE]
```

2. REASON FOR OUTPUT

To report the occurrence of an initialization in the module controller/time slot interchanger packet interface (MCTSIPI). The message prints only when the printmode is turned on. The message is stored in a buffer and can be printed on request (OP:HISTORY).

3. VARIABLE FIELD DEFINITIONS

`PS DATA PRESERVING` = Packet switching data was preserved.

`a` = Switching module (SM) number.

`b` = MCTSI side number.

`c` = Event number.

`d` = MCTSIPI side number.

`e` = Active packet bus.

`f` = Packet bus on which error occurred.

`g` = Process number.

`h` = Message number.

`i` = Time of the day the assert occurred, in the form hour:minute.

`j` = Date the assert occurred, in the form month/day/year.

`k` = Stimulus of recovery action. Refer to the APP:RCVRY-ACTION appendix in the Appendixes section of the Output Messages manual for a list of recovery action stimulus and their definitions.

`l` = Recovery action that occurred. Valid value(s):

- `FI` = Full initialization.
- `NONE` = No recovery action.
- `PRINT` = Report only; no escalation.
- `PSI` = Autonomous PS initialization.

RPI	= Return to point of interrupt.
SI	= Selective initialization.
SPP	= Single process purge.

m = Failing address where event occurred.

n = Port processor mode. Valid value(s):

CONSISTENT	= Hardware and software are consistent.
ESSENTIAL	= Essential jobs operational.
NORMAL	= Normal operational mode.
OPFULL	= All jobs operational.
POST_RCVY	= Post recovery.
RAMDYN	= Dynamic memory consistent.
RAMTXT	= Read access memory text consistent.
RAMWP	= Text and data consistent.
SW-RCVY	= Software recovery.
SYSPROC	= System processes operational.
UNKNOWN	

o = Number of nested ASSERTS.

p = Image type in the PI at the time of the assert. Valid value(s):

ERROR IMAGE	= The image contained an error.
NULL IMAGE	= No image was loaded.
PI IMAGE	= Image used for PI was loaded.

4. ACTIONS TO BE TAKEN

Monitor the progress of the software recovery. Initiate manual actions if the recovery does not proceed as expected. Retain this information along with any trouble report concerning the initialization/recovery and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CHG:PRNTMODE
OP:HISTORY
RLS:PM-PP-MCTSI
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:PM-MCTSI-B

Software Release: 5E13 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
REPT POSTMORT MCTSI=a-b PI EVENT=c
  EVENT-REPORTED-FROM-MCTSI,PI=a-d
  PSUCA=e ACTIVE-PSUCOM=f
  PROCESS=g MESSAGE-NO=h [TIME=ii:ii jj/jj/jj]
  STIMULUS=k RCVY=l [PS DATA PRESERVING]
  FAIL-ADDR=m PP-MODE=n ASSERT-COUNT=o
  IMAGE=p
```

2. REASON FOR OUTPUT

To report the occurrence of an initialization in the module controller/time slot interchanger packet interface (MCTSIPI). The message prints only when the printmode is turned on. The message is stored in a buffer and can be printed on request (OP:HISTORY).

3. VARIABLE FIELD DEFINITIONS

`PS DATA PRESERVING` = Packet switching data was preserved.

`a` = Switching module (SM) number.

`b` = MCTSI side number.

`c` = Event number.

`d` = MCTSIPI side number.

`e` = PSU community address.

`f` = Active packet bus.

`g` = Process number.

`h` = Message number.

`i` = Time of the day the assert occurred, in the form hour:minute.

`j` = Date the assert occurred, in the form month/day/year.

`k` = Stimulus of recovery action. Refer to the APP:RCVRY-ACTION appendix in the Appendixes section of the Output Messages manual for a list of recovery action stimulus and their definitions.

`l` = Recovery action that occurred. Valid value(s):

`FI`	= Full initialization.
`NONE`	= No recovery action.
`PRINT`	= Report only; no escalation.
`PSI`	= Autonomous PS initialization.
`RPI`	= Return to point of interrupt.

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SI	= Selective initialization.
SPP	= Single process purge.

m = Failing address where event occurred.

n = Port processor mode. Valid value(s):

CONSISTENT	= Hardware and software are consistent.
ESSENTIAL	= Essential jobs operational.
NORMAL	= Normal operational mode.
OPFULL	= All jobs operational.
POST_RCVY	= Post recovery.
RAMDYN	= Dynamic memory consistent.
RAMTXT	= Read access memory text consistent.
RAMWP	= Text and data consistent.
SW-RCVY	= Software recovery.
SYSPROC	= System processes operational.
UNKNOWN	

o = Number of nested ASSERTS.

p = Image type in the PI at the time of the assert. Valid value(s):

ERROR IMAGE	= The image contained an error.
NULL IMAGE	= No image was loaded.
PI IMAGE	= Image used for PI was loaded.
PI2 IMAGE	= Image used for PI2 was loaded.

4. ACTIONS TO BE TAKEN

Monitor the progress of the software recovery. Initiate manual actions if the recovery does not proceed as expected. Retain this information along with any trouble report concerning the initialization/recovery and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CHG:PRNTMODE
OP:HISTORY
RLS:PM-PP-MCTSI
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:PM-MELNK-A

Software Release: 5E12 and later
Message Class: SM_MON
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT POST MORTEM  MELNK=a-b-c EVENT=d

  1111ffgg hhhhiiii jjjjkkkk llllmmmm nnnnoooo ppppqqqq hhhhrrrr ssssttttt

  uuuuvvvv wwwwxxxx yyyyzzzz a1a1b1b1 c1c1d1d1 e1e1f1f1 g1g1h1h1 i1i1hhhh

  j1j1k1k1 hhhhl1m1 n1n1n1n1 o1o1o1o1 p1p1p1p1 q1q1q1q1 r1s1t1u1 v1hhw1x1

  y1z1a2b2 c2d2e2f2 g2h2i2j2 k2hhl2hh m2n2o2hh p2q2r2s2 t2u2v2hh
```

[2]
```
REPT POST MORTEM  MELNK=a-b-c EVENT=d

  5555ffgg hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh

  hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh

  hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh p1p1p1p1 q1q1q1q1 r1s1t1u1 v1hhw1x1

  y1z1a2b2 c2d2e2f2 g2h2i2j2 k2hhl2hh m2n2o2hh p2q2r2s2 t2u2v2hh
```

[3]
```
REPT POST MORTEM  MELNK=a-b-c EVENT=d

  7777ffgg hhl1hhm1 w2w2x2x2 hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh

  hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh

  hhhhhhhh hhhhhhhh hhhhhhhh hhhhhhhh p1p1p1p1 q1q1q1q1 r1s1t1u1 v1hhw1x1

  y1z1a2b2 c2d2e2f2 g2h2i2j2 k2hhl2hh m2n2o2hh p2q2r2s2 t2u2v2hh
```

2. REASON FOR OUTPUT

To report the raw data associated with module controller/time slot interchange (MCTSI) based ethernet link (MELNK) events and errors. All of the variables e through x^2 are represented in hexadecimal.

Format 1 prints when the source of the error is the message handler (MH). Format 2 prints when the source of the error is fault recovery software in the switching module processor (SMP). Format 3 prints when the source of the error is the MEPIPE/MELNK status audit initiated by the SMP.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

`b` = MCTSI-based ethernet pipe (MEPIPE) number.

`c` = MELNK number.

`d` = Event number.

`e` = Source of the error. Valid values are:

- `0x1111` = The error was detected and reported by the MH.
- `0x5555` = The error was reported by SMP-resident fault recovery software.
- `0x7777` = The error was reported by the MEPIPE/MELNK status audit, which verifies data consistency between the SMP and MH.

`f` = The type of error that is being reported. Valid values for format 1 are:

- `0x01` = MELNK recovery required by MH audit or data integrity check.
- `0x02` = MELNK recovery required due to MH operational software restart (OSR).
- `0x03` = Loop back (ping) to far end failed.
- `0x06` = Connection establishment time out on a MELNK port.
- `0x07` = Far end dropped the protocol connection on a MELNK port.
- `0x08` = Near end (the *5ESS*®-2000 Switch) dropped the protocol connection on a MELNK port.
- `0x09` = Protocol connection on a MELNK port dropped due to timeout.

Valid values for format 2 are:

- `0x01` = Excessive MELNK fault recovery events from the MH.
- `0x02` = Excessive fault recovery events from the MH for all MELNKs associated with the parent MEPIPE.
- `0x03` = Excessive out-of-date MELNK events from the MH. Such events are normally ignored because they occurred prior to a SMP-initiated recovery action.
- `0x04` = MELNK recovery failure or timeout.
- `0x05` = SMP/MH MELNK data inconsistency detected.
- `0x07` = Excessive unexpected MELNK events. These events are normally valid, but they are not expected to occur for a MELNK in a particular state or condition.

Valid values for format 3 are:

- `0x05` = SMP/MH MELNK data inconsistency detected.

`g` = MCTSI side that was active when the error was reported.

`h` = Not used.

`i` = Number of MELNK recoveries required by MH-resident audits and/or data integrity checks.

`j` = Number of MELNK recoveries required due to MH OSRs.

`k` = Number of far end loopback (ping) failure transitions.

`l` = Number of far end loopback (ping) success transitions.

`m` = Number of times a protocol connection was established on a MELNK port.

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`n` = Number of times protocol connection establishment timed out on a MELNK port.

`o` = Number of times a protocol connection on a MELNK port was dropped by the far end.

`p` = Number of times a protocol connection on a MELNK port was dropped by the near (*5ESS*®-2000 Switch) end.

`q` = Number of times a protocol connection on a MELNK port was dropped due to timeout.

`r` = Number of parent MEPIPE recoveries required by MH-resident audits.

`s` = Number of parent MEPIPE recoveries required due to MH OSRs.

`t` = Number of ethernet hub loopback (ping) failure transitions.

`u` = Number of ethernet hub loopback (ping) success transitions.

`v` = Number of byte count mismatch errors.

`w` = Number of times carrier sense was lost during transmission.

`x` = Number of excessive deferral errors.

`y` = Number of collision detection heartbeat lost errors.

`z` = Number of monitored packet bad errors.

`a`[1] = Number of no carrier sense errors.

`b`[1] = Number of out-of-window collision errors.

`c`[1] = Number of transmit FIFO underruns.

`d`[1] = Number of excessive collision errors.

`e`[1] = Number of cyclic redundancy check (CRC) errors.

`f`[1] = Number of frame alignment errors.

`g`[1] = Number of receive FIFO overruns.

`h`[1] = Number of collision during reception errors.

`i`[1] = Number of runt (small) packet errors.

`j`[1] = Summary count of parent MEPIPE receive errors.

`k`[1] = Summary count of parent MEPIPE transmit errors.

`l`[1] = Status of the parent MEPIPE in the MH at the time the error was reported. Valid values are:

- `0x00` = Unequipped. A child MELNK had not been provisioned (or had never been restored to service).
- `0x01` = Disabled. The SONIC device in the MH was turned off.
- `0x02` = Enabled. The SONIC device in the MH was turned on. The MH was performing periodic loopback (ping) tests to the hub (if the hub is managed).
- `0x03` = Disregard MH MEPIPE status.

m[1] = Status of the MELNK in the MH at the time the error was reported. Valid values are:

- 0x00 = Unequipped. This MELNK had not been provisioned (or had never been restored to service).
- 0x01 = Disabled. The MH was not performing periodic loopback (ping) tests to the far end and was not attempting to establish a protocol connection.
- 0x02 = Enabled. The MH was performing periodic loopback (ping) tests to the far end. A protocol connection was either established or the MH was actively attempting to establish one.
- 0x03 = Disregard MH MELNK status.

n[1] = The MH-resident version of the internet protocol (IP) address associated with the far end system to which the MH was transmitting. A value of 0xffffffff indicates that the address could not be determined at the time the error was reported.

o[1] = Unless field n[1] is 0xffffffff, this is the MH-resident version of the other (inactive) IP address associated with the far end system. This field will always be 0 if the configuration of the far end system is simplex.

p[1] = SMP-resident version of the first IP address associated with the far end system to which the active MCTSI/MH side transmits.

q[1] = SMP-resident version of the second IP address associated with the far end system to which the active MCTSI/MH side transmits. This field will always be 0 if the configuration of the far end system is simplex.

r[1] = Maintenance state of the parent MEPIPE (in the SMP) at the time the error was reported. Valid values are:

- 0x00 = UNEQ (the MEPIPE is unequipped).
- 0x01 = ACT (the MEPIPE is active).
- 0x02 = OOSFLT (the MEPIPE is out-of-service [OOS] due to fault recovery).
- 0x03 = INIT (the MEPIPE is being initialized).
- 0x04 = OOSL1 (the MEPIPE is OOS due to a layer 1 [physical layer] problem).
- 0x05 = OOSLBK (the MEPIPE is OOS due to loopback [ping] failures).
- 0x06 = OOSMAN (all child MELNKs are manually removed).

s[1] = MEPIPE action in progress at the time the error was reported. Valid values are:

- 0x00 = No action was in progress.
- 0x01 = The MEPIPE/MELNK status audit was in progress.
- 0x04 = A resynchronization of MEPIPE/MELNK status was in progress following a MCTSI soft switch.

t[1] = The number of MELNKs equipped on the parent MEPIPE.

u[1] = The last recovery action taken on the parent MEPIPE during the current invocation of the MEPIPE/MELNK recovery strategy. Valid values are:

- 0x00 = No action taken.
- 0x01 = Enter autonomous recovery interval.
- 0x02 = Run the MEPIPE/MELNK status audit to verify SMP/MH data consistency.
- 0x03 = Restore the MEPIPE.
- 0x05 = Initiate MCTSI and/or MH recovery actions.

0x06 = Leave the MEPIPE in its current state (recovery may still occur if the MEPIPE is enabled in the MH).
0x07 = Unconditionally remove the MEPIPE and disable autonomous recovery in the MH.

v^1 = The number of recovery actions of type u^1 that have been performed during the current invocation of the MEPIPE/MELNK recovery strategy.

w^1 = Number of parent MEPIPE fault recovery events received from the MH.

x^1 = Number of fault recovery events on any child MELNK of the parent MEPIPE (for thresholding MELNK errors on a MEPIPE basis).

y^1 = Number of out-of-date parent MEPIPE events received from the MH.

z^1 = Number of parent MEPIPE recovery actions that failed or timed out.

a^2 = Number of times a SMP/MH parent MEPIPE data inconsistency was detected.

b^2 = Number of times invalid data was received from the MH.

c^2 = Number of unexpected parent MEPIPE events.

d^2 = Maintenance state of the MELNK (in the SMP) at the time the error was reported. Valid values are:
0x00 = UNEQ (the MELNK is unequipped).
0x01 = ACT (the MELNK is active -- all ports are in service).
0x02 = DGR (the MELNK is degraded -- some but not all ports are OOS).
0x03 = OOSFE (the MELNK is OOS family-of-equipment because the parent MEPIPE is OOS).
0x04 = OOSFLT (the MELNK is OOS due to fault recovery).
0x05 = OOSL2 (the MELNK is OOS due to a layer 2 [protocol] problem -- no ports are in service).
0x06 = OOSLBK (the MELNK is OOS due to loopback [ping] failures).
0x07 = OOSMAN (the MELNK is manually removed).

e^2 = MELNK action in progress at the time the error was reported. Valid values are:
0x00 = No action was in progress.
0x02 = An MELNK remove was in progress.
0x03 = An MELNK restore was in progress.
0x04 = A resynchronization of MELNK status was in progress following a MCTSI soft switch.

f^2 = Manual request indicator. Valid values are:
0x00 = The action indicated in field e^2 was not manually requested.
0x01 = The action indicated in field e^2 was manually requested.

g^2 = Last known active far end side. Valid values are:
0x00 = Far end system side 0 was active.
0x01 = Far end system side 1 was active.
0x02 = The active far end system side cannot be determined.

h[2] = Number of active ports on the MELNK at the time the error was reported.

i[2] = Number of active ports on the MELNK during status resynchronization following a MCTSI soft switch (used to determine whether all ports came back up after the switch). This field is only used if field e[2] has the value 0x04.

j[2] = The last recovery action taken on the MELNK during the current invocation of the MEPIPE/MELNK recovery strategy. Valid values are:

- 0x00 = No action taken.
- 0x01 = Enter autonomous recovery interval.
- 0x02 = Run the MEPIPE/MELNK status audit to verify SMP/MH data consistency.
- 0x03 = Restore the MELNK.
- 0x04 = Implicate the parent MEPIPE.
- 0x06 = Leave the MELNK in its current state (recovery may still occur if the MELNK is enabled in the MH).
- 0x07 = Unconditionally remove the MELNK and disable autonomous recovery in the MH.

k[2] = The number of recovery actions of type j[2] that have been performed during the current invocation of the MEPIPE/MELNK recovery strategy.

l[2] = Number of MELNK fault recovery events received from the MH.

m[2] = Number of out-of-date MELNK events received from the MH.

n[2] = Number of MELNK recovery actions that failed or timed out.

o[2] = Number of times a SMP/MH MELNK data inconsistency was detected.

p[2] = Number of unexpected MELNK events.

q[2] = Current status of MCTSI/MH recovery actions requested by the MEPIPE/MELNK recovery strategy. Valid values are:

- 0x00 = MCTSI/MH recovery is not in progress.
- 0x01 = MCTSI/MH short-term recovery is in progress. Recovery actions are actively being performed in an effort to restore the MEPIPE and/or MELNK to service.
- 0x02 = MCTSI/MH long-term recovery is in progress. All recovery actions that can be performed by the recovery strategy have either been attempted or cannot be performed (because the MCTSI is simplex). Recovery actions will be re-tried periodically.

r[2] = MH initialization indicator (for MCTSI side 0). Valid values are:

- 0x00 The MH supporting the MEPIPE/MELNK on MCTSI side 0 has not been initialized as part of MEPIPE/MELNK recovery.
- 0x01 The MH has been initialized.

s[2] = MH initialization indicator (for MCTSI side 1). Valid values are:

- 0x00 The MH supporting the MEPIPE/MELNK on MCTSI side 1 has not been initialized as part of MEPIPE/MELNK recovery.
- 0x01 The MH has been initialized.

t[2] = The number of times an automatic MEPIPE restore has been attempted on MCTSI side 0 as part of the recovery strategy.

u[2] = The number of times an automatic MEPIPE restore has been attempted on MCTSI side 1 as part of the recovery strategy.

v[2] = The number of times a MCTSI soft switch has been requested as part of the recovery strategy.

w[2] = The number of MELNK ports with established protocol connections in the MH at the time an SMP/MH data inconsistency was detected.

x[2] = The far end system side (0 or 1) with which the MH was attempting to communicate at the time an SMP/MH data inconsistency was detected. This should always be 0 if the far end system configuration is simplex.

4. ACTIONS TO BE TAKEN

Since this message is logged, when an error occurs retrieve the logged data from the log files using the input message `OP:LOG:LG="DAYLOG",MSGCLS=SM_MON`. Correlate the event number with the event number in the associated REPT:TRBL-MELNK output message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LOG
OP:ST-MELNK
```

Output Message(s):

```
OP:ST-MELNK
REPT:PM-MEPIPE
REPT:TRBL-MELNK
REPT:TRBL-MEPIPE
```

REPT:PM-MELNK-B

Software Release: 5E12 and later
Message Class: SM_MON
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT POST MORTEM  MELNK=a-b-c EVENT=d

  1111eeff gggghhhh iiiijjjj kkkkllll mmmmnnnn ooooppp ggggqqqq rrrrssss

  ttttuuuu vvvvwwww xxxxyyyy zzzza1a1 b1b1c1c1 d1d1e1e1 f1f1g1g1 h1h1i1i1

  j1j1gggg k1k1l1l1 ggggm1n1 gggggggg gggggggg gggggggg o1o1o1o1 p1p1p1p1

  q1q1q1q1 r1r1r1r1 s1t1u1v1 w1ggx1y1 z1a2b2c2 d2e2f2g2 h2i2j2k2 l2ggm2gg

  n2o2p2gg q2r2s2t2 u2v2w2gg
```

[2]
```
REPT POST MORTEM  MELNK=a-b-c EVENT=d

  5555eeff gggggggg gggggggg gggggggg gggggggg gggggggg gggggggg gggggggg

  gggggggg gggggggg gggggggg gggggggg gggggggg gggggggg gggggggg gggggggg

  gggggggg gggggggg gggggggg gggggggg gggggggg gggggggg gggggggg gggggggg

  q1q1q1q1 r1r1r1r1 s1t1u1v1 w1ggx1y1 z1a2b2c2 d2e2f2g2 h2i2j2k2 l2ggm2gg

  n2o2p2gg q2r2s2t2 u2v2w2gg
```

[3]
```
REPT POST MORTEM  MELNK=a-b-c EVENT=d

  7777eeff ggm1ggn1 x2x2y2y2 gggggggg gggggggg gggggggg gggggggg gggggggg

  gggggggg gggggggg gggggggg gggggggg gggggggg gggggggg gggggggg gggggggg

  gggggggg gggggggg gggggggg gggggggg gggggggg gggggggg gggggggg gggggggg

  q1q1q1q1 r1r1r1r1 s1t1u1v1 w1ggx1y1 z1a2b2c2 d2e2f2g2 h2i2j2k2 l2ggm2gg

  n2o2p2gg q2r2s2t2 u2v2w2gg
```

2. REASON FOR OUTPUT

To report the raw data associated with module controller/time slot interchange (MCTSI)-based ethernet link (MELNK) events and errors. All of the variables `e` through y^2 are represented in hexadecimal.

Format 1 prints when the source of the error is the message handler (MH). Format 2 prints when the source of the

error is fault recovery software in the switching module processor (SMP). Format 3 prints when the source of the error is the MEPIPE/MELNK status audit initiated by the SMP.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = MCTSI-based ethernet pipe (MEPIPE) number.

`c` = MELNK number.

`d` = Event number.

`e` = The type of error that is being reported. Valid values for format 1 are:

- `0x01` = MELNK recovery required by MH audit or data integrity check.
- `0x02` = MELNK recovery required due to MH operational software restart (OSR).
- `0x03` = Loopback (ping) to far end failed.
- `0x06` = Connection establishment time out on a MELNK port.
- `0x07` = Far end dropped the protocol connection on a MELNK port.
- `0x08` = Near end (the *5ESS*®-2000 Switch) dropped the protocol connection on a MELNK port.
- `0x09` = Protocol connection on a MELNK port dropped due to timeout.

Valid values for format 2 are:

- `0x01` = Excessive MELNK fault recovery events from the MH.
- `0x02` = Excessive fault recovery events from the MH for all MELNKs associated with the parent MEPIPE.
- `0x03` = Excessive out-of-date MELNK events from the MH. Such events are normally ignored because they occurred prior to a SMP-initiated recovery action.
- `0x04` = MELNK recovery failure or timeout.
- `0x05` = SMP/MH MELNK data inconsistency detected.
- `0x07` = Excessive unexpected MELNK events. These events are normally valid, but they are not expected to occur for a MELNK in a particular state or condition.

Valid values for format 3 are:

- `0x05` = SMP/MH MELNK data inconsistency detected.

`f` = MCTSI side that was active when the error was reported.

`g` = Not used.

`h` = Number of MELNK recoveries required by MH-resident audits and/or data integrity checks.

`i` = Number of MELNK recoveries required due to MH OSRs.

`j` = Number of far end loopback (ping) failure transitions.

`k` = Number of far end loopback (ping) success transitions.

`l` = Number of times a protocol connection was established on a MELNK port.

`m` = Number of times protocol connection establishment timed out on a MELNK port.

`n` = Number of times a protocol connection on a MELNK port was dropped by the far end.

`o` = Number of times a protocol connection on a MELNK port was dropped by the near (*5ESS*®-2000 Switch) end.

`p` = Number of times a protocol connection on a MELNK port was dropped due to timeout.

`q` = Number of parent MEPIPE recoveries required by MH-resident audits.

`r` = Number of parent MEPIPE recoveries required due to MH OSRs.

`s` = Number of ethernet hub loopback (ping) failure transitions.

`t` = Number of ethernet hub loopback (ping) success transitions.

`u` = Number of mate ethernet hub loopback (ping) failure transitions.

`v` = Number of mate ethernet hub loopback (ping) success transitions.

`w` = Number of byte count mismatch errors.

`x` = Number of times carrier sense was lost during transmission.

`y` = Number of excessive deferral errors.

`z` = Number of collision detection heartbeat lost errors.

`a`[1] = Number of monitored packet bad errors.

`b`[1] = Number of no carrier sense errors.

`c`[1] = Number of out-of-window collision errors.

`d`[1] = Number of transmit FIFO underruns.

`e`[1] = Number of excessive collision errors.

`f`[1] = Number of cyclic redundancy check (CRC) errors.

`g`[1] = Number of frame alignment errors.

`h`[1] = Number of receive FIFO overruns.

`i`[1] = Number of collision during reception errors.

`j`[1] = Number of runt (small) packet errors.

`k`[1] = Summary count of parent MEPIPE receive errors.

`l`[1] = Summary count of parent MEPIPE transmit errors.

`m`[1] = Status of the parent MEPIPE in the MH at the time the error was reported. Valid values are:

`0x00` = Unequipped. A child MELNK had not been provisioned (or had never been restored to service).

0x01 = Disabled. The SONIC device in the MH was turned off.
0x02 = Enabled. The SONIC device in the MH was turned on. The MH was performing periodic loopback (ping) tests to the hub (if the hub is managed).
0x03 = Disregard MH MEPIPE status.

n[1] = = Status of the MELNK in the MH at the time the error was reported. Valid values are:
0x00 = Unequipped. This MELNK had not been provisioned (or had never been restored to service).
0x01 = Disabled. The MH was not performing periodic loopback (ping) tests to the far end and was not attempting to establish a protocol connection.
0x02 = Enabled. The MH was performing periodic loopback (ping) tests to the far end. A protocol connection was either established or the MH was actively attempting to establish one.
0x03 = Disregard MH MELNK status.

o[1] = The MH-resident version of the internet protocol (IP) address associated with the far end system to which the MH was transmitting. A value of 0xffffffff indicates that the address could not be determined at the time the error was reported.

p[1] = Unless field o[1] is 0xffffffff, this is the MH-resident version of the other (inactive) IP address associated with the far end system. This field will always be 0 if the configuration of the far end system is simplex.

q[1] = SMP-resident version of the first IP address associated with the far end system to which the active MCTSI/MH side transmits.

r[1] = SMP-resident version of the second IP address associated with the far end system to which the active MCTSI/MH side transmits. This field will always be 0 if the configuration of the far end system is simplex.

s[1] = Maintenance state of the parent MEPIPE (in the SMP) at the time the error was reported. Valid values are:
0x00 = UNEQ (the MEPIPE is unequipped).
0x01 = ACT (the MEPIPE is active).
0x02 = OOSFLT (the MEPIPE is out-of-service [OOS] due to fault recovery).
0x03 = INIT (the MEPIPE is being initialized).
0x04 = OOSL1 (the MEPIPE is OOS due to a layer 1 [physical layer] problem).
0x05 = OOSLBK (the MEPIPE is OOS due to loopback [ping] failures).
0x06 = OOSMAN (all child MELNKs are manually removed).

t[1] = MEPIPE action in progress at the time the error was reported. Valid values are:
0x00 = No action was in progress.
0x01 = The MEPIPE/MELNK status audit was in progress.
0x04 = A resynchronization of MEPIPE/MELNK status was in progress following a MCTSI soft switch.

u[1] = The number of MELNKs equipped on the parent MEPIPE.

v[1] = The last recovery action taken on the parent MEPIPE during the current invocation of the MEPIPE/MELNK recovery strategy. Valid values are:

0x00 = No action taken.
0x01 = Enter autonomous recovery interval.
0x02 = Run the MEPIPE/MELNK status audit to verify SMP/MH data consistency.
0x03 = Restore the MEPIPE.
0x05 = Initiate MCTSI and/or MH recovery actions.
0x06 = Leave the MEPIPE in its current state (recovery may still occur if the MEPIPE is enabled in the MH).
0x07 = Unconditionally remove the MEPIPE and disable autonomous recovery in the MH.

w^1 = The number of recovery actions of type v^1 that have been performed during the current invocation of the MEPIPE/MELNK recovery strategy.

x^1 = Number of parent MEPIPE fault recovery events received from the MH.

y^1 = Number of fault recovery events on any child MELNK of the parent MEPIPE (for thresholding MELNK errors on a MEPIPE basis).

z^1 = Number of out-of-date parent MEPIPE events received from the MH.

a^2 = Number of parent MEPIPE recovery actions that failed or timed out.

b^2 = Number of times a SMP/MH parent MEPIPE data inconsistency was detected.

c^2 = Number of times invalid data was received from the MH.

d^2 = Number of unexpected parent MEPIPE events.

e^2 = Maintenance state of the MELNK (in the SMP) at the time the error was reported. Valid values are:
0x00 = UNEQ (the MELNK is unequipped).
0x01 = ACT (the MELNK is active -- all ports are in service).
0x02 = DGR (the MELNK is degraded -- some but not all ports are OOS).
0x03 = OOSFE (the MELNK is OOS family-of-equipment because the parent MEPIPE is OOS).
0x04 = OOSFLT (the MELNK is OOS due to fault recovery).
0x05 = OOSL2 (the MELNK is OOS due to a layer 2 [protocol] problem -- no ports are in service).
0x06 = OOSLBK (the MELNK is OOS due to loopback [ping] failures).
0x07 = OOSMAN (the MELNK is manually removed).

f^2 = MELNK action in progress at the time the error was reported. Valid values are:
0x00 = No action was in progress.
0x02 = An MELNK remove was in progress.
0x03 = An MELNK restore was in progress.
0x04 = A resynchronization of MELNK status was in progress following a MCTSI soft switch.

g^2 = Manual request indicator. Valid values are:
0x00 = The action indicated in field f^2 was not manually requested.
0x01 = The action indicated in field f^2 was manually requested.

h^2 = Last known active far end side. Valid values are:

- 0x00 = Far end system side 0 was active.
- 0x01 = Far end system side 1 was active.
- 0x02 = The active far end system side cannot be determined.

i^2 = Number of active ports on the MELNK at the time the error was reported.

j^2 = Number of active ports on the MELNK during status resynchronization following a MCTSI soft switch (used to determine whether all ports came back up after the switch). This field is only used if field f^2 has the value 0x04.

k^2 = The last recovery action taken on the MELNK during the current invocation of the MEPIPE/MELNK recovery strategy. Valid values are:

- 0x00 = No action taken.
- 0x01 = Enter autonomous recovery interval.
- 0x02 = Run the MEPIPE/MELNK status audit to verify SMP/MH data consistency.
- 0x03 = Restore the MELNK.
- 0x04 = Implicate the parent MEPIPE.
- 0x06 = Leave the MELNK in its current state (recovery may still occur if the MELNK is enabled in the MH).
- 0x07 = Unconditionally remove the MELNK and disable autonomous recovery in the MH.

l^2 = The number of recovery actions of type k^2 that have been performed during the current invocation of the MEPIPE/MELNK recovery strategy.

m^2 = Number of MELNK fault recovery events received from the MH.

n^2 = Number of out-of-date MELNK events received from the MH.

o^2 = Number of MELNK recovery actions that failed or timed out.

p^2 = Number of times a SMP/MH MELNK data inconsistency was detected.

q^2 = Number of unexpected MELNK events.

r^2 = Current status of MCTSI/MH recovery actions requested by the MEPIPE/MELNK recovery strategy. Valid values are:

- 0x00 = MCTSI/MH recovery is not in progress.
- 0x01 = MCTSI/MH short-term recovery is in progress. Recovery actions are actively being performed in an effort to restore the MEPIPE and/or MELNK to service.
- 0x02 = MCTSI/MH long-term recovery is in progress. All recovery actions that can be performed by the recovery strategy have either been attempted or cannot be performed (because the MCTSI is simplex). Recovery actions will be re-tried periodically.

s^2 = MH initialization indicator (for MCTSI side 0). Valid values are:

- 0x00 = The MH supporting the MEPIPE/MELNK on MCTSI side 0 has not been initialized as part of MEPIPE/MELNK recovery.
- 0x01 = The MH has been initialized.

`t`[2] = MH initialization indicator (for MCTSI side 1). Valid values are:

- `0x00` = The MH supporting the MEPIPE/MELNK on MCTSI side 1 has not been initialized as part of MEPIPE/MELNK recovery.
- `0x01` = The MH has been initialized.

`u`[2] = The number of times an automatic MEPIPE restore has been attempted on MCTSI side 0 as part of the recovery strategy.

`v`[2] = The number of times an automatic MEPIPE restore has been attempted on MCTSI side 1 as part of the recovery strategy.

`w`[2] = The number of times a MCTSI soft switch has been requested as part of the recovery strategy.

`x`[2] = The number of MELNK ports with established protocol connections in the MH at the time an SMP/MH data inconsistency was detected.

`y`[2] = The far end system side (0 or 1) with which the MH was attempting to communicate at the time an SMP/MH data inconsistency was detected. This should always be 0 if the far end system configuration is simplex.

4. ACTIONS TO BE TAKEN

Since this message is logged, when an error occurs retrieve the logged data from the log files using the input message `OP:LOG:LG="DAYLOG",MSGCLS=SM_MON`. Correlate the event number with the event number in the associated REPT:TRBL-MELNK output message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LOG
OP:ST-MELNK
```

Output Message(s):

```
OP:ST-MELNK
REPT:PM-MEPIPE
REPT:TRBL-MELNK
REPT:TRBL-MEPIPE
```

REPT:PM-MEPIPE-A

Software Release: 5E12 only
Message Class: SM_MON
Application: 5
Type: Output

1. FORMAT

```
[1]    REPT POST MORTEM  MEPIPE=a-b EVENT=c

         1111eeff gggggggg gggggggg gggggggg gggggggg gggggggg gggghhhh iiiijjjj

         kkkkllll mmmmnnnn ooooppppp qqqqrrrr ssssttttt uuuuvvvv wwwwxxxx yyyygggg

         zzzza1a1 ggggb1gg c1c1c1c1 gggggggg d1d1d1d1 gggggggg e1f1g1h1 i1ggj1k1

         l1m1n1o1 p1gggggg gggggggg gggggggg gggggggg ggq1r1s1 t1u1v1gg

[2]    REPT POST MORTEM  MEPIPE=a-b EVENT=c

         5555eeff gggggggg gggggggg gggggggg gggggggg gggggggg gggggggg gggggggg

         gggggggg gggggggg gggggggg gggggggg gggggggg gggggggg gggggggg gggggggg

         gggggggg gggggggg gggggggg gggggggg d1d1d1d1 gggggggg e1f1g1h1 i1ggj1k1

         l1m1n1o1 p1gggggg gggggggg gggggggg gggggggg ggq1r1s1 t1u1v1gg

[3]    REPT POST MORTEM  MEPIPE=a-b EVENT=c

         7777eeff ggb1gggg gggggggg gggggggg gggggggg gggggggg gggggggg gggggggg

         gggggggg gggggggg gggggggg gggggggg gggggggg gggggggg gggggggg gggggggg

         gggggggg gggggggg gggggggg gggggggg d1d1d1d1 gggggggg e1f1g1h1 i1ggj1k1

         l1m1n1o1 p1gggggg gggggggg gggggggg gggggggg ggq1r1s1 t1u1v1gg
```

2. REASON FOR OUTPUT

To report the raw data associated with module controller/time slot interchange (MCTSI) based ethernet pipe (MEPIPE) events and errors. All of the variables d through v^1 are represented in hexadecimal.

Format 1 prints when the source of the error is the message handler (MH). Format 2 prints when the source of the error is fault recovery software in the switching module processor (SMP). Format 3 prints when the source of the error is the MEPIPE/MELNK status audit initiated by the SMP.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = MEPIPE number.

`c` = Event number.

`d` = Source of the error. Valid values are:

- `0x1111` = The error was detected and reported by the MH.
- `0x5555` = The error was reported by SMP-resident fault recovery software.
- `0x7777` = The error was reported by the MEPIPE/MELNK status audit, which verifies data consistency between the SMP and MH.

`e` = The type of error that is being reported. Valid values for format 1 are:

- `0x0b` = MEPIPE recovery required by MH audit.
- `0x0c` = MEPIPE recovery required due to MH operational software restart (OSR).
- `0x0d` = Loop back (ping) to ethernet hub failed.
- `0x0f` = Byte count mismatch. The total number of bytes in a packet given to the ethernet transceiver to be transmitted did not match the sum of the packet fragments given to the ethernet transceiver.
- `0x10` = Carrier sense was lost during transmission of a packet.
- `0x11` = The ethernet transceiver deferred (waited to be able to transmit) too long and packet transmission was aborted.
- `0x12` = The ethernet transceiver did not get a collision pulse (heartbeat) during the first part of the interframe gap after transmission.
- `0x13` = The packet monitored by the ethernet transceiver during transmission did not agree with what was transmitted.
- `0x14` = Carrier sense was never detected during the entire transmission of a packet.
- `0x15` = A collision occurred too long after the start of packet transmission. This probably indicates an ethernet transceiver is going bad, or a cable segment is too long.
- `0x16` = The ethernet transceiver could not access the processor bus before its transmit FIFO emptied.
- `0x17` = Excessive (16) collisions occurred while trying to transmit a single frame.
- `0x18` = A cyclic redundancy check (CRC) error occurred in an incoming packet.
- `0x19` = An incoming packet was not framed on an 8-bit boundary.
- `0x1a` = The ethernet transceiver could not access the processor bus before its receive FIFO overflowed.
- `0x1b` = A collision occurred during reception of a frame.
- `0x1c` = A received packet was smaller than the minimum packet length.

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`0x1e` = Excessive MEPIPE receive errors.

`0x1f` = Excessive MEPIPE transmit errors.

Valid values for format 2 are:

`0x01` = Excessive MEPIPE fault recovery events from the MH.

`0x02` = Excessive child MELNK fault recovery events.

`0x03` = Excessive out-of-date MEPIPE events from the MH. Such events are normally ignored because they occurred prior to a SMP-initiated recovery action.

`0x04` = MEPIPE recovery failure or timeout.

`0x05` = SMP/MH MEPIPE data inconsistency detected.

`0x06` = Invalid data was received from the MH.

`0x07` = Excessive unexpected MEPIPE events. These events are normally valid, but they are not expected to occur for a MEPIPE in a particular state or condition.

Valid values for format 3 are:

`0x05` = SMP/MH MEPIPE data inconsistency detected.

`f` = MCTSI side that was active when the error was reported.

`g` = Not used.

`h` = Number of MEPIPE recoveries required by MH-resident audits.

`i` = Number of MEPIPE recoveries required due to MH OSRs.

`j` = Number of ethernet hub loopback (ping) failure transitions.

`k` = Number of ethernet hub loopback (ping) success transitions.

`l` = Number of byte count mismatch errors.

`m` = Number of times carrier sense was lost during transmission.

`n` = Number of excessive deferral errors.

`o` = Number of collision detection heartbeat lost errors.

`p` = Number of monitored packet bad errors.

`q` = Number of no carrier sense errors.

`r` = Number of out-of-window collision errors.

`s` = Number of transmit FIFO underruns.

`t` = Number of excessive collision errors.

`u` = Number of CRC errors.

`v` = Number of frame alignment errors.

`w` = Number of receive FIFO overruns.

`x` = Number of collision during reception errors.

`y` = Number of runt (small) packet errors.

`z` = Summary count of MEPIPE receive errors.

`a`[1] = Summary count of MEPIPE transmit errors.

`b`[1] = Status of the MEPIPE in the MH at the time the error was reported. Valid values are:

- `0x00` = Unequipped. A child MELNK had not been provisioned (or had never been restored to service).
- `0x01` = Disabled. The SONIC device in the MH was turned off.
- `0x02` = Enabled. The SONIC device in the MH was turned on. The MH was performing periodic loopback (ping) tests to the hub (if the hub is managed).
- `0x03` = Disregard MH MEPIPE status.

`c`[1] = The MH-resident version of the internet protocol (IP) address of the hub associated with the active MCTSI side. This field will be 0 if the hub is not managed.

`d`[1] = The SMP-resident version of the IP address of the hub associated with the active MCTSI side. This field will be 0 if the hub is not managed.

`e`[1] = Maintenance state of the MEPIPE (in the SMP) at the time the error was reported. Valid values are:

- `0x00` = UNEQ (the MEPIPE is unequipped).
- `0x01` = ACT (the MEPIPE is active).
- `0x02` = OOSFLT (the MEPIPE is out-of-service [OOS] due to fault recovery).
- `0x03` = INIT (the MEPIPE is being initialized).
- `0x04` = OOSL1 (the MEPIPE is OOS due to a layer 1 [physical layer] problem).
- `0x05` = OOSLBK (the MEPIPE is OOS due to loopback [ping] failures).
- `0x06` = OOSMAN (all child MELNKs are manually removed).

`f`[1] = MEPIPE action in progress at the time the error was reported. Valid values are:

- `0x00` = No action was in progress.

`0x01` = The MEPIPE/MELNK status audit was in progress.

`0x04` = A resynchronization of MEPIPE/MELNK status was in progress following a MCTSI soft switch.

g^1 The number of MELNKs equipped on the MEPIPE.

h^1 The last recovery action taken on the MEPIPE during the current invocation of the MEPIPE/MELNK recovery strategy. Valid values are:

`0x00` = No action taken.

`0x01` = Enter autonomous recovery interval.

`0x02` = Run the MEPIPE/MELNK status audit to verify SMP/MH data consistency.

`0x03` = Restore the MEPIPE.

`0x05` = Initiate MCTSI and/or MH recovery actions.

`0x06` = Leave the MEPIPE in its current state (recovery may still occur if the MEPIPE is enabled in the MH).

`0x07` = Unconditionally remove the MEPIPE and disable autonomous recovery in the MH.

i^1 = The number of recovery actions of type h^1 that have been performed during the current invocation of the MEPIPE/MELNK recovery strategy.

j^1 = Number of MEPIPE fault recovery events received from the MH.

k^1 = Number of fault recovery events on any child MELNK (for thresholding MELNK errors on a MEPIPE basis).

l^1 = Number of out-of-date MEPIPE events received from the MH.

m^1 = Number of MEPIPE recovery actions that failed or timed out.

n^1 = Number of times a SMP/MH MEPIPE data inconsistency was detected.

o^1 = Number of times invalid data was received from the MH.

p^1 = Number of unexpected MEPIPE events.

q^1 = Current status of MCTSI/MH recovery actions requested by the MEPIPE/MELNK recovery strategy. Valid values are:

`0x00` = MCTSI/MH recovery is not in progress.

`0x01` = MCTSI/MH short-term recovery is in progress. Recovery actions are actively being performed in an effort to restore the MEPIPE and/or MELNK to service.

`0x02` = MCTSI/MH long-term recovery is in progress. All recovery actions that can be performed by the recovery strategy have either been attempted or cannot be

performed (because the MCTSI is simplex). Recovery actions will be re-tried periodically.

`r`[1] = MH initialization indicator (for MCTSI side 0). Valid values are:

- `0x00` The MH supporting the MEPIPE/MELNK on MCTSI side 0 has not been initialized as part of MEPIPE/MELNK recovery.
- `0x01` The MH has been initialized.

`s`[1] = MH initialization indicator (for MCTSI side 1). Valid values are:

- `0x00` The MH supporting the MEPIPE/MELNK on MCTSI side 1 has not been initialized as part of MEPIPE/MELNK recovery.
- `0x01` The MH has been initialized.

`t`[1] = The number of times an automatic MEPIPE restore has been attempted on MCTSI side 0 as part of the recovery strategy.

`u`[1] = The number of times an automatic MEPIPE restore has been attempted on MCTSI side 1 as part of the recovery strategy.

`v`[1] = The number of times a MCTSI soft switch has been requested as part of the recovery strategy.

4. ACTIONS TO BE TAKEN

Since this message is logged, when an error occurs retrieve the logged data from the log files using the input message `OP:LOG:LG="DAYLOG",MSGCLS=SM_MON`. Correlate the event number with the event number in the associated REPT:TRBL-MEPIPE output message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LOG
OP:ST-MELNK
```

Output Message(s):

```
OP:ST-MELNK
REPT:PM-MELNK
REPT:TRBL-MELNK
REPT:TRBL-MEPIPE
```

REPT:PM-MEPIPE-B

Software Release: 5E13 and later
Message Class: SM_MON
Application: 5
Type: Output

1. FORMAT

[1]

```
REPT POST MORTEM  MEPIPE=a-b EVENT=c

  1111ddee ffffffff ffffffff ffffffff ffffffff ffffffff ffffgggg hhhhiiii

  jjjjkkkk llllmmmm nnnnoooo ppppqqqq rrrrssss ttttuuuu vvvvwwww xxxxyyyy

  zzzzffff a1a1b1b1 ffffc1ff d1d1d1d1 d1d1d1d1 d1ffffff e1e1e1e1 f1f1f1f1

  g1g1g1g1 h1h1h1h1 i1j1k1l1 m1ffn1o1 p1q1r1s1 t1ffffff ffffffff ffffffff

  ffffffff ffu1v1w1 x1y1z1ff
```

[2]

```
REPT POST MORTEM  MEPIPE=a-b EVENT=c

  5555ddee ffffffff ffffffff ffffffff ffffffff ffffffff ffffffff ffffffff

  ffffffff ffffffff ffffffff ffffffff ffffffff ffffffff ffffffff ffffffff

  ffffffff ffffffff ffffffff ffffffff ffffffff ffffffff ffffffff ffffffff

  g1g1g1g1 h1h1h1h1 i1j1k1l1 m1ffn1o1 p1q1r1s1 t1ffffff ffffffff ffffffff

  ffffffff ffu1v1w1 x1y1z1ff
```

[3]

```
REPT POST MORTEM  MEPIPE=a-b EVENT=c

  7777ddee ffc1ffff ffffffff ffffffff ffffffff ffffffff ffffffff ffffffff

  ffffffff ffffffff ffffffff ffffffff ffffffff ffffffff ffffffff ffffffff

  ffffffff ffffffff ffffffff ffffffff ffffffff ffffffff ffffffff ffffffff

  g1g1g1g1 h1h1h1h1 i1j1k1l1 m1ffn1o1 p1q1r1s1 t1ffffff ffffffff ffffffff

  ffffffff ffu1v1w1 x1y1z1ff
```

2. REASON FOR OUTPUT

To report the raw data associated with module controller/time slot interchange (MCTSI)-based ethernet pipe (MEPIPE) events and errors. All of the variables d through z^1 are represented in hexadecimal.

Format 1 prints when the source of the error is the message handler (MH). Format 2 prints when the source of the

error is fault recovery software in the switching module processor (SMP). Format 3 prints when the source of the error is the MEPIPE/MELNK status audit initiated by the SMP.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = MEPIPE number.

`c` = Event number.

`d` = The type of error that is being reported. Valid values for format 1 are:

- `0x0b` = MEPIPE recovery required by MH audit.
- `0x0c` = MEPIPE recovery required due to MH operational software restart (OSR).
- `0x0d` = Loopback (ping) to ethernet hub failed.
- `0x0f` = Loopback (ping) to mate ethernet hub failed.
- `0x11` = Byte count mismatch. The total number of bytes in a packet given to the ethernet transceiver to be transmitted did not match the sum of the packet fragments given to the ethernet transceiver.
- `0x12` = Carrier sense was lost during transmission of a packet.
- `0x13` = The ethernet transceiver deferred (waited to be able to transmit) too long and packet transmission was aborted.
- `0x14` = The ethernet transceiver did not get a collision pulse (heartbeat) during the first part of the interframe gap after transmission.
- `0x15` = The packet monitored by the ethernet transceiver during transmission did not agree with what was transmitted.
- `0x16` = Carrier sense was never detected during the entire transmission of a packet.
- `0x17` = A collision occurred too long after the start of packet transmission. This probably indicates an ethernet transceiver is going bad, or a cable segment is too long.
- `0x18` = The ethernet transceiver could not access the processor bus before its transmit FIFO emptied.
- `0x19` = Excessive (16) collisions occurred while trying to transmit a single frame.
- `0x1a` = A cyclic redundancy check (CRC) error occurred in an incoming packet.
- `0x1b` = An incoming packet was not framed on an 8-bit boundary.
- `0x1c` = The ethernet transceiver could not access the processor bus before its receive FIFO overflowed.
- `0x1d` = A collision occurred during reception of a frame.
- `0x1e` = A received packet was smaller than the minimum packet length.
- `0x20` = Excessive MEPIPE receive errors.
- `0x21` = Excessive MEPIPE transmit errors.

Valid values for format 2 are:

- `0x01` = Excessive MEPIPE fault recovery events from the MH.
- `0x02` = Excessive child MELNK fault recovery events.
- `0x03` = Excessive out-of-date MEPIPE events from the MH. Such events are normally ignored because they occurred prior to a SMP-initiated recovery action.
- `0x04` = MEPIPE recovery failure or timeout.
- `0x05` = SMP/MH MEPIPE data inconsistency detected.
- `0x06` = Invalid data was received from the MH.
- `0x07` = Excessive unexpected MEPIPE events. These events are normally valid, but they are not expected to occur for a MEPIPE in a particular state or condition.

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Valid values for format 3 are:
`0x05` = SMP/MH MEPIPE data inconsistency detected.

`e` = MCTSI side that was active when the error was reported.

`f` = Not used.

`g` = Number of MEPIPE recoveries required by MH-resident audits.

`h` = Number of MEPIPE recoveries required due to MH OSRs.

`i` = Number of ethernet hub loopback (ping) failure transitions.

`j` = Number of ethernet hub loopback (ping) success transitions.

`k` = Number of mate ethernet hub loopback (ping) failure transitions.

`l` = Number of mate ethernet hub loopback (ping) success transitions.

`m` = Number of byte count mismatch errors.

`n` = Number of times carrier sense was lost during transmission.

`o` = Number of excessive deferral errors.

`p` = Number of collision detection heartbeat lost errors.

`q` = Number of monitored packet bad errors.

`r` = Number of no carrier sense errors.

`s` = Number of out-of-window collision errors.

`t` = Number of transmit FIFO underruns.

`u` = Number of excessive collision errors.

`v` = Number of CRC errors.

`w` = Number of frame alignment errors.

`x` = Number of receive FIFO overruns.

`y` = Number of collision during reception errors.

`z` = Number of runt (small) packet errors.

`a`[1] = Summary count of MEPIPE receive errors.

`b`[1] = Summary count of MEPIPE transmit errors.

`c`[1] = Status of the MEPIPE in the MH at the time the error was reported. Valid values are:
`0x00` = Unequipped. A child MELNK had not been provisioned (or had never been restored to service).
`0x01` = Disabled. The SONIC device in the MH was turned off.

0x02 = Enabled. The SONIC device in the MH was turned on. The MH was performing periodic loopback (ping) tests to the hub (if the hub is managed).
0x03 = Disregard MH MEPIPE status.

d[1] = Bit array of MELNKs, if any, affected by the event. This array is only populated when field d has the value 0x0f, in which case any set bits correspond to mate hub MELNKs restarted as a result of the event.

e[1] = The MH-resident version of the internet protocol (IP) address of the hub associated with the active MCTSI side. This field will be 0 if the hub is not managed.

f[1] = The MH-resident version of the IP address of the hub associated with the mate (inactive) MCTSI side. This field will be 0 if the hub is not managed and equal to the address in field e[1] if the hub configuration is simplex.

g[1] = The SMP-resident version of the IP address of the hub associated with the active MCTSI side. This field will be 0 if the hub is not managed.

h[1] = The SMP-resident version of the IP address of the hub associated with the mate (inactive) MCTSI side. This field will be 0 if the hub is not managed or if the hub configuration is simplex.

i[1] = Maintenance state of the MEPIPE (in the SMP) at the time the error was reported. Valid values are:
0x00 = UNEQ (the MEPIPE is unequipped).
0x01 = ACT (the MEPIPE is active).
0x02 = OOSFLT (the MEPIPE is out-of-service [OOS] due to fault recovery).
0x03 = INIT (the MEPIPE is being initialized).
0x04 = OOSL1 (the MEPIPE is OOS due to a layer 1 [physical layer] problem).
0x05 = OOSLBK (the MEPIPE is OOS due to loopback [ping] failures).
0x06 = OOSMAN (all child MELNKs are manually removed).

j[1] = MEPIPE action in progress at the time the error was reported. Valid values are:
0x00 = No action was in progress.
0x01 = The MEPIPE/MELNK status audit was in progress.
0x04 = A resynchronization of MEPIPE/MELNK status was in progress following a MCTSI soft switch.

k[1] = The number of MELNKs equipped on the MEPIPE.

l[1] = The last recovery action taken on the MEPIPE during the current invocation of the MEPIPE/MELNK recovery strategy. Valid values are:
0x00 = No action taken.
0x01 = Enter autonomous recovery interval.
0x02 = Run the MEPIPE/MELNK status audit to verify SMP/MH data consistency.
0x03 = Restore the MEPIPE.
0x05 = Initiate MCTSI and/or MH recovery actions.
0x06 = Leave the MEPIPE in its current state (recovery may still occur if the MEPIPE is enabled in the MH).
0x07 = Unconditionally remove the MEPIPE and disable autonomous recovery in the MH.

m^1 = The number of recovery actions of type l^1 that have been performed during the current invocation of the MEPIPE/MELNK recovery strategy.

n^1 = Number of MEPIPE fault recovery events received from the MH.

o^1 = Number of fault recovery events on any child MELNK (for thresholding MELNK errors on a MEPIPE basis).

p^1 = Number of out-of-date MEPIPE events received from the MH.

q^1 = Number of MEPIPE recovery actions that failed or timed out.

r^1 = Number of times a SMP/MH MEPIPE data inconsistency was detected.

s^1 = Number of times invalid data was received from the MH.

t^1 = Number of unexpected MEPIPE events.

u^1 = Current status of MCTSI/MH recovery actions requested by the MEPIPE/MELNK recovery strategy. Valid values are:

- `0x00` = MCTSI/MH recovery is not in progress.
- `0x01` = MCTSI/MH short-term recovery is in progress. Recovery actions are actively being performed in an effort to restore the MEPIPE and/or MELNK to service.
- `0x02` = MCTSI/MH long-term recovery is in progress. All recovery actions that can be performed by the recovery strategy have either been attempted or cannot be performed (because the MCTSI is simplex). Recovery actions will be re-tried periodically.

v^1 = MH initialization indicator (for MCTSI side 0). Valid values are:

- `0x00` = The MH supporting the MEPIPE/MELNK on MCTSI side 0 has not been initialized as part of MEPIPE/MELNK recovery.
- `0x01` = The MH has been initialized.

w^1 = MH initialization indicator (for MCTSI side 1). Valid values are:

- `0x00` = The MH supporting the MEPIPE/MELNK on MCTSI side 1 has not been initialized as part of MEPIPE/MELNK recovery.
- `0x01` = The MH has been initialized.

x^1 = The number of times an automatic MEPIPE restore has been attempted on MCTSI side 0 as part of the recovery strategy.

y^1 = The number of times an automatic MEPIPE restore has been attempted on MCTSI side 1 as part of the recovery strategy.

z^1 = The number of times a MCTSI soft switch has been requested as part of the recovery strategy.

4. ACTIONS TO BE TAKEN

Since this message is logged, when an error occurs retrieve the logged data from the log files using the input message `OP:LOG:LG="DAYLOG",MSGCLS=SM_MON`. Correlate the event number with the event number in the associated REPT:TRBL-MEPIPE output message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LOG
OP:ST-MELNK
```

Output Message(s):

```
OP:ST-MELNK
REPT:PM-MELNK
REPT:TRBL-MELNK
REPT:TRBL-MEPIPE
```

REPT:PM-MHQPIPE

Software Release: 5E10 and later
Message Class: CLNKMON
Application: 5
Type: Output

1. FORMAT

```
REPT POST MORTEM  MHQPIPE=a-b-c-d EVENT=e
  14FBffff gghhiiii jjjjkkll mmmmnnoo ppqqrrss tttttuvv wwxxyyzz a1b1c1d1
  e1f1g1h1 i1j1k1k1 k1k1k1k1 k1k1k1k1 k1k1k1k1 k1k1k1k1 k1k1k1k1 l1l1m1m1
  m1m1m1m1 n1n1n1n1 o1o1o1o1 p1p1p1p1 q1q1q1q1 q1q1q1q1 q1q1q1q1 q1q1q1q1
  q1q1q1q1 r1s1t1t1 t1t1u1v1 w1w1x1y1
```

2. REASON FOR OUTPUT

To report data associated with an MH QPIPE error reported by fault recovery in a switching module (SM). An MH QPIPE is a communication path between the quad link packet switch (QLPS) and an SM's message handler (MH). All of the variables '`f`' through 'y^1' are represented in hexadecimal.

3. VARIABLE FIELD DEFINITIONS

`14FB` = Message type (MGQLSP2AM) indicating that the error was reported by a switching module.

`a` = SM number.

`b` = Active module controller/time slot interchange (MCTSI) side at the time the error was reported.

`c` = QLPS network.

`d` = Office network and timing complex (ONTC) side.

`e` = Administrative module (AM) event number.

`f` = Not used.

`g` = The error classification. Valid value(s):
- `23` = MH QPIPE failure.
- `27` = Unknown endpoint.
- `28` = Bad QLPS broadcast message.

`h` = ONTC side (SM perspective at time error was reported).

`i` = QLPS network.

`j` = If field '`g`' is `27`, this is the unknown endpoint number. Otherwise, it is the reporting SM number.

`k` = Fault location. Valid value(s):
- `00` = The near-end (MCTSI complex) is suspected of causing the QPIPE failure.
- `01` = The far-end (QLPS) is suspected of causing the QPIPE failure.

`l` = Not used.

m = Post-mortem data collection flag. Valid value(s):

- 0000 = There is no post-mortem data associated with this MH QPIPE error. Ignore fields 'n' through 'l^1'.
- AA3A = Fields 'n' through 'l^1' contain data associated with an MH QPIPE error detected by the MH.
- BB3A = Fields 'n' through 'y' and field 'l^1' contain data associated with an MH QPIPE error detected by the SMP. If the MH QPIPE was initially out-of-service, this error indicates that an SMP-initiated recovery action failed to restore the MH QPIPE.

n = MH QPIPE error that exceeded fault recovery threshold. Valid value(s):

- 00 = QPIPE loopback failure (to the QLPS) occurred.
- 05 = Audits detected a problem with QPIPE state information.
- 07 = If field 'm' is AA3A, the QPIPE went down due to an MH operational soft restart (OSR). Otherwise, a QPIPE initialization failure occurred.
- 08 = SM received a frame addressed to a different destination. The QLPS routing RAM is suspect.
- 09 = SM received an invalid broadcast packet from the QLPS.
- 0A = A protocol event that occurred in the MH (such as an incoming frame) was associated with an unknown endpoint.
- 12 = QPIPE removed due to SMP/MH link map mis-match.
- 18 = SM received a frame too large for a buffer.
- 19 = Cyclic redundancy check (CRC) error.
- 1A = SM received an excessively long frame (indicated by hardware).
- 1B = Abort received.
- 1C = Transmitter aborted.

o = SM number (the SM reporting the error).

p = Near/far failure indication from QLFR-MH.

q = Active MCTSI side at the time the error occurred.

r = QLFR-SMP flag indicating status of post-mortem data. Valid value(s):

- 00 = Post-mortem data was already sent to the AM. Multiple errors have occurred, and some data associated with this error may be reported by a previous REPT POST MORTEM output message.
- 01 = Post-mortem data was not sent to the AM previously (normal case).

s = QLFR-SMP post-mortem over-write counter.

t = Not used.

u = The SMP-resident state of the MH QPIPE at the time the error occurred. Valid value(s):

- 0 = The QPIPE is unequipped.
- 1 = A QPIPE initialization failed and autonomous recovery is in progress.
- 2 = The QPIPE is active.
- 3 = The QPIPE is out-of-service due to a suspected communication module (CM) problem.
- 4 = The QPIPE is out-of-service due to a software problem and autonomous recovery is in progress.
- 5 = The QPIPE is out-of-service and periodic attempts to pass a loopback test to the

active QLPS are in progress.

6 = The QPIPE is out-of-service and is configured for fault isolation testing [attempting to pass a local loopback test to the time slot interchange (TSI)].

7 = The QPIPE is out-of-service due to a local loopback test failure.

8 = The QPIPE has been implicated in causing a MH OSR and will be re-initialized after software recovery completes.

v = Not used.

w = Number of QPIPE initialization failures (SMQTFINIT).

x = Number of failed attempts to remove a QPIPE (SMQTFRMV).

y = Number of times the QPIPE was removed due to a link map mis-match (routing data corruption) (SMQTL3LMMM).

z = Not used.

a[1] = Number of times a frame was received that was too large to store in a buffer (SMQTFM2LONG).

b[1] = Number of frames received with CRC errors (SMQTCRCERR).

c[1] = Number of excessively long frames received (SMQTLGFMRCV).

d[1] = Number of aborts received (SMQTABORT).

e[1] = Number of transmitter aborts (SMQTTABORT).

f[1] = Number of times the SM received a frame addressed to a different destination (SMQTBADRRAM). This error implies that the QLPS routing RAM may be invalid.

g[1] = Number of times the SM received an invalid QLPS broadcast packet (SMQTBADBCAST). This error implies that the QLPS broadcast packets may have been improperly programmed.

h[1] = Number of times MH protocol events occurred (such as receipt of an incoming frame) that were associated with an unknown endpoint (SMQTUNKENDPT).

i[1] = Summary count of MH level 1 (QPIPE) transmit errors (SMQSL1TRAN).

j[1] = Summary count of MH level 1 (QPIPE) receive errors (SMQSL1RECV).

k[1] = Not used.

l[1] = SM event number.

m[1] = Not used.

n[1] = AM's MH QPIPE state.

o[1] = AM's parent QTMSLNK state.

p[1] = AM's parent TMSLNK state.

q[1] = Not used.

r^1 = Initial QLFR-AM error sub-type. Valid value(s):
- 24 = Near-end (MH) QPIPE failure.
- 25 = Far-end (QLPS) QPIPE failure.
- 27 = Unknown endpoint.
- 28 = Bad QLPS broadcast message.

s^1 = Error count for error sub-type 'r^1'.

t^1 = Not used.

u^1 = QLFR-AM error sub-type that exceeded threshold, resulting in a QLPS recovery action.

v^1 = Error count for QLPS error sub-type 'u^1'.

w^1 = Not used.

x^1 = Number of equipped QGPs (Gl_qgp).

y^1 = Operational QGP configuration (Glqgpoper).

4. ACTION TO BE TAKEN

Since this message is logged, analyze the logged data by retrieving information off of the disk. The input message for dumping the daylog is `OP:LOG:LG="DAYLOG",MSGCLS=CLNKMON`. Correlate the event number with the REPT:TRBL message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LOG
```

Output Message(s):

```
REPT:TRBL
```

REPT:PM-MMP

Software Release: 5E10 and later
Message Class: MSGSMON
Application: 5
Type: Output

1. FORMAT

```
REPT POST MORTEM MMP=a-b EVENTNO=c
  ddddeeee ffffgggg hhhhiiii jjjjkkkk llllmmmm nnnnoooo ppppqqqq rrrrrrrr
  rrrrrrrr rrrrrrrr rrrrrrrr rrrrrrrr rrrrrrrr rrrrrrrr rrrrrrrr rrrrrrrr
  rrrrrrrr ssttttuu vvwwxxxx yyyyzza1 b1c1d1e1 f1f1g1g1 h1i1j1k1 l1m1n1o1
  p1q1r1s1 t1u1v1w1 x1x1x1x1 x1x1x1x1 x1x1x1x1 x1x1x1x1 x1x1x1x1 x1x1x1x1
```

2. REASON FOR OUTPUT

To report a module message processor (MMP) error associated with communications module (CM) 1 or CM 2. This post-mortem data is put in the log file. To dump this, refer to the OP:LOG input message. You may not have the resources to interpret the data. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

3. VARIABLE FIELD DEFINITIONS

`a` = CM side.

`b` = MMP number (logical).

`c` = Event number associated with a certain error. This field is used to correlate the switch trouble reports.

`d` = Contents of the 8086 accumulator (ax).

`e` = Contents of the 8086 base register (bx).

`f` = Contents of the 8086 count register (cx).

`g` = Contents of the 8086 data register (dx).

`h` = Contents of the 8086 stack segment register (ss). Valid value(s):
`0x1000` = Monitor/debugger (MD).
`0x1600` = Peripheral controller (PC).

`i` = Contents of the 8086 extra segment register (es). Valid value(s):
`0x1000` = MD
`0x2600` = PC

`j` = Contents of the 8086 data segment register (ds). Valid value(s):
`0x1000` = MD
`0x1600` = PC

`k` = Contents of the 8086 stack pointer (sp). Valid value(s):
`0x4fxx` = MD

`0x1fxx` = PC

`l` = Contents of the 8086 base pointer (bp).

`m` = Contents of the 8086 source index (si).

`n` = Contents of the 8086 destination index (di).

`o` = Contents of the 8086 instruction pointer (ip).

`p` = Contents of the 8086 code segment register (cs). Valid value(s):
`0x1000` = MD
`0x0000` = PC

`q` = Contents of the 8086 flags register (fg).

`r` = Contents of the most recent stack frames.

`s` = Post-mortem level. Valid value(s):
`0x0` = Divide by zero.
`0x2` = Non-maskable interrupt (NMI) (hardware error).
`0x4` = Interrupts on overflow.
`0xFD` = Defensive check failure.
`0xFE` = 10-millisecond interrupts not occurring.
`0xFF` = Unassigned vector table entry.

`t` = Error code. Valid value(s):
`0x1-0x8` = Communication link fault recovery codes.
`0x25` = High priority queue pointers out of range.
`0x3A00` = Interprocessor communications assert code.

`u` = Contents of the TN856 status 1 register.

`v` = Contents of the TN856 status 2 register.

`w` = Not used.

`x` = Contents of the TN856 error source register (ESR) (low byte, high byte). Refer to Exhibit A.

`y` = Contents of the TN856 ESR mask (low byte, high byte).

`z` = PC physical ID.

`a`[1] = System state. Valid value(s):
`0x7B` = Normal.
`0x7D` = Not pumped.

`b`[1] = Pump state. Valid value(s):
`0x7B` = Normal.
`0x7D` = Not pumped.

c^1 = Sanity timer flag. Valid value(s):
0x7f = Idle.
0x7e = Reset sanity timer.

d^1 = Timed job indicator. Valid value(s):
0x7F = Idle.
0xD = In progress.

e^1 = Diagnostic (DGN) in progress. Valid value(s):
0x7F = Idle.
0xD = Diagnostics in progress.

f^1 = Sanity timer counter (used to reset sanity timer).

g^1 = 10-millisecond count (used to check if 10-millisecond interrupts are occurring).

h^1 = The meaning of this variable depends on whether it is CM 1 or CM 2.

CM =	'h^1' =
1	Contents of the UN170 message interface bus ESR (MIBESR).
2	Contents of the TN870 status register.

i^1 = The meaning of this variable depends on whether it is CM 1 or CM 2.

CM =	'i^1' =
1	Contents of the UN170 MIBESR mask.
2	Contents of the MIB select (MIBSEL) register.

j^1 = The meaning of this variable depends on whether it is CM 1 or CM 2.

CM =	'j^1' =
1	Contents of the application ESR (APPESR).
2	Contents of the receive ESR (RCVESR).

k^1 = The meaning of this variable depends on whether it is CM 1 or CM 2.

CM =	'k^1' =
1	Contents of the APPESR mask.
2	Contents of the receive interrupt enable (RCVINTEN) register.

l^1 = The meaning of this variable depends on whether it is CM 1 or CM 2.

CM =	'l^1' =
1	Contents of the time slot select (TSS) register.
2	Contents of the (receive mask) RMASK1 register.

m^1 = The meaning of this variable depends on whether it is CM 1 or CM 2.

CM =	'm^1' =
1	Contents of the active MIB register.
2	Contents of the RMASK1 register.

n^1 = Contents of the interrupt controller A interrupt request register (IRR).

o^1 = Contents of the interrupt controller A IMR.

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p^1 = Contents of the interrupt controller B IRR.

q^1 = Contents of the interrupt controller B IMR.

r^1 = The meaning of this variable depends on whether it is CM 1 or CM 2.

CM =	'r^1' =
1	Contents of the interrupt controller C IRR.
2	Not used.

s^1 = The meaning of this variable depends on whether it is CM 1 or CM 2.

CM =	's^1' =
1	Contents of the interrupt controller C IMR.
2	Not used.

t^1 = Base level loop count.

u^1 = Not used.

v^1 = The meaning of this variable depends on whether it is CM 1 or CM 2.

CM =	'v^1' =
1	Contents of the TN858A MIBESR.
2	Not used.

w^1 = The meaning of this variable depends on whether it is CM 1 or CM 2.

CM =	'w^1' =
1	Contents of the TN858B MIBESR.
2	Not used.

x^1 = Not used.

Bit meanings of the TN856 error source register (ESR) (Refer to variable 'y' for the masking. When a mask bit is set, then the corresponding bit in the ESR did not cause the error.)

Bit pattern: $a^2b^2c^2d^2\ e^2f^2g^2h^2\ i^2j^2k^2l^2\ m^2n^2o^2p^2$

a^2 = Application address parity error when set(=1).

b^2 = Application data parity error when set.

c^2 = Dual access random access memory parity error when set.

d^2 = Out of range error when set.

e^2 = Ready time out error when set.

f^2 = Write protect error when set.

g^2 = TN856 address parity error when set.

h^2 = TN856 data parity error when set.

i^2 = A PC defensive check failure when set. (refer to variable 't' for value of the defensive check failure).

j^2 = Message interface bus ESR (MIBESR) critical error when set.

k[2] = Not used.

l[2] = Not used.

m[2] = Clock error when set.

n[2] = Sanity late error when set.

o[2] = Sanity early error when set.

p[2] = Direct memory access (DMA) out of range error when set.

4. ACTION TO BE TAKEN

This data requires detailed knowledge of switch internals. Retain this information for further reference. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LOG
```

Output Message(s):

```
REPT:TRBL
```

REPT:PM-MSCU

Software Release: 5E10 and later
Message Class: MSGSMON
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT POST MORTEM MSCU=a EVENT= b
  cccccccc ddddeeee ffffgggg hhhhiiii jjjjkkkk llllmmmm nnnnoooo ppppqqqq
  rrrrssss ttttuuuu vvvvwwww xxxxyyyy zzzza1a1 b1b1c1c1 d1d1e1e1 f1f1g1g1
  h1h1i1i1 j1j1k1k1 l1l1m1m1 n1n1o1o1 p1p1q1q1
```

[2]
```
REPT POST MORTEM MSCU=a EVENT= b
  00000004 r1r1r1r1 s1s1s1s1 t1t1t1t1 u1u1u1u1 v1v1v1v1 w1w1w1w1 x1x1x1x1
  y1y1y1y1 z1z1z1z1 a2a2a2a2 b2b2b2b2 c2c2c2c2 d2d2d2d2 e2e2e2e2 e2e2e2e2
  e2e2e2e2 e2e2e2e2
```

[3]
```
REPT POST MORTEM MSCU=a EVENT= b
  00000005 2g2h2h2 i2j2k2l2 m2n2o2p2 q2q2f2f2 r2r2f2f2 s2s2f2f2 t2t2f2f2
  u2u2f2f2 v2v2f2f2 w2x2f2f2
```

2. REASON FOR OUTPUT

To report that the message switch control unit (MSCU) postmortem memory was logged as a result of an error. This information is normally used by the software developer.

Format 1 reports general MSCU errors logged on the postmortem memory.

Format 2 reports that an MSCU error was detected by the operational kernel process (OKP).

Format 3 reports that the MSCU detected the administrative module (AM) sending a base priority message to an out of service control time slot and to dump relevant postmortem data.

3. VARIABLE FIELD DEFINITIONS

a = MSCU side.

b = Event number associated with a certain error. This field is used to correlate the switch trouble reports.

c = Postmortem state. Valid value(s):

00000001	= Data in the postmortem is good.
00000002	= Data in the postmortem is not good because the direct memory access (DMA) failed.
00000003	= The peripheral interface controller (PIC) determined that the postmortem data is no good.

d = Error code. Valid value(s):

Value	Meaning
0001	(BPMSG) BIC error occurred during a AM transfer
0002	(DGNSEGCMP) error during onboard diagnostics
0003	(BGN3BXFR) execution level overflow
0004	(BPMSG) execution level underflow
0005	(BPMSG) execution level underflow
0006	(TRM3BXFR) execution level overflow
0007	(TRM3BXFR) BIC error occurred during transfer
0008	(TRM3BXFR) execution level underflow
0009	(INTNTRY) stack overflow
000a	(INTRTN) execution level underflow
000b	(ISSHPR) error during AM transfer
000c	(ISSHPR) error during termination of AM transfer
000d	(ISSBPR) error during termination of AM transfer
000e	(ISSHPR) execution level underflow
000f	(ISSBPR) execution level underflow
0010	(PROCIR) AM queue range error
0011	(HPMSG) execution level underflow
0012	(MAS2DAM) transfer termination due to BIC error
0013	(PIOINT) cannot determine interrupt state
0014	(PIOINT) tried to abort non-existent transfer
0015	(PIOINT) tried to abort a PIC job
0016	(PIOINT) PIC took a BIC message
0017	(PIOINT) PIC took an illegal PIC init message
0018	(PIOINT) unassigned PIO message received
0019	(PIOINT) illegal interrupt (hardware)
001A	(PIOINT) micro-store parity error
001B	(PROCIR) terminate AM transfer due to BIC error
001C	(PROCHPQ) terminate AM transfer due to BIC error
001D	(TMRINT) AM transfer timeout
001E	(TMRINT) AM transfer acknowledgment timeout
001F	(TMRINT) sanity timeout or MCS parity error
0020	(TMRINT) illegal BIC diagnostic PIO message read
0021	(TMRINT) base priority (BP) queue full timeout
0022	(TMRINT) sanity interrupt is held active
0023	(BPMSGS) defensive check failure for a AM message
0024	(BPMSGS) AM BP output queue range error
0025	(ISSBPR) AM BP input queue range error
0027	(HPMSGS) AM high priority (HP) output queue range error
0028	(ISSHPR) AM input queue range error
0029	(DIAGINTF) diagnostic abort flag was set by mistake
002A	(PTRXFR) BIC occurred during a AM transfer
002B	(TMRINT) Base level loop timeout- MSCU is hung-up.
002C	(BGNBLL) stack pointer is not equal to the stack bottom.
002D	(BGNBLL) BP output queue segment error.
002E	(ILLDAMPE) dual access memory (DAM) parity error occurred when DAM was not being read.
002F	(BGNBLL) equipped UN25 not present.
0030	(BPMSGS) Invalid direct link node (DLN) output queue unload pointer.
0031	(DLNRPT) invalid DLN input queue load or end pointer
0032	(ISSBPR) AM BP input queue pointer segment error.
0033	(ISSBPR) AM BP input queue pointer range error.
0034	(STNDALNE) Indicates the MSCU entered standalone.
0035	(STNDALNE) Indicates AM forced MSCU entry into standalone.
0036	(PIOINT) AM sent recouple message while MSCU2 was not in standalone.

`e` = Arithmetic logical unit (ALU) register 0.

`f` = ALU register 1.

`g` = ALU register 2.

`h` = ALU register 3.

`i` = ALU register 4.

`j` = ALU register 5.

`k` = ALU register 6.

l = ALU register 7.

m = ALU register 8.

n = ALU register 9.

o = ALU register 10.

p = ALU register 11.

q = ALU register 12.

r = ALU register 13.

s = ALU register 14.

t = ALU register 15.

u = Bus interface controller (BIC) status flag register.

v = BIC error flag register.

w = BIC message (CMD) register (high 16 bits).

x = BIC CMD register (low 16 bits).

y = BIC data first in/first out (FIFO) (high 16 bits).

z = BIC data FIFO (low 16 bits).

a[1] = BIC data FIFO (low 16 bits and set transfer).

b[1] = BIC sanity and interval timer.

c[1] = Input/output message interface (IOMI) control signal acknowledgement.

d[1] = IOMI peripheral controller (PC) service request register.

e[1] = IOMI PC interrupt register.

f[1] = IOMI PC error register.

g[1] = IOMI PC micro processor (MP) data register.

h[1] = IOMI PC MP memory address register.

i[1] = IOMI PC control signal register.

j[1] = IOMI PC address register, IOMI PC community OOS flags, and IOMI maintenance register reads.

k[1] = IOMI PC community OOS flags.

l[1] = IOMI clear PC error register pulse.

m[1] = IOMI maintenance register writes.

n^1 = Performance monitor message register.

o^1 = Performance monitor data register 1.

p^1 = Performance monitor data register 2.

q^1 = IOMI board select.

r^1 = The DCF in OKP that caused this error to be reported.

s^1 = The value of the base priority output queue unload pointer.

t^1 = The value of the base priority output queue load pointer.

u^1 = The value of the base priority input queue unload pointer.

v^1 = The value of the base priority input queue load pointer.

w^1 = The value of the high priority output queue unload pointer.

x^1 = The value of the high priority output queue load pointer.

y^1 = The value of the high priority input queue unload pointer.

z^1 = The value of the high priority input queue load pointer.

a^2 = Extra data word 1.

b^2 = Extra data word 2.

c^2 = Extra data word 3.

d^2 = Extra data word 4.

e^2 = When related to the appropriate error, the first 16 bytes of the message in the queue.

f^2 = Unused.

g^2 = The SM number to which the message was bound.

h^2 = The message type in the sent message.

i^2 = The entry in the MSCU translation table for logical link 0 MSCU side 0.

j^2 = The entry in the MSCU translation table for logical link 1 MSCU side 0.

k^2 = The entry in the MSCU translation table for logical link 0 MSCU side 1.

l^2 = The entry in the MSCU translation table for logical link 1 MSCU side 1.

m^2 = The entry in the demand MSCU translation table logical link 0 MSCU side 0 (CM2 only).

n^2 = The entry in the demand MSCU translation table logical link 1 MSCU side 0 (CM2 only).

o^2 = The entry in the demand MSCU translation table logical link 0 MSCU side 1 (CM2 only).

p^2 = The entry in the demand MSCU translation table logical link 1 MSCU side 1 (CM2 only).

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q^2 = The entry in the logical link map for logical link 0.

r^2 = The entry in the logical link map for logical link 1.

s^2 = The entry in the logical link map for logical link 2.

t^2 = The entry in the logical link map for logical link 3.

u^2 = The entry in the logical link map for logical link 4.

v^2 = The entry in the logical link map for logical link 5.

w^2 = The physical lnumber of the MMP through which messages bound to an SM through logical link 0 are sent.

x^2 = The physical lnumber of the MMP through which messages bound to an SM through logical link 1 are sent.

4. ACTION TO BE TAKEN

This data requires detailed knowledge of switch internals to interpret. Retain this information for further reference. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LOG
```

Output Message(s):

```
REPT:TRBL
```

REPT:PM-PPC

Software Release: 5E10 and later
Message Class: MSGSMON
Application: 5
Type: Output

1. FORMAT

```
REPT POST MORTEM PPC a EVENT=b
  ccccdddd eeeeffff gggghhhh iiiijjjj kkkkllll mmmmnnnn ooooppppp qqqqqqqq
  qqqqqqqq qqqqqqqq qqqqqqqq qqqqqqqq qqqqqqqq qqqqqqqq qqqqqqqq qqqqqqqq
  qqqqqqqq rrssssstt uum1vvvv wwwwxxyy zza1b1c1 d1d1e1e1 f1g1h1i1 j1k1l1m1
```

2. REASON FOR OUTPUT

To report the pump peripheral controller (PPC) post mortem memory as a result of an error.

Note: All variables are printed in hexadecimal. You may not have the resources to interpret the data. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

3. VARIABLE FIELD DEFINITIONS

`a` = PPC side.

`b` = Event number.

`c` = Contents of 8086 accumulator register (ax).

`d` = Contents of 8086 base register (bx).

`e` = Contents of 8086 count register (cx).

`f` = Contents of 8086 data register (dx).

`g` = Contents of 8086 stack segment register (ss). Valid value(s):
`0x1000` = Monitor debugger (MD)
`0x1600` = PC

`h` = Contents of 8086 extra segment register (es). Valid value(s):
`0x1000` = MD
`0x2600` = Peripheral controller (PC)

`i` = Contents of 8086 data segment register (ds). Valid value(s):
`0x1000` = MD
`0x1600` = PC

`j` = Contents 8086 stack pointer register (sp). Valid value(s):
`0x4fxx` = MD
`0x1fxx` = PC

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`k` = Contents of 8086 base pointer register (bp).

`l` = Contents of 8086 source index register (si).

`m` = Contents of 8086 destination index register (di).

`n` = Contents of 8086 instruction pointer register (ip).

`o` = Contents of 8086 code segment register (cs). Valid value(s):
`0x1000` = MD
`0x0000` = PC

`p` = Contents of 8086 flags register (fg).

`q` = Contents of most recent stack frames.

`r` = Interrupt level error in 8086 processor. Valid value(s):
`0x0` = Divide by zero - invalid decision.
`0x2` = Non-maskable interrupt (NMI) in 8086 processor - hardware error.
`0x4` = Interrupt on overflow.
`0xFD` = Defensive check failure.
`0xFE` = 10-millisecond interrupts not occurring.
`0xFF` = Unassigned vector table entry.

`s` = Error code. 0x25 High priority queue pointer out of range.

`t` = Contents of circuit pack TN856 status 1 register.

`u` = Contents of circuit pack TN856 status 2 register.

`v` = Contents of circuit pack TN856 error source register (ESR) register (low byte, high byte).

`w` = Contents of circuit pack TN856 ESR mask register (low byte).

`x` = Peripheral controller identity (PCID). Valid value(s):
`0` = PPC 0.
`1` = PPC 1.

`y` = System state. Valid value(s):
`0x7B` = In service.
`0x7D` = Out of service (OOS).

`z` = Pump state. Valid value(s):
`0x7B` = Normal.
`0x7D` = Not pumped.

`a`[1] = Sanity timer flag. Valid value(s):
`0x7f` = Idle.
`0x7e` = Reset sanity timer.

b[1] = Timed job indicator. Valid value(s):
- 0x7F = Idle.
- 0x7D = In progress (IP).

c[1] = Diagnostics (DGN) in progress flag. Valid value(s):
- 0x7F = Idle.
- 0xD = Diagnostics in progress.

d[1] = Sanity timer count (used to reset sanity timer).

e[1] = 10-millisecond count (used to check if 10-millisecond interrupts are occurring.

f[1] = PC subdevice interrupt level.

g[1] = Contents of interrupt controller A status register-ESR.

h[1] = Contents of interrupt controller A request register.

i[1] = Contents of interrupt controller A service register.

j[1] = Contents of interrupt controller A mask register.

k[1] = Contents of interrupt controller A auto clear register.

l[1] = Contents of post mortem for the base level loop count (PMBASCNT).

m[1] = Not used.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

REPT:PM-PSUPH-A

Software Release: 5E10 only
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
REPT POSTMORT PSUPH=a-b-c-d [CHNG=a-b-c-e] EVENT=f
  EVENT-REPORTED-FROM-PSUPH=a-b-c-g
  ACTIVE-PSUCOM=h [PSU-COM-ERROR-SOURCE=i]
  PROCESS=j MESSAGE-NO=k [TIME=ll:ll mm/mm/mm]
  STIMULUS=n RCVY=o [PS DATA PRESERVING]
  FAIL-ADDR=p PP-MODE=q ASSERT-COUNT=r
  IMAGE=s [EXPECTED-IMAGE=t]
```

2. REASON FOR OUTPUT

To report the occurrence of an initialization in the packet switch unit protocol handler (PSUPH). The message prints only when the printmode is turned on. The message is stored in a buffer and can be printed on request (OP:HISTORY).

3. VARIABLE FIELD DEFINITIONS

`PS DATA PRESERVING` = Packet switching data as preserved.

`a` = Switching module (SM) number.

`b` = Packet switching unit (PSU) number.

`c` = PSU shelf number.

`d` = PSUPH number.

`e` = Channel group (CHNG) number.

`f` = Event number

`g` = PSUPH number in which the event occurred.

`h` = Active packet bus.

`i` = Packet bus on which error occurred.

`j` = Process number.

`k` = Message number.

`l` = Time of the day the assert occurred, in the form hour:minute.

`m` = Date the assert occurred, in the form month/day/year.

`n` = Stimulus of recovery action. Refer to the APP:RCVRY-ACTION appendix in the Appendixes section of the Output Messages manual for a list of recovery action stimulus and their definitions.

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o = Recovery action which occurred. Valid value(s):

FI	= Full initialization.
NONE	= No recovery action.
PRINT	= Report only; no escalation.
PSI	= Autonomous PS initialization.
RPI	= Return to point of interrupt.
SI	= Selective initialization.
SPP	= Single process purge.

p = Failing address where event occurred.

q = Port processor mode. Valid value(s):

CONSISTENT	= Hardware and software are consistent.
ESSENTIAL	= Essential jobs operational.
NORMAL	= Normal operational mode.
OPFULL	= All jobs operational.
POST_RCVY	= Post recovery.
RAMDYN	= Dynamic memory consistent.
RAMTXT	= Read access memory text consistent.
RAMWP	= Text and data consistent.
SW-RCVY	= Software recovery.
SYSPROC	= System processes operational.
UNKNOWN	

r = Number of nested asserts.

s = Image type in the PH. Valid value(s):

ERROR IMAGE	= The image contained an error.
NULL IMAGE	= No image was loaded.
PH1 GATEWAY IMAGE	= Image used for all features on a PH1 was loaded.
PH2 ACCESS IMAGE	= All features (other than X.75' or X.75) on a PH2 were loaded.
PH2 GATEWAY IMAGE	= X.75' or X.75 features on a PH2 were loaded.
PH3 COMMON IMAGE	= All features on a PH3 were loaded. This image contains both access and gateway.
PH4 ISDN AP IMAGE	= Image used for PH4 ISDN AP was loaded.
PH4 ISDN IOP IMAGE	= Image used for PH4 ISDN IOP was loaded.
PH4 FRPH IOP IMAGE	= Image used for PH4 FRPH IOP was loaded.
PHV1 CDMA IMAGE	= Image used for PHV1 CDMA was loaded.
PHA1A IMAGE	= Image used for PHA1A loaded.

t = Image type expected. Valid value(s):

PH1 GATEWAY IMAGE	= Image used for all features on a PH1 was loaded.
PH2 ACCESS IMAGE	= All features (other than X.75' or X.75) on a PH2 were loaded.
PH2 GATEWAY IMAGE	= X.75' or X.75 features on a PH2 were loaded.
PH3 COMMON IMAGE	= All features on a PH3 were loaded. This image contains both access and gateway.
PH4 ISDN AP IMAGE	= Image used for PH4 ISDN AP was loaded.
PH4 ISDN IOP IMAGE	= Image used for PH4 ISDN IOP was loaded.
PH4 FRPH IOP IMAGE	= Image used for PH4 FRPH IOP was loaded.

`PHV1 CDMA IMAGE` = Image used for PHV1 CDMA was loaded.
`PHA1A IMAGE` = Image used for PHA1A was loaded.

4. ACTION TO BE TAKEN

Monitor the progress of the software recovery. Initiate manual actions if the recovery does not proceed as expected. Retain this information along with any trouble report concerning the initialization/recovery and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:HISTORY
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:PM-PSUPH-B

Software Release: 5E11 only
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
REPT POSTMORT PSUPH=a-b-c-d [CHNG=a-b-c-e] EVENT=f
  EVENT-REPORTED-FROM-PSUPH=a-b-c-g
  ACTIVE-PSUCOM=h [PSU-COM-ERROR-SOURCE=i]
  PROCESS=j MESSAGE-NO=k [TIME=ll:ll mm/mm/mm]
  STIMULUS=n RCVY=o [PS DATA PRESERVING]
  FAIL-ADDR=p PP-MODE=q ASSERT-COUNT=r
  IMAGE=s [EXPECTED-IMAGE=t]
```

2. REASON FOR OUTPUT

To report the occurrence of an initialization in the packet switch unit protocol handler (PSUPH). The message prints only when the printmode is turned on. The message is stored in a buffer and can be printed on request (OP:HISTORY).

3. VARIABLE FIELD DEFINITIONS

`PS DATA PRESERVING` = Packet switching data as preserved.

`a` = Switching module (SM) number.

`b` = Packet switching unit (PSU) number.

`c` = PSU shelf number.

`d` = PSUPH number.

`e` = Channel group (CHNG) number.

`f` = Event number

`g` = PSUPH number in which the event occurred.

`h` = Active packet bus.

`i` = Packet bus on which error occurred.

`j` = Process number.

`k` = Message number.

`l` = Time of the day the assert occurred, in the form hour:minute.

`m` = Date the assert occurred, in the form month/day/year.

`n` = Stimulus of recovery action. Refer to the APP:RCVRY-ACTION appendix in the Appendixes section of the Output Messages manual for a list of recovery action stimulus and their definitions.

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o = Recovery action which occurred. Valid value(s):

FI	= Full initialization.
NONE	= No recovery action.
PRINT	= Report only; no escalation.
PSI	= Autonomous PS initialization.
RPI	= Return to point of interrupt.
SI	= Selective initialization.
SPP	= Single process purge.

p = Failing address where event occurred.

q = Port processor mode. Valid value(s):

CONSISTENT	= Hardware and software are consistent.
ESSENTIAL	= Essential jobs operational.
NORMAL	= Normal operational mode.
OPFULL	= All jobs operational.
POST_RCVY	= Post recovery.
RAMDYN	= Dynamic memory consistent.
RAMTXT	= Read access memory text consistent.
RAMWP	= Text and data consistent.
SW-RCVY	= Software recovery.
SYSPROC	= System processes operational.
UNKNOWN	

r = Number of nested asserts.

s = Image type in the PH. Valid value(s):

ERROR IMAGE	= The image contained an error.
NULL IMAGE	= No image was loaded.
PH2 ACCESS IMAGE	= All features (other than X.75' or X.75) on a PH2 were loaded.
PH2 GATEWAY IMAGE	= X.75' or X.75 features on a PH2 were loaded.
PH3 CCS IMAGE	= Image used for common channel signaling (CCS) features on a PH3 was loaded.
PH3 ISDN IMAGE	= Image used for ISDN features on a PH3 was loaded.
PH4 ISDN AP IMAGE	= Image used for PH4 ISDN AP was loaded.
PH4 ISDN IOP IMAGE	= Image used for PH4 ISDN IOP was loaded.
PH4 FRPH IOP IMAGE	= Image used for PH4 FRPH IOP was loaded.
PHV1 CDMA IMAGE	= Software used for PHV CDMA with ROM-based DSPs was loaded.
PHV3 RAM-BASED CDMA IMAGE	= Software used for PHV3 CDMA with downloadable DSPs was loaded.
PHV3 WITH 8K DSP CDMA IMAGE	= Software used for PHV3 CDMA with the 8K DSP algorithm was loaded.
PHV3 WITH 13K DSP CDMA IMAGE	= Software used for PHV3 CDMA with the 13K DSP algorithm was loaded.
PHV3 WITH EVRC DSP CDMA IMAGE	= Software used for PHV3 CDMA with the EVRC DSP algorithm was loaded.
PHA1A IMAGE	= Image used for PHA1A loaded.

t = Image type expected. Valid value(s):

`PH2 ACCESS IMAGE` = All features (other than X.75' or X.75) on a PH2 were loaded.
`PH2 GATEWAY IMAGE` = X.75' or X.75 features on a PH2 were loaded.
`PH3 CCS IMAGE` = Image used for CCS features on a PH3 was loaded.
`PH3 ISDN IMAGE` = Image used for ISDN features on a PH3 was loaded.
`PH4 ISDN AP IMAGE` = Image used for PH4 ISDN AP was loaded.
`PH4 ISDN IOP IMAGE` = Image used for PH4 ISDN IOP was loaded.
`PH4 FRPH IOP IMAGE` = Image used for PH4 FRPH IOP was loaded.
`PHV1 CDMA IMAGE` = Software used for PHV CDMA with ROM-based DSPs was loaded.
`PHV3 RAM-BASED CDMA IMAGE` = Software used for PHV3 CDMA with downloadable DSPs was loaded.
`PHV3 WITH 8K DSP CDMA IMAGE` = Software used for PHV3 CDMA with the 8K DSP algorithm was loaded.
`PHV3 WITH 13K DSP CDMA IMAGE` = Software used for PHV3 CDMA with the 13K DSP algorithm was loaded.
`PHV3 WITH EVRC DSP CDMA IMAGE` = Software used for PHV3 CDMA with the EVRC DSP algorithm was loaded.
`PHA1A IMAGE` = Image used for PHA1A was loaded.

4. ACTION TO BE TAKEN

Monitor the progress of the software recovery. Initiate manual actions if the recovery does not proceed as expected. Retain this information along with any trouble report concerning the initialization/recovery and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:HISTORY
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:PM-PSUPH-C

Software Release: 5E12 only
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
REPT POSTMORT PSUPH=a-b-c-d [CHNG=a-b-c-e] EVENT=f
  EVENT-REPORTED-FROM-PSUPH=a-b-c-g
  ACTIVE-PSUCOM=h [PSU-COM-ERROR-SOURCE=i]
  PROCESS=j MESSAGE-NO=k [TIME=ll:ll mm/mm/mm]
  STIMULUS=n RCVY=o [PS DATA PRESERVING]
  FAIL-ADDR=p PP-MODE=q ASSERT-COUNT=r
  IMAGE=s [EXPECTED-IMAGE=t]
```

2. REASON FOR OUTPUT

To report the occurrence of an initialization in the packet switch unit protocol handler (PSUPH). The message prints only when the printmode is turned on. The message is stored in a buffer and can be printed on request (OP:HISTORY).

3. VARIABLE FIELD DEFINITIONS

`PS DATA PRESERVING` = Packet switching data as preserved.

`a` = Switching module (SM) number.

`b` = Packet switching unit (PSU) number.

`c` = PSU shelf number.

`d` = PSUPH number.

`e` = Channel group (CHNG) number.

`f` = Event number

`g` = PSUPH number in which the event occurred.

`h` = Active packet bus.

`i` = Packet bus on which error occurred.

`j` = Process number.

`k` = Message number.

`l` = Time of the day the assert occurred, in the form hour:minute.

`m` = Date the assert occurred, in the form month/day/year.

`n` = Stimulus of recovery action. Refer to the APP:RCVRY-ACTION appendix in the Appendixes section of the Output Messages manual for a list of recovery action stimulus and their definitions.

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o = Recovery action which occurred. Valid value(s):

FI	= Full initialization.
NONE	= No recovery action.
PRINT	= Report only; no escalation.
PSI	= Autonomous PS initialization.
RPI	= Return to point of interrupt.
SI	= Selective initialization.
SPP	= Single process purge.

p = Failing address where event occurred.

q = Port processor mode. Valid value(s):

CONSISTENT	= Hardware and software are consistent.
ESSENTIAL	= Essential jobs operational.
NORMAL	= Normal operational mode.
OPFULL	= All jobs operational.
POST_RCVY	= Post recovery.
RAMDYN	= Dynamic memory consistent.
RAMTXT	= Read access memory text consistent.
RAMWP	= Text and data consistent.
SW-RCVY	= Software recovery.
SYSPROC	= System processes operational.
UNKNOWN	

r = Number of nested asserts.

s = Image type in the PH. Valid value(s):

ERROR IMAGE	= The image contained an error.
NULL IMAGE	= No image was loaded.
PH2 ACCESS IMAGE	= All features (other than X.75' or X.75) on a PH2 were loaded.
PH2 GATEWAY IMAGE	= X.75' or X.75 features on a PH2 were loaded.
PH3 CCS IMAGE	= Image used for common channel signaling (CCS) features on a PH3 was loaded.
PH3 ISDN IMAGE	= Image used for ISDN features on a PH3 was loaded.
PH4 ISDN AP IMAGE	= Image used for PH4 ISDN AP was loaded.
PH4 ISDN IOP IMAGE	= IOP image used for ISDN features on a PH4 was loaded.
PH4 FR IOP IMAGE	= IOP image used for packet pipe features on a frame relay PH4 was loaded.
PH4 ISDN FR IOP IMAGE	= IOP image used for ISDN features on a frame relay PH4 was loaded.
PHV1 CDMA IMAGE	= Software used for PHV CDMA with ROM-based DSPs was loaded.
PHV3 RAM-BASED CDMA IMAGE	= Software used for PHV3 CDMA with downloadable DSPs was loaded.
PHV3 WITH 8K DSP CDMA IMAGE	= Software used for PHV3 CDMA with the 8K DSP algorithm was loaded.
PHV3 WITH 13K DSP CDMA IMAGE	= Software used for PHV3 CDMA with the 13K DSP algorithm was loaded.
PHV3 WITH EVRC DSP CDMA IMAGE	= Software used for PHV3 CDMA with the EVRC DSP algorithm was loaded.
PHV3 ACELP DSP TDMA IMAGE	= Software used for PHV3 TDMA with the ACELP DSP algorithm was loaded.
PHV3 VSELP DSP TDMA IMAGE	= Software used for PHV3 TDMA with the VSELP DSP algorithm

was loaded.
`PHV4 RAM-BASED CDMA IMAGE` = Software used for PHV4 CDMA with downloadable DSP's was loaded.
`PHV4 WITH 8K DSP CDMA IMAGE` = Software used for PHV4 CDMA with 8K DSP algorithm was loaded.
`PHV4 WITH 13K DSP CDMA IMAGE` = Software used for PHV4 CDMA with 13K DSP algorithm was loaded.
`PHV4 WITH EVRC DSP CDMA IMAGE` = Software used for PHV4 CDMA with EVRC DSP algorithm was loaded.
`PHV4 WITH ACELP DSP TDMA IMAGE` = Software used for PHV4 TDMA with ACELP DSP algorithm was loaded.
`PHV4 WITH VSELP DSP TDMA IMAGE` = Software used for PHV4 TDMA with VSELP DSP algorithm was loaded.
`PHA1A IMAGE` = Image used for PHA1A loaded.

`t` = Image type expected. Valid value(s):
`PH2 ACCESS IMAGE` = All features (other than X.75' or X.75) on a PH2 were loaded.
`PH2 GATEWAY IMAGE` = X.75' or X.75 features on a PH2 were loaded.
`PH3 CCS IMAGE` = Image used for CCS features on a PH3 was loaded.
`PH3 ISDN IMAGE` = Image used for ISDN features on a PH3 was loaded.
`PH4 ISDN AP IMAGE` = Image used for PH4 ISDN AP was loaded.
`PH4 ISDN IOP IMAGE` = IOP image used for ISDN features on a PH4 was loaded.
`PH4 FR IOP IMAGE` = IOP image used for packet pipe features on a frame relay PH4 was loaded.
`PH4 ISDN FR IOP IMAGE` = IOP image used for ISDN features on a frame relay PH4 was loaded.
`PHV1 CDMA IMAGE` = Software used for PHV CDMA with ROM-based DSPs was loaded.
`PHV3 RAM-BASED CDMA IMAGE` = Software used for PHV3 CDMA with downloadable DSPs was loaded.
`PHV3 WITH 8K DSP CDMA IMAGE` = Software used for PHV3 CDMA with the 8K DSP algorithm was loaded.
`PHV3 WITH 13K DSP CDMA IMAGE` = Software used for PHV3 CDMA with the 13K DSP algorithm was loaded.
`PHV3 WITH EVRC DSP CDMA IMAGE` = Software used for PHV3 CDMA with the EVRC DSP algorithm was loaded.
`PHV3 ACELP DSP TDMA IMAGE` = Software used for PHV3 TDMA with the ACELP DSP algorithm was loaded.
`PHV3 VSELP DSP TDMA IMAGE` = Software used for PHV3 TDMA with the VSELP DSP algorithm was loaded.
`PHV4 RAM-BASED CDMA IMAGE` = Software used for PHV4 CDMA with downloadable DSP's was loaded.
`PHV4 WITH 8K DSP CDMA IMAGE` = Software used for PHV4 CDMA with 8K DSP algorithm was loaded.
`PHV4 WITH 13K DSP CDMA IMAGE` = Software used for PHV4 CDMA with 13K DSP algorithm was loaded.
`PHV4 WITH EVRC DSP CDMA IMAGE` = Software used for PHV4 CDMA with EVRC DSP algorithm was loaded.
`PHV4 WITH ACELP DSP TDMA IMAGE` = Software used for PHV4 TDMA with ACELP DSP algorithm was loaded.
`PHV4 WITH VSELP DSP TDMA IMAGE` = Software used for PHV4 TDMA with VSELP DSP algorithm was loaded.
`PHA1A IMAGE` = Image used for PHA1A was loaded.

4. ACTIONS TO BE TAKEN

Monitor the progress of the software recovery. Initiate manual actions if the recovery does not proceed as expected. Retain this information along with any trouble report concerning the initialization/recovery and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:HISTORY
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:PM-PSUPH-D

Software Release: 5E13 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
REPT POSTMORT PSUPH=a-b-c-d [CHNG=a-b-c-e] EVENT=f
  EVENT-REPORTED-FROM-PSUPH=a-b-c-g
  PSUCA=h ACTIVE-PSUCOM=i
  PROCESS=j MESSAGE-NO=k [TIME=ll:ll mm/mm/mm]
  STIMULUS=n RCVY=o [PS DATA PRESERVING]
  FAIL-ADDR=p PP-MODE=q ASSERT-COUNT=r
  IMAGE=s [t]
```

2. REASON FOR OUTPUT

To report the occurrence of an initialization in the packet switch unit protocol handler (PSUPH). The message prints only when the printmode is turned on. The message is stored in a buffer and can be printed on request (OP:HISTORY).

3. VARIABLE FIELD DEFINITIONS

`PS DATA PRESERVING` = Packet switching data as preserved.

`a` = Switching module (SM) number.

`b` = Packet switching unit (PSU) number.

`c` = PSU shelf number.

`d` = PSUPH number.

`e` = Channel group (CHNG) number.

`f` = Event number

`g` = PSUPH number in which the event occurred.

`h` = PSU community address.

`i` = Active packet bus.

`j` = Process number.

`k` = Message number.

`l` = Time of the day the assert occurred, in the form hour:minute.

`m` = Date the assert occurred, in the form month/day/year.

`n` = Stimulus of recovery action. Refer to the APP:RCVRY-ACTION appendix in the Appendixes section of the Output Messages manual for a list of recovery action stimulus and their definitions.

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o = Recovery action which occurred. Valid value(s):

FI	= Full initialization.
NONE	= No recovery action.
PRINT	= Report only; no escalation.
PSI	= Autonomous PS initialization.
RPI	= Return to point of interrupt.
SI	= Selective initialization.
SPP	= Single process purge.

p = Failing address where event occurred.

q = Port processor mode. Valid value(s):

CONSISTENT	= Hardware and software are consistent.
ESSENTIAL	= Essential jobs operational.
NORMAL	= Normal operational mode.
OPFULL	= All jobs operational.
POST_RCVY	= Post recovery.
RAMDYN	= Dynamic memory consistent.
RAMTXT	= Read access memory text consistent.
RAMWP	= Text and data consistent.
SW-RCVY	= Software recovery.
SYSPROC	= System processes operational.
UNKNOWN	

r = Number of nested asserts.

s = Image type in the PH.

t = PH IOP image type.

4. ACTIONS TO BE TAKEN

Monitor the progress of the software recovery. Initiate manual actions if the recovery does not proceed as expected. Retain this information along with any trouble report concerning the initialization/recovery and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:HISTORY
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:PM-QGL

Software Release: 5E10 and later
Message Class: MSGSMON
Application: 5
Type: Output

1. FORMAT

```
REPT POST MORTEM  QGL=a-b-c EVENT=d
  14D6eeee ffgghhhh iiiijjjj 2Bkkllll llllllll llmmnnoo pppppppp ppppqqqq
  rrrrrrrr ssssttuu vvwwxxyy zzzza1b1 c1d1e1f1 g1h1i1j1 k1l1m1n1 o1p1q1r1
  s1t1u1v1 w1x1y1z1 a2b2c2d2 e2f2g2h2 i2j2k2l2 m2n2o2p2 q2r2s2t2 u2v2w2x2
  x2x2x2x2 y2z2a3a3 b3c3d3d3 d3e3f3g3
```

2. REASON FOR OUTPUT

To report data associated with a quad link packet switch (QLPS) gateway link (QGL) error. A QGL is the physical communication path between the QLPS and the QLPS gateway processor (QGP). The error may have been reported by QLPS link fault recovery (QLFR) in a QGP or by the QLPS link fault recovery configuration process (QLFR CON) in the switch maintenance kernel process (SMKP). All of the variables '`e`' through 'g^3' are represented in hexadecimal.

3. VARIABLE FIELD DEFINITIONS

`14D6` = Message type (MGSMQLERR) indicating that the error was reported by QLFR-QGP or QLFR CON.

`2B` = The error type (QGL fault).

`a` = Message switch (MSGS) side.

`b` = Logical QGP number.

`c` = QGL number.

`d` = Administrative module (AM) event number.

`e` = Not used.

`f` = Error source. Valid value(s):
- `36` = QLFR-QGP report of a QGL hardware error.
- `38` = QLFR CON report of a QGL configuration failure. Ignore fields '`m`' through '`q`'.

`g` = MSGS side.

`h` = Physical QGP number.

`i` = If '`f`' is `38`, this is the QGL number. Otherwise, not used.

`j` = Not used.

`k` = The error classification. Valid value(s):
- `2C` = QGP-reported QGL hardware error.

2F = QLFR CON-reported QGL re-configuration failure.

l = Not used.

m = QGL error that exceeded fault recovery threshold. Valid value(s):

1A = QGP received a frame too large for a buffer.
1B = QGP received a frame too short to be valid.
1C = Transmit first-in, first-out (FIFO) not being emptied.
1E = An invalid PBMAC interrupt occurred.
1F = Loss of synchronization.
20 = Input parity error.
21 = PBMAC reported loss of clock.
22 = PBMAC reported loss of clear-to-send.
23 = Bibble bus parity error.
24 = PBMAC throttle out latched error.
25 = PBMAC throttle in latched error.
26 = PBMAC throttle out error.
27 = PBMAC throttle in error.
28 = PBMAC transmit FIFO overrun.
29 = PBMAC transmit FIFO underrun.
2A = PBMAC receive FIFO overrun.
2B = PBMAC receive FIFO underrun.
2C = PBMAC reported loss of carrier sense.
2D = PBMAC FIFO status parity error.
2E = PBMAC write protect error.
2F = FIFO BIST complete error.
30 = Bad frame due to receive FIFO overflow.
31 = Bad frame due to disabled receiver.
32 = Bad frame due to byte alignment.
33 = Bad frame due to cyclic redundancy check (CRC) error.
34 = Bad frame due to the PBMAC not setting the "good frame" indication.
35 = PBMAC BIST complete error.
36 = System data bus parity error.
37 = PBMAC transmit FIFO BIST error.
38 = PBMAC receive FIFO BIST error.
39 = PBMAC receive data ready interrupt.
3A = PBMAC end-of-frame flag was not set correctly.
3B = Bad frame due to lost carrier sense.
3C = PBMAC VALID bit was not set correctly.
3D = Frame received using STBY QGL.
3E = PBMAC bus error (an attempt was made to access a de-activated PBMAC).

n = QLPS network.

o = QLPS endpoint number. Valid value(s):

C1 = A QGP on MSGS 0.
C2 = A QGP on MSGS 1.

p = Not used.

q = QGP event number.

r = AM's QGL state.

s = Post-mortem data collection flag. Valid value(s):

- 0000 = There is no QGP post-mortem data associated with this error. Ignore message fields 't' through 'w^2'.
- AA38 = Obtained valid QGP post-mortem data for a QGL. Refer to fields 't' through 'w^2' for the data.
- AAAA = Timed out waiting for QGP post-mortem data. Ignore message fields 't' through 'w^2'.
- EEEE = Data collection was preempted by a new error or event. Ignore message fields 't' through 'w^2'.
- FFFF = Could not send request for post-mortem data. Ignore message fields 't' through 'w^2'.

Any other value reports a failure result and reason from the QGP handler in the message switch kernel process (MSKP), indicating that post-mortem data could not be collected. Ignore message fields 't' through 'w^2'.

t = QGL error that exceeded fault recovery threshold (same as field 'm').

u = QLPS endpoint number (reported by the QGP). Valid value(s):

- C1 = A QGP on MSGS 0.
- C2 = A QGP on MSGS 1.

v = Not used.

w = MSGS side (reported by the QGP).

x = QLFR-QGP flag indicating status of post-mortem data. Valid value(s):

- 00 = Post-mortem data was already sent to the AM. Multiple errors have occurred, and some data associated with this error may be reported by a previous REPT POST MORTEM output message.
- 01 = Post-mortem data was not sent to the AM previously (normal case).

y = QLFR-QGP post-mortem over-write counter.

z = Not used.

a^1 = This 2-digit field contains information about the QGP's internal QGP QPIPE configuration at the time the error occurred.

The first digit indicates the ONTC side to which the network's QGP QPIPE was configured (the side supporting the active QLPS). Valid value(s):

- 0 = Network 0 QPIPE configured to ONTC 0.
- 1 = Network 1 QPIPE configured to ONTC 0.
- 2 = Network 0 QPIPE configured to ONTC 1.
- 3 = Network 1 QPIPE configured to ONTC 1.
- F = The QPIPE was out-of-service.

The second digit indicates the QGP-resident state of the network's QGP QPIPE. Valid value(s):

0 = the QPIPE is unequipped.
1 = a QPIPE initialization failed and autonomous recovery is in progress.
2 = the QPIPE is active.
4 = the QPIPE's PBMAC is de-activated due to QPIPE/QGL hardware or software errors.
5 = the QPIPE's PBMAC is enabled and periodic attempts to pass a loopback test to the active QLPS are in progress.
8 = the QPIPE has been implicated in causing a QGP operational software restart (OSR) and will be re-initialized after software recovery completes.

b[1] = This 2-digit field contains more information about the QGP's internal QGL and QGP QPIPE configuration at the time the error occurred.

The first digit indicates the QGP-resident QGL state. Valid value(s):

0 = The QGL is unequipped.
1 = The QGL is active.
2 = The QGL is standby (connected to the network's standby QLPS).
3 = The QGL is out-of-service.
4 = The QGL is being used by diagnostics.

The second digit indicates the QGP's internal status of the PBMAC associated with the QGL. Valid value(s):

0 = The PBMAC is unequipped.
1 = The PBMAC is enabled and associated with an in-service QGL.
3 = The PBMAC is disabled or, if the QGL is standby, a QGP QPIPE loopback test previously failed using the PBMAC.

c[1] = Number of QPIPE initialization failures (SMQTFINIT).

d[1] = Number of failed attempts to remove a QPIPE (SMQTFRMV).

e[1] = Number of times a frame was received that was too large to store in a buffer (SMQTFM2LONG). This is normally a QPIPE error. It is considered to be a QGL error if it occurs on an out-of-service QPIPE.

f[1] = Number of times a frame was received that was too short to be valid (SMQTFM2SHRT). This is normally a QPIPE error. It is considered to be a QGL error if it occurs on an out-of-service QPIPE.

g[1] = Number of times the PBMAC transmitter was found to be stuck (SMQTXMTSTK). This is normally a QPIPE error. It is considered to be a QGL error if it occurs on an out-of-service QPIPE.

h[1] = Number of times an invalid PBMAC interrupt occurred (SMQTINTQGL).

i[1] = Number of times the PBMAC reported loss of synchronization (SMQTLOSQGL).

j[1] = Number of PBMAC input parity errors (SMQTPEQGL).

k[1] = Number of times the PBMAC reported loss of clock (SMQTLOCQGL).

l[1] = Number of times the PBMAC reported loss of clear-to-send (SMQTCTSPBM).

m[1] = Number of bibble bus parity errors detected (SMQTBPEPBM).

n[1] = Number of PBMAC throttle out latched errors detected (SMQTTOLPBM).

o[1] = Number of PBMAC throttle in latched errors detected (SMQTTILPBM).

p[1] = Number of PBMAC throttle out errors detected (SMQTTOPBM).

q[1] = Number of PBMAC throttle in errors detected (SMQTTIPBM).

r[1] = Number of PBMAC transmit FIFO overruns (SMQTTORPBM). This is normally a QPIPE error. It is considered to be a QGL error if it occurs on an out-of-service QPIPE.

s[1] = Number of PBMAC transmit FIFO underruns (SMQTTURPBM). This is normally a QPIPE error. It is considered to be a QGL error if it occurs on an out-of-service QPIPE.

t[1] = Number of PBMAC receive FIFO overruns (SMQTRORPBM). This is normally a QPIPE error. It is considered to be a QGL error if it occurs on an out-of-service QPIPE.

u[1] = Number of PBMAC receive FIFO underruns (SMQTRURPBM). This is normally a QPIPE error. It is considered to be a QGL error if it occurs on an out-of-service QPIPE.

v[1] = Number of times the PBMAC reported loss of carrier sense (SMQTCRSPBM).

w[1] = Number of PBMAC FIFO status parity errors detected (SMQTSPEPBM). This is normally a QPIPE error. It is considered to be a QGL error if it occurs on an out-of-service QPIPE.

x[1] = Number of PBMAC write protect errors detected (SMQTWPEPBM).

y[1] = Number of FIFO BIST complete errors detected (SMQTBISPBM).

z[1] = Number of bad frames due to receive FIFO overflow (SMQTOVFLW).

a[2] = Number of bad frames due to the receiver being disabled (SMQTRCV_DSB). This is normally a QPIPE error. It is considered to be a QGL error if it occurs on an out-of-service QPIPE.

b[2] = Number of bad frames due to byte alignment (SMQTBADALIGN). This is normally a QPIPE error. It is considered to be a QGL error if it occurs on an out-of-service QPIPE.

c[2] = Number of bad frames due to cyclic redundancy check (CRC) errors (SMQTBADCRC). This is normally a QPIPE error. It is considered to be a QGL error if it occurs on an out-of-service QPIPE.

d[2] = Number of bad frames due to the PBMAC not setting the "good frame" indication (SMQTGOODBAD).

e[2] = Number of PBMAC BIST complete errors detected (SMQTCBCPBM).

f[2] = Number of system data bus parity errors detected (SMQTDBPPBM).

g[2] = Number of PBMAC transmit FIFO BIST errors detected (SMQTTFBPBM).

h[2] = Number of PBMAC receive FIFO BIST errors detected (SMQTRFBPBM).

i[2] = Number of PBMAC receive data ready interrupts (SMQTRDRPBM).

j[2] = Number of times the PBMAC end-of-frame flag was not set correctly (SMQTNOEOF). This is

normally a QPIPE error. It is considered to be a QGL error if it occurs on an out-of-service QPIPE.

k^2 = Number of bad frames due to lost carrier sense (SMQTLOSTCRS). This is normally a QPIPE error. It is considered to be a QGL error if it occurs on an out-of-service QPIPE.

l^2 = Number of times the PBMAC VALID bit was not set correctly (SMQTNOVALID). This is normally a QPIPE error. It is considered to be a QGL error if it occurs on an out-of-service QPIPE.

m^2 = Number of frames received using a STBY QGL (SMQTSTBYPBM).

n^2 = Number of PBMAC bus errors detected (SMQTBUSPBM).

o^2 = Number of times the QGP received a frame addressed to a different destination (SMQTBADRRAM). This error implies that the QLPS routing RAM may be invalid.

p^2 = Number of times the QGP received an invalid QLPS broadcast packet (SMQTBADBCAST). This error implies that the QLPS broadcast packets may have been improperly programmed.

q^2 = Number of times QGP protocol events occurred (such as receipt of an incoming frame) that were associated with an unknown endpoint (SMQTUNKENDPT).

r^2 = Number of times a message from the MSCU could not be routed, because no path to the destination was available (SMQTRTRFSH).

s^2 = Summary count of level 1 transmit errors (SMQSL1TRAN).

t^2 = Summary count of level 1 QPIPE receive errors (SMQSL1RECV).

u^2 = Summary count of level 1 QGL hardware errors (SMQSL1HARD).

v^2 = Summary count of level 1 QPIPE receive errors requiring long term thresholding in the QGP (SMQSL1QPRCV).

w^2 = Summary count of level 1 QGL receive errors requiring long term thresholding in the QGP (SMQSL1GLRCV).

x^2 = Not used.

y^2 Initial QLFR-AM error sub-type. Valid value(s):

2C	= QGP-reported QGL hardware error on an in-service QGL.
2D	= QGP-reported QGL hardware error on an out-of-service QGL.
2E	= QGP-reported QGL hardware error on an unequipped QGL.
2F	= QLFR CON-reported QGL re-configuration failure.
34	= Error from an out-of-service QGP.

z^2 = Error count for error sub-type 'y^2'.

a^3 = Not used.

b^3 = QLFR-AM error sub-type that exceeded threshold, resulting in a QGP recovery action.

c^3 = Error count for QGP error sub-type 'b^3'.

d^3 = Not used.

e^3 = Number of times the QGP recovery action associated with error sub-type 'b^3' has been requested. Escalation strategies may result in a higher level recovery action being performed.

f^3 = Number of equipped QGPs (Gl_qgp).

g^3 = Operational QGP configuration (Glqgpoper).

4. ACTION TO BE TAKEN

Since this message is logged, analyze the logged data by retrieving information off of the disk. The input message for dumping the daylog is `OP:LOG:LG="DAYLOG",MSGCLS=CLNKMON`. Correlate the event number with the REPT:TRBL message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LOG
```

Output Message(s):

```
REPT:TRBL
```

REPT:PM-QGP

Software Release: 5E10 and later
Message Class: LGMSGS
Application: 5
Type: Output

1. FORMAT

```
REPT POST MORTEM QGP=a-b EVENT=c
  ddddeeee ffffgggg hhhhiiii jjjjkkkk llllmmmm nnnnoooo
  ppppqqqq rrrrrrrr rrrrrrrr rrrrrrrr rrrrrrrr rrrrrrrr
  rrrrrrrr ssttuuvv wwxxyyzz a1b1c1d1 d1e1e1f1 g1h1i1j1
  k1l1m1n1 o1p1q1r1 s1t1t1t1t1 t1t1t1t1t1 t1t1t1t1t1 t1t1t1t1t1
  t1t1t1t1 t1t1t1t1 t1t1t1t1 t1t1t1t1 t1t1t1t1 t1t1t1t1
```

2. REASON FOR OUTPUT

To dump the quad-link gateway processor (QGP) postmortem memory as a result of an error. The message class in the equipment configuration database (ECD) is usually set to both logging and printing.

3. VARIABLE FIELD DEFINITIONS

a	= Message switch (MSGS) side the QGP is on.
b	= QGP number.
c	= Event number associated with a certain error. This field is used to correlate the switch trouble reports.
$d-t^1$	= From parameter 'd' through 't^1' represent debug data. Used for extensive software analysis. The parameters with a subscript of 1 represents two hexadecimal characters. The parameters without a subscript represents one hexadecimal character.

4. ACTIONS TO BE TAKEN

Analyze the dump according to the appropriate dump analysis procedure.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:PM-QGPQPIPE

Software Release: 5E10 and later
Message Class: CLNKMON
Application: 5
Type: Output

1. FORMAT

```
REPT POST MORTEM  QGPQPIPE=a-b-c-d EVENT=e
  14D6ffff 36gghhhh iiiiiiii 2Cjjkkkk kkkkkkkk kkllmmnn oooooooo ooooppppp
  qqqqqqqq rrrrrrrr ssssttuu vvwwxxyy zzzza1b1 c1d1e1f1 g1h1i1j1 k1l1m1n1
  o1p1q1r1 s1t1u1v1 w1x1y1z1 a2b2c2d2 e2f2g2h2 i2j2k2l2 m2n2o2p2 q2r2s2t2
  u2v2w2x2 y2z2a3a3 b3c3d3e3 f3g3h3i3
```

2. REASON FOR OUTPUT

To report data associated with a QGP QPIPE error reported by fault recovery in a quad link packet switch (QLPS) gateway processor (QGP). A QGP QPIPE is the communication path between the QLPS and the QGP. All of the variables '`f`' through 'i^3' are represented in hexadecimal.

3. VARIABLE FIELD DEFINITIONS

`14D6` = Message type (MGSMQLERR) indicating that the error was reported by a QGP.

`2C` = The error type (QPIPE fault).

`36` = Unit type (QGP).

`a` = Message switch (MSGS) side.

`b` = Logical QGP number.

`c` = QLPS network.

`d` = Office network and timing complex (ONTC) side.

`e` = Administrative module (AM) event number.

`f` = Not used.

`g` = MSGS side.

`h` = Physical QGP number.

`i` = Not used.

`j` = The error classification. Valid value(s):
- `1B` = QGP QPIPE failure.
- `20` = Bad QLPS broadcast message.
- `21` = Unknown endpoint.

`k` = Not used.

`l` = QGP QPIPE error that exceeded fault recovery threshold. Valid value(s):

00 = QPIPE loopback failure (to the QLPS) occurred.
05 = QGP internal audits reported a QPIPE software state problem.
07 = A QPIPE initialization failure occurred.
09 = A QPIPE initialization was required during a QGP operational soft restart (OSR).
0A = QGP received a frame addressed to a different destination. The QLPS routing RAM is suspect.
0B = QGP received an invalid broadcast packet from the QLPS.
0C = A protocol event that occurred in the QGP (such as an incoming frame) was associated with an unknown endpoint.
1A = QGP received a frame too large for a buffer.
1B = QGP received a frame too short to be valid.
1C = Transmit first-in, first-out (FIFO) not being emptied.
1E = An invalid PBMAC interrupt occurred.
1F = Loss of synchronization.
20 = Input parity error.
21 = PBMAC reported loss of clock.
22 = PBMAC reported loss of clear-to-send.
23 = Bibble bus parity error.
24 = PBMAC throttle out latched error.
25 = PBMAC throttle in latched error.
26 = PBMAC throttle out error.
27 = PBMAC throttle in error.
28 = PBMAC transmit FIFO overrun.
29 = PBMAC transmit FIFO underrun.
2A = PBMAC receive FIFO overrun.
2B = PBMAC receive FIFO underrun.
2C = PBMAC reported loss of carrier sense.
2D = PBMAC FIFO status parity error.
2E = PBMAC write protect error.
2F = FIFO BIST complete error.
30 = Bad frame due to receive FIFO overflow.
31 = Bad frame due to disabled receiver.
32 = Bad frame due to byte alignment.
33 = Bad frame due to cyclic redundancy check (CRC) error.
34 = Bad frame due to the PBMAC not setting the "good frame" indication.
35 = PBMAC BIST complete error.
36 = System data bus parity error.
37 = PBMAC transmit FIFO BIST error.
38 = PBMAC receive FIFO BIST error.
39 = PBMAC receive data ready interrupt.
3A = PBMAC end-of-frame flag was not set correctly.
3B = Bad frame due to lost carrier sense.
3C = PBMAC VALID bit was not set correctly.
3D = Frame received on a standby QGL.
3E = PBMAC bus error (an attempt was made to access a de-activated PBMAC).

m = QLPS network.

n = QLPS endpoint number. Valid value(s):
C1 = A QGP on MSGS 0.
C2 = A QGP on MSGS 1.

o = Not used.

p = QGP event number.

q = AM's QGP QPIPE state.

r = AM's parent QGL state.

s = Post-mortem data collection flag. Valid value(s):

- 0000 = There is no QGP post-mortem data associated with this error. Ignore message fields 't' through 'x^2'.
- AA3A = Obtained valid QGP post-mortem data for a QGP QPIPE. Refer to fields 't' through 'x^2' for the data.
- AAAA = Timed out waiting for QGP post-mortem data. Ignore message fields 't' through 'x^2'.
- EEEE = Data collection was preempted by a new error or event. Ignore message fields 't' through 'x^2'.
- FFFF = Could not send request for post-mortem data. Ignore message fields 't' through 'x^2'.

Any other value reports a failure result and reason from the QGP handler in the message switch kernel process (MSKP), indicating that post-mortem data could not be collected. Ignore message fields 't' through 'x^2'.

t = QGP QPIPE error that exceeded fault recovery threshold (same as field 'l').

u = QLPS endpoint number (reported by the QGP). Valid value(s):

- C1 = A QGP on MSGS 0.
- C2 = A QGP on MSGS 1.

v = Not used.

w = MSGS side (reported by the QGP).

x = QLFR-QGP flag indicating status of post-mortem data. Valid value(s):

- 00 = Post-mortem data was already sent to the AM. Multiple errors have occurred, and some data associated with this error may be reported by a previous REPT POST MORTEM output message.
- 01 = Post-mortem data was not sent to the AM previously (normal case).

y = QLFR-QGP post-mortem over-write counter.

z = Not used.

a^1 = This 2-digit field contains information about the QGP's internal QGP QPIPE configuration at the time the error occurred.

The first digit indicates the ONTC side to which the network's QGP QPIPE was configured (the side supporting the active QLPS). Valid value(s):

- 0 = Network 0 QPIPE configured to ONTC 0.

1 = Network 1 QPIPE configured to ONTC 0.
2 = Network 0 QPIPE configured to ONTC 1.
3 = Network 1 QPIPE configured to ONTC 1.
F = The QPIPE was out-of-service.

The second digit indicates the QGP-resident state of the network's QGP QPIPE. Valid value(s):
0 = The QPIPE is unequipped.
1 = A QPIPE initialization failed and autonomous recovery is in progress.
2 = The QPIPE is active.
4 = The QPIPE's PBMAC is de-activated due to QPIPE/QGL hardware or software errors.
5 = The QPIPE's PBMAC is enabled and periodic attempts to pass a loopback test to the active QLPS are in progress.
8 = The QPIPE has been implicated in causing a QGP operational software restart (OSR) and will be re-initialized after software recovery completes.

b^1 = This 2-digit field contains more information about the QGP's internal QGL and QGP QPIPE configuration at the time the error occurred.

The first digit indicates the QGP-resident parent QGL state. Valid value(s):
0 = The QGL is unequipped.
1 = The QGL is active.
2 = The QGL is standby (connected to the network's standby QLPS).
3 = The QGL is out-of-service.
4 = The QGL is being used by diagnostics.

The second digit indicates the QGP's internal status of the PBMAC associated with the parent QGL. Valid value(s):
0 = The PBMAC is unequipped.
1 = The PBMAC is enabled and associated with an in-service QGL.
3 = The PBMAC is disabled or, if the QGL is standby, a QGP QPIPE loopback test previously failed using the PBMAC.

c^1 = Number of QPIPE initialization failures (SMQTFINIT).

d^1 = Number of failed attempts to remove a QPIPE (SMQTFRMV).

e^1 = Number of times a frame was received that was too large to store in a buffer (SMQTFM2LONG).

f^1 = Number of times a frame was received that was too short to be valid (SMQTFM2SHRT).

g^1 = Number of times the PBMAC transmitter was found to be stuck (SMQTXMTSTK).

h^1 = Number of times an invalid PBMAC interrupt occurred (SMQTINTQGL). This is normally a QGL error. It is considered to be a QPIPE error if it occurs on an inhibited QGP.

i^1 = Number of times the PBMAC reported loss of synchronization (SMQTLOSQGL). This is normally a QGL error. It is considered to be a QPIPE error if it occurs on an inhibited QGP.

j^1 = Number of PBMAC input parity errors (SMQTPEQGL). This is normally a QGL error. It is considered to be a QPIPE error if it occurs on an inhibited QGP.

k[1] = Number of times the PBMAC reported loss of clock (SMQTLOCQGL). This is normally a QGL error. It is considered to be a QPIPE error if it occurs on an inhibited QGP.

l[1] = Number of times the PBMAC reported loss of clear-to-send (SMQTCTSPBM). This is normally a QGL error. It is considered to be a QPIPE error if it occurs on an inhibited QGP.

m[1] = Number of bibble bus parity errors detected (SMQTBPEPBM). This is normally a QGL error. It is considered to be a QPIPE error if it occurs on an inhibited QGP.

n[1] = Number of PBMAC throttle out latched errors detected (SMQTTOLPBM). This is normally a QGL error. It is considered to be a QPIPE error if it occurs on an inhibited QGP.

o[1] = Number of PBMAC throttle in latched errors detected (SMQTTILPBM). This is normally a QGL error. It is considered to be a QPIPE error if it occurs on an inhibited QGP.

p[1] = Number of PBMAC throttle out errors detected (SMQTTOPBM). This is normally a QGL error. It is considered to be a QPIPE error if it occurs on an inhibited QGP.

q[1] = Number of PBMAC throttle in errors detected (SMQTTIPBM). This is normally a QGL error. It is considered to be a QPIPE error if it occurs on an inhibited QGP.

r[1] = Number of PBMAC transmit FIFO overruns (SMQTTORPBM).

s[1] = Number of PBMAC transmit FIFO underruns (SMQTTURPBM).

t[1] = Number of PBMAC receive FIFO overruns (SMQTRORPBM).

u[1] = Number of PBMAC receive FIFO underruns (SMQTRURPBM).

v[1] = Number of times the PBMAC reported loss of carrier sense (SMQTCRSPBM). This is normally a QGL error. It is considered to be a QPIPE error if it occurs on an inhibited QGP.

w[1] = Number of PBMAC FIFO status parity errors detected (SMQTSPEPBM).

x[1] = Number of PBMAC write protect errors detected (SMQTWPEPBM). This is normally a QGL error. It is considered to be a QPIPE error if it occurs on an inhibited QGP.

y[1] = Number of FIFO BIST complete errors detected (SMQTBISPBM). This is normally a QGL error. It is considered to be a QPIPE error if it occurs on an inhibited QGP.

z[1] = Number of bad frames due to receive FIFO overflow (SMQTOVFLW). This is normally a QGL error. It is considered to be a QPIPE error if it occurs on an inhibited QGP.

a[2] = Number of bad frames due to the receiver being disabled (SMQTRCV_DSB).

b[2] = Number of bad frames due to byte alignment (SMQTBADALIGN).

c[2] = Number of bad frames due to cyclic redundancy check (CRC) errors (SMQTBADCRC).

d[2] = Number of bad frames due to the PBMAC not setting the "good frame" indication (SMQTGOODBAD). This is normally a QGL error. It is considered to be a QPIPE error if it occurs on an inhibited QGP.

e[2] = Number of PBMAC BIST complete errors detected (SMQTCBCPBM). This is normally a QGL error. It is considered to be a QPIPE error if it occurs on an inhibited QGP.

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f[2] = Number of system data bus parity errors detected (SMQTDBPPBM). This is normally a QGL error. It is considered to be a QPIPE error if it occurs on an inhibited QGP.

g[2] = Number of PBMAC transmit FIFO BIST errors detected (SMQTTFBPBM). This is normally a QGL error. It is considered to be a QPIPE error if it occurs on an inhibited QGP.

h[2] = Number of PBMAC receive FIFO BIST errors detected (SMQTRFBPBM). This is normally a QGL error. It is considered to be a QPIPE error if it occurs on an inhibited QGP.

i[2] = Number of PBMAC receive data ready interrupts (SMQTRDRPBM). This is normally a QGL error. It is considered to be a QPIPE error if it occurs on an inhibited QGP.

j[2] = Number of times the PBMAC end-of-frame flag was not set correctly (SMQTNOEOF).

k[2] = Number of bad frames due to lost carrier sense (SMQTLOSTCRS).

l[2] = Number of times the PBMAC VALID bit was not set correctly (SMQTNOVALID).

m[2] = Number of frames received using a STBY QGL (SMQTSTBYPBM). This is normally a QGL error. It is considered to be a QPIPE error if it occurs on an inhibited QGP.

n[2] = Number of times the QGP received a frame addressed to a different destination (SMQTBADRRAM). This error implies that the QLPS routing RAM may be invalid.

o[2] = Number of times the QGP received an invalid QLPS broadcast packet (SMQTBADBCAST). This error implies that the QLPS broadcast packets may have been improperly programmed.

p[2] = Number of times QGP protocol events occurred (such as receipt of an incoming frame) that were associated with an unknown endpoint (SMQTUNKENDPT).

q[2] = Number of times a message from the MSCU could not be routed, because no path to the destination was available (SMQTRTRFSH).

r[2] = Number of PBMAC bus errors detected (SMQTBUSPBM). This is normally a QGL error. It is considered to be a QPIPE error if it occurs on an inhibited QGP.

s[2] = Summary count of level 1 transmit errors (SMQSL1TRAN).

t[2] = Summary count of level 1 QPIPE receive errors (SMQSL1RECV).

u[2] = Summary count of level 1 QGL hardware errors (SMQSL1HARD).

v[2] = Summary count of level 1 QPIPE receive errors requiring long term thresholding in the QGP (SMQSL1QPRCV).

w[2] = Summary count of level 1 QGL receive errors requiring long term thresholding in the QGP (SMQSL1GLRCV).

x[2] = Not used.

y[2] = Initial QLFR-AM error sub-type. Valid value(s):

- 1D = QGP QPIPE failure (far end).
- 20 = Bad QLPS broadcast message.
- 21 = Unknown endpoint.
- 22 = Error on an unequipped QPIPE.
- 34 = Error from an out-of-service QGP.

z^2 = Error count for error sub-type 'y^2.

a^3 = Not used.

b^3 = QLFR-AM error sub-type that exceeded threshold, resulting in a QGP recovery action.

c^3 = Error count for QGP error sub-type 'b^3.

d^3 = QLFR-AM error sub-type that exceeded threshold, resulting in a QLPS recovery action.

e^3 = Error count for QLPS error sub-type 'd^3.

f^3 = Not used.

g^3 = Number of times the QGP recovery action associated with error sub-type 'b^3' has been requested. Escalation strategies may result in a higher level recovery action being performed.

h^3 = Number of equipped QGPs (Gl_qgp).

i^3 = Operational QGP configuration (Glqgpoper).

4. ACTION TO BE TAKEN

Since this message is logged, analyze the logged data by retrieving information off of the disk. The input message for dumping the daylog is `OP:LOG:LG="DAYLOG",MSGCLS=CLNKMON`. Correlate the event number with the REPT:TRBL message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LOG
```

Output Message(s):

```
REPT:TRBL
```

REPT:PM-QLNK-LE

Software Release: 5E10 and later
Message Class: CLNKMON
Application: 5
Type: Output

1. FORMAT

```
REPT POST MORTEM  QLNK=a-b-c-d-e-f EVENT=g
  1E1Ehhhh iijjkkkk llllllll mmnnoooo oooooooo oooooooo oooooooo oooooooo
  ppppqqqq rrrrssss ttuuvvww xxxxyyyy zzzza1a1 b1b1b1b1 c1c1c1c1 d1e1f1f1
  f1f1f1f1 f1f1f1f1 f1f1f1f1 f1f1f1f1 f1f1f1f1 f1f1f1f1 f1f1f1f1 f1f1f1f1
  f1f1f1f1 g1h1i1j1 k1k1k1k1 l1m1n1o1
```

2. REASON FOR OUTPUT

To report data associated with a quad link packet switch (QLPS) communication link (QLNK) link establishment (LE) sequence error reported by QLPS link fault recovery (QLFR) in the administrative module (AM). All of the variables '`h`' through '`o`^{1}' are represented in hexadecimal.

3. VARIABLE FIELD DEFINITIONS

`1E1E` = Indication that this is a link establishment (LE) sequence error reported by QLFR-AM.

`a` = Switching module (SM) number.

`b` = Active module controller/time slot interchange (MCTSI) side.

`c` = QLPS network.

`d` = Office network and timing complex (ONTC) side.

`e` = Logical QLPS gateway processor (QGP) number.

`f` = Message switch (MSGS) side.

`g` = Administrative module (AM) event number.

`h` = Not used.

`i` = Unit type. Valid value(s):
- `36` = QGP.
- `3B` = QLNK.

`j` = If field '`i`' is `36`, this is the MSGS side associated with the QLNK. Otherwise, it is the SM number.

`k` = If field '`i`' is `36`, this is the physical QGP number associated with the QLNK. Otherwise, it is the physical QLNK number (0-15).

`l` = Not used.

`m` = The error type. Valid value(s):
- `47` = QLFR switch maintenance error recognition process (SMER) received a report of level 2 establishment for a QLNK that is not in the expected state.

49 = QLFR configuration process (CON) received a link establishment (LE) or QGP routing update acknowledgement message for a QLNK that is not in the expected state.

n = The error classification. Valid value(s):
- 01 = QLFR SMER received an unexpected report of level 2 establishment.
- 15 = QLFR CON received an unexpected LE message.
- 16 = QLFR CON received an unexpected QGP routing update acknowledgement message.

o = Not used.

p = Logical link map (LLM) entry for logical link 2.

q = LLM entry for logical link 3.

r = LLM entry for logical link 4.

s = LLM entry for logical link 5.

t = DDQLINKMAP (SM) value for logical link 2.

u = DDQLINKMAP (SM) value for logical link 3.

v = DDQLINKMAP (SM) value for logical link 4.

w = DDQLINKMAP (SM) value for logical link 5.

x = MSCU translation table (MTT) side 0 contents.

y = MTT side 1 contents.

z = Demand (CLNK) MSCU translation table (DMTT) side 0 contents.

a[1] = DMTT side 1 contents.

b[1] = AM's parent QGP QPIPE state.

c[1] = AM's parent MH QPIPE state.

d[1] = AM's physical QLNK state. Valid value(s):
- 00 = Idle (supporting hardware available).
- 01 = Level 2 up (AM waiting for link establish message).
- 02 = QGP routing update in progress.
- 03 = QLNK on STBY QLPS with level 2 up on mate.
- 04 = Active (QLNK in use for message routing).
- 05 = Out-of-service due to supporting hardware.
- 06 = Unequipped.

e[1] = SM's QLPS routing state (SMqlmcst).

f[1] = Not used.

g^1 = Initial QLFR-AM error sub-type. Valid value(s):

- 14 = Unexpected report of level 2 establishment.
- 15 = Unexpected LE message.
- 16 = Unexpected QGP routing update acknowledgement.
- 48 = Link establishment sequence error summary count over threshold.

h^1 = Error count for error sub-type 'g^1'.

i^1 = QLFR-AM error sub-type that exceeded threshold, resulting in a QLNK recovery action.

j^1 = Error count for QLNK error sub-type 'i^1'.

k^1 = Not used.

l^1 = Number of times the QLNK recovery action associated with error sub-type 'i^1' has been requested. Escalation strategies may result in a higher level recovery action being performed.

m^1 = Not used.

n^1 = Number of equipped QGPs (Gl_qgp).

o^1 = Operational QGP configuration (Glqgpoper).

4. ACTION TO BE TAKEN

Since this message is logged, analyze the logged data by retrieving information off of the disk. The input message for dumping the daylog is `OP:LOG:LG="DAYLOG",MSGCLS=CLNKMON`. Correlate the event number with the REPT:TRBL message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LOG
```

Output Message(s):

```
REPT:TRBL
```

REPT:PM-QLNK-QGP

Software Release: 5E10 and later
Message Class: CLNKMON
Application: 5
Type: Output

1. FORMAT

```
REPT POST MORTEM  QLNK=a-b-c-d-e-f EVENT=g
  14D6hhhh 36iijjjj kkkkkkkk 47llmmmm mmmmmmmm nnnnnnnn nnnnnnnn ooooppppp
  qqqqrrrr ssssttttt uuvvwwxx yyyyzzzz a1a1b1b1 c1c1c1c1 d1d1d1d1 e1f1g1g1
  h1h1i1j1 k1l1m1n1 o1p1q1r1 s1t1u1v1 w1x1y1z1 a2b2c2d2 e2f2g2h2 i2j2j2j2
  j2j2j2j2 k2l2m2n2 o2p2q2q2 r2s2t2u2
```

2. REASON FOR OUTPUT

To report data associated with a quad link packet switch (QLPS) communication link (QLNK) error reported by QLNK fault recovery (QLFR) in a QLPS gateway processor (QGP). All of the variables 'h' through 'u^2' are represented in hexadecimal.

3. VARIABLE FIELD DEFINITIONS

14D6 = Message type (MGSMQLERR) indicating that the error was reported by a QGP.

36 = Unit type (QGP).

47 = The error type (QLNK level 2).

a = Switching module (SM) number.

b = Active module controller/time slot interchange (MCTSI) side.

c = QLPS network.

d = Office network and timing complex (ONTC) side.

e = Logical QGP number.

f = Message switch (MSGS) side.

g = Administrative module (AM) event number.

h = Not used.

i = MSGS side.

j = Physical QGP number.

k = Not used.

l = The error classification. Valid value(s):
- 02 = QLNK level 2 error
- 08 = QL request for link map refresh due to attempts to send messages using QLNKs that are not in an appropriate state.
- 09 = CM request for link map refresh due to attempts to send messages using QLNKs

that QGP routing indicates are not available.

m = Not used.

n = Information from QLFR-QGP about affected QLNKs. Valid value(s):

If 'l' =	Explanation:
02	This is a set of eight one-byte fields indicating SMs associated with QLNK errors reported in a single error message from the QGP. Bytes containing "FF" indicate that the QGP reported errors on fewer than eight QLNKs.
08, 09	The third byte of this field contains the QLPS network associated with the QLNK and the fourth byte contains the SM number. The other bytes are not used.

o = Valid value(s):

If 'l'=	Explanation: =
02	This is a set of eight 2-bit fields associated with each QLNK error indicated by a non-"FF" SM number in field 'n' (with the least significant 2-bit field corresponding to the first SM reported in field 'n'). The low-order bit of each 2-bit field is the QLPS network. The high-order bit is 1 if the QGP received a DISConnect frame from the far-endpoint, and 0 otherwise.
08, 09	This field is not used.

p = QGP event number.

q = Logical link map (LLM) entry for logical link 2.

r = LLM entry for logical link 3.

s = LLM entry for logical link 4.

t = LLM entry for logical link 5.

u = DDQLINKMAP (SM) value for logical link 2.

v = DDQLINKMAP (SM) value for logical link 3.

w = DDQLINKMAP (SM) value for logical link 4.

x = DDQLINKMAP (SM) value for logical link 5.

y = Message switch control unit (MSCU) translation table (MTT) side 0 contents.

z = MTT side 1 contents.

a[1] = Demand (CLNK) MSCU translation table (DMTT) side 0 contents.

b[1] = DMTT side 1 contents.

c[1] = AM's parent QGP QPIPE state.

d[1] = AM's parent MH QPIPE state.

e[1] = AM's physical QLNK state. Valid value(s):

- 00 = Idle (supporting hardware available).
- 01 = Level 2 up (AM waiting for link establishment message).
- 02 = QGP routing update in progress.
- 03 = QLNK on STBY QLPS with level 2 up on mate.

04 = Active (QLNK in use for message routing).
05 = Out-of-service due to supporting hardware.
06 = Unequipped.

f^1 = SM's QLPS routing state (SMqlmcst).

g^1 = Not used.

h^1 = Post-mortem data collection flag. Valid value(s):

0000 = There is no QGP post-mortem data associated with this error. Ignore message fields 'i^1' through 'i^2'.
AAAA = Timed out waiting for QGP post-mortem data. Ignore message fields 'i^1' through 'i^2'.
EEEE = Data collection was preempted by a new error or event. Ignore message fields 'i^1' through 'i^2'.
FF3B = Obtained valid QGP post-mortem data for a QLNK. Refer to fields 'i^1' through 'i^2' for the data.
FFFF = Could not send request for post-mortem data. Ignore message fields 'i^1' through 'i^2'.

Any other value reports a failure result and reason from the QGP handler in the message switch kernel process (MSKP), indicating that post-mortem data could not be collected. Ignore message fields 'i^1' through 'i^2'.

i^1 = Error that exceeded fault recovery threshold. Valid value(s):

02 = Far-end response timeout (no response to RR or SABM frames).
06 = QLFR-QGP detected a discrepancy between the QLFR-QGP QLNK data and level 2 data structures.
0D = QGP detected full transmit queue.
0E = RR frame re-try threshold exceeded.
0F = Frame with invalid poll/final bit.
10 = Frame with invalid message/response bit.
11 = Frame with unknown packet type.
12 = Frame with unknown frame type.
13 = Frame with inconsistent packet and frame types.
14 = SABM on a link in the multi-frame establish or timer recovery state.
15 = Valid frame on a link that was in a state for which the frame was not expected.
17 = Out-of-sequence frame received.
18 = QGP-detected frame reject condition.
19 = Attempt to send a message using a QLNK that was not in an appropriate state.
1D = Attempt to send a message using a QLNK that was not in the QGP routing table.

j^1 = QLPS endpoint number (reported by the QGP). Valid value(s):

C1 = A QGP on MSGS 0.
C2 = A QGP on MSGS 1.

k^1 = Not used.

l^1 = MSGS side (reported by the QGP).

m[1] = QLFR-QGP flag indicating status of post-mortem data. Valid value(s):

- 00 = Post-mortem data was already sent to the AM. Multiple errors have occurred, and some data associated with this error may be reported by a previous REPT POST MORTEM output message.
- 01 = Post-mortem data was not sent to the AM previously (normal case).

n[1] = QLFR-QGP post-mortem over-write counter.

o[1] = Not used.

p[1] = Recovery action performed by QLFR-QGP. Valid value(s):

- 00 = No action.
- 02 = Notify AM of loss of level 2 communication and periodically attempt to re-establish it.
- 06 = Initiate level 2 protocol re-start due to level 2 errors.

q[1] = This 2-digit field contains information about the QGP's internal configuration at the time the error occurred.

The first digit indicates the ONTC side to which the network's QGP QPIPE was configured (the side supporting the active QLPS). Valid value(s):

- 0 = Network 0 QPIPE configured to ONTC 0.
- 1 = Network 1 QPIPE configured to ONTC 0.
- 2 = Network 0 QPIPE configured to ONTC 1.
- 3 = Network 1 QPIPE configured to ONTC 1.
- F = The QPIPE was out-of-service.

The second digit indicates the QGP-resident state of the network's QGP QPIPE. Valid value(s):

- 0 = The QPIPE is unequipped.
- 1 = A QPIPE initialization failed and autonomous recovery is in progress.
- 2 = The QPIPE is active.
- 4 = The QPIPE's PBMAC is de-activated due to QPIPE/QGL hardware or software errors.
- 5 = The QPIPE's PBMAC is enabled and periodic attempts to pass a loopback test to the active QLPS are in progress.
- 8 = The QPIPE has been implicated in causing a QGP operational software restart (OSR) and will be re-initialized after software recovery completes.

r[1] = This 2-digit field contains more information about the QGP's internal configuration at the time the error occurred.

The first digit indicates the QGP-resident QGL state. Valid value(s):

- 0 = The QGL is unequipped.
- 1 = The QGL is active.
- 2 = The QGL is standby (connected to the network's standby QLPS).
- 3 = The QGL is out-of-service.
- 4 = The QGL is being used by diagnostics.

The second digit indicates the QGP's internal QLNK level 2 status. Valid value(s):

0 = The QLNK is unequipped.
1 = Level 2 is up.
2 = Level 2 is down.

s[1] = Number of QGP-detected transmit queue full errors (SMQTQUEFULL).

t[1] = Number of times the RR frame re-try threshold was exceeded (SMQTXRETRY).

u[1] = Number of frames received with an invalid poll/final bit (SMQTINVPF).

v[1] = Number of frames received with an invalid message/response bit (SMQTINVCR).

w[1] = Number of frames received with an unknown packet type (SMQTUNKPKT).

x[1] = Number of frames received with an unknown frame type (SMQTUNKFRM).

y[1] = Number of frames received with inconsistent packet and frame types (SMQTINCPKT).

z[1] = Number of SABMs received while the link was in the multi-frame establish or timer recovery state (SMQTRESTART).

a[2] = Number of valid frames received on a link that was in a state for which the frame was not expected (SMQTUXPFRM).

b[2] = Not used.

c[2] = Number of out-of-sequence frames received (SMQTUXPSEQ).

d[2] = Number of QGP-detected frame reject conditions (SMQTFRAMREJ).

e[2] = Number of attempts to send a message using a QLNK that is not in an appropriate state (SMQTLMRFSH).

f[2] = Summary count of QGP level 2 transmit errors (SMQSL2SEND).

g[2] = Summary count of QGP level 2 receive errors (SMQSL2RECV).

h[2] = Summary count of QGP level 2 synchronization errors (SMQSL2SYNCH).

i[2] = Number of attempts to send a message using a QLNK that is not available in the QGP routing table (SMQTRTRFSH).

j[2] = Not used.

k[2] = Initial QLFR-AM error sub-type. Valid value(s):
02 = QLNK level 2 error.
04 = Level 2 error on an out-of-service QLNK (level 2 was already down).
06 = QLNK level 2 error on an unequipped QLNK.
07 = DISConnect frame received on an unequipped QLNK.
08 = QL request for link map refresh.
09 = CM request for link map refresh.
34 = Error from an out-of-service QGP.
46 = Summary threshold exceeded for QLNK level 2 errors.
47 = Summary threshold exceeded for level 2 errors on an out-of-service QLNK (level

2 was already down).

l^2 = Error count for error sub-type 'k^2'.

m^2 = QLFR-AM error sub-type that exceeded threshold, resulting in a QLNK recovery action.

n^2 = Error count for QLNK error sub-type 'm^2'.

o^2 = QLFR-AM error sub-type that exceeded threshold, resulting in a QGP recovery action.

p^2 = Error count for QGP error sub-type 'o^2'.

q^2 = Not used.

r^2 = Number of times the QLNK recovery action associated with error sub-type 'm^2' has been requested. Escalation strategies may result in a higher level recovery action being performed.

s^2 = Number of times the QGP recovery action associated with error sub-type 'o^2' has been requested. Escalation strategies may result in a higher level recovery action being performed.

t^2 = Number of equipped QGPs (Gl_qgp).

u^2 = Operational QGP configuration (Glqgpoper).

4. ACTION TO BE TAKEN

Since this message is logged, analyze the logged data by retrieving information off of the disk. The input message for dumping the daylog is `OP:LOG:LG="DAYLOG",MSGCLS=CLNKMON`. Correlate the event number with the REPT:TRBL message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LOG
```

Output Message(s):

```
REPT:TRBL
```

REPT:PM-QLNK-SI

Software Release: 5E10 and later
Message Class: CLNKMON
Application: 5
Type: Output

1. FORMAT

```
REPT POST MORTEM  QLNK=a-b-c-d-e-f EVENT=g
  050Chhhh 3Biijjjj kkkkkkkk llmmnnoo ppppqqqq rrrrssss ttuuvvww xxxxyyyy
  zzzza1a1 b1b1b1b1 c1c1c1c1 d1e1f1f1 f1f1f1f1 f1f1f1f1 f1f1f1f1 f1f1f1f1
  f1f1f1f1 f1f1f1f1 f1f1f1f1 f1f1f1f1 f1f1f1f1 f1f1f1f1 f1f1f1f1 f1f1f1f1
  f1f1f1f1 g1h1i1j1 k1k1k1k1 l1m1n1o1
```

2. REASON FOR OUTPUT

To report data associated with a quad link packet switch (QLPS) communication link (QLNK) error reported by integrity monitor in the administrative module (AM). All of the variables 'h' through 'o1' are represented in hexadecimal.

3. VARIABLE FIELD DEFINITIONS

050C = Message type (MGSMSILK) indicating that the error was reported by OKP integrity monitor.

3B = Unit type (QLNK).

a = Switching module (SM) number.

b = Active module controller/time slot interchange (MCTSI) side.

c = QLPS network.

d = Office network and timing complex (ONTC) side.

e = Logical QLPS gateway processor (QGP) number.

f = Message switch (MSGS) side.

g = Administrative module (AM) event number.

h = Not used.

i = SM number.

j = Physical QLNK number.

k = Not used.

l = Error type. Valid value(s):
- 00 = End-to-end (level 3) failure
- 01 = Logical link map inconsistency
- 05 = Test message on QLNK corrupted in transit.

m = Physical QLNK number.

n = Logical QLNK number.

o = Not used.

p = Logical link map (LLM) entry for logical link 2.

q = LLM entry for logical link 3.

r = LLM entry for logical link 4.

s = LLM entry for logical link 5.

t = DDQLINKMAP (SM) value for logical link 2.

u = DDQLINKMAP (SM) value for logical link 3.

v = DDQLINKMAP (SM) value for logical link 4.

w = DDQLINKMAP (SM) value for logical link 5.

x = Message switch control unit (MSCU) translation table (MTT) side 0 contents.

y = MTT side 1 contents.

z = Demand (CLNK) MSCU translation table (DMTT) side 0 contents.

a[1] = DMTT side 1 contents.

b[1] = AM's parent QGP QPIPE state.

c[1] = AM's parent MH QPIPE state.

d[1] = AM's Physical QLNK state. Valid value(s):

- 00 = Idle (supporting hardware available).
- 01 = Level 2 up (AM waiting for link establish message).
- 02 = QGP routing update in progress.
- 03 = QLNK on STBY QLPS with level 2 up on mate.
- 04 = Active (QLNK in use for message routing).
- 05 = Out-of-service due to supporting hardware.
- 06 = Unequipped.

e[1] = SM's QLPS routing state (SMqlmcst).

f[1] = Not used.

g[1] = Initial QLFR-AM error sub-type. Valid value(s):

- 35 = QLNK level 3 error.
- 36 = Level 3 error on an out-of-service QLNK (level 2 was already down).
- 37 = Level 3 error on an un-equipped QLNK.
- 3F = Link map inconsistency - AM dangling QLNK.
- 40 = Link map inconsistency - SM dangling QLNK.
- 41 = Link map inconsistency - No dangling QLNKs.
- 42 = Logical link map inconsistent with SMqlmcst.

43 = Logical link map contains incorrect network.
44 = Logical link map contains incorrect MSGS.
49 = AM reported corrupted message error.

h^1 = Error count for error sub-type 'g^1'.

i^1 = QLFR-AM error sub-type that exceeded threshold, resulting in a QLNK recovery action.

j^1 = Error count for QLNK error sub-type 'i^1'.

k^1 = Not used.

l^1 = Number of times the QLNK recovery action associated with error sub-type 'i^1' has been requested. Escalation strategies may result in a higher level recovery action being performed.

m^1 = Not used.

n^1 = Number of equipped QGPs (Gl_qgp).

o^1 = Operational QGP configuration (Glqgpoper).

4. ACTION TO BE TAKEN

Since this message is logged, analyze the logged data by retrieving information off of the disk. The input message for dumping the daylog is OP:LOG. Correlate the event number with the REPT:TRBL message. Refer to these messages for additional information.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LOG
```

Output Message(s):

```
REPT:TRBL
```

REPT:PM-QLNK-SM

Software Release: 5E10 and later
Message Class: CLNKMON
Application: 5
Type: Output

1. FORMAT

[1]

```
REPT POST MORTEM   QLNK=a-b-c-d-e-f EVENT=g
  14FBhhhh iijjkkkk llllmmmmm nn3Boopp QQrrsstt uuvvwxyz a1b1c1d1 e1f1g1h1
  i1j1k1l1 m1n1o1o1 p1q1r1s1 t1u1v1w1 x1y1z1a2 b2c2d2e2 f2f2f2f2 g2g2h2h2
  i2j2j2j2 k2k2l2l2 m2m2n2n2 o2p2q2r2 s2s2t2t2 u2u2v2v2 w2w2w2w2 x2x2x2x2
  y2z2a3a3 b3c3d3e3 f3f3f3f3 g3h3i3j3
```

[2]

```
REPT POST MORTEM   QLNK=a-b-c-d-e-f EVENT=g
  14FBhhhh iijjkkkk llllmmmm k3l3l3l3 l3l3l3l3 l3l3l3l3 l3l3l3l3 l3l3l3l3
  l3l3l3l3 l3l3l3l3 l3l3l3l3 l3l3l3l3 l3l3l3l3 l3l3l3l3 l3l3l3l3 g2g2h2h2
  i2m3m3m3 m3m3m3m3 m3m3m3m3 m3m3m3m3 m3m3m3m3 m3m3m3m3 m3m3m3m3 m3m3m3m3
  m3m3m3m3 m3m3m3m3 m3m3m3m3 m3m3m3m3
```

2. REASON FOR OUTPUT

To report data associated with a quad link packet switch (QLPS) communication link (QLNK) error reported by QLNK fault recovery (QLFR) in a switching module (SM). All of the variables 'h' through 'm^3' are hexadecimal numbers.

Format 1 prints in most cases, except when variable field 'i' has a value of 4A.

Format 2 prints when variable field 'i' has a value of 4A, which indicates the contents of a test message received in the SM was corrupted. This format dumps the contents of the test message.

3. VARIABLE FIELD DEFINITIONS

14FB	= Message type (MGQLSP2AM) indicating that the error was reported by a switching module.
3B	= Unit type (QLNK).
a	= SM number.
b	= Active module controller/time slot interchange (MCTSI) side at the time the error was reported.
c	= QLPS network.
d	= Office network and timing complex (ONTC) side.
e	= Logical QLPS gateway processor (QGP) number.
f	= Message switch (MSGS) side.
g	= Administrative module (AM) event number.
h	= Not used.

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i = The error classification. Valid value(s):
- 0C = QLNK level 2 error.
- 0E = SM received a DISConnect frame.
- 13 = MH link map refresh.
- 17 = QLNK establishment sequence error.
- 38 = QLNK level 3 error.
- 3B = QLNK level 2+ report.
- 45 = SM/MH link map inconsistency.
- 4A = Test message on the QLNK was corrupted in transit.

j = ONTC side (SM perspective at time error was reported).

k = QLPS network.

l = Far-end QLPS endpoint number. Valid value(s):
- 00C1 = A QGP on MSGS 0.
- 00C2 = A QGP on MSGS 1.

m = Not used.

n = Post-mortem data source. Valid value(s):
- 00 = No post-mortem data associated with this error. Ignore fields '3B' through 'e^2'.
- CC = Switching module processor (SMP).
- FF = Message handler (MH).

o = Error that exceeded fault recovery threshold. Valid value(s):

If 'i' =	**'o' =**
0C	Valid value(s): 02 = Far-end response timeout (no response to RR or SABM frames). 06 = QLFR-SMP or the logical link control block (LLCB) audit in the MH detected invalid or inconsistent SMP/MH QLNK data. 0B = MH detected full transmit queue. 0C = RR frame re-try threshold exceeded. 0D = Frame with invalid poll/final bit. 0E = Frame with invalid message/response bit. 0F = Frame with unknown packet type. 10 = Frame with unknown frame type. 11 = Frame with inconsistent packet and frame types. 12 = SABM on a link in the multi-frame establish or timer recovery state. 13 = Valid frame on a link that was in a state for which the frame was not expected. 15 = Out-of-sequence frame received. 16 = MH-detected frame reject condition. 17 = Attempt to send a frame to an endpoint that is not available in the MH link map (routing table).
17	Valid value(s): 09 = QLFR-MH reported establishment of level 2 communication on a QLNK when the SMP thought level 2 was already up. 0B = The SM received a QLNK link establishment (LE) acknowledgement message on a QLNK that successfully completed the link establishment protocol. This implies that the level 2 protocol was re-started. 0C = QLNK LE sequence timed out.

38	Valid value(s): 0D = Level 3 error reported by integrity monitor in the SMP.
3B	Valid value(s): 0E = Level 2+ report from integrity monitor in the SMP, indicating that message switch control unit (MSCU) loopback was successful with level 3 failing.
45	Valid value(s): 10 = SMP/MH link map inconsistency where the SMP thinks the QLNK is down. 11 = SMP/MH link map inconsistency where the MH thinks the QLNK is down.

p = SM number.

q = Not used.

r = Active MCTSI side at the time the error occurred.

s = QLFR-SMP flag indicating status of post-mortem data.

If 'n'	's'
FF	Valid value(s): 00 = Post-mortem data was already sent to the AM. Multiple errors have occurred, and some data associated with this error may be reported by a previous REPT POST MORTEM output message. 01 = Post-mortem data was not sent to the AM previously (normal case).
00, CC	This field is not used.

t = QLFR-SMP post-mortem over-write counter.

u = Recovery action performed by QLFR-SMP. Valid value(s):
- 00 = No action.
- 03 = Request level 3 re-start.
- 04 = Request level 2 re-start.
- 05 = Request removal (with deferred re-start).
- 0C = Notify AM of communication status.

v = Recovery action performed by QLFR-MH. Valid value(s):
- 00 = No action.
- 02 = Notify SM of loss of level 2 communication and periodically attempt to re-establish it.
- 06 = Initiate level 2 protocol re-start due to level 2 errors.

w = Not used.

x = The SMP-resident state of the MH QPIPE at the time the error occurred. Valid value(s):
- 0 = The QPIPE is unequipped.
- 1 = A QPIPE initialization failed and autonomous recovery is in progress.
- 2 = The QPIPE is active.
- 3 = The QPIPE is out-of-service due to a suspected communication module (CM) problem.
- 4 = The QPIPE is out-of-service due to a software problem and autonomous recovery is in progress.
- 5 = The QPIPE is out-of-service and periodic attempts to pass a loopback test to the

active QLPS are in progress.

6 = The QPIPE is out-of-service and is configured for fault isolation testing [attempting to pass a local loopback test to the time slot interchange (TSI)].

7 = The QPIPE is out-of-service due to a local loopback test failure.

8 = The QPIPE has been implicated in causing a MH operational software restart (OSR) and will be re-initialized after software recovery completes.

y = The SM-resident QLNK level 3 state at the time the error occurred. Valid value(s):

0 = The QLNK is unequipped.

1 = The QLNK is in-service (routing is enabled).

2 = The QLNK is out-of-service (level 2 is down and routing is disabled).

3 = An LE message has been sent to the AM and the SM is waiting for an acknowledgement.

5 = An LE acknowledgement message has been received from the AM and an MH routing update is in progress.

6 = Routing has been disabled due to a pending manual request that will cause the QLNK to go out-of-service. This is a transient state.

z = The SM-resident QLNK level 2 state at the time the error occurred. Valid value(s):

0 = The QLNK is unequipped.

1 = Level 2 is up.

2 = Level 2 is down.

a[1] = Number of times QLFR-MH reported establishment of level 2 communication on a QLNK when the SMP thought level 2 was already up (SMQTSEQERR).

b[1] = Not used.

c[1] = Number of times the SM received an LE acknowledgement message from the AM on a QLNK that successfully completed the link establishment protocol (SMQTLEISERR). This is expected to occur if the QGP autonomously re-starts the QLNK.

d[1] = Number of LE sequence timeouts (SMQTLESTOUT).

e[1] = Number of level 3 errors reported by integrity monitor in the SMP (SMQTQL3FAIL).

f[1] = Number of "level 2+" reports from integrity monitor in the SMP, indicating that MSCU loopback was successful with level 3 failing (SMQTQL2UP).

g[1] = Not used.

h[1] = Number of SMP/MH link map inconsistencies detected where the SMP thinks the QLNK is down (SMQTL3LSMM).

i[1] = Number of SMP/MH link map inconsistencies detected where the MH thinks the QLNK is down (SMQTL3LMHM).

j[1] = Summary count of SM-detected QLNK LE sequence errors (SMQSLESEQ).

k[1] = Number of SMP-initiated level 3 re-starts (or level 3 re-starts elevated to more severe recovery actions) performed (SMQIL3RSTRT).

l[1] = Number of SMP-initiated level 2 re-starts (or level 2 re-starts elevated to more severe recovery actions) performed (SMQIL2RSTRT).

m[1] = Number of SMP-initiated QLNK removals (with deferred level 2 re-start) (SMQIRMVDFR).

n[1] = Number of MH-initiated level 2 protocol re-starts due to level 2 errors (SMQILLRSTRT).

o[1] = Not used.

p[1] = Number of MH-detected transmit queue full errors (SMQTQUEFULL).

q[1] = Number of times the RR frame re-try threshold was exceeded (SMQTXRETRY).

r[1] = Number of frames received with an invalid poll/final bit (SMQTINVPF).

s[1] = Number of frames received with an invalid message/response bit (SMQTINVCR).

t[1] = Number of frames received with an unknown packet type (SMQTUNKPKT).

u[1] = Number of frames received with an unknown frame type (SMQTUNKFRM).

v[1] = Number of frames received with inconsistent packet and frame types (SMQTINCPKT).

w[1] = Number of SABMs received while the link was in the multi-frame establish or timer recovery state (SMQTRESTART).

x[1] = Number of valid frames received on a link that was in a state for which the frame was not expected (SMQTUXPFRM).

y[1] = Not used.

z[1] = Number of out-of-sequence frames received (SMQTUXPSEQ).

a[2] = Number of MH-detected frame reject conditions (SMQTFRAMREJ).

b[2] = Number of attempts to send a frame to an endpoint that is not available in the MH link map (routing table) (SMQTLMRFSH).

c[2] = Summary count of MH level 2 transmit errors (SMQSL2SEND).

d[2] = Summary count of MH level 2 receive errors (SMQSL2RECV).

e[2] = Summary count of MH level 2 synchronization errors (SMQSL2SYNCH).

f[2] = Not used.

g[2] = SM event number.

h[2] = Not used.

i[2] = SM-reported alarm level. Valid value(s):

- 01 = Information only.
- 03 = Minor.
- 05 = Major.
- 06 = Critical.

j[2] = Not used.

k[2] = Logical link map (LLM) entry for logical link 2.

l[2] = LLM entry for logical link 3.

m[2] = LLM entry for logical link 4.

n[2] = LLM entry for logical link 5.

o[2] = DDQLINKMAP (SM) value for logical link 2.

p[2] = DDQLINKMAP (SM) value for logical link 3.

q[2] = DDQLINKMAP (SM) value for logical link 4.

r[2] = DDQLINKMAP (SM) value for logical link 5.

s[2] = MSCU translation table (MTT) side 0 contents.

t[2] = MTT side 1 contents.

u[2] = Demand (CLNK) MSCU translation table (DMTT) side 0 contents.

v[2] = DMTT side 1 contents.

w[2] = AM's parent QGP QPIPE state.

x[2] = AM's parent MH QPIPE state.

y[2] = AM's physical QLNK state. Valid value(s):

- 00 = Idle (supporting hardware available).
- 01 = Level 2 up (AM waiting for link establishment message).
- 02 = QGP routing update in progress.
- 03 = QLNK on STBY QLPS with level 2 up on mate.
- 04 = Active (QLNK in use for message routing).
- 05 = Out-of-service due to supporting hardware.
- 06 = Unequipped.

z[2] = SM's QLPS routing state (SMqlmcst).

a[3] = Not used.

b[3] = Initial QLFR-AM error sub-type. Valid value(s):

- 0C = QLNK level 2 error.
- 0E = DISConnect frame received.
- 10 = Level 2 error on an out-of-service QLNK (level 2 was down in the AM).
- 11 = DISConnect frame received on an out-of-service QLNK (level 2 was down in the AM).
- 12 = QLNK level 2 error on an unequipped QLNK or a DISConnect frame received on an unequipped QLNK.
- 13 = MH link map refresh.
- 17 = QLNK establishment sequence error.
- 18 = QLNK establishment sequence error on an out-of-service QLNK (level 2 was

down in the AM).

19	= QLNK establishment sequence error on an unequipped QLNK.
38	= QLNK level 3 error.
39	= Level 3 error on an out-of-service QLNK (level 2 was down in the AM).
3A	= QLNK level 3 error on an unequipped QLNK.
3B	= QLNK level 2+ report.
3C	= QLNK level 2+ report on an out-of-service QLNK (level 2 was down in the AM).
3D	= QLNK level 2+ report on an unequipped QLNK.
45	= SM/MH link map inconsistency.
46	= Summary threshold exceeded for level 2 errors on a QLNK.
47	= Summary threshold exceeded for level 2 errors on an out-of-service QLNK (level 2 was down in the AM).

c^3 = Error count for error sub-type 'b^3'.

d^3 = QLFR-AM error sub-type that exceeded threshold, resulting in a QLNK recovery action.

e^3 = Error count for QLNK error sub-type 'd^3'.

f^3 = Not used.

g^3 = Number of times the QLNK recovery action associated with error sub-type 'd^3' has been requested. Escalation strategies may result in a higher level recovery action being performed.

h^3 = Not used.

i^3 = Number of equipped QGPs (Gl_qgp).

j^3 = Operational QGP configuration (Glqgpoper).

k^3 = The logical link the test message was sent on.

l^3 = The contents of the test message that was corrupted. The test message is a sequence of bytes incremented by 1 (that is, 0102030405060708090A.....). If the message is corrupted the portion of the message surrounding the corrupted byte(s) is dumped.

m^3 = Not used.

4. ACTION TO BE TAKEN

Since this message is logged, analyze the logged data by retrieving information off of the disk. The input message for dumping the daylog is OP:LOG. Correlate the event number with the REPT:TRBL message. Refer to these messages for additional information.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LOG
```

Output Message(s):

```
REPT:TRBL
```

REPT:PMDBCOPY

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT PMDBCOPY ERROR a [ERRNO = b]

[2]   ____________________________________________________________________
      REPT PMDBCOPY NO COPY

[3]   ____________________________________________________________________
      REPT PMDBCOPY COMPLETED
```

2. REASON FOR OUTPUT

To report the status of the plant measurements system (PMS) database copy program.

Format 1 is printed when errors are found.

Format 2 indicates that the PMS database audit program is conducting corrective action on the database and, therefore, the database will not be copied to disk.

Format 3 is printed if 'p' option is specified. As a default, the message is not printed at the end of the report.

3. VARIABLE FIELD DEFINITIONS

a = Error type. One of the following. Valid value(s):

- 1 = Failed plib function call.
- 2 = Could not attach to PMS database.
- 3 = Could not initialize lla_audit routines.
- 4 = Error detected by the lla_audit function.
- 5 = Error detected by the lla_audit function.
- 6 = Unknown return from lla_audit function.
- 7 = Could not get setid record from PMS database.
- 8 = Could not open secondary disk copy of PMS database.
- 9 = Could not write incore PMS database to secondary disk database.
- 10 = Could not release.
- 11 = Request to audit the PMS database did not complete successfully. The incore database will not be copied.
- 12 = After the incore database was copied to disk, an audit on the disk database failed. Refer to additional errors. The secondary disk database may be bad.
- 13 = The primary disk database does not exist. Attempt to move the secondary copy to primary failed. Run AUD:PMS 1.
- 14 = Attempt to switch primary and secondary disk databases failed. The primary may be bad. Run AUD:PMS 1.
- 16 = falloc failed to create a contiguous file for PMS disk database.
- 17 = makeseg failed to create a temporary segment for the incore database.

b = Number of errors detected by audit. For error types 2, 3, 7, 10-14, and 16, do not report an error

number.

4. ACTION TO BE TAKEN

For Format 1, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Formats 2 and 3, take no action.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	211

Output Message(s):

```
AUD:PMS
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

REPT:PMGR-ERROR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT PMGR ERROR a b [c] [d]
```

2. REASON FOR OUTPUT

To report process-manager (PMGR) related software errors. The errors are detected during the creation and termination of a supervisor or a kernel process or during a field update to a shared library.

The message identifies the type of problem encountered. There are two error types:

Failure = Causes the termination of the process under creation.

Warning = Notifies the user of the problem but does not terminate the process under creation.

3. VARIABLE FIELD DEFINITIONS

`a` = Valid value(s):

- `51` = Message type not recognized.
- `53` = Library file does not exist.
- `55` = Failure to load a kernel process because of insufficient memory.
- `56` = All segment descriptor entries (SDEs) are allocated or there is no swap space left.
- `57` = Unable to read a pfile or library file.
- `58` = Segment too big for virtual address space available.
- `59` = Can't add a shared segment to the process.
- `60` = Incarnation count too big for a process.
- `62` = Can't acquire a process control block (PCB) of a terminating process.
- `63` = PMGR faulted, entered fault routine.
- `64` = NUB faulted, entered fault routine.
- `67` = Bad acknowledgment resulting from copyseg operating system trap (OST).
- `68` = Pfile (LDP output) doesn't exist, or does not have correct magic number, or wrong supervisor or kernel mode.
- `70` = Can't open dump file specified in terminate message.
- `71` = Unable to write out a segment of a process being dumped.
- `72` = Can't get capability for working directory.
- `73` = Unable to close a file.
- `75` = Can't open or get segment name of device process.
- `76` = Message from unauthorized process.
- `77` = Segment index overlay warning.
- `78` = Unable to lock shared library in memory.
- `80` = Process termination has already been completed by the process administration process termination audit.
- `81` = Pfile requests protected application segment (PAS); no PAS specified on sgen1 form.
- `82` = Could not duplicate pfile capabilities for the NUB.
- `83` = Could not create process because system is in disk independent operation.

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84 = Shared segment index specifies different physical module than that specified by segid.
85 = Invalid PCB index.
86 = Pfile does not specify PCB segment.
87 = An expected acknowledgement message was not received within the five-minute wait interval.
88 = Pfile specifies a segment whose virtual address is beyond the range supported on this hardware.

b-d = Valid value(s):

If 'a' =	**'b' =**	**'c' =**	**'d' =**
51	Process number of the process sending an unknown message fielded by the process manager mainline routine, in decimal notation.	Type of message received by the PMGR.	
51	CREATDFILE Pathname is not specified to create a dump file. Check the pathname in termhdr.h message.	User-supplied pathname in the termhdr.h message, or NULL.	
51	INIT Process manager received a second initialization message.	Process number of message sender.	
51	NUB START Could not recognize the type of message in START routine. Check the type of message dispatched to the NUB.	Type of message received by the PMGR.	
53	LMAKSEG OPEN Could not open library file for read. Check the pathname. Could be an input/output failure.	Pathname of the library file from pheader file.	
53	LMAKSEG MAGIC Shared library file had incorrect magic number. Check the path name could be an input/output failure.	Pathname of the library file from pheader file.	
54	MAKEKP Failed to create a DCTE entry during kernel process creation. Check the DCTE table it could be full.	Process pathname process will not be created.	
54	MAKSUPER Failed to create a DCTE entry during creation of supervisor process. Check the DCTE entry table.	Process pathname process will not be created.	
55	BLDSGE Failed to lock the requested segment in the memory.	Process pathname process will not be created.	
56	CDUMP ACTIVSEG Can not find the segment in the segment table. Either the segment index is bad, or the segment points to a null segment. Core dump will not be created.	Process number process is terminated.	Utility ID.
56	CDUMP ALOCSEG PMGR requested the memory manager to allocate a segment. Memory manager returned failure condition. Either there is no space left on the disk to create this segment, or the SDE table is full. Core dump will not be created.	Process number process terminated.	Utility ID.

56	FILCOPY OPENADD Segment ID is invalid or unallocated, or the segment index in segment flags of the segment list is out of range. Core dump will not be created.	Null.	
56	INMEM ACTIVSEG Same as MAKPRC ACTIVSEG, except error occurred during field update of shared library.	Library pathname library will not be locked.	
56	INMEM ALOCSEG Same as MAKPRC ALOCSEG, except error occurred during field update of shared library.	Library pathname library will not be locked.	
56	MAKPRC ACTIVSEG Can not find the segment in the segment table. Segment points to a null segment: failed to make the segment nonswap process. Segment index out of range.	Process pathname process will not be created.	
56	MAKPRC ALOCSEG PMGR made an alocseg ost call to the memory manager. Call returned with failure condition. Either there is no space left on the swap area, or the SDE table is full. Check the SDE table entries and the swap space.	Process pathname process will not be created.	
56	NDUP ACTIVSEG Refer to MAKPRC ACTIVSEG.	Null.	
56	NDUP ADDSEG Refer to MAKPRC ACTIVSEG.	Null.	
56	NDUP ALOCSEG Refer to MAKPRC ALOCSEG.	Null.	
56	SEGADD ALOCSEG Refer to MAKPRC ALOCSEG.	Segment name.	
56	SEGADD SHARE Sgetmodule() failed on a segment shared through "share" ldp option.	Null.	
56	SEGREAD ACTIVSEG Refer to MAKPRC ACTIVSEG.	Null.	
57	MAKPRC = Failed to read pfile header.	Process pathname process will not be created.	
57	LMAKSEG Failed to read library file from the disk.	Library pathname process will not be created.	
57	SEGREAD Failed to read a segment from the disk.	Null	
57	INMEM Failed to read library file header from the disk.	Library pathname process will not be locked.	
58	DOKPSEGS Process may need more than the 128 segments allowed by the system.	Process pathname process will not be created.	
58	NUB DOSPSEGS Process may need more than the 128 segments allowed by the system. This error is from the NUB process.	Process pathname process will not be created.	
58	NUB MAKSEG Failed to find free segment list entry, needs more than 128 segments to create the process. Check segment map in the pheader	Process pathname process will not be created.	

	file. This error is from the NUB process.		
59	CHKSHARE DUP Segment name is duplicated in the pheader file.	Segment name which does not match or is duplicated.	
59	CHKSHARE EMM extended main memory is enabled, and segment name is requested for wrong physical module.	Null or process pathname process will not be created.	
59	CHKSHARE NOMATCH Segment name does not match in the pcreate message and pheader file.	Segment name which does not match or is duplicated.	
59	INIT ECDDATA Failed to open equipment configuration database data segment.	Null or process pathname process will not be created.	
59	INIT ECDLPATCH Failed to open equipment configuration database patch segment.	Null or process pathname process will not be created.	
59	INIT ECDLTEXT Failed to open equipment configuration database text segment.	Null or process pathname process will not be created.	
59	INIT KMSG Failed to open kernel message buffer segment.	Null or process pathname process will not be created.	
59	INIT KSTK Failed to open kernel stack segment.	Null or process pathname process will not be created.	
59	INIT PAS0 Failed to open protected application segment.	Null or process pathname process will not be created.	
59	INIT PAS1 Failed to open protected application segment upper module.	Null or process pathname process will not be created.	
59	INIT PLMDATA Failed to open plant measurement library data segment.	Null or process pathname process will not be created.	
59	INIT PLMPATCH Failed to open plant measurement library patch segment.	Null or process pathname process will not be created.	
59	INIT PLMTEXT Failed to open plant measurement library text segment.	Null or process pathname process will not be created.	
59	NUB DOSPSEGS Segment name does not match in the pcreate message and pheader.	Null or process pathname process will not be created.	
59	NUB SHSYSEG OPENSEG Refer to SHSYSEG OPENSEG. This error is from the NUB process.	Null or process pathname process will not be created.	
59	SEGADD FNAME Failed to get the 32-bit segment name from file manager.	Null or process pathname process will not be created.	
59	SEGADD SHARE Failed to increase the segment user count.	Null or process pathname process will not be created.	
59	SHSYSEG OPENSEG Segment name does not match in the pcreate message and pheader.	Null or process pathname process will not be created.	
60	MAKPRC User count for this process is greater than allowed count (255).	Process pathname process will not be created.	
62	MAKDUMP KERNEL Failed to add kernel process PCB segment to the PMGR address space.	The process number of process being dumped, core dump will not be created.	
62	MAKDUMP SUPER Failed to add user process PCB segment to PMGR address space.	The process number of process being dumped, core dump will not be created.	

63 or 64	Eight digit hexadecimal number. The two high order digits are the fault code. The remaining six digits, if present, are the program address at fault. If they are missing, the fault was externally generated.	Process or library pathname process will not be created or library will not be locked.	
67	MAKSUPER PFILE Failed to copy pfile header to the NUB's address space.	Process pathname or NULL process will not be created.	
67	NDUP COPYSEG Failed to copy NUB segment into NUB address space.	Process pathname or NULL process will not be created.	
67	NDUP FWAIT Received a failure state after copyseg operation.	Process pathname or NULL process will not be created.	
68	Process number, in decimal notation. The pfile specified in a pcreate request by process 'b' could not be opened.	Status returned from file manager.	Pathname of the pfile which could not be opened.
68	INMEM BADMAGIC The magic number in the library header was incorrect.	Library pathname library will not be locked.	
68	INMEM OPEN Library could not be opened for reading.	Library pathname library will not be locked.	
68	MAKPRC BADMAGIC Magic number in the pheader file does not match with kmagic or smagic number. Check the pheader file or reload with proper specification.	Process pathname process will not be created.	
70	CREATDFILE = Failed to create a dump file with the given pathname.	Pathname.	
71	CDUMP Failed to write out dump file header.	Process number of the terminating process or NULL.	
71	FILCOPY Failed to write a segment to dump file.	Process number of the terminating process or NULL.	
72	Process number, in decimal notation. The capability to access the working directory of a pcreate pathname specified by process 'b' could not be acquired.	Working directory pathname of the process which will not be created.	
72	CREATDFILE Failed to create a file for dumping a terminating process. This is a warning message.	Dump file pathname.	
72	INIT The capability to access the root directory failed.	1.	
72	INMEM The capability to access the working directory of library file failed.	Library pathname.	
73	FMCLOSE = PMGR sent a message to the file manager to close a file. The file manager returned failure.	NULL.	
76	START MSTERM Terminate message is not from scheduler.	Process number of the process that sent the message.	
77	Segment index, in decimal notation. The segment being added to the address space of a kernel process overlaid a segment index already in use. The resultant process will have addressability into the second segment from code referencing both	Pathname of the kernel process containing the segment index overlay.	

	the first request and second request. This will most typically occur with the protected application segment. This message should be viewed seriously as this is a potentially disastrous situation.		
78	`INMEM LIBTABLE` Internal shared library table is full.	Library pathname.	
78	`INMEM NOADD` The process manager was unable to add library segment to its address space.	Library pathname.	
78	`INMEM NOHOLE` The process manager has no available entries in its segment list.	Library pathname.	
78	`INMEM NOTABLE` The process manager has no available entries in its internal table that it uses to lock library segments.	Library pathname.	
78	`UNINMEM` The process manager received a message to unlock a shared library but the library was not locked.	Library pathname.	
80	`OLD MSTERM` The process termination has already occurred due to the process administration process termination audit.	Process number.	
81	`DOKPSEGS` The pfile requested PAS, however no PAS is in the system.	Process pathname process will not be created.	
82	`MAKSUPER` Could not duplicate pfile capabilities for the NUB.	Process pathname process will not be created.	
83	`MAKSUPER` pstart() failed because system is in disk independent operation.	Process pathname process will not be created.	
84	`SEGGADD MODULE` shared segment index does not specify same physical module as that specified by segid.	Process pathname process will not be created.	
85	`PCB INDEX` Invalid PCB index.	Process pathname process will not be created.	
86	`MAKEKP` Error occurred during kernel process creation.	Kernel process pathname process will not be created.	
87	`RCVACK LOST` An expected acknowledgement was lost.	Null.	
88	`DOKPSEGS` Error occurred during the kernel process.	Process pathname process will not be created.	
88	`NUB-DOSPSEGS` Error occurred during supervisor process creation. This message is from the NUB process.	Process pathname process will not be created.	

4. ACTION TO BE TAKEN

Use the Error/Action Exhibit to determine which of the following actions should be taken.

1 Call application system support.
2 Application system support should call DMERT system support.
3 Check the displayed pathname for accuracy.

4 Possible system generation (SYSGEN) specification change required.
5 Possible process specification file error.
6 Enter 'OP:STATUS:PROCESS,ALL' for further documentation of problem.

ERROR	Message	Action 1	Action 2	Action 3	Action 4	Action 5	Action 6
51	process number	X					
51	NUB START	X	X				
51	INIT	X	X				
51	CREATDFILE	X					
53	All messages.	X		X			
54	All messages.	X			X		
55	All messages.	X	X				
56	All messages.	X	X		X		
57	All messages.	X					
58	All messages.	X					
59	NUB DOSPSEGS	X	X				
59	CHKSHARE NOMATCH	X				X	
59	CHKSHARE EMM	X				X	
59	CHKSHARE DUP	X				X	
59	SHSYSEG OPENSEG	X				X	
59	NUB SHSYSEG OPENSEG	X				X	
59	SEGADD SHARE	X	X				
59	SEGADD FNAME	X	X				
59	All other messages.	X	X				
60	All messages.	X			X	X	
62	All messages.	X	X				
63	All messages.	X	X				
64	All messages.	X	X				
67	All messages.	X	X				
68	All messages.	X		X		X	
70	All messages.	X		X			
71	All messages.	X	X				
72	All messages.	X		X			
73	All messages.	X					
76	All messages.	X					X
77	All messages.	X				X	
78	INMEM NOHOLE	X	X				
78	INMEM NOTABLE	X	X				
78	INMEM NOADD	X		X	X		
78	UNINMEM	X		X			
78	INMEM LIBTABLE	X	X				
80	All messages.	X					
81	All messages.				X	X	
82	All messages.	X					
83	All messages.	X					
84	All messages.					X	
85	All messages.					X	
86	All messages.	X					
87	All messages.	X					
88	All messages.	X			X		

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
51, 62, 76, 80	358
53-55, 57-60, 67-70, 73, 78, 82, 84, 85, 88	354
56, 71	359

63, 64	356
72, 77	360
81	351
86, 87	355

Input Message(s):

```
EXC:ENVIR-PROC
EXC:ENVIR-UPROC
OP:ST-PROC
```

Output Message(s):

```
EXC:ENVIR-PROC
EXC:ENVIR-UPROC
OP:ST-PROC
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-100-125 *System Description*

REPT:PMSLOT

Software Release: 5E10 and later
Message Class: PMORT
Application: 5,3B
Type: Output

1. FORMAT

```
REPT PMSLOT
```

2. REASON FOR OUTPUT

Precedes the post-mortem dump printout. For a complete description of the fields found in the post-mortem dump, refer to the Corrective Maintenance manual and the Switch Maintenance Guide Utilizing OMS5 manual.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

Refer to the Corrective Maintenance manual and the Switch Maintenance Guide Utilizing OMS5 manual.

5. ALARMS

None.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
box	
1	401, 402, 686, 687

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-110 *Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-119 *Switch Maintenance Guide Utilizing OMS5*

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REPT:PMU-TDIT

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT PMU=a-b-c TRBL DCTU INTERNAL TROUBLE d
  e RECOVERY ACTION f
  g h i
```

2. REASON FOR OUTPUT

To respond to a trouble detected by the operational software that uses the precision measurement unit (PMU).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DCTU number.

`c` = Precision measurement unit (PMU) number.

`d` = Event number.

`e` = Error type. Valid value(s):
`DCTU EQUIPMENT MALFUNCTION` = A DCTU trouble was detected by the operational software using the PMU.
`DCTU TIMEOUT FAILURE` = The operational software timed out while waiting for a response from the PMU.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = External logical circuit name. Two circuits may be listed with this report if two circuits could be causing the problem.

`h` = Current decimal number of recent failures of this type recorded.

`i` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

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None.

6. REFERENCES

Input/Output Messages:

None.

REPT:PMU-TDM

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT PMU=a-b-c TRBL DCTU MESSAGE d
  e RECOVERY ACTION f
  [g h i]
     .
     .
     .
```

2. REASON FOR OUTPUT

To report receiving a trouble message from the directly connected test unit (DCTU) in regard to the precision measurement unit (PMU). The PMU or the DCTU common board detected a problem internally and sent a message to indicate the nature of the trouble.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DCTU number.

`c` = Precision measurement unit (PMU) number.

`d` = Event number.

`e` = Error type. Valid value(s):
`CALIBRATION FAILURE` = This indicates that the PMU is operating outside normal limits. Line or trunk measurements which use this PMU may be slightly skewed.
`EQUIPMENT ERROR THRESHOLD EXCEEDED` = A PMU circuit exceeded its internal error threshold.
`RESET` = The PMU reset internally.
`TEST FAILURE` = An operational test failed while using the PMU.
`TRAP` = The PMU microprocessor trapped.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = External logical circuit name. More than one circuit may be listed when multiple circuits can be blamed for the trouble.

`h` = Current decimal number of recent failures of this type recorded.

`i` = Error count threshold at which the recovery action will be escalated.

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4. ACTION TO BE TAKEN

No action required. Fault recovery automatically requests a conditional restore on the circuit when the error threshold is met. Subsequent DGNPMU and RSTPMU messages indicate success or failure of diagnostic when recovery action is `RST AUTO CAMPON` or `RST PREEMPT`.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:PMU
RST:PMU
```

Output Message(s):

```
DGN:PMU
RST:PMU
```

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REPT:POST-HDW-INI

Software Release: 5E10 and later
Message Class: INT_MON
Application: 5
Type: Output

1. FORMAT

```
REPT POST HDW INITIALIZATION EVENT=a
  SWLVL=b HWLVL=c CM HDWCHKS d
  UNIT       MTCE STATE       UNIT       MTCE STATE
  e          f                e          f
  .          .                .          .
  .          .                .          .
  .          .                .          .
  NUMBER OF ACT  MMPS SIDE 0=g SIDE 1=h
  NUMBER OF NON-ISOLATED SMS=i
```

2. REASON FOR OUTPUT

To report the communication module (CM) hardware maintenance states after an administrative module (AM) and CM initialization.

3. VARIABLE FIELD DEFINITIONS

`a` = The event number associated with the initialization.

`b` = The software initialization level (6 or 7).

`c` = The hardware initialization level. Valid value(s):
- `3` = The communication module hardware was initialized. Stable calls were preserved.
- `4` = The communication module hardware (including the time multiplexed switch (TMS) fabric) was initialized. Stable calls were torn down.

`d` = Action taken with regard to CM hardware check (HDWCHK) inhibits. Valid value(s):
- `ALLOWED` = CM HDWCHKs were allowed after the initialization.
- `INHIBITED` = CM HDWCHKs were inhibited during and after the initialization.

`e` = Unit identification.

`f` = Unit maintenance state.

`g` = The number of active MMPs on side 0.

`h` = The number of active MMPs on side 1.

`i` = The number of switching modules (SMs) (not including remote switching modules) to which at least one communication link exists.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CFGSTAT
```

Output Message(s):

```
OP:CFGSTAT
REPT:PRE-HDW-INIT
REPT:PRE-HDW-RESY
REPT:POST-HDW-RES
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

REPT:POST-HDW-RES

Software Release: 5E10 and later
Message Class: INT_MON
Application: 5
Type: Output

1. FORMAT

```
REPT POST HDW RE-SYNCHRONIZATION EVENT=a
  SWLVL=b HWLVL=c CM HDWCHKS d
  UNIT       MTCE STATE        UNIT       MTCE STATE
  e          f                 e          f
  .          .                 .          .
  .          .                 .          .
  .          .                 .          .
  NUMBER OF ACT  MMPS SIDE 0=g SIDE 1=h
  NUMBER OF NON-ISOLATED SMS=i
```

2. REASON FOR OUTPUT

To report the communication module (CM) hardware maintenance states after an administrative module (AM) re-synchronization with the CM.

The maintenance states (stored in the AM) were either checked for consistency or re-derived by reading the actual hardware status.

3. VARIABLE FIELD DEFINITIONS

`a` = The event number associated with the re-synchronization.

`b` = The software initialization level.

`c` = The hardware initialization level. Valid values are:
- `2` = Communication was re-established between the administrative module (AM) and the CM. No CM hardware initialization was performed.

`d` = Action taken with regard to CM hardware check (HDWCHK) inhibits. Valid value(s):
- `ALLOWED` = CM HDWCHKs were allowed after the AM/CM re-synchronization.
- `INHIBITED` = CM HDWCHKs were inhibited after the AM/CM re-synchronization.
- `RE-SYNCHRONIZED` = CM HDWCHKs were re-synchronized (not changed) by the AM/CM re-synchronization.

`e` Unit identification.

`f` = Unit maintenance state.

`g` = The number of active MMPs on system side 0.

`h` = The number of active MMPs on system side 1.

`i` = The number of switching modules (SMs) (not including remote switching modules) to which at least one communication link exists.

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4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CFGSTAT
```

Output Message(s):

```
OP:CFGSTAT
REPT:PRE-HDW-RESY
REPT:PRE-HDW-INIT
REPT:POST-HDW-INI
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

REPT:POWER

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT POWER {RESTORED|REMOVED} a b [c d]

[2]   ____________________________________________________________________
      REPT POWER FAULT a b [c d]

[3]   ____________________________________________________________________
      REPT POWER DISTRIBUTION FRAME e f ALARM
```

2. REASON FOR OUTPUT

Format 1 indicates that a unit has been powered up or powered down by a manual request at a unit's power switch. The removal of power from a unit may be the result of a normal power down, a manual override power down, or the occurrence of faults where power is removed, such as a blown fuse.

Format 2 indicates that a power fault has been detected by scanning the unit's power switch (ABB1).

Format 3 indicates the occurrence of a major or minor alarm on the power distribution frame as detected by a scan point on the unit alarm circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Unit name.

`b` = Unit number.

`c` = Subunit name.

`d` = Subunit number.

`e` = Identification number. This number is arbitrary and is retrieved from the logical group name in the scsdbody form found in the equipment configuration database (ECD). If no number identification is in the group name, no number will be output.

`f` = Type of alarm. Valid value(s):

- `MAJOR` = Service is interrupted due to a power problem on another frame which resulted in a feeder fuse being blown on the power distribution frame.
- `MINOR` = A local fuse on the power distribution frame has blown, but service is not interrupted.

4. ACTION TO BE TAKEN

For Format 1, take no action unless power removed. Check for blown fuses and take appropriate action to restore power.

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For Format 2, establish and repair the cause of the fault. Check the status of alarm LEDs on unit, diagnose, and repair.

For Format 3, if a major alarm, determine the cause by looking at the accompanying messages. Fix the problem and replace the necessary output fuses on the power distribution frame. If a minor alarm, replace fuses on the power distribution frame charging or filtering circuits.

5. ALARMS

None.

Minor alarm. Take action as indicated in the report.

Major alarm. May not be service affecting, but take immediate action as indicated in the report.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	139
2,3	141 for minor alarms 142 for major alarms

Output Appendix(es):

`APP:OMDB-X-REF`

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-600-31x *ECD/SG*

REPT:POWER-CM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT POWER a b=c [COMMUNITY=d]
 [e=c[-f]]
    .
    .
    .
```

2. REASON FOR OUTPUT

To indicate that a specified communication module (CM) unit has been powered on or powered off by a manual request at the unit's power switch. This report also indicates that a power alarm has been detected by scanning the power switch. For these cases, an automatic remove (RMV) message for the unit will accompany this message. This report also indicates that scanning of power-related scan points has been inhibited for the specified unit.

3. VARIABLE FIELD DEFINITIONS

`a` = The events reported. Valid value(s):
- `ALARM` = A power alarm has been detected.
- `INHIBITING ON IOP 0` = Scanning has been inhibited on input/output processor (IOP) side 0.
- `INHIBITING ON IOP 1` = Scanning has been inhibited on IOP side 1.
- `OFF` = The unit has been powered off.
- `OFF MOR` = The active unit has been powered off.
- `ON` = The unit has been powered up.

`b` = Unit type. Valid value(s):
- `MICU` = Message interface and clock unit.
- `MSGS` = Message switch.
- `MSCU` = Message switch control unit.
- `NCOSC` = Network clock oscillator.
- `ONTCCOM` = Office network timing and control common circuitry.
- `TMS` = Time multiplexed switch.

`c` = System side number.

`d` = MSGS community number.

`e` = Message switch peripheral controller (PC) type. Valid value(s):
- `CMP` = Communication module processor.
- `FPC` = Foundation peripheral controller.
- `MMP` = Module message processor.
- `PPC` = Pump peripheral processor.

`f` = Logical MMP or CMP number.

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4. ACTION TO BE TAKEN

None.

5. ALARMS

A major or minor alarm can occur on an automatic power down. No alarm can occur on a user-requested action.

6. REFERENCES

Input Message(s):

```
RMV:[unit]
RST:[unit]
```

Output Message(s):

```
RMV:[unit]
RST:[unit]
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

REPT:POWER-FAULT

Software Release: 5E10 and later
Message Class:
Application: 5,3B
Type: Output

1. FORMAT

```
REPT POWER FAULT CLEARED a b [c d]
```

2. REASON FOR OUTPUT

To indicate that a power fault detected by scanning the unit's power switch has been cleared.

3. VARIABLE FIELD DEFINITIONS

`a` = Unit name.

`b` = Unit number.

`c` = Subunit name.

`d` = Subunit number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

`REPT:POWER`

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REPT:PP-DUMP-MPE

Software Release: 5E10 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
REPT PP DUMP MCTSI=a-b PI EVENT=c
  DATA=[DCF-DATA] ADDR=d MESSAGE_NO=e
  [f]
```

2. REASON FOR OUTPUT

To print a data dump from an assert being fired in the packet interface (PI). The message prints only when the printmode is turned on (CHG:PRNTMODE). The message is stored in a buffer and can be printed on request (OP:HISTORY).

3. VARIABLE FIELD DEFINITIONS

`DCF-DATA`	= Defensive check failure data.
`a`	= Switching module (SM) number.
`b`	= Module controller/time slot interchanger (MCTSI) side number.
`c`	= Event number.
`d`	= Address, in hexadecimal, of data to be dumped.
`e`	= Message number.
`f`	= Formatted or unformatted data, in hexadecimal, that was requested.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CHG:PRNTMODE
OP:HISTORY
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:PP-DUMP-PCE

Software Release: 5E10 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
REPT PP DUMP PSUPH=a-b-c-d CHNG=a-b-c-e EVENT=f
  DATA=[DCF-DATA] ADDR=g MESSAGE_NO=h
  [i]
```

2. REASON FOR OUTPUT

To print a data dump from an assert being fired in the protocol handler. The message prints only when the printmode is turned on (CHG:PRNTMODE). The message is stored in a buffer and can be printed on request (OP:HISTORY).

3. VARIABLE FIELD DEFINITIONS

DCF-DATA	= Defensive check failure data.
a	= Switching module (SM) number.
b	= Packet switching unit (PSU) number.
c	= PSU shelf number.
d	= Physical protocol handler (PH) slot number.
e	= Channel group (CHNG) number.
f	= Event number.
g	= Address of data, in hexadecimal, to be dumped.
h	= Message number.
i	= Formatted or unformatted data, in hexadecimal, that was requested.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CHG:PRNTMODE
OP:HISTORY
```

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Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:PP-EM-A

Software Release: 5E12 - 5E13
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
REPT PP EVENTHIST MCTSI=a-b PI EVENT=c
  BLOCK-NO=d MESSAGE_NO=e
  f         f         f         f         f         f
  .         .         .         .         .         .
  .         .         .         .         .         .
  .         .         .         .         .         .
```

2. REASON FOR OUTPUT

To print a hexadecimal data dump of the event history log from the specified packet interface 2 (PI2). The message prints only when the printmode is turned on. Refer to the CHG:PRNTMODE input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Unit number (side 0 or 1).

`c` = Number of first event for which data is dumped in this message.

`d` = Number of this data block in the sequence of data blocks needed to dump the entire PI2 event history.

`e` = Number of this message in the sequence of all output messages generated by this PI2.

`f` = Data being reported in hexadecimal. Each data segment contains 4 bytes of data. There are 3 such data segments (12 bytes total) reported for each event. Each message dumps 7 lines of data segments, with 6 data segments (2 events) per line. Therefore, each message reports information for up to 14 events.

4. ACTIONS TO BE TAKEN

Retain this information and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

5. ALARMS

None

6. REFERENCES

Input Message(s):

```
CHG:PRNTMODE
OP:HISTORY
```

REPT:PP-EM-B

Software Release: 5E14 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
REPT PP EVENTHIST MCTSI=a-b PI EVENT=c
  BLOCK-NO=d MESSAGE_NO=e
  f        f        f        f        f        f
  .        .        .        .        .        .
  .        .        .        .        .        .
  .        .        .        .        .        .
```

2. REASON FOR OUTPUT

To print a hexadecimal data dump of the event history log from the specified packet interface 2 (PI2). The message prints only when the printmode is turned on. Refer to the CHG:PRNTMODE input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Unit number (side 0 or 1).

`c` = Number of first event for which data is dumped in this message.

`d` = Number of this data block in the sequence of data blocks needed to dump the entire PI2 event history.

`e` = Number of this message in the sequence of all output messages generated by this PI2.

`f` = Data being reported in hexadecimal. Each data segment contains 4 bytes of data. There are 3 such data segments (12 bytes total) reported for each event. Each message dumps 7 lines of data segments, with 6 data segments (2 events) per line. Therefore, each message reports information for up to 14 events.

4. ACTIONS TO BE TAKEN

Retain this information and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

5. ALARMS

None

6. REFERENCES

Input Message(s):

```
CHG:PRNTMODE
OP:HISTORY
```

REPT:PP-EP-A

Software Release: 5E12 - 5E13
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
REPT PP EVENTHIST PSUPH=a-b-c-d [CHNG=a-b-c-e] EVENT=f
  BLOCK-NO=g MESSAGE-NO=h
  i        i        i        i        i        i
  .        .        .        .        .        .
  .        .        .        .        .        .
  .        .        .        .        .        .
```

2. REASON FOR OUTPUT

To print a hexadecimal data dump of the event history log from the specified protocol handler. The message prints only when the printmode is turned on (CHG:PRNTMODE).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Packet switching unit (PSU) number.

`c` = PSU shelf number.

`d` = Physical protocol handler (PH) slot number.

`e` = Channel group (CHNG) number.

`f` = Number of first event for which data is dumped in this message.

`g` = Number of this data block in the sequence of data blocks needed to dump the entire PH event history.

`h` = Number of this message in the sequence of all output messages generated by this PH.

`i` = Data being reported in hexadecimal. Each data segment contains 4 bytes of data. There are 3 such data segments (12 bytes total) reported for each event. Each message dumps 7 lines of data segments, with 6 data segments (2 events) per line. Therefore, each message reports information for up to 14 events.

4. ACTIONS TO BE TAKEN

Retain this information and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
CHG:PRNTMODE
OP:HISTORY
```

REPT:PP-EP-B

Software Release: 5E14 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
REPT PP EVENTHIST PSUPH=a-b-c-d [CHNG=a-b-c-e] EVENT=f
  BLOCK-NO=g MESSAGE-NO=h
  i        i        i        i        i        i
  .        .        .        .        .        .
  .        .        .        .        .        .
  .        .        .        .        .        .
```

2. REASON FOR OUTPUT

To print a hexadecimal data dump of the event history log from the specified protocol handler. The message prints only when the printmode is turned on (CHG:PRNTMODE).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Packet switching unit (PSU) number.

`c` = PSU shelf number.

`d` = Physical protocol handler (PH) slot number.

`e` = Channel group (CHNG) number.

`f` = Number of first event for which data is dumped in this message.

`g` = Number of this data block in the sequence of data blocks needed to dump the entire PH event history.

`h` = Number of this message in the sequence of all output messages generated by this PH.

`i` = Data being reported in hexadecimal. Each data segment contains 4 bytes of data. There are 3 such data segments (12 bytes total) reported for each event. Each message dumps 7 lines of data segments, with 6 data segments (2 events) per line. Therefore, each message reports information for up to 14 events.

4. ACTIONS TO BE TAKEN

Retain this information and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
CHG:PRNTMODE
OP:HISTORY
```

REPT:PP-ERR-MCTSI-A

Software Release: 5E10 - 5E12
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
REPT PP-ERROR=a MCTSI=b-c PI EVENT=d
  EVENT-REPORTED-FROM-MCTSI,PI=b-e
  ACTIVE-PSU-COM=f [PSU-COM-ERROR-SOURCE=g]
  PROCESS=h  MESSAGE-NO=i [TIME=jj:jj kk/kk/kk]
  STIMULUS=l RCVY=m
  FAIL-ADDR=n PP-MODE=o ERROR-COUNT=p THRESHOLD=q
 [STACK TRACE: r[ r[ r[ r[ r[ r[ r[ r]]]]]]]]
 [REGS: s]
  IMAGE=t [EXPECTED-IMAGE=u]
 [v=w]
  .  .
  .  .
  .  .
```

2. REASON FOR OUTPUT

To report the occurrence of an interrupt in the module controller/time slot interchanger packet interface (MCTSIPI). The message prints only when the printmode is turned on. The message is stored in a buffer and can be printed on request (OP:HISTORY).

3. VARIABLE FIELD DEFINITIONS

`a` = Interrupt number.

`b` = Switching module (SM) number.

`c` = MCTSI side number.

`d` = Event number.

`e` = MCTSIPI side number in which the event occurred.

`f` = Active packet bus.

`g` = Packet bus on which error occurred.

`h` = Process number.

`i` = Message number.

`j` = Time of the day the assert occurred, in the form hour:minute.

`k` = Date the assert occurred, in the form month/day/year.

`l` = Stimulus of recovery action. Refer to the APP:RCVRY-ACTION appendix in the Appendixes section of the Output Messages manual for a list of recovery action stimulus and their definitions.

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m = Recovery action that occurred. Valid value(s):

FI	= Full initialization.
NONE	= No recovery action.
PRINT	= Report only; no escalation.
PSI	= Autonomous PS initialization.
RPI	= Return to point of interrupt.
SI	= Selective initialization.
SPP	= Single process purge.

n = Failing address where event occurred.

o = Port processor mode. Valid value(s):

CONSISTENT	= Hardware and software are consistent.
ESSENTIAL	= Essential jobs operational.
NORMAL	= Normal operational mode.
OPFULL	= All jobs operational.
POST_RCVY	= Post recovery.
RAMDYN	= Dynamic memory consistent.
RAMTXT	= Read access memory text consistent.
RAMWP	= Text and data consistent.
SW-RCVY	= Software recovery.
SYSPROC	= System processes operational.
UNKNOWN	=

p = Error count.

q = Error threshold.

r = Stack trace (up to eight addresses). If assistance is required to interpret this field, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

s = Contents of hardware registers. If assistance is required to interpret this field, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

t = Image type in the PI. Valid value(s):

ERROR IMAGE	= The image contained an error.
NULL IMAGE	= No image was loaded.
PI IMAGE	= Image used for PI was loaded.

u = Image type expected. Valid value(s):

PI IMAGE	= Image used for PI was loaded.

v = Identifier of a packet switching data structure that is recovered as part of the non-returning fault recovery action. Valid value(s):

LOGICAL CHANNEL
RECEIVING ACCESS LINE
RECEIVING LOGICAL LINK
SENDING ACCESS LINE

SENDING LOGICAL LINE

w = Given data structure type above, this numerical value is the index into the data structure array. If the implicated data structure type is the receiving or sending logical link, this is to be an index into the logical link control block (LLCB) data structure array. If the implicated data structure type is the receiving or sending access line, this is an index into the access line control block (ALCB) data structure array. If the implicated data structure type is the logical channel, this is an index into the logical channel control block (LCCB).

Note: In fields 'v' and 'w', a maximum of five packet switching data structures can be recovered as part of the assert recovery action.

4. ACTIONS TO BE TAKEN

Monitor the progress of the software recovery. Initiate manual actions if the recovery does not proceed as expected. Retain this information along with any trouble report concerning the initialization/recovery and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

OP:HISTORY

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:PP-ERR-MCTSI-B

Software Release: 5E13 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
REPT PP-ERROR=a MCTSI=b-c PI EVENT=d
  EVENT-REPORTED-FROM-MCTSI,PI=b-e
  PSUCA=f ACTIVE-PSUCOM=g [PSU-COM-ERROR-SOURCE=h]
  PROCESS=i  MESSAGE-NO=j [TIME=kk:kk ll/ll/ll]
  STIMULUS=m RCVY=n
  FAIL-ADDR=o PP-MODE=p ERROR-COUNT=q THRESHOLD=r
  [STACK-TRACE: s[ s[ s[ s[ s[ s]]]]]]
  [             s[ s[ s[ s[ s[ s]]]]]]
  [REGS: t]
  IMAGE=u
```

2. REASON FOR OUTPUT

To report the occurrence of an interrupt in the module controller/time slot interchanger packet interface (MCTSIPI). The message prints only when the printmode is turned on. The message is stored in a buffer and can be printed on request (OP:HISTORY).

3. VARIABLE FIELD DEFINITIONS

`a` = Interrupt number.

`b` = Switching module (SM) number.

`c` = MCTSI side number.

`d` = Event number.

`e` = MCTSIPI side number in which the event occurred.

`f` = PSU community address.

`g` = Active packet bus.

`h` = Packet bus on which error occurred.

`i` = Process number.

`j` = Message number.

`k` = Time of the day the assert occurred, in the form hour:minute.

`l` = Date the assert occurred, in the form month/day/year.

`m` = Stimulus of recovery action. Refer to the APP:RCVRY-ACTION appendix in the Appendixes section of the Output Messages manual for a list of recovery action stimulus and their definitions.

`n` = Recovery action that occurred. Valid value(s):

FI	= Full initialization.
NONE	= No recovery action.
PRINT	= Report only; no escalation.
PSI	= Autonomous PS initialization.
RPI	= Return to point of interrupt.
SI	= Selective initialization.
SPP	= Single process purge.

o = Failing address where event occurred.

p = Port processor mode. Valid value(s):

CONSISTENT	= Hardware and software are consistent.
ESSENTIAL	= Essential jobs operational.
NORMAL	= Normal operational mode.
OPFULL	= All jobs operational.
POST_RCVY	= Post recovery.
RAMDYN	= Dynamic memory consistent.
RAMTXT	= Read access memory text consistent.
RAMWP	= Text and data consistent.
SW-RCVY	= Software recovery.
SYSPROC	= System processes operational.
UNKNOWN	=

q = Error count.

r = Error threshold.

s = Stack trace (up to twelve addresses). If assistance is required to interpret this field, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

t = Contents of hardware registers. If assistance is required to interpret this field, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

u = Image type in the PI. Valid value(s):

ERROR IMAGE	= The image contained an error.
NULL IMAGE	= No image was loaded.
PI IMAGE	= Image used for PI was loaded.
PI2 IMAGE	= Image used for PI2 was loaded.

4. ACTIONS TO BE TAKEN

Monitor the progress of the software recovery. Initiate manual actions if the recovery does not proceed as expected. Retain this information along with any trouble report concerning the initialization/recovery and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:HISTORY
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:PP-ERR-PSUPH-A

Software Release: 5E10 only
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
REPT PP-ERROR=a PSUPH=b-c-d-e [CHNG=b-c-d-f] EVENT=g
  EVENT-REPORTED-FROM-PSUPH=b-c-d-h
  ACTIVE-PSUCOM=i [PSU-COM-ERROR-SOURCE=j]
  PROCESS=k MESSAGE-NO=l [TIME=mm:mm nn/nn/nn]
  STIMULUS=o RCVY=p
  FAIL-ADDR=q PP-MODE=r ERROR-COUNT=s THRESHOLD=t
  [STACK TRACE: u[ u[ u[ u[ u[ u[ u[ u]]]]]]]]
  [REGS: v]
  IMAGE=w [EXPECTED-IMAGE=x]
  [y=z]
   .  .
   .  .
   .  .
```

2. REASON FOR OUTPUT

To report the occurrence of an interrupt in the packet switch unit protocol handler (PSUPH). The message prints only when the printmode is turned on. The message is stored in a buffer and can be printed on request (OP:HISTORY).

3. VARIABLE FIELD DEFINITIONS

a	= Interrupt number.
b	= Switching module (SM) number.
c	= Packet switching unit (PSU) number.
d	= PSU shelf number.
e	= PSUPH number.
f	= Channel group (CHNG) number.
g	= Event number.
h	= PSUPH number in which the event occurred.
i	= Active packet bus.
j	= Packet bus on which an error occurred.
k	= Process number.
l	= Message number.
m	= Time of the day the assert occurred, in the form hour:minute.

n = Date the assert occurred, in the form month/day/year.

o = Stimulus of recovery action. Refer to the APP:RCVRY-ACTION appendix in the Appendixes section of the Output Messages manual for a list of recovery action stimulus and their definitions.

p = Recovery action that occurred. Valid value(s):

FI	= Full initialization.
NONE	= No recovery action.
PRINT	= Report only; no escalation.
PSI	= Autonomous PS initialization.
RPI	= Return to point of interrupt.
SI	= Selective initialization.
SPP	= Single process purge.

q = Failing address where event occurred.

r = Port processor mode. Valid value(s):

CONSISTENT	= Hardware and software are consistent.
ESSENTIAL	= Essential jobs operational.
NORMAL	= Normal operational mode.
OPFULL	= All jobs operational.
RAMDYN	= Dynamic memory consistent.
RAMTXT	= Read access memory text consistent.
RAMWP	= Text and data consistent.
SYSPROC	= System processes operational.
UNKNOWN	=

s = Error count.

t = Error threshold.

u = Stack trace (up to eight addresses). Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual if assistance is required to interpret this field.

v = Contents of hardware registers. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual if assistance is required to interpret this field.

w = Image type in the PH. Valid value(s):

ERROR IMAGE	= The image contained an error.
NULL IMAGE	= No image was loaded.
PH1 GATEWAY IMAGE	= Image used for all features on a PH1 was loaded.
PH2 ACCESS IMAGE	= All features (other than X.75' or X.75) on a PH2 were loaded.
PH2 GATEWAY IMAGE	= X.75' or X.75 features on a PH2 were loaded.
PH3 COMMON IMAGE	= All features on a PH3 were loaded. This image contains both access and gateway.
PH4 ISDN AP IMAGE	= Image used for PH4 ISDN AP was loaded.
PH4 ISDN IOP IMAGE	= Image used for PH4 ISDN IOP was loaded.
PH4 FRPH IOP IMAGE	= Image used for PH4 FRPH IOP was loaded.
PHV1 CDMA IMAGE	= Image used for PHV1 CDMA was loaded.

PHA1A IMAGE = Image used for PHA1A was loaded.

x = Image type expected. Valid value(s):
PH1 GATEWAY IMAGE = Image used for all features on a PH1 was loaded.
PH2 ACCESS IMAGE = All features (other than X.75' or X.75) on a PH2 were loaded.
PH2 GATEWAY IMAGE = X.75' or X.75 features on a PH2 were loaded.
PH3 COMMON IMAGE = All features on a PH3 were loaded. This image contains both access and gateway.
PH4 ISDN AP IMAGE = Image used for PH4 ISDN AP was loaded.
PH4 ISDN IOP IMAGE = Image used for PH4 ISDN IOP was loaded.
PH4 FRPH IOP IMAGE = Image used for PH4 FRPH IOP was loaded.
PHV1 CDMA IMAGE = Image used for PHV1 CDMA was loaded.
PHA1A IMAGE = Image used for PHA1A was loaded.

y = Identifier of a packet switching data structure that is recovered as part of the non-returning fault recovery action. Valid value(s):
LOGICAL CHANNEL
RECEIVING ACCESS LINE
RECEIVING LOGICAL LINK
SENDING ACCESS LINE
SENDING LOGICAL LINK

z = Given data structure type, this numerical value is the index into the data structure array. If the implicated data structure type is the receiving or sending logical link, this is to be an index into the logical link control block (LLCB) data structure array. If the implicated data structure type is the receiving or sending access line, this is an index into the access line control block (ALCB) data structure array. If the implicated data structure type is the logical channel, this is an index into the logical channel control block (LCCB).
Note: In fields 'y' and 'z', a maximum of five packet switching data structures can be recovered as part of the assert recovery action.

4. ACTION TO BE TAKEN

Monitor the progress of the software recovery. Initiate manual actions if the recovery does not proceed as expected. Retain this information along with any trouble report concerning the initialization/recovery and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

OP:HISTORY

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*

REPT:PP-ERR-PSUPH-B

Software Release: 5E11 - 5E12
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
REPT PP-ERROR=a PSUPH=b-c-d-e [CHNG=b-c-d-f] EVENT=g
  EVENT-REPORTED-FROM-PSUPH=b-c-d-h
  ACTIVE-PSUCOM=i [PSU-COM-ERROR-SOURCE=j]
  PROCESS=k MESSAGE-NO=l [TIME=mm:mm nn/nn/nn]
  STIMULUS=o RCVY=p
  FAIL-ADDR=q PP-MODE=r ERROR-COUNT=s THRESHOLD=t
 [STACK TRACE: u[ u[ u[ u[ u[ u[ u[ u]]]]]]]]
 [REGS: v]
  IMAGE=w [EXPECTED-IMAGE=x]
 [y=z]
  .  .
  .  .
  .  .
```

2. REASON FOR OUTPUT

To report the occurrence of an interrupt in the packet switch unit protocol handler (PSUPH). The message prints only when the printmode is turned on. The message is stored in a buffer and can be printed on request (OP:HISTORY).

3. VARIABLE FIELD DEFINITIONS

a	= Interrupt number.
b	= Switching module (SM) number.
c	= Packet switching unit (PSU) number.
d	= PSU shelf number.
e	= PSUPH number.
f	= Channel group (CHNG) number.
g	= Event number.
h	= PSUPH number in which the event occurred.
i	= Active packet bus.
j	= Packet bus on which an error occurred.
k	= Process number.
l	= Message number.
m	= Time of the day the assert occurred, in the form hour:minute.

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n = Date the assert occurred, in the form month/day/year.

o = Stimulus of recovery action. Refer to the APP:RCVRY-ACTION appendix in the Appendixes section of the Output Messages manual for a list of recovery action stimulus and their definitions.

p = Recovery action that occurred. Valid value(s):

FI	= Full initialization.
NONE	= No recovery action.
PRINT	= Report only; no escalation.
PSI	= Autonomous PS initialization.
RPI	= Return to point of interrupt.
SI	= Selective initialization.
SPP	= Single process purge.

q = Failing address where event occurred.

r = Port processor mode. Valid value(s):

CONSISTENT	= Hardware and software are consistent.
ESSENTIAL	= Essential jobs operational.
NORMAL	= Normal operational mode.
OPFULL	= All jobs operational.
RAMDYN	= Dynamic memory consistent.
RAMTXT	= Read access memory text consistent.
RAMWP	= Text and data consistent.
SYSPROC	= System processes operational.
UNKNOWN	

s = Error count.

t = Error threshold.

u = Stack trace (up to eight addresses). Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual if assistance is required to interpret this field.

v = Contents of hardware registers. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual if assistance is required to interpret this field.

w = Image type in the PH. Valid value(s):

ERROR IMAGE	= The image contained an error.
NULL IMAGE	= No image was loaded.
PH2 ACCESS IMAGE	= All features (other than X.75' or X.75) on a PH2 were loaded.
PH2 GATEWAY IMAGE	= X.75' or X.75 features on a PH2 were loaded.
PH3 CCS IMAGE	= Image used for common channel signaling (CCS) features on a PH3 was loaded.
PH3 ISDN IMAGE	= Image used for ISDN features on a PH3 was loaded.
PH4 ISDN AP IMAGE	= Image used for PH4 ISDN AP was loaded.
PH4 ISDN IOP IMAGE	= Image used for PH4 ISDN IOP was loaded.
PH4 FRPH IOP IMAGE	= Image used for PH4 FRPH IOP was loaded.
PHV1 CDMA IMAGE	= Software used for PHV CDMA with ROM-based DSPs was loaded.

`PHV3 RAM-BASED CDMA IMAGE` = Software used for PHV3 CDMA with downloadable DSPs was loaded.
`PHV3 WITH 8K DSP CDMA IMAGE` = Software used for PHV3 CDMA with the 8K DSP algorithm was loaded.
`PHV3 WITH 13K DSP CDMA IMAGE` = Software used for PHV3 CDMA with the 13K DSP algorithm was loaded.
`PHV3 WITH EVRC DSP CDMA IMAGE` = Software used for PHV3 CDMA with the EVRC DSP algorithm was loaded.
`PHA1A IMAGE` = Image used for PHA1A was loaded.

`x` = Image type expected. Valid value(s):
`PH2 ACCESS IMAGE` = All features (other than X.75' or X.75) on a PH2 were loaded.
`PH2 GATEWAY IMAGE` = X.75' or X.75 features on a PH2 were loaded.
`PH3 CCS IMAGE` = Image used for CCS features on a PH3 was loaded.
`PH3 ISDN IMAGE` = Image used for ISDN features on a PH3 was loaded.
`PH4 ISDN AP IMAGE` = Image used for PH4 ISDN AP was loaded.
`PH4 ISDN IOP IMAGE` = Image used for PH4 ISDN IOP was loaded.
`PH4 FRPH IOP IMAGE` = Image used for PH4 FRPH IOP was loaded.
`PHV1 CDMA IMAGE` = Software used for PHV CDMA with ROM-based DSPs was loaded.
`PHV3 RAM-BASED CDMA IMAGE` = Software used for PHV3 CDMA with downloadable DSPs was loaded.
`PHV3 WITH 8K DSP CDMA IMAGE` = Software used for PHV3 CDMA with the 8K DSP algorithm was loaded.
`PHV3 WITH 13K DSP CDMA IMAGE` = Software used for PHV3 CDMA with the 13K DSP algorithm was loaded.
`PHV3 WITH EVRC DSP CDMA IMAGE` = Software used for PHV3 CDMA with the EVRC DSP algorithm was loaded.
`PHA1A IMAGE` = Image used for PHA1A was loaded.

`y` = Identifier of a packet switching data structure that is recovered as part of the non-returning fault recovery action. Valid value(s):
`LOGICAL CHANNEL`
`RECEIVING ACCESS LINE`
`RECEIVING LOGICAL LINK`
`SENDING ACCESS LINE`
`SENDING LOGICAL LINK`

`z` = Given data structure type, this numerical value is the index into the data structure array. If the implicated data structure type is the receiving or sending logical link, this is to be an index into the logical link control block (LLCB) data structure array. If the implicated data structure type is the receiving or sending access line, this is an index into the access line control block (ALCB) data structure array. If the implicated data structure type is the logical channel, this is an index into the logical channel control block (LCCB).
Note: In fields '`y`' and '`z`', a maximum of five packet switching data structures can be recovered as part of the assert recovery action.

4. ACTIONS TO BE TAKEN

Monitor the progress of the software recovery. Initiate manual actions if the recovery does not proceed as expected.

Retain this information along with any trouble report concerning the initialization/recovery and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:HISTORY
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:PP-ERR-PSUPH-C

Software Release: 5E13 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
REPT PP-ERROR=a PSUPH=b-c-d-e [CHNG=b-c-d-f] EVENT=g
  EVENT-REPORTED-FROM-PSUPH=b-c-d-h
  PSUCA=i ACTIVE-PSUCOM=j [PSU-COM-ERROR-SOURCE=k]
  PROCESS=l MESSAGE-NO=m [TIME=nn:nn oo/oo/oo]
  STIMULUS=p RCVY=q
  FAIL-ADDR=r PP-MODE=s ERROR-COUNT=t THRESHOLD=u
  [STACK-TRACE: v[ v[ v[ v[ v[ v]]]]]]
  [             v[ v[ v[ v[ v[ v]]]]]]
  [REGS: w]
  IMAGE=x [y]
  [EXPECTED-IMAGE=z]
  [a1=a2]
   .  .
   .  .
   .  .
```

2. REASON FOR OUTPUT

To report the occurrence of an interrupt in the packet switch unit protocol handler (PSUPH). The message prints only when the printmode is turned on. The message is stored in a buffer and can be printed on request (OP:HISTORY).

3. VARIABLE FIELD DEFINITIONS

a	= Interrupt number.
b	= Switching module (SM) number.
c	= Packet switching unit (PSU) number.
d	= PSU shelf number.
e	= PSUPH number.
f	= Channel group (CHNG) number.
g	= Event number.
h	= PSUPH number in which the event occurred.
i	= PSU community address.
j	= Active packet bus.
k	= Packet bus on which an error occurred.
l	= Process number.

m = Message number.

n = Time of the day the assert occurred, in the form hour:minute.

o = Date the assert occurred, in the form month/day/year.

p = Stimulus of recovery action. Refer to the APP:RCVRY-ACTION appendix in the Appendixes section of the Output Messages manual for a list of recovery action stimulus and their definitions.

q = Recovery action that occurred. Valid value(s):

FI	= Full initialization.
NONE	= No recovery action.
PRINT	= Report only; no escalation.
PSI	= Autonomous PS initialization.
RPI	= Return to point of interrupt.
SI	= Selective initialization.
SPP	= Single process purge.

r = Failing address where event occurred.

s = Port processor mode. Valid value(s):

CONSISTENT	= Hardware and software are consistent.
ESSENTIAL	= Essential jobs operational.
NORMAL	= Normal operational mode.
OPFULL	= All jobs operational.
RAMDYN	= Dynamic memory consistent.
RAMTXT	= Read access memory text consistent.
RAMWP	= Text and data consistent.
SYSPROC	= System processes operational.
UNKNOWN	

t = Error count.

u = Error threshold.

v = Stack trace (up to twelve addresses). Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual if assistance is required to interpret this field.

w = Contents of hardware registers. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual if assistance is required to interpret this field.

x = Image type in the PH.

y = PH IOP image type.

z = Image type expected.

a[1] = Identifier of a packet switching data structure that is recovered as part of the non-returning fault recovery action. Valid value(s):
LOGICAL CHANNEL

```
RECEIVING ACCESS LINE
RECEIVING LOGICAL LINK
SENDING ACCESS LINE
SENDING LOGICAL LINK
```

a^2 = Given data structure type, this numerical value is the index into the data structure array. If the implicated data structure type is the receiving or sending logical link, this is to be an index into the logical link control block (LLCB) data structure array. If the implicated data structure type is the receiving or sending access line, this is an index into the access line control block (ALCB) data structure array. If the implicated data structure type is the logical channel, this is an index into the logical channel control block (LCCB).

Note: In fields 'a^1' and 'a^2', a maximum of five packet switching data structures can be recovered as part of the assert recovery action.

4. ACTIONS TO BE TAKEN

Monitor the progress of the software recovery. Initiate manual actions if the recovery does not proceed as expected. Retain this information along with any trouble report concerning the initialization/recovery and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:HISTORY
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:PR-DCF-EE

Software Release: 5E10 and later
Message Class: LDCF,ASRTMON
Application: 5
Type: Output

1. FORMAT

```
REPT PR DCF ERROR EVENT=a
  PROCESSOR b c ERROR_TYPE d CAUSE e
  RETURN f CLASS g h ACTIONS i j k
  MSGTYPE l ENVIRONMENT m DATA:
  n n n n n n n n
```

2. REASON FOR OUTPUT

To provide information about a defensive check failure (DCF) that occurred in the integrated service digital network (ISDN) packet routing (PR) software.

3. VARIABLE FIELD DEFINITIONS

`a` = Error event number.

`b` = Unit processor error occurred in. Valid value(s):
- `AM` = Administrative module.
- `HSM` = Host switching module.
- `LSM` = Local switching module.
- `RSM` = Remote switching module.

`c` = Processor number.

`d` = Type of error as defined/explained in file pr/hdr/PRerrtype.h. Valid value(s):
- `BAD_DATA_IN_MESSAGE` = Invalid message data field.
- `DATA_DELIVERY` = Failed to obtain process status.
- `MESSAGE_UNEXPECTED` = Invalid routing request message.

`e` = Cause of error as defined/explained in file pr/hdr/PRerrassrt.h.

`f` = Interface return value. Valid value(s):
- `0` = Indicates success.
- `<0` = Indicates failure.

`g` = Function where failure occurred. Refer to the APP:PR-DCF appendix in the Appendixes section of the Output Messages manual for function name cross reference.

`h` = Source line number in above function where failure occurred. Refer to the APP:PR-DCF appendix in the Appendixes section of the Output Messages manual.

`i` = Action that PR takes.

`j` = Action that PR takes.

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`k` = Action that PR takes.

`l` = Message type being processed.

`m` = PR environment in which error occurred. Refer to file pr/hdr/PRenvir.h for definition.

`n` = Dump of error data.

4. ACTION TO BE TAKEN

Verify the reason for the defensive check failure and notify technical support group.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT:PR-DCF-RE
```

Output Appendix(es):

```
APP:PR-DCF
```

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-600-510 *Software Analysis Guide*

REPT:PR-DCF-RE

Software Release: 5E10 and later
Message Class: ASRTMON
Application: 5
Type: Output

1. FORMAT

```
REPT PR DCF ROUTING ERROR EVENT=a PCR b c CLASS d e
  ERRTYPE f CAUSE g STATE h SEQ i
  MSGTYPE j REQTYPE k RETURN l RIC m RETRY n
  DN o NOC p SI q DI r PI s ROUTETYPE t RI u
  ORIGPORT a1 b1 OPARTY c1 TERMPORT d1 e1 TPARTY f1
  GRP g1 GRPTYPE h1 SIZE i1 HUNT j1
```

2. REASON FOR OUTPUT

To provide information about a defensive check failure (DCF) that occurred in the ISDN packet routing (PR) software during routing.

3. VARIABLE FIELD DEFINITIONS

`a` = PR internal error event number.

`b` = Processor error occurred in. Valid value(s):
- `AM` = Administrative module
- `HSM` = Host switching module.
- `LSM` = Local switching module.
- `RSM` = Remote switching module.

`c` = Processor number.

`d` = Function where failure occurred. Refer to the APP:PR-DCF appendix in the Appendixes section of the Output Messages manual for function name cross reference.

`e` = Source line number in above function where failure occurred. Refer to the APP:PR-DCF appendix in the Appendixes section of the Output Messages manual.

`f` = Type of error as defined/explained in file pr/hdr/PRerrtype.h. This field is used in conjunction with the cause of error field. These two fields are meaningful when, for example, the error type is RDSTATIC_DATA and the cause is TRKG. This means that a failure occurred when trying to read the trunk group relation PR_TRKG.
- `ACCDYNAMIC_DATA` = Dynamic data access failure.
- `BAD_DATA_IN_MESSAGE` = Invalid message data field.
- `INTERNAL` = PR internal software failure.
- `MISSING_FEATURE` = Far end SM is in abnormal state.
- `ODD_BADB` = Bad office dependent data.
- `RDSTATIC_DATA` = Static data read failure.
- `REAL_TIME_EXCEEDED` = Finite state machine failure.

`g` = Cause of error as defined/explained in file pr/hdr/PRrtgerr.h. The cause of type of error that occurred. If this field is '`NULL`', then the cause was unknown and additional data in the message

needs to be looked at (look at the internal code variables 'k' and 'l').

h = PR routing state. This refers to the internal routing state for PR.

i = Routing sequence type. This refers to the type of routing that PR is doing.

j = Message type being processed.

k = Type of request being processed. It is always '0' in PR.

l = Interface return value. Valid value(s):

0	= Indicates success.
<0	= Indicates failure.

The return value is a system return value. The failure code tells where the failure occurred. For example, each failure code should be in the software subsystem's range.

m = Route indexes count for alternate routes tried by PR.

n = Route retries count. PR always sets this variable to '0'.

Note: Variable 'o' with the last four digits of variable 'p' are the key into the PR_DNTRAN relation.

If the originating port, identified by variables 'a^1' and 'b^1', is an ISDN port, a fault in the ISDN originating equipment may cause non-numeric digits to appear in variable 'o'.

o = Dialed digits.

p = Normalized office code.

Note: Variables 'q', 'r', and 's' are used as the keys into the PR_SCRNING relation.

q = Screening index.

r = Destination index.

s = Prefix.

t = Route type as defined in file hdr/db/DMroute.h.

u = Route index. This is the key into the PR_ROUTING relation.

a^1 = Origination port involved in error.

b^1 = Origination module involved in error.

c^1 = Origination party involved in error. PR always sets this to '0'.

d^1 = Termination port involved in error.

e^1 = Termination module involved in error.

f^1 = Termination party involved in error.

g[1] = Termination group number.

h[1] = Termination group type. It is either 'LINE' or 'TRUNK'.

i[1] = Termination group size.

j[1] = Termination group hunt type. There are two hunt types: 'PSUCD' and 'PSLGUCD'. Packet switching uniform call distribution (PCUSD) indicates the size of trunk group (TRUNK) or multi-line hunt group (LINE) is less than 64. The hunt type PSLGUCD indicates that the size of TRUNK or LINE is greater than 64.

Note: Not all of the data printed may be relevant to the call in which the failure occurred. The data in the first two lines will always be relevant to the failure, and the values there will help determine which other data is valid.

4. ACTION TO BE TAKEN

Verify the reason for the defensive check failure and take corrective action.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT:PR-DCF-EE
```

Output Appendix(es):

```
APP:PR-DCF
```

Other Manual(s):
235-600-510 *Software Analysis Guide*

REPT:PRE

Software Release: 5E10 and later
Message Class: VAR
Application: 5
Type: Output

1. FORMAT

```
REPT PRE HW INIT EVENT=a
  UNIT      MTCE STATE
  b         c
  .         .
  .         .
  .         .
  b         c
  NUMBER OF ACTIVE MMPS SIDE0=d SIDE1=e
```

2. REASON FOR OUTPUT

To describe the communications module (CM) hardware maintenance states prior to the initialization that just occurred.

3. VARIABLE FIELD DEFINITIONS

`a` = The event number associated with the initialization.

`b` = The unit type. Valid value(s):
- `FPC` = Foundation peripheral controller.
- `MSCU` = Message switch control unit.
- `ONTC` = Office network and timing complex.
- `PPC` = Pump peripheral controller.

`c` = The maintenance status of the unit. Valid value(s):
- `---,---,---` = Null state (due to a DMERT level 4 initialization or duplex fail situations).
- `ACT` = Active (MSCU, FPC, and PPC only).
- `ACT,MAJOR` = Active major (ONTC only).
- `ACT,MAJOR,MIP` = Active major with TMS fabric update in progress (ONTC only).
- `ACT,MINOR` = Active minor (ONTC only).
- `ACT,MINOR,DFRIP` = The unit may be supporting stable calls through the automatic time slot switching (AUTISS) mechanism. However, the unit has actually been taken out of service due to duplex failure recovery in progress in progress (ONTC only).
- `ACT,MINOR,MIP` = Active minor with TMS fabric update in progress (ONTC only).
- `DGRD,MAJOR` = Degraded major (ONTC only).
- `DGRD,MAJOR,MIP` = Degraded major with TMS fabric update in progress (ONTC only).
- `DGRD,MINOR` = Degraded minor (ONTC only).
- `DGRD,MINOR,DFRIP` = The unit may be supporting stable calls through the automatic time slot switching (AUTISS) mechanism. However, the unit has actually been taken out of service due to duplex failure recovery in progress (ONTC only).
- `DGRD,MINOR,MIP` = Degraded minor with TMS fabric update in progress (ONTC only).
- `OOS,AUTO,DGN` = Out of service for automatically triggered diagnostics.
- `OOS,AUTO,FE` = Out of service because the MSCU was automatically taken out of service (FPC and PPC only).

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`OOS,AUTO,FLT` = Out of service due to failed and automatically triggered diagnostics.
`OOS,AUTO,DFRIP` = Out of service due to duplex failure recovery in progress.
`OOS,AUTO,PWRALM` = Out of service due to an automatically detected power failure alarm.
`OOS,AUTO,REX` = Automatically removed from service for routine exercises.
`OOS,AUTO,RMV` = Automatically removed from service (a transient state).
`OOS,AUTO,TBLA` = Out of service due to faults other than those that could be identified by diagnostics (trouble analysis). Note that this does not necessarily imply that diagnostics were run.
`OOS,AUTO,TEMP` = Out of service because the unit is being used as a helper unit for automatically triggered diagnostics (MSCU, FPC, or PPC only).
`OOS,MANUAL,DGN` = Removed from service for manually triggered diagnostics.
`OOS,MANUAL,EX` = Removed from service for manual exercises.
`OOS,MANUAL,FE` = Out of service because the MSCU was manually taken out of service (family of equipment) (FPC and PPC only).
`OOS,MANUAL,FLT` = Out of service due to fault identified by manually triggered diagnostics.
`OOS,MANUAL,REX` = Manually removed from service for routine exercises.
`OOS,MANUAL,RMV` = Manually removed from service.
`OOS,MANUAL,TEMP` = Out of service because the unit is being used as a helper unit for manually triggered diagnostics (MSCU, FPC, MMP, or PPC only).
`STBY` = Unit is on standby (FPC and PPC only).
`UNAV,FRCD,DGN` = The unit is manually forced unavailable and is being diagnosed.
`UNAV,FRCD,FLT` = The unit is manually forced unavailable and diagnostics have failed on the unit.
`UNAV,FRCD,PWRALM` = The unit is manually forced unavailable and a power failure was automatically detected.
`UNAV,FRCD,PWROFF` = The unit is manually forced unavailable and was manually powered down.
`UNAV,FRCD,RMV` = The unit is manually forced unavailable.
`UNAV,FRCD,TEMP` = The unit is manually forced unavailable but is being used as a helper unit for manually triggered diagnostics (MSCU only).
`UNAV,MANUAL,PWROFF` = The unit is out of service due to manual power down.

`d,e` = Number of active module message processors (MMPs) on system sides 0 and 1, respectively.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CFGSTAT
```

Output Message(s):

```
OP:CFGSTAT
REPT:POST-HDW-INI
```

REPT:PRE-HDW-INIT

Software Release: 5E10 and later
Message Class: INT_MON
Application: 5
Type: Output

1. FORMAT

```
REPT PRE HDW INITIALIZATION EVENT=a
  UNIT       MTCE STATE       UNIT       MTCE STATE
  b          c                b          c
  .          .                .          .
  .          .                .          .
  .          .                .          .
  NUMBER OF ACT  MMPS SIDE 0=d SIDE 1=e
```

2. REASON FOR OUTPUT

To report the communication module (CM) hardware maintenance states prior to an administrative module (AM) and CM initialization.

3. VARIABLE FIELD DEFINITIONS

a = The event number associated with the initialization.

b = Unit identification.

c = Unit maintenance state.

d = The number of active MMPs on system side 0.

e = The number of active MMPs on system side 1.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CFGSTAT
```

Output Message(s):

```
OP:CFGSTAT
REPT:POST-HDW-INI
REPT:PRE-HDW-RESY
REPT:POST-HDW-RES
```

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Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

REPT:PRE-HDW-RESY

Software Release: 5E10 and later
Message Class: INT_MON
Application: 5
Type: Output

1. FORMAT

```
REPT PRE HDW RE-SYNCHRONIZATION EVENT=a
  UNIT       MTCE STATE       UNIT       MTCE STATE
  b          c                b          c
  .          .                .          .
  .          .                .          .
  .          .                .          .
  NUMBER OF ACT  MMPS SIDE 0=d SIDE 1=e
```

2. REASON FOR OUTPUT

To report the communication module (CM) hardware maintenance states prior to an administrative module (AM) re-synchronization with the CM.

3. VARIABLE FIELD DEFINITIONS

a = The event number associated with the re-synchronization.

b = Unit identification.

c = Unit maintenance state.

d = The number of active MMPs on system side 0.

e = The number of active MMPs on system side 1.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CFGSTAT
```

Output Message(s):

```
OP:CFGSTAT
REPT:POST-HDW-RES
REPT:PRE-HDW-INIT
REPT:POST-HDW-INI
```

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Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

REPT:PRIORITY

Software Release: 5E10 and later
Message Class: SED_MON
Application: 5
Type: Output

1. FORMAT

```
REPT a [e] f PRIORITY g LOCKOUT
  TIME INTERVAL = hh:hh:hh
```

2. REASON FOR OUTPUT

To indicate that a lack of process dispatching has been detected at the indicated priority level for the indicated time interval.

3. VARIABLE FIELD DEFINITIONS

`a` = Processor reporting the condition. Valid value(s):
- `AM` = Administrative module.
- `CMP=b-c d` = Physical address of communication module processor.
- `SM` = Switching module.

`b` = Message switch side number.

`c` = Physical CMP number.

`d` = CMP pair number. Valid value(s):
- `MATE` = The mate CMP.
- `PRIM` = The primary CMP.

`e` = Processor number (for SMs only).

`f` = OSDS environment reporting the condition. Valid value(s):
- `OKP` = Operational kernel process.
- `OSDSM` = OSDS in the SM or the CMP.
- `SMKP` = Switch maintenance kernel process.

`g` = OSDS process priority at which the lack of activity was detected.

`h` = Time interval over which the lack of activity was detected, in the form hours:minutes:seconds.

4. ACTION TO BE TAKEN

Monitor progress of recovery.

5. ALARMS

Minor.

6. REFERENCES

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

REPT:PROC

Software Release: 5E10 and later
Message Class: SWMO1
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT PROC DEATH/CREATE
        PROCESS a DIED.
        CREATION SCHEDULED IN b MINUTES.

[2]   ____________________________________________________________
      REPT PROC DEATH/CREATE
        PROCESS a DIED.
        CREATION DENIED.

[3]   ____________________________________________________________
      REPT PROC DEATH/CREATE
        CREATION FOR PROCESS a SUCCEEDED.

[4]   ____________________________________________________________
      REPT PROC DEATH/CREATE
        CREATION FOR PROCESS a FAILED.
        CREATION SCHEDULED IN b MINUTES.

[5]   ____________________________________________________________
      REPT PROC DEATH/CREATE
        CREATION FOR PROCESS a FAILED.
        CREATION DENIED.
```

2. REASON FOR OUTPUT

This message reports the creation (including recreation), failure to create and death of interprocess message switch (IMS) processes, imsrts.p, msdc.p, npp.p, op_rtm.p, and tdcp.p. These processes provide the following capabilities auxiliary to IMS.

imsrts.p = 118 page and node status reports.

msdc.p = Measurement data collection.

npp.p = Node pumping.

op_rtm.p = Realtime usage monitor.

tdcp.p = Trace, node ERRLOG, and, for IMS 3.2 and later, craft output messages from recorded announcement ports (RAPs) (Smart Nodes).

These events are not reported during IMS aborts or when they are probably caused by an IMS boot or full process initialization (FPI). The initial creation of each of these processes due to such initializations is not reported if it is successful on the first try.

The capability is lost temporarily between the Format 1 and Format 3 messages or until an IMS level 3 or 4

initialization for the Format 2 and Format 5 messages.

Following the Format 1 and Format 4 messages any remaining instances of the processes are terminated, the delay specified in the message is taken, any process then attached to the process' port is terminated, and recreation of the process is requested.

3. VARIABLE FIELD DEFINITIONS

`a` = Path name for process, ending in the process name.
`b` = The minimum number of minutes before creation of the process will be requested.

4. ACTION TO BE TAKEN

For Format 1, if the reason for process death is not understood, notify technical support. Recovery will be automatic.

A *UNIX*® RTR level 1 initialization will sometimes kill imsrts.p, npp.p and/or tdcp.p.

Field update of any of these processes could involve manually killing them.

For Format 2, this message is expected only in IMS when disk-independent operation is fully operational.

The REPT:DIOP message should also be printed and the disk outage is the real problem. Otherwise, look for REPT:PMGR-ERROR messages and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. Recovery will require at least an IMS boot.

For Format 3, normal operation of the process has resumed.

For Format 4, refer to the `REPT:PMGR-ERROR` messages for the same process for specific error codes and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Occasional failures could be due to operating system resource shortages.

Repeated failure to create a process could indicate a bad or incompatible process file, '`a`'. A process built for the wrong version of shared libraries could corrupt the libraries and might require an IMS boot after the proper file is in place.

File access problems could indicate a bad field update, such as wrong permissions on a file or wrong file name.

The delay '`b`' in retrying process creation is intended to allow time for resource problems to abate or for correction of file problems.

For Format 5, this message is expected only in IMS when disk independent operation is fully operational. The REPT:DIOP message should also be printed and the disk outage is the real problem. Otherwise, look for REPT:ERROR messages and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. Recovery will require at least an IMS boot.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT:DIOP
```

```
REPT:ERROR
```

REPT:PROCEDURE

Software Release: 5E11 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT PROCEDURE a b
```

2. REASON FOR OUTPUT

To respond to a manual request.

3. VARIABLE FIELD DEFINITIONS

a = Procedure name. Valid values can be found on the MCC page 1980.

b = Report acknowledment of a request. Valid values are:

SUMMARY REQUESTED

START REQUESTED

RESUME REQUESTED

STOP REQUESTED

4. ACTIONS TO BE TAKEN

None required.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:PROTO-TMPSF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT PROTO=a-b-c TRBL MSU PATH SETUP FAILURE d
  FAILURE IN PROTO TEST RECOVERY ACTION e
  PROTO=a-b-c f g
  MSUCOM=a-b-c f g
```

2. REASON FOR OUTPUT

To report a trouble with a metallic access (PROTO) circuit which resides in a metallic service unit (MSU). A protocol test failed while checking the integrity of a protocol connection to the PROTO circuit. The PROTO circuit and the MSU common circuit board (MSUCOM) are printed to aide in locating the faulty equipment.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = MSU number.

`c` = Service group number.

`d` = Event number.

`e` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = This post-mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified by an assert.
`RST AUTO CAMPON` = The failing circuit will be diagnosed as soon as it becomes available. A message (RST:PROTO or DGN:PROTO) will then be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message (RST:PROTO or DGN:PROTO) will be printed with the results of the diagnostic.

`f` = Metallic test bus number.

`g` = Number of recent failures of this error type (FAILURE IN PROTO TEST) on this circuit (in decimal).

`h` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

No action required.

If '`f`' =	Action:
`RST PREEMPT` or `RST AUTO CAMPON`	A subsequent DGN:PROTO or RST:PROTO message will indicate the

	success or failure of the restore request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:PROTO
RMV:PROTO
RST:PROTO
```

Other Manual(s):
235-900-101 *Technical Specification and System Description*

REPT:PS-AMA-LDVC-A

Software Release: 5E10 only
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
REPT PS AMA LDVC a  b  MSG-NO=c
  PSUPH=d-e-f-g     CHNG=d-e-f-h
     MID-NO      LCN
       i          j
       .          .
       .          .
       .          .
```

2. REASON FOR OUTPUT

To report long duration virtual calls (LDVC). There are calls that have been continuously in the data transfer mode at a scheduled record generation time for more than 24 hours.

3. VARIABLE FIELD DEFINITIONS

a = Sequence number of this message.

b = Continuation indicator. Valid value(s):
- = Yes.
+ = No.

c = Message number.

d = Switching module (SM) number.

e = Packet switching unit (PSU) number.

f = PSU shelf number.

g = Packet handler (PH) number.

h = Group number.

i = Number of record generation times that have elapsed.

j = PH logical channel number.

4. ACTION TO BE TAKEN

Attempt to verify that the packet call is valid; if not, idle the call. Notify the billing center if the packet call is idled.

5. ALARMS

None. .ta 59

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6. REFERENCES

Input Message(s):

```
TRC:UTIL
```

REPT:PS-AMA-LDVC-B

Software Release: 5E11 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
REPT PS AMA LDVC a  b  MSG-NO=c
  PSUPH=d-e-f-g     CHNG=d-e-f-h
     MID-NO      LCN
       i          j
       .          .
       .          .
       .          .
```

2. REASON FOR OUTPUT

To report long duration virtual calls (LDVC). There are calls that have been continuously in the data transfer mode state at a scheduled record generation time for more than 24 hours.

3. VARIABLE FIELD DEFINITIONS

a = Sequence number of this message.

b = Continuation indicator. Valid value(s):
- = Yes.
+ = No.

c = Message number.

d = Switching module (SM) number.

e = Packet switching unit (PSU) number.

f = PSU shelf number.

g = Packet handler (PH) number.

h = Group number.

i = Number of record generation times that have elapsed.

j = PH logical channel number.

4. ACTION TO BE TAKEN

Attempt to verify that the packet call is valid; if not, idle the call. Notify the billing center if the packet call is idled.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
TRC:UTIL
```

REPT:PSDO-UMS

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT PSDO_UMS.P FLT
  EFLAGS=a, FLTCODE=b
```

[2]
```
REPT PSDO_UMS.P FLT
  EFLAGS=a, FLTCODE=b, PA=c
  RO=d, R7=e, R8=f
```

2. REASON FOR OUTPUT

To report that the interprocess message switch (IMS) pseudo measurement process (psdo_ums.p) has encountered a hardware or software fault.

3. VARIABLE FIELD DEFINITIONS

`a` = Hexadecimal number which is the sum of the codes for all *UNIX*® RTR Operating System events outstanding for the IMS measurement process.

`b` = *UNIX*® RTR fault code.

`c` = The IMS pseudo measurement was in execution at this virtual address when the fault was encountered.

`d` = Contents of administrative module (AM) register r0.

`e` = Contents of AM register r7.

`f` = Contents of AM register r8.

4. ACTION TO BE TAKEN

Analyze the fault code. If the fault is not attributed to a hardware problem, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

Minor.

6. REFERENCES

Output Message(s):

```
REPT:IODRV-AFU
REPT:IODRV-ERR
REPT:IODRV-ERROR
```

```
REPT:IODRV-FAULT
```

Output Appendix(es):

```
APP:FAULT-CODE
```

REPT:PSM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT PSM ERROR X'a  GRPN b STATE X'c

[2]   ____________________________________________________________________
      REPT PSM ERROR X'a  SYSTEM ERROR d GRPN b
        STATE X'c

[3]   ____________________________________________________________________
      REPT PSM ERROR X'a  GRPN b
```

2. REASON FOR OUTPUT

Format 1 is to report the power switch monitor (PSM) encountered an error while trying to perform an operation.

Format 2 is to report the PSM encountered an error while attempting to send a message to the scanner and signal distributor administrator (SCSDA).

Format 3 is to report an unidentified group has been requested to be operated upon.

3. VARIABLE FIELD DEFINITIONS

`a` = Error code. Valid value(s):

- `0xe0` = Error in unit control block (UCB) pointer. Check addressing flags in the message.
- `0xe1` = Error in unit number. Specified unit is not identified by the SCSDA.
- `0xe2` = Error in logical group name. SCSDA cannot find reference to a group. Logical group unit may have been degrown. Check message. Possible save area corruption. Verify group in database.
- `0xe3` = Error in duplex identification. Check message. Possible PSM save area corruption. Check database records.
- `0xe4` = Scanner and signal distributor controller (SCSDC) is possibly out-of-service (OOS). Check status of SCSDC.
- `0xe5` = Invalid point number. Check message. Possible PSM save area corruption. Check database record to verify that the point is included in the group.
- `0xe6` = Address type not specified in message. Check message.
- `0xe7` = Scanner and signal distributor handler (SCSDH) failed to complete the operation. Check status of SCSDC and SCSDA. Check SCSDH error messages to determine the problem.
- `0xe8` = Illegal class requested. Class cannot be monitored. Check message. Refer to ecd.h for legal classes.
- `0xe9` = SCSDA cannot add client to list. Check for multiple occurrences of processes.
- `0xea` = Unknown message type. Check message.
- `0xeb` = SCSDA is in incorrect state to perform operations on the SCSDC. Check status of SCSDC.
- `0xec` = Point from database record retrieved by SCSDA is illegal. Review database forms.

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0xed	= SCSDA could not update database.
0xee	= No error.
0xef	= Illegal operation requested. Check message.
0xf0	= Illegal number of operations requested per message. Check ad_count in message.
0xf1	= SCSDA could not find the class requested to be monitored by PSM in any of the database forms. Check database forms and SCSDC equipage.
0xf2	= Operation could not be completed by SCSDH. Additional information can be obtained from SCSDH error message.
0xf3	= Unknown message type has been received by SCSDA from the SCSDH.
0xf4	= SCSDA cannot update database.
0x100	= PSM failed to send message to SCSDA. Refer to msgport.
0x101	= PSM could not get a timing chain entry.
0x102	= PSM could not complete operation.
0x103	= Invalid message received by PSM from SCSDA. Check the record identification (RID) of unit specified in the database. Check message.
0x104	= PSM could not get UCB information for logical group. Possible corrupted RID in message. Review database form.
0x105	= PSM has determined group save area is corrupted. Reinitialize PSM.
0x106	= PSM could not identify group. Check message. Possible PSM corruption. In addition, check if group was rejected upon initialization.

b = Logical group name.

c = PSM mode of logical group. Valid value(s):

0x10	= Group is unavailable. PSM has encountered multiple internal errors.
0x11	= Group is idle.
0x12	= PSM is performing a directed scan operation.
0x13	= PSM is performing a distribute operation.
0x14	= PSM is performing an allow operation.
0x15	= PSM is waiting for inhibits to be cleared.

d = System error code. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

For Formats 1 and 2, locate the offending code or hardware from the error code. Check the status of the hardware by using the OP:OOS input message. Verify that the SCSDC is equipped. Verify that the database forms contain the proper data. If corrupted areas are found in PSM, the processes should be restarted to reinitialize. If PSM is suspected of being corrupted, procedures should be taken to produce a dump of the process and forward information to the service organization.

For Format 3, verify that the database forms contain the proper logical group name. Verify that the correct logical group was input.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1, 2, 3	138

Input Message(s):

```
OP:OOS
```

Output Message(s):

```
REPT:SCSDC
```

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

Other Manual(s):

Where (x) is the release-specific version of the specified manual.
235-600-31x *ECD/SG Manual*

REPT:PSUCOM-TBTF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT PSUCOM=a-b-c TRBL BACKGROUND TEST FAILURE d
  e RECOVERY ACTION f
  g h i
 [g h i]
  j k l
```

2. REASON FOR OUTPUT

To report a background test failure pertaining to a packet switching unit common controller (PSUCOM).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Packet switching unit (PSU) number.

`c` = PSUCOM side.

`d` = Event number.

`e` = Error type. Valid value(s):

`CF MISCELLANEOUS` = Took a CF related error.

`f` = Recovery Action: Valid value(s):

`ANALYSIS ONLY` = A post mortem report is generated. No recovery action was taken.

`CRITICAL RST PREEMPT` = The failing circuit was preempted and an unconditional restore to ACTIVE was attempted on the mate PSUCOM service group side. A diagnostic will be scheduled on the preempted side if the unconditional restore of the mate side completes successfully. This recovery action is only valid when a fault occurs while PSUCOMs are simplex and the PSUCOM is provisioned to be a critical unit.

`PSU RECOVERY` = An MCTSI reconfiguration action has been performed in an attempt to resolve a PSUCOM fault condition. The action can vary from MCTSI switch to Switching Module initialization, depending upon whether or not the PSUCOM is provisioned to be a critical unit.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`SWITCH CONTROLLERS` = PSUCOM service groups were switched in an attempt to resolve a fault condition. PSUCOMs will remain duplex after the switch has completed.

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Note: An additional circuit name, error count, and error threshold (variables 'g'-'i') may be printed. A recovery action will be taken only on the first circuit in the list to reach its error threshold.

g = External circuit name for the implicated circuit.

h = Current decimal number of failures of this type recorded.

i = Decimal error count threshold, at which a recovery action will be taken.

Note: Variables 'j' through 'l' will be reported as hexadecimal data, where each field is 4 digits.

j = PSUCOM Circuit name.

k = Test number that failed. Valid value(s):
0x0

l = Return value from PC primitive.

4. ACTIONS TO BE TAKEN

No action is necessary if the recovery action (variable 'f') is ANALYSIS ONLY. If it is RST PREEMPT, automatic diagnostics are run on the PSUCOM. If they pass, run the module control time slot interchange (MCTSI) diagnostics (DGN:MCTSI).

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:MCTSI
DGN:PSU
RST:MCTSI
RST:PSUCOM
```

REPT:PSUCOM-TDPE

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT PSUCOM=a-b-c TRBL PIDB PARITY FAILURE d
        DF CUTTHRU PIDB PARITY ERROR RECOVERY ACTION e
        f g h
        i j

[2]   ____________________________________________________________
      REPT PSUCOM=a-b-c TRBL DF PARITY ERROR d
        DF ILLEGAL DPIDB FAILURE RECOVERY ACTION e
        f g h
        i j
```

2. REASON FOR OUTPUT

Format 1 reports that a parity error occurred on a packet switching unit (PSU) peripheral interface data bus (PIDB) to the time slot interchange (TSI).

Format 2 reports that a parity error occurred on a PSU directly connected PIDB (DPIDB) that is not in use.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = PSU number.

`c` = PSU common control (PSUCOM) side.

`d` = Event number.

`e` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is generated.

`CRITICAL RST PREEMPT` = The failing circuit was preempted and an unconditional restore to ACTIVE was attempted on the mate PSUCOM service group side. A diagnostic will be scheduled on the preempted side if the unconditional restore of the mate side completes successfully. This recovery action is only valid when a fault occurs while PSUCOMs are simplex and the PSUCOM is provisioned to be a critical unit.

`PSU RECOVERY` = An MCTSI reconfiguration action has been performed in an attempt to resolve a PSUCOM fault condition. The action can vary from MCTSI switch to Switching Module initialization, depending upon whether or not the PSUCOM is provisioned to be a critical unit.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

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SWITCH CONTROLLERS = PSUCOM service groups were switched in an attempt to resolve a fault condition. PSUCOMs will remain duplex after the switch has completed.

f = External logical circuit name of the implicated circuit.

g = Current decimal number of failures of this type recorded.

h = Decimal error count threshold, at which the recovery action will be taken.

Note: Fields 'i' and 'j' will be reported as hexadecimal data, where each field is 4 digits.

i = PSU shelf number.

j = For Format 1, the implicated time slot number. For Format 2, the I/O of the implicated DPIDB.
Valid value(s):

0x01 = DPIDB 0
0x02 = DPIDB 1
0x03 = DPIDB 2
0x04 = DPIDB 3
0x05 = DPIDB 4
0x06 = DPIDB 5
0x07 = DPIDB 6
0x08 = DPIDB 7

4. ACTIONS TO BE TAKEN

If 'e' =	Action:
ANALYSIS ONLY	No action is necessary.
CRITICAL RST PREEMPT	None, the PSUCOM will unconditionally be restored to ACT.
PSU RECOVERY	No action necessary
RST PREEMPT	Automatic diagnostics are run on the PSUCOM. If they pass, run the MCTSI diagnostics (DGN:MCTSI).
SWITCH CONTROLLERS	No action necessary

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:MCTSI
DGN:PSU
RST:MCTSI
RST:PSUCOM
```

REPT:PSUCOM-TDPED

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT PSUCOM=a-b-c TRBL DF PARITY ERROR d
  e RECOVERY ACTION f
  g h i
  j [k] ...
```

2. REASON FOR OUTPUT

To report that a parity error occurred on a packet switching unit (PSU) directly connected peripheral interface data bus (DPIDB) serving an integrated services line unit (ISLU), or an unknown unit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = PSU number.

`c` = PSU common control (PSUCOM) side.

`d` = Event number.

`e` = Error type. Valid value(s):

`DF DPIDB PARITY ERROR` = Parity error was detected on a data fanout (DF) PIDB which is directly connected to an ISLU control data (CD).

`DF DPIDB UNLINKED TIMESLOT` = A parity error was detected on a DF PIDB but there was not enough linkage information found to determine which protocol handler (PH) and channel group the timeslot was assigned to.

`f` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is generated.

`CRITICAL RST PREEMPT` = The failing circuit was preempted and an unconditional restore to ACTIVE was attempted on the mate PSUCOM service group side. A diagnostic will be scheduled on the preempted side if the unconditional restore of the mate side completes successfully. This recovery action is only valid when a fault occurs while PSUCOMs are simplex and the PSUCOM is provisioned to be a critical unit.

`PSU RECOVERY` = An MCTSI reconfiguration action has been performed in an attempt to resolve a PSUCOM fault condition. The action can vary from MCTSI switch to Switching Module initialization, depending upon whether or not the PSUCOM is provisioned to be a critical unit.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

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SWITCH CONTROLLERS = PSUCOM service groups were switched in an attempt to resolve a fault condition. PSUCOMs will remain duplex after the switch has completed.

g = External logical circuit name of the implicated circuit.

h = Current decimal number of failures of this type recorded.

i = Decimal error count threshold, at which the recovery action will be taken.

Note: Fields 'j' through 'k' will be reported as hexadecimal data, where each field is 4 digits.

j = The PSU shelf number (left-hand 8 bits) and the PICB number the DPIDB is connected to (right-hand 8 bits.)

k = The implicated DPIDB number (left-hand 8 bits) and the timeslot number in the DPIDB (right-hand 8 bits.)

Note: Additional DPIDB/timeslot numbers (variable 'k') may be printed.

4. ACTIONS TO BE TAKEN

If 'f' =	Action:
CRITICAL RST PREEMPT	None, the PSUCOM will unconditionally be restored to ACT.
PSU RECOVERY	No action necessary
ANALYSIS ONLY	No action is necessary.
RST PREEMPT	Automatic PSUCOM diagnostics will run. If they pass, run the ISLUCD diagnostics (DGN:ISLUCD).
SWITCH CONTROLLERS	No action necessary

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:PSU
RST:PSUCOM
DGN:ISLUCD
RST:ISLUCD
```

REPT:PSUCOM-TDPEP-A

Software Release: 5E10 only
Message Class: HW_MON
Application: 5
Type: Output

1. FORMAT

```
REPT PSUCOM=a-b-c TRBL DF PARITY ERROR d
 e RECOVERY ACTION f
 g h i
[g h i]
 j k l [m] [n] o p q
[r s t u v w]
```

2. REASON FOR OUTPUT

To report that a parity error occurred on a packet switching unit (PSU) protocol handler data bus (PHDB).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = PSU number.

`c` = packet switching unit common control (PSUCOM) side.

`d` = Event number.

`e` = Error type. Valid value(s):
`DF PHDB PARITY ERROR` = Parity error was detected on a PHDB between a data fanout (DF) and a protocol handler (PH).
`DF PHDB UNLINKED TIMESLOT FAILURE` = A parity error was detected on a PHDB between a DF and a PH but not enough linkage information was found to determine which PH and channel group the timeslot was assigned to.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = No recovery action was taken. A post mortem report is printed.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = External logical circuit name of the implicated circuit.

`h` = Current decimal number of failures of this type recorded.

`i` = Decimal error count threshold, at which the recovery action will be taken.
Note: An additional circuit name, error count, and error threshold (variables '`g`'-'`i`') may be printed. A recovery action will be taken only on the first circuit in the list to reach its error threshold. Variables '`j`' through '`w`' will be reported as hexadecimal data, where each field is 4 digits.

`j` = The PSU shelf number (left-hand 8 bits) and the timeslot number (right-hand 8 bits).

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k = The PH number the parity error occurred on.

l = The packet switching unit time slot block (PTSB) usage number. Valid value(s):

- 0 = Nothing is assigned to the PTSB.
- 1 = Directly connected D channel.
- 2 = PSU cut through D channel part.
- 3 = Integrated switching line unit (ISLU) cut through D channel part.
- 4 = ISLU to time slot interchange unit (TSIU) duplex B channel.
- 6 = Unavailable due to remote ISLU remoting hardware.
- 7 = Maintenance activity on PTSB.
- 8 = PSU cut through for inter-SM use.
- 9 = Directly connected B-channel.
- A = PSU cut through B-channel.
- B = Duplex B-channel with packet switching service.
- C = PSU cut through on an inter-switch trunk.

m = The DSL group number assigned to the PH at the time the error was taken.

n = The DSL group member number assigned to the first channel.

o = The D-channel status of the first channel in the left-hand 8 bits. Valid value(s):

- 0x00 = D channel idle.
- 0x01 = D channel tear down.
- 0x02 = D channel setup.
- 0x03 = D channel stable.
- 0x04 = D channel not cleared.
- 0x05 = This D channel is 64KB.

The enable of the first channel in the right-hand 8 bits. Valid value(s):

- 0x00 = Channel is off.
- 0x01 = Channel is on.

p = The DSL group member number assigned to the second channel.

q = The D-channel status of the second channel in the left-hand 8 bits. The state of the second channel in the right-hand 8 bits. This is similar to variable 'q'.

r = The DSL group member number assigned to the third channel.

s = The D-channel status of the third channel (left-hand 8 bits). The state of the third channel in the right-hand 8 bits. This is similar to variable 'q'.

t = The DSL group member number assigned to the fourth channel.

u = The D-channel status of the fourth channel in the left-hand 8 bits. The state of the fourth channel in the right-hand 8 bits. This is similar to variable 'q'.

v = The implicated PH image type. Valid value(s):

- 0 = Null PH image.
- 1 = PH 2 Access image.
- 2 = PH 2 gateway image.

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3 = PH 1 gateway image.
5 = PH 4 attached processor (AP) image.
6 = PH 4 integrated service digital network (ISDN) input output processor (IOP) image.
8 = PH 4 frame relay protocol handler (FRPH) code division multiple access (CDMA) voice IOP image.
9 PH Voice (PHV) Non-downloadable digital signal processing (DSP) code division multiple access (CDMA) image.
A Protocol handler (PH) for asynchronous transfer mode (ATM) (PHA) image.

w = The implicated PH hardware type. Valid value(s):
0 = PH 1 hardware.
1 = PH 2 hardware.
2 = PH 3 hardware.
3 = PH 4 hardware.
4 = PHV 1 hardware.
5 = PHV 2 hardware.
6 = PHA 1 hardware.

4. ACTION TO BE TAKEN

If 'f' =	Action: =
ANALYSIS ONLY	No action is necessary.
RST PREEMPT	Automatic diagnostics are run on the PSUCOM. If they pass, run the PH diagnostics using DGN:PSUPH.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:PSU
RST:PSUCOM
```

Output Message(s):

```
REPT:PSUPH-TDP
```

REPT:PSUCOM-TDPEP-B

Software Release: 5E11 and later
Message Class: HW_MON
Application: 5
Type: Output

1. FORMAT

```
REPT PSUCOM=a-b-c TRBL DF PARITY ERROR EVENT=d
  e RECOVERY ACTION f
  g h i
 [g h i]
  j k l [m] [n o p q
 [r s t u v w]
```

2. REASON FOR OUTPUT

To report that a parity error occurred on a packet switching unit (PSU) protocol handler data bus (PHDB).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = PSU number.

`c` = PSU common control (PSUCOM) side.

`d` = Event number.

`e` = Error type. Valid value(s):
`DF PHDB PARITY ERROR` = Parity error was detected on a PHDB between a data fanout (DF) and a protocol handler (PH).
`DF2 PHDB PARITY ERROR` = Parity error was detected on a PHDB between a data fanout - version 2 (DF2) and a protocol handler (PH).
`DF-MCTSI LINK PARITY ERROR` = Parity error was detected on the link connecting the DF to the module control time slot interchange (MCTSI).
`DF PHDB UNLINKED TIMESLOT FAILURE` = A parity error was detected on a PHDB between a DF and a PH but not enough linkage information was found to determine which PH and channel group the timeslot was assigned to.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = No recovery action was taken. A postmortem report was printed.
`CRITICAL RST PREEMPT` = The failing circuit was preempted and an unconditional restore to ACTIVE was attempted on the mate PSUCOM service group side. A diagnostic will be scheduled on the preempted side if the unconditional restore of the mate side completes successfully. This recovery action is only valid when a fault occurs while PSUCOMs are simplex and the PSUCOM is provisioned to be a critical unit.
`PSU RECOVERY` = An MCTSI reconfiguration action has been performed in an attempt to resolve a PSUCOM fault condition. The action can vary from MCTSI switch to Switching Module initialization, depending upon whether or not the PSUCOM is provisioned to be a critical unit.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

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`SWITCH CONTROLLERS` = PSUCOM service groups were switched in an attempt to resolve a fault condition. PSUCOMs will remain duplex after the switch has completed.

`g` = External logical circuit name of the implicated circuit.

`h` = Current decimal number of failures of this type recorded.

`i` = Decimal error count threshold, at which the recovery action will be taken.

Note: An additional circuit name, error count, and error threshold (variables '`g`'-'`i`') may be printed. A recovery action will be taken only on the first circuit in the list to reach its error threshold. Variables '`j`' through '`w`' will be reported as hexadecimal data, where each field is 4 digits.

`j` = The PSU shelf number (left-hand 8 bits) and the timeslot number (right-hand 8 bits).

`k` = The PH number the parity error occurred on.

`l` = The PSU time slot block (PTSB) usage number. Valid value(s):

- `0` = Nothing is assigned to the PTSB.
- `1` = Directly connected D-channel.
- `2` = PSU cut through D-channel part.
- `3` = Integrated switching line unit (ISLU) cut through D-channel part.
- `4` = ISLU to time slot interchange unit (TSIU) duplex B-channel.
- `6` = Unavailable due to remote ISLU remoting hardware.
- `7` = Maintenance activity on PTSB.
- `8` = PSU cut through for inter-SM use.
- `9` = Directly connected B-channel.
- `A` = PSU cut through B-channel.
- `B` = Duplex B-channel with packet switching service.
- `C` = PSU cut through on an inter-switch trunk.

`m` = The DSL group number assigned to the PH at the time the error was taken.

`n` = The DSL group member number assigned to the first channel.

`o` = The D-channel status of the first channel in the left-hand 8 bits. Valid value(s):

- `0x00` = D-channel idle.
- `0x01` = D-channel tear down.
- `0x02` = D-channel setup.
- `0x03` = D-channel stable.
- `0x04` = D-channel not cleared.
- `0x05` = This D-channel is 64KB.

The enable of the first channel in the right-hand 8 bits. Valid value(s):

- `0x00` = Channel is off.
- `0x01` = Channel is on.

`p` = The DSL group member number assigned to the second channel.

`q` = The D-channel status of the second channel in the left-hand 8 bits. The state of the second

channel in the right-hand 8 bits. This is similar to variable 'q'.

r = The DSL group member number assigned to the third channel.

s = The D-channel status of the third channel (left-hand 8 bits). The state of the third channel in the right-hand 8 bits. This is similar to variable 'q'.

t = The DSL group member number assigned to the fourth channel.

u = The D-channel status of the fourth channel in the left-hand 8 bits. The state of the fourth channel in the right-hand 8 bits. This is similar to variable 'q'.

v = The implicated PH image type. Valid value(s):

- 0 = Null PH image.
- 1 = PH 2 access image.
- 2 = PH 2 gateway image.
- 3 = PH 3 integrated service digital network (ISDN) common image.
- 4 = PH 3 integrated service digital network (ISDN) input output processor (IOP) image.
- 5 = PH 1 gateway image.
- 7 = PH 3 common channel signalling (CCS) common image.
- 8 = PH 3 CCS IOP image.
- 9 = PH 4 attached processor (AP) image.
- A = PH 4 ISDN IOP image.
- C = PH 4 frame relay protocol handler (FRPH) code division multiple access (CDMA) IOP image.
- D = PH for voice (PHV) 1 non-downloadable digital signal processing (DSP) CDMA image.
- E = PHV 3 downloadable DSP CDMA image.
- F = PHV downloadable DSP with 8K algorithm image.
- 10 = PHV downloadable DSP with 13K algorithm image.
- 11 = PHV downloadable DSP with enhanced variable rate coding (EVRC) algorithm image.
- 12 = protocol handler (PH) for asynchronous transfer mode (ATM) (PHA) image.

w = The implicated PH hardware type. Valid value(s):

- 0 = PH 1 hardware.
- 1 = PH 2 hardware.
- 2 = PH 3 hardware.
- 3 = PH 4 hardware.
- 4 = PHV 1 hardware.
- 5 = PHV 2 hardware.
- 6 = PHV 3 hardware.
- 7 = PHA 1 hardware.

4. ACTIONS TO BE TAKEN

If 'f' =	Action:
ANALYSIS ONLY	No action is necessary.
CRITICAL RST	None, the PSUCOM will unconditionally be restored to ACT.

PREEMPT	
PSU RECOVERY	No action necessary
RST PREEMPT	Automatic diagnostics are run on the PSUCOM. If they pass, run the PH diagnostics using DGN:PSUPH.
SWITCH CONTROLLERS	No action necessary

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:PSU
RST:PSUCOM
```

Output Message(s):

```
REPT:PSUPH-TDP
```

REPT:PSUCOM-TPCF-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT PSUCOM=a-b-c TRBL PICB CONTROL FAILURE EVENT=d
  e RECOVERY ACTION f
  g h i
  j k l m
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the packet switching unit (PSU).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = PSU number.

`c` = PSU common controller (PSUCOM) side.

`d` = Event number.

`e` = Error type. Valid value(s):
`CI RECEIVED BAD PARITY` = A peripheral reply message has bad parity.
`CI RECEIVED BAD START CODE` = A peripheral reply message has a bad start code.
`CI TIME OUT` = A peripheral unit failed to reply to a message from the control interface (CI).
`PER DETECTED BAD ADDRESS` = A peripheral detected an addressing error in its own circuitry while attempting to do a scan or distribute operation requested by the CI.
`PER DETECTED BAD PARITY` = A peripheral received bad parity in a message from the CI.
`PER DETECTED BAD START CODE` = A peripheral received a bad start code in a message from the CI.
`SOFTWARE BAD ADDRESS ERROR` = The address does not exist in relation RLcktdata or the address being accessed is in the software bad address range.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is provided.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A receive-only printer (ROP) message will be printed with the results of the diagnostic.

`g` = External circuit name for the implicated circuit.

`h` = Current decimal number of failures of this type recorded.

`i` = Decimal error count threshold, a fix decimal value above which the intensity of the fault recovery action will increase.

Note: Fields '`j`' through '`m`' will be reported as hexadecimal data, where each field is 4 digits.

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`j` = Print whether the fault was transient or hard, as determined by the module controller fault recovery.

`k` = Read/write (uppermost) bit and address to which the CI was writing when the failure occurred.

`l` = Data being written to the periphery by the CI.

`m` = CI error source register. Valid value(s):

`0x1`	= Multiplexor selection error.
`0x2`	= Improper address select.
`0x4`	= Address parity error.
`0x8`	= Data parity error.
`0x10`	= Link address error.
`0x20`	= Time out error.
`0x40`	= Peripheral bad start code.
`0x80`	= Peripheral bad parity.
`0x100`	= Peripheral detected bad parity.
`0x200`	= Peripheral detected bad address.
`0x400`	= Peripheral detected bad start code.
`0x8000`	= Remote source interrupt.

4. ACTION TO BE TAKEN

If '`f`' =	**Action: =**
`ANALYSIS ONLY`	No action is necessary.
`RST PREEMPT`	Automatic diagnostics are run on the PSUCOM. If they pass, run the MCTSI diagnostics.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:MCTSI
DGN:PSU
RST:MCTSI
RST:PSUCOM
```

REPT:PSUCOM-TPCF-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT PSUCOM=a-b-c TRBL PICB CONTROL FAILURE EVENT=d
  e RECOVERY ACTION f
  g h i
  j k l m n
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the packet switching unit (PSU).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = PSU number.

`c` = PSU common controller (PSUCOM) side.

`d` = Event number.

`e` = Error type. Valid value(s):

`CI RECEIVED BAD PARITY` = A peripheral reply message has bad parity.

`CI RECEIVED BAD START CODE` = A peripheral reply message has a bad start code.

`CI TIME OUT` = A peripheral unit failed to reply to a message from the control interface (CI).

`PER DETECTED BAD ADDRESS` = A peripheral detected an addressing error in its own circuitry while attempting to do a scan or distribute operation requested by the CI.

`PER DETECTED BAD PARITY` = A peripheral received bad parity in a message from the CI.

`PER DETECTED BAD START CODE` = A peripheral received a bad start code in a message from the CI.

`SOFTWARE BAD ADDRESS ERROR` = The address does not exist in relation RLcktdata or the address being accessed is in the software bad address range.

`f` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is provided.

`CRITICAL RST PREEMPT` = The failing circuit was preempted and an unconditional restore to ACTIVE was attempted on the mate PSUCOM service group side. A diagnostic will be scheduled on the preempted side if the unconditional restore of the mate side completes successfully. This recovery action is only valid when a fault occurs while

PSUCOMs are simplex and the PSUCOM is provisioned to be a critical unit.

`PSU RECOVERY` = An MCTSI reconfiguration action has been performed in an attempt to resolve a PSUCOM fault condition. The action can vary from MCTSI switch to Switching Module initialization, depending upon whether or not the PSUCOM is provisioned to be a critical unit.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A read-only printer (ROP) message will be printed with the results of the diagnostic.

`SWITCH CONTROLLERS` = PSUCOM service groups were switched in an attempt to resolve a fault condition. PSUCOMs will remain duplex after the switch has completed.

`g` = External circuit name for the implicated circuit.

`h` = Current decimal number of failures of this type recorded.

`i` = Decimal error count threshold, a fix decimal value above which the intensity of the fault recovery action will increase.

Note: Fields '`j`' through '`n`' will be reported as hexadecimal data, where each field is 4 digits.

`j` = Print whether the fault was transient or hard, as determined by the module controller fault recovery.

`k` = System PICB number in hexadecimal that was being written when the failure occurred.

`l` = Read/write (uppermost) bit and address to which the CI was writing when the failure occurred.

`m` = Data being written to the periphery by the CI.

`n` = CI error source register. Valid value(s):

- `0x1` = Multiplexor selection error.
- `0x2` = Improper address select.
- `0x4` = Address parity error.
- `0x8` = Data parity error.
- `0x10` = Link address error.
- `0x20` = Time out error.
- `0x40` = Peripheral bad start code.
- `0x80` = Peripheral bad parity.
- `0x100` = Peripheral detected bad parity.
- `0x200` = Peripheral detected bad address.
- `0x400` = Peripheral detected bad start code.
- `0x8000` = Remote source interrupt.

4. ACTIONS TO BE TAKEN

If '`f`' =	Action:
`ANALYSIS ONLY`	No action is necessary.
`CRITICAL RST PREEMPT`	None, the PSUCOM will unconditionally be restored to ACT.
`PSU RECOVERY`	No action necessary

RST PREEMPT	Automatic diagnostics are run on the PSUCOM. If they pass, run the MCTSI diagnostics.
SWITCH CONTROLLERS	No action necessary

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:MCTSI
DGN:PSU
RST:MCTSI
RST:PSUCOM
```

REPT:PSUCOM-TPE

Software Release: 5E12 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT PSUCOM=a-b-c TRBL PLI ERROR EVENT=d
  e RECOVERY ACTION f

  PSUCOM=a-b-c  g  h
  iiiiiiii jjjjjjjj kkkkllll mmmmnnnn oooooooo oooooooo oooooooo oooooooo
  oooooooo oooooooo
```

2. REASON FOR OUTPUT

To indicate an error reported by fault recovery within the switching module (SM) caused by failure of a Peripheral Link Interface (PLI) which services a Data Fanout 2 (DF2) board in the Packet Switch Unit (PSU). The fault was detected and reported by module control unit fault recovery (MCUFR). The message indicates what recovery action was taken and gives the current fault counts against the circuit specified in the message. Refer to field '`f`' to determine the fault recovery action.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = PSU number.

`c` = PSU common control (PSUCOM) side.

`d` = Event number.

`e` = Error type. Valid value(s):

`IF CRC ERR ON DATA RECEIVED FROM PLI` =The Module Controller (MCTSI) has detected a CRC error on the data received from the PLI servicing the PSUCOM.

`IF LOSS OF CLOCK FROM THE PLI` =The MCTSI has lost the 8Khz data clock signal from the PLI servicing the PSUCOM.

`IF LOSS OF CLOCK REFERENCE` = The MCTSI detected a loss of clock reference on the PLI servicing the PSUCOM.

`IF PAR ERR ON OVERHEAD BYTES FROM PLI` = The MCTSI has detected bad parity on the 64 byte/frame overhead channel on the PLI servicing the PSUCOM.

`IF SYNCHRONIZATION ERROR WITH PLI` = The MCTSI has lost the 30msec synchronization pulse from the PLI servicing the PSUCOM.

`NO ERROR SOURCE FOUND` = A message was sent to peripheral fault recovery (PFR) software indicating a PLI fault is present. However, PFR software analysis revealed no such fault indication.

`PLI BAD FRAME WORD ON INCOMING LINK` = A bad frame word has been detected on the

incoming data stream from the PLI servicing the PSUCOM.

`PLI BAD PARITY INCOM OVERHEAD BYTES` =The PLI servicing the PSUCOM has detected bad parity on the 64 byte/frame overhead channel received from the TSI.

`PLI BAD SUPERFRAME ON INCOMING LINK` = A bad superframe byte has been detected on the incoming data stream of the PLI servicing the PSUCOM.

`PLI DETECTED BAD CRC FROM ACTIVE MCTSI` = CRC errors have been detected at the PLI servicing the PSUCOM on data received from the active MCTSI.

`PLI IMPLICATED BY BACKGROUND CHECK` = The PLI servicing the PSUCOM has been declared faulty because the background select check function has determined that it is either taking control from the standby MCTSI service group or has been programmed incorrectly to prevent taking control from the standby MCTSI.

`PLI INTERNAL DATA PARITY ERROR` = The PLI servicing the PSUCOM has detected an internal parity error on the data it received correctly from the active MCTSI.

`PLI IS SOURCING BAD CRC` = The PLI servicing the PSUCOM has detected it is sourcing bad CRC.

`PLI LINK TO BE OUT-OF-FRAME` = The incoming PLI has detected the PCTLNK connected with the PSUCOM has been out-of-frame for at least four consecutive frames.

`PLI OUTGOING BUFFER CHECK ERROR` = The PLI servicing the PSUCOM has detected that the data it received correctly from the active MCTSI is failing buffer checks because of an internal PLI fault.

`PLI PARITY ERRORS ON DATA FROM DF` = The PLI servicing the PSUCOM has detected parity errors on the data received from the PSUCOM.

`f` = Recovery Action. Valid values are:

`ANALYSIS ONLY` = A post mortem report is provided for analysis only.

`CRITICAL RST PREEMPT` = The failing circuit was preempted and an unconditional restore to ACTIVE was attempted on the mate PSUCOM service group side. A diagnostic will be scheduled on the preempted side if the unconditional restore of the mate side completes successfully. This recovery action is only valid when a fault occurs while PSUCOMs are simplex and the PSUCOM is provisioned to be a critical unit.

`PSU RECOVERY` = An MCTSI reconfiguration action has been performed in an attempt to resolve a PSUCOM fault condition. The action can vary from MCTSI switch to Switching Module initialization, depending upon whether or not the PSUCOM is provisioned to be a critical unit.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A DGN:PSUCOM output message will be printed with the results of the diagnostic.

`SWITCH CONTROLLERS` = PSUCOM service groups were switched in an attempt to resolve a fault condition. PSUCOMs will remain duplex after the switch has completed.

`g` = Current decimal number of errors of type in field 'e' recorded.

h = Decimal error count threshold where recovery action will be taken.

i = IF error source register data.

j = IF error mask register data at time of error.

k = PLI error source register.

l = PLI error source mask register.

m = PSUCOM internal message type.

n = Number of PLI fault messages sent from MCUFR to peripheral fault recovery. These messages are printed in field 'o'.

o = Up to six PLI fault messages sent from MCUFR to peripheral fault recovery may be printed. Each PLI fault message consists of eight hexadecimal characters.

4. ACTIONS TO BE TAKEN

If 'f' =	Action:
ANALYSIS ONLY	No action is necessary.
CRITICAL RST PREEMPT	None, the PSUCOM will unconditionally be restored to ACT.
PSU RECOVERY	No action necessary
RST PREEMPT	Automatic diagnostics are run on the PSUCOM. If they pass, run the MCTSI diagnostics (DGN:MCTSI).
SWITCH CONTROLLERS	No action necessary

If the errors persist and no automatic recovery is attempted, remove the implicated PSUCOM from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:PSU
RST:PSUCOM
DGN:MCTSI
RST:MCTSI
```

Output Message(s):

```
REPT:PSUSHELF-TPE
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:PSUCOM-TPPC2-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT PSUCOM=a-b-c TRBL PORT PROCESSOR COMMUNICATION LOSS EVENT=d
  PH LOSS OF LAYER 2 RECOVERY ACTION e
  f g h
 [. . .]
 [. . .]
 [. . .]
  i j k l m n o p
  q r s t u v w x
  y z a1
```

[2]
```
REPT PSUCOM=a-b-c TRBL PORT PROCESSOR COMMUNICATION LOSS EVENT=d
  PH LOSS OF LAYER 2 RECOVERY ACTION e
  f g h
 [. . .]
 [. . .]
 [. . .]
  i j m
```

2. REASON FOR OUTPUT

To report the loss of communication from the switching module processor (SMP) to a port processor (PP). A PP can either be a protocol handler (PH) or a packet interface (PI).

End-to-end (ETE) check messages detect faults from the SMP through the PI on the packet bus to the PHs.

Idle link assurance (ILA) messages detect faults between the PI and the PHs through the packet bus.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Packet switching unit (PSU) number.

`c` = Packet switching unit common control (PSUCOM) side.

`d` = Event number.

`e` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = No recovery action was taken. The report is provided was printed.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`f` = External circuit name of the implicated circuit.

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g = Current decimal number of failures of this type recorded.

h = Decimal error count threshold, above which the recovery action will be taken.

Note: An additional circuit name, error count, and error threshold (variables 'f'-'h') may be printed. Recovery action will be taken only on the first circuit in the list to reach its error threshold. Variables 'i' through 'a1' will be reported as hexadecimal data, where each field is 4 digits.

i Detection source. Valid value(s):

- 0 = ETE check failure which is a periodic communication check between the SMP and the PPs.
- 1 = ILA failure which ensures layer 2 is up and messages can be sent to the PHs.

j = The number of implicated faulty PPs.

k = The logical active PI name (0x60) or the implicated PH image type. Valid value(s):

- 0 = Null PH image.
- 1 = PH 2 access image.
- 2 = PH 2 gateway image.
- 3 = PH 1 gateway image.
- 5 = PH 4 attached processor (AP) image.
- 6 = PH 4 integrated service digital network (ISDN) input output processor (IOP) image.
- 8 = PH 4 frame relay protocol handler (FRPH) code division multiple access (CDMA) voice IOP image.
- 9 PH voice (PHV) Non-downloadable digital signal processing (DSP) code division multiple access (CDMA) image.
- A PH for asynchronous transfer mode (ATM) image.

Note: If the logical active PI name (0x60) is printed for variable 'k', variables 'l' through 'a1' will not be printed.

l = The implicated PH hardware type. Valid value(s):

- 0 = PH 1 hardware.
- 1 = PH 2 hardware.
- 2 = PH 3 hardware.
- 3 = PH 4 hardware.
- 4 = PHV 1 hardware.
- 5 = PHV 2 hardware.
- 6 = PHA 1 hardware.

m = The number of the faulty PP. For ILA failures only. Valid value(s):

- 0xaf00-0xaf4f = PH numbers.
- 0x60 = PI side 0.
- 0x61 = PI side 1.

n = For ILA failures, packet bus enable masks for PHs on shelf 0 (15 -> 00).

For ETE failures, bitmap of PHs that a response is expected from on shelf 0 (15 -> 00).

o For ILA failures, packet bus enable masks for PHs on shelf 1 (15 -> 00).

For ETE failures, bitmap of PHs that a response is expected from on shelf 1 (15 -> 00).

p = For ILA failures, packet bus enable masks for PHs on shelf 2 (15 -> 00).

For ETE failures, bitmap of PHs that a response is expected from on shelf 2 (15 -> 00).

q = For ILA failures, packet bus enable masks for PHs on shelf 3 (15 -> 00).

For ETE failures, bitmap of PHs that a response is expected from on shelf 3 (15 -> 00).

r = For ILA failures, packet bus enable masks for PHs on shelf 4 (15 -> 00).

For ETE Failures, bitmap of PHs that a response is expected from on shelf 4 (15 -> 00).

s = Reserved for future or temporary data.

t = For ETE failures, bitmap of PIs that a response is expected from.

u = For ETE failures, bitmap of PH acknowledgement on shelf 0 (15 -> 00). A zero indicates that the PH did acknowledge. A one indicates that the PH did not acknowledge.

v = For ETE failures, bitmap of PH acknowledgement on shelf 1 (15 -> 00). A zero indicates that the PH did acknowledge. A one indicates that the PH did not acknowledge.

w = For ETE failures, bitmap of PH acknowledgement on shelf 2 (15 -> 00). A zero indicates that the PH did acknowledge. A one indicates that the PH did not acknowledge.

x = For ETE failures, bitmap of PH acknowledgement on shelf 3 (15 -> 00). A zero indicates that the PH did acknowledge. A one indicates that the PH did not acknowledge.

y = For ETE failures, bitmap of PH acknowledgement on shelf 4 (15 -> 00). A zero indicates that the PH did acknowledge. A one indicates that the PH did not acknowledge.

z = Reserved for future or temporary data.

a^1 = For ETE failures, bitmap of PI acknowledgement. A zero indicates that the PI did acknowledge. A one indicates that the PI did not acknowledge.

Note: Fields 't' - 'a^1' are not used for ILA failures. Any data in these fields should be ignored for ILA.

4. ACTION TO BE TAKEN

If 'e' =	Action: =
ANALYSIS ONLY	No action is necessary
RST PREEMPT	The PSUCOM diagnostics are run automatically. If they pass, run the PH and the MCTSI diagnostics using DGN:MCTSI.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:MCTSI
DGN:PSU
RST:MCTSI
RST:PSUCOM
```

Output Message(s):

```
REPT:MCTSI-TPPC
REPT:PSUPH-TPPCL2
```

REPT:PSUCOM-TPPC2-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT PSUCOM=a-b-c TRBL PORT PROCESSOR COMMUNICATION LOSS EVENT=d
  PH LOSS OF LAYER 2 RECOVERY ACTION e
  f g h
 [. . .]
 [. . .]
 [. . .]
  i j k l m n o p
  q r s t u v w x
  y z a[1]
```

[2]
```
REPT PSUCOM=a-b-c TRBL PORT PROCESSOR COMMUNICATION LOSS EVENT=d
  PH LOSS OF LAYER 2 RECOVERY ACTION e
  f g h
 [. . .]
 [. . .]
 [. . .]
  i j m
```

2. REASON FOR OUTPUT

To report the loss of communication from the switching module processor (SMP) to a port processor (PP). A PP can either be a protocol handler (PH) or a packet interface (PI). End-to-end (ETE) check messages detect faults from the SMP through the PI on the packet bus to the PHs. Idle link assurance (ILA) messages detect faults between the PI and the PHs through the packet bus.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Packet switching unit (PSU) number.

`c` = PSU common control (PSUCOM) side.

`d` = Event number.

`e` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = No recovery action was taken. A postmortem report was printed.

`CRITICAL RST PREEMPT` = The failing circuit was preempted and an unconditional restore to ACTIVE was attempted on the mate PSUCOM service group side. A diagnostic will be scheduled on the preempted side if the unconditional restore of the mate side completes successfully. This recovery action is only valid when a fault occurs while PSUCOMs are simplex and the PSUCOM is provisioned to be a critical unit.

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`PSU RECOVERY` = An MCTSI reconfiguration action has been performed in an attempt to resolve a PSUCOM fault condition. The action can vary from MCTSI switch to Switching Module initialization, depending upon whether or not the PSUCOM is provisioned to be a critical unit.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`SWITCH CONTROLLERS` = PSUCOM service groups were switched in an attempt to resolve a fault condition. PSUCOMs will remain duplex after the switch has completed.

`f` = External circuit name of the implicated circuit.

`g` = Current decimal number of failures of this type recorded.

`h` = Decimal error count threshold, above which the recovery action will be taken.

Note: An additional circuit name, error count, and error threshold (variables '`f`'-'`h`') may be printed. Recovery action will be taken only on the first circuit in the list to reach its error threshold. Variables '`i`' through '`a1`' will be reported as hexadecimal data, where each field is 4 digits.

`i` Detection source. Valid value(s):

`0` = ETE check failure which is a periodic communication check between the SMP and the PPs.

`1` = ILA failure which ensures layer 2 is up and messages can be sent to the PHs.

`j` = The number of implicated faulty PPs.

`k` = The logical active PI name (0x60) or the implicated PH image type. Valid value(s):

`0` = Null PH image.
`1` = PH 2 access image.
`2` = PH 2 gateway image.
`3` = PH 3 integrated service digital network (ISDN) common image.
`4` = PH 3 integrated service digital network (ISDN) input output processor (IOP) image.
`5` = PH 1 gateway image.
`7` = PH 3 common channel signalling (CCS) common image.
`8` = PH 3 CCS IOP image.
`9` = PH 4 attached processor (AP) image.
`A` = PH 4 ISDN IOP image.
`C` = PH 4 frame relay protocol handler (FRPH) code division multiple access (CDMA) IOP image.
`D` = PH for voice (PHV) 1 non-downloadable digital signal processing (DSP) CDMA image.
`E` = PHV 3 downloadable DSP CDMA image.
`F` = PHV downloadable DSP with 8K algorithm image.
`10` = PHV downloadable DSP with 13K algorithm image.
`11` = PHV downloadable DSP with enhanced variable rate coding (EVRC) algorithm

image.
12 = protocol handler (PH) for asynchronous transfer mode (ATM) (PHA) image.

Note: If the logical active PI name (0x60) is printed for variable 'k', variables 'l' through 'a1' will not be printed.

l = The implicated PH hardware type. Valid value(s):
0 = PH 1 hardware.
1 = PH 2 hardware.
2 = PH 3 hardware.
3 = PH 4 hardware.
4 = PHV 1 hardware.
5 = PHV 2 hardware.
6 = PHV 3 hardware.
7 = PHA 1 hardware.

m = The number of the faulty PP. For ILA failures only. Valid value(s):
0xaf00-0xaf4f = PH numbers.
0x60 = PI side 0.
0x61 = PI side 1.

n = For ILA failures: Packet bus enable masks for PHs on shelf 0 (15 throuth 00).

For ETE failures: Bitmap of PHs that a response is expected from on shelf 0 (15 through 00).

o For ILA failures: Packet bus enable masks for PHs on shelf 1 (15 through 00).

For ETE failures: Bitmap of PHs that a response is expected from on shelf 1 (15 through 00).

p = For ILA failures: Packet bus enable masks for PHs on shelf 2 (15 through 00).

For ETE failures: Bitmap of PHs that a response is expected from on shelf 2 (15 through 00).

q = For ILA failures: Packet bus enable masks for PHs on shelf 3 (15 through 00).

For ETE failures: Bitmap of PHs that a response is expected from on shelf 3 (15 through 00).

r = For ILA failures: Packet bus enable masks for PHs on shelf 4 (15 through 00).

For ETE Failures: Bitmap of PHs that a response is expected from on shelf 4 (15 through 00).

s = Reserved for future or temporary data.

t = For ETE failures, bitmap of PIs that a response is expected from.

u = For ETE failures, bitmap of PH acknowledgement on shelf 0 (15 through 00). A zero indicates that the PH did acknowledge. A one indicates that the PH did not acknowledge.

v = For ETE failures, bitmap of PH acknowledgement on shelf 1 (15 through 00). A zero indicates that the PH did acknowledge. A one indicates that the PH did not acknowledge.

w = For ETE failures, bitmap of PH acknowledgement on shelf 2 (15 through 00). A zero indicates that the PH did acknowledge. A one indicates that the PH did not acknowledge.

x = For ETE failures, bitmap of PH acknowledgement on shelf 3 (15 through 00). A zero indicates that the PH did acknowledge. A one indicates that the PH did not acknowledge.

y = For ETE failures, bitmap of PH acknowledgement on shelf 4 (15 through 00). A zero indicates that the PH did acknowledge. A one indicates that the PH did not acknowledge.

z = Reserved for future or temporary data.

a^1 = For ETE failures, bitmap of PI acknowledgement. A zero indicates that the PI did acknowledge. A one indicates that the PI did not acknowledge.

Note: Fields 't' - 'a^1' are not used for ILA failures. Any data in these fields should be ignored for ILA.

4. ACTIONS TO BE TAKEN

If 'e' =	Action:
ANALYSIS ONLY	No action is necessary
CRITICAL RST PREEMPT	None, the PSUCOM will unconditionally be restored to ACT.
PSU RECOVERY	No action necessary
RST PREEMPT	The PSUCOM diagnostics are run automatically. If they pass, run the PH and the MCTSI diagnostics using DGN:MCTSI.
SWITCH CONTROLLERS	No action necessary

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:MCTSI
DGN:PSU
RST:MCTSI
RST:PSUCOM
```

Output Message(s):

```
REPT:MCTSI-TPPC
REPT:PSUPH-TPPCL2
```

REPT:PSUCOM-TPSR-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT PSUCOM=a-b-c TRBL PSU SERVICE REQUEST d
 e RECOVERY ACTION f
 g h i
[g h i]
 j k l m n o p q
 r [s t u]
```

2. REASON FOR OUTPUT

To report a maintenance service request pertaining to a packet switching unit common controller (PSUCOM).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Packet switching unit (PSU) number.

`c` = PSUCOM side.

`d` = Event number.

`e` = Error type. Valid value(s):

`CF ARBITER CLOCK FAILURE` = The 16 Mhz clock which drives the control fanout (CF) arbiter failed.

`CF ARBITER TIME OUT` = A protocol handler (PH) or packet interface (PI) has held the packet bus for more than 4 milliseconds.

`CF CLOCK LOSS TO PACKET BUS` = The CF detected loss of clock to the packet bus.

`CF INTERRUPT THRU MASK ERROR` = The CF detected an error on a circuit which should be inhibited.

`CF INVALID BOARD TYPE` = A message from the switching module processor (SMP) could not be processed by the CF because it contained an invalid board type. It was not the data fanout (DF), packet fanout (PF) or CF itself.

`CF INVALID ERROR REPORT FROM SHELF` = The CF received an error report from a DF or PF that it could not recognize.

`CF POLLING RAM PARITY ERROR` = An internal parity error occurred when the polling random access memory (RAM) containing packet bus client addresses is read by the CF packet bus arbiter state machine.

`CF SANITY TIME OUT` = The CF micro-controller failed to toggle a specific address within a certain interval. This implies micro-controller hardware failure.

`CF SHELF OUT OF RANGE` = A message from the SMP could not be processed by the CF because it specified an out of range shelf number. (Not within 0 - 4).

`CF TIMEOUT` = The CF timed out waiting for a response to a message it sent to a DF or PF.

`CF UC R-W AT BAD ADDRESS` = The micro-controller has attempted to read or write to an invalid unified control interface (UCI) chip address.

`CF UCI LP PARITY ERROR` = A read or write to the UCI RAM by the CF micro-controller caused

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a parity error.

`CF UCI MP PARITY ERROR` = A read or write to the UCI RAM by the SMP caused a parity error.

`DF CLOCK FAILURE` = A DF detected a 4 Mhz clock failure.

`DF INTERNAL PARITY ERROR` = A parity error occurred internally in DF hardware.

`DF PARITY COUNTER OVERFLOW` = A DF detected an overflow of the counter used to generate walking parity. Indicates a DF timing problem.

`DF SYNCH FAILURE` = A DF detected a 8 Mhz sync failure.

`DF TSI ACCESS PARITY` = A parity error occurred when attempting to access the DF time slot interchanger (TSI) chip.

`NO ERROR SOURCE FOUND` = A service request was received by PSU fault recovery, but no error source bits were set to indicate what the exact source of the error was.

`PH FAILURE` = A PH has exceeded its internal error threshold and has asserted its error lead. The error lead is asserted to notify PSU fault recovery that the PH is faulty.

`SHELF CIB BREAK RECEIVED` = A break signal was received from a DF or PF. This indicates that the DF of PF has had a serious error such as loss of control interconnect bus (CIB) clock, loss of board clock or pack removal.

`SHELF CIB CHECKFAIL ERROR` = A diagnostic message was sent to a shelf but no response was received.

`SHELF CIB FRAMING ERROR` = A framing error was detected on a CIB between a CF and a DF or PF. This occurs when a start code is detected on a CIB, but no stop code is received to end the frame which contains a message or response.

`SHELF CIB OVERRUN ERROR` = Too many messages or responses were received on a CF, DF or PF which means that some may have been lost.

`SHELF CIB PARITY FAILURE` = A parity error occurred on a CIB between the CF and a DF or PF.

`SHELF RECEIVED AN INVALID COMMAND` = A DF or PF received an invalid message from the CF.

`f` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = No recovery action was taken.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = External circuit name for the implicated circuit.

`h` = Current decimal number of failures of this type recorded.

`i` = Decimal error count threshold, at which a recovery action will be taken.

Note: An additional circuit name, error count, and error threshold (variables '`g`'-'`i`') may be printed. A recovery action will be taken only on the first circuit in the list to reach its error threshold.

Note: Variables '`j`' through '`u`' will be reported as hexadecimal data, where each field is 4 digits.

`j` = CF summary scan register. Valid value(s):

`0x1` = First in, first out (FIFO) B contains information.

`0x2` = FIFO A contains information.

`0x4` = Mailbox flags 0 - 3 summary bit.

`0x8` = Mailbox flags 4 - 7 summary bit.

`0x10` = Mailbox flags 8 - 11 summary bit.

0x20	= Mailbox flags 12 - 15 summary bit.
0x100	= Hardware error summary bit.
0x200	= Firmware error summary bit.

k = CF summary scan mask register. Valid value(s):

0x1	= Mask FIFO B contains information.
0x2	= Mask FIFO A contains information.
0x4	= Mask mailbox flags 0 - 3 summary bit.
0x8	= Mask mailbox flags 4 - 7 summary bit.
0x10	= Mask mailbox flags 8 - 11 summary bit.
0x20	= Mask mailbox flags 12 - 15 summary bit.
0x100	= Mask hardware error summary bit.
0x200	= Mask firmware error summary bit.

l = CF hardware error source register. Valid value(s):

0x40	= Local processor (LP) UCI address error.
0x80	= Micro processor (MP) UCI address error.
0x100	= FIFO B error.
0x200	= FIFO A error.
0x400	= FIFO B overflow.
0x800	= FIFO B underflow.
0x1000	= FIFO A overflow.
0x2000	= FIFO A underflow.
0x4000	= LP UCI read parity error.
0x8000	= MP UCI read parity error.

m = CF hardware error source mask register. Valid value(s):

0x40	= Mask LP UCI address error.
0x80	= Mask MP UCI address error.
0x100	= Mask FIFO B error.
0x200	= Mask FIFO A error.
0x400	= Mask FIFO B overflow.
0x800	= Mask FIFO B underflow.
0x1000	= Mask FIFO A overflow.
0x2000	= Mask FIFO A underflow.
0x4000	= Mask LP UCI read parity error.
0x8000	= Mask MP UCI read parity error.

n = CF LP hardware error source mask register. Valid value(s):

0x40	= Mask LP UCI address error.
0x80	= Mask MP UCI address error.
0x100	= Mask FIFO B error.
0x200	= Mask FIFO A error.
0x400	= Mask FIFO B overflow.
0x800	= Mask FIFO B underflow.
0x1000	= Mask FIFO A overflow.
0x2000	= Mask FIFO A underflow.
0x4000	= Mask LP UCI read parity error.
0x8000	= Mask MP UCI read parity error.

o = CF firmware error source register. Valid value(s):

0x1	= Arbiter errors.
0x2	= CIB errors.
0x4	= PH errors.
0x8	= DF parity.
0x10	= DF timing.
0x20	= Invalid input message.

p = CF firmware error source mask register. Valid value(s):

0x1	= Mask arbiter errors.
0x2	= Mask CIB errors.
0x4	= Mask PH errors.
0x8	= Mask DF parity.
0x10	= Mask DF timing.
0x20	= Mask invalid input message.

q = Internal circuit name in which first error was found.

r = Error detection source: Zero for CF, one for DF, two for PF.

s = The implicated PH image type. Valid value(s):

0	= Null PH image.
1	= PH 2 access image.
2	= PH 2 gateway image.
3	= PH 1 gateway image.
5	= PH 4 attached processor (AP) image.
6	= PH 4 integrated service digital network (ISDN) input output processor (IOP) image.
8	= PH 4 frame relay protocol handler (FRPH) code division multiple access (CDMA) voice IOP image.
9	PH voice (PHV) Non-downloadable digital signal processing (DSP) code division multiple access (CDMA) image.
A	PH for asynchronous transfer mode (ATM) image.

t = The implicated PH hardware type. Valid value(s):

0	= PH 1 hardware.
1	= PH 2 hardware.
2	= PH 3 hardware.
3	= PH 4 hardware.
4	= PHV 1 hardware.
5	= PHV 2 hardware.
6	= PHA 1 hardware.

u = DF timing error mailbox.

4. ACTION TO BE TAKEN

No action is necessary if the recovery action (variable 'f') is ANALYSIS ONLY. If it is RST PREEMPT, automatic diagnostics are run on the PSUCOM. If they pass, run the module control time slot interchange (MCTSI) and the PH diagnostics using DGN:MCTSI and DGN:PSUPH, respectively.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:MCTSI
DGN:PSU
RST:MCTSI
RST:PSUCOM
```

REPT:PSUCOM-TPSR-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT PSUCOM=a-b-c TRBL PSU SERVICE REQUEST EVENT=d
  e RECOVERY ACTION f
  g h i
 [g h i]
  j k l m n o p q
  r [s t u]
```

2. REASON FOR OUTPUT

To report a maintenance service request pertaining to a packet switching unit common controller (PSUCOM).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Packet switching unit (PSU) number.

`c` = PSUCOM side.

`d` = Event number.

`e` = Error type. Valid value(s):

`CF ARBITER CLOCK FAILURE` = The 16 Mhz clock which drives the control fanout (CF) arbiter failed.

`CF ARBITER TIME OUT` = A protocol handler (PH) or packet interface (PI) has held the packet bus for more than 4 milliseconds.

`CF CLOCK LOSS TO PACKET BUS` = The CF detected loss of clock to the packet bus.

`CF INTERRUPT THRU MASK ERROR` = The CF detected an error on a circuit which should be inhibited.

`CF INVALID BOARD TYPE` = A message from the switching module processor (SMP) could not be processed by the CF because it contained an invalid board type. It was not the data fanout (DF), packet fanout (PF) or CF itself.

`CF INVALID ERROR REPORT FROM SHELF` = The CF received an error report from a DF or PF that it could not recognize.

`CF POLLING RAM PARITY ERROR` = An internal parity error occurred when the polling random access memory (RAM) containing packet bus client addresses is read by the CF packet bus arbiter state machine.

`CF SANITY TIME OUT` = The CF micro-controller failed to toggle a specific address within a certain interval. This implies micro-controller hardware failure.

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`CF SHELF OUT OF RANGE` = A message from the SMP could not be processed by the CF because it specified an out of range shelf number. (Not within 0 - 4).

`CF TIMEOUT` = The CF timed out waiting for a response to a message it sent to a DF or PF.

`CF UC R-W AT BAD ADDRESS` = The micro-controller has attempted to read or write to an invalid unified control interface (UCI) chip address.

`CF UCI LP PARITY ERROR` = A read or write to the UCI RAM by the CF micro-controller caused a parity error.

`CF UCI MP PARITY ERROR` = A read or write to the UCI RAM by the SMP caused a parity error.

`DF CLOCK FAILURE` = A DF detected a 4 Mhz clock failure.

`DF MATE CLOCK FAILURE` = A DF detected an error from its mate's DF clock.

`DF INCOMING CLOCK FAILURE` = A DF detected an error on the clock signal from the MCTSI.

`DF INCOMING FRAME ERROR` = A DF detected a frame error on the link from the MCTSI.

`DF INTERNAL PARITY ERROR` = A parity error occurred internally in DF hardware.

`DF PARITY COUNTER OVERFLOW` = A DF detected an overflow of the counter used to generate walking parity. Indicates a DF timing problem.

`DF SYNCH FAILURE` = A DF detected a 8 Mhz sync failure.

`DF TSI ACCESS PARITY` = A parity error occurred when attempting to access the DF time slot interchanger (TSI) chip.

`NO ERROR SOURCE FOUND` = A service request was received by PSU fault recovery, but no error source bits were set to indicate what the exact source of the error was.

`PH FAILURE` = A PH has exceeded its internal error threshold and has asserted its error lead. The error lead is asserted to notify PSU fault recovery that the PH is faulty.

`SHELF CIB BREAK RECEIVED` = A break signal was received from a DF or PF. This indicates that the DF of PF has had a serious error such as loss of control interconnect bus (CIB) clock, loss of board clock or pack removal.

`SHELF CIB CHECKFAIL ERROR` = A diagnostic message was sent to a shelf but no response was received.

`SHELF CIB FRAMING ERROR` = A framing error was detected on a CIB between a CF and a DF or PF. This occurs when a start code is detected on a CIB, but no stop code is received to end the frame which contains a message or response.

`SHELF CIB OVERRUN ERROR` = Too many messages or responses were received on a CF, DF or PF which means that some may have been lost.

`SHELF CIB PARITY FAILURE` = A parity error occurred on a CIB between the CF and a DF or PF.

`SHELF RECEIVED AN INVALID COMMAND` = A DF or PF received an invalid message from the

CF.

f = Recovery Action: Valid value(s):

ANALYSIS ONLY = No recovery action was taken.

CRITICAL RST PREEMPT = The failing circuit was preempted and an unconditional restore to ACTIVE was attempted on the mate PSUCOM service group side. A diagnostic will be scheduled on the preempted side if the unconditional restore of the mate side completes successfully. This recovery action is only valid when a fault occurs while PSUCOMs are simplex and the PSUCOM is provisioned to be a critical unit.

PSU RECOVERY = An MCTSI reconfiguration action has been performed in an attempt to resolve a PSUCOM fault condition. The action can vary from MCTSI switch to Switching Module initialization, depending upon whether or not the PSUCOM is provisioned to be a critical unit.

RST PREEMPT = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

SWITCH CONTROLLERS = PSUCOM service groups were switched in an attempt to resolve a fault condition. PSUCOMs will remain duplex after the switch has completed.

g = External circuit name for the implicated circuit.

h = Current decimal number of failures of this type recorded.

i = Decimal error count threshold, at which a recovery action will be taken.

Note: An additional circuit name, error count, and error threshold (variables 'g'-'i') may be printed. A recovery action will be taken only on the first circuit in the list to reach its error threshold.

Note: Variables 'j' through 'u' will be reported as hexadecimal data, where each field is 4 digits.

j = CF summary scan register. Valid value(s):

0x1 = First in, first out (FIFO) B contains information.
0x2 = FIFO A contains information.
0x4 = Mailbox flags 0 - 3 summary bit.
0x8 = Mailbox flags 4 - 7 summary bit.
0x10 = Mailbox flags 8 - 11 summary bit.
0x20 = Mailbox flags 12 - 15 summary bit.
0x100 = Hardware error summary bit.
0x200 = Firmware error summary bit.

k = CF summary scan mask register. Valid value(s):

0x1 = Mask FIFO B contains information.
0x2 = Mask FIFO A contains information.
0x4 = Mask mailbox flags 0 - 3 summary bit.
0x8 = Mask mailbox flags 4 - 7 summary bit.

0x10	= Mask mailbox flags 8 - 11 summary bit.
0x20	= Mask mailbox flags 12 - 15 summary bit.
0x100	= Mask hardware error summary bit.
0x200	= Mask firmware error summary bit.

`l` = CF hardware error source register. Valid value(s):

0x40	= Local processor (LP) UCI address error.
0x80	= Micro processor (MP) UCI address error.
0x100	= FIFO B error.
0x200	= FIFO A error.
0x400	= FIFO B overflow.
0x800	= FIFO B underflow.
0x1000	= FIFO A overflow.
0x2000	= FIFO A underflow.
0x4000	= LP UCI read parity error.
0x8000	= MP UCI read parity error.

`m` = CF hardware error source mask register. Valid value(s):

0x40	= Mask LP UCI address error.
0x80	= Mask MP UCI address error.
0x100	= Mask FIFO B error.
0x200	= Mask FIFO A error.
0x400	= Mask FIFO B overflow.
0x800	= Mask FIFO B underflow.
0x1000	= Mask FIFO A overflow.
0x2000	= Mask FIFO A underflow.
0x4000	= Mask LP UCI read parity error.
0x8000	= Mask MP UCI read parity error.

`n` = CF LP hardware error source mask register. Valid value(s):

0x40	= Mask LP UCI address error.
0x80	= Mask MP UCI address error.
0x100	= Mask FIFO B error.
0x200	= Mask FIFO A error.
0x400	= Mask FIFO B overflow.
0x800	= Mask FIFO B underflow.
0x1000	= Mask FIFO A overflow.
0x2000	= Mask FIFO A underflow.
0x4000	= Mask LP UCI read parity error.
0x8000	= Mask MP UCI read parity error.

`o` = CF firmware error source register. Valid value(s):

0x1	= Arbiter errors.
0x2	= CIB errors.
0x4	= PH errors.
0x8	= DF parity.
0x10	= DF timing.
0x20	= Invalid command.

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p = CF firmware error source mask register. Valid value(s):

- 0x1 = Mask arbiter errors.
- 0x2 = Mask CIB errors.
- 0x4 = Mask PH errors.
- 0x8 = Mask DF parity.
- 0x10 = Mask DF timing.
- 0x20 = Mask invalid command.

q = Internal circuit name in which first error was found.

r = Error detection source: Zero for CF, one for DF, two for PF.

s = The implicated PH image type. Valid value(s):

- 0 = Null PH image.
- 1 = PH 2 access image.
- 2 = PH 2 gateway image.
- 3 = PH 3 integrated service digital network (ISDN) common image.
- 4 = PH 3 integrated service digital network (ISDN) input output processor (IOP) image.
- 5 = PH 1 gateway image.
- 7 = PH 3 common channel signalling (CCS) common image.
- 8 = PH 3 CCS IOP image.
- 9 = PH 4 attached processor (AP) image.
- A = PH 4 ISDN IOP image.
- C = PH 4 frame relay protocol handler (FRPH) code division multiple access (CDMA) IOP image.
- D = PH for voice (PHV) 1 non-downloadable digital signal processing (DSP) CDMA image.
- E = PHV 3 downloadable DSP CDMA image.
- F = PHV downloadable DSP with 8K algorithm image.
- 10 = PHV downloadable DSP with 13K algorithm image.
- 11 = PHV downloadable DSP with enhanced variable rate coding (EVRC) algorithm image.
- 12 = protocol handler (PH) for asynchronous transfer mode (ATM) (PHA) image.

t = The implicated PH hardware type. Valid value(s):

- 0 = PH 1 hardware.
- 1 = PH 2 hardware.
- 2 = PH 3 hardware.
- 3 = PH 4 hardware.
- 4 = PHV 1 hardware.
- 5 = PHV 2 hardware.
- 6 = PHV 3 hardware.
- 7 = PHA 1 hardware.

u = DF timing error mailbox.

4. ACTIONS TO BE TAKEN

No action is necessary if the recovery action (variable '`f`') is `ANALYSIS ONLY`. If it is `RST PREEMPT`, automatic diagnostics are run on the PSUCOM. If they pass, run the module control time slot interchange (MCTSI) and the PH diagnostics using DGN:MCTSI and DGN:PSUPH, respectively.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:MCTSI
DGN:PSU
RST:MCTSI
RST:PSUCOM
```

REPT:PSUPH-HC-A

Software Release: 5E10 only
Message Class: CP
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT PSUPH=a-b-c-d  HARDWARE CONTEXT PP EVENT=e

  CPU-REGISTERS:

  D0=f D1=f D2=f D3=f
  D4=f D5=f D6=f D7=f
  A0=f A1=f A2=f A3=f
  A4=f A5=f USP=f MSP=f
  ISP=f PC=f SR=f SFC=f
  DFC=f TC=f TT0=f TT1=f
  MMUSR=f HCRP=f LCRP=f HSRP=f
  LSRP=f CACR=f CAAR=f VBR=f
  BRICPIT-REGISTERS:
  IMBR=f
  ESBR=f RSBR=f WPSR=f STKPTR=f
  PB0ESR=f PB1ESR=f SPRESR=f SPTESR=f
  IMAGE=g
```

[2]
```
REPT PSUPH=a-b-c-d  HARDWARE CONTEXT PP EVENT=e

  68040-REGISTERS:

  D0=f D1=f D2=f D3=f
  D4=f D5=f D6=f D7=f
  A0=f A1=f A2=f A3=f
  A4=f A5=f USP=f SSP=f
  PC=f SR=f TC=f MMUSR=f
  ITT0=f ITT1=f DTT0=f DTT1=f
  SRP=f CACR=f EXCEP=f
  BRICPIT-REGISTERS:

  ESBR=f RSBR=f ECLR=f
  IMBR=f
  ISRR=f
  PBMAC/VISA-REGISTERS:

  PB0ESR=f PB1ESR=f VISAESR=f VISAEMR=f
```

2. REASON FOR OUTPUT

To provide the contents of the protocol handler (PH) registers as information for trouble analysis at the time of an interrupt.

Format 1 prints when PH employs M68030 as its processor.

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Format 2 prints when PH employs M68040 as its processor and contains SMPHV1C image.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Unit number.

`c` = Shelf number.

`d` = Slot number.

`e` = Event number.

`f` = Contents of hardware registers, in hexadecimal.

For the M68030/M68040 hardware register, valid values are:

`A0-A5`	= Address registers.
`CAAR`	= Cache address register.
`CACR`	= Cache control register.
`D0-D7`	= Data registers.
`DFC`	= Destination function code register.
`DTT0`	= Data transparent translation 0.
`DTT1`	= Data transparent translation 1.
`EXCEP`	= Exception vector number.
`HCRP`	= High central processing unit (CPU) root pointer register.
`HSRP`	= High supervisor root pointer.
`ISP`	= Interrupt stack pointer.
`ITT0`	= Instruction transparent translation 0.
`ITT1`	= Instruction transparent translation 1.
`LCRP`	= Low CPU root pointer register.
`LSRP`	= Low supervisor root pointer.
`MMUSR`	= Memory management unit (MMU) SR.
`MSP`	= Master stack pointer.
`PC`	= Program counter.
`SFC`	= Source function code register.
`SR`	= Status register.
`SRP`	= Supervisor root pointer register.
`SSP`	= System stack pointer.
`TC`	= Translation control register.
`TT0`	= Transparent translation 0.
`TT1`	= Transparent translation 1.
`USP`	= User stack pointer.
`VBR`	= Vector base register.

For the BRICPIT status register, valid values are:

`ECLR`	= Event configuration level register.
`ESBR`	= Event source bit register.
`IMBR`	= Interrupt mask bit register.
`ISRR`	= Interrupt service request register.
`PB0ESR`	= Packet bus media access control (PBMAC) 0 error source register (ESR).

`PB1ESR` = PBMAC 1 ESR.
`PB2ESR` = PBMAC 2 ESR.
`PB3ESR` = PBMAC 3 ESR.
`RSBR` = Reset/set bit register.
`SPRESR` = Shared protocol receiver/transmitter (SPORT) receive ESR.
`SPTESR` = SPORT transmit ESR.
`STKPTR` = Stack pointer.
`VISAESR` = Vocoder interrupt and serial access error source register (ESR).
`VISAEMR` = Vocoder interrupt and serial access error mask register (EMR).
`WPSR` = Write protect shadow register.

`g` = Current port processor image. Valid value(s):
`ERROR IMAGE` = The image contained an error.
`NULL IMAGE` = No image was loaded.
`PH3 COMMON IMAGE` = All features on a PH3 were loaded. This image contains both access and gateway.
`PH4 ISDN AP IMAGE` = Image used for PH4 ISDN AP was loaded.
`PH4 ISDN IOP IMAGE` = Image used for PH4 ISDN IOP was loaded.
`PH4 FRPH IOP IMAGE` = Image used for PH4 FRPH IOP was loaded.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CHG:PRNTMODE
OP:HISTORY
```

Output Message(s):

```
REPT:PM-PSUPH
REPT:SM-HC
```

Other Manual(s):
235-100-125 *System Description*
235-105-231 *Hardware Change Procedures*
235-105-331 *Hardware Change Procedures - Degrowth*

REPT:PSUPH-HC-B

Software Release: 5E11 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

[1]

```
REPT PSUPH=a-b-c-d  HARDWARE CONTEXT PP EVENT=e
  68030-REGISTERS:
  D0=f                D1=f               D2=f               D3=f
  D4=f                D5=f               D6=f               D7=f
  A0=f                A1=f               A2=f               A3=f
  A4=f                A5=f               USP=f              MSP=f
  ISP=f               PC=f               SR=f               SFC=f
  DFC=f               TC=f               TT0 =f             TT1=f
  MMUSR=f             HCRP=f             LCRP=f             HSRP=f
  LSRP=f              CACR=f             CAAR=f             VBR=f
  BRICPIT-REGISTERS: IMBR=f
  ESBR=f              RSBR=f             WPSR=f             STKPTR=f
  PB0ESR=f            PB1ESR=f           SPRESR=f           SPTESR=f
  IMAGE=g
```

[2]

```
REPT PSUPH=a-b-c-d  HARDWARE CONTEXT PP EVENT=e
  68040-REGISTERS:
  D0  =f            D1  =f            D2  =f            D3   =f
  D4  =f            D5  =f            D6  =f            D7   =f
  A0  =f            A1  =f            A2  =f            A3   =f
  A4  =f            A5  =f            USP =f            SSP  =f
  PC  =f            SR  =f            TC  =f            MMUSR=f
  ITT0=f            ITT1=f            DTT0=f            DTT1 =f
  SRP =f            CACR=f            EXCEP=f
  BRICPIT-REGISTERS:
  ESBR=f            RSBR=f            ECLR=f
  IMBR=f
  ISRR=f
  PBMAC/VISA-REGISTERS:
  PB0ESR=f          PB1ESR=f          PBMAC/VISA=f      PBMAC/VISA=f
```

2. REASON FOR OUTPUT

To provide the contents of the protocol handler (PH) registers as information for trouble analysis at the time of an interrupt.

Format 1 prints when PH employs M68030 as its processor.

Format 2 prints when PH employs M68040 as its processor.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Unit number.

`c` = Shelf number.

`d` = Slot number.

`e` = Event number.

`f` = Contents of hardware registers, in hexadecimal.

For the M68030/M68040 hardware register, valid values are:

`A0-A5`	= Address registers.
`CAAR`	= Cache address register.
`CACR`	= Cache control register.
`D0-D7`	= Data registers.
`DFC`	= Destination function code register.
`DTT0`	= Data transparent translation 0.
`DTT1`	= Data transparent translation 1.
`EXCEP`	= Exception vector number.
`HCRP`	= High central processing unit (CPU) root pointer register.
`HSRP`	= High supervisor root pointer.
`ISP`	= Interrupt stack pointer.
`ITT0`	= Instruction transparent translation 0.
`ITT1`	= Instruction transparent translation 1.
`LCRP`	= Low CPU root pointer register.
`LSRP`	= Low supervisor root pointer.
`MMUSR`	= Memory management unit (MMU) SR.
`MSP`	= Master stack pointer.
`PC`	= Program counter.
`SFC`	= Source function code register.
`SR`	= Status register.
`SRP`	= Supervisor root pointer register.
`SSP`	= System stack pointer.
`TC`	= Translation control register.
`TT0`	= Transparent translation 0.
`TT1`	= Transparent translation 1.
`USP`	= User stack pointer.
`VBR`	= Vector base register.

For the BRICPIT status register, valid values are:

`ECLR`	= Event configuration level register.
`ESBR`	= Event source bit register.
`IMBR`	= Interrupt mask bit register.
`ISRR`	= Interrupt service request register.
`PB0ESR`	= Packet bus media access control (PBMAC) 0 error source register (ESR).
`PB1ESR`	= PBMAC 1 ESR.
`PB2ESR`	= PBMAC 2 ESR.
`PB3ESR`	= PBMAC 3 ESR.
`RSBR`	= Reset/set bit register.
`SPRESR`	= Shared protocol receiver/transmitter (SPORT) receive ESR.
`SPTESR`	= SPORT transmit ESR.
`STKPTR`	= Stack pointer.

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`VISAESR` = Vocoder interrupt and serial access error source register (ESR).
`VISAEMR` = Vocoder interrupt and serial access error mask register (EMR).
`WPSR` = Write protect shadow register.

`g` = Current port processor image. Valid value(s):
`ERROR IMAGE` = The image contained an error.
`NULL IMAGE` = No image was loaded.
`PH3 CCS IMAGE` = Image used for common channel signaling (CCS) features on a PH3 was loaded.
`PH3 ISDN IMAGE` = Image used for ISDN features on a PH3 was loaded.
`PH4 ISDN AP IMAGE` = Image used for PH4 ISDN AP was loaded.
`PH4 ISDN IOP IMAGE` = Image used for PH4 ISDN IOP was loaded.
`PH4 FRPH IOP IMAGE` = Image used for PH4 FRPH IOP was loaded.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CHG:PRNTMODE
OP:HISTORY
```

Output Message(s):

```
REPT:PM-PSUPH
REPT:SM-HC
```

Other Manual(s):
235-100-125 *System Description*
235-105-231 *Hardware Change Procedures*
235-105-331 *Hardware Change Procedures - Degrowth*

REPT:PSUPH-TCHF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT PSUPH=a-b-c-d TRBL CRITICAL HARDWARE FAILURE EVENT=e
  PHV VOCODER FAILURE RECOVERY ACTION f
  g h i
  j k l m
```

2. REASON FOR OUTPUT

To output a report from a PHV indicating that one of its VOCODER had failed to respond properly to a set of commands.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Packet switching unit (PSU) number.

`c` = PSU shelf number.

`d` = Protocol handler (PH) number.

`e` = Event number.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = No recovery action was taken.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = External circuit name of the implicated circuit.

`h` = Current decimal number of failures of this type recorded.

`i` = Error count threshold.

Note: Variable '`j`' through '`m`' will be reported as hexadecimal data, where each field is 4 digits.

`j` = The number of the faulty PH.

`k` = The channel group assigned to the PH at the time of the error.

`l` = The port name of the channel group member.

`m` = The member number within the channel group.

4. ACTION TO BE TAKEN

No action is necessary if the recovery action (variable '`f`') is "`ANALYSIS ONLY`". If it is "`RST PREEMPT`", automatic diagnostics are run on the PH.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:PSU
RST:PSUPH
```

REPT:PSUPH-TDP-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT PSUPH=a-b-c-d TRBL DF PARITY ERROR e
 f RECOVERY ACTION g
 h i j
[h i j]
 k l m [n] [o p q r
[s t u v w x]
```

2. REASON FOR OUTPUT

To report that a parity error occurred on a packet switching unit (PSU) protocol handler data bus (PHDB).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = PSU number.

`c` = packet switching unit common control (PSUCOM) side.

`d` = PH number.

`e` = Event number.

`f` = Error type. Valid value(s):
`DF PHDB PARITY ERROR` = Parity error was detected on a PHDB between a data fanout (DF) and a protocol handler (PH).
`DF PHDB UNLINKED TIMESLOT FAILURE` = A parity error was detected on a PHDB between a DF and a PH but not enough linkage information was found to determine which PH and channel group the timeslot was assigned to.

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = No recovery action was taken. A post mortem report was printed.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = External logical circuit name of the implicated circuit.

`i` = Current decimal number of failures of this type recorded.

`j` = Decimal error count threshold, at which the recovery action will be taken.

NOTE: An additional circuit name, error count, and error threshold (variables '`h`'-'`j`') may be printed. A Recovery action will be taken only on the first circuit in the list to reach its error threshold. Variables '`k`' through '`x`' will be reported as hexadecimal data, where each field is 4 digits.

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k = The PSU shelf number (left-hand 8 bits) and the timeslot number (right-hand 8 bits).

l = The PH number the parity error occurred on.

m = The packet switching unit time slot block (PTSB) usage number. Valid value(s):

- 0 = Nothing is assigned to the PTSB.
- 1 = Directly connected D channel.
- 2 = PSU cut through D channel part.
- 3 = Integrated switching line unit (ISLU) cut through D channel part.
- 4 = ISLU to time slot interchange unit (TSIU) duplex B channel.
- 5 = ISLU to TSIU simplex B channel.
- 6 = Unavailable due to remote ISLU remoting hardware.
- 7 = Maintenance activity on PTSB.
- 8 = PSU cut through for inter-SM use.
- 9 = Directly connected B-channel.
- A = PSU cut through B-channel.
- B = Duplex B-channel with packet switching service.
- C = PSU cut through on an inter-switch trunk.

n = The DSL group number assigned to the PH at the time the error was taken.

o = The DSL group member number assigned to the first channel.

p = The D-channel status of the first channel in the left-hand 8 bits. Valid value(s):

- 0x00 = D channel idle.
- 0x01 = D channel tear down.
- 0x02 = D channel setup.
- 0x03 = D channel stable.
- 0x04 = D channel not cleared.
- 0x05 = This D-channel is 64 KB.

The state of the first channel in the right-hand 8 bits. Valid value(s):

- 0x00 = Channel is off.
- 0x01 = Channel is on.

q = The DSL group member number assigned to the second channel.

r = The D-channel status of the second channel (left-hand 8 bits). The state of the second channel (right-hand 8 bits). This is similar to variable 'r'.

s = The DSL group member number assigned to the third channel.

t = The D-channel status of the third channel in the left-hand 8 bits. The state of the third channel in the right-hand 8 bits. This is similar to variable 'r'.

u = The DSL group member number assigned to the fourth channel.

v = The D-channel status of the fourth channel in the left-hand 8 bits. The state of the fourth channel in the right-hand 8 bits. This is similar to variable 'r'.

w = The implicated PH image type. Valid value(s):

0	= Null PH image.
1	= PH 2 access image.
2	= PH 2 gateway image.
3	= PH 1 gateway image.
5	= PH 4 attached processor (AP) image.
6	= PH 4 integrated service digital network (ISDN) input output processor (IOP) image.
8	= PH 4 frame relay protocol handler (FRPH) code division multiple access (CDMA) voice IOP image.
9	PH voice (PHV) Non-downloadable digital signal processing (DSP) code division multiple access (CDMA) image.
A	PH for asynchronous transfer mode (ATM) image.

x = The implicated PH hardware type. Valid value(s):

0	= PH 1 hardware.
1	= PH 2 hardware.
2	= PH 3 hardware.
3	= PH 4 hardware.
4	= PHV 1 hardware.
5	= PHV 2 hardware.
6	= PHA 1 hardware.

4. ACTION TO BE TAKEN

If 'g' =	Action: =
ANALYSIS ONLY	No action is necessary.
RST PREEMPT	Automatic diagnostics are run on the PH. If they pass, run the PSUCOM diagnostics using DGN:PSUCOM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:PSU
RST:PSUCOM
```

Output Message(s):

```
REPT:PSUCOM-TDPEP
```

REPT:PSUPH-TDP-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT PSUPH=a-b-c-d TRBL DF PARITY ERROR EVENT=e
 f RECOVERY ACTION g
 h i j
[h i j]
 k l m [n] [o p q r
[s t u v w x]
```

2. REASON FOR OUTPUT

To report that a parity error occurred on a packet switching unit (PSU) protocol handler data bus (PHDB).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = PSU number.

`c` = Packet switching unit common control (PSUCOM) side.

`d` = PH number.

`e` = Event number.

`f` = Error type. Valid value(s):
`DF PHDB PARITY ERROR` = Parity error was detected on a PHDB between a data fanout (DF) and a protocol handler (PH).
`DF2 PHDB PARITY ERROR` = Parity error was detected on a PHDB between a data fanout - version 2 (DF2) and a protocol handler (PH).
`DF PHDB UNLINKED TIMESLOT FAILURE` = A parity error was detected on a PHDB between a DF and a PH but not enough linkage information was found to determine which PH and channel group the timeslot was assigned to.

`g` = Recovery action. Valid value(s)"
`ANALYSIS ONLY` = No recovery action was taken. A postmortem report was printed.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = External logical circuit name of the implicated circuit.

`i` = Current decimal number of failures of this type recorded.

`j` = Decimal error count threshold, at which the recovery action will be taken.

Note: An additional circuit name, error count, and error threshold (variables '`h`'-'`j`') may be printed. A Recovery action will be taken only on the first circuit in the list to reach its error threshold. Variables

'k' through 'x' will be reported as hexadecimal data, where each field is 4 digits.

k = The PSU shelf number (left-hand 8 bits) and the timeslot number (right-hand 8 bits).

l = The PH number the parity error occurred on.

m = The packet switching unit time slot block (PTSB) usage number. Valid value(s):

- 0 = Nothing is assigned to the PTSB.
- 1 = Directly connected D channel.
- 2 = PSU cut through D channel part.
- 3 = Integrated switching line unit (ISLU) cut through D channel part.
- 4 = ISLU to time slot interchange unit (TSIU) duplex B channel.
- 5 = ISLU to TSIU simplex B channel.
- 6 = Unavailable due to remote ISLU remoting hardware.
- 7 = Maintenance activity on PTSB.
- 8 = PSU cut through for inter-SM use.
- 9 = Directly connected B-channel.
- A = PSU cut through B-channel.
- B = Duplex B-channel with packet switching service.
- C = PSU cut through on an inter-switch trunk.

n = The DSL group number assigned to the PH at the time the error was taken.

o = The DSL group member number assigned to the first channel.

p = The D-channel status of the first channel in the left-hand 8 bits. Valid value(s):

- 0x00 = D channel idle.
- 0x01 = D channel tear down.
- 0x02 = D channel setup.
- 0x03 = D channel stable.
- 0x04 = D channel not cleared.
- 0x05 = This D-channel is 64 KB.

The state of the first channel in the right-hand 8 bits. Valid value(s):

- 0x00 = Channel is off.
- 0x01 = Channel is on.

q = The DSL group member number assigned to the second channel.

r = The D-channel status of the second channel (left-hand 8 bits). The state of the second channel (right-hand 8 bits). This is similar to variable 'r'.

s = The DSL group member number assigned to the third channel.

t = The D-channel status of the third channel in the left-hand 8 bits. The state of the third channel in the right-hand 8 bits. This is similar to variable 'r'.

u = The DSL group member number assigned to the fourth channel.

v = The D-channel status of the fourth channel in the left-hand 8 bits. The state of the fourth channel in the right-hand 8 bits. This is similar to variable 'r'.

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w = The implicated PH image type. Valid value(s):

- 0 = Null PH image.
- 1 = PH 2 access image.
- 2 = PH 2 gateway image.
- 3 = PH 3 integrated service digital network (ISDN) common image.
- 4 = PH 3 integrated service digital network (ISDN) input output processor (IOP) image.
- 5 = PH 1 gateway image.
- 7 = PH 3 common channel signalling (CCS) common image.
- 8 = PH 3 CCS IOP image.
- 9 = PH 4 attached processor (AP) image.
- A = PH 4 ISDN IOP image.
- C = PH 4 frame relay protocol handler (FRPH) code division multiple access (CDMA) IOP image.
- D = PH for voice (PHV) 1 non-downloadable digital signal processing (DSP) CDMA image.
- E = PHV 3 downloadable DSP CDMA image.
- F = PHV downloadable DSP with 8K algorithm image.
- 10 = PHV downloadable DSP with 13K algorithm image.
- 11 = PHV downloadable DSP with (EVRC) algorithm image.
- 12 = protocol handler (PH) for asynchronous transfer mode (ATM) (PHA) image.

x = The implicated PH hardware type. Valid value(s):

- 0 = PH 1 hardware.
- 1 = PH 2 hardware.
- 2 = PH 3 hardware.
- 3 = PH 4 hardware.
- 4 = PHV 1 hardware.
- 5 = PHV 2 hardware.
- 6 = PHV 3 hardware.
- 7 = PHA 1 hardware.

4. ACTION TO BE TAKEN

If 'g' =	Action: =
ANALYSIS ONLY	No action is necessary.
RST PREEMPT	Automatic diagnostics are run on the PH. If they pass, run the PSUCOM diagnostics using DGN:PSUCOM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:PSU
RST:PSUCOM
```

Output Message(s):

```
REPT:PSUCOM-TDPEP
```

REPT:PSUPH-TLT-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT PSUPH=a-b-c-d TRBL LOOPBACK TEST FAILURE e
 PH LOOPBACK FAILURE RECOVERY ACTION RST PREEMPT
 f g h
 i j k l m n o p
[q r s]
```

2. REASON FOR OUTPUT

To report that initialization of a D-channel failed or that loss of communication to the D-channel was detected.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Packet switching unit (PSU) number.

c = PSU shelf number.

d = Protocol handler (PH) number.

e = Event number.

f = External circuit name of the implicated circuit.

g = Current decimal number of failures of this type recorded.

h = Error count threshold.

Note: Variables 'i' through 's' will be reported as hexadecimal data, where each field is 4 digits.

i = The circuit name of the unit connected to the PH.

j = The number of the active packet switching unit common controller (PSUCOM) side.

k = The number of the faulty PH.

l = The channel group assigned to the PH at the time of the error.

m = The member number within the channel group.

n = The number representing the circuit type connected to the PH. Valid value(s):
- 0x00 = Connected to a digital facility interface (DFI).
- 0x01 = Connected to a different switch.
- 0x02 = Connected to another PH.
- 0x03 = Connected to a T-card.
- 0x04 = Connected to a U-card.

o = The number of the active integrated services line unit (ISLU).

p = The number of the active ISLU control data (CD).

q = The number of the ISLU line group controller (LGC).

r = The implicated PH image type. Valid value(s):

- 0 = Null PH image.
- 1 = PH 2 access image.
- 2 = PH 2 gateway image.
- 3 = PH 1 gateway image.
- 5 = PH 4 attached processor (AP) image.
- 6 = PH 4 integrated service digital network (ISDN) input output processor (IOP) image.
- 8 = PH 4 frame relay protocol handler (FRPH) code division multiple access (CDMA) voice IOP image.
- 9 PH voice (PHV) Non-downloadable digital signal processing (DSP) code division multiple access (CDMA) image.
- A PH for asynchronous transfer mode (ATM) image.

s = The implicated PH hardware type.

- 0 = PH 1 hardware.
- 1 = PH 2 hardware.
- 2 = PH 3 hardware.
- 3 = PH 4 hardware.
- 4 = PHV 1 hardware.
- 5 = PHV 2 hardware.
- 6 = PHA 1 hardware.

4. ACTION TO BE TAKEN

Automatic diagnostics will be run on the PH. If they pass, run the PSUCOM diagnostics using DGN:PSUCOM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:PSU
RST:PSUCOM
```

REPT:PSUPH-TLT-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT PSUPH=a-b-c-d TRBL LOOPBACK TEST FAILURE e
 PH LOOPBACK FAILURE RECOVERY ACTION RST PREEMPT
 f g h
 i j k l m n o p
[q r s]
```

2. REASON FOR OUTPUT

To report that initialization of a D-channel failed or that loss of communication to the D-channel was detected.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Packet switching unit (PSU) number.

`c` = PSU shelf number.

`d` = Protocol handler (PH) number.

`e` = Event number.

`f` = External circuit name of the implicated circuit.

`g` = Current decimal number of failures of this type recorded.

`h` = Error count threshold.

Note: Variables '`i`' through '`s`' will be reported as hexadecimal data, where each field is 4 digits.

`i` = The circuit name of the unit connected to the PH.

`j` = The number of the active packet switching unit common controller (PSUCOM) side.

`k` = The number of the faulty PH.

`l` = The channel group assigned to the PH at the time of the error.

`m` = The member number within the channel group.

`n` = The number representing the circuit type connected to the PH. Valid value(s):

- `0x00` = Connected to a digital facility interface (DFI).
- `0x01` = Connected to a different switch.
- `0x02` = Connected to another PH.
- `0x03` = Connected to a T-card.
- `0x04` = Connected to a U-card.

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o = The number of the active integrated services line unit (ISLU).

p = The number of the active ISLU control data (CD).

q = The number of the ISLU line group controller (LGC).

r = The implicated PH image type. Valid value(s):

- 0 = Null PH image.
- 1 = PH 2 access image.
- 2 = PH 2 gateway image.
- 3 = PH 3 integrated service digital network (ISDN) common image.
- 4 = PH 3 integrated service digital network (ISDN) input output processor (IOP) image.
- 5 = PH 1 gateway image.
- 7 = PH 3 common channel signalling (CCS) common image.
- 8 = PH 3 CCS IOP image.
- 9 = PH 4 attached processor (AP) image.
- A = PH 4 ISDN IOP image.
- C = PH 4 frame relay protocol handler (FRPH) code division multiple access (CDMA) IOP image.
- D = PH for voice (PHV) 1 non-downloadable digital signal processing (DSP) CDMA image.
- E = PHV 3 downloadable DSP CDMA image.
- F = PHV downloadable DSP with 8K algorithm image.
- 10 = PHV downloadable DSP with 13K algorithm image.
- 11 = PHV downloadable DSP with enhanced variable rate coding (EVRC) algorithm image.
- 12 = protocol handler (PH) for asynchronous transfer mode (ATM) (PHA) image.

s = The implicated PH hardware type. Valid value(s):

- 0 = PH 1 hardware.
- 1 = PH 2 hardware.
- 2 = PH 3 hardware.
- 3 = PH 4 hardware.
- 4 = PHV 1 hardware.
- 5 = PHV 2 hardware.
- 6 = PHV 3 hardware.
- 7 = PHA 1 hardware.

4. ACTION TO BE TAKEN

Automatic diagnostics will be run on the PH. If they pass, run the PSUCOM diagnostics using DGN:PSUCOM.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:PSU
RST:PSUCOM
```

REPT:PSUPH-TPPCL-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT PSUPH=a-b-c-d TRBL PORT PROCESSOR COMMUNICATION LOSS e
  f RECOVERY ACTION RST PREEMPT
  g h i
  j k l m
```

2. REASON FOR OUTPUT

To report the loss of communication from the packet switching unit common controller (PSUCOM) to a protocol handler (PH).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Packet switching unit (PSU) number.

`c` = PSU shelf number.

`d` = PH number.

`e` = Event number.

`f` = Error type. Valid value(s):
`PH DMA PROCESSOR ERROR` = The direct memory access (DMA) processor failed.
`SPARE PH SWITCH FAILURE` = A fault recovery PH switch attempt to a spare PH failed.

`g` = External circuit name of the implicated circuit.

`h` = Current decimal number of failures of this type recorded.

`i` = Error count threshold, above which the recovery action will be escalated.

Note: Variables '`j`' and '`m`' will be reported as hexadecimal data, where each field is 4 digits.

`j` = The PH number.

`k` = The switch return code. Valid value(s):
`0x1` = Pre-switch software error.
`0x2` = Post-switch software error.
`0x3` = Hardware failure on the 'from' PH side.
`0x4` = Hardware failure on the 'to' PH side.
`0x5` = Switch failure.
`0x6` = The new PH failed during the soak interval.
`0x7` = The new active PH failed.

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`l` = The implicated PH image type. Valid value(s):

- `0` = Null PH image.
- `1` = PH 1 gateway image.
- `2` = PH 2 gateway image.
- `3` = PH 2 access image.

`m` = The implicated PH hardware type. Valid value(s):

- `0` = PH 1 hardware.
- `1` = PH 2 hardware.

4. ACTION TO BE TAKEN

Automatic diagnostics are run on the PH. If they pass run the PSUCOM and the MCTSI diagnostics (DGN:PSU and DGN:MCTSI).

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:MCTSI
DGN:PSU
RST:MCTSI
RST:PSUCOM
```

REPT:PSUPH-TPPCL-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT PSUPH=a-b-c-d TRBL PORT PROCESSOR COMMUNICATION LOSS e
  f RECOVERY ACTION RST PREEMPT
  g h i
  j k
```

2. REASON FOR OUTPUT

To report the loss of communication from the packet switching unit common controller (PSUCOM) to a protocol handler (PH).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Packet switching unit (PSU) number.

`c` = PSU shelf number.

`d` = PH number.

`e` = Event number.

`f` = Error type. Valid value(s):
`PH DMA PROCESSOR ERROR` = The direct memory access (DMA) processor failed.
`SPARE PH SWITCH FAILURE` = A fault recovery PH switch attempt to a spare PH failed.

`g` = External circuit name of the implicated circuit.

`h` = Current decimal number of failures of this type recorded.

`i` = Error count threshold.

Note: Variables '`j`' and '`k`' will be reported as hexadecimal data, where each field is 4 digits.

`j` = The PH number.

`k` = The switch return code. Valid value(s):
`0x1` = Pre-switch software error.
`0x2` = Post-switch software error.
`0x3` = Hardware failure on the 'from' PH side.
`0x4` = Hardware failure on the 'to' PH side.
`0x5` = Switch failure.
`0x6` = The new PH failed during the soak interval.
`0x7` = The new active PH failed.

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4. ACTION TO BE TAKEN

Automatic diagnostics are run on the PH. If they pass run the PSUCOM and the MCTSI diagnostics using DGN:PSUCOM and DGN:MCTSI, respectively.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:MCTSI
DGN:PSU
RST:MCTSI
RST:PSUCOM
```

REPT:PSUPH-TPPCL2-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT PSUPH=a-b-c-d TRBL PORT PROCESSOR COMMUNICATION LOSS EVENT=e
 PP LOSS OF LAYER 2 RECOVERY ACTION f
 g h i
 g h i
[g h i]
 j k l m n o p q
 r s t u v w x y
 z a1 b1
```

2. REASON FOR OUTPUT

To report the loss of communication from the switching module processor (SMP) to a port processor (PP). A PP can either be a protocol handler (PH) or a packet interface (PI).

End-to-end (ETE) check messages detect faults from the SMP through the PI on the packet bus to the PHs. Idle link assurance (ILA) messages detect faults between the PI and the PHs through the packet bus.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Packet switching unit (PSU) number.

`c` = packet switching unit common control (PSUCOM) side.

`d` = PH number.

`e` = Event number.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = No recovery action was taken. A postmortem report was printed.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = External circuit name of the implicated circuit.

`h` = Current decimal number of failures of this type recorded.

`i` = Decimal error count threshold, above which the recovery action will be taken.
Note: An additional circuit name, error count, and error threshold (variables '`g`'-'`i`') may be printed. Recovery action will be taken only on the first circuit in the list to reach its error threshold.
Note: Variables '`j`' through 'b^1' will be reported as hexadecimal data, where each field is 4 digits.

`j` = Detection source. Valid value(s):

- `0` = ETE check failure which is a periodic communication check between the SMP and the PPs.
- `1` = ILA failure which ensures layer 2 is up and messages can be sent to the PHs.

`k` = The number of implicated faulty PPs.

`l` = The implicated PH image type. Valid value(s):

- `0` = Null PH image.
- `1` = PH 2 access image.
- `2` = PH 2 gateway image.
- `3` = PH 1 gateway image.
- `5` = PH 4 attached processor (AP) image.
- `6` = PH 4 integrated service digital network (ISDN) input output processor (IOP) image.
- `8` = PH 4 frame relay protocol handler (FRPH) code division multiple access (CDMA) voice IOP image.
- `9` PH voice (PHV) non-downloadable digital signal processing (DSP) code division multiple access (CDMA) image.
- `A` PH for asynchronous transfer mode (ATM) image.

`m` = The implicated PH hardware type. Valid value(s):

- `0` = PH 1 hardware.
- `1` = PH 2 hardware.
- `2` = PH 3 hardware.
- `3` = PH 4 hardware.
- `4` = PHV 1 hardware.
- `5` = PHV 2 hardware.
- `6` = PHA 1 hardware.

`n` = The number of the faulty PP. For ILA failures only. Valid value(s):

- `0xaf00 to 0xaf4f` = PH numbers.
- `0x60` = PI side 0.
- `0x61` = PI side 1.

`o` = For ILA failures, packet bus enable masks for PHs on shelf 0 (15 -> 00).

For ETE failures, bitmap of PHs that a response is expected from on shelf 0 (15 -> 00).

`p` = For ILA failures, packet bus enable masks for PHs on shelf 1 (15 -> 00).

For ETE failures, bitmap of PHs that a response is expected from on shelf 1 (15 -> 00).

`q` = For ILA failures, packet bus enable masks for PHs on shelf 2 (15 -> 00).

For ETE failures, bitmap of PHs that a response is expected from on shelf 2 (15 -> 00).

`r` = For ILA failures, packet bus enable masks for PHs on shelf 3 (15 -> 00).

For ETE failures, bitmap of PHs that a response is expected from on shelf 3 (15 -> 00).

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s = For ILA failures, packet bus enable masks for PHs on shelf 4 (15 -> 00).

For ETE failures, bitmap of PHs that a response is expected from on shelf 4 (15 -> 00).

t = Reserved for future or temporary data.

u = For ETE failures, bitmap of PIs that a response is expected from.

v = For ETE failures, bitmap of PH acknowledgement on shelf 0 (15 -> 00). A zero indicates that the PH did acknowledge. A one indicates that the PH did not acknowledge.

w = For ETE failures, bitmap of PH acknowledgement on shelf 1 (15 -> 00). A zero indicates that the PH did acknowledge. A one indicates that the PH did not acknowledge.

x = For ETE failures, bitmap of PH acknowledgement on shelf 2 (15 -> 00). A zero indicates that the PH did acknowledge. A one indicates that the PH did not acknowledge.

y = For ETE failures, bitmap of PH acknowledgement on shelf 3 (15 -> 00). A zero indicates that the PH did acknowledge. A one indicates that the PH did not acknowledge.

z = For ETE failures, bitmap of PH acknowledgement on shelf 4 (15 -> 00). A zero indicates that the PH did acknowledge. A one indicates that the PH did not acknowledge.

a^1 = Reserved for future or temporary data.

b^1 = For ETE failures, bitmap of PI acknowledgement. A zero indicates that the PI did acknowledge. A one indicates that the PI did not acknowledge.

Note: Fields 't' - 'b^1' are not used for ILA failures. Any data in these fields should be ignored for ILA.

4. ACTION TO BE TAKEN

No action is necessary if the recovery action (variable 'f') is "ANALYSIS ONLY". If it is "RST PREEMPT", automatic diagnostics are run on the PH. If they pass, run the PSUCOM and the MCTSI diagnostics using DGN:PSUCOM and DGN:MCTSI, respectively.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:MCTSI
DGN:PSU
RST:MCTSI
RST:PSUCOM
```

Output Message(s):

```
REPT:MCTSI-TPPC
REPT:PSUCOM-TPPC2
```

REPT:PSUPH-TPPCL2-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT PSUPH=a-b-c-d TRBL PORT PROCESSOR COMMUNICATION LOSS EVENT=e
  PP LOSS OF LAYER 2 RECOVERY ACTION f
  g h i
  g h i
 [g h i]
  j k l m n o p q
  r s t u v w x y
  z a1 b1
```

2. REASON FOR OUTPUT

To report the loss of communication from the switching module processor (SMP) to a port processor (PP). A PP can either be a protocol handler (PH) or a packet interface (PI).

End-to-end (ETE) check messages detect faults from the SMP through the PI on the packet bus to the PHs. Idle link assurance (ILA) messages detect faults between the PI and the PHs through the packet bus.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Packet switching unit (PSU) number.

`c` = Packet switching unit common control (PSUCOM) side.

`d` = PH number.

`e` = Event number.

`f` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = No recovery action was taken. The postmortem report was printed.

`NO RECOVERY ACTION TAKEN` = A PH momentarily lost communication with the Switch Module Processor, but communication was re-established. The PH will not be taken out of service. This was reported for information purposes only.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = External circuit name of the implicated circuit.

`h` = Current decimal number of failures of this type recorded.

`i` = Decimal error count threshold, above which the recovery action will be taken.

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Note: An additional circuit name, error count, and error threshold (variables 'g'-'i') may be printed. Recovery action will be taken only on the first circuit in the list to reach its error threshold.

Note: Variables 'j' through 'b1' will be reported as hexadecimal data, where each field is 4 digits.

j = Detection source. Valid value(s):

0 = ETE check failure which is a periodic communication check between the SMP and the PPs.

1 = ILA failure which ensures layer 2 is up and messages can be sent to the PHs.

k = The number of implicated faulty PPs.

l = The implicated PH image type. Valid value(s):

0 = Null PH image.
1 = PH 2 access image.
2 = PH 2 gateway image.
3 = PH 3 integrated service digital network (ISDN) common image.
4 = PH 3 integrated service digital network (ISDN) input output processor (IOP) image.
5 = PH 1 gateway image.
7 = PH 3 common channel signalling (CCS) common image.
8 = PH 3 CCS IOP image.
9 = PH 4 attached processor (AP) image.
A = PH 4 ISDN IOP image.
C = PH 4 frame relay protocol handler (FRPH) code division multiple access (CDMA) IOP image.
D = PH for voice (PHV) 1 non-downloadable digital signal processing (DSP) CDMA image.
E = PHV 3 downloadable DSP CDMA image.
F = PHV downloadable DSP with 8K algorithm image.
10 = PHV downloadable DSP with 13K algorithm image.
11 = PHV downloadable DSP with enhanced variable rate coding (EVRC) algorithm image.
12 = protocol handler (PH) for asynchronous transfer mode (ATM) (PHA) image.

m = The implicated PH hardware type. Valid value(s):

0 = PH 1 hardware.
1 = PH 2 hardware.
2 = PH 3 hardware.
3 = PH 4 hardware.
4 = PHV 1 hardware.
5 = PHV 2 hardware.
6 = PHV 3 hardware.
7 = PHA 1 hardware.

n = The number of the faulty PP. For ILA failures only. Valid value(s):

`0xaf00 to 0xaf4f` = PH numbers.
`0x60` = PI side 0.
`0x61` = PI side 1.

`o` = For ILA failures: Packet bus enable masks for PHs on shelf 0 (15 through 00).

For ETE failures: Bitmap of PHs that a response is expected from on shelf 0 (15 through 00).

`p` = For ILA failures: Packet bus enable masks for PHs on shelf 1 (15 through 00).

For ETE failures: Bitmap of PHs that a response is expected from on shelf 1 (15 through 00).

`q` = For ILA failures: Packet bus enable masks for PHs on shelf 2 (15 through 00).

For ETE failures: Bitmap of PHs that a response is expected from on shelf 2 (15 through 00).

`r` = For ILA failures: Packet bus enable masks for PHs on shelf 3 (15 through 00).

For ETE failures: Bitmap of PHs that a response is expected from on shelf 3 (15 through 00).

`s` = For ILA failures: Packet bus enable masks for PHs on shelf 4 (15 through 00).

For ETE failures: Bitmap of PHs that a response is expected from on shelf 4 (15 through 00).

`t` = Reserved for future or temporary data.

`u` = For ETE failures: Bitmap of PIs that a response is expected from.

`v` = For ETE failures: Bitmap of PH acknowledgement on shelf 0 (15 through 00). A zero indicates that the PH did acknowledge. A one indicates that the PH did not acknowledge.

`w` = For ETE failures: Bitmap of PH acknowledgement on shelf 1 (15 through 00). A zero indicates that the PH did acknowledge. A one indicates that the PH did not acknowledge.

`x` = For ETE failures: Bitmap of PH acknowledgement on shelf 2 (15 through 00). A zero indicates that the PH did acknowledge. A one indicates that the PH did not acknowledge.

`y` = For ETE failures: Bitmap of PH acknowledgement on shelf 3 (15 through 00). A zero indicates that the PH did acknowledge. A one indicates that the PH did not acknowledge.

`z` = For ETE failures: Bitmap of PH acknowledgement on shelf 4 (15 through 00). A zero indicates that the PH did acknowledge. A one indicates that the PH did not acknowledge.

a^1 = Reserved for future or temporary data.

b^1 = For ETE failures: Bitmap of PI acknowledgement. A zero indicates that the PI did acknowledge. A one indicates that the PI did not acknowledge.

Note: Fields '`t`' - 'b^1' are not used for ILA failures. Any data in these fields should be ignored for ILA.

4. ACTIONS TO BE TAKEN

No action is necessary if the recovery action (variable '`f`') is "`ANALYSIS ONLY`". If it is "`RST PREEMPT`", automatic

diagnostics are run on the PH. If they pass, run the PSUCOM and the MCTSI diagnostics using DGN:PSUCOM and DGN:MCTSI.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:MCTSI
DGN:PSU
RST:MCTSI
RST:PSUCOM
```

Output Message(s):

```
REPT:MCTSI-TPPC
REPT:PSUCOM-TPPC2
```

REPT:PSUPH-TPS-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT PSUPH=a-b-c-d TRBL PSU SERVICE REQUEST e
 f RECOVERY ACTION g
 h i j
 h i j
 k l m n o p q r
 s t u [v]
```

2. REASON FOR OUTPUT

To report a maintenance service request pertaining to a packet switching unit common controller (PSUCOM) protocol handler (PH).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Packet switching unit (PSU) number.

`c` = PSU shelf number.

`d` = PH number.

`e` = Event number.

`f` = Error type. Valid value(s):
`CF ARBITER TIME OUT` = A PH or packet interface (PI) has held the packet bus for more than 4 milliseconds.
`PH FAILURE` = A PH has exceeded its internal error threshold and has asserted its error lead.

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = No recovery action was taken. a postmortem report was printed.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A read-only printer (ROP) message will be printed with the results of the diagnostic.

`h` = External circuit name for the implicated circuit.

`i` = Current decimal number of failures of this type recorded.

`j` = Decimal error count threshold at which a recovery action will be taken.
Note: A recovery action will be taken only on the first circuit in the list to reach its error threshold.
Note: Variables '`k`' through '`v`' will be reported as hexadecimal data, where each field is 4 digits.

`k` = Control fanout (CF) summary scan register. Valid value(s):

`0x1`	= First in, first out (FIFO) B contains information.
`0x2`	= FIFO A contains information.
`0x4`	= Mailbox flags 0 - 3 summary bit.
`0x8`	= Mailbox flags 4 - 7 summary bit.
`0x10`	= Mailbox flags 8 - 11 summary bit.
`0x20`	= Mailbox flags 12 - 15 summary bit.
`0x100`	= Hardware error summary bit.
`0x200`	= Firmware error summary bit.

`l` = CF summary scan mask register. Valid value(s):

`0x1`	= FIFO B contains information.
`0x2`	= FIFO A contains information.
`0x4`	= Mailbox flags 0 - 3 summary bit.
`0x8`	= Mailbox flags 4 - 7 summary bit.
`0x10`	= Mailbox flags 8 - 11 summary bit.
`0x20`	= Mailbox flags 12 - 15 summary bit.
`0x100`	= Hardware error summary bit.
`0x200`	= Firmware error summary bit.

`m` = CF hardware error source register. Valid value(s):

`0x40`	= Local processor (LP) unified control interface (UCI) address error.
`0x80`	= Micro processor (MP) UCI address error.
`0x100`	= FIFO B error.
`0x200`	= FIFO A error.
`0x400`	= FIFO B overflow.
`0x800`	= FIFO B underflow.
`0x1000`	= FIFO A overflow.
`0x2000`	= FIFO A underflow.
`0x4000`	= LP UCI read parity error.
`0x8000`	= MP UCI read parity error.

`n` = CF hardware error source mask register. Valid value(s):

`0x40`	= Mask LP UCI address error.
`0x80`	= Mask MP UCI address error.
`0x100`	= Mask FIFO B error.
`0x200`	= Mask FIFO A error.
`0x400`	= Mask FIFO B overflow.
`0x800`	= Mask FIFO B underflow.
`0x1000`	= Mask FIFO A overflow.
`0x2000`	= Mask FIFO A underflow.
`0x4000`	= Mask LP UCI read parity error.
`0x8000`	= Mask MP UCI read parity error.

`o` = CF LP hardware error source mask register. Valid value(s):

`0x40`	= Mask LP UCI address error.
`0x80`	= Mask MP UCI address error.
`0x100`	= Mask FIFO B error.
`0x200`	= Mask FIFO A error.

0x400	= Mask FIFO B overflow.
0x800	= Mask FIFO B underflow.
0x1000	= Mask FIFO A overflow.
0x2000	= Mask FIFO A underflow.
0x4000	= Mask LP UCI read parity error.
0x8000	= Mask MP UCI read parity error.

p = CF firmware error source register. Valid value(s):

0x1	= Arbiter errors.
0x2	= Control interconnect bus (CIB) errors.
0x4	= Protocol handler (PH) errors.
0x8	= Data fanout (DF) parity.
0x10	= DF timing.
0x20	= Invalid input message.

q = CF firmware error source mask register. Valid value(s):

0x1	= Mask arbiter errors.
0x2	= Mask CIB errors.
0x4	= Mask PH errors.
0x8	= Mask DF parity.
0x10	= Mask DF timing.
0x20	= Mask invalid input message.

r = Internal circuit name in which first error was found.

s = Error detection source: Zero for CF, one for DF, two for PF.

t = The implicated PH image type. Valid value(s):

0	= Null PH image.
1	= PH 2 access image.
2	= PH 2 gateway image.
3	= PH 1 gateway image.
5	= PH 4 attached processor (AP) image.
6	= PH 4 integrated service digital network (ISDN) input output processor (IOP) image.
8	= PH 4 frame relay protocol handler (FRPH) code division multiple access (CDMA) voice IOP image.
9	PH voice (PHV) non-downloadable digital signal processing (DSP) code division multiple access (CDMA) image.
A	PH for asynchronous transfer mode (ATM) image.

u = The implicated PH hardware type. Valid value(s):

0	= PH 1 hardware.
1	= PH 2 hardware.
2	= PH 3 hardware.
3	= PH 4 hardware.
4	= PHV 1 hardware.
5	= PHV 2 hardware.
6	= PHA 1 hardware.

`v` = DF timing error mailbox. Valid value(s):

- `0x100` = DF incoming clock failure.
- `0x200` = DF incoming synchronous failure.
- `0x300` = DF walking parity counter overflow.

4. ACTION TO BE TAKEN

No action is necessary if the recovery action (variable '`g`') is "`ANALYSIS ONLY`." If it is "`RST PREEMPT`," automatic diagnostics are run on the PSUCOM. If they pass, run the PH diagnostics using DGN:PSUPH.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:PSU
RST:PSUCOM
```

REPT:PSUPH-TPS-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT PSUPH=a-b-c-d TRBL PSU SERVICE REQUEST e
  f RECOVERY ACTION g
  h i j
  h i j
  k l m n o p q r
  s t u [v]
```

2. REASON FOR OUTPUT

To report a maintenance service request pertaining to a packet switching unit common controller (PSUCOM) protocol handler (PH).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Packet switching unit (PSU) number.

`c` = PSU shelf number.

`d` = PH number.

`e` = Event number.

`f` = Error type. Valid value(s):
`CF ARBITER TIME OUT` = A PH or packet interface (PI) has held the packet bus for more than 4 milliseconds.
`PH FAILURE` = A PH has exceeded its internal error threshold and has asserted its error lead.

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = No recovery action was taken. The postmortem report was printed.
`NO RECOVERY ACTION TAKEN` = The PH raised its error lead, but when checked by the SMP, was found to be functioning normally. Hence, no recovery action was taken. This was reported for information purposes only.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A read-only printer (ROP) message will be printed with the results of the diagnostic.

`h` = External circuit name for the implicated circuit.

`i` = Current decimal number of failures of this type recorded.

`j` = Decimal error count threshold at which a recovery action will be taken.

Note: A recovery action will be taken only on the first circuit in the list to reach its error threshold.

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Note: Variables '`k`' through '`v`' will be reported as hexadecimal data, where each field is 4 digits.

`k` = Control fanout (CF) summary scan register. Valid value(s):

`0x1`	= First in, first out (FIFO) B contains information.
`0x2`	= FIFO A contains information.
`0x4`	= Mailbox flags 0 - 3 summary bit.
`0x8`	= Mailbox flags 4 - 7 summary bit.
`0x10`	= Mailbox flags 8 - 11 summary bit.
`0x20`	= Mailbox flags 12 - 15 summary bit.
`0x100`	= Hardware error summary bit.
`0x200`	= Firmware error summary bit.

`l` = CF summary scan mask register. Valid value(s):

`0x1`	= FIFO B contains information.
`0x2`	= FIFO A contains information.
`0x4`	= Mailbox flags 0 - 3 summary bit.
`0x8`	= Mailbox flags 4 - 7 summary bit.
`0x10`	= Mailbox flags 8 - 11 summary bit.
`0x20`	= Mailbox flags 12 - 15 summary bit.
`0x100`	= Hardware error summary bit.
`0x200`	= Firmware error summary bit.

`m` = CF hardware error source register. Valid value(s):

`0x40`	= Local processor (LP) unified control interface (UCI) address error.
`0x80`	= Micro processor (MP) UCI address error.
`0x100`	= FIFO B error.
`0x200`	= FIFO A error.
`0x400`	= FIFO B overflow.
`0x800`	= FIFO B underflow.
`0x1000`	= FIFO A overflow.
`0x2000`	= FIFO A underflow.
`0x4000`	= LP UCI read parity error.
`0x8000`	= MP UCI read parity error.

`n` = CF hardware error source mask register. Valid value(s):

`0x40`	= Mask LP UCI address error.
`0x80`	= Mask MP UCI address error.
`0x100`	= Mask FIFO B error.
`0x200`	= Mask FIFO A error.
`0x400`	= Mask FIFO B overflow.
`0x800`	= Mask FIFO B underflow.
`0x1000`	= Mask FIFO A overflow.
`0x2000`	= Mask FIFO A underflow.
`0x4000`	= Mask LP UCI read parity error.
`0x8000`	= Mask MP UCI read parity error.

`o` = CF LP hardware error source mask register. Valid value(s):

0x40	= Mask LP UCI address error.
0x80	= Mask MP UCI address error.
0x100	= Mask FIFO B error.
0x200	= Mask FIFO A error.
0x400	= Mask FIFO B overflow.
0x800	= Mask FIFO B underflow.
0x1000	= Mask FIFO A overflow.
0x2000	= Mask FIFO A underflow.
0x4000	= Mask LP UCI read parity error.
0x8000	= Mask MP UCI read parity error.

p = CF firmware error source register. Valid value(s):

0x1	= Arbiter errors.
0x2	= Control interconnect bus (CIB) errors.
0x4	= Protocol handler (PH) errors.
0x8	= Data Fanout (DF) parity.
0x10	= DF timing.
0x20	= Invalid command.

q = CF firmware error source mask register. Valid value(s):

0x1	= Mask arbiter errors.
0x2	= Mask CIB errors.
0x4	= Mask PH errors.
0x8	= Mask DF parity.
0x10	= Mask DF timing.
0x20	= Mask invalid command.

r = Internal circuit name in which first error was found.

s = Error detection source: Zero for CF, one for DF, two for PF.

t = The implicated PH image type. Valid value(s):

0	= Null PH image.
1	= PH 2 access image.
2	= PH 2 gateway image.
3	= PH 3 integrated service digital network (ISDN) common image.
4	= PH 3 integrated service digital network (ISDN) input output processor (IOP) image.
5	= PH 1 gateway image.
7	= PH 3 common channel signalling (CCS) common image.
8	= PH 3 CCS IOP image.
9	= PH 4 attached processor (AP) image.
A	= PH 4 ISDN IOP image.
C	= PH 4 frame relay protocol handler (FRPH) code division multiple access (CDMA) IOP image.
D	= PH for voice (PHV) 1 non-downloadable digital signal processing (DSP) CDMA image.
E	= PHV 3 downloadable DSP CDMA image.
F	= PHV downloadable DSP with 8K algorithm image.
10	= PHV downloadable DSP with 13K algorithm image.

	11	= PHV downloadable DSP with enhanced variable rate coding (EVRC) algorithm image.
	12	= protocol handler (PH) for asynchronous transfer mode (ATM) (PHA) image.
u	= The implicated PH hardware type. Valid value(s):	
	0	= PH 1 hardware.
	1	= PH 2 hardware.
	2	= PH 3 hardware.
	3	= PH 4 hardware.
	4	= PHV 1 hardware.
	5	= PHV 2 hardware.
	6	= PHV 3 hardware.
	7	= PHA 1 hardware.
v	= DF timing error mailbox. Valid value(s):	
	0x100	= DF incoming clock failure.
	0x200	= DF incoming synchronous failure.
	0x300	= DF walking parity counter overflow.

4. ACTIONS TO BE TAKEN

No action is necessary if the recovery action (variable 'g') is "ANALYSIS ONLY." If it is "RST PREEMPT," automatic diagnostics are run on the PSUCOM. If they pass, run the PH diagnostics using DGN:PSUPH.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:PSU
RST:PSUCOM
```

REPT:PSUSHELF-TPE

Software Release: 5E12 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT PSUSHELF=a-b-c-d TRBL PLI ERROR EVENT=e
  f RECOVERY ACTION g

  PSUSHELF=a-b-c-d  h  i
  jjjjjjjj kkkkkkkk llllmmmm nnnnoooo pppppppp pppppppp pppppppp pppppppp
  pppppppp pppppppp
```

2. REASON FOR OUTPUT

To indicate an error reported by fault recovery within the switching module (SM) caused by failure of the Peripheral Link Interface (PLI) which services the Data Fanout 2 (DF2) board on the Packet Switch Unit (PSU) Shelf. The fault was detected and reported by module control unit fault recovery (MCUFR). The message indicates what recovery action was taken and gives the current fault counts against the circuit specified in the message. Refer to field '`g`' to determine the fault recovery action.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Packet Switch Unit (PSU) number.

`c` = PSU Common Control (PSUCOM) service group.

`d` = Shelf number.

`e` = Event number.

`f` = Error type. Valid value(s):

`IF CRC ERR ON DATA RECEIVED FROM PLI` =The Module Controller (MCTSI) has detected a CRC error on the data received from the PLI servicing the PSUCOM Shelf.

`IF LOSS OF CLOCK FROM THE PLI` =The MCTSI has lost the 8Khz data clock signal from the PLI servicing the PSUCOM Shelf.

`IF LOSS OF CLOCK REFERENCE` = The MCTSI detected a loss of clock reference on the PLI servicing the PSUCOM Shelf.

`IF PAR ERR ON OVERHEAD BYTES FROM PLI` = The MCTSI has detected bad parity on the 64 byte/frame overhead channel on the PLI servicing the PSUCOM Shelf.

`IF SYNCHRONIZATION ERROR WITH PLI` = The MCTSI has lost the 30msec synchronization pulse from the PLI servicing the PSUCOM Shelf.

`NO ERROR SOURCE FOUND` = A message was sent to peripheral fault recovery (PFR) software indicating a PLI fault is present. However, PFR software analysis revealed no such fault indication.

`PLI BAD FRAME WORD ON INCOMING LINK` = A bad frame word has been detected on the incoming data stream from the PLI servicing the PSUCOM Shelf.

`PLI BAD PARITY INCOM OVERHEAD BYTES` =The PLI servicing the PSUCOM Shelf has detected bad parity on the 64 byte/frame overhead channel received from the TSI.

`PLI BAD SUPERFRAME ON INCOMING LINK` = A bad superframe byte has been detected on the

incoming data stream of the PLI servicing the PSUCOM Shelf.

`PLI DETECTED BAD CRC FROM ACTIVE MCTSI` = CRC errors have been detected at the PLI servicing the PSUCOM Shelf on the data received from the active MCTSI.

`PLI IMPLICATED BY BACKGROUND CHECK` = The PLI servicing the PSUCOM Shelf has been declared faulty because the background select check function has determined that it is either taking control from the standby MCTSI service group or has been programmed incorrectly to prevent taking control from the standby MCTSI.

`PLI INTERNAL DATA PARITY ERROR` = The PLI servicing the PSUCOM Shelf has detected an internal parity error on the data it received correctly from the active MCTSI.

`PLI IS SOURCING BAD CRC` = The PLI servicing the PSUCOM Shelf has detected it is sourcing bad CRC.

`PLI LINK TO BE OUT-OF-FRAME` = The incoming PLI has detected the PCTLNK connected with the PSUCOM Shelf has been out-of-frame for at least four consecutive frames.

`PLI OUTGOING BUFFER CHECK ERROR` = The PLI servicing the PSUCOM Shelf has detected that the data it received correctly from the active MCTSI is failing buffer checks because of an internal PLI fault.

`PLI PARITY ERRORS ON DATA FROM DF` = The PLI servicing the PSUCOM Shelf has detected parity errors on the data received from the PSUCOM Shelf.

`g` = Recovery Action. Valid values are:

`REMOVE` = The failing circuit was removed. A RMV:PSUSHELF COMPLETED output message will be printed. There are no PSU shelf diagnostics.

`h` = Current decimal number of errors of type in field 'f' recorded.

`i` = Decimal error count threshold where recovery action will be taken.

`j` = IF error source register data.

`k` = IF error mask register data at time of error.

`l` = PLI error source register.

`m` = PLI error source mask register.

`n` = PSUCOM Shelf internal message type.

`o` = Number of PLI fault messages sent from MCUFR to peripheral fault recovery. These messages are printed in field '`o`'.

`p` = Up to six PLI fault messages sent from MCUFR to peripheral fault recovery may be printed. Each PLI fault message consists of eight hexadecimal characters.

4. ACTION TO BE TAKEN

If '`g`' =	Action:
`REMOVE`	There are no diagnostics on the PSUCOM shelf. To restore the shelf to service, the Out of Service PSUCOM service group has to be restored, and the shelf will then automatically restore.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RST:PSUCOM
```

Output Message(s):

```
REPT:PSUCOM-TPE
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:PSUSHELF-TPP

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT PSUSHELF=a-b-c-d TRBL PORT PROCESSOR COMMUNICATION LOSS EVENT=e
  PH LOSS OF LAYER 2 RECOVERY ACTION f
  g h i
  j k l
```

2. REASON FOR OUTPUT

To reports the loss of communication from the switching module processor (SMP) to a port processor (PP). A PP can either be a protocol handler (PH) or a packet interface (PI).

3. VARIABLE FIELD DEFINITIONS

`a` = switching module (SM) number.

`b` = packet switch unit (PSU) number.

`c` = PSUCOM side.

`d` = Shelf number.

`e` = Event number.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = No recovery action was taken. A postmortem report is printed.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A report prints with the results of the diagnostic.

`g` = External circuit name of the implicated circuit.
Note: An additional circuit name, error count (variable '`i5`'), and error threshold (variable '`j5`') may be printed. Recovery action is taken only on the first circuit in the list to reach its error threshold.

`h` = Current decimal number of failures of this type recorded.

`i` = Decimal error count threshold, above which the recovery action is taken.

`j` = A 4-digit hexadecimal representing indicated detection source. Valid value(s):
`0` = ETE check failure which is a periodic communication check between the SMP and the PPs.
`1` = ILA failure which ensures layer 2 is up and messages can be sent to the PHs.

`k` = A 4-digit hexadecimal representing the number of implicated faulty PPs.

Additional PP numbers (variable '`l5`') may be printed up to a maximum of 17. This depends on the

number of implicated PPs in variable '`k5`'.

`l` = A 4-digit hexadecimal representing the number of the faulty PP. Valid value(s):

`0 - 4f`	= PH numbers.
`60`	= PI side 0.
`61`	= PI side 1.

4. ACTION TO BE TAKEN

No action is necessary if the recovery action is `ANALYSIS ONLY`. If it is `RST PREEMPT`, automatic diagnostics are run on the PSUCOM. If they pass, run the module controller/time slot interchange (MCTSI) and the PH diagnostics, using DGN:MCTSI and DGN:PSUPH, respectively.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:MCTSI
DGN:PSU
RST:MCTSI
RST:PSUCOM
```

REPT:PSUSHELF-TPS-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT PSUSHELF=a-b-c-d TRBL PSU SERVICE REQUEST EVENT=e
        DF CUTTHRU PIDB PARITY ERROR RECOVERY ACTION g
        h i j

[2]   ____________________________________________________________________
      REPT PSUSHELF=a-b-c-d TRBL PSU SERVICE REQUEST EVENT=e
        f RECOVERY ACTION g
        h i j
       [kkll mmnn . . .]

[3]   ____________________________________________________________________
      REPT PSUSHELF=a-b-c-d TRBL PSU SERVICE REQUEST EVENT=e
        DF ILLEGAL DPIDB FAILURE RECOVERY ACTION g
        h i j
       [kkkk] [oooo]

[4]   ____________________________________________________________________
      REPT PSUSHELF=a-b-c-d TRBL PSU SERVICE REQUEST EVENT=e
        f RECOVERY ACTION g
        h i j
       [.  .  .]
       [.  .  .]
       [.  .  .]
       [kknn pppp qqqq rrrr ssss tttt uuuu vvww]
       [xxxx yyzz a1a1a1a1 b1b1c1c1 n1n1n1n1  o1o1o1o1]

[5]   ____________________________________________________________________
      REPT PSUSHELF=a-b-c-d TRBL PSU SERVICE REQUEST EVENT=e
        f RECOVERY ACTION g
        h i j
       [d1d1d1d1 e1e1e1e1 f1f1f1f1 g1g1g1g1 h1h1h1h1 i1i1i1i1 j1j1j1j1 k1k1k1k1]
       [l1l1l1l1 m1m1m1m1 n1n1n1n1  o1o1o1o1]
```

2. REASON FOR OUTPUT

To report a maintenance service request pertaining to a shelf of a packet switch unit common controller (PSUCOM).

Format [1] reports a parity error occurred on a shelf of a packet switch unit (PSU) peripheral interface data bus (PIDB) to the time slot interchange (TSI).

Format [2] reports a parity error occurred on a shelf of a PSU directly connected peripheral interface data bus (DPIDB) serving an integrated services line unit (ISLU) or an unknown unit.

Format [3] reports a parity error occurred on a faulty shelf of a PSU DPIDB that is not in use.

Format [4] reports a parity error occurred on a shelf of a packet switch unit protocol handler (PSUPH) data bus.

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Format [5] reports all other errors occurred on a shelf of a PSUCOM.

3. VARIABLE FIELD DEFINITIONS

`a` = switching module (SM) number.

`b` = packet switch unit (PSU) number.

`c` = PSUCOM side.

`d` = Shelf number.

`e` = Event number.

`f` = Error type. Valid value(s):

`CF INVALID ERR REPORT FROM SHELF` = The control fanout (CF) received an error report from a data fanout (DF) or packet fanout (PF) that it could not recognize.

`CF SHELF OUT OF RANGE` = A message from the switching module processor (SMP) could not be processed by the CF because it specified an out-of-range shelf number.

`CF TIMEOUT WAITING FOR RESPONSE` = The CF timed out waiting for a response to a message it sent to a DF or PF.

`DF CLOCK FAILURE` = A DF detected a 4 MHz clock failure.

`DF DPIDB PARITY ERROR` = Parity error was detected on a data fanout (DF) PIDB which is directly connected to an ISLU control data (CD).

`DF DPIDB UNLINKED TIMESLOT` = A parity error was detected on a DF PIDB, but there was not enough linkage information found to determine which protocol handler (PH) and channel group the time slot was assigned to.

`DF INTERNAL PARITY ERROR` = A parity error occurred internally in DF hardware.

`DF PARITY COUNTER OVERFLOW` = A DF detected an overflow of the counter used to generate walking parity. It indicates a DF timing problem.

`DF PHDB PARITY ERROR` = A parity error was detected on a protocol handler data bus (PHDB) between a data fanout (DF) and a protocol handler (PH).

`DF PHDB UNLINKED TIMESLOT FAILURE` = A parity error was detected on a PHDB between a DF and a PH but not enough linkage information was found to determine which PH and channel group the time-slot was assigned to.

`DF SYNCH FAILURE` = A DF detected an 8 MHz synchronization failure.

`DF TSI ACCESS CHIP ACCESS PARITY` = A parity error occurred when attempting to access the DF time slot interchanger (TSI) chip.

`NO ERROR SOURCE FOUND` = A service request was received by PSU fault recovery, but no error source bits were set to indicate the exact source of the error.

`PH FAILURE` = A PH has exceeded its internal error threshold and has asserted its error lead. The error lead is asserted to notify PSU fault recovery that the PH is faulty.

`SHELF CIB BREAK RECEIVED` = A break signal was received from a DF or PF. This indicates that the DF of PF has had a serious error such as loss of control interconnect bus (CIB) clock, loss of board clock, or pack removal.

`SHELF CIB CHECKFAIL` = A diagnostic message was sent to a shelf but no response was received.

`SHELF CIB FRAMING ERROR` = A framing error was detected on a CIB between a CF and a DF or PF. This occurs when a start code is detected on a CIB, but no stop code is received to end the frame which contains a message or response.

`SHELF CIB OVERRUN ERROR` = Too many messages or responses were received on a CF, DF or PF indicating that some may have been lost.

`SHELF CIB PARITY FAIL` = A parity error occurred on a CIB between the CF and a DF or PF.

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SHELF RECEIVED INVALID COMMAND = A DF or PF received an invalid message from the CF.

g = Recovery action. Valid value(s):
ANALYSIS ONLY = No recovery action was taken. A postmortem report was printed.
RST PREEMPT = The failing circuit was preempted and a diagnostic was scheduled. A report prints with the results of the diagnostic.

h = External logical circuit name of the implicated circuit.
Note: Additional circuit names, error counts (variables 'i'), and error thresholds (variables 'j') may be printed. A recovery action is taken only on the first circuit in the list to reach its error threshold.

i = Current decimal number of failures of this type recorded.

j = Decimal error count threshold, at which the recovery action is taken.

k = The PSU shelf number. (hexadecimal)

l = The PICB number the DPIDB is connected to. (hexadecimal)

m = The implicated DPIDB number. (hexadecimal)

n = The time slot number. (hexadecimal)

o The input-output (IO) of the implicated DPIDB. (hexadecimal) Valid value are:
1 = DPIDB 0
2 = DPIDB 1
3 = DPIDB 2
4 = DPIDB 3
5 = DPIDB 4
6 = DPIDB 5
7 = DPIDB 6
8 = DPIDB 7

p = The PH number the parity error occurred on. (hexadecimal)

q = The PSU time slot block usage number. (hexadecimal) Valid value(s):
0 = Nothing is assigned to the PTSB.
1 = Directly connected D-channel.
2 = PSU cut through D-channel part.
3 = Integrated switching line unit (ISLU) cut through D channel part.
4 = ISLU to time slot interchange unit (TSIU) duplex B-channel.
6 = Unavailable due to remote ISLU remoting hardware.
7 = Maintenance activity on PTSB.
8 = PSU cut through for inter-SM use.
9 = Directly connected B-channel.
A = PSU cut through B-channel.
B = Duplex B-channel with packet switching service.
C = PSU cut through on an inter-switch trunk.

r = The DSL group number assigned to the PH at the time the error was taken. (hexadecimal)

s = The DSL group member number assigned to the first channel. (hexadecimal)

t = The D-channel status of the first channel. (hexadecimal) Valid value(s):

- 0 = D channel idle.
- 1 = D channel tear down.
- 2 = D channel setup.
- 3 = D channel stable.
- 4 = D channel not cleared.
- 5 = This D channel is 64KB.

The enable of the first channel in the right-hand 8 bits:

- 0 = Channel is off.
- 1 = Channel is on.

u = The DSL group member number assigned to the second channel. (hexadecimal)

v = the D-channel status of the second channel. (hexadecimal)

w = The state of the second channel. (hexadecimal)

x = The DSL group member number assigned to the third channel. (hexadecimal)

y = the D-channel status of the third channel. (hexadecimal)

z The state of the third channel. (hexadecimal)

a1 = The DSL group member number assigned to the fourth channel. (hexadecimal)

b1 = The D-channel status of the fourth channel. (hexadecimal)

c1 = The state of the fourth channel. (hexadecimal)

d1 = The CF summary scan register. (hexadecimal) Valid value(s):

- 1 = First in, first out (FIFO) B contains information.
- 2 = FIFO A contains information.
- 4 = Mailbox flags 0-3 summary bit.
- 8 = Mailbox flags 4-7 summary bit.
- 10 = Mailbox flags 8-11 summary bit.
- 20 = Mailbox flags 12-15 summary bit.
- 100 = Hardware error summary bit.
- 200 = Firmware error summary bit.

e1 = The CF summary scan mask register. (hexadecimal) Valid value(s):

- 1 = Mask FIFO B contains information.
- 2 = Mask FIFO A contains information.
- 4 = Mask mailbox flags 0-3 summary bit.
- 8 = Mask mailbox flags 4-7 summary bit.
- 10 = Mask mailbox flags 8-11 summary bit.
- 20 = Mask mailbox flags 12-15 summary bit.
- 100 = Mask hardware error summary bit.

200 = Mask firmware error summary bit.

f1 = The CF hardware error source register. (hexadecimal) Valid value(s):
- 40 = local processor (LP) UCI address error.
- 80 = micro processor (MP) UCI address error.
- 100 = FIFO B error.
- 200 = FIFO A error.
- 400 = FIFO B overflow.
- 800 = FIFO B underflow.
- 1000 = FIFO A overflow.
- 2000 = FIFO A underflow.
- 4000 = LP UCI read parity error.
- 8000 = MP UCI read parity error.

g1 = The CF hardware error source mask register. (hexadecimal) Valid value(s):
- 40 = Mask LP UCI address error.
- 80 = Mask MP UCI address error.
- 100 = Mask FIFO B error.
- 200 = Mask FIFO A error.
- 400 = Mask FIFO B overflow.
- 800 = Mask FIFO B underflow.
- 1000 = Mask FIFO A overflow.
- 2000 = Mask FIFO A underflow.
- 4000 = Mask LP UCI read parity error.
- 8000 = Mask MP UCI read parity error.

h1 = The CF LP hardware error source mask register. (hexadecimal) Valid value(s):
- 40 = Mask LP UCI address error.
- 80 = Mask MP UCI address error.
- 100 = Mask FIFO B error.
- 200 = Mask FIFO A error.
- 400 = Mask FIFO B overflow.
- 800 = Mask FIFO B underflow.
- 1000 = Mask FIFO A overflow.
- 2000 = Mask FIFO A underflow.
- 4000 = Mask LP UCI read parity error.
- 8000 = Mask MP UCI read parity error.

i1 = The CF firmware error source register. (hexadecimal) Valid value(s):
- 1 = Arbiter errors.
- 2 = CIB errors.
- 4 = PH errors.
- 8 = DF parity.
- 10 = DF timing.
- 20 = Invalid command.

j1 = The CF firmware error source mask register. (hexadecimal)
- 1 = Mask arbiter errors.

2 = Mask CIB errors.
4 = Mask PH errors.
8 = Mask DF parity.
10 = Mask DF timing.
20 = Mask invalid command.

k1 = The internal circuit name in which first error was found. (hexadecimal)

l1 = The error detection source. (hexadecimal) Valid value(s):
0 = CF.
1 = DF.
2 = PF.

m1 = The DF timing error mailbox. (hexadecimal)

n1 = The implicated PH image type. Valid value(s):
0 = Null PH image.
1 = PH 2 Access image.
2 = PH 2 gateway image.
3 = PH 1 gateway image.
5 = PH 4 attached processor (AP) image.
6 = PH 4 integrated service digital network (ISDN) input output processor (IOP) image.
8 = PH 4 frame relay protocol handler (FRPH) code division multiple access (CDMA) voice IOP image.
9 PH Voice (PHV) Non-downloadable digital signal processing (DSP) code division multiple access (CDMA) image.
A Protocol handler (PH) for asynchronous transfer mode (ATM) (PHA) image.

o1 = The implicated PH hardware type. Valid value(s):
0 = PH 1 hardware.
1 = PH 2 hardware.
2 = PH 3 hardware.
3 = PH 4 hardware.
4 = PHV 1 hardware.
5 = PHV 2 hardware.
6 = PHA 1 hardware.

4. ACTION TO BE TAKEN

No action is necessary if the recovery action is `ANALYSIS ONLY`. If it is `RST PREEMPT`, automatic diagnostics are run on the PSUCOM. If they pass, run the module controller/time slot interchange (MCTSI) and the PH diagnostics, using DGN:MCTSI and DGN:PSUPH, respectively.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:MCTSI
DGN:PSU
RST:MCTSI
RST:PSUCOM
```

REPT:PSUSHELF-TPS-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT PSUSHELF=a-b-c-d TRBL PSU SERVICE REQUEST EVENT=e
        DF CUTTHRU PIDB PARITY ERROR RECOVERY ACTION g
        h1 i1 j1

[2]   ____________________________________________________________________
      REPT PSUSHELF=a-b-c-d TRBL PSU SERVICE REQUEST EVENT=e
        f2 RECOVERY ACTION g
        h2 i2 j2
       [k2 l2 . . .]

[3]   ____________________________________________________________________
      REPT PSUSHELF=a-b-c-d TRBL PSU SERVICE REQUEST EVENT=e
        DF ILLEGAL DPIDB FAILURE RECOVERY ACTION g
        h3 i3 j3
       [k3] [l3]

[4]   ____________________________________________________________________
      REPT PSUSHELF=a-b-c-d TRBL DF PARITY ERROR EVENT=e
        f4 RECOVERY ACTION g
        h4 i4 j4
       [.  .  .]
       [.  .  .]
       [.  .  .]
       [k4 l4 m4 n4 o4 p4 q4 r4]
       [s4 t4 u4 v4 w  x]

[5]   ____________________________________________________________________
      REPT PSUSHELF=a-b-c-d TRBL PSU SERVICE REQUEST EVENT=e
        f5 RECOVERY ACTION g
        h5 i5 j5
       [k5 l5 m5 n5 o5 p5 q5 r5]
       [s5 t5 w  x]
```

2. REASON FOR OUTPUT

To report a maintenance service request pertaining to a shelf of a packet switch unit common controller (PSUCOM).

Format [1] reports a parity error occurred on a shelf of a packet switch unit (PSU) peripheral interface data bus (PIDB) to the time slot interchange (TSI).

Format [2] reports a parity error occurred on a shelf of a PSU directly connected peripheral interface data bus (DPIDB) serving an integrated services line unit (ISLU) or an unknown unit.

Format [3] reports a parity error occurred on a faulty shelf of a PSU DPIDB that is not in use.

Format [4] reports a parity error occurred on a shelf of a packet switch unit protocol handler data bus (PHDB).

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Format [5] reports all other errors occurred on a shelf of a PSUCOM.

3. VARIABLE FIELD DEFINITIONS

`a` = switching module (SM) number.

`b` = packet switch unit (PSU) number.

`c` = PSUCOM side.

`d` = Shelf number.

`e` = Event number.

`f2` = DF DPIDB error type. Valid value(s):

`DF DPIDB PARITY ERROR` = Parity error was detected on a data fanout (DF) PIDB which is directly connected to an ISLU control data (CD).

`DF DPIDB UNLINKED TIMESLOT` = A parity error was detected on a DF PIDB, but there was not enough linkage information found to determine which protocol handler (PH) and channel group the time slot was assigned to.

`f4` = DF PHDB error type. Valid value(s):

`DF PHDB PARITY ERROR` = A parity error was detected on a protocol handler data bus (PHDB) between a data fanout (DF) and a protocol handler (PH).

`DF2 PHDB PARITY ERROR` = A parity error was detected on a protocol handler data bus (PHDB) between a data fanout - version 2 (DF2) and a protocol handler (PH).

`DF-MCTSI LINK PARITY ERROR` = A parity error was detected on the link connecting the DF to the module control time slot interchange (MCTSI).

`DF PHDB UNLINKED TIMESLOT FAILURE` = A parity error was detected on a PHDB between a DF and a PH but not enough linkage information was found to determine which PH and channel group the time-slot was assigned to.

`f5` = Error type. Valid value(s):

`CF INVALID ERR REPORT FROM SHELF` = The control fanout (CF) received an error report from a data fanout (DF) or packet fanout (PF) that it could not recognize.

`CF SHELF OUT OF RANGE` = A message from the switching module processor (SMP) could not be processed by the CF because it specified an out-of-range shelf number.

`CF TIMEOUT WAITING FOR RESPONSE` = The CF timed out waiting for a response to a message it sent to a DF or PF.

`DF CLOCK FAILURE` = A DF detected a 4 MHz clock failure.

`DF MATE CLOCK FAILURE` = A DF detected an error from its mate's DF clock.

`DF INCOMING CLOCK FAILURE` = A DF detected an error on the clock signal from the MCTSI.

`DF INCOMING FRAME ERROR` = A DF detected a frame error on the link from the MCTSI.

`DF INTERNAL PARITY ERROR` = A parity error occurred internally in DF hardware.

`DF PARITY COUNTER OVERFLOW` = A DF detected an overflow of the counter used to generate walking parity. It indicates a DF timing problem.

`DF SYNCH FAILURE` = A DF detected an 8 MHz synchronization failure.

`DF TSI ACCESS CHIP ACCESS PARITY` = A parity error occurred when attempting to access the DF time slot interchanger (TSI) chip.

`NO ERROR SOURCE FOUND` = A service request was received by PSU fault recovery, but no error source bits were set to indicate the exact source of the error.

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`PH FAILURE` = A PH has exceeded its internal error threshold and has asserted its error lead. The error lead is asserted to notify PSU fault recovery that the PH is faulty.
`SHELF CIB BREAK RECEIVED` = A break signal was received from a DF or PF. This indicates that the DF of PF has had a serious error such as loss of control interconnect bus (CIB) clock, loss of board clock, or pack removal.
`SHELF CIB CHECKFAIL` = A diagnostic message was sent to a shelf but no response was received.
`SHELF CIB FRAMING ERROR` = A framing error was detected on a CIB between a CF and a DF or PF. This occurs when a start code is detected on a CIB, but no stop code is received to end the frame which contains a message or response.
`SHELF CIB OVERRUN ERROR` = Too many messages or responses were received on a CF, DF or PF indicating that some may have been lost.
`SHELF CIB PARITY FAIL` = A parity error occurred on a CIB between the CF and a DF or PF.
`SHELF RECEIVED INVALID COMMAND` = A DF or PF received an invalid message from the CF.

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = No recovery action was taken. A postmortem report was printed.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A report prints with the results of the diagnostic.

`h1` = External logical circuit name of the implicated circuit.

`i1` = Current decimal number of failures of this type recorded.

`j1` = Decimal error count threshold, at which the recovery action is taken.

`h2` = External logical circuit name of the implicated circuit.

`i2` = Current decimal number of failures of this type recorded.

`j2` = Decimal error count threshold, at which the recovery action is taken.

`k2` = A 4-digit hexadecimal representing the PSU shelf number (left-hand 4 bits) and the PICB number the DPIDB is connected to (right-hand 12 bits).

`l2` = A 4-digit hexadecimal representing the implicated DPIDB number (left-hand 8 bits) and the time slot number in the DPIDB (right-hand 8 bits).

Additional DPIDB/time slot number (variable `` `l2' ``) may be printed.

`h3` = External logical circuit name of the implicated circuit.

`i3` = Current decimal number of failures of this type recorded.

`j3` = Decimal error count threshold, at which the recovery action is taken.

`k3` = A 4-digit hexadecimal representing the PSU shelf number.

`l3` A 4-digit hexadecimal representing the input-output (IO) of the implicated DPIDB. Valid value are:
`1` = DPIDB 0
`2` = DPIDB 1
`3` = DPIDB 2
`4` = DPIDB 3

5 = DPIDB 4
6 = DPIDB 5
7 = DPIDB 6
8 = DPIDB 7

h4 = The external logical circuit name of the implicated circuit.
Note: Additional circuit names, error counts (variables 'i4'), and error thresholds (variables 'j4') may be printed. A recovery action is taken only on the first circuit in the list to reach its error threshold.

i4 = Current decimal number of failures of this type recorded.

j4 = Decimal error count threshold, at which the recovery action is taken.

k4 = A 4-digit hexadecimal representing the PSU shelf number (left-hand 8 bits) and the timeslot number (right-hand 8 bits).

l4 = A 4-digit hexadecimal representing the PH number the parity error occurred on.

m4 = A 4-digit hexadecimal representing the PTSB (PSU time slot block) usage number. Valid value(s):
0 = Nothing is assigned to the PTSB.
1 = Directly connected D channel.
2 = PSU cut through D channel part.
3 = integrated switching line unit (ISLU) cut through D channel part.
4 = ISLU to time slot interchange unit (TSIU) duplex B channel.
6 = Unavailable due to remote ISLU remoting hardware.
7 = Maintenance activity on PTSB.
8 = PSU cut through for inter-SM use.
9 = Directly connected B-channel.
A = PSU cut through B-channel.
B = Duplex B-channel with packet switching service.
C = PSU cut through on an Inter-Switch Trunk.

n4 = A 4-digit hexadecimal representing the DSL group number assigned to the PH at the time the error was taken.

o4 = A 4-digit hexadecimal representing the DSL group member number assigned to the first channel.

p4 = A 4-digit hexadecimal representing the D-channel status of the first channel in the left-hand 8 bits. Valid value(s):
0 = D channel idle.
1 = D channel tear down.
2 = D channel setup.
3 = D channel stable.
4 = D channel not cleared.
5 = This D channel is 64KB.

The enable of the first channel in the right-hand 8 bits:
0 = Channel is off.
1 = Channel is on.

q4 = A 4-digit hexadecimal representing the DSL group member number assigned to the second channel.

r4 = A 4-digit hexadecimal representing the D-channel status of the second channel in the left-hand 8 bits. The state of the second channel in the right-hand 8 bits. This is similar to variable 'o4'.

s4 = A 4-digit hexadecimal representing the DSL group member number assigned to the third channel.

t4 = A 4-digit hexadecimal representing the D-channel status of the third channel (left-hand 8 bits). The state of the third channel in the right-hand 8 bits. This is similar to variable 'o4'.

u4 = A 4-digit hexadecimal representing the DSL group member number assigned to the fourth channel.

v4 = A 4-digit hexadecimal representing the D-channel status of the fourth channel in the left-hand 8 bits. The state of the fourth channel in the right-hand 8 bits. This is similar to variable 'p4'.

h5 = External circuit name for the implicated circuit.

Note: An additional circuit name, error count (variable 'i6'), and error threshold (variable 'j6') may be printed. A recovery action is taken only on the first circuit in the list to reach its error threshold.

i5 = Current decimal number of failures of this type recorded.

j5 = Decimal error count threshold, at which a recovery action is taken.

k5 = A 4-digit hexadecimal representing the CF summary scan register. Valid value(s):

- 1 = first in, first out (FIFO) B contains information.
- 2 = FIFO A contains information.
- 4 = Mailbox flags 0-3 summary bit.
- 8 = Mailbox flags 4-7 summary bit.
- 10 = Mailbox flags 8-11 summary bit.
- 20 = Mailbox flags 12-15 summary bit.
- 100 = Hardware error summary bit.
- 200 = Firmware error summary bit.

l5 = A 4-digit hexadecimal representing the CF summary scan mask register. Valid value(s):

- 1 = Mask FIFO B contains information.
- 2 = Mask FIFO A contains information.
- 4 = Mask mailbox flags 0-3 summary bit.
- 8 = Mask mailbox flags 4-7 summary bit.
- 10 = Mask mailbox flags 8-11 summary bit.
- 20 = Mask mailbox flags 12-15 summary bit.
- 100 = Mask hardware error summary bit.
- 200 = Mask firmware error summary bit.

m5 = A 4-digit hexadecimal representing the CF hardware error source register. Valid value(s):

- 40 = local processor (LP) UCI address error.
- 80 = micro processor (MP) UCI address error.
- 100 = FIFO B error.

200 = FIFO A error.
400 = FIFO B overflow.
800 = FIFO B underflow.
1000 = FIFO A overflow.
2000 = FIFO A underflow.
4000 = LP UCI read parity error.
8000 = MP UCI read parity error.

n5 = A 4-digit hexadecimal representing the CF hardware error source mask register. Valid value(s):
40 = Mask LP UCI address error.
80 = Mask MP UCI address error.
100 = Mask FIFO B error.
200 = Mask FIFO A error.
400 = Mask FIFO B overflow.
800 = Mask FIFO B underflow.
1000 = Mask FIFO A overflow.
2000 = Mask FIFO A underflow.
4000 = Mask LP UCI read parity error.
8000 = Mask MP UCI read parity error.

o5 = A 4-digit hexadecimal representing the CF LP hardware error source mask register. Valid value(s):
40 = Mask LP UCI address error.
80 = Mask MP UCI address error.
100 = Mask FIFO B error.
200 = Mask FIFO A error.
400 = Mask FIFO B overflow.
800 = Mask FIFO B underflow.
1000 = Mask FIFO A overflow.
2000 = Mask FIFO A underflow.
4000 = Mask LP UCI read parity error.
8000 = Mask MP UCI read parity error.

p5 = A 4-digit hexadecimal representing the CF firmware error source register. Valid value(s):
1 = Arbiter errors.
2 = CIB errors.
4 = PH errors.
8 = DF parity.
10 = DF timing.
20 = Invalid command.

q5 = A 4-digit hexadecimal representing the CF firmware error source mask register.
1 = Mask arbiter errors.
2 = Mask CIB errors.
4 = Mask PH errors.
8 = Mask DF parity.
10 = Mask DF timing.
20 = Mask invalid command.

`r5` = A 4-digit hexadecimal representing the internal circuit name in which first error was found.

`s5` = A 4-digit hexadecimal representing the error detection source. Valid value(s):

- `0` = CF.
- `1` = DF.
- `2` = PF.

`t5` = A 4-digit hexadecimal representing the DF timing error mailbox.

`w` = The implicated PH image type. Valid value(s):

- `0` = Null PH image.
- `1` = PH 2 access image.
- `2` = PH 2 gateway image.
- `3` = PH 3 integrated service digital network (ISDN) common image.
- `4` = PH 3 integrated service digital network (ISDN) input output processor (IOP) image.
- `5` = PH 1 gateway image.
- `7` = PH 3 common channel signalling (CCS) common image.
- `8` = PH 3 CCS IOP image.
- `9` = PH 4 attached processor (AP) image.
- `A` = PH 4 ISDN IOP image.
- `C` = PH 4 frame relay protocol handler (FRPH) code division multiple access (CDMA) IOP image.
- `D` = PH for voice (PHV) 1 non-downloadable digital signal processing (DSP) CDMA image.
- `E` = PHV 3 downloadable DSP CDMA image.
- `F` = PHV downloadable DSP with 8K algorithm image.
- `10` = PHV downloadable DSP with 13K algorithm image.
- `11` = PHV downloadable DSP with (EVRC) algorithm image.
- `12` = protocol handler (PH) for asynchronous transfer mode (ATM) (PHA) image.

`x` = The implicated PH hardware type. Valid value(s):

- `0` = PH 1 hardware.
- `1` = PH 2 hardware.
- `2` = PH 3 hardware.
- `3` = PH 4 hardware.
- `4` = PHV 1 hardware.
- `5` = PHV 2 hardware.
- `6` = PHV 3 hardware.
- `7` = PHA 1 hardware.

4. ACTION TO BE TAKEN

No action is necessary if the recovery action is `ANALYSIS ONLY`. If it is `RST PREEMPT`, automatic diagnostics are run on the PSUCOM. If they pass, run the module controller/time slot interchange (MCTSI) and the PH diagnostics, using DGN:MCTSI and DGN:PSUPH, respectively.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:MCTSI
DGN:PSU
RST:MCTSI
RST:PSUCOM
```

REPT:PTRACE

Software Release: 5E10 and later
Message Class: TRCEMON
Application: 5
Type: Output

1. FORMAT

```
REPT PTRACE: a AT LINE b PCRID c
 [d]
```

2. REASON FOR OUTPUT

To report program trace information for certain software detected error conditions.

3. VARIABLE FIELD DEFINITIONS

a	= Filename of the program trace.
b	= Line number of the program trace.
c	= Processor identification number of the program trace.
d	= Program trace data.

4. ACTION TO BE TAKEN

If output persists, refer to the program listing specified in the output to determine the cause of the error or refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-600-100 *Translations Data*
235-600-200 *Dynamic Data*
235-600-300 *ECD/SG*

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REPT:PUMP

Software Release: 5E10 and later
Message Class: INT
Application: 5
Type: Output

1. FORMAT

```
REPT PUMP: a b
```

2. REASON FOR OUTPUT

To sound a major alarm and notify the user that a pump cannot proceed without the needed file or that a pump is skipping a section in a relocatable file because it is not in the relocatable image map.

3. VARIABLE FIELD DEFINITIONS

`a` = Reason for message. Valid value(s):
`CAN NOT OPEN` = The file needed by pump does not exist or does not have the right access permissions.
`CORRUPTED FILE` = The file accessed by pump is not in the proper format or the file is empty.
`IMAGE NOT IN RIM` = Displayed image name from a relocatable file does not have a corresponding entry in the relocatable image map (rim.out).

`b` = Full path name of file needed by pump or name of image being skipped.

4. ACTION TO BE TAKEN

There are various files used by pump and different circumstances that could affect these files; therefore, each situation may need special consideration. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. Do not attempt to recover the switching module with a pump until the affected file is restored.

5. ALARMS

Major.

6. REFERENCES

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REPT:PWR-ALM-SM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT PWR ALARM SM a b
```

2. REASON FOR OUTPUT

To report a power alarm in the module controller unit (MCU) subunit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = MCU subunit identifier.

4. ACTION TO BE TAKEN

None.

5. ALARMS

A major alarm occurs.

6. REFERENCES

None.

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REPT:PWR-OFF-MS

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT PWR OFF MOR SM=a b
```

2. REASON FOR OUTPUT

To report that the module controller unit (MCU) subunit is manually overridden.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = MCU subunit identifier.

4. ACTION TO BE TAKEN

None.

5. ALARMS

Major.

6. REFERENCES

Other Manual(s):
235-105-220 *Corrective Maintenance*

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REPT:PWR-RCLK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT PWR a RCLK=b-c [d]
```

2. REASON FOR OUTPUT

To report the power status of a remote clock (RCLK) side.

3. VARIABLE FIELD DEFINITIONS

`a` = Power status. Valid value(s):

`REMOVED`
`RESTORED`

`b` = Switching module (SM) number.

`c` = RCLK side.

`d` = Type of request (applies only if the power status is `REMOVED`):

`FUSE`	= Fuse alarm.
`MAN`	= Manual.
`MOR`	= Manual override.

4. ACTION TO BE TAKEN

If power is lost, try to restore power manually to the RCLK. Unlike the oscillator, the warmup period for the RCLK is not necessary.

5. ALARMS

If type of request is FUSE, major alarm.

6. REFERENCES

None.

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REPT:PWR-RCOSC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT PWR a RCOSC=b-c [d]
```

2. REASON FOR OUTPUT

To report the status of a manual request for power in a remote clock oscillator (RCOSC).

3. VARIABLE FIELD DEFINITIONS

`a` = Power status. Valid value(s):

```
REMOVED
RESTORED
```

`b` = Switching module (SM) number.

`c` = RCOSC side.

`d` = Type of request (applies only if the power status is removed). Valid value(s):

`FUSE`	= Fuse alarm.
`MAN`	= Manual.
`MOR`	= Manual override.

4. ACTION TO BE TAKEN

If power is lost, try to restore power to the direct oscillator power feed. For the high stability (stratum 2) oscillator, a warmup period of 16 hours is required to ensure proper operation.

5. ALARMS

If FUSE or power fail, major alarm.

6. REFERENCES

None.

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89. REPT:Q

REPT:QGP-ENV-LVL

Software Release: 5E10 and later
Message Class: HM_INT_MON
Application: 5
Type: Output

1. FORMAT

```
REPT QGP=a-b ENV=c LVL=d [MSGH-]EVENT=e f
  FAILING-ADDR=g  ADDR-RNG=h  OSJ=i [j]
  ERR SRC=k
  LOADQP=l  UNLOADQP=m  [QUEUE=n]
  CM=o[,CLNK]  [NETWORK=p]  [LLCB-INDEX=q][,r]  [ENDPOINT=s]
  68030-REGISTERS:
     SSP=t  PC=u  SR=v  EXCEP=w
     USP=x  FP=y  A0=z  A1=z
     A2=z   A3=z  A4=z  A5=z
     D0=a1  D1=a1  D2=a1  D3=a1
     D4=a1  D5=a1  D6=a1  D7=a1
  PIC-REGISTERS:
     ESBR:  b1
     IMBR:  c1
     ISRR:  d1
  GWLB-REGISTERS:
     LEVR:  e1
     LMSKR: f1
     LISR:  g1
```

2. REASON FOR OUTPUT

To indicate an error occurred on the quad-link gateway processor (QGP). This message describes what error occurred, the state of the processor at the time of the error, and the recovery action taken.

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch (MSGS) side the QGP is on.

`b` = Logical QGP number.

`c` = QGP environment where fault occurred. Valid value(s):

`QGP-AP`	= Applications processor.
`QGP-MSGH`	= Message handler.
`UNK`	= Environment unknown.

`d` = Software recovery action. Valid value(s):

`CEI`	= Critical error interrupt.
`OSR`	= Operational software restart
`RPI`	= Return to the point of interrupt.
`UNK`	= Unknown software recovery action.

`e` = QGP event number. The event number comes from the QGP message handler processor

(QGP-MSGH) if MSGH-EVENT is the parameter name and from the QGP application processor (QGP-AP) if EVENT is the parameter name.

f = Termination status. Valid value(s):

ABORTED	= The job did not complete before being interrupted by another stimulus.
COMPLETED	= The action has completed.

g = Failing address.

h = Type of memory referenced by the failing address. Valid value(s):

DAM	= Dual access memory between the message switch control unit (MSCU) and the QGP-MSGH.
DSRAM	= Dual access static random access memory between the QGP-AP and the QGP-MSGH.
GWLB	= Gateway link board user space.
GWLB-IO	= Gateway link board input/output space.
IO	= Core board input/output space.
LSRAM	= Local static random access memory.
OOR	= Out of range address. The failing address does not map to any known memory type.
ROM	= Read only memory.
UNK	= The memory type of the failing address is unknown or indeterminable, or the failing address and address range are inapplicable to the current error source.

i = Operational software job executing when the error occurred. Valid value(s):

AU	= Routine audits.
CM	= Communication package.
INIT	= Processor initialization.
MTUP	= Mate update.
OE	= Operating environment.
QGLDG	= Overall quad-link packet switch (QLPS) gateway link (QGL) diagnostics.
QGLPT	= QGL packet test diagnostic.
QGLSW	= QGL switch.
QL	= Quad-link layer 2 manager.
QLLUD	= Quad-link packet switch logical link (QLL) up/down.
QL0GP	= Network 0 quad-link fault recovery (QLFR) general purpose work.
QL1GP	= Network 1 QLFR general purpose work.
QP0IN	= Network 0 quad-link packet switch pipe (QPIPE)] initialization.
QP0LB	= Network 0 QPIPE loop back.
QP1IN	= Network 1 QPIPE initialization.
QP1LB	= Network 1 QPIPE loop back.
RHS	= Routine hashsum checks.
SI	= System integrity.
UNK	= Unknown or indeterminable running job.

j = Software recovery escalation reason. Valid value(s):

AP-REL	= QGP application processor raised the error lead.
EX-DCF-ERR	= Excessive defensive check failures.
EX-FR-ERR	= Excessive fault recovery errors.
EX-OSR-ERR	= Excessive operational software restarts.

MSGH-REL = QGP message handler processor raised the error lead.

k = Source of the error. Valid value(s):

ADDRESS-ERROR = An attempt was made to execute an instruction at an odd address.
ADDRESS-OUT-OF-RANGE = The memory management unit (MMU) detected an attempt to read from or write to an out of range or otherwise invalid address.
AP-BASE-PRIORITY-QUEUE-ERROR = The QGP-AP detected a problem with its base priority message queue.
AP-HIGH-PRIORITY-QUEUE-ERROR = The QGP-AP detected a problem with its high priority message queue.
AP-TO-MSGH-SANITY-TIMER-EXPIRATION = The QGP-AP detected a failure by the QGP-MSGH to acknowledge the inter-processor sanity check in the allotted time interval.
BLL-SANITY-TIMER-EXPIRATION = The base level loop sanity timer expired.
BUS-ERROR = A bus error exception occurred.
CHANNEL-ATTENTION-0-INTERRUPT = A channel attention 0 interrupt exception occurred.
CHANNEL-ATTENTION-1-INTERRUPT = A channel attention 1 interrupt exception occurred.
CHANNEL-ATTENTION-2-INTERRUPT = A channel attention 2 interrupt exception occurred.
CHANNEL-ATTENTION-3-INTERRUPT = A channel attention 3 interrupt exception occurred.
COPROCESSOR-PROTOCOL-VIOLATION = A co-processor protocol violation exception occurred.
DAM-PARITY-ERROR = A parity error was detected on data read from the dual access memory (DAM) by the QGP-MSGH.
DIVIDE-BY-ZERO = An attempt was made to divide by zero.
EXCESSIVE-QGL-ERRORS = Too many QGL hardware errors occurred in the allotted time interval.
EXTERNAL-BOARD-BUS-ERROR = A bus error exception occurred on the gateway link board.
FORMAT-ERROR = The processor detected an illegal exception stack frame format or illegal co-processor state frame format.
GATEWAY-LINK-BOARD-INTERRUPT = An error occurred on the gateway link board.
GPITS-NMI = A general purpose integrated test system (GPITS) non-maskable interrupt (NMI) exception occurred.
HARDWARE-WRITE-PROTECT-ERROR = An attempt was made to write to a hardware write-protected memory address.
ILLEGAL-INSTRUCTION = An attempt was made to execute an opcode that is not a valid processor instruction opcode.
IOMI-COMMAND-INTERRUPT = An input output message interface (IOMI) message interrupt exception occurred.
IOMI-ISOLATED = The processor was isolated from IOMI communication with the MSCU.
LINE-1010-EMULATOR = An attempt was made to execute an unimplemented A-line opcode (an instruction with H'A in bits 15 through 12 of its first word).
LINE-1111-EMULATOR = An attempt was made to execute an unimplemented F-line opcode (an instruction with H'F in bits 15 through 12 of its first word).
MMU-CONFIGURATION-ERROR = An attempt was made to load invalid data into an MMU register.
MMU-SUPERVISOR-PROTECT-VIOLATION = The MMU detected an attempt to access supervisor-protected data while the processor was in user mode.
MMU-TRANSLATION-TABLE-BUS-ERROR = A bus error occurred during an MMU address translation table search.
MMU-WRITE-PROTECT-VIOLATION = The MMU detected an attempt to write to an MMU write-protected memory address.
MSGH-BASE-PRIORITY-QUEUE-ERROR = The QGP-MSGH detected a problem with one of its base priority message queues.
MSGH-HIGH-PRIORITY-QUEUE-ERROR = The QGP-MSGH detected a problem with one of its high

priority message queues.

`MSGH-TO-AP-SANITY-TIMER-EXPIRATION` = The QGP-MSGH detected a failure by the QGP-AP to acknowledge the inter-processor sanity check in the allotted time interval.

`PIT-0-INTERRUPT` = The time interval in programmable interval timer (PIT) 0 expired.

`PIT-1-INTERRUPT` = The time interval in PIT-1 expired.

`PIT-2-INTERRUPT` = The time interval in PIT-2 expired.

`PIT-4-INTERRUPT` = The time interval in PIT-4 expired.

`PRIVILEGE-VIOLATION` = An attempt was made to execute a supervisor-privileged instruction while the processor was in user mode.

`SPURIOUS-INTERRUPT` = An interrupting device did not respond to an interrupt acknowledge bus cycle.

`STACK-PROTECT-ERROR` = The MMU detected an attempt to write to an MMU write-protected stack address.

`SYSTEM-BUS-PARITY-ERROR` = A parity error was detected on data read from local static random access memory (LSRAM), dual access static random access memory (DSRAM), or the gateway link board.

`TWO-RESETS-WITHIN-A-WINDOW` = Either the processor core board was powered up or two processor resets occurred within some software-specified time interval.

`UNEXPECTED-AUTOVECTOR` = An unexpected, unsupported autovector exception occurred.

`UNEXPECTED-INTERRUPT` = An unexpected, unsupported interrupt exception occurred.

`UNEXPECTED-SOFTWARE-TRAP` = A TRAP instruction was executed that is not supported in the current software release.

`UNIDENTIFIED-EXCEPTION` = An exception occurred that could not be uniquely identified.

`UNINITIALIZED-INTERRUPT` = An uninitialized interrupt exception occurred.

`UNKNOWN-ERROR` = The source of the error could not be determined.

`UNRECOGNIZED-TRACE-INTERRUPT` = A trace (single step) interrupt exception occurred that was not recognized by GPITS.

`UNUSED-TEXT-EXECUTED` = An attempt was made to execute memory not used by the current software release.

`WATCHDOG-TIMER-EXPIRATION` = An attempt was made to access an unequipped memory location or write to a read only memory (ROM) address.

`l` = Contents of the message queue load pointer when a message queue error was detected.

`m` = Contents of the message queue unload pointer when a message queue error was detected.

`n` = Message queue where the error was detected. Valid value(s):

- `AP-MSGH` = Message queue between the QGP-AP and QGP-MSGH.
- `MSGH-AP` = Message queue between the QGP-MSGH and QGP-AP.
- `MSGH-MSCU` = Message queue between the QGP-MSGH and MSCU.

`o` = State of the communication package for communication links if CLNK is shown, otherwise state of the QLPS link. Valid value(s):

- `ACTIVE` = Communication package was active but the link and action could not be determined.
- `BASE` = CM was called from the base level environment.
- `A-TRANS` = Communication link A was transmitting.
- `B-TRANS` = Communication link B was transmitting.
- `A-RECV` = Communication link A was receiving.
- `B-RECV` = Communication link B was receiving.

INACTIVE = Communication package was not active.

p = The QLPS network number.

q = The logical link control block in use when the error occurred.

r = Specifies the direction of the message being processed at the time of the fault:
RCV = In the state of processing a message received from the network.
SND = In the state of sending a message to the network.

s = The far end network address or endpoint specified when the error occurred.

t = Contents of the supervisor stack pointer (SSP).

u = Contents of the program counter (PC).

v = Contents of the status register (SR).

w = Exception vector number.

x = Contents of the user stack pointer (USP).

y = Contents of the frame pointer (FP).

z = Contents of processor address registers 0-5.

a[1] = Contents of processor data registers 0-7.

b[1] = Contents of the event source bit register (ESBR).

c[1] = Contents of the interrupt mask bit register (IMBR).

d[1] = Contents of the interrupt service request register (ISRR).

e[1] = Contents of the gateway link event register (LEVR).

f[1] = Contents of the gateway link mask register (LMSKR).

g[1] = Contents of the gateway link interrupt service request register (LISR).

4. ACTION TO BE TAKEN

Monitor the progress of the recovery. Initiate manual actions if the recovery does not proceed as expected.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

DGN:QGP

```
OP:LOG
OP:POSTMORT
```

Output Message(s):

```
DGN:QGP
REPT:QGP-HDW
REPT:STACK-FRAME
REPT:STACK-TRACE
```

Other Manual(s):
235-105-250 *System Recovery*

MCC Display Page(s):

1241/1251 (MSGS COMMUNITIES)
1380/1381 (QLPS NETWORK)

REPT:QGP-HDW

Software Release: 5E10 and later
Message Class: LGHLIN
Application: 5
Type: Output

1. FORMAT

```
REPT QGP=a-b HARDWARE REGISTERS ENV=QGP-AP EVENT=c
  QGP-REGISTERS:
      CACR=d    CAAR=e    DFC=f     SFC=g
      TCR=h     MMUSR=i   TT0=j     TT1=k
      HCRP=l    LCRP=l    HSRP=m    LSRP=m
      VBR=n
      RSBR=o    ILRR=p    SHWP=q    ECL1=r
      ECL2=r    ECL3=r    ECL4=r    ECL5=r
      ECL6=r    ECL7=r    TCL0=s    TCL1=s
      TCL2=s    TCL3=s    TCL4=s    TCL5=s
  GWLB-REGISTERS:
      LCR=t     LILRR=u   LSTAR=v   LECL1=w
      LECL2=w   LECL3=w   LECL4=w   LECL5=w
      LECL6=w   LECL7=w   LTCL0=x   LTCL1=x
      LTCL2=x   LTCL3=x   LTCL4=x   LTCL5=x
```

2. REASON FOR OUTPUT

To report, for debugging purposes, the contents of the quad-link gateway processor (QGP) and gateway link board (GWLB) registers associated with a previous error event.

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch (MSGS) side the QGP is on (0 or 1).

`b` = Logical QGP number.

`c` = QGP-AP event number.

`d` = Contents of the cache control register (CACR).

`e` = Contents of the cache address register (CAAR).

`f` = Contents of the destination function code (DFC) register.

`g` = Contents of the source function code (SFC) register.

`h` = Contents of the memory management unit (MMU) translation control register (TCR).

`i` = Contents of the memory management unit status register (MMUSR).

`j` = Contents of MMU register transparent translation register 0 (TT0).

`k` = Contents of MMU register transparent translation register 1 (TT1).

`l` = Contents of the high 32-bit and low 32-bit portions of the MMU central processing unit root pointer (CRP) register.

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`m` = Contents of the high 32-bit and low 32-bit portions of the MMU supervisor root pointer (SRP) register.

`n` = Contents of the vector base register (VBR).

`o` = Contents of the reset-set bit register (RSBR).

`p` = Contents of the interrupt level request register (ILRR).

`q` = Contents of the shadow hardware write protect (SHWP) register.

`r` = Contents of equipment configuration level registers 1 through 7 (ECL1 - ECL7).

`s` = Contents of the timer latch count registers 0 through 5 (TLC0 - TLC5).

`t` = Contents of the gateway link control register (LCR).

`u` = Contents of the gateway link interrupt level request register (LILRR).

`v` = Contents of the gateway link starting address register (LSAR).

`w` = Contents of the gateway link equipment configuration level registers 1 through 7 (LECL1 - LECL7).

`x` = Contents of the gateway link timer latch count registers 0 through 5 (LTCL0 - LTCL5).

4. ACTION TO BE TAKEN

This report is used for detailed troubleshooting by appropriate support personnel.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT:QGP-ENV-LVL
```

90. REPT:R

REPT:RAF-TDP

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT RAF=a-b TRBL DATA PARITY FAILURE c
  PIDB PARITY TROUBLE RECOVERY ACTION d
  e f g
```

2. REASON FOR OUTPUT

To indicate that a parity error occurred on the recorded announcement function (RAF) unit peripheral interface control bus (PICB) to the time-slot interchange (TSI).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RAF unit number.

`c` = Event number.

`d` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A postmortem report is generated.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. An RMV message will be printed after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`e` = External logical circuit name.

`f` = Current decimal number of recent failures of this type recorded.

`g` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

Use the Corrective Maintenance manual to determine what action should be taken with the faulty unit and any ROP output.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

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None.

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:RAF-TOE

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT RAF=a-b TRBL OPERATIONAL ERROR EVENT=c
  d RECOVERY ACTION e
  t u v
  . . .
  . . .
  . . .
  fg hi jk lm no pq rs
```

2. REASON FOR OUTPUT

To respond to an operational error pertaining to a recorded announcement function (RAF) unit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RAF unit number.

`c` = Event number.

`d` = Error type. Valid value(s):

```
FIFO UNDERFLOW
INVALID FIFO REPORT
INVALID REPORT
TERMINAL PROCESS TIMEOUT
UNEXPECTED REPORT
UNEXPECTED FIRST PULSE
```

`e` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A postmortem report is generated.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.

`INITIALIZE` = The failing circuit has been reinitialized.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. An RMV:RAF message will occur.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A DGN message will occur.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`f` = Contents of the hardware error source mask register (UIHWMMK, defined in hdr/smim/SMuiregcpl.h).

`g` = Contents of the hardware error source register (UIHWERR, defined in hdr/smim/SMuiregcpl.h).

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`h` = Contents of the firmware error source mask register (UIFWMMK, defined in hdr/smim/SMui_reg.h) - upper byte. Contents of the firmware error source register (UIFWERR, defined in hdr/smim/SMui_reg.h) - lower byte.

`i` = Contents of the summary scan mask register (UISMSMK, defined in hdr/smim/SMuiregcpl.h).

`j` = Contents of the summary scan register (UISMSRD, defined in hdr/smim/SMui_reg.h).

`k-s` = Logical processor (LP) raw data.

`t` = External logical circuit name.
Note: Up to nine logical circuit names, error counts, and error thresholds (variables '`t`'-'`v`') may be printed.

`u` = Current decimal number of recent failures of this type recorded.

`v` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

Use the Corrective Maintenance manual to determine what action should be taken with the faulty unit and any receive-only printer (ROP) output.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
RMV:RAF
DGN:[UNIT]
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:RAF-TPCF-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT RAF=a-b TRBL PICB CONTROL FAILURE EVENT=c
  d RECOVERY ACTION e
  f g h i
  j k l
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the recorded announcement function (RAF) unit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RAF unit number.

`c` = Event number.

`d` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`e` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A postmortem report is provided.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. An RMV message will be printed after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`f` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`g` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`h` = Data being written to the periphery by the CI.

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`i` = Contents of the CI error source register.

Note: Up to two logical circuit names, error counts, and error thresholds (variables '`j`'-'`l`') may be printed.

`j` = External logical circuit name.

`k` = Current decimal number of recent failures of this type recorded.

`l` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

Use the Corrective Maintenance manual to determine what action should be taken with the faulty unit and any ROP output.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:RAF-TPCF-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT RAF=a-b TRBL PICB CONTROL FAILURE EVENT=c
  d RECOVERY ACTION e
  f g h i
  j k l m
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the recorded announcement function (RAF) unit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RAF unit number.

`c` = Event number.

`d` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`e` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A postmortem report is provided.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. An RMV message will be printed after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`f` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`g` = System PICB number in hexadecimal that was being written when the failure occurred.

`h` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

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`i` = Data being written to the periphery by the CI.

`j` = Contents of the CI error source register.

Note: Up to two logical circuit names, error counts, and error thresholds (variables '`k`'-'`m`') may be printed.

`k` = External logical circuit name.

`l` = Current decimal number of recent failures of this type recorded.

`m` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

Use the Corrective Maintenance manual to determine what action should be taken with the faulty unit and any ROP output.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:RAF-TSRF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT RAF=a-b TRBL SERV REQ FAILURE EVENT=c
  d RECOVERY ACTION e
  t u v
  . . .
  . . .
  . . .
  fg hi jk lm no pq rs
```

2. REASON FOR OUTPUT

To respond to an automatically generated maintenance service request from an SM pertaining to a recorded announcement function (RAF) unit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RAF unit number.

`c` = Event number.

`d` = Error type. Valid value(s):

```
BUS 0 CLOCK FAILURE
BUS 1 CLOCK FAILURE
EXPANSION PACK ERROR
FIFO ERROR
HIGH-LEVEL FIRMWARE ERROR
INTERNAL COMMUNICATION ERROR
INTERNAL DATA ERROR
INTERNAL DSP ERROR
INTERNAL HARDWARE ERROR
INTERRUPT THRU MASK FAILURE
LOW LEVEL FIRMWARE ERROR
LP ADDRESSING ERROR
LP CLOCK FAILURE
LP ERROR
LP MEMORY ERROR
LP READ PARITY ERROR
MAINTENANCE PROCESS TIME OUT
NO ERROR SOURCE FOUND
SM ADDRESSING ERROR
SM READ PARITY ERROR
```

`e` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A postmortem report is generated.

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`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`INITIALIZED` = The failing circuit has been reinitialized.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. An RMV:RAF message will occur.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A DGN message will occur.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`f` = Contents of the hardware error source mask register (UIHWMMK, define in hdr/smim/SMuiregcpl.h).

`g` = Contents of the hardware error source register (UIHWERR, defined in hdr/smim/SMuiregcpl.h).

`h` = Contents of the firmware error source mask register (UIFWMMK, defined in hdr/smim/SMui_reg.h) - upper byte. Contents of the firmware error source register (UIFWERR, defined in hdr/smim/SMui_reg.h) - lower byte.

`i` = Contents of the summary scan mask register (UISMSMK, defined in hdr/smim/SMuiregcpl.h).

`j` = Contents of the summary scan register (UISMSRD, defined in hdr/smim/SMui_reg.h).

`k-s` = Logical processor (LP) raw data.

`t` = External logical circuit name.
Note: Up to nine logical circuit names, error counts, and error thresholds (variables '`t`'-'`v`') may be printed.

`u` = Current decimal number of recent failures of this type recorded.

`v` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

Use the Corrective Maintenance manual to determine what action should be taken with the faulty unit and any receive-only printer (ROP) output.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:[UNIT]
RMV:RAF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:RBPSC-SM

Software Release: 5E10 and later
Message Class: BPSC
Application: 5
Type: Output

1. FORMAT

```
REPT RBPSC [a] b SM c d
```

2. REASON FOR OUTPUT

To report the change of state of a REMOTE building, power, or miscellaneous alarm scan point, OR to report a fault condition detected on one of those scan points.

3. VARIABLE FIELD DEFINITIONS

`a` = Point number in bldg/misc group (if applicable) as shown on the Master Control Center (MCC) remote alarms page.

`b` = New state. Valid value(s):
- `ALARM` = The point has changed to its off-normal (alarming) state.
- `ALARM CLEAR` = The point has changed to its normal (non-alarming) state.
- `FAULT` = The two metallic service unit (MSU) service groups show different states for the same point.

`c` = Module number.

`d` = Name of scan point.

4. ACTION TO BE TAKEN

If 'b' =	Action: =
ALARM	Investigate and correct the cause of the alarm report.
FAULT	Investigate and correct the differing states between MSU service groups.

5. ALARMS

Critical, major, minor, or none may occur depending on the type of report.

6. REFERENCES

Input Message(s):

```
ALW:ALM
INH:RBPSC-SM
```

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REPT:RBPSC-ST-SM

Software Release: 5E10 and later
Message Class: BPSC
Application: 5
Type: Output

1. FORMAT

```
REPT RBPSC STATUS SM a b
```

2. REASON FOR OUTPUT

To report an undesirable state of the remote alarm process. Normally this is due to the alarm scan boards in both metallic service unit (MSU) service groups being unavailable, so that no building, power, or miscellaneous alarms can be monitored.

3. VARIABLE FIELD DEFINITIONS

`a` = The switching module (SM) number the remote alarm process is active in.

`b` = A short explanation of the perceived problem.

4. ACTION TO BE TAKEN

Investigate and correct the problem (normally returning at least one MSU service group to service).

5. ALARMS

A major alarm is sounded.

6. REFERENCES

None.

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REPT:RC-AM-ODD

Software Release: 5E10 and later
Message Class: ODD
Application: 5
Type: Output

1. FORMAT

```
REPT RC AM ODD LOG FILE WILL TAKE ABOUT a MINUTES TO RECOVER
```

2. REASON FOR OUTPUT

To warn the user that recent change (RC) will take a number of minutes to recover.

3. VARIABLE FIELD DEFINITIONS

`a` = The estimated number of minutes to recover the RC administrative module (AM) log file.

4. ACTION TO BE TAKEN

Since the RC AM ODD log file is getting large, consider starting the RC recover for the AM before the log file is full.

5. ALARMS

Minor. Alarm will file only at 60 minute mark.

6. REFERENCES

Input Message(s):

```
EXC:ODDRCVY
```

REPT:RCACT

Software Release: 5E10 and later
Message Class: RCVYMON
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT:RCACT RC {COPYING|DELETING} a GROUP b, c TUPLES COMPLETED
```

[2]
```
REPT:RCACT RCV COMPLETE RACSRLNM UPDATED
```

[3]
```
REPT:RCACT Config Group a can be deleted from module: d
  using GROUP DATA MOVE view
```

[4]
```
REPT:RCACT {ARS|IDP} Group a can [no longer] be deleted
  from module: d using GROUP DATA MOVE view
```

[5]
```
REPT:RCACT RCV CLUSTER UPDATES {IN PROGRESS|COMPLETED}. TOTAL: e
```

[6]
```
REPT:RCACT h a {has been deleted off of|already exists on|
  has been inserted onto|can be deleted from} MODULE: d
  using GROUP DATA MOVE view
```

[7]
```
REPT:RCACT RCV TGID of MLHG f member g does not match member 1
```

2. REASON FOR OUTPUT

To report recent change (RC) activities on the switch during a recent change session. These activities are for reporting the progress of updating a cluster, or a relation, because the recent change verify (RC/V) screen does NOT report the progress during this sort of operation.

3. VARIABLE FIELD DEFINITIONS

a = Group name.

b = Group identification number.

c = The number of tuples in the group that have been updated.

d = Switching module (SM) number.

e = The number of the line that has the cluster that has been updated.

f = The multi-line hunt group (MLHG) number.

g = The member number of the MLHG.

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`h` = Group type. Valid value(s):

Configuration group.
ARS group.
IDP group.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

REPT:RCDECODE

Software Release: 5E10 and later
Message Class: ODD
Application: 5
Type: Output

1. FORMAT

```
REPT RCDECODE a READING {RC|CORC} b LOG FILE FOR {AM|SM=c|CMP=[e-]f}
  THE OUTPUT WAS d
```

2. REASON FOR OUTPUT

To indicate that the recent change (RC) or customer originated recent change (CORC) log file decoder has completed reading a log file or has aborted.

3. VARIABLE FIELD DEFINITIONS

`a` = Completion report. Valid value(s):
- `ABORTED` = Either the log file is corrupted, the log file decoder is having problems reading from disk, or the directory where the output is being placed is out of space (a REPT:FILESYS warning message is also output).
- `COMPLETED` = Log file was read successfully.

`b` = Log file that was read.

`c` = Switching module (SM) number for which the log file was read.

`d` = Output destination. Valid value(s):
- `READ INTO FILE` = Output from the log file was sent to a specified directory or the directory /tmp by default.
- `SENT TO THE REQUESTING TERMINAL` = Output from the log file was sent to the terminal where the input message was entered.
- `SENT TO THE ROP` = Output from the log file was printed on the receive-only printer (ROP).

`e` = Message switch side the desired communication module processor (CMP) is on (0,1).

`f` = CMP for which the log file was read.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`EXC:RCDECODE`

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```
EXC:ODDRCVY
```

Output Message(s):

```
EXC:ODDRCVY
REPT:FILESYS
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-250 *System Recovery*

REPT:RCDLY

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCDLY a
```

2. REASON FOR OUTPUT

To report current status of telephone activations of recent change delayed messages (RCDMs).

3. VARIABLE FIELD DEFINITIONS

a	= RCDM phone activation status. Valid value(s):	
	ALW	= Telephone activations of RCDMs currently allowed.
	INH	= Telephone activations of RCDMs currently inhibited.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:RCDLY
INH:RCDLY
OP:RCDLY
```

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-118-2xx *Recent Change Procedures Batch Release*

REPT:RCHIST

Software Release: 5E10 and later
Message Class: RCVY
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT RCHIST CLERK= a b c

[2]   ____________________________________________________________________
      REPT RCHIST ACTIVITY OUTPUT
        ------------------------------------------------
        PAGE 1              5ESS SWITCH
                           RECENT CHANGE
                    DELAYED RELEASE SUMMARY REPORT
          CLERK   PENDING   COMPLETED   ERROR   DEMAND
            ID     COUNT      COUNT     COUNT   COUNT
        ------------------------------------------------
            d        e          e         e      e
            .        .          .         .      .
            .        .          .         .      .
        ------------------------------------------------

[3]   ____________________________________________________________________
      REPT RCHIST SUMMARY OUTPUT CLERK= a
        ------------------------------------------------
                            5ESS SWITCH
                           RECENT CHANGE
                    DELAYED RELEASE SUMMARY DATA REPORT
        CLERK ID     a
        COMPL STATUS f
        SO           g
        ITEM         h
        MSGi
        RELEASE    TIME: MO[j] DAY[k] YR[l] HR[m] MIN[n]
        ACTIVATION TIME: MO[j] DAY[k] YR[l] HR[m] MIN[n]
        FORM NAME: o             OPERATION: p
        KEY DATA: q
        ------------------------------------------------

[4]   ____________________________________________________________________
      [REPT RCHIST DETAIL OUTPUT CLERK= a]
       [r]
```

2. REASON FOR OUTPUT

To respond to a previously entered REPT:RCHIST input message. Format 1 is the starting and completion message for all types of RC batch history message. Format 2 is the activity report. Format 3 is the summary report. Format 4 is the detail report.

3. VARIABLE FIELD DEFINITIONS

a = Clerk name as input in REPT:RCHIST input message.

b = Completion code of REPT:RCHIST input message. Valid value(s):

ABORTED	= Input request was aborted after starting. Refer to variable "c" for the reason that the message was not started.
COMPLETED	= Input message has completed and report has been generated.
NOT STARTED	= Input message was not started. Message-text provides the reason why.
STARTED	= Input message was started and requested report should be generated.
STOPPED	= Input request was stopped after starting. An STP:RCHIST message initiated stop.

c = Expanded reason for completion code.

d = Clerk name of each RC batch file in the system.

e = Number of RCs.

f = Status of RC. Valid value(s):

C	= Complete.
D	= Demand.
E	= Error.
P	= Pending.

g = Service order number, used for RC batch time release.

h = Item number, used for RC batch time release.

i = Message number, used for RC batch time release.

j = Month the RC was released. For RC batch time release, the month the RC is to be released (activated).

k = Day the RC was released. For RC batch time release, the day the RC is to be released (activated).

l = Year the RC was released. For RC batch time release, the year the RC is to be released (activated).

m = Hour the RC was released. For RC batch time release, the hour the RC is to be released (activated).

n = Minute the RC was released. For RC batch time release, the minute the RC is to be released (activated).

o = RC view name.

p = Operation of RC. Valid value(s):

D	= Delete.
I	= Insert.
U	= Update.

q = Key data.

`r` = RC view.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
REPT:RCHIST
OP:RCHIST
STP:RCHIST
```

Output Message(s):

```
OP:RCHIST
STP:RCHIST
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-118-221 *Recent Change Procedures Batch Release*
235-118-25x *Recent Change Procedures*
235-118-25x *Recent Change Reference*

REPT:RCL

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT RCL GROUP BETWEEN RSM=a AND RSM=b AT SITE=c
        INTRA-SITE COMMUNICATION { LOST | RESTORED }

[2]   ____________________________________________________________________
      REPT RCL GROUP ON RSM=a TOWARD RSM=b AT SITE=c
        REPORTING ERROR: d
        RECOVERY ACTION TAKEN: e
        [f]
```

2. REASON FOR OUTPUT

To report the occurrence of an error in a multi-module remote switching module (MMRSM) on the set of remote communication links (RCLs). These links are used to handle message traffic in an MMRSM while in standalone, and the re-configurations or recovery actions taken on that RCL group. In addition this reports when all communication through these links has been lost. The facilities (FACS) and the communication digital facility interfaces (CDFIs) must be in service for the RCLs to be in service.

3. VARIABLE FIELD DEFINITIONS

`a` = Number of the reporting remote switching module (RSM).

`b` = Number of the RSM connected to the other end of this link group.

`c` = Name of the MMRSM site.

`d` = Error type. Valid value(s):

`CM OVERFLOWING ITS QUEUES` = This indicates that CM is overloaded and is running out of storage for outgoing packets. This problem is self clearing but this message indicates that some messages may have been lost.

`FAR END REQUESTED RESTART` = The other RSM's level 3 communication process requested a restart. Messages in their process of reception or transmission will be lost.

`ICST MESSAGE GARBLED` = This indicates that the ICST message was corrupted. If the system does not recover from this take each CDFI between the two RSMs out in turn and diagnose it.

`ICST TIMING OUT` = ICST is a routine message whose purpose is to verify the RCLs while the MMRSM is communicating with the host. This message is not being received. Check the DLTU page for the two RSMs and verify that there are RCLs and CDFIs in service between the two RSMs.

`INVALID DATA IN PACKET HEADER` = This indicates that the level 3 communication process has detected illegal data in the packet header. This is most likely caused by corruption of the data by a CDFI in the link group interconnecting the two RSMs.

`LEVEL 3 SEQUENCE NUMBER INVALID` = This most likely indicates that a packet was lost. The message it was part of will be retransmitted.

`PACKET ALREADY ON INPUT LIST` = A packet was received twice. If the error persists remove each of the CDFIs in turn and diagnose them.

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`RECEIVED PACKET GREATER THAN 22 BYTES` = This indicates that the level 3 communication process has detected a packet that is greater that 22 bytes long. This large a packet is illegal and indicates that there is a problem in the one or more of the CDFIs that connect these two RSMs. This can be in either this RSM or the other RSM.

`RECEIVED PACKET LESS THAN 4 BYTES` = This indicates that the level 3 communication process has detected a packet that is less than 4 bytes long. This small a packet is illegal and indicates that there is a problem in the one or more of the CDFIs that connect these two RSMs.

`SESSION LAYER RCV SEQ NUMBER INVALID` = A packet was received out of sequence. The message that this packet was part of will be retransmitted. This can be in either this RSM or the other RSM.

`SPP OF CM SYSTEM PROCESS OCCURRED` = The level 3 communication process was purged. All messages in the process of transmission or reception have been lost.

`TIMEOUT IN PACKET ACKNOWLEDGE` = This indicates that no acknowledgement has been received for a packet sent to the other RSM. The entire message that this packet is a part of will be retransmitted. This can occur due to problems in CDFIs, problems in the other RSM (such as initializations), or due to problems in this RSM. Check the DLTUs on the RSMs and verify that all the hardware is in an operational state.

`e` = Recovery action taken. Valid value(s):

`CDFI REMOVED` = An automatic request to remove and diagnose the CDFI was made. This will only occur if the MMRSM is communicating with the host.

`NONE` = Self explanatory.

`RCL GROUP RESET` = All messages in the process of transmission or reception were lost and all resources idled.

`RCL GROUP RESTART` = A message in the process of transmission was lost and all the associated resources idled.

`RCL HARDWARE INITIALIZED` = The portion of the CDFI associated with the RCLs was re-initialized.

`RCL REMOVED` = The RCL was removed from service.

`f` = Optional post-mortem information.

4. ACTION TO BE TAKEN

Monitor the status of the RCLs between the two RSMs and diagnose the CDFIs if necessary.

5. ALARMS

Minor.

6. REFERENCES

Input Message(s):

```
DGN:CDFI
RMV:CDFI
RST:CDFI
TST:FAC
```

Output Message(s):

```
DGN:CDFI
RMV:CDFI
RST:CDFI
TST:FAC
```

REPT:RCLCTL

Software Release: 5E11 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLCTL a
```

2. REASON FOR OUTPUT

Error report from the MCC 1985 page process.

3. VARIABLE FIELD DEFINITIONS

a = Message.
FAILED TO LOAD PAGE DATA FROM DISK FILE - = MCC page.
EXECUTION FAILED FOR - = Command line
DIRECTORY DOES NOT EXIST - = Directory name.
TOO MANY PROCEDURES FOR DISPLAY - e = Number of procedures entered

4. ACTIONS TO BE TAKEN

Verify command or poke and try again.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:RCLK-CAF

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b CONFIGURATION ATTEMPT FAILED [EVENT c]
```

2. REASON FOR OUTPUT

To report that the remote clock (RCLK) failed to complete a reconfiguration attempt.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Remote clock (RCLK) side.

`c` = Event number for requested action.

4. ACTION TO BE TAKEN

Verify that the reconfiguration request is valid. If it is, make a brief inspection of the remote clock (RCLK) complex backplane to ensure that all the connectors are securely attached.

If the problem persists, determine the problem from the diagnostic results.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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REPT:RCLK-CSTR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b CONFIG SET TO RCXC [EVENT c]
```

2. REASON FOR OUTPUT

To report that the remote clock (RCLK) has been configured to use the remote clock cross-couple (RCXC) as the active reference.

3. VARIABLE FIELD DEFINITIONS

RCXC	= Remote clock cross-couple (RCXC).
a	= Switching module (SM) number.
b	= Remote clock (RCLK) side.
c	= Event number for requested action.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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REPT:RCLK-CTRCF

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b CI TO RCLK COMMUNICATION FAULT [EVENT c]
```

2. REASON FOR OUTPUT

To report that the remote clock (RCLK) experienced a communication fault with the control interface (CI).

3. VARIABLE FIELD DEFINITIONS

CI	= Control interface (CI).
RLI	= Remote link interface (RLI).
a	= Switching module (SM) number.
b	= Remote clock (RCLK) side.
c	= Event number for requested action.

4. ACTION TO BE TAKEN

Make a brief inspection of the remote clock (RCLK) and control interface (CI) complex backplane to ensure that all the connectors are securely attached. If the error persists, determine the problem from the RCLK diagnostic results.

If the RCLK diagnostic does not indicate a problem, switch to the standby module processor (MP). If the error no longer persists the problem may be in the MP. Remove the MP and diagnose it.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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REPT:RCLK-ERE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b {RCREF c|RCXC} {HIGH|LOW} ERROR RATE EXCEEDED [EVENT d]
```

2. REASON FOR OUTPUT

To report that the remote clock (RCLK) reference at the specified switching module (SM) exceeded error rate tolerances.

3. VARIABLE FIELD DEFINITIONS

HIGH	= The high error rate threshold has been exceeded. The reference will be removed.
LOW	= The low error rate threshold has been exceeded. This is a non-critical error, but the user may choose to investigate.
RCXC	= Cross-couple reference exceeded the tolerance.
a	= Switching module (SM) number.
b	= Remote clock (RCLK) side.
c	= Remote clock reference number.
d	= Event number for requested action.

4. ACTION TO BE TAKEN

Make a brief inspection of the remote clock (RCLK) complex backplane to ensure that all the connectors are securely attached. Manually restore the external references if the active RCLK lost phase lock or restore the RCLK if the standby RCLK lost phase lock.

If the active RCLK fails to phase lock, switch RCLKs and determine if the other RCLK can lock to an external reference.

If the other RCLK can phase lock to an external reference after the switch, the problem probably is in the RCLK hardware. Remove the standby RCLK and diagnose it.

If the active RCLK cannot lock on the switch, check the T1 links starting at the RCLK back to the reference source and verify that a reliable DS1 signal is being received.

If the standby RCLK cannot phase lock, determine the problem from the diagnostic results.

5. ALARMS

None.

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6. REFERENCES

Input/Output Messages:

None.

REPT:RCLK-EXCEED

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b {RCREF c|RCXC} {FREQ TOLERANCE|JITTER} EXCEEDED [EVENT d]
```

2. REASON FOR OUTPUT

To report that the remote clock (RCLK) reference exceeded a reliable frequency or jitter tolerance.

3. VARIABLE FIELD DEFINITIONS

RCXC	= Cross-couple reference exceeded the tolerance.
a	= Switching module (SM) number.
b	= Remote clock (RCLK) side.
c	= Remote clock reference number.
d	= Event number for requested action.

4. ACTION TO BE TAKEN

Make a brief inspection of the RCLK complex backplane to ensure that all the connectors are securely attached. Manually restore the external references if the active RCLK lost phase lock or restore the RCLK if the standby RCLK lost phase lock.

If the active RCLK fails to phase lock, switch RCLKs and determine if the other RCLK can lock to an external reference.

If the other RCLK can phase lock to an external reference after the switch, the problem probably is in the RCLK hardware. Remove the standby RCLK and diagnose it.

If the active RCLK cannot lock on the switch, check the T1 links starting at the RCLK back to the reference source and verify that a reliable DS1 signal is being received.

If the standby RCLK cannot phase lock, determine the problem from the diagnostic results.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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REPT:RCLK-FRME

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b FREE RUN MODE ENTERED [EVENT c]
```

2. REASON FOR OUTPUT

To report that the remote clock (RCLK) has entered free run mode.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Remote clock (RCLK) side.

`c` = Event number for requested action.

4. ACTION TO BE TAKEN

Attempt to restore an external remote clock reference (RCREF). If an external reference cannot be restored, use the diagnostic to determine the problem.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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REPT:RCLK-FSME

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b FAST START MODE ENTERED [EVENT c]
```

2. REASON FOR OUTPUT

To report that the remote clock (RCLK) has entered the fast start mode.

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number.
b	= Remote clock (RCLK) side.
c	= Event number for requested action.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Copyright © 1999

REPT:RCLK-HME

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b HOLDOVER MODE ENTERED [EVENT c]
```

2. REASON FOR OUTPUT

The remote clock (RCLK) is reporting a transition from NORMAL mode to HOLDOVER mode. HOLDOVER mode means that the RCLK has lost synchronization with its references and the RCLK will "hold" synchronization with its last locked reference.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RCLK side.

`c` = Event number for requested action.

4. ACTION TO BE TAKEN

Attempt to restore a remote clock reference (RCREF). If a reference cannot be restored, use the diagnostic to determine the problem.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Copyright © 1999

REPT:RCLK-IC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b INCORRECT CONFIG [EVENT c]
```

2. REASON FOR OUTPUT

To report that the remote clock (RCLK) is not in the correct configuration for the requested attempt.

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number.
b	= Remote clock (RCLK) side.
c	= Event number for requested action.

4. ACTION TO BE TAKEN

Verify that the requested action is valid based on the existing configuration of the remote clock (RCLK). If the condition persists, determine the problem from the diagnostic results.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Copyright © 1999

REPT:RCLK-ICE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b INCORRECT CONFIG EVENT c
  ASYNCHRONOUS REPORT X'
  eeffgghh iijjkkll mmnnoopp qqrrsstt uuvv0000
```

2. REASON FOR OUTPUT

To report that the remote clock (RCLK) is not in the correct configuration for the requested attempt.

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number.
b	= Remote clock (RCLK) side.
c	= Event number for requested action.
e-v	= Contents of RCLK registers. Refer to the APP:RCLK appendix in the Appendixes section of the Output Messages manual for a definition of these values.

4. ACTION TO BE TAKEN

Verify that the requested action is valid based on the existing configuration of the remote clock (RCLK). If the condition persists, determine the problem from the diagnostic results.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

APP:RCLK

Copyright © 1999

REPT:RCLK-IDE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b INTERRUPT DATA EVENT c
  ASYNCHRONOUS REPORT X'
  eeffgghh iijjkkll mmnnoopp qqrrsstt uuvv0000
```

2. REASON FOR OUTPUT

To report that the remote clock (RCLK) has experienced an interrupt.

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number.
b	= Remote clock (RCLK) side.
c	= Event number for requested action.
e-v	= Contents of RCLK registers. Refer to the APP:RCLK appendix in the Appendixes section of the Output Messages manual for a definition of these values.

4. ACTION TO BE TAKEN

Determine the source of the interrupt from the diagnostic results.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

APP:RCLK

Copyright © 1999

REPT:RCLK-ITBP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b INVALID TIME BASE PARAMETER EVENT c
  ASYNCHRONOUS REPORT X'
  eeffgghh iijjkkll mmnnoopp qqrrsstt uuvv0000
```

2. REASON FOR OUTPUT

To report that the remote clock (RCLK) received an invalid time base offset parameter (ITBP).

3. VARIABLE FIELD DEFINITIONS

`TIME BASE PARAMETER` = Internal clock offset from time base.

`a` = Switching module (SM) number.

`b` = Remote clock (RCLK) side.

`c` = Event number for requested action.

`e-v` = Contents of RCLK registers. Refer to the APP:RCLK appendix in the Appendixes section of the Output Messages manual for a definition of the values.

4. ACTION TO BE TAKEN

Check the receive only printer (ROP) for past actions. (Could possibly indicate defective oscillator.) If there are no further errors on the oscillator, take no action. If errors are present, consider replacing the oscillator.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

`APP:RCLK`

Copyright © 1999

REPT:RCLK-NER

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b NO EXTERNAL RCREF [EVENT c]
```

2. REASON FOR OUTPUT

To report that the remote clock (RCLK) has no external references.

3. VARIABLE FIELD DEFINITIONS

RCREF	= Remote clock reference (RCREF).
a	= Switching module (SM) number.
b	= Remote clock (RCLK) side.
c	= Event number for requested action.

4. ACTION TO BE TAKEN

Attempt to restore an external remote clock reference (RCREF). If an external reference cannot be restored, use the diagnostic to determine the problem.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Copyright © 1999

REPT:RCLK-NME

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b NORMAL MODE ENTERED [EVENT c]
```

2. REASON FOR OUTPUT

To report that the remote clock (RCLK) has entered normal mode.

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number.
b	= Remote clock (RCLK) side.
c	= Event number for requested action.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Copyright © 1999

REPT:RCLK-NO-RCXC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b NO RCXC [EVENT c]
```

2. REASON FOR OUTPUT

To report that the remote clock (RCLK) has no remote clock cross-couple (RCXC) reference.

3. VARIABLE FIELD DEFINITIONS

RCXC	= Remote clock cross-couple (RCXC).
a	= Switching module (SM) number.
b	= Remote clock (RCLK) side.
c	= Event number for requested action.

4. ACTION TO BE TAKEN

Attempt to restore the remote clock cross-couple (RCXC). If the condition persists, use the diagnostics to determine the problem.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Copyright © 1999

REPT:RCLK-OOF

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b {RCREF c|RCXC} {HIGH|LOW} OOF [EVENT d]
```

2. REASON FOR OUTPUT

To report that the remote clock (RCLK) reference at the specified switching module (SM) exceeded out-of-frame (OOF) tolerances.

3. VARIABLE FIELD DEFINITIONS

`HIGH` = The high out-of-frame rate threshold has been exceeded. The reference will be removed.

`LOW` = The low out-of-frame rate threshold has been exceeded. This is a non-critical error, but the user may choose to investigate.

`RCXC` = Cross-couple reference exceeded the tolerance.

`a` = Switching module (SM) number.

`b` = Remote clock (RCLK) side.

`c` = Remote clock reference (RCLK) number.

`d` = Event number for requested action.

4. ACTION TO BE TAKEN

Make a brief inspection of the remote clock (RCLK) complex backplane to ensure that all the connectors are securely attached. Manually restore the external references if the active RCLK lost phase lock or restore the RCLK if the standby RCLK lost phase lock.

If the active remote clock (RCLK) fails to phase lock, switch RCLKs and determine if the other RCLK can lock to an external reference.

If the other RCLK can phase lock to an external reference after the switch, the problem probably is in the RCLK hardware. Remove the standby RCLK and diagnose it.

If the active RCLK cannot lock on the switch, check the T1 links starting at the RCLK back to the reference source and verify that a reliable DS1 signal is being received.

If the standby RCLK cannot phase lock, determine the problem from the diagnostic results.

5. ALARMS

None.

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6. REFERENCES

Input/Output Messages:

None.

REPT:RCLK-PF

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b PROCESSOR FAULT EVENT c
  ASYNCHRONOUS REPORT X'
  eeffgghh iijjkkll mmnnoopp qqrrsstt uuvv0000
```

2. REASON FOR OUTPUT

To report that the remote clock (RCLK) processor has experienced a fault.

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number.
b	= Remote clock (RCLK) side.
c	= Event number for requested action.
e-v	= Contents of RCLK registers. Refer to the APP:RCLK appendix in the Appendixes section of the Output Messages manual for a definition of these values.

4. ACTION TO BE TAKEN

Determine the problem from the diagnostic results.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

APP:RCLK

Copyright © 1999

REPT:RCLK-PL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b PHASE LOCKED [EVENT c]
```

2. REASON FOR OUTPUT

To report that the remote clock (RCLK) has phase locked to an external reference.

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number.
b	= Remote clock (RCLK) side.
c	= Event number for requested action.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Copyright © 1999

REPT:RCLK-PLLFL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b PHASE LOCK LOOP FAULT EVENT c
  ASYNCHRONOUS REPORT X'
  eeffgghh iijjkkll mmnnoopp qqrrsstt uuvv0000
```

2. REASON FOR OUTPUT

To report that the remote clock (RCLK) oscillator has experienced a phase lock loop fault.

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number.
b	= Remote clock (RCLK) side.
c	= Event number for requested action.
e-v	= Contents of RCLK registers. Refer to the APP:RCLK appendix in the Appendixes section of the Output Messages manual for a definition of these values.

4. ACTION TO BE TAKEN

Make a brief inspection of the remote clock (RCLK) complex backplane to ensure that all connectors are securely attached. Manually restore the external references if the active RCLK lost phase lock or restore the RCLK if the standby RCLK lost phase lock.

If the active RCLK fails to phase lock, switch RCLKs.

The problem is probably in the RCLK hardware. Remove the standby RCLK and diagnose it.

If the active RCLK cannot lock on the switch, check the T1links starting at the RCLK back to the reference source and verify that a reliable DS1 signal is being received.

If the standby RCLK cannot phase lock, determine the problem from the diagnostic results.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

APP:RCLK

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REPT:RCLK-PSE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b PHASE SHIFT EVENT c
  ASYNCHRONOUS REPORT X'
  eeffgghh iijjkkll mmnnoopp qqrrsstt uuvv0000
```

2. REASON FOR OUTPUT

To report that the remote clock (RCLK) oscillator has experienced a phase shift.

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number.
b	= Remote clock (RCLK) side.
c	= Event number for requested action.
e-v	= Contents of RCLK registers. Refer to the APP:RCLK appendix in the Appendixes section of the Output Messages manual for a definition of these values.

4. ACTION TO BE TAKEN

Make a brief inspection of the remote clock (RCLK) complex backplane to ensure that all connectors are securely attached. Manually restore the external references if the active RCLK lost phase lock or restore the RCLK if the standby RCLK lost phase lock.

If the active RCLK fails to phase lock, switch RCLKs.

The problem is probably in the RCLK hardware. Remove the standby RCLK and diagnose it.

If the active RCLK cannot lock on the switch, check the T1 links starting at the RCLK back to the reference source and verify that a reliable DS1 signal is being received.

If the standby RCLK cannot phase lock, determine the problem from the diagnostic results.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

APP:RCLK

Copyright © 1999

REPT:RCLK-RAIF

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b REQUESTED ACTION INVALID FOR SYNC TYPE [EVENT c]
```

2. REASON FOR OUTPUT

To report that the remote clock (RCLK) failed to complete a reconfiguration attempt because the requested action was invalid for the particular synchronization type of the RCLK.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Remote clock (RCLK) side.

`c` = Event number for requested action.

4. ACTION TO BE TAKEN

Make sure that the request is valid based on the synchronization type of the RCLK.

If the condition persists, determine the problem from the diagnostic results.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Copyright © 1999

REPT:RCLK-RCF

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b REMOTE CLOCK FAULT EVENT c
  ASYNCHRONOUS REPORT X'
  eeffgghh iijjkkll mmnnoopp qqrrsstt uuvv0000
```

2. REASON FOR OUTPUT

To report that the remote clock (RCLK) has experienced a fault.

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number.
b	= Remote clock (RCLK) side.
c	= Event number for requested action.
e-v	= Contents of RCLK registers. Refer to the APP:RCLK appendix in the Appendixes section of the Output Messages manual for a definition of these values.

4. ACTION TO BE TAKEN

Determine the problem from the diagnostic results.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

APP:RCLK

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REPT:RCLK-REF-OUT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b {RCREF c|RCXC} REF OUTAGE [EVENT d]
```

2. REASON FOR OUTPUT

To report that the remote clock (RCLK) reference at the specified switching module (SM) had an outage.

3. VARIABLE FIELD DEFINITIONS

RCXC	= Cross-couple reference had an outage.
a	= Switching module (SM) number.
b	= Remote Clock (RCLK) side.
c	= Remote clock reference (RCREF) number.
d	= Event number for requested action.

4. ACTION TO BE TAKEN

Make a brief inspection of the remote clock (RCLK) complex backplane to ensure that all the connectors are securely attached. Manually restore the external references if the active RCLK lost phase lock or restore the RCLK if the standby RCLK lost phase lock.

If the active remote clock (RCLK) fails to phase lock, switch RCLKs and determine if the other RCLK can lock to an external reference.

If the other RCLK can phase lock to an external reference after the switch, the problem probably is in the RCLK hardware. Remove the standby RCLK and diagnose it.

If the active RCLK cannot lock on the switch, check the T1 links starting at the RCLK back to the reference source and verify that a reliable DS1 signal is being received.

If the standby RCLK cannot phase lock, determine the problem from the diagnostic results.

5. ALARMS

Minor alarm for automatic RCREF removal, otherwise none.

6. REFERENCES

Input/Output Messages:

None.

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REPT:RCLK-REMOV

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b REMOVING {RCREF c|RCXC|RCOXC} [EVENT d]
```

2. REASON FOR OUTPUT

To report that a remote clock (RCLK) reference has been removed due to a manual or automatic request.

3. VARIABLE FIELD DEFINITIONS

`RCOXC` = Oscillator cross-couple.

`RCXC` = Cross-couple.

`a` = Switching module (SM) number.

`b` = Remote clock (RCLK) side.

`c` = Remote clock reference (RCLK) number.

`d` = Event number for requested action.

4. ACTION TO BE TAKEN

Make a brief inspection of the remote clock (RCLK) complex backplane to ensure that all the connectors are securely attached. Manually restore the external references if the active RCLK lost phase lock or restore the RCLK if the standby RCLK lost phase lock.

If the active remote clock (RCLK) fails to phase lock, switch RCLKs and determine if the other RCLK can lock to an external reference.

If the other RCLK can phase lock to an external reference after the switch, the problem probably is in the RCLK hardware. Remove the standby RCLK and diagnose it.

If the active RCLK cannot lock on the switch, check the T1 links starting at the RCLK back to the reference source and verify that a reliable DS1 signal is being received.

If the standby RCLK cannot phase lock, determine the problem from the diagnostic results.

5. ALARMS

Minor alarm for automatic RCREF removal.

6. REFERENCES

Input/Output Messages:

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None.

REPT:RCLK-RF

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b RCOSC FAULT EVENT c
  ASYNCHRONOUS REPORT X'
  eeffgghh iijjkkll mmnnoopp qqrrsstt uuvv0000
```

2. REASON FOR OUTPUT

To report that the remote clock oscillator (RCOSC) has experienced a fault.

3. VARIABLE FIELD DEFINITIONS

RCOSC	= Remote clock oscillator (RCOSC).
a	= Switching module (SM) number.
b	= Remote clock (RCLK) side.
c	= Event number for requested action.
e-v	= Contents of RCLK registers. Refer to the APP:RCLK appendix in the Appendixes section of the Output Messages manual for a definition of these values.

4. ACTION TO BE TAKEN

Check the receive-only printer (ROP) for past actions. (Could possibly indicate defective oscillator.) If no further errors on oscillator, take no action. If errors are present, consider replacing the oscillator.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

APP:RCLK

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REPT:RCLK-RFDTE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b RESTORE FAILED DUE TO ERRORS [EVENT c]
```

2. REASON FOR OUTPUT

To report that the remote clock (RCLK) failed to complete a restore attempt due to hardware errors.

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number.
b	= Remote clock (RCLK) side.
c	= Event number for requested action.

4. ACTION TO BE TAKEN

Make a brief inspection of the remote clock (RCLK) complex backplane to ensure that all the connectors are securely attached.

If the errors persist, determine the problem from the diagnostic results.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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REPT:RCLK-RFDTH

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b RESTORE FAILED DUE TO HARDWARE ERRORS [EVENT c]
```

2. REASON FOR OUTPUT

To report that the remote clock (RCLK) failed to complete a restore attempt due to hardware errors.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Remote clock (RCLK) side.

`c` = Event number for requested action.

4. ACTION TO BE TAKEN

Determine the problem from the diagnostic results.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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REPT:RCLK-RFDTO

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b RESTORE FAILED DUE TO OSCILLATOR ERRORS [EVENT c]
```

2. REASON FOR OUTPUT

To report that the remote clock oscillator (RCOSC) failed to complete a restore attempt due to oscillator errors.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Remote clock (RCLK) side.

`c` = Event number for requested action.

4. ACTION TO BE TAKEN

Determine the problem from the diagnostic results.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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REPT:RCLK-RFDTRF

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b RESTORE FAILED DUE TO RLI FEEDBACK ERRORS [EVENT c]
```

2. REASON FOR OUTPUT

To report that the remote clock (RCLK) failed to complete a restore attempt due to hardware errors.

3. VARIABLE FIELD DEFINITIONS

`RLI` = Remote link interface (RLI).

`a` = Switching module (SM) number.

`b` = Remote clock (RCLK) side.

`c` = Event number for requested action.

4. ACTION TO BE TAKEN

Make a brief inspection of the remote clock (RCLK) and remote link interface (RLI) complex backplane to ensure that all connectors are securely attached.

If the problem persists, determine the problem from the RCLK diagnostics. If the diagnostics indicate no error, diagnose the associated RLI.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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REPT:RCLK-RFDTRR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b RESTORE FAILED DUE TO RCXC REF ERRORS [EVENT c]
```

2. REASON FOR OUTPUT

To report that the remote clock cross-couple (RCXC) failed to complete a restore attempt due to hardware errors.

3. VARIABLE FIELD DEFINITIONS

RCXC	= Remote clock cross-couple.
a	= Switching module (SM) number.
b	= Remote clock (RCLK) side.
c	= Event number for requested action.

4. ACTION TO BE TAKEN

Determine the problem from the diagnostic results.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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REPT:RCLK-RFSO

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b RLI FEEDBACK SIGNAL OUT EVENT c
  ASYNCHRONOUS REPORT X'
  eeffgghh iijjkkll mmnnoopp qqrrsstt uuvv0000
```

2. REASON FOR OUTPUT

To report that the remote clock (RCLK) cannot detect the feedback signal from the remote link interface (RLI).

3. VARIABLE FIELD DEFINITIONS

`RLI FEEDBACK SIGNAL` = 8 KHz return signal from the remote link interface (RLI).

`a`	= Switching module (SM) number.
`b`	= RCLK side.
`c`	= Event number for requested action.
`e-v`	= Contents of RCLK registers. Refer to the APP:RCLK appendix in the Appendixes section of the Output Messages manual for a definition of these values.

4. ACTION TO BE TAKEN

Check the receive-only printer (ROP) for past actions. Make a brief inspection of the remote clock (RCLK) complex backplane and the remote link interface (RLI) complex backplane to ensure that all the connectors are securely attached.

If the errors persist, determine the problem from the RCLK diagnostics. If the diagnostics do not indicate an error determine the problem from the associated RLI diagnostic.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

`APP:RCLK`

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REPT:RCLK-RLO

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b RCREF c LOW OOF EVENT d
  ASYNCHRONOUS REPORT X'
  eeffgghh iijjkkll mmnnoopp qqrrsstt uuvv0000
```

2. REASON FOR OUTPUT

To report that the remote clock (RCLK) reference has experienced a low out-of-frame error.

3. VARIABLE FIELD DEFINITIONS

`LOW`	= The low out-of-frame threshold has been exceeded. This is a noncritical error, but the user may choose to investigate.
`a`	= Switching module (SM) number.
`b`	= RCLK side.
`c`	= Remote clock reference (RCREF) number.
`d`	= Event number for requested action.
`e-v`	= Contents of RCLK registers. Refer to the APP:RCLK appendix in the Appendixes section of the Output Messages manual for a definition of these values.

4. ACTION TO BE TAKEN

Make a brief inspection of the RCLK complex backplane to ensure all connectors are securely attached. Manually restore the external references if the active RCLK lost phase lock or restore the RCLK if the standby RCLK lost phase lock.

If the active RCLK fails to phase lock, switch RCLKs and determine if the other RCLK can lock to an external reference.

If the other RCLK can phase lock to an external reference after the switch, the problem probably is the RCLK hardware. Remove the standby RCLK and diagnose it.

If the active RCLK cannot lock on the switch, check the T1 links starting at the RCLK back to the reference source and verify that a reliable DS1 signal is being received.

If the standby RCLK cannot phase lock, determine the problem from the diagnostic results.

5. ALARMS

None.

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6. REFERENCES

Output Appendix(es):

APP:RCLK

REPT:RCLK-RNSWR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b RLI NOT SYNCHRONIZED WITH RCLK [EVENT c]
```

2. REASON FOR OUTPUT

To report that the remote clock (RCLK) is not synchronized to the remote link interface (RLI).

3. VARIABLE FIELD DEFINITIONS

RLI	= Remote link interface.
a	= Switching module (SM) number.
b	= Remote clock (RCLK) side.
c	= Event number for requested action.

4. ACTION TO BE TAKEN

Make a brief inspection of the remote clock (RCLK) complex backplane to ensure that all the connectors are securely attached. Also make a brief inspection of the remote link interface (RLI) complex backplane to ensure that all the connectors are securely in place.

If the problem persists, determine the problem from the RCLK diagnostic results. If the diagnostics indicate no error, diagnose the associated RLI.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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REPT:RCLK-RRE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b RCOSC RANGE EXCEEDED [EVENT c]
```

2. REASON FOR OUTPUT

To report that the remote clock oscillator (RCOSC) has exceeded its frequency range.

3. VARIABLE FIELD DEFINITIONS

RCOSC	= Remote clock oscillator (RCOSC).
a	= Switching module (SM) number.
b	= Remote clock (RCLK) side.
c	= Event number for requested action.

4. ACTION TO BE TAKEN

Determine the problem from the diagnostic results.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Copyright © 1999

REPT:RCLK-RWP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b RCOSC WARMUP PERIOD {COMPLETED|IN PROGRESS} [EVENT c]
```

2. REASON FOR OUTPUT

To report the status of the warmup period for the remote clock oscillator (RCOSC). For the high stability oscillator, a warmup period of 16hours is required before use. For a medium stability oscillator, a warmup period of 1hour is required.

3. VARIABLE FIELD DEFINITIONS

RCOSC	= Remote clock oscillator.
a	= Switching module (SM) number.
b	= Remote clock (RCLK) side.
c	= Event number for the requested action.

4. ACTION TO BE TAKEN

If the warmup is complete, the oscillator is available for active use. If the warmup is still in progress, run off mate oscillator, if possible.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RST:RCOSC
SW:RCOSC
```

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REPT:RCLK-SWR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b SYNCHRONIZED WITH RCREF c [EVENT d]
```

2. REASON FOR OUTPUT

To indicate the configuration change of the remote clock (RCLK) for synchronization.

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number.
b	= Remote clock (RCLK) side.
c	= Remote clock reference (RCLK) number.
d	= Event number for the requested action.

4. ACTION TO BE TAKEN

If the request was made to change active reference, then no action. Otherwise, check remote clock messages on the receive only printer (ROP) for off normal conditions. Also, check the RCLK master control center (MCC) display (RSM RCU page) for the reference status.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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REPT:RCLK-URO

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b UNIT REQUESTED OOS [EVENT c]
```

2. REASON FOR OUTPUT

To report that the remote clock (RCLK) failed to complete a reconfiguration attempt because the requested unit is out-of-service (OOS).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RCLK side.

`c` = Event number for requested action.

4. ACTION TO BE TAKEN

Make sure the unit requested is in service. If it is then make a brief inspection of the remote clock (RCLK) complex backplane to ensure that all the connectors are securely attached.

If the problem persists, determine the problem from the diagnostic results.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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REPT:RCLK-URU

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLK=a-b UNIT REQUESTED UNEQUIPPED [EVENT c]
```

2. REASON FOR OUTPUT

To report that the remote clock (RCLK) failed to complete a reconfiguration attempt because the requested unit is unequipped.

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number.
b	= Remote clock (RCLK) side.
c	= Event number for requested action.

4. ACTION TO BE TAKEN

Verify the requested unit is equipped. If the problem persists, determine the problem from the diagnostic results.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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REPT:RCLPAGE

Software Release: 5E11 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCLPAGE a
```

2. REASON FOR OUTPUT

Error report from MCC 1985 page process.

3. VARIABLE FIELD DEFINITIONS

a = Message.

CAN NOT OPEN DATA FILE - b = MCC page number.

BAD MESSAGE RECEIVED c = Error number.

BAD ACKNOWLEDGEMENT RECEIVED d = Process ID.

SEND OF MESSAGE TO CLIENT FAILED - c = Error number.

CAN NOT SEND SIGNAL TO PROCESS - d = Process ID.

FAILED WRITE OF PAGE INFO - c = Error number.

AYSNC TOOL REPORT FROM e = Tool name.

STAGE NOT DEFINED - g = Stage. Valid values can be found on MCC page 1985.

BAD ACTION CODE IN MESSAGE - h = Error number.

PAGE VERSION NUMBER MISMATCH - i = MCC page data file name.

REMOVED PAGE DATA FILE - j = MCC page data file name.

4. ACTIONS TO BE TAKEN

Verify MCC command and try again.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:RCV

Software Release: 5E10 and later
Message Class: RC,RCVY
Application: 5
Type: Output

1. FORMAT

```
REPT: RCV {196|APPTEXT} {STARTING|COMPLETED} [TERM-ID = a]
```

2. REASON FOR OUTPUT

To report that a text recent change and verify (RC/V) session, or a poke 196 at the Master Control Center (MCC), has been started or completed. For MCC (poke 196) RC/V menu invocation, the start and end messages "RC/V 196 STARTING" and "RC/V 196 COMPLETED" will be printed at the receive-only printer (ROP) only if the VERBOSE option was selected as Y with the input poke. For text recent change and verify invocation, the start and end messages "RC/V APPTEXT STARTING" and "RC/V APPTEXT COMPLETED" will be printed at the ROP only if the user selects the VERBOSE option (that is, RCV:APPTEXT,VERBOSE on the input poke). The message "RC/V APPTEXT COMPLETED" always appears at the end of an RC/V session on the terminal that initiated it.

3. VARIABLE FIELD DEFINITIONS

`a` = The name of the terminal that executes recent change (RC).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RCV:APPTEXT`

MCC Display Page(s):

196 (ODD RCV)

REPT:RCV-APPTEXT

Software Release: 5E10 and later
Message Class: RC,RCVY
Application: 5
Type: Output

1. FORMAT

```
REPT: RCV APPTEXT {RC|VFY} ERROR MESSAGES
```

2. REASON FOR OUTPUT

To report that messages will follow to explain the preceding fatal system or user error. The RC or VFY indicates the RC text interface mode (Recent Change or Verify) that was active at the time of the fatal error.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RCV:APPTEXT
```

Output Message(s):

```
REPT:APPTEXT
```

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REPT:RCV-CORCLOG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCV:  CORCLOG DISABLED, LOG FULL
```

2. REASON FOR OUTPUT

To report that the customer-originated recent changes (CORC) log (CORCLOG) space is 100 percent in use. All CORCs and recent changes are disabled.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

An office-dependent data (ODD) back-up operation is required as soon as the system real-time resources allow.

5. ALARMS

Major.

6. REFERENCES

Input Message(s):

```
BKUP:ODD
```

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-105-24x *Generic Retrofit Procedures*

REPT:RCV-RC-DLF

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCV:  a
```

2. REASON FOR OUTPUT

To report that

The recent change log (RCLOG) space is 100 percent in use. All recent changes are disabled.

RC LOGS OVER WARNING THRESHOLD

RC LOGS BELOW WARNING THRESHOLD

3. VARIABLE FIELD DEFINITIONS

`a` = Status of request. Valid value(s):
- `DB_LGCLDIS` = RC DISABLED, LOG FULL
- `DBLGFPWSET` = RC LOGS OVER WARNING THRESHOLD
- `DBLGFPWCLR` = RC LOGS BELOW WARNING THRESHOLD

4. ACTION TO BE TAKEN

`When a = DB_LGCLDIS` an office-dependent data (ODD) back-up operation is required as soon as the system real-time resources allow.

`When a = DBLGFPWSET` this means one of the AM, SM, RED, CMP, and CORC log spaces is over the 85% warning threshold. Run the OP:RCSTAT command to determine which log space is over 85% full. An office-dependent data (ODD) back-up operation is required as soon as the system real-time resources allow.

`When a = DBLGFPWCLR` this means that the log spaces are in normal condition. No action is required.

5. ALARMS

Major.

6. REFERENCES

Input Message(s):

```
BKUP:ODD
OP:RCSTAT
```

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-105-24x *Generic Retrofit Procedures*

REPT:RCV-RCLOG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RCV:  RCLOG a PERCENT FULL
```

2. REASON FOR OUTPUT

To report the status of the recent change log (RCLOG) space usage.

This warning message is printed on the receive-only printer (ROP) when the available RCLOG space is 80 percent occupied or more.

3. VARIABLE FIELD DEFINITIONS

`a` = Percent of RCLOG space used.

4. ACTION TO BE TAKEN

An office-dependent data (ODD) back-up operation is recommended during off hours. When the available RCLOG space is 100 percent occupied on any one processor it is necessary to perform an ODD back-up operation on all processors to allow the continuation of recent change activity.

5. ALARMS

Major.

6. REFERENCES

Input Message(s):

```
BKUP:ODD
```

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-105-24x *Generic Retrofit Procedures*

REPT:RCV-SCREEN

Software Release: 5E10 and later
Message Class: RCVY
Application: 5,3B
Type: Output

1. FORMAT

```
REPT: RCV SCREEN DUMP  --  REQUESTED FROM a
```

2. REASON FOR OUTPUT

To print the terminal ID that identifies where a recent change (RC) screen dump was requested from during the RCV poke 196 session.

3. VARIABLE FIELD DEFINITIONS

`a` = Master Control Center (MCC) or secondary trunk/line work station (STLWS) terminal identification

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-118-216 *Recent Change Menu Mode/Text Interface*

MCC Display Page(s):

196 ODD RCV

REPT:RCVRY-DUI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT RCVRY DUI a b [c]
```

2. REASON FOR OUTPUT

To report the outcome of a direct user interface (DUI) subdevice recovery attempt. The DUI, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Termination status. Valid value(s):
`ABORTED` = An error occurred: recovery failed.
`COMPLETED` = Recovery was successful.

`c` = Additional error information. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	196

Input Message(s):

```
CLR:IODRV
DGN:DUIC
RMV:DUI
RST:DUI
```

Output Message(s):

```
DGN:DUIC
REPT:DUI
```

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```
REPT:DUIC
REPT:IOP
REPT:RCVRY-DUIC
REPT:RCVRY-IOP
RMV:DUI
RST:DUI
```

Output Appendix(es):

```
APP:IOP-F
APP:OMDB-X-REF
```

REPT:RCVRY-DUIC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT RCVRY DUIC a b [c]
```

2. REASON FOR OUTPUT

To report the outcome of a direct user interface controller (DUIC) recovery attempt. The DUIC, initially in the active state, transitions to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Termination status. Valid value(s):
`ABORTED` = An error occurred: recovery failed.
`COMPLETED` = Recovery was successful.

`c` = Additional error information. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	196

Input Message(s):

```
CLR:IODRV
DGN:DUIC
RMV:DUIC
RST:DUIC
```

Output Message(s):

```
DGN:DUIC
```

```
REPT:DUIC
REPT:IOP
REPT:RCVRY-IOP
RMV:DUIC
RST:DUIC
```

Output Appendix(es):

```
APP:IOP-F
APP:OMDB-X-REF
```

REPT:RCVRY-HSD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT RCVRY HSD a b [c]
```

2. REASON FOR OUTPUT

To report the outcome of a high-speed synchronous data link (HSD) recovery attempt. The HSD, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Termination status. Valid value(s):
`ABORTED` = An error occurred: recovery failed.
`COMPLETED` = Recovery was successful.

`c` = Additional error information. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	196

Input Message(s):

```
CLR:IODRV
DGN:HSDC
RMV:HSD
RST:HSD
```

Output Message(s):

```
DGN:HSDC
```

```
REPT:HSD
REPT:HSDC
REPT:IOP
REPT:RCVRY-IOP
REPT:RCVRY-HSDC
RMV:HSD
RST:HSD
```

Output Appendix(es):

```
APP:IOP-F
APP:OMDB-X-REF
```

REPT:RCVRY-HSDC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT RCVRY HSDC a b [c]
```

2. REASON FOR OUTPUT

To report the outcome of a high-speed synchronous datalink controller (HSDC) recovery attempt. The HSDC, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Termination status. Valid value(s):
`ABORTED` = An error occurred: recovery failed.
`COMPLETED` = Recovery was successful.

`c` = Additional error information. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	196

Input Message(s):

```
CLR:IODRV
DGN:HSDC
RMV:HSDC
RST:HSDC
```

Output Message(s):

```
DGN:HSDC
```

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```
REPT:HSDC
REPT:IOP
REPT:RCVRY-IOP
RMV:HSDC
RST:HSDC
```

Output Appendix(es):

```
APP:IOP-F
APP:OMDB-X-REF
```

REPT:RCVRY-IOP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT RCVRYIOP a b [c]
```

2. REASON FOR OUTPUT

To report the outcome of an input/output processor (IOP) recovery attempt. The IOP, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Termination status. Valid value(s):
`ABORTED` = An error occurred: recovery failed.
`COMPLETED` = Recovery was successful.

`c` = Additional error information. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	196

Input Message(s):

```
CLR:IODRV
DGN:IOP
RMV:IOP
RST:IOP
```

Output Message(s):

```
DGN:IOP
```

```
REPT:RCVRY-IOP
RMV:IOP
RST:IOP
```

Output Appendix(es):

```
APP:IOP-F
APP:OMDB-X-REF
```

REPT:RCVRY-MT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT RCVRY MT a b [c]
```

2. REASON FOR OUTPUT

To report the outcome of a magnetic tape (MT) unit recovery attempt. The MT, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Termination status. Valid value(s):
`ABORTED` = An error occurred: recovery failed.
`COMPLETED` = Recovery was successful.

`c` = Additional error information. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	196

Input Message(s):

```
CLR:IODRV
DGN:MTC
RMV:MT
RST:MT
```

Output Message(s):

```
REPT:RCVRY-IOP
```

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```
REPT:RCVRY-MTC
REPT:IOP
REPT:MT
REPT:MTC
RMV:MT
RST:MT
```

Output Appendix(es):

```
APP:IOP-F
APP:OMDB-X-REF
```

REPT:RCVRY-MTC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT RCVRY MTC a b [c]
```

2. REASON FOR OUTPUT

To report the outcome of a magnetic tape controller (MTC) recovery attempt. The MTC, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Termination status. Valid value(s):
`ABORTED` = An error occurred; recovery failed.
`COMPLETED` = Recovery was successful.

`c` = Additional error information. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	196

Input Message(s):

```
CLR:IODRV
DGN:MTC
RMV:MTC
RST:MTC
```

Output Message(s):

```
REPT:IOP
```

```
REPT:MTC
REPT:RCVRY-IOP
RMV:MTC
RST:MTC
```

Output Appendix(es):

```
APP:IOP-F
APP:OMDB-X-REF
```

REPT:RCVRY-MTTY

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT RCVRY MTTY a b [c]
```

2. REASON FOR OUTPUT

To report the outcome of a maintenance teletypewriter (MTTY) recovery attempt. The MTTY, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Termination status. Valid value(s):
`ABORTED` = An error occurred: recovery failed.
`COMPLETED` = Recovery was successful.

`c` = Additional error information. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	196

Input Message(s):

```
CLR:IODRV
DGN:MTTYC
RMV:MTTY
RST:MTTY
```

Output Message(s):

```
DGN:MTTYC
```

```
REPT:RCVRY-IOP
REPT:RCVRY-MTTYC
REPT:IOP
REPT:MTTY
REPT:MTTYC
RMV:MTTY
RST:MTTY
```

Output Appendix(es):

```
APP:IOP-F
APP:OMDB-X-REF
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:RCVRY-MTTYC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT RCVRY MTTYC a b [c]
```

2. REASON FOR OUTPUT

To report the outcome of a maintenance teletypewriter controller (MTTYC) recovery attempt. The MTTYC, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Termination status. Valid value(s):
`ABORTED` = An error occurred: recovery failed.
`COMPLETED` = Recovery was successful.

`c` = Additional error information, Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	196

Input Message(s):

```
CLR:IODRV
DGN:MTTYC
RMV:MTTYC
RST:MTTYC
```

Output Message(s):

```
DGN:MTTYC
REPT:RCVRY-IOP
```

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```
REPT:IOP
REPT:MTTYC
RMV:MTTYC
RST:MTTYC
```

Output Appendix(es):

```
APP:IOP-F
APP:OMDB-X-REF
```

REPT:RCVRY-ROP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT RCVRY ROP a b [c]
```

2. REASON FOR OUTPUT

To report the outcome of a receive-only printer (ROP) recovery attempt. The ROP, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Termination status. Valid value(s):
`ABORTED` = An error occurred: recovery failed.
`COMPLETED` = Recovery was successful.

`c` = Additional error information. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	196

Input Message(s):

```
CLR:IODRV
DGN:MTTYC
RMV:ROP
RST:ROP
```

Output Message(s):

```
DGN:MTTYC
```

```
REPT:ROP
REPT:IOP
REPT:MTTYC
REPT:RCVRY-MTTYC
RMV:ROP
RST:ROP
```

Output Appendix(es):

```
APP:IOP-F
APP:OMDB-X-REF
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:RCVRY-SCC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT RCVRY SCC a b [c]
```

2. REASON FOR OUTPUT

To report the outcome of a Switching Control Center (SCC) recovery attempt. The SCC, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Termination status. Valid value(s):
`ABORTED` = An error occurred: recovery failed.
`COMPLETED` = Recovery was successful.

`c` = Additional error information. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	196

Input Message(s):

```
CLR:IODRV
DGN:MTTYC
RMV:SCC
RST:SCC
```

Output Message(s):

```
DGN:MTTYC
REPT:RCVRY-IOP
```

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```
REPT:RCVRY-MTTYC
REPT:IOP
REPT:MTTYC
REPT:SCC
RMV:SCC
RST:SCC
```

Output Appendix(es):

```
APP:IOP-F
APP:OMDB-X-REF
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:RCVRY-SCSDC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT RCVRY SCSDC a b [c]
```

2. REASON FOR OUTPUT

To report the outcome of a scanner and signal distributor (SCSD) recovery attempt. The SCSD, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Termination status. Valid value(s):
`ABORTED` = An error occurred: recovery failed.
`COMPLETED` = Recovery was successful.

`c` = Additional error information. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	196

Input Message(s):

```
CLR:IODRV
RMV:SCSDC
RST:SCSDC
```

Output Message(s):

```
REPT:RCVRY-IOP
REPT:IOP
REPT:SCSDC
```

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```
RMV:SCSDC
RST:SCSDC
```

Output Appendix(es):

```
APP:IOP-F
APP:OMDB-X-REF
```

REPT:RCVRY-SDL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT RCVRY SDL a b [c]
```

2. REASON FOR OUTPUT

To report the outcome of a synchronous datalink (SDL) recovery attempt. The SDL, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Termination status. Valid value(s):
`ABORTED` = An error occurred: recovery failed.
`COMPLETED` = Recovery was successful.

`c` = Additional error information. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	196

Input Message(s):

```
CLR:IODRV
DGN:SDLC
RMV:SDL
RST:SDL
```

Output Message(s):

```
DGN:SDLC
```

```
REPT:RCVRY-IOP
REPT:RCVRY-SDLC
REPT:IOP
REPT:SDL
REPT:SDLC
RMV:SDL
RST:SDL
```

Output Appendix(es):

```
APP:IOP-F
APP:OMDB-X-REF
```

REPT:RCVRY-SDLC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT RCVRY SDLC a b [c]
```

2. REASON FOR OUTPUT

To report the outcome of a synchronous datalink controller (SDLC) recovery attempt. The SDLC, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Termination status. Valid value(s):
`ABORTED` = An error occurred: recovery failed.
`COMPLETED` = Recovery was successful.

`c` = Additional error information. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	196

Input Message(s):

```
CLR:IODRV
DGN:SDLC
RMV:SDLC
RST:SDLC
```

Output Message(s):

```
DGN:SDLC
```

```
REPT:RCVRY-IOP
REPT:IOP
REPT:SDLC
RMV:SDLC
RST:SDLC
```

Output Appendix(es):

```
APP:IOP-F
APP:OMDB-X-REF
```

REPT:RCVRY-TTY

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT RCVRY TTY a b [c]
```

2. REASON FOR OUTPUT

To report the outcome of a teletypewriter (TTY) recovery attempt. The TTY, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Termination status. Valid value(s):
`ABORTED` = An error occurred: recovery failed.
`COMPLETED` = Recovery was successful.

`c` = Additional error information. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	196

Input Message(s):

```
CLR:IODRV
DGN:TTYC
RMV:TTY
RST:TTY
```

Output Message(s):

```
DGN:TTYC
```

```
REPT:RCVRY-IOP
REPT:RCVRY-TTYC
REPT:IOP
REPT:TTY
REPT:TTYC
RMV:TTY
RST:TTY
```

Output Appendix(es):

```
APP:IOP-F
APP:OMDB-X-REF
```

REPT:RCVRY-TTYC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT RCVRY TTYC a b [c]
```

2. REASON FOR OUTPUT

To report the outcome of a teletypewriter controller (TTYC) recovery attempt. The TTYC, initially in the active state, changes to the recovery state when the first error is detected. It remains in this state until the recovery is either successful or the unit is removed from service because of a high error count.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Termination status. Valid value(s):
`ABORTED` = An error occurred: recovery failed.
`COMPLETED` = Recovery was successful.

`c` = Additional error information. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the unit is ultimately removed from service (because of a high error count), run diagnostics and repair the unit.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	196

Input Message(s):

```
CLR:IODRV
DGN:TTYC
RMV:TTYC
RST:TTYC
```

Output Message(s):

```
DGN:TTYC
```

```
REPT:RCVRY-IOP
REPT:IOP
REPT:TTYC
RMV:TTYC
RST:TTYC
```

Output Appendix(es):

```
APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D
APP:AUDITS
APP:IOP-F
APP:MAINT-RESP
APP:OMDB-X-REF
APP:TLP-NOTE
```

REPT:RDFI-TFPT

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT RDFI=a-b-c TRBL FIDB PARITY TROUBLE d
  e RECOVERY ACTION f
```

2. REASON FOR OUTPUT

To respond to a facility interface (FI) interrupt caused by facility interface data bus (FIDB) parity errors in the remote digital facility interface (RDFI).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Digital line/trunk unit (DLTU) number.

`c` = Service group number.

`d` = Event number.

`e` = Error type which indicates FIDB parity trouble.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`INITIALIZE` = The failing circuit has been initialized.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the result of the diagnostic.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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REPT:RDFI-TRBL

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT RDFI=a-b-c TRBL d EVENT=e
  f RECOVERY ACTION g
  h i j
 [k] . . .
```

2. REASON FOR OUTPUT

To report the occurrence of a hardware error in a remote digital facilities interface (RDFI) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line/trunk unit number.

`c` = Circuit number.

`d` = Error report. Refer to Exhibit A.

`e` = Event number.

`f` = Error type qualifying the error report (refer to Exhibit A).

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`INITIALIZE` = The failing circuit has been initialized.
`RMV` = The failing circuit will be removed from service. Manual intervention is required to restore the circuit to service.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A DGN:DFI message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A DGN:DFI message will be printed with the result of the diagnostic.

`h` = External logical circuit name.

`i` = Current decimal number of errors of this type recorded.

`j` = Error count threshold above which the recovery action will be escalated.

`k` = Register contents (refer to Exhibit A).

Note: Skip bytes 1 and 2, '`k`' value starts from byte 3.

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Exhibit A

'd' value =	'f' value =	'k' value =
DFI CCB ERR - A communication control buffer (CCB) error was detected by the DFI. or DFI UCI ERR - a unified control interface (UCI) error was detected by the DFI.	INTERNAL DATA TROUBLE	0x0095 - Transmit formatter exercise alarm data. 0x0096 - Receive synchronizer exercise alarm data 0x0097 - Framer exercise alarm data.
DFI CCB ERR - A communication control buffer (CCB) error was detected by the DFI. or DFI UCI ERR - a unified control interface (UCI) error was detected by the DFI.	INTERNAL CONTROL TROUBLE	0x0090 - Firmware fault register data 0x009b - CCB or UCI status alarm
DFI CCB ERR - A communication control buffer (CCB) error was detected by the DFI. or DFI UCI ERR - a unified control interface (UCI) error was detected by the DFI.	SANITY TIMEOUT	
DFI PIDB LOSS OF CLOCK ALARM		Time slot number.
REDUNDANT TM SERV REQ		
UNUSED CCB REG ACTIVITY		
DUAL PORT RAM ERROR		
INTERRUPT THRU DFI MASK		
UNEXPECTED SERVICE REQUEST	= Illegal derived data link (DDL) message occurring between HSM-RSM digital facility interface (DFI) circuits, or between CDFI circuits.	
ILLEGAL DDL RECEIVED	= Source analysis data 24 bytes. Bytes three and four contain the number of DDL bytes received by PERFR. Bytes 5 to 24 contain data.	
FIDB PARITY FAILURE	= Remote link interface (RLI) (in particular a facility interface (FI) interrupt caused by facility interface data bus (FIDB) errors on an inter-RSM communication link CDFI or an RDFI circuit.	
FIDB PARITY TROUBLE	FIDB number.	
REMOTING FACILITY DATA PATH FAULT	EBIT CONTINUITY FAILURE	
PIDB PARITY FAILURE	= TSI interrupt caused by PIDB parity errors in the DFI.	
PIDB PARITY TROUBLE	Total number of errored channels.	
DFI STATUS ERROR	= Trouble indication in the DFI circuit microprocessor.	
SANITY TIMEOUT		

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INTERRUPT THRU DFI MASK		
INTERNAL DATA PATH FAULT	= A digital signal interface (DSI) loopback was detected by the DFI.	
SANITY TIMEOUT INTERRUPT THRU DFI MASK		

4. ACTION TO BE TAKEN

An error report indicates an error condition which could cause the removal of a unit. Any removed unit should be repaired and restored to service. Additional messages which provide useful data may be output.

5. ALARMS

An alarm will be displayed if the recovery action results in the circuit being removed from service. RDFIs will display a minor alarm for the first facility which is removed from service and a major alarm if more than one facility is out of service.

6. REFERENCES

Input Message(s):

```
ALW:HDW-DFI
ALW:HDW-RDFI
DGN:DFI
DGN:RDFI
INH:HDW-DFI
INH:HDW-RDFI
RST:DFI
```

Output Message(s):

```
DGN:DFI
DGN:RDFI
RST:DFI
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-600-500 *Asserts*

REPT:RDFI-TRFP

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT RDFI=a-b-c TRBL REMOTING FACILITY PATH FAULT d
  e EBIT CONTINUITY FAILURE RECOVERY ACTION f
```

2. REASON FOR OUTPUT

To respond to the E-bit parity errors occurring between the network side of a remote switching module time-slot interchange (RSM-TSI) and the peripheral side of the host switching module time-slot interchange (HSM-TSI).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Digital line/trunk unit (DLTU) number.

`c` = Service group number.

`d` = Event number.

`e` = Error type that indicates EBIT continuity failure.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`INITIALIZE` = The failing circuit has been initialized.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the result of the diagnostic.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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REPT:REAL-TIME

Software Release: 5E12 and later
Message Class: AMA
Application: 5
Type: Output

1. FORMAT

```
REPT REAL TIME BILLING MEMORY THRESHOLD a
  SM =  b THRESHOLD =  c% OCCUPANCY =  d%
```

2. REASON FOR OUTPUT

To report that the real time billing memory (RTBM) occupancy has crossed one of its pre-defined threshold levels. The RTBM stores the real time call detail (RTCD) records when they are can not be transmitted off the switch. If the RTBM occupancy level is 100%, all new RTCD records will be discarded.

3. VARIABLE FIELD DEFINITIONS

`a` = Threshold direction. Valid value(s):
- `INCREASED` = The occupancy threshold has increased.
- `DECREASED` = The occupancy threshold has decreased.
- `NO CHANGE` = The occupancy threshold has not changed.

`b` = Switching module (SM) number.

`c` = Threshold level crossed. A new report will be printed each time a threshold level is crossed. Valid value(s):
- `50%` = RTBM occupancy increased beyond 50%.
- `80%` = RTBM occupancy increased beyond 80%.
- `100%` = RTBM occupancy increased to 100%.
- `99%` = RTBM occupancy decreased below 99%.
- `79%` = RTBM occupancy decreased below 79%.
- `49%` = RTBM occupancy decreased below 49%.

`d` = Current percentage of RTBM occupied with untransmitted records.

4. ACTION TO BE TAKEN

The path to the billing collector may be down. Please verify the integrity of each portion of the path, including:
- The path between this SM and the global billing SM (such as, QLPS connectivity, CTS links).
- The path between the global billing SM and the ethernet hub.
- The path between the ethernet hub and the collector system billing collector.

If any of these paths are down, take corrective action to bring them back up.

In addition, consider increasing the RTBM memory size to allow storage of more real time call detail records.

5. ALARMS

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If the RC/V View 8.1 indicates that RTBM alarms are turned on, then the following alarms will apply:

Minor	= A minor alarm indicates that the RTBM occupancy increased above 50%.
Major	= A major alarm indicates that the RTBM occupancy increased above 80%.
Critical	= A major alarm indicates that the RTBM occupancy increased 100%. All new RTCD records will be discarded until the occupancy level decreases.

In all other cases, no alarm will be generated.

6. REFERENCES

Input Message(s):

```
None
```

Output Message(s):

```
None
```

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]

REPT:REGISTER

Software Release: 5E10 and later
Message Class: ASRTMON,INT_MON
Application: 5
Type: Output

1. FORMAT

```
REPT {AM|SM=a|CMP=b-c d|MCTSI=a-b d|QGP=b-e} REGISTER DUMP ENV=f SRC=g EVENT=h
  REGISTER DATA: i i i i
                 . . . .
                 . . . .
                 . . . .
```

2. REASON FOR OUTPUT

To report the contents of the processor registers associated with a previous REPT:STACK-FRAME output message.

The register data is dependent upon the reporting processor type.

The ASRTMON message class is used for defensive check failure error, otherwise the INT_MON message class is used.

This message is normally logged, but will also print in response to the input message OP:POSTMORT.

3. VARIABLE FIELD DEFINITIONS

`AM` = Administrative module.

`CMP` = Communication module processor.

`MCTSI` = Module controller/time slot interchange unit.

`SM` = Switching module.

`QGP` = Quad-link gateway processor.

`a` = SM number.

`b` = Message switch side (MSGS) or MCTSI side.

`c` = Physical CMP number.

`d` = Processor being reported on. Valid value(s):

- `MATE` = Mate CMP.
- `MH0` = Message handler 0.
- `MH1` = Message handler 1.
- `MH2` = Message handler 2.
- `PRIM` = Primary CMP.

`e` = QGP number.

`f` = Environment in which this request was stimulated. Refer to the APP:ENVIR appendix in the

Appendixes section of the Output Messages manual for a list of environments and the associated definitions.

`g` = Source of the stack trace request. Valid value(s):

- `AUD` = Audit.
- `DCF` = Defensive check failure.
- `FR` = Fault recovery.
- `UNKNOWN` = Unknown source.
- `SI` = System integrity.
- `SPP` = Single process purge.

`h` = Event number.

`i` = Hexadecimal value of the contents of the processor registers in the following order:

Unit	Value
AM	r0, r1, r2, r3, r4, r5, r6, r7, r8, r9, r10, r11, r12, r13, r14, r15
SM/CMP/QGP	a0, a1, a2, a3, a4, a5, a6, a7, d0, d1, d2, d3, d4, d5, d6, d7

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT:STACK-FRAME
REPT:STACK-TRACE
```

Output Appendix(es):

```
APP:ENVIR
```

REPT:REMACS

Software Release: 5E11 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
REPT  REMACS
  WARNING: REMACS DATA AUDITS ARE INHIBITED
```

2. REASON FOR OUTPUT

To report status information concerning the remote access subsystem (REMACS).

3. VARIABLE FIELD DEFINITIONS

No variables

4. ACTION TO BE TAKEN

This message indicates that the status of the REMACS data audits is inhibited. It results if the user previously executed the input message to manually inhibit the REMACS data audits. Refer to the EXC:REMACS input message in the Input Messages manual. This message will print about once every 5 minutes from the time the REMACS data audits were inhibited.

REMACS data audits correct data inconsistencies between the AM and the CNI nodes. While the REMACS data audits are inhibited, any inconsistencies will not be detected.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
  EXC:REMACS
```

Output Message(s):

```
  EXC REMACS
```

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REPT:REORD

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT REORD: PART a OF b

                  ORIG     ORIG       CALL    CALL    CALLED
        TIME       SM      PORT      STATE    TYPE      DN
        cc:cc:cc   d        e          f       g        h

[2]   ____________________________________________________________________
      REPT REORD: {NO REORDER DATA COLLECTED | MANUAL
        TERMINATION W/O DATA REPORTING}
```

2. REASON FOR OUTPUT

To respond to an ALW:REORD-SM input message upon the expiration of an associated 15-minute timer, or to an INH:REORD prior to the expiration of the timer.

Format 1 is used when there is collected reorder data to be printed on the receive-only printer (ROP).

Format 2 is used when no reorder data is collected, or in response to an INH:REORD without the print option specified.

3. VARIABLE FIELD DEFINITIONS

a

b = Total number of reports.

c = Time of reorder, in the form hours:minutes:seconds.

d = Originating switching module (SM) number.

e = Originating port number in hexadecimal.

f = Call state as seen from the originating customer. Valid value(s):
- A = Audible ringing.
- D = Dial.
- T = Transient.
- U = Other (unspecified).

g = Call type. Valid value(s):
- IW = Operator Support Position System inward.
- LL = Line-to-line.
- LT = Line-to-trunk.
- TL = Trunk-to-line.
- TT = Trunk-to-trunk.

`NA` = Not available.

`h` = Called directory number. This is a switch-translated directory number, not necessarily the dialed digit string.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:REORD-SM
INH:REORD
```

REPT:REORDER

Software Release: 5E11 and later
Message Class: SED
Application: 5
Type: Output

1. FORMAT

```
REPT REORDER THRESHOLD SM=a RCR=b LEVEL=c
```

2. REASON FOR OUTPUT

To alert maintenance personnel that the reorder count ratio, as calculated by measurements, has exceeded the limits set by recent change in RC/V 8.1. If the feature has been activated, a message containing the switching module (SM) number, reorder count ration (RCR), and threshold level (minor, major, or critical) will be sent to the receive-only printer (ROP) every 5 minutes.

3. VARIABLE FIELD DEFINITIONS

`a` = The number of the SM that sent the counts.

`b` = Reorder count ratio (RCR). This value represents the number of reorder calls divided by the number of completed calls.

`c` = Reorder threshold level (minor, major, or critical).

4. ACTION TO BE TAKEN

This is an advance warning of a possible problem with the switch. Some investigation may be required to determine the cause of the alarm. No specific recovery strategy or user actions are planned.

5. ALARMS

Minor, major, or critical.

6. REFERENCES

Output Message(s):

`OP:TRFC15-PT02A`

RC/V View(s):

RC/V 8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]

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REPT:REORG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT REORG a RELATION = {b|ALL|g} {AM|SM= c|CMP= d} [e] [f]
```

2. REASON FOR OUTPUT

To report the status or need of database relation reorganization. If the reorganization failed, the failing reason is also shown. The ODDWARN lamp on the 116 MCC page for AM, the 1800,x MCC page for SM, and the 1850, 1851 MCC pages for CMP, also will be lit if the reorganization is not completed.

3. VARIABLE FIELD DEFINITIONS

`ALL` = Relation reorganization completed on all relations for the specified processor unless manually inhibited or roll forward in progress. Refer to definition of variable field '`g`'.

`AM` = Relation is only on the administrative module (AM).

`a` = Reorganization states. Valid value(s):

- `ABORTED` = Relation could not be reorganized due to corrupted data in current copy of relation.
- `CANCELED` = Relation could not be reorganized due to overflow in new copy of relation.
- `COMPLETED` = Relation has been reorganized.
- `COMPLETED CONDITIONALLY` = Relation has been reorganized but failed to log for communications module processor (CMP) generated key relation.
- `FAILED` = Relation could not be reorganized due to system failure.
- `INHIBITED` = Reorganization was inhibited. Roll forward was in progress.
- `INHIBITED TUPLES IN OVERFLOW` = Reorganization was run under inhibit mode, and relation has tuples in overflow.
- `STOPPED` = Relation could not be reorganized due to low ODD space.

`b` = Name of the database relation.

`c` = Switching module (SM) number.

`d` = CMP number.

`e` = Reason for failing reorganization. Valid value(s):

```
BAD STATE FOR GENERATED KEY REORG
CAN NOT BEGIN TRANSACTION
CAN NOT COUNT TUPLES IN RELATION
CAN NOT CREATE RELATION
CAN NOT END TRANSACTION
CAN NOT FREE RELATION
CAN NOT GET OPEN DICTIONARY
CAN NOT LOG FOR CMP
CAN NOT OPEN RELATION
```

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```
CAN NOT READ FIRST TUPLE
CAN NOT READ NEXT TUPLE
CAN NOT RELEASE RELATION
CAN NOT REORG SKELETON RELATION
CAN NOT START TRANSACTION
CAN NOT WRITE TUPLE
DUPLICATE TUPLES
GENERATED KEY BEING INSERTED
LOW ODD SPACE
ODD BACKUP IS IN SECOND PHASE
OVERFLOW IN GENERATED KEY STORE
STILL OVERFLOW
SYSTEM ERROR
WRONG DISTRIBUTION TYPE
```

`f` = SM ODD memory type for STOPPED state. Valid value(s):

`NRODD` = Non-redundant ODD.

`RODD` = Redundant ODD.

`g` = Relation reorganization status. Valid value(s):

`ALL,STAT=INH` = Relation reorganization status checking completed in inhibit mode on all relations for the specified processor. For reorganization of these relations to complete, ALW:REORG must be input.

`ALL-RF INPROG` = Relation reorganization process completed on all relations for the specified processor. Some or all processing was inhibited due to database roll forward in progress.

4. ACTION TO BE TAKEN

If 'a' =	**Action:**
ABORTED	Fix data corruption and run manual reorganization.
CANCELED	Run hashing simulation and manual reorganization.
COMPLETED CONDITIONALLY	Run manual reorganization to make sure logging is done for CMP.
FAILED	Run manual or automatic reorganization again.
INHIBITED TUPLES IN OVERFLOW	Enter the ALW:REORG input message to allow automatic reorganization. Only relations having overflow will get reorganized.
STOPPED	An ODD growth is recommended. But, unconditional manual reorganization can be requested.

5. ALARMS

A major alarm is sounded when reorganization fails to complete.

6. REFERENCES

Input Message(s):

```
ALW:REORG
EXC:REORG
INH:REORG
SET:REORG
```

```
OP:ODDWARN
```

Output Message(s):

```
OP:ODDWARN
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:RETROFIT

Software Release: 5E12 and later
Message Class: SED_MON
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT RETROFIT TOTAL SYSTEM DOWNTIME
           DOWNTIME=aa:aa:aa  b  EVENT=c

[2]   ____________________________________________________________
      REPT RETROFIT PARTIAL SYSTEM DOWNTIME
           WEIGHTED DOWNTIME=aa:aa:aa  b  EVENT=c
           RETROFIT PARTIAL SYSTEM OUTAGE: d
```

2. REASON FOR OUTPUT

The retrofit downtime reports are printed approximately 10 minutes after the switch forward to the new software release.

Format 1 indicates the period of total loss of origination and termination capability. If a switch module fails to report its downtime, " - TIME MAY BE INVALID - " will be printed. If all switch modules fail to report downtime, then the outage time will be zeros and " - TIME NOT AVAILABLE - " will be printed.

Format 2 indicates the period of reduced call processing capability. If a switch module fails to report its downtime, " - TIME MAY BE INVALID - " will be printed. If all switch modules fail to report downtime, then the outage time will be zeros and " - TIME NOT AVAILABLE - " will be printed. If a switch module reports an outage of greater than 30 seconds, then a partial outage has occurred even though weighted downtime may be less.

3. VARIABLE FIELD DEFINITIONS

`a` = Outage time, in the form hours:minutes:seconds.

`b` = Time status. Valid values:
blank
`TIME MAY BE INVALID`
`TIME NOT AVAILABLE`

`c` = Event number.

`d` = System outage. Valid values:

YES

NO

4. ACTIONS TO BE TAKEN

None.

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5. ALARMS

None.

6. REFERENCES

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-106-10X Software Release Retrofit Procedures

REPT:RETRY-RPC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
REPT RETRY RPC DMA
  RETRY DMA ON RPCNa 0, RETRY COUNT = b
  TIME = c
```

2. REASON FOR OUTPUT

The message switch module (MSW) in the administrative module (AM) detects a ring peripheral control (RPC) not responding to it for a predetermined number of message switch cycles. The module attempts to recover from that by cleaning up the path between the AM and the RPC and issuing a processor input output (PIO) to inform the RPC to retry the last direct memory access (DMA) job.

3. VARIABLE FIELD DEFINITIONS

a	= A ring node (RN) group number.
b	= Number of times the AM MSW retries the DMA.
c	= AM real-time stamp when the retry occurs.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None

6. REFERENCES

Input/Output Messages:

None.

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

118 (CNI FRAME AND CCS LINK STATUS)

REPT:REX-ELS

Software Release: 5E10 and later
Message Class: MTCE,REX
Application: 5
Type: Output

1. FORMAT

```
REPT REX (ELS) [SM=a]
  CIRCUIT      COMPLETED      SKIPPED      NOT STARTED
   TYPE
  -------      ---------      -------      -----------
   LINE            b             c              d
```

2. REASON FOR OUTPUT

To summarize electronic loop segregation (ELS) tests of routine exercise for hardware based in one or all switching modules (SMs) and the administrative module.

3. VARIABLE FIELD DEFINITIONS

a = SM number.
Note: If this field is blank, all SM ELS test summaries are to be printed.

b = Number of lines for which the tests are completed.

c = Number of lines skipped for reasons such as the lines were unassigned, out of service, or private branch exchange (PBX) lines.

d = Number of lines for which the tests were not started for reasons such as unavailability of resource, failure to release resources, or database error.

Note: If a summary of all test types (DGN, ELS, and FAB) is requested. If no electronic loop segregation (ELS) tests are run, variables 'a', 'b', and 'c' will all be reported as zero after a 24-hour summary.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:REX-SUM

Software Release: 5E10 and later
Message Class: REX
Application: 5,3B
Type: Output

1. FORMAT

```
REPT REX SUMMARY {IN PROGRESS | COMPLETED}
  TIME         EQUIPMENT ID                  RESULT  RET     STATE
  aa:aa:aa     b        c  [d      e]        f       [g]     h
```

2. REASON FOR OUTPUT

To report a summary of routine exercise (REX) results for all hardware units that were exercised.

3. VARIABLE FIELD DEFINITIONS

a = Local time when the exercise of this unit was completed (in hours, minutes and seconds).

b = Unit name.

c = Unit number.

d = Subunit name.

e = Subunit number.

f = Result of exercising the specified unit. Valid value(s):

ABT	= Diagnostics were aborted.
ATP	= All tests passed.
CATP	= Conditional ATP.
ERR	= Error return code received from maintenance input request administration (MIRA).
FAULT	= Unit was excessively faulty.
INH	= REX was inhibited for this unit.
MAN	= Unit was removed manually.
NODGN	= No diagnostic phases exist for this unit.
NRPY	= No reply received from MIRA.
NTR	= No tests were run.
OOS	= Unit was out-of-service (OOS); could not be exercised.
PORTSW	= Could not portswitch.
STF	= Some tests failed.
TIMEOUT	= Timeout occurred.

g = Return codes. Valid value(s):

2	= Request inhibited.
3	= MIRA out of buffers.
4	= MIRA cannot spawn diagnostic monitor (DIAMON) program.
5	= Duplicate request already in queue.
6	= Request aborted by STOP:DMQ or STP:DMQ input message.
7	= Internal problem; request aborted.

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8	= Remove attempt failed.
9	= Restore attempt failed.

h = The state of the unit after REX exercised it. Valid value(s):

ACT	= Active.
GROW	= Grow state.
INIT	= Initializing.
OFL	= Off-line.
OOS	= Out-of-service.
STBY	= Standby.
UNAV	= Unavailable.
UNEQUIP	= Unequipped.

Note: This field reflects the state of the unit when the exercise is finished, which may not be the current state of the unit. If external events result in the removal of a unit (that is, manually removed, removed from a fault, softswitch, and so forth), after REX has exercised it, the new state is not reflected in this variable.

4. ACTION TO BE TAKEN

If any units failed diagnostics or were left OOS, manual action is required to restore them.

5. ALARMS

None. This is an automatically generated report. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	26

Input Message(s):

```
ALW:DMQ
ALW:REX
INH:DMQ
INH:REX
OP:DMQ
OP:REXINH
STOP:DMQ
STP:DMQ
```

Output Message(s):

```
ALW:DMQ
ALW:REX
INH:DMQ
```

```
INH:REX
OP:DMQ
OP:REXINH
REPT:DMQ
STOP:DMQ
STP:DMQ
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:REX-UNABLE

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT REX UNABLE TO SEND MESSAGE TO
        APPLICATION REX PORT

[2]   ____________________________________________________________
      REPT REX UNABLE TO REQUEST PORTSWITCH FOR IOP
        DIAGNOSIS

[3]   ____________________________________________________________
      REPT REX ROP PORTSWITCH REQUEST DENIED

[4]   ____________________________________________________________
      REPT REX MTTY PORTSWITCH REQUEST DENIED

[5]   ____________________________________________________________
      REPT REX MAJOR ALARM a

[6]   ____________________________________________________________
      REPT REX CANNOT OPEN b

[7]   ____________________________________________________________
      REPT REX TERMINATED-INTERNAL REQUEST

[8]   ____________________________________________________________
      REPT REX MINOR ALARM a
```

2. REASON FOR OUTPUT

For Format 1, before REX removes the input/output processors (IOPs) for diagnosis, it will send a message to PT_REX to notify the applications of the removal. The applications can then gracefully stop their datalink transmission. If no process is connected to this port, this message will be printed and execution will continue normally.

For Format 2, before REX removes an IOP for diagnosis, it must make sure the portswitches for the maintenance terminal (MTTY) or receive-only printer (ROP) are not active. This message indicates REX had a problem locating the unit control block (UCB) for the ROP or MTTY.

For Format 3, REX sent a request to portswitch the ROP and it was denied or could not be executed.

For Format 4, REX sent a request to portswitch the MTTY and it was denied or could not be executed.

For Format 5, essential unit found to be out-of-service (OOS).

For Format 6, REX could not open the specified file to output the REX report.

For Format 7, REX received a sigterm signal and is terminating. For

Format 8, REX found an OOS unit with a controlling unit that is an IOP. This is a condition to signal a minor alarm.

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3. VARIABLE FIELD DEFINITIONS

a = Name and number of the essential unit found to be OOS.

b = Name of the output file for REX report.

4. ACTION TO BE TAKEN

For Format 1, this report can be ignored if the application does not wish to receive the message from the *UNIX*® RTR REX process.

For Format 2, check the states of IOP subunits and portswitches (ROP and MTTY). Verify that a portswitch can be executed.

For Format 3, check to see if a manual portswitch can be requested.

For Format 4, check to see if a manual portswitch can be requested. Also check the states of the IOP subunits.

For Format 5, request a restoration on the hardware unit or community. No further action is required if the restore is successful. If the hardware unit or community actually failed to restore, manual action is required to diagnose, repair, and restore the hardware unit or community to service.

For Format 6, determine if the specified file system is full, and remove unneeded files.

For Format 7 no action is required.

For Format 8, request a restoration on the hardware unit or community. No further action is required if the restore is successful. If the hardware unit or community actually failed to restore, manual action is required to diagnose, repair, and restore the hardware unit or community to service.

5. ALARMS

This alarm may be a manually-requested report, or an automatically-generated report.

If a minor alarm occurs, take action as indicated in the report.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	28
2	29
3	30
4	31
5	32
6	33
7	27
8	468, 473

Input Message(s):

```
OP:OOS
SW:PORTSW
```

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Output Appendix(es):

APP:OMDB-X-REF

REPT:RG1AUD

Software Release: 5E11 and later
Message Class: CSS
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT RG1AUD

        RING 1 AUDIT ACTIVE FOR a MINUTES

        X' bbbbcccc X'dddddddd X'eeeeeeee

[2]   ____________________________________________________________________
      REPT RG1AUD

        RG1AUD COMPLETED, f MINUTE DURATION EXPIRED

        X'bbbbcccc  X'dddddddd X'eeeeeeee

[3]   ____________________________________________________________________
      REPT RG1AUD

        RG1AUD ABORTED: IMS INITIALIZATION DETECTED

[4]   ____________________________________________________________________
      REPT RG1AUD

        RG1AUD ABORTED: RING RECONFIGURATION DETECTED
```

2. REASON FOR OUTPUT

Prints as a result of a EXC:RG1AUD input message.

Format 1 prints after each 3 minute interval in which the Ring 1 Audit has been running. Format 2 prints after the Ring 1 Audit has run to completion. Format 3 prints when an IMS initialization occurs while the Ring 1 Audit is running. Format 4 prints when the CNI ring is re-configured while the Ring 1 Audit is running.

3. VARIABLE FIELD DEFINITIONS

a = The duration in minutes the Ring 1 Audit has been running (updated every 3 minutes)

b = The message sending rate in HEXADECIMAL (HIGH=X'0001, MED=X'000a, LOW=X'0064)

c = Requested duration of Ring 1 Audit in minutes (1-480 minutes)

d = The test pattern used in Ring 1 Audit message

e = Count of messages sent

f = The completed Ring 1 Audit duration in minutes (1-480 minutes).

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4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:RG1AUD
```

Output Message(s):

```
OP RG1AUD
STOP RG1AUD
EXC RG1AUD
```

REPT:RGP-PRT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT RGP_PRT RGRASP KERNEL DEAD
        RGP_PRT TERMINATING

[2]   ____________________________________________________________________
      REPT RGP_PRT PRTCHAR ARG CNI FAILURE
        RGP_PRT TERMINATING

[3]   ____________________________________________________________________
      REPT RGP_PRT KERNEL BUFFER FAILURE
        RGP_PRT TERMINATING

[4]   ____________________________________________________________________
      REPT RGP_PRT RGRASP BAD PRTCHAR OST RETURN
        RGP_PRT TERMINATING, RETURN CODE = a

[5]   ____________________________________________________________________
      REPT RGP_PRT RUTIL BAD MSG HDR TYPE = b

[6]   ____________________________________________________________________
      REPT RPG_PRT LOST NIDE RGRASP MSGS
        LOST MSG CNT:  c

[7]   ____________________________________________________________________
      REPT RGP_PRT PORT CONNECTION FAILURE
        RPG_PRT TERMINATING, PPT_RGPU PID = d, RGP_PRT PID = e

[8]   ____________________________________________________________________
      REPT RGP_PRT CIALIVE FAILURE
        RPG_PRT TERMINATING, PARENT ID = f, RETURN CODE = g
```

2. REASON FOR OUTPUT

Indicates anomalies with the print process of the RGRASP tool. The RGRASP kernel has gone away.

The print process has provided the RGRASP kernel with invalid argument values, or that the kernel buffer management has detected an illegal buffer pointer condition. The RGRASP kernel has returned an unrecognized error return code from the print processes operating system trap function call. A non-RGRASP message has been encountered by the RGRASP tool. A number of RGRASP messages were lost. The RGP_PRT process failed to connect to a port. The RGP_PRT process call to CIalive() failed.

3. VARIABLE FIELD DEFINITIONS

a = Operating system trap (OST) return code.

b = Non-RGRASP message type.

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`c` = Number of RGRASP messages lost.

`d` = PT_RGPU process ID.

`e` = RGP_PRT process ID.

`f` = Parent process ID of RGP_PRT

`g` = Return code from the Clalive() function call.

4. ACTION TO BE TAKEN

For Formats 1, 5, 7, and 8, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 6, indicate that due to some overflow condition, some messages from the node were thrown away. Messages that were not discarded are still printed.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:RUTIL
ALW:RUTILFLAG
CLR:RUTIL
CLR:RUTILFLAG
DUMP:RUTIL
INH:RUTIL
INH:RUTILFLAG
LOAD:RUTIL
OP:RUTIL
OP:RUTILFLAG
WHEN:RUTIL
```

Output Message(s):

```
ALW:RUTIL
ALW:RUTILFLAG
CLR:RUTIL
CLR:RUTILFLAG
DUMP:RUTIL
INH:RUTIL
INH:RUTILFLAG
LOAD:RUTIL
OP:RUTIL
REPT:RUTIL
WHEN:RUTIL
```

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*

REPT:RING-CFR-A

Software Release: 5E10 only
Message Class: SWM01
Application: 5,CNI
Type: Output

1. FORMAT

[1]
```
REPT RING CFR
  RING CONFIGURATION ESTABLISHED (h MS)
  NORMAL CONFIGURATION, NO NODES ISOLATED
  (l) (m)
```

[2]
```
REPT RING CFR
  RING CONFIGURATION ESTABLISHED (h MS)
  BISO NODE = a, EISO NODE = b
  (l) (m)
```

[3]
```
REPT RING CFR
  RING CONFIGURATION ATTEMPT FAILED j
  COULD NOT ESTABLISH A NORMAL RING CONFIGURATION
  f f f f f f
  (l) (m)
```

[4]
```
REPT RING CFR
  RING CONFIGURATION ATTEMPT FAILED j
  COULD NOT ESTABLISH BISO NODE = a, EISO NODE = b
  f f f f f f
  (l) (m)
```

[5]
```
REPT RING CFR
  LEVEL i RING CONFIGURATION INITIATED BY e
  [ NORMAL CONFIGURATION |  ISOLATION FROM a to b ] REQUESTED
  f f f f f f f f (g)
```

[6]
```
REPT RING CFR
  LEVEL i RING CONFIGURATION INITIATED BY e
  [ NORMAL CONFIGURATION |  ISOLATION FROM a to b ] FAILED RSN = c
  d
  f f f f (g)
```

[7]
```
REPT RING CFR
  LEVEL i RING CONFIGURATION INITIATED BY e
  f f f f f f f (g)
```

[8]
```
REPT RING CFR
  EAR COULD NOT IDENTIFY A RING PROBLEM
```

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```
        (g)

[9]   ____________________________________________________________________
      REPT RING CFR
        EAR DETECTED A RING PROBLEM BUT FAILED TO RESOLVE ITS EXACT LOCATION
        f f f f f (g)

[10]  ____________________________________________________________________
      REPT RING CFR
        WARNING:  BISO AND/OR EISO NODE OOS
        BISO NODE = a, EISO NODE = b
        k

[11]  ____________________________________________________________________
      REPT RING CFR
        EXCESSIVE ATTEMPTS TO CFR RING

[12]  ____________________________________________________________________
      REPT RING CFR
        WARNING:  RING CONGESTION MAY OCCUR DUE TO INSUFFICIENT RING CAPACITY
        RING CAPACITY = n BYTES, CAPACITY TO AVOID CONGESTION < o BYTES

[13]  ____________________________________________________________________
      REPT RING CFR
        RING CAPACITY IS SUFFICIENT TO AVOID RING CONGESTION
        RING CAPACITY = n BYTES, CAPACITY TO AVOID CONGESTION < o BYTES
```

2. REASON FOR OUTPUT

To report the status of a ring configuration after automatic ring recovery (ARR). Format 1 or 2 prints whenever a new ring configuration was successfully established, either manually or automatically.

Format 1 reports that a normal ring configuration was established.

Format 2 reports that one or more ring nodes were isolated from the active ring forming an isolated ring segment. The indicated beginning of isolation (BISO) and end of isolation (EISO) nodes bound the isolated ring segment on each side. The convention used is as follows. Ring 0 identifies the ring that propagates messages around the ring, following the ring nodes in ascending order (such as, LN32 1 to LN32 2 to LN32 3 etc.). Similarly, ring 1 identifies the ring that propagates messages around the ring, following ring nodes in descending order. As ring 0 is traversed in the direction of message propagation, the BISO node is the last node encountered in the active ring segment before entering the isolated ring segment. Similarly, the EISO node is the first node encountered in the active ring segment as ring 0 is traversed of the isolated ring segment.

Formats 3 or 4 print whenever an attempt to establish a new ring configuration was unsuccessful. Automatic fault recovery is activated and will attempt to establish a working ring configuration.

Format 3 reports that an attempt to establish a normal ring configuration failed.

Format 4 reports that an attempt to establish an active ring segment with the indicated BISO and EISO nodes failed.

Format 5 reports whenever automatic fault recovery requests a ring configuration of level 2 or less in an attempt to establish a working ring. The request is made as a result of a fault associated with one or more ring nodes, or a failure of an ongoing configuration. Level 0 represents an attempt to establish the previous ring configuration. Level 1 indicates a configuration based on reported ring errors. Level 2 indicates an escalation from a Level 1 configuration that includes isolating additional nodes.

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Format 6 prints whenever automatic fault recovery requests a base level configuration that is rejected immediately. The reason for the rejection and the rejection code are specified. This report is issued in lieu of Format 5. Escalation to level 3 is made immediately.

Format 7 prints whenever automatic fault recovery requests a level 3 or greater ring configuration. This can occur in response to a failure of a lower base level reconfiguration attempt, or in response to nondeterministic failures such as loss of ring token.

Format 8 report is issued following a ring EAR level 4 or 5 recovery where the recovery procedure did not identify any faulty nodes beyond those already believed to exist. In other words, there was no trouble found in the level 4 or 5 testing. When a ring EAR level 4 completes in this manner, the normal 5 second ring EAR confidence interval is extended to 30 seconds. This is done so that any subsequent ring failure within 30 seconds will cause escalation to a ring EAR level 5 recovery. Here, the level 5 recovery may identify an intermittent failure missed by the level 4 recovery.

Format 9 report is issued following either a ring EAR level 5 recovery or the ring initialization phase of a level 4 IMS initialization where a ring problem was detected, but its exact location could not be resolved. Problems exhibiting an intermittent failure behavior pattern can cause this. When this report is issued, ring EAR has isolated a range of nodes which is believed to contain the faulty equipment. This range of isolated nodes may at times be quite large.

Format 10 prints whenever a BISO or EISO node becomes inactive. After the first message, subsequent messages of this format will be printed periodically until the inactive BISO and/or EISO node or another nearby node is restored.

Format 11 reports whenever an excessive number of attempts to reconfigure the ring fail within the specified time interval.

Format 12 reports that a ring blockage, due to ring congestion, may occur when the ring capacity is less than a safe threshold. After the first message, subsequent messages of this format will be printed at ten-minute intervals until the ring configuration is changed.

Format 13 prints when a ring configuration is established that has a ring capacity greater than the safe threshold. In addition, this message is only printed if the previous ring configuration caused output message Format 12 to print.

3. VARIABLE FIELD DEFINITIONS

a = Ring node name of BISO node.

b = Ring node name of EISO node.

c = Failure code returned by ring configuration.

d = Reason for failure. Valid value(s):

- 2 = IMS RING CONFIGURATION PROGRAM ERROR
- 4 = CANDIDATE CONTROLLING RPC NODE NOT AVAILABLE
- 5 = CAN'T ISOLATE ACT OR INIT NODE(S)
- 6 = CAN'T ISOLATE ADDITIONAL NODES
- 7 = ACTIVE RING SEGMENT NOT LONG ENOUGH
- 9 = ILLEGAL CONFIGURATION REQUEST FROM RING.EAR
- 10 = BISO AND/OR EISO NODE OOS, MUST BE RESTORED FIRST
- 11 = CAN'T ISOLATE ENTIRE RING
- 12 = CAN'T FRAGMENT EXISTING ISOLATED SEGMENT
- 13 = CAN'T INCLUDE GROW OR FAULTY NODES
- 14 = CANDIDATE BISO AND/OR EISO NODE NOT AVAILABLE
- 16 = ILLEGAL REQUEST

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17 = REQUESTED RING CONFIGURATION ALREADY EXISTS

e = Reason for the requested configuration. Valid value(s):

EAR = RING TRANSPORT ERRS have been received, or an escalation of an ongoing config attempt failed.

IUN TEST = During initialization, the interprocessor message switch user node (IUN) test phase caused ring blockage.

CNFG RQST = A normal ring configuration failed and started automatic fault recovery.

INTRNL RQST = The previous BISO or EISO was not active.

f = Internal state information.

g = Real-time clock value when the report was formatted. The Real-time clock has the granularity of the IMS. Used in correlation with other reports.

h = Approximate ring silence time (in milliseconds).

i = Level of ring recovery currently being undertaken.

j = Reason code for the config job failure. Valid value(s):

3 = IMS RING CONFIGURATION PROGRAM ERROR
4 = DMA FAILURE AT RPC NODE
5 = PREPARATION FOR RING CONFIGURATION ATTEMPT
6 = SYSTEM FAILED TO RESTORE AFTER CONFIGURATION WAS ESTABLISHED
7 = JOB ABORTED, GUARD TIMER FIRED
8 = RING ERRORS REPORTED AFTER CONFIGURATION WAS ESTABLISHED
9 = RPC CONFIG COMPLETION MESSAGE NOT RECEIVED
10 = FORCED READ OPERATION FAILED
11 = OPERATION TO QUARANTINE ISOLATED NODE FAILED
12 = OPERATION TO QUARANTINE NODE FAILED
13 = RING SILENCE OPERATION FAILED
14 = OPERATION TO CLEAR ISOLATION FAILED
15 = OPERATION TO ESTABLISH ISOLATED SEGMENT FAILED
16 = OPERATION TO SHRINK/REMOVE ISOLATED SEGMENT FAILED
17 = RING TEST FAILED
18 = WRITING OF TOKENS FAILED
19 = ISOLATOR INTEGRITY TEST FAILED
20 = RING TEST FAILED; HAVE NORM, EXPECTED ISO
21 = RING TEST FAILED; HAVE ISO, EXPECTED NORM
22 = RING INITIALIZATION FAILED, RING IS DOWN

k = Status of restoration activity on the OOS BISO/EISO node. Valid value(s):

WAITING FOR NODE a TO BE RESTORED = This does not imply that a restore is in progress on node restored, either manually or automatically, before the system can return to a stable state.

ACTIVE RING SEGMENT NOT LONG ENOUGH = There is insufficient ring capacity to allow the isolated segment to be extended.

NO BISO/EISO CANDIDATES AVAILABLE = There are no nodes in a suitable state to serve as a BISO/EISO node.

`l` = The real-time clock value when the ring configuration job started. Used in correlation with other reports.

`m` = The real time clock value when the ring configuration job completed (or aborted). Used in correlation with other reports.

`n` = The ring capacity in bytes of the current ring configuration.

`o` = The ring capacity "safe" threshold. If the ring capacity is greater than this value, ring blockage due to ring congestion will not occur.

4. ACTION TO BE TAKEN

For Format 1, no action is necessary; a normal ring configuration exists.

For Format 2, no action is necessary; an isolated segment exists.

For Format 3 and 4, no action is necessary. Automatic fault recovery is activated and will attempt to establish a working ring. A Format 5 output message should precede this message for every ring configuration attempt requested by automatic fault recovery, followed by a Format 1, 2, 3, or 4 output message, until a working ring configuration is successfully established, indicated by a Format 1 or Format 2 output message.

For Format 5, if this output message precedes either a Format 1, 2, 3, or 4 output message, automatic fault recovery is in progress and attempting to establish a working ring configuration. No action is necessary.

For Format 6, the requested base level configuration failed for the reason given. Escalation is made immediately to a level 3 configuration. No action is necessary.

For Format 7, a level of configuration greater than or equal to 3 has been requested by automatic fault recovery. This involves visiting every ring peripheral controller node (RPCN) and determining if continuity exists between it and its neighbor RPCNs. A usable ring configuration is determined from the results of these tests. No action is necessary.

For Format 8, a level 4 or 5 ring EAR recovery yielded no trouble found. No action is necessary. However, be aware that there may be an intermittent problem somewhere in the ring. Transient problems that are difficult to locate may sometimes be identified by monitoring ring performance over an extended period of time.

For Format 9, this report indicates that ring EAR procedures for locating a ring problem are insufficient. It is probable that the problem is within the range of isolated nodes. Unfortunately, at times this may involve many nodes. Problems exhibiting an intermittent failure where the time between failures is greater than 5 seconds can cause this. Physical stressing of interframe buffer cable connections, ring node circuit pack seating, and so forth, may stimulate the problem to occur frequently enough to be detected by ring node diagnostics. Also, past ring maintenance history may give some indication as to a suspect area of the isolated range of nodes. Finally, a last ditch and tedious effort to localize the problem could be done with repeated applications of the following procedure. Given a range of isolated nodes, remove the ring node circuit packs at a subset of this range, conditionally restore the other isolated nodes to service, and monitor the ring performance for instability.

For Format 10, if critical node restoration (CNR) is active, no action is necessary. The inactive BISO/EISO node or a suitable replacement will be automatically restored to service and the ring configured if necessary. If CNR is inhibited (should never be unless all diagnostics are inhibited, such as, using INH:DMQ;SRC ALL), manual action must be taken. Use the OP:DMQ input message to verify CNR is inhibited. Use the status field in this message or the OP:RING input message to determine which node (BISO or EISO) is inactive, and attempt to restore the node manually. If this is unsuccessful, attempt to restore the unisolated node adjacent to the inactive BISO/EISO node. If the restore is successful, the ring will be automatically reconfigured. If the restore fails, continue to manually restore

nearby unisolated nodes until a configuration with active BISO and EISO nodes is established.

For Format 11, internal fault recovery strategies have failed. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual to determine the cause of the ring problems. If this occurs during a high level IMS initialization, the ring will remain in the down state pending manual intervention. Otherwise, the ensuing IMS boot will determine the state of the ring and the application.

For Format 12, operation with the ring capacity below the safe threshold for an extended period of time should be avoided. The most likely situation where this can occur is when an integrated ring node (IRN) is grown or retrofitted into a previously all small scale integration (SSI) node ring. When this occurs, the safe ring capacity threshold is automatically adjusted upwards. If the proper padded interframe buffer (IFB) hardware has not been retrofitted into the ring, output message Format 10 may be printed following the growth/retrofit procedure. It is important to provide the proper padded IFBs when IRNs are introduced into a previously all SSI node ring. In another situation, the isolation of multiple ring nodes can reduce ring capacity to the point where output message Format 10 will print. Every effort should be made to restore the ring to a normal configuration.

For Format 13, no action is necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:DMQ
OP:DMQ
OP:RING
```

Output Message(s):

```
CFR:RING
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

REPT:RING-CFR-B

Software Release: 5E11 and later
Message Class: SWM01
Application: 5,CNI
Type: Output

1. FORMAT

[1]
```
REPT RING CFR
  RING CONFIGURATION ESTABLISHED (h MS)
  NORMAL CONFIGURATION, NO NODES ISOLATED
  f f
  l (m)
```

[2]
```
REPT RING CFR
  RING CONFIGURATION ESTABLISHED (h MS)
  BISO NODE = a, EISO NODE = b
  f f
  l (m)
```

[3]
```
REPT RING CFR
  RING CONFIGURATION ATTEMPT FAILED j
  COULD NOT ESTABLISH A NORMAL RING CONFIGURATION
  f f f f f f
  l (m)
```

[4]
```
REPT RING CFR
  RING CONFIGURATION ATTEMPT FAILED j
  COULD NOT ESTABLISH BISO NODE = a, EISO NODE = b
  f f f f f f
  l (m)
```

[5]
```
REPT RING CFR
  LEVEL i RING CONFIGURATION INITIATED BY e
  [ NORMAL CONFIGURATION |  ISOLATION FROM a to b ] REQUESTED
  f f f f f f f f (g)
```

[6]
```
REPT RING CFR
  LEVEL i RING CONFIGURATION INITIATED BY e
  [ NORMAL CONFIGURATION |  ISOLATION FROM a to b ] FAILED RSN = c
  d
  f f f f (g)
```

[7]
```
REPT RING CFR
  LEVEL i RING CONFIGURATION INITIATED BY e
  f f f f f f f (g)
```

[8]

```
      REPT RING CFR
        EAR COULD NOT IDENTIFY A RING PROBLEM
        (g)

[9]   ____________________________________________________________________
      REPT RING CFR
        EAR DETECTED A RING PROBLEM BUT FAILED TO RESOLVE ITS EXACT LOCATION
        f f f f f (g)

[10]  ____________________________________________________________________
      REPT RING CFR
        OFLBOOT SPLIT RING IS BLOCKING EAR ESCALATION
        (g)

[11]  ____________________________________________________________________
      REPT RING CFR
        WARNING:  BISO AND/OR EISO NODE OOS
        BISO NODE = a, EISO NODE = b
        k

[12]  ____________________________________________________________________
      REPT RING CFR
        EXCESSIVE ATTEMPTS TO CFR RING, {EAR FORCES RING TO DOWN STATE |
        EAR REQUESTS FPI}
        (g)

[13]  ____________________________________________________________________
      REPT RING CFR
        LOST COMMUNICATIONS WITH LAST RPCN, {EAR REQUESTS FPI | EAR
        FORCES RING TO DOWN STATE | EAR REQUESTS OFLBOOT ABORT OR FPI}
        (g)

[14]  ____________________________________________________________________
      REPT RING CFR
        WARNING:  RING CONGESTION MAY OCCUR DUE TO INSUFFICIENT RING CAPACITY
        RING CAPACITY = n BYTES, CAPACITY TO AVOID CONGESTION < o BYTES

[15]  ____________________________________________________________________
      REPT RING CFR
        RING CAPACITY IS SUFFICIENT TO AVOID RING CONGESTION
        RING CAPACITY = n BYTES, CAPACITY TO AVOID CONGESTION < o BYTES

[16]  ____________________________________________________________________
      REPT RING CFR
        ISOLATION OF r REQUESTED BY RTRACK
        f f f f (g)

[17]  ____________________________________________________________________
      REPT RING CFR
        HALF RING BOOT REQUESTED BY RTRACK
        f f f f (g)

[18]  ____________________________________________________________________
      REPT RING CFR
        RTRACK ATTEMPTING TO LOCATE INTERMITTENT CNI HARDWARE
```

```
        FAULT
        f f f f (g)

[19]  ____________________________________________________________________
      REPT RING CFR
        RTRACK CONFIDENCE INTERVAL OF p HRS q MINS REACHED WITH
        CURRENT ISOLATED NODE(S)
        (g)

[20]  ____________________________________________________________________
      REPT RING CFR
        RTRACK EXITING DUE TO MANUAL ACTION REQUEST
        f f f f (g)

[21]  ____________________________________________________________________
      REPT RING CFR
        RTRACK MANUALLY INHIBITED
        (g)

[22]  ____________________________________________________________________
      REPT RING CFR
        RTRACK ALLOWED
        (g)
```

2. REASON FOR OUTPUT

To report the status of a ring configuration after automatic ring recovery (ARR). Format 1 or 2 prints whenever a new ring configuration was successfully established, either manually or automatically.

Format 1 reports that a normal ring configuration was established.

Format 2 reports that one or more ring nodes were isolated from the active ring forming an isolated ring segment. The indicated beginning of isolation (BISO) and end of isolation (EISO) nodes bound the isolated ring segment on each side. The convention used is as follows. Ring 0 identifies the ring that propagates messages around the ring, following the ring nodes in ascending order (such as, LN32 1 to LN32 2 to LN32 3 and so forth). Similarly, ring 1 identifies the ring that propagates messages around the ring, following ring nodes in descending order. As ring 0 is traversed in the direction of message propagation, the BISO node is the last node encountered in the active ring segment before entering the isolated ring segment. Similarly, the EISO node is the first node encountered in the active ring segment as ring 0 is traversed of the isolated ring segment.

Formats 3 or 4 print whenever an attempt to establish a new ring configuration was unsuccessful. Automatic fault recovery is activated and will attempt to establish a working ring configuration.

Format 3 reports that an attempt to establish a normal ring configuration failed.

Format 4 reports that an attempt to establish an active ring segment with the indicated BISO and EISO nodes failed.

Format 5 reports whenever automatic fault recovery requests a ring configuration of level 2 or less in an attempt to establish a working ring. The request is made as a result of a fault associated with one or more ring nodes, or a failure of an ongoing configuration. Level 0 represents an attempt to establish the previous ring configuration. Level 1 indicates a configuration based on reported ring errors. Level 2 indicates an escalation from a Level 1 configuration that includes isolating additional nodes.

Format 6 prints whenever automatic fault recovery requests a base level configuration that is rejected immediately. The reason for the rejection and the rejection code are specified. This report is issued in lieu of Format 5. Escalation to level 3 is made immediately.

Format 7 prints whenever automatic fault recovery requests a level 3 or greater ring configuration. This can occur in response to a failure of a lower base level reconfiguration attempt, or in response to nondeterministic failures such as loss of ring token.

Format 8 report is issued following a ring EAR level 4 or 5 recovery where the recovery procedure did not identify any faulty nodes beyond those already believed to exist. In other words, there was no trouble found in the level 4 or 5 testing. When a ring EAR level 4 completes in this manner, the normal 5 second ring EAR confidence interval is extended to 30 seconds. This is done so that any subsequent ring failure within 30 seconds will cause escalation to a ring EAR level 5 recovery. Here, the level 5 recovery may identify an intermittent failure missed by the level 4 recovery.

Format 9 report is issued following either a ring EAR level 5 recovery or the ring initialization phase of a level 4 IMS initialization where a ring problem was detected, but its exact location could not be resolved. Problems exhibiting an intermittent failure behavior pattern can cause this. When this report is issued, ring EAR has isolated a range of nodes which is believed to contain the faulty equipment. This range of isolated nodes may at times be quite large.

Format 10 prints when the ring is split using the EXC:OFLBOOT input message and either a level 0 recovery fails to establish a working ring, or the ring fails during the confidence interval following a successful level 0 recovery.

Format 11 prints whenever a BISO or EISO node becomes inactive. After the first message, subsequent messages of this format will be printed periodically until the inactive BISO and/or EISO node or another nearby node is restored.

Format 12 reports whenever an excessive number of attempts to reconfigure the ring fail within the specified time interval.

Format 13 prints when only one RPCN is active, and communications with this RPCN have failed. The system's response is dependent upon whether or not IMS is performing a level 4 initialization, the ring has been split using the EXC:OFLBOOT input message , or manual ring mode is set. Responses are as follows:

`EAR REQUESTS FPI` = This will be the action taken when IMS is not within a level 4 initialization, the ring has not been split using the EXC:OFLBOOT input message, and manual ring mode is not set.

`EAR FORCES RING TO DOWN STATE` = This action will be taken when IMS is within a level 4 initialization and/or manual ring mode is set.

`EAR REQUESTS OFLBOOT ABORT OR FPI` = The action taken here is that the RTR operating system is requested to re-duplex a split ring which was established using the EXC:OFLBOOT input message. If the RTR operating system does not respond to this request within several seconds, a full process initialization of IMS is initiated.

Format 14 reports that a ring blockage, due to ring congestion, may occur when the ring capacity is less than a safe threshold. After the first message, subsequent messages of this format will be printed at ten-minute intervals until the ring configuration is changed.

Format 15 prints when a ring configuration is established that has a ring capacity greater than the safe threshold. In addition, this message is only printed if the previous ring configuration caused output message Format 14 to print.

Format 16 is printed whenever the ring tracker mode requests isolation of node '`r`' in an attempt to establish a service-providing ring. The ring tracker mode is entered, either automatically or using the EXC:RTRACK input message, to assume responsibility for ring recovery when ring EAR is unable to stabilize a failing ring. The objective of the ring tracker feature is to provide a stable, service-providing ring in the presence of a single intermittent ring failure that could not be located and isolated by ring EAR. Once the ring tracker mode has been entered, manual action or a high level system boot is required to exit it. Manual action is either 1) the STOP:RTRACK input message

or 2) another input message, such as RST:LN or RST:RPCN, that triggers a change in the current ring configuration.

Format 17 is printed when the ring tracker mode requests a half ring boot. This will occur when ring tracker was unable to stabilize the ring by iteratively isolating a single ring node at a time. The half ring boot isolates one half of the ring in an attempt to reach a stable service-providing ring.

Format 18 prints once every 15 minutes when the ring tracker mode is active and available to respond to ring failures. Note that if the current ring configuration has been stable for a period longer than the ring tracker confidence interval, a Format 19 message will accompany this Format 18 message.

Format 19 prints, along with Format 18, when the ring tracker is active and the current ring configuration has been stable for a period longer than the ring tracker confidence interval. The confidence interval is stated in the report. When this report is printed, it signifies that it is likely, but not guaranteed, that an intermittent ring problem has been identified and isolated. The behavior of the ring tracker mode is not altered when this condition is reached nor does it cause the ring tracker mode to be exited. Note that the ring tracker may calculate new values for the confidence interval if ring problems persist and continue to disrupt ring communications over a long period of time.

Format 20 prints when the ring tracker mode is exited due to either 1) the STOP:RTRACK input message, or 2) another input message such as RST:LN or RST:RPCN that triggers a change in the current ring configuration.

Format 21 prints every 15 minutes when entry into the ring tracker mode has been inhibited using the INH:RTRACK input message.

Format 22 prints when the ALW:RTRACK input message has successfully moved entry into the ring tracker mode out of the inhibited state. It does not imply that the ring tracker mode has been activated.

3. VARIABLE FIELD DEFINITIONS

a = Ring node name of BISO node.

b = Ring node name of EISO node.

c = Failure code returned by ring configuration.

d = Reason for failure. Valid value(s):

- 2 = IMS ring configuration program error.
- 3 = Illegal configuration request from ring.init file.
- 4 = Candidate controlling RPC node not available.
- 5 = Can't isolate ACT or INIT node(s).
- 6 = Can't isolate additional nodes.
- 7 = Active ring segment not long enough.
- 8 = Illegal isolation request from diagnostics.
- 9 = Illegal configuration request from ring.ear file.
- 10 = BISO and/or EISO node OOS, must be restored first.
- 11 = Can't isolate entire ring.
- 12 = Can't fragment existing isolated segment.
- 13 = Can't include grow or faulty nodes.
- 14 = Candidate BISO and/or EISO node not available.
- 15 = Improper use of movflt option.
- 16 = Illegal request.
- 17 = Requested ring configuration already exists.
- 26 = OFLBOOT split in progress.
- 27 = Exit from rtrack failed.

e = Reason for the requested configuration. Valid value(s):

- CNFG RQST = A normal ring configuration failed and started automatic fault recovery.
- EAR = Ring transport ERRS have been received, or an escalation of an ongoing config attempt failed.
- INTRNL RQST = The previous BISO or EISO was not active.
- IUN TEST = During initialization, the interprocessor message switch user node (IUN) test phase caused ring blockage.

f = Internal state information.

g = Real-time clock value when the report was formatted. The Real-time clock has the granularity of the IMS. Used in correlation with other reports.

h = Approximate ring silence time (in milliseconds).

i = Level of ring recovery currently being undertaken.

j = Reason code for the config job failure. Valid value(s):

- 3 = IMS ring configuration program error.
- 4 = DMA failure at RPC node.
- 5 = Preparation for ring configuration attempt.
- 6 = System failed to restore after configuration was established.
- 7 = Job aborted, guard timer fired.
- 8 = Ring errors reported after configuration was established.
- 9 = RPC CONFIG completion message not received.
- 10 = Forced read operation failed.
- 11 = Operation to quarantine isolated node failed.
- 12 = Operation to quarantine node failed.
- 13 = Ring silence operation failed.
- 14 = Operation to clear isolation failed.
- 15 = Operation to establish isolated segment failed.
- 16 = Operation to shrink/remove isolated segment failed.
- 17 = Ring test failed.
- 18 = Writing of tokens failed.
- 19 = Isolator integrity test failed.
- 20 = Ring test failed; have NORM, expected ISO.
- 21 = Ring test failed; have ISO, expected NORM.
- 22 = Ring initialization failed, ring is down.

k = Status of restoration activity on the OOS BISO/EISO node. Valid value(s):

- WAITING FOR NODE a TO BE RESTORED = This does not imply that a restore is in progress on node restored, either manually or automatically, before the system can return to a stable state.
- ACTIVE RING SEGMENT NOT LONG ENOUGH = There is insufficient ring capacity to allow the isolated segment to be extended.
- NO BISO/EISO CANDIDATES AVAILABLE = There are no nodes in a suitable state to serve as a BISO/EISO node.
- NEW BISO/EISO SELECTION BLOCKED BY OFLBOOT SPLIT RING = There may be other nodes in a suitable state that could be considered to be BISO/EISO candidates. However, a ring configuration change can not be made when the ring has been split

using the EXC:OFLBOOT input message. Therefore, selection of a new BISO/EISO node is blocked.

`l` = The real-time clock value when the ring configuration job started. Used in correlation with other reports.

`m` = The real time clock value when the ring configuration job completed (or aborted). Used in correlation with other reports.

`n` = The ring capacity in bytes of the current ring configuration.

`o` = The ring capacity "safe" threshold. If the ring capacity is greater than this value, ring blockage due to ring congestion will not occur.

`p` = Hour(s) component of the ring tracker confidence interval.

`q` = Minute(s) component of the ring tracker Confidence interval.

`r` = Identifies a ring node name (such as, RPCN32 0, LN32 3).

4. ACTION TO BE TAKEN

For Format 1, no action is necessary; a normal ring configuration exists.

For Format 2, no action is necessary; an isolated segment exists.

For Format 3 and 4, no action is necessary. Automatic fault recovery is activated and will attempt to establish a working ring. A Format 5 output message should precede this message for every ring configuration attempt requested by automatic fault recovery, followed by a Format 1, 2, 3, or 4 output message, until a working ring configuration is successfully established, indicated by a Format 1 or Format 2 output message.

For Format 5, if this output message precedes either a Format 1, 2, 3, or 4 output message, automatic fault recovery is in progress and attempting to establish a working ring configuration. No action is necessary.

For Format 6, the requested base level configuration failed for the reason given. Escalation is made immediately to a level 3 configuration. No action is necessary.

For Format 7, a level of configuration greater than or equal to 3 has been requested by automatic fault recovery. This involves visiting every ring peripheral controller node (RPCN) and determining if continuity exists between it and its neighbor RPCNs. A usable ring configuration is determined from the results of these tests. No action is necessary.

For Format 8, a level 4 or 5 ring EAR recovery yielded no trouble found. No action is necessary. However, be aware that there may be an intermittent problem somewhere in the ring. Transient problems that are difficult to locate may sometimes be identified by monitoring ring performance over an extended period of time.

For Format 9, this report indicates that ring EAR procedures for locating a ring problem are insufficient. It is probable that the problem is within the range of isolated nodes. Unfortunately, at times this may involve many nodes. Problems exhibiting an intermittent failure where the time between failures is greater than 5 seconds can cause this. Physical stressing of interframe buffer cable connections, ring node circuit pack seating, and so forth, may stimulate the problem to occur frequently enough to be detected by ring node diagnostics. Also, past ring maintenance history may give some indication as to a suspect area of the isolated range of nodes. Finally, a last ditch and tedious effort to localize the problem could be done with repeated applications of the following procedure. Given a range of

isolated nodes, remove the ring node circuit packs at a subset of this range, conditionally restore the other isolated nodes to service, and monitor the ring performance for instability.

For Format 10, no action is necessary. The RTR operating system determines whether or not to re-duplex the ring when it is notified of this event.

For Format 11, if critical node restoration (CNR) is active, no action is necessary. The inactive BISO/EISO node or a suitable replacement will be automatically restored to service and the ring configured if necessary. If CNR is inhibited (should never be unless all diagnostics are inhibited, such as, using the INH:DMQ input message with the SRC ALL option), manual action must be taken. Use the OP:DMQ input message to verify CNR is inhibited. Use the status field in this message or the OP:RING input message to determine which node (BISO or EISO) is inactive, and attempt to restore the node manually. If this is unsuccessful, attempt to restore the unisolated node adjacent to the inactive BISO/EISO node. If the restore is successful, the ring will be automatically reconfigured. If the restore fails, continue to manually restore nearby unisolated nodes until a configuration with active BISO and EISO nodes is established.

For Format 12, internal fault recovery strategies have failed. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual to determine the cause of the ring problems. If this occurs during a high level IMS initialization, the ring will remain in the down state pending manual intervention. Otherwise, the ensuing IMS boot will determine the state of the ring and the application.

For Format 13, in most cases, manual action will be required to determine the cause of communications failure with the RPCN. RPCN diagnostics can be executed after the system stabilizes.

For Format 14, operation with the ring capacity below the safe threshold for an extended period of time should be avoided. The most likely situation where this can occur is when an integrated ring node (IRN) is grown or retrofitted into a previously all small scale integration (SSI) node ring. When this occurs, the safe ring capacity threshold is automatically adjusted upwards. If the proper padded interframe buffer (IFB) hardware has not been retrofitted into the ring, output message Format 11 may be printed following the growth/retrofit procedure. It is important to provide the proper padded IFBs when IRNs are introduced into a previously all SSI node ring. In another situation, the isolation of multiple ring nodes can reduce ring capacity to the point where output message Format 11 will print. Every effort should be made to restore the ring to a normal configuration.

For Format 15, no action is necessary.

For Format 16, no action is necessary. ring tracker mode is attempting to locate and isolate a single intermittent ring hardware problem. If a single intermittent ring problem has caused ring instability, the ring tracker mode should eventually locate and isolate the node associated with the problem. Unfortunately, this could take minutes or days to occur, depending on the frequency of ring disruptions caused by the intermittent problem.

For Format 17, no action is necessary. ring tracker mode has failed in its iterative search for a single intermittent ring problem and is escalating by requesting a half ring boot. A half ring boot will attempt to isolate one half of the ring and provide service with the other half. A typical *5ESS*®-2000 switch ring will have RPCN32 0 associated with nodes in group 0 on one side of the ring and RPCN00 0 associated with the nodes in group 32 on the other side. After a half ring boot is attempted on one side, if problems continue to exist, a half ring boot will be attempted on the other side. If all problems exist on one side of the ring, the ring should stabilize on the other side.

For Format 18, no action is necessary.

Format 19 indicates that the ring tracker mode has stabilized the ring by isolating the intermittent ring problem and the questionable hardware can now be replaced. Determining when the ring has been stabilized can be difficult. ring node diagnostics executed on the isolated hardware may yield an all tests passed (ATP), yet the hardware may continue to fail in an intermittent manner if it is put back into service. Thus, it may be difficult to determine when the ring tracker mode has correctly identified the offending ring hardware. Identifying this hardware is even more difficult if ring tracker had to revert to a half ring boot to stabilize the ring. This report suggests that the hardware with the

intermittent failure may be isolated from the active ring. The history of node isolations generated by the ring tracker mode along with their ring stability times can provide insight into whether the current ring configuration is stable. This information can be obtained using the OP:RTRACK input message.

For Formats 20, 21, and 22, no action is necessary.

5. ALARMS

Formats 2, 4-10, 12, 13, 16, and 17 produce minor alarms. All other formats cause no alarms.

6. REFERENCES

Input Message(s):

```
INH:DMQ
OP:DMQ
OP:RING
ALW:RTRACK
EXC:RTRACK
INH:RTRACK
OP:RTRACK
STOP:RTRACK
```

Output Message(s):

```
ALW RTRACK
CFR RING
EXC RTRACK
INH RTRACK
OP RTRACK
STOP RTRACK
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

REPT:RING-GROWTH

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT RING GROWTH ERR
        a REQ TO CHG b FROM c TO d
        (DRVST=e)
        [f]

[2]   ____________________________________________________________________
      REPT RING GROWTH ERR
        RPC b MUST BE MEMBER 0

[3]   ____________________________________________________________________
      REPT RING GROWTH ERR
        IUN b MUST NOT BE MEMBER 0

[4]   ____________________________________________________________________
      REPT RING GROWTH ERR
        CANNOT CONVERT b TO PNI

[5]   ____________________________________________________________________
      REPT RING GROWTH ERR
        RPC b DEVICE ID g OUT OF RANGE

[6]   ____________________________________________________________________
      REPT RING GROWTH ERR
        RPC b, h HAVE DUPLICATE DEVICE ID g

[7]   ____________________________________________________________________
      REPT RING GROWTH ERR
        DUPLICATE PNI b

[8]   ____________________________________________________________________
      REPT RING GROWTH ERR
        PSUEDO_NODE b STATE MUST BE GROW

[9]   ____________________________________________________________________
      REPT RING GROWTH ERR
        PROGRAM FAULT - SEE ERRLOG

[10]  ____________________________________________________________________
      REPT RING GROWTH
        ECD CORRECTION TO b DETECTED

[11]  ____________________________________________________________________
      REPT RING GROWTH
        HV INFO NOT MATCH BETWEEN RPC AND IUN UCBS FOR b

[12]  ____________________________________________________________________
```

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```
      REPT RING GROWTH
        b ALREADY IN _RMDLNIFA[]

[13]  ____________________________________________________________________
      REPT RING GROWTH
        b IS IN THE UNEQIP STATE

[14]  ____________________________________________________________________
      REPT RING GROWTH
        b IS IN THE GROWTH STATE

[15]  ____________________________________________________________________
      REPT RING GROWTH
        DLN.IUN UCB MUST BE DEGROWN FIRST WHEN DEGROWING b

[16]  ____________________________________________________________________
      REPT RING GROWTH
        REMINDER: DO NOT FORGET THE CORRESPONDING DLN.RPC UCB FOR b

[17]  ____________________________________________________________________
      REPT RING GROWTH
        DUPLICATE NODE_ID i FOUND IN _RMBUFDSC[]

[18]  ____________________________________________________________________
      REPT RING GROWTH
        WARNING: _RMBUFDSC[] NOT UPDATED FOR GROWING b

[19]  ____________________________________________________________________
      REPT RING GROWTH
        STILL ENTRY IN _RMIFAEN[] WITH NODE ID i I.E. b
```

2. REASON FOR OUTPUT

To report on a ring growth procedure that was made through recent change. Format 1 prints when an improper change of the major state of a ring node is made through the *UNIX*® RTR recent change and verify (RC/V) system.

Formats 2-7 print when the major state of a ring node has been changed from UNEQIP to GROW through *UNIX*® RTR RC/V, and the interprocess message switch (IMS) driver process detects a unit control block (UCB) data entry that prevents the IMS driver process from honoring the change. The data discrepancy detected for each of these formats is as follows.

Format 2 reports that a UCB containing the entry RPC in the device_type field has been assigned a member number other than 0 in the unit_number field. RPC member numbers must be 0.

Format 3 reports that a UCB containing the entry RUN in the device_type field has been assigned the member number 0 in the unit_number field. IUN member numbers must be in the range 1-15.

Format 4 reports that the last two characters entered in the UCB unit_name field are not numbers or are out of range (above 63), and/or the member number entered in the unit_number field is out of range (above 15).

Format 5 reports that the entry in the internal_device field of an RPC UCB is out of range (above 15).

Format 6 reports that the entry in the internal_device field of an RPC UCB is a duplicate of the entry in an already equipped RPC UCB. All equipped RPC UCBs contain different internal_device values.

Format 7 reports that the last two numbers in the UCB unit_name field and the number in the unit_number field are

identical to those of an already equipped ring node UCB.

Format 8 reports that a node UCB containing the entry RUN in its device_type field has been recent changed out of the GROW major state. These nodes must remain in the GROW state.

Format 9 reports that a program failure has occurred in accessing the ECD.

Format 10 prints for informational purposes when the IMS detects a UCB major state change to the UNEQIP state which IMS determines to be action taken by the user toward correcting an irregularity of Formats 2-9.

Format 11 reports when a mismatch of the UCB HV field between the RPC.DLN UCB and the IUN.DLN UCB has been detected.

Format 12 reports when IMS internal DLN information table already has an entry for the node undergoing growth.

Format 13,14 reports that the specified node is in the state specified. Informational only.

Format 15 reports when the IUN.DLN UCB was degrown before degrowing the RPC.DLN UCB in a degrowth procedure.

Format 16,18 are reminder messages.

Format 17 reports that IMS detected duplicate entries with specified node ID in the buffer description table supplied by the IMS applications.

Format 19 reports that after degrowth, the IMS internal DLN information table still contains an entry(s) with the same node ID.

3. VARIABLE FIELD DEFINITIONS

`a` = How the erroneous change request was handled. Valid value(s):

- `REJECTED` = IMS refused to recognize the request. The state in the equipment configuration data base (ECD) is inconsistent with IMS's internal state.
- `TOLERATED` = The change was accepted.

`b` = Ring node member name (example: RPCN00 0). If the node name starts with "???", either there is no ECD record corresponding to this node or the IMS private record indicated that this node is UNEQUIP.

`c` = Old major state claimed by *UNIX*® RTR RC/V. Valid value(s):

- `ACT` = Active.
- `BADVAL` = Illegal value.
- `GROW` = Grow.
- `INIT` = Initialization.
- `OFL` = Off-line.
- `OOS` = Out of service.
- `STBY` = Standby.
- `UNAV` = Unavailable.
- `UNEQIP` = Unequipped.

`d` = New major state requested through *UNIX*® RTR RC/V. Refer to variable '`c`'.

`e` = Old major state claimed by IMS subsystem. Refer to variable '`c`'.

`f` = If present, variable '`f`' identifies a conflicting situation; otherwise, the state change itself is in error. Valid value(s):

`DURING IMS INIT OR ABORT` = IMS was being initialized or was aborting.

`DURING RING CFR` = The ring was being reconfigured. This is normally very brief and may be caused by diagnostics, the CFR:RING input message, or various problems.

`FOR DLN RPC-LINK RECORD` = A DLN node has two UCB records. The state change shown is illegal for the UCB which shows the DLN RPC-like properties. (That record should always be in the GROW or UNEQIP state. The major state of the DLN in user displays is controlled by the other UCB, which defines the IUN aspects of the DLN.)

`WHILE NODE IN ACT RING SEG` = Growth and degrowth are not permitted while the node is in the active segment of the ring.

`g` = Decimal value representing the internal_device entry found in the UCB.

`h` = Ring node member name. (Same as for variable '`b`').

`i` = Decimal value representing the physical node ID of the given node.

4. ACTION TO BE TAKEN

For Format 1, if '`a`'= `REJECTED`, the node's major state as represented in the ECD is inconsistent with IMS's view of the node's state. The node's state in the ECD must be changed through *UNIX*® RTR RC/V interface to agree with the value shown in the '`e`' variable. If the change was rejected due to a conflicting situation, it must be retried later when the situation has changed. If '`a`'= `TOLERATED`, steps of the growth procedures have been skipped and the user should ensure that the ring cabling actually reflects the new major state shown in the '`d`' variable. If it does not, it may be necessary to change the state back to its original value through *UNIX*® RTR RC/V.

For Formats 2, 3, 4, and 7, the UCB defined by '`b`' in the output message should be immediately changed from the GROW to the UNEQIP major state through *UNIX*® RTR RC/V, and then deleted from the ECD. The discrepancy in the UCB should be determined and a corrected version inserted back into the ECD.

For Formats 5 and 6, the UCB defined by '`b`' in the output message should be immediately changed from the GROW to the UNEQIP major state through *UNIX*® RTR RC/V. The discrepancy in the UCB should be determined and the UCB updated to correct it.

For Format 8, the UCB defined by '`b`' in the output message should be changed immediately to the GROW major state through *UNIX*® RTR RC/V.

For Format 9, take action specified for ERRLOG. If ring node growth is currently in progress, and a *UNIX*® RTR recent change transaction had been executed immediately prior to receipt of the output message, a new recent change transaction should be entered to restore the ECD to its previous state.

For Format 10, verify that the ECD action was in fact a corrective action.

For Formats 11-19, upon an error, the growth/degrowth procedure must be thoroughly undone before progressing further. The basic rule of growing a DLN is to change the major state of the RPC.DLN UCB from UNEQIP to GROW first, then change the major state of the IUN.DLN UCB from UNEQIP to GROW and then from GROW to OOS. The basic rule of degrowing a DLN is to change the IUN.DLN UCB major state from OOS to GROW, then from GROW to UNEQIP, and then change the major state of the RPC.DLN UCB from GROW to UNEQIP.

For messages concerning the IMS application, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For messages concerning the IMS internal information table, check the ECD to make sure there is no duplication of node ID.

5. ALARMS

A minor alarm occurs for Formats 1-9, 11, 12, and 16. No alarm sounds for Formats 10, 13-15, and 17-19.

6. REFERENCES

Other Manual(s):
235-600-301 *ECD/SG Data Base*

REPT:RING-INIT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]  ____________________________________________________________
     REPT RING INIT
       RING INITIALIZATION WAS SUCCESSFUL

[2]  ____________________________________________________________
     REPT RING INIT
       RING INITIALIZATION WAS SUCCESSFUL
       BISO NODE = a, EISO NODE = b

[3]  ____________________________________________________________
     REPT RING INIT FLT
       RING INITIALIZATION FAILED
       NO STANDBY RPC NODES AVAILABLE

[4]  ____________________________________________________________
     REPT RING INIT FLT
       RING INITIALIZATION FAILED
       NO RING SEGMENT ACCEPTABLE FOR ACTIVE RING USE

[5]  ____________________________________________________________
     REPT RING INIT FLT
       RING INITIALIZATION FAILED
       COULD NOT ESTABLISH A NORMAL RING CONFIGURATION

[6]  ____________________________________________________________
     REPT RING INIT FLT
       RING INITIALIZATION FAILED
       COULD NOT ESTABLISH BISO NODE = a, EISO NODE =b

[7]  ____________________________________________________________
     REPT RING INIT FLT
       A RING FAULT IS ASSOCIATED WITH THE FOLLOWING NODES
       a, b, c

[8]  ____________________________________________________________
     REPT RING INIT
       LEVEL 3 INITIALIZATION QUERY COULD NOT DETERMINE
         RING CONFIGURATION

[9]  ____________________________________________________________
     REPT RING INIT FLT
       AN OPERATIONAL FAILURE WAS ENCOUNTERED WITH THE FOLLOWING NODES
       a, b, c
```

2. REASON FOR OUTPUT

To report the results of a ring initialization. This message will repeat for each level of initialization.

Format 1 or 2 prints at the conclusion of the ring initialization sequence in an interprocess message switch (IMS) initialization when ring communications were successfully established. Format 1 reports that a normal ring configuration was established. Format 2 reports that one or more ring nodes were isolated from the active ring, forming an isolated ring segment. The indicated beginning of isolation (BISO) and end of isolation (EISO) nodes bound the isolated ring segment on each side. The convention used is as follows: Ring 0 identifies the ring that propagates messages around the ring, following the ring nodes in ascending order (such as, LN32 1 to LN32 2 to LN32 3). Similarly, ring 1 identifies the ring that propagates messages around the ring, following ring nodes in descending order. As ring 0 is traversed in the direction of message propagation, the BISO node is the last node encountered in the active ring segment before entering the isolated ring segment. Similarly, the EISO node is the first node encountered in the active ring segment as ring 0 is traversed out of the isolated ring segment.

Formats 3, 4, 5 and 6 print at the conclusion of the ring initialization sequence in an IMS initialization when ring communications were not successfully established.

Format 3 reports that all available standby ring peripheral controller nodes (RPCNs) are used to communicate with the ring during ring initialization. When there are no standby RPCNs available, there are no communications paths to the ring. This results in ring initialization failure.

Format 4 reports that one or several ring nodes or sections of the ring must be isolated from the active ring, and that the remaining portions of the ring define one or more ring segments that are candidates for the active ring segment. In order for a candidate ring segment to be acceptable for use as the active ring segment, it must contain:

- At least one STANDBY RPC node.
- An acceptable combination of ring nodes and interframe buffer circuits so that the ring segment exceeds the minimum for IMS message length buffer capacity.

When there is more than one acceptable active ring segment candidate, the number of ring nodes in the segment is used as a selection criterion to choose the best candidate. Output message Format 4 is printed when there is no acceptable ring segment candidate available for the active ring segment.

Format 5 reports that the ring initialization sequence found no ring nodes in the GROW state and no ring faults associated with any ring node. An attempt to establish a normal ring configuration failed for an unknown reason.

Format 6 reports that the ring initialization sequence found that one or more ring nodes must be isolated. For this to occur, either one or more ring nodes are in the GROW state and/or the following occurred:

- Level 4 IMS initialization - A ring fault was found to be associated with one or more ring nodes.
- Level 3 IMS initialization - The ring query operation failed and RPCN to RPCN communications tests failed across one or more RPCN to RPCN ring segments.

An attempt to establish an active ring segment with the indicated BISO and EISO nodes failed for an unknown reason.

Format 7 prints when the ring initialization sequence in an IMS level 4 initialization has discovered a ring fault associated with one or more ring nodes. These nodes are identified by this output message.

Format 8 prints when ring initialization's query of the ring in an IMS level 3 initialization sequence could not determine the ring configuration. Ring initialization has escalated to performing communications tests on the ring in an attempt to find a usable active ring segment.

Format 9 prints at the conclusion of the ring initialization sequence in an IMS level 4 initialization when one or more link nodes have failed a ring communications test. The faulty link nodes are identified by this output message. This communications test is performed immediately following the establishment of communications on the ring and

before link nodes are downloaded. Link nodes reported by the output message Format 7 were found to be faulty while still in quarantine while link nodes reported by this message were found to be faulty during the communications test with the nodes unquarantined.

3. VARIABLE FIELD DEFINITIONS

a = Ring node name (such as, RPCN320, LN325).
b = Ring node name.
c = Ring node name.

4. ACTION TO BE TAKEN

For Format 1, no action is necessary because a normal ring configuration exists.

For Format 2, level 4 IMS initialization - no action is necessary. A ring node will be isolated either because it is in the GROW state or because a ring fault is associated with it. If any node was isolated as a result of a fault, a Format 7 output message will accompany this message.

For Format 2, level 3 IMS initialization - the ring is queried to determine what the bounds, if any, are on the active ring segment. The results of the query are used to redefine the active ring segment in the administrative module (AM) processor data. However, if this query finds the ring to be nonoperational or it reports some inconsistency, the query is declared a failure and the following procedure is performed. The ring is partitioned into ring segments where the STANDBY RPC nodes define the segment endpoints. RPCN to RPCN communication tests are performed across each of these ring segments. Nodes that are in the GROW state or RPCN to RPCN ring segments that do not pass the communications test will be isolated. No action is necessary if this message is not preceded by a Format 8 output message. In this situation, the query has discovered the bounds of the existing active ring segment. However, if a Format 8 output message does precede this message, the IMS system will automatically execute diagnostics on the isolated ring segment in an attempt to restore the isolated ring nodes (except in min-mode). This will occur following IMS initialization completion. The results of the diagnostics should provide information on one or more ring faults within the isolated ring segment. These faults must be cleared before a restoration of the isolated nodes can be successful.

For Format 3, determine why the restoration of out-of-service RPCNs was unsuccessful. At least one of these ring nodes must be capable of being restored before ring initialization can be successful.

For Format 4, in an IMS level 4 initialization, this message will usually be accompanied by a Format 7 output message. Some, if not all, of these ring faults must be cleared before ring initialization can be successful. In an IMS level 3 or 4 initialization, verify that none of the equipped ring nodes are in the GROW state. Also, improper interframe buffer circuit information in the equipment configuration database (ECD) could be the cause of this output message. It is also possible that RPC to RPC ring segments determined to be faulty in a level 3 initialization have fragmented the ring such that an acceptable active ring segment does not exist. In this situation, an IMS level 4 initialization is required.

For Formats 5 and 6, the IMS system has determined what it thought the bounds on the active ring segment should be. However, an attempt to establish this as the active ring failed. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Formats 7 and 9, an IMS level 4 initialization has discovered a ring fault associated with these nodes. These faults must be cleared before these nodes, as well as nodes isolated because of these faults, can be restored.

For Format 8, this output message may precede output message Formats 1, 2, 4, 5 or 6 in a level 3 IMS initialization. No action should be taken based on this output message alone. Action should be taken as indicated under output message Format 2 when this message precedes a Format 2 output message.

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5. ALARMS

Format(s):	Alarm: =
3, 4, 5, 6	Major alarm
2, 7, 9	Minor alarm
1, 8	No alarm

6. REFERENCES

Output Message(s):

```
DGN:LN
DGN:RPCN
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

REPT:RING-TE

Software Release: 5E10 and later
Message Class: SWM01
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT RING TRANSPORT ERR
        a DETECTED b RAC c
        h h h h
        h h (i)

[2]   ____________________________________________________________________
      REPT RING TRANSPORT ERR
        READ FORMAT ERROR DETECTED, b RAC c.
        MSG SRC:  d MSG TYPE:  e
        h h h h
        h h (i)

[3]   ____________________________________________________________________
      REPT RING TRANSPORT ERR
        a THRESHOLD EXCEEDED b RAC c

[4]   ____________________________________________________________________
      REPT RING TRANSPORT ERR
        UNEXPLAINED LOSS OF TOKEN REPORTED ON f
        (i)

[5]   ____________________________________________________________________
      REPT RING TRANSPORT ERR
        RMV g RQSTD; a RPTD [BY b]
        h h (i)

[6]   ____________________________________________________________________
      REPT RING TRANSPORT ERR
        NAUD DETECTS [ g PROBLEM OR ] RING MESSAGE LOSS
        (i)

[7]   ____________________________________________________________________
      REPT RING TRANSPORT ERR
        NAUD RING MESSAGE LOSS EXCEEDS THRESHOLD FOR f
        (i)
```

2. REASON FOR OUTPUT

Format 1 error messages report problems involving ring or ring node communications. The `TRANSIENT RAC ERROR` and `SOURCE MATCH` error types will not disrupt ring communications while other error types will. When ring communications are disrupted, error analysis and recovery (EAR) will initiate ring reconfiguration activity to reestablish a working ring. The recovery action taken when a ring failure occurs depends on the recent history of ring stability. EAR operates in one of two modes. In the "stable" mode, EAR will assume that all ring failure events are transient in nature. Consequently, on a ring failure, the first recovery action attempted will be to restore the ring to the configuration that existed prior to the failure (using EAR recovery level 0). If this fails, EAR will escalate to a

recovery action that usually isolates the faulty portion of the ring (using EAR recovery level 1 or 3).

EAR will keep track of the number of ring failures that occur. This is done by remembering ring failures over the recent past, typically for one hour. If the failure rate in this timed interval becomes excessive, EAR will switch its mode of operation to the "quasi-instable" or seemingly-unstable mode. In this mode, EAR will assume that all ring failure events are not transient in nature. The first recovery action attempted here will usually isolate the faulty portion of the ring (through EAR recovery level 1 or 3). It should be noted that there are rare exceptions to this rule where a level 0 recovery attempt will be tried first. For example, if a level 1 recovery attempt would cause the last RPCN to be removed from service, a level 0 will be attempted first. Once in the quasi-instable mode of operation, EAR will automatically switch back to the stable mode when the ring has remained error free for a timed stability period, again typically one hour.

Format 2 reports a `READ FORMAT ERROR` message when a node receives a message that is shorter than the length indicated in the message's header. The shortened or truncated message must be at least the length of an IMS header (8 bytes), or else a `READ TOO SHORT ERROR` would be reported. If a `READ FORMAT ERROR` occurs with a broadcast message, only RPCs report the error so that the administrative module (AM) is not flooded with `READ FORMAT ERROR` reports. When a `READ FORMAT ERROR` occurs, the specific ring locality that triggered the problem is not identified by the error message. Ring communications are not stopped when this error occurs.

Format 3 error message indicates that a threshold has been exceeded for the types of errors which are thresholded. Ring communications are not stopped when this error occurs.

Format 4 error message indicates that ring communications have been disrupted and no Format 1 error messages that report ring communications disruption were received in the AM. EAR will initiate ring reconfiguration activity to restore a working ring as described above under the Format 1 error message. Note that it is possible to have a two ring configuration (a normal ring) and experience loss of the token message on both rings, yet receive a Format 4 message for only one ring. Since almost all ring traffic occurs on ring 0, ring 0 is more likely to be reported than ring 1 when this occurs. Also, when a single ring configuration exists (an isolated ring), there is only one token message present on the looped-back ring. Yet, it is possible to receive a Format 4 message specifying ring 0, ring 1 or both rings.

Format 5 reports a node problem that is either internal (reporting node not given in report) or that is detected by another node. In the case of `RPC ISOLATION`, multiple ring faults elsewhere on the ring have caused this node to become isolated. It is presumed that the node itself is not faulty.

Format 6 error message indicates that the node audit has detected a loss of ring messages. The audit sends a ring message from the *UNIX*® RTR, through a control RPC, around the ring, and back through the same control RPC to the *UNIX*® RTR. If this message does not return, the audit checks the ring path through a second control RPC. If this second check also fails, this message is printed. If no second RPC is available, the node audit can not differentiate between an RPC problem and a ring problem, so it assumes a ring problem and includes the ambiguity in the message.

Format 7 error message indicates that the node audit has detected an intermittent loss of ring messages. This message is printed when approximately one-fourth of the audit ring messages are lost over a sample size of at least 12 messages or 36 seconds. This count is implemented with a leaky bucket.

3. VARIABLE FIELD DEFINITIONS

`a` = Type of error that has occurred. Valid value(s):

- `BLOCKAGE` = A node's blockage timer has timed out while waiting for a ring data byte transfer to the downstream node or interframe buffer (IFB) to occur. The node's blockage recovery action will drain the ring by reading all data from the ring, including the token message, into node processor memory. A BLOCKAGE ring transport error message is then sent to inform the AM of a ring problem somewhere downstream.

`DEQUEUED TOKEN` = A non-RPC node reports this error if the token message is found in its ring receive buffers. It is intended to detect failures that cause a node to inadvertently read data from the ring.

`GENERAL RAC ERROR` = A "catch all" error type used to report an unexpected node hardware or software condition. A node reporting this error will not accept ring data from its upstream node, thereby forcing the upstream node to detect blockage.

`INTERFRAME BUFFER PARITY ERROR` = The upstream interframe buffer has detected a ring parity error. The IFB will not accept any more data, thereby forcing blockage in the node upstream from the IFB.

`MSG RELAY FAILURE` = This is very similar to the RING WRITE FAILURE. An RPC failed in relaying a message from the AM onto one of the rings during ring maintenance activity. This error will cause the RPC to be removed from service.

`NAUD CONTROL RPC FAILURE` = The node audit operation failed to pass ring traffic from the *UNIX*® RTR through a given control RPC. A second control RPC did pass ring traffic, so the first RPC will be removed from service.

`NAUD FAILURE` = The node audit operation failed in one of it's communication tests with a node. The node will be removed from service.

`NODE CKSUM ERROR` = The node checksum audit over a range of node memory failed. The node will be removed from service.

`PIO FAILURE` = A programmed IO operation at an RPC from the AM failed. This error will cause the RPC to be removed from service and isolated.

`RAC CONTROL FAILURE` = Control from the AM of an RPC's ring access circuit (RAC), which is part of the ring interface circuit, failed. This error, which can only occur during ring maintenance activity, will cause the RPC to be removed from service.

`RAC OUTPUT PARITY ERROR` = A node attempted to transmit bad parity to the downstream node or IFB. Since bad parity is not accepted by the downstream node or IFB, the transmitting node eventually detects blockage and reads the data with bad parity into memory as part of the blockage recovery process. Upon recognizing the bad parity, the transmitting node will take the same recovery action as is done with BLOCKAGE, except that this error is reported instead of BLOCKAGE.

`RAC PARITY/FORMAT ERROR` = A node reporting this error will not accept data from its upstream neighbor, thereby forcing the upstream node to detect ring blockage because:

- A ring data byte with bad parity has been offered to the node. The node recovery action could not clear the error and the upstream node will eventually detect blockage. The attempted recovery action is simply to resample the ring bus data to see if bad parity is still present. If bad parity were due to a transient error condition, this resampling operation should clear the error.
- An "orphan byte" has been offered to the node. An orphan byte condition occurs when the node expects a control byte but the byte offered is not a control byte. The control byte is the first byte of data in an interprocess message switch (IMS) message. A special signal lead on the ring bus is asserted only during the control byte, thereby allowing the receiving node to identify the control byte from all other message bytes.

`READ INHIBIT ERROR` = Blockage occurred while receiving a message from the ring or while propagating a message and the operation to drain the ring did not complete as expected. The node will take the same recovery action as is done with BLOCKAGE.

`READ TOO SHORT ERROR` = A partial message, shorter than an IMS header, has been detected on the ring at the reporting node. The partial message header is discarded.

`RING INTERFACE FAILURE` = Ring maintenance activity found an RPC's ring interface to be

faulty. This error will cause the RPC to be removed from service and isolated.

`RING READ FAILURE` = An RPC failed in reading a message from the ring during ring maintenance activity. This error will cause the RPC to be removed from service.

`RING WRITE FAILURE` = An RPC failed in writing a message to the ring during ring maintenance activity. This error will cause the RPC to be removed from service.

`RPC ISOLATION` = An RPC was removed from service because it became isolated during ring reconfiguration. The RPC may or may not be an innocent victim.

`RPC PANIC` = This is an "I give up" condition in the RPC node software and will cause the RPC to be removed from service.

`RPC STATE CHANGE FAILURE` = The RPC failed to follow a AM directive to move into a particular software state during ring maintenance activity. This error will cause the RPC to be removed from service.

`SOURCE MATCH` = A ring message returned to the sending node because the destination node did not remove the message from the ring. The AM will remove the indicated destination node from service.

`SRC MATCH` = Essentially the same as the SOURCE MATCH error, described under Format 1, except the detection was made by the node audit (NAUD) operation.

`TRANSIENT RAC ERROR` = A ring data byte with bad parity was offered to the node and node recovery action (resampling the ring bus data) cleared the error. Had the error not been cleared, a RAC PARITY/FORMAT ERROR would have been reported. If this error occurs a predetermined number of times over a period of time, the node will be removed from service.

`UNXPCTD SET QUAR` = An RPC was unexpectedly put into quarantine.

`WRITE FORMAT ERROR` = Some error occurred while a node was attempting to write a message to the ring. For example, the message may have had a source address that does not match that of the writing node, or the message specified an improper message length. A node reporting this error will not accept ring data from its upstream node, thereby forcing the upstream node to detect blockage.

`b` = Name of the reporting node.

`c` = The RAC on which the error occurred, either 0 or 1.

`d` = The source of a message involved in a `READ FORMAT ERROR`. This is extracted from the header of the message read from the ring. The message header is given in the first two 32-bit words of variable '`h`' accompanying the `READ FORMAT ERROR` message. If the node could not recover the message that was read from the ring, these two words will be set to X' ffffffff and '`d`', the source of the message, will be printed as "`??`".

`e` = The type of message involved in a `READ FORMAT ERROR: NORMAL`, `BROADCAST`, `SEL BROADCAST` or `TAKE`. If the node could not recover the message that was read from the ring, variable '`e`' will be printed as "`??`".

`f` = The ring where token message loss was discovered. Valid value(s):

`BOTH RINGS` = Loss of the token message was observed on both rings.

`RING 0` = Loss of the token message was observed on ring 0.

`RING 1` = Loss of the token message was observed on ring 1.

`g` = The name of the defective node which, in some cases, is also the reporting node.

`h` = A 32-bit word passed by the reporting node.

`i` = The value of the AM real-time clock at the time the report is formatted. The real-time clock has a granularity of 1 millisecond. This is used to identify when the output message was issued relative to other output messages.

4. ACTION TO BE TAKEN

For Format 1, except for the `TRANSIENT RAC ERROR` and `SOURCE MATCH` errors, ring configuration activity will be initiated to reestablish a working ring. Either the configuration that existed before the error(s) occurred will be reestablished, or one or more nodes will be isolated. Refer to the REPT RING CFR output message that will accompany the Format 1 error message(s).

When a node or nodes are isolated, automatic ring recovery (ARR) will schedule diagnostics on the isolated node(s) to verify the presence of a problem. When the diagnostic result is all tests passed (ATP), or the original ring configuration was successfully established following the errors, the Format 1 error messages should be logged for future reference. The failure may have been caused by a transient hardware problem or a software fault. However, hardware causing intermittent ring failures can sometimes be identified by pattern matching Format 1 error messages over multiple failure events. Similarly, the `TRANSIENT RAC ERROR`, which does not stop ring communications, may identify intermittent hardware problems when patterned over multiple failure events. The `SOURCE MATCH ERROR` will cause a node to be removed from service. When diagnostics run on such a node go ATP, it is difficult to determine whether a hardware or software fault caused the problem.

For Format 2, the `READ FORMAT ERROR` report does not implicate the reporting node. It is likely that a ring message was truncated somewhere between the MSG SRC node reported in the error message and the node reporting the error. Logging these error reports and pattern matching over multiple failure events can sometimes lead to identifying problem hardware.

For Format 3, the node will be removed from service and ARR will schedule diagnostics to be run. If the diagnostic result is ATP, ARR will restore the node to service. A ring hardware problem should be suspected on repeated FORMAT 3 failures, even if the diagnostics run ATP.

For Format 4, as with the Format 1 error messages, ring configuration activity will be initiated to reestablish a working ring. Either the ring configuration that existed before the `UNEXPLAINED LOSS OF TOKEN` occurred will be reestablished, or a level 3 EAR recovery will perform ring communications tests to find and establish a working ring. Refer to the REPT:RING-CFR Output Message that will accompany the `UNEXPLAINED LOSS OF TOKEN` error. Also, the REPT:TOKEN-TRACK output message, which will accompany the `UNEXPLAINED LOSS OF TOKEN` error, may be useful for identifying the location on the ring where the token message was lost.

For Format 5, the defective or debilitated node is removed from service without reconfiguring the ring. ARR will schedule diagnostics on this node to determine the nature of the problem. In cases where the diagnostic goes ATP, it is difficult to determine whether a hardware or software fault caused the problem. As with the Format 1 error reports, logging the report may be useful in future pattern matching to identify weak hardware. In the case of `RPC ISOLATION`, no diagnostics will be run. ARR will unconditionally restore the node once the isolation surrounding it is cleared.

For Format 6, a level 3 EAR recovery will perform ring communications tests to find and establish a working ring.

For Format 7, a level 3 EAR recovery will perform ring communications tests to find and establish a working ring.

5. ALARMS

Minor.

6. REFERENCES

Output Message(s):

```
REPT:ARR-AUTORST
REPT:RING-CFR
REPT:TOKEN-TRACK
```

REPT:RINGMON-AST

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RINGMON AUDIT SIGNALING TYPE=a
  ITEM=b CHANGED TO=c TIME=dd:dd.d
```

2. REASON FOR OUTPUT

To report that the common channel signaling (CCS) ring monitor process (RINGMON) has detected and corrected a discrepancy in the CCS signaling indicators during its audit.

3. VARIABLE FIELD DEFINITIONS

`a` = Type of CCS signaling affected. Valid value(s):

`DSIG`	= CCS direct signaling.
`TCAP`	= CCS transaction capabilities application part (TCAP) signaling.
`TSIG`	= CCS trunk signaling.

`b` = Signaling indicator that was inconsistent. Valid value(s):

`CCSCCS7`	= Global status indicator for TCAP signaling.
`CCSCNI`	= Global status indicator for direct signaling.
`CCSCNITS`	= Global status indicator for trunk signaling.
`DDCCS7OOS`	= Data delivery (DD) bit for TCAP signaling.
`DDCNIOOS`	= DD bit for direct signaling.
`DDCNITSOOS`	= DD bit for trunk signaling.
`EQUIPAGE`	= Equipage of the CCS signaling type in variable '`a`'.

`c` = New setting of the indicator. Valid value(s):

`EQUIPPED`	= Equipped.
`IS`	= In service.
`OOS`	= Out of service.
`UNEQUIPPED`	= Unequipped.

`d` = Time that the inconsistency was corrected, in the form minutes:seconds.tenths of seconds.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

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None.

REPT:RINGMON-DAD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RINGMON DLN ACTION=a DLN={00|32}-2
  TIME=bb:bb.b DURATION={cc:cc.c|00:00.0}
```

2. REASON FOR OUTPUT

To report that the common channel signaling (CCS) ring monitor process (RINGMON) has performed some action upon a direct link node (DLN).

3. VARIABLE FIELD DEFINITIONS

`a` = The action performed. Valid value(s):
`DATA-READY` = RINGMON has queried the DLN to determine whether a pump is needed.
`PUMP-COMPLETE` = RINGMON has successfully completed a pump of the DLN.
`RESTART-COMPLETE` = The DLN has successfully completed an automatic restart.
`START-SCAN` = RINGMON has sent a message to the DLN to cause it to start processing the CCS message queues.
`SWITCH-COMPLETE` = A switch to this DLN was completed.

`b` = Time at which the action was reported, in the form minutes:seconds.tenths of seconds.

`c` = Duration of the action, in the form minutes:seconds.tenths of seconds.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INIT:CNI
SW:DLN
```

Output Message(s):

```
INIT:CNI
```

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REPT:RINGMON-DDD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RINGMON DLN DATA   DLN = {00|32}-2  EVENT = a

  DLN TIME = bb:bb.b

  IMS RETURN CODE = [c]

  DLN VARIABLES:
  DLNACTIVE = d  DLNSTATE = e  DMASTATE = f  QRDCMP = g
  QWTCMP = h     3BWTPEND = i  3BRDPEND = j
  EVENT1 = k     EVENT2 = l    EVENT3 = m    EVENT4 = n
  RNGLD = o      RNGUL = p     RNGEP = q
  OQ0LD = r      OQ0UL = s     OQ0EP = t
  OQ1LD = u      OQ1UL = v     OQ1EP = w
  IQ0LD = x      IQ1LD = y

  DLN QUEUE HEADER 0:
  z z z z z z z z

  DLN QUEUE HEADER 1:
  a1 a1 a1 a1 a1 a1 a1 a1

  MESSAGE HEADER:
  b1 b1 b1 b1
```

2. REASON FOR OUTPUT

To print direct link node (DLN) data when the common network interface (CNI) ring monitor process, RINGMON, detects an error that was reported by a DLN.

3. VARIABLE FIELD DEFINITIONS

a = Event number.

b = Internal DLN time, in the form minutes:seconds.tenths of seconds.

c = Hexadecimal dump of the contents of the interprocess message switch (IMS) return code, if the error type is direct memory access fail (DMAFAIL); otherwise, it will be empty.

d = Flag indicating whether DLN is active. Valid value(s):
- 1 = Yes.
- 0 = No.

e = The state of the DLN. Valid value(s):
- 0 = DLN is in standby state.
- 1 = DLN is in active state.

2 = DLN is in transition from standby to active.
3 = DLN is in transition from active to standby.

f = State of DLN's direct memory access (DMA) state machine. Valid value(s):
0 = Waiting for pending DMA job to clear.
1 = Ready to begin a new cycle.
2 = Waiting for DMA event 1 - header read completion.
3 = Waiting for DMA event 2 - queue 0 data read completion.
4 = Waiting for DMA event 2 - queue 1 data read completion.
5 = Waiting for DMA event 3 - pointer write completion.
6 = DMA failure or error state.

g = DMA read job completion flag. Valid value(s):
1 = Yes.
0 = No.

h = DMA write job completion flag. Valid value(s):
1 = Yes.
0 = No.

i = DMA write job pending flag. Valid value(s):
1 = Yes.
0 = No

j = DMA read job pending flag. Valid value(s):
1 = Yes.
0 = No.

k = Completion of the administrative module (AM) queue header read. Valid value(s):
1 = Yes.
0 = No.

l = Completion of DMA read of queue 0. Valid value(s):
1 = Yes.
0 = No.

m = Completion of DMA read of queue 1. Valid value(s):
1 = Yes.
0 = No.

n = Completion of DMA write of the AM-queue pointers. Valid value(s):
1 = Yes.
0 = No.

o = The address where the DLN will write messages to the CNI ring.

p = The starting address of the block of messages that the DLN will write to the CNI ring.

q = The address of the last message at the end of the DLN's ring write buffer.

r = The address in OUT-queue 0 where the DLN will load messages to the message switch control unit (MSCU).

s = The address in OUT-queue 0 where the MSCU will unload messages from the DLN.

t = The address of the last message at the end of OUT-queue 0.

u = The address in OUT-queue 1 where the DLN will load messages to the message switch control unit (MSCU).

v = The address in OUT-queue 0 where the MSCU will unload messages from the DLN.

w = The address of the last message at the end of OUT-queue 1.

x = The address in IN-queue 0 where the MSCU will load messages to the DLN.

y = The address in IN-queue 1 where the MSCU will load messages to the DLN.

z = Hexadecimal dump of the contents of the DLN snapshot of DLN-AM queue header 0.

a[1] = Hexadecimal dump of the contents of the DLN snapshot of DLN-AM queue header 1.

b[1] = Hexadecimal dump of the contents of the invalid message header, if the error type is MSGBAD; otherwise, 0's will be printed.

4. ACTION TO BE TAKEN

Save the printer output and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT:RINGMON-DED
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

118 (CNI FRAME AND CCS STATUS)

REPT:RINGMON-DED

Software Release: 5E10 and later
Message Class: CCS
Application: 5,CNI
Type: Output

1. FORMAT

```
REPT RINGMON DLN ERROR = a  DLN = {00|32}-2
  RECOVERY = b  EVENT = c
  DLN-QUEUE = d  TIME = ee:ee:e
  RINGMON VARIABLES:
            CNISTATE       IMSSTATE
  DLN00-2:      f               g
  DLN32-2:      h               i
  NEXTMSG = j      LASTMSG = k      LASTRECV  = l
  PUMPPEND0 = m  PUMPLIST[0] = n  DLNSTAT[0] = o
  PUMPPEND1 = p  PUMPLIST[1] = q  DLNSTAT[1] = r
  ECSCAN = s       ECSWITCH = t     ECRESTART = u
  ECPUMP = v       ECUCL = w
  CCWAITING = x    HB_SM = y        SILENCE = z
  AM QUEUE HEADER 0:
  a1 a1 a1 a1
  a1 a1 a1 a1
  AM QUEUE HEADER 1:
  b1 b1 b1 b1
  b1 b1 b1 b1
```

2. REASON FOR OUTPUT

To report an error detected by the common network interface (CNI) ring monitor process (RINGMON).

3. VARIABLE FIELD DEFINITIONS

`a` = The type of error that occurred. Valid value(s):

- `ACTION-CONFLICT` = A direct link node (DLN) had an internal state of "active", but the DLN-administrative module (AM) queue header indicated that a different DLN was active.
- `AUDIT-ERROR` = The RINGMON audit of the DLN variables revealed an error.
- `BAD-MSG-IN-QUEUE` = The DLN found a message in the IN-queue with an inconsistent message size, indicating either a corrupted message or a corrupted pointer.
- `DLN-QUEUE-PTR-INVALID` = A DLN-controlled pointer in the DLN-AM queue Header was out of range (these are the IN-queue unload, OUT-queue load, and OUT-queue end pointers).
- `DLN-QUEUE-PTR-RANGE` = MSCU detected that a DLN-controlled queue pointer was out of range.
- `DLNACK-NO-DLNS` = RINGMON received a CNI message to acknowledge DLNs, but no DLN was active.
- `DMA-JOB-FAILED` = A direct memory access (DMA) job request in the DLN failed.
- `DMA-STOPPED` = DLN's DMA job state failed to progress within 750 milliseconds.
- `HB-DLN-NOT-ACTIVE` = The DLN heartbeat test failed because the tested DLN was not in the active state.
- `HB-FAIL-LLM` = The test for call completion through the communication path for common channel

signaling (CCS) call processing (DLN heartbeat) failed after several attempts due to inconsistencies in the DLN's version of the logical link map (LLM). This indicates that the DLN may be having problems updating the LLM.

`HB-MSCU-NOT-ACTIVE` = The DLN heartbeat could not access the message switch control unit (MSCU). This error will be recovered by MSCU recovery software.

`HB-NO-SM-RESPONSE` = The DLN heartbeat failed due to the lack of response from the switching module (SM) after four attempts. No recovery action will be initiated.

`HB-TIMED-OUT` = The DLN heartbeat test timed out after several attempts. This indicates that the DLN was not communicating with the AM and/or SM.

`IN-QUEUE-FULL` = The DLN's IN-queue overflowed.

`INTERNAL-ESCALATION` = DLN system integrity reported an escalation of DLN internal error recovery.

`MSCU-QUEUE-PTR-INVALID` = An MSCU-controlled pointer in the DLN-AM queue header was out of range (these are the IN-queue unload, IN-queue load, and IN-queue end pointers).

NOTE: This error indicates an MSCU problem, not a DLN problem.

`NO-CNI-INIT` = RINGMON detected that it was being initialized without a concurrent CNI initialization.

`NO-STRTACK-RECEIVED` = A STARTACK message was not received by RINGMON in response to a STRTSCN message.

`OUT-MSG-INVALID` = The MSCU found a message in the OUT-queue with an inconsistent message size, indicating either a corrupted message or a corrupted pointer.

`OUT-QUEUE-FULL` = The DLN's OUT-queue was full of messages.

NOTE: This error indicates an MSCU error, not a DLN error.

`RING-SILENCE` = The DLN has been kept in a ring silence state for too long.

`THRESHOLD-CNI-MSGS` = RINGMON exceeded its threshold of returned CNI messages.

`TIMED-OUT-DLN-EVENT` = RINGMON timed out waiting for a CNI DLN event message.

`TIMED-OUT-STM` = RINGMON timed out waiting for a start traffic message.

`TIMED-OUT-STS-COM` = RINGMON timed out waiting for a start traffic sequence to complete.

`b` = The recovery action that was performed. Valid value(s):

- `CNI-INIT` = Execute level 2 CNI initialization.
- `DATA-PUMP` = Repump ODD data to the affected DLN.
- `NO-ACTION` = No action taken by RINGMON.
- `RESTART` = Restart the affected DLN.
- `STARTSCAN` = Send STARTSCAN message to affected DLN.
- `SWITCH` = Switch DLN and remove the affected DLN.

`c` = Event number.

`d` = ID of the DLN-AM queue that was affected by this error. Valid value(s):

- `0` = DLN-AM queue 0.
- `1` = DLN-AM queue 1.
- `2` = Neither, or not applicable.

`e` = Time the error occurred, in the form minutes:seconds:tenths of a second.

`f` = CNI state of DLN00-2. Valid value(s):

- `0` = Out of service.

1 = Active.
2 = Off line.
3 = Standby.
4 = Neither, or not applicable.

g = Interprocess message switch (IMS) state of DLN00-2. Valid value(s):
0 = Out of service.
1 = Active.

h = CNI state of DLN32-2. Refer to variable 'f'.

i = IMS state of DLN32-2. Refer to variable 'g'.

j = Hexadecimal dump of the identifier of the next message expected in start traffic sequence.

k = Hexadecimal dump of the identifier of the last message sent in start traffic sequence.

l = Hexadecimal dump of the identifier of the last message received in start traffic sequence.

m = DLN00-2 pump pending indicator. Valid value(s):
1 = True.
0 = False.

n = DLN00-2 pump indicator. Valid value(s):
0 = The DLN is not being pumped.
1 = The DLN is being pumped.
-1 = The DLN failed its pump.

o = RINGMON state of DLN00-2. Valid value(s):
0 = Normal active state.
1 = Normal standby state.
2 = Out of service.
3 = Off-line (post-pump).
4 = RINGMON pump in progress.
5 = Waiting for STARTACK response.
6 = Switching from active to standby.
7 = Switching from standby to active.
8 = Removal has been requested.
9 = Restart has been requested.

p = DLN32-2 pump pending indicator. Valid value(s):
1 = True.
0 = False.

q = DLN32-2 pump indicator. Refer to variable `n'.

r = RINGMON state of DLN32-2. Refer to variable `o'.

s = Number of STARTSCANs during the recovery action due to an error detected by RINGMON,

maximum of 4. After 4 STARTSCANs, the recovery action will escalate to a hard switch. Refer to variable 't'.

t = Number of hard switches during the recovery action due to an error detected by RINGMON, maximum of 2. After 2 hard switches, the recovery action will escalate to a restart. Refer to variable 'u'.

u = Number of restarts during the recovery action due to an error detected by RINGMON, maximum of 3. After 3 restarts, the recovery action will advance to an ODD repump. Refer to variable 'v'.

v = Number of ODD repumps during recovery action due to an error detected by RINGMON, maximum of 2. After 2 ODD repumps, the recovery action will advance to an unconditional restore.

w = Number of unconditional restores due to an error detected by RINGMON, maximum of 2. After 2 restores, the recovery action will escalate to a level 2 CNI initialization.

x = Flag indicates RINGMON waiting for initialization. Valid value(s):
1 = True.
0 = False.

y = SM number for last heartbeat test.

z = Ring silence state. Valid value(s):
NONE = Normal ring operator.
USER = Only IMS can communicate with the ring.
TOTAL = No communication with the ring is possible.

a[1] = Hexadecimal dump of the contents of the AM snapshot of DLN-AM queue header 0.

b[1] = Hexadecimal dump of the contents of the AM snapshot of DLN-AM queue header 1.

4. ACTION TO BE TAKEN

Save the printer output and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

REPT:RMF

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT RMF a [b]
```

2. REASON FOR OUTPUT

To report that the recovery message formatter (RMF) encountered an error condition while attempting to output an error or postmortem recovery message.

3. VARIABLE FIELD DEFINITIONS

a = Error code specifying the error condition detected. Valid value(s):

- 1 = Premature end of file (EOF) detected on /dev/pmem.
- 2 = File /dev/pmem could not be opened.
- 3 = Plant measurement library could not be opened.
- 4 = Could not attach to plant measurement data base.
- 5 = Could not retrieve plant measurement record.
- 6 = Could not update plant measurement record.
- 7 = "Seek" error on file /dev/pmem.
- 8 = Read error on file /dev/pmem.
- 9 = Could not open intermediate file to spool message.
- 10 = Could not spool intermediate file.
- 11 = Spooled orphaned intermediate file.
- 12 = Bad interrupt type read from erslot.

b = Valid value(s):

If 'a' =	**'b' =**
3	Error code returned by plib call. Printed only if a premature EOF was detected.
9 or 10	OMDB key of the postmortem dump or error slot which could not be spooled.
11	Sequence number of the postmortem dump or error logfile "presumed to have been orphaned" that will be spooled. The contents of the logfile will be appended to one of the system logfiles (ERLOG, MEMLOG, PMLOG) and printed on the receive-only printer (ROP). The information in the logfile may be a duplication of information already spooled and likely not current.
12	Data printed for error may be incorrect.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	403

Output Appendix(es):

APP:OMDB-X-REF

REPT:RMTGETTY

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT RMTGETTY UNABLE TO ACCESS ECD FOR a

[2]   ____________________________________________________________
      REPT RMTGETTY CANNOT READ GETTY RECORD FOR a

[3]   ____________________________________________________________
      REPT RMTGETTY UNABLE TO CHANGE DIRECTORY TO b

[4]   ____________________________________________________________
      REPT RMTGETTY FAILED TO EXECUTE c

[5]   ____________________________________________________________
      REPT RMTGETTY FAILED TO OPEN d

[6]   ____________________________________________________________
      REPT RMTGETTY CHANID FOUND IN LOGDEV RECORD

[7]   ____________________________________________________________
      REPT RMTGETTY UNABLE TO RETRIEVE LCHAN FROM ENVIRONMENT

[8]   ____________________________________________________________
      REPT RMTGETTY UNABLE TO RETRIEVE TERMINAL OPTIONS FROM APH

[9]   ____________________________________________________________
      REPT RMTGETTY CANNOT READ LOGDEV RECORD FOR d
```

2. REASON FOR OUTPUT

To report that the RMTGETTY process has encountered an error while trying to process initialization information for a device.

3. VARIABLE FIELD DEFINITIONS

a = Teletypewriter (TTY) device against which the rmtgetty is executing.

b = The directory which the rmtgetty could not access.

c = Pathname of the process to be executed.

d = Special device file for which the problem occurred.

4. ACTION TO BE TAKEN

If Format 1 or 2, verify that the getty record in the equipment configuration database (ECD) for the indicated TTY device is correct.

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If Format 3, verify that the directory indicated in the getty record exists.

If Format 4, verify that the process which could not be executed exists and is executable.

If Format 5, 6, 7, 8, or 9, or the errors persist after taking actions indicated above, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	312

Output Appendix(es):

`APP:OMDB-X-REF`

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:RNM-BO

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RNM a BUFFER OVERFLOW
```

2. REASON FOR OUTPUT

To report the overflow of the remote network management system (RNMS) data from the shared data segment.

3. VARIABLE FIELD DEFINITIONS

`a` = Buffer type. Valid value(s):
- `DATA` = medium and low priority channel buffer.
- `TIME SYNC` = high priority channel buffer.

4. ACTION TO BE TAKEN

Restore the RNMS communication channel.

5. ALARMS

Major.

6. REFERENCES

Input Message(s):

```
RMV:SDL
RST:SDL
```

MCC Display Page(s):

113 (OS LINKS)

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REPT:RNM-DL

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
REPT RNM DATA LINK LOST
```

2. REASON FOR OUTPUT

To report the loss of the remote network management system (RNMS) data link.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

Restore or repair the link immediately or RNMS will be unable to poll the system for network management data.

5. ALARMS

Major.

6. REFERENCES

Output Message(s):

```
REPT:SDL
```

MCC Display Page(s):

113 (OS LINKS)

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REPT:RNM-PD

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
REPT RNM PLANNED DOWN
```

2. REASON FOR OUTPUT

To report that the remote network management system (RNMS) will be down for maintenance. The five-minute traffic report will not be requested by RNMS during this period.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):

235-070-100 *Switch Administration Guidelines*

MCC Display Page(s):

113 (OS LINKS)

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REPT:ROP

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT ROP a {ERROR b [c] [COMPL CODE d] |
        UNIDENTIFIED RESPONSE WD1=e WD2=f}

[2]   ____________________________________________________________________
      REPT ROP a STARTED

[3]   ____________________________________________________________________
      REPT ROP a STOPPED
```

2. REASON FOR OUTPUT

Format 1 reports a receive-only printer (ROP) related software or hardware error.

Format 2 reports that the ROP has changed state from STBY to ACT. A ROP will change to ACT state when data terminal ready (DTR) is ON.

Format 3 reports that the ROP has changed state from ACT to STBY. A ROP will change to STBY state when DRT is OFF.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Identifies point within the input/output driver (IODRV) where a software or hardware error was detected in hexadecimal notation. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

`c` = Character string giving more information about the error identified in variable '`b`'. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual for additional explanation.

`d` = Hardware error type, in hexadecimal notation. Refer to the APP:IOP-A appendix in the Appendixes section of the Output Messages manual.

`e` = First word of an unidentified completion report.

`f` = Second word of an unidentified completion report.

4. ACTION TO BE TAKEN

The error messages in Format 1 indicate error conditions which could cause the removal of a unit. Any removed unit should be repaired and restored to service.

The messages in Formats 2 and 3 are informational messages and indicate that the ROP has changed states. These messages will be output when the currently active ROP changes state to STBY, and the currently standby

ROP changes state to ACT. An active ROP will change state to STBY if powered off, and a standby ROP will change state to ACT when powered up. No action is necessary.

5. ALARMS

Format 1 has an alarm level of INFO. This automatically-generated report is generated. Formats 2 and 3 have alarm levels of VAR. This is a variable alarm to be determined by the client process. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	208
2,3	308

Input Message(s):

```
CLR:IODRV
DGN:MTTYC
RMV:ROP
RST:ROP
SW:PORTSW
```

Output Message(s):

```
DGN:MTTYC
REPT:IOP
REPT:RCVRY-IOP
REPT:RCVRY-ROP
REPT:RCVRY-MTTYC
RMV:ROP
RST:ROP
SW:PORTSW
```

Output Appendix(es):

```
APP:IOP-A
APP:IOP-F
APP:OMDB-X-REF
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:RPC-ERINT-A

Software Release: 5E10 only
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RPC ERINT ERR
  ERROR INTERRUPT FOR RPCNa 0 CODE = b, CH STATUS = c
  DSB ST = d, DEV ST = e, _RML3RST = f
```

2. REASON FOR OUTPUT

To report that an error interrupt was received from a ring peripheral controller (RPC).

3. VARIABLE FIELD DEFINITIONS

`a` = Ring node (RN) group number.

`b` = Error code. Valid value(s):
- `0` = No error.
- `1` = Program I/O failed.
- `2` = Error in one of the status words (fields '`c`', '`d`', or '`e`').
- `3` = Node processor (NP) insane.

`c` = Dual serial channel (DSCH) channel status Refer to the APP:IOP-B appendix in the Appendixes section of the Output Messages manual.

`d` = Status. Duplex dual serial bus selector (D2SBS) status. Refer to the APP:IOP-D appendix in the Appendixes section of the Output Messages manual.

`e` = AM interface (3BI) status word in hexadecimal format.

`f` = RPC.MTCE mode indicator. Valid value(s):
- `0` = RPC.MTCE is neither in the level 3 restart mode nor in the level 3 restore mode.
- `2` = RPC.MTCE is in the level 3 restart mode.
- `4` = RPC.MTCE is in the level 3 restart mode.

4. ACTION TO BE TAKEN

Run diagnostics to see if there is any problem with the hardware.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
DGN:LN
DGN:RPCN
RST:LN
RST:RPCN
```

Output Message(s):

```
REPT:RPC-INIT
```

Output Appendix(es):

```
APP:IOP-B
APP:IOP-D
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

118 (CNI FRAME AND CCS LINK STATUS)

REPT:RPC-ERINT-B

Software Release: 5E11 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RPC ERINT ERR
  ERROR INTERRUPT FOR RPCNa 0 CODE = b, CH STATUS = c
  DSB ST = d, DEV ST = e, _RML3RST = f
```

2. REASON FOR OUTPUT

To report that an error interrupt was received from a ring peripheral controller (RPC).

3. VARIABLE FIELD DEFINITIONS

`a` = Ring node (RN) group number.

`b` = Error code. Valid value(s):
- `0` = No error.
- `1` = Program I/O failed.
- `2` = Error in one of the status words (fields '`c`', '`d`', or '`e`').
- `3` = Node processor (NP) insane.
- `4` = RPC maintenance channel incoming buffer header size is zero.
- `5` = RPC maintenance channel incoming buffer header size is corrupted. Refer to the ERRLOG file for more detail.

`c` = Dual serial channel (DSCH) channel status Refer to the APP:IOP-B appendix in the Appendixes section of the Output Messages manual.

`d` = Status. Duplex dual serial bus selector (D2SBS) status. Refer to the APP:IOP-D appendix in the Appendixes section of the Output Messages manual.

`e` = AM interface (3BI) status word in hexadecimal format.

`f` = RPC.MTCE mode indicator. Valid value(s):
- `0` = RPC.MTCE is neither in the level 3 restart mode nor in the level 3 restore mode.
- `2` = RPC.MTCE is in the level 3 restart mode.
- `4` = RPC.MTCE is in the level 3 restart mode.

4. ACTION TO BE TAKEN

Run diagnostics to see if there is any problem with the hardware.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
DGN:LN
DGN:RPCN
RST:LN
RST:RPCN
```

Output Message(s):

```
REPT:RPC-INIT
```

Output Appendix(es):

```
APP:IOP-B
APP:IOP-D
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

118 (CNI FRAME AND CCS LINK STATUS)

REPT:RPC-INIT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT RPC INIT ERR
        a, RPCN b 0 _RML3RST = c

[2]   ____________________________________________________________
      REPT RPC INIT ERR
        CONNECT TO CONFIG LIB FAILED, LV = d
```

2. REASON FOR OUTPUT

To report an initialization error during the restoration or restarting of a ring peripheral controller (RPC).

3. VARIABLE FIELD DEFINITIONS

`a` = Error. Valid value(s):
`3BI RESET FAILED` = Administrative module (AM) interface reset failed.
`ATTACH INTERRUPT FAILED`
`CLEAR D2SBS FAILED`
`ENABLE INTERRUPT FAILED`
`INIT DMAC FAILED`
`NP RESET FAILED` = Node processor reset failed.
`SYSGEN SEND FAILED`
`READ ADDRESS FAILED`

`b` = Ring node (RN) group number.

`c` = RPC.MTCE mode indicator (debugging purpose). Valid value(s):
`0` = RPC.MTCE is neither in the level 3 restart mode nor in the level 3 restore mode.
`2` = RPC.MTCE is in the level 3 restart mode.
`4` = RPC.MTCE is in the level 3 restore mode.

`d` = Interprocess message switch (IMS) initialization level.

4. ACTION TO BE TAKEN

For Format 1, run diagnostics to see if there is any problem with the hardware.

For Format 2, this will cause IMS initialization to fail. If problem persists, refer to the refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
DGN:RPCN
RST:RPCN
```

Output Message(s):

```
REPT:RPC-ERINT
REPT:RST-RPC
RSTRT:RPC
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

118 (CNI FRAME AND CCS LINK STATUS)

REPT:RPC-STAT-ALM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT RPC STAT ALM
        ZERO RPCS! ACCESS TO CCIS NETWORK LOST! RECOVERY REQUIRES MANUAL ACTION!

[2]   ____________________________________________________________________
      REPT RPC STAT ALM
        WARNING:  ONLY ONE ACTIVE RPC REMAINING
```

2. REASON FOR OUTPUT

To automatically report when all ring peripheral controllers (RPC)s have been removed and consequently there is no access to the common channel signaling (CCS) network.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

For Format 1, this critical message requires immediate manual action as follows:

1 Attempt to recover and restore a single RPC:

If possible, try to determine which RPC would be most easily restored and restore that one first; getting one RPC back to a normal working state is CRITICAL!

2 Make the following checks on link status and system state:

For common channel interoffice signaling system 6 (CCIS6) (such as,- 2.4, 4.8 kilobyte (KB)) links, make the following checks and take steps if necessary:

A. Take corrective action to ensure restoration of any down mate-links.
B. If an emergency restart exists, follow necessary procedures to facilitate recovery.

For common channel signaling system 7 (CCS7) (such as, - 56KB) links, make the following checks and take steps if necessary:

A. Take corrective action to ensure restoration of any down mate-links.
B. If a link-set failure exists, follow necessary procedures to facilitate recovery.
C. If a combined-link-set failure exists, follow necessary procedures to facilitate recovery.

3 Once steps 1 and 2 have been followed, proceed as in step 1 and restore the remaining RPCs by attempting to recover first those RPCs that appear to be most easily recoverable (that is,- almost normal state).

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For Format 2, the second message format is output when the system has only one remaining RPC. It is essential that this condition be cleared as soon as possible. Loss of the last RPC will result in a CCS signaling outage.

5. ALARMS

Critical.

6. REFERENCES

None.

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REPT:RPCN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RPCNa b IS c
```

2. REASON FOR OUTPUT

To report the new state of a ring peripheral controller node (RPCN). The new state change may only be entered through a manual request from the *UNIX*® RTR recent change and verify system (RC/V).

3. VARIABLE FIELD DEFINITIONS

`a` = Ring node (RN) group number.

`b` = Ring node member number.

`c` = New state. Valid value(s):

```
IN THE GROWTH STATE
OFFLINE
OUT OF SERVICE
UNAVAILABLE
UNEQUIPPED
```

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-190-120 *Common Channel Signaling Services Features*
235-600-31x *ECD/SG*

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REPT:RRCLK-TRBL

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT RRCLK=a-b-c TRBL d e
  f RECOVERY ACTION g
  [h]
  i j k
```

2. REASON FOR OUTPUT

To report a trouble indication occurring in a remote integrated services line unit (RISLU) remote clock circuit pack (RRCLK).

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = RISLU number.

c = RRCLK side.

d = Error report. Valid value(s):

```
RISLU RCLK CCB ERROR
RISLU RCLK STATUS ERROR
UNEXPECTED SERVICE REQUEST
```

e = Event number.

f = Error type qualifying the error report. Valid value(s):

```
DCO OUT OF RANGE
FIRMWARE FAULT
IMPROPER CCB REG DATA
IMPROPER OPERATING MODE
INTERNAL CONTROL TROUBLE
LOSS OF CROSS-COUPLE
LOSS OF LOCAL OSCILLATOR
LOSS OF REFERENCE 0
LOSS OF REFERENCE 1
NO CLOCK OUTPUT
REMOTE-1 CI RECEIVED BAD PARITY
REMOTE-1 CI RECEIVED BAD START CODE
REMOTE-1 CI TIMEOUT
RCLK DETECTED BAD START CODE
RCLK DETECTED BAD PARITY
RCLK DETECTED BAD ADDRESS
SANITY TIMEOUT
UNEXPECTED CCB FLAG
```

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`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A postmortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`INITIALIZE` = The failing circuit has been re-initialized.
`RST PREEMPT` = The failing circuit has been preempted and a diagnostic has been scheduled. A message will be printed with the results of the diagnostic.

`h` = Contents of 1 to 10 registers.

`i` = External logical circuit name.

`j` = Current decimal number of errors of this type recorded.

`k` = Error count threshold above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

If trouble is reported repeatedly, manually diagnose the RRCLK and replace the faulty circuit pack as indicated by the diagnostic results. If it is not possible to take the circuit out of service (OOS), it may be necessary to inhibit hardware checks on it using the INH:HDW-RRCLK input message. The circuit should not be inhibited any longer than necessary.

If unexpected results occur, refer to the Corrective Maintenance manual or the System Recovery manual.

5. ALARMS

A critical or major alarm can result when either of the recovery actions INITIALIZE or RST PREEMPT fails, leaving the RRCLK circuit OOS. There are no alarms associated with the other recovery actions.

6. REFERENCES

Input Message(s):

```
INH:HDW-RRCLK
ALW:HDW-RRCLK
RMV:RRCLK
DGN:RRCLK
RST:RRCLK
```

Output Message(s):

```
DGN:RRCLK
RST:RRCLK
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

REPT:RSM-ISOL

Software Release: 5E10 and later
Message Class: LG_SED
Application: 5
Type: Output

1. FORMAT

```
REPT RSM a ISOLATED FROM HSM b
```

2. REASON FOR OUTPUT

To report that the integrity monitor detected a lack of communication between a host switching module (HSM) and a remote switching module (RSM).

3. VARIABLE FIELD DEFINITIONS

`a` = RSM number.

`b` = HSM number.

4. ACTION TO BE TAKEN

Study any link-related activity (1900 page) that occurred prior to the loss of communication and take manual recovery actions to restore the communication through the links.

5. ALARMS

Critical.

6. REFERENCES

None.

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REPT:RSM-LCPR

Software Release: 5E10 and later
Message Class: SED_MON
Application: 5
Type: Output

1. FORMAT

```
REPT RSM a LINKED CALL PROCESSING RESUMED
  STANDALONE DURATION bb:bb:bb EVENT RANGE: c-d
```

2. REASON FOR OUTPUT

To inform the user that the stated remote switching module (RSM) is now linked to the administrative module (AM) or the central processor (CP) and that the host interface module (HIM) or host switching module (HSM) is able to do call processing. The RSM has left the stand-alone mode of operation.

3. VARIABLE FIELD DEFINITIONS

`a` = RSM number.

`b` = Stand-alone duration, in the form hours:minutes:seconds.

`c` = Stand-alone entry event number.

`d` = Stand-alone exit event number.

4. ACTION TO BE TAKEN

A data base backup at central processor (CP) or administrative module (AM) should be performed in order to insure that any customer originated recent changes (CORCs) initiated during the stand-alone interval will be logged. Failure to do so may result in a loss of the CORCs if that area of memory is initialized or pumped.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:RSM-LINK-RS

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT RSM LINK ROUTING SWITCHED
  IN HSM=a FROM HFAC=b-c-d TO HFAC=e-f-g
  IN RSM=h FROM RFAC=i-j-k TO RFAC=l-m-n
```

2. REASON FOR OUTPUT

To inform the user that the remote switching module (RSM) has switched the path of the communication link to a different facility. This link is used to communicate between the RSM and the communications module (CM).

3. VARIABLE FIELD DEFINITIONS

a	= Host switching module (HSM) number hosting the RSM communication link facility.
b	= Digital line and trunk unit (DLTU) number of old communication link facility in the HSM.
c	= Digital facility interface (DFI) number of old communication link facility in the HSM.
d	= Facility (FAC) number of old communication link in the HSM.
e	= DLTU number of new communication link facility in the HSM.
f	= DFI number of new communication link facility in the HSM.
g	= FAC number of new communication link in the HSM.
h	= RSM number associated with the switched communication link facility.
i	= DLTU number of old communication link facility in the RSM.
j	= DFI number of old communication link facility in the RSM.
k	= FAC number of old communication link in the RSM.
l	= DLTU number of new communication link facility in the RSM.
m	= DFI number of new communication link facility in the RSM.
n	= FAC number of new communication link in the RSM.

4. ACTION TO BE TAKEN

None.

5. ALARMS

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None.

6. REFERENCES

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

112 (SM DLTU)

REPT:RST-PERF

Software Release: 5E10 and later
Message Class: GENR
Application: 5
Type: Output

1. FORMAT

```
REPT RST PERF SM=a b
```

2. REASON FOR OUTPUT

To report progress or reason for termination of an offline pump request for a switching module (SM).

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = Outcome of the request. Valid value(s):

`COMPLETED`	= The restoration of the duplexed peripheral unit has been successfully completed.
`FAILED`	= A restoration to a duplexed state was attempted, and the restoration failed, either because one side of duplexed unit was not out of service, or because severe hardware errors were encountered.

4. ACTION TO BE TAKEN

Issue an OP:OPUMP input message to determine which peripherals failed to restore on a given SM. Check indicated error source and follow the recommended recovery action for that failure.

Attempt a manual restore of the indicated peripheral, either conditionally or unconditionally. If the failure still occurs, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OPUMP
RST:PERF
```

Output Message(s):

```
OP:OPUMP
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-105-24x *Generic Retrofit Procedures*

235-105-34x *Generic Update Procedures*

REPT:RST-RPC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT RST RPC ERR
        TIME OUT IN RST RPCNa 0, ISTATE = b, jobst = c, _RML3RST = d

[2]   ____________________________________________________________________
      REPT RST RPC ERR
        PUMPER NOT AVAILABLE WHEN RESTORING RPCNa 0
```

2. REASON FOR OUTPUT

For Format 1, to report that a ring peripheral controller (RPC) restoration has been aborted by the driver. The RPC restoration job may be part of a boot or manually initiated.

For Format 2, to report that the pumper is not available during a single RPC restoration.

3. VARIABLE FIELD DEFINITIONS

`a` = Ring node (RN) group number.

`b` = Internal state when the job was aborted. Valid value(s):

- `0` = Unknown state.
- `1` = Direct memory access controller (DMAC) has been initialized, AM interface (3BI) and duplex dual serial bus selector (D2SBS) have been reset, and interrupt has been attached (but not enabled yet). The node processor of a RPC is being reset.
- `2` = Node processor reset is done.
- `3` = Maintenance channel between RPC and AM is ready while the node processor is in the read-only memory (ROM) mode.
- `4` = Program downloaded.
- `5` = Download started.

`c` = Job state. Valid value(s):

- `0` = No job.
- `3` = Wait for 3BI interrupt.
- `8` = Wait for pumper to acknowledge.
- `12` = Wait for node processor to interrupt.

`d` = RPC.MTCE mode indicator (debugging purpose). Valid value(s):

- `0` = RPC.MTCE is neither in the level 3 restart mode nor in the level 3 restore mode.
- `2` = RPC.MTCE is in the level 3 restart mode.
- `4` = RPC.MTCE is in the level 3 restore mode.

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4. ACTION TO BE TAKEN

For Format 1, run diagnostics to see if there is any problem with the hardware. Check to see whether the RPC ROM code is good. Check whether the RPC random access memory (RAM) load is good.

For Format 2, if the restoration was a manual request, retry the job again. Pumper may be recreated.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:LN
DGN:RPCN
RST:LN
RST:RPCN
```

Output Message(s):

```
REPT:RPC-INIT
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

REPT:RSTRT-RPC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT RSTRT RPC ERR
        PIO CMD a IN RSTRT RPC FAILED, RPCNb 0

[2]   ____________________________________________________________
      REPT RSTRT RPC ERR
        CHANNEL INIT FAILED WHEN RESTART RPCNb 0
```

2. REASON FOR OUTPUT

Format 1 reports when a program input/output (PIO) is sent to the node processor (NP) of a ring peripheral controller (RPC) after the channel is properly reinitialized. The RPC restart is part of the RPC fault recovery action.

Format 2 reports when the initialization of the direct memory access (DMA) channel failed during the restart of an RPC. Usually an REPT:RPC-INIT output message will accompany this message to pin point the reason.

3. VARIABLE FIELD DEFINITIONS

`a` = Program I/O message (in hexadecimal format). Valid value(s):
- `26` = Command an RPC to retry an administrative module (AM) DMA.
- `2e` = Restart an RPC by reinitializing RTX.
- `36` = Command an RPC to clear an AM DMA.

`b` = Ring node (RN) group number.

4. ACTION TO BE TAKEN

Run diagnostics to see if there are any problems with the hardware.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:RPCN
RST:RPCN
```

Output Message(s):

```
REPT:RPC-INIT
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

118 (CNI STATUS)

REPT:RT-PROV

Software Release: 5E10 and later
Message Class: TM
Application: 5
Type: Output

1. FORMAT

```
REPT RT PROV a SID=b c
  d e f g
  h
```

2. REASON FOR OUTPUT

To report event and failure messages resulting from provisioning data in TR303 remote terminals (RT). The message does not routinely generate output but must be enabled/disabled using the ALW:RT-REPT or INH:RT-REPT input messages.

You may not have the resources to interpret the data reported. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

3. VARIABLE FIELD DEFINITIONS

a = Completion status. Valid value(s):

FAILURE	= The provisioning task has failed.
REFRESH	= The data provided is an event type report.

b = Site identification (SID) number of the RT.

c = Logical unit name (that is, LRT=SM number IDCU number-local RT number).

d = Client requesting the provisioning. Valid value(s):

```
ALARMS REQUEST
CALL PROC REQUEST
CRAFT REQUEST
DS1 PM REQUEST
DSL PM REQUEST
FULL INIT REQUEST
MRA REQUEST
RCV TRIGGER REQUEST
ROUTINE 15 REQUEST
ROUTINE 24 REQUEST
```

e = Result report. Valid value(s):

```
15 MIN REFRESH ACTIVE - RL
24 HR REFRESH ACTIVE - RL
ABORTED - DATABASE FAILURE
ABORTED - EOC IN GROWTH
ABORTED - EOC OOS
COMPLETE - NO TASKS PENDING
COMPLETE - SOME TASKS FAILED
```

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COMPLETE - TASKS PENDING
COMPLETED
DATA MAY BE INCOMPLETE
DATABASE READ FAILURE
INHIBITED - RT MEMORY MISMATCH
INVALID REQUEST
MAN. REQ. REFRESH ACTIVE - RL
NO TASKS PENDING
PREEMPTED
PROV FAILURE
PROV TIMEOUT
RESOURCES UNAVAIL
RT NOT PROVISIONABLE
STARTED
TR303 RT NOT FOUND

f = Task description. Valid value(s):

CREATE ANALOG LT
CREATE B1 CHANNEL
CREATE B2 CHANNEL
CREATE CROSS CONNECT
CREATE D CHANNEL
CREATE DS1 ERC
CREATE DS1 PMFS
CREATE DSL ERC
CREATE DSL PMFS
CREATE ISDN FPT
CREATE ISDN LT
CREATE ISDN PSP
CREATE QDS0 CHAN TERM
DELETE B1 CHANNEL
DELETE B2 CHANNEL
DELETE CROSS CONNECT
DELETE D CHANNEL
DELETE ISDN FPT
DELETE LT
DELETE QDS0 CHAN TERM
GET ANALOG SERV STATE
GET B1 CHANNEL
GET B2 CHANNEL
GET CROSS CONNECT
GET D CHANNEL
SET ANALOG LT
SET DS1 15 PMIP
SET DS1 ALERT STATUS
SET DS1 DAY PMIP
SET DS1 FPT
SET DS1 PMFS
SET DSL ALERT STATUS
SET DSL DAY PMIP
SET DSL INT PMIP
SET DSL PMFS
SET IDLC CPP
SET IDLC DLP

```
SET ISDN FPT
SET ISDN PSP
SET NETWORK ELEMENT
```

g = Error description. Valid value(s):

```
CMISE-ACCESS DENIED
CMISE-ALREADY IN CONDITION
CMISE-ASSOC ENTITY UNAVAIL
CMISE-CLASS INSTANCE CONFLICT
CMISE-COMPLEXITY LIMITATION
CMISE-CONTAINING OBJ INSTANCE
CMISE-CORRUPTED MEMORY
CMISE-DUP MANAGED OBJ INSTANCE
CMISE-ERROR DESCRIPTION
CMISE-GET LIST ERROR
CMISE-IMPROPER CONDITION
CMISE-INV ARG VALUE
CMISE-INV ATTRIBUTE VALUE
CMISE-INV CMISE OPERATION
CMISE-INV FILTER
CMISE-INV OBJ INSTANCE
CMISE-INV OPERATOR
CMISE-INV SCOPE
CMISE-MISSING ATTRIBUTE VALUE
CMISE-NO SUCH ACTION
CMISE-NO SUCH ARG
CMISE-NO SUCH ATTRIBUTE
CMISE-NO SUCH EVENT TYPE
CMISE-NO SUCH INVOKE ID
CMISE-NO SUCH OBJ CLASS
CMISE-NO SUCH OBJ INSTANCE
CMISE-NO SUCH OBJ REFERENCE
CMISE-OPER CANCELLED
CMISE-PROCESSING FAILURE
CMISE-SET LIST ERROR
CMISE-SYNC NOT SUPPORTED
CMISE-UNRECOGNIZED OPER
ROSE-BADLY STRUCTURED APDU
ROSE-DUP INVOCATION
ROSE-ERROR UNEXPECTED
ROSE-ERROR UNRECOGNIZED INV
ROSE-INITIATOR RELEASING
ROSE-LINKED RESP UNEXPECTED
ROSE-MISTYPED APDU
ROSE-MISTYPED ARGUMENT
ROSE-MISTYPED PARAMETER
ROSE-MISTYPED RESULT
ROSE-NO APDU
ROSE-RESULT UNEXPECTED
ROSE-RESULT UNRECOGNIZED INV
ROSE-UNEXPECTED CHILD OPER
ROSE-UNEXPECTED ERROR
ROSE-UNRECOGNIZED APDU
ROSE-UNRECOGNIZED EROOR
```

```
ROSE-UNRECOGNIZED LINKED ID
ROSE-UNRECOGNIZED OPER
```

`h` = Error string returned by the RT.

4. ACTION TO BE TAKEN

The messages provide event information as described in the REASON FOR OUTPUT section. No specific action is indicated.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:RT-PROV
OP:RT-PROV
INH:RT-REPT
ALW:RT-REPT
```

Output Message(s):

```
EXC:RT-PROV
OP:RT-PROV
REPT:RT-PROV
INH:RT-PROV
ALW:RT-PROV
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:RT-SID-A

Software Release: 5E10 - 5E11
Message Class: SLC_RSP,SLC
Application: 5
Type: Output

1. FORMAT

```
REPT RT SID=a LRT=b-c-d [e] [f] EVENT=g
 [h]     [i]     [j]     [k]
  .       .       .       .
  .       .       .       .
  .       .       .       .
```

2. REASON FOR OUTPUT

To report alarms and off-normal conditions on the integrated TR008/TR303 remote terminal (RT) system. TR008 RTs can be the *SLC*® 96, Series 5 Feature Package B, and Enhanced B. TR303 RTs can be the Series 5 feature package 303G. This message is generated automatically.

3. VARIABLE FIELD DEFINITIONS

`a` = Site identification (SID) number.

`b` = Switching module (SM) number.

`c` = Digital carrier line unit (DCLU) or integrated digital carrier unit (IDCU) number.

`d` = Local RT number.

`e` = System alarms that are active for this integrated TR008/TR303 RT (any combination of the following). Valid value(s):

`ALL OKAY` = Entire RT system is working properly, that is, there are no alarms active. Variables '`h`' through '`k`' will not accompany this type of system alarm.

`CRITICAL` = Critical alarm is active.

`MAJOR` = Major alarm is active.

`MINOR` = Minor alarm is active.

`PWR/MISC` = Power/miscellaneous alarm is active.

Note: If nothing is printed in this field, no alarms are active.

`f` = Source of alarm if an alarm is indicated in variable '`e`'. Valid value(s):

`CARRIER LINE` = The T1 carrier facility is suspected of being faulty.

`FAR END` = The RT is suspected of being faulty, or manual action at the RT caused the alarm.

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NEAR END = The equipment at the office is suspected of being faulty, or manual action at the office caused the alarm. Given the situation where near end and far end caused alarms, only near end will be reported.

g = Event number.

h = Fault location. Valid value(s):

DIGROUP = Digroup (TR008 RT).

DUAL DIGROUP = Dual Digroup (TR008 RT).

FAC = Facility.

RT = Remote terminal.

SHELF = Shelf (TR008 RT).

SHFGRP = Shelf group or bank (TR008 RT).

i = Specific unit that has an alarm status change. Valid value(s):

EOC = Embedded operations channels for TR303 RT.

TMC = Time slot management channels for TR303 RT.

j = Alarm types. Valid value(s):

BANK LOOP BACK = Bank loop back request.

CTU = Channel test unit (CTU) alarm.

CTU DATA READ FAIL = CTU alarm data read failure, that is, unable to determine the state of the CTU alarm.

CTU/DLU DATA READ FAIL = CTU and data link unit (DLU) alarm data read failure, that is, unable to determine the state of the CTU or DLU alarm.

DATA READ FAIL = Data read failure, which means a failure to access the facility information from the associated RT digital facility interface.

DEGRADED = Facility is taking bit-errors.

DEGRADED STATE CLEARED = Either the rate of bipolar violations (BPVs) on a facility has dropped below 1E-4, or the facility has gone out-of-service.

DLU FAIL = The DLU is unable to frame on the data it is receiving.

DLU DATA READ FAIL = The system is unable to determine the state of the DLU alarm.

DUPLEX FAILURE = Duplex failure of the EOC or TMC.

FAR END LOOP = Far end loop back sustained request is active.

`IN DEGRADED STATE` = The rate of BPVs on a facility is greater than 1E-4 and the protection line is unavailable.

`INHIBIT DDL` = The maintenance fields of the derived data link (DDL) are inhibited on the A and/or P facility. This implies that no maintenance information can be received from the RT over the A and/or P facility.

`LINE ON PROT` = Line on protection.

`LOSS OF DDL` = The RT alarm information is not available due to a problem with the A and/or the P facility. RT alarm information is sent to the switch through the derived data link (DDL), which in turn is carried on both the A facility and, when equipped, the P facility.

`LOSS OF DDL-RT ALARM INFORMATION UNAVAILABLE` = Cannot read DDL alarm information (refer to `LOSS OF DDL`).

`RECEIVE LINE FAIL` = The system has detected a problem with the T1 facility: loss of framing, loss of signal, or loss of the DDL.

`SIMPLEX FAILURE` = Simplex failure of the EOC or TMC.

`SWITCH DISABLED` = A sustained request to disable protection line switching for the specified facility or facilities is active.

`SWITCH TO PROT` = A sustained request to switch the specified facility or facilities to the protection line is active.

`TAU COT` = TAU COT alarm.

`TAU RT` = TAU alarm has been detected at the RT.

message text = TR303 RT defined text that reports a problem that has occurred or cleared at the RT.

`k` = States. Valid value(s):

`ALARM OFF` = An alarm condition does not exist.

`ALARM ON` = An alarm condition exists.

`REQUESTED` = A switch to protection or far end loop (SET:RT-FAC) sustained request has been entered but cannot be honored.

4. ACTIONS TO BE TAKEN

If '`j`' =	Action
`FAR END LOOP`	The sustained request can be turned off by using the CLR:RT-FAC input message.
`SWITCH DISABLED`	The sustained request can be turned off by using the ALW:RT-FAC input message.
`SWITCH TO PROT`	The sustained request can be turned off by using the CLR:RT-FAC input message.

LOSS OF DDL - RT ALARM INFORMATION UNAVAILABLE	Action should be taken to resolve the problem with the A facility, and the P facility where equipped.

Otherwise, no action is required.

These messages can be inhibited from printing at the read-only printer (ROP) and the Switching Control Center (SCC) with the input message INH:RT-REPT.

5. ALARMS

Minor or major.

6. REFERENCES

Input Message(s):

```
ALW:RT-FAC
INH:RT-REPT
OP:RT-REPT
OP:RT-SID-LRT
SET:RT-FAC
```

MCC Display Page(s):

1150,YY,X (SM X-DCLU YY)
1310,YY,Z,X (SM X-DCLU YY RT Z)
1870,Y,X (SM X-IDCU Y FACILITY)
1880,Y,ZZ,X (SM X-IDCU Y RT ZZ)

REPT:RT-SID-B

Software Release: 5E12 and later
Message Class: SLC_RSP,SLC
Application: 5
Type: Output

1. FORMAT

```
REPT RT SID=a LRT=b-c-d [e] [f] EVENT=g
 [h]     [i]     [j]     [k]
  .       .       .       .
  .       .       .       .
  .       .       .       .
```

2. REASON FOR OUTPUT

To report alarms and off-normal conditions on the integrated TR008/TR303 remote terminal (RT) system. TR008 RTs can be the *SLC*® 96, Series 5 Feature Package B, and Enhanced B. TR303 RTs can be the Series 5 feature package 303G. This message is generated automatically.

3. VARIABLE FIELD DEFINITIONS

`a` = Site identification (SID) number.

`b` = Switching module (SM) number.

`c` = Digital carrier line unit (DCLU) or integrated digital carrier unit (IDCU) number.

`d` = Local RT number.

`e` = System alarms that are active for this integrated TR008/TR303 RT (any combination of the following). Valid value(s):

- `ALL OKAY` = Entire RT system is working properly, that is, there are no alarms active. Variables '`h`' through '`k`' will not accompany this type of system alarm.
- `CRITICAL` = Critical alarm is active.
- `MAJOR` = Major alarm is active.
- `MINOR` = Minor alarm is active.
- `PWR/MISC` = Power/miscellaneous alarm is active.

Note: If nothing is printed in this field, no alarms are active.

`f` = Source of alarm if an alarm is indicated in variable '`e`'. Valid value(s):

- `CARRIER LINE` = The T1 carrier facility is suspected of being faulty.
- `FAR END` = The RT is suspected of being faulty, or manual action at the RT caused the alarm.

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NEAR END = The equipment at the office is suspected of being faulty, or manual action at the office caused the alarm. Given the situation where near end and far end caused alarms, only near end will be reported.

g = Event number.

h = Fault location. Valid value(s):

DIGROUP = Digroup (TR008 RT).

DUAL DIGROUP = Dual Digroup (TR008 RT).

FAC = Facility.

RT = Remote terminal.

SHELF = Shelf (TR008 RT).

SHFGRP = Shelf group or bank (TR008 RT).

i = Specific unit that has an alarm status change. Valid value(s):

EOC = Embedded operations channels for TR303 RT.

TMC = Time slot management channels for TR303 RT.

j = Alarm types. Valid value(s):

BANK LOOP BACK = Bank loop back request.

CTU = Channel test unit (CTU) alarm.

CTU DATA READ FAIL = CTU alarm data read failure, that is, unable to determine the state of the CTU alarm.

CTU/DLU DATA READ FAIL = CTU and data link unit (DLU) alarm data read failure, that is, unable to determine the state of the CTU or DLU alarm.

DATA READ FAIL = Data read failure, which means a failure to access the facility information from the associated RT digital facility interface.

DEGRADED = Facility is taking bit-errors.

DEGRADED STATE CLEARED = Either the rate of bipolar violations (BPVs) on a facility has dropped below 1E-4, or the facility has gone out-of-service.

DLU FAIL = The DLU is unable to frame on the data it is receiving.

DLU DATA READ FAIL = The system is unable to determine the state of the DLU alarm.

DUPLEX FAILURE = Duplex failure of the EOC or TMC.

FAR END LOOP = Far end loop back sustained request is active.

`IN DEGRADED STATE` = The rate of BPVs on a facility is greater than 1E-4 and the protection line is unavailable.

`INHIBIT DDL` = The maintenance fields of the derived data link (DDL) are inhibited on the A and/or P facility. This implies that no maintenance information can be received from the RT over the A and/or P facility.

`LINE ON PROT` = Line on protection.

`LOSS OF DDL` = The RT alarm information is not available due to a problem with the A and/or the P facility. RT alarm information is sent to the switch through the derived data link (DDL), which in turn is carried on both the A facility and, when equipped, the P facility.

`LOSS OF DDL-RT ALARM INFORMATION UNAVAILABLE` = Cannot read DDL alarm information (refer to `LOSS OF DDL`).

`RECEIVE LINE FAIL` = The system has detected a problem with the T1 facility: loss of framing, loss of signal, or loss of the DDL.

`SIMPLEX FAILURE` = Simplex failure of the EOC or TMC.

`SWITCH DISABLED` = A sustained request to disable protection line switching for the specified facility or facilities is active.

`SWITCH TO PROT` = A sustained request to switch the specified facility or facilities to the protection line is active.

`TAU COT` = TAU COT alarm.

`TAU RT` = TAU alarm has been detected at the RT.

message text = TR303 RT defined text that reports a problem that has occurred or cleared at the RT.

`k` = States. Valid value(s):

`ALARM OFF` = An alarm condition does not exist.

`ALARM ON` = An alarm condition exists.

`REQUESTED` = A switch to protection or far end loop (SET:RT-FAC) sustained request has been entered but cannot be honored.

4. ACTIONS TO BE TAKEN

If '`j`' =	Action	
`FAR END LOOP`	The sustained request can be turned off by using the CLR:RT-FAC input message.	`SWITCH DISABLED`

The sustained request can be turned off by using the ALW:RT-FAC input message.	SWITCH TO PROT	The sustained request can be turned off by using the CLR:RT-FAC input message.
LOSS OF DDL - RT ALARM INFORMATION UNAVAILABLE	Action should be taken to resolve the problem with the A facility, and the P facility where equipped.	

Otherwise, no action is required.

These messages can be inhibited from printing at the read-only printer (ROP) and the Switching Control Center (SCC) with the input message INH:RT-REPT.

5. ALARMS

Minor or major.

6. REFERENCES

Input Message(s):

```
ALW:RT-FAC
INH:RT-REPT
OP:RT-REPT
OP:RT-SID-LRT
SET:RT-FAC
```

MCC Display Page(s):

1150,YY,X (SM X-DCLU YY)
1310,YY,Z,X (SM X-DCLU YY RT Z)
1870,Y,X (SM X-IDCU Y FACILITY)
1880,Y,ZZ,X (SM X-IDCU Y RT ZZ)

REPT:RTA-DCF-RE

Software Release: 5E10 and later
Message Class: ASRTMON
Application: 5
Type: Output

1. FORMAT

```
REPT RTA DCF ROUTING ERROR EVENT=a b c FILE d LINE e
  ERRTYPE f CAUSE g STATE h SEQ i
  MSGTYPE j REQTYPE k RETURN l RIC m RETRY n
  DN o NOC p SI q DI r PI s ROUTETYPE t RI u
  ORIGPORT a1 b1 OPARTY c1 TERMPORT d1 e1 TPARTY f1
  GRP g1 GRPTYPE h1 SIZE i1 HUNT j1 LPCR k1 LPID l1 LUNQ m1
  RTGSTS n1
```

2. REASON FOR OUTPUT

To provide information about a defensive check failure (DCF) that occurred in the routing and terminal allocation (RTA) software during routing, specifically within the RTA finite state machine. The output information is a snapshot of what the values of various internal variables were when the exception occurred.

3. VARIABLE FIELD DEFINITIONS

a = Error event number. Uses the standard event number sequence. In some cases, the event number associated with this dump will be the same or 1 number offset to another output message (such as a manual action assert) and should be considered as 1 error event.

b = Processor error occurred in. Valid value(s):

AM	= Administrative module.
CMP	= Communication module processor.
HSM	= Host switching module.
LSM	= Local switching module.
ORM	= Optical-remote switching module.
RSM	= Remote switching module.
TRM	= Two mile optical remote switching module.
UNK	= Processor not specified or unknown.

c = Processor number. This refers to the module number if the processor type is a switching module. If the reporting processor is the CMP, the form will be A-B C: where A is the message switch side, B is the physical CMP number, and C is MATE for the mate CMP or PRIM for the primary CMP.

d = Name of the source file containing the function where the defensive check occurred.

e = Line number where the defensive check occurred in the source file containing the function where the failure occurred.

f = Type of error. This field is used in conjunction with the cause of error field. These two fields are meaningful when, for example, the error type is RDSTATIC_DATA and the cause is TRKG. This means that a failure occurred when trying to read the trunk group relation RT_TRKG. However, these two fields are not always meaningful by themselves. For example, if the error type is BAD_PARAM and the cause is NULL, an invalid parameter was passed to an RTA function. The

cause for this is unknown. The internal code variables 'k' and 'l' are then used to refer back to the function code to analyze the error.

g = Cause of error. The cause of type of error that occurred. If this field is NULL, then the cause was unknown and additional data in the message needs to be looked at (that is, look at the internal code variables 'k' and 'l').

h = RTA routing state. This refers to the internal routing state for RTA.

i = Routing sequence type. This refers to the type of routing that RTA is doing.

j = Message type being processed.

k = Type of request being processed.

l = Interface return value. The value is taken from an RTA global variable, RTretval, used for holding return values from function calls.

Need to look in function which filled in RTretval and trace back to determine its meaning.

m = Number of route indexes (RIC).

n = Number of route retries (RETRY).
Note: Variable 'o' with the last four digits of variable 'p' are the key into the RT_DNTRAN relation.

If the originating port, identified by variables 'a^1' and 'b^1', is an ISDN port, a fault in the ISDN originating equipment may cause non-numeric digits to appear in variable 'o'.

o = Dialed digits (DN).

p = Normalized office code (NOC).
Note: Variables 'q', 'r', and 's' are used as the keys into the RT_SCRNING relation.

q = Screening index (SI).

r = Destination index (DI).

s = Prefix (PI). Valid value(s):
0 = Don't care about any prefix digits.
1 = No prefix digits dialed.
2 = Dialed a prefix of 0.
3 = Dialed 0 only.
4 = Dialed a prefix of 1.
5 = Dialed a prefix of 01 (for international).
6 = Dialed a prefix of 011 (for international).

t = Route type.

u = Route index (RI). This is the key into the RT_ROUTING relation.

a^1 = Origination port involved in error, in hexadecimal.

b[1] = Origination module involved in error.

c[1] = Origination party involved in error.

d[1] = Termination port involved in error, in hexadecimal.

e[1] = Termination module involved in error.

f[1] = Termination party involved in error.

g[1] = Termination group number.

h[1] = Termination group type.

i[1] = Termination group size. If the value here is 0, then the values in the GRP and GRPTYPE fields are invalid. Also, the HUNT field should be NONE.

j[1] = Termination group hunt type. If the value in here is NONE, then the data in the GRP and GRPTYPE fields are invalid. Also, the SIZE field should be 0.

k[1] = The processor from which the current message (that is, found in MSGTYPE) was sent from LPCR.

l[1] = The process value of the process that sent the current message (LPID).

m[1] = The uniqueness value of the process that sent the current message (LUNQ).

n[1] = The sequence of routing states that have been entered up to this moment in the RTA finite state machine. Up to 30 states (on 2 lines) can be entered and they are read from left to right, second line after the first line. These values are in decimal and translate to states.

RT_NULLSTATE	0
RT_SCRNING	1
RT_RTING	2
RT_DN_TRAN	3
RT_ERROR	4
RT_INTEGRITY	5
RT_FSMDONE	6
RT_NW_CONN	7
RT_NW_DISC	8
RT_TMMSU	9
RT_MLGSPREHUNT	10
RT_MLGHUNT	11
RT_MLGBUSY	12
RT_TRKSPREHUNT	13
RT_TRKHUNT	14
RT_TRKBUSY	15
RT_COALTRTE	16
RT_FIXEDRT	17
RT_SWITCH	18
RT_STANDALONE	19
RT_POSTSCRN	20
RT_TRKDPREHUNT	21
RT_DEUQUE	22
RT_ADDQUE	23
RT_PRE_DNTRAN	24
PRE_DNTRAN	24
RT_DN_TRAN	24
RT_MCRTING	25
RT_SFG	26
RT_SFGDN	27
RT_TKESSX	28
RT_LNESSX	29

RT_PPSCRN	30
RT_LNQHUNT	31
RT_LN_DQUE	32
RT_POST_DNTRAN	33
RT_MLGDPREHUNT	34
RTTERMSFG	35
RT_CCS_REST	36
RT_POLYGRID	37
RT_TKQMS	38
RT_TKDEQUE	39
RT_TKPOSTDQ	40
RT_TKQUPSTAT	41
RT_TKENQUE	42
RT_DTRTING	43
RT_RMSD3	44
RT_ICIDET	46
RT_TKMEM	47
RT_HNTICI	48
RT_ARCQUERY	49

Note: Not all of the data printed may be relevant to the call in which the failure occurred. The data in the first two lines will always be relevant to the failure, and the values there will help determine which other data is valid.

4. ACTION TO BE TAKEN

Verify the reason for the defensive check failure and take corrective action. You may not have the resources to interpret the data. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-600-510 *Software Analysis Guide*

REPT:RTCD-OFFICE

Software Release: 5E13 and later
Message Class: RCVY
Application: 5
Type: Output

1. FORMAT

```
REPT RTCD OFFICE OPTION TURNED a
```

2. REASON FOR OUTPUT

To report that the Real Time Call Detail (RTCD) feature has been activated or deactivated.

3. VARIABLE FIELD DEFINITIONS

a	= State of RTCD office option. Valid values are:	
	ON	= RTCD feature has been activated.
	OFF	= RTCD feature has been deactivated.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

RC/V View(s):

8.1 (OFFICE PARAMETERS (MISCELLANEOUS))

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REPT:RTCD-TRUNK

Software Release: 5E13 and later
Message Class: RCVY
Application: 5
Type: Output

1. FORMAT

```
REPT  RTCD  TRUNK  GROUP  OPTION  TURNED  a  for  trunk  group  b
```

2. REASON FOR OUTPUT

To report that the Real Time Call Detail (RTCD) feature has been activated or deactivated for the specified trunk group. RTCD billing records will only be generated when the RTCD OFC field on RC/V View 8.1 is set to 'Y'.

3. VARIABLE FIELD DEFINITIONS

a = State of RTCD trunk group option. Valid values are:
ON = RTCD feature has been activated for the specified trunk group.
OFF = RTCD feature has been deactivated for the specified trunk group.

b = The trunk group number as specified by TGN on RC/V View 5.1.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

RC/V View(s):

5.1 (TRUNK GROUP)
8.1 (OFFICE PARAMETERS (MISCELLANEOUS))

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REPT:RTMTB-SID

Software Release: 5E10 and later
Message Class: SLC
Application: 5
Type: Output

1. FORMAT

```
REPT RTMTB SID=a LRT=b-c-d MTB DIODE PROTOCOL FAILURE - TEST BUS OPEN
```

2. REASON FOR OUTPUT

To report that a metallic test bus (MTB) failure occurred when the MTB between the test bus control unit (TBCU) and the remote terminal (RT) was found to be open during metallic setup to the RT. This message is generated automatically.

3. VARIABLE FIELD DEFINITIONS

`a` = Site identification (SID) number.

`b` = Switching module (SM) number.

`c` = Digital carrier line unit (DCLU) or integrated digital carrier unit (IDCU) number.

`d` = RT local number.

4. ACTION TO BE TAKEN

Allow additional metallic setups to an RT with the input message ALW:RTMTBOVR. To inhibit metallic setup with this condition present, use the input message INH:RTMTBOVR. Inhibit the printing of the MTB failure message with the input message INH:RTMTBPRT. Allow the printing of the MTB failure message with the input message ALW:RTMTBPRT. Consider carefully what configuration is desired in the office.

The system defaults allow metallic setup override and allow the printing of the MTB failure message. Refer to the appropriate input message manual pages for additional details.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:RTMTBOVR
ALW:RTMTBPRT
INH:RTMTBOVR
INH:RTMTBPRT
```

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REPT:RTS

Software Release: 5E14 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
REPT RTS a
```

2. REASON FOR OUTPUT

To report conditions that occurred during the execution of the real-time status (RTS) report process.

Refer to the APP:SYSERR appendix in the Appendixes secion of this manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Error code. Valid value(s):

```
CANNOT ATTACH TO ECD

FAILED TO GET UCB

PORT CONNECT FAILURE

UNABLE TO GET UCB
```

4. ACTIONS TO BE TAKEN

If a**=**	**Action:**
CANNOT ATTACH TO ECD	Check the permissions of the /dev/ecd file.
FAILED TO GET UCB	There is a software coding error and/or a wrong record ID. Submit an operational trouble report accompanied by a printout and any additional information.
PORT CONNECT FAILURE	Check the status of port 17 using the OP:ST-PORTS input message.
UNABLE TO GET UCB	Check fo the unit by displaying page 102. The unit with the missing status indicates the unit that RTS was unable to get the unit control block information.

5. ALARMS

None. This is an automatically generated report.

6. REFERENCES

OMDB Key(s):

Format(s):	**Key(s):**
all	307

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REPT:RUTIL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT RUTIL PRTCHAR BYTE COUNT ERROR a

[2]   ____________________________________________________________
      REPT RUTIL CAN'T ATTACH TO PORT b, PID = c

[3]   ____________________________________________________________
      REPT RUTIL RGP_KER CIALIVE FAILED d

[4]   ____________________________________________________________
      REPT RUTIL RGP_KER CISTART FAILED e

[5]   ____________________________________________________________
      REPT RUTIL RGP_KER CISTOP FAILED f

[6]   ____________________________________________________________
      REPT RUTIL RGP_KER
        FAULT REENTERED DYING: CODE: g PA: h PSW: i ENT: j

[7]   ____________________________________________________________
      REPT RUTIL RGP_KER DYING FCODE= g  PA= h STATE = k

[8]   ____________________________________________________________
      REPT RUTIL RGP_KER /CDP> FAULT
        EFLAGS = l, FCODE = g, PA=h
        R0 =m, R7 = m, R8 = m STATE = k

[9]   ____________________________________________________________
      REPT RUTIL LN n o MSG RETURNED p

[10]  ____________________________________________________________
      REPT RUTIL RGP_PRT BADPORT

[11]  ____________________________________________________________
      REPT RUTIL RGP_PRT PORT NOT CONNECTED

[12]  ____________________________________________________________
      REPT RUTIL MSG BLK MULTIPLE ERROR

[13]  ____________________________________________________________
      REPT RUTIL NO ROOM FOR MORE MESSAGES

[14]  ____________________________________________________________
      REPT RUTIL CAN'T WAKEUP RGP_PRT

[15]  ____________________________________________________________
      REPT RUTIL LN n o NO RESPONSE p
```

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2. REASON FOR OUTPUT

All formats report an error condition encountered by the ring generic access package (RGRASP) kernel process (RGP_KER).

Format 1 indicates a byte count error in a request to print an output message.

Format 2 indicates that the kernel failed to attach to a port.

Format 3 indicate error return codes from the call to clalive().

Format 4 indicate error return codes from the call to clstart().

Format 5 indicate error return codes from the call to clstop().

Format 6 indicates that the RGRASP RGP_KER process is terminating.

Format 7 indicates that the RGRASP RGP_KER process is terminating.

Format 8 indicates that the RGRASP RGP_KER has been faulted by the operating system.

Format 9 indicates a message was returned to the RGP_KER from the node.

Format 10 indicates that the RGP_PRT port is invalid.

Format 11 indicates that the RGP_PRT port is not connected.

Format 12 indicates a node response block error.

Format 13 indicates that no space is left to store node response messages.

Format 14 indicates the RGP_KER process could not wake up the RGP_PRT process.

Format 15 indicates that no response was received from the node.

3. VARIABLE FIELD DEFINITIONS

a	= Byte count.
b	= Port number.
c	= Process ID.
d	= Return code from clalive() function call.
e	= Return code from clstart() function call.
f	= Return code from clstop() function call.
g	= Fault code.
h	= Program address.
i	= Processor status word.
j	= Process entry code.

k = Previous process state.

l = Event flags.

m = Register values.

n = Link node group number.

o = Link node member number.

p = Value of RGRASP message opcode. Opcode RGRASP message type. Valid value(s):

1	= DUMP:RUTIL
2	= LOAD:RUTIL
3	= WHEN:RUTIL
5	= ALW:RUTILFLAG
6	= ALW:RUTIL
8	= INH:RUTILFLAG
9	= INH:RUTIL
11	= CLR:RUTILFLAG
12	= CLR:RUTIL
14	= OP:RUTILFLAG
15	= OP:RUTIL
18	= DUMP:ADDR
19	= DUMP:REG
22	= LOAD:REG

4. ACTION TO BE TAKEN

Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:RUTIL
ALW:RUTILFLAG
CLR:RUTIL
CLR:RUTILFLAG
DUMP:ADDR
DUMP:REG
DUMP:RUTIL
INH:RUTIL
INH:RUTILFLAG
LOAD:REG
LOAD:RUTIL
OP:RUTIL
OP:RUTILFLAG
```

```
WHEN:RUTIL
```

Output Message(s):

```
ALW:RUTIL
ALW:RUTILFLAG
CLR:RUTIL
CLR:RUTILFLAG
DUMP:RUTIL
INH:RUTIL
INH:RUTILFLAG
LOAD:RUTIL
OP:RUTIL
OP:RUTILFLAG
WHEN:RUTIL
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:RVPT-TDDSRF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT RVPT=a-b-c-d TRBL DSU DSC SERV REQ FAILURE e
  f RECOVERY ACTION g
  h i j k l m n o p q r
  s t u
  . . .
  . . .
  . . .
```

2. REASON FOR OUTPUT

To respond to a maintenance service request from a digital service unit (DSU) subtending circuit on the revertive pulsing transceiver (RVPT) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local digital service unit (DSU) number.

`c` = Service group number.

`d` = DSU board position number.

`e` = Event number.

`f` = Error type. Valid value(s):
`DSC CLOCK FAILURE` = There are problems with the distribution of the 4MHz clock or the 8 KHz sync to the DSU subtending circuit (DSC).
`DSC DETECTED TS PARITY ERROR` = The DSC detected a parity error on data received from the DSU common board.
`DSC FLT REPORTED, NONE FOUND` = A DSC fault was indicated on the DSU common board, but no bits were set in the DSC fault register.
`DSC INTERNAL FAILURE` = An internal failure was detected on the DSC.
`DSC TSSR FAILURE INDICATION` = There was a failure pertaining to the time slot select register (TSSR) on the DSC.
`NO DSC PARITY ERROR FOUND` = A DSC parity error was indicated on the DSU common board, but no bits were set in the DSC parity error register.

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = Software failure has been detected and system integrity has been notified.
`INITIALIZE` = The failing circuit has been reinitialized.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator

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(MRA) will be printed after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.

`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = DSU common board error source register (ESR) contents.

`i` = DSU common board DSC fault register contents.

`j` = DSU common board DSC parity error register contents.

`k` = Contents of DSU common board parity register for DSU common board time slots 16-31.

`l` = Contents of DSU common board parity register for DSU common board time slots 0-15.

`m` = Copy of the DSU common board ESR mask register contents. The mask register cannot be read.

`n` = Copy of the DSU common board DSC fault mask register contents. The mask register cannot be read.

`o` = Copy of the DSU common board DSC parity error mask register contents. The mask register cannot be read.

`p` = Contents of fault register on the failing DSU subtending circuit.

`q` = Contents of parity register for the data coming to the DSU subtending circuit on DSU time slots 16-31.

`r` = Contents of parity register for the data coming to the DSU subtending circuit on DSU time slots 0-15.

`s` = External logical circuit name.

Note: Up to two logical circuit names, error counts, and error thresholds (variables '`s`'-'`u`') may be printed.

`t` = Current decimal number of recent failures of this type recorded.

`u` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:RVPT-TPCF-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT RVPT=a-b-c-d TRBL PICB CONTROL FAILURE EVENT=e
  f  RECOVERY ACTION g
  h  i  j  k
  l  m  n
  .  .  .
  .  .  .
  .  .  .
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the revertive pulsing transceiver (RVPT) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local digital service unit (DSU) number.

`c` = Service group number.

`d` = DSU board position number.

`e` = Event number.

`f` = Error type. Valid value(s):
`PER DETECTED BAD ADDRESS` = The peripheral hardware has detected an addressing error. This is assumed to be a software fault.
`SOFTWARE BAD ADDRESS ERROR` = The peripheral has reported an addressing error; however, fault recovery has determined that the address was valid. This is assumed to be a hardware fault.

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is provided.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Retry status. Valid value(s):
`RETRY FAILED` = The automatic retry failed and this should be considered a hard fault.

`RETRY SUCCESSFUL` = The automatic retry was successful and this should be considered a transient fault.

`i` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`j` = Data being written to the periphery by the CI.

`k` = Contents of the CI error source register.

Note: Up to three logical circuit names, error counts, and error thresholds (variable '`l`'-'`m`') may be printed.

`l` = External logical circuit name.

`m` = Current decimal number of recent failures of this type recorded.

`n` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:RVPT-TPCF-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT RVPT=a-b-c-d TRBL PICB CONTROL FAILURE EVENT=e
  f  RECOVERY ACTION g
  h  i  j  k
  l  m  n  o
  .  .  .
  .  .  .
  .  .  .
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the revertive pulsing transceiver (RVPT) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local digital service unit (DSU) number.

`c` = Service group number.

`d` = DSU board position number.

`e` = Event number.

`f` = Error type. Valid value(s):
`PER DETECTED BAD ADDRESS` = The peripheral hardware has detected an addressing error. This is assumed to be a software fault.
`SOFTWARE BAD ADDRESS ERROR` = The peripheral has reported an addressing error; however, fault recovery has determined that the address was valid. This is assumed to be a hardware fault.

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is provided.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Retry status. Valid value(s):
`RETRY FAILED` = The automatic retry failed and this should be considered a hard fault.

`RETRY SUCCESSFUL` = The automatic retry was successful and this should be considered a transient fault.

`i` = System PICB number in hexadecimal that was being written when the failure occurred.

`j` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`k` = Data being written to the periphery by the CI.

`l` = Contents of the CI error source register.

Note: Up to three logical circuit names, error counts, and error thresholds (variable '`m`'-'`o`') may be printed.

`m` = External logical circuit name.

`n` = Current decimal number of recent failures of this type recorded.

`o` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:RVPT-TUSR

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT RVPT=a-b-c-d TRBL UNEXPECTED SERVICE REQUEST e
  DSU OPERATIONAL SERVICE REQ RECOVERY ACTION f
  [g]
  h    i    j
```

2. REASON FOR OUTPUT

To report an unexpected service request on the revertive pulsing transceiver (RVPT) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local digital service unit (DSU) number.

`c` = Service group number.

`d` = DSU board position number.

`e` = Event number.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = Source analysis data.

`h` = External logical circuit name.

`i` = Current decimal number of recent failures of this type recorded.

`j` = Error count threshold, at which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

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None.

6. REFERENCES

Input/Output Messages:

None.

91. REPT:S

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REPT:SAS-TDPF

Software Release: 5E10 and later
Message Class: SAS,HW_MON, PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT SAS=a-b TRBL DATA PARITY FAILURE c
  PIDB PARITY TROUBLE RECOVERY ACTION d
  e f g
```

2. REASON FOR OUTPUT

To indicate that a parity error occurred on the service announcement system (SAS) unit peripheral interface control bus (PICB) to the time-slot interchange (TSI).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = SAS unit number.

`c` = Event number.

`d` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A postmortem report is generated.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. An RMV message will be printed after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`e` = External logical circuit name.

`f` = Current decimal number of recent failures of this type recorded.

`g` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

Use the Corrective Maintenance manual to determine what action should be taken with the faulty unit and any receive-only printer (ROP) output.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-105-220 *Corrective Maintenance*

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REPT:SAS-TOEE

Software Release: 5E10 and later
Message Class: SAS,HW_MON, PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT SAS=a-b TRBL OPERATIONAL ERROR EVENT=c
  d RECOVERY ACTION e
  t u v
  . . .
  . . .
  . . .
  fg hi jk lm no pq rs
```

2. REASON FOR OUTPUT

To respond to an operational error pertaining to a service announcement system (SAS) unit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = SAS unit number.

`c` = Event number.

`d` = Error type. Valid value(s):

```
FIFO UNDERFLOW
INVALID FIFO REPORT
INVALID REPORT
TERMINAL PROCESS TIMEOUT
UNEXPECTED REPORT
UNEXPECTED FIRST PULSE
```

`e` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A postmortem report is generated.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.

`INITIALIZE` = The failing circuit has been reinitialized.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. An RMV:SAS message will occur.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A DGN message will occur.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`f` = Contents of the hardware error source mask register (UIHWMMK, defined in hdr/smim/SMuiregcpl.h).

`g` = Contents of the hardware error source register (UIHWERR, defined in hdr/smim/SMuiregcpl.h).

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`h` = Contents of the firmware error source mask register (UIFWMMK, defined in hdr/smim/SMui_reg.h) - upper byte. Contents of the firmware error source register (UIFWERR, defined in hdr/smim/SMui_reg.h) - lower byte.

`i` = Contents of the summary scan mask register (UISMSMK, defined in hdr/smim/SMuiregcpl.h).

`j` = Contents of the summary scan register (UISMSRD, defined in hdr/smim/SMui_reg.h).

`k-s` = Logical processor (LP) raw data.

`t` = External logical circuit name.
Note: Up to nine logical circuit names, error counts, and error thresholds (variables '`t`'-'`v`') may be printed.

`u` = Current decimal number of recent failures of this type recorded.

`v` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

Use the Corrective Maintenance manual to determine what action should be taken with the faulty unit and any receive-only printer (ROP) output.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:SAS
DGN:[UNIT]
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:SAS-TPCF-A

Software Release: 5E10 only
Message Class: SAS,HW_MON, PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT SAS=a-b TRBL PICB CONTROL FAILURE EVENT=c
  d RECOVERY ACTION e
  f g h i
  j k l
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the service announcement system (SAS) unit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = SAS unit number.

`c` = Event number.

`d` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`e` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A postmortem report is provided.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. An RMV message will be printed after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`f` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`g` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`h` = Data being written to the periphery by the CI.

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`i` = Contents of the CI error source register.

Note: Up to two logical circuit names, error counts, and error thresholds (variables '`j`'-'`l`') may be printed.

`j` = External logical circuit name.

`k` = Current decimal number of recent failures of this type recorded.

`l` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

Use the Corrective Maintenance manual to determine what action should be taken with the faulty unit and any receive-only printer (ROP) output.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:SAS-TPCF-B

Software Release: 5E11 and later
Message Class: SAS,HW_MON, PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT SAS=a-b TRBL PICB CONTROL FAILURE EVENT=c
  d RECOVERY ACTION e
  f g h i
  j k l m
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the service announcement system (SAS) unit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = SAS unit number.

`c` = Event number.

`d` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`e` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A postmortem report is provided.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. An RMV message will be printed after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`f` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`g` = System PICB number in hexadecimal that was being written when the failure occurred.

`h` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

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`i` = Data being written to the periphery by the CI.

`j` = Contents of the CI error source register.

Note: Up to two logical circuit names, error counts, and error thresholds (variables '`k`'-'`m`') may be printed.

`k` = External logical circuit name.

`l` = Current decimal number of recent failures of this type recorded.

`m` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

Use the Corrective Maintenance manual to determine what action should be taken with the faulty unit and any receive-only printer (ROP) output.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:SAS-TSRF

Software Release: 5E10 and later
Message Class: SAS,HW_MON, PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT SAS=a-b TRBL SERV REQ FAILURE EVENT=c
  d RECOVERY ACTION e
  t u v
  . . .
  . . .
  . . .
  fg hi jk lm no pq rs
```

2. REASON FOR OUTPUT

To respond to an automatically generated maintenance service request from an SM pertaining to a service announcement system (SAS) unit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = SAS unit number.

`c` = Event number.

`d` = Error type. Valid value(s):

```
BUS 0 CLOCK FAILURE
BUS 1 CLOCK FAILURE
EXPANSION PACK ERROR
FIFO ERROR
HIGH-LEVEL FIRMWARE ERROR
INTERNAL COMMUNICATION ERROR
INTERNAL DATA ERROR
INTERNAL DSP ERROR
INTERNAL HARDWARE ERROR
INTERRUPT THRU MASK FAILURE
LOW LEVEL FIRMWARE ERROR
LP ADDRESSING ERROR
LP CLOCK FAILURE
LP ERROR
LP MEMORY ERROR
LP READ PARITY ERROR
MAINTENANCE PROCESS TIME OUT
NO ERROR SOURCE FOUND
SM ADDRESSING ERROR
SM READ PARITY ERROR
```

`e` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A postmortem report is generated.

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`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`INITIALIZED` = The failing circuit has been reinitialized.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. An RMV:SAS message will occur.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A DGN message will occur.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`f` = Contents of the hardware error source mask register (UIHWMMK, define in hdr/smim/SMuiregcpl.h).

`g` = Contents of the hardware error source register (UIHWERR, defined in hdr/smim/SMuiregcpl.h).

`h` = Contents of the firmware error source mask register (UIFWMMK, defined in hdr/smim/SMui_reg.h) - upper byte. Contents of the firmware error source register (UIFWERR, defined in hdr/smim/SMui_reg.h) - lower byte.

`i` = Contents of the summary scan mask register (UISMSMK, defined in hdr/smim/SMuiregcpl.h).

`j` = Contents of the summary scan register (UISMSRD, defined in hdr/smim/SMui_reg.h).

`k-s` = Logical processor (LP) raw data.

`t` = External logical circuit name.
Note: Up to nine logical circuit names, error counts, and error thresholds (variables '`t`'-'`v`') may be printed.

`u` = Current decimal number of recent failures of this type recorded.

`v` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

Use the Corrective Maintenance manual to determine what action should be taken with the faulty unit and any receive-only printer (ROP) output.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:[UNIT]
RMV:SAS
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:SCAN-TPCF-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT SCAN=a-b-c-d TRBL PICB CONTROL FAILURE EVENT=e
  f  RECOVERY ACTION g
  h  i  j  k
  l  m  n
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the scan point board (SCAN).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = Board number.

`e` = Event number.

`f` = Error type. Valid value(s):

```
PER DETECTED BAD ADDRESS
SOFTWARE BAD ADDRESS ERROR
```

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is provided.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`i` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`j` = Data being written to the periphery by the CI.

`k` = Contents of the CI error source register.

Note: Up to two logical circuit names, error counts, and error thresholds (variables '`l`'-'`n`') may be printed.

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`l` = External logical circuit name.

`m` = Current decimal number of recent failures of this type recorded.

`n` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the scan point board from service during a period of low usage and perform trouble procedures.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:SCAN-TPCF-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT SCAN=a-b-c-d TRBL PICB CONTROL FAILURE EVENT=e
  f  RECOVERY ACTION g
  h  i  j  k
  l  m  n  o
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the scan point board (SCAN).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = Board number.

`e` = Event number.

`f` = Error type. Valid value(s):

```
PER DETECTED BAD ADDRESS
SOFTWARE BAD ADDRESS ERROR
```

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is provided.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`i` = System PICB number in hexadecimal that was being written when the failure occurred.

`j` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`k` = Data being written to the periphery by the CI.

`l` = Contents of the CI error source register.

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Note: Up to two logical circuit names, error counts, and error thresholds (variables 'm'-'o') may be printed.

m = External logical circuit name.

n = Current decimal number of recent failures of this type recorded.

o = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the scan point board from service during a period of low usage and perform trouble procedures.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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REPT:SCAN-TUSR

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT SCAN=a-b-c-d TRBL UNEXPECTED SERVICE REQUEST e
  MSU OPERATIONAL SERV REQ RECOVERY ACTION f
  g
  h    i    j
```

2. REASON FOR OUTPUT

To report an unexpected service request on the scan point board (SCAN). A showering scan point may exist on this board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = Board number.

`e` = Event number.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`INITIALIZE` = The failing circuit has been reinitialized.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = The number of the scan point which may be showering.

`h` = External logical circuit name.

`i` = Current decimal number of recent failures of this type recorded.

`j` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

Check the scan point assignments to determine whether a circuit attached to the scan board is showering.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:SCAN
RMV:SCAN
RST:SCAN
```

Other Manual(s):
235-900-113 *Technical Specification*

REPT:SCC

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT SCC a  {ERROR b [COMPLETED CODE c] |
        UNIDENTIFIED RESPONSE WD1=d WD2=e}

[2]   ____________________________________________________________________
      REPT SCC a STARTED

[3]   ____________________________________________________________________
      REPT SCC a STOPPED
```

2. REASON FOR OUTPUT

To report when the Switching Control Center (SCC) has changed state or if there is a hardware or software error.

Format 1 reports an SCC related software or hardware error.

Format 2 reports that the SCC has changed state from standby (STBY) to active (ACT). An SCC will change to ACT state when the level 2 connection is established, the data link is in information transfer state, and the other SCC is not in the ACT state.

Format 3 reports that the SCC has changed state from ACT to STBY. An SCC will change to STBY state when the level 2 connection has been terminated, and the level 1 connection remains established.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Identifies point within the input/output driver (IODRV) where a software or hardware error was detected in hexadecimal notation. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

`c` = Hardware error type, in hexadecimal notation. Refer to the APP:IOP-A appendix in the Appendixes section of the Output Messages manual.

`d` = First word of an unidentified completion report.

`e` = Second word of an unidentified completion report.

4. ACTION TO BE TAKEN

The error message in Format 1 indicates error conditions which could cause the removal of a unit. Any removed unit should be repaired and restored to service.

The messages in Formats 2 and 3 indicate that the SCC has changed states. These messages will be output if a problem is sensed on the active SCC. The administrative module (AM) will then initiate recovery on the SCC with a problem and start the mate SCC by changing its state from STBY to ACT.

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5. ALARMS

Format 1 has an alarm level of INFO.

Formats 2 and 3 have an alarm level of VAR. This is a variable alarm to be determined by the client process.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	208
2, 3	308

Input Message(s):

```
CLR:IODRV
DGN:MTTYC
RMV:SCC
RST:SCC
```

Output Message(s):

```
DGN:MTTYC
REPT:IOP
REPT:MTTYC
REPT:RCVRY-IOP
REPT:RCVRY-MTTYC
RMV:SCC
RST:SCC
```

Output Appendix(es):

```
APP:IOP-A
APP:IOP-F
APP:OMDB-X-REF
```

REPT:SCF

Software Release: 5E10 and later
Message Class: LINE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT SCF  STARTED
        REPT SCF DN a LEN=b-c-d-e-f-g  TYPE p   CT q
        REPT SCF DN a SLEN=b-i-j-k     TYPE p   CT q
        REPT SCF DN a LCEN=b-m-n-o     TYPE p   CT q
             .
             .
        REPT SCF r

[2]   ____________________________________________________________
      REPT SCF  NO COINS STUCK
```

2. REASON FOR OUTPUT

To periodically print a list of lines for which stuck coin failures have been reported since the last automatically printed list. The list is zeroed after each automatic printing.

Format 1 is printed when there have been stuck coin failures to report. The first line of the format indicates the start of the list, all following lines indicate a line with a stuck coin reported (one line per coin line) except the last line, which indicates the end of the list.

Format 2 is printed when there are no stuck coin failures to report (NO COINS STUCK).

The frequency of the automatic printing of the list is set by an office parameter and can be set to every 15, 30, or 60 minutes.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

a = Telephone number of the coin line that has had a stuck coin reported during the last interval.

b = Switching module (SM) number.

c = Line unit number.

d = Grid number.

e = Switch board number.

f = Switch number.

g = Level number.

i = Digital carrier line unit.

`j` = Remote terminal (RT).

`k` = RT line number.

`m` = Integrated services line unit (ISLU) number.

`n` = Line group number.

`o` = Line card number.

`p` = The type of the stuck coin count. Valid value(s):

- `1F` = The count (variable '`q`') represents the number of first-try-only failures reported on this coin line. This indicates that only first try failures occurred for this coin line.
- `1+2F` = The count (variable '`q`') represents the number of first and second try failures reported on this coin line. In this case the count of first-try-only stuck coin failures is not printed.

`q` = The count of stuck coin failures reported. The type of count (first-try-only/first and second try failures) is given by variable '`p`'. To meet feature specification document (FSD) requirements, only the first 15 coin failures for a particular coin line are recorded between the automatic list printings.

`r` = Termination report indicating outcome. Valid value(s):

- `COMPLETED` = The list of stuck coin lines that contained at least one stuck coin report was successfully printed.
- `SYSTEM ERROR` = An unexpected error occurred during processing of the list and the printed list is likely to be incomplete. The internal list of stuck coin counts has been zeroed.

4. ACTION TO BE TAKEN

The stuck coins should be cleared (in accordance with local practice). Depending upon the particular problem, it is sometimes possible to clear a stuck coin from the trunk and line work station (TLWS). To do this, seize the line in question and perform coin detect, coin return, coin collect and home totalizer operations. If this does not clear the problem, dispatch a repair person to repair the phone in question. Particular attention should be placed on dial tone first (DTF) coin lines since attempts are automatically made to clear a stuck coin on these lines every 10 seconds.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SCF
```

REPT:SCHED

Software Release: 5E10 and later
Message Class: REX
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT SCHED ALIT SUMMARY             SECTION b OF c

        STARTS AT: dd:dd              DURATION: e HOURS

[2]   ____________________________________________________________________
      REPT SCHED CM REX SUMMARY             SECTION b OF c

        STARTS AT: dd:dd              DURATION: e HOURS
        [f]  [g]
         .    .
         .    .
         .    .

[3]   ____________________________________________________________________
      REPT SCHED SM REX a SUMMARY             SECTION b OF c

        STARTS AT: dd:dd              DURATION: e HOURS
       [f]  [g] [h]  . . .
        .    .   .   .
        .    .   .   .
        .    .   .   .

[4]   ____________________________________________________________________
      REPT SCHED ERROR

        i
```

2. REASON FOR OUTPUT

To print an automatic line insulation test (ALIT) and/or routine exercise (REX) schedule summary, and warning message if necessary, in response to an EXC:SCHED input message.

Format 1 reports an ALIT schedule. Only one report is generated. 0

For a REX schedule, it is further divided into a communication module (CM) and switching module (SM) summary.

Format 2 reports the CM REX summary.

Format 3 reports the SM REX summary. Three sub-reports are generated: diagnostics (DGN), fabric exercise (FAB) and electronic loop segregation (ELS).

Format 4 is used to report warning messages when a viable schedule is not able to be generated. It always comes out before the normal summary reports.

3. VARIABLE FIELD DEFINITIONS

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a = SM summary report types. Valid value(s):

```
DGN
FAB
```

b = Section number of the report.

c = Total number of sections in the report.

d = Time the test started, in the form hour:minute.

e = Duration of the test.

f = Day which REX is scheduled to be run. Valid value(s):

```
MON
TUE
WED
THU
FRI
SAT
SUN
```

g = Type of CM REX tests run or a '–' for the SM REX reports. The three types of CM REX tests are. Valid value(s):

P = Partial diagnostic.
F = Full diagnostic.
N = No diagnostic.

h = SM number, which can be repeated up to 14 times.

i = There are nine possible warning messages for the scheduler program:

```
REX SCHEDULER ABORTED - DATA BASE READ ERROR
CANNOT MAKE SCHEDULE BASED ON CURRENT PARAMETERS
REX SCHEDULER UNABLE TO PROVIDE COMPLETE COVERAGE
x PERCENT COVERAGE OF EQUIPMENT DURING ONE WEEK PERIOD
```

= (where x is the percentage)

```
NO ALIT PACKS PRESENT.  CANNOT SCHEDULE ALIT
CURRENT SCHEDULE CAUSES CONFLICT BETWEEN AM AND CM REX
PROBABLE REX/ALIT CONFLICT WITH CURRENT SCHEDULE
CANNOT COMPLETE ALIT/REX SCHEDULE UPDATES
AUTO REX/ALIT SCHEDULER TIME OUT
RC/V INHIBITED - CANNOT COMPLETE ALIT/REX SCHEDULE UPDATES
```

4. ACTION TO BE TAKEN

If there is a warning message and/or you are not satisfied with the coverage of the schedule, you can re-type the EXC:SCHED input message along with the desired options, for example, change the number of testing hours or days. To resolve RC/V inhibited warning, RC/V changes need to be allowed first. All the other messages require no actions.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:RC
EXC:SCHED
INH:RC
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

REPT:SCHEDULED

Software Release: 5E10 and later
Message Class: RCVY
Application: 5
Type: Output

1. FORMAT

```
REPT SCHEDULED INTERFLOW {ACTIVATION|DEACTIVATION} RECORD:

  SENDING OFFICE ID   :  a
  RECEIVING OFFICE ID :  b

      SENDING OFFICE
       SERVING TEAM
      --------------
              c
```

2. REASON FOR OUTPUT

To report that Operator Services Position System (OSPS) scheduled interflow is activated (or deactivated) for serving teams of a sending office.

3. VARIABLE FIELD DEFINITIONS

a = Sending OSPS ID.

b = Receiving OSPS ID.

c = Serving team numbers of sending office.

4. ACTION TO BE TAKEN

The interflow activation/deactivation reports the scheduled interflow patterns made from RC/V View 21.8 that have been turned on or off. Compare this message to RC/V 21.8 and 21.9 and check for consistency.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:SCMG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT SCMG
        WARNING:  SETTING a OUT OF SERVICE

[2]   ____________________________________________________________________
      REPT SCMG
        a IS OUT OF SERVICE

[3]   ____________________________________________________________________
      REPT SCMG
        a NOW BEING MARKED IN SERVICE
```

2. REASON FOR OUTPUT

To print a message transport part (MTP) user that is sending periodic user part check-in (UPCKIN) messages to signaling connection control part (SCCP) has stopped sending them.

Format 1 is printed when SCCP has stopped receiving UPCKIN messages from the MTP user and has marked the subsystem number (SSN) corresponding with this user out-of-service.

Format 2 is printed when the MTP user has not resumed sending the UPCKIN messages in the last 5 minutes and the SSN is still marked out-of-service.

Format 3 MTP is printed when the user has resumed sending periodic UPCKIN messages to SCCP.

3. VARIABLE FIELD DEFINITIONS

`a` = MTP user (ISDN-UP or TUP or service indicator of MTP user (from SIO field).

4. ACTION TO BE TAKEN

Determine why MTP user is failing to send UPCKIN messages.

5. ALARMS

Major alarm for Format 1 and 2.

6. REFERENCES

None.

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REPT:SCREEN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT SCREEN a [- b]
 [USE POKE 194 FROM c]
 [d]
  .
  .
  .
```

2. REASON FOR OUTPUT

To report the status of the screen program or to report the command lines that were entered while using the screen program.

3. VARIABLE FIELD DEFINITIONS

`a` = Status of the request to run the screen program. Valid value(s):

- `ABORTED` = The screen program was unable to run from the current terminal. Use poke 194 from the terminal specified by variable '`c`'.
- `COMPLETED` = The screen program has completed on the terminal specified by variable '`b`'.
- `INPUT LOG` = All the commands that were entered within the previous screen program session from the terminal specified by variable '`b`' are printed on the following lines (variable '`d`').
- `STARTING` = The screen program has been started on the terminal specified by variable '`b`'.

`b` = The name of the terminal the screen command was run from.

`c` = The name of the terminal the screen command was attempted from.

`d` = User input. This is a copy of all the command lines that were entered while running the screen program.

4. ACTION TO BE TAKEN

If the status is '`ABORTED`', use poke 194 to run the screen program. Otherwise, the message is informational only and no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RCV:M-SCREEN`

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:SCSD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT SCSD a  {ERROR b [COMPL CODE c] |
  UNIDENTIFIED RESPONSE WD1=d WD2=e}
```

2. REASON FOR OUTPUT

To report a scanner and signal distributor (SCSD) related software or hardware error.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Identifies point within input/output driver (IODRV) where a software or hardware error was detected, in hexadecimal notation. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

`c` = Hardware error type, in hexadecimal notation. Refer to the APP:IOP-A appendix in the Appendixes section of the Output Messages manual.

`d` = First word of an unidentifiable completion report.

`e` = Second word of an unidentifiable completion report.

4. ACTION TO BE TAKEN

These error messages indicate error conditions which could cause the removal of a unit. Any removed unit should be repaired and restored to service.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	208

Input Message(s):

```
DGN:SCSDC
OP:SCSD
RMV:SCSDC
RST:SCSDC
```

Output Message(s):

```
DGN:SCSDC
OP:SCSD
RMV:SCSDC
RST:SCSDC
```

Output Appendix(es):

```
APP:IOP-A
APP:IOP-F
APP:OMDB-X-REF
```

REPT:SCSDA

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT SCSDA FAULT CODE a [VIRTUAL ADDRESS b]

[2]   ____________________________________________________________
      REPT SCSDA ERROR CODE c
       [UNIT f] [PID = d] [UID h] [RID e] [FAULT CODE a]

[3]   ____________________________________________________________
      REPT SCSDA UNIDENTIFIED MESSAGE FROM d TYPE g
```

2. REASON FOR OUTPUT

To report the occurrence of either a scanner and signal distributor (SCSD) administrator (SCSDA) related software error, or of an abnormal event.

Format 1 reports the receipt of an SCSDA fault code. (A message with supplemental data may accompany this report.)

Format 2 reports an SCSDA error.

Format 3 reports the receipt of an unrecognized message sent to the SCSDA.

3. VARIABLE FIELD DEFINITIONS

a = Fault code. Refer to the APP:DFC-I appendix in the Appendixes section of the Output Messages manual.

b = Virtual address within the SCSDA where the fault occurred (in hexadecimal).

c = SCSDA error code (in hexadecimal). Valid value(s):

- 50 = SCSDA cannot process request. Unit is unknown.
- 51 = Unrecognized fault code.
- 52 = Received notification that client process has terminated. Reason for termination is unknown.
- 53 = Message overload condition exists for an SCSDA client process.
- 54 = Cannot initialize an SCSDC unit.
- 55 = SCSDA is in an improper state to process request.

d = Process number of SCSDA client (in decimal.

e = Record ID (RID) number of SCSDC (in hexadecimal).

f = Unit number of SCSDC (in decimal).

g = Unrecognized message type (in hexadecimal).

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`h` = Utility ID (UID) of SCSDA client (in hexadecimal).

4. ACTION TO BE TAKEN

If 'c' =	Action:
50	This is caused by either corruption of the SCSDA unit save area or the maximum number of SCSDC units that can be monitored by the SCSDA has been exceeded. Enter the equipment configuration database (ECD) to verify that the unit is equipped and the RID was not corrupted in the memory of the SCSDA. If the RID is not corrupted and the maximum number of SCSDC units by the SCSDA has not been exceeded, regrow the SCSDC unit. In either case, report that an error has occurred to the service support organization.
51	Collect receive-only printer (ROP) and forward to the service support organization for all fault types except FLT_SINIT.
52	Restart the terminated client process if its UID is reported and if it was not automatically restarted. If the UID is not reported, then the process with PID is not known to the SCSDA. The process no longer exists. If the error persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
53	Indicates that an SCSDA client is no longer processing messages or, has received too many messages at one time before it can dequeue them. This error indicates that the client has exceeded the maximum number of allowable messages on its queue and returned the message to the SCSDA. In either case, the conditions result with incomplete information because these messages have been returned to the SCSDA and are not re-sent. If this error persists, corrective action such as restarting should be performed. Contact the service support organization if this error occurs.
54	Verifies that the unit is in-service. Correct as required.
55	This will be corrected by the SCSDA and additional action is not required. The SCSDA will re-initialize the unit.

If Format 1 is output, collect ROP and forward to the service support organization for all fault types except FLT_SINIT.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	165

Input Message(s):

```
DGN:SCSDC
OP:OOS
OP:SCSD
RST:SCSDC
```

Output Message(s):

```
REPT:SCSDC
```

Output Appendix(es):

```
APP:DFC-I
APP:OMDB-X-REF
```

Other Manual(s):

Where 'x' is the release-specific version of the specified document.

235-600-31x *ECD/SG*

REPT:SCSDC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT SCSDC a  {ERROR b [COMPLETED CODE c] |
        UNIDENTIFIED RESPONSE WD1=d WD2=e}

[2]   ____________________________________________________________________
      REPT SCSDC a FLASH RAM VERSION X'f
```

2. REASON FOR OUTPUT

Format 1 reports a scanner and signal distributor (SCSD) related software or hardware error.

Format 2 is output prior to the update of flash RAM on the unit as requested by diagnostics.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Identifies point within the input/output driver (IODRV) where a software or hardware error was detected, in hexadecimal notation. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

`c` = Hardware error type, in hexadecimal notation. Refer to the APP:IOP-A appendix in the Appendixes section of the Output Messages manual.

`d` = First word of an unidentifiable completion report.

`e` = Second word of an unidentifiable completion report.

`f` = Peripheral controller flash RAM version.

4. ACTION TO BE TAKEN

These error messages indicate error conditions which could cause the removal of a unit. Any removed unit should be repaired and restored to service.

No action is necessary for the message in Format 1 unless the controller is not acting normal, or could not be restored. Contact the service organization with the flash RAM version that was used.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	208
2	226

Input Message(s):

```
DGN:SCSDC
RMV:SCSDC
RST:SCSDC
```

Output Message(s):

```
DGN:SCSDC
REPT:IOP
REPT:RCVRY-IOP
REPT:RCVRY-SCSDC
RMV:SCSDC
RST:SCSDC
```

Output Appendix(es):

```
APP:IOP-A
APP:IOP-F
APP:OMDB-X-REF
```

REPT:SDFI-TADH

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT SDFI=a-b-c TRBL AUDIT DETECTED HARDWARE ERROR d
  e RECOVERY ACTION f
  g h i
```

2. REASON FOR OUTPUT

To respond to audits detecting a *SLC*® 96-digital facility interface (S-DFI) being in an improper configuration. The audit detecting this condition is the digital facility interface module processor (DFIMP) audit. The S-DFI is removed from service, diagnosed, and placed back in service if the diagnostics are all tests passed (ATP). Placing the circuit back in service will initialize the S-DFI to either a modeI or modeII configuration as required by the RLcktdata tuple for the circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital carrier line unit (DCLU) number.

`c` = S-DFI number.

`d` = Event number.

`e` = `SDFI CONFIGURATION ERROR` - Error type.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RST PREEMPT` = The failing circuit has been preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = External logical circuit name.

`h` = The current decimal number of recent failures of this type recorded.

`i` = Error count threshold, above which the recovery action will be taken.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Input/Output Messages:

None.

REPT:SDFI-TIPP

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT SDFI=a-b-c TRBL INTERNAL PIDB PARITY ERROR d
  INTERNAL PIDB PARITY ERROR  RECOVERY ACTION e
  f g h i j k l m n o p q r s t u
  v
  w x y
  [w x y]
```

2. REASON FOR OUTPUT

To indicate that a parity error has occurred on an internal peripheral interface data bus (PIDB), which is between the digital carrier line unit (DCLU) service group and a *SLC*® 96 digital facility interface (S-DFI). Both the service group and the S-DFI are implicated.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DCLU number.

`c` = S-DFI number.

`d` = Event number.

`e` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`RST PREEMPT` = The failing circuit has been preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

Note: Fields '`f`' through '`v`' will be reported as hexadecimal data, where each field is a short (4 digits).

`f` = Contents of the DCLU error source register (ESR).

`g` = Contents of the DCLU ESR mask.

`h` = PIDB0 time slot 0 to 15 parity status. A bit set means the S-DFI using that PIDB time slot is generating bad parity.

`i` = PIDB0 time slot 16 to 31 parity status, similar to field '`h`' above.

`j` = PIDB1 time slot 0 to 15 parity status, similar to field '`h`' above.

`k` = PIDB1 time slot 16 to 31 parity status, similar to field '`h`' above.

`l` = DCLU service group internal circuit name.

`m` = PIDB. Valid value(s):

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`PIDB 0` = The first PIDB assigned to the DCLU.
`PIDB 1` = The optional second DCLU PIDB.

`n` = Internal PIDB time slot number.

`o` = S-DFI select value assigned to the internal PIDB time slot.

`p` = Internal circuit name of the S-DFI assigned to the internal PIDB time slot.

`q` = Internal circuit name of the port connected to the internal PIDB time slot. Equal to zero if no port was connected to the time slot.

`r` = Logical port type of the port connected to the internal PIDB time slot. Equal to zero if no port was connected to the time slot or if the port information could not be accessed.

`s` = Service class of the port connected to the internal PIDB time slot. Equal to FFFF (hexadecimal) if no port was connected to the time slot or if the port information could not be accessed.

`t` = Contents of the entry for the internal PIDB time slot in the receive control (RC) random access memory (RAM) of the S-DFI time slot interchanger (TSI). Equal to FFFF (hexadecimal) if the RAM could not be accessed.

`u` = Contents of the entry for the T1 time slot in the transmit control (XC) RAM in the S-DFI TSI. Equal to FFFF (hexadecimal) if the RAM could not be accessed.

`v` = S-DFI select value for the same time slot on the other PIDB assigned to the DCLU service group. Equal to FFFF (hexadecimal) if the select value was not the same as the select value in field '`o`'.

`w` = External circuit name for the implicated circuit.

`x` = Current decimal number of recent failures of this type recorded for this circuit.

`y` = Decimal error count threshold, for this type of error on this circuit, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

No action is necessary if the recovery action is `ANALYSIS ONLY`.

If the S-DFI reaches its threshold such that it is removed and restored several times, the S-DFI packs should be replaced, regardless of the diagnostic results.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT:DCLU-TIPPE
```

REPT:SDFI-TPCF-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT SDFI=a-b-c TRBL PICB CONTROL FAILURE EVENT=d
  e RECOVERY ACTION f
  g h i j k
  l m n
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the *SLC*® 96-digital facility interface (S-DFI) control PICB. Both the S-DFI being accessed and the digital carrier line unit (DCLU) service group controlling that S-DFI are implicated.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DCLU number.

`c` = S-DFI number.

`d` = Event number.

`e` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is printed. only.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RST PREEMPT` = The failing circuit has been preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`h` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`i` = Data being written to the periphery by the CI.

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`j` = Contents of the CI error source register.

`k` = DCLU service group S-DFI select register value.

`l` = External logical circuit name. (There will be two lines of data here.)

`m` = The current decimal number of the recent failures of this type recorded.

`n` = Error count threshold, above which the recovery action will be taken.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:SDFI-TPCF-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT SDFI=a-b-c TRBL PICB CONTROL FAILURE EVENT=d
  e RECOVERY ACTION f
  g h i j k
  l m n o
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the *SLC*® 96-digital facility interface (S-DFI) control PICB. Both the S-DFI being accessed and the digital carrier line unit (DCLU) service group controlling that S-DFI are implicated.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DCLU number.

`c` = S-DFI number.

`d` = Event number.

`e` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is printed. only.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RST PREEMPT` = The failing circuit has been preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`h` = System PICB number in hexadecimal that was being written when the failure occurred.

`i` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

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j = Data being written to the periphery by the CI.

k = Contents of the CI error source register.

l = DCLU service group S-DFI select register value.

m = External logical circuit name. (There will be two lines of data here.)

n = The current decimal number of the recent failures of this type recorded.

o = Error count threshold, above which the recovery action will be taken.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:SDFI-TRBL

Software Release: 5E10 and later
Message Class: HW_MON
Application: 5
Type: Output

1. FORMAT

```
REPT SDFI=a-b-c TRBL OPERATIONAL FAILURE EVENT=d
  SST FAILURE RECOVERY ACTION ANALYSIS ONLY
  SDFI=a-b-c e f
  gggghhhh iiiijjjjj kkkkxxxx
```

2. REASON FOR OUTPUT

To report a short supervisory transition (SST) failure due to an unexpected on-hook transition during a valid off-hook timing interval.

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number.
b	= Digital carrier line unit (DCLU) number.
c	= *SLC*® digital facility interface (SDFI) number.
d	= Event number.
e	= Decimal number of failures of this type that occurred in a one-second interval.
f	= Decimal error count threshold, above which the recovery action will be escalated.
g	= Hexadecimal internal circuit name of the SDFI.
h	= Hexadecimal internal circuit type of the SDFI.
i	= Hexadecimal internal shelf name where the port is located.
j	= Hexadecimal internal port name where the failure occurred.
k	= Mode of the *SLC*® system: Mode 1 or 2.
x	= No value, ignore.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
DGN:SDFI
RMV:SDFI
RST:SDFI
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:SDFI-TSCR

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT SDFI=a-b-c TRBL SDFI CCB REPORTED FAILURE EVENT=d
  e RECOVERY ACTION f
  g h i
  j k
```

2. REASON FOR OUTPUT

To report a *SLC*® 96 digital facility interface (SDFI) error detected by the SDFI microprocessor in the control communications buffer (CCB).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital carrier line unit (DCLU) number.

`c` = SDFI number.

`d` = Event number.

`e` = Error type. Valid value(s):

`SDFI INVALID CCB ACTIVITY` = An unrecognized error was reported by the SDFI.

`SDFI FIRMWARE FAULT` = An abnormal state has been detected in the SDFI firmware. The value in variable '`k`' gives further resolution of what the specific error was.

`SDFI TRANS. FORMATTER EXER. ALARM` = A routine background exercise of the TF has failed, that is, the response was not as expected. The specific errors are broken down in variable '`k`'.

`SDFI RCV. SYN. EXER. ALARM` = A routine background exercise of the RS has failed, that is, the response was not as expected. The specific errors are broken down in variable '`k`'.

`SDFI FRAMER EXER. ALARM` = A routine background exercise of the framer has failed, that is, the response was not as expected. The specific errors are broken down in variable '`k`'.

`SDFI AUDIT LATCH ALARM` = At least one of the internal audit latches returned an incorrect value. Variable '`k`' gives further break down of this error.

`SDFI CCB ALARM STATE FAULT` = An internal CCB error has occurred. Variable '`k`' gives further break down of this error.

`SDFI LOOP MONITOR/CLOCK LOSS ALARM` = The status of the SDFI's internal data loop has changed, which may also indicate that the SDFI has lost clock (since it is

automatically looped when clock loss occurs). The specific status is broken down in variable 'k'.

SDFI TSI ERROR = Either an error or exercise failure has occurred in the time slot interchanger (TSI) on the SDFI. The specific errors are broken down in variable 'k'.

SDFI SANITY TIMER ERROR = The microprocessor's sanity timer has expired, which indicates that the microprocessor went insane and stopped maintaining its sanity timer.

f = Recovery action. Valid value(s):

ANALYSIS ONLY = A post mortem report is generated.

RST PREEMPT = The failing circuit has been preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

Note: Variables 'j' and 'k' will be reported as hexadecimal data, where each variable is a short, that is, four digits.

g = External logical circuit name.

h = Current decimal number of recent failures of this type recorded.

i = Error count threshold, above which the recovery action will be escalated.

j = SDFI register address where failure was reported.

k = Data value in register specified by variable 'j'. Valid value(s):

If error type (variable 'e') is SDFI FIRMWARE FAULT, then interpret variable 'k' as follows:

0001 = Incoming-USART process overflow (USART is the universal synchronous/asynchronous receiver/transmitter).

0002 = Outgoing-USART process overflow.

0004 = Read-CCB process overflow.

0008 = Framer report stream process overflow.

0010 = Receive synchronizer (RS) report stream process overflow.

0020 = Transmit formatter (TF) report stream process overflow.

0040 = CCB pointer error.

0080 = Checksum failure.

If error type (variable 'e') is SDFI TRANS. FORMATTER EXER. ALARM, then interpret variable 'k' as follows; one will appear in the bit position that mismatched. Bit assignments are:

Bit 0 = Loss of clock alarm.

`Bit 1` = Superframe synchronization alarm.

`Bit 2` = Internal parity alarm.

`Bit 3` = Input parity alarm.

`Bit 4` = Input idle code alarm (that is, stuffed time slots do not carry idle code).

`Bit 5` = Mode parity alarm.

Other bits are not used.

If error type (variable '`e`') is SDFI RCV. SYN. EXER. ALARM, then interpret variable '`k`' as follows; one will appear in the bit position that mismatched. Bit assignments are:

`Bit 0` = Loss of clock alarm.

`Bit 1` = Signaling parity alarm.

`Bit 2` = Pseudorandom pattern alarm.

`Bit 3` = RAM parity alarm.

`Bit 4` = Time slot counter alarm.

`Bit 5` = Stuff circuit alarm.

`Bit 6` = Control stream parity alarm.

`Bit 7` = Frame counter alarm.

Other bits are not used.

If error type (variable '`e`') is SDFI FRAMER EXER. ALARM, then interpret variable '`k`' as follows; one will appear in the bit position that mismatched. Bit assignments are:

`Bit 0` = Loss of superframe alignment (from the USART).

`Bit 1` = Pseudorandom pattern error or loss of system clock or loss of receive clock.

`Bit 2` = Line format violation mismatch or control stream parity error.

`Bit 3` = Frame alignment signal error mismatch or superframe resync-pulse mismatch.

`Bit 4` = Remote frame (yellow) alarm mismatch or alarm indication signal mismatch.

`Bit 5` = Transmit/receive data-link clock mismatch.

`Bit 6` = Receive data-link data mismatch or transmit positive-rail time division multiplexing (TDM) mismatch.

`Bit 7` = Transmit negative-rail TDM mismatch or receive TDM mismatch.

Other bits are not used.

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If error type (variable 'e') is SDFI AUDIT LATCH ALARM, then interpret variable 'k' as follows. A value of hexadecimal 00FF in this variable indicates that the firmware sanity timer has expired and that the firmware has rewritten the mode to the framer. Otherwise, the bit assignments are:

Bit 0 = TF mode audit.

Bit 1 = TF exercise audit.

Bit 2 = RS mode audit.

Bit 3 = RS exercise audit.

Bit 4 = Framer mode audit.

Bit 5 = Framer exercise audit.

Bit 6 = Framer action audit.

Bit 7 = Framer action mask audit.

Other bits are not used. If a bit equals one, there is an error.

If error type (variable 'e') is SDFI CCB ALARM STATE FAULT, then interpret variable 'k' as follows. Bit assignments are:

Bit 0 = Not used.

Bit 1 = Address error.

Bit 2 = Parity error.

Bit 3 = Match error.

Other bits are not used. A bit equal to one means the alarm is active.

If error type (variable 'e') is SDFI LOOP MONITOR/CLOCK LOSS ALARM, then interpret variable 'k' as follows. Bit assignments are:

Bits 0,1 = Not used.

Bit 2 = 1=Loss of internal peripheral data bus (IPIDB) clock 0.

Bit 3 = 1=Loss of IPIDB clock 1.

Bits 4-6 = Not used.

Bit 7 = Loop status: 0=Unlooped, 1=Looped.

Other bits are not used.

If error type (variable 'e') is SDFI TSI ERROR, then interpret variable 'k' as follows. Bit assignments are:

Bit 0 = 1=8 KHz sync missing.

`Bit 1`	= 1=Transmit or receive data RAM parity error.
`Bit 2`	= 1=Read activity parity error or receive idle signaling (RIS) RAM parity error.
`Bit 3`	= 1=Mode select register parity error.
`Bit 4`	= 1=Transmit idle signaling (XIS) RAM parity error.
`Bit 5`	= 1=Transmit control RAM parity error.
`Bit 6`	= 1=Receive control RAM parity error.
`Bit 7`	= 1=RIS RAM bits 5, 6, & 7 parity error.

Other bits are not used.

4. ACTIONS TO BE TAKEN

These errors usually indicate a problem in the SDFI hardware, but they can also occur because of problems in the DCLU hardware or because of firmware or software faults.

If the errors do not automatically cause the SDFI to be diagnosed, remove the SDFI from service and diagnose it. If the SDFI passes diagnostics, try diagnosing the DCLU service group that controls that SDFI. If diagnostics pass, you may want to replace the SDFI and/or the DCLU.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:DCLU
DGN:SDFI
```

MCC Display Page(s):

1150,YY,X (SM X-DCLU YY)

REPT:SDFI-TSSR

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT SDFI=a-b-c TRBL SDFI SERVICE REQUEST FAILURE d
  e RECOVERY ACTION f
  g h i
```

2. REASON FOR OUTPUT

To respond to the failure to find a *SLC*® 96-digital facility interface (SDFI) service request when one is indicated at the next higher level of hardware. Both the SDFI and the controlling digital carrier line unit (DCLU) service group may be implicated.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DCLU number.

`c` = SDFI number.

`d` = Event number.

`e` = Error type. Valid value(s):
`SDFI ESR ACT. REPORTED, NOT FOUND` = Both the SDFI and the DCLU service group are implicated.
`SDFI EXCESSIVE OPR. SERV. REQ.` = Too many SDFI service requests were made. They cannot be processed in the amount of time allowed for processing them.
`SDFI FLG ACT. REPORTED, NOT FOUND` = Only the SDFI is implicated. The flag register (FLG) is empty.
`SDFI SFV ACT. REPORTED, NOT FOUND` = Only the SDFI is implicated. The summary flag vector (SFV) is empty.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`RST PREEMPT` = The failing circuit has been preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = External logical circuit name. (There may be two lines of data here.)

`h` = The current decimal number of the recent failures of this type recorded.

`i` = Error count threshold, above which the recovery action will be taken.

4. ACTION TO BE TAKEN

If 'f' =	Action:
ANALYSIS ONLY	The circuit named in variable 'g' has not exceeded a threshold and is not faulty. No action needs to be taken.
RST PREEMPT	Verify that diagnostics have been run. If the diagnostics failed, begin trouble clearing procedures. If the diagnostics passed, the fault was transient. No action needs to be taken.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:SDFI-TUSR

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT SDFI=a-b-c TRBL UNEXPECTED SERVICE REQUEST d
  SDFI SP ERROR RECOVERY ACTION e
  f g h
  i j k
```

2. REASON FOR OUTPUT

To report an unexpected service request on a *SLC*® 96-digital facility interface (S-DFI).

3. VARIABLE FIELD DEFINITIONS

`SDFI SP ERROR` = An S-DFI signal processor error has occurred and was detected by call processing.

`a` = Switching module (SM) number.

`b` = Digital carrier line unit (DCLU) number.

`c` = S-DFI number.

`d` = Event number.

`e` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RST PREEMPT` = The failing circuit has been preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`f` = S-DFI circuit name.

`g` = T1 time slot used.

`h` = Remote terminal (RT) shelf name.

`i` = External logical circuit name.

`j` = Current decimal number of recent failures of this type recorded.

`k` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

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None.

6. REFERENCES

Input/Output Messages:

None.

REPT:SDL

Software Release: 5E10 and later
Message Class: MAINT,MAIPR,SPERR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT SDL a { [ERROR] b [c] [COMPL CODE d] |
        UNIDENTIFIED RESPONSE WD1=e WD2=f}

[2]   ____________________________________________________________________
      REPT SDL a WARNING LAST LINK IN DUPLEX LINK GROUP
        BEING REMOVED

[3]   ____________________________________________________________________
      REPT SDL a STARTED

[4]   ____________________________________________________________________
      REPD SDL a STOPPED
```

2. REASON FOR OUTPUT

Format 1 reports a synchronous data link (SDL) related software or hardware error or an unauthorized attempt to use a secure dial-up data link.

Format 2 reports that the last available link in a duplex link group being removed from service.

Format 3 reports that the SDL has changed state from standby (STBY) to active (ACT). An SDL will change to ACT when the level 2 connection is established and the data link is in information transfer state.

Format 5 reports that the SDL has changed state from ACT to STBY. An SDL will change to STBY state when the level 2 connection is terminated and the level 1 connection remains established.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Can be either hexadecimal notation or a message. The hexadecimal notation identifies the point within the input/output driver (IODRV) where a software or hardware error was detected. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

The message identifies which security check failed in an attempt to use a secure dial-up link. Valid value(s):

```
INCORRECT PASSWORD
INCORRECT PASSWORD DESTINATION ADDRESS LENGTH
INCORRECT PASSWORD DESTINATION IDENTIFICATION
INCORRECT PASSWORD LINK IDENTIFICATION
INCORRECT PASSWORD MODIFIER
INCORRECT PASSWORD ORIGINATION ADDRESS LENGTH
INCORRECT PASSWORD ORIGINATION IDENTIFICATION
INSUFFICIENT PASSWORD INFORMATION
PASSWORD NOT REQUIRED INHIBITED
```

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```
PASSWORD PACKET NOT RECEIVED
PASSWORD REQUIRED
PASSWORD TEST BIT ON
PASSWORD VALID INHIBITED
UNKNOWN PASSWORD MODIFIER 2
UNKNOWN PASSWORD MODIFIER 7
UNKNOWN PASSWORD MODIFIER 10
UNKNOWN PASSWORD MODIFIER 11
UNKNOWN PASSWORD MODIFIER 15
```

`c` = Character string giving more information about the error (in hexadecimal notation) identified in variable '`b`'. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual for additional explanation.

`d` = Hardware error type, in hexadecimal notation. Refer to the APP:IOP-A appendix in the Appendixes section of the Output Messages manual.

`e` = First word of an unidentified completion report.

`f` = Second word of an unidentified completion report.

4. ACTION TO BE TAKEN

Format 1 either indicates, through the software or hardware error messages, error conditions which could cause the removal of a unit, or it indicates the unauthorized attempt to use a secure dial-up link message by someone who is not authorized to access the administrative module (AM) through a synchronous data link. Notify the person in charge of security for the AM of any unauthorized access. In the case of software or hardware error messages, any removed unit should be repaired and restored to service.

For Format 2, removal of the last available link in a duplex link group indicates that no data transmission can take place over the link facility. One of the links in the group should be repaired and restored to service.

Formats 3 and 4 indicate that the SDL has changed states. No action is necessary.

5. ALARMS

Format 1 has no alarm.

Format 2 has a major alarm. A major alarm may not be service affecting, but take immediate action as indicated in the report.

Formats 3 and 4 have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	143, 208
2	590
3,4	308

Input Message(s):

```
CLR:IODRV
DGN:SDLC
RMV:SDL
RST:SDL
```

Output Message(s):

```
DGN:SDLC
REPT:IOP
REPT:SDLC
REPT:RCVRY-IOP
REPT:RCVRY-SDL
REPT:RCVRY-SDLC
RMV:SDL
RST:SDL
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

REPT:SDLC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT SDLC a  {ERROR b [COMPL CODE c] |
        UNIDENTIFIED RESPONSE WD1=d WD2=e}

[2]   ____________________________________________________________________
      REPT SDLC a CODE VERSION X'f

[3]   ____________________________________________________________________
      REPT SDLC a FLASH RAM VERSION X'g
```

2. REASON FOR OUTPUT

Format 1 reports a synchronous data link controller (SDLC) related software or hardware error.

Format 2 is output during the restoration of the unit.

Format 3 is output prior to the update of flash RAM on the unit as requested by diagnostics.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Identifies point within the input/output driver (IODRV) where a software or hardware error was detected, in hexadecimal notation. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

`c` = Hardware error type, in hexadecimal notation. Refer to the APP:IOP-A appendix in the Appendixes section of the Output Messages manual.

`d` = First word of an unidentifiable completion report.

`e` = Second word of an unidentifiable completion report.

`f` = Peripheral controller pump code version.

`g` = Peripheral controller flash RAM version.

4. ACTION TO BE TAKEN

These error messages indicate error conditions which could cause the removal of a unit. Any removed unit should be repaired and restored to service. No action is necessary for the messages in Formats 2 and 3 unless the controller and/or its subdevices are not acting normal, or could not be restored. Contact the service organization with the code version and/or flash RAM that were used.

5. ALARMS

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None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	208
2, 3	226

Input Message(s):

```
CLR:IODRV
DGN:SDLC
RMV:SDLC
RST:SDLC
```

Output Message(s):

```
DGN:SDLC
REPT:IOP
REPT:RCVRY-IOP
REPT:RCVRY-SDLC
RMV:SDLC
RST:SDLC
```

Output Appendix(es):

```
APP:IOP-A
APP:IOP-F
APP:OMDB-X-REF
```

REPT:SDLRTC

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT SDLRTC a

[2]   ____________________________________________________________
      REPT SDLRTC RESTORE MESSAGE FOR b c SENT TO MIRA

[3]   ____________________________________________________________
      REPT SDLRTC COMPLETED RESTORE OF SDLS

[4]   ____________________________________________________________
      REPT SDLRTC UNABLE TO GET ECD SEGMENTS, ERRNO d
```

2. REASON FOR OUTPUT

Format 1 reports an equipment configuration database (ECD) connection or retrieval failure.

Format 2 reports that a message was sent to maintenance input request administrator (MIRA) to restore a synchronous data link (SDL) or a high speed datalink (HSD) unit, or a synchronous data link controller (SDLC) or a high speed data link controller (HSDC).

Format 3 reports the completion of sequencing through the ECD for restoring SDLs.

Format 4 reports a failure in obtaining a database segment for the synchronous data link restore tool communications protocol handler (SDLRTC) process.

3. VARIABLE FIELD DEFINITIONS

a = Identifies which type of database failure was encountered. Valid value(s):

```
INVALID UCBRID
UNABLE TO ATTACH TO ECD
UNABLE TO GET CPOPT RECORD
UNABLE TO GET ECDORG RECORD
UNABLE TO GET IOP RECORD
UNABLE TO GET SDL RECORD
UNABLE TO OPEN SEQUENCE
```

b = Unit name.

c = Unit number.

d = Error code. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

For Format 1, obtain technical assistance.

For Formats 2 and 3, no action is required.

For Format 4, check error code to determine action.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	586

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-210 *Routine Operations and Maintenance*

REPT:SDLRTN

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT SDLRTN a

[2]   ____________________________________________________________
      REPT SDLRTN RESTORE MESSAGE FOR b c SENT TO MIRA

[3]   ____________________________________________________________
      REPT SDLRTN COMPLETED RESTORE OF SDLS

[4]   ____________________________________________________________
      REPT SDLRTN UNABLE TO GET ECD SEGMENTS, ERRNO d
```

2. REASON FOR OUTPUT

Format 1 reports an equipment configuration database (ECD) connection or retrieval failure.

Format 2 reports that a message was sent to maintenance input request administrator (MIRA) to restore a synchronous data link (SDL) or a high speed datalink (HSD) unit, or a synchronous data link controller (SDLC) or a high speed datalink controller (HSDC).

Format 3 reports the completion of sequencing through the ECD for restoring SDLs.

Format 4 reports a failure in obtaining a database segment for the synchronous data link restore tool network protocol handler (SDLRTN) process.

3. VARIABLE FIELD DEFINITIONS

a = Identifies which type of database failure was encountered. Valid value(s):

```
INVALID UCBRID
UNABLE TO ATTACH TO ECD
UNABLE TO GET ECDORG RECORD
UNABLE TO GET IOP RECORD
UNABLE TO GET NPHOPT RECORD
UNABLE TO GET SDL RECORD
UNABLE TO OPEN SEQUENCE
```

b = Unit name.

c = Unit number.

d = Error code. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

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For Format 1, obtain technical assistance.

Formats 2 and 3, no action is required.

For Format 4, check error code to determine action.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	586

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-210 *Routine Operations and Maintenance*

REPT:SECURITY

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT SECURITY UNRESTRICTED ACCESS a
```

2. REASON FOR OUTPUT

To report the status of a system unrestricted access request. Unrestricted access means disabling authority checking on Master Control Console (MCC) and Switching Control Center (SCC) devices. Unrestricted access is controlled by the '+' application parameter on the Emergency Action Interface (EAI) page.

This output message is used in administering security of the maintenance interface. Refer to the Authority Management section of the Routine Operations and Maintenance manual for authority administration information.

3. VARIABLE FIELD DEFINITIONS

`a` = Status of unrestricted access. Valid value(s):

- `AUTOMATICALLY DISABLED` = 60 minutes has expired without a manual disable since the original unrestricted access request or a software release retrofit process has completed. Unrestricted access is automatically disabled and can be requested again by entering another '+' application parameter on the EAI page.
- `ENABLED FOR RETROFIT` = Unrestricted system access was automatically enabled as part of the software release retrofit process. Unrestricted access is enabled on MCC and SCC devices until the retrofit process is complete.
- `MANUALLY DISABLED` = Unrestricted system access, previously enabled by the '+' application parameter, was manually disabled by another '+' application parameter before the 60 minute automatic disable period expired.
- `REQUESTED` = Unrestricted system access was requested using the '+' application parameter on the EAI page. Unrestricted access is enabled on MCC and SCC devices until 60 minutes has expired or until manually disabled by another '+' application parameter, whichever occurs first.

4. ACTION TO BE TAKEN

If '`a`' = `REQUESTED`, check that unrestricted access is authorized. An unauthorized request constitutes a security violation. Otherwise no action is necessary.

5. ALARMS

If '`a`' = `REQUESTED`, a critical alarm is generated to alert office personnel that authority checking is disabled on the MCC and SCC devices. Otherwise no alarm is generated.

6. REFERENCES

Input Message(s):

`None.`

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Output Message(s):

```
REPT:LOGIN
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

REPT:SERV-EDBO

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT SERVICE EVALUATION DATA BUFFER OVERFLOW
```

2. REASON FOR OUTPUT

To report the overflow of the service evaluation data buffer.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

Restore the service evaluation communication channel.

5. ALARMS

A minor alarm occurs.

6. REFERENCES

None.

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REPT:SERV-EDLL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT SERVICE EVALUATION DATA LINK LOST
```

2. REASON FOR OUTPUT

To report the loss of the service evaluation data link.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

Restore or repair the link so that communications can be restored.

5. ALARMS

A minor alarm occurs.

6. REFERENCES

None.

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REPT:SFI-TBTF

Software Release: 5E10 and later
Message Class: HW_MON,PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT SFI=a-b-c-d [e] TRBL BACKGROUND TEST FAILURE EVENT=f
  g RECOVERY ACTION h
  iijjkkkk llllmmmm nnnnoooo ooooooooo
  [SFI=a-b-c-d p q]
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within the switching module (SM) caused by failure of a synchronous transport signal facility interface (SFI) circuit in the digital networking unit - synchronous optical network (SONET) (DNU-S). The fault was detected and reported by the routine background test process.

The message indicates what recovery action was taken and gives the current fault counts against the circuit specified in the message. Refer to variable '`h`' to determine the effect the fault recovery activity had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = DNU-S unit number.

`c` = DNU-S data group number.

`d` = DNU-S SFI circuit number.

`e` = SFI equipment status. Valid value(s):
- `ACTIVE` = The SFI is in service and a fault has been detected.
- `OOS` = The SFI is marked as out-of-service, but fault stimuli are still being detected.
- `PRE-OOS` = Fault recovery has notified the maintenance request administrator (MRA) to remove this SFI from service. However, fault stimuli are still being detected from the circuit indicating that the SFI has not been completely removed from service.
- `STANDBY` = The SFI is in standby and a fault has been detected.

`f` = Event number.

`g` = Error type. Valid value(s):
- `HEART BEAT ERROR` = A routine check found that the SFI failed to respond to a functional check.

`h` = Recovery action. Valid value(s):
- `ANALYSIS ONLY` = This recovery action applies to all circuits and all errors. A particular circuit or circuits are failing, but the error counts have not reached a threshold for action.
- `HARD RESET` = The circuit has been hard reset without scheduling diagnostics.
- `INHIBIT HDWCHKS` = The circuit has been inhibited because of excessive errors.
- `INITIALIZE` = This recovery action is used to re-initialize a circuit without scheduling diagnostics.

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`NO RECOVERY ACTION TAKEN` = This event needed no recovery action.
`PRE-OOS THRESHOLD EXCEEDED` = The SFI was preempted and is still detecting errors.
`PRE-OOS, RE-INHIBIT HDWCHKS` = The SFI has been preempted and is still detecting errors, inhibit has been re-applied on the SFI.
`RE-INHIBIT ERROR` = The SFI has been inhibited and error are still detected. Inhibit has been re-applied on the SFI.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A DGN:SFI output message will be printed with the results of the diagnostic.

`i` = DNU-S message type.

`j` = Message handler (MH) number and MH channel number, in a bit-packed representation. The first three bits indicate the MH number, and the next five bits indicate the MH channel number.

`k` = Internal circuit name of SFI.

`l` = Fault type.

`m` = Internal circuit index of SFI.

`n` = Internal DNU-S return code.

`o` = Currently unused.

`p` = Number of recent failures of this error type (variable '`g`') on this SFI circuit (in decimal).

`q` = Error count threshold above which the recovery action will become stronger.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the SFI from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:SFI
RMV:SFI
RST:SFI
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-600-500 *Asserts*

REPT:SFI-TRBL

Software Release: 5E10 and later
Message Class: HW_MON,PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT SFI=a-b-c-d [e] TRBL f EVENT=g
  h RECOVERY ACTION i
  jjkkllll mmnnoooo ooooooooo ooooooooo ooooooooo ooooooooo ooooooooo ooooooooo
  [SFI=a-b-c-d p q]
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within the switching module (SM) caused by failure of a synchronous transport signal facility interface (SFI) circuit in the digital networking unit - synchronous optical network (SONET) (DNU-S). The fault was detected and reported by the DNU-S resident software.

The message indicates what recovery action was taken and gives the current fault counts against the circuit specified in the message. Refer to variable '`i`' to determine the effect the fault recovery activity had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = DNU-S unit number.

`c` = DNU-S data group number.

`d` = DNU-S SFI circuit number.

`e` = SFI equipment status. Valid value(s):

- `ACTIVE` = The SFI is in service and a fault has been detected.
- `OOS` = The SFI is marked as out-of-service, but fault stimuli are still being detected.
- `PRE-OOS` = Fault recovery has notified the maintenance request administrator (MRA) to remove this SFI from service. However, fault stimuli are still being detected from the circuit indicating that the SFI has not been completely removed from service.
- `STANDBY` = The SFI is in standby and a fault has been detected.

`f` = High level error types. Valid value(s):

- `RESIDENT AUTO SWITCH` = An error was detected and recovered by DNU-S resident fault recovery software.
- `FAULT MESSAGE` = Error detected by DNU-S resident software.

`g` = Event number.

`h` = Error type. Valid value(s):

```
DATA PATH INCONSISTENCY
DECODER VIOLATION
FAULT TABLE ENTRY ERROR
FORCED INTERRUPT EXCEPTION
```

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```
ICB TIMED OUT ERROR
INTERRUPT THRU MASK
INVALID INTERRUPT EXCEPTION
LINE DRIVER LOSS OF SIGNAL ERROR
LINE REC LOSS OF LOCK ERROR
LINE REC LOSS OF SIGNAL ERROR
LINE SLI LOSS OF SIGNAL ERROR
NO ERROR SOURCE FOUND
PCI BUS READ/WRITE/ADDRESS ERROR
PERIPHERAL BAD PARITY
PERIPHERAL BAD START CODE
PERIPHERAL DETECTED BAD ADDRESS
PERIPHERAL DETECTED BAD PARITY
PERIPHERAL DETECTED BAD START CODE
PHASE LOCK LOOP ERROR
SFI BACKGROUND TEST FAILURE
SFI D2 LINE DRIVER LOSS OF SIGNAL
SLI BOARD FAILURE/PULLED
SPARING SIDE SELECT FAILURE
STE DBM ABSTRACTION ERROR
TIDB LINK FRAMING ERROR
TMUX DATA INCONSISTENCY
TMUX EXTERNAL LOSS OF SIGNAL
TMUX STSPP DEVICE MONITOR ERROR
TMUX TSC LOSS OF FRAME
TMUX TSC LOSS OF LOCK
TMUX VITTAS REC LOSS OF TIMING
TMUX VITTAS VISTA BAD PAR RECEIVED
```

`i` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = This recovery action applies to all circuits and all errors. A particular circuit or circuits are failing, but the error counts have not reached a threshold for action.

`HARD RESET` = The circuit has been hard reset without scheduling diagnostics.

`INHIBIT HDWCHKS` = The circuit has been inhibited because of excessive errors.

`INITIALIZE` = This recovery action is used to re-initialize a circuit without scheduling diagnostics.

`NO RECOVERY ACTION TAKEN` = No automatic recovery was performed.

`PRE-OOS THRESHOLD EXCEEDED` = The SFI was preempted and is still detecting errors.

`PRE-OOS, RE-INHIBIT HDWCHKS` = The SFI has been preempted and is still detecting errors, inhibit has been re-applied on the SFI.

`RE-INHIBIT ERROR` = The SFI has been inhibited and error are still detected. Inhibit has been re-applied on the SFI.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A DGN:SFI output message will be printed with the results of the diagnostic.

`j` = DNU-S message type.

`k` = Currently unused.

`l` = Internal circuit name.

`m` = Unit type.

`n` = Number of information words sent from DNU-S fault recovery.

`o` = Information sent from DNU-S fault recovery. The data sent is dependent on the type of error (the value of variable '`h`')

`p` = Number of recent failures of this error type (variable '`h`') on this SFI circuit (in decimal).

`q` = Error count threshold.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the SFI from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:SFI
RMV:SFI
RST:SFI
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-600-500 *Asserts*

REPT:SHLGETTY

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT SHLGETTY UNABLE TO ACCESS ECD FOR a

[2]   ____________________________________________________________
      REPT SHLGETTY CANNOT READ GETTY RECORD FOR a

[3]   ____________________________________________________________
      REPT SHLGETTY CANNOT READ TTOPT RECORD FOR a

[4]   ____________________________________________________________
      REPT SHLGETTY CANNOT SET TERMINAL OPTIONS FOR a ERRNO b

[5]   ____________________________________________________________
      REPT SHLGETTY UNABLE TO CHANGE DIRECTORY TO c

[6]   ____________________________________________________________
      REPT SHLGETTY FAILED TO EXECUTE d

[7]   ____________________________________________________________
      REPT SHLGETTY FAILED TO OPEN e

[8]   ____________________________________________________________
      REPT SHLGETTY UNABLE TO RETRIEVE LCHAN
        FROM ENVIRONMENT
```

2. REASON FOR OUTPUT

To report a failure that occurred during shlgetty process execution.

3. VARIABLE FIELD DEFINITIONS

a = Teletypewriter (TTY) device which shlgetty is executing against.

b = DMERT error code. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

c = The idir file suffix entry CFTSHL executing directory.

d = Pathname of the process which could not be executed.

e = Special device file which could not be opened.

4. ACTION TO BE TAKEN

For Formats 1-4, verify that the getty and ttopt records in the equipment configuration database (ECD) for the indicated TTY device are correct.

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For Format 5, check that the directory indicated in the getty record exists.

For Format 6, verify that the process which could not be created exists and is executable.

For Format 7 or 8, or the error persists after taking action indicated above, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of this manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1-7	312

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
Other Manual(s):
```

Other Manual(s):

System Maintenance Requirements and Tools
235-105-110
System Maintenance Requirements and Tools

REPT:SIM-UTILITY

Software Release: 5E10 and later
Message Class:
Application: 5,3B
Type: Output

1. FORMAT

```
REPT SIM UTILITY IDS OF PROCESSES KILLED DURING CFT INIT
  a  a  a  a  a  a  a  a  a
```

2. REASON FOR OUTPUT

To report the utility IDs of processes killed during a level 2 or level 3 user initialization.

3. VARIABLE FIELD DEFINITIONS

`a` = Utility ID in hexadecimal of a killed process.

4. ACTION TO BE TAKEN

This message lists the utility IDs of processes killed during a user initialization. To identify the process associated with the utility ID, use the OP:ST-PROC input message with the ALL option after the recovery of the user interface. If some processes were not restarted after user initialization, the *UNIX*® RTR Operating System Software Troubleshooting Guide will relate the utility IDs to specific processes.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:ST-PROC`

REPT:SIMCHK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT SIMCHK a [b]
```

2. REASON FOR OUTPUT

To report error conditions that occurred while executing the system integrity monitor (SIM).

3. VARIABLE FIELD DEFINITIONS

a = System integrity error code. Code numbers labeled with an "*" indicate conditions that may result in a system initialization phase unless software checks are inhibited.

- *1 = System initialization failure.
- 2 = System initialization status message received with unknown process number.
- *12 = Unexpected fault received by SIM.
- 01 = Audit control subsystem initialization failure.
- 02 = Audit record initialization error.
- 03 = The system integrity output formatter (SIOF) program is not running. Some output messages were lost.
- 04 = Routine audit scheduling was not allowed.
- 21 = Failure to get an audit record from the equipment configuration database (ECD) using its record ID (RID).
- 22 = Failure to update an audit record in the ECD.
- 23 = Failure to open a keyed sequence of audit records in the ECD.
- 24 = Failure to get a record in a sequence of audit records.
- 25 = Failure to get an audit record using the audit name and member number.
- 26 = Failure to read the SIM control record.
- 27 = Failure to update the SIM control record.
- 28 = Failure to open a sequence of audit instance records in the ECD.
- 29 = Failure to get a record in a sequence of audit instance records.
- 30 = Failure to get an audit instance record using its RID.
- 31 = Failure to update an audit instance record in the ECD.
- 32 = Failure to get an audit instance record using its instance name and the RID of the associated audit record.
- 41 = Audit marked active in its ECD record when it is not running.
- 42 = Invalid message received from the process manager or the utility manager regarding an audit process.
- 43 = Audit reply received from an inactive audit.
- 44 = Timeout occurred for an inactive audit.
- 45 = Invalid reply received from an active audit.
- 46 = SIOF output buffer overflow; some audit output messages were lost.
- 47 = Failure to find one and only one audit process for the specified utility ID.
- 48 = Audit error report received from an inactive audit.
- 49 = Invalid request to inform an audit process when the audit's ECD record is modified.
- 50 = Invalid request to run or stop an audit.

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51 = Audit blocking condition cleared because it was invalid.
52 = Failure to create a transient audit process.
53 = Unable to take recovery action for an audit failure.
54 = Audit inhibited by SIM because it could not be run, timed out, died or was faulted while correcting errors.
55 = Routine audit scheduling malfunctioned and is being reinitialized. All routine audits are temporarily inhibited.
56 = Failure to reinitialize routine audit scheduling after it had malfunctioned.
57 = Routine audit scheduling has been temporarily inhibited because SIOF is not running.
58 = Failure to reinitialize routine audit scheduling after SIOF stopped running.
59 = Unknown error category in an error report from and audit process.
61 = Audit system reinitializing due to error found in kernel level audit scheduling.
62 = Audit system reinitializing due to error found for a kernel level audit timeout.
63 = Audit system reinitializing due to error found for a routine supervisory level audit timeout.
64 = Audit system reinitializing due to error found for a requested supervisory level audit timeout.
65 = Audit system reinitializing because SIM received a reply from an inactive audit.
66 = Audit system reinitializing because SIM received a timeout for a non-running audit.
67 = Audit system reinitializing because SIM received a raw data report from an inactive audit.
68 = Audit system reinitializing because SIM received an unexpected fault.
69 = Audit system reinitializing because SIM found eligible audits not dispatched.
81 = Failure to access an audit record in the plant measurements data base.
82 = Failure to create an audit record in the plant measurements database.
83 = Failure to open the plan measurements database.
90 = Audit has taken too much time to execute.
*200 = Failure of the application integrity monitor (AIM) process to reset the application sanity timer within the timeout interval.
201 = Failure to activate or de-activate the application sanity timer.
202 = AIM was not connected to port PT_AIM when a PHASE0 was requested.
203 = Failure to change craft initialization inhibit status.
206 = AIM not connected to port PT_AIM for reception of overload faults.
207 = AIM not connected to port PT_AIM for soft-switch request.
208 = AIM not connected to port PT_AIM for notification of CU switch completion.
209 = Faulty AIM port during craft initialization.
210 = Faulty IOP port during craft initialization.
211 = AIM not connected to port PT_AIM for notification of completion of diverge request.
212 = AIM not connected to port PT_AIM for converge request.
213 = AIM not connected to port PT_AIM for notification of completion of converge request.
300 = Unrecognized acknowledgement message received by SIM.
301 = Unrecognized USRACK message received by SIM.
306 = Message with invalid type received by SIM.
307 = Unrecognized MSFAULT message received by SIM.
310 = Unrecognized operating system trap (OST) entry received by SIM.
401 = Failure to respond to a request from another process for information about the most recent system initialization.
602 = Overload status change.

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605 = Kernel-level overload monitor process failed to initialize.
606 = Supervisor-level overload monitor process failed to initialize.

b = Up to 3 words of optional hexadecimal data, associated with specific error conditions:

Error	Code Hexadecimal Data
1	Boot progress indicators, from left to right (hexadecimal digit 0 to hexadecimal digit 7): Hex Digit = Process 0 = File manager 1 = Disk driver. 2 = Process manager. 3 = Error interrupt handler. 4 = Capability manager. 5 = Scheduler. 6 = Utility manager. 7 = Memory manager. If a boot process indicator message is received from a kernel process, the appropriate hexdigit is set to 1 otherwise the hexdigit remains at 0.
2	Process number of process sending the message (ms_from).
12	Fault code, followed by the virtual address within SIM at which the fault occurred.
102	ECD RID of the audit record that was not initialized.
121	RID used in attempt to get an audit record from the ECD.
122	RID used in attempt to update an audit record in the ECD.
126	RID of the SIM control record (as specified in the ECDORG record).
127	RID of the SIM control record (as specified in the ECDORG record).
128	If not zero, the RID of the audit record for which a sequence of instance records could not be opened.
130	RID used in attempt to get an audit instance record from the ECD.
131	RID used in attempt to update an audit instance record in the ECD.
132	RID of the audit record for which an associated instance record could not be gotten from the ECD.
141	RID of the audit record in error.
142	RID returned in the message (ms_ident).
143	RID of the audit record, as specified in the reply.
144	RID of the audit record, as specified in the timeout identification.
145	RID of the audit record, as specified in the reply.
147	Utility ID (pcode) of the process, as specified in the audit record.
148	RID of the audit record, as specified in the error report.
149	RID of the audit record, as specified in the request, followed by the process number from which the request was received.
150	RID of the audit record, as specified in the request.
151	RID of the audit instance record process number of the blocking process, and the elapsed time in milliseconds since the audit instance was blocked.
152	RID of the audit record for which the audit process was not created.
153	RID of the recovery audit that could not be run.
154	RID of the audit that was inhibited.
159	RID of the audit whose error was reported.
300	Message identity (ms_ident).
306	Message type (ms_type).
307	The fault code specified in the message.
310	The invalid operating system trap (OST) number, followed by the process number of the calling process.
602	Overload fault code: 81 = Spooler output process overload cleared. 82 = Spooler output process overload. 85 = Data link input buffer overload cleared. 86 = Data link input buffer overload. 87 = Data link output buffer overload 88 = Data link output buffer 8B = IOP overload cleared. 8C = IOP input message queue overloaded. 8D = An IOP was bootstrapped due to overload.

	8F = Overload cleared on one disk file controller (DFC).
602 (Cont.)	Overload fault code continued: 90 = A DFC is overloaded. 91 = File manager overload cleared. 92 = File manager overloaded. 95 = Supervisor/user level lockout cleared. 96 = Supervisor/user level process lockout. 97 = Timed entry overload cleared. 98 = Kernel process timed entries slow. 99 = Kernel level lockout cleared. 9A = Kernel level process lockout. 9C = Module 1 memory allocation reduced to 60%. 9D = Module 1 memory at 80% allocated (only for software releases with EMM feature). 9E = Insufficient memory available to grant a memory allocation (module 1) (only for software releases with EMM feature). 9F = Dispatcher control table (DCT) overload cleared.
602 (Cont.)	Overload fault code continued: A0 = DCT table 70% full. (For 5E10 and later, the DCT table is 85% full.) A1 = DCT table overflow. A2 = Segment descriptor entry (SDE) table overload cleared. A3 = SDE table nearly full. A4 = SDE table overflow. A5 = Disk swap space overload cleared. A6 = Disk swap space 80% full. A7 = Memory overload cleared. A8 = Kernel process memory has grown to within 1/4 megabyte of its maximum size. This has reduced the size of swappable memory to within 1/4 megabyte of its minimum size. A9 = Kernel process memory overflow. Swappable main memory is at minimum size. AC = Message buffer overload cleared AD = Message buffer 70% ful AE = Message buffer 90% full

4. ACTION TO BE TAKEN

For audit system initialization failures (error codes 101, 103, 104, 126, 127, 156, 158 and 183), refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

If the data printed with the output message includes an audit or instance RID, the audit name, member number and instance name associated with the RID may be found by using the OP:AUD input message with the ALL option. If the specified RID is not listed in the OP:AUD output message, the RID is invalid. If the error message is associated with a valid record, then an AUD output message may have been printed for the audit. If the audit aborted, the abort code printed in the output message will help in analyzing the failure.

For error code 141, use the STOP:AUD or STP:AUD input message to clear the audit record.

For error code 146, use the OP:ST-PROC input message to determine whether or not the system integrity output formatter (SIOF) program is running. The file name of SIOF is /etc/siof. If it is running, no further action is required. If it is not running, to determine the cause of the problem and what additional actions need to be taken, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For failures that involve an audit process (error codes 147, 152, and 154), verify that a valid process file exists for

that audit. For transient audits, the process file should be stored in directory /audprc and its file name should be listed in the audit's ECD record. Use the RCV:M-RCV3B input message to read the record. For quasi-killable audits, the process may be identified from its utility ID number.

For error code 154, use the STOP:EXC-ANY or STP:EXC-ANY input message to terminate the audit process (if it is still running and is quasi-killable or transient). Then attempt to run the audit manually by using the AUD input message. If the problem does not recur, then use ALW:AUD to allow the audit.

For error code 159, use OP:AUD to identify the audit causing the problem. This error is due to a missing auderr form.

For error code 190, use OP:AUD to identify the audit causing the problem. There are two possible reasons for the audit taking too much time to execute: the audit may be incorrectly reporting actual time instead of CPU time or the audit may need to be broken down into several audits. Unless corrected, supervisor audit scheduling could be adversely affected resulting in the irregular scheduling of lower frequency level supervisor audits. A maximum of nine of these REPTs will be printed in one 24 hour period of time.

A history of audit activity may be found in the most recent plant measurements report (REPT:OP-PMCR-ERR output message).

Additional information about the audit control subsystem may be found in the Audits manual.

If an overload monitor process failed to initialize (error codes 605 and 606), it may be executed manually with the EXC:ENVIR-PROC input message. The file names of these processes are /prc/klmon (kernel-level monitor) and /prc/supvprc (supervisor-level monitor).

5. ALARMS

This alarm is automatically-generated and action may or may not be required.

Minor alarm. Take action as indicated in the report.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	446, 447, 448

Input Message(s):

```
ALW:AUD
AUD:CUMEM
AUD:CUSTAT
AUD:ECD
AUD:ECDOWN
AUD:FMGR
AUD:FSBLK
AUD:FSCMPT
AUD:FSLINK
AUD:MMGR
AUD:MSGBUF
AUD:PMS
AUD:PROAD
EXC:ENVIR-PROC
```

```
INH:AUD
INIT:ULARP
OP:AUD
OP:ST-PROC
STOP:AUD
STOP:EXC-ANY
STP:AUD
STP:EXC-ANY
RCV:M-RCVECD
```

Output Message(s):

```
AUD:CUMEM
AUD:CUSTAT
AUD:ECD
AUD:ECDOWN
AUD:FMGR1
AUD:FMGR2
AUD:FMGR3
AUD:FMGR4
AUD:FMGR5
AUD:FMGR6
AUD:FMGR7
AUD:FMGR8
AUD:FMGR9
AUD:FSBLK
AUD:FSCMPT
AUD:FSLINK
AUD:MMGR
AUD:MSGBUF
AUD:PMS
AUD:PROAD
OP:AUD
OP:ST-PROC
REPT:OP-PMCR-ERR
```

Other Manual(s):
235-600-400 *Audits Manual*

REPT:SIMON-FILE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT SIMON  FILE=a LINE=b
  c
```

2. REASON FOR OUTPUT

To report operating system for distributed switching (OSDS) monitor processing errors.

3. VARIABLE FIELD DEFINITIONS

a	= C source file name where error occurred.
b	= C source file line number.
c	= Text string describing error and data associated in a program trace format.

4. ACTION TO BE TAKEN

Collect and send error messages to appropriate support personnel. Include OSDS monitor procedure and commands that were used before the error occurred.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:MON
INH:MON
OP:MON-CTL
OP:MON-DSP
OP:MON-PID
SET:MON-DATA
SET:MON-FCN
SET:MON-SPEC
SET:MON-WTD
```

Output Message(s):

```
ALW:MON
INH:MON
OP:MON-CTL
OP:MON-DSP
OP:MON-PID
```

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```
SET:MON
```

REPT:SIOF-ERROR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT SIOF ERROR - CANNOT OPEN INPUT FILE a

[2]   ____________________________________________________________
      REPT SIOF ERROR - CANNOT OPEN OUTPUT FILE a

[3]   ____________________________________________________________
      REPT SIOF ERROR - SIZEOF (b) NOT FACTOR OF PASSED SIZE

[4]   ____________________________________________________________
      REPT SIOF ERROR - CANNOT ADD SEGNUM X'c CODE d

[5]   ____________________________________________________________
      REPT SIOF ERROR - CANNOT SET VIRTUAL ADDRESS SEGNUM X'c
                                             CODE d

[6]   ____________________________________________________________
      REPT SIOF ERROR - UNABLE TO ADD SEGMENT ID X'c CODE d

[7]   ____________________________________________________________
      REPT SIOF ERROR - INVALID SEG ID STAMP X'f
                          SEGID X'c PID X'g

[9]   ____________________________________________________________
      REPT SIOF ERROR - UNABLE TO FIND AVAILABLE SEGMENT INDEX

[10]  ____________________________________________________________
      REPT SIOF ERROR - INVALID FORMAT TYPE X'i

[11]  ____________________________________________________________
      REPT SIOF ERROR - INVALID OUTPUT FORMAT TYPE X'j

[12]  ____________________________________________________________
      REPT SIOF ERROR - TOO MANY BLOCKS (k) RETURNED BY SIM

[13]  ____________________________________________________________
      REPT SIOF ERROR - INVALID ALARM LEVEL X'l SUBSTITUTING ' '

[14]  ____________________________________________________________
      REPT SIOF ERROR - INVALID SUPPLEMENTARY DATA
                          SEG_SIZE X'm OFFSET X'n
                          SSIZE X'o SFLAGS X'p

[15]  ____________________________________________________________
      REPT SIOF ERROR - INVALID SUPPLEMENTARY DATA FORMAT X'q

[16]  ____________________________________________________________
      REPT SIOF ERROR - CANNOT READ FILE a
```

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```
[17]  ____________________________________________________________________
      REPT SIOF ERROR - CANNOT WRITE FILE a
```

2. REASON FOR OUTPUT

Format 1 indicates SIOF cannot open input file.

Format 2 indicates SIOF cannot open output file.

Format 3 indicates size of supplementary data block passed to SIOF is not an integral multiple of the structure to be formatted.

Format 4 indicates SIOF cannot add the segment containing the supplementary data to its address space.

Format 5 indicates SIOF cannot set the access permission modes on the segment virtual address.

Format 6 indicates SIOF cannot add segment ID to the process segment list.

Format 7 indicates the segment identity stamp does not match the audit supplementary data segment identity stamp.

Format 8 indicates SIOF cannot free the supplementary data segment.

Format 9 indicates SIOF cannot get a segment index in the segment list.

Format 10 indicates that SIOF does not recognize the supplementary data type.

Format 11 indicates that SIOF does not recognize the format type of the output message.

Format 12 indicates that the maximum number of the message which can be passed at one time from SIM to SIOF has been exceeded.

Format 13 indicates that an invalid alarm level has been specified for the audit report, and hence a space will be substituted.

Format 14 indicates that the supplementary data segment sent to SIOF is invalid.

Format 15 indicates that SIOF does not recognize the supplementary data format type.

Format 16 indicates that SIOF is unable to read the OMDB key from file.

Format 17 indicates that SIOF is unable to write first line of audit error report.

3. VARIABLE FIELD DEFINITIONS

a = Pathname of the file.

b = Name of the structure to be formatted.

c = Value of the segment ID.

d = Function return code.

e = Memory module identifier.

f = Segment name identifier.

`g` = Process ID.

`h` = Segment index.

`i` = Invalid supplementary data format type passed to SIOF in a suptype field from audit process.

`j` = Invalid output format type passed to SIOF by SIM.

`k` = Number of blocks.

`l` = Alarm level.

`m` = Size of supplementary data segment.

`n` = Starting point in supplementary data segment of data.

`o` = Amount of supplementary data to be processed.

`p` = Location of status switch in supplementary data format.

`r` = Invalid supplementary data format passed to SIOF in a format field from audit process.

4. ACTION TO BE TAKEN

For Formats 1-17, send a copy of the message, including the previous page and the subsequent page, to the field support center. No corrective action by the user is possible.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	102
3	100
4	88
5	87
6	85
7	97
8	94
9	83
10	82
11	80
12	79
13	81
14	89
15	98
16, 17	101

Output Appendix(es):

`APP:OMDB-X-REF`

REPT:SLIM-STATUS

Software Release: 5E10 and later
Message Class: TLWS
Application: 5
Type: Output

1. FORMAT

```
REPT SLIM    STATUS
  USAGE        ID      SLIM UNIT
   a             b         c
   REASON FOR OUTPUT
   d
```

2. REASON FOR OUTPUT

To relay information and error reasons for subscriber line and instrument and measurement (SLIM).

3. VARIABLE FIELD DEFINITIONS

a = Usage. Valid value(s):

```
OPERATOR
ROUTINE
```

b = Trunk and line work station (TLWS) test position or routine mode test session identifier.

c = SLIM unit identifier.

d = Reason for output. Valid value(s):

```
TESTSESSION ABORTED # CRAFT REQUEST
TESTSESSION ABORTED # NO SLIM
TESTSESSION ABORTED # CONGESTION
TESTSESSION ABORTED # MESSAGES SENT BUT NO REPLIES
TESTSESSION ABORTED # CANNOT RELEASE SLIM
TESTSESSION ABORTED # COULD NOT SET UP PATHS, INVALID DATA
TESTSESSION ABORTED # UNABLE TO WRITE UNAVAILABLE LINES TO DISK
TESTSESSION ABORTED # UNABLE TO WRITE FAILED LINES TO DISK
TESTSESSION ABORTED # FAILED IN DATABASE READ OF TESTJOB
TESTSESSION ABORTED # FAILED IN DATABASE READ OF TESTSET
TESTSESSION ABORTED # FAILED IN DATABASE READ OF THRESHOLDS
TESTSESSION ABORTED # FAILED IN DATABASE READ OF LEN LIST
TESTSESSION ABORTED # FAILED IN DATABASE READ OF SESSION INFO
TESTSESSION ABORTED # UNABLE TO LOCK DISK FILE
TESTSESSION ABORTED # UNABLE TO WRITE SESSION HEADER TO DISK
TESTSESSION ABORTED # CANNOT RETURN SLIM
TESTSESSION ABORTED # UNABLE TO RESERVE SLIM
TESTSESSION ABORTED # SM PROCESS STARTED BUT INSANE
TESTSESSION ABORTED # UNABLE TO START SM PROCESS
TESTSESSION ABORTED # UNABLE TO ROUTE TO SM FOR PROCESS START UP
TESTSESSION ABORTED # INSANITY DURING WAIT FOR SLIM
TESTSESSION ABORTED # INSANITY DURING TESTING
TESTSESSION ABORTED # ERROR IN READING NEXT PART OF LEN LIST
```

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```
TESTSESSION ABORTED # CORRUPT DATA: TESTJOBS DEFINED AS 0
TESTSESSION ABORTED # CORRUPT DATA: TESTJOBS DEFINED > 6
TESTSESSION ABORTED # COMPENSATION VALUES WERE ZERO
TESTSESSION ABORTED # NO COMPENSATION VALUES FROM DATABASE
TESTSESSION ABORTED # ERROR
TESTSESSION ABORTED # STOP TIME REACHED
TESTSESSION SUSPENDED BY REQUEST
MAX NO. TESTSESSIONS ALREADY ACTIVE
SLIM FIRMWARE ERROR REPORT e f g
```

`e` = Error level value.

`f` = Error group value.

`g` = Error number value.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

MCC Display Page(s):

162 (TESTSESSION STATUS)

REPT:SLK-IN-PROG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT SLK a IN PROG
  SLK b c d e f
```

[2]
```
REPT SLK a IN PROG
  SLK b c d e f
           g h i j k l m n o p q r s
```

[3]
```
REPT SLK a IN PROG
  SLK b c d e f
           g h i j k l m n o p q r s
           t u v w x y z a1 b1 c1 d1
           e1 f1 g1 h1 i1 j1 k1 l1 m1 n1 [o1]
```

2. REASON FOR OUTPUT

To report the status of the signaling link (SLK) in response to an OP:SLK input message.

3. VARIABLE FIELD DEFINITIONS

a = Signaling links. Range of link numbers. Valid value(s):
- ALL = All the link numbers from the input request.

b = Group number (0-63).

c = Member number (1-15).

d = Far end CLLI code of this link.

e = Major state. Valid value(s):
- AVL = Available.
- UNA = Unavailable.
- UNE = Unequipped.

f = Minor state. Valid value(s):
- ACT = Active.
- GROW = Growth.
- MOOS = Manual out of service.
- OOS = Out of service.
- TEST = Test.

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g = Link failure indicators.

h = Link status indicators.

i = First failure indicators.

j = Link monitor status (ON or OFF).

k = Alarm inhibit status (ON or OFF).

l = Far end manual changeover status. Valid value(s):

```
CLEAR
FAR W2
NEAR W
ON
TRAF C
WAIT F
```

m = Near end manual changeover status. Valid value(s):

```
CLEAR
FAR W2
NEAR W
ON
TRAF C
WAIT F
```

n = Prove-in mode. Valid value(s):

E = Emergency.
N = Normal.

o = VFL force. Valid value(s):

A = VFL A forced.
B = VFL B forced.
- = No VFL forced.

p = VFL act. Valid value(s):

A = A VFL.
B = B VFL.
- = Unknown.

q = Diagnostic requested. Valid value(s):

N = No.
Y = Yes.

r = Encryption state.

s = Periodic rekey status. Valid value(s):

N = Inactive.

Y = In progress.

t = Protocol. Valid value(s):
- 6 = Common Channel Interoffice Signaling System 6 (CCIS6) protocol.
- 7 = Common Channel Signaling System 7 (CCS7) protocol.

u = Link type (A-E).

v = Link speed. Valid value(s):
- 024 = 2.4 KBS link.
- 048 = 4.8 KBS link.
- 560 = 56 KBS link.

w = Encryption option. Valid value(s):
- E = Encrypted.
- N = Nonencrypted.

x = Mate link group number.

y = Mate link member number.

z = Far end signal transfer point (STP). Valid value(s):
- E = Even.
- N = Not connected to an STP.
- O = Odd.

a[1] = Far end function number.

b[1] = Normal prove-in error threshold. Valid value(s):
- 010 = 2.4 KBS link.
- 021 = 4.8 KBS link.
- 240 = 56 KBS link.

c[1] = Emergency prove-in error threshold. Valid value(s):
- 002 = 2.4 KBS link.
- 004 = 4.8 KBS link.
- 048 = 56 KBS link.

d[1] = Leaky bucket threshold. Valid value(s):
- 30 = 2.4 KBS link.
- 60 = 4.8 KBS link.

e[1] = SYNC unit (SYU) code. Valid value(s):
- E = Even.
- O = Odd.
- S = Self-looped.

f[1] = Dataset or digital service type.

g[1] = Far end region number of this link.

h[1] = Voice frequency link (VFL) code. Valid value(s):
- D = Dual.
- S = Simplex.

i[1] = Changeover limit. Valid value(s):
- 01 = 2.4 KBS link.
- 202 = 4.8 KBS link.

j[1] = Receive buffer threshold.

k[1] = Break-in option. Valid value(s):
- A = Allowed.
- N = Not allowed.

l[1] = Pool number.

m[1] = Combined pool number.

n[1] = Link layer.

o[1] = Number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

OP:SLK

REPT:SLK-INHALM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT SLK INHALM
  ********** SLK INHIBIT ALARM STATUS REPORT **********
  SLK NO.           CLLI           STATUS
    a   b             c              ON
      .               .               .
      .               .               .
      .               .               .
  ********** END SLK INHIBIT ALARM REPORT *************
```

[2]
```
REPT SLK INHALM
  ********** SLK INHIBIT ALARM STATUS REPORT **********
  SLK NO.           CLLI           STATUS
           ALL LINKS: ALARM INHIBIT = OFF
  ********** END SLK INHIBIT ALARM REPORT *************
```

2. REASON FOR OUTPUT

To report the status of the signaling link (SLK) inhibit alarm.

Format 1 prints the SLK inhibit alarm hourly status report.

Format 2 prints in response to a request for a status report of all SLK inhibit alarm flags set (ON).

3. VARIABLE FIELD DEFINITIONS

a = Ring node group number.

b = Member number.

c = Far end CLLI code.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

INH:SLK

```
REPT:SLK
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

REPT:SLM-DUMP-MSG-A

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT SLM DUMP MSG
        a
           b

[2]   ____________________________________________________________________
      REPT SLM DUMP MSG
        a (continued)
           b

[3]   ____________________________________________________________________
      REPT SLM DUMP MSG
        THE MESSAGE:
        "b"
        OCCURRED c TIMES IN THE PAST d MINUTES
```

2. REASON FOR OUTPUT

To report that an unexpected message has been received.

Format is used for short messages. It will accommodate messages up to 14words. If a message is longer than 14words it will be continued with another message of Format. Format accommodates continuations of up to 14words and will be repeated as many times as necessary to dump the complete message. Format prints when the limit of 5messages per minute period has been exceeded. To limit the number of messages being printed on the ROP, a limit has been placed on the total number of message that will be printed within a particular time period. This limit has been set to 5messages per 5minute period. If the total number of requests for a particular description of an error exceeds this limit, the message will not be printed and this format will be printed at the end of the period.

3. VARIABLE FIELD DEFINITIONS

a = Description of error.

b = The message dumped in hexadecimal.

c = The number of times the message should have been printed during the last time period.

d = The time period over which the message should have been printed.

4. ACTION TO BE TAKEN

Dependent upon the description of the error. For repeated instances, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

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6. REFERENCES

None.

REPT:SLM-DUMP-MSG-B

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT SLM DUMP MSG
        a
           b

[2]   ____________________________________________________________
      REPT SLM DUMP MSG
        a (continued)
           b

[3]   ____________________________________________________________
      REPT SLM DUMP MSG
        THE MESSAGE:
        "b"
        OCCURRED c TIMES IN THE PAST d MINUTES
```

2. REASON FOR OUTPUT

To report that an unexpected message has been received. This output may result when the SS7 protocol is changed to support new features. Protocol changes are normally done in such a way that changes need not be implemented simultaneously in all network sites. As sites are updated they may begin to transmit new messages which are not recognized by network sites that have not yet been updated. In such cases, the site prints the REPT SLM DUMP MSG to make it known that it can not recognize the message and is discarding it. This is a normal reaction.

Format is used for short messages. It will accommodate messages up to 14words. If a message is longer than 14words it will be continued with another message of Format 2;.

Format 2; accommodates continuations of up to 14words and will be repeated as many times as necessary to dump the complete message.

Format 3; prints when the limit of 5messages per minute period has been exceeded. To limit the number of messages being printed on the ROP, a limit has been placed on the total number of message that will be printed within a particular time period. This limit has been set to 5messages per 5minute period. If the total number of requests for a particular description of an error exceeds this limit, the message will not be printed and this format will be printed at the end of the period.

3. VARIABLE FIELD DEFINITIONS

a = Description of error.

b = The message dumped in hexadecimal.

c = The number of times the message should have been printed during the last time period.

d = The time period over which the message should have been printed.

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4. ACTION TO BE TAKEN

This message is an indication that the SLMK process has received a message which it can not decipher or an extremely rare or unexpected event has occurred. The contents of this message may simplify the analysis of certain service effecting events and as such may be of benefit to field support organizations. In the case of an "Unexpected TFP Received" message, it is recommended that the CNI routing data be verified. For repeated instances, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

The "Unexpected TFP Received" message is a MINOR alarm. All other messages are not alarmed.

6. REFERENCES

None.

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REPT:SLM-NDERR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT SLM NDERR
        NODE a- b ACTION= c FUNCAREA=d OTHERDATA= e

[2]   ____________________________________________________________________
      REPT SLM NDERR
        f CLNODERR () ACTIONS NOT PRINTED
```

2. REASON FOR OUTPUT

Format 1 reports events that indicate trouble in the link node. Signaling link management (SLM) uses this message for some of these events, SLM will remove the node from service. This format will be printed for manual or automatic requests.

Format 2 is used when the number of Format 1 reports become excessive. The number of dropped messages are given in this report.

3. VARIABLE FIELD DEFINITIONS

`a` = Link node group number.

`b` = Link node member number.

`c` = The action taken by the system on the node. Valid value(s):

`NDRMV`	= No system action, node currently removed.
`NOACT`	= No system action initiated, error report only.
`RAD`	= Remove and diagnose the node.
`RAPD`	= Remove and partial diagnose the node.
`RAR`	= Remove and restore the node.
`RST`	= Restart the node.

`d` = The subsystem reporting the node trouble. Valid value(s):

`APPL`	= Common network interface (CNI) user software.
`DBASE`	= Database.
`LI`	= Link interface.
`LISNTY`	= Link interface sanity.
`LNC`	= Link and node control.
`MEAS`	= Measurements.
`MH`	= Message handling.
`MTCE`	= Maintenance.
`NM`	= Network management.
`SCCP`	= Signaling connection control part.
`SYS`	= System control/interface.
`TOOLS`	= Tools.

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e = Other data. This code is unique to each subsystem reporting the error and identifies the error. Valid value(s):

Sub-system:	Explanation:
SCCP	1 = D-Channel (DCHN) temporary signaling connection (TSC) input/response array buffer resource unavailable. 2 = DCHN TSC release of array buffer resource failure. 3 = DCHN TSC control structure for ring write unavailable. 4 = DCHN TSC signal connection control point (SCCP) oriented control (SCOC) database (DB) segment count audit error. 5 = DCHN TSC SCOC DB equipment count audit error. 6 = DCHN TSC local reference number (LRN) audit error. 7 = DCHN TSC network connection identifier (NCID) audit error.
NM	20 = Common Channel Signaling System 7 (CCS7) link congestion failed to abate.
LNC	20 = CCS7 continuous link congestion. 21 = CCS7 LKBDST audit error. 22 = CCS7 bad node load data. 23 = CCS7 declared link failure. 24 = CCS7 node changing from unavailable (UNA) to available (AVL) state. 25 = CCS7 interprocess message switch (IMS) conditional node removal request. 26 = CCS7 remote access subsystem (REMACS) failed single node pump. 27 = CCS7 REMACS failed all node pump request. 28 = CCS7 node initialization problem, likely an equipment configuration database (ECD) problem, check field 62, the pack code, of the unit control block (UCB) for this node.
LNC (Cont.)	40 = CCS6 continuous congestion/ far-end processor signaling congestion (PSC) or link node (LN) sanity error. 41 = CCS6 bad node load data. 42 = CCS6 declared link failure. 43 = CCS6 node changing from UNA to AVL state. 44 = CCS6 IMS conditional node removal request. 45 = CCS6 REMACS failed single node pump. 46 = CCS6 REMACS failed all node pump request. 47 = CCS6 node initialization problem, likely an ECD problem, check field 62, the pack code, of the UCB for this node.
LNC (Cont.)	60 = Private branch exchange (PBX) node data error found by LKBDST audit. 61 = PBX links failed to achieve a valid state. 62 = PBX link interface (LI) insanity indication. 63 = PBX missing acknowledgement from node, link state unknown. 64 = PBX REMACS initialize out-of-service (OOS). 65 = PBX REMACS initialization unknown. 66 = PBX REMACS failed single node pump. 67 = PBX REMACS failed all node pump request. 68 = PBX node type of data pumped to the node did not match the type of node receiving the data, that is, the node type of the node. 69 = PBX node initialization problem, likely an ECD problem, check field 62, the pack code, of the UCB for this node.
LNC (Cont.)	70 = PBX after the node initialized and indicated to the administrative module (AM) that it was ready for a data pump, the AM's attempt to pump data to the node failed. 71 = PBX node failed to initialize and execute to the point where it was ready for a data pump. After timeout, when the AM attempted to pump data to the node, the data pump failed.

LNC (Cont.)	80 = Direct link node (DLN) complaint on a DLN that is active and 1 way out. 81 = DLN is not in the active state. 82 = DLN complaint on a DLN that is the active home DLN. 83 = DLN REMACS failed single node pump. 84 = DLN REMACS failed all nodes pump request.
MH	600 = CCS6 invalid real-time executive (RTX) device message received. 601 = CCS6 invalid RTX message type received. 602 = CCS6 ring write failure. 603 = CCS6 LI receive mailbox read failure. 604 = CCS6 cannot open channels to the LI. 605 = CCS6 cannot set controls for LI channels. 606 = CCS6 data retrieval failure.
MTCE	1 = Failure to open LI maintenance channel. 2 = Failure to set controls on LI maintenance channel. 3 = MTCE process received an invalid real-time executive (RTX) message. 4 = MTCE process has failed.
LI	1 = Operating system in the LI failed to start. 2 = Node processor (NP)/LI failed periodic exercise. 3 = NP has received a FATAL message from the LI. 4 = NP has read an undefined transaction from the LI. 5 = NP could not write exercise acknowledge message to LI. 6 = LI has requested an undefined exercise to be run. 7 = Mismatch of Indata encryption type and actual LI type. 8 = NP received invalid RTX message. 9 = Maintenance flag contained invalid value.
LISNTY	-200 = LI has been declared dead. -201 = Interrupt request has not been enabled. -202 = Illegal address has been specified. -203 = Illegal data transfer has been requested. -204 = Illegal maintenance command has been given. -205 = Illegal address range has been specified. -206 = Illegal diagnostic phase has been requested. -207 = Illegal exercise has been requested. -208 = A fatal parity failure has occurred. -209 = Illegal maintenance transaction has occurred. -210 = Maintenance mail box failure. -211 = LI exercise failure. -212 = LI parity detection check failure. -213 = LI sum check failure. -214 = LI-NP interface monitor has timed out. -215 = LI 8086 test failure. -221 = Wrong LI type or wrong firmware version.

f = Number of messages not printed to the receive-only printer (ROP) in the past 5 minutes.

4. ACTION TO BE TAKEN

Dependent upon the description of the error.

As a general step, the LKBDST audit can be requested to verify the condition of the node and links (refer to the AUD:LKBDST input message). If the audit indicates errors, retry the audit. If the errors do not clear, remove and diagnose the node.

Some errors may be cleared by using the CHG:SLK input message to change the minor state of the link. For example, an OOS link can be changed first to manually OOS (MOOS), and then back to in-service (IS) (or OOS) (refer to the CHG:SLK input message). Further error messages indicate that the node should be removed and diagnosed.

5. ALARMS

Minor alarm if node is removed.

6. REFERENCES

Input Message(s):

```
AUD:LKBDST
CHG:SLK
DGN:LN
DGN:RPCN
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

REPT:SLMK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT SLMK INIT
        GOING FROM INIT STATE a TO b

[2]   ____________________________________________________________
      REPT SLMK AUTO INH
        LINK REMOVAL INHIBIT c

[3]   ____________________________________________________________
      REPT SLMK CES
        d CRITICAL EVENTS DROPPED IN THE LAST HOUR

[4]   ____________________________________________________________
      REPT SLMK PSLT
        PERIODIC SLT INHIBIT ON, FIRST NODE e-f
```

2. REASON FOR OUTPUT

Format 1: To report progress for initialization and abort sequences of signaling link maintenance kernel (SLMK) in the common network interface (CNI) subsystem.

Format 2: To report the status of the automatic link removal inhibit. This inhibit is separate and distinct from the manual inhibit for link removals.

Format 3: To report the number of critical events messages missed within the last hour due to incomplete processing within the SLMK process. The incomplete processing can be caused by two situations. One is initializations. SLMK does not fully process critical events during initializations. Thus one of these reports can be expected one hour after SLMK reaches its steady operating state (currently the state is 14). Secondly, when critical event throttling is selected, this report indicates the number of critical events not processed when the throttle threshold is exceeded for the last hour.

Format 4: To report periodic signaling link test (PSLT) is inhibited for some links in the office. The report gives the group and member numbers of the first link found in the data base with the PSLT inhibited. A complete list of the links inhibited can be obtained by using the "INH:PSLT" command.

3. VARIABLE FIELD DEFINITIONS

a = The last state. Valid value(s):

- 1 = Normal process start using the E_INIT event.
- 2 = Abort state, shared library initialization incomplete.
- 3 = Interprocessor message switch (IMS) channels open, shared libraries not initialized.
- 4 = Shared libraries initialized.
- 5 = IMS channels closed after previous open, shared libraries not initialized.
- 6 = IMS channels opened, shared libraries initialized.
- 7 = IMS channels opened, received first IMS boot message from CNI application.

8	= Abort state, shared libraries initialized.
9	= Shared libraries initialized, IMS channels opened.
0	= Shared libraries initialized, IMS channels closed.
1	= Shared libraries initialized, IMS channels opened, received first IMS boot message from CNI application, pump of remote data started.
2	= Received second IMS boot message from CNI application and remote data pump complete.
3	= Initialization of CCS6/CCS7 links complete.
4	= Received last IMS boot message from CNI application.
5	= IMS channels closed, start of level 1 initialization.
6	= Reopened IMS channels during level 1.
7	= Received first IMS boot message from CNI application during level 1.
8	= Recovery state of SLMK, shared library contents reused.
9	= Start of internal level 1 initialization.
20	= Received first IMS boot message during internal level 1 initialization.
21	= Received second IMS boot message from CNI application but remote data pump incomplete.
22	= Remote data pump complete, waiting second IMS boot message from CNI application.

b = The new state. Refer to variable 'a'.

c = The inhibit state. Valid value(s):

OFF	= Inhibit off.
ON	= Inhibit on.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:RMV
INH:PSLT
```

Other Manual(s):

235-105-250 *System Recovery Procedures*
235-190-120 *Common Channel Signaling Services Features*

REPT:SLMSHR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT SLMSHR
  CNI GENERIC RELEASE a
```

2. REASON FOR OUTPUT

To provide status information to identify the current common network interface (CNI) point release. The REPT:SLMSHR message originates from the SLMSHR process.

Note: Information output by SLMSHR may not be useful to the user. This information is intended for use by development/support personnel when diagnosing CNI errors or faults.

3. VARIABLE FIELD DEFINITIONS

`a` = Present CNI software release.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:SLT

Software Release: 5E10 and later
Message Class: SWMO1
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT SLT
        SLK a b RECEIVED SLTM IN ERROR
        RCV_DPC:  c  RCV_OPC:  d  RCV_SLC:  e
        EXP_DPC:  f  EXP_OPC:  g  EXP_SLC:  h

[2]   ____________________________________________________________________
      REPT SLT
        SLK a b RECEIVED SLTA IN ERROR
        RCV_DPC:  c  RCV_OPC:  d  RCV_SLC:  e  RCV_LI:  i
        EXP_DPC:  f  EXP_OPC:  g  EXP_SLC:  h  EXP_LI:  j

[3]   ____________________________________________________________________
      REPT SLT
        SLK a b EXPECTED TEST PATTERN IN SLTA WAS NOT RECEIVED

[4]   ____________________________________________________________________
      REPT SLT
        SLK a b RECEIVED SLTM DISCARDED, NOT IN AVAILABLE STATE

[5]   ____________________________________________________________________
      REPT SLT
        SLK a b SLTA WARNING: 'SLTCHK OFF' AND LINK APPEARS SELF LOOPED

[6]   ____________________________________________________________________
      REPT SLT
        SLK a b SLTA WARNING: 'SLTCHK OFF' YET LINK IS NOT SELFLOOPED
```

2. REASON FOR OUTPUT

To report when An SLT fails or a self-loop is detected by an SLT.

The report can be generated for common channel signaling 7 (CCS7) links. Because a persistent SLT failure can result in large amounts of output, the reports are limited to five (5) in any given fifteen (15) minute interval. In that interval, the first five reported will be output.

3. VARIABLE FIELD DEFINITIONS

a = Group number.

b = Member number.

c = Destination point code (DPC) in the received SLTM or SLTA.

d = Origination point code (OPC) in the received SLTM or SLTA.

e = Signaling link code (SLC) in the received SLTM or SLTA.

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`f` = Expected DPC for the received SLTM or SLTA.

`g` = Expected OPC for the received SLTM or SLTA.

`h` = Expected *SLC*® for the received SLTM or SLTA.

`i` = Length indicator (LI) in the received SLTA.

`j` = Expected LI for the received SLTA.

4. ACTION TO BE TAKEN

For Format 1, refer this problem to the office data administration personnel. This problem can be with either the data at the local office, or data at the far end.

For Format 2, same action taken for Format 1. In addition, if the problem is in the length indicator (LI), refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. The LI is software generated.

For Format 3, the test pattern is software generated. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. Either the local end is interpreting the received test pattern incorrectly, or the far end is sending an incorrect test pattern.

For Format 4, if the intent for this link is to carry traffic, recent change the major state to available (AVL), otherwise ignore this report.

For Format 5, this warning message indicates that SLTM/SLTA exchange is successfully done under the self-loop condition. The self-loop intention is indicated by sltchk-off command, and the link is self-looped. If self-looping is desired, ignore this report. If self-looping is not desired, execute the sltchk-on command, and clear the self-loop on the facility.

For Format 6, this warning message indicates that SLTM/SLTA exchange is successfully done under the end-to-end condition. Although a self-loop intention is indicated by sltchk-off, the link is NOT self-looped. If self-looping is not desired, execute sltchk-on. If self looping is desired, establish a loop on the link.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INH:PSLT
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

REPT:SM-CALL

Software Release: 5E10 and later
Message Class: SED_MON
Application: 5
Type: Output

1. FORMAT

```
REPT SM=a CALL PROCESSING DOWNTIME=bb:bb:bb EVENT=c
[ POWER UP - TIME MAY BE INVALID ]
```

2. REASON FOR OUTPUT

To report outage time in the switching module (SM). (Minor outages- currently less than 30seconds- will not be reported by this output message but will be included in the plant measurement 24 hour report.)

3. VARIABLE FIELD DEFINITIONS

`a` = SM number reporting outage time.

`b` = Outage time, in the form hours:minutes:seconds.

`c` = Event number.

If this outage is caused by a power up or immediately follows a power up, the time reported may be invalid.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:SM-CCF

Software Release: 5E10 and later
Message Class: RCVY
Application: 5
Type: Output

1. FORMAT

```
REPT SM a b COMM CHK FAILURE
  LOG LINK:  c d
  PHY LINK:  e f
  SM MODE:  g ESCALATION:  h
```

2. REASON FOR OUTPUT

To report the loss of end-to-end communication between the administrative module (AM) and the specified switching module (SM).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Type of failure encountered. Valid value(s):
- `DUPLEX` = Both links have failed.
- `SIMPLEX` = Single link failure.

`c,d` = Logical link numbers over which communication failed.

`e,f` = Physical link numbers that correspond to the logical links (variables '`c`' and '`d`') the last time any communication was received from this switching module.

`g` = Mode of the switching module the last time communication was received. Valid value(s):
- `GRWTH` = Growth.
- `MIN` = Min mode.
- `NORM` = Normal operation.
- `PRCVY` = Post recovery.

`h` = Value of the link recovery escalation counter at the time the failure occurred.

4. ACTION TO BE TAKEN

Check the status of all attempted software recovery actions. Check the hardware associated with the current active links.

5. ALARMS

If the type of failure (variable '`b`') is duplex, a critical alarm occurs. If the type of failure is simplex, a major alarm occurs.

6. REFERENCES

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None.

REPT:SM-CF

Software Release: 5E10 and later
Message Class: SED_MON
Application: 5
Type: Output

1. FORMAT

```
REPT SM a CONTINUITY FAILURES
  INTERVAL bb:bb:bb
  ORIGINATING CALLS = c  FAILURES = d
  TERMINATING CALLS = e  FAILURES = f
```

2. REASON FOR OUTPUT

To report excessive continuity failures and the number of calls lost due to these failures.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Span of time over which failures were counted, in the form hours:minutes:seconds.

`c` = Number of originating calls attempted.

`d` = Number of originating calls that failed.

`e` = Number of terminating calls attempted.

`f` = Number of terminating calls that failed.

4. ACTION TO BE TAKEN

Network control and timing (NCT) link hardware for the specified SM is suspected to be faulty. Check the log files and receive-only printer (ROP) output for indications of hardware failures in the operation of the NCT links and associated hardware. This message provides the results of continuity failures, the number of calls attempted and the number of calls lost, it cannot provide the source of the failures.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:SM-CI-HW-A

Software Release: 5E10 only
Message Class: INT_MON
Application: 5
Type: Output

1. FORMAT

```
REPT SM=a CI b HW REGS EVENT=c
  ERSRC=d MCTRL=e PERAD=f PDATA=g
  HLINH=h LLINH=i HRINH=j LRINH=k
```

2. REASON FOR OUTPUT

To respond to a request to report specific information about hardware registers for trouble analysis.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Control interface (CI) number.

`c` = Event number.

`d` = Contents of the error source (ERSRC) register (smim/SMci_ersrc.h).

`e` = Contents of the maintenance control (MCTRL) register in hexadecimal notation (smim/SMci_mctrl.h).

`f` = Contents of the peripheral address (PERAD) register in hexadecimal notation (smim/SMci_perad.h).

`g` = Contents of the peripheral data (PDATA) register in hexadecimal notation (smim/SMci_pdata.h).

`h` = Contents of the high local interrupt inhibit (HLINH) register in hexadecimal notation (smim/SMci_hlinh.h).

`i` = Contents of the low local interrupt inhibit (LLINH) register in hexadecimal notation (smim/SMci_llinh.h).

`j` = Contents of the high remote interrupt inhibit (HRINH) register in hexadecimal notation (smim/SMci_hrinh.h).

`k` = Contents of the low remote interrupt inhibit (LRINH) register in hexadecimal notation (smim/SMci_lrinh.h).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Output Message(s):

```
REPT:SM-HWLVL
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-110 *System Maintenance Requirements and Tools*

REPT:SM-CI-HW-B

Software Release: 5E11 and later
Message Class: INT_MON
Application: 5
Type: Output

1. FORMAT

```
REPT SM=a CI b HW REGS EVENT=c
  ERSRC=d MCTRL=e PERAD=f PDATA=g
  HLINH=h LLINH=i HRINH=j LRINH=k
  BSRH=l  BSRL=m  ASW0=n  ASW1=o
  ASW2=p  ASW3=q  ASW4=r  VERS=s
```

2. REASON FOR OUTPUT

To respond to a request to report specific information about hardware registers for trouble analysis.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Control interface (CI) number.

`c` = Event number.

`d` = Contents of the error source (ERSRC) register (smim/SMci_ersrc.h).

`e` = Contents of the maintenance control (MCTRL) register in hexadecimal notation (smim/SMci_mctrl.h).

`f` = Contents of the peripheral address (PERAD) register in hexadecimal notation (smim/SMci_perad.h).

`g` = Contents of the peripheral data (PDATA) register in hexadecimal notation (smim/SMci_pdata.h).

`h` = Contents of the high local interrupt inhibit (HLINH) register in hexadecimal notation (smim/SMci_hlinh.h).

`i` = Contents of the low local interrupt inhibit (LLINH) register in hexadecimal notation (smim/SMci_llinh.h).

`j` = Contents of the high remote interrupt inhibit (HRINH) register in hexadecimal notation (smim/SMci_hrinh.h).

`k` = Contents of the low remote interrupt inhibit (LRINH) register in hexadecimal notation (smim/SMci_lrinh.h).

`l` = Contents of the high broadcast select (BSRH) register (smim/SMci_bsrh.h).

`m` = Contents of the low broadcast select (BSRL) register (smim/SMci_bsrl.h).

`n` = Contents of the all seems well register 0 (ASW0) (smim/SMci_asw0.h).

`o` = Contents of the all seems well register 1 (ASW1) (smim/SMci_asw1.h).

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`p` = Contents of the all seems well register 2 (ASW2) (smim/SMci_asw2.h).

`q` = Contents of the all seems well register 3 (ASW3) (smim/SMci_asw3.h).

`r` = Contents of the all seems well register 4 (ASW4) (smim/SMci_asw4.h).

`s` = Contents of the version register (VERS) (smim/SMci_vers.h).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT:SM-HWLVL
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-110 *System Maintenance Requirements and Tools*

REPT:SM-DLI-HW

Software Release: 5E10 and later
Message Class: RCVY
Application: 5
Type: Output

1. FORMAT

```
REPT SM=a DLI HW REGS EVENT=b
  ALCTL=c     BLCTL=d     ERR1 =e     ERR2 =f
  LCMDR=g     DLSCR=h     MSK1 =i     MSK2 =j
  AMTSR=k     BMTSR=l     ALCTR=m     BLCTR=n
  LMODE=o
```

2. REASON FOR OUTPUT

To provide information about specific dual link interface (DLI) hardware registers for trouble analysis. This message is automatically generated by the system when a DLI fault is detected.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Event number.

c = Contents of the A data link control (ALCTL) register in hexadecimal notation (smim/SMdl_alctl.h).

d = Contents of the B data link control (BLCTL) register in hexadecimal notation (smim/SMdl_blctl.h).

e = Contents of the data link error register 1 (ERR1) in hexadecimal notation (smim/SMdl_err1.h).

f = Contents of the data link error register 2 (ERR2) in hexadecimal notation (smim/SMdl_err2.h).

g = Contents of the data link command register (LCMDR) in hexadecimal notation (smim/SMdl_lcmdr.h).

h = Contents of the DLI switch control register (DLSCR) in hexadecimal notation (smim/SMmp_dlscr.h).

i = Contents of the data link error mask register 1 (MSK1) in hexadecimal notation (smim/SMdl_mskr1.h).

j = Contents of the data link error mask register 2 (MSK2) in hexadecimal notation (smim/SMdl_mskr2.h).

k = Contents of the A message time slot register (AMTSR) in hexadecimal notation (smim/SMdl_amtsr.h).

l = Contents of the B message time slot register (BMTSR) in hexadecimal notation (smim/SMdl_bmtsr.h).

m = Contents of the A data link parity counter register (ALCTR) in hexadecimal notation (smim/SMdl_alctr.h).

n = Contents of the B data link parity counter register (BLCTR) in hexadecimal notation

(smim/SMdl_blctr.h).

○ = Contents of the data link mode register (LMODE) in hexadecimal notation (smim/SMdl_lmode.h).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT:SM-HWLVL
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-110 *System Maintenance Requirements and Tools*

REPT:SM-DUMP

Software Release: 5E10 and later
Message Class: RCVY
Application: 5
Type: Output

1. FORMAT

```
REPT SM (a,b) c d e f g EVENT No.=h
  i
```

2. REASON FOR OUTPUT

To report a system-generated dump of switching module (SM) data associated with an audit or a defensive check failure. On systems with a 1A switching module, this message is also used by MICO to report hash sum check failures and log the past 240 events.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Active processor side at the time of the dump request.

`c` = Name of the data block being dumped (refer to audit input message format for a list of data block mnemonics). If the data block being dumped is client data as a result of an assert, the field will read DATA.

`d` = Environment in which the request was stimulated. Valid value(s):

`AIM`	= Application integrity monitor.
`CMKP`	= Communication package kernel process.
`IODRV`	= Input/output driver kernel process.
`HMALM`	= Human/machine alarm process.
`HMIRA`	= Human/machine input request administrator.
`HMMCC`	= Human/machine master control center control process.
`HMSIP`	= Human/machine spooler input process.
`HMTIME`	= Human/machine timing process.
`OSDS-C`	= Operating System for Distributed Switching - administrative module.
`OSDS-M`	= Operating System for Distributed Switching - switching module.
`PUCR`	= Pump control kernel process.
`SMKP`	= Switch maintenance kernel process.

`e` = Source of the dump request. Valid value(s):

`AUD`	= Audit of the associated data structure.
`DCF`	= Defensive check failure request.

`f` = Block number.

`g` = Physical block address.

`h` = Event number, which is used to correlate messages to a single event.

`i` = Raw dump in groups of 32 bits of associated data.

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4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:SM-ENV-SRC

Software Release: 5E10 and later
Message Class: INT_MON
Application: 5
Type: Output

1. FORMAT

```
REPT SM=a  b  SRC=c  EVENT=d
  MSG: TYPE=e  LENGTH=f  PRIORITY=g
  FROM: PROC=h  PCRID=i  UNIQ=j
  k [k...]
     .
     .
     .
```

2. REASON FOR OUTPUT

To report the data in the process message data block (PMDB). A terminal process has been purged. That process has a PMDB associated with it. The PMDB will contain an incoming and/or outgoing message. These messages will be dumped in this message.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = Source of the message. Valid value(s):
- `PMDB-IN` = This message was received by the terminal process.
- `PMDB-OUT` = A message to be sent from this terminal process.

`c` = Source of the dump request. Valid value(s):
- `AUDR` = Audit of the associated data structure.
- `DCF` = Defensive check failure request.
- `DCFSPP` = DCF deferred single process purge.
- `FR` = Fault recovery.
- `SI` = System integrity data.
- `SPP` = Single process purge.

`d` = Event number.

`e` = Message type in the PMDB (in decimal).

`f` = The length of the message in the PMDB.

`g` = The priority of the message in the PMDB.

`h` = The process that formatted this message.

`i` = Processor identification.

`j` = Processor uniqueness.

`k` = Data (in hexadecimal) from the message saved in the PMDB.

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4. ACTION TO BE TAKEN

This information should be sent along with any trouble report concerning the SM initialization to an appropriate technical support organization.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INIT:DSL
INIT:SM-SPP
OP:POSTMORT
```

Output Appendix(es):

```
APP:ENVIR
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

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REPT:SM-EPLLR

Software Release: 5E13 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
REPT SM=a EXCESSIVE PP LOW LEVEL RECOVERIES SUMMARY
           UNIT                    COUNT
  ---------------------------------------------
             b                        c
```

2. REASON FOR OUTPUT

To report any PI(packet interface) or PSUPH(packet switch unit protocol handler) units which have experienced an excessive number of low level recoveries in the past 24 hours. Low level recoveries include audit errors, RPI(return to point of interrupt) errors, and SPP(single process purge) events.

A maximum of 10 PIs/PSUPHs will be reported in this report. PIs will always be reported if they have more than 10 low level recovery errors. If more than 10 units have experienced an excessive number of low-level recoveries, only those PSUPHs with the highest error counts will be reported.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Unit name, MCTSI or PSUPH

c = Count of the number of low-level errors reported by this unit.

4. ACTIONS TO BE TAKEN

Detail on the type of errors that have been occurring on this unit may be obtained by entering OP:HISTORY command for this unit. To collect data concerning future events, printmode may be turned on by entering CHG:PRNTMODE command for this unit.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:SM-FAST

Software Release: 5E10 and later
Message Class: INT
Application: 5
Type: Output

1. FORMAT

```
REPT SM=a FAST PUMP FAILURE: b
```

2. REASON FOR OUTPUT

To sound a major alarm and notify the user that a normal pump has reverted to a backup pump.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Reason for reverting. Valid value(s):

`AM/MSGS PROBLEM` = A fast pump cannot be continued because centralized resources are not available, such as, no pump peripheral controllers (PPCs) are in service.

`BTSR/PUMP HW BAD OR UNAVAILABLE` = The pump hardware in the SM was found to be bad or not operational. In a module control and time slot interchange unit, version 2 (MCTU2), this pump hardware is duplicated in each module controller and time slot interchanger (MCTSI). In earlier versions, the SM pump hardware is the simplex bootstrapper (BTSR) circuit.

`HSM PATH SETUP FAILURE` = The host switching module (HSM) was unable to allocate [sufficient] timeslots for this remote switching module (RSM) to pump.

`ODD FAILED TO PUMP` = The SM initialization determined that the ODD was to be pumped but after the pump completed, the ODD was not pumped.

`NO PROGRESS` = Progress is no longer being made pumping in this initialization.

`NO PROGRESS EXCESSIVE PUMP RESETS` = The SM initialization has continually restarted because of problems with pump.

4. ACTION TO BE TAKEN

Follow the procedures outlined in the System Recovery Manual.

5. ALARMS

Major.

6. REFERENCES

Input Message(s):

```
DGN:BTSR
DGN:MCTSI
```

Output Message(s):

```
REPT:SM-HASHSUM
```

Other Manual(s):
235-105-250 *System Recovery Procedures*

REPT:SM-HASHSUM

Software Release: 5E10 and later
Message Class: INT,SM
Application: 5
Type: Output

1. FORMAT

```
REPT SM=a HASHSUM FAILURE b SIDE c [EVENT=f]
  FAILING ADDRESS RANGES:
  d   e
  .   .
  .   .
  .   .
```

2. REASON FOR OUTPUT

To notify the user that hashsum checks of the switching module (SM) memory failed on the ACTIVE or MATE module controller/time-slot interchange (MCTSI) side. Hashsum checks are made during switching module pump (automatic or manual), MATE MCTSI restorations (automatic or manual), and routinely. The message class is SINIT for SM pump and SMSTAT otherwise.

Failure of hashsum checks may indicate that the hashsum tables are in error, or it may be that the memory is bad. The address ranges for the blocks that had bad hashsums are provided.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Side of the SM. Valid value(s): `ACTIVE` `MATE`

`c` = Side number.

`d` = The starting address of the failing address range.

`e` = The ending address of the failing address range.

`f` = Event number.

4. ACTION TO BE TAKEN

Investigate the cause of the failure; it may be the result of a bad memory or a bad hashsum table. Make any necessary repairs. This condition may prevent the SM from going duplex.

If hashsum failure is reported for the MATE and the MCTSI diagnostic passes, there are two possibilities:
1 = There is a memory fault in the MATE memory that is not caught by the diagnostic; or
2 = There is a difference between the ACTIVE memory and the hashsum table.

If an offline pump was in progress, the message will be accompanied by a REPT:SM-OFFLINE output message with the reason for the hashsum failure.

If a MATE memory fault is suspected, execute MCTSI diagnostic phase 7 on the suspect side of the SM. If phase 7 passes, all tests passed (ATP), there may be an intermittent memory fault that is not detectable by the diagnostics.

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Replace the suspect memory boards. To determine the board numbers, use the failing addresses in this message (variables '`d`' and '`e`') within the procedure described in the Corrective Maintenance Manual (235-105-220). Note: Values below 0x24000 do not map to dynamic RAM.

If replacing the boards does not clear up the problem, there might be a difference between the ACTIVE memory and the hashsum table. If the SM mode indicator says HASH ERR, it is very likely that the ACTIVE memory hashsums do not agree with the hashsum table. The MATE MCTSI should not be restored until this difference is resolved. Resolve any differences between the ACTIVE memory and the hashsum table. This problem can occur when certain utility commands are used that change the contents of memory, but not the hashsum table. Refer to the LOAD:UT-SM and WHEN:UT-SM input messages for additional information.

It is possible for a MCTSI restoration to succeed even when the SM is reporting hashsum failures on the active side when the failures are in certain ranges. That is, a MCTSI restoration does not check all memory; so if the active MCTSI has ranges failing which are not in the set of memory checked, a restoration may succeed. Only portions of the various hashsum-protected ranges are checked during the MCTSI restoration.

5. ALARMS

Major alarm only when the hashsum check fails on the ACTIVE MCTSI side.

6. REFERENCES

Input Message(s):

```
DGN:MCTSI
LOAD:UT-SM
WHEN:UT-SM
```

Output Message(s):

```
REPT:SM-OFFLINE
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:SM-HC

Software Release: 5E10 and later
Message Class: INT_MON
Application: 5
Type: Output

1. FORMAT

```
REPT SM=[a]  HARDWARE CONTEXT [b] [c] EVENT=d
  e-REGISTERS:       SSP=f     PC=f     SR=f
                     USP=f     FP=f     A5=f     A4=f
                     A0=f      A1=f     A2=f     A3=f
                     D0=f      D1=f     D2=f     D3=f
                     D4=f      D5=f     D6=f     D7=f
  PIC-REGISTERS:         HI   MED   LOW    [h]
                    IRR: g     g     g     [i]
                    IMR: g     g     g     [i]
                    ISR: g     g     g     [i]
```

2. REASON FOR OUTPUT

To report the contents of the module processor (MP) registers at the time of an interrupt.

The contents of selected quad integrated communications controller (QUICC) interrupt registers are provided for the MCTU3 which supports this device. Variable 'h' will indicate whether QUICC registers are included in the printed report.

The contents of the message handler interrupt controller registers are printed if the message handler is the interrupt source and unable to print a message. Printing message handler interrupt control registers applies only for the SM-2000 configuration, refer to variable 'b' for configuration.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number. This field may not appear in initial reports from SM power-up initializations.

b = The SM software configuration, reflecting the types of service this SM could potentially support (visible through the switching module equipment view of recent change). This field will not appear in initial reports from high-level SM initializations. Valid value(s):

```
BASIC
STANDARD
LOADED
SM2000
```

c = The SM type, or hardware configuration, reflecting the type of connections between this SM and the central office. This field may not appear in initial reports from SM power-up initializations. Valid value(s):

LSM = Local switching module.
HSM = Host switching module.
RSM = Remote switching module.
ORM = Optically integrated remote switching module.
TRM = Two-mile optically remote switching module.

`d` = Event number; related messages from this SM will also be printed with this event number.

`e` = Microprocessor type (UNK, 68012, 68020, 68040, 68060).

`f` = Register contents (in hexadecimal) of the microprocessor. Valid value(s):

680XX register definitions:

`A0-A5`	= Address registers.
`D0-D7`	= Data registers.
`FP`	= Stack frame pointer (base of current stack).
`PC`	= Program counter.
`SR`	= Status register.

680XX status register:

`BIT15`	= Trace mode status.
`BIT13`	= Supervisor state.
`BIT10-8`	= Interrupt mask status.
`BIT4`	= Extend status.
`BIT3`	= Negative status.
`BIT2`	= Zero status.
`BIT1`	= Overflow status.
`BIT0`	= Carry status.
`SSP`	= Supervisor stack pointer.
`USP`	= User stack pointer.

`g` = Register contents in hexadecimal of the low, medium and high priority interrupt controllers that represent. Valid value(s):

`IMR`	= Interrupt mask register.
`IRR`	= Interrupt request register.
`ISR`	= Interrupt service register (interrupt being processed).

`h` = The message handler reporting the interrupt or a QUICC device. Valid value(s):

`MH-0`	= Message handler 0.
`MH-1`	= Message handler 1.
`MH-2`	= Message handler 2.
`QUICC`	= QUICC device. The QUICC is supported on the processor board, so the QUICC interrupt controller registers are printed.

The message handler and its associated interrupt fields are only printed in the SM-2000 configuration when the message handler does not provide post-mortem data.

`i` = The message handler or QUICC event source bit, interrupt mask bit, and interrupt source request registers. Valid value(s):

`IRR`	= Event source bit register.
`IMR`	= Interrupt mask bit register.
`ISR`	= Interrupt source request register.

If variable '`h`' is not empty, then an empty variable '`i`' means that the value of that register is all 1's.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
INIT:SM
```

Output Message(s):

```
REPT:SM-HWLVL
```

RC/V View(s):

(SWITCHING MODULE)

REPT:SM-HWLVL-A

Software Release: 5E10 only
Message Class: INT_MON,INT
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT SM=[a,]b,c HWLVL=d SWLVL=e EVENT=j  k
  f [g] h [i] l FAILING ADDR=m
  PROCESS:BG=r,s,[t] CM=u,[v] FG=w,[x],[y]
```

[2]
```
REPT SM=[a,]b,c HWLVL=d SWLVL=e EVENT=j  k
  f [g] h [i]
  l FAIL-ADDR=m [n]-o  DATA-BUS=p TIME=qq:qq.q
  PROCESS:BG=r,s[,t] CM=u,v FG=w[,x][,y]        z
  ORIG-HW-STATUS: a1: [b1] [c1] [d1] a1: [b1] [c1] [d1]
  FINAL-HW-STATUS: a1: [b1] [c1] [d1] a1: [b1] [c1] [d1]
  PREVIOUS TYPE/COUNT:  e1    f1
  SHADOW TYPE/COUNT:    g1    h1
  AUX DATA:             i1    j1    k1    l1
  ESCALATION-COUNTS:    m1    n1    o1    p1
```

2. REASON FOR OUTPUT

To provide information about the type and source of an interrupt that occurred in the switching module (SM) controller and the resulting level of initialization.

The ORIG-HW-STATUS fields contain the status of both elements of the affected duplex hardware prior to the event. The FINAL-HW-STATUS fields contain the status of the hardware after automatic fault recovery has occurred.

Format 1 is printed and Format 2 is logged unless the message class specifies otherwise. To verify the log/print status, use the OP:LPS input message. To change the log/print status, use the CHG:LPS-MSGCLS input message.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.
Note: When variable '`k`' equals `IN PROGRESS`, the SM number may be 0 or blank. The true number will appear when variable '`k`' equals `COMPLETED`.

`b` = SM side on which the interrupt occurred.

`c` = SM processor status active (ACT) or MATE on the side where the interrupt occurred.

`d` = Level of hardware recovery initiated by fault recovery. Refer to Exhibit A for associated actions and minimum software recovery levels.

`e` = Level of software initialization performed. Valid value(s):
`DA` = Directed audit.
`FGI` = Foreground initialization (all foreground jobs cleared).

FI	= Module full initialization.
FI,PUMP	= Module full initialization with full memory pump.
RPI	= Return to point of interrupt.
SA	= Stitched audit (multiple directed audits).
SI	= Module selective initialization.
SI,PUMP	= Module selective initialization with memory pump.
SPP	= Single process purge.
UNK	= Unknown.

f = Reporting hardware subunit that triggered the interrupt, or software stimulus that caused the recovery. Valid value(s):

CI0	= Control interface (CI) 0.
CI1	= Control interface 1.
CI2	= Control interface 2.
CI3	= Control interface 3.
CIK	= Craft intervention key.
DLI0	= Dual link interface (DLI) side 0.
DLI0_MP	= Dual link interface side 0 and module processor.
DLI1	= Dual link interface side 1.
DLI1_MP	= Dual link interface side 1 and module processor.
LK0A	= DLI0 isolated to network control/timing link A.
LK0A_MP	= DLI0 network control/timing link A and module processor.
LK0B	= DLI0 isolated to network control/timing link B.
LK0B_MP	= DLI0 network control/timing link B and module processor.
LK1A	= DLI1 isolated to network control/timing link A.
LK1A_MP	= DLI1 network control/timing link A and module processor.
LK1B	= DLI1 isolated to network control/timing link B.
LK1B_MP	= DLI1 network control/timing link B and module processor.
MP	= Module processor/module controller.
ONTC0	= Office network timing complex side 0.
ONTC1	= Office network timing complex side 1.
ONTCB	= Office network timing complex, both sides.
PI	= Packet interface.
RL_RCLK	= Remote clock interface.
RL_RDFI	= Remote link interface (RLI).
RLA_RDFI	= Remote link interface multiplexor A and remote digital facility interface.
RLB_RDFI	= Remote link interface multiplexor B and remote digital facility interface.
RLI0	= Remote link interface side 0. The RLI consists of a DLI and a facility interface (FI).
RLI1	= Remote link interface side 1. The RLI consists of a DLI and a FI.
SP	= Signal processor.
TSI	= Time slot interchange.
UNK	= Unknown. Normally this indicates that recovery was aborted (check variable 'k'), and the subunit was not reported by the time of the failure.

g = Subunit component reporting the interrupt. The reporting component is the network link interface (NLI) when the subunit is ONTC(0,1) and the SMREF when the subunit is TSI. Valid value(s):

MULT-NLI	= Multiple NLIs are reporting errors.
MULT-SMREF	= Multiple external timing references are associated with the error.
NLI-x	= NLI link number reporting an error, where the link number 'x' is 0-23.

SMREF-0 = Error on external timing reference 0.
SMREF-1 = Error on external timing reference 1.

h = Source of the error that caused the interrupt. Valid value(s):
A-ALTERNATE-DATA = The TSI detected an error in the A alternate data.
A-FLIP-FLOP-CLEAR = The A flip flop has been cleared in a running processor.
A-MEM-HI-BYTE = The TSI A random access memory (RAM) had bad parity in the high byte.
A-MEM-LO-BYTE = The TSI A RAM had bad parity in the low byte.
A-MEM-MAINT = The TSI A RAM memory maintenance bit was set.
A-MEM-PARITY = The TSI A RAM memory had bad parity.
ACT-CLOCK = The active clock synchronous circuit (CSC) lost either the clock or synchronization signal or both.
ACT-CSC-REFERENCE = The active CSC detected loss of the clock reference used as the source of timing.
ADDR-BUS-PAR-ERR = A parity error was detected by the time slot interchange (TSI) on the address bus from the MP.
ADDR-PARITY-ERR = The address presented to the control interface (CI) by the microprocessor had bad parity.
ADDRESS-PARITY = Bad parity was detected on the address bus.
ADDRESSING-ERR = Word access was attempted on an odd-byte boundary.
ADR-LDSU-PARITY = Bad parity was detected by the TSI on local digital service unit data read from the alternate data RAM.
ATTENUATOR-ERR = The TSI detected an error in the TSI attenuator.
B-ALTERNATE-DATA = The TSI detected an error in the B alternate data.
B-MEM-HI-BYTE = The TSI B RAM memory had bad parity in the high byte.
B-MEM-LO-BYTE = The TSI B RAM memory had bad parity in the low byte.
B-MEM-MAINT = The TSI B RAM maintenance bit was set.
B-MEM-PARITY = The TSI B RAM memory had bad parity.
BOARD-CLOCK = A TSI board detected a bad clock signal coming from the TSICOM.
BOARD-DATA-PARITY = A TSI board detected a data parity or cyclic redundancy check (CRC) error. The stimulus is bad data, address, or control to or from a CRAM, SRAM or ARAM circuit. The error is either from a switch module processor (SMP) access or internal to the time slot interchange unit (TSIU).
BOARD-HARDWARE-MASK = A TSIU mask register was found to contain an invalid value. The mask register could not be successfully written, so the condition still exists.
BOARD-INTERFACE = A TSI board detected bad data or addresses during an SMP read or write operation.
BOARD-INVALID-DATA = The TSIU detected invalid data in either a control time slot (CTS) register or a CRAM. If a CTS register, then the probable cause is that the CTS dip switches are improperly set. If a CRAM error, the probable stimulus is an invalid SMP access (read or write).
BOARD-SOFTWARE-MASK = A TSIU mask register was found to contain an invalid value. The register has been written with the proper value.
BUFFER-CHECK = The NLI detected a buffer check error.
BUS-ERR = A 680XX bus error exception occurred without resetting. This indicates a failure in the reset source circuitry.
BUS-LOCK-PROT-VIOL-ER = The microprocessor bus is locked. This usually indicates a software problem.
C-MEM-ADR-READ = The alternate data RAM read address of TSI C RAM had bad parity.
C-MEM-ADR-WRITE = The alternate data RAM write address of TSI C RAM had bad parity.
C-MEM-HI-BYTE = The TSI detected bad parity in the high byte of the CRAM memory.

C-MEM-LO-BYTE = The TSI detected bad parity in the high byte of the CRAM memory.
C-MEM-MAINT = The TSI C RAM maintenance bit is set.
CACHE-ERR = An error involving the cache has occurred. The cache can detect parity errors and multiple bank match errors.
CIn-READY-TO = A time-out was encountered while accessing CIn, where n is 0-3.
CMD3-REG-ENABLE = The TSI detected an error in enabling the command register 3 (TSCMD3).
COMMON-CLOCK = The TSICOM detected a bad clock signal from its oscillator. The problem is internal to the TSICOM.
COMMON-DATA-PARITY = The TSIU detected a data parity error during an SMP read operation.
COMMON-INTERFACE = The TSICOM detected bad data or addresses during an SMP read or write operation.
CONTIN-x-OOF-ERROR = Continuous out-of-frame (OOF) errors occurred on link A or B (where 'x' is A or B).
CONTROL-ADD = Error in the control address.
CORE-ADDR-PRESENTED-ER = A memory controller could not find an address in its memory.
CORR-BIT-ERR = Number of single bit errors detected in memory and corrected by the Hamming code exceeded threshold (pre-SM-2000 threshold is one).
CPI-ERROR = An illegal or garbled message was received from the administrative module (AM).
CRC = CRC error associated with the NLI.
CRC-FROM-ACTIVE-TSI = The NLI detected a CRC error on data received from the active TSI.
CRC-FROM-MATE-TSI = The NLI detected a CRC error on data received from the mate TSI.
CSC-PARITY = The CSC detected a parity error on the subunit interface bus.
D-MEM-EVEN = The TSI detected bad parity in one of the even time slots in the DRAM.
D-MEM-ODD = The TSI detected bad parity in one of the odd time slots in the DRAM.
DATA-PARITY-ERR = The data presented to the CI by the microprocessor had bad parity.
DATA-SELECT-ERR = The TSI detected an error during the data selection.
DBL-BUS-ERR = A 680XX reset (exception 0) has occurred, probably due to a double bus error or a double address error.
DECODE-ERROR = An address on the bus was not successfully decoded.
DI-A-OUTPUT = The TSI detected bad parity being sent on the A output to the data interface (DI).
DI-B-OUTPUT = The TSI detected bad parity being sent on the B output to the DI.
DI-DATA-PARITY = The DI detected a data parity error during a read of DI RAM. The stimulus is either an SMP access or an internal access with the DI.
DI-INTERFACE = The DI detected bad data or addresses during an SMP read or write operation.
DI-PIDB-PARITY = The TSI detected bad parity on the data being received from peripheral time slots. The implicated time slots are stored in the DI buffer. If this error occurred on the active module processor time slot interchanger (MCTSI), look for 'PIDB PARITY' error reports with the same event number.
DLI-A-INPUT = The TSI detected bad parity from the DLI A input.
DLI-A-OUTPUT = Bad parity was detected by the TSI on the data sent to DLI A output.
DLI-B-INPUT = The TSI detected bad parity from the DLI B input.
DLI-B-OUTPUT = Bad parity was detected by the TSI on the data sent to the DLI B output.
DLI-INPUT-CLOCK-ERROR = Both DLIs are reporting bad clock input signals from the active MCTSI.
DLI-INTERFACE-ERR = The module processor (MP) detected bad parity on the control time slot data or on a read of DLI registers.
DLI-READY-TIMEOUT = A time-out was encountered while accessing a DLI.
DSU-A-PAR-ERR = A parity error was detected by the TSI from the digital service circuit unit A [local digital service unit (LDSU) service group 0].
DSU-B-PAR-ERR = A parity error was detected by the TSI from the digital service circuit unit B (LDSU service group 1).
DSU-C-PAR-ERR = A parity error was detected by the TSI from the digital service circuit C.

DSU-D-PAR-ERR = A parity error was detected by the TSI from the digital service circuit D.
E-BIT-PARITY = The TSI detected bad parity in the E-bit receive circuit.
E-MEM-EVEN = The TSI detected bad parity in one of the even time slots in the ERAM.
E-MEM-ODD = The TSI detected bad parity in one of the odd time slots in the ERAM.
EQUIPAGE = The TSIU detected that an operational TSIU board has been physically removed from the shelf.
EXCESSIVE-JITTER = The amount of jitter on an external timing reference signal has exceeded its threshold.
EXCPTN-STK-FRM-ER = The microprocessor detected an invalid stack frame format while attempting to return from an exception.
FI-A/B-SLIP = The RLI detected slips between the FI active (A) and back-up (B) references.
FI-ACT-T1-REF = The RLI detected the FI active T1 reference failing.
FI-BACKUP-T1-REF = The RLI detected the back-up T1 reference failing in the FI.
FI-FIDB-A/B-PAR = RLI to DLI facility interface data bus parity error.
FI-FIDx-PARITY = The RLI x multiplexer in the facility interface (FI) detected parity errors on an FI data bus (FIDB) (where 'x' is A or B).
FI-INTERNAL-INTERFACE = The RLI detected parity errors on the FI internal interface.
FI-INTERNAL-REF = The RLI is using the internal oscillator in the FI as the reference.
FI-LINK-x-BUF-ERR = The RLI detected FI buffer errors on link 'x' (where 'x' is A or B).
FI-LINK-x-CLK = The RLI detected that the FI link 'x' clock was stopped (where 'x' is A or B).
FI-LINK-x-LP = The RLI detected that the FI link 'x' was looped (where 'x' is A or B).
FI-LINK-x-OOF = The RLI lost synchronization with the framing bits for link 'x' in the FI (where 'x' is A or B).
FI-LINK-x-RCV-PARITY = The RLI detected FI receive parity errors on link 'x' (where 'x' is A or B).
FI-LINK-x-XMIT-PARITY = The RLI detected FI transmit parity errors on link 'x' (where 'x' is A or B).
FI-LOSS-OF-OSC = The RLI lost the signal from the oscillator in the FI.
FI-MASTER-SLAVE-SLIP = The RLI detected slips between the master and slave RLIs.
FI-MUXx-EQ-RDFI-ACCESS = The RLI 'x' multiplexer in the FI cannot access all the equipped remote digital facilities interface (DFI) circuits (where 'x' is A or B).
FI-MUX-x-FIDB-LP = The RLI detected a FIDB looped in the 'x' multiplexer of the FI (where 'x' is A or B).
FI-MUXx-LI-PARITY = The RLI 'x' multiplexer in the FI received bad parity from the FI link interface (where 'x' is A or B).
FI-MUXx-LNK-INTERFACE-LP = The RLI 'x' multiplexer interface to the link is looped in the FI (where 'x' is A or B).
FI-PLL-SLIP = The RLI detected slips in the FI phase lock loop (PLL) clock.
FI-x-MUX-RCV-ROM = The RLI detected a read-only memory (ROM) or address circuitry failure in the 'x' multiplexer of the FI (where 'x' is A or B).
FI-x-MUX-XMIT-ROM = The RLI detected a transmit ROM circuitry failure in the 'x' multiplexer of the FI (where 'x' is A or B).
FIFO-FULL = The signal processor (SP) buffer that records state changes is full.
FORCED-RESET = A manually generated reset was forced on the central processor intervention (CPI) channel.
FROM-MATE = The reset was generated by the mate controller.
GENERATED-INTERRUPT = The TSI detected an error in the peripheral link interface (PLI).
HARDWARE-RESET = General category for hardware resets as indicated by the reset source register.
HI-MP-DATA-BUS-PAR = A parity error was detected by the TSI on the high data byte. Parity on the MP high data bus did not match the parity received by the TSI subunit bus.
HI-TSI-DATA-BUS-PAR = A parity error was detected by the TSI on the high data byte. Bad parity

on the high byte of the internal TSI data bus was detected.

`HI-TSI-MP-READ-PAR` = A read parity error was detected on the low byte by the TSI. Parity on the MP data bus did not match parity taken out of the TSI RAM.

`HI-TSI-MP-WRITE-PAR` = A parity error was detected by the TSI on a write in the high byte.

`HIT-TIMING-ERR` = The SP detected an error in the hit timing circuit.

`IGNORE-RAM-PARITY` = A parity error was detected in the SP ignore RAM.

`ILLEGAL-AUTOVECTOR` = One of the unused interrupt counters was incremented at the 680X0 processor.

`ILLEGAL-INSTR` = The processor detected an illegal opcode.

`IMPROPER-ADDR-SEL` = The register address presented to the CI by the microprocessor specified a nonexistent register; this includes any attempt to read the 'reset.'

`INTERNAL-DATA-BUS` = The SP detected bad parity on its internal data bus.

`INTERNAL-PARITY` = The NLI detected an internal parity error.

`INTERRUPTS` = A combination of different types of errors occurred simultaneously.

`INVALID-OPERATION` = An invalid operation was attempted, which usually indicates a software problem. An invalid operation is an access of the wrong type to an address, such as byte access of a word register, write to a read only register, access to unequipped I/O or dynamic RAM.

`IO-LOCK` = The input/output (I/O) timer was stopped while the timer was not running, which usually indicates a software problem.

`IO-PARITY` = Bad parity was detected on the I/O bus.

`IO-TIMEOUT` = The I/O timer was expired before being locked. This usually indicates a software problem.

`IO-UNLOCK` = The I/O timer was started while it was already on, which usually indicates a software problem.

`LATCHED-TS-CNTR` = An error was detected in the latched time slot counter.

`LINK-A-BUF-ERR` = A fault was detected on the network control and timing (NCT) link A buffer circuitry.

`LINK-A-CLOCK` = The clock on link A stopped.

`LINK-A-OUTOF-FRAME` = The DLI lost synchronization with the framing bits for link A.

`LINK-A-RCV-PARITY` = The DLI received bad parity from NCT link A.

`LINK-A-XMIT-PARITY` = The DLI received bad parity from the TSI to be transmitted on the A NCT link.

`LINK-ADDR-ERR` = The peripheral interface control bus (PICB) address (bits LA0 through LA4 of the address register), which was presented to the CI by the microprocessor, specified a nonexistent PICB. The CI PERAD register is NOT valid.

`LINK-B-BUF-ERR` = NCT link B buffer circuitry fault detected.

`LINK-B-CLOCK` = The clock on link B stopped.

`LINK-B-OUTOF-FRAME` = The DLI lost synchronization with the framing bits for link B.

`LINK-B-RCV-PARITY` = The DLI received bad parity from NCT link B.

`LINK-B-XMIT-PARITY` = The DLI received bad parity from the TSI to be transmitted on the B NCT link.

`LO-MP-DATA-BUS-PAR` = A parity error was detected on the low byte by the TSI. Parity on the MP low data bus did not match the parity received by the TSI subunit bus.

`LO-TSI-DATA-BUS-PAR` = A parity error was detected on the low byte of the internal TSI data bus.

`LO-TSI-MP-READ-PAR` = A read parity error was detected on the high byte by the TSI. Parity on the MP data bus did not match parity taken out of the TSI RAM.

`LO-TSI-MP-WRITE-PAR` = A parity error was detected by the TSI on a write in the low byte.

`LOSS-OF-SIGNAL` = The TSICOM has detected a bad signal on an external timing reference.

`M-RAM-ERR` = The SP detected a parity error in its internal M-RAM.

`MATE-COMMON-CLOCK` = The TSICOM detected a bad clock signal from the mate TSICOM. The clock signal is either the 30 msec synchronization signaler the oscillator signal. The

problem is internal to the mate TSICOM.
MATE-READ-WHILE-RUNNING = The active MP side attempted a mate MP read access when the mate MP was running.
MATE-READY-TO = A time-out was encountered while accessing the mate's memory either as a mate only operation or while the mate was in a standby (STBY) state.
MCP-LINK-PARITY-ERR = Bad parity was received by the module processor from the TSI over the MCP link.
MEM-REFRESH-FAIL = A failure occurred while a memory board was being refreshed.
MEM-SYSTEM = An error was detected in the memory complex.
MH0-ERROR = An error was detected on message handler 0.
MH0-INTERRUPT = The module processor received an interrupt from message handler 0.
MH1-ERROR = An error was detected on message handler 1.
MH1-INTERRUPT = The module processor received an interrupt from message handler 1.
MH2-ERROR = An error was detected on message handler 2.
MH2-INTERRUPT = The module processor received an interrupt from message handler 2.
MH-READY-TIMEOUT = A time-out was encountered while accessing a message handler.
MP-ADDR-BUS = The SP received bad parity from the MP address bus.
MP-BAD-PARITY = The DLI received bad parity on the address and data.
MP-DATA-BUS = Data bus error.
MP-READY-TO = A time-out occurred while accessing module processor hardware.
MP-SYNC-ERROR = The module processor scan points have lost synchronization and contain invalid data.
MP-TSI-CLOCK-ERR = The module processor lost either or both the clock and synchronization signal from the TSI.
MULT-RESPONSE = Multiple hardware units responded to the same address.
MULTI-RDY-TO = More than one source indicates a ready time-out (TO) because the operations took too long.
MUX-SELECT-ERR = The 'one-of-n' checkers monitoring the output clock and output data multiplexers have detected an error.
NET-SSP-INPUT = Bad parity was detected by the TSI at the input port on the network side for the smart SP.
NO-CI-ERR-FOUND = The CI interrupted but no error was found in the error source register.
NO-COM-DLI0 = The MCTSI cannot communicate with DLI 0.
NO-COM-DLI1 = The MCTSI cannot communicate with DLI 1.
NO-COM-FI0 = The MCTSI cannot communicate with FI 0.
NO-COM-FI1 = The MCTSI cannot communicate with FI 1.
NO-DLI-ERR-FOUND = The DLI interrupted but no error was found in the error source register.
NO-ERR-SOURCE-FND = No error source register indication.
NO-ERROR = There were no errors found on the reporting NLI(s).
NO-ERROR-FOUND = No error indication.
NO-RESET-FOUND = The MP was interrupted but no error source bit in the error source register was set.
NO-SP-ERR-FOUND = The SP generated an interrupt but no error was found in the error source register.
NO-TSI-ERR-FOUND = The TSI interrupted but no error was indicated in the TSI error source register.
NON-COR-BIT-ERR = A non-correctable bit error occurred during a memory board access.
NOT-IN-ERROR = There was no NLI error found, although the TSI reported that the NLI declared an error.
OUT-OF-FRAME = The NLI detected out of frame errors on data from the ONTC.
OUTPUT-ENERGY-DETECTION = The TSICOM detected the loss of its output energy signal.
OVERHEAD-BYTE-PARITY = The NLI detected a parity error on the overhead bytes from the TSI.

PARITY = The NLI detected a parity error on data from the ONTC.
PARITY-ERROR = Bad parity was detected by the hardware on a read or write of memory.
PER-BAD-PARITY = A peripheral reply message had bad parity.
PER-BAD-START-CODE = A peripheral reply message had a bad start code.
PER-DET-BAD-ADDR = A peripheral detected an addressing error while attempting to do a scan or distribute operation requested by the CI.
PER-DET-BAD-PARITY = A peripheral received bad parity in a message from the CI.
PER-DET-BAD-START = A peripheral received a bad start code on a message from the CI.
PER-SSP-INPUT = The TSI detected bad parity at the input port on the peripheral side for the smart SP.
PI-DARAM-OUT-OF-RANGE-ERR = An error asserted when an attempt was made to access the PI dual access random access memory (DARAM) outside of the valid address spectrum.
PI-ERR-LEAD-SET = The PI has set its error lead, which indicates that some error threshold has been reached.
PI-ERR-NOT-FOUND = The PI generated an interrupt, but no error was found in the PI subunit error source register.
PI-NON-COR-BIT-ERR = A noncorrectable memory error was detected during an SMP read of PI DARAM.
PI-READY-TO = A time-out occurred while accessing the PI.
PI-SIB-PARITY-ERR = Bad parity was detected by the PI hardware during an SMP write to the PI using the subunit interface bus circuitry.
PI-WRITE-PROT-ERR = The SMP has attempted to write to an address in PI DARAM that is write-protected at the subunit interface.
PLL-SLIP = The PLL clock in the DLI slipped more than 256 time slots.
PRIVILEGE-VIOL = A privileged instruction was attempted while not in the supervisor mode.
READ-MODIFY-WRITE-HI = The TSI detected an error on the high byte of a read-modify-write operation.
READ-MODIFY-WRITE-LO = The TSI detected an error on the low byte of a read-modify-write operation.
SANITY-TIMER = A program sanity timer expired before the program was able to reset the timer.
SDLC-A-RCV-PARITY = The DLI received bad parity from synchronous data link controller (SDLC) A.
SDLC-A-XMIT-PARITY = The DLI detected bad parity on the data to be sent to SDLC A.
SDLC-B-RCV-PARITY = The DLI received bad parity from SDLC B.
SDLC-B-XMIT-PARITY = The DLI detected bad parity on the data to be sent to SDLC B.
SOFTWARE-BUS-ERROR = The switching module software caused a bus error implicating the module controller.
SOFTWARE-MASK-PROBLEM = The NLI was declaring an error that should have been masked.
SOFTWARE-RESET = The switching module software caused an entry to the reset handler.
SP-FIFO-FULL = One of the SP buffers that records state changes is full.
SP-INPUT = Bad parity was detected from the SP by the TSI.
SP-READY-TO = A time-out was encountered while accessing the SP.
STACK-PROT-ERR = A process attempted to reference stack space belonging to a different process. May be a stack overflow or a wild write.
STANDBY-CLOCK = The standby CSC lost either or both the clock and synchronization signal.
STANDBY-CSC-REFERENCE = The Standby CSC detected loss of the clock reference used as the source of timing.
SUBUNIT-MISMATCH = The address decoding of subunits in the module controller enabled more than one of eight subunits.
TIME-OUT-ERROR = A peripheral failed to reply to a message from the CI.
TIME-SLOT-COUNTER = An error was detected in the TSI time slot counter.

TRAP = A single byte interrupt, a division by zero, a single step, or an unimplemented software interrupt was executed. Usually indicates a software problem.
TSI-ADDR-BUS = A parity error was detected by the TSI on the internal TSI address bus.
TSI-CRC = The TSI detected CRC errors on data received from the NLI.
TSI-DATA-ERR = The SP detected bad parity on data from the TSI.
TSI-LOSS-OF-CLOCK = The TSI detected a loss of the clock signal from the NLI.
TSI-LOSS-OF-CLOCK-REFERENCE = The TSICOM detected loss of the clock reference from the NLI being used as the source of timing.
TSI-OVERHEAD-PARITY = The TSI detected a parity error on the overhead bytes from the NLI.
TSI-READY-TO = A time-out was encountered while accessing the TSI.
TSI-SYNCHRONIZATION = The TSI detected a synchronization error with the NLI.
UNEXPECTED-INTERRUPT = An interrupt that should not occur was detected.
UNEXPECTED-QUICC-INTERRUPT = The active MP received an unexpected interrupt from the quad integrated communications controller (QUICC).
UNK-SRC = Error source unknown.
UNRECOG-UT-TRAP = One of the exceptions assigned to generic utilities was raised, but the utilities subsystem (UT) did not accept the exception.
UNUSED-EXCEPTION = A processor exception that is not used by the software release occurred.
UNUSED-SW-TRAP = A TRAP instruction that is not used by the current software release was executed.
UNUSED-TEXT-EXEC = A bad transfer vector (TV) slot was used or a wild transfer occurred, causing memory not used by the current software release code to be executed.
UPDATE-BUS-ACCESS-ER = The module processor detected an access error on the update bus. The mate MCTSI may be unavailable.
WRITE-PROT-ERR = A write was attempted to a write-protected address, which usually indicates a software problem.
XMT-TSI-DATA = A parity error was detected by the TSI on data from the transmit TSI RAM.
ZERO-DIVIDE = An attempt to divide by zero was detected.

i = Supplementary information on software error sources relating to the preceding hardware source of the error (variable 'h'). Valid value(s):
AUTO-PUMP-REQUEST = Recovery has reached a level that requires a pump and raise the recovery level.
CI-AUDIT-FAIL = CI audit detected two failures from the peripheral units (PUs) that exceeded the threshold of 2. This results in an MCTSI switch.
CRIT-UNIT-DUPLEX-FAIL = SI's limit of one critical unit duplex failure was exceeded during initialization. Critical units include pumpable LDSU, integrated services line unit (ISLU), and packet switch unit (PSU).
DATA-VALIDATION-FAIL = Range and consistency checks on recovery data failed.
DLI-CLOCK-FAILURE = A software sanity timer interrupt occurred due to a DLI clock or power failure. The purpose of this is to switch MCTSIs immediately.
EXCESSIVE-DCF = A count of asserts (defensive check failures) has exceeded the threshold.
EXCESSIVE-DEMAND-AUD = Non-segmented demand audits have been taking too much time away from call processing.
EXCESSIVE-ERROR-50 = SI's count of escalating events in the last 30 seconds has exceeded 50. This results in a MP reset and SPP.
EXCESSIVE-ERROR-75 = SI's count of escalating events in the last 30 seconds has exceeded 75. This results in a MP switch and a single process purge (SPP).
EXCESSIVE-ERROR-100 = SI's count of escalating events in the last 30 seconds has exceeded 100. This results in selective initialization escalation.
EXCESSIVE-INTRPTS = A count of interrupts has exceeded the threshold.

EXCESSIVE-RESETS = A count of non-maskable interrupts has exceeded the threshold.
EXCESSIVE-RPI = Too many errors with software recovery action "return to point of interrupt (RPI)" have occurred (variable 'e').
EXCESSIVE-SPP = A count of level 1 initializations has exceeded the threshold.
GENERIC-RETROFIT = This event occurred during a software release retrofit, software release update, large terminal growth, or after a retrofit SM switch.
INTERJECT-FAILURE = Call processing interject faulted.
INVALID-STACK = High-level initialization was attempted on a stack other than the recovery stack.
LVL-3-FAILURE = Lack of level 3 protocol messages exchanged between the SM and the AM.
MANUAL-REQUEST = This is a user-initiated initialization.
MCB-EXHAUST = The message control block resource was found to be exhausted.
MH-RECOVERY = Excessive errors have been detected on a message handler on the active MCTSI.
NO-CALL-PROC-FUNC = Switching module integrity control (MICO) system process detected no call processing functionality at the end of initialization.
NO-RCVY-PROGRESS = There is a lack of positive progress in an already active recovery. Twenty-four seconds have elapsed without any progress.
PCB-EXHAUST = The process control block resource was found to be exhausted.
PI-RECOVERY = Excessive errors have been detected on the packet interface subunit of the active MCTSI. During SM initializations, this means that the subunit is failing to initialize. During normal operation, this error code indicates that background recovery software has detected error conditions too often.
PKB-EXHAUST = The packet buffer data block resource was found to be exhausted.
POWERUP = The SM memory on this side is in a state that makes it unreliable, such as after power cycling or diagnostics.
PROGRAM-LOOP = A program loop is not allowing the integrity monitor to run its background progress.
PUMP-COMMUNICATION = Pump in the SM failed to communicate with pump in the AM.
PUMP-FAILURE = A timeout occurred while the pump program was waiting for messages from the AM.
PUMP-PREEMPTED = Pump in the SM was preempted by pump in the AM.
PUMP-SYNC = Pump in the SM lost synchronization with pump in the AM.
RCVY-RESOURCE-SHORT = There is a lack of OSDS (SM operating system) resources, usually timers.
REAL-TIME-CNTR-FAIL = A hardware timer (driven off the DLI timing) is slipping substantially when compared to the 10-millisecond software timing. Hardware fault recovery is being invoked to reinitialize the timer hardware and possibly reconfigure the SM.
RESTART-RCVY = An error occurred during recovery. A restart occurred.
SCB-EXHAUST = The stack control block resource was found to be exhausted.
SW-RCVY-ERROR = Recovery software detected insanity or an assert was processed before completion of recovery.
TCB-EXHAUST = The timer control block resource was found to be exhausted.

j = Event number.

k = Termination report. Valid value(s):
ABORTED = The current job did not complete before being interrupted by another stimulus.
COMPLETED = The indicated or requested action has completed.
IN PROGRESS = The data dump is preliminary information on the job currently executing in read-only memory code. As a consequence, the SM number may be zero or blank. This output message will be followed by a short version of the format when the job

has completed.

l = Type of error (probable cause, internal counters affected). Valid value(s):

- HW-ERR = Hardware error.
- SW-ERR = Software error.
- UNK-ERR = Unknown - recovery probably aborted, refer to variable 'k' and look for succeeding reports.

m = Address on the address bus at the time of the interrupt (hexadecimal).

n = Type of memory referenced by failing address (only when variable 'f' indicates MP errors). Valid value(s):

- DATA = Address that contains data accessed by the program.
- DRAM = Read/write memory using dynamic RAM devices.
- IO = Address range for accessing hardware.
- MH0RAM = Message handler 0 random access memory.
- MH1RAM = Message handler 1 random access memory.
- MH2RAM = Message handler 2 random access memory.
- OOR = Address is out of a valid range.
- ROM = Read-only memory.
- SRAM = Read/write memory using static RAM devices.
- TEXT = Address that contains program text (instructions).

o = Type of access being performed at failing address. Valid value(s):

- READ = The specified address was being read when the error occurred.
- UNK = Access type not determined for this message type (variable 'f' does not indicate an MP error), or the type has not yet been determined (variable 'k' is IN PROGRESS) or the event was aborted before the access type could be determined (variable 'k' is ABORTED).
- WRITE = The specified address was being written when the error was recognized.

p = Raw data on the data bus at the time of the interrupt, in hexadecimal (MP errors only).

q = Time when the interrupt occurred, in the form minute:seconds:tenths of second.

r = Process ID of the running background (BG) process in OSDS.

s = Uniqueness field of the running BG process in OSDS.

t = Recovery action for OSDS process. Valid value(s):

- (blank) = No recovery action because the target was not active.
- PURGE = Single process was purged.
- RPI = Return to point of interrupt.

u = State of the communication software. Valid value(s):

- A-CR = The SDLC combined receive interrupt handler was active on SDLC A.
- A-RECV = The SDLC A receive interrupt handler was active.
- A-TRANS = The SDLC A transmit interrupt handler was active.
- ACR-ARECV = The SDLC A receive interrupt handler was interrupted by the SDLC A combined

receive handler, and the SDLC A combined receive handler was active at the time of the error.

`ACR-ATRANS` = The SDLC A transmit interrupt handler was interrupted by the SDLC A combined receive handler, and the SDLC A combined receive handler was active at the time of the error.

`ACR-BRECV` = The SDLC B receive interrupt handler was interrupted by the SDLC A combined receive handler, and the SDLC A combined receive handler was active at the time of the error.

`ACR-BTRANS` = The SDLC B transmit interrupt handler was interrupted by the SDLC A combined receive handler, and the SDLC A combined receive handler was active at the time of the error.

`ACTIVE` = The CM is active but which action on which link can not be determined.

`B-CR` = The SDLC combined receive handler was active on the SDLC B.

`B-RECV` = The SDLC B was receiving.

`B-TRANS` = The SDLC B was transmitting.

`BASE` = CM was called from the base level environment.

`BCR-ARECV` = The SDLC A receive interrupt handler was interrupted by the SDLC B combined receive handler, and the SDLC B combined receive handler was active at the time of the error.

`BCR-ATRANS` = The SDLC A transmit interrupt handler was interrupted by the SDLC B combined receive handler, and the SDLC B combined receive handler was active at the time of the error.

`BCR-BRECV` = The SDLC B receive interrupt handler was interrupted by the SDLC B combined receive handler, and the SDLC B combined receive handler was active at the time of the error.

`BCR-BTRANS` = The SDLC B transmit interrupt handler was interrupted by the SDLC B combined receive handler, and the SDLC B combined receive handler was active at the time of the error.

`MTCE-RECV` = The CM was unloading messages from the MTCE MH FIFO.

`MTCE-TRANS` = The CM was sending messages to the MTCE MH FIFO.

`NONE` = CM was not active.

`NOT-APPL` = Not applicable. The SM-2000 does not have SDLCs, therefore field '`u`' does not apply. Also, field '`v`' will be blank for SM-2000.

`OSDS-RECV` = The CM was unloading messages from the OSDS MH FIFO.

`OSDS-TRANS` = The CM was sending messages to the OSDS MH FIFO.

`v` = Recovery action for CM software. Valid value(s):

`(blank)` = No recovery action taken because the target was not active.

`CLEAR` = Aborted all scheduled jobs in CM foreground.

`PURGE` = The single target job or process was purged.

`RPI` = Return to the point of interrupt.

`w` = State of foreground activity. Valid value(s):

`CM` = The communication package was executing.

`INTMON` = The system integrity monitor was executing.

`NONE` = Foreground (10-millisecond interrupt) was not being served.

`NONPC` = Foreground was being served for an indeterminable job other than PC.

`OSDS` = OSDS work for 10-millisecond interrupt was executing.

`PC` = Peripheral control foreground was executing. Refer to variable '`x`' for further information.

x = The type of PC foreground activity that was being performed. Valid value(s):

(blank)	= No PC foreground jobs were active.
CCB10T	= Channel control block (CCB) 10-millisecond timer (1-second clock).
CCB50T	= CCB 50-millisecond timer (6-second clock).
CHDB10T	= Channel data block (CHDB) 10-millisecond timer (1-second clock).
CHDB50T	= CHBD 50-millisecond timer (6-second clock).
CISCAN	= CI scanning.
DPOUT	= Dial pulse outpulsing.
EBTSCAN	= E-bit scanning.
ETONE-NET	= Enhanced tone cadencing in the network direction.
ETONE-PER	= Enhanced tone cadencing in the peripheral direction.
FGCADTL1	= Foreground (FG) tone cadencing, list 1.
FGCADTL2	= FG cadencing, timing list 2.
IQUNLD	= Immediate sequence queue unloader.
ISLURING	= Integrated services line unit-Z (ISLU-Z) ring cadencing.
LCNSCAN	= Line concentrator summary scanning.
LUSEQJB	= Line unit (LU) sequenced job.
MFTTOUT	= Multi-frequency (MF) and touch tone (TT) outpulsing.
PISCAN	= Packet interface (PI) first-in-first-out (FIFO) pointer scanning.
RINGC	= Ringing cycles.
ROHCAD	= Receiver off hook (ROH) cadencing.
SD-PULSING	= MSU signal-distribute pulsing job.
SPFUNLD	= SP transition queue FIFO unloading.
SQUNLD	= Sequence queue unloader.
TONECAD	= Tone cadencing.

y = Recovery action for PC foreground. Valid value(s):

(blank)	= No recovery action taken because the target was not active.
CLEAR	= Abort all scheduled jobs in PC foreground.
PURGE	= The single target job or process was purged.
RPI	= Return to the point of interrupt.

z = Mode of SM operation at the time. Valid value(s):

CONSISTENT	= Hardware consistent with software.
ESSENTIAL	= Essential jobs operational.
MIN-MODE	= Switching module is in a "minimum" mode where normal automatic actions are inhibited.
NORMAL	= Module is in normal full-operation mode.
OPFULL	= All jobs are operational.
RAMDYN	= Dynamic memory consistent.
RAMTXT	= RAM text and data consistent.
RAMWP	= Write-protect placed over appropriate parts of RAM.
SW-RCVY	= Software recovery phase of initialization.
SYSPROC	= All system processes initialized.
UNKNOWN	= Unknown.

a[1] = Unit whose status is being reported. Valid value(s):

MC0

MC1
DLI0
DLI1
LINK-0A
LINK-0B
LINK-1A
LINK-1B
NLI-x-0= Where 'x' is 0-23
NLI-x-1= Where 'x' is 0-23
ONTC0
ONTC1
SMREF-0-0= External timing reference 0 on MCTSI side 0.
SMREF-0-1= External timing reference 1 on MCTSI side 0.
SMREF-1-0= External timing reference 0 on MCTSI side 1.
SMREF-1-1= External timing reference 1 on MCTSI side 1.
UNK= Unknown.

b[1] = Primary status of unit. Valid value(s):

ACT	= Active
ACT-TIMING	= Active, source of system timing for SM.
OOS	= Out-of-service.
STBY	= Standby.
UNAV	= Unavailable to the system.

c[1] = Qualifier status indicating the origin of the request for the change in state. Valid value(s):

AUTO	= Unit was put into current state by system.
FRCD	= CPI force selected configuration.
GROWTH	= Growth.
MAN	= Unit was put into current state manually.
RTNEX	= Unit is being diagnosed by the routine exerciser.
SPGRWTH	= Special growth.

d[1] = Qualifier of the primary status. Valid value(s):

AUOOS	= Unit was taken out of service due to audits.
DGNS	= Unit is being diagnosed.
EX	= Unit is being interactively exercised.
FE	= Unit is in current state due to family-of-equipment considerations (for example, the parent is OOS).
FLT	= Unit contains a fault.
PROOS	= Unit is pre-out-of-service, waiting for a decision from the AM.
PWRALM	= Unit has lost power due to a fault condition.
PWROFF	= Power not being supplied to unit.
REX	= is being routinely exercised.
RMVD	= Unit was removed from service by the system.
TBLA	= Unit passes diagnostics but the system has taken it out of service.
TMP	= Unit is currently a helper for some other unit diagnostic.
UPDT	= Unit memory was being updated.

Note: The following fields are for post mortem evaluation.

e[1] = Recovery progress type when the stimuli occurred, in decimal.

f[1] = Recovery progress counter within the recovery progress type when the stimuli occurred, in decimal.

g[1] = Snapshot of the recovery progress type at the last recovery progress check, in decimal. (The recovery progress check is done in four-second intervals during an initialization.)

h[1] = Snapshot of the recovery progress counter at the last recovery progress check, in decimal. (The recovery progress check is done in four-second intervals during an initialization.)

i[1] = SI recovery variables, in hexadecimal, packed into 32 bits: INallcntr - count of all stimuli (upper 16 bits), INrpicntr - count of RPI stimuli (lower 16 bits).

j[1] = SI recovery variables, in hexadecimal, packed into 32 bits: INsppcntr - count of interrupt requested SPP stimuli (upper 16 bits), INdefcntr - count of ASSERT requested SPP stimuli (lower 16 bits).

k[1] = SI recovery variables, in hexadecimal, packed into 32 bits: INausppcntr - count of AUDIT requested SPP stimuli (upper 16 bits), INdausppcntr - count of deferred SPP stimuli (lower 16 bits).

l[1] = SI recovery variables, in hexadecimal, packed into 32 bits: automatic initialization escalation reason (upper 16 bits), measure of time call processing was turned off due to SPPs and directed audits (1 count equals 30 milliseconds) (lower 16 bits).

m[1] = Unused, in hexadecimal.

n[1] = Reset counter shadow (lower four bits), in hexadecimal, requested TTY level (middle four bits), and number of links up (upper four bits).

o[1] = Pump return code from the previous initialization, in hexadecimal.

p[1] = SMrcvy_level - highest recent hardware recovery level (least significant 8 bits), SMoldrcvy_level - shadow hardware recovery level (next most significant 8 bits), in hexadecimal.

HARDWARE RECOVERY LEVEL	HARDWARE INITIALIZATION LEVEL	INHIBIT STATUS	MINIMUM SOFTWARE INITIALIZATION
0	Level A	None	Return to point of interrupt.
1	Level B	None	Single task purge.
2	Level C	None	Single task purge.
3	Conditional switch Level C	None	Single task purge.
4	Level C	None	Single task purge.
5	Level C	None	Single task purge.
6	Conditional switch Level C	None	Single task purge.
7	Level C	None	Single task purge.
8	Conditional switch Level D	None	Selective initialization.
9	Conditional switch Level D	None	Hash sum and full initialization.
10	Level D	Error Source	Hash sum and full initialization.
11	Unconditional switch Level D	All*	Hash sum and full initialization.
12	Level E	All*	Hash sum and full initialization.
13	Unconditional switch Level E	All*	Hash sum and full initialization.
14	Level F (SM-2000 level E)	All*	Hash sum and full initialization.
15	Unconditional switch Level E	All*	Hash sum and full initialization.

* Conditional, based on escalation counts

Exhibit B: Hardware Initialization Levels

Level	(SM)	(SM-2000)

A	PICs (med, high) interrupt mask refresh.	PICs (med, high) interrupt mask refresh.
B	SDLC, DMA controller, CI, PICs (low, med, high), BTSR interrupt mask refresh.	CI, PICs (low, med, high), BTSR interrupt mask refresh.
C	Same as Level B plus timers, program AUTISS, refresh DLI control paths, PIDB selections, DLI->TSI selection.	Same as Level B plus timers, program AUTISS, refresh TSI clock and data selection, PIDB selections.
D	Same as Level C plus TSIU3 determination.	Same as Level C plus TSIU4 clock refresh.
E	Same as Level D and Force DLIs.	Same as Level D plus change Master NLI.
F	Same as Level E plus change master DLI.	

4. ACTION TO BE TAKEN

Monitor the progress of software recovery. Initiate manual actions if the recovery does not proceed as expected.

If the error is related to the memory system (variable 'h' is CORR-BIT-ERR or MEM-SYSTEM) and the type of memory referenced is not OOR (variable 'n'), there may be something wrong with the memory system hardware. A certain number of CORR-BIT-ERR is normal. A CORR-BIT-ERR indicates that one bit within a word of memory was changed, detected and corrected. It may be considered normal if:

- The errors are scattered randomly among SMs throughout the office.
- An MCTSI is not removed due to CORR-BIT-ERR.

For a 30-SM office, if approximately one or fewer CORR-BIT-ERR occurs per day and occurrences meets the above criteria, the CORR-BIT-ERR can be ignored. MEM-SYSTEM should never be considered normal. If the errors recur but without sufficient frequency to invoke the MCTSI diagnostic, manually invoke the MCTSI diagnostic. If it passes, execute MCTSI diagnostic phase 7 on the suspect side of the SM. If phase 7 passes ATP, there may be an intermittent memory fault that is not detectable by the diagnostics. Replace the suspect memory board(s). To determine the board number, use the failing address in this message (variable 'm') within the procedure described in the Corrective Maintenance manual .

If the error type is related to an SM peripheral (for example, CI PER-DET-BAD-ADDR or TSI DI-ERR-BUFF), then another output message may appear with the same event number indicating the faulty peripheral (for example, a REPT:LUCHAN and a REPT:MSUCOM). If peripheral REPT output messages do not appear, the errors may be occurring too slowly for the peripheral circuit to be removed, causing the messages to be throttled at the SM. Setting the SM in VERBOSE mode will route the peripheral messages to the daylog file, and changing the message class action can cause these messages to print. Refer to the OP:PERPH-SM-SUM and SET:PERPH-SM input messages for further explanation.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CHG:LPS-MSGCLS
INIT:SM
OP:LOG
OP:LPS
OP:PERPH-SM-SUM
OP:POSTMORT
SET:PERPH-SM
```

Output Message(s):

```
OP:LPS
REPT:LUCHAN-TLOT
REPT:LUCHAN-TPDCF
REPT:LUCHAN-TPPF
REPT:LUCHAN-TSF
REPT:LUCHAN-TUSR
REPT:MCTSI-LVL
REPT:MCTSI-MESE
REPT:MSUCOM-TMPSF
REPT:MSUCOM-TPCF
REPT:MSUCOM-TUSR
REPT:SM-CI-HW
REPT:SM-DLI-HW
REPT:SM-HC
REPT:SM-MP-HW
REPT:SM-NLI
REPT:SM-PI-HW
REPT:SM-RLI-HW
REPT:SM-SP-HW
REPT:SM-TSI-HW
REPT:STACK-FRAME
REPT:STACK-TRACE
```

Other Manual(s):
235-105-250 *System Recovery*
235-105-220 *Corrective Maintenance*

REPT:SM-HWLVL-B

Software Release: 5E11 - 5E12
Message Class: INT_MON,INT
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT SM=[a,]b,c HWLVL=d SWLVL=e EVENT=j  k
  f [g] h [i] l FAILING ADDR=m
  PROCESS:BG=r,s,[t] CM=u,[v] FG=w,[x],[y]
```

[2]
```
REPT SM=[a,]b,c HWLVL=d SWLVL=e EVENT=j  k
  f [g] h [i]
  l FAIL-ADDR=m [n]-o  DATA-BUS=p TIME=qq:qq.q
  PROCESS:BG=r,s[,t] CM=u,v FG=w[,x][,y]        z
  ORIG-HW-STATUS: a1: [b1] [c1] [d1] a1: [b1] [c1] [d1]
  FINAL-HW-STATUS: a1: [b1] [c1] [d1] a1: [b1] [c1] [d1]
  PREVIOUS TYPE/COUNT:  e1    f1
  SHADOW TYPE/COUNT:    g1    h1
  AUX DATA:             i1    j1    k1    l1
  ESCALATION-COUNTS:    m1    n1    o1    p1
```

2. REASON FOR OUTPUT

To provide information about the type and source of an interrupt that occurred in the switching module (SM) controller and the resulting level of initialization.

The ORIG-HW-STATUS fields contain the status of both elements of the affected duplex hardware prior to the event. The FINAL-HW-STATUS fields contain the status of the hardware after automatic fault recovery has occurred.

Format 1 is printed and Format 2 is logged unless the message class specifies otherwise (INT and INT_MON respectively). To verify the log/print status, use the OP:LPS input message. To change the log/print status, use the CHG:LPS-MSGCLS input message.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.
Note: When variable '`k`' equals `IN PROGRESS`, the SM number may be 0 or blank. The true number will appear when variable '`k`' equals `COMPLETED`.

`b` = SM side on which the interrupt occurred.

`c` = SM processor status active (ACT) or MATE on the side where the interrupt occurred.

`d` = Level of hardware recovery initiated by fault recovery. Refer to Exhibit A for associated actions and minimum software recovery levels.

`e` = Level of software initialization performed. Valid value(s):
`DA` = Directed audit.

FGI	= Foreground initialization (all foreground jobs cleared).
FI	= Module full initialization.
FI,PUMP	= Module full initialization with full memory pump.
RPI	= Return to point of interrupt.
SA	= Stitched audit (multiple directed audits).
SI	= Module selective initialization.
SI,PUMP	= Module selective initialization with memory pump.
SPP	= Single process purge.
UNK	= Unknown.

f = Reporting hardware subunit that triggered the interrupt, or software stimulus that caused the recovery. Valid value(s):

CI0	= Control interface (CI) 0.
CI1	= Control interface 1.
CI2	= Control interface 2.
CI3	= Control interface 3.
CIK	= Craft intervention key.
DLI0	= Dual link interface (DLI) side 0.
DLI0_MP	= Dual link interface side 0 and module processor.
DLI1	= Dual link interface side 1.
DLI1_MP	= Dual link interface side 1 and module processor.
LK0A	= DLI0 isolated to network control/timing link A.
LK0A_MP	= DLI0 network control/timing link A and module processor.
LK0B	= DLI0 isolated to network control/timing link B.
LK0B_MP	= DLI0 network control/timing link B and module processor.
LK1A	= DLI1 isolated to network control/timing link A.
LK1A_MP	= DLI1 network control/timing link A and module processor.
LK1B	= DLI1 isolated to network control/timing link B.
LK1B_MP	= DLI1 network control/timing link B and module processor.
MP	= Module processor/module controller.
ONTC0	= Office network timing complex side 0.
ONTC1	= Office network timing complex side 1.
ONTCB	= Office network timing complex, both sides.
PI	= Packet interface.
RL_RCLK	= Remote clock interface.
RL_RDFI	= Remote link interface (RLI).
RLA_RDFI	= Remote link interface multiplexor A and remote digital facility interface.
RLB_RDFI	= Remote link interface multiplexor B and remote digital facility interface.
RLI0	= Remote link interface side 0. The RLI consists of a DLI and a facility interface (FI).
RLI1	= Remote link interface side 1. The RLI consists of a DLI and a FI.
SP	= Signal processor.
TSI	= Time slot interchange.
UNK	= Unknown. Normally this indicates that recovery was aborted (check variable 'k'), and the subunit was not reported by the time of the failure.

g = Subunit component reporting the interrupt. The reporting component is the network link interface (NLI) when the subunit is ONTC (0,1) and the SMREF when the subunit is TSI. Valid value(s):

MULT-NLI	= Multiple NLIs are reporting errors.
MULT-SMREF	= Multiple external timing references are associated with the error.

NLI-x = NLI link number reporting an error, where the link number 'x' is 0-23.
SMREF-0 = Error on external timing reference 0.
SMREF-1 = Error on external timing reference 1.

h = Source of the error that caused the interrupt. Valid value(s):
A-ALTERNATE-DATA = The TSI detected an error in the A alternate data.
A-FLIP-FLOP-CLEAR = The A flip flop has been cleared in a running processor.
A-MEM-HI-BYTE = The TSI A random access memory (RAM) memory had bad parity in the high byte.
A-MEM-LO-BYTE = The TSI A RAM had bad parity in the low byte.
A-MEM-MAINT = The TSI A RAM memory maintenance bit was set.
A-MEM-PARITY = The TSI A RAM memory had bad parity.
ACT-CLOCK = The active clock synchronous circuit (CSC) lost either the clock or synchronization signal or both.
ACT-CSC-REFERENCE = The active CSC detected loss of the clock reference used as the source of timing.
ADDR-BUS-PAR-ERR = A parity error was detected by the time slot interchange (TSI) on the address bus from the MP.
ADDR-PARITY-ERR = The address presented to the control interface (CI) by the microprocessor had bad parity.
ADDRESS-PARITY = Bad parity was detected on the address bus.
ADDRESSING-ERR = Word access was attempted on an odd-byte boundary.
ADR-LDSU-PARITY = Bad parity was detected by the TSI on local digital service unit data read from the alternate data RAM.
ASW-FAILURE = A multiple PICB operation failed to return "All Seems Well" for at least one PICB.
ATTENUATOR-ERR = The TSI detected an error in the TSI attenuator.
B-ALTERNATE-DATA = The TSI detected an error in the B alternate data.
B-MEM-HI-BYTE = The TSI B RAM memory had bad parity in the high byte.
B-MEM-LO-BYTE = The TSI B RAM memory had bad parity in the low byte.
B-MEM-MAINT = The TSI B RAM maintenance bit was set.
B-MEM-PARITY = The TSI B RAM memory had bad parity.
BOARD-CLOCK = A TSI board detected a bad clock signal coming from the TSICOM.
BOARD-DATA-PARITY = A TSI board detected a data parity or cyclic redundancy check (CRC) error. The stimulus is bad data, address, or control to or from a CRAM, SRAM or ARAM circuit. The error is either from a switch module processor (SMP) access or internal to the time slot interchange unit (TSIU).
BOARD-HARDWARE-MASK = A TSIU mask register was found to contain an invalid value. The mask register could not be successfully written, so the condition still exists.
BOARD-INTERFACE = A TSI board detected bad data or addresses during an SMP read or write operation.
BOARD-INVALID-DATA = The TSIU detected invalid data in either a control time slot (CTS) register or a CRAM. If a CTS register, then the probable cause is that the CTS dip switches are improperly set. If a CRAM error, the probable stimulus is an invalid SMP access (read or write).
BOARD-SOFTWARE-MASK = A TSIU mask register was found to contain an invalid value. The register has been written with the proper value.
BUFFER-CHECK = The NLI detected a buffer check error.
BUS-ERR = A 680XX bus error exception occurred without resetting. This indicates a failure in the reset source circuitry.
BUS-LOCK-PROT-VIOL-ER = The microprocessor bus is locked. This usually indicates a software problem.

C-MEM-ADR-READ = The alternate data RAM read address of TSI C RAM had bad parity.
C-MEM-ADR-WRITE = The alternate data RAM write address of TSI C RAM had bad parity.
C-MEM-HI-BYTE = The TSI detected bad parity in the high byte of the CRAM memory.
C-MEM-LO-BYTE = The TSI detected bad parity in the high byte of the CRAM memory.
C-MEM-MAINT = The TSI C RAM maintenance bit is set.
CACHE-ERR = An error involving the cache has occurred. The cache can detect parity errors and multiple bank match errors.
CIn-READY-TO = A time-out was encountered while accessing CIn, where n is 0-3.
CMD3-REG-ENABLE = The TSI detected an error in enabling the command register 3 (TSCMD3).
COMMON-CLOCK = The TSICOM detected a bad clock signal from its oscillator. The problem is internal to the TSICOM.
COMMON-DATA-PARITY = The TSIU detected a data parity error during an SMP read operation.
COMMON-INTERFACE = The TSICOM detected bad data or addresses during an SMP read or write operation.
CONTIN-x-OOF-ERROR = Continuous out-of-frame (OOF) errors occurred on link A or B (where 'x' is A or B).
CONTROL-ADD = Error in the control address.
CORE-ADDR-PRESENTED-ER = A memory controller could not find an address in its memory.
CORR-BIT-ERR = Number of single bit errors detected in memory and corrected by the Hamming code exceeded threshold (pre-SM-2000 threshold is one).
CPI-ERROR = An illegal or garbled message was received from the administrative module (AM).
CRC = CRC error associated with the NLI.
CRC-FROM-ACTIVE-TSI = The NLI detected a CRC error on data received from the active TSI.
CRC-FROM-MATE-TSI = The NLI detected a CRC error on data received from the mate TSI.
CSC-PARITY = The CSC detected a parity error on the subunit interface bus.
D-MEM-EVEN = The TSI detected bad parity in one of the even time slots in the DRAM.
D-MEM-ODD = The TSI detected bad parity in one of the odd time slots in the DRAM.
DATA-PARITY-ERR = The data presented to the CI by the microprocessor had bad parity.
DATA-SELECT-ERR = The TSI detected an error during the data selection.
DBL-BUS-ERR = A 680XX reset (exception 0) has occurred, probably due to a double bus error or a double address error.
DECODE-ERROR = An address on the bus was not successfully decoded.
DI-A-OUTPUT = The TSI detected bad parity being sent on the A output to the data interface (DI).
DI-B-OUTPUT = The TSI detected bad parity being sent on the B output to the DI.
DI-DATA-PARITY = The DI detected a data parity error during a read of DI RAM. The stimulus is either an SMP access or an internal access with the DI.
DI-INTERFACE = The DI detected bad data or addresses during an SMP read or write operation.
DI-PIDB-PARITY = The TSI detected bad parity on the data being received from peripheral time slots. The implicated time slots are stored in the DI buffer. If this error occurred on the active module processor time slot interchanger (MCTSI), look for 'PIDB PARITY' error reports with the same event number.
DLI-A-INPUT = The TSI detected bad parity from the DLI A input.
DLI-A-OUTPUT = Bad parity was detected by the TSI on the data sent to DLI A output.
DLI-B-INPUT = The TSI detected bad parity from the DLI B input.
DLI-B-OUTPUT = Bad parity was detected by the TSI on the data sent to the DLI B output.
DLI-INPUT-CLOCK-ERROR = Both DLIs are reporting bad clock input signals from the active MCTSI.
DLI-INTERFACE-ERR = The module processor (MP) detected bad parity on the control time slot data or on a read of DLI registers.
DLI-READY-TIMEOUT = A time-out was encountered while accessing a DLI.
DSU-A-PAR-ERR = A parity error was detected by the TSI from the digital service circuit unit A [local digital service unit (LDSU) service group 0].

DSU-B-PAR-ERR = A parity error was detected by the TSI from the digital service circuit unit B (LDSU service group 1).
DSU-C-PAR-ERR = A parity error was detected by the TSI from the digital service circuit C.
DSU-D-PAR-ERR = A parity error was detected by the TSI from the digital service circuit D.
E-BIT-PARITY = The TSI detected bad parity in the E-bit receive circuit.
E-MEM-EVEN = The TSI detected bad parity in one of the even time slots in the ERAM.
E-MEM-ODD = The TSI detected bad parity in one of the odd time slots in the ERAM.
EQUIPAGE = The TSIU detected that an operational TSIU board has been physically removed from the shelf.
EXCESSIVE-JITTER = The amount of jitter on an external timing reference signal has exceeded its threshold.
EXCPTN-STK-FRM-ER = The microprocessor detected an invalid stack frame format while attempting to return from an exception.
FI-A/B-SLIP = The RLI detected slips between the FI active (A) and back-up (B) references.
FI-ACT-T1-REF = The RLI detected the FI active T1 reference failing.
FI-BACKUP-T1-REF = The RLI detected the back-up T1 reference failing in the FI.
FI-FIDB-A/B-PAR = RLI to DLI facility interface data bus parity error.
FI-FIDx-PARITY = The RLI x multiplexer in the facility interface (FI) detected parity errors on an FI data bus (FIDB) (where 'x' is A or B).
FI-INTERNAL-INTERFACE = The RLI detected parity errors on the FI internal interface.
FI-INTERNAL-REF = The RLI is using the internal oscillator in the FI as the reference.
FI-LINK-x-BUF-ERR = The RLI detected FI buffer errors on link 'x' (where 'x' is A or B).
FI-LINK-x-CLK = The RLI detected that the FI link 'x' clock was stopped (where 'x' is A or B).
FI-LINK-x-LP = The RLI detected that the FI link 'x' was looped (where 'x' is A or B).
FI-LINK-x-OOF = The RLI lost synchronization with the framing bits for link 'x' in the FI (where 'x' is A or B).
FI-LINK-x-RCV-PARITY = The RLI detected FI receive parity errors on link 'x' (where 'x' is A or B).
FI-LINK-x-XMIT-PARITY = The RLI detected FI transmit parity errors on link 'x' (where 'x' is A or B).
FI-LOSS-OF-OSC = The RLI lost the signal from the oscillator in the FI.
FI-MASTER-SLAVE-SLIP = The RLI detected slips between the master and slave RLIs.
FI-MUXx-EQ-RDFI-ACCESS = The RLI 'x' multiplexer in the FI cannot access all the equipped remote digital facilities interface (DFI) circuits (where 'x' is A or B).
FI-MUX-x-FIDB-LP = The RLI detected a FIDB looped in the 'x' multiplexer of the FI (where 'x' is A or B).
FI-MUXx-LI-PARITY = The RLI 'x' multiplexer in the FI received bad parity from the FI link interface (where 'x' is A or B).
FI-MUXx-LNK-INTERFACE-LP = The RLI 'x' multiplexer interface to the link is looped in the FI (where 'x' is A or B).
FI-PLL-SLIP = The RLI detected slips in the FI phase lock loop (PLL) clock.
FI-x-MUX-RCV-ROM = The RLI detected a read-only memory (ROM) or address circuitry failure in the 'x' multiplexer of the FI (where 'x' is A or B).
FI-x-MUX-XMIT-ROM = The RLI detected a transmit ROM circuitry failure in the 'x' multiplexer of the FI (where 'x' is A or B).
FIFO-FULL = The signal processor (SP) buffer that records state changes is full.
FORCED-RESET = A manually generated reset was forced on the central processor intervention (CPI) channel.
FROM-MATE = The reset was generated by the mate controller.
GENERATED-INTERRUPT = The TSI detected an error in the peripheral link interface (PLI).
HARDWARE-RESET = General category for hardware resets as indicated by the reset source register.

`HI-MP-DATA-BUS-PAR` = A parity error was detected by the TSI on the high data byte. Parity on the MP high data bus did not match the parity received by the TSI subunit bus.
`HI-TSI-DATA-BUS-PAR` = A parity error was detected by the TSI on the high data byte. Bad parity on the high byte of the internal TSI data bus was detected.
`HI-TSI-MP-READ-PAR` = A read parity error was detected on the low byte by the TSI. Parity on the MP data bus did not match parity taken out of the TSI RAM.
`HI-TSI-MP-WRITE-PAR` = A parity error was detected by the TSI on a write in the high byte.
`HIT-TIMING-ERR` = The SP detected an error in the hit timing circuit.
`IGNORE-RAM-PARITY` = A parity error was detected in the SP ignore RAM.
`ILLEGAL-AUTOVECTOR` = One of the unused interrupt counters was incremented at the 680X0 processor.
`ILLEGAL-INSTR` = The processor detected an illegal opcode.
`IMPROPER-ADDR-SEL` = The register address presented to the CI by the microprocessor specified a nonexistent register; this includes any attempt to read the 'reset.'
`INTERNAL-DATA-BUS` = The SP detected bad parity on its internal data bus.
`INTERNAL-PARITY` = The NLI detected an internal parity error.
`INTERRUPTS` = A combination of different types of errors occurred simultaneously.
`INVALID-OPERATION` = An invalid operation was attempted, which usually indicates a software problem. An invalid operation is an access of the wrong type to an address, such as byte access of a word register, write to a read only register, access to unequipped I/O or dynamic RAM.
`IO-LOCK` = The input/output (I/O) timer was stopped while the timer was not running, which usually indicates a software problem.
`IO-PARITY` = Bad parity was detected on the I/O bus.
`IO-TIMEOUT` = The I/O timer was expired before being locked. This usually indicates a software problem.
`IO-UNLOCK` = The I/O timer was started while it was already on, which usually indicates a software problem.
`LATCHED-TS-CNTR` = An error was detected in the latched time slot counter.
`LINK-A-BUF-ERR` = A fault was detected on the network control and timing (NCT) link A buffer circuitry.
`LINK-A-CLOCK` = The clock on link A stopped.
`LINK-A-OUTOF-FRAME` = The DLI lost synchronization with the framing bits for link A.
`LINK-A-RCV-PARITY` = The DLI received bad parity from NCT link A.
`LINK-A-XMIT-PARITY` = The DLI received bad parity from the TSI to be transmitted on the A NCT link.
`LINK-ADDR-ERR` = The peripheral interface control bus (PICB) address (bits LA0 through LA4 of the address register), which was presented to the CI by the microprocessor, specified a nonexistent PICB. The CI PERAD register is NOT valid.
`LINK-B-BUF-ERR` = NCT link B buffer circuitry fault detected.
`LINK-B-CLOCK` = The clock on link B stopped.
`LINK-B-OUTOF-FRAME` = The DLI lost synchronization with the framing bits for link B.
`LINK-B-RCV-PARITY` = The DLI received bad parity from NCT link B.
`LINK-B-XMIT-PARITY` = The DLI received bad parity from the TSI to be transmitted on the B NCT link.
`LO-MP-DATA-BUS-PAR` = A parity error was detected on the low byte by the TSI. Parity on the MP low data bus did not match the parity received by the TSI subunit bus.
`LO-TSI-DATA-BUS-PAR` = A parity error was detected on the low byte of the internal TSI data bus.
`LO-TSI-MP-READ-PAR` = A read parity error was detected on the high byte by the TSI. Parity on the MP data bus did not match parity taken out of the TSI RAM.
`LO-TSI-MP-WRITE-PAR` = A parity error was detected by the TSI on a write in the low byte.
`LOSS-OF-SIGNAL` = The TSICOM has detected a bad signal on an external timing reference.

M-RAM-ERR = The SP detected a parity error in its internal M-RAM.
MATE-COMMON-CLOCK = The TSICOM detected a bad clock signal from the mate TSICOM. The clock signal is either the 30 msec synchronization signaler the oscillator signal. The problem is internal to the mate TSICOM.
MATE-READ-WHILE-RUNNING = The active MP side attempted a mate MP read access when the mate MP was running.
MATE-READY-TO = A time-out was encountered while accessing the mate's memory either as a mate only operation or while the mate was in a standby (STBY) state.
MCP-LINK-PARITY-ERR = Bad parity was received by the module processor from the TSI over the MCP link.
MEM-REFRESH-FAIL = A failure occurred while a memory board was being refreshed.
MEM-SYSTEM = An error was detected in the memory complex.
MH0-ERROR = An error was detected on message handler 0.
MH0-INTERRUPT = The module processor received an interrupt from message handler 0.
MH1-ERROR = An error was detected on message handler 1.
MH1-INTERRUPT = The module processor received an interrupt from message handler 1.
MH2-ERROR = An error was detected on message handler 2.
MH2-INTERRUPT = The module processor received an interrupt from message handler 2.
MH-READY-TIMEOUT = A time-out was encountered while accessing a message handler.
MP-ADDR-BUS = The SP received bad parity from the MP address bus.
MP-BAD-PARITY = The DLI received bad parity on the address and data.
MP-DATA-BUS = Data bus error.
MP-READY-TO = A time-out occurred while accessing module processor hardware.
MP-SYNC-ERROR = The module processor scan points have lost synchronization and contain invalid data.
MP-TSI-CLOCK-ERR = The module processor lost either or both the clock and synchronization signal from the TSI.
MULT-RESPONSE = Multiple hardware units responded to the same address.
MULTI-RDY-TO = More than one source indicates a ready time-out (TO) because the operations took too long.
MUX-SELECT-ERR = The 'one-of-n' checkers monitoring the output clock and output data multiplexers have detected an error.
NET-SSP-INPUT = Bad parity was detected by the TSI at the input port on the network side for the smart SP.
NO-CI-ERR-FOUND = The CI interrupted but no error was found in the error source register.
NO-COM-DLI0 = The MCTSI cannot communicate with DLI 0.
NO-COM-DLI1 = The MCTSI cannot communicate with DLI 1.
NO-COM-FI0 = The MCTSI cannot communicate with FI 0.
NO-COM-FI1 = The MCTSI cannot communicate with FI 1.
NO-DLI-ERR-FOUND = The DLI interrupted but no error was found in the error source register.
NO-ERR-SOURCE-FND = No error source register indication.
NO-ERROR = There were no errors found on the reporting NLI(s).
NO-ERROR-FOUND = No error indication.
NO-RESET-FOUND = The MP was interrupted but no error source bit in the error source register was set.
NO-SP-ERR-FOUND = The SP generated an interrupt but no error was found in the error source register.
NO-TSI-ERR-FOUND = The TSI interrupted but no error was indicated in the TSI error source register.
NON-COR-BIT-ERR = A non-correctable bit error occurred during a memory board access.
NOT-IN-ERROR = There was no NLI error found, although the TSI reported that the NLI declared an error.

OUT-OF-FRAME = The NLI detected out of frame errors on data from the ONTC.
OUTPUT-ENERGY-DETECTION = The TSICOM detected the loss of its output energy signal.
OVERHEAD-BYTE-PARITY = The NLI detected a parity error on the overhead bytes from the TSI.
PARITY = The NLI detected a parity error on data from the ONTC.
PARITY-ERROR = Bad parity was detected by the hardware on a read or write of memory.
PER-BAD-PARITY = A peripheral reply message had bad parity.
PER-BAD-START-CODE = A peripheral reply message had a bad start code.
PER-DET-BAD-ADDR = A peripheral detected an addressing error while attempting to do a scan or distribute operation requested by the CI.
PER-DET-BAD-PARITY = A peripheral received bad parity in a message from the CI.
PER-DET-BAD-START = A peripheral received a bad start code on a message from the CI.
PER-SSP-INPUT = The TSI detected bad parity at the input port on the peripheral side for the smart SP.
PI-DARAM-OUT-OF-RANGE-ERR = An error asserted when an attempt was made to access the PI dual access random access memory (DARAM) outside of the valid address spectrum.
PI-ERR-LEAD-SET = The PI has set its error lead, which indicates that some error threshold has been reached.
PI-ERR-NOT-FOUND = The PI generated an interrupt, but no error was found in the PI subunit error source register.
PI-NON-COR-BIT-ERR = A noncorrectable memory error was detected during an SMP read of PI DARAM.
PI-READY-TO = A time-out occurred while accessing the PI.
PI-SIB-PARITY-ERR = Bad parity was detected by the PI hardware during an SMP write to the PI using the subunit interface bus circuitry.
PI-WRITE-PROT-ERR = The SMP has attempted to write to an address in PI DARAM that is write-protected at the subunit interface.
PLL-SLIP = The PLL clock in the DLI slipped more than 256 time slots.
PRIVILEGE-VIOL = A privileged instruction was attempted while not in the supervisor mode.
READ-MODIFY-WRITE-HI = The TSI detected an error on the high byte of a read-modify-write operation.
READ-MODIFY-WRITE-LO = The TSI detected an error on the low byte of a read-modify-write operation.
SANITY-TIMER = A program sanity timer expired before the program was able to reset the timer.
SDLC-A-RCV-PARITY = The DLI received bad parity from synchronous data link controller (SDLC) A.
SDLC-A-XMIT-PARITY = The DLI detected bad parity on the data to be sent to SDLC A.
SDLC-B-RCV-PARITY = The DLI received bad parity from SDLC B.
SDLC-B-XMIT-PARITY = The DLI detected bad parity on the data to be sent to SDLC B.
SOFTWARE-BUS-ERROR = The switching module software caused a bus error implicating the module controller.
SOFTWARE-MASK-PROBLEM = The NLI was declaring an error that should have been masked.
SOFTWARE-RESET = The switching module software caused an entry to the reset handler.
SP-FIFO-FULL = One of the SP buffers that records state changes is full.
SP-INPUT = Bad parity was detected from the SP by the TSI.
SP-READY-TO = A time-out was encountered while accessing the SP.
STACK-PROT-ERR = A process attempted to reference stack space belonging to a different process. May be a stack overflow or a wild write.
STANDBY-CLOCK = The standby CSC lost either or both the clock and synchronization signal.
STANDBY-CSC-REFERENCE = The Standby CSC detected loss of the clock reference used as the source of timing.
SUBUNIT-MISMATCH = The address decoding of subunits in the module controller enabled more

than one of eight subunits.
TIME-OUT-ERROR = A peripheral failed to reply to a message from the CI.
TIME-SLOT-COUNTER = An error was detected in the TSI time slot counter.
TRAP = A single byte interrupt, a division by zero, a single step, or an unimplemented software interrupt was executed. Usually indicates a software problem.
TSI-ADDR-BUS = A parity error was detected by the TSI on the internal TSI address bus.
TSI-CRC = The TSI detected CRC errors on data received from the NLI.
TSI-DATA-ERR = The SP detected bad parity on data from the TSI.
TSI-LOSS-OF-CLOCK = The TSI detected a loss of the clock signal from the NLI.
TSI-LOSS-OF-CLOCK-REFERENCE = The TSICOM detected loss of the clock reference from the NLI being used as the source of timing.
TSI-OVERHEAD-PARITY = The TSI detected a parity error on the overhead bytes from the NLI.
TSI-READY-TO = A time-out was encountered while accessing the TSI.
TSI-SYNCHRONIZATION = The TSI detected a synchronization error with the NLI.
UNEXPECTED-INTERRUPT = An interrupt that should not occur was detected.
UNEXPECTED-QUICC-INTERRUPT = The active MP received an unexpected interrupt from the quad integrated communications controller (QUICC).
UNK-SRC = Error source unknown.
UNRECOG-UT-TRAP = One of the exceptions assigned to generic utilities was raised, but the utilities subsystem (UT) did not accept the exception.
UNUSED-EXCEPTION = A processor exception that is not used by the software release occurred.
UNUSED-SW-TRAP = A TRAP instruction that is not used by the current software release was executed.
UNUSED-TEXT-EXEC = A bad transfer vector (TV) slot was used or a wild transfer occurred, causing memory not used by the current software release code to be executed.
UPDATE-BUS-ACCESS-ER = The module processor detected an access error on the update bus. The mate MCTSI may be unavailable.
WRITE-PROT-ERR = A write was attempted to a write-protected address, which usually indicates a software problem.
XMT-TSI-DATA = A parity error was detected by the TSI on data from the transmit TSI RAM.
ZERO-DIVIDE = An attempt to divide by zero was detected.

i = Supplementary information on software error sources relating to the preceding hardware source of the error (variable 'h'). Valid value(s):
AUTO-PUMP-REQUEST = Recovery has reached a level that requires a pump and raise the recovery level.
CI-AUDIT-FAIL = CI audit detected two failures from the peripheral units (PUs) that exceeded the threshold of 2. This results in an MCTSI switch.
CRIT-UNIT-DUPLEX-FAIL = SI's limit of one critical unit duplex failure was exceeded during initialization. Critical units include pumpable LDSU, integrated services line unit (ISLU), and packet switch unit (PSU).
DATA-VALIDATION-FAIL = Range and consistency checks on recovery data failed.
DLI-CLOCK-FAILURE = A software sanity timer interrupt occurred due to a DLI clock or power failure. The purpose of this is to switch MCTSIs immediately.
EXCESSIVE-DCF = A count of asserts (defensive check failures) has exceeded the threshold.
EXCESSIVE-DEMAND-AUD = Non-segmented demand audits have been taking too much time away from call processing.
EXCESSIVE-ERROR-50 = SI's count of escalating events in the last 30 seconds has exceeded 50. This results in a MP reset and SPP.
EXCESSIVE-ERROR-75 = SI's count of escalating events in the last 30 seconds has exceeded 75. This results in a MP switch and a single process purge (SPP).

EXCESSIVE-ERROR-100 = SI's count of escalating events in the last 30 seconds has exceeded 100. This results in selective initialization escalation.
EXCESSIVE-INTRPTS = A count of interrupts has exceeded the threshold.
EXCESSIVE-RESETS = A count of non-maskable interrupts has exceeded the threshold.
EXCESSIVE-RPI = Too many errors with software recovery action "return to point of interrupt (RPI)" have occurred (variable 'e').
EXCESSIVE-SPP = A count of level 1 initializations has exceeded the threshold.
GENERIC-RETROFIT = This event occurred during a software release retrofit, software release update, large terminal growth, or after a retrofit SM switch.
INTERJECT-FAILURE = Call processing interject faulted.
INVALID-STACK = High-level initialization was attempted on a stack other than the recovery stack.
LVL-3-FAILURE = Lack of level 3 protocol messages exchanged between the SM and the AM.
MANUAL-REQUEST = This is a user-initiated initialization.
MCB-EXHAUST = The message control block resource was found to be exhausted.
MH-RECOVERY = Excessive errors have been detected on a message handler on the active MCTSI.
NO-CALL-PROC-FUNC = Switching module integrity control (MICO) system process detected no call processing functionality at the end of initialization.
NO-RCVY-PROGRESS = There is a lack of positive progress in an already active recovery. Twenty-four seconds have elapsed without any progress.
PCB-EXHAUST = The process control block resource was found to be exhausted.
PI-RECOVERY = Excessive errors have been detected on the packet interface subunit of the active MCTSI. During SM initializations, this means that the subunit is failing to initialize. During normal operation, this error code indicates that background recovery software has detected error conditions too often.
PKB-EXHAUST = The packet buffer data block resource was found to be exhausted.
POWERUP = The SM memory on this side is in a state that makes it unreliable, such as after power cycling or diagnostics.
PROGRAM-LOOP = A program loop is not allowing the integrity monitor to run its background progress.
PUMP-COMMUNICATION = Pump in the SM failed to communicate with pump in the AM.
PUMP-FAILURE = A timeout occurred while the pump program was waiting for messages from the AM.
PUMP-PREEMPTED = Pump in the SM was preempted by pump in the AM.
PUMP-SYNC = Pump in the SM lost synchronization with pump in the AM.
RCVY-RESOURCE-SHORT = There is a lack of OSDS (SM operating system) resources, usually timers.
REAL-TIME-CNTR-FAIL = A hardware timer (driven off the DLI timing) is slipping substantially when compared to the 10-millisecond software timing. Hardware fault recovery is being invoked to reinitialize the timer hardware and possibly reconfigure the SM.
RESTART-RCVY = An error occurred during recovery. A restart occurred.
SCB-EXHAUST = The stack control block resource was found to be exhausted.
SW-RCVY-ERROR = Recovery software detected insanity or an assert was processed before completion of recovery.
TCB-EXHAUST = The timer control block resource was found to be exhausted.

j = Event number.

k = Termination report. Valid value(s):
ABORTED = The current job did not complete before being interrupted by another stimulus.
COMPLETED = The indicated or requested action has completed.

IN PROGRESS = The data dump is preliminary information on the job currently executing in read-only memory code. As a consequence, the SM number may be zero or blank. This output message will be followed by a short version of the format when the job has completed.

l = Type of error (probable cause, internal counters affected). Valid value(s):

- HW-ERR = Hardware error.
- SW-ERR = Software error.
- UNK-ERR = Unknown - recovery probably aborted, refer to variable 'k' and look for succeeding reports.

m = Address on the address bus at the time of the interrupt (hexadecimal).

n = Type of memory referenced by failing address (only when variable 'f' indicates MP errors). Valid value(s):

- DATA = Address that contains data accessed by the program.
- DRAM = Read/write memory using dynamic RAM devices.
- IO = Address range for accessing hardware.
- MH0RAM = Message handler 0 random access memory.
- MH1RAM = Message handler 1 random access memory.
- MH2RAM = Message handler 2 random access memory.
- OOR = Address is out of a valid range.
- ROM = Read-only memory.
- SRAM = Read/write memory using static RAM devices.
- TEXT = Address that contains program text (instructions).

o = Type of access being performed at failing address. Valid value(s):

- READ = The specified address was being read when the error occurred.
- UNK = Access type not determined for this message type (variable 'f' does not indicate an MP error), or the type has not yet been determined (variable 'k' is IN PROGRESS) or the event was aborted before the access type could be determined (variable 'k' is ABORTED).
- WRITE = The specified address was being written when the error was recognized.

p = Raw data on the data bus at the time of the interrupt, in hexadecimal (MP errors only).

q = Time when the interrupt occurred, in the form minute:seconds:tenths of second.

r = Process ID of the running background (BG) process in OSDS.

s = Uniqueness field of the running BG process in OSDS.

t = Recovery action for OSDS process. Valid value(s):

- (blank) = No recovery action because the target was not active.
- PURGE = Single process was purged.
- RPI = Return to point of interrupt.

u = State of the communication software. Valid value(s):

- A-CR = The SDLC combined receive interrupt handler was active on SDLC A.

A-RECV	= The SDLC A receive interrupt handler was active.
A-TRANS	= The SDLC A transmit interrupt handler was active.
ACR-ARECV	= The SDLC A receive interrupt handler was interrupted by the SDLC A combined receive handler, and the SDLC A combined receive handler was active at the time of the error.
ACR-ATRANS	= The SDLC A transmit interrupt handler was interrupted by the SDLC A combined receive handler, and the SDLC A combined receive handler was active at the time of the error.
ACR-BRECV	= The SDLC B receive interrupt handler was interrupted by the SDLC A combined receive handler, and the SDLC A combined receive handler was active at the time of the error.
ACR-BTRANS	= The SDLC B transmit interrupt handler was interrupted by the SDLC A combined receive handler, and the SDLC A combined receive handler was active at the time of the error.
ACTIVE	= The CM is active but which action on which link can not be determined.
B-CR	= The SDLC combined receive handler was active on the SDLC B.
B-RECV	= The SDLC B was receiving.
B-TRANS	= The SDLC B was transmitting.
BASE	= CM was called from the base level environment.
BCR-ARECV	= The SDLC A receive interrupt handler was interrupted by the SDLC B combined receive handler, and the SDLC B combined receive handler was active at the time of the error.
BCR-ATRANS	= The SDLC A transmit interrupt handler was interrupted by the SDLC B combined receive handler, and the SDLC B combined receive handler was active at the time of the error.
BCR-BRECV	= The SDLC B receive interrupt handler was interrupted by the SDLC B combined receive handler, and the SDLC B combined receive handler was active at the time of the error.
BCR-BTRANS	= The SDLC B transmit interrupt handler was interrupted by the SDLC B combined receive handler, and the SDLC B combined receive handler was active at the time of the error.
HP-RECV	= CM was unloading messages from the high priority peripheral MH FIFO.
HP-TRANS	= CM was sending messages to the high priority peripheral MH FIFO.
LP-RECV	= CM was unloading messages from the low priority peripheral MH FIFO.
LP-TRANS	= CM was sending messages to the low priority peripheral MH FIFO.
MTCE-RECV	= The CM was unloading messages from the MTCE MH FIFO.
MTCE-TRANS	= The CM was sending messages to the MTCE MH FIFO.
NONE	= CM was not active.
NOT-APPL	= Not applicable. The SM-2000 does not have SDLCs, therefore field 'u' does not apply. Also, field 'v' will be blank for SM-2000.
OSDS-RECV	= The CM was unloading messages from the OSDS MH FIFO.
OSDS-TRANS	= The CM was sending messages to the OSDS MH FIFO.

v = Recovery action for CM software. Valid value(s):

(blank)	= No recovery action taken because the target was not active.
CLEAR	= Aborted all scheduled jobs in CM foreground.
PURGE	= The single target job or process was purged.
RPI	= Return to the point of interrupt.

w = State of foreground activity. Valid value(s):

CM	= The communication package was executing.

INTMON	= The system integrity monitor was executing.
NONE	= Foreground (10-millisecond interrupt) was not being served.
NONPC	= Foreground was being served for an indeterminable job other than PC.
OSDS	= OSDS work for 10-millisecond interrupt was executing.
PC	= Peripheral control foreground was executing. Refer to variable 'x' for further information.

x = The type of PC foreground activity that was being performed. Valid value(s):

(blank)	= No PC foreground jobs were active.
CCB10T	= Channel control block (CCB) 10-millisecond timer (1-second clock).
CCB50T	= CCB 50-millisecond timer (6-second clock).
CHDB10T	= Channel data block (CHDB) 10-millisecond timer (1-second clock).
CHDB50T	= CHBD 50-millisecond timer (6-second clock).
CISCAN	= CI scanning.
DPOUT	= Dial pulse outpulsing.
EBTSCAN	= E-bit scanning.
ETONE-NET	= Enhanced tone cadencing in the network direction.
ETONE-PER	= Enhanced tone cadencing in the peripheral direction.
FGCADTL1	= Foreground (FG) tone cadencing, list 1.
FGCADTL2	= FG cadencing, timing list 2.
IQUNLD	= Immediate sequence queue unloader.
ISLURING	= Integrated services line unit-Z (ISLU-Z) ring cadencing.
LCNSCAN	= Line concentrator summary scanning.
LUSEQJB	= Line unit (LU) sequenced job.
MFTTOUT	= Multi-frequency (MF) and touch tone (TT) outpulsing.
PISCAN	= Packet interface (PI) first-in-first-out (FIFO) pointer scanning.
RINGC	= Ringing cycles.
ROHCAD	= Receiver off hook (ROH) cadencing.
SD-PULSING	= MSU signal-distribute pulsing job.
SPFUNLD	= SP transition queue FIFO unloading.
SQUNLD	= Sequence queue unloader.
TONECAD	= Tone cadencing.

y = Recovery action for PC foreground. Valid value(s):

(blank)	= No recovery action taken because the target was not active.
CLEAR	= Abort all scheduled jobs in PC foreground.
PURGE	= The single target job or process was purged.
RPI	= Return to the point of interrupt.

z = Mode of SM operation at the time. Valid value(s):

CONSISTENT	= Hardware consistent with software.
ESSENTIAL	= Essential jobs operational.
MIN-MODE	= Switching module is in a "minimum" mode where normal automatic actions are inhibited.
NORMAL	= Module is in normal full-operation mode.
OPFULL	= All jobs are operational.
RAMDYN	= Dynamic memory consistent.
RAMTXT	= RAM text and data consistent.
RAMWP	= Write-protect placed over appropriate parts of RAM.

SW-RCVY = Software recovery phase of initialization.
SYSPROC = All system processes initialized.
UNKNOWN = Unknown.

a[1] = Unit whose status is being reported. Valid value(s):
MC0
MC1
DLI0
DLI1
LINK-0A
LINK-0B
LINK-1A
LINK-1B
NLI-x-0 = Where 'x' is 0-23
NLI-x-1 = Where 'x' is 0-23
ONTC0
ONTC1
SMREF-0-0 = External timing reference 0 on MCTSI side 0.
SMREF-0-1 = External timing reference 1 on MCTSI side 0.
SMREF-1-0 = External timing reference 0 on MCTSI side 1.
SMREF-1-1 = External timing reference 1 on MCTSI side 1.
UNK = Unknown.

b[1] = Primary status of unit. Valid value(s):
ACT = Active
ACT-TIMING = Active, source of system timing for SM.
OOS = Out-of-service.
STBY = Standby.
UNAV = Unavailable to the system.

c[1] = Qualifier status indicating the origin of the request for the change in state. Valid value(s):
AUTO = Unit was put into current state by system.
FRCD = CPI force selected configuration.
GROWTH = Growth.
MAN = Unit was put into current state manually.
RTNEX = Unit is being diagnosed by the routine exerciser.
SPGRWTH = Special growth.

d[1] = Qualifier of the primary status. Valid value(s):
AUOOS = Unit was taken out of service due to audits.
DGNS = Unit is being diagnosed.
EX = Unit is being interactively exercised.
FE = Unit is in current state due to family-of-equipment considerations (for example, the parent is OOS).
FLT = Unit contains a fault.
PROOS = Unit is pre-out-of-service, waiting for a decision from the AM.
PWRALM = Unit has lost power due to a fault condition.
PWROFF = Power not being supplied to unit.
REX = is being routinely exercised.
RMVD = Unit was removed from service by the system.

TBLA = Unit passes diagnostics but the system has taken it out of service.
TMP = Unit is currently a helper for some other unit diagnostic.
UPDT = Unit memory was being updated.

Note: The following fields are for post mortem evaluation.

e[1] = Recovery progress type when the stimuli occurred, in decimal.

f[1] = Recovery progress counter within the recovery progress type when the stimuli occurred, in decimal.

g[1] = Snapshot of the recovery progress type at the last recovery progress check, in decimal. (The recovery progress check is done in four-second intervals during an initialization.)

h[1] = Snapshot of the recovery progress counter at the last recovery progress check, in decimal. (The recovery progress check is done in four-second intervals during an initialization.)

i[1] = SI recovery variables, in hexadecimal, packed into 32 bits: INallcntr - count of all stimuli (upper 16 bits), INrpicntr - count of RPI stimuli (lower 16 bits).

j[1] = SI recovery variables, in hexadecimal, packed into 32 bits: INsppcntr - count of interrupt requested SPP stimuli (upper 16 bits), INdefcntr - count of ASSERT requested SPP stimuli (lower 16 bits).

k[1] = SI recovery variables, in hexadecimal, packed into 32 bits: INausppcntr - count of AUDIT requested SPP stimuli (upper 16 bits), INdausppcntr - count of deferred SPP stimuli (lower 16 bits).

l[1] = SI recovery variables, in hexadecimal, packed into 32 bits: automatic initialization escalation reason (upper 16 bits), measure of time call processing was turned off due to SPPs and directed audits (1 count equals 30 milliseconds) (lower 16 bits).

m[1] = Unused, in hexadecimal.

n[1] = Reset counter shadow (lower four bits), in hexadecimal, requested TTY level (middle four bits), and number of links up (upper four bits).

o[1] = Pump return code from the previous initialization, in hexadecimal.

p[1] = SMrcvy_level - highest recent hardware recovery level (least significant 8 bits), SMoldrcvy_level - shadow hardware recovery level (next most significant 8 bits), in hexadecimal.

Exhibit A: Hardware And Software Recovery Levels

HARDWARE RECOVERY LEVEL	HARDWARE INITIALIZATION LEVEL	INHIBIT STATUS	MINIMUM SOFTWARE INITIALIZATION
0	Level A	None	Return to point of interrupt.
1	Level B	None	Single task purge.
2	Level C	None	Single task purge.
3	Conditional switch Level C	None	Single task purge.
4	Level C	None	Single task purge.
5	Level C	None	Single task purge.
6	Conditional switch Level C	None	Single task purge.
7	Level C	None	Single task purge.
8	Conditional switch Level D	None	Selective initialization.
9	Conditional switch Level D	None	Hash sum and full initialization.
10	Level D	Error Source	Hash sum and full initialization.
11	Unconditional switch Level D	All*	Hash sum and full initialization.

12	Level E	All*	Hash sum and full initialization.
13	Unconditional switch Level E	All*	Hash sum and full initialization.
14	Level F (SM-2000 level E)	All*	Hash sum and full initialization.
15	Unconditional switch Level E	All*	Hash sum and full initialization.

* Conditional, based on escalation counts

Exhibit B: Hardware Initialization Levels

Level	(SM)	(SM-2000)
A	PICs (med, high) interrupt mask refresh.	PICs (med, high) interrupt mask refresh.
B	SDLC, DMA controller, CI, PICs (low, med, high), BTSR interrupt mask refresh.	CI, PICs (low, med, high), BTSR interrupt mask refresh.
C	Same as Level B plus timers, program AUTISS, refresh DLI control paths, PIDB selections, DLI->TSI selection.	Same as Level B plus timers, program AUTISS, refresh TSI clock and data selection, PIDB selections.
D	Same as Level C plus TSIU3 determination.	Same as Level C plus TSIU4 clock refresh.
E	Same as Level D and Force DLIs.	Same as Level D plus change Master NLI.
F	Same as Level E plus change master DLI.	

4. ACTIONS TO BE TAKEN

Monitor the progress of software recovery. Initiate manual actions if the recovery does not proceed as expected.

If the error is related to the memory system (variable 'h' is CORR-BIT-ERR or MEM-SYSTEM) and the type of memory referenced is not OOR (variable 'n'), there may be something wrong with the memory system hardware. A certain number of CORR-BIT-ERR is normal. A CORR-BIT-ERR indicates that one bit within a word of memory was changed, detected and corrected. It may be considered normal if:

- The errors are scattered randomly among SMs throughout the office.
- An MCTSI is not removed due to CORR-BIT-ERR.

For a 30-SM office, if approximately one or fewer CORR-BIT-ERR occurs per day and occurrences meets the above criteria, the CORR-BIT-ERR can be ignored. MEM-SYSTEM should never be considered normal. If the errors recur but without sufficient frequency to invoke the MCTSI diagnostic, manually invoke the MCTSI diagnostic. If it passes, execute MCTSI diagnostic phase 7 on the suspect side of the SM. If phase 7 passes ATP, there may be an intermittent memory fault that is not detectable by the diagnostics. Replace the suspect memory board(s). To determine the board number, use the failing address in this message (variable 'm') within the procedure described in the Corrective Maintenance manual.

If the error type is related to an SM peripheral (for example, CI PER-DET-BAD-ADDR or TSI DI-PIDB-PARITY), then another output message may appear with the same event number indicating the faulty peripheral (for example, a REPT:LUCHAN and a REPT:MSUCOM). If peripheral REPT output messages do not appear, the errors may be occurring too slowly for the peripheral circuit to be removed, causing the messages to be throttled at the SM. Setting the SM in VERBOSE mode will route the peripheral messages to the daylog file, and changing the message class action can cause these messages to print. Refer to the OP:PERPH-SM-SUM and SET:PERPH-SM input messages for further explanation.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CHG:LPS-MSGCLS
INIT:SM
```

```
OP:LOG
OP:LPS
OP:PERPH-SM-SUM
OP:POSTMORT
SET:PERPH-SM
```

Output Message(s):

```
OP:LPS
REPT:LUCHAN-TLOT
REPT:LUCHAN-TPDCF
REPT:LUCHAN-TPPF
REPT:LUCHAN-TSF
REPT:LUCHAN-TUSR
REPT:MCTSI-LVL
REPT:MCTSI-MESE
REPT:MSUCOM-TMPSF
REPT:MSUCOM-TPCF
REPT:MSUCOM-TUSR
REPT:SM-CI-HW
REPT:SM-DLI-HW
REPT:SM-HC
REPT:SM-MP-HW
REPT:SM-NLI
REPT:SM-PI-HW
REPT:SM-RLI-HW
REPT:SM-SP-HW
REPT:SM-TSI-HW
REPT:STACK-FRAME
REPT:STACK-TRACE
```

Other Manual(s):
235-105-250 *System Recovery*
235-105-220 *Corrective Maintenance*

REPT:SM-HWLVL-C

Software Release: 5E13 and later
Message Class: INT_MON,INT
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT SM=[a,]b,c HWLVL=d SWLVL=e EVENT=j  k
  f [g] h [i] l FAILING ADDR=m
  PROCESS:BG=r,s,[t] CM=u,[v] FG=w,[x],[y]
```

[2]
```
REPT SM=[a,]b,c HWLVL=d SWLVL=e EVENT=j  k
  f [g] h [i]
  l FAIL-ADDR=m [n]-o  DATA-BUS=p TIME=qq:qq.q
  PROCESS:BG=r,s[,t] CM=u,v FG=w[,x][,y]        z
  ORIG-HW-STATUS: a1: [b1] [c1] [d1] a1: [b1] [c1] [d1]
  FINAL-HW-STATUS: a1: [b1] [c1] [d1] a1: [b1] [c1] [d1]
  PREVIOUS TYPE/COUNT:  e1    f1
  SHADOW TYPE/COUNT:    g1    h1
  AUX DATA:             i1    j1    k1    l1
  ESCALATION-COUNTS:    m1    n1    o1    p1
```

2. REASON FOR OUTPUT

To provide information about the type and source of an interrupt that occurred in the switching module (SM) controller and the resulting level of initialization. The ORIG-HW-STATUS fields contain the status of both elements of the affected duplex hardware prior to the event. The FINAL-HW-STATUS fields contain the status of the hardware after automatic fault recovery has occurred. Format 1 is printed and Format 2 is logged unless the message class specifies otherwise (INT and INT_MON respectively). To verify the log/print status, use the OP:LPS input message. To change the log/print status, use the CHG:LPS-MSGCLS input message.

3. VARIABLE FIELD DEFINITIONS

a = SM number.
Note: When variable 'k' equals IN PROGRESS, the SM number may be 0 or blank. The true number will appear when variable 'k' equals COMPLETED.

b = SM side on which the interrupt occurred.

c = SM processor status active (ACT) or MATE on the side where the interrupt occurred.

d = Level of hardware recovery initiated by fault recovery. Refer to Exhibit A for associated actions and minimum software recovery levels.

e = Level of software initialization performed. Valid value(s):
- DA = Directed audit.
- FGI = Foreground initialization (all foreground jobs cleared).
- FI = Module full initialization.
- FI,PUMP = Module full initialization with full memory pump.

RPI = Return to point of interrupt.
SA = Stitched audit (multiple directed audits).
SI = Module selective initialization.
SI,PUMP = Module selective initialization with memory pump.
SPP = Single process purge.
UNK = Unknown.

f = Reporting hardware subunit that triggered the interrupt, or software stimulus that caused the recovery. Valid value(s):

CI0 = Control interface (CI) 0.
CI1 = Control interface 1.
CI2 = Control interface 2.
CI3 = Control interface 3.
CIK = Craft intervention key.
DLI0 = Dual link interface (DLI) side 0.
DLI0_MP = Dual link interface side 0 and module processor.
DLI1 = Dual link interface side 1.
DLI1_MP = Dual link interface side 1 and module processor.
LK0A = DLI0 isolated to network control/timing link A.
LK0A_MP = DLI0 network control/timing link A and module processor.
LK0B = DLI0 isolated to network control/timing link B.
LK0B_MP = DLI0 network control/timing link B and module processor.
LK1A = DLI1 isolated to network control/timing link A.
LK1A_MP = DLI1 network control/timing link A and module processor.
LK1B = DLI1 isolated to network control/timing link B.
LK1B_MP = DLI1 network control/timing link B and module processor.
MP = Module processor/module controller.
ONTC0 = Office network timing complex side 0.
ONTC1 = Office network timing complex side 1.
ONTCB = Office network timing complex, both sides.
PI = Packet interface.
RL_RCLK = Remote clock interface.
RL_RDFI = Remote link interface (RLI).
RLA_RDFI = Remote link interface multiplexor A and remote digital facility interface.
RLB_RDFI = Remote link interface multiplexor B and remote digital facility interface.
RLI0 = Remote link interface side 0. The RLI consists of a DLI and a facility interface (FI).
RLI1 = Remote link interface side 1. The RLI consists of a DLI and a FI.
SP = Signal processor.
TSI = Time slot interchange.
UNK = Unknown. Normally this indicates that recovery was aborted (check variable 'k'), and the subunit was not reported by the time of the failure.

g = Subunit component reporting the interrupt. The reporting component is the network link interface (NLI) when the subunit is ONTC (0,1) and the SMREF when the subunit is TSI. Valid value(s):

MULT-NLI = Multiple NLIs are reporting errors.
MULT-SMREF = Multiple external timing references are associated with the error.
NLI-x = NLI link number reporting an error, where the link number 'x' is 0-23.
SMREF-0 = Error on external timing reference 0.
SMREF-1 = Error on external timing reference 1.

h = Source of the error that caused the interrupt. Valid value(s):

A-ALTERNATE-DATA = The TSI detected an error in the A alternate data.

A-FLIP-FLOP-CLEAR = The A flip flop has been cleared in a running processor.

A-MEM-HI-BYTE = The TSI A random access memory (RAM) memory had bad parity in the high byte.

A-MEM-LO-BYTE = The TSI A RAM had bad parity in the low byte.

A-MEM-MAINT = The TSI A RAM memory maintenance bit was set.

A-MEM-PARITY = The TSI A RAM memory had bad parity.

ACT-CLOCK = The active clock synchronous circuit (CSC) lost either the clock or synchronization signal or both.

ACT-CSC-REFERENCE = The active CSC detected loss of the clock reference used as the source of timing.

ADDR-BUS-PAR-ERR = A parity error was detected by the time slot interchange (TSI) on the address bus from the MP.

ADDR-PARITY-ERR = The address presented to the control interface (CI) by the microprocessor had bad parity.

ADDRESS-PARITY = Bad parity was detected on the address bus.

ADDRESSING-ERR = Word access was attempted on an odd-byte boundary.

ADR-LDSU-PARITY = Bad parity was detected by the TSI on local digital service unit data read from the alternate data RAM.

ASW-FAILURE = A multiple PICB operation failed to return "All Seems Well" for at least one PICB.

ATTENUATOR-ERR = The TSI detected an error in the TSI attenuator.

B-ALTERNATE-DATA = The TSI detected an error in the B alternate data.

B-MEM-HI-BYTE = The TSI B RAM memory had bad parity in the high byte.

B-MEM-LO-BYTE = The TSI B RAM memory had bad parity in the low byte.

B-MEM-MAINT = The TSI B RAM maintenance bit was set.

B-MEM-PARITY = The TSI B RAM memory had bad parity.

BOARD-CLOCK = A TSI board detected a bad clock signal coming from the TSICOM.

BOARD-DATA-PARITY = A TSI board detected a data parity or cyclic redundancy check (CRC) error. The stimulus is bad data, address, or control to or from a CRAM, SRAM or ARAM circuit. The error is either from a switch module processor (SMP) access or internal to the time slot interchange unit (TSIU).

BOARD-HARDWARE-MASK = A TSIU mask register was found to contain an invalid value. The mask register could not be successfully written, so the condition still exists.

BOARD-INTERFACE = A TSI board detected bad data or addresses during an SMP read or write operation.

BOARD-INVALID-DATA = The TSIU detected invalid data in either a control time slot (CTS) register or a CRAM. If a CTS register, then the probable cause is that the CTS dip switches are improperly set. If a CRAM error, the probable stimulus is an invalid SMP access (read or write).

BOARD-SOFTWARE-MASK = A TSIU mask register was found to contain an invalid value. The register has been written with the proper value.

BUFFER-CHECK = The NLI detected a buffer check error.

BUS-ERR = A 680XX bus error exception occurred without resetting. This indicates a failure in the reset source circuitry.

BUS-LOCK-PROT-VIOL-ER = The microprocessor bus is locked. This usually indicates a software problem.

C-MEM-ADR-READ = The alternate data RAM read address of TSI C RAM had bad parity.

C-MEM-ADR-WRITE = The alternate data RAM write address of TSI C RAM had bad parity.

C-MEM-HI-BYTE = The TSI detected bad parity in the high byte of the CRAM memory.

C-MEM-LO-BYTE = The TSI detected bad parity in the high byte of the CRAM memory.

`C-MEM-MAINT` = The TSI C RAM maintenance bit is set.
`CACHE-ERR` = An error involving the cache has occurred. The cache can detect parity errors and multiple bank match errors.
`CIn-READY-TO` = A time-out was encountered while accessing CIn, where n is 0-3.
`CMD3-REG-ENABLE` = The TSI detected an error in enabling the command register 3 (TSCMD3).
`COMMON-CLOCK` = The TSICOM detected a bad clock signal from its oscillator. The problem is internal to the TSICOM.
`COMMON-DATA-PARITY` = The TSIU detected a data parity error during an SMP read operation.
`COMMON-INTERFACE` = The TSICOM detected bad data or addresses during an SMP read or write operation.
`CONTIN-x-OOF-ERROR` = Continuous out-of-frame (OOF) errors occurred on link A or B (where '`x`' is A or B).
`CONTROL-ADD` = Error in the control address.
`CORE-ADDR-PRESENTED-ER` = A memory controller could not find an address in its memory.
`CORR-BIT-ERR` = Number of single bit errors detected in memory and corrected by the Hamming code exceeded threshold (pre-SM-2000 threshold is one).
`CPI-ERROR` = An illegal or garbled message was received from the administrative module (AM).
`CRC` = CRC error associated with the NLI.
`CRC-FROM-ACTIVE-TSI` = The NLI detected a CRC error on data received from the active TSI.
`CRC-FROM-MATE-TSI` = The NLI detected a CRC error on data received from the mate TSI.
`CSC-PARITY` = The CSC detected a parity error on the subunit interface bus.
`D-MEM-EVEN` = The TSI detected bad parity in one of the even time slots in the DRAM.
`D-MEM-ODD` = The TSI detected bad parity in one of the odd time slots in the DRAM.
`DATA-PARITY-ERR` = The data presented to the CI by the microprocessor had bad parity.
`DATA-SELECT-ERR` = The TSI detected an error during the data selection.
`DBL-BUS-ERR` = A 680XX reset (exception 0) has occurred, probably due to a double bus error or a double address error.
`DECODE-ERROR` = An address on the bus was not successfully decoded.
`DI-A-OUTPUT` = The TSI detected bad parity being sent on the A output to the data interface (DI).
`DI-B-OUTPUT` = The TSI detected bad parity being sent on the B output to the DI.
`DI-DATA-PARITY` = The DI detected a data parity error during a read of DI RAM. The stimulus is either an SMP access or an internal access with the DI.
`DI-INTERFACE` = The DI detected bad data or addresses during an SMP read or write operation.
`DI-PIDB-PARITY` = The TSI detected bad parity on the data being received from peripheral time slots. The implicated time slots are stored in the DI buffer. If this error occurred on the active module processor time slot interchanger (MCTSI), look for 'PIDB PARITY' error reports with the same event number.
`DLI-A-INPUT` = The TSI detected bad parity from the DLI A input.
`DLI-A-OUTPUT` = Bad parity was detected by the TSI on the data sent to DLI A output.
`DLI-B-INPUT` = The TSI detected bad parity from the DLI B input.
`DLI-B-OUTPUT` = Bad parity was detected by the TSI on the data sent to the DLI B output.
`DLI-INPUT-CLOCK-ERROR` = Both DLIs are reporting bad clock input signals from the active MCTSI.
`DLI-INTERFACE-ERR` = The module processor (MP) detected bad parity on the control time slot data or on a read of DLI registers.
`DLI-READY-TIMEOUT` = A time-out was encountered while accessing a DLI.
`DSU-A-PAR-ERR` = A parity error was detected by the TSI from the digital service circuit unit A [local digital service unit (LDSU) service group 0].
`DSU-B-PAR-ERR` = A parity error was detected by the TSI from the digital service circuit unit B (LDSU service group 1).
`DSU-C-PAR-ERR` = A parity error was detected by the TSI from the digital service circuit C.
`DSU-D-PAR-ERR` = A parity error was detected by the TSI from the digital service circuit D.

E-BIT-PARITY = The TSI detected bad parity in the E-bit receive circuit.
E-MEM-EVEN = The TSI detected bad parity in one of the even time slots in the ERAM.
E-MEM-ODD = The TSI detected bad parity in one of the odd time slots in the ERAM.
EQUIPAGE = The TSIU detected that an operational TSIU board has been physically removed from the shelf.
EXCESSIVE-JITTER = The amount of jitter on an external timing reference signal has exceeded its threshold.
EXCPTN-STK-FRM-ER = The microprocessor detected an invalid stack frame format while attempting to return from an exception.
FI-A/B-SLIP = The RLI detected slips between the FI active (A) and back-up (B) references.
FI-ACT-T1-REF = The RLI detected the FI active T1 reference failing.
FI-BACKUP-T1-REF = The RLI detected the back-up T1 reference failing in the FI.
FI-FIDB-A/B-PAR = RLI to DLI facility interface data bus parity error.
FI-FIDx-PARITY = The RLI x multiplexer in the facility interface (FI) detected parity errors on an FI data bus (FIDB) (where 'x' is A or B).
FI-INTERNAL-INTERFACE = The RLI detected parity errors on the FI internal interface.
FI-INTERNAL-REF = The RLI is using the internal oscillator in the FI as the reference.
FI-LINK-x-BUF-ERR = The RLI detected FI buffer errors on link 'x' (where 'x' is A or B).
FI-LINK-x-CLK = The RLI detected that the FI link 'x' clock was stopped (where 'x' is A or B).
FI-LINK-x-LP = The RLI detected that the FI link 'x' was looped (where 'x' is A or B).
FI-LINK-x-OOF = The RLI lost synchronization with the framing bits for link 'x' in the FI (where 'x' is A or B).
FI-LINK-x-RCV-PARITY = The RLI detected FI receive parity errors on link 'x' (where 'x' is A or B).
FI-LINK-x-XMIT-PARITY = The RLI detected FI transmit parity errors on link 'x' (where 'x' is A or B).
FI-LOSS-OF-OSC = The RLI lost the signal from the oscillator in the FI.
FI-MASTER-SLAVE-SLIP = The RLI detected slips between the master and slave RLIs.
FI-MUXx-EQ-RDFI-ACCESS = The RLI 'x' multiplexer in the FI cannot access all the equipped remote digital facilities interface (DFI) circuits (where 'x' is A or B).
FI-MUX-x-FIDB-LP = The RLI detected a FIDB looped in the 'x' multiplexer of the FI (where 'x' is A or B).
FI-MUXx-LI-PARITY = The RLI 'x' multiplexer in the FI received bad parity from the FI link interface (where 'x' is A or B).
FI-MUXx-LNK-INTERFACE-LP = The RLI 'x' multiplexer interface to the link is looped in the FI (where 'x' is A or B).
FI-PLL-SLIP = The RLI detected slips in the FI phase lock loop (PLL) clock.
FI-x-MUX-RCV-ROM = The RLI detected a read-only memory (ROM) or address circuitry failure in the 'x' multiplexer of the FI (where 'x' is A or B).
FI-x-MUX-XMIT-ROM = The RLI detected a transmit ROM circuitry failure in the 'x' multiplexer of the FI (where 'x' is A or B).
FIFO-FULL = The signal processor (SP) buffer that records state changes is full.
FORCED-RESET = A manually generated reset was forced on the central processor intervention (CPI) channel.
FROM-MATE = The reset was generated by the mate controller.
GENERATED-INTERRUPT = The TSI detected an error in the peripheral link interface (PLI).
HARDWARE-RESET = General category for hardware resets as indicated by the reset source register.
HI-MP-DATA-BUS-PAR = A parity error was detected by the TSI on the high data byte. Parity on the MP high data bus did not match the parity received by the TSI subunit bus.
HI-TSI-DATA-BUS-PAR = A parity error was detected by the TSI on the high data byte. Bad parity on the high byte of the internal TSI data bus was detected.

HI-TSI-MP-READ-PAR = A read parity error was detected on the low byte by the TSI. Parity on the MP data bus did not match parity taken out of the TSI RAM.
HI-TSI-MP-WRITE-PAR = A parity error was detected by the TSI on a write in the high byte.
HIT-TIMING-ERR = The SP detected an error in the hit timing circuit.
IGNORE-RAM-PARITY = A parity error was detected in the SP ignore RAM.
ILLEGAL-AUTOVECTOR = One of the unused interrupt counters was incremented at the 680X0 processor.
ILLEGAL-INSTR = The processor detected an illegal opcode.
IMPROPER-ADDR-SEL = The register address presented to the CI by the microprocessor specified a nonexistent register; this includes any attempt to read the 'reset.'
INTERNAL-DATA-BUS = The SP detected bad parity on its internal data bus.
INTERNAL-PARITY = The NLI detected an internal parity error.
INTERRUPTS = A combination of different types of errors occurred simultaneously.
INVALID-OPERATION = An invalid operation was attempted, which usually indicates a software problem. An invalid operation is an access of the wrong type to an address, such as byte access of a word register, write to a read only register, access to unequipped I/O or dynamic RAM.
IO-LOCK = The input/output (I/O) timer was stopped while the timer was not running, which usually indicates a software problem.
IO-PARITY = Bad parity was detected on the I/O bus.
IO-TIMEOUT = The I/O timer was expired before being locked. This usually indicates a software problem.
IO-UNLOCK = The I/O timer was started while it was already on, which usually indicates a software problem.
LATCHED-TS-CNTR = An error was detected in the latched time slot counter.
LINK-A-BUF-ERR = A fault was detected on the network control and timing (NCT) link A buffer circuitry.
LINK-A-CLOCK = The clock on link A stopped.
LINK-A-OUTOF-FRAME = The DLI lost synchronization with the framing bits for link A.
LINK-A-RCV-PARITY = The DLI received bad parity from NCT link A.
LINK-A-XMIT-PARITY = The DLI received bad parity from the TSI to be transmitted on the A NCT link.
LINK-ADDR-ERR = The peripheral interface control bus (PICB) address (bits LA0 through LA4 of the address register), which was presented to the CI by the microprocessor, specified a nonexistent PICB. The CI PERAD register is NOT valid.
LINK-B-BUF-ERR = NCT link B buffer circuitry fault detected.
LINK-B-CLOCK = The clock on link B stopped.
LINK-B-OUTOF-FRAME = The DLI lost synchronization with the framing bits for link B.
LINK-B-RCV-PARITY = The DLI received bad parity from NCT link B.
LINK-B-XMIT-PARITY = The DLI received bad parity from the TSI to be transmitted on the B NCT link.
LO-MP-DATA-BUS-PAR = A parity error was detected on the low byte by the TSI. Parity on the MP low data bus did not match the parity received by the TSI subunit bus.
LO-TSI-DATA-BUS-PAR = A parity error was detected on the low byte of the internal TSI data bus.
LO-TSI-MP-READ-PAR = A read parity error was detected on the high byte by the TSI. Parity on the MP data bus did not match parity taken out of the TSI RAM.
LO-TSI-MP-WRITE-PAR = A parity error was detected by the TSI on a write in the low byte.
LOSS-OF-SIGNAL = The TSICOM has detected a bad signal on an external timing reference.
M-RAM-ERR = The SP detected a parity error in its internal M-RAM.
MATE-COMMON-CLOCK = The TSICOM detected a bad clock signal from the mate TSICOM. The clock signal is either the 30 msec synchronization signaler the oscillator signal. The problem is internal to the mate TSICOM.

MATE-READ-WHILE-RUNNING = The active MP side attempted a mate MP read access when the mate MP was running.
MATE-READY-TO = A time-out was encountered while accessing the mate's memory either as a mate only operation or while the mate was in a standby (STBY) state.
MCP-LINK-PARITY-ERR = Bad parity was received by the module processor from the TSI over the MCP link.
MEM-REFRESH-FAIL = A failure occurred while a memory board was being refreshed.
MEM-SYSTEM = An error was detected in the memory complex.
MH0-ERROR = An error was detected on message handler 0.
MH0-INTERRUPT = The module processor received an interrupt from message handler 0.
MH1-ERROR = An error was detected on message handler 1.
MH1-INTERRUPT = The module processor received an interrupt from message handler 1.
MH2-ERROR = An error was detected on message handler 2.
MH2-INTERRUPT = The module processor received an interrupt from message handler 2.
MH-READY-TIMEOUT = A time-out was encountered while accessing a message handler.
MP-ADDR-BUS = The SP received bad parity from the MP address bus.
MP-BAD-PARITY = The DLI received bad parity on the address and data.
MP-DATA-BUS = Data bus error.
MP-READY-TO = A time-out occurred while accessing module processor hardware.
MP-SYNC-ERROR = The module processor scan points have lost synchronization and contain invalid data.
MP-TSI-CLOCK-ERR = The module processor lost either or both the clock and synchronization signal from the TSI.
MULT-RESPONSE = Multiple hardware units responded to the same address.
MULTI-RDY-TO = More than one source indicates a ready time-out (TO) because the operations took too long.
MUX-SELECT-ERR = The 'one-of-n' checkers monitoring the output clock and output data multiplexers have detected an error.
NET-SSP-INPUT = Bad parity was detected by the TSI at the input port on the network side for the smart SP.
NO-CI-ERR-FOUND = The CI interrupted but no error was found in the error source register.
NO-COM-DLI0 = The MCTSI cannot communicate with DLI 0.
NO-COM-DLI1 = The MCTSI cannot communicate with DLI 1.
NO-COM-FI0 = The MCTSI cannot communicate with FI 0.
NO-COM-FI1 = The MCTSI cannot communicate with FI 1.
NO-DLI-ERR-FOUND = The DLI interrupted but no error was found in the error source register.
NO-ERR-SOURCE-FND = No error source register indication.
NO-ERROR = There were no errors found on the reporting NLI(s).
NO-ERROR-FOUND = No error indication.
NO-RESET-FOUND = The MP was interrupted but no error source bit in the error source register was set.
NO-SP-ERR-FOUND = The SP generated an interrupt but no error was found in the error source register.
NO-TSI-ERR-FOUND = The TSI interrupted but no error was indicated in the TSI error source register.
NON-COR-BIT-ERR = A non-correctable bit error occurred during a memory board access.
NOT-IN-ERROR = There was no NLI error found, although the TSI reported that the NLI declared an error.
OUT-OF-FRAME = The NLI detected out of frame errors on data from the ONTC.
OUTPUT-ENERGY-DETECTION = The TSICOM detected the loss of its output energy signal.
OVERHEAD-BYTE-PARITY = The NLI detected a parity error on the overhead bytes from the TSI.
PARITY = The NLI detected a parity error on data from the ONTC.

PARITY-ERROR = Bad parity was detected by the hardware on a read or write of memory.
PER-BAD-PARITY = A peripheral reply message had bad parity.
PER-BAD-START-CODE = A peripheral reply message had a bad start code.
PER-DET-BAD-ADDR = A peripheral detected an addressing error while attempting to do a scan or distribute operation requested by the CI.
PER-DET-BAD-PARITY = A peripheral received bad parity in a message from the CI.
PER-DET-BAD-START = A peripheral received a bad start code on a message from the CI.
PER-SSP-INPUT = The TSI detected bad parity at the input port on the peripheral side for the smart SP.
PI-DARAM-OUT-OF-RANGE-ERR = An error asserted when an attempt was made to access the PI dual access random access memory (DARAM) outside of the valid address spectrum.
PI-ERR-LEAD-SET = The PI has set its error lead, which indicates that some error threshold has been reached.
PI-ERR-NOT-FOUND = The PI generated an interrupt, but no error was found in the PI subunit error source register.
PI-NON-COR-BIT-ERR = A noncorrectable memory error was detected during an SMP read of PI DARAM.
PI-READY-TO = A time-out occurred while accessing the PI.
PI-SIB-PARITY-ERR = Bad parity was detected by the PI hardware during an SMP write to the PI using the subunit interface bus circuitry.
PI-WRITE-PROT-ERR = The SMP has attempted to write to an address in PI DARAM that is write-protected at the subunit interface.
PLL-SLIP = The PLL clock in the DLI slipped more than 256 time slots.
PRIVILEGE-VIOL = A privileged instruction was attempted while not in the supervisor mode.
READ-MODIFY-WRITE-HI = The TSI detected an error on the high byte of a read-modify-write operation.
READ-MODIFY-WRITE-LO = The TSI detected an error on the low byte of a read-modify-write operation.
SANITY-TIMER = A program sanity timer expired before the program was able to reset the timer.
SDLC-A-RCV-PARITY = The DLI received bad parity from synchronous data link controller (SDLC) A.
SDLC-A-XMIT-PARITY = The DLI detected bad parity on the data to be sent to SDLC A.
SDLC-B-RCV-PARITY = The DLI received bad parity from SDLC B.
SDLC-B-XMIT-PARITY = The DLI detected bad parity on the data to be sent to SDLC B.
SOFTWARE-BUS-ERROR = The switching module software caused a bus error implicating the module controller.
SOFTWARE-MASK-PROBLEM = The NLI was declaring an error that should have been masked.
SOFTWARE-RESET = The switching module software caused an entry to the reset handler.
SP-FIFO-FULL = One of the SP buffers that records state changes is full.
SP-INPUT = Bad parity was detected from the SP by the TSI.
SP-READY-TO = A time-out was encountered while accessing the SP.
STACK-PROT-ERR = A process attempted to reference stack space belonging to a different process. May be a stack overflow or a wild write.
STANDBY-CLOCK = The standby CSC lost either or both the clock and synchronization signal.
STANDBY-CSC-REFERENCE = The Standby CSC detected loss of the clock reference used as the source of timing.
SUBUNIT-MISMATCH = The address decoding of subunits in the module controller enabled more than one of eight subunits.
TIME-OUT-ERROR = A peripheral failed to reply to a message from the CI.
TIME-SLOT-COUNTER = An error was detected in the TSI time slot counter.
TRAP = A single byte interrupt, a division by zero, a single step, or an unimplemented

software interrupt was executed. Usually indicates a software problem.
`TSI-ADDR-BUS` = A parity error was detected by the TSI on the internal TSI address bus.
`TSI-CRC` = The TSI detected CRC errors on data received from the NLI.
`TSI-DATA-ERR` = The SP detected bad parity on data from the TSI.
`TSI-LOSS-OF-CLOCK` = The TSI detected a loss of the clock signal from the NLI.
`TSI-LOSS-OF-CLOCK-REFERENCE` = The TSICOM detected loss of the clock reference from the NLI being used as the source of timing.
`TSI-OVERHEAD-PARITY` = The TSI detected a parity error on the overhead bytes from the NLI.
`TSI-READY-TO` = A time-out was encountered while accessing the TSI.
`TSI-SYNCHRONIZATION` = The TSI detected a synchronization error with the NLI.
`UNEXPECTED-INTERRUPT` = An interrupt that should not occur was detected.
`UNEXPECTED-QUICC-INTERRUPT` = The active MP received an unexpected interrupt from the quad integrated communications controller (QUICC).
`UNK-SRC` = Error source unknown.
`UNRECOG-UT-TRAP` = One of the exceptions assigned to generic utilities was raised, but the utilities subsystem (UT) did not accept the exception.
`UNUSED-EXCEPTION` = A processor exception that is not used by the software release occurred.
`UNUSED-SW-TRAP` = A TRAP instruction that is not used by the current software release was executed.
`UNUSED-TEXT-EXEC` = A bad transfer vector (TV) slot was used or a wild transfer occurred, causing memory not used by the current software release code to be executed.
`UPDATE-BUS-ACCESS-ER` = The module processor detected an access error on the update bus. The mate MCTSI may be unavailable.
`WRITE-PROT-ERR` = A write was attempted to a write-protected address, which usually indicates a software problem.
`XMT-TSI-DATA` = A parity error was detected by the TSI on data from the transmit TSI RAM.
`ZERO-DIVIDE` = An attempt to divide by zero was detected.

`i` = Supplementary information on software error sources relating to the preceding hardware source of the error (variable '`h`'). Valid value(s):
`AUTO-PUMP-REQUEST` = Recovery has reached a level that requires a pump.
`CI-AUDIT-FAIL` = A count of control interface (CI) errors has exceeded the threshold.
`DATA-VALIDATION-FAIL` = Range and consistency checks on recovery data failed.
`DLI-CLOCK-FAILURE` = A software sanity timer interrupt occurred due to a DLI clock or power failure. The purpose of this is to switch MCTSIs immediately.
`EXCESSIVE-DCF` = A count of asserts (defensive check failures) has exceeded the threshold.
`EXCESSIVE-DEMAND-AUD` = Non-segmented demand audits have been taking too much time away from call processing.
`EXCESSIVE-ERRORS-INIT` = SI's count of escalating events in the last 30 seconds has exceeded the SM initialization threshold. This results in an SM initialization.
`EXCESSIVE-ERRORS-SPP` = SI's count of escalating events in the last 30 seconds has exceeded the SPP threshold. This results in an MP reset and single process purge (SPP).
`EXCESSIVE-ERRORS-SW` = SI's count of escalating events in the last 30 seconds has exceeded the MP switch threshold. This results in an MP switch and a single process purge (SPP).
`EXCESSIVE-INTRPTS` = A count of interrupts has exceeded the threshold.
`EXCESSIVE-RESETS` = A count of non-maskable interrupts has exceeded the threshold.
`EXCESSIVE-RPI` = A count of errors with recovery action of return to point of interrupt (RPI) has exceeded the threshold.
`EXCESSIVE-SPP` = A count of single process purge (SPP) initializations has exceeded the threshold.

`GENERIC-RETROFIT` = This event occurred during a software release retrofit, software release update, large terminal growth, or after a retrofit SM switch.
`INTERJECT-FAILURE` = Call processing interject failed.
`INVALID` = Initial value for this field. Should not be seen unless recovery was aborted.
`INVALID-STACK` = High-level initialization was attempted on a stack other than the recovery stack, so initialization was restarted. Important post-mortem information will be associated with previous event number.
`LVL-3-FAILURE` = Lack of level 3 protocol messages exchanged between the SM and the AM.
`MANUAL-REQUEST` = This is a user-initiated initialization.
`MCB-EXHAUST` = The message control block resource was found to be exhausted.
`MH0-EXCESSIVE-CERS` = Excessive communication errors have been detected from message handler 0 on the active MCTSI.
`MH1-EXCESSIVE-CERS` = Excessive communication errors have been detected from message handler 1 on the active MCTSI.
`MH2-EXCESSIVE-CERS` = Excessive communication errors have been detected from message handler 2 on the active MCTSI.
`MH0-EXCESSIVE-OSRS` = Excessive operational software restart (OSR) errors have been detected from message handler 0 on the active MCTSI.
`MH1-EXCESSIVE-OSRS` = Excessive operational software restart (OSR) errors have been detected from message handler 1 on the active MCTSI.
`MH2-EXCESSIVE-OSRS` = Excessive operational software restart (OSR) errors have been detected from message handler 2 on the active MCTSI.
`MH0-INIT-FAILED` = Message handler 0 on the active MCTSI failed initialization.
`MH1-INIT-FAILED` = Message handler 1 on the active MCTSI failed initialization.
`MH2-INIT-FAILED` = Message handler 2 on the active MCTSI failed initialization.
`MH0-IST-FAIL` = Message handler 0 on the active MCTSI failed the interprocessor sanity timer (IST).
`MH1-IST-FAIL` = Message handler 1 on the active MCTSI failed the interprocessor sanity timer (IST).
`MH2-IST-FAIL` = Message handler 2 on the active MCTSI failed the interprocessor sanity timer (IST).
`MH-PLINK-ERROR` = Message handler on the active MCTSI failed during PCT hardware initialization.
`NESTED-RCVY` = An assert occurred during recovery from a hardware fault, which cannot be handled. Recovery was restarted with an MP reset.
`NO-CALL-PROC-FUNC` = Switching module integrity control (MICO) system process detected no call processing functionality at the end of initialization.
`NO-RCVY-PROGRESS` = There is a lack of positive progress in an already active recovery. Twenty-four seconds have elapsed without any progress.
`PCB-EXHAUST` = The process control block resource was found to be exhausted.
`PERPH-DUPLEX-FAIL` = SI's limit of one peripheral unit duplex failing was exceeded during the initialization. Peripheral units included are: access interface unit (AIU), digital network unit (DNU), integrated digital carrier unit (IDCU), (remote) integrated services line unit (ISLU), pumpable local digital services unit (LDSU), and packet switch unit (PSU).
`PI-RECOVERY` = Excessive errors have been detected on the packet interface (PI) subunit of the active MCTSI. During SM initializations, this means that the subunit is failing to initialize. During normal operation, this error indicates that background recovery software has exceeded an error threshold.
`PKB-EXHAUST` = The packet buffer data block resource was found to be exhausted.
`POWERUP` = The SM memory on this side is in a state that makes it unreliable, such as after power cycling or diagnostics.

PROGRAM-LOOP = A program loop is not allowing the integrity monitor to run its background process.
PSU-RECOVERY = Excessive errors have been detected on the packet switching unit (PSU) peripheral of the SM. During SM initializations, this means that the peripheral (or all the PHs within it) is failing to initialize. During normal operation, this error indicates that background recovery software has exceeded an error threshold.
PUMP-COMMUNICATION = Pump in the SM failed to communicate with pump in the AM.
PUMP-FAILURE = A timeout occurred while the pump program was waiting for messages from the AM.
PUMP-PREEMPTED = Pump in the SM was preempted by pump in the AM.
PUMP-SYNC = Pump in the SM lost synchronization with pump in the AM.
RCVY-RESOURCE-SHORT = There is a lack of OSDS (SM operating system) resources, usually timers.
REAL-TIME-CNTR-FAIL = A hardware timer (driven off the DLI timing) is slipping substantially when compared to the 10-millisecond software timing. Hardware fault recovery is being invoked to reinitialize the timer hardware and possibly reconfigure the SM.
SCB-EXHAUST = The stack control block resource was found to be exhausted.
SW-RCVY-ERROR = Recovery software detected insanity or an assert was processed before completion of recovery.
TCB-EXHAUST = The timer control block resource was found to be exhausted.

j = Event number.

k = Termination report. Valid value(s):
ABORTED = The current job did not complete before being interrupted by another stimulus.
COMPLETED = The indicated or requested action has completed.
IN PROGRESS = The data dump is preliminary information on the job currently executing in read-only memory code. As a consequence, the SM number may be zero or blank. This output message will be followed by a short version of the format when the job has completed.

l = Type of error (probable cause, internal counters affected). Valid value(s):
HW-ERR = Hardware error.
SW-ERR = Software error.
UNK-ERR = Unknown - recovery probably aborted, refer to variable 'k' and look for succeeding reports.

m = Address on the address bus at the time of the interrupt (hexadecimal).

n = Type of memory referenced by failing address (only when variable 'f' indicates MP errors). Valid value(s):
DATA = Address that contains data accessed by the program.
DRAM = Read/write memory using dynamic RAM devices.
IO = Address range for accessing hardware.
MH0RAM = Message handler 0 random access memory.
MH1RAM = Message handler 1 random access memory.
MH2RAM = Message handler 2 random access memory.
OOR = Address is out of a valid range.
ROM = Read-only memory.
SRAM = Read/write memory using static RAM devices.

TEXT = Address that contains program text (instructions).

o = Type of access being performed at failing address. Valid value(s):

- READ = The specified address was being read when the error occurred.
- UNK = Access type not determined for this message type (variable 'f' does not indicate an MP error), or the type has not yet been determined (variable 'k' is IN PROGRESS) or the event was aborted before the access type could be determined (variable 'k' is ABORTED).
- WRITE = The specified address was being written when the error was recognized.

p = Raw data on the data bus at the time of the interrupt, in hexadecimal (MP errors only).

q = Time when the interrupt occurred, in the form minute:seconds:tenths of second.

r = Process ID of the running background (BG) process in OSDS.

s = Uniqueness field of the running BG process in OSDS.

t = Recovery action for OSDS process. Valid value(s):

- (blank) = No recovery action because the target was not active.
- PURGE = Single process was purged.
- RPI = Return to point of interrupt.

u = State of the communication software. Valid value(s):

- A-CR = The SDLC combined receive interrupt handler was active on SDLC A.
- A-RECV = The SDLC A receive interrupt handler was active.
- A-TRANS = The SDLC A transmit interrupt handler was active.
- ACR-ARECV = The SDLC A receive interrupt handler was interrupted by the SDLC A combined receive handler, and the SDLC A combined receive handler was active at the time of the error.
- ACR-ATRANS = The SDLC A transmit interrupt handler was interrupted by the SDLC A combined receive handler, and the SDLC A combined receive handler was active at the time of the error.
- ACR-BRECV = The SDLC B receive interrupt handler was interrupted by the SDLC A combined receive handler, and the SDLC A combined receive handler was active at the time of the error.
- ACR-BTRANS = The SDLC B transmit interrupt handler was interrupted by the SDLC A combined receive handler, and the SDLC A combined receive handler was active at the time of the error.
- ACTIVE = The CM is active but which action on which link can not be determined.
- B-CR = The SDLC combined receive handler was active on the SDLC B.
- B-RECV = The SDLC B was receiving.
- B-TRANS = The SDLC B was transmitting.
- BASE = CM was called from the base level environment.
- BCR-ARECV = The SDLC A receive interrupt handler was interrupted by the SDLC B combined receive handler, and the SDLC B combined receive handler was active at the time of the error.
- BCR-ATRANS = The SDLC A transmit interrupt handler was interrupted by the SDLC B combined receive handler, and the SDLC B combined receive handler was active at the time of the error.
- BCR-BRECV = The SDLC B receive interrupt handler was interrupted by the SDLC B combined

receive handler, and the SDLC B combined receive handler was active at the time of the error.

`BCR-BTRANS` = The SDLC B transmit interrupt handler was interrupted by the SDLC B combined receive handler, and the SDLC B combined receive handler was active at the time of the error.

`HP-RECV` = CM was unloading messages from the high priority peripheral MH FIFO.

`HP-TRANS` = CM was sending messages to the high priority peripheral MH FIFO.

`LP-RECV` = CM was unloading messages from the low priority peripheral MH FIFO.

`LP-TRANS` = CM was sending messages to the low priority peripheral MH FIFO.

`MTCE-RECV` = The CM was unloading messages from the MTCE MH FIFO.

`MTCE-TRANS` = The CM was sending messages to the MTCE MH FIFO.

`NONE` = CM was not active.

`NOT-APPL` = Not applicable. The SM-2000 does not have SDLCs, therefore field '`u`' does not apply. Also, field '`v`' will be blank for SM-2000.

`OSDS-RECV` = The CM was unloading messages from the OSDS MH FIFO.

`OSDS-TRANS` = The CM was sending messages to the OSDS MH FIFO.

`v` = Recovery action for CM software. Valid value(s):

`(blank)` = No recovery action taken because the target was not active.

`CLEAR` = Aborted all scheduled jobs in CM foreground.

`PURGE` = The single target job or process was purged.

`RPI` = Return to the point of interrupt.

`w` = State of foreground activity. Valid value(s):

`CM` = The communication package was executing.

`INTMON` = The system integrity monitor was executing.

`NONE` = Foreground (10-millisecond interrupt) was not being served.

`NONPC` = Foreground was being served for an indeterminable job other than PC.

`OSDS` = OSDS work for 10-millisecond interrupt was executing.

`PC` = Peripheral control foreground was executing. Refer to variable '`x`' for further information.

`x` = The type of PC foreground activity that was being performed. Valid value(s):

`(blank)` = No PC foreground jobs were active.

`CCB10T` = Channel control block (CCB) 10-millisecond timer (1-second clock).

`CCB50T` = CCB 50-millisecond timer (6-second clock).

`CHDB10T` = Channel data block (CHDB) 10-millisecond timer (1-second clock).

`CHDB50T` = CHBD 50-millisecond timer (6-second clock).

`CISCAN` = CI scanning.

`DPOUT` = Dial pulse outpulsing.

`EBTSCAN` = E-bit scanning.

`ETONE-NET` = Enhanced tone cadencing in the network direction.

`ETONE-PER` = Enhanced tone cadencing in the peripheral direction.

`FGCADTL1` = Foreground (FG) tone cadencing, list 1.

`FGCADTL2` = FG cadencing, timing list 2.

`IQUNLD` = Immediate sequence queue unloader.

`ISLURING` = Integrated services line unit-Z (ISLU-Z) ring cadencing.

`LCNSCAN` = Line concentrator summary scanning.

`LUSEQJB` = Line unit (LU) sequenced job.

MFTTOUT	= Multi-frequency (MF) and touch tone (TT) outpulsing.
PISCAN	= Packet interface (PI) first-in-first-out (FIFO) pointer scanning.
RINGC	= Ringing cycles.
ROHCAD	= Receiver off hook (ROH) cadencing.
SD-PULSING	= MSU signal-distribute pulsing job.
SPFUNLD	= SP transition queue FIFO unloading.
SQUNLD	= Sequence queue unloader.
TONECAD	= Tone cadencing.

y = Recovery action for PC foreground. Valid value(s):

(blank)	= No recovery action taken because the target was not active.
CLEAR	= Abort all scheduled jobs in PC foreground.
PURGE	= The single target job or process was purged.
RPI	= Return to the point of interrupt.

z = Mode of SM operation at the time. Valid value(s):

CONSISTENT	= Hardware consistent with software.
ESSENTIAL	= Essential jobs operational.
MIN-MODE	= Switching module is in a "minimum" mode where normal automatic actions are inhibited.
NORMAL	= Module is in normal full-operation mode.
OPFULL	= All jobs are operational.
RAMDYN	= Dynamic memory consistent.
RAMTXT	= RAM text and data consistent.
RAMWP	= Write-protect placed over appropriate parts of RAM.
SW-RCVY	= Software recovery phase of initialization.
SYSPROC	= All system processes initialized.
UNKNOWN	= Unknown.

a[1] = Unit whose status is being reported. Valid value(s):

MC0	
MC1	
DLI0	
DLI1	
LINK-0A	
LINK-0B	
LINK-1A	
LINK-1B	
NLI-x-0	= Where 'x' is 0-23
NLI-x-1	= Where 'x' is 0-23
ONTC0	
ONTC1	
SMREF-0-0	= External timing reference 0 on MCTSI side 0.
SMREF-0-1	= External timing reference 1 on MCTSI side 0.
SMREF-1-0	= External timing reference 0 on MCTSI side 1.
SMREF-1-1	= External timing reference 1 on MCTSI side 1.
UNK	= Unknown.

b[1] = Primary status of unit. Valid value(s):

ACT	= Active

ACT-TIMING	= Active, source of system timing for SM.
OOS	= Out-of-service.
STBY	= Standby.
UNAV	= Unavailable to the system.

c[1] = Qualifier status indicating the origin of the request for the change in state. Valid value(s):

AUTO	= Unit was put into current state by system.
FRCD	= CPI force selected configuration.
GROWTH	= Growth.
MAN	= Unit was put into current state manually.
RTNEX	= Unit is being diagnosed by the routine exerciser.
SPGRWTH	= Special growth.

d[1] = Qualifier of the primary status. Valid value(s):

AUOOS	= Unit was taken out of service due to audits.
DGNS	= Unit is being diagnosed.
EX	= Unit is being interactively exercised.
FE	= Unit is in current state due to family-of-equipment considerations (for example, the parent is OOS).
FLT	= Unit contains a fault.
PROOS	= Unit is pre-out-of-service, waiting for a decision from the AM.
PWRALM	= Unit has lost power due to a fault condition.
PWROFF	= Power not being supplied to unit.
REX	= is being routinely exercised.
RMVD	= Unit was removed from service by the system.
TBLA	= Unit passes diagnostics but the system has taken it out of service.
TMP	= Unit is currently a helper for some other unit diagnostic.
UPDT	= Unit memory was being updated.

Note: The following fields are for post mortem evaluation.

e[1] = Recovery progress type when the stimuli occurred, in decimal.

f[1] = Recovery progress counter within the recovery progress type when the stimuli occurred, in decimal.

g[1] = Snapshot of the recovery progress type at the last recovery progress check, in decimal. (The recovery progress check is done in four-second intervals during an initialization.)

h[1] = Snapshot of the recovery progress counter at the last recovery progress check, in decimal. (The recovery progress check is done in four-second intervals during an initialization.)

i[1] = SI recovery variables, in hexadecimal, packed into 32 bits: INallcntr - count of all stimuli (upper 16 bits), INrpicntr - count of RPI stimuli (lower 16 bits).

j[1] = SI recovery variables, in hexadecimal, packed into 32 bits: INsppcntr - count of interrupt requested SPP stimuli (upper 16 bits), INdefcntr - count of ASSERT requested SPP stimuli (lower 16 bits).

k[1] = SI recovery variables, in hexadecimal, packed into 32 bits: INausppcntr - count of AUDIT requested SPP stimuli (upper 16 bits), INdausppcntr - count of deferred SPP stimuli (lower 16 bits).

`l`[1] = SI recovery variables, in hexadecimal, packed into 32 bits: automatic initialization escalation reason (upper 16 bits), measure of time call processing was turned off due to SPPs and directed audits (1 count equals 30 milliseconds) (lower 16 bits).

`m`[1] = Unused, in hexadecimal.

`n`[1] = Reset counter shadow (lower four bits), in hexadecimal, requested TTY level (middle four bits), and number of links up (upper four bits).

`o`[1] = Pump return code from the previous initialization, in hexadecimal.

`p`[1] = SMrcvy_level - highest recent hardware recovery level (least significant 8 bits), SMoldrcvy_level - shadow hardware recovery level (next most significant 8 bits), in hexadecimal.

Exhibit A: Hardware And Software Recovery Levels

HARDWARE RECOVERY LEVEL	HARDWARE INITIALIZATION LEVEL	INHIBIT STATUS	MINIMUM SOFTWARE INITIALIZATION
0	Level A	None	Return to point of interrupt.
1	Level B	None	Single task purge.
2	Level C	None	Single task purge.
3	Conditional switch Level C	None	Single task purge.
4	Level C	None	Single task purge.
5	Level C	None	Single task purge.
6	Conditional switch Level C	None	Single task purge.
7	Level C	None	Single task purge.
8	Conditional switch Level D	None	Selective initialization.
9	Conditional switch Level D	None	Hash sum and full initialization.
10	Level D	Error Source	Hash sum and full initialization.
11	Unconditional switch Level D	All*	Hash sum and full initialization.
12	Level E	All*	Hash sum and full initialization.
13	Unconditional switch Level E	All*	Hash sum and full initialization.
14	Level F (SM-2000 level E)	All*	Hash sum and full initialization.
15	Unconditional switch Level E	All*	Hash sum and full initialization.

* Conditional, based on escalation counts

Exhibit B: Hardware Initialization Levels

Level	(SM)	(SM-2000)
A	PICs (med, high) interrupt mask refresh.	PICs (med, high) interrupt mask refresh.
B	SDLC, DMA controller, CI, PICs (low, med, high), BTSR interrupt mask refresh.	CI, PICs (low, med, high), BTSR interrupt mask refresh.
C	Same as Level B plus timers, program AUTISS, refresh DLI control paths, PIDB selections, DLI->TSI selection.	Same as Level B plus timers, program AUTISS, refresh TSI clock and data selection, PIDB selections.
D	Same as Level C plus TSIU3 determination.	Same as Level C plus TSIU4 clock refresh.
E	Same as Level D and Force DLIs.	Same as Level D plus change Master NLI.
F	Same as Level E plus change master DLI.	

4. ACTIONS TO BE TAKEN

Monitor the progress of software recovery. Initiate manual actions if the recovery does not proceed as expected.

If the error is related to the memory system (variable '`h`' is `CORR-BIT-ERR` or `MEM-SYSTEM`) and the type of memory referenced is not OOR (variable '`n`'), there may be something wrong with the memory system hardware. A certain number of `CORR-BIT-ERR` is normal. A `CORR-BIT-ERR` indicates that one bit within a word of memory was changed, detected and corrected. It may be considered normal if:

- The errors are scattered randomly among SMs throughout the office.
- An MCTSI is not removed due to `CORR-BIT-ERR`.

For a 30-SM office, if approximately one or fewer CORR-BIT-ERR occurs per day and occurrences meets the above criteria, the CORR-BIT-ERR can be ignored. MEM-SYSTEM should never be considered normal. If the errors recur but without sufficient frequency to invoke the MCTSI diagnostic, manually invoke the MCTSI diagnostic. If it passes, execute MCTSI diagnostic phase 7 on the suspect side of the SM. If phase 7 passes ATP, there may be an intermittent memory fault that is not detectable by the diagnostics. Replace the suspect memory board(s). To determine the board number, use the failing address in this message (variable 'm') within the procedure described in the Corrective Maintenance manual.

If the error type is related to an SM peripheral (for example, CI PER-DET-BAD-ADDR or TSI DI-PIDB-PARITY), then another output message may appear with the same event number indicating the faulty peripheral (for example, a REPT:LUCHAN and a REPT:MSUCOM). If peripheral REPT output messages do not appear, the errors may be occurring too slowly for the peripheral circuit to be removed, causing the messages to be throttled at the SM. Setting the SM in VERBOSE mode will route the peripheral messages to the daylog file, and changing the message class action can cause these messages to print. Refer to the OP:PERPH-SM-SUM and SET:PERPH-SM input messages for further explanation.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CHG:LPS-MSGCLS
INIT:SM
OP:LOG
OP:LPS
OP:PERPH-SM-SUM
OP:POSTMORT
SET:PERPH-SM
```

Output Message(s):

```
OP:LPS
REPT:LUCHAN-TLOT
REPT:LUCHAN-TPDCF
REPT:LUCHAN-TPPF
REPT:LUCHAN-TSF
REPT:LUCHAN-TUSR
REPT:MCTSI-LVL
REPT:MCTSI-MESE
REPT:MSUCOM-TMPSF
REPT:MSUCOM-TPCF
REPT:MSUCOM-TUSR
REPT:SM-CI-HW
REPT:SM-DLI-HW
REPT:SM-HC
REPT:SM-MP-HW
REPT:SM-NLI
REPT:SM-PI-HW
REPT:SM-RLI-HW
REPT:SM-SP-HW
REPT:SM-TSI-HW
```

```
REPT:STACK-FRAME
REPT:STACK-TRACE
```

Other Manual(s):
235-105-250 *System Recovery*
235-105-220 *Corrective Maintenance*

REPT:SM-INIT-A

Software Release: 5E10 - 5E12
Message Class: INT
Application: 5
Type: Output

1. FORMAT

```
REPT SM=a  INITIALIZATION  TRIGGER=b  EVENT=c
```

2. REASON FOR OUTPUT

To report that a switching module (SM) is beginning a high-level initialization and to report the cause of that initialization. This is the first report on the initialization and immediate attention is required.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = Phase trigger for the initialization. Valid value(s):

`CIAUDFAIL`	= A count of excessive control interface (CI) errors has exceeded the threshold.
`DATAVALDF`	= Range and consistency checks on recovery data failed.
`DPLXFAIL`	= Critical peripheral units duplex failed.
`EXDCF`	= A count of asserts (defensive check failures) has exceeded the threshold.
`EXDMDAUD`	= Non-segmented demand audits have taken too much time away from call processing.
`EXERR50`	= A combination of single process purges (SPP), asserts, and hardware errors exceeded the threshold of 50. Recovery must escalate.
`EXERR75`	= A combination of SPPs, asserts, and hardware errors exceeded the threshold of 75. Recovery must escalate.
`EXERR100`	= A combination of SPPs, asserts, and hardware errors exceeded the threshold of 100. Recovery must escalate.
`EXINTRPTS`	= A count of returning interrupts has exceeded the threshold.
`EXRESETS`	= A count of non-maskable interrupts has exceeded the threshold.
`EXRPI`	= Excessive return-to-the-point-of-interrupts have occurred.
`EXSPP`	= A count of level 1 initializations (single process purge) has exceeded the threshold.
`HDWSTIM`	= An unknown hardware stimulus may have triggered the initialization.
`INTJFAIL`	= Interject failure.
`INVLDSTK`	= High-level initialization was attempted on a stack other than the recovery stack.
`MANUALREQ`	= A user-initiated manual initialization has occurred.
`MCBEXHST`	= Recovery due to Operating System for Distributed Switching (OSDS) message control block exhaustion.
`MH-RECOVERY`	= Excessive errors have been detected in a message handler on the active MCTSI.
`NESTDRCVY`	= A purging assert was processed before the completion of a previous recovery action.
`NOCPFUNC`	= No call processing functionality.
`NOPROGRESS`	= At least twenty-four seconds have elapsed without any progress in an already active recovery.
`PCBEXHST`	= Recovery due to OSDS process control block exhaustion.
`PIRCVY`	= (PI) subunit failed.
`PKPEXHST`	= Recovery due to packet buffer data block exhaustion.

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POWERUP	= The switching module has been power-cycled, or the memory in the switching module is in an unreliable state.
PREEMPTION	= Pump was preempted.
PROGLOOP	= A program loop is not allowing the integrity monitor to run its background process.
PUMPCOMM	= Pump communication failure.
PUMPFAIL	= Pump failure.
PUMPREQ	= Pump request.
PUMPSYNC	= Pump synchronization failure.
RCVYRSRC	= A lack of OSDS resources, usually timers.
RETROFIT	= Software release retrofit has taken place.
RTCNFAIL	= Real time counter hardware failure.
SCBEXHST	= Recovery due to OSDS stack control block exhaustion.
SWRCVYER	= Recovery software detected insanity or an assert was processed before completion of recovery.
TCBEXHST	= Recovery due to OSDS timer control block exhaustion.

c = Event number.

4. ACTIONS TO BE TAKEN

Immediately analyze the cause of the initialization and verify that the system recovers properly. Use output messages INIT:LVL-SM and REPT:SM-HWLVL or access MCC display pages 1800 and 11XX to verify the system recovery.

5. ALARMS

Major.

6. REFERENCES

Output Message(s):

```
INIT:LVL-SM
REPT:SM-HWLVL
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1800 (SM INH & RCVY CNTL)
11XX (SM Equipment Pages)

REPT:SM-INIT-B

Software Release: 5E13 and later
Message Class: INT
Application: 5
Type: Output

1. FORMAT

```
REPT SM=a  INITIALIZATION  TRIGGER=b  EVENT=c
```

2. REASON FOR OUTPUT

To report that a switching module (SM) is beginning a high-level initialization and to report the cause of that initialization. This is the first report on the initialization and immediate attention is required.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = Phase trigger for the initialization. Valid value(s):

`CIAUD FAIL`	= A count of excessive control interface (CI) errors has exceeded the threshold.
`DATA VALDF`	= Range and consistency checks on recovery data failed.
`DLI CLK`	= A software sanity timer interrupt occurred due to a DLI clock or power failure.
`DPLX FAIL`	= Multiple peripheral units duplex failed.
`EX DCF`	= A count of asserts (defensive check failures) has exceeded the threshold.
`EX DMD AUD`	= Non-segmented demand audits have taken too much time away from call processing.
`EXERR INIT`	= A count of escalating events in the last 30 seconds has exceeded the SM initialization threshold. This results in an SM initialization.
`EX ERR SPP`	= A count of escalating events in the last 30 seconds has exceeded the SPP threshold. This results in an MP reset and a single process purge (SPP).
`EX ERR SW`	= A count of escalating events in the last 30 seconds has exceeded the MP switch threshold. This results in an MP switch and a single process purge (SPP).
`EX INTRPTS`	= A count of returning interrupts has exceeded the threshold.
`EX RESETS`	= A count of non-maskable interrupts has exceeded the threshold.
`EX RPI`	= A count of errors with recovery action of return-to-the-point-of-interrupt (RPI) has exceeded the threshold.
`EX SPP`	= A count of single process purge (SPP) initializations has exceeded the threshold.
`HDW STIM`	= An unknown hardware stimulus triggered the initialization.
`INTJ FAIL`	= Call processing interject failed.
`INVALID`	= Initial value for this field. Should not be seen unless recovery was aborted.
`INVLD STK`	= High-level initialization was attempted on a stack other than the recovery stack, so the initialization restarted.
`LVL3 FAIL`	= Lack of level 3 protocol messages exchanged between the SM and the AM.
`MANUAL REQ`	= A user-initiated manual initialization has occurred.
`MCB EXHST`	= Recovery due to Operating System for Distributed Switching (OSDS) message control block exhaustion.
`MH0CER`	= Excessive communication errors have been detected from message handler 0 on the active MCTSI.
`MH1CER`	= Excessive communication errors have been detected from message handler 1 on the active MCTSI.
`MH2CER`	= Excessive communication errors have been detected from message handler 2 on

the active MCTSI.

MH0INT	= Message handler 0 on the active MCTSI failed initialization.
MH1INT	= Message handler 1 on the active MCTSI failed initialization.
MH2INT	= Message handler 2 on the active MCTSI failed initialization.
MH0IST	= Message handler 0 on the active MCTSI failed the interprocessor sanity timer (IST).
MH1IST	= Message handler 1 on the active MCTSI failed the interprocessor sanity timer (IST).
MH2IST	= Message handler 2 on the active MCTSI failed the interprocessor sanity timer (IST).
MH0OSR	= Excessive operational software restart (OSR) errors have been detected from message handler 0 on the active MCTSI.
MH1OSR	= Excessive operational software restart (OSR) errors have been detected from message handler 1 on the active MCTSI.
MH2OSR	= Excessive operational software restart (OSR) errors have been detected from message handler 2 on the active MCTSI.
MH PLNK ER	= Message handler on the active MCTSI failed during PCT hardware initialization.
NESTD RCVY	= A purging assert was processed before the completion of a previous recovery action.
NO CP FUNC	= No call processing functionality.
NO PROGRES	= At least twenty-four seconds have elapsed without any progress in an already active recovery.
PCB EXHST	= Recovery due to OSDS process control block exhaustion.
PI RCVY	= Excessive errors have been detected on the packet interface (PI) subunit of the active MCTSI.
PKB EXHST	= Recovery due to packet buffer data block exhaustion.
POWER UP	= The switching module has been power-cycled, or the memory in the switching module is in an unreliable state.
PREEMPTION	= Pump in the SM was preempted by the AM.
PROG LOOP	= A program loop is not allowing the integrity monitor to run its background process.
PSU RCVY	= Excessive errors have been detected on the packet switching unit (PSU) peripheral of the SM.
PUMP COMM	= Pump communication failure.
PUMP FAIL	= A timeout occurred while the pump program was waiting for messages from the AM.
PUMP REQ	= Recovery has reached a level that requires a pump.
PUMP SYNC	= Pump in the SM lost synchronization with the AM.
RCVY RSRC	= A lack of OSDS resources, usually timers.
RETROFIT	= Software release retrofit has taken place.
RTCN FAIL	= Real time counter hardware failure.
SCB EXHST	= Recovery due to OSDS stack control block exhaustion.
SW RCVY ER	= Recovery software detected insanity or an assert was processed before completion of recovery.
TCB EXHST	= Recovery due to OSDS timer control block exhaustion.

c = Event number.

4. ACTIONS TO BE TAKEN

Immediately analyze the cause of the initialization and verify that the system recovers properly. Use output messages INIT:LVL-SM and REPT:SM-HWLVL or access MCC display pages 1800 and 11XX to verify the system

recovery.

5. ALARMS

Major.

6. REFERENCES

Output Message(s):

```
INIT:LVL-SM
REPT:SM-HWLVL
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1800 (SM INH & RCVY CNTL)
11XX (SM Equipment Pages)

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REPT:SM-ISOL

Software Release: 5E10 and later
Message Class: SED_MON
Application: 5
Type: Output

1. FORMAT

```
REPT SM a [b] ISOLATED FROM c
 [d]
```

2. REASON FOR OUTPUT

To report that the integrity monitor detected a lack of communication to a switching module (SM) and subsequent recovery actions failed to restore communication.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = Isolation type. Valid value(s):
(blank) = The SM is automatically totally isolated.
`MANUALLY` = The SM is manually totally isolated.
`ISMQLNKS` = The ISMQLNKs are automatically isolated.
`ISMQLNKS MANUALLY` = The inter-switching module communication link (ISMQLNKs) are manually isolated.
`QLNKS` = The QLNKs are automatically isolated.
`QLNKS MANUALLY` = The quad link packet switch (QLPS) communication links (QLNKs) are manually isolated.

`c` = Other processor involved. Valid value(s):
`AM` = SM isolated from the administrative module (AM).
`AM - CLNKS OPERATIONAL` = QLNKs isolated from the AM, but the communication links (CLNKs) are still operational.
`OTHER SMS` = SM isolated from other SMs.

`d` = Failure type. Valid value(s):
(blank) = Manual isolation.
`AUTO LINK RCVY FAILURE` = Failure of the automatic link recovery.
`COMMUNICATION LOST` = Prolonged loss of AM-SM communication.

4. ACTION TO BE TAKEN

If the SM isolation is due to a manual request, no action needs to be taken.

If a non-remote SM becomes totally isolated due to automatic recovery (`REPT SMa ISOLATED FROM AM` message), refer to the System Recovery Procedures manual for step-by-step repair procedures in the section titled "ESTABLISH COMMUNICATION WITH ISOLATED SM/SM-2000".

If an RSM becomes totally isolated due to automatic recovery (`REPT SMa ISOLATED FROM AM` message), refer to

the System Recovery Procedures manual for step-by-step repair procedures in the section titled "ESTABLISH COMMUNICATION WITH ISOLATED RSM".

If an SM-2000 becomes isolated from the QLPS network only due to automatic recovery (`REPT SMa ISMQLNKS ISOLATED FROM OTHER SMs` or `REPT SMa QLNKS ISOLATED FROM AM` message), refer to the System Recovery Procedures manual for step-by-step repair procedures in the section titled "ESTABLISH QLPS COMMUNICATION WITH SM-2000".

5. ALARMS

If the SM is not manually isolated, then a critical alarm is generated. If the SM is manually isolated, then an automatic alarm is generated.

6. REFERENCES

Other Manual(s):
235-105-250 *System Recovery Procedures*

REPT:SM-LINK-MAP

Software Release: 5E10 and later
Message Class: SED_MON
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT SM a LINK MAP INCONSISTENCY
                CTS
            LOG 0   LOG 1
  AM:        b       c
  SM:        d       e
```

[2]
```
REPT SM a LINK MAP INCONSISTENCY
                        QLPS
          LOG 2    LOG 3    LOG 4    LOG 5
  AM:     f        g        h        i
  SM:     j        k        l        m
```

[3]
```
REPT SM a LINK MAP INCONSISTENCY
                CTS                          QLPS
            LOG 0   LOG 1        LOG 2    LOG 3    LOG 4    LOG 5
  AM:        b       c           f        g        h        i
  SM:        d       e           j        k        l        m
```

2. REASON FOR OUTPUT

To report the detection of a logical-to-physical link map inconsistency between the specified switching module (SM) and the administrative module (AM).

Format 1 prints a control timeslot (CTS) link map inconsistency.

Format 2 prints a quad-link packet switch (QLPS) link map inconsistency.

Format 3 prints a CTS and a QLPS link map inconsistency.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b,c` = The physical CLNKs that are mapped to the AM logical links with an inconsistency. Valid value(s):
- `0A` = Time-multiplexed switch (TMS) 0 even time slot.
- `1A` = TMS 1, even time slot.
- `0B` = TMS 0, odd time slot.
- `1B` = TMS 1, odd time slot.

`d,e` = The physical CLNKs that are mapped to the SM logical links with an inconsistency. Valid value(s):
- `0A` = TMS 0 even time slot.
- `1A` = TMS 1, even time slot.

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`0B` = TMS0, odd time slot.
`1B` = TMS 1, odd time slot.

`f,g,h,i` = The physical QLNKs that are mapped to the AM logical links with an inconsistency. Valid value(s):

`0000` = Network 0, TMS 0, QGP 0, MSCU 0
`0001` = Network 0, TMS 0, QGP 0, MSCU 1
`0010` = Network 0, TMS 0, QGP 1, MSCU 0
`0011` = Network 0, TMS 0, QGP 1, MSCU 1
`0100` = Network 0, TMS 1, QGP 0, MSCU 0
`0101` = Network 0, TMS 1, QGP 0, MSCU 1
`0110` = Network 0, TMS 1, QGP 1, MSCU 0
`0111` = Network 0, TMS 1, QGP 1, MSCU 1
`1000` = Network 1, TMS 0, QGP 0, MSCU 0
`1001` = Network 1, TMS 0, QGP 0, MSCU 1
`1010` = Network 1, TMS 0, QGP 1, MSCU 0
`1011` = Network 1, TMS 0, QGP 1, MSCU 1
`1100` = Network 1, TMS 1, QGP 0, MSCU 0
`1101` = Network 1, TMS 1, QGP 0, MSCU 1
`1110` = Network 1, TMS 1, QGP 1, MSCU 0
`1111` = Network 1, TMS 1, QGP 1, MSCU 1

`j,k,l,m` = The physical QLNKs that are mapped to the SM logical links with an inconsistency. Valid value(s):

`0000` = Network 0, TMS 0, QGP 0, MSCU 0
`0001` = Network 0, TMS 0, QGP 0, MSCU 1
`0010` = Network 0, TMS 0, QGP 1, MSCU 0
`0011` = Network 0, TMS 0, QGP 1, MSCU 1
`0100` = Network 0, TMS 1, QGP 0, MSCU 0
`0101` = Network 0, TMS 1, QGP 0, MSCU 1
`0110` = Network 0, TMS 1, QGP 1, MSCU 0
`0111` = Network 0, TMS 1, QGP 1, MSCU 1
`1000` = Network 1, TMS 0, QGP 0, MSCU 0
`1001` = Network 1, TMS 0, QGP 0, MSCU 1
`1010` = Network 1, TMS 0, QGP 1, MSCU 0
`1011` = Network 1, TMS 0, QGP 1, MSCU 1
`1100` = Network 1, TMS 1, QGP 0, MSCU 0
`1101` = Network 1, TMS 1, QGP 0, MSCU 1
`1110` = Network 1, TMS 1, QGP 1, MSCU 0
`1111` = Network 1, TMS 1, QGP 1, MSCU 1

4. ACTION TO BE TAKEN

Study the link-related activities that occurred before the inconsistency to determine its cause.

5. ALARMS

Minor.

6. REFERENCES

None.

REPT:SM-MP-HW

Software Release: 5E10 and later
Message Class: INT_MON
Application: 5
Type: Output

1. FORMAT

[1]

```
REPT SM=a MP HW REGS EVENT=b
  ACTSR  = c  BUSCR = d  CACTL = e  CPDSR = f
  CPISR  = g  DLEMR = h  DLESR = i  DLSCR = j
  DMACS  = k  DMAD0 = l  DMAD1 = m  DMAD2 = n
  DMAD3  = o  DMAP0 = p  DMAP1 = q  DMAP2 = r
  DMAP3  = s  DMWC0 = t  DMWC1 = u  DMWC2 = v
  DMWC3  = w  EXCEP = x  FUNCL = y  HRSMR = z
  HRSRC  = a1 MACTL = b1 MCTRL = c1 MEMBD = f2
  MEMES  = d1 MESMR = e1 PAFFR = f1 PORTA = g1
  PORTB  = h1 PORTC = i1 PROC1 = j1 PROC2 = k1
  RSMSK  = l1 RSTSR = m1 SDACS = n1 SDBCS = o1
  SHADDR = p1 SHBCR = q1 SHOPR = r1
  SRSMR  = s1 SRSRC = t1 STKWD = u1 SUBRR = v1
```

[2]

```
REPT SM=a MP HW REGS EVENT=b
  ACTSR  = c  BUSCR  = d  DLESR  = i  CPDSR = f
  CPISR  = g  SHBCR  = q1 DLEMR  = h  DLSCR = j
  EXCEP  = x  SB20I  = z2 CDSR1  = y2
  RSTSR  = m1 HRSRC  = a1 SRSRC  = t1 MEMES = d1
  RSMSK  = l1 HRSMR  = z  SRSMR  = s1 MESMR = e1
  MACTL  = b1 PAFFR  = f2 PORTA  = g1
  PORTB  = h1 PORTC  = i1 PROC1  = j1 PROC2 = k1
  SHADDR = p1 SHOPR  = r1 STKWD  = u1 SUBRR = v1
  QCSCCE1= a4 QCSCCE2= b4 QCRSR  = c4 QCMCR  = d4
  QCSCCM1= e4 QCSCCM2= f4 QCICCR = g4 QCSDCR = h4
  QCSCCE3= i4 QCSCCE4= j4 QCCSR1 = k4 QCCSR2 = l4
  QCSCCM3= m4 QCSCCM4= n4 QCCMAR1= o4 QCCMAR2= p4
```

[3]

```
REPT SM=a MP HW REGS EVENT=b
  ACTSR  = c  EXCEP  = x  PORTA  = g1  PRTBN = w1
  PROC1  = j1 PROC2  = k1 PROC3  = x1
  RSTSR  = m1 HRSRC  = a1 SRSRC  = t1
  RSMSK  = l1 HRSMR  = z  SRSMR  = s1
  SESR   = y1 BSNES  = z1 APESR  = a2
  SESMR  = b2 BSNEM  = c2 APESM  = d2
  CORES  = s2 CAXES  = t2 COCTL  = u2 CPDSR = f
  CORMR  = v2 CAXEM  = w2 MCIDR  = x2 CPISR = g
  SUBRR  = e2 MEMBD  = f2 CDSR1  = y2
  MBSR10 = g2 MBSR11 = h2 MBSR12 = i2 MBSR13 = j2
```

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```
MBESR0 = k2 MBESR1 = l2 MBESR2 = m2 MBESR3 = n2
MBESM0 = o2 MBESM1 = p2 MBESM2 = q2 MBESM3 = r2
BUSCR  = d  SHADDR = p1
SHBCR  = q1 SHOPR  = r1
CORCD  = a3
```

2. REASON FOR OUTPUT

To provide information about specific module processor (MP) hardware registers for trouble analysis. This message is automatically generated by the system when a fault is detected. A REPT:SM-HWLVL output message and others should appear with the same event number to report other details of the error.

Format 1 prints when equipped with MCTU2 and earlier SMs.

Format 2 prints when equipped with an MCTU3 SM.

Format 3 prints when equipped with SM-2000.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number where the report originated.

Note: The maps referred to in this message description are located in the header files of the software listings.

b = Event number.

c = Contents of the active circuit status register (ACTSR) in hexadecimal notation.

d = Contents of the bus control register (BUSCR) in hexadecimal notation.

e = Contents of the cache control register (CACTL) in hexadecimal notation.

f = Contents of the central processor intervention (CPI) diagnostic status register (CPDSR) in hexadecimal notation.

g = Contents of the CPI status register (CPISR) in hexadecimal notation.

h = Contents of the dual link interface-module processor/module controller (DLI-MP) interface error mask register (DLEMR) in hexadecimal notation.

i = Contents of the DLI-MP interface error source register (DLESR) in hexadecimal notation.

j = Contents of the dual link interface (DLI) switch control register (DLSCR) in hexadecimal notation.

k = Contents of the direct memory access (DMA) command register (DMACS) in hexadecimal notation.

l = Contents of the channel 0 DMA controller (address register) in hexadecimal notation.

m = Contents of the channel 1 DMA controller (address register) in hexadecimal notation.

n = Contents of the channel 2 DMA controller (address register) in hexadecimal notation.

o = Contents of the channel 3 DMA controller (address register) in hexadecimal notation.

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p = Contents of the DMA 0 map register in hexadecimal notation.

q = Contents of the DMA 1 map register in hexadecimal notation.

r = Contents of the DMA 2 map register in hexadecimal notation.

s = Contents of the DMA 3 map register in hexadecimal notation.

t = Contents of the channel 0 DMA controller (current word count register) in hexadecimal notation.

u = Contents of the channel 1 DMA controller (current word count register) in hexadecimal notation.

v = Contents of the channel 2 DMA controller (current word count register) in hexadecimal notation.

w = Contents of the channel 3 DMA controller (current word count register) in hexadecimal notation.

x = Exception (EXCEP) number of this error, in decimal.

y = Contents of the function code latch (FUNCL) register in hexadecimal notation.

z = Contents of the hardware reset source mask register (HRSMR) in hexadecimal notation.

a[1] = Contents of the hardware reset source (HRSRC) register in hexadecimal notation.

b[1] = Contents of the memory auxiliary control (MACTL) register in hexadecimal notation.

c[1] = Contents of the memory control (MCTRL) register in hexadecimal notation.

d[1] = Contents of the memory error source (MEMES) register in hexadecimal notation.

e[1] = Contents of the memory error source mask register (MESMR) in hexadecimal notation.

f[1] = Contents of the pre-active flip-flop register (PAFFR) in hexadecimal notation.

g[1] = Contents of the scan port A in hexadecimal notation.

h[1] = Contents of the scan port B in hexadecimal notation.

i[1] = Contents of the scan port C in hexadecimal notation.

j[1] = Contents of the processor status 1 register (PROC1) in hexadecimal notation.

k[1] = Contents of the processor status 2 register (PROC2) in hexadecimal notation.

l[1] = Contents of the reset mask (RSMSK) register in hexadecimal notation.

m[1] = Contents of the reset error source register (RSTSR) in hexadecimal notation.

n[1] = Contents of the synchronous data link controller (SDLC) A command/status register in hexadecimal notation.

o[1] = Contents of the SDLC B command/status register in hexadecimal notation.

p[1] = Contents of the shadow address register (SHADDR) in hexadecimal notation.

q[1] = Contents of the shadowed bus control register (SHBCR) in hexadecimal notation.

r^1 = Contents of the shadowed operations register (SHOPR) in hexadecimal notation.

s^1 = Contents of the software reset source mask register (SRSMR) in hexadecimal notation.

t^1 = Contents of the software reset source register (SRSRC) in hexadecimal notation.

u^1 = Contents of the stack window (STKWD) register (index of the current user stack) in hexadecimal notation.

v^1 = Contents of the subunit ready register (SUBRR) in hexadecimal notation.

w^1 = Contents of the scan port B (PRTBN) in hexadecimal notation.

x^1 = Contents of the processor status 3 register (PROC3) in hexadecimal notation.

y^1 = Contents of the summary error source register (SESR).

z^1 = Contents of the bus service node error source register (BSNES).

a^2 = Contents of the application processor control error source register (APESR).

b^2 = Contents of the summary error source mask register (SESMR).

c^2 = Contents of the bus service node error source mask register (BSNEM).

d^2 = Contents of the application processor control error source mask register (APESM).

e^2 = Contents of the subunit ready register (SUBRR).

f^2 = Memory board (MEMBD) identifier is a decimal number of the memory board evaluated by switch fault recovery.

g^2 = Contents of the memory board status register 1-0.

h^2 = Contents of the memory board status register 1-1.

i^2 = Contents of the memory board status register 1-2.

j^2 = Contents of the memory board status register 1-3.

k^2 = Contents of the memory board 0 error source register.

l^2 = Contents of the memory board 1 error source register.

m^2 = Contents of the memory board 2 error source register.

n^2 = Contents of the memory board 3 error source register.

o^2 = Contents of the memory board 0 error source mask register.

p^2 = Contents of the memory board 1 error source mask register.

q^2 = Contents of the memory board 2 error source mask register.

r^2 = Contents of the memory board 3 error source mask register.

s^2 = Contents of the core error source register.

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t^2 = Contents of the core auxiliary error source register.

u^2 = Contents of the core control register.

v^2 = Contents of the core error source mask register.

w^2 = Contents of the core auxiliary error source mask register.

x^2 = Contents of the module controller identification register.

y^2 = Contents of the core dynamic random access memory status register 1.

z^2 = Contents of the SB20CORE identification register.

a^3 = Contents of the [CORE60, CORE60+, CORE60MM] core code register.

a^4 = Contents of the QUICC SSC1 event register.

b^4 = Contents of the QUICC SSC2 event register.

c^4 = Contents of the QUICC reset status register.

d^4 = Contents of the QUICC module configuration register.

e^4 = Contents of the QUICC SCC1 mask register.

f^4 = Contents of the QUICC SCC2 mask register.

g^4 = Contents of the QUICC IDMA channel configuration register.

h^4 = Contents of the QUICC SDMA configuration register.

i^4 = Contents of the QUICC SCC3 event register.

j^4 = Contents of the QUICC SCC4 event register.

k^3 = Contents of the QUICC IDMA1 channel status register.

l^4 = Contents of the QUICC IDMA2 channel status register.

m^4 = Contents of the QUICC SCC3 mask register.

n^4 = Contents of the QUICC SCC4 mask register.

o^4 = Contents of the QUICC IDMA1 channel mask register.

p^4 = Contents of the QUICC IDMA2 channel mask register.

4. ACTION TO BE TAKEN

None. Monitor the progress of the software recovery. Initiate manual actions if the recovery does not proceed as expected.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT:SM-HWLVL
```

Other Manual(s):
235-105-220 *System Recovery*

REPT:SM-NLI

Software Release: 5E10 and later
Message Class: RCVY
Application: 5
Type: Output

1. FORMAT

```
REPT SM=a,b,c NLI HW REGS EVENT=d
                   e ONTC 0         e ONTC 1
  ORIG-NLI-STATUS:   f              f
  NLI-ERRORS:        g              g
  FINAL-NLI-STATUS:  h              h

                  [i] MCTSI 0    [i] MCTSI 1
  CMCCR-ORIG:        j              j
  CMCCR-FINAL:       k              k
  CMEMR:             l              l
  CMESR:             m              m

  NLI n-o TSI BOARD p PORT q r
  IFEMR=s                  NLEMR=t NLLCR=u
  IFESR=v ACT-IFCTL-O=w   NLESR=x NLBST=y
  [z-IFESRF=a1] [ACT-IFCTL-F=b1]

                  .
                  .
                  .
```

2. REASON FOR OUTPUT

To report the contents of specific time slot interchange (TSI) and network link interface (NLI) hardware registers as information for trouble analysis. This message may contain a maximum of four NLI error reports and a minimum of one. This message is automatically generated by the system when a NLI fault is detected.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number where the report originated.

`b` = SM side on which the interrupt occurred.

`c` = SM processor status of side reporting the error (ACT or MATE).

`d` = Event number, time sequence indicator.

`e` = The office network and timing complex (ONTC) status. Valid value(s):
- `MAJ` = The major ONTC side.
- `MIN` = The minor ONTC side.
- `OOS` = The ONTC side is out of service (OOS).

`f` = Bit map of the original NLI statuses for the ONTC side specified. Valid value(s):
- `0` = OOS.
- `1` = In service.

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`g` = Bit map of the NLIs that reported errors for the ONTC side specified. Valid value(s):
`0` = No error reported.
`1` = An error is reported.

`h` = Bit map of the final NLI statuses for the ONTC side specified. Valid value(s):
`0` = OOS.
`1` = In service.

`i` = The MCTSI state. This field prints unless the MCTSI was reconfigured as part of the interrupt recovery actions. Valid value(s):
`ACT` = The MCTSI is active.
`OOS` = The MCTSI is OOS.
`STBY` = The MCTSI is on standby.
`UNAV` = The MCTSI is unavailable.

`j` = Original contents of the TSI clock control register (TSCMCCR) for the module controller/time slot interchange (MCTSI) specified. This value is blank if the MCTSI is OOS.

`k` = Final contents of the TSCMCCR for the MCTSI specified. This value is blank if the MCTSI is OOS.

`l` = Contents of the TSI common board (TSICOM) error mask register (TSCMEMR) for the MCTSI specified. This value is blank if the MCTSI is OOS.

`m` = Contents of the TSICOM error source register (TSCMESR) for the MCTSI specified. This value is blank if the MCTSI is OOS.

Note: The remaining fields identify a set of NLI data for a specific NLI error. The number of sets depends on the number of NLIs that are reporting faults.

`n` = NLI number.

`o` = ONTC side.

`p` = TSI board number.

`q` = Relative TSI port associated with the specified TSI board.

`r` = Source of the error that caused the interrupt. Valid value(s):
`BUFFER-CHECK` = The network link interface (NLI) detected a buffer check error.
`CRC-FROM-ACTIVE-TSI` = The NLI detected a CRC error on data received from the active TSI.
`CRC-FROM-MATE-TSI` = The NLI detected a CRC error on data received from the mate TSI.
`INTERNAL-PARITY` = The NLI detected an internal parity error.
`NO-ERROR` = There were no errors found on the reporting NLI(s).
`NOT-IN-ERROR` = There was no NLI error found, although the TSI reported that the NLI declared an error.
`OUT-OF-FRAME` = The NLI detected out of frame errors on data from the ONTC.
`OVERHEAD-BYTE-PARITY` = The NLI detected a parity error on the overhead bytes from the TSI.
`PARITY` = The NLI detected a parity error on data from the ONTC.
`SOFTWARE-MASK-PROBLEM` = The NLI was declaring an error that should have been masked.

TSI-CRC = The TSI detected CRC errors on data received from the NLI.
TSI-LOSS-OF-CLOCK = The TSI detected a loss of the clock signal from the NLI.
TSI-LOSS-OF-CLOCK-REFERENCE = The TSICOM detected loss of the clock reference from the NLI being used as the source of timing.
TSI-OVERHEAD-PARITY = The TSI detected a parity error on the overhead bytes from the NLI.
TSI-SYNCHRONIZATION = The TSI detected a synchronization error with the NLI.

s = Contents of the TSI interface (IF) error mask register (TSIFEMR) of the identified TSI board and port.

t = Contents of the NLI error mask register (NLEMR) of the identified NLI.

u = Contents of the NLI link control register (NLLCR) of the identified NLI.

v = Original contents of the TSI IF error source register (TSIFESR) of the identified TSI board and port.

w = Original contents of the active MCTSI IF control register (TSIFCTL) of the identified TSI board and port.

x = Contents of the NLI error source register (NLESR) of the identified NLI.

y = Contents of the NLI built in self test register (NLBIST) of the identified NLI.

z = Additional TSIFESR data that was analyzed for this NLI fault. This field only prints if this register is used to help determine the error. Valid value(s):
ACT = The data is from the active MCTSI TSIFESR of the identified TSI board and port.
MOD = The data is from the reporting side (either active or mate) TSIFESR of the identified TSI board and port.

a[1] = Final contents of the register identified in parameter 'z'. This field only prints if parameter 'z' prints.

b[1] = Final contents of the active side TSI IFCTL register. This field only prints if this register was modified as part of the NLI error analysis/recovery procedures.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT:SM-HWLVL
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-110 *System Maintenance Requirements and Tools*

REPT:SM-OFFLINE

Software Release: 5E10 and later
Message Class: GENR
Application: 5
Type: Output

1. FORMAT

```
REPT SM=a b[DATA=c|d]
```

2. REASON FOR OUTPUT

To report progress or reason for termination for certain types of action on a switching module (SM). These types of action include an SM off-line pump with or without peripheral offline pump.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = Outcome of the request. Valid value(s):

`OFFLINE PUMP ALREADY IN PROGRESS` = An offline pump was requested but there was one already in progress.

`OFFLINE PUMP COMPLETED` = The offline pump has been completed successfully.

`OFFLINE PUMP REQUEST IGNORED: NIPMP IN PUMP PROGRESS` = Offline pump request was not executed because a Non-Interfering Pump request is currently running.

`OFFLINE PUMP STOPPED: PROCESS PURGED` = The Offline Pump System Process in the SM was purged during the offline pump, mate hashsum checks, offline verify, or peripheral offline pump. The offline pump request has been aborted and must be retried.

`OFFLINE PUMP STOPPED: ASSERT LOGGED` = A problem occurred over which the offline pump has no control. Offline pump has stopped and the reason can be found in the assert log file.

`OFFLINE PUMP STOPPED: BTSR/PUMP HW BAD OR UNAVAILABLE` = The pump hardware in the SM was found to be bad or not operational. In a module control and time slot interchange unit, version 2 (MCTU2), this pump hardware is duplicated in each module controller and time slot interchanger (MCTSI). In earlier versions, the SM pump hardware is the simplex bootstrapper (BTSR) circuit.

`OFFLINE PUMP STOPPED: CANNOT CONNECT PATH` = Fewer than ten free timeslots were found for the offline pump (chosen from a fixed set of 32).

`OFFLINE PUMP STOPPED: CANNOT OPEN DISK FILE` = The administrative module (AM) pump process could not open the image files for this SM.

`OFFLINE PUMP STOPPED: CRITICAL MATE MP ERRORS` = Processor errors occurred on the offline side during the verify (the initialization of the offline side following the memory pump).

`OFFLINE PUMP STOPPED: INCONSISTENT SM NUMBERS DATA = c` = Indicates that the SM number recorded in the offline side differs from the SM number in the active memory.

`OFFLINE PUMP STOPPED: LACK OF PROGRESS` = The SM timed out waiting for a response from the AM.

`OFFLINE PUMP STOPPED: MATE ACT AT END OF VRFY DATA = d` = The offline processor was still running at the end of the period allowed for offline initialization/verification.

`OFFLINE PUMP STOPPED: MATE HASHSUM ERRORS` = Hashsum checks failed four times.

`OFFLINE PUMP STOPPED: MATE NOT READY` = Offline pump has stopped. The mate is not

ready to be offline pumped. Some of the common reasons for this are that the active side of the SM was not forced with the mate side out of service, or that the mate was powered down.

`OFFLINE PUMP STOPPED: OFFLINE VERIFY FAILED DATA = d` = The offline side was pumped and passed hashsum checks, but the offline initialization (the verify stage of offline pump) failed.

`OFFLINE PUMP STOPPED: PPC/TMS PROBLEM` = An error occurred on the pump peripheral controller (PPC) or time multiplexed switch (TMS).

`OFFLINE PUMP STOPPED: OFFLINE RELOCATION FAILED` = The offline relocation of peripheral images failed during broadcast offline pump of the SM.

`OFFLINE PUMP STOPPED: REQUESTED` = The stop was requested either manually or from another process.

`OFFLINE PUMP STOPPED: VERIFY OR PUMP NOT RUN SUCCESSFULLY` = A peripheral offline pump has been requested and either the pump or the verify has not run successfully on the mate side. Refer to the ST:OPUMP-SM input message for further information.

`OFFLINE PERIPHERAL PUMP FAILED` = One or more peripherals failed the offline pump. The failing peripherals can be retrieved by entering the OP:OPUMP message for this SM.

`OFFLINE PERIPHERAL PUMP STOPPED: REVERSE VERIFY IN PROGRESS` = After the SM switched and initialized, an offline peripheral pump request was denied since reverse verification was in progress.

`c` = A hexadecimal number indicating the SM number recorded in the offline side.

`d` = A hexadecimal number indicating the progress mark.

4. ACTION TO BE TAKEN

In the case of offline pump failures, check the indicated error source. For example, if there was a failure to open a disk file, check to make certain that all appropriate disk files exist on mounted partitions. Also, check compliance with retrofit/update procedures. If errors continue after retrying the command, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CFGSTAT
OP:OFFNORM-SM
OP:OPUMP
ST:NIPMP
ST:OPUMP-SM
STP:NIPMP
STP:OPUMP-SM
```

Output Message(s):

```
REPT:SM-HASHSUM
REPT:SM-REVERSE
REPT:NIPMP
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-105-24x *Generic Retrofit Procedures*
235-105-34x *Generic Update Procedures*

REPT:SM-PI-HW

Software Release: 5E10 and later
Message Class: INT_MON
Application: 5
Type: Output

1. FORMAT

```
REPT SM=a PI HW REGS EVENT = b
  ADPTR=c     SESMR=d     SESR=e     SWPCT=f
  STATUS-WORD=g
```

2. REASON FOR OUTPUT

To report the contents of specific hardware registers for the packet interface (PI).

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number.
b	= Event number.
c	= Contents of PI dual access RAM (DARAM) subunit address pointer register (ADPTR) in hexadecimal notation.
d	= Contents of PI subunit error source mask register (SESMR) in hexadecimal notation.
e	= Contents of PI subunit error source register (SESR) in hexadecimal notation.
f	= Contents of PI subunit write-protect control register (SWPCT) in hexadecimal notation.
g	= Contents of PI maintenance buffer status word (located in PI DARAM) in hexadecimal notation.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT:SM-HWLVL
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-110 *System Maintenance Requirements and Tools*

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REPT:SM-PIDB

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT SM=a,b PIDB PARITY FAILURE EVENT=c
  REASON FOR OUTPUT d
  TOTAL UNLINKED TIME SLOTS=e [f g]
 [PICB=h TYPE=i UNIT=j SG=k]
  PIDB ERRS TIMESLOTS
  l    m    [n...]
```

2. REASON FOR OUTPUT

To report that a peripheral interface data bus (PIDB) party error occurred, either on unlinked or linked time slots. A time slot is unlinked if software is not able to find out what peripheral circuit was using the time slot interchange (TSI) time slot. This message is generated only when a PIDB parity error occurs and one of these three things is true:

- The time slot taking the PIDB parity error was not linked to a switching module (SM) peripheral circuit or a database read failure occurred and the peripheral circuit could not be found.
- The flag SMTSDMP is equal to 44 (set by using generic utilities).
- The time slot taking the PIDB parity error was not connected to a PIDB in the hardware. In this case, the reason for output will be '`DISCONNECTED TIME SLOTS`,' the fields '`h`' through '`k`' will not be printed, and field '`l`' will be hexadecimal 7F.

The event number of this message is the same as the corresponding PIDB parity interrupt report.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = Module controller and time slot interchange (MCTSI) side number.

`c` = Event number.

`d` The reason this message was printed. Valid value(s):

`MANUAL REQUEST` = The SMTSDMP flag has been set equal to 44 using generic utilities. This causes this message to be printed whenever a PIDB parity error occurs, whether or not the time slots are linked by data structures to a peripheral circuit.

`UNLINKED TIME SLOTS` = The only PIDB time slots that had bad parity were not linked by data structures to a peripheral circuit.

`DISCONNECTED TIME SLOTS` = The time slots in the message had bad parity and were not connected to a PIDB in the hardware.

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e	The number of unlinked time slots found for the PIDB(s) listed in field 'l'.
f	= TSI BOARD number.
g	= Data interface (DI) number.
h	= Hexadecimal number of the peripheral interface control bus (PICB) associated with the unit with the most PIDB parity errors. This number is the key to the PICB relation.
i	= The type of unit associated with PICB 'h'. This is a decimal number representing the 'unittype' attribute in the PICB relation.
j	= The decimal unit number associated with PICB 'h'.
k	= The service group number associated with PICB 'h'.
l	= Hexadecimal number of the PIDB that had parity errors. This number is the key to the PIDB relation. If this number is equal to 7F, then the time slot was not linked to a PIDB.
m	= The decimal number of PIDB parity errors that occurred on PIDB 'l'.
n	= TSI time slot number in decimal that had a PIDB parity error on PIDB 'l'.

4. ACTIONS TO BE TAKEN

If this message was not requested manually by setting SMTSDMP to 44, monitor the progress of software recovery. Initiate manual actions if the recovery does not proceed as expected. If SMTSDMP has been set to 44, it remains set until it is explicitly set to zero.

Check the ODD for multiple definitions of some circuits; one possible failure cause is multiple ports with the same offset (such as, channel 4), different circuit names (different PICBs), and the same base address (in the CKTDATA relation). If this report indicates software problems, the information in the other messages associated with this event number (field 'c') should be examined.

SMts[] is an array containing the information dumped by this message, as an array of shorts (two bytes each) with the first entry being the number of the PIDB parity entries in SMts[].

For SM-2000, succeeding shorts contain the channel number in the upper byte and the PIDB number in the lower byte. For other SMs, the succeeding shorts contain the channel number in the upper 3 digits and PIDB number in the lower digit. If some data are not printed due to message size limitations or brevity control, the array SMts[] may be dumped manually to get the data from the last occurrence of this message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
LOAD:UT-SM
DUMP:UT-SM
```

Output Message(s):

```
REPT:SM-HWLVL
```

REPT:SM-PLI

Software Release: 5E10 and later
Message Class: RCVY
Application: 5
Type: Output

1. FORMAT

```
REPT SM=a,b,c PLI HW REGS EVENT=d

  PLI-ERRORS:        e f        g h

              [i] MCTSI 0        [i] MCTSI 1
  CMCCR-ORIG:      j            j
  CMCCR-FINAL:     k            k
  CMEMR:           l            l
  CMESR:           m            m

  PLI n-o TSI BOARD p PORT q r
  IFEMR=s                       PLEMR=t   PLLCR=u
  IFESR=v   ACT-IFCTL-O=w   PLESR=x   PLBST=y
  [z-IFESRF=a1] [ACT-IFCTL-F=b1]
  AUX-CNTL=c1 c2 c3

                 .
                 .
                 .
```

2. REASON FOR OUTPUT

To report the contents of specific time slot interchange (TSI) and peripheral link interface (PLI) hardware registers as information for trouble analysis. This message may contain a maximum of five PLI error reports and a minimum of one. This message is automatically generated by the system when a PLI fault is detected.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number where the report originated.

`b` = SM side on which the interrupt occurred.

`c` = SM processor status of side reporting the error (ACT or MATE).

`d` = Event number, time sequence indicator.

`e` = Bit map of the PLIs (that is, TSI links 32-40) that reported errors for peripheral side 0. Valid value(s):
- `0` = No error reported.
- `1` = An error is reported.

`f` = Bit map of PLIs (that is, TSI links 0-31) that reported errors for peripheral side 0. Valid value(s):
- `0` = No error reported.
- `1` = An error is reported.

`g` = Bit map of the PLIs (that is, TSI links 32-40) that reported errors for peripheral side 1. Valid value(s):

`0` = No error reported.
`1` = An error is reported.

`h` = Bit map of the PLIs (that is, TSI links 0-31) that reported errors for the peripheral side 1. Valid value(s):

`0` = No error reported.
`1` = An error is reported.

`i` = The MCTSI state. This field prints unless the MCTSI was reconfigured as part of the interrupt recovery actions. Valid value(s):

`ACT` = The MCTSI is active.
`OOS` = The MCTSI is OOS.
`STBY` = The MCTSI is on standby.
`UNAV` = The MCTSI is unavailable.

`j` = Original contents of the TSI clock control register (TSCMCCR) for the module controller/time slot interchange (MCTSI) specified. This value is blank if the MCTSI is OOS.

`k` = Final contents of the TSCMCCR for the MCTSI specified. This value is blank if the MCTSI is OOS.

`l` = Contents of the TSI common board (TSICOM) error mask register (TSCMEMR) for the MCTSI specified. This value is blank if the MCTSI is OOS.

`m` = Contents of the TSICOM error source register (TSCMESR) for the MCTSI specified. This value is blank if the MCTSI is OOS.

Note: The remaining fields identify a set of PLI data for a specific PLI error. The number of sets depends on the number of PLIs that are reporting faults.

`n` = PLI number.

`o` = Peripheral side.

`p` = TSI board number.

`q` = Relative TSI port associated with the specified TSI board.

`r` = Source of the error that caused the interrupt. Valid value(s):

`PLI-DETECTED-BUFFER-CHECK-ERROR` = The PLI detected a buffer check error.
`PLI-DETECTED-BAD-CRC` = The PLI detected a CRC error on data received from the peripheral.
`PLI-DETECTED-ACTIVE-MCTSI-CRC-ERROR` = The PLI detected a CRC error on data received from the active TSI.
`PLI-DETECTED-MATE-MCTSI-CRC-ERROR` = The PLI detected a CRC error on data received from the mate TSI.
`PLI-DETECTED-BAD-SUPERFRAME-BYTE` = The PLI detected a bad superframe byte received from the peripheral.
`PLI-DETECTED-BAD-FRAME-WORD` = The PLI detected a bad frame word received from the peripheral.

PLI-DETECTED-INTERNAL-DATA-PARITY = The PLI detected an internal parity error.
PLI-TRANSIENT-ERROR = There were no errors found on any PLI(s).
PLI-ERRONEOUS-ERROR-REPORT = There was no PLI error found, although the TSI reported that the PLI declared an error.
PLI-DETECTED-OUT-OF-FRAME = The PLI detected out of frame errors on data from the peripheral.
PLI-DETECTED-OVERHEAD-PARITY = The PLI detected a parity error on the overhead bytes from the TSI.
PLI-DETECTED-PERIPHERAL-PARITY-ERROR = The PLI detected a parity error on data from the peripheral.
PLI-MASK-ERROR = The PLI was declaring an error that should have been masked.
IF-DETECTED-CRC-ERROR-ON-PLI = The TSI detected CRC errors on data received from the PLI.
IF-DETECTED-LOSS-OF-CLOCK-ON-PLI = The TSI detected a loss of the clock signal from the PLI.
IF-DETECTED-LOSS-OF-REFERENCE-ON-PLI = The TSICOM detected loss of the clock reference from the PLI being used as the source of timing.
IF-DETECTED-OVERHEAD-PARITY-ON-PLI = The TSI detected a parity error on the overhead bytes from the PLI.
IF-DETECTED-SYNC-ERROR-ON-PLI = The TSI detected a synchronization error with the PLI.

s = Contents of the TSI interface (IF) error mask register (TSIFEMR) of the identified TSI board and port.

t = Contents of the PLI error mask register (PLEMR) of the identified PLI.

u = Contents of the PLI link control register (PLLCR) of the identified PLI.

v = Original contents of the TSI IF error source register (TSIFESR) of the identified TSI board and port.

w = Original contents of the active MCTSI IF control register (TSIFCTL) of the identified TSI board and port.

x = Contents of the PLI error source register (PLESR) of the identified PLI.

y = Contents of the PLI built in self test register (PLBIST) of the identified PLI.

z = Additional TSIFESR data that was analyzed for this PLI fault. This field only prints if this register is used to help determine the error. Valid value(s):
ACT = The data is from the active MCTSI TSIFESR of the identified TSI board and port.
MOD = The data is from the reporting side (either active or mate) TSIFESR of the identified TSI board and port.

a^1 = Final contents of the register identified in parameter 'z'. This field only prints if parameter 'z' prints.

b^1 = Final contents of the active side TSI IFCTL register. This field only prints if this register was modified as part of the PLI error analysis/recovery procedures.

c^1 = Contents of the peripheral auxiliary control register 1.

c^2 = Contents of the peripheral auxiliary control register 2.

c^3 = Contents of the peripheral auxiliary control register 3.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT:SM-HWLVL
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-110 *System Maintenance Requirements and Tools*

REPT:SM-PSLNK-A

Software Release: 5E10 only
Message Class: VAR
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT SM=a PSLNK=b-c d  CH=e f  MATE-CH g

[2]   ____________________________________________________________________
      REPT SM=a PSLNK=b-c d  CH=e f
```

2. REASON FOR OUTPUT

To report a change in state of a packet switch unit (PSU) link. A link consists of one or two channels which can transition from in-service (IS) to out-of-service (OOS) or vice versa.

Format 1 reports the a change in one channel of a duplex link (a link consisting of two channels) and also reports the state of the mate channel.

Format 2 reports the state of a simplex link.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Near-end PSU community address (CA). This is the CA where the state change was detected.

`c` = Far-end PSU community address. This is the far-end of the link being reported.

`d` = Link summary status. Indicates the overall the link status of the link. A link may be simplex or duplex. A duplex link consists of two channels and a simplex link has one channel. The link is in service if at least one channel is active. Valid value(s):

- `ACT` = If this is a simplex link, the channel is active. For a duplex link, one channel is active and the other is standby. All traffic between the two PSUs is carried on the active channel, with the standby ready to take over if needed.
- `OFFNORM` = This only applies to duplex links and indicates that one channel is active and the other is OOS. Communication between the two PSUs will be lost if the active channel should go OOS.
- `OOS` = There is no active channel and therefore no communication over the link.

`e` = Channel (0 or 1).

`f` = Channel status. Valid value(s):

- `ACT` = The channel is carrying traffic between the two PSUs.
- `OOS-AIS` = The channel is OOS because the far end is OOS.
- `OOS-LCL` = The channel is OOS because it cannot receive data from the far end. This does not necessarily mean that the problem is in the local hardware. It could be a problem with the fiber link or the far-end transmitter.
- `OOS-RMT` = The channel is OOS because it is receiving an indication from the far end that it cannot receive data from the near end. This does not necessarily mean that the

problem is in the local hardware. It could be a problem in the near-end transmitter or the fiber link.

`OOS-FE` = The channel is OOS because the parent PHA is OOS.

`STBY` = The channel is in service and available to carry traffic if necessary.

`g` = Mate channel status. Values are the same as for the channel status.

4. ACTION TO BE TAKEN

No action is required if a channel has transitioned from OOS to IS or if a switch is reported.

If a channel has gone OOS, monitor the progress of software recovery, and initiate manual actions if the recovery does not proceed as expected.

If 'f' =	**Action:**
OOS-RMT	Verify that the near-end packet handler for ATM (PHA) passes diagnostics and that the paddleboard and optical fiber associated with the near-end PHA are intact and properly connected.
OOS-LCL	Check the status of the far-end PHA. If the far-end is OOS, then the far-end must first be restored. Otherwise, verify that the near-end PHA passes diagnostics and that all hardware is intact and properly connected.
OOS-AIS	There is a hardware or software problem with the far-end PHA. The far-end PHA should be diagnosed and repaired as necessary.
OOS-FE	The parent PHA is OOS. It must be restored to service before the channel can be restored to service.

5. ALARMS

Major, minor, or none. A major alarm occurs if the link is in duplex failure (and the condition is not due to manual action). A minor alarm occurs if a single channel is OOS. No alarm occurs when both channels of the link are restored to service.

6. REFERENCES

Input Message(s):

```
DGN:PSU
RST:PSUPH
OP:ST-PSLNK
OP:CONV-PSLNK
```

Output Message(s):

```
DGN:PSU
OP:ST-PSLNK
OP:CONV-PSLNK
```

MCC Display Page(s):

1187 (PSU LINKS)
1186 (PSU NETWORK)
118n (PSU SHELF)

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REPT:SM-PSLNK-B

Software Release: 5E11 and later
Message Class: VAR
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT SM=a PSLNK=b-c d  CH=e f  MATE-CH g

[2]   ____________________________________________________________________
      REPT SM=a PSLNK=b-c d  CH=e f
```

2. REASON FOR OUTPUT

To report a change in state of a packet switch unit (PSU) link (PSLNK). A link consists of one or two channels which can transition from in-service (IS) to out-of-service (OOS) or vice versa.

Format 1 reports a change in one channel of a duplex link (a link consisting of two channels) and also reports the state of the mate channel.

Format 2 reports a change in the state of a simplex link.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Near-end PSU community address (CA). This is the CA where the state change was detected.

`c` = Far-end PSU community address. This is the far-end of the link being reported.

`d` = Link summary status. Indicates the overall status of the link. A link may be simplex or duplex. A duplex link consists of two channels and a simplex link has one channel. The link is in service if at least one channel is active. Valid value(s):

- `ACT` = If this is a simplex link, the channel is active. For a duplex link, one channel is active and the other is standby. All traffic between two end points of a PSLNK is carried on the active channel, with the standby ready to take over if needed.
- `OFFNORM` = This only applies to duplex links and indicates that one channel is active and the other is one of the following states: `OOSF-FE`, `OOS-LCL`, `OOS-AIS`, `ACT-RMT`, or `STBY-RMT`. Communication between the two end points of the PSLNK will be lost if the active channel should go OOS.
- `OOS` = There is no active channel and therefore no communication over the link.

`e` = Channel (0 or 1).

`f` = Channel status. Valid value(s):

- `ACT` = The channel is carrying traffic between two end points of a PSLNK.
- `ACTF` = The channel is forced to carry traffic between two end points of a PSLNK because its mate has been manually made unavailable by the SET:PSLNK input message.
- `ACT-RMT` = The channel is still capable of carrying traffic but it is receiving a SONET/SDH indication from the far end that it cannot receive data from the near end. This does

not necessarily mean that the problem is in the local electrical hardware. It could be a problem in the near-end optical transmitter or the fiber link.

`OOS-AIS` = The channel is OOS because the far end is OOS.

`OOS-LCL` = The channel is OOS because it cannot receive data from the far end. This does not necessarily mean that the problem is in the local electrical hardware. It could be a problem with the fiber link or the far-end optical transmitter.

`OOS-FE` = The channel is OOS because its parent PHA is OOS.

`STBY` = The channel is in service and available to carry traffic if necessary.

`STBY-RMT` = The channel is in service and available to carry traffic if necessary, but it is receiving an SONET/SDH indication from the far end that it cannot receive data from the near end. This does not necessarily mean that the problem is in the local electrical hardware. It could be a problem in the near-end optical transmitter or the fiber link.

`UNAV` = The channel has been manually lock out of protection switch (channel 0 only) or forced switch away from it.

`UNEQUIP` = The channel does not exist because its parent PHA is unequipped.

`g` = Mate channel status. Values are the same as for the channel status (refer to variable `f`.)

4. ACTION TO BE TAKEN

No action is required if a channel has transitioned from OOS to IS or if a switch is reported.

If a channel has gone OOS, monitor the progress of software recovery, and initiate manual actions if the recovery does not proceed as expected.

If '`f`'=	**Action:**
`ACT-RMT` `ACTF-RMT`	Verify that the near-end packet handler for ATM (PHA) passes diagnostics and that the paddleboard and optical fiber associated with the near-end PHA are intact and properly connected.
`OOS-LCL`	Check the status of the far-end PHA. If the far-end is OOS, then the far-end must first be restored. Otherwise, verify that the near-end PHA passes diagnostics and that all hardware is intact and properly connected.
`OOS-AIS`	There is a hardware or software problem with the far-end PHA. The far-end PHA should be diagnosed and repaired as necessary.
`OOS-FE`	The parent PHA is OOS. It must be restored to service before the channel can be restored to service.
`STBY-RMT`	Verify that the near-end PHA passes diagnostics and that the paddleboard and optical fiber associated with the near-end PHA are intact and properly connected.
`UNAV`	The channel is manually made unavailable for protection switch by the near end or by the far end using the SET:PSLNK input message. It must be cleared using the CLR:PSLNK input message before the channel will become available.

5. ALARMS

Major, minor, or none. A channel is not in normal operation when it is not `ACT`, `ACTF`, or `STBY` (refer to variable `f`.) A major alarm occurs if all channels of a PSU link are not in normal operation (and the condition is not due to manually requested action.) A minor alarm occurs if a single channel of a duplex PSU link is not in normal operation (and the condition is not due to manually requested action.) No alarm occurs when both channels of the link are restored to normal operation.

6. REFERENCES

Input Message(s):

```
CLR:PSLNK
```

```
DGN:PSU
RST:PSUPH
OP:ST-PSLNK
OP:CONV-PSLNK
SET:PSLNK
```

Output Message(s):

```
DGN:PSU
OP:ST-PSLNK
OP:CONV-PSLNK
```

MCC Display Page(s):

1187 (PSU LINKS)
1186 (PSU NETWORK)
118n (PSU SHELF)

REPT:SM-PUMP

Software Release: 5E10 and later
Message Class: INT
Application: 5
Type: Output

1. FORMAT

```
REPT SM=a FAST PUMP FAILURE:b
```

2. REASON FOR OUTPUT

To report that the normal pump of an switching module (SM) has failed and that the backup pump is in use.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = Reason for failure. Valid value(s):

```
AM/MSGS PROBLEM
BOOTSTRAPPER BAD OR UNAVAILABLE
NO PROGRESS
```

4. ACTION TO BE TAKEN

Investigate the cause of the failure. If the problem is not fixed, future initializations with pump will revert to the backup pump and drastically increase call processing downtime.

5. ALARMS

Major.

6. REFERENCES

None.

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REPT:SM-REVERSE

Software Release: 5E10 and later
Message Class: GENR
Application: 5
Type: Output

1. FORMAT

```
REPT SM=a b
```

2. REASON FOR OUTPUT

To report the reason for termination of the reverse offline verify operation on a switching module (SM). Reverse off-line verification is automatically run after an SM is switched during retrofit.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = Outcome of the request. Valid value(s):

`REVERSE VERIFY COMPLETED` = After the SM switched and initialized, it successfully completed reverse offline verification.

`REVERSE VERIFY FAILED DATA = c` = The SM switched and initialized, but reverse offline verification failed.

`REVERSE VERIFY STOPPED: INCONSISTENT SM NUMBERS DATA = d` = Indicates that the SM number recorded in the offline side differs from the SM number in the active memory.

`REVERSE VERIFY STOPPED: MATE ACT AT END OF VRFY DATA = c` After the SM switched and initialized, the offline processor was still running at the end of the period allowed for reverse offline verification.

`REVERSE VERIFY STOPPED: PROCESS PURGED` = The offline pump system process in the SM was purged during the reverse offline verify. The verify was stopped before completing.

`c` = Hexadecimal number indicating progress mark.

`d` = Hexadecimal number indicating the SM in the offline side.

4. ACTION TO BE TAKEN

In the case of reverse offline verify failures, request an offline pump (with peripherals when appropriate) before switching the SM back.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ST:OPUMP-SM
```

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```
UPD:G-SMBKOUT
UPD:G-SMSWITCH
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-105-24x *Generic Retrofit Procedures*
235-105-34x *Generic Update Procedures*

REPT:SM-RLI-HW

Software Release: 5E10 and later
Message Class: RCVY
Application: 5
Type: Output

1. FORMAT

```
REPT SM=a RLI HW REGS EVENT=b
                          DLI REGS
  ALCTL=c     BLCTL=d     ERR1 =e     ERR2 =f
  LCMDR=g     DLSCR=h     MSK1 =i     MSK2 =j
  AMTSR=k     BMTSR=l     ALCTR=m     BLCTR=n
  LMODE=o
                          FI REGS
  ALICN=p
  BLICN=q     ALTCN=r     AMXCN=s     BMXCN=t
  ERR1 =u     ERR2 =v     AMXER=w     BMXER=x
  MSK1 =y     MSK2 =z     AMXM =a1    BMXM =b1
  CNTLR=c1    T1SEL=d1    CNTL =e1    CTRLT=f1
  CNTER=g1    ASWIN=h1    APCTR=i1    BPCTR=j1
  CNTM =k1    PCLPB=l1
                          MATE FI REGS
  ERR1 =m1    ERR2 =n1    AMXER=o1    BMXER=p1  CNTER=q1
  MSK1 =r1    MSK2 =s1    AMXM =t1    BMXM =u1  CNTM =v1
                          CI HIGH INT SOURCE
  HISRC=w1    HRINH=x1
```

2. REASON FOR OUTPUT

To provide information about specific remote link interface (RLI) hardware registers for trouble analysis. This message is generated automatically by the system when a RLI fault is detected.

3. VARIABLE FIELD DEFINITIONS

Note: The maps referred to in this message description are located in the header files of the software listings.

a = Switching module (SM) number where the interrupt occurred.

b = Event number.

c = 'A' data link control (ALCTL) register contents in hexadecimal notation (smim/SMdl-alctl.h).

d = 'B' data link control (BLCTL) register contents in hexadecimal notation (smim/SMdl-blctl.h).

e = Data link error register 1 (ERR1) contents in hexadecimal notation (smim/SMdl-err1.h).

f = Data link error register 2 (ERR2) contents in hexadecimal notation (smim/SMdl-err2.h).

g = Data link command register (LCMDR) contents in hexadecimal notation (smim/SMdl-lcmdr.h).

h = Data link interface (DLI) switch control register (DLSCR) contents in hexadecimal notation (smim/SMmp-dlscr.h).

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i = Data link error mask register 1 (MSK1) contents in hexadecimal notation (smim/SMdl-mskr1.h).

j = Data link error mask register 2 (MSK2) contents in hexadecimal notation (smim/SMdl-mskr2.h).

k = 'A' message time slot register (AMTSR) contents in hexadecimal notation (smim/SMdl-amtsr.h).

l = 'B' message time slot register (BMTSR) contents in hexadecimal notation (smim/SMdl-bmtsr.h).

m = 'A' data link parity counter register (ALCTR) contents in hexadecimal notation (smim/SMdl-alctr.h).

n = 'B' data link parity counter register (BLCTR) contents in hexadecimal notation (smim/SMdl-blctr.h).

o = Data link mode (LMODE) register contents in hexadecimal notation (smim/SMdl-lmode.h).

p = Facilities interface (FI) 'A' link interface control (ALICN) register contents in hexadecimal notation (smim/SMfi-alicn.h).

q = FI 'B' link interface control (BLICN) register contents in hexadecimal notation (smim/SMfi-blicn.h).

r = FI alternate control (ALTCN) register contents in hexadecimal notation (smim/SMfi-altcn.h).

s = FI 'A' multiplexer control (AMXCN) register contents in hexadecimal notation (smim/SMfi-amxcn.h).

t = FI 'B' multiplexer control (BMXCN) register contents in hexadecimal notation (smim/SMfi-bmxcn.h).

u = FI error source register 1 (ERR1) contents in hexadecimal notation (smim/SMfi-err1.h).

v = FI error source register 2 (ERR2) contents in hexadecimal notation (smim/SMfi-err2.h).

w = FI 'A' multiplexer error (AMXER) source register contents in hexadecimal notation (smim/SMfi-amxer.h).

x = FI 'B' multiplexer error (BMXER) source register contents in hexadecimal notation (smim/SMfi-bmxer.h).

y = FI error source mask (MSK1) register 1 contents in hexadecimal notation (smim/SMfi-mskr1.h).

z = FI error source mask (MSK2) register 2 contents in hexadecimal notation (smim/SMfi-mskr2.h).

a[1] = FI 'A' multiplexer error source mask (AMXM) register contents in hexadecimal notation (smim/SMfi-amxer.h).
Note: Multiplexer errors are masked by writing to the multiplexer error source.

b[1] = FI 'B' multiplexer error source mask (BMXM) register contents in hexadecimal notation (smim/SMfi-bmxer.h).
Note: Multiplexer errors are masked by writing to the multiplexer error source.

c[1] = FI controller register (CNTLR) contents in hexadecimal notation (smim/SMfi-cntlr.h).

d[1] = FI T1 select (T1SEL) register contents in hexadecimal notation (smim/SMfi-t1sel.h).

e[1] = FI control (CNTL) register contents in hexadecimal notation (smim/SMfi-cntl.h).

f[1] = FI counter latch (CTRLT) register contents in hexadecimal notation (smim/SMfi-ctrlt.h).

g[1] = FI controller error (CNTER) source register contents in hexadecimal notation (smim/SMfi-cnter.h).

h[1] = FI 'all seems well' (ASW) and interrupt (ASWIN) test register contents in hexadecimal notation (smim/SMfi-aswin.h).

i[1] = FI 'A' parity error counter (APCTR) register contents in hexadecimal notation (smim/SMfi-apctr.h).

j[1] = FI 'B' parity error counter (BPCTR) register contents in hexadecimal notation (smim/SMfi-bpctr.h).

k[1] = FI controller error source mask (CNTM) register contents in hexadecimal notation (smim/SMfi-cnter.h).
Note: Controller errors are masked by writing to the controller error source.

l[1] = FI loop back (PCLPB) register contents in hexadecimal notation (smim/SMfi-pclpb.h).

m[1] = FI error course register (ERR1) contents in hexadecimal notation (smim/SMfi-err1.h).

n[1] = FI error source register 2 (ERR2) contents in hexadecimal notation (smim/SMfi-err2.h).

o[1] = FI multiplexer 'A' error source register (AMXER) contents in hexadecimal notation (smim/SMfi-amxer.h).

p[1] = FI multiplexer 'B' error source register (BMXER) contents in hexadecimal notation (smim/SMfi-bmxer.h).

g[1] = FI controller error source register (CNTER) contents in hexadecimal notation (smim/SMfi-cnter.h).

r[1] = FI error source 1 mask register (MSK1) contents in hexadecimal notation (smim/SMfi-mskr1.h).

s[1] = FI error source 2 mask register (MSK2) contents in hexadecimal notation (smim/SMfi-mskr2.h).

t[1] = FI multiplexer 'A' error source mask register (AMXM) contents in hexadecimal notation (smim/SMfi-amxer.h).
Note: Multiplexer errors are masked by writing to the multiplexer error source.

u[1] = FI multiplexer 'B' error source mask register (BMXM) contents in hexadecimal notation (smim/SMfi-bmxer.h).
Note: Multiplexer errors are masked by writing to the multiplexer error source.

v[1] = FI controller error source mask register (CNTM) contents in hexadecimal notation (smim/SMfi-cnter.h).
Note: Controller errors are masked by writing to the controller error source.

w[1] = Controller interface (CI) high interrupt source register (HISRC) contents in hexadecimal notation (smim/SMci-hisrc.h).

x[1] = CI high remote interrupt inhibit register (HRINH) contents in hexadecimal notation (smim/SMci-hrinh.h).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT:SM-HWLVL
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-110 *System Maintenance Requirements and Tools*

REPT:SM-SP-FIFO

Software Release: 5E10 and later
Message Class: PFR_MON,HW,SM
Application: 5
Type: Output

1. FORMAT

```
REPT SM=a,b SP FIFO-FULL EVENT=c
  d [e f] [LINK=g] [{[h] PIDB=i PICB=j|MCP|UNEQ|PLI}]
  [NLI=a-k-l ...]

  [mmmmnnnn ooooppppp qqqqrrrr ssss]
  [ttttuuuu vvvvwwww]
```

2. REASON FOR OUTPUT

To report that a signal processor (SP) FIFO-FULL error occurred. An SP's first-in first-out (FIFO) queue contains 256 entries, so this message indicates that the FIFO needed more than 256 entries to contain all of the signaling transitions that recently occurred. There are three situations that can cause this output:

- The SP FIFO was filled with entries from peripheral circuits that use peripheral interface data buses (PIDBs), but the specific circuit could not be determined. Fields 'h' through 'j' and fields 'm' through 's' will only appear in this case.
- The SP FIFO was filled with entries from peripheral circuits that use peripheral link interfaces (PLIs), but the specific circuit could not be determined. Fields 't' through 'w' will only appear in this case.
- The SP FIFO was filled with entries that are associated with non-peripheral circuits (NLI, MCP, UNEQ). If the unit associated with the SP is an NLI then fields '`k`' and '`l`' will appear up to four times, once for each in-service NLI associated with the SP.

This report can be associated with either the active or the mate module controller and time slot interchange (MCTSI). Fields '`h`' through 'w' will not print for the mate MCTSI.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM)/SM-2000 number.

`b` = MCTSI side number.

`c` = Event number.

`d` = Indicates that MCTSI '`b`' is the active or mate MCTSI.

`e` = Time slot interchange (TSI) BOARD number. Valid for SM-2000 only.

`f` = The SP number (SP0 or SP1). Valid for SM-2000 only.

`g` = The link number of the associated SP (0 or 1). Valid for SM-2000 only.

`h` = Data interface (DI) number. Valid for SM-2000 only.

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i = Hexadecimal number of the PIDB that had the most entries in the SP FIFO. This number is the key to the PIDB relation. If this number is equal to 7F, then the time slots were not linked to any PIDB and the time slot was idle.

j = Hexadecimal number of the peripheral interface control bus (PICB) associated with PIDB 'i'. This number is the key to the PICB relation. If this number is equal to D7, then the time slots were not linked to any PIDB and the time slot was idle.

k = Network link interface (NLI) number.

l = Office network timing complex (ONTC) side number.

Note: Note: Fields 'm' through 'w' will be reported as hexadecimal data, where each field is a short (4 digits). Fields 'n' through 's' will only be filled in if there was a DI on this SP. Fields 'q' through 's' will not be reported if field 'i' is equal to 7F and field 'j' is equal to D7.

m = Number of SP FIFO-FULL errors counted on this SM/SM-2000.

n = Number of entries in the SP FIFO associated with PIDB 'h'.

o = Number of time slots on PIDB 'i' that had entries in the FIFO.

p = Number of PIDBs on DI 'h' that had entries in the FIFO.

q = Unit type associated with PICB 'j'.

r = Unit number of unit type associated with PICB 'j'.

s = Service group number (from PICB relation) associated with PICB 'j'.

t = Number of SP FIFO-FULL errors counted on this SM.

u = Number of time slots on the PLI link that had entries in the FIFO.

v = Unit type associated with the PLI link.

w = Unit number of unit type associated with PLI link.

4. ACTION TO BE TAKEN

Monitor the progress of software recovery. Initiate manual actions if the recovery does not proceed as expected.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT:SM-HWLVL
```

REPT:SM-SP-HW

Software Release: 5E10 and later
Message Class: INT_MON
Application: 5
Type: Output

1. FORMAT

```
REPT SM=a SP HW REGS EVENT=b
  ERSRC c MODE d REFLG e
```

2. REASON FOR OUTPUT

To report the contents of specific hardware registers as information for trouble analysis.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Event number.

`c` = Contents of the error source register (ERSRC) in hexadecimal notation (smim/SMsp_ersrc.h).

`d` = Contents of the mode register (MODE) in hexadecimal notation (smim/SMsp_mode.h).

`e` = Contents of the read first-in/first-out (FIFO) empty flag (REFLG) register in hexadecimal notation (smim/SMsp_reflg.h).
`8000` = Empty.
`0000` = Not empty.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

`REPT:SM-HWLVL`

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-110 *System Maintenance Requirements and Tools*

REPT:SM-TSI-HW

Software Release: 5E10 and later
Message Class: INT_MON
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT SM=a   TSI HW REGS EVENT=b
        TSCMD1=c           TSCMD2=d             TSCMD3=e
        TSESR1=f           TSESR2=g             TSESR3=h

[2]   ____________________________________________________________________
      REPT SM=a   TSI HW REGS EVENT=b
        IUIMR =i           CMEMR=j              O-CMCCR=k
        IUISR =l           CMESR=m             [F-CMCCR=n]
        IUEQP =o           CMDNR=p             [OPP-CMESR=q]
        TSI BOARD r  DI s
        BEMR0 =t           BEMR1 =t             SPEMR0=u             SPEMR1=u
        BESR0 =v           BESR1 =v             SPESR0=w             SPESR1=w
        SPCTL0=x           SPCTL1=x             BSTCR0=y             BSTCR1=y
        CREMR0=z           CREMR1=z             CRMDG0=a1
        CRESR0=b1          CRESR1=b1             CRMDG1=a1
        IFEMR0=c1          IFCTL0=d1
        IFESR0=e1          IFDGC0=f1
        IFEMR1=c1          IFCTL1=d1
        IFESR1=e1          IFDGC1=f1
        IFEMR2=c1          IFCTL2=d1             ICTSN2=g1
        IFESR2=e1          IFDGC2=f1
        IFEMR3=c1          IFCTL3=d1             ICTSN3=g1
        IFESR3=e1          IFDGC3=f1
        DIDNC =h1          DIEMR =i1             DIESR =j1
```

2. REASON FOR OUTPUT

To report the contents of specific hardware registers as information for trouble analysis.

Format 2 represents the message expected for the time slot interchange (TSI) on an SM-2000 configuration. Format 1 represents the message expected for the TSI on all other SM configurations.

For SM-2000s (Format 2), it's possible that some of the register data will not be collected and will output as all "0"s. The reasons for this are as follows:

- If TSI board 0 is pulled, it will not be possible to read any TSI 0 board registers. If any other TSI board is pulled, this report will contain TSI board 0 registers.
- If data exchanger (DI) board 0 is pulled, it will not be possible to read that DI's board registers. If any other DI board is pulled, this report will contain DI board 0 registers.
- If a TSI board error occurs and there is no DI associated with that TSI board, then the DI register fields will be zero. The "DI" field (field 'q') will have '-1' as its value in this case.

3. VARIABLE FIELD DEFINITIONS

a = Switching module (SM) number.

b = Event number.

c = Contents of the time slot command register 1 (TSCMD1) (smim/SMts_cmd1.h).

d = Contents of the time slot command register 2 (TSCMD2) (smim/SMts_cmd2.h).

e = Contents of the time slot command register 3 (TSCMD3) (smim/SMts_cmd3.h).

f = Contents of the time slot error source register 1 (TSESR1) (smim/SMts_esr1.h).

g = Contents of the time slot error source register 2 (TSESR2) (smim/SMts_esr2.h).

h = Contents of the time slot error source register 3 (TSESR3) (smim/SMts_esr3.h).

i = Contents of the TSI interrupt summary error mask register (TSIUIMR) (smim/SMts_iuimr.h).

j = Contents of the TSICOM error mask register (TSCMEMR) (smim/SMts_cmemr.h).

k = Original contents of the TSI clock control register (TSCMCCR) (smim/SMts_cmccr.h).

l = Contents of the TSI interrupt summary error source register (TSIUISR) (smim/SMts_iuisr.h).

m = Contents of the TSICOM error source register (TSCMESR) (smim/SMts_cmesr.h).

n = Final contents of the TSI clock control register (TSCMCCR) (smim/SMts_cmccr.h). This value and identifier will not print if the TSCMCCR was not altered.

o = Contents of the TSI equipage register (TSIUEQP) (smim/SMts_iueqp.h).

p = Contents of the TSICOM diagnostic control register (TSCMDNR) (smim/SMts_cmdnr.h).

q = Contents of the non-reporting TSICOM error source register (TSCMESR) (smim/SMts_cmesr.h). This value and identifier will not print if the TSCMESR was not used as part of the error analysis.

r = This field identifies a TSI board. The TSI identified here has different meanings, depending on the circumstances:

- If the TSI board was the source of the error, then this field identifies that TSI board.
- If a DI was the source of the error, then this field identifies the TSI board the DI is connected to.
- If the TSICOM was the source of the error, then this field will be set to "0" (identifies TSI board 0).

s = This field identifies a DI board. The DI identified here has different meanings, depending on the circumstances:

- If the DI was the source of the error, then this field identifies that DI.
- If a TSI board was the source of the error, then this field identifies the first DI on that TSI board.
- If the TSICOM was the source of the error, then this field identifies the first DI on TSI board 0.
- If there is not a DI on the TSI board in error or not a DI on TSI board 0 (TSICOM error case), then a "-1" outputs in this field. "-1" is not a valid DI number. The DI register fields ('h^1' - 'j^1") will contain all "0"s in this instance.

t = Contents of the TSI board error mask register (TSBEMR) of the identified TSI board (smim/SMts_bemr0.h and smim/SMts_bemr1.h). There are two of these registers per TSI board (TSBEMR0 and TSBEMR1).

u = Contents of the signal processor (SP) error mask register of the identified TSI board (smim/SMsp_emr.h). There are two of these registers per TSI board (one for ports 0 and 1, and a second for ports 2 and 3).

v = Contents of the SP error source register of the identified TSI board (smim/SMts_besr0.h and smim/SMts_besr1.h). There are two of these registers per TSI board (TSBESR0 and TSBESR1).

w = Contents of SP error source register (SPESR) of the identified TSI board (smim/SMsp_esr.h). There are 2 of these registers per TSI board (one for ports 0 and 1, and a second for ports 2 and 3).

x = Contents of SP control register (SPCTL) of the identified TSI board (smim/SMsp_ctl.h). There are 2 of these registers per TSI board (one for ports 0 and 1, and a second for ports 2 and 3).

y = Contents of SP diagnostic control register (TSBSTCR) of the identified TSI board (smim/SMsp_ctl.h). There are 2 of these registers per TSI board (one for ports 0 and 1, and a second for ports 2 and 3).

z = Contents of control random access memory (CRAM) error mask register (TSCREMR) of the identified TSI board (smim/SMts_cremr.h). There are 2 of these registers per TSI board (one for ports 0 and 1, and a second for ports 2 and 3).

a[1] = Contents of CRAM device diagnostic register (TSCRMDG) of the identified TSI board (smim/SMts_crmdg.h). There are 2 of these registers per TSI board (one for ports 0 and 1, and a second for ports 2 and 3).

b[1] = Contents of CRAM error source register (TSCRESR) of the identified TSI board (smim/SMts_cresr.h). There are 2 of these registers per TSI board (one for ports 0 and 1, and a second for ports 2 and 3).

c[1] = Contents of the TSI interface circuit (IF) error mask register (TSIFEMR), of the identified TSI board (smim/SMts_ifemr.h). There are 4 of these registers per TSI board (one for each port).

d[1] = Contents of the TSI IF Control register (TSIFCTL) of the identified TSI board (smim/SMts_ifctl.h). There are 4 of these registers per TSI board (one for each port).

e[1] = Contents of the TSI IF error source register (TSIFESR) of the identified TSI board (smim/SMts_ifesr.h). There are 4 of these registers per TSI board (one for each port).

f[1] = Contents of the TSI IF diagnostic control register (TSIFDGC) of the identified TSI board (smim/SMts_ifdgc.h). There are 4 of these registers per TSI board (one for each port).

g[1] = Contents of the TSI IF device control time slot (CTS) number register (TSICTSN), of the identified TSI board (smim/SMts_ictsn.h). There are 4 of these registers per TSI board, but only ports 2 and 3 of TSI board 0 contain valid information.

h[1] = Contents of the DI diagnostic control register (DIDNC) (smim/SMts_dxdnc.h).

i[1] = Contents of the DI error mask register (DIEMR) (smim/SMts_dxemr.h).

j[1] = Contents of the DI error source register (DIESR) (smim/SMts_dxesr.h).

4. ACTION TO BE TAKEN

Monitor the progress of the recovery action. Use the information presented in the report for analysis.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT:SM-HWLVL
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-110 *System Maintenance Requirements and Tools*

REPT:SMDIMP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT SMDIMP a b
```

2. REASON FOR OUTPUT

To report when an error occurs in the communication module (CM) input message process SMdimp. SMdimp controls all deferrable reconfiguration requests (for example, remove, restore, allow) on CM units. An unexpected event has occurred.

3. VARIABLE FIELD DEFINITIONS

`a` = Text phrase. Valid value(s):

`INVALID ACKNOWLEDGMENT RECEIVED FOR b` = SMdimp received an acknowledgment message for the given unit (refer to variable '`b`'), but the acknowledgment did not match anything that was presently active on the deferred maintenance queue (DMQ).

`INVALID MESSAGE RECEIVED FROM MRA FOR b` = SMdimp received an acknowledgment message for the given dual link interface (DLI) (refer to variable '`b`') from the maintenance request administrator (MRA), but the message did not match the DLI that was currently active on the DMQ.

`REQUEST TIMED OUT FOR b` = SMdimp timed out waiting for an acknowledgment for the currently active request (refer to variable '`b`'). This may also be accompanied by one of the above messages, if the acknowledgment gets to SMdimp late.

`SCAN POINT CHECK FAILED, UNIT'S STATE MAY BE INVALID b` = After a diagnostic or conditional restore is run on a unit, the scan points are checked to see if a power transition has occurred after the diagnostic completed. If this message prints, an error occurred while attempting to read the scan points, and the unit that was being diagnosed could be in an invalid state. An example of this would be if the unit was powered off and the scan point check failed, the unit would not go into the UNAV MAN POWEROFF state. Refer to the 4Action To Be Taken section of this manual page.

`UNEXPECTED MESSAGE RECEIVED FROM MRA FOR b` = SMdimp received an acknowledgment message for the given DLI (refer to variable '`b`') from the maintenance request administrator (MRA), but the message did not match anything that was currently active on the DMQ.

`b` = Unit (for example, MSCU, MMP, CMP) that was running when the invalid event was received by SMdimp.

4. ACTION TO BE TAKEN

The only one of the above responses that requires immediate action is `SCAN POINT CHECK FAILED, UNIT'S STATE MAY BE INVALID`. Check the control and display (C/D) pack for the unit, and if the maintenance state on the MCC page (or from OP:CFGSTAT output message) for that unit matches what the C/D pack says, nothing

further needs to be done. If the information does not match, run another diagnostic or conditional restore on the unit. If no error is reported, continue with the current troubleshooting procedure. If the error is reported again, refer to the Corrective Maintenance manual for information on how to report the problem.

The rest of the above errors can be ignored if they are occurring in an isolated case (for example, a timeout occurring for a DLI diagnostic while the DLI was being switched due to a hardware fault). If a report is printed repeatedly, however, it probably indicates a more serious problem. Refer to the Corrective Maintenance manual for information on how to report the problem.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:ISOL-CM
DGN:CMP
DGN:DLI
DGN:FPC
DGN:LI
DGN:MI
DGN:MMP
DGN:MSCU
DGN:MSGS
DGN:NC
DGN:ONTC
DGN:ONTCCOM
DGN:PPC
DGN:TMS
OP:DMQ
RST:DLI
RST:FPC
RST:MMP
RST:MSCU
RST:MSGS
RST:ONTC
RST:ONTCCOM
RST:PPC
SET:ISOL-CM
```

Output Message(s):

```
CLR:ISOL-CM
DGN:CMP
DGN:DLI
DGN:FPC
DGN:LI
DGN:MI
DGN:MMP
DGN:MSCU
DGN:MSGS
DGN:NC
DGN:ONTC
```

```
DGN:ONTCCOM
DGN:PPC
DGN:TMS
OP:CFGSTAT
OP:DMQ-CM
RST:DLI
RST:FPC
RST:MMP
RST:MSCU
RST:MSGS
RST:ONTC
RST:ONTCCOM
RST:PPC
SET:ISOL-CM
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:SMR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT SMR a b
          .
          .
          .
  REPT SMR a b
```

2. REASON FOR OUTPUT

To print an autonomously scheduled output report. The body of the report is enclosed by two messages specified in each group of which the second is called the termination message. Depending on the nature of the report, a report can either be paginated or not paginated. At the beginning of each page of a multipage report, the first message in each group is repeated.

3. VARIABLE FIELD DEFINITIONS

`a` = Report name.

`b` = Message termination code. Valid value(s):

`ABT`	= Aborted.
`COMPL`	= Completed.
`IN PROG`	= In progress.
`STARTED`	= Started.
`STOPPED`	= Stopped.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:SMR`

Output Message(s):

`OP:SMR`

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REPT:SMR-A15MPR15

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT SMR A15MPR15 STARTED
  MACHINE RESOURCE PERFORMANCE REPORT
  REPORTING OFFICE: a          REPORT INTERVAL: FIFTEEN MINUTES
  CURRENT GENERIC: b           AUTOMATIC REPORT
  DATE: cc-cc-cc,  TIME: dd:dd:dd
  REPORT PERIOD(e): ff-ff-ff, gg:gg:gg THRU hh-hh-hh, ii:ii:ii
  DATA COVERAGE: j
  CCS7    BYTES     BYTES      MSUS      MSUS    FLD
  NODES   IN        OUT        IN        OUT     CNT
  -----  --------  --------  --------  --------  ---
   k-l     m         n          o         p       q
                     .
                     .
                     .

  REPT SMR A15MPR15        COMPL
```

2. REASON FOR OUTPUT

To print the signaling link 15-minute marginal performance report after the scheduled (automatic) REPT:SMR-A15MPR15 report. Refer to the input message of OP:SMR for the demand report.

3. VARIABLE FIELD DEFINITIONS

`a` = Reporting office CLLI code.

`b` = Current software release identification.

`c` = Local date, in the form year-month-day.

`d` = Local time, in the form hour:minute:second.

`e` = User defined string [by way of the equipment configuration database (ECD)]. This is the time zone indicator and has a default of "NWT".

`f` = Network date of beginning of accumulation period, in the form year-month-day.

`g` = Network time of beginning of accumulation period, in the form hour:minute:second.

`h` = Network date of ending of accumulation period, in the form year-month-day.

`i` = Network time of ending of accumulation period, in the form hour:minute:second.

`j` = The number of 5-minute accumulation periods out of the maximum number of coverage periods for this report. The format is '`rrr`/`sss`'.
`rrr` = The number of periods of accumulated data for this report.

`sss` = The maximum number of periods that can be covered where:

001 <= `rrr` <= 288 (288 periods equal one day - 24 hours)
001 <= `sss` <= 288
`rrr` <= `sss`

`k` = Group number of link.

`l` = Member number of link.

`m` = Number of incoming bytes (to a *5ESS*®-2000 switch).

`n` = Number of outgoing bytes (to network).

`o` = Number of message signal units in to a *5ESS*®-2000 switch.

`p` = Number of message signal units out to network.

`q` = Declared link failure count.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SMR
```

Output Message(s):

```
OP:SMR-A15MPR15
```

Other Manual(s):
235-070-100 *System Administration and Engineering Guidelines*
235-190-120 *Common Channel Signaling Services Features*

REPT:SMR-A30MPR30-A

Software Release: 5E10 - 5E11
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT SMR A30MPR30 STARTED
  SIGNALING LINK 30 MINUTE MARGINAL PERFORMANCE REPORT
  REPORTING OFFICE: a                    REPORT INTERVAL: HALF HOURLY
  CURRENT GENERIC: b                     AUTOMATIC REPORT
  DATE: cc-cc-cc,  TIME: dd:dd:dd
  REPORT PERIOD(e): ff-ff-ff, gg:gg:gg THRU hh-hh-hh, ii:ii:ii
  DATA COVERAGE: j
  PAGE f1 OF g1
```

[2]
```
REPT SMR A30MPR30        IN PROG
  CCIS6 LINKS:
                                  OOS TIM SU ERR SU RXMT AURS
  FAR END CLLI-LAYER T GR-MEM VFL MIN SEC
  ------------------ - ------ --- ------- ------ ------- ----
        k        -l  m  n-o    p   qq:qq       t       u    v
        k        -l  m  n-o    p   qq:qq       t       u    v
        k        -l  m  n-o    p   qq:qq       t       u    v
                                  .
                                  .
                                  .
  PAGE f1 OF g1
```

[3]
```
REPT SMR A30MPR30        IN PROG
  CCIS6 LINKS:
                                  AUT CHG OVER CB SM
  FAR END CLLI-LAYER T GR-MEM VFL
  ------------------ - ------ --- ------------ -----
        k        -l  m  n-o    p           w       x
        k        -l  m  n-o    p           w       x
        k        -l  m  n-o    p           w       x
                                  .
                                  .
                                  .
  PAGE f1 OF g1
```

[4]
```
REPT SMR A30MPR30        IN PROG
  CCS7 LINKS:
                                OOS TIM CRCER BY RX   AUTO
  FAR END CLLI-LAYER T GR-MEM MIN SEC             CHG OVER
  ------------------ - ------ ------- ----- ----- --------
        k        -l  m  n-o    qq:qq     y     z        a1
```

```
          k        -l  m  n-o    qq:qq     y     z        a1
          k        -l  m  n-o    qq:qq     y     z        a1
                                    .
                                    .
                                    .
    PAGE f1 OF g1
```

[5]

```
REPT SMR A30MPR30        IN PROG
  CCS7 LINKS:
                                  ERSEC     UNVL
  FAR END CLLI-LAYER T GR-MEM
  ------------------ - ------   -------   ------
        k        -l  m  n-o        b1       c1
        k        -l  m  n-o        b1       c1
        k        -l  m  n-o        b1       c1
                                    .
                                    .
                                    .
  PAGE f1 OF g1
```

[6]

```
REPT SMR A30MPR30        IN PROG
  CCS7 CLUSTERS:
                        ROUTE SET UNAVAILABLE
  CLUSTER     TYPE     COUNT           SEC
  -------     ----    ---------------------
     r          s        d1              e1
     r          s        d1              e1
     r          s        d1              e1
                    .
                    .
                    .
  PAGE f1 OF g1
```

[7]

```
REPT SMR A30MPR30        COMPL
```

2. REASON FOR OUTPUT

To print the signaling link 30-minute marginal performance report after the scheduled (automatic) REPT:SMR-A30MPR30 report. The output may be interrupted by other output messages. Refer to the input message of OP:SMR for the demand report.

3. VARIABLE FIELD DEFINITIONS

a = Reporting office CLLI code.

b = Current software release identification.

c = Local date, in the form year-month-day.

d = Local time, in the form hour:minute:second.

e = User defined string [by way of the equipment configuration database (ECD)]. This is the time zone indicator and has a default of "NWT".

f = Network date of beginning of accumulation period, in the form year-month-day.

g = Network time of beginning of accumulation period, in the form hour:minute:second.

h = Network date of ending of accumulation period, in the form year-month-day.

i = Network time of ending of accumulation period, in the form hour:minute:second.

j = The number of 5-minute accumulation periods out of the maximum number of coverage periods for this report. Format is '$h^1h^1h^1/i^1i^1i^1$'.

$h^1h^1h^1$ = The number of periods of accumulated data for this report

$i^1i^1i^1$ = The maximum number of periods that can be covered where:

001 <= $h^1h^1h^1$ <= 288 (288 periods equal one day - 24 hours)

001 <= $i^1i^1i^1$ <= 288

$h^1h^1h^1$ <= $i^1i^1i^1$

k = CLLI code plus set member number.

l = Link layer number.

m = Link type. Valid value(s):

A = Signaling link between an end office (EO) and a signaling transfer point (STP) in the same (home) region.

B = Signaling link between a home STP and an STP in a different region.

C = Signaling link between two home STPs.

D = Signaling link between a regional STP and an area STP.

E = Signaling link between an EO and an STP in a different region.

n = Group number of link in frame.

o = Member number of link in frame.

p = Voice frequency link (VFL) type. Valid value(s):

A = Secondary.

B = Primary.

Only A and E links types have a secondary (A) VFL.

q = Out-of-service time, in the form minutes:seconds.

r = Cluster number.

s = Cluster type. Valid value(s):

NO_RTE = No route.

POP = Populated.

UNPOP = Unpopulated.

Note: Any of the following measurements may appear on the report followed by an asterisk ('*') indicating that the threshold for that measurement has been exceeded. Only links that have at least one measurement whose threshold is exceeded are printed; therefore if no data appears on this report, then no thresholds were exceeded for the report period.

t = Number of signaling units in error.

u = Number of byte retransmission requests.

v = Number of repeated or skipped acknowledgement signal units.

w = Number of automatically initiated changeovers.

x = Number of changeover/changebacks to the same VFL.

y = Number of cyclic redundancy check errors.

z = Number of bytes retransmitted.

a[1] = Number of automatically initiated changeovers.

b[1] = The number of seconds in error.

c[1] = The proportion of time the link was out of service (count is in 100ths of a percent).

d[1] = Number of times a route set was unavailable.

e[1] = Duration of route set unavailable, in seconds.

f[1] = Current page number.

g[1] = Total number of pages in report.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SMR
```

Output Message(s):

```
OP:SMR-A30MPR30
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*
235-070-100 *System Administration and Engineering Guidelines*

REPT:SMR-A30MPR30-B

Software Release: 5E12 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT SMR A30MPR30 STARTED
  SIGNALING LINK 30 MINUTE MARGINAL PERFORMANCE REPORT
  REPORTING OFFICE: a                    REPORT INTERVAL: HALF HOURLY
  CURRENT GENERIC: b                     AUTOMATIC REPORT
  DATE: cc-cc-cc,  TIME: dd:dd:dd
  REPORT PERIOD(e): ff-ff-ff, gg:gg:gg THRU hh-hh-hh, ii:ii:ii
  DATA COVERAGE: j
  PAGE f1 OF g1
```

[2]
```
REPT SMR A30MPR30        IN PROG
  CCIS6 LINKS:
                                  OOS TIM SU ERR SU RXMT AURS
  FAR END CLLI-LAYER T GR-MEM VFL MIN SEC
  ------------------ - ------ --- ------- ------ ------- ----
        k        -l  m  n-o    p   qq:qq       t       u    v
        k        -l  m  n-o    p   qq:qq       t       u    v
        k        -l  m  n-o    p   qq:qq       t       u    v
                                  .
                                  .
                                  .
  PAGE f1 OF g1
```

[3]
```
REPT SMR A30MPR30        IN PROG
  CCIS6 LINKS:
                                  AUT CHG OVER CB SM
  FAR END CLLI-LAYER T GR-MEM VFL
  ------------------ - ------ --- ------------ -----
        k        -l  m  n-o    p           w       x
        k        -l  m  n-o    p           w       x
        k        -l  m  n-o    p           w       x
                                  .
                                  .
                                  .
  PAGE f1 OF g1
```

[4]
```
REPT SMR A30MPR30        IN PROG
  CCS7 LINKS:
                                OOS TIM CRCER BY RX   AUTO
  FAR END CLLI-LAYER T GR-MEM MIN SEC             CHG OVER
  ------------------ - ------ ------- ----- ----- --------
        k        -l  m  n-o    qq:qq     y     z        a1
```

```
          k        -l  m  n-o    qq:qq     y     z        a1
          k        -l  m  n-o    qq:qq     y     z        a1
                                    .
                                    .
                                    .
    PAGE f1 OF g1

[5]  ____________________________________________________________________
     REPT SMR A30MPR30        IN PROG
       CCS7 LINKS:
                                      ERSEC     UNVL
       FAR END CLLI-LAYER T GR-MEM
       ------------------ - ------   -------   ------
          k        -l  m  n-o        b1       c1
          k        -l  m  n-o        b1       c1
          k        -l  m  n-o        b1       c1
                                    .
                                    .
                                    .
       PAGE f1 OF g1

[6]  ____________________________________________________________________
     REPT SMR A30MPR30        IN PROG
       CCS7 CLUSTERS:
                            ROUTE SET UNAVAILABLE
       CLUSTER     TYPE     COUNT           SEC
       -------     ----    ---------------------
          r          s        d1              e1
          r          s        d1              e1
          r          s        d1              e1
                        .
                        .
                        .
       PAGE f1 OF g1

[7]  ____________________________________________________________________
     REPT SMR A30MPR30        COMPL
```

2. REASON FOR OUTPUT

.ta 0 .fi To print the signaling link 30-minute marginal performance report after the scheduled (automatic) REPT:SMR-A30MPR30 report. The output may be interrupted by other output messages. Refer to the input message of OP:SMR for the demand report.

3. VARIABLE FIELD DEFINITIONS

a = Reporting office CLLI code.

b = Current software release identification.

c = Local date, in the form year-month-day.

d = Local time, in the form hour:minute:second.

e = User defined string [by way of the equipment configuration database (ECD)]. This is the time zone indicator and has a default of "NWT".

f = Network date of beginning of accumulation period, in the form year-month-day.

g = Network time of beginning of accumulation period, in the form hour:minute:second.

h = Network date of ending of accumulation period, in the form year-month-day.

i = Network time of ending of accumulation period, in the form hour:minute:second.

j = The number of 5-minute accumulation periods out of the maximum number of coverage periods for this report. Format is '$h^1h^1h^1/i^1i^1i^1$'.

$h^1h^1h^1$ = The number of periods of accumulated data for this report

$i^1i^1i^1$ = The maximum number of periods that can be covered where:

001 <= $h^1h^1h^1$ <= 288 (288 periods equal one day - 24 hours)

001 <= $i^1i^1i^1$ <= 288

$h^1h^1h^1$ <= $i^1i^1i^1$

k = CLLI code plus set member number.

l = Link layer number.

m = Link type. Valid value(s):

- A = Signaling link between an end office (EO) and a signaling transfer point (STP) in the same (home) region.
- B = Signaling link between a home STP and an STP in a different region.
- C = Signaling link between two home STPs.
- D = Signaling link between a regional STP and an area STP.
- E = Signaling link between an EO and an STP in a different region.
- F = Signaling link between EOs.

n = Group number of link in frame.

o = Member number of link in frame.

p = Voice frequency link (VFL) type. Valid value(s):

- A = Secondary.
- B = Primary.

Only A and E links types have a secondary (A) VFL.

q = Out-of-service time, in the form minutes:seconds.

r = Cluster number.

s = Cluster type. Valid value(s):

- NO_RTE = No route.
- POP = Populated.
- UNPOP = Unpopulated.

Note: Any of the following measurements may appear on the report followed by an asterisk ('*') indicating that the threshold for that measurement has been exceeded. Only links that have at least one measurement whose threshold is exceeded are printed; therefore if no data appears on this report, then no thresholds were exceeded for the report period.

t = Number of signaling units in error.

u = Number of byte retransmission requests.

v = Number of repeated or skipped acknowledgement signal units.

w = Number of automatically initiated changeovers.

x = Number of changeover/changebacks to the same VFL.

y = Number of cyclic redundancy check errors.

z = Number of bytes retransmitted.

a[1] = Number of automatically initiated changeovers.

b[1] = The number of seconds in error.

c[1] = The proportion of time the link was out of service (count is in 100ths of a percent).

d[1] = Number of times a route set was unavailable.

e[1] = Duration of route set unavailable, in seconds.

f[1] = Current page number.

g[1] = Total number of pages in report.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SMR
```

Output Message(s):

```
OP:SMR-A30MPR30
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

235-070-100 *System Administration and Engineering Guidelines*

REPT:SMR-AMPR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT SMR AMPR [a] b
  5ESS MACHINE PERFORMANCE REPORT
  REPORTING OFFICE:  c                    REPORT INTERVAL d
  CURRENT GENERIC:  e                     AUTOMATIC REPORT
  DATE:  ff-ff-ff  TIME:  gg:gg:gg
  REPORT PERIOD(i2):  hh-hh-hh, ii:ii:ii THRU jj-jj-jj, kk:kk:kk
  DATA COVERAGE:  l
  SYSTEM INITIALIZATIONS
           LEVEL 0         LEVEL 1        LEVEL 1A         LEVEL 1B
         COUNT   SEC     COUNT   SEC    COUNT    SEC     COUNT    SEC
         -----------     -----------    ------------     ------------
  CNI      m       n       o       p         N/A              N/A
  IMS      q       r          N/A         s        t       u        v
  SYSTEM INITIALIZATIONS
           LEVEL 2         LEVEL 3         LEVEL 4
         COUNT   SEC     COUNT   SEC     COUNT   SEC
         -----------     -----------     -----------
  CNI      j2      k2       w       x       y       z
  IMS        N/A           a2      b2      c2      d2
  NO MESSAGE SIGNAL UNIT PROCESSING
          COUNT   SEC
          -----   ---
            e2      f2
  RPC NODE PERFORMANCE - RPC COUNT:  2
          ERRORS        OOS AUTO          OOS MAN         OOS CNFG
           COUNT   COUNT        SEC  COUNT       SEC  COUNT       SEC
          ------   ----------------  ---------------  ---------------
               g2      h2         i2     j2        k2     l2        m2
  LN NODE PERFORMANCE - LN COUNT:  n2
          ERRORS        OOS AUTO          OOS MAN         OOS `CNFG
           COUNT   COUNT        SEC  COUNT       SEC  COUNT       SEC
          ------   ----------------  ---------------  ---------------
               o2      p2         q2     r2        s2     t2        u2
  RING PERFORMANCE
          SNGL   ISOLAT   MULT   ISOLAT   RING DOWN   MAN NODE  ISOLAT
          COUNT     SEC   COUNT     SEC   COUNT SEC   COUNT        SEC
          -------------   -------------   ---------   ----------------
            v2        w2    x2        y2    z2    a2    b2           c2
  INTERNAL CONGESTION
                                OVERFLOW    OVERFLOW    OVERFLOW
                                LEVEL 1     LEVEL 2     LEVEL 3
                                --------    --------    --------
  RPC RING RECEIVE BUFFER             d2          e2          f2
   LN RING RECEIVE BUFFER           N/A           g2          h2
```

```
REPT SMR AMPR[a] COMPL
```

2. REASON FOR OUTPUT

To automatically report the switch machine performance report (MPR) equipment performance measurements for both the common and the non-common portions of the switch. Refer to the OP:SMR input message for the demand report.

3. VARIABLE FIELD DEFINITIONS

a = Report period. Valid value(s):

15	= 15 minutes
30	= 30 minutes
HR	= 1 hour
CDAY	= Current day
LDAY	= Last (previous) day

b = Status of the input message. Valid value(s):

ABT	= Aborted.
COMPL	= Completed.
IN PROG	= In progress.
STARTED	= Started.
STOPPED	= Stopped.

c = Local CLLI code of the office.

d = The accumulation period. Valid value(s):

```
DAILY
FIFTEEN MINUTES
HALF HOURLY
HOURLY
```

e = Current software release identification.

f = Local date, in the form year-month-day.

g = Local time, in the form hour:minute:second.

h = Network date at beginning of accumulation period, in the form year-month-day.

i = Network date at beginning of accumulation period, in the form hour:minute:second.

j = Network date at end of accumulation period, in the form year-month-day.

k = Network date at end of accumulation period, in the form hour:minute:second.

l = The number of accumulation periods (one period is 5 minutes) out of the maximum number of coverage periods for this report; format is '$l^2l^2l^2/m^2m^2m^2$'.

$l^2l^2l^2$	= the number of periods of accumulated data for this report
$m^2m^2m^2$	= the maximum number of periods than can be covered where:

001 <= $l^2l^2l^2$ <= 288 (288 periods equals one day - 24 hours)
001 <= $m^2m^2m^2$ <= 288
$l^2l^2l^2$ <= $m^2m^2m^2$.

m = The number of common network interface (CNI) level 0 initializations.

n = The time (in seconds) of variable 'm'.

o = The number of CNI level 1 initializations.

p = The time (in seconds) of variable 'o'.

q = The number of interprocess message switch (IMS) level 0 initializations.

r = The time (in seconds) of variable 'q'.

s = The number of IMS level 1A initializations.

t = The time (in seconds) of variable 's'.

u = The number of IMS level 1B initializations.

v = The time (in seconds) of variable 'u'.

w = The number of CNI level 3 initializations.

x = The time (in seconds) of variable 'w'.

y = The number of CNI level 4 initializations.

z = The time (in seconds) of variable 'y'.

a^1 = The number of IMS level 3 initializations.

b^1 = The time (in seconds) of variable 'a^1'.

c^1 = The number of IMS level 4 initializations.

d^1 = The time (in seconds) of variable 'c^1'.

e^1 = The number of times no signal unit processing was occurring.

f^1 = The interval (in seconds) that no signal unit processing was occurring.

g^1 = The number of ring peripheral controller (RPC) node errors.

h^1 = The number of RPC out-of-service auto for RPC node.

i^1 = The time (in seconds) of variable 'h^1'.

j^1 = The number of RPC out-of-service manual for RPC node.

k^1 = The time (in seconds) of variable 'j^1'.

l^1 = The number of RPC out-of-service configuration for RPC node.

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m^1 = The time (in seconds) of variable 'l^1'.

n^1 = The number of link nodes (LNs) for which this output data was collected.

o^1 = The number of LN node errors.

p^1 = The number of LN out-of-service auto for LN node.

q^1 = The time (in seconds) of variable 'p^1'.

r^1 = The number of LN out-of-service manual for LN node.

s^1 = The time (in seconds) of variable 'r^1'.

t^1 = The number of LN out-of-service configuration for LN node.

u^1 = The time (in seconds) of variable 't^1'.

v^1 = The number of single fault ring errors.

w^1 = The time (in seconds) of variable 'v^1'.

x^1 = The number of multiple fault ring errors.

y^1 = The time (in seconds) of variable 'x^1'.

z^1 = The number of times the entire ring went down.

a^2 = The time (in seconds) the ring was down.

b^2 = The number of nodes isolated manually.

c^2 = Duration timer for the number of nodes isolated manually (in seconds).

d^2 = The number of ring receive buffer overflows (level 1).

e^2 = The number of ring receive buffer overflows (level 2).

f^2 = The number of ring receive buffer overflows (level 3).

g^2 = The number of link node receive buffer overflows (level 2).

h^2 = The number of link node receive buffer overflows (level 3).

i^2 = User-defined string [by way of the equipment configuration database (ECD)]. This is the time zone indicator and has a default of "NWT".

j^2 = The number of CNI level 2 initializations.

k^2 = The time (in seconds) of variable 'j^2'.

4. ACTION TO BE TAKEN

If the aborted (ABT) status message is printed, the user may wish to try the input message again. Otherwise, this message requires no action.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SMR
```

Output Message(s):

```
OP:SMR-AMPR
```

Other Manual(s):
235-070-100 *Traffic and Plant Measurements*

REPT:SMR-ASEPR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT SMR ASEPR[a] STARTED
  SIGNALING EQUIPMENT PERFORMANCE REPORT
  REPORTING OFFICE: b                    REPORT INTERVAL: c
  CURRENT GENERIC: d                     AUTOMATIC REPORT
  DATE: ee-ee-ee,   TIME: ff:ff:ff
  REPORT PERIOD(g): hh-hh-hh, ii:ii:ii THRU  jj-jj-jj, kk:kk:kk
  DATA COVERAGE: l
  PAGE v OF w
  REPT SMR ASEPR[a] IN PROG
  CCIS6 LN PERFORMANCE
   GRP   MEM  ERROR    OOS_AUTO       OOS_MAN      OOS_CNFG
   NUM   NUM  COUNT  COUNT    SEC  COUNT    SEC  COUNT    SEC

  _____  ___  _____  ___________  ___________  ___________
    m     n     o      p       q     r       s     t       u
    m     n     o      p       q     r       s     t       u
    m     n     o      p       q     r       s     t       u
                                 .
                                 .
                                 .
  PAGE v OF w
  REPT SMR ASEPR[a] IN PROG
  CCS7 LN PERFORMANCE
   GRP   MEM  ERROR    OOS_AUTO       OOS_MAN      OOS_CNFG
   NUM   NUM  COUNT  COUNT    SEC  COUNT    SEC  COUNT    SEC

  _____  ___  _____  ___________  ___________  ___________
    m     n     o      p       q     r       s     t       u
    m     n     o      p       q     r       s     t       u
    m     n     o      p       q     r       s     t       u
                                 .
                                 .
                                 .
  PAGE v OF w
  REPT SMR ASEPR[a] IN PROG
  RPC NODE PERFORMANCE
   GRP   MEM  ERROR    OOS_AUTO       OOS_MAN      OOS_CNFG
   NUM   NUM  COUNT  COUNT    SEC  COUNT    SEC  COUNT    SEC

  _____  ___  _____  ___________  ___________  ___________
    m     n     o      p       q     r       s     t       u
    m     n     o      p       q     r       s     t       u
    m     n     o      p       q     r       s     t       u
                                 .
                                 .
                                 .
  PAGE v OF w
  REPT SMR ASEPR[a] COMPL
```

2. REASON FOR OUTPUT

To automatically print a common channel interoffice signaling (CCIS) measurement report. Refer to the input message OP:SMR for the demand report.

3. VARIABLE FIELD DEFINITIONS

a = Report period. Valid value(s):

15	= 15 minutes
30	= 30 minutes
HR	= 1 hour
CDAY	= Current day
LDAY	= Last (previous) day

b = Reporting office CLLI code.

c = Accumulation period. Valid value(s):

```
DAILY
FIFTEEN MINUTES
HALF HOURLY
HOURLY
```

d = Current software release identification.

e = Local time-zone in the form year-month-date.

f = Local time-zone in the form hour:minute:second.

g = User defined string [by way of the equipment configuration database (ECD)]. This is the time zone indicator and has a default of "NWT" within the Continental US.

h = Network date of beginning of accumulation period in the form year-month-date.

i = Network time of beginning of accumulation period in the form hour:minute:second.

j = Network date of ending of accumulation period in the form year-month-date.

k = Network time of ending of accumulation period in the form hour:minute:second.

l = The number of accumulation periods (one period is 5 minutes) out of the maximum number of coverage periods for this report; format is 'xxx/yyy'.

xxx	= the number of periods of accumulated data for this report
yyy	= the maximum number of periods that can be covered where:

001 <= xxx <= 288 (288 periods equals one day - 24 hours)
001 <= yyy <= 288
xxx <= yyy.

m = Group number of link in frame.

n = Member number.

o = Peg count of transient errors (that is, errors which do not result in a node's being removed from service).

p = Peg count of out-of-service time due to faults; this includes all time that a node is automatically removed from service.

q = Duration of time in seconds that a node is out-of-service due to faults.

r = Peg count for manually initiated out-of-service time.

s = Duration of time in seconds that a node is manually out-of-service.

t = Peg count for out-of-service time due to ring reconfiguration that isolates this node.

u = Duration of time in seconds that a node is out-of-service due to a ring reconfiguration.

v = Current page number.

w = Total number of pages of report.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SMR
```

Output Message(s):

```
OP:SMR-ASEPR
```

Other Manual(s):
235-070-100 *Traffic and Plant Measurements*

REPT:SMR-ASNPR1-A

Software Release: 5E10 - 5E12
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

[1]

```
REPT SMR ASNPR1[a] STARTED
  SIGNALING NETWORK PERFORMANCE REPORT - PART I
  REPORTING OFFICE: b                      REPORT INTERVAL c
  CURRENT GENERIC: d                       AUTOMATIC REPORT
  DATE: ee-ee-ee TIME: ff:ff:ff
  REPORT PERIOD(g): hh-hh-hh, ii:ii:ii THRU jj-jj-jj, kk:kk:kk
  DATA COVERAGE: l
  SIGNALING LOAD ---         RECEIVED        TRANSMITTED
     CCIS6 SIGNAL UNITS:        m                n
     CCIS6 ROUTED MESSAGES:     o                p
     CCIS6 DIRECT SIG MSGS:     q                r
  SIGNALING PERFORMANCE ---                     PEG  TIME

  COUNT

  CCIS6 PERFORMANCE ---                        ----- ------
    EMERGENCY RESTART                            s     t
    TRANSMIT BUFFER OVERLOAD                     u     v
    DECLARED LINK FAILURES                       w     x
    AUTOMATIC SIG LINK CHANGEOVERS               y
    RECEIVE BUFFER OVERFLOW                      z
    RECEIVE BUFFER OVERLOAD                      a1    b 1
    EXCEPTION REPORTS (THRESHOLDS EXCEEDED) ---
       SIGNAL UNIT ERRORS                        c1
       RETRANSMISSION REQUESTS                   d1
       REPEATED AND SKIPPED ACU'S                e1
       AUTOMATIC CHANGEOVERS                     f1
    MESSAGE TRANSFER FAILURES ---
      POTS MESSAGES BLOCKED                      g1
      UNEQUIPPED POTS LABEL (NO TRANSLATION)     h1
      DIRECT SIG MSGS REFUSED (BLOCKED)          i1
      DIRECT SIG MSGS REFUSED (NO TRANSLATION)   j1
      TRANSMIT BUFFER OVERFLOW                   k1
      INITIAL ADDRESS MSGS DROPPED               l1
      LOOPED DIRECT SIG MSGS                     m1
      DS & 511 MSGS DROPPED (RPC CONGESTION)     n1
  PAGE g3 OF h3
```

[2]

```
REPT SMR ASNPR1[a] IN PROG
  SIGNALING LOAD ---         RECEIVED        TRANSMITTED
     CCS7 MSU BYTES:            o1               p1
```

```
     CCS7 ROUTED MESSAGES:      q1                r1
     ECIS MESSAGES:             s1                t1
     TOTAL GTR MSGS REC'D:      u1
  SIGNALING PERFORMANCE ---                        PEG  TIME
                                                  COUNT (SEC.)
  CCS7 PERFORMANCE ---                            ----- ------
  CCS7 PERFORMANCE ---                            ----- ------
1    w1
    LINK SET FAILURE                               x1    y1
    SIG LINK CONGESTION ONSET (LEVEL 1)            z1    a2
    DECLARED LINK FAILURES                         b2    c2
    AUTOMATIC CHANGEOVERS                          d2
    RECEIVE BUFFER OVERFLOW                        e2
    RECEIVE BUFFER OVERLOAD                        f2    g2
    TRANSMIT BUFFER DISCARD LEVEL 1                h2
    ROUTING AUDIT FAILURES                         i2
    ALTERNATE LINK SET ROUTING TRANSITIONS         i3    j3
    EXCEPTION REPORTS (THRESHOLDS EXCEEDED) ---
      ERRORED SECONDS                              j2
      DETECTED ERRORS                              k2
      BYTES RETRANSMITTED                          l2
      AUTOMATIC CHANGEOVERS                        m2
    MESSAGE TRANSFER FAILURES ---
      ECIS MSGS REFUSED - BLOCKED                  n2
      ECIS MSGS REFUSED - NO TRANSLATION           o2
      DCIS MSGS REFUSED - BLOCKED                  p2
      DCIS MSGS REFUSED - NO TRANSLATION           q2
      ECIS6 MSGS DROPPED - RPC CONGESTION          r2
      MSUS DISCARDED - ROUTING DATA ERROR          s2
      LOOPING CCS7 MSGS                            t2

      GTT REFUSED - BLOCKED                        u2
      GTT REFUSED - NO TRANSLATION                 v2
      SIG LINK MESSAGES DISCARDED                  w2
      MSGS DROPPED - RPC CONGESTION                x2
      SCCP MSGS - UNKNOWN ADDRESS      (LN7)       y2
      SCCP MGSG - UNKNOWN ADDRESS TYPE (LN7)       z2
      SCCP MSGS - UNEQUIPPED SUBSYSTEM (LN7)       a3
      SCCP MSGS - PROHIBITED SUBSYSTEM (LN7)       b3
      SCCP MSGS - UNKNOWN ADDRESS      (OFC)       c3
      SCCP MSGS - UNKNOWN ADDRESS TYPE (OFC)       d3
      SCCP MSGS - UNEQUIPPED SUBSYSTEM (OFC)       e3
      SCCP MSGS - PROHIBITED SUBSYSTEM (OFC)       f3
  PAGE g3 of h3

[3]  ____________________________________________________________________
     REPT SMR ASNPR1[a] COMPL
```

2. REASON FOR OUTPUT

To print part one of the signaling network performance report.

3. VARIABLE FIELD DEFINITIONS

a = Report period. Valid value(s):

15	= 15 minutes.
30	= 30 minutes.
HR	= 1 hour.
CDAY	= Current day.
LDAY	= Last (previous) day.

b = Reporting office CLLI code.

c = Accumulation period. Valid value(s):

```
DAILY
FIFTEEN MINUTES
HALF HOURLY
HOURLY
```

d = Current software release identification.

e = Local time-zone in the form year-month-date.

f = Local time-zone time in the form hour:minute:second.

g = User defined string (by the way of the equipment configuration database (ECD)). This is the time zone indicator and has a default of "NWT" within the Continental US.

h = Network time of beginning of accumulation period in the form hour:minute:second.

i = Network date of ending of accumulation period in the form hour:minute:second.

j = Network time of ending of accumulation period in the form year-month-date.

k = Network time of ending of accumulation period in the form hour:minute:second.

l = The number of accumulation periods (one period is 5 minutes) out of the maximum number of coverage periods for this report; format is '$k^3k^3k^3/l^3l^3l^3$'

$k^3k^3k^3$	= The number of periods of accumulated data for this report
$l^3l^3l^3$	= The maximum number of periods that can be covered where:

001 <= $k^3k^3k^3$ <= 288 (288 periods equal one 24-hour day)
001 <= $l^3l^3l^3$ <= 288
$k^3k^3k^3$ <= $l^3l^3l^3$.

m = Common channel interoffice signaling 6 (CCIS6) signal units received.

n = CCIS6 signal units transmitted.

o = CCIS6 routed messages received.

p = CCIS6 routed messages transmitted.

q = CCIS6 direct signaling messages received.

r = CCIS6 direct signaling messages transmitted.

s = Signaling point (SP) emergency restarts.

t = Duration of SP emergency restarts (in seconds).

u = Transmit buffer overloads.

v = Duration of transmit buffer overloads (in seconds).

w = Declared link failures.

x = Duration of declared link failures (in seconds).

y = Automatic changeovers.

z = Receive buffer overflow.

a[1] = Receive buffer overload.

b[1] = Duration of receive buffer overload (in seconds).

c[1] = Half-hours with signal unit error threshold exceeded.

d[1] = Half-hours with retransmission threshold exceeded.

e[1] = Half-hours with acknowledgement unit repeat or skip threshold exceeded.

f[1] = Half-hours with automatic changeover threshold exceeded.

g[1] = Plain old telephone service (POTS) messages refused, congestion.

h[1] = POTS messages refused, no translation.

i[1] = Direct signaling messages refused, congestion.

j[1] = Direct signaling messages refused, no translation.

k[1] = Transmit buffer overflow.

l[1] = Initial address messages dropped.

m[1] = Looped direct signaling messages.

n[1] = Direct signaling and 511 banded messages dropped due to RPC congestion.

o[1] = Common channel signaling 7 (CCS7) bytes received.

p[1] = CCS7 bytes transmitted.

q[1] = CCS7 routed messages received.

r[1] = CCS7 routed messages transmitted.

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s[1] = Embedded CCIS (ECIS) messages received.

t[1] = ECIS messages transmitted.

u[1] = Total number of global title routing messages received.

v[1] = SP node isolations.

w[1] = Duration of SP node isolations (in seconds).

x[1] = SP link set failures.

y[1] = Duration of SP link set failures (in seconds).

z[1] = Level 1 transmit buffer congestion onset.

a[2] = Duration of level 1 transmit buffer overloads (in seconds).

b[2] = Declared failures.

c[2] = Duration of declared link failures.

d[2] = Automatic changeovers.

e[2] = Receive buffer overflow.

f[2] = Receive buffer overload.

g[2] = Duration of receive buffer overload (in seconds).

h[2] = Transmit buffer discard level 1.

i[2] = Routing audit failures.

j[2] = Half-hours with errored second threshold exceeded.

k[2] = Half-hours with detected error threshold exceeded.

l[2] = Bytes retransmitted.

m[2] = Half-hours with automatic changeover threshold exceeded.

n[2] = ECIS messages refused, congestion.

o[2] = ECIS messages refused, no translation.

p[2] = Destination CCIS6 (DCIS) messages refused - congestion.

q[2] = DCIS messages refused - no translation.

r[2] = Number of priority level 1/2/3 ECIS6 messages dropped due to ring peripheral controller (RPC) congestion.

s[2] = Metallic service units (MSUs) discarded due to routing data error count.

t[2] = Looping CCS7 messages.

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u[2] = Global title translation refused - blocked.

v[2] = Global title translation refused - no translation.

w[2] = Messages removed/discarded due to link congestion.

x[2] = Number of priority level 1/2/3 messages dropped due to RPC congestion.

y[2] = Number of signaling connection control part (SCCP) messages destined for an unknown address (or global title) (link node LN7).

z[2] = Number of SCCP messages destined for an unknown address (or global title) type (LN7).

a[3] = Number of SCCP messages destined for an unequipped subsystem (LN7).

b[3] = Number of SCCP messages destined for a prohibited subsystem (LN7).

c[3] = Number of SCCP messages destined for an unknown address (or global title) [office (OFC)].

d[3] = Number of SCCP messages destined for an unknown address (or global title) type (OFC).

e[3] = Number of SCCP messages destined for an unequipped subsystem (OFC).

f[3] = Number of SCCP messages destined for an prohibited subsystem (OFC).

g[3] = Current page number.

h[3] = Total number of pages of report.

i[3] = Number of alternate link set routing transitions to a lower priority link set.

j[3] = Duration, in seconds, of alternate link set transitions.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SMR
```

Output Message(s):

```
OP:SMR-ASNPR1
```

Other Manual(s):
235-070-100 *System Administration and Engineering Guidelines*

REPT:SMR-ASNPR1-B

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT SMR ASNPR1[a] STARTED
        SIGNALING NETWORK PERFORMANCE REPORT - PART I
        REPORTING OFFICE: b                      REPORT INTERVAL c
        CURRENT GENERIC: d                       AUTOMATIC REPORT
        DATE: ee-ee-ee TIME: ff:ff:ff
        REPORT PERIOD(g): hh-hh-hh, ii:ii:ii THRU jj-jj-jj, kk:kk:kk
        DATA COVERAGE: l
        SIGNALING LOAD ---         RECEIVED        TRANSMITTED
           CCS7 MSU BYTES:            m                n
           CCS7 ROUTED MESSAGES:      o                p
           ECIS MESSAGES:             q                r
           TOTAL GTR MSGS REC'D:      s
        SIGNALING PERFORMANCE ---                      PEG  TIME
                                                      COUNT (SEC.)
        CCS7 PERFORMANCE ---                          ----- ------

          SIGNALING POINT ISOLATION                     t     u
          LINK SET FAILURE                              v     w
          SIG LINK CONGESTION ONSET (LEVEL 1)           x     y
          DECLARED LINK FAILURES                        z     a1
          AUTOMATIC CHANGEOVERS                         b1
          RECEIVE BUFFER OVERFLOW                       c1
          RECEIVE BUFFER OVERLOAD                       d1    e1
          TRANSMIT BUFFER DISCARD LEVEL 1               f1
          ROUTING AUDIT FAILURES                        g1
          ALTERNATE LINK SET ROUTING TRANSITIONS        h1    i1
          EXCEPTION REPORTS (THRESHOLDS EXCEEDED) ---
            ERRORED SECONDS                             j1
            DETECTED ERRORS                             k1
            BYTES RETRANSMITTED                         l1
            AUTOMATIC CHANGEOVERS                       m1
          MESSAGE TRANSFER FAILURES ---
            ECIS MSGS REFUSED - BLOCKED                 n1
            ECIS MSGS REFUSED - NO TRANSLATION          o1
            DCIS MSGS REFUSED - BLOCKED                 p1
            DCIS MSGS REFUSED - NO TRANSLATION          q1
            ECIS6 MSGS DROPPED - RPC CONGESTION         r1
            MSUS DISCARDED - ROUTING DATA ERROR         s1
            LOOPING CCS7 MSGS                           t1
            GTT REFUSED - BLOCKED                       u1
            GTT REFUSED - NO TRANSLATION                v1
            SIG LINK MESSAGES DISCARDED                 w1
```

```
        MSGS DROPPED - RPC CONGESTION                x[1]
        SCCP MSGS - UNKNOWN ADDRESS      (LN7)       y[1]
        SCCP MGSG - UNKNOWN ADDRESS TYPE (LN7)       z[1]
        SCCP MSGS - UNEQUIPPED SUBSYSTEM (LN7)       a[2]
        SCCP MSGS - PROHIBITED SUBSYSTEM (LN7)       b[2]
        SCCP MSGS - UNKNOWN ADDRESS      (OFC)       c[2]
        SCCP MSGS - UNKNOWN ADDRESS TYPE (OFC)       d[2]
        SCCP MSGS - UNEQUIPPED SUBSYSTEM (OFC)       e[2]
        SCCP MSGS - PROHIBITED SUBSYSTEM (OFC)       f[2]
    PAGE g[2] of h[2]

[2]  ____________________________________________________________________
     REPT SMR ASNPR1[a] COMPL
```

2. REASON FOR OUTPUT

To print part one of the signaling network performance report.

3. VARIABLE FIELD DEFINITIONS

a = Report period. Valid value(s):

15	= 15 minutes.
30	= 30 minutes.
HR	= 1 hour.
CDAY	= Current day.
LDAY	= Last (previous) day.

b = Reporting office CLLI code.

c = Accumulation period. Valid value(s):

DAILY
FIFTEEN MINUTES
HALF HOURLY
HOURLY

d = Current software release identification.

e = Local time-zone in the form year-month-date.

f = Local time-zone time in the form hour:minute:second.

g = User defined string (by the way of the equipment configuration database (ECD)). This is the time zone indicator and has a default of "NWT" within the Continental US.

h = Network time of beginning of accumulation period in the form hour:minute:second.

i = Network date of ending of accumulation period in the form hour:minute:second.

j = Network time of ending of accumulation period in the form year-month-date.

k = Network time of ending of accumulation period in the form hour:minute:second.

l = The number of accumulation periods (one period is 5 minutes) out of the maximum number of coverage periods for this report; format is '$i^2i^2i^2/j^2j^2j^2$'

$i^2i^2i^2$ = The number of periods of accumulated data for this report

$j^2j^2j^2$ = The maximum number of periods that can be covered where:

001 <= $i^2i^2i^2$ <= 288 (288 periods equal one 24-hour day)

001 <= $j^2j^2j^2$ <= 288 $i^2i^2i^2$ <= $j^2j^2j^2$.

m = Common channel signaling 7 (CCS7) bytes received.

n = CCS7 bytes transmitted.

o = CCS7 routed messages received.

p = CCS7 routed messages transmitted.

q = Embedded CCIS (ECIS) messages received.

r = ECIS messages transmitted.

s = Total number of global title routing messages received.

t = SP node isolations.

u = Duration of SP node isolations (in seconds).

v = SP link set failures.

w = Duration of SP link set failures (in seconds).

x = Level 1 transmit buffer congestion onset.

y = Duration of level 1 transmit buffer congestion (in seconds).

z = Declared failures.

a^1 = Duration of declared link failures.

b^1 = Automatic changeovers.

c^1 = Receive buffer overflow.

d^1 = Receive buffer overload.

e^1 = Duration of receive buffer overload (in seconds).

f^1 = Transmit buffer discard level 1.

g^1 = Number of alternate link set routing transitions to a lower priority link set.

h^1 = Duration, in seconds, of alternate link set transitions.

i^1 = Routing audit failures.

j^1 = Half-hours with errored second threshold exceeded.

k[1] = Half-hours with detected error threshold exceeded.

l[1] = Bytes retransmitted.

m[1] = Half-hours with automatic changeover threshold exceeded.

n[1] = ECIS messages refused, congestion.

o[1] = ECIS messages refused, no translation.

p[1] = Destination CCIS6 (DCIS) messages refused - congestion.

q[1] = DCIS messages refused - no translation.

r[1] = Number of priority level 1/2/3 ECIS6 messages dropped due to ring peripheral controller (RPC) congestion.

s[1] = Message Signaling service units (MSUs) discarded due to routing data error count.

t[1] = Looping CCS7 messages.

u[1] = Global title translation refused - blocked.

v[1] = Global title translation refused - no translation.

w[1] = Messages removed/discarded due to link congestion.

x[1] = Number of priority level 1/2/3 messages dropped due to RPC congestion.

y[1] = Number of signaling connection control part (SCCP) messages destined for an unknown address (or global title) (link node LN7).

z[1] = Number of SCCP messages destined for an unknown address (or global title) type (LN7).

a[2] = Number of SCCP messages destined for an unequipped subsystem (LN7).

b[2] = Number of SCCP messages destined for a prohibited subsystem (LN7).

c[2] = Number of SCCP messages destined for an unknown address (or global title) [office (OFC)].

d[2] = Number of SCCP messages destined for an unknown address (or global title) type (OFC).

e[2] = Number of SCCP messages destined for an unequipped subsystem (OFC).

f[2] = Number of SCCP messages destined for an prohibited subsystem (OFC).

g[2] = Current page number.

h[2] = Total number of pages of report.

i[2] = The number of periods of accumulated data for this report.

j[2] = The maximum number of periods that can be covered.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SMR
```

Output Message(s):

```
OP:SMR-ASNPR1
```

Other Manual(s):
235-070-100 *System Administration and Engineering Guidelines*

REPT:SMR-ASNPR2-A

Software Release: 5E10 - 5E11
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT SMR ASNPR2[a] STARTED
  SIGNALING NETWORK PERFORMANCE REPORT - PART II


  REPORTING OFFICE: b                      REPORT INTERVAL: c
  CURRENT GENERIC: d                       AUTOMATIC REPORT
  DATE: ee-ee-ee,  TIME: ff:ff:ff
  REPORT PERIOD(g): hh-hh-hh, ii:ii:ii THRU  jj-jj-jj, kk:kk:kk
  DATA COVERAGE: l

                                        CCIS6     CCS7
  TOTAL NO. OF EQUIPPED LINKS:            m         n
  TOTAL LINK OOS TIME(SECS):              o         p
  DURATION RCV'D PROCESSOR OUTAGE:        q         r
  TOTAL NO. OF POOLS/LINK SETS:           s         t

  LOSS OF SIGNALING CAPABILITY ---
                  ----- EMR -----
                    PC      SEC
  A/E LINKS:         u       v

  LOSS OF SIGNALING CAPABILITY ---
              ---CCS7 SPI---   ---CCS7 LSF---
                PC      SEC      PC      SEC
  A/E LINKS:     w       x        y       z

  PAGE l2 OF m2
```

[2]
```
REPT SMR ASNPR2[a] IN PROG


  ALTERNATE LINK SET ROUTING ---

  LINK SET #   PC    SEC
  ----------  ----  -----
       n2       o2    p2
            .
            .
            .

  PAGE l2 OF m2
```

[3]

```
REPT SMR ASNPR2[a] IN PROG


  CCIS6 SIGNALING LINK PERFORMANCE ---

                                   ---ACO--  --SU-ERR-   -SU-RXMT-   -R&S-ACU
  FAR END CLLI-LAYER T GR-MEM VFL   PC   TE    PC   TE     PC   TE     PC   TE
  _________________ _ ______ ___ ________ __________ ________ ________
        a1       b1  c1 d1-e1  f1  g1   h1    i1   j1    k1   l1     m1   n1
        a1       b1  c1 d1-e1  f1  g1   h1    i1   j1    k1   l1     m1   n1

  PAGE l2 OF m2
```

[4]

```
REPT SMR ASNPR2[a] IN PROG


  CCIS6 SIGNALING LINK PERFORMANCE ---

                              OOS-TIME  -DCL-FLR-  --EMR---  --EMR-PO-
  FAR END CLLI-LAYER T GR-MEM HH MM SS  PC    SEC  PC   SEC  PC    SEC
  _________________ _ ______ ________  ________ ________ __________
        a1       b1  c1 d1-e1     o1    p1    q1   u     v    r1    s1
        a1       b1  c1 d1-e1     o1    p1    q1   u     v    r1    s1
  PAGE l2 OF m2
```

[5]

```
REPT SMR ASNPR2[a] IN PROG


  CCIS6 SIGNALING LINK PERFORMANCE ---
                            ---XMIT BUFFER---
                             OVFL  ---OVLD-  PRO-XMTD  PRO-RCVD
  FAR END CLLI-LAYER T GR-MEM   PC  PC   SEC  PC   SEC  PC   SEC
  _________________ _ ______ ____  ________ ________ ________
        a1       b1  c1 d1-e1   t1  u1   v1   w1   x1   y1    z1
        a1       b1  c1 d1-e1   t1  u1   v1   w1   x1   y1    z1
  PAGE l2 OF m2
```

[6]

```
REPT SMR ASNPR2[a] IN PROG


  CCS7 SIGNALING LINK PERFORMANCE ---

                              --ACO--  --ERSEC---  -CRCER--   BYT-RXMT
  FAR END CLLI-LAYER T GR-MEM   PC   TE    PC   TE    PC   TE   PC   TE
  _________________ _ ______  ________ __________ ________ ________
        a1       b1  c1 d1-e1   g1   h1    a2   b2    c2   d2   e2   f2
        a1       b1  c1 d1-e1   g1   h1    a2   b2    c2   d2   e2   f2
  PAGE l2 OF m2
```

[7]

```
REPT SMR ASNPR2[a] IN PROG


  CCS7 SIGNALING LINK PERFORMANCE ---


                                OOS-TIME      ----LSF---      --DCL-FLR-
  FAR END CLLI-LAYER T GR-MEM HH MM SS        PC    SEC       PC    SEC
  _________________ _ ______ ________       __________      __________
        a1       b1  c1 d1-e1    o1           y      z        p1     q1
        a1       b1  c1 d1-e1    o1           y      z        p1     q1

  PAGE l2 OF m2
```

[8]

```
REPT SMR ASNPR2[a] IN PROG


  CCS7 SIGNALING LINK PERFORMANCE ---
                                ----XMIT BUFFER---
                                MSURMV   CONG-LEV1   PRO-XMTD   PRO-RCVD
  FAR END CLLI-LAYER T GR-MEM      PC   PC    SEC   PC   SEC   PC   SEC
  _________________ _ ______  ______   _________  ________  ________
        a1       b1  c1 d1-e1      g2   h2     i2   w1    x1   y1    z1
        a1       b1  c1 d1-e1      g2   h2     i2   w1    x1   y1    z1PAGE l2
 OF m2
```

[9]

```
REPT SMR ASNPR2[a] IN PROG


  CCS7 SIGNALING LINK PERFORMANCE ---

                                ----EMR--  --EMR-PO-  ----SPI--  --SPI-PO-
  FAR END CLLI-LAYER T GR-MEM   PC   SEC   PC   SEC   PC   SEC   PC   SEC
  _________________ _ ______  _________ _________ _________ _________
        a1       b1  c1 d1-e1   u     v    r1    s1   w     x    j2    k2
        a1       b1  c1 d1-e1   u     v    r1    s1   w     x    j2    k2
  PAGE l2 OF m2
```

[10]

```
REPT SMR ASNPR2[a] COMPL
```

2. REASON FOR OUTPUT

To print part two of the signaling network performance report.

3. VARIABLE FIELD DEFINITIONS

a = Report period. Valid value(s):

- 15 = 15 minutes.
- 30 = 30 minutes.
- HR = 1 hour.

CDAY = Current day.
LDAY = Last (previous) day.

b = Reporting office CLLI code.

c = Accumulation period. Valid value(s):

```
DAILY
FIFTEEN MINUTES
HALF HOURLY
HOURLY
```

d = Current software release identification.

e = Local time-zone in the form year-month-date.

f = Local time-zone in the form hour:minute:second.

g = User defined string [the equipment configuration database (ECD)]. This is the time zone indicator and has a default of "NWT" within the Continental US.

h = Network date of beginning of accumulation period in the form year-month-date.

i = Network time of beginning of accumulation period in the form hour:minute:second.

j = Network date of ending of accumulation period in the form year-month-date.

k = Network time of ending of accumulation period in the form hour:minute:second.

l = The number of accumulation periods (one period is 5 minutes) out of the maximum number of coverage periods for this report; format is '$q^2q^2q^2/r^2r^2r^2$'.

$q^2q^2q^2$ = The number of periods of accumulated data for this report
$r^2r^2r^2$ = The maximum number of periods than can be covered where:

001 <= $q^2q^2q^2$ <= 288 (288 periods equals one day - 24 hours)
001 <= $r^2r^2r^2$ <= 288
$q^2q^2q^2$ <= $r^2r^2r^2$

m = The number of CCIS6 equipped links; this number is not necessarily equal to the number of CCIS6 links whose data is printed on this report since links with data measurements of zero are not printed.

n = The number of CCS7 equipped links; this number is not necessarily equal to the number of CCS7 links whose data is printed on this report since links with data measurements of zero are not printed.

o = The total active time in seconds of all CCIS6 links, including those not printed since measurement data was zero.

p = The total active time in seconds of all CCS7 links, including those not printed since measurement data was zero

q = Duration of CCIS6 far end processor outage events observed.

r = Duration of CCS7 far end processor outage events observed.

s = Total number of pools.

t = Total number of link sets.

u = Emergency restart peg count.

v = Duration in seconds of emergency restart.

w = Node isolation peg count.

x = Duration in seconds of node isolation.

y = Combined link-set failure peg count.

z = Duration in seconds of link-set failure.

a[1] = Far-end CLLI code.

b[1] = Link-layer.

c[1] = Link type. Valid value(s):

A
B
C
D
E

d[1] = Group number of link in frame.

e[1] = Member member of link in frame.

f[1] = VFL type. Valid value(s):

A = Secondary.
B = Primary.

Only A and E links have a secondary (A) VFL.

g[1] = Peg count for automatic changeover.

h[1] = Number of times threshold exceeded for automatic change-over.

i[1] = Peg count for signaling units in error.

j[1] = Number of times threshold exceeded for signaling units in error.

k[1] = Peg count for signaling units retransmitted.

l[1] = Number of times threshold exceeded for signaling units retransmitted.

m[1] = Peg count for repeated and skipped acknowledgement signaling units.

n[1] = Number of times threshold exceeded for repeated and skipped acknowledgment signaling units.

o[1] = Out-of-service time (in hours:minutes:seconds).

p[1] = Peg count for declared link failures.

q[1] = Duration in seconds of declared link failures.

r[1] = Emergency restart due to far end processor outage.

s[1] = Duration of emergency restart due to far end processor outage.

t[1] = Peg count for transmit buffer overflow.

u[1] = Peg count for transmit buffer overload.

v[1] = Duration in seconds of transmit buffer overload.

w[1] = Link interface in processor send mode.

x[1] = Duration of processor outage.

y[1] = Far end processor outage occurred.

z[1] = Duration of far end processor outage.

a[2] = Peg count for data link in error time.

b[2] = Number of times threshold exceeded for data link in error time.

c[2] = Peg count for cyclic redundancy check errors.

d[2] = Number of times threshold exceeded for CRC check errors.

e[2] = Peg count for bytes retransmitted.

f[2] = Number of times threshold exceeded for byte retransmissions.

g[2] = MSUs removed due to link congestions.

h[2] = Peg count for transmit buffer overload - level 1.

i[2] = Duration in seconds of transmit buffer overload - level 1.

j[2] = Adjacent signaling point isolation due to far end processor outage.

k[2] = Duration of adjacent signaling point isolation due to far end processor outage.

l[2] = Current page number.

m[2] = Total number of pages of report.

n[2] = Link set number.

o[2] = Number of link set routing transitions to a lower priority link set.

p[2] = Duration, in seconds, of alternate link set transitions.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SMR
```

Output Message(s):

```
OP:SMR-ASNPR2
```

Other Manual(s):
235-070-100 *System Administration and Engineering Guidelines*

REPT:SMR-ASNPR2-B

Software Release: 5E12 only
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT SMR ASNPR2[a]        STARTED


        SIGNALING NETWORK PERFORMANCE REPORT - PART II


        REPORTING OFFICE: b                    REPORT INTERVAL: c
        CURRENT GENERIC: d                     AUTOMATIC REPORT
        DATE: ee-ee-ee,  TIME: ff:ff:ff
        REPORT PERIOD(g): hh-hh-hh, ii:ii:ii    THRU  jj-jj-jj, kk:kk:kk
        DATA COVERAGE: l

                                            CCIS6       CCS7
        TOTAL NO. OF EQUIPPED LINKS:            m          n
        TOTAL LINK OOS TIME(SECS):              o          p
        DURATION RCV'D PROCESSOR OUTAGE:        q          r
        TOTAL NO. OF POOLS/LINK SETS:           s          t


        LOSS OF SIGNALING CAPABILITY ---
                          ----EMR-----
                           PC      SEC
        A/E/F LINKS:          u        v



        LOSS OF SIGNALING CAPABILITY ---
                         ---CCS7 SPI---       ---CCS7 LSF---
                           PC      SEC          PC      SEC
        A/E/F LINKS:          w        x           y        z

        PAGE l2 OF m2

[2]   ____________________________________________________________________
      REPT SMR ASNPR2[a] IN PROG
        ALTERNATE LINK SET ROUTING ---

        LINK SET #   PC   SEC
        ----------  ---- -----
             n2        o2      p2
             .         .     .
             .         .     .
             .         .     .
```

```
  PAGE l2 OF m2

[3]  ____________________________________________________________
REPT SMR ASNPR2[a] IN PROG


  CCIS6 SIGNALING LINK PERFORMANCE ---

                                   ---ACO--  --SU-ERR-   -SU-RXMT-   -R&S-ACU
  FAR END CLLI-LAYER T GR-MEM VFL  PC   TE    PC   TE    PC   TE     PC   TE
  _________________ _ ______ ___ ________ _________ _________ _________
  a1       b1  c1 d1-e1  f1  g1   h1    i1   j1    k1 l1     m1   n1
  .                 . .      .     .    .     .    .     .     .     .    .
  .                 . .      .     .    .     .    .     .     .     .    .
  .                 . .      .     .    .     .    .     .     .     .    .
  PAGE l2 OF m2

[4]  ____________________________________________________________
REPT SMR ASNPR2[a] IN PROG


  CCIS6 SIGNALING LINK PERFORMANCE ---

                              OOS-TIME  -DCL-FLR-  --EMR---  --EMR-PO-
  FAR END CLLI-LAYER T GR-MEM HH MM SS  PC    SEC  PC   SEC  PC    SEC
  _________________ _ ______ ________  ________ ________ __________
  a1       b1  c1 d1-e1     o1    p1    q1   u    v    r1
s1
  .                 . .      .          .     .   .    .   .     .
  .                 . .      .          .     .   .    .   .     .
  .                 . .      .          .     .   .    .   .     .
  PAGE l2 OF m2

[5]  ____________________________________________________________
REPT SMR ASNPR2[a] IN PROG


  CCIS6 SIGNALING LINK PERFORMANCE ---
                             ---XMIT BUFFER---
                              OVFL  ---OVLD-  PRO-XMTD  PRO-RCVD
  FAR END CLLI-LAYER T GR-MEM   PC  PC   SEC  PC   SEC  PC   SEC
  _________________ _ ______ ____ ________ ________ ________
  a1             b1 c1        d1-e1   t1  u1   v1   w1   x1   y1    z1
  .                 . .         .   .    .    .    .   .    .
  .                 . .         .   .    .    .    .   .    .
  .                 . .         .   .    .    .    .   .    .
  PAGE l2 OF m2

[6]  ____________________________________________________________
REPT SMR ASNPR2[a] IN PROG


  CCS7 SIGNALING LINK PERFORMANCE ---
```

```
                                --ACO--  --ERSEC--  --CRCER--  -BYT-RXMT
  FAR END CLLI-LAYER T GR-MEM   PC   TE    PC   TE   PC    TE    PC   TE
  _________________ _ ______  _______ _________ _________ _________
  a1             b1 c1        d1-e1    g1   h1    a2   b2   c2   d2   e*
  .                 . .         .    .  .       .    .    .    .    .
  .                 . .         .    .  .       .    .    .    .    .
  .                 . .         .    .  .       .    .    .    .    .
  PAGE l2 OF m2
```

[7]

```
  ____________________________________________________________________
  REPT SMR ASNPR2[a] IN PROG


    CCS7 SIGNALING LINK PERFORMANCE ---

                                OOS-TIME      ----LSF---      --DCL-FLR-
    FAR END CLLI-LAYER T GR-MEM HH MM SS       PC    SEC       PC    SEC
    _________________ _ ______ ________     __________    __________
    a1       b1  c1 d1-e1    o1          y      z        p1     q1
    .                 . .      .               .      .        .      .
    .                 . .      .               .      .        .      .
    .                 . .      .               .      .        .      .
    PAGE l2 OF m2
```

[8]

```
  ____________________________________________________________________
  REPT SMR ASNPR2[a] IN PROG


    CCS7 SIGNALING LINK PERFORMANCE ---
                                ----XMIT BUFFER---
                                MSURMV   CONG-LEV1    PRO-XMTD    PRO-RCVD
    FAR END CLLI-LAYER T GR-MEM     PC    PC   SEC    PC   SEC    PC   SEC
    _________________ _ ______  ______   _________   _________   __________
    a1       b1  c1 d1-e1      g2   h2    i2   w1    x1   y1    z1
    .                 . .       .          .    .    .    .    .    .
    .                 . .       .          .    .    .    .    .    .
    .                 . .       .          .    .    .    .    .    .
    PAGE l2 OF m2
```

[9]

```
  ____________________________________________________________________
  REPT SMR ASNPR2[a] IN PROG


    CCS7 SIGNALING LINK PERFORMANCE ---

                                ----EMR--  --EMR-PO-  ----SPI--  --SPI-PO-
    FAR END CLLI-LAYER T GR-MEM   PC   SEC   PC   SEC   PC   SEC   PC   SEC
    _________________ _ ______  _________ _________ _________ _________
    a1       b1  c1 d1-e1   u     v    r1   s1   w     x    j2    k2
    .                 . .         .    .    .    .    .    .    .    .
    .                 . .         .    .    .    .    .    .    .    .
    .                 . .         .    .    .    .    .    .    .    .
```

```
        PAGE l2 OF m2

[10]  ____________________________________________________________________
      REPT SMR ASNPR2[a]        COMPL
```

2. REASON FOR OUTPUT

To print part two of the signaling network performance report.

3. VARIABLE FIELD DEFINITIONS

a = Report period. Valid value(s):

15	= 15 minutes.
30	= 30 minutes.
HR	= 1 hour.
CDAY	= Current day.
LDAY	= Last (previous) day.

b = Reporting office CLLI code.

c = Accumulation period. Valid value(s):

```
DAILY
FIFTEEN MINUTES
HALF HOURLY
HOURLY
```

d = Current software release identification.

e = Local time-zone in the form year-month-date.

f = Local time-zone in the form hour:minute:second.

g = User defined string [the equipment configuration database (ECD)]. This is the time zone indicator and has a default of "NWT" within the Continental US.

h = Network date of beginning of accumulation period in the form year-month-date.

i = Network time of beginning of accumulation period in the form hour:minute:second.

j = Network date of ending of accumulation period in the form year-month-date.

k = Network time of ending of accumulation period in the form hour:minute:second.

l = The number of accumulation periods (one period is 5 minutes) out of the maximum number of coverage periods for this report; format is '$q^2q^2q^2/r^2r^2r^2$'.

$q^2q^2q^2$	= The number of periods of accumulated data for this report
$r^2r^2r^2$	= The maximum number of periods than can be covered where:

001 <= $q^2q^2q^2$ <= 288 (288 periods equals one day - 24 hours)
001 <= $r^2r^2r^2$ <= 288
$q^2q^2q^2$ <= $r^2r^2r^2$

m = The number of CCIS6 equipped links; this number is not necessarily equal to the number of CCIS6 links whose data is printed on this report since links with data measurements of zero are not printed.

n = The number of CCS7 equipped links; this number is not necessarily equal to the number of CCS7 links whose data is printed on this report since links with data measurements of zero are not printed.

o = The total active time in seconds of all CCIS6 links, including those not printed since measurement data was zero.

p = The total active time in seconds of all CCS7 links, including those not printed since measurement data was zero

q = Duration of CCIS6 far end processor outage events observed.

r = Duration of CCS7 far end processor outage events observed.

s = Total number of pools.

t = Total number of link sets.

u = Emergency restart peg count.

v = Duration in seconds of emergency restart.

w = Node isolation peg count.

x = Duration in seconds of node isolation.

y = Combined link-set failure peg count.

z = Duration in seconds of link-set failure.

a[1] = Far-end CLLI code.

b[1] = Link-layer.

c[1] = Link type. Valid value(s):

A
E
F
d[1]= Group number of link in frame.

e[1] = Member member of link in frame.

f[1] = VFL type. Valid value(s):
A = Secondary.
B = Primary.

Only A and E links have a secondary (A) VFL.

g[1] = Peg count for automatic changeover.

h^1 = Number of times threshold exceeded for automatic change-over.

i^1 = Peg count for signaling units in error.

j^1 = Number of times threshold exceeded for signaling units in error.

k^1 = Peg count for signaling units retransmitted.

l^1 = Number of times threshold exceeded for signaling units retransmitted.

m^1 = Peg count for repeated and skipped acknowledgement signaling units.

n^1 = Number of times threshold exceeded for repeated and skipped acknowledgment signaling units.

o^1 = Out-of-service time (in hours:minutes:seconds).

p^1 = Peg count for declared link failures.

q^1 = Duration in seconds of declared link failures.

r^1 = Emergency restart due to far end processor outage.

s^1 = Duration of emergency restart due to far end processor outage.

t^1 = Peg count for transmit buffer overflow.

u^1 = Peg count for transmit buffer overload.

v^1 = Duration in seconds of transmit buffer overload.

w^1 = Link interface in processor send mode.

x^1 = Duration of processor outage.

y^1 = Far end processor outage occurred.

z^1 = Duration of far end processor outage.

a^2 = Peg count for data link in error time.

b^2 = Number of times threshold exceeded for data link in error time.

c^2 = Peg count for cyclic redundancy check errors.

d^2 = Number of times threshold exceeded for CRC check errors.

e^2 = Peg count for bytes retransmitted.

f^2 = Number of times threshold exceeded for byte retransmissions.

g^2 = MSUs removed due to link congestions.

h^2 = Peg count for transmit buffer overload - level 1.

i^2 = Duration in seconds of transmit buffer overload - level 1.

j^2 = Adjacent signaling point isolation due to far end processor outage.

k^2 = Duration of adjacent signaling point isolation due to far end processor outage.

l^2 = Current page number.

m^2 = Total number of pages of report.

n^2 = Link set number.

o^2 = Number of link set routing transitions to a lower priority link set.

p^2 = Duration, in seconds, of alternate link set transitions.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SMR
```

Output Message(s):

```
OP:SMR-ASNPR2
```

Other Manual(s):
235-070-100 *System Administration and Engineering Guidelines*

REPT:SMR-ASNPR2-C

Software Release: 5E12 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT SMR ASNPR2a        STARTED

        SIGNALING NETWORK PERFORMANCE REPORT - PART II

        REPORTING OFFICE: b                    REPORT INTERVAL: c

        CURRENT GENERIC: d                     AUTOMATIC REPORT

        DATE: ee-ee-ee,  TIME: ff:ff:ff

        REPORT PERIOD(g): hh-hh-hh, ii:ii:ii    THRU  jj-jj-jj, kk:kk:kk

        DATA COVERAGE: l

                                            CCS7

        TOTAL NO. OF EQUIPPED LINKS:           m

        TOTAL LINK OOS TIME(SECS):             n

        DURATION RCV'D PROCESSOR OUTAGE:       o

        TOTAL NO. OF POOLS/LINK SETS:          p

        LOSS OF SIGNALING CAPABILITY ---

                          ----EMR-----

                           PC      SEC

        A/E/F LINKS:          q        r

        LOSS OF SIGNALING CAPABILITY ---

                         ---CCS7 SPI---       ---CCS7 LSF---

                           PC      SEC          PC      SEC

        A/E/F LINKS:          s        t           u        v

        PAGE x1 OF y1

[2]   ____________________________________________________________________
      REPT SMR ASNPR2a IN PROG
```

```
ALTERNATE LINK SET ROUTING ---

LINK SET #   PC   SEC

----------  ---- -----

     z1        a2      b2
     .         .     .
     .         .     .
     .         .     .

PAGE x1 OF y1
```

[3]

```
REPT SMR ASNPR2a IN PROG

CCS7 SIGNALING LINK PERFORMANCE ---

                                --ACO--  --ERSEC--  --CRCER--  -BYT-RXMT

FAR END CLLI-LAYER T GR-MEM   PC   TE    PC   TE   PC    TE    PC   TE

_________________ _ ______  ________  _________  _________  _________

w             x    y z  -a1    b1   c1    m1   n1    o1   p1   q1   r1
.                  . .         .    .  .       .    .     .     .    .
.                  . .         .    .  .       .    .     .     .    .
.                  . .         .    .  .       .    .     .     .    .

PAGE x1 OF y1
```

[4]

```
REPT SMR ASNPR2a IN PROG

CCS7 SIGNALING LINK PERFORMANCE ---

                              OOS-TIME      ----LSF---      --DCL-FLR-

FAR END CLLI-LAYER T GR-MEM HH MM SS       PC    SEC       PC    SEC

_________________ _ ______ ________      __________      __________

w          x       y z  -a1    d1          u      v        e1     f1
.                  . .      .               .      .        .      .
.                  . .      .               .      .        .      .
.                  . .      .               .      .        .      .

PAGE x1 OF y1
```

[5]

```
REPT SMR ASNPR2a IN PROG
```

```
CCS7 SIGNALING LINK PERFORMANCE ---

                                ----XMIT BUFFER---

                                MSURMV   CONG-LEV1    PRO-XMTD    PRO-RCVD

FAR END CLLI-LAYER T GR-MEM       PC     PC    SEC    PC    SEC    PC    SEC

_________________ _ ______   ______   _________   _________   _________

w            x     y z  -a1      s1    t1     u1   i1    j1     k1    l1
.                  . .        .          .     .    .      .     .      .
.                  . .        .          .     .    .      .     .      .
.                  . .        .          .     .    .      .     .      .

PAGE x1 OF y1
```

[6]

```
REPT SMR ASNPR2a IN PROG

CCS7 SIGNALING LINK PERFORMANCE ---

                                ----EMR--  --EMR-PO-  ----SPI--  --SPI-PO-

FAR END CLLI-LAYER T GR-MEM   PC    SEC    PC    SEC    PC    SEC    PC    SEC

_________________ _ ______  _________  _________  _________  _________

w            x     y z  -a1   q     r    g1    h1   s     t     v1    w1
.                  . .         .     .    .     .    .     .     .     .
.                  . .         .     .    .     .    .     .     .     .
.                  . .         .     .    .     .    .     .     .     .

PAGE x1 OF y1
```

[7]

```
REPT SMR ASNPR2a        COMPL
```

2. REASON FOR OUTPUT

To print part two of the signaling network performance report.

3. VARIABLE FIELD DEFINITIONS

a = Report period. Valid value(s):

15	= 15 minutes.
30	= 30 minutes.
HR	= 1 hour.
CDAY	= Current day.
LDAY	= Last (previous) day.

b = Reporting office CLLI code.

c = Accumulation period. Valid value(s):
DAILY
FIFTEEN MINUTES
HALF HOURLY
HOURLY

d = Current software release identification.

e = Local time-zone in the form year-month-date.

f = Local time-zone in the form hour:minute:second.

g = User defined string [the equipment configuration database (ECD)]. This is the time zone indicator and has a default of "NWT" within the Continental US.

h = Network date of beginning of accumulation period in the form year-month-date.

i = Network time of beginning of accumulation period in the form hour:minute:second.

j = Network date of ending of accumulation period in the form year-month-date.

k = Network time of ending of accumulation period in the form hour:minute:second.

l = The number of accumulation periods (one period is 5 minutes) out of the maximum number of coverage periods for this report; format is '$c^2c^2c^2/d^2d^2d^2$'.
$c^2c^2c^2$ = The number of periods of accumulated data for this report
$d^2d^2d^2$ = The maximum number of periods than can be covered where:

001 <= $c^2c^2c^2$ <= 288 (288 periods equals one day - 24 hours)
001 <= $d^2d^2d^2$ <= 288 $c^2c^2c^2$ <= $d^2d^2d^2$

m = The number of CCS7 equipped links; this number is not necessarily equal to the number of CCS7 links whose data is printed on this report since links with data measurements of zero are not printed.

n = The total OOS time in seconds of all CCS7 links, including those not printed since measurement data was zero

o = Duration of CCS7 far end processor outage events observed.

p = Total number of link sets.

q = Emergency restart peg count.

r = Duration in seconds of emergency restart.

s = Node isolation peg count.

t = Duration in seconds of node isolation.

u = Combined link-set failure peg count.

v = Duration in seconds of link-set failure.

w = Far-end CLLI code.

x = Link-layer.

y = Link type. Valid value(s):
A
E
F

z = Group number of link in frame.

a[1] = Member member of link in frame.

b[1] = Peg count for automatic changeover.

c[1] = Number of times threshold exceeded for automatic change-over.

d[1] = Out-of-service time (in hours:minutes:seconds).

e[1] = Peg count for declared link failures.

f[1] = Duration in seconds of declared link failures.

g[1] = Emergency restart due to far end processor outage.

h[1] = Duration of emergency restart due to far end processor outage.

i[1] = Link interface in processor send mode.

j[1] = Duration of processor outage.

k[1] = Far end processor outage occurred.

l[1] = Duration of far end processor outage.

m[1] = Peg count for data link in error time.

n[1] = Number of times threshold exceeded for data link in error time.

o[1] = Peg count for cyclic redundancy check errors.

p[1] = Number of times threshold exceeded for CRC check errors.

q[1] = Peg count for bytes retransmitted.

r[1] = Number of times threshold exceeded for byte retransmissions.

s[1] = MSUs removed due to link congestions.

t[1] = Peg count for transmit buffer overload - level 1.

u[1] = Duration in seconds of transmit buffer overload - level 1.

v[1] = Adjacent signaling point isolation due to far end processor outage.

w[1] = Duration of adjacent signaling point isolation due to far end processor outage.

x[1] = Current page number.

y[1] = Total number of pages of report.

z[1] = Link set number.

a[2] = Number of link set routing transitions to a lower priority link set.

b[2] = Duration, in seconds, of alternate link set transitions.

c[2] = The number of periods of accumulated data for this report.

d[2] = The maximum number of periods thatn can be covered .

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SMR
```

Output Message(s):

```
OP:SMR-ASNPR2
```

Other Manual(s):

235-070-100 *Administration and Engineering Guidelines*

REPT:SMR-MPR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT SMR MPR a
  No. 2 STP MACHINE PERFORMANCE REPORT
  REPORTING OFFICE:  b                    REPORT INTERVAL c
  CURRENT GENERIC:  d                     AUTOMATIC REPORT
  DATE:  e  TIME:  f
  REPORT PERIOD:  g, h THRU i, j
  DATA VALID:  k
  NO MESSAGE SIGNAL UNIT PROCESSING
          COUNT   SEC
            l      m
  SYSTEM INITIALIZATIONS
                 LEVEL0   LEVEL1   LEVEL1A   LEVEL1B   LEVEL3   LEVEL4
                 COUNT    COUNT    COUNT     COUNT     COUNT    COUNT
          IMS      n       N/A       o         p         q        r
          CNI      s        t       N/A       N/A        u        v
          STP      w        x       N/A       N/A        y        z
  NODE PERFORMANCE
                          ERRORS   OOS-AUTO     OSS-MN    OSS-CNFG
                          COUNT    COUNT SEC  COUNT SEC   COUNT SEC
          RPC NODES        a1       b1   c1    d1   e1     f1   g1
          LN NODES         h1       i1   j1    k1   l1     m1   n1
  RING PERFORMANCE
          SINGLE FAULTS   MULT FAULTS   RING DOWN
          COUNT   SEC     COUNT  SEC       SEC
           o1      p1      q1     r1        s1
```

2. REASON FOR OUTPUT

To automatically report the number 2 signal transfer point (STP) machine performance report (STP MPR) equipment performance measurements for both the common and the non-common portions of the number 2 STP. This report can be generated manually using the OP:SMR input message.

3. VARIABLE FIELD DEFINITIONS

a = Termination status of the input message. Valid value(s):

ABT	= Aborted.
COMPL	= Completed.
IN PROG	= In progress.
STARTED	= Started.
STOPPED	= Stopped.

b = Local CLLI code of the office.

c = The accumulation period. Valid value(s):

```
DAILY
DAY TO HOUR
HOURLY
```

d = Current office type and software release.

e = Date when the report was printed.

f = Time when the report was printed.

g = The date of the beginning of the accumulation interval.

h = The time of the beginning of the accumulation interval.

i = The date of the end of the accumulation interval.

j = The time of the end of the accumulation interval.

k = The data validity flag. Valid value(s):
NO = Invalid.
YES = Valid.

l = The peg count showing the number of occurrences when no signal unit processing was occurring.

m = The interval (in seconds) of the peg counts referenced in variable 'l'.

n = The number of interprocess message switch (IMS) level 0 initializations.

o = The number of IMS level 1A initializations.

p = The number of IMS level 1B initializations.

q = The number of IMS level 3 initializations.

r = The number of IMS level 4 initializations.

s = The number of common network interface (CNI) level 0 initializations.

t = The number of CNI level 1 initializations.

u = The number of CNI level 3 initializations.

v = The number of CNI level 4 initializations.

w = The number of STP level 0 initializations.

x = The number of STP level 1 initializations.

y = The number of STP level 3 initializations.

z = The number of STP level 4 initializations.

a^1 = The peg count of ring peripheral controller (RPC) node errors.

b^1 = The peg count of RPC out of service auto for RPC node.

c^1 = The time (in seconds) of variable 'b^1'.

d^1 = The peg count of RPC out of service manual for RPC Node.

e^1 = The time (in seconds) of variable 'd^1'.

f^1 = The peg count of RPC out of service configuration for RPC node.

g^1 = The time (in seconds) of variable 'f^1'.

h^1 = The peg count of link node/leased network (LN) node errors.

i^1 = The peg count of LN out of service auto for LN node.

j^1 = The time (in seconds) of variable 'i^1'.

k^1 = The peg count of LN out of service manual for LN node.

l^1 = The time (in seconds) of variable 'k^1'.

m^1 = The peg count of LN out of service configuration for LN node.

n^1 = The time (in seconds) of variable 'm^1'.

o^1 = The peg count of single fault ring errors.

p^1 = The time (in seconds) of variable 'o^1'.

q^1 = The peg count of multiple fault ring errors.

r^1 = The time (in seconds) of variable 'q^1'.

s^1 = The time (in seconds) the ring was down.

4. ACTION TO BE TAKEN

If the aborted (ABT) status message is printed, the user may try the OP:SMR message again.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SMR
```

Output Message(s):

```
OP:SMR-MPR
```

REPT:SMR-SEPR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT SMR SEPR STARTED
  SIGNALING EQUIPMENT PERFORMANCE REPORT
  REPORTING OFFICE: b                    REPORT INTERVAL: c
  CURRENT GENERIC: d                     AUTOMATIC REPORT
  DATE: ee/ee/ee,  TIME: ff:ff:ff
  REPORT PERIOD: gg/gg/gg, hh:hh:hh THRU  ii/ii/ii, jj:jj:jj
  DATA VALID: k
  LN PERFORMANCE
  GROUP  MEM  PRTCL  ERROR   OOS-AUTO     OOS-MAN     OOS-CNFG
   NUM   NUM  TYPE    PC     PC   SEC     PC   SEC    PC   SEC
  -----  ---  -----  -----   --------     --------    --------
    l     m    n       o      p    q       r    s      t    u
    l     m    n       o      p    q       r    s      t    u
    l     m    n       o      p    q       r    s      t    u
                                 .
                                 .
                                 .
  PAGE v OF w
  REPT SMR SEPR IN PROG
  RPC NODE PERFORMANCE
  GROUP  MEM  ERROR   OOS-AUTO       OOS-MAN      OOS-CNFG
   NUM   NUM   PC     PC   SEC       PC   SEC     PC   SEC
  -----  ---  -----   --------       --------     --------
    l     m    o      p    q         r    s       t    u
    l     m    o      p    q         r    s       t    u
    l     m    o      p    q         r    s       t    u
                                 .
                                 .
                                 .
  PAGE v OF w
```

2. REASON FOR OUTPUT

To print the signaling equipment performance report autonomously after the scheduled (automatic) OP:SMR-SEPR report.

3. VARIABLE FIELD DEFINITIONS

`b` = Reporting office CLLI code.

`c` = Accumulation period. Valid value(s):

- `DAILY` = Data represents an accumulation period of 24 hours (this is the longest interval).
- `DAY TO HOUR` = Data represents an accumulation period of more than one hour but fewer than 24 hours.
- `HOURLY` = Data represents an accumulation period of one hour (this is the shortest interval).

`d` = Current software release.

`e` = Local time-zone date in the form month/day/year.

`f` = Local time-zone time in the form hour:minute:second.

`g` = Network date of beginning of accumulation period in the form month/day/year.

`h` = Network time of beginning of accumulation period in the form hour:minute:second.

`i` = Network date of ending of accumulation period in the form month/day/year.

`j` = Network time of ending of accumulation period in the form hour:minute:second.

`k` = Data validity flag. Valid value(s):
- `NO` = Data for one or more links is questionable.
- `YES` = Data for all links is legitimate.

`l` = Group number of link in frame.

`m` = Member number of link in frame.

`n` = Link protocol. Valid value(s):
- `6` = Common channel interoffice signaling system 6 (CCIS6).
- `7` = Common channel signaling system 7 (CCS7).

`o` = Peg count of transient errors (errors which do not result in a node's being removed from service).

`p` = Peg count of out-of-service time due to faults; this includes all time that a node is automatically removed from service.

`q` = Duration of time in seconds that a node is out-of-service due to faults.

`r` = Peg count for manually initiated out-of-service time.

`s` = Duration of time in seconds that a node is manually out-of-service.

`t` = Peg count for out-of-service time due to ring reconfiguration that isolates this node.

`u` = Duration of time in seconds that a node is out-of-service due to a ring reconfiguration.

`v` = Current page number.

`w` = Number of logical pages of report.

4. ACTION TO BE TAKEN

If the ABORTED status message is printed, the user may ignore it.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
OP:SMR-SEPR
```

REPT:SMR-SNPR1

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
a REPT SMR SNPR1
  SIGNALING NETWORK PERFORMANCE REPORT - PART I
  REPORTING OFFICE: b                      REPORT INTERVAL c
  CURRENT GENERIC: d                       DEMAND REPORT
  DATE: ee/ee/ee TIME: ff:ff:ff
  REPORT PERIOD: gg/gg/gg , hh:hh:hh THRU ii/ii/ii , jj:jj:jj
  DATA VALID: k
  SIGNALING LOAD ---         RECEIVED        TRANSMITTED
     CCIS6 SIGNAL UNITS:        l                m
     CCS7 BYTES:                n                o
  SIGNALING PERFORMANCE ---                     PEG  TIME
                                               COUNT (SEC.)
   PROCESSOR OUTAGE TIME (AVERAGE)                      p
   PROCESSOR CONGESTION TIME (LEVEL 1)            q     r
   PROCESSOR CONGESTION TIME (LEVEL 2)            s     t
   PROCESSOR CONGESTION TIME (LEVEL 3)            u     v
   CCIS6 PERFORMANCE
    EMERGENCY RESTART                             w     x
    SIG LINK BUFFER OVERFLOW                      y
    SIG LINK BUFFER OVERLOAD                      z     a1
    DECLARED LINK FAILURES                        b1    c1
    AUTOMATIC SIG LINK CHANGEOVERS                d1    e1
    EXCEPTION REPORTS (THRESHOLDS EXCEEDED) ---
       SIGNAL UNIT ERRORS                         f1
       RETRANSMISSION REQUESTS                    g1
       REPEATED AND SKIPPED ACU'S                 h1
       AUTOMATIC CHANGEOVERS                      i1
   MESSAGE TRANSFER FAILURES ---
    POTS MESSAGES BLOCKED                         j1
    UNEQUIPPED POTS LABEL (NO TRANSLATION)        k1
    DIRECT SIG MESSAGES REFUSED (BLOCKED)         l1
    DIRECT SIG MESSAGES REFUSED (NO TRANSLATION)  m1
   CCS7 PERFORMANCE ---
    NODE ISOLATION                                n1    o1
    COMBINED LINK SET FAILURE                     p1    q1
    SIG LINK BUFFER OVERFLOW (LEVEL 3)            r1
    SIG LINK BUFFER OVERLOAD (LEVEL 1)            s1    t1
    SIG LINK BUFFER OVERLOAD (LEVEL 2)            u1    v1
    SIG LINK BUFFER OVERLOAD (LEVEL 3)            w1    x1
    DECLARED LINK FAILURES                        y1    z1
    AUTOMATIC CHANGEOVERS                         a2    b2
    EXCEPTION REPORTS (THRESHOLDS EXCEEDED) ---
      ERRORED SECONDS                             c2
```

```
  DETECTED ERRORS                              d2
  MESSAGES RETRANSMITTED                       e2
  AUTOMATIC CHANGEOVERS                        f2
MESSAGE TRANSFER FAILURES ---
  ECIS MESSAGES REFUSED - BLOCKED              g2
  ECIS MESSAGES REFUSED - NO TRANSLATION       h2
  NON-ECIS MSGS REFUSED - BLOCKED              i2
  NON-ECIS MSGS REFUSED - NO TRANSLATION       j2
k2 REPT SMR SNPR1 COMPL
```

2. REASON FOR OUTPUT

To print part one of the signaling network performance report autonomously as a result of the scheduled (automatic) OP:SMR-SNPRI report.

3. VARIABLE FIELD DEFINITIONS

a = Termination status. Valid value(s):
- ABT = Aborted
- COMPL = Completed
- IN PROG = In progress
- STARTED = Started
- STOPPED = Stopped

b = Local CLLI code of the office.

c = Accumulation period. Valid value(s):
- DAILY = Data represents an accumulation period of 24 hours (this is the longest interval).
- DAY TO HOUR = Data represents an accumulation period of more than one hour but fewer than 24 hours.
- HOURLY = Data represents an accumulation period of one hour (this is the shortest interval).

d = Current software release.

e = Local time-zone date in the form month/day/year.

f = Local time-zone time in the form hour:minute:second.

g = Network date of beginning of accumulation period in the form month/day/year.

h = Network time of beginning of accumulation period in the form hour:minute:second.

i = Network date of end of accumulation period in the form month/day/year.

j = Network time of end of accumulation period in the form hour:minute:second.

k = Data validity flag. Valid value(s):
- NO = Data for one or more links is questionable.
- YES = Data for all links is legitimate.

l = Common channel interoffice signaling system 6 (CCIS6) signal units received.

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m = CCIS6 signal units transmitted.

n = Common channel signaling system 7 (CCS7) bytes received.

o = CCS7 bytes transmitted.

p = Duration of near-end processor outage (in seconds).

q = Near-end processor congestion: level 1.

r = Duration of level 1 near-end processor congestion (in seconds).

s = Near-end processor congestion: level 2.

t = Duration of level 2 near-end processor congestion (in seconds).

u = Near-end processor congestion: level 3.

v = Duration of level 3 near-end processor congestion (in seconds).

w = SP emergency restarts.

x = Duration of SP emergency restarts (in seconds).

y = Transmit buffer overflows.

z = Transmit buffer overloads.

a^1 = Duration of transmit buffer overloads (in seconds).

b^1 = Declared link failures.

c^1 = Duration of declared link failures (in seconds).

d^1 = Automatic changeovers.

e^1 = Duration of all link failures (in seconds).

f^1 = Half-hours with signal unit error threshold exceeded.

g^1 = Half-hours with retransmission threshold exceeded.

h^1 = Half-hours with acknowledgment unit repeat or skip threshold exceeded.

i^1 = Half-hours with automatic changeover threshold exceeded.

j^1 = Plain old telephone service (POTS) messages refused: congestion.

k^1 = POTS messages refused: no translation.

l^1 = Direct signaling messages refused: congestion.

m^1 = Direct signaling messages refused: no translation.

n^1 = SP node isolations.

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o^1 = Duration of SP node isolations (in seconds).

p^1 = SP combined link set failures.

q^1 = Duration of SP combined link set failures (in seconds).

r^1 = Transmit buffer overflows: level 3.

s^1 = Transmit buffer overloads: level 1.

t^1 = Duration of level 1 transmit buffer overloads (in seconds).

u^1 = Transmit buffer overloads: level 2.

v^1 = Duration of level 2 transmit buffer overloads (in seconds).

w^1 = Transmit buffer overloads: level 3.

x^1 = Duration of level 3 transmit buffer overloads (in seconds).

y^1 = Declared failures.

z^1 = Duration of declared link failures.

a^2 = Automatic changeovers.

b^2 = Duration of all link failures.

c^2 = Half-hours with errored second threshold exceeded.

d^2 = Half-hours with detected error threshold exceeded.

e^2 = Messages retransmitted.

f^2 = Half-hours with automatic changeover threshold exceeded.

g^2 = Embedded CCIS6 (ECIS) messages refused: congestion.

h^2 = ECIS messages refused: no translation.

i^2 = Non-ECIS messages refused: congestion.

j^2 = Non-ECIS messages refused: no translation.

k^2 = Time of day stamp.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
OP:SMR-SNPR1
```

REPT:SMR-SNPR2

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT SMR SNPR2 STARTED
  SIGNALING NETWORK PERFORMANCE REPORT - PART 2
  REPORTING OFFICE: b                      REPORT INTERVAL: c
  CURRENT GENERIC: d                       AUTOMATIC REPORT
  DATE: ee/ee/ee,  TIME: ff:ff:ff
  REPORT PERIOD: gg/gg/gg, hh:hh:hh THRU  ii/ii/ii, jj:jj:jj
  DATA VALID: k
  LOSS OF SIGNALING CAPABILITY ---
                 ---CCIS6 EMR---
                    PC      SEC
  A/E LINKS:         l       m
  B LINKS:           l       m
  C LINKS:           l       m
  LOSS OF SIGNALING CAPABILITY ---
              --CCS7 EMR--    --CCS7 NIS--    --CCS7 CLF--
               PC     SEC      PC     SEC      PC     SEC
  A/E LINKS:    l      m        n      o        p      q
  B LINKS:      l      m        n      o        p      q
  C LINKS:      l      m        n      o        p      q
  PAGE r OF s
  REPT SMR SNPR2 IN PROG
  CCIS6 SIGNALING LINK PERFORMANCE ---
                                  ACT TIME SU ERR SU RXMT AUTO CHG OVER
  FAR END CLLI-LAYER T GR-MEM VFL  HR  MIN    TE     TE         PC   TE
  ------------------ - ------ --- -------- ------ ------- -------------
        t     -  u   v  w-x    y     z       a1       b1        c1    d1
        t     -  u   v  w-x    y     z       a1       b1        c1    d1
        t     -  u   v  w-x    y     z       a1       b1        c1    d1
                                        .
                                        .
                                        .
  PAGE r OF s
  REPT SMR SNPR2 IN PROG
  CCIS6 SIGNALING LINK PERFORMANCE ---
                            R&S ACU   DCL FLR      EMR
  FAR END CLLI-LAYER T GR-MEM    TE     PC  SEC    PC   SEC
  ------------------ - ------ -------  ---------   --------
        t     -  u   v  w-x      e1     f1   g1     l    m
        t     -  u   v  w-x      e1     f1   g1     l    m
        t     -  u   v  w-x      e1     f1   g1     l    m
                            .
                            .
                            .
  PAGE r OF s
  REPT SMR SNPR2 IN PROG
```

```
CCIS6 SIGNALING LINK PERFORMANCE ---
                                          OVLD            OVFL
FAR END CLLI-LAYER T GR-MEM          PC    SEC          PC
------------------ - ------         -----------       ------
      t     -  u   v  w-x            h1     i1        j1
      t     -  u   v  w-x            h1     i1        j1
      t     -  u   v  w-x            h1     i1        j1
                            .
                            .
                            .
PAGE r OF s
REPT SMR SNPR2 IN PROG
CCS7 SIGNALING LINK PERFORMANCE
                            ACT TIM ERROR  MSG ERR BYT RXMT AUT CHG OVR
FAR END CLLI-LAYER T GR-MEM  HR MIN SECS TE   TE      TE        PC   TE
------------------ - ------ ------- ------- ------ -------- -----------
      t     -  u   v  w-x      z      k1      l1      m1        c1   d1
      t     -  u   v  w-x      z      k1      l1      m1        c1   d1
      t     -  u   v  w-x      z      k1      l1      m1        c1   d1
                                .
                                .
                                .
PAGE r OF s
REPT SMR SNPR2 IN PROG
CCS7 SIGNALING LINK PERFORMANCE
                            DCL FLR        CLF          OVFL
FAR END CLLI-LAYER T GR-MEM  PC   SEC     PC   SEC        PC
------------------ - ------  --------    ----------     ------
      t     -  u   v  w-x    e1    g1      p    q         j1
      t     -  u   v  w-x    e1    g1      p    q         j1
      t     -  u   v  w-x    e1    g1      p    q         j1
                                .
                                .
                                .
PAGE r OF s
REPT SMR SNPR2 IN PROG
CCS7 SIGNALING LINK PERFORMANCE
                                  NIS             OVLD
FAR END CLLI-LAYER T GR-MEM     PC   SEC        PC    SEC
------------------ - ------    ----------      -----------
      t     -  u   v  w-x        n    o         h1    i1
      t     -  u   v  w-x        n    o         h1    i1
      t     -  u   v  w-x        n    o         h1    i1
                            .
                            .
                            .
PAGE r OF s
REPT SMR SNPR2 COMPL
CCS7 SIGNALING LINK PERFORMANCE
                                          EMR
FAR END CLLI-LAYER T GR-MEM          PC    SEC
------------------ - ------      --------------
```

```
        t     -  u   v  w-x              l     m
        t     -  u   v  w-x              l     m
        t     -  u   v  w-x              l     m
                                .
                                .
                                .
  PAGE r OF s
```

2. REASON FOR OUTPUT

To print part two of the signaling network performance report autonomously as a result of the scheduled (automatic) OP:SMR-SNPR2 report.

3. VARIABLE FIELD DEFINITIONS

b = Reporting office CLLI code.

c = Accumulation period. Valid value(s):
- DAILY = Data represents an accumulation period of 24 hours (this is the longest interval).
- DAY TO HOUR = Data represents an accumulation period of more than one hour but fewer than 24 hours.
- HOURLY = Data represents an accumulation period of one hour (this is the shortest interval).

d = Current software release.

e = Local time-zone date in the form month/day/year.

f = Local time-zone time in the form hour:minute:second.

g = Network date of beginning of accumulation period in the form month/day/year.

h = Network time of beginning of accumulation period in the form hour:minute:second.

i = Network date of ending of accumulation period in the form month/day/year.

j = Network time of ending of accumulation period in the form hour:minute:second.

k = Data validity flag. Valid value(s):
- NO = Data for one or more links is questionable.
- YES = Data for all links is legitimate.

l = Emergency restart peg count.

m = Duration in seconds of emergency restart.

n = Node isolation peg count.

o = Duration in seconds of node isolation.

p = Combined link-set failure peg count.

q = Duration in seconds of combined link-set failure.

r = Current page number.

s = Number of logical pages to report.

t = Far-end CLLI code.

u = Link-layer.

v = Link type (A-E).

w = Group number of link in frame.

x = Member number of link in frame.

z = VFL type. Valid value(s):
- A = Secondary. Only A and E links have a secondary VFL.
- B = Primary.

z = Amount of time link is active.

a[1] = Number of times threshold exceeded for signaling units in error.

b[1] = Number of times threshold exceeded for signaling units retransmitted.

c[1] = Peg count for automatic changeover.

d[1] = Number of times threshold exceeded for automatic changeover.

e[1] = Number of times threshold exceeded for repeated and skipped acknowledgment signaling units.

f[1] = Peg count for declared link failures.

g[1] = Duration of declared link failures (in seconds).

h[1] = Peg count for transmit buffer overload.

i[1] = Duration of transmit buffer overload (in seconds).

j[1] = Peg count for transmit buffer overflow.

k[1] = Number of times threshold exceeded for data link in error time.

l[1] = Number of times threshold exceeded for cyclic redundancy check (CRC) errors.

m[1] = Number of times threshold exceeded for byte retransmissions.

4. ACTION TO BE TAKEN

If the ABORTED status message is printed, the user may ignore it.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
OP:SMR-SNPR2
```

REPT:SNAT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT SNAT  a
  NWT b c d e:f:g:h i
```

2. REASON FOR OUTPUT

To report the current signaling network administration time (SNAT) from the slave node when it receives a synchronization message from the network master clock node.

3. VARIABLE FIELD DEFINITIONS

a	= Message termination code.
b	= Day of the week.
c	= Month.
d	= Day of the month.
e	= Hour.
f	= Minute.
g	= Seconds.
h	= Milliseconds.
i	= Year.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SNAT
```

Output Message(s):

```
OP:SNAT
```

REPT:SNM

Software Release: 5E10 and later
Message Class: SWM01
Application: 5,CNI
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT SNM
        WARNING:  a NM/SCMG MSGS DROPPED IN LAST b MIN -- NL MEM TBL OVRFL

[2]   ____________________________________________________________________
      REPT SNM
        WARNING:  a NM/SCMG MSGS DROPPED IN LAST b MIN -- NL PA TBL OVRFL

[3]   ____________________________________________________________________
      REPT SNM
        WARNING:  a SCMG MSGS DROPPED IN LAST b MIN -- NL SSNBITS TBL OVRFL
```

2. REASON FOR OUTPUT

This message originates in the signal link maintenance kernel (SLMK) process. It warns that message transfer point (MTP) signaling network management (SNM) or signaling connection control part (SCCP) management (SCMG) messages have been discarded due to lack of space in the nonlocal network routing tables in the last time interval. The three tables that are monitored are: 1) the nonlocal network member table (cNnl_mem), 2) the nonlocal network page access table (cNpage_access), and 3) the SCCP subsystem bits table (cSssnbits).

Format 1 warns that network management (NM)/SCMG messages have been dropped due to lack of space in the nonlocal network member table in the last minutes of variable '`b`.'

Format 2 warns that NM/SCMG messages have been dropped due to lack of space in the nonlocal network page access table in the last minutes of variable '`b`.'

Format 3 warns that SCMG messages have been dropped due to lack of space in the nonlocal network ssnbits table in the last minutes of variable '`b`.'

3. VARIABLE FIELD DEFINITIONS

`a` = Number of messages dropped.

`b` = Interval over which NM/SCMG messages were dropped (in minutes).

4. ACTION TO BE TAKEN

For Formats 1, 2, 3, run the NM audit. If there is an error in the tables which is causing the problem, the audit should be able to detect the error and to recover more space in the tables which will eliminate the problem. However, if the situation persists after the audit is run, the size of the tables are inadequate for the number of network events that are occurring at the present time. There is no further immediate action that can be taken. Receive-only printer (ROP) and REPTLOG output should be collected and common network interface (CNI) customer support should be notified of the problem.

5. ALARMS

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None.

6. REFERENCES

REPT:SOP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT SOP a OUTPUT MESSAGES DISCARDED FOR b

[2]   ____________________________________________________________
      REPT SOP DELETING OLDER HALF OF c

[3]   ____________________________________________________________
      REPT SOP INVALID OUTPUT REQUEST d e
        Uid:  f                 Logfile:  c
        Logflimit:  g           Request size:  h

[4]   ____________________________________________________________
      REPT SOP CANNOT OPEN SCC CHANNEL
```

2. REASON FOR OUTPUT

To report a spooler output process (SOP) related error or warning.

Format 1 indicates message loss because of spooler queue overflow for a particular device.

Format 2 indicates the log file became full and the older half of the log file has been deleted to allow for the storage of newly generated messages.

Format 3 indicates that an output report to be written to the named log file is larger than the maximum size of the log file.

Format 4 indicates a failure to open the output device that is associated with the Switching Control Center (SCC).

3. VARIABLE FIELD DEFINITIONS

`a` = Number of output messages discarded due to spooler queue overflow.

`b` = Name of device.

`c` = Name of log file.

`d` = Character string '`OMDB KEY`' or null.

`e` = OMDB key number of the output report or null.

`f` = User identification (UID) of the process requesting the output report.

`h` = Maximum size of the log file.

`i` = Size of the requested output report.

4. ACTION TO BE TAKEN

For Format 1, if spooler queue overflow occurs repeatedly for the same device during normal operations, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. Otherwise, it may be necessary to increase the queue size for that device. Use the recent change and verify (RC/V) system to modify the "maxq" field of the "device" record for the device.

For Format 2, no action is taken.

For Format 3, use RC/V to increase the logflimit field in the device form for the named log file.

For Format 4, use RC/V to examine the equipment configuration database (ECD) logdev record for the device and verify that the channel ID is specified correctly.

5. ALARMS

None.

Refer the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	No OMDB key
2	12
3	715
4	517

Output Appendix(es):

```
APP:OMDB-X-REF
```

REPT:SPACE

Software Release: 5E10 and later
Message Class: GRCV
Application: 5
Type: Output

1. FORMAT

```
REPT  SPACE  FS = a  BYTES_AVAILABLE = b  c% FULL
 [d]
```

2. REASON FOR OUTPUT

To display the number of bytes available in the file system and the usage percentage.

3. VARIABLE FIELD DEFINITIONS

a = Directory path to where the file system is mounted.

b = Number of bytes available in the file system.

c = Usage percentage.

d = Reason for failure.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
REPT:SPACE
```

Other Manual(s):
235-118-250 *Recent Change Procedures*
235-118-251 *Recent Change Reference*
235-070-100 *Switch Administration Guidelines*

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REPT:SPL-SYNTAX

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
REPT SPL SYNTAX ERROR a b
```

2. REASON FOR OUTPUT

To report that an incorrectly formatted message was passed to the spoolf() function in the craft library.

3. VARIABLE FIELD DEFINITIONS

`a` = Error code specifying the error condition detected. Valid value(s):

`0`	= First $ in user control string missing.
`-1`	= Teletypewriter (TTY) field too big (greater than 8 characters).
`-2`	= TTY size is maximum and first byte is not '-' (minus) or contents of the string is a minus sign only.
`-3`	= NULL TTY is specified with no spooler options.
`-4`	= Class not decimal.
`-6`	= Class field too big (greater than 255).
`-7`	= Missing both TTY field and class field.
`-8`	= Paction field was not 0 or 2 characters long.
`-9`	= Timestamp type field too big (greater than 1 character).
`-10`	= Timestamp type field invalid. Must be full time stamp, basic time stamp, or no time stamp.
`-11`	= Priority field not decimal.
`-12`	= Priority field too big (greater than 1 character).
`-13`	= Priority value greater than 7 (highest priority).
`-14`	= Ident field too big (greater than 4 characters).
`-15`	= Ident field not decimal.
`-16`	= Type field too big (greater than 4 characters).
`-17`	= Type field not decimal.
`-19`	= User file does not exist or cannot be read.
`-20`	= User process ID (PID) too big (greater than 8 characters).
`-21`	= User PID not decimal.
`-22`	= Last $ in user control string missing.
`-23`	= Invalid paction.
`-24`	= Process number does not correspond to existing process.
`-25`	= Send message to csop failed.
`-26`	= Message is truncated by sendpw.
`-27`	= User file does not have full pathname.

`b` = Control string and text of message containing error.

4. ACTION TO BE TAKEN

Submit an operational trouble report with a copy of the printout.

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5. ALARMS

None.

6. REFERENCES

REPT:SSTBLCREAT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT SSTBLCREAT
  SUBSYSTEM TABLE INITIALIZATION COMPLETE
```

2. REASON FOR OUTPUT

To report that new disk files for subsystem distribution table and local subsystem information table were created with default values. These disk files are read into the administrative module (AM) protected application segment (PAS) during initialization.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:STACK-FRAME

Software Release: 5E10 and later
Message Class: INT_MON,ASRTMON, TRCEMON
Application: 5
Type: Output

1. FORMAT

```
REPT {l}  STACK FRAME  ENV=f  SRC=g  EVENT=h
  FUNC ADDR:  iiiiiiii
  PARAMETERS: jjj jjj jjj jjj jjj
              ... ... ... ... ...
  LOCAL DATA: kkk kkk kkk kkk kkk
              ... ... ... ... ...
              ... ... ... ... ...
              ... ... ... ... ...
```

2. REASON FOR OUTPUT

To report the contents of a stack frame associated with a previous REPT:STACK-TRACE output message.

This message is normally logged, but will also print in response to input message OP:POSTMORT.

The TRCEMON message class is used when this message is output for peripheral control (PC) debugging purposes.

The ASRTMON message class is used for defensive check failure errors, otherwise the INT_MON message class is used.

3. VARIABLE FIELD DEFINITIONS

`AM` = Administrative module.

`CMP` = Communication module processor.

`MCTSI` = Module controller/time slot interchange unit.

`QGP` = Quad-link gateway processor.

`SM` = Switching module.

`a` = SM number.

`b` = Message switch side (MSGS) or MCTSI side.

`c` = Physical CMP number.

`d` = Processor being reported upon. Valid value(s):
- `MATE` = Mate CMP.
- `MH0` = Message handler 0.
- `MH1` = Message handler 1.
- `MH2` = Message handler 2.
- `PRIM` = Primary CMP.

`e` = QGP number.

`f` = Environment in which this request was stimulated. Refer to the APP:ENVIR appendix in the Appendixes section of this manual for a list of environments and definitions.

`g` = Source of the stack trace request. Valid value(s):

`DCF`	= Defensive check failure.
`DCFSPP`	= Assert-C deferred single process purge (SPP).
`FR`	= Fault recovery.
`KLL`	= Kernel level lockout.
`PC-DEBUG`	= PC debugging of call failures.
`SI`	= System integrity.

`h` = Event number.

`i` = Address of the function to which this stack frame belongs and whose data follows.

`j` = Hexadecimal dump in groups of 32 bits of functions parameters. This data is arranged in order of the parameter list of the function with the first parameter first. A single parameter is listed with the most significant eight bits followed by the next significant eight bits, etc.

`k` = Hexadecimal dump in groups of 32 bits of functions local data. This data is arranged in order of the local variable list of the function with the first local variable first. If the reporting processor is the AM, a single local variable is listed with its most significant eight bits first, followed by the next eight significant bits, etc. If the reporting processor is an SM, CMP, or QGP, a single local variable is listed with its least significant eight bits first, followed by the next eight bits, etc.

`l` = Valid value(s):

```
AM
CMP=b-c d
MCTSI=a-b d
QGP=b-e
SM=a
```

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT:STACK-TRACE
```

Output Appendix(es):

```
APP:ENVIR
```

Other Manual(s):

235-105-220	*Corrective Maintenance*
235-105-250	*System Recovery Procedures*
235-600-500	*Asserts Manual*
235-600-510	*Software Analysis Guide*

REPT:STACK-TRACE

Software Release: 5E10 and later
Message Class: INT_MON,ASRTMON, TRCE
Application: 5
Type: Output

1. FORMAT

```
REPT {n} STACK TRACE  ENV=f  SRC=g  EVENT=h i=j
  [USER:]  [k k k k k k]
           [. . . . . .]
           [. . . . . .]
  [RCVY:]  [l l l l l l]
           [. . . . . .]
           [. . . . . .]
  [SYS:]   [m m m m m m]
           [. . . . . .]
           [. . . . . .]
```

2. REASON FOR OUTPUT

To report a trace of the recovery, system, and user stacks as a result of system recovery. This message is used for fault locating.

This message is normally logged, but will also print in response to input message OP:POSTMORT.

The TRCE message class is used when this message is output for peripheral control (PC) debugging purposes.

The ASRTMON message class is used for defensive check failure errors, otherwise the INT_MON message class is used.

3. VARIABLE FIELD DEFINITIONS

`AM` = Administrative module.

`CMP` = Communication module processor.

`MCTSI` = Module controller/time slot interchange unit.

`QGP` = Quad-link gateway processor.

`SM` = Switching module.

`a` = SM number.

`b` = Message switch side (MSGS) or MCTSI side.

`c` = Physical CMP number.

`d` = Processor being reported upon. Valid value(s):
- `MATE` = Mate CMP.
- `MH0` = Message Handler 0.
- `MH1` = Message Handler 1.
- `MH2` = Message Handler 2.
- `PRIM` = Primary CMP.

`e` = QGP number.

`f` = Environment in which this request was stimulated. Refer to the APP:ENVIR appendix in the Appendixes section of the Output Messages manual for a list of environments and their definitions.

`g` = Source of the stack trace request. Valid value(s):

`DCF`	= Defensive check failure processing.
`DCFSPP`	= Assert-C deferred SPP.
`FR`	= Fault recovery actions.
`KLL`	= Kernel level lockout.
`PC-DEBUG`	= PC debugging of call failures.
`SI`	= System integrity recovery actions.
`UT`	= Generic utilities.

`h` = Event number.

`i` Type of event identifier. Valid value(s):

`EVENT`	= Event number identifier.
`WHEN_ID`	Generic utility when clause identifier.

`j` = Event number which is used to correlate messages with a single event or Generic utility when clause ID number.

`k` = List of applicable addresses stored in the user stack with up to 6 groups of four bytes per line; otherwise all these fields are absent.

`l` = List of applicable addresses stored in the operating system for distributed switching (OSDS) recovery stack with up to 6 groups of four bytes per line; otherwise all these fields are absent.

`m` = List of applicable addresses stored in the OSDS system stack with up to 6 groups of four bytes per line; otherwise all these fields are absent.

`n` = Valid value(s):

```
AM
CMP=b-c d
MCTSI=a-b d
QGP=b-e
SM=a
```

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):

235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery Procedures*
235-600-500 *Asserts Manual*
235-600-510 *Software Analysis Guide*

REPT:STE-TFM-A

Software Release: 5E10 - 5E12
Message Class: HW_MON, PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT STEFAC=a-b-c-d [e] TRBL FAULT MESSAGE EVENT=f
  g RECOVERY ACTION h
  iijjkkkk llmmnnnn nnnnnnnn nnnnnnnn nnnnnnnn nnnnnnnn nnnnnnnn nnnnnnnn
  [STEFAC=a-b-c-d o p]
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within the switching module (SM) caused by failure of a section terminating equipment (STE) facility (FAC) circuit in the digital networking unit - synchronous optical network (SONET) (DNU-S). The fault was detected and reported by the DNU-S resident software.

The message indicates what recovery action was taken and gives the current fault counts against the circuit specified in the message. Refer to variable '`h`' to determine the effect the fault recovery activity had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = DNU-S unit number.

`c` = DNU-S data group number.

`d` = DNU-S STE circuit number.

`e` = STE equipment status. Valid value(s):

- `ACTIVE` = The STE is in service and a fault has been detected.
- `OOS` = The STE is marked as out-of-service, but fault stimuli are still being detected.
- `PRE-OOS` = Fault recovery has notified the maintenance request administrator (MRA) to remove this STE from service. However, fault stimuli are still being detected from the circuit indicating that the STE has not been completely removed from service.

`f` = Event number.

`g` = Error type. Valid value(s):

```
SLI BOARD FAILURE/PULLED
```

`h` = Recovery action. Valid value(s):

- `ANALYSIS ONLY` = This recovery action applies to all circuits and all errors. A particular circuit or circuits are failing, but the error counts have not reached a threshold for action.
- `HARD RESET` = The circuit has been hard reset without scheduling diagnostics.
- `INHIBIT HDWCHKS` = The circuit has been inhibited because of excessive errors.
- `INITIALIZE` = This recovery action is used to re-initialize a circuit without scheduling diagnostics.
- `NO RECOVERY ACTION TAKEN` = This event needed no recovery action.

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`PRE-OOS THRESHOLD EXCEEDED` = The STE was preempted and is still detecting errors.
`PRE-OOS, RE-INHIBIT HDWCHKS` = The STE has been preempted and is still detecting errors, inhibit has been re-applied on the STE.
`RE-INHIBIT ERROR` = The STE has been inhibited and error are still detected. Inhibit has been re-applied on the STE.
`RST PREEMPT` = The failing circuit was preempted.

`i` = DNU-S message type.

`j` = Message handler (MH) number and MH channel number, in a bit-packed representation. The first three bits indicate the MH number, and the next five bits indicate the MH channel number.

`k` = Internal circuit name.

`l` = Unit type.

`m` = Number of information words sent from DNU-S fault recovery.

`n` = Information sent from DNU-S fault recovery. The data sent is dependent on the type of error (the value of variable '`g`').

`o` = Number of recent failures of this error type (variable '`g`') on this STE circuit (in decimal).

`p` = Error count threshold above which the recovery action will become stronger.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the STE from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
RMV:STEFAC
RST:STEFAC
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-600-500 *Asserts*

REPT:STE-TFM-B

Software Release: 5E13 and later
Message Class: HW_MON, PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT EC1STE=a-b-c-d [e] TRBL FAULT MESSAGE EVENT=f
  g RECOVERY ACTION h
  iijjkkkk llmmnnnn nnnnnnnn nnnnnnnn nnnnnnnn nnnnnnnn nnnnnnnn nnnnnnnn
  [EC1STE=a-b-c-d o p]
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within the switching module (SM) caused by failure of a SONET terminating equipment (STE) facility (FAC) circuit in the digital networking unit - synchronous optical network (SONET) (DNU-S). The fault was detected and reported by the DNU-S resident software.

The message indicates what recovery action was taken and gives the current fault counts against the circuit specified in the message. Refer to variable '`h`' to determine the effect the fault recovery activity had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Digital Networking Unit - SONET (DNU-S) number.

`c` = Data Group (DG) number.

`d` = SONET Termination Equipment (STE) facility number.

`e` = STE equipment status. Valid value(s):
- `ACTIVE` = The STE is in service and a fault has been detected.
- `OOS` = The STE is marked as out-of-service, but fault stimuli are still being detected.
- `PRE-OOS` = Fault recovery has notified the maintenance request administrator (MRA) to remove this STE from service. However, fault stimuli are still being detected from the circuit indicating that the STE has not been completely removed from service.

`f` = Event number.

`g` = Error type. Valid value(s):
`SLI BOARD FAILURE/PULLED`

`h` = Recovery action. Valid value(s):
- `ANALYSIS ONLY` = This recovery action applies to all circuits and all errors. A particular circuit or circuits are failing, but the error counts have not reached a threshold for action.
- `HARD RESET` = The circuit has been hard reset without scheduling diagnostics.
- `INHIBIT HDWCHKS` = The circuit has been inhibited because of excessive errors.
- `INITIALIZE` = This recovery action is used to re-initialize a circuit without scheduling diagnostics.
- `NO RECOVERY ACTION TAKEN` = This event needed no recovery action.

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`PRE-OOS THRESHOLD EXCEEDED` = The STE was preempted and is still detecting errors.
`PRE-OOS, RE-INHIBIT HDWCHKS` = The STE has been preempted and is still detecting errors, inhibit has been re-applied on the STE.
`RE-INHIBIT ERROR` = The STE has been inhibited and error are still detected. Inhibit has been re-applied on the STE.
`RST PREEMPT` = The failing circuit was preempted.

`i` = DNU-S message type.

`j` = Message handler (MH) number and MH channel number, in a bit-packed representation. The first three bits indicate the MH number, and the next five bits indicate the MH channel number.

`k` = Internal circuit name.

`l` = Unit type.

`m` = Number of information words sent from DNU-S fault recovery.

`n` = Information sent from DNU-S fault recovery. The data sent is dependent on the type of error (the value of variable '`g`').

`o` = Number of recent failures of this error type (variable '`g`') on this STE circuit (in decimal).

`p` = Error count threshold above which the recovery action will become stronger.

4. ACTIONS TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the STE from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
RMV:EC1STE
RST:EC1STE
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-600-500 *Asserts*

REPT:STEFAC

Software Release: 5E10 - 5E12
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT STEFAC=a-b-c-d TRBL SP FAILURE EVENT=e
  SP FIFO OVERFLOW FAILURE RECOVERY ACTION f
  g h i
  jjjjkkkk llllmmmm nnnnoooo
```

2. REASON FOR OUTPUT

To respond to a signal processor (SP) error caused by the SP first-in first-out (FIFO) buffer's overflowing due to a showering digital networking unit-synchronous optical network (SONET) (DNU-S) termination equipment (STE) facility.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = DNU-S unit number.

`c` = Data group number.

`d` = Synchronous transport signal (STS) incoming facility number.

`e` = Event number.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = This recovery action applies to all circuits and all errors. A particular circuit or circuits are failing, but the error counts have not reached a threshold for action.
`RMV` = The failing facility was removed from service.

`g` = External logical circuit name.

`h` = Number of recent failures of this type recorded against this circuit, in decimal.

`i` = Error count threshold, above which the recovery action will become stronger, in decimal.

`j` = Time slot number that had the most entries in the FIFO, in hexadecimal.

`k` = Total number of entries in the FIFO for time slot '`j`', in hexadecimal.

`l` = Total number of time slots on the high-runner time slot interchange (TSI) link with entries in the FIFO, in hexadecimal.

`m` = Contents of the current internal fault recovery error counter, in hexadecimal.

`n` = Total number of failures reported on unlinked timeslots, in hexadecimal.

`o` = SP number, in hexadecimal.

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4. ACTION TO BE TAKEN

Monitor the progress of software recovery. Initiate manual actions if the recovery does not proceed as expected.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
ALW:HDW-MCTSI
INH:HDW-MCTSI
RST:STEFAC
RMV:STEFAC
```

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REPT:STSFAC-A

Software Release: 5E10 - 5E12
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT STSFAC=a-b-c-d TRBL SP FAILURE EVENT=e
  SP FIFO OVERFLOW FAILURE RECOVERY ACTION f
  g h i
  jjjjkkkk llllmmmm nnnnoooo
```

2. REASON FOR OUTPUT

To respond to a signal processor (SP) error caused by the SP first-in first-out (FIFO) buffer's overflowing due to a showering digital networking unit-SONET (DNU-S) synchronous transport signal (STS-1) facility.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = DNU-S unit number.

`c` = Data group number.

`d` = Synchronous transport signal (STS) incoming facility number.

`e` = Event number.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = This recovery action applies to all circuits and all errors. A particular circuit or circuits are failing, but the error counts have not reached a threshold for action.
`RMV` = The failing facility was removed from service.

`g` = External logical circuit name.

`h` = Number of recent failures of this type recorded against this circuit, in decimal.

`i` = Error count threshold, above which the recovery action will become stronger, in decimal.

`j` = Time slot number that had the most entries in the FIFO, in hexadecimal.

`k` = Total number of entries in the FIFO for time slot '`j`', in hexadecimal.

`l` = Total number of time slots on the high-runner time slot interchange (TSI) link with entries in the FIFO, in hexadecimal.

`m` = Contents of the current internal fault recovery error counter, in hexadecimal.

`n` = Total number of failures reported on unlinked timeslots, in hexadecimal.

`o` = SP number, in hexadecimal.

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4. ACTION TO BE TAKEN

Monitor the progress of software recovery. Initiate manual actions if the recovery does not proceed as expected.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
ALW:HDW-MCTSI
INH:HDW-MCTSI
RST:STSFAC
RMV:STSFAC
```

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REPT:STSFAC-B

Software Release: 5E13 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT STSFAC=a-b-c-d-e TRBL SP FAILURE EVENT=f
  SP FIFO OVERFLOW FAILURE RECOVERY ACTION g
  h i j
  kkkkllll mmmmnnnn ooooppppp
```

2. REASON FOR OUTPUT

To respond to a signal processor (SP) error caused by the SP first-in first-out (FIFO) buffer's overflowing due to a showering digital networking unit-SONET (DNU-S) synchronous transport signal (STS-1) facility.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Digital Networking Unit - SONET (DNU-S) number.

`c` = Data group (DG) number.

`d` = SONET Termination Equipment (STE) facility number.

`e` = Synchronous Transport Signal (STS) facility number.

`f` = Event number.

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = This recovery action applies to all circuits and all errors. A particular circuit or circuits are failing, but the error counts have not reached a threshold for action.
`RMV` = The failing facility was removed from service.

`h` = External logical circuit name.

`i` = Number of recent failures of this type recorded against this circuit, in decimal.

`j` = Error count threshold, above which the recovery action will become stronger, in decimal.

`k` = Time slot number that had the most entries in the FIFO, in hexadecimal.

`l` = Total number of entries in the FIFO for time slot '`j`', in hexadecimal.

`m` = Total number of time slots on the high-runner time slot interchange (TSI) link with entries in the FIFO, in hexadecimal.

`n` = Contents of the current internal fault recovery error counter, in hexadecimal.

`o` = Total number of failures reported on unlinked timeslots, in hexadecimal.

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`p` = SP number, in hexadecimal.

4. ACTIONS TO BE TAKEN

Monitor the progress of software recovery. Initiate manual actions if the recovery does not proceed as expected.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
ALW:HDW-MCTSI
INH:HDW-MCTSI
RST:STSFAC
RMV:STSFAC
```

REPT:SUBJECT-SC

Software Release: 5E14 and later
Message Class: SURLEA
Application: 5
Type: Output

1. FORMAT

2. REASON FOR OUTPUT

This file was created for the newest release. Additional information will be included as it is made available.

3. VARIABLE FIELD DEFINITIONS

4. ACTIONS TO BE TAKEN

5. ALARMS

6. REFERENCES

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REPT:SUBRG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT SUBRG
        DIRECTORY NUMBER = "a", SUBSCRIBER "b"
        SUBSCRIBER CHARGING REGISTER VALUE = "c"

[2]   ____________________________________________________________
      REPT SUBRG
        DIRECTORY NUMBER = "a", SUBSCRIBER "b"
        SUBSCRIBER CHARGING REGISTER VALUE = "c"
        NEW DN = "a", NEW REGISTER VALUE = "c"
```

2. REASON FOR OUTPUT

To report the value of a subscriber's charging register when a subscriber has just been added, deleted or modified to another directory number. Format 1 prints if a subscriber value has been added or deleted; Format 2 prints if a subscriber value has been modified. This message is only issued if there is a register allocated for the specified directory number.

3. VARIABLE FIELD DEFINITIONS

`a` = Directory number.

`b` = Status. Valid value(s):

```
ADDED
DELETED
MODIFIED
```

`c` = Subscriber charging register value.

4. ACTION TO BE TAKEN

The register values should be logged to bill the subscriber for the old directory number and start billing for the new directory number at the value issued in the report.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:SUBRG-RSTR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT SUBRG-RSTR
        SUBSCRIBERS CHARGE REGISTERS RESTORED FROM "a" "b"

[2]   ____________________________________________________________________
      REPT SUBRG-RSTR
        SUBSCRIBERS CHARGE REGISTERS INITIALIZED ON "a" "b"
```

2. REASON FOR OUTPUT

To report that the subscribers charging registers have successfully been restored or initialized. Format 1 prints if the subscriber's charge registers have been restored; Format 2 prints if they were initialized.

3. VARIABLE FIELD DEFINITIONS

`a` = Year-month-day of action.

`b` = Hour-minute-second of action.

4. ACTION TO BE TAKEN

Note the date and time that the register backup was made (as given in the message) and the date and time the message was issued. Any CCV, EECM, or SECM records that were made within this time span will be the only record of those calls made. The subscriber's charging registers will not reflect those calls. The subscriber's charging registers will only be initialized when no backup file exists.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:SUBRG-UPDT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT SUBRG UPDT
  UPDATE FAILED: REGISTER NOT ALLOCATED
  DIRECTORY NUMBER = "a", REGISTER INCREMENT = "b"
```

2. REASON FOR OUTPUT

To report that an update to a subscriber's charging register has failed.

3. VARIABLE FIELD DEFINITIONS

`a` = Directory number.

`b` = Register increment.

4. ACTION TO BE TAKEN

A call charged under multimetering has been made by a subscriber who has no charging register allocated. Check that the charging method is set up correctly.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:SW-MHD

Software Release: 5E10 and later
Message Class: DSKSYS
Application: 5
Type: Output

1. FORMAT

```
REPT SW MHD a [b] [COMPLETED|FAILED|IN-PROGRESS]
 [c]
  .
  .
  .
```

2. REASON FOR OUTPUT

To report the status of an attempt to reconfigure the moving head disks (MHD)s. This message is either a response to the input message SW:MHD or a result of the automatic disk configuration feature.

3. VARIABLE FIELD DEFINITIONS

`COMPLETED` = The SW:MHD process completed without error.

`FAILED` = The SW:MHD process failed because of the state of the system.

`IN-PROGRESS` = The SW:MHD process has detected no errors but has not finished.

`a` = Number of the MHD, specified on the input message, to be replaced.

`b` = Remainder of input line as entered on SW:MHD input message.

`c` = Supplementary text information. Valid value(s):
`UNABLE TO RESTORE MHD d` = The system was unable to restore to service the MHD specified by variable '`d`'.
`UNABLE TO REMOVE MHD d` = The system was unable to remove from service the MHD specified by variable '`d`'.
`UNABLE TO VERIFY MHD d` = The system was unable to verify the MHD specified by variable '`d`'.

4. ACTION TO BE TAKEN

If output includes:	Action:
`COMPLETED`	Restore MHDs to standard configuration when the swapped MHDs have been repaired.
`FAILED`	Follow action to be taken on other displayed phases.
`IN-PROGRESS`	No action is required.
`UNABLE TO RESTORE MHD d`, `UNABLE TO REMOVE MHD d` or `UNABLE TO VERIFY MHD d`	The specified MHD may be defective. Run diagnostics on it and repair or replace as need be.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
OP:MHD-CFG
RST:MHD
SW:MHD
```

Output Message(s):

```
OP:MHD
REPT:MHD-CONFIG
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-600-31x *ECD/SG Data Base*
235-105-210 *Routine Operations and Maintenance*

REPT:SWITCH-CC

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
REPT SWITCH CUTOFF CALL                EVENT=a
              ORIGINATOR         TERMINATOR
  DN:         b                  c
  SM:         d                  e
  PORT:       f                  g
  STACK:   h  [h]  [h]  [h]  [h]  [h]
           .   .    .    .    .    .
           .   .    .    .    .    .
           .   .    .    .    .    .
  HARDWARE CALL TRACE i
```

2. REASON FOR OUTPUT

To report specific information related to switch cutoff calls. The number of switch cutoff calls that occur is printed on the plant measurements reports.

3. VARIABLE FIELD DEFINITIONS

`a` = Event number.

`b` = The originator's directory number (DN).

`c` = The dialed DN.

`d` = The number of the switching module (SM) where the call originated.

`e` = The number of the SM where the call terminated.

`f` = The number of the originating port in hexadecimal.

`g` = The number of the terminating port in hexadecimal.

`h` = List of addresses of the functions called that resulted in the switch cutoff call. These function addresses are in hexadecimal.

`i` = Hardware call trace status. Valid value(s):
`IN PROGRESS` = An ALW:SCORPT input message with the TRC option was entered.
`NOT REQUESTED` = An ALW:SCORPT input message was entered, or an ALW:SCORPT input message with the TRC option was entered and the calling process was a system process.

4. ACTION TO BE TAKEN

None.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:SCORPT
INH:SCORPT
OP:TRC
```

Output Message(s):

```
OP:PLNT24-PT01A
OP:PLNTHR-PT01A
OP:PLNTMO-PT01A
OP:TRACE
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

REPT:SWITCH-LIRP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT SWITCH LEFT IN ROS POSITION a=b[-c][COMMUNITY=d]
 [e=f[-g]]
  . .  .
  . .  .
  . .  .
```

2. REASON FOR OUTPUT

To report that the restore to service/request out-of-service (RST/ROS) switch on the control and display circuit pack (SN412) is in the ROS position after the specified unit was restored.

3. VARIABLE FIELD DEFINITIONS

a = Unit type. Valid value(s):
- DLI = Dual link interface.
- MCTSI = Module controller and time slot interchange.
- MICU = Message interface clock unit.
- MSCU = Message switch control unit.
- MSGS = Message switch.
- RLI = Remote link interface.
- TMS = Time multiplexed switch.

b = Unit number. Valid value(s):

If 'a' =	'b' =
MICU, MSCU, or TMS	System side number.
MCTSI, DLI, or RLI	SM number.

c = Switching module side number.

d = Message switch community number.

e = Message switch peripheral controller type. Valid value(s):
- CMP = Communication module processor.
- FPC = Foundation peripheral controller.
- MMP = Module message processor.
- PPC = Pump peripheral controller.

f = System side number.

g = Logical MMP or CMP number.

4. ACTION TO BE TAKEN

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Return the circuit pack switch to the RST position.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RMV:[unit]
RST:[unit]
```

Output Message(s):

```
RMV:[unit]
RST:[unit]
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

REPT:SYS

Software Release: 5E10 and later
Message Class: SWM01
Application: 5,CNI
Type: Output

1. FORMAT

```
REPT SYS a TBL
  b ( c, d ) CANNOT e
  f
```

2. REASON FOR OUTPUT

Report the failure of an internal operating system call.

3. VARIABLE FIELD DEFINITIONS

a = Error code which indicates why the system call failed (refer to Exhibit A).

b = Name of the process which experienced the failure.

c = Name of source code file where failure occurred.

d = Source code line number where failure occurred.

e = Action attempted by system call and system call arguments (if any).

f = Short statement describing the failure or conditions existing when the failure occurred.

Error Code:	Explanation:
**	This message was generated by a kernel process. The error code is not available.
01	Typically this error indicates an attempt to modify a file in some way forbidden except to its owner or super-user. It is also returned for attempts by ordinary users to do things allowed only to the super-user.
02	A file name is specified and the file should exist but does not, or one of the directories in a path name does not exist.
03	The process corresponding to that specified by pid in a system call does not exist or is already dead.
04	An asynchronous signal (such as interrupt or quit), which the user has elected to catch, occurred during a system call. If execution is resumed after processing the signal, it will appear as if the interrupted system call returned this error condition.
05	A physical input/output (I/O) error occurred during read or write.
06	I/O on a special file refers to a subdevice which does not exist, or is beyond the limits of the device. It may also occur when, for example, a tape drive is not on-line or no disk pack is loaded on a drive.
07	An argument list longer than 5120 bytes was used in a call trying to exec a process.
08	A request was made to execute a file which, although it has the appropriate permissions, does not start with a valid magic number. This could be as a result of a faulty field update attempt. A roll back might clear the problem.
09	Either a file descriptor refers to no open file, or a read (or write) request is made to a file which is open only for writing (or reading).
10	A wait was executed by a process that had no existing or unwaited-for child processes.
11	A fork failed because the system's process table is full or the user is not allowed to create any more processes. This may occur under system overload.
12	During an exec or break, a program asks for more space than the system is able to supply. This is not a temporary condition, the maximum space size is a system parameter. The error may also occur if the arrangement of text, data, and stack segments requires too many segments, or if there is not enough swap space for a fork.
13	An attempt was made to access a file in a way forbidden by the protection system.
14	The system encountered a hardware fault in attempting to use an argument of a system call.
15	A non-block file was mentioned where a block device was required, for example, in mount.
16	An attempt was made to mount a device that was already mounted or to dismount a device on which there is an

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	active file (open file, current directory, mounted-on file, active text segment).
17	An existing file was mentioned in an inappropriate context, for example, link.
18	A link to a file on another device was attempted.
19	An attempt was made to apply an inappropriate system call to a device, for example, read a write-only device.
20	A non-directory was specified where a directory is required, for example, in a path prefix or as an argument to chdir.
21	An attempt was made to write on a directory.
22	An invalid argument (for example, dismounting a non-mounted device, mentioning an undefined signal in signal, or kill, reading or writing a file for which lseek has generated a negative pointer) was used.
23	The system's table of open files is full, and temporarily no more opens can be accepted.
24	No process may have more than 20 file descriptors open at a time. An attempt to open the 21st was made.
25	The file given to a stty or gtty does not correspond to a device, for example a terminal, to which those calls apply.
26	An attempt to execute a pure-procedure program which is currently open for writing (or reading). Also an attempt to open for writing a pure-procedure program that is being executed.
27	The size of a file exceeded the maximum file size (1,082,201,088 bytes).
28	During a write to an ordinary file, there was no free space left on the device.
29	An lseek was issued to a pipe or to a device not supporting seeks.
30	An attempt to modify a file or directory was made on a device mounted read-only.
31	An attempt was made to make more than the maximum number of links to a file.
32	A write on a pipe for which there is no process to read the data. This condition normally generates a signal, the error is returned if the signal is ignored.
35	A message of the requested type is not on the message queue.
36	An attempt was made either to use a facility that must first be allocated or to allocate a facility in a way other than as intended.
39	A block was accessed that has never been written or initialized.
40	A contiguous file can not be moved.
41	A contiguous file has exhausted the maximum number of extents and can not grow any more.
42	There are too many characters in an absolute pathname.
43	One of the system tables necessary to complete the request is temporarily full.
44	A request was made to a driver for a service which the driver does not support.

4. ACTION TO BE TAKEN

If action to take is not obvious from description of trouble cause, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. Specific actions to be taken are not given for each code. It is expected that the trouble will be internal to the programs and that technical assistance will be required. However, there are some instances where the trouble can be corrected by manual action, for example, putting a tape unit on-line, installing a write ring on a tape, or powering up a disk unit.

5. ALARMS

None.

6. REFERENCES

None.

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REPT:SYSTEM

Software Release: 5E10 and later
Message Class:
Application: 5,3B
Type: Output

1. FORMAT

```
REPT SYSTEM IS IN MINIMUM CONFIGURATION MODE
```

2. REASON FOR OUTPUT

To remind the operator that the system is running in the minimum configuration mode.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

Minimum configuration mode should only be used in extreme cases where the system will not stay up with the application running. It should only be used to diagnose or troubleshoot a system which will not recover by any other means, such as forcing configuration, inhibit options, or bootstrap options. Application software will not be started in the minimum configuration mode.

To return to full configuration mode, clear the MIN-CONFIG request on the emergency action page of the maintenance terminal with an EAI command 33, then bootstrap the system with an EAI command 54.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):

254-105-110 *Requirements and Tools*

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92. REPT:T

REPT:TAC-TPCF-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT TAC=a-b-c TRBL PICB CONTROL FAILURE EVENT=d
  e  RECOVERY ACTION  f
  g  h  i  j
  k  l  m
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt in the trunk and access circuit (TAC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Trunk unit number.

`c` = Service group number.

`d` = Event number.

`e` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`f` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is generated.

`ASSERT TO SYSTEM INTEGRITY` = Software failure has been detected and system integrity has been notified.

`INITIALIZE` = The failing circuit has been reinitialized.

`REPORT TO TERMINAL MAINT` = Terminal maintenance has been notified of the failure.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

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`h` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`i` = Data being written to the periphery by the CI.

`j` = Contents of the CI error source register.

`k` = External logical circuit name.

`l` = Current decimal number of recent failures of this type recorded.

`m` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:TAC-TPCF-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT TAC=a-b-c TRBL PICB CONTROL FAILURE EVENT=d
  e  RECOVERY ACTION  f
  g  h  i  j
  k  l  m  n
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt in the trunk and access circuit (TAC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Trunk unit number.

`c` = Service group number.

`d` = Event number.

`e` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`f` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is generated.

`ASSERT TO SYSTEM INTEGRITY` = Software failure has been detected and system integrity has been notified.

`INITIALIZE` = The failing circuit has been reinitialized.

`REPORT TO TERMINAL MAINT` = Terminal maintenance has been notified of the failure.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

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`h` = System PICB number in hexadecimal that was being written when the failure occurred.

`i` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`j` = Data being written to the periphery by the CI.

`k` = Contents of the CI error source register.

`l` = External logical circuit name.

`m` = Current decimal number of recent failures of this type recorded.

`n` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:TAC-TTSRF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT TAC=a-b-c TRBL TU SERV REQ FAILURE d
  GBIT OR START CODE FAILURE RECOVERY ACTION e
  g h
```

2. REASON FOR OUTPUT

This message is part of the recovery action for the maintenance service requests of the control and data interface circuit (CDI).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Trunk unit number.

`c` = Service group number.

`d` = Event number.

`e` = Recovery action. Valid value(s):

- `RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit (refer to the ACTION TO BE TAKEN section of this manual page). A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`g` = Contents of the trunk unit CDI error source register.

`h` = Software image of the trunk unit CDI mask data.

4. ACTION TO BE TAKEN

Interrupts are inhibited on the CDI specified by variables '`a`', '`b`', and '`c`' and the test and access circuit (TAC) also specified by variables '`a`', '`b`', and '`c`' is removed from service. A request to restore the TAC will be denied until interrupts are allowed on the CDI.

If this message occurs again, then the CDI should be removed and diagnosed to locate the failure (refer to the RMV:CDI and DGN:CDI input messages). Since the failure of the CDI is not service-affecting, it should be removed when traffic is low.

When the failure is located and corrected, enter the RST:CDI message to restore the CDI. Once this is done the TAC should be restored by entering the RST:TAC input message.

5. ALARMS

Minor.

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6. REFERENCES

Input Message(s):

```
DGN:CDI
DGN:TAC
RMV:CDI
RMV:TAC
RST:CDI
RST:TAC
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:TDTP-FLT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT TDTP  FLT
        EFLAGS=a, FLTCODE=b

[2]   ____________________________________________________________
      REPT TDTP  FLT
        EFLAGS=a, FLTCODE=b, PA=c
        R0=d, R7=e, R8=f
```

2. REASON FOR OUTPUT

The IMS TRACE process, tdtp (actually loaded as process /prc/cdz), has encountered a hardware or software fault.

3. VARIABLE FIELD DEFINITIONS

`a` = Hexadecimal number that is the sum of the codes for all *UNIX*® RTR events outstanding for the IMS TRACE process.

`b` = The *UNIX*® RTR fault code.

`c` = The IMS TRACE process was in execution at this virtual address when the fault was encountered.

`d` = Contents of administrative module (AM) register r0.

`e` = Contents of AM register r7.

`f` = Contents of AM register r8.

4. ACTION TO BE TAKEN

Analyze the fault code, Refer to the APP:FAULT-CODE appendix in the Appendixes section of the Output Messages manual. If the fault is not attributed to a hardware problem, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

Minor.

6. REFERENCES

Output Message(s):

```
REPT:IMSDRV-FLT
REPT:MSDC-FLT
```

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Output Appendix(es):

```
APP:FAULT-CODE
APP:IOP-E
APP:IOP-F
```

REPT:TEN-TPCF-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT TEN=a-b-c-d-e TRBL PICB CONTROL FAILURE EVENT=f
  g  RECOVERY ACTION h
  i  j  k  l  m  n  o
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt in the trunk unit trunk circuits.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Trunk unit number.

`c` = Service group number.

`d` = Trunk board number.

`e` = Trunk number.

`f` = Event number.

`g` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`h` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is provided.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`i` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

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j = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

k = Data being written to the periphery by the CI.

l = Contents of the CI error source register.

Note: Up to two logical circuit names, error counts, and error threshold (variables 'm' - 'o') may be printed.

m = External logical circuit name.

n = Current decimal number of recent failures of this type recorded.

o = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:TEN-TPCF-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT TEN=a-b-c-d-e TRBL PICB CONTROL FAILURE EVENT=f
  g  RECOVERY ACTION h
  i  j  k  l  m  n  o  p
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt in the trunk unit trunk circuits.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Trunk unit number.

`c` = Service group number.

`d` = Trunk board number.

`e` = Trunk number.

`f` = Event number.

`g` = Error type. Valid value(s):

```
CI RECEIVED BAD PARITY
CI RECEIVED BAD START CODE
CI TIME OUT
PER DETECTED BAD ADDRESS
PER DETECTED BAD PARITY
PER DETECTED BAD START CODE
SOFTWARE BAD ADDRESS ERROR
```

`h` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is provided.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`i` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

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j = System PICB number in hexadecimal that was being written when the failure occurred.

k = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

l = Data being written to the periphery by the CI.

m = Contents of the CI error source register.

Note: Up to two logical circuit names, error counts, and error threshold (variables 'n' - 'p') may be printed.

n = External logical circuit name.

o = Current decimal number of recent failures of this type recorded.

p = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:TEN-TPPF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT TEN=a-b-c-d-e TRBL PIDB PARITY FAILURE f
  g RECOVERY ACTION h
  i j
  kkkkkkkk l
  0mno   8mno   16mno   24mno
  1mno   9mno   17mno   25mno
  2mno  10mno   18mno   26mno
  3mno  11mno   19mno   27mno
  4mno  12mno   20mno   28mno
  5mno  13mno   21mno   29mno
  6mno  14mno   22mno   30mno
  7mno  15mno   23mno   31mno
```

2. REASON FOR OUTPUT

To respond to a time-slot interchange (TSI) interrupt caused by peripheral interface data bus (PIDB) parity errors in the trunk circuit (CDI).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Trunk unit number.

`c` = Switch group number.

`d` = Channel board number.

`e` = Channel number.

`f` = Event number.

`g` = Error type, which indicates PIDB trouble.

`h` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the result of the diagnostic.

`i` = Common board error count.

`j` = Common board threshold, above which the recovery action will be escalated.

`k` = Channel board error count. Left most '`k`' refers to board 0.

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`l` = Channel board threshold, above which the recovery action will be escalated.

`m` = Number of parity errors in frame.

`n` = Channel error count.

`o` = Channel threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:TEN
RMV:TEN
RST:TEN
```

REPT:TEN-TSF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT TEN=a-b-c-d-e TRBL SP FAILURE f
  g RECOVERY ACTION h
  i j
  k l m
```

2. REASON FOR OUTPUT

To respond to a signal processor (SP) interrupt caused by the SP first-in first-out (FIFO) overflowing due to a showering trunk equipment number (TEN).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Trunk unit number.

`c` = Service group number.

`d` = Trunk board number.

`e` = Channel number.

`f` = Event number.

`g` = Error type. Valid value(s):

`SP FIFO OVERFLOW FAILURE`

`h` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`i` = Internal timeslot number.

`j` = Number of entries in the SP FIFO for this circuit.

Note: Up to three logical circuit names, error counts, and error thresholds (variables '`k`' - '`m`') may be printed.

`k` = External logical circuit name.

`l` = Current decimal number of recent failures of this type recorded.

`m` = Error count threshold, above which the recovery action will be escalated.

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4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
OP:UT-SM
RMV:TEN
RST:TEN
```

REPT:TERA-A

Software Release: 5E10 - 5E11
Message Class: TRK
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT TERA  v  TKGMN=m-n ANL-TYPE o

[2]   ____________________________________________________________
      REPT TERA UTD=f-p-q-r    ANL-TYPE  o

[3]   ____________________________________________________________
      REPT TERA RVPT=f-p-q-r    ANL-TYPE  o
```

2. REASON FOR OUTPUT

To report that trunk error analysis (TERA) has identified a trunk (Format 1), universal tone decoder (UTD) (Format 2) or revertive pulsing transceiver (RVPT) (Format 3) as experiencing a high number of machine-detected interoffice irregularities (MDII).

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

a = Trunk group number.

b = Trunk unit number.

c = Service group number.

d = Channel board number.

e = Channel circuit number.

f = Switching module (SM) number.

g = Digital line and trunk unit (DLTU) number.

h = Digital facility interface number.

i = Digital facility interface channel number. If this is a DFI-1, there is only one facility with channels 1-24. If this is a DFI-2, then channels 1-24 are associated with facility T1 A (FAC 0) and channels 25-48 are associated with facility T1 B (FAC 1).

j = Digital carrier line unit number.

k = Remote terminal (RT) number.

l = RT line number.

m = Trunk group number.

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n = Trunk member number.

o = Analysis type. Valid value(s):

```
PEER-GROUP ANALYSIS
QUICK-CHECK ANALYSIS
SYSTEM ERROR
```

p = Local digital service unit number.

q = Service group number.

r = Digital service unit board position number.

s = IDCU number.

t = RT number.

u = RT line number.

v = One of the following. Valid value(s):

```
DEN=f-g-h-i
ILEN=f-s-t-u
NEN=f-w-x-y-z-a1
SLEN=f-j-k-l
TEN=f-b-c-d-e
```

w = Digital network unit - synchronous optical network (SONET) (DNU-S).

x = Data group (DG).

y = Synchronous transport signal (STS).

z = Virtual tributary 1.5 (VT1.5).

a^1 = DS0 number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*
235-190-102 *BRCS Non-Modular Features*

REPT:TERA-B

Software Release: 5E12 only
Message Class: TRK
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT TERA  v  TKGMN=m-n ANL-TYPE o

[2]   ____________________________________________________________
      REPT TERA UTD=f-p-q-r    ANL-TYPE  o

[3]   ____________________________________________________________
      REPT TERA RVPT=f-p-q-r    ANL-TYPE  o
```

2. REASON FOR OUTPUT

To report that trunk error analysis (TERA) has identified a trunk (Format 1), universal tone decoder (UTD) (Format 2) or revertive pulsing transceiver (RVPT) (Format 3) as experiencing a high number of machine-detected interoffice irregularities (MDII).

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

a = Trunk group number.

b = Trunk unit number.

c = Service group number.

d = Channel board number.

e = Channel circuit number.

f = Switching module (SM) number.

g = Digital line and trunk unit (DLTU) number.

h = Digital facility interface number.

i = Digital facility interface channel number. If this is a DFI-1, there is only one facility with channels 1-24. If this is a DFI-2, then channels 1-24 are associated with facility T1 A (FAC 0) and channels 25-48 are associated with facility T1 B (FAC 1).

j = Digital carrier line unit number.

k = Remote terminal (RT) number.

l = RT line number.

m = Trunk group number.

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n = Trunk member number.

o = Analysis type. Valid value(s):

```
PEER-GROUP ANALYSIS
QUICK-CHECK ANALYSIS
SYSTEM ERROR
```

p = Local digital service unit number.

q = Service group number.

r = Digital service unit board position number.

s = IDCU number.

t = RT number.

u = RT line number.

v = One of the following. Valid value(s):

```
DEN=f-g-h-i
ILEN=f-s-t-u
INEN=f-w-t-u
NEN=f-w-x-y-z-a1
SLEN=f-j-k-l
TEN=f-b-c-d-e
```

w = Digital network unit - synchronous optical network (SONET) (DNU-S).

x = Data group (DG).

y = Synchronous transport signal (STS).

z = Virtual tributary 1.5 (VT1.5).

a^1 = DS0 number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*
235-190-102 *BRCS Non-Modular Features*

REPT:TERA-C

Software Release: 5E13 and later
Message Class: TRK
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT TERA  v  TKGMN=m-n ANL-TYPE o

[2]   ____________________________________________________________
      REPT TERA UTD=f-p-q-r    ANL-TYPE  o

[3]   ____________________________________________________________
      REPT TERA RVPT=f-p-q-r    ANL-TYPE  o
```

2. REASON FOR OUTPUT

To report that trunk error analysis (TERA) has identified a trunk (Format 1), universal tone decoder (UTD) (Format 2) or revertive pulsing transceiver (RVPT) (Format 3) as experiencing a high number of machine-detected interoffice irregularities (MDII).

3. VARIABLE FIELD DEFINITIONS

a = Trunk group number.

b = Trunk unit number.

c = Service group number.

d = Channel board number.

e = Channel circuit number.

f = Switching module (SM) number.

g = Digital line and trunk unit (DLTU) number.

h = Digital facility interface number.

i = Digital facility interface channel number. If this is a DFI-1, there is only one facility with channels 1-24. If this is a DFI-2, then channels 1-24 are associated with facility T1 A (FAC 0) and channels 25-48 are associated with facility T1 B (FAC 1).

j = Digital carrier line unit number.

k = Remote terminal (RT) number.

l = RT line number.

m = Trunk group number.

n = Trunk member number.

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o = Analysis type. Valid value(s):
PEER-GROUP ANALYSIS
QUICK-CHECK ANALYSIS
SYSTEM ERROR

p = Local digital service unit number.

q = Service group number.

r = Digital service unit board position number.

s = IDCU number.

t = RT number.

u = RT line number.

v = One of the following. Valid value(s):

```
DEN=f-g-h-i
 ILEN=f-s-t-u
 INEN=f-w-t-u
 NEN=f-w-x-b1-y-z-c1-a1
 SLEN=f-j-k-l
 TEN=f-b-c-d-e
```

w = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

x = Data group (DG).

y = Synchronous transport signal (STS).

z = Virtual tributary group (VTG) number.

a^1 = Digital signal level 0 (DS0) number.

b^1 = SONET termination equipment (STE) facility number.

c^1 = Virtual tributary member (VTM) number.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*
235-190-102 *BRCS Non-Modular Features*

REPT:TIME

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT TIME aa/aa/aa bb/bb/bb
```

2. REASON FOR OUTPUT

To report the system time. This is performed by the real-time status (RTS) report process every hour on the hour.

3. VARIABLE FIELD DEFINITIONS

`a` = Date, in the form month/day/year.

`b` = Time, in the form hour/minute/second.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	309

Output Appendix(es):

APP:OMDB-X-REF

REPT:TLP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
REPT TLP ERROR a [PACK = b] [ERRNO = c]
```

2. REASON FOR OUTPUT

To report an error condition in the trouble locating procedure (TLP) user process.

3. VARIABLE FIELD DEFINITIONS

a = Error condition. Valid value(s):
- 1 = Open equipment configuration database (ECD) failure.
- 2 = Close ECD failure.
- 3 = Ugucbn failure.
- 4 = Moving head disk (MHD) drive type not specified.
- 5 = Bad entry in pack location file.
- 6 = Pack location function failed.

b = Circuit pack number obtained from trouble location database.

c = Error code returned by the failing functional call. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If 'a' =	Action:
1-4	An operating system function call is failing. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual to clear the trouble.
5	Verify circuit pack number exists in unit's pack location file and verify that the index in the pack location file for the circuit pack number is valid. There is one pack location file for each unit in the directory /diag/datatbl/tlp/misc. The files are named: p.cu.0_10 p.dfc.21_22 p.duic.28_30 p.iop.20_21 p.mhd.22_23 p.mtc.24_25 p.mttyc.27_28 p.scsdc.25_26 p.sdlc.28_29 p.ttyc.23_24 If the entry is correct, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
6	Verify that the model, mv, hv, and equipage values in the unit(s) UCB(s) are correct, using recent change

	and verify (RC/V). If UCB(s) are correct, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	19

Input Message(s):

```
DGN:[unit]
EX:[unit]
RST:[unit]
```

Output Message(s):

```
ANALY:TLPFILE
```

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

REPT:TMS-AER

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT TMS=a ASYNCHRONOUS ERROR REPORT EVENT=b
  c d e f g
```

2. REASON FOR OUTPUT

To print to the daylog file each occurrence of a time multiplexed switch (TMS) fault asynchronous error report.

3. VARIABLE FIELD DEFINITIONS

a = TMS side.

b = Event number.

c = Critical error status. Valid value(s):

2F	d e f g = don't care (non-readable error).
3F	d e f g = don't care.
DB	TMS critical or non critical error (depends on d e f g).

NOTE: Variables 'd' and 'e' are for summary error source registers (ESRs); variables 'f' and 'g' are for controller ESRs.

d = Summary ESR - low byte.

For CM1 equipped offices, valid values are:

7	6	5	4	3	2	1	0
MLIBE	TSTBE	CLBOE	CLBIE	_____	_____	CER27	CER01

MLIBE	= MLI board, readable error.
TSTBE	= Test board, readable error.
CLBOE	= Clock board output, readable error.
CLBIE	= Clock board input from NCLK, readable error.
CER27	= Controller ESR bits 2-7, non-readable error.
CER01	= Controller ESR bits 0-1, non-readable error.

For CM2 equipped offices, valid values are:

7	6	5	4	3	2	1	0
EVN__MLI	ODD__MLI	CLKOE	CLKIE	XCLKOE	XCLKIE	NRCRTE	BE/SANTOE

EVNMLI	= Even switch unit MLI board error.
ODDMLI	= Odd switch unit MLI board error.
CLKOE	= Clock output (slip detect) error (network clock reference).
CLKIE	= Clock input (energy detect) error (network clock reference).

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XCLKOE = Cross couple clock output (slip detect) error.
XCLKIE = Cross couple clock input (energy detect) error.
NRCRTE = Nonreadable controller error.
BE/SANTOE = Nonreadable microprocessor bus parity error or sanity timeout error.

e = Summary ESR - high byte:

For CM1 equipped offices, valid values are:

15	14	13	12	11	10	9	8
	INMRQ	WRFER	SH3ER	SH2ER	SH1ER	SH0ER	CERDE

INMRQ = Invalid maintenance request, maintenance flip-flop set required, readable error.
WRFER = Write fabric error, readable error.
SH3ER = Shelf 3, readable error.
SH2ER = Shelf 2, readable error.
SH1ER = Shelf 1, readable error.
SH0ER = Shelf 0, readable error.
CERDE = Controller ESR, readable error - high byte.

For CM2 equipped offices, valid values are:

15	14	13	12	11	10	9	8
UNUSED	INVLRQ	WRFER	UNUSED	ERPROP	ODD__SU	EVN__SU	CON__CRIT

INVLRQ = Invalid request error.
WRFER = Write fabric error.
ERPROP = TMSLNKs reported due to fabric parity error propagation.
ODDSU = Odd switch unit summary error.
EVNSU = Even switch unit summary error.
CONCRIT = Readable controller critical error.

f = Controller ESR - low byte:

For CM1 equipped offices, valid values are:

7	6	5	4	3	2	1	0
BPINT	IVOPC	BPMNT	DPCON	BPCON	SEQBL	MPRTO	SANER

BPINT = Bus parity error over address and data - TMS interface board.
IVOPC = Invalid opcode received by TMS interface from FPC.
BPMNT = Bus parity error over address and data maintenance board.
DPCON = Data parity error- controller-interrupt chip only.
BPCON = Bus parity error over address and data controller board.
SEQBL = Sequencer busy too long during microprocessor access.
MPRTO = Microprocessor readable timeout error.
SANER = Sanity error, firmware failed to reset the sanity timer.

For CM2 equipped offices, valid values are:

7	6	5	4	3	2	1	0
CICBER	CICPER	INVLOP	UNUSED	TMIBPER	MBUSTO	SANTER	MBPER

CICBER = Controller CIC bus error indicating serial parity or CIC time out error.
CICPER = Controller CIC parity error on parallel data from CIC.
INVLOP = Invalid opcode received from the FPC.
TMIBPER = TMS interface board bus parity error.
MBUSTO = Microprocessor busy time out error.
SANTER = Sanity timer error.
MBPER = Microprocessor bus parity error.

g = Controller ESR - high byte:

For CM1 equipped offices, valid values are:

15	14	13	12	11	10	9	8
			INVRQ	FPCPE	SHTOE	WSIDR	SHDPE

INVRQ = Invalid request - software controlled bit. The high byte of the controller ESR contains bits for errors that are classified as "readable errors". The low byte of the controller ESR contains bits for errors that are classified as "non-readable errors". The invalid request error indicates that an action was requested that could not be completed by the TMS firmware. Invalid requests include trying to connect calls to NCT links that are not equipped, accessing RAM that is protected, clearing the ESR without the maintenance flip-flop being set, etc. Non-readable errors prevent the FPC from being able to read the TMS ESRs, where as readable errors do not interfere with the mechanism of reading the TMS ESRs, although bad data may be returned as a result of a parity error.
FPCPE = FPC message parity error.
SHTOE = Shelf message timed out at TMS interface.
WSIDR = Wrong shelf ID returned to the TMS interface.
SHDPE = Shelf data parity error on message returned to TMS interface.

For CM2 equipped offices, valid values are:

15	14	13	12	11	10	9	8
XSLIP	XEDER	SLIP	EDER	CMUXER	CDALPER	WRFAB	INVRQ

XSLIP = Slip error of clock output frequency with regards to cross couple reference input.
XEDER = Energy detector error on cross couple reference input.
SLIP = Slip error of clock output frequency with regards to the network clock reference input.
EDER = Energy detector error on network clock reference input.
CMUXER = Error detected on clock interface input reference multiplexer.
CDALPER = Parity error detected on control and diagnostic access link message from the FPC.
WRFAB = Write fabric error during call processing routine.
INVRQ = Invalid request received from the FPC.

For CM1 equipped offices:

```
            SUMMARY ESR                          CONTROLLER ESR
_________________ _________________  _________________ _________________
|_|_|_|_|_|_|_|_| |_|_|_|h|i|j|k|_|  |_|_|_|_|_|_|_|_| |_|_|_|_|_|_|_|_|
        d                  e                   f                  g
```

For CM2 equipped offices:

```
            SUMMARY ESR                          CONTROLLER ESR
_________________ _________________  _________________ _________________
|_|_|_|_|_|_|_|_| |_|_|_|_|_|h|i|_|  |_|_|_|_|_|_|_|_| |_|_|_|_|_|_|_|_|
        d                  e                   f                  g
```

h = For CM1 equipped offices, shelf 3. For CM2 equipped offices, odd switch unit.

i = For CM1 equipped offices, shelf 2. For CM2 equipped offices, even switch unit.

j = Shelf 1.

k = Shelf 0.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:TMS-AEREN

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT TMS a ASYNCHRONOUS ERROR REPORT EVENT NO. b
  CONTROLLER SHELF BOARDS
  c c c c c c c c
  ACTIVE AND SPECIAL GROW LINK INTERFACE BOARDS
  d d d d d d d d
```

2. REASON FOR OUTPUT

To print to a log file each occurrence of a time-multiplexed switch (TMS) fault asynchronous error report.

3. VARIABLE FIELD DEFINITIONS

`a` = Unit ID.

`b` = Event number.

`c` = Controller shelf boards error source registers.

`d` = Operational network control and timing (NCT) link interface board error source registers.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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REPT:TMS-PMD

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT TMS={0|1} POST MORTEM DUMP  EVENT=a
  PAGE 1 OF 2
  ERROR SUMMARIES
  bb ccddee0000 ccffgg0000 cchhiijjkk ccllmm0000 ccnn000000
  TMSLNKS AFFECTED
  oooooooo oooooooo oooooooo oooooooo oooooooo oooooooo oooooooo oooooooo
  oooooooo oooooooo oooooooo oooooooo oooooooo oooooooo oooooooo oooooooo
  SHELF SUMMARIES
  ccppqqrrst ccppqqrrst ccppqqrrst ccppqqrrst ccppqqrrst
  ccppqqrrst ccppqqrrst ccppqqrrst ccppqqrrst ccppqqrrst
  ccppqqrrst ccppqqrrst ccppqqrrst ccppqqrrst ccppqqrrst
  ccppqqrrst
REPT TMS={0|1} POST MORTEM DUMP  EVENT=a
  PAGE 2 OF 2
  ERROR SUMMARIES
  bb ccddee0000 ccffgg0000 cchhiijjkk ccllmm0000 ccnn000000
  QLI, FAB, OR FAB CONTROLLER ESR
  uuvvwwst uuvvwwst uuvvwwst uuvvwwst uuvvwwst
  uuvvwwst uuvvwwst uuvvwwst uuvvwwst uuvvwwst
  uuvvwwst uuvvwwst uuvvwwst uuvvwwst uuvvwwst
  uuvvwwst uuvvwwst uuvvwwst uuvvwwst uuvvwwst
  QLPS BOARDS AND QTMSLNKS
  ccxxyyzzst cca1a1b1b1c1c1st ccd1d1e1e1f1f1st ccd1d1e1e1f1f1st
  ccd1d1e1e1f1f1st ccd1d1e1e1f1f1st ccxxyyzzst cca1a1b1b1c1c1st
  ccd1d1e1e1f1f1st ccd1d1e1e1f1f1st ccd1d1e1e1f1f1st ccd1d1e1e1f1f1st
```

2. REASON FOR OUTPUT

To indicate that an office network and timing complex (ONTC) has gone from duplex to simplex configuration due to the time multiplexed switch (TMS).

All TMS error source registers (ESR) are read, if possible, and their contents are printed. This message is in response to some TMS fault recovery action, and is intended to assist in analyzing unusual TMS errors.

Page 1 shows the `ERROR SUMMARIES` (message count and up to 5 messages), `TMSLNKS AFFECTED`, and the `SHELF SUMMARIES` (always 16 0xE9 messages).

Page 2 shows the `ERROR SUMMARIES` (message count and up to 5 messages), `QLI, FAB, OR FAB CONTROLLER ESR` (up to 20 0x11 messages, may be none), and `QLPS BOARDS AND QTMSLNKS` (up to 12 messages, may be none).

3. VARIABLE FIELD DEFINITIONS

`a` = Event number.

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b = Number of messages in error report, in hexadecimal.

c = Opcode. Valid value(s):

db	= TMS2 summary error report.
df	= Control error source register.
06	= Write fabric error.
fb	= Read the switch unit error source register. This opcode might be 0x0e instead of 0x06.
ed	= CIC error message.
5b	= Equipage configuration table information.
e9	= SUB board error summary message.
11	= NCT link error source register.
49	= QLPS global summary ESR report.
4d	= QLPS Rx Pfc/L2&ov/gateway ESR error report.
51	= QLPS receiver/transmitter link error ESR error report.

d = Low byte (bits 0-7) TMS model 2 (TMS2) summary error report.

7	6	5	4	3	2	1	0

bit 0	= Microprocessor bus parity or sanity timeout error.
bit 1	= Nonreadable controller error.
bit 2	= Cross couple clock input (energy detect) error.
bit 3	= Cross couple clock output (slip detect) error.
bit 4	= Clock input (energy detect) error (network clock reference).
bit 5	= Clock output (slip detect) error (network clock reference).
bit 6	= Odd switch unit message link interface (MLI) circuit error.
bit 7	= Even switch unit MLI circuit error.

e = High byte (bits 8-15) TMS2 summary error report.

15	14	13	12	11	10	9	8

bit 8	= Readable controller critical error.
bit 9	= Even switch unit summary ESR error.
bit 10	= Odd switch unit summary ESR error.
bit 11	= One or more links reported as affected because fabric parity error propagation was found..
bit 12	= Quad-link packet switch (QLPS) critical error.
bit 13	= Write fabric error.
bit 14	= Invalid request error.
bit 15	= Not used.

f = Low byte (bits 0-7) of the control error source register.

7	6	5	4	3	2	1	0

bit 0	= Micro bus parity error.

bit 1 = Sanity timer error.
bit 2 = Micro busy time out error.
bit 3 = TMS2 interface board bus parity error.
bit 4 = Not used.
bit 5 = Invalid opcode received from foundation peripheral controller (FPC).
bit 6 = Controller CIC parity error on parallel data from CIC.
bit 7 = Controller CIC buss error (BERR) error indicating serial parity or CIC time out error.

g = High byte (bits 8-15) of the control error source register.

15	14	13	12	11	10	9	8

bit 8 = Invalid request received from the FPC.
bit 9 = Write fabric error during call processing routine.
bit 10 = Parity error detected on control and diagnostic access link (CDAL) message from FPC.
bit 11 = Error detected on clock interface input reference multiplexer.
bit 12 = Energy detector error on network clock (NCLK) reference input.
bit 13 = Slip error of clock output frequency with regards to NCLK reference input.
bit 14 = Energy error detector error on cross couple reference input.
bit 15 = Slip error of clock output frequency with regards to cross couple reference input.

h = Data that was attempted to be written.

i = Least significant byte of the fabric random access memory (RAM) address.

j = Next significant byte of the fabric RAM address.

k = Most significant byte of the fabric RAM address.

l = Low byte (bits 0-7) of the switch unit error source register. This byte represents the even switch unit.

7	6	5	4	3	2	1	0

bit 0 = Shelf 0 summary error bit.
bit 1 = Shelf 2 summary error bit.
bit 2 = Shelf 4 summary error bit.
bit 3 = Shelf 6 summary error bit.
bit 4 = Shelf 8 summary error bit.
bit 5 = Shelf 10 summary error bit.
bit 6 = Shelf 12 summary error bit.
bit 7 = Shelf 14 summary error bit.

m = High byte (bits 8-15) of the switch unit error source register. This byte represents the odd switch unit.

15	14	13	12	11	10	9	8

bit 8	= Shelf 1 summary error bit.
bit 9	= Shelf 3 summary error bit.
bit 10	= Shelf 5 summary error bit.
bit 11	= Shelf 7 summary error bit.
bit 12	= Shelf 9 summary error bit.
bit 13	= Shelf 11 summary error bit.
bit 14	= Shelf 13 summary error bit.
bit 15	= Shelf 15 summary error bit.

n = Control status register.

7	6	5	4	3	2	1	0

bit 0	= Test access monitor (TAM) equipage status bit.
bit 1	= Fabric configuration status bit.
bit 2	= Not used.
bit 3	= Not used.
bit 4	= Controller CIC parity error on parallel data from CIC.
bit 5	= Controller CIC BERR error - serial parity of time out.
bit 6	= Not used.
bit 7	= Not used.

o = These fields indicate the TMS switch links (TMSLNKs) affected by the reported errors. There are 2 rows of TMSLNK data. The first 4 words of the first row of 'o's correspond to TMSLNKs 127 - 0, the second 4 words of the first rows of 'o's correspond to TMSLNKs 255 - 128. For the second row, the first 4 words of 'o's correspond to TMSLNKs 383 - 256, and the second 4 words of 'o's correspond to TMSLNKs 511 - 384.

There are 16 4-byte TMSLNK messages. Each message contains 32 TMSLNKs and the TMSLNK numbers increase sequentially. For example, the first 4 byte message (4th word in 1st row) contains TMSLNKs 0-31, the next word (3rd word in 1st row) contains TMSLNKs 32-63, and so on. Each byte is 8 bits for eight TMSLNKs and 4 bytes equals 32 TMSLNKs. Each byte is read in reverse. For example, the first byte of a TMSLNK message contains bits for TMSLNKs 7-0, the next byte contains bits for TMSLNKs 15-8, the next byte contains bits for TMSLNKs 23-16, and the last byte contains bits for TMSLNKs 31-24.

p = Shelf utility board (SUB) summary ESR (ESR1).

7	6	5	4	3	2	1	0

bit 0	= Bus error from CIC (timeout or serial data parity).
bit 1	= Bus parity error on parallel data from CIC.
bit 2	= Quad-link interfaces (QLIs) summary bit errors.
bit 3	= Fabric and fabric controller summary bit errors.
bit 4	= Not used.
bit 5	= Not used.
bit 6	= Not used.
bit 7	= Not used.

q = SUB QLI summary ESR (ESR2).

7	6	5	4	3	2	1	0

bit 0 = QLI 0 summary bit error.
bit 1 = QLI 1 summary bit error.
bit 2 = QLI 2 summary bit error.
bit 3 = QLI 3 summary bit error.
bit 4 = QLI 4 summary bit error.
bit 5 = QLI 5 summary bit error.
bit 6 = QLI 6 summary bit error.
bit 7 = QLI 7 summary bit error.

r = SUB fabric summary ESR (ESR3).

7	6	5	4	3	2	1	0

bit 0 = Fabric controller 0 summary bit error.
bit 1 = Fabric controller 1 summary bit error.
bit 2 = Fabric board 0 summary bit error.
bit 3 = Fabric board 1 summary bit error.
bit 4 = Fabric board 2 summary bit error.
bit 5 = Fabric board 3 summary bit error.
bit 6 = Not used.
bit 7 = Not used.

s = Shelf ID (0 to 15).

t = Board ID (0 to 7).

u = QLI summary error source register.

7	6	5	4	3	2	1	0

bit 0 = bus error form CIC (timeout or serial data parity).
bit 1 = bus parity error on parallel data from CIC.
bit 2 = Quad-link transmitter (QLT) summary bit error.
bit 3 = fabric control data parity error.
bit 4 = Link interface receiver (LIR) 0 summary bit error.
bit 5 = LIR 1 summary bit error.
bit 6 = LIR 2 summary bit error.
bit 7 = LIR 3 summary bit error.

v = QLT summary error source register.

7	6	5	4	3	2	1	0

bit 0 = Link 0 fabric data parity error.

bit 1 = Link 1 fabric data parity error.
bit 2 = Link 2 fabric data parity error.
bit 3 = Link 3 fabric data parity error.
bit 4 = Time slot parity error.
bit 5 = Not used.
bit 6 = Not used.
bit 7 = Not used.

w = QLI LIR error source register.

7	6	5	4	3	2	1	0

bit 0 = Out of frame error.
bit 1 = Parity threshold error.
bit 2 = Buffer error (F of G bit error).
bit 3 = Automatic time slot switching (AUTISS) bit detected.
bit 4 = F bit error detected.
bit 5 = G bit error detected.
bits 6 and 7 = LIR ID (0 to 3).

x = QLPS summary ESR.

7	6	5	4	3	2	1	0

bit 0 = Bus error form CIC (timeout or serial data parity).
bit 1 = Bus parity error on parallel data from CIC.
bit 2 = Global ESR summary bit.
bit 3 = Circuit ESR summary bit.
bit 4 = Rx_0 gate array ESR summary bit.
bit 5 = Tx_0 gate array ESR summary bit.
bit 6 = Rx_1 gate array ESR summary bit.
bit 7 = Tx_1 gate array ESR summary bit.

y = QLPS global ESR.

7	6	5	4	3	2	1	0

bit 0 = Tx first in/first out (FIFO) controller detected bus parity error.
bit 1 = FIFO status RAM parity error detected by the TX FIFO pointer circuit.
bit 2 = Parity error detected on the routing RAM data read by the routing RAM controller.
bit 3 = Time slot channel map parity error.
bit 4 = Quad-link packet switch gateway processor (QGP) ESR summary error bit.
bit 5 = Rx pointer FIFO ESR 1 summary error bit.
bit 6 = Rx pointer FIFO ESR 2 summary error bit.
bit 7 = Level 2 and overload summary error bit.

z = QLPS circuit ESR.

7	6	5	4	3	2	1	0

bit 0 = Time slot parity error.
bit 1 = Fabric control parity error.
bit 2 = Link 0 fabric data parity error.
bit 3 = Link 1 fabric data parity error.
bit 4 = Link 2 fabric data parity error.
bit 5 = Link 3 fabric data parity error.
bit 6 = Not used.
bit 7 = Not used.

a[1] = Rx pointer FIFO controller ESR1.

7	6	5	4	3	2	1	0

bit 0 = Lost Rx FIFO pointer.
bit 1 = Duplicated Rx FIFO pointer.
bit 2 = Rx pointer FIFO overrun.
bit 3 = Rx pointer FIFO underrun.
bit 4 = Shunt pointer parity.
bit 5 = Shunt pointer out-of-range.
bit 6 = Invalid load/init request.
bit 7 = FIFO full (not an error).

b[1] = Rx pointer FIFO controller ESR2.

7	6	5	4	3	2	1	0

bit 0 = RX_0 pointer parity.
bit 1 = TX_0 return pointer parity.
bit 2 = RX_1 pointer parity.
bit 3 = TX_1 return pointer parity.
bit 4 = TX_0 return pointer out-of-range.
bit 5 = TX_1 return pointer out-of-range.
bit 6 = Not used.
bit 7 = Not used.

c[1] = QLPS gateway processor (QGP) ESR bits and L2&Ovl bits.

7	6	5	4	3	2	1	0

bit 0 = QGP link 0 parity error.
bit 1 = QGP link 1 parity error.
bit 2 = QGP link 2 parity error.
bit 3 = QGP link 3 parity error.
bit 4 = Unroutable packet.
bit 5 = Tx pointer FIFO overflow.
bit 6 = Not used.

bit 7 = Not used.

d[1] = Tx ESR.

7	6	5	4	3	2	1	0

bit 0 = Transmit channel status RAM parity error.
bit 1 = Transmitter long frame detected.
bit 2 = Transmit packet data RAM parity error.
bit 3 = Transmit pointer FIFO RAM parity error.
bit 4 = Transmit pointer out-of-range.
bit 5 = Transmit detected channel bus parity error.
bit 6 = RAM built in self test (BIST) flag.
bit 7 = Not used.

e[1] = Rx ESR1.

7	6	5	4	3	2	1	0

bit 0 = Rx pointer parity error.
bit 1 = Rx pointer out-of-range.
bit 2 = Channel status early RAM (ERAM) parity error.
bit 3 = Channel bus parity error.
bit 4 = Channel status late RAM (LRAM) parity error.
bit 5 = Early RAM BIST test failed.
bit 6 = Late RAM BIST test failed.
bit 7 = Parity RAM BIST test failed.

f[1] = Rx ESR2 and Rx L2 error.

7	6	5	4	3	2	1	0

bit 0 = Cycle redundancy check (CRC) error.
bit 1 = Abort sequence detected.
bit 2 = Bad bit count.
bit 3 = Long receive frame.
bit 4 = Short receive frame.
bit 5 = Rx L2 error.
bit 6 and 7 = Link number (0 to 3).

4. ACTION TO BE TAKEN

Monitor the progress of the recovery action. Use the information presented in the report for analysis.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:TMS-TACEN

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT TMS=a TO AM COMMUNICATION EVENT NUMBER MISMATCH EVENT=b
  COMPLETION CODE=c
```

2. REASON FOR OUTPUT

The purpose of this message is to print to the daylog each occurrence of an event number mismatch of a message received from the foundation peripheral controller (FPC) by the time multiplexed switch configuration (TMSCON) process.

3. VARIABLE FIELD DEFINITIONS

`a` = TMS side.

`b` = Event number.

`c` = Completion code. Valid value(s):

`0`	= Successful completion.
`32`	= Subdevice parity error.
`33`	= Subdevice all seems well (ASW) error.
`34`	= Bad subdevice specified.
`35`	= Bad unit side specified.
`36`	= TMS busy time out.
`39`	= FPC detected unknown TMS opcode.
`42`	= Bad byte count.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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REPT:TMS-TACFD

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT TMS=a TO AM COMMUNICATION FAULT DUE TO TMSCON EVENT=b
  COMPLETION CODE=c
```

2. REASON FOR OUTPUT

To report to the daylog file each occurrence of a bad completion code returned by the foundation peripheral controller (FPC) to the time multiplexed switch configuration (TMSCON) process.

3. VARIABLE FIELD DEFINITIONS

`a` = TMS side.

`b` = Event number.

`c` = Completion code. Valid value(s):

`0`	= Successful completion.
`32`	= Subdevice parity error.
`33`	= Subdevice all seems well (ASW) error.
`34`	= Bad subdevice specified.
`35`	= Bad unit side specified.
`36`	= TMS busy time out.
`39`	= FPC detected unknown TMS opcode.
`42`	= Bad byte count.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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REPT:TMS-TACFF

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT TMS=a TO AM COMMUNICATION FAULT FPC ERROR EVENT=b
  COMPLETION CODE=c
```

2. REASON FOR OUTPUT

To report to the daylog file each occurrence of a bad completion code returned by the foundation peripheral controller (FPC) to the time multiplexed switch configuration (TMSCON) process.

3. VARIABLE FIELD DEFINITIONS

`a` = Time multiplexed switch (TMS) side.

`b` = Event number.

`c` = Completion code. Valid value(s):

- `32` = Subdevice parity error.
- `33` = Subdevice all seems well (ASW) error.
- `34` = Bad subdevice specified.
- `35` = Bad unit side specified.
- `36` = TMS busy time out.
- `39` = FPC detected unknown TMS opcode.
- `42` = Bad byte count.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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REPT:TMS-TACFM

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
REPT TMS=a TO AM COMMUNICATION FAULT MESSAGE TIME OUT EVENT=b
  COMPLETION CODE=c
```

2. REASON FOR OUTPUT

To report to the daylog each occurrence of a time multiplexed switch (TMS) message time out before being received from the foundation peripheral controller (FPC) handler to the time multiplexed switch configuration (TMSCON) process.

3. VARIABLE FIELD DEFINITIONS

`a` = TMS side.

`b` = Event number.

`c` = Completion code. Valid value(s):

`0`	= Successful completion.
`32`	= Subdevice parity error.
`33`	= Subdevice all seems well (ASW) error.
`34`	= Bad subdevice specified.
`35`	= Bad unit side specified.
`36`	= TMS busy time out.
`39`	= FPC detected unknown TMS opcode.
`42`	= Bad byte count.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

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REPT:TMUX-HF

Software Release: 5E10 and later
Message Class: INT
Application: 5
Type: Output

1. FORMAT

```
REPT TMUX=a-b-c-d HASHSUM FAILURE e EVENT=f
  FAILING ADDRESS RANGES:
  g   h
```

2. REASON FOR OUTPUT

To notify the user that hashsum checks of the digital networking unit - synchronous optical network (SONET) (DNU-S) memory failed on a transmission multiplexer (TMUX) circuit. Hashsum checks are made during TMUX pump (automatic or manual), TMUX restorations (automatic or manual), and routinely.

Failure of hashsum checks may indicate that the hashsum tables are in error, or that the memory is bad. The address range for the block that had a bad hashsum is provided.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S unit number.

`c` = Data group number.

`d` = TMUX number.

`e` = State of the TMUX circuit. Valid value(s):

```
ACTIVE
MATE
```

`f` = Event number.

`g` = The starting address of the failing address range.

`h` = The ending address of the failing address range.

4. ACTION TO BE TAKEN

Investigate the cause of the failure by running diagnostics on the TMUX that took the fault.

5. ALARMS

Major alarm only when the TMUX fails diagnostics.

6. REFERENCES

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Output Message(s):

```
DGN:TMUX
```

Other Manual(s):
235-105-250 *System Recovery Procedures*

MCC Display Page(s):

151x (DNU-S)

REPT:TMUX-TBTF

Software Release: 5E10 and later
Message Class: HW_MON, PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT TMUX=a-b-c-d [e] TRBL BACKGROUND TEST FAILURE EVENT=f
  g RECOVERY ACTION h
  iijjkkkk llllmmmm nnnnoooo ooooooooo
  TMUX=a-b-c-d  p  q
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within the switching module (SM) caused by failure of a transmission multiplexer (TMUX) circuit in the digital networking unit - synchronous optical network (SONET) (DNU-S). The fault was detected and reported by the routine background test process. The message indicates what recovery action was taken and gives the current fault counts against the circuit specified in the message. Refer to field '`h`' to determine the effect the fault recovery activity had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = DNU-S unit number.

`c` = DNU-S data group number. section of the Output Messages manual.

`d` = DNU-S TMUX circuit number.

`e` = TMUX equipment status. Valid value(s):
- `ACTIVE` = The TMUX is in service and a fault has been detected
- `OOS` = The TMUX is marked as out-of-service, but fault stimuli are still being detected.
- `PRE-OOS` = Fault recovery has notified the maintenance request administrator (MRA) to remove this TMUX from service. However, fault stimuli are still being detected from the circuit indicating that the TMUX has not been completely removed from service.
- `STANDBY` = The TMUX is in standby and a fault has been detected.

`f` = Event number.

`g` = Error type. Valid value(s):
- `HEART BEAT ERROR` = A routine check found that the TMUX failed to respond to a functional check.

`h` = Recovery action. Valid value(s):
- `ANALYSIS ONLY` = This recovery action applies to all circuits and all errors. A particular circuit or circuits are failing, but the error counts have not reached a threshold for action.
- `HARD RESET` = The circuit has been hard reset without scheduling diagnostics.
- `INHIBIT HDWCHKS` = The circuit has been inhibited because of excessive errors.
- `INITIALIZE` = This recovery action is used to re-initialize a circuit without scheduling diagnostics.

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`NO RECOVERY ACTION TAKEN` = This event needed no recovery action.
`PRE-OOS THRESHOLD EXCEEDED` = The TMUX was preempted and is still detecting errors.
`PRE-OOS, RE-INHIBIT HDWCHKS` = The TMUX has been preempted and is still detecting errors, inhibit has been re-applied on the TMUX.
`RE-INHIBIT ERROR` = The TMUX has been inhibited and error are still detected. Inhibit has been re-applied on the TMUX.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A DGN:TMUX output message will be printed with the results of the diagnostic.

`i` = DNU-S message type.

`j` = Message handler (MH) number and MH channel number, in a bit-packed representation. The first three bits indicate the MH number, and the next five bits indicate the MH channel number.

`k` = Internal circuit name of TMUX.

`l` = Fault type.

`m` = Internal circuit index of TMUX.

`n` = Internal DNU-S message return code.

`o` = Currently unused.

`p` = Number of recent failures of this error type (variable '`g`') on this TMUX circuit (in decimal).

`q` = Error count threshold above which the recovery action will become stronger.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the TMUX from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:TMUX
RMV:TMUX
RST:TMUX
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-600-500 *Asserts*

REPT:TMUX-TRBL

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT TMUX=a-b-c-d [e] TRBL f EVENT=g
  h RECOVERY ACTION i
  jjkkllll mmnnoooo oooooooo oooooooo oooooooo oooooooo oooooooo
  TMUX=a-b-c-d  p  q
```

2. REASON FOR OUTPUT

To indicate fault recovery activity within the switching module (SM) caused by failure of a transmission multiplexer (TMUX) circuit in the digital networking unit - synchronous optical network (SONET) (DNU-S). The fault was detected and reported by the DNU-S resident software. The message indicates what recovery action was taken and gives the current fault counts against the circuit specified in the message. Refer to field '`i`' to determine the effect the fault recovery activity had on the system.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = DNU-S unit number.

`c` = DNU-S data group number.

`d` = DNU-S TMUX circuit number.

`e` = TMUX equipment status. Valid value(s):

- `ACTIVE` = The TMUX is in service and a fault has been detected
- `DEGRADED` = The TMUX is still providing minimal service, and a fault has been detected.
- `OOS` = The TMUX is marked as out-of-service, but fault stimuli are still being detected.
- `PRE-OOS` = Fault recovery has notified the maintenance request administrator (MRA) to remove this TMUX from service. However, fault stimuli are still being detected from the circuit indicating that the TMUX has not been completely removed from service.
- `STANDBY` = The TMUX is in standby and a fault has been detected.

`f` = High level error types. Valid value(s):

- `RESIDENT AUTO SPARED` = An error was detected and recovered by DNU-S resident fault recovery software.
- `FAULT MESSAGE` = Error was detected and reported by DNU-S resident software.

`g` = Event number.

`h` = Error type. Valid value(s):

```
CC ADDRESSED NON-EXISTENT UCI ADDRESS
CC DETECTED BAD MESSAGE SEQUENCE
CC HALTED
CC UCI PARITY FAILURE
```

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CCP ADDRESS ERROR IN SUP MODE
CCP ADDRESS ERROR IN USER MODE
CCP BUS ERROR IN SUP MODE
CCP BUS ERROR IN USER MODE
CCP FORMAT ERROR
CCP PRIVILEGE VIOLATION
CD BPIDB ERROR
CIRCUIT ACCESS FAILURE
DATA PATH INCONSISTENT
FAULT TABLE ENTRY ERROR
FIFO A OPERATED INCORRECTLY
FIFO B OPERATED INCORRECTLY
FORCED INTERRUPT EXCEPTION
HASHSUM FAILURE ON ROUTINE CHECK
ICB TIMED OUT ERROR
IDLE TASK RESPONDED
INHIBIT ALL HARDWARE CHECKS
INTERRUPT EXCEPTION
INTERRUPT THRU MASK
INVALID INTERRUPT EXCEPTION
IO TIMER VIOLATION
MEMORY PARITY FAILURE
NO ERROR SOURCE FOUND
PERIPH COMMAND TIMEOUT
PERIPH TASK TIMEOUT
PERIPHERAL BAD PARITY
PERIPHERAL BAD START CODE
PERIPHERAL DETECTED BAD ADDRESS
PERIPHERAL DETECTED BAD PARITY
PERIPHERAL DETECTED BAD START CODE
SANITY TIMER TIME OUT
SMP SENT BAD MESSAGE
STACK OVERFLOW
STUCK MAILBOX FLAG
SYSTEM DETECTED SOFTWARE FAILURE
TIDB LINK FRAMING ERROR
TMUX DATA INCONSISTENCY
TMUX DBM SEMANTIC INCONSISTENT
TMUX EXTERNAL LOSS OF SIGNAL
TMUX IDLE COMMAND RETURN
TMUX INTER-VITTAS PIDB PAR ERR
TMUX PHASE LOCK LOOP LOSS OF LOCK
TMUX SCI HARDWARE ERRORS
TMUX STS13BP DEVICE MONITOR ERROR
TMUX STS13BP RESET INDICATOR
TMUX STSPP DEVICE MONITOR ERROR
TMUX STSPP RESET INDICATOR
TMUX TSC LOSS OF FRAME
TMUX TSC LOSS OF LOCK
TMUX VIPPR DEVICE MONITOR ERROR
TMUX VIPPR RESET INDICATOR
TMUX VISTA DEVICE MONITOR ERROR
TMUX VISTA RESET INDICATOR
TMUX VITTAS BPIDB PARITY ERROR
TMUX VITTAS DEVICE MONITOR ERROR
TMUX VITTAS REC LOSS OF TIMING

```
TMUX VITTAS SYNC INPUT ERROR
TMUX VITTAS TRANS LOSS OF TIMING
TMUX VITTAS VISTA BAD PAR RECEIVED
TMUX VITTAS VT BIP-2 PARITY ERROR
WRITE PROTECT VIOLATION
```

`i` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = This recovery action applies to all circuits and all errors. A particular circuit or circuits are failing, but the error counts have not reached a threshold for action.

`HARD RESET` = The circuit has been hard reset without scheduling diagnostics.

`INHIBIT HDWCHKS` = The circuit has been inhibited because of excessive errors.

`INITIALIZE` = This recovery action is used to re-initialize a circuit without scheduling diagnostics.

`NO RECOVERY ACTION TAKEN` = No automatic recovery was performed.

`PRE-OOS THRESHOLD EXCEEDED` = The TMUX was preempted and is still detecting errors.

`PRE-OOS, RE-INHIBIT HDWCHKS` = The TMUX has been preempted and is still detecting errors, inhibit has been re-applied on the TMUX.

`RE-INHIBIT ERROR` = The TMUX has been inhibited and error are still detected. Inhibit has been re-applied on the TMUX.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A DGN:TMUX output message will be printed with the results of the diagnostic.

`j` = DNU-S message type.

`k` = Currently unused.

`l` = Internal TMUX circuit name.

`m` = Unit type.

`n` = Number of information words sent from DNU-S fault recovery.

`o` = Information sent from DNU-S fault recovery. The data sent is dependent on the type of error (that is, the value of field '`h`').

`p` = Number of recent failures of this error type (variable '`h`') on this TMUX circuit (in decimal).

`q` = Error count threshold.

4. ACTION TO BE TAKEN

If the problem persists and no automatic recovery is attempted, remove the TMUX from service during a period of low usage and perform trouble locating procedures.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:TMUX
RMV:TMUX
RST:TMUX
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-600-500 *Asserts*

REPT:TOD-FAIL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT TOD FAIL MEM a SM b CODE c API d TYPE e POS f
```

2. REASON FOR OUTPUT

To indicate that a second attempt by TIME OF DAY (TOD) to update a database relation has failed.

3. VARIABLE FIELD DEFINITIONS

a	= Member number.
b	= Module number.
c	= Customer dialed code.
d	= Action point identifier (API).
e	= Type of code: zero parameter or one parameter code.
f	= Position of code (POS) in the code list.

4. ACTION TO BE TAKEN

Update the database using Recent Change.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TOD
INH:TOD
```

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REPT:TOKEN-TRACK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT TOKEN TRACK
        TOKEN WAS LOST BETWEEN a AND a b
        c c c c

[2]   ____________________________________________________________________
      REPT TOKEN TRACK
        SEARCH FOR TOKEN WAS UNSUCCESSFUL b: REASON d
        c c c c c
        c c c c c
```

2. REASON FOR OUTPUT

Format 1 prints a message indicating the vicinity of where the interprocess message switch (IMS) token was lost.

Format 2 prints a message indicating the IMS token track software could not perform the analysis necessary to find the position of the loss of token.

3. VARIABLE FIELD DEFINITIONS

a = Nodes where token was last detected.

b = Ring ID. Valid value(s):

```
ON Ring 0
ON Ring 1
RING NOT DETERMINED
```

c = A 32 bit word of internal information, passed by the token track software.

d = Reason code for unsuccessful token track search (1-7). Valid value(s):

Reason	Explanation
1	The message used to send token track equipped information from the administrative module (AM) to all ring peripheral controls (RPCs) was unsuccessful.
2	The attempt to select a control RPC to collect token track information from the IMS ring was unsuccessful.
3	Forced read operation to remove messages from one of the IMS rings was unsuccessful.
4	Operation to place IMS ring nodes in the user silence state was unsuccessful.
5	IMS ring fault exists on the IMS rung (that is, a fault that prevents any data from propagating on the IMS ring).
6	The IMS ring nodes reported unreliable information to the token track software.
7	The IMS ring contains less than the minimum number of token track equipped nodes.

4. ACTION TO BE TAKEN

None. However, the information contained in these messages is useful in identifying faults on the IMS ring. Of

particular interest is Format 1, which pinpoints the area of the IMS ring where the token disappeared. In the event of Format 2, the token track software was not able to perform its task of finding the lost token because of one of the reasons stated above. After this message, the IMS ring error analysis and recovery software will automatically restore IMS ring operation.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

REPT:TRACE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT TRACE #a (b)
        c (d e f) g
        h

[2]   ____________________________________________________________________
      REPT TRACE NP: i #a (b)
        h
```

2. REASON FOR OUTPUT

To report TRACEPOINTS:

Format 1 reports a TRACEPOINT from an administrative module (AM) process.

Format 2 reports a TRACEPOINT from a node processor (NP).

3. VARIABLE FIELD DEFINITIONS

a	= Decimal TRACEPOINT sequence number.
b	= Real time clock value.
c	= Trace subsystem name.
d	= Process name.
e	= Source file name.
f	= Source file line number.
g	= Source file Source Code Control System (SCCS) version number.
h	= User message as American Standard Code for Information Interchange (ASCII) text.
i	= NP number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRACE
INH:TRACE
OP:TRACE
SET:TRACE
```

Output Message(s):

```
ALW:TRACE
INH:TRACE
OP:TRACE
SET:TRACE
```

REPT:TRANSIENT-CL

Software Release: 5E10 and later
Message Class: PLNT
Application: 5
Type: Output

1. FORMAT

```
REPT TRANSIENT CALL LOST                EVENT=a
              ORIGINATOR         TERMINATOR
  DN:         b                   c
  SM:         d                  [e]
  PORT:       f                  [g]
  STACK:   h  [h]  [h]  [h]  [h]  [h]
           .   .    .    .    .    .
           .   .    .    .    .    .
           .   .    .    .    .    .
  HARDWARE CALL TRACE i
```

2. REASON FOR OUTPUT

To report specific information related to a transient call lost when allowed. This information can be analyzed as to the source of the problem. The number of transient calls lost which occur is printed on the plant measurements reports.

3. VARIABLE FIELD DEFINITIONS

`a` = Event number.

`b` = The directory number (DN) of the call's originator (supplied only for line originations).

`c` = The dialed DN.

`d` = The number of the switching module (SM) where the call originated.

`e` = The number of the SM where the call terminated.

`f` = The number of the originating port in hexadecimal.

`g` = The number of the terminating port in hexadecimal.

`h` = List of addresses of the functions called which resulted in the transient call lost. These function addresses are in hexadecimal.

`i` = Hardware call trace status. Valid value(s):
`IN PROGRESS` = An ALW:TCLRPT,TRC input message was entered.
`NOT REQUESTED` = An ALW:TCLRPT input message was entered, or an ALW:TCLRPT,TRC input message was entered and the calling process was a system process.

4. ACTION TO BE TAKEN

None.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TCLRPT
INH:TCLRPT
OP:TRC
```

Output Message(s):

```
OP:PLNT24-PT01B
OP:PLNTHR-PT01B
OP:PLNTMO-PT01B
TRC:UTIL-LINE
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

REPT:TRBL

Software Release: 5E10 and later
Message Class: CLNK,MSGS, ONTC
Application: 5
Type: Output

1. FORMAT

```
REPT TRBL, [a][ b][ c],[NEXT RECORD,] EVENT=d
  ERROR=e TIME=ff:ff:ff.f
  RECOVERY ACTIONS:
    [g | h]
       .
       .
       .
```

2. REASON FOR OUTPUT

To report that an error has been detected in the communication module (CM) and to summarize the actions already taken to recover. This message is related to one of three message classes, depending upon the unit identified by variable '`b`'. If the unit is associated with the office network and timing complex (ONTC), the message class will be ONTC. If the unit is a communication link (CLNK), quad link packet switch PIPE (QPIPE), QLPS communication link (QLNK), or inter-switching module QLPS communication link (ISMQLNK), the message class will be CLNK. If the unit is associated with a message switch [communication module processor (CMP), foundation peripheral controller (FPC), module message processor (MMP), QLPS gateway processor (QGP), message switch control unit (MSCU), or pump peripheral controller (PPC)], the message class will be MSGS.

3. VARIABLE FIELD DEFINITIONS

`NEXT RECORD` = This message is a subsequent report. If blank, this message is a new report.

`a` = The most important action taken on a unit during the recovery sequence. Valid value(s):

(blank) = This is a subsequent report.

`ABORT DIAGNOSTIC` = Any running or waiting diagnostics were terminated.

`ABORT DLI DIAGNOSTICS` = Any running or waiting diagnostics for one or more dual link interfaces (DLIs) on the specified ONTC side were terminated.

`ABORT NLI DIAGNOSTICS` = Any running or waiting diagnostics for one or more network link interfaces (NLIs) on the specified ONTC side were terminated.

`ABORT QLPS DIAGNOSTICS` = Terminated any running or waiting diagnostics of quad-link packet switch (QLPS) unit specified.

`ABORT RECOVERY` = All remaining recovery actions were aborted. Usually caused by an error on the same unit.

`ALLOW HDWCHKS` = Hardware checks for this unit were turned on.

`AUDIT` = CLNK or QLNK audit in directed mode for data of requested switching module (SM) was run.

`CDAL ERROR FLAG RESET` = Reset "error reported" flag of the control and diagnostic access link (CDAL) and reconnected CDAL to in-service ONTCs.

`CHANGE STATUS MAJOR` = This was a single recovery sequence in which the major unit was immediately taken out of service, while at the same time the minor unit was quickly changed to become the new major unit.

`CONDITIONAL DLI RESTORE` = One or more DLIs were scheduled to be diagnosed on the specified side and then restored if the diagnostic results were "all tests passed (ATP)."

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`CONDITIONAL NLI RESTORE` = One or more NLIs were scheduled to be diagnosed on the specified side and then restored if the diagnostic results were all tests passed (ATP).

`CONDITIONAL QLPS RESTORE` = Scheduled out-of-service (OOS) QLPS unit for diagnostics and then restored if diagnostics were ATP.

`CONDITIONAL RESTORE` = The OOS unit was scheduled to be diagnosed and restored if the diagnostic results were ATP.

`CONFIG CLOCK AND SYNC TO SIDE 0` = Timing to ONTC side 0 was configured.

`CONFIG CLOCK AND SYNC TO SIDE 1` = Timing to ONTC side 1 was configured.

`CONTINUE` = Continuation of a report trouble message.

`CRITICAL RESTORE` = The specific unit was restored without harming any stable phone calls. For ONTC recovery, the critical restoration was done when the ONTCs were secondarily implicated or when the ONTCs were simplex and a critical fault occurred.

`DE-ELEVATE UNIT` = The active unit was put into the standby state.

`DEFERRED CONDITIONAL RESTORE` = An automatic request to conditionally restore the unit to active or standby was placed on the deferred maintenance queue.

`DEFERRED UNCONDITIONAL RESTORE` = An automatic request to unconditionally restore the unit to active or standby was placed on the deferred maintenance queue.

`DEGRADE` = One or more time multiplexed switch (TMS) links on the specified ONTC side were removed from service. Refer to the Master Control Center (MCC) TMS 0 & 1 SUMMARY page.

`DEGRADE 100 PERCENT` = All TMS links, DLIs, and NLIs on the specified ONTC side were removed.

`DELAY FOR KERNAL LEVEL LOCKOUT` = A real time delay in fault recovery is taken to avoid escalation due to a kernel level lockout.

`DIAGNOSE` = Proper circuit operation was verified and tested.

`DMA REQUEST` = Direct memory access was requested.

`DUPLEX FAIL` = Both sets of duplicated hardware became inoperable.

`ELEVATE` = The standby unit was put into the active state.

`ERROR REPORT` = An error was received on a unit.

`ERROR TYPE RECLASSIFIED CRITICAL` = A non-critical error was reclassified to critical because of a failure that was encountered during the non-critical error recovery sequence. The critical error recovery sequence has been entered.

`HARD SWITCH` = Fault recovery switched the units with possible loss of transient calls.

`HASH CHECK, FI TO ACTIVE` = Full initialization of the unit to active occurred with a pump of phase 2 and phase 3 hash-sums.

`HASH CHECK, FI TO STANDBY` = Full initialization of the unit to standby occurred with a pump of phase 2 and phase 3 hash-sums.

`IMPLICATE` = Indicated unit is being implicated for removal.

`INHIBIT HDWCHKS` = Hardware checks for this unit were turned off.

`INITIALIZE` = Circuitry was programmed to initial known state.

`LEVEL 2 RESTART` = The administrative module (AM) is requesting a restart of level 2 communication protocol on the indicated QLNK.

`LEVEL 3 RESTART` = The AM is requesting a restart of level 3 link establishment protocol for the indicated QLNK.

`MMP TIMING REMOVAL` = ONTC was removed due to MMP synchronization difficulty. Requires manual diagnostics of the ONTC to be executed with the message interface bus (MIB) demand phase of the diagnostics.

`NC OSCILLATOR RECOVERY` = ONTC network clock (NC) oscillator fault recovery occurred. Refer to MCC NETWORK CLOCK page (CM 2 only) and REPT:ONTC-NC output messages with the same event number as the REPT:TRBL output message.

`NC REFERENCE CONFIGURE` = ONTC NC reference fault recovery occurred. Refer to either MCC MI/NC 0 & 1 page (CM 1 only) or to MCC NETWORK CLOCK page (CM 2 only) and REPT:ONTC-NC messages with the same event number as the REPT:TRBL output message.

`NO ACTION` = Autonomous recovery was performed in CM only with no additional action in AM.

`NO FAIL RESTORE` = The specific unit was restored unconditionally and completed the restoration sequence even if all units could not be completely restored.

`NO PUMP, FI TO ACTIVE` = Full initialization of the unit to active occurred without a pump.

`NO PUMP, FI TO STANDBY` = Full initialization of the unit to standby occurred without a pump.

`NO PUMP, PGI TO ACTIVE` = Purging initialization of the unit to active occurred without a pump.

`NO PUMP, PGI TO STANDBY` = Purging initialization of the unit to standby occurred without a pump.

`NON CRITICAL ERROR CLEANUP` = Hardware checks were allowed on the unit after a non-critical error caused the hardware checks to be inhibited.

`NORMALIZE` = Communication link normalization was requested to optimally arrange CLNK configurations.

`ODD PUMP, FI TO ACTIVE` = Full initialization of the unit to active occurred with a pump of phase 2, phase 3 and office-dependent data hash-sums, and office-dependent data.

`ODD PUMP, FI TO STANDBY` = Full initialization of the unit to standby occurred with a pump of phase 2, phase 3 and office-dependent data hash-sums, and office-dependent data.

`OUT-OF-SERVICE UNIT CLEANUP` = An error on an OOS unit was received.

`POST-MORTEM` = A post-mortem dump was requested because the specified unit reported a critical error. This is only a request, it does not mean that the post-mortem can be or will be dumped.

`POWER PUMP, FI TO ACTIVE` = Full initialization of the unit to active occurred with a pump of phase 2, phase 3 and office dependent data hash-sums, office dependent data, phase 2 text and data, phase 3 text and data, and a memory clear of the unit.

`POWER PUMP, FI TO STANDBY` = Full initialization of the unit to standby occurred with a pump of phase 2, phase 3 and office dependent data hash-sums, office dependent data, phase 2 text and data, phase 3 text and data, and a memory clear of the unit.

`QGP ERROR REPORT` = The QGP has detected errors on the indicated QLNK and is initiating autonomous recovery actions.

`QGP RECEIVED DISCONNECT` = The QGP has detected a disconnect request from the far end on the indicated QLNK.

`QLPS QUAD FAIL` = All units on QLPS networks 0 and 1 have failed. No QLPS connectivity to any endpoint.

`QUADRUPLEX FAIL` = The unit specified quadruplex failed.

`RECOUPLE` = Fault recovery of the MSCU without initializing it or its children.

`REFRESH` = Circuitry was reprogrammed to reflect current software states.

`REMOVE` = Unit was isolated from rest of system. If the unit is a QLNK, the AM has removed the link from service and temporarily disabled autonomous recovery action.

`REMOVE DLI` = One or more DLIs were removed from the specified ONTC side. Begin scanning DLIs that were removed by referring to MCC TMS 0 & 1 SUMMARY page.

`REMOVE NLI` = One or more NLIs were removed from the specified ONTC side. Begin scanning NLIs that were removed by referring to MCC TMS 0 & 1 SUMMARY page.

`REMOVE QGL` = Removed from service a QLPS gateway link (QGL) on the specified MSGS side. Refer to MCC QLPS network 0 & 1 SUMMARY page.

`REMOVE QLPS` = Removed from service a QLPS on the specified ONTC side. Refer to MCC QLPS network 0 & 1 SUMMARY page.

`REMOVE QTMSLNK` = Removed from service one or more QLPS time multiplex switch links (QTMSLNK) on the specified ONTC side. Refer to MCC QLPS network 0 & 1

SUMMARY page.

`REPORT NETWORK CLOCK` = Reported reference integrity from NC. Refer to REPT:NC output message with the same event number as the REPT:TRBL output message.

`RESCHEDULE` = Continuation of a report trouble message resulting from RESCHEDULE RECOVERY action.

`RESCHEDULE RECOVERY` = All remaining recovery actions are rescheduled. Usually caused by an error on a parent unit.

`RESTART` = Fault recovery initialized the unit.

`RESTORE` = An OOS unit was unconditionally restored to active or standby state.

`RESTORE DLI` = One or more OOS DLIs was unconditionally restored. Recovery done when both DLIs to one or more SMs are faulty. Begin scanning which DLIs were restored by referring to MCC TMS 0 & 1 SUMMARY page.

`RESTORE NLI` = One or more OOS NLIs was unconditionally restored. Recovery done when NLIs to one or more SMs are faulty. Begin scanning which NLIs were restored by referring to MCC TMS 0 & 1 SUMMARY page.

`RESTORE TO ACTIVE` = An OOS unit was restored to the active state.

`RESTORE TO STANDBY` = An OOS unit was restored to the standby state.

`SET NETWORK CLOCK MODE` = Set NC mode to NORM mode, FAST mode, or HOLD mode.

`SM ERROR REPORT` = The SM/message handler (MH) has detected errors on the indicated QLNK link and is initiating autonomous recovery actions.

`SM INITIATED LEVEL 2 RESTART` = The SM has initiated a restart of level 2 communication protocol on the indicated QLNK/ISMQLNK.

`SM INITIATED LEVEL 3 RESTART` = The SM has initiated a restart of level 3 link establishment protocol for the indicated QLNK/ISMQLNK.

`SM INITIATED REMOVE` = The SM has removed the QLNK/ISMQLNK from service, and has temporarily disabled autonomous recovery actions.

`SM RECEIVED DISCONNECT` = The SM/MH has detected a disconnect request from the far end on the indicated QLNK/ISMQLNK.

`SOFT SWITCH` = Fault recovery of switched units without losing transient calls.

`START` = Start of a report trouble message.

`STOP RECOVERY` = All remaining recovery actions were stopped. Usually caused by a manual request to force a parent unit.

`SWITCH` = Switched active/standby relationship of duplicated units, or, for CLNK, switched logical link assignment.

`SWITCH THEN REMOVE` = The units were switched and then the standby (formerly active) unit was removed.

`TMS CALL PROCESSING AUDIT` = Check of PCD and AM verses time multiplexed switch (TMS) firmware. It runs every hour or on demand based on e-bit continuity errors.

`TMS FABRIC UPDATE` = The TMS fabric random access memory was configured for stable calls after a restoration of the ONTC, DLI, NLI or TMS link.

`TMS FABRIC UPDATE CLEANUP` = A continuation of ONTC recovery after the TMS completed the fabric update. The recovery sequence was completed with a common office network timing complex (ONTCCOM) removal and an ONTCCOM conditional restoration.

`UNDEGRADE` = All OOS TMS links, OOS DLIs, and OOS NLIs were unconditionally restored on a specific side to maintain the highest call capacity.

`UPDATE PIC ROUTING TABLE` = MSCU peripheral controller (PC) was updated to SM translation table.

`UPDATE STATUS ONLY` = Could not perform physical removal of the PC because the MSCU was OOS, so updated status only of PC. If the PC is the CMP, the MSCU may not be OOS.

`UNEQUIPPED UNIT ERROR REPORT` = Received error on an unequipped unit.

b Unit modifier. Valid value(s):

If 'c'	'b' =
NLI or DLI	ONTC
LI, MI, TMS, or NC	ONTCCOM
Any other unit identifier or parameter 'a' is QLPS QUADRUPLEX FAIL	(blank)

c = Unit identity [unit name and member number(s)] implicated by error. Valid unit names are:

AM = Administrative module.
CLNK = Communication link.
CMP = Communication module processor.
DLI = Dual link interface.
FPC = Foundation peripheral controller.
ISMQLNK = Inter-switching module communication link using QLPS.
LI = Link interface (CM 1 only).
MHQPIPE = Message handler to QLPS pipe.
MI = Message interface.
MMP = Module message processor.
MSCU = Message switch control unit.
MSGS = Message switch complex.
NC = Network clock.
NLI = Network link interface.
ONTC = Office network timing complex hardware.
ONTCCOM = Common office network timing complex hardware.
PPC = Pump peripheral controller.
QGL = QLPS to QGP link.
QGP = QLPS gateway processor.
QGPQPIPE = QGP to QLPS pipe.
QLNK = Switching module to AM communication link using QLPS.
QLPS = Quad link packet switch.
TMS = Time-multiplexed switch. Valid value(s):

```
AM=i
CLNK=j-k-l-m
CMP=m-n
DLI=j-k
FPC=m
ISMQLNK=j-o-p-k-v-w
MHQPIPE=j-o-p-k
MI=k
MMP=m-q
MSCU=m
NC=k
NLI=j-k
ONTC=k
ONTCCOM=k
PPC=m
QGL=m-s-t
QGP=m-s
QGPQPIPE=m-s-p-k
```

```
QLNK=j-o-p-k-s-m
QLPS=k-u
TMS=k
```

d = Event number.

e = Error types. The action taken to recover a unit having trouble is handled by internal software and reported in variables 'f' and 'g'. Valid value(s):

```
ACT FPC CRITICAL
AM-CMP LEVEL 3
CDAL 0 ERROR
CDAL 1 ERROR
CDAL BOTH ERROR
CLNK LEVEL 2 REMOVE ERROR
CLNK LEVEL 2 RESTART ERROR
CLNK LEVEL 3 ERROR
CLNK LINK MAP INCONSISTENCY
CMP CONFIGURATION ERROR
CMP CRITICAL
CMP-AM LEVEL 3
CMP NON-CRITICAL
CMP ROUTINE HASH SUM
DLI FAULT
FPC CONFIGURATION ERROR
FPC INTERFACE
LEVEL 2
LEVEL 3
LINK ESTABLISH SEQUENCE
LINK MAP INCONSISTENCY
MMP CONFIGURATION ERROR
MMP CRITICAL
MMP NON-CRITICAL
MMP NON-CRITICAL MI SIDE 0
MMP NON-CRITICAL MI SIDE 1
MSCU IMPLICATED - SUPERORDINATE OF ACT FPC
MSCU IMPLICATED - SUPERORDINATE OF NON-ACT FPC
NC CRITICAL
NC OSCILLATOR FAULT
NC REFERENCE
NC REFERENCE CRITICAL
NC REPORT
NLI FAULT
NON-ACT FPC CRITICAL
ONTC CRITICAL
ONTC ERROR THRESHOLDING
ONTC MIB INTERFACE
ONTC NON-CRITICAL
PPC CONFIGURATION ERROR
PPC CRITICAL
PPC NON CRITICAL
QGL FAULT
QGP CONFIGURATION ERROR
QGP CRITICAL
QPIPE FAULT
```

```
MESSAGE CORRUPTED ON CLNK
MESSAGE CORRUPTED ON QLNK
MESSAGE CORRUPTED TO CMP
MMP IMPLICATED BY CORRUPTED MESSAGE ERRORS
QGP IMPLICATED BY CORRUPTED MESSAGE ERRORS
MSCU IMPLICATED BY CORRUPTED MESSAGE ERRORS
QLPS QUADRUPLEX FAIL RECOVERY
RSM CLNK LEVEL 2 REMOVE ERROR
RSM CLNK LEVEL 2 RESTART ERROR
RSM CLNK LEVEL 3 ERROR
RSM CLNK LINK MAP INCONSISTENCY
SECONDARY IMPLICATION OF AM
SECONDARY IMPLICATION OF FPC
SECONDARY IMPLICATION OF HSM
SECONDARY IMPLICATION OF MMP
SECONDARY IMPLICATION OF MSCU
SECONDARY IMPLICATION OF ONTC
SECONDARY IMPLICATION OF ONTC BY FPC 0 CDAL ERROR
SECONDARY IMPLICATION OF ONTC BY FPC 1 CDAL ERROR
SECONDARY IMPLICATION OF PPC
SECONDARY IMPLICATION OF QGP
SECONDARY IMPLICATION OF QLPS
```

`f` = Time of the event, in the form hours:minutes:seconds.tenths of seconds.

`g` = First part of recovery action sequence is the action (refer to variable '`a`' for values) to be performed on a unit. If only one action occurred, it may be treated as variable '`a`'. Else it will be a subset of variable '`a`'.

`h` = Second part of recovery action sequence is the unit (refer to variable '`b`' for values) that the action was performed on. There may be more than one action taken to recover the unit having trouble.

`i` = AM side.

`j` = Switching module (SM).

`k` = ONTC side.

`l` = MMP. Valid value(s):
`0` = Even.
`1` = Odd.

`m` = MSGS side.

`n` = CMP number.

`o` = Active module controller/time slot interchanger (MCTSI) side.

`p` = QLPS network.

`q` = MMP number.

`s` = QGP number.

t = QGL number.

u = QLPS number.
Note: Since more than one NLI could be removed simultaneously, the NLI number has been deleted.

v = Far end SM.

w = Far end active MCTSI side.

4. ACTION TO BE TAKEN

If the REPT:TRBL message is unalarmed, no immediate action is needed (this message is reporting automatic recovery actions which should result in the affected units being returned to service). If the message is alarmed, automatic recovery may or may not be successful in restoring the affected units to service; if the affected units remain OOS, refer to the Corrective Maintenance manual, specifically to the section entitled "ANALYZE COMMUNICATION MODULE PROBLEMS", for detailed repair procedures.

Also, note the following special cases:

If 'a' =	Action:
DEGRADE	Automatic DLI diagnostics may have been scheduled if "both" TMS links on this ONTC side have failed in an SM, automatic TMS diagnostics may not be activated due to potential service impact. Automatic NLI diagnostics may have been scheduled if "both" TMS links on this ONTC side have failed in an SM-2000, automatic TMS diagnostics may not be activated due to potential service impact. Automatic NLI diagnostics may have been scheduled if the "single" TMS link on this ONTC side have failed in an EXM-2000, automatic TMS diagnostics may not be activated due to potential service impact. To isolate the problem, manual action will have to be used to diagnose the ONTC which is in the DEGRADED state. This can be done by using the DGN:ONTC input message. ***NOTE:*** ONTC diagnostics use the standby FPC as a helper unit. Therefore, it may be best to wait for a low-traffic period. Also, diagnosing the ONTC causes all DLIs and NLIs to be diagnosed; if this is not desired, then run the ONTCCOM diagnostics and run DLI or NLI diagnostics (for the DLIs or NLIs which have the out of service TMS links) separately. Once the manually initiated diagnostics have been executed, the resulting receive-only printer (ROP) trouble locating procedure (TLP) report will detail the circuit packs that should be replaced. Refer to Corrective Maintenance Procedures manual, "Clear Diagnostic Failures in Hardware (Units/Circuits)".
TMS CALL PROCESSING AUDIT	The recovery action was triggered by excessive continuity failures during network path set-up. If the problem persists after the specified automatic network reconfigurations, manual actions should be used to reconfigure units used in the affected network paths. The units affected could include the active major ONTC, the module controller/time slot interchangers (MCTSIs) of SMs, and the host digital facility interfaces (HDFIs), remote digital facility interfaces (RDFIs) and umbilical facilities of remote SMs (RSMs). Refer to the REPT:PTRACE output

	message for network path details for each e-bit continuity failure.

5. ALARMS

Depending on the units and the actions, the alarms can be either critical, major, minor, or none.

6. REFERENCES

Input Message(s):

```
DGN:CMP
DGN:DLI
DGN:FPC
DGN:MMP
DGN:MSCU
DGN:MSGS
DGN:NLI
DGN:ONTC
DGN:ONTCCOM
DGN:PPC
DGN:QGP
DGN:QLPS
OP:CFGSTAT
OP:QNETSTAT
```

Output Message(s):

```
DGN:CMP
DGN:DLI
DGN:FPC
DGN:MMP
DGN:MSCU
DGN:MSGS
DGN:NLI
DGN:ONTC
DGN:ONTCCOM
DGN:PPC
DGN:QGP
DGN:QLPS
OP:CFGSTAT
OP:QNETSTAT
REPT:DGN
REPT:NC
REPT:PTRACE
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

111,112 (AM, AM PERIPHERALS)
115 (CM SUMMARY)
1190, 1200, 1201, 1900 (DLI, NLI STATUS)

1209 (ONTC 0 & 1)
1210 (MI/NC 0 & 1) (CM1 only)
1211 (NETWORK CLOCK) (CM2 only)
1220 (TMS 0 & 1 SUMMARY)
1240, 1250 (MSGS 0 & 1 SUMMARY)
1380, 1381 (QLPS NETWORK 0/1 STATUS)

REPT:TRBL-AQEST

Software Release: 5E10 and later
Message Class: TLWS
Application: 5
Type: Output

1. FORMAT

```
REPT TRBL AQEST=a AQ=b-c d
```

2. REASON FOR OUTPUT

To report per-call test failure while transmitting an Autoquote quotation, or to report that the local modem has failed to establish working connection with the remote modem/printer connected to a leased hotel line while the hotel line is under maintenance.

3. VARIABLE FIELD DEFINITIONS

`AQ` = Autoquote digital subscriber line (DSL).

`AQEST` = Autoquote hotel/motel establishment.

`a` = Directory (telephone) number of AQEST.

`b` = AQ group ID.

`c` = AQ relative DSL number.

`d` = Text describing the event that occurred. Valid value(s):
`HANDSHAKE PROBLEM` = While doing maintenance on Autoquote leased line, the switch repeatedly failed to connect with the remote modem/printer.
`PER-CALL TEST FAILURE` = The operational software failed to perform per-call test before transmitting an Autoquote quotation.

4. ACTION TO BE TAKEN

If per-call test failure is reported repeatedly on the same Autoquote DSL or hotel leased line, run the TST:OSPS input message to manually diagnose the fault.

If the handshake problem is reported, the hotel site printer may be out-of-paper or switched off for a long time, or the modem/printer is faulty.

The handshake problem may also be due to a local modem. This situation can be isolated by using the TST:OSPS input message with a different AQ DSL from the one specified in the REPT:TRBL output message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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TST:OSPS

REPT:TRBL-DLD

Software Release: 5E10 and later
Message Class: LINE
Application: 5
Type: Output

1. FORMAT

```
REPT TRBL DATA LINK DSL a b [CH c]
  d [d] [d] [d] [d]
```

2. REASON FOR OUTPUT

To report that a data link digital subscriber line (DSL) port has been automatically or manually removed from service.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

a = Valid value(s):

```
AP=f-e
AQ=f-e
DASC=f-e
EIS=g-h
HOBICR=f-e
HOBICV=f-e
HOBIS=f-e
MISLNK=f-e
OAPF=i
OAPO=j
RAS=f-e
RTRS=f-e
XDB=f-e
```

b = Valid value(s):

```
LCEN=l-m-n-k
```

c = Channel identifier. Valid value(s):

```
B1
B2
D
```

d = Primary port status of the data link channel. The first subfield indicates basic state; the second subfield indicates qualifier; the third subfield indicates operational restrictions; the fourth subfield indicates supplementary information, and the fifth subfield indicates the mode of the primary status. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status.

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`e` = Relative link (member) number.

`f` = Data link (group) number.

`g` = EIS identifier (ID) on which the CPDL terminates.

`h` = External data link member number relative to the EIS.

`i` = Force mangement center number.

`j` = Operator service center number.

`k` = Line card number.

`l` = Switching module (SM) number.

`m` = Integrated services line unit number.

`n` = Line group controller number.

4. ACTION TO BE TAKEN

Determine if the data link was removed from service automatically due to hardware problems with the associated T-interface or terminal adapter (TA). For DASC data links, the DASC computer could be at fault. Attempt to restore the data link to service by using the RST:DATALINK input message. For an AP data link with a basic rate interface (BRI) status of `IS AUTO`, the path between the application processor and the BRI data pad may be out-of-service.

5. ALARMS

Major or minor.

6. REFERENCES

Input Message(s):

```
OP:CONV
RMV:DATALINK
RST:DATALINK
```

Output Message(s):

```
OP:CONV
RMV:DATALINK
RST:DATALINK
```

Other Manual(s):
235-500-100 *OSPS General Description*

MCC Display Page(s):

116 (MISC)
1460 (DATALINK DSLS)

REPT:TRBL-MELNK-A

Software Release: 5E12 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
REPT TRBL, a MELNK=b-c-d, EVENT=e
  ERROR=f TIME=gg:gg:gg.g
  RECOVERY ACTIONS:
    [h | i]
       .
       .
       .
```

2. REASON FOR OUTPUT

To report that an error or recovery timeout has been detected on a module controller/time slot interchange (MCTSI)-based ethernet link (MELNK) and to summarize the actions already taken to recover.

3. VARIABLE FIELD DEFINITIONS

`a` = The initial action taken on the specified MELNK during the recovery sequence. Valid values are:

- `ALLOW AUTONOMOUS RECOVERY` = The MELNK was left in a state that will allow it to come up if the cause of the failure can be resolved without fault recovery intervention. If the MELNK does not recover by itself within a short period of time, further recovery actions will be initiated.
- `DEGRADE` = One or more (but not all) MELNK ports were removed from service.
- `NO ACTION` = No recovery action was performed on the MELNK.
- `REFRESH` = The MELNK status in the message handler (MH) was updated to agree with the status in the switching module processor (SMP).
- `REMOVE` = The MELNK was removed from service.
- `RESTART` = Fault recovery software in the MH removed the MELNK and then immediately initiated an MELNK restore.
- `RESTORE` = Fault recovery software in the SMP initiated an MELNK restore.
- `VERIFY` = Fault recovery software in the SMP initiated an MEPIPE/MELNK status audit to verify data consistency between the SMP and MH.

`b` = Switching module (SM) number.

`c` = MCTSI-based ethernet pipe (MEPIPE) number.

`d` = MELNK number.

`e` = Event number.

`f` = Error types. The error that was discovered by software. Valid values are:

```
EXCESSIVE NUMBER OF FAULTS
EXCESSIVE OUT-OF-DATE EVENTS
EXCESSIVE PROTOCOL ERRORS
EXCESSIVE UNEXPECTED EVENTS
FAR END REMOVE
```

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```
LOOPBACK TO FAR END FAILED
MELNK FAILED AFTER MCTSI SWITCH
MH AUDIT REQUESTED RECOVERY
PROTOCOL TIMEOUT
RECOVERY DUE TO MH OSR
RECOVERY FAILED
RECOVERY TIMEOUT
STATUS INCONSISTENCY
TIMEOUT ESTABLISHING MELNK
```

`g` = Time of the event, in the form hours:minutes:seconds.tenths of seconds.

`h` = The recovery action performed on the unit described in variable `'i'`. More than one action may be taken in order to recover the MELNK having trouble. The first action/unit pair shown here will be the same MELNK action as in field `'a'`. Valid values are:

- `ALLOW AUTONOMOUS RECOVERY` = The unit was left in a state that would allow it to come up if the cause of the failure can be resolved without fault recovery intervention. If the unit does not recover by itself within a short period of time, further recovery actions will be initiated.
- `DEGRADE` = One or more (but not all) MELNK ports were removed from service.
- `IMPLICATE` = Fault recovery software in the SMP implicated the specified unit as a possible cause of the failure.
- `INITIALIZE` = Fault recovery software in the SMP initialized the specified unit.
- `NO ACTION` = No recovery action was performed on the unit.
- `REFRESH` = The unit status in the MH was updated to agree with the status in the SMP.
- `REMOVE` = The unit was removed from service.
- `RESTART` = Fault recovery software in the MH removed the unit and then immediately initiated a restore.
- `RESTORE` = Fault recovery software in the SMP initiated a restore.
- `SWITCH` = Fault recovery software in the SMP requested a switch.
- `VERIFY` = Fault recovery software in the SMP initiated an MEPIPE/MELNK status audit to verify data consistency between the SMP and MH.

`i` = The unit upon which the recovery action specified in field `'h'` was performed. In addition to performing actions on the specified MELNK, recovery may also be performed on the parent MEPIPE, the MH, or the MCTSI.

4. ACTIONS TO BE TAKEN

Automatic recovery actions may or may not be successful in restoring the MELNK to service. If the MELNK remains out-of-service (OOS), refer to the "Maintenance" section of the Long Distance Platform document (235-200-110) for a detailed procedure for clearing MEPIPE/MELNK problems.

5. ALARMS

A minor alarm indicates that an error has occurred but either the MELNK has recovered or fault recovery is still performing actions in an effort to recover it. A major alarm indicates that initial fault recovery attempts have failed to restore the MELNK to service. While fault recovery will continue to make periodic attempts to recover the MELNK, manual action will probably be required. For example, it may be necessary to resolve a problem with the far end system or repair/restore an OOS MCTSI.

6. REFERENCES

Input Message(s):

```
OP:ST-MELNK
RMV:MELNK
RST:MELNK
```

Output Message(s):

```
OP:ST-MELNK
REPT:PM-MELNK
REPT:PM-MEPIPE
REPT:TRBL-MEPIPE
RMV:MELNK
RST:MELNK
```

Other Manual(s):
235-200-110 *Long Distance Platform*

MCC Display Page(s):

1204 (SM MELNK STATUS)
1190 (MCTSI STATUS)

REPT:TRBL-MELNK-B

Software Release: 5E12 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
REPT TRBL, a MELNK=b-c-d, EVENT=e [f]
  ERROR=g TIME=hh:hh:hh.h
  RECOVERY ACTIONS:
    i j
    . .
    . .
    . .
```

2. REASON FOR OUTPUT

To report that an error or recovery timeout has been detected on a module controller/time slot interchange (MCTSI)-based ethernet link (MELNK) and to summarize the actions already taken to recover.

3. VARIABLE FIELD DEFINITIONS

`a` = The initial action taken on the specified MELNK during the recovery sequence. Valid values are:

- `ALLOW AUTONOMOUS RECOVERY` = The MELNK was left in a state that will allow it to come up if the cause of the failure can be resolved without fault recovery intervention. If the MELNK does not recover by itself within a short period of time, further recovery actions will be initiated.
- `DEGRADE` = One or more (but not all) MELNK ports were removed from service.
- `NO ACTION` = No recovery action was performed on the MELNK.
- `REFRESH` = The MELNK status in the message handler (MH) was updated to agree with the status in the switching module processor (SMP).
- `REMOVE` = The MELNK was removed from service.
- `RESTART` = Fault recovery software in the MH removed the MELNK and then immediately initiated an MELNK restore.
- `RESTORE` = Fault recovery software in the SMP initiated an MELNK restore.
- `VERIFY` = Fault recovery software in the SMP initiated an MEPIPE/MELNK status audit to verify data consistency between the SMP and MH.

`b` = Switching module (SM) number.

`c` = MCTSI-based ethernet pipe (MEPIPE) number.

`d` = MELNK number.

`e` = Event number.

`f` = Text identifier showing order of record. Valid values are:

- `FIRST RECORD` = First record of continuing list.
- `LAST RECORD` = Last record of continuing list.
- `NEXT RECORD` = Next record of continuing list.

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g = Error types. The error that was discovered by software. Valid values are:

```
EXCESSIVE NUMBER OF FAULTS
EXCESSIVE OUT-OF-DATE EVENTS
EXCESSIVE PROTOCOL ERRORS
EXCESSIVE UNEXPECTED EVENTS
FAR END REMOVE
LOOPBACK TO FAR END FAILED
MELNK FAILED AFTER MCTSI SWITCH
MH AUDIT REQUESTED RECOVERY
PROTOCOL TIMEOUT
RECOVERY DUE TO MH OSR
RECOVERY FAILED
RECOVERY TIMEOUT
STATUS INCONSISTENCY
TIMEOUT ESTABLISHING MELNK
```

h = Time of the event, in the form hours:minutes:seconds.tenths of seconds.

i = The recovery action performed on the unit described in field `'j'`. More than one action may be taken in order to recover the MELNK having trouble. The first action/unit pair shown here will be the same MELNK action as in field `'a'`. Valid values are:

`ALLOW AUTONOMOUS RECOVERY` = The unit was left in a state that would allow it to come up if the cause of the failure can be resolved without fault recovery intervention. If the unit does not recover by itself within a short period of time, further recovery actions will be initiated.

`DEGRADE` = One or more (but not all) MELNK ports were removed from service.

`IMPLICATE` = Fault recovery software in the SMP implicated the specified unit as a possible cause of the failure.

`INITIALIZE` = Fault recovery software in the SMP initialized the specified unit.

`NO ACTION` = No recovery action was performed on the unit.

`REFRESH` = The unit status in the MH was updated to agree with the status in the SMP.

`REMOVE` = The unit was removed from service.

`RESTART` = Fault recovery software in the MH removed the unit and then immediately initiated a restore.

`RESTORE` = Fault recovery software in the SMP initiated a restore.

`SWITCH` = Fault recovery software in the SMP requested a switch.

`VERIFY` = Fault recovery software in the SMP initiated an MEPIPE/MELNK status audit to verify data consistency between the SMP and MH.

j = The unit upon which the recovery action specified in field `'i'` was performed. In addition to performing actions on the specified MELNK, recovery may also be performed on the parent MEPIPE, the MH, or the MCTSI.

4. ACTIONS TO BE TAKEN

Automatic recovery actions may or may not be successful in restoring the MELNK to service. If the MELNK remains out-of-service (OOS), refer to the "Maintenance" section of the Long Distance Platform document (235-200-110) for a detailed procedure for clearing MEPIPE/MELNK problems.

5. ALARMS

A minor alarm indicates that an error has occurred but either the MELNK has recovered or fault recovery is still

performing actions in an effort to recover it. A major alarm indicates that initial fault recovery attempts have failed to restore the MELNK to service. While fault recovery will continue to make periodic attempts to recover the MELNK, manual action will probably be required. For example, it may be necessary to resolve a problem with the far end system or repair/restore an OOS MCTSI.

6. REFERENCES

Input Message(s):

```
OP:ST-MELNK
RMV:MELNK
RST:MELNK
```

Output Message(s):

```
OP:ST-MELNK
REPT:PM-MELNK
REPT:PM-MEPIPE
REPT:TRBL-MEPIPE
RMV:MELNK
RST:MELNK
```

Other Manual(s):
235-200-110 *Long Distance Platform*

MCC Display Page(s):

1204 (SM MELNK STATUS)
1190 (MCTSI STATUS)

REPT:TRBL-MEPIPE-A

Software Release: 5E12 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
REPT TRBL, a MEPIPE=b-c, EVENT=d
  ERROR=e TIME=ff:ff:ff.f
  RECOVERY ACTIONS:
    [g | h]
       .
       .
       .
```

2. REASON FOR OUTPUT

To report that an error or recovery timeout has been detected on a module controller/time slot interchange (MCTSI)-based ethernet pipe (MEPIPE) and to summarize the actions already taken to recover.

3. VARIABLE FIELD DEFINITIONS

`a` = The initial action taken on the specified MEPIPE during the recovery sequence. Valid values are:

- `ALLOW AUTONOMOUS RECOVERY` = The MEPIPE was left in a state that will allow it to come up if the cause of the failure can be resolved without fault recovery intervention. If the MEPIPE does not recover by itself within a short period of time, further recovery actions will be initiated.
- `BEGIN LONG TERM RECOVERY` = All attempts to recover the MEPIPE and/or child MCTSI-based ethernet links (MELNKs) have failed. Periodic attempts will be made to restore them to service, but manual intervention may be required (e.g. to restore an out-of-service [OOS] MCTSI side or correct a problem that is external to the switch.)
- `NO ACTION` = No recovery action was performed on the MEPIPE.
- `REFRESH` = The MEPIPE status in the message handler (MH) was changed to agree with the status in the switching module processor (SMP).
- `REMOVE` = The MEPIPE was removed from service.
- `RESTART` = Fault recovery software in the MH removed the MEPIPE and then immediately initiated an MEPIPE restore.
- `RESTORE` = Fault recovery software in the SMP initiated an MEPIPE restore.
- `VERIFY` = Fault recovery software in the SMP initiated an MEPIPE/MELNK status audit to verify data consistency between the SMP and MH.

`b` = Switching module (SM) number.

`c` = MEPIPE number.

`d` = Event number.

`e` = Error types. The error that was discovered by software. Valid values are:

- `EXCESSIVE L1 ERRORS`
- `EXCESSIVE NUMBER OF FAULTS`
- `EXCESSIVE OUT-OF-DATE EVENTS`

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```
EXCESSIVE UNEXPECTED EVENTS
INVALID MH DATA
LOOPBACK TO HUB FAILED
MH AUDIT REQUESTED RECOVERY
POST RECOVERY CLEANUP
RECOVERY DUE TO MH OSR
RECOVERY FAILED
RECOVERY TIMEOUT
STATUS INCONSISTENCY
```

`f` = Time of the event, in the form hours:minutes:seconds.tenths of seconds.

`g` = The recovery action performed on the unit described in variable `'h'`. More than one action may be taken to recover the MEPIPE and/or MELNK(s) having trouble. The first action/unit pair shown here will be the same MEPIPE action as in field `'a'`. Valid values are:

`ALLOW AUTONOMOUS RECOVERY` = The unit was left in a state that will allow it to come up if the cause of the failure can be resolved without fault recovery intervention. If the unit does not recover by itself within a short period of time, further recovery actions will be initiated.

`BEGIN LONG TERM RECOVERY` = All attempts to recover the unit have failed. Periodic attempts will be made to restore service, but manual intervention may be required.

`IMPLICATE` = Fault recovery software in the SMP implicated the specified unit as a possible cause of the failure.

`INITIALIZE` = Fault recovery software in the SMP initialized the specified unit.

`NO ACTION` = No recovery action was performed on the unit.

`REFRESH` = The unit status in the MH was changed to agree with the status in the SMP.

`REMOVE` = The unit was removed from service.

`RESTART` = Fault recovery software in the MH removed the unit and then immediately initiated a restore.

`RESTORE` = Fault recovery software in the SMP initiated a restore.

`SWITCH` = Fault recovery software in the SMP requested a switch.

`VERIFY` = Fault recovery software in the SMP initiated an MEPIPE/MELNK status audit to verify data consistency between the SMP and MH.

`h` = The unit upon which the recovery action specified in field `'g'` was performed. In addition to performing actions on the specified MEPIPE, recovery may also be performed on the MH or the MCTSI.

4. ACTIONS TO BE TAKEN

Automatic recovery actions may or may not be successful in restoring the MEPIPE and child MELNK(s) to service. If the affected units remain OOS, refer to the "Maintenance" Long Distance Platform document (235-200-110) for a detailed procedure for clearing MEPIPE/MELNK problems.

5. ALARMS

A minor alarm indicates that an error has occurred but either the MEPIPE and child MELNK(s) have recovered or fault recovery is still performing actions in an effort to recover them. A major alarm indicates that initial fault recovery attempts have failed to restore the MEPIPE/MELNK(s) to service. While fault recovery will continue to make periodic attempts to recover them, manual action will probably be required. For example, it may be necessary to resolve a problem with the ethernet hub or repair/restore an OOS MCTSI.

6. REFERENCES

Input Message(s):

```
OP:ST-MELNK
RMV:MELNK
RST:MELNK
```

Output Message(s):

```
OP:ST-MELNK
REPT:PM-MELNK
REPT:PM-MEPIPE
REPT:TRBL-MELNK
RMV:MELNK
RST:MELNK
```

Other Manual(s):
235-200-110 *Long Distance Platform*

MCC Display Page(s):

1204 (SM MELNK STATUS)
1190 (MCTSI STATUS)

REPT:TRBL-MEPIPE-B

Software Release: 5E12 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
REPT TRBL, a MEPIPE=b-c, EVENT=d [e]
  ERROR=f TIME=gg:gg:gg.g
  RECOVERY ACTIONS:
    h i
    . .
    . .
    . .
```

2. REASON FOR OUTPUT

To report that an error or recovery timeout has been detected on a module controller/time slot interchange (MCTSI)-based ethernet pipe (MEPIPE) and to summarize the actions already taken to recover.

3. VARIABLE FIELD DEFINITIONS

`a` = The initial action taken on the specified MEPIPE during the recovery sequence. Valid values are:

- `ALLOW AUTONOMOUS RECOVERY` = The MEPIPE was left in a state that will allow it to come up if the cause of the failure can be resolved without fault recovery intervention. If the MEPIPE does not recover by itself within a short period of time, further recovery actions will be initiated.
- `BEGIN LONG TERM RECOVERY` = All attempts to recover the MEPIPE and/or child MCTSI-based ethernet links (MELNKs) have failed. Periodic attempts will be made to restore them to service, but manual intervention may be required (e.g. to restore an out-of-service [OOS] MCTSI side or correct a problem that is external to the switch.)
- `NO ACTION` = No recovery action was performed on the MEPIPE.
- `REFRESH` = The MEPIPE status in the message handler (MH) was changed to agree with the status in the switching module processor (SMP).
- `REMOVE` = The MEPIPE was removed from service.
- `RESTART` = Fault recovery software in the MH removed the MEPIPE and then immediately initiated an MEPIPE restore.
- `RESTORE` = Fault recovery software in the SMP initiated an MEPIPE restore.
- `VERIFY` = Fault recovery software in the SMP initiated an MEPIPE/MELNK status audit to verify data consistency between the SMP and MH.

`b` = Switching module (SM) number.

`c` = MEPIPE number.

`d` = Event number.

`e` = Text identifier showing order of record. Valid values are:

- `FIRST RECORD` = First record of continuing list.
- `LAST RECORD` = Last record of continuing list.
- `NEXT RECORD` = Next record of continuing list.

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`f` = Error types. The error that was discovered by software. Valid values are:

```
EXCESSIVE L1 ERRORS
EXCESSIVE NUMBER OF FAULTS
EXCESSIVE OUT-OF-DATE EVENTS
EXCESSIVE UNEXPECTED EVENTS
INVALID MH DATA
LOOPBACK TO HUB FAILED
LOOPBACK TO MATE HUB FAILED
MH AUDIT REQUESTED RECOVERY
POST RECOVERY CLEANUP
RECOVERY DUE TO MH OSR
RECOVERY FAILED
RECOVERY TIMEOUT
STATUS INCONSISTENCY
```

`g` = Time of the event, in the form hours:minutes:seconds.tenths of seconds.

`h` = The recovery action performed on the unit described in field `'i'`. More than one action may be taken to recover the MEPIPE and/or MELNK(s) having trouble. The first action/unit pair shown here will be the same MEPIPE action as in field `'a'`. Valid values are:

- `ALLOW AUTONOMOUS RECOVERY` = The unit was left in a state that will allow it to come up if the cause of the failure can be resolved without fault recovery intervention. If the unit does not recover by itself within a short period of time, further recovery actions will be initiated.
- `BEGIN LONG TERM RECOVERY` = All attempts to recover the unit have failed. Periodic attempts will be made to restore service, but manual intervention may be required.
- `IMPLICATE` = Fault recovery software in the SMP implicated the specified unit as a possible cause of the failure.
- `INITIALIZE` = Fault recovery software in the SMP initialized the specified unit.
- `NO ACTION` = No recovery action was performed on the unit.
- `REFRESH` = The unit status in the MH was changed to agree with the status in the SMP.
- `REMOVE` = The unit was removed from service.
- `RESTART` = Fault recovery software in the MH removed the unit and then immediately initiated a restore.
- `RESTORE` = Fault recovery software in the SMP initiated a restore.
- `SWITCH` = Fault recovery software in the SMP requested a switch.
- `VERIFY` = Fault recovery software in the SMP initiated an MEPIPE/MELNK status audit to verify data consistency between the SMP and MH.

`i` = The unit upon which the recovery action specified in field `'h'` was performed. In addition to performing actions on the specified MEPIPE, recovery may also be performed on the MH, the MCTSI, or child MELNK(s). of the reported unit identifiers.

4. ACTIONS TO BE TAKEN

Automatic recovery actions may or may not be successful in restoring the MEPIPE and child MELNK(s) to service. If the affected units remain OOS, refer to the "Maintenance" section of the Long Distance Platform document (235-200-110) for a detailed procedure for clearing MEPIPE/MELNK problems.

5. ALARMS

A minor alarm indicates that an error has occurred but either the MEPIPE and child MELNK(s) have recovered or fault recovery is still performing actions in an effort to recover them. A major alarm indicates that initial fault recovery attempts have failed to restore the MEPIPE/MELNK(s) to service. While fault recovery will continue to make periodic attempts to recover them, manual action will probably be required. For example, it may be necessary to resolve a problem with the ethernet hub or repair/restore an OOS MCTSI.

6. REFERENCES

Input Message(s):

```
OP:ST-MELNK
RMV:MELNK
RST:MELNK
```

Output Message(s):

```
OP:ST-MELNK
REPT:PM-MELNK
REPT:PM-MEPIPE
REPT:TRBL-MELNK
RMV:MELNK
RST:MELNK
```

Other Manual(s):
235-200-110 *Long Distance Platform*

MCC Display Page(s):

1204 (SM MELNK STATUS)
1190 (MCTSI STATUS)

REPT:TRBL-ONTC

Software Release: 5E10 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

```
REPT TRBL a ONTC=b SM=c REFER TO SM EVENT=d, AM EVENT=e
```

2. REASON FOR OUTPUT

A switching module (SM) detected an error on a communication module (CM) hardware unit. This invokes fault recovery actions in both the SM and the administrative module (AM), and corresponding output messages from both the SM (with an SM event number) and the AM (with an AM event number). The purpose of this message is to correlate these SM and AM messages using the event numbers.

3. VARIABLE FIELD DEFINITIONS

`AM` = Administrative module.

`a` = Unit that caused hardware check. Valid value(s):

- `ALINK` = A-link error.
- `BLINK` = B-link error.
- `DLI` = Dual link interface (DLI) error.
- `NLI` = Network link interface (NLI) error. Identity of faulted NLI(s) follows this word.

`b` = Office network timing complex (ONTC) side.

`c` = SM number.

`d` = SM event number.

`e` = AM event number.

4. ACTION TO BE TAKEN

Refer to the output message REPT:SM-HWLVL specified by the SM event number.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

`REPT:SM-HWLVL`

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REPT:TRBL-OSPS-CT

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT TRBL OSPS COIN TEST FAILURE
  COIN-DN a COIN TKGMN=b-c ANNCH=d-e
```

2. REASON FOR OUTPUT

This message is used for reporting trouble when a coin telephone test call fails. A coin test call is any call made from a coin phone to the coin test call number. Failure can occur if hardware is bad or if the coin test caller allows the call to time out.

3. VARIABLE FIELD DEFINITIONS

a	= Coin phone directory number.
b	= Coin trunk group.
c	= Trunk group member number.
d	= Switching module number with announcement unit.
e	= Port number of the announcement unit.

4. ACTION TO BE TAKEN

Check messages for patterns of problems (for example, numerous messages with the same ANNCH could indicate a bad RAF or SAS board).

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-105-220 *Corrective Maintenance*

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REPT:TRBL-OSPS-OO

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT TRBL OSPS OPERATOR OVERRIDE
  COIN-DN a COIN TKGMN=b-c ANNCH=d-e
  CALLED-DN f OPT g h OPERATOR-ID i
```

2. REASON FOR OUTPUT

To report that the operator overrode the DSU2_CRAF or service announcement system (SAS) coin tone decoding function on a specific call.

3. VARIABLE FIELD DEFINITIONS

a	= Coin phone directory number.
b	= Coin trunk group.
c	= Trunk group member number.
d	= Switching module number with announcement unit.
e	= Port number of the announcement unit.
f	= Phone directory number called by COIN-DN.
g	= The operator service center number.
h	= The operator position number.
i	= The operator identification number.

4. ACTION TO BE TAKEN

Check messages for patterns of problems (for example, numerous messages with the same ANNCH could indicate a bad RAF or SAS board).

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-105-220 *Corrective Maintenance*

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REPT:TRBL-REMOVE-A

Software Release: 5E10 - 5E11
Message Class: SM
Application: 5
Type: Output

1. FORMAT

[1]
```
REPT TRBL REMOVE MCTSI=a-b REASON=c EVENT=d
```

[2]
```
REPT TRBL REMOVE SMREF=a-b-e REASON=f EVENT=d
```

2. REASON FOR OUTPUT

Format 1 is used To report the reason for the automatic removal of a module controller/time slot interchange unit (MCTSI).

Format 2 is used to report the reason for the automatic removal of an external timing reference (SMREF).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Module control unit number.

`c` = Reason for the removal. Valid value(s):

- `AUTISS-FR` = Automatic time slot switching fault recovery detected an error.
- `CACHE-ERR` = Faults detected in cache circuitry have forced the MCTSI to run slow with cache disabled. The corresponding MCTSI is being removed.
- `CORBT-ERR` = Correctable bit errors have been detected which have forced the MCTSI to run slow with "correct on the fly" enabled. The corresponding MCTSI is being removed.
- `DLI-CLK-LOST` = Dual link interface lost clock resulting in the loss of the current contents of the time slot interchanger control memories.
- `DLI-INTERFACE` = An error was detected at the interface between an MCTSI and a dual link interface (DLI).
- `MH-ERR` = One of the message handlers detected an error.
- `NLI-BG-SEL-CHK` = The network link interface (NLI) time slot interchange (TSI) background select check detected an error which implicated this MCTSI.
- `PI-COMM-LOST` = One of the packet interface subunits has lost communication with the module controller; the corresponding MCTSI is being removed.
- `PI-FAULT` = Other software has detected a problem implicating a packet interface subunit of the MCTSI. These errors include packet switch unit common control (PSUCOM) arbiter timer timeout errors, and loss of communication with large numbers of packet switch unit protocol handler (PSUPH) circuits.
- `PUMP-HW-ERR` = The pump hardware self test has failed; therefore, the corresponding MCTSI is being removed.
- `SW-ERROR` = MCTSIs were switched due to a problem attributed to software, but as the problems have not reappeared, the error may really be due to a hardware fault.

`d` = Event number.

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`e` = External reference number.

`f` = Reason for the removal. Valid value(s):
`FAULT` = An external reference fault was detected.
`SMREF-BG-ERR` = An external reference background check detected an error that implicated this external reference.

4. ACTIONS TO BE TAKEN

Monitor the progress of the recovery action. Use the information presented in the report for analysis.

If variable '`c`' is `DLI-CLK-LOST`, the MCTSI will automatically be restored unconditionally; otherwise, it will automatically be restored conditionally.

5. ALARMS

Major, minor, or none.

6. REFERENCES

Input Message(s):

```
ALW:HDW-MCTSI
INH:HDW-MCTSI
OP:PERPH-SM-SUM
OP:POSTMORT
RST:MCTSI
RST:PSUCOM
RST:PSUPH
SET:PERPH-SM
```

Output Message(s):

```
REPT:MCTSI-TPPC
REPT:MCTSI-TPPT
REPT:MCTSI-TPSR
REPT:PSUCOM-TDPE
REPT:PSUCOM-TDPED
REPT:PSUCOM-TDPEP
REPT:PSUCOM-TPCF
REPT:PSUCOM-TPPC2
REPT:PSUCOM-TPSR
REPT:PSUPH-TDP
REPT:PSUPH-TLT
REPT:PSUPH-TPPCL
REPT:PSUPH-TPPCL2
REPT:PSUPH-TPS
REPT:SM-HWLVL
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:TRBL-REMOVE-B

Software Release: 5E12 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT TRBL REMOVE MCTSI=a-b REASON=c EVENT=d

[2]   ____________________________________________________________________
      REPT TRBL REMOVE SMREF=a-b-e REASON=f EVENT=d

[3]   ____________________________________________________________________
      REPT TRBL REMOVE DLI=a-g h i REASON=j EVENT=d

[4]   ____________________________________________________________________
      REPT TRBL REMOVE NLI=a-k-g i REASON=j EVENT=d
```

2. REASON FOR OUTPUT

Format 1 is used To report the reason for the automatic removal of a module controller/time slot interchange unit (MCTSI). Format 2 is used to report the reason for the automatic removal of an external timing reference (SMREF). Format 3 is used to report the reason for the automatic removal of a Dual Link Interface (DLI) associated with a Transmission Rate Conversion Unit Model-3 (TRCU3). Format 4 is used to report the reason for the automatic removal of a Network Link Interface (NLI) associated with a TRCU-3.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Module control unit number.

`c` = Reason for the removal. Valid value(s):

- `AUTISS-FR` = Automatic time slot switching fault recovery detected an error.
- `CACHE-ERR` = Faults detected in cache circuitry have forced the MCTSI to run slow with cache disabled. The corresponding MCTSI is being removed.
- `CI-ERR` = Control Interface error was detected; the corresponding MCTSI is being removed.
- `CORBT-ERR` = Correctable bit errors have been detected which have forced the MCTSI to run slow with "correct on the fly" enabled. The corresponding MCTSI is being removed.
- `DLI-CLK-LOST` = Dual link interface lost clock resulting in the loss of the current contents of the time slot interchanger control memories.
- `DLI-INTERFACE` = An error was detected at the interface between an MCTSI and a dual link interface (DLI).
- `MH-ERR` = One of the message handlers detected an error.
- `NLI-BG-SEL-CHK` = The network link interface (NLI) time slot interchange (TSI) background select check detected an error which implicated this MCTSI.
- `PI-COMM-LOST` = One of the packet interface subunits has lost communication with the module controller; the corresponding MCTSI is being removed.
- `PI-FAULT` = Other software has detected a problem implicating a packet interface subunit of the MCTSI. These errors include packet switch unit common control (PSUCOM) arbiter timer timeout errors, and loss of communication with large numbers of packet switch unit protocol handler (PSUPH) circuits.

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PUMP-HW-ERR = The pump hardware self test has failed; therefore, the corresponding MCTSI is being removed.
SW-ERROR = MCTSIs were switched due to a problem attributed to software, but as the problems have not reappeared, the error may really be due to a hardware fault.

d = Event number.

e = External reference number.

f = Reason for the removal. Valid value(s):
FAULT = An external reference fault was detected.
SMREF-BG-ERR = An external reference background check detected an error that implicated this external reference.

g = Link Interface (LI) side identifier.

h = DLI path identifier. Valid value(s):
LINK A
LINK B

i = Location Qualifier Valid value(s):
HOST LI is located in the Communications Module (CM).
REMOTE LI is located in the SM.

j = Reason for the removal. Valid value(s):
TRCU3-TCTS-CHK A TRCU3 control time-slot failed background tests.

k = NLI path identifier.

4. ACTIONS TO BE TAKEN

Monitor the progress of the recovery action. Use the information presented in the report for analysis.

If variable 'c' is DLI-CLK-LOST, the MCTSI will automatically be restored unconditionally; otherwise, it will automatically be restored conditionally.

5. ALARMS

Major, minor, or none.

6. REFERENCES

Input Message(s):

```
ALW:HDW-MCTSI
INH:HDW-MCTSI
OP:PERPH-SM-SUM
OP:POSTMORT
RST:MCTSI
RST:PSUCOM
```

```
RST:PSUPH
SET:PERPH-SM
```

Output Message(s):

```
REPT:MCTSI-TPPC
REPT:MCTSI-TPPT
REPT:MCTSI-TPSR
REPT:PSUCOM-TDPE
REPT:PSUCOM-TDPED
REPT:PSUCOM-TDPEP
REPT:PSUCOM-TPCF
REPT:PSUCOM-TPPC2
REPT:PSUCOM-TPSR
REPT:PSUPH-TDP
REPT:PSUPH-TLT
REPT:PSUPH-TPPCL
REPT:PSUPH-TPPCL2
REPT:PSUPH-TPS
REPT:SM-HWLVL
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:TRBL-RPCU

Software Release: 5E11 and later
Message Class: TM
Application: AEWNC
Type: Output

1. FORMAT

```
REPT TRBL RPCU a
         RPCU ID
  --------------------
          b
        [ b ]
        [ . ]
        [ . ]
        [ . ]
```

2. REASON FOR OUTPUT

To report a change in alarm status for a radio port controller unit (RPCU).

3. VARIABLE FIELD DEFINITIONS

`a` = Type of change that occurred to the RPCU.
`CHANNELS OOS` = The specified RPCU(s) are in an alarm condition .
`CLEARED` = The alarm state for the specified RPCU(s) has been cleared.

`b` = Alarmed RPCU.

4. ACTION TO BE TAKEN

When a CHANNELS OOS message is printed, the associated failing digital subscriber lines (DSLs) should be diagnosed, repaired and restored. To identify the failing DSLs, either use Poke 904 on the MCC's 107 (Circuit Limit Page) with the RPCU listed in the REPT TRBL RPCU message or manually run OP:LIST,RPCU with the alarmed RPCU. This will print the port status of the DSLs assigned to that RPCU. For further information on the OOS states and appropriate recovery actions refer to APP:PORT-STATUS output message appendix.

5. ALARMS

The circuit limit alarm will be set if this is a "`CHANNELS OOS`" message.

6. REFERENCES

Input Message(s):

`OP:RPCU`

Output Message(s):

`APP:PORT-STATUS`
`OP:RPCU`

MCC Display Page(s):

107 (CIRCUIT LIMIT PAGE)

Other Manual(s):
230-701-100 *Air Extension^{SM} Reference Manual*
230-701-120 *Air Extension^{SM} User's Guide*

REPT:TRK-SUM

Software Release: 5E10 and later
Message Class: TRK
Application: 5
Type: Output

1. FORMAT

```
REPT TRK a b SUM
  c MEMBERS WERE SUCCESSFULLY d
  e MEMBERS FAILED TO BE f
  g MEMBERS FAILED BUSY
  h MEMBERS STATUS UNKNOWN
  [i B CHANNELS AFFECTED]
```

2. REASON FOR OUTPUT

To print a summary report for the RMV:TRK and RST:TRK input messages.

3. VARIABLE FIELD DEFINITIONS

`a` = Type of summary. Valid value(s):
- `RMV` = Summary of the trunks that were removed.
- `RST` = Summary of the trunks that were restored.

`b` = Type of trunk. Valid value(s):
- `DEN` = The trunks that were requested were specified by their digital equipment number.
- `NEN` = The trunks that were requested were specified by their networking equipment number.
- `PRIGRP` = The trunks that were requested were specified by their primary rate interface (PRI) group number.
- `TEN` = The trunks that were requested were specified by their trunk equipment number.
- `TG` = The trunks that were requested were specified by their trunk group.

`c` = The number of trunks that were successfully removed or restored.

`d` = Type of successful request. Valid value(s):
- `REMOVED` = The trunk members were successfully removed.
- `RESTORED` = The trunk members were successfully restored.

`e` = The number of trunks that were unsuccessfully removed or restored.

`f` = Type of unsuccessful request. Valid value(s):
- `REMOVED` = The trunk members were unsuccessfully removed.
- `RESTORED` = The trunk members were unsuccessfully restored.

`g` = The number of busy trunks that were unsuccessfully removed or restored. Because the member was busy, no action was taken.

`h` = The number of trunks whose status is unknown.

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`i` = The number of PRI B channels affected by the removal or restoration of a PRI group. If this report is for a PRI group removal, this number indicates the number of B channels that should have had the OOS MTCE DCHOOS port status applied to them. If this report is for a PRI group restoration, this number indicates the number of B channels that should of had the OOS MTCE DCHOOS port status deleted from them.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RMV:TRK
RST:TRK
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:TST-DLNHB

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT TST DLNHB SM=a, SUCCESS
```

2. REASON FOR OUTPUT

To respond to a manual direct link node (DLN) heartbeat test indicating that the test passed. In the case of a failure, the REPT:DLN message would be seen.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

4. ACTION TO BE TAKEN

None. This response indicates that the heartbeat test was successful.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
TST:DLNHB
```

Output Message(s):

```
REPT:DLN
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

REPT:TTFCOM-TDDSR

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT TTFCOM=a-b-c-d TRBL DSU DSC SERV REQ FAILURE [EVENT=]e
  f RECOVERY ACTION g
  h i j k l m n o p q r
  TTFCOM=a-b-c-d s t
    .
    .
    .
```

2. REASON FOR OUTPUT

To respond to a maintenance service request from a digital service unit (DSU) subtending circuit on the transmission test facility common (TTFCOM) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module(SM) number.

`b` = Global digital service unit number.

`c` = Service group number.

`d` = Digital service unit board number.

`e` = Event number.

`f` = Error type. Valid value(s):
`DSC CLOCK FAILURE` = There are problems with the distribution of the 4 Mhz clock or the 8 Khz sync to the DSU subtending circuit (DSC).
`DSC DETECTED TS PARITY ERROR` = The DSC detected a parity error on data received from the DSU common board.
`DSC FLT REPORTED, NONE FOUND` = A DSC fault was indicated on the DSU common board, but no bits are set in the DSC fault register.
`DSC INTERNAL FAILURE` = An internal failure was detected on the DSC.
`DSC TSSR FAILURE INDICATION` = There was a failure pertaining to the time slot select register (TSSR) on the DSC.
`NO DSC PARITY ERROR FOUND` = A DSC parity error was indicated on the DSU common board, but no bits are set in the DSC parity error register.

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

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h = DSU common board error source register (ESR).

i = DSU common board DSC fault register.

j = DSU common board DSC parity error register.

k = DSU common board parity register for DSU common board time slots 16-31.

l = DSU common board parity register for DSU common board time slots 0-15.

m = Software copy of the DSU common board ESR mask register. The mask register cannot be read.

n = Software copy of the DSU common board DSC fault mask register. The mask register cannot be read.

o = Software copy of the DSU common board DSC parity error mask register. The mask register cannot be read.

p = Fault register on the failing DSU subtending circuit.

q = Parity register for the data coming to the DSU subtending circuit on DSU time slots 16-31.

r = Parity register for the data coming to the DSU subtending circuit on DSU time slots 0-15.

s = Current decimal number of recent failures of this type recorded.

t = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None. The report is provided for long-term error analysis.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:TTFCOM
RST:TTFCOM
```

Output Message(s):

```
DGN:TTFCOM
RST:TTFCOM
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

REPT:TTFCOM-TIDPF

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT TTFCOM=a-b-c-d TRBL INTERNAL DATA PATH FAULT e
  f RECOVERY ACTION g
  h i j
```

2. REASON FOR OUTPUT

During routine maintenance it was determined that a Transmission Test Facility Common (TTFCOM) board has its data path internally looped.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Global Digital Service Unit (GDSU) number.

`c` = Service Group number.

`d` = Digital Service Unit (DSU) board number.

`e` = Event number.

`f` = Secondary error type. Valid value(s):

- Stuck at one data path fault.
- Stuck at zero data path fault.

`g` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is generated.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = External logical circuit name.

`i` = Current decimal number of recent failures of this type recorded.

`j` = Error count threshold above which the recovery action will be taken.

4. ACTIONS TO BE TAKEN

None. This message may indicate the presence of a hardware fault, so the user may wish to monitor for occurrences of other messages.

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5. ALARMS

NONE.

6. REFERENCES

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery Procedures*

REPT:TTFCOM-TPCF-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT TTFCOM=a-b-c-d TRBL PICB CONTROL FAILURE EVENT=e
  f  RECOVERY ACTION g
  h  i  j  k
  TTFCOM=a-b-c-d  l  m
    .
    .
    .
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the transmission test facility common (TTFCOM) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module(SM) number.

`b` = Global digital service unit number.

`c` = Service group number.

`d` = Digital service unit board number.

`e` = Event number.

`f` = Error type. Valid value(s):

```
PER DETECTED BAD ADDRESS
SOFTWARE BAD ADDRESS ERROR
```

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is provided.
`ASSERT TO SYSTEM INTEGRITY` = Software failure has been detected and system integrity has been notified.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery. Valid value(s):

```
RETRY FAILED
RETRY SUCCESSFUL
```

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`i` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`j` = Data being written to the periphery by the CI.

`k` = Contents of the CI error source register.

`l` = Current decimal number of recent failures of this type recorded.

`m` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:TTFCOM
RST:TTFCOM
```

Output Message(s):

```
DGN:TTFCOM
RST:TTFCOM
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

REPT:TTFCOM-TPCF-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT TTFCOM=a-b-c-d TRBL PICB CONTROL FAILURE EVENT=e
  f  RECOVERY ACTION g
  h  i  j  k
  TTFCOM=a-b-c-d  l  m  n
    .
    .
    .
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the transmission test facility common (TTFCOM) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module(SM) number.

`b` = Global digital service unit number.

`c` = Service group number.

`d` = Digital service unit board number.

`e` = Event number.

`f` = Error type. Valid value(s):

```
PER DETECTED BAD ADDRESS
SOFTWARE BAD ADDRESS ERROR
```

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is provided.
`ASSERT TO SYSTEM INTEGRITY` = Software failure has been detected and system integrity has been notified.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery. Valid value(s):

```
RETRY FAILED
RETRY SUCCESSFUL
```

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`i` = System PICB number in hexadecimal that was being written when the failure occurred.

`j` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`k` = Data being written to the periphery by the CI.

`l` = Contents of the CI error source register.

`m` = Current decimal number of recent failures of this type recorded.

`n` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:TTFCOM
RST:TTFCOM
```

Output Message(s):

```
DGN:TTFCOM
RST:TTFCOM
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

REPT:TTFCOM-TPPF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT TTFCOM=a-b-c-d TRBL PIDB PARITY FAILURE [EVENT=]e
  ERROR TYPE: PIDB PARITY TROUBLE f RECOVERY ACTION g
  h i j k
```

2. REASON FOR OUTPUT

To respond to a time-slot interchange (TSI) interrupt caused by peripheral interface data bus (PIDB) parity errors in the transmission test facility common (TTFCOM) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Global digital service unit number.

`c` = Service group number.

`d` = Digital service unit board number.

`e` = Event number.

`f` = Error type. Valid value(s):

`PIDB PARITY TROUBLE`

`g` = Recovery action.
`ANALYSIS ONLY` = A post mortem report is generated.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the result of the diagnostic.

`h` = Line unit channel number, in decimal.

`i` = Number of parity errors in the last report.

`j` = Total number of parity errors for each channel.

`k` = Error count threshold for each channel, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:TTFCOM
RST:TTFCOM
```

Output Message(s):

```
DGN:TTFCOM
RST:TTFCOM
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

REPT:TTFCOM-TTMTF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT TTFCOM=a-b-c-d TRBL TERMINAL MAINT TTF FAILURE [EVENT=]e
  f RECOVERY ACTION g
  TTFCOM=a-b-c-d h i
    .
    .
    .
   [j]  .  .  .
    .
    .
    .
```

2. REASON FOR OUTPUT

To indicate that terminal maintenance detected a failure on a transmission test facility (TTF) circuit and reported the error to peripheral fault recovery.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Global digital service unit number (0-7).

`c` = Service group number (0 or 1).

`d` = Digital service unit board number (0-7).

`e` = Event number.

`f` = Error type. Valid value(s):
`TTF COMMUNICATION FAILURE` = Terminal maintenance was notified of communication failure with the TTF hardware.
`TTF INVALID OPERATION` = Terminal maintenance sent a request to a TTF function and the reply had no meaning.
`TTF NOT OK RESPONSE` = Terminal maintenance received a reply from a TTF function indicating that the TTF firmware was not able to complete the request.
`TTF TIME OUT ERROR` = Terminal maintenance sent a request to a TTF function and no reply was received.
`TTF UNEXPECTED ERROR` = Terminal maintenance received an unexpected reply from a TTF junction.

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is provided.
`REPORT TO TERMINAL MAINT` = Terminal maintenance has been notified of the failure.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.

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`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.
`UN-CONDITIONAL RST PREEMPT` = The failing circuit was unconditionally removed and restored. No diagnostic was scheduled.

`h` = Decimal number of recent failures of this type recorded.

`i` = Error count threshold, above which the circuit will be conditionally restored.

`j` = Register dump, in hexadecimal.

4. ACTION TO BE TAKEN

Use the Corrective Maintenance Manual to determine what action should be taken with the faulty unit and with any receive-only printer (ROP) output.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:TTFCOM
RST:TTFCOM
```

Output Message(s):

```
DGN:TTFCOM
RST:TTFCOM
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

REPT:TTFCOM-TUSR

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT TTFCOM=a-b-c-d TRBL UNEXPECTED SERVICE REQUEST e
  f RECOVERY ACTION g
  h
  i    j    k
```

2. REASON FOR OUTPUT

To report an unexpected service request on the transmission test facility common (TTFCOM) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Global digit service unit (GDSU) number.

`c` = Service group number.

`d` = Digital service unit board number.

`e` = Event number.

`f` = Error type. Valid value(s): `DSU OPERATIONAL SERVICE REQ`

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`INITIALIZE` = The failing circuit has been reinitialized.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Source analysis data (optional).

`i` = External logical circuit name.

`j` = Current decimal number of recent failures of this type recorded.

`k` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

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None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:TTY

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT TTY a {ERROR b [c] [COMPLETED CODE d]|
        UNIDENTIFIED RESPONSE WD1=e WD2=f}

[2]   ____________________________________________________________________
      REPT TYY a STARTED

[3]   ____________________________________________________________________
      REPT TTY a STOPPED
```

2. REASON FOR OUTPUT

Format 1 reports a teletypewriter (TTY) related software or hardware error.

Format 2 reports that the TTY has changed state from STBY to ACT. A TTY will change to ACT state when data terminal ready (DTR) is on.

Format 3 reports that the TTY has changed state from ACT to STBY. A TTY will change to STBY state when DTR is off.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Identifies point within the input/output driver (IODRV) where a software or hardware error was detected in hexadecimal notation. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

`c` = Character string giving more information about the error identified in variable '`b`'. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual for additional explanation.

`d` = Hardware error type in hexadecimal notation. Refer to the APP:IOP-A appendix in the Appendixes section of the Output Messages manual.

`e` = First word of an unidentified completion report.

`f` = Second word of an unidentified completion report.

4. ACTION TO BE TAKEN

The error message in Format 1 indicates error conditions which could cause the removal of a unit. Any removed unit should be repaired and restored to service.

The messages in Formats 2 and 3 indicate that the TTY has changed states. An active TTY will change state to STBY if powered off and a standby TTY will change state to ACT when powered up. No action is necessary.

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5. ALARMS

Format 1 has an alarm level of INFO. Formats 2 and 3 have alarm levels of VAR. This is a variable alarm to be determined by the client process. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	208
2, 3	308

Input Message(s):

```
CLR:IODRV
DGN:TTYC
RMV:TTY
RST:TTY
```

Output Message(s):

```
DGN:TTYC
REPT:IOP
REPT:RCVRY-IOP
REPT:RCVRY-TTYC
REPT:TTYC
RMV:TTY
RST:TTY
```

Output Appendix(es):

```
APP:IOP-A
APP:IOP-F
APP:OMDB-X-REF
```

REPT:TTYC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      REPT TTYC a  {ERROR b [COMPLETED CODE c] |
        UNIDENTIFIED RESPONSE WD1=d WD2=e}

[2]   ____________________________________________________________
      REPT TTYC a CODE VERSION X'f

[3]   ____________________________________________________________
      REPT TTYC a FLASH RAM VERSION X'g
```

2. REASON FOR OUTPUT

Format 1 reports a teletypewriter controller (TTYC) related software or hardware error.

Format 2 is an informational message. It is output during the restoration of the unit.

Format 3 is an informational message. It is output prior to the update of flash random access memory (RAM) on the unit as requested by diagnostics.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Identifies point within the input/output driver (IODRV) where a software or hardware error was detected, in hexadecimal notation. Refer to the APP:IOP-F appendix in the Appendixes section of the Output Messages manual.

`c` = Hardware error type, in hexadecimal notation. Refer to the APP:IOP-A appendix in the Appendixes section of the Output Messages manual.

`d` = First word of an unidentifiable completion report.

`e` = Second word of an unidentifiable completion report.

`f` = Peripheral controller pump code version.

`g` = Peripheral controller flash RAM version.

4. ACTION TO BE TAKEN

These error messages indicate error conditions which could cause the removal of a unit. Any removed unit should be repaired and restored to service. No action is necessary for the messages in Formats 2 and 3 unless the controller and/or its subdevices are not acting normal, or could not be restored. Contact the service organization with the code version and/or flash RAM that were used.

5. ALARMS

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None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	208
2, 3	226

Input Message(s):

```
CLR:IODRV
DGN:TTYC
RMV:TTYC
RST:TTYC
```

Output Message(s):

```
DGN:TTYC
REPT:IOP
REPT:RCVRY-IOP
REPT:RCVRY-TTYC
RMV:TTYC
RST:TTYC
```

Output Appendix(es):

```
APP:IOP-A
APP:IOP-F
APP:OMDB-X-REF
```

REPT:TUCHBD-TPPF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT TUCHBD=a-b-c-d TRBL PIDB PARITY FAILURE e
  f RECOVERY ACTION g
  h i
  jjjjjjjj k
  0lmn   8lmn   16lmn   24lmn
  1lmn   9lmn   17lmn   25lmn
  2lmn  10lmn   18lmn   26lmn
  3lmn  11lmn   19lmn   27lmn
  4lmn  12lmn   20lmn   28lmn
  5lmn  13lmn   21lmn   29lmn
  6lmn  14lmn   22lmn   30lmn
  7lmn  15lmn   23lmn   31lmn
```

2. REASON FOR OUTPUT

To respond to a time-slot interchange (TSI) interrupt caused by peripheral interface data bus (PIDB) parity errors in the trunk circuits on the trunk board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module(SM) number.

`b` = Trunk unit number.

`c` = Switch group number.

`d` = Channel board number.

`e` = Event number.

`f` = Error type, which indicates PIDB trouble.

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the result of the diagnostic.

`h` = Common board error count.

`i` = Common board threshold, above which the recovery action will be escalated.

`j` = Channel board error count. Left most '`j`' refers to board 0.

`k` = Channel board threshold, above which the recovery action will be escalated.

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`l` = Number of parity errors in frame.

`m` = Channel error count.

`n` = Channel threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:TUCHBD
RMV:TUCHBD
RST:TUCHBD
```

REPT:TUCHBD-TSF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT TUCHBD=a-b-c-d TRBL SP FAILURE e
  RECOVERY ACTION g
  h i
  j k l
```

2. REASON FOR OUTPUT

To respond to a signal processor (SP) interrupt caused by the SP first-in first-out (FIFO) overflowing due to showering trunk circuits on the trunk unit channel board (TUCHBD).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Trunk unit number.

`c` = Service group number.

`d` = Trunk board number.

`e` = Event number.

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Internal timeslot number.

`i` = Number of entries in the SP FIFO for this circuit.

`j` = External logical circuit name.

`k` = Current decimal number of recent failures of this type recorded.

`l` = Error count threshold, above which the recovery action will be escalated.
Note: Up to three logical circuit names, error counts, and error thresholds (variables '`j`' and '`k`') may be printed.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
RMV:TUCHBD
RST:TUCHBD
```

REPT:TUCHBD-TUSR

Software Release: 5E10 and later
Message Class: HW_MON,PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT TUCHBD=a-b-c-d TRBL UNEXPECTED SERVICE REQUEST e
  f RECOVERY ACTION g
  h
  i    j    k
```

2. REASON FOR OUTPUT

To report an unexpected service request on the trunk unit channel board (TUCHBD).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Trunk unit number.

`c` = Service group number.

`d` = Channel board number.

`e` = Event number.

`f` = Error type. Valid value(s):

```
DFI OPERATIONAL SERVICE REQ
DSU OPERATIONAL SERVICE REQ
LU OPERATIONAL SERVICE REQ
MSU OPERATIONAL SERVICE REQ
TU OPERATIONAL SERVICE REQ
```

`g` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is generated.

`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.

`INITIALIZE` = The failing circuit has been reinitialized.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.

`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`REPT TO TERMINAL MAINT` = Terminal maintenance has been notified of the failure.

`h` = Source analysis data (optional).

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`i` = External logical circuit name.

`j` = Current decimal number of recent failures of this type recorded.

`k` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

93. REPT:U

REPT:UCONF-TDDSR

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT UCONF=a-b-c-d TRBL DSU DSC SERV REQ FAILURE e
  f RECOVERY ACTION g
  h i j k l m n o p q r
  s t u
```

2. REASON FOR OUTPUT

To respond to a maintenance service request from a digital service unit (DSU) subtending circuit on the universal conference (UCONF) circuit board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Global digital service unit number.

`c` = Service group number.

`d` = DSU board number.

`e` = Event number.

`f` = Error type. Valid value(s):
`DSC CLOCK FAILURE` = There are problems with the distribution of the 4 MHz clock or the 8 KHz sync to the DSU subtending circuit (DSC).
`DSC DETECTED TS PARITY ERROR` = The DSC detected a parity error on data received from the DSU common board.
`DSC FLT REPORTED, NONE FOUND` = A DSC fault is indicated on the DSU common board, but no bits are set in the DSC fault register.
`DSC INTERNAL FAILURE` = An internal failure is detected on the DSC.
`DSC TSSR FAILURE INDICATION` = There is a failure pertaining to the time slot select register (TSSR) on the DSC.
`NO DSC PARITY ERROR FOUND` = A DSC parity error is indicated on the DSU common board, but no bits are set in the DSC parity error register.

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = Software failure has been detected and system integrity has been notified.
`INITIALIZE` = The failing circuit has been reinitialized.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.

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`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = DSU common board error source register (ESR).

`i` = DSU common board DSC fault register.

`j` = DSU common board DSC parity error register.

`k` = DSU common board parity register for DSU common board time slots.

`l` = DSU common board parity register for DSU common board time slots.

`m` = Software copy of the DSU common board ESR mask register. The mask register cannot be read.

`n` = Software copy of the DSU common board DSC fault mask register. The mask register cannot be read.

`o` = Software copy of the DSU common board DSC parity error mask register. The mask register cannot be read.

`p` = Fault register on the failing DSU subtending circuit.

`q` = Parity register for the data coming to the DSU subtending circuit on DSU time slots 16-31.

`r` = Parity register for the data coming to the DSU subtending circuit on DSU time slots 0-15.

`s` = External logical circuit name.
Note: Up to two logical circuit names, error counts, and error thresholds (variables '`s`'-'`u`') may be printed.

`t` = Current decimal number of recent failures of this type recorded.

`u` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:UCONF-TPCF-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT UCONF=a-b-c-d TRBL PICB CONTROL FAILURE EVENT=e
  f  RECOVERY ACTION g
  h  i  j  k
  l  m  n
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the universal conference (UCONF) circuit board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Global digital service unit number.

`c` = Service group number.

`d` = Digital service unit board number.

`e` = Event number.

`f` = Error type. Valid value(s):

```
PER DETECTED BAD ADDRESS
SOFTWARE BAD ADDRESS ERROR
```

`g` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is provided.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`i` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`j` = Data being written to the periphery by the CI.

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`k` = Contents of the CI error source register.

Note: Up to two logical circuit names, error counts, and error thresholds (variables '`l`'-'`n`') may be printed.

`l` = External logical circuit name.

`m` = Current decimal number of recent failures of this type recorded.

`n` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:UCONF-TPCF-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT UCONF=a-b-c-d TRBL PICB CONTROL FAILURE EVENT=e
  f  RECOVERY ACTION g
  h  i  j  k
  l  m  n  o
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the universal conference (UCONF) circuit board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Global digital service unit number.

`c` = Service group number.

`d` = Digital service unit board number.

`e` = Event number.

`f` = Error type. Valid value(s):

```
PER DETECTED BAD ADDRESS
SOFTWARE BAD ADDRESS ERROR
```

`g` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is provided.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`i` = System PICB number in hexadecimal that was being written when the failure occurred.

`j` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

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k = Data being written to the periphery by the CI.

l = Contents of the CI error source register.

Note: Up to two logical circuit names, error counts, and error thresholds (variables 'm'-'o') may be printed.

m = External logical circuit name.

n = Current decimal number of recent failures of this type recorded.

o = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:UCONF-TUSR

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT UCONF=a-b-c-d TRBL UNEXPECTED SERVICE REQUEST e
  DSU OPERATIONAL SERVICE REQ RECOVERY ACTION f
  g
  h    i    j
```

2. REASON FOR OUTPUT

To report an unexpected service request on the universal conference (UCONF) circuit board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Global digital service unit (GDSU) number.

`c` = Service group number.

`d` = Digital service unit (DSU) board number.

`e` = Event number.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = Source analysis data (optional).

`h` = External logical circuit name.

`i` = Current decimal number of recent failures of this type recorded.

`j` = Error count threshold, at which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Input/Output Messages:

None.

REPT:UDPC

Software Release: 5E10 and later
Message Class: SWM01
Application: 5,CNI
Type: Output

1. FORMAT

```
REPT:UDPC
  MESSAGE FROM OPC a CONTAINS UNKNOWN DPC b
```

2. REASON FOR OUTPUT

This output will be printed when a common channel signaling 7 (CCS7) message is received and is to be routed (that is, transferred) to an unknown destination point code (UDPC). Note that a minor alarm is associated with this message.

The output will occur only at a number 2 signaling transfer point (2STP) when that 2STP does not have routing data to the destination point code of the received message. The message can be any CCS7 signaling message for which there is no message transfer point (MTP) routing data. The output will be directed to the standard output and the maintenance output class. If they are the same device, only one printout will occur.

3. VARIABLE FIELD DEFINITIONS

`a` = The origination point code (OPC) of the message.

`b` = The destination point code (DPC) of the message.

4. ACTION TO BE TAKEN

None.

5. ALARMS

Minor.

6. REFERENCES

Input Message(s):

```
EXC:MRVT-PC
```

Output Message(s):

```
EXC:MRVT-PC-STPS
```

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REPT:ULARP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

[1]
```
REPT ULARP ECD ACCESS FAILED
```

[2]
```
REPT ULARP OPEN SEQUENCE FAILED
```

[3]
```
REPT ULARP FORK FAILED TEN TIMES a
```

[4]
```
REPT ULARP FORK FAILED THEN SUCCEEDED a
```

[5]
```
REPT ULARP CHILD TERMINATED EXECFAIL a b
```

[6]
```
REPT ULARP CHILD TERMINATED UFATAL a b
```

[7]
```
REPT ULARP TOO MANY ARGUMENTS a
```

[8]
```
REPT ULARP NO CHILD PROCESSES EXIST
```

[9]
```
REPT ULARP RUN COMMAND FAILED a
```

[10]
```
REPT ULARP PROCESS RESTARTED TOO MANY TIMES a b
```

[11]
```
REPT ULARP ATTEMPTING TO RESTART a b
```

[12]
```
REPT ULARP ATTEMPTING CRAFT INIT
```

[13]
```
REPT ULARP ATTEMPTING TO RE-EXECUTE
```

[14]
```
REPT ULARP CRAFT INIT COMPLETED
```

[15]
```
REPT ULARP UPDATE FAILED a
```

[16]
```
REPT ULARP ADOPT FAILED a b
```

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```
[17]  ____________________________________________________________
      REPT ULARP CHILD TERMINATED STATFAIL a b

[18]  ____________________________________________________________
      REPT ULARP CHILD FOUND DEAD WITHOUT ACCOMPANYING SIGNAL a b

[19]  ____________________________________________________________
      REPT ULARP CHILD EXEC ABORTED DUE TO DIOP a
```

2. REASON FOR OUTPUT

To report error information or actions as the result of ULARP child process or run message execution.

3. VARIABLE FIELD DEFINITIONS

`a` = Record name.

`b` = Terminated process ID.

4. ACTION TO BE TAKEN

If Formats 4, 11-14 are printed, no action is required.

If Formats 1-2, 15 are printed, data base access problems are indicated. Contact your technical assistance organization.

If Format 9 is printed, use the OP:LOG input message to read the logfile ULARP and find the error report with the same record ID number. Using the record name from the OP:LOG output message, get the equipment configuration data base (ECD) record with recent change and verify (RC/V). First make sure the record contains correct information. Then check that a file exists with the pathname that is in the record, and that is executable. If the file does not exist, copy in a correct version.

If a large number of PRMs with this step number and function code are printed, then the *UNIX*® shell may not be working. Check for the existence of the file /bin/sh. If it exists, it should have 755 permissions. If the file does not exist, copy in a correct version. If the reason for the message failure is not apparent, contact you technical assistance center.

Once the cause of the problem has been solved, enter the INIT:ULARP input message. This will cause ULARP to re-execute the run message(s) that failed.

If Format 3 is printed, enter an INIT:ULARP input message. If the error is repeated, contact your technical assistance center.

If Formats 5 or 16 or 17 are printed, use the OP:LOG input message to read the logfile ULARP and find the error report with the same utility ID number. Using the record name from the OP:LOG output message, get the ECD record with RC/V. First make sure the record contains correct information. Then check that a file exists with the pathname that is in the record, and that is executable. If the file does not exist, copy in a correct version. Once the cause of the problem has been solved, enter the INIT:ULARP input message. This will cause ULARP to re-execute the process(es) that failed.

If Formats 6 or 10 are printed, use the OP:LOG input message to read the logfile ULARPLOG and find the error report with the same utility id. Using the record name from the OP:LOG output message, get the ECD record with RC/V. Make sure the record contains correct information, because there could be something wrong with the parameters passed to the process. If the reason for the process failure is not apparent, contact you technical assistance center. After the problem has been resolved, enter the INIT:ULARP input message to re-execute the

process.

If Format 7 is printed, use the OP:LOG input message to read the logfile ULARPLOG and find the error report with the same record id number. Using the record name from the OP:LOG output message, get the ECD record with RC/V. First make sure that the record contains the correct information. Then check that a file exists with the pathname that is in the record, and that it is executable. If the file does not exist, copy in a correct version. After the information in the data base record has been corrected, the process may be started by entering the INIT:ULARP input message.

If Format 8 is printed, use RC/V. to examine the ULARP records in the full configuration ECD. For each ULARP child process, check that a file exists, and that it is executable. After replacing the erroneous files or repairing the ECD records, reboot in full configuration. If that procedure is not successful, bootstrap on backup root, and follow normal procedures for restoring the primary root file system.

If Format 18 is printed, no action is required. Ularp has discovered a child that has died but it failed to receive the death of child signal. Ularp is now restarting the process.

If Format 19 is printed, no action is required. A child of ULARP died while the system was in disk-independent operation and no execution was attempted for the child.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DEL:LOG
OP:LOG
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

REPT:UNIX-INIT

Software Release: 5E10 and later
Message Class: MAINT,VAR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      REPT UNIX INIT ERRNO a CHANID b [c]

[2]   ____________________________________________________________________
      REPT UNIX INIT CANNOT MOUNT d ERRNO f

[3]   ____________________________________________________________________
      REPT UNIX INIT CANNOT MOUNT d READ ONLY
        MOUNTING e ERRNO f
```

2. REASON FOR OUTPUT

To report a *UNIX*® initialization process-related error.

Format 1 indicates the process is failing to bring up a terminal. The device name will not be present if the process is failing before it has learned the name from the equipment configuration database (ECD).

Format 2 indicates the process is failing to mount a file system.

Format 3 indicates the process is failing to mount a file system in a read-only mode, and is now attempting to mount the primary/backup file system.

3. VARIABLE FIELD DEFINITIONS

`a` = Errors associated with the *UNIX*® initialization process. Valid value(s):

- `0x11` = INIT could not add the ECD segments to its address space.
- `0x12` = INIT could not attach to the ECD.
- `0x13` = INIT could not read the ECD org record.
- `0x21` = INIT could not read the unit control block (UCB) record for the maintenance teletypewriter (MTTY).
- `0x22` = INIT could not read the ciopt record for the emergency action interface (EAI).
- `0x23` = INIT could not read the eaopt record for the EAI.
- `0x31` = INIT could not set up a cursor to step through the records in the ECD.
- `0x32` = INIT could not get a database record.
- `0x33` = INIT was passed a bad channel ID.
- `0x41` = INIT could not read the mdct record for the device.
- `0x42` = INIT could not read the getty record for the device.
- `0x43` = INIT could not read the UCB record for the device.
- `0x44` = INIT could not read the ciopt record for the device.
- `0x45` = INIT could not read the ttopt record for the device.
- `0x46` = The device type in the mdct record for the device is bad.
- `0x47` = The transmission speed in the ttopt record for the device is bad.
- `0x51` = INIT could not start ULARP.
- `0x52` = INIT could not start the appropriate getty.
- `0x53` = INIT could not open the device file.

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`b` = The channel ID sent to the INIT process.

`c` = The name of the device. INIT will print this only if it has found a logdev record for the channel ID.

`d` = The name of the file system.

`e` = The name of the primary/backup file system.

`f` = System error number. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

For Format 1, if error code 0x11, 0x12, 0x31, or 0x32 is printed, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. If error code 0x13, 0x21, 0x22-0x33, or 0x41-0x47 is printed, check the appropriate record(s) in the ECD. If error code 0x51 or 0x52 is printed, check the appropriate process to make sure that it exists and is executable. If error code 0x53 is printed, create the appropriate device file.

For Format 2, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

Critical alarm. Take immediate action as indicated in the report. If needed, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	245
2, 3	596

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

REPT:UNIXCMD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
REPT UNIXCMD a {PART b|COMPLETED}
 [c]
  .
  .
  .
```

2. REASON FOR OUTPUT

To print any output generated by a UNIXCMD line executed during the APPLY, SOAK, BKOUT or OFC section of a BWM MSGS file (from MCC display page 1;960).

3. VARIABLE FIELD DEFINITIONS

`COMPLETED` = This is the final part of the output.

`a` = The *UNIX*® input message that was executed.

`b` = The part number of a multi-part output.

`c` = Output of the *UNIX*® input message.

4. ACTION TO BE TAKEN

If line on Master Control Center (MCC) display page 1960 that contains the UNIXCMD does NOT turn red (reverse video on black and white terminals) the input message was executed without error, and no action is required. If the line on MCC display page 1960 that contains the UNIXCMD DOES turn red (reverse video on black and white terminals) the input message was executed with error(s). The text of the output should indicate the likely cause and corrective action. If unable to resolve, contact your next higher level of technical support.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1960 (INSTALL BWM)

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REPT:UT-CMP

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
REPT UT CMP=a-b {MATE|PRIM} c
```

2. REASON FOR OUTPUT

To report events and error conditions in the communication module processor (CMP) that are not associated with a specific input message.

3. VARIABLE FIELD DEFINITIONS

`MATE`	= Message was executed in the standby CMP.
`PRIM`	= Message was executed in the active CMP.
`a`	= Message switch side.
`b`	= CMP number.
`c`	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

`APP:UT-OM-REASON`

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:UT-CMPMSG

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
REPT UT CMPMSG=a-b c
```

2. REASON FOR OUTPUT

To report events and error conditions in the communication module processor message handler (CMPMSG) that are not associated with a specific input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch side.

`b` = CMPMSG number.

`c` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the input message and repeat.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

`APP:UT-OM-REASON`

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

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REPT:UT-DNUS

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
REPT UT DNUS=a-b c
```

2. REASON FOR OUTPUT

To report events and error conditions in the digital networking unit - SONET (DNU-S) that may or may not be associated with a specific input message. This message can be triggered by any of several input messages or combinations thereof.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-[unit]
EXC:UT-[unit]
LOAD:UT-[unit]
Output Appendix(es):
```

Output Appendix(es):

```
APP:UT-OM-REASON
APP:UT-OM-REASON
Other Manual(s):
Other Manual(s):
```

Other Manual(s):

```
System Maintenance Requirements and Tools
System Maintenance Requirements and Tools
```

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235-105-110 *System Maintenance Requirements and Tools*

REPT:UT-FPC

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
REPT UT FPC=a b
```

2. REASON FOR OUTPUT

To report events and error conditions in the foundation peripheral controller (FPC) that are not associated with a specific input message.

3. VARIABLE FIELD DEFINITIONS

`a` = FPC unit number.

`b` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the input message and repeat.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:UT-IDCU

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
REPT UT IDCU a b c
```

2. REASON FOR OUTPUT

To report events and error conditions in the integrated digital carrier unit (IDCU) that are not associated with a specific input message. This message can be triggered by any of several input messages or combinations thereof.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = Termination report Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the input message and repeat.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:UT-IDCULSI

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
REPT UT IDCULSI a b c d
```

2. REASON FOR OUTPUT

To report events and error conditions in the integrated digital carrier unit (IDCU) loop side interface (LSI) that are not associated with a specific input message. This message can be triggered by any of several input messages or combinations thereof.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = LSI number.

`d` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the input message and repeat.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

`APP:UT-OM-REASON`

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:UT-ISLUCC

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
REPT UT ISLUCC a b c
```

2. REASON FOR OUTPUT

To report events and error conditions in the integrated services line unit common controller (ISLUCC) that are not associated with a specific input message.

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number.
b	= Line unit number.
c	= Termination report Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

APP:UT-OM-REASON

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

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REPT:UT-MCTSI-MH

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
REPT UT MCTSI=a MH(b) c
```

2. REASON FOR OUTPUT

To report events and error conditions in the message handler (MH) unit that are not associated with a specific input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = The MH unit number.

`c` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages Manual.

4. ACTIONS TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

`APP:UT-OM-REASON`

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

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REPT:UT-MCTSI-PI

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
REPT UT MCTSI a b c PI
```

2. REASON FOR OUTPUT

To report events and error conditions in the peripheral interface (PI) unit that are not associated with a specific input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Side of the module controller/time-slot interchange (MCTSI).

`c` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

`APP:UT-OM-REASON`

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

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REPT:UT-MMP

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
REPT UT MMP=a-b c
```

2. REASON FOR OUTPUT

To report events and error conditions in the module message processor (MMP) that are not associated with a specific input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch side.

`b` = MMP unit number.

`c` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the input message and repeat.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:UT-PPC

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
REPT UT PPC=a b
```

2. REASON FOR OUTPUT

To report events and error conditions in the pump peripheral controller (PPC) that are not associated with a specific input message.

3. VARIABLE FIELD DEFINITIONS

`a` = PPC unit number.

`b` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the input message and repeat.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

`APP:UT-OM-REASON`

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:UT-PSUPH

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
REPT UT PSUPH=a-b-c-d e
```

2. REASON FOR OUTPUT

To report events and error conditions in the packet switch unit protocol handler (PSUPH) that are not associated with a specific input message.

3. VARIABLE FIELD DEFINITIONS

a	= Switching module (SM) number
b	= Unit number.
c	= Shelf number.
d	= Slot number.
e	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

APP:UT-OM-REASON

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-600-400 *Audits*

REPT:UT-QGP

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
REPT UT QGP=a-b {AP|MSGH} c
```

2. REASON FOR OUTPUT

To report events and error conditions in the quad-link gateway processor (QGP).

3. VARIABLE FIELD DEFINITIONS

AP	= Message was executed in the QGP's application processor.
MSGH	= Message was executed in the QGP's message handler processor.
a	= Message switch (MSGS) side number.
b	= QGP unit number.
c	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

REPT:UT-QGP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

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REPT:UT-SM

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
REPT UT SM a b
```

2. REASON FOR OUTPUT

To report events and error conditions in the switching module (SM) that are not associated with a specific input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

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REPT:UT-TMUX

Software Release: 5E10 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
REPT UT TMUX=a-b-c-d e
```

2. REASON FOR OUTPUT

To report events and error conditions in the digital networking unit - SONET (DNU-S) transmission multiplexer (TMUX) that may or may not be associated with a specific input message. This message can be triggered by any of several input messages or combinations thereof.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = TMUX number.

`e` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If appropriate, correct the input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

Output Appendix(es):

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

REPT:UTD-TDDSRF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT UTD=a-b-c-d TRBL DSU DSC SERV REQ FAILURE e
  f RECOVERY ACTION g
  h i j k l m n o p q r
  s t u
```

2. REASON FOR OUTPUT

To respond to a maintenance service request from a digital service unit (DSU) subtending circuit on the universal tone decoder (UTD) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local digital service unit (DSU) number.

`c` = Service group number.

`d` = DSU board position number.

`e` = Event number.

`f` = Error type. Valid value(s):
`DSC CLOCK FAILURE` = There are problems with the distribution of the 4MHz clock or the 8 KHz sync to the DSU subtending circuit (DSC).
`DSC DETECTED TS PARITY ERROR` = The DSC detected a parity error on data received from the DSU common board.
`DSC FLT REPORTED, NONE FOUND` = A DSC fault is indicated on the DSU common board, but no bits are set in the DSC fault register.
`DSC INTERNAL FAILURE` = An internal failure is detected on the DSC.
`DSC TSSR FAILURE INDICATION` = There is a failure pertaining to the time slot select register (TSSR) on the DSC.
`NO DSC PARITY ERROR FOUND` = A DSC parity error is indicated on the DSU common board, but no bits are set in the DSC parity error register.

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = Software failure has been detected and system integrity has been notified.
`INITIALIZE` = The failing circuit has been reinitialized.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.

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`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = DSU common board error source register (ESR).

`i` = DSU common board DSC fault register.

`j` = DSU common board DSC parity error register.

`k` = DSU common board parity register for DSU common board time slots 16-31.

`l` = DSU common board parity register for DSU common board time slots 0-15.

`m` = Software copy of the DSU common board ESR mask register. The mask register cannot be read.

`n` = Software copy of the DSU common board DSC fault mask register. The mask register cannot be read.

`o` = Software copy of the DSU common board DSC parity error mask register. The mask register cannot be read.

`p` = Fault register on the failing DSU subtending circuit.

`q` = Parity register for the data coming to the DSU subtending circuit on DSU time slots 16-31.

`r` = Parity register for the data coming to the DSU subtending circuit on DSU time slots 0-15.
Note: Up to two logical circuit names, error counts, and error thresholds (variables '`s`'-'`u`') may be printed.

`s` = External logical circuit name.

`t` = Current decimal number of recent failures of this type recorded.

`u` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

The report is provided for long-term error analysis.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:UTD-TPCF-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT UTD=a-b-c-d TRBL PICB CONTROL FAILURE EVENT=e
  f  RECOVERY ACTION g
  h  i  j  k
  l  m  n
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the universal tone decoder (UTD) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local digital service unit (DSU) number.

`c` = Service group number.

`d` = DSU board position number (applies only to systems with a switching module).

`e` = Event number.

`f` = Error type. Valid value(s):

```
PER DETECTED BAD ADDRESS
SOFTWARE BAD ADDRESS ERROR
```

`g` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is provided.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`i` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`j` = Data being written to the periphery by the CI.

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`k` = Contents of the CI error source register.

Note: Up to three logical circuit names, error counts, and error thresholds (variable '`l`'-'`m`') may be printed.

`l` = External logical circuit name.

`m` = Current decimal number of recent failures of this type recorded.

`n` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:UTD-TPCF-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT UTD=a-b-c-d TRBL PICB CONTROL FAILURE EVENT=e
  f  RECOVERY ACTION g
  h  i  j  k
  l  m  n  o
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the universal tone decoder (UTD) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`c` = Service group number.

`d` = DSU board position number (applies only to systems with a switching module).

`e` = Event number.

`f` = Error type. Valid value(s):

```
PER DETECTED BAD ADDRESS
SOFTWARE BAD ADDRESS ERROR
```

`g` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is provided.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`i` = System PICB number in hexadecimal that was being written when the failure occurred.

`j` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`k` = Data being written to the periphery by the CI.

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`l` = Contents of the CI error source register.

Note: Up to three logical circuit names, error counts, and error thresholds (variable '`m`'-'`o`') may be printed.

`m` = External logical circuit name.

`n` = Current decimal number of recent failures of this type recorded.

`o` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:UTD-TUSR

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT UTD=a-b-c-d TRBL UNEXPECTED SERVICE REQUEST e
  DSU OPERATIONAL SERVICE REQ RECOVERY ACTION f
  [g]
  h    i    j
```

2. REASON FOR OUTPUT

To report an unexpected service request on the universal tone decoder (UTD) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local digital service unit (DSU) number.

`c` = Service group number.

`d` = DSU board position number.

`e` = Event number.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is provided.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = Source analysis data.

`h` = External logical circuit name.

`i` = Current decimal number of recent failures of this type recorded.

`j` = Error count threshold, at which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Input/Output Messages:

None.

REPT:UTG-TDDSRF

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT UTG=a-b-c-d TRBL DSU DSC SERV REQ FAILURE e
  f RECOVERY ACTION g
  h i j k l m n o p q r
  s t u
```

2. REASON FOR OUTPUT

To respond to a maintenance service request from a digital service unit (DSU) subtending circuit on the universal tone generator (UTG) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local digital service unit (DSU) number.

`c` = Service group number.

`d` = DSU board position number.

`e` = Event number.

`f` = Error type. Valid value(s):
`DSC CLOCK FAILURE` = There are problems with the distribution of the 4 MHz clock or the 8 KHz sync to the DSU subtending circuit (DSC).
`DSC DETECTED TS PARITY ERROR` = The DSC detected a parity error on data received from the DSU common board.
`DSC FLT REPORTED, NONE FOUND` = A DSC fault is indicated on the DSU common board, but no bits are set in the DSC fault register.
`DSC INTERNAL FAILURE` = An internal failure is detected on the DSC.
`DSC TSSR FAILURE INDICATION` = There is a failure pertaining to the time slot select register (TSSR) on the DSC.
`NO DSC PARITY ERROR FOUND` = A DSC parity error is indicated on the DSU common board, but no bits are set in the DSC parity error register.

`g` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = Software failure has been detected and system integrity has been notified.
`INITIALIZE` = The failing circuit has been reinitialized.
`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.

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`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = DSU common board error source register (ESR).

`i` = DSU common board DSC fault register.

`j` = DSU common board DSC parity error register.

`k` = DSU common board parity register for DSU common board time slots 16-31.

`l` = DSU common board parity register for DSU common board time slots 0-15.

`m` = Software copy of the DSU common board ESR mask register. The mask register cannot be read.

`n` = Software copy of the DSU common board DSC fault mask register. The mask register cannot be read.

`o` = Software copy of the DSU common board DSC parity error mask register. The mask register cannot be read.

`p` = Fault register on the failing DSU subtending circuit.

`q` = Parity register for the data coming to the DSU subtending circuit on DSU time slots 16-31.

`r` = Parity register for the data coming to the DSU subtending circuit on DSU time slots 0-15.
Note: Up to two logical circuit names, error counts, and error thresholds (variables '`s`'-'`u`') may be printed.

`s` = External logical circuit name.

`t` = Current decimal number of recent failures of this type recorded.

`u` = Error count threshold, above which the recovery action will be escalated.

4. ACTION TO BE TAKEN

The report is provided for long-term error analysis.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:UTG-TPCF-A

Software Release: 5E10 only
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT UTG=a-b-c-d TRBL PICB CONTROL FAILURE EVENT=e
  f  RECOVERY ACTION  g
  h  i  j  k  l  m  n
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the universal tone generator (UTG) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local digital service unit (DSU) number.

`c` = Service group number.

`d` = DSU board position number.

`e` = Event number.

`f` = Error type. Valid value(s):

```
PER DETECTED BAD ADDRESS
SOFTWARE BAD ADDRESS ERROR
```

`g` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is provided.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`i` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`j` = Data being written to the periphery by the CI.

`k` = Contents of the CI error source register.

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Note: Up to two logical circuit names, error counts, and error thresholds (variables '`l`'-'`n`') may be printed.

`l` = External logical circuit name.

`m` = Current decimal number of recent failures of this type recorded.

`n` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:UTG-TPCF-B

Software Release: 5E11 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT UTG=a-b-c-d TRBL PICB CONTROL FAILURE EVENT=e
  f  RECOVERY ACTION  g
  h  i  j  k  l  m  n  o
```

2. REASON FOR OUTPUT

To respond to a peripheral interface control bus (PICB) control failure interrupt on the universal tone generator (UTG) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local digital service unit (DSU) number.

`c` = Service group number.

`d` = DSU board position number.

`e` = Event number.

`f` = Error type. Valid value(s):

```
PER DETECTED BAD ADDRESS
SOFTWARE BAD ADDRESS ERROR
```

`g` = Recovery action. Valid value(s):

`ANALYSIS ONLY` = A post mortem report is provided.

`RMV` = The failing circuit will be removed from service. Intervention is required to change the state of the circuit. A message from the maintenance request administrator (MRA) will be printed after the circuit is removed.

`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.

`RST PREEMPT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`h` = Indication of whether the fault was transient or hard, as determined by the module controller fault recovery.

`i` = System PICB number in hexadecimal that was being written when the failure occurred.

`j` = Read/write (uppermost) bit and address in hexadecimal to which the control interface (CI) was writing when the failure occurred.

`k` = Data being written to the periphery by the CI.

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`l` = Contents of the CI error source register.

Note: Up to two logical circuit names, error counts, and error thresholds (variables '`m`'-'`o`') may be printed.

`m` = External logical circuit name.

`n` = Current decimal number of recent failures of this type recorded.

`o` = Error count threshold, a fix value above which the intensity of the fault recovery action will increase.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input/Output Messages:

None.

REPT:UTG-TUSR

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
REPT UTG=a-b-c-d TRBL UNEXPECTED SERVICE REQUEST e
  DSU OPERATIONAL SERVICE REQ RECOVERY ACTION f
  g
  h    i    j
```

2. REASON FOR OUTPUT

To report an unexpected service request on the universal tone generator (UTG) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local digital service unit (DSU) number.

`c` = Service group number.

`d` = DSU board position number.

`e` = Event number.

`f` = Recovery action. Valid value(s):
`ANALYSIS ONLY` = A post mortem report is generated.
`ASSERT TO SYSTEM INTEGRITY` = A software failure has been detected and system integrity has been notified.
`RST AUTO CAMPON` = The failing circuit will be diagnosed when it is available. A message will be printed with the results of the diagnostic.
`RST PREEMT` = The failing circuit was preempted and a diagnostic was scheduled. A message will be printed with the results of the diagnostic.

`g` = Source analysis data (optional).

`h` = External logical circuit name.

`i` = Current decimal number of recent failures of this type recorded.

`j` = Error count threshold, at which the recovery action will be escalated.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Input/Output Messages:

None.

94. REPT:X

REPT:X25-LINK

Software Release: 5E10 and later
Message Class: PM
Application: 5
Type: Output

1. FORMAT

```
REPT X.25 LINK TO EXTERNAL OTR ANALYSIS SYSTEM IS {a}
```

2. REASON FOR OUTPUT

Reports the status of the X.25 software link (connects an external operator trouble report (OTR) analysis system to the Operator Services Position System (OSPS) administrative processor (OAP) as either "UP" or "DOWN".

The "DOWN" report is generated automatically when an attempt to use the link fails or the link is brought down. The "UP" report occurs automatically once the link is started or on restoration of the line.

3. VARIABLE FIELD DEFINITIONS

`a` = Status. Valid value(s):

```
DOWN
UP
```

4. ACTION TO BE TAKEN

Report the status to the next higher level of supervision.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

95. RLS

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RLS:TESTSET

Software Release: 5E11 and later
Message Class: LINE
Application: AEWNC
Type: Output

1. FORMAT

```
RLS TESTSET TSDN=a {UCL} b
```

2. REASON FOR OUTPUT

To report the result of the RLS:TESTSET input message.

3. VARIABLE FIELD DEFINITIONS

`a` = 10 digit DN of the test set to be de-assigned.

`b` = Status. Valid value(s):
`COMPLETED` = The test set is de-assigned successfully.
`DATA BASE ERROR` = Database occurred.
`SYSTEM ERROR` = System error occurred.
`SM UNAVAILABLE` = SM is not available.
`INPUT ERROR` = The test set DN is not 10 digits.
`PROCESS TIMEOUT` = Process time out.
`UNKNOWN TSDN` = The test set DN is not valid.
`TSDN NOT ASSIGNED` = The test set DN is not in use.
`PORT BUSY` = The analog port associated with the test set DN is busy.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RLS:TESTSET
```

Other Manual(s):
230-701-100 *Air Extension^{SM} Reference Guide*
230-701-120 *Air Extension^{SM} User Guide*

RLS:TM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RLS TM a COMPL
```

2. REASON FOR OUTPUT

To specify a trunk or line that is disconnected from a monitor or a talk and monitor connection.

3. VARIABLE FIELD DEFINITIONS

a	= Trunk or line number, where a three-digit trunk group number and a three-digit group member number is given or a seven-digit directory number is given.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

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RLS:TRUNK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RLS TRUNK TGRP a TKMN b c d
```

2. REASON FOR OUTPUT

To respond to a RLS:TRUNK input request to release a trunk group and member that were being held off-hook and out of service.

3. VARIABLE FIELD DEFINITIONS

`TKGMN` = Trunk group member number.

`a` = Trunk group (TG) being released.

`b` = Trunk group member being released.

`c` = Indicator of whether the trunk is being held. Valid value(s):
- `HELD` = Trunk is being held off-hook and out of service.
- `NOT HELD` = Trunk is not being held off-hook and out of service.

`d` = Output message termination report. Valid value(s):
- `COMPLETED` = Trunk group and member are released.
- `INPUT ERROR` = Invalid trunk group or member.
- `NO MATCH` = Trunk group and member are not being held.
- `SYSTEM ERROR` = System processing error.

4. ACTION TO BE TAKEN

If input message RLS:TRUNK has failed, try the message again. Also try input message OP:TRUNK to verify that the trunk group and member are being held off-hook and out of service.

The office dependent data (ODD) may be checked for errors in the data base.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRUNK
RLS:TRUNK
```

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RLS:WSTST-A

Software Release: 5E10 - 5E11
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

[1]
```
RLS WSTST TEST POSITION a-h
  ACCESS=g                          T&M=i
  DN=b[-c]   d     [MLHG=e-f]
  TEST ACCESS WAS RELEASED
  [E=q]
```

[2]
```
RLS WSTST TEST POSITION a-h
  ACCESS=g                          T&M=i
     TKGMN=i-j  k
  TEST ACCESS WAS RELEASED
  [E=q]
```

2. REASON FOR OUTPUT

Indicated that the test equipment which was being used at the test position has been released. If a test was running when the RLS:WSTST input request was entered, the test was also stopped.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

E = Error.

a = TP number.

b = Telephone number entered.

c = Member number of the line time slot bridging (LTSB) line. For LTSB member number. Valid value(s):
1 = The lead line.
2 = The associate line.

d = Valid value(s):

AP=l=m ILEN=n-j^1-k^1-h^1
LCEN=n-o-p-l^1
LCKEN=n-o-p-v^1-w^1
LEN=n-o-r-s-t-u
SLEN=n-v-w-x
AIUEN=n-x^1-y^1-z^1

e = Multi-line hunt group number.

f = Hunt group member number.

g = Valid value(s):

AC1 JACK	= Connection to the AC jack number 1.
AC2 JACK	= Connection to the AC jack number 2.
CAMPED ON	= Line or trunk is camped on.
CPE TESTS	= Test customer premises equipment.
DC1 JACK	= Connection to the DC jack number 1.
DC2 JACK	= Connection to the DC jack number 2.
DIG TRANS	= Connection to digital transmission equipment.
IN PROGRESS	= Test or test setup is in progress.
METALLIC	= Connection to metallic measurement equipment.
MONITOR B&I	= Monitor a busy or idle line/trunk.
MONITOR BUSY	= Monitor a busy line/trunk.
SEIZED	= Line or trunk is seized.
SUPERVISION	= Supervisory test running.
TRANSMISSION	= Connection to transmission equipment.

h = TLWSR tuple identification.

i = The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):

H	= The T&M phone is ON-HOLD (metallic connections).
M	= The T&M phone is in the MONITOR mode (listen-only).
N	= No T&M phone in the connection.
T	= The T&M phone is in the TALK mode (listen and talk).

j = Trunk member number.

k = Valid value(s):

DEN=n-y-z-a^1
NEN=n-m^1-n^1-o^1-p^1-q^1
PSUEN=n-r^1-s^1-t^1-u^1
RAF PORT n b^1 c^1
TEN=n-d^1-e^1-f^1-g^1

l = Data link (group) number of the AP.

m = Relative link (member) number of the AP.

n = Switching module (SM) number.

o = Line unit number.

p = Line group number.

q = Error message. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

r = Grid number.

s = Half-grid number.

t	= Switch number.
u	= Level number.
v	= Digital carrier line unit number.
w	= Remote terminal (RT) number.
x	= RT line number.
y	= Digital line and trunk unit (DLTU) number.
z	= Digital facility interface (DFI) number.
a[1]	= Channel number.
b[1]	= RAF unit number.
c[1]	= RAF channel number.
d[1]	= Trunk unit number.
e[1]	= Service group number.
f[1]	= Channel board number.
g[1]	= Circuit number.
h[1]	= RT line number or PUB43801 channel.
i[1]	= Trunk group number.
j[1]	= IDCU number.
k[1]	= RT number or IDCU digital signal level 1 (DS1) serving PUB43801 number.
l[1]	= Line card number.
m[1]	= Digital network unit - synchronous optical network (SONET) (DNU-S) number.
n[1]	= Data group (DG) number.
o[1]	= Synchronous transport signal (STS) number.
p[1]	= Virtual tributary 1.5 (VT1.5) number.
q[1]	= Digital signal level 0 (DS0) number.
r[1]	= PSU unit number.
s[1]	= PSU shelf number.
t[1]	= PSU channel group number.
u[1]	= PSU channel group member number.
v[1]	= Line board number.

w[1] = Line circuit number.

x[1] = Access interface unit (AIU) number.

y[1] = AIU line pack number.

z[1] = AIU line circuit number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RLS:WSTST
SET:WSPOS
STP:WSTST
```

Output Message(s):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINTENANCE)

RLS:WSTST-B

Software Release: 5E12 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      RLS WSTST TEST POSITION a-h
        ACCESS=g                            T&M=i
        DN=b[-c]   d     [MLHG=e-f]
        TEST ACCESS WAS RELEASED
        [E=q]

[2]   ____________________________________________________________________
      RLS WSTST TEST POSITION a-h
        ACCESS=g                            T&M=i
           TKGMN=i-j  k
        TEST ACCESS WAS RELEASED
        [E=q]
```

2. REASON FOR OUTPUT

Indicated that the test equipment which was being used at the test position has been released. If a test was running when the RLS:WSTST input request was entered, the test was also stopped.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

E = Error.

a = TP number.

b = Telephone number entered.

c = Member number of the line time slot bridging (LTSB) line. For LTSB member number. Valid value(s):

1 = The lead line.
2 = The associate line.

d = Line equipment number. Valid value(s):

AIUEN=n-x^1-y^1-z^1
AP=l=m
ILEN=n-j^1-k^1-h^1
INEN=n-a^2-k^1-h^1
LCEN=n-o-p-l^1
LCKEN=n-o-p-v^1-w^1
LEN=n-o-r-s-t-u
SLEN=n-v-w-x

e = Multi-line hunt group number.

f = Hunt group member number.

g = Valid value(s):

AC1 JACK	= Connection to the AC jack number 1.
AC2 JACK	= Connection to the AC jack number 2.
CAMPED ON	= Line or trunk is camped on.
CPE TESTS	= Test customer premises equipment.
DC1 JACK	= Connection to the DC jack number 1.
DC2 JACK	= Connection to the DC jack number 2.
DIG TRANS	= Connection to digital transmission equipment.
IN PROGRESS	= Test or test setup is in progress.
METALLIC	= Connection to metallic measurement equipment.
MONITOR B&I	= Monitor a busy or idle line/trunk.
MONITOR BUSY	= Monitor a busy line/trunk.
SEIZED	= Line or trunk is seized.
SUPERVISION	= Supervisory test running.
TRANSMISSION	= Connection to transmission equipment.

h = TLWSR tuple identification.

i = The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):

H	= The T&M phone is ON-HOLD (metallic connections).
M	= The T&M phone is in the MONITOR mode (listen-only).
N	= No T&M phone in the connection.
T	= The T&M phone is in the TALK mode (listen and talk).

j = Trunk member number.

k = Trunk equipment number. Valid value(s):

DEN=n-y-z-a^1
INEN=n-a^2-k^1-h^1
NEN=n-m^1-n^1-o^1-p^1-q^1
PSUEN=n-r^1-s^1-t^1-u^1
RAF PORT n b^1 c^1
TEN=n-d^1-e^1-f^1-g^1

l = Data link (group) number of the AP.

m = Relative link (member) number of the AP.

n = Switching module (SM) number.

o = Line unit number.

p = Line group number.

q = Error message. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

r = Grid number.

s = Half-grid number.

t = Switch number.

u = Level number.

v = Digital carrier line unit number.

w = Remote terminal (RT) number.

x = RT line number.

y = Digital line and trunk unit (DLTU) number.

z = Digital facility interface (DFI) number.

a[1] = Channel number.

b[1] = RAF unit number.

c[1] = RAF channel number.

d[1] = Trunk unit number.

e[1] = Service group number.

f[1] = Channel board number.

g[1] = Circuit number.

h[1] = RT line number or PUB43801 channel.

i[1] = Trunk group number.

j[1] = IDCU number.

k[1] = RT number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

l[1] = Line card number.

m[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

n[1] = Data group (DG) number.

o[1] = Synchronous transport signal (STS) number.

p[1] = Virtual tributary 1.5 (VT1.5) number.

q[1] = Digital signal level 0 (DS0) number.

r[1] = PSU unit number.

s[1] = PSU shelf number.

t[1] = PSU channel group number.

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u[1] = PSU channel group member number.

v[1] = Line board number.

w[1] = Line circuit number.

x[1] = Access interface unit (AIU) number.

y[1] = AIU line pack number.

z[1] = AIU line circuit number.

a[2] = DNU number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RLS:WSTST
SET:WSPOS
STP:WSTST
```

Output Message(s):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINTENANCE)

RLS:WSTST-C

Software Release: 5E13 and later
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

[1]
```
RLS WSTST TEST POSITION a-h
  ACCESS=g                          T&M=i
  DN=b[-c]   d     [MLHG=e-f]
  TEST ACCESS WAS RELEASED
  [E=q]
```

[2]
```
RLS WSTST TEST POSITION a-h
  ACCESS=g                          T&M=i
     TKGMN=i-j  k
  TEST ACCESS WAS RELEASED
  [E=q]
```

[3]
```
RLS WSTST TEST POSITION a-h

  ACCESS=g                          T&M=i
  DN=b[-c]         b2
  TEST ACCESS WAS RELEASED
  [E=q]
```

2. REASON FOR OUTPUT

Indicated that the test equipment which was being used at the test position has been released. If a test was running when the RLS:WSTST input request was entered, the test was also stopped.

3. VARIABLE FIELD DEFINITIONS

E = Error.

a = TP number.

b = Telephone number entered.

c = Member number of the line time slot bridging (LTSB) line. For LTSB member number. Valid value(s):
1 = The lead line.
2 = The associate line.

d = Line equipment number. Valid value(s):

e

AIUEN=n-x^1-y^1-z^1
AP=l=m

ILEN=n-j[1]-k[1]-h[1]
INEN=n-m[1]-k[1]-h[1]
LCEN=n-o-p-l[1]
LCKEN=n-o-p-v[1]-w[1]
LEN=n-o-r-s-t-u
SLEN=n-v-w-x

= Multi-line hunt group number.

f = Hunt group member number.

g = Valid value(s):

- AC1 JACK = Connection to the AC jack number 1.
- AC2 JACK = Connection to the AC jack number 2.
- CAMPED ON = Line or trunk is camped on.
- CPE TESTS = Test customer premises equipment.
- DC1 JACK = Connection to the DC jack number 1.
- DC2 JACK = Connection to the DC jack number 2.
- DIG TRANS = Connection to digital transmission equipment.
- IN PROGRESS = Test or test setup is in progress.
- METALLIC = Connection to metallic measurement equipment.
- MONITOR B&I = Monitor a busy or idle line/trunk.
- MONITOR BUSY = Monitor a busy line/trunk.
- SEIZED = Line or trunk is seized.
- SUPERVISION = Supervisory test running.
- TRANSMISSION = Connection to transmission equipment.

h = TLWSR tuple identification.

i = The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):

- H = The T&M phone is ON-HOLD (metallic connections).
- M = The T&M phone is in the MONITOR mode (listen-only).
- N = No T&M phone in the connection.
- T = The T&M phone is in the TALK mode (listen and talk).

j = Trunk member number.

k = Trunk equipment number. Valid value(s):

DEN=n-y-z-a[1]
INEN=n-m[1]-k[1]-h[1]
NEN=n-m[1]-n[1]-p[1]-o[1]-a[2]-b[2]-q[1]
PSUEN=n-r[1]-s[1]-t[1]-u[1]
RAF PORT n b[1] c[1]
TEN=n-d[1]-e[1]-f[1]-g[1]

l = Data link (group) number of the AP.

m = Relative link (member) number of the AP.

n = Switching module (SM) number.

o = Line unit number.

p = Line group number.

q = Error message. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

r = Grid number.

s = Half-grid number.

t = Switch number.

u = Level number.

v = Digital carrier line unit number.

w = Remote terminal (RT) number.

x = RT line number.

y = Digital line and trunk unit (DLTU) number.

z = Digital facility interface (DFI) number.

a[1] = Channel number.

b[1] = RAF unit number.

c[1] = RAF channel number.

d[1] = Trunk unit number.

e[1] = Service group number.

f[1] = Channel board number.

g[1] = Circuit number.

h[1] = RT line number or PUB43801 channel.

i[1] = Trunk group number.

j[1] = IDCU number.

k[1] = RT number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

l[1] = Line card number.

m[1] = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

n[1] = Data group (DG) number.

o[1] = Synchronous transport signal (STS) facility number.

p[1] = SONET termination equipment (STE) facility number.

q[1] = Digital signal level 0 (DS0) number.

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r^1 = PSU unit number.

s^1 = PSU shelf number.

t^1 = PSU channel group number.

u^1 = PSU channel group member number.

v^1 = Line board number.

w^1 = Line circuit number.

x^1 = Access interface unit (AIU) number.

y^1 = AIU line pack number.

z^1 = AIU line circuit number.

a^2 = Virtual tributary group (VTG) number.

b^2 = Virtual tributary member (VTM) number.

c^2 = Line equipment number. Valid value(s):

NEN=n-m^1-n^1-p^1-o^1-a^2-b^2-q^1

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RLS:WSTST
SET:WSPOS
STP:WSTST
```

Output Message(s):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINTENANCE)

96. RMV

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RMV:AIUCOM

Software Release: 5E11 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV AIUCOM=a-b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of an RMV:AIUCOM input request to remove the access interface unit common data and control controller (COMDAC) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = AIU number.

`c` = COMDAC number.

`d` = Termination status. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action has successfully completed.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

An unconditional removal of access interface unit common data and control controller while the mate is in an out-of-service (OOS) state will cause a critical alarm.

6. REFERENCES

Input Message(s):

```
RMV:AIUCOM
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1320,y,x (AIU SUMMARY)

RMV:AIULC

Software Release: 5E11 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV AIULC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an RMV:AIULC input request to remove the access interface unit (AIU) line circuit (LC) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = AIU number.

`c` = Line pack (LP) number.

`d` = LC number.

`e` = Termination status. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action has successfully completed.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RMV:AIULC`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1323,y,z,x (AIU AP STATUS)

RMV:AIULP

Software Release: 5E11 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV AIULP=a-b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of an RMV:AIULP input request to remove the access interface unit (AIU) line pack (LP) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = AIU number.

`c` = LP number.

`d` = Termination status. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action has successfully completed.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RMV:AIULP`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1320,y,x (AIU SUMMARY)
1323,y,z,x (AIU AP STATUS)

RMV:AIURG

Software Release: 5E11 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV AIURG=a-b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of an RMV:AIURG input request to remove the access interface unit (AIU) ring generator (RG) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = AIU number.

`c` = RG number.

`d` = Termination status. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action has successfully completed.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RMV:AIURG`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1322,y,x (AIU RG STATUS)

RMV:AIUTSGRP

Software Release: 5E11 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV AIUTSGRP=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an RMV:AIUTSGRP input request to remove the access interface unit (AIU) timeslot group (TSGRP) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = AIU number.

`c` = Common data and control controller (COMDAC) number.

`d` = TSGRP number.

`e` = Termination status. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action has successfully completed.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RMV:AIUPIDB`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1321,y,x (AIU TSGRP SUMMARY)

RMV:ALINK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV ALINK=a-b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:ALINK input message to remove a line unit model 2 (LU2) or a line unit model 3 (LU3) A-link from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Line unit number.

`c` = Grid number.

`d` = Board number.

`e` = Line unit A-link number.

`f` = Termination status. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination is immediate. Consistency of hardware and data is questionable.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`g` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RMV:ALINK`

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Output Appendix(es):

```
APP:MAINT-RESP
```

RMV:ALIT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV ALIT=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:ALIT input message to remove an automatic line insulation test (ALIT) circuit from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module(SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = Metallic service unit board number.

`e` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:ALIT
```

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Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:ASC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV ASC=a b [c]
```

2. REASON FOR OUTPUT

Indicates the result of an RMV:ASC input message to remove a remote switching module (RSM), optical remote switching module (ORM), or two-mile remote switching module (TRM) alarm and status circuit (ASC) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was complete.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action had not begun.
`STOPPED`	= Requested action was terminated before a normal completion.

`c` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RMV:ASC`

Output Appendix(es):

`APP:MAINT-RESP`

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

RMV:BTSR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV BTSR=a b [c]
```

2. REASON FOR OUTPUT

To report the result of executing RMV:BTSR input message to remove the bootstrapper board (BTSR) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Termination status. Valid value(s):

- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`c` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message, and refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:BTSR
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

235-105-250 *System Recovery*

RMV:CCSLK-A

Software Release: 5E11 only
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      RMV CCSLK SET=a MEMBER=b STATE=c  d
        SM=e  OPC=f  [g]

[2]   ____________________________________________________________________
      RMV CCSLK SET=a d
        SM=e  OPC=f  [g]
```

2. REASON FOR OUTPUT

To confirm the request to remove service from a common channel signaling (CCS) signaling link.

Format 1 is the output message indicating that a removal of an equipped CCS link occurred.

Format 2 is the output message indicating that a removal of an unequipped CCS link occurred.

3. VARIABLE FIELD DEFINITIONS

`a` = Link set number.

`b` = Link member number or range of link members.

`c` = Link state. Valid value(s):
- `BLK` = Blocks all traffic from using a link(s).
- `DACT` = This link is deactivated.
- `INH` = All traffic is inhibited from this link except for test and maintenance traffic.

`d` = Termination status. Valid value(s):
- `COMPLETED` = Request was successfully completed.
- `STARTED` = Request was successfully started.
- `STOPPED` = Request was terminated before normal completion.
- `SUCCESS` = Processing of request was successful.

`e` = CCS global switching module (GSM) number.

`f` = Originating point codes (OPC) number. OPC number consists of three items, each being three digits in length. They are, respectively, the OPC network, OPC cluster, and OPC member.

`g` Additional information qualifying the termination status. Valid value(s):
- `ALL SPECIFIED LINKS UNEQUIPPED` = All of the specified links are unequipped.
- `DATABASE ERROR` = Inconsistencies in retrieving data from the database caused by corrupt data.
- `DATABASE FAIL` = Unsuccessful static data access.
- `DPC WOULD BE LOST` = Local inhibit denied because a DPC would be lost.
- `ERROR` = Error in software.

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`FAR END DENIAL` = Local inhibit denied because of far end denial.
`FAR END INACCESS` = Local inhibiting not possible because far end is inaccessible.
`LINK ALREADY IN REQUESTED STATE` = Received link inhibit request, but link is already inhibited.
`LINK ALREADY OOS` = Received link deactivation request, but link is already manually removed.
`LINK BUSY` = Link is in busy state, being acted upon by some other request.
`LINK UNEQUIPPED` = The link is unequipped.
`MESSAGE TIMEOUT` = Timed out waiting for a message.
`OOS LIMIT EXCEEDED` = Received link deactivation request, but denied the deactivation request because the link set is at or below 50% capacity.
`OOS-DL` = The signaling data link is out of service.
`OOSF-PH` = The ST-PH is out of service family of equipment.
`REMAINING SPECIFIED LINKS UNEQUIPPED` = Remaining links are unequipped.
`REQUEST LATER` = Request again later.
`RESRC` = There was a lack of resources required to complete action.
`SYSTEM FAILURE` = System failure.
`T14 NO LIA FROM FAR END` = T14 timer expired, no link inhibit acknowledgement (LIA) received, local inhibit denied.
`UNSUCCESSFUL` = Failure in integrated services port administration.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RMV:CCSLK
```

Output Message(s):

```
REPT:CCSLK
```

Other Manual(s):
235-120-120 *VCDX Users Guide*
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

1532 (CCS LINK SET SUMMARY)
1533 (CCS LINK SET MEMBER)

RMV:CCSLK-B

Software Release: 5E12 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      RMV CCSLK SET=a MEMBER=b STATE=c  d
        SM=e  OPC=f  [g]

[2]   ____________________________________________________________________
      RMV CCSLK SET=a d
        SM=e  OPC=f  [g]
```

2. REASON FOR OUTPUT

To confirm the request to remove a common channel signaling (CCS) signaling link from service.

Format 1 is the output message indicating that a removal of a CCS link has occurred.

Format 2 is the output message indicating that an attempted removal of multiple unequipped CCS link has occurred.

3. VARIABLE FIELD DEFINITIONS

`a` = Link set number.

`b` = Link member number or range of link members.

`c` = Link state. Valid value(s):
- `BLK` = Blocks all traffic from using a link(s).
- `DACT` = This link is deactivated.
- `INH` = All traffic is inhibited from this link except for test and maintenance traffic.

`d` = Termination status. Valid value(s):
- `COMPLETED` = Request was successfully completed.
- `STARTED` = Request was successfully started.
- `STOPPED` = Request was terminated before normal completion.
- `SUCCESS` = Processing of request was successful.

`e` = CCS global switching module (GSM) number.

`f` = Originating point codes (OPC) number associated with the GSM. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual for interpretation.

`g` Additional information qualifying the termination status. Valid value(s):
- `ALL SPECIFIED LINKS UNEQUIPPED` = All of the specified links are unequipped.
- `DATABASE ERROR` = Inconsistencies in retrieving data from the database caused by corrupt data.
- `DATABASE FAIL` = Unsuccessful static data access.
- `DPC WOULD BE LOST` = Local inhibit denied because a DPC would be lost.
- `ERROR` = Error in software.

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`FAR END DENIAL` = Local inhibit denied because of far end denial.
`FAR END INACCESS` = Local inhibiting not possible because far end is inaccessible.
`LINK ALREADY IN REQUESTED STATE` = Received link inhibit or blocking request, but link is already inhibited.
`LINK ALREADY OOS` = Received link deactivation request, but link is already manually deactivated.
`LINK BUSY` = Link is being acted upon by some other request.
`LINK UNEQUIPPED` = The link is unequipped.
`MESSAGE TIMEOUT` = Timed out waiting for a message.
`OOS LIMIT EXCEEDED` = Conditional request to deactivate the link is denied because either more than 50% of the links in the linkset are already out of service, or completion of the request would result in more than 50% of the links being OOS. In these cases, the UCL option is required for successful deactivation of the link, since deactivating the link makes it less likely that automatic recovery can return the linkset to 50% or more active links.
`OOS-DL` = The signaling data link is out of service.
`OOSF-PH` = The parent PH channel group is unassigned.
`REMAINING SPECIFIED LINKS UNEQUIPPED` = Remaining links are unequipped.
`REQUEST LATER` = Request again later.
`RESRC` = There was a lack of resources required to complete action.
`SYSTEM FAILURE` = System failure.
`T14 NO LIA FROM FAR END` = T14 timer expired, no link inhibit acknowledgement (LIA) received, local inhibit denied.
`UNSUCCESSFUL` = Failure in integrated services port administration.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RMV:CCSLK
```

Output Message(s):

```
REPT:CCSLK
```

Output Appendix(es):

```
APP:POINT-CODE
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

1532 (CCS LINK SET SUMMARY)
1533 (CCS LINK SET MEMBER)

RMV:CDFI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV CDFI=a-b-c d [e]
```

2. REASON FOR OUTPUT

To indicate the result of an RMV:CDFI input message to remove an inter-remote switching module (RSM) communication link digital facilities interface (CDFI) circuit from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line and trunk unit (DLTU) number.

`c` = CDFI number.

`d` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action had not begun.
- `STOPPED` = Requested action was terminated before normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:CDFI
RST:CDFI
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:CDI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV CDI=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:CDI input message to remove a control data interface (CDI) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Trunk unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`COMPLETED CERTIFIED`	= Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the References section of this message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:CDI
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:CLNK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV CLNK=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To acknowledge a request to remove the specified communication link (CLNK) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Office network and timing complex (ONTC) number.

`c` = Type of module message processor (MMP). Valid value(s):
- `0` = MMP that handles the even control time slot associated with the SM.
- `1` = MMP that handles the odd control time slot associated with the SM.

`d` = Message switch number.

`e` = Termination report. Valid value(s):
- `ABORTED` = Requested action is terminated before a normal completion and the consistency of hardware status or data is questionable.
- `COMPLETED` = Requested action is terminated after completion.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action is terminated before a normal completion but consistency of hardware status and data is reliable.

`f` = Additional data qualifying the termination report.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RMV:CLNK
```

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RMV:CMP

Software Release: 5E10 and later
Message Class: MSGS
Application: 5
Type: Output

1. FORMAT

```
RMV CMP=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of a RMV:CMP input message to remove the communication module processor (CMP) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch side number.

`b` = CMP number.

`c` = Termination status. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`d` = Additional information qualifying the termination status. Refer to the APP:CM-OM-REASON appendix in the Appendixes section of the Output Messages manual for further explanation of this field.

4. ACTIONS TO BE TAKEN

If unexpected results occur, refer to the documents listed in the **REFERENCES** section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RMV:CMP`

Output Appendix(es):

`APP:CM-OM-REASON`

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Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery Procedures*

MCC Display Page(s):

1241/51 (MSGS COMMUNITIES 0-1, 8-9)
1240/50 (MSGS STATUS for CM3)

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RMV:CPE-A

Software Release: 5E10 - 5E11
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
RMV CPE [DN=a][ILEN=b-j-k-l TEI=f][LCEN=b-c-d-e TEI=f] . . .
 . . . [LCKEN=b-c-m-n-o TEI=f] [MLHG=g-h][PKTDN=a][UCL] i
```

2. REASON FOR OUTPUT

To report the result of the manual removal of customer premises equipment (CPE) from service. This message is in response to a RMV:CPE input message.

Either custom multi-point (MP) or standard interface terminals can be removed from service. The CPE will only stay out-of-service (OOS) while layer 2 is maintained with the CPE. If the CPE drops layer 2 and then re-establishes it, the CPE will return to an in-service (IS) state.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`a` = Circuit or packet directory number associated with the CPE to be removed.

`b` = Switching module (SM) number.

`c` = Integrated services line unit (ISLU) or ISLU version 2 (ISLU2) in which the DSL exists.

`d` = Line group controller (LGC) in the ISLU/ISLU2 in which the DSL exists.

`e` = Line card (LC) of the ISLU line group controller to which the DSL connects.

`f` = TEI that identifies the particular CPE on the specified LCEN/LCKEN.

`g` = Multi-line hunt group number of the subscriber associated with the CPE.

`h` = Multi-line hunt member number of the subscriber associated with the CPE.

`i` = Result (completion code) of the remove request. Valid value(s):

- `CMP UNAVAILABLE` = The input request could not be completed because a needed communication module (CM) was unable to respond. Retry the request later.
- `COMPLETED` = The specified CPE has been removed to an OOS state.
- `CPE ALREADY OOS` = CPE is already out of service.
- `CPE BUSY` = The request to remove the CPE on the DSL conditionally failed, because the CPE was busy. Wait for the CPE to become idle or remove the CPE unconditionally.
- `CPE NOT BOUND` = The DN, PKTDN, MLHG and/or LCEN/LCKEN combined with TEI specified is not bound to a terminal on the multipoint DSL.
- `CPE PREEMPT FAILED` = Failed to remove CPE unconditionally.
- `DATABASE ERROR` = Internal error during database reading.
- `DSL BUSY` = The DSL remained busy.
- `DSL OOS` = Removing a CPE while the DSL is OOS is not possible.

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`DUP REQUEST` = Removing a CPE has already been requested.
`INPUT ERROR` = Some data entered in the input request was invalid or incorrect.
`INVALID DN` = The circuit or packet directory number entered was most likely invalid or incorrect.
`INVALID ON PP INTERFACE` = This operation is an invalid operation on custom interface single point DSL. RMV:CPE is allowed on standard and custom multipoint interface DSLs only.
`INVALID PORT` = The line could not be located in the database. The line identifier used in the input request was most likely invalid or incorrect.
`INVALID TEI PORT` = The line where the TEI resided could not be located in the database. The terminal endpoint identifier used in the input request was most likely invalid or incorrect.
`MLHG ACCESS DN` = The DN entered was an access DN for the uniform call distribution (UCD), linear hunt, or multiposition hunt (MUPH) multiline hunt group. This DN does not uniquely identify a line.
`MP ACCESS DN` = The directory number entered is a uniform call distribution multi-line hunt group line for modem pooling and as such cannot be used by specifying its DN. A line card equipment number or MLHG and member number must be specified. To obtain the line card equipment number and/or multi-line hunt group and member number, use recent change/verify (RC/V) for the DN or refer to office records.
`NO ACK FROM FIP CPE` = No acknowledge from FIP's CPE.
`NO DATABASE MATCH` = Internal database error. The desired tuple could not be found.
`NO PARTY EXISTS` = The specified party does not exist on a DSL.
`NO PROCESS` = An attempt to create a process failed; possible cause is a busy system. Retry the request later.
`NON-DSL/INVALID DSL TYPE` = The line is not a DSL or the type of DSL is incorrect.
`NOT PRIMARY DN OR MLHG` = The DN or MLHG specified is for a key-system CPE and is not the primary DN for any key-system CPE. A primary DN is required to identify the specific CPE to be removed. Refer to RC/V or office records to determine the primary DNs or MLHG and member numbers.
`PROCESS TIMEOUT` = Internal time-out during processing; request aborted.
`SM UNAVAILABLE` = The input request could not be completed because a needed switching module (SM) was unable to respond. Retry the request later.
`SYSTEM BUSY` = The system's processing capability limit was reached or a system resource was unavailable. Retry the request later.
`SYSTEM ERROR` = System error occurred, making it impossible to continue processing request.
`TEI NOT FOUND` = The CPE could not be located in the database. The TEI identifier used in the input request was most likely invalid or incorrect.
`TST MP IN PROGRESS` = TEST modem pool in progress, CPE can not been removed at this time.
`UNASSIGNED PORT` = The port referred to was unassigned.

`j` = IDCU number.

`k` = Remote terminal (RT) number.

`l` = RT line number.

`m` = Line group number.

`n` = Line board number.

`o` = Line circuit number.

4. ACTION TO BE TAKEN

To restore the CPE, use the RST:CPE input message. To get the current status of a CPE, use the OP:CPE input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CPE
OP:STATUS
RMV:CPE
RMV:LINE
RST:CPE
RST:LINE
```

Output Message(s):

```
OP:CPE
RST:CPE
```

MCC Display Page(s):

160 (TRUNK AND LINE MAINTENANCE)

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RMV:CPE-B

Software Release: 5E12 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
RMV CPE a [TEI=f][UCL] i
```

2. REASON FOR OUTPUT

To report the result of the manual removal of customer premises equipment (CPE) from service. This message is in response to a RMV:CPE input message.

Either custom multi-point (MP) or standard interface terminals can be removed from service. The CPE will only stay out-of-service (OOS) while layer 2 is maintained with the CPE. If the CPE drops layer 2 and then re-establishes it, the CPE will return to an in-service (IS) state.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`a` = Equipment number or identifier. Valid value(s):

```
AIUEN=d-p-q-r
DN=s
ILEN=b-j-k-l
INEN=b-t-k-l
LCEN=b-c-d-e
LCKEN=b-c-m-n-o
MLHG=g-h
PKTDN=s
```

`b` = Switching module (SM) number.

`c` = Integrated services line unit (ISLU) or ISLU version 2 (ISLU2) in which the DSL exists.

`d` = Line group controller (LGC) in the ISLU/ISLU2 in which the DSL exists.

`e` = Line card (LC) of the ISLU line group controller to which the DSL connects.

`f` = TEI that identifies the particular CPE on the specified LCEN/LCKEN.

`g` = Multi-line hunt group number of the subscriber associated with the CPE.

`h` = Multi-line hunt member number of the subscriber associated with the CPE.

`i` = Result (completion code) of the remove request. Valid value(s):

`CMP UNAVAILABLE` = The input request could not be completed because a needed communication module (CM) was unable to respond. Retry the request later.
`COMPLETED` = The specified CPE has been removed to an OOS state.
`CPE ALREADY OOS` = CPE is already out of service.

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`CPE BUSY` = The request to remove the CPE on the DSL conditionally failed, because the CPE was busy. Wait for the CPE to become idle or remove the CPE unconditionally.

`CPE NOT BOUND` = The DN, PKTDN, MLHG and/or LCEN/LCKEN combined with TEI specified is not bound to a terminal on the multipoint DSL.

`CPE PREEMPT FAILED` = Failed to remove CPE unconditionally.

`DATABASE ERROR` = Internal error during database reading.

`DSL BUSY` = The DSL remained busy.

`DSL OOS` = Removing a CPE while the DSL is OOS is not possible.

`DUP REQUEST` = Removing a CPE has already been requested.

`INPUT ERROR` = Some data entered in the input request was invalid or incorrect.

`INVALID DN` = The circuit or packet directory number entered was most likely invalid or incorrect.

`INVALID ON PP INTERFACE` = This operation is an invalid operation on custom interface single point DSL. RMV:CPE is allowed on standard and custom multipoint interface DSLs only.

`INVALID PORT` = The line could not be located in the database. The line identifier used in the input request was most likely invalid or incorrect.

`INVALID TEI PORT` = The line where the TEI resided could not be located in the database. The terminal endpoint identifier used in the input request was most likely invalid or incorrect.

`MLHG ACCESS DN` = The DN entered was an access DN for the uniform call distribution (UCD), linear hunt, or multiposition hunt (MUPH) multiline hunt group. This DN does not uniquely identify a line.

`MP ACCESS DN` = The directory number entered is a uniform call distribution multi-line hunt group line for modem pooling and as such cannot be used by specifying its DN. A line card equipment number or MLHG and member number must be specified. To obtain the line card equipment number and/or multi-line hunt group and member number, use recent change/verify (RC/V) for the DN or refer to office records.

`NO ACK FROM FIP CPE` = No acknowledge from FIP's CPE.

`NO DATABASE MATCH` = Internal database error. The desired tuple could not be found.

`NO PARTY EXISTS` = The specified party does not exist on a DSL.

`NO PROCESS` = An attempt to create a process failed; possible cause is a busy system. Retry the request later.

`NON-DSL/INVALID DSL TYPE` = The line is not a DSL or the type of DSL is incorrect.

`NON-UNIQUE NXX DN` = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.

`NOT PRIMARY DN OR MLHG` = The DN or MLHG specified is for a key-system CPE and is not the primary DN for any key-system CPE. A primary DN is required to identify the specific CPE to be removed. Refer to RC/V or office records to determine the primary DNs or MLHG and member numbers.

`PROCESS TIMEOUT` = Internal time-out during processing; request aborted.

`SM UNAVAILABLE` = The input request could not be completed because a needed switching module (SM) was unable to respond. Retry the request later.

`SYSTEM BUSY` = The system's processing capability limit was reached or a system resource was unavailable. Retry the request later.

`SYSTEM ERROR` = System error occurred, making it impossible to continue processing request.

`TEI NOT FOUND` = The CPE could not be located in the database. The TEI identifier used in the input request was most likely invalid or incorrect.

`TST MP IN PROGRESS` = TEST modem pool in progress, CPE can not been removed at this time.

`UNASSIGNED PORT` = The port referred to was unassigned.

j	= IDCU number.
k	= Remote terminal (RT) number.
l	= RT line number.
m	= Line group number.
n	= Line board number.
o	= Line circuit number.
p	= Access interface unit (AIU)
q	= AIU pack number.
r	= AIU circuit number.
s	= Circuit or packet directory number associated with the CPE to be removed.
t	= Digital network unit - synchronous optical network (SONET) (DNU-S) number.

4. ACTION TO BE TAKEN

To restore the CPE, use the RST:CPE input message. To get the current status of a CPE, use the OP:CPE input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CPE
OP:STATUS
RMV:CPE
RMV:LINE
RST:CPE
RST:LINE
```

Output Message(s):

```
OP:CPE
RST:CPE
```

MCC Display Page(s):

160 (TRUNK AND LINE MAINTENANCE)

RMV:CU

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
RMV:CU a [b [c]]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:CU input message to remove a control unit (CU) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Termination status. Valid value(s):
- `ABORTED` = Removal abnormally terminated due to a system error or a fault in the remove process.
- `COMPLETED` = Control unit removed.
- `STOPPED` = Removal denied by the system or stopped manually.

`c` = If '`b`' = `STOPPED`, reason the remove was stopped.
- `1` = Invalid unit name. Only the CU can be removed.
- `5` = Removal denied by system.
- `6` = Remove manually stopped.

4. ACTION TO BE TAKEN

If the remove was denied by the system, try switching CUs. If the result is `ABORTED`, determine what is wrong with the system. Interpret the REPT:CURSTRMV output message if one occurred.

5. ALARMS

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
All	308

Input Message(s):

```
DGN:CU
RMV:CU
RST:CU
```

Output Message(s):

```
DGN:CU
REPT:CURSTRMV
RST:CU
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RMV:DATALINK

Software Release: 5E10 and later
Message Class: LINE,RSB
Application: 5
Type: Output

1. FORMAT

```
RMV DATALINK [DN a] [b] [c] [d]  e
  [f] [f] [f] [f] [f]       g [g] [g] [g] [g]
                           [h [h] [h] [h] [h]]
                                   .
                                   .
                                   .
```

2. REASON FOR OUTPUT

To respond to a request to remove the specified data link from service by adding the specified status to the port identified. Both the status requested to be added and the full status resulting from the removal attempt are identified in the message. This message may be in response to a RMV:DATALINK input message or may be generated automatically.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

a = Telephone number of the data link.

b = Channel identifier: D, B1, or B2. Used only for digital subscriber line (DSL) data links.

c = Valid value(s):

```
AP=i-j
AQ=i-j
DASC=i-j
EIS=k-l
HOBICR=i-j
HOBICV=i-j
HOBIS=i-j
MISLNK=i-j
OAPF=m
OAPO=n
RAS=i-j
RTRS=i-j
XDB=i-j
```

d = Valid value(s):

```
ILEN=q-u-v-w
INEN=q-a1-v-w
LCEN=q-r-s-t
LCKEN=q-r-x-y-z
```

e = The result (completion code) of the removal request. Valid value(s):

`CAMPON FAIL` = The request to camp on the trunk or data link failed.
`CAMPON NOT ALLOWED` = The ability to camp-on was not allowed on the data link specified. It must therefore be removed by specifying the UCL option.
`CMP UNAVAILABLE` = The input request could not be completed because a needed communication module (CM) was unable to respond. Retry the request later.
`COMPLETED` = The specified status was successfully added to the port. Resulting port status is indicated.
`DUP REQUEST` = Line already out of service for the specified reason.
`INPUT ERROR` = Some data entered in the input request was invalid or incorrect.
`INV PORT` = The data link could not be located in the database. The data link identifier used in the input request was most likely invalid or incorrect.
`INV PORT TYPE` = The port specified is not a data link and therefore cannot be changed using this input request. Determine the port's type, OP:CONV input message may help, and use the input request appropriate for its type.
`INV STATUS` = An invalid status for the data link was specified in the input request.
`NO PROCESS` = An attempt to create a process failed. Possibly caused by the system's being busy. Retry the request later.
`PORT BUSY` = The data link remained busy for the camp-on period, or an in-progress camp-on was terminated. This report may also indicate that a conditional removal of an AQ, HOBICR HOBICV, HOBIS, or XDB data link has been rejected because fewer than 50% of the equipped data links of the same type would remain in service after the removal, or that a conditional removal of a DASC, MISLNK, RAS, or RTRS data link is denied because it mate duplex data link is out of service.
`PROCESS TIMEOUT` = Internal time-out, during processing request, aborted.
`SM UNAVAILABLE` = The input request could not be completed because a needed SM was unable to respond. Retry the request later.
`STATUS CONFLICT` = Status to be added conflicts with the existing status on the data link.
`SYSTEM BUSY` = The system's processing capability limit was reached, or a system resource was unavailable. Retry the request later.
`SYSTEM ERROR` = System error occurred making it impossible to continue processing request.

`f` = Status added to the data link which effected its removal from service. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status.

`g` = Resulting primary status in effect on the data link. This status is the most restrictive to call processing currently on the data link. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status.

`h` = Pending statuses (0-3) in effect on the data link type, if any. (Less restrictive than the primary status.) Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status and the status hierarchy.

`i` = Data link (group) number.

`j` = Relative link (member) number.

`k` = External data link (member) number relative to the EIS.

`l` = EIS identifier (ID) on which the CPDL terminates.

`m` = Force management center number.

n = Operator service center number of the OAPO (1-32).

q = Switching module (SM) number.

r = Integrated services line unit number.

s = Line group controller number.

t = Line card number.

u = IDCU number.

v = Remote terminal (RT) number.

w = RT line number.

x = Line group number.

y = Line board number.

z = Line circuit number.

a[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

4. ACTION TO BE TAKEN

If the data link was removed automatically, it should be determined if a hardware problem exists on that data link, and if so, it should be corrected.

To remove a data link, use the RMV:DATALINK input message. To restore a data link, refer to the RST:DATALINK input message. To get the current status of a data link, refer to the OP:STATUS input message. To get a list of all data links with a specified status, refer to the OP:LIST input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LIST
OP:STATUS
RMV:DATALINK
RST:DATALINK
```

Output Appendix(es):

```
APP:PORT-STATUS
```

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

RMV:DCI

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      RMV DCI a COMPLETED

[2]   ____________________________________________________________
      RMV DCI a ABORTED [b] [c]

[3]   ____________________________________________________________
      RMV DCI a STOPPED d

[4]   ____________________________________________________________
      RMV DCI a TASK e MSG STARTED

[5]   ____________________________________________________________
      RMV DCI a STOPPED MESSAGE IN PROGRESS

[6]   ____________________________________________________________
      RMV DCI a STOPPED MESSAGE COMPLETE
```

2. REASON FOR OUTPUT

These messages report the disposition of a request to remove a dual serial channel/computer interconnect (DCI) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error. Valid value(s):
- X'1 = Remove process error.
- X'2 = Driver error.
- [NULL] = Remove denied by driver or configuration control (CONFIG).

c = Error code. Valid value(s):

If 'b' =	'c' =

X'1	Refer to the APP:DCI-F appendix in the Appendixes section of the Output Messages manual.
X'2	Refer to the APP:DCI-A appendix in the Appendixes section of the Output Messages manual.

d = Error code. Refer to the APP:DCI-G appendix in the Appendixes section of the Output Messages manual.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The pudrv subsystem generated messages have no alarm.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Subsystem:	Key(s):
pudrv	195, 196
cft	308
diag	96

Input Message(s):

```
RMV:DCI
```

Output Appendix(es):

```
APP:DCI-A
APP:DCI-F
APP:DCI-G
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RMV:DCLU

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV DCLU=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the removal of a digital carrier line unit (DCLU) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DCLU number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

`ABORTED`	= The action requested was unsuccessful, and the termination was not graceful. Hardware states are not reliable.
`COMPLETED`	= The action completed successfully.
`STOPPED`	= The action was terminated before a normal completion but the termination was graceful. Hardware states are reliable.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:DCLU
RST:DCLU
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:DCTUCOM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV DCTUCOM=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:DCTUCOM input message to remove a directly connected test unit common board (DCTUCOM) circuit from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Directly connected test unit number.

`c` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`COMPLETED-CERTIFIED`	= Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`d` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:SM-OFFNORM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:DCTUCOM
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

RMV:DCTUPORT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV DCTUPORT=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:DCTUPORT input message to remove a directly connected test unit port circuit (DCTUPORT) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Directly connected test unit number.

`c` = Circuit number.

`d` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`COMPLETED CERTIFIED`	= Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED`	Action has not begun.
`STOPPED`	= Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:DCTUPORT
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:DFC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
RMV DFC a b [c][d]
```

2. REASON FOR OUTPUT

To report the disposition of a request to remove a disk file controller (DFC) from service. The removal request is either automatic, as a result of excessive errors, or manual. A manual DFC removal attempt can fail (ABORTED or STOPPED) or be successful (COMPLETED). An automatic removal is always successful.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Termination status. Valid value(s):
- `ABORTED` = Remove aborted.
- `COMPLETED` = Unit removed.
- `STOPPED` = Remove stopped.

`c` If '`b`' = `ABORTED`, type of error. Valid value(s):
- `1` = Remove process error.
- `2` = Driver error.
- `[NULL]` = Remove denied by driver or CONFIG.

`d` = Error code.

If '`c`' =	Explanation:
`1`	Refer to the APP:DFC-G appendix in the Appendixes section of the Output Messages manual.
`2`	Refer to the APP:DFC-A appendix in the Appendixes section of the Output Messages manual.

`c` If variable '`b`' = `STOPPED`, error code. Refer to the APP:DFC-H appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
DGN:DFC
RMV:DFC
RMV:SBUS
RST:DFC
RST:SBUS
```

Output Message(s):

```
DGN:DFC
RST:DFC
```

Output Appendix(es):

```
APP:DFC-F
APP:DFC-G
APP:DFC-H
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

(COMMON PROCESSOR DISPLAY)
123 (DISK FILE SYSTEM ACCESS)

RMV:DFI

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV DFI=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:DFI input message to remove a digital facility interface (DFI) from service.

DFI containing packet pipe (PP) or packet pipe member (PPM) can not be removed conditionally. Doing so may result in the DFI being marked as degraded. An unconditional (UCL) remove command is needed to completely remove DFI with PP or PPM.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line/trunk unit number.

`c` = DFI number.

`d` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` Action has not begun.
`STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the References section of this message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RMV:DFI
OP:NAILUP
```

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RMV:DFIH

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV DFIH=a-b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of an RMV:DFIH input message to remove a remote integrated services line unit (RISLU) host/remote digital facility interface circuit pair (DFIH) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RISLU digital line and trunk unit (DLTU) number.

`c` = DFIH number.

`d` = Termination status. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

In the case of automatic removal from service of a DFIH circuit due to fault recovery actions, refer to the receive-only printer (ROP) for results of automatic diagnostics (DGN:DFIH output messages) and repair the faulty circuit.

If unexpected results occur, refer to the Corrective Maintenance Manual.

5. ALARMS

A critical alarm results when either an RISLU common control (CC) or common data (CD) duplex failure occurs as the result of an unconditional removal of a DFIH.

A major alarm results when the RMV:DFIH output message reports either success or failure of a manual remove request that resulted in camping-on for removal of the DFIH.

6. REFERENCES

Input Message(s):

```
DGN:DFIH
RMV:DFIH
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RMV:DFTAC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV DFTAC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing RMV:DFTAC input message to remove the distributing frame test access circuit (DFTAC) from service, or as a result of a recovery action taking the unit out of service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group.

`d` = Circuit number.

`e` = Termination status. Valid value(s):

`ABORTED`	= The removing process was purged. Further output showing data recovery by audits may follow.
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action was not begun.
`STOPPED`	= Terminated before normal completion (process gracefully terminated).

`f` = Reason for termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:DFTAC
RST:DFTAC
```

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Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:DIST

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV DIST=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:DIST input message to remove a distribute point board (DIST) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = Distribute point board number.

`e` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED-CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:DIST
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:DLI

Software Release: 5E10 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

```
RMV DLI=a-b c [d]
```

2. REASON FOR OUTPUT

To indicate the result of a manual or automatic input message to remove a switching module's (SM) dual link interface (DLI) circuit from service.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = Office network and timing complex(ONTC) side that the DLI is on.

`c` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was immediate (no cleanup was done).
`COMPLETED`	= Request completed successfully.
`NOT STARTED`	= Requested action could not begin.
`STOPPED`	= Request was terminated before a normal completion. Attempts were made to leave everything in a sane state.

`d` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

No further action is necessary if the request completed successfully. If the termination report is not COMPLETED, the variable '`d`' field should give some indication as to why the request failed. Check DLI MCC pages or OP:CFGSTAT output to verify that the DLI was in a valid state to perform the request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CFGSTAT
OP:CFGSTAT-3B
OP:CFGSTAT-SM
OP:DMQ
RMV:DLI
```

Output Message(s):

```
OP:CFGSTAT
OP:DMQ-CM
```

Output Appendix(es):

```
APP:MAINT-RESP
```

RMV:DNUSCC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV DNUSCC=a-b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of an attempt to remove a digital networking unit - synchronous optical network (DNU-S) common controller (DNUSCC) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Common controller number.

`d` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action was successfully completed.
`IN PROGRESS`	= Requested action is in progress.
`NOT STARTED`	= Requested action was not started.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

An automatic unconditional removal of a DNUSCC while the mate DNUSCC is in an out-of-service (OOS) state will cause a critical alarm.

6. REFERENCES

Input Message(s):

`RMV:DNUSCC`

Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-110 *System Maintenance Requirements and Tools*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

RMV:DNUSCD

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV DNUSCD=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an attempt to remove a digital networking unit - synchronous optical network (DNU-S) common data (DNUSCD) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = Common data number.

`e` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action was successfully completed.
`IN PROGRESS`	= Requested action is in progress.
`NOT STARTED`	= Requested action was not started.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

An automatic unconditional removal of a DNUSCD in a DNU-S data group while the mate DNUSCD is in an out-of-service (OOS) state causes a critical alarm.

6. REFERENCES

Input Message(s):

`RMV:DNUSCD`

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Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

RMV:DNUSEOC

Software Release: 5E12 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
RMV DNUSEOC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of a RMV:IDCUEOC input command that removes a remote terminal (RT) embedded operations channel (EOC) circuit from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = RT number.

`d` = EOC number.

`e` = Termination report. Valid values are:

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

Critical	= EOC removal while its mate is out of service (duplex failure).
Major	= EOC failure due to the removal of the path while its mate is out of service (duplex failure)
Minor	= EOC removal while its mate is in service (simplex operation).

6. REFERENCES

Input Message(s):

`RMV:DNUSEOC`

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Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-110 *System Maintenance Requirements and Tools*

MCC Display Page(s):

1660,xxxx (TR303 REMOTE TERMINAL)

RMV:DNUSTMC

Software Release: 5E12 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
RMV DNUSTMC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the result of a RMV:DNUSTMC input command that removes a remote terminal (RT) timeslot management channel (TMC) circuit from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNUS number.

`c` = RT number.

`d` = TMC number.

`e` = Termination report. Valid values are:

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

A critical alarm indicates TMC removal while its mate is out of service (duplex failure).

A major alarm indicates TMC failure due to the removal of the path while its mate is out of service (duplex failure).

A minor alarm indicates TMC removal while its mate is in service (simplex operation).

6. REFERENCES

Input Message(s):

`RMV:DNUSTMC`

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Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-110 *System Maintenance Requirements and Tools*

MCC Display Page(s):

1660,xxxx (TR303 REMOTE TERMINAL)

RMV:DS1SFAC-A

Software Release: 5E10 - 5E11
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV DS1SFAC=a-b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Indicates the result of an attempt to remove a digital networking unit - synchronous optical network (DNU-S) digital signal level 1 facility (DS1SFAC) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = Synchronous transport signal facility (STSFAC) number.

`e` = Virtual tributary level 1 (VT1) facility number.

`f` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action was not started.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

Automatic removals of DS1SFACs generate a minor alarm when the first DS1SFAC on an STSFAC is removed, a major alarm when the removal of the DS1SFAC results in more than 24 but not more than 128 DS0s out-of-service on an STSFAC, and a critical alarm when the removal of the DS1SFAC results in more than 128 of the DS0s out-of-service on an STSFAC.

6. REFERENCES

Input Message(s):

RMV:DS1SFAC

Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery Procedures*

MCC Display Page(s):

1511 (DNUS STS)

RMV:DS1SFAC-B

Software Release: 5E12 only
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV DS1SFAC=a-b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Indicates the result of an attempt to remove a digital networking unit - synchronous optical network (DNU-S) digital signal level 1 facility (DS1SFAC) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = Synchronous transport signal facility (STSFAC) number.

`e` = Virtual tributary level 1 (VT1) facility number.

`f` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action was not started.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

Automatic removals of DS1SFACs generate a minor alarm when the first DS1SFAC on an STSFAC is removed, a major alarm when the removal of the DS1SFAC results in more than 24 but not more than 128 DS0s out-of-service on an STSFAC, and a critical alarm when the removal of the DS1SFAC results in more than 128 of the DS0s out-of-service on an STSFAC.

6. REFERENCES

Input Message(s):

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```
RMV:DS1SFAC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery Procedures*

MCC Display Page(s):

1511 (DNUS STS MAINTENANCE)

RMV:DS1SFAC-C

Software Release: 5E13 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV DS1SFAC=a-b-c-d-e-f-g h [i]
```

2. REASON FOR OUTPUT

Indicates the result of an attempt to remove a digital networking unit - synchronous optical network (DNU-S) digital signal level 1 facility (DS1SFAC) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital Networking Unit - SONET (DNU-S) number.

`c` = Data group (DG) number.

`d` = SONET Termination Equipment (STE) facility number.

`e` = Synchronous transport signal (STS) facility number.

`f` = Virtual tributary group (VTG) number.

`g` = Virtual tributary member (VTM) number.

`h` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action was not started.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`i` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTIONS TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

Automatic removals of DS1SFACs generate a minor alarm when the first DS1SFAC on an STSFAC is removed, a major alarm when the removal of the DS1SFAC results in more than 24 but not more than 128 DS0s out-of-service on an STSFAC, and a critical alarm when the removal of the DS1SFAC results in more than 128 of the DS0s out-of-service on an STSFAC.

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6. REFERENCES

Input Message(s):

```
RMV:DS1SFAC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery Procedures*

MCC Display Page(s):

1511 (DNUS STS MAINTENANCE)

RMV:DUI

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      RMV DUI a COMPLETED

[2]   ____________________________________________________________
      RMV DUI a ABORTED [b] [c]

[3]   ____________________________________________________________
      RMV DUI a STOPPED d

[4]   ____________________________________________________________
      RMV DUI a TASK e MSG STARTED

[5]   ____________________________________________________________
      RMV DUI a STOPPED MESSAGE IN PROGRESS

[6]   ____________________________________________________________
      RMV DUI a STOPPED MESSAGE COMPLETE
```

2. REASON FOR OUTPUT

To report the disposition of a request to remove a direct user interface (DUI) subdevice from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4 - 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Type of error. Valid value(s):
- `X'1` = Remove process error.
- `X'2` = Driver error.
- `[NULL]` = Remove denied by driver or configuration control (CONFIG).

`c` = Error code.

If 'b' =	Explanation:
X'1	Refer to the APP:IOP-H appendix in the Appendixes section of the Output Messages

	manual.
x'2	Refer to the APP:IOP-G appendix in the Appendixes section of the Output Messages manual.

d = Error code. Refer to the APP:IOP-I appendix in the Appendixes section of the Output Messages manual.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal was stopped or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The "pudrv" subsystem generated messages have no alarms.

The "cft" subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

The "diag" subsystem generated messages have an automatically-generated alarm. Action may or may not be required.

6. REFERENCES

Input Message(s):

```
RMV:DUI
```

Output Appendix(es):

```
APP:IOP-G
APP:IOP-H
APP:IOP-I
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RMV:DUIC

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      RMV DUIC a COMPLETED

[2]   ____________________________________________________________
      RMV DUIC a ABORTED [b] [c]

[3]   ____________________________________________________________
      RMV DUIC a STOPPED d

[4]   ____________________________________________________________
      RMV DUIC a TASK e MSG STARTED

[5]   ____________________________________________________________
      RMV DUIC a STOPPED MESSAGE IN PROGRESS

[6]   ____________________________________________________________
      RMV DUIC a STOPPED MESSAGE COMPLETE
```

2. REASON FOR OUTPUT

To report the disposition of a request to remove the direct user interface controller (DUIC) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4 - 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error. Valid value(s):
- X'1 = Remove process error.
- X'2 = Driver error.
- [NULL] = Remove denied by driver or configuration control (CONFIG).

c = Error code.

If 'b' =	Explanation:
X'1	Refer to the APP:IOP-H appendix in the Appendixes section of the Output Messages

	manual.
x'2	Refer to the APP:IOP-G appendix in the Appendixes section of the Output Messages manual.

d = Error code. Refer to the APP:IOP-I appendix in the Appendixes section of the Output Messages manual.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal was stopped or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The "pudrv" subsystem generated messages have no alarms.

The "cft" subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level.

The "diag" subsystem generated messages have an automatically-generated alarm. Action may or may not be required.

6. REFERENCES

OMDB Key(s):

Subsystem:	Key(s):
pudrv	195, 196
cft	308
diag	96

Input Message(s):

```
RMV:DUIC
```

Output Appendix(es):

```
APP:IOP-G
APP:IOP-H
APP:IOP-I
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RMV:EAN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV EAN=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:EAN input message to remove a equipment access network (EAN) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Directly connected test unit number.

`c` = Termination status. Valid value(s):
- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`d` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:EAN
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:EC1STE

Software Release: 5E13 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV EC1STE=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an attempt to remove a Digital Networking Unit - Electrical Carrier Level 1 SONET Termination equipment facility (EC1STE) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital Networking Unit - SONET (DNU-S) number.

`c` = Data group (DG) number.

`d` = SONET Termination Equipment (STE) facility number.

`e` = Termination status. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action was not started.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTIONS TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

An automatic removal of an EC1STE in a DNU-S will cause a critical alarm.

6. REFERENCES

Input Message(s):

`RMV:EC1STE`

Output Appendix(es):

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APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

RMV:EOC

Software Release: 5E10 - 5E11
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
RMV EOC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of a RMV:EOC input message that removes a remote terminal (RT) embedded operations channel (EOC) circuit from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = RT number.

`d` = EOC number.

`e` = Termination report. Valid value(s):

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

Critical	= EOC removal while its mate is out of service (duplex failure).
Major	= EOC failure due to the removal of the path while its mate is out of service (duplex failure).
Minor	= EOC removal while its mate is in service (simplex operation).

6. REFERENCES

Input Message(s):

`RMV:EOC`

Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-110 *System Maintenance Requirements and Tools*

MCC Display Page(s):

188xyy (IDCU REMOTE TERMINAL)

RMV:FAC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV FAC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of an RMV:FAC input message to remove a remote switching module (RSM) facility (FAC) or a trunk FAC from service.

An RSM FAC can be a host-remote facility between a host switching module (HSM) and an RSM, or a remote facility between two RSMs. A trunk FAC is a inter-office trunk. This message also prints when a carrier group alarm (CGA) causes the FAC to be removed.

FAC containing packet pipe (PP) or packet pipe member (PPM) can not be removed conditionally. Doing so may result in the FAC being marked as degraded. An unconditional (UCL) remove command is needed to remove FAC with PP or PPM.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line and trunk unit (DLTU) number.

`c` = RSM digital facilities interface (RDFI), inter-RSM communication link digital facilities interface (CDFI), or inter-office trunk digital facilities interface (DFI) number.

`d` = FAC number. The FAC number is the T1 facility number on an RDFI, CDFI, or DFI.

`e` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action had not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, execute the OP:OFFNORM-SM input message.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:FAC
RST:FAC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RMV:FPC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV FPC=a b [c]
```

2. REASON FOR OUTPUT

To acknowledge a request to remove the specified foundation peripheral controller (FPC) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = FPC identification number (0 or 1).

`b` = Termination report. Valid value(s):

`ABORTED`	= Requested action is terminated before a normal completion and the consistency of hardware status or data is questionable.
`COMPLETED`	= Requested action is terminated after completion.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action is terminated before a normal completion but consistency of hardware status and data is reliable.

`c` = Additional information qualifying the termination report (variable 'b').

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RMV:FPC`

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RMV:GDSF

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV GDSF=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of removing a global digital services function (GDSF) circuit from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = GDSF number.

`c` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`d` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM input message and refer to the documents listed in the REFERENCES section of this message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RST:GDSF
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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RMV:GDSUCOM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV GDSUCOM=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:GDSUCOM input message to remove a global digital service unit common (GDSUCOM) board from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Global digital service unit (GDSU) number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:GDSUCOM
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:GDXACC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV GDXACC=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:GDXACC input message to remove a gated diode crosspoint access (GDXACC) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`COMPLETED CERTIFIED`	= Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:GDXACC
```

Output Appendix(es):

APP:MAINT-RESP

RMV:GDXC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV GDXC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:GDXC input message to remove a gated diode crosspoint compensator (GDXC) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = Metallic service unit board position number.

`e` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`COMPLETED CERTIFIED`	= Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:GDXC
```

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Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:GDXCON

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV GDXCON=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:GDXCON input message to remove a gated diode crosspoint control (GDXCON) circuit from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`COMPLETED CERTIFIED`	= Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:GDXCON
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:GRID

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV GRID=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:GRID input message to remove a gated diode crosspoint grid (GRID) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:GRID
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:GRIDBD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV GRIDBD=a-b-c-d      e   [f]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:GRIDBD input message to remove the line unit model 2 (LU2) or line unit model 3 (LU3) grid board from service, or to report the result of a recovery action taking the unit out of service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Line unit number.

`c` = Grid number.

`d` = Board number.

`e` = Termination status. Valid value(s):

`ABORTED`	= The action requested was unsuccessful. The termination was not graceful.
`COMPLETED`	= The request was successfully completed.
`NOT STARTED`	= Processing did not begin because the system was unable to service the request.
`STOPPED`	= The request terminated after processing was begun. The termination status was graceful.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:GRIDBD
```

Output Appendix(es):

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APP:MAINT-RESP

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:HDFI

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV HDFI=a-b-c d [e]
```

2. REASON FOR OUTPUT

To indicate the result of an RMV:HDFI input message to remove a host switching module (HSM) digital facilities interface (HDFI) circuit from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line and trunk unit (DLTU) number.

`c` = HDFI number.

`d` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was complete.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed, and independent certification of the resulting hardware status was made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RMV:HDFI`

Output Appendix(es):

`APP:MAINT-RESP`

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RMV:HSD

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      RMV HSD a COMPLETED

[2]   ____________________________________________________________
      RMV HSD a ABORTED [b] [c]

[3]   ____________________________________________________________
      RMV HSD a STOPPED d

[4]   ____________________________________________________________
      RMV HSD a TASK e MSG STARTED

[5]   ____________________________________________________________
      RMV HSD a STOPPED MESSAGE IN PROGRESS

[6]   ____________________________________________________________
      RMV HSD a STOPPED MESSAGE COMPLETE
```

2. REASON FOR OUTPUT

To report the disposition of a request to remove a high-speed synchronous data link (HSD) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4 - 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error. Valid value(s):
- X'1 = Remove process error.
- X'2 = Driver error.
- [NULL] = Remove denied by driver or CONFIG.

c = Error code.

If 'b' =	Explanation:
X'1	Refer to the APP:IOP-H appendix in the Appendixes section of the Output Messages

	manual.
x'2	Refer to the APP:IOP-G appendix in the Appendixes section of the Output Messages manual.

d = Error code. Refer to the APP:IOP-I appendix in the Appendixes section of the Output Messages manual.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The "pudrv" subsystem generated messages have no alarms.

The "cft" subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

The "diag" subsystem generated messages have an automatically-generated alarm. Action may or may not be required.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Subsystem:	Key(s):
pudrv	195, 196
cft	308
diag	96

Input Message(s):

```
RMV:HSD
UPD:OMDB
```

Output Appendix(es):

```
APP:IOP-G
APP:IOP-H
APP:IOP-I
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RMV:HSDC

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      RMV HSDC a COMPLETED

[2]   ____________________________________________________________
      RMV HSDC a ABORTED [b] [c]

[3]   ____________________________________________________________
      RMV HSDC a STOPPED d

[4]   ____________________________________________________________
      RMV HSDC a TASK e MSG STARTED

[5]   ____________________________________________________________
      RMV HSDC a STOPPED MESSAGE IN PROGRESS

[6]   ____________________________________________________________
      RMV HSDC a STOPPED MESSAGE COMPLETE
```

2. REASON FOR OUTPUT

To report the disposition of a request to remove a high-speed synchronous data link controller (HSDC) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4 - 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error. Valid value(s):
- X'1 = Remove process error.
- X'2 = Driver error.
- [NULL] = Remove denied by driver or configuration control (CONFIG).

c = Error code.

If 'b' =	Explanation:
X'1	Refer to the APP:IOP-H appendix in the Appendixes section of the Output Messages

	manual.
x'2	Refer to the APP:IOP-G appendix in the Appendixes section of the Output Messages manual.

d = Error code. Refer to the APP:IOP-I appendix in the Appendixes section of the Output Messages manual.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The "pudrv" subsystem generated messages have no alarms.

The "cft" subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

The "diag" subsystem generated messages have an automatically-generated alarm. Action may or may not be required.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Subsystem:	Key(s):
pudrv	195,196
cft	308
diag	96

Input Message(s):

```
RMV:HSDC
```

Output Appendix(es):

```
APP:IOP-G
APP:IOP-H
APP:IOP-I
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RMV:IDCU

Software Release: 5E10 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
RMV IDCU=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of an RMV:IDCU input message to remove an integrated digital carrier unit (IDCU) service group from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = IDCU service group.

`d` = Termination report. Valid value(s):

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

Critical = IDCU service group removal while its mate is out of service (that is, duplex failure)
Major = IDCU service group removal while the mate is in service (that is, simplex operation).

6. REFERENCES

Input Message(s):

```
RMV:IDCU
```

Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-110 *System Maintenance Requirements and Tools*
235-105-250 *System Recovery*

MCC Display Page(s):

186x (IDCU CIRCUIT)

RMV:IDCUELI

Software Release: 5E10 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
RMV IDCUELI=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of an RMV:IDCUELI input message to remove an integrated digital carrier unit (IDCU) electrical line interface (ELI) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number (0-7).

`c` = ELI number (0-1).

`d` = Termination report. Valid value(s):

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

Critical.

6. REFERENCES

Input Message(s):

`RMV:IDCUELI`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-110 *System Maintenance Requirements and Tools*
235-105-250 *System Recovery*

MCC Display Page(s):

186x (IDCU CIRCUIT)

RMV:IDCUEOC

Software Release: 5E12 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
RMV IDCUEOC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of a RMV:IDCUEOC input command that removes a remote terminal (RT) embedded operations channel (EOC) circuit from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = RT number.

`d` = EOC number.

`e` = Termination report. Valid values are:

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

Critical	= EOC removal while its mate is out of service (duplex failure).
Major	= EOC failure due to the removal of the path while its mate is out of service (duplex failure).
Minor	= EOC removal while its mate is in service (simplex operation).

6. REFERENCES

Input Message(s):

`RMV:IDCUEOC`

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Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-110 *System Maintenance Requirements and Tools*

MCC Display Page(s):

1880,x,yy (IDCU REMOTE TERMINAL)

RMV:IDCUPIDB

Software Release: 5E10 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
RMV IDCUPIDB=a-b-c d [e]
```

2. REASON FOR OUTPUT

To indicate the result of a RMV:IDCUPIDB input message to remove an integrated digital carrier unit (IDCU) peripheral interface data bus (PIDB) or direct PIDB (DPIDB) pair from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = PIDB or DPIDB pair number.

`d` = Termination report. Valid value(s):

- `ABORTED` = Immediate termination. A process has been purged and cleanup will be done by audits.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

Minor.

6. REFERENCES

Input Message(s):

`RMV:IDCUPIDB`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):

235-105-110	*System Maintenance Requirements and Tools*
235-105-220	*Corrective Maintenance*
235-105-250	*System Recovery*
235-105-331	*Hardware Change Procedures - Degrowth*

RMV:IDCUTMC

Software Release: 5E12 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
RMV IDCUTMC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the result of a RMV:IDCUTMC input command that removes a remote terminal (RT) timeslot management channel (TMC) circuit from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = RT number.

`d` = TMC number.

`e` = Termination report. Valid values are:

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

A critical alarm indicates TMC removal while its mate is out of service (duplex failure).

A major alarm indicates TMC failure due to the removal of the path while its mate is out of service (duplex failure).

A minor alarm indicates TMC removal while its mate is in service (simplex operation).

6. REFERENCES

Input Message(s):

`RMV:IDCUTMC`

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Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-110 *System Maintenance Requirements and Tools*

MCC Display Page(s):

1880,x,yy (IDCU REMOTE TERMINAL)

RMV:IFAC

Software Release: 5E10 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
RMV IFAC=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of an RMV:IFAC input message to remove an integrated digital carrier unit (IDCU) terminated digital signal level one (DS1) facility (IFAC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = IFAC number.

`d` = Termination report. Valid value(s):

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

Minor.

6. REFERENCES

Input Message(s):

`RMV:IFAC`

Output Appendix(es):

`APP:MAINT-RESP`

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

187x (IDCU FACILITY)
188xyy (IDCU REMOTE TERMINAL)

Copyright © 1999

RMV:IOP

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      RMV IOP a COMPLETED

[2]   ____________________________________________________________
      RMV IOP a ABORTED [b] [c]

[3]   ____________________________________________________________
      RMV IOP a STOPPED d

[4]   ____________________________________________________________
      RMV IOP a TASK e MSG STARTED

[5]   ____________________________________________________________
      RMV IOP a STOPPED MESSAGE IN PROGRESS

[6]   ____________________________________________________________
      RMV IOP a STOPPED MESSAGE COMPLETE
```

2. REASON FOR OUTPUT

To report the disposition of a request to remove an input/output processor (IOP) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4 - 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Type of error. Valid value(s):
- `X'1` = Remove process error.
- `X'2` = Driver error.
- `[NULL]` = Remove denied by driver or configuration control (CONFIG).

`c` = Error code.

If 'b' =	Explanation:
X'1	Refer to the APP:IOP-H appendix in the Appendixes section of the Output Messages

	manual.
x'2	Refer to the APP:IOP-G appendix in the Appendixes section of the Output Messages manual.

d = Error code. Refer to the APP:IOP-I appendix in the Appendixes section of the Output Messages manual.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The "pudrv" subsystem generated messages have no alarms.

The "cft" subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

The "diag" subsystem generated messages have an automatically-generated alarm. Action may or may not be required.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Subsystem:	Key(s):
pudrv	195,196
cft	308
diag	96

Input Message(s):

```
RMV:IOP
```

Output Appendix(es):

```
APP:IOP-G
APP:IOP-H
APP:IOP-I
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RMV:ISLUCC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV ISLUCC=a-b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of an RMV:ISLUCC input request to remove the integrated services line unit common controller (ISLUCC) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Integrated services line unit (ISLU) number.

`c` = Common controller number.

`d` = Termination status. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action has successfully completed.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

An unconditional removal of an ISLUCC while the mate is in an out-of-service (OOS) state will cause a critical alarm.

6. REFERENCES

Input Message(s):

`RMV:ISLUCC`

Output Appendix(es):

`APP:MAINT-RESP`

Copyright © 1999

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x (ISLU NETWORK)
170xy (ISLU LINE GROUP)

Copyright © 1999

RMV:ISLUCD

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV ISLUCD=a-b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of an RMV:ISLUCD input request to remove the integrated services line unit common data (ISLUCD) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Integrated services line unit (ISLU) number.

`c` = Common data number.

`d` = Termination status. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action has successfully completed.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

Critical. An unconditional removal of an ISLUCD while the mate is in an out-of-service state will cause a critical alarm.

6. REFERENCES

Input Message(s):

```
RMV:ISLUCD
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x (ISLU NETWORK)
170xy (ISLU LINE GROUP)

RMV:ISLUHLSC

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
RMV ISLUHLSC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To describe the result of the RMV:ISLUHLSC input message that was issued to remove an integrated services line unit (ISLU) high level service circuit from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = ISLU number.

`c` = ISLU service group number.

`d` = High level service circuit number.

`e` = Termination report. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`f` = Information that qualifies the above termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RMV:ISLUHLSC`

Output Appendix(es):

`APP:MAINT-RESP`

Copyright © 1999

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x,171x (ISLU)

RMV:ISLULBD

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV ISLULBD=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

Reports the result of an RMV:ISLULBD input request to remove the integrated services line unit line board (ISLULBD) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Integrated services line unit (ISLU) number.

`c` = Line group number.

`d` = Line board number.

`e` = Action status report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action has successfully completed.
`IN PROGRESS`	= Requested action is in progress.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RMV:ISLULBD`

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:ISLULC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV ISLULC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

Reports the result of an RMV:ISLULC input request to remove the integrated services line unit line card (ISLULC) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Integrated services line unit (ISLU) number.

`c` = Line group controller number.

`d` = Line card number.

`e` = Action status report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action has successfully completed.
`IN PROGRESS`	= Requested action is in progress.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RMV:ISLULC`

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x (ISLU NETWORK)
170xy (ISLU LINE GROUP)

RMV:ISLULCKT

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV ISLULCKT=a-b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Reports the result of an RMV:ISLULCKT input request to remove the integrated services line unit line circuit (ISLULCKT) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Integrated services line unit (ISLU) number.

`c` = Line group number.

`d` = Line board number.

`e` = Line circuit number.

`f` = Action status report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action has successfully completed.
- `IN PROGRESS` = Requested action is in progress.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RMV:ISLULCKT`

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Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:ISLULG

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV ISLULG=a-b-c d [e]
```

2. REASON FOR OUTPUT

Reports the result of an RMV:ISLULG input request to remove the integrated services line unit line group (ISLULG) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Integrated services line unit (ISLU) number.

`c` = Line group number.

`d` = Action status report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action has successfully completed.
`IN PROGRESS`	= Requested action is in progress.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RMV:ISLULG`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:ISLULGC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV ISLULGC=a-b-c d [e]
```

2. REASON FOR OUTPUT

Reports the result of an RMV:ISLULGC input request to remove the integrated services line unit line group controller (ISLULGC) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Integrated services line unit (ISLU) number.

`c` = Line group controller number.

`d` = Action status report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action has successfully completed.
`IN PROGRESS`	= Requested action is in progress.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RMV:ISLULGC`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x (ISLU NETWORK)
170xy (ISLU LINE GROUP)

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RMV:ISLUMAN

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
RMV ISLUMAN=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To describe the result of the RMV:ISLUMAN input message that was issued to remove an integrated services line unit (ISLU) metallic access network (MAN) pack from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = ISLU number.

`c` = ISLU service group number.

`d` = Metallic access network pack number.

`e` = Termination report. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`f` = Information that qualifies the above termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RMV:ISLUMAN`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x,171x (ISLU)

RMV:ISLUPIDB

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV ISLUPIDB=a-b-c d [e]
```

2. REASON FOR OUTPUT

To indicate the result of a RST:ISLUPIDB input message to remove the integrated services line unit peripheral interface data bus (ISLUPIDB) pair from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Integrated services line unit number.

`c` = Peripheral interface data bus (PIDB) number.

`d` = Termination status. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If termination is aborted or stopped, refer to the Corrective Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RMV:ISLUPIDB
RST:ISLUPIDB
```

Output Message(s):

```
RST:ISLUPIDB
```

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Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RMV:ISLURG

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
RMV ISLURG=a-b-c d [e]
```

2. REASON FOR OUTPUT

To describe the result of the RMV:ISLURG input message that was issued to remove an integrated services line unit (ISLU) ringing generator (RG) circuit from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = ISLU number.

`c` = ISLU service group number.

`d` = Termination report. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`e` = Information that qualifies the above termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RMV:ISLURG`

Output Appendix(es):

`APP:MAINT-RESP`

Other Manual(s):

235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x,171x (ISLU)

RMV:ISMNAIL-RSD

Software Release: 5E10 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
RMV ISMNAIL RECOVERY DLT=a-b MATEDLT=c-d e
```

2. REASON FOR OUTPUT

To inform the user that an inter-switching module (SM) nailup (ISMNAIL) has been automatically removed from service when no "hard fault" has been identified, which can cause the disruption in packet transport between two SMs.

Only three types of ISMNAIL removals are reported. The first deals with isolated recovery, where the loss of level 2 protocol has been detected. The second also deals with isolated recovery, where the protocol handler (PH) quality is too poor to facilitate reliable packet transport. In these two cases, automatic ISMNAIL restorations will be forthcoming. The third deals with automatic recoveries. If repeated attempts have been unsuccessful, the ISMNAIL will be removed to an out-of-service trouble analysis (OOS TBLA) state to prevent excessive automatic recoveries.

It should be noted that ISMNAIL recoveries associated with SM initializations/isolations or hardware faults will not be explicitly reported to avoid excessive reports to the receive-only printer (ROP). The user has been notified already about the root cause of the problem.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number (may be the SM associated with either end of the ISMNAIL).

`b` = Data link terminal (DLT) number (1-160) associated with the SM.

`c` = Mate SM number (the other SM associated with the ISMNAIL).

`d` = DLT number associated with the mate SM.

`e` = Valid value(s):

`LEVEL 2 PROTOCOL LOSS` = A reliable point-to-point transmission (level 2 protocol) on the ISMNAIL can not be maintained, despite local recovery attempts. There is no associated SM/hardware recovery that can account for the disruption. The problem was detected on the DLT number associated with the source SM.

`PH QUALITY PROBLEM` = The ISMNAIL has been subjected to excessive local recoveries or receipt of errored frames and reliable level 2 transmissions are impossible. The problem was detected on the DLT number associated with the source SM.

`TROUBLE ANALYSIS` = Despite repeated automatic recovery attempts, the ISMNAIL is not capable of reliably supporting packet transport between two SMs. However, no "hard fault" can be found that would prevent it from doing so. Thus, the ISMNAIL has been placed in the trouble analysis (OOS TBLA) state and the user is being notified to take action.

4. ACTION TO BE TAKEN

If the ISMNAIL has been removed due to level 2 protocol/PH quality problems, then do not take any direct actions as

automatic ISMNAIL recovery will be scheduled. Automatic ISMNAIL reconfiguration may stabilize the situation if alternate hardware resources are utilized, but repeated recoveries on the same ISMNAIL requires attention. The problem could be related to intermittent PH or packet switch unit (PSU) hardware problems, or intermittent faults in the ISMNAIL transmission path (especially noise on host-to-remote T1 umbilicals). Remove/diagnose suspected marginal hardware.

If the ISMNAIL is removed to an OOS-TBLA state, then repeated automatic recoveries have been attempted with no success. Marginal hardware problems, as the condition is persistent (and the same hardware may be affecting other circuit-switched traffic). In extremely heavy traffic conditions, common time multiplexed switch (TMS) timeslots may be unavailable for ISMNAIL usage. If so, then periodic restorations, using the RST:ISMNAIL command, may alleviate the problem. If the user does not identify the root cause of the problem and manually restore the ISMNAIL, the next automatic restoration attempt will take place at 3:30 AM (which may result in a repetition of the recovery events).

5. ALARMS

When an ISMNAIL is removed due to level 2 protocol/PH quality problems, no alarm is issued as automatic recovery will be pending.

When an ISMNAIL is removed to the OOS TBLA state, then this output will be issued with either a minor alarm or major alarm. If more then 50% of the ISMNAILs between a given pair of SMs are operational, then this output is issued with a minor alarm. If 50% or fewer of the ISMNAILs between a given pair of SMs are operational, then this output is issued with a major alarm. Whenever an ISMNAIL is removed to the OOS TBLA state, repeated automatic restoration attempts have failed and intervention is necessary.

6. REFERENCES

Input Message(s):

```
RST:ISMNAIL
```

Output Message(s):

```
RST:ISMNAIL
```

RMV:ISMNAIL-SD

Software Release: 5E10 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
RMV ISMNAIL DLT=a-b MATEDLT=c-d e [f]
```

2. REASON FOR OUTPUT

To respond to an RMV:ISMNAIL input message and indicate the success or failure of the inter-SM (switching module) nailup (ISMNAIL) removal request.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number that is the SM associated with either end of the ISMNAIL.

`b` = Data link terminal (DLT) number associated with the SM.

`c` = Mate SM number that is the other SM associated with ISMNAIL.

`d` = DLT number associated with the mate SM.

`e` = Termination report. Valid value(s):
`COMPLETED` = Request completed successfully.
`FAILURE` = Request was terminated before a normal completion.

`f` = Additional data qualifying the termination of the request, specifically. Valid value(s):
`DATABASE PROBLEM` = Problem occurred while attempting to access critical data (accompanying ASSERT should provide more details).
`INVALID NAILUP SPECIFIED` = An invalid nailup was specified in the input request.
`LACK OF MESSAGE RESOURCE` = Message resources were not available in the administration module (AM), and the craft request could not be forwarded to the SM for execution.
`LAST ISMNAIL BETWEEN SM'S` = The conditional removal of the last ISMNAIL between a pair of SMs is denied as it affect packet traffic. To remove the last nailup, the UCL option must be used.
`NOT OWNER OF PORT` = Could not gain ownership of the port to honor request (retry is advisable).
`SM IN MINMODE` = SM is in MINMODE, and, therefore, cannot support ISMNAILs.
`SM ISOLATED` = SM is isolated, and requested action cannot be honored.
`TIMEOUT` = Timeout occurred.

Note: For failed removals, the ISMNAIL may be left in a state, which will allow a successful automatic restoration at some later time; use OP:ST-ISMNAIL to determine current status associated with the affected ISMNAIL.

4. ACTION TO BE TAKEN

No further action is necessary, if the request completed successfully.

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If the termination report is FAILURE, the '`f`' field should give a reason as to why the request failed.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:ST-ISMNAIL
RMV:ISMNAIL
```

Output Message(s):

```
OP:ST-ISMNAIL
```

Other Manual(s):
235-600-500 *Asserts*

RMV:ISTF

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV ISTF=a-b c [d]
```

2. REASON FOR OUTPUT

To report the results of removing an integrated services test function (ISTF) unit from service using the RMV:ISTF input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = ISTF unit number.

`c` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was immediate and was not graceful.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated gracefully before a normal completion.

`d` = Additional data qualifying the termination report (variable '`c`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RST:ISTF
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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RMV:LDSF

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV LDSF=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of removing a local digital service function (LDSF) circuit from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = LDSF number.

`c` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`d` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM input message and refer to the documents listed in the REFERENCES section of this message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-CM
OP:OFFNORM-IS
OP:OFFNORM-PRI
OP:OFFNORM-SM
RST:LDSF
```

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RMV:LDSU

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV LDSU=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of removing a local digital service unit - model 2 (LDSU2) board from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local digital service unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RST:LDSU
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:LDSUCOM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV LDSUCOM=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:LDSUCOM input message to remove a local digital service unit common (LDSUCOM) board from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local digital service unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`COMPLETED CERTIFIED`	= Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:LDSUCOM
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:LINE-A

Software Release: 5E10 only
Message Class: LINE,RSB
Application: 5
Type: Output

1. FORMAT

```
RMV LINE [DN a[-b][+]][c] d [MLHG=q-r] s
  [t] [u] [u] [u] [u]      v [v] [v] [v] [v]
  .                       [w [w] [w] [w] [w]]
  .                        .
  .                        .
  .                        .
 [PER a1a1/a1a1 b1b1:b1b1:b1b1 c1 d1 [e1] f1]
```

2. REASON FOR OUTPUT

To report the removal of a line from service by the addition of the indicated status to the port(s) specified. Both the status added and the full resulting status for the port(s) are identified in the message. The removal of a digital subscriber line (DSL) will result in the status of all affected channels of the DSL's being reported in the output message.

This message may be in response to a RMV:LINE input message or may be generated automatically.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

PER = Protocol error record. Refer to the Protocol Error Record Descriptions manual for additional information about a specific PER.

+ = Indicates party line, custom multipoint interface DSL or standard interface multi-user DSL.

a = Telephone number.

b = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

c = Channel identifier (D, B1, or B2) originally specified in the remove request. Used only for DSL lines.

d = Equipment number or identifier. Valid value(s):

ILEN=e-x-y-z
LCEN=e-f-g-h
LCKEN=e-f-g^1-h^1-i^1
LEN=e-f-j-k-l-m
SLEN=e-n-o-p

e = Switching module (SM) number.

f = Line unit number.

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g = Line group number.

h = Line card number.

j = Grid number.

k = Switch board number.

l = Switch number.

m = Level number.

n = Digital carrier line unit.

o = Remote terminal (RT) number.

p = RT line number.

q = Multi-line hunt group number. Output Messages manual.

r = Hunt group member number. Output Messages manual.

s = The result (completion code) of the removal request. Valid value(s):

`CAMPON FAIL` = An unconditional removal may have been issued for the camped-on trunk or line or its family of equipment. Verify current line or trunk status.

`CAMPON NOT ALLOWED` = The ability to camp-on is not allowed on the line specified. It must therefore be removed by using the UCL option.

`CMP UNAVAILABLE` = The input request could not be completed because a needed communication module (CM) was unable to respond. Retry the request later.

`COMPL-RCV DELETE` = The specified status was successfully added to the indicated line because it was deleted from the database by Recent Change/Verify (RC/V).

`COMPLETED` = The specified status was successfully added to the port. Resulting port status is indicated.

`COMPLETED, TRUNKS REMAIN` = The request completed successfully but some or all ports may be defined as trunks. Use RMV:TRK message for the trunk ports.

`DUP REQUEST` = This input request is already being processed or the line is already out of service for the specified reason.

`INPUT ERROR` = Some data entered in the input request was invalid or incorrect.

`INV PORT` = The line could not be located in the data base. The line identifier used in the input request was most likely invalid or incorrect.

`INV PORT TYPE` = The port specified is not a line and cannot be changed using this input request. Determine the port's type (OP:CONV may help), and use the appropriate input request.

`INV STATUS` = An invalid status for the line was used in the input request.

`MLHG ACCESS DN` = The DN entered is a uniform call distribution (UCD), multi-position hunt (MUPH) multi-line hunt group line, or linear hunt line and as such cannot be removed by specifying its DN. An equipment number (that is, LEN, SLEN) or MLHG and member number must be specified. To obtain the line's equipment number and/or multi-line hunt group and member number, use RC/V for the DN or refer to office records.

`MP ACCESS DN` = The DN entered is a uniform call distribution multi-line hunt group line for modem pooling and cannot be removed by specifying its DN. An equipment number (that is, LEN, SLEN, LCEN) or MLHG and member number must be specified. To obtain the line's equipment number and/or multi-line hunt group and member number, use

recent change/verify (RC/V) for the DN or refer to office records.

`NAILUP RMV DENIED` = The port in question is nailed-up and removal is denied. Use the UCL parameter to do an unconditional removal.

`NO PROCESS` = An attempt to create a process failed. Possibly caused by the system's being busy. Retry the request later.

`NOT PRIMARY DN OR MLHG` = The DN or MLHG specified is not identified as the primary DN or MLHG and member on any line. It therefore cannot be used to identify which equipment is to be removed from service. Refer to RC/V or office records to determine the primary DNs or MLHG and member numbers.

`PORT BUSY` = The line remained busy for the camp-on period or an in-progress camp-on was terminated.

`PROCESS TIMEOUT` = Internal time-out during processing request.

`SM UNAVAILABLE` = The input request could not be completed because a needed SM was unable to respond. Retry the request later.

`STATUS CONFLICT` = Status to be added conflicts with the existing status on the line.

`SYSTEM BUSY` = The system's processing capability limit was reached or a system resource was unavailable. Retry the request later.

`SYSTEM ERROR` = System error occurred making it impossible to continue processing request.

`t` = Channel identifier; D, B1, or B2. Used only for DSL lines.

`u` = Status that was requested to be added to the line. The first subfield indicates the basic state; the second subfield indicates the qualifier; the third subfield indicates the operational restrictions; the fourth subfield indicates supplementary information; and the fifth subfield indicates the mode of the line. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual.

`v` = Resulting primary status in effect on the line. This status is the most restrictive to call processing currently on the line. The first subfield indicates basic state; the second subfield indicates the qualifier; the third subfield indicates the operational restrictions; the fourth subfield indicates supplementary information; and the fifth subfield indicates the mode of the line. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status.

`w` = Pending statuses (0-3) in effect on the line, if any. (Less restrictive than the primary status.) The first subfield indicates basic state; the second subfield indicates the qualifier; the third subfield indicates the operational restrictions; the fourth subfield indicates supplementary information; and the fifth subfield indicates the mode of the line. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status and the status hierarchy.

`x` = IDCU number. Output Messages manual.

`y` = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number. Output Messages manual.

`z` = RT line number or PUB43801 channel. Output Messages manual.

`a`[1] = Timestamp date, in the form month/day.

`b`[1] = Timestamp, in the form hour:minute:second.

`c`[1] = Protocol detecting the error. Valid value(s):

LAPB/SLP	= Link access protocol type B.
LAPD	= Link access protocol type D.
Q.931	= Q.931 ISDN call control protocol.
UNKNOWN	= Unknown protocol being used.
X.25	= X.25 public data network access protocol.
X.75	= X.75 public data network gateway protocol.
X.75P	= X.75' public data network gateway protocol.

d[1] = Protocol state for the network side of the interface when error was detected.

e[1] = Protocol state for the network side of the interface for the X.25 or X.75' or X.75 permanent virtual circuit or virtual circuit associated with the detected error.

f[1] = The frame/packet/message type that was received or transmitted when the error was detected.

g[1] = Line group number.

h[1] = Line board number.

i[1] = Line circuit number

4. ACTION TO BE TAKEN

If the line was removed automatically, determine if a hardware problem exists on that line, and if so, take corrective action.

5. ALARMS

Minor. Indicates the line was removed because a hard fault was detected and should be rectified.

6. REFERENCES

Input Message(s):

```
OP:CONV
OP:LIST
OP:NAILUP
OP:STATUS
RMV:LINE
RST:LINE
```

Output Appendix(es):

```
APP:PORT-STATUS
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-600-755 *Protocol Error Record Descriptions*

RMV:LINE-B

Software Release: 5E11 and later
Message Class: LINE,RSB
Application: 5
Type: Output

1. FORMAT

```
RMV LINE [DN a[-b][+]][c] d [MLHG=q-r] s
  [t] [u] [u] [u] [u]      v [v] [v] [v] [v]
  .                       [w [w] [w] [w] [w]]
  .                        .
  .                        .
  .                        .
 [PER a1a1/a1a1 b1b1:b1b1:b1b1 c1 d1 [e1] f1]
```

2. REASON FOR OUTPUT

To report the removal of a line from service by the addition of the indicated status to the port(s) specified. Both the status added and the full resulting status for the port(s) are identified in the message. The removal of a digital subscriber line (DSL) will result in the status of all affected channels of the DSL's being reported in the output message.

This message may be in response to a RMV:LINE input message or may be generated automatically.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

PER = Protocol error record. Refer to the Protocol Error Record Descriptions manual for additional information about a specific PER.

+ = Indicates party line, custom multipoint interface DSL or standard interface multi-user DSL.

a = Telephone number.

b = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

c = Channel identifier (D, B1, or B2) originally specified in the remove request. Used only for DSL lines.

d = Equipment number or identifier. Valid value(s):

AIUEN=e-j^1-k^1-l^1
ILEN=e-x-y-z
INEN=e-m^1-y-z
LCEN=e-f-g-h
LCKEN=e-f-g^1-h^1-i^1
LEN=e-f-j-k-l-m
SLEN=e-n-o-p

e = Switching module (SM) number.

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`f` = Line unit number.

`g` = Line group number.

`h` = Line card number.

`j` = Grid number.

`k` = Switch board number.

`l` = Switch number.

`m` = Level number.

`n` = Digital carrier line unit.

`o` = Remote terminal (RT) number.

`p` = RT line number.

`q` = Multi-line hunt group number.

`r` = Hunt group member number.

`s` = The result (completion code) of the removal request. Valid value(s):

`CAMPON FAIL` = An unconditional removal may have been issued for the camped-on trunk or line or its family of equipment. Verify current line or trunk status.

`CAMPON NOT ALLOWED` = The ability to camp-on is not allowed on the line specified. It must therefore be removed by using the UCL option.

`CMP UNAVAILABLE` = The input request could not be completed because a needed communication module (CM) was unable to respond. Retry the request later.

`COMPL-RCV DELETE` = The specified status was successfully added to the indicated line because it was deleted from the database by Recent Change/Verify (RC/V).

`COMPLETED` = The specified status was successfully added to the port. Resulting port status is indicated.

`COMPLETED, TRUNKS REMAIN` = The request completed successfully but some or all ports may be defined as trunks. Use RMV:TRK message for the trunk ports.

`DUP REQUEST` = This input request is already being processed or the line is already out of service for the specified reason.

`INPUT ERROR` = Some data entered in the input request was invalid or incorrect.

`INV PORT` = The line could not be located in the data base. The line identifier used in the input request was most likely invalid or incorrect.

`INV PORT TYPE` = The port specified is not a line and cannot be changed using this input request. Determine the port's type (OP:CONV may help), and use the appropriate input request.

`INV STATUS` = An invalid status for the line was used in the input request.

`MLHG ACCESS DN` = The DN entered is a uniform call distribution (UCD), multi-position hunt (MUPH) multi-line hunt group line, or linear hunt line and as such cannot be removed by specifying its DN. An equipment number (that is, LEN, SLEN) or MLHG and member number must be specified. To obtain the line's equipment number and/or multi-line hunt group and member number, use RC/V for the DN or refer to office records.

`MP ACCESS DN` = The DN entered is a uniform call distribution multi-line hunt group line for modem pooling and cannot be removed by specifying its DN. An equipment number (that is,

LEN, SLEN, LCEN) or MLHG and member number must be specified. To obtain the line's equipment number and/or multi-line hunt group and member number, use recent change/verify (RC/V) for the DN or refer to office records.

`NAILUP RMV DENIED` = The port in question is nailed-up and removal is denied. Use the UCL parameter to do an unconditional removal.

`NON-UNIQUE NXX DN` = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.

`NO PROCESS` = An attempt to create a process failed. Possibly caused by the system's being busy. Retry the request later.

`NOT PRIMARY DN OR MLHG` = The DN or MLHG specified is not identified as the primary DN or MLHG and member on any line. It therefore cannot be used to identify which equipment is to be removed from service. Refer to RC/V or office records to determine the primary DNs or MLHG and member numbers.

`PORT BUSY` = The line remained busy for the camp-on period or an in-progress camp-on was terminated.

`PROCESS TIMEOUT` = Internal time-out during processing request.

`SM UNAVAILABLE` = The input request could not be completed because a needed SM was unable to respond. Retry the request later.

`STATUS CONFLICT` = Status to be added conflicts with the existing status on the line.

`SYSTEM BUSY` = The system's processing capability limit was reached or a system resource was unavailable. Retry the request later.

`SYSTEM ERROR` = System error occurred making it impossible to continue processing request.

`t` = Channel identifier; D, B1, or B2. Used only for DSL lines.

`u` = Status that was requested to be added to the line. The first subfield indicates the basic state; the second subfield indicates the qualifier; the third subfield indicates the operational restrictions; the fourth subfield indicates supplementary information; and the fifth subfield indicates the mode of the line. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual.

`v` = Resulting primary status in effect on the line. This status is the most restrictive to call processing currently on the line. The first subfield indicates basic state; the second subfield indicates the qualifier; the third subfield indicates the operational restrictions; the fourth subfield indicates supplementary information; and the fifth subfield indicates the mode of the line. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status.

`w` = Pending statuses (0-3) in effect on the line, if any. (Less restrictive than the primary status.) The first subfield indicates basic state; the second subfield indicates the qualifier; the third subfield indicates the operational restrictions; the fourth subfield indicates supplementary information; and the fifth subfield indicates the mode of the line. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status and the status hierarchy.

`x` = IDCU number.

`y` = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

`z` = RT line number or PUB43801 channel.

a^1 = Timestamp date, in the form month/day.

b[1] = Timestamp, in the form hour:minute:second.

c[1] = Protocol detecting the error. Valid value(s):

LAPB/SLP	= Link access protocol type B.
LAPD	= Link access protocol type D.
Q.931	= Q.931 ISDN call control protocol.
UNKNOWN	= Unknown protocol being used.
X.25	= X.25 public data network access protocol.
X.75	= X.75 public data network gateway protocol.
X.75P	= X.75' public data network gateway protocol.

d[1] = Protocol state for the network side of the interface when error was detected.

e[1] = Protocol state for the network side of the interface for the X.25 or X.75' or X.75 permanent virtual circuit or virtual circuit associated with the detected error.

f[1] = The frame/packet/message type that was received or transmitted when the error was detected.

g[1] = Line group number.

h[1] = Line board number.

i[1] = Line circuit number

j[1] = Access interface unit (AIU) number.

k[1] = AIU pack number.

l[1] = AIU circuit number.

m[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

4. ACTION TO BE TAKEN

If the line was removed automatically, determine if a hardware problem exists on that line, and if so, take corrective action.

5. ALARMS

Minor. Indicates the line was removed because a hard fault was detected and should be rectified.

6. REFERENCES

Input Message(s):

```
OP:CONV
OP:LIST
OP:NAILUP
OP:STATUS
RMV:LINE
RST:LINE
```

Output Appendix(es):

```
APP:PORT-STATUS
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-600-755 *Protocol Error Record Descriptions*

RMV:LN

Software Release: 5E10 and later
Message Class: DGN
Application: 5,CNI
Type: Output

1. FORMAT

```
RMV LNa b c [d] [e]
```

2. REASON FOR OUTPUT

To report the status of a request to remove a link node (LN) from service. The removal request is either automatic, a result of excessive errors, or manual. A manual LN removal attempt with the RMV:LN input message is conditional upon having the signaling link not in service and can fail (ABORTED or STOPPED) or be successful (COMPLETED). An LN removal can also be reported in response to other input messages listed in the reference section. An automatic removal is unconditional and can only be SUCCESSFUL.

3. VARIABLE FIELD DEFINITIONS

a = Ring node (RN) group number.

b = Ring node member number.

c = Terminal status. Valid value(s):
ABORTED = Remove aborted.
COMPLETED = Unit removed.
STOPPED = Remove stopped.

d,e = Valid value(s):

If 'c' =	**'d' =**	**'e' =**
ABORTED	1 = Revove process error	Error code. Refer to the "Error Codes Generated by the IMSRMVRST Process" exhibit of the APP:CNI appendix in the Appendixes section of the Output Messages manual.
ABORTED	2 = Driver error.	Error code. Refer to the "Error Codes Returned to the IMSRMVRST Process by the IMS Driver" exhibit of the APP:CNI appendix in the Appendixes section of the Output Messages manual.
STOPPED	Error code. Refer to the "Reason for a Remove or Restore Request Being Stopped" exhibit of the APP:CNI appendix in the Appendixes section of the Output Messages manual.	

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again. Note that removal of a ring node is prohibited while the associated signaling link is in service. Refer to the CHG:SLK input message.

5. ALARMS

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None.

6. REFERENCES

Input Message(s):

```
CHG:SLK
FRMV:LN
INIT:LN
RMV:LN
```

Output Appendix(es):

```
APP:CNI
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

118 (CNI RING STATUS PAGE)
1520 (RING NODE STATUS PAGE)

RMV:LUCHAN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV LUCHAN=a-b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:LUCHAN input message to remove a line unit channel (LUCHAN) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Channel board number.

`e` = Channel number.

`f` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`g` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:LUCHAN
```

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Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:LUCHBD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV LUCHBD=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:LUCHBD input message to remove a line unit channel board (LUCHBD) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Channel board number.

`e` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`COMPLETED CERTIFIED`	= Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:LUCHBD
```

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Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:LUCOMC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV LUCOMC=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:LUCOMC input message to remove a line unit common control (LUCOMC) circuit from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`COMPLETED CERTIFIED`	= Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:LUCOMC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:LUHLSC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV LUHLSC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:LUHLSC input message to remove a line unit high level service circuit (LUHLSC) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = High level service circuit.

`e` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`COMPLETED CERTIFIED`	= Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:LUHLSC
```

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Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:MA

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV MA=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:MA input message to remove a metallic access (MA) board from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = Metallic access board number.

`e` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the References section of this message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:MA
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:MAB

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV: MAB=a-b-c-d e f
```

2. REASON FOR OUTPUT

To report the result of executing the RMV:MAB input message to remove the metallic access bus (MAB) from service, or as a result of a recovery action taking the unit out of service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Unit number.

`c` = Service group number.

`d` = Board number.

`e` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`COMPLETED CERTIFIED`	= Successful completion. Independent certification of resulting hardware, status is made.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the References section of this message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:MAB
```

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Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:MCTSI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV MCTSI=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:MCTSI input message to remove a module controller/time-slot interchange unit (MCTSI) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Module control unit number.

`c` = Termination status. Valid value(s):
- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`d` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:MCTSI
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:MD-A

Software Release: 5E11 only
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV MD SM=a b [c]
  PSUPH=d-e-f-g CHGMEM=h-i
```

2. REASON FOR OUTPUT

To confirm the request to remove a message delivery (MD) path.

3. VARIABLE FIELD DEFINITIONS

`a` = Common channel signaling (CCS) global switching module (GSM) number of the intra-GSM MD.

`b` = Termination status. Valid value(s):
`COMPLETED` = Request was successfully completed.
`STOPPED` = Request was terminated before normal completion.

`c` = Additional information qualifying the termination status. Valid value(s):

```
CDL RMV OF INTRA-GSM MD PATH NOT ALLOWED
DATA CORRUPTED
DATABASE ERROR
MESSAGE TIMEOUT
NONEXISTENT MD PATH
OUTPUT INCOMPLETE
SYSTEM FAILURE
UNSUCCESSFUL
```

`d` = Switching module (SM) number of the packet switching unit (PSU).

`e` = Unit number of PSU in SM.

`f` = Shelf number in PSU.

`g` = Protocol handler (PH) number on shelf.

`h` = Channel group number (logical PH number on shelf).

`i` = Logical channel group member number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

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None.

6. REFERENCES

Input Message(s):

```
RMV:MD
```

Other Manual(s):
235-120-120 *VCDX Users Guide*
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

1530 (GLOBAL SM MESSAGE DELIVERY STATUS)

RMV:MD-B

Software Release: 5E12 - 5E13
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV MD SM=a b [c]
  PSUPH=d-e-f-g CHGMEM=h-i
```

2. REASON FOR OUTPUT

To confirm the request to remove a message delivery (MD) path.

3. VARIABLE FIELD DEFINITIONS

`a` = Common channel signaling (CCS) global switching module (GSM) number of the intra-GSM MD.

`b` = Termination status. Valid value(s):
`COMPLETED` = Request was successfully completed.
`STOPPED` = Request was terminated before normal completion.

`c` = Additional information qualifying the termination status. Valid value(s):

```
CDL RMV OF INTRA-GSM MD PATH NOT ALLOWED
DATA CORRUPTED
DATABASE ERROR
MESSAGE TIMEOUT
NONEXISTENT MD PATH
OUTPUT INCOMPLETE
SYSTEM FAILURE
UNSUCCESSFUL
PATH ALREADY OOS
```

`d` = Switching module (SM) number of the packet switching unit (PSU).

`e` = Unit number of PSU in SM.

`f` = Shelf number in PSU.

`g` = Protocol handler (PH) number on shelf.

`h` = Channel group number (logical PH number on shelf).

`i` = Logical channel group member number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

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None.

6. REFERENCES

Input Message(s):

`RMV:MD`

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

1530 (GLOBAL SM MESSAGE DELIVERY STATUS)

RMV:MD-C

Software Release: 5E14 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV MD SM=a b [c]
  PSUPH=d-e-f-g CHGMEM=h-i
```

2. REASON FOR OUTPUT

To confirm the request to remove an intra-global switching module (GSM) message delivery (MD) path.

3. VARIABLE FIELD DEFINITIONS

a = Common channel signaling (CCS) GSM number.

b = Termination status. Valid value(s):

COMPLETED = Request was successfully completed.

STOPPED = Request was terminated before normal completion.

c = Additional information qualifying a STOPPED termination status. Valid value(s):

CDL RMV OF INTRA-GSM MD PATH NOT ALLOWED

DATA CORRUPTED

DATABASE ERROR

MESSAGE TIMEOUT

NONEXISTENT MD PATH

SYSTEM FAILURE

UNSUCCESSFUL

PATH ALREADY OOS

d = Switching module (SM) number of the packet switching unit (PSU).

e = Unit number of PSU in SM.

f = Shelf number in PSU.

g = Protocol handler (PH) number on shelf.

h = Channel group number (logical PH number on shelf).

i = Logical channel group member number.

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4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RMV:MD
```

Other Manual(s):
235-190-120 *Common Channel Signaling Service Features*

MCC Display Page(s):

1540 (GSM CMT STATUS)

RMV:MELNK

Software Release: 5E12 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV MELNK=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of an attempt to remove an MCTSI-based ethernet link (MELNK) on a switching module (SM) to a manual out of service state.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = MCTSI-based ethernet pipe (MEPIPE) number.

`c` = MELNK number.

`d` = Termination reason. Valid values are:
`ABORTED` = Requested action terminated abnormally.
`COMPLETED` = Requested action completed normally.
`NOT STARTED` = Requested action not attempted.

`e` = Optional additional information qualifying the termination reason. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:ST-MELNK
RMV:MELNK
RST:MELNK
```

Output Message(s):

```
OP:ST-MELNK
RST:MELNK
```

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Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-220 *Corrective Maintenance Procedure*

MCC Display Page(s):

1204 (MELNK STATUS)

RMV:MHD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      RMV MHD A COMPLETED

[2]   ____________________________________________________________
      RMV MHD a ABORTED [b] [c]

[3]   ____________________________________________________________
      RMV MHD a STOPPED d

[4]   ____________________________________________________________
      RMV MHD a TASK e MSG STARTED

[5]   ____________________________________________________________
      RMV MHD a STOPPED MESSAGE IN PROGRESS

[6]   ____________________________________________________________
      RMV MHD a STOPPED MESSAGE COMPLETED
```

2. REASON FOR OUTPUT

These messages report the disposition of a request to remove a moving head disk (MHD) from service.

Format 1 reports that the removal was successful.

Formats 2 and 3 report that the removal failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error. Valid value(s):
- X'1 = Remove process error.
- X'2 = Driver error.
- [NULL] = Remove denied by driver or configuration control (CONFIG).

c = Error code.

If 'b' =	Explanation:
X'1	Refer to the APP:DFC-G appendix in the Appendixes section of the Output Messages manual.

X'2	Refer to the APP:DFC-A appendix in the Appendixes section of the Output Messages manual.

d = Error code. Refer to the APP:DFC-H appendix in the Appendixes section of the Output Messages manual.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The pudrv subsystem generated messages have no alarm.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Subsystem:	Key(s):
pudrv	195 or 196
cft	308
diag	96

Input Message(s):

```
RMV:MHD
RMV:SBUS
```

Output Message(s):

```
DGN:MHD
RST:MHD
```

Output Appendix(es):

```
APP:DFC-A
APP:DFC-G
APP:DFC-H
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RMV:MMP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV MMP=a-b c [d]
```

2. REASON FOR OUTPUT

To acknowledge a request from fault recovery or a manual request to remove the specified module message processor (MMP) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch side.

`b` = MMP identification number.

`c` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was immediate.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion.

`d` = Additional information qualifying the termination report (variable '`c`').

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RMV:MMP
```

Other Manual(s):
235-105-250 *System Recovery Procedures*

RMV:MSCU

Software Release: 5E10 and later
Message Class: MSGS
Application: 5
Type: Output

1. FORMAT

```
RMV MSCU=a b [c]
```

2. REASON FOR OUTPUT

To report the results of a request to remove the specified message switch control unit (MSCU).

3. VARIABLE FIELD DEFINITIONS

`a` = MSCU side.

`b` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was not graceful.
`COMPLETED`	= Request was successfully completed.
`NOT STARTED`	= Requested action was not begun.
`STOPPED`	= Request was terminated before a normal completion. Termination was graceful.

`c` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

No further action is necessary if the request completed successfully. If the termination report is not `COMPLETED`, variable '`c`' should give some indication as to why the request failed. Use MSGS Master Control Center (MCC) pages or the OP:CFGSTAT input message to verify that the MSCU was in a valid state to perform the request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CFGSTAT
RMV:MSCU
```

Output Message(s):

```
OP:CFGSTAT-CM
```

Other Manual(s):
235-105-210 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

235-105-250 *System Recovery*

MCC Display Page(s):

1240/50 (MSGS 0/1 Summary)

RMV:MSGS

Software Release: 5E10 and later
Message Class: MSGS
Application: 5
Type: Output

1. FORMAT

```
RMV MSGS=a-b [c]
```

2. REASON FOR OUTPUT

To report the results of a request to remove the specified message switch (MSGS) from service and report what action was taken.

3. VARIABLE FIELD DEFINITIONS

`a` = MSGS identification number.

`b` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was not graceful.
`COMPLETED`	= Request was successfully completed.
`NOT STARTED`	= Requested action was not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`c` = Information/error field. Additional information qualifying the termination report (variable '`b`').

4. ACTION TO BE TAKEN

No further action is necessary if the request completed successfully. If the termination report is not `COMPLETED`, variable '`c`' should give some indication as to why the request failed. Use MSGS Master Control Center (MCC) pages or the OP:CFGSTAT input message to verify that the MSGS was in a valid state to perform the request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CFGSTAT
RMV:MSGS
```

Output Message(s):

```
OP:CFGSTAT-CM
```

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance Procedures*
235-105-250 *System Recovery Procedures*

MCC Display Page(s):

1240/50 (MSGS 0/1 SUMMARY)

RMV:MSUCOM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV MSUCOM=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:MSUCOM input message to remove a metallic service unit common (MSUCOM) board from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`COMPLETED CERTIFIED`	= Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the References section of this message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:MSUCOM
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:MT

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
RMV MT a b [c] [d]
```

2. REASON FOR OUTPUT

To report the disposition of a request to remove a magnetic tape (MT) unit from service. The removal request is either automatic, as a result of excessive errors, or manual. A manual MT removal attempt can fail (`ABORTED` or `STOPPED`) or be successful (`COMPLETED`). An automatic removal is always successful.

3. VARIABLE FIELD DEFINITIONS

`a` = MT member number.

`b` = Termination status. Valid value(s):
`COMPLETED` = Unit removed.
`ABORTED` = Remove aborted.
`STOPPED` = Remove stopped.

`c` = Valid value(s):

If 'b' =	'c' =
`ABORTED`	Type of error. Valid value(s): `1` = Diagnostic remove process error. `2` = Disk file controller (DFC) or input/output processor (IOP) driver error. `[NULL]` = Remove denied by driver or CONFIG.
`STOPPED`	Error code. If the MT is controlled by an IOP, refer to the APP:IOP-I appendix in the Appendixes section of the Output Messages manual. If the MT is controlled by a DFC, refer to the APP:DFC-H appendix in the Appendixes section of the Output Messages manual.

`d` = Error code. Valid value(s):

If the MT is controlled by:	'd' =
IOP	For a diagnostic restore process error ('c' = 1), refer to the APP:IOP-H appendix in the Appendixes section of the Output Messages manual. For IOP driver error ('c' = 2), refer to the APP:IOP-G appendix in the Appendixes section of the manual.
DFC	For a diagnostic restore process error ('c' = 1), refer to the APP:DFC-G appendix in the Appendixes section of the Output Messages manual. For a DFC driver error ('c' = 2), refer to the APP:DFC-A appendix in the Appendixes section of the Output Message manual.

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

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5. ALARMS

The "pudrv" subsystem generated messages have no alarms.

The "cft" subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

The "diag" subsystem generated messages have an automatically-generated alarm. Action may or may not be required.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

Input Message(s):

```
RMV:MT
UPD:OMDB
```

Output Appendix(es):

```
APP:IOP-G
APP:IOP-H
APP:IOP-I
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RMV:MTB

Software Release: 5E12 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV MTB=a-b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:MTB input message to remove a metallic access test bus (MTB) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = Metallic access board number.

`e` = Metallic access test bus.

`f` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`g` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RMV:MTB`

Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1135/1145 (MSU MA STATUS)

RMV:MTC

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      RMV MTC a COMPLETED

[2]   ____________________________________________________________
      RMV MTC a ABORTED [b] [c]

[3]   ____________________________________________________________
      RMV MTC a STOPPED d

[4]   ____________________________________________________________
      RMV MTC a TASK e MSG STARTED

[5]   ____________________________________________________________
      RMV MTC a STOPPED MESSAGE IN PROGRESS

[6]   ____________________________________________________________
      RMV MTC a STOPPED MESSAGE COMPLETE
```

2. REASON FOR OUTPUT

To report the disposition of a request to remove a magnetic tape controller (MTC) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4 - 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error. Valid value(s):
- X`1 = Remove process error.
- X`2 = Driver error.
- [NULL] = Remove denied by driver or configuration control (CONFIG).

c = Error code.

If 'b' =	'c' =
X'1	Refer to the APP:IOP-H appendix in the Appendixes section of the Output Messages manual.

X'2	Refer to the APP:IOP-G appendix in the Appendixes section of the Output Messages manual.

d = Error code, refer to the APP:IOP-I appendix in the Appendixes section of the Output Messages manual.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The "pudrv" subsystem generated messages have no alarms.

The "cft" subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

The "diag" subsystem generated messages have an automatically-generated alarm. Action may or may not be required.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	**Key(s):**
Subsystem:	Key(s):
pudrv	195 or 196
cft	308
diag	96

Input Message(s):

```
RMV:MTC
UPD:OMDB
```

Output Appendix(es):

```
APP:IOP-G
APP:IOP-H
APP:IOP-I
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RMV:MTIB

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV: MTIB=a b c
```

2. REASON FOR OUTPUT

To report the result of executing the RMV:MTIB input message to remove the metallic test interconnect bus (MTIB) from service, or as a result of a recovery action taking the unit out of service.

3. VARIABLE FIELD DEFINITIONS

`a` = MTIB number.

`b` = Termination status. Valid value(s):

- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware, status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`c` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the References section of this message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:MTIB
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):

235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:MTIBAX

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV:MTIBAX=a-b-c-d e f
```

2. REASON FOR OUTPUT

To report the result of executing the RMV:MTIBAX input message to remove the metallic test interconnect bus access (MTIBAX) from service, or as a result of a recovery action taking the unit out of service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Unit number.

`c` = Service group number

`d` = Board number.

`e` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`COMPLETED CERTIFIED`	= Successful completion. Independent certification of resulting hardware, status is made.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM, input message and refer to the documents listed in the References section of this message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:MTIBAX
```

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Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:MTTY

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      RMV MTTY a COMPLETED

[2]   ____________________________________________________________
      RMV MTTY a ABORTED [b] [c]

[3]   ____________________________________________________________
      RMV MTTY a STOPPED d

[4]   ____________________________________________________________
      RMV MTTY a TASK e MSG STARTED

[5]   ____________________________________________________________
      RMV MTTY a STOPPED MESSAGE IN PROGRESS

[6]   ____________________________________________________________
      RMV MTTY a STOPPED MESSAGE COMPLETE
```

2. REASON FOR OUTPUT

To report the disposition of a request to remove a maintenance teletypewriter (MTTY) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4 - 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error. Valid value(s):
- X'1 = Remove process error.
- X'2 = Driver error.
- [NULL] = Remove denied by driver or configuration control (CONFIG).

c = Error code.

If 'b' =	Explanation:
X'1	Refer to the APP:IOP-H appendix in the Appendixes section of the Output Messages manual.

X'2	Refer to the APP:IOP-G appendix in the Appendixes section of the Output Messages manual.

d = Error code. Refer to the APP:IOP-I appendix in the Appendixes section of the Output Messages manual.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The "pudrv" subsystem generated messages have no alarms.

The "cft" subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

The "diag" subsystem generated messages have an automatically-generated alarm. Action may or may not be required.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Subsystem:	Key(s):
pudrv	195, 196
cft	308
diag	96

Input Message(s):

```
RMV:MTTY
UPD:OMDB
```

Output Appendix(es):

```
APP:IOP-G
APP:IOP-H
APP:IOP-I
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RMV:MTTYC

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      RMV MTTYC a COMPLETED

[2]   ____________________________________________________________
      RMV MTTYC a ABORTED [b] [c]

[3]   ____________________________________________________________
      RMV MTTYC a STOPPED d

[4]   ____________________________________________________________
      RMV MTTYC a TASK e MSG STARTED

[5]   ____________________________________________________________
      RMV MTTYC a STOPPED MESSAGE IN PROGRESS

[6]   ____________________________________________________________
      RMV MTTYC a STOPPED MESSAGE COMPLETE
```

2. REASON FOR OUTPUT

To report the disposition of a request to remove a maintenance teletypewriter controller (MTTYC) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4 - 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error. Valid value(s):
- X'1 = Remove process error.
- X'2 = Driver error.
- [NULL] = Remove denied by driver or configuration control (CONFIG).

c = Error code.

If 'b' =	Explanation:
X'1	Refer to the APP:IOP-H appendix in the Appendixes section of

	the Output Messages manual.
x'2	Refer to the APP:IOP-G appendix in the Appendixes section of the Output Messages manual.

d = Error code. Refer to the APP:IOP-I appendix in the Appendixes section of the Output Messages manual.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The "pudrv" subsystem generated messages have no alarms.

The "cft" subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

The "diag" subsystem generated messages have an automatically-generated alarm. Action may or may not be required.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	**Key(s):**
Subsystem:	Key(s):
pudrv	195 or 196
cft	308
diag	96

Input Message(s):

```
RMV:MTTYC
UPD:OMDB
```

Output Appendix(es):

```
APP:IOP-G
APP:IOP-H
APP:IOP-I
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RMV:NCOSC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV NCOSC a b [c]
```

2. REASON FOR OUTPUT

This message is in response to the RMV:NCOSC input message.

3. VARIABLE FIELD DEFINITIONS

`NCOSC` = Network clock 2 oscillator.

`a` = Network clock side.

`b` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion and the termination was immediate (no cleanup was done).
- `COMPLETED` = Request completed successfully.
- `IN PROGRESS` = Request was received and action is in progress.
- `STOPPED` = Request was terminated before a normal completion due to hardware failure, data inconsistency or another system problem.

`c` = Additional data qualifying the terminated field.

4. ACTION TO BE TAKEN

No action is necessary if the request completed successfully. If the request failed, the variable '`c`' should give some indication as to why the request failed. Check the network clock (NC) MCC page or the OP:CFGSTAT output message to verify that the NC was in a valid state to perform the request. Also, check the receive-only printer (ROP) for error messages using the REPT:NC output messages that may indicate problems or system reconfigurations.

Note: A request to remove the last good oscillator will not be allowed; however, the oscillator states may be manipulated by the use of the SET:FRC-NCOSC input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RMV:NCOSC
RST:NCOSC
SET:FRC-NCOSC
```

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Output Message(s):

```
OP:CFGSTAT
REPT:NC
REPT:NC-NWP
```

MCC Display Page(s):

1211 (NETWORK CLOCK_

RMV:NCREF

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
RMV NCREF,{XC=a|b} c [d]
```

2. REASON FOR OUTPUT

To respond to the RMV:NCREF input message.

3. VARIABLE FIELD DEFINITIONS

XC = Cross-couple reference.

a = Network clock side.

b = Network clock reference (NCREF).

If office equipped with:	'b' =
Network clock 1 (NC1)	PRIM = Primary reference. SEC = Secondary reference.
Network clock 2 (NC2)	REFn = Reference number. n = 1-8.

c = Termination report. Valid value(s):

- ABORTED = Requested action was terminated before completion and the termination was immediate (no cleanup was done).
- COMPLETED = Requested action completed successfully.
- STOPPED = Requested action was terminated before a normal completion due to hardware failure, data inconsistency, or another problem.

d = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

No action is necessary if the request completed successfully. If the request failed, the variable 'd' should give some indication as to why the request failed. Check network clock MCC pages or the OP:CFGSTAT output message to verify that the network clock was in a valid state to perform the request. Check the receive-only printer (ROP) for error messages using the REPT:NC output messages that may indicate problems or system reconfigurations. If problems persist with a reference, they may be diagnosed by using the DGN:NC input message.

5. ALARMS

Major.

6. REFERENCES

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Input Message(s):

```
DGN:NC
RMV:NCREF
```

Output Message(s):

```
OP:CFGSTAT
REPT:NC
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1210 (MI/LI/NC)
1211 (NETWORK CLOCK)

RMV:NLI

Software Release: 5E10 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

```
RMV NLI=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of a request to remove from service a network link interface (NLI) in a switching module (SM).

Note: If the resulting QLPS configuration is not optimal after the removal, an automatic reconfiguration (switch) of the QLPS occurs.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.
`b` = NLI number.
`c` = Office network and timing complex (ONTC) side number that the NLI is on.
`d` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was immediate (no cleanup was done).
`COMPLETED`	= Request completed successfully.
`NOT STARTED`	= Requested action was not begun.
`STOPPED`	= Request was terminated before a normal completion. Attempts were made to leave everything in a correct state.

`e` = Additional data qualifying the termination status.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the System Maintenance Requirements and Tools, Corrective Maintenance Procedures and the System Recovery Procedures manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RMV:NLI
OP:CFGSTAT
OP:DMQ-CM-SM
```

Output Message(s):

```
OP:CFGSTAT-CM
OP:DMQ-CM
```

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OP:DMQ-SM

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance Procedures*
235-105-250 *System Recovery Procedures*

MCC Display Page(s):

1190 (MCTSI)
1200 (DLI/NLI)

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RMV:ONTC

Software Release: 5E10 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

```
RMV ONTC=a b [c]
```

2. REASON FOR OUTPUT

To acknowledge a request to remove the specified office network and timing complex (ONTC) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = ONTC side.

`b` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was immediate (no cleanup was done).
`COMPLETED`	= Request completed successfully.
`STOPPED`	= Request was terminated before a normal completion due to hardware failure, data inconsistency, etc.

`c` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual request. No further action is necessary if the request completed successfully. If the request failed, variable '`c`' should give some indication as to why the request failed. Check ONTC MCC pages or the OP:CFGSTAT output message to verify that the ONTC was in a valid state to perform the request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CFGSTAT
RMV:ONTC
```

Output Message(s):

```
OP:CFGSTAT
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1209 (ONTC 0 & 1)

RMV:ONTCCOM

Software Release: 5E10 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

```
RMV ONTCCOM=a b [c]
```

2. REASON FOR OUTPUT

To respond to a manual request to remove the specified office network and timing complex common unit (ONTCCOM).

3. VARIABLE FIELD DEFINITIONS

`a` = ONTCCOM side.

`b` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was immediate (no cleanup was done).
`COMPLETED`	= Request completed successfully.
`NOT STARTED`	= Requested action could not begin.
`STOPPED`	= Request was terminated before a normal completion. Attempts were made to leave everything in a sane state.

`c` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual request. No further action is necessary if the request completed successfully. If the termination report is not `COMPLETED`, variable '`c`' should give some indication as to why the request failed. Check ONTC MCC pages or the OP:CFGSTAT output message to verify that the ONTC was in a valid state to perform the request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CFGSTAT
RMV:ONTCCOM
```

Output Message(s):

```
OP:CFGSTAT
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1209 (ONTC 0 & 1)

RMV:OSCXC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV OSCXC a b [c]
```

2. REASON FOR OUTPUT

To respond to the RMV:OSCXC input message.

3. VARIABLE FIELD DEFINITIONS

`OSCXC` = Network clock 2 oscillator cross-couple reference.

`a` = Network clock side.

`b` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion and the termination was immediate (no cleanup was done).
- `COMPLETED` = Request completed successfully.
- `IN PROGRESS` = Request was received and action is in progress.
- `STOPPED` = Request was terminated before a normal completion due to hardware failure, data inconsistency, or another system problem.

`c` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

No action is necessary if the request completed successfully. If the request failed, the variable '`c`' should give some indication as to why the request failed. Check the network clock MCC page or the OP:CFGSTAT output message to verify that the NC was in a valid state to perform the request. Check the receive-only printer (ROP) for error messages using the REPT:NC output messages that may indicate problems or system reconfigurations.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RMV:OSCXC`

Output Message(s):

`REPT:NC`

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MCC Display Page(s):

1211 (NETWORK CLOCK)

RMV:OSPSPORT

Software Release: 5E10 and later
Message Class: LINE,RSB
Application: 5
Type: Output

1. FORMAT

```
RMV OSPSPORT [a] [PKT] [b] [c]  d
  [e] [e] [e] [e] [e]      f [f] [f] [f] [f]
                          [g [g] [g] [g] [g]]
                                  .
                                  .
                                  .
```

2. REASON FOR OUTPUT

To respond to a request to remove the specified Operator Services Position System (OSPS) port (OSPSPORT) from service by adding the specified status to the port identified. Both the status requested to be added and the full status resulting from the removal attempt are identified in the message. This message may be in response to a RMV:OSPSPORT input message or may be generated automatically.

When an autoquote mate analog (AQM) OSPSPORT is removed from service, its associated autoquote (AQ) data link is also removed from service.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`a` = Channel identifier: D, B1, or B2. Used only for digital subscriber line (DSL) OSPSPORTs.

`b` = Valid value(s):

```
AQEST=h
AQM=i-j
BST=k-l
OPT=k-l
XDPF=m
XDPO=k
```

`c` = Valid value(s):

```
LCEN=n-o-p-q
LCKEN=n-o-v-w-x
TEN=n-r-s-t-u
```

`d` = The result (completion code) of the removal request. Valid value(s):

`CAMPON FAIL` = The request to camp on the OSPSPORT failed.

`CAMPON NOT ALLOWED` = The ability to camp on is not allowed on the OSPSPORT specified. It must therefore be removed by specifying the UCL option.

`CMP UNAVAILABLE` = The input request could not be completed because a needed communications module (CM) was unable to respond. Retry the request later.

`COMPLETED` = The specified status was successfully added to the port. Resulting port status is

indicated.

`DUP REQUEST` = Line already out of service for the specified reason.

`INPUT ERROR` = Some data entered in the input request was invalid or incorrect.

`INV PORT` = The OSPSPORT could not be located in the database. The OSPSPORT identifier used in the input request was most likely invalid or incorrect.

`INV PORT TYPE` = The port specified is not an OSPSPORT and therefore can not be changed using the specified input request. Determine the port's type (the OP:CONV input message may help) and use the input request appropriate for its type.

`INV STATUS` = An invalid status for the OSPSPORT was specified in the input request.

`NO PROCESS` = An attempt to create a process failed. Possibly caused by the system's being busy. Retry the request later.

`PORT BUSY` = The OSPSPORT remained busy for the camp-on period or an in-progress camp-on was terminated. This report may also indicate that an AQM removal request was rejected because fewer than 50% of the associated autoquote data links would remain in service after the removal.

`PROCESS TIMEOUT` = Internal time-out during processing request aborted.

`SM UNAVAILABLE` = The input request could not be completed because a needed SM was unable to respond. Retry the request later.

`STATUS CONFLICT` = Status to be added conflicts with the existing status on the OSPSPORT.

`SYSTEM BUSY` = The system's processing capability limit was reached or a system resource was unavailable. Retry the request later.

`SYSTEM ERROR` = System error occurred making it impossible to continue processing request.

`e` = Status added to the OSPSPORT which effected its removal from service. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a description of the status subfields.

`f` = Resulting primary status in effect on the OSPSPORT. This status is the most restrictive to call processing currently on the OSPSPORT. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status.

`g` = Pending statuses in effect on the OSPSPORT, if any (Less restrictive than the primary status). Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status and the status hierarchy.

`h` = Telephone number.

`i` = Data link (group) number.

`j` = Relative link (member) number.

`k` = Operator service center number.

`l` = Relative position number.

`m` = Force management center number.

`n` = Switching module (SM) number.

`o` = Integrated services line unit number.

`p` = Line group controller number.

`q` = Line card number.

`r` = Trunk unit number.

`s` = Service group number.

`t` = Channel board number.

`u` = Circuit number.

`v` = Line group number.

`w` = Line board number.

`x` = Line circuit number.

4. ACTION TO BE TAKEN

If the OSPSPORT is removed automatically, determine if a hardware problem exists on that OSPSPORT, and if so, take corrective action.

To remove an OSPSPORT, use the RMV:OSPSPORT input message. To restore an OSPSPORT, use the RST:OSPSPORT input message. To get the current status of an OSPSPORT, use the OP:STATUS input message. To get a list of all OSPSPORTs with a specified status, use the OP:LIST input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LIST
OP:STATUS
RMV:OSPSPORT
RST:OSPSPORT
```

Output Appendix(es):

```
APP:PORT-STATUS
```

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

RMV:PMU

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV PMU=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:PMU input message to remove a precision measurement unit (PMU) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Directly connected test unit number.

`c` = Circuit number.

`d` = Termination status. Valid value(s):

- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:PMU
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:PPC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV PPC=a b [c]
```

2. REASON FOR OUTPUT

To acknowledge a request to remove the specified pump peripheral controller (PPC) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = PPC number.

`b` = Termination report. Valid value(s):

`ABORTED`	= Requested action is terminated before a normal completion and the consistency of hardware status or data is questionable.
`COMPLETED`	= Requested action is terminated after completion.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action is terminated before a normal completion but consistency of hardware status and data is reliable.

`c` = Additional data qualifying the termination report.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RMV:PPC`

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RMV:PROTO

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV: PROTO=a-b-c d e
```

2. REASON FOR OUTPUT

To report the result of executing the RMV:PROTO input message to remove the protocol circuit (PROTO) from service, or as a result of a recovery action taking the unit out of service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware, status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the References section of this message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:PROTO
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:PSU

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV PSU{a}=b-c-d[-e] f [g]
```

2. REASON FOR OUTPUT

Indicates the result of an RMV:PSU input message to remove a packet switch unit (PSU) common controller (COM) or protocol handler (PH) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Circuit name. Valid value(s):
- `COM` = Common controller.
- `PH` = Protocol handler.

`b` = Switching module (SM) number.

`c` = PSU number.

`d` = Shelf number.

`e` = Protocol handler number.

`f` = Termination status. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.
- `NOT-STARTED` = Requested action was not started.

`g` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

A critical alarm indicates PSUCOM removal while mate is out of service (duplex failure). A major alarm indicates PSUCOM removal (simplex operation) or, PSUPH removal.

6. REFERENCES

Copyright © 1999

Input Message(s):

```
RMV:PSU
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

118x (PSU SHELF)
1186 (PSU NETWORK)

RMV:PSUPIDB

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV PSUPIDB=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of a RMV:PSUPIDB input message to remove the packet switch unit (PSU) peripheral interface data bus (PIDB) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = PSU number.

`c` = PSU shelf number.

`d` = PIDB number.

`e` = Termination status. Valid value(s):

- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action could not be entertained for one of the following reasons:
  - There exists an active (ACT) PSU PIDB having a relative position higher than this PIDB.
  - PIDB position 0 relative to the PSUCOM can not be removed.
  - PIDB is in requested state.
  - At least one PSUCOM is busy.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.
  - There could be a resource problem such that all links on the PIDB in question can not be moved to another available PIDB.
  - Because of some other failure the removal stopped.

`f`= Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

Retry the command later if the response is other than `COMPLETED`.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
RMV:PSUPIDB
RST:PSUPIDB
```

Output Message(s):

```
RST:PSUPIDB
```

Output Appendix(es):

```
APP:MAINT-RESP
```

RMV:PSUSHLF

Software Release: 5E12 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV PSUSHELF=a-b-c-d e
```

2. REASON FOR OUTPUT

To report the result of a RMV:PSUSHELF input message to remove a packet switch unit (PSU) shelf side from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number (SM).

`b` = PSU number.

`c` = PSU shelf side to be removed.

`d` = PSU shelf number to be removed.

`e` = Termination status. Valid values are:

- `ABORTED` = Request aborted.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action could not be entertained for one of the following reasons:
  - The request was to remove the ACT PSU shelf side and the mate side was not out of service (OOS).
  - Shelf side is in requested state.

4. ACTION TO BE TAKEN

None

5. ALARMS

None

6. REFERENCES

Input Message(s):

`RMV:PSUSHLF`

Output Appendix(es):

`APP:MAINT-RESP`

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RMV:QGP

Software Release: 5E10 and later
Message Class: MSGS
Application: 5
Type: Output

1. FORMAT

```
RMV QGP=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of a request to remove the specified quad-link gateway processor (QGP) from service.

Note: As part of the QGP reconfiguration the quad-link packet switch (QLPS) may have been switched also.

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch side number.
`b` = QGP number.
`c` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`d` = Additional information qualifying the termination status.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the System Maintenance Requirements and Tools, Corrective Maintenance and System Recovery Procedures manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RMV:QGP
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery Procedures*

MCC Display Page(s):

Copyright © 1999

1380/1 (QLPS NETWORK 0/1 STATUS)

RMV:QLPS

Software Release: 5E10 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

```
RMV QLPS=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of a request to remove the specified quad-link packet switch (QLPS) from service.

Note: If the resulting QLPS configuration is not optimal after the removal, an automatic reconfiguration (switch) of the QLPS occurs.

3. VARIABLE FIELD DEFINITIONS

`a` = Office network and timing complex (ONTC) side number.
`b` = QLPS network number.
`c` = Termination status. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`d` = Additional information qualifying the termination status.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the System Maintenance Requirements and Tools, Corrective Maintenance and System Recovery Procedures manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RMV:QLPS
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery Procedures*

MCC Display Page(s):

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1209 (ONTC 0 & 1)
1380/1 (QLPS NETWORK 0/1 STATUS)

RMV:RAF

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV RAF=a-b c [d]
```

2. REASON FOR OUTPUT

To report the results of removing a recorded announcement function (RAF) unit from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RAF unit number.

`c` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was immediate and was not graceful.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated gracefully before a normal completion.

`d` = Additional data qualifying the termination report (variable '`c`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:RAF`

Output Appendix(es):

`APP:MAINT-RESP`

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RMV:RAU

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV RAU=a b [c]
```

2. REASON FOR OUTPUT

To indicate the result of an RMV:RAU input message to remove a remote switching module (RSM) alarm (RAU) circuit from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was complete.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed, and independent certification of the resulting hardware status was made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`c` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RMV:RAU`

Output Appendix(es):

`APP:MAINT-RESP`

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RMV:RCL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV RCL=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of an ABT:RCL input message request to remove a remote communication link (RCL) between inter-remote switching module (RSM) communication link digital facilities interface (CDFI) circuits from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line and trunk unit (DLTU) number.

`c` = CDFI number.

`d` = Facility (FAC) number. The FAC number is the T1 facility number on a CDFI.

`e` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action had not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:RCL
RMV:RCL
RST:RCL
```

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Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance Manual*

RMV:RCLK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV RCLK=a-b c [d]
```

2. REASON FOR OUTPUT

To acknowledge a request to remove the specified remote clock (RCLK) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RCLK side.

`c` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination is immediate. Consistency of hardware and data is questionable.
- `COMPLETED` = Requested action is terminated after completion.
- `NOT STARTED` = Requested action had not begun.
- `STOPPED` = Requested action is terminated before a normal completion, but consistency of hardware status and data is reliable.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If 'c' =	Action:
COMPLETED	No action is required.
NOT STARTED	Analyze variable 'd' to determine the cause.
STOPPED	Determine the cause from the RCLK messages on the receive only printer (ROP).

5. ALARMS

None.

6. REFERENCES

Input Message(s):

RMV:RCLK

Output Appendix(es):

APP:MAINT-RESP

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RMV:RCOSC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV RCOSC=a-b c [d]
```

2. REASON FOR OUTPUT

To acknowledge a request to remove the specified remote clock oscillator (RCOSC) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RCOSC side.

`c` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination is immediate. Consistency of hardware and data is questionable.
- `COMPLETED` = Requested action is terminated after completion.
- `NOT STARTED` = Requested action had not begun.
- `STOPPED` = Requested action is terminated before a normal completion, but consistency of hardware status and data is reliable.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If 'c' =	Action:
COMPLETED	No action is required.
NOT STARTED	Analyze the field 'd' to determine the cause.
STOPPED	Determine the cause from the remote clock (RCLK) messages on the receive only printer (ROP).

5. ALARMS

None.

6. REFERENCES

Input Message(s):

RMV:RCOSC

Output Appendix(es):

APP:MAINT-RESP

Copyright © 1999

RMV:RCOXC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV RCOXC=a-b-c [d]
```

2. REASON FOR OUTPUT

To acknowledge a request to remove a specified remote clock oscillator cross couple (RCOXC) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RCOXC side.

`c` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination is immediate. Consistency of hardware and data is questionable.
- `COMPLETED` = Requested action is terminated after completion.
- `NOT STARTED` = Requested action had not begun.
- `STOPPED` = Requested action is terminated before a normal completion, but consistency of hardware status and data is reliable.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If 'c' =	Action:
COMPLETED	No action is required.
NOT STARTED	Analyze the field 'd' to determine the cause.
STOPPED	Determine the cause from the remote clock (RCLK) messages on the receive-only printer (ROP).

5. ALARMS

None.

6. REFERENCES

Input Message(s):

RMV:RCOXC

Output Appendix(es):

APP:MAINT-RESP

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RMV:RCREF

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV RCREF=a-b c [d]
```

2. REASON FOR OUTPUT

To acknowledge a manual or automatic request to remove a remote clock reference (RCREF) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Reference number.

`c` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination is immediate. Consistency of hardware and data is questionable.
- `COMPLETED` = Requested action completed successfully.
- `NOT STARTED` = Requested action had not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If 'c' =	Action:
COMPLETED	No action is required.
NOT STARTED	Analyze variable 'd' to determine the cause.
STOPPED	Determine the cause from the remote clock (RCLK) messages on the receive-only printer (ROP).

5. ALARMS

Major.

6. REFERENCES

Input Message(s):

RMV:RCREF

Output Appendix(es):

APP:MAINT-RESP

Copyright © 1999

RMV:RCXC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV RCXC=a-b c [d]
```

2. REASON FOR OUTPUT

To acknowledge a manual or automatic request to remove a remote clock cross couple (RCXC) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Remote clock (RCLK) side.

`c` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination is immediate. Consistency of hardware and data is questionable.
- `COMPLETED` = Requested action completed successfully.
- `NOT STARTED` = Requested action had not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If 'c' =	Action:
COMPLETED	No action is required.
NOT STARTED	Analyze variable 'd' to determine the cause.
STOPPED	Determine the cause from the RCLK messages on the receive-only printer (ROP).

5. ALARMS

Major.

6. REFERENCES

Input Message(s):

RMV:RCXC

Output Appendix(es):

APP:MAINT-RESP

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RMV:RDFI

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV RDFI=a-b-c d [e]
```

2. REASON FOR OUTPUT

To indicate the result of an RMV:RDFI input message to remove a remote switching module (RSM) digital facilities interface (RDFI) circuit from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line and trunk unit (DLTU) number.

`c` = RDFI number.

`d` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was complete.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed, and independent certification of the resulting hardware status was made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RMV:RDFI`

Output Appendix(es):

`APP:MAINT-RESP`

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RMV:RLI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV RLI=a-b c [d]
```

2. REASON FOR OUTPUT

To indicate the result of an RMV:RLI input message to remove a remote switching module (RSM) remote link interface (RLI) circuit from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RLI number.

`c` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was complete.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed, and independent certification of the resulting hardware status was made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RMV:RLI`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:ROP

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]  ____________________________________________________________
     RMV ROP a COMPLETED

[2]  ____________________________________________________________
     RMV ROP a ABORTED [b] [c]

[3]  ____________________________________________________________
     RMV ROP a STOPPED d

[4]  ____________________________________________________________
     RMV ROP a TASK e MSG STARTED

[5]  ____________________________________________________________
     RMV ROP a STOPPED MESSAGE IN PROGRESS

[6]  ____________________________________________________________
     RMV ROP a STOPPED MESSAGE COMPLETE
```

2. REASON FOR OUTPUT

To report the disposition of a request to remove a receive-only printer (ROP) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal failed.

Formats 4 - 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error. Valid value(s):
- X'1 = Remove process error.
- X'2 = Driver error.
- [NULL] = Remove denied by driver or configuration control (CONFIG).

c = Error code. Valid value(s):

If 'b' =	Explanation:
X'1	Refer to the APP:IOP-H appendix in the Appendixes section of the Output Messages manual.

X'2	Refer to the APP:IOP-G appendix in the Appendixes section of the Output Messages manual.

d = Error code, Refer to the APP:IOP-I appendix in the Appendixes section of the Output Messages manual.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The "pudrv" subsystem generated messages have no alarm.

The "cft" subsystem messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

The "diag" subsystem messages have automatically-generated alarms; action may or may not be required.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
Subsystem	Key(s):
pudrv	195 or 196
cft	308
diag	96

Input Message(s):

RMV:ROP

Output Appendix(es):

APP:IOP-G
APP:IOP-H
APP:IOP-I
APP:OMDB-X-REF

Other Manual(s):
235-105-220 *Corrective Maintenance*

RMV:RPCN

Software Release: 5E10 and later
Message Class: DGN
Application: 5,CNI
Type: Output

1. FORMAT

```
RMV RPCNa 0 b [c] [d]
```

2. REASON FOR OUTPUT

To report the status of a request to remove a ring peripheral controller node (RPCN) from service. The removal request is either automatic, a result of excessive errors, or manual. A manual RPCN removal attempt is conditional upon having adequate traffic handling capacity and can fail (ABORTED or STOPPED) or be successful (COMPLETED). An automatic removal is unconditional and can only be successful.

3. VARIABLE FIELD DEFINITIONS

a = Ring node (RN) group number.

b = Terminal status. Valid value(s):
ABORTED = Remove aborted.
COMPLETED = Unit removed.
STOPPED = Remove stopped.

c = Valid value(s):

If 'b' =	'c' =
ABORTED	Type of error. Valid value(s): 1 = Remove process error. 2 = Driver error.
STOPPED	Error code; refer to the "Reason for a Remove or Restore Request Being Stopped" exhibit of the APP:CNI appendix in the Appendixes section of the Output Messages manual.

d = Error code. Valid value(s):

If 'c' =	'd' =
1	Refer to the "Error Codes Generated by the IMSRMVRST Process" exhibit of the APP:CNI appendix in the Appendixes section of the Output Messages manual.
2	Refer to the "Error Codes Returned to the IMSRMVRST Process by the IMS Driver" exhibit of the APP:CNI appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

If 'b' =	Alarm =
COMPLETED, leaving only one active RPCN.	Major
ABORTED or STOPPED	None

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6. REFERENCES

Input Message(s):

```
RMV:RPCN
```

Output Appendix(es):

```
APP:CNI
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

118 (CNI FRAME AND CCS LINK STATUS)

RMV:RRCLK

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV RRCLK=a-b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of an RMV:RRCLK input message to remove a remote integrated services line unit (RISLU) remote clock circuit pack (RRCLK) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RISLU number.

`c` = RRCLK side.

`d` = Termination status. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

In the case of automatic removal from service of an RRCLK circuit due to fault recovery actions, refer to the receive-only printer (ROP) for results of automatic diagnostics (DGN:RRCLK output messages) and repair the faulty circuit.

If unexpected results occur, refer to the Corrective Maintenance manual.

5. ALARMS

A critical alarm results when an RISLU duplex failure occurs as the result of an unconditional removal of an RRCLK side.

6. REFERENCES

Input Message(s):

`RMV:RRCLK`

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Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RMV:RT-EOC-A

Software Release: 5E10 - 5E11
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
RMV RT EOC=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of a RMV:RT-EOC input message that removes a remote terminal (RT) embedded operations channel (EOC) circuit from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Site identification number.

`b` = EOC number.

`c` = Termination report. Valid value(s):

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

A critical alarm indicates EOC removal while its mate is out of service (duplex failure). A major alarm indicates EOC failure due to the removal of the path while its mate is out of service (duplex failure). A minor alarm indicates EOC removal while its mate is in service (simplex operation).

6. REFERENCES

Input Message(s):

`RMV:RT-EOC`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-110 *System Maintenance Requirements and Tools*

MCC Display Page(s):

188xyy (IDCU REMOTE TERMINAL)

RMV:RT-EOC-B

Software Release: 5E12 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
RMV RT EOC=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of a RMV:RT-EOC input message that removes a remote terminal (RT) embedded operations channel (EOC) circuit from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Site identification number.

`b` = EOC number.

`c` = Termination report. Valid value(s):

- `ABORTED` = Immediate termination. A process has been purged and cleanup will be done by audits.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

A critical alarm indicates EOC removal while its mate is out of service (duplex failure). A major alarm indicates EOC failure due to the removal of the path while its mate is out of service (duplex failure). A minor alarm indicates EOC removal while its mate is in service (simplex operation).

6. REFERENCES

Input Message(s):

`RMV:RT-EOC`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-110 *System Maintenance Requirements and Tools*

MCC Display Page(s):

1880,x,yy (IDCU REMOTE TERMINAL)
1660,xxxx (TR303 REMOTE TERMINAL)

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RMV:RT-TMC-A

Software Release: 5E10 - 5E11
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
RMV RT TMC=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of a RMV:RT-TMC input message that removes a remote terminal (RT) timeslot management channel (TMC) circuit from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Site identification number.

`b` = TMC number.

`c` = Termination report. Valid value(s):

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by Audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

A critical alarm indicates TMC removal while its mate is out of service (duplex failure). A major alarm indicates TMC failure due to the removal of the path while its mate is out of service (duplex failure). A minor alarm indicates TMC removal while its mate is in service (simplex operation).

6. REFERENCES

Input Message(s):

`RMV:RT-TMC`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

188xyy (IDCU REMOTE TERMINAL)

RMV:RT-TMC-B

Software Release: 5E12 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
RMV RT TMC=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of a RMV:RT-TMC input message that removes a remote terminal (RT) timeslot management channel (TMC) circuit from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Site identification number.

`b` = TMC number.

`c` = Termination report. Valid value(s):

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by Audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

A critical alarm indicates TMC removal while its mate is out of service (duplex failure). A major alarm indicates TMC failure due to the removal of the path while its mate is out of service (duplex failure). A minor alarm indicates TMC removal while its mate is in service (simplex operation).

6. REFERENCES

Input Message(s):

`RMV:RT-TMC`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1880,x,yy (IDCU REMOTE TERMINAL)
1660,xxxx (TR303 REMOTE TERMINAL)

RMV:RTFAC

Software Release: 5E12 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
RMV RTFAC=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of a RMV:RTFAC input command that removes a remote terminal (RT) facility circuit from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Site identification number.

`b` = RT FAC number.

`c` = Termination report. Valid values are:

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by Audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

Minor.

6. REFERENCES

Input Message(s):

`RMV:RTFAC`

Output Appendix(es):

`APP:MAINT-RESP`

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1660,xxxx (TR303 REMOTE TERMINAL)

RMV:RVPT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV RVPT=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the results of executing RMV:RVPT input message to remove the revertive pulsing transceiver (RVPT) from service, or as a result of a recovery action taking the unit out of service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Unit number.

`c` = Service group.

`d` = Circuit number.

`e` = Termination status. Valid value(s):

`ABORTED`	= The removing process was purged. Further output showing data recovery by audits may follow.
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion. (Process gracefully terminated.)

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the Corrective Maintenance manual and System Recovery manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:RVPT
RST:RVPT
```

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Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:SAS

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV SAS=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of removing a service announcement system (SAS) unit from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = SAS unit number.

`c` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`d` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM input message and refer to the documents listed in the REFERENCES section of this message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-CM
OP:OFFNORM-IS
OP:OFFNORM-PRI
OP:OFFNORM-SM
RMV:SAS
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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RMV:SBUS

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
RMV SBUS a b [c][d]
```

2. REASON FOR OUTPUT

To report the status of a request to remove a SCSI bus (SBUS) and all the associated moving head disks (MHDs) from service.

If the remove process was invoked using the RMV SBUS poke on the DFSA display page during disk independent operation (DIOP) mode, a `REPT DKDIP MESSAGE` message precedes the actual output message line.

3. VARIABLE FIELD DEFINITIONS

`a` = SBUS member number.

`b` = Status of request. Valid value(s):
- `ABORTED` = Remove aborted.
- `COMPLETED` = Unit removed.
- `ERROR` = Encountered an error, remove aborted.
- `NOT STARTED` = The remove is not started.
- `STOPPED` = Remove stopped.

`c` = Valid value(s):

If '`b`' **=**	'`c`' **=**
`ABORTED`, `ERROR`, `NOT STARTED`, or `STOPPED` and if the command is started using the RMV SBUS poke on the DFSA display page.	Error code. Valid value(s): `f09` = Can't get the unit control block (UCB) of the unit by name. `f1b` = Unit is not active (ACT). `f1e` = Failed to open the device. `f20` = Refer to the disk driver (DKDRV) error report on the receive only printer (ROP). `f57` = Fail to send message to disk driver. `f60` = Message reception failure. `f63` = Process timed out waiting for message. `f67` = Failed to close special device file. `ffe` = Aborted due to phase 1.
`ABORTED`	Type of error. Valid value(s): `1` = Diagnostic remove process error. `2` = Driver/disk remove process error. `[NULL]` = Remove denied by driver or CONFIG.
`STOPPED`	Error code. Refer to the APP:DFC-H appendix in the Appendixes section of the Output Messages manual.

`d` = Valid value(s):

If '`b`' **=**	'`d`' **=**

ABORTED, ERROR, NOT STARTED, or STOPPED and if the command is started using the RMV SBUS poke on the DFSA display page.	Error code.
ABORTED	Error code. For diagnostic remove process, refer to the APP:DFC-G appendix in the Appendixes section of the Output Messages manual. For driver/Disk removal process, refer to the APP:DFC-F appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the remove did not complete successfully, correct the source of trouble and attempt the removal again. If the error condition persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

OMDB key 308 has a VAR (variable) alarm. There is no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

OMDB key 601 has a MAJ (major) alarm. If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	308, 601

Input Message(s):

```
RMV:MHD
RMV:SBUS
```

Output Appendix(es):

```
APP:DFC-F
APP:DFC-G
APP:DFC-H
MCC Display Page(s):
```

MCC Display Page(s):

(COMMON PROCESSOR DISPLAY)
(DISK FILE SYSTEM ACCESS)

RMV:SCAN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV SCAN=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:SCAN input message to remove a scan point board (SCAN) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = Scan point board number.

`e` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the Corrective Maintenance manual and System Recovery manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:SCAN
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:SCC

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      RMV SCC a COMPLETED

[2]   ____________________________________________________________
      RMV SCC a ABORTED [b] [c]

[3]   ____________________________________________________________
      RMV SCC a STOPPED d

[4]   ____________________________________________________________
      RMV SCC a TASK e MSG STARTED

[5]   ____________________________________________________________
      RMV SCC a STOPPED MESSAGE IN PROGRESS

[6]   ____________________________________________________________
      RMV SCC a STOPPED MESSAGE COMPLETE
```

2. REASON FOR OUTPUT

To report the disposition of a request to remove a Switching Control Center (SCC) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4 - 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error. Valid value(s):
- X'1 = Remove process error.
- X'2 = Driver error.
- [NULL] = Remove denied by driver or configuration control (CONFIG).

c = Error code.

If 'b' =	Explanation:
X'1	Refer to the APP:IOP-H appendix in the Appendixes section of the Output Messages manual.

X'2	Refer to the APP:IOP-G appendix in the Appendixes section of the Output Messages manual.

d = Error code. Refer to the APP:IOP-I appendix in the Appendixes section of the Output Messages manual.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The "pudrv" subsystem generated messages have no alarms.

The "cft" subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

The "diag" subsystem generated messages have an automatically-generated alarm. Action may or may not be required.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Subsystem:	Key(s):
pudrv	195, 196
cft	308
diag	96

Input Message(s):

```
RMV:SCC
UPD:OMDB
```

Output Appendix(es):

```
APP:IOP-G
APP:IOP-H
APP:IOP-I
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RMV:SCSDC

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      RMV SCSDC a COMPLETED

[2]   ____________________________________________________________
      RMV SCSDC a ABORTED [b] [c]

[3]   ____________________________________________________________
      RMV SCSDC a STOPPED d

[4]   ____________________________________________________________
      RMV SCSDC a TASK e MSG STARTED

[5]   ____________________________________________________________
      RMV SCSDC a STOPPED MESSAGE IN PROGRESS

[6]   ____________________________________________________________
      RMV SCSDC a STOPPED MESSAGE COMPLETE
```

2. REASON FOR OUTPUT

To report the disposition of a request to remove a scanner and signal distributor controller (SCSDC) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4 - 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Type of error. Valid value(s):
- `X'1` = Remove process error.
- `X'2` = Driver error.
- `[NULL]` = Remove denied by driver or configuration control (CONFIG).

`c` = Error code.

If 'b' =	Explanation:
X'1	Refer to the APP:IOP-H appendix in the Appendixes section of the Output Messages manual.

X'2	Refer to the APP:IOP-G appendix in the Appendixes section of the Output Messages manual.

d = Error code. Refer to the APP:IOP-I appendix in the Appendixes section of the Output Messages manual.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal is denied or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The "pudrv" subsystem generated messages have no alarms.

The "cft" subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

The "diag" subsystem generated messages have an automatically-generated alarm. Action may or may not be required.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Subsystem:	Key(s):
pudrv	195, 196
cft	308
diag	96

Input Message(s):

```
RMV:SCSDC
UPD:OMDB
```

Output Appendix(es):

```
APP:IOP-G
APP:IOP-H
APP:IOP-I
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RMV:SDFI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV SDFI=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the removal of a *SLC*® 96 digital facility interface (SDFI) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital carrier line unit (DCLU) number.

`c` = SDFI number.

`d` = Termination status. Valid value(s):

- `ABORTED` = The action requested was unsuccessful, and the termination was not graceful. Hardware states are not reliable.
- `COMPLETED` = The action completed successfully.
- `STOPPED` = The action terminated before a normal completion but the termination was graceful. Hardware states are reliable.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:SDFI
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:SDL

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      RMV SDL a COMPLETED

[2]   ____________________________________________________________
      RMV SDL a ABORTED [b] [c]

[3]   ____________________________________________________________
      RMV SDL a STOPPED d

[4]   ____________________________________________________________
      RMV SDL a TASK e MSG STARTED

[5]   ____________________________________________________________
      RMV SDL a STOPPED MESSAGE IN PROGRESS

[6]   ____________________________________________________________
      RMV SDL a STOPPED MESSAGE COMPLETE
```

2. REASON FOR OUTPUT

To report the disposition of a request to remove a synchronous data link (SDL) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4 - 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error. Valid value(s):
- X'1 = Remove process error.
- X'2 = Driver error.
- [NULL] = Remove denied by driver or configuration control (CONFIG).

c = Error code.

If 'b' =	Explanation:
X'1	Refer to the APP:IOP-H appendix in the Appendixes section of the Output Messages manual.

X'2	Refer to the APP:IOP-G appendix in the Appendixes section of the Output Messages manual.

d = Error code. Refer to the APP:IOP-I appendix in the Appendixes section of the Output Messages Manual.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The "pudrv" subsystem generated messages have no alarms.

The "cft" subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

The "diag" subsystem generated messages have an automatically-generated alarm. Action may or may not be required.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Subsystem:	Key(s):
pudrv	195, 196
cft	308
diag	96

Input Message(s):

```
RMV:SDL
UPD:OMDB
```

Output Appendix(es):

```
APP:IOP-G
APP:IOP-H
APP:IOP-I
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RMV:SDLC

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      RMV SDLC a COMPLETED

[2]   ____________________________________________________________
      RMV SDLC a ABORTED [b] [c]

[3]   ____________________________________________________________
      RMV SDLC a STOPPED d

[4]   ____________________________________________________________
      RMV SDLC a TASK e MSG STARTED

[5]   ____________________________________________________________
      RMV SDLC a STOPPED MESSAGE IN PROGRESS

[6]   ____________________________________________________________
      RMV SDLC a STOPPED MESSAGE COMPLETE
```

2. REASON FOR OUTPUT

To report the disposition of a request to remove a synchronous data link controller (SDLC) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4 - 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Type of error. Valid value(s):
- `X'1` = Remove process error.
- `X'2` = Driver error.
- `[NULL]` = Remove denied by driver or configuration control (CONFIG).

`c` = Error code.

If 'b' =	Explanation:
X'1	Refer to the APP:IOP-H appendix in the Appendixes section of the Output Messages manual.

X'2	Refer to the APP:IOP-G appendix in the Appendixes section of the Output Messages manual.

d = Error code. Refer to the APP:IOP-I appendix in the Appendixes section of the Output Messages manual.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The "pudrv" subsystem generated messages have no alarms.

The "cft" subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

The "diag" subsystem generated messages have an automatically-generated alarm. Action may or may not be required.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Subsystem:	Key(s):
pudrv	195, 196
cft	308
diag	96

Input Message(s):

```
RMV:SDLC
UPD:OMDB
```

Output Appendix(es):

```
APP:IOP-G
APP:IOP-H
APP:IOP-I
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RMV:SFI

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV SFI=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an attempt to remove a digital networking unit - synchronous optical network (DNU-S) synchronous transport signal electrical interface (STSX-1) facility interface (SFI) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = STSX-1 facility interface number.

`e` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action was successfully completed.
`IN PROGRESS`	= Requested action is in progress.
`NOT STARTED`	= Requested action was not started.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

An automatic unconditional removal of an SFI in a DNU-S data group while the mate SFI is in an out-of-service (OOS) state will cause a critical alarm.

6. REFERENCES

Input Message(s):

`RMV:SFI`

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Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

RMV:SLIM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV SLIM=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:SLIM input message to remove a subscriber line instrument measurement (SLIM) board from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = SLIM board number.

`e` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`COMPLETED CERTIFIED`	= Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the Corrective Maintenance manual and System Recovery manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:SLIM
```

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Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:STEFAC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV STEFAC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an attempt to remove a Digital Networking Unit - synchronous optical network (DNU-S) synchronous optical network (SONET) terminating equipment facility (STEFAC) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = SONET terminating equipment facility number.

`e` = Termination status. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action was not started.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

An automatic removal of an STEFAC in a DNU-S will cause a critical alarm.

6. REFERENCES

Input Message(s):

`RMV:STEFAC`

Output Appendix(es):

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APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

RMV:STSFAC-A

Software Release: 5E10 - 5E11
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV STSFAC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an attempt to remove a Digital Networking Unit - synchronous optical network (DNU-S) synchronous transport signal facility (STSFAC) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = STSFAC number.

`e` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action was not started.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RMV:STSFAC`

Output Appendix(es):

Copyright © 1999

APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1511 (DNUS STS)

RMV:STSFAC-B

Software Release: 5E12 only
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV STSFAC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an attempt to remove a Digital Networking Unit - synchronous optical network (DNU-S) synchronous transport signal facility (STSFAC) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = STSFAC number.

`e` = Termination status. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action was not started.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RMV:STSFAC`

Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1511 (DNUS STS MAINTENANCE)

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RMV:STSFAC-C

Software Release: 5E13 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV STSFAC=a-b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Indicates the result of an attempt to remove a Digital Networking Unit - synchronous optical network (DNU-S) synchronous transport signal facility (STSFAC) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital Networking Unit - SONET (DNU-S) number.

`c` = Data group (DG) number.

`d` = SONET Termination Equipment (STE) facility number.

`e` = Synchronous Transport Signal (STS) facility number.

`f` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action was not started.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTIONS TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RMV:STSFAC`

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Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1511 (DNUS STS MAINTENANCE)

RMV:TAC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV TAC=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:TAC input message to remove a test and access (TAC) circuit from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Trunk unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:TAC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:TEN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV TEN=a-b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:TEN input message to remove an analog trunk specified by a trunk equipment number (TEN) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = TEN unit number.

`c` = Service group number.

`d` = TEN board number.

`e` = TEN circuit number.

`f` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`g` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:TEN
```

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Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:TMC

Software Release: 5E10 - 5E11
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
RMV TMC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the result of a RMV:TMC input message that removes a remote terminal (RT) timeslot management channel (TMC) circuit from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = RT number.

`d` = TMC number.

`e` = Termination report. Valid value(s):

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

A critical alarm indicates TMC removal while its mate is out of service (duplex failure).

A major alarm indicates TMC failure due to the removal of the path while its mate is out of service (duplex failure).

A minor alarm indicates TMC removal while its mate is in service (simplex operation).

6. REFERENCES

Input Message(s):

`RMV:TMC`

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Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-110 *System Maintenance Requirements and Tools*

MCC Display Page(s):

188xyy (IDCU REMOTE TERMINAL)

RMV:TMUX

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV TMUX=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an attempt to remove a digital networking unit - synchronous optical network (SONET) (DNU-S) transmission multiplexer (TMUX) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = TMUX number.

`e` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action was successfully completed.
`IN PROGRESS`	= Requested action is in progress.
`NOT STARTED`	= Requested action was not started.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RMV:TMUX`

Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

RMV:TRK-A

Software Release: 5E10 - 5E11
Message Class: TRK
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      RMV TRK TKGMN=a-b v [ICB=h1|ICD=ih1] [PRIGRP=j1] h
        i [i] [i] [i] [i]     j [j] [j] [j] [j]
                             [k [k] [k] [k] [k]]
                                         .
                                         .
                                         .
       [PER a1/a1a1 b1b1:b1b1:b1b1 c1 d1 e1 [f1 g1]

[2]   ____________________________________________________________________
      RMV TRK [DN=p]  DEN=c-l-m-n  [MLHG=q-r] h
        i [i] [i] [i] [i]     j [j] [j] [j] [j]
                             [k [k] [k] [k] [k]]
                                         .
                                         .
                                         .
       [PER a1/a1a1 b1b1:b1b1:b1b1 c1 d1 e1 [f1 g1]

[3]   ____________________________________________________________________
      RMV TRK [PRIGRP=j1|TKGMN=a-b&&c|TG=k1] [CH=l1]  z
```

2. REASON FOR OUTPUT

To report the removal from service of an analog, digital trunk or an X.25 access on T1 (XAT) port. This resulted from adding the indicated status to the trunk specified.

Format 1 indicates removal of analog or digital trunks.

Format 2 indicate removal of XAT ports.

Format 3 indicates the start and/or end of a group or range removal. This message may be in response to a RMV:TRK input message or may be generated automatically.

Both the status added and the full resulting status for the trunk are identified in the message. The status information in the left half (column) of the message is the status that was to be added. The status in the right half (column) of the message is the status in effect on the trunk at the completion of the attempt to remove the port.

Logical test ports (LTPs) are identified with the corresponding logical test port numbers.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`PER` = Protocol error record. Refer to the Protocol Error Record Descriptions manual for additional information about a specific PER.

a = Trunk group number.

b = Trunk group member number or lower limit of a range of trunk member number.

c = Upper limit of a range of trunk member number.

d = Trunk unit number.

e = Service group number.

f = Channel board number.

g = Circuit number.

h = The result of the removal request. Valid value(s):

`CAMPON FAIL` = An unconditional removal may have been issued for the camped-on trunk or line or its family of equipment. Verify current line or trunk status.

`CAMPON NOT ALLOWED` = The ability to camp-on is not allowed on the trunk specified. It must, therefore, be removed by using the UCL option.

`CMP UNAVAILABLE` = The input request could not be completed because a needed communications module (CM) was unable to respond. Retry the request later.

`COMPL-AML EXC` = The requested status was added to the port since this was a manual request. However the automatic maintenance limit (AML) was exceeded in doing so.

`COMPL-SWITCH FAIL` = The requested status was successfully added to this D-channel backup primary rate interface (DCBU PRI) while a switch-over was in progress. The switch-over failed, and the PRI does not have an active D-channel for signalling.

`COMPL-SWITCH IP` = The requested status was successfully added to the active D-channel of a DCBU PRI. Signalling for the PRI is lost on this D-channel, and a switch-over to the standby D-channel is in progress. Additional output messages will follow to indicate the result of the switch-over attempt.

`COMPL-RCV DELETE` = The requested status was successfully added to the indicated trunk because it was deleted from the database by recent change/verify (RC/V).

`COMPLETED` = The specified status was successfully added to the port. Resulting port status is indicated.

`COMPLETED,LINES REMAIN` = The request completed successfully but some or all ports may be defined as lines. Use RMV:LINE message for the line ports.

`COMPLETED-PVC OOO` = The X.75' or X.75 trunk that was removed from service is provisioned for permanent virtual circuits (PVCs). The PVCs on the OOS trunk are reset out-of-order (OOO).

`DATABASE ERROR` = The indicated port status could not be added to the trunk because static data associated with the trunk could not be updated. This error can occur if customer originated recent changes (CORCs) are inhibited or if the office database editor (ODBE) is being used to update data associated with the trunk.

`DENIED-AML EXC` = The indicated status was not added to the port since the request was automatic and the AML would have been exceeded had the status been added.

`DENIED-PSML EXC` = The indicated status was not added to the packet switching trunk port because the packet switching maintenance limit (PSML) would have been exceeded. The PSML is set to 25% of the trunk group size. Use the UCL option to override the PSML check.

`DENIED-SDL REQUIRES UCL` The request was denied because requests to change the status of a DEN or NEN supporting an signalling data link (SDL) port are not recommended and must have the UCL option applied.

`DUP REQUEST` = Port already out-of-service (OOS) for the specified reason.

`INPUT ERROR` = Some data entered in the input request was invalid or incorrect.
`INV EQUIPMENT` = The request was for equipment that does not exist or was not assigned.
`INV HARDWARE` = The request did not match the hardware type of the port.
`INV PORT` = The port could not be located in the database. The port identifier used in the input request was most likely invalid or incorrect.
`INV PORT TYPE` = The specified port is not a trunk.
`INV STATUS` = An invalid status for the port was specified in the input request.
`NON-UNIQUE NXX DN` = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.
`NO PROCESS` = An attempt to create a process failed. This was possibly caused by the system's being busy. Retry the request later.
`OCU LBK TST FAILED` = The packet switching trunk was not restored to service because the operational digital loopback test with the termination point at the office channel unit (OCU) failed. The digital loopback test requires an integrated services transmission function (ISTF) or global digital services function (GDSF) unit to be operational. An attempt will be made periodically (approximately every three minutes) to restore the trunk to service automatically. Use the "UCL" option on the RST:TRK input message to bypass the OCU loopback test.
`PORT BUSY` = The line or trunk remained busy for the camp-on period or an in-progress camp-on was terminated.
`PROCESS TIMEOUT` = Internal time-out while processing the request.
`REQUEST FAILED` = A System error occurred making it impossible to continue processing the request.
`RESOURCE FAILURE` = The indicated port status could not be added to the trunk because of a temporary resource shortage. Either a process could not be created or a storage buffer was full because the system is busy. Retry the request later.
`SM UNAVAILABLE` = The input request could not be completed because a needed switching module (SM) was unable to respond. Retry the request later.
`STATUS CONFLICT` = Status to be added conflicts with the existing status on the port.
`SYSTEM BUSY` = The system's processing capability limit has been reached or a system resource was unavailable. Retry the request later.
`SYSTEM ERROR` = A system error occurred making it impossible to continue processing the request.
`UCD|MUPH MLHG` = The DN entered is a multi-line hunt group channel and as such cannot be removed by specifying its DN. An equipment number (that is, DEN) or MLHG and member number must be specified. To obtain the channel equipment number and/or multi-line hunt group and member number, use RC/V for the DN or refer to office records.

`i` = Status that was requested to be added to the trunk. The first subfield indicates basic state; the second subfield indicates qualifier; the third subfield indicates operational restrictions; the fourth subfield indicates supplementary information; and the fifth subfield indicates the mode of the primary status. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status.

`j` = Resulting primary status in effect on the trunk. This status is the most restrictive to call processing currently on the trunk. The first subfield indicates basic state; the second subfield indicates qualifier; the third subfield indicates operational restrictions; the fourth subfield indicates supplementary information; and the fifth subfield indicates the mode of the primary status. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status.

k = Pending statuses in effect on the trunk, if any. A trunk may have from zero to three pending statuses, all of which would be listed on subsequent lines of this message. Pending statuses are less restrictive than the primary status. The first subfield indicates basic state; the second subfield indicates qualifier; the third subfield indicates operational restrictions; the fourth subfield indicates supplementary information; and the fifth subfield indicates the mode of the primary status. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status and the status hierarchy.

l = Digital line and trunk unit (DLTU) number.

m = Digital facility interface number.

n = Channel number.

o = SM number.

p = Packet switch B-channel directory number.

q = MLHG number.

r = MLHG member number.

s = Digital carrier line unit number.

t = Remote terminal number.

u = Remote terminal line number.

v = Valid value(s):

DEN=o-l-m-n
ILEN=o-m^1-t-u
INEN=o-n^1-t-u
LTP=o-w
NEN=o-n^1-o^1-p^1-q^1-r^1
PSUEN=o-s^1-t^1-u^1-v^1
RAF=o-x-y
SAS=o-x-y
SLEN=o-s-t-u
TEN=o-d-e-f-g

w = Logical test port number.

x = RAF or SAS unit number.

y = RAF or SAS announcement channel number.

z = Status report. Valid value(s):

COMPLETED = Remove processing for the trunk group, PRI group, or range of trunks has completed.

DATABASE ERROR = An internal error occurred while attempting to access the trunk group or PRI group data. Repeat the request if desired.

DENIED-PRI D CH TG = The request to remove the entire trunk group or range of trunks has been denied because the trunk group contains PRI D-channels.

DENIED-OSPS-PRI D CH TG = The request to remove the entire trunk group or range of trunks

has been denied because the trunk group contains Operator Services Position System (OSPS) PRI D-channels.

`INVALID PRI GROUP` = The PRI group specified in the input request was invalid. Verify that the correct group number was specified.

`NO CHANNELS ASSIGNED` = The PRI group specified does not have any channels assigned to it.

`STARTED` = Request was received and action has started.

`TG INVALID` = The trunk group specified in the input request was invalid. Verify that the correct group number was specified.

`a`[1] = Timestamp date, in the form month/day.

`b`[1] = Timestamp, in the form hour:minute:second.

`c`[1] = Protocol detecting the error. Valid value(s):

- `LAPB/SLP` = Link access protocol type B.
- `LAPD` = Link access protocol type D.
- `Q.931` = Q.931 ISDN call control protocol.
- `X.25` = X.25 public data network access protocol.
- `X.75P` = X.75' public data network gateway protocol.
- `X.75` = X.75 public data network gateway protocol.
- `UNKNOWN` = Unknown protocol being used.

`d`[1] = Protocol state for the network side of the interface when error was detected.

`e`[1] = Protocol state for the network side of the interface for the X.25 or X.75' or X.75 permanent virtual circuit or virtual circuit associated with the detected error.

`f`[1] = The frame/packet/message type that was received or transmitted when the error was detected.

`g`[1] = Protocol error record. Refer to the Protocol Error Record Descriptions manual for additional information about a specific PER.

`h`[1] = Identifying number of the FGB carrier, which can be up to 4 digits. If present, this variable indicates a direct trunk to a carrier.

`i`[1] = Identifying number of the FGD carrier, which can be up to 4 digits. If present, this variable indicates a direct trunk to a carrier.

`j`[1] = PRI group number.

`k`[1] = Trunk group number.

`l`[1] = Channels on the PRI being removed. Valid value(s):

- `B` = All B-channels of the PRI.
- `D` = D-channel of the PRI or both D-channels if the PRI is equipped with a backup D-channel.

`m`[1] = IDCU number.

`n`[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

`o`[1] = Data group number.

p[1] = Synchronous transport signal (STS) number.

q[1] = Virtual tributary 1.5 (VT1.5) number.

r[1] = Digital signal level 0 (DS0).

s[1] = PSU unit number.

t[1] = PSU shelf number.

u[1] = PSU channel group number.

v[1] = PSU channel group member number.

4. ACTION TO BE TAKEN

If the trunk was taken OOS automatically, it is probably a hardware or transmission problem. Identify and correct the problem. If the trouble persists and cannot be identified, notify the far-end office so that similar action can be taken.

To add an OOS status to a trunk, use input message RMV:TRK. To delete an OOS status from a trunk, use input message RST:TRK. To get the current status of a trunk, use input message OP:STATUS. To get a list of trunks in a specific OOS state, use input message OP:LIST.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LIST
OP:STATUS
RMV:TRK
RST:TRK
```

Output Appendix(es):

```
APP:PORT-STATUS
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-600-755 *Protocol Error Record Descriptions*

RMV:TRK-B

Software Release: 5E12 only
Message Class: TRK
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      RMV TRK  TKGMN=a-b v [ICB=h1|ICD=ih1] [PRIGRP=j1] h
        i [i] [i] [i] [i]     j [j] [j] [j] [j]
                             [k [k] [k] [k] [k]]
                                          .
                                          .
                                          .
               PER a1a1/a1a1 b1b1:b1b1:b1b1 c1 d1 e1 [f1 g1]

[2]   ____________________________________________________________________
      RMV TRK [DN=p]  DEN=c-l-m-n  [MLHG=q-r] h
        i [i] [i] [i] [i]     j [j] [j] [j] [j]
                             [k [k] [k] [k] [k]]
                                          .
                                          .
                                          .
               PER a1a1/a1a1 b1b1:b1b1:b1b1 c1 d1 e1 [f1 g1]

[3]   ____________________________________________________________________
      RMV TRK  [PRIGRP=j1|TKGMN=a-b&&c|TG=k1] [CH=l1]  z
```

2. REASON FOR OUTPUT

To report the removal from service of an analog, digital trunk or an X.25 access on T1 (XAT) port. This resulted from adding the indicated status to the trunk specified.

Format 1 indicates removal of analog or digital trunks. Format 2 indicate removal of XAT ports. Format 3 indicates the start and/or end of a group or range removal. This message may be in response to a RMV:TRK input message or may be generated automatically. Both the status added and the full resulting status for the trunk are identified in the message. The status information in the left half (column) of the message is the status that was to be added. The status in the right half (column) of the message is the status in effect on the trunk at the completion of the attempt to remove the port. Logical test ports (LTPs) are identified with the corresponding logical test port numbers.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

PER = Protocol error record. Refer to the Protocol Error Record Descriptions manual for additional information about a specific PER.

a = Trunk group number.

b = Trunk group member number or lower limit of a range of trunk member number.

c = Upper limit of a range of trunk member number.

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d = Trunk unit number.

e = Service group number.

f = Channel board number.

g = Circuit number.

h = The result of the removal request. Valid value(s):

CAMPON FAIL = A camp-on connection could not be established or maintained. The failure was due to lack of system resources or a higher priority occurring that needed control of the port. Retry the request later.

CAMPON NOT ALLOWED = The ability to camp-on is not allowed on the trunk specified. It must, therefore, be removed by using the UCL option.

CMP UNAVAILABLE = The input request could not be completed because a needed communications module (CM) was unable to respond. Retry the request later.

COMPL-AML EXC = The requested status was added to the port since this was a manual request. However the automatic maintenance limit (AML) was exceeded in doing so.

COMPL-SWITCH FAIL = The requested status was successfully added to this D-channel backup primary rate interface (DCBU PRI) while a switch-over was in progress. The switch-over failed, and the PRI does not have an active D-channel for signalling.

COMPL-SWITCH IP = The requested status was successfully added to the active D-channel of a DCBU PRI. Signalling for the PRI is lost on this D-channel, and a switch-over to the standby D-channel is in progress. Additional output messages will follow to indicate the result of the switch-over attempt.

COMPL-RCV DELETE = The requested status was successfully added to the indicated trunk because it was deleted from the database by recent change/verify (RC/V).

COMPLETED = The specified status was successfully added to the port. Resulting port status is indicated.

COMPLETED,LINES REMAIN = The request completed successfully but some or all ports may be defined as lines. Use RMV:LINE message for the line ports.

COMPLETED-PVC OOO = The X.75' or X.75 trunk that was removed from service is provisioned for permanent virtual circuits (PVCs). The PVCs on the OOS trunk are reset out-of-order (OOO).

DATABASE ERROR = The indicated port status could not be added to the trunk because static data associated with the trunk could not be updated. This error can occur if customer originated recent changes (CORCs) are inhibited or if the office database editor (ODBE) is being used to update data associated with the trunk.

DENIED-AML EXC = The indicated status was not added to the port since the request was automatic and the AML would have been exceeded had the status been added.

DENIED-PSML EXC = The indicated status was not added to the packet switching trunk port because the packet switching maintenance limit (PSML) would have been exceeded. The PSML is set to 25% of the trunk group size. Use the UCL option to override the PSML check.

DENIED-SDL REQUIRES UCL The request was denied because requests to change the status of a signalling data link (SDL) port are not recommended and must have the UCL option applied (unless the parent CCS signaling link is DACT).

DUP REQUEST = Port already out-of-service (OOS) with specified state (primary or pending).

INPUT ERROR = Some data entered in the input request was invalid or incorrect.

INV EQUIPMENT = The request was for equipment that does not exist or was not assigned.

INV HARDWARE = The request did not match the hardware type of the port.

INV PORT = The port could not be located in the database. The port identifier used in the input request was most likely invalid or incorrect.

`INV PORT TYPE` = The specified port is not a trunk.

`INV STATUS` = An invalid status for the port was specified in the input request. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Message manual to determine valid states for each port type.

`NON-UNIQUE NXX DN` = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.

`NO PROCESS` = An attempt to create a process failed. This was possibly caused by the system's being busy. Retry the request later.

`PORT BUSY` = The line or trunk was still traffic busy at the end of the campon interval. Use the "UCL" option to ensure a successful removal.

`PROCESS TIMEOUT` = Internal time-out while processing the request.

`REQUEST FAILED` = A System error occurred making it impossible to continue processing the request.

`RESOURCE FAILURE` = The indicated port status could not be added to the trunk because of a temporary resource shortage. Either a process could not be created or a storage buffer was full because the system is busy. Retry the request later.

`SM UNAVAILABLE` = The input request could not be completed because a needed switching module (SM) was unable to respond. Retry the request later.

`STATUS CONFLICT` = Status to be added conflicts with the existing status on the port.

`SYSTEM BUSY` = The system's processing capability limit has been reached or a system resource was unavailable. Retry the request later.

`SYSTEM ERROR` = A system error occurred making it impossible to continue processing the request.

`UCD|MUPH MLHG` = The DN entered is a multi-line hunt group channel and as such cannot be removed by specifying its DN. An equipment number (that is, DEN) or MLHG and member number must be specified. To obtain the channel equipment number and/or multi-line hunt group and member number, use RC/V for the DN or refer to office records.

`i` = Status that was requested to be added to the trunk. The first subfield indicates basic state; the second subfield indicates qualifier; the third subfield indicates operational restrictions; the fourth subfield indicates supplementary information; and the fifth subfield indicates the mode of the primary status. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status.

`j` = Resulting primary status in effect on the trunk. This status is the most restrictive to call processing currently on the trunk. The first subfield indicates basic state; the second subfield indicates qualifier; the third subfield indicates operational restrictions; the fourth subfield indicates supplementary information; and the fifth subfield indicates the mode of the primary status. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status.

`k` = Pending statuses in effect on the trunk, if any. A trunk may have from zero to three pending statuses, all of which would be listed on subsequent lines of this message. Pending statuses are less restrictive than the primary status. The first subfield indicates basic state; the second subfield indicates qualifier; the third subfield indicates operational restrictions; the fourth subfield indicates supplementary information; and the fifth subfield indicates the mode of the primary status. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status and the status hierarchy.

`l` = Digital line and trunk unit (DLTU) number.

`m` = Digital facility interface number.

n = Channel number.

o = SM number.

p = Packet switch B-channel directory number.

q = MLHG number.

r = MLHG member number.

s = Digital carrier line unit number.

t = Remote terminal number.

u = Remote terminal line number.

v = Valid value(s):

DEN=o-l-m-n	PSUEN=o-s[1]-t[1]-u[1]-v[1]
ILEN=o-m[1]-t-u	RAF=o-x-y
INEN=o-n[1]-t-u	SAS=o-x-y
LTP=o-w	SLEN=o-s-t-u
NEN=o-n[1]-o[1]--p[1]-q[1]-r[1]	TEN=o-d-e-f-g

w = Logical test port number.

x = RAF or SAS unit number.

y = RAF or SAS announcement channel number.

z = Status report. Valid value(s):

COMPLETED = Remove processing for the trunk group, PRI group, or range of trunks has completed.

DATABASE ERROR = An internal error occurred while attempting to access the trunk group or PRI group data. Repeat the request if desired.

DENIED-PRI D CH TG = The request to remove the entire trunk group or range of trunks has been denied because the trunk group contains PRI D-channels.

DENIED-OSPS-PRI D CH TG = The request to remove the entire trunk group or range of trunks has been denied because the trunk group contains Operator Services Position System (OSPS) PRI D-channels.

INVALID PRI GROUP = The PRI group specified in the input request was invalid. Verify that the correct group number was specified.

NO CHANNELS ASSIGNED = The PRI group specified does not have any channels assigned to it.

STARTED = Request was received and action has started.

TG INVALID = The trunk group specified in the input request was invalid. Verify that the correct group number was specified.

a[1] = Timestamp date, in the form month/day.

b[1] = Timestamp, in the form hour:minute:second.

c[1] = Protocol detecting the error. Valid value(s):

LAPB/SLP = Link access protocol type B.

LAPD	= Link access protocol type D.
Q.931	= Q.931 ISDN call control protocol.
X.25	= X.25 public data network access protocol.
X.75P	= X.75' public data network gateway protocol.
X.75	= X.75 public data network gateway protocol.
UNKNOWN	= Unknown protocol being used.

d[1] = Protocol state for the network side of the interface when error was detected.

e[1] = Protocol state for the network side of the interface for the X.25 or X.75' or X.75 permanent virtual circuit or virtual circuit associated with the detected error.

f[1] = The frame/packet/message type that was received or transmitted when the error was detected.

g[1] = Protocol error record. Refer to the Protocol Error Record Descriptions manual for additional information about a specific PER.

h[1] = Identifying number of the FGB carrier, which can be up to 4 digits. If present, this variable indicates a direct trunk to a carrier.

i[1] = Identifying number of the FGD carrier, which can be up to 4 digits. If present, this variable indicates a direct trunk to a carrier.

j[1] = PRI group number.

k[1] = Trunk group number.

l[1] = Channels on the PRI being removed. Valid value(s):

B	= All B-channels of the PRI.
D	= D-channel of the PRI or both D-channels if the PRI is equipped with a backup D-channel.

m[1] = IDCU number.

n[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

o[1] = Data group number.

p[1] = Synchronous transport signal (STS) number.

q[1] = Virtual tributary 1.5 (VT1.5) number.

r[1] = Digital signal level 0 (DS0).

s[1] = PSU unit number.

t[1] = PSU shelf number.

u[1] = PSU channel group number.

v[1] = PSU channel group member number.

4. ACTIONS TO BE TAKEN

If the trunk was taken OOS automatically, it is probably a hardware or transmission problem. Identify and correct the problem. If the trouble persists and cannot be identified, notify the far-end office so that similar action can be taken.

To add an OOS status to a trunk, use input message RMV:TRK. To delete an OOS status from a trunk, use input message RST:TRK. To get the current status of a trunk, use input message OP:STATUS. To get a list of trunks in a specific OOS state, use input message OP:LIST.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LIST
OP:STATUS
RMV:TRK
RST:TRK
```

Output Appendix(es):

```
APP:PORT-STATUS
```

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-190-120 *Common Channel Signaling Services Features*
235-600-755 *Protocol Error Record Descriptions*

RMV:TRK-C

Software Release: 5E13 and later
Message Class: TRK
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      RMV TRK  TKGMN=a-b v [ICB=h1|ICD=ih1] [PRIGRP=j1] h
        i [i] [i] [i] [i]     j [j] [j] [j] [j]
                             [k [k] [k] [k] [k]]
                                          .
                                          .
                                          .
               PER a1a1/a1a1 b1b1:b1b1:b1b1 c1 d1 e1 [f1 g1]

[2]   ____________________________________________________________________
      RMV TRK [DN=p]  DEN=c-l-m-n  [MLHG=q-r] h
        i [i] [i] [i] [i]     j [j] [j] [j] [j]
                             [k [k] [k] [k] [k]]
                                          .
                                          .
                                          .
               PER a1a1/a1a1 b1b1:b1b1:b1b1 c1 d1 e1 [f1 g1]

[3]   ____________________________________________________________________
      RMV TRK  [PRIGRP=j1|TKGMN=a-b&&c|TG=k1] [CH=l1]  z
```

2. REASON FOR OUTPUT

To report the removal from service of an analog, digital trunk or an X.25 access on T1 (XAT) port. This resulted from adding the indicated status to the trunk specified. Format 1 indicates removal of analog or digital trunks. Format 2 indicate removal of XAT ports. Format 3 indicates the start and/or end of a group or range removal. This message may be in response to a RMV:TRK input message or may be generated automatically. Both the status added and the full resulting status for the trunk are identified in the message. The status information in the left half (column) of the message is the status that was to be added. The status in the right half (column) of the message is the status in effect on the trunk at the completion of the attempt to remove the port. Logical test ports (LTPs) are identified with the corresponding logical test port numbers.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

PER = Protocol error record. Refer to the Protocol Error Record Descriptions manual for additional information about a specific PER.

a = Trunk group number.

b = Trunk group member number or lower limit of a range of trunk member number.

c = Upper limit of a range of trunk member number.

d = Trunk unit number.

e = Service group number.

f = Channel board number.

g = Circuit number.

h = The result of the removal request. Valid value(s):

CAMPON FAIL = A camp-on connection could not be established or maintained. The failure was due to lack of system resources or a higher priority occurring that needed control of the port. Retry the request later.

CAMPON NOT ALLOWED = The ability to camp-on is not allowed on the trunk specified. It must, therefore, be removed by using the UCL option.

CMP UNAVAILABLE = The input request could not be completed because a needed communications module (CM) was unable to respond. Retry the request later.

COMPL-AML EXC = The requested status was added to the port since this was a manual request. However the automatic maintenance limit (AML) was exceeded in doing so.

COMPL-SWITCH FAIL = The requested status was successfully added to this D-channel backup primary rate interface (DCBU PRI) while a switch-over was in progress. The switch-over failed, and the PRI does not have an active D-channel for signalling.

COMPL-SWITCH IP = The requested status was successfully added to the active D-channel of a DCBU PRI. Signalling for the PRI is lost on this D-channel, and a switch-over to the standby D-channel is in progress. Additional output messages will follow to indicate the result of the switch-over attempt.

COMPL-RCV DELETE = The requested status was successfully added to the indicated trunk because it was deleted from the database by recent change/verify (RC/V).

COMPLETED = The specified status was successfully added to the port. Resulting port status is indicated.

COMPLETED,LINES REMAIN = The request completed successfully but some or all ports may be defined as lines. Use RMV:LINE message for the line ports.

COMPLETED-PVC OOO = The X.75' or X.75 trunk that was removed from service is provisioned for permanent virtual circuits (PVCs). The PVCs on the OOS trunk are reset out-of-order (OOO).

DATABASE ERROR = The indicated port status could not be added to the trunk because static data associated with the trunk could not be updated. This error can occur if customer originated recent changes (CORCs) are inhibited or if the office database editor (ODBE) is being used to update data associated with the trunk.

DENIED-AML EXC = The indicated status was not added to the port since the request was automatic and the AML would have been exceeded had the status been added.

DENIED-PSML EXC = The indicated status was not added to the packet switching trunk port because the packet switching maintenance limit (PSML) would have been exceeded. The PSML is set to 25% of the trunk group size. Use the UCL option to override the PSML check.

DENIED-SDL REQUIRES UCL The request was denied because requests to change the status of a signalling data link (SDL) port are not recommended and must have the UCL option applied (unless the parent CCS signaling link is DACT).

DUP REQUEST = Port already out-of-service (OOS) with specified state (primary or pending).

INPUT ERROR = Some data entered in the input request was invalid or incorrect.

INV EQUIPMENT = The request was for equipment that does not exist or was not assigned.

INV HARDWARE = The request did not match the hardware type of the port.

INV PORT = The port could not be located in the database. The port identifier used in the input request was most likely invalid or incorrect.

`INV PORT TYPE` = The specified port is not a trunk.

`INV STATUS` = An invalid status for the port was specified in the input request. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Message manual to determine valid states for each port type.

`NON-UNIQUE NXX DN` = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.

`NO PROCESS` = An attempt to create a process failed. This was possibly caused by the system's being busy. Retry the request later.

`PORT BUSY` = The line or trunk was still traffic busy at the end of the campon interval. Use the "UCL" option to ensure a successful removal.

`PROCESS TIMEOUT` = Internal time-out while processing the request.

`REQUEST FAILED` = A System error occurred making it impossible to continue processing the request.

`RESOURCE FAILURE` = The indicated port status could not be added to the trunk because of a temporary resource shortage. Either a process could not be created or a storage buffer was full because the system is busy. Retry the request later.

`SM UNAVAILABLE` = The input request could not be completed because a needed switching module (SM) was unable to respond. Retry the request later.

`STATUS CONFLICT` = Status to be added conflicts with the existing status on the port.

`SYSTEM BUSY` = The system's processing capability limit has been reached or a system resource was unavailable. Retry the request later.

`SYSTEM ERROR` = A system error occurred making it impossible to continue processing the request.

`UCD|MUPH MLHG` = The DN entered is a multi-line hunt group channel and as such cannot be removed by specifying its DN. An equipment number (that is, DEN) or MLHG and member number must be specified. To obtain the channel equipment number and/or multi-line hunt group and member number, use RC/V for the DN or refer to office records.

`i` = Status that was requested to be added to the trunk. The first subfield indicates basic state; the second subfield indicates qualifier; the third subfield indicates operational restrictions; the fourth subfield indicates supplementary information; and the fifth subfield indicates the mode of the primary status. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status.

`j` = Resulting primary status in effect on the trunk. This status is the most restrictive to call processing currently on the trunk. The first subfield indicates basic state; the second subfield indicates qualifier; the third subfield indicates operational restrictions; the fourth subfield indicates supplementary information; and the fifth subfield indicates the mode of the primary status. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status.

`k` = Pending statuses in effect on the trunk, if any. A trunk may have from zero to three pending statuses, all of which would be listed on subsequent lines of this message. Pending statuses are less restrictive than the primary status. The first subfield indicates basic state; the second subfield indicates qualifier; the third subfield indicates operational restrictions; the fourth subfield indicates supplementary information; and the fifth subfield indicates the mode of the primary status. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status and the status hierarchy.

`l` = Digital line and trunk unit (DLTU) number.

`m` = Digital facility interface number.

n = Channel number.

o = SM number.

p = Packet switch B-channel directory number.

q = MLHG number.

r = MLHG member number.

s = Digital carrier line unit number.

t = Remote terminal number.

u = Remote terminal line number.

v = Valid value(s):

DEN=o-l-m-n ILEN=o-m[1]-t-u INEN=o-n[1]-t-u LTP=o-w NEN=o-n[1]-o[1]-w[1]-p[1]-q[1]-x[1]-r[1]	PSUEN=o-s[1]-t[1]-u[1]-v[1] RAF=o-x-y SAS=o-x-y SLEN=o-s-t-u TEN=o-d-e-f-g

w = Logical test port number.

x = RAF or SAS unit number.

y = RAF or SAS announcement channel number.

z = Status report. Valid value(s):

COMPLETED = Remove processing for the trunk group, PRI group, or range of trunks has completed.

DATABASE ERROR = An internal error occurred while attempting to access the trunk group or PRI group data. Repeat the request if desired.

DENIED-PRI D CH TG = The request to remove the entire trunk group or range of trunks has been denied because the trunk group contains PRI D-channels.

DENIED-OSPS-PRI D CH TG = The request to remove the entire trunk group or range of trunks has been denied because the trunk group contains Operator Services Position System (OSPS) PRI D-channels.

INVALID PRI GROUP = The PRI group specified in the input request was invalid. Verify that the correct group number was specified.

NO CHANNELS ASSIGNED = The PRI group specified does not have any channels assigned to it.

STARTED = Request was received and action has started.

TG INVALID = The trunk group specified in the input request was invalid. Verify that the correct group number was specified.

a[1] = Timestamp date, in the form month/day.

b[1] = Timestamp, in the form hour:minute:second.

c[1] = Protocol detecting the error. Valid value(s):

LAPB/SLP = Link access protocol type B.

LAPD	= Link access protocol type D.
Q.931	= Q.931 ISDN call control protocol.
X.25	= X.25 public data network access protocol.
X.75P	= X.75' public data network gateway protocol.
X.75	= X.75 public data network gateway protocol.
UNKNOWN	= Unknown protocol being used.

d[1] = Protocol state for the network side of the interface when error was detected.

e[1] = Protocol state for the network side of the interface for the X.25 or X.75' or X.75 permanent virtual circuit or virtual circuit associated with the detected error.

f[1] = The frame/packet/message type that was received or transmitted when the error was detected.

g[1] = Protocol error record. Refer to the Protocol Error Record Descriptions manual for additional information about a specific PER.

h[1] = Identifying number of the FGB carrier, which can be up to 4 digits. If present, this variable indicates a direct trunk to a carrier.

i[1] = Identifying number of the FGD carrier, which can be up to 4 digits. If present, this variable indicates a direct trunk to a carrier.

j[1] = PRI group number.

k[1] = Trunk group number.

l[1] = Channels on the PRI being removed. Valid value(s):

B	= All B-channels of the PRI.
D	= D-channel of the PRI or both D-channels if the PRI is equipped with a backup D-channel.

m[1] = IDCU number.

n[1] = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

o[1] = Data group number.

p[1] = Synchronous transport signal (STS) number.

q[1] = Virtual tributary group number.

r[1] = Digital signal level 0 (DS0).

s[1] = PSU unit number.

t[1] = PSU shelf number.

u[1] = PSU channel group number.

v[1] = PSU channel group member number.

w[1] = SONET termination equipment (STE) number.

x[1] = Virtual tributary member number.

4. ACTIONS TO BE TAKEN

If the trunk was taken OOS automatically, it is probably a hardware or transmission problem. Identify and correct the problem. If the trouble persists and cannot be identified, notify the far-end office so that similar action can be taken.

To add an OOS status to a trunk, use input message RMV:TRK. To delete an OOS status from a trunk, use input message RST:TRK. To get the current status of a trunk, use input message OP:STATUS. To get a list of trunks in a specific OOS state, use input message OP:LIST.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LIST
OP:STATUS
RMV:TRK
RST:TRK
```

Output Appendix(es):

```
APP:PORT-STATUS
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-190-120 *Common Channel Signaling Services Features*
235-600-755 *Protocol Error Record Descriptions*

RMV:TTFCOM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV TTFCOM=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:TTFCOM input message to remove a transmission test facility common (TTFCOM) circuit from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Global digital service unit number.

`c` = Service group number.

`d` = Board number.

`e` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`COMPLETED-CERTIFIED`	= Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the References section of this message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:TTFCOM
```

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Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:TTY

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      RMV TTY a COMPLETED

[2]   ____________________________________________________________
      RMV TTY a ABORTED [b] [c]

[3]   ____________________________________________________________
      RMV TTY a STOPPED d

[4]   ____________________________________________________________
      RMV TTY a TASK e MSG STARTED

[5]   ____________________________________________________________
      RMV TTY a STOPPED MESSAGE IN PROGRESS

[6]   ____________________________________________________________
      RMV TTY a STOPPED MESSAGE COMPLETE
```

2. REASON FOR OUTPUT

To report the disposition of a request to remove a teletypewriter (TTY) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4 - 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error. Valid value(s):
- X'1 = Remove process error.
- X'2 = Driver error.
- [NULL] = Remove denied by driver or configuration control (CONFIG).

c = Error code.

If 'b' =	Explanation:
X'1	Refer to the APP:IOP-H appendix in the Appendixes section of the Output Messages manual.

X'2	Refer to the APP:IOP-G appendix in the Appendixes section of the Output Messages manual.

d = Error code. Refer to the APP:IOP-I appendix in the Appendixes section of the Output Messages manual.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The "pudrv" subsystem generated messages have no alarms.

The "cft" subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

The "diag" subsystem generated messages have an automatically-generated alarm. Action may or may not be required.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
pudrv	195, 196
cft	308
diag	96

Input Message(s):

```
RMV:TTY
UPD:OMDB
```

Output Appendix(es):

```
APP:IOP-G
APP:IOP-H
APP:IOP-I
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RMV:TTYC

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      RMV TTYC a COMPLETED

[2]   ____________________________________________________________
      RMV TTYC a ABORTED [b] [c]

[3]   ____________________________________________________________
      RMV TTYC a STOPPED d

[4]   ____________________________________________________________
      RMV TTYC a TASK e MSG STARTED

[5]   ____________________________________________________________
      RMV TTYC a STOPPED MESSAGE IN PROGRESS

[6]   ____________________________________________________________
      RMV TTYC a STOPPED MESSAGE COMPLETE
```

2. REASON FOR OUTPUT

To report the disposition of a request to remove a teletypewriter controller (TTYC) from service.

Format 1 reports that the removal attempt was successful.

Formats 2 and 3 report that the removal has failed.

Formats 4 - 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Type of error. Valid value(s):
- `X'1` = Remove process error.
- `X'2` = Driver error.
- `[NULL]` = Remove denied by driver or configuration control (CONFIG).

`c` = Error code.

If 'b' =	Explanation:
X'1	Refer to the APP:IOP-H appendix in the Appendixes section of the Output Messages manual.

X'2	Refer to the APP:IOP-G appendix in the Appendixes section of the Output Messages manual.

d = Error code. Refer to the APP:IOP-I appendix in the Appendixes section of the Output Messages manual.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the removal was denied or aborted, clear the source of trouble and attempt the removal again.

5. ALARMS

The "pudrv" subsystem generated messages have no alarms.

The "cft" subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

The "diag" subsystem generated messages have an automatically-generated alarm. Action may or may not be required.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
pudrv	195, 196
cft	308
diag	96

Input Message(s):

```
RMV:TTYC
UPD:OMDB
```

Output Appendix(es):

```
APP:IOP-G
APP:IOP-H
APP:IOP-I
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RMV:TUCHBD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV TUCHBD=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:TUCHBD input message to remove a trunk unit channel board (TUCHBD) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Trunk unit number.

`c` = Service group number.

`d` = Channel board number.

`e` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`COMPLETED CERTIFIED`	= Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:TUCHBD
```

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Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:UCONF

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV UCONF=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:UCONF input message to remove a universal conference (UCONF) circuit board from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Global digital service unit number.

`c` = Service group number.

`d` = Digital service circuit unit board number.

`e` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`COMPLETED-CERTIFIED`	= Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:UCONF
```

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Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:UMBIL

Software Release: 5E13 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
RMV UMBIL=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of a RMV:UMBIL input command that removes a host umbilical (UMBIL) circuit from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Host Switch Module (HSM) number.

`b` = Remote Switch Module (RSM) number.

`c` = UMBIL number.

`d` = Termination report. Valid values are:

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by Audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RMV:UMBIL`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1740,xxx,yyy (HOST UMBILICALS (1 - 10))
1741,xxx,yyy (HOST UMBILICALS (11 - 20))

RMV:UTD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV UTD=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:UTD input message to remove a universal tone decoder (UTD) board from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local digital service unit (DSU) number.

`c` = Service group number.

`d` = DSU board position number.

`e` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:UTD
```

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Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:UTG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV UTG=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:UTG input message to remove a universal tone generator (UTG) board from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local digital service unit (DSU) number.

`c` = Service group number.

`d` = DSU board position number.

`e` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:UTG
```

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Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RMV:UTILFLAG-SM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV UTILFLAG a SM b c
```

2. REASON FOR OUTPUT

To acknowledge a request to remove the specified breakpoint from a particular switching module (SM).

3. VARIABLE FIELD DEFINITIONS

`a` = Breakpoint ID to be removed, in decimal.

`b` = SM from which the removal was requested, in decimal.

`c` = Action that was taken after the request was received.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

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RMV:VT1FAC-A

Software Release: 5E10 - 5E11
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV VT1FAC=a-b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Indicates the result of an attempt to remove a digital networking unit - synchronous optical network (DNU-S) virtual tributary level 1 facility (VT1FAC) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = Synchronous transport signal facility number.

`e` = VT1FAC number.

`f` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action was not started.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RMV:VT1FAC`

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Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1511 (DNUS STS)

RMV:VT1FAC-B

Software Release: 5E12 only
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV VT1FAC=a-b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Indicates the result of an attempt to remove a digital networking unit - synchronous optical network (DNU-S) virtual tributary level 1 facility (VT1FAC) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = Synchronous transport signal facility number.

`e` = VT1FAC number.

`f` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action was not started.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RMV:VT1FAC`

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Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1511 (DNUS STS MAINTENANCE)

RMV:VT1FAC-C

Software Release: 5E13 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RMV VT1FAC=a-b-c-d-e-f-g h [i]
```

2. REASON FOR OUTPUT

Indicates the result of an attempt to remove a digital networking unit - synchronous optical network (DNU-S) virtual tributary level 1 facility (VT1FAC) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital Networking Unit - SONET (DNU-S) number.

`c` = Data group (DG) number.

`d` = SONET Termination Equipment (STE) facility number.

`e` = Synchronous Transport Signal (STS) facility number.

`f` = Virtual tributary group (VTG) number.

`g` = Virtual tributary member (VTM) number.

`h` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action was not started.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`i` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTIONS TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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RMV:VT1FAC

Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1511 (DNUS STS MAINTENANCE)

97. RST

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RST:AIUCOM

Software Release: 5E11 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST AIUCOM=a-b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of an RST:AIUCOM input request to restore the access interface unit common data and control controller (COMDAC) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = AIU number.

`c` = COMDAC number.

`d` = Termination status. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action has successfully completed.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:AIUCOM`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1320,y,x (AIU SUMMARY)

RST:AIULC

Software Release: 5E11 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST AIULC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an RST:AIULC input request to restore the access interface unit (AIU) line circuit (LC) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = AIU number.

`c` = Line pack (LP) number.

`d` = LC number.

`e` = Termination status. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action has successfully completed.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:AIULC`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1323,y,z,x (AIU AP STATUS)

RST:AIULP

Software Release: 5E11 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST AIULP=a-b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of an RST:AIULP input request to restore the access interface unit (AIU) line pack (LP) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = AIU number.

`c` = LP number.

`d` = Termination status. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action has successfully completed.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:AIULP`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1320,y,x (AIU SUMMARY)
1323,y,z,x (AIU AP STATUS)

RST:AIURG

Software Release: 5E11 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST AIURG=a-b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of an RST:AIURG input request to restore the access interface unit (AIU) ring generator (RG) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = AIU number.

`c` = RG number.

`d` = Termination status. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action has successfully completed.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:AIURG`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1320,y,x (AIU SUMMARY)
1322,y,x (AIU RG STATUS)

RST:AIUTSGRP

Software Release: 5E11 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST AIUTSGRP=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an RST:AIUTSGRP input request to restore the access interface unit (AIU) timeslot group (TSGRP) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = AIU number.

`c` = Common data and control controller (COMDAC) number.

`d` = TSGRP number.

`e` = Termination status. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action has successfully completed.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:AIUPIDB`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1321,y,x (AIU TSGRP STATUS)

RST:ALINK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST ALINK=a-b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:ALINK input message to restore a line unit model 2 (LU2) or a line unit model 3 (LU3) A-link to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Line unit number.

`c` = Grid number.

`d` = Board number.

`e` = Line unit A-link number.

`f` = Termination status. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination is immediate. Consistency of hardware and data is questionable.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`g` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:ALINK`

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Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:ALIT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST ALIT=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:ALIT input message to restore an automatic line insulation test (ALIT) circuit to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = Metallic service unit board number.

`e` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

If a RST message fails, an alarm will indicate the effect to the office.
No alarm = No effect.
*Minor = Small reduction in traffic capability.
**Major = A problem exists and is denying customer service or causing a 25-50% reduction in traffic capability.
*C Critical = A problem exists and is denying customer service or causing at least a 50% reduction in traffic capability.

6. REFERENCES

Input Message(s):

```
RST:ALIT
```

Output Appendix(es):

```
APP:MAINT-RESP
```

RST:ASC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST ASC=a b [c]
```

2. REASON FOR OUTPUT

Indicates the result of an RST:ASC input message to restore a remote switching module (RSM), optical remote switching module (ORM), or two-mile remote switching module (TRM) alarm and status circuit (ASC) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before the process gracefully completed.
`COMPLETED`	= Request has gracefully completed.
`NOT STARTED`	= Requested action had not begun.
`STOPPED`	= Requested action was terminated before a normal completion.

`c` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:ASC`

Output Appendix(es):

`APP:MAINT-RESP`

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

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RST:BTSR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST BTSR=a b [c]
```

2. REASON FOR OUTPUT

To report the result of executing RST:BTSR input message to restore the bootstrapper board (BTSR) to active status.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Termination status. Valid value(s):

- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`c` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

Major alarm occurs if a recovery requested RST:BTSR fails.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RST:BTSR
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):

235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery Procedures*

RST:CCSLK-A

Software Release: 5E11 only
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST CCSLK SET=a MEMBER=b STATE=c  d
  SM=e  OPC=f  [g]
  [PSUPH=h-i-j-k] [DEN=l-m-n-o | NEN=p-q-r-s-t-u]
```

2. REASON FOR OUTPUT

To confirm a technician request to restore service to a common channel signaling (CCS) signaling link.

3. VARIABLE FIELD DEFINITIONS

`a` = Link set number.

`b` = Link member number.

`c` = Link state. Valid value(s):
- `BLK` = The block status was removed from this link.
- `DACT` = The deactivate status was removed from this link.
- `INH` = The inhibit status was removed from this link.

`d` = Termination status. Valid value(s):
- `COMPLETED` = Request was successfully completed.
- `FAILED` = Processing of request failed.
- `STOPPED` = Request was terminated before normal completion.
- `SUCCESS` = Request was processed successfully.

`e` = CCS global switching module (GSM) number.

`f` = Originating point codes (OPC) number. OPC number consists of three items, each being three digits in length. They are, respectively, the OPC network, OPC cluster, and OPC member.

`g` = Additional information qualifying the termination status. Valid value(s):
- `CGA-DL` = The signaling data link is out of service carrier group alarm.
- `DATABASE ERROR` = Inconsistencies in retrieving data from the database caused by corrupt data.
- `DATABASE FAIL` = Unsuccessful static data access.
- `ERROR` = Error in software.
- `LINK ALREADY IN REQUESTED STATE` = The link is already in the state requested by the RST-CCSLK input message.
- `LINK ALREADY IS` = Received link activation request, but link is already in service.
- `LINK BUSY` = Link is in busy state, being acted upon by some other request.
- `LINK NOT IN VALID STATE FOR ACTION` = The current state of the link does not allow the request to be processed.
- `LINK UNEQUIPPED` = The link is unequipped.
- `LKER-L1` = Level one failure (no network time slot available).
- `LKER-L2` = Level two failure (level two failed alignment).

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`LKER-L3` = Level three failure (the link test failed).
`MESSAGE TIMEOUT` = Timed out waiting for a message.
`OOS-DL` = The signaling data link is out of service.
`OOSF-PH` = The ST-channel group unassigned. of equipment.
`REQUEST LATER` = Request again later.
`RESRC` = There was a lack of resources required to complete action.
`STRM FAILURE` = Failure in signaling traffic and route management.
`SYSTEM FAILURE` = System failure.
`T12 NO LUA FROM FAR END` = T12 timer expired, no link uninhibit acknowledgement (LUA) received, local uninhibit denied.
`UNSUCCESSFUL` = Failure in integrated services port administration.

Note: Variables '`j`' through '`w`' are printed if the signaling link is restored to active.

`h` = SM number of packet switch unit (PSU).

`i` = Unit number of PSU in SM.

`j` = Shelf number in PSU.

`k` = PH number on shelf.

`l` = SM number of the synchronous data link (SDL) data facility interface (DFI).

`m` = Digital line and trunk unit (DLTU) number of the SDL DFI.

`n` = DFI number of the SDL DFI.

`o` = Channel number of the SDL DFI.

`p` = SM number of digital network unit - synchronous optical network (DNU-S) number.

`q` = DNU-S number.

`r` = Data group number.

`s` = Synchronous transport signal (STS) number.

`t` = Virtual tributary 1.5 (VT1.5) number.

`u` = digital signal level 0 (DS0).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RST:CCSLK
```

Output Message(s):

```
REPT:CCSLK
```

Other Manual(s):
235-120-120 *VCDX Users Guide*
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

1532 (CCS LINK SET SUMMARY)
1533 (CCS LINK SET MEMBER)

RST:CCSLK-B

Software Release: 5E12 only
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST CCSLK SET=a MEMBER=b STATE=c  d
  SM=e  OPC=f  [g]
 [PSUPH=h-i-j-k] [DEN=l-m-n-o | NEN=p-q-r-s-t-u]
```

2. REASON FOR OUTPUT

To confirm a technician request to restore service to a common channel signaling (CCS) signaling link.

3. VARIABLE FIELD DEFINITIONS

`a` = Link set number.

`b` = Link member number.

`c` = Link state. Valid value(s):
- `BLK` = The block status was removed from this link.
- `DACT` = The deactivate status was removed from this link.
- `INH` = The inhibit status was removed from this link.

`d` = Termination status. Valid value(s):
- `COMPLETED` = Request was successfully completed.
- `FAILED` = Processing of request failed.
- `STOPPED` = Request was terminated before normal completion.
- `SUCCESS` = Request was processed successfully.

`e` = CCS global switching module (GSM) number.

`f` = Originating point codes (OPC) number associated with the GSM. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual for interpretation.

`g` = Additional information qualifying the termination status. Valid value(s):
- `CGA-DL` = The signaling data link is out of service due to carrier group alarm.
- `DATABASE ERROR` = Inconsistencies in retrieving data from the database caused by corrupt data.
- `DATABASE FAIL` = Unsuccessful static data access.
- `ERROR` = Error in software.
- `LINK ALREADY IN REQUESTED STATE` = The link is already in the state requested by the RST-CCSLK input message.
- `LINK ALREADY ACT` = Received link activation request, but link is already active.
- `LINK BUSY` = Link is being acted upon by some other request.
- `LINK NOT IN VALID STATE FOR ACTION` = The current state of the link does not allow the request to be processed.
- `LINK UNEQUIPPED` = The link is unequipped.
- `LKER-L1` = Level 1 MTP failure (no network time slot available).
- `LKER-L2` = Level 2 MTP failure (level two failed alignment).

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`LKER-L3` = Level 3 MTP failure (the link test failed).
`MESSAGE TIMEOUT` = Timed out waiting for a message.
`OOS-DL` = The signaling data link is out of service.
`OOSF-PH` = The parent PH channel group unassigned.
`REQUEST LATER` = Request again later.
`RESRC` = There was a lack of resources required to complete action.
`STRM FAILURE` = Failure in signaling traffic and route management.
`SYSTEM FAILURE` = System failure.
`T12 NO LUA FROM FAR END` = T12 timer expired, no link uninhibit acknowledgement (LUA) received, local uninhibit denied.
`UNSUCCESSFUL` = Failure in integrated services port administration.

Note: The PSUPH and EN will be printed only if the signaling link is restored to active.

`h` = SM number of packet switch unit (PSU).

`i` = Unit number of PSU in SM.

`j` = Shelf number in PSU.

`k` = PH number on shelf.

`l` = SM number of the synchronous data link (SDL) data facility interface (DFI).

`m` = Digital line and trunk unit (DLTU) number of the SDL.

`n` = DFI number of the SDL.

`o` = Channel number of the SDL.

`p` = SM number of the SDL digital network unit - synchronous optical network (DNU-S).

`q` = DNU-S number of the SDL.

`r` = Data group number of the SDL.

`s` = Synchronous transport signal (STS) number of the SDL.

`t` = Virtual tributary 1.5 (VT1.5) number of the SDL.

`u` = VT1.5 channel number of the SDL.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RST:CCSLK
```

Output Message(s):

```
REPT:CCSLK
```

Output Appendix(es):

```
APP:POINT-CODE
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

1532 (CCS LINK SET SUMMARY)
1533 (CCS LINK SET MEMBER)

RST:CCSLK-C

Software Release: 5E13 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST CCSLK SET=a MEMBER=b STATE=c  d
  SM=e  OPC=f  [g]
  [PSUPH=h-i-j-k] [DEN=l-m-n-o | NEN=p-q-r-s-t-u-v-w]
```

2. REASON FOR OUTPUT

To confirm a technician request to restore service to a common channel signaling (CCS) signaling link.

3. VARIABLE FIELD DEFINITIONS

`a` = Link set number.

`b` = Link member number.

`c` = Link state. Valid value(s):
- `BLK` = The block status was removed from this link.
- `DACT` = The deactivate status was removed from this link.
- `INH` = The inhibit status was removed from this link.

`d` = Termination status. Valid value(s):
- `COMPLETED` = Request was successfully completed.
- `FAILED` = Processing of request failed.
- `STOPPED` = Request was terminated before normal completion.
- `SUCCESS` = Request was processed successfully.

`e` = CCS global switching module (GSM) number.

`f` = Originating point codes (OPC) number associated with the GSM. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual for interpretation.

`g` = Additional information qualifying the termination status. Valid value(s):
- `CGA-DL` = The signaling data link is out of service due to carrier group alarm.
- `DATABASE ERROR` = Inconsistencies in retrieving data from the database caused by corrupt data.
- `DATABASE FAIL` = Unsuccessful static data access.
- `ERROR` = Error in software.
- `LINK ALREADY IN REQUESTED STATE` = The link is already in the state requested by the RST-CCSLK input message.
- `LINK ALREADY ACT` = Received link activation request, but link is already active.
- `LINK BUSY` = Link is being acted upon by some other request.
- `LINK NOT IN VALID STATE FOR ACTION` = The current state of the link does not allow the request to be processed.
- `LINK UNEQUIPPED` = The link is unequipped.
- `LKER-L1` = Level 1 MTP failure (no network time slot available).
- `LKER-L2` = Level 2 MTP failure (level two failed alignment).

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`LKER-L3` = Level 3 MTP failure (the link test failed).
`MESSAGE TIMEOUT` = Timed out waiting for a message.
`OOS-DL` = The signaling data link is out of service.
`OOSF-PH` = The parent PH channel group unassigned.
`REQUEST LATER` = Request again later.
`RESRC` = There was a lack of resources required to complete action.
`STRM FAILURE` = Failure in signaling traffic and route management.
`SYSTEM FAILURE` = System failure.
`T12 NO LUA FROM FAR END` = T12 timer expired, no link uninhibit acknowledgement (LUA) received, local uninhibit denied.
`UNSUCCESSFUL` = Failure in integrated services port administration.

Note: The PSUPH and EN will be printed only if the signaling link is restored to active.

`h` = SM number of packet switch unit (PSU).

`i` = Unit number of PSU in SM.

`j` = Shelf number in PSU.

`k` = PH number on shelf.

`l` = SM number of the synchronous data link (SDL) data facility interface (DFI).

`m` = Digital line and trunk unit (DLTU) number of the SDL.

`n` = DFI number of the SDL.

`o` = Channel number of the SDL.

`p` = SM number of the SDL digital network unit - synchronous optical network (DNU-S).

`q` = DNU-S number of the SDL.

`r` = Data group number of the SDL.

`s` = DNU-S sonet terminating equipment(STE) number of the SDL.

`t` = DNU-S synchronous transport signal (STS) number of the SDL.

`u` = DNU-S virtual tributary 1.5 group(VTGRP) number of the SDL.

`v` = DNU-S virtual tributary 1.5 member(VTGRM) number of the SDL.

`w` = DNU-S virtual tributary 1.5 channel number of the SDL.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RST:CCSLK
```

Output Message(s):

```
REPT:CCSLK
```

Output Appendix(es):

```
APP:POINT-CODE
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

1532 (CCS LINK SET SUMMARY)
1533 (CCS LINK SET MEMBER)

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RST:CDFI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST CDFI=a-b-c d [e]
```

2. REASON FOR OUTPUT

To indicate the result of an RST:CDFI input message to restore an inter-remote switching module (RSM) communication link digital facilities interface (CDFI) circuit to service. This message also prints when fault recovery has requested a restoration of the CDFI, and the diagnostic ATPs or CATPs.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line and trunk unit (DLTU) number.

`c` = CDFI number.

`d` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action had not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:CDFI
RST:CDFI
```

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Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:CDI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST CDI=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:CDI input message to restore the control data interface (CDI) of a trunk unit to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Trunk unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

If a RST message fails, an alarm will indicate the effect to the office.
No alarm = No effect.
*Minor = Small reduction in traffic capability.
**Major = A problem exists and is denying customer service or causing a 25-50% reduction in traffic capability.
*C Critical = A problem exists and is denying customer service or causing at least a 50% reduction in traffic capability.

6. REFERENCES

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Input Message(s):

```
OP:OFFNORM-SM
RST:CDI
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:CLNK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST CLNK{=a-b-c-d| ALL} e [f]
```

2. REASON FOR OUTPUT

To report on an attempt to restore one or all communication links (CLNKs) to an available state (that is, 'hardware available', 'active', or 'ready for level 2').

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Office network and timing complex (ONTC) side.

`c` = Module message processor (MMP) type. Valid value(s):
- `0` = Alpha.
- `1` = Beta.

`d` = Message switch (MSGS) side.

`e` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated abnormally. Hardware and software status is questionable.
- `COMPLETED` = Completed normally.
- `NOT STARTED` = Requested action not attempted.
- `STOPPED` = Requested action was terminated normally before completion. Hardware and software status is consistent.

`f` = Optional additional qualifying data.

4. ACTION TO BE TAKEN

Refer to the Corrective Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CFGSTAT
RMV:CLNK
RST:CLNK
```

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Output Message(s):

```
OP:CFGSTAT
RMV:CLNK
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

(CLNK SUMMARY)

RST:CMP

Software Release: 5E10 and later
Message Class: MSGS
Application: 5
Type: Output

1. FORMAT

```
RST CMP=a-b c [d]
```

2. REASON FOR OUTPUT

To report the results of a request to restore the specified communication module processor (CMP) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch side number.

`b` = CMP number.

`c` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion and the termination was not graceful.
- `COMPLETED` = Request was successfully completed.
- `NOT STARTED` = Requested action was not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`d` = Additional data qualifying the termination field. Refer to the APP:CM-OM-REASON appendix in the Appendixes section of the Output Messages manual for further explanation of this field.

4. ACTIONS TO BE TAKEN

If unexpected results occur, refer to the System Recovery manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:CMP`

Output Appendix(es):

`APP:CM-OM-REASON`

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Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery Procedures*

MCC Display Page(s):

1241/51 (MSGS COMMUNITIES 0-1, 8-9)
1240/50 (MSGS STATUS for CM3)

RST:CPE-A

Software Release: 5E10 - 5E11
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
RST CPE [DN=a][ILEN=b-j-k-l TEI=f][LCEN=b-c-d-e TEI=f] . . .
  . . . [LCKEN=b-c-m-n-o TEI=f] [MLHG=g-h][PKTDN=a] i
```

2. REASON FOR OUTPUT

To report the result of the manual restoration of a customer premises equipment (CPE) to service. This message is in response to a RST:CPE input message.

The RST:CPE message can only be used to restore an already out-of-service (OOS) custom multi-point or standard interface terminal. This message will only be printed if a manual request to restore the OOS CPE is received. If the CPE goes back into service because it drops and then re-establishes layer 2, no message will be printed.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`a` = Circuit or packet directory number associated with the CPE to be restored.

`b` = Switching module (SM) number.

`c` = Integrated services line unit (ISLU) or ISLU version 2 (ISLU2) in which the DSL exists.

`d` = Line group controller (LGC) in the ISLU/ISLU2 in which the DSL exists.

`e` = Line card (LC) of the ISLU line group controller to which the DSL connects.

`f` = Terminal endpoint identifier that identifies the particular CPE on the specified LCEN/LCKEN.

`g` = Multi-line hunt group number of the subscriber associated with the CPE.

`h` = Multi-line hunt member number of the subscriber associated with the CPE.

`i` = Result (completion code) of the restoration request. Valid value(s):

- `ALREADY IS` = CPE is already in service.
- `AUTO CPE RESTORE FAILED` = Failed to restore CPE automatically.
- `CMP UNAVAILABLE` = The input request could not be completed because a needed communication module (CM) was unable to respond. Retry the request later.
- `COMPLETED` = The specified CPE has been restored to an in-service (IS) state.
- `CPE ALREADY IS` = CPE is already in service.
- `CPE BUSY` = The request to restore the CPE on the DSL failed due to some other maintenance activity on the CPE or DSL on which the CPE was to have been restored.
- `CPE NOT BOUND` = The DN, PKTDN, MLHG and/or LCEN/LCKEN combined with TEI specified is not bound to a terminal on the multipoint DSL.
- `DATA BASE ERROR` = Internal error during database reading.

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`DSL BUSY` = The DSL remained busy.
`DSL OOS` = The DSL is OOS. It must be restored to service using the RST:LINE input message before any CPE on the DSL can be restored.
`DUP REQUEST` = Restoration of the CPE has already been requested.
`INPUT ERROR` = Some data entered in the input request was invalid or incorrect.
`INVALID DN` = The circuit or packet directory number entered was most likely invalid or incorrect.
`INVALID ON PP INTERFACE` = This operation is an invalid operation on single point DSL.
`INVALID PORT` = The line could not be located in the database. The line identifier used in the input request was most likely invalid or incorrect.
`INVALID TEI PORT` = The line on which the TEI resides could not be located in the database. The terminal endpoint identifier used in the input request was most likely invalid or incorrect.
`MLHG ACCESS DN` = The DN entered was an access DN for the uniform call distribution (UCD), linear hunt, or multi-position hunt (MUPH) multi-line hunt group. This DN does not uniquely identify a line.
`MP ACCESS DN` = The directory number entered is a uniform call distribution multi-line hunt group line for modem pooling and as such cannot be used by specifying its DN. A line card equipment number or MLHG and member number must be specified. To obtain the line card equipment number and/or multi-line hunt group and member number, use recent change/verify (RC/V) for the DN or refer to office records.
`NO ACK FROM FIP CPE` = No acknowledgment was received from FIP's CPE.
`NO DATA BASE MATCH` = Internal database error. The desired tuple could not be found.
`NO PARTY EXISTS` = The specified party does not exist on a DSL.
`NO PROCESS` = An attempt to create a process failed; possible cause is a busy system. Retry the request later.
`NON-DSL/INVALID DSL TYPE` = The line is not a DSL or the type of DSL is incorrect.
`NOT PRIMARY DN OR MLHG` = The DN or MLHG specified is for a key-system CPE and is not the primary DN for any key-system CPE. A primary DN is required to identify the specific CPE to be restored. Refer to RC/V or office records to determine the primary DNs or MLHG and member numbers.
`PROCESS TIMEOUT` = Internal time-out during processing; request aborted.
`SM UNAVAILABLE` = The input request could not be completed because a needed switching module (SM) was unable to respond. Retry the request later.
`SYSTEM BUSY` = The system's processing capability limit was reached or a system resource was unavailable. Retry the request later.
`SYSTEM ERROR` = System error occurred, making it impossible to continue processing request.
`TEI NOT FOUND` = The CPE could not be located in the database. The TEI identifier used in the input request was most likely invalid or incorrect.
`UNASSIGNED PORT` = The port referred to was unassigned.

`j` = IDCU number.

`k` = Remote terminal (RT) number.

`l` = RT line number.

`m` = Line group number.

`n` = Line board number.

`o` = Line circuit number.

4. ACTION TO BE TAKEN

To remove a CPE, use the RMV:CPE input message. To restore a CPE, use the RST:CPE input message. To get the current status of a CPE, use the OP:CPE input message. If the DSL is OOS, the DSL can be restored using the RST:LINE input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CPE
OP:STATUS
RMV:CPE
RMV:LINE
RST:CPE
RST:LINE
```

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

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RST:CPE-B

Software Release: 5E12 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
RST CPE a [TEI=f] i
```

2. REASON FOR OUTPUT

To report the result of the manual restoration of a customer premises equipment (CPE) to service. This message is in response to a RST:CPE input message.

The RST:CPE message can only be used to restore an already out-of-service (OOS) custom multi-point or standard interface terminal. This message will only be printed if a manual request to restore the OOS CPE is received. If the CPE goes back into service because it drops and then re-establishes layer 2, no message will be printed.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`a` = Equipment number or identifier. Valid value(s):

```
AIUEN=d-p-q-r
DN=s
ILEN=b-j-k-l
INEN=b-t-k-l
LCEN=b-c-d-e
LCKEN=b-c-m-n-o
MLHG=g-h
PKTDN=s
```

`b` = Switching module (SM) number.

`c` = Integrated services line unit (ISLU) or ISLU version 2 (ISLU2) in which the DSL exists.

`d` = Line group controller (LGC) in the ISLU/ISLU2 in which the DSL exists.

`e` = Line card (LC) of the ISLU line group controller to which the DSL connects.

`f` = Terminal endpoint identifier that identifies the particular CPE on the specified LCEN/LCKEN.

`g` = Multi-line hunt group number of the subscriber associated with the CPE.

`h` = Multi-line hunt member number of the subscriber associated with the CPE.

`i` = Result (completion code) of the restoration request. Valid value(s):
`ALREADY IS` = CPE is already in service.
`AUTO CPE RESTORE FAILED` = Failed to restore CPE automatically.
`CMP UNAVAILABLE` = The input request could not be completed because a needed communication module (CM) was unable to respond. Retry the request later.

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`COMPLETED` = The specified CPE has been restored to an in-service (IS) state.
`CPE ALREADY IS` = CPE is already in service.
`CPE BUSY` = The request to restore the CPE on the DSL failed due to some other maintenance activity on the CPE or DSL on which the CPE was to have been restored.
`CPE NOT BOUND` = The DN, PKTDN, MLHG and/or LCEN/LCKEN combined with TEI specified is not bound to a terminal on the multipoint DSL.
`DATA BASE ERROR` = Internal error during database reading.
`DSL BUSY` = The DSL remained busy.
`DSL OOS` = The DSL is OOS. It must be restored to service using the RST:LINE input message before any CPE on the DSL can be restored.
`DUP REQUEST` = Restoration of the CPE has already been requested.
`INPUT ERROR` = Some data entered in the input request was invalid or incorrect.
`INVALID DN` = The circuit or packet directory number entered was most likely invalid or incorrect.
`INVALID ON PP INTERFACE` = This operation is an invalid operation on single point DSL.
`INVALID PORT` = The line could not be located in the database. The line identifier used in the input request was most likely invalid or incorrect.
`INVALID TEI PORT` = The line on which the TEI resides could not be located in the database. The terminal endpoint identifier used in the input request was most likely invalid or incorrect.
`MLHG ACCESS DN` = The DN entered was an access DN for the uniform call distribution (UCD), linear hunt, or multi-position hunt (MUPH) multi-line hunt group. This DN does not uniquely identify a line.
`MP ACCESS DN` = The directory number entered is a uniform call distribution multi-line hunt group line for modem pooling and as such cannot be used by specifying its DN. A line card equipment number or MLHG and member number must be specified. To obtain the line card equipment number and/or multi-line hunt group and member number, use recent change/verify (RC/V) for the DN or refer to office records.
`NO ACK FROM FIP CPE` = No acknowledgment was received from FIP's CPE.
`NO DATA BASE MATCH` = Internal database error. The desired tuple could not be found.
`NO PARTY EXISTS` = The specified party does not exist on a DSL.
`NO PROCESS` = An attempt to create a process failed; possible cause is a busy system. Retry the request later.
`NON-DSL/INVALID DSL TYPE` = The line is not a DSL or the type of DSL is incorrect.
`NON-UNIQUE NXX DN` = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.
`NOT PRIMARY DN OR MLHG` = The DN or MLHG specified is for a key-system CPE and is not the primary DN for any key-system CPE. A primary DN is required to identify the specific CPE to be restored. Refer to RC/V or office records to determine the primary DNs or MLHG and member numbers.
`PROCESS TIMEOUT` = Internal time-out during processing; request aborted.
`SM UNAVAILABLE` = The input request could not be completed because a needed switching module (SM) was unable to respond. Retry the request later.
`SYSTEM BUSY` = The system's processing capability limit was reached or a system resource was unavailable. Retry the request later.
`SYSTEM ERROR` = System error occurred, making it impossible to continue processing request.
`TEI NOT FOUND` = The CPE could not be located in the database. The TEI identifier used in the input request was most likely invalid or incorrect.
`UNASSIGNED PORT` = The port referred to was unassigned.

j	= IDCU number.
k	= Remote terminal (RT) number.
l	= RT line number.
m	= Line group number.
n	= Line board number.
o	= Line circuit number.
p	= Access interface unit (AIU)
q	= AIU pack number.
r	= AIU circuit number.
s	= Circuit or packet directory number associated with the CPE to be restored.
t	= Digital network unit - synchronous optical network (SONET) (DNU-S) number.

4. ACTION TO BE TAKEN

To remove a CPE, use the RMV:CPE input message. To restore a CPE, use the RST:CPE input message. To get the current status of a CPE, use the OP:CPE input message. If the DSL is OOS, the DSL can be restored using the RST:LINE input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CPE
OP:STATUS
RMV:CPE
RMV:LINE
RST:CPE
RST:LINE
```

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

RST:CU

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
RST CU a b [c]
```

2. REASON FOR OUTPUT

To report the status of executing a request to restore a control unit (CU) to standby status.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Request status. Valid value(s):
- ABORTED = Restoration abnormally terminated due to a system error or a fault in the restore process.
- COMPLETED = Restoration successfully completed.
- IN PROGRESS = Restoration is in progress.
- STOPPED = Restoration denied by the system or stopped manually.

c = Reason the restore was stopped. Valid value(s):
- 1 = Invalid unit name. Only the CU can be restored.
- 2 = CU is not out of service (OOS).
- 3 = The mate CU must be ACTIVE or INIT.
- 4 = Diagnostic test failures for the CU.
- 5 = Expanded main memory (EMM) straps do not match on both CU's.
- 6 = The restore was terminated because of a system request (manual or automatic).

4. ACTION TO BE TAKEN

If 'c' =	Action:
2	Remove the CU. If 'b' = ABORTED, determine what is wrong with the system. Interpret the REPT:CURSTRMV output message if one occurred.
4	Fix the CU or restore it unconditionally.
5	Fix the EMM straps.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
All	424

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Input Message(s):

```
RST:CU
```

Output Message(s):

```
REPT:CURSTRMV
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RST:DATALINK

Software Release: 5E10 and later
Message Class: LINE,RSB
Application: 5
Type: Output

1. FORMAT

```
RST DATALINK [DN a] [b] [c] [d]  e
  [f] [f] [f] [f] [f]       g [g] [g] [g] [g]
                           [h [h] [h] [h] [h]]
                                   .
                                   .
                                   .
```

2. REASON FOR OUTPUT

To respond to a request to restore the specified data link to service by deleting the specified status from the port identified. Both the status requested to be deleted and the full status resulting from the restoration attempt are identified in the message. This message may be in response to a RST:DATALINK input message or may be generated automatically.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

a = Telephone number of the data link.

b = Channel identifier: D, B1, or B2. Used only for digital subscriber line (DSL) data links.

c = Valid value(s):

```
AP=i-j
AQ=i-j
DASC=i-j
EIS=k-l
HOBICR=i-j
HOBICV=i-j
HOBIS=i-j
MISLNK=i-j
OAPF=m
OAPO=n
RAS=i-j
RTRS=i-j
XDB=i-j
```

d = Valid value(s):

ILEN=q-u-v-w
INEN=q-a^1-v-w
LCEN=q-r-s-t
LCKEN=q-r-x-y-z

e = The result (completion code) of the removal request. Valid value(s):

`CAMPON FAIL` = The request to camp on the trunk or data link failed.
`CAMPON NOT ALLOWED` = The ability to camp on is not allowed on the data link specified. It must therefore be removed by specifying the UCL option.
`CMP UNAVAILABLE` = The input request could not be completed because a needed communications module (CM) was unable to respond. Retry the request later.
`COMPLETED` = The specified status was successfully added to the port. Resulting port status is indicated.
`DUP REQUEST` = Line already out of service for the specified reason.
`INPUT ERROR` = Some data entered in the input request was invalid or incorrect.
`INV PORT` = The data link could not be located in the database. The data link identifier used in the input request was most likely invalid or incorrect.
`INV PORT TYPE` = The port specified is not a data link and therefore can not be changed using the specified input request. Determine the port's type, OP:CONV input message may help, and use the input request appropriate for its type.
`INV STATUS` = An invalid status for the data link was specified in the input request.
`NO PROCESS` = An attempt to create a process failed. Possibly caused by the system's being busy. Retry the request later.
`NO STATUS MATCH` = The data link was out-of-service (OOS), but not for any of the reasons specified (refer to variable '`f`'). No change was made to the status of the data link.
`PORT BUSY` = The data link remained busy for the camp-on period or an in-progress camp-on was terminated.
`PROCESS TIMEOUT` = Internal time-out, during processing request, aborted.
`SM UNAVAILABLE` = The input request could not be completed because a needed SM is unable to respond. Retry the request later.
`STATUS CONFLICT` = Status to be added conflicts with the existing status on the data link.
`SYSTEM BUSY` = The system's processing capability limit was reached, or a system resource was unavailable. Retry the request later.
`SYSTEM ERROR` = System error occurred making it impossible to continue processing request.

`f` = The status to be deleted from the data link. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status.

`g` = The resulting primary status in effect on the data link. This status is the most restrictive to call processing currently on the data link. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status.

`h` = The pending statuses (0-3) in effect on the data link, if any. (Less restrictive than the primary status.) Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status and the status hierarchy.

`i` = Data link (group) number.

`j` = Relative link (member) number.

`k` = EIS identifier (ID) on which the CPDL terminates.

`l` = External data link (member) number relative to the EIS.

`m` = Force management center number of the OAPF.

`n` = Operator service center number of the OAPO.

`q` = Switching module (SM) number.

r = Integrated services line unit number.

s = Line group controller number.

t = Line card number.

u = IDCU number.

v = Remote terminal (RT) number.

w = RT line number.

x = Line group number.

y = Line board number.

z = Line circuit number.

a[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

4. ACTION TO BE TAKEN

If the data link is not in service, identify the OOS condition for the primary status currently in effect and determine the appropriate recovery steps. To get a list of all data links or a group of data links with a specified status, refer to the OP:LIST input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CONV
OP:LIST
OP:STATUS
RMV:DATALINK
RST:DATALINK
```

Output Message(s):

```
OP:CONV
```

Output Appendix(es):

```
APP:PORT-STATUS
```

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

RST:DCI

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      RST DCI a COMPLETED

[2]   ____________________________________________________________
      RST DCI a ABORTED [b] [c]

[3]   ____________________________________________________________
      RST DCI a STOPPED d

[4]   ____________________________________________________________
      RST DCI a TASK e MSG STARTED

[5]   ____________________________________________________________
      RST DCI a STOPPED MESSAGE IN PROGRESS

[6]   ____________________________________________________________
      RST DCI a STOPPED MESSAGE COMPLETE
```

2. REASON FOR OUTPUT

These messages report the disposition of a request to restore a dual serial channel/computer interconnect (DCI) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4, 5, and 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error. Valid value(s):
- X'1 = Restore process error.
- X'2 = Driver error.
- [NULL] = Restoration denied by driver or configuration control (CONFIG).

c = Error code. Valid value(s):

If 'b' =	Explanation:

X'1	Refer to the APP:IOP-H appendix in the Appendixes section of the Output Messages manual.
X'2	Refer to the APP:IOP-G appendix in the Appendixes section of the Output Messages manual.

d = Error code. Refer to the APP:DCI-G appendix in the Appendixes section of the Output Messages manual.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

5. ALARMS

The pudrv subsystem generated messages have no alarm.

The cft subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

The diag subsystem generated messages have automatically generated alarms; action may or may not be required.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
pudrv	195, 196
cft	308
diag	96

Input Message(s):

```
RST:DCI
```

Output Appendix(es):

```
APP:DCI-A
APP:DCI-F
APP:DCI-G
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RST:DCLU

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST DCLU=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report that a digital carrier line unit (DCLU) has been restored to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DCLU number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

`ABORTED`	= The action requested was unsuccessful, and the termination was not graceful. Hardware states are not reliable.
`COMPLETED`	= The action completed successfully.
`STOPPED`	= The action terminated before a normal completion but the termination was graceful. Hardware states are reliable.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RST:DCLU
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:DCTUCOM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST DCTUCOM=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:DCTUCOM input message to restore a directly connected test unit common board (DCTUCOM) circuit to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Directly connected test unit number.

`c` = Termination status. Valid value(s):
- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED-CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`d` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:SM,OFFNORM input message and refer to the documents listed in the References section of this message.

5. ALARMS

If a RST message fails, an alarm will indicate the effect to the office.

No alarm = No effect.
Minor = Small reduction in traffic capability.
Major = A problem exists and is denying customer service or causing a 25-50% reduction in traffic capability
C Critical = A problem exists and is denying customer service or causing at least a 50% reduction in traffic capability.

6. REFERENCES

Input Message(s):

`RST:DCTUCOM`

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

RST:DCTUPORT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST DCTUPORT=a-b-c f [g]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:DCTUPORT input message to restore a directly connected test unit port circuit (DCTUPORT) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Directly connected test unit number.

`c` = Circuit number.

`f` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`g` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

If a RST message fails, an alarm will indicate the effect to the office.
No alarm = No effect.
*Minor = Small reduction in traffic capability.
**Major = A problem exists and is denying customer service or causing a 25-50% reduction in traffic capability.
*C Critical = A problem exists and is denying customer service or causing at least a 50% reduction in traffic capability.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RST:DCTUPORT
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:DFC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
RST DFC a b [c] [d]
```

2. REASON FOR OUTPUT

To report the status of a request to restore a disk file controller (DFC) to service.

If the restore process was invoked using the RST DFC poke on the DFC status page during disk-independent operation (DIOP) mode, a REPT:DKDIP output message precedes the actual output message line.

3. VARIABLE FIELD DEFINITIONS

`a` = DFC Member number.

`b` = Status of request. Valid value(s):

`ABORTED`	= Restore aborted.
`COMPLETED`	= Unit restored.
`ERROR`	= Encountered an error, restore aborted.
`IN PROGRESS`	= Unit is being initialized.
`NOT STARTED`	= The restore not started.
`STARTED`	= The restore was started by DKDIP.
`STOPPED`	= Unit failed diagnosis.

If 'b' =	**'c' =**	**'d' =**
`ABORTED`, `NOT STARTED`, `ERROR`, or `STOPPED`, and if the input message is started using the RST DFC poke on the DFC status page, then	One of the following DKDIP error codes. Valid value(s): `f09` = Failed to get the unit control block (UCB) of the unit by name. `f18` = Unit is not out-of-service (OOS). `f1e` = Failed to open the device. `f20` = Refer to the DKDRV error report on the receive-only printer (ROP). `f57` = Message to driver port failed. `f60` = Message reception failure. `f63` = Process timed out waiting for message. `f67` = Failed to close special device file. `ffe` = Aborted due to phase 1.	Error code. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.
`ABORTED`	Type of error. Valid value(s): `1` = Diagnostic restore process error. `2` = DFC driver restore process error. `[NULL]` = Bootstrap restore failure.	Error code: For a diagnostic restore process error (c = 1), refer to the APP:DFC-G appendix in the Appendixes section of the Output messages manual. For a DFC driver error (c = 2), refer to

		the APP:DFC-A appendix in the Appendixes section of the Output messages manual.
STOPPED	Error code. Refer to the APP:DFC-H appendix in the Appendixes section of the Output Messages manual.	

4. ACTION TO BE TAKEN

If the restore did not complete successfully, correct the source of trouble and attempt the restore again. If the error condition persists, contact the next level of technical assistance.

5. ALARMS

OMDB key 308 has a VAR (variable) alarm. There is fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

OMDB key 601 has a MAJ (major) alarm. If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	308
2	601

Input Message(s):

```
RST:DFC
```

Output Message(s):

```
REPT:DKDIP
```

Output Appendix(es):

```
APP:DFC-A
APP:DFC-G
APP:DFC-H
APP:OMDB-X-REF
APP:SYSERR
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

(COMMON PROCESSOR DISPLAY)
(DFC STATUS PAGE)

RST:DFI

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST DFI=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing an RST:DFI input message to restore a digital facility interface (DFI) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line/trunk unit number.

`c` = DFI number.

`d` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`COMPLETED` = Successful completion.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

If a RST message fails, an alarm will indicate the effect to the office.

No alarm = No effect.
***Minor** = Small reduction in traffic capability.
****Major** = A problem exists and is denying customer service or causing a 25-50% reduction in traffic capability.
***C Critical** = A problem exists and is denying customer service or causing at least a 50% reduction in traffic capability.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RST:DFI
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:DFIH

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST DFIH=a-b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of an RST:DFIH input message to restore a remote integrated services line unit (RISLU) host/remote digital facility interface circuit pair (DFIH) to service. This output message will also occur due to automatic fault recovery actions.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RISLU digital line and trunk unit (DLTU) number.

`c` = DFIH number.

`d` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance manual.

5. ALARMS

A major alarm will occur if an automatic restore-to-service is stopped due to failing diagnostics.

6. REFERENCES

Input Message(s):

`RST:DFIH`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-220 *Corrective Maintenance*

RST:DFTAC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST DFTAC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing RST:DFTAC input message to restore the distributing frame test access circuit (DFTAC) to active status, or as the result of a recovery action to remove, diagnose, and restore the circuit to service if the diagnostic successfully executes.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group.

`d` = Circuit number.

`e` = Termination status. Valid value(s):

`ABORTED`	= The restoring process was purged. Further output showing data recovery by audits may follow.
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action was not begun.
`STOPPED`	= Terminated before normal completion (process gracefully terminated).

`f` = Reason for termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

Minor alarm if a recovery requested RST:DFTAC fails.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:DFTAC
RST:DFTAC
```

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Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:DIST

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST DIST=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:DIST input message to restore a distribute point board (DIST) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = Distribute point board number.

`e` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the References section of this message.

5. ALARMS

If a RST message fails, an alarm will indicate the effect to the office.
No alarm = No effect.
***Minor** = Small reduction in traffic capability.
****Major** = A problem exists and is denying customer service or causing a 25-50% reduction in traffic capability.
***C Critical** = A problem exists and is denying customer service or causing at least a 50% reduction in traffic capability.

6. REFERENCES

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Input Message(s):

```
OP:OFFNORM-SM
RST:DIST
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:DLI

Software Release: 5E10 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

```
RST DLI={a|a&&b}-c d [e]
```

2. REASON FOR OUTPUT

To indicate the result of a restore request (either manual or automatic) for a dual link interface (DLI) or range of DLIs.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number; also the lower limit of a range of DLIs to be restored.

`b` = Upper limit of a range of DLIs that were diagnosed.

`c` = ONTC side that the DLI is on.

`d` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was immediate (no cleanup was done).
`COMPLETED`	= Request completed successfully.
`NOT STARTED`	= Requested action could not begin.
`STOPPED`	= Request was terminated before a normal completion. Attempts were made to leave everything in a sane state.

`e` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

No further action is necessary if the request completed successfully. If the termination report is not COMPLETED, the '`e`' field should give some indication as to why the request failed. Check DLI MCC pages or OP:CFGSTAT output to verify that the DLI was in a valid state to perform the request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CFGSTAT
OP:DMQ
RST:DLI
```

Output Message(s):

```
OP:CFGSTAT
OP:DMQ-CM
```

MCC Display Page(s):

1200 (DLI/TMSLNK)

RST:DNUSCC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST DNUSCC=a-b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of an attempt to restore a digital networking unit - synchronous optical network (SONET) (DNU-S) common controller (DNUSCC) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Common controller number.

`d` = Termination status. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `IN PROGRESS` = Requested action is in progress.
- `NOT STARTED` = Requested action was not started.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

Failure of an automatic restoration of the first DNUSCC in a DNU-S will cause a major alarm. Failure of an automatic restoration of a DNUSCC while the mate DNUSCC is in an out-of-service (OOS) state will cause a critical alarm.

6. REFERENCES

Input Message(s):

```
RST:DNUSCC
```

Output Appendix(es):

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APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

RST:DNUSCD

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST DNUSCD=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an attempt to restore a digital networking unit - synchronous optical network (DNU-S) common data (DNUSCD) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = Common data number.

`e` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action was successfully completed.
`IN PROGRESS`	= Requested action is in progress.
`NOT STARTED`	= Requested action was not started.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

Failure of an automatic restoration of the first DNUSCD in a DNU-S data group causes a major alarm. Failure of an automatic restoration of a DNUSCD while the mate DNUSCD is in an out-of-service (OOS) state will cause a critical alarm.

6. REFERENCES

Input Message(s):

`RST:DNUSCD`

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Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

RST:DNUSEOC

Software Release: 5E12 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
RST DNUSEOC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the result of a RST:DNUSEOC input message that restores a digital networking unit - synchronous optical network (DNU-S) remote terminal (RT) embedded operations channel (EOC) circuit to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = RT number.

`d` = EOC number.

`e` = Termination report. Valid values are:

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:DNUSEOC`

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-110 *System Maintenance Requirements and Tools*

MCC Display Page(s):

1660,xxxx (TR303 REMOTE TERMINAL)

RST:DNUSTMC

Software Release: 5E12 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
RST DNUSTMC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the result of a RST:DNUSTMC input message that restores a digital networking unit - synchronous optical network (DNU-S) remote terminal (RT) timeslot management channel (TMC) circuit to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = RT number.

`d` = TMC number.

`e` = Termination report. Valid values are:

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:DNUSTMC`

Output Appendix(es):

```
APP:MAINT-RESP
```

MCC Display Page(s):

1660,xxxx (TR303 REMOTE TERMINAL)

RST:DS1SFAC-A

Software Release: 5E10 - 5E11
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST DS1SFAC=a-b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Indicates the result of an attempt to restore a digital networking unit - synchronous optical network (DNU-S) digital signal level 1 facility (DS1SFAC) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = Synchronous transport signal facility number.

`e` = Virtual tributary level 1 (VT1) facility number.

`f` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action was not started.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:DS1SFAC`

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Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1511 (DNUS STS)

RST:DS1SFAC-B

Software Release: 5E12 only
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST DS1SFAC=a-b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Indicates the result of an attempt to restore a digital networking unit - synchronous optical network (DNU-S) digital signal level 1 facility (DS1SFAC) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = Synchronous transport signal facility number.

`e` = Virtual tributary level 1 (VT1) facility number.

`f` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action was not started.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:DS1SFAC`

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Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1511 (DNUS STS MAINTENANCE)

RST:DS1SFAC-C

Software Release: 5E13 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST DS1SFAC=a-b-c-d-e-f-g h [i]
```

2. REASON FOR OUTPUT

Indicates the result of an attempt to restore a digital networking unit - synchronous optical network (DNU-S) digital signal level 1 facility (DS1SFAC) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital Networking Unit - SONET (DNU-S) number.

`c` = Data group (DG) number.

`d` = SONET Termination Equipment (STE) facility number.

`e` = Synchronous Transport Signal (STS) facility number.

`f` = Virtual tributary group (VTG) number.

`g` = Virtual tributary member (VTM) number.

`h` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action was not started.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`i` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTIONS TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
RST:DS1SFAC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1511 (DNUS STS MAINTENANCE)

RST:DUI

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      RST DUI a COMPLETED

[2]   ____________________________________________________________
      RST DUI a ABORTED [b] [c]

[3]   ____________________________________________________________
      RST DUI a STOPPED d

[4]   ____________________________________________________________
      RST DUI a TASK e MSG STARTED

[5]   ____________________________________________________________
      RST DUI a STOPPED MESSAGE IN PROGRESS

[6]   ____________________________________________________________
      RST DUI a STOPPED MESSAGE COMPLETE
```

2. REASON FOR OUTPUT

To report the final disposition of a request to restore a direct user interface (DUI) subdevice to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4 - 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Type of error. Valid value(s):
- `X'1` = Restore process error.
- `X'2` = Driver error.
- `[NULL]` = Restoration denied by the input/output (IO) driver or configuration control (CONFIG).

`c` = Error code.

If 'b' =	Explanation:

X'1	Refer to the APP:IOP-H appendix in the Appendixes section of the Output Messages manual.
X'2	Refer to the APP:IOP-G appendix in the Appendixes section of the Output Messages manual.

d = Error code. Refer to the APP:IOP-I appendix in the Appendixes section of the Output Messages manual.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the restoration was aborted or stopped, clear the source of trouble and attempt the restoration again.

5. ALARMS

The "pudrv" subsystem generated messages have no alarms.

The "cft" subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

The "diag" subsystem generated messages have an automatically-generated alarm. Action may or may not be required.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
pudrv	195,196
cft	308
diag	96

Input Message(s):

```
RST:DUI
```

Output Appendix(es):

```
APP:IOP-G
APP:IOP-H
APP:IOP-I
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RST:DUIC

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      RST DUIC a COMPLETED

[2]   ____________________________________________________________
      RST DUIC a ABORTED [b] [c]

[3]   ____________________________________________________________
      RST DUIC a STOPPED d

[4]   ____________________________________________________________
      RST DUIC a TASK e MSG STARTED

[5]   ____________________________________________________________
      RST DUIC a STOPPED MESSAGE IN PROGRESS

[6]   ____________________________________________________________
      RST DUIC a STOPPED MESSAGE COMPLETE
```

2. REASON FOR OUTPUT

To report the final disposition of a request to restore a direct user interface controller (DUIC) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4 - 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Type of error. Valid value(s):

`X'1`	= Restore process error.
`X'2`	= Driver error.
`[NULL]`	= Restoration denied by the input/output driver (IODRV) or configuration control (CONFIG).

`c` = Error code.

If '`b`' = X'1, refer to the APP:IOP-H appendix in the Appendixes section of the Output Messages

manual.

If 'b' = X'2, refer to the APP:IOP-G appendix in the Appendixes section of the Output Messages manual.

d = Error code, refer to the APP:IOP-I appendix in the Appendixes section of the Output Messages manual.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the restoration was aborted or stopped, clear the source of trouble and attempt the restoration again.

5. ALARMS

The "pudrv" subsystem generated messages have no alarms.

The "cft" subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

The "diag" subsystem generated messages have an automatically-generated alarm. Action may or may not be required.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
pudrv	195,196
cft	308
diag	96

Input Message(s):

```
RST:DUIC
```

Output Appendix(es):

```
APP:IOP-G
APP:IOP-H
APP:IOP-I
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RST:EAN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST EAN=a-b f [g]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:EAN input message to restore a equipment access network (EAN) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Directly connected test unit (DCTU) number.

`f` = Termination status. Valid value(s):
- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`g` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

If a RST message fails, an alarm will indicate the effect to the office.

No alarm = No effect.
***Minor** = Small reduction in traffic capability.
****Major** = A problem exists and is denying customer service or causing a 25-50% reduction in traffic capability.
***C Critical** = A problem exists and is denying customer service or causing at least a 50% reduction in traffic capability.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RST:EAN
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:EC1STE

Software Release: 5E13 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST EC1STE=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an attempt to restore a digital networking unit - Electrical Carrier Level 1 SONET Termination equipment facility (EC1STE) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital Networking Unit - SONET (DNU-S) number.

`c` = Data group (DG) number.

`d` = SONET Termination Equipment (STE) facility number.

`e` = Termination status. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action was not started.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTIONS TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RST:EC1STE
```

Output Appendix(es):

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APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

RST:EOC

Software Release: 5E10 - 5E11
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
RST EOC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the result of a RST:EOC input message that restores an integrated digital carrier unit (IDCU) remote terminal (RT) embedded operations channel (EOC) circuit to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = RT number.

`d` = EOC number.

`e` = Termination report. Valid value(s):

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:EOC`

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-110 *System Maintenance Requirements and Tools*

MCC Display Page(s):

188xyy (IDCU REMOTE TERMINAL)

RST:FAC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST FAC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of a RST:FAC input message to restore a remote switching module (RSM) facility (FAC) or a trunk FAC.

An RSM FAC can be a host-remote facility between a host switching module (HSM) and an RSM, or a remote facility between two RSMs. A trunk FAC is a inter-office trunk. This message also prints when a retiring carrier group alarm (CGA) causes the FAC to be restored.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line and trunk unit (DLTU) number.

`c` = RSM digital facilities interface (RDFI), inter-RSM communication link digital facilities interface (CDFI), or inter-office trunk digital facilities interface (DFI) number.

`d` = FAC number. The FAC number is the T1 facility number on an RDFI, CDFI, or DFI.

`e` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action had not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the References section of this message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
OP:OFFNORM-SM
RMV:FAC
RST:FAC
```

Output Message(s):

```
REPT:ALMPG
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance Manual*

RST:FPC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST FPC=a b [c] EVENT=d
```

2. REASON FOR OUTPUT

To acknowledge a request to restore to service a foundation peripheral controller (FPC).

3. VARIABLE FIELD DEFINITIONS

`a` = FPC identification number (0 or 1).

`b` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was immediate.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion.

`c` = Additional data qualifying the termination report.

`d` = Event number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RST:FPC
```

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RST:FPC-REQ

Software Release: 5E10 and later
Message Class: LG_SED,SED_MON
Application: 5
Type: Output

1. FORMAT

```
RST FPC a REQUESTED
EXCESSIVE CONTINUITY FAILURES
```

2. REASON FOR OUTPUT

To report an automatic restoration of an off-line foundation peripheral controller (FPC) has been attempted due to excessive E-bit continuity failure reports from the switching module (SM).

3. VARIABLE FIELD DEFINITIONS

`a` = Side (0 or 1).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

IM/OM Reference(s):

None.

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RST:GDSF

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST GDSF=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:GDSF input message to restore a global digital services function (GDSF) circuit to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = GDSF number.

`c` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`d` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

If a RST message fails, an alarm will indicate the effect to the office.

No alarm	= No effect.
*Minor	= A RST of a GDSF has failed due to a problem. On an SM with more than one GDSF, a minor alarm will be reported when 50% or less of the GDSFs on a particular SM are OOS.
**Major	= A RST of a GDSF has failed due to a problem. A major alarm is reported if an SM that is equipped with only one GDSF and that GDSF is OOS or more than 50% of the GDSFs on a particular SM are OOS.
*C Critical	= A RST of a GDSF has failed due to a problem. A critical alarm is reported for an SM that has more than one GDSF and all the GDSFs are OOS.

6. REFERENCES

Input Message(s):

`OP:OFFNORM-SM`

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```
RST:GDSF
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:GDSUCOM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST GDSUCOM=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:GDSUCOM input message to restore a global digital service unit common (GDSUCOM) board to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Global digital service unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):
- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

If a RST message fails, an alarm will indicate the effect to the office.

No alarm	= No effect.
*Minor	= Small reduction in traffic capability
**Major	= A problem exists and is denying customer service or causing a 25-50% reduction in traffic capability.
*C Critical	= A problem exists and is denying customer service or causing at least a 50% reduction in traffic capability.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RST:GDSUCOM
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:GDXACC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST GDXACC=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:GDXACC input message to restore a gated diode crosspoint access (GDXACC) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

If a RST message fails, an alarm will indicate the effect to the office.
No alarm = No effect.
*Minor = Small reduction in traffic capability.
**Major = A problem exists and is denying customer service or causing a 25-50% reduction in traffic capability.
*C Critical = A problem exists and is denying customer service or causing at least a 50% reduction in traffic capability.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RST:GDXACC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:GDXC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST GDXC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:GDXC input message to restore a gated diode crosspoint compensator (GDXC) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = Metallic service unit board position number.

`e` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

If a RST message fails, an alarm will indicate the effect to the office.
No alarm = No effect.
*Minor = Small reduction in traffic capability.
**Major = A problem exists and is denying customer service or causing a 25-50% reduction in traffic capability.
*C Critical = A problem exists and is denying customer service or causing at least a 50% reduction in traffic capability.

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6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RST:GDXC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:GDXCON

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST GDXCON=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:GDXCON input message to restore a gated diode crosspoint control (GDXCON) circuit to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):
- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

If a RST message fails, an alarm will indicate the effect to the office.

No alarm	= No effect.
*Minor	= Small reduction in traffic capability.
**Major	= A problem exists and is denying customer service or causing a 25-50% reduction in traffic capability.
*C Critical	= A problem exists and is denying customer service or causing at least a 50% reduction in traffic capability.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RST:GDXCON
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:GRID

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST GRID=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:GRID input message to restore a gated diode crosspoint grid (GRID) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Grid number.

`d` = Termination status. Valid value(s):
- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

If a RST message fails, an alarm will indicate the effect to the office.

No alarm	= No effect.
*Minor	= Small reduction in traffic capability.
**Major	= A problem exists and is denying customer service or causing a 25-50% reduction in traffic capability.
*C Critical	= A problem exists and is denying customer service or causing at least a 50% reduction in traffic capability.

6. REFERENCES

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Input Message(s):

```
OP:OFFNORM-SM
RST:GRID
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:GRIDBD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST GRIDBD=a-b-c-d     e  [f]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:GRIDBD input message to restore a line unit model 2 (LU2) or line unit model 3 (LU3) grid board to active status, or as the result of a recovery action to remove, diagnose, and restore the grid board to service if the diagnostic successfully executes.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Line unit number.

`c` = Grid number.

`d` = Board number.

`e` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination is immediate. Consistency of hardware and data is questionable.
`COMPLETED`	The request was successfully completed.
`NOT STARTED`	Processing did not begin because the system was unable to service the request.
`STOPPED`	The request terminated after processing was begun. The termination was graceful.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

Major alarm if a fault recovery-requested RST:GRIDBD input command fails.

6. REFERENCES

Input Message(s):

```
DGN:GRIDBD
OP:OFFNORM-SM
RST:GRIDBD
```

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Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:HDFI

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST HDFI=a-b-c d [e]
```

2. REASON FOR OUTPUT

To indicate the result of an RST:HDFI input message to restore a host switching module (HSM) digital facilities interface (HDFI) circuit to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line and trunk unit (DLTU) number.

`c` = HDFI number.

`d` = Termination report. Valid value(s):

`ABORTED`	Requested action was terminated before completion, and the termination was complete.
`COMPLETED`	Request has successfully completed.
`COMPLETED CERTIFIED`	Request has successfully completed, and independent certification of the resulting hardware status was made.
`NOT STARTED`	Requested action has not begun.
`STOPPED`	Requested action was terminated before a normal completion.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RST:HDFI
```

Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:HSD

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      RST HSD a COMPLETED

[2]   ____________________________________________________________
      RST HSD a ABORTED [b] [c]

[3]   ____________________________________________________________
      RST HSD a STOPPED d

[4]   ____________________________________________________________
      RST HSD a TASK e MSG STARTED

[5]   ____________________________________________________________
      RST HSD a STOPPED MESSAGE IN PROGRESS

[6]   ____________________________________________________________
      RST HSD a STOPPED MESSAGE COMPLETE
```

2. REASON FOR OUTPUT

To report the disposition of a request to restore a high-speed synchronous data link (HSD) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4 - 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Type of error. Valid value(s):
- `X'1` = Restore process error.
- `X'2` = Driver error.
- `[NULL]` = Restore denied by driver or configuration control (CONFIG).

`c` = Error code.

If 'b' =	Explanation:
X'1	Refer to the APP:IOP-H appendix in the Appendixes section of the Output Messages manual.

X'2	Refer to the APP:IOP-G appendix in the Appendixes section of the Output Messages manual.

d = Error code. Refer to the APP:IOP-I appendix in the Appendixes section of the Output Messages manual.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

5. ALARMS

The "pudrv" subsystem generated messages have no alarms.

The "cft" subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

The "diag" subsystem generated messages have an automatically-generated alarm. Action may or may not be required.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
pudrv	195,196
cft	308
diag	96

Input Message(s):

```
RST:HSD
```

Output Appendix(es):

```
APP:IOP-G
APP:IOP-H
APP:IOP-I
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RST:HSDC

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      RST HSDC a COMPLETED

[2]   ____________________________________________________________
      RST HSDC a ABORTED [b] [c]

[3]   ____________________________________________________________
      RST HSDC a STOPPED d

[4]   ____________________________________________________________
      RST HSDC a TASK e MSG STARTED

[5]   ____________________________________________________________
      RST HSDC a STOPPED MESSAGE IN PROGRESS

[6]   ____________________________________________________________
      RST HSDC a STOPPED MESSAGE COMPLETE
```

2. REASON FOR OUTPUT

To report the disposition of a request to restore a high-speed synchronous data link controller (HSDC) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4 - 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Type of error. Valid value(s):
- `X'1` = Restore process error.
- `X'2` = Driver error.
- `[NULL]` = Restore denied by driver or configuration control (CONFIG).

`c` = Error code.

If 'b' =	Explanation:
X'1	Refer to the APP:IOP-H appendix in the Appendixes section of the Output Messages manual.

X'2	Refer to the APP:IOP-G appendix in the Appendixes section of the Output Messages manual.

d = Error code, refer to the APP:IOP-I appendix in the Appendixes section of the Output Messages manual.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

5. ALARMS

The "pudrv" subsystem generated messages have no alarms.

The "cft" subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

The "diag" subsystem generated messages have an automatically-generated alarm. Action may or may not be required.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Subsystem:	Key(s):
pudrv	195,196
cft	308
diag	96

Input Message(s):

```
RST:HSDC
```

Output Appendix(es):

```
APP:IOP-G
APP:IOP-H
APP:IOP-I
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RST:IDCU

Software Release: 5E10 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
RST IDCU=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of an RST:IDCU input message that restores an integrated digital carrier unit (IDCU) service group circuit to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = IDCU service group.

`d` = Termination report. Valid value(s):

- `ABORTED` = Immediate termination. A process has been purged and cleanup will be done by audits.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, refer to the documents listed in the REFERENCES section.

5. ALARMS

If a restore (RST) message fails, an alarm will indicate the effect to the office. If no alarm occurs, there is no effect on the office. If a major alarm occurs, a problem exists and has caused one IDCU service group to go out-of-service (OOS). If a critical alarm occurs, a problem exists and has caused both IDCU service groups to go OOS. Customer service is being denied.

6. REFERENCES

Input Message(s):

```
RST:IDCU
```

Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-110 *System Maintenance Requirements and Tools*
235-105-250 *System Recovery*

MCC Display Page(s):

186x (IDCU CIRCUIT)

RST:IDCUELI

Software Release: 5E10 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
RST IDCUELI=a-b-c d [e]
```

2. REASON FOR OUTPUT

To indicate the result of a RST:IDCUELI input message to restore an integrated digital carrier unit (IDCU) electrical line interface (ELI) circuit to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = ELI number.

`d` = Termination report. Valid value(s):

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:IDCUELI`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-110 *System Maintenance Requirements and Tools*
235-105-250 *System Recovery*

MCC Display Page(s):

186x (IDCU CIRCUIT)

RST:IDCUEOC

Software Release: 5E12 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
RST IDCUEOC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the result of a RST:IDCUEOC input message that restores an integrated digital carrier unit (IDCU) remote terminal (RT) embedded operations channel (EOC) circuit to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = RT number.

`d` = EOC number.

`e` = Termination report. Valid values are:

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:IDCUEOC`

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-110 *System Maintenance Requirements and Tools*

MCC Display Page(s):

1880,x,yy (IDCU REMOTE TERMINAL)

RST:IDCUPIDB

Software Release: 5E10 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
RST IDCUPIDB=a-b-c d [e]
```

2. REASON FOR OUTPUT

To indicate the result of a RST:IDCUPIDB input message to restore an integrated digital carrier unit (IDCU) peripheral interface data bus (PIDB) or direct PIDB (DPIDB) pair to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = PIDB or DPIDB number.

`d` = Termination report. Valid value(s):

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:IDCUPIDB`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):

235-105-331	*Hardware Change Procedures - Degrowth*
235-105-220	*Corrective Maintenance*
235-105-110	*System Maintenance Requirements and Tools*
235-105-250	*System Recovery*

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RST:IDCUTMC

Software Release: 5E12 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
RST IDCUTMC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the result of a RST:IDCUTMC input message that restores an integrated digital carrier unit (IDCU) remote terminal (RT) timeslot management channel (TMC) circuit to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = RT number.

`d` = TMC number.

`e` = Termination report. Valid values are:

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:IDCUTMC`

Output Appendix(es):

```
APP:MAINT-RESP
```

MCC Display Page(s):

1880,x,yy (IDCU REMOTE TERMINAL)

RST:IFAC

Software Release: 5E10 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
RST IFAC=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of a RST:IFAC input message to restore an integrated digital carrier unit (IDCU) digital signal level one (DS1) facility (IFAC) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = IFAC number.

`d` = Termination report. Valid value(s):

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:IFAC`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-110 *System Maintenance Requirements and Tools*
235-105-250 *System Recovery*

MCC Display Page(s):

187x (IDCU FACILITY)
188xyy (IDCU REMOTE TERMINAL)

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RST:IOP

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      RST IOP a COMPLETED

[2]   ____________________________________________________________
      RST IOP a ABORTED [b] [c]

[3]   ____________________________________________________________
      RST IOP a STOPPED d

[4]   ____________________________________________________________
      RST IOP a TASK e MSG STARTED

[5]   ____________________________________________________________
      RST IOP a STOPPED MESSAGE IN PROGRESS

[6]   ____________________________________________________________
      RST IOP a STOPPED MESSAGE COMPLETE
```

2. REASON FOR OUTPUT

To report the disposition of a request to restore the input/output processor (IOP) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4 - 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error. Valid value(s):
- X'1 = Restore process error.
- X'2 = Driver error.
- [NULL] = Restore denied by driver or configuration control (CONFIG).

c = Error code.

If 'b' =	Explanation:
X'1	Refer to the APP:IOP-H appendix in the Appendixes section of the Output Messages manual.

X'2	Refer to the APP:IOP-G appendix in the Appendixes section of the Output Messages manual.

d = Error code, refer to the APP:IOP-I appendix in the Appendixes section of the Output Messages manual.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

5. ALARMS

The "pudrv" subsystem generated messages have no alarms.

The "cft" subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

The "diag" subsystem generated messages have an automatically-generated alarm. Action may or may not be required.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Subsystem:	Key(s):
pudrv	195,196
cft	308
diag	96

Input Message(s):

```
RST:IOP
```

Output Appendix(es):

```
APP:IOP-G
APP:IOP-H
APP:IOP-I
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RST:ISLUCC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST ISLUCC=a-b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of an RST:ISLUCC input request to restore the integrated services line unit common controller (ISLUCC) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Integrated services line unit (ISLU) number.

`c` = Common controller number.

`d` = Termination status. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action has successfully completed.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:ISLUCC`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x (ISLU Network)
170xy (ISLU LINE GROUP)

RST:ISLUCD

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST ISLUCD=a-b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of an RST:ISLUCD input request to restore the integrated services line unit common data (ISLUCD) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Integrated services line unit (ISLU) number.

`c` = Common data number.

`d` = Termination status. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action has successfully completed.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RST:ISLUCD
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x (ISLU NETWORK)
170xy (ISLU LINE GROUP)

RST:ISLUHLSC

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
RST ISLUHLSC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To describe the result of the RST:ISLUHLSC input message that was issued to restore an integrated services line unit (ISLU) high level service circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = ISLU number.

`c` = ISLU service group number.

`d` = High level service circuit number.

`e` = Termination report. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`f` = Information that qualifies the above termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RST:ISLUHLSC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x,171x (ISLU)

RST:ISLULBD

Software Release: 5E10 and later
Message Class: SMCONFG,SM
Application: 5
Type: Output

1. FORMAT

```
RST ISLULBD=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

Reports the result of an RST:ISLULBD input request to restore the integrated services line unit line board (ISLULBD) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Integrated services line unit (ISLU) number.

`c` = Line group number.

`d` = Line board number.

`e` = Action status report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action has successfully completed.
- `IN PROGRESS` = Requested action is in progress.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:ISLULBD`

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:ISLULC

Software Release: 5E10 and later
Message Class: SMCONFG,SM
Application: 5
Type: Output

1. FORMAT

```
RST ISLULC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

Reports the result of an RST:ISLULC input request to restore the integrated services line unit line card (ISLULC) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Integrated services line unit (ISLU) number.

`c` = Line group controller number.

`d` = Line card number.

`e` = Action status report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action has successfully completed.
`IN PROGRESS`	= Requested action is in progress.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:ISLULC`

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x (ISLU NETWORK)
170xy (ISLU LINE GROUP)

RST:ISLULCKT

Software Release: 5E10 and later
Message Class: SMCONFG,SM
Application: 5
Type: Output

1. FORMAT

```
RST ISLULCKT=a-b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Reports the result of an RST:ISLULCKT input request to restore the integrated services line unit line circuit (ISLULCKT) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Integrated services line unit (ISLU) number.

`c` = Line group number.

`d` = Line board number.

`e` = Line circuit number.

`f` = Action status report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action has successfully completed.
- `IN PROGRESS` = Requested action is in progress.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:ISLULCKT`

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Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:ISLULG

Software Release: 5E10 and later
Message Class: SMCONFG,SM
Application: 5
Type: Output

1. FORMAT

```
RST ISLULG=a-b-c d [e]
```

2. REASON FOR OUTPUT

Reports the result of an RST:ISLULG input request to restore the integrated services line unit line group (ISLULG) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Integrated services line unit (ISLU) number.

`c` = Line group number.

`d` = Action status report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action has successfully completed.
`IN PROGRESS`	= Requested action is in progress.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:ISLULG`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:ISLULGC

Software Release: 5E10 and later
Message Class: SMCONFG,SM
Application: 5
Type: Output

1. FORMAT

```
RST ISLULGC=a-b-c d [e]
```

2. REASON FOR OUTPUT

Reports the result of an RST:ISLULGC input request to restore the integrated services line unit line group controller (ISLULGC) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Integrated services line unit (ISLU) number.

`c` = Line group controller number.

`d` = Action status report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action has successfully completed.
`IN PROGRESS`	= Requested action is in progress.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:ISLULGC`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x (ISLU NETWORK)
170xy (ISLU LINE GROUP)

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RST:ISLUMAN

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
RST ISLUMAN=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To describe the result of the RST:ISLUMAN input message that was issued to restore an integrated services line unit (ISLU) metallic access network (MAN) pack.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = ISLU number.

`c` = ISLU service group number.

`d` = Metallic access network pack number.

`e` = Termination report. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`f` = Information that qualifies the above termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:ISLUMAN`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x,171x (ISLU)

RST:ISLUPIDB

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST ISLUPIDB=a-b-c d [e]
```

2. REASON FOR OUTPUT

To indicate the result of a RST:ISLUPIDB input message to restore an integrated services line unit peripheral interface data bus (ISLUPIDB) pair to service.

Note: Restoring an unconnected PIDB cable could cause PIDB PARITY errors by the ISLU CD. The user should diagnose the ISLU CD before restoring the ISLUPIDB.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.
`b` = Integrated services line unit number.
`c` = Peripheral interface data bus (PIDB) number.
`d` = Termination status. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If termination is aborted or stopped, refer to the Corrective Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RMV:ISLUPIDB
RST:ISLUPIDB
```

Output Message(s):

```
RMV:ISLUPIDB
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RST:ISLURG

Software Release: 5E10 and later
Message Class: PFR_MON
Application: 5
Type: Output

1. FORMAT

```
RST ISLURG=a-b-c d [e]
```

2. REASON FOR OUTPUT

To describe the result of the RST:ISLURG input message that was issued to restore an integrated services line unit (ISLU) ringing generator (RG) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = ISLU number.

`c` = ISLU service group number.

`d` = Termination report. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`e` = Information that qualifies the above termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RST:ISLURG
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):

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235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x,171x (ISLU)

RST:ISMNAIL

Software Release: 5E10 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
RST ISMNAIL DLT=a-b MATEDLT=c-d e [f]
```

2. REASON FOR OUTPUT

To respond to an RST:ISMNAIL input message and indicate the success or failure of the inter-SM (switching module) nailup (ISMNAIL) restoration request.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number which is the SM associated with either end of the ISMNAIL.

`b` = Data link terminal (DLT) number (1-160) associated with the SM.

`c` = Mate SM number, which is the other SM associated with ISMNAIL.

`d` = DLT number (1-160) associated with the mate SM.

`e` = Termination report. Valid value(s):
`COMPLETED` = Request completed successfully.
`FAILURE` = Request was terminated before a normal completion.

`f` = Additional data qualifying the termination of the request. Valid value(s):
`DATABASE PROBLEM` = Problem occurred while attempting to access critical data (accompanying ASSERT should provide more details).
`HARDWARE PROBLEM` = ISMNAIL restoration impossible due to associated hardware [protocol handler (PH), dual/network link interface (DLI/NLI), time multiplexed switch link (TMSLNK)] problem.
`INVALID NAILUP SPECIFIED` = An invalid nailup was specified in the input request.
`LACK OF MESSAGE RESOURCE` = Message resources were not available in the administrative module (AM), and craft request could not be forwarded to the SM for execution.
`LEVEL 2 PROTOCOL` = Level 2 protocol could not be established for the designated ISMNAIL.
`NO TMS/PIDB TIMESLOT` = No time multiplexed switch (TMS) or peripheral interface data bus (PIDB) timeslot was available to establish the ISMNAIL (possibly temporary blocking).
`NOT OWNER OF PORT` = Could not gain ownership of the port to honor request (retry is advisable).
`SM IN MINMODE` = SM is in MINMODE, and, therefore, cannot support ISMNAILs.
`SM ISOLATED` = SM is isolated, and requested action cannot be honored.
`TIMEOUT` = timeout occurred.

Note: For many failed restorations, the ISMNAIL may be left in a state, which will allow a successful automatic restoration at some later time; use OP:ST-ISMNAIL to determine current status associated with the affected ISMNAIL.

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4. ACTION TO BE TAKEN

No further action is necessary, if the request completed successfully.

If the termination report is `FAILURE`, the '`f`' field will give a reason as to why the request failed.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:ST-ISMNAIL
RST:ISMNAIL
```

Output Message(s):

```
OP:ST-ISMNAIL
```

Other Manual(s):
235-600-500 *Asserts Manual*

RST:ISTF

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST ISTF=a-b c [d]
```

2. REASON FOR OUTPUT

To report the results of executing an RST:ISTF input message to restore an integrated services test function (ISTF) unit to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = ISTF unit number.

`c` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was immediate and was not graceful.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated gracefully before a normal completion.

`d` = Additional data qualifying the termination report (variable '`c`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

A major indicates all ISTFs on this SM are out-of-service. A minor indicates there is a small reduction in traffic capability.

6. REFERENCES

Input Message(s):

`RST:ISTF`

Output Appendix(es):

`APP:MAINT-RESP`

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RST:LDSF

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST LDSF=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:LDSF input message to restore a local digital service function (LDSF) circuit to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = LDSF number.

`c` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`d` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

If a RST message fails, an alarm will indicate the effect to the office.

No alarm	= No effect.
*Minor	= Small reduction in traffic capability.
**Major	= A problem exists and is denying customer service or causing a 25-50 percent reduction in traffic capability.
*C Critical	= A problem exists and is denying customer service or causing at least a 50 percent reduction in traffic capability.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RST:LDSF
```

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Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:LDSU

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST LDSU=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:LDSU input message to restore a local digital service unit- model 2; (LDSU2) board to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local digital service unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

If a RST message fails, an alarm will indicate the effect to the office.

No alarm	= No effect.
*Minor	= Small reduction in traffic capability.
**Major	= A problem exists and is denying customer service or causing a 25-50 percent reduction in traffic capability.
*C Critical	= A problem exists and is denying customer service or causing at least a 50 percent reduction in traffic capability.

6. REFERENCES

Input Message(s):

`OP:OFFNORM-SM`

```
RST:LDSU
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:LDSUCOM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST LDSUCOM=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:LDSUCOM input message to restore a local digital service unit common (LDSUCOM) board to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local digital service unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the 4References section.

5. ALARMS

If a RST message fails, an alarm will indicate the effect to the office.
No alarm = No effect.
*Minor = Small reduction in traffic capability.
**Major = A problem exists and is denying customer service or causing a 25-50% reduction in traffic capability.
*C Critical = A problem exists and is denying customer service or causing at least a 50% reduction in traffic capability.

6. REFERENCES

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Input Message(s):

```
OP:OFFNORM-SM
RST:LDSUCOM
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:LINE-A

Software Release: 5E10 only
Message Class: LINE,RSB
Application: 5
Type: Output

1. FORMAT

```
RST LINE [DN a[-b][+]][ c] d [MLHG=q-r] s
 [t] u [u] [u] [u] [u]      v [v] [v] [v] [v]
  .                        [w [w] [w] [w] [w]]
  .                         .
  .                         .
  .                         .
```

2. REASON FOR OUTPUT

To report the restoration of a line to service by displaying the indicated status for the line specified. Both the previous status and final resulting status for the line are identified in the message. The restoration of a digital subscriber line (DSL) will result in the status of all affected channels of the DSL's being reported in the output message.

This message may be in response to a RST:LINE input message or may be generated automatically.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`+` = Indicates that the line is a party line, a custom multipoint interface DSL or a standard interface multi-user DSL.

`a` = Telephone number of the line.

`b` = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

`c` = Channel identifier (D, B1, or B2) originally specified in the restoration request. Used only for DSL lines.

`d` = Equipment number or identifier. Valid value(s):

ILEN=e-x-y-z
LCEN=e-f-g-h
LCKEN=e-f-a[1]-b[1]-c[1]
LEN=e-i-j-k-l-m
SLEN=e-n-o-p

`e` = Switching module (SM) number.

`f` = Line unit number.

`g` = Line group controller number.

`h` = Line card number.

`i` = Line unit number.

`j` = Grid number.

`k` = Switch board number.

`l` = Switch number.

`m` = Level number.

`n` = Digital carrier line unit.

`o` = Remote terminal (RT).

`p` = RT line.

`q` = Multi-line hunt group number.

`r` = Hunt group member number.

`s` = The result (completion code) of the restoration request. Valid value(s):

`ALREADY IS` = The line was already in service; therefore, the status specified in the input message to delete from the line could not be deleted. No change was made to the status of the line.

`CAMPON FAIL` = The request to camp on the line failed.

`CMP UNAVAILABLE` = The input request could not be completed because a needed communication module (CM) was unable to respond. Retry the request later.

`COMPLETED` = The specified status was successfully added to the port. Resulting status is indicated.

`COMPLETED,TRUNKS REMAIN` = The request completed successfully but some ports may be defined as trunks. Use RST:TRK message for the trunk ports.

`DUP REQUEST` = This input request is already being processed.

`INPUT ERROR` = Some data entered in the input request was invalid or incorrect.

`INV PORT` = The line could not be located in the data base. The line identifier used in the input request was most likely invalid or incorrect.

`MLHG ACCESS DN` = The DN entered is a uniform call distribution (UCD), multi-position hunt (MUPH) multi-line hunt group line, or linear hunt line, and as such cannot be removed by specifying its DN. An equipment number (that is, LEN, SLEN) or MLHG and member number must be specified. To obtain the line's equipment number and/or multi-line hunt group and member number, use RC/V for the DN or refer to office records.

`MP ACCESS DN` = The DN entered is a uniform call distribution multi-line hunt group line for modem pooling and as such cannot be restored by specifying its DN. An equipment number (that is, LEN, SLEN, LCEN) or MLHG and member number must be specified. To obtain the line's equipment number and/or multi-line hunt group and member number, refer to office records for the DN.

`NO MATCH` = The status specified in the request to delete did not exist on the line.

`NO PROCESS` = An attempt to create a process failed. Possibly caused by the system's being busy. Retry the request later.

`NO STATUS MATCH` = The line was out of service, but not for any of the reasons specified (refer to variable '`k`'). No change was made to the status of the line.

`PORT BUSY` = The line remained busy for the campon period or an in-progress campon was terminated.

`PROCESS TIMEOUT` = Internal time-out during processing request aborted.

`SMUN AVAILABLE` = The input request could not be completed because a needed SM was unable to respond. Retry the request later.

`STATUS CONFLICT` = The trunk was not able to be restored to service since a port status inconsistency would have resulted by placing the trunk in service (IS). The trunk was left in the indicated out-of-service (OOS) state. For example, attempting to restore a circuit switched B-channel while the associated D-channel is OOS is not allowed.

`SYSTEM BUSY` = The system's processing capability limit was reached or a system resource was unavailable. Retry the request later.

`SYSTEM ERROR` = System error occurred, making it impossible to continue processing request.

`t` = Channel identifier; D, B1, or B2. Used only for DSL lines.

`u` = Status that was requested to be deleted from the line. If more than one status was deleted, all are identified on subsequent lines in the same column. The first subfield indicates the basic state; the second subfield indicates the qualifier; the third subfield indicates the operational restrictions; the fourth subfield indicates supplementary information; and the fifth subfield indicates the mode of the line status. Refer to appendix APP:PORT-STATUS in the Appendixes section of the Output Messages manual for a description of status subfields.

`v` = Resulting primary status in effect on the line. This status is the most restrictive to call processing. The first subfield indicates the basic state; the second subfield indicates the qualifier; the third subfield indicates the operational restrictions; the fourth subfield indicates supplementary information; and the fifth subfield indicates the mode of the line status. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status.

`w` = Pending statuses (0-3) in effect on the line, if any. (Less restrictive than the primary status.) The first subfield indicates the basic state; the second subfield indicates the qualifier; the third subfield indicates the operational restrictions; the fourth subfield indicates supplementary information; and the fifth subfield indicates the mode of the line status. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status and the status hierarchy.

`x` = IDCU number.

`y` = Remote terminal (RT) or IDCU facility (IFAC) number.

`z` = RT line number or IFAC channel.

`a`[1] = Line group number.

`b`[1] = Line board number.

`c`[1] = Line circuit number.

4. ACTION TO BE TAKEN

None. Refer to the message output for pertinent status and information, and implement requested action based on the information received, if necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LIST
OP:STATUS
RMV:LINE
RST:LINE
```

Output Appendix(es):

```
APP:PORT-STATUS
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-118-402 *Office Records and Database Query*

RST:LINE-B

Software Release: 5E11 and later
Message Class: LINE,RSB
Application: 5
Type: Output

1. FORMAT

```
RST LINE [DN a[-b][+]][ c] d [MLHG=q-r] s
 [t] u [u] [u] [u] [u]      v [v] [v] [v] [v]
  .                        [w [w] [w] [w] [w]]
  .                         .
  .                         .
  .                         .
```

2. REASON FOR OUTPUT

To report the restoration of a line to service by displaying the indicated status for the line specified. Both the previous status and final resulting status for the line are identified in the message. The restoration of a digital subscriber line (DSL) will result in the status of all affected channels of the DSL's being reported in the output message.

This message may be in response to a RST:LINE input message or may be generated automatically.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`+` = Indicates that the line is a party line, a custom multipoint interface DSL or a standard interface multi-user DSL.

`a` = Telephone number of the line.

`b` = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

`c` = Channel identifier (D, B1, or B2) originally specified in the restoration request. Used only for DSL lines.

`d` = Equipment number or identifier. Valid value(s):

AIUEN=e-d[1]-e[1]-f[1]
ILEN=e-x-y-z
INEN=e-g[1]-y-z
LCEN=e-f-g-h
LCKEN=e-f-a[1]-b[1]-c[1]
LEN=e-i-j-k-l-m
SLEN=e-n-o-p

`e` = Switching module (SM) number.

`f` = Line unit number.

`g` = Line group controller number.

`h` = Line card number.

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i = Line unit number.

j = Grid number.

k = Switch board number.

l = Switch number.

m = Level number.

n = Digital carrier line unit.

o = Remote terminal (RT).

p = RT line.

q = Multi-line hunt group number.

r = Hunt group member number.

s = The result (completion code) of the restoration request. Valid value(s):

ALREADY IS = The line was already in service; therefore, the status specified in the input message to delete from the line could not be deleted. No change was made to the status of the line.

CAMPON FAIL = The request to camp on the line failed.

CMP UNAVAILABLE = The input request could not be completed because a needed communication module (CM) was unable to respond. Retry the request later.

COMPLETED = The specified status was successfully added to the port. Resulting status is indicated.

COMPLETED,TRUNKS REMAIN = The request completed successfully but some ports may be defined as trunks. Use RST:TRK message for the trunk ports.

DUP REQUEST = This input request is already being processed.

INPUT ERROR = Some data entered in the input request was invalid or incorrect.

INV PORT = The line could not be located in the database. The line identifier used in the input request was most likely invalid or incorrect.

MLHG ACCESS DN = The DN entered is a uniform call distribution (UCD), multi-position hunt (MUPH) multi-line hunt group line, or linear hunt line, and as such cannot be removed by specifying its DN. An equipment number (that is, LEN, SLEN) or MLHG and member number must be specified. To obtain the line's equipment number and/or multi-line hunt group and member number, use RC/V for the DN or refer to office records.

MP ACCESS DN = The DN entered is a uniform call distribution multi-line hunt group line for modem pooling and as such cannot be restored by specifying its DN. An equipment number (that is, LEN, SLEN, LCEN) or MLHG and member number must be specified. To obtain the line's equipment number and/or multi-line hunt group and member number, refer to office records for the DN.

NO MATCH = The status specified in the request to delete did not exist on the line.

NON-UNIQUE NXX DN = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.

NO PROCESS = An attempt to create a process failed. Possibly caused by the system's being busy. Retry the request later.

NO STATUS MATCH = The line was out of service, but not for any of the reasons specified (refer to variable 'k'). No change was made to the status of the line.

PORT BUSY = The line remained busy for the campon period or an in-progress campon was

terminated.

`PROCESS TIMEOUT` = Internal time-out during processing request aborted.

`SMUN AVAILABLE` = The input request could not be completed because a needed SM was unable to respond. Retry the request later.

`STATUS CONFLICT` = The trunk was not able to be restored to service since a port status inconsistency would have resulted by placing the trunk in service (IS). The trunk was left in the indicated out-of-service (OOS) state. For example, attempting to restore a circuit switched B-channel while the associated D-channel is OOS is not allowed.

`SYSTEM BUSY` = The system's processing capability limit was reached or a system resource was unavailable. Retry the request later.

`SYSTEM ERROR` = System error occurred, making it impossible to continue processing request.

`t` = Channel identifier; D, B1, or B2. Used only for DSL lines.

`u` = Status that was requested to be deleted from the line. If more than one status was deleted, all are identified on subsequent lines in the same column. The first subfield indicates the basic state; the second subfield indicates the qualifier; the third subfield indicates the operational restrictions; the fourth subfield indicates supplementary information; and the fifth subfield indicates the mode of the line status. Refer to appendix APP:PORT-STATUS in the Appendixes section of the Output Messages manual for a description of status subfields.

`v` = Resulting primary status in effect on the line. This status is the most restrictive to call processing. The first subfield indicates the basic state; the second subfield indicates the qualifier; the third subfield indicates the operational restrictions; the fourth subfield indicates supplementary information; and the fifth subfield indicates the mode of the line status. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status.

`w` = Pending statuses (0-3) in effect on the line, if any. (Less restrictive than the primary status.) The first subfield indicates the basic state; the second subfield indicates the qualifier; the third subfield indicates the operational restrictions; the fourth subfield indicates supplementary information; and the fifth subfield indicates the mode of the line status. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status and the status hierarchy.

`x` = IDCU number.

`y` = Remote terminal (RT) or IDCU facility (IFAC) number.

`z` = RT line number or IFAC channel.

`a`[1] = Line group number.

`b`[1] = Line board number.

`c`[1] = Line circuit number.

`d`[1] = Access interface unit (AIU) number.

`e`[1] = AIU pack number.

`f`[1] = AIU circuit number.

`g`[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

4. ACTION TO BE TAKEN

None. Refer to the message output for pertinent status and information, and implement requested action based on the information received, if necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LIST
OP:STATUS
RMV:LINE
RST:LINE
```

Output Appendix(es):

```
APP:PORT-STATUS
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-118-402 *Office Records and Database Query*

RST:LN

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,CNI
Type: Output

1. FORMAT

[1]
```
RST LNa b c [d] [e]
```

[2]
```
RST LNa b c
  f
```

2. REASON FOR OUTPUT

To report the status of a request to restore the link node (LN) to service. This message may also be printed due to a successful LN restart using the INIT:LN input message.

3. VARIABLE FIELD DEFINITIONS

a = Ring node (RN) group number.

b = Ring node member number.

c = Termination status. Valid value(s):
- ABORTED = Restoration aborted.
- COMPLETED = Unit restored.
- IN PROGRESS = Restore in progress.
- NOT STARTED = Restore not started.
- STOPPED = Restoration stopped.

d = Valid value(s):

If 'c' =	**'d' =**
ABORTED	Type of error. Valid value(s): (1) = Remove process error. (2) = Driver error.
STOPPED	Error code. Refer to the "Reason for a Remove or Restore Request Being Stopped" exhibit of the APP:CNI appendix in the Appendixes section of the Output Messages manual.

e = Error code. Valid value(s):

If 'd' =	**'e' =**
1	Refer to the "Error Codes Generated by the IMSRMVRST Process" exhibit of the APP:CNI appendix in the Appendixes section of the Output Messages manual.
2	Refer to the "Error Codes Returned to the IMSRMVRST Process by the IMS Driver" exhibit of the APP:CNI appendix in the Appendixes section of the Output Messages manual.

f = Reason input message was not started. Valid value(s):

```
CAN NOT ACCESS GENERIC SPEC FILE
CAN NOT GET MIRA'S PROCESS ID NUMBER
CAN NOT GET NODE'S UCB FROM ECD
CAN NOT SEND A MESSAGE TO IMS USER
IMS INITIALIZATION IN PROGRESS
INTERVAL TIMER CAN NOT BE ALLOCATED
INVALID ACTION REQUEST
INVALID PERMISSION ACTION
INVALID PERMISSION MESSAGE
NODE HAS INVALID MAJOR STATE
NODE HAS INVALID MINOR STATE
NODE NOT FOUND IN ECD
NODE NOT IN ACTIVE RING
PERMISSION REQUEST FAILED
PERMISSION RESPONSE TIME OUT
PERMISSION TO RESTORE NODE HAS BEEN DENIED
REMOVE OF NODE FAILED
REMOVE OF NODE WAS DENIED
REMOVE REQUEST FAILED
RESTORE REQUEST ALREADY IN PROGRESS
RESTORE REQUEST NOT ACCEPTED BY MIRA
RESTORE SUCCESSFULLY QUEUED WITH MIRA
UNKNOWN RESTORE RESULT
```

4. ACTION TO BE TAKEN

For Format 1, if the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

For Format 2, if the '`c`' field indicates `NOT STARTED`, use the '`f`' field to determine why the request was not honored.

If '`f`' =	**Action:**
`RESTORE REQUEST ALREADY IN PROGRESS`	Wait until previous restore request is finished, then resubmit the restore request.
`NODE NOT FOUND IN ECD` or `CAN NOT GET NODE'S UCB FROM ECD`	Verify node is equipped, then resubmit the restore request.
`NODE NOT IN ACTIVE RING`	Include node in active ring, then resubmit the restore request.
`IMS INITIALIZATION IN PROGRESS`	Wait for initialization to complete, then resubmit the restore request.
`CAN NOT GET MIRA'S PROCESS ID NUMBER` or `RESTORE REQUEST NOT ACCEPTED BY MIRA`	Verify MIRA is working correctly, then resubmit the restore request.
`CAN NOT ACCESS GENERIC SPEC FILE`	Verify generic spec file exists, then resubmit the restore request.

For all other values of '`f`' where the '`c`' field is `NOT STARTED` or `ABORTED` restore the node using RST:LN. If the node is restored successfully, resubmit the original restore request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CFR:RING
INIT:LN
OP:DMQ
OP:RING
RST:LN
```

Output Message(s):

```
CFR:RING
INIT:LN
OP:DMQ
OP:RING
REPT:IUN-RST
```

Output Appendix(es):

```
APP:CNI
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

118 (CNI FRAME AND CCS LINK STATUS)
1520 (RING NODE STATUS PAGE)

RST:LUCHAN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST LUCHAN=a-b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:LUCHAN input message to restore a line unit channel (LUCHAN) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Channel board number.

`e` = Channel number.

`f` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`g` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

If a RST message fails, an alarm will indicate the effect to the office.
No alarm = No effect
*Minor = Small reduction in traffic capability.
**Major = A problem exists and is denying customer service or causing a 25-50% reduction in traffic capability.
*C Critical = A problem exists and is denying customer service or causing at least a 50% reduction in traffic capability.

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6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RST:LUCHAN
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:LUCHBD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST LUCHBD=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:LUCHBD input message to restore a line unit channel board (LUCHBD) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Channel board number.

`e` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

If a RST message fails, an alarm will indicate the effect to the office.
No alarm = No effect.
*Minor = Small reduction in traffic capability.
**Major = A problem exists and is denying customer service or causing a 25-50% reduction in traffic capability.
*C Critical = A problem exists and is denying customer service or causing at least a 50% reduction in traffic capability.

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6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RST:LUCHBD
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:LUCOMC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST LUCOMC=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:LUCOMC input message to restore a line unit common control (LUCOMC) circuit to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

If a RST message fails, an alarm will indicate the effect to the office.

No alarm = No effect.
*Minor = Small reduction in traffic capability.
**Major = A problem exists and is denying customer service or causing a 25-50% reduction in traffic capability.
*C Critical = A problem exists and is denying customer service or causing at least a 50% reduction in traffic capability.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RST:LUCOMC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:LUHLSC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST LUHLSC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:LUHLSC input message to restore a line unit high level service circuit (LUHLSC) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = High level service circuit.

`e` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

If a RST message fails, an alarm will indicate the effect to the office.
No alarm = No effect.
*Minor = Small reduction in traffic capability.
**Major = A problem exists and is denying customer service or causing a 25-50% reduction in traffic capability.
*C Critical = A problem exists and is denying customer service or causing at least a 50% reduction in traffic capability.

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6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RST:LUHLSC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:MA

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST MA=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:MA input message to restore a metallic access (MA) board to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit number.

`c` = Service group number.

`d` = Metallic access board number.

`e` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the References section of this message.

5. ALARMS

If a RST message fails, an alarm will indicate the effect to the office.
No alarm = No effect
*Minor = Small reduction in traffic capability.
**Major = A problem exists and is denying customer service or causing a 25-50% reduction in traffic capability.
*C Critical = A problem exists and is denying customer service or causing at least a 50% reduction in traffic capability.

6. REFERENCES

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Input Message(s):

```
OP:OFFNORM-SM
RST:MA
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:MAB

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST MAB=a-b-c-d e f
```

2. REASON FOR OUTPUT

To report the result of executing the RST:MAB input message to restore the metallic access bus (MAB) to active status, or as the result of a recovery action to remove, diagnose, and restore the circuit to service if the diagnostic successfully executes.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Unit number.

`c` = Service group number.

`d` = Board number.

`e` = Termination status.

- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the References section of this message.

5. ALARMS

A major alarm occurs if a recovery requested RST:MAB fails.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RST:MAB
```

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Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:MCTSI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST MCTSI=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:MCTSI input message to restore a module controller/time-slot interchange unit (MCTSI) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Module control unit number.

`c` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`FAULT-STATUS UNKNOWN` = Error was detected during central processor intervention transmission to SM.
`NOT STARTED` = Action has not begun.
`STATUS UNKNOWN` = The central processor intervention request was sent to the SM and no response was received.
`STOPPED` = Terminated before normal completion.
`STOPPED OVERRIDDEN BY HIGHER REQUEST` = Fault recovery needed the MCTSI for troubleshooting.
`TIMEOUT` = Message acknowledgement timeout with message interface (MI).

`d` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

If 'c' =	**Action:**
`FAULT-STATUS UNKNOWN`	Refer to MCC pages listed in references to determine status. If repeating the command fails to help, then run diagnostics on the ONTC and MCTSI to determine status.
`STATUS UNKNOWN`	Refer to MCC pages listed in reference to determine status. Repeat command if necessary.
`TIMEOUT`	Refer to MCC pages listed in reference to determine status. Repeat command if necessary.
`UNABLE TO SWITCH`	Correct problem that has the MCTSI forced out of service.

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5. ALARMS

If a RST message fails, an alarm will indicate the effect to the office.
**Major = The restore request has failed and the MCTSI is out of service.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RST:MCTSI
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1010,X (MCTSI/DLI)
1190,X (MCTSI/RLI)
1800,X (INHIBIT AND RECOVERY CONTROL)

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RST:MD-A

Software Release: 5E11 only
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST MD SM=a  b  [c]
  PSUPH=[d-e-f-g] CHGMEM=[h-i]
```

2. REASON FOR OUTPUT

To confirm the request to restore the intra-global switching module (GSM) message delivery (MD) path.

3. VARIABLE FIELD DEFINITIONS

a = Common channel signaling (CCS) GSM number.

b = Termination status. Valid value(s):
COMPLETED = Request was successfully completed.
STOPPED = Request was terminated before normal completion.

c = Additional information qualifying the termination status. Valid value(s):

```
DATABASE ERROR
DATA CORRUPTED
MESSAGE TIMEOUT
NONEXISTENT MD PATH
OUTPUT INCOMPLETE
SYSTEM FAILURE
UNSUCCESSFUL
```

Note: Variables 'd' through 'i' are not printed if the message delivery path is OOSF-PH.

d = Switching module (SM) number of packet switching unit (PSU).

e = Unit number of PSU in SM.

f = Shelf number in PSU.

g = Protocol handler (PH) number on shelf.

h = Channel group number (logical PH number on shelf).

i = Logical channel group member number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

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None.

6. REFERENCES

Input Message(s):

```
RST:MD
```

Output Message(s):

```
REPT:MD
```

Other Manual(s):
235-120-120 *VCDX Users Guide*
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

1530 (GLOBAL SM MESSAGE DELIVERY STATUS)

RST:MD-B

Software Release: 5E12 - 5E13
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST MD SM=a  b  [c]
  PSUPH=[d-e-f-g] CHGMEM=[h-i]
```

2. REASON FOR OUTPUT

To confirm the request to restore the intra-global switching module (GSM) message delivery (MD) path.

3. VARIABLE FIELD DEFINITIONS

`a` = Common channel signaling (CCS) GSM number.

`b` = Termination status. Valid value(s):
`COMPLETED` = Request was successfully completed.
`STOPPED` = Request was terminated before normal completion.

`c` = Additional information qualifying the termination status. Valid value(s):

```
DATABASE ERROR
DATA CORRUPTED
MESSAGE TIMEOUT
NONEXISTENT MD PATH
OUTPUT INCOMPLETE
SYSTEM FAILURE
UNSUCCESSFUL
PATH ALREADY IS
```

`d` = Switching module (SM) number of packet switching unit (PSU).

`e` = Unit number of PSU in SM.

`f` = Shelf number in PSU.

`g` = Protocol handler (PH) number on shelf.

Note: Variable '`g`' is not printed if the MD path is OOSF-PH.

`h` = Channel group number (logical PH number on shelf).

`i` = Logical channel group member number.

4. ACTION TO BE TAKEN

None.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RST:MD
```

Output Message(s):

```
REPT:MD
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

1530 (GLOBAL SM MESSAGE DELIVERY STATUS)

RST:MD-C

Software Release: 5E14 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST MD SM=a  b  [c]
  PSUPH=d-e-f [g] CHGMEM=h-i
```

2. REASON FOR OUTPUT

To confirm the request to restore the intra-global switching module (GSM) message delivery (MD) path.

3. VARIABLE FIELD DEFINITIONS

a = Common channel signaling (CCS) GSM number.

b = Termination status. Valid value(s):

COMPLETED = Request was successfully completed.

STOPPED = Request was terminated before normal completion.

c = Additional information qualifying a STOPPED termination status. Valid value(s):

DATABASE ERROR

DATA CORRUPTED

MESSAGE TIMEOUT

NONEXISTENT MD PATH

SYSTEM FAILURE

UNSUCCESSFUL

PATH ALREADY IS

d = Switching module (SM) number of packet switching unit (PSU).

e = Unit number of PSU in SM.

f = Shelf number in PSU.

g = Protocol handler (PH) number on shelf.

Note: Variable 'g' is not printed if the MD path is OOSF-PH.

h = Channel group number (logical PH number on shelf).

i = Logical channel group member number.

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4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RST:MD
```

Output Message(s):

```
REPT:MD
```

Other Manual(s):
235-190-120 *Common Channel Signaling Service Features*

MCC Display Page(s):

1540 (GLOBAL SM MESSAGE DELIVERY STATUS)

RST:MELNK

Software Release: 5E12 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST MELNK{=a-b-c| ALL SM=a} d [e]
```

2. REASON FOR OUTPUT

To report the result of an attempt to restore one or all MCTSI-based ethernet links (MELNKs) on a switching module (SM).

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = MCTSI-based ethernet pipe (MEPIPE) number.

`c` = MELNK number.

`d` = Termination reason. Valid values are:
`ABORTED` = Requested action terminated abnormally.
`COMPLETED` = Requested action completed normally.
`NOT STARTED` = Requested action not attempted.

`e` = Optional additional information qualifying the termination reason. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RMV:MELNK
RST:MELNK
```

Output Message(s):

```
RMV:MELNK
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance Procedure*

MCC Display Page(s):

1204 (MELNK STATUS)

RST:MHD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

WARNING: INAPPROPRIATE USE OF THIS MESSAGE MAY INTERRUPT OR DEGRADE SERVICE. READ PURPOSE CAREFULLY.

1. FORMAT

```
RST MHD a b [c] [d]
  e

  WARNING:
  MHD f {PRIMARY | BACKUP} BBOOT PARTITION INVALID
  The indicated BBOOT partition (PRIMARY or BACKUP) on the specified
  disk was found to be marked invalid.
  The data in that partition is questionable and cannot be guaranteed
  to boot.
  However, the data is still being copied to the destination disk and
  the indicated BBOOT partition on the destination disk will also be
  marked invalid.
```

2. REASON FOR OUTPUT

To report the disposition of a request to restore a moving head disk (MHD) to service, whether bootstrap or manual. The MHD was initially in the out-of-service (OOS) state.

If the restore process was invoked using the RST MHD poke on the DFC status page during disk independent operation (DIOP) mode, a REPT DKDIP MESSAGE message precedes the actual output message line.

3. VARIABLE FIELD DEFINITIONS

`a` = MHD Member number.

`b` = Disposition of the request. Valid value(s):

- `ABORTED` = Restore aborted or was terminated.
- `COMPLETED` = Unit restored to service.
- `ERROR` = Encountered an error, restore aborted.
- `IN PROGRESS` = MHD a is being initialized. If MHD a has an active mate, data will be copied from the active mate to MHD a.
- `NOT STARTED` = The restore was not started.
- `STARTED` = The restore was started by DKDIP.
- `STOPPED` = Unit failed diagnosis.

If 'b' =	'c' =	'd' =
`NOT STARTED` `ABORTED, ERROR, STOPPED`, and if the input message is started using the RST MHD poke on	One of the following error codes. Valid value(s): `f09` = Failed to get the unit control block (UCB) of the unit by name. `f0c` = ugucbm() failed. `f0f` = DIOP restore not allowed: mate MHD is active.	Error code. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

the DFC status page, then:	f12 = DIOP restore not allowed: MHD is marked essential. f18 = Unit is not out-of-service (OOS). f1e = Failed to open the device. f20 = Refer to the DKDRV error report on the ROP. f57 = Message to the driver port failed. f60 = Message reception failure. f63 = Process timed out waiting for message. f67 = Failed to close special device file. ffe = Aborted due to phase 1.	
ABORTED	Type of error. Valid value(s): 1 = Diagnostic restore process error. 2 = DFC driver restore process error. [NULL] = Bootstrap restore failure.	Error code. For a diagnostic restore process error ('c' = 1), refer to the APP:DFC-G appendix in the Appendixes section of the Output Messages manual. For a DFC driver error ('c' = 2), refer to the APP:DFC-A appendix in the Appendixes section of the manual.
STOPPED	Error code. Refer to the APP:DFC-H appendix in the Appendixes section of the Output Messages manual.	

e = If 'b' equals IN PROGRESS, no message or one of the following status messages. Valid value(s):

APPLICATION DID NOT RESPOND= Application did not request to abort the restore. The disk to disk copy is being started.

```
MHD f SINGLE BLOCK READ RETRY {WORKED|FAILED}
START DISK BLOCK = g {END|FAILING} DISK BLOCK = h
```

f = Member number.

g = First relative physical disk block number of a range that could not be read.

h = Last relative physical disk block number. When read with a range of blocks, the read failed. When read with single blocks, the reads were successful.

```
MHD f {READ | WRITE} FAILED PARTITION = i  OFFSET = j  DISK BLOCK = k
```

i = Partition number for the failed I/O.

j = Start block number within the partition of the failure.

k = Relative physical disk block for the failed I/O. The read or write job specified by the data could not be successfully performed.

Note: A relative physical block number is a physical block number of the disk which may have been adjusted by disk defect management. In order to use it in the defect table, this number may need to be readjusted.

4. ACTION TO BE TAKEN

If restore is stopped, correct the source of trouble and attempt to restore again.

5. ALARMS

None. This alarm is either a manually requested report or is automatically generated.

6. REFERENCES

Input Message(s):

```
RST:DFC
RST:MHD
RST:SBUS
```

Output Appendix(es):

```
APP:DFC-F
APP:DFC-G
APP:DFC-H
APP:SYSERR
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

(COMMON PROCESSOR DISPLAY)
(DFC STATUS PAGE)

RST:MMP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST MMP=a-b c [d]
```

2. REASON FOR OUTPUT

To acknowledge a request to restore the specified module message processor (MMP) to service and report what action was taken.

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch side (0 or 1).

`b` = Message module identification number (0-47).

`c` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was immediate.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion.

`d` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RST:MMP
```

Other Manual(s):
235-105-250 *System Recovery Procedures*

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RST:MSCU

Software Release: 5E10 and later
Message Class: MSGS
Application: 5
Type: Output

1. FORMAT

```
RST MSCU=a b [c]
```

2. REASON FOR OUTPUT

To acknowledge a request, either manual or automatic, to restore a specified message switch control unit (MSCU) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = MSCU side.

`b` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was immediate (no cleanup was done).
`COMPLETED`	= Request completed successfully.
`NOT STARTED`	= Requested action could not begin.
`STOPPED`	= Request was terminated before a normal completion. Attempts were made to leave everything in a sane state.

`c` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

No further action is necessary if the request completed successfully. If the termination report is not `COMPLETED`, variable '`c`' should give some indication as to why the request failed. Check MSGS MCC pages or the OP:CFGSTAT output message to verify that the MSCU was in a valid state to perform the request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CFGSTAT
OP:DMQ
RST:MSCU
```

Output Message(s):

```
OP:CFGSTAT
OP:DMQ-CM
```

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Other Manual(s):
235-105-210 *Routine Operation and Maintenance*

MCC Display Page(s):

(MSGS 0 COMMUNITIES)

RST:MSGS

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST MSGS=a b [c]
```

2. REASON FOR OUTPUT

To acknowledge a request to restore to service a specific message switch (MSGS) and report what action was taken.

3. VARIABLE FIELD DEFINITIONS

`a` = MSGS side (0 or 1).

`b` = Termination report. Valid value(s):

`ABORTED`	Requested action was terminated before completion and the termination was immediate.
`COMPLETED`	Request has successfully completed.
`NOT STARTED`	Requested action has not begun.
`STOPPED`	Requested action was terminated before a normal completion.

`c` = Additional data qualifying the termination report (variable 'b').

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:MSGS`

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RST:MSUCOM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST MSUCOM=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:MSUCOM input message to restore a metallic service unit common (MSUCOM) board to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the References section of this message.

5. ALARMS

If a RST message fails, an alarm will indicate the effect to the office.
No alarm = No effect.
*Minor = Small reduction in traffic capability.
**Major = A problem exists and is denying customer service or causing a 25-50% reduction in traffic capability.
*C Critical = A problem exists and is denying customer service or causing at least a 50% reduction in traffic capability.

6. REFERENCES

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Input Message(s):

```
OP:OFFNORM-SM
RST:MSUCOM
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:MT

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
RST MT a b [c] [d]
```

2. REASON FOR OUTPUT

To report the status of a request to restore a magnetic tape (MT) unit to service.

If the restore process was invoked using the RST MT poke on the DFC status page during disk independent operation (DIOP) mode, a REPT DKDIP MESSAGE message precedes the actual output message line.

3. VARIABLE FIELD DEFINITIONS

`a` = MT member number.

`b` = Status of request. Valid value(s):

`ABORTED`	= Restore aborted.
`COMPLETED`	= Unit restored.
`ERROR`	= Encountered an error, restore aborted.
`IN PROGRESS`	= Unit is being initialized.
`NOT STARTED`	= The restore was not started.
`STARTED`	= The restore was started by DKDIP.
`STOPPED`	= Unit failed diagnosis.

`c-d` = Valid value(s):

If '`b`' =	'`c`' =	'`d`' =
`NOT STARTED`, `ABORTED`, `ERROR`, `STOPPED`, and if the input message is started using the RST MT poke on the DFC status page, then:	One of the following error codes. `f09` = Failed to get the unit control block (UCB) of the unit by name. `f15` = MT restore not allowed: controller is not a DFC. `f18` = Unit is not out of service (OOS). `f1e` = Failed to open the device. `f20` = Refer to the DKDRV error report on the receive only printer (ROP). `f57` = Message to the driver port failed. `f60` = Message reception failure. `f63` = Process timed out waiting for message. `f67` = Failed to close special device file. `ffe` = Aborted due to phase 1.	Error code. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.
`ABORTED`	Type of error. Valid value(s): `1` = Diagnostic restore process error.	Error code. For an MT controlled by an IOP, refer to the APP:IOP-H appendix in the Appendixes section of the Output

		Messages manual. For an MT controlled by a DFC, refer to the APP:DFC-G appendix in the Appendixes section of the Output Messages manual.
`ABORTED`	`2` = Disk file controller (DFC) or input/output processor (IOP) driver error.	Error code. For an IOP driver error, refer to the APP:IOP-G appendix in the Appendixes section of the Output Messages manual. Error code. For a DFC driver error, refer to the APP:DFC-A appendix in the Appendixes section of the Output Messages manual.
`ABORTED`	`[NULL]` = Restoration denied by driver or configuration control (CONFIG).	
`STOPPED`	Error code: For an MT controlled by an IOP, refer to the APP:IOP-I appendix in the Appendixes section of the Output Messages manual. For an MT controlled by a DFC, refer to the APP:DFC-H appendix in the Appendixes section of the Output Messages manual.	

4. ACTION TO BE TAKEN

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

5. ALARMS

The "pudrv" subsystem generated messages have no alarms.

The "cft" subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

The "diag" subsystem generated messages have an automatically-generated alarm. Action may or may not be required.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Subsystem:	Key(s):
pudrv	195,196
cft	308
diag	96

Input Message(s):

```
RST:MT
UPD:OMDB
```

Output Appendix(es):

```
APP:DFC-A
APP:DFC-H
APP:IOP-G
APP:IOP-H
APP:IOP-I
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RST:MTB

Software Release: 5E12 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RMV MTB=a-b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To report the result of executing a RMV:MTB input message to remove a metallic access test bus (MTB) from service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit (MSU) number.

`c` = Service group number.

`d` = Metallic access board number.

`e` = Metallic access test bus.

`f` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`g` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RMV:MTB`

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Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1135/1145 (MSU MA STATUS)

RST:MTC

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      RST MTC a COMPLETED

[2]   ____________________________________________________________
      RST MTC a ABORTED [b] [c]

[3]   ____________________________________________________________
      RST MTC a STOPPED d

[4]   ____________________________________________________________
      RST MTC a TASK e MSG STARTED

[5]   ____________________________________________________________
      RST MTC a STOPPED MESSAGE IN PROGRESS

[6]   ____________________________________________________________
      RST MTC a STOPPED MESSAGE COMPLETE
```

2. REASON FOR OUTPUT

To report the disposition of a request to restore a magnetic tape controller (MTC) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4 - 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Type of error. Valid value(s):

`X'1`	= Restore process error.
`X'2`	= Driver error.
`[NULL]`	= Restoration denied by the input/output driver (IODRV) or configuration control (CONFIG).

`c` = Error code. Valid value(s):

`d` = Reason the restore stopped, Refer to the APP:IOP-I appendix in the Appendixes section of the

Output Messages manual.

If 'b' =	Explanation:
X'1	Refer to the APP:IOP-H appendix in the Appendixes section of the Output Messages manual.
X'2	Refer to the APP:IOP-G appendix in the Appendixes section of the Output Messages manual.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again. AR "ALARMS The "pudrv" subsystem generated messages have no alarms.

The "cft" subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

The "diag" subsystem generated messages have an automatically-generated alarm. Action may or may not be required.

5. ALARMS

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Subsystem:	OMDB Key(s):
pudrv	195, 196
cft	308
diag	96

Input Message(s):

```
RST:MTC
UPD:OMDB
```

Output Appendix(es):

```
APP:DFC-A
APP:DFC-H
APP:IOP-G
APP:IOP-H
APP:IOP-I
APP:OMDB-X-REF
```

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RST:MTIB

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST MTIB=a b c
```

2. REASON FOR OUTPUT

To report the result of executing the RST:MTIB input message to restore the metallic test interconnect bus (MTIB) to active status, or as the result of a recovery action to remove, diagnose, and restore the circuit to service if the diagnostic successfully executes.

3. VARIABLE FIELD DEFINITIONS

`a` = MTIB number.

`b` = Termination status. Valid value(s):

- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`c` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

The user must retire the major alarm and repair the faulty board prior to restoring this circuit back to service.

5. ALARMS

A major alarm occurs if a recovery requested RST:MTIB fails.

6. REFERENCES

Input Message(s):

`RST:MTIB`

Output Appendix(es):

`APP:MAINT-RESP`

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RST:MTIBAX

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST MTIBAX=a-b-c-d e f
```

2. REASON FOR OUTPUT

To report the result of executing the RST:MTIBAX input message to restore the metallic test interconnect bus access (MTIBAX) to active status, or as the result of a recovery action to remove, diagnose, and restore the circuit to service if the diagnostic successfully executes.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Unit number.

`c` = Service group number.

`d` = Board number.

`e` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

The user must retire the major alarm and repair the faulty board prior to restoring this circuit back to service.

5. ALARMS

A major alarm occurs if a recovery requested RST:MTIBAX fails.

6. REFERENCES

Input Message(s):

`RST:MTIBAX`

Output Appendix(es):

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APP:MAINT-RESP

RST:MTTY

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      RST MTTY a COMPLETED

[2]   ____________________________________________________________
      RST MTTY a ABORTED [b] [c]

[3]   ____________________________________________________________
      RST MTTY a STOPPED d

[4]   ____________________________________________________________
      RST MTTY a TASK e MSG STARTED

[5]   ____________________________________________________________
      RST MTTY a STOPPED MESSAGE IN PROGRESS

[6]   ____________________________________________________________
      RST MTTY a STOPPED MESSAGE COMPLETE
```

2. REASON FOR OUTPUT

To report the disposition of a request to restore a maintenance teletypewriter (MTTY) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4 - 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Type of error. Valid value(s):

`X'1`	= Restore process error.
`X'2`	= Driver error.
`[NULL]`	= Restore denied by driver or configuration control (CONFIG).

`c` = Error code. Valid value(s):

If '`b`' = X'1, refer to the APP:IOP-H appendix in the Appendixes section of the Output Messages manual.

If 'b' = X'2, refer to the APP:IOP-G appendix in the Appendixes section of the Output Messages manual.

d = Error code, refer to the APP:IOP-I appendix in the Appendixes section of the Output Messages manual.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

5. ALARMS

The "pudrv" subsystem generated messages have no alarms.

The "cft" subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

The "diag" subsystem generated messages have an automatically-generated alarm. Action may or may not be required.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
pudrv	195,196
cft	308
diag	96

Input Message(s):

```
RST:MTTY
UPD:OMDB
```

Output Appendix(es):

```
APP:IOP-G
APP:IOP-H
APP:IOP-I
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RST:MTTYC

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      RST MTTYC a COMPLETED

[2]   ____________________________________________________________
      RST MTTYC a ABORTED [b] [c]

[3]   ____________________________________________________________
      RST MTTYC a STOPPED d

[4]   ____________________________________________________________
      RST MTTYC a TASK e MSG STARTED

[5]   ____________________________________________________________
      RST MTTYC a STOPPED MESSAGE IN PROGRESS

[6]   ____________________________________________________________
      RST MTTYC a STOPPED MESSAGE COMPLETE
```

2. REASON FOR OUTPUT

To report the disposition of a request to restore a maintenance teletypewriter controller (MTTYC) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4 - 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Type of error. Valid value(s):

`X'1`	= Restore process error.
`X'2`	= Driver error.
`[NULL]`	= Restore denied by driver or configuration control (CONFIG).

`c` = Error code. Valid value(s):

If '`b`' = X'1, refer to the APP:IOP-H appendix in the Appendixes section of the Output Messages manual.

If 'b' = X'2, refer to the APP:IOP-G appendix in the Appendixes section of the Output Messages manual.

d = Error code, refer to the APP:IOP-I appendix in the Appendixes section of the Output Messages manual.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

5. ALARMS

The "pudrv" subsystem generated messages have no alarms.

The "cft" subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

The "diag" subsystem generated messages have an automatically-generated alarm. Action may or may not be required.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
pudrv	195,196
cft	308
diag	96

Input Message(s):

```
RST:MTTYC
UPD:OMDB
```

Output Appendix(es):

```
APP:IOP-G
APP:IOP-H
APP:IOP-I
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RST:NCOSC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST NCOSC a b [c]
```

2. REASON FOR OUTPUT

To respond to the RST:NCOSC input message. No diagnostics are run on a network clock 2; oscillator (NCOSC) unit.

Note: Under normal conditions an oscillator may only be restored to service if it has been powered up for a minimum of one hour for a medium-stability oscillator (TN1284/TN1286) or 16 hours for a high-stability oscillator (TN1283/TN1285).

3. VARIABLE FIELD DEFINITIONS

`a` = Network clock side.

`b` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion and the termination was immediate (no cleanup was done).
- `COMPLETED` = Request completed successfully.
- `IN PROGRESS` = Request was received and action is in progress.
- `STOPPED` = Request was terminated before a normal completion due to hardware failure, data inconsistency, or another system problem.

`c` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

No action is necessary if the request completed successfully. If the request failed, the variable 'c' should give some indication as to why the request failed. Check the network clock MCC page or the OP:CFGSTAT output message to verify that the NC was in a valid state to perform the request. Check the receive-only printer (ROP) for error messages using the REPT:NC output messages that may indicate problems or system reconfigurations. If the attempt is made to restore an oscillator to service before the completion of the warmup period, then a REPT:NC-NWP output message will be printed to the ROP. If the oscillator must be used in order to keep the ONTC operational, then it may be used by setting to a forced condition with the SET:FRC-NCOSC input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RMV:NCOSC
RST:NCOSC
SET:FRC-NCOSC
```

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Output Message(s):

```
OP:CFGSTAT
REPT:NC
REPT:NC-NWP
```

MCC Display Page(s):

(NETWORK CLOCK)

RST:NCREF

Software Release: 5E8 and later
Message Class: LCORE,ONTCMON
Application: 5
Type: Output

1. FORMAT

```
RST NCREF,{XC=a|b} c [d]
```

2. REASON FOR OUTPUT

This message is in response to the RST:NCREF input message.

3. VARIABLE FIELD DEFINITIONS

`XC` = Cross-couple reference.

`a` = Network clock side.

`b` = Network clock reference (NCREF).

In offices equipped with a network clock 1 (NC1). Valid value(s):
`PRIM` = Primary reference.
`SEC` = Secondary reference.

In offices equipped with a network clock 2 (NC2). Valid value(s):
`REFn` = Reference number.

`c` = Termination report. Valid value(s):
`ABORTED` = Requested action was terminated before completion and the termination was immediate (no cleanup was done).
`COMPLETED` = Requested action completed successfully.
`STOPPED` = Requested action was terminated before a normal completion due to hardware failure, data inconsistency, or another problem.

`d` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

No action is necessary if the request completed successfully. If the request failed, the variable '`d`' should give some indication as to why the request failed. Check network clock MCC pages or the OP:CFGSTAT output message to verify that the NC was in a valid state to perform the request. Also, check the receive-only printer (ROP) for error messages, by means of the REPT:NC output messages that may indicate problems or system reconfigurations.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RST:NCREF
```

Output Message(s):

```
OP:CFGSTAT
REPT:NC
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1210 (MI/LI/NC)
1211 (NETWORK CLOCK)

RST:NLI

Software Release: 5E10 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

```
RST NLI=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of a request to restore to service a network link interface (NLI) in a switching module (SM).

Note: If the resulting QLPS configuration is not optimal after the removal, an automatic reconfiguration (switch) of the QLPS occurs.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.
`b` = NLI number.
`c` = Office network and timing complex (ONTC) side that the NLI is on.
`d` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was immediate (no cleanup was done).
`COMPLETED`	= Request completed successfully.
`NOT STARTED`	= Requested action was not begun.
`STOPPED`	= Request was terminated before a normal completion. Attempts were made to leave everything in a correct state.

`e` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RST:NLI
OP:CFGSTAT
OP:DMQ-CM-SM
```

Output Message(s):

```
OP:CFGSTAT-CM
OP:DMQ-CM
OP:DMQ-SM
```

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Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance Procedures*
235-105-250 *System Recovery Procedures*

MCC Display Page(s):

1190 (MCTSI)
1200 (DLI/NLI)

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RST:ONTC

Software Release: 5E10 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

```
RST ONTC=a b [c]
```

2. REASON FOR OUTPUT

To acknowledge a request to restore the specified office network and timing complex (ONTC) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = ONTC side.

`b` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was immediate (no cleanup was done).
`COMPLETED`	= Request completed successfully.
`NOT STARTED`	= Requested action could not begin.
`STOPPED`	= Request was terminated before a normal completion due to manual request, hardware failure, or data inconsistency.

`c` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

No further action is necessary if the request completed successfully. If the termination report is not COMPLETED, variable '`c`' should give some indication as to why the request failed. Check ONTC MCC pages or the OP:CFGSTAT output message to verify that the system was in a valid state to perform the request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CFGSTAT
OP:DMQ
RST:ONTC
```

Output Message(s):

```
OP:CFGSTAT
OP:DMQ-CM
```

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Other Manual(s):
235-105-210 *Routine Operation and Maintenance*

MCC Display Page(s):

(ONTC 0 & 1)

RST:ONTCCOM

Software Release: 5E10 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

```
RST ONTCCOM=a b [c]
```

2. REASON FOR OUTPUT

To acknowledge a request, either manual or automatic, to restore a specified office network timing common unit (ONTCCOM) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = ONTCCOM side.

`b` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was immediate (no cleanup was done).
`COMPLETED`	= Request completed successfully.
`NOT STARTED`	= Requested action could not begin.
`STOPPED`	= Request was terminated before a normal completion. Attempts were made to leave everything in a sane state.

`c` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

This message is printed out in two cases:

- In response to a manual request. In this case no further action is necessary if the request completed successfully. If the request failed, variable '`c`' should give some indication as to why the request failed. Check ONTCCOM MCC pages or the OP:CFGSTAT output message to verify that the system was in a valid state to perform the request.

- In response to a fault recovery action. In this case no action is necessary if the request completed successfully. If the request failed, a message with a major alarm will be printed to alert craft to that fact. Normal troubleshooting techniques should be used to isolate and repair the problem.

5. ALARMS

A major alarm occurs if an automatically requested ONTC conditional restore fails.

6. REFERENCES

Input Message(s):

```
OP:CFGSTAT
OP:DMQ
```

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```
RST:ONTCCOM
```

Output Message(s):

```
OP:CFGSTAT
OP:DMQ-CM
```

Other Manual(s):
235-105-210 *Routine Operation and Maintenance*

RST:OSCXC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST OSCXC a b [c]
```

2. REASON FOR OUTPUT

To respond to the RST:OSCXC input message. No diagnostics are run on a network clock 2 oscillator cross-couple (OSCXC) unit.

3. VARIABLE FIELD DEFINITIONS

`a` = Network clock 2 side.

`b` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was immediate (no cleanup was done).
`COMPLETED`	= Request completed successfully.
`IN PROGRESS`	Request was received and action is in progress.
`STOPPED`	Request was terminated before a normal completion due to hardware failure, data inconsistency, or another system problem.

`c` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

No action is necessary if the request completed successfully. If the request failed, the variable 'c' should give some indication as to why the request failed. Check the network clock (NC) MCC page or the OP:CFGSTAT output message to verify that the NC was in a valid state to perform the request. Check the receive-only printer (ROP) for error messages using the REPT:NC output messages that may indicate problems or system reconfigurations.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RST:OSCXC
```

Output Message(s):

```
OP:CFGSTAT
REPT:NC
```

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MCC Display Page(s):

(NETWORK CLOCK)

RST:OSPSPORT

Software Release: 5E10 and later
Message Class: LINE,RSB
Application: 5
Type: Output

1. FORMAT

```
RST OSPSPORT [a] [PKT] [b] [c]  d
  [e] [e] [e] [e] [e]      f [f] [f] [f] [f]
                          [g [g] [g] [g] [g]]
                                  .
                                  .
                                  .
```

2. REASON FOR OUTPUT

To respond to a request to restore the specified Operator Services Position System port (OSPSPORT) to service by deleting specified status from the port identified. Both the status requested to be deleted and the full status resulting from the restoration attempt are identified in the message. This message may be in response to a RST:OSPSPORT input message or may be generated automatically.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

PKT = Packet-switched logical link (or service) on a D-channel. Used only for the packet-switched D-channel of a DSL.

a = Channel identifier: D, B1, or B2. Used only for digital subscriber line (DSL) OSPSPORTs.

b = One of the following. Valid value(s):

AQEST=h
AQM=i-j
BST=k-l
OPT=k-l
XDPF=m
XDPO=k

c = One of the following. Valid value(s):

LCEN=n-o-p-q
LCKEN=n-o-v-w-x
TEN=n-r-s-t-u

d = The result (completion code) of the removal request. Valid value(s):

CAMPON FAIL = The request to camp on the OSPSPORT failed.

CAMPON NOT ALLOWED = The ability to camp on is not allowed on the OSPSPORT specified. It must therefore be removed by specifying the UCL option.

CMP UNAVAILABLE = The input request could not be completed because a needed communications module (CM) was unable to respond. Retry the request later.

COMPLETED = The specified status was successfully added to the port. Resulting port status is indicated.

DUP REQUEST = Line already out-of-service (OOS) for the specified reason.

INPUT ERROR = Some data entered in the input request was invalid or incorrect.

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`INV PORT` = The OSPSPORT could not be located in the database. The OSPSPORT identifier used in the input request was most likely invalid or incorrect.
`INV PORT TYPE` = The port specified is not an OSPSPORT and therefore cannot be changed using the specified input request. Determine the port's type, OP:CONV input message may help, and use the input request appropriate for its type.
`INV STATUS` = An invalid status for the OSPSPORT was specified in the input request.
`NO PROCESS` = An attempt to create a process failed. Possibly caused by the system's being busy. Retry the request later.
`PORT BUSY` = The OSPSPORT remained busy for the camp-on period or an in-progress camp-on was terminated.
`PROCESS TIMEOUT` = Internal time-out during processing request aborted.
`SM UNAVAILABLE` = The input request could not be completed because a needed SM was unable to respond. Retry the request later.
`STATUS CONFLICT` = Status to be added conflicts with the existing status on the OSPSPORT.
`SYSTEM BUSY` = The system's processing capability limit was reached or a system resource was unavailable. Retry the request later.
`SYSTEM ERROR` = System error occurred making it impossible to continue processing request.

`e` = The status to be deleted from the OSPSPORT. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a description.

`f` = The resulting primary status in effect on the OSPSPORT. This status is the most restrictive to call processing currently on the OSPSPORT. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status.

`g` = The pending statuses (0-3) in effect on the OSPSPORT, if any. (Less restrictive than the primary status.) Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status and the status hierarchy.

`h` = Telephone number.

`i` = Data link (group) number of the associated autoquote data link.

`j` = Relative link (member) number of the associated autoquote data link.

`k` = Operator service center number.

`l` = Relative position number.

`m` = Force management center number of the XDPF.

`n` = Switching module (SM) number.

`o` = ISLU number.

`p` = Line group controller number.

`q` = Line card number.

`r` = Trunk unit number.

`s` = Service group number.

`t` = Channel board number.

`u` = Circuit number.

`v` = Line group number.

`w` = Line board number.

`x` = Line circuit number.

4. ACTION TO BE TAKEN

If the OSPSPORT is not in-service, identify the OOS condition for the primary status currently in effect and determine the appropriate recovery steps. To get a list of all OSPSPORTs or a group of OSPSPORTs with a specified status, refer to the OP:LIST input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LIST
OP:STATUS
RMV:OSPSPORT
RST:OSPSPORT
```

Output Appendix(es):

```
APP:PORT-STATUS
```

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

RST:PMU

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST PMU=a-b-c f [g]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:PMU input message to restore a precision measurement unit (PMU) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Directly connected test unit number.

`c` = Circuit number.

`f` = Termination status. Valid value(s):
- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`g` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

If a RST message fails, an alarm will indicate the effect to the office.

No alarm	= No effect.
Minor	= Small reduction in traffic capability.
Major	= A problem exists and is denying customer service or causing a 25-50% reduction in traffic capability.
Critical	= A problem exists and is denying customer service or causing at least a 50% reduction in traffic capability.

6. REFERENCES

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Input Message(s):

```
OP:OFFNORM-SM
RST:PMU
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery Procedures*

RST:PPC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST PPC=a b [c] EVENT=d
```

2. REASON FOR OUTPUT

To acknowledge a request to restore the specified pump peripheral controller (PPC) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = PPC number (0 or 1).

`b` = Termination report. Valid value(s):

`ABORTED`	= Requested action is terminated before a normal completion and the consistency of hardware states or data is questionable.
`COMPLETED`	= Request action is terminated after completion.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action is terminated before a normal completion but consistency of hardware states and data is reliable.

`c` = Additional information qualifying the termination report.

`d` = Event number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:PPC`

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RST:PROTO

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST PROTO=a-b-c d e
```

2. REASON FOR OUTPUT

To report the result of executing the RST:PROTO input message to restore the protocol circuit (PROTO) to active status, or as the result of a recovery action to remove, diagnose, and restore the circuit to service if the diagnostic successfully executes.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

A major alarm occurs if a recovery requested RST:PROTO fails.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RST:PROTO
```

Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery Procedures*

RST:PSU

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST PSU{a}=b-c-d[-e] f [g]
```

2. REASON FOR OUTPUT

Indicates the result of an RST:PSU input message to restore a packet switching unit common controller (COM) or protocol handler (PH) to service.

3. VARIABLE FIELD DEFINITIONS

a = Circuit name. Valid value(s):
- COM = Common controller.
- PH = Protocol handler.

b = Switching module (SM) number.

c = Packet switching interface unit number.

d = Valid value(s):

If 'a' =	**'d' =**
COM	Service group number.
PH	Shelf number.

e = Protocol handler number.

f = Termination status. Valid value(s):
- ABORTED = Requested action was terminated before completion, and the termination was not graceful.
- COMPLETED = Request has successfully completed.
- NOT STARTED = Requested action was not started.
- STOPPED = Requested action was terminated before a normal completion. Termination was graceful.

g = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTIONS TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the References section of this message.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RST:PSUCOM
RST:PSUPH
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery Procedures*

MCC Display Page(s):

118x (PSU SHELF)
1186 (PSU NETWORK)

RST:PSUPIDB

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST PSUPIDB=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of a RST:PSUPIDB input message to restore the packet switch unit (PSU) peripheral interface data bus (PIDB) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = PSU number.

`c` = PSU shelf number.

`d` = PIDB number.

`e` = Termination status. Valid value(s):

- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `NOT ALLOWED` = Requested action is not allowed for one of the following reasons:
  - There exists an OOS PSU PIDB having the relative position lower than the PIDB in question.
  - At least one PSUCOM is busy.
  - PIDB is in requested state.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RMV:PSUPIDB
RST:PSUPIDB
```

Output Message(s):

```
RMV:PSUPIDB
```

Output Appendix(es):

```
APP:MAINT-RESP
```

RST:QGL

Software Release: 5E10 and later
Message Class: MSGS
Application: 5
Type: Output

1. FORMAT

```
RST QGL=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the results of a request to restore the specified quad-link gateway processor link (QGL) to service.

Note: If the resulting quad-link packet switch (QLPS) configuration is not optimal after the removal, an automatic reconfiguration (switch) of the QLPS occurs.

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch side number.
`b` = Quad-link gateway processor number.
`c` = QGL number.
`d` = Termination status. Valid value(s):
`COMPLETED` = Request has successfully completed.
`NOT STARTED` = Requested action has not begun.

`e` = Additional information qualifying the termination status.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the System Maintenance Requirements and Tools and the Corrective Maintenance manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RST:QGL
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery Procedures*

MCC Display Page(s):

1209 (ONTC 0 & 1)
1380/1 (QLPS NETWORK 0/1 STATUS)

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RST:QGP

Software Release: 5E10 and later
Message Class: MSGS
Application: 5
Type: Output

1. FORMAT

```
RST QGP=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of a request to restore the specified quad-link gateway processor (QGP) to service.

Note: As part of the QGP reconfiguration the quat-link packet switch (QLPS) may have been switched also.

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch side number.
`b` = QGP number.
`c` = Termination status. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`d` = Additional information qualifying the termination status.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RST:QGP
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery Procedures*

MCC Display Page(s):

1380/1 (QLPS NETWORK 0/1 STATUS)

RST:QLPS

Software Release: 5E10 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

```
RST QLPS=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of a request to restore the specified quad-link packet switch (QLPS) from service.

Note: If the resulting QLPS configuration is not optimal after the restoration, an automatic reconfiguration (switch) of the QLPS occurs.

3. VARIABLE FIELD DEFINITIONS

`a` = Office network and timing complex (ONTC) side number.
`b` = QLPS network number.
`c` = Termination status. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`d` = Additional information qualifying the termination status.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RST:QLPS
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery Procedures*

MCC Display Page(s):

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1209 (ONTC 0 & 1)
1380/1 (QLPS NETWORK 0/1 STATUS)

RST:QTMSLNK

Software Release: 5E10 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

```
RST QTMSLNK=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the results of a request to restore the specified quad-link packet switch (QLPS) - time multiplexed switch link (QTMSLNK) to service.

Note: If the resulting QLPS configuration is not optimal after the removal, an automatic reconfiguration (switch) of the QLPS occurs.

3. VARIABLE FIELD DEFINITIONS

`a` = Office network and timing complex (ONTC) side number.

`b` = QLPS network number.

`c` = QTMSLNK number.

`d` = Termination status. Valid value(s):
`COMPLETED` = Request has successfully completed.
`NOT STARTED` = Requested action has not begun.

`e` = Additional information qualifying the termination status.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RST:QTMSLNK
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery Procedures*

MCC Display Page(s):

1380/1 (QLPS NETWORK 0/1 STATUS)

RST:RAF

Software Release: 5E10 and later
Message Class: SMCONFG,SM
Application: 5
Type: Output

1. FORMAT

```
RST RAF=a-b c [d]
```

2. REASON FOR OUTPUT

To report the results of executing an RST:RAF input message to restore a recorded announcement function (RAF) unit to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RAF unit number (0-7).

`c` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was immediate and was not graceful.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated gracefully before a normal completion.

`d` = Additional data qualifying the termination report (variable '`c`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

Major (all RAFs on this SM are out-of-service) or minor (small reduction in traffic capability).

6. REFERENCES

Input Message(s):

```
RST:RAF
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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RST:RAU

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST RAU=a b [c]
```

2. REASON FOR OUTPUT

To indicate the result of an RST:RAU input message to restore a remote switching module (RSM) alarm (RAU) circuit to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was complete.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED CERTIFIED` = Request has successfully completed, and independent certification of the resulting hardware status was made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`c` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:RAU`

Output Appendix(es):

`APP:MAINT-RESP`

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RST:RCL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST RCL=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

Reports the result of a RST:RCL input message request to restore a remote communication link (RCL) between inter-remote switching module (RSM) communication link digital facilities interface (CDFI) circuits to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line and trunk unit (DLTU) number.

`c` = CDFI number.

`d` = Facility (FAC) number. The FAC number is the T1 facility number on a CDFI.

`e` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action had not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RMV:RCL
RST:RCL
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RST:RCLK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST RCLK=a-b c [d]
```

2. REASON FOR OUTPUT

To acknowledge a request to restore the specified remote clock (RCLK) into service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RCLK side.

`c` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination is immediate. Consistency of hardware and data is questionable.
`COMPLETED`	= Requested action completed successfully.
`NOT STARTED`	= Requested action had not begun.
`STOPPED`	= Requested action is terminated before a normal completion, but consistency of hardware status and data is reliable.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the termination report (variable '`c`') is `COMPLETED`, no action is required. If it is `NOT STARTED`, analyze variable '`d`' to determine the cause. If it is `STOPPED`, determine the cause from the RCLK messages on the receive only printer (ROP).

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:RCLK`

Output Appendix(es):

`APP:MAINT-RESP`

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MCC Display Page(s):

(RSM RCU)

RST:RCOSC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST RCOSC=a-b c [d]
```

2. REASON FOR OUTPUT

To acknowledge a request to restore the specified remote clock oscillator (RCOSC) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RCOSC side (0 or 1).

`c` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination is immediate. Consistency of hardware and data is questionable.
`COMPLETED`	= Requested action completed successfully.
`NOT STARTED`	= Requested action had not begun.
`STOPPED`	= Requested action is terminated before a normal completion, but consistency of hardware status and data is reliable.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the termination report (variable '`c`') is COMPLETED, no action is required. If it is NOT STARTED, analyze variable '`d`' to determine the cause. If it is STOPPED, determine the cause from the remote clock (RCLK) messages on the receive only printer (ROP).

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:RCOSC`

Output Appendix(es):

`APP:MAINT-RESP`

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MCC Display Page(s):

(RSM RCU)

RST:RCOXC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST RCOXC=a-b c [d]
```

2. REASON FOR OUTPUT

To acknowledge a request to restore the specified remote clock oscillator cross couple (RCOXC) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RCOXC side (0 or 1).

`c` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination is immediate. Consistency of hardware and data is questionable.
`COMPLETED`	= Requested action completed successfully.
`NOT STARTED`	= Requested action had not begun.
`STOPPED`	= Requested action is terminated before a normal completion, but consistency of hardware status and data is reliable.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the termination report (variable '`c`') is COMPLETED, no action is required. If it is NOT STARTED, analyze variable '`d`' to determine the cause. If it is STOPPED, determine the cause from the remote clock (RCLK) messages on the receive only printer (ROP).

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:RCOXC`

Output Appendix(es):

`APP:MAINT-RESP`

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MCC Display Page(s):

(RSM RCU)

RST:RCREF

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST RCREF=a-b c [d]
```

2. REASON FOR OUTPUT

To acknowledge a manual or automatic request to restore a remote clock reference (RCREF) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Reference number (1-8).

`c` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination is immediate. Consistency of hardware and data is questionable.
`COMPLETED`	= Requested action completed successfully.
`NOT STARTED`	= Requested action had not begun.
`STOPPED`	= Requested action was terminated before a normal completion.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the termination report (variable '`c`') is COMPLETED, no action is required. If it is NOT STARTED, analyze variable 'd' to determine the cause. If it is STOPPED, determine the cause from the remote clock (RCLK) messages on the receive only printer (ROP).

5. ALARMS

Major.

6. REFERENCES

Input Message(s):

```
RST:RCREF
```

Output Appendix(es):

```
APP:MAINT-RESP
```

MCC Display Page(s):

RSM RCU

RST:RCXC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST RCXC=a-b c [d]
```

2. REASON FOR OUTPUT

To indicate the result of a RST:RCXC input message to restore the remote clock cross couple (RCXC) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RCXC side (0 or 1).

`c` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination is immediate. Consistency of hardware and data is questionable.
`COMPLETED`	= Requested action completed successfully.
`NOT STARTED`	= Requested action had not begun.
`STOPPED`	= Requested action was terminated before a normal completion, but consistency of hardware status and data is reliable.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the termination report (variable '`c`') is COMPLETED, no action is required. If it is NOT STARTED, analyze variable 'd' to determine the cause. If it is STOPPED, determine the cause from the remote clock (RCLK) messages on the receive only printer (ROP).

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:RCXC`

Output Appendix(es):

`APP:MAINT-RESP`

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MCC Display Page(s):

(RSM RCU)

RST:RDFI

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST RDFI=a-b-c d [e]
```

2. REASON FOR OUTPUT

To indicate the result of an RST:RDFI input message to restore a remote switching module (RSM) digital facilities interface (RDFI) circuit to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line and trunk unit (DLTU) number.

`c` = RDFI number.

`d` = Termination report. Valid value(s):

`ABORTED`	Requested action was terminated before completion, and the termination was complete.
`COMPLETED`	Request has successfully completed.
`COMPLETED CERTIFIED`	Request has successfully completed, and independent certification of the resulting hardware status was made.
`NOT STARTED`	Requested action has not begun.
`STOPPED`	Requested action was terminated before a normal completion.

`e` = Additional information qualifying the termination report.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RST:RDFI
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

Copyright © 1999

235-105-250 *System Recovery*

RST:RLI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST RLI=a-b c [d]
```

2. REASON FOR OUTPUT

To indicate the result of an RST:RLI input message to restore a remote switching module (RSM) remote link interface (RLI) circuit to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RLI number.

`c` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was complete.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED CERTIFIED` = Request has successfully completed, and independent certification of the resulting hardware status was made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section of this message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RST:RLI
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Copyright © 1999

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:ROP

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      RST ROP a COMPLETED

[2]   ____________________________________________________________
      RST ROP a ABORTED [b] [c]

[3]   ____________________________________________________________
      RST ROP a STOPPED d

[4]   ____________________________________________________________
      RST ROP a TASK e MSG STARTED

[5]   ____________________________________________________________
      RST ROP a STOPPED MESSAGE IN PROGRESS

[6]   ____________________________________________________________
      RST ROP a STOPPED MESSAGE COMPLETE
```

2. REASON FOR OUTPUT

To report the disposition of a request to restore a receive-only printer (ROP) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4 - 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Type of error. Valid value(s):

`X'1`	= Restore process error.
`X'2`	= Driver error.
`[NULL]`	= Restore denied by driver or configuration control (CONFIG).

`c` = Error code. Valid value(s):

For restore process error ('`b`' = X'1), refer to the APP:IOP-H appendix in the Appendixes section of the Output Messages manual.

For driver error ('b' = X'2), refer to the APP:IOP-G appendix in the Appendixes section of the Output Messages manual.

d = Error code, refer to the APP:IOP-I appendix in the Appendixes section of the Output Messages manual.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

5. ALARMS

The "pudrv" subsystem generated messages have no alarms.

The "cft" subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

The "diag" subsystem generated messages have an automatically-generated alarm. Action may or may not be required.

6. REFERENCES

OMDB Key(s):

Subsystem:	Key(s):
pudrv	195,196,103
cft	308
diag	96

Input Message(s):

```
RST:ROP
UPD:OMDB
```

Output Appendix(es):

```
APP:IOP-G
APP:IOP-H
APP:IOP-I
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RST:RPCN

Software Release: 5E10 and later
Message Class: DGN
Application: 5,CNI
Type: Output

1. FORMAT

```
RST RPCNa 0 b [c] [d]
```

2. REASON FOR OUTPUT

To report the status of an automatic or manual request to restore a ring peripheral controller node (RPCN) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Ring node (RN) group number.

`b` = Termination status. Valid value(s):
`ABORTED` = Restoration aborted.
`COMPLETED` = Unit restored.
`STOPPED` = Restoration stopped.

`c,d` = Valid value(s):

If '`b`' =	'`c`' =	'`d`' =
`ABORTED`	1 = Restore process error.	Error code. Refer to the "Error Codes Generated by the IMSRMVRST Process" exhibit of the APP:CNI appendix in the Appendixes section of the Output Messages manual.
`ABORTED`	2 = Driver error.	Error code. Refer to the "Error Codes Returned to the IMSRMVRST Process by the IMS Driver" exhibit of the APP:CNI appendix in the Appendixes section of the Output Messages manual.
`ABORTED`	**[NULL]** = Restoration denied by driver or CONFIG.	
`STOPPED`		Error code. Refer to the "Reason for a Remove or Restore Request Being Stopped" exhibit of the APP:CNI appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If the restoration was denied or aborted, clear the source of trouble using the proper error code and attempt the restoration again.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
RST:RPCN
```

Output Appendix(es):

```
APP:CNI
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

118 (CNI FRAME AND CCS LINK STATUS)

RST:RRCLK

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST RRCLK=a-b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of an RST:RRCLK input message to restore a remote integrated services line unit (RISLU) remote clock circuit pack (RRCLK) to service. This output message can also result from automatic fault recovery actions.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RISLU number.

`c` = RRCLK side.

`d` = Termination status. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to Manual 235-105-220, Corrective Maintenance.

5. ALARMS

A major alarm will result if an automatic restore-to-service is stopped due to diagnostic failures.

6. REFERENCES

Input Message(s):

`RST:RRCLK`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-220 *Corrective Maintenance*

RST:RT-EOC-A

Software Release: 5E10 - 5E11
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
RST RT EOC=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of a RST:RT-EOC input message that restores an integrated digital carrier unit (IDCU) remote terminal (RT) embedded operations channel (EOC) circuit to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Site identification number.

`b` = EOC number.

`c` = Termination report. Valid value(s):

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:RT-EOC`

Output Appendix(es):

`APP:MAINT-RESP`

Other Manual(s):

235-105-220 *Corrective Maintenance*
235-105-110 *System Maintenance Requirements and Tools*

MCC Display Page(s):

188xyy (IDCU REMOTE TERMINAL)

RST:RT-EOC-B

Software Release: 5E12 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
RST RT EOC=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of a RST:RT-EOC input message that restores a remote terminal (RT) embedded operations channel (EOC) circuit to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Site identification number.

`b` = EOC number.

`c` = Termination report. Valid value(s):

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:RT-EOC`

Output Appendix(es):

`APP:MAINT-RESP`

Other Manual(s):

235-105-220 *Corrective Maintenance*
235-105-110 *System Maintenance Requirements and Tools*

MCC Display Page(s):

1880,x,yy (IDCU REMOTE TERMINAL)
1660,xxxx (TR303 REMOTE TERMINAL)

RST:RT-TMC-A

Software Release: 5E10 - 5E11
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
RST RT TMC=a-b c [d]
```

2. REASON FOR OUTPUT

To indicate the result of a RST:RT-TMC input message that restores a remote terminal (RT) timeslot management channel (TMC) circuit to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Site identification number.

`b` = TMC number.

`c` = Termination report. Valid value(s):

- `ABORTED` = Immediate termination. A process has been purged and cleanup will be done by audits.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`d` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RST:RT-TMC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

188xyy (IDCU REMOTE TERMINAL)

RST:RT-TMC-B

Software Release: 5E12 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
RST RT TMC=a-b c [d]
```

2. REASON FOR OUTPUT

To indicate the result of a RST:RT-TMC input message that restores a remote terminal (RT) timeslot management channel (TMC) circuit to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Site identification number.

`b` = TMC number.

`c` = Termination report. Valid value(s):

- `ABORTED` = Immediate termination. A process has been purged and cleanup will be done by audits.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`d` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RST:RT-TMC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1880,x,yy (IDCU REMOTE TERMINAL)
1660,xxxx (TR303 REMOTE TERMINAL)

RST:RTFAC

Software Release: 5E12 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
RST RTFAC=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of a RST:RTFAC input message that restores remote terminal (RT) facility (FAC) circuit to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Site identification number.

`b` = RT FAC number.

`c` = Termination report. Valid values are:

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:RTFAC`

Output Appendix(es):

`APP:MAINT-RESP`

Other Manual(s):

235-105-220 *Corrective Maintenance*
235-105-110 *System Maintenance Requirements and Tools*

MCC Display Page(s):

1511,x,yy (DNUS STS MAINTENANCE)
1512,x,yy (DNUS STS DS1 APPLICATION)
1660,xxxx (TR303 REMOTE TERMINAL)

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RST:RVPT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST RVPT=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing RST:RVPT input message to restore the revertive pulsing transceiver (RVPT) to active status, or as the result of a recovery action to remove, diagnose, and restore the circuit to service if the diagnostic successfully executes.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Unit number.

`c` = Service group.

`d` = Circuit number.

`e` = Termination status. Valid value(s):

`ABORTED`	= The restoring process was purged. Further output showing data recovery by audits may follow.
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion. (Process gracefully terminated.)

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

Major alarm if a recovery requested RST:RVPT fails.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RMV:RVPT
RST:RVPT
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery Procedures*

RST:S96-STOPPED

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST S96 STOPPED CAMPON TIMEOUT
```

2. REASON FOR OUTPUT

To report a failure of a restoration of a line associated with a *SLC*®96 carrier shelf or shelf group.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTIONS TO BE TAKEN

Enter the OP:LIST,LINES,OOS,FE message at the Master Control Center (MCC) or supplemental trunk and line workstation.

Look for any *SLC*®96 line equipment numbers (SLENs) that are out-of-service maintenance family of equipment manual (OOS MTCE FE MAN). For example, SLEN a-b-c-d OOS MTCE FE MAN (Where a = SM#, b = DCLU#, c = RT#, d = Port). Determine if the shelf associated with this line is in service, and if so, restore the port manually (RST:LINE,SLEN).

5. ALARMS

Major

6. REFERENCES

Input Message(s):

```
OP:LIST
RST:LINE
```

MCC Display Page(s):

1150,YY,X (SM X-DCLU YY)
1310,YY,Z,X (SM X-DCLU YY RT Z)

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RST:SAS

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST SAS=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:SAS input message to restore a service announcement system (SAS) unit to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = SAS unit number.

`c` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`d` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RST:SAS
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):

235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:SBUS

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
RST SBUS a b [c] [d]
```

2. REASON FOR OUTPUT

To report the status of a request to restore a small computer system interface (SCSI) bus (SBUS) to service.

If the restore process was invoked using the RST SBUS poke on the DFC status page during disk independent operation (DIOP) mode, a "REPT DKDIP MESSAGE" precedes the actual output message line.

3. VARIABLE FIELD DEFINITIONS

`a` = SBUS member number.

`b` = Disposition of the request. Valid value(s):

- `ABORTED` = Restore aborted.
- `COMPLETED` = Unit restored.
- `ERROR` = Encountered an error, restore aborted.
- `IN PROGRESS` = Unit is being initialized.
- `NOT STARTED` = The restore is not started.
- `STOPPED` = Restore stopped.

If '`b`' =	'`c`' =	'`d`' =
`ABORTED`, `ERROR`, `NOT STARTED`, `STOPPED`, and if the input message was started using the RST SBUS poke on the DFC status page, then:	One of the following error codes: `f09` = Failed to get the UCB of the unit by name. `f18` = Unit is not out-of-service (OOS). `f1e` = Failed to open the device. `f20` = Refer to DKDRV error report on the receive only printer (ROP). `f57` = Message to the driver port failed. `f60` = Message reception failure. `f63` = Process timed out waiting for message. `f67` = Failed to close special device file. `ffe` = Aborted due to phase 1.	Error code. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.
`ABORTED`	Type of error: = Diagnostic restore process error. `2` = DFC driver restore process error. `[NULL]` = Bootstrap restore failure.	Error code: For a diagnostic restore process error ('`c`' = 1), refer to the APP:DFC-G appendix in the Appendixes section of the Output Messages manual. For a DFC driver error ('`c`' = 2), refer to the APP:DFC-A appendix in the Appendixes section of the Output

		Messages manual.
STOPPED	Error code. Refer to the APP:DFC-H appendix in the appendixes section of the Output Messages manual.	

4. ACTION TO BE TAKEN

If restore did not complete successfully, correct the source of trouble and attempt to restore again. If the error condition persists, contact the next level of technical support.

5. ALARMS

OMDB key 308 has a variable (VAR) alarm. There is no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

OMDB key 601 has a major (MAJ) alarm. If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	308
2	601

Input Message(s):

```
RST:MHD
RST:SBUS
```

Output Appendix(es):

```
APP:DFC-A
APP:DFC-F
APP:DFC-G
APP:SYSERR
```

MCC Display Page(s):

(COMMON PROCESSOR DISPLAY)
(DFCE STATUS PAGE)

RST:SCAN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST SCAN=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:SCAN input message to restore a scan point board (SCAN) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit number.

`c` = Service group number.

`d` = Scan point board number.

`e` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the References section of this message.

5. ALARMS

If a RST message fails, an alarm will indicate the effect to the office.
No alarm = No effect.
*Minor = Small reduction in traffic capability.
**Major = A problem exists and is denying customer service or causing a 25-50% reduction in traffic capability.
*C Critical = A problem exists and is denying customer service or causing at least a 50% reduction in traffic capability.

6. REFERENCES

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Input Message(s):

```
OP:OFFNORM-SM
RST:SCAN
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:SCC

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

[1]
```
RST SCC a COMPLETED
```

[2]
```
RST SCC a ABORTED [b] [c]
```

[3]
```
RST SCC a STOPPED d
```

[4]
```
RST SCC a TASK e MSG STARTED
```

[5]
```
RST SCC a STOPPED MESSAGE IN PROGRESS
```

[6]
```
RST SCC a STOPPED MESSAGE COMPLETE
```

2. REASON FOR OUTPUT

To report the disposition of a request to restore a Switching Control Center (SCC) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4 - 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Type of error. Valid value(s):

`X'1`	= Restore process error.
`X'2`	= Driver error.
`[NULL]`	= Restore denied by driver or configuration control (CONFIG).

`c` = Error code.

For restore process error ('`b`' = X'1), refer to the APP:IOP-H appendix in the Appendixes section of the Output Messages manual.

For driver error ('b' = X'2), refer to the APP:IOP-G appendix in the Appendixes section of the Output Messages manual.

d = Error code, refer to the APP:IOP-I appendix in the Appendixes section of the Output Messages manual.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

5. ALARMS

The "pudrv" subsystem generated messages have no alarms.

The "cft" subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

The "diag" subsystem generated messages have an automatically-generated alarm. Action may or may not be required.

6. REFERENCES

OMDB Key(s):

Subsystem:	Key(s):
pudrv	195,196
cft	308
diag	96

Input Message(s):

```
RST:SCC
UPD:OMDB
```

Output Appendix(es):

```
APP:IOP-G
APP:IOP-H
APP:IOP-I
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RST:SCSDC

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      RST SCSDC a COMPLETED

[2]   ____________________________________________________________
      RST SCSDC a ABORTED [b] [c]

[3]   ____________________________________________________________
      RST SCSDC a STOPPED d

[4]   ____________________________________________________________
      RST SCSDC a TASK e MSG STARTED

[5]   ____________________________________________________________
      RST SCSDC a STOPPED MESSAGE IN PROGRESS

[6]   ____________________________________________________________
      RST SCSDC a STOPPED MESSAGE COMPLETE
```

2. REASON FOR OUTPUT

To report the disposition of a request to restore a scanner and signal distributor controller (SCSDC) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4 - 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Type of error. Valid value(s):

`X'1`	= Restore process error.
`X'2`	= Driver error.
`[NULL]`	= Restore denied by driver or configuration control (CONFIG).

`c` = Error code.

For restore process error ('`b`' = X'1), refer to the APP:IOP-H appendix in the Appendixes section of the Output Messages manual.

For driver error ('b' = X'2), refer to the APP:IOP-G appendix in the Appendixes section of the Output Messages manual.

d = Error code, refer to the APP:IOP-I appendix in the Appendixes section of the Output Messages manual.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

5. ALARMS

The "pudrv" subsystem generated messages have no alarms.

The "cft" subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

The "diag" subsystem generated messages have an automatically-generated alarm. Action may or may not be required.

6. REFERENCES

OMDB Key(s):

Subsystem:	Key(s):
pudrv	195,196
cft	308
diag	96

Input Message(s):

```
RST:SCSDC
UPD:OMDB
```

Output Appendix(es):

```
APP:IOP-G
APP:IOP-H
APP:IOP-I
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RST:SDFI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST SDFI=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report that a *SLC*® 96 digital facility interface (SDFI) has been restored to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital carrier line unit (DCLU) number.

`c` = SDFI number.

`d` = Termination status. Valid value(s):

- `ABORTED` = The action requested was unsuccessful, and the termination was not graceful. Hardware states are not reliable.
- `COMPLETED` = The action completed successfully.
- `STOPPED` = The action terminated before a normal completion, and the termination was not graceful. Hardware states are reliable.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:SDFI`

Output Appendix(es):

`APP:MAINT-RESP`

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RST:SDL

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      RST SDL a COMPLETED

[2]   ____________________________________________________________
      RST SDL a ABORTED [b] [c]

[3]   ____________________________________________________________
      RST SDL a STOPPED d

[4]   ____________________________________________________________
      RST SDL a TASK e MSG STARTED

[5]   ____________________________________________________________
      RST SDL a STOPPED MESSAGE IN PROGRESS

[6]   ____________________________________________________________
      RST SDL a STOPPED MESSAGE COMPLETE
```

2. REASON FOR OUTPUT

To report the disposition of a request to restore a synchronous data link (SDL) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4 - 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Type of error. Valid value(s):

`X'1`	= Restore process error.
`X'2`	= Driver error.
`[NULL]`	= Restore denied by driver or configuration control (CONFIG).

`c` = Error code.

For restore process error ('`b`' = X'1), refer to the APP:IOP-H appendix in the Appendixes section of the Output Messages manual.

For driver error ('b' = X'2), refer to the APP:IOP-G appendix in the Appendixes section of the Output Messages manual.

d = Error code, refer to the APP:IOP-I appendix in the Appendixes section of the Output Messages manual.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

5. ALARMS

The "pudrv" subsystem generated messages have no alarms.

The "cft" subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

The "diag" subsystem generated messages have an automatically-generated alarm. Action may or may not be required.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
pudrv	195,196
cft	308
diag	96

Input Message(s):

```
RST:SDL
UPD:OMDB
```

Output Appendix(es):

```
APP:IOP-G
APP:IOP-H
APP:IOP-I
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RST:SDLC

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      RST SDLC a COMPLETED

[2]   ____________________________________________________________
      RST SDLC a ABORTED [b] [c]

[3]   ____________________________________________________________
      RST SDLC a STOPPED d

[4]   ____________________________________________________________
      RST SDLC a TASK e MSG STARTED

[5]   ____________________________________________________________
      RST SDLC a STOPPED MESSAGE IN PROGRESS

[6]   ____________________________________________________________
      RST SDLC a STOPPED MESSAGE COMPLETE
```

2. REASON FOR OUTPUT

To report the disposition of a request to restore a synchronous data link controller (SDLC) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4 - 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Type of error. Valid value(s):

`X'1`	= Restore process error.
`X'2`	= Driver error.
`[NULL]`	= Restore denied by driver or configuration control (CONFIG).

`c` = Error code.

For restore process error ('`b`' = X'1), refer to the APP:IOP-H appendix in the Appendixes section of the Output Messages manual.

For driver error ('b' = X'2), refer to the APP:IOP-G appendix in the Appendixes section of the Output Messages manual.

d = Error code, refer to the APP:IOP-I appendix in the Appendixes section of the Output Messages manual.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

5. ALARMS

The "pudrv" subsystem generated messages have no alarms.

The "cft" subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

The "diag" subsystem generated messages have an automatically-generated alarm. Action may or may not be required.

6. REFERENCES

OMDB Key(s):

Subsystem:	Key(s):
pudrv	195,196
cft	308
diag	96

Input Message(s):

```
RST:SDLC
UPD:OMDB
```

Output Appendix(es):

```
APP:IOP-G
APP:IOP-H
APP:IOP-I
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RST:SFI

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST SFI=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an attempt to restore a digital networking unit - synchronous optical network (DNU-S) synchronous transport signal electrical interface (STSX-1) facility interface (SFI) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = STSX-1 facility interface number.

`e` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action was successfully completed.
`IN PROGRESS`	= Requested action is in progress.
`NOT STARTED`	= Requested action was not started.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

Failure of an automatic restoration of the first SFI in a DNU-S data group will cause a major alarm. Failure of an automatic restoration of an SFI while the mate SFI is in an out-of-service (OOS) state will cause a critical alarm.

6. REFERENCES

Input Message(s):

```
RST:SFI
```

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Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

RST:SLIM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST SLIM=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:SLIM input message to restore a subscriber line instrument measurement (SLIM) board to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Metallic service unit number.

`c` = Service group number.

`d` = SLIM board number.

`e` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the References section of this message.

5. ALARMS

If a RST message fails, an alarm will indicate the effect to the office.
No alarm = No effect
*Minor = Small reduction in traffic capability
**Major = A problem exists and is denying customer service or causing a 25-50% reduction in traffic capability.
*C Critical = A problem exists and is denying customer service or causing at least a 50% reduction in traffic capability.

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6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RST:SLIM
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:STEFAC

Software Release: 5E10 - 5E12
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST STEFAC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an attempt to restore a digital networking unit - synchronous optical network (DNU-S) synchronous optical network (SONET) terminating equipment facility (STEFAC) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = SONET terminating equipment facility number.

`e` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action was not started.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:STEFAC`

Output Appendix(es):

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APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

RST:STSFAC-A

Software Release: 5E10 - 5E11
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST STSFAC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an attempt to restore a digital networking unit - synchronous optical network (DNU-S) synchronous transport signal facility (STSFAC) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = STSFAC number.

`e` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action was not started.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:STSFAC`

Output Appendix(es):

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APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1511 (DNUS STS)

RST:STSFAC-B

Software Release: 5E12 only
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST STSFAC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an attempt to restore a digital networking unit - synchronous optical network (DNU-S) synchronous transport signal facility (STSFAC) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = STSFAC number.

`e` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action was not started.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:STSFAC`

Output Appendix(es):

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APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1511 (DNUS STS MAINTENANCE)

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RST:STSFAC-C

Software Release: 5E13 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST STSFAC=a-b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Indicates the result of an attempt to restore a digital networking unit - synchronous optical network (DNU-S) synchronous transport signal facility (STSFAC) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital Networking Unit - SONET (DNU-S) number.

`c` = Data Group (DG) number.

`d` = SONET Termination Equipment (STE) facility number.

`e` = Synchronous Transport Signal (STS) facility number.

`f` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action was not started.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTIONS TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:STSFAC`

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Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1511 (DNUS STS MAINTENANCE)

RST:TAC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST TAC=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:TAC input message to restore a test and access (TAC) circuit to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Trunk unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `NOT STARTED REQUEST NOT ALLOWED` = When this message occurs it is usually because interrupts are inhibited on the control and data interface (CDI) circuit (refer to the ACTION TO BE TAKEN section of this manual page).
- `STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

If a RST message fails, an alarm will indicate the effect to the office.

No alarm	= No effect
*Minor	= Small reduction in traffic capability
**Major	= A problem exists and is denying customer service or causing a 25-50% reduction in traffic capability.
*C Critical	= A problem exists and is denying customer service or causing at least a 50% reduction in traffic capability.

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6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RST:TAC
```

Output Message(s):

```
REPT:CDI-TTSRF
REPT:TAC-TTSRF
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:TEN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST TEN=a-b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:TEN input message to restore an analog trunk specified by a trunk equipment number (TEN) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = TEN unit number.

`c` = Service group number.

`d` = TEN board number.

`e` = TEN circuit number.

`f` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`g` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

If a RST message fails, an alarm will indicate the effect to the office.
No alarm = No effect
*Minor = Small reduction in traffic capability
**Major = A problem exists and is denying customer service or causing a 25-50% reduction in traffic capability.
*C Critical = A problem exists and is denying customer service or causing at least a 50% reduction in traffic capability.

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6. REFERENCES

Input Message(s):

```
RST:TEN
```

Output Appendix(es):

```
APP:MAINT-RESP
```

RST:TMC

Software Release: 5E10 - 5E11
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
RST TMC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the result of a RST:TMC input message that restores an integrated digital carrier unit (IDCU) remote terminal (RT) timeslot management channel (TMC) circuit to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = RT number.

`d` = TMC number.

`e` = Termination report. Valid value(s):

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. This information can be found in the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:TMC`

Output Appendix(es):

```
APP:MAINT-RESP
```

MCC Display Page(s):

188xyy (IDCU REMOTE TERMINAL)

RST:TMSLNK

Software Release: 5E10 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

```
RST TMSLNK=a-{b|b&&c} d [e]
```

2. REASON FOR OUTPUT

To acknowledge a manual request to restore a specific time multiplex switch link (TMSLNK) or a range of TMSLNKs to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Office network and timing complex (ONTC) side the TMSLNKs are on.

`b` = Specific TMS link restored. If specified as a range ('`b`' to '`c`'), variable '`b`' was the first TMSLNK in the range.

`c` = The last TMS link to be restored in the range between variable '`b`' and including variable '`c`'.

`d` = Termination report. Valid value(s):
`COMPLETED` = Request completed successfully.
`STOPPED` = Request was terminated before a normal completion. Attempts were made to leave everything in a sane state.

`c` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

No further action is necessary if the request completed successfully. If the termination report is not completed, variable '`e`' should give some indication as to why the request failed. Check TMS link MCC pages or the OP:CFGSTAT output message to verify that the system was in a valid state to perform the request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CFGSTAT
RST:TMSLNK
```

Output Message(s):

```
OP:CFGSTAT
```

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Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

(TMS LINKS)

RST:TMUX

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST TMUX=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an attempt to restore a digital networking unit - synchronous optical network (DNU-S) transmission multiplexer (TMUX) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = TMUX number.

`e` = Termination status. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `IN PROGRESS` = Requested action is in progress.
- `NOT STARTED` = Requested action was not started.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

Failure of an automatic restoration of the first TMUX in a DNU-S data group will cause a major alarm. Failure of an automatic restoration of a second or greater TMUX in a DNU-S data group will cause a critical alarm.

6. REFERENCES

Input Message(s):

`RST:TMUX`

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Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

RST:TRK-A

Software Release: 5E10 - 5E11
Message Class: TRK
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      RST TRK TKGMN=a-b v [ICB=x|ICD=y] [PRIGRP=r] n
       [o [o] [o] [o] [o]]    p [p] [p] [p] [p]
                            [q [q] [q] [q] [q]]
              .                    .
              .                    .
              .                    .

[2]   ____________________________________________________________________
      RST TRK  [DN=s] DEN=c-h-i-j [MLHG=t-u]   n
       [o [o] [o] [o] [o]]    p [p] [p] [p] [p]
                             [q [q] [q] [q] [q]]
              .                      .
              .                      .
              .                      .

[3]   ____________________________________________________________________
      RST TRK  [PRIGRP=r|TKGMN=a-b&&c|TG=a] [CH=w] z
```

2. REASON FOR OUTPUT

To show that a trunk has been restored to service by deleting the indicated status from the specified trunk.

Format 1 shows a restoration attempt of digital or analog trunks.

Format 2 shows a restoration attempt of X.25 access on T1 (XAT).

Format 3 indicates the start and/or end of a group or range restoration.

This message may be in response to a RST:TRK input message or may be generated automatically.

The status information in the left half (column) of the message format is the status that was to be deleted. The status in the right half (column) of the message is the status in effect at the completion of the attempt to restore the port.

Logical test ports (LTP) are identified with the corresponding logical test port numbers.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

a = Trunk group number.

b = Trunk group member number, or lower limit of a range of trunk member number.

c = Upper limit of a range of trunk member number.

d = SM number.

e = Digital line and trunk unit (DLTU) number.

f = The digital facility interface number.

g = Channel number.

h = IDCU number.

i = Remote terminal (RT) number.

j = RT line number.

k = LTP number.

l = RAF or SAS unit number.

m = RAF or SAS announcement channel number.

n = The result of the restoration request. Valid value(s):

`ALREADY IS` = The trunk was already in service. Therefore, the status specified in the input message could not be deleted from the trunk. No change was made to the status of the trunk.

`CAMPON FAIL` = The request to camp on the trunk failed.

`CHAN ACTIVATION FAIL` = The packet switching trunk was not restored to service because the protocol handler (PH) channel could not be activated. This failure was caused by an internal software and/or hardware error. An attempt will be made periodically (approximately every three minutes) to restore the trunk to service automatically.

`CMP UNAVAILABLE` = The input request could not be completed because a needed communication module (CM) is unable to respond. Retry the request later.

`COMPLETED` = The specified status was successfully added to the trunk. Resulting status is indicated.

`COMPLETED,LINES REMAIN` = The request completed successfully but some or all ports may be defined as lines. Use RST:LINE message for the line ports.

`COMPL-PH SWITCHED` = The restore was successful, but a PH switch was required.

`COMPL-RST FAIL` = The specified status was added to this D-channel backup primary rate interface (DCBU PRI) D-channel while a restoration was in progress. The restoration has failed.

`COMPL-RST SUCCESS` = The restoration of a DCBU PRI D-channel completed successfully. The PRI now has an active D-channel for signalling.

`COMPL-SWITCH SUCCESS` Switch-over to the standby D-channel of a DCBU PRI has been completed successfully. The PRI now has an active D-channel for signalling.

`DATABASE ERROR` = The specified port status could not be deleted from the trunk because static data associated with the trunk could not be updated. This error can occur if customer originated recent changes (CORCs) are inhibited or if the office database editor (ODBE) is being used to update data associated with the trunk.

`DENIED-HARDWARE OOS` = The trunk could not be restored to service because the associated hardware was out-of-service (OOS). The supplementary information field of the port status indicates the piece of hardware that was OOS.

`DENIED-PRI RST IP` = The trunk could not be restored to service because the trunk specified is a PRI D-channel on a PRI that is in the process of being automatically restored. Wait for the D-channel restore to complete before attempting to restore this trunk.

`DENIED-RESET INPROG` = The specified port status could not be deleted from the trunk because

the trunk is in the process of being reset. Use the UCL option to manually override this restriction.

`DENIED-SDL REQUIRES UCL` = The request was denied because requests e the status of a DEN or NEN supporting an signalling data link (SDL) port are not recommended and must have the UCL option applied.

`FAILED-LINK LVL FAILURE` = The packet switching trunk was not restored to service could not be established with the far-end switch. Supplementary information field of the trunk port status indicates why level 2 did not come up.

`INPUT ERROR` = Some data entered in the input request was invalid or incorrect.

`INV EQUIPMENT` = The request was for equipment that does not exist or is not assigned.

`INV HARDWARE` = The request does not match the hardware type of the port.

`INV PORT` = The trunk could not be located in the database. The trunk identifier used in the input request was most likely invalid or incorrect.

`INV PORT TYPE` = The specified port is not a trunk.

`INV STATUS` = The status is not valid.

`NAILUP FAILED` = The packet switching trunk was not restored to service because a nailed-up path could not be established between the digital facility interface (DFI) circuit and the protocol handler (PH) circuit. The failure in establishing the nailed-up path was caused by the internal software and/or hardware error. An attempt will be made periodically (approximately every three minutes) to restore the trunk to service automatically.

`NO MATCH` = The status specified in the input request to delete a status did not exist on the trunk.

`NON-UNIQUE NXX DN` = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.

`NO PROCESS` = An attempt to create a process failed. This may possibly have been caused by the system's being busy. Retry the request later.

`NO STATUS MATCH` = The trunk was OOS, but not for any of the reasons specified (refer to variable '`o`'). No change was made to the status of the trunk.

`OCU LBK TST FAILED` = The packet switching trunk was not restored to service because the operational digital loopback test with the termination point at the office channel unit (OCU) failed. The digital loopback test requires an integrated services transmission function (ISTF) or global digital services function (GDSF) unit to be operational. An attempt will be made periodically (approximately every three minutes) to restore the trunk to service automatically. Use the "UCL" option on the RST:TRK input message to bypass the OCU loopback test.

`PH ACT TST FAILED` = The PH channel was not restored to service as the test run within the PH on channel activation or channel refresh failed. An attempt was made to switch to a different PH of the same type but no spare PH is available or the soft switch of this PH type is not allowed. The status was changed to OOS-FE-PSIU and the PH may be degraded.

`PH LBK TST FAILED` = The packet switching trunk was not restored to service because the operational digital loopback test within the PH failed. An attempt will be made to switch to a different PH, and if no spare is available, then the trunk status will be changed to OOS-FE-PSIU. If a spare PH is available, then the trunk will be restored to service in a few minutes.

`PORT BUSY` = The trunk remained busy for the campon period or an in-progress campon was terminated.

`PROCESS TIMEOUT` = Internal time-out during processing request aborted.

`REQUEST FAILED` = A system error occurred making it impossible to continue processing the request.

`RESOURCE FAILURE` = The specified port status could not be deleted from the trunk because of a temporary resource shortage. Either a process could not be created or a storage

buffer was full because the system is busy. Retry the request later.

`RST IN PROGRESS` = The specified status was successfully deleted from the trunk. Restoration of a DCBU PRI D-channel is in progress. Additional messages will follow to indicate the result of the restoration attempt.

`SM UNAVAILABLE` = The input request could not be completed because a needed switching module (SM) is unable to respond. Retry the request later.

`STATUS CONFLICT` = The trunk was not able to be restored to service since a port status inconsistency would have resulted by placing the trunk in service (IS). The trunk was left in the indicated OOS state. For example, attempting to restore a circuit switched B-channel while the associated D-channel is OOS is not allowed.

`SYSTEM BUSY` = The systems processing capability has been reached or a system resource was unavailable. Retry the request later.

`SYSTEM ERROR` = A system error occurred making it impossible to continue processing the request.

`TEST FAILED` = The operational test performed on the trunk failed. No status change was made.

`UCD|MUPH MLHG` = The DN entered was a multi-line hunt group channel and as such cannot be restored by specifying its DN. An equipment number (that is, DEN) or MLHG and member number must be specified. To obtain the equipment number and/or multi-line hunt group and member number, refer to office records for the DN.

`o` = Status that was requested to be deleted from the trunk. If more than one status was deleted, all are identified on subsequent lines in the same column. The first subfield indicates basic state; the second subfield indicates qualifier; the third subfield indicates operational restrictions; the fourth subfield indicates supplementary information; and the fifth subfield indicates the mode of the trunk status. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a description of a trunk status and its subfields.

`p` = Resulting primary status in effect on the trunk. This status is the most restrictive to call processing currently on the trunk. The first subfield indicates basic state; the second subfield indicates qualifier; the third subfield indicates operational restrictions; the fourth subfield indicates supplementary information; and the fifth subfield indicates the mode of the primary status. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status subfields.

`q` = Pending statuses in effect on the trunk. A trunk may have from zero to three pending statuses, all of which are listed on subsequent lines of this message. Pending statuses are less restrictive than the primary status. The first subfield indicates basic state; the second subfield indicates qualifier; the third subfield indicates operational restrictions; the fourth subfield indicates supplementary information; and the fifth subfield indicates the mode of the primary status. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status subfields and the status hierarchy.

`r` = PRI group number.

`s` = Directory number.

`t` = Multi-line hunt group number.

`u` = Multi-line hunt group member number.

`v` = Valid value(s):

`DEN=d-e-f-g`

ILEN=d-h-i-j
INEN=d-a^1-i-j
LTP=d-k
NEN=d-a^1-b^1-c^1-d^1-e^1
PSUEN=d-k^1-l^1-m^1-n^1
RAF=d-l-m
SAS=d-l-m
SLEN=d-f^1-i-j
TEN=d-g^1-h^1-i^1-j^1

w = Channels on the PRI being restored. Valid value(s):
- D = D-channel of the PRI or both D-channels if the PRI is equipped with a backup D-channel.
- B = All B-channels of the PRI.

x = Identifying number of the FGB carrier, which can be up to 4 digits. If shown, this variable indicates a direct trunk to a carrier.

y = Identifying number of the FGD carrier, which can be up to 4 digits. If shown, this variable indicates a direct trunk to a carrier.

z = Status report. Valid value(s):
- COMPLETED = Restore processing for the trunk group, PRI group, or range of trunks has completed.
- DATABASE ERROR = An internal error occurred while attempting to access the trunk group or PRI group data. Repeat the request if desired.
- INVALID PRI GROUP = The PRI group specified in the input request was invalid. Verify that the correct group number was specified.
- NO CHANNELS ASSIGNED = The PRI group specified does not have any channels assigned to it.
- STARTED = Request was received and action has started.
- TG INVALID = The trunk group specified in the input request was invalid. Verify that the correct group number was specified.

a^1 = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

b^1 = Data group number.

c^1 = Synchronous transport signal (STS) number.

d^1 = Virtual tributary 1.5 (VT1.5) number.

e^1 = Digital signal level 0 (DS0).

f^1 = Digital carrier line unit number.

g^1 = Trunk unit number.

h^1 = Service group number.

i^1 = Channel board number.

j^1 = Circuit number.

`k`[1] = PSU unit number.

`l`[1] = PSU shelf number.

`m`[1] = PSU channel group number.

`n`[1] = PSU channel group member number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LIST
OP:STATUS
RMV:TRK
RST:TRK
```

Output Appendix(es):

```
APP:PORT-STATUS
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

RST:TRK-B

Software Release: 5E12 only
Message Class: TRK
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      RST TRK TKGMN=a-b v [ICB=x|ICD=y] [PRIGRP=r]   n
       [o [o] [o] [o] [o]]   p [p] [p] [p] [p]
                            [q [q] [q] [q] [q]]
               .                    .
               .                    .
               .                    .

[2]   ____________________________________________________________________
      RST TRK [DN=s] DEN=c-h-i-j [MLHG=t-u]   n
       [o [o] [o] [o] [o]]   p [p] [p] [p] [p]
                                   q [q [q] [q] [q]]
                     .                    .
                     .                    .
                     .                    .

[3]   ____________________________________________________________________
      RST TRK [PRIGRP=r|TKGMN=a-b&&c|TG=a] [CH=w]   z
```

2. REASON FOR OUTPUT

To show that a trunk has been restored to service by deleting the indicated status from the specified trunk.

Format 1 shows a restoration attempt of digital or analog trunks. Format 2 shows a restoration attempt of X.25 access on T1 (XAT). Format 3 indicates the start and/or end of a group or range restoration. This message may be in response to a RST:TRK input message or may be generated automatically. The status information in the left half (column) of the message format is the status that was to be deleted. The status in the right half (column) of the message is the status in effect at the completion of the attempt to restore the port. Logical test ports (LTP) are identified with the corresponding logical test port numbers.

3. VARIABLE FIELD DEFINITIONS

a = Trunk group number.

b = Trunk group member number, or lower limit of a range of trunk member number.

c = Upper limit of a range of trunk member number.

d = SM number.

e = Digital line and trunk unit (DLTU) number.

f = The digital facility interface number.

g = Channel number.

h = IDCU number.

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`i` = Remote terminal (RT) number.

`j` = RT line number.

`k` = LTP number.

`l` = RAF or SAS unit number.

`m` = RAF or SAS announcement channel number.

`n` = The result of the restoration request. Valid value(s):

`ALREADY IS` = The trunk was already in service. Therefore, the status specified in the input message could not be deleted from the trunk. No change was made to the status of the trunk.

`CAMPON FAIL` = The request to camp on the trunk failed.

`CHAN ACTIVATION FAIL` = The packet switching trunk was not restored to service because the protocol handler (PH) channel could not be activated. This failure was caused by an internal software and/or hardware error. An attempt will be made periodically (approximately every three minutes) to restore the trunk to service automatically.

`CMP UNAVAILABLE` = The input request could not be completed because a needed communication module (CM) is unable to respond. Retry the request later.

`COMPLETED` = The specified status was successfully added to the trunk. Resulting status is indicated.

`COMPLETED,LINES REMAIN` = The request completed successfully but some or all ports may be defined as lines. Use RST:LINE message for the line ports.

`COMPL-PH SWITCHED` = The restore was successful, but a PH switch was required.

`COMPL-RST FAIL` = The specified status was added to this D-channel backup primary rate interface (DCBU PRI) D-channel while a restoration was in progress. The restoration has failed.

`COMPL-RST SUCCESS` = The restoration of a DCBU PRI D-channel completed successfully. The PRI now has an active D-channel for signalling.

`COMPL-SWITCH SUCCESS` Switch-over to the standby D-channel of a DCBU PRI has been completed successfully. The PRI now has an active D-channel for signalling.

`DATABASE ERROR` = The specified port status could not be deleted from the trunk because static data associated with the trunk could not be updated. This error can occur if customer originated recent changes (CORCs) are inhibited or if the office database editor (ODBE) is being used to update data associated with the trunk.

`DENIED-HARDWARE OOS` = The trunk could not be restored to service because the associated hardware was out-of-service (OOS). The supplementary information field of the port status indicates the piece of hardware that was OOS.

`DENIED-PRI RST IP` = The trunk could not be restored to service because the trunk specified is a PRI D-channel on a PRI that is in the process of being automatically restored. Wait for the D-channel restore to complete before attempting to restore this trunk.

`DENIED-RESET INPROG` = The specified port status could not be deleted from the trunk because the trunk is in the process of being reset. Use the UCL option to manually override this restriction.

`DENIED-SDL REQUIRES UCL` = The request was denied because requests e the status of a DEN or NEN supporting an signalling data link (SDL) port are not recommended and must have the UCL option applied.

`FAILED-LINK LVL FAILURE` = The packet switching trunk was not restored to service could not be established with the far-end switch. Supplementary information field of the trunk port status indicates why level 2 did not come up.

`INPUT ERROR` = Some data entered in the input request was invalid or incorrect.

`INV EQUIPMENT` = The request was for equipment that does not exist or is not assigned.

`INV HARDWARE` = The request does not match the hardware type of the port.

`INV PORT` = The trunk could not be located in the database. The trunk identifier used in the input request was most likely invalid or incorrect.

`INV PORT TYPE` = The specified port is not a trunk.

`INV STATUS` = The status specified is not valid. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual to determine valid states for each port type.

`NAILUP FAILED` = The packet switching trunk was not restored to service because a nailed-up path could not be established between the digital facility interface (DFI) circuit and the protocol handler (PH) circuit. The failure in establishing the nailed-up path was caused by the internal software and/or hardware error. An attempt will be made periodically (approximately every three minutes) to restore the trunk to service automatically.

`NO MATCH` = The status specified in the input request to delete a status did not exist on the trunk.

`NON-UNIQUE NXX DN` = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.

`NO PROCESS` = An attempt to create a process failed. This may possibly have been caused by the system's being busy. Retry the request later.

`NO STATUS MATCH` = The trunk was OOS, but not for any of the reasons specified (refer to variable '`o`'). No change was made to the status of the trunk.

`OCU LBK TST FAILED` = The packet switching trunk was not restored to service because the operational digital loopback test with the termination point at the office channel unit (OCU) failed. The digital loopback test requires an integrated services transmission function (ISTF) or global digital services function (GDSF) unit to be operational. An attempt will be made periodically (approximately every three minutes) to restore the trunk to service automatically. Use the "UCL" option on the RST:TRK input message to bypass the OCU loopback test.

`PH ACT TST FAILED` = The PH channel was not restored to service as the test run within the PH on channel activation or channel refresh failed. An attempt was made to switch to a different PH of the same type but no spare PH is available or the soft switch of this PH type is not allowed. The status was changed to OOS-FE-PSIU and the PH may be degraded.

`PH LBK TST FAILED` = The packet switching trunk was not restored to service because the operational digital loopback test within the PH failed. An attempt will be made to switch to a different PH, and if no spare is available, then the trunk status will be changed to OOS-FE-PSIU. If a spare PH is available, then the trunk will be restored to service in a few minutes.

`PORT BUSY` = The trunk remained busy for the campon period or an in-progress campon was terminated.

`PROCESS TIMEOUT` = Internal time-out during processing request aborted.

`REQUEST FAILED` = A system error occurred making it impossible to continue processing the request.

`RESOURCE FAILURE` = The specified port status could not be deleted from the trunk because of a temporary resource shortage. Either a process could not be created or a storage buffer was full because the system is busy. Retry the request later.

`RST IN PROGRESS` = The specified status was successfully deleted from the trunk. Restoration of a DCBU PRI D-channel is in progress. Additional messages will follow to indicate the result of the restoration attempt.

`SM UNAVAILABLE` = The input request could not be completed because a needed switching module (SM) is unable to respond. Retry the request later.

`STATUS CONFLICT` = The trunk was not able to be restored to service since a port status

inconsistency would have resulted by placing the trunk in service (IS). The trunk was left in the indicated OOS state. For example, attempting to restore a circuit switched B-channel while the associated D-channel is OOS is not allowed.

`SYSTEM BUSY` = The systems processing capability has been reached or a system resource was unavailable. Retry the request later.

`SYSTEM ERROR` = A system error occurred making it impossible to continue processing the request.

`TEST FAILED` = The operational test performed on the trunk failed. No status change was made.

`UCD|MUPH MLHG` = The DN entered was a multi-line hunt group channel and as such cannot be restored by specifying its DN. An equipment number (that is, DEN) or MLHG and member number must be specified. To obtain the equipment number and/or multi-line hunt group and member number, refer to office records for the DN.

`o` = Status that was requested to be deleted from the trunk. If more than one status was deleted, all are identified on subsequent lines in the same column. The first subfield indicates basic state; the second subfield indicates qualifier; the third subfield indicates operational restrictions; the fourth subfield indicates supplementary information; and the fifth subfield indicates the mode of the trunk status. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a description of a trunk status and its subfields.

`p` = Resulting primary status in effect on the trunk. This status is the most restrictive to call processing currently on the trunk. The first subfield indicates basic state; the second subfield indicates qualifier; the third subfield indicates operational restrictions; the fourth subfield indicates supplementary information; and the fifth subfield indicates the mode of the primary status. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status subfields.

`q` = Pending statuses in effect on the trunk. A trunk may have from zero to three pending statuses, all of which are listed on subsequent lines of this message. Pending statuses are less restrictive than the primary status. The first subfield indicates basic state; the second subfield indicates qualifier; the third subfield indicates operational restrictions; the fourth subfield indicates supplementary information; and the fifth subfield indicates the mode of the primary status. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status subfields and the status hierarchy.

`r` = PRI group number.

`s` = Directory number.

`t` = Multi-line hunt group number.

`u` = Multi-line hunt group member number.

`v` = Valid value(s):

DEN=d-e-f-g	PSUEN=d-k^1-l^1-m^1-n^1
ILEN=d-h-i-j	RAF=d-l-m
INEN=d-a^1-i-j	SAS=d-l-m
LTP=d-k	SLEN=d-f^1-i-j
NEN=d-a^1-b^1-c^1-d^1-e^1	TEN=d-g^1-h^1-i^1-j^1

`w` = Channels on the PRI being restored. Valid value(s):

`D` = D-channel of the PRI or both D-channels if the PRI is equipped with a backup

D-channel.
`B` = All B-channels of the PRI.

`x` = Identifying number of the FGB carrier, which can be up to 4 digits. If shown, this variable indicates a direct trunk to a carrier.

`y` = Identifying number of the FGD carrier, which can be up to 4 digits. If shown, this variable indicates a direct trunk to a carrier.

`z` = Status report. Valid value(s):
`COMPLETED` = Restore processing for the trunk group, PRI group, or range of trunks has completed.
`DATABASE ERROR` = An internal error occurred while attempting to access the trunk group or PRI group data. Repeat the request if desired.
`INVALID PRI GROUP` = The PRI group specified in the input request was invalid. Verify that the correct group number was specified.
`NO CHANNELS ASSIGNED` = The PRI group specified does not have any channels assigned to it.
`STARTED` = Request was received and action has started.
`TG INVALID` = The trunk group specified in the input request was invalid. Verify that the correct group number was specified.

`a`[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

`b`[1] = Data group number.

`c`[1] = Synchronous transport signal (STS) number.

`d`[1] = Virtual tributary 1.5 (VT1.5) number.

`e`[1] = Digital signal level 0 (DS0).

`f`[1] = Digital carrier line unit number.

`g`[1] = Trunk unit number.

`h`[1] = Service group number.

`i`[1] = Channel board number.

`j`[1] = Circuit number.

`k`[1] = PSU unit number.

`l`[1] = PSU shelf number.

`m`[1] = PSU channel group number.

`n`[1] = PSU channel group member number.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LIST
OP:STATUS
RMV:TRK
RST:TRK
```

Output Appendix(es):

```
APP:PORT-STATUS
```

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-190-120 *Common Channel Signaling Services Features*

RST:TRK-C

Software Release: 5E13 and later
Message Class: TRK
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      RST TRK TKGMN=a-b v [ICB=x|ICD=y] [PRIGRP=r]   n
       [o [o] [o] [o] [o]]   p [p] [p] [p] [p]
                            [q [q] [q] [q] [q]]
                .                   .
                .                   .
                .                   .

[2]   ____________________________________________________________________
      RST TRK [DN=s] DEN=c-h-i-j [MLHG=t-u]   n
       [o [o] [o] [o] [o]]   p [p] [p] [p] [p]
                                   q [q [q] [q] [q]]
                        .                   .
                        .                   .
                        .                   .

[3]   ____________________________________________________________________
      RST TRK [PRIGRP=r|TKGMN=a-b&&c|TG=a] [CH=w]   z
```

2. REASON FOR OUTPUT

To show that a trunk has been restored to service by deleting the indicated status from the specified trunk.

Format 1 shows a restoration attempt of digital or analog trunks. Format 2 shows a restoration attempt of X.25 access on T1 (XAT). Format 3 indicates the start and/or end of a group or range restoration. This message may be in response to a RST:TRK input message or may be generated automatically. The status information in the left half (column) of the message format is the status that was to be deleted. The status in the right half (column) of the message is the status in effect at the completion of the attempt to restore the port. Logical test ports (LTP) are identified with the corresponding logical test port numbers.

3. VARIABLE FIELD DEFINITIONS

a = Trunk group number.

b = Trunk group member number, or lower limit of a range of trunk member number.

c = Upper limit of a range of trunk member number.

d = SM number.

e = Digital line and trunk unit (DLTU) number.

f = The digital facility interface number.

g = Channel number.

h = IDCU number.

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`i` = Remote terminal (RT) number.

`j` = RT line number.

`k` = LTP number.

`l` = RAF or SAS unit number.

`m` = RAF or SAS announcement channel number.

`n` = The result of the restoration request. Valid value(s):

`ALREADY IS` = The trunk was already in service. Therefore, the status specified in the input message could not be deleted from the trunk. No change was made to the status of the trunk.

`CAMPON FAIL` = The request to camp on the trunk failed.

`CHAN ACTIVATION FAIL` = The packet switching trunk was not restored to service because the protocol handler (PH) channel could not be activated. This failure was caused by an internal software and/or hardware error. An attempt will be made periodically (approximately every three minutes) to restore the trunk to service automatically.

`CMP UNAVAILABLE` = The input request could not be completed because a needed communication module (CM) is unable to respond. Retry the request later.

`COMPLETED` = The specified status was successfully added to the trunk. Resulting status is indicated.

`COMPLETED,LINES REMAIN` = The request completed successfully but some or all ports may be defined as lines. Use RST:LINE message for the line ports.

`COMPL-PH SWITCHED` = The restore was successful, but a PH switch was required.

`COMPL-RST FAIL` = The specified status was added to this D-channel backup primary rate interface (DCBU PRI) D-channel while a restoration was in progress. The restoration has failed.

`COMPL-RST SUCCESS` = The restoration of a DCBU PRI D-channel completed successfully. The PRI now has an active D-channel for signalling.

`COMPL-SWITCH SUCCESS` Switch-over to the standby D-channel of a DCBU PRI has been completed successfully. The PRI now has an active D-channel for signalling.

`DATABASE ERROR` = The specified port status could not be deleted from the trunk because static data associated with the trunk could not be updated. This error can occur if customer originated recent changes (CORCs) are inhibited or if the office database editor (ODBE) is being used to update data associated with the trunk.

`DENIED-HARDWARE OOS` = The trunk could not be restored to service because the associated hardware was out-of-service (OOS). The supplementary information field of the port status indicates the piece of hardware that was OOS.

`DENIED-PRI RST IP` = The trunk could not be restored to service because the trunk specified is a PRI D-channel on a PRI that is in the process of being automatically restored. Wait for the D-channel restore to complete before attempting to restore this trunk.

`DENIED-RESET INPROG` = The specified port status could not be deleted from the trunk because the trunk is in the process of being reset. Use the UCL option to manually override this restriction.

`DENIED-SDL REQUIRES UCL` = The request was denied because requests e the status of a DEN or NEN supporting an signalling data link (SDL) port are not recommended and must have the UCL option applied.

`FAILED-LINK LVL FAILURE` = The packet switching trunk was not restored to service could not be established with the far-end switch. Supplementary information field of the trunk port status indicates why level 2 did not come up.

`INPUT ERROR` = Some data entered in the input request was invalid or incorrect.

`INV EQUIPMENT` = The request was for equipment that does not exist or is not assigned.

`INV HARDWARE` = The request does not match the hardware type of the port.

`INV PORT` = The trunk could not be located in the database. The trunk identifier used in the input request was most likely invalid or incorrect.

`INV PORT TYPE` = The specified port is not a trunk.

`INV STATUS` = The status specified is not valid. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual to determine valid states for each port type.

`NAILUP FAILED` = The packet switching trunk was not restored to service because a nailed-up path could not be established between the digital facility interface (DFI) circuit and the protocol handler (PH) circuit. The failure in establishing the nailed-up path was caused by the internal software and/or hardware error. An attempt will be made periodically (approximately every three minutes) to restore the trunk to service automatically.

`NO MATCH` = The status specified in the input request to delete a status did not exist on the trunk.

`NON-UNIQUE NXX DN` = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.

`NO PROCESS` = An attempt to create a process failed. This may possibly have been caused by the system's being busy. Retry the request later.

`NO STATUS MATCH` = The trunk was OOS, but not for any of the reasons specified (refer to variable '`o`'). No change was made to the status of the trunk.

`OCU LBK TST FAILED` = The packet switching trunk was not restored to service because the operational digital loopback test with the termination point at the office channel unit (OCU) failed. The digital loopback test requires an integrated services transmission function (ISTF) or global digital services function (GDSF) unit to be operational. An attempt will be made periodically (approximately every three minutes) to restore the trunk to service automatically. Use the "UCL" option on the RST:TRK input message to bypass the OCU loopback test.

`PH ACT TST FAILED` = The PH channel was not restored to service as the test run within the PH on channel activation or channel refresh failed. An attempt was made to switch to a different PH of the same type but no spare PH is available or the soft switch of this PH type is not allowed. The status was changed to OOS-FE-PSIU and the PH may be degraded.

`PH LBK TST FAILED` = The packet switching trunk was not restored to service because the operational digital loopback test within the PH failed. An attempt will be made to switch to a different PH, and if no spare is available, then the trunk status will be changed to OOS-FE-PSIU. If a spare PH is available, then the trunk will be restored to service in a few minutes.

`PORT BUSY` = The trunk remained busy for the campon period or an in-progress campon was terminated.

`PROCESS TIMEOUT` = Internal time-out during processing request aborted.

`REQUEST FAILED` = A system error occurred making it impossible to continue processing the request.

`RESOURCE FAILURE` = The specified port status could not be deleted from the trunk because of a temporary resource shortage. Either a process could not be created or a storage buffer was full because the system is busy. Retry the request later.

`RST IN PROGRESS` = The specified status was successfully deleted from the trunk. Restoration of a DCBU PRI D-channel is in progress. Additional messages will follow to indicate the result of the restoration attempt.

`SM UNAVAILABLE` = The input request could not be completed because a needed switching module (SM) is unable to respond. Retry the request later.

`STATUS CONFLICT` = The trunk was not able to be restored to service since a port status

inconsistency would have resulted by placing the trunk in service (IS). The trunk was left in the indicated OOS state. For example, attempting to restore a circuit switched B-channel while the associated D-channel is OOS is not allowed.

`SYSTEM BUSY` = The systems processing capability has been reached or a system resource was unavailable. Retry the request later.

`SYSTEM ERROR` = A system error occurred making it impossible to continue processing the request.

`TEST FAILED` = The operational test performed on the trunk failed. No status change was made.

`UCD|MUPH MLHG` = The DN entered was a multi-line hunt group channel and as such cannot be restored by specifying its DN. An equipment number (that is, DEN) or MLHG and member number must be specified. To obtain the equipment number and/or multi-line hunt group and member number, refer to office records for the DN.

`o` = Status that was requested to be deleted from the trunk. If more than one status was deleted, all are identified on subsequent lines in the same column. The first subfield indicates basic state; the second subfield indicates qualifier; the third subfield indicates operational restrictions; the fourth subfield indicates supplementary information; and the fifth subfield indicates the mode of the trunk status. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a description of a trunk status and its subfields.

`p` = Resulting primary status in effect on the trunk. This status is the most restrictive to call processing currently on the trunk. The first subfield indicates basic state; the second subfield indicates qualifier; the third subfield indicates operational restrictions; the fourth subfield indicates supplementary information; and the fifth subfield indicates the mode of the primary status. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status subfields.

`q` = Pending statuses in effect on the trunk. A trunk may have from zero to three pending statuses, all of which are listed on subsequent lines of this message. Pending statuses are less restrictive than the primary status. The first subfield indicates basic state; the second subfield indicates qualifier; the third subfield indicates operational restrictions; the fourth subfield indicates supplementary information; and the fifth subfield indicates the mode of the primary status. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status subfields and the status hierarchy.

`r` = PRI group number.

`s` = Directory number.

`t` = Multi-line hunt group number.

`u` = Multi-line hunt group member number.

`v` = Valid value(s):

DEN=d-e-f-g	PSUEN=d-k^1-l^1-m^1-n^1
ILEN=d-h-i-j	RAF=d-l-m
INEN=d-a^1-i-j	SAS=d-l-m
LTP=d-k	SLEN=d-f^1-i-j
NEN=d-a^1-b^1-o^1-c^1-d^1-p^1-e^1	TEN=d-g^1-h^1-i^1-j^1

`w` = Channels on the PRI being restored. Valid value(s):

`D` = D-channel of the PRI or both D-channels if the PRI is equipped with a backup

D-channel.
`B` = All B-channels of the PRI.

`x` = Identifying number of the FGB carrier, which can be up to 4 digits. If shown, this variable indicates a direct trunk to a carrier.

`y` = Identifying number of the FGD carrier, which can be up to 4 digits. If shown, this variable indicates a direct trunk to a carrier.

`z` = Status report. Valid value(s):
`COMPLETED` = Restore processing for the trunk group, PRI group, or range of trunks has completed.
`DATABASE ERROR` = An internal error occurred while attempting to access the trunk group or PRI group data. Repeat the request if desired.
`INVALID PRI GROUP` = The PRI group specified in the input request was invalid. Verify that the correct group number was specified.
`NO CHANNELS ASSIGNED` = The PRI group specified does not have any channels assigned to it.
`STARTED` = Request was received and action has started.
`TG INVALID` = The trunk group specified in the input request was invalid. Verify that the correct group number was specified.

`a`[1] = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

`b`[1] = Data group number.

`c`[1] = Synchronous transport signal (STS) number.

`d`[1] = Virtual tributary group number.

`e`[1] = Digital signal level 0 (DS0).

`f`[1] = Digital carrier line unit number.

`g`[1] = Trunk unit number.

`h`[1] = Service group number.

`i`[1] = Channel board number.

`j`[1] = Circuit number.

`k`[1] = PSU unit number.

`l`[1] = PSU shelf number.

`m`[1] = PSU channel group number.

`n`[1] = PSU channel group member number.

`o`[1] = SONET termination equipment (STE) number.

`p`[1] = Virtual tributary member number.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LIST
OP:STATUS
RMV:TRK
RST:TRK
```

Output Appendix(es):

```
APP:PORT-STATUS
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-190-120 *Common Channel Signaling Services Features*

RST:TTFCOM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST TTFCOM=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:TTFCOM input message to restore a transmission test facility common (TTFCOM) circuit to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Global digital service unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

If a RST message fails, an alarm will indicate the effect to the office.
No alarm = No effect
*Minor = Small reduction in traffic capability
**Major = A problem exists and is denying customer service or causing a 25-50% reduction in traffic capability.
*C Critical = A problem exists and is denying customer service or causing at least a 50% reduction in traffic capability.

6. REFERENCES

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Input Message(s):

```
OP:OFFNORM-SM
RST:TTFCOM
```

Output Message(s):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:TTY

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      RST TTY a COMPLETED

[2]   ____________________________________________________________
      RST TTY a ABORTED [b] [c]

[3]   ____________________________________________________________
      RST TTY a STOPPED d

[4]   ____________________________________________________________
      RST TTY a TASK e MSG STARTED

[5]   ____________________________________________________________
      RST TTY a STOPPED MESSAGE IN PROGRESS

[6]   ____________________________________________________________
      RST TTY a STOPPED MESSAGE COMPLETE
```

2. REASON FOR OUTPUT

To report the disposition of a request to restore a teletypewriter (TTY) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4 - 6 report the status of the request in diagnostics.

ormat 4 reports that the request has begun and provides the task number.

ormat 5 reports that the request has stopped and more output messages will follow.

ormat 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

a = Member number.

b = Type of error. Valid value(s):
- X'1 = Restore process error.
- X'2 = Driver error.
- [NULL] = Restore denied by driver or configuration control (CONFIG).

c = Error code.

If 'b' =	Explanation:
X'1	Refer to the APP:IOP-H appendix in the Appendixes section of the Output Messages manual.

X'2	Refer to the APP:IOP-G appendix in the Appendixes section of the Output Messages manual.

d = Error code. Refer to the APP:IOP-I appendix in the Appendixes section of the Output Messages manual.

e = Diagnostic task number associated with the request.

4. ACTION TO BE TAKEN

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

5. ALARMS

The "pudrv" subsystem generated messages have no alarms.

The "cft" subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

The "diag" subsystem generated messages have an automatically-generated alarm. Action may or may not be required.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Subsystem:	Key(s):
pudrv	195, 196
cft	308
diag	96

Input Message(s):

```
RST:TTY
```

Output Appendix(es):

```
APP:IOP-G
APP:IOP-H
APP:IOP-I
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RST:TTYC

Software Release: 5E10 and later
Message Class: MAINT,MAIPR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      RST TTYC a COMPLETED

[2]   ____________________________________________________________
      RST TTYC a ABORTED [b] [c]

[3]   ____________________________________________________________
      RST TTYC a STOPPED d

[4]   ____________________________________________________________
      RST TTYC a TASK e MSG STARTED

[5]   ____________________________________________________________
      RST TTYC a STOPPED MESSAGE IN PROGRESS

[6]   ____________________________________________________________
      RST TTYC a STOPPED MESSAGE COMPLETE
```

2. REASON FOR OUTPUT

To report the disposition of a request to restore a teletypewriter controller (TTYC) to service.

Format 1 reports that the restoration attempt was successful.

Formats 2 and 3 report that the restoration has failed.

Formats 4 - 6 report the status of the request in diagnostics.

Format 4 reports that the request has begun and provides the task number.

Format 5 reports that the request has stopped and more output messages will follow.

Format 6 reports that the request has stopped and this is the last output message from diagnostics.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number.

`b` = Type of error. Valid value(s):

`X'1`	= Restore process error.
`X'2`	= Driver error.
`[NULL]`	= Restore denied by driver or configuration control (CONFIG).

`c` = Error code.

For restore process error ('`b`' = X'1), refer to the APP:IOP-H appendix in the Appendixes section of the Output Messages manual.

For driver error ('b' = X'2), refer to the APP:IOP-G appendix in the Appendixes section of the Output Messages manual.

d = Error code. Refer to the APP:IOP-I appendix in the Appendixes section of the Output Messages manual.

e = Diagnostic task number assigned to the request.

4. ACTION TO BE TAKEN

If the restoration was denied or aborted, clear the source of trouble and attempt the restoration again.

5. ALARMS

The "pudrv" subsystem generated messages have no alarms.

The "cft" subsystem generated messages have no fixed priority of action. The software process that generates the message can determine the alarm level. If the alarm level is not specified, a report is generated.

The "diag" subsystem generated messages have an automatically-generated alarm. Action may or may not be required.

6. REFERENCES

OMDB Key(s):

Subsystem:	Key(s):
pudrv	195, 196
cft	308
diag	96

Input Message(s):

```
RST:TTYC
```

Output Appendix(es):

```
APP:IOP-G
APP:IOP-H
APP:IOP-I
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

RST:TUCHBD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST TUCHBD=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:TUCHBD input messages to restore a trunk unit channel board (TUCHBD) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Trunk unit number.

`c` = Service group number.

`d` = Channel board number.

`e` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

If a RST message fails, an alarm will indicate the effect to the office.
No alarm = No effect
*Minor = Small reduction in traffic capability
**Major = A problem exists and is denying customer service or causing a 25-50% reduction in traffic capability.
*C Critical = A problem exists and is denying customer service or causing at least a 50% reduction in traffic capability.

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6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RST:TUCHBD
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:UCONF

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST UCONF=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:UCONF input message to restore a universal conference (UCONF) circuit board to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Global digital service unit number.

`c` = Service group number.

`d` = Digital service circuit unit board number.

`e` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

If a RST message fails, an alarm will indicate the effect to the office.
No alarm = No effect
*Minor = Small reduction in traffic capability
**Major = A problem exists and is denying customer service or causing a 25-50% reduction in traffic capability.
*C Critical = A problem exists and is denying customer service or causing at least a 50% reduction in traffic capability.

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6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RST:UCONF
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:UMBIL

Software Release: 5E13 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
RST UMBIL=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of a RST:UMBIL input message that restores host umbilical (UMBIL) circuit to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Host Switch Module (HSM) number.

`b` = Remote Switch Module (RSM) number.

`c` = UMBIL number.

`d` = Termination report. Valid values are:

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:UMBIL`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-110 *System Maintenance Requirements and Tools*

MCC Display Page(s):

1740,xxx,yyy (HOST UMBILICALS (1 - 10))
1741,xxx,yyy (HOST UMBILICALS (11 - 20))

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RST:UTD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST UTD=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:UTD input message to restore a universal tone decoder (UTD) board to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local digital service unit (DSU) number.

`c` = Service group number.

`d` = DSU board position number.

`e` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

If a RST message fails, an alarm will indicate the effect to the office.
No alarm = No effect
*Minor = Small reduction in traffic capability
**Major = A problem exists and is denying customer service or causing a 25-50% reduction in traffic capability.
*C Critical = A problem exists and is denying customer service or causing at least a 50% reduction in traffic capability.

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6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RST:UTD
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:UTG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RST UTG=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of executing a RST:UTG input message to restore a universal tone generator (UTG) board to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Local digital service unit (DSU) number.

`c` = Service group number.

`d` = DSU board position number.

`e` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

If a RST message fails, an alarm will indicate the effect to the office.
No alarm = No effect
*Minor = Small reduction in traffic capability
**Major = A problem exists and is denying customer service or causing a 25-50% reduction in traffic capability.
*C Critical = A problem exists and is denying customer service or causing at least a 50% reduction in traffic capability.

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6. REFERENCES

Input Message(s):

```
OP:OFFNORM-SM
RST:UTG
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

RST:VT1FAC-A

Software Release: 5E10 - 5E11
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST VT1FAC=a-b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Indicates the result of an attempt to restore a digital networking unit - synchronous optical network (DNU-S) virtual tributary level 1 facility (VT1FAC) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = Synchronous transport signal facility number.

`e` = VT1FAC number.

`f` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action was not started.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:VT1FAC`

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Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1511 (DNUS STS)

RST:VT1FAC-B

Software Release: 5E12 only
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST VT1FAC=a-b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Indicates the result of an attempt to restore a digital networking unit - synchronous optical network (DNU-S) virtual tributary level 1 facility (VT1FAC) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = Synchronous transport signal facility number.

`e` = VT1FAC number.

`f` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action was not started.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`RST:VT1FAC`

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Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1511 (DNUS STS MAINTENANCE)

RST:VT1FAC-C

Software Release: 5E13 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
RST VT1FAC=a-b-c-d-e-f-g h [i]
```

2. REASON FOR OUTPUT

Indicates the result of an attempt to restore a digital networking unit - synchronous optical network (DNU-S) virtual tributary level 1 facility (VT1FAC) to service.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital Networking Unit - SONET (DNU-S) number.

`c` = Data group (DG) number.

`d` = SONET Termination Equipment (STE) facility number.

`e` = Synchronous Transport Signal (STS) facility number.

`f` = Virtual tributary group (VTG) number.

`g` = Virtual tributary member (VTM) number.

`h` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action was not started.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`i` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTIONS TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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RST:VT1FAC

Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1511 (DNUS STS MAINTENANCE)

98. RSTRT

RSTRT:RPC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
RSTRT RPC ERR
  PIO CMD a IN RSTRT RPC FAILED, RPCNb 0
```

2. REASON FOR OUTPUT

To report that, during a restart of the ring peripheral controller (RPC), a program I/O was sent to the node processor of an RPC after the channel is properly reinitialized. The RPC restart is part of RPC fault recovery action.

3. VARIABLE FIELD DEFINITIONS

`a` = Program I/O message, in hexadecimal. Valid value(s):
- `2e` = Restart an RPC by reinitializing RTX.
- `26` = Command an RPC to retry an AM direct memory access (DMA).
- `36` = Command an RPC to clear an AM DMA.

`b` = Ring node (RN) group number.

4. ACTION TO BE TAKEN

Run diagnostics to see if there is any problem with the hardware.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
REPT:RPC-INIT
```

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99. SCHED

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SCHED:APT

Software Release: 5E10 and later
Message Class: ATL
Application: 5
Type: Output

1. FORMAT

```
SCHED APT TIME a:b DUR c TKGMN d e
```

2. REASON FOR OUTPUT

To report the manually requested scheduling of trunk automatic progression testing (APT) at a specified time for a specified duration.

3. VARIABLE FIELD DEFINITIONS

a	= Hours after midnight that testing is to be started.
b	= Minutes after the hour that testing is to be started.
c	= Number of hours test is to be run.
d	= Trunk group of the first trunk to be tested.
e	= Trunk group member number of the first trunk to be tested.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
SCHED:APT
```

Other Manual(s):
235-900-101 *Technical Specification and System Description*

SCHED:ECDAUD

Software Release: 5E10 and later
Message Class: AUDIT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      SCHED ECDAUD COMPLETED

[2]   ____________________________________________________________________
      SCHED ECDAUD ABORTED - SYSTEM ERROR a
```

2. REASON FOR OUTPUT

To report the termination status of the SCHED:ECDAUD input message.

Format 1 indicates successful execution. No action is necessary. Format 2 indicates that an internal error has occurred. Refer to variable 'a' for more information.

3. VARIABLE FIELD DEFINITIONS

a = System error number. Valid value(s):

- 1 = Cannot open audit rule file - /lla/ECDAUD/ecdaud.rules.
- 2 = Cannot attach to ECD database.
- 3 = Unable to kill running audit, check PID in /lla/ECDAUD/.ecdaud id.
- 4 = Bad rule in rule file (/lla/ECDAUD/ecdaud.rules).
- 5 = Unable to audit data (/lla/ECDAUD/ecdaud.rules).
- 6 = Failure in reading ECD database.
- 7 = Cannot open audit rule file - /lla/ECDAUD/hwchk.rules.
- 8 = Failed to obtain current status.
- 9 = Internal system error.
- 10 = Database partition greater than 80% full, remove unused files.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual request of the SCHED:ECDAUD input message. No further action is necessary.

5. ALARMS

Minor if system error was encountered.

6. REFERENCES

Input Message(s):

```
EXC:ECDAUD
STOP:ECDAUD
```

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```
INH:ECDAUD
ALW:ECDAUD
OP:ECDAUD
SCHED:ECDAUD
```

Other Manual(s):
235-100-125 *System Description*
235-105-210 *Routine Operations and Maintenance Procedures*

SCHED:FACR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      SCHED FACR COMPLETED
        FACR SCHEDULED FOR a/b c:00

[2]   ____________________________________________________________________
      SCHED FACR NOT SCHEDULED
        REQUESTED HOUR OUTSIDE FACR EXECUTION WINDOW
        PERMITTED HOURS (0-5 , 18-23)
```

2. REASON FOR OUTPUT

To report the time the feature activation counting and reconciliation (FACR) audit has been scheduled for.

3. VARIABLE FIELD DEFINITIONS

`a` = Month FACR is scheduled for (1-12).

`b` = Day of the month FACR is scheduled for (1-31).

`c` = Hour of the day FACR is scheduled for (0-5, 18-23).

4. ACTION TO BE TAKEN

This message is printed out in response to a manual request of the SCHED:FACR input message. No further action is necessary if the request completed successfully.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DEL:FACR
OP:FACR
SCHED:FACR
```

Other Manual(s):
235-040-100 *OA&M Planning Guide*
235-100-125 *System Description*

100. SET

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SET:ALINK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
SET ALINK=a-b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To report the results of a previous SET:ALINK input message for a line unit model 2 (LU2) or a line unit model 3 (LU3).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Grid number.

`d` = Grid board number.

`e` = Link number.

`f` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination is immediate. Consistency of hardware and data is questionable.
- `COMPLETED` = Requested action was terminated after successful completion.
- `NOT STARTED` = Requested action was terminated before a normal completion but hardware status and data are consistent.

`g` = Additional information qualifying the termination report.

4. ACTION TO BE TAKEN

If '`f`' =	**Action:**
`ABORTED`	Determine the cause from the other SM related messages on the read-only printer (ROP).
`COMPLETED`	No action is required.
`NOT STARTED`	Analyze the variable '`g`' to determine the cause.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`SET:ALINK`

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SET:ALMMDE-A

Software Release: 5E10 - 5E11
Message Class: BPSC
Application: 5
Type: Output

1. FORMAT

[1]
```
SET ALMMDE=a d
```

[2]
```
SET ALMMDE=a b SM=c d
```

[3]
```
SET ALMMDE=a RAS SITE=e d
```

2. REASON FOR OUTPUT

To provide a termination report in response to a request to set the host or remote site alarm retire mode (ALMMDE) to either automatic or manual. Format 2; is available only in a multimodule remote switching module (RSM) that has the alarm output option. Format 3; is for remote integrated services line unit (RISLU) sites equipped with a RISLU link adapter unit (LAU) remote alarm section (RAS).

3. VARIABLE FIELD DEFINITIONS

a = New alarm retire mode. Valid value(s):

- AUTO = Automatic retire mode. Audible alarms will retire automatically in five seconds or when manually retired, whichever occurs first. For remote BLDG/PWR MSU scan points (RBPSC) and RISLU RAS, audible alarms will retire automatically in five seconds to five minutes or when manually retired, whichever occurs first.
- MAN = Manual retire mode. Critical and major audibles will sound until manually retired. At a Master Control Center (MCC), use the alarm retire function key to retire alarms. For remote BLDG/PWR MSU scan points (RBPSC) and RISLU RAS, the critical, major, and minor audibles will sound until manually retired or the alarm retire mode is set to AUTO. At a remote site, press the alarm retire button on the remote alarm and status panel.

b = New alarm type. Valid value(s):

- RBPSC = RSM building/power metallic service units scan points.
- RIBMSC = RISLU building/miscellaneous scan points.

c = Switching module (SM) number.

d = Termination report. Valid value(s):

```
ABORTED
COMPLETED
NOT STARTED
```

e = RISLU site number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
SET:ALMMDE
```

Output Message(s):

```
REPT:ALMMDE
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

105,106 (BLDG/POWER AND ALARM CNTRLS)
1400,X (RSM BLDG/PWR ALARMS)
1420,SZ (RISLU BLDG/PWR ALARMS)
1630 (RISLU SITE INDEX)

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SET:ALMMDE-B

Software Release: 5E12 and later
Message Class: BPSC
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      SET ALMMDE=a c

[2]   ____________________________________________________________
      SET ALMMDE=a RBPSC SM=b c

[3]   ____________________________________________________________
      SET ALMMDE=a RAS SITE=d c
```

2. REASON FOR OUTPUT

To provide a termination report in response to a request to set the host or remote site alarm retire mode (ALMMDE) to either automatic or manual. Format 1 is for the local office. Format 2 is for remote switching module (RSM), optical remote module (ORM), or two-mile remote module (TRM) sites with the alarm output option. Format 3 is for remote peripheral sites with a remote alarm section (RAS).

3. VARIABLE FIELD DEFINITIONS

`a` = New alarm retire mode. Valid value(s):

- `AUTO` = Automatic retire mode. At the local office, audible alarms will retire automatically in eight seconds or when manually retired-- whichever occurs first. At an RSM, ORM, TRM, or remote peripheral site, audible alarms will retire automatically in five seconds to five minutes or when manually retired--whichever occurs first.
- `MAN` = Manual retire mode. At the local office, critical and major audibles will sound until manually retired. At a control/display terminal, use the alarm retire function key to retire alarms. At RSM, ORM, TRM, or remote peripheral sites, the critical, major, and minor audibles will sound until manually retired by pressing the alarm retire button on the remote alarm and status panel.

`b` = Switching module (SM) number.

`c` = Termination report. Valid value(s):

```
ABORTED
COMPLETED
NOT STARTED
```

`d` = Remote peripheral site number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
SET:ALMMDE
```

Output Message(s):

```
REPT:ALMMDE
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

105/106 (BLDG/POWER AND ALARM CNTRLS)
1400 (RSM BLDG/PWR ALARMS)
1420 (RAS ALARMS)

SET:ARC

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
SET ARC OFFICE=a TYPE=b TRAFFIC=c RTNANN=d  e
```

2. REASON FOR OUTPUT

To respond to input message SET:ARC which adds (sets) or modifies an alternate route cancellation (ARC) control.

3. VARIABLE FIELD DEFINITIONS

`a` = Office name.

`b` = Control type to be modified or installed. Valid value(s):

- `CANF` = Cancel from. Cancels calls that terminate in a given adjacent office but could not complete with the direct route. This control restricts traffic from overflowing to its alternate.
- `CANT` = Cancel to. Causes traffic to skip its alternate route through the given office. This control forces calls that do not terminate at the given office to skip the direct trunk groups to that office.

`c` = Type of traffic subjected to the control. Valid value(s):

- `ALL` = All levels of precedence.
- `RTN` = Traffic at routine level.

`d` = Announcement treatment if blocking occurs for routine (RTN) traffic only (refer to variable '`c`'). Valid value(s):

- `EANN1` = Emergency announcement 1.
- `EANN2` = Emergency announcement 2.
- `NCA` = No circuit announcement.

Note: For precedence calls, (that is, flash override, flash, immediate, priority) the announcement treatment is always the blocked precedence announcement.

`e` = Termination report. Valid value(s):

- `ABORTED` = Command aborted. System error encountered.
- `COMPLETED` = Command successfully completed.
- `FAILED-PARAMETER` = Command failed. Input parameter error.

4. ACTION TO BE TAKEN

If the termination status is `COMPLETED`, the message is confirmation of a request from a SET:ARC input message.

If the termination status is `FAILED-PARAMETER`, check for the validity of input parameters and reinitiate the corrected request.

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If the termination status is `ABORTED`, reinitiate the request after the system error has been recovered. This termination could result because the system audits have found errors in the ARC control and corrective action is in progress.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:ARC
OP:ARC
SET:ARC
```

Other Manual(s):

235-900-113 Product Specification

MCC Display Page(s):

129 (DSN EXCEPTION)
109 (OVERLOAD)

SET:CGAP

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
SET CGAP CODE=a PREFIX=b DOM={ALL|c} GAP=d ANN=e f
```

2. REASON FOR OUTPUT

To report the addition or modification of a call gapping code control.

3. VARIABLE FIELD DEFINITIONS

`ALL` = The code control was applied to all domains.

`a` = Destination code (the dialing number) gapped, or a string of dashes if not applicable.

`b` = Access prefix gapped. If the carrier is not specified, the prefix field will be blank or contain "-". The access prefix only applies to feature group D carriers.

`c` = Switching domain list.

`d` = Gap interval. Valid value(s):

`.0`	= No control was applied, but measurements were collected.
`.1`	= 0.10 sec.
`.12`	= 0.12 sec.
`.14`	= 0.14 sec.
`.16`	= 0.16 sec.
`.18`	= 0.18 sec.
`.2`	= 0.20 sec.
`.25`	= 0.25 sec.
`.36`	= 0.36 sec.
`.5`	= 0.50 sec.
`.6`	= 0.60 sec.
`.75`	= 0.75 sec.
`1`	= 1.0 sec.
`1.6`	= 1.6 sec.
`2`	= 2.0 sec.
`3`	= 3.0 sec.
`5`	= 5.0 sec.
`6`	= 6.0 sec.
`9`	= 9.0 sec.
`10`	= 10.0 sec.
`12`	= 12.0 sec.
`15`	= 15.0 sec.
`20`	= 20.0 sec.
`30`	= 30.0 sec.
`45`	= 45.0 sec.
`60`	= 60.0 sec.
`75`	= 75.0 sec.

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100	= 100.0 sec.
120	= 120.0 sec.
150	= 150.0 sec.
300	= 300.0 sec.
450	= 450.0 sec.
600	= 600.0 sec.
INF	= Infinity, block all but one call.

e = Announcement (ANN) treatment if blocking occurred. Valid value(s):

EANN1	= Emergency announcement 1.
EANN2	= Emergency announcement 2.
NCA	= "NO CIRCUIT" announcement.

f = Termination report. Valid value(s):

ABORTED	= Message aborted. System error encountered.
COMPLETED	= Message successfully completed.
FAILED-OVERFLOW	= Message failed. Maximum control limit reached.
FAILED-PARAMETER	= Message failed. Input parameter error.

4. ACTION TO BE TAKEN

No action is needed for an automatically generated request from the Remote Network Management Center (RNMC). These messages are to be treated as information-only messages. For manually generated requests, the following actions will apply.

If 'f' =	**Action:**
ABORTED	Re-initiate the request after the system error has been recovered.
COMPLETED	The message is confirmation of a request from an input message or from the RNMC.
FAILED-OVERFLOW	Refer to the Feature Description manual for the maximum allowable controls and reinitiate the corrected request.
FAILED-PARAMETER	Check for the validity of input parameters and reinitiate the corrected request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CGAP
SET:CGAP
```

Other Manual(s):
235-190-100 *Feature Description*
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

109 (OVERLOAD)

130 (NM EXCEPTION)

SET:CLK-A

Software Release: 5E10 - 5E13
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      SET CLK COMPLETED
        a b

[2]   ____________________________________________________________________
      SET CLK STOPPED
        c

[3]   ____________________________________________________________________
      SET CLK COMPLETED
        a b
        WARNING - ONLY THE AM CLOCK HAS BEEN UPDATED
        IT MAY AUTOMATICALLY BE RESET LATER TO AGREE WITH THE SYSTEM TIME
```

2. REASON FOR OUTPUT

To report the result of executing a SET:CLK input message to set the date and time.

3. VARIABLE FIELD DEFINITIONS

a = Date.

b = Time.

c = Text explaining why the input message was stopped.

4. ACTION TO BE TAKEN

Format 1 indicates successful execution. Take no action.

If Format 2 is printed, correct any input message line errors and reissue the input message. If the error message is not self-explanatory, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Format 3 should be printed only when the SET:CLK input message is executed on a machine running in MIN-CONFIG mode. Although Format 1 is normally printed to indicate successful execution of the input message, Format 3 may be printed under certain conditions. If the machine is running in application mode, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. Otherwise, the SET:CLK input message may need to be re-executed after the machine is rebooted in application mode.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1, 3	287
2	283

Input Message(s):

```
SET:CLK-5
OP:CLK
```

Output Message(s):

```
OP:CLK
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

SET:CLK-B

Software Release: 5E14 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      SET CLK COMPLETED
        a b

[2]   ____________________________________________________________
      SET CLK STOPPED
        c

[3]   ____________________________________________________________
      SET CLK COMPLETED
        a b
        WARNING - ONLY THE AM CLOCK HAS BEEN UPDATED
        IT MAY AUTOMATICALLY BE RESET LATER TO AGREE WITH THE SYSTEM TIME
```

2. REASON FOR OUTPUT

To report the result of executing a SET:CLK input message to set the date and time.

3. VARIABLE FIELD DEFINITIONS

a = Date.

b = Time.

c = Text explaining why the input message was stopped.

4. ACTIONS TO BE TAKEN

Format 1 indicates successful execution. Take no action.

If Format 2 is printed, correct any input message line errors and reissue the input message. If the error message is not self-explanatory, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Format 3 should be printed only when the SET:CLK input message is executed on a machine running in MIN-CONFIG mode. Although Format 1 is normally printed to indicate successful execution of the input message, Format 3 may be printed under certain conditions. If the machine is running in application mode, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. Otherwise, the SET:CLK input message may need to be re-executed after the machine is rebooted in application mode.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

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OMDB Key(s):

Format(s):	Key(s):
1, 3	287
2	283

Input Message(s):

```
SET:CLK-5
OP:CLK
```

Output Message(s):

```
OP:CLK
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

SET:CLK-5

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
SET CLK COMPLETED
  OLD TIME  a b c d:e:f g h
  NEW TIME  a b c d:e:f g h
```

2. REASON FOR OUTPUT

To report the result of executing a SET:CLK-5 input message to set the date and time on the switch.

3. VARIABLE FIELD DEFINITIONS

a	= Abbreviated name of day.
b	= Abbreviated name of month.
c	= Day.
d	= Hour.
e	= Minute.
f	= Second.
g	= Time zone.
h	= Year.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CLK
SET:CLK-5
```

Output Message(s):

```
OP:CLK
```

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SET:DCC

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
SET DCC CODE a GAP b TRAFFIC c ANN d  e
```

2. REASON FOR OUTPUT

To report the addition or modification of a destination code cancellation (DCC) control.

3. VARIABLE FIELD DEFINITIONS

`a` = Destination code.

`b` = Gap interval. Valid value(s):

`0`	= No control but collect measurements.
`PT1`	= 0.10 sec.
`PT25`	= 0.25 sec.
`PT5`	= 0.50 sec.
`1`	= 1.0 sec.
`2`	= 2.0 sec.
`5`	= 5.0 sec.
`10`	= 10.0 sec.
`15`	= 15.0 sec.
`30`	= 30.0 sec.
`60`	= 1.0 min.
`120`	= 2.0 min.
`300`	= 5.0 min.
`600`	= 10 min.
`INF`	= Infinity, block all but one call.

`c` = Traffic type subjected to the control. Valid value(s):

`ALL`	= All levels of precedence.
`RTN`	= Traffic at routine level.

`d` = Announcement treatment if blocking occurs. Valid value(s):

`EANN1`	= Emergency announcement 1.
`EANN2`	= Emergency announcement 2.
`ICA`	= Isolated code announcement.
`NCA`	= No circuit announcement.

`e` = Termination report. Valid value(s):

`ABORTED`	= Command aborted. System error encountered.
`COMPLETED`	= Command successfully completed.
`FAILED-OVERFLOW`	= Command failed. Maximum control limit reached.
`FAILED-PARAMETER`	= Command failed. Input parameter error.

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4. ACTION TO BE TAKEN

If the termination status is `COMPLETED`, the message is confirmation of a request from a SET:DCC input message.

If the termination status is `FAILED-PARAMETER`, check for the validity of the input parameters and reinitiate the corrected request.

If the termination status is `ABORTED`, reinitiate the request after the system error has been recovered.

If the termination status is `FAILED-OVERFLOW`, refer to the Technical Specification Volume 2 manual, for maximum allowable controls and reinitiate the request when resources become available.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:DCC
SET:DCC
```

Other Manual(s):
235-900-113 *Product Specification*

MCC Display Page(s):

109 (OVERLOAD)
129 (DSN EXCEPTION)

SET:DSNM5-A

Software Release: 5E10 - 5E11
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
SET DSNM5 PKG=a b
```

2. REASON FOR OUTPUT

To report the addition of a package to the five minute (M5) package list.

3. VARIABLE FIELD DEFINITIONS

`a` = Package name. Valid value(s):

`ARC`	= Alternate route cancellation control.
`CLCT`	= Network management control count.
`CLDIR`	= Call direction.
`DCC`	= Destination code cancellation control.
`DLYR`	= Delayed readiness.
`IMA`	= Additional ineffective machine attempts.
`MLNC`	= Failure to match and no circuit.
`OVRLD`	= Overload or congestion control.
`SVC`	= Critical service circuit.
`TGMEAS`	= Basic trunk group measurements.

`b` = Termination status. Valid value(s):

`ABORTED`	= Command aborted. System error encountered.
`COMPLETED`	= Command successfully completed.
`FAILED-PARAMETER`	= Command failed. Input parameter error.

4. ACTIONS TO BE TAKEN

If the termination status is `COMPLETED`, the message is confirmation of a request from a SET:M5-PKG input message.

If the termination status is `ABORTED`, reinitiate the request after the system error has been recovered.

If the termination status is `FAILED-PARAMETER`, check for the validity of the input parameters and reinitiate the corrected request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
CLR:DSNM5
OP:M5PKG
SET:DSNM5
```

Other Manual(s):
235-900-113 *Product Specification*

MCC Display Page(s):

109 (OVERLOAD)
129 (DSN EXCEPTION)

SET:DSNM5-B

Software Release: 5E12 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
SET DSNM5 PKG=a b
```

2. REASON FOR OUTPUT

To report the addition of a package to the five minute (M5) package list.

3. VARIABLE FIELD DEFINITIONS

`a` = Package name. Valid value(s):

`ARC`	= Alternate route cancellation control.
`CLCT`	= Network management control count.
`CLDIR`	= Call direction.
`DCC`	= Destination code cancellation control.
`DLYR`	= Delayed readiness.
`IMA`	= Additional ineffective machine attempts.
`OVRLD`	= Overload or congestion control.
`RRC`	= Manual reroute trunk group controls.
`SVC`	= Critical service circuit.
`TGFLAG`	= Trunk group flags.
`TGMEAS`	= Basic trunk group measurements.

`b` = Termination status. Valid value(s):

`ABORTED`	= Command aborted. System error encountered.
`COMPLETED`	= Command successfully completed.
`FAILED-PARAMETER`	= Command failed. Input parameter error.

4. ACTIONS TO BE TAKEN

If the termination status is `COMPLETED`, the message is confirmation of a request from a SET:DSNM5 input message.

If the termination status is `ABORTED`, reinitiate the request after the system error has been recovered.

If the termination status is `FAILED-PARAMETER`, check for the validity of the input parameters and reinitiate the corrected request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:DSNM5
OP:M5PKG
SET:DSNM5
```

Other Manual(s):
235-900-113 *Product Specification*

MCC Display Page(s):

109 (OVERLOAD)
129 (DSN EXCEPTION)

SET:ESA

Software Release: 5E10 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
SET ESA
  a
 [PRIMARY ESA:     APID=b STATE=c HEALTH=d]
 [SECONDARY ESA:   APID=b STATE=c HEALTH=d]
```

2. REASON FOR OUTPUT

Response to the SET:ESA input message that reports the results of the requested action and current status of the primary and secondary enhanced 911 emergency service adjuncts (ESAs). This message could also indicate that the request has timed out.

3. VARIABLE FIELD DEFINITIONS

`a` = Informational text describing results of requested action. Valid value(s):

`FORCED ACTIVE REQUEST COMPLETED` = The request to make an ESA forced active has completed. The current status will be printed.

`FORCED ACTIVE REQUEST DENIED` = The request to make the inactive ESA forced active has been denied. This can only happen if the other ESA is already forced active. The force on that ESA must be cleared before another request can be done. The current status will be printed.

`MANUAL SWITCH COMPLETED` = The request to make an ESA active has completed. The current status will be printed.

`MANUAL SWITCH REQUEST DENIED` = The request to make an ESA active was not done. The current status will be printed.

`NO INFORMATION TEXT` = The informational text was not set correctly in the message. This should be reported as a problem.

`REQUEST HAS TIMED OUT` = The request for information has timed out and no information will be printed.

`REQUESTED ESA IS ALREADY ACTIVE` = The ESA to be made active was already active. The current status will be printed.

`REQUESTED ESA IS ALREADY FORCED ACTIVE` = The ESA to be made active was already in the force active state. The current status will be printed.

`SWITCH DENIED - NO ESA TO SWITCH TO` = This should only be returned in a rare window condition when the secondary ESA is removed using RC/V and a manual request to make the secondary ESA active are done simultaneously. The current status will be printed.

`b` = Applications processor identifier (APID) of the ESA. If the APID for the ESA (GLE911APID or GLE911SEC office parameters) is 0, no data for that ESA will be printed.

`c` = Current state of the ESA. Valid value(s):

`ACTIVE` = The ESA is active and receiving queries.

`FORCED` = The ESA is in the forced active state and is receiving queries and cannot be switched to inactive until the force has been removed.

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	INACTIVE	= The ESA is not active and is not currently receiving queries.
d	= Current health value of the ESA. Valid value(s):	
	COMM LOST	= The switch is not currently able to send queries to the ESA.
	CRITICAL	= The ESA has a critical alarm.
	MAJOR	= The ESA has a major alarm.
	MINOR	= The ESA has a minor alarm.
	NORMAL	= The ESA is functioning normally with no alarms.
	UNKNOWN	= The health status of the ESA is unknown.

4. ACTION TO BE TAKEN

This message is printed in response to a SET:ESA input message. The actions to be taken will vary depending upon the informational text value.

The following informational text values indicate that the operation requested was completed or caused no change. No further actions are required for these responses.

```
FORCED ACTIVE REQUEST COMPLETED
MANUAL SWITCH COMPLETED
REQUESTED ESA IS ALREADY ACTIVE
REQUESTED ESA IS ALREADY FORCED ACTIVE
```

If the informational text value is FORCED ACTIVE REQUEST DENIED, the other ESA is already forced active. The force on that ESA must be cleared before another request can be done. To clear the force use the CLR:ESA input message with the FRC option.

If the informational text value is MANUAL SWITCH REQUEST DENIED, the request to make an ESA active was not done. This can be because the other ESA is forced active or is healthier. To complete the request, the force must be cleared, or the health of this ESA must be improved.

If the informational text value is REQUEST HAS TIMED OUT, retry the request later.

The informational text value SWITCH DENIED - NO ESA TO SWITCH TO, should only be returned in a rare window condition when the secondary ESA is removed using RC/V and a manual request to make the secondary ESA active are done simultaneously. If the secondary ESA was removed in error, it should be re-inserted using RC/V.

If the informational text value is NO INFORMATION TEXT, report this as a problem.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:ESA
OP:ESA
SET:ESA
```

Output Message(s):

```
CLR:ESA
OP:ESA
REPT:ESA
```

Other Manual(s):
235-900-303 *ISDN Applications Processor Interface Specification*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
24.7 [DSL APPLICATIONS PROCESSOR COMMUNICATION DATA]

SET:FRC-MSCU

Software Release: 5E10 and later
Message Class: MSGS
Application: 5
Type: Output

1. FORMAT

```
SET FRC MSCU=a b [c]
```

2. REASON FOR OUTPUT

To acknowledge a request to force the specified message switch control unit (MSCU) active.

3. VARIABLE FIELD DEFINITIONS

`a` = MSCU side.

`b` = Termination report. Valid value(s):
`COMPLETED` = Request completed successfully.
`STOPPED` = Request was terminated before a normal completion due to manual request, hardware failure, data inconsistency, etc.

`c` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual request. No further action is necessary if the request completed successfully. If the termination report is not `COMPLETED`, variable '`c`' should give some indication as to why the request failed. Check MSCU MCC pages or the OP:CFGSTAT output message to verify that the system was in a valid state to perform the request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:FRC-MSCU
OP:CFGSTAT
SET:FRC-MSCU
```

Output Message(s):

```
OP:CFGSTAT
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

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SET:FRC-NCOSC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
SET FRC NCOSC a [b]
```

2. REASON FOR OUTPUT

This message is a response to the SET:FRC-NCOSC input message.

3. VARIABLE FIELD DEFINITIONS

`NCOSC` = Network clock oscillator.

`a` = Network clock side.

`b` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion and the termination was immediate (no cleanup was done).
- `COMPLETED` = Request completed successfully.
- `IN PROGRESS` = Request was received and action is in progress.
- `STOPPED` = Request was terminated before a normal completion due to hardware failure, data inconsistency, or another problem.

`c` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

No action is necessary if the request completed successfully. If the request failed, the variable '`c`' should give some indication as to why the request failed. Check network clock MCC pages or the OP:CFGSTAT output message to verify that the NC was in a valid state to perform the request. Check the receive-only printer (ROP) for error messages using the REPT:NC output messages that may indicate problems or system reconfigurations.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:FRC-NCOSC
SET:FRC-NCOSC
```

Output Message(s):

```
OP:CFGSTAT
REPT:NC
```

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MCC Display Page(s):

(NETWORK CLOCK)

SET:FRC-ONTCCOM

Software Release: 5E10 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

```
SET FRC ONTCCOM=a b [c]
```

2. REASON FOR OUTPUT

To acknowledge a request to force the specified office network and timing complex common unit (ONTCCOM) active.

3. VARIABLE FIELD DEFINITIONS

`a` = ONTCCOM side.

`b` = Termination report. Valid value(s):

`COMPLETED`	= Request completed successfully.
`STOPPED`	= Request was terminated before a normal completion due to a manual request or failure.

`c` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual request. No further action is necessary if the request completed successfully.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CFGSTAT
SET:FRC-ONTCCOM
```

Output Message(s):

```
OP:CFGSTAT
```

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SET:FRC-TRCU3

Software Release: 5E12 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
SET FRC TRCU3=a-b-c f d [e]
```

2. REASON FOR OUTPUT

To acknowledge a request to force the specified transmission rate conversion unit - model III (TRCU3) path and side active.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = TRCU3 path (TRCUPATH). This is the TRCUPATH connecting host and remote TRCU3 circuits.

`c` = Side. This is the side of the communications module (CM), which the function pack is connected, that is desired to be forced active.

`d` = Termination report. Valid value(s):
- `COMPLETED` = Request completed successfully.
- `NOT STARTED` = Requested action could not begin.
- `STOPPED` = Request was terminated before a normal completion due to a failure.

`e` = Additional data qualifying the termination field. Refer to the APP:CM-OM-REASON appendix in the Appendixes section of the Output Messages manual for a list of these reasons and their meanings.

`f` = Location. Valid value(s):
- `HOST` = Refers to the TRCU3 at the host location which connects to the CM.
- `REMOTE` = Refers to the TRCU3 at the remote location which is connected to the optically remoted (switching) module (ORM).

4. ACTIONS TO BE TAKEN

This message is printed out in response to a manual request. No further action is necessary if the request completed successfully.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:FRC-TRCU3
```

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```
SET:FRC-TRCU3
```

Output Message(s):

```
CLR:FRC-TRCU3
```

Output Appendix(es):

```
APP:CM-OM-REASON
```

SET:HPRI

Software Release: 5E12 and later
Message Class: MAINT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      SET HPRI - HIGH PRIORITY TERMINAL FEATURE HAS BEEN ACTIVATED
        FOR a UNTIL b

[2]   ____________________________________________________________________
      SET HPRI - HIGH PRIORITY TERMINAL FEATURE CANNOT BE ACTIVATED
        IT IS CURRENTLY ACTIVE FOR a UNTIL b

[3]   ____________________________________________________________________
      SET HPRI - HIGH PRIORITY TERMINAL FEATURE ACTIVATION FAILED WITH c
```

2. REASON FOR OUTPUT

To respond to SET:HPRI input command.

Format 1 is printed when the feature is successfully activated. The terminal on which feature is active and the time when it will be deactivated is also provided.

Format 2 is printed when the feature could not be activated because the feature is already active from a previous request for a terminal. The terminal tty name on which feature is active and the time when it will be deactivated is also provided.

Format 3 is printed when the feature could not be activated because of an internal error code. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

3. VARIABLE FIELD DEFINITIONS

a = The terminal TTY name.

b = Date and Time when feature will be deactivated.

c = Internal error code. Possible values are:
- 3 = An invalid terminal name was received.
- 4 = Unable to successfully activate feature. Message failed.

4. ACTION TO BE TAKEN

For Format 3, if the input command has failed, try it again later.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
SET:HPRI
```

Output Message(s):

```
CLR:HPRI
OP:HPRI
```

Other Manual(s):
235-100-125 *System Description*

SET:IODRV

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      SET IODRV {COMPLETED|ABORTED}

[2]   ____________________________________________________________________
      SET IODRV NOT STARTED
        CONFLICT WITH CURRENT SYSTEM STATUS  a
```

2. REASON FOR OUTPUT

To report the result of executing a SET:IODRV input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Conflict with system status.

4. ACTION TO BE TAKEN

If the message reads `ABORTED`, the message could not be processed due to a conflict with the system status. The message will not be successfully processed until the system status changes. Check system status to determine why message aborted.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	159

Input Message(s):

`SET:IODRV`

Output Appendix(es):

`APP:OMDB-X-REF`

SET:ISOL-CM

Software Release: 5E10 and later
Message Class: MSGS
Application: 5
Type: Output

1. FORMAT

```
SET ISOL CM COMPLETED
```

2. REASON FOR OUTPUT

To report that a manual request to isolate the administrative module (AM) from the communication module (CM) has completed.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
SET:ISOL-CM
```

Output Message(s):

```
REPT:CM-ISOLATED
```

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SET:ISOL-SM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
SET ISOL SM=a[-b] c [d]
```

2. REASON FOR OUTPUT

To acknowledge a request to isolate one or more switching modules (SMs).

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = Upper limit of SMs in the range from variable '`a`' to variable '`b`' inclusive.

`c` = Termination report. Valid value(s):

- `ABORTED` = Requested action is terminated before a normal completion and the consistency of hardware states or data is questionable.
- `COMPLETED` = Request action is terminated after completion. If the host switching module (HSM) for a remote switching module (RSM) was isolated prior to the latest request, then the RSM will not be fully isolated (T1 link only) until the HSM is cleared from isolation.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action is terminated before a normal completion but consistency of hardware states and data is reliable.

`d` = Additional information qualifying the termination report. This may describe that no separation of an RSM in a multimodule RSM took place.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:ISOL-SM
SET:ISOL-SM
```

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SET:LUCHAN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
SET LUCHAN=a-b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To report the results of a previous SET:LUCHAN input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Service group number.

`d` = Channel board number.

`e` = Circuit number.

`f` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination is immediate. Consistency of hardware and data is questionable.
- `COMPLETED` = Requested action is terminated after successful completion.
- `NOT STARTED` = Requested action is terminated before a normal completion but hardware status and data are consistent.

`g` = Additional information qualifying the termination report.

4. ACTION TO BE TAKEN

If the termination report (variable '`f`') is `COMPLETED`, no action is required. If it is `NOT STARTED`, analyze the variable '`g`' to determine the cause. If it is `ABORTED`, determine the cause from the other SM related messages on the receive-only printer (ROP).

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`SET:LUCHAN`

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SET:M5-PKG-A

Software Release: 5E10 only
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
SET M5 PKG=a b
```

2. REASON FOR OUTPUT

To report the addition of a package to the set of five-minute (M5) surveillance data packages.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

a = Package. Valid value(s):

CCS	= Common channel signaling general service measurements.
CCSP	= Common channel signaling special service measurements.
CGAP	= Code control.
CLCT	= Network management control counts.
CLDIR	= Call direction.
DLYR	= Delayed readiness.
IECSST	= Inter-exchange carrier start signal timeout counts.
IECSTG	= Inter-exchange carrier shared trunk group counts.
IMA	= Additional ineffective machine attempts.
LN	= Leased network action point.
LNCU	= Leased network office-wide measurements for critical users.
LNNODE	= Leased network node-to-node measurements.
MLNC	= Failure to match and no circuit.
NS	= Number services.
OVRLD	= Overload or congestion control.
RRC	= Manual reroute trunk group controls.
SDN	= Action control point for software defined networks.
SVC	= Critical service circuit.
TGFLAG	= Trunk group flags.
TGMEAS	= Basic trunk group measurements.
WBTGMEAS	= Wideband trunk group measurements.

b = Termination status. Valid value(s):

ABORTED	= Command aborted. System error encountered.
COMPLETED	= Command successfully completed.
FAILED PARAMETER	= Command failed. Input parameter error.

4. ACTION TO BE TAKEN

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If 'b' =	Action:
ABORTED	Reinitiate the request.
COMPLETED	No action is needed. The message is confirmation of a request from an input message.
FAILED PARAMETER	Check for the validity of input parameters and reinitiate the corrected request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:M5
OP:M5
OP:M5PKG
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):
235-190-115 *Local and Toll System Features*

SET:M5-PKG-B

Software Release: 5E11 only
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
SET M5 PKG=a b
```

2. REASON FOR OUTPUT

To report the addition of a package to the set of five-minute (M5) surveillance data packages.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

`a` = Package. Valid value(s):

`ASPTF`	= Advanced services platform toll free counts.
`CCS`	= Common channel signaling general service measurements.
`CCSP`	= Common channel signaling special service measurements.
`CGAP`	= Code control.
`CLCT`	= Network management control counts.
`CLDIR`	= Call direction.
`DLYR`	= Delayed readiness.
`IECSST`	= Inter-exchange carrier start signal timeout counts.
`IECSTG`	= Inter-exchange carrier shared trunk group counts.
`IMA`	= Additional ineffective machine attempts.
`LN`	= Leased network action point.
`LNCU`	= Leased network office-wide measurements for critical users.
`LNNODE`	= Leased network node-to-node measurements.
`MLNC`	= Failure to match and no circuit.
`NS`	= Number services.
`OVRLD`	= Overload or congestion control.
`RRC`	= Manual reroute trunk group controls.
`SDN`	= Action control point for software defined networks.
`SVC`	= Critical service circuit.
`TGFLAG`	= Trunk group flags.
`TGMEAS`	= Basic trunk group measurements.
`WBTGMEAS`	= Wideband trunk group measurements.

`b` = Termination status. Valid value(s):

`ABORTED`	= Command aborted. System error encountered.
`COMPLETED`	= Command successfully completed.
`FAILED PARAMETER`	= Command failed. Input parameter error.
`FEATURE NOT AVAILABLE`	= Command aborted. Feature not installed.

4. ACTION TO BE TAKEN

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If 'b' =	Action:
ABORTED	Reinitiate the request.
COMPLETED	No action is needed. The message is confirmation of a request from an input message.
FAILED PARAMETER	Check for the validity of input parameters and reinitiate the corrected request.
FEATURE NOT AVAILABLE	This feature has not been install. Install feature and reinitiate the request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:M5
OP:M5
OP:M5PKG
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):
235-190-115 *Local and Toll System Features*

SET:M5-PKG-C

Software Release: 5E12 only
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
SET M5 PKG=a b
```

2. REASON FOR OUTPUT

To report the addition of a package to the set of five-minute (M5) surveillance data packages.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

`a` = Package. Valid value(s):

`ASPTF`	= Advanced services platform toll free counts.
`BNP`	= Basic number portability measurements.
`CCS`	= Common channel signaling general service measurements.
`CCSP`	= Common channel signaling special service measurements.
`CGAP`	= Code control.
`CLCT`	= Network management control counts.
`CLDIR`	= Call direction.
`DLYR`	= Delayed readiness.
`IECSST`	= Inter-exchange carrier start signal timeout counts.
`IECSTG`	= Inter-exchange carrier shared trunk group counts.
`IMA`	= Additional ineffective machine attempts.
`LN`	= Leased network action point.
`LNCU`	= Leased network office-wide measurements for critical users.
`LNNODE`	= Leased network node-to-node measurements.
`MLNC`	= Failure to match and no circuit.
`NS`	= Number services.
`OVRLD`	= Overload or congestion control.
`RRC`	= Manual reroute trunk group controls.
`SDN`	= Action control point for software defined networks.
`SVC`	= Critical service circuit.
`TGFLAG`	= Trunk group flags.
`TGMEAS`	= Basic trunk group measurements.
`WBTGMEAS`	= Wideband trunk group measurements.

`b` = Termination status. Valid value(s):

`ABORTED`	= Command aborted. System error encountered.
`COMPLETED`	= Command successfully completed.
`FAILED PARAMETER`	= Command failed. Input parameter error.
`FEATURE NOT AVAILABLE`	= Command aborted. Feature not installed.

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4. ACTIONS TO BE TAKEN

If 'b' =	Action:
ABORTED	Reinitiate the request.
COMPLETED	No action is needed. The message is confirmation of a request from an input message.
FAILED PARAMETER	Check for the validity of input parameters and reinitiate the corrected request.
FEATURE NOT AVAILABLE	This feature has not been install. Install feature and reinitiate the request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:M5
OP:M5
OP:M5PKG
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):
235-190-115 *Local and Toll System Features*

SET:M5-PKG-D

Software Release: 5E13 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
SET M5 PKG=a b
```

2. REASON FOR OUTPUT

To report the addition of a package to the set of five-minute (M5) surveillance data packages.

Refer to the APP:MEASUREMENTS appendix in the Appendixes section of the Output Messages manual for additional information.

3. VARIABLE FIELD DEFINITIONS

`a` = Package. Valid value(s):

`ASPTF`	= Advanced services platform toll free counts.
`BNP`	= Basic number portability measurements.
`CCS`	= Common channel signaling general service measurements.
`CCSP`	= Common channel signaling special service measurements.
`CGAP`	= Code control.
`CLCT`	= Network management control counts.
`CLDIR`	= Call direction.
`DLYR`	= Delayed readiness.
`GETSHPC`	= Government emergency telecommunications service high probability of call completion.
`HPCTG`	= High probability of call completion trunk group.
`IECSST`	= Inter-exchange carrier start signal timeout counts.
`IECSTG`	= Inter-exchange carrier shared trunk group counts.
`IMA`	= Additional ineffective machine attempts.
`LN`	= Leased network action point.
`LNCU`	= Leased network office-wide measurements for critical users.
`LNNODE`	= Leased network node-to-node measurements.
`MLNC`	= Failure to match and no circuit.
`NS`	= Number services.
`OVRLD`	= Overload or congestion control.
`RRC`	= Manual reroute trunk group controls.
`SDN`	= Action control point for software defined networks.
`SVC`	= Critical service circuit.
`TGFLAG`	= Trunk group flags.
`TGMEAS`	= Basic trunk group measurements.
`WBTGMEAS`	= Wideband trunk group measurements.

`b` = Termination status. Valid value(s):

`ABORTED`	= Command aborted. System error encountered.
`COMPLETED`	= Command successfully completed.
`FAILED PARAMETER`	= Command failed. Input parameter error.

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`FEATURE NOT AVAILABLE` = Command aborted. Feature not installed.

4. ACTIONS TO BE TAKEN

If 'b' =	Action:
ABORTED	Reinitiate the request.
COMPLETED	No action is needed. The message is confirmation of a request from an input message.
FAILED PARAMETER	Check for the validity of input parameters and reinitiate the corrected request.
FEATURE NOT AVAILABLE	This feature has not been install. Install feature and reinitiate the request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:M5
OP:M5
OP:M5PKG
```

Output Appendix(es):

```
APP:MEASUREMENTS
```

Other Manual(s):
235-190-115 *Local and Toll System Features*

SET:MCCSTAT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
SET:MCCSTAT:PG=aaaaaa;{OK|RL|NG}
```

2. REASON FOR OUTPUT

To inform the user that information for the switching module (SM) master control center (MCC) display has been requested.

3. VARIABLE FIELD DEFINITIONS

a	= SM MCC page name.
NG	= Requested unit does not exist.
OK	= Information requested.
RL	= Request will be made later.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

IM/OM Reference(s):

None.

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SET:MCTSI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
SET MCTSI=a b
```

2. REASON FOR OUTPUT

To provide the result of the SET:MCTSI input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Results of the input message. Valid value(s):
`COMPLETED` = Force was applied or a force was in effect.
`STOPPED FAULT-STATUS UNKNOWN` = Error detected during central processor intervention (CPI) transmission.
`STOPPED STATUS UNKNOWN` = The message was sent to the SM and no response was received.
`STOPPED TIMEOUT` = The message interface (MI) was unable to process the request.

4. ACTION TO BE TAKEN

For "`STOPPED FAULT-STATUS UNKNOWN`", refer to the Master Control Center (MCC) pages listed in the References to determine the status. If repeating the input message fails to help, then run diagnostics on the office network and timing complex (ONTC) and module controller/time slot interchange (MCTSI) to determine the problem.

For "`STOPPED STATUS UNKNOWN`", refer to MCC pages listed in the references to determine status. Repeat the input message if necessary.

For "`STOPPED TIMEOUT`", refer to MCC pages listed in the references to determine status. Repeat the input message if necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
SET:MCTSI
```

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-105-110 *System Maintenance Requirements and Tools*
235-105-24x *Generic Retrofit Procedures*

235-105-34x *Generic Update Procedures*
235-105-250 *System Recovery*

MCC Display Page(s):

1190 (MCTSI/DLI)
1190 (MCTSI/RLI)
1800 (INHIBIT AND RECOVERY CONTROL)

SET:MON

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
SET MON {WTD|DATA|FCN|SPEC}{AM|SM=a|CMP=b-c}{ABORTED|COMPLETED}
```

2. REASON FOR OUTPUT

To respond to a SET:MON-WTD, SET:MON-DATA, SET:MON-FCN or SET:MON-SPEC input message which initialized the operating system for distributed switching (OSDS) monitor's control data.

3. VARIABLE FIELD DEFINITIONS

AM	= Administrative module.
a	= Switching module (SM) number.
b	= Message switch side.
c	= Communications module processor (CMP) number.

4. ACTION TO BE TAKEN

If appropriate, correct the SET:MON-WTD, SET:MON-DATA, SET:MON-FCN or SET:MON-SPEC input messages. If there are successive failures, contact appropriate technical support.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:MON
INH:MON
OP:MON-CTL
OP:MON-DSP
OP:MON-PID
SET:MON-DATA
SET:MON-FCN
SET:MON-SPEC
SET:MON-WTD
```

Output Message(s):

```
ALW:MON
INH:MON
OP:MON-CTL
```

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```
OP:MON-DSP
OP:MON-PID
REPT:SIMON-FILE
```

SET:MWI

Software Release: 5E10 and later
Message Class: CP_RSP
Application: 5
Type: Output

1. FORMAT

```
SET MWI DN=a FNAME=b c
```

2. REASON FOR OUTPUT

To report the result of a message waiting indicator (MWI) activation request in response to a SET:MWI input message. If the request could not be processed, the message should be tried again later.

3. VARIABLE FIELD DEFINITIONS

`a` = Seven-digit DN.

`b` = Message Service System (MSS) feature name.

`c` = Result of the MWI activation request. Valid value(s):

`INVALID DN` = The directory number (DN) entered was not found in the office dialing plan.

`INVALID FEATURE` = The feature name entered or defaulted is one of the following error cases. Valid value(s):

- No MSS feature on DN entered.
- MSS feature not active.
- MSS feature does not have MWI option.
- Feature name entered is not an MSS feature.

`MWI ACTIVATED` = The MWI has been successfully activated.

`RETRY LATER: ODD BACKUP IN PROGRESS` = Office-dependent data (ODD) backup is in progress. No MWI activations or deactivations are allowed during an ODD backup.

`RETRY LATER: RESOURCES UNAVAILABLE` = Switch resources were not available to allow processing of the request.

`UNASSIGNED VISUAL MWI` = A visual MWI indicator was not assigned for the DN that is requesting MWI activation or deactivation.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`SET:MWI`

SET:NC

Software Release: 5E10 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

```
SET NC=a b c EVENT=d
```

2. REASON FOR OUTPUT

To acknowledge a manual request to set the network clock (NC) to specified mode of operation.

3. VARIABLE FIELD DEFINITIONS

`a` = Side of the office network and timing complex (ONTC) the network clock is on.

`b` = Network clock modes. Valid value(s):

`FAST`	= Fast start mode of phase lock operation.
`HOLD`	= Holdover mode - not phase locked.
`NORM`	= Normal mode of phase lock of a reference.
`PHASELOCK`	= Attempt phase lock of a reference.

`c` = Termination report. Valid value(s):

`COMPLETED`	= Request completed successfully.
`NOT STARTED`	= Requested action could not begin.
`STOPPED`	= Request was terminated before a normal completion.

`d` = Event number for the requested action.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual request. No special action is necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`SET:NC`

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SET:PB

Software Release: 5E10 and later
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
SET PB
  ID TYPE    STATUS
  a  b       c
```

2. REASON FOR OUTPUT

To print the results of the SET:PB input message requesting that 101test line calls cannot terminate at this trunk line work station (TLWS) or centralized trunk test unit (CTTU).

3. VARIABLE FIELD DEFINITIONS

`a` = Trunk work station (TWS) ID number.

`b` = Type of trunk work station. Valid value(s):
- `CTTU` = Centralized trunk test unit (CTTU).
- `LOCAL` = TLWS with local talk and monitor (T&M) phone.
- `REMOTE` = TLWS with remote T&M phone.

`c` = Action taken. Valid value(s):
- `INVALID ID NUMBER` = The TWS ID number is not known to the system. For TLWS positions, this means there is no TLWSR tuple for the position. For CTTU, there is no CTTU position.
- `NOT POSITION BUSY` = The TWS position has been marked as busy.
- `POSITION BUSY` = The TWS position already marked as busy.
- `RETRY LATER` = Try again later, unable to process the request.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:PB
OP:PB
SET:PB
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
14.0 (VERIFY 101 TEST LINE)

SET:PSLNK

Software Release: 5E11 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      SET PSLNK=a-b CH=c FS   [d] [e]

[2]   ____________________________________________________________________
      SET PSLNK=a-b  LP   [d] [e]
```

2. REASON FOR OUTPUT

To report the result of a SET:PSLNK input message.

3. VARIABLE FIELD DEFINITIONS

`FS` = Forced switch.

`LP` = Lock out of protection.

`a` = Near end community address of the packet switch unit (PSU) link (PSLNK).

`b` = Far end community address of the PSU link.

`c` = Channel number.

`d` = Termination status. Valid value(s):
- `ABORTED` = Requested action has aborted.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action has not been started.
- `STOPPED` = Requested action has stopped.

`e` = Additional information qualifying the termination status. Refer to the APP:PSU-RESP appendix in the Appendixes section of this Output Messages manual.

4. ACTION TO BE TAKEN

Try again later if response is other than `COMPLETED`. If a force switch (FS) input message has been denied because of an existent local FS on same link, clear (CLR:PSLNK) existent force before retrying input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`CLR:PSLNK`

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```
OP:ST-PSLNK
SET:PSLNK
```

Output Appendix(es):

```
APP:PSU-RESP
```

MCC Display Page(s):

1187 (PSU LINKS STATUS)

SET:RCLK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
SET RCLK=a-b c [d]
```

2. REASON FOR OUTPUT

To acknowledge a request to the input message SET:RCLK for setting the mode of the remote clock (RCLK) to the specified mode of operation.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RCLK side.

`c` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination is immediate. Consistency of hardware and data is questionable.
`COMPLETED`	= Requested action completed successfully.
`NOT STARTED`	= Requested action had not begun.
`STOPPED`	= Requested action is terminated before a normal completion, but consistency of hardware status and data is reliable.

`d` = Additional information qualifying the termination report.

4. ACTION TO BE TAKEN

If the termination report (variable '`c`') is `COMPLETED`, no action is required. If it is `NOT STARTED`, analyze variable '`d`' to determine the cause. If it is `STOPPED`, determine the cause from the remote clock (RCLK) messages on the receive-only printer (ROP).

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`SET:RCLK`

SET:RR

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
SET:RR TG=a ALG=b VIATO=d[d][d][d][d][d][d] j
  DRPCT=e ARPCT=f CICR=g PRR=h PIIT=i
  DL={ALL|k k k k k } DLTYPE=l
  VIARR=c[c][c][c][c][c][c]
```

2. REASON FOR OUTPUT

To report the adding or changing of a manual reroute (RR) trunk group control (TGC).

3. VARIABLE FIELD DEFINITIONS

`ALL` = Trunk group control was applied to all domains. (This option is only valid if variable '`l`' = INC.)

`a` = Trunk group number.

`b` = Hunting algorithm. Valid value(s):
- `ORD` = Ordered.
- `RGLR` = Regular.
- `SPRY` = Spray.

`c` = An ordered list of one to seven trunk group numbers representing the out-of-chain trunk groups.

`d` = Congestion signal ignored. Spray reroutes to trunk groups are allowed even when congestion signals have been received for those trunk groups. Valid value(s):
- `N` = No.
- `Y` = Yes.

`e` = Direct route percentage of traffic controlled. Valid value(s):
- `0` = No control, but collect measurements.
- `12PT5` = 12.5%.
- `25` = 25%.
- `37PT5` = 37.5%.
- `50` = 50%.
- `62PT5` = 62.5%.
- `75` = 75%.
- `87PT5` = 87.5%.
- `100` = 100%, block all direct route traffic.

`f` = Alternate route percentage of traffic controlled. Valid value(s):
- `0` = No control but collect measurements.
- `12PT5` = 12.5%.
- `25` = 25%.
- `37PT5` = 37.5%.

50 = 50%.
62PT5 = 62.5%.
75 = 75%.
87PT5 = 87.5%
100 = 100%, block all alternate route traffic.

g = Cancelled in-chain return option. Valid value(s):
N = No.
Y = Yes.

h = Indicates whether calls were rerouted that had been previously rerouted. Valid value(s):
N = No.
Y = Yes.

i = Indicates whether calls were rerouted that had originated internationally. Valid value(s):
N = No.
Y = Yes.

j = Termination status. Valid value(s):
ABORTED = Message aborted. System error encountered.
COMPLETED = Message successfully completed.
FAILED-OVERFLOW = Message failed. Maximum control limit reached.
FAILED-PARAMETER = Message failed. Input parameter error.

k = Switching domain list.

l = Switching domain list type. Valid value(s):
EXC = Exclude (Domains not in the list were controlled).
INC = Include (Domains in the list were controlled).

4. ACTION TO BE TAKEN

No action is needed for an automatically generated request from the Engineering and Administrative Data Acquisition System/network management (EADAS/NM). For manually generated requests, the following actions will apply.

If 'j' =	Action:
ABORTED	Reinitiate request.
COMPLETED	The message is confirmation of a request from an input message.
FAILED-OVERFLOW	Refer to the Feature Description manual for maximum allowable controls.
FAILED-PARAMETER	Check for the validity of input parameters and reinitiate the corrected request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
SET:RR
```

Other Manual(s):
235-190-100 *Feature Description*

MCC Display Page(s):

130 (NM EXCEPTION)

SET:RT-FAC

Software Release: 5E10 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
SET RT FAC=a-b {PROT|FELP} c [d]
```

2. REASON FOR OUTPUT

To respond to the SET:RT-FAC input message that either requested a switch to the protection (PROT) line or a far end loop around (FELP) be set for a particular remote terminal (RT) digital signal level one (DS1) facility (FAC).

3. VARIABLE FIELD DEFINITIONS

`a` = Site identification (SID) number.

`b` = RT DS1 FAC number.

`c` = Termination status. Valid value(s):
- `IN PROGRESS` = The message is in progress.
- `NOT STARTED` = The action is not started.
- `STOPPED` = The action terminated before a normal completion but the termination was graceful.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:RT-ALM-ALL
SET:RT-FAC
```

Output Message(s):

```
OP:RT-FAC-OFF
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

187x (IDCU FACILITY)
188xyy (IDCU REMOTE TERMINAL)

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SET:SSTROVRD

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
SET SSTROVRD a
```

2. REASON FOR OUTPUT

To report the override of the service selective trunk reservation (SSTR) per-trunk-group inhibits. This is a response to a SET:SSTROVRD input message.

3. VARIABLE FIELD DEFINITIONS

a = Termination status. Valid value(s):
`ABORTED` = Message failed. System error encountered.
`COMPLETED 1` = SSTR inhibits have been overridden.

4. ACTION TO BE TAKEN

No action is needed for an automatically generated request from the Remote Network Management Center (RNMC). For manually generated requests, the following actions will apply.

If the termination status is `COMPLETED`, the message is a confirmation of a request from an input message. No action is required.

If the termination status is `ABORTED`, reinitiate the request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SSTR
SET:SSTROVRD
```

Other Manual(s):
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

130 (NM EXCEPTION)

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SET:TGC

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
SET TGC TG=a CNTL=b DRPCT=c ARPCT=d ANN=e
    DL={ALL|g g g g g} DLTYPE=h f
```

2. REASON FOR OUTPUT

To report the adding or changing of a manual trunk group control (TGC).

3. VARIABLE FIELD DEFINITIONS

`ALL` = Trunk group control was applied to all domains. (This option is only valid if variable '`h`' = `INC`.)

`a` = Trunk group number.

`b` = Control type. Valid value(s):

`CANF`	= Manual cancel-from control.
`CANT`	= Manual cancel-to control.
`CRO`	= Manual cancel rerouted overflow control.
`SKIP`	= Manual skip control.

`c` = Direct route percentage of traffic controlled. Valid value(s):

`0`	= No control was applied, but measurements were collected.
`12PT5`	= 12.5%.
`25`	= 25%.
`37PT5`	= 37.5%.
`50`	= 50%.
`62PT5`	= 62.5%.
`75`	= 75%.
`87PT5`	= 87.5%.
`100`	= 100%, block all direct route traffic.

`d` = Alternate route percentage of traffic controlled. Valid value(s):

`0`	= No control was applied, but measurements were collected.
`12PT5`	= 12.5%.
`25`	= 25%.
`37PT5`	= 37.5%.
`50`	= 50%.
`62PT5`	= 62.5%.
`75`	= 75%.
`87PT5`	= 87.5%.
`100`	= 100%, block all alternate route traffic.

`e` = Announcement (ANN) treatment if blocking occurs. Valid value(s):

EANN1 = Emergency announcement 1.
EANN2 = Emergency announcement 2.
NCA = No circuit announcement.

f = Termination status. Valid value(s):
ABORTED = Termination of message. System error encountered.
COMPLETED = Message successfully completed.
FAILED-OVERFLOW = Message failed. Maximum control limit reached.
FAILED-PARAMETER = Message failed. Input parameter error.

g = Switching domain list.

h = Switching domain list type. Valid value(s):
EXC = Exclude (control domains not in the list).
INC = Include (control domains in the list).

4. ACTION TO BE TAKEN

No action is needed for an automatically generated request from the Engineering and Administrative Data Acquisition System/network administration (EADAS/NM). For manually generated requests, the following actions will apply.

If the termination status is ABORTED, reinitiate request.

If the termination status is COMPLETED, the message is confirmation of a request from an input message.

If the termination status is FAILED-OVERFLOW, refer to the Feature Description manual for maximum allowable controls.

If the termination status is FAILED-PARAMETER, check for the validity of input parameters and reinitiate the corrected request.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):
235-190-100 *Feature Descriptions*

MCC Display Page(s):

130 (NM EXCEPTION)

SET:TRACE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
SET TRACE a
 [b]
```

2. REASON FOR OUTPUT

To report the termination status of the SET:TRACE input message.

3. VARIABLE FIELD DEFINITIONS

a = Termination status. Valid value(s):
- ABT = The request is terminated before completion, and the termination was complete.
- COMPL = The request is successfully completed.
- STOPPED = The request was terminated before normal completion.

b = Valid value(s):

If 'a' =	'b' =
ABT	HANGUP SIGNAL RECEIVED INTERRUPT SIGNAL RECEIVED SOFTWARE TERMINATION SIGNAL RECEIVED TIMEOUT SIGNAL RECEIVED UNEXPECTED SIGNAL RECEIVED
STOPPED	IMS MESSAGE SWITCH CHANNEL BUSY IMS SUBSYSTEM DOWN = (Interprocessor message switch - IMS) IMS SUBSYSTEM OVERLOAD PROGRAM MALFUNCTION

4. ACTION TO BE TAKEN

If the termination status is ABT or STOPPED, try the SET:TRACE input message again. If the termination status is COMPL, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

ALW:TRACE
INH:TRACE
OP:TRACE
SET:TRACE

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Output Message(s):

```
ALW:TRACE
INH:TRACE
OP:TRACE
REPT:TRACE
```

SET:TRAP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      SET TRAP
        MTRP: SET TRAP COMPL; ID ASSIGNED; ID = a

[2]   ____________________________________________________________________
      SET TRAP
        MTRP: SET TRAP FAILED;{b|c}
```

2. REASON FOR OUTPUT

To respond to a SET:TRAP input message.

Format 1 prints when the SET:TRAP input message has been processed successfully. The trap identification number is given so that it may be used later in other message trap input messages to identify this particular trap.

Format 2 prints when the processing of the SET:TRAP input message has failed for the reason being displayed.

Note: The successful processing of the SET:TRAP input message does not guarantee that the trap can be started successfully. It depends on whether a set of conditions (such as, the status of the link nodes) can be satisfied when it is time to start the trap. Diagnostics will be printed if a trap cannot be started successfully.

3. VARIABLE FIELD DEFINITIONS

`a` = Trap identification number.

`b` = Reason SET:TRAP input message failed (refer to the ACTION TO BE TAKEN section of this manual page for detailed explanation). Valid value(s):

```
ALL NODES ARE EITHER OOS OR OCCUPIED
ALL NODES ARE OCCUPIED
ALL NODES ARE OOS
LINKS NOT SAME TYPE
LINK SET NOT EQUIPPED
LINK TYPE NOT S6 OR S7
NO ID ASSIGNED
NO RESRC (DISK SPACE EXHAUSTED)
NO RESRC (MAX_SIMTRP REACHED)
NO RESRC (MT_TBL ENTRY UNAVAIL)
TRAP NEEDS TOO MANY ATTRIBUTES
TRAPPING ON MORE THAN xx LINKS
```

Note: `xx` = Maximum number of links allowed to be trapped on at any time.

`c` = Reason SET:TRAP input message failed (internal error condition). Valid value(s):

```
CAN'T GET LN TBL
INVALID LINK TYPE
INVALID LNKTAG
```

NO LINK TAG

4. ACTION TO BE TAKEN

For Format 1, no action is required.

For Format 2, if any of the reasons in variable 'c' are printed, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Problem	Causes/Action
NO RESRC (DISK SPACE EXHAUSTED)	Cause: The fixed size disk file is full of trap results. Action: Retrieve desired trap results before attempting any of the following. - Use STOP:TRAP input message to re-initialize the disk file (all trap results will be lost). - Enable overwrite (OVRWT) option (older trap results will be gradually lost).
NO RESRC (MT_TBL ENTRY UNAVAIL)	Cause: All trap entries are occupied in the message trap database. Action: Retrieve desired trap results, then attempt to use STOP:TRAP input message to remove any unwanted traps.
NO RESRC (MAX_SIMTRP REACHED)	Cause: Maximum number of simultaneous traps on the message trap system has been reached. Action: Attempt any of the following: - Use STOP:TRAP input message to stop any unwanted active or inhibited trap. - Use STOP:TRAP input message to remove any unwanted pending trap.
LINKS NOT SAME TYPE	Cause: Links given in the SET:TRAP input message must be either all S6 links or all S7 links.
LINK SET NOT EQUIPPED	Cause: Link set given in the SET:TRAP input message is not equipped.
LINK TYPE NOT S6 OR S7	Cause: Links given in the SET:TRAP input message must be either all S6 links or all S7 links.
TRAP NEEDS TOO MANY ATTRIBUTES	Cause: Input parameters are transformed into trap attributes that will be used by the link nodes to perform message matching. Real-time concerns at link nodes impose a limit on the number of attributes that can be used for trapping. The number of attributes generated from the parameters given in the SET:TRAP input message exceeds that limit. Action: Reduce the number of input parameters given in the SET:TRAP input message.
TRAPPING ON MORE THAN xx LINKS	Cause: Maximum number of links that can have trap on at any time has been reached (including the link(s) given in this SET:TRAP input message). Action: Attempt any of the followings: - Retry SET:TRAP input message with fewer links. - Use STOP:TRAP input message to stop any unwanted active or inhibited trap.
ALL NODES ARE OOS	Cause: All the link nodes of the links specified in the SET:TRAP input message are out of service.
ALL NODES ARE OCCUPIED	Cause: All the links specified in the SET:TRAP input message are occupied by other traps.
ALL NODES ARE EITHER OOS OR OCCUPIED	Cause: Message is self-explanatory. Refer to previous two items.
NO ID ASSIGNED	Cause: Processing difficulties.

	Action: Retry later.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRAP
INH:TRAP
OP:TRAP
SET:TRAP
STOP:TRAP
```

Output Message(s):

```
ALW:TRAP
INH:TRAP
OP:TRAP
STOP:TRAP
REPT:MON-TRAP
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

SET:TROVRD

Software Release: 5E10 and later
Message Class: ADMN
Application: 5
Type: Output

1. FORMAT

```
SET TROVRD a
```

2. REASON FOR OUTPUT

To report the overriding of all trunk reservation (TR) per-trunk-group inhibits. This is a response to the SET:TROVRD input message.

3. VARIABLE FIELD DEFINITIONS

a	= Termination status. Valid value(s):	
	ABORTED	= Command aborted. System error encountered.
	COMPLETED	= TR inhibits have been overridden.

4. ACTION TO BE TAKEN

No action is needed for an automatically generated request from the remote network management center (RNMC). For manually generated requests, the following actions will apply.

If the termination status is COMPLETED, the message is confirmation of a request from an input message.

If the termination status is ABORTED, reinitiate the request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

OP:TR
SET:TROVRD

Other Manual(s):
235-190-100 *Feature Descriptions*

MCC Display Page(s):

130 (NM EXCEPTION)

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SET:WSFREQ-A

Software Release: 5E10 only
Message Class: TLWSRSP,TLWS
Application: 5
Type: Output

1. FORMAT

[1]

```
SET WSFREQ TEST POSITION a-h1
  ACCESS=g                          T&M=i1
  DN=b[-c]   d     [MLHG=e-f]
  FREQ=r1     LEVEL=s1
 [E=q1]
```

[2]

```
SET WSFREQ TEST POSITION a-h1
  ACCESS=g                          T&M=i1
  TKGMN=i-j  k
  FREQ=r1     LEVEL=s1
 [E=q1]
```

2. REASON FOR OUTPUT

To indicate that the user stored frequency and level for the test position (TP) has been set. The stored frequency and level are used when a request for a TST:WSSEND test is performed and no frequency or level are specified or when a TST:WSMEAS test is requested with an associated tone sent simultaneous with the measurement.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

E = Error.

a = TP number.

b = Telephone number entered.

c = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

d = Valid value(s):

e = Multi-line hunt group number.

AP=l-m
ILEN=n-j^1-k^1-l^1
LCEN=n-o-p-q
LCKEN=n-o-p-c^2-d^2
LEN=n-o-r-s-t-u
SLEN=n-v-w-x

f = Hunt group member number.

g = One of the following. Valid value(s):

- AC1 JACK = Connection to the AC jack number 1.
- AC2 JACK = Connection to the AC jack number 2.
- CAMPED ON = Line or trunk is camped on.
- CPE TESTS = Test customer premises equipment.
- DC1 JACK = Connection to the DC jack number 1.
- DC2 JACK = Connection to the DC jack number 2.
- DIG TRANS = Connection to digital transmission equipment.
- IN PROGRESS = Test or test setup is in progress.
- METALLIC = Connection to metallic measurement equipment.
- MONITOR B&I = Monitor a busy or idle line/trunk.
- MONITOR BUSY = Monitor a busy line/trunk.
- SEIZED = Line or trunk is seized.
- SUPERVISION = Supervisory test running.
- TRANSMISSION = Connection to transmission equipment.

i = Trunk group number.

j = Trunk member number.

k = Valid value(s):

l = Data link (group) number of the AP.

DEN=n-y-z-a[1]
NEN=n-t[1]-u[1]-v[1]-w[1]-x[1]
PSUEN=n-y[1]-z[1]-a[2]-b[2]
RAF PORT n-b[1]-c[1]
TEN=n-d[1]-e[1]-f[1]-g[1]

m = Relative link (member) number of the AP.

n = Switching module (SM) number.

o = Line unit number.

p = Line group number.

q = Line card number.

r = Grid number.

s = Switch board number (LU1, LU2, LU3).

t = Switch number.

u = Level number.

v = Digital carrier line unit number.

w = Remote terminal (RT) number.

x = RT line number.

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y = Digital line and trunk unit (DLTU) number.

z = Digital facility interface (DFI) number.

a[1] = Channel number.

b[1] = RAF unit number.

c[1] = RAF channel number.

d[1] = Trunk unit number.

e[1] = Service group number.

f[1] = Channel board number.

g[1] = Circuit number.

h[1] = TLWSR tuple identification.

i[1] = The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):

- H = The T&M phone is ON-HOLD (metallic connections).
- N = No T&M phone in the connection.
- M = The T&M phone is in the MONITOR mode (listen-only).
- T = The T&M phone is in the TALK mode (listen and talk).

j[1] = IDCU number.

k[1] = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

l[1] = RT line number or PUB43801 channel.

q[1] = Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages Manual for an explanation of TLWS error responses.

r[1] = Frequency stored for the test position.

s[1] = Level stored for the test position.

t[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

u[1] = Data group (DG) number.

v[1] = Synchronous transport signal (STS) number.

w[1] = Virtual tributary 1.5 (VT1.5) number.

x[1] = DS0 number.

y[1] = PSU unit number.

z[1] = PSU shelf number.

a[2] = PSU channel group number.

b[2] = PSU channel group member number.

c^2 = Line board number.

d^2 = Line circuit number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
SET:WSFREQ
SET:WSPOS
TST:WSMEAS
TST:WSSEND
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

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SET:WSFREQ-B

Software Release: 5E11 only
Message Class: TLWSRSP,TLWS
Application: 5
Type: Output

1. FORMAT

[1]

```
SET WSFREQ TEST POSITION a-h[1]
  ACCESS=g                          T&M=i[1]
  DN=b[-c]   d     [MLHG=e-f]
  FREQ=r[1]     LEVEL=s[1]
 [E=q[1]]
```

[2]

```
SET WSFREQ TEST POSITION a-h[1]
  ACCESS=g                          T&M=i[1]
  TKGMN=i-j  k
  FREQ=r[1]     LEVEL=s[1]
 [E=q[1]]
```

2. REASON FOR OUTPUT

To indicate that the user stored frequency and level for the test position (TP) has been set. The stored frequency and level are used when a request for a TST:WSSEND test is performed and no frequency or level are specified or when a TST:WSMEAS test is requested with an associated tone sent simultaneous with the measurement.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

E = Error.

a = TP number.

b = Telephone number entered.

c = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

d = Valid value(s):

AP=l-m
ILEN=n-j[1]-k[1]-l[1]
LCEN=n-o-p-q
LCKEN=n-o-p-c[2]-d[2]
LEN=n-o-r-s-t-u
SLEN=n-v-w-x
AIUEN=n-e[2]-f[2]-g[2]

e = Multi-line hunt group number.

f = Hunt group member number.

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g = One of the following. Valid value(s):

- AC1 JACK = Connection to the AC jack number 1.
- AC2 JACK = Connection to the AC jack number 2.
- CAMPED ON = Line or trunk is camped on.
- CPE TESTS = Test customer premises equipment.
- DC1 JACK = Connection to the DC jack number 1.
- DC2 JACK = Connection to the DC jack number 2.
- DIG TRANS = Connection to digital transmission equipment.
- IN PROGRESS = Test or test setup is in progress.
- METALLIC = Connection to metallic measurement equipment.
- MONITOR B&I = Monitor a busy or idle line/trunk.
- MONITOR BUSY = Monitor a busy line/trunk.
- SEIZED = Line or trunk is seized.
- SUPERVISION = Supervisory test running.
- TRANSMISSION = Connection to transmission equipment.

i = Trunk group number.

j = Trunk member number.

k = Valid value(s):

l = Data link (group) number of the AP.

DEN=n-y-z-a[1]
NEN=n-t[1]-u[1]-v[1]-w[1]-x[1]
PSUEN=n-y[1]-z[1]-a[2]-b[2]
RAF PORT n-b[1]-c[1]
TEN=n-d[1]-e[1]-f[1]-g[1]

m = Relative link (member) number of the AP.

n = Switching module (SM) number.

o = Line unit number.

p = Line group number.

q = Line card number.

r = Grid number.

s = Switch board number (LU1, LU2, or LU3).

t = Switch number.

u = Level number.

v = Digital carrier line unit number.

w = Remote terminal (RT) number.

x = RT line number.

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y = Digital line and trunk unit (DLTU) number.

z = Digital facility interface (DFI) number.

a[1] = Channel number.

b[1] = RAF unit number.

c[1] = RAF channel number.

d[1] = Trunk unit number.

e[1] = Service group number.

f[1] = Channel board number.

g[1] = Circuit number.

h[1] = TLWSR tuple identification.

i[1] = The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):

- H = The T&M phone is ON-HOLD (metallic connections).
- N = No T&M phone in the connection.
- M = The T&M phone is in the MONITOR mode (listen-only).
- T = The T&M phone is in the TALK mode (listen and talk).

j[1] = IDCU number.

k[1] = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

l[1] = RT line number or PUB43801 channel.

q[1] = Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages Manual for an explanation of TLWS error responses.

r[1] = Frequency stored for the test position.

s[1] = Level stored for the test position.

t[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

u[1] = Data group (DG) number.

v[1] = Synchronous transport signal (STS) number.

w[1] = Virtual tributary 1.5 (VT1.5) number.

x[1] = DS0 number.

y[1] = PSU unit number.

z[1] = PSU shelf number.

a[2] = PSU channel group number.

b[2] = PSU channel group member number.

c^2 = Line board number.

d^2 = Line circuit number.

e^2 = Access interface unit (AIU) number.

f^2 = AIU line pack number.

g^2 = AIU line circuit number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
SET:WSFREQ
SET:WSPOS
TST:WSMEAS
TST:WSSEND
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

SET:WSFREQ-C

Software Release: 5E12 only
Message Class: TLWSRSP,TLWS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      SET WSFREQ TEST POSITION a-h1
        ACCESS=g                            T&M=i1
        DN=b[-c]   d     [MLHG=e-f]
        FREQ=r1     LEVEL=s1
       [E=q1]

[2]   ____________________________________________________________________
      SET WSFREQ TEST POSITION a-h1
        ACCESS=g                            T&M=i1
        TKGMN=i-j  k
        FREQ=r1     LEVEL=s1
       [E=q1]
```

2. REASON FOR OUTPUT

To indicate that the user stored frequency and level for the test position (TP) has been set. The stored frequency and level are used when a request for a TST:WSSEND test is performed and no frequency or level are specified or when a TST:WSMEAS test is requested with an associated tone sent simultaneous with the measurement.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

E = Error.

a = TP number.

b = Telephone number entered.

c = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

d = Line equipment number. Valid value(s):

e = Multi-line hunt group number.

AP=l-m
ILEN=n-j^1-k^1-l^1
INEN=n-h^2-w-x
LCEN=n-o-p-q
LCKEN=n-o-p-c^2-d^2
LEN=n-o-r-s-t-u
SLEN=n-v-w-x
AIUEN=n-e^2-f^2-g^2

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f = Hunt group member number.

g = One of the following. Valid value(s):

- AC1 JACK = Connection to the AC jack number 1.
- AC2 JACK = Connection to the AC jack number 2.
- CAMPED ON = Line or trunk is camped on.
- CPE TESTS = Test customer premises equipment.
- DC1 JACK = Connection to the DC jack number 1.
- DC2 JACK = Connection to the DC jack number 2.
- DIG TRANS = Connection to digital transmission equipment.
- IN PROGRESS = Test or test setup is in progress.
- METALLIC = Connection to metallic measurement equipment.
- MONITOR B&I = Monitor a busy or idle line/trunk.
- MONITOR BUSY = Monitor a busy line/trunk.
- SEIZED = Line or trunk is seized.
- SUPERVISION = Supervisory test running.
- TRANSMISSION = Connection to transmission equipment.

i = Trunk group number.

j = Trunk member number.

k = Trunk equipment number. Valid value(s):

l

DEN=n-y-z-a[1]
INEN=n-h[2]-w-x
NEN=n-t[1]-u[1]-v[1]-w[1]-x[1]
PSUEN=n-y[1]-z[1]-a[2]-b[2]
RAF PORT n-b[1]-c[1]
TEN=n-d[1]-e[1]-f[1]-g[1]

= Data link (group) number of the AP.

m = Relative link (member) number of the AP.

n = Switching module (SM) number.

o = Line unit number.

p = Line group number.

q = Line card number.

r = Grid number.

s = Switch board number (LU1, LU2, or LU3).

t = Switch number.

u = Level number.

v = Digital carrier line unit number.

w = Remote terminal (RT) number.

x = RT line number.

y = Digital line and trunk unit (DLTU) number.

z = Digital facility interface (DFI) number.

a[1] = Channel number.

b[1] = RAF unit number. of the Output Messages manual.

c[1] = RAF channel number. of the Output Messages manual.

d[1] = Trunk unit number.

e[1] = Service group number.

f[1] = Channel board number.

g[1] = Circuit number.

h[1] = TLWSR tuple identification.

i[1] = The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):

- H = The T&M phone is ON-HOLD (metallic connections).
- N = No T&M phone in the connection.
- M = The T&M phone is in the MONITOR mode (listen-only).
- T = The T&M phone is in the TALK mode (listen and talk).

j[1] = IDCU number.

k[1] = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number. of the Output Messages manual.

l[1] = RT line number or PUB43801 channel. of the Output Messages manual.

q[1] = Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages Manual for an explanation of TLWS error responses.

r[1] = Frequency stored for the test position.

s[1] = Level stored for the test position.

t[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

u[1] = Data group (DG) number.

v[1] = Synchronous transport signal (STS) number.

w[1] = Virtual tributary 1.5 (VT1.5) number.

x[1] = DS0 number.

y[1] = PSU unit number.

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z[1] = PSU shelf number.

a[2] = PSU channel group number.

b[2] = PSU channel group member number.

c[2] = Line board number.

d[2] = Line circuit number.

e[2] = Access interface unit (AIU) number.

f[2] = AIU line pack number.

g[2] = AIU line circuit number.

h[2] = DNU number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
SET:WSFREQ
SET:WSPOS
TST:WSMEAS
TST:WSSEND
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

SET:WSFREQ-D

Software Release: 5E13 and later
Message Class: TLWSRSP,TLWS
Application: 5
Type: Output

1. FORMAT

[1]

```
SET WSFREQ TEST POSITION a-h1
  ACCESS=g                          T&M=i1
  DN=b[-c]   d     [MLHG=e-f]
  FREQ=r1     LEVEL=s1
 [E=q1]
```

[2]

```
SET WSFREQ TEST POSITION a-h1
  ACCESS=g                          T&M=i1
  TKGMN=i-j  k
  FREQ=r1     LEVEL=s1
 [E=q1]
```

2. REASON FOR OUTPUT

To indicate that the user stored frequency and level for the test position (TP) has been set. The stored frequency and level are used when a request for a TST:WSSEND test is performed and no frequency or level are specified or when a TST:WSMEAS test is requested with an associated tone sent simultaneous with the measurement.

3. VARIABLE FIELD DEFINITIONS

E = Error.

a = TP number.

b = Telephone number entered.

c = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

d = Line equipment number. Valid value(s):

```
AP=l-m
 ILEN=n-j1-k1-l1
 INEN=n-t1-w-x
 LCEN=n-o-p-q
 LCKEN=n-o-p-c2-d2
 LEN=n-o-r-s-t-u
 SLEN=n-v-w-x
 AIUEN=n-e2-f2-g2
```

e = Multi-line hunt group number.

f = Hunt group member number.

g = One of the following. Valid value(s):

- AC1 JACK = Connection to the AC jack number 1.
- AC2 JACK = Connection to the AC jack number 2.
- CAMPED ON = Line or trunk is camped on.
- CPE TESTS = Test customer premises equipment.
- DC1 JACK = Connection to the DC jack number 1.
- DC2 JACK = Connection to the DC jack number 2.
- DIG TRANS = Connection to digital transmission equipment.
- IN PROGRESS = Test or test setup is in progress.
- METALLIC = Connection to metallic measurement equipment.
- MONITOR B&I = Monitor a busy or idle line/trunk.
- MONITOR BUSY = Monitor a busy line/trunk.
- SEIZED = Line or trunk is seized.
- SUPERVISION = Supervisory test running.
- TRANSMISSION = Connection to transmission equipment.

i = Trunk group number.

j = Trunk member number.

k = Trunk equipment number. Valid value(s):

```
DEN=n-y-z-a1
 INEN=n-t1-w-x
 NEN=n-t1-u1-w1-v1-h2-i2-x1
 PSUEN=n-y1-z1-a2-b2
 RAF PORT n-b1-c1
 TEN=n-d1-e1-f1-g1
```

l = Data link (group) number of the AP.

m = Relative link (member) number of the AP.

n = Switching module (SM) number.

o = Line unit number.

p = Line group number.

q = Line card number.

r = Grid number.

s = Switch board number (LU1, LU2, or LU3).

t = Switch number.

u = Level number.

v = Digital carrier line unit number.

w = Remote terminal (RT) number.

x = RT line number.

y = Digital line and trunk unit (DLTU) number.

z = Digital facility interface (DFI) number.

a[1] = Channel number.

b[1] = RAF unit number. of the Output Messages manual.

c[1] = RAF channel number. of the Output Messages manual.

d[1] = Trunk unit number.

e[1] = Service group number.

f[1] = Channel board number.

g[1] = Circuit number.

h[1] = TLWSR tuple identification.

i[1] = The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):
- H = The T&M phone is ON-HOLD (metallic connections).
- N = No T&M phone in the connection.
- M = The T&M phone is in the MONITOR mode (listen-only).
- T = The T&M phone is in the TALK mode (listen and talk).

j[1] = IDCU number.

k[1] = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number. of the Output Messages manual.

l[1] = RT line number or PUB43801 channel. of the Output Messages manual.

q[1] = Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages Manual for an explanation of TLWS error responses.

r[1] = Frequency stored for the test position.

s[1] = Level stored for the test position.

t[1] = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

u[1] = Data group (DG) number.

v[1] = Synchronous transport signal (STS) facility number.

w[1] = SONET termination equipment (STE) facility number.

x[1] = Digital signal level 0 (DS0) number.

y[1] = PSU unit number.

z[1] = PSU shelf number.

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a[2] = PSU channel group number.

b[2] = PSU channel group member number.

c[2] = Line board number.

d[2] = Line circuit number.

e[2] = Access interface unit (AIU) number.

f[2] = AIU line pack number.

g[2] = AIU line circuit number.

h[2] = Virtual tributary group (VTG) number.

i[2] = Virtual tributary member (VTM) number.

4. ACTIONS TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
SET:WSFREQ
SET:WSPOS
TST:WSMEAS
TST:WSSEND
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

SET:WSOPD-A

Software Release: 5E10 - 5E11
Message Class: TLWSRSP,TLWS
Application: 5
Type: Output

1. FORMAT

```
SET WSOPD TEST POSITION a-b
  ACCESS=g                          T&M=o
  TKGMN i-j  k
  h-l
 [E=p]
```

2. REASON FOR OUTPUT

To report that outpulse digits have been set for a trunk and, in some cases, outpulsed.

3. VARIABLE FIELD DEFINITIONS

`ACCESS` = Type of access at test position.

`DEN` = Digital equipment number of the digital trunk or line.

`E` = Error.

`NEN` = Network equipment number of the trunk.

`PSUEN` = Packet switching unit (PSU) equipment number of the trunk.

`RAF` = Recorded announcement facility.

`TEN` = Trunk equipment number of the analog trunk.

`TKGMN` = Trunk group member number.

`a` = TP number.

`b` = TLWSR tuple identifier.

`g` = One of the following. Valid value(s):

- `AC1 JACK` = Connection to the AC jack number 1.
- `AC2 JACK` = Connection to the AC jack number 2.
- `CAMPED ON` = Line or trunk is camped on.
- `CPE TESTS` = Test customer premises equipment.
- `DC1 JACK` = Connection to the DC jack number 1.
- `DC2 JACK` = Connection to the DC jack number 2.
- `DIG TRANS` = Connection to digital transmission equipment.
- `IN PROGRESS` = Test or test setup is in progress.
- `METALLIC` = Connection to metallic measurement equipment.
- `MONITOR B&I` = Monitor a busy or idle line/trunk.
- `MONITOR BUSY` = Monitor a busy line/trunk.
- `SEIZED` = Line or trunk is seized.
- `SUPERVISION` = Supervisory test running.

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TRANSMISSION = Connection to transmission equipment.

h = Outpulse digits.

i = Trunk group number.

j = Trunk member number.

k = One of the following. Valid value(s):

l

DEN=n-y-z-a[1]
NEN=n-h[1]-i[1]-j[1]-k[1]-l[1]
PSUEN=n-m[1]-n[1]-o[1]-p[1]
RAF PORT n-b[1]-c[1]
TEN=n-d[1]-e[1]-f[1]-g[1]

= Outpulse results. Valid value(s):

```
FAILED OUTPULSING
OUTPULSE DIGITS WERE CLEARED
OUTPULSE DIGITS WERE SET
OUTPULSING IN PROGRESS
SUCCESSFUL COMPLETION OF OUTPULSING
SUCCESSFUL COMPLETION OF OUTPULSING/VPA FAILED
```

n = SM number.

o = Talk and monitor (T&M) phone type as defined by TLWSR tuple. Valid value(s):

H = The T&M phone is ON-HOLD (metallic connections).
M = The T&M phone is in the MONITOR mode (listen-only).
N = No T&M phone in the connection.
T = The T&M phone is in the TALK mode (listen and talk).

p = Error message. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages Manual for an explanation of TLWS error responses.

y = Digital line and trunk unit (DLTU) number.

z = Digital facility interface (DFI) number.

a[1] = Channel number.

b[1] = RAF unit number.

c[1] = RAF channel number.

d[1] = Trunk unit number.

e[1] = Service group number.

f[1] = Channel board number.

g[1] = Circuit number.

h[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

i[1] = Data group (DG) number.

j[1] = Synchronous transport signal (STS) number.

k[1] = Virtual tributary 1.5 (VT1.5) number.

l[1] = Digital signal level 0 (DS0) number.

m[1] = PSU unit number.

n[1] = PSU shelf number.

o[1] = PSU channel group number.

p[1] = PSU channel group member number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:WSOPD
SET:WSOPD
SET:WSPOS
```

Output Message(s):

```
SET:WSOPD
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

SET:WSOPD-B

Software Release: 5E12 only
Message Class: TLWSRSP,TLWS
Application: 5
Type: Output

1. FORMAT

```
SET WSOPD TEST POSITION a-b
  ACCESS=g                          T&M=o
  TKGMN i-j  k
  h-l
 [E=p]
```

2. REASON FOR OUTPUT

To report that outpulse digits have been set for a trunk and, in some cases, outpulsed.

3. VARIABLE FIELD DEFINITIONS

`ACCESS` = Type of access at test position.

`DEN` = Digital equipment number of the digital trunk or line.

`E` = Error.

`NEN` = Network equipment number of the trunk.

`PSUEN` = Packet switching unit (PSU) equipment number of the trunk.

`RAF` = Recorded announcement facility.

`TEN` = Trunk equipment number of the analog trunk.

`TKGMN` = Trunk group member number.

`a` = TP number.

`b` = TLWSR tuple identifier.

`g` = One of the following. Valid value(s):

- `AC1 JACK` = Connection to the AC jack number 1.
- `AC2 JACK` = Connection to the AC jack number 2.
- `CAMPED ON` = Line or trunk is camped on.
- `CPE TESTS` = Test customer premises equipment.
- `DC1 JACK` = Connection to the DC jack number 1.
- `DC2 JACK` = Connection to the DC jack number 2.
- `DIG TRANS` = Connection to digital transmission equipment.
- `IN PROGRESS` = Test or test setup is in progress.
- `METALLIC` = Connection to metallic measurement equipment.
- `MONITOR B&I` = Monitor a busy or idle line/trunk.
- `MONITOR BUSY` = Monitor a busy line/trunk.
- `SEIZED` = Line or trunk is seized.
- `SUPERVISION` = Supervisory test running.

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TRANSMISSION = Connection to transmission equipment.

h = Outpulse digits. If the selected trunk uses Multifarious Intra-Network Trunk (MINT) routing, the outpulsed digits will contain the MINT routing digits plus the normal digit string.

i = Trunk group number.

j = Trunk member number.

k = One of the following. Valid value(s):

l

DEN=n-y-z-a^1
NEN=n-h^1-i^1-j^1-k^1-l^1
PSUEN=n-m^1-n^1-o^1-p^1
RAF PORT n-b^1-c^1
TEN=n-d^1-e^1-f^1-g^1

= Outpulse results. Valid value(s):

```
FAILED OUTPULSING
OUTPULSE DIGITS WERE CLEARED
OUTPULSE DIGITS WERE SET
OUTPULSING IN PROGRESS
SUCCESSFUL COMPLETION OF OUTPULSING
SUCCESSFUL COMPLETION OF OUTPULSING/VPA FAILED
```

n = SM number.

o = Talk and monitor (T&M) phone type as defined by TLWSR tuple. Valid value(s):

H = The T&M phone is ON-HOLD (metallic connections).
M = The T&M phone is in the MONITOR mode (listen-only).
N = No T&M phone in the connection.
T = The T&M phone is in the TALK mode (listen and talk).

p = Error message. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages Manual for an explanation of TLWS error responses.

y = Digital line and trunk unit (DLTU) number.

z = Digital facility interface (DFI) number.

a^1 = Channel number.

b^1 = RAF unit number.

c^1 = RAF channel number.

d^1 = Trunk unit number.

e^1 = Service group number.

f^1 = Channel board number.

g[1] = Circuit number.

h[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

i[1] = Data group (DG) number.

j[1] = Synchronous transport signal (STS) number.

k[1] = Virtual tributary 1.5 (VT1.5) number.

l[1] = Digital signal level 0 (DS0) number.

m[1] = PSU unit number.

n[1] = PSU shelf number.

o[1] = PSU channel group number.

p[1] = PSU channel group member number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:WSOPD
SET:WSOPD
SET:WSPOS
```

Output Message(s):

```
SET:WSOPD
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

SET:WSOPD-C

Software Release: 5E13 and later
Message Class: TLWSRSP,TLWS
Application: 5
Type: Output

1. FORMAT

```
SET WSOPD TEST POSITION a-b
  ACCESS=g                          T&M=o
  TKGMN i-j  k
  h-l
 [E=p]
```

2. REASON FOR OUTPUT

To report that outpulse digits have been set for a trunk and, in some cases, outpulsed.

3. VARIABLE FIELD DEFINITIONS

`ACCESS` = Type of access at test position.

`DEN` = Digital equipment number of the digital trunk or line.

`E` = Error.

`NEN` = Network equipment number of the trunk.

`PSUEN` = Packet switching unit (PSU) equipment number of the trunk.

`RAF` = Recorded announcement facility.

`TEN` = Trunk equipment number of the analog trunk.

`TKGMN` = Trunk group member number.

`a` = TP number.

`b` = TLWSR tuple identifier.

`g` = One of the following. Valid value(s):

- `AC1 JACK` = Connection to the AC jack number 1.
- `AC2 JACK` = Connection to the AC jack number 2.
- `CAMPED ON` = Line or trunk is camped on.
- `CPE TESTS` = Test customer premises equipment.
- `DC1 JACK` = Connection to the DC jack number 1.
- `DC2 JACK` = Connection to the DC jack number 2.
- `DIG TRANS` = Connection to digital transmission equipment.
- `IN PROGRESS` = Test or test setup is in progress.
- `METALLIC` = Connection to metallic measurement equipment.
- `MONITOR B&I` = Monitor a busy or idle line/trunk.
- `MONITOR BUSY` = Monitor a busy line/trunk.
- `SEIZED` = Line or trunk is seized.
- `SUPERVISION` = Supervisory test running.

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TRANSMISSION = Connection to transmission equipment.

h = Outpulse digits. If the selected trunk uses Multifarious Intra-Network Trunk (MINT) routing, the outpulsed digits will contain the MINT routing digits plus the normal digit string.

i = Trunk group number.

j = Trunk member number.

k = One of the following. Valid value(s):

```
DEN=n-y-z-a1
 NEN=n-h1-i1-k1-j1-q1-r1-l1
 PSUEN=n-m1-n1-o1-p1
 RAF PORT n-b1-c1
 TEN=n-d1-e1-f1-g1
```

l = Outpulse results. Valid value(s):
FAILED OUTPULSING
OUTPULSE DIGITS WERE CLEARED
OUTPULSE DIGITS WERE SET
OUTPULSING IN PROGRESS
SUCCESSFUL COMPLETION OF OUTPULSING
SUCCESSFUL COMPLETION OF OUTPULSING/VPA FAILED

n = Switching module (SM) number.

o = Talk and monitor (T&M) phone type as defined by TLWSR tuple. Valid value(s):
H = The T&M phone is ON-HOLD (metallic connections).
M = The T&M phone is in the MONITOR mode (listen-only).
N = No T&M phone in the connection.
T = The T&M phone is in the TALK mode (listen and talk).

p = Error message. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages Manual for an explanation of TLWS error responses.

y = Digital line and trunk unit (DLTU) number.

z = Digital facility interface (DFI) number.

a^1 = Channel number.

b^1 = RAF unit number.

c^1 = RAF channel number.

d^1 = Trunk unit number.

e^1 = Service group number.

f^1 = Channel board number.

g[1] = Circuit number.

h[1] = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

i[1] = Data group (DG) number.

j[1] = Synchronous transport signal (STS) facility number.

k[1] = SONET termination equipment (STE) facility number.

l[1] = Digital signal level 0 (DS0) number.

m[1] = PSU unit number.

n[1] = PSU shelf number.

o[1] = PSU channel group number.

p[1] = PSU channel group member number.

q[1] = Virtual tributary group (VTG) number.

r[1] = Virtual tributary member (VTM) number.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CLR:WSOPD
SET:WSOPD
SET:WSPOS
```

Output Message(s):

```
SET:WSOPD
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

SET:WSPHONE-A

Software Release: 5E10 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      SET WSPHONE TEST POSITION a-h1
        ACCESS=g                            T&M=i1
        DN=b[-c]   d     [MLHG=e-f]
        p[=l]
       [E=q1]

[2]   ____________________________________________________________________
      SET WSPHONE TEST POSITION a-h1
        ACCESS=g                            T&M=i1
        TKGMN=i-j  k
        p[=l]
       [E=q1]
```

2. REASON FOR OUTPUT

To indicate that the talk and monitor (T&M) phone has been added into the current testing configuration at the trunk and line work station (TLWS) test position (TP) or that the mode of the T&M phone has been changed.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

E = Error.

a = TP number.

b = Telephone number entered.

c = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

d = Valid value(s):

AP=r1-m
ILEN=n-j1-k1-l1
LCEN=n-o-s1-q
LCKEN=n-o-s1-c2-d2
LEN=n-o-r-s-t-u
SLEN=n-v-w-x

e = Multi-line hunt group number.

f = Hunt group member number.

g = Valid value(s):

AC1 JACK = Connection to the AC jack number 1.
AC2 JACK = Connection to the AC jack number 2.
CAMPED ON = Line or trunk is camped on.
CPE TESTS = Test customer premises equipment.
DC1 JACK = Connection to the DC jack number 1.
DC2 JACK = Connection to the DC jack number 2.
DIG TRANS = Connection to digital transmission equipment.
IN PROGRESS = Test or test setup is in progress.
METALLIC = Connection to metallic measurement equipment.
MONITOR B&I = Monitor a busy or idle line/trunk.
MONITOR BUSY = Monitor a busy line/trunk.
SEIZED = Line or trunk is seized.
SUPERVISION = Supervisory test running.
TRANSMISSION = Connection to transmission equipment.

i = Trunk group number.

j = Trunk member number.

k = Valid value(s):

l

DEN=n-y-z-a[1]
NEN=n-t[1]-u[1]-v[1]-w[1]-x[1]
PSUEN=n-y[1]-z[1]-a[2]-b[2]
RAF PORT n-b[1]-c[1]
TEN=n-d[1]-e[1]-f[1]-g[1]

= Phone number of the T&M phone when the phone is remote.

m = Relative link (member) number of the AP.

n = Switching module (SM) number.

o = Line unit number.

p = Type of T&M phone. Valid value(s):
NO T&M PHONE = There is no T&M phone populated for this ID in the database (TLWSR tuple).
REMOTE T&M PHONE = The T&M phone populated for this ID in the database is remote.
LOCAL T&M PHONE = The T&M phone populated for this ID in the database is local.

q = Line card number.

r = Grid number.

s = Switch board number (LU1, LU2, LU3).

t = Switch number.

u = Level number.

v = Digital carrier line unit number.

w = Remote terminal (RT) number.

x = RT line number.

y = Digital line and trunk unit (DLTU) number.

z = Digital facility interface (DFI) number.

a[1] = Channel number.

b[1] = RAF unit number.

c[1] = RAF channel number.

d[1] = Trunk unit number.

e[1] = Service group number.

f[1] = Channel board number.

g[1] = Circuit number.

h[1] = TLWSR tuple identification.

i[1] = The mode of the T&M phone in the test connection. Valid value(s):

- H = The T&M phone is ON-HOLD (metallic connections).
- M = The T&M phone is in the MONITOR mode (listen-only).
- N = No T&M phone in the connection.
- T = The T&M phone is in the TALK mode (listen and talk).

j[1] = IDCU number.

k[1] = RT number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

l[1] = RT line number or PUB43801 channel.

q[1] = Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages Manual for an explanation of TLWS error responses.

r[1] = Data link (group) number of the AP.

s[1] = Line group number.

t[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

u[1] = Data group (DG) number.

v[1] = Synchronous transport signal (STS) number.

w[1] = Virtual tributary 1.5 (VT1.5) number.

x[1] = Digital signal level 0 (DS0) number.

y[1] = PSU unit number.

z[1] = PSU shelf number.

a[2] = PSU channel group number.

b[2] = PSU channel group member number.

c[2] = Line board number.

d[2] = Line circuit number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CONN:WSLINE
CONN:WSTRK
SET:WSPHONE
SET:WSPOS
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

RC/V View(s):

14.3 (TRUNK AND LINE WORK STATION)

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SET:WSPHONE-B

Software Release: 5E11 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      SET WSPHONE TEST POSITION a-h1
        ACCESS=g                            T&M=i1
        DN=b[-c]   d     [MLHG=e-f]
        p[=l]
       [E=q1]

[2]   ____________________________________________________________________
      SET WSPHONE TEST POSITION a-h1
        ACCESS=g                            T&M=i1
        TKGMN=i-j  k
        p[=l]
       [E=q1]
```

2. REASON FOR OUTPUT

To indicate that the talk and monitor (T&M) phone has been added into the current testing configuration at the trunk and line work station (TLWS) test position (TP) or that the mode of the T&M phone has been changed.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

E = Error.

a = TP number.

b = Telephone number entered.

c = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

d = Valid value(s):

AP=r1-m
ILEN=n-j1-k1-l1
LCEN=n-o-s1-q
LCKEN=n-o-s1-c2-d2
LEN=n-o-r-s-t-u
SLEN=n-v-w-x
AIUEN=n-e2-f2-g2

e = Multi-line hunt group number.

f = Hunt group member number.

g = Valid value(s):

AC1 JACK = Connection to the AC jack number 1.
AC2 JACK = Connection to the AC jack number 2.
CAMPED ON = Line or trunk is camped on.
CPE TESTS = Test customer premises equipment.
DC1 JACK = Connection to the DC jack number 1.
DC2 JACK = Connection to the DC jack number 2.
DIG TRANS = Connection to digital transmission equipment.
IN PROGRESS = Test or test setup is in progress.
METALLIC = Connection to metallic measurement equipment.
MONITOR B&I = Monitor a busy or idle line/trunk.
MONITOR BUSY = Monitor a busy line/trunk.
SEIZED = Line or trunk is seized.
SUPERVISION = Supervisory test running.
TRANSMISSION = Connection to transmission equipment.

i = Trunk group number.

j = Trunk member number.

k = Valid value(s):

l

DEN=n-y-z-a[1]
NEN=n-t[1]-u[1]-v[1]-w[1]-x[1]
PSUEN=n-y[1]-z[1]-a[2]-b[2]
RAF PORT n-b[1]-c[1]
TEN=n-d[1]-e[1]-f[1]-g[1]

= Phone number of the T&M phone when the phone is remote.

m = Relative link (member) number of the AP.

n = Switching module (SM) number.

o = Line unit number.

p = Type of T&M phone. Valid value(s):

NO T&M PHONE = There is no T&M phone populated for this ID in the database (TLWSR tuple).
REMOTE T&M PHONE = The T&M phone populated for this ID in the database is remote.
LOCAL T&M PHONE = The T&M phone populated for this ID in the database is local.

q = Line card number.

r = Grid number.

s = Switch board number (LU1, LU2, or LU3).

t = Switch number.

u = Level number.

v = Digital carrier line unit number.

w = Remote terminal (RT) number.

x = RT line number.

y = Digital line and trunk unit (DLTU) number.

z = Digital facility interface (DFI) number.

a[1] = Channel number.

b[1] = RAF unit number.

c[1] = RAF channel number.

d[1] = Trunk unit number.

e[1] = Service group number.

f[1] = Channel board number.

g[1] = Circuit number.

h[1] = TLWSR tuple identification.

i[1] = The mode of the T&M phone in the test connection. Valid value(s):
- H = The T&M phone is ON-HOLD (metallic connections).
- M = The T&M phone is in the MONITOR mode (listen-only).
- N = No T&M phone in the connection.
- T = The T&M phone is in the TALK mode (listen and talk).

j[1] = IDCU number.

k[1] = RT number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

l[1] = RT line number or PUB43801 channel.

q[1] = Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages Manual for an explanation of TLWS error responses.

r[1] = Data link (group) number of the AP.

s[1] = Line group number.

t[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

u[1] = Data group (DG) number.

v[1] = Synchronous transport signal (STS) number.

w[1] = Virtual tributary 1.5 (VT1.5) number.

x[1] = Digital signal level 0 (DS0) number.

y[1] = PSU unit number.

z[1] = PSU shelf number.

a[2] = PSU channel group number.

b[2] = PSU channel group member number.

c[2] = Line board number.

d[2] = Line circuit number.

e[2] = Access interface unit (AIU) number.

f[2] = AIU line pack number.

g[2] = AIU line circuit number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CONN:WSLINE
CONN:WSTRK
SET:WSPHONE
SET:WSPOS
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

RC/V View(s):

14.3 (TRUNK AND LINE WORK STATION)

SET:WSPHONE-C

Software Release: 5E12 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      SET WSPHONE TEST POSITION a-h1
        ACCESS=g                            T&M=i1
        DN=b[-c]   d     [MLHG=e-f]
        p[=l]
       [E=q1]

[2]   ____________________________________________________________________
      SET WSPHONE TEST POSITION a-h1
        ACCESS=g                            T&M=i1
        TKGMN=i-j  k
        p[=l]
       [E=q1]
```

2. REASON FOR OUTPUT

To indicate that the talk and monitor (T&M) phone has been added into the current testing configuration at the trunk and line work station (TLWS) test position (TP) or that the mode of the T&M phone has been changed.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

E = Error.

a = TP number.

b = Telephone number entered.

c = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

d = Line equipment number. Valid value(s):

AIUEN=n-e^2-f^2-g^2
AP=r^1-m
ILEN=n-j^1-k^1-l^1
INEN=n-h^2-k^1-l^1
LCEN=n-o-s^1-q
LCKEN=n-o-s^1-c^2-d^2
LEN=n-o-r-s-t-u
SLEN=n-v-w-x

e = Multi-line hunt group number.

f = Hunt group member number.

g = Valid value(s):

AC1 JACK = Connection to the AC jack number 1.
AC2 JACK = Connection to the AC jack number 2.
CAMPED ON = Line or trunk is camped on.
CPE TESTS = Test customer premises equipment.
DC1 JACK = Connection to the DC jack number 1.
DC2 JACK = Connection to the DC jack number 2.
DIG TRANS = Connection to digital transmission equipment.
IN PROGRESS = Test or test setup is in progress.
METALLIC = Connection to metallic measurement equipment.
MONITOR B&I = Monitor a busy or idle line/trunk.
MONITOR BUSY = Monitor a busy line/trunk.
SEIZED = Line or trunk is seized.
SUPERVISION = Supervisory test running.
TRANSMISSION = Connection to transmission equipment.

i = Trunk group number.

j = Trunk member number.

k = Trunk equipment number. Valid value(s):

l

DEN=n-y-z-a[1]
INEN=n-h[2]-k[1]-l[1]
NEN=n-t[1]-u[1]-v[1]-w[1]-x[1]
PSUEN=n-y[1]-z[1]-a[2]-b[2]
RAF PORT n-b[1]-c[1]
TEN=n-d[1]-e[1]-f[1]-g[1]

= Phone number of the T&M phone when the phone is remote.

m = Relative link (member) number of the AP.

n = Switching module (SM) number.

o = Line unit number.

p = Type of T&M phone. Valid value(s):

NO T&M PHONE = There is no T&M phone populated for this ID in the database (TLWSR tuple).
REMOTE T&M PHONE = The T&M phone populated for this ID in the database is remote.
LOCAL T&M PHONE = The T&M phone populated for this ID in the database is local.

q = Line card number.

r = Grid number.

s = Switch board number (LU1, LU2, or LU3).

t = Switch number.

u = Level number.

v = Digital carrier line unit number.

w = Remote terminal (RT) number.

x = RT line number.

y = Digital line and trunk unit (DLTU) number.

z = Digital facility interface (DFI) number.

a[1] = Channel number.

b[1] = RAF unit number.

c[1] = RAF channel number.

d[1] = Trunk unit number.

e[1] = Service group number.

f[1] = Channel board number.

g[1] = Circuit number.

h[1] = TLWSR tuple identification.

i[1] = The mode of the T&M phone in the test connection. Valid value(s):

- H = The T&M phone is ON-HOLD (metallic connections).
- M = The T&M phone is in the MONITOR mode (listen-only).
- N = No T&M phone in the connection.
- T = The T&M phone is in the TALK mode (listen and talk).

j[1] = IDCU number.

k[1] = RT number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

l[1] = RT line number or PUB43801 channel.

q[1] = Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages Manual for an explanation of TLWS error responses.

r[1] = Data link (group) number of the AP.

s[1] = Line group number.

t[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

u[1] = Data group (DG) number.

v[1] = Synchronous transport signal (STS) number.

w[1] = Virtual tributary 1.5 (VT1.5) number.

x[1] = Digital signal level 0 (DS0) number.

y[1] = PSU unit number.

z[1] = PSU shelf number.

a[2] = PSU channel group number.

b[2] = PSU channel group member number.

c[2] = Line board number.

d[2] = Line circuit number.

e[2] = Access interface unit (AIU) number.

f[2] = AIU line pack number.

g[2] = AIU line circuit number.

h[2] = DNU number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CONN:WSLINE
CONN:WSTRK
SET:WSPHONE
SET:WSPOS
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

RC/V View(s):

14.3 (TRUNK AND LINE WORK STATION)

SET:WSPHONE-D

Software Release: 5E13 and later
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      SET WSPHONE TEST POSITION a-h1
        ACCESS=g                          T&M=i1
        DN=b[-c]   d     [MLHG=e-f]
        p[=l]
        [E=q1]

[2]   ____________________________________________________________________
      SET WSPHONE TEST POSITION a-h1
        ACCESS=g                          T&M=i1
        TKGMN=i-j  k
        p[=l]
        [E=q1]

[3]   ____________________________________________________________________
      SET WSPHONE TEST POSITION a-h1

        ACCESS=g                          T&M=i1
        DN=b[-c]         j2
        p[=l]
        [E=q1]
```

2. REASON FOR OUTPUT

To indicate that the talk and monitor (T&M) phone has been added into the current testing configuration at the trunk and line work station (TLWS) test position (TP) or that the mode of the T&M phone has been changed.

3. VARIABLE FIELD DEFINITIONS

E = Error.

a = TP number.

b = Telephone number entered.

c = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

d = Line equipment number. Valid value(s):

```
AIUEN=n-e2-f2-g2
 AP=r1-m
 ILEN=n-j1-k1-l1
 INEN=n-t1-k1-l1
```

```
LCEN=n-o-s1-q
LCKEN=n-o-s1-c2-d2
LEN=n-o-r-s-t-u
SLEN=n-v-w-x
```

e = Multi-line hunt group number.

f = Hunt group member number.

g = Valid value(s):

- AC1 JACK = Connection to the AC jack number 1.
- AC2 JACK = Connection to the AC jack number 2.
- CAMPED ON = Line or trunk is camped on.
- CPE TESTS = Test customer premises equipment.
- DC1 JACK = Connection to the DC jack number 1.
- DC2 JACK = Connection to the DC jack number 2.
- DIG TRANS = Connection to digital transmission equipment.
- IN PROGRESS = Test or test setup is in progress.
- METALLIC = Connection to metallic measurement equipment.
- MONITOR B&I = Monitor a busy or idle line/trunk.
- MONITOR BUSY = Monitor a busy line/trunk.
- SEIZED = Line or trunk is seized.
- SUPERVISION = Supervisory test running.
- TRANSMISSION = Connection to transmission equipment.

i = Trunk group number.

j = Trunk member number.

k = Trunk equipment number. Valid value(s):

```
DEN=n-y-z-a1
INEN=n-t1-k1-l1
NEN=n-t1-u1-w1-v1-h2-i2-x1
PSUEN=n-y1-z1-a2-b2
RAF PORT n-b1-c1
TEN=n-d1-e1-f1-g1
```

l = Phone number of the T&M phone when the phone is remote.

m = Relative link (member) number of the AP.

n = Switching module (SM) number.

o = Line unit number.

p = Type of T&M phone. Valid value(s):

- NO T&M PHONE = There is no T&M phone populated for this ID in the database (TLWSR tuple).
- REMOTE T&M PHONE = The T&M phone populated for this ID in the database is remote.
- LOCAL T&M PHONE = The T&M phone populated for this ID in the database is local.

q = Line card number.

r = Grid number.

s = Switch board number (LU1, LU2, or LU3).

t = Switch number.

u = Level number.

v = Digital carrier line unit number.

w = Remote terminal (RT) number.

x = RT line number.

y = Digital line and trunk unit (DLTU) number.

z = Digital facility interface (DFI) number.

a[1] = Channel number.

b[1] = RAF unit number.

c[1] = RAF channel number.

d[1] = Trunk unit number.

e[1] = Service group number.

f[1] = Channel board number.

g[1] = Circuit number.

h[1] = TLWSR tuple identification.

i[1] = The mode of the T&M phone in the test connection. Valid value(s):

- H = The T&M phone is ON-HOLD (metallic connections).
- M = The T&M phone is in the MONITOR mode (listen-only).
- N = No T&M phone in the connection.
- T = The T&M phone is in the TALK mode (listen and talk).

j[1] = IDCU number.

k[1] = RT number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

l[1] = RT line number or PUB43801 channel.

q[1] = Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages Manual for an explanation of TLWS error responses.

r[1] = Data link (group) number of the AP.

s[1] = Line group number.

t[1] = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

u^1 = Data group (DG) number.

v^1 = Synchronous transport signal (STS) facility number.

w^1 = SONET termination equipment (STE) facility number.

x^1 = Digital signal level 0 (DS0) number.

y^1 = PSU unit number.

z^1 = PSU shelf number.

a^2 = PSU channel group number.

b^2 = PSU channel group member number.

c^2 = Line board number.

d^2 = Line circuit number.

e^2 = Access interface unit (AIU) number.

f^2 = AIU line pack number.

g^2 = AIU line circuit number.

h^2 = Virtual tributary group (VTG) number.

i^2 = Virtual tributary member (VTM) number.

j^2 = Line equipment number. Valid value(s):

NEN=n-t^1-u^1-w^1-v^1-h^2-i^2-x^1

4. ACTIONS TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CONN:WSLINE
CONN:WSTRK
SET:WSPHONE
SET:WSPOS
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

RC/V View(s):

14.3 (TRUNK AND LINE WORK STATION)

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SET:WSPOS

Software Release: 5E10 and later
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
SET WSPOS TEST POSITION = a, ID = b
  T&M = c, PB = d
```

2. REASON FOR OUTPUT

To report that a trunk and line work station (TLWS) test position (TP) has been acquired.

3. VARIABLE FIELD DEFINITIONS

`a` = TP number.

`b` = TLWSR tuple identifier.

`c` = Talk and monitor (T&M) phone type as defined by TLWSR tuple. Valid value(s):

`LOCAL T&M`	= The T&M phone defined for this ID is local.
`NO T&M`	= There is no T&M phone defined for this ID.
`REMOTE T&M`	= The T&M phone defined for this ID is remote.

`d` = Position busy status. Valid value(s):

`101AVAIL`	= Available to incoming 101 calls
`101BUSY`	= Position busied to incoming 101 calls

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSDATA
OP:WSSTAT
```

Output Message(s):

```
OP:WSDATA
```

Output Appendix(es):

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APP:TLWS

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

101. ST

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ST:ATTS

Software Release: 5E10 and later
Message Class: APT, ATL
Application: 5
Type: Output

1. FORMAT

```
ST ATTS SCHED a b
```

2. REASON FOR OUTPUT

Reports the manually requested starting of an automatic trunk test scheduler (ATTS) test schedule.

3. VARIABLE FIELD DEFINITIONS

`a` = The number of the ATTS test schedule requested to be started.

`b` = Termination status. Valid value(s):

`COMPLETED` = The specified ATTS test schedule has been started.

`COMPLETED - SESSION RESUMED` = The operation of the specified ATTS test schedule has been enabled, and the previously suspended test session's activity has resumed.

`NOT STARTED - SCHEDULE EMPTY` = The specified ATTS test schedule could not be placed in an operational state because it does not contain any test sessions.

`NOT STARTED - SCHEDULE NOT STOPPED` = The specified ATTS test schedule was found to already be in an operational state.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:ATDTA
DUMP:ATLOG
DUMP:ATPRM
OP:ATTS
ST:ATTS
STP:ATTS
```

Output Message(s):

```
DUMP:ATDTA
DUMP:ATLOG
DUMP:ATPRM
OP:ATTS
```

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```
REPT:ATTS
ST:ATTS
STP:ATTS
```

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-100-125	*System Description*
235-105-210	*Routine Operations and Maintenance*
235-118-25x	*Recent Change Procedures*
235-118-25x	*Recent Change Reference*

RC/V View(s):

14.9 (ATTS TEST SESSION SCHEDULE DATA)
14.10 (ATTS TEST SCHEDULE PARAMETER)

ST:LIB

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ST LIB TEAM  a    b    [c]    d
```

2. REASON FOR OUTPUT

To report the completion status of a manually issued ST:LIB input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Team number.

`b` = Central processor (CP) or administrative module (AM) flag. Valid value(s):
- `N` = CP or AM is not reporting.
- `Y` = CP or AM is reporting.

`c` = Switching module (SM) number. Default is that SM is not reporting.

`d` = Results. Valid value(s):

```
COMPLETED
STOPPED - LOAD STILL IN PROGRESS
STOPPED - NO PROGRAM LOADED
STOPPED - PROCESSOR LOADED BY A DIFFERENT TEAM
STOPPED - PROGRAM CLEARED
STOPPED - PROGRAM STARTED
STOPPED - UNABLE TO START PROGRAM
```

4. ACTION TO BE TAKEN

Since this is a response to a manual request, no action is required. Normally, testing would proceed from this point.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ST:LIB
```

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ST:MODGRW-RSM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ST MODGRW RSM a b
```

2. REASON FOR OUTPUT

To respond to a previously entered ST:MODGRW-RSM request, which copies switching module (SM) redundant relations from the existing SM(s) to a new remote switching module (RSM).

3. VARIABLE FIELD DEFINITIONS

`a` = RSM number.

`b` = Termination report. Valid value(s):

`ABORTED`	= The requested action was terminated before completion, and the termination was immediate with consistency of questionable data.
`COMPLETED`	= The requested action was terminated after completion.
`NOT STARTED`	= The requested action could not begin, probably because office-dependent data (ODD) backup was in progress.
`STOPPED`	= The requested action was terminated before a normal completion, and the termination was graceful.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ST:MODGRW-RSM`

Other Manual(s):
235-105-220 *Corrective Maintenance*

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ST:NRODDGRW-SM-A

Software Release: 5E10 only
Message Class: ODD
Application: 5
Type: Output

1. FORMAT

```
ST NRODDGRW SM=a b [c [d|e|f]]
```

2. REASON FOR OUTPUT

To provide the status of the non-redundant office-dependent data (NRODD) switching module (SM) memory growth resulting from ST:NRODDGRW input message.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = Status of non-redundant growth. Valid value(s):

- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `IN PROGRESS` = The non-redundant office-dependent data (ODD) growth continues.
- `NOT STARTED` = Requested action has not begun.
- `STARTED` = Parameters have been validated, and the ODD disk file grown. The growth has started on the SM.
- `STOPPED` = The growth has stopped. Parameters have been left in a consistent state.

`c` = Additional information concerning status. Valid value(s):

- `NRODD GROWTH SIZE NOT A MULTIPLE OF 16` = The input size to grow the non-redundant ODD was not a multiple of 16 Kilobytes.
- `RECOVERED FROM A PREVIOUS GROWTH ATTEMPT` = Parameters have been re-set to a consistent state during this growth from a prior aborted growth. This growth is continuing.
- `RODD BIT MAP IS CORRUPT OR INCONSISTENT` = The control bitmap for the redundant office-dependent data (RODD) being relocated during this growth was found to be inconsistent.
- `UNABLE TO SEIZE RODD DATA BLOCKS` = The redundant memory space was not large enough to accommodate the growth of the non-redundant ODD. Grow the RODD, then grow the NRODD. The DBmemman audit should be scheduled with the input message AUD:DAP.
- `DD BIT DDNREDGRW INCONSISTENT` = The data delivery bit for the non-redundant growth cannot be reset.
- `NRODD GROWTH PROCESS HAS TIMED OUT` = The AM NRODD process has timed out waiting for a message from the SM.
- `RECOVERY REQUIRES NRODD GROW OF KBYTES= d` = The growth size input is not sufficient to recover data from a prior aborted growth. Input ST:NRODDGRW with kbytes = to '`d`'. This will ensure that no data will be lost, and that the parameters are correctly reset.
- `RUN ST:ODDBST AFTER NRODD GROW OF KBYTES = d` = The amount of memory remaining in the RODD with the input growth size will push the redundant ODD beyond the 4

Meg boundary. Data blocks must be reorganized after a non-redundant growth of '`d`' kbytes. After that growth, execute the bitmap salvage technique (BST), ST:ODDBST, to reorganize the data blocks.

`RUN THE BST TO RECLAIM BLOCKIDS` = Run the BST and then re-input this message with the same size kbytes.

`SABM SIZE IS BELOW MINIMUM, ADD PHYSICAL MEMORY` = Stand alone billing memory will be left with less than the minimum requirement if this growth completes. First add physical memory, then re-input the growth message.

`INVALID RELATION ID = e` = During the non-redundant growth, an invalid relation ID, '`e`', was detected.

`DISK PARTITIONS ARE FULL` = There is not enough memory on disk after searching the partitions, to accommodate this growth.

`SAB IS CURRENTLY IN USE` = The stand alone billing memory area is currently in use, probably following an isolation of this SM. Wait a few minutes, and then input the growth message again.

`NRODD DATA STRUCTURES ARE CORRUPTED` = The NRODD growth has detected an inconsistency in it's internal structure, and the growth has aborted. Please try again with the same size.

`NRODD RELOCATED TO /NO5ODD/SMDATA f` = The NRODD file for this SM has been relocated to partition `f`.

`NRODD SIZE WOULD EXCEED MAXIMUM BY KBYTES = d` = The size entered for the NRODD growth would exceed the maximum ODD size by `d` kbytes.

`d` = The number of kbytes.

`e` = The relation ID.

`f` = The partition number.

4. ACTION TO BE TAKEN

All executions should terminate gracefully. If the administrative module (AM) growth process is killed, the SM process will continue until it times out waiting for a message or reply from the AM. The growth should be restarted with a size of zero to bring the system back to a consistent state.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ST:NRODDGRW
ST:UODDGRW-SM
ST:RODDGRW
ST:ODDBST
BKUP:ODD
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

ST:NRODDGRW-SM-B

Software Release: 5E11 only
Message Class: ODD
Application: 5
Type: Output

1. FORMAT

```
ST NRODDGRW SM=a b [c [d|e|f]]
```

2. REASON FOR OUTPUT

To provide the status of the non-redundant office-dependent data (NRODD) switching module (SM) memory growth resulting from ST:NRODDGRW input message.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = Status of non-redundant growth. Valid value(s):

- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `IN PROGRESS` = The non-redundant office-dependent data (ODD) growth continues.
- `NOT STARTED` = Requested action has not begun.
- `STARTED` = Parameters have been validated, and the ODD disk file grown. The growth has started on the SM.
- `STOPPED` = The growth has stopped. Parameters have been left in a consistent state.

`c` = Additional information concerning status. Valid value(s):

- `DD BIT DDNREDGRW INCONSISTENT` = The data delivery bit for the non-redundant growth cannot be reset.
- `DISK PARTITIONS ARE FULL` = There is not enough memory on disk after searching the partitions, to accommodate this growth.
- `INVALID RELATION ID = e` = During the non-redundant growth, an invalid relation ID, '`e`', was detected.
- `NRODD DATA STRUCTURES ARE CORRUPTED` = The NRODD growth has detected an inconsistency in its internal structure, and the growth has aborted. Please try again with the same size.
- `NRODD GROWTH PROCESS HAS TIMED OUT` = The AM NRODD process has timed out waiting for a message from the SM.
- `NRODD GROWTH SIZE NOT A MULTIPLE OF 16` = The input size to grow the non-redundant ODD was not a multiple of 16 Kilobytes.
- `NRODD RELOCATED TO /NO5ODD/SMDATA f` = The NRODD file for this SM has been relocated to partition '`f`'.
- `NRODD SIZE WOULD EXCEED MAXIMUM BY KBYTES = d` = The size entered for the NRODD growth would exceed the maximum ODD size by '`d`' kbytes.
- `RECOVERED FROM A PREVIOUS GROWTH ATTEMPT` = Parameters have been re-set to a consistent state during this growth from a prior aborted growth. This growth is continuing.
- `RECOVERY REQUIRES NRODD GROW OF KBYTES= d` = The growth size input is not sufficient to recover data from a prior aborted growth. Input ST:NRODDGRW with kbytes = to

'd'. This will ensure that no data will be lost, and that the parameters are correctly reset.

`RODD BIT MAP IS CORRUPT OR INCONSISTENT` = The control bitmap for the redundant office-dependent data (RODD) being relocated during this growth was found to be inconsistent.

`RUN ST:ODDBST AFTER NRODD GROW OF KBYTES = d` = The amount of memory remaining in the RODD with the input growth size will push the redundant ODD beyond the 4 Meg boundary. Data blocks must be reorganized after a non-redundant growth of 'd' kbytes. After that growth, execute the bitmap salvage technique (BST), ST:ODDBST, to reorganize the data blocks.

`RUN THE BST TO RECLAIM BLOCKIDS` = Run the BST and then re-input this message with the same size kbytes.

`SAB IS CURRENTLY IN USE` = The stand alone billing memory area is currently in use, probably following an isolation of this SM. Wait a few minutes, and then input the growth message again.

`SABM SIZE IS BELOW MINIMUM, ADD PHYSICAL MEMORY` = Stand alone billing memory will be left with less than the minimum requirement if this growth completes. First add physical memory, then re-input the growth message.

`UNABLE TO SEIZE RODD DATA BLOCKS` = The redundant memory space was not large enough to accommodate the growth of the non-redundant ODD. Grow the RODD, then grow the NRODD.

`d` = The number of kbytes.

`e` = The relation ID.

`f` = The partition number.

4. ACTIONS TO BE TAKEN

All executions should terminate gracefully. If the administrative module (AM) growth process is killed, the SM process will continue until it times out waiting for a message or reply from the AM. The growth should be restarted with a size of zero to bring the system back to a consistent state.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
BKUP:ODD
ST:NRODDGRW
ST:UODDGRW-SM
ST:RODDGRW
ST:ODDBST
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

ST:NRODDGRW-SM-C

Software Release: 5E12 and later
Message Class: ODD
Application: 5
Type: Output

1. FORMAT

```
ST NRODDGRW SM=a b [c [d|e|f]]
```

2. REASON FOR OUTPUT

To provide the status of the non-redundant office-dependent data (NRODD) switching module (SM) memory growth resulting from ST:NRODDGRW input message.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = Status of non-redundant growth. Valid value(s):

- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `IN PROGRESS` = The non-redundant office-dependent data (ODD) growth continues.
- `NOT STARTED` = Requested action has not begun.
- `STARTED` = Parameters have been validated, and the ODD disk file grown. The growth has started on the SM.
- `STOPPED` = The growth has stopped. Parameters have been left in a consistent state.

`c` = Additional information concerning status. Valid value(s):

- `DD BIT DDNREDGRW INCONSISTENT` = The data delivery bit for the non-redundant growth cannot be reset.
- `DISK PARTITIONS ARE FULL` = There is not enough memory on disk after searching the partitions, to accommodate this growth.
- `INVALID RELATION ID = e` = During the non-redundant growth, an invalid relation ID, '`e`', was detected.
- `NRODD DATA STRUCTURES ARE CORRUPTED` = The NRODD growth has detected an inconsistency in its internal structure, and the growth has aborted. Please try again with the same size.
- `NRODD GROWTH PROCESS HAS TIMED OUT` = The AM NRODD process has timed out waiting for a message from the SM.
- `NRODD GROWTH SIZE NOT A MULTIPLE OF 16` = The input size to grow the non-redundant ODD was not a multiple of 16 Kilobytes.
- `NRODD RELOCATED TO /NO5ODD/SMDATA f` = The NRODD file for this SM has been relocated to partition '`f`'.
- `NRODD SIZE WOULD EXCEED MAXIMUM BY KBYTES = d` = The size entered for the NRODD growth would exceed the maximum ODD size by '`d`' kbytes.
- `RECOVERED FROM A PREVIOUS GROWTH ATTEMPT` = Parameters have been re-set to a consistent state during this growth from a prior aborted growth. This growth is continuing.
- `RECOVERY REQUIRES NRODD GROW OF KBYTES= d` = The growth size input is not sufficient to recover data from a prior aborted growth. Input ST:NRODDGRW with kbytes = to

'd'. This will ensure that no data will be lost, and that the parameters are correctly reset.

`RODD BIT MAP IS CORRUPT OR INCONSISTENT` = The control bitmap for the redundant office-dependent data (RODD) being relocated during this growth was found to be inconsistent.

`RUN ST:ODDBST AFTER NRODD GROW OF KBYTES = d` = The amount of memory remaining in the RODD with the input growth size will push the redundant ODD beyond the 4 Meg boundary. Data blocks must be reorganized after a non-redundant growth of 'd' kbytes. After that growth, execute the bitmap salvage technique (BST), ST:ODDBST, to reorganize the data blocks.

`RUN THE BST TO RECLAIM BLOCKIDS` = Run the BST and then re-input this message with the same size kbytes.

`SABM AND/OR RTBM IS CURRENTLY IN USE` = The stand alone billing memory area and/or real time billing memory area is currently in use, probably following an isolation of this SM, or the module controller/time slot interchange (MCTSI)-based ethernet links (MELNK) to the billing collector are down. Wait a few minutes, and then input the growth message again.

`INSUFFICIENT SPARE MEMORY, DEGROW BILLING MEMORY OR GROW PHYSICAL MEMORY` = There is insufficient spare memory to allow for the growth of the office dependent data (ODD). Additonal spare memory may be acquired by degrowing the stand alone billing memory (SABM) or real time billing memory (RTBM), or adding additional physical memory.

`UNABLE TO SEIZE RODD DATA BLOCKS` = The redundant memory space was not large enough to accommodate the growth of the non-redundant ODD. Grow the RODD, then grow the NRODD.

`d` = The number of kbytes.

`e` = The relation ID.

`f` = The partition number.

4. ACTIONS TO BE TAKEN

All executions should terminate gracefully. If the administrative module (AM) growth process is killed, the SM process will continue until it times out waiting for a message or reply from the AM. The growth should be restarted with a size of zero to bring the system back to a consistent state.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
BKUP:ODD
ST:NRODDGRW
ST:UODDGRW-SM
ST:RODDGRW
ST:ODDBST
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

ST:ODDBST-SM

Software Release: 5E10 and later
Message Class: ODD
Application: 5
Type: Output

1. FORMAT

```
ST ODDBST SM=a b [c]
```

2. REASON FOR OUTPUT

To provide the status of the bitmap salvage technique (BST) resulting from the ST:ODDBST input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Status of request. Valid value(s):

- `ABORTED` = The bitmap salvage technique aborted due to invalid redundant office dependent data (RODD) global parameters in the SM's RODD. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
- `COMPLETED` = The BST completed successfully.
- `IN PROGRESS` = The BST is in progress. This message appears every 5 minutes to indicate progress.
- `STOPPED` = The BST process was stopped because a previous RODD or NRODD growth left the SM in a state such that the BST can not continue.

`c` = Additional information qualifying `b` from above.

```
BAD RELATION ID WAS FOUND IN THE DICTIONARY
BAD RELATION NUMBER WAS FOUND IN THE DICTIONARY
COPYING OF THE RODD BITMAP FAILED
ODDBST CALL MADE TO DBACCUP TO UPDATE THE ACCESS DICTIONARY FAILED
ODDBST CONVERSION IS COMPLETE
ODDBST CONVERSION IS NOT NEEDED
ODDBST CONVERSION OF A RODD RELATION FAILED
ODDBST IN PROGRESS
PROCESS BLOCKED: RODD GROWTH DID NOT PREVIOUSLY COMPLETE
PROCESS IS BLOCKED FROM RUNNING
RELATION WITH BAD MEMORY TYPE WAS TRYING TO BE CONVERTED
RESPONSE TO A STOP MESSAGE RECEIVED FROM THE AM
RODD GLOBAL PARAMETERS ARE INCORRECT IN THE SM
SM IS NOT OPERATIONAL
STOPPED DUE TO A SYSTEM PROBLEM
TIMEOUT OCCURRED - MESSAGE NOT RECEIVED FROM SM
WRONG MESSAGE TYPE WAS RECEIVED FROM THE SM
ZEROING OUT OF THE OLD RODD BITMAP FAILED
```

4. ACTION TO BE TAKEN

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All executions should terminate gracefully and the system should remain in a stable state upon completion. If not, try the ST:ODDBST input message again. If the ABORTED message appears, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ST:NRODDGRW
ST:ODDBST
ST:RODDGRW
```

Output Message(s):

```
ST:NRODDGRW-SM
ST:RODDGRW
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

ST:ODDCREAT-SM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ST ODDCREAT SM a b {c|d SM MEGABYTES OF MEMORY REQUIRED TO PUMP}
```

2. REASON FOR OUTPUT

To respond to a ST:ODDCREAT-SM input message, which requests the creation of office-dependent data (ODD) for a switching module (SM) that is being added to the switch.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = Termination report. Valid value(s):

- `ABORTED` = The requested action was terminated before completion, and the termination was immediate with consistency of data questionable.
- `COMPLETED` = The requested action was terminated after completion.
- `NOT STARTED` = The requested action could not begin, probably because the office-dependent data backup was in progress.
- `STOPPED` = The requested action was terminated before a normal completion, and the termination was graceful.

`c` = Failure type. Valid value(s):

- `BOTH UODDSZ AND NRODDSZ MUST BE 999 TO REQUEST DEFAULT SIZES` = To request the default sizes for the unprotected and nonredundant ODDs, a value of 999 must be entered for both the uoddsz and nroddsz parameters.
- `CI FILE FOR THE SM CANNOT BE CREATED` = Oddcreat was unable to create a CI file in the /no5odd/cidata partition. Either the partition was not accessible, or there was not enough room in the partition to create the file.
- `FAILURE IN COPYING COFF FILE` = Oddcreat was unable to copy the unprotected ODD and nonredundant ODD sections to the new ODD COFF file for the growth SM/RSM. All files have been removed, and oddcreat must be rerun.
- `INSUFFICIENT CONTIGUOUS DISK SPACE` = There was not enough contiguous disk space in the /no5odd/imdata partitions to create the new ODD file.
- `NO SMODD DISK PARTITIONS ARE AVAILABLE` = There are no SM ODD partitions available for ODD files. Mount the necessary partitions, and rerun oddcreat.
- `NRODD SIZE MUST BE ON 16K BOUNDARY` = The size input for the nonredundant ODD was not on a 16k boundary.
- `NRODD SIZE SMALLER THAN UODD AND SKELETON ODD ALLOWS` = A value was input for the size of the nonredundant ODD in the oddcreat input message that was smaller than the default size in the skeleton ODD. This is not allowed, so oddcreat was stopped. Oddcreat should be rerun with a larger size for the nonredundant ODD.
- `NRODDSZ WAS LARGER THAN MAXIMUM NRODD ALLOWED` = The size input for the nroddsz field was larger than the maximum nonredundant ODD allowed for the software release. Rerun oddcreat with a smaller size for the nonredundant ODD.
- `RODD MUST BE BACKED UP BEFORE ODDCREAT CAN RUN` = The redundant ODD has not been

backed up since the last redundant ODD growth. This backup must be done before oddcreat can be run.

`SM MUST BE SMSGRO TO RUN ODDCREAT` = An attempt to run oddcreat on an SM that was not in the SMSGRO state was attempted. Change the SM to SMSGRO and rerun oddcreat.

`UODD SIZE LARGER THAN SKELETON ODD ALLOWS` = A value was input for the size of the unprotected ODD in the oddcreat input message that was larger than the default size in the skeleton ODD. This is not allowed, so oddcreat was stopped. Oddcreat should be rerun with a smaller size for the unprotected ODD.

`UODD SIZE MUST BE ON 16K BOUNDARY` = The size input for the unprotected ODD was not on a 16k boundary.

`UODDSZ WAS SMALLER THAN MINIMUM UODD ALLOWED` = The size input for the unprotected ODD was smaller than the minimum unprotected ODD allowed for the software release. Retry with a larger size for the unprotected ODD.

`UNABLE TO ACCESS THE SKELETON CI FILE` = Oddcreat was unable to access the skeleton CI file in the /no5odd/cidata partition.

`UNABLE TO ACCESS THE SKELETON ODD FILE` = Oddcreat was unable to access the skeleton ODD file in the /no5odd/cidata partition.

`UNABLE TO CONSTRUCT A FILE PATH NAME` = Oddcreat was unable to construct a pathname to either the CI file or the ODD file for this SM.

`UNABLE TO READ SM'S CI FILE` = Oddcreat was unable to read the critical information file for the new SM.

`UNABLE TO READ THE MODATT RELATION` = Oddcreat was unable to read the tuple in the AM relation RLmodatt for this SM.

`UNABLE TO READ THE NEW ODD FILE` = Oddcreat was unable to read the new ODD file that was created in one of the no5odd/imdata partitions for this SM.

`UNABLE TO READ THE SMCONF RELATION` = Oddcreat was unable to read the tuple in the AM relation RLsmconf for this SM.

`UNABLE TO WRITE TO SM'S CI FILE` = Oddcreat was unable to write to the new SM's critical information file.

`X IS DEFAULT UODD SIZE IN BYTES` = The value specified is the default size of the unprotected ODD for the specified SM. When running oddcreat on this SM, any value entered for the uoddsz field must be smaller than the specified default size.

`X IS DEFAULT NRODD SIZE IN BYTES` = The value specified is the default size of the nonredundant ODD for the specified SM. When running oddcreat on this SM, any value entered for the nroddsz field must be larger than the specified default size.

`d` = Memory requirements. The amount of SM memory in megabytes that must be equipped in the SM before the SM can be pumped.

4. ACTION TO BE TAKEN

Correct any inappropriate condition noted in the failure type (variable `c`), as required, and reexecute the ST:ODDCREAT-SM request if needed. Otherwise, no specific action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

ST:ODDCREAT-SM

Other Manual(s):

235-105-220 Corrective Maintenance

ST:ODDGRW

Software Release: 5E10 and later
Message Class: ODD
Application: 5
Type: Output

1. FORMAT

```
ST ODDGRW AM a [b]
```

2. REASON FOR OUTPUT

To provide the status of administrative module memory growth for office-dependent data (ODD).

3. VARIABLE FIELD DEFINITIONS

`AM` = Administrative module.

`a` = Status of memory growth. Valid value(s):

- `ABORTED` = Action was terminated before completion and the termination was immediate with questionable data consistency.
- `COMPLETED` = Action was terminated after completion.
- `NOT STARTED` = Action could not begin, probably because an ODD backup was in progress.
- `STOPPED` = Action was terminated before a normal completion but the termination was graceful.

`b` = Additional information concerning status. Valid value(s):

- `PAS SIZE MUST BE UPDATED BEFORE AM INITIALIZATION` =AM ODD Growth was successful. If the 'h_pas_size' parameter from the ECD - BTPARM form has not already been updated, it must be done before an AM initialization can be done. Refer to the "GROW AM ODD MEMORY" procedures from the Routine Operations and Maintenance Procedures manual.
- `CANNOT ALLOCATE ENOUGH SPACE FOR AM ODD`
- `CANNOT MOUNT /dev/no5odd1/`
- `CANNOT MOUNT /dev/no5odd2/`
- `CANNOT OPEN AM ODD FILE`
- `CANNOT UNMOUNT /dev/no5odd1/`
- `CANNOT UNMOUNT /dev/no5odd2/`
- `AM ODD GROWTH SIZE NOT A MULTIPLE OF 16` = The input size to grow the AM ODD was not a multiple of 16 Kilobytes.
- `FAILED TO COPY ODD CORRECTLY`
- `FAILED TO UPDATE AM ODD`
- `FAILED TO UPDATE THE AIMRC FILE`
- `ODD BACKUP IN PROGRESS`
- `REQUESTED SIZE LARGER THAN GENERIC MAXIMUM`

4. ACTION TO BE TAKEN

Upon receiving a successful completion message, it must be confirmed that the 'h_pas_size' parameter from the ECD - BTPARM form has been updated. This must be done before an AM initialization can occur. Refer to the "GROW AM ODD MEMORY" procedures from the Routine Operations and Maintenance Procedures manual.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ST:ODDGRW-SM
```

Output Message(s):

```
OP:ODD
ST:NRODDGRW-SM
ST:RODDGRW
ST:UODDGRW
```

Other Manual(s):
235-070-100 *Switch Administration Guidelines*
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

ST:ODDRM-SM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ST ODDRM SM a b
```

2. REASON FOR OUTPUT

To respond to a previously entered ST:ODDRM input message, which removes the office-dependent data (ODD) files from an switching module that is being removed from the office.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Termination report. Valid value(s):

- `ABORTED` = The request action was terminated before completion, and the termination was immediate with consistency of data questionable.
- `COMPLETED` = The requested action was terminated after completion.
- `NOT STARTED` = The requested action could not begin, probably because ODD backup was in progress.
- `STOPPED` = The requested action was terminated before a normal completion, but the termination was graceful.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ST:ODDRM-SM`

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ST:ODDUPD-MMRSM

Software Release: 5E10 and later
Message Class: ODD
Application: 5
Type: Output

1. FORMAT

```
ST ODDUPD MMRSM SITES FROM=a TO=b c
 [d]
```

2. REASON FOR OUTPUT

To indicate the result of an ST:ODDUPD input message requesting the update of all multi-module remote switching module (MMRSM) site common office-dependent data (ODD) in all RSMs which are members of the affected MMRSM sites. This activity is related to the remote switching module (RSM) association procedure which is a function of MMRSM growth.

3. VARIABLE FIELD DEFINITIONS

a = MMRSM site number from which an RSM was removed (disassociated).

b = MMRSM site number to which an RSM was joined (associated).

c = Operation completion status. Valid value(s):

ABORTED	= Operation interrupted, not all data was updated successfully.
COMPLETED	= Operation completed successfully, data is updated.
IN PROGRESS	= Operation has not yet completed. This is a five-minute interval status report.
NOT STARTED	= Operation not started, could not establish communication port or open data access transaction at this time.
STOPPED	= Operation terminated, no data was changed.

d = Supplemental information. Prints only when 'c' equals STOPPED. Valid value(s):

```
DATA BASE MANAGER UNABLE TO ACCESS ALL NECESSARY PROCESSORS
ILLEGAL CONFIGURATION SPECIFIED
INSUFFICIENT ODD MEMORY SPACE TO ACCOMMODATE GROWTH
INVALID SITE ID OR MEMBER SPECIFIED
INVALID SM TYPE SPECIFIED
RSM TO BE MOVED EQP WITH ALM RCLKU, SALGRP OR COMMON MTB OPTION
```

4. ACTION TO BE TAKEN

If c =	Action:
ABORTED	Some difficulty may be encountered by call processing in routing inter-RSM calls within the MMRSM site while in the stand-alone call processing state. Since these calls cannot be backhauled by the administrative module (AM), they may not be completed. The problem which caused this ODDUPD function not to complete successfully should be resolved AS SOON AS POSSIBLE. The office database editor (ODBE) will have to be used to correct the data.

	Technical assistance in using the ODBE should be sought. Usually, an ABORTED status with no accompanying system initialization sequence indicates that the global office parameters, GLralmmod, Glsacp, Glsabm or Glsalgrp, were not updated properly.
STOPPED	The 'd' field indicates the reason for termination. Check the RSM "Association" procedure which is part of MMRSM growth for a possible procedural problem. Use the ST:ODDUPD input message to re-initiate the ODDUPD function.
NOT STARTED	Use the ST:ODDUPD input message to re-initiate the ODDUPD function.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ST:ODDUPD
```

Other Manual(s):
235-105-231 *Hardware Change Procedures - Growth*

ST:OPUMP-CMP

Software Release: 5E10 and later
Message Class: MSGS
Application: 5
Type: Output

1. FORMAT

```
ST OPUMP CMP=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of a ST:OPUMP-CMP input message to download the specified communication module processor (CMP) from the off-line administrative module (AM) disk and perform off-line verification.

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch side number.

`b` = CMP number.

`c` = Termination status. Valid value(s):
- `COMPLETED` = Request has successfully completed.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`d` = Additional information qualifying the termination status.

4. ACTION TO BE TAKEN

If the off-line pump and verify request did not complete investigate possible causes of the failure. Also, check compliance with software release retrofit/update procedures. If errors continue after retrying the input message, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ST:OPUMP-CMP
STP:CMP
```

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-105-24x *Generic Retrofit Procedures*

ST:OVERLAY

Software Release: 5E10 and later
Message Class: ODD
Application: 5
Type: Output

1. FORMAT

```
ST OVERLAY PROD a b
```

2. REASON FOR OUTPUT

To report the status of one of the following: the termination of a recent change kernel process (RCKP), the termination of a RCKP and overlay with DBdiskrc, or the initialization of a RCKP process from a disk.

3. VARIABLE FIELD DEFINITIONS

`a` = The product to overlay RCKP. Valid value(s):
- `NONE, RCKP TERMINATION` = RCKP terminated only. No process initialized as a result of the termination.
- `RCKP INITIALIZATION` = recent change kernel process.
- `RCR INITIALIZATION` = pre-software release recent change reapplication process (DBdiskrc).

`b` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = RCKP or RCR has successfully been initialized using RCKP's freed memory.
- `NOT STARTED` = Requested action has not begun.

4. ACTION TO BE TAKEN

If the termination report is `ABORTED`, the program was unable to retrieve the product (DBdiskrc or RCKP) from the disk. If RCR `ABORTED`, make sure DBdiskrc for pre-software release recent change reapplication (PRERCR) resident on is disk.

If the termination report is `COMPLETED`, no action is necessary.

If the termination report is `NOT STARTED`, too many update RC transactions were still running to gracefully terminate a RCKP. Allow time for those transactions to complete and retry later.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:RC
EXC:RCRMV
INH:RC
ST:OVERLAY
```

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Output Message(s):

```
EXC:RCRMV
```

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-105-24x *Generic Retrofit Procedures*

ST:RODDGRW-A

Software Release: 5E10 - 5E11
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ST RODDGRW [SM=a] b [c]
```

2. REASON FOR OUTPUT

To report the status of the redundant office dependent data (RODD) memory growth resulting from the ST:RODDGRW input message. If the *UNIX*® RTR operating system process is killed during growth, this message will not appear. There will be an interrupt that will describe the process that was killed as "/no5text/prc/smoddrgrw". If this occurs, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. The system, however, should remain stable.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Status of redundant memory growth. Valid value(s):

- `ABORTED` = Action was terminated before completion, with the result that data may be inconsistent.
- `COMPLETED` = The RODD growth completed normally. Action was terminated after completion.
- `IN PROGRESS` = The RODD growth execution continues.
- `NOT STARTED` = Action could not begin, possibly because ODD backup (BKUP:ODD), non-redundant ODD growth (ST:NRODDGRW), unprotected ODD growth (ST:UODDGRW), or ODD bitmap salvage technique (ST:ODDBST) was in progress.
- `STOPPED` = Action was terminated before a normal completion but the termination was successful.

`c` = Additional information concerning status. Valid value(s):

- `BACKUP MUST BE DONE IMMEDIATELY UPON COMPLETION` = A problem occurred while saving the new RODD size in a state file. A backup of the RODD should be performed immediately in order to prevent loss of growth.
- `RODD GROWTH SIZE NOT A MULTIPLE OF 16` = The input size to grow the redundant ODD was not a multiple of 16 Kilobytes.
- `BAD VALUE FOUND FOR DDREDGRW` = Integrity error in data delivery (DD). Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
- `BROADCAST ERROR` = May indicate a problem with links to a switching module (SM).
- `CAN NOT GROW - TRY BIGGER GROWTH SIZE` = The current RODD size is larger than what the growth will cover; try a larger growth.
- `CASE DEFAULTED` = Internal error; the growth was aborted. Try growth again.
- `COULD NOT UPDATE CI FILE FOR SGRO SM` = Could not read critical information (CI) file for the specified SM; either it doesn't exist, or there is not enough memory equipped for the SM(s) in special growth (SGRO).
- `DBCHECKMEM FAILED` = SM memory checks failed.
- `FAILED TO CREATE OKP PROCESS` = Indicates problem with the operational kernel process

(OKP) in the administrative module (AM). Could be due to a resource shortage (lack of stacks, for example). Try growth again.

`FAILED TO CREATE SM TERMINAL PROCESS` = Possibly due to SMs being isolated, or a resource shortage in the specified SM.

`FAILED TO GROW RODD FILE` = A problem occurred while growing the RODD disk file. Try growth again. If growth continues to fail, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`FAILED TO READ RODD COFF FILE` = Could not read from the common object file format (COFF) file that contains the RODD. This statement indicates a problem with the *UNIX*® RTR operating system. Could be due to administrative module (AM) real time overload or disk drive errors.

`INVALID MESSAGE DETECTED` = An invalid message was detected. Try growth again.

`INVALID RETURN DETECTED` = An invalid return was detected. Try growth again.

`NO ERRORS DETECTED` = No errors were reported back.

`NO RESPONSE FROM SM` = No response was received from the specified SM. Possible problems are: SM went into isolation, or SM terminal process was purged. Check SM status, then retry growth.

`ODD BACKUP IS IN PROGRESS` = Retry the growth at a later time.

`OSSENDMSG FAILED` = Couldn't send message between AM and SM. Check link status to SM.

`RECOVERY FROM PREVIOUS GROWTH FAILED` = A previous growth has aborted, and this growth has failed to recover from it. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`RODD GROWTH SUCCESSFULLY` = Growth completed successfully.

`RODD GROWTH DONE` = Growth completed successfully.

`RODD PARTIALLY COMMITTED - SOME SMS FAILED` = Some SM(s) committed the growth, but some SM(s) could not; this will leave inconsistencies in the system.

`RODD WILL BE BIGGER THAN GENERIC MAXIMUM` = The total size of the RODD will be bigger than the maximum allowed for the software release (4 megabytes). Try to grow by a smaller size.

`RUN ST:ODDBST TO RECLAIM RODD BLOCKIDS` = Insufficient space exists in the bitmap to continue the growth.

`SABM SIZE IS BELOW MINIMUM, ADD PHYSICAL MEMORY` = Stand-alone billing (SAB) memory will be less than the minimum required. The specified SM will need to have additional memory equipped before the growth will continue.

`SENDPW PRIMITIVE FAILED` = Indicates a problem with the *UNIX*® RTR operating system in the AM. Try growth again.

`SM IN SGRO MUST HAVE MORE MEMORY ALLOCATED` = An SM in special grow has insufficient memory for the growth. Either try a smaller growth, or rerun ST:ODDCREAT with a bigger ODD size to increase its memory size.

`SM RECOVERY FROM PREVIOUS GROWTH - RODD IS LARGER` = Current RODD is larger than backup copy. This message indicates that the growth will decrease the RODD size to match the size on disk (without losing any actual data).

`SM RECOVERY FROM PREVIOUS GROWTH - RODD IS SMALLER` = Current RODD is smaller than backup copy for the specified SM. This message indicates that the growth is increasing the size to that of the copy on disk.

`SM REPORTED ABORTED` = An SM indicated that it aborted before completing; this may leave inconsistencies in the system.

`SM REPORTED STOPPED` = An SM reported that it cannot continue the growth; no inconsistencies will result from this action.

`STAND ALONE BILLING MEMORY IS IN USE` = Stand-alone billing is in use; try again at a later time.

`TIMEOUT FROM OKP PROCESS` = Indicates possible communication problem between the

operational kernel process (OKP) and one or more SMs.

`UNABLE TO SET UP COMMUNICATION WITH OKP` = Indicates possible communication problem between the *UNIX*® process and the operational kernel process (OKP).

`UNABLE TO SET UP COMMUNICATION WITH CMP` = Indicates possible communication problem between the AM and CMP.

4. ACTIONS TO BE TAKEN

All executions should terminate gracefully. Attempt a growth of size 0 to make the SM(s) that failed consistent with the rest of the system.

If any of the following statements appear, assert(s) corresponding to the problem should give more information concerning the type of error encountered.

```
BAD VALUE FOR DDREDGRW
CASE DEFAULTED
INVALID MESSAGE DETECTED
INVALID RETURN DETECTED
RECOVERY FROM PREVIOUS GROWTH FAILED
```

Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
BKUP:ODD
ST:NRODDGRW
ST:ODDBST
ST:ODDCREAT-SM
ST:RODDGRW
ST:UODDGRW-SM
```

Other Manual(s):

235-105-220 *Corrective Maintenance*
235-600-500 *Asserts*

ST:RODDGRW-B

Software Release: 5E12 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
ST RODDGRW [SM=a] b [c]
```

2. REASON FOR OUTPUT

To report the status of the redundant office dependent data (RODD) memory growth resulting from the ST:RODDGRW input message. If the *UNIX*® RTR operating system process is killed during growth, this message will not appear. There will be an interrupt that will describe the process that was killed as "/no5text/prc/smoddrgrw". If this occurs, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. The system, however, should remain stable.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Status of redundant memory growth. Valid value(s):

- `ABORTED` = Action was terminated before completion, with the result that data may be inconsistent.
- `COMPLETED` = The RODD growth completed normally. Action was terminated after completion.
- `IN PROGRESS` = The RODD growth execution continues.
- `NOT STARTED` = Action could not begin, possibly because ODD backup (BKUP:ODD), non-redundant ODD growth (ST:NRODDGRW), unprotected ODD growth (ST:UODDGRW), or ODD bitmap salvage technique (ST:ODDBST) was in progress.
- `STOPPED` = Action was terminated before a normal completion but the termination was successful.

`c` = Additional information concerning status. Valid value(s):

- `BACKUP MUST BE DONE IMMEDIATELY UPON COMPLETION` = A problem occurred while saving the new RODD size in a state file. A backup of the RODD should be performed immediately in order to prevent loss of growth.
- `RODD GROWTH SIZE NOT A MULTIPLE OF 16` = The input size to grow the redundant ODD was not a multiple of 16 Kilobytes.
- `BAD VALUE FOUND FOR DDREDGRW` = Integrity error in data delivery (DD). Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
- `BROADCAST ERROR` = May indicate a problem with links to a switching module (SM).
- `CAN NOT GROW - TRY BIGGER GROWTH SIZE` = The current RODD size is larger than what the growth will cover; try a larger growth.
- `CASE DEFAULTED` = Internal error; the growth was aborted. Try growth again.
- `COULD NOT UPDATE CI FILE FOR SGRO SM` = Could not read critical information (CI) file for the specified SM; either it doesn't exist, or there is not enough memory equipped for the SM(s) in special growth (SGRO).
- `DBCHECKMEM FAILED` = SM memory checks failed.
- `FAILED TO CREATE OKP PROCESS` = Indicates problem with the operational kernel process

(OKP) in the administrative module (AM). Could be due to a resource shortage (lack of stacks, for example). Try growth again.

`FAILED TO CREATE SM TERMINAL PROCESS` = Possibly due to SMs being isolated, or a resource shortage in the specified SM.

`FAILED TO GROW RODD FILE` = A problem occurred while growing the RODD disk file. Try growth again. If growth continues to fail, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`FAILED TO READ RODD COFF FILE` = Could not read from the common object file format (COFF) file that contains the RODD. This statement indicates a problem with the *UNIX*® RTR operating system. Could be due to administrative module (AM) real time overload or disk drive errors.

`INVALID MESSAGE DETECTED` = An invalid message was detected. Try growth again.

`INVALID RETURN DETECTED` = An invalid return was detected. Try growth again.

`NO ERRORS DETECTED` = No errors were reported back.

`NO RESPONSE FROM SM` = No response was received from the specified SM. Possible problems are: SM went into isolation, or SM terminal process was purged. Check SM status, then retry growth.

`ODD BACKUP IS IN PROGRESS` = Retry the growth at a later time.

`OSSENDMSG FAILED` = Couldn't send message between AM and SM. Check link status to SM.

`RECOVERY FROM PREVIOUS GROWTH FAILED` = A previous growth has aborted, and this growth has failed to recover from it. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`RODD GROWTH SUCCESSFULLY` = Growth completed successfully.

`RODD GROWTH DONE` = Growth completed successfully.

`RODD PARTIALLY COMMITTED - SOME SMS FAILED` = Some SM(s) committed the growth, but some SM(s) could not; this will leave inconsistencies in the system.

`RODD WILL BE BIGGER THAN GENERIC MAXIMUM` = The total size of the RODD will be bigger than the maximum allowed for the software release (4 megabytes). Try to grow by a smaller size.

`RUN ST:ODDBST TO RECLAIM RODD BLOCKIDS` = Insufficient space exists in the bitmap to continue the growth.

`INSUFFICIENT SPARE MEMORY, DEGROW BILLING MEMORY OR GROW PHYSICAL MEMORY` = There is insufficient spare memory to allow for the growth of the office dependent data (ODD). Additonal spare memory may be acquired by degrowing the stand alone billing memory (SABM) or real time billing memory (RTBM), or adding additional physical memory.

`SENDPW PRIMITIVE FAILED` = Indicates a problem with the *UNIX*® RTR operating system in the AM. Try growth again.

`SM IN SGRO MUST HAVE MORE MEMORY ALLOCATED` = An SM in special grow has insufficient memory for the growth. Either try a smaller growth, or rerun ST:ODDCREAT with a bigger ODD size to increase its memory size.

`SM RECOVERY FROM PREVIOUS GROWTH - RODD IS LARGER` = Current RODD is larger than backup copy. This message indicates that the growth will decrease the RODD size to match the size on disk (without losing any actual data).

`SM RECOVERY FROM PREVIOUS GROWTH - RODD IS SMALLER` = Current RODD is smaller than backup copy for the specified SM. This message indicates that the growth is increasing the size to that of the copy on disk.

`SM REPORTED ABORTED` = An SM indicated that it aborted before completing; this may leave inconsistencies in the system.

`SM REPORTED STOPPED` = An SM reported that it cannot continue the growth; no inconsistencies will result from this action.

`SABM AND/OR RTBM IS CURRENTLY IN USE` = The stand alone billing memory area and/or real

time billing memory area is currently in use, probably following an isolation of this SM, or the module controller/time slot interchange (MCTSI)-based ethernet links (MELNK) to the billing collector are down. Wait a few minutes, and then input the growth message again.

`TIMEOUT FROM OKP PROCESS` = Indicates possible communication problem between the operational kernel process (OKP) and one or more SMs.

`UNABLE TO SET UP COMMUNICATION WITH OKP` = Indicates possible communication problem between the *UNIX*® process and the operational kernel process (OKP).

`UNABLE TO SET UP COMMUNICATION WITH CMP` = Indicates possible communication problem between the AM and CMP.

4. ACTIONS TO BE TAKEN

All executions should terminate gracefully. Attempt a growth of size 0 to make the SM(s) that failed consistent with the rest of the system.

If any of the following statements appear, assert(s) corresponding to the problem should give more information concerning the type of error encountered.

```
BAD VALUE FOR DDREDGRW
CASE DEFAULTED
INVALID MESSAGE DETECTED
INVALID RETURN DETECTED
RECOVERY FROM PREVIOUS GROWTH FAILED
```

Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
BKUP:ODD
ST:NRODDGRW
ST:ODDBST
ST:ODDCREAT-SM
ST:RODDGRW
ST:UODDGRW-SM
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-600-500 *Asserts*

ST:UODDGRW-A

Software Release: 5E10 only
Message Class: ODD
Application: 5
Type: Output

1. FORMAT

```
ST UODDGRW SM=a b [c]
```

2. REASON FOR OUTPUT

To provide the status of the unprotected (Dynamic) office-dependent data (ODD) memory growth resulting from the input message ST:UODDGRW-SM.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Status of unprotected memory growth. Valid value(s):

- `ABORTED` = Action was terminated before completion and the termination was immediate with questionable consistency.
- `COMPLETED` = The unprotected ODD growth completed normally. Action was terminated after completion.
- `IN PROGRESS` = The unprotected ODD growth execution continues.
- `NOT STARTED` = Action could not begin, probably because an ODD backup (BKUP:ODD), non-redundant ODD growth (ST:NRODDGRW), redundant ODD growth (ST:RODDGRW), or ODD bitmap salvage technique (ST:ODDBST) was in progress.
- `STOPPED` = Action was terminated before a normal completion but the termination was successful.

`c` = Additional information concerning status. Valid value(s):

- `DATABASE CONSISTENCY NOT GUARANTEED`
- `DATABASE LEFT CONSISTENT`
- `DDUNGRW UPDATED` = The data delivery bit for the unprotected ODD growth has been set.
- `GLOBAL SYSTEM FAILURE` = The failure was due to problems external to the unprotected ODD growth.
- `GROWTH STARTED` = The unprotected ODD growth has finished its setup and has now started the actual growth.
- `GROWTH UNABLE TO SEIZE NON-REDUNDANT ODD DATA BLOCKS` = An unexpected occupation of memory within the unprotected ODD growth area of the non-redundant ODD occurred. The process was unable to continue and returned the two ODDs to their previous (before the ST:UODDGRW input message) sizes.
- `INCONSISTENT CONTROL ODD BITMAP` = The control ODD bitmap was found to have inconsistencies.
- `INCONSISTENT RELATION ID OR DATA DICTIONARY FOUND` = The unprotected ODD growth found the SM database to be corrupted.
- `UODD GROWTH SIZE NOT A MULTIPLE OF 16` = The input size to grow the unprotected ODD was not a multiple of 16 Kilobytes.
- `INSUFFICIENT NON-REDUNDANT ODD SPACE AVAILABLE` = The non-redundant ODD memory space was not large enough to accommodate the growth of the unprotected ODD.

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To do the unprotected ODD growth, a NON-REDUNDANT ODD GROWTH (ST:NRODDGRW) must occur first.

`INVALID SM NUMBER SPECIFIED` = Improper SM specified on the input message (ST:UODDGRW).

`PROCESS BLOCKED FROM EXECUTING` = Another ODD backup, non-redundant ODD growth, redundant ODD growth, or ODD bitmap salvage technique blocked the unprotected ODD growth from occurring.

`RECOVERED FROM A PREVIOUS UODD GROWTH ATTEMPT GROWTH CONTINUES` = A previous call to ST:UODDGRW left some SM parameters in an inconsistent state. The function recovers the inconsistent parameters and proceeds with the growth.

Note: If the previous growth request was aborted, its growth will be removed. Only the current growth request will increase the unprotected ODD size.

`SUCCESSFULLY`

`TIMED OUT WAITING FOR AN SM MESSAGE` = The AM unprotected ODD growth process failed to receive a message from the corresponding SM unprotected ODD growth process within the required amount of time.

`UNPROTECTED ODD GROWTH DATA STRUCTURES FAULTY OR OVERFLOWED` = The unprotected ODD growths internal data structures were found to be inconsistent.

`UNPROTECTED ODD GROWTH PROCESS PURGED` = The unprotected ODD growth terminated because the SM unprotected ODD growth terminal process was purged.

4. ACTION TO BE TAKEN

All executions should terminate gracefully. If the administrative module (AM) growth process(es) are killed, this message will not appear. The system however should remain stable. Retry the input message (ST:UODDGRW) and the "`RECOVERED FROM A PREVIOUS UODD GROWTH ATTEMPT`" message should appear and complete the growth.

If the "`INCONSISTENT CONTROL ODD BITMAP`" message should appear do not re-schedule the unprotected ODD growth until the DBmemman audit has finished executing.

If the "`GLOBAL SYSTEM FAILURE`" message appears, assert(s) corresponding to the problem should give more information concerning the type of error encountered.

Finally, if the "`INCONSISTENT RELATION ID OR DATA DICTIONARY FOUND`" message appears, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
BKUP:ODD
ST:UODDGRW-SM
ST:NRODDGRW
ST:RODDGRW
ST:ODDBST
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

ST:UODDGRW-B

Software Release: 5E11 and later
Message Class: ODD
Application: 5
Type: Output

1. FORMAT

```
ST UODDGRW SM=a b [c]
```

2. REASON FOR OUTPUT

To provide the status of the unprotected (dynamic) office-dependent data (ODD) memory growth resulting from the input message ST:UODDGRW-SM.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Status of unprotected memory growth. Valid value(s):

- `ABORTED` = Action was terminated before completion and the termination was immediate with questionable consistency.
- `COMPLETED` = The unprotected ODD growth completed normally. Action was terminated after completion.
- `IN PROGRESS` = The unprotected ODD growth execution continues.
- `NOT STARTED` = Action could not begin, probably because an ODD backup (BKUP:ODD), non-redundant ODD growth (ST:NRODDGRW), redundant ODD growth (ST:RODDGRW), or ODD bitmap salvage technique (ST:ODDBST) was in progress.
- `STOPPED` = Action was terminated before a normal completion but the termination was successful.

`c` = Additional information concerning status. Valid value(s):

- `DATABASE CONSISTENCY NOT GUARANTEED`
- `DATABASE LEFT CONSISTENT`
- `DDUNGRW UPDATED` = The data delivery bit for the unprotected ODD growth has been set.
- `GLOBAL SYSTEM FAILURE` = The failure was due to problems external to the unprotected ODD growth.
- `GROWTH STARTED` = The unprotected ODD growth has finished its setup and has now started the actual growth.
- `GROWTH UNABLE TO SEIZE NON-REDUNDANT ODD DATA BLOCKS` = An unexpected occupation of memory within the unprotected ODD growth area of the non-redundant ODD occurred. The process was unable to continue and returned the two ODDs to their previous (before the ST:UODDGRW input message) sizes.
- `INCONSISTENT CONTROL ODD BITMAP` = The control ODD bitmap was found to have inconsistencies.
- `INCONSISTENT RELATION ID OR DATA DICTIONARY FOUND` = The unprotected ODD growth found the SM database to be corrupted.
- `INSUFFICIENT NON-REDUNDANT ODD SPACE AVAILABLE` = The non-redundant ODD memory space was not large enough to accommodate the growth of the unprotected ODD. To do the unprotected ODD growth, a NON-REDUNDANT ODD GROWTH (ST:NRODDGRW) must occur first.

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`INVALID SM NUMBER SPECIFIED` = Improper SM specified on the input message (ST:UODDGRW).

`PROCESS BLOCKED FROM EXECUTING` = Another ODD backup, non-redundant ODD growth, redundant ODD growth, or ODD bitmap salvage technique blocked the unprotected ODD growth from occurring.

`RECOVERED FROM A PREVIOUS UODD GROWTH ATTEMPT GROWTH CONTINUES` = A previous call to ST:UODDGRW left some SM parameters in an inconsistent state. The function recovers the inconsistent parameters and proceeds with the growth.

Note: If the previous growth request was aborted, its growth will be removed. Only the current growth request will increase the unprotected ODD size.

`SUCCESSFULLY`

`TIMED OUT WAITING FOR AN SM MESSAGE` = The AM unprotected ODD growth process failed to receive a message from the corresponding SM unprotected ODD growth process within the required amount of time.

`UNPROTECTED ODD GROWTH DATA STRUCTURES FAULTY OR OVERFLOWED` = The unprotected ODD growths internal data structures were found to be inconsistent.

`UNPROTECTED ODD GROWTH PROCESS PURGED` = The unprotected ODD growth terminated because the SM unprotected ODD growth terminal process was purged.

`UODD GROWTH SIZE NOT A MULTIPLE OF 16` = The input size to grow the unprotected ODD was not a multiple of 16 Kilobytes.

4. ACTION TO BE TAKEN

All executions should terminate gracefully. If the administrative module (AM) growth process(es) are killed, this message will not appear. The system however should remain stable. Retry the input message (ST:UODDGRW) and the "`RECOVERED FROM A PREVIOUS UODD GROWTH ATTEMPT`" message should appear and complete the growth.

If the "`INCONSISTENT CONTROL ODD BITMAP`" message should appear do not re-schedule the unprotected ODD growth until the MEMMAN audit has finished executing. Refer to the AUD:MEMMAN input message to have the MEMMAN audit manually executed.

If the "`GLOBAL SYSTEM FAILURE`" message appears, assert(s) corresponding to the problem should give more information concerning the type of error encountered.

Finally, if the "`INCONSISTENT RELATION ID OR DATA DICTIONARY FOUND`" message appears, Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
AUD:MEMMAN
BKUP:ODD
ST:UODDGRW-SM
ST:NRODDGRW
ST:RODDGRW
```

```
ST:ODDBST
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

ST:UPDMHGTRKG

Software Release: 5E10 and later
Message Class: ODD
Application: 5
Type: Output

1. FORMAT

```
ST UPDMHGTRKG SITE a b
```

2. REASON FOR OUTPUT

To indicate the result of an ST:UPDMHGTRKG input message requesting the update of the "cluster" attribute in the office dependent data (ODD) relations, RLRT_MHG and RLRT_TRKG, and update of the RLRTANNGRP relation for a particular multi-module remote switching module (MMRSM) site. This activity is usually related to the remote switching module (RSM) association procedure which is a function of MMRSM growth.

3. VARIABLE FIELD DEFINITIONS

`a` = MMRSM site number for which the update was done.

`b` = Operation completion status. Valid value(s):
- `ABORTED` = Operation interrupted, not all data updated.
- `COMPLETED` = Operation completed successfully.
- `IN PROGRESS` = Operation has not yet completed. This is a five-minute interval status report.
- `NOT STARTED` = Operation not started, could not establish communication port at this time.

4. ACTION TO BE TAKEN

If `b` equals `ABORTED`, some inefficiency may be encountered by call processing in routing inter-RSM calls within a hunt group in the MMRSM site. However, if the RSM call process is in stand-alone call processing state, calls cannot be backhauled using the AM and may not be completed. The problem which caused this UPDMHGTRKG function not to complete successfully should be resolved as soon as possible. An `ABORTED` status with no accompanying system initialization sequence indicates that the "cluster" attribute of the RLRT_MHG and/or the RLRT_TRKG office dependent data (ODD) relations were not updated properly, or that the update of the RLRTANNGRP relation did not succeed.

In the case of an `ABORTED` or `NOT STARTED` status, use the ST:UPDMHGTRKG input message to re-initiate the ODDUPD function.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ST:UPDMHGTRKG`

Other Manual(s):
235-105-230 *Hardware Change Procedures*

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102. STOP

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STOP:AUD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      STOP AUD COMPLETED

[2]   ____________________________________________________________________
      STOP AUD NOT STARTED
        CONFLICT WITH CURRENT SYSTEM STATUS  - NOT RUNNING

[3]   ____________________________________________________________________
      STOP AUD NOT STARTED
        CANNOT STOP NON-SEGMENTED AUDIT
```

2. REASON FOR OUTPUT

To report the termination status of the STOP:AUD input message.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

Format 1 indicates successful execution. No action is necessary.

Format 2 indicates that no audits were running at the time the command was entered. The OP:AUD input message can be used to determine the current system status.

If Format 3 is printed, the audit cannot be stopped.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

Refer to the APP:AUD-A appendix and APP:AUD-B appendix in the Appendixes section of the Output Messages manual for assorted parsing errors when the IM catalog is not active.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
2	595
3	591

Input Message(s):

```
OP:AUD
```

```
STOP:AUD
```

Output Message(s):

```
OP:AUD
```

Output Appendix(es):

```
APP:AUD-A
APP:AUD-B
APP:OMDB-X-REF
```

Other Manual(s):
235-600-400 *Audits*

STOP:BKDISK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
STOP BKDISK { ABORTED | IN PROGRESS | COMPLETED }
[ COPY BKDISK NOT RUNNING |
  CANNOT SEND SIGNAL TO COPY BKDISK |
  COPY BKDISK FAILED TO TERMINATE ]
```

2. REASON FOR OUTPUT

To report the progress of the STOP:BKDISK input message, or to indicate a problem.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

If the message indicates COPY:BKDISK is not running, no action is needed. If the message indicates COPY:BKDISK cannot be signaled, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. If the message indicates COPY:BKDISK failed to terminate, initiate the STOP:BKDISK input message again. If the process still fails, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	764

Input Message(s):

```
COPY:BKDISK

STOP:BKDISK
```

Output Message(s):

```
COPY:BKDISK
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

STOP:DCI

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    ____________________________________________________________________
       STOP DCI COMPLETED

[2]    ____________________________________________________________________
       STOP DCI NOT STARTED
```

2. REASON FOR OUTPUT

Format 1 reports the termination of the dual serial channel interface (DCI) process in response to a STOP:DCI input message.

Format 2 is the response to a `STOP:DCI` input message when the dual serial channel interface (DCI process was not running.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`STOP:DCI`

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STOP:DMQ

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
Refer to the STP:DMQ output message.
```

2. REASON FOR OUTPUT

To report that a diagnostic request awaiting execution was removed from the maintenance input request administrator (MIRA) request queue in response to either an automatic stop request or STOP:DMQ input message.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STOP:DMQ
```

STOP:ECDAUD

Software Release: 5E10 and later
Message Class: AUDIT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      STOP ECDAUD COMPLETED

[2]   ____________________________________________________________________
      STOP ECDAUD NOT STARTED
        CONFLICT WITH CURRENT SYSTEM STATUS - NOT RUNNING

[3]   ____________________________________________________________________
      STOP ECDAUD ABORTED - SYSTEM ERROR a
```

2. REASON FOR OUTPUT

To report the termination status of the STOP:ECDAUD input message.

Format 1 indicates successful execution. No action is necessary.

Format 2 indicates that no audits were running at the time the input message was entered. The OP:ECDAUD input message can be used to determine the current system status.

Format 3 indicates that an internal error has occurred. Refer to variable '`a`' for more information.

3. VARIABLE FIELD DEFINITIONS

`a` = System error number. Valid value(s):

- `1` = Cannot open audit rule file - /lla/ECDAUD/ecdaud.rules.
- `2` = Cannot attach to ECD database.
- `3` = Unable to kill running audit, check PID in /lla/ECDAUD/.ecdaud.pid
- `4` = Bad rule in rule file (/lla/ECDAUD/ecdaud.rules).
- `5` = Unable to audit data (/lla/ECDAUD/ecdaud.rules).
- `6` = Failure in reading ECD database.
- `7` = Cannot open audit rule file - /lla/ECDAUD/hwchk.rules.
- `8` = Failed to obtain current status.
- `9` = Internal system error.
- `10` = Database partition greater than 80% full, remove unused files.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual request of the STOP:ECDAUD input message. No further action is necessary.

5. ALARMS

Minor is system error was encountered.

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6. REFERENCES

Input Message(s):

```
EXC:ECDAUD
STOP:ECDAUD
INH:ECDAUD
ALW:ECDAUD
OP:ECDAUD
SCHED:ECDAUD
```

Other Manual(s):
235-100-125 *System Description*
235-105-210 *Routine Operations and Maintenance Procedures*

STOP:EXC-ANY

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
STOP EXC ANY {COMPLETED|STOPPED}
 [a]
```

2. REASON FOR OUTPUT

To report the result of executing a STOP:EXC-ANY or STP:EXC-ANY input message to stop a process.

3. VARIABLE FIELD DEFINITIONS

`a` = Type of error that may have occurred.

4. ACTION TO BE TAKEN

If any error message is printed, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

Manual alarm. This is a manually-requested report.

This is an automatically-generated report.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	282, 284

Input Message(s):

```
OP:ST-PROC
STOP:EXC-ANY
STOP:EXC-USER
STP:EXC-ANY
STP:EXC-USER
```

Output Message(s):

```
OP:ST-PROC
```

Output Appendix(es):

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APP:OMDB-X-REF

STOP:EXC-USER

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      STOP EXC USER COMPLETED

[2]   ____________________________________________________________________
      STOP EXC USER STOPPED
        a
```

2. REASON FOR OUTPUT

To report the result of executing a STOP:EXC-USER or STP:EXC-USER input message to stop a user process.

Note: If the STOP:EXC-USER or STP:EXC-USER input message is used to kill a supervisor process, a "`COMPLETED`" message will be printed, but the process has not really been killed.

3. VARIABLE FIELD DEFINITIONS

`a` = Description of the error encountered.

4. ACTION TO BE TAKEN

Format 1 indicates success. No action is necessary.

Format 2 indicates the input message has failed. The explanatory text will indicate the error encountered. Refer to the input messages manual for the correct format and reenter the input message, or check the status of the file using the OP:ST-LISTDIR input message if the message indicates that the process or file may not exist as printed. If the message indicates that an invalid signal has been used, refer to the input messages manual for available signals.

If any other error message is printed, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	282
1	288

Input Message(s):

```
OP:ST-LISTDIR
OP:ST-PROC
```

```
STOP:EXC-ANY
STOP:EXC-USER
```

Output Message(s):

```
OP:ST-LISTDIR
OP:ST-PROC
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

STOP:GEN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      STOP GEN {COMPLETED | STOPPED WITH ERROR CODE a }

[2]   ____________________________________________________________________
      STOP GEN NOT STARTED   ACK
        CONFLICT WITH CURRENT SYSTEM STATUS  b
```

2. REASON FOR OUTPUT

To report the result of executing the STOP:GEN input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Error code causing the process to stop. Consult the appropriate software release transition procedures (refer to references) for more information.

`b` = Process not initiated.

4. ACTION TO BE TAKEN

Correct any user execution errors by examining the procedures used for execution of the message. For certain DMERT interface errors, using the UCL option in the STOP:GEN input message may help. If any other error occurs, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	326

Input Message(s):

```
OP:G-APPLLOG
OP:G-READLOG
STOP:GEN
UPD:G-APPLPROC
UPD:G-BACKOUT
UPD:G-BEGIN
UPD:G-COMMIT
UPD:G-CONTINUE
UPD:G-END
UPD:G-ENTER
```

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```
UPD:G-PROCEED
UPD:G-RESTORE
UPD:G-SMBKOUT
UPD:G-SMSWITCH
UPD:G-SWITCHBCK
UPD:G-SWITCHFWD
```

Output Message(s):

```
OP:GEN-APPLLOG
OP:GEN-READLOG
UPD:GEN-APPL
UPD:GEN-ASW
UPD:GEN-BACKOUT
UPD:GEN-BEGIN
UPD:GEN-COMMIT
UPD:GEN-CONTINUE
UPD:GEN-ENTER
UPD:GEN-END
UPD:GEN-PROCEED
UPD:GEN-RESTORE
UPD:GEN-SMBKOUT
UPD:GEN-SMSWITCH
UPD:GEN-SWITCHBK
UPD:GEN-SWITCHFW
```

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-105-24x *Generic Retrofit Procedures*
235-105-34x *Software Release Update*
235-105-44x *Large Terminal Growth*

MCC Display Page(s):

116 (MISCELLANEOUS)
124 (RETROFIT)

STOP:LNUPD

Software Release: 5E12 and later
Message Class: SWM01
Application: CNI
Type: Output

1. FORMAT

```
STOP LNUPD STOPPED
  STOP UPDATE ALL SS7 NODES FAILED
  a
```

2. REASON FOR OUTPUT

Prints in response to a STOP:LNUPD input message when there is no LNUPD:LN command in progress.

3. VARIABLE FIELD DEFINITIONS

`a` = Reason STOP:LNUPD failed. Valid values are:

```
STOP REQUEST REJECTED, UPDATE JOB NOT RUNNING

STOP REQUEST IS REJECTED, UPDATE ERRLOG CONDITION
```

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
LNUPD:LN
OP:LNUPD
STOP:LNUPD
```

Output Message(s):

```
LNUPD LN
OP LNUPD
REPT LNUPD LN
```

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STOP:OFLBOOT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      STOP OFLBOOT COMPLETED

[2]   ____________________________________________________________________
      STOP OFLBOOT a
        b
        OLBSTATE        LASTATE        FUNCTION        LINE
        c               d              e               f

[3]   ____________________________________________________________________
      STOP OFLBOOT STARTED
        TYPE g

[4]   ____________________________________________________________________
      STOP OFLBOOT IN PROGRESS
```

2. REASON FOR OUTPUT

These messages are output to report information regarding the execution of the offline boot feature.

3. VARIABLE FIELD DEFINITIONS

`a` = Message type. Valid value(s):

- `ABORTED` = Application request to stop the oflboot procedure; devices moved to the off-line side will be restored.
- `INFO` = Information dump.
- `STOPPED` = Manual request to stop the oflboot procedure. If the RST option was specified, devices moved to the off-line side will be restored.
- `TERMINATED` = Administrative module (AM) software-initiated termination of the oflboot procedure; devices moved to the off-line side will not be restored.

`b` = Text line. Valid value(s):

- `ABORT IN PROGRESS` = Indicates a stop was issued when a stop was already in progress. The first stop could be either manual or software initiated.
- `CANNOT INVOKE COMMAND ON OFFLINE SIDE` = Printed if STOP:OFLBOOT is invoked on the off-line side.
- `ILLEGAL STOP OFLBOOT COMMAND` = A second STOP:OFLBOOT command was issued either without the restore option or outside the time limit (one hour) to execute a STOP:OFLBOOT with the RST option.
- `STOP FROM OFF-LINE SIDE NOT ALLOWED` = Printed if STOP:OFLBOOT is invoked from the off-line side.

`c` = Current offline boot state.

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d = Previous offline boot state.

e = Name of the function from which the output message originated. This field is used by the AM in diagnosing offline boot problems.

f = Line number in the function 'e' from which the output message originated. This field is used by the AM, in conjunction with field 'e', to diagnose offline boot problems.

g = Abort type, indicates how abort was initiated. Valid value(s):
APPLICATION = Associated with an application-initiated abort.
MANUAL = Associated with a manual STOP:OFLBOOT request.
SOFTWARE = Associated with an AM-initiated termination.

4. ACTION TO BE TAKEN

For Formats 1, 3, and 4, no action needs to be taken.

For Format 2, the action to be taken depends on text line 'b'.

If 'b' =	Action:
ABORT IN PROGRESS	No action is needed; let the first stop run to completion.
CANNOT INVOKE COMMAND ON OFFLINE SIDE	Execute STOP:OFLBOOT on the on-line side.
ILLEGAL STOP OFLBOOT COMMAND	If within the 1-hour time limit (from the first STOP:OFLBOOT message), try STOP:OFLBOOT again with the RST option.
STOP FROM OFF-LINE SIDE NOT ALLOWED	Execute STOP:OFLBOOT on the on-line side.

5. ALARMS

For a minor alarm, take action as indicated in the report. A major alarm may not be service affecting, but take immediate action as indicated in the report.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1, 4	690
2	704
3	691

Input Message(s):

```
EXC:OFLBOOT
STOP:OFLBOOT
SW:OFLBOOT
```

Output Message(s):

```
EXC:OFLBOOT
REPT:OFLBOOT
REPT:OFFLINE
```

```
SW:OFLBOOT
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

STOP:OFR

Software Release: 5E10 and later
Message Class: OFR
Application: 5
Type: Output

1. FORMAT

```
STOP OFR ID=a
  STATUS=b
```

2. REASON FOR OUTPUT

To report the status of the STP:OFR input message which stops on-line office records processing.

3. VARIABLE FIELD DEFINITIONS

`a` = Identification number.

`b` = Status of STOP request. Valid value(s):
`PROCESSING CANCELED`
`PROCESSING COMPLETED`
`REQUEST ID UNKNOWN` = Incorrect identification number entered.

4. ACTION TO BE TAKEN

For `REQUEST ID UNKNOWN`, check input message format and reissue the message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:OFR
OP:OFR-CAT
OP:OFR-FORM
OP:OFR-STATUS
```

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STOP:RG1AUD

Software Release: 5E11 and later
Message Class: CCS
Application: 5,CNI
Type: Output

1. FORMAT

[1]
```
STOP:RG1AUD a
```

[2]
```
STOP RG1AUD COMPL

  RING 1 AUDIT WITH RATE=b, DUR=c, PAT=d

  HAS BEEN SUCCESSFULLY TERMINATED
```

[3]
```
STOP RG1AUD COMPL

  RING 1 AUDIT WITH RATE=b, DUR=c, PAT=d  AND UCL

  HAS BEEN SUCCESSFULLY TERMINATED
```

2. REASON FOR OUTPUT

Prints in response to a STOP:RG1AUD input message. Format 1 prints when the Ring 1 Audit had been aborted or was not running. Format 2 or 3 prints when the Ring 1 Audit is stopped.

3. VARIABLE FIELD DEFINITIONS

a = Response for a successful input:

PF = The request was received and will be processed. A printout will follow giving either a termination report or termination report and results of the work initiated by the input message.

Additional output that can accompany the PF output:

- STOP RG1AUD STOPPED RG1AUD NOT RUNNING

- STOP RG1AUD ABT PROBLEM WITH IMS DRIVER'S REPLY ACKNOWLEDGEMENT RATE VALUE

- STOP RG1AUD ABT PROBLEM WITH IMS DRIVER'S REPLY ACKNOWLEDGEMENT

b = The RATE (LOW, MED, or HIGH) at which the Ring 1 Audit was sending messages.

c = The duration in minutes (1-480) the Ring 1 Audit was set to run for.

d = The test pattern (H'xxxxxxxx) that was repeated in the Ring 1 Audit messages.

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4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message:

```
STOP:RG1AUD
```

Output Message:

```
EXC:RG1AUD
OP:RG1AUD
```

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STOP:RTRACK

Software Release: 5E11 and later
Message Class: SWM01
Application: CNI
Type: Output

1. FORMAT

```
STOP RTRACK a
  b
```

2. REASON FOR OUTPUT

To print a response to the STOP:RTRACK input message.

3. VARIABLE FIELD DEFINITIONS

a = Termination status of the input message. Valid value(s):
COMPL
NOT STARTED
STOPPED

b = Reason command did not complete. Valid value(s):

If 'a' =	'b' =
NOT STARTED	RTRACK NOT RUNNING RTRACK IS CURRENTLY INHIBITED
STOPPED	INVALID REQUEST RESPONSE FOR STOP RTRACK INVALID RESPONSE ACKNOWLEDGEMENT FOR STOP RTRACK

4. ACTION TO BE TAKEN

No action is necessary.

If 'a' is COMPL, the ring tracker mode process of locating and isolating an intermittent ring hardware failure has been terminated in response to a STOP:RTRACK input message.

If 'b' =	Action:
RTRACK NOT RUNNING	A STOP:RTRACK input message has been entered but the ring tracker mode was not active at that time.
RTRACK IS CURRENTLY INHIBITED	A STOP:RTRACK input message has been entered but the ring tracker mode is currently inhibited as a result of a previously entered INH:RTRACK input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

ALW:RTRACK
EXC:RTRACK

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```
INH:RTRACK
OP:RTRACK
STOP:RTRACK
```

Output Message(s):

```
ALW RTRACK
EXC RTRACK
INH RTRACK
OP RTRACK
REPT RING CFR
```

STOP:TRAP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

[1]
```
STOP TRAP
  MTRP: STOP TRAP ID ALL COMPL; NO ACT OR INH TRAP
```

[2]
```
STOP TRAP
  MTRP: STOP TRAP ID ALL COMPL;   ID = a[a[a]]
```

[3]
```
STOP TRAP
  MTRP: STOP TRAP ID ALL FAILED; b
```

[4]
```
STOP TRAP
  MTRP: STOP TRAP ID COMPL; ID = a
```

[5]
```
STOP TRAP
  MTRP: STOP TRAP ID FAILED;{b|c}; ID = a
```

[6]
```
STOP TRAP
  MTRP: STOP TRAP RMTID ALL COMPL; NO REMOVABLE TRAP
```

[7]
```
STOP TRAP
  MTRP: STOP TRAP RMTID ALL COMPL;  ID(S) = a[a[a]]
```

[8]
```
STOP TRAP
  MTRP: STOP TRAP RMTID ALL FAILED; b
```

[9]
```
STOP TRAP
  MTRP: STOP TRAP RMTID COMPL;  ID = a
```

[10]
```
STOP TRAP
  MTRP: STOP TRAP RMTID FAILED;{b|d}; ID = a
```

[11]
```
STOP TRAP
  MTRP: STOP TRAP INIT Y COMPL;
        ALL ACT TRAPS INHIBITED;
        ALL ABT/CMP/TRM TRAPS REMOVED
```

[12]

```
        STOP TRAP
          MTRP: STOP TRAP INIT Y FAILED; b

[13]    ____________________________________________________________________
        STOP TRAP
          MTRP: STOP TRAP INIT N COMPL; NO ACTION TAKEN

[14]    ____________________________________________________________________
        STOP TRAP
          MTRP: STOP TRAP OVRWT Y COMPL

[15]    ____________________________________________________________________
        STOP TRAP
          MTRP: STOP TRAP OVRWT N COMPL

[16]    ____________________________________________________________________
        STOP TRAP
          MTRP: STOP TRAP OVRWT Y|N FAILED; RETRY LATER
```

2. REASON FOR OUTPUT

To respond to a STOP:TRAP input message.

Format 1 prints when ID ALL is specified and there are no active or inhibited traps in the message trap system.

Format 2 prints when ID ALL is specified and there is one or more active or inhibited traps to be stopped. A list of the trap IDs that have been stopped will be displayed.

Format 3 prints when ID ALL is specified and there is one or more active or inhibited traps to be stopped. However, the processing of the STOP:TRAP input message has failed for the reason being printed.

Format 4 prints when one or a list of trap IDs was given along with the ID keyword. Each trap specified will be stopped in the given order. This format will be printed for the traps that have been successfully stopped. One message will be deleted per trap ID stopped.

Format 5 prints when one or a list of trap IDs is given along with the ID keyword. Each trap specified will be stopped in the given order. This format resulted when the processing of a trap had failed for the reason being printed. One message will be deleted per ID failed.

Format 6 prints when RMTID ALL was specified and there were no pending, completed, aborted or terminated traps in the message trap system.

Format 7 prints when RMTID ALL was specified and there was one or more traps to be removed. A list of the trap IDs that have been removed will be displayed.

Format 8 prints when RMTID ALL was specified and there was one or more traps to be removed. However, the processing of the STOP:TRAP input message has failed for to the reason being printed.

Format 9 prints when one or a list of trap IDs was given along with the RMTID keyword. Each trap specified should have been removed in the given order. This format will be printed for the traps that have been successfully removed. One message will be printed per trap ID removed.

Format 10 prints when one or a list of trap IDs was given along with the RMTID keyword. Each trap specified should have been removed in the given order. This format results when the processing of a trap has failed for the reason being printed. One message will be printed per ID failed.

Format 11 prints when the INIT keyword (disk initialization) was specified with Y option. The disk initialization was successful and it had the side effect of inhibiting any active traps as well as removing any aborted, completed or terminated traps. All the trap results are lost.

Format 12 prints when the INIT keyword (disk initialization) was specified with Y option. The disk initialization has failed for the reason being displayed.

Format 13 prints when the INIT keyword (disk initialization) was specified with N option. No action has been taken.

Format 14 prints when the OVRWT keyword (disk file overwrite) was specified with Y option and the processing of the input message was successful.

Format 15 prints when the OVRWT keyword (disk file overwrite) was specified with N option and the processing of the input message was successful.

Format 16 prints when the OVRWT keyword (disk file overwrite) was specified with Y or N option and the processing of the input message has failed. However, the condition should be transient.

3. VARIABLE FIELD DEFINITIONS

`a` = Trap identification number.

`b` = Reason STOP:TRAP input message failed (internal error condition). Valid value(s):
`CAN'T GET INDEX`
`INVALID TRAP STATE`
`NO TRAP REMOVED`
`NO TRAP STOPPED`

`c` = Reason STOP:TRAP input message failed (with ID keyword). Valid value(s):
`INVALID ID` = ID does not belong to any trap.
`NOT ACT OR INH TRAP` = Indicated that only active or inhibited traps may be stopped.

`d` = Reason STOP:TRAP input message failed (with RMTID keyword). Valid value(s):
`ACT TRAP` = Cannot remove active traps.
`INH TRAP` = Cannot remove inhibited traps.
`INVALID ID` = ID does not belong to any trap.

4. ACTION TO BE TAKEN

For Formats 1, 2, 4, 6, 7, 9, 11, and 13-15, no action is required.

For Formats 3, 8, and 12, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 5, if any of the reasons in variable '`b`' are printed, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. The reasons in variable '`c`' are self-explanatory. Correct the error and try again.

For Formats 8 and 12, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 10, if any of the reasons in variable '`b`' are printed, refer to the TECHNICAL ASSISTANCE portion of the

INTRODUCTION section of the Output Messages manual. The reasons in variable '`d`' are self-explanatory. Correct the error and try again.

For Format 16, retry in a few minutes.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:TRAP
INH:TRAP
OP:TRAP
SET:TRAP
STOP:TRAP
```

Output Message(s):

```
ALW:TRAP
INH:TRAP
OP:TRAP
SET:TRAP
REPT:MON-TRAP
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

103. STP

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STP:AIUCOM

Software Release: 5E11 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] AIUCOM=b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an STP:AIUCOM input request to stop the current action on the integrated services access interface unit common data and control controller (COMDAC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped. Valid value(s):
- `DGN` = Diagnose.
- `RMV` = Remove.
- `RST` = Restore.
- `SW` = Switch.

`b` = Switching module (SM) number.

`c` = AIU number.

`d` = COMDAC number.

`e` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
STP:AIUCOM
```

Output Message(s):

```
DGN:AIUCOM
RMV:AIUCOM
RST:AIUCOM
SW:AIUCOM
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1320,y,x (AIU SUMMARY)

STP:AIUCL

Software Release: 5E11 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] AIULC=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Indicates the result of an STP:AIULC input request to stop the current action on the access interface unit (AIU) line unit (LC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped. Valid value(s):
- `DGN` = Diagnose.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = AIU number.

`d` = Line pack (LP) number.

`e` = LC number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
STP:AIULC
```

Output Message(s):

```
DGN:AIULC
RMV:AIULC
RST:AIULC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1323,y,z,x (AIU AP STATUS)

STP:AIULP

Software Release: 5E11 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] AIULP=b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an STP:AIULP input request to stop the current action on the access interface unit (AIU) line pack (LP).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped. Valid value(s):
- `DGN` = Diagnose.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Access interface unit (AIU) number.

`d` = Line pack (LP) number.

`e` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`STP:AIULP`

Output Message(s):

```
DGN:AIULP
RMV:AIULP
RST:AIULP
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1320,y,x (AIU SUMMARY)
1323,y,z,x (AIU AP STATUS)

STP:AIURG

Software Release: 5E11 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] AIURG=b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an STP:AIURG input request to stop the current action on the access interface unit (AIU) ring generator (RG).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped. Valid value(s):
- `DGN` = Diagnose.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = AIU number.

`d` = RG number.

`e` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`STP:AIURG`

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Output Message(s):

```
DGN:AIURG
RMV:AIURG
RST:AIURG
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1320,y,x (AIU SUMMARY)
1322,y,x (AIU RG STATUS)

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STP:AIUTSGRP

Software Release: 5E11 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] AIUTSGRP=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Indicates the result of an STP:AIUTSGRP input request to stop the current action on the access interface unit (AIU) line unit (TSGRP).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped. Valid value(s):
- `DGN` = Diagnose.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = AIU number.

`d` = Common data and control circuit (COMDAC) number.

`e` = TSGRP number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
STP:AIUPIDB
```

Output Message(s):

```
DGN:AIUTSGRP
RMV:AIUTSGRP
RST:AIUTSGRP
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1321,y,x (AIU TSGRP SUMMARY)

STP:ALE-COMPL

Software Release: 5E10 and later
Message Class: TLWS
Application: 5
Type: Output

1. FORMAT

```
STP ALE COMPLETED
```

2. REASON FOR OUTPUT

To indicate that the current automatic line evaluation (ALE) session has successfully terminated in response to an STP:ALE input message.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:ALE

EXC:LIT

STP:ALE
```

Output Message(s):

```
EXC:ALE-PER
```

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STP:ALIT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] ALIT=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the automatic line insulation test (ALIT) circuit at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default is the action currently executing on the ALIT). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Metallic service unit (MSU) number.

`d` = Service group number.

`e` = MSU board number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begin.
- `STOPPED` = Requested action was terminated before a normal completion.

`g` = Additional data qualifying the termination report (variable '`f`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Output Message(s):

```
DGN:ALIT
EX:ALIT
RMV:ALIT
RST:ALIT
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:APT

Software Release: 5E10 and later
Message Class: ATL
Application: 5
Type: Output

1. FORMAT

```
STP APT          LAST TKGMN TESTED a b
```

2. REASON FOR OUTPUT

To report that the automatic progression testing (APT) session has been manually stopped; that is, the session has ended before the duration time was up.

3. VARIABLE FIELD DEFINITIONS

a = Trunk group number of the last trunk tested.
Note: APT tests 2 trunk groups at a time. The variable 'a' represents which of these 2 trunk groups was the last trunk group tested. Realize that 'a' may not necessarily be the largest numbered trunk group of these two trunk groups.

b = Trunk group member number of the last trunk tested.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

STP:APT

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STP:ASC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] ASC=b c [d]
```

2. REASON FOR OUTPUT

Indicates the result of an STP:ASC input message to stop the current action on a remote switching module (RSM), optical remote switching module (ORM), or two-mile remote module (TRM) alarm and status circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default is the action currently executing on the ASC). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action had not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`STP:ASC`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

STP:ATTS

Software Release: 5E10 and later
Message Class: APT,ATL
Application: 5
Type: Output

1. FORMAT

```
STP ATTS SCHED=a [MODE=UCL] b
```

2. REASON FOR OUTPUT

Reports the manually requested stopping of an automatic trunk test scheduler (ATTS) test schedule.

3. VARIABLE FIELD DEFINITIONS

`UCL` = The schedule was requested to be stopped unconditionally.

`a` = The number of the ATTS test schedule requested to be stopped.

`b` = Termination status. Valid value(s):
- `COMPLETED` = The specified ATTS test schedule has been stopped.
- `COMPLETED - SESSION SUSPENDED` = The operation of the specified ATTS test schedule has been disabled, and the interrupted test session's activity has been suspended.
- `NOT STARTED - SCHEDULE IN REQUESTED STATE` = The specified ATTS test schedule was found to be already stopped.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:ATDTA
DUMP:ATLOG
DUMP:ATPRM
OP:ATTS
ST:ATTS
STP:ATTS
```

Output Message(s):

```
DUMP:ATDTA
DUMP:ATLOG
DUMP:ATPRM
OP:ATTS
```

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```
REPT:ATTS
ST:ATTS
STP:ATTS
```

Other Manual(s):

Where 'x' is the release-specific version of the document.

235-118-25x	*Recent Change Procedures*
235-118-25x	*Recent Change Reference*
235-105-210	*Routine Operations and Maintenance*
235-100-125	*System Description*

RC/V View(s):

14.9 (ATTS TEST SESSION SCHEDULE DATA)
14.10 (ATTS TEST SCHEDULE PARAMETER)

STP:AUD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      STP AUD COMPLETED

[2]   ____________________________________________________________________
      STP AUD NOT STARTED
        CONFLICT WITH CURRENT SYSTEM STATUS  a
        RETRY LATER  b

[3]   ____________________________________________________________________
      STP AUD NOT STARTED
        CANNOT STOP NON-SEGMENTED AUDIT
```

2. REASON FOR OUTPUT

To report the termination status of the STP:AUD input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Explanation of error. Refer to the APP:AUD-C appendix in the Appendixes section of the Output Messages manual.

`b` = Explanation of error. Refer to the APP:AUD-D appendix in the Appendixes section of the Output Messages manual.

Note: Refer to the APP:AUD-A and APP:AUD-B appendixes in the Appendixes section of the Output Messages manual, for assorted parsing errors when the IM catalog is not active.

4. ACTION TO BE TAKEN

In case of failure (Format 2) use the OP:AUD input message to determine the current system status.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
3	591

Input Message(s):

```
OP:AUD
STP:AUD
```

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Output Appendix(es):

```
APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D
APP:OMDB-X-REF
```

Other Manual(s):
235-600-400 *Audits*

STP:AUD-CMP

Software Release: 5E10 and later
Message Class: AUDT
Application: 5
Type: Output

1. FORMAT

```
STP  AUD={a|NO AUDIT ACTIVE} CMP=b-c {PRIM|MATE}
```

2. REASON FOR OUTPUT

To respond to an input request for stopping the currently executing audit in a communication module processor (CMP).

3. VARIABLE FIELD DEFINITIONS

`NO AUDIT ACTIVE` = There were no executing audits to stop.

`a` = Application audit ID. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual.

`b` = Message switch side.

`c` = Communications module processor in which the audit was stopped.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`STP:AUD-CMP`

Output Appendix(es):

`APP:AUDITS`

Other Manual(s):
235-600-400 *Audits*

STP:AUD-ENV

Software Release: 5E10 and later
Message Class: AUDTMON
Application: 5
Type: Output

1. FORMAT

```
STP  AUD={a | NO AUDIT ACTIVE}  ENV=b
```

2. REASON FOR OUTPUT

To respond to an input request for stopping the currently executing kernel process audit in the administrative module (AM).

3. VARIABLE FIELD DEFINITIONS

`NO AUDIT ACTIVE` = There were no executing audits to stop.

`a` = Application audit ID. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual.

`b` = ENV where audit was stopped. Valid value(s):
- `OKP` = Operational kernel process.
- `SMKP` = Switch maintenance kernel process.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:AUD-ENV
```

Output Appendix(es):

```
APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D
```

Output Appendix(es):

```
APP:AUDITS
```

Other Manual(s):
235-600-400 *Audits*

STP:AUD-SM

Software Release: 5E10 and later
Message Class: AUDTMON
Application: 5
Type: Output

1. FORMAT

```
STP  AUD={a | NO AUDIT ACTIVE}  SM=b
```

2. REASON FOR OUTPUT

To respond to an input request for stopping the currently executing audit in a switching module (SM).

3. VARIABLE FIELD DEFINITIONS

`NO AUDIT ACTIVE` = There were no executing audits to stop.

`a` = Application audit ID. Refer to the APP:AUDITS appendix in the Appendixes section of the Output Messages manual.

`b` = SM number that the audit was stopped in.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:AUD-SM
```

Output Appendix(es):

```
APP:AUD-A
APP:AUD-B
APP:AUD-C
APP:AUD-D
```

Output Appendix(es):

```
APP:AUDITS
```

Other Manual(s):
235-600-400 *Audits*
235-600-500 *Asserts*

STP:BKDISK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
STP BKDISK NOT STARTED
CONFLICT WITH CURRENT SYSTEM STATUS  a
```

2. REASON FOR OUTPUT

To report the termination status of the STP:BKDISK input message.

3. VARIABLE FIELD DEFINITIONS

`a` = A fatal error was encountered because the system was unable to initiate the stop program.

4. ACTION TO BE TAKEN

Try to initiate the message again. If the process still fails, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:BKDISK
COPY:BKDISK
```

Output Message(s):

```
COPY:BKDISK
STOP:BKDISK
```

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STP:BTSR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP BTSR=a b [c]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the bootstrapper board (BTSR) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Termination status. Valid value(s):

- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`c` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`STP:BTSR`

Output Appendix(es):

`APP:MAINT-RESP`

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STP:CAMP-DN

Software Release: 5E10 and later
Message Class: MTCE,TLWS
Application: 5
Type: Output

1. FORMAT

```
STP CAMP DN a LEN=b-c-d-e-f-g h
```

2. REASON FOR OUTPUT

To acknowledge a STP:CAMP input message that requested the termination of a camp-on for a directory number (DN) or a line equipment number (LEN).

3. VARIABLE FIELD DEFINITIONS

`a` = Directory number of the port.

`b` = Switching module (SM).

`c` = Line unit.

`d` = Grid number.

`e` = Switch board.

`f` = Switch.

`g` = Level.

`h` = Termination report. Valid value(s):
`COMPLETED` = The camp-on has been terminated.
`INV PORT` = The directory number entered was incorrect or invalid.
`NO MATCH` = The port is not recorded as being camped on.
`PROCESS TIMEOUT` = An internal timeout occurred.
`SYSTEM BUSY` = The system is busy. Repeat the request later.
`SYSTEM ERROR` = An undetermined internal error occurred. The request has been aborted.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`STP:CAMP`

STP:CAMP-INPUT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP CAMP INPUT ERROR
```

2. REASON FOR OUTPUT

To report an error on a previously entered STP:CAMP input message. Most likely no port to stop the campon for was specified.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

Reenter STP:CAMP input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:CAMP
```

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STP:CAMPON-A

Software Release: 5E10 only
Message Class: TLWS
Application: 5
Type: Output

1. FORMAT

```
[1]
STP CAMPON a CH=[b] [PKT] d [e]   f

[2]
STP CAMPON a [b] [PKT] d [e]   f
```

2. REASON FOR OUTPUT

To report the outcome of a previous request to stop the camp-on on the indicated line, trunk, data link, or Operator Services Position System port (OSPSPORT). This message is in response to the STP:CAMPON input message. Format 1 occurs when the input request is not successfully processed and identifies the specific failure reason. Format 2 occurs when the input request is successfully processed.

If the request to stop a camp-on was entered for a 1-DN line time-slot bridging (LTSB) line with no member number, then an attempt will be made to stop camp-ons on both members of the 1-DN LTSB bridged group. One message will be printed when the input message has completed, unless there is a problem. If there is a problem, a message will be printed for each member. If the request to stop a camp-on was entered for a common DN dual permanent packet B-channel (PPB) DSL with no channel number specified, then an attempt will be made to stop camp-ons on both channels of this DSL. One message will be printed when the input message has completed, unless there is a problem. If there is a problem, a message will be printed for each channel.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

+ = Indicates that the line is a party line, a custom multipoint interface DSL or a standard interface multi-user DSL.

a = Equipment number or identifier. Valid value(s):

AQEST=g
AQM=h-i
DN=g[-c][+]
EIS=l-e[1]
PKTDN=g
TKGMN=j-k
XDB=h-i

b = Channel identifier. Used only for DSL lines. Valid value(s):
B1
B2
D

c = Member number of the LTSB line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

d = Equipment number or identifier. Valid value(s):

e

DEN=m-n-o-p
ILEN=m-q-r-s
LCEN=m-t-u-v
LCKEN=m-t-u-r[1]-s[1]
LEN=m-t-w-x-y-z
LTP=m-a[1]
NEN=m-m[1]-n[1]-o[1]-p[1]-q[1]
PSUEN=m-t[1]-u[1]-v[1]-w[1]
RAF=m-b[1]-c[1]
SAS=m-b[1]-c[1]
SLEN=m-d[1]-r-s
TEN=m-f[1]-g[1]-h[1]-i[1]

= Equipment number or identifier. Valid value(s):

f

MLHG=j[1]-k[1]
PRIGRP=l[1]

= The result of the STP:CAMPON request. Valid value(s):

CMP UNAVAILABLE = The input request could not be completed because a needed communication module (CM) was unable to respond. Retry the request later.

COMPLETED = The requested camp-on has been stopped. A RMV or RST output message should also print (completion report of PORT BUSY), confirming the camp-on was stopped.

INPUT ERROR = Some data entered in the input request was invalid or incorrect. Verify the input and make the request again.

INVALID PORT = The port identifier used in the input request was invalid.

MLHG ACCESS DN = The DN entered is an access DN for the uniform call distribution (UCD), multi-position hunt (MUPH) multi-line hunt group (MLHG), or linear hunt. This DN does not uniquely identify a line.

MP ACCESS DN = The directory number entered is a uniform call distribution MLHG line for modem pooling and as such cannot be used by specifying its DN. A line card equipment number or MLHG and member number must be specified. To obtain the line card equipment number and/or multi-line hunt group and member number, use recent change/verify (RC/V) for the DN or refer to office records.

NO MATCH = The trunk, line, data link, or OSPSPORT specified was not camped on.

NO PROCESS = Unable to create a needed process. Request aborted.

NOT PRIMARY DN OR MLHG = The DN or MLHG specified was not identified as the primary DN or MLHG and member on any line. It, therefore, cannot be used to identify which equipment was being camped-on. Refer to RC/V or office records to determine the primary DNs or MLHG and member numbers.

PROCESS TIMEOUT = An internal timeout occurred which prevented further processing. Request has been aborted.

SM UNAVAILABLE = The input request could not be completed because a needed switching module (SM) was unable to respond. Retry the request later.

SYSTEM BUSY = The system was too busy, or a resource failure occurred. Request has been aborted.

SYSTEM ERROR = An internal error has occurred that prevented further processing.

g = Telephone number.

h = Data link group number.

i = Relative link member number.

j = Trunk group number.

k = Trunk member number.

l = EIS identifier (ID) on which the CPDL terminates.

m = SM number.

n = Digital line and trunk unit (DLTU) number.

o = Digital facility interface (DFI) number.

p = Channel number.

q = Integrated digital carrier unit (IDCU) number.

r = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

s = RT line number or PUB43801 channel.

t = Line unit number.

u = Line group number.

v = Line card number.

w = Grid number.

x = Switch board number.

y = Switch number.

z = Level number.

a[1] = Logical test port number.

b[1] = Recorded announcement facility (RAF)/ service announcement system (SAS) unit number.

c[1] = RAF/SAS announcement channel number.

d[1] = Digital carrier line unit number.

e[1] = External data link (member) number relative to the EIS.

f[1] = Trunk unit number.

g[1] = Service group number.

h[1] = Channel board number.

i[1] = Circuit number.

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j[1] = Multi-line hunt group number.

k[1] = Hunt group member number.

l[1] = PRI group number.

m[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

n[1] = Data group number.

o[1] = Synchronous transport signal (STS) number.

p[1] = Virtual tributary 1.5 (VT1.5) number.

q[1] = Digital signal level 0 (DS0).

r[1] = Line board number.

s[1] = Line circuit number.

t[1] = PSU unit number.

u[1] = PSU shelf number.

v[1] = PSU channel group number.

w[1] = PSU channel group member number.

4. ACTION TO BE TAKEN

None. Refer to the message output for pertinent status and information, and take appropriate action based on the information received, if necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CAMPON
STP:CAMPON
```

Output Message(s):

```
RMV:DATALINK
RMV:LINE
RMV:OSPSPORT
RMV:TRK
RST:DATALINK
RST:LINE
RST:OSPSPORT
RST:TRK
```

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

STP:CAMPON-B

Software Release: 5E11 - 5E12
Message Class: TLWS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      STP CAMPON a CH=[b] [PKT] d [e]   f

[2]   ____________________________________________________________________
      STP CAMPON a [b] [PKT] d [e]   f
```

2. REASON FOR OUTPUT

To report the outcome of a previous request to stop the camp-on on the indicated line, trunk, data link, or Operator Services Position System port (OSPSPORT). This message is in response to the STP:CAMPON input message. Format 1 occurs when the input request is not successfully processed and identifies the specific failure reason. Format 2 occurs when the input request is successfully processed.

If the request to stop a camp-on was entered for a 1-DN line time-slot bridging (LTSB) line with no member number, then an attempt will be made to stop camp-ons on both members of the 1-DN LTSB bridged group. One message will be printed when the input message has completed, unless there is a problem. If there is a problem, a message will be printed for each member. If the request to stop a camp-on was entered for a common DN dual permanent packet B-channel (PPB) DSL with no channel number specified, then an attempt will be made to stop camp-ons on both channels of this DSL. One message will be printed when the input message has completed, unless there is a problem. If there is a problem, a message will be printed for each channel.

3. VARIABLE FIELD DEFINITIONS

+

a = Equipment number or identifier. Valid value(s):

AQEST=g
AQM=h-i
DN=g[-c][+]
EIS=l-e[1]
PKTDN=g
TKGMN=j-k
XDB=h-i

b = Channel identifier. Used only for DSL lines. Valid value(s):
B1
B2
D

c = Member number of the LTSB line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

d = Equipment number or identifier. Valid value(s):

AIUEN=m-x[1]-y[1]-z[1]	LTP=m-a[1]

DEN=m-n-o-p	NEN=m-m^1-n^1-o^1-p^1-q^1
ILEN=m-q-r-s	PSUEN=m-t^1-u^1-v^1-w^1
INEN=m-m^1-r-s	RAF=m-b^1-c^1
LCEN=m-t-u-v	SAS=m-b^1-c^1
LCKEN=m-t-u-r^1-s^1	SLEN=m-d^1-r-s
LEN=m-t-w-x-y-z	TEN=m-f^1-g^1-h^1-i^1

e = Equipment number or identifier. Valid value(s):

MLHG=j^1-k^1
PRIGRP=l^1

f = The result of the STP:CAMPON request. Valid value(s):

CMP UNAVAILABLE = The input request could not be completed because a needed communication module (CM) was unable to respond. Retry the request later.

COMPLETED = The requested camp-on has been stopped. A RMV or RST output message should also print (completion report of PORT BUSY), confirming the camp-on was stopped.

INPUT ERROR = Some data entered in the input request was invalid or incorrect. Verify the input and make the request again.

INVALID PORT = The port identifier used in the input request was invalid.

MLHG ACCESS DN = The DN entered is an access DN for the uniform call distribution (UCD), multi-position hunt (MUPH) multi-line hunt group (MLHG), or linear hunt. This DN does not uniquely identify a line.

MP ACCESS DN = The directory number entered is a uniform call distribution MLHG line for modem pooling and as such cannot be used by specifying its DN. A line card equipment number or MLHG and member number must be specified. To obtain the line card equipment number and/or multi-line hunt group and member number, use recent change/verify (RC/V) for the DN or refer to office records.

NO MATCH = The trunk, line, data link, or OSPSPORT specified was not camped on.

NON-UNIQUE NXX DN = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.

NO PROCESS = Unable to create a needed process. Request aborted.

NOT PRIMARY DN OR MLHG = The DN or MLHG specified was not identified as the primary DN or MLHG and member on any line. It, therefore, cannot be used to identify which equipment was being camped-on. Refer to RC/V or office records to determine the primary DNs or MLHG and member numbers.

PROCESS TIMEOUT = An internal timeout occurred which prevented further processing. Request has been aborted.

SM UNAVAILABLE = The input request could not be completed because a needed switching module (SM) was unable to respond. Retry the request later.

SYSTEM BUSY = The system was too busy, or a resource failure occurred. Request has been aborted.

SYSTEM ERROR = An internal error has occurred that prevented further processing.

g = Telephone number.

h = Data link group number.

i = Relative link member number.

j = Trunk group number.

k = Trunk member number.

l = EIS identifier (ID) on which the CPDL terminates.

m = SM number.

n = Digital line and trunk unit (DLTU) number.

o = Digital facility interface (DFI) number.

p = Channel number.

q = Integrated digital carrier unit (IDCU) number.

r = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

s = RT line number or PUB43801 channel.

t = Line unit number.

u = Line group number.

v = Line card number.

w = Grid number.

x = Switch board number.

y = Switch number.

z = Level number.

a[1] = Logical test port number.

b[1] = Recorded announcement facility (RAF)/ service announcement system (SAS) unit number.

c[1] = RAF/SAS announcement channel number.

d[1] = Digital carrier line unit number.

e[1] = External data link (member) number relative to the EIS.

f[1] = Trunk unit number.

g[1] = Service group number.

h[1] = Channel board number.

i[1] = Circuit number.

j[1] = Multi-line hunt group number.

k[1] = Hunt group member number.

l[1] = PRI group number.

m[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

n[1] = Data group number.

o[1] = Synchronous transport signal (STS) number.

p[1] = Virtual tributary 1.5 (VT1.5) number.

q[1] = Digital signal level 0 (DS0).

r[1] = Line board number.

s[1] = Line circuit number.

t[1] = PSU unit number.

u[1] = PSU shelf number.

v[1] = PSU channel group number.

w[1] = PSU channel group member number.

x[1] = Access interface unit (AIU) number.

y[1] = AIU pack number.

z[1] = AIU circuit number.

4. ACTIONS TO BE TAKEN

None. Refer to the message output for pertinent status and information, and take appropriate action based on the information received, if necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CAMPON
STP:CAMPON
```

Output Message(s):

```
RMV:DATALINK
RMV:LINE
RMV:OSPSPORT
RMV:TRK
RST:DATALINK
RST:LINE
RST:OSPSPORT
RST:TRK
```

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

STP:CAMPON-C

Software Release: 5E13 and later
Message Class: TLWS
Application: 5
Type: Output

1. FORMAT

```
[1]
      STP CAMPON a CH=[b] [PKT] d [e]   f

[2]
      STP CAMPON a [b] [PKT] d [e]   f
```

2. REASON FOR OUTPUT

To report the outcome of a previous request to stop the camp-on on the indicated line, trunk, data link, or Operator Services Position System port (OSPSPORT). This message is in response to the STP:CAMPON input message. Format 1 occurs when the input request is not successfully processed and identifies the specific failure reason. Format 2 occurs when the input request is successfully processed.

If the request to stop a camp-on was entered for a 1-DN line time-slot bridging (LTSB) line with no member number, then an attempt will be made to stop camp-ons on both members of the 1-DN LTSB bridged group. One message will be printed when the input message has completed, unless there is a problem. If there is a problem, a message will be printed for each member. If the request to stop a camp-on was entered for a common DN dual permanent packet B-channel (PPB) DSL with no channel number specified, then an attempt will be made to stop camp-ons on both channels of this DSL. One message will be printed when the input message has completed, unless there is a problem. If there is a problem, a message will be printed for each channel.

3. VARIABLE FIELD DEFINITIONS

+ = Indicates that the line is a party line, a custom multipoint interface DSL or a standard interface multi-user DSL.

a = Equipment number or identifier. Valid value(s):

AQEST=g
AQM=h-i
DN=g[-c][+]
EIS=l-e[1]
PKTDN=g
TKGMN=j-k
XDB=h-i

b = Channel identifier. Used only for DSL lines. Valid value(s):
B1
B2
D

c = Member number of the LTSB line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

d = Equipment number or identifier. Valid value(s):

AIUEN=m-x[1]-y[1]-z[1] DEN=m-n-o-p ILEN=m-q-r-s INEN=m-m[1]-r-s LCEN=m-t-u-v LCKEN=m-t-u-r[1]-s[1] LEN=m-t-w-x-y-z	LTP=m-a[1] NEN=m-m[1]-n[1]-a[2]-o[1]-p[1]-b[2]-q[1] PSUEN=m-t[1]-u[1]-v[1]-w[1] RAF=m-b[1]-c[1] SAS=m-b[1]-c[1] SLEN=m-d[1]-r-s TEN=m-f[1]-g[1]-h[1]-i[1]

e = Equipment number or identifier. Valid value(s):

MLHG=j[1]-k[1] PRIGRP=l[1]

f = The result of the STP:CAMPON request. Valid value(s):

CMP UNAVAILABLE = The input request could not be completed because a needed communication module (CM) was unable to respond. Retry the request later.

COMPLETED = The requested camp-on has been stopped. A RMV or RST output message should also print (completion report of PORT BUSY), confirming the camp-on was stopped.

INPUT ERROR = Some data entered in the input request was invalid or incorrect. Verify the input and make the request again.

INVALID PORT = The port identifier used in the input request was invalid.

MLHG ACCESS DN = The DN entered is an access DN for the uniform call distribution (UCD), multi-position hunt (MUPH) multi-line hunt group (MLHG), or linear hunt. This DN does not uniquely identify a line.

MP ACCESS DN = The directory number entered is a uniform call distribution MLHG line for modem pooling and as such cannot be used by specifying its DN. A line card equipment number or MLHG and member number must be specified. To obtain the line card equipment number and/or multi-line hunt group and member number, use recent change/verify (RC/V) for the DN or refer to office records.

NO MATCH = The trunk, line, data link, or OSPSPORT specified was not camped on.

NON-UNIQUE NXX DN = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.

NO PROCESS = Unable to create a needed process. Request aborted.

NOT PRIMARY DN OR MLHG = The DN or MLHG specified was not identified as the primary DN or MLHG and member on any line. It, therefore, cannot be used to identify which equipment was being camped-on. Refer to RC/V or office records to determine the primary DNs or MLHG and member numbers.

PROCESS TIMEOUT = An internal timeout occurred which prevented further processing. Request has been aborted.

SM UNAVAILABLE = The input request could not be completed because a needed switching module (SM) was unable to respond. Retry the request later.

SYSTEM BUSY = The system was too busy, or a resource failure occurred. Request has been aborted.

SYSTEM ERROR = An internal error has occurred that prevented further processing.

g = Telephone number.

h = Data link group number.

i = Relative link member number.

j = Trunk group number.

k = Trunk member number.

l = EIS identifier (ID) on which the CPDL terminates.

m = SM number.

n = Digital line and trunk unit (DLTU) number.

o = Digital facility interface (DFI) number.

p = Channel number.

q = Integrated digital carrier unit (IDCU) number.

r = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

s = RT line number or PUB43801 channel.

t = Line unit number.

u = Line group number.

v = Line card number.

w = Grid number.

x = Switch board number.

y = Switch number.

z = Level number.

a[1] = Logical test port number.

b[1] = Recorded announcement facility (RAF)/ service announcement system (SAS) unit number.

c[1] = RAF/SAS announcement channel number.

d[1] = Digital carrier line unit number.

e[1] = External data link (member) number relative to the EIS.

f[1] = Trunk unit number.

g[1] = Service group number.

h[1] = Channel board number.

i[1] = Circuit number.

j[1] = Multi-line hunt group number.

k[1] = Hunt group member number.

l[1] = PRI group number.

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m[1] = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

n[1] = Data group number.

o[1] = Synchronous transport signal (STS) number.

p[1] = Virtual tributary group number.

q[1] = Digital signal level 0 (DS0).

r[1] = Line board number.

s[1] = Line circuit number.

t[1] = PSU unit number.

u[1] = PSU shelf number.

v[1] = PSU channel group number.

w[1] = PSU channel group member number.

x[1] = Access interface unit (AIU) number.

y[1] = AIU pack number.

z[1] = AIU circuit number.

a[2] = SONET termination equipment (STE) number.

b[2] = Virtual tributary member number.

4. ACTIONS TO BE TAKEN

None. Refer to the message output for pertinent status and information, and take appropriate action based on the information received, if necessary.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CAMPON
STP:CAMPON
```

Output Message(s):

```
RMV:DATALINK
RMV:LINE
RMV:OSPSPORT
RMV:TRK
```

```
RST:DATALINK
RST:LINE
RST:OSPSPORT
RST:TRK
```

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

STP:CCSCQ

Software Release: 5E12 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      STP CCSCQ OFFICE a

[2]   ____________________________________________________________________
      STP CCSCQ OPC=b DPC=c a

[3]   ____________________________________________________________________
      STP CCSCQ TG=d a
```

2. REASON FOR OUTPUT

To report the results of a STP:CCSCQ request to terminate either an automatic or a manual circuit query originating in this office.

Format [1], [2] or [3] messages are produced when the STP:CCSCQ message is accepted and when query processing is actually stopped.

Format 1 reports the stopping of either an automatic or demand common channel signaling (CCS) office-wide circuit query.

Format 2 reports the stopping of a demand CCS circuit query for trunks with a specific OPC/DPC pair.

Format 3 reports the stopping of a demand CCS circuit query for trunks in a specific trunk group.

If PRINT option is specified on the STP:CCSCQ command, then some of the following output reports will print. Data reported reflects processing until the STP:CCSCQ command was received.

- For office request, the accumulated matched, mismatched and undetermined counts for each OPC/DPC processed will be printed (see EXC CCSCQ output format [2]).
- The incomplete data report (see EXC CCSCQ output format [5]).
- The summary of accumulated matched, mismatched and undetermined counts (see EXC CCSCQ output format [3]).

3. VARIABLE FIELD DEFINITIONS

a = Report status:
COMPLETED
STARTED

b = Origination point code number. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual.

c = Destination point code number. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual.

d = Trunk group number.

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4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
EXC:CCSCQ
OP:CCSCQ
STP:CCSCQ
OP:JOBSTATUS
```

Output Appendix(es):

```
APP:POINT-CODE
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

STP:CDFI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] CDFI=b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of a STP:CDFI input message to stop the current action on an inter- remote switching module (RSM) communication link digital facilities interface (CDFI) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default is the action currently executing on the CDFI). Valid value(s):

- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Digital line and trunk unit (DLTU) number.

`d` = CDFI number.

`e` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action had not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:CDFI
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:CDI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] CDI=b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the control data interface (CDI) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default is the action currently executing on the CDI). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module number.

`c` = Trunk unit number.

`d` = Service group number.

`e` Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begin.
- `STOPPED` = Requested action was terminated before a normal completion.

`f` Additional data qualifying the termination report (variable '`e`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:CDI
EX:CDI
RMV:CDI
RST:CDI
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:DCLU

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] DCLU=b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the *SLC*®96 digital carrier line unit (DCLU) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the DCLU):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = DCLU number.

`d` = Service group number.

`e` = Termination status:
- `ABORTED` = The action requested was unsuccessful, and the termination was not graceful. Hardware states are not reliable.
- `COMPLETED` = The action completed successfully.
- `NOT STARTED` = The action to be stopped has not yet started.
- `STOPPED` = The action was terminated before a normal completion but the termination was graceful. Hardware states are reliable.

`f` = Additional data qualifying the termination report (variable '`e`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:DCLU
```

Output Message(s):

```
DGN:DCLU
EX:DCLU
RMV:DCLU
RST:DCLU
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:DCTUCOM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP DCTUCOM=a-b c [d]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the directly connected test unit common board (DCTUCOM) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Unit number.

`c` = Termination status. Valid value(s):

- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`d` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`STP:DCTUCOM`

Output Appendix(es):

`APP:MAINT-RESP`

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STP:DCTUPORT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP DCTUPORT=a-b-c d [e]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the directly connected test unit port (DCTUPORT) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Unit number.

`c` = Circuit number.

`d` = Termination status. Valid value(s):
- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`STP:DCTUPORT`

Output Appendix(es):

`APP:MAINT-RESP`

STP:DFI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] DFI=b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the digital facility interface (DFI) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default is the action currently executing on the DFI). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.
- `TST` = Test.

`b` = Switching module number.

`c` = Digital line/trunk unit number.

`d` = DFI number.

`e` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`f` = Additional data qualifying the termination report (variable '`e`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:DFI
EX:DFI
RMV:DFI
RST:DFI
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:DFIH

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] DFIH=b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an STP:DFIH input message to stop the current maintenance action on the remote integrated services line unit (RISLU) host/remote digital facility interface circuit pair (DFIH).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted:
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = RISLU digital line and trunk unit (DLTU) number.

`d` = DFIH number.

`e` = Termination report. Valid value(s):
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action has not begun.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to Corrective Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:DFIH
```

Output Message(s):

```
DGN:DFIH
EX:DFIH
RMV:DFIH
RST:DFIH
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

STP:DFTAC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP g DFTAC=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the distributing frame test access circuit (DFTAC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = MSU number.

`c` = Service group.

`d` = Circuit number.

`e` = Termination status. Valid value(s):
- `ABORTED` = Immediate termination (process is not gracefully terminated).
- `COMPLETED` = Successful completion: previous request was stopped.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion (process gracefully terminated).

`f` = Reason for termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

`g` = The action to be stopped. Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ABT:DFTAC`

```
STP:DFTAC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:DIST

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] DIST=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the distribute point board at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default is the action currently executing on the distribute point board). Valid value(s):

- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Metallic service unit number.

`d` = Service group number.

`e` = Distribute point board number.

`f` Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT-STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`g` = Additional data qualifying the termination report (variable '`f`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Output Message(s):

```
DGN:DIST
EX:DIST
RMV:DIST
RST:DIST
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:DMQ

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
STP DMQ COMPLETED
```

2. REASON FOR OUTPUT

To report that a diagnostic request awaiting execution was removed from the maintenance input request administrator (MIRA) request queue in response to either an automatic stop request or STP:DMQ input message.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:DMQ
```

STP:DNUSCC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] DNUSCC=b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of a STP:DNUSCC input request to stop maintenance actions on a digital networking unit - synchronous optical network (DNU-S) common controller (DNUSCC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped. Valid value(s):

`DGN`	= Diagnose.
`RMV`	= Remove.
`RST`	= Restore.

`b` = Switching module (SM) number.

`c` = DNU-S number.

`d` = Common controller number.

`e` = Termination report. Valid value(s):

`ABORTED`	Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	Requested action was successfully completed.
`NOT STARTED`	Requested action was not begun.
`STOPPED`	Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`STP:DNUSCC`

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Output Message(s):

```
DGN:DNUSCC
RMV:DNUSCC
RST:DNUSCC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

STP:DNUSCD

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] DNUSCD=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Indicates the result of a STP:DNUSCD input request to stop maintenance actions on a digital networking unit - synchronous optical network (DNU-S) common data (DNUSCD).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped. Valid value(s):
- `DGN` = Diagnose.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = DNU-S number.

`d` = Data group number.

`e` = Common data number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action was not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
STP:DNUSCD
```

Output Message(s):

```
DGN:DNUSCD
RMV:DNUSCD
RST:DNUSCD
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

STP:DNUSEOC

Software Release: 5E12 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
STP [a] DNUSEOC=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To report the result of a STP:DNUSEOC input message that stops the current action on a digital networking unit - synchronous optical network (DNU-S). terminated remote terminal (RT) embedded operations channel (EOC) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action to be stopped. Valid values are:
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = DNU-S number.

`d` = RT number.

`e` = EOC number.

`f` = Termination report. Valid values are:
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`STP:DNUSEOC`

Output Message(s):

```
RMV:DNUSEOC
RST:DNUSEOC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1660,xxxx (TR303 REMOTE TERMINAL)

STP:DNUSTMC

Software Release: 5E12 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
STP [a] DNUSTMC=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To report the result of a STP:DNUSTMC input message that stops the current action on a digital networking unit - synchronous optical network (DNU-S) terminated remote terminal (RT) timeslot management channel (TMC) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action to be stopped:
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = DNU-S number.

`d` = RT number.

`e` = TMC number.

`f` = Termination report. Valid values are:
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`STP:DNUSTMC`

Output Message(s):

```
RMV:DNUSTMC
RST:DNUSTMC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1660,xxxx (TR303 REMOTE TERMINAL)

STP:DS1SFAC-A

Software Release: 5E10 - 5E11
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] DS1SFAC=b-c-d-e-f g [h]
```

2. REASON FOR OUTPUT

Indicates the result of a STP:DS1SFAC input request to stop maintenance actions on a digital networking unit - synchronous optical network (DNU-S) digital signal level 1 facility (DS1SFAC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = DNU-S number.

`d` = Data group number.

`e` = Synchronous transport signal facility number.

`f` = Virtual tributary level 1 (VT1) facility number.

`g` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action was not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`h` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
STP:DS1SFAC
```

Output Message(s):

```
RMV:DS1SFAC
RST:DS1SFAC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1511 (DNUS STS)

STP:DS1SFAC-B

Software Release: 5E12 only
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] DS1SFAC=b-c-d-e-f g [h]
```

2. REASON FOR OUTPUT

Indicates the result of a STP:DS1SFAC input request to stop maintenance actions on a digital networking unit - synchronous optical network (DNU-S) digital signal level 1 facility (DS1SFAC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = DNU-S number.

`d` = Data group number.

`e` = Synchronous transport signal facility number.

`f` = Virtual tributary level 1 (VT1) facility number.

`g` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action was not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`h` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
STP:DS1SFAC
```

Output Message(s):

```
RMV:DS1SFAC
RST:DS1SFAC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1511 (DNUS STS MAINTENANCE)

STP:DS1SFAC-C

Software Release: 5E13 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] DS1SFAC=b-c-d-e-f-g-h i [j]
```

2. REASON FOR OUTPUT

Indicates the result of a STP:DS1SFAC input request to stop maintenance actions on a digital networking unit - synchronous optical network (DNU-S) digital signal level 1 facility (DS1SFAC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Digital Networking Unit - SONET (DNU-S) number.

`d` = Data Group (DG) number.

`e` = SONET Termination Equipment (STE) facility number.

`f` = Synchronous Transport Signal (STS) facility number.

`g` = Virtual tributary group (VTG) facility number.

`h` = Virtual tributary member (VTM) facility number.

`i` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action was not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`j` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTIONS TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

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None.

6. REFERENCES

Input Message(s):

```
STP:DS1SFAC
```

Output Message(s):

```
RMV:DS1SFAC
RST:DS1SFAC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1511 (DNUS STS MAINTENANCE)

STP:EAN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP EAN=a-b c [d]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the equipment access network (EAN) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Unit number.

`c` = Termination status. Valid value(s):
- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`d` = Data qualifying the termination status. Refer to APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`STP:EAN`

Output Appendix(es):

`APP:MAINT-RESP`

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STP:EC1STE

Software Release: 5E13 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] EC1STE=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Indicates the result of a STP:EC1STE input request to stop maintenance actions on a digital networking unit - Electrical Carrier Level 1 SONET Termination equipment facility (EC1STE).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Digital Networking Unit - SONET (DNU-S) number.

`d` = Data Group (DG) number.

`e` = SONET Termination Equipment (STE) facility number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action was not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTIONS TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
STP:EC1STE
```

Output Message(s):

```
RMV:EC1STE
RST:EC1STE
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

STP:EOC

Software Release: 5E10 - 5E11
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
STP [a] EOC=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To report the result of a STP:EOC input message that stops the current action on an integrated digital carrier unit (IDCU) terminated remote terminal (RT) embedded operations channel (EOC) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action to be stopped. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = IDCU number.

`d` = RT number.

`e` = EOC number.

`f` = Termination report. Valid value(s):
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`STP:EOC`

Output Message(s):

```
RMV:EOC
RST:EOC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

188xyy (IDCU REMOTE TERMINAL)

STP:FAC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] FAC=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To report the result of an STP:FAC input message to stop the current action on a remote switching module (RSM) facility (FAC) or a trunk FAC.

An RSM FAC can be a host-remote facility between a host switching module (HSM) and an RSM, or a remote facility between two RSMs. A trunk FAC is an inter-office trunk.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.
- `TST` = Test. Default is the action currently executing on the FAC.

`b` = Switching module (SM) number.

`c` = Digital line and trunk unit (DLTU) number.

`d` = RSM digital facilities interface (RDFI), inter-RSM communication link digital facilities interface (CDFI), or inter-office trunk digital facilities interface (DFI) number.

`e` = FAC number. The FAC number is the T1 facility number on a RDFI, CDFI, or DFI.

`f` = Termination report. Valid value(s):
- `ABORTED` = requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action had not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination report. Refer to APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
STP:FAC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

STP:FACR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      STP FACR COMPLETED
      FACR PROCESS HAS BEEN TERMINATED

[2]   ____________________________________________________________________
      STP FACR COMPLETED
      FACR PROCESS HAS BEEN SUSPENDED

[3]   ____________________________________________________________________
      STP FACR NOT COMPLETED
      FACR PROCESS DOES NOT EXIST
```

2. REASON FOR OUTPUT

To report the termination of a feature activation counting and reconciliation (FACR) audit.

Format 1 reports that the FACR audit has been terminated. Format 2 reports that the FACR audit has been suspended. The audit will be rescheduled to start the next day when initially executed.

Note: The FACR audit will restart with the SM that was being processed when the audit was suspended.

Format 3 reports that no FACR process exists.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual request of the STP:FACR input message. No further action is necessary if the request completed successfully.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:FACR
```

Other Manual(s):
235-040-100 *OA&M Planning Guide*
235-100-125 *System Description*

STP:GDSF

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] GDSF=b-c d [e]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the global digital services function (GDSF) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the GDSF circuit). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = GDSF number.

`d` = Termination status. Valid value(s):
- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`e` = Additional data qualifying the termination report (variable '`d`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:GDSF
EX:GDSF
RMV:GDSF
RST:GDSF
```

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Output Appendix(es):

APP:MAINT-RESP

STP:GDSUCOM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] GDSUCOM=b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the global digital service unit common (GDSUCOM) board at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default is the action currently executing on the GDSUCOM board). Valid value(s):

- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.
- `TST` = Test.

`b` = Switching module number.

`c` = Global digital service unit number.

`d` = Service group number.

`e` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT-STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`f` = Additional data qualifying the termination report (variable '`e`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Output Message(s):

```
DGN:GDSUCOM
EX:GDSUCOM
RMV:GDSUCOM
RST:GDSUCOM
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:GDXACC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] GDXACC=b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the gated diode crosspoint access (GDXACC) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default is the action currently executing on the GDXACC). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module number.

`c` = Line unit number.

`d` = Service group number.

`e` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT-STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`f` = Additional data qualifying the termination report (variable '`e`'). Refer to APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

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Output Message(s):

```
DGN:GDXACC
EX:GDXACC
RMV:GDXACC
RST:GDXACC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:GDXC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] GDXC=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the gated diode crosspoint compensator (GDXC) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default is the action currently executing on the GDXC). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Metallic service unit (MSU) number.

`d` = Service group number.

`e` = MSU board position number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT-STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`g` = Additional data qualifying the termination report (variable '`f`'). Refer to APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Output Message(s):

```
DGN:GDXC
EX:GDXC
RMV:GDXC
RST:GDXC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:GDXCON

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] GDXCON=b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the gated diode crosspoint control (GDXCON) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default is the action currently executing on the GDXCON). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module number.

`c` = Line unit number.

`d` = Service group number.

`e` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT-STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`f` = Additional data qualifying the termination report (variable '`e`'). Refer to APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

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Output Message(s):

```
DGN:GDXCON
EX:GDXCON
RMV:GDXCON
RST:GDXCON
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:GEN

Software Release: 5E10 and later
Message Class: MAINT
Application: 5.3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      STP GEN {COMPLETED|STOPPED WITH ERROR CODE a}

[2]   ____________________________________________________________________
      STP GEN NOT STARTED
        CONFLICT WITH CURRENT SYSTEM STATUS
```

2. REASON FOR OUTPUT

To report the result of executing the STP:GEN input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Error code causing the process to stop. Refer to the APP:SUPR appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

Correct any user execution errors by examining the procedures used for execution of the message. For certain *UNIX*® RTR interface errors, using the UCL option in the STP:GEN input message may help. Refer to the APP:SUPR appendix in the Appendixes section of the Output Messages manual. If any other error occurs, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMXB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

Input Message(s):

```
STP:GEN
UPD:G-BACKOUT
UPD:G-COMMIT
UPD:G-ENTER
UPD:G-PROCEED
UPD:G-RESTORE
```

Output Message(s):

```
UPD:GEN-BACKOUT
UPD:GEN-COMMIT
UPD:GEN-ENTER
UPD:GEN-PROCEED
UPD:GEN-RESTORE
```

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Output Appendix(es):

```
APP:OMDB-X-REF
APP:SUPR
```

STP:GRID

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] GRID=b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the gated diode crosspoint (GDX) grid at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default is the action currently executing on the GDX grid). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.
- `TST` = Test.

`b` = Switching module number.

`c` = Line unit number.

`d` = Grid number.

`e` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT-STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`f` = Additional data qualifying the termination report (variable '`e`'). Refer to APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:GRID
EX:GRID
RMV:GRID
RST:GRID
TST:GRID
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:GRIDBD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP GRIDBD=a-b-c-d     e  [f]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the line unit model 2; (LU2) or line unit model 3; (LU3) grid board.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Line unit number.

`c` = Grid number.

`d` = Board number.

`e` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination is immediate. Consistency of hardware and data is questionable.
`COMPLETED`	= The request was successfully completed.
`NOT STARTED`	= Processing did not begin because the system was unable to service the request.
`STOPPED`	= The request terminated after processing was begun. The termination was graceful.

`f` = Data qualifying the termination status. Refer to APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`STP:GRIDBD`

Output Appendix(es):

APP:MAINT-RESP

STP:HDFI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] HDFI=b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the result of an STP:HDFI input command to stop the current action on a host interface or switching module (HIM or HSM) digital facilities interface (HDFI) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default is the action currently executing on the (HDFI). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Digital line and trunk unit (DLTU) number.

`d` = HDFI number.

`e` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was complete.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed, and independent certification of the resulting hardware status was made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`f` = Additional information qualifying the termination report. Refer to APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
STP:HDFI
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:IDCU

Software Release: 5E10 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
STP [a] IDCU=b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of a STP:IDCU input message that stops the current action on an integrated digital carrier unit (IDCU) service group circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action to be stopped. Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = IDCU number.

`d` = IDCU service group.

`e` = Termination report. Valid value(s):
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`STP:IDCU`

Output Message(s):

```
DGN:IDCU
EX:IDCU
RMV:IDCU
RST:IDCU
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

186x (IDCU CIRCUIT)

STP:IDCUELI

Software Release: 5E10 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
STP [a] IDCUELI=b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of a STP:IDCUELI input message that stops the current action on an integrated digital carrier unit (IDCU) electrical loop interface (ELI) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action to be stopped. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = IDCU number.

`d` = ELI number.

`e` = Termination report. Valid value(s):
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:IDCUELI
```

Output Message(s):

```
RMV:IDCUELI
RST:IDCUELI
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

186x (IDCU CIRCUIT)

STP:IDCUEOC

Software Release: 5E12 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
STP [a] IDCUEOC=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To report the result of a STP:IDCUEOC input message that stops the current action on an integrated digital carrier unit (IDCU) terminated remote terminal (RT) embedded operations channel (EOC) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action to be stopped. Valid values are:
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = IDCU number.

`d` = RT number.

`e` = EOC number.

`f` = Termination report. Valid values are:
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`STP:IDCUEOC`

Output Message(s):

```
RMV:IDCUEOC
RST:IDCUEOC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1880,x,yy (IDCU REMOTE TERMINAL)

STP:IDCUPIDB

Software Release: 5E10 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
STP [a] IDCUPIDB=b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of a STP:IDCUPIDB input message that stops the current action on an integrated digital carrier unit (IDCU) peripheral interface data bus (PIDB) or direct PIDB (DPIDB) pair circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action to be stopped. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = IDCU number.

`d` = IDCU PIDB or DPIDB number.

`e` = Termination report. Valid value(s):
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`STP:IDCU`

Output Message(s):

```
RMV:IDCUPIDB
RST:IDCUPIDB
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*
235-105-331 *Hardware Change Procedures - Degrowth*

STP:IDCUTMC

Software Release: 5E12 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
STP [a] IDCUTMC=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To report the result of a STP:IDCUTMC input message that stops the current action on an integrated digital carrier unit (IDCU) terminated remote terminal (RT) timeslot management channel (TMC) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action to be stopped:
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = IDCU number.

`d` = RT number.

`e` = TMC number.

`f` = Termination report. Valid values are:
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`STP:IDCUTMC`

Output Message(s):

```
RMV:IDCUTMC
RST:IDCUTMC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1880,x,yy (IDCU REMOTE TERMINAL)

STP:IFAC

Software Release: 5E10 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
STP [a] IFAC=b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of a STP:IFAC input message that stops the current action on an integrated digital carrier unit (IDCU) digital signal level one (DS1) facility (IFAC) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action to be stopped. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = IDCU number.

`d` = IFAC number.

`e` = Termination report. Valid value(s):
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`STP:IFAC`

Output Message(s):

```
RMV:IFAC
RST:IFAC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

187x (IDCU FACILITY)
188xyy (IDCU REMOTE TERMINAL)

STP:ISLUCC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] ISLUCC=b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an STP:ISLUCC input request to stop the current action on the integrated services line unit common controller (ISLUCC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped. Valid value(s):

`DGN`	= Diagnose.
`EX`	= Exercise.
`RMV`	= Remove.
`RST`	= Restore.

`b` = Switching module (SM) number.

`c` = Integrated services line unit (ISLU) number.

`d` = Common controller number.

`e` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action has successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
STP:ISLUCC
```

Output Message(s):

```
DGN:ISLUCC
EX:ISLUCC
RMV:ISLUCC
RST:ISLUCC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

Where 'x' = ISLU number (0-7) and 'y' = LGC number (0-15).

170x (ISLU NETWORK)
170xy (ISLU LINE GROUP)

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STP:ISLUCD

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] ISLUCD=b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an STP:ISLUCD input request to stop the current action on the integrated services line unit common data (ISLUCD).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped. Valid value(s):

`DGN`	= Diagnose.
`EX`	= Exercise.
`RMV`	= Remove.
`RST`	= Restore.

`b` = Switching module (SM) number.

`c` = Integrated services line unit (ISLU) number.

`d` = Common data number.

`e` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action has successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:ISLUCD
```

Output Message(s):

```
DGN:ISLUCD
EX:ISLUCD
RMV:ISLUCD
RST:ISLUCD
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x (ISLU NETWORK)
170xy (ISLU LINE GROUP)

STP:ISLUHLSC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] ISLUHLSC=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Indicates the result of an STP:ISLUHLSC input request to stop the current action on the integrated services line unit high level service circuit (ISLUHLSC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped. Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Integrated services line unit (ISLU) number.

`d` = ISLU service group number.

`e` = High level service circuit number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
STP:ISLUHLSC
```

Output Message(s):

```
DGN:ISLUHLSC
EX:ISLUHLSC
RMV:ISLUHLSC
RST:ISLUHLSC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):

Where 'x' = ISLU Number (0-7).
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x (ISLU NETWORK)
171x (ISLU-Z PAGE)

STP:ISLULBD

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] ISLULBD=b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an STP:ISLULBD input request to stop the current action on the integrated services line unit line board (ISLULBD).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped. Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Integrated services line unit (ISLU) number.

`d` = Line group number.

`e` = Line board number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
STP:ISLULBD
```

Output Message(s):

```
DGN:ISLULBD
EX:ISLULBD
RMV:ISLULBD
RST:ISLULBD
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

STP:ISLULC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] ISLULC=b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an STP:ISLULC input request to stop the current action on the integrated services line unit line card (ISLULC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped. Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Integrated services line unit (ISLU) number.

`d` = Line group controller number.

`e` = Line card number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
STP:ISLULC
```

Output Message(s):

```
DGN:ISLULC
EX:ISLULC
RMV:ISLULC
RST:ISLULC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

Where 'x' = ISLU Number (0-7) and 'y' = LGC Number (0-15).

170x (ISLU NETWORK)
170xy (ISLU LINE GROUP)

STP:ISLULCKT

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] ISLULCKT=b-c-d-e-f g [h]
```

2. REASON FOR OUTPUT

Indicates the result of an STP:ISLULCKT input request to stop the current action on the integrated services line unit line circuit (ISLULCKT).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped. Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Integrated services line unit (ISLU) number.

`d` = Line group number.

`e` = Line board number.

`f` = Line circuit number.

`g` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`h` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
STP:ISLULCKT
```

Output Message(s):

```
DGN:ISLULCKT
EX:ISLULCKT
RMV:ISLULCKT
RST:ISLULCKT
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

STP:ISLULG

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] ISLULG=b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of a STP:ISLULG input request to stop the current action on the integrated services line unit line group (ISLULG).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped. Valid value(s):
- `DGN` = Diagnose.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Integrated services line unit number.

`d` = Line group number.

`e` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`STP:ISLULG`

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Output Message(s):

```
DGN:ISLULG
RMV:ISLULG
RST:ISLULG
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

STP:ISLULGC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] ISLULGC=b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an STP:ISLULGC input request to stop the current action on the integrated services line unit line group controller (ISLULGC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped. Valid value(s):

`DGN`	= Diagnose.
`EX`	= Exercise.
`RMV`	= Remove.
`RST`	= Restore.

`b` = Switching module (SM) number.

`c` = Integrated services line unit number.

`d` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action has successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`STP:ISLULGC`

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Output Message(s):

```
DGN:ISLULGC
EX:ISLULGC
RMV:ISLULGC
RST:ISLULGC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

Where 'x' = ISLU Number (0-7) and 'y' = LGC Number (0-15).

170x (ISLU NETWORK)
170xy (ISLU LINE GROUP)

STP:ISLUMAN

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] ISLUMAN=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Indicates the result of an STP:ISLUMAN input request to stop the current action on the integrated services line unit metallic access network (ISLUMAN).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped. Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Integrated services line unit (ISLU) number.

`d` = ISLU service group number.

`e` = Metallic access network number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:ISLUMAN
```

Output Message(s):

```
DGN:ISLUMAN
EX:ISLUMAN
RMV:ISLUMAN
RST:ISLUMAN
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

Where 'x' = ISLU Number (0-7).

170x (ISLU NETWORK)
171x (ISLU-Z)

STP:ISLURG

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] ISLURG=b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an STP:ISLURG input request to stop the current action on the integrated services line unit ringing generator (ISLURG).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped. Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Integrated services line unit (ISLU) number.

`d` = ISLU service group RG number.

`e` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:ISLURG
```

Output Message(s):

```
DGN:ISLURG
EX:ISLURG
RMV:ISLURG
RST:ISLURG
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

Where 'x' = ISLU Number (0-7).

170x (ISLU NETWORK)
171x (ISLU-Z)

STP:ISMNAIL

Software Release: 5E10 and later
Message Class: CP
Application: 5
Type: Output

1. FORMAT

```
STP ISMNAIL - a;
```

2. REASON FOR OUTPUT

To indicate the failure of an input STP:ISMNAIL (inter-SM nailup) request. This message will not print if the request is successful. Instead, the list or off-normal output message will stop printing with a termination report of STOPPED.

3. VARIABLE FIELD DEFINITIONS

`a` = Completion report indicating why the list or off-normal request was not stopped. Valid value(s):
`ATA TASK LIST ERROR` = Request to be stopped is not running
`REQUEST NOT ACTIVE` = No list or off-normal request was currently printing when the STP:ISMNAIL request was received.

Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LIST-ISMNAIL
OP:OFFNORM-IS
STP:ISMNAIL
```

Output Message(s):

```
OP:LIST-ISMNAIL
OP:OFFNORM-IS
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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STP:ISTF

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] ISTF=b-c d [e]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the integrated services test function (ISTF) unit using the STP:ISTF input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. Valid value(s):

`DGN`	= Diagnose.
`EX`	= Exercise.
`RMV`	= Remove.
`RST`	= Restore.

Note: The default is the action currently executing on the ISTF unit.

`b` = Switching module (SM) number.

`c` = ISTF unit number.

`d` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Requested action has successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional data qualifying the termination report (variable '`d`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:ISTF
EX:ISTF
RMV:ISTF
RST:ISTF
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:LDSF

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] LDSF=b-c d [e]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the local digital service function (LDSF) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the LDSF circuit). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = LDSF number.

`d` = Termination status. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was immediate.
- `COMPLETED` = Requested action has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`e` = Additional data qualifying the termination report (variable '`d`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:LDSF
EX:LDSF
RMV:LDSF
RST:LDSF
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:LDSU

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] LDSU=b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the local digital service unit - model 2 (LDSU2) board.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the LDSU2 board). Valid value(s):

`DGN`	= Diagnose.
`EX`	= Exercise.
`RMV`	= Remove.
`RST`	= Restore.

`b` = Switching module (SM) number.

`c` = Local digital service unit (LDSU) number.

`d` = Service group number.

`e` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was immediate.
`COMPLETED`	= Requested action has successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion.

`f` = Additional data qualifying the termination report (variable '`e`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:LDSU
EX:LDSU
RMV:LDSU
RST:LDSU
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:LDSUCOM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] LDSUCOM=b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the local digital service unit common (LDSUCOM) board at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default is the action currently executing on the LDSUCOM board). Valid value(s):

- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module number.

`c` = Local digital service unit number.

`d` = Service group number.

`e` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT-STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`f` = Additional data qualifying the termination report (variable '`e`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:LDSUCOM
EX:LDSUCOM
RMV:LDSUCOM
RST:LDSUCOM
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:LIB

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP LIB TEAM  a    b    [c]    d
```

2. REASON FOR OUTPUT

To report the completion status of a manually issued STP:LIB input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Team number.

`b` = Administrative module (AM) flag. Valid value(s):
- `N` = AM is not reporting.
- `Y` = AM is reporting.

`c` = Switching module (SM) number. Default is that SM is not reporting.

`d` = Results. Valid value(s):

```
COMPLETED
STOPPED - CANNOT STOP PROGRAM
STOPPED - NO PROGRAM LOADED
STOPPED - PROCESSOR IS LOADED BY A DIFFERENT TEAM
STOPPED - PROGRAM CLEARED
STOPPED - PROGRAM IS NOT STARTED
STOPPED - PROGRAM WILL NOT STOP
```

4. ACTION TO BE TAKEN

Since this is a response to a manual request, no action is required. Normally, testing would proceed from this point.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:LIB
```

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STP:LIST

Software Release: 5E10 and later
Message Class: ECHO
Application: 5
Type: Output

1. FORMAT

```
STP LIST a
```

2. REASON FOR OUTPUT

To indicate the failure of an input STP:LIST request. This message should not print if the request succeeded; instead the list should stop printing with a termination report of STOPPED.

3. VARIABLE FIELD DEFINITIONS

`a` = Completion report indicating why the list was not stopped. Valid value(s):

- `NO LIST BEING PRINTED` = No list was currently printing when the STP:LIST request was received.
- `SYSTEM BUSY` = A resource failure occurred which prevented completion of the request. Repeat the request.
- `SYSTEM ERROR` = An internal processing error occurred. Repeat the request.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:LIST
STP:LIST
```

Output Message(s):

```
OP:LIST-LINES
OP:LIST-TRUNK
```

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STP:LIT-COMPL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP LIT COMPLETE a [b] c d e
```

2. REASON FOR OUTPUT

To indicate the that line insulation testing has stopped in response to a STP:LIT input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Type of testing that was aborted. Valid value(s):
- `Q` = Automatic line insulation test.
- `S` = Demand line insulation test.

`b` = Originator of request. Valid value(s):
- `RSB` = Repair service bureau requested the stop.
- `SCC` = Switching control center requested the stop.
- `TLWS` = Trunk and line work station requested the stop.
- `[null]` = Originator unknown.

`c` = Total number of lines attempted to be tested.

`d` = Number of lines actually tested.

`e` = Number of lines that failed.

4. ACTION TO BE TAKEN

The purpose of this message is to report the result of the action requested by the corresponding manually requested input message. No specific action is indicated.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:LIT
OP:LIT
OP:LIT-SM
STP:LIT
```

Output Message(s):

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OP:LIT

STP:LUCHAN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] LUCHAN=b-c-d-e-f g [h]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the line unit channel (LUCHAN) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default is the action currently executing on the LUCHAN). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Line unit number.

`d` = Service group number.

`e` = Channel board number.

`f` = Channel number.

`g` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`h` = Additional data qualifying the termination report (variable '`g`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Output Message(s):

```
EX:LUCHAN
RMV:LUCHAN
RST:LUCHAN
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:LUCHBD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] LUCHBD=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the line unit channel board (LUCHBD) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default = the action currently executing on the LUCHBD). Valid value(s):
- `DGN` = Diagnose.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Line unit number.

`d` = Service group number.

`e` = Channel board number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`g` = Additional data qualifying the termination report (variable '`f`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:LUCHBD
RMV:LUCHBD
RST:LUCHBD
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:LUCOMC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] LUCOMC=b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the line unit common control (LUCOMC) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default is the action currently executing on the LUCOMC). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Line unit number.

`d` = Service group number.

`e` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`f` = Additional data qualifying the termination report (variable '`e`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

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Output Message(s):

```
DGN:LUCOMC
EX:LUCOMC
RMV:LUCOMC
RST:LUCOMC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:LUHLSC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] LUHLSC=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the line unit high level service circuit (LUHLSC) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default is the action currently executing on the LUHLSC). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Line unit number.

`d` = Service group number.

`e` = High level service circuit number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`g` = Additional data qualifying the termination report (variable '`f`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Output Message(s):

```
DGN:LUHLSC
EX:LUHLSC
RMV:LUHLSC
RST:LUHLSC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:MA

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] MA=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the metallic access (MA) board at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default = the action currently executing on the MA board). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Metallic service unit number.

`d` = Service group number.

`e` = Metallic access board number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`g` = Additional data qualifying the termination report (variable '`f`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Output Message(s):

```
DGN:MA
EX:MA
RMV:MA
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:MAB

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP MAB=a-b-c-d e f
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the metallic access bus (MAB) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Unit number.

`c` = Service group number.

`d` = Board number.

`e` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware, status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`STP:MAB`

Output Appendix(es):

APP:MAINT-RESP

STP:MCTSI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] MCTSI=b-c d [e]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the module controller/time slot interchange (MCTSI) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default is the action currently executing on the MCTSI). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Module controller unit number.

`d` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`e` = Additional data qualifying the termination report (variable '`d`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:MCTSI
EX:MCTSI
RMV:MCTSI
RST:MCTSI
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:MSUCOM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] MSUCOM=b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the metallic service unit common (MSUCOM) board at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default is the action currently executing on the MSUCOM board). Valid value(s):

- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Metallic service unit number.

`d` = Service group number.

`e` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`f` = Additional data qualifying the termination report (variable '`e`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:MSUCOM
EX:MSUCOM
RMV:MSUCOM
RST:MSUCOM
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:MTB

Software Release: 5E12 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] MTB=b-c-d-e-f g [h]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the metallic access test bus (MTB) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default = the action currently executing on the MTB). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Metallic service unit number.

`d` = Service group number.

`e` = Metallic access board number.

`f` = Metallic access test bus number.

`g` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`h` = Additional data qualifying the termination report (variable '`g`'). Refer to the APP:MTBINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Output Message(s):

```
DGN:MTB
EX:MTB
RMV:MTB
```

Output Appendix(es):

```
APP:MAINT-RESP
```

MCC Display Page(s):

1135/1145 (MSU MA STATUS)

STP:MTIB

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP MTIB=a b c
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the metallic test interconnect bus (MTIB) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = MTIB number.

`b` = Termination status. Valid value(s):

- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware, status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`c` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`STP:MTIB`

Output Appendix(es):

`APP:MAINT-RESP`

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STP:MTIBAX

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP MTIBAX=a-b-c-d e f
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the metallic test interconnect bus access (MTIBAX) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Unit number.

`c` = Service group number.

`d` = Board number.

`e` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination.
`COMPLETED`	= Successful completion.
`COMPLETED CERTIFIED`	= Successful completion. Independent certification of resulting hardware, status is made.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion.

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`STP:MTIBAX`

Output Appendix(es):

APP:MAINT-RESP

STP:ODDEVOL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP ODDEVOL a
```

2. REASON FOR OUTPUT

To report the status of the STP:ODDEVOL input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination report. Valid value(s):
- `COMPLETED` = The requested action was terminated after a normal completion.
- `STOPPED` = The requested action was terminated before a normal completion.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Generic Retrofit Procedures manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
BKUP:ODD
STP:ODDEVOL
```

Output Message(s):

```
BKUP:ODD
```

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-105-24x *Generic Retrofit Procedures*

STP:OP-MON

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP OP MON {AM|SM=a|CMP=b-c}{ABORTED|COMPLETED}
```

2. REASON FOR OUTPUT

To respond to a STP:OP-MON input message.

3. VARIABLE FIELD DEFINITIONS

AM	= Administrative module
a	= Switching module (SM) number.
b	= Message switch side.
c	= Communications module processor (CMP) number.

4. ACTION TO BE TAKEN

If appropriate, correct the STP:OP-MON input message. If there are successive failures, contact technical support.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:MON
INH:MON
OP:MON-CTL
OP:MON-DSP
OP:MON-PID
SET:MON-DATA
SET:MON-FCN
SET:MON-SPEC
SET:MON-WTD
STP:OP-MON
```

Output Message(s):

```
INH:MON
OP:MON-CTL
OP:MON-DSP
OP:MON-PID
REPT:SIMON-FILE
```

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```
SET:MON
```

STP:PCTF

Software Release: 5E10 and later
Message Class: ECHO
Application: 5
Type: Output

1. FORMAT

```
STP PCTF a
```

2. REASON FOR OUTPUT

To indicate the failure of an input STP:PCTF request. This message should not print if the request succeeded; instead the per-call test failure (PCTF) summary should stop printing with a termination report of STOPPED.

3. VARIABLE FIELD DEFINITIONS

`a` = Completion report indicating why the PCTF summary was not stopped. Valid value(s):

- `NO SUMMARY BEING PRINTED` = No manual PCTF summary was printing when the STP:PCTF request was received.
- `SYSTEM BUSY` = A resource failure occurred which prevented completion of the request. Repeat the request.
- `SYSTEM ERROR` = An internal processing error occurred. Repeat the request.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:PCTF
STP:PCTF
```

Output Message(s):

```
OP:PCTF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

STP:PM

Software Release: 5E10 and later
Message Class: TLWS,ECHO
Application: 5
Type: Output

1. FORMAT

```
STP PM a
  [SES=b cc/cc dd:dd:dd]
```

2. REASON FOR OUTPUT

To respond to a manual request to stop in-progress protocol monitoring (PM) session(s).

3. VARIABLE FIELD DEFINITIONS

`a` = Status. Valid value(s):

`ABORTED-ATF CLOSE FAILURE` = The PM session was aborted because the American Standard Code for Information Interchange (ASCII) translation file (ATF) could not be closed.

`ABORTED-ATF OPEN FAILURE` = The PM session was aborted because the ATF could not be opened.

`ABORTED-ATF WRITE FAILURE` = The PM session was aborted because the ATF could not be written to.

`ABORTED-COMMUNICATION FAILURE` = An unspecified communication error occurred between the administrative module (AM) and switching module (SM), between the SM and the protocol handler (PH), or between the AM and *UNIX*® operating system.

`ABORTED-DATABASE PROBLEM` = The request to manually stop a PM session failed because of an error while reading the database.

`ABORTED-INVALID PMCFF FILE` = The PM session was aborted because the protocol monitoring common format file (PMCFF) contents were corrupted, or were missing.

`ABORTED-INVALID SESSION ID` = The PM session was aborted because the session identifier did not correspond to a valid session.

`ABORTED-PMCFF CLOSE FAILURE` = The PM session was aborted because the PMCFF could not be closed.

`ABORTED-PMCFF OPEN FAILURE` = The PM session was aborted because the PMCFF could not be opened.

`ABORTED-PMCFF READ FAILURE` = The PM session was aborted because the PMCFF could not be read.

`ABORTED-PMCFF WRITE FAILURE` = The PM session was aborted because the PMCFF could not be written to.

`ABORTED-TEMPORARY FILE CLOSE FAILURE` = The PM session was aborted because the temporary file created for this session could not be closed.

`ABORTED-TEMPORARY FILE OPEN FAILURE` = The PM session was aborted because the temporary file created for this session could not be opened.

`ABORTED-TEMPORARY FILE READ FAILURE` = The PM session was aborted because the temporary file created for this session could not be read.

`ABORTED-TEMPORARY FILE WRITE FAILURE` = The PM session was aborted because the temporary file created for this session could not be written to.

`ABORTED-TRANSLATION FAILURE` = The PM session was aborted because the protocol translator was no able to translate this session.

`COMPLETED` = The stop request has successfully been completed.

`CONTINUING-TRANSLATION NOT AVAILABLE` = The protocol monitoring session is continuing, but translation of the output into ASCII is not available.

`NOT STARTED-CHANNEL MISMATCH` = The channel (CH) specified on the input line is not valid for the protocol (PROT) specified on the input line.

`NOT STARTED-CHANNEL REQUIRED` = The CH option must be specified on the input line, since the directory number or multi-line hunt group is assigned to more than one channel.

`NOT STARTED-CMP UNAVAILABLE` = The request to manually stop a PM session failed because the communications module (CM) is isolated from the AM.

`NOT STARTED-INVALID PORT` = The port identifier entered could not be translated and was considered to be invalid.

`NOT STARTED-MLHG DN SPECIFIED` = The request to verify a PM session failed because a DN for a MLHG or UCD group was specified. Repeat request using MLHG port services identifier option.

`NOT STARTED-NO ACTIVE SESSION` = The request to manually stop a PM session failed because no active PM sessions exist or because the session number specified did not match an active session number.

`NOT STARTED-NON-PRIMARY DN SPECIFIED` = The request to verify a PM session failed because the primary DN is required. Repeat request specifying the primary DN.

`NOT STARTED-PH UNAVAILABLE` = The request to manually stop a PM session failed because the PH is isolated from the SM.

`NOT STARTED-SM UNAVAILABLE` = The request to manually stop a PM session failed because the SM is isolated from the AM.

`NOT STARTED-TRANSIENT STATE` = The request to manually stop a PM session cannot be honored at this time. Internal verification of the current session is executing. Repeat later.

`b` = The value of the session identifier (SES) for this monitoring session (1-100).

`c` = The current time-stamp for the monitoring session in the format month/day.

`d` = The current time-stamp for the monitoring session in the format hours:minutes:seconds.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:PM
OP:PM
STP:PM
```

Output Message(s):

```
EXC:PM
OP:PM
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-105-110 *System Maintenance Requirements and Tools*
235-390-500 *Feature Handbook*
235-900-301 *ISDN Basic Rate Interface Specification*

STP:PMCCS

Software Release: 5E12 and later
Message Class: TLWS,ECHO
Application: 5
Type: Output

1. FORMAT

```
STP PMCCS a
  [SES=b cc/cc dd:dd:dd]
```

2. REASON FOR OUTPUT

To respond to a manual request to stop in-progress CCS protocol monitoring (PM) session(s).

3. VARIABLE FIELD DEFINITIONS

`a` = Status. Valid value(s):

`ABORTED-COMMUNICATION FAILURE` = An unspecified communication error occurred between the administrative module (AM) and switching module (SM), between the SM and the protocol handler (PH), or between the AM and *UNIX*® operating system.

`ABORTED-DATABASE PROBLEM` = The request to manually stop a PM session failed because of an error while reading the database.

`ABORTED-INVALID SESSION ID` = The PM session was aborted because the session identifier did not correspond to a valid session.

`ABORTED-PMCFF READ FAILURE` = The PM session was aborted because the PMCFF could not be read.

`ABORTED-PMCFF WRITE FAILURE` = The PM session was aborted because the PMCFF could not be written to.

`ABORTED-TEMPORARY FILE CLOSE FAILURE` = The PM session was aborted because the temporary file created for this session could not be closed.

`ABORTED-TEMPORARY FILE OPEN FAILURE` = The PM session was aborted because the temporary file created for this session could not be opened.

`ABORTED-TEMPORARY FILE READ FAILURE` = The PM session was aborted because the temporary file created for this session could not be read.

`ABORTED-TEMPORARY FILE WRITE FAILURE` = The PM session was aborted because the temporary file created for this session could not be written to.

`ABORTED-TRANSLATION FAILURE` = The PM session was aborted because the protocol translator was no able to translate this session.

`COMPLETED` = The stop request has successfully been completed.

`NOT STARTED-NO ACTIVE SESSION` = The request to manually stop a PM session failed because no active PM sessions exist or because the session number specified did not match an active session number.

`NOT STARTED-TRANSIENT STATE` = The request to manually stop a PM session cannot be honored at this time. The session is in a state of initialization or is currently in the process of terminating. Repeat later.

`b` = The value of the session identifier (SES) for this monitoring session (1-100).

`c` = The current time-stamp for the monitoring session in the format month/day.

`d` = The current time-stamp for the monitoring session in the format hours:minutes:seconds.

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4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:PMCCS
OP:PMCCS
STP:PMCCS
```

Output Message(s):

```
EXC:PMCCS
OP:PMCCS
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

STP:PMU

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP PMU=a-b-c d [e]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the precision measurement unit (PMU) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Unit number.

`c` = Circuit number.

`d` = Termination status. Valid value(s):
`ABORTED` = Immediate termination.
`COMPLETED` = Successful completion.
`COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware status is made.
`NOT STARTED` = Action has not begun.
`STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`STP:PMU`

Output Appendix(es):

`APP:MAINT-RESP`

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STP:PROTO

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP PROTO=a-b-c d e
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the protocol circuit (PROTO) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Unit number.

`c` = Service group number.

`d` = Termination status. Valid value(s):

- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `COMPLETED CERTIFIED` = Successful completion. Independent certification of resulting hardware, status is made.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`e` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:PROTO
```

Output Appendix(es):

```
APP:MAINT-RESP
```

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STP:PSU

Software Release: 5E10 and later
Message Class: SMCONFG,SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] PSU{b}=c-d-e[-f] g [h]
```

2. REASON FOR OUTPUT

Indicates the result of an STP:PSU input message to stop the current action on the packet switch unit (PSU) common controller (COM) or protocol handler (PH).

3. VARIABLE FIELD DEFINITIONS

a = Action being stopped. Valid value(s):
- DGN = Diagnose.
- EX = Exercise.
- RMV = Remove.
- RST = Restore.

b = Circuit name. Valid value(s):
- COM = Common controller.
- PH = Protocol handler.

c = Switching module (SM) number.

d = PSU number.

e = Valid value(s):

If 'b' =	'e' =
COM	Service group number.
PH	Shelf number.

f = Protocol handler number.

g = Termination report. Valid value(s):
- ABORTED = Requested action was terminated before completion, and the termination was not graceful.
- COMPLETED = Request has successfully completed.
- NOT STARTED = Requested action has not begun.
- STOPPED = Requested action was terminated before a normal completion. Termination was graceful.

h = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages.

4. ACTION TO BE TAKEN

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If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:PSU
```

Output Message(s):

```
DGN:PSU
EX:PSU
RMV:PSU
RST:PSU
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

118x (PSU SHELF)
1186 (PSU NETWORK)

STP:PSUPIDB

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] PSUPIDB=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Indicates the results of a STP:PSUPIDB input message that stops the current action on a packet switch unit (PSU) peripheral interface data bus (PIDB).

3. VARIABLE FIELD DEFINITIONS

`a` = Action to be stopped. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module number.

`c` = PSU number.

`d` = PSU shelf number.

`e` = PIDB number.

`f` = Termination status. Valid value(s):
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action has not be begun.

`g` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

Proceed in accordance with the termination status. If the status is `COMPLETED`, no action is required. If the status is not `COMPLETED`, then additional information should give some indication of why the request failed. Verify that the system was in a valid state to perform the request.

If unexpected results occur, refer to the Routine Operations and Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:PSUPIDB
```

Output Message(s):

```
RST:PSUPIDB
RMV:PSUPIDB
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

STP:RAF

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] RAF=b-c d [e]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the recorded announcement function (RAF) unit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the RAF unit). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = RAF unit number.

`d` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate and was not graceful.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated gracefully before a normal completion.

`e` = Additional data qualifying the termination report (variable '`d`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:RAF
EX:RAF
RMV:RAF
RST:RAF
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:RAU

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] RAU=b c [d]
```

2. REASON FOR OUTPUT

To indicate the result of an STP:RAU input message to stop the current action on a remote switching module (RSM) alarm unit (RAU) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default is the action currently executing on the RAU). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was complete.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed, and independent certification of the resulting hardware status was made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`STP:RAU`

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:RCHIST

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP:RCHIST  a b
```

2. REASON FOR OUTPUT

To respond to a previously entered STP:RCHIST command.

3. VARIABLE FIELD DEFINITIONS

`a` = Completion code of STP:RCHIST input message. Valid value(s):

`ABORTED`	= Input request was aborted after starting. Message text provides reason.
`COMPLETED`	= Input command has completed and REPT:RCHIST command has been stopped.
`NOT STARTED`	= Input message was not started. Message text provides reason that command was not started.
`STARTED`	= Input command was started and REPT:RCHIST command should be stopped.

`b` = Message text (expanded reason for completion code).

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:RCHIST
REPT:RCHIST
STP:RCHIST
```

Output Message(s):

```
OP:RCHIST
REPT:RCHIST
```

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STP:RCL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP a RCL=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Reports the result of a STP:RCL input message request to stop the maintenance action on a remote communication link (RCL) between inter- remote switching module (RSM) communication link digital facilities interface (CDFI) circuits.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default is the action currently executing on the RCL). Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Digital line and trunk (DLTU) number.

`d` = CDFI number.

`e` = Facility (FAC) number. The FAC number is the T1 facility number on a CDFI.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action had not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:RCL
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

STP:RCLK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP a RCLK=b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of a STP:RCLK input message to stop the current action on a remote clock (RCLK) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default is the action currently executing on the RCLK). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = RCLK side.

`d` = Termination report. Valid value(s):
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action had not begun.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`STP:RCLK`

MCC Display Page(s):

RSM RCU

STP:RCRLS

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP:RCRLS  a b
```

2. REASON FOR OUTPUT

Response to a previously entered STP:RCRLS command.

3. VARIABLE FIELD DEFINITIONS

`a` = Completion code of STP:RCRLS input message. Valid value(s):

- `ABORTED` = Input request was aborted after starting. Message text provides reason.
- `COMPLETED` = Input command has completed and EXC:RCRLS recent change applications have been stopped.
- `NOT STARTED` = Input message was not started. Message-text provides reason that command was not started.
- `STARTED` = Input command was started and requested EXC:RCRLS recent change applications should be stopped.

`b` = Message text. Expanded reason for completion code.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:RCRLS
OP:RCRLS
STP:RCRLS
```

Output Message(s):

```
OP:RCRLS
```

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STP:RCRMV

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP:RCRMV  a b
```

2. REASON FOR OUTPUT

To respond to a previously entered STP:RCRMV command.

3. VARIABLE FIELD DEFINITIONS

`a` = Completion code of STP:RCRMV input message. Valid value(s):

- `ABORTED` = Input request was aborted after starting. Message text provides reason.
- `COMPLETED` = Input command has completed and REPT:RCRMV command has been stopped. The contents of the clerkfile specified in the EXC:RCRMV input message are restored.
- `NOT STARTED` = Input message was not started. Message-text provides reason that command was not started.
- `STARTED` = Input command was started and requested REPT:RCRMV should be stopped.

`b` = Message text - Expanded reason for completion code.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:RCRMV
OP:RCRMV
STP:RCRMV
```

Output Message(s):

```
OP:RCRMV
```

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STP:RDFI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] RDFI=b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the result of an STP:RDFI input message to stop the current action on a remote switching module (RSM) digital facilities interface (RDFI) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default is the action currently executing on the RDFI). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Digital line and trunk unit (DLTU) number.

`d` = RDFI number.

`e` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was complete.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed, and independent certification of the resulting hardware status was made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
STP:RDFI
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:RDTA-A

Software Release: 5E10 - 5E11
Message Class: TM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      STP RDTA SESSION=a b [FP=c]
       [d] [m] [x] [z]
       [INDN=a1 ITAP=b1-c1] [OUTDN=d1 OTAP=e1-f1]
        MODE=g1 [QTS=h1]  DURATION=i1

[2]   ____________________________________________________________
      STP RDTA SESSION=a b FP=c
```

2. REASON FOR OUTPUT

To respond to a manual request to stop an active remote digital test access (RDTA) session or to notify the user of a system-initiated termination of an RDTA session. System-initiated terminations include those sessions that reach the 24-hour expiration deadline (because the UPD:RDTA message has not been used in the last 24 hours) and those that are terminated due to software/hardware errors or a lack of necessary conditions to satisfy the mode of the RDTA session.

Format 1 is used to display all successful RDTA session terminations, whether requested or system-initiated. It also conveys a failure to stop a session if the request has gone so far as to reach the switching module (SM) of the port under test (PUT). The first line shows the session number and the outcome of an attempted session termination along with a failure point number to identify the point in software where failure occurred. The second line describes the PUT in the various port identifications which are applicable to the PUT. The third line shows the output facility information defining routing for the RDTA connection and where the protocol analysis equipment is located. Acronyms are as follows:

- incoming directory number (INDN)
- incoming test access port (ITAP)
- outgoing DN (OUTDN)
- outgoing test access port (OTAP)

The fourth line shows the type of connection and quarter time-slot, if applicable, along with the total session duration.

Format 2 reports that the STP:RDTA input message failed. This format is used to convey a failure response when the termination request has not yet reached the SM of the PUT.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansions of acronyms shown in the format.

+ = Assigned to a multipoint interface.

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a = Session number given to the requested session. Sessions are numbered sequentially from 1 through 99. At 99, the numbers is recycled starting from 1 again.

b = Automated termination or response to STP:RDTA input message. Valid value(s):

`AM DATA BUT NO SM CONNECTION` = The RDTA session was terminated due to an RDTA session inconsistency. The administrative module (AM) had data pertaining to a session but no physical connection exists in the SM of the PUT.

`COMPLETED` = The session was successfully stopped due to a manual request.

`CORRUPTED DYNAMIC DATA` = Dynamic data has been corrupted. Look at receive-only printer (ROP) for a related assert to give assistance toward correcting the office dependent data (ODD) problem. Audits correct any RDTA session/data inconsistency.

`CORRUPTED STATIC DATA` = Static data has been corrupted. Look at ROP for a related assert to give assistance toward correcting the ODD problem. Audits correct any RDTA session/data inconsistency.

`DURATION TIMER EXPIRED` = The RDTA session was stopped because its duration timer expired.

`HALF OF DUPLEX SPLIT WENT DOWN` = This means that either the PUT side, connected to the ITAP, or the far end side (connected to the PUT before the split was in place), connected now to the OTAP went down.

`HARDWARE TROUBLE` = One or more peripherals responded in error. These include such peripherals as the integrated services line unit (ISLU) or the remote integrated services line unit (RISLU) and the packet switching unit (PSU). Investigate the problems seen in the RISLU/ISLU or PSU of the PUT or any problems in the RISLU/ISLU of the TAP(s).

`INTERRUPT RECEIVED` = The RDTA session preempted or interrupted due to an abnormal event. This abnormal event could be something such as hardware out of service, carrier group alarm, and so forth.

`MONITORED PATH WAS MOVED` = The path which was being monitored was moved. For example, a conference call could have been set up on this monitored path. When a monitored path is moved, the RDTA session monitoring this path is terminated.

`PATH ON PUT WENT DOWN` = The path which was being monitored ceased to exist, the RDTA session which was monitoring this path must rightfully be removed, since there is no longer a path to monitor. For example, either end could have gone on-hook to end a call when monitoring a BRI B-channel.

`PROCESS TIMEOUT` = An RDTA AM or SM process timed-out after waiting for an SM process to respond. This condition has occurred because of an SM overload condition, an SM isolation, or an internal software error. Since there is no inter-module communication there may or may not be a connection still intact. If the RDTA connection does still exist in the SM of the PUT, it is removed when audits makes a routine pass. A VFY:RDTA may also be performed to query this session. It then schedules an audit if there is an inconsistency.

`PUT PATH FAILURE` = An attempt to tear down a path to the PUT failed.

`RESOURCE FAILURE` = Could not obtain the necessary path resources to tear down this connection.

`SESSION NOT ACTIVE` = The requested RDTA session is not active.

`SINGLE PROCESS PURGE` = A software process which supports the functionality of an RDTA session connection was purged. Consequently, the entire connection has been torn down. Additional information can be obtained from the ROP by looking for single process purge (SPP) related messages.

`SM CONNECTION BUT NO AM DATA` = The RDTA session was terminated due to an RDTA session inconsistency. The AM did not have a data entry for the particular session that was taking place in the SM.

`SM UNAVAILABLE` = One of the SMs required to terminate the RDTA session is isolated.
`SYSTEM BUSY` = System resources are not available to take down the requested connection. The AM or SM may be in an overload condition.
`SYSTEM ERROR` = Internal system error occurred while attempting to terminate the requested RDTA session.
`TAP PATH FAILURE` = An attempt failed to tear down the path either to the ITAP or the OTAP or both.

`c` = A fail point number used to relay the specific point in the software at which a failure occurred. This is used purely for debugging purposes.

`d` = Service group and member numbers. Valid value(s):

```
BST=e-f
MLHG=g-h
OAPO=e
OPT=e-f
RTRS=i-j
TKGMN=k-l
```

`e` = Operator service center number.

`f` = Relative position number.

`g` = Multi-line hunt group number.

`h` = Multi-line hunt group member number.

`i` = Data link relative group number of the RTRS.

`j` = Data link relative member number of the RTRS.

`k` = Trunk group number.

`l` = Trunk group member number.

`m` = Equipment number. Valid value(s):

```
DEN=n-o-p-q
ILEN=n-r-s-t
LCEN=n-u-v-w
LCKEN=n-u-q1-j1-k1
NEN=n-l1-m1-n1-o1-p1
```

`n` = SM number.

`o` = Digital line and trunk unit (DLTU) number.

`p` = Digital facility interface number.

`q` = Digital channel.

`r` = Integrated digital carrier unit number.

`s` = Remote terminal number.

`t` = Channel unit number.

`u` = Integrated services line unit number.

`v` = Line group controller number.

`w` = Line card number.

`x` = Directory number. Valid value(s):

```
DN=y[+]
PKTDN=y[+]
```

`y` = Seven-digit directory number.

`z` = Channel type [for basic rate interface BRI)]. Valid value(s):

`B1`	= B1-Channel.
`B2`	= B2-Channel.
`D`	= D-Channel (default).

`a`[1] = DN of the output facility where the protocol analyzer is connected to access the test data sent over the PUT to the switch. This direction is known as incoming. Data sent from the analysis equipment for interaction with the PUT originates from INDN for all interactive mode connections excepting the SPLITPH connection.

`b`[1] = SM number of the port which corresponds to the INDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

`c`[1] = Logical port number of the port which corresponds to the INDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

`d`[1] = DN of the output facility where the protocol analyzer is connected to access the test data sent from the switch to the PUT. This direction is known as outgoing. Data sent from the analysis equipment for interaction with the switch originates from OUTDN for the SPLIT and SPLITPH connections.

`e`[1] = SM number of the port which corresponds to the OUTDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

`f`[1] = Logical port number of the port which corresponds to the OUTDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

`g`[1] = Connection mode of the RDTA session. Valid value(s):

`DTAC`	= Direct test access connection (DTAC). This is an interactive connection on a port that does not have a path set up on it. The PUT is seized and directly connected to a outgoing port terminating at the protocol analysis equipment.
`MON`	= Monitor. This is a receive-only connection on a busy circuit. A copy of the transmit and receive data being passed over the PUT is transmitted to two individual outgoing ports that terminate at the protocol analysis equipment.
`SPLIT`	= Duplex split. This is an interactive connection on a busy circuit. The existing path on the PUT is broken and each half is connected to an outgoing port terminated at the protocol analysis equipment. This allows interactive testing of both sides of the original path.
`SPLITPH`	= Simplex split protocol handler (PH) side. This is an interactive connection up on

an integrated services digital network (ISDN) channel nailed-up to a PH. The existing path on the ISDN channel is torn down and the PH associated with the channel being tested is directly connected to an outgoing port terminating to the protocol analysis equipment.

`SPLITPUT` = Simplex split PUT side. This is an interactive connection on a busy circuit. The existing path on the PUT is broken and the PUT is directly connected to an outgoing port terminating to the protocol analysis equipment.

`h`[1] = The quarter time-slot (QTS) (16 kb/s section) of a 64 kb/s unrestricted channel. This output facility pseudo BRI D-channel quarter time-slot corresponds to the quarter time-slot carrying the BRI D-channel data, the PUT data, to the protocol handler (PH). The valid range is 0,1,2 or 3.

`i`[1] = This is the total time for which the session has been active in its present state (that is, the time since the start or conversion of the session). The output form, for this length of time, on the output is days (with a space between) hours:minutes:seconds.

`j`[1] = Line board number.

`k`[1] = Line circuit number.

`l`[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

`m`[1] = Data group (DG) number.

`n`[1] = Synchronous transport signal (STS) number.

`o`[1] = Virtual tributary (VT1.5) number.

`p`[1] = Digital signal level 0 (DS0) number.

`q`[1] = Line group number.

4. ACTION TO BE TAKEN

If the message indicates that the RDTA session was aborted due to an internal software/hardware error, save the printer output. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:RDTA
OP:RDTA
STP:RDTA
UPD:RDTA
VFY:RDTA
```

Output Message(s):

```
EXC:RDTA
OP:RDTA
UPD:RDTA
VFY:RDTA
```

Other Manual(s):

235-105-110	*System Maintenance Requirements and Tools*
235-105-220	*Corrective Maintenance*
235-190-105	*ISDN Feature Description*
235-900-301	*ISDN Basic Rate Interface Specification*

STP:RDTA-B

Software Release: 5E12 and later
Message Class: TM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      STP RDTA SESSION=a b [FP=c]
       [d] [m] [x] [z]
       [INDN=a1 ITAP=b1-c1] [OUTDN=d1 OTAP=e1-f1]
        MODE=g1 [QTS=h1]  DURATION=i1

[2]   ____________________________________________________________
      STP RDTA SESSION=a b FP=c
```

2. REASON FOR OUTPUT

To respond to a manual request to stop an active remote digital test access (RDTA) session or to notify the user of a system-initiated termination of an RDTA session. System-initiated terminations include those sessions that reach the 24-hour expiration deadline (because the UPD:RDTA message has not been used in the last 24 hours) and those that are terminated due to software/hardware errors or a lack of necessary conditions to satisfy the mode of the RDTA session.

Format 1 is used to display all successful RDTA session terminations, whether requested or system-initiated. It also conveys a failure to stop a session if the request has gone so far as to reach the switching module (SM) of the port under test (PUT). The first line shows the session number and the outcome of an attempted session termination along with a failure point number to identify the point in software where failure occurred. The second line describes the PUT in the various port identifications which are applicable to the PUT. The third line shows the output facility information defining routing for the RDTA connection and where the protocol analysis equipment is located. Acronyms are as follows:

- incoming directory number (INDN)
- incoming test access port (ITAP)
- outgoing DN (OUTDN)
- outgoing test access port (OTAP)

The fourth line shows the type of connection and quarter time-slot, if applicable, along with the total session duration.

Format 2 reports that the STP:RDTA input message failed. This format is used to convey a failure response when the termination request has not yet reached the SM of the PUT.

3. VARIABLE FIELD DEFINITIONS

`+` = Assigned to a multipoint interface.

`a` = Session number given to the requested session. Sessions are numbered sequentially from 1 through 99. At 99, the numbers is recycled starting from 1 again.

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b = Automated termination or response to STP:RDTA input message. Valid value(s):

AM DATA BUT NO SM CONNECTION = The RDTA session was terminated due to an RDTA session inconsistency. The administrative module (AM) had data pertaining to a session but no physical connection exists in the SM of the PUT.

COMPLETED = The session was successfully stopped due to a manual request.

CORRUPTED DYNAMIC DATA = Dynamic data has been corrupted. Look at receive-only printer (ROP) for a related assert to give assistance toward correcting the office dependent data (ODD) problem. Audits correct any RDTA session/data inconsistency.

CORRUPTED STATIC DATA = Static data has been corrupted. Look at ROP for a related assert to give assistance toward correcting the ODD problem. Audits correct any RDTA session/data inconsistency.

DURATION TIMER EXPIRED = The RDTA session was stopped because its duration timer expired.

HALF OF DUPLEX SPLIT WENT DOWN = This means that either the PUT side, connected to the ITAP, or the far end side (connected to the PUT before the split was in place), connected now to the OTAP went down.

HARDWARE TROUBLE = One or more peripherals responded in error. These include such peripherals as the integrated services line unit (ISLU) or the remote integrated services line unit (RISLU) and the packet switching unit (PSU). Investigate the problems seen in the RISLU/ISLU or PSU of the PUT or any problems in the RISLU/ISLU of the TAP(s).

INTERRUPT RECEIVED = The RDTA session preempted or interrupted due to an abnormal event. This abnormal event could be something such as hardware out of service, carrier group alarm, and so forth.

MONITORED PATH WAS MOVED = The path which was being monitored was moved. For example, a conference call could have been set up on this monitored path. When a monitored path is moved, the RDTA session monitoring this path is terminated.

PATH ON PUT WENT DOWN = The path which was being monitored ceased to exist, the RDTA session which was monitoring this path must rightfully be removed, since there is no longer a path to monitor. For example, either end could have gone on-hook to end a call when monitoring a basic rate interface (BRI) B-channel.

PROCESS TIMEOUT = An RDTA AM or SM process timed-out after waiting for an SM process to respond. This condition has occurred because of an SM overload condition, an SM isolation, or an internal software error. Since there is no inter-module communication there may or may not be a connection still intact. If the RDTA connection does still exist in the SM of the PUT, it is removed when audits makes a routine pass. A VFY:RDTA may also be performed to query this session. It then schedules an audit if there is an inconsistency.

PUT PATH FAILURE = An attempt to tear down a path to the PUT failed.

RESOURCE FAILURE = Could not obtain the necessary path resources to tear down this connection.

SESSION NOT ACTIVE = The requested RDTA session is not active.

SINGLE PROCESS PURGE = A software process which supports the functionality of an RDTA session connection was purged. Consequently, the entire connection has been torn down. Additional information can be obtained from the ROP by looking for single process purge (SPP) related messages.

SM CONNECTION BUT NO AM DATA = The RDTA session was terminated due to an RDTA session inconsistency. The AM did not have a data entry for the particular session that was taking place in the SM.

SM UNAVAILABLE = One of the SMs required to terminate the RDTA session is isolated.

SYSTEM BUSY = System resources are not available to take down the requested connection. The

AM or SM may be in an overload condition.

`SYSTEM ERROR` = Internal system error occurred while attempting to terminate the requested RDTA session.

`TAP PATH FAILURE` = An attempt failed to tear down the path either to the ITAP or the OTAP or both.

`c` = A fail point number used to relay the specific point in the software at which a failure occurred. This is used purely for debugging purposes.

`d` = Service group and member numbers. Valid value(s):

```
BST=e-f
 MLHG=g-h
 OAPO=e
 OPT=e-f
 RTRS=i-j
 TKGMN=k-l
```

`e` = Operator service center number.

`f` = Relative position number.

`g` = Multi-line hunt group number.

`h` = Multi-line hunt group member number.

`i` = Data link relative group number of the RTRS.

`j` = Data link relative member number of the RTRS.

`k` = Trunk group number.

`l` = Trunk group member number.

`m` = Equipment number. Valid value(s):

```
AIUEN=n-u-j1-k1 DEN=n-o-p-q ILEN=n-r-s-t LCEN=n-u-v-w LCKEN=n-u-s1-j1-k1
NEN=n-l1-m1-n1-o1-p1-q1-r1 INEN=n-l1-s-t
```

`n` = SM number.

`o` = Digital line and trunk unit (DLTU) number.

`p` = Digital facility interface number.

`q` = Digital channel.

`r` = Integrated digital carrier unit number.

`s` = Remote terminal number.

`t` = Channel unit number.

`u` = Integrated services line unit (ISLU) or access interface unit (AIU) number.

`v` = Line group controller number.

`w` = Line card number.

`x` = Directory number. Valid value(s):

```
DN=y[+]
 PKTDN=y[+]
```

`y` = Seven-digit directory number.

`z` = Channel type (for BRI). Valid value(s):

- `B1` = B1-Channel.
- `B2` = B2-Channel.
- `D` = D-Channel (default).

`a`[1] = DN of the output facility where the protocol analyzer is connected to access the test data sent over the PUT to the switch. This direction is known as incoming. Data sent from the analysis equipment for interaction with the PUT originates from INDN for all interactive mode connections excepting the SPLITPH connection.

`b`[1] = SM number of the port which corresponds to the INDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

`c`[1] = Logical port number of the port which corresponds to the INDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

`d`[1] = DN of the output facility where the protocol analyzer is connected to access the test data sent from the switch to the PUT. This direction is known as outgoing. Data sent from the analysis equipment for interaction with the switch originates from OUTDN for the SPLIT and SPLITPH connections.

`e`[1] = SM number of the port which corresponds to the OUTDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

`f`[1] = Logical port number of the port which corresponds to the OUTDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

`g`[1] = Connection mode of the RDTA session. Valid value(s):

- `DTAC` = Direct test access connection (DTAC). This is an interactive connection on a port that does not have a path set up on it. The PUT is seized and directly connected to a outgoing port terminating at the protocol analysis equipment.
- `MON` = Monitor. This is a receive-only connection on a busy circuit. A copy of the transmit and receive data being passed over the PUT is transmitted to two individual outgoing ports that terminate at the protocol analysis equipment.
- `SPLIT` = Duplex split. This is an interactive connection on a busy circuit. The existing path on the PUT is broken and each half is connected to an outgoing port terminated at the protocol analysis equipment. This allows interactive testing of both sides of the original path.
- `SPLITPH` = Simplex split protocol handler (PH) side. This is an interactive connection up on an integrated services digital network (ISDN) channel nailed-up to a PH. The existing path on the ISDN channel is torn down and the PH associated with the channel being tested is directly connected to an outgoing port terminating to the protocol analysis equipment.

`SPLITPUT` = Simplex split PUT side. This is an interactive connection on a busy circuit. The existing path on the PUT is broken and the PUT is directly connected to an outgoing port terminating to the protocol analysis equipment.

`h`[1] = The quarter time-slot (QTS) (16 kb/s section) of a 64 kb/s unrestricted channel. This output facility pseudo BRI D-channel quarter time-slot corresponds to the quarter time-slot carrying the BRI D-channel data, the PUT data, to the protocol handler (PH). The valid range is 0,1,2 or 3.

`i`[1] = This is the total time for which the session has been active in its present state (that is, the time since the start or conversion of the session). The output form, for this length of time, on the output is days (with a space between) hours:minutes:seconds.

`j`[1] = Line board number.

`k`[1] = Line circuit number.

`l`[1] = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

`m`[1] = Data group (DG) number.

`n`[1] = SONET termination equipment (STE) facility number.

`o`[1] = Synchronous transport signal (STS) facility number.

`p`[1] = Virtual tributary group (VTG) number.

`q`[1] = Virtual tributary member (VTM) number.

`r`[1] = Digital signal level 0 (DS0) number.

`s`[1] = Line group number.

4. ACTIONS TO BE TAKEN

If the message indicates that the RDTA session was aborted due to an internal software/hardware error, save the printer output. Refer to the TECHNICAL ASSISTANCE section of the INTRODUCTION.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:RDTA
OP:RDTA
STP:RDTA
UPD:RDTA
VFY:RDTA
```

Output Message(s):

```
EXC:RDTA
```

```
OP:RDTA
UPD:RDTA
VFY:RDTA
```

Other Manual(s):

235-105-110	*System Maintenance Requirements and Tools*
235-105-220	*Corrective Maintenance*
235-190-105	*ISDN Feature Description*
235-900-301	*ISDN Basic Rate Interface Specification*

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STP:RLI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] RLI=b-c d [e]
```

2. REASON FOR OUTPUT

To indicate the result of an STP:RLI input message to stop the current maintenance action on a remote switching module (RSM) remote link interface (RLI) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default is the action currently executing on the RLI). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = RLI number.

`d` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was complete.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed, and independent certification of the resulting hardware status was made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:RLI
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:RPCU

Software Release: 5E11 and later
Message Class: TM
Application: AEWNC
Type: Output

1. FORMAT

```
STP RPCU ALARM a
```

2. REASON FOR OUTPUT

To indicate the failure of an input STP:RPCU request. This message should not print if the request succeeded; instead the radio port controller unit (RPCU) alarm information should stop printing with a termination report of `STOPPED`.

3. VARIABLE FIELD DEFINITIONS

`a` = Completion report indicating why the RPCU alarm information was not stopped. Valid value(s):
`NO OP RPCU ALARM PROCESS FOUND` = Did not find a manual OP:RPCU input message running.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None

6. REFERENCES

Input Message(s):

```
STP:RPCU
OP:RPCU
```

Output Message(s):

```
OP:RPCU
```

Other Manual(s):
230-701-100 *Air Extension^{SM} Reference Manual*
230-701-120 *Air Extension^{SM} User's Guide*

STP:RRCLK

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] RRCLK=b-c-d e [f]
```

2. REASON FOR OUTPUT

Indicates the result of an STP:RRCLK input message to stop the current maintenance action on the remote integrated services line unit (RISLU) remote clock circuit pack (RRCLK).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted. Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.
- `SW` = Switch.

`b` = Switching module (SM) number.

`c` = RISLU number.

`d` = RRCLK side.

`e` = Termination report. Valid value(s):
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action has not begun.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`STP:RRCLK`

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Output Message(s):

```
DGN:RRCLK
EX:RRCLK
RMV:RRCLK
RST:RRCLK
SW:RRCLK
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

STP:RST

Software Release: 5E12 and later
Message Class: TRK
Application: 5
Type: Output

1. FORMAT

STP RST TRK {a|PID b UNIQ c}][,UCL] a[1]

2. REASON FOR OUTPUT

To report the stopping of a restore trunk (RST:TRK) request. Each STP:RST request will be followed by RMV TRK output message(s) specifying what status the trunk was put in.

3. VARIABLE FIELD DEFINITIONS

a = Equipment number or identifier. Valid value(s):
DEN=d-e-f-g
ILEN=d-h-i-j
INEN=d-k-i-j
NEN=d-k-l-b[1]-m-n-c[1]-o
PRIGRP=p
PSUEN=d-q-r-s-t
TEN=d-u-v-w-x
TG=y
TKGMN=y-z

b = Task process number assiciated with the task.

c = A uniqueness qualifier to further identify the task.

d =SM number.

e =Digital line and trunk unit (DLTU) number.

f =Digital facility interface (DFI) number.

g =Channel number.

h =Integrated digital carrier unit (IDCU) number.

i =Remote terminal (RT) number.

j =RT line number.

k =DNU-S number.

l =Data group number.

m =Synchronous transport signal (STS) number.

n =Virtual tributary 1.5 (VT1.5) group number.

o =Digital signal level 0 (DS0) number.

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p =Primary rate interface (PRI) number.

q =PSU unit number.

r =PSU shelf number.

s =PSU channel group number.

t =Line group number.

u =Trunk unit number.

v =Service group number.

w =Channel board number.

x =Circuit number.

y =Trunk group number.

z =Trunk member number or lower limit of a range of trunk member number.

a[1] = Status report. Valid value(s):

COMPLETED = The stopping of a restore for a trunk has completed.

INPUT ERROR = The identifier input on the command line is incorrect or it does not match what was input on the RST:TRK command.

JOB NOT ACTIVE = The identifier input does not match any active Automatic Task Administrator (ATA) job.

STARTED = The stopping of a restore for a trunk has started An assert (TMABTTSK) has occurred and will be reported on the ROP.

b[1] =Signal terminating equipment (STE) number.

c[1] = VT1.5 group number.

4. ACTIONS TO BE TAKEN

None, this command is used to undo a RST:TRK command whose identifier was incorrectly entered.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:JOBSTATUS
RST:TRK
STP:RST
```

Output Message(s):

```
STP:RST
RMV:TRK
RST:TRK
OP:JOBSTATUS
```

Output Appendix(es):

```
APP:PORT-STATUS
```

STP:RT-EOC-A

Software Release: 5E10 - 5E11
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
STP [a] RT EOC=b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of a STP:RT-EOC input message that stops the current action on an integrated digital carrier unit (IDCU) terminated remote terminal (RT) embedded operations channel (EOC) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action to be stopped. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Site identification number.

`c` = EOC number.

`d` = Termination report. Valid value(s):
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`STP:RT-EOC`

Output Message(s):

`RMV:RT-EOC`

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RST:RT-EOC

Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

188xyy (IDCU REMOTE TERMINAL)

STP:RT-EOC-B

Software Release: 5E12 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
STP [a] RT EOC=b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of a STP:RT-EOC input message that stops the current action on a terminated remote terminal (RT) embedded operations channel (EOC) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action to be stopped. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Site identification number.

`c` = EOC number.

`d` = Termination report. Valid value(s):
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`STP:RT-EOC`

Output Message(s):

`RMV:RT-EOC`

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RST:RT-EOC

Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1880,x,yy (IDCU REMOTE TERMINAL)
1660,xxxx (TR303 REMOTE TERMINAL)

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STP:RT-TMC-A

Software Release: 5E10 - 5E11
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
STP [a] RT TMC=b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of a STP:RT-TMC input message that stops the current action on a remote terminal (RT) timeslot management channel (TMC) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action to be stopped. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Site identification number.

`c` = TMC number.

`d` = Termination report. Valid value(s):
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:RT-TMC
```

Output Message(s):

```
RMV:RT-TMC
```

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RST:RT-TMC

Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

188xyy (IDCU REMOTE TERMINAL)

STP:RT-TMC-B

Software Release: 5E12 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
STP [a] RT TMC=b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of a STP:RT-TMC input message that stops the current action on a remote terminal (RT) timeslot management channel (TMC) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action to be stopped. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Site identification number.

`c` = TMC number.

`d` = Termination report. Valid value(s):
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`STP:RT-TMC`

Output Message(s):

`RMV:RT-TMC`

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RST:RT-TMC

Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1880,x,yy (IDCU REMOTE TERMINAL)
1660,xxxx (TR303 REMOTE TERMINAL)

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STP:RTFAC

Software Release: 5E12 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
STP [a] RTFAC=b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of a STP:RTFAC input message that stops the current action on a remote terminal (RT) facility (FAC) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action to be stopped. Valid values are:
- `RMV` = Remove.
- `RST` = Restore.

`b` = Site identification number.

`c` = RT FAC number.

`d` = Termination report. Valid values are:
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`STP:RTFAC`

Output Message(s):

`RMV:RTFAC`

```
RST:RTFAC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1511,x,yy (DNUS STS MAINTENANCE)
1512,x,yy (DNUS STS DS1 APPLICATION)
1660,xxxx (TR303 REMOTE TERMINAL)

STP:RVPT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP g RVPT=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the revertive pulsing transceiver (RVPT) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Unit number.

`c` = Service group.

`d` = Circuit number.

`e` = Termination status. Valid value(s):

`ABORTED`	= Immediate termination. (Process not gracefully terminated.)
`COMPLETED`	= Successful completion.
`NOT STARTED`	= Action has not begun.
`STOPPED`	= Terminated before normal completion. (Process gracefully terminated.)

`f` = Data qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

`g` = The action to be stopped.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:RVPT
ABT:RVPT
```

Output Appendix(es):

APP:MAINT-RESP

STP:SAS

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] SAS=b-c d [e]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the service announcement system (SAS) unit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being aborted (default is the action currently executing on the SAS unit). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = SAS unit number.

`d` = Termination status. Valid value(s):
- `ABORTED` = Immediate termination.
- `COMPLETED` = Successful completion.
- `NOT STARTED` = Action has not begun.
- `STOPPED` = Terminated before normal completion.

`e` = Additional data qualifying the termination report (variable '`d`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
DGN:SAS
EX:SAS
RMV:SAS
RST:SAS
```

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Output Appendix(es):

APP:MAINT-RESP

STP:SCAN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] SCAN=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the scan point board at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default is the action currently executing on the scan point board). Valid value(s):

- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Metallic service unit number.

`d` = Service group number.

`e` = Scan point board number.

`f` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`g` = Additional data qualifying the termination report (variable '`f`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Output Message(s):

```
DGN:SCAN
EX:SCAN
RMV:SCAN
RST:SCAN
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:SDFI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] SDFI=b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the *SLC*® 96 digital facility interface (SDFI) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default is the action currently executing on the SDFI). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Digital carrier line unit (DCLU) number.

`d` = SDFI number.

`e` = Termination status. Valid value(s):
- `ABORTED` = The action requested was unsuccessful, and the termination was not graceful. Hardware states are not reliable.
- `COMPLETED` = The action completed successfully.
- `NOT STARTED` = The action to be aborted has not yet started.
- `STOPPED` = The action terminated before a normal completion but the termination was graceful. Hardware states are reliable.

`f` = Additional data qualifying the termination report (variable '`e`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:SDFI
```

Output Message(s):

```
DGN:SDFI
EX:SDFI
RMV:SDFI
RST:SDFI
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:SFI

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] SFI=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Indicates the result of a STP:SFI input request to stop maintenance actions on a digital networking unit - synchronous optical network (DNU-S) synchronous transport signal electrical interface (STSX-1) facility interface (SFI).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped. Valid value(s):
- `DGN` = Diagnose.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = DNU-S number.

`d` = Data group number.

`e` = STSX-1 facility interface number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action was not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
STP:SFI
```

Output Message(s):

```
DGN:SFI
RMV:SFI
RST:SFI
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

STP:SLIM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] SLIM=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the subscriber line instrument measurement (SLIM) board at a specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped. Default is the action currently executing on the SLIM board. Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Metallic service unit number.

`d` = Service group number.

`e` = SLIM board number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`g` = Additional data qualifying the termination report (variable '`f`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Output Message(s):

```
DGN:SLIM
EX:SLIM
RMV:SLIM
RST:SLIM
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:SS7-A

Software Release: 5E10 - 5E11
Message Class: TRK
Application: 5
Type: Output

1. FORMAT

```
STP SS7 [a] b
```

2. REASON FOR OUTPUT

To output the completion report of a stop signaling system 7 (SS7) trunk data request for an SS7 trunk data request or task. The completion report may also be a general report that is not specific to a stopped SS7 data request.

3. VARIABLE FIELD DEFINITIONS

`a` = Input parameters of stopped task. Valid value(s):

```
DPC=c[,CIC=d[&&e]]
TG=f
TKGMN=f-g[&&h]
```

`b` = Completion report. Valid value(s):

`NO SS7 LIST BEING PRINTED` = The stop SS7 trunk request could not be processed because there is no SS7 trunk data request to stop.

`STOPPED` = The stop SS7 trunk request has stopped the output of the SS7 trunk data request identified by variable '`a`'.

`SYSTEM BUSY` = The stop SS7 trunk request could not be processed because the system was too busy or a resource failure occurred. Retry the request later.

`c` = Input destination point code (DPC) of stopped task.

`d` = Single circuit identification code (CIC) or the lower limit of a range of CICs specified as input for the stopped SS7 task. If the '`ALL`' option was used as input, the lower limit is specified as the lowest possible CIC value.

`e` = The upper limit of a range of CICs specified as input for the stopped SS7 task. If the '`ALL`' option was used as input, the upper limit is specified as the highest possible CIC value.

`f` = Input SS7 trunk group (TG) number of the stopped task.

`g` = Single SS7 trunk group member number (TKGMN) or the lower limit of a range of SS7 trunk group member numbers specified as input for the stopped task.

`h` = The upper limit of a range of SS7 trunk group member numbers specified as input for the stopped task.

4. ACTION TO BE TAKEN

None.

5. ALARMS

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None.

6. REFERENCES

Input Message(s):

```
STP:SS7
OP:SS7
```

Output Message(s):

```
OP:SS7
```

Other Manual(s):

235-040-100	*OA&M Planning Guide*
235-100-125	*System Description*
235-105-220	*Corrective Maintenance Procedures*
235-190-120	*Common Channel Signaling Services Features*

STP:SS7-B

Software Release: 5E12 and later
Message Class:
Application: 5
Type: Output

1. FORMAT

```
STP SS7 [a] b
```

2. REASON FOR OUTPUT

To output the completion report when requested to stop a signaling system 7 (SS7) trunk data request via a STP:SS7 input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Input parameters of stopped task. See OP:SS7 input manual page for description of possible parameters

`b` = Completion report. Valid value(s):

- `NO SS7 LIST BEING PRINTED` = The STP:SS7 request could not be processed because there is no SS7 trunk data request to stop.
- `STOPPED` = The STP:SS7 request has stopped the output of the SS7 trunk data request identified by variable field '`a`'.
- `SYSTEM BUSY` = The STP:SS7 request could not be processed because the system was too busy or a resource failure occurred. Retry the request later.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:SS7
OP:SS7
```

Output Message(s):

```
OP:SS7
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

STP:STEFAC

Software Release: 5E10 - 5E12
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] STEFAC=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Indicates the result of a STP:STEFAC input request to stop maintenance actions on a digital networking unit - synchronous optical network (DNU-S) synchronous optical network (SONET) terminating equipment facility (STEFAC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = DNU-S number.

`d` = Data group number.

`e` = SONET terminating equipment facility number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action was not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:STEFAC
```

Output Message(s):

```
RMV:STEFAC
RST:STEFAC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

STP:STSFAC-A

Software Release: 5E10 - 5E11
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] STSFAC=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Indicates the result of a STP:STSFAC input request to stop maintenance actions on a digital networking unit - synchronous optical network (DNU-S) synchronous transport signal facility (STSFAC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = DNU-S number.

`d` = Data group number.

`e` = STSFAC number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action was not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
STP:STSFAC
```

Output Message(s):

```
RMV:STSFAC
RST:STSFAC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1511 (DNUS STS)

STP:STSFAC-B

Software Release: 5E12 only
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] STSFAC=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Indicates the result of a STP:STSFAC input request to stop maintenance actions on a digital networking unit - synchronous optical network (DNU-S) synchronous transport signal facility (STSFAC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = DNU-S number.

`d` = Data group number.

`e` = STSFAC number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action was not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
STP:STSFAC
```

Output Message(s):

```
RMV:STSFAC
RST:STSFAC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1511 (DNUS STS MAINTENANCE)

STP:STSFAC-C

Software Release: 5E13 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] STSFAC=b-c-d-e-f g [h]
```

2. REASON FOR OUTPUT

Indicates the result of a STP:STSFAC input request to stop maintenance actions on a digital networking unit - synchronous optical network (DNU-S) synchronous transport signal facility (STSFAC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Digital Networking Unit - SONET (DNU-S) number.

`d` = Data Group (DG) number.

`e` = SONET Termination Equipment (STE) facility number.

`f` = Synchronous Transport Signal (STS) facility number.

`g` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action was not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`h` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTIONS TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
STP:STSFAC
```

Output Message(s):

```
RMV:STSFAC
RST:STSFAC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1511 (DNUS STS MAINTENANCE)

STP:TAC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] TAC=b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the test and access (TAC) circuit at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default is the action currently executing on the TAC circuit). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Trunk unit number.

`d` = Service group number.

`e` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`f` = Additional data qualifying the termination report (variable '`e`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

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Output Message(s):

```
DGN:TAC
EX:TAC
RMV:TAC
RST:TAC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:TEN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] TEN=b-c-d-e-f g [h]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the analog trunk specified by the trunk equipment number (TEN).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default is the action currently executing on the TEN). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = TEN unit number.

`d` = Service group number.

`e` = TEN board number.

`f` = TEN circuit number.

`g` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`h` = Additional data qualifying the termination report (variable '`g`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
STP:TEN
```

Output Message(s):

```
DGN:TEN
EX:TEN
RMV:TEN
RST:TEN
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:TMC

Software Release: 5E10 - 5E11
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
STP [a] TMC=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To report the result of a STP:TMC input message that stops the current action on an integrated digital carrier unit (IDCU) terminated remote terminal (RT) timeslot management channel (TMC) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action to be stopped:
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = IDCU number.

`d` = RT number.

`e` = TMC number.

`f` = Termination report. Valid value(s):
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`STP:TMC`

Output Message(s):

```
RMV:TMC
RST:TMC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

180xyy (IDCU REMOTE TERMINAL)

STP:TMUX

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] TMUX=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

Indicates the result of a STP:TMUX input request to stop maintenance actions on a digital networking unit - synchronous optical network (DNU-S) transmission multiplexer (TMUX).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped. Valid value(s):
- `DGN` = Diagnose.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = DNU-S number.

`d` = Data group number.

`e` = TMUX number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action was not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`g` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
STP:TMUX
```

Output Message(s):

```
DGN:TMUX
RMV:TMUX
RST:TMUX
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

STP:TST-ELS-A

Software Release: 5E10 only
Message Class: LINE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      STP TST ELS DN=a[-p] n

[2]   ____________________________________________________________
      STP TST ELS MLHG=b-c n

[3]   ____________________________________________________________
      STP TST ELS LEN=d-e-f-g[-h[-i]] n

[4]   ____________________________________________________________
      STP TST ELS LCEN=d-k-l-m n

[5]   ____________________________________________________________
      STP TST ELS LCKEN=d-q-r-s[-t] n

[6]   ____________________________________________________________
      STP TST ELS SM=d n

[7]   ____________________________________________________________
      STP TST ELS AIUEN=d-u-v-w n
```

2. REASON FOR OUTPUT

To report the result of a STP:TST-ELS input message.

Format 1 is printed when the request to stop an electronic loop segregation (ELS) test is related to an individual directory number (DN).

Format 2 is printed when the request to stop an ELS test is related to an individual multi-line hunt group (MLHG).

Format 3 is printed when the request to stop an ELS test is related to an individual line equipment number (LEN).

Format 4 is printed when the request to stop an ELS test is related to an individual line card equipment number (LCEN).

Format 5 is printed when the request to stop an ELS test is related to an individual line circuit equipment number (LCKEN).

Format 6 is printed when the request to stop an ELS test(s) is related to all tests in a given switching module (SM).

Format 7 is printed when the request to stop an ELS test is related to an individual access interface unit equipment number (AIUEN).

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

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a = DN of the line being tested.

b = Hunt group number.

c = Member number.

d = SM number.

e = Line unit number.

f = Grid number.

g = Grid pack number (LU1, LU2, or LU3). Valid value(s):
ALL = All 64 lines on the grid have been stopped.

h = Switch number. Valid value(s):
ALL = All 32 lines on the grid board have been stopped.

i = Level number. Valid value(s):
ALL = The four lines on the specified switch have been stopped.

k = Integrated services line unit (ISLU) number.

l = Line group controller number.

m = Line card number. Valid value(s):
ALL = If ALL is indicated for variable 'm', all 31 lines in the line group have been stopped.

n = Termination report. Valid value(s):
ABORTED = Requested action was terminated before completion and termination was immediate.
CMP UNAVAILABLE = The CM is unavailable.
COMPLETED = Request has successfully completed.
INPUT ERROR = The input message contained a format error.
INVALID PORT = The port selected is not valid.
NOT STARTED = Requested action has not begun.
SM UNAVAILABLE = The SM specified is unavailable.
SYSTEM BUSY = The system cannot accept the request at this time.
SYSTEM ERROR = A system error has been detected.
TEST NOT IN PROGRESS = The test was not running on the specified equipment.

p = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 indicates the lead line and a member number of 2 indicates the associate line.

q = Integrated services line unit-2 (ISLU2) number.

r = Line group number.

s = Line board number. Valid value(s):
ALL = If ALL is indicated for variable 's', all lines in the line group have been stopped.

`t` = Line circuit number. Valid value(s):
`ALL` = If ALL is indicated for variable '`t`', all lines in the line board have been stopped.

`u` = Access interface unit (AIU) number.

`v` = AIU pack number.

`w` = AIU circuit number.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:TST-ELS
```

STP:TST-ELS-B

Software Release: 5E11 only
Message Class: LINE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      STP TST ELS DN=a[-p] n

[2]   ____________________________________________________________
      STP TST ELS MLHG=b-c n

[3]   ____________________________________________________________
      STP TST ELS LEN=d-e-f-g[-h[-i]] n

[4]   ____________________________________________________________
      STP TST ELS LCEN=d-k-l-m n

[5]   ____________________________________________________________
      STP TST ELS LCKEN=d-q-r-s[-t] n

[6]   ____________________________________________________________
      STP TST ELS SM=d n

[7]   ____________________________________________________________
      STP TST ELS AIUEN=d-u-v-w n
```

2. REASON FOR OUTPUT

To report the result of a STP:TST-ELS input message.

Format 1 is printed when the request to stop an electronic loop segregation (ELS) test is related to an individual directory number (DN).

Format 2 is printed when the request to stop an ELS test is related to an individual multi-line hunt group (MLHG).

Format 3 is printed when the request to stop an ELS test is related to an individual line equipment number (LEN).

Format 4 is printed when the request to stop an ELS test is related to an individual line card equipment number (LCEN).

Format 5 is printed when the request to stop an ELS test is related to an individual line circuit equipment number (LCKEN).

Format 6 is printed when the request to stop an ELS test(s) is related to all tests in a given switching module (SM).

Format 7 is printed when the request to stop an ELS test is related to an individual access interface unit equipment number (AIUEN).

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

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a = DN of the line being tested.

b = Hunt group number.

c = Member number.

d = SM number.

e = Line unit number.

f = Grid number.

g = Grid pack number (LU1, LU2, or LU3). Valid value(s):
ALL = All 64 lines on the grid have been stopped.

h = Switch number. Valid value(s):
ALL = All 32 lines on the grid board have been stopped.

i = Level number. Valid value(s):
ALL = The four lines on the specified switch have been stopped.

k = Integrated services line unit (ISLU) number.

l = Line group controller number.

m = Line card number. Valid value(s):
ALL = If ALL is indicated for variable 'm', all 31 lines in the line group have been stopped.

n = Termination report. Valid value(s):
ABORTED = Requested action was terminated before completion and termination was immediate.
CMP UNAVAILABLE = The CM is unavailable.
COMPLETED = Request has successfully completed.
INPUT ERROR = The input message contained a format error.
INVALID PORT = The port selected is not valid.
NOT STARTED = Requested action has not begun.
SM UNAVAILABLE = The SM specified is unavailable.
SYSTEM BUSY = The system cannot accept the request at this time.
SYSTEM ERROR = A system error has been detected.
TEST NOT IN PROGRESS = The test was not running on the specified equipment.

p = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 indicates the lead line and a member number of 2 indicates the associate line.

q = Integrated services line unit-2 (ISLU2) number.

r = Line group number.

s = Line board number. Valid value(s):
ALL = If ALL is indicated for variable 's', all lines in the line group have been stopped.

`t` = Line circuit number. Valid value(s):
`ALL` = If ALL is indicated for variable '`t`', all lines in the line board have been stopped.

`u` = Access interface unit (AIU) equipment number.

`v` = AIU pack number.

`w` = AIU circuit number. Valid value(s):
`ALL` = If ALL is indicated for variable '`w`', all lines in the pack have been stopped.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:TST-ELS
```

STP:TST-ELS-C

Software Release: 5E12 and later
Message Class: LINE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      STP TST ELS DN=a[-p] n

[2]   ____________________________________________________________
      STP TST ELS MLHG=b-c n

[3]   ____________________________________________________________
      STP TST ELS LEN=d-e-f-g[-h[-i]] n

[4]   ____________________________________________________________
      STP TST ELS LCEN=d-k-l-m n

[5]   ____________________________________________________________
      STP TST ELS LCKEN=d-q-r-s[-t] n

[6]   ____________________________________________________________
      STP TST ELS SM=d n

[7]   ____________________________________________________________
      STP TST ELS AIUEN=d-u-v-w n
```

2. REASON FOR OUTPUT

To report the result of a STP:TST-ELS input message.

Format 1 is printed when the request to stop an electronic loop segregation (ELS) test is related to an individual directory number (DN).

Format 2 is printed when the request to stop an ELS test is related to an individual multi-line hunt group (MLHG).

Format 3 is printed when the request to stop an ELS test is related to an individual line equipment number (LEN).

Format 4 is printed when the request to stop an ELS test is related to an individual line card equipment number (LCEN).

Format 5 is printed when the request to stop an ELS test is related to an individual line circuit equipment number (LCKEN).

Format 6 is printed when the request to stop an ELS test(s) is related to all tests in a given switching module (SM).

Format 7 is printed when the request to stop an ELS test is related to an individual access interface unit equipment number (AIUEN).

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

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a = DN of the line being tested. The directory number will include NPA for non-unique office codes.

b = Hunt group number.

c = Member number.

d = SM number.

e = Line unit number.

f = Grid number.

g = Grid pack number (LU1, LU2, or LU3). Valid value(s):
ALL = All 64 lines on the grid have been stopped.

h = Switch number. Valid value(s):
ALL = All 32 lines on the grid board have been stopped.

i = Level number. Valid value(s):
ALL = The four lines on the specified switch have been stopped.

k = Integrated services line unit (ISLU) number.

l = Line group controller number.

m = Line card number. Valid value(s):
ALL = If ALL is indicated for variable 'm', all 31 lines in the line group have been stopped.

n = Termination report. Valid value(s):
ABORTED = Requested action was terminated before completion and termination was immediate.
CMP UNAVAILABLE = The CM is unavailable.
COMPLETED = Request has successfully completed.
INPUT ERROR = The input message contained a format error.
INVALID PORT = The port selected is not valid.
NON-UNIQUE NXX DN = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Renter DN with NPA.
NOT STARTED = Requested action has not begun.
SM UNAVAILABLE = The SM specified is unavailable.
SYSTEM BUSY = The system cannot accept the request at this time.
SYSTEM ERROR = A system error has been detected.
TEST NOT IN PROGRESS = The test was not running on the specified equipment.

p = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 indicates the lead line and a member number of 2 indicates the associate line.

q = Integrated services line unit-2 (ISLU2) number.

r = Line group number.

s = Line board number. Valid value(s):

ALL = If ALL is indicated for variable 's', all lines in the line group have been stopped.

t = Line circuit number. Valid value(s):
ALL = If ALL is indicated for variable 't', all lines in the line board have been stopped.

u = Access interface unit (AIU) equipment number.

v = AIU pack number.

w = AIU circuit number. Valid value(s):
ALL = If ALL is indicated for variable 'w', all lines in the pack have been stopped.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:TST-ELS
```

STP:TST-LEN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP TST LEN=a-b-c-d-e-f g [h]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the line equipment number (LEN) unit at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

`b` = Line unit number.

`c` = Grid number.

`d` = Grid board number.

`e` = Grid board switch number.

`f` = Grid board switch level number.

`g` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was immediate.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion.

`h` = Additional data qualifying the termination report (variable '`g`').

4. ACTION TO BE TAKEN

If an unexpected result occurs, use the OP:OFFNORM-SM input message and refer to the documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:TST-LEN
STP:TST-LEN
```

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```
TST:LEN
```

Output Message(s):

```
ABT:TST-LEN
TST:LEN
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

STP:TST-MP

Software Release: 5E10 and later
Message Class: TLWS
Application: 5
Type: Output

1. FORMAT

```
STP TST MP a
```

2. REASON FOR OUTPUT

To print in response to the STP:TST-MP input message and report the result of an attempt to stop a modem pool (MP) test.

3. VARIABLE FIELD DEFINITIONS

`a` = Result of the attempt to stop the test. Valid value(s):

`COMPLETED`	= Test was stopped.
`NO MATCH`	= No test was found to be running on the specified group.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:TST-MP
```

STP:TST-TRUNK-A

Software Release: 5E10 - 5E12
Message Class: TRK
Application: 5
Type: Output

1. FORMAT

```
STP TST TRUNK [TKGMN a b] {c} t
```

2. REASON FOR OUTPUT

To report that the input message STP:TST has been accepted and that the tests on remaining members of the trunk group and/or range of the tests on remaining X.25 access on T1 (XAT) ports from the TST:TRK input message have been canceled.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms used in the format.

a = Trunk group that was being tested.

b = Trunk group member that was the last member to be tested.

c = Valid value(s):

```
TEN=d-e-f-g-h
 DEN=d-i-j-k
 NEN=d-l-m-n-o-p
 PSUEN=d-q-r-s
```

d = Switching module (SM) number.

e = Trunk unit number.

f = Service group number.

g = Channel board number.

h = Circuit number.

i = Digital line and trunk unit (DLTU) number.

j = Digital facility interface number.

k = Channel number for DFI-1, and for DFI-2.

l = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

m = Data group (DG) number.

n = STS number.

o = Virtual tributary 1.5 (VT1.5) number.

`p` = DS0 number.

`q` = Packet switching unit (PSU) community number.

`r` = PSU channel group number.

`s` = PSU channel group member number.

`t` = Termination report. Valid value(s):
`COMPLETED` = Trunk group testing was stopped.
`NO MATCH` = No corresponding TST:TRK input message was found.
`SYSTEM BUSY` = Could not stop test because of busy system, repeat request later.
`SYSTEM ERROR` = An internal error occurred that would not allow trunk test to be stopped.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:TST-TRK
TST:TRK
```

STP:TST-TRUNK-B

Software Release: 5E13 and later
Message Class: TRK
Application: 5
Type: Output

1. FORMAT

```
STP TST TRUNK [TKGMN a b] {c} v
```

2. REASON FOR OUTPUT

To report that the input message STP:TST has been accepted and that the tests on remaining members of the trunk group and/or range of the tests on remaining X.25 access on T1 (XAT) ports from the TST:TRK input message have been canceled.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms used in the format.

a = Trunk group that was being tested.

b = Trunk group member that was the last member to be tested.

c = Valid value(s):

```
TEN=d-e-f-g-h
 DEN=d-i-j-k
 NEN=d-l-m-n-o-p-q-r
 PSUEN=d-s-t-u
```

d = Switching module (SM) number.

e = Trunk unit number.

f = Service group number.

g = Channel board number.

h = Circuit number.

i = Digital line and trunk unit (DLTU) number.

j = Digital facility interface number.

k = Channel number for DFI-1, and for DFI-2.

l = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

m = Data group (DG) number.

n = Signaling terminal equipment (STE) facility number.

o = Synchronous transport signal (STS) facility number.

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`p` = Virtual tributary group (VTG) number.

`q` = Virtual tributary member (VTM) number.

`r` = Digital signal level 0 (DS0) number.

`s` = Packet switching unit (PSU) community number.

`t` = PSU channel group number.

`u` = PSU channel group member number.

`v` = Termination report. Valid value(s):
`COMPLETED` = Trunk group testing was stopped.
`NO MATCH` = No corresponding TST:TRK input message was found.
`SYSTEM BUSY` = Could not stop test because of busy system, repeat request later.
`SYSTEM ERROR` = An internal error occurred that would not allow trunk test to be stopped.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:TST-TRK
TST:TRK
```

STP:TST-WLINE

Software Release: 5E11 and later
Message Class: LINE
Application: AEWNC
Type: Output

1. FORMAT

```
TST WLINE SCCS a
```

2. REASON FOR OUTPUT

To report the result of STP:TST:WLINE

3. VARIABLE FIELD DEFINITIONS

`a` = Status. Valid value(s):
`SYSTEM BUSY -RL` = The system is busy. Retry later.
`SYSTEM ERROR` = System error occurred.
`SM UNAVAILABLE` = SM is not available.
`PROCESS TIMEOUT` = Process time out.
`TEST STOPPED` = The testing for all the W-lines has been stopped.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
TST:WLINE
```

Other Manual(s):
230-701-100 *Air Extension^{SM} Reference Guide*
230-701-120 *Air Extension^{SM} User Guide*

STP:TTFCOM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] TTFCOM=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the transmission test facility common (TTFCOM) circuit at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default is the action currently executing on the TTFCOM circuit):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Global digital service unit number.

`d` = Service group number.

`e` = Board number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT-STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`g` = Additional data qualifying the termination report (variable '`f`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Output Message(s):

```
DGN:TTFCOM
EX:TTFCOM
RMV:TTFCOM
RST:TTFCOM
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:TUCHBD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] TUCHBD=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the trunk unit channel board (TUCHBD) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default is the action currently executing on the TUCHBD). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Trunk unit number.

`d` = Service group number.

`e` = Channel board number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT-STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`g` = Additional data qualifying the termination report (variable '`f`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Output Message(s):

```
DGN:TUCHBD
RMV:TUCHBD
RST:TUCHBD
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:UCONF

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] UCONF=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the universal conference (UCONF) circuit at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default is the action currently executing on the UCONF circuit):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Global digital service unit number.

`d` = Service group number.

`e` = Digital service circuit unit board number.

`f` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT-STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`g` = Additional data qualifying the termination report (variable '`f`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Output Message(s):

```
DGN:UCONF
EX:UCONF
RMV:UCONF
RST:UCONF
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:UMBIL

Software Release: 5E13 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
STP [a] UMBIL=b-c-d e [f]
```

2. REASON FOR OUTPUT

To report the result of a STP:UMBIL input message that stops the current action on a host umbilical (UMBIL) circuit.

3. VARIABLE FIELD DEFINITIONS

`a` = Action to be stopped. Valid values are:
- `RMV` = Remove.
- `RST` = Restore.

`b` = Host Switch Module (HSM) number.

`c` = Remote Switch Module (RSM) number.

`d` = UMBIL number.

`e` = Termination report. Valid values are:
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:UMBIL
```

Output Message(s):

```
RMV:UMBIL
RST:UMBIL
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1740,xxx,yyy (HOST UMBILICALS (1 - 10))
1741,xxx,yyy (HOST UMBILICALS (11 - 20))

STP:UTD

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] UTD=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the universal tone decoder (UTD) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default is the action currently executing on the UTD). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Local digital service unit (DSU) number.

`d` = Service group number.

`e` = UTD number.

`f` = Termination status. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`g` = Additional data qualifying the termination report (variable '`f`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Output Message(s):

```
DGN:UTD
EX:UTD
RMV:UTD
RST:UTD
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:UTG

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
STP [a] UTG=b-c-d-e f [g]
```

2. REASON FOR OUTPUT

To indicate the results of an attempt to stop the current action on the universal tone generator (UTG) at the specified location.

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped (default is the action currently executing on the UTG). Valid value(s):
- `DGN` = Diagnose.
- `EX` = Exercise.
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Local digital service unit (DSU) number.

`d` = Service group number.

`e` = DSU board position number.

`f` = Termination status. Valid value(s):
- `ABORTED` = Requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed and independent certification of resulting hardware status is made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`g` = Additional data qualifying the termination report (variable '`f`'). Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Output Message(s):

```
DGN:UTG
EX:UTG
RMV:UTG
RST:UTG
```

Output Appendix(es):

```
APP:MAINT-RESP
```

STP:VT1FAC-A

Software Release: 5E10 - 5E11
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] VT1FAC=b-c-d-e-f g [h]
```

2. REASON FOR OUTPUT

Indicates the result of a STP:VT1FAC input request to stop maintenance actions on a digital networking unit - synchronous optical network (DNU-S) virtual tributary level 1 facility (VT1FAC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = DNU-S number.

`d` = Data group number.

`e` = Synchronous transport signal facility number.

`f` = VT1FAC number.

`g` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action was not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`h` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
STP:VT1FAC
```

Output Message(s):

```
RMV:VT1FAC
RST:VT1FAC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1511 (DNUS STS)

STP:VT1FAC-B

Software Release: 5E12 only
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] VT1FAC=b-c-d-e-f g [h]
```

2. REASON FOR OUTPUT

Indicates the result of a STP:VT1FAC input request to stop maintenance actions on a digital networking unit - synchronous optical network (DNU-S) virtual tributary level 1 facility (VT1FAC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = DNU-S number.

`d` = Data group number.

`e` = Synchronous transport signal facility number.

`f` = VT1FAC number.

`g` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action was not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`h` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
STP:VT1FAC
```

Output Message(s):

```
RMV:VT1FAC
RST:VT1FAC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1511 (DNUS STS MAINTENANCE)

STP:VT1FAC-C

Software Release: 5E13 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
STP [a] VT1FAC=b-c-d-e-f-g-h i [j]
```

2. REASON FOR OUTPUT

Indicates the result of a STP:VT1FAC input request to stop maintenance actions on a digital networking unit - synchronous optical network (DNU-S) virtual tributary level 1 facility (VT1FAC).

3. VARIABLE FIELD DEFINITIONS

`a` = Action being stopped. Valid value(s):
- `RMV` = Remove.
- `RST` = Restore.

`b` = Switching module (SM) number.

`c` = Digital Networking Unit - SONET (DNU-S) number.

`d` = Data Group (DG) number.

`e` = SONET Termination Equipment (STE) facility number.

`f` = Synchronous Transport Signal (STS) facility number.

`g` = Virtual tributary group (VTG) number.

`h` = Virtual tributary member (VTM) number.

`i` = Termination report. Valid value(s):
- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action was not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`j` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTIONS TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

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None.

6. REFERENCES

Input Message(s):

```
STP:VT1FAC
```

Output Message(s):

```
RMV:VT1FAC
RST:VT1FAC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1511 (DNUS STS MAINTENANCE)

STP:WSTST-A

Software Release: 5E10 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      STP WSTST TEST POSITION a-h1
        ACCESS=g                            T&M=i1
        DN=b[-c]   d     [MLHG=e-f]
        TEST WAS STOPPED
       [E=q1]

[2]   ____________________________________________________________________
      STP WSTST TEST POSITION a-h1
        ACCESS=g                            T&M=i1
        TKGMN=i-j  k
        TEST WAS STOPPED
       [E=q1]
```

2. REASON FOR OUTPUT

Indicated that the test that was running at the test position (TP) has been stopped.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

E = Error.

a = TP number.

b = Telephone number entered.

c = Member number of the line time slot bridging (LTSB) line. For LTSB member number. Valid value(s):

1 = The lead line.
2 = The associate line.

d = Valid value(s):

AP=l-m
ILEN=n-j^1-k^1-l^1
LCEN=n-o-p-q
LCKEN=n-o-p-a^2-b^2
LEN=n-o-r-s-t-u
SLEN=n-v-w-x

e = Multi-line hunt group number.

f = Hunt group member number.

g = Valid value(s):

AC1 JACK	= Connection to the AC jack number 1.
AC2 JACK	= Connection to the AC jack number 2.
CAMPED ON	= Line or trunk is camped on.
CPE TESTS	= Test customer premises equipment.
DC1 JACK	= Connection to the DC jack number 1.
DC2 JACK	= Connection to the DC jack number 2.
DIG TRANS	= Connection to digital transmission equipment.
IN PROGRESS	= Test or test setup is in progress.
METALLIC	= Connection to metallic measurement equipment.
MONITOR B&I	= Monitor a busy or idle line/trunk.
MONITOR BUSY	= Monitor a busy line/trunk.
SEIZED	= Line or trunk is seized.
SUPERVISION	= Supervisory test running.
TRANSMISSION	= Connection to transmission equipment.

i = Trunk group number.

j = Trunk member number.

k = Valid value(s):

DEN=n-y-z-a^1
NEN=n-r^1-s^1-t^1-u^1-v^1
PSUEN=n-w^1-x^1-y^1-z^1
RAF PORT n-b^1-c^1
TEN=n-d^1-e^1-f^1-g^1

l = Data link (group) number of the AP.

m = Relative link (member) number of the AP.

n = Switching module (SM) number.

o = Line unit number.

p = Line group number.

q = Line card number.

r = Grid number.

s = Switch board number (LU1, LU2, LU3).

t = Switch number.

u = Level number.

v = Digital carrier line unit number.

w = Remote terminal (RT) number.

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x = RT line number.

y = Digital line and trunk unit (DLTU) number.

z = Digital facility interface (DFI) number.

a[1] = Channel number.

b[1] = RAF unit number.

c[1] = RAF channel number.

d[1] = Trunk unit number.

e[1] = Service group number.

f[1] = Channel board number.

g[1] = Circuit number.

h[1] = TLWSR tuple identification.

i[1] = The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):

- H = The T&M phone is ON-HOLD (metallic connections).
- M = The T&M phone is in the MONITOR mode (listen-only).
- N = No T&M phone in the connection.
- T = The T&M phone is in the TALK mode (listen and talk).

j[1] = IDCU number.

k[1] = RT number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

l[1] = RT line number or PUB43801 channel.

q[1] = Error message. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages Manual for an explanation of TLWS error responses.

r[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

s[1] = Data group (DG) number.

t[1] = Synchronous transport signal (STS) number.

u[1] = Virtual tributary 1.5 (VT1.5) number.

v[1] = Digital signal level 0 (DS0) number.

w[1] = PSU unit number.

x[1] = PSU shelf number.

y[1] = PSU channel group number.

z[1] = PSU channel group member number.

a[2] = Line board number.

b^2 = Line circuit number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RLS:WSTST
SET:WSPOS
STP:WSTST
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

170 (TRUNK & LINE MAINT)

STP:WSTST-B

Software Release: 5E11 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      STP WSTST TEST POSITION a-h1
        ACCESS=g                          T&M=i1
        DN=b[-c]   d     [MLHG=e-f]
        TEST WAS STOPPED
       [E=q1]

[2]   ____________________________________________________________________
      STP WSTST TEST POSITION a-h1
        ACCESS=g                          T&M=i1
        TKGMN=i-j  k
        TEST WAS STOPPED
       [E=q1]
```

2. REASON FOR OUTPUT

Indicated that the test that was running at the test position (TP) has been stopped.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

E = Error.

a = TP number.

b = Telephone number entered.

c = Member number of the line time slot bridging (LTSB) line. For LTSB member number. Valid value(s):

1 = The lead line.
2 = The associate line.

d = Valid value(s):

AIUEN=n-c^2-d^2-e^2
AP=l-m
ILEN=n-j^1-k^1-l^1
LCEN=n-o-p-q
LCKEN=n-o-p-a^2-b^2
LEN=n-o-r-s-t-u
SLEN=n-v-w-x

e = Multi-line hunt group number.

f = Hunt group member number.

g = Valid value(s):

AC1 JACK = Connection to the AC jack number 1.
AC2 JACK = Connection to the AC jack number 2.
CAMPED ON = Line or trunk is camped on.
CPE TESTS = Test customer premises equipment.
DC1 JACK = Connection to the DC jack number 1.
DC2 JACK = Connection to the DC jack number 2.
DIG TRANS = Connection to digital transmission equipment.
IN PROGRESS = Test or test setup is in progress.
METALLIC = Connection to metallic measurement equipment.
MONITOR B&I = Monitor a busy or idle line/trunk.
MONITOR BUSY = Monitor a busy line/trunk.
SEIZED = Line or trunk is seized.
SUPERVISION = Supervisory test running.
TRANSMISSION = Connection to transmission equipment.

i = Trunk group number.

j = Trunk member number.

k = Valid value(s):

DEN=n-y-z-a^1
NEN=n-r^1-s^1-t^1-u^1-v^1
PSUEN=n-w^1-x^1-y^1-z^1
RAF PORT n-b^1-c^1
TEN=n-d^1-e^1-f^1-g^1

l = Data link (group) number of the AP.

m = Relative link (member) number of the AP.

n = Switching module (SM) number.

o = Line unit number.

p = Line group number.

q = Line card number.

r = Grid number.

s = Switch board number (LU1, LU2, or LU3).

t = Switch number.

u = Level number.

v = Digital carrier line unit number.

w = Remote terminal (RT) number.

x = RT line number.

y = Digital line and trunk unit (DLTU) number.

z = Digital facility interface (DFI) number.

a[1] = Channel number.

b[1] = RAF unit number.

c[1] = RAF channel number.

d[1] = Trunk unit number.

e[1] = Service group number.

f[1] = Channel board number.

g[1] = Circuit number.

h[1] = TLWSR tuple identification.

i[1] = The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):

- H = The T&M phone is ON-HOLD (metallic connections).
- M = The T&M phone is in the MONITOR mode (listen-only).
- N = No T&M phone in the connection.
- T = The T&M phone is in the TALK mode (listen and talk).

j[1] = IDCU number.

k[1] = RT number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

l[1] = RT line number or PUB43801 channel.

q[1] = Error message. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages Manual for an explanation of TLWS error responses.

r[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

s[1] = Data group (DG) number.

t[1] = Synchronous transport signal (STS) number.

u[1] = Virtual tributary 1.5 (VT1.5) number.

v[1] = Digital signal level 0 (DS0) number.

w[1] = PSU unit number.

x[1] = PSU shelf number.

y[1] = PSU channel group number.

z[1] = PSU channel group member number.

a[2] = Line board number.

b[2] = Line circuit number.

c[2] = Access interface unit (AIU) number.

d[2] = AIU line pack number.

e[2] = AIU line circuit number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RLS:WSTST
SET:WSPOS
STP:WSTST
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

170 (TRUNK & LINE MAINT)

STP:WSTST-C

Software Release: 5E12 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      STP WSTST TEST POSITION a-h1
        ACCESS=g                          T&M=i1
        DN=b[-c]   d     [MLHG=e-f]
        TEST WAS STOPPED
       [E=q1]

[2]   ____________________________________________________________________
      STP WSTST TEST POSITION a-h1
        ACCESS=g                          T&M=i1
        TKGMN=i-j  k
        TEST WAS STOPPED
       [E=q1]
```

2. REASON FOR OUTPUT

Indicated that the test that was running at the test position (TP) has been stopped.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

E = Error.

a = TP number.

b = Telephone number entered.

c = Member number of the line time slot bridging (LTSB) line. For LTSB member number. Valid value(s):

1 = The lead line.
2 = The associate line.

d = Line equipment number. Valid value(s):

AIUEN=n-c2-d2-e2
AP=l-m
ILEN=n-j1-k1-l1
INEN=n-f2-w-x
LCEN=n-o-p-q
LCKEN=n-o-p-a2-b2
LEN=n-o-r-s-t-u
SLEN=n-v-w-x

e = Multi-line hunt group number.

f = Hunt group member number.

g = Valid value(s):

AC1 JACK	= Connection to the AC jack number 1.
AC2 JACK	= Connection to the AC jack number 2.
CAMPED ON	= Line or trunk is camped on.
CPE TESTS	= Test customer premises equipment.
DC1 JACK	= Connection to the DC jack number 1.
DC2 JACK	= Connection to the DC jack number 2.
DIG TRANS	= Connection to digital transmission equipment.
IN PROGRESS	= Test or test setup is in progress.
METALLIC	= Connection to metallic measurement equipment.
MONITOR B&I	= Monitor a busy or idle line/trunk.
MONITOR BUSY	= Monitor a busy line/trunk.
SEIZED	= Line or trunk is seized.
SUPERVISION	= Supervisory test running.
TRANSMISSION	= Connection to transmission equipment.

i = Trunk group number.

j = Trunk member number.

k = Trunk equipment number. Valid value(s):

DEN=n-y-z-a^1
INEN=n-f^2-w-x
NEN=n-r^1-s^1-t^1-u^1-v^1
PSUEN=n-w^1-x^1-y^1-z^1
RAF PORT n-b^1-c^1
TEN=n-d^1-e^1-f^1-g^1

l = Data link (group) number of the AP.

m = Relative link (member) number of the AP.

n = Switching module (SM) number.

o = Line unit number.

p = Line group number.

q = Line card number.

r = Grid number.

s = Switch board number (LU1, LU2, or LU3).

t = Switch number.

u = Level number.

v = Digital carrier line unit number.

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w = Remote terminal (RT) number.

x = RT line number.

y = Digital line and trunk unit (DLTU) number.

z = Digital facility interface (DFI) number.

a[1] = Channel number.

b[1] = RAF unit number.

c[1] = RAF channel number.

d[1] = Trunk unit number.

e[1] = Service group number.

f[1] = Channel board number.

g[1] = Circuit number.

h[1] = TLWSR tuple identification.

i[1] = The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):

- H = The T&M phone is ON-HOLD (metallic connections).
- M = The T&M phone is in the MONITOR mode (listen-only).
- N = No T&M phone in the connection.
- T = The T&M phone is in the TALK mode (listen and talk).

j[1] = IDCU number.

k[1] = RT number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

l[1] = RT line number or PUB43801 channel.

q[1] = Error message. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages Manual for an explanation of TLWS error responses.

r[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

s[1] = Data group (DG) number.

t[1] = Synchronous transport signal (STS) number.

u[1] = Virtual tributary 1.5 (VT1.5) number.

v[1] = Digital signal level 0 (DS0) number.

w[1] = PSU unit number.

x[1] = PSU shelf number.

y[1] = PSU channel group number.

z[1] = PSU channel group member number.

a[2] = Line board number.

b[2] = Line circuit number.

c[2] = Access interface unit (AIU) number.

d[2] = AIU line pack number.

e[2] = AIU line circuit number.

f[2] = DNU number.

g[2] = Digital Signal 1, having a Transfer rate of 1544 Kbps.

h[2] = Digital Signal 0, having a Transfer rate of 64 Kbps.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RLS:WSTST
SET:WSPOS
STP:WSTST
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

170 (TRUNK & LINE MAINT)

STP:WSTST-D

Software Release: 5E13 and later
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      STP WSTST TEST POSITION a-h1
        ACCESS=g                          T&M=i1
        DN=b[-c]   d     [MLHG=e-f]
        TEST WAS STOPPED
       [E=q1]

[2]   ____________________________________________________________________
      STP WSTST TEST POSITION a-h1
        ACCESS=g                          T&M=i1
        TKGMN=i-j  k
        TEST WAS STOPPED
       [E=q1]
```

2. REASON FOR OUTPUT

Indicated that the test that was running at the test position (TP) has been stopped.

3. VARIABLE FIELD DEFINITIONS

E = Error.

a = TP number.

b = Telephone number entered.

c = Member number of the line time slot bridging (LTSB) line. For LTSB member number. Valid value(s):

1 = The lead line.
2 = The associate line.

d = Line equipment number. Valid value(s):

```
AIUEN=n-c2-d2-e2
 AP=l-m
 ILEN=n-j1-k1-l1
 INEN=n-r1-w-x
 LCEN=n-o-p-q
 LCKEN=n-o-p-a2-b2
 LEN=n-o-r-s-t-u
 SLEN=n-v-w-x
```

e = Multi-line hunt group number.

f = Hunt group member number.

g = Valid value(s):

- AC1 JACK = Connection to the AC jack number 1.
- AC2 JACK = Connection to the AC jack number 2.
- CAMPED ON = Line or trunk is camped on.
- CPE TESTS = Test customer premises equipment.
- DC1 JACK = Connection to the DC jack number 1.
- DC2 JACK = Connection to the DC jack number 2.
- DIG TRANS = Connection to digital transmission equipment.
- IN PROGRESS = Test or test setup is in progress.
- METALLIC = Connection to metallic measurement equipment.
- MONITOR B&I = Monitor a busy or idle line/trunk.
- MONITOR BUSY = Monitor a busy line/trunk.
- SEIZED = Line or trunk is seized.
- SUPERVISION = Supervisory test running.
- TRANSMISSION = Connection to transmission equipment.

i = Trunk group number.

j = Trunk member number.

k = Trunk equipment number. Valid value(s):

DEN=n-y-z-a[1]
INEN=n-r[1]-w-x
NEN=n-r[1]-s[1]-u[1]-t[1]-i[2]-f[2]-v[1]
PSUEN=n-w[1]-x[1]-y[1]-z[1]
RAF PORT n-b[1]-c[1]
TEN=n-d[1]-e[1]-f[1]-g[1]

l = Data link (group) number of the AP.

m = Relative link (member) number of the AP.

n = Switching module (SM) number.

o = Line unit number.

p = Line group number.

q = Line card number.

r = Grid number.

s = Switch board number (LU1, LU2, or LU3).

t = Switch number.

u = Level number.

v = Digital carrier line unit number.

w = Remote terminal (RT) number.

x = RT line number.

y = Digital line and trunk unit (DLTU) number.

z = Digital facility interface (DFI) number.

a[1] = Channel number.

b[1] = RAF unit number.

c[1] = RAF channel number.

d[1] = Trunk unit number.

e[1] = Service group number.

f[1] = Channel board number.

g[1] = Circuit number.

h[1] = TLWSR tuple identification.

i[1] = The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):

- H = The T&M phone is ON-HOLD (metallic connections).
- M = The T&M phone is in the MONITOR mode (listen-only).
- N = No T&M phone in the connection.
- T = The T&M phone is in the TALK mode (listen and talk).

j[1] = IDCU number.

k[1] = RT number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

l[1] = RT line number or PUB43801 channel.

q[1] = Error message. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages Manual for an explanation of TLWS error responses.

r[1] = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

s[1] = Data group (DG) number.

t[1] = Synchronous transport signal (STS) facility number.

u[1] = SONET termination equipment (STE) facility number.

v[1] = Digital signal level 0 (DS0) number.

w[1] = PSU unit number.

x[1] = PSU shelf number.

y[1] = PSU channel group number.

z[1] = PSU channel group member number.

a[2] = Line board number.

b[2] = Line circuit number.

c[2] = Access interface unit (AIU) number.

d[2] = AIU line pack number.

e[2] = AIU line circuit number.

f[2] = Virtual tributary member (VTM) number.

g[2] = Digital Signal 1, having a Transfer rate of 1544 Kbps.

h[2] = Digital Signal 0, having a Transfer rate of 64 Kbps.

i[2] = Virtual tributary group (VTG) number.

4. ACTIONS TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RLS:WSTST
SET:WSPOS
STP:WSTST
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

170 (TRUNK & LINE MAINT)

104. SW

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SW:AIUCOM

Software Release: 5E11 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
SW AIUCOM=a-b c [d]
```

2. REASON FOR OUTPUT

Indicates the result of an SW:AIUCOM input request to switch access interface unit common data and control controller.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = AIU number.

`c` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action has successfully completed.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`d` = Additional information qualifying the termination report.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance manual and the System Recovery manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`SW:AIUCOM`

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1320,y,x (AIU SUMMARY)

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SW:CLNK

Software Release: 5E10 and later
Message Class: CLNK
Application: 5
Type: Output

1. FORMAT

```
SW CLNK=a-b-c-d COMPLETED
```

2. REASON FOR OUTPUT

To report that an automatic logical link mapping switch has occurred.

3. VARIABLE FIELD DEFINITIONS

`CLNK` = Communication link.

`a` = Switching module (SM) number.

`b` = Office network and timing complex (ONTC) side.

`c` = Module message processor (MMP) type. Valid value(s):
- `0` = Alpha.
- `1` = Beta.

`d` = Message switch (MSGS) side.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

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SW:CLOCK-COMPL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
SW CLOCK COMPL
  FORCED SWITCH BROADCAST TO ALL ADJOINING NODES
```

2. REASON FOR OUTPUT

To respond to a request for a forced switch from mate clock node to master clock node.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
  SW:CLOCK
```

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SW:CMP

Software Release: 5E10 and later
Message Class: MSGS
Application: 5
Type: Output

1. FORMAT

```
SW CMP=a-b c [d]
```

2. REASON FOR OUTPUT

To report the results of a request to switch the activity of the communication module processor (CMP).

3. VARIABLE FIELD DEFINITIONS

`a` = Message switch side number.

`b` = CMP number.

`c` = Termination status. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before completion, but the termination was graceful.

`d` = Additional information qualifying the termination status. Refer to the APP:CM-OM-REASON appendix in the Appendixes section of the Output Messages manual for further explanation of this field.

4. ACTIONS TO BE TAKEN

If unexpected results occur, refer to the System Recovery manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`SW:CMP`

Output Message(s):

`REPT:CMP-SW`

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Output Appendix(es):

```
APP:CM-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery Procedures*

MCC Display Page(s):

1241/51 (MSGS COMMUNITIES 0-1, 8-9)
1240/50 (MSGS STATUS for CM3)

SW:CU

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      SW CU ABORTED a

[2]   ____________________________________________________________
      SW CU b COMPLETED

[3]   ____________________________________________________________
      SW CU NOT STARTED
        CONFLICT WITH CURRENT SYSTEM STATES [c]
```

2. REASON FOR OUTPUT

To report the status of an SW:CU input message for a softswitch of the control unit (CU).

3. VARIABLE FIELD DEFINITIONS

a = Error code. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

b = Unit number of CU switched to active.

c = Description of conflict with current system status.

4. ACTION TO BE TAKEN

For Format 1, take action as appropriate for the error condition.

For Format 2, take no action.

For Format 3, determine the conflict with current system status. After the conflict is resolved, retry the CU softswitch.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	415
2, 3	314

Input Message(s):

SW:CU

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Output Appendix(es):

```
APP:OMDB-X-REF
APP:SYSERR
```

SW:DLN

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
SW DLN a
```

2. REASON FOR OUTPUT

To acknowledge a request to switch the activity of the direct link node (DLN) on the common network interface (CNI) ring. This message is in response to an SW:DLN input message.

3. VARIABLE FIELD DEFINITIONS

a	= Termination report. Valid value(s):	
	COMPLETED	= Requested action was terminated after completion.
	DENIED	= Requested action was denied by the CNI software.
	ABORTED	= Requested action was terminated before a normal completion. The consistency of DLN hardware states and data are questionable.

4. ACTION TO BE TAKEN

If the termination report (variable 'a') is COMPLETED, no action is required. The DLN's have switched ACT and STBY states. If the termination report is DENIED, CNI software could not process the request. Check the DLN states and repeat the request. If the termination report is ABORTED, the standby DLN should be restored and made active. The DLN that was active should be restored to the standby state.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

SW:DLN

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SW:DNUSCC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
SW DNUSCC=a-b c [d]
```

2. REASON FOR OUTPUT

Indicates the result of an attempt to switch a digital networking unit - synchronous optical network (DNU-S) common controller (DNUSCC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital networking unit - synchronous optical network (DNU-S) number.

`c` = Termination report. Valid value(s):

`ABORTED`	Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	Requested action was successfully completed.
`NOT STARTED`	Requested action was not started.
`STOPPED`	Requested action was terminated before a normal completion. Termination was graceful.

`d` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`SW:DNUSCC`

Output Appendix(es):

`APP:MAINT-RESP`

Other Manual(s):

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235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

SW:DNUSCD

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
SW DNUSCD=a-b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of an attempt to switch a digital networking unit - synchronous optical network (DNU-S) common data (DNUSCD).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action was not started.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`SW:DNUSCD`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

1510 (DNUS STATUS)

SW:DNUSEOC

Software Release: 5E12 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
SW DNUSEOC=a-b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of a SW:IDCUEOC input message that switches digital networking unit - synchronous optical network (DNU-S) terminated remote terminal (RT) embedded operations channel (EOC) circuits.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = RT number.

`d` = Termination report. Valid values are:

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`SW:DNUSEOC`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1660,xxxx (TR303 REMOTE TERMINAL)

SW:DNUSTMC

Software Release: 5E12 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
SW DNUSTMC=a-b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of a SW:DNUSTMC input message that switches digital networking unit - synchronous optical network (DNU-S) terminated remote terminal (RT) timeslot management channel (TMC) circuits.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = RT number.

`d` = Termination report. Valid values are:

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`SW:DNUSTMC`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1660,xxxx (TR303 REMOTE TERMINAL)

SW:EOC

Software Release: 5E10 - 5E11
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
SW EOC=a-b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of a SW:EOC input message that switches integrated digital carrier unit (IDCU) terminated remote terminal (RT) embedded operations channel (EOC) circuits.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = RT number.

`d` = Termination report. Valid value(s):

- `ABORTED` = Immediate termination. A process has been purged and cleanup will be done by audits.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`SW:EOC`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

188xyy (IDCU REMOTE TERMINAL)

SW:FPC

Software Release: 5E10 and later
Message Class: MSGS
Application: 5
Type: Output

1. FORMAT

```
SW FPC a [b]
```

2. REASON FOR OUTPUT

To report the results of a request to switch the activity of the foundation peripheral controller (FPC).

3. VARIABLE FIELD DEFINITIONS

`a` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before a normal completion and the consistency of hardware states or data is questionable.
- `COMPLETED` = Request action was terminated after completion.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion but consistency of hardware states and data is reliable.

`b` = Additional information qualifying the termination report.

4. ACTIONS TO BE TAKEN

If unexpected results occur, refer to the System Recovery manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`SW:FPC`

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery Procedures*

MCC Display Page(s):

1241/51 (MSGS 0/1 COMMUNITIES 0-1, 8-9)

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1240/50 (MSGS 0/1 STATUS for CM3)

SW:FPC-REQ

Software Release: 5E10 and later
Message Class: SED_MON
Application: 5
Type: Output

1. FORMAT

```
SW:FPC a REQUESTED
  EXCESSIVE CONTINUITY FAILURES
```

2. REASON FOR OUTPUT

To report that an automatic switch to an off-line foundation peripheral controller (FPC) has been attempted due to excessive E-bit continuity failure reports from the interface or switching module (IM or SM).

3. VARIABLE FIELD DEFINITIONS

`a` = Side.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

None.

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SW:GDXCON

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
SW GDXCON=a-b c d
```

2. REASON FOR OUTPUT

To indicate the completion or failure of switching the gated diode crosspoint controller (GDXCON) from the active to the standby state. This message prints in response to the SW:GDXCON input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Termination report. Valid value(s):

- `ABORTED` = The requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = The request has successfully completed.
- `COMPLETED-CERTIFIED` = The request has successfully completed. Independent certification of the resulting hardware status is made.
- `NOT STARTED` = The requested action has not started yet.

`d` = Additional information qualifying the termination report.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`SW:GDXCON`

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SW:IDCU

Software Release: 5E10 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
SW IDCU=a-b c [d]
```

2. REASON FOR OUTPUT

To report the result of a SW:IDCU input message that switches integrated digital carrier unit (IDCU) service groups.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = Termination report. Valid value(s):

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`d` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
SW:IDCU
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

186x (IDCU CIRCUIT)

SW:IDCUEOC

Software Release: 5E12 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
SW IDCUEOC=a-b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of a SW:IDCUEOC input message that switches integrated digital carrier unit (IDCU) terminated remote terminal (RT) embedded operations channel (EOC) circuits.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = RT number.

`d` = Termination report. Valid values are:

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`SW:IDCUEOC`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1880,x,yy (IDCU REMOTE TERMINAL)

SW:IDCUTMC

Software Release: 5E12 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
SW IDCUTMC=a-b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of a SW:IDCUTMC input message that switches integrated digital carrier unit (IDCU) terminated remote terminal (RT) timeslot management channel (TMC) circuits.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = RT number.

`d` = Termination report. Valid values are:

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`SW:IDCUTMC`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1880,x,yy (IDCU REMOTE TERMINAL)

SW:ISLUCC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
SW ISLUCC=a-b c [d]
```

2. REASON FOR OUTPUT

Indicates the result of an SW:ISLUCC input request to switch integrated services line unit common controller (ISLUCC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Integrated services line unit (ISLU) number.

`c` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action has successfully completed.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`d` = Additional information qualifying the termination report.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance manual and the System Recovery manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`SW:ISLUCC`

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x (ISLU NETWORK)

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170xy (ISLU LINE GROUP)

SW:ISLUCD

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
SW ISLUCD=a-b c [e]
```

2. REASON FOR OUTPUT

Indicates the result of an SW:ISLUCD input message to switch integrated services line unit common data (ISLUCD).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Integrated services line unit (ISLU) number.

`c` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action has successfully completed.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`d` = Additional information qualifying the termination report.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance manual and the System Recovery manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`SW:ISLUCD`

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

170x (ISLU NETWORK)
170xy (ISLU LINE GROUP)

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SW:LUCOMC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
SW LUCOMC=a-b c [d]
```

2. REASON FOR OUTPUT

To indicate the completion or failure of switching the selection of line unit common data and control (LUCOMC) circuits for the gated diode crosspoint (GDX) control within a line unit. This message prints in response to the SW:LUCOMC input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Termination report. Valid value(s):

- `ABORTED` = The requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = The request has successfully completed.
- `NOT STARTED` = The requested action was not started.

`d` = Additional information qualifying the termination report.

4. ACTION TO BE TAKEN

None.

It is reporting the results of a previous SW:LUCOMC input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`SW:LUCOMC`

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SW:MCTSI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
SW MCTSI=a b c
```

2. REASON FOR OUTPUT

To indicate the completion or failure of switching the module controller/time slot interchange (MCTSI) from the active to the standby state. This message prints in response to the SW:MCTSI input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Interface or switching module number.

`b` = Termination report. Valid value(s):

- `ABORTED` = The requested action was terminated before completion and the termination was immediate.
- `COMPLETED` = The request has successfully completed.
- `COMPLETED-CERTIFIED` = The request has successfully completed. Independent certification of the resulting hardware status is made.
- `NOT STARTED` = The requested action has not started yet.

`c` = Additional information qualifying the termination report.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`SW:MCTSI`

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SW:NCOSC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
SW NCOSC a b [c]
```

2. REASON FOR OUTPUT

To respond to the SW:NCOSC input message.

3. VARIABLE FIELD DEFINITIONS

`NCOSC` = Network clock 2 oscillator.

`a` = Network clock side.

`b` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was immediate (no cleanup was done).
`COMPLETED`	= Request completed successfully.
`IN PROGRESS`	= Request was received and action is in progress.
`STOPPED`	= Request was terminated before a normal completion due to a hardware failure, data inconsistency, or another system problem.

`c` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

No action is necessary if the request completed successfully. If the request failed, the variable '`c`' should give some indication as to why the request failed. Check the network clock MCC page or the OP:CFGSTAT output message to verify that the NC was in a valid state to perform the request. Check the receive-only printer (ROP) for error messages using the REPT:NC output messages that may indicate problems or system reconfigurations.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
SW:NCOSC
```

Output Message(s):

```
OP:CFGSTAT
REPT:NC
```

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MCC Display Page(s):

1211 (NETWORK CLOCK)

SW:NCREF

Software Release: 5E10 and later
Message Class: ONTCMON
Application: 5
Type: Output

1. FORMAT

```
SW NCREF,a b [c]
```

2. REASON FOR OUTPUT

This message is in response to the SW:NCREF input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Network clock reference (NCREF). Valid value(s):

`b` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion and the termination was immediate (no cleanup was done).
- `COMPLETED` = Requested action completed successfully.
- `STOPPED` = Requested action was terminated before a normal completion due to hardware failure, data inconsistency, or another problem.

`c` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

No action is necessary if the request completed successfully. If the request failed, the variable '`c`' should give some indication as to why the request failed. Check the network clock Master Control Center (MCC) pages or the OP:CFGSTAT output message to verify that the network clock was in a valid state to perform the request. Also, check the receive-only printer (ROP) for error messages, using the REPT:NC output message that may indicate problems for system reconfigurations.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
SW:NCREF
```

Output Message(s):

```
OP:CFGSTAT
REPT:NC
```

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1210 (MI/LI/NC)
1211 (NETWORK CLOCK)

SW:OFLBOOT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]
SW OFLBOOT a
  b
  OLBSTATE        LASTATE       FUNCTION       LINE
  c               d             e              f

[2]
SW OFLBOOT a
  {b h | b h i}
  OLBSTATE        LASTATE       FUNCTION       LINE
  c               d             e              f

[3]
SW OFLBOOT a
  h i [j] b
  OLBSTATE        LASTATE       FUNCTION       LINE
  c               d             e              f
```

2. REASON FOR OUTPUT

To report information regarding the execution of the offline boot feature.

3. VARIABLE FIELD DEFINITIONS

`a` = Message type. Valid value(s):

- `ABORTED` = Application request to stop the oflboot procedure; devices moved to the off-line side will be restored.
- `COMPLETED` = Indicates off-line side boot has completed.
- `INFO` = Information dump.
- `STOPPED` = Manual request to stop the oflboot procedure. If the RST option was specified, devices moved to the off-line side will be restored.
- `TERMINATED` = Administrative module (AM) software-initiated termination of the oflboot procedure; devices moved to the off-line side will not be restored.

`b` = Text line. Valid value(s):

1. `AIM SWITCH PRECHECKS TIMED OUT` = Printed when the timer for application integrity monitor (AIM) SW:OFLBOOT off-line prechecks expires. The precheck results will default to failure.
2. `CANNOT ACCESS ECD` = SW:OFLBOOT encountered problems accessing RC/V ECD device information.
3. `CANNOT SEND MESSAGE TO USER PROCESS, PID:` = SW:OFLBOOT cannot send a message to the user process identified by its process identifier. Usually the problem is no message buffers are available.
4. `CORRUPT ECD UCB RECORD FOR h i` = SW:OFLBOOT encountered inconsistent information about a device from the off-line equipment configuration database

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(ECD). For example, SW:OFLBOOT accessed the RC/V ECD UCB record for a disk file controller (DFC) and the device type in the unit control block (UCB) record is not DFC. This may indicate that the off-line ECD is corrupt.

5. `INTERNAL DFC TABLE CORRUPT` = Internal data or internal tables have been corrupted.
6. `INTERNAL IOP TABLE CORRUPT` = Internal data or internal tables have been corrupted.
7. `INTERNAL UNITS TABLE CORRUPT` = Internal data or internal tables have been corrupted.
8. `LOW CORE IOPMASK CORRUPT` = Data store in low core has been corrupted.
9. `LOW CORE ORIGSIDE CORRUPT` = Data store in low core has been corrupted.
10. `NO DISK FORCED` = A DFC is not forced.
11. `NO IOP ON THE OFFLINE SIDE` = Indicates that IOP0 and IOP1 are both on the on-line side. The switch will fail because it will not have a maintenance teletypewriter (MTTY) or receive-only printer (ROP) on the other side.
12. `NOT ACTIVE` = Printed if the specified device is not in the ACT state. The incorrect state is given in variable '`j`'.
13. `OFLBOOT NOT IN PROGRESS` = Offline boot is supported but is not in progress at this time.
14. `OFFLINE SYSTEM IS RUNNING IN MINIMUM CONFIGURATION MODE` = Indicates the off-line side is running in minimum configuration mode. There is no AIM process on the off-line side to support offline boot; cannot side switch.
15. `OLBSTATE EXPECTED TO BE AFTERBOOT OR AFTERSW` = SW:OFLBOOT cannot switch due to the fact that OLBSTATE is not AFTERBOOT or AFTERSW. SW:OFLBOOT is valid only immediately after a successful offline boot or side switch.
16. `SWITCH FROM OFF-LINE SIDE NOT ALLOWED` = Printed if SW:OFLBOOT is invoked on the off-line side.
17. `SWITCH FAILED` = Serious errors are encountered during a side switch procedure. Nevertheless, the procedure may be completed if the RETROFIT option was specified. This may mean that operation will continue without call origination. If the RETROFIT option was not specified, the side switch procedure will be terminated. Note however, the system still remains inside the offline boot procedure.
18. `SWITCH OFFLINE SIDE COMPLETE` = The off-line side completed its portion of a side switch. This message may be found in the OLBLOG file.
19. `SWITCH ONLINE SIDE COMPLETE` = The on-line side completed its portion of a side switch. This message will be found only in the OLBLOG file.
20. `UNDERGOING DIAGNOSTICS` = The specified device is undergoing diagnostics.
21. `UNEXPECTED MESSAGE FROM AIM` = Indicates a message has been received unexpectedly from AIM.

`c` = Current offline boot state.

`d` = Previous offline boot state.

`e` = Name of the function from which the output message originated. This field is used by the AM in diagnosing offline boot problems.

`f` = Line number in the function '`e`' from which the output message originated. This field is used by the AM, in conjunction with field '`e`', to diagnose offline boot problems.

`g` = Process identification number.

`h` = String giving device type information; control unit (CU), DFC, input/output processor (IOP), moving head disk (MHD), teletypewriter (TTY), teletypewriter controller (TTYC), and dual serial channel (DSCH), for example. Unit names are listed in the APP:MEM-NUM-UNIT Appendix of the Output Messages manual.

i = Device number. A value of zero, when used with 'h', could form DFC0, for example.

j = Device state.

4. ACTION TO BE TAKEN

Text line:	Action:
1.	Check the OLBLOG files on the off-line side to determine if AIM is having problems if not, try the side switch again.
2.	The error is in the off-line side ECD which cannot be audited refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
3.	Try the side switch again.
4.	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
5.	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
6.	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
7.	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
8.	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
9.	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
10.	Force the DFC that was previously forced try SW:OFLBOOT again.
11.	Stop offline boot wait for it to terminate. Try oflboot with IOP0 or IOP1 specified. Wait for the off-line side to be booted, then try SW:OFLBOOT again.
12.	Restore this device try SW:OFLBOOT again.
13.	A SW:OFLBOOT can be executed only after EXC:OFLBOOT has successfully executed.
14.	Restore the device and run SW:OFLBOOT again.
15.	To side switch, stop oflboot and execute EXC:OFLBOOT without specifying the minconfig option. When this second offline boot completes, try the side switch again.
16.	Execute SW:OFLBOOT on the on-line side.
16.	Wait for offline boot or side switch to complete try SW:OFLBOOT again.
17.	If RETROFIT was not specified, the system will remain in offline boot. The side switch may be retried, if desired. If RETROFIT was specified, the side switch will continue no action is needed.
18.	No action is needed.
19.	No action is needed.
20.	Run SW:OFLBOOT again after diagnostics complete.
21.	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

For a minor alarm, take action as indicated in the report.

A major alarm may not be service affecting, but take immediate action as indicated in the report.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	704
2	705, 708
3	706

Input Message(s):

```
EXC:OFLBOOT
STOP:OFLBOOT
SW:OFLBOOT
```

Output Message(s):

```
EXC:OFLBOOT
REPT:OFFLINE
REPT:OFLBOOT
STOP:OFLBOOT
```

Output Appendix(es):

```
APP:MEM-NUM-UNIT
APP:OMDB-X-REF
```

SW:ONTC

Software Release: 5E10 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

```
SW ONTC a [b]
```

2. REASON FOR OUTPUT

To acknowledge a SW:ONTC input message to switch the activity of the office network and timing complex (ONTC) references.

3. VARIABLE FIELD DEFINITIONS

`a` = Termination report. Valid value(s):

`COMPLETED`	= Request completed successfully.
`NOT STARTED`	= Requested action could not begin.
`STOPPED`	= Request was terminated before a normal completion due to a manual request or failure.

`b` = Additional data qualifying the termination field.

4. ACTION TO BE TAKEN

This message is printed out in response to a manual request. No further action is necessary if the request completed successfully. If the request failed, variable '`b`' should give some indication as to why the request failed. Check ONTCMCC pages or the OP:CFGSTAT output message to verify that the system was in a valid state to perform the request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CFGSTAT
SW:ONTC
```

Output Message(s):

```
OP:CFGSTAT
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

ONTC 0 and 1

SW:PORTSW

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      SW PORTSW {ABORTED|COMPLETED|DENIED|STOPPED} FOR [a] [b]

[2]   ____________________________________________________________________
      SW PORTSW NOT STARTED
        CONFLICT WITH CURRENT SYSTEM STATUS

[3]   ____________________________________________________________________
      SW PORTSW NOT STARTED
        INVALID ID FIELD
```

2. REASON FOR OUTPUT

To report the result of executing the SW:PORTSW input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Port switchable subdevice name [maintenance teletypewriter (MTTY) or receive-only printer (ROP)]. Subdevice name.

`b` = Message if the result is `ABORTED` or `DENIED`. Valid value(s):
`ECD ERROR`
`UNABLE TO ACCESS DRIVER`
`UNABLE TO GET DRIVER STATUS`

Input message failed due to equipment configuration database (ECD) failure or communication failure with input/output driver (IODRV) process.

4. ACTION TO BE TAKEN

If Format 1 includes:	Action:
`ABORTED` or `DENIED`	Check the ROP output and the IODRV log files for additional help in determining the problem. IODRV log files are /etc/log/IODRVLOG0 and /etc/log/IODRVLOG1. If necessary, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`STOPPED`	Check the portswitch hardware it should be set in the automatic position, not position 0 or 1. Also, both subdevices should be restored to service.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	164

Input Message(s):

```
SW:PORTSW
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

SW:PPC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
SW PPC a [b]
```

2. REASON FOR OUTPUT

To acknowledge a request to switch the activity of the pump peripheral controller (PPC).

3. VARIABLE FIELD DEFINITIONS

`a` = Termination report. Valid value(s):

- `ABORTED` = Requested action is terminated before a normal completion and the consistency of hardware states or data is questionable.
- `COMPLETED` = Request action is terminated after completion.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action is terminated before a normal completion but consistency of hardware states and data is reliable.

`b` = Additional information qualifying the termination report.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`SW:PPC`

SW:PSLNK-A

Software Release: 5E10 only
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
SW PSLNK=a-b    c    [d]
```

2. REASON FOR OUTPUT

To report the results of a request to switch the active/standby states of the channels in a packet switch unit (PSU) link.

3. VARIABLE FIELD DEFINITIONS

`a` = Near PSU community address of the link.

`b` = Far PSU community address of the link.

`c` = Completion report. Valid value(s):
`COMPLETED` = Request has successfully completed.
`STOPPED` = Requested action has stopped.

`d` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of this Output Messages manual.

4. ACTION TO BE TAKEN

Retry the input message later if the response is other than `COMPLETED`.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:ST-PSLNK
SW:PSLNK
```

Output Appendix(es):

```
APP:MAINT-RESP
```

MCC Display Page(s):

1187 (PSU LINKS STATUS)

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SW:PSLNK-B

Software Release: 5E11 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
SW PSLNK=a-b   [c] [d]
```

2. REASON FOR OUTPUT

To report the results of a request to switch the active/standby states of the channels in a packet switch unit (PSU) link (PSLNK).

3. VARIABLE FIELD DEFINITIONS

`a` = Near PSU community address of the PSU link.

`b` = Far PSU community address of the PSU link.

`c` = Termination status. Valid value(s):

`ABORTED`	= Requested action has aborted.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action has been started.
`STOPPED`	= Requested action has stopped.

`d` = Additional information qualifying the termination status. Refer to the APP:PSU-RESP appendix in the Appendixes section of this Output Messages manual.

4. ACTION TO BE TAKEN

If the PSU link has a protection channel in service and the response is other than `COMPLETED`, then check that none of the PSU link's channels:

- has been manually set to a forced switch (FS) or lock out protection (LP) automatic protection switch (APS) state using SET:PSLNK,
- is in the Manual Switch (MS) APS state,
- is in the signal failure (SF) APS state, or
- is in the unavailable (UNAV) channel state.

If everything seems well, then retry the input message later. If one of the PSU link channels is in the MS APS state, clear (CLR:PSLNK) existent manual switch before retrying input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`OP:ST-PSLNK`

```
SW:PSLNK
CLR:PSLNK
```

Output Appendix(es):

```
APP:PSU-RESP
```

MCC Display Page(s):

1187 (PSU LINKS STATUS)

SW:PSUCOM

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
SW PSUCOM=a-b c [d]
```

2. REASON FOR OUTPUT

Indicates the result of an SW:PSUCOM input message to switch packet switch unit (PSU) common controller (COM) sides.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = PSU number.

`c` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action was not started.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`d` = Additional information qualifying the termination report.

4. ACTIONS TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
SW:PSUCOM
```

Output Message(s):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

235-105-250 *System Recovery Procedures*

MCC Display Page(s):

Where 'x' = shelf number (0-5)
118x (PSU SHELF)
1186 (PSU NETWORK)

SW:PSUPH

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
SW PSUPH=a-b-c-d e [f]
```

2. REASON FOR OUTPUT

To indicate the result of an SW:PSUPH request to switch the packet switch unit (PSU) protocol handler (PH).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = PSU number.

`c` = Shelf number.

`d` = PH number.

`e` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report.

4. ACTION TO BE TAKEN

Follow published trouble clearing and/or system recovery procedures.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
SW:PSUPH
```

Output Message(s):

```
APP:MAINT-RESP
```

Other Manual(s):

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235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

MCC Display Page(s):

118x (PSU SHELF)

SW:QLPS

Software Release: 5E10 and later
Message Class: ONTC
Application: 5
Type: Output

1. FORMAT

```
SW QLPS=a-b c d
```

2. REASON FOR OUTPUT

To report the result of a manual request to switch quad-link packet switches (QLPSs) in a specific network. This report is also produced if QLPSs are automatically switched as a by-product of some manual reconfiguration of QLPS network elements, a fault in a QLPS network element, or due to periodic normalization of the QLPS network.

3. VARIABLE FIELD DEFINITIONS

`a` = Office network and timing complex (ONTC) side number. If this output is generated due to a MANUAL switch request, this field reflects the ONTC side in the input request; important information associated with a successful QLPS switch is found in field '`b`' (the QLPS network switched) and field '`d`' (the resultant QLPS in that network which is now active).

If this output is generated due to an AUTOMATIC action, this field indicates the ONTC side of the resultant active QLPS in the network specified by field '`b`'.

`b` = QLPS network number associated with the QLPS switch.

`c` = Termination status. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Request completed successfully.
`NOT STARTED`	= Requested action could not begin.
`STOPPED`	= Request was terminated before a normal completion due, and the termination was graceful.

`d` = Additional information qualifying the termination status.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to documents listed in the REFERENCES section.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`SW:QLPS`

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Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery Procedures*

MCC Display Page(s):

1209 (ONTC 0 & 1)
1380/1381 (QLPS Network 0/1 Status)

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SW:RCLK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
SW RCLK=a b [c]
```

2. REASON FOR OUTPUT

To acknowledge the request to switch the status of active and standby remote clock (RCLK) circuits.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination is immediate. Consistency of hardware and data is questionable.
`COMPLETED`	= Requested action completed successfully.
`NOT STARTED`	= Requested action had not begun.
`STOPPED`	= Requested action is terminated before a normal completion, but consistency of hardware status and data is reliable.

`c` = Additional information qualifying the termination report.

4. ACTION TO BE TAKEN

If the termination report (variable '`b`') is COMPLETED, no action is required. If it is NOT STARTED, analyze variable '`c`' to determine the cause. If it is STOPPED, determine the cause from the remote clock (RCLK) messages on the receive-only printer (ROP).

5. ALARMS

Information only.

6. REFERENCES

Input Message(s):

`SW:RCLK`

MCC Display Page(s):

RSM RCU

SW:RCOSC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
SW RCOSC=a-b c [d]
```

2. REASON FOR OUTPUT

To acknowledge a request to switch the remote clock oscillator(s) (RCOSCs) to the specified state.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RCOSC side.

`c` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination is immediate. Consistency of hardware and data is questionable.
- `COMPLETED` = Requested action completed successfully.
- `NOT STARTED` = Requested action had not begun.
- `STOPPED` = Requested action is terminated before a normal completion, but consistency of hardware status and data is reliable.

`d` = Additional information qualifying the termination report.

4. ACTION TO BE TAKEN

If 'c' =	Action:
COMPLETED	No action is required.
NOT STARTED	Analyze variable 'd' to determine the cause.
STOPPED	Determine the cause from the remote clock (RCLK) messages on the receive-only printer (ROP).

5. ALARMS

None.

6. REFERENCES

Input Message(s):

SW:RCOSC

MCC Display Page(s):

RSM RCU

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SW:RCREF

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
SW RCREF=a-b c [d]
```

2. REASON FOR OUTPUT

To acknowledge a request to switch the remote clock reference (RCREF) to a specified reference source.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Reference number (1-8).

`c` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination is immediate. Consistency of hardware and data is questionable.
`COMPLETED`	= Requested action completed successfully.
`NOT STARTED`	= Requested action had not begun.
`STOPPED`	= Requested action is terminated before a normal completion, but consistency of hardware status and data is reliable.

`d` = Additional information qualifying the termination report.

4. ACTION TO BE TAKEN

If the termination report (variable '`c`') is COMPLETED, no action is required. If it is NOT STARTED, analyze variable '`d`' to determine the cause. If it is STOPPED, determine the cause from the remote clock (RCLK) messages on the receive-only printer (ROP).

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`SW:RCREF`

MCC Display Page(s):

RSM RCU

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SW:RLI

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
SW RLI=a b [c]
```

2. REASON FOR OUTPUT

To indicate the result of an SW:RLI input message to switch the active/standby states of the remote switching module (RSM) remote link interface (RLI) controllers.

3. VARIABLE FIELD DEFINITIONS

`a` = Interface or switching module number.

`b` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was complete.
- `COMPLETED` = Request has successfully completed.
- `COMPLETED-CERTIFIED` = Request has successfully completed, and independent certification of the resulting hardware status was made.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion.

`c` = Additional information qualifying the termination report.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`SW:RLI`

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SW:RRCLK

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
SW RRCLK=a-b c [d]
```

2. REASON FOR OUTPUT

Indicates the result of an SW:RRCLK input message to switch the active/standby states of the remote integrated services line unit (RISLU) remote clock (RRCLK) circuit packs.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = RISLU number.

`c` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Request has successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`d` = Additional information qualifying the termination report.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
SW:RRCLK
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

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SW:RT-EOC-A

Software Release: 5E10 - 5E11
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
SW RT EOC=a b [c]
```

2. REASON FOR OUTPUT

To report the result of a SW:RT-EOC input message that switches an integrated digital carrier unit (IDCU) terminated remote terminal (RT) embedded operations channel (EOC) circuits.

3. VARIABLE FIELD DEFINITIONS

`a` = Site identification number.

`b` = Termination report. Valid value(s):

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`c` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`SW:RT-EOC`

Output Appendix(es):

`APP:MAINT-RESP`

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

188xyy (IDCU REMOTE TERMINAL)

SW:RT-EOC-B

Software Release: 5E12 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
SW RT EOC=a b [c]
```

2. REASON FOR OUTPUT

To report the result of a SW:RT-EOC input message that switches a remote terminals (RT) embedded operations channel (EOC) circuits.

3. VARIABLE FIELD DEFINITIONS

`a` = Site identification number.

`b` = Termination report. Valid value(s):

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`c` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`SW:RT-EOC`

Output Appendix(es):

`APP:MAINT-RESP`

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1880,x,yy (IDCU REMOTE TERMINAL)
1660,xxxx (TR303 REMOTE TERMINAL)

SW:RT-TMC-A

Software Release: 5E10 - 5E11
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
SW RT TMC=a b [c]
```

2. REASON FOR OUTPUT

To report the result of a SW:RT-TMC input message that switches integrated digital carrier unit (IDCU) remote terminal (RT) timeslot management channel (TMC) circuits.

3. VARIABLE FIELD DEFINITIONS

`a` = Site identification number.

`b` = Termination report. Valid value(s):

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`SW:RT-TMC`

Output Appendix(es):

`APP:MAINT-RESP`

MCC Display Page(s):

188xyy (IDCU REMOTE TERMINAL)

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SW:RT-TMC-B

Software Release: 5E12 and later
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
SW RT TMC=a b [c]
```

2. REASON FOR OUTPUT

To report the result of a SW:RT-TMC input message that switches remote terminal (RT) timeslot management channel (TMC) circuits.

3. VARIABLE FIELD DEFINITIONS

`a` = Site identification number.

`b` = Termination report. Valid value(s):

`ABORTED`	= Immediate termination. A process has been purged and cleanup will be done by audits.
`COMPLETED`	= Requested action was successfully completed.
`NOT STARTED`	= Requested action has not begun.
`STOPPED`	= Requested action was terminated before a normal completion. Termination was graceful.

`c` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`SW:RT-TMC`

Output Appendix(es):

`APP:MAINT-RESP`

MCC Display Page(s):

1880,x,yy (IDCU REMOTE TERMINAL)

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1660,xxxx (TR303 REMOTE TERMINAL)

SW:SFI

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
SW SFI=a-b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of an attempt to switch a digital networking unit - synchronous optical network (DNU-S) STSX-1 facility interface (SFI).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = DNU-S number.

`c` = Data group number.

`d` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action was not started.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination status. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

If unexpected results occur, refer to the Corrective Maintenance and System Recovery manuals.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`SW:SFI`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

1510 (DNUS STATUS)

SW:TMC

Software Release: 5E10 - 5E11
Message Class: SMCONFG
Application: 5
Type: Output

1. FORMAT

```
SW TMC=a-b-c d [e]
```

2. REASON FOR OUTPUT

Indicates the result of a SW:TMC input message that switches integrated digital carrier unit (IDCU) terminated remote terminal (RT) timeslot management channel (TMC) circuits.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = IDCU number.

`c` = RT number.

`d` = Termination report. Valid value(s):

- `ABORTED` = Immediate termination. A process has been purged and cleanup will be done by audits.
- `COMPLETED` = Requested action was successfully completed.
- `NOT STARTED` = Requested action has not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`SW:TMC`

Output Appendix(es):

`APP:MAINT-RESP`

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Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

188xyy (IDCU REMOTE TERMINAL)

105. TELL

TELL:LIB

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
TELL LIB TEAM  a  AM b  SM [c]    d
```

2. REASON FOR OUTPUT

To report the completion status of a manually issued TELL:LIB input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Team number.

`b` = Administrative module (AM) flag. Valid value(s):
- `N` = AM is not reporting.
- `Y` = AM is reporting.

`c` = Switching module (SM) number. Default is that SM is not reporting.

`d` = Results. Valid value(s):

```
COMPLETED
STOPPED - CANNOT TELL PROGRAM
STOPPED - NO PROGRAM LOADED
STOPPED - PROCESSOR LOADED BY A DIFFERENT TEAM
STOPPED - PROGRAM CLEARED
STOPPED - PROGRAM IS NOT STARTED
```

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`TELL:LIB`

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106. TEST

TEST:BREAKPOINT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
TEST BREAKPOINT NUMBER a HAS BEEN REMOVED
```

2. REASON FOR OUTPUT

To indicate that a test breakpoint has been removed from service, and that there is an error in the breakpoint table.

3. VARIABLE FIELD DEFINITIONS

`a` = Number of the corrupted breakpoint.

4. ACTION TO BE TAKEN

Reenter the breakpoint.

5. ALARMS

None.

6. REFERENCES

None.

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107. TRC

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TRC:IPCT-EVENT

Software Release: 5E10 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
TRC IPCT EVENT a
 {DN=b|MLHG=c-d|TKGMN=e-f|j1|ICOM=z [WB] [IMT][DN=s] [UNIQ=t]}...
      ...[TERM=g-h-i] [d1] u
 [DN=v
  TERM=w-x-y FORWARDED/SERIES COMPLETED TO]
 {DN=j|MLHG=k-l|TKGMN=m-n|k1|ICOM=z [IMT]}[TERM=o-p-q][h1][i1]
  TIME rr:rr:rr
```

2. REASON FOR OUTPUT

To report that a telephone number [either directory number (DN) or telephone number (TN)] marked for nuisance call trace has been dialed, or that an in-progress call trace (IPCT) request has been completed.

If variable '`u`' contains the keywords "`IS CONNECTED TO`", the output message resulted from an in-progress call trace. If variable '`u`' contains the keywords "`DIALED`", the message resulted from a nuisance call trace.

The terminal (TERM) information is included when available. If the trunk is an intermodule trunk (IMT), an IMT flag will be printed after the trunk group member.

For incoming interoffice calls, if the originator's directory number is available (for example, if Common Channel Signaling System 7 (CCS7) signaling is used), then it will also be provided in the nuisance call trace output messages along with a uniqueness indicator.

If the message resulted from the nuisance call trace of a forwarded or series completed call, it will also contain the originally dialed DN and TERM of the last port to forward or series complete the call. It will also contain the keywords "`FORWARDED/SERIES COMPLETED TO`" and the keyword "`DIALED`".

For IPCT, when the originator or terminator of the call is a conference controller, the keywords "`CONF CNTRL`" will appear in the output message. If the originating or terminating party is a floating conference controller, that is, no DN available, then the process ID (PID) will be provided in the output message.

3. VARIABLE FIELD DEFINITIONS

`WB` = The call being traced is a wideband call.

`a` = Event number.

`b` = Directory number.

`c` = Originating multi-line hunt group (MLHG) number.

`d` = Originating MLHG member number.

`e` = Originating trunk group (TKG) number.

`f` = Originating trunk group member number (MN).

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g = Originating switching module (SM) number.

h = Originating port number in hexadecimal.

i = Originating primary DN of terminal.

j = Directory number. For nuisance call traces, this is the dialed DN. For in-progress call traces, this is the active DN of the traced terminal.

k = Terminating or trace party MLHG number.

l = Terminating or trace party MLHG member number.

m = Terminating or trace party TKG number.

n = Terminating or trace party trunk group MN.

o = Terminating SM number.

p = Logical port number.

q = Terminating primary DN of terminal.

r = Time the report was prepared, in the form hours:minutes:seconds.

s = Originator's DN.

t = Uniqueness indicator. Valid value(s):
N = DN does not uniquely specify originator's terminal.
Y = DN uniquely specifies originator's terminal.
? = Uniqueness unknown.

u = Keyword identifier. Valid value(s):
DIALED = Used for nuisance call trace messages.
IS CONNECTED TO = Used for in-progress call trace messages.

v = Originally dialed DN for a forwarded or series completed call.

w = SM number for the last port to forward or series-complete the traced call.

x = Port number in hexadecimal of the last port to forward or series-complete the traced call.

y = Primary DN of the last port to forward or series-complete the traced call.

z = Intercom group number.

a[1] = Process number of the originator's PID.

b[1] = SM number of the originator's PID.

c[1] = Uniqueness number of the originator's PID.

d[1] = Indicates type of conference controller of originating party. Valid value(s):
CONFCNTRL = Main conference controller.

CONFCNTRL-A = Associate conference controller.
CONFCNTRL-AF = Associate (floating) conference controller.
CONFCNTRL-F = Main (floating) conference controller.

e^1 = Process number of the terminating or trace party PID.

f^1 = SM number of the terminating or trace party PID.

g^1 = Uniqueness number of the terminating or trace party PID.

h^1 = Indicates type of conference controller of terminating party. Valid value(s):
CONFCNTRL = Main conference controller.
CONFCNTRL-A = Associate conference controller.
CONFCNTRL-AF = Associate (floating) conference controller.
CONFCNTRL-F = Main (floating) conference controller.

i^1 Valid value(s):
HARDHOLD CALL EXIST = A hardhold call also exists on this line.

j^1 = Originator's PID. Valid value(s):

PID=a^1-b^1-c^1

k^1 = PID of the process to be traced. Valid value(s):

PID=e^1-f^1-g^1

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
TRC:CLID
TRC:IPCT
```

Output Message(s):

```
TRC:IPCT-FAILED
```

TRC:IPCT-FAILED

Software Release: 5E10 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
TRC IPCT FAILED [EVENT a] REASON b              c
```

2. REASON FOR OUTPUT

To print the error type when an in-progress call trace (IPCT) attempt fails.

3. VARIABLE FIELD DEFINITIONS

`a` = Event tag of trace that failed.

`b` = Reason for failure. Valid value(s):

`APX SYSTEM PROCESS` = Process being traced is an *Autoplex*® system process. Traces started on these processes are not supported.

`BAD MESSAGE` = An unexpected message was received by an IPCT process, or the data in the message is invalid.

`BAD SM NUMBER` = An attempt was made to send a message to an invalid switching module (SM).

`COULD NOT CREATE TP` = An IPCT terminal process could not be created. This error could be caused by a system overload.

`ERROR IN DYNAMIC DATA` = An attempt to read dynamic data failed. This error could be the result of an invalid link or an unexpected return code from the DA primitive.

`ERROR IN STATIC DATA` = An attempt to read static data failed. This could signify an unexpected return code from the DB primitive or an invalid key.

`NO CALL FOR GIVEN INPUT` = No call was in progress for the requested trace.

`NO PORT FOR GIVEN INPUT` = Could not convert input to a port. This error can occur either when the input given is invalid or when a directory number (DN) is given and no port is associated with it. Examples of the latter case are uniform call distribution (UCD) multi line hunt groups (MLHG) group DNs and multiple position hunt (MUPH) and integrated services digital network (ISDN) attendant (ISAT) MLHGs sub DNs.

`PROCESS IS NOT IN A STABLE STATE` = Process being traced is in a transient state. Only processes in a stable state can be traced. Retry trace at a later time.

`QUEUING PROCESS` = The call being traced is queued. IPCT does not support tracing queued calls.

`RESOURCE FAILURE` = A message could not be sent between two processes. This error may be caused by system overload.

`TIMED OUT` = The administrative module (AM) terminal process timed out while waiting for a response from a switching module. Check the status of the switching module on the "Equipped SM Status Summary" Master Control Center (MCC) page.

`c` = Abbreviated address, not used.

4. ACTION TO BE TAKEN

If the call to be traced is still connected, try the trace again.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
TRC:CLID
TRC:IPCT
```

Output Message(s):

```
TRC:IPCT-EVENT
```

TRC:UTIL-4WLN

Software Release: 5E10 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
TRC UTIL 4WLN EVENT=a b [HSM ALSO] PID c d e END f ERR g
  DN=i[+] {TEN=j-k-l-m-n|DEN=o-p-q-r}
 [UTD=s-t-u-v] [UTG=s-t-u-v] [{CDFI|RDFI}=w-x-y]
```

2. REASON FOR OUTPUT

To print the trace data requested by a utility call trace TRC:UTIL input message. This message describes a 4-wire line (4WLN) connection.

3. VARIABLE FIELD DEFINITIONS

`CDFI` = Communication digital facility interface.

`DEN` = Digital equipment number.

`EVENT` = Variables '`a`' and '`b`' are event tags linking all messages reporting on the same trace.

`HSMALSO` = HSM data is also associated with this trace.

`PID` = Variables '`c`', '`d`', and '`e`' make up the process ID (PID) of the process controlling a traced connection. All messages describing one connection of a call will have the same PID.

`RDFI` = Remote switching module (RSM) digital facility interface.

`TEN` = Trunk equipment number.

`UTD` = Universal tone decoder.

`UTG` = Universal tone generator.

`+` = Multi-party.

`a` = Event number.

`b` = Secondary event identifier; associated remote switching module (RSM) or host switching module (HSM) data will have the same value.

`c` = Process number of the PID.

`d` = Switching module number of the PID.

`e` = Uniqueness number of the PID.

`f` = Termination indicator. Valid value(s):
- `N` = More messages to be expected.
- `Y` = End of the trace data.

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`g` = Error indicator. Valid value(s):
- `N` = No errors were encountered.
- `Y` = Errors were encountered in collecting the trace data; look for a TRC:UTIL-FAILED output message with this same event tag and PID.

`i` = Directory number (DN).

`j` = Switching module number.

`k` = Trunk unit number.

`l` = Service group.

`m` = Channel board number.

`n` = Circuit number.

`o` = Switching module number.

`p` = Digital line and trunk unit (DLTU) number.

`q` = Digital facilities interface number.

`r` = Circuit number.

`s` = Switching module number.

`t` = Local digital service unit number.

`u` = Service group number.

`v` = Digital service unit board number.

`w` = RSM number of the CDFI or RDFI.

`x` = Digital line trunk unit (DLTU) number.

`y` = DFI number.

4. ACTION TO BE TAKEN

None. This message is the result of a utility call trace.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRC
TRC:UTIL
```

Output Message(s):

```
TRC:UTIL-FAILED
TRC:UTIL-HSM
```

Other Manual(s):

235-105-110 *Switch Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance Procedures*
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

131-132 (CALL TRACE MENU)
133-138 (HARDWARE CALL TRACE - 1 THROUGH 6)
139 (ISDN PACKET SWITCH CALL TRACE)
140 (HARDWARE CALL TRACE)
150 (TRACEABLE CALL STATUS)
151 (CONFERENCE CIRCUIT TRACE)

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TRC:UTIL-CONF

Software Release: 5E10 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
TRC UTIL CONF EVENT=a  b PID c d e END f ERR g
 {UCONF=h-i-j-k | GDSF=h-l} CKT=m TYPE=n
```

2. REASON FOR OUTPUT

To print the universal conference circuit number, name, and type associated with an active call identified by a utility call trace input request.

3. VARIABLE FIELD DEFINITIONS

`EVENT` = Variables '`a`' and '`b`' are event tags linking all messages reporting on the same trace.

`GDSF` = Global digital services functions.

`PID` = Variables '`c`', '`d`', and '`e`' make up the process identifier (PID) of the conference circuit process associated with the traced call.

`UCONF` = Universal conference circuit number.

`a` = Event number.

`b` = Secondary event identifier number; associated remote switching module (RSM) or host switching module (HSM) data will have the same value.

`c` = Process number of the PID.

`d` = Switching module (SM) number of the PID.

`e` = Uniqueness number of the PID.

`f` = Termination (END) indicator. Valid value(s):
- `N` = More messages to be expected.
- `Y` = End of the trace data.

`g` = Error (ERR) indicator. Valid value(s):
- `N` = No errors were encountered.
- `Y` = Errors were encountered in collecting the trace data; look for a TRC:UTIL-FAILED output message with this same event tag and PID.

`h` = SM number.

`i` = Global digital service unit number.

`j` = Service group number.

`k` = Digital service circuit unit board number.

`l` = GDSF unit number.

`m` = Conference circuit (CKT) number.

`n` = Type (TYPE) of conference circuit. Valid value(s):
`3-PORT` = 3-port conference circuit.
`6-PORT` = 6-port conference circuit.

4. ACTION TO BE TAKEN

None. This message is the result of a utility call trace.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRC
TRC:UTIL
```

Output Message(s):

```
TRC:UTIL-FAILED
```

Other Manual(s):
235-105-110 *Switch Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance Procedures*
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

131-132 (CALL TRACE MENU)
133 (138 HARDWARE CALL TRACE - 1 THROUGH 6)
139 (ISDN PACKET SWITCH CALL TRACE)
140 (HARDWARE CALL TRACE)
150 (TRACEABLE CALL STATUS)
151 (CONFERENCE CIRCUIT TRACE)

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TRC:UTIL-FAILED

Software Release: 5E10 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
TRC UTIL FAILED [EVENT=a] [PID=b c d] REASON e              f
```

2. REASON FOR OUTPUT

To print the error type when a utility call trace (UCT) attempt fails.

3. VARIABLE FIELD DEFINITIONS

`PID` = Variables '`b`', '`c`', and '`d`' make up the process ID (PID) of the process controlling a traced connection. The PID links the output messages describing one connection.

`a` = Event tag linking all messages reporting on the same trace.

`b` = The process number of the PID.

`c` = The switching module number of the PID.

`d` = The uniqueness number of the PID.

`e` = Reason for the error. Valid value(s):

`APX SYSTEM PROCESS` = Process being traced is an *Autoplex*® system process. Traces started on these processes are not supported.

`BAD MESSAGE` = An unexpected message was received by the UCT process, or the data in the message is invalid.

`BAD TRACE` = Trace data has been collected but it contains errors preventing the summary from being printed.

`CAN'T FIND HSM` = For a trace initiated in the remote switching module (RSM), a message has been sent from the RSM to the host switching module (HSM) to collect the trace data. However, no acknowledgment has been received from the HSM.

`CONNECTION TORN DOWN` = The far connections were torn down before the trace data could be collected.

`DATA LINKAGE ERROR` = There is an error in the linkages between dynamic data structures. Audits should be called automatically to clean up in the switch module processor. Routine audits will recover the data structures in the protocol handler (PH).

`ERROR IN DYNAMIC DATA` = An attempt to read dynamic data failed. This error could be the result of an invalid link or an unexpected return code from the DA primitive.

`ERROR IN STATIC DATA` = An attempt to read static data failed. This could signify an unexpected return code from the DB primitive or an invalid key.

`INCOMPLETE DATA` = This indicates that the trace process timed out before it received all the expected trace data.

`INTERNAL ERROR` = An unexpected condition was encountered during processing.

`INVALID TRACE REQUEST` = The trace request was not valid.

`NO ACTIVE PACKET CALLS` = No logical channel number (LCN) packet data found by packet UCT. This signifies that there are no active packet calls.

`NO CONNECTION SET UP` = There is no connection to trace.

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`NO PACKET DATA` = There is no PH data for the packet utility call trace requested.
`NO RESPONSE` = A message was sent to the SM to start a trace, but the SM did not respond within the allowed time period.
`PROCESS IS NOT IN A STABLE STATE` = Process being traced is in a transient state. Only processes in stable states can be traced. Retry trace at a later time.
`QUEUING PROCESS` = The call being traced is queued. UCT does not support tracing queuing processes.
`RESOURCE FAILURE` = The trace will not complete because a necessary message could not be sent or a timer could not be started, or a data base read failed.
`TRACE ALREADY IN PROGRESS` = UCT only collects data from one trace at a time. (This error is likely if a second trace is started while another trace is still in progress.)
`TRACED PROCESS IS NOT IN CALL` = The process that has been traced does not terminate at a line or trunk. Therefore, the data cannot be formatted for the MCC screen. However, it can be dumped by the OP:TRC message if desired.
`UNKNOWN DATA REQUESTED` = The trace failed due to an unexpected input parameters on an OP:TRC input message.

`f` = Abbreviated address, not used.

4. ACTION TO BE TAKEN

None. This message is the result of a utility call trace.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRC
TRC:UTIL
```

Other Manual(s):
235-105-220 *Corrective Maintenance Procedures*
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

131-132 (CALL TRACE MENU)
133-138 (HARDWARE CALL TRACE - 1 THROUGH 6)
139 (ISDN PACKET SWITCH CALL TRACE)
140 (HARDWARE CALL TRACE)
150 (TRACEABLE CALL STATUS)
151 (CONFERENCE CIRCUIT TRACE)

TRC:UTIL-HSM-A

Software Release: 5E10 - 5E12
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
TRC UTIL HSM EVENT=a b PID c d e END f ERR g
  HDFI=h-i-j PIDB BUS k PIDB TS l PTS m [SRCNCT n SNKNCT o] TMS p
```

2. REASON FOR OUTPUT

To print the trace data requested by a utility call trace input message. This message describes the host switching module (HSM) portion of a call involving both an HSM and a remote switching module (RSM).

3. VARIABLE FIELD DEFINITIONS

`EVENT` = Variables '`a`' and '`b`' are event tags linking all messages reporting on the same trace.

`PID` = Variables '`c`', '`d`', and '`e`' make up the process ID (PID) of the process controlling a traced connection. All messages describing one connection of a call will have the same PID.

`a` = Event number.

`b` = Secondary event identifier; associated RSM/HSM data will have the same value.

`c` = Process number of the PID.

`d` = Switching module number of the PID.

`e` = Uniqueness number of the PID.

`f` = Termination indicator. Valid value(s):
- `N` = More messages should be expected.
- `Y` = End of the trace data.

`g` = Error indicator. Valid value(s):
- `N` = No errors were encountered.
- `Y` = Errors were encountered in collecting the trace data; look for a TRC:UTIL-FAILED message with this same event tag and process ID.

`h` = HSM number of HSM's digital facility interface (HDFI).

`i` = Digital line/trunk unit (DLTU) number of the HDFI.

`j` = HDFI number.

`k` = Peripheral interface data bus (PIDB) number.

`l` = Peripheral interface data bus time-slot (TS).

`m` = Peripheral time-slot (PTS) number.

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`n` = Source network, control, and timing (SRCNCT) time-slot.

`o` = Sink network, control, and timing (SNKNCT) time-slot.

`p` = Time multiplexed switch (TMS) time-slot indicator. Valid value(s):
- `N` = TMS time-slots are not actively used in the call (that is intra-module or peripheral to peripheral call).
- `Y` = TMS time-slots are actively used in the call (that is inter-module call).

4. ACTION TO BE TAKEN

None. This message is the result of a utility call trace.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRC
TRC:UTIL
```

Output Message(s):

```
TRC:UTIL-4WLN
TRC:UTIL-FAILED
TRC:UTIL-LINE
TRC:UTIL-PID
TRC:UTIL-TRK
```

Other Manual(s):
235-105-110 *Switch Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance Procedures*
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

131-132 (CALL TRACE MENU)
133-138 (HARDWARE CALL TRACE - 1 THROUGH 6)
139 (ISDN PACKET SWITCH CALL TRACE)
140 (HARDWARE CALL TRACE)
150 (TRACEABLE CALL STATUS)
151 (CONFERENCE CIRCUIT TRACE)

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TRC:UTIL-HSM-B

Software Release: 5E13 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      TRC UTIL HSM EVENT=a b PID c d e END f ERR g

        HDFI=h-i-j PIDB BUS k PIDB TS l PTS m SRCNCT n SNKNCT o TMS p

[2]   ____________________________________________________________
      TRC UTIL HSM EVENT=a b PID c d e END f ERR g

        PCT TS k PCT l PTS m SRCNCT n SNKNCT o TMS p

        DS1SFAC=q-r-s-t-u-v-w-x
```

2. REASON FOR OUTPUT

To print the trace data requested by a utility call trace input message. This message describes the host switching module (HSM) portion of a call involving both an HSM and a remote switching module (RSM).

3. VARIABLE FIELD DEFINITIONS

`EVENT` = Variables '`a`' and '`b`' are event tags linking all messages reporting on the same trace.

`PID` = Variables '`c`', '`d`', and '`e`' make up the process ID (PID) of the process controlling a traced connection. All messages describing one connection of a call will have the same PID.

`a` = Event number.

`b` = Secondary event identifier; associated RSM/HSM data will have the same value.

`c` = Process number of the PID.

`d` = Switching module number of the PID.

`e` = Uniqueness number of the PID.

`f` = Termination indicator. Valid value(s):
- `N` = More messages should be expected.
- `Y` = End of the trace data.

`g` = Error indicator. Valid value(s):
- `N` = No errors were encountered.
- `Y` = Errors were encountered in collecting the trace data; look for a TRC:UTIL-FAILED message with this same event tag and process ID.

`h` = HSM number of HSM's digital facility interface (HDFI).

`i` = Digital line/trunk unit (DLTU) number of the HDFI.

`j` = HDFI number.

`k` = Peripheral interface data bus (PIDB) number or peripheral control timing link time-slot (PCT TS).

`l` = Peripheral interface data bus time-slot (TS) or peripheral control timing link (PCT).

`m` = Peripheral time-slot (PTS) number.

`n` = Source network, control, and timing (SRCNCT) time-slot.

`o` = Sink network, control, and timing (SNKNCT) time-slot.

`p` = Time multiplexed switch (TMS) time-slot indicator. Valid value(s):

- `N` = TMS time-slots are not actively used in the call (that is intra-module or peripheral to peripheral call).
- `Y` = TMS time-slots are actively used in the call (that is inter-module call).

`q` = Switch module (SM).

`r` = Digital network unit - SONET (DNU-S).

`s` = Data group number (DG).

`t` = Signaling terminal equipment number x'75 (STE).

`u` = Synchronous transport signal number (STS).

`v` = Virtual tributary group number (VTG).

`w` = Virtual tributary member number (VTM).

`x` = Digital signal level 1 number (DS1).

4. ACTIONS TO BE TAKEN

None. This message is the result of a utility call trace.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRC
TRC:UTIL
```

Output Message(s):

```
TRC:UTIL-4WLN
TRC:UTIL-FAILED
```

```
TRC:UTIL-LINE
TRC:UTIL-PID
TRC:UTIL-TRK
```

Other Manual(s):

235-105-110 *Switch Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance Procedures*
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

131-132 (CALL TRACE MENU)
133-138 (HARDWARE CALL TRACE - 1 THROUGH 6)
139 (ISDN PACKET SWITCH CALL TRACE)
140 (HARDWARE CALL TRACE)
150 (TRACEABLE CALL STATUS)
151 (CONFERENCE CIRCUIT TRACE)

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TRC:UTIL-IDLE-A

Software Release: 5E10 - 5E11
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
TRC UTIL IDLE a [b] [c] [d] [e] EVENT=f
```

2. REASON FOR OUTPUT

To report the status of a traced port, time slot, process, or circuit when the requested trace cannot be completed because no call is in progress.

3. VARIABLE FIELD DEFINITIONS

a = What was traced. Valid value(s):

CKT	= Circuit.
PID	= Process identifier.
PORT	= Line or trunk port.
TIMESLOT	= Network time slot.

b = State of PORT. Valid value(s):

IS	= In-service
OOS	= Out-of-service

c = Qualifier of the port state. Valid value(s):

ABLKD	= Abnormally blocked.
BLKD	= Blocked.
CADN	= Circuit administration.
CUTOVER	= Cutover inactive.
DSLINIT	= DSL initialization.
FCDOS	= Forced out-of-service.
FRCD	= Forced.
MKBUSY	= Make busy.
MTCE	= Maintenance.
PPSRV	= Pre/post service.
RC	= Unspecified recent change.
STBY	= Stand-by.
TBLA	= Trouble analysis.
TMT	= Traffic management.
UNAS	= Unassigned.
WAIT	= Wait.

d = Operational restriction. Valid value(s):

CCSINIT	= CCS Initialization.
CONT	= Continuity test failure.
DCHOOS	= D-channel out of service.
DCSINIT	= DCS initialization.

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DSBLD	= Disabled.
FAF	= Facility failure.
FE	= Family of equipment.
HW	= High and wet.
LKDO	= Locked out.
INIT	= Hardware initialization.
LVL1ERR	= Level 1 error.
LVL2ERR	= Level 2 error.
LVL3ERR	= Level 3 error.
MTBUSY	= Maintenance busy.
PLGUP	= Plugged up.
PPMFE	= PPM family of equipment.
PX	= Power cross.
RAP	= Recorded announcement.

e = State of CKT. Valid value(s):

IS	= In-service.
OOS	= Out-of-service.
RING	= Used for ringing.

f = Event tag linking all messages reporting on the same trace.

4. ACTION TO BE TAKEN

None. This message is the result of a utility call trace.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRC
TRC:UTIL
```

Other Manual(s):

235-105-110 *Switch Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance Procedures*
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

131-132 (CALL TRACE MENU)
133-138 (HARDWARE CALL TRACE - 1 THROUGH 6)
139 (ISDN PACKET SWITCH CALL TRACE)
140 (HARDWARE CALL TRACE)
150 (TRACEABLE CALL STATUS)
151 (CONFERENCE CIRCUIT TRACE)

TRC:UTIL-IDLE-B

Software Release: 5E12 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
TRC UTIL IDLE a [b] [c] [d] [e] EVENT=f
```

2. REASON FOR OUTPUT

To report the status of a traced port, time slot, process, or circuit when the requested trace cannot be completed because no call is in progress.

3. VARIABLE FIELD DEFINITIONS

a = What was traced. Valid value(s):

CKT	= Circuit.
PID	= Process identifier.
PORT	= Line or trunk port.
TIMESLOT	= Network time slot.

b = State of PORT. Valid value(s):

IS	= In-service
OOS	= Out-of-service

c = Qualifier of the port state. Valid value(s):

ABLKD	= Abnormally blocked.
BLKD	= Blocked.
CADN	= Circuit administration.
CUTOVER	= Cutover inactive.
DSLINIT	= DSL initialization.
FCDOS	= Forced out-of-service.
FRCD	= Forced.
MKBUSY	= Make busy.
MTCE	= Maintenance.
PPSRV	= Pre/post service.
RC	= Unspecified recent change.
STBY	= Stand-by.
TBLA	= Trouble analysis.
TMT	= Traffic management.
UNAS	= Unassigned.
WAIT	= Wait.

d = Operational restriction. Valid value(s):

BCOOS	= Bearer channel out-of-service.
BCMOOS	= Bearer channel member out-of-service.
CCSINIT	= CCS Initialization.
CONT	= Continuity test failure.

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DCHOOS	= D-channel out-of-service.
DCSINIT	= DCS initialization.
DSBLD	= Disabled.
FAF	= Facility failure.
FE	= Family of equipment.
HW	= High and wet.
LKDO	= Locked out.
INIT	= Hardware initialization.
LVL1ERR	= Level 1 error.
LVL2ERR	= Level 2 error.
LVL3ERR	= Level 3 error.
MTBUSY	= Maintenance busy.
PLGUP	= Plugged up.
PPMFE	= PPM family of equipment.
PX	= Power cross.
RAP	= Recorded announcement.

e = State of CKT. Valid value(s):

IS	= In-service.
OOS	= Out-of-service.
RING	= Used for ringing.

f = Event tag linking all messages reporting on the same trace.

4. ACTION TO BE TAKEN

None. This message is the result of a utility call trace.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRC
TRC:UTIL
```

Other Manual(s):

235-105-110 *Switch Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance Procedures*
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

131-132 (CALL TRACE MENU)
133-138 (HARDWARE CALL TRACE - 1 THROUGH 6)
139 (ISDN PACKET SWITCH CALL TRACE)
140 (HARDWARE CALL TRACE)

150 (TRACEABLE CALL STATUS)
151 (CONFERENCE CIRCUIT TRACE)

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TRC:UTIL-LINE-A

Software Release: 5E10 - 5E11
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TRC UTIL LINE EVENT=a b HSM ALSO PID c d e END f ERR g
       [DN=h[+[-r1]] LEN=d-g2-k-l-m-n [MLHG=o-p]
       [CONF=d2 [HARDHOLD CALL EXIST]
       [ALINK=d-g2-k-r-e1 [BLINK=q]
       [i]  [i] [{CDFI|RDFI}=a1-b1-c1]
       [RING LUHLSC=d-j-t-z [PCT LUHLSC=d-j-t-z]

[2]   ____________________________________________________________________
      TRC UTIL LINE EVENT=a b HSM ALSO PID c d e END f ERR g>
       [DN=h[+[-r1]] SLEN=d-w-x-y [MLHG=o-p]
       [CONF=d2 [HARDHOLD CALL EXIST]
       [FAC=t1 TS=s1 SID=u1 [SDFI=d-f1-o1]
       [i] [i] [{CDFI|RDFI}=a1-b1-c2]

[3]   ____________________________________________________________________
      TRC UTIL LINE EVENT=a b HSM ALSO PID c d e END f ERR g
       [DN=h[*[+][-r1]] {LCEN=d-g2-k1-l1|LCKEN=d-g2-j2-h2-k2} [MLHG=o-p]...
        ...ICOM=e2 [PDN=a2]
       [CH=v1[j][CONF=d2][HARDHOLD CALL EXIST][SA=i1][CA=j1]...
        ...POSNUM=d1[MONPID=c-d-e]
       [RPCU=i2 [PH=w1 MEM=p SHELF=y1 [PDBTS=z1]][DFIH=d-b1-c2]
       {CDFI|RDFI}=a1-b1-c1

[4]   ____________________________________________________________________
      TRC UTIL LINE EVENT=a b HSM ALSO PID c d e END f ERR g
       [DN=h LCEN=d-g2-k1-l1 {BST=m1-n1|OPT=m1-n1-q1} [PDN=a2]
       [CH=v1[j][CONF=d2][SA=i1][CA=j1]
       [PH=w1 MEM=p SHELF=y1 [PDBTS=z1][DFIH=d-b1-c2]
       {CDFI|RDFI}=a1-b1-c1

[5]   ____________________________________________________________________
      TRC UTIL LINE EVENT=a b HSM ALSO PID c d e END f ERR g
       [DN=h[*[+][-r1]] ILEN=d-g1-p1-x1 [MLHG=o-p][ICOM=e2] [PDN=a2]
       [CH=v1[j][DDS=h1][CONF=d2][HARDHOLD CALL EXIST][SA=i1][CA=j1]...
        ...POSNUM=d1[MONPID=c-d-e]
       [RPCU=i2 [FAC=t1 TS=s1 [SID=u1]] [PH=w1 MEM=p SHELF=y1 [PDBTS=z1]93
       {CDFI|RDFI}=a1-b1-c1
```

2. REASON FOR OUTPUT

To respond to a TRC:UTIL input message or a call trace poke. This message describes a line connection from the directory number through the line unit. It can have four different formats depending on whether a line equipment

number (LEN) (Format 1), *SLC*® 96 line equipment number (SLEN) (Format 2), line card equipment number (LCEN) (Formats 3 and 4), or integrated digital carrier unit (IDCU) line equipment number (ILEN) (Format 5) was traced.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`EVENT` = Variables '`a`' and '`b`' are event tags linking all messages reporting on the same trace.

`HSM ALSO` = Host switching module (HSM) data is also associated with this trace.

`*` = Indicates a default service directory number.

`+` = Indicates the directory number is on a party line (if analog) or a multipoint DSL (if ISDN).

`a` = Primary event identifier number.

`b` = Secondary event identifier number; associated RSM or HSM data will have the same value.

`c` = Process number of the PID.

`d` = Switching module (SM) number.

`e` = Uniqueness number of the PID.

`f` = Termination (END) indicator. Valid value(s):
- `N` = More messages to be expected.
- `Y` = End of the trace data.

`g` = Error (ERR) indicator. Valid value(s):
- `N` = No errors were encountered.
- `Y` = Errors were encountered in collecting the trace data; look for a TRC:UTIL-FAILED output message with this same event tag and PID.

`h` = Directory number of line being traced or MULTIPT or STANDARD. MULTIPT is used for a D-channel trace of a custom BRI with multipoint service. STANDARD is used for a D-channel trace of a standard BRI with multiple users defined.

`i` = Valid value(s):

LUCHAN=d-g^2-t-u-v
RVPT=d-f^2-t-s
UTD=d-f^2-t-s
UTG=d-f^2-t-s

`j` = Type of service. Valid value(s):
- `CKT` = Circuit. Used for ISDN D-channel traces.
- `CSD` = Circuit switched data.
- `CSV` = Circuit switched voice.
- `PKT` = Packet switched service.

`k` = Grid number.

l	= Switch board number.
m	= Switch number.
n	= Level number.
o	= Group number.
p	= Member number.
q	= B-link number.
r	= Board number.
s	= Digital service unit board number.
t	= Service group number.
u	= Channel board number.
v	= Channel circuit number.
w	= Digital carrier line unit number.
x	= Remote terminal (RT) number.
y	= RT line number.
z	= High level service circuit number.
a[1]	= RSM number of the CDFI or RDFI.
b[1]	= Digital line trunk unit (DTLU) number.
c[1]	= DFI number.
d[1]	= Position Number.
e[1]	= A-link number.
f[1]	= Digital carrier line unit (DCLU) number.
g[1]	= IDCU line unit number.
h[1]	= DDS path identifier, 1 or 2.
i[1]	= Sub-address (SA) number of a shared DN or MLHG.
j[1]	= Call appearance (CA) number on a multiple call appearance (MCA) terminal.
k[1]	= Line group controller number.
l[1]	= Line card number.
m[1]	= Operator service center (OSC) number.

n[1] = Operator position number.

o[1] = SDFI number.

p[1] = RT number or IDCU DS1 serving PUB43801 number.

q[1] = Operator call loop number.

r[1] = Member number of the line time-slot bridging (LTSB) line. For LTSB a member number of '1' represents the lead line and a member number of '2' represents the associate line.

s[1] = Facility time-slot number.

t[1] = Facility identifier.

u[1] = SID number.

v[1] = Channel identifier. Valid value(s):
B1
B2
D

w[1] = Protocol handler number.

x[1] = RT line number or PUB43801 channel.

y[1] = Packet switch unit (PSU) number. All messages describing one connection of a call will have the same PID.

z[1] = Time slot number.

a[2] = Primary DN of ISDN terminal.

c[2] = DFIH number.

d[2] = Indicates conference party type. Valid value(s):
CNTRL = Main conference controller.
CNTRL-A = Associate conference controller.

e[2] = Intercom group number.

f[2] = Local digital service unit number.

g[2] = Line unit number.

h[2] = Line board number.

i[2] = RPCU group number. This applies only to wireless centrex.

j[2] = Line group number.

k[2] = Line circuit number.

4. ACTION TO BE TAKEN

None. This message is the result of a utility call trace.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRC
TRC:UTIL
```

Output Message(s):

```
TRC:UTIL-FAILED
TRC:UTIL-HSM
```

Other Manual(s):
235-105-110 *Switch Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance Procedures*
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

131-132 (CALL TRACE MENU)
133-138 (HARDWARE CALL TRACE - 1 THROUGH 6)
139 (ISDN PACKET SWITCH CALL TRACE)
140 (HARDWARE CALL TRACE)
150 (TRACEABLE CALL STATUS)
151 (CONFERENCE CIRCUIT TRACE)

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TRC:UTIL-LINE-B

Software Release: 5E12 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TRC UTIL LINE EVENT=a b HSM ALSO PID c d e END f ERR g
       [DN=h[+[-r1]] LEN=d-g2-k-l-m-n [MLHG=o-p]
       [CONF=d2 [HARDHOLD CALL EXIST]
       [ALINK=d-g2-k-r-e1 [BLINK=q]
       [i] [i] [{CDFI|RDFI}=a1-b1-c1]
       [RING LUHLSC=d-j-t-z [PCT LUHLSC=d-j-t-z]

[2]   ____________________________________________________________________
      TRC UTIL LINE EVENT=a b HSM ALSO PID c d e END f ERR g
       [DN=h[+[-r1]] SLEN=d-w-x-y [MLHG=o-p]
       [CONF=d2 [HARDHOLD CALL EXIST]
       [FAC=t1 TS=s1 SID=u1 [SDFI=d-f1-o1]
       [i] [i] [{CDFI|RDFI}=a1-b1-c2]

[3]   ____________________________________________________________________
      TRC UTIL LINE EVENT=a b HSM ALSO PID c d e END f ERR g
       [DN=h[*[+][-r1]] {LCEN=d-g2-k1-l1|LCKEN=d-g2-j2-h2-k2} [MLHG=o-p]...
        ...ICOM=e2 [PDN=a2]
       [CH=v1[j][CONF=d2][HARDHOLD CALL EXIST][SA=i1][CA=j1]...
        ...POSNUM=d1[MONPID=c-d-e]
       [RPCU=i2 [PH=w1 MEM=p SHELF=y1 [PDBTS=z1]][DFIH=d-b1-c2]
       {CDFI|RDFI}=a1-b1-c1

[4]   ____________________________________________________________________
      TRC UTIL LINE EVENT=a b HSM ALSO PID c d e END f ERR g
       [DN=h LCEN=d-g2-k1-l1 {BST=m1-n1|OPT=m1-n1-q1} [PDN=a2]
       [CH=v1[j][CONF=d2][SA=i1][CA=j1]
       [PH=w1 MEM=p SHELF=y1 [PDBTS=z1][DFIH=d-b1-c2]>
       {CDFI|RDFI}=a1-b1-c1>

[5]   ____________________________________________________________________
      TRC UTIL LINE EVENT=a b HSM ALSO PID c d e END f ERR g
       [DN=h[*[+][-r1]] [ILEN=d-g1-p1-x1 | INEN=d-l2-m2-n2] [MLHG=o-p][ICOM=e2] [PDN
      =a2]
       [CH=v1[j][DDS=h1][CONF=d2][HARDHOLD CALL EXIST][SA=i1][CA=j1]...
        ...POSNUM=d1[MONPID=c-d-e]
       [RPCU=i2 [{FAC=t1|DS1=o2} TS=s1 [SID=u1]] [PH=w1 MEM=p SHELF=y1 [PDBTS=z1]93
       {CDFI|RDFI}=a1-b1-c1 [CD=p2q2 STS=p2r2 SFI=p2s2]
```

2. REASON FOR OUTPUT

To respond to a TRC:UTIL input message or a call trace poke. This message describes a line connection from the

directory number through the line unit. It can have five different formats depending on whether a line equipment number (LEN) (Format 1), *SLC*® 96 line equipment number (SLEN) (Format 2), line card equipment number (LCEN) (Formats 3 and 4), or integrated digital carrier unit (IDCU) line equipment number (ILEN) or TR-303 on DNU-S line equipment number (INEN) (Format 5) was traced.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`EVENT` = Variables '`a`' and '`b`' are event tags linking all messages reporting on the same trace.

`HSM ALSO` = Host switching module (HSM) data is also associated with this trace.

`*` = Indicates a default service directory number.

`+` = Indicates the directory number is on a party line (if analog) or a multipoint DSL (if ISDN).

`a` = Primary event identifier number.

`b` = Secondary event identifier number; associated RSM or HSM data will have the same value.

`c` = Process number of the PID.

`d` = Switching module (SM) number.

`e` = Uniqueness number of the PID.

`f` = Termination (END) indicator. Valid value(s):
- `N` = More messages to be expected.
- `Y` = End of the trace data.

`g` = Error (ERR) indicator. Valid value(s):
- `N` = No errors were encountered.
- `Y` = Errors were encountered in collecting the trace data; look for a TRC:UTIL-FAILED output message with this same event tag and PID.

`h` = Directory number of line being traced or MULTIPT or STANDARD. MULTIPT is used for a D-channel trace of a custom BRI with multipoint service. STANDARD is used for a D-channel trace of a standard BRI with multiple users defined.

`i` = Valid value(s):

LUCHAN=d-g^2-t-u-v
RVPT=d-f^2-t-s
UTD=d-f^2-t-s
UTG=d-f^2-t-s

`j` = Type of service. Valid value(s):
- `CKT` = Circuit. Used for ISDN D-channel traces.
- `CSD` = Circuit switched data.
- `CSV` = Circuit switched voice.
- `PKT` = Packet switched service.

k = Grid number.

l = Switch board number.

m = Switch number.

n = Level number.

o = Group number.

p = Member number.

q = B-link number.

r = Board number.

s = Digital service unit board number.

t = Service group number.

u = Channel board number.

v = Channel circuit number.

w = Digital carrier line unit number.

x = Remote terminal (RT) number.

y = RT line number.

z = High level service circuit number.

a[1] = RSM number of the CDFI or RDFI.

b[1] = Digital line trunk unit (DTLU) number.

c[1] = DFI number.

d[1] = Position Number.

e[1] = A-link number.

f[1] = Digital carrier line unit (DCLU) number.

g[1] = IDCU line unit number.

h[1] = DDS path identifier, 1 or 2.

i[1] = Sub-address (SA) number of a shared DN or MLHG.

j[1] = Call appearance (CA) number on a multiple call appearance (MCA) terminal.

k[1] = Line group controller number.

l[1] = Line card number.

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m[1] = Operator service center (OSC) number.

n[1] = Operator position number.

o[1] = SDFI number.

p[1] = RT number or IDCU DS1 serving PUB43801 number.

q[1] = Operator call loop number.

r[1] = Member number of the line time-slot bridging (LTSB) line. For LTSB a member number of '1' represents the lead line and a member number of '2' represents the associate line.

s[1] = Facility time-slot number.

t[1] = Facility identifier.

u[1] = SID number.

v[1] = Channel identifier. Valid value(s):
B1
B2
D

w[1] = Protocol handler number.

x[1] = RT line number or PUB43801 channel.

y[1] = Packet switch unit (PSU) number. All messages describing one connection of a call will have the same PID.

z[1] = Time slot number.

a[2] = Primary DN of ISDN terminal.

c[2] = DFIH number.

d[2] = Indicates conference party type. Valid value(s):
CNTRL = Main conference controller.
CNTRL-A = Associate conference controller.

e[2] = Intercom group number.

f[2] = Local digital service unit number.

g[2] = Line unit number.

h[2] = Line board number.

i[2] = RPCU group number. This applies only to wireless centrex.

j[2] = Line group number.

k[2] = Line circuit number.

`l`[2] = Digital Network Unit-SONET (DNU-S) number.

`m`[2] = Remote digital terminal (RDT) number.

`n`[2] = Line number.

`o`[2] = DS1 number.

`p`[2] = Data group number.

`q`[2] = Common data number.

`r`[2] = STS (Synchronous Transport Signal) number.

`s`[2] = SFI (STSX-1 Facility Interface) number.

4. ACTION TO BE TAKEN

None. This message is the result of a utility call trace.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRC
TRC:UTIL
```

Output Message(s):

```
TRC:UTIL-FAILED
TRC:UTIL-HSM
```

Other Manual(s):
235-105-110 *Switch Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance Procedures*
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

131-132 (CALL TRACE MENU)
133-138 (HARDWARE CALL TRACE - 1 THROUGH 6)
139 (ISDN PACKET SWITCH CALL TRACE)
140 (HARDWARE CALL TRACE)
150 (TRACEABLE CALL STATUS)
151 (CONFERENCE CIRCUIT TRACE)

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TRC:UTIL-LINK

Software Release: 5E10 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TRC UTIL LINK EVENT=a b PID c d e END f ERR g
        {LCEN=h-i-j-k | LCKEN=h-i-j-y-k} [l]
        CH=D CKT
        [PH=o MEM=p SHELF=q [PDBTS=r]]

[2]   ____________________________________________________________________
      TRC UTIL LINK EVENT=a b PID c d e END f ERR g
        ILEN=h-s-t-u [l]
        CH=D CKT
        [FAC=w TS=v [SID=x]] [PH=o MEM=p SHELF=q [PDBTS=r]]
```

2. REASON FOR OUTPUT

To print the trace data requested by a utility call trace input message. This message describes an Operator Services Position System (OSPS) application processor (AP) data link (DL). This message is in response to a TRC:UTIL input message or a call trace poke.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`EVENT` = Variables '`a`' and '`b`' are event tags linking all messages reporting on the same trace.

`SHELF` = Packet switch unit (PSU) shelf location.

`a` = Primary event identifier.

`b` = Secondary event identifier.

`c` = Process number of the PID.

`d` = Switching module (SM) number.

`e` = Uniqueness number of the PID.

`f` = Termination indicator. Valid value(s):
- `N` = More messages to be expected.
- `Y` = End of the trace data.

`g` = Error indicator. Valid value(s):
- `N` = No errors were encountered.
- `Y` = Errors were encountered in collecting the trace data; look for a TRC:UTIL-FAILED output message with this same event tag and PID.

i = Line unit number.

j = Line group number.

k = Line card number.

l = Valid value(s):

AP=m-n
EIS=z-a[1]
HOBICV=m-n
MISLNK=m-n
OAPF=b[1]
OAPO=c[1]
XDB=m-n

m = Data link (group) number.

n = Relative link (member) number.

o = Protocol handler number.

p = Member number.

q = PSU shelf number.

r = Time slot number.

s = Integrated digital carrier unit (IDCU) number.

t = Remote terminal (RT) number or IDCU DS1 serving PUB43801 number.

u = RT line number or PUB43801 channel.

v = Facility time slot number.

w = Facility identifier.

x = *SLC*® identification (SID) number.

y = Line pack number.

z = EIS identifier (ID) on which the CPDL terminates.

a[1] = External data link (member) number relative to the EIS.

b[1] = Force management center number of the OAPF.

c[1] = Operator service center number of the OAPO.

4. ACTION TO BE TAKEN

None. This message is the result of a utility call trace.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRC
TRC:UTIL
```

Output Message(s):

```
TRC:UTIL-FAILED
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

131-132 (CALL TRACE MENU)
133-138 (HARDWARE CALL TRACE - 1 THROUGH 6)
139 (ISDN PACKET SWITCH CALL TRACE)
140 (HARDWARE CALL TRACE)
150 (TRACEABLE CALL STATUS)
151 (CONFERENCE CIRCUIT TRACE)

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TRC:UTIL-PID

Software Release: 5E10 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
TRC UTIL PID EVENT=a b [HSM ALSO] PID c d e END f ERR g
  TYPE=i
 [CONF=h]
 [m] [m] [j] [j]
```

2. REASON FOR OUTPUT

To report a connection to a process which does not own a port.

3. VARIABLE FIELD DEFINITIONS

`CONF` = Conference call indicator.

`EVENT` = Variables '`a`' and '`b`' are event tags linking all messages reporting on the same trace.

`a` = Event number.

`b` = Secondary event identifier number; associated remote switching module (RSM) or host switching module (HSM) data will have the same value.

`c` = Process number of the PID.

`d` = Switching module (SM) number of the PID.

`e` = Uniqueness number of the PID.

`f` = Termination (END) indicator. Valid value(s):
- `N` = More messages to be expected.
- `Y` = End of the trace data.

`g` = Error (ERR) indicator. Valid value(s):
- `N` = No errors were encountered.
- `Y` = Errors were encountered in collecting the trace data. look for a TRC:UTIL-FAILED output message with this same event tag and PID.

`h` = Indicates conference party type. Valid value(s):
- `CNTRL-F` = Main (floating) conference controller.
- `CNTRL-AF` = Associate (floating) conference controller.

`i` = Indicates the process ID type. Valid value(s):
- `ASP` = Advance service platform.
- `AUTOPLEX` = *Autoplex*® process.
- `LINE` = Line process.
- `MBTP` = Monitored bridge terminal process.

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PHANTOM = Phantom process.

j = Valid value(s):

CDFI=k-l-m
RDFI=k-l-m

k = RSM number of the CDFI or RDFI.

l = Digital line trunk unit (DLTU) number.

m = DFI number.

n = Valid value(s):

UTD=o-p-q-r
UTG=o-p-q-r

o = Switching module (SM) number.

p = Local digital service unit number.

q = Service group number.

r = Digital service unit board number.

4. ACTION TO BE TAKEN

None. This message is the result of a utility call trace.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRC
TRC:UTIL
```

Output Message(s):

```
TRC:UTIL-FAILED
TRC:UTIL-HSM
```

Other Manual(s):
235-105-110 *Switch Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance Procedures*
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

131-132 (CALL TRACE MENU)
133-138 (HARDWARE CALL TRACE - 1 THROUGH 6)
139 (ISDN PACKET SWITCH CALL TRACE)
140 (HARDWARE CALL TRACE)
150 (TRACEABLE CALL STATUS)
151 (CONFERENCE CIRCUIT TRACE)

TRC:UTIL-TRK-A

Software Release: 5E10 - 5E11
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
[1]  ____________________________________________________________________
     TRC UTIL TRK EVENT=a b HSM ALSO PID c d e END f ERR g
       TKGMN=i-j IMT {TEN=d-l-m-n-o|DEN=d-p-q-o|RAF=d-l1-m1|SAS=d-n1-o1}
      [CSV|CSD [WB] [CONF=t1]
      [UTD=d-z-m-a1 [UTG=d-z-m-a1] [{CDFI|RDFI}=b1-p-c1]

[2]  ____________________________________________________________________
     TRC UTIL TRK EVENT=a b HSM ALSO PID c d e END f ERR g
      [DN=h | TKGMN=i-j DEN=d-p-q-o
      {X75P|X75T|XAT} PKT
      [PH=v MEM=j SHELF=x [PDBTS=y]

[3]  ____________________________________________________________________
     TRC UTIL TRK EVENT=a b HSM ALSO PID c d e END f ERR g
       TKGMN=i-j DEN=d-p-q-o
       PRI CKT
      [PH=v MEM=j SHELF=x] [PDBTS=y]

[4]  ____________________________________________________________________
     TRC UTIL TRK EVENT=a b HSM ALSO PID c d e END f ERR g
       TKGMN=i-j {ILEN=d-d1-e1-f1|SLEN=d-s-t-u}
       FAC=h1 TS=g1 [SID=i1] [SDFI=d-u1-v1]
      {CDFI|RDFI}=b1-p-c1

[5]  ____________________________________________________________________
     TRC UTIL TRK EVENT=a b PID c d e END f ERR g
       TKGMN=i-j NEN=d-k-r-w-j1-k1
       FAC=p1 WB

[6]  ____________________________________________________________________
     TRC UTIL TRK EVENT=a b HSM ALSO PID c d e END f ERR g
       TKGMN=i-j PSUEN=d-q1-x-r1-s1
      [PKT] [CONF=t1]
      [PH=v MEM=j SHELF=x] [PDBTS=y]
      {CDFI|RDFI}=b1-p-c1

[7]  ____________________________________________________________________
     TRC UTIL TRK EVENT=a b HSM ALSO PID c d e END f ERR g
       DSLGM=d-r1-s1
      [PH=v MEM=j SHELF=x] [PDBTS=y]
      {CDFI|RDFI}=b1-p-c1
```

2. REASON FOR OUTPUT

To print the trace data requested by a utility call trace input message. This message describes a trunk (TRK),

inter-module trunk (IMT), recorded announcement function (RAF), or service announcement system (SAS) connection.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`CKT` = Trunk used is a circuit switched trunk. Only used for D-channel traces (Format 3).

`CONF` = Conference call indicator.

`EVENT` = Variables '`a`' and '`b`' are event tags linking all messages reporting on the same trace.

`FAC` = Facility or digital network unit - synchronous optical network (SONET) (DNU-S) facility.

`HSM ALSO` = HSM data is also associated with this trace.

`PID` = Variables '`c`', '`d`', and '`e`' make up the process identifier (PID) of the process controlling a traced connection. All messages describing one connection of a call will have the same PID.

`PKT` = Trunk used is a packet switched trunk.

`PRI` = Primary rate interface trunk.

`WB` = The call being traced is a wideband call.

`X75P` = X.75' packet trunk.

`X75T` = X.75 packet trunk.

`XAT` = XAT packet trunk.

`a` = Event number.

`b` = Secondary event identifier; associated remote switching module (RSM) or host switching module (HSM) data will have the same value.

`c` = Process number of the PID.

`d` = Switching module (SM) number.

`e` = Uniqueness number of the PID.

`f` = Termination (END) indicator. Valid value(s):
- `N` = More messages to be expected.
- `Y` = End of the trace data.

`g` = Error (ERR) indicator. Valid value(s):
- `N` = No errors were encountered.
- `Y` = Errors were encountered in collecting the trace data; look for a TRC:UTIL-FAILED output message with this same event tag and PID.

`h` = Directory number of line being traced.

i = Trunk group number.

j = Member number.

k = DNU-S number.

l = Trunk unit number.

m = Service group number.

n = Channel board number.

o = Circuit number.

p = Digital line and trunk unit (DLTU) number.

q = Digital facilities interface number.

r = Data group number.

s = Digital carrier line unit number.

t = Remote terminal (RT) number.

u = RT line number.

v = PH number.

w = Synchronous transport signal (STS) number.

x = PSU shelf number.

y = Time slot number.

z = Local digital service unit (LDSU) number.

a[1] = Digital service unit board number.

b[1] = RSM number of the CDFI or RDFI.

c[1] = DFI number.

d[1] = Integrated digital carrier unit (IDCU) number.

e[1] = RT number or IDCU DS1 serving PUB43801 number.

f[1] = RT line number or PUB43801 channel.

g[1] = Facility time slot number.

h[1] = Facility identifier.

i[1] = SID number.

j[1] = Virtual tributary (VT) number.

k[1] = DS0 number (1-24)

`l`[1] = RAF unit number.

`m`[1] = RAF channel number.

`n`[1] = SAS unit number.

`o`[1] = SAS channel number.

`p`[1] = The DNU-S facility consists of two digits. The first digit is the data group number and the second digit is the STS number.

`q`[1] = The PSU unit number.

`r`[1] = The PSU channel group number.

`s`[1] = The PSU channel group member number.

`t`[1] = Indicates conference party type. Valid value(s):
`CNTRL` = Main conference controller.
`CNTRL-A` = Associate conference controller.

`u`[1] = Digital carrier line unit (DCLU) number.

`v`[1] = SDFI number.

4. ACTION TO BE TAKEN

None. This message is the result of a utility call trace.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRC
TRC:UTIL
```

Output Message(s):

```
TRC:UTIL-FAILED
TRC:UTIL-HSM
```

Other Manual(s):
235-105-110 *Switch Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

131-132 (CALL TRACE MENU)
133-138 (HARDWARE CALL TRACE - 1 THROUGH 6)
139 (ISDN PACKET SWITCH CALL TRACE)
140 (HARDWARE CALL TRACE)
150 (TRACEABLE CALL STATUS)
151 (CONFERENCE CIRCUIT TRACE)

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TRC:UTIL-TRK-B

Software Release: 5E12 only
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TRC UTIL TRK EVENT=a b HSM ALSO PID c d e END f ERR g
        TKGMN=i-j IMT {TEN=d-l-m-n-o|DEN=d-p-q-o|RAF=d-l1-m1|SAS=d-n1-o1}
        CSV|CSD [WB] [CONF=t1]
        UTD=d-z-m-a1 [UTG=d-z-m-a1] [{CDFI|RDFI}=b1-p-c1]

[2]   ____________________________________________________________________
      TRC UTIL TRK EVENT=a b HSM ALSO PID c d e END f ERR g
        DN=h | TKGMN=i-j DEN=d-p-q-o
       {X75P|X75T|XAT} {PKT|PSU}
        PH=v MEM=j SHELF=x [PDBTS=y]

[3]   ____________________________________________________________________
      TRC UTIL TRK EVENT=a b HSM ALSO PID c d e END f ERR g
        TKGMN=i-j DEN=d-p-q-o
        PRI CKT
        PH=v MEM=j SHELF=x [PDBTS=y]

[4]   ____________________________________________________________________
      TRC UTIL TRK EVENT=a b HSM ALSO PID c d e END f ERR g
        TKGMN=i-j {ILEN=d-d1-e1-f1|SLEN=d-s-t-u|INEN=d-k-t-u}
       {FAC=h1|DS1=w1} TS=g1 [SID=i1] [SDFI=d-u1-v1]
       {CDFI|RDFI}=b1-p-c1 [CD=x1y1 STS=x1z1 SFI=x1a2]

[5]   ____________________________________________________________________
      TRC UTIL TRK EVENT=a b PID c d e END f ERR g
        TKGMN=i-j NEN=d-k-r-w-j1-k1
        FAC=p1 WB

[6]   ____________________________________________________________________
      TRC UTIL TRK EVENT=a b HSM ALSO PID c d e END f ERR g
        TKGMN=i-j PSUEN=d-q1-x-r1-s1
        PKT|PSU [CONF=t1]
        PH=v MEM=j SHELF=x [PDBTS=y]
       {CDFI|RDFI}=b1-p-c1

[7]   ____________________________________________________________________
      TRC UTIL TRK EVENT=a b HSM ALSO PID c d e END f ERR g
        DSLGM=d-r1-s1
        PH=v MEM=j SHELF=x [PDBTS=y]
       {CDFI|RDFI}=b1-p-c 1
```

2. REASON FOR OUTPUT

To print the trace data requested by a utility call trace input message. This message describes a trunk (TRK),

inter-module trunk (IMT), recorded announcement function (RAF), or service announcement system (SAS) connection.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`CKT` = Trunk used is a circuit switched trunk. Only used for D-channel traces (Format 3).

`CONF` = Conference call indicator.

`EVENT` = Variables '`a`' and '`b`' are event tags linking all messages reporting on the same trace.

`FAC` = Facility or digital network unit - synchronous optical network (SONET) (DNU-S) facility.

`HSM ALSO` = HSM data is also associated with this trace.

`PID` = Variables '`c`', '`d`', and '`e`' make up the process identifier (PID) of the process controlling a traced connection. All messages describing one connection of a call will have the same PID.

`PKT` = Trunk used is a packet switched trunk.

`PRI` = Primary rate interface trunk.

`PSU` = Packet switch unit path.

`WB` = The call being traced is a wideband call.

`X75P` = X.75' packet trunk.

`X75T` = X.75 packet trunk.

`XAT` = XAT packet trunk.

`a` = Event number.

`b` = Secondary event identifier; associated remote switching module (RSM) or host switching module (HSM) data will have the same value.

`c` = Process number of the PID.

`d` = Switching module (SM) number.

`e` = Uniqueness number of the PID.

`f` = Termination (END) indicator. Valid value(s):
- `N` = More messages to be expected.
- `Y` = End of the trace data.

`g` = Error (ERR) indicator. Valid value(s):
- `N` = No errors were encountered.
- `Y` = Errors were encountered in collecting the trace data; look for a TRC:UTIL-FAILED output message with this same event tag and PID.

h = Directory number of line being traced.

i = Trunk group number.

j = Member number.

k = DNU-S number.

l = Trunk unit number.

m = Service group number.

n = Channel board number.

o = Circuit number.

p = Digital line and trunk unit (DLTU) number.

q = Digital facilities interface number.

r = Data group number.

s = Digital carrier line unit number.

t = Remote terminal (RT) number.

u = RT line number.

v = PH number.

w = Synchronous transport signal (STS) number.

x = PSU shelf number.

y = Time slot number.

z = Local digital service unit (LDSU) number.

a[1] = Digital service unit board number.

b[1] = RSM number of the CDFI or RDFI.

c[1] = DFI number.

d[1] = Integrated digital carrier unit (IDCU) number.

e[1] = RT number or IDCU DS1 serving PUB43801 number.

f[1] = RT line number or PUB43801 channel.

g[1] = Facility time slot number.

h[1] = Facility identifier.

i[1] = SID number.

j[1] = Virtual tributary (VT) number.

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`k`[1] = DS0 number (1-24)

`l`[1] = RAF unit number.

`m`[1] = RAF channel number.

`n`[1] = SAS unit number.

`o`[1] = SAS channel number.

`p`[1] = The DNU-S facility consists of two digits. The first digit is the data group number and the second digit is the STS number.

`q`[1] = The PSU unit number.

`r`[1] = The PSU channel group number.

`s`[1] = The PSU channel group member number.

`t`[1] = Indicates conference party type. Valid value(s):
`CNTRL` = Main conference controller.
`CNTRL-A` = Associate conference controller.

`u`[1] = Digital carrier line unit (DCLU) number.

`v`[1] = SDFI number.

`w`[1] = DS1 number.

`x`[1] = Data group number.

`y`[1] = Common data number.

`z`[1] = STS (Synchronous Transport Signal) number.

`a`[2] = SFI (STSX-1 Facility Interface) number.

4. ACTION TO BE TAKEN

None. This message is the result of a utility call trace.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRC
TRC:UTIL
```

Output Message(s):

```
TRC:UTIL-FAILED
TRC:UTIL-HSM
```

Other Manual(s):

235-105-110 *Switch Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

131-132 (CALL TRACE MENU)
133-138 (HARDWARE CALL TRACE - 1 THROUGH 6)
139 (ISDN PACKET SWITCH CALL TRACE)
140 (HARDWARE CALL TRACE)
150 (TRACEABLE CALL STATUS)
151 (CONFERENCE CIRCUIT TRACE)

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TRC:UTIL-TRK-C

Software Release: 5E13 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
[1]    TRC UTIL TRK EVENT=a b HSM ALSO PID c d e END f ERR g

         TKGMN=i-j IMT {TEN=d-l-m-n-o|DEN=d-p-q-o|RAF=d-l1-m1|SAS=d-n1-o1}

         CSV|CSD [WB] [CONF=t1]

         UTD=d-z-m-a1 [UTG=d-z-m-a1] [{CDFI|RDFI}=b1-p-c1]

[2]    TRC UTIL TRK EVENT=a b HSM ALSO PID c d e END f ERR g

         DN=h | TKGMN=i-j DEN=d-p-q-o

        {X75P|X75T|XAT} {PKT|PSU}

         PH=v MEM=j SHELF=x [PDBTS=y]

[3]    TRC UTIL TRK EVENT=a b HSM ALSO PID c d e END f ERR g

         TKGMN=i-j DEN=d-p-q-o

         PRI CKT

         PH=v MEM=j SHELF=x [PDBTS=y]

[4]    TRC UTIL TRK EVENT=a b HSM ALSO PID c d e END f ERR g

         TKGMN=i-j {ILEN=d-d1-e1-f1|SLEN=d-s-t-u|INEN=d-k-t-u}

        {FAC=h1|DS1=w1} TS=g1 [SID=i1] [SDFI=d-u1-v1]

        {CDFI|RDFI}=b1-p-c1 [CD=x1y1 STS=x1w SFI=x1a2]

[5]    TRC UTIL TRK EVENT=a b PID c d e END f ERR g

         TKGMN=i-j NEN=d-k-r-b2-w-z1-j1-k1

         X75P|X75T|XAT [PKT|PSU]

         FAC=p1 [WB] [PH=v MEM=j SHELF=x] [PDBTS=y]

[6]    TRC UTIL TRK EVENT=a b HSM ALSO PID c d e END f ERR g

         TKGMN=i-j PSUEN=d-q1-x-r1-s1

         PKT|PSU [CONF=t1]
```

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```
         PH=v MEM=j SHELF=x [PDBTS=y]

        {CDFI|RDFI}=b1-p-c1

[7]    TRC UTIL TRK EVENT=a b HSM ALSO PID c d e END f ERR g

         DSLGM=d-r1-s1

         PH=v MEM=j SHELF=x [PDBTS=y]

        {CDFI|RDFI}=b1-p-c1
```

2. REASON FOR OUTPUT

To print the trace data requested by a utility call trace input message. This message describes a trunk (TRK), inter-module trunk (IMT), recorded announcement function (RAF), or service announcement system (SAS) connection.

3. VARIABLE FIELD DEFINITIONS

`CKT` = Trunk used is a circuit switched trunk. Only used for D-channel traces (Format 3).

`a` = Event number.

`b` = Secondary event identifier; associated remote switching module (RSM) or host switching module (HSM) data will have the same value.

`c` = Process number of the PID.

`d` = Switching module (SM) number.

`e` = Uniqueness number of the PID.

`f` = Termination (END) indicator. Valid value(s):

- `N` = More messages to be expected.
- `Y` = End of the trace data.

`g` = Error (ERR) indicator. Valid value(s):

- `N` = No errors were encountered.
- `Y` = Errors were encountered in collecting the trace data; look for a TRC:UTIL-FAILED output message with this same event tag and PID.

`h` = Directory number of line being traced.

`i` = Trunk group number.

`j` = Member number.

`k` = Digital networking unit - SONET (DNU-S) number.

l	= Trunk unit number.
m	= Service group number.
n	= Channel board number.
o	= Circuit number.
p	= Digital line and trunk unit (DLTU) number.
q	= Digital facilities interface (DFI) number.
r	= Data group (DG) number.
s	= Digital carrier line unit (DCLU) number.
t	= Remote terminal (RT) number.
u	= RT line number.
v	= PH number.
w	= Synchronous transport signal (STS) number.
x	= PSU shelf number.
y	= Time slot number.
z	= Local digital service unit (LDSU) number.
a[1]	= Digital service unit (DSU) board number.
b[1]	= RSM number of the CDFI or RDFI.
c[1]	= DFI number.
d[1]	= Integrated digital carrier unit (IDCU) number.
e[1]	= RT number or IDCU DS1 serving PUB43801 number.
f[1]	= RT line number or PUB43801 channel.
g[1]	= Facility time slot number.
h[1]	= Facility identifier.
i[1]	= SID number.
j[1]	= Virtual tributary member (VTM) number.
k[1]	= Digital signal level 0 (DS0) number
l[1]	= RAF unit number.
m[1]	= RAF channel number.

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`n`[1] = SAS unit number.

`o`[1] = SAS channel number.

`p`[1] = The DNU-S facility consists of two digits. The first digit is the data group number and the second digit is the signaling terminal equipment (STE) number.

`q`[1] = The PSU unit number.

`r`[1] = The PSU channel group number.

`s`[1] = The PSU channel group member number.

`t`[1] = Indicates conference party type. Valid value(s):

`CNTRL` = Main conference controller.

`CNTRL-A` = Associate conference controller.

`u`[1] = Digital carrier line unit (DCLU) number.

`v`[1] = SDFI number.

`w`[1] = DS1 number.

`x`[1] = Data group (DG) number.

`y`[1] = Common data number.

`z`[1] = Virtual tributary group (VTG) number.

`a`[2] = STSX-1 Facility Interface (SFI) number.

`b`[2] = Signaling transport equipment (STE) number.

4. ACTIONS TO BE TAKEN

None. This message is the result of a utility call trace.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:TRC
TRC:UTIL
```

Output Message(s):

```
TRC:UTIL-FAILED
TRC:UTIL-HSM
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-190-115 *Local and Toll System Features*

MCC Display Page(s):

131-132 (CALL TRACE MENU)
133-138 (HARDWARE CALL TRACE - 1 THROUGH 6)
139 (ISDN PACKET SWITCH CALL TRACE)
140 (HARDWARE CALL TRACE)
150 (TRACEABLE CALL STATUS)
151 (CONFERENCE CIRCUIT TRACE)

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108. TST

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TST:ACPNUM

Software Release: 5E10 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
TST ACPNUM=a     APP=b     ANI=c     DATARATE=d
  e [f|g]
 [h][i]          [j]
 [k]
```

2. REASON FOR OUTPUT

To respond to a TST:ACPNUM input message, which requests that a software defined network (SDN) and leased network (LN) query test be performed at an action control point (ACP).

3. VARIABLE FIELD DEFINITIONS

a = Ten-digit dialed number returned from the network control point (NCP) in the form NPANXXXXXX.

b = Feature application type. Valid value(s):
- LN = Leased network.
- SDN = Software defined network.

c = Ten-digit automatic number identification (ANI) or the calling number, in the form of NPANXXXXXX.

d = The data rate used for an integrated services digital network (ISDN) primary rate interface (ISDN-PRI) data call. Only one rate for each request is expected. Valid value(s):
- CLEAR 56K BPS
- CLEAR 64K BPS
- RESTRICTED 64K BPS
- VOICE

e = The type of response received from the test query request. Only one type of response for each request is expected. Valid value(s):
- CALL ASSIST RESPONSE = Temporary surrender of call to another NCP.
- CALL HANDOFF RESPONSE = Control of call has been surrendered to another NCP.
- NCP TRANSFER = NCP cannot respond to a query. NCP requested that the query be transferred to another NCP.
- NETWORK OR CNI FAILURE = Network or common network interface (CNI) failed, query not received by external data base.
- NORMAL RESPONSE = Routing information was provided by external data base.
- P-ABORT RESPONSE = Message was not received by the NCP in proper International Telecommunication Union - Telecommunication, Standardization Sector (ITU-TS) (formerly CCITT) transaction capability application part (TCAP) format.
- PARSING FAILED = Return failure from parsing function.
- PLAY ANNOUNCEMENT = External data base requested that the call be terminated with announcement.

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PLAY ANNOUNCEMENT AND COLLECT DIGITS = External data base requested that authorization be prompted for and collected from the caller.
REJECT RESPONSE = Protocol error in the query message to the external data base.
RETURN ERROR RESPONSE = Improper or invalid data in the query message to the external data base.
TIMEOUT ON RESPONSE = A response to the test query was not received within the four-second time limit.
U-ABORT RESPONSE = The message was received by the NCP in proper International Telecommunication Union - Telecommunication, Standardization Sector (ITU-TS) (formerly CCITT) TCAP format, but the contents were not understandable.

f = Ten-digit station identification (SID) for an ISDN-PRI call, in the form of NPANXXXXXX.

g = Single digit specifying the station group designator (SGD).

h = Charging information (if 'e' = NORMAL RESPONSE, CALL HANDOFF RESPONSE or CALL ASSIST RESPONSE). Valid value(s):
BILL CALL
NO BILL CALL

i = Abort cause, announcement code, error code, or problem code specifier.

if 'e' =	**'i' =**
U-ABORT RESPONSE	Abort cause. Valid value(s): BADLY FORMATTED TRANSACTION PORTION INCORRECT TRANSACTION PORTION RESOURCE LIMITATION TRANSACTION TIMEOUT UNRECOGNIZED MESSAGE TYPE UNRECOGNIZED TRANSACTION ID UNRECOGNIZED TYPE
P-ABORT RESPONSE	Abort cause. Valid value(s): APPLICATION PROTOCOL VIOLATION CALLER ABANDON REJECT RECEIVED RETURN ERROR RECEIVED TRANSACTION TIMEOUT UNKNOWN USER PROBLEM UNRECOGNIZED TYPE
PLAY ANNOUNCEMENT	Announcement. Valid value(s): AUDIBLE RINGING BUSY DISCONNECTED NUMBER FAST BUSY NO CIRCUIT AVAILABLE OUT OF BAND REORDER VACANT CODE
RETURN ERROR RESPONSE	One of the following: CAPABILITIES MISMATCH

	DATA ALREADY EXISTS DATA UNAVAILABLE IMPROPER CALLER RESPONSE MISSING CUSTOMER RECORD MISSING PARAMETER(S) NO QUEUE QUEUE FULL TASK REFUSED TIMER EXPIRED UNAUTHORIZED REQUEST UNAVAILABLE RESOURCE UNEXPECTED COMPONENT SEQUENCE UNEXPECTED DATA VALUE UNEXPECTED PARAMETER(S) UNRECOGNIZED TYPE
PARSING FAILED	One of the following: APPLICATION PROTOCOL VIOLATION BADLY FORMATTED TRANSACTION PORTION BADLY STRUCTURED COMPONENT CALLER ABANDON CAPABILITIES MISMATCH DATA UNAVAILABLE DUPLICATE INVOKE ID INCORRECT COMPONENT INCORRECT TRANSACTION INITIATING RELEASE MISSING CUSTOMER RECORD MISSING PARAMETER(S) RESOURCE LIMITATION TASK REFUSED UNABLE TO PARSE TCAP MESSAGE UNAVAILABLE RESOURCE UNEXPECTED COMPONENT SEQUENCE UNEXPECTED DATA VALUE UNEXPECTED ERROR UNEXPECTED LINKED OPERATION UNEXPECTED LINKED RESPONSE UNEXPECTED PARAMETER(S) UNEXPECTED RETURN ERROR UNEXPECTED RETURN RESULT UNKNOWN USER PROBLEM UNRECOGNIZED COMPONENT UNRECOGNIZED ERROR UNRECOGNIZED INVOKE ID UNRECOGNIZED LINKED ID UNRECOGNIZED MESSAGE TYPE UNRECOGNIZED OPERATION CODE UNRECOGNIZED PARAMETER TAG UNRECOGNIZED TRANSACTION ID UNRECOGNIZED TYPE
REJECT RESPONSE	One of the following: BADLY STRUCTURED COMPONENT

	DUPLICATE INVOKE ID INCORRECT COMPONENT INITIATING RELEASE RESOURCE LIMITATION UNRECOGNIZED COMPONENT UNRECOGNIZED ERROR UNRECOGNIZED INVOKE ID UNRECOGNIZED LINKED ID UNRECOGNIZED OPERATION CODE UNRECOGNIZED PARAMETER TAG UNRECOGNIZED TYPE UNEXPECTED ERROR UNEXPECTED LINKED RESPONSE UNEXPECTED LINKED OPERATION UNEXPECTED RETURN RESULT UNEXPECTED RETURN ERROR

j = Dedicated egress indicator (if 'e'= NORMAL RESPONSE, CALL HANDOFF RESPONSE or CALL ASSIST RESPONSE). Valid value(s):
DED. EGRESS
INTERNATIONAL
(blank) = If not dedicated.

k = Automatic call gap (ACG) indicator (if 'e' = NORMAL RESPONSE). Valid value(s):
ACG = DATA BASE OVERLOAD
ACG = DESTINATION MASS CALLING
ACG = OSS INITIATED
ACG = OUT OF BANK
ACG = VACANT CODE

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

TST:ACPNUM

Other Manual(s):
235-070-100 *Switch Administration Guidelines*

TST:AILS-OLS

Software Release: 5E10 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
TST AILS OLS
  DURATION OF TEST=a   CLG=b
  SV=c   DPC=d
 [e][f]
  ORIGINATING STATION TYPE=g
  OLS SCREEN CODE=h
  TIME VARIANCE=[i]
  TRUE HOTEL=[j]
  MANUAL PBX=[k]
  QUOTE TYPE=[l]
  PROPERTY NAME=[m]
  QUOTE NUMBER=[n]
  HOTEL ID=[o]
  ACQS MESSAGE FORMAT=[p]
  TRUE BILLING NUMBER=[q]
  ALW SAB=[r]   TO OPER=[s]
  COINLINE=[t]
  ACQS DACC ALLOW=[u]
```

2. REASON FOR OUTPUT

To report the results of the manual input (TST:AILS-OLS) that requests that an automated inward line screening (AILS) originating line screening (OLS) common channel signaling system 7 (CCS7) transaction capabilities application part (TCAP) test query be performed.

3. VARIABLE FIELD DEFINITIONS

`a` = Duration of the test in milliseconds. Timing starts when the administrative module (AM) sends the formatted query, and ends when the query response is received from the network.

`b` = Calling number that was input.

`c` = AILS software version number that was input.

`d` = Destination point code that was input.

`e` = AILS OLS TCAP error code. This field prints out when an error reply was received in response to the test query. Valid value(s):
`MISROUTED QUERY` = The query was routed to the incorrect normal serving site Operator Services Position System (OSPS).
`TASK REFUSED` = The task was refused because the normal serving site did not have the AILS feature active.
`UNEXPECTED INPUT, DATA VALUE` = The content of a query parameter was not as expected.

`f` = The results of a failed test. This field prints out only when the test query was not successful. Valid

value(s):
GARBLED MESSAGE = A response was received but the data in the message was mutilated.
IMS OR CNI RETURNED MSG = The inter-process message switch (IMS) or the common network interface (CNI) returned the message. This result is not expected for AILS OLS CCS7 test queries.
NETWORK CONGESTION = Could not complete the test due to network congestion.
NETWORK FAILURE = Could not complete the test due to failure in the network.
NO TRANSLATION ADDRESS NATURE = No entries exist in routing tables for addresses of this nature.
NO TRANSLATION SPECIFIC ADDRESS = No entries exist in routing tables for this specific address.
SUBSYSTEM CONGESTION = Could not complete the test due to subsystem congestion.
SUBSYSTEM FAILURE = Could not complete the test due to subsystem failure.
TIMEOUT = A response to the test query was not received within the sixteen second time limit.
UNEQUIPPED USER = Could not complete the test due to unequipped user.
UNQUALIFIED = Unknown failure reason.

g = The originating station type. Valid value(s):
NON-ACQS HOTEL = Non-ACQS hotel station type.
NONCOIN PUBLIC = Noncoin public station type.
OTHER = Other types of originating station.
OTHER TYPES OF ACQS = Other types of ACQS hotel station types.
POST PAID COIN = Post-pay coin station type.
PRE PAID COIN = Pre-pay coin station type.
TRUE ACQS HOTEL = True automated charge quotation system hotel station type.
UNKNOWN = Unknown station type.

h = The originating line screening screen code. The valid values are 000-999.

i = The time variance. The time variance is the difference (in hours) between the call serving OSPS and the normal serving site OSPS for this query. If no time variance indicator, 'NONE' will be output.

j = True hotel indicator. Valid value(s):
NO = Not a true hotel.
NONE = Indicator not received.
YES = A true hotel.

k = Manual private branch exchange (PBX) indicator. Valid value(s):
NO = Not a manual PBX.
NONE = Indicator not received.
YES = A manual PBX.

l = ACQS quotation type. Valid value(s):
FAX QUOTE = FAX quote.
NETWORK AUTOQUOTE = Network autoquote.
NONE = Indicator not received.
PRIVATE LINE AUTOQUOTE = Private line autoquote.

VOICE QUOTE = Voice quote.

m = ACQS property name. The ACQS property name is a 3-character string indicating the name of the ACQS establishment or 'NONE' if the indicator was not received.

n = ACQS quote number. A 10-digit NANP number or 'NONE' if the indicator was not received.

o = ACQS hotel ID. Valid value(s):
0-4095
NONE = The indicator was not received.

p = ACQS message format. Valid value(s):
NONE = Indicator not received.
OSPS FORMAT = Autoquote message in OSPS format.
TSPS 1BT2 FORMAT = Autoquote message in TSPS 1BT2 format.
TSPS PRE-1BT2 FORMAT = Autoquote message in TSPS pre-1BT2 format.

q = True billing number. A 7-digit number or 'NONE' if the indicator was not received.

r = Allow subaccount billing indicator. Valid value(s):
NO = Subaccount billing not allowed.
NONE = Indicator not received.
YES = Subaccount billing allowed.

s = To operator indicator. Valid value(s):
NO = Route to automated treatment.
NONE = Indicator not received.
YES = Route to operator.

t = Coinline indicator. Valid value(s):
NO = Not a coinline.
NONE = Indicator not received.
YES = A coinline.

u = ACQS directory assistance call completion (DACC) allowed. Valid value(s):
NO = ACQS station does not allow DACC calls to use paid billing methods.
NONE = Indicator not received.
YES = ACQS station allows DACC calls to use paid billing methods.

4. ACTION TO BE TAKEN

This message is the response to a manual request. It is used as a high-level check on the connection between the call serving OSPS and the normal serving site OSPS or to check out a repeatedly failing query.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:DSTT
TST:AILS-OLS
TST:AT1
TST:BNS
TST:CAS
TST:CAS7
TST:CCRD
TST:ICCV
TST:INWATS
TST:NCD
TST:RATE
```

Output Message(s):

```
EXC:DSTT
TST:AT1
TST:BNS
TST:CAS
TST:CCRD
TST:ICCV
TST:INWATS
TST:NCD
TST:RATE
```

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

TST:AILS-TCS

Software Release: 5E10 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
TST AILS TCS
  DURATION OF TEST=a   CLG=b
  c   [SSCNUM=d]   SV=e   DPC=f
 [g][h]
  TCS SCREEN CODE=i
  TCS ROUTE INDICATOR=[j]
  ALW MECH=[k]
```

2. REASON FOR OUTPUT

To report the results of the manually input request that an automated inward line screening (AILS) terminating code screening (TCS) common channel signaling system 7 (CCS7) transaction capabilities application part (TCAP) test query be performed.

3. VARIABLE FIELD DEFINITIONS

`a` = Duration of the test in milliseconds. Timing starts when the administrative module (AM) sends the formatted query, and ends when the query response is received from the network.

`b` = Calling number that was input.

`c` = Called number, also known as the forward number, used in the query. Valid value(s):
`CLD` = Identifies a North American numbering plan number.
`ICLD` = Identifies an international country code.

`d` = Special services code (SSC) number (if input) that was used in the query.

`e` = AILS software version number that was input.

`f` = Destination point code that was input.

`g` = AILS TCS TCAP error code. This field prints out when an error reply was received in response to the test query. Valid value(s):
`MISROUTED QUERY` = The query was routed to the incorrect normal serving site Operator Services Position System (OSPS).
`TASK REFUSED` = The task was refused because the normal serving site did not have the AILS feature active.
`UNEXPECTED INPUT DATA VALUE` = The content of a query parameter was not as expected.

`h` = The results of a failed test. This field prints out only when the test query was not successful. Valid value(s):
`GARBLED MESSAGE` = A response was received but the data in the message was mutilated.
`IMS OR CNI RETURNED MSG` = The inter-process message switch (IMS) or the common network interface (CNI) returned the message. This result is not expected for AILS TCS

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CCS7 test queries.

`NETWORK CONGESTION` = Could not complete the test due to network congestion.

`NETWORK FAILURE` = Could not complete the test due to failure in the network.

`NO TRANSLATION ADDRESS NATURE` = No entries exist in routing tables for addresses of this nature.

`NO TRANSLATION SPECIFIC ADDRESS` = No entries exist in routing tables for this specific address.

`SUBSYSTEM CONGESTION` = Could not complete the test due to subsystem congestion.

`SUBSYSTEM FAILURE` = Could not complete the test due to subsystem failure.

`TIMEOUT` = A response to the test query was not received within the sixteen second time limit.

`UNEQUIPPED USER` = Could not complete the test due to unequipped user.

`UNQUALIFIED` = Unknown failure reason.

`i` = The terminating code screening screen code. The valid values are 000-999.

`j` = The TCS routing indicator. Valid value(s):

`NO` = Route to operator.

`NONE` = Indicator not received.

`YES` = Route to reorder.

`k` = Allow more efficient call handing (MECH) indicator. Valid value(s):

`NO` = MECH not allowed.

`NONE` = Indicator not received.

`YES` = MECH allowed.

4. ACTION TO BE TAKEN

This message is the response to a manual request. It is used as a high-level check on the connection between the call serving OSPS and the normal serving site OSPS or to check out a repeatedly failing query.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:DSTT
TST:AILS-OLS
TST:AILS-TCS
TST:AT1
TST:BNS
TST:CAS
TST:CAS7
TST:CCRD
TST:ICCV
TST:INWATS
TST:NCD
TST:RATE
```

Output Message(s):

```
EXC:DSTT
TST:AILS-OLS
TST:AT1
TST:BNS
TST:CAS
TST:CCRD
TST:ICCV
TST:INWATS
TST:NCD
TST:RATE
```

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

TST:ALM

Software Release: 5E10 and later
Message Class: ALRM
Application: 5
Type: Output

1. FORMAT

```
TST ALM - a ALARM TEST IN PROGRESS
  FOR AUDIBLE AND VISUAL ALARM REPORTING
```

2. REASON FOR OUTPUT

To report that a test of the audible and visual alarm reporting mechanism is in progress. It will cause the appropriate alarm level audibles to sound and the appropriate alarm level visual devices to activate.

3. VARIABLE FIELD DEFINITIONS

a	= Alarm level being tested. Valid value(s):	
	CRITICAL	= The audibles and visuals for critical alarms are being tested.
	MAJOR	= The audibles and visuals for major alarms are being tested.
	MINOR	= The audibles and visuals for minor alarms are being tested.

4. ACTION TO BE TAKEN

Verify that the appropriate alarm level audible is sounding and that the appropriate alarm level visual devices are working. Then retire the alarm. Check the ROP and daylog for any actual alarmed output messages that might have occurred during the test, since these would have been retired along with the alarm being tested.

5. ALARMS

Critical, major, minor depending upon the alarm being tested.

6. REFERENCES

Input Message(s):

```
CLR:ALARMS
CLR:LAMPS
TST:ALM
```

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TST:ASC

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
TST ASC=a b [c]
```

2. REASON FOR OUTPUT

To report the result of a request to perform an in-service functional test of a remote switching module (RSM), optical remote switching module (ORM), or two-mile remote switching module (TRM) alarm and status circuit (ASC).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Request has completed successfully.
`NOT STARTED`	= Requested action was not begun.
`STOPPED`	= Requested action was terminated before completion, and the termination was graceful.

`c` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`DGN:ASC`

Output Appendix(es):

`APP:MAINT-RESP`

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

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MCC Display Page(s):

1160 (MISC UNITS)

TST:ASP-A

Software Release: 5E10 - 5E11
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST ASP TESTDN=a     ANI=b   SKEY=c2     LATA=c
        d      [CARSEL=e]
        NON=f  [d2]
        g     h
        i       [j]          [k]                [l]
        m       [n]          [o]                [p]
        q       [r]          [s]

[2]   ____________________________________________________________________
      TST ASP TESTDN=a      ANI=b   SKEY=c2    LATA=c
        d [CARSEL=e]
        NON=f  [d2]
        NORMAL RESPONSE t

        q             [r]              [s]
        SEND NOTIFICATION RECEIVED

        CARR    ROUTE        ROUTE           CALL           BILL      IND
        ID      IDX          TYP          TREATMENT     CALLCODE     SERVFEAT
        x      [y]          [a1]         [b1]          [c1]         [d1]>
        e1    [f1]         [g1]         [h1]          [i1]         [j1]
        k1    [l1]         [m1]         [n1]          [o1]         [p1]
                                                      q1          [r1]

        TRAVELING          ORIG             PIN/AUTH                CUST
        CLASS MARK         STATION TYPE     CODE                    BUS ID
        u1               [v1]             [s1]                    [t1]

        DIRECTORY         NATURE OF
        NUMBER            NUMBER
        x1              [w1]>
        y1
        a2
        b2
```

2. REASON FOR OUTPUT

To respond to a TST:ASP input message, which requests that an R0 advanced services platform (ASP) test query be sent to query the external service control point (SCP) database.

Format 1 displays the response to a play announcement and/or collect digits request, a query failure, a reject, a return error, or a timeout. Format 2 displays the contents of a normal response message with routing information sent from the SCP.

3. VARIABLE FIELD DEFINITIONS

a = The dialed ASP number.

b = Automatic number identification (ANI).

c = Three-digit absolute local access and transport area (LATA) number.

d = A 3-digit or 4-digit feature group D (FGD) carrier identification which contains the carrier identification of either "10XXX" or "101XXX" sequence dialed by the caller or the carrier code assigned to the caller as presubscribed inter-exchange carrier (PIC) information.

e = Carrier selection. Indicates whether digits (carrier identification) information dialed is equal to the caller's presubscribed carrier information, or indicates the lack of this information. Valid value(s):

NO 10XXX DIALED UNKNOWN PIC
NO PRESUBSCRIBED CARRIER INPUT BY CALLER
PRESUBSCRIBED CARRIER INPUT BY CALLER
PRESUBSCRIBED CARRIER NOT INPUT BY CALLER
PRESUBSCRIBED CARRIER ORIGINATION UNKNOWN

f = Nature of number. Valid value(s):

IEC OPERATOR
INTERNATIONAL
INTERNATIONAL OPERATOR
LEC OPERATOR
NATIONAL
NETWORK SPECIFIC
NOT APPLICABLE

g = The response received from the test query other than a NORMAL RESPONSE. Valid value(s):
PARSING FAILURE = A return failure from the parsing function.
PLAY AND COLLECT = External database requested additional information from the caller.
PLAY ANNOUNCEMENT = External database cannot route the call.
QUERY FAIL = Network failure, unable to send the query to the external database.
REJECT = Protocol error in the query message sent to the external database.
RETURN ERROR = Invalid data in the query message sent to the external database.
TIMEOUT = A response message was not received at the service switching point (SSP) within the allotted time.

h = The type of error code, problem code specifier or automatic call gap (ACG) indicator received. Valid value(s):
ACG NOT RECEIVED = ACG component not received.
ACG RECEIVED = ACG component received.
BADLY STRUCTURED COMPONENT PORTION = Unrecognized component in the transaction capability application part (TCAP) message.
BADLY STRUCTURED TRANSACTION PORTION = Unrecognized transaction component in the TCAP message.
DATA UNAVAILABLE = Switch unable to acknowledge SCP request for resource.
DATABASE INITIATED OVERLOAD = SCP instructed SSP to cutback on queries.

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DUPLICATE INVOKE ID = Duplicate ID in the TCAP message.
INCORRECT COMPONENT PORTION = Invalid component received in the TCAP message.
INCORRECT INVOKE PARAMETER = Unrecognized parameter in the TCAP message.
INCORRECT RETURN ERROR PARAMETER = Unrecognized parameter in return error message.
INCORRECT RETURN RESULT PARAMETER = Unrecognized parameter in return result message.
INCORRECT TRANSACTION PORTION = Unrecognized transaction portion in the TCAP message.
MISSING CUSTOMER RECORD = Missing customer record.
REPLY OVERDUE = SSP did not receive a response from the SCP in the allotted time.
SERVICE MGMT INITIATED ACG = Manual request made using the SCP that instructed the SSP to inhibit/allow ASP calls.
UNAVAILABLE NETWORK RESOURCE = SCP was unable to access a resource requested at the SSP.
UNEXPECTED COMPONENT SEQUENCE = Unexpected component in the TCAP message.
UNEXPECTED DATA VALUE = Unexpected data value in the TCAP message.
UNEXPECTED ERROR = Unexpected error in the TCAP message.
UNEXPECTED RETURN ERROR = Unexpected return error message from the SCP.
UNEXPECTED RETURN RESULT = Unexpected return result message from the SCP.
UNRECOGNIZED COMPONENT = Unrecognized component in the TCAP message.
UNRECOGNIZED ERROR = Unrecognized return error in the TCAP message.
UNRECOGNIZED INVOKE CORRELATION ID = Unrecognized correlation ID in the TCAP message.
UNRECOGNIZED OPERATION CODE = Unrecognized operation code in the TCAP message.
UNRECOGNIZED PACKAGE TYPE = Unrecognized package type in the TCAP message.
UNRECOGNIZED RETURN ERROR CORRELATION ID = Unrecognized return error correlation ID in the TCAP message.
UNRECOGNIZED RETURN RESULT CORRELATION ID = Unrecognized return result correlation ID in the TCAP message.
UNRECOGNIZED TRANSACTION ID = Unrecognized transaction ID in the TCAP message.

i = First announcement code.

j = First number of digits to collect.

k = First type (normal/any) of digits to collect. Valid value(s):

ANY NUMBER OF DIGITS
NORMAL NUMBER

l = First answer supervision. This field appears only if office is equipped with 5E6 ASP Enhancements. Valid value(s):
DO NOT SEND ANSWER SUPERVISION
SEND ANSWER SUPERVISION

m = Second announcement code.

n = Second number of digits to collect.

o = Second type (normal/any) of digits to collect. Valid value(s):
ANY NUMBER OF DIGITS
NORMAL NUMBER

p = Second answer supervision. This field appears only if office is equipped with 5E6 ASP Enhancements. Valid value(s):
DO NOT SEND ANSWER SUPERVISION
SEND ANSWER SUPERVISION

q = ACG gap value.

r = ACG duration value.

s = Controlled number.

t = The automatic call gap (ACG) indicator. Valid value(s):
ACG NOT RECEIVED
ACG RECEIVED
DATABASE INITIATED OVERLOAD
SERVICE MGMT INITIATED ACG

u = Outpulse number

v = Dialed number. This field appears only if office is equipped with 5E6 ASP Enhancements.

w = The service key field will specify the type of digits. Valid value(s):
ANI
DIALED NUMBER

x = Primary carrier ID code.

y = Primary route index.

z = Carrier identification code expansion indicator (CICEI). Valid value(s):
CICEI PARAMETER IS SET TO NO
CICEI PARAMETER IS SET TO YES

a[1] = The primary route types. Valid value(s):
HUNT = Reference route index route table.
MC = Reference (MC) route index expansion route table.
WATS = The switch will not look at the route type.

b[1] = The primary call treatments. Valid value(s):
OUTPULSE NUMBER = Outpulse number in response message used for routing.
ROUTING NUMBER = Routing number in response message used for routing.

c[1] = Billing indicator.

d[1] = Billing indicator service feature ID. This field appears only if office is equipped with 5E6 ASP Enhancements.

e[1] = Alternate carrier ID code.

f[1] = Alternate route index.

g[1] = Alternate route types. Valid value(s):
HUNT = Reference route index route table.
MC = Reference (MC) route index expansion route table.
WATS = The switch will not look at the route type.

h[1] = The alternate call treatments. Valid value(s):
OUTPULSE NUMBER = Outpulse number in response message used for routing.
ROUTING NUMBER = Routing number in response message used for routing.

i[1] = Alternate billing indicator.

j[1] = Alternate billing indicator service feature ID. This field appears only if office is equipped with 5E6 ASP Enhancements.

k[1] = Second alternate carrier ID code.

l[1] = Second alternate route index.

m[1] = The second alternate route types are. Valid value(s):
HUNT = Reference route index route table.
MC = Reference (MC) route index expansion route table.
WATS = The switch will not look at the route type.

n[1] = The second alternate call treatments. Valid value(s):
OUTPULSE NUMBER = Outpulse number in response message used for routing.
ROUTING NUMBER = Routing number in response message used for routing.

o[1] = Second alternate billing indicator.

p[1] = Second alternate billing indicator service feature ID. This field appears only if office is equipped with 5E6 ASP Enhancements.

q[1] = Overflow billing indicator.

r[1] = Overflow billing indicator service feature ID. This field appears only if office is equipped with 5E6 ASP Enhancements.

s[1] = PIN or authorization code.

t[1] = Business customer ID.

u[1] = Traveling class mark. This field appears only if office is equipped with 5E6 ASP Enhancements.

v[1] = Originating station type. This field appears only if office is equipped with 5E6 ASP Enhancements.

w[1] = Nature of number for routing number. This field appears only if office is equipped with 5E6 ASP Enhancements. Valid value(s):

IEC OPERATOR
INTERNATIONAL
INTERNATIONAL OPERATOR
LEC OPERATOR

NATIONAL
NETWORK SPECIFIC
NOT APPLICABLE

x[1] = Routing number

y[1] = Billing number

4. ACTION TO BE TAKEN

None. This message is in response to a manual input request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
TST:ASP
TST:NS800
```

Output Message(s):

```
TST:NS800
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

TST:ASP-B

Software Release: 5E12 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST ASP TESTDN=a     ANI=b   SKEY=c2     LATA=c
        OPC=e2
        d      [CARSEL=e]
        NON=f  [d2]
        g     h
        i       [j]          [k]                 [l]
        m       [n]          [o]                 [p]
        q       [r]          [s]

[2]   ____________________________________________________________________
      TST ASP TESTDN=a      ANI=b   SKEY=c2    LATA=c
        OPC=e2
        d [CARSEL=e]
        NON=f  [d2]
        NORMAL RESPONSE t

        q             [r]              [s]
        SEND NOTIFICATION RECEIVED

        CARR    ROUTE        ROUTE           CALL           BILL      IND
        ID      IDX          TYP          TREATMENT     CALLCODE      SERVFEAT
        x      [y]          [a1]         [b1]          [c1]          [d1]
        e1    [f1]         [g1]         [h1]          [i1]          [j1]
        k1    [l1]         [m1]         [n1]          [o1]          [p1]
                                                      q1          [r1]

        TRAVELING          ORIG             PIN/AUTH                 CUST
        CLASS MARK         STATION TYPE     CODE                     BUS ID
        u1               [v1]             [s1]                     [t1]

        DIRECTORY         NATURE OF
        NUMBER            NUMBER
        x1              [w1]
        y1
        a2
        b2
```

2. REASON FOR OUTPUT

To respond to a TST:ASP input message, which requests that an R0 advanced services platform (ASP) test query be sent to query the external service control point (SCP) database.

Format 1 displays the response to a play announcement and/or collect digits request, a query failure, a reject, a

return error, or a timeout. Format 2 displays the contents of a normal response message with routing information sent from the SCP.

3. VARIABLE FIELD DEFINITIONS

a = The dialed ASP number.

b = Automatic number identification (ANI).

c = Three-digit absolute local access and transport area (LATA) number.

d = A 3-digit or 4-digit feature group D (FGD) carrier identification which contains the carrier identification of either "10XXX" or "101XXX" sequence dialed by the caller or the carrier code assigned to the caller as presubscribed inter-exchange carrier (PIC) information.

e = Carrier selection. Indicates whether digits (carrier identification) information dialed is equal to the caller's presubscribed carrier information, or indicates the lack of this information. Valid value(s):

```
NO 10XXX DIALED UNKNOWN PIC
NO PRESUBSCRIBED CARRIER INPUT BY CALLER
PRESUBSCRIBED CARRIER INPUT BY CALLER
PRESUBSCRIBED CARRIER NOT INPUT BY CALLER
PRESUBSCRIBED CARRIER ORIGINATION UNKNOWN
```

f = Nature of number. Valid value(s):

```
IEC OPERATOR
INTERNATIONAL
INTERNATIONAL OPERATOR
LEC OPERATOR
NATIONAL
NETWORK SPECIFIC
NOT APPLICABLE
```

g = The response received from the test query other than a NORMAL RESPONSE. Valid value(s):
`PARSING FAILURE` = A return failure from the parsing function.
`PLAY AND COLLECT` = External database requested additional information from the caller.
`PLAY ANNOUNCEMENT` = External database cannot route the call.
`QUERY FAIL` = Network failure, unable to send the query to the external database.
`REJECT` = Protocol error in the query message sent to the external database.
`RETURN ERROR` = Invalid data in the query message sent to the external database.
`TIMEOUT` = A response message was not received at the service switching point (SSP) within the allotted time.

h = The type of error code, problem code specifier or automatic call gap (ACG) indicator received. Valid value(s):
`ACG NOT RECEIVED` = ACG component not received.
`ACG RECEIVED` = ACG component received.
`BADLY STRUCTURED COMPONENT PORTION` = Unrecognized component in the transaction capability application part (TCAP) message.
`BADLY STRUCTURED TRANSACTION PORTION` = Unrecognized transaction component in the TCAP message.

DATA UNAVAILABLE = Switch unable to acknowledge SCP request for resource.
DATABASE INITIATED OVERLOAD = SCP instructed SSP to cutback on queries.
DUPLICATE INVOKE ID = Duplicate ID in the TCAP message.
INCORRECT COMPONENT PORTION = Invalid component received in the TCAP message.
INCORRECT INVOKE PARAMETER = Unrecognized parameter in the TCAP message.
INCORRECT RETURN ERROR PARAMETER = Unrecognized parameter in return error message.
INCORRECT RETURN RESULT PARAMETER = Unrecognized parameter in return result message.
INCORRECT TRANSACTION PORTION = Unrecognized transaction portion in the TCAP message.
MISSING CUSTOMER RECORD = Missing customer record.
REPLY OVERDUE = SSP did not receive a response from the SCP in the allotted time.
SERVICE MGMT INITIATED ACG = Manual request made using the SCP that instructed the SSP to inhibit/allow ASP calls.
UNAVAILABLE NETWORK RESOURCE = SCP was unable to access a resource requested at the SSP.
UNEXPECTED COMPONENT SEQUENCE = Unexpected component in the TCAP message.
UNEXPECTED DATA VALUE = Unexpected data value in the TCAP message.
UNEXPECTED ERROR = Unexpected error in the TCAP message.
UNEXPECTED RETURN ERROR = Unexpected return error message from the SCP.
UNEXPECTED RETURN RESULT = Unexpected return result message from the SCP.
UNRECOGNIZED COMPONENT = Unrecognized component in the TCAP message.
UNRECOGNIZED ERROR = Unrecognized return error in the TCAP message.
UNRECOGNIZED INVOKE CORRELATION ID = Unrecognized correlation ID in the TCAP message.
UNRECOGNIZED OPERATION CODE = Unrecognized operation code in the TCAP message.
UNRECOGNIZED PACKAGE TYPE = Unrecognized package type in the TCAP message.
UNRECOGNIZED RETURN ERROR CORRELATION ID = Unrecognized return error correlation ID in the TCAP message.
UNRECOGNIZED RETURN RESULT CORRELATION ID = Unrecognized return result correlation ID in the TCAP message.
UNRECOGNIZED TRANSACTION ID = Unrecognized transaction ID in the TCAP message.

i = First announcement code.

j = First number of digits to collect.

k = First type (normal/any) of digits to collect. Valid value(s):

ANY NUMBER OF DIGITS
NORMAL NUMBER

l = First answer supervision. This field appears only if office is equipped with 5E6 ASP Enhancements. Valid value(s):

DO NOT SEND ANSWER SUPERVISION
SEND ANSWER SUPERVISION

m = Second announcement code.

n = Second number of digits to collect.

o = Second type (normal/any) of digits to collect. Valid value(s):

```
ANY NUMBER OF DIGITS
NORMAL NUMBER
```

p = Second answer supervision. This field appears only if office is equipped with 5E6 ASP Enhancements. Valid value(s):

```
DO NOT SEND ANSWER SUPERVISION
SEND ANSWER SUPERVISION
```

q = ACG gap value.

r = ACG duration value.

s = Controlled number.

t = The automatic call gap (ACG) indicator. Valid value(s):

```
ACG NOT RECEIVED
ACG RECEIVED
DATABASE INITIATED OVERLOAD
SERVICE MGMT INITIATED ACG
```

u = Outpulse number

v = Dialed number. This field appears only if office is equipped with 5E6 ASP Enhancements.

w = The service key field will specify the type of digits. Valid value(s):

```
ANI
DIALED NUMBER
```

x = Primary carrier ID code.

y = Primary route index.

a[1] = The primary route types. Valid value(s):

HUNT	= Reference route index route table.
MC	= Reference (MC) route index expansion route table.
WATS	= The switch will not look at the route type.

b[1] = The primary call treatments. Valid value(s):

OUTPULSE NUMBER = Outpulse number in response message used for routing.
ROUTING NUMBER = Routing number in response message used for routing.

c[1] = Billing indicator.

d[1] = Billing indicator service feature ID. This field appears only if office is equipped with 5E6 ASP Enhancements.

e[1] = Alternate carrier ID code.

f[1] = Alternate route index.

g[1] = Alternate route types. Valid value(s):
HUNT = Reference route index route table.
MC = Reference (MC) route index expansion route table.
WATS = The switch will not look at the route type.

h[1] = The alternate call treatments. Valid value(s):
OUTPULSE NUMBER = Outpulse number in response message used for routing.
ROUTING NUMBER = Routing number in response message used for routing.

i[1] = Alternate billing indicator.

j[1] = Alternate billing indicator service feature ID. This field appears only if office is equipped with 5E6 ASP Enhancements.

k[1] = Second alternate carrier ID code.

l[1] = Second alternate route index.

m[1] = The second alternate route types are. Valid value(s):
HUNT = Reference route index route table.
MC = Reference (MC) route index expansion route table.
WATS = The switch will not look at the route type.

n[1] = The second alternate call treatments. Valid value(s):
OUTPULSE NUMBER = Outpulse number in response message used for routing.
ROUTING NUMBER = Routing number in response message used for routing.

o[1] = Second alternate billing indicator.

p[1] = Second alternate billing indicator service feature ID. This field appears only if office is equipped with 5E6 ASP Enhancements.

q[1] = Overflow billing indicator.

r[1] = Overflow billing indicator service feature ID. This field appears only if office is equipped with 5E6 ASP Enhancements.

s[1] = PIN or authorization code.

t[1] = Business customer ID.

u[1] = Traveling class mark. This field appears only if office is equipped with 5E6 ASP Enhancements.

v[1] = Originating station type. This field appears only if office is equipped with 5E6 ASP Enhancements.

w[1] = Nature of number for routing number. This field appears only if office is equipped with 5E6 ASP Enhancements. Valid value(s):

IEC OPERATOR
INTERNATIONAL

```
INTERNATIONAL OPERATOR
LEC OPERATOR
NATIONAL
NETWORK SPECIFIC
NOT APPLICABLE
```

x[1] = Routing number

y[1] = Billing number

a[2] = Outpulse number.

b[2] = Dialed number.

c[2] = Service key.

d[2] = Carrier identification code expansion indicator (CICEI). Valid value(s):

```
CICEI PARAMETER IS SET TO NO
CICEI PARAMETER IS SET TO YES
```

e[2] = Origination point code. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Input Messages manual.

4. ACTION TO BE TAKEN

None. This message is in response to a manual input request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
TST:ASP
TST:NS800
```

Output Message(s):

```
TST:NS800
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

TST:ASPTQ-A

Software Release: 5E10 only
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST ASPTQ RTE1 MESSAGE TYPE=a            DISPLAY TYPE=b
        RESPONSE TYPE=c                        STATE=f3         RESPONSE TIME=d.e

        RESOURCE TYPE               DISCONNECT FLAG
        f                          [g]

        IANN  UANN   INV  NUM DIGITS    TYPE DIGITS        ANSWER
        CODE  CODE   IND    TO COLL        TO COLL         IND
        h    [i]    [j]    [k]            [l]             [m]

        FLEX PARAMETER BLOCK: LENGTH
        a3

        INV   DESTINATION   NATURE OF
        IND   ADDRESS       NUMBER
        b3  [c3]          [d3]

        DP CONVERTER
        e3

        INV RTE    WATS   NUMBER       CALL
        IND IDX    IND    OUTPULSED  TREATMENT
        n  [o]    [p]    [q]        [r]
        n  [s]    [p]    [q]        [r]
        n  [t]    [p]    [q]        [r]

        CARRIER USAGE ID
        v2

        INV  CARR    CARRIER
        IND  ID      SELECTION
        u   [v]     [w]
        u   [x]     [w]
        u   [y]     [w]

        INV  GLOBAL       TRANS  GAP    GAP       GAP  CONTROL
        IND  TITLE        TYPE   TYPE   INTERVAL  DUR  TYPE
        z   [a1]         [b1]   [c1]   [d1]      [e1] [f1]

        AMP:  YEAR      MONTH    DATE    HOUR    MIN
              g1      [h1]     [i1]    [j1]    [k1]

        USER ID: TYPE    ID    INV  DN          INV  SPID
```

```
          h2    [i2]  [j2] [k2]        [l2] [m2]

  BEARER CAPABILITY
  n2

  CLOSE CAUSE
  o2

  NEXT EVENT LIST: REQUESTS           INV IND  p2
  q2       [q2]             [q2]          [q2]
  q2       [q2]             [q2]          [q2]

  NEXT EVENT LIST: NOTIFICATIONS      INV IND  r2
  s2       [s2]             [s2]          [s2]
  s2       [s2]             [s2]          [s2]

  NEXT EVENT LIST: ORIGINATING NO ANSWER TIMER
  t2

  NEXT EVENT LIST: TERMINATING NO ANSWER TIMER
  u2

  SEND NOTIFICATION:ECHODATA
  l1

[2]  ____________________________________________________________
TST ASPTQ RTE2 MESSAGE TYPE=a         DISPLAY TYPE=b
  INV  TRAVELING       CHARGE
  IND  CLASS MARK   STATION TYPE
  o1 [p1]            [q1]

  PASSIVE LEG                      CONTROL LEG
  TREATMENT                        TREATMENT
  r1                              [r1]

  RDIRINFO:
  ORIG REDIRECT         REDIRECT           INV     REDIRECT
  REASON                REASON             IND     CNT
  w2                   [x2]                [y2]      [z2]

  INV  DIRECTORY       NATURE OF  SCREENING  PRESENTATION
  IND  NUMBER          NUMBER     IND        RESTRICTION IND
  s1 [t1]            [u1]       [v1]       [w1]
  s1 [x1]            [u1]       [v1]       [w1]
  s1 [y1]            [z1]
  s1 [a2]            [z1]
  s1 [b2]            [c2]

  DISPLAY TEXT INFORMATION:
  d2                     [e2]
  d2                     [f2]
```

d[2] [g[2]]

2. REASON FOR OUTPUT

To respond to a TST:ASPTQ input message, which requests that a 0.1 advanced services platform (ASP) test query be sent to query the external database service control point (SCP). This output format will be used to display the routing and call processing data for the following responses: analyze route, authorize termination, cancel resource, close, continue, disconnect, forward call, and send to resource. Analyze route, authorize termination and forward call will also have a part 2 of the message displayed. The data in the ACG, next event list, and send notification components will also be displayed.

Note: To always provide the user with the ability to respond to the `PLAY COLLECT DIGITS` resource type, Format 1 routing message will always be displayed when the SCP response is send to resource even though the user may have only selected the AMA billing option for display type.

3. VARIABLE FIELD DEFINITIONS

a = The message type. Valid value(s):

CLOSE	= Close.
INFOANAL	= Information analyze.
INFOCOLL	= Information collected.
OANSWER	= Originating answer.
OCLDPTYBSY	= Originating called party busy.
ONOANSWER	= Originating no answer.
ORIGAT	= Origination attempt.
OTERMSZD	= Originating termination seized.
RESCLR	= Resource clear.
TERMAT	= Termination attempt.

b = Display type. Valid value(s):

AMA	= AMA billing display. Send to resource will always display Format 1 routing message, even if AMA option was selected, to handle the case of a `PLAY COLLECT DIGITS` resource type.
BOTH	= AMA and routing display.
RTE	= Routing display.

c = Response type. Valid value(s):

```
ANALYZE ROUTE
AUTHORIZE TERMINATION
CANCEL RESOURCE
CLOSE
CONTINUE
DISCONNECT
FORWARD CALL
SEND TO RESOURCE
```

d = Response time in seconds.

e = Response time in seconds (fraction of a second).

f = Resource type. Valid value(s):

```
PLAY ANNOUNCEMENT
PLAY COLLECT DIGITS
FLEX PARAMETER BLOCK
```

`*` = Indicates invalid value.

`g` = Disconnect flag. Valid value(s):

```
PRESENT
```

`h` = Interruptible announcement code.

`i` = Uninterruptible announcement code.

`j` = Invalid indicator for number of digits to collect. Valid value(s):

`*` = Indicates invalid range.

`k` = Number of digits to collect (specific number specified).

Note: This field indicates that the user should initiate another TST:ASPTQ command indicating message type as resource clear. If digits are entered this field will be used to indicate the number of digits to specify in the collected digits parameter. There is a 3 minute time limit for user input.

`l` = Number of digits to collect.

Note: This field indicates that the user should initiate another TST:ASPTQ command indicating message type as as resource clear. If digits are entered, this field is used to determine the number of digits to specify for collected digits or the collected address parameter. There is a 3 minute time limit for user input. Valid value(s):

`ANY NUMBER DIGITS` = Any number of digits.

`NRM NUMBER DIGITS` = Normal number of digits.

`m` = Answer indicator. Valid value(s):

```
PRESENT
```

`n` = Invalid indicator for primary, alternate or second alternate route index. Valid value(s):

`*` = Indicates invalid range.

`o` = Primary route index.

`p` = Primary, alternate, or second alternate wide area telephone service (WATS) indicator. Valid value(s):

```
NOT WATS
WATS
```

`q` = Primary, alternate, or second alternate number outpulsed. Valid value(s):

`OUTPL` = Outpulse number.

`RTE` = Routing number.

`r` = Primary, alternate, or second alternate call treatment. Valid value(s):

```
NO OVERFLOW NO RETURN
NOT USED
OFF-HOOK QUEUE NO OVERFLOW NO RETURN
OFF-HOOK QUEUE OVERFLOW
OFF-HOOK QUEUE RETURN
OVERFLOW
RETURN
RING-BACK QUEUE NO OVERFLOW NO RETURN
RING-BACK QUEUE OVERFLOW
RING-BACK QUEUE RETURN
```

`*` = Invalid value.
`s` = Alternate route index.
`t` = Second alternate route index.
`u` = Invalid indicator for primary, alternate, and second alternate carrier ID. Valid value(s):
`*` = Indicates invalid range.

`v` = Primary carrier ID.
`w` = Primary, alternate, or second alternate carrier selection. Valid value(s):

```
NO INDICATION
NOT PRESUBSCRIBED INPUT BY CALLING PARTY
PRESUBSCRIBED INPUT BY CALLING PARTY
PRESUBSCRIBED NO INDICATION
PRESUBSCRIBED NOT INPUT BY CALLING PARTY
```

`*` = Invalid value.
`x` = Alternate carrier ID.
`y` = Second alternate carrier ID.
`z` = Invalid indicator for global title. Valid value(s):
`*` = Indicates value not numeric.

`a`[1] = Global title.
`b`[1] = Translation type.
`c`[1] = Gap type. Valid value(s):
`NAT` = National gap interval index.
`PRVT` = Private gap interval index.

`d`[1] = Gap interval index.
`e`[1] = Gap duration index.
`f`[1] = Control type. Valid value(s):

```
SCP OVERLOAD CONTROLS
SMS INITIATED CONTROLS
```

`*` = Indicates invalid value. Either both of the controls were set or neither were set.
`g`[1] = AMP year. Valid value(s):

```
CURRENT
LAST
NEXT
```

`h`[1] = AMP month. Valid value(s):
`JAN` = January.
`FEB` = February.
`MAR` = March.
`APR` = April.
`MAY` = May.
`JUN` = June.
`JUL` = July.
`AUG` = August.
`SEP` = September.
`OCT` = October.
`NOV` = November.
`DEC` = December.

i[1] = AMP date.
j[1] = AMP hour.
k[1] = AMP minutes. Valid value(s):

```
00
15
30
45
```

l[1] = Echodata.
o[1] = Invalid indicator for traveling class mark (TCM). Valid value(s):
`*` = Indicates invalid range.

p[1] = Traveling class mark.
q[1] = Charge party station type.
r[1] = Passive leg treatment or control leg treatment. Valid value(s):
`ALERT ON PAT 0 NRM` = Alerting on pattern 0 normal.
`ALERT ON PAT 1 DIST INTERGRP` = Alerting on pattern 1 distinctive intergroup.
`ALERT ON PAT 2 DIST SPECIAL` = Alerting on pattern 2 distinctive special.

s[1] = Invalid DN indicator. Valid value(s):
`*` = Indicates DN is not numeric or out of range.

t[1] = Calling party ID.
u[1] = Nature of number for calling party ID or redirecting party ID. Valid value(s):
`INTL` = Unique international number.
`NA` = Not applicable or unknown.
`NAT` = Unique national (significant) number.
`NUNQ INT` = Non unique international number.
`NUNQ NAT` = Non unique national number.
`NUNQ SS` = Non unique subscriber number.
`SS` = Unique subscriber number.
`TST LINE` = Test line test code.
`*` = Indicates invalid value.

v[1] = Screening indicator for calling party ID or redirecting party ID. Valid value(s):
`NETP` = Network provided.
`UPNS` = User provided not screened.
`UPPS` = User provided passed screening.
`*` = Indicates invalid range.

w[1] = Presentation restriction indicator for calling party ID or redirecting party ID. Valid value(s):
`ALW` = Presentation allowed.
`REST` = Presentation restricted.
`UNAV` = Number unavailable.
`*` = Indicates invalid value.

x[1] = Redirecting party ID.
y[1] = Called party ID.
z[1] = Nature of number for called party ID or outpulsed number. Valid value(s):
`950+` = 950+ call.
`CUT THRU` = No address present cut through to carrier.

INTL	= International number.
INTL OPR	= International number operator requested.
NA	= Not applicable.
NADR OPR	= No address present operator requested.
NAT	= National (significant) number.
NAT OPR	= National number operator requested.
SS	= Subscriber number.
SS OPR	= Subscriber number operator requested.
TST LINE	= Test line test code.
*	= Indicates invalid range.

a[2] = Outpulse number.

b[2] = Charge number.

c[2] = Nature of number for charge number. Valid value(s):

NAT CLD	= National number called party ANI.
NAT CLG	= National number, calling party ANI.
NOT AVL	= ANI not available or not provided.
NOT INCL	= Called party ANI not included.
SS CLD	= Subscriber number called party ANI.
SS CLG	= Subscriber number calling party ANI.
*	= Indicates invalid value.

d[2] = Type of display text information displayed.

NOTE: Error validation is not provided for display text data.

```
CALLING PARTY ADDRESS
CALLING PARTY NAME
DATE
REASON
```

e[2] = First display text information.

f[2] = Second display text information.

g[2] = Third display text information.

h[2] = User ID type. Valid value(s):

BRI	= Basic rate interface.
DN	= Directory number.
PFID	= Private facility ID.
TGID	= Trunk group ID.

i[2] = Trunk group ID or private facility ID for the user ID parameter depending upon the user ID type.

j[2] = Invalid user ID directory number (DN) indicator. Valid value(s):

*	= Indicates DN is not numeric or out of range.

k[2] = Directory number for the user ID parameter.

l[2] = Invalid user ID service profile ID (SPID) indicator. Valid value(s):

*	= Indicates SPID is not numeric or out of range.

m[2] = Service profile ID for the user ID parameter.

n[2] = Bearer capability. Valid value(s):

```
SPEECH
3.1KHZ AUDIO
56 KBPS
```

64 KBPS

* = Indicates invalid value.

o[2] = Close cause. Valid value(s):

TERM	= Call terminated.
CMPL	= Events and reports completed.
UCOMM	= Unexpected communication.
ANSW	= Called party answered.
*	= Indicates invalid value.

p[2] = Invalid indicator for next event list requests. Valid value(s):

EMPTY	= Indicates that an empty request list was received.
*	= Indicates that null affect requests are present.

q[2] = Next event list requests. Valid value(s):

OANSWER	= Originating answer (null affect).
OCLDPTYBSY	= Originating called party busy.
ONOANSWER	= Originating no answer.
OTERMSZD	= Originating termination seized (null affect).
TBUSY	= Terminating busy.
TNOANSWER	= Terminating no answer.
TRSRCAVAIL	= Terminating resource available (null affect).
TANSWER	= Terminating answer (null affect).

r[2] = Invalid indicator for next event list notifications. Valid value(s):

EMPTY	= Indicates that an empty notification list was received.
*	= Indicates that null affect notifications are present.

s[2] = Next event list notifications. Valid value(s):

OANSWER	= Originating answer.
OCLDPTYBSY	= Originating called party busy (null affect).
ONOANSWER	= Originating no answer (null affect).
OTERMSZD	= Originating termination seized.
TBUSY	= Terminating busy (null affect).
TNOANSWER	= Terminating no answer (null affect).
TRSRCAVAIL	= Terminating resource available.
TANSWER	= Terminating answer.

t[2] = Next event list originating no answer timer (range 1-120 seconds).

u[2] = Next event list terminating no answer timer (range 1-120 seconds).

v[2] = Carrier usage ID. Valid value(s):

ALWOVR	= Always override.
LATAOVR	= Only interLATA override.
*	= Indicates invalid value.

w[2] = Original redirecting reason. Valid value(s):

*	= Indicates invalid value.
BSY	= User busy.
NOR	= No reply.
UNC	= Unconditional.
UNK	= Unknown/not available.

x[2] = Redirecting reason. Valid value(s):

	*	= Indicates invalid value.
	BSY	= User busy.
	NOR	= No reply.
	UNC	= Unconditional.
	UNK	= Unknown/not available.
y[2]	= Invalid indicator for redirection count. Valid value(s):	
	*	= Indicates invalid value.
z[2]	= Redirection count.	
a[3]	= Flex parameter block length (specified in octets).	
b[3]	= Invalid indicator for destination address. An asterisk (*) indicates an invalid range or that the directory number (DN) is not numeric.	
c[3]	= Destination address.	
d[3]	= Nature of number for destination address. Valid value(s):	
	NAT	= National (significant) number.
	*	= Indicates invalid value.
e[3]	= DP converter. Valid value(s):	
	CONVERSION	= Perform DP to DTMF conversion.
	NO CONVERSION	= No DP to DTMF conversion performed.
f[3]	= Transaction state. Valid value(s):	
	CLOSED	= The state of the transaction is closed.
	OPEN	= The state of the transaction is open.
g[3]	= Extended ringing. Valid value(s):	
	PRESENT	

4. ACTION TO BE TAKEN

When variable 'f[3]' indicates the transaction is OPEN and variable 'c' indicates SEND TO RESOURCE, the user is expected to initiate another TST:ASPTQ input message indicating the message type as RESOURCE CLEAR.

The user has a 3 minute time limit to request this subsequent message. If the user does not initiate another TST:ASPTQ input message within this time period, a close message is automatically sent to the SCP indicating caller abandon.

Refer to the SET:ASPTQ input message for information to correctly set parameters for this message. Also refer to the field description for variables 'l' and 'm'.

When variable 'f[3]' indicates the transaction is OPEN and variable 'c' indicates a response type other than SEND TO RESOURCE, the user is expected to initiate another TST:ASPTQ input message indicating one of the following message types:

```
CLOSE
OANSWER
OCLDPTYBSY
ONOANSWER
OTERMSZD
```

The user has a 3 minute time limit to request any of these subsequent messages. If the user does not initiate another TST:ASPTQ input message within this time period, a close message is automatically sent to the SCP indicating caller abandon.

Refer to the SET:ASPTQ input message for information to correctly set parameters for these messages.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
SET:ASPTQ
TST:ASPTQ
```

Output Message(s):

```
TST:ASPTQ-AMA
TST:ASPTQ-FAIL
```

Other Manual(s):
235-190-126 *Advanced Services Platform*

TST:ASPTQ-B

Software Release: 5E11 only
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST ASPTQ RTE1 MESSAGE TYPE=a            DISPLAY TYPE=b
        RESPONSE TYPE=c                        STATE=f3         RESPONSE TIME=d.e

        RESOURCE TYPE               DISCONNECT FLAG
        f                          [g]

        IANN  UANN   INV  NUM DIGITS    TYPE DIGITS        ANSWER
        CODE  CODE   IND    TO COLL        TO COLL         IND
        h    [i]    [j]    [k]            [l]             [m]

        FLEX PARAMETER BLOCK: LENGTH
        a3

        INV   DESTINATION   NATURE OF
        IND   ADDRESS       NUMBER
        b3  [c3]          [d3]

        DP CONVERTER
        e3

        INV   COLLECTED                        NATURE OF
        IND   DIGITS                           NUMBER
        h3  [i3]                              [j3]

        INV RTE    WATS   NUMBER       CALL
        IND IDX    IND    OUTPULSED  TREATMENT
        n  [o]    [p]    [q]        [r]
        n  [s]    [p]    [q]        [r]
        n  [t]    [p]    [q]        [r]

        CARRIER USAGE ID
        v2

        INV  CARR    CARRIER
        IND  ID      SELECTION
        u   [v]     [w]
        u   [x]     [w]
        u   [y]     [w]

        INV  GLOBAL       TRANS  GAP    GAP       GAP  CONTROL
        IND  TITLE        TYPE   TYPE   INTERVAL  DUR  TYPE
        z   [a1]         [b1]   [c1]   [d1]      [e1] [f1]
```

```
AMP:  YEAR      MONTH    DATE    HOUR    MIN
      g1      [h1]     [i1]    [j1]    [k1]

USER ID: TYPE    ID    INV  DN          INV  SPID
         h2    [i2]  [j2] [k2]        [l2] [m2]

BEARER CAPABILITY
n2

CLOSE CAUSE
o2

NEXT EVENT LIST: REQUESTS           INV IND  p2
q2       [q2]             [q2]          [q2]
q2       [q2]             [q2]          [q2]

NEXT EVENT LIST: NOTIFICATIONS      INV IND  r2
s2       [s2]             [s2]          [s2]
s2       [s2]             [s2]          [s2]

NEXT EVENT LIST: ORIGINATING NO ANSWER TIMER
t2

NEXT EVENT LIST: TERMINATING NO ANSWER TIMER
u2

SEND NOTIFICATION:ECHODATA
l1
```

[2]

```
TST ASPTQ RTE2 MESSAGE TYPE=a         DISPLAY TYPE=b
  INV  TRAVELING       CHARGE
  IND  CLASS MARK   STATION TYPE
  o1 [p1]            [q1]

  PASSIVE LEG                      CONTROL LEG
  TREATMENT                        TREATMENT
  r1                              [r1]

  RDIRINFO:
  ORIG REDIRECT         REDIRECT           INV     REDIRECT
  REASON                REASON             IND     CNT
  w2                   [x2]                [y2]      [z2]

  INV  DIRECTORY       NATURE OF  SCREENING  PRESENTATION
  IND  NUMBER          NUMBER     IND        RESTRICTION IND
  s1 [t1]            [u1]       [v1]       [w1]
  s1 [x1]            [u1]       [v1]       [w1]
  s1 [y1]            [z1]
  s1 [a2]            [z1]
  s1 [b2]            [c2]
```

```
DISPLAY TEXT INFORMATION:
d2                    [e2]
d2                    [f2]
d2                    [g2]
```

2. REASON FOR OUTPUT

To respond to a TST:ASPTQ input message, which requests that a 0.1 advanced services platform (ASP) test query be sent to query the external database service control point (SCP). This output format will be used to display the routing and call processing data for the following responses: analyze route, authorize termination, cancel resource, close, collect information, continue, disconnect, forward call, and send to resource. Analyze route, authorize termination and forward call will also have a part 2 of the message displayed. The data in the ACG, next event list, and send notification components will also be displayed.

Note: To always provide the user with the ability to respond to the `PLAY COLLECT DIGITS` resource type, Format 1 routing message will always be displayed when the SCP response is send to resource even though the user may have only selected the AMA billing option for display type.

3. VARIABLE FIELD DEFINITIONS

a = The message type. Valid value(s):

`CLOSE`	= Close.
`INFOANAL`	= Information analyze.
`INFOCOLL`	= Information collected.
`OANSWER`	= Originating answer.
`OCLDPTYBSY`	= Originating called party busy.
`ONOANSWER`	= Originating no answer.
`ORIGAT`	= Origination attempt.
`OTERMSZD`	= Originating termination seized.
`RESCLR`	= Resource clear.
`TERMAT`	= Termination attempt.

b = Display type. Valid value(s):

`AMA`	= AMA billing display. Send to resource will always display Format 1 routing message, even if AMA option was selected, to handle the case of a `PLAY COLLECT DIGITS` resource type.
`BOTH`	= AMA and routing display.
`RTE`	= Routing display.

c = Response type. Valid value(s):

```
ANALYZE ROUTE
AUTHORIZE TERMINATION
CANCEL RESOURCE
CLOSE
COLLECT INFORMATION
CONTINUE
DISCONNECT
FORWARD CALL
SEND TO RESOURCE
```

d = Response time in seconds.

e = Response time in seconds (fraction of a second).

f = Resource type. Valid value(s):

```
PLAY ANNOUNCEMENT
PLAY COLLECT DIGITS
FLEX PARAMETER BLOCK
```

* = Indicates invalid value.

g = Disconnect flag. Valid value(s):

```
PRESENT
```

h = Interruptible announcement code.

i = Uninterruptible announcement code.

j = Invalid indicator for number of digits to collect. Valid value(s):

* = Indicates invalid range.

k = Number of digits to collect (specific number specified).

Note: This field indicates that the user should initiate another TST:ASPTQ command indicating message type as resource clear. If digits are entered this field will be used to indicate the number of digits to specify in the collected digits parameter. There is a 3 minute time limit for user input.

l = Number of digits to collect.

Note: This field indicates that the user should initiate another TST:ASPTQ command indicating message type as as resource clear. If digits are entered, this field is used to determine the number of digits to specify for collected digits or the collected address parameter. There is a 3 minute time limit for user input. Valid value(s):

ANY NUMBER DIGITS = Any number of digits.

NRM NUMBER DIGITS = Normal number of digits.

m = Answer indicator. Valid value(s):

```
PRESENT
```

n = Invalid indicator for primary, alternate or second alternate route index. Valid value(s):

* = Indicates invalid range.

o = Primary route index.

p = Primary, alternate, or second alternate wide area telephone service (WATS) indicator. Valid value(s):

```
NOT WATS
WATS
```

q = Primary, alternate, or second alternate number outpulsed. Valid value(s):

OUTPL = Outpulse number.

RTE = Routing number.

r = Primary, alternate, or second alternate call treatment. Valid value(s):

```
NO OVERFLOW NO RETURN
NOT USED
OFF-HOOK QUEUE NO OVERFLOW NO RETURN
OFF-HOOK QUEUE OVERFLOW
OFF-HOOK QUEUE RETURN
OVERFLOW
```

```
RETURN
RING-BACK QUEUE NO OVERFLOW NO RETURN
RING-BACK QUEUE OVERFLOW
RING-BACK QUEUE RETURN
```

`*` = Invalid value.
`s` = Alternate route index.
`t` = Second alternate route index.
`u` = Invalid indicator for primary, alternate, and second alternate carrier ID. Valid value(s):
`*` = Indicates invalid range.

`v` = Primary carrier ID.
`w` = Primary, alternate, or second alternate carrier selection. Valid value(s):

```
NO INDICATION
NOT PRESUBSCRIBED INPUT BY CALLING PARTY
PRESUBSCRIBED INPUT BY CALLING PARTY
PRESUBSCRIBED NO INDICATION
PRESUBSCRIBED NOT INPUT BY CALLING PARTY
```

`*` = Invalid value.
`x` = Alternate carrier ID.
`y` = Second alternate carrier ID.
`z` = Invalid indicator for global title. Valid value(s):
`*` = Indicates value not numeric.

`a`[1] = Global title.
`b`[1] = Translation type.
`c`[1] = Gap type. Valid value(s):
`NAT` = National gap interval index.
`PRVT` = Private gap interval index.

`d`[1] = Gap interval index.
`e`[1] = Gap duration index.
`f`[1] = Control type. Valid value(s):

```
SCP OVERLOAD CONTROLS
SMS INITIATED CONTROLS
```

`*` = Indicates invalid value. Either both of the controls were set or neither were set.
`g`[1] = AMP year. Valid value(s):

```
CURRENT
LAST
NEXT
```

`h`[1] = AMP month. Valid value(s):
`JAN` = January.
`FEB` = February.
`MAR` = March.
`APR` = April.
`MAY` = May.
`JUN` = June.
`JUL` = July.

AUG = August.
SEP = September.
OCT = October.
NOV = November.
DEC = December.

i[1] = AMP date.
j[1] = AMP hour.
k[1] = AMP minutes. Valid value(s):

00
15
30
45

l[1] = Echodata.
o[1] = Invalid indicator for traveling class mark (TCM). Valid value(s):
* = Indicates invalid range.

p[1] = Traveling class mark.
q[1] = Charge party station type.
r[1] = Passive leg treatment or control leg treatment. Valid value(s):
ALERT ON PAT 0 NRM = Alerting on pattern 0 normal.
ALERT ON PAT 1 DIST INTERGRP = Alerting on pattern 1 distinctive intergroup.
ALERT ON PAT 2 DIST SPECIAL = Alerting on pattern 2 distinctive special.

s[1] = Invalid DN indicator. Valid value(s):
* = Indicates DN is not numeric or out of range.

t[1] = Calling party ID.
u[1] = Nature of number for calling party ID or redirecting party ID. Valid value(s):
INTL = Unique international number.
NA = Not applicable or unknown.
NAT = Unique national (significant) number.
NUNQ INT = Non unique international number.
NUNQ NAT = Non unique national number.
NUNQ SS = Non unique subscriber number.
SS = Unique subscriber number.
TST LINE = Test line test code.
* = Indicates invalid value.

v[1] = Screening indicator for calling party ID or redirecting party ID. Valid value(s):
NETP = Network provided.
UPNS = User provided not screened.
UPPS = User provided passed screening.
* = Indicates invalid range.

w[1] = Presentation restriction indicator for calling party ID or redirecting party ID. Valid value(s):
ALW = Presentation allowed.
REST = Presentation restricted.
UNAV = Number unavailable.
* = Indicates invalid value.

x[1] = Redirecting party ID.
y[1] = Called party ID.
z[1] = Nature of number for called party ID or outpulsed number. Valid value(s):

950+	= 950+ call.
CUT THRU	= No address present cut through to carrier.
INTL	= International number.
INTL OPR	= International number operator requested.
NA	= Not applicable.
NADR OPR	= No address present operator requested.
NAT	= National (significant) number.
NAT OPR	= National number operator requested.
SS	= Subscriber number.
SS OPR	= Subscriber number operator requested.
TST LINE	= Test line test code.
*	= Indicates invalid range.

a[2] = Outpulse number.
b[2] = Charge number.
c[2] = Nature of number for charge number. Valid value(s):

NAT CLD	= National number called party ANI.
NAT CLG	= National number, calling party ANI.
NOT AVL	= ANI not available or not provided.
NOT INCL	= Called party ANI not included.
SS CLD	= Subscriber number called party ANI.
SS CLG	= Subscriber number calling party ANI.
*	= Indicates invalid value.

d[2] = Type of display text information displayed.

NOTE: Error validation is not provided for display text data.

```
CALLING PARTY ADDRESS
CALLING PARTY NAME
DATE
REASON
```

e[2] = First display text information.
f[2] = Second display text information.
g[2] = Third display text information.
h[2] = User ID type. Valid value(s):

BRI	= Basic rate interface.
DN	= Directory number.
PFID	= Private facility ID.
TGID	= Trunk group ID.

i[2] = Trunk group ID or private facility ID for the user ID parameter depending upon the user ID type.
j[2] = Invalid user ID directory number (DN) indicator. Valid value(s):

*	= Indicates DN is not numeric or out of range.

k[2] = Directory number for the user ID parameter.
l[2] = Invalid user ID service profile ID (SPID) indicator. Valid value(s):

*	= Indicates SPID is not numeric or out of range.

m[2] = Service profile ID for the user ID parameter.
n[2] = Bearer capability. Valid value(s):

```
SPEECH
3.1KHZ AUDIO
56 KBPS
64 KBPS
```

* = Indicates invalid value.
o[2] = Close cause. Valid value(s):

TERM	= Call terminated.
CMPL	= Events and reports completed.
UCOMM	= Unexpected communication.
ANSW	= Called party answered.
*	= Indicates invalid value.

p[2] = Invalid indicator for next event list requests. Valid value(s):

EMPTY	= Indicates that an empty request list was received.
*	= Indicates that null affect requests are present.

q[2] = Next event list requests. Valid value(s):

OANSWER	= Originating answer (null affect).
OCLDPTYBSY	= Originating called party busy.
ONOANSWER	= Originating no answer.
OTERMSZD	= Originating termination seized (null affect).
TBUSY	= Terminating busy.
TNOANSWER	= Terminating no answer.
TRSRCAVAIL	= Terminating resource available (null affect).
TANSWER	= Terminating answer (null affect).

r[2] = Invalid indicator for next event list notifications. Valid value(s):

EMPTY	= Indicates that an empty notification list was received.
*	= Indicates that null affect notifications are present.

s[2] = Next event list notifications. Valid value(s):

OANSWER	= Originating answer.
OCLDPTYBSY	= Originating called party busy (null affect).
ONOANSWER	= Originating no answer (null affect).
OTERMSZD	= Originating termination seized.
TBUSY	= Terminating busy (null affect).
TNOANSWER	= Terminating no answer (null affect).
TRSRCAVAIL	= Terminating resource available.
TANSWER	= Terminating answer.

t[2] = Next event list originating no answer timer (range 1-120 seconds).
u[2] = Next event list terminating no answer timer (range 1-120 seconds).
v[2] = Carrier usage ID. Valid value(s):

ALWOVR	= Always override.
LATAOVR	= Only interLATA override.
*	= Indicates invalid value.

w[2] = Original redirecting reason. Valid value(s):

*	= Indicates invalid value.

BSY = User busy.
NOR = No reply.
UNC = Unconditional.
UNK = Unknown/not available.

x[2] = Redirecting reason. Valid value(s):
* = Indicates invalid value.
BSY = User busy.
NOR = No reply.
UNC = Unconditional.
UNK = Unknown/not available.

y[2] = Invalid indicator for redirection count. Valid value(s):
* = Indicates invalid value.

z[2] = Redirection count.
a[3] = Flex parameter block length (specified in octets).
b[3] = Invalid indicator for destination address. Valid value(s):
* = Indicates invalid range or the directory number (DN) is not numeric.

c[3] = Destination address.
d[3] = Nature of number for destination address. Valid value(s):
NAT = National (significant) number.
* = Indicates invalid value.

e[3] = DP converter. Valid value(s):
CONVERSION = Perform DP to DTMF conversion.
NO CONVERSION = No DP to DTMF conversion performed.

f[3] = Transaction state. Valid value(s):
CLOSED = The state of the transaction is closed.
OPEN = The state of the transaction is open.

g[3] = Extended ringing. Valid value(s):

PRESENT

h[3] = Invalid indicator for collected digits. Valid value(s):
* = Indicates invalid range or value not numeric.

i[3] = Collected digits. Valid value(s):
0-9 = Any digit in the range of 0-9.
* = The * digit.
# = The # digit.
S = The ST digit.

j[3] = Nature of number for collected digits. Valid value(s):
NA = Not applicable.
* = Indicates invalid value.

4. ACTION TO BE TAKEN

When variable 'f^3' indicates the transaction is `OPEN` and variable '`c`' indicates `SEND TO RESOURCE`, the user is expected to initiate another TST:ASPTQ input message indicating the message type as `RESOURCE CLEAR`.

The user has a 3 minute time limit to request this subsequent message. If the user does not initiate another TST:ASPTQ input message within this time period, a close message is automatically sent to the SCP indicating caller abandon.

Refer to the SET:ASPTQ input message for information to correctly set parameters for this message. Also refer to the field description for variables '`l`' and '`m`'.

When variable 'f^3' indicates the transaction is OPEN and variable '`c`' indicates a response type other than `SEND TO RESOURCE`, the user is expected to initiate another TST:ASPTQ input message indicating one of the following message types:

```
CLOSE
OANSWER
OCLDPTYBSY
ONOANSWER
OTERMSZD
```

The user has a 3 minute time limit to request any of these subsequent messages. If the user does not initiate another TST:ASPTQ input message within this time period, a close message is automatically sent to the SCP indicating caller abandon.

Refer to the SET:ASPTQ input message for information to correctly set parameters for these messages.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
SET:ASPTQ
TST:ASPTQ
```

Output Message(s):

```
TST:ASPTQ-AMA
TST:ASPTQ-FAIL
```

Other Manual(s):
235-190-126 *Advanced Services Platform*

TST:ASPTQ-C

Software Release: 5E12 - 5E13
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST ASPTQ RTE1 MESSAGE TYPE=a            DISPLAY TYPE=b
        RESPONSE TYPE=c                        STATE=f3         RESPONSE TIME=d.e
        OPC=k3

        RESOURCE TYPE               DISCONNECT FLAG
        f                          [g]

        IANN  UANN   INV  NUM DIGITS    TYPE DIGITS        ANSWER
        CODE  CODE   IND    TO COLL        TO COLL         IND
        h    [i]    [j]    [k]            [l]             [m]

        FLEX PARAMETER BLOCK: LENGTH
        a3

        INV   DESTINATION   NATURE OF
        IND   ADDRESS       NUMBER
        b3  [c3]          [d3]

        DP CONVERTER
        e3

        INV   COLLECTED                         NATURE OF
        IND   DIGITS                            NUMBER
        h3  [i3]                               [j3]

        INV RTE    WATS   NUMBER       CALL
        IND IDX    IND    OUTPULSED  TREATMENT
        n  [o]    [p]    [q]        [r]
        n  [s]    [p]    [q]        [r]
        n  [t]    [p]    [q]        [r]

        CARRIER USAGE ID
        v2

        INV  CARR    CARRIER
        IND  ID      SELECTION
        u   [v]     [w]
        u   [x]     [w]
        u   [y]     [w]

        INV  GLOBAL       TRANS  GAP    GAP       GAP  CONTROL
        IND  TITLE        TYPE   TYPE   INTERVAL  DUR  TYPE
        z   [a1]         [b1]   [c1]   [d1]      [e1] [f1]
```

```
AMP:  YEAR      MONTH    DATE    HOUR    MIN
      g1      [h1]     [i1]    [j1]    [k1]

USER ID: TYPE    ID    INV  DN          INV  SPID
         h2    [i2]  [j2] [k2]        [l2] [m2]

BEARER CAPABILITY
n2

CLOSE CAUSE
o2

NEXT EVENT LIST: REQUESTS           INV IND  p2
q2       [q2]             [q2]          [q2]
q2       [q2]             [q2]          [q2]

NEXT EVENT LIST: NOTIFICATIONS      INV IND  r2
s2       [s2]             [s2]          [s2]
s2       [s2]             [s2]          [s2]

NEXT EVENT LIST: ORIGINATING NO ANSWER TIMER
t2

NEXT EVENT LIST: TERMINATING NO ANSWER TIMER
u2

SEND NOTIFICATION:ECHODATA
l1
```

[2]

```
TST ASPTQ RTE2 MESSAGE TYPE=a         DISPLAY TYPE=b
  INV  TRAVELING       CHARGE
  IND  CLASS MARK   STATION TYPE
  o1 [p1]            [q1]

  PASSIVE LEG                      CONTROL LEG
  TREATMENT                        TREATMENT
  r1                             [r1]

  RDIRINFO:
  ORIG REDIRECT         REDIRECT           INV     REDIRECT
  REASON                REASON             IND     CNT
  w2                   [x2]                [y2]      [z2]

  INV  DIRECTORY       NATURE OF  SCREENING  PRESENTATION
  IND  NUMBER          NUMBER     IND        RESTRICTION IND
  s1 [t1]            [u1]       [v1]       [w1]
  s1 [x1]            [u1]       [v1]       [w1]
  s1 [y1]            [z1]
  s1 [a2]            [z1]
```

```
s1 [b2]            [c2]

DISPLAY TEXT INFORMATION:
d2                     [e2]
d2                     [f2]
d2                     [g2]
```

2. REASON FOR OUTPUT

To respond to a TST:ASPTQ input message, which requests that a 0.1 advanced services platform (ASP) test query be sent to query the external database service control point (SCP). This output format will be used to display the routing and call processing data for the following responses: analyze route, authorize termination, cancel resource, close, collect information, continue, disconnect, forward call, and send to resource. Analyze route, authorize termination and forward call will also have a part 2 of the message displayed. The data in the ACG, next event list, and send notification components will also be displayed.

Note: To always provide the user with the ability to respond to the `PLAY COLLECT DIGITS` resource type, Format 1 routing message will always be displayed when the SCP response is send to resource even though the user may have only selected the AMA billing option for display type.

3. VARIABLE FIELD DEFINITIONS

`a` = The message type. Valid value(s):

`CLOSE`	= Close.
`INFOANAL`	= Information analyze.
`INFOCOLL`	= Information collected.
`OANSWER`	= Originating answer.
`OCLDPTYBSY`	= Originating called party busy.
`ONOANSWER`	= Originating no answer.
`ORIGAT`	= Origination attempt.
`OTERMSZD`	= Originating termination seized.
`RESCLR`	= Resource clear.
`TERMAT`	= Termination attempt.

`b` = Display type. Valid value(s):

`AMA`	= AMA billing display. Send to resource will always display Format 1 routing message, even if AMA option was selected, to handle the case of a `PLAY COLLECT DIGITS` resource type.
`BOTH`	= AMA and routing display.
`RTE`	= Routing display.

`c` = Response type. Valid value(s):

```
ANALYZE ROUTE
AUTHORIZE TERMINATION
CANCEL RESOURCE
CLOSE
COLLECT INFORMATION
CONTINUE
DISCONNECT
FORWARD CALL
SEND TO RESOURCE
```

d = Response time in seconds.
e = Response time in seconds (fraction of a second).
f = Resource type. Valid value(s):

```
PLAY ANNOUNCEMENT
PLAY COLLECT DIGITS
FLEX PARAMETER BLOCK
```

*= Indicates invalid value.

g = Disconnect flag. Valid value(s):

```
PRESENT
```

h = Interruptible announcement code.
i = Uninterruptible announcement code.
j = Invalid indicator for number of digits to collect. Valid value(s):
* = Indicates invalid range.

k = Number of digits to collect (specific number specified).
Note: This field indicates that the user should initiate another TST:ASPTQ command indicating message type as resource clear. If digits are entered this field will be used to indicate the number of digits to specify in the collected digits parameter. There is a 3 minute time limit for user input.

l = Number of digits to collect.
Note: This field indicates that the user should initiate another TST:ASPTQ command indicating message type as as resource clear. If digits are entered, this field is used to determine the number of digits to specify for collected digits or the collected address parameter. There is a 3 minute time limit for user input. Valid value(s):
ANY NUMBER DIGITS = Any number of digits.
NRM NUMBER DIGITS = Normal number of digits.

m = Answer indicator. Valid value(s):

```
PRESENT
```

n = Invalid indicator for primary, alternate or second alternate route index. Valid value(s):
* = Indicates invalid range.

o = Primary route index.
p = Primary, alternate, or second alternate wide area telephone service (WATS) indicator. Valid value(s):

```
NOT WATS
WATS
```

q = Primary, alternate, or second alternate number outpulsed. Valid value(s):
OUTPL = Outpulse number.
RTE = Routing number.

r = Primary, alternate, or second alternate call treatment. Valid value(s):

```
NO OVERFLOW NO RETURN
NOT USED
OFF-HOOK QUEUE NO OVERFLOW NO RETURN
```

OFF-HOOK QUEUE OVERFLOW
OFF-HOOK QUEUE RETURN
OVERFLOW
RETURN
RING-BACK QUEUE NO OVERFLOW NO RETURN
RING-BACK QUEUE OVERFLOW
RING-BACK QUEUE RETURN
*= Invalid value.

s = Alternate route index.
t = Second alternate route index.
u = Invalid indicator for primary, alternate, and second alternate carrier ID. Valid value(s):
* = Indicates invalid range.

v = Primary carrier ID.
w = Primary, alternate, or second alternate carrier selection. Valid value(s):

NO INDICATION
NOT PRESUBSCRIBED INPUT BY CALLING PARTY
PRESUBSCRIBED INPUT BY CALLING PARTY
PRESUBSCRIBED NO INDICATION
PRESUBSCRIBED NOT INPUT BY CALLING PARTY
*= Invalid value.

x = Alternate carrier ID.
y = Second alternate carrier ID.
z = Invalid indicator for global title. Valid value(s):
* = Indicates value not numeric.

a[1] = Global title.
b[1] = Translation type.
c[1] = Gap type. Valid value(s):
NAT = National gap interval index.
PRVT = Private gap interval index.

d[1] = Gap interval index.
e[1] = Gap duration index.
f[1] = Control type. Valid value(s):

SCP OVERLOAD CONTROLS
SMS INITIATED CONTROLS
*= Indicates invalid value. Either both of the controls were set or neither were set.

g[1] = AMP year. Valid value(s):

CURRENT
LAST
NEXT

h[1] = AMP month. Valid value(s):
JAN = January.
FEB = February.
MAR = March.
APR = April.
MAY = May.

JUN = June.
JUL = July.
AUG = August.
SEP = September.
OCT = October.
NOV = November.
DEC = December.

i[1] = AMP date.
j[1] = AMP hour.
k[1] = AMP minutes. Valid value(s):

00
15
30
45

l[1] = Echodata.
o[1] = Invalid indicator for traveling class mark (TCM). Valid value(s):
* = Indicates invalid range.

p[1] = Traveling class mark.
q[1] = Charge party station type.
r[1] = Passive leg treatment or control leg treatment. Valid value(s):
ALERT ON PAT 0 NRM = Alerting on pattern 0 normal.
ALERT ON PAT 1 DIST INTERGRP = Alerting on pattern 1 distinctive intergroup.
ALERT ON PAT 2 DIST SPECIAL = Alerting on pattern 2 distinctive special.

s[1] = Invalid DN indicator. Valid value(s):
* = Indicates DN is not numeric or out of range.

t[1] = Calling party ID.
u[1] = Nature of number for calling party ID or redirecting party ID. Valid value(s):
INTL = Unique international number.
NA = Not applicable or unknown.
NAT = Unique national (significant) number.
NUNQ INT = Non unique international number.
NUNQ NAT = Non unique national number.
NUNQ SS = Non unique subscriber number.
SS = Unique subscriber number.
TST LINE = Test line test code.
* = Indicates invalid value.

v[1] = Screening indicator for calling party ID or redirecting party ID. Valid value(s):
NETP = Network provided.
UPNS = User provided not screened.
UPPS = User provided passed screening.
* = Indicates invalid range.

w[1] = Presentation restriction indicator for calling party ID or redirecting party ID. Valid value(s):
ALW = Presentation allowed.
REST = Presentation restricted.
UNAV = Number unavailable.

*	= Indicates invalid value.

x[1] = Redirecting party ID.
y[1] = Called party ID.
z[1] = Nature of number for called party ID or outpulsed number. Valid value(s):

950+	= 950+ call.
CUT THRU	= No address present cut through to carrier.
INTL	= International number.
INTL OPR	= International number operator requested.
NA	= Not applicable.
NADR OPR	= No address present operator requested.
NAT	= National (significant) number.
NAT OPR	= National number operator requested.
SS	= Subscriber number.
SS OPR	= Subscriber number operator requested.
TST LINE	= Test line test code.
*	= Indicates invalid range.

a[2] = Outpulse number.
b[2] = Charge number.
c[2] = Nature of number for charge number. Valid value(s):

NAT CLD	= National number called party ANI.
NAT CLG	= National number, calling party ANI.
NOT AVL	= ANI not available or not provided.
NOT INCL	= Called party ANI not included.
SS CLD	= Subscriber number called party ANI.
SS CLG	= Subscriber number calling party ANI.
*	= Indicates invalid value.

d[2] = Type of display text information displayed.

NOTE: Error validation is not provided for display text data.

```
CALLING PARTY ADDRESS
CALLING PARTY NAME
DATE
REASON
```

e[2] = First display text information.
f[2] = Second display text information.
g[2] = Third display text information.
h[2] = User ID type. Valid value(s):

BRI	= Basic rate interface.
DN	= Directory number.
PFID	= Private facility ID.
TGID	= Trunk group ID.

i[2] = Trunk group ID or private facility ID for the user ID parameter depending upon the user ID type.
j[2] = Invalid user ID directory number (DN) indicator. Valid value(s):

*	= Indicates DN is not numeric or out of range.

k[2] = Directory number for the user ID parameter.
l[2] = Invalid user ID service profile ID (SPID) indicator. Valid value(s):

	*	= Indicates SPID is not numeric or out of range.

m[2] = Service profile ID for the user ID parameter.

n[2] = Bearer capability. Valid value(s):

```
SPEECH
3.1KHZ AUDIO
56 KBPS
64 KBPS
```
*= Indicates invalid value.

o[2] = Close cause. Valid value(s):

TERM	= Call terminated.
CMPL	= Events and reports completed.
UCOMM	= Unexpected communication.
ANSW	= Called party answered.
*	= Indicates invalid value.

p[2] = Invalid indicator for next event list requests. Valid value(s):

EMPTY	= Indicates that an empty request list was received.
*	= Indicates that null affect requests are present.

q[2] = Next event list requests. Valid value(s):

OANSWER	= Originating answer (null affect).
OCLDPTYBSY	= Originating called party busy.
ONOANSWER	= Originating no answer.
OTERMSZD	= Originating termination seized (null affect).
TBUSY	= Terminating busy.
TNOANSWER	= Terminating no answer.
TRSRCAVAIL	= Terminating resource available (null affect).
TANSWER	= Terminating answer (null affect).

r[2] = Invalid indicator for next event list notifications. Valid value(s):

EMPTY	= Indicates that an empty notification list was received.
*	= Indicates that null affect notifications are present.

s[2] = Next event list notifications. Valid value(s):

OANSWER	= Originating answer.
OCLDPTYBSY	= Originating called party busy (null affect).
ONOANSWER	= Originating no answer (null affect).
OTERMSZD	= Originating termination seized.
TBUSY	= Terminating busy (null affect).
TNOANSWER	= Terminating no answer (null affect).
TRSRCAVAIL	= Terminating resource available.
TANSWER	= Terminating answer.

t[2] = Next event list originating no answer timer (range 1-120 seconds).

u[2] = Next event list terminating no answer timer (range 1-120 seconds).

v[2] = Carrier usage ID. Valid value(s):

ALWOVR	= Always override.
LATAOVR	= Only interLATA override.
*	= Indicates invalid value.

w[2] = Original redirecting reason. Valid value(s):
- * = Indicates invalid value.
- BSY = User busy.
- NOR = No reply.
- UNC = Unconditional.
- UNK = Unknown/not available.

x[2] = Redirecting reason. Valid value(s):
- * = Indicates invalid value.
- BSY = User busy.
- NOR = No reply.
- UNC = Unconditional.
- UNK = Unknown/not available.

y[2] = Invalid indicator for redirection count. Valid value(s):
- * = Indicates invalid value.

z[2] = Redirection count.

a[3] = Flex parameter block length (specified in octets).

b[3] = Invalid indicator for destination address. Valid value(s):
- * = Indicates invalid range or the directory number (DN) is not numeric.

c[3] = Destination address.

d[3] = Nature of number for destination address. Valid value(s):
- NAT = National (significant) number.
- * = Indicates invalid value.

e[3] = DP converter. Valid value(s):
- CONVERSION = Perform DP to DTMF conversion.
- NO CONVERSION = No DP to DTMF conversion performed.

f[3] = Transaction state. Valid value(s):
- CLOSED = The state of the transaction is closed.
- OPEN = The state of the transaction is open.

g[3] = Extended Ringing. Valid value(s):

PRESENT

h[3] = Invalid indicator for collected digits. Valid value(s):
- * = Indicates invalid range or value not numeric.

i[3] = Collected digits. Valid value(s):
- 0-9 = Any digit in the range of 0-9.
- * = The * digit.
- # = The # digit.
- S = The ST digit.

j[3] = Nature of number for collected digits. Valid value(s):
- NA = Not applicable.
- * = Indicates invalid value.

k[3] = Origination point code. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Input Messages manual.

4. ACTION TO BE TAKEN

When variable 'f^3' indicates the transaction is OPEN and variable 'c' indicates SEND TO RESOURCE, the user is expected to initiate another TST:ASPTQ input message indicating the message type as RESOURCE CLEAR.

The user has a 3 minute time limit to request this subsequent message. If the user does not initiate another TST:ASPTQ input message within this time period, a close message is automatically sent to the SCP indicating caller abandon.

Refer to the SET:ASPTQ input message for information to correctly set parameters for this message. Also refer to the field description for variables 'l' and 'm'.

When variable 'f^3' indicates the transaction is OPEN and variable 'c' indicates a response type other than SEND TO RESOURCE, the user is expected to initiate another TST:ASPTQ input message indicating one of the following message types:

```
CLOSE
OANSWER
OCLDPTYBSY
ONOANSWER
OTERMSZD
```

The user has a 3 minute time limit to request any of these subsequent messages. If the user does not initiate another TST:ASPTQ input message within this time period, a close message is automatically sent to the SCP indicating caller abandon.

Refer to the SET:ASPTQ input message for information to correctly set parameters for these messages.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
SET:ASPTQ
TST:ASPTQ
```

Output Message(s):

```
TST:ASPTQ-AMA
TST:ASPTQ-FAIL
```

Other Manual(s):
235-190-126 *Advanced Services Platform*

TST:ASPTQ-D

Software Release: 5E14 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST ASPTQ RTE1 MESSAGE TYPE=a            DISPLAY TYPE=b

        RESPONSE TYPE=c                        STATE=f3         RESPONSE TIME=d.e

        OPC=k3

        RESOURCE TYPE               DISCONNECT FLAG

        f                          [g]

        IANN  UANN   INV  NUM DIGITS    TYPE DIGITS        ANSWER

        CODE  CODE   IND    TO COLL        TO COLL         IND

        h    [i]    [j]    [k]            [l]             [m]

        FLEX PARAMETER BLOCK: LENGTH

        a3

        INV   DESTINATION   NATURE OF

        IND   ADDRESS       NUMBER

       b3  [c3]          [d3]

        DP CONVERTER

        e3

        INV   COLLECTED                         NATURE OF

        IND   DIGITS                            NUMBER

       h3  [i3]                              [j3]

        EXTENDED RINGING
```

g^3

INV IND	RTE IDX	WATS IND	NUMBER OUTPULSED	CALL TREATMENT
n	[o]	[p]	[q]	[r]
n	[s]	[p]	[q]	[r]
n	[t]	[p]	[q]	[r]

CARRIER USAGE ID

v^2

INV IND	CARR ID	CARRIER SELECTION
u	[v]	[w]
u	[x]	[w]
u	[y]	[w]

INV IND	GLOBAL TITLE	TRANS TYPE	GAP TYPE	GAP INTERVAL	GAP DUR	CONTROL TYPE
z	[a^1]	[b^1]	[c^1]	[d^1]	[e^1]	[f^1]

AMP: YEAR	MONTH	DATE	HOUR	MIN
g^1	[h^1]	[i^1]	[j^1]	[k^1]

USER ID: TYPE	ID	INV	DN	INV	SPID
h^2	[i^2]	[j^2]	[k^2]	[l^2]	[m^2]

BEARER CAPABILITY

n^2

CLOSE CAUSE

o^2

NEXT EVENT LIST: REQUESTS INV IND p^2

q^2 $[q^2]$ $[q^2]$ $[q^2]$

q^2 $[q^2]$ $[q^2]$ $[q^2]$

q^2

NEXT EVENT LIST: NOTIFICATIONS INV IND r^2

s^2 $[s^2]$ $[s^2]$ $[s^2]$

s^2 $[s^2]$ $[s^2]$ $[s^2]$

s^2

NEXT EVENT LIST: ORIGINATING NO ANSWER TIMER

t^2

NEXT EVENT LIST: TERMINATING NO ANSWER TIMER

u^2

SEND NOTIFICATION:ECHODATA

l^1

[2] _____

TST ASPTQ RTE2 MESSAGE TYPE=a DISPLAY TYPE=b

INV TRAVELING CHARGE

IND CLASS MARK STATION TYPE

o^1 $[p^1]$ $[q^1]$

PASSIVE LEG CONTROL LEG

TREATMENT TREATMENT

r^1 $[r^1]$

```
RDIRINFO:

ORIG REDIRECT        REDIRECT          INV     REDIRECT

REASON               REASON            IND     CNT

w2                  [x2]              [y2]      [z2]


INV  DIRECTORY       NATURE OF  SCREENING  PRESENTATION

IND  NUMBER          NUMBER     IND        RESTRICTION IND

s1 [t1]            [u1]       [v1]       [w1]

s1 [x1]            [u1]       [v1]       [w1]

s1 [y1]            [z1]

s1 [a2]            [z1]

s1 [b2]            [c2]
```

[3]

```
TST ASPTQ RTE3 MESSAGE TYPE=a         DISPLAY TYPE=b

DISPLAY TEXT INFORMATION:

d2                    [e2]

d2                    [f2]

d2                    [g2]

d2                    [l3]

d2                    [m3]

d2                    [n3]

d2                    [o3]
```

2. REASON FOR OUTPUT

To respond to a TST:ASPTQ input message, which requests that a 0.1 advanced services platform (ASP) test query be sent to query the external database service control point (SCP). This output format will be used to display the routing and call processing data for the following responses: analyze route, authorize termination, cancel resource, close, collect information, continue, disconnect, forward call, and send to resource. Analyze route, authorize termination and forward call will also have a part 2 of the message displayed. The data in the ACG, next event list, and send notification components will also be displayed.

Note: To always provide the user with the ability to respond to the `PLAY COLLECT DIGITS` resource type, Format 1 routing message will always be displayed when the SCP response is send to resource even though the user may have only selected the AMA billing option for display type.

3. VARIABLE FIELD DEFINITIONS

`a` = The message type. Valid value(s):

`CLOSE`	= Close.
`INFOANAL`	= Information analyze.
`INFOCOLL`	= Information collected.
`NTWKBSY`	= Network Busy.
`OANSWER`	= Originating answer.
`OCLDPTYBSY`	= Originating called party busy.
`ONOANSWER`	= Originating no answer.
`ORIGAT`	= Origination attempt.
`OTERMSZD`	= Originating termination seized.
`RESCLR`	= Resource clear.
`TANSWER`	= Terminating answer.
`TBUSY`	= Terminating busy.
`TERMAT`	= Termination attempt.
`TNOANSWER`	= Terminating no answer.
`TRMRSRCAVL`	= Terminating resource available.

`b` = Display type. Valid value(s):

`AMA`	= AMA billing display. Send to resource will always display Format 1 routing message, even if AMA option was selected, to handle the case of a `PLAY COLLECT DIGITS` resource type.
`BOTH`	= AMA and routing display.
`RTE`	= Routing display.

`c` = Response type. Valid value(s):

```
ANALYZE ROUTE
AUTHORIZE TERMINATION
CANCEL RESOURCE
CLOSE
COLLECT INFORMATION
CONTINUE
DISCONNECT
FORWARD CALL
OFFER CALL
SEND TO RESOURCE
```

`d` = Response time in seconds.

`e` = Response time in seconds (fraction of a second).

`f` = Resource type. Valid value(s):

```
PLAY ANNOUNCEMENT
PLAY COLLECT DIGITS
```

FLEX PARAMETER BLOCK
* = Indicates invalid value.

g = Disconnect flag. Valid value(s):
PRESENT

h = Interruptible announcement code.

i = Uninterruptible announcement code.

j = Invalid indicator for number of digits to collect. Valid value(s):
* = Indicates invalid range.

k = Number of digits to collect (specific number specified).

Note: This field indicates that the user should initiate another TST:ASPTQ command indicating message type as resource clear. If digits are entered this field will be used to indicate the number of digits to specify in the collected digits parameter. There is a 3 minute time limit for user input.

l = Number of digits to collect.

Note: This field indicates that the user should initiate another TST:ASPTQ command indicating message type as as resource clear. If digits are entered, this field is used to determine the number of digits to specify for collected digits or the collected address parameter. There is a 3 minute time limit for user input. Valid value(s):

ANY NUMBER DIGITS = Any number of digits.

NRM NUMBER DIGITS = Normal number of digits.

m = Answer indicator. Valid value(s):
PRESENT

n = Invalid indicator for primary, alternate or second alternate route index. Valid value(s):
* = Indicates invalid range.

o = Primary route index.

p = Primary, alternate, or second alternate wide area telephone service (WATS) indicator. Valid value(s):
NOT WATS
WATS

q = Primary, alternate, or second alternate number outpulsed. Valid value(s):
OUTPL = Outpulse number.
RTE = Routing number.

r = Primary, alternate, or second alternate call treatment. Valid value(s):
NO OVERFLOW NO RETURN
NOT USED
OFF-HOOK QUEUE NO OVERFLOW NO RETURN
OFF-HOOK QUEUE OVERFLOW
OFF-HOOK QUEUE RETURN
OVERFLOW
RETURN
RING-BACK QUEUE NO OVERFLOW NO RETURN
RING-BACK QUEUE OVERFLOW
RING-BACK QUEUE RETURN
* = Invalid value.

s = Alternate route index.

t = Second alternate route index.

u = Invalid indicator for primary, alternate, and second alternate carrier ID. Valid value(s):
* = Indicates invalid range.

v = Primary carrier ID.

w = Primary, alternate, or second alternate carrier selection. Valid value(s):
NO INDICATION
NOT PRESUBSCRIBED INPUT BY CALLING PARTY
PRESUBSCRIBED INPUT BY CALLING PARTY
PRESUBSCRIBED NO INDICATION
PRESUBSCRIBED NOT INPUT BY CALLING PARTY
* = Invalid value.

x = Alternate carrier ID.

y = Second alternate carrier ID.

z = Invalid indicator for global title. Valid value(s):
* = Indicates value not numeric.

a[1] = Global title.

b[1] = Translation type.

c[1] = Gap type. Valid value(s):
NAT = National gap interval index.
PRVT = Private gap interval index.

d[1] = Gap interval index.

e[1] = Gap duration index.

f[1] = Control type. Valid value(s):

SCP OVERLOAD CONTROLS
SMS INITIATED CONTROLS
* = Indicates invalid value. Either both of the controls were set or neither were set.

g[1] = AMP year. Valid value(s):
CURRENT
LAST
NEXT

h[1] = AMP month. Valid value(s):
JAN = January.
FEB = February.
MAR = March.
APR = April.
MAY = May.
JUN = June.
JUL = July.
AUG = August.
SEP = September.
OCT = October.
NOV = November.
DEC = December.

i[1] = AMP date.

j[1] = AMP hour.

k[1] = AMP minutes. Valid value(s):
00
15
30
45

l[1] = Echodata.

o[1] = Invalid indicator for traveling class mark (TCM). Valid value(s):
* = Indicates invalid range.

p[1] = Traveling class mark.

q[1] = Charge party station type.

r[1] = Passive leg treatment or control leg treatment. Valid value(s):
ALERT ON PAT 0 NRM = Alerting on pattern 0 normal.
ALERT ON PAT 1 DIST INTERGRP = Alerting on pattern 1 distinctive intergroup.
ALERT ON PAT 2 DIST SPECIAL = Alerting on pattern 2 distinctive special.

s[1] = Invalid DN indicator. Valid value(s):
* = Indicates DN is not numeric or out of range.

t[1] = Calling party ID.

u[1] = Nature of number for calling party ID or redirecting party ID. Valid value(s):

APN	= Action Pointer Number.
INTL	= Unique international number.
NA	= Not applicable or unknown.
NAT	= Unique national (significant) number.
NUNQ INT	= Non unique international number.
NUNQ NAT	= Non unique national number.
NUNQ SS	= Non unique subscriber number.
SS	= Unique subscriber number.
TST LINE	= Test line test code.
*	= Indicates invalid value.

v[1] = Screening indicator for calling party ID or redirecting party ID. Valid value(s):

NETP	= Network provided.
UPNS	= User provided not screened.
UPPS	= User provided passed screening.
*	= Indicates invalid range.

w[1] = Presentation restriction indicator for calling party ID or redirecting party ID. Valid value(s):

ALW	= Presentation allowed.
REST	= Presentation restricted.
UNAV	= Number unavailable.
*	= Indicates invalid value.

x[1] = Redirecting party ID.

y[1] = Called party ID.

z[1] = Nature of number for called party ID or outpulsed number. Valid value(s):

950+	= 950+ call.
APN	= Action Pointer Number.
CUT THRU	= No address present cut through to carrier.
INTL	= International number.
INTL OPR	= International number operator requested.
NA	= Not applicable.
NADR OPR	= No address present operator requested.
NAT	= National (significant) number.
NAT OPR	= National number operator requested.
SS	= Subscriber number.
SS OPR	= Subscriber number operator requested.
TST LINE	= Test line test code.
*	= Indicates invalid range.

a[2] = Outpulse number.

b[2] = Charge number.

c[2] = Nature of number for charge number. Valid value(s):

APN	= Action Pointer Number.
NAT CLD	= National number called party ANI.
NAT CLG	= National number, calling party ANI.
NOT AVL	= ANI not available or not provided.
NOT INCL	= Called party ANI not included.
SS CLD	= Subscriber number called party ANI.
SS CLG	= Subscriber number calling party ANI.
*	= Indicates invalid value.

d[2] = Type of display text information displayed.

Note: Error validation is not provided for display text data.

CALLING PARTY ADDRESS

CALLING PARTY NAME

DATE

FEATURE ADDRESS

ORIGINAL CALLED NAME

REASON

REDIRECTING REASON

e[2] = First display text information.

f[2] = Second display text information.

g[2] = Third display text information.

h[2] = User ID type. Valid value(s):

BRI	= Basic rate interface.
DN	= Directory number.
PFID	= Private facility ID.
TGID	= Trunk group ID.

i[2] = Trunk group ID or private facility ID for the user ID parameter depending upon the user ID type.

j[2] = Invalid user ID directory number (DN) indicator. Valid value(s):

*	= Indicates DN is not numeric or out of range.

k[2] = Directory number for the user ID parameter.

l[2] = Invalid user ID service profile ID (SPID) indicator. Valid value(s):

*	= Indicates SPID is not numeric or out of range.

m[2] = Service profile ID for the user ID parameter.

n[2] = Bearer capability. Valid value(s):

```
SPEECH
3.1KHZ AUDIO
56 KBPS
64 KBPS
*            = Indicates invalid value.
```

o[2] = Close cause. Valid value(s):

```
TERM         = Call terminated.
CMPL         = Events and reports completed.
UCOMM        = Unexpected communication.
ANSW         = Called party answered.
CALLFWD      = Call forwarded.
*            = Indicates invalid value.
```

p[2] = Invalid indicator for next event list requests. Valid value(s):

```
EMPTY        = Indicates that an empty request list was received.
*            = Indicates that null affect requests are present.
```

q[2] = Next event list requests. Valid value(s):

```
OANSWER      = Originating answer (null affect).
OCLDPTYBSY   = Originating called party busy.
ONOANSWER    = Originating no answer.
OTERMSZD     = Originating termination seized (null affect).
NTWKBSY      = Network Busy.
TBUSY        = Terminating busy.
TNOANSWER    = Terminating no answer.
TRMRSRCAVL   = Terminating resource available (null affect).
TANSWER      = Terminating answer (null affect).
```

r[2] = Invalid indicator for next event list notifications. Valid value(s):

```
EMPTY        = Indicates that an empty notification list was received.
*            = Indicates that null affect notifications are present.
```

s[2] = Next event list notifications. Valid value(s):

```
OANSWER      = Originating answer.
OCLDPTYBSY   = Originating called party busy (null affect).
ONOANSWER    = Originating no answer (null affect).
OTERMSZD     = Originating termination seized.
NTWKBSY      = Network Busy (null affect).
TBUSY        = Terminating busy (null affect).
TNOANSWER    = Terminating no answer (null affect).
TRMRSRCAVL   = Terminating resource available.
TANSWER      = Terminating answer.
```

t[2] = Next event list originating no answer timer (range 1-120 seconds).

u[2] = Next event list terminating no answer timer (range 1-120 seconds).

v[2] = Carrier usage ID. Valid value(s):
- ALWOVR = Always override.
- LATAOVR = Only interLATA override.
- * = Indicates invalid value.

w[2] = Original redirecting reason. Valid value(s):
- * = Indicates invalid value.
- BSY = User busy.
- NOR = No reply.
- UNC = Unconditional.
- UNK = Unknown/not available.

x[2] = Redirecting reason. Valid value(s):
- * = Indicates invalid value.
- BSY = User busy.
- NOR = No reply.
- UNC = Unconditional.
- UNK = Unknown/not available.

y[2] = Invalid indicator for redirection count. Valid value(s):
- * = Indicates invalid value.

z[2] = Redirection count.

a[3] = Flex parameter block length (specified in octets).

b[3] = Invalid indicator for destination address. Valid value(s):
- * = Indicates invalid range or the directory number (DN) is not numeric.

c[3] = Destination address.

d[3] = Nature of number for destination address. Valid value(s):
- NAT = National (significant) number.
- * = Indicates invalid value.

e[3] = DP converter. Valid value(s):
- CONVERSION = Perform DP to DTMF conversion.
- NO CONVERSION = No DP to DTMF conversion performed.

f[3] = Transaction state. Valid value(s):
- CLOSED = The state of the transaction is closed.
- OPEN = The state of the transaction is open.

g[3] = Extended Ringing. Valid value(s):

PRESENT

h[3] = Invalid indicator for collected digits. Valid value(s):
- * = Indicates invalid range or value not numeric.

i[3] = Collected digits. Valid value(s):
- 0-9 = Any digit in the range of 0-9.
- * = The * digit.
- # = The # digit.
- S = The ST digit.

j[3] = Nature of number for collected digits. Valid value(s):
- NA = Not applicable.
- * = Indicates invalid value.

k[3] = Origination point code. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Input Messages manual.

l[3] = Fourth display text information.

m[3] = Fifth display text information.

n[3] = Sixth display text information.

o[3] = Seventh display text information.

4. ACTIONS TO BE TAKEN

When variable 'f[3]' indicates the transaction is OPEN and variable 'c' indicates SEND TO RESOURCE, the user is expected to initiate another TST:ASPTQ input message indicating the message type as RESOURCE CLEAR.

The user has a 3 minute time limit to request this subsequent message. If the user does not initiate another TST:ASPTQ input message within this time period, a close message is automatically sent to the SCP indicating caller abandon.

Refer to the SET:ASPTQ input message for information to correctly set parameters for this message. Also refer to the field description for variables 'l' and 'm'.

When variable 'f[3]' indicates the transaction is OPEN and variable 'c' indicates a response type other than SEND TO RESOURCE, the user is expected to initiate another TST:ASPTQ input message indicating one of the following message types:

NTWKBSY
CLOSE
OANSWER
OCLDPTYBSY
ONOANSWER
OTERMSZD
TANSWER
TBUSY
TNOANSWER

```
TRMRSRCAVL
```

The user has a 3 minute time limit to request any of these subsequent messages. If the user does not initiate another TST:ASPTQ input message within this time period, a close message is automatically sent to the SCP indicating caller abandon.

Refer to the SET:ASPTQ input message for information to correctly set parameters for these messages.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
SET:ASPTQ
TST:ASPTQ
```

Output Message(s):

```
TST:ASPTQ-AMA
TST:ASPTQ-FAIL
TST:ASPTQ-EXT
```

Other Manual(s):
235-190-126 *Advanced Services Platform*

TST:ASPTQ-AMA-A

Software Release: 5E10 only
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST ASPTQ AMA1 MESSAGE TYPE=a          DISPLAY TYPE=b
        RESPONSE TYPE=c                        STATE=b1         RESPONSE TIME=d.e

        BILLING INDICATORS
        CALLCODE    SERVFEAT ID
        f          [g]
        h          [i]
        j          [k]
        l          [m]

        INV  LINE
        IND  NUMBER
        n   [o]
        n   [p]

        INV  DIGITS
        IND  DIALED
        n   [q]
        n   [r]
        n   [s]
        n   [t]

        INV ALTERNATE        NATURE OF      INV BUSINESS     INV SLP
        IND BILL NO          NUMBER         IND CUST ID      IND ID
        n  [u]              [v]            [n] [w]          [n] [x]

[2]   ____________________________________________________________________
      TST ASPTQ AMA2 MESSAGE TYPE=a          DISPLAY TYPE=b

        MEASURE
        y

        INV  SEQUENCE
        IND  NUMBER
        z   [a1]
```

2. REASON FOR OUTPUT

To respond to a TST:ASPTQ input message that requests an 0.1 advanced services platform (ASP) test query be sent to query the external service control point (SCP) database. This format is used to display automatic message accounting (AMA) billing data which is returned in an ASP response from the SCP.

Note: There are 5 AMA digits dialed parameters, however this application only supports 4 in its display of data received from the SCP database.

3. VARIABLE FIELD DEFINITIONS

a = The message type. Valid value(s):

INFOANAL	= Information analyzed.
INFOCOLL	= Information collected.
OANSWER	= Originating answer.
OCLDPTYBSY	= Originating called party busy.
ONOANSWER	= Originating no answer.
ORIGAT	= Origination attempt.
OTERMSZD	= Originating termination seized.
RESCLR	= Resource clear.
TERMAT	= Termination attempt.

b = Display type. Valid value(s):

AMA	= AMA billing display.
BOTH	= AMA and routing display.

c = Response type. Valid value(s):

```
ANALYZE ROUTE
AUTHORIZE TERMINATION
CLOSE
CONTINUE
DISCONNECT
FORWARD CALL
SEND TO RESOURCE
```

d = Response time in seconds.
e = Response time in seconds (fraction part).
f = Primary call code.
g = Primary service feature ID.
h = Alternate call code.
i = Alternate service feature ID.
j = Second alternate call code.
k = Second alternate service feature ID.
l = Overflow call code.
m = Overflow service feature ID.
n = Invalid indicator. Valid value(s):

*	= Invalid range or directory number (DN) not numeric.

o = First line number. The line number includes a three digit line number type and the line number. The first, second and third digits identify the line number type. The fourth through 'n'th digits identify the line number.

p = Second line number. The line number includes a three digit line number type and the line number. The first, second and third digits identify the line number type. The fourth through 'n'th digits identify the line number.

q = First digits dialed. The digits dialed includes the context identifier and the dialed digits. The first, second and third digits identify the context identifier. The fourth through 'n'th digits identify the dialed digits.

r = Second digits dialed. The digits dialed includes the context identifier and the dialed digits. The first, second and third digits identify the context identifier. The fourth through 'n'th digits identify the dialed digits.

s = Third digits dialed. The digits dialed includes the context identifier and the dialed digits. The first,

second and third digits identify the context identifier. The fourth through 'n'th digits identify the dialed digits.

t = Fourth digits dialed. The digits dialed includes the context identifier and the dialed digits. The first, second and third digits identify the context identifier. The fourth through 'n'th digits identify the dialed digits.

u = Alternate billing number.

v = Nature of number for alternate billing number. Valid value(s):

NAT CLD	= National number called party ANI.
NAT CLG	= National number, calling party ANI.
NOT AVL	= ANI not available or not provided.
NOT INCL	= Called party ANI not included.
SS CLD	= Subscriber number called party ANI.
SS CLG	= Subscriber number calling party automatic number identification (ANI).
*	= Invalid value.

w = Business customer ID. The business customer ID includes the context identifier and the AMA business customer ID. The first digit is the context identifier. The second through 'n'th digits are the AMA business customer ID.

x = Service program logic ID.

y = Measure. Valid value(s):

NOT REC	= Connect time not recorded.
SCP	= Connect time recorded, destination SCP.
SSP	= Connect time recorded, destination SSP.
blank	= Variable 'c' is not SEND TO RESOURCE.

z = Invalid indicator for sequence number. Valid value(s):

*	= An invalid range or the directory number (DN) is not numeric.
blank	= Variable 'c' is not SEND TO RESOURCE.

a^1 = Sequence number. This will be blank if variable 'c' is not SEND TO RESOURCE.

b^1 = Transaction state. Valid value(s):

CLOSED	= The state of the transaction is closed.
OPEN	= The state of the transaction is open.

4. ACTION TO BE TAKEN

When variable 'b^1' indicates the transaction is OPEN, and variable 'c' indicates SEND TO RESOURCE, the user is expected to initiate another TST:ASPTQ input message indicating the message type as RESOURCE CLEAR.

The user has a 3 minute time limit to request this subsequent message. If the user does not initiate another TST:ASPTQ input message within this time period, a close message is automatically sent to the SCP indicating caller abandon.

Refer to the SET:ASPTQ input message for information to correctly set parameters for this message.

When variable 'b^1' indicates the transaction is OPEN and variable 'c' indicates a response type other than SEND TO RESOURCE, the user is expected to initiate another TST:ASPTQ input message indicating one of the following message types:

CLOSE
OANSWER
OCLDPTYBSY

```
ONOANSWER
OTERMSZD
```

The user has a 3 minute time limit to request any of these subsequent messages. If the user does not initiate another TST:ASPTQ input message within this time period, a close message is automatically sent to the SCP indicating caller abandon.

Refer to the SET:ASPTQ input message for information to correctly set parameters for these messages.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
TST:ASPTQ
```

Output Message(s):

```
TST:ASPTQ
TST:ASPTQ-FAIL
```

Other Manual(s):
235-190-126 *Advanced Services Platform*

TST:ASPTQ-AMA-B

Software Release: 5E11 only
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST ASPTQ AMA1 MESSAGE TYPE=a          DISPLAY TYPE=b
        RESPONSE TYPE=c                        STATE=b1         RESPONSE TIME=d.e

        BILLING INDICATORS
        CALLCODE    SERVFEAT ID
        f          [g]
        h          [i]
        j          [k]
        l          [m]

        INV  LINE
        IND  NUMBER
        n   [o]
        n   [p]

        INV  DIGITS
        IND  DIALED
        n   [q]
        n   [r]
        n   [s]
        n   [t]

        INV ALTERNATE        NATURE OF      INV BUSINESS     INV SLP
        IND BILL NO          NUMBER         IND CUST ID      IND ID
        n  [u]              [v]            [n] [w]          [n] [x]

[2]   ____________________________________________________________________
      TST ASPTQ AMA2 MESSAGE TYPE=a          DISPLAY TYPE=b

        MEASURE
        y

        INV  SEQUENCE
        IND  NUMBER
        z   [a1]
```

2. REASON FOR OUTPUT

To respond to a TST:ASPTQ input message that requests an 0.1 advanced services platform (ASP) test query be sent to query the external service control point (SCP) database. This format is used to display automatic message accounting (AMA) billing data which is returned in an ASP response from the SCP.

NOTE: There are 5 AMA digits dialed parameters, however this application only supports 4 in its display of data received from the SCP database.

3. VARIABLE FIELD DEFINITIONS

a = The message type. Valid value(s):

INFOANAL	= Information analyzed.
INFOCOLL	= Information collected.
OANSWER	= Originating answer.
OCLDPTYBSY	= Originating called party busy.
ONOANSWER	= Originating no answer.
ORIGAT	= Origination attempt.
OTERMSZD	= Originating termination seized.
RESCLR	= Resource clear.
TERMAT	= Termination attempt.

b = Display type. Valid value(s):

AMA	= AMA billing display.
BOTH	= AMA and routing display.

c = Response type. Valid value(s):

```
ANALYZE ROUTE
AUTHORIZE TERMINATION
CLOSE
COLLECT INFORMATION
CONTINUE
DISCONNECT
FORWARD CALL
SEND TO RESOURCE
```

d = Response time in seconds.

e = Response time in seconds (fraction part).

f = Primary call code.

g = Primary service feature ID.

h = Alternate call code.

i = Alternate service feature ID.

j = Second alternate call code.

k = Second alternate service feature ID.

l = Overflow call code.

m = Overflow service feature ID.

n = Invalid indicator. Valid value(s):

*	= Invalid range or directory number (DN) not numeric.

o = First line number. The line number includes a three-digit line number type and the line number.

The first, second and third digits identify the line number type. The fourth through 'n'th digits identify the line number.

p = Second line number. The line number includes a three-digit line number type and the line number. The first, second and third digits identify the line number type. The fourth through 'n'th digits identify the line number.

q = First digits dialed. The digits dialed includes the context identifier and the dialed digits. The first, second and third digits identify the context identifier. The fourth through 'n'th digits identify the dialed digits.

r = Second digits dialed. The digits dialed includes the context identifier and the dialed digits. The first, second and third digits identify the context identifier. The fourth through 'n'th digits identify the dialed digits.

s = Third digits dialed. The digits dialed includes the context identifier and the dialed digits. The first, second and third digits identify the context identifier. The fourth through 'n'th digits identify the dialed digits.

t = Fourth digits dialed. The digits dialed includes the context identifier and the dialed digits. The first, second and third digits identify the context identifier. The fourth through 'n'th digits identify the dialed digits.

u = Alternate billing number.

v = Nature of number for alternate billing number. Valid value(s):

NAT CLD	= National number called party ANI.
NAT CLG	= National number, calling party ANI.
NOT AVL	= ANI not available or not provided.
NOT INCL	= Called party ANI not included.
SS CLD	= Subscriber number called party ANI.
SS CLG	= Subscriber number calling party automatic number identification (ANI).
*	= invalid value.

w = Business customer ID. The business customer ID includes the context identifier and the AMA business customer ID. The first digit is the context identifier. The second through 'n'th digits are the AMA business customer ID.

x = Service program logic ID.

y = Measure. Valid value(s):

NOT REC	= Connect time not recorded.
SCP	= Connect time recorded, destination SCP.
SSP	= Connect time recorded, destination SSP.
blank	= Variable 'c' is not SEND TO RESOURCE.

z = Invalid indicator for sequence number. Valid value(s):

*	= An invalid range or the directory number (DN) is not numeric.
blank	= Variable 'c' is not SEND TO RESOURCE.

a[1] = Sequence number. This will be blank if variable 'c' is not SEND TO RESOURCE.

b[1] = Transaction state. Valid value(s):
CLOSED = The state of the transaction is closed.
OPEN = The state of the transaction is open.

4. ACTION TO BE TAKEN

When variable 'b[1]' indicates the transaction is OPEN, and variable 'c' indicates SEND TO RESOURCE, the user is expected to initiate another TST:ASPTQ input message indicating the message type as RESOURCE CLEAR.

The user has a 3 minute time limit to request this subsequent message. If the user does not initiate another TST:ASPTQ input message within this time period, a close message is automatically sent to the SCP indicating caller abandon.

Refer to the SET:ASPTQ input message for information to correctly set parameters for this message.

When variable 'b[1]' indicates the transaction is OPEN and variable 'c' indicates a response type other than SEND TO RESOURCE, the user is expected to initiate another TST:ASPTQ input message indicating one of the following message types:

```
CLOSE
OANSWER
OCLDPTYBSY
ONOANSWER
OTERMSZD
```

The user has a 3 minute time limit to request any of these subsequent messages. If the user does not initiate another TST:ASPTQ input message within this time period, a close message is automatically sent to the SCP indicating caller abandon.

Refer to the SET:ASPTQ input message for information to correctly set parameters for these messages.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
TST:ASPTQ
```

Output Message(s):

```
TST:ASPTQ
TST:ASPTQ-FAIL
```

Other Manual(s):
235-190-126 *Advanced Services Platform*

TST:ASPTQ-AMA-C

Software Release: 5E12 - 5E13
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST ASPTQ AMA1 MESSAGE TYPE=a          DISPLAY TYPE=b
        RESPONSE TYPE=c                        STATE=b1         RESPONSE TIME=d.e
        OPC=c1

        BILLING INDICATORS
        CALLCODE    SERVFEAT ID
        f          [g]
        h          [i]
        j          [k]
        l          [m]

        INV  LINE
        IND  NUMBER
        n   [o]
        n   [p]

        INV  DIGITS
        IND  DIALED
        n   [q]
        n   [r]
        n   [s]
        n   [t]

[2]   ____________________________________________________________________
      TST ASPTQ AMA2 MESSAGE TYPE=a          DISPLAY TYPE=b

        MEASURE
        y

        INV  SEQUENCE
        IND  NUMBER
        z   [a1]

        INV ALTERNATE        NATURE OF      INV BUSINESS     INV SLP
        IND BILL NO          NUMBER         IND CUST ID      IND ID
        n  [u]              [v]            [n] [w]          [n] [x]
```

2. REASON FOR OUTPUT

To respond to a TST:ASPTQ input message that requests an 0.1 advanced services platform (ASP) test query be sent to query the external service control point (SCP) database. This format is used to display automatic message accounting (AMA) billing data which is returned in an ASP response from the SCP.

Note: There are 5 AMA digits dialed parameters, however this application only supports 4 in its display of

data received from the SCP database.

3. VARIABLE FIELD DEFINITIONS

a = The message type. Valid value(s):

INFOANAL	= Information analyzed.
INFOCOLL	= Information collected.
OANSWER	= Originating answer.
OCLDPTYBSY	= Originating called party busy.
ONOANSWER	= Originating no answer.
ORIGAT	= Origination attempt.
OTERMSZD	= Originating termination seized.
RESCLR	= Resource clear.
TERMAT	= Termination attempt.

b = Display type. Valid value(s):

AMA	= AMA billing display.
BOTH	= AMA and routing display.

c = Response type. Valid value(s):

ANALYZE ROUTE
AUTHORIZE TERMINATION
CLOSE
COLLECT INFORMATION
CONTINUE
DISCONNECT
FORWARD CALL
SEND TO RESOURCE

d = Response time in seconds.
e = Response time in seconds (fraction part).
f = Primary call code.
g = Primary service feature ID.
h = Alternate call code.
i = Alternate service feature ID.
j = Second alternate call code.
k = Second alternate service feature ID.
l = Overflow call code.
m = Overflow service feature ID.
n = Invalid indicator. Valid value(s):

*	= Invalid range or directory number (DN) not numeric.

o = First line number. The line number includes a three-digit line number type and the line number. The first, second and third digits identify the line number type. The fourth through 'n'th digits identify the line number.

p = Second line number. The line number includes a three-digit line number type and the line number. The first, second and third digits identify the line number type. The fourth through 'n'th digits identify the line number.

q = First digits dialed. The digits dialed includes the context identifier and the dialed digits. The first, second and third digits identify the context identifier. The fourth through 'n'th digits identify the dialed digits.

r = Second digits dialed. The digits dialed includes the context identifier and the dialed digits. The first, second and third digits identify the context identifier. The fourth through 'n'th digits identify the

dialed digits.

s = Third digits dialed. The digits dialed includes the context identifier and the dialed digits. The first, second and third digits identify the context identifier. The fourth through 'n'th digits identify the dialed digits.

t = Fourth digits dialed. The digits dialed includes the context identifier and the dialed digits. The first, second and third digits identify the context identifier. The fourth through 'n'th digits identify the dialed digits.

u = Alternate billing number.

v = Nature of number for alternate billing number. Valid value(s):

NAT CLD	= National number called party ANI.
NAT CLG	= National number, calling party ANI.
NOT AVL	= ANI not available or not provided.
NOT INCL	= Called party ANI not included.
SS CLD	= Subscriber number called party ANI.
SS CLG	= Subscriber number calling party automatic number identification (ANI).
*	= Invalid value.

w = Business customer ID. The business customer ID includes the context identifier and the AMA business customer ID. The first digit is the context identifier. The second through 'n'th digits are the AMA business customer ID.

x = Service program logic ID.

y = Measure. Valid value(s):

NOT REC	= Connect time not recorded.
SCP	= Connect time recorded, destination SCP.
SSP	= Connect time recorded, destination SSP.
blank	= Variable 'c' is not SEND TO RESOURCE.

z = Invalid indicator for sequence number. Valid value(s):

*	= An invalid range or the directory number (DN) is not numeric.
blank	= Variable 'c' is not SEND TO RESOURCE.

a[1] = Sequence number. This will be blank if variable 'c' is not SEND TO RESOURCE.

b[1] = Transaction state. Valid value(s):

CLOSED	= The state of the transaction is closed.
OPEN	= The state of the transaction is open.

c[1] = Origination point code. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Input Messages manual.

4. ACTION TO BE TAKEN

When variable 'b[1]' indicates the transaction is OPEN, and variable 'c' indicates SEND TO RESOURCE, the user is expected to initiate another TST:ASPTQ input message indicating the message type as RESOURCE CLEAR.

The user has a 3 minute time limit to request this subsequent message. If the user does not initiate another TST:ASPTQ input message within this time period, a close message is automatically sent to the SCP indicating caller abandon.

Refer to the SET:ASPTQ input message for information to correctly set parameters for this message.

When variable 'b[1]' indicates the transaction is OPEN and variable 'c' indicates a response type other than SEND TO RESOURCE, the user is expected to initiate another TST:ASPTQ input message indicating one of the following

message types:
```
CLOSE
OANSWER
OCLDPTYBSY
ONOANSWER
OTERMSZD
```

The user has a 3 minute time limit to request any of these subsequent messages. If the user does not initiate another TST:ASPTQ input message within this time period, a close message is automatically sent to the SCP indicating caller abandon.

Refer to the SET:ASPTQ input message for information to correctly set parameters for these messages.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
TST:ASPTQ
```

Output Message(s):

```
TST:ASPTQ
TST:ASPTQ-FAIL
```

Other Manual(s):
235-190-126 *Advanced Services Platform*

TST:ASPTQ-AMA-D

Software Release: 5E14 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST ASPTQ AMA1 MESSAGE TYPE=a          DISPLAY TYPE=b

        RESPONSE TYPE=c                        STATE=b1         RESPONSE TIME=d.e

        OPC=c1


        BILLING INDICATORS

        CALLCODE    SERVFEAT ID

        f         [g]

        h         [i]

        j         [k]

        l         [m]


        INV  LINE

        IND  NUMBER

        n  [o]

        n  [p]


        INV  DIGITS

        IND  DIALED

        n  [q]

        n  [r]

        n  [s]

        n  [t]

[2]   ____________________________________________________________________
      TST ASPTQ AMA2 MESSAGE TYPE=a          DISPLAY TYPE=b
```

```
MEASURE

y


INV  SEQUENCE

IND  NUMBER

z  [a1]


INV ALTERNATE        NATURE OF      INV BUSINESS     INV SLP

IND BILL NO          NUMBER         IND CUST ID      IND ID

n [u]              [v]            [n] [w]          [n] [x]


SET HEX AB INDICATOR

d1


BAF MODULES

e1
```

2. REASON FOR OUTPUT

To respond to a TST:ASPTQ input message that requests an advanced services platform (ASP) 0.1 test query be sent to query the external service control point (SCP) database. This format is used to display automatic message accounting (AMA) billing data which is returned in an ASP response from the SCP.

Note: There are 5 AMA digits dialed parameters, however this application only supports 4 in its display of data received from the SCP database.

3. VARIABLE FIELD DEFINITIONS

a = The message type. Valid value(s):

CLOSE	= Close.
INFOANAL	= Information analyzed.
INFOCOLL	= Information collected.
OANSWER	= Originating answer.
OCLDPTYBSY	= Originating called party busy.
ONOANSWER	= Originating no answer.
ORIGAT	= Origination attempt.
OTERMSZD	= Originating termination seized.
NTWKBSY	= Network Busy.
RESCLR	= Resource clear.
TANSWER	= Terminating answer.

TBUSY = Terminating busy.
TERMAT = Termination attempt.
TNOANSWER = Terminating no answer.
TRMRSRCAVL = Terminating resource available.

b = Display type. Valid value(s):
AMA = AMA billing display.
BOTH = AMA and routing display.

c = Response type. Valid value(s):
ANALYZE ROUTE
AUTHORIZE TERMINATION
CLOSE
COLLECT INFORMATION
CONTINUE
DISCONNECT
FORWARD CALL
OFFER CALL
SEND TO RESOURCE

d = Response time in seconds.

e = Response time in seconds (fraction part).

f = Primary call code.

g = Primary service feature ID.

h = Alternate call code.

i = Alternate service feature ID.

j = Second alternate call code.

k = Second alternate service feature ID.

l = Overflow call code.

m = Overflow service feature ID.

n = Invalid indicator. Valid value(s):
* = Invalid range or directory number (DN) not numeric.

o = First line number. The line number includes a three-digit line number type and the line number. The first, second and third digits identify the line number type. The fourth through 'n'th digits identify the line number.

p = Second line number. The line number includes a three-digit line number type and the line number. The first, second and third digits identify the line number type. The fourth through 'n'th digits identify the line number.

q = First digits dialed. The digits dialed includes the context identifier and the dialed digits. The first, second and third digits identify the context identifier. The fourth through 'n'th digits identify the dialed digits.

r = Second digits dialed. The digits dialed includes the context identifier and the dialed digits. The first, second and third digits identify the context identifier. The fourth through 'n'th digits identify the dialed digits.

s = Third digits dialed. The digits dialed includes the context identifier and the dialed digits. The first, second and third digits identify the context identifier. The fourth through 'n'th digits identify the dialed digits.

t = Fourth digits dialed. The digits dialed includes the context identifier and the dialed digits. The first, second and third digits identify the context identifier. The fourth through 'n'th digits identify the dialed digits.

u = Alternate billing number.

v = Nature of number for alternate billing number. Valid value(s):

NAT CLD	= National number called party ANI.
NAT CLG	= National number, calling party ANI.
NOT AVL	= ANI not available or not provided.
NOT INCL	= Called party ANI not included.
SS CLD	= Subscriber number called party ANI.
SS CLG	= Subscriber number calling party automatic number identification (ANI).
*	= Invalid value.

w = Business customer ID. The business customer ID includes the context identifier and the AMA business customer ID. The first digit is the context identifier. The second through 'n'th digits are the AMA business customer ID.

x = Service program logic ID.

y = Measure. Valid value(s):

NOT REC	= Connect time not recorded.
SCP	= Connect time recorded, destination SCP.
SSP	= Connect time recorded, destination SSP.
blank	= Variable 'c' is not SEND TO RESOURCE.

z = Invalid indicator for sequence number. Valid value(s):

*	= An invalid range or the directory number (DN) is not numeric.
blank	= Variable 'c' is not SEND TO RESOURCE.

a[1] = Sequence number. This will be blank if variable 'c' is not SEND TO RESOURCE.

b[1] = Transaction state. Valid value(s):

CLOSED	= The state of the transaction is closed.
OPEN	= The state of the transaction is open.

c[1] = Origination point code. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Input Messages manual.

d[1] = Set Hex AB Indicator. Valid value(s):

TRUE = One or more parameters in the Bellcore AMA Format (BAF) modules are incorrect.

FALSE = All BAF module parameters are correct.

e[1] = AMA BAF modules in hex.

4. ACTIONS TO BE TAKEN

When variable 'b[1]' indicates the transaction is OPEN, and variable 'c' indicates SEND TO RESOURCE, the user is expected to initiate another TST:ASPTQ input message indicating the message type as RESOURCE CLEAR.

The user has a 3 minute time limit to request this subsequent message. If the user does not initiate another TST:ASPTQ input message within this time period, a close message is automatically sent to the SCP indicating caller abandon.

Refer to the SET:ASPTQ input message for information to correctly set parameters for this message.

When variable 'b[1]' indicates the transaction is OPEN and variable 'c' indicates a response type other than SEND TO RESOURCE, the user is expected to initiate another TST:ASPTQ input message indicating one of the following message types:

CLOSE
OANSWER
OCLDPTYBSY
ONOANSWER
OTERMSZD
TANSWER
TBUSY
TNOANSWER
TRMRSRCAVL

The user has a 3 minute time limit to request any of these subsequent messages. If the user does not initiate another TST:ASPTQ input message within this time period, a close message is automatically sent to the SCP indicating caller abandon.

Refer to the SET:ASPTQ input message for information to correctly set parameters for these messages.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

TST:ASPTQ

Output Message(s):

TST:ASPTQ

```
TST:ASPTQ-FAIL
TST:ASPTQ-EXT
```

Other Manual(s):
235-190-126 *Advanced Services Platform*

TST:ASPTQ-EXT

Software Release: 5E14 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
TST ASPTQ EXT   MESSAGE TYPE=a            DISPLAY TYPE=b
  RESPONSE TYPE=c                         STATE=f           RESPONSE TIME=d.e
  OPC=g

  EXTENSIONS
  EXTENSION TYPE=h
 [i]
```

2. REASON FOR OUTPUT

To respond to a TST:ASPTQ input message that requests an advanced services plataform (ASP) 0.1 test query be sent to query the external service control point (SCP) database. This format is used to display extesnion parameter data which is retunred in an ASP response from the SCP.

3. VARIABLE FIELD DEFINITIONS

a = The message type. Valid value(s):

CLOSE	= Close.
INFOANAL	= Information analyze.
INFOCOLL	= Information collected.
NTWKBSY	= Network Busy.
OANSWER	= Originating answer.
OCLDPTYBSY	= Originating called party busy.
ONOANSWER	= Originating no answer.
ORIGAT	= Origination attempt.
OTERMSZD	= Originating termination seized.
RESCLR	= Resource clear.
TANSWER	= Terminating answer.
TBUSY	= Terminating busy.
TERMAT	= Termination attempt.
TNOANSWER	= Terminating no answer.
TRMRSRCAVL	= Terminating resource available.

b = Display type. Valid value(s):

BOTH	= AMA billing and routing display.
RTE	= Routing display.

c = Response type. Valid value(s):

ANALYZE ROUTE
AUTHORIZE TERMINATION
CLOSE
COLLECT INFORMATION
CONTINUE

DISCONNECT
FORWARD CALL
OFFER CALL
SEND TO RESOURCE

d = Response time in seconds.

e = Response time in seconds (fraction part).

f = Transaction state. Valid value(s):
CLOSED = The state of the transaction is closed.
OPEN = The state of the transaction is open.

g = Origination point code.

h = Extension type. Consult your company-specific documentation for further information on this field.

i = Extension parameter data. Consult your company-specific documentation for further information on this field.

4. ACTIONS TO BE TAKEN

When variable 'f' indicates the transaction is OPEN, and variable 'c' indicates SEND TO RESOURCE, the user is expected to initiate another TST:ASPTQ input message indicating the message type as RESOURCE CLEAR.

The user has a 3 minute time limit to request this subsequent message. If the user does not initiate another TST:ASPTQ input message within this time period, a close message is automatically sent to the SCP indicating caller abandon.

Refer to the SET:ASPTQ input message for information to correctly set parameters for this message.

When variable 'f' indicates the transaction is OPEN, and variable 'c' indicates a response type other than SEND TO RESOURCE, the user is expected to initiate another TST:ASPTQ input message indicating one of the following message types:

CLOSE
NTWKBSY
OANSWER
OCLDPTYBSY
ONOANSWER
OTERMSZD
TANSWER
TBUSY
TNOANSWER
TRMRSRCAVL

The user has a 3 minute time limit to request any of these subsequent messages. If the user does not initiate another TST:ASPTQ input message within this time period, a close message is automatically sent to the SCP indicating caller abandon.

Refer to the SET:ASPTQ input message for information to correctly set parameters for this message.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
TST:ASPTQ
```

Output Message(s):

```
TST:ASPTQ
TST:ASPTQ-AMA
TST:ASPTQ-FAIL
```

Other Manual(s):
235-190-126 *Advanced Services Platform*

TST:ASPTQ-FAIL-A

Software Release: 5E10 only
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
TST ASPTQ FAIL MESSAGE TYPE=a  DISPLAY TYPE=b
                               [RESPONSE TIME] [c]
  d
 [e]
```

2. REASON FOR OUTPUT

To respond to a TST:ASPTQ input message, that requests an 0.1 advanced services platform (ASP) test query be sent to query the external service control point (SCP) database. This format is used to report that a failure message has been received or a timeout has occurred.

3. VARIABLE FIELD DEFINITIONS

`RESPONSE TIME` = Response time header. This only prints out in case of a failure. Timeout messages do not display this header.

`a` = Message type. Valid value(s):

`CLOSE`	= Close.
`INFOANAL`	= Information analyze.
`INFOCOLL`	= Information collected.
`OANSWER`	= Originating answer.
`OCLDPTYBSY`	= Originating called party busy.
`ONOANSWER`	= Originating no answer.
`ORIGAT`	= Origination attempt.
`OTERMSZD`	= Originating termination seized.
`RESCLR`	= Resource clear.
`TERMAT`	= Termination attempt.

`b` = Display type. Valid value(s):

`AMA`	= AMA billing display.
`BOTH`	= AMA and routing display.
`RTE`	= Routing display.

`c` = Response time in seconds and fractions of a second.

`d` = Reason for failure type. Valid value(s):

```
ABORT
FAILED TO FORMAT MESSAGE
FAILED TO PARSE RESPONSE
FAILED TO SEND MESSAGE TO CNI
FAR END SUBSYSTEM CONGESTION
FAR END SUBSYSTEM PROHIBITED
FAR END SUBSYSTEM UNEQUIPPED
```

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```
MESSAGE RETURNED FROM CNI
NETWORK CONGESTION
NETWORK FAILURE
NO TRANSLATION FOR GLOBAL TITLE
REJECT
RETURN ERROR
TIMEOUT
TRANSLATION FAILURE OF GLOBAL TITLE
UNABLE TO READ RLDS_APP RELATION
```

e = Type of error cause, problem code, abort cause, or timeout reason. Abort causes. Valid value(s):

```
BADLY STRUCTURED TRANSACTION PORTION
INCORRECT TRANSACTION PORTION
PERMISSION TO RELEASE PROBLEM
RESOURCE UNAVAILABLE
UNRECOGNIZED PACKAGE TYPE
UNRECOGNIZED TRANSACTION ID
```

Error causes. Valid value(s):

```
ERRONEOUS DATA VALUE
MISSING CONDITIONAL PARAMETER
RESPONSE MESSAGE TIMER EXPIRED
UNEXPECTED COMMUNICATION
UNEXPECTED MESSAGE
UNEXPECTED MESSAGE SEQUENCE
UNEXPECTED PARAMETER SEQUENCE
```

Problem codes. Valid value(s):

```
BADLY STRUCTURED COMPONENT PORTION
DUPLICATE INVOKE ID
INCORRECT COMPONENT PORTION
INCORRECT INVOKE PARAMETER
INCORRECT RETURN ERROR PARAMETER
INCORRECT RETURN RESULT PARAMETER
MISSING MANDATORY INVOKE PARAMETER
MISSING MANDATORY RETURN ERROR PARAMETER
MISSING MANDATORY RETURN RESULT PARAMETER
UNEXPECTED ERROR
UNEXPECTED RETURN ERROR
UNEXPECTED RETURN RESULT
UNRECOGNIZED COMPONENT
UNRECOGNIZED ERROR
UNRECOGNIZED INVOKE CORRELATION ID
UNRECOGNIZED OPERATION CODE
UNRECOGNIZED RETURN ERROR CORRELATION ID
UNRECOGNIZED RETURN RESULT CORRELATION ID
```

Timeout reason. Valid value(s):

```
TIMED OUT WAITING FOR CRAFT INPUT
```

```
TIMED OUT WAITING FOR RESPONSE FROM SCP
```

4. ACTION TO BE TAKEN

None. This message is in response to a manual input request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
TST:ASPTQ
```

Output Message(s):

```
TST:ASPTQ
TST:ASPTQ-AMA
```

Other Manual(s):
235-190-126 *Advanced Services Platform*

TST:ASPTQ-FAIL-B

Software Release: 5E11 only
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
TST ASPTQ FAIL MESSAGE TYPE=a  DISPLAY TYPE=b
                               [RESPONSE TIME] [c]
  d
 [e]
```

2. REASON FOR OUTPUT

To respond to a TST:ASPTQ input message, that requests an 0.1 advanced services platform (ASP) test query be sent to query the external service control point (SCP) database. This format is used to report that a failure message has been received or a timeout has occurred.

3. VARIABLE FIELD DEFINITIONS

`RESPONSE TIME` = Response time header. This only prints out in case of a failure. Timeout messages do not display this header.

`a` = Message type. Valid value(s):

`CLOSE`	= Close.
`INFOANAL`	= Information analyze.
`INFOCOLL`	= Information collected.
`OANSWER`	= Originating answer.
`OCLDPTYBSY`	= Originating called party busy.
`ONOANSWER`	= Originating no answer.
`ORIGAT`	= Origination attempt.
`OTERMSZD`	= Originating termination seized.
`RESCLR`	= Resource clear.
`TERMAT`	= Termination attempt.

`b` = Display type. Valid value(s):

`AMA`	= AMA billing display.
`BOTH`	= AMA and routing display.
`RTE`	= Routing display.

`c` = Response time in seconds and fractions of a second.

`d` = Reason for failure type. Valid value(s):

```
ABORT
FAILED TO FORMAT MESSAGE
FAILED TO PARSE RESPONSE
FAILED TO SEND MESSAGE TO THE NETWORK
FAR END SUBSYSTEM CONGESTION
FAR END SUBSYSTEM PROHIBITED
FAR END SUBSYSTEM UNEQUIPPED
```

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```
MESSAGE RETURNED FROM NETWORK INTERFACE
NETWORK CONGESTION
NETWORK FAILURE
NO TRANSLATION FOR GLOBAL TITLE
REJECT
RETURN ERROR
TIMEOUT
TRANSLATION FAILURE OF GLOBAL TITLE
UNABLE TO READ RLDS_APP RELATION
```

e = Type of error cause, problem code, abort cause, or timeout reason.

Abort causes. Valid value(s):

```
BADLY STRUCTURED TRANSACTION PORTION
INCORRECT TRANSACTION PORTION
PERMISSION TO RELEASE PROBLEM
RESOURCE UNAVAILABLE
UNRECOGNIZED PACKAGE TYPE
UNRECOGNIZED TRANSACTION ID
```

Error causes. Valid value(s):

```
ERRONEOUS DATA VALUE
MISSING CONDITIONAL PARAMETER
RESPONSE MESSAGE TIMER EXPIRED
UNEXPECTED COMMUNICATION
UNEXPECTED MESSAGE
UNEXPECTED MESSAGE SEQUENCE
UNEXPECTED PARAMETER SEQUENCE
```

Problem codes. Valid value(s):

```
BADLY STRUCTURED COMPONENT PORTION
DUPLICATE INVOKE ID
INCORRECT COMPONENT PORTION
INCORRECT INVOKE PARAMETER
INCORRECT RETURN ERROR PARAMETER
INCORRECT RETURN RESULT PARAMETER
MISSING MANDATORY INVOKE PARAMETER
MISSING MANDATORY RETURN ERROR PARAMETER
MISSING MANDATORY RETURN RESULT PARAMETER
UNEXPECTED ERROR
UNEXPECTED RETURN ERROR
UNEXPECTED RETURN RESULT
UNRECOGNIZED COMPONENT
UNRECOGNIZED ERROR
UNRECOGNIZED INVOKE CORRELATION ID
UNRECOGNIZED OPERATION CODE
UNRECOGNIZED RETURN ERROR CORRELATION ID
UNRECOGNIZED RETURN RESULT CORRELATION ID
```

Timeout reason. Valid value(s):

```
TIMED OUT WAITING FOR CRAFT INPUT
TIMED OUT WAITING FOR RESPONSE FROM SCP
```

4. ACTION TO BE TAKEN

None. This message is in response to a manual input request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
TST:ASPTQ
```

Output Message(s):

```
TST:ASPTQ
TST:ASPTQ-AMA
```

Other Manual(s):
235-190-126 *Advanced Services Platform*

TST:ASPTQ-FAIL-C

Software Release: 5E12 - 5E13
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
TST ASPTQ FAIL MESSAGE TYPE=a  DISPLAY TYPE=b
  OPC=f                        [RESPONSE TIME] [c]
  d
 [e]
```

2. REASON FOR OUTPUT

To respond to a TST:ASPTQ input message, that requests an 0.1 advanced services platform (ASP) test query be sent to query the external service control point (SCP) database. This format is used to report that a failure message has been received or a timeout has occurred.

3. VARIABLE FIELD DEFINITIONS

`RESPONSE TIME` = Response time header. This only prints out in case of a failure. Timeout messages do not display this header.

`a` = Message type. Valid value(s):

`CLOSE`	= Close.
`INFOANAL`	= Information analyze.
`INFOCOLL`	= Information collected.
`OANSWER`	= Originating answer.
`OCLDPTYBSY`	= Originating called party busy.
`ONOANSWER`	= Originating no answer.
`ORIGAT`	= Origination attempt.
`OTERMSZD`	= Originating termination seized.
`RESCLR`	= Resource clear.
`TERMAT`	= Termination attempt.

`b` = Display type. Valid value(s):

`AMA`	= AMA billing display.
`BOTH`	= AMA and routing display.
`RTE`	= Routing display.

`c` = Response time in seconds and fractions of a second.

`d` = Reason for failure type. Valid value(s):

```
ABORT
FAILED TO FORMAT MESSAGE
FAILED TO PARSE RESPONSE
FAILED TO SEND MESSAGE TO THE NETWORK
FAR END SUBSYSTEM CONGESTION
FAR END SUBSYSTEM PROHIBITED
FAR END SUBSYSTEM UNEQUIPPED
```

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```
MESSAGE RETURNED FROM NETWORK INTERFACE
NETWORK CONGESTION
NETWORK FAILURE
NO TRANSLATION FOR GLOBAL TITLE
REJECT
RETURN ERROR
TIMEOUT
TRANSLATION FAILURE OF GLOBAL TITLE
UNABLE TO READ RLDS_APP RELATION
```

e = Type of error cause, problem code, abort cause, or timeout reason. Abort causes. Valid value(s):

```
BADLY STRUCTURED TRANSACTION PORTION
INCORRECT TRANSACTION PORTION
PERMISSION TO RELEASE PROBLEM
RESOURCE UNAVAILABLE
UNRECOGNIZED PACKAGE TYPE
UNRECOGNIZED TRANSACTION ID
```

Error causes. Valid value(s):

```
ERRONEOUS DATA VALUE
MISSING CONDITIONAL PARAMETER
RESPONSE MESSAGE TIMER EXPIRED
UNEXPECTED COMMUNICATION
UNEXPECTED MESSAGE
UNEXPECTED MESSAGE SEQUENCE
UNEXPECTED PARAMETER SEQUENCE
```

Problem codes. Valid value(s):

```
BADLY STRUCTURED COMPONENT PORTION
DUPLICATE INVOKE ID
INCORRECT COMPONENT PORTION
INCORRECT INVOKE PARAMETER
INCORRECT RETURN ERROR PARAMETER
INCORRECT RETURN RESULT PARAMETER
MISSING MANDATORY INVOKE PARAMETER
MISSING MANDATORY RETURN ERROR PARAMETER
MISSING MANDATORY RETURN RESULT PARAMETER
UNEXPECTED ERROR
UNEXPECTED RETURN ERROR
UNEXPECTED RETURN RESULT
UNRECOGNIZED COMPONENT
UNRECOGNIZED ERROR
UNRECOGNIZED INVOKE CORRELATION ID
UNRECOGNIZED OPERATION CODE
UNRECOGNIZED RETURN ERROR CORRELATION ID
UNRECOGNIZED RETURN RESULT CORRELATION ID
```

Timeout reason. Valid value(s):

```
TIMED OUT WAITING FOR CRAFT INPUT
```

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```
TIMED OUT WAITING FOR RESPONSE FROM SCP
```

`f` = Origination point code. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Input Messages manual.

4. ACTION TO BE TAKEN

None. This message is in response to a manual input request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
TST:ASPTQ
```

Output Message(s):

```
TST:ASPTQ
TST:ASPTQ-AMA
```

Other Manual(s):
235-190-126 *Advanced Services Platform*

TST:ASPTQ-FAIL-D

Software Release: 5E14 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
TST ASPTQ FAIL MESSAGE TYPE=a  DISPLAY TYPE=b
  OPC=f                        [RESPONSE TIME] [c]
  d
 [e]
```

2. REASON FOR OUTPUT

To respond to a TST:ASPTQ input message, that requests an 0.1 advanced services platform (ASP) test query be sent to query the external service control point (SCP) database. This format is used to report that a failure message has been received or a timeout has occurred.

3. VARIABLE FIELD DEFINITIONS

a = Message type. Valid value(s):

CLOSE	= Close.
INFOANAL	= Information analyze.
INFOCOLL	= Information collected.
OANSWER	= Originating answer.
OCLDPTYBSY	= Originating called party busy.
ONOANSWER	= Originating no answer.
ORIGAT	= Origination attempt.
OTERMSZD	= Originating termination seized.
NTWKBSY	= Network Busy.
RESCLR	= Resource clear.
TANSWER	= Terminating answer.
TBUSY	= Terminating busy.
TERMAT	= Termination attempt.
TNOANSWER	= Terminating no answer.
TRMRSRCAVL	= Terminating resource available.

b = Display type. Valid value(s):

AMA	= AMA billing display.
BOTH	= AMA and routing display.
RTE	= Routing display.

c = Response time in seconds and fractions of a second.

d = Reason for failure type. Valid value(s):

```
ABORT
FAILED TO FORMAT MESSAGE
FAILED TO PARSE RESPONSE
FAILED TO SEND MESSAGE TO THE NETWORK
FAR END SUBSYSTEM CONGESTION
```

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FAR END SUBSYSTEM PROHIBITED
FAR END SUBSYSTEM UNEQUIPPED
MESSAGE RETURNED FROM NETWORK INTERFACE
NETWORK CONGESTION
NETWORK FAILURE
NO TRANSLATION FOR GLOBAL TITLE
REJECT
RETURN ERROR
TIMEOUT
TRANSLATION FAILURE OF GLOBAL TITLE
UNABLE TO READ RLDS_APP RELATION

e = Type of error cause, problem code, abort cause, or timeout reason.

Abort causes. Valid value(s):
BADLY STRUCTURED TRANSACTION PORTION
INCORRECT TRANSACTION PORTION
PERMISSION TO RELEASE PROBLEM
RESOURCE UNAVAILABLE
UNRECOGNIZED PACKAGE TYPE
UNRECOGNIZED TRANSACTION ID

Error causes. Valid value(s):
ERRONEOUS DATA VALUE
MISSING CONDITIONAL PARAMETER
RESPONSE MESSAGE TIMER EXPIRED
UNEXPECTED COMMUNICATION
UNEXPECTED MESSAGE
UNEXPECTED MESSAGE SEQUENCE
UNEXPECTED PARAMETER SEQUENCE

Problem codes. Valid value(s):
BADLY STRUCTURED COMPONENT PORTION
DUPLICATE INVOKE ID
INCORRECT COMPONENT PORTION
INCORRECT INVOKE PARAMETER
INCORRECT RETURN ERROR PARAMETER
INCORRECT RETURN RESULT PARAMETER
MISSING MANDATORY INVOKE PARAMETER
MISSING MANDATORY RETURN ERROR PARAMETER
MISSING MANDATORY RETURN RESULT PARAMETER
UNEXPECTED ERROR
UNEXPECTED RETURN ERROR
UNEXPECTED RETURN RESULT
UNRECOGNIZED COMPONENT
UNRECOGNIZED ERROR
UNRECOGNIZED INVOKE CORRELATION ID
UNRECOGNIZED OPERATION CODE
UNRECOGNIZED RETURN ERROR CORRELATION ID
UNRECOGNIZED RETURN RESULT CORRELATION ID

Timeout reason. Valid value(s):
`TIMED OUT WAITING FOR CRAFT INPUT`
`TIMED OUT WAITING FOR RESPONSE FROM SCP`

`f` = Origination point code. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Input Messages manual.

4. ACTIONS TO BE TAKEN

None. This message is in response to a manual input request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
TST:ASPTQ
```

Output Message(s):

```
TST:ASPTQ
TST:ASPTQ-AMA
TST:ASPTQ-EXT
```

Other Manual(s):
235-190-12x *Advanced Services Platform*

TST:ASPTQ-NP-A

Software Release: 5E11 only
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST ASPTQ NUMBER PORTABILITY                MESSAGE TYPE=INFOANAL
        RESPONSE TYPE=a                           RESPONSE TIME=b.c

        LRN = d

[2]   ____________________________________________________________________
      TST ASPTQ NUMBER PORTABILITY                MESSAGE TYPE=INFOANAL
        RESPONSE TYPE=a                           RESPONSE TIME=b.c

        DN NOT PORTED = e
```

2. REASON FOR OUTPUT

To respond to a TST:ASPTQ input message where the message type (MSGTYPE=) in the input message is NPINFOANAL, which requests that a 0.1 advanced services platform (ASP) test query for number portability be sent to query the external database service control point (SCP). Output format one will be used to display the location routing number (LRN) of the called party specified in the input message if the number is ported and the SCP response type is a valid analyze route. Output format two will be used when the SCP responds with a valid analyze route response type but the called party specified in the input message is not ported or when the SCP responds with a valid continue SCP response type. If the SCP responds with a response type other than analyze route or continue, this output message will not print as the response but the TST:ASPTQ and TST:ASPTQ-AMA output messages will print. If the SCP responds with a response type containing any errors, this output message will not print as the response but the TST:ASPTQ-FAIL output message will print.

3. VARIABLE FIELD DEFINITIONS

a = Response type. Valid value(s):
`ANALYZE ROUTE`
`CONTINUE`

b = Response time in seconds.

c = Response time in seconds (fraction of a second).

d = Location routing number.

e = Called party number from the TST:ASPTQ request for number portability.

4. ACTIONS TO BE TAKEN

None. This message is in response to a manual input request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
TST:ASPTQ
```

Output Message(s):

```
TST:ASPTQ
TST:ASPTQ-AMA
TST:ASPTQ-FAIL
```

Other Manual(s):
235-190-126 *Advanced Services Platform*
235-190-127 *Number Portability User's Guide*

TST:ASPTQ-NP-B

Software Release: 5E12 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST ASPTQ NUMBER PORTABILITY              MESSAGE TYPE=INFOANAL
        RESPONSE TYPE=a                         RESPONSE TIME=b.c
        OPC=f

        LRN = d

[2]   ____________________________________________________________________
      TST ASPTQ NUMBER PORTABILITY              MESSAGE TYPE=INFOANAL
        RESPONSE TYPE=a                         RESPONSE TIME=b.c
        OPC=f

        DN NOT PORTED = e
```

2. REASON FOR OUTPUT

To respond to a TST:ASPTQ input message where the message type (MSGTYPE=) in the input message is NPINFOANAL, which requests that a 0.1 advanced services platform (ASP) test query for number portability be sent to query the external database service control point (SCP). Output format one will be used to display the location routing number of the called party specified in the input message if the number is ported and the SCP response type is a valid analyze route. Output format two will be used when the SCP responds with a valid analyze route response type but the called party specified in the input message is not ported or when the SCP responds with a valid continue SCP response type. If the SCP responds with a response type other than analyze route or continue, this output message will not print as the response but the TST:ASPTQ and TST:ASPTQ-AMA output messages will print. If the SCP responds with a response type containing any errors, this output message will not print as the response but the TST:ASPTQ-FAIL output message will print.

3. VARIABLE FIELD DEFINITIONS

a = Response type. Valid value(s):
ANALYZE ROUTE
CONTINUE

b = Response time in seconds.

c = Response time in seconds (fraction of a second).

d = Location routing number.

e = Called party number from the TST:ASPTQ request for number portability.

f = Origination point code. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Input Messages manual.

4. ACTIONS TO BE TAKEN

None. This message is in response to a manual input request.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
TST:ASPTQ
```

Output Message(s):

```
TST:ASPTQ
TST:ASPTQ-AMA
TST:ASPTQ-FAIL
```

Other Manual(s):
235-190-126 *Advanced Services Platform*
235-190-127 *Number Portability User's Guide*

TST:AT1-A

Software Release: 5E10 - 5E12
Message Class: CCSTST
Application: 5
Type: Output

1. FORMAT

```
TST AT1 CCRD=a-b-c   DURATION OF TEST=d
  e   TTYP=f   g
 [h]   [i]   [j]
  COMPANY-ID=[k]   SUB-ACCNT=[l]   IC-IND=[m] [n]
  OPC=[o]  RAO=[p]
  q   CG-DIGITS=[r]
  CG-DUR=[s]   CG-INTVL=[t]   [u]   [w]
  ACCT-OWNER=[x]   BILL-SVC-PROVIDER=[y]
```

2. REASON FOR OUTPUT

To report the results of the manual request (TST:AT1) that requests that an *ANSI*® TCAP Type I query be sent to the billing validation database.

3. VARIABLE FIELD DEFINITIONS

`a` = The issuer ID of the card number that was queried.

`b` = The account number of the card number that was queried.

`c` = The personal identification number (PIN) of the card number that was queried.

`d` = Duration of the test in milliseconds. Timing starts when the switch receives the input request and ends when the switch receives the result from the network or a timeout.

`e` = Calling number, also known as the automatic number identification (ANI), used in the query.

`f` = Translation type number that was input.

`g` = Called number, also known as the forward number, used in the query.
`CLG` = Identifies a North American numbering plan number.
`ICLG` = Identifies an international country code or number.

The value `NO CALLED NUMBER` indicates that no called number was input.

`h` = Results of a failed test. This field prints out only when the test query was not successful. Valid value(s):
`GARBLED MESSAGE` = A response was received but the data in the message was mutilated.
`IMS OR CNI RETURNED MSG` = The inter-process message switch (IMS) or the common network interface (CNI) returned the message.
`NETWORK CONGESTION` = Could not complete the test due to network congestion.
`NETWORK FAILURE` = Could not complete the test due to failure in the network.
`NO TRANSLATION ADDRESS NATURE` = No entries exist in the database for addresses of this nature.
`NO TRANSLATION SPECIFIC ADDRESS` = No entries exist in the database for this specific

address.
SUBSYSTEM CONGESTION = Could not complete the test due to subsystem congestion.
SUBSYSTEM FAILURE = Could not complete the test due to subsystem failure.
TIMEOUT = A response to the test query was not received within the five-second time limit.
UNEQUIPPED USER = Could not complete the test due to unequipped user.

i = AT1 response. Valid value(s):
CCAN SERVICE DENIAL = Service denial on calling card account number (CCAN).
MISROUTE = Misroute.
MISSING CUST REC = Missing customer record.
MISSING GROUP = Missing group.
NO PIN MATCH = No PIN match.
NONPARTICIPATE GRP = Nonparticipating group.
PIN NOT ASSIGNED = No PIN assigned.
RECEIVE REJECT = Received reject message for AT1 query.
RESTRICTED PIN = Restricted PIN.
SPD NONPAYMENT = Service on PIN denial nonpayment.
SPD SERVICE RESTRICTION = Service on PIN denial - service restriction.
SPD THRESHOLD = Service on PIN denial - threshold exceeded.
UNAV NET RESOURCE = Unavailable network resource.
UNRESTRICTED PIN = Unrestricted PIN.
UNXP DATA VALUE = Unexpected data value.
VACANT GROUP = Vacant group.

j = AT1 record status indicator. Valid value(s):
DEFAULT RECORD = Default record.
STABLE RECORD = Stable record.
TRANSIT RECORD = Transitional record.

k = Company identifier (ID) number. Identifies the telephone company with which the data is to be associated.

l = Subaccount number. Number used on a customer's bill to distinguish various users of a CCAN, each associated with a different PIN.

m = First inter-local access and transport area (LATA) interexchange carrier (IC) indicator number.

n = Second IC indicator.

o = Originating point code number of the billing validation database.

p = Three-digit revenue accounting office (RAO) number.

q = Call gap present indicator. Valid value(s):
ACG NOT PRESENT = Automatic call gap component not present.
ACG PRESENT, CORRECT = Automatic call gap component present, has no errors.
ACG PRESENT, IN ERROR = Automatic call gap component present, has errors.

r = Call gap control digits. The digits to which controls are to be applied. For all 10+4 customer account services (CAS)/ carrier issuer identification (CCID) 89C and commercial credit cards

(CCC), controls will be applied on the first six digits. Controls will be applied on the first 12 digits for all non 10+4 89C cards, and on the first six digits for all non 10+4 CCC. If no automatic call gap (ACG) component is present, "NONE" will be output.

s = The call gap duration - used to determine the length of time for which controls are to be in effect. The following table lists the call gap duration index number received from the database and the corresponding time (in seconds) that the index represents.

index	gap duration in seconds
0	0
1	1
2	2
3	4
4	8
5	16
6	32
7	64
8	128
9	256
10	512
11	1024
12	2048
13	(block all queries)

t = The call gap interval - used to determine the time between allowed queries when controls are in effect. The following table lists the call gap interval index number received from the database and the corresponding time (in seconds) that the index represents.

index	gap interval in seconds
0	0
1	3
2	4
3	6
4	8
5	11
6	16
7	22
8	30
9	42
10	58
11	81
12	112
13	156
14	217
15	300

u = Call gap indicator. Valid value(s):

- DBOVLD = Database overload.
- MASS = Destination mass calling.
- OUTBND = Out-of-band.
- SMS = Service Management System (SMS) initiated.
- VACCD = Vacant code.

w = Carrier identification code (CIC) expansion (CICEXP) indicator. Presence of the CICEXP keyword indicates that the CIC sent by the external database in the response message should be in the four-digit format. Absence of the keyword indicates that the CIC should contain three digits.

x = Account Owner indicator.

y = Billing Service Provider indicator.

4. ACTIONS TO BE TAKEN

This message is the response to a manual request. It is used as a high-level check on connections to a billing validation database, (a database external to the switch), to check out data in the database, or to check out a repeatedly failing query. If variable '`h`' prints out, then there is a problem with the connection to the database. Otherwise, the response is from the database. If the response from the database is not as expected, contact the database administrator.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:DSTT
TST:AT1
TST:BNS
TST:CAS
TST:CAS7
TST:CCRD
TST:ICCV
TST:INWATS
TST:NCD
TST:RATE
```

Output Message(s):

```
EXC:DSTT
TST:BNS
TST:CAS
TST:CAS7
TST:CCRD
TST:ICCV
TST:INWATS
TST:LIDB-BNS
TST:LIDB-CCRD
TST:NCD
TST:RATE
```

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

TST:AT1-B

Software Release: 5E13 and later
Message Class: CCSTST
Application: 5
Type: Output

1. FORMAT

```
TST AT1 CCRD=a-b-c   DURATION OF TEST=d
  e   TTYP=f   g
 [h]   [i]   [j]
  COMPANY-ID=[k]   SUB-ACCNT=[l]   IC-IND=[m] [n]
  OPC=[o]  RAO=[p]
  q   CG-DIGITS=[r]
  CG-DUR=[s]   CG-INTVL=[t]   [u]   [w]
```

2. REASON FOR OUTPUT

To report the results of the manual request (TST:AT1) that requests that an *ANSI*® TCAP Type I query be sent to the billing validation database.

3. VARIABLE FIELD DEFINITIONS

`a` = The issuer ID of the card number that was queried.

`b` = The account number of the card number that was queried.

`c` = The personal identification number (PIN) of the card number that was queried.

`d` = Duration of the test in milliseconds. Timing starts when the switch receives the input request and ends when the switch receives the result from the network or a timeout.

`e` = Calling number, also known as the automatic number identification (ANI), used in the query.
`CLG` = Identifies a North American numbering plan number.
`ICLG` = Identifies an international country code or number.

The value `NO CALLING NUMBER` indicates that no calling number was input.

`f` = Translation type number that was input.

`g` = Called number, also known as the forward number, used in the query.
`CLG` = Identifies a North American numbering plan number.
`ICLG` = Identifies an international country code or number.

The value `NO CALLED NUMBER` indicates that no called number was input.

`h` = Results of a failed test. This field prints out only when the test query was not successful. Valid value(s):
`GARBLED MESSAGE` = A response was received but the data in the message was mutilated.
`IMS OR CNI RETURNED MSG` = The inter-process message switch (IMS) or the common network interface (CNI) returned the message.
`NETWORK CONGESTION` = Could not complete the test due to network congestion.

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NETWORK FAILURE = Could not complete the test due to failure in the network.
NO TRANSLATION ADDRESS NATURE = No entries exist in the database for addresses of this nature.
NO TRANSLATION SPECIFIC ADDRESS = No entries exist in the database for this specific address.
SUBSYSTEM CONGESTION = Could not complete the test due to subsystem congestion.
SUBSYSTEM FAILURE = Could not complete the test due to subsystem failure.
TIMEOUT = A response to the test query was not received within the five-second time limit.
UNEQUIPPED USER = Could not complete the test due to unequipped user.

i = AT1 response. Valid value(s):
CCAN SERVICE DENIAL = Service denial on calling card account number (CCAN).
MISROUTE = Misroute.
MISSING CUST REC = Missing customer record.
MISSING GROUP = Missing group.
NO PIN MATCH = No PIN match.
NONPARTICIPATE GRP = Nonparticipating group.
PIN NOT ASSIGNED = No PIN assigned.
RECEIVE REJECT = Received reject message for AT1 query.
RESTRICTED PIN = Restricted PIN.
SPD NONPAYMENT = Service on PIN denial nonpayment.
SPD SERVICE RESTRICTION = Service on PIN denial - service restriction.
SPD THRESHOLD = Service on PIN denial - threshold exceeded.
UNAV NET RESOURCE = Unavailable network resource.
UNRESTRICTED PIN = Unrestricted PIN.
UNXP DATA VALUE = Unexpected data value.
VACANT GROUP = Vacant group.

j = AT1 record status indicator. Valid value(s):
DEFAULT RECORD = Default record.
STABLE RECORD = Stable record.
TRANSIT RECORD = Transitional record.

k = Company identifier (ID) number. Identifies the telephone company with which the data is to be associated.

l = Subaccount number. Number used on a customer's bill to distinguish various users of a CCAN, each associated with a different PIN.

m = First inter-local access and transport area (LATA) interexchange carrier (IC) indicator number.

n = Second IC indicator.

o = Originating point code number of the billing validation database.

p = Three-digit revenue accounting office (RAO) number.

q = Call gap present indicator. Valid value(s):
ACG NOT PRESENT = Automatic call gap component not present.
ACG PRESENT, CORRECT = Automatic call gap component present, has no errors.
ACG PRESENT, IN ERROR = Automatic call gap component present, has errors.

r = Call gap control digits. The digits to which controls are to be applied. For all 10+4 customer account services (CAS)/ carrier issuer identification (CCID) 89C and commercial credit cards (CCC), controls will be applied on the first six digits. Controls will be applied on the first 12 digits for all non 10+4 89C cards, and on the first six digits for all non 10+4 CCC. If no automatic call gap (ACG) component is present, "NONE" will be output.

s = The call gap duration - used to determine the length of time for which controls are to be in effect. The following table lists the call gap duration index number received from the database and the corresponding time (in seconds) that the index represents.

index	gap duration in seconds
0	0
1	1
2	2
3	4
4	8
5	16
6	32
7	64
8	128
9	256
10	512
11	1024
12	2048
13	(block all queries)

t = The call gap interval - used to determine the time between allowed queries when controls are in effect. The following table lists the call gap interval index number received from the database and the corresponding time (in seconds) that the index represents.

index	gap interval in seconds
0	0
1	3
2	4
3	6
4	8
5	11
6	16
7	22
8	30
9	42
10	58
11	81
12	112
13	156
14	217
15	300

u = Call gap indicator. Valid value(s):

DBOVLD = Database overload.
MASS = Destination mass calling.
OUTBND = Out-of-band.
SMS = Service Management System (SMS) initiated.
VACCD = Vacant code.

w = Carrier identification code (CIC) expansion (CICEXP) indicator. Presence of the CICEXP keyword indicates that the CIC sent by the external database in the response message should be in the four-digit format. Absence of the keyword indicates that the CIC should contain three digits.

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4. ACTIONS TO BE TAKEN

This message is the response to a manual request. It is used as a high-level check on connections to a billing validation database, (a database external to the switch), to check out data in the database, or to check out a repeatedly failing query. If variable '`h`' prints out, then there is a problem with the connection to the database. Otherwise, the response is from the database. If the response from the database is not as expected, contact the database administrator.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:DSTT
TST:AT1
TST:BNS
TST:CAS
TST:CAS7
TST:CCRD
TST:ICCV
TST:INWATS
TST:NCD
TST:RATE
```

Output Message(s):

```
EXC:DSTT
TST:BNS
TST:CAS
TST:CAS7
TST:CCRD
TST:ICCV
TST:INWATS
TST:LIDB-BNS
TST:LIDB-CCRD
TST:NCD
TST:RATE
```

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

TST:BNS

Software Release: 5E10 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
TST BNS=a    DURATION OF TEST=b
  c [d]   [e]
```

2. REASON FOR OUTPUT

To report the results of the manual request (TST:BNS) that a billing number screening (BNS) query test be performed using billing validation application (BVA).

3. VARIABLE FIELD DEFINITIONS

`a` = Ten-digit billing number that was queried.

`b` = Duration of the test in milliseconds. Timing starts when the switch receives the input request and ends when the switch receives the result from the network or a timeout occurs.

`c` = Results of the test. Valid value(s):

`CCIS FAILURE-DESTINATION NOT EQUIPPED` = A destination in the common channel signaling (CCS) network was not equipped.
`CCIS FAILURE-NETWORK BLOCKED` = Could not complete test due to network blockage.
`CCIS FAILURE-NETWORK OVERLOAD` = Could not complete test due to an overload in the network.
`CCIS FAILURE-NO ROUTING DATA` = Could not route to the database due to an error in or unavailability of routing data in the network.
`COIN-PUBLIC` = Public coin.
`COIN-SEMIPUBLIC` = Semipublic coin.
`COINLESS-PUBLIC` = Public coinless.
`DENIED-ALL` = Collect and bill to third denied.
`DENIED-COLLECT` = Collect billing denied.
`DENIED-THIRD` = Bill to third number denied.
`INVALID BNS MESSAGE RECEIVED` = A response was received but the data in the message was mutilated.
`NO RESTRICTIONS` = No billing restrictions.
`NON-WORKING NUMBER` = Number is not working.
`TIMEOUT` = A response to the test query was not received within the eight-second time limit.
`UNABLE TO PROCESS-DATABASE OVERLOAD` = Database was unable to process due to overload.
`UNABLE TO PROCESS-MISCELLANEOUS` = Database was unable to process.
`UNEQUIPPED BNS` = NPA-NXX is not equipped for BNS.
`UNEQUIPPED NWN` = NPA-NXX is not equipped for NWN check - no known restrictions.
`UNEQUIPPED PT-NWN` = NPA-NXX is not equipped for PT or non-working number (NWN) check- no known restrictions.
`UNEQUIPPED PT` = NPA-NXX is not equipped for public telephone (PT) check - no known billing restrictions.
`VACANT CODE` = NPA-NXX is a vacant code.

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`d` = Control level value. This field is printed only if a control level has been received in a reply. Possible control level values are `0 - 7` and refer to the number of queries out of a possible eight that are being cut back.

`e` = Three-digit revenue accounting office (RAO) number.

4. ACTION TO BE TAKEN

This message is the response to a manual request. It is used as a high-level check on connections to BVA, (a database external to the switch), to check out data in BVA, or to check out a repeatedly failing query. If variable '`c`', "results of the test," prints out `CCIS FAILURE` or `TIMEOUT`, then there is a problem with the connection to the database. Otherwise, the response is from the database. In this case, the response should be examined to see if it indicates proper data in BVA. In any case, the BVA administrator should be contacted for assistance.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:DSTT
TST:BNS
TST:CAS
TST:CCRD
TST:INWATS
TST:NCD
TST:RATE
```

Output Message(s):

```
EXC:DSTT
TST:CAS
TST:CCRD
TST:INWATS
TST:LIDB-BNS
TST:LIDB-CCRD
TST:NCD
TST:RATE
```

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

TST:BTSR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]    ____________________________________________________________________
       TST BTSR=a ATP

[2]    ____________________________________________________________________
       TST BTSR=a STF
```

2. REASON FOR OUTPUT

To report the result of executing TST:BTSR input message that invokes the resident diagnostic of the bootstrapper (BTSR) board.

Format 1 is printed if the BTSR resident diagnostic has passed. Format 2 is printed if the BTSR resident diagnostic has failed.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module number.

4. ACTION TO BE TAKEN

For Format 1, no action required.

For Format 2, replace faulty unit.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`TST:BTSR`

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TST:CAS

Software Release: 5E10 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
TST CAS=a b DURATION OF TEST=c
  d [e]   [f]
```

2. REASON FOR OUTPUT

To report the results of the manual request (TST:CAS) that requests that a customer account services (CAS) query test be performed.

3. VARIABLE FIELD DEFINITIONS

`a` = The 14-digit customer account services card number that was queried (consists of 10-digit individual account number + 4-digit personal identification number (PIN).

`b` = The called number that was input. This will be either a 10-digit domestic directory number, a 1- to 3-digit international country code, or 0 (if no called number was input).

`c` = Duration of the test in milliseconds. Timing starts when the switch receives the input request and ends when the switch receives the result from the network or a timeout occurs.

`d` = Results of the test. Valid value(s):

`ALLOW CALL` = The call is allowed.
`CCIS FAILURE-DESTINATION NOT EQUIPPED` = A destination in the common channel signaling (CCS) network was not equipped.
`CCIS FAILURE-NETWORK BLOCKED` = Could not complete test due to network blockage.
`CCIS FAILURE-NETWORK OVERLOAD` = Could not complete test due to an overload in the network.
`CCIS FAILURE-NO ROUTING DATA` = Could not route to the database due to an error in or unavailability of routing data in the network.
`DENY CALL-DOMESTIC` = Deny the call because domestic restrictions apply.
`DENY CALL-INTERNATIONAL` = Deny the call because international restrictions apply.
`DENY CALL-INVALID` = Deny the call because of an unknown or invalid individual account number.
`DENY CALL-PIN` = Deny the call because the personal identification number (PIN) is invalid for a known individual account number.
`INVALID CAS MESSAGE RECEIVED` = A response was received but the data in the message was mutilated.
`TIMEOUT` = A response to the test query was not received within the eight second time limit.
`UNABLE TO PROCESS-DATABASE OVERLOAD` = Database was unable to process because of overload.
`UNABLE TO PROCESS-MISCELLANEOUS` = Database was unable to process for miscellaneous reasons.

`e` = Control level value. This field is printed only if a control level is received in a reply. The control level may have a value from 0- 15, and is used as index into a network management call gapping

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control level table which specifies the minimum time interval between queries. The following table lists the call gap interval index number received from the database and the corresponding time (in seconds) that the index represents:

index	gap interval in seconds
0	(remove controls)
1	(maintain current controls)
2	.1
3	.25
4	.5
5	1.0
6	2.0
7	5.0
8	10.0
9	15.0
10	30.0
11	60.0
12	120.0
13	300.0
14	600.0
15	(block all queries)

`f` = Control duration value. This field is printed only if a control duration is received in a reply. The control duration may have a value from 0- 12, and is used as index into a network management call gapping control level table which specifies the length of time call gapping controls will remain in effect. The following table lists the call gap duration index number received from the database and the corresponding time (in seconds) that the index represents:

index	gap duration in seconds
0	0
1	1
2	2
3	4
4	8
5	16
6	32
7	64
8	128
9	256
10	512
11	1024
12	2048

4. ACTION TO BE TAKEN

Follow the local practice for handling CAS query tests.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:DSTT
TST:BNS
TST:CAS
TST:CCRD
TST:INWATS
TST:NCD
TST:RATE
```

Output Message(s):

```
EXC:DSTT
TST:BNS
TST:CCRD
TST:INWATS
TST:NCD
TST:RATE
```

TST:CAS7-A

Software Release: 5E10 only
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
TST CAS7=a   b   c      PART [i1] OF [j1]
  DURATION OF TEST=d   CLD=e
  TTYP=f   SRV=g   PC=h
 [i][j][k]
  CDBS=l   SDN=m
  AUTH=n   [ESP DENIED]
  o   CG-DIGITS=p
  CG-DUR=q      CG-INTVL=r   [s]
  PLIND=[t]     BALANCE=[u]
  SDC=[v]       SDFN=[w]     [x]
  DLIND=[y]     DURATION=[z]
  VLIND=[a1]
  SLIND=[b1]
  CLCCI=[c1]
  CLG=[d1]      LOP=[e1]
  BQIND=[f1]
  CARDRATE=[g1] PRODTYPE=[h1]
  NANPGEOIND=[k1]
  INTLGEOIND=[l1]
  900IND=[m1]
  TELECNFIND=[n1]
  PNIIND=[o1]
 [p1]
  QUIET HEAR=q1 AUDIO LOGO=r1
  INTERCEPT SCREENING=s1
```

2. REASON FOR OUTPUT

To report the results of the manual input (TST:CAS7) that requests that a customer account services (CAS) common channel signaling system 7 (CCS7) transaction capabilities application part (TCAP) test query be performed.

3. VARIABLE FIELD DEFINITIONS

`ESP DENIED` = Enhanced services [namely, voice messaging services (VMS)] are not allowed for this card.

`a` = Issuer identification number of the commercial credit card (CCC) or telecommunications calling card (89C) number that was input.

`b` = Individual account number of the CCC or 89C calling card number that was input. This includes a check number, if present.

`c` = Personal identification number (PIN) that was input.

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d = Duration of the test in milliseconds. Timing starts when the administrative module (AM) sends the formatted query, and ends when the query response is received from the network.

e = Called number. A 10-digit North American numbering plan (NANP) number, a 1- to 3-digit international country code, or 'NONE' (if no called number was input).

f = Translation type number that was input.

g = CAS service specifier that was input. The valid values are:

NORMAL = Normal CAS validation.
IVI = CAS inward validation.
SDAP = Speed dial auto provisioning (SDAP) query.
RQV = Rate quote validation.

h = Point code number of the network node that sent the response. If the test query timed out, 'NOT APPLICABLE' is output for the point code.

i = CAS TCAP query reply code or error code. This field prints out when a normal reply was received in response to the test query. Valid value(s):

ALLOW CALL = The card number and PIN have been successfully validated; the call was allowed.
ALLOW CALL - TCS OVERRIDE = The card number and PIN have been successfully validated; any terminating code screening (TCS) restrictions should be overridden, and the call is allowed.
CALLED NUMBER RESTRICTIONS APPLY = The call was denied because called number restrictions applied.
CALLING NUMBER RESTRICTIONS APPLY = The call was denied because calling number restrictions applied.
CARD INELIGIBLE FOR SERVICE = The card was valid but the call should be denied because the service requested was not available for this card.
CL CALL IN PROGRESS = The call was denied because there is already a card limit (CL) call in progress for the particular card number.
CARD UNAVAILABLE FOR PROCESSING = The card was valid but the call should be denied because the card requested was not available for processing.
CREDIT RESTRICTED = The call was denied because the card holder was billing delinquent.
DL BALANCE DEPLETED = The call was denied because the duration limit (DL) card has a depleted duration.
FRAUD RESTRICTED = The call was denied because the card was suspected of fraudulent use.
GATEWAY ERROR = Communication with a CCC vendor was unsuccessful.
INVALID CARD - MISSING RECORD = The call was denied because the card number was invalid, that is, not found in the database.
INVALID CCC RESPONSE = The call was denied because a CCC vendor had indicated that the card was invalid.
INVALID PIN = The call was denied because the PIN was invalid.
INVALID SPEED CODE = The call was denied because the speed dial code sent in the query could not be mapped to a forward number.
MISROUTED QUERY = The card number was not in the range that the database expected to receive.
MISSING PARAMETER = A mandatory parameter was absent from the query.
PL BALANCE DEPLETED = The call was denied because the purchase limit (PL) card has a depleted balance.
SPEED DIALING NOT ALLOWED = The call was denied because the card number is not permitted to make speed dial calls.

`TASK REFUSED` = The task was refused because the node could not handle the request at the time (not because the operation was incorrect in any way).
`UNEXPECTED INPUT, DATA VALUE` = The content of a query parameter was not as expected.
`UNEXPECTED PARAMETER` = A query parameter was received but not recognized.
`VACANT CODE` = The database determined that the card number contained in the query was one that has not yet been assigned.
`VL BALANCE DEPLETED` = The call was denied because the volume limit (VL) card has a depleted balance.

`j` = The abort cause or reject problem code. This field prints out only when a p-abort, u-abort, invoke problem reject message, or general problem reject message is received in reply to a CAS TCAP test query. Valid value(s):
`P-ABORT - BADLY FORMATTED TRANSACTION PORTION` = The transaction portion of the received message did not conform to the encoding rules.
`P-ABORT - INCORRECT TRANSACTION PORTION` = The elemental structure within the transaction portion of the received message did not conform to the rules for the transaction portion.
`P-ABORT - RESOURCE LIMITATION` = Sufficient resources were not available.
`P-ABORT - UNRECOGNIZED MESSAGE TYPE` = The TCAP message type was not defined.
`P-ABORT - UNRECOGNIZED TRANSACTION ID` = A transaction ID had been received for which a transaction did not exist at the receiving node.
`REJECT - BADLY STRUCTURED COMPONENT` = The contents of the component did not conform to the encoding rules.
`REJECT - DUPLICATE INVOKE ID` = The invoke ID was already in use by a previously invoked operation.
`REJECT - INITIATING RELEASE` = The requested operation could not be invoked because the dialogue was about to be concluded.
`REJECT - MISTYPED COMPONENT` = The elemental structure of a component did not conform to the defined structure of that component.
`REJECT - MISTYPED PARAMETER` = A parameter tag was not one of those associated with the invoked operation.
`REJECT - RESOURCE LIMITATION` = Sufficient resources were not available to perform the requested operation.
`REJECT - UNRECOGNIZED COMPONENT` = The component type was not recognized.
`REJECT - UNRECOGNIZED OPERATION` = The operation code value was not one of those used by the application.
`U-ABORT - APPLICATION PROTOCOL VIOLATION` = A protocol violation occurred in relation to the allowed sequences of messages defined for the application service element.
`U-ABORT - REJECT RECEIVED` = An unexpected reject component was received.
`U-ABORT - UNKNOWN USER PROBLEM` = The cause of the transaction abort request is unknown. This request could be the result of an abort in the application specific entry, or application itself.

`k` = The results of a failed test. This field prints out only when the test query was not successful. Valid value(s):
`GARBLED MESSAGE` = A response was received but the data in the message was mutilated. It is possible that this result may be printed along with a normal response (such as, ALLOW CALL) if the mutilated data is detected after the result has been identified.
`IMS OR CNI RETURNED MSG` = The inter-process message switch (IMS) or the common network interface (CNI) returned the message. This result is not expected for CAS CCS7 test queries.

NETWORK CONGESTION = Could not complete the test due to network congestion.
NETWORK FAILURE = Could not complete the test due to failure in the network.
NO TRANSLATION ADDRESS NATURE = No entries exist in routing tables for addresses of this nature.
NO TRANSLATION SPECIFIC ADDRESS = No entries exist in routing tables for this specific address.
SUBSYSTEM CONGESTION = Could not complete the test due to subsystem congestion.
SUBSYSTEM FAILURE = Could not complete the test due to subsystem failure.
TIMEOUT = A response to the test query was not received within the sixteen second time limit.
UNEQUIPPED USER = Could not complete the test due to unequipped user.
UNQUALIFIED = Unknown failure reason.

l = The customer-defined bill segmentation (CDBS) number. If no CDBS number is present, 'NONE' will be output.

m = The software defined network (SDN) routing number. If no SDN routing number is present, 'NONE' will be output.

n = The CCC authorization code. If no CCC authorization code is present, 'NONE' will be output.

o = The call gap present indicator. Valid value(s):
ACG NOT PRESENT = Automatic call gap (ACG) component not present.
ACG PRESENT, CORRECT = Automatic call gap component present, has no errors.
ACG PRESENT, IN ERROR = Automatic call gap component present, has errors.

p = The call gap control digits - the digits contained in the ACG component. Controls will be applied on the first 12 digits for 89C cards, and on the first 6 digits for CCC cards. If no ACG component is present, 'NONE' will be output.

q = The call gap duration - used to determine the length of time for which controls are to be in effect. The following table lists the call gap duration index number received from the database and the corresponding time (in seconds) that the index represents:

index	gap duration in seconds =
0	0
1	1
2	2
3	4
4	8
5	16
6	32
7	64
8	128
9	256
10	512
11	1024
12	2048

If no ACG component is present, 'NONE' will be output.

r = The call gap interval - used to determine the time between allowed queries when controls are in effect. The following table lists the call gap interval index number received from the database and the corresponding time (in seconds) that the index represents:

index	gap interval in seconds =

0	(remove controls)
1	(maintain current controls)
2	
3	
4	
5	1.0
6	2.0
7	5.0
8	10.0
9	15.0
10	30.0
11	60.0
12	120.0
13	300.0
14	600.0
15	(block all queries)

If no ACG component is present, 'NONE' will be output.

s = The call gap control cause. Valid value(s):

DBOVLD = Database overload. This is the only cause that is considered valid for CAS CCS7. Any other cause returned will result in the ACG component being ignored.

MASS = Destination mass calling. This result is not expected; controls will not be installed for this case.

OUTBND = Out of band. This result is not expected; controls will not be installed for this case.

SMS = Service Management System (SMS) initiated. This result is not expected; controls will not be installed for this case.

VACCD = Vacant code. This result is not expected; controls will not be installed for this case.

t = The purchase limit (PL) type indicator. Valid value(s):

EWD = PL call enforced with disconnect.

EWOD = PL call enforced without disconnect.

NE = PL call not enforced.

NONE = Not a PL call.

u = The PL balance number from CAS network control point (NCP); value in cents. If no PL balance, 'NONE' is output.

v = The speed dial code (SDC) sent in the query. If an SDC was not included in the query, 'NONE' is output.

w = The speed dial forward number (SDFN) returned in the reply. If no SDFN is received, 'NONE' is output.

x = The SDFN type. Valid value(s):

DOMESTIC = The SDFN is a U.S. forward number.

INTERNATIONAL = The SDFN is an international forward number.

1 If no SDFN is received, this field remains blank.

y = The duration limit (DL) type indicator. Valid value(s):

EWD = DL call enforced with disconnect.

EWOD = DL call enforced without disconnect.

NE = DL call not enforced.

NONE = Not a DL call.

z = The DL duration number from CAS network control point (NCP); value in seconds. If no DL duration, 'NONE' will be output.

a[1] = The volume limit (VL) type indicator. Valid value(s):
E = VL call enforced.
NE = VL call not enforced.
NONE = Not a VL call.

b[1] = The single limit (SL) type indicator. Valid value(s):
NONE = Not an SL call.
YES = SL call.

c[1] = The call concurrency indicator. Valid value(s):
MULTIPLE = Multiple call in progress.
NONE = Not applicable because no PL balance or DL duration was received in reply.
SINGLE = Single call in progress.

d[1] = Calling number. A 10-digit NANP number, a 1- to 3-digit international country code, or 'NONE' (if no calling number was input).

e[1] = Language override parameter (LOP) value. The value indicating the language to be used in the announcements or 'NONE' if LOP is not present in the query reply. Refer to RC/V View 8.66 to determine the language corresponding to this value.

f[1] = Balance quotation indicator. Valid value(s):
NO = Not a balance quotation call.
NONE = Indicator not received - not a balance quotation call.
YES = Balance quotation call.

g[1] = Card rate specifier. The card rate will contain a value of 0-255. 0 is reserved to mean "standard card rates".

h[1] = Card product type. The product type is used to indicate what type of product the card is (such as, business, residential, disposable, and so forth). It can have a value from 0-255.

i[1] = Is the message sequence number. This is part of the messages that are displayed in the output.

j[1] = Total number of messages that are displayed in the output. Up to 5 messages may be required to print the results of the test query (1 for the TST:CAS7 message and up to 4 for the TST:SDAP messages).

k[1] = The NANP geographic restriction indicator. Valid value(s):
FULL RESTRICTION = No NANP forward number is accepted.
NO RESTRICTION = No geographic restrictions exist on NANP forward numbers in the speed dial list.
NONE = No NANP geographic restriction value received in the reply.
PARTIAL RESTRICTION = Partial restrictions on speed dial NANP forward numbers.

l[1] = The international geographic restriction indicator. Valid value(s):
FULL RESTRICTION = No international forward number is accepted.

NO RESTRICTION = No geographic restrictions exist on international forward numbers in the speed dial list.
NONE = No international geographic restriction value received in the reply.
PARTIAL RESTRICTION = Partial restrictions on speed dial international forward numbers.

m[1] = The allow 900 indicator. Valid value(s):
ALLOWED = 900 forward numbers are allowed in the speed dial list.
NONE = No allow 900 indicator value received in the reply.
NOT ALLOWED = 900 forward numbers are not allowed in the speed dial list.

n[1] Valid value(s):
ALLOWED = Teleconferencing forward numbers are allowed in the speed dial list.
NONE = No allow teleconferencing indicator value received in the reply.
NOT ALLOWED = Teleconferencing forward numbers are not allowed in the speed dial list.

o[1] = The allow private network interface (PNI) indicator. Valid value(s):
ALLOWED = PNI forward numbers are allowed in the speed dial list.
NONE = No allow PNI indicator value received in the reply.
NOT ALLOWED = PNI forward numbers are not allowed in the speed dial list.

p[1] = The indicator whether or not a speed dial list was received from the database. Valid value(s):
NO SPEED DIAL LIST = No speed dial list was received in the reply.
SPEED DIAL LIST TO FOLLOW = A speed dial list exists and will appear in a TST:SDAP message to follow.

q[1] = Indicates whether a call is eligible to receive QuietHear service. Valid value(s):
ACTIVE = The call is eligible for QuietHear service.
INACTIVE = The call is not eligible for QuietHear service.
NONE = The QuietHear indicator was not received from the CAS database.

r[1] = Indicates whether the audio logo announcement is to be provided on a call which receives QuietHear service. Valid value(s):
NO = The call is not eligible to receive the audio logo announcement.
NONE = The audio logo indicator was not received from the CAS database.
YES = The call is eligible to receive the audio logo announcement.

s[1] = Indicates whether intercept screening applies on a call. Valid value(s):
NO = The call is not eligible for intercept screening treatment
NONE = The intercept screening indicator was not received from the CAS database.
YES = The call is eligible for intercept screening treatment.

4. ACTION TO BE TAKEN

This message is the response to a manual request. It is used as a high-level check on the connection to the CAS database (which is external to the switch), to check out data in the CAS database, or to check out a repeatedly failing query. If variable 'k' (results of a failed test) prints out (with the exception of GARBLED MESSAGE), then there

is a problem with the connection to the database, and the Engineering Network Administration Center (ENAC) should be contacted for assistance. Otherwise (including `GARBLED MESSAGE`), the response is from the database, and the Operations Network Administration Center (ONAC) should be contacted. The response should be examined to see if it indicates proper data in the CAS database.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:DSTT
TST:AT1
TST:BNS
TST:CAS
TST:CAS7
TST:CCRD
TST:ICCV
TST:INWATS
TST:NCD
TST:RATE
```

Output Message(s):

```
EXC:DSTT
TST:AT1
TST:BNS
TST:CAS
TST:CCRD
TST:ICCV
TST:INWATS
TST:NCD
TST:RATE
TST:SDAP
```

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

TST:CAS7-B

Software Release: 5E11 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
TST CAS7=a   b   c    PART [i1] OF [j1]
  DURATION OF TEST=d   e
  TTYP=f   SRV=g   CTYP=t1 PC=h
 [i][j][k]
  CDBS=l   SDN=m
  AUTH=n   [ESP DENIED]
  o   CG-DIGITS=p
  CG-DUR=q    CG-INTVL=r   [s]
  PLIND=[t]     BALANCE=[u]
  SDC=[v]    SDFN=[w]     [x]
  DLIND=[y]     DURATION=[z]
  VLIND=[a1]
  SLIND=[b1]
  CLCCI=[c1]
  CLG=[d1]       LOP=[e1]
  BQIND=[f1]
  CARDRATE=[g1]   PRODTYPE=[h1]
  NANPGEOIND=[k1]
  INTLGEOIND=[l1]
  900IND=[m1]
  TELECNFIND=[n1]
  PNIIND=[o1]
  [p1]
  QUIET HEAR=q1  AUDIO LOGO=r1
  INTERCEPT SCREENING=s1
```

2. REASON FOR OUTPUT

To report the results of the manual input (TST:CAS7) that requests that a customer account services (CAS) common channel signaling system 7 (CCS7) transaction capabilities application part (TCAP) test query be performed.

3. VARIABLE FIELD DEFINITIONS

`ESP DENIED` = Enhanced services [namely, voice messaging services (VMS)] are not allowed for this card.

`a` = Issuer identification number of the commercial credit card (CCC) or telecommunications calling card (89C) number that was input.

`b` = Individual account number of the CCC or 89C calling card number that was input. This includes a check number, if present.

`c` = Personal identification number (PIN) that was input.

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d = Duration of the test in milliseconds. Timing starts when the administrative module (AM) sends the formatted query, and ends when the query response is received from the network.

e = Called number that was input. The label will print as `ICLD=` for international numbers or `CLD=` for all other numbers. If no called number was input, `CLD=NO CALLED NUMBER` will print.

f = Translation type number that was input.

g = CAS service specifier that was input. The valid values are:

`NORMAL` = Normal CAS validation.
`IVI` = CAS inward validation.
`SDAP` = Speed dial auto provisioning (SDAP) query.
`RQV` = Rate quote validation.

h = Point code number of the network node that sent the response. If the test query timed out, '`NOT APPLICABLE`' is output for the point code.

i = CAS TCAP query reply code or error code. This field prints out when a normal reply was received in response to the test query. Valid value(s):

`ALLOW CALL` = The card number and PIN have been successfully validated; the call was allowed.
`ALLOW CALL - TCS OVERRIDE` = The card number and PIN have been successfully validated; any terminating code screening (TCS) restrictions should be overridden, and the call is allowed.
`CALLED NUMBER RESTRICTIONS APPLY` = The call was denied because called number restrictions applied.
`CALLING NUMBER RESTRICTIONS APPLY` = The call was denied because calling number restrictions applied.
`CARD INELIGIBLE FOR SERVICE` = The card was valid but the call should be denied because the service requested was not available for this card.
`CL CALL IN PROGRESS` = The call was denied because there is already a card limit (CL)call in progress for the particular card number.
`CARD UNAVAILABLE FOR PROCESSING` = The card was valid but the call should be denied because the card requested was not available for processing.
`CREDIT RESTRICTED` = The call was denied because the card holder was billing delinquent.
`DL BALANCE DEPLETED` = The call was denied because the duration limit (DL) card has a depleted duration.
`FRAUD RESTRICTED` = The call was denied because the card was suspected of fraudulent use.
`GATEWAY ERROR` = Communication with a CCC vendor was unsuccessful.
`INVALID CARD - MISSING RECORD` = The call was denied because the card number was invalid, that is, not found in the database.
`INVALID CCC RESPONSE` = The call was denied because a CCC vendor had indicated that the card was invalid.
`INVALID PIN` = The call was denied because the PIN was invalid.
`INVALID SPEED CODE` = The call was denied because the speed dial code sent in the query could not be mapped to a forward number.
`MISROUTED QUERY` = The card number was not in the range that the database expected to receive.
`MISSING PARAMETER` = A mandatory parameter was absent from the query.
`PL BALANCE DEPLETED` = The call was denied because the purchase limit (PL) card has a depleted balance.
`SPEED DIALING NOT ALLOWED` = The call was denied because the card number is not permitted to make speed dial calls.

`TASK REFUSED` = The task was refused because the node could not handle the request at the time (not because the operation was incorrect in any way).
`UNDEFINED CARD ISSUER` = The 14-digit card number sent in the query does not exist in the AT&T card validation database.
`UNEXPECTED INPUT, DATA VALUE` = The content of a query parameter was not as expected.
`UNEXPECTED PARAMETER` = A query parameter was received but not recognized.
`VACANT CODE` = The database determined that the card number contained in the query was one that has not yet been assigned.
`VL BALANCE DEPLETED` = The call was denied because the volume limit (VL) card has a depleted balance.

`j` = The abort cause or reject problem code. This field prints out only when a p-abort, u-abort, invoke problem reject message, or general problem reject message is received in reply to a CAS TCAP test query. Valid value(s):
`P-ABORT - BADLY FORMATTED TRANSACTION PORTION` = The transaction portion of the received message did not conform to the encoding rules.
`P-ABORT - INCORRECT TRANSACTION PORTION` = The elemental structure within the transaction portion of the received message did not conform to the rules for the transaction portion.
`P-ABORT - RESOURCE LIMITATION` = Sufficient resources were not available.
`P-ABORT - UNRECOGNIZED MESSAGE TYPE` = The TCAP message type was not defined.
`P-ABORT - UNRECOGNIZED TRANSACTION ID` = A transaction ID had been received for which a transaction did not exist at the receiving node.
`REJECT - BADLY STRUCTURED COMPONENT` = The contents of the component did not conform to the encoding rules.
`REJECT - DUPLICATE INVOKE ID` = The invoke ID was already in use by a previously invoked operation.
`REJECT - INITIATING RELEASE` = The requested operation could not be invoked because the dialogue was about to be concluded.
`REJECT - MISTYPED COMPONENT` = The elemental structure of a component did not conform to the defined structure of that component.
`REJECT - MISTYPED PARAMETER` = A parameter tag was not one of those associated with the invoked operation.
`REJECT - RESOURCE LIMITATION` = Sufficient resources were not available to perform the requested operation.
`REJECT - UNRECOGNIZED COMPONENT` = The component type was not recognized.
`REJECT - UNRECOGNIZED OPERATION` = The operation code value was not one of those used by the application.
`U-ABORT - APPLICATION PROTOCOL VIOLATION` = A protocol violation occurred in relation to the allowed sequences of messages defined for the application service element.
`U-ABORT - REJECT RECEIVED` = An unexpected reject component was received.
`U-ABORT - UNKNOWN USER PROBLEM` = The cause of the transaction abort request is unknown. This request could be the result of an abort in the application specific entry, or application itself.

`k` = The results of a failed test. This field prints out only when the test query was not successful. Valid value(s):
`GARBLED MESSAGE` = A response was received but the data in the message was mutilated. It is possible that this result may be printed along with a normal response (such as, ALLOW CALL) if the mutilated data is detected after the result has been identified.
`IMS OR CNI RETURNED MSG` = The inter-process message switch (IMS) or the common network

interface (CNI) returned the message. This result is not expected for CAS CCS7 test queries.

`NETWORK CONGESTION` = Could not complete the test due to network congestion.

`NETWORK FAILURE` = Could not complete the test due to failure in the network.

`NO TRANSLATION ADDRESS NATURE` = No entries exist in routing tables for addresses of this nature.

`NO TRANSLATION SPECIFIC ADDRESS` = No entries exist in routing tables for this specific address.

`SUBSYSTEM CONGESTION` = Could not complete the test due to subsystem congestion.

`SUBSYSTEM FAILURE` = Could not complete the test due to subsystem failure.

`TIMEOUT` = A response to the test query was not received within the sixteen second time limit.

`UNEQUIPPED USER` = Could not complete the test due to unequipped user.

`UNQUALIFIED` = Unknown failure reason.

`l` = The customer-defined bill segmentation (CDBS) number. If no CDBS number is present, '`NONE`' will be output.

`m` = The software defined network (SDN) routing number. If no SDN routing number is present, '`NONE`' will be output.

`n` = The CCC authorization code. If no CCC authorization code is present, '`NONE`' will be output.

`o` = The call gap present indicator. Valid value(s):

`ACG NOT PRESENT` = Automatic call gap (ACG) component not present.

`ACG PRESENT, CORRECT` = Automatic call gap component present, has no errors.

`ACG PRESENT, IN ERROR` = Automatic call gap component present, has errors.

`p` = The call gap control digits - the digits contained in the ACG component. Controls will be applied on the first 12 digits for 89C cards, and on the first 6 digits for CCC cards. If no ACG component is present, '`NONE`' will be output.

`q` = The call gap duration - used to determine the length of time for which controls are to be in effect. The following table lists the call gap duration index number received from the database and the corresponding time (in seconds) that the index represents:

index	gap duration in seconds =
0	0
1	1
2	2
3	4
4	8
5	16
6	32
7	64
8	128
9	256
10	512
11	1024
12	2048

If no ACG component is present, '`NONE`' will be output.

`r` = The call gap interval - used to determine the time between allowed queries when controls are in effect. The following table lists the call gap interval index number received from the database and the corresponding time (in seconds) that the index represents:

index	gap interval in seconds =
0	(remove controls)
1	(maintain current controls)
2	
3	
4	
5	1.0
6	2.0
7	5.0
8	10.0
9	15.0
10	30.0
11	60.0
12	120.0
13	300.0
14	600.0
15	(block all queries)

If no ACG component is present, 'NONE' will be output.

s = The call gap control cause. Valid value(s):

DBOVLD = Database overload. This is the only cause that is considered valid for CAS CCS7. Any other cause returned will result in the ACG component being ignored.

MASS = Destination mass calling. This result is not expected; controls will not be installed for this case.

OUTBND = Out of band. This result is not expected; controls will not be installed for this case.

SMS = Service Management System (SMS) initiated. This result is not expected; controls will not be installed for this case.

VACCD = Vacant code. This result is not expected; controls will not be installed for this case.

t = The purchase limit (PL) type indicator. Valid value(s):

EWD = PL call enforced with disconnect.

EWOD = PL call enforced without disconnect.

NE = PL call not enforced.

NONE = Not a PL call.

u = The PL balance number from CAS network control point (NCP); value in cents. If no PL balance, 'NONE' is output.

v = The speed dial code (SDC) sent in the query. If an SDC was not included in the query, 'NONE' is output.

w = The speed dial forward number (SDFN) returned in the reply. If no SDFN is received, 'NONE' is output.

x = The SDFN type. Valid value(s):

DOMESTIC = The SDFN is a U.S. forward number.

INTERNATIONAL = The SDFN is an international forward number.

1 If no SDFN is received, this field remains blank.

y = The duration limit (DL) type indicator. Valid value(s):

EWD = DL call enforced with disconnect.

EWOD = DL call enforced without disconnect.

NE = DL call not enforced.

NONE = Not a DL call.

z = The DL duration number from CAS network control point (NCP); value in seconds. If no DL duration, 'NONE' will be output.

a[1] = The volume limit (VL) type indicator. Valid value(s):
E = VL call enforced.
NE = VL call not enforced.
NONE = Not a VL call.

b[1] = The single limit (SL) type indicator. Valid value(s):
NONE = Not an SL call.
YES = SL call.

c[1] = The call concurrency indicator. Valid value(s):
MULTIPLE = Multiple call in progress.
NONE = Not applicable because no PL balance or DL duration was received in reply.
SINGLE = Single call in progress.

d[1] = Calling number. The label will print as ICLG= for international numbers or CLG= for all other numbers. If no calling number was input, CLG=NO CALLING NUMBER will print.

e[1] = Language override parameter (LOP) value. The value indicating the language to be used in the announcements or 'NONE' if LOP is not present in the query reply. Refer to RC/V View 8.66 to determine the language corresponding to this value.

f[1] = Balance quotation indicator. Valid value(s):
NO = Not a balance quotation call.
NONE = Indicator not received - not a balance quotation call.
YES = Balance quotation call.

g[1] = Card rate specifier. The card rate will contain a value of 0-255. 0 is reserved to mean "standard card rates".

h[1] = Card product type. The product type is used to indicate what type of product the card is (such as, business, residential, disposable, and so forth). It can have a value from 0-255.

i[1] = Is the message sequence number. This is part of the messages that are displayed in the output.

j[1] = Total number of messages that are displayed in the output. Up to 5 messages may be required to print the results of the test query (1 for the TST:CAS7 message and up to 4 for the TST:SDAP messages).

k[1] = The NANP geographic restriction indicator. Valid value(s):
FULL RESTRICTION = No NANP forward number is accepted.
NO RESTRICTION = No geographic restrictions exist on NANP forward numbers in the speed dial list.
NONE = No NANP geographic restriction value received in the reply.
PARTIAL RESTRICTION = Partial restrictions on speed dial NANP forward numbers.

`l`[1] = The international geographic restriction indicator. Valid value(s):
`FULL RESTRICTION` = No international forward number is accepted.
`NO RESTRICTION` = No geographic restrictions exist on international forward numbers in the speed dial list.
`NONE` = No international geographic restriction value received in the reply.
`PARTIAL RESTRICTION` = Partial restrictions on speed dial international forward numbers.

`m`[1] = The allow 900 indicator. Valid value(s):
`ALLOWED` = 900 forward numbers are allowed in the speed dial list.
`NONE` = No allow 900 indicator value received in the reply.
`NOT ALLOWED` = 900 forward numbers are not allowed in the speed dial list.

`n`[1] = The allow teleconferencing indicator. Valid value(s):
`ALLOWED` = Teleconferencing forward numbers are allowed in the speed dial list.
`NONE` = No allow teleconferencing indicator value received in the reply.
`NOT ALLOWED` = Teleconferencing forward numbers are not allowed in the speed dial list.

`o`[1] = The allow private network interface (PNI) indicator. Valid value(s):
`ALLOWED` = PNI forward numbers are allowed in the speed dial list.
`NONE` = No allow PNI indicator value received in the reply.
`NOT ALLOWED` = PNI forward numbers are not allowed in the speed dial list.

`p`[1] = The indicator whether or not a speed dial list was received from the database. Valid value(s):
`NO SPEED DIAL LIST` = No speed dial list was received in the reply.
`SPEED DIAL LIST TO FOLLOW` = A speed dial list exists and will appear in a TST:SDAP message to follow.

`q`[1] = Indicates whether a call is eligible to receive QuietHear service. Valid value(s):
`ACTIVE` = The call is eligible for QuietHear service.
`INACTIVE` = The call is not eligible for QuietHear service.
`NONE` = The QuietHear indicator was not received from the CAS database.

`r`[1] = Indicates whether the audio logo announcement is to be provided on a call which receives QuietHear service. Valid value(s):
`NO` = The call is not eligible to receive the audio logo announcement.
`NONE` = The audio logo indicator was not received from the CAS database.
`YES` = The call is eligible to receive the audio logo announcement.

`s`[1] = Indicates whether intercept screening applies on a call. Valid value(s):
`NO` = The call is not eligible for intercept screening treatment
`NONE` = The intercept screening indicator was not received from the CAS database.
`YES` = The call is eligible for intercept screening treatment.

`t`[1] = The card type that was input. Valid values:
`CIID` = Carrier issuer identification card.
`INIT` = AT&T 14 digit *True Choice*™ calling card, initial call.

NA	= Not applicable. A card type value was not input because the card number is not 14 digits long.
SEQ	= AT&T 14 digit *True Choice*™ calling card, sequence call.

4. ACTION TO BE TAKEN

This message is the response to a manual request. It is used as a high-level check on the connection to the CAS database (which is external to the switch), to check out data in the CAS database, or to check out a repeatedly failing query. If variable 'k' (results of a failed test) prints out (with the exception of GARBLED MESSAGE), then there is a problem with the connection to the database, and the Engineering Network Administration Center (ENAC) should be contacted for assistance. Otherwise (including GARBLED MESSAGE), the response is from the database, and the Operations Network Administration Center (ONAC) should be contacted. The response should be examined to see if it indicates proper data in the CAS database.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:DSTT
TST:AT1
TST:BNS
TST:CAS
TST:CAS7
TST:CCRD
TST:ICCV
TST:INWATS
TST:NCD
TST:RATE
```

Output Message(s):

```
EXC:DSTT
TST:AT1
TST:BNS
TST:CAS
TST:CCRD
TST:ICCV
TST:INWATS
TST:NCD
TST:RATE
TST:SDAP
```

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

TST:CCRD

Software Release: 5E10 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
TST CCRD=a    DURATION OF TEST=b
  c [d]   [e]
```

2. REASON FOR OUTPUT

To report the results of the manual request (TST:CCRD) that requests that a calling card (CCRD) query test be performed using billing validation application (BVA).

3. VARIABLE FIELD DEFINITIONS

`a` = CCRD number that was queried.

`b` = Duration of the test in milliseconds. Timing starts when the switch receives the input request and ends when the switch receives the result from the network or a timeout.

`c` = Results of the test. Valid value(s):

`CCIS FAILURE-DESTINATION NOT EQUIPPED` = A destination in the common channel signaling (CCS) network was unequipped.
`CCIS FAILURE-NETWORK BLOCKED` = Could not complete test due to network blockage.
`CCIS FAILURE-NETWORK OVERLOAD` = Could not complete test due to an overload in the network.
`CCIS FAILURE-NO ROUTING DATA` = Could not route to the database due to an error in or unavailability of routing data in the network.
`INVALID CCRD MESSAGE RECEIVED` = A response was received but the data in the message was mutilated.
`NUMBER INVALID` = Billing number not valid for CCRD service.
`NUMBER VALID-NO PIN MATCH` = No personal identification number (PIN) match for valid CCRD number.
`NUMBER VALID-RESTRICTED PIN MATCH` = Restricted PIN match for valid CCRD number.
`NUMBER VALID-SERVICE DENIAL` = Service denial in effect for valid CCRD number.
`NUMBER VALID-UNRESTRICTED PIN MATCH` = Unrestricted PIN match for valid CCRD number.
`TIMEOUT` = A response to the test query was not received within the eight-second time limit.
`UNABLE TO PROCESS-DATABASE OVERLOAD` = Database was unable to process because of overload condition.
`UNABLE TO PROCESS-MISCELLANEOUS` = Database was unable to process.
`UNEQUIPPED` = NPA or revenue accounting office (RAO) not equipped for CCRD service.
`VACANT CODE` = NPA or RAO is a vacant code.

`d` = Control level value received. This field is output only if a control level is received in the reply. Possible values are 0- 7 and refer to the number of queries out of a possible eight that are being cut back.

`e` = Three-digit RAO number.

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4. ACTION TO BE TAKEN

This message is the response to a manual request. It is used as a high-level check on connections to BVA, (a database external to the switch), to check out data in BVA, or to check out a repeatedly failing query. If variable '`C`' prints out `CCIS FAILURE` or `TIMEOUT`, then there is a problem with the connection to the database. Otherwise, the response is from the database. In this case, the response should be examined to see if it indicates proper data in BVA. In any case, the BVA administrator should be contacted for assistance.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:DSTT
TST:BNS
TST:CAS
TST:CCRD
TST:INWATS
TST:NCD
TST:RATE
```

Output Message(s):

```
EXC:DSTT
TST:BNS
TST:CAS
TST:INWATS
TST:LIDB-BNS
TST:CCRD
TST:NCD
TST:RATE
```

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

TST:CCSLK-A

Software Release: 5E11 only
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
TST CCSLK SET=a MEMBER=b SM=c OPC=d e [f]
```

2. REASON FOR OUTPUT

Confirms the request to test a signaling link. CCS7 signaling link.

3. VARIABLE FIELD DEFINITIONS

`a` = Link set number.

`b` = Link member number.

`c` = Common channel signaling (CCS) global switching module (GSM) number.

`d` = Originating point codes (OPC) number. OPC number consists of three items, each being three digits in length. They are, respectively, the OPC network, OPC cluster, and OPC member.

`e` = Termination status. Valid value(s):

- `FAILED` = Request was completed but the link test failed; actions are being taken to restore link.
- `STOPPED` = Request was terminated before normal completion.
- `SUCCESS` =Request was completed and link test was successful; message traffic can travel across signaling link.

`f` = Additional information qualifying the STOPPED termination status. Valid value(s):

- `LINK BUSY` = Link test was not run on requested link due to a link congestion.
- `LINK OOS/BLOCKED` = Link test was not run on requested link due to the link being in an out-of-service or blocked state.
- `LINK UNEQUIPPED` = The link is unequipped.
- `SYSTEM ERROR` = System error.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
TST:CCSLK
```

Other Manual(s):
235-120-120 *VCDX Users Guide*
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

1532 (CCS LINK SET SUMMARY)
1533 (CCS LINK SET MEMBER)

TST:CCSLK-B

Software Release: 5E12 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
TST CCSLK SET=a MEMBER=b SM=c OPC=d e [f]
```

2. REASON FOR OUTPUT

Confirms the request to test a signaling link. CCS7 signaling link.

3. VARIABLE FIELD DEFINITIONS

`a` = Link set number.

`b` = Link member number.

`c` = Common channel signaling (CCS) global switching module (GSM) number.

`d` = Originating point codes (OPC) number associated with the GSM. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Output Messages manual for interpretation.

`e` = Termination status. Valid value(s):

- `FAILED` = Request was completed but the link test failed; actions are being taken to restore link.
- `STOPPED` = Request was terminated before normal completion.
- `SUCCESS` = Request was completed and link test was successful; message traffic can travel across signaling link.

`f` = Additional information qualifying the STOPPED termination status. Valid value(s):

- `LINK BUSY` = Link test was not run on requested link due to a link congestion.
- `LINK OOS/BLOCKED` = Link test was not run on requested link due to the link being in an out-of-service or blocked state.
- `LINK UNEQUIPPED` = The link is unequipped.
- `SYSTEM ERROR` = System error.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
TST:CCSLK
```

Output Appendix(es):

```
APP:POINT-CODE
```

Other Manual(s):
235-190-120 *Common Channel Signaling Services Features*

MCC Display Page(s):

1532 (CCS LINK SET SUMMARY)
1533 (CCS LINK SET MEMBER)

TST:DSL-A

Software Release: 5E10 - 5E11
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

[1]
```
TST DSL[a][DN=b[+]][c][TEI=g][CH=h][PORT=i-j[-k]]
    TEST=l [TERM=m] [DUR=n]
    ITYPE=x[-y] REQNO=c1
    STATUS: BUSY CAMPED ON
```

[2]
```
TST DSL[a][DN=b[+]][c][TEI=g][CH=h][PORT=i-j[-k]]
    TEST=l [TERM=m] [DUR=n]
    ITYPE=x[-y] REQNO=c1
    STATUS: TESTING BEGINS [1 BLKD>]
```

[3]
```
TST DSL[a][DN=b[+]][c][TEI=g][CH=h][PORT=i-j[-k]]
    [TEST=l] [TERM=m] [DUR=n]
    [ITYPE=x[-y]] [REQNO=c1]
    {STOPPED: BY REQUEST}|{STATUS: NO TESTS RUNNING}|{g1: h1}
    [EOT]
```

[4]
```
TST DSL[a][DN=b[+]][c][TEI=g][CH=h][PORT=i-j[-k]]
    TEST=MSMTCH [HLSCEN=q-r-s-t] [LCTYPE=u] [NT|CU=v]
    [ITYPE=x[-y]] [EQCU=z] REQNO=c1
    g1: h1 [- i1] [1>]
    EOT
```

[5]
```
TST DSL[a][DN=b[+]][c][TEI=g][CH=h][PORT=i-j[-k]]
    TEST=AUTO TERM=m DUR=n
    [ITYPE=x[-y]] [EQCU=z] [RTDS1=a1[-b1]] REQNO=c1
    g1: h1 [- i1] [1>]
    [EOT]
```

[6]
```
TST DSL[a][DN=b[+]][c][TEI=g][CH=h][PORT=i-j[-k]]
    TEST=CS TERM=m DUR=n [RATE=o] [BLKSZ=p] [ISTFEN=q-r-s]
    [ITYPE=x[-y]] [EQCU=z] [RTDS1=a1[-b1]] REQNO=c1
    [BER=d1 ERBLK=e1] g1: h1 [- i1] [1>]
    [EOT]
```

[7]
```
TST DSL[a][DN=b[+]][c][TEI=g][CH=h][PORT=i-j[-k]]
    TEST=CS TERM=m DUR=n [RATE=o] [BLKSZ=p] [GDSFEN=q-r-a2-t-s]
    [ITYPE=x[-y]] [EQCU=z] [RTDS1=a1[-b1]] REQNO=c1
    [BER=d1 ERBLK=e1] g1: h1 [- i1] [1>]
```

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```
        [EOT]

[8]   ____________________________________________________________________
      TST DSL[a][DN=b[+]][c][TEI=g][CH=h][PORT=i-j[-k]]
          TEST={PS|ODPS} TERM=m DUR=n [PHEN=q-r-s]
          [ITYPE=x[-y]] [EQCU=z] [RTDS1=a(u1[-b1]] REQNO=c1
          [PKTRATE=f1] g1: h1 [- i1] [1>]
          [EOT]

[9]   ____________________________________________________________________
      TST DSL[a][DN=b[+]][c][TEI=g][CH=h][PORT=i-j[-k]]
          TEST=OSPS TERM=EXT DUR=10
          [ITYPE=x[-y]] [EQCU=z] REQNO=c1
          g1: h1 [- i1] [1>]
          [EOT]

[10]  ____________________________________________________________________
      TST DSL[a][DN=b[+]][c][TEI=g][CH=h][PORT=i-j[-k]]
          TEST=CRC[-{UP|DWN} ] DUR=n [ET=w]
          [ITYPE=x[-y]] [EQCU=z] REQNO=c1
          g1: h1 [- i1] [1>]
         [         ------ DOWNSTREAM -----  ------- UPSTREAM ------
                   BE    SES   ES    STAT   BE    SES   ES    STAT
          PRV l1   m1    n1    o1    p1     m1    n1    o1    p1
          CUR l1   m1    n1    o1    p1     m1    n1    o1    p1
         [PRV l1   m1    n1    o1    p1     m1    n1    o1    p1
          CUR l1   m1    n1    o1    p1     m1    n1    o1    p1]]
         [EOT]
```

2. REASON FOR OUTPUT

To report the test results associated with a TST:DSL input message. Also, to report the test results associated with automatic requests (pokes) to test a digital subscriber line (DSL) using the trunk and line work station (TLWS).

The TST:DSL output message will appear in different forms, primarily dependent on the test type selected. Formats 4 through 10 are unique to specific test types, while Formats 1 and 2 are typical for all test types. Format 3 is unique to explicit requests to prematurely terminate a TST:DSL procedure (refer to the STP:TST-DSL input message). If an active test procedure is found, that procedure will acknowledge the stop request. This allows test specific information to be displayed on output (such as the request number of the terminated procedure). If no active test procedure is found, the STP:TST-DSL procedure will generate the resultant output message; therefore, no test specific information will be seen.

NOTE: Unless otherwise noted, all references to ISLU refer to both the ISLU and the ISLU2.

In general, test results will only be presented for tests that normally complete. In other cases, the status string (as in: g^1: h^1 [- i^1]) will identify the reason for termination of the test procedure.

The end-of-transmission (EOT) parameter indicates all message sections have been output. Formats that show the EOT parameter as optional can be repeated more that once by a test procedure.

3. VARIABLE FIELD DEFINITIONS

> ***NOTE:*** Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`CUR` = Current upstream (NT1 to LT direction) and downstream (LT to NT1 direction) PM counts.

The current PM counts are read in the same order as output. The LT (current hour) and CU (current interval) PM counts will vary with the test duration; however, if the DSL is faulty, a significant deviation between the recorded PM counts can result.

The deviation in the PM counts is most likely the result of recording BEs when the PM counts were being read, as throughout testing each frame was intentionally corrupted. This could indicate that the CU and/or LT PM counters are not responding properly or the ability to transmit BEs from the LT or NT1 is faulty. Nominally, the deviation between the printed LT and CU errored second (ES) counters is not likely to be more than 3.

`EOT` = End-of-transmission (EOT) The EOT parameter indicates all message sections have been output and the associated test procedure has terminated. Formats that show the EOT parameter as optional can be repeated more than once by a test procedure.

`PORT` = The global port under test. When an output message provides test results for an individual DSL channel, the CH parameter will be correlated with the PORT. In other cases, (such as: `CH=ALL`) the D-channel PORT will be output.

`PRV` = Previous upstream (NT1 to LT direction) and downstream (LT to NT1 direction) PM counts.

The previous PM counts are read in the same order as output. The LT previous hour PM counts are never modified by CRC testing and the CU previous interval PM counts should remain at zero.

`+` = The DSL has multipoint service.

`a` = Line termination (LT) layer 2 interface type as detected in office-dependent data (ODD). Valid value(s):

- `AMI-RU` = AMI U-interface on a remote integrated services line unit (RISLU).
- `AMI-U` = Alternate mark inversion (AMI) U-interface on a integrated services line unit (ISLU).
- `ANSI-RU` = *ANSI*® U-interface on a RISLU.
- `ANSI-U` = *ANSI*® U-interface on a ISLU or integrated digital carrier unit (IDCU).
- `RT` = T-interface on a RISLU.
- `T` = T-interface on ISLU.

`b` = Directory/telephone number associated with the DSL tested. If a specific subscriber has been specified, that users DN will be output.

`c` = Office equipment number. Valid value(s):

ILEN=d-e-f-t[1]
LCEN=d-u[1]-v[1]-w[1]
LCKEN=d-u[1]-x[1]-y[1]-z[1]

`d` = Switching module (SM) number.

`e` = IDCU unit number.

`f` = Remote digital terminal (RDT) number.

`g` = Terminal endpoint identifier.

In general, if a TEI is submitted on input, that TEI will be presented on output. However, if the TEI is invalid and the identifier is not required for testing, it will not be output. If a DN submitted on input is "bound", the TEI output will be the TEI of the CPE "bound" to that user (refer to the TEI parameter in the TST:DSL input message.)

`h` = DSL channel to be tested (CH).

For CRC testing, the 2B+D channels are not tested; however, associated output messages will provide the D-channel PORT name and the CH parameter will be used to identify that PORT.

Note that the channel parameter(s) may not indicate all channels owned by the test procedure. Refer to variable '`j`[1]' for that purpose. Valid value(s):

`ALL`	= All equipped channels.
`B`	= Any idle B-channel.
`B1`	= B1-channel.
`B2`	= B2-channel.
`BB`	= Both B-channels.
`D`	= D-channel.

`i` = SM number associated with the port under test.

`j` = Port number in hexadecimal.

`k` = Basic status of port. Valid value(s):

`IS`	= Port under test is in-service.
`OOS`	= Port under test is out-of-service.

`l` = Test type performed (TEST). Valid value(s):

`AUTO`	= The test type was to be determined automatically based on each DSL channels basic/logical type (such as: CS|PS); however, the indicated failure has prevented testing on the associated channel(s).
`CS`	= Specifies the digital loop-back (LPBK) testing of circuit-switched (CS) hardware and the associated path and/or loop.
`CRC`	= Specifies corrupt cyclic redundancy check (CRC) testing of the associated *ANSI*® U-DSL. However, if the test duration (DUR) is zero seconds, a test is not performed. In this case, only the current and previous hour protocol monitoring (PM) counts are read and output. The CRC test does not corrupt normal 2B+D DSL operations.
`CRC-DWN`	= Performed a CRC test using the downstream registers of the LT on the U-DSL, reporting only downstream PM results on output.
`CRC-UP`	= Performed a CRC test using the upstream registers of the LT on the U-DSL, reporting only upstream PM results on output.
`MSMTCH`	= Specifies the detection of a mismatch between the LT and the network termination 1 (NT1) or control unit (CU), for a RISLU/ISLU U-DSL.
`ODPS`	= Specifies the digital LPBK testing of on-demand packet-switched (ODPS) hardware and the associated path and/or loop.
`OSPS`	= Specifies the voice-path analog continuity testing to an Operator Services Position System (OSPS) terminal.
`PS`	= Specifies the digital LPBK testing of packet-switched hardware and the associated path and/or loop.

m = The LPBK termination type used during testing (TERM). Valid value(s):

- CPE = The LPBK termination was provided within the customer premises equipment (CPE). Specifically, within the ISDN telephone or data terminal.
- CUq[1] = The LPBK termination was provided within the specified channel unit.
- EXT = No attempt was made by the switch to set up a LPBK termination. An external (EXT) LPBK termination must be manually applied in this case.
- LT = The LPBK was provided within the LT. For ISLU the LT is the line card (LC), for ISLU2 the LT is the line circuit (LCKT), and for IDCU the LT is the channel unit.
- NT1 = The LPBK was provided within the NT1 located at the customer end of the 2-wire loop.
- PH = The LPBK was provided by the protocol handler (PH) on a PH channel that serves the associated DSL channel.

n = The test duration (DUR). This parameter indicates the total duration of the test in seconds. If the test was stopped for a customer service request the duration will reflect the period of time that test data was transmitted (refer to the INT parameter in the TST:DSL input message).

A test duration of zero seconds implies that a test was not performed. In this case, a CRC test request will only read and output the current PM counts.

For CRC testing, the test duration output is the length of time corrupt CRC was transmitted between the LT and the NT1; however, for RISLU/ISLU DSLs the duration output will always be greater than the requested test duration. This occurs because starting/stopping the test is dependent upon obtaining control of the embedded operations channel (EOC) and the RISLU/ISLU performing the requested action.

o = Data-rate of the CS digital bit stream (RATE). Valid value(s):

- 56KPS = 56 Kb per second.
- 64CLR = 64 Kb per second clear channel (zero-octet allowed).
- 64RES = 64 Kb per second restricted (zero-octet suppressed).

p = The block-size (BLKSZ). The CS digital bit stream is partitioned into segments called blocks, for the purpose of calculating the total errored-blocks (ERBLK). The block-size is the number of bits in each block.

q = SM number where test equipment is located.

r = HLSC RISLU/ISLU number, ISTF unit number, GDSF unit number, or logical PH group number.

s = ISTF channel, HLSC service group, GDSF data interface, or logical PH channel.

t = HLSC unit number or the GDSF PIDB number.

u = LT hardware type (LTTYPE) as detected by mismatch test. Valid value(s):

- AMI-RU = AMI U-interface on a RISLU.
- AMI-U = AMI U-interface on ISLU.
- ANSI-RU = *ANSI*® U-interface on a RISLU.
- ANSI-U = *ANSI*® U-interface on ISLU.
- RT = T-interface on a RISLU.
- T = T-interface on ISLU.
- Z = Z (analog) interface.

v = The type of NT1 or CU detected during a mismatch test (NT|CU). Valid value(s):

AMI	= An AMI NT1 or CU was detected.
ANSI	= An *ANSI*® NT1 or CU was detected.

w = Elapsed time (ET) measured in milliseconds. This is the time taken to read the PM counts from a pair of CUs (CUs 1 & 2, or 3 & 4, or 5 & 6). The time to read PM counts will vary based on factors such as the condition of the loop between the LT and the NT1 and system load. The CUs farthest from the switch will take more time to read. The ET will be from 5-11 seconds (that is, 5000-11000 ms) for a pair of CUs. If a satellite transmission link is present, the read will take an additional 3 to 5 seconds per pair of CUs (assuming 500 ms round trip delay).

x = DSL layer 3 interface type (ITYPE). The ITYPE may be qualified with the DSL service class, where significant to testing. Valid value(s):

PP	= Custom point-point/single-point DSL.
MP	= Custom multi-point DSL.
RMP	= Custom restricted multi-point DSL.
STD	= Standard DSL.

y = Class of service supported on the DSL. This parameter is a qualifier to the ITYPE that will be present when the class of service is significant to the test procedure. Valid value(s):

DL	= The DSL supports a data link (DL)**.
ISAT	= The DSL supports an attendant console terminal.
OSPS	= The DSL supports an OSPS facility**.
AP	= The DSL supports an application processor**.
PBRI	= The DSL supports a pseudo basic rate interface (BRI). This DSL does not have a PH channel assigned to serve the D-channel. For PS digital testing, the PH is the test source; therefore, PS testing cannot be performed on this D-channel.

A resident procedure must be disabled prior to testing. That is, the DSL should be removed from service prior to testing (refer to the RMV:LINE or RMV:DATALINK input messages).

z = Equipped channel units (EQCU). The EQCU parameter is used to indicate the number of channel units equipped on an *ANSI*® U-DSL when served by the RISLU/ISLU. For IDCU, the number of equipped channel units cannot be determined; therefore, the EQCU parameter will not be output.

As many as six CUs may be equipped on an *ANSI*® U-DSL. The number of channel units equipped is determined by polling each unit over the EOC. If a channel unit can be detected or if the EQCU is NONE, the NT1 is present, has power, and can communicate over the EOC. The CUs must be equipped in pairs; therefore, an odd number for EQCU would indicate that at least one CU does not respond.

If the number of CUs could not be determined, the NT1 may be inoperative. In such cases, the reason for failure will be output in place of the CU count. Valid value(s):

1-6	= The number of *ANSI*® CUs equipped.
EOC-BSY	= The test procedure must own the EOC resource to determine the number of equipped CUs; however, the EOC is currently busy. A concurrent procedure was using the resource (such as, LPBK testing or PM read).
LINKr[1]	= The LINK beyond CUq[1] is down. That is, the indicated CU was the farthest CU from the switch responding. If the CU is even (2, 4, or 6), layer 1 (U-interface) is down just beyond that CU. If the CU is odd (1, 3, or 5), a carrier system beyond that CU is down. The CU that was detected may be faulty; however, the unit just beyond

that CU is a more likely candidate (that is, CUq[1]+1 or the NT1).

NONE = No channel units are equipped. That is, the LT is connected directly to the NT1. In this case, the NT1 has responded instead of CU1.

NR = There was no response from CU1 (or the NT1); therefore, the presence of CU1 is indeterminate. Also, Layer 1 (U-interface) appears to be up at the LT. In this case, the failure may be due to CU1, the LT, or the loop between the LT and CU1.

NRT = This has the same meaning as NR; however, the NT1 or some CU appears to be in a "test mode".

TESTs[1] = This has the same meaning as LINKr[1]; however, the CU or NT1 is now (or was just prior to the LINK going down) in "test mode".

The NT1 or CU is placed in "test mode" by user/customer actions. That is, "test mode" is not initiated by the switch. The "test mode" is activated for local testing of a CU, using the 946A or 950A (or equivalent) test sets.

The purpose of the "test mode" indication is to alert office personnel that results from tests initiated at the switch may be corrupt, as local testing at the NT1 or CU is in progress. There is no way to determine if a "test mode" indication is originating from the NT1 or a CU. A valid "test mode" condition may not be detected when the LT is receiving CRC block errors (BE) in the upstream direction (NT1 toward the LT).

Note that not all manufactures of NT1s and CUs support the "test mode" indication (that is, NTM bit logic 0). Check manufacturer documentation for details.

UINTF = Layer 1 (U-interface) is down at the LT. It is not possible to determine the EQCU given this condition.

UNKNOWN = The number of channel units equipped is not known. This generally indicates an unexpected failure (for example, loss of RISLU/ISLU communication).

a[1] = IDCU remote terminal digital signal 1 (RTDS1). The RTDS1 carrier was submitted for use as part of the digital path during testing. If the test has successfully completed, the RTDS1 will be qualified with the DS1 identifier with respect to the IDCU.

b[1] = The RDT DS1 facility used during testing with respect to the IDCU. This parameter will qualify the RTDS1 that was used during testing.

c[1] = The DSL test request number (REQNO). A unique REQNO is assigned to a test procedure when it is first established. It is included in all output messages generated. This number is useful for associating test result messages that may be distributed widely over time, as when performing tests it multi-section modes.

d[1] = Bit error rate (BER). The bit error rate is presented in decimal scientific notation with exponent preceded by "E" (for example, 1.234E-8). The BER represents the total number of errored bits detected divided by the total number of bits sent.

e[1] Errored blocks (ERBLK). The ERBLK is the number of blocks returned from the LPBK termination during testing, with one or more bit errors. The ERBLK is expressed in decimal scientific notation with the exponent preceded by "E" (for example, 5.600E1 = 5.600 x 10^1 = 56).

f[1] = Packet rate (PKTRATE). The packet rate represents the total number of error-free packets returned from the LPBK termination during packet-type testing, divided by the total number of packets sent. The number is expressed as a percentage.

g[1] = Operational condition of testing. The testing status is comprised of three components.

Specifically, the test condition, test status and the status qualifier. The test condition and the test status will always be output. The status qualifier, which is used to add additional resolution to general status strings, is not always required.

The test condition, which is delineated from the status string with a colon, indicates the operational condition of the test procedure for the indicated DSL channel(s). Valid value(s):

`ABORTED` = Test could not proceed because the indicated resources could not be obtained. The test procedure has been terminated. In general, this condition implies that the test procedure has affected normal DSL operations. That is, DSL resources may be owned and testing may have been initiated on one or more DSL channels.

`COMPLETED` = The test procedure has completed normally.

`ERROR` = An unexpected error condition was detected. The test procedure has been prematurely terminated.

`FAILED` = An internal failure has prevented the test procedure from establishing or clearing condition(s) necessary for digital testing. The test procedure has been terminated.

`INVALID` = The test request as specified, was invalid for one or more DSL channels to be tested. In general, normal DSL operations have not been affected on the associated DSL channel(s). Testing may continue on selected DSL channels or the test procedure may be terminated entirely (refer to the EOT parameter).

`STATUS` = The present operational status of the test is presented. The test procedure continues as indicated.

`STOPPED` = The test procedure has been terminated in response to a manual request (refer to the STP:TST-DSL input message) or a customer service request (refer to the INT parameter in the TST:DSL input message).

`h`[1] = Status of testing. The following list contains definitions for all possible test statuses. The test status indicates the disposition of testing for the indicated channel(s). For general status strings, a qualifier will be used to add the required resolution. Valid value(s):

`ALREADY IN CONDITION` = For LPBK testing, the IDCU RDT is indicating that the requested LPBK state already exists. For CRC testing, the test request has been rejected, as the IDCU RDT is currently performing a CRC test.

The generic definition as specified by TR-303 for this failure condition is, the managed object (that is, the ISDN frame path termination object) is already in the condition requested. For detailed information consult vendor-specific RDT manual for the operation requested (that is, Operate corrupt CRC test, release ISDN loopback, restore ISDN loopback).

`ASSOC ENTITY NOT AVAIL` = The IDCU RDT is unavailable for LPBK or CRC testing. The generic definition as specified by TR-303 for this failure condition is, the managed object (ISDN frame path termination object) has an associated entity which is unavailable due to the entity being in an improper condition, being busy or having failed. For detailed information consult the vendor-specific RDT manual for the operation performed (release ISDN loopback, restore ISDN loopback, operate corrupt CRC test).

`AT LEAST ONE CU EQUIP` = At least one CU is equipped on this U-DSL.

`ATP` = The test request completed all tests pass (ATP). That is, the criteria for a passing test has been obtained. For example, if this was a CS test the BER and ERBLK are zero. For mismatch testing, no mismatch was detected.

`BAD INT FOR REQUEST` = The test cannot be made interruptible for the specified customer requests, given the DSL channels to be tested. For example, if the test request included the D-channel, the test procedure cannot be made interruptible for customer service originations. That is, the setup request cannot be seen if the D-channel is tested (refer to the INT parameter in the TST:DSL input message).

`BAD ISLU TASK REQUEST` = The RISLU/ISLU did not recognize the test or operation being requested.

`BAD TERM FOR CH` = The LPBK termination was not valid for the channel(s) to be tested. For example, NT1 terminations are not possible on a T-DSL.

`BAD TERM FOR TEST` = The LPBK termination was not valid for the test specified. For example, the OSPS test type can only use an EXT LPBK termination.

`BAD TEST FOR CH` = The specified test was invalid for the DSL channel specified. For example, an OSPS test cannot be performed on the D-channel or B2-channel of a DSL.

`BAD TEST FOR PORT` = An invalid test configuration or combination of test parameters associated with the DSL port has been requested. For example, a CRC test may only be performed on an *ANSI*® U-DSL. For IDCU, the direction of the CRC test must be specified. The mismatch test is not supported for the IDCU.

`BAD TEST REQUEST` = An invalid test configuration or combination of test parameters has been detected. For example, an invalid starting termination was specified for a SECT mode test.

`BLOCKED BY LT SPARING` = A mismatch test could not be run because the RISLU/ISLU metallic test bus was not available. The bus was in use by LT sparing. This condition exists when trying to gain metallic access to a LT that is in the same half of a line group drawer as an actively spared faulty LT. The phrase, "Same half of a line group drawer" refers to those line groups that are vertically adjacent (for example, LG0 and LG1 or LG2 and LG3).

`BUSY CAMPED ON` = A DSL resource required for testing is currently busy. The test procedure will wait for control of the resource, for the specified or defaulted camp-on time.

`BY REQUEST` = The results are in response to an explicit user request. For example, the test procedure can be terminated by manual request (refer to the STP:TST-DSL input message).

`CANNOT RE-GAIN EOC RSC` = The test procedure could not regain control of the EOC after waiting a sufficient length of time. This condition may prevent the test from continuing to the next test section and prevent proper DSL idling (for example: removing a LPBK at CU or NT1). This may have disrupted the normal operation of the U-DSL. If necessary, manually restore the DSL to properly condition it for customer service.

This situation can occur when the EOC resource is held by other procedures for too long. Normally, the EOC is only required for a short period of time (less than 25 seconds). There can be several procedures "waiting" to use the EOC at the same time.

`CH ACTIVATION` = The test procedure failed when attempting to activate the associated DSL channel(s) for testing.

`CH TYPE IS CS` = The basic/logical type of the associated DSL channel is circuit-switched.

`CH TYPE IS PS` = The basic/logical type of the associated DSL channel is packet-switched.

`CH UNASSIGNED` = The office data indicated that associated DSL channel was unequipped.

`CMP UNAVAILABLE` = The input request could not be processed because the communications module processor (CMP) is unavailable.

`CPE NOT BOUND` = The CPE specified on input was not bound on the specified DSL.

`CPE UNKNOWN` = The test request did not sufficiently identify the specific CPE to be used.

`CU NOT EQUIPPED` = The channel unit that was requested is not equipped.

`DATA FOLLOWS` = The LT and/or CU PM data follows in tabular format.

`DATA FOLLOWS: POSS PM FRZ` = The LT and/or CU PM data follows in tabular format; however, a possible PM freeze was scheduled for the LTs and/or the CUs. That is, the current PM counters will be shifted to previous counters and the current counters will be cleared.

Before proceeding to read the PM counts, wait for any in-progress freeze to complete. This ensures that all PM counts have shifted before being read. If a PM read or a LPBK of all channels is in progress at a CU or LT when a freeze is scheduled, no freeze should occur on the U-DSL (that is, no shift in the PM counts).

A PM freeze is scheduled once per hour for the LT and once every PM-report interval (refer to RC/V View 8.1) for the CUs. The freeze operation lasts for about 10 seconds.

`DATA FOLLOWS: POSS STUCK PM FRZ` = The LT and/or CU PM data follows in tabular format; however, in the SM it appears that a PM freeze operation has been "stuck" active longer than expected. Refer to '`DATA FOLLOWS: POSS PM FRZ`' for definition of a PM freeze.

`DATABASE PROBLEM` = Data required to perform the test could not be read. This may be due to a loss of communications with the associated SM or missing/corrupt office data.

`DGR` = The CS test results are degraded. That is, the BER is greater than zero, but has not reached the designated failure threshold set by the acceptable bit error rate (refer to the ABER parameter in the TST:DSL input message).

`DN NOT FOUND` = The directory number was not found in the data base.

`RT DS1 FACILITY FOR` = The RTDS1 facility is invalid for the DSL channel or RDT specified. Observe the qualifier for proper element.

`RT DS1 OOS` = Testing cannot be performed, as the DS1 supporting the DSL requested is OOS.

`DSL RSC BSY` = The request could not continue, as the required DSL resources were found to be busy.

`EXPECT CU1 TO CU4` = Only CU1 through CU4 are supported for AMI hardware.

`FAILED` = The requested test has failed. For PS tests at least 98% of the transmitted packets were returned with errors. For CS tests, the BER has exceeded the failure threshold set by the acceptable bit error rate (refer to the ABER parameter in the TST:DSL input message).

`FAILED TO UNLOOP` = An attempt to remove a LPBK at the associated termination has failed.

For CPE LPBK test procedures that have aborted, testing was not performed, as the DSL specified had a CPE in a LPBK state (from a previous test request). When this condition exists, the test procedure attempts to remove the CPE LPBK before proceeding. In this case, that attempt has failed. If the test procedure has completed, the CPE LPBK termination that was established, could not be removed. That is, the test procedure has left the CPE in a LPBK state.

A CPE LPBK can be removed in several ways. Each time a CPE LPBK test is performed and each time routine port conditioning executes on the associated DSL channel(s), an attempt will be made to remove the "stuck" LPBK. If the DSL is removed from service for greater than 10 minutes or if the CPE is disconnected (unplugged) for 5 seconds, the CPE should drop the LPBK.

`FAULT IN LOOP|PATH` = The data sent out by the test source, on the associated DSL channel, did not return to the test source for verification. For a PS test, the test packets were not returned. For a CS test, the digital bit stream was not returned.

This failure indicates that the LPBK at the specified termination could not be established, the hardware associated with the LPBK is powered down or unplugged, the error rate was too high (for example, out of range), or U-interface (layer 1) is down somewhere along the loop.

This is the expected result when attempting AMI CU LPBK tests, in the absence of CUs (AMI CUs cannot be detected by the switch). For *ANSI*® U-DSLs, this could indicate that the channel is non-transparent. Non-transparency normally occurs

when the U-interface is being restored. When the U-interface is up and the T-interface has been established at the NT1, all channels become transparent to permit layer 2 communication between the CPE and the switch.

There is a small possibility that the path between the LT and the test equipment (for example, ISTF or PH) is faulty. The operational/faulty portions of the digital path or transmission loop can be isolated by manually changing the termination point to one closer to the test source. This can be done automatically using SECT or SEQ testing modes.

`FCG DETECTED` = The requested test could not be performed because a false cross to ground condition was detected internal to the switch, between the HLSC and the LT. Consider performing diagnostics for the HLSC (refer to the DGN:ISLUHLSC input message) or the metallic-access-network (refer to the DGN:ISLUMAN input message).

`FLB ONLY AT AMI CU1 TO CU4` = On AMI U-DSLs, individual B-channel CU LPBK tests are not allowed. All DSL channels must be placed in LPBK when testing individual DSL channels at AMI CUs.

`HARDWARE` = A hardware problem has been detected. This general status should have a qualifier that implicates specific hardware. For example, a request to activate layer 2 for testing could have failed.

`HARDWARE SWITCHED` = During test execution, the associated unit (refer to qualifier) was switched to a stand-by unit. For example, a logical PH can undergo soft or hard switch during PS LPBK testing. In this case, a different physical PH is now serving the channel(s) under test.

`ILEN NOT FOUND` = The IDCU ILEN could not be found in the office data.

`IMPROPER CONDITION` = For CRC testing, this status indicates a failure to properly request an IDCU RDT CRC test. For LPBK testing, this status indicates a failure to properly request the activation or deactivation of a LPBK at the NT1|LT.

The generic definition as specified by TR-303 for this failure condition is, the values of a subset of attributes of the managed object (for example, ISDN frame path termination object) are improper to perform the requested operation. For detailed information consult vendor-specific RDT manual for the operation requested (for example, operate corrupt CRC test, release ISDN loopback, restore ISDN loopback).

`INTERRUPTED` = The test procedure has been terminated in response to a processing interrupt. This is the result of another procedure preempting for control of DSL resources. That procedure may have been invoked unconditionally (UCL) or may require control of specific resources (for example, EOC) to properly idle associated channels.

`ISTF|GDSF|PH TEST RESULTS TMO` = The test procedure in the SM timed out waiting for test results from the ISTF or GDSF (for CS testing) or from the PH (for PS testing).

`L1 DOWN AT LT` = The test requested could not be performed, as layer 1 (U-interface) was down between the LT and the first metallic termination. That is, a fault may exist on the loop between the LT and CU1 or the NT1 (if no CUs are present).

This condition can occur with a hardware mismatch, tip/ring faults to ground, or loop resistance that is too high or low. Layer 1 will also be down if CU1 or the NT1 (in the absence of CUs) is powered down or if one of the units (including the LT) is faulty.

This condition can also occur if the *ANSI*® NT1 or CU is in "quiet mode". This mode is activated for specific metallic tests; however, activation should not last longer than 1 to 2 minutes (refer to *ANSI*® NT1 and CU hardware documentation for

details).

Consider performing a mismatch test or various metallic tests to determine the specific characteristics of this loop. Metallic-loop tests are available using MLT systems and the TLWS metallic-testing menu 5600.

`L1 DOWN AT NT1|CU|LT` = The test requested was not performed, as Layer 1 (U-interface) was found down somewhere beyond the AMI U-DSL LT. This can be caused by a fault on the loop between the LT and the NT1. Reasons for this condition exist under "`L1 DOWN AT LT`".

`LCEN|LCKEN NOT FOUND` = The line termination equipment number was not found in the data base.

`LPBK SETUP` = An attempt to set up a loop-back at the indicated termination has failed.

`LPBK UNSUPPORTED` = The LPBK termination indicated cannot be provided by the associated unit. Observe the qualifier for unit identifiers.

`LT ALT EOC STUCK ON` = The line termination alternate embedded operations channel (AEOC) is stuck in an activated state. This condition implies a faulty LT and will prevent access to the NT1 or CUs. Consider performing the LT diagnostic (refer to the DGN:ISLULC input message).

`LT AND NT1|CU MISMATCH` = A hardware mismatch has been detected. Specifically, the LT circuit pack installed in the RISLU/ISLU and the electrical characteristics of the first metallic termination (NT1|CU) beyond the LT do not match the U-DSL type (*ANSI*® |AMI) as defined in the ODD. Determine the U-DSL type as defined in the ODD. Refer to RC/V View 22.7 for ISLU, 22.21 for ISLU2, and 23.2 for both. Also reference the LT type as displayed on the MCC. Refer to MCC Display Page 1720,y,z,x for ISLU or 1730,y,z,x for ISLU2.

`LT LOOP-BACK SETUP FAILED` = A problem was detected in establishing a line termination LPBK. Consider performing the LT diagnostic.

`LT OOS IN ISLU MEMORY` = The line termination has an OOS status in RISLU/ISLU memory. This is inconsistent with the LT status in SM memory. The requested operation has been terminated. If this condition is chronic, restoring the LT to service (removing it to OOS first if required) should update RISLU/ISLU memory for the LT.

`LT TYPE TO ODD MISMATCH` = A hardware mismatch has been detected. Specifically, the LT circuit pack installed in the RISLU/ISLU does not match the U-DSL type (ANSI|AMI) as defined in the ODD. Determine the U-DSL type as defined in the ODD. Refer to RC/V View 22.7 for ISLU, 22.21 for ISLU2, and 23.2 for both. Also reference the LT type as displayed on the MCC. Refer to MCC Display Page 1720,y,z,x for ISLU or 1730,y,z,x for ISLU2.

`MISSING NT1|CU RSC` = The NT1 or CU resource that the test procedure should own is missing. This indicates the corruption of associated data.

`MLHG ACCESS DN` = The DN submitted, is a multi-line hunt group (MLHG) access DN. This DN, which identifies a group of MLHG member DNs, is not associated with a DSL port; therefore, the DSL to be tested is unknown.

`MP ACCESS DN` = The DN submitted is a modem pool (MP) access DN. This DN, which identifies a group of MP member DNs, is not associated with a DSL port; therefore, the DSL to be tested is unknown.

`MTCE RSC BSY` = The test has been denied because a needed maintenance resource is temporarily busy. Observe the qualifier for additional resolution.

`NO CH SERVICES` = For user mode testing, the specified user does not subscribe to communication services on the indicated DSL channel. For other cases, the channel to be tested is assigned in the data base; however, the DSL channel has not been defined.

`NO EOC RSP` = A response has not been received over the EOC from the NT1|CU addressed. Observe the associated qualifier for additional resolution.

`NO RESOURCES` = Resources required by the test procedure are unavailable. Observe the status qualifier for additional resolution. For example, pseudo BRI D-channels are not assigned a PH; therefore, PS testing cannot be performed.

`NO RESPONSE` = An expected response has not been received. Observe the status qualifier for additional resolution. Examples are a PH that does not respond to layer 2 requests or a CPE (for example, ISDN telephone/modem) that does not respond to requests.

`NO SM RESPONSE` = The test procedure has not received a response from an associated SM. Communications may have been lost during testing. For example, the test procedure may "timeout", while awaiting test results from test equipment.

`NO TESTS RUNNING` = No TST:DSL tests are running. This status is output (in response to a STP:TST-DSL input message), when no TST:DSL procedures are found (in any SM).

`NOT A DSL PORT` = The port specified (for example, by DN|LCEN|LCKEN|ILEN) is not a DSL. Only DSL ports may be tested using the TST:DSL input message.

`NOT A PRIMARY DN` = The DN that was input was not a primary DN.

`NOT A U-DSL PORT` = The requested test can only be executed on a U-DSL port. For example, the mismatch test can only be performed on a RISLU/ISLU U-DSL.

`NT1|CU IN TEST MODE SEE UCL` = The test has been terminated, as the NT1 or CU was found to be in "test mode". If testing were to continue, erroneous test results may be returned. The UCL input parameter can be used to ignore this hardware event; however, active calls will also be terminated (refer to the '`z`' = `TESTs`[1] parameter).

`NT1|CU INDETERMINATE` = A mismatch test procedure could not determine if the first termination (NT1|CU) beyond the LT was an AMI or *ANSI*® termination. The loop may be too long (for example, beyond designed limits) or there may be a metallic-loop fault present.

Perform voltage, resistance, and capacitance metallic tests to determine the specific characteristics of this loop. Metallic-loop tests are available using MLT systems and the TLWS metallic-testing menu 5600.

`NT1|CU MISMATCH DETECTED` = A mismatch test has determined that the electrical characteristics of the first metallic termination (NT1|CU) beyond the LT does not match the U-DSL type (ANSI|AMI) defined in the ODD. Determine the U-DSL type as defined in the ODD. Refer to RC/V View 22.7 for ISLU, 22.21 for ISLU2 and 23.2 for both. Also, reference the LT type as displayed on the MCC. Refer to MCC Display Page 1720,y,z,x for ISLU or 1730,y,z,x for ISLU2.

`NT1|CU|LT RSC BSY` = The test procedure has terminated as the NT1, CU or LT resource is currently busy.

`OPEN PATH LT TO TST EQUIP` = The digital path could not be established or has been lost, between the test source and the LT.

`OUT OF SERVICE` = The test procedure has been terminated, as equipment supporting the tested DSL is OOS. Observe the status qualifier for the equipment ID. Proceed by restoring the associated equipment prior to testing.

`PM BUFR SCBSY` = All SM buffers used to retrieve the LT and/or CU PM counts are busy. Retry at a later time.

`PM DATA READ TIMEOUT` = The test procedure timed out waiting for a response to a PM read of the LT|CU counters.

`PM DATA TYPE RCVD` = An invalid PM data type has been received for the LT|CUs. Observe the status qualifier for unit ID. The PM data was expected to be marked as current or previous PM report interval counts. Either no counts were received or invalid data was received by the SM. If this failure is chronic, consider diagnosing the LT and replacing the defective unit(s) (LT|CU).

`PORT IS BUSY` = The DSL port to be tested is busy. Retry the test request at a later time or consider running the test unconditionally (refer to the UCL parameter in the

TST:DSL input message).

`PORT NOT OSPS` = The test procedure has been terminated, as the associated port does not support the required OSPS service. Observe status qualifier for specific facility types supported.

`PORT NOT UNDER TEST` = A TST:DSL procedure was not found on the port specified. This status is output in response to a STP:TST-DSL input request for a specific DSL, when no test procedure is currently in progress.

`PORT STILL BUSY` = The test procedure was terminated, as the port to be tested remained busy beyond the specified or defaulted camp-on (for example, waiting) period (refer to the CAMP parameter in the TST:DSL input message).

This status will print immediately, if the camp-on list is full or the test is run unconditionally, when another procedure with a higher processing priority owns required resources (refer to the UCL parameter in the TST:DSL input message). In the later case, that procedure must complete prior to testing. In general, resubmit the test request at a later time.

`PROCESSING FAILURE` = The IDCU RDT operation could not be performed because of an unspecified processing failure. The status strings '`IMPROPER CONDITION`', '`ALREADY IN CONDITION`' and '`ASSOC ENTITY NOT AVAIL`' are a sub-class of processing failures, which may not be offered by all switch vendors.

The generic definition as specified by TR-303 for this failure condition is, an RT failed in processing an action requested on the managed object (ISDN frame path termination). For detailed information consult the vendor specific RDT manual for the operation performed (release ISDN loopback, restore ISDN loopback, operate corrupt CRC test).

`PROTECTED LINE SWITCH` = The test procedure was terminated, as the RDT DS1 in use is currently switched over to the spare/protection DS1.

`PROTECTION|SPARE DS1` = The test procedure was terminated, as the IDCU RDT digital signal 1 (DS1) facility selected is reserved for sparing (for example, protection) operations only.

`PX DETECTED` = A mismatch test procedure could not be run, as a power cross was detected on the tip/ring at the LT.

Perform voltage, resistance, and capacitance metallic tests to determine the specific characteristics of this loop. Metallic-loop tests are available using MLT systems and the TLWS metallic-testing menu 5600.

`REQ SPECIFIC CH WITH UCL` = When testing is performed unconditionally, the DSL channel to be tested must be explicitly identified (refer to the UCL parameter in the TST:DSL input message). For example, the testing of "any B-channel" (that is, CH=B) does not identify which of possibly two B-channel procedures should be terminated.

`REQUEST QUEUED` = The requested test was accepted by the system, but it was queued because other jobs are currently running.

`RMV PORT TO OOS` = The specified DSL must be removed from service prior to testing. This is required for DSLs supporting facilities that employ resident procedures which are always in control of associated DSL channels. Examples of such DSL facilities are data links (DL), application processors (AP) and OSPSs.

`SM UNAVAILABLE` = The input request could not be processed, as communication with the associated SM is not currently possible.

`STOP NOT ALLOWED` = The test procedure that is in progress on the DSL cannot be stopped. This status is output in response to a STP:TST-DSL input message, when a CRC test procedure is in progress on an IDCU DSL. The IDCU RDT standard does not provide for stopping CRC test procedures.

`SYSTEM EXCEPTION` = The test procedure has been terminated, as an unexpected error condition has been encountered. For example, an internal interface has returned an unknown failure code. Repeated display of this status could be a program bug.

`T OR R LOW RESISTANCE` = A mismatch test has detected a low resistance between tip and ring, tip and ground, or ring and ground at the LT as connected to the first metallic termination (NT1|CU).

Perform voltage, resistance, and capacitance metallic tests to determine the specific characteristics of this loop. Metallic-loop tests are available using MLT systems and the TLWS metallic-testing menu 5600.

`T OR U INTERFACE DOWN` = The test requested could not be performed because Layer 1 (that is, T|U-interface) is down somewhere on the DSL. If the T-interface is down, the CPE, NT1 or LT may be faulty (that is, cannot establish layer 2 protocol). The U-interface may be down due to a fault between the LT and the NT1. If the U-interface is down, the T-interface will also be down. In any case, there will be no response at the CPE.

Proceed by running a mismatch test to obtain additional information. The fault can be sectionalized by using the SECT or SEQ modes of testing to isolate the point on the loop with the U-interface down. Perform voltage, resistance, and capacitance metallic tests on the loop to determine the specific characteristics of any metallic-loop fault that may be present.

`T TO R HIGH RESISTANCE` = A mismatch test has detected that a high loop resistance exists between tip and ring at the LT, as connected to the first metallic termination (NT1|CU).

Perform voltage, resistance, and capacitance metallic tests to determine the specific characteristics of this loop. Metallic-loop tests are available using MLT systems and the TLWS metallic-testing menu 5600.

`TEI UNASSIGNED` = The specified TEI is not assigned on the DSL specified. Refer to the OP:CPE input message to obtain a list of active TEIs.

`TEI DN CONFLICT` = The user (specified by DN) is not bound to a CPE; however, the TEI entered is assigned to a CPE that is bound (to a different DN). In this case, two users have been identified and the test procedure will not arbitrate which users services should be tested. Use the OP:CPE input message to obtain a list of active TEIs and associated CPE binding.

`TERMINATION LOST` = The LPBK termination was lost during testing. Observe the qualifier for the affected unit ID. For example, the CPE was disconnected (that is, unplugged) during a long duration CPE LPBK test.

`TEST EQUIP CNTRL FAILURE` = The test equipment did not respond properly to an operational request. For CS LPBK testing, this may indicate a defective ISTF|GDSF circuit.

`TEST EQUIP UNAVAIL` = The associated test equipment may be in use by another procedure or may be OOS. For the ISTF|TTF|GDSF all logical test ports (LTP) are unavailable. For PS testing only one test may be performed per PH; therefore, the PH may already be testing (on one of 128 PH channels).

For the ISTF|GDSF, this can occur frequently, if resources are in great demand or if the unit or services are incorrectly grown (refer to the Hardware Change Procedures manual for the growth of the DSU2-ISTF|GDSF unit and associated services). The ISTF|GDSF resource is used by various test facilities to evaluate ISDN trunks and lines. Some examples are, mechanized loop testing (MLT), the trunk and line work station (TLWS), manual and automated trunk testing and the basic rate interface test line (BRITL).

`TEST RSC UNAVAILABLE` = The associated test resource was busy, OOS or non-existent. Observe the status qualifier for possible resource ID. For example, if the channel

under test is a pseudo BRI D-Channel, a PH channel is not assigned; therefore, PS testing cannot proceed. For mismatch testing the HLSC may be busy or the metallic test buss may be unavailable.

`TESTING BEGINS` = This message indicates that the test procedure has successfully obtained ownership of all required DSL resources. The test procedure now proceeds to obtain control of any required test equipment and to establish all conditions necessary to start testing.

`TIMEOUT FOR RSP` = The testing procedure within the administrative module (AM) timed out waiting for a response. This can occur if the SM becomes isolated during testing or if the associated SM procedure terminates prematurely.

`TIP AND RING REVERSAL` = A mismatch test has detected a tip and ring reversal on an AMIU-DSL.

`UNABLE TO ACCESS LT` = The test procedure could not access the line termination. This could indicate that all communication links connecting the RISLU/ISLU are busy or that a database problem exists. Resubmit the request.

`UNEXPECTED NT1|CU RSP` = The NT1 or CU reply for the requested operation was unexpected. The CU and/or LT may be faulty. Consider performing a LT diagnostic. Observe the status qualifier for additional information.

`UNEXPECTED PKTS RCVD` = During a PS LPBK test, the PH received more packets than it transmitted. This can occur on "noisy" transmission loops.

`UNIT TYPE RCVD` = An invalid PM unit type has been received with the requested PM data. The PM data was expected to be marked as having been received from a LT or CU. Observe the status qualifier for expected unit ID. Either no PM data was received from the CUs or invalid data was received from the LT. Consider a LT diagnostic. Resubmit the request.

`USER UNKNOWN` = The test request does not identify a specific DSL user. The DSL user must be identified when performing USER mode tests. That is, when user subscribed communication services are to be tested.

`UTC TO EOC RSP` = The NT1 or CU replied that it was unable to comply with the requested operation. The associated unit may not support the requested operation. Observe the status qualifier for ID of the unit that could not comply.

`i`[1] = Qualifier to the testing status. The qualifier provides additional resolution for more general status strings. That is, general failures may be associated with specific hardware or events with the status qualifier. The status qualifier can be different for each DSL channel tested. Valid value(s):

`CPE` = Customer premises equipment.
`CH` = DSL channel.
`CU` = Channel unit.
`DA|TAOPER` = The request is valid for DSL facilities supporting directory assistance operator (DAOPER) or toll assistance operator (TAOPER) service classes.
`DSL` = Digital subscriber line.
`EOC` = Embedded operations channel.
`HLSC` = High-level service circuit.
`ISTF` = Integrated services test function.
`ISTF or PH` = Integrated services test function or protocol handler.
`LT` = Line termination.
`LT&NT1 or CU` = Line termination and network termination 1 or just the channel unit.
`LT or ISLU` = Line termination or integrated services line unit (including RISLU).
`LT or NT1 or CU` = Line termination, network termination 1 or channel unit.
`MSMTCH` = Mismatch test.
`NT1` = Network termination 1.
`NT1 or CU` = Network termination 1 or channel unit.

PH = Protocol handler.
RDT = IDCU remote digital terminal.
RETEST IP = A retest is in progress on the indicated channel(s). This can occur when the test equipment is unavailable.
RL = Retry at a later time.
STDI = The standard BRI interface.

j[1] = The blocked DSL channel indicator. The test procedure will indicate which of the 2B+D DSL channels are blocked for testing in the "testing begins" output message (Format 2). When this output message is generated, the test procedure has control of the associated DSL channels. If the block channel indicator is not shown, the test procedure does not require the use of any 2B+D DSL channel. Valid value(s):

2B+D = All DSL channels are blocked for testing.
D+B1 = The D-channel and B1-channel are blocked for testing.
D+B2 = The D-channel and B2-channel are blocked for testing.
B1+B2 = Both B-channels are blocked for testing.
D = The D-channel is blocked for testing.
B1 = The B1-channel is blocked for testing.
B2 = The B2-channel is blocked for testing.

k[1] = The job status. The job status is used to provide general information as relating to all DSL channels under test. That is, the job status will be the same for all DSL channels tested. The job status is used to identify abnormal procedural directives, concurrent maintenance procedures, implied limitations, and so forth. One or more job status strings may be output at the same time, separated by a colon. Valid value(s):

ALL DSL RSC BSY = All of the DSL resources (EOC, NT1, CUs, LT, CRC, PM, etc.) are busy.
ATTEMPT INTERRUPT = Procedures associated with this U-DSL have been preempted, to restore normal DSL operations (refer to job status 'SENT INTERRUPT'); however, this action has failed to free the EOC. In this case, the DSL is forced into normal operating condition (without EOC control). This may disrupt other test procedures using the NT1 or CUs; however, normal customer service will be restored.
B1 LB IP = A B1-channel LPBK was in progress during this test request.
B1,B2 LB IP = Both B1-channel and B2-channel LPBKs were in progress during this test request.
B2 LB IP = A B2-channel LPBK was in progress during this test request.
CRC TST IP = A CRC test was in progress during this test request.
CU FLB IP = A CU LPBK of all channels (full LPBK) was in progress during this test request. It is not possible to access units (CU or NT1) beyond the associated LPBK termination. For example, if CU PM counts are being read, the PM counts from CUs beyond that termination cannot be retrieved.
CU TST IP = A CU test was in progress during this test request.
DLB IP = A D-channel LPBK was in progress during this test request.
EOC BSY = An EOC resource was busy during this test request.
FLB IP = A LPBK of all channels (full LPBK) was in progress during this test request.
ISDN FAIL = An ISDN FAIL message was received during this test request. This test request was immediately terminated.
LT FLB IP = A LT LPBK of all channels (full LPBK) was in progress during this test request. It is not possible to access units (CU or NT1) beyond the LT.
LT TST IP = A test at the LT was in progress during this test request.
LT or CU PM READ IP = A LT or CU PM read was in progress during this test request.
MMT ATP = An automatically invoked mismatch test has completed with all tests passed. This

implies that the LT, as connected to CU1 or the NT1, appears correct. That is, the link between the associated units should support the U-interface (layer 1).

`MMT PF` = A mismatch test has been automatically invoked. The test results will follow in a subsequent output message (note the '`MMT ATP`' or '`MMT RESULTS`' job status in that message).

`MMT RESULTS` = An automatically invoked mismatch test has completed with the indicated status. More detailed results may be obtained by manually invoking the mismatch test.

`NT TST IP` = The NT1 was in use by another test procedure during this test request.

`NT1 FLB IP` = A NT1 LPBK of all channels was in progress during this test request.

`SENT INTERRUPT` = Procedures associated with this U-DSL have been preempted to restore normal DSL operations. This action has been taken because the EOC resource has been unavailable for too long. In this case, procedures that must use the EOC would fail to properly idle the associated DSL channels (for example, to remove a LPBK termination). This will be disruptive to test procedures using the NT1 or CUs.

`SSR` = The test procedure was stopped by a customer service request. That is, this test was terminated because the customer went off hook or received a voice call. The test request specified that the test procedure should be made interruptible for customer originations and/or terminations (refer to the INT and MDUR parameters in the TST:DSL input message).

`TEST MODE` = The data presented was obtain while the NT1 or CU was in "test mode". Refer to the '`z`' = `TESTr`[1] parameter for a definition of "test mode".

`UCL` = The request to perform testing unconditionally has produced the associated result (refer to the UCL parameter in the TST:DSL input message).

`l`[1] = Unit identifier. Valid value(s):

`CUq`[1] = The CU interval PM counts for `CUq`[1] follow on this line. The CU counts are output in pairs (CU1 & CU2, CU3 & CU4, and so forth), in separate messages following the output of LT counts. Note, that the V (verbose) parameter must be specified to obtain CU PM counts.

The BRITE CUs are designed to monitor PM counts on a "PATH" basis. That is, the LT downstream and upstream counts will contain PM counts that have occurred anywhere along the U-DSL. In particular, any CRC error detected by a CU is recorded as a BE at that CU and an error is propagated (by transmitting an invalid CRC) in the same direction (downstream or upstream) as appropriate.

For example, if CU2 is first to detect a downstream CRC error, CU2 will count this as a downstream BE and send an invalid CRC downstream to CU3 (or the NT1 if no CU3 is equipped). In this way, each downstream CU and NT1 will count one BE in the downstream direction. Upon receiving the downstream-invalid CRC, the NT1 will send a FEBE to the LT to indicate the NT1 has detected a BE. Upon receiving the FEBE, the LT will count one BE in the downstream direction. In this example, CU1 would not have counted a BE in the downstream direction. The LT and CU2 through CU6 would have counted one BE in the downstream direction. The LT and the CUs would not have counted a BE in the upstream direction.

`LT` = Line termination hour upstream and downstream PM counts. When the LT counts are output, only two lines of the output table are required. The CU counts are output in subsequent messages.

The LT downstream PM counts are a record of the far-end block errors (FEBE), as detected by the NT1. For an *ANSI*® U-DSL, the NT1 can indicate a FEBE once every superframe (12 milliseconds). For CRC testing, each superframe that is sent (in the downstream direction) should indicate a FEBE. The LT will record one

downstream BE for every superframe received from the NT1 indicating a FEBE. In addition, the LT will count an ES or severely errored second (SES) as appropriate.

m[1] = Upstream and downstream block error PM (BE). The CRC test proceeds by corrupting the CRC for every *ANSI*® superframe (12 milliseconds). The corrupt superframe is then transmitted downstream (that is, LT toward the NT) and then back upstream (that is, NT toward the LT). This means that the BE PM counters should accumulate at a rate of 83.3 BE per second.

n[1] = Upstream and downstream SES.

An SES occurs when a specific number of BEs occur in one second. For CUs, the allowable number of BEs is fixed at 3 per second. For LTs, the allowable BEs per second is recent changeable (refer to RC/V View 8.1). The CU SES counts and the LT SES counts can only be correlated, if the allowable BEs/sec is the same for each case. The SES and ES should be very nearly equal (within 1 or 2).

o[1] = Upstream and downstream errored seconds (ES). The ES counter will increment once for approximately every second the test runs. The BE count should be 83.3 times the ES count. The ES and SES should be very nearly equal (within 1 or 2).

p[1] = Status of the PM read. The status of reading the preceding three PM counts (that is, BE, SES, ES). Valid value(s):

AEOC = The CU PM counts were not read. The line termination AEOC is stuck in an activated state. This condition indicates a faulty LT. This will prevent any access to the NT1 or CUs. Consider performing the LT diagnostic (refer to the DGN:ISLULC input message).

COMP = The PM counts have been read.

*COMP = The PM counts have been read; however, one or more of the PM counters may have overflowed.

CRPT = The PM counts have been read; however, the associated corruption indication flag (CIF) was marked corrupt. There is no CIF for CUs. In this case, the PM counts do not reflect normal operation on the U-DSL for the period being measured.

Examples of events that will result in marking the current-hour LT PM counts corrupt are: manually clearing the PM counts (refer to the EXC:ALE input message), system initializations, digital LPBK testing of all DSL channels using the LT or CU terminations, corrupt CRC testing, and a loss of layer 1 (U-interface) at the LT or beyond a CU.

*CRPT = Same as CRPT; however, one or more of the PM counters has overflowed.

INVOP = The PM counts have not been read, as an invalid PM operation was requested.

LTOOS = The line termination is marked OOS in the RISLU/ISLU memory. No data is read from the LT in this case.

NGRSP = The PM counts have not been read, as the CU response was unexpected or invalid.

NODTA = The PM counts have not been read. No PM data was received.

NORSP = The PM counts have not been read, as the CU has not responded (timeout).

UINTF = The PM counts have not been read, as layer 1 (U-interface) is down at the LT. It is not possible to communicate beyond the LT.

UNEQU = The PM counts have not been read, as the channel unit is unequipped.

UTC = The CU has responded with an unable-to-comply message. This CU does not support the reading of PM counts.

q[1] = CU number.

r[1] = LINK number.

s[1] = TEST number.

t[1] = Line termination number.

u[1] = ISLU/ISLU2 number.

v[1] = Line group controller number.

w[1] = Line card number.

x[1] = Line group number

y[1] = Line board number.

z[1] = Line circuit number.

a[2] = GDSF PIDB channel.

4. ACTION TO BE TAKEN

For DSL channels indicating bit error rate faults, retry the test using a different LPBK termination, if appropriate, to help isolate the fault (refer to the MODE=SECT parameter in the TST:DSL input message).

For tests that do not complete, determine the reason for failure and retry the test. Besides defective hardware, improperly populated data can prevent access both to the DSL ports as well as to the test equipment.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:ISLUHLSC
DGN:ISLUMAN
DGN:ISLULC
EXC:ALE
OP:CONV
OP:CPE
RMV:DATALINK
RMV:LINE
STP:TST-DSL
TST:DSL
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-231 *Hardware Change Procedures*
235-900-321 *Basic Rate Interface Specification*

RC/V View(s):

8.1 (OFFICE PARAMETERS)
22.7 (RISLU/ISLU EQUIPMENT - LINE CARD)
22.21 (RISLU/ISLU2 LINE BOARD)
23.2 (ISDN INDIVIDUAL DSL)

MCC Display Page(s):

1720,y,z,x (SM X ISLU Y LGC Z)
1730,y,z,x (SM X ISLU2 Y LG Z)

TST:DSL-B

Software Release: 5E12 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

[1]
```
TST DSL[a][DN=b[+]][c][TEI=n][CH=o][PORT=p-q[-r]]
    TEST=s [TERM=t][DUR=u]
    ITYPE=i1[-j1] REQNO=n1
    STATUS: BUSY CAMPED ON
```

[2]
```
TST DSL[a][DN=b[+]][c][TEI=n][CH=o][PORT=p-q[-r]]
    TEST=s [TERM=t][DUR=u]
    ITYPE=i1[-j1] REQNO=n1
    STATUS: TESTING BEGINS [1 BLKD>]
```

[3]
```
TST DSL[a][DN=b[+]][c][TEI=n][CH=o][PORT=p-q[-r]]
    [TEST=s][TERM=t][DUR=u]
    [ITYPE=i1[-j1]][REQNO=n1]
    {STOPPED: BY REQUEST}|{STATUS: NO TESTS RUNNING}|{r1: s1}
    [EOT]
```

[4]
```
TST DSL[a][DN=b[+]][c][TEI=n][CH=o][PORT=p-q[-r]]
    TEST=MSMTCH [HLSCEN=x-y-z-a1][LTTYPE=f1][NT|CU=g1]
    [ITYPE=i1[-j1]][EQCU=k1] REQNO=n1
    r1: s1 [- t1][1>]
    EOT
```

[5]
```
TST DSL[a][DN=b[+]][c][TEI=n][CH=o][PORT=p-q[-r]]
    TEST=AUTO TERM=t DUR=u
    [ITYPE=i1[-j1]][EQCU=k1][RTDS1=l1[-m1]] REQNO=n1
    r1: s1 [- t1][1>]
    [EOT]
```

[6]
```
TST DSL[a][DN=b[+]][c][TEI=n][CH=o][PORT=p-q[-r]]
    TEST=CS TERM=t DUR=u [RATE=v][BLKSZ=w][ISTFEN=x-a1-e1]
    [ITYPE=i1[-j1]][EQCU=k1][RTDS1=l1[-m1]] REQNO=n1
    [BER=o1 ERBLK=p1] r1: s1 [- t1][1>]
    [EOT]
```

[7]
```
TST DSL[a][DN=b[+]][c][TEI=n][CH=o][PORT=p-q[-r]]
    TEST=CS TERM=t DUR=u [RATE=v][BLKSZ=w][GDSFEN=x-a1-b1-c1-d1]
    [ITYPE=i1[-j1]][EQCU=k1][RTDS1=l1[-m1]] REQNO=n1
```

```
        [BER=o1 ERBLK=p1] r1: s1 [- t1][1>]
        [EOT]
```

[8]

```
TST DSL[a][DN=b[+]][c][TEI=n][CH=o][PORT=p-q[-r]]
    TEST={PS|ODPS} TERM=t DUR=u [PHEN=x-a1-e1]
    [ITYPE=i1[-j1]][EQCU=k1][RTDS1=l1[-m1]] REQNO=n1
    [PKTRATE=q1] r1: s1 [- t1][1>]
    [EOT]
```

[9]

```
TST DSL[a][DN=b[+]][c][TEI=n][CH=o][PORT=p-q[-r]]
    TEST=OSPS TERM=EXT DUR=10
    [ITYPE=i1[-j1]][EQCU=k1] REQNO=n1
    r1: s1 [- t1][1>]
    [EOT]
```

[10]

```
TST DSL[a][DN=b[+]][c][TEI=n][CH=o][PORT=p-q[-r]]
    TEST=CRC[-{UP|DWN}] DUR=u [ET=h1]
    [ITYPE=i1[-j1]][EQCU=k1] REQNO=n1
    r1: s1 [- t1][1>]
   [         ------ DOWNSTREAM -----  ------- UPSTREAM ------
             BE    SES   ES    STAT   BE    SES   ES    STAT
    PRV w1   x1    y1    z1    a2     x1    y1    z1    a2
    CUR w1   x1    y1    z1    a2     x1    y1    z1    a2
   [PRV w1   x1    y1    z1    a2     x1    y1    z1    a2
    CUR w1   x1    y1    z1    a2     x1    y1    z1    a2]]
   [EOT]
```

2. REASON FOR OUTPUT

To report the test results associated with a TST:DSL input message. Also, to report the test results associated with automatic requests (pokes) to test a digital subscriber line (DSL) using the trunk and line work station (TLWS).

The TST:DSL output message will appear in different forms, primarily dependent on the test type selected. Formats 4 through 10 are unique to specific test types, while Formats 1 and 2 are typical for all test types. Format 3 is unique to explicit requests to prematurely terminate a TST:DSL procedure (refer to the STP:TST-DSL input message). If an active test procedure is found, that procedure will acknowledge the stop request. This allows test specific information to be displayed on output (such as the request number of the terminated procedure). If no active test procedure is found, the STP:TST-DSL procedure will generate the resultant output message; therefore, no test specific information will be seen.

The integrated digital carrier unit (IDCU), and digital network unit - synchronous optical network (SONET) (DNU-S) connect a remote digital terminal (RDT) using the TR-303 interface. The RDT equivalent of the integrated services line unit (ISLU) line card (LC) is called a channel unit (CU). Any type of LC, line circuit (LCKT) or RDT CU are collectively referred to as the line termination (LT) throughout this message.

Unless otherwise stated: all references to ISLU include all configurations of the ISLU and the integrated services line unit version 2 (ISLU2). This includes both the remote integrated services line unit (RISLU) and remote integrated services line unit 2 (RISLU2). All references to access interface unit (AIU) include the remote access interface unit (RAIU). Reference to line unit (LU) includes all supported ISDN compatible LUs.

In general, test results will only be presented for tests that normally complete. In other cases, the status string (as in: r^1: s^1 [- t^1]) will identify the reason for termination of the test procedure.

The end-of-transmission (EOT) parameter indicates all message sections have been output. Formats that show the EOT parameter as optional can be repeated more that once by a test procedure.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`CUR` = Current upstream (network termination 1 (NT1) to LT direction) and downstream (LT to NT1 direction) protocol monitoring (PM) counts.

The current PM counts are read in the same order as output. The LT (current hour) and CU (current interval) PM counts will vary with the test duration; however, if the DSL is faulty, a significant deviation between the recorded PM counts can result.

The deviation in the PM counts is most likely the result of recording block errors (BE) while the PM counts were being read, as throughout testing each frame was intentionally corrupted. This could indicate that the CU and/or LT PM counters are not responding properly or the ability to transmit BEs from the LT or NT1 is faulty. Nominally, the deviation between the printed LT and CU errored second (ES) counters is not likely to be more than 3.

`EOT` = End-of-transmission indicates all message sections have been output and the associated test procedure has terminated. Formats that show the EOT parameter as optional can be repeated more than once by a test procedure.

`PORT` = The global port under test (PUT). When an output message provides test results for an individual DSL channel, the CH parameter will be correlated with the PORT. In other cases, (such as: `CH=ALL`) the D-channel PORT will be output.

`PRV` = Previous upstream (NT1 to LT direction) and downstream (LT to NT1 direction) PM counts.

The previous PM counts are read in the same order as output. The LT previous hour PM counts are never modified by corrupt cyclic redundancy check (CRC) testing. The CU previous interval PM counts should also be unaffected.

`+` = The DSL has multipoint service.

`a` = Line termination layer 2 interface type as detected in office-dependent data (ODD). Valid value(s):

`AMI-RU`	= Alternate mark inversion (AMI) U-interface on a remote LU.
`AMI-U`	= AMI U-interface.
`ANSI-RU`	= *ANSI*® U-interface on a remote LU.
`ANSI-U`	= *ANSI*® U-interface.
`RT`	= T-interface on a remoted LU.
`T`	= T-interface.

`b` = Subscriber directory number (DN) associated with the DSL tested. If a specific subscriber has been specified, that users DN will be output.

`c` = Office equipment number (OEN). Valid value(s):
`AIUEN=d-e-i-l` = AIU equipment number (AIUEN).

`LCEN=d-e-h-k` = line card equipment number (LCEN).
`LCKEN=d-e-h-i-l` = line circuit equipment number (LCKEN).
`ILEN=d-f-j-m` = IDCU line equipment number (ILEN).
`INEN=d-g-j-m` = integrated digital loop carrier (IDLC) networking line equipment number (INEN).

`d` = Switching module (SM) number.

`e` = ISDN LU number.

`f` = IDCU number.

`g` = DNU-S number.

`h` = Line group controller number.

`i` = Line board/pack number.

`j` = RDT number.

`k` = Line card number.

`l` = Line circuit number.

`m` = RDT channel unit number.

`n` = Terminal endpoint identifier (TEI). In general, if a TEI is submitted on input, that TEI will be presented on output. However, if the TEI is invalid and the identifier is not required for testing, it will not be output. If a DN submitted on input is "bound", the TEI output will be the TEI of the customer premises equipment (CPE) "bound" to that user (refer to the TEI parameter in the TST:DSL input message.)

`o` = DSL channel(s) (CH) tested.

For CRC testing, the 2B+D channels are not tested; however, associated output messages will provide the D-channel PORT name and the CH parameter will be used to identify that PORT.

Note that the CH parameter(s) may not indicate all channels owned by the test procedure. Refer to variable '`u`[1]' for that purpose. Valid value(s):

`ALL`	= All equipped channels.
`B`	= Any idle B-channel.
`B1`	= B1-channel.
`B2`	= B2-channel.
`BB`	= Both B-channels.
`D`	= D-channel.

`p` = SM number associated with the port under test.

`q` = Port number in hexadecimal.

`r` = Basic status of port. Valid value(s):

`IS`	= Port under test is in-service (IS).
`OOS`	= Port under test is out-of-service (OOS).

s = Test type performed. Valid value(s):

- AUTO = The test type was to be determined automatically based on the DSL channel basic/logical type; however, the indicated failure has prevented testing on the associated channel(s).
- CS = Specifies the digital loop-back (LPBK) testing of circuit-switched (CS) hardware and the associated path and/or loop.
- CRC = Specifies corrupt CRC testing of the associated *ANSI*® U-DSL. However, if the test duration (DUR) is zero seconds, a test is not performed. In this case, only the current and previous hour PM counts are read and output. The CRC test does not corrupt normal 2B+D DSL operations.
- CRC-DWN = Performed a CRC test using the downstream registers of the LT on the U-DSL, reporting only downstream PM results on output.
- CRC-UP = Performed a CRC test using the upstream registers of the LT on the U-DSL, reporting only upstream PM results on output.
- MSMTCH = Specifies the detection of a mismatch between the LT and the NT1 or CU, for a ISLU U-DSL.
- ODPS = Specifies the digital LPBK testing of on-demand packet-switched (ODPS) hardware and the associated path and/or loop.
- OSPS = Specifies the voice-path analog continuity testing to an Operator Services Position System (OSPS) terminal.
- PS = Specifies the digital LPBK testing of packet-switched (PS) hardware and the associated path and/or loop.

t = The LPBK termination (TERM) type used during testing. Valid value(s):

- CPE = The LPBK termination was provided within the CPE Specifically, within the integrated service digital network (ISDN) telephone or data terminal.
- CUb[2] = The LPBK termination was provided within the specified channel unit.
- EXT = No attempt was made by the switch to set up a LPBK termination. An external (EXT) LPBK termination must be manually applied in this case.
- LT = The LPBK was provided within the LT. For ISLU the LT is the LC, for ISLU2 and AIU the LT is the LCKT, and for IDCU and DNU-S the LT is the RDT CU.
- NT1 = The LPBK was provided within the NT1 located at the customer end of the 2-wire loop.
- PH = The LPBK was provided by the protocol handler (PH) on a PH channel that serves the associated DSL channel.

u = The test duration (DUR) indicates the total duration of the test in seconds. If the test was stopped for a customer service request the duration will reflect the period of time that test data was transmitted (refer to the INT parameter in the TST:DSL input message).

A test duration of zero seconds implies that a test was not performed. In this case, a CRC test request will only read and output the current PM counts.

For CRC testing, the test duration output is the length of time corrupt CRC was transmitted between the LT and the NT1; however, for ISLU and AIU DSLs the duration output will always be greater than the requested test duration. This occurs because starting/stopping the test is dependent upon obtaining control of the embedded operations channel (EOC) and the LU performing the requested action.

v = Data-rate (RATE) of the CS digital bit stream. See the "RATE" parameter within the TST:DSL input message for extended description. Valid value(s):

- AUTO = The data rate had not been selected automatically.

`64CLR` = 64000 bits/sec clear channel (zero-octet allowed).
`64RES` = 64000 bits/sec restricted (zero-octet suppressed).
`56KPS` = 56000 bits/sec.

`w` = The block-size (BLKSZ). The CS digital bit stream is partitioned into segments called blocks, for the purpose of calculating the total errored-blocks (ERBLK). The block-size is the number of bits in each block.

`x` = Test equipment SM number.

This parameter specifies the location of the high level service circuit (HLSC), integrated services test function (ISTF), global digital services function (GDSF) or PH used as the test source for the test request.

The HLSC equipment number (HLSCEN) and PH equipment number (PHEN) should always indicate the test equipment is located in the same SM as the PUT. However, the ISTF equipment number (ISTFEN) and GDSF equipment number (GDSFEN) will indicate any SM where associated equipment has been populated. The ISTF and GDSF are globally routed resources.

`y` = Test equipment ISLU unit number.

`z` = HLSC service group number.

`a`[1] = Test equipment unit number.

This is the HLSC, ISTF, GDSF or PH unit used to evaluate the DSL under test. The PH unit is the logical PH group number.

`b`[1] = test equipment data interface (DI) number.

`c`[1] = Test equipment peripheral interface data buss (PIDB) number.

`d`[1] = Test equipment PIDB channel.

`e`[1] = logical PH channel.

`f`[1] = LT hardware type (LTTYPE) as detected by mismatch test. Valid value(s):
`AMI-RU` = AMI U-interface on a RISLU.
`AMI-U` = AMI U-interface on ISLU.
`ANSI-RU` = *ANSI*® U-interface on a RISLU.
`ANSI-U` = *ANSI*® U-interface on ISLU.
`RT` = T-interface on a RISLU.
`T` = T-interface on ISLU.
`Z` = Z (analog) interface.

`g`[1] = The type of NT1 or CU detected during a mismatch test (NT|CU). Valid value(s):
`AMI` = An AMI NT1 or CU was detected.
`ANSI` = An *ANSI*® NT1 or CU was detected.

`h`[1] = Elapsed time (ET) measured in milliseconds. This is the time taken to read the PM counts from a pair of CUs (CUs 1 & 2, or 3 & 4, or 5 & 6). The time to read PM counts will vary based on factors such as the condition of the loop between the LT and the NT1 and system load. The CUs farthest

from the switch will take more time to read. The ET will be from 5-11 seconds (that is, 5000-11000 msec) for a pair of CUs. If a satellite transmission link is present, the read will take an additional 3 to 5 seconds per pair of CUs (assuming 500 msec round trip delay).

i[1] = DSL layer 3 interface type (ITYPE). The ITYPE may be qualified with the DSL service class, where significant to testing. Valid value(s):

PP	= Custom point-point/single-point DSL.
MP	= Custom multi-point DSL.
RMP	= Custom restricted multi-point DSL.
STD	= Standard DSL.

j[1] = Class of service supported on the DSL. This parameter is a qualifier to the ITYPE that will be present when the class of service is significant to the test procedure. Valid value(s):

DL	= The DSL supports a data link (DL)**.
ISAT	= The DSL supports an attendant console terminal.
OSPS	= The DSL supports an OSPS facility**.
AP	= The DSL supports an application processor (AP)**.
PBRI	= The DSL supports a pseudo basic rate interface (BRI). This DSL does not have an active PH channel serving the D-channel. For PS digital testing, the PH is the test source; therefore, PS testing cannot be performed on this D-channel.

** A resident procedure must be disabled prior to testing. That is, the DSL should be removed from service prior to testing (refer to the RMV:LINE or RMV:DATALINK input messages).

k[1] = Equipped channel units (EQCU). The EQCU parameter is used to indicate the number of channel units equipped on an *ANSI*® U-DSL when served by the AIU or ISLU. For IDCU and DNU-S, the number of equipped channel units cannot be determined; therefore, the EQCU parameter will not be output.

As many as six CUs may be equipped on an *ANSI*® U-DSL. The number of channel units equipped is determined by polling each unit over the EOC. If a channel unit can be detected or if the EQCU is NONE, the NT1 is present, has power, and can communicate over the EOC. The CUs must be equipped in pairs; therefore, an odd number for EQCU would indicate that at least one CU does not respond.

If the number of CUs could not be determined, the NT1 may be inoperative. In such cases, the reason for failure will be output in place of the CU count. Valid value(s):

1-6	= The number of *ANSI*® CUs equipped.
EOC-BSY	= The test procedure must own the EOC resource to determine the number of equipped CUs; however, the EOC is currently busy. A concurrent procedure was using the resource (such as, LPBK testing or PM read).
LINKc[2]	= The LINK beyond CUb[2] is down (where c[2] equals b[2]). That is, the indicated CU was the farthest CU from the switch responding. If the CU is even (2, 4, or 6), layer 1 (U-interface) is down just beyond that CU. If the CU is odd (1, 3, or 5), a carrier system beyond that CU is down. The CU that was detected may be faulty; however, the unit just beyond that CU is a more likely candidate (that is, CUb[2]+1 or the NT1).
NONE	= No channel units are equipped. That is, the LT is connected directly to the NT1. In this case, the NT1 has responded instead of CU1.
NR	= There was no response from CU1 (or the NT1); therefore, the presence of CU1 is indeterminate. Also, Layer 1 (U-interface) appears to be up at the LT. In this case, the failure may be due to CU1, the LT, or the loop between the LT and CU1.
NRT	= This has the same meaning as NR; however, the NT1 or some CU appears to be

in a "test mode".

`TESTd`[2] = This has the same meaning as `LINKc`[2]; however, the CU or NT1 is now (or was just prior to the LINK going down) in "test mode".

The NT1 or CU is placed in "test mode" by user/customer actions. That is, "test mode" is not initiated by the switch. The "test mode" is activated for local testing of a CU, using the 946A or 950A (or equivalent) test sets.

The purpose of the "test mode" indication is to alert office personnel that results from tests initiated at the switch may be corrupt, as local testing at the NT1 or CU is in progress. There is no way to determine if a "test mode" indication is originating from the NT1 or a CU. A valid "test mode" condition may not be detected when the LT is receiving CRC BEs in the upstream direction (NT1 toward the LT).

Note that not all manufactures of NT1s and CUs support the "test mode" indication (that is, NTM bit logic 0). Check manufacturer documentation for details.

`UINTF` = Layer 1 (U-interface) is down at the LT. It is not possible to determine the EQCU given this condition.

`UNKNOWN` = The number of channel units equipped is not known. This generally indicates an unexpected failure (for example, loss of LU communication).

`l`[1] = IDCU remote terminal digital signal 1 (RTDS1). The RTDS1 carrier was submitted for use as part of the digital path during testing. If the test has successfully completed, the RTDS1 will be qualified with the DS1 identifier with respect to the IDCU.

`m`[1] = The RDT DS1 facility used during testing with respect to the IDCU. This parameter will qualify the RTDS1 that was used during testing.

`n`[1] = The DSL test request number (REQNO). A unique REQNO is assigned to a test procedure when it is first established. It is included in all output messages generated. This number is useful for associating test result messages that may be distributed widely over time, as when performing tests it multi-section modes.

`o`[1] = Bit error rate (BER). The bit error rate is presented in decimal scientific notation with exponent preceded by "E" (for example, 1.234E-8). The BER represents the total number of errored bits detected divided by the total number of bits sent.

`p`[1] = Errored blocks (ERBLK). The ERBLK is the number of blocks returned from the LPBK termination during testing, with one or more bit errors. The ERBLK is expressed in decimal scientific notation with the exponent preceded by "E" (for example, 5.600E1 = $5.600 \times 10^1 = 56$).

`q`[1] = Packet rate (PKTRATE). The packet rate represents the total number of error-free packets returned from the LPBK termination during packet-type testing, divided by the total number of packets sent. The number is expressed as a percentage.

`r`[1] = Operational condition of testing. The testing status is comprised of three components. Specifically, the test condition, test status and the status qualifier. The test condition and the test status will always be output. The status qualifier, which is used to add additional resolution to general status strings, is not always required.

The test condition, which is delineated from the status string with a colon, indicates the operational condition of the test procedure for the indicated DSL channel(s). Valid value(s):

`ABORTED` = Test could not proceed because the indicated resources could not be obtained. The test procedure has been terminated. In general, this condition implies that the

test procedure has affected normal DSL operations. That is, DSL resources may be owned and testing may have been initiated on one or more DSL channels.

`COMPLETED` = The test procedure has completed normally.

`ERROR` = An unexpected error condition was detected. The test procedure has been prematurely terminated.

`FAILED` = An internal failure has prevented the test procedure from establishing or clearing condition(s) necessary for digital testing. The test procedure has been terminated.

`INVALID` = The test request as specified, was invalid for one or more DSL channels to be tested. In general, normal DSL operations have not been affected on the associated DSL channel(s). Testing may continue on selected DSL channels or the test procedure may be terminated entirely (refer to the EOT parameter).

`STATUS` = The present operational status of the test is presented. The test procedure continues as indicated.

`STOPPED` = The test procedure has been terminated in response to a manual request (refer to the STP:TST-DSL input message) or a customer service request (refer to the INT parameter in the TST:DSL input message).

`s`[1] = Status of testing. The following list contains definitions for all possible test statuses. The test status indicates the disposition of testing for the indicated channel(s). For general status strings, a qualifier will be used to add the required resolution. Valid value(s):

`ALREADY IN CONDITION` = For LPBK testing, the IDCU RDT is indicating that the requested LPBK state already exists. For CRC testing, the test request has been rejected, as the IDCU RDT is currently performing a CRC test.

The generic definition as specified by TR-303 for this failure condition is, the managed object (that is, the ISDN frame path termination object) is already in the condition requested. For detailed information consult vendor-specific RDT manual for the operation requested (that is, Operate corrupt CRC test, release ISDN LPBK, restore ISDN LPBK).

`ASSOC ENTITY NOT AVAIL` = The IDCU RDT is unavailable for LPBK or CRC testing.

The generic definition as specified by TR-303 for this failure condition is, the managed object (ISDN frame path termination object) has an associated entity which is unavailable due to the entity being in an improper condition, being busy or having failed. For detailed information consult the vendor-specific RDT manual for the operation performed (release ISDN LPBK, restore ISDN LPBK, operate corrupt CRC test).

`AT LEAST ONE CU EQUIP` = At least one CU is equipped on this U-DSL.

`ATP` = The test request completed all tests pass (ATP). That is, the criteria for a passing test has been obtained. For example, if this was a CS test the BER and ERBLK are zero. For mismatch testing, no mismatch was detected.

`BAD INT FOR REQUEST` = The test cannot be made interruptible for the specified customer requests, given the DSL channels to be tested. For example, if the test request included the D-channel, the test procedure cannot be made interruptible for customer service originations. That is, the setup request cannot be seen if the D-channel is tested (refer to the INT parameter in the TST:DSL input message).

`BAD ISLU TASK REQUEST` = The ISLU did not recognize the test or operation being requested.

`BAD TERM FOR CH` = The LPBK termination was not valid for the channel(s) to be tested. For example, NT1 terminations are not possible on a T-DSL.

`BAD TERM FOR TEST` = The LPBK termination was not valid for the test specified. For example, the OSPS test type can only use an EXT LPBK termination.

`BAD TEST FOR CH` = The specified test was invalid for the DSL channel specified. For example,

an OSPS test cannot be performed on the D-channel or B2-channel of a DSL.

`BAD TEST FOR PORT` = An invalid test configuration or combination of test parameters associated with the DSL port has been requested. For example, a CRC test may only be performed on an *ANSI*® U-DSL. For IDCU and DNUS, the direction of the CRC test must be specified. The mismatch test is only supported for ISLU DSLs.

`BAD TEST REQUEST` = An invalid test configuration or combination of test parameters has been detected. For example, an invalid starting termination was specified for a sectionalization (SECT) mode test.

`BLOCKED BY LT SPARING` A mismatch test could not be run because the ISLU metallic test bus was not available. The bus was in use by LT sparing. This condition exists when trying to gain metallic access to a LT that is in the same half of a line group drawer as an actively spared faulty LT. The phrase, "Same half of a line group (LG) drawer" refers to those line groups that are vertically adjacent (for example, LG0 and LG1 or LG2 and LG3).

`BUSY CAMPED ON` = A DSL resource required for testing is currently busy. The test procedure will wait for control of the resource, for the specified or defaulted camp-on time.

`BY REQUEST` = The results are in response to an explicit user request. For example, the test procedure can be terminated by manual request (refer to the STP:TST-DSL input message).

`CANNOT RE-GAIN EOC RSC` = The test procedure could not regain control of the EOC after waiting a sufficient length of time. This condition may prevent the test from continuing to the next test section and prevent proper DSL idling (for example: removing a LPBK at CU or NT1). This may have disrupted the normal operation of the U-DSL. If necessary, manually restore the DSL to properly condition it for customer service.

This situation can occur when the EOC resource is held by other procedures for too long. Normally, the EOC is only required for a short period of time (less than 25 seconds). There can be several procedures "waiting" to use the EOC at the same time.

`CH ACTIVATION` = The test procedure failed when attempting to activate the associated DSL channel(s) for testing.

`CH TYPE IS CS` = The basic/logical type of the associated DSL channel is circuit-switched.

`CH TYPE IS PS` = The basic/logical type of the associated DSL channel is packet-switched.

`CH UNASSIGNED` = The office data indicated that associated DSL channel was unequipped.

`CMP UNAVAILABLE` = The input request could not be processed because the communications module processor (CMP) is unavailable.

`CPE NOT BOUND` = The CPE specified on input was not bound on the specified DSL.

`CPE UNKNOWN` = The test request did not sufficiently identify the specific CPE to be used.

`CU NOT EQUIPPED` = The channel unit that was requested is not equipped.

`DATA FOLLOWS` = The LT and/or CU PM data follows in tabular format.

`DATA FOLLOWS: POSS PM FRZ` = The LT and/or CU PM data follows in tabular format; however, a possible PM freeze was scheduled for the LTs and/or the CUs. That is, the current PM counters will be shifted to previous counters and the current counters will be cleared.

Before proceeding to read the PM counts, wait for any in-progress freeze to complete. This ensures that all PM counts have shifted before being read. If a PM read or a LPBK of all channels is in progress at a CU or LT when a freeze is scheduled, no freeze should occur on the U-DSL (that is, no shift in the PM counts).

A PM freeze is scheduled once per hour for the LT and once every PM-report interval (refer to RC/V View 8.1) for the CUs. The freeze operation lasts for about

10 seconds.

`DATA FOLLOWS: POSS STUCK PM FRZ` = The LT and/or CU PM data follows in tabular format; however, in the SM it appears that a PM freeze operation has been "stuck" active longer than expected. Refer to '`DATA FOLLOWS: POSS PM FRZ`' for definition of a PM freeze.

`DATABASE PROBLEM` = Data required to perform the test could not be read. This may be due to a loss of communications with the associated SM or missing/corrupt office data.

`DGR` = The CS test results are degraded. That is, the BER is greater than zero, but has not reached the designated failure threshold set by the acceptable bit error rate (refer to the acceptable bit error rate (ABER) parameter in the TST:DSL input message).

`DN NOT FOUND` = The directory number was not found in the data base.

`RT DS1 FACILITY FOR` = The RTDS1 facility is invalid for the DSL channel or RDT specified. Observe the qualifier for proper element.

`RT DS1 OOS` = Testing cannot be performed, as the DS1 supporting the DSL requested is OOS.

`DSL RSC BSY` = The request could not continue, as the required DSL resources were found to be busy.

`EXPECT CU1 TO CU4` = Only CU1 through CU4 are supported for AMI hardware.

`FAILED` = The requested test has failed. For PS tests at least 98% of the transmitted packets were returned with errors. For CS tests, the BER has exceeded the failure threshold set by the ABER (refer to the ABER parameter in the TST:DSL input message).

`FAILED TO UNLOOP` = An attempt to remove a LPBK at the associated termination has failed.

For CPE LPBK test procedures that have aborted, testing was not performed, as the DSL specified had a CPE in a LPBK state (from a previous test request). When this condition exists, the test procedure attempts to remove the CPE LPBK before proceeding. In this case, that attempt has failed. If the test procedure has completed, the CPE LPBK termination that was established, could not be removed. That is, the test procedure has left the CPE in a LPBK state.

A CPE LPBK can be removed in several ways. Each time a CPE LPBK test is performed and each time routine port conditioning executes on the associated DSL channel(s), an attempt will be made to remove the "stuck" LPBK. If the DSL is removed from service for greater than 10 minutes or if the CPE is disconnected (unplugged) for 5 seconds, the CPE should drop the LPBK.

`FAULT IN LOOP|PATH` = The data sent out by the test source on the associated DSL channel, was not returned to or recognized by the test source. For a PS test, the test packets were not returned or recognized. For a CS test, the digital bit stream was not returned or recognized.

This failure may indicate that the LPBK at the specified termination point was not established. This may be due to the hardware associated with the LPBK being powered down or unplugged. If an external termination was selected (TERM=EXT), a manual LPBK must be applied prior to testing. This may also be due to the loss of the U-interface (layer 1) somewhere along the loop.

This failure indicates the error rate is too high. This can occur when running a CS BER test at a data rate which exceeds the capabilities of hardware supporting the digital path or loop. For example, the hardware configuration of an SM umbilical or associated digital fanout interface (DFI) can reduce the effective data rate of a DSL B-channel. The configuration of the test equipment SM well as the PUT SM may be suspect.

There is a remote possibility that the test equipment (for example, ISTF, or PH) is faulty. If test equipment is suspect, selectively remove equipment from service and repeat the test to isolate the faulty unit.

This is the expected result when attempting AMI CU LPBK tests, in the absence of CUs (AMI CUs cannot be detected by the switch). For *ANSI*® U-DSLs, this could indicate that the channel is non-transparent. Non-transparency normally occurs when the U-interface is being restored. When the U-interface is up and the T-interface has been established at the NT1, all channels become transparent to permit layer 2 communication between the CPE and the switch.

The operational/faulty portions of the digital path or transmission loop can be isolated by manually changing the termination point to one closer to the test source. This can be done automatically using SECT or sequence (SEQ) testing modes.

`FCG DETECTED` = The requested test could not be performed because a false cross to ground condition was detected internal to the switch, between the HLSC and the LT. Consider performing diagnostics for the HLSC (refer to the DGN:ISLUHLSC input message) or the metallic-access-network (refer to the DGN:ISLUMAN input message).

`FLB ONLY AT AMI CU1 TO CU4` = On AMI U-DSLs, individual B-channel CU LPBK tests are not allowed. All DSL channels must be placed in LPBK when testing individual DSL channels at AMI CUs.

`HARDWARE` = A hardware problem has been detected. This general status should have a qualifier that implicates specific hardware. For example, a request to activate layer 2 for testing could have failed.

`HARDWARE SWITCHED` = During test execution, the associated unit (refer to qualifier) was switched to a stand-by unit. For example, a logical PH can undergo soft or hard switch during PS LPBK testing. In this case, a different physical PH is now serving the channel(s) under test.

`OFF EQ NUMBER NOT FOUND` = The office equipment number input could not be found in the office data.

`IMPROPER CONDITION` = For CRC testing, this status indicates a failure to properly request an IDCU RDT CRC test. For LPBK testing, this status indicates a failure to properly request the activation or deactivation of a LPBK at the NT1|LT.

The generic definition as specified by TR-303 for this failure condition is, the values of a subset of attributes of the managed object (for example, ISDN frame path termination object) are improper to perform the requested operation. For detailed information consult vendor-specific RDT manual for the operation requested (for example, operate corrupt CRC test, release ISDN LPBK, restore ISDN LPBK).

`INTERRUPTED` = The test procedure has been terminated in response to a processing interrupt. This is the result of another procedure preempting for control of DSL resources. That procedure may have been invoked unconditionally (UCL) and may require control of specific resources (for example, EOC) to properly idle associated channels.

`ISTF|GDSF|PH TEST RESULTS TMO` = The test procedure in the SM timed out waiting for test results from the ISTF or GDSF (for CS testing) or from the PH (for PS testing).

`L1 DOWN AT LT` = The test requested could not be performed, as layer 1 (U-interface) was down between the LT and the first metallic termination. That is, a fault may exist on the loop between the LT and CU1 or the NT1 (if no CUs are present).

This condition can occur with a hardware mismatch, tip/ring faults to ground, or loop resistance that is too high or low. Layer 1 will also be down if CU1 or the NT1 (in the absence of CUs) is powered down or if one of the units (including the LT) is

faulty.

This condition can also occur if the *ANSI*® NT1 or CU is in "quiet mode". This mode is activated for specific metallic tests; however, activation should not last longer than 1 to 2 minutes (refer to *ANSI*® NT1 and CU hardware documentation for details).

Consider performing a mismatch test or various metallic tests to determine the specific characteristics of this loop. Metallic-loop tests are available using Integrated Mechanized Loop Test (IMLT) systems and the TLWS metallic-testing menu 5600.

`L1 DOWN AT NT1|CU|LT` = The test requested was not performed, as Layer 1 (U-interface) was found down somewhere beyond the AMI U-DSL LT. This can be caused by a fault on the loop between the LT and the NT1. Reasons for this condition exist under "`L1 DOWN AT LT`".

`LPBK SETUP` = An attempt to set up a LPBK at the indicated termination has failed.

`LPBK UNSUPPORTED` = The LPBK termination indicated cannot be provided by the associated unit. Observe the qualifier for unit identifiers.

`LT ALT EOC STUCK ON` = The line termination alternate embedded operations channel (AEOC) is stuck in an activated state. This condition implies a faulty LT and will prevent access to the NT1 or CUs. Consider performing the LT diagnostic.

`LT AND NT1|CU MISMATCH` = A hardware mismatch has been detected. Specifically, the LT circuit pack installed in the ISLU and the electrical characteristics of the first metallic termination (NT1|CU) beyond the LT do not match the U-DSL type (*ANSI*® |AMI) as defined in the ODD. Determine the U-DSL type as defined in the ODD. Refer to RC/V View 22.7 for ISLU, 22.21 for ISLU2, and 23.2 for both. Also reference the LT type as displayed on the MCC. Refer to MCC Display Page 1720,y,z,x for ISLU or 1730,y,z,x for ISLU2.

`LT LOOP-BACK SETUP FAILED` = A problem was detected in establishing a line termination LPBK. Consider performing the LT diagnostic.

`LT OOS IN ISLU MEMORY` = The line termination has an OOS status in ISLU memory. This is inconsistent with the LT status in SM memory. The requested operation has been terminated. If this condition is chronic, restoring the LT to service (removing it to OOS first if required) should update ISLU memory for the LT.

`LT TYPE TO ODD MISMATCH` = A hardware mismatch has been detected. Specifically, the LT circuit pack installed in the ISLU does not match the U-DSL type (*ANSI*® |AMI) as defined in the ODD. Determine the U-DSL type as defined in the ODD. Refer to RC/V View 22.7 for ISLU, 22.21 for ISLU2, and 23.2 for both. Also reference the LT type as displayed on the MCC. Refer to MCC Display Page 1720,y,z,x for ISLU or 1730,y,z,x for ISLU2.

`MISSING NT1|CU RSC` = The NT1 or CU resource that the test procedure should own is missing. This indicates the corruption of associated data.

`MLHG ACCESS DN` = The DN submitted, is a multi-line hunt group (MLHG) access DN. This DN, which identifies a group of MLHG member DNs, is not associated with a DSL port; therefore, the DSL to be tested is unknown.

`MP ACCESS DN` = The DN submitted, is a modem pool (MP) access DN. This DN, which identifies a group of MP member DNs, is not associated with a DSL port; therefore, the DSL to be tested is unknown.

`MTCE RSC BSY` = The test has been denied because a needed maintenance resource is temporarily busy. Observe the qualifier for additional resolution.

`NO CH SERVICES` = For user mode testing, the specified user does not subscribe to communication services on the indicated DSL channel. For other cases, the channel to be tested is assigned in the data base; however, the DSL channel has

not been defined.

`NO EOC RSP` = A response has not been received over the EOC from the NT1|CU addressed. Observe the associated qualifier for additional resolution.

`NO RESOURCES` = Resources required by the test procedure are unavailable. Observe the status qualifier for additional resolution. For example, the PH assigned to a pseudo BRI D-channel cannot be used for PS testing.

`NO RESPONSE` = An expected response has not been received. Observe the status qualifier for additional resolution. Examples are a PH that does not respond to layer 2 requests or a CPE (for example, ISDN telephone/modem) that does not respond to requests.

`NO SM RESPONSE` = The test procedure has not received a response from an associated SM. Communications may have been lost during testing. For example, the test procedure may "timeout", while awaiting test results from test equipment.

`NO TESTS RUNNING` = No TST:DSL tests are running. This status is output (in response to a STP:TST-DSL input message), when no TST:DSL procedures are found (in any SM).

`NOT A DSL PORT` = The port specified by (for example: by DN or OEN) is not a DSL. Only DSL ports may be tested using the TST:DSL input message.

`NOT A PRIMARY DN` = The DN that was input was not a primary DN.

`NOT A U-DSL PORT` = The requested test can only be executed on a U-DSL port. For example, the mismatch test can only be performed on a ISLU U-DSL.

`NT1|CU IN TEST MODE SEE UCL` = The test has been terminated, as the NT1 or CU was found to be in "test mode". If testing were to continue, erroneous test results may be returned. The UCL=NTM input parameter can be used to ignore this hardware event. Refer to the '`k`[1]' = `TESTd`[2] parameter for a definition of "test mode".

`NT1|CU INDETERMINATE` = A mismatch test procedure could not determine if the first termination (NT1|CU) beyond the LT was an AMI or *ANSI*® termination. The loop may be too long (for example, beyond designed limits) or there may be a metallic-loop fault present.

Perform voltage, resistance, and capacitance metallic tests to determine the specific characteristics of this loop. Metallic-loop tests are available using IMLT systems and the TLWS metallic-testing menu 5600.

`NT1|CU MISMATCH DETECTED` = A mismatch test has determined that the electrical characteristics of the first metallic termination (NT1|CU) beyond the LT does not match the U-DSL type (*ANSI*® |AMI) defined in the ODD. Determine the U-DSL type as defined in the ODD. Refer to RC/V View 22.7 for ISLU, 22.21 for ISLU2 and 23.2 for both. Also, reference the LT type as displayed on the MCC. Refer to MCC Display Page 1720,y,z,x for ISLU or 1730,y,z,x for ISLU2.

`NT1|CU|LT RSC BSY` = The test procedure has terminated as the NT1, CU or LT resource is currently busy.

`OPEN PATH LT TO TST EQUIP` = The digital path could not be established or has been lost, between the test source and the LT.

`OUT OF SERVICE` = The test procedure has been terminated, as equipment supporting the tested DSL is OOS. Observe the status qualifier for the equipment ID. Proceed by restoring the associated equipment prior to testing.

`PM BUFR SCBSY` = All SM buffers used to retrieve the LT and/or CU PM counts are busy. Retry at a later time.

`PM DATA READ TIMEOUT` = The test procedure timed out waiting for a response to a PM read of the LT|CU counters.

`PM DATA TYPE RCVD` = An invalid PM data type has been received for the LT|CUs. Observe the status qualifier for unit ID. The PM data was expected to be marked as current or previous PM report interval counts. Either no counts were received or invalid data was received by the SM. If this failure is chronic, consider diagnosing the LT and

replacing the defective unit(s) (LT|CU).

`PORT IS BUSY` = The DSL port to be tested is busy. Retry the test request at a later time or consider running the test to unconditionally preempt the existing procedure (refer to the UCL=PRMT parameter in the TST:DSL input message).

`PORT NOT OSPS` = The test procedure has been terminated, as the associated port does not support the required OSPS service. Observe status qualifier for specific facility types supported.

`PORT NOT UNDER TEST` = A TST:DSL procedure was not found on the port specified. This status is output in response to a STP:TST-DSL input request for a specific DSL, when no test procedure is currently in progress.

`PORT STILL BUSY` = The test procedure was terminated, as the port to be tested remained busy beyond the specified or defaulted camp-on period (refer to the CAMP parameter in the TST:DSL input message).

This status will print immediately, if the DSL camp-on list is full. This status is also output, if TST:DSL is requested to preempt another procedure that has an equal or higher processing priority (refer to the UCL=PRMT parameter in the TST:DSL input message). In general, high priority procedures must complete and the test request must be resubmitted at a later time.

`PROCESSING FAILURE` = The IDCU RDT operation could not be performed because of an unspecified processing failure. The status strings '`IMPROPER CONDITION`', '`ALREADY IN CONDITION`' and '`ASSOC ENTITY NOT AVAIL`' are a sub-class of processing failures, which may not be offered by all switch vendors.

The generic definition as specified by TR-303 for this failure condition is, an RT failed in processing an action requested on the managed object (ISDN frame path termination). For detailed information consult the vendor specific RDT manual for the operation performed (release ISDN LPBK, restore ISDN LPBK, operate corrupt CRC test).

`PROTECTED LINE SWITCH` = The test procedure was terminated, as the RDT DS1 in use is currently switched over to the spare/protection DS1.

`PROTECTION|SPARE DS1` = The test procedure was terminated, as the IDCU RDT digital signal 1 (DS1) facility selected is reserved for sparing (for example, protection) operations only.

`PX DETECTED` = A mismatch test procedure could not be run, as a power cross was detected on the tip/ring at the LT.

Perform voltage, resistance, and capacitance metallic tests to determine the specific characteristics of this loop. Metallic-loop tests are available using MLT systems and the TLWS metallic-testing menu 5600.

`REQ SPECIFIC CH WITH UCL` = When TST:DSL is requested to unconditionally preempt another procedure, the DSL channel to be tested must be explicitly identified (refer to the UCL=PRMT parameter in the TST:DSL input message). For example, the testing of "any B-channel" (that is, CH=B) does not identify which of possibly two B-channel procedures should be terminated.

`REQUEST QUEUED` = The requested test was accepted by the system, but it was queued because other jobs are currently running.

`RMV PORT TO OOS` = The specified DSL must be removed from service prior to testing. This is required for DSLs supporting facilities that employ resident procedures which are always in control of associated DSL channels. Examples of such facilities are DLs and APs and OSPS DSLs.

`SM UNAVAILABLE` = The input request could not be processed, as communication with the associated SM is not currently possible.

`STOP NOT ALLOWED` = The test procedure that is in progress on the DSL cannot be stopped. This status is output in response to a STP:TST-DSL input message, when a CRC test procedure is in progress on an IDCU or DNU-S DSL. The RDT standard does not provide for stopping CRC test procedures.

`SYSTEM EXCEPTION` = The test procedure has been terminated, as an unexpected error condition has been encountered. For example, an internal interface has returned an unknown failure code. Repeated display of this status could be a program bug.

`T OR R LOW RESISTANCE` = A mismatch test has detected a low resistance between tip and ring, tip and ground, or ring and ground at the LT as connected to the first metallic termination (NT1|CU).

Perform voltage, resistance, and capacitance metallic tests to determine the specific characteristics of this loop. Metallic-loop tests are available using MLT systems and the TLWS metallic-testing menu 5600.

`T OR U INTERFACE DOWN` = The test requested could not be performed because Layer 1 (that is, T|U-interface) is down somewhere on the DSL. If the T-interface is down, the CPE, NT1 or LT may be faulty (that is, cannot establish layer 2 protocol). The U-interface may be down due to a fault between the LT and the NT1. If the U-interface is down, the T-interface will also be down. In any case, there will be no response at the CPE.

Proceed by running a mismatch test to obtain additional information. The fault can be sectionalized by using the SECT or SEQ modes of testing to isolate the point on the loop with the U-interface down. Perform voltage, resistance, and capacitance metallic tests on the loop to determine the specific characteristics of any metallic-loop fault that may be present.

`T TO R HIGH RESISTANCE` = A mismatch test has detected that a high loop resistance exists between tip and ring at the LT, as connected to the first metallic termination (NT1|CU).

Perform voltage, resistance, and capacitance metallic tests to determine the specific characteristics of this loop. Metallic-loop tests are available using MLT systems and the TLWS metallic-testing menu 5600.

`TEI UNASSIGNED` = The specified TEI is not assigned on the DSL specified. Refer to the OP:CPE input message to obtain a list of active TEIs.

`TEI DN CONFLICT` = The user (specified by DN) is not bound to a CPE; however, the TEI entered is assigned to a CPE that is bound (to a different DN). In this case, two users have been identified and the test procedure will not arbitrate which users services should be tested. Use the OP:CPE input message to obtain a list of active TEIs and associated CPE binding.

`TERMINATION LOST` = The LPBK termination was lost during testing. Observe the qualifier for the affected unit ID. For example, the CPE was disconnected (that is, unplugged) during a long duration CPE LPBK test.

`TEST EQUIP CNTRL FAILURE` = The test equipment did not respond properly to an operational request. For CS LPBK testing, this may indicate a defective ISTF|GDSF circuit.

`TEST EQUIP UNAVAIL` = The associated test equipment may be in use by another procedure or may be OOS. For the ISTF|TTF|GDSF all logical test ports (LTP) are unavailable. For PS testing only one test may be performed per PH; therefore, the PH may already be testing (on one of 128 PH channels).

For the ISTF|GDSF, this can occur frequently, if resources are in great demand or if the unit or services are incorrectly grown (refer to the Hardware Change Procedures manual for the growth of the DSU2-ISTF|GDSF unit and associated services). The ISTF|GDSF resource is used by various test facilities to evaluate ISDN trunks and lines. Some examples are, IMLT, TLWS manual and automated

trunk testing and the basic rate interface test line (BRITL).

`TEST RSC UNAVAILABLE` = The associated test resource was busy, OOS or non-existent. Observe the status qualifier for possible resource identification (ID). For example, if the channel under test is a pseudo BRI D-Channel, an active PH channel is not assigned; therefore, PS testing cannot proceed. For mismatch testing the HLSC may be busy or the metallic test buss may be unavailable.

`TESTING BEGINS` = This message indicates that the test procedure has successfully obtained ownership of all required DSL resources. The test procedure now proceeds to obtain control of any required test equipment and to establish all conditions necessary to start testing.

`TIMEOUT FOR RSP` = The testing procedure within the administrative module (AM) timed out waiting for a response. This can occur if the SM becomes isolated during testing or if the associated SM procedure terminates prematurely.

`TIP AND RING REVERSAL` = A mismatch test has detected a tip and ring reversal on an AMI U-DSL.

`UNABLE TO ACCESS LT` = The test procedure could not access the line termination. This could indicate that all communication links connecting the LU are busy or that a database problem exists. Resubmit the request.

`UNEXPECTED NT1|CU RSP` = The NT1 or CU reply for the requested operation was unexpected. The CU and/or LT may be faulty. Consider performing a LT diagnostic. Observe the status qualifier for additional information.

`UNEXPECTED PKTS RCVD` = During a PS LPBK test, the PH received more packets than it transmitted. This can occur on "noisy" transmission loops.

`UNIT TYPE RCVD` = An invalid PM unit type has been received with the requested PM data. The PM data was expected to be marked as having been received from a LT or CU. Observe the status qualifier for expected unit ID. Either no PM data was received from the CUs or invalid data was received from the LT. Consider a LT diagnostic. Resubmit the request.

`USER UNKNOWN` = The test request does not identify a specific DSL user. The DSL user must be identified when performing USER mode tests. That is, when user subscribed communication services are to be tested.

`UTC TO EOC RSP` = The NT1 or CU replied that it was unable to comply with the requested operation. The associated unit may not support the requested operation. Observe the status qualifier for ID of the unit that could not comply.

t^1 = Qualifier to the testing status. The qualifier provides additional resolution for more general status strings. That is, general failures may be associated with specific hardware or events with the status qualifier. The status qualifier can be different for each DSL channel tested. Valid value(s):

`CPE` = Customer premises equipment.

`CH` = DSL channel.

`CU` = Channel unit.

`DA|TAOPER` = The request is valid for DSL facilities supporting directory assistance operator (DAOPER) or toll assistance operator (TAOPER) service classes.

`DSL` = Digital subscriber line.

`EOC` = Embedded operations channel.

`HLSC` = High-level service circuit.

`ISTF` = Integrated services test function.

`ISTF|PH` = Integrated services test function or protocol handler.

`LT` = Line termination.

`LT&NT1|CU` = Line termination and network termination 1 or just the channel unit.

`LT|ISLU` = Line termination or integrated services line unit.

`LT|NT1|CU` = Line termination, network termination 1 or channel unit.

MSMTCH = Mismatch test.
NT1 = Network termination 1.
NT1|CU = Network termination 1 or channel unit.
PH = Protocol handler.
RDT = IDCU remote digital terminal.
RETEST IP = A retest is in progress on the indicated channel(s). This can occur when the test equipment is unavailable.
RL = Retry at a later time.
STDI = The standard BRI interface.

u[1] = The blocked DSL channel indicator. The test procedure will indicate which of the 2B+D DSL channels are blocked for testing in the "testing begins" output message (Format 2). When this output message is generated, the test procedure has control of the associated DSL channels. If the block channel indicator is not shown, the test procedure does not require the use of any 2B+D DSL channel. Valid value(s):

2B+D = All DSL channels are blocked for testing.
D+B1 = The D-channel and B1-channel are blocked for testing.
D+B2 = The D-channel and B2-channel are blocked for testing.
B1+B2 = Both B-channels are blocked for testing.
D = The D-channel is blocked for testing.
B1 = The B1-channel is blocked for testing.
B2 = The B2-channel is blocked for testing.

v[1] = The job status. The job status is used to provide general information as relating to all DSL channels under test. That is, the job status will be the same for all DSL channels tested. The job status is used to identify abnormal procedural directives, concurrent maintenance procedures, implied limitations, and so forth. One or more job status strings may be output at the same time, separated by a colon. Valid value(s):

ALL DSL RSC BSY = All of the DSL resources (EOC, NT1, CUs, LT, CRC, PM, etc.) are busy.
ATTEMPT INTERRUPT = Procedures associated with this U-DSL have been preempted, to restore normal DSL operations (refer to job status 'SENT INTERRUPT'); however, this action has failed to free the EOC. In this case, the DSL is forced into normal operating condition (without EOC control). This may disrupt other test procedures using the NT1 or CUs; however, normal customer service will be restored.
B1 LB IP = A B1-channel LPBK was in progress during this test request.
B1,B2 LB IP = Both B1-channel and B2-channel LPBKs were in progress during this test request.
B2 LB IP = A B2-channel LPBK was in progress during this test request.
CRC TST IP = A CRC test was in progress during this test request.
CU FLB IP = A CU LPBK of all channels (full LPBK) was in progress during this test request. It is not possible to access units (CU|NT1) beyond the associated LPBK termination. For example, if CU PM counts are being read, the PM counts from CUs beyond that termination cannot be retrieved.
CU TST IP = A CU test was in progress during this test request.
DLB IP = A D-channel LPBK was in progress during this test request.
EOC BSY = An EOC resource was busy during this test request.
FLB IP = A LPBK of all channels (full LPBK) was in progress during this test request.
ISDN FAIL = An ISDN FAIL message was received during this test request. This test request was immediately terminated.
LT FLB IP = A LT LPBK of all channels (full LPBK) was in progress during this test request. It is not possible to access units (CU|NT1) beyond the LT.

`LT TST IP` = A test at the LT was in progress during this test request.
`LT|CU PM READ IP` = A LT|CU PM read was in progress during this test request.
`MMT ATP` = An automatically invoked mismatch test has completed with all tests passed. This implies that the LT, as connected to CU1 or the NT1, appears correct. That is, the link between the associated units should support the U-interface (layer 1).
`MMT PF` = A mismatch test has been automatically invoked. The test results will follow in a subsequent output message (note the '`MMT ATP`' or '`MMT RESULTS`' job status in that message).
`MMT RESULTS` = An automatically invoked mismatch test has completed with the indicated status. More detailed results may be obtained by manually invoking the mismatch test.
`NT TST IP` = The NT1 was in use by another test procedure during this test request.
`NT1 FLB IP` = A NT1 LPBK of all channels was in progress during this test request.
`SENT INTERRUPT` = Procedures associated with this U-DSL have been preempted to restore normal DSL operations. This action has been taken because the EOC resource has been unavailable for too long. In this case, procedures that must use the EOC would fail to properly idle the associated DSL channels (for example, to remove a LPBK termination). This will be disruptive to test procedures using the NT1 or CUs.
`SSR` = The test procedure was stopped by a customer service request. That is, this test was terminated because the customer went off hook or received a voice call. The test request specified that the test procedure should be made interruptible for customer originations and/or terminations (refer to the INT and MDUR parameters in the TST:DSL input message).
`TEST MODE` = The data presented was obtain while the NT1 or CU was in "test mode". Refer to the '`k`[1]' = `TESTd`[2] parameter for a definition of "test mode".
`UCL` = The request to perform testing unconditionally has produced the associated result (refer to the UCL parameter in the TST:DSL input message).

`w`[1] = Unit identifier. Valid value(s):
`CUb`[2] = The CU interval PM counts for `CUb`[2] follow on this line. The CU counts are output in pairs (CU1 & CU2, CU3 & CU4, and so forth), in separate messages following the output of LT counts. Note, that the V (verbose) parameter must be specified to obtain CU PM counts.

The BRITE CUs are designed to monitor PM counts on a "PATH" basis. That is, the LT downstream and upstream counts will contain PM counts that have occurred anywhere along the U-DSL. In particular, any CRC error detected by a CU is recorded as a BE at that CU and an error is propagated (by transmitting an invalid CRC) in the same direction (downstream or upstream) as appropriate.

For example, if CU2 is first to detect a downstream CRC error, CU2 will count this as a downstream BE and send an invalid CRC downstream to CU3 (or the NT1 if no CU3 is equipped). In this way, each downstream CU and NT1 will count one BE in the downstream direction. Upon receiving the downstream-invalid CRC, the NT1 will send a FEBE to the LT to indicate the NT1 has detected a BE. Upon receiving the FEBE, the LT will count one BE in the downstream direction. In this example, CU1 would not have counted a BE in the downstream direction. The LT and CU2 through CU6 would have counted one BE in the downstream direction. The LT and the CUs would not have counted a BE in the upstream direction.
`LT` = Line termination hour upstream and downstream PM counts. When the LT counts are output, only two lines of the output table are required. The CU counts are output in subsequent messages.

The LT downstream PM counts are a record of the far-end block errors (FEBE), as

detected by the NT1. For an *ANSI*® U-DSL, the NT1 can indicate a FEBE once every superframe (12 milliseconds). For CRC testing, each superframe that is sent (in the downstream direction) should indicate a FEBE. The LT will record one downstream BE for every superframe received from the NT1 indicating a FEBE. In addition, the LT will count an ES or severely errored second (SES) as appropriate.

x[1] = Upstream and downstream PM BE.

The CRC test proceeds by corrupting the CRC for every *ANSI*® superframe (12 milliseconds). The corrupt superframe is then transmitted downstream (that is, LT toward the NT) and then back upstream (that is, NT toward the LT). This means that the BE PM counters should accumulate at a rate of 83.3 BE per second.

y[1] = Upstream and downstream SES.

An SES occurs when a specific number of BEs occur in one second. For CUs, the allowable number of BEs is fixed at 3 per second. For LTs, the allowable BEs per second is recent changeable (refer to RC/V View 8.1). The CU SES counts and the LT SES counts can only be correlated, if the allowable BEs/sec is the same for each case. The SES and ES should be very nearly equal (within 1 or 2).

z[1] = Upstream and downstream ES.

The ES counter will increment once for approximately every second the test runs. The BE count should be 83.3 times the ES count. The ES and SES should be very nearly equal (within 1 or 2).

a[2] = Status of the PM read.

This is the status for PM reads of the upstream and downstream BE, SES and ES registers for the LT and CUs. Valid value(s):

AEOC = The CU PM counts were not read. The line termination AEOC is stuck in an activated state. This condition indicates a faulty LT. This will prevent any access to the NT1 or CUs. Consider performing the LT diagnostic (For example, refer to the DGN:ISLULC input message).

COMP = The PM counts have been read.

*COMP = The PM counts have been read; however, one or more of the PM counters may have overflowed.

CRPT = The PM counts have been read; however, the associated corruption indication flag (CIF) was marked corrupt. There is no CIF for CUs. In this case, the PM counts do not reflect normal operation on the U-DSL for the period being measured.

Examples of events that will result in marking the current-hour LT PM counts corrupt are: manually clearing the PM counts (refer to the EXC:ALE input message), system initializations, digital LPBK testing of all DSL channels using the LT or CU terminations, corrupt CRC testing, and a loss of layer 1 (U-interface) at the LT or beyond a CU.

*CRPT = Same as CRPT; however, one or more of the PM counters has overflowed.

INVOP = The PM counts have not been read, as an invalid PM operation was requested.

LTOOS = The line termination is marked OOS in the LU memory. No data is read from the LT in this case.

NGRSP = The PM counts have not been read, as the CU response was unexpected or invalid.

NODTA	= The PM counts have not been read. No PM data was received.
NORSP	= The PM counts have not been read, as the CU has not responded (timeout).
UINTF	= The PM counts have not been read, as layer 1 (U-interface) is down at the LT. It is not possible to communicate beyond the LT.
UNEQU	= The PM counts have not been read, as the channel unit is unequipped.
UTC	= The CU has responded with an unable-to-comply message. This CU does not support the reading of PM counts.

b[2] = *ANSI*® CU number.

There can be from 1-6 CUs populated (in pairs).

c[2] = *ANSI*® CU LINK number.

Where LINKx is indicated the loop is down beyond CUx.

d[2] = *ANSI*® CU TEST number.

Where TESTx is indicates the loop is under test beyond CUx.

4. ACTION TO BE TAKEN

For DSL channels indicating bit error rate faults, retry the test using a different LPBK termination, if appropriate, to help isolate the fault (refer to the MODE=SECT parameter in the TST:DSL input message).

For tests that do not complete, determine the reason for failure and retry the test. Besides defective hardware, improperly populated data can prevent access both to the DSL ports as well as to the test equipment.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:ISLUHLSC
DGN:ISLUMAN
DGN:ISLULC
EXC:ALE
OP:CONV
OP:CPE
RMV:DATALINK
RMV:LINE
STP:TST-DSL
TST:DSL
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-231 *Hardware Change Procedures*
235-900-321 *Basic Rate Interface Specification*

RC/V View(s):

8.1 (OFFICE PARAMETERS)
22.7 (RISLU/ISLU EQUIPMENT - LINE CARD)
22.21 (RISLU/ISLU2 LINE BOARD)
23.2 (ISDN INDIVIDUAL DSL)

MCC Display Page(s):

1720,y,z,x (SM X ISLU Y LGC Z)
1730,y,z,x (SM X ISLU2 Y LG Z)

TST:E911

Software Release: 5E10 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST E911=a [ALT] SITE=c
        d  [e]  ESN=[f]  [FLASH INDICATOR{ON|OFF}]

[2]   ____________________________________________________________________
      TST E911=a  VERBOSE [ALT] SITE=c
        d  [e]  ESN=[f]  [FLASH INDICATOR{ON|OFF}]
        PSAP DN's      TRANSFER DN's
        [h]            [k]            [n]
        [i]            [l]            [o]
        [j]            [m]            [p]
```

2. REASON FOR OUTPUT

To report the results of a manual enhanced 911 (E911) test query request, using the TST:E911 input message.

3. VARIABLE FIELD DEFINITIONS

`ALT` = The alternate option was selected, requesting that the secondary enhanced 911 service adjunct (ESA) be queried.

`VERBOSE` = Verbose option was selected. The routing information associated with the retrieved emergency service number (ESN) was requested.

`a` = The ten-digit billing number or calling party number that was queried.

`c` = The site ID of the ESA that was queried. This field will be blank if the Dual ESA Enhancements secured feature is active in the office, the site ID or ALT is not specified in the input message, and the request times out.

`d` Result codes. Valid value(s):

- `ESA UNAVAILABLE` = The test query can not be completed. The ESA application processor (AP) links are out of service (OOS).
- `ESN DATA INCONSISTENCY` = The ESA has responded with an ESN that is identified as either valid or invalid, yet there is no switch-resident data (RLesntran) for the ESN. This condition will only be identified when the verbose option is used.
- `INVALID ESA SITE ID` = The test query can not be completed.
- `SUCCESSFUL RESPONSE` = Response was successful.
- `SYSTEM ERROR` = The switching module (SM) that hosts the ESA links is unavailable, or none of the other result codes apply.
- `TIMEOUT` = A response to the test query was not received within the required time limit.

`e` Validity codes. Valid value(s):

- `INVALID ESN` = The ESA has responded with an ESN that is identified as invalid.

`INVALID DN` = The ESA has responded indicating that the billing number or the calling party number specified in the test query was invalid. No ESN was returned.
`INVALID NPA` = The ESA has responded indicating that the NPA specified in the test query was invalid. No ESN was returned.
`INVALID NUMBER GROUP (THOUSANDS)` = The ESA has responded indicating that the number group specified in the test query was invalid. No ESN was returned.
`INVALID OFFICE CODE` = The ESA has responded indicating that the office code specified in the test query was invalid. No ESN was returned.
`VALID ESN` = The ESA has responded with an ESN that is identified as valid.
`VALUE OUT OF RANGE` = The ESA has responded with a validity value that is out of range.

`f` ESN value received. This field is output only if an ESN is received in the reply.

Note: Fields '`h`'-'`p`' are output only when the verbose option is used, and when the ESN has been returned from the ESA. These fields contain the contents of the RLesntran tuple associated with the ESN.

`h` = Primary public safety answering point (PSAP) directory number (DN).

`i` = First alternate PSAP DN.

`j` = Second alternate PSAP DN.

`k` = Selective transfer DN 1.

`l` = Selective transfer DN 2.

`m` = Selective transfer DN 3.

`n` = Selective transfer DN 4.

`o` = Selective transfer DN 5.

`p` = Selective transfer DN 6.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
TST:E911
```

Other Manual(s):
235-190-115 *Local and Toll System Features*

TST:FAC

Software Release: 5E10 - 5E12
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]    TST FAC=a-b-c-d e [f]

[2]    TST FAC=a-b-c-d STF ACTL g-h-i-j EXPR k-l-m-n
```

2. REASON FOR OUTPUT

To report the result of a test of the connection of a remote switching module (RSM) facility (FAC).

A FAC can be a host-remote facility between a host switching module (HSM) and a RSM, or a remote facility between two RSMs. This message is the result of a user TST:FAC input message or system action.

Format 1 is printed when the connectivity exercise completes.

Format 2 is printed to report the results of a failed exercise when the connectivity exercise is ran between two RSMs.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Digital line and trunk unit (DLTU) number.

`c` = HSM or RSM digital facilities interface (DFI) number.

`d` = FAC number. The FAC number is the T1 facility number on a DFI.

`e` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action had not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`f` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

`g` = The module number received from the far-end module.

`h` = The DLTU number received from the far-end module.

`i` = The DFI number received from the far-end module.

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`j` = The DFI facility number received from the far-end module.

`k` = The expected far-end module number.

`l` = The expected far-end module DLTU number.

`m` = The expected far-end module DFI number.

`n` = The expected far-end module DFI facility number.

4. ACTIONS TO BE TAKEN

For Format 1, no action is required.

For Format 2, verify facility routing between the two modules is consistent with office data.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
TST:FAC
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

TST:GRID

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      TST GRID=a-b-c COMPLETED ATP

[2]   ____________________________________________________________
      TST GRID=a-b-c COMPLETED CATP

[3]   ____________________________________________________________
      TST GRID=a-b-c COMPLETED NTR

[4]   ____________________________________________________________
      TST GRID=a-b-c COMPLETED STF

[5]   ____________________________________________________________
      TST GRID=a-b-c COMPLETED d PH=e

[6]   ____________________________________________________________
      TST GRID=a-b-c [d] [PH=e] FAIL_TYPE=f
      [LEN=a-b-g-h-i-j] [ALINK=a-b-g-h-k] [BLINK=a-b-g-h-l]
      [LUHLSC=a-b-m-n] [DMY=o] [BMARK=p]

[7]   ____________________________________________________________
      TST GRID=a-b-c SUSPECTED FAULTY EQUIPMENT a1 RECORD
      AISLE  MODULE  CABINET  CODE  FORM  EQL       TYPE  NOTE
        q    r [b1]  s   c1     t     u   v-w[-d1]    x     y
        .    .  .    .   .      .     .   . .   .     .     .
        .    .  .    .   .      .     .   . .   .     .     .
        .    .  .    .   .      .     .   . .   .     .     .

[8]   ____________________________________________________________
      TST GRID=a-b-c STOPPED z

[9]   ____________________________________________________________
      TST GRID=a-b-c ABORTED
```

2. REASON FOR OUTPUT

To report the results of executing a TST:GRID input message to run the fabric exerciser on a line unit model 1 (LU1) grid.

Format 1 is printed when the specified phase(s) have completely executed and all tests passed.

Format 2 is printed when the specified phase(s) have been completed but some tests were not run because path(s) through the grid were busy. The paths were probably busy because calls were active in the grid, A-links, or the mate grid was out of service, other maintenance activities were active in the grid, or channel circuits were out of service.

Format 3 is printed when the specified phase(s) have been completed but no tests were run, probably because the grid is out of service. If this message is printed during the routine exercise (REX) and the grid is in service, the grid

circuit packs are not updated to the latest pack series and should not be tested routinely. The fabric exerciser will proceed if a manual request is entered.

Format 4 is printed when the specified phase(s) have completed and one or more tests have failed.

Format 5 is printed when a phase has been completed. The phase number and the overall result of the individual phase are specified.

Format 6 is printed when a test has failed or certain conditions were found. The appropriate raw data has printed. If the unconditional (UCL) option was specified in the input message, the fabric exerciser will continue to completion. If the UCL option was not specified, the fabric exerciser will not continue except if there is a plant failure.

Format 7 is printed when the trouble location procedure (TLP) option was specified in the input message and a test has failed. An ordered list of equipment where the fault might be located is provided.

Format 8 is printed when the specified phase(s) have normally stopped because of the reason indicated.

Format 9 is printed when the specified phase(s) have abnormally terminated.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Grid number.

`d` = Execution result of the phase. Valid value(s):

- `ATP` = All tests passed.
- `CATP` = Conditional all tests passed.
- `NTR` = No tests run.
- `STF` = Some tests failed.

`e` = Phase number.
Note: Audit optional messages are identified as phase 4.

`f` = Failure type. Valid value(s):

- `ALINK BUSY` = A-link is busy.
- `BLINK BUSY` = B-link is busy.
- `CONTROL TO GRID` = There were write or read errors to or from the grid.
- `FALSE CROSS` = False cross grid (FCG), tip-to-tip short, ring-to-ring short, tip and ring leads are shorted together or to ground, or an internal power source voltage was detected on the A-link or B-link.
- `FOREIGN POTENTIAL` = Resistive connection to tip and/or ring and/or ground, or a voltage on LEN or loop, usually DC.
- `LATCH READ` = Crosspoint latch, scanner or firmware failure.
- `OFF HOOK RECOGNITION` = Scan circuit failed long loop scanner test. Scanner could not detect off-hook on a long loop.
- `OPEN XPT` = Crosspoint stuck open.
- `POWER ALARM` = Grid power source (VO or V+) failure, or loss of clock to scan circuit.
- `POWER CROSS` = Dangerous AC voltage on loop.
- `RESOURCE` = The high level service circuit (HLSC) may not be reliable, and therefore, test

results are undefined.
`SCANNER CKT` = Line port scanner circuit failure.
`SHORTED XPT` = Crosspoint will not open wet or is stuck closed.
`V+ LOW` = Transient error.
`V+ RESTORED` = Verifies "V+ LOW" was automatically restored.
`XPT LEFT ON` = The crosspoint specified was left closed and automatically cleared. The test will continue unless clear is not successful.

`g` = Grid number of path component.

`h` = First stage grid board number. First stage grid board 0 is furthest from the second stage board in a 3-shelf LU and to the left of the second stage board in a 2-shelf LU.

`i` = First stage grid board switch number.

`j` = First stage grid board switch level number.

`k` = A-link number. For LU1, '`k`' equals A-link numbers 0-15 are on first stage grid board 0 and A-link numbers 16-31 are on first stage grid board 1.

`l` = Grid B-link output level.

`m` = Line unit service group.

`n` = High level service circuit number.

`o` = Dummy crosspoint output level.

`p` = Internal software benchmark number.

`q` = Identification number of floor and aisle.

`r` = Module type.

`s` = Cabinet type.

`t` = Replacement equipment code(s).

`u` = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the example.

Example of CODE FORM contents:

```
CODE
A[:B]...[:C] [-] D[:E]...[:F]
```

`-` = Inter-field delimiter if necessary.
`:` = Intra-field delimiter.
`A` = Current minimal accepted equipment code.
`B` = Current production equipment code (substitutable equipment for code '`A`').
`C` = Additional compatible equipment code(s) (added as space permits)
`D` = Current minimal approved operating level for equipment code '`A`'.
`E` = Current minimal approved operating level for equipment code '`B`'.
`F` = Current minimal approved operating level(s) for equipment code(s) '`C`'.

1 Codes 'A', 'B', and 'C' may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms 'D', 'E', and 'F' may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

v = Vertical location in the bay, in inches from the floor to center of the implicated shelf.

w = Horizontal location in the bay, in eighths of an inch from the left-hand corner of the implicated shelf.

x = Circuit type. Valid value(s):

HPR	= Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
ONL	= Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.
____	= Equipment is part of the circuit under test.

y = Trouble locating procedure (TLP) note number.

z = Reason for early termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

a[1] = Text identifier showing order of record. Valid value(s):

FIRST	= First record of continuing list.
LAST	= Last record of list.
NEXT	= Next record of continuing list.

1 Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

b[1] = Module number.

c[1] = Cabinet number.

d[1] = Depth location in the bay computed in tenths of an inch. Measured left to right in the drawer on the implicated shelf.

4. ACTION TO BE TAKEN

For Formats 1 and 5, no action is required.

For Format 2, restore the appropriate circuits and re-enter the input message.

For Format 3, restore the grid under test, idle the suspected resources, or check the office-dependent data (ODD) for proper equipage of resources and re-enter the input message.

For Format 4, look for the output messages of Formats 6 and 7 and replace the faulty circuit pack(s) or take the appropriate action. If line equipment numbers (LENs) are specified, check line connections to the main distributing frame.

For Format 6, some messages are for failures and others identify certain conditions. Collectively evaluate the output messages of this format along with TLP output messages (Format 7); replacing the faulty circuit pack(s), clearing line wiring problems, or otherwise taking the appropriate action. Failures such as POWER CROSS, FOREIGN

`POTENTIAL`, and `FALSE CROSS` may be due to problems in the plant or subscriber lines.

For Format 7, replace the suspected pack(s) one at a time in the order specified. Rerun the fabric exerciser after each substitution until the fault is repaired or the exerciser results change.

For Format 8, identify the reason for the premature termination and take the appropriate action to correct the problem. Then re-enter the input message.

For Format 9, identify the reason for the abortion and take appropriate action to correct the problem. Then re-enter the input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
TST:GRID
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

TST:GRIDBD

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      TST GRIDBD=a-b-c-d COMPLETED ATP

[2]   ____________________________________________________________
      TST GRIDBD=a-b-c-d COMPETED CATP

[3]   ____________________________________________________________
      TST GRIDBD=a-b-c-d COMPLETED NTR

[4]   ____________________________________________________________
      TST GRIDBD=a-b-c-d COMPLETED e PH f

[5]   ____________________________________________________________
      TST GRIDBD=a-b-c-d COMPLETED STF

[6]   ____________________________________________________________
      TST GRIDBD=a-b-c-d [e] [PH f] FAIL_TYPE g
      lac ncd
      [LUHLSC=a-b-k-l]

[7]   ____________________________________________________________
      TST GRIDBD=a-b-c-d SUSPECTED FAULTY EQUIPMENT h RECORD
      AISLE  MODULE  CABINET  CODE  FORM  EQL       TYPE  NOTE
        m    n [y]    o  z    p      q   r-s[-a1]    t     u
        .    .  .     .  .    .      .   . .  .      .     .
        .    .  .     .  .    .      .   . .  .      .     .
        .    .  .     .  .    .      .   . .  .      .     .

[8]   ____________________________________________________________
      TST GRIDBD=a-b-c-d STOPPED v

[9]   ____________________________________________________________
      TST GRIDBD=a-b-c-d ABORTED
```

2. REASON FOR OUTPUT

To respond to the TST:GRIDBD input message to run an exercise program on the cross point paths in a line unit model 2 (LU2) or a line unit model 3 (LU3) grid.

Format 1 prints when all specified phase(s) have completely executed and all tests passed.

Format 2 prints when the paths that could be tested in the specified phase(s) pass all the tests. Not all the path elements were tested, however, because calls were up in the half-grid, channel circuits or A-links were out-of-service, or other maintenance activities were active in the grid.

Format 3 prints when the specified phases have been completed but no tests were run.

Format 4 prints when a phase has been completed. The phase number and the overall result of the individual phase are specified.

Format 5 prints when the specified phase(s) have completed and one or more tests failed.

Format 6 prints when a test failed or certain conditions were found. The appropriate raw data is printed, indicating the location of the fault or condition. If the UCL option was specified in the input message the exercise program generally will continue. If UCL was not specified, Format 4 will also print.

Format 7 prints when the trouble locating procedure (TLP) option was specified in the input message and a test failed. An ordered list of circuit packs where the fault might be is printed.

Format 8 prints when the exercise program terminates because of the reason specified in variable '`g`'.

Format 9 prints when the specified phase(s) terminated abnormally.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Line unit number.

`c` = Grid number.

`d` = Board number.

`e` = Execution result of the phase. Valid value(s):

- `ATP` = All tests passed.
- `CATP` = Conditional all tests passed.
- `NTR` = No tests run.
- `STF` = Some tests failed.

`f` = Phase number.

NOTE: Audit option messages are identified as phase 4.

`g` = Failure type. Valid value(s):

- `ALINK BUSY` = A-link is busy.
- `BLINK BUSY` = B-link is busy.
- `CONTROL TO GRID` = There were write or read errors to or from the grid.
- `FALSE CROSS` = False cross grid (FCG), tip-to-tip short, ring-to-ring short, tip and ring leads are shorted together or to ground, or an internal power source voltage was detected on the A-link or B-link.
- `FOREIGN POTENTIAL` = Resistive connection to tip and/or ring and/or ground, or a voltage on LEN or loop, usually DC.
- `LATCH READ` = Crosspoint latch, scanner or firmware failure.
- `OFF HOOK RECOGNITION` = Scan circuit failed long loop scanner test. Scanner could not detect off-hook on a long loop.
- `OPEN XPT` = Crosspoint stuck open.
- `POWER ALARM` = Grid power source (VO or V+) failure, or loss of clock to scan circuit.
- `POWER CROSS` = Dangerous AC voltage on loop.
- `RESOURCE` = The high-level service circuit (HLSC) may not be reliable, and therefore test results are undefined.

SCANNER CKT = Line port scanner circuit failure.
SHORTED XPT = Crosspoint will not open wet or is stuck closed.
V+ LOW = Transient error.
V+ RESTORED = Verifies "V+ LOW" was automatically restored.
XPT LEFT ON = The crosspoint specified was left closed and automatically cleared. The test will continue unless clear is not successful.

h = Text identifier showing order of record. Valid value(s):
FIRST = First record of continuing list.
LAST = Last record of list.
NEXT = Next record of continuing list.

1 Maximum of 12 list entries may be reported on a TLP list. They will print in groups (records) of 1-4 entries. Each record will have a new header.

i = ALINK number.

j = BLINK number.

k = Service group number.

l = High-level service circuit (HLSC) number.

m = Aisle number.

n = Module type.

y = Module number.

o = Cabinet type.

z = Cabinet number.

p = Circuit pack code.

q = Equipment form(s). Equipment form represents minimal operating level of replacement equipment. Refer to the example.

Example of CODE FORM contents:

CODE
A[:B]...[:C] [-] D[:E]...[:F]
: = Intra-field delimiter.
- = Inter-field delimiter if necessary.
A = Current minimal accepted equipment code.
B = Current production equipment code (substitutable equipment for code A).
C = Additional compatible equipment code(s) (added as space permits)
D = Current minimal approved operating level for equipment code A.
E = Current minimal approved operating level for equipment code B.
F = Current minimal approved operating level(s) for equipment code(s) C.

1 Codes A, B, and C may independently represent apparatus code(s), microcode identifier(s) or text identifier(s) as applicable.

Forms D, E, and F may represent the series number for a corresponding apparatus code, or the issue level for a corresponding microcode identifier or text identifier(s) as applicable.

r = Vertical location in the bay, computed in inches from the floor to the center of the implicated shelf.

s = Horizontal location in the bay, computed in eighths of an inch from the left-hand corner of the implicated shelf.

t = Circuit type. Valid value(s):

- HPR = Equipment is part of a helper circuit. The helper must be removed before replacement is attempted.
- ONL = Equipment is part of the on-line member of a duplex pair. The on-line member must be removed, and the mate made on-line, before replacement is attempted.

u = Trouble location procedures (TLP) note number.

v = Reason for early termination. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

w = Gridboard first stage switch number.

x = Gridboard first stage switch input level.

a[1] = Depth location in the bay, in tenths of an inch, measured left to right in the drawer on the implicated shelf.

4. ACTION TO BE TAKEN

For Formats 1, 2, 4, no action is required

For Format 3, restore the grid under test, idle suspected resources, or check ODD for proper equipage of resources and reenter the input.

For Format 5, some messages are for test failures and others identify certain conditions. Look for output messages with Formats 6 and 7. Replace the faulty circuitpack(s) or taking the appropriate action.

For Format 6, replace suspected faulty circuit packs if necessary. In some circumstances, failures such as power cross, foreign potential, and false cross may be cleared without replacing circuit packs. These failures may be caused by problems in the plant or by subscriber lines.

For Format 7, replace suspected packs one at a time in the order specified. Rerun the fabric exerciser after each substitution until the fault is repaired or the exerciser results change.

For Format 8, identify the reason for premature termination and correct the problem. Reenter the input message to verify that the problem is corrected.

For Format 9, identify the reason for the abortion and correct the problem. Reenter the input message to verify that the problem is corrected.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
TST:GRIDBD
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-110 *System Maintenance Requirements and Tools*

TST:ICCV

Software Release: 5E10 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
TST ICCV=a   b   c
  DURATION OF TEST=d
  TTYP=e   PC=f
 [g] [h] [i]
  CDBS=j  OPCD=k
  l
  CDCIND=[m]
```

2. REASON FOR OUTPUT

To report the results of the manual input (TST:ICCV) that requests that an international credit card validation (ICCV) transaction capabilities application part (TCAP) test query be performed.

3. VARIABLE FIELD DEFINITIONS

`a` = Issuer identification number of the telecommunications calling card (89C) number that was input.

`b` = Individual account number of the 89C calling card number that was input. This includes a check number, if present.

`c` = Personal identification number (PIN) that was input.

`d` = Duration of the test in milliseconds. Timing starts when the administrative module (AM) sends the formatted query, and ends when the query response is received from the network.

`e` = Translation type that was input.

`f` = Point code of the network node that sent the response. If the test query times out, '`NOT APPLICABLE`' is output for the point code.

`g` = ICCV TCAP query reply code or error code. This field prints out when a normal reply is received in response to the test query. Valid value(s):

`ALLOW CALL` = Card number and PIN were successfully validated; the call was allowed.
`ALLOWED PIN TRIES EXCEEDED` = The call was denied because on previous attempts the PIN was incorrectly entered a certain number of times, depending upon each administration.
`CALLED NUMBER RESTRICTIONS APPLY` = The call was denied because called number restrictions applied.
`CREDIT THRESHOLD EXCEEDED` = The call was denied because the credit limit of the card has been exceeded.
`DATABASE UNAVAILABLE` = The database that is required for validating is not available for service.
`DUE TO NON-PAYMENT` = The call was denied because the bill has not been paid.
`ERROR IN MESSAGE FORMAT` = The query received by the database was incorrectly formatted.
`EXPIRED CARD` = The call was denied because the end date of the card has passed.
`FRAUD RESTRICTED` = The call was denied because the card was restricted by the card issuing administration or card holder to prevent fraudulent use.

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INCORRECT PIN = The call was denied because the PIN was invalid.
INVALID CARD NUMBER = The call was denied because the database did not hold a record for it.
MISSING PARAMETER = A mandatory query parameter was absent from the query.
NOT PERMITTED FROM STATION = The call was denied because the card's use was not permitted outside of the issuing administration's network.
UNEXPECTED INPUT - DATA VALUE = One of the values in the validation request contained a value outside the expected range.
UNEXPECTED PARAMETER = The validation request contained a parameter code that was not defined as mandatory or optional for the specified operation.
VOLUME THRESHOLD EXCEEDED = The call was denied because the database determined that the number of calls has exceeded the limit within the specified period.
WRONG CARD ISSUER OR MISROUTED QUERY = Card number was not in the range that the database expected to receive.

h = The abort cause or reject problem code. This field prints out only when a p-abort, u-abort, invoke problem reject message, or general problem reject message is received in reply to an ICCV TCAP test query. Valid value(s):
P-ABORT - BADLY FORMATTED TRANSACTION PORTION = Transaction portion of the received message did not conform to the encoding rules.
P-ABORT - INCORRECT TRANSACTION PORTION = Elemental structure within the transaction portion of the received message did not conform to the rules for the transaction portion.
P-ABORT - RESOURCE LIMITATION = Sufficient resources were not available.
P-ABORT - UNRECOGNIZED MESSAGE TYPE = TCAP message type was not defined.
P-ABORT - UNRECOGNIZED TRANSACTION ID = A transaction ID was received for which a transaction did not exist at the receiving node.
REJECT - BADLY STRUCTURED COMPONENT = Contents of the component did not conform to the encoding rules.
REJECT - DUPLICATE INVOKE ID = The invoke ID was already in use by a previously invoked operation.
REJECT - INITIATING RELEASE = Requested operation could not be invoked because the dialogue was about to be concluded.
REJECT - MISTYPED COMPONENT = Elemental structure of a component did not conform to the defined structure of that component.
REJECT - MISTYPED PARAMETER = A parameter tag was not one of those associated with the invoked operation.
REJECT - RESOURCE LIMITATION = Sufficient resources were not available to perform the requested operation.
REJECT - UNRECOGNIZED COMPONENT = The component type was not recognized.
REJECT - UNRECOGNIZED OPERATION = The operation code value was not one of those used by the application.
U-ABORT - BADLY STRUCTURED COMPONENT = Contents of the component did not conform to the encoding rules.
U-ABORT - MISTYPED COMPONENT = The elemental structure of a component did not conform to the defined structure of that component.
U-ABORT - UNRECOGNIZED COMPONENT = Component type was not recognized.

i = The results of a failed test. This field prints out only when the test query was not successful. Valid value(s):
GARBLED MESSAGE = A response was received but the data in the message was mutilated. It is possible that this result may be printed along with a normal response (such as,

ALLOW CALL) if the mutilated data is detected after the result has been identified.

`IMS OR CNI RETURNED MSG` = The inter-process message switch (IMS) or the common network interface (CNI) returned the message. This result is not expected for ICCV TCAP test queries.

`NETWORK CONGESTION` = Could not complete the test due to network congestion.

`NETWORK FAILURE` = Could not complete the test due to failure in the network.

`NO TRANSLATION ADDRESS NATURE` = No entries existed in routing tables for addresses of this nature.

`NO TRANSLATION SPECIFIED ADDRESS` = No entries existed in routing tables for this specific address.

`SUBSYSTEM CONGESTION` = Could not complete the test due to subsystem congestion.

`SUBSYSTEM FAILURE` = Could not complete the test due to subsystem failure.

`TIMEOUT` = A response to the test query was not received within the sixteen second time limit.

`UNEQUIPPED USER` = Could not complete the test due to unequipped user.

`UNQUALIFIED` = Unknown failure reason.

`j` = Customer-defined billing segmentation (CDBS) number returned in reply received from database. If no CDBS number is returned, '`NONE`' will be output.

`k` = The operation code. This operation code specifies which ICCV features are active in the switch. Each bit of the eight-bit operation code indicates whether the corresponding ICCV feature is applicable or not in the switch. The bits in order form low to high and their associated features are:

Feature	Bit Value	Bit Position
Basic Validation	1	0
CDM	2	1
CDBS	4	2
NOT USED	8	3
Geographic Restriction	16	4
NOT USED	32	5
NOT USED	64	6
NOT USED	128	7

The operation code is a sum of the bit values of all applicable ICCV features. For example, if basic validation, CDBS and geographic restrictions are active, the operation code will have a value of 21, which is the sum of 1, 4, and 16. For inward calls, only values 1, 5, 17, and 21 are allowed.

`l` = The called number is the entered number (maximum 15 digits not including prefix). This is either a 10-digit North American numbering plan (NANP) number (that is, NPANXXXXXX), a 7- to 15- digit international number (that is, CCXXX...XXX), or '`NO CALLED NUMBER`' (if no called number was input).

`m` = The call duration and charge (CDC) indicator. Valid value(s):

`NONE` = CDC does not apply to call

`YES` = CDC applies to call

4. ACTION TO BE TAKEN

This message is the response to a manual request. It is used as a high-level check on the connection to the ICCV database (which is external to the switch), to check out data in the ICCV database, or to check out a repeatedly failing query. If variable '`i`' prints out (with the exception of `GARBLED MESSAGE`), then there is a problem with the connection to the database, and the Engineering Network Administration Center (ENAC) should be contacted for

assistance. Otherwise (including `GARBLED MESSAGE`), the response is from the database, and the Network Operations Center (NOC) international console should be contacted. The response should be examined to see if it indicates proper data in the ICCV database.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:DSTT
TST:BNS
TST:CAS
TST:CAS7
TST:CCRD
TST:ICCV
TST:INWATS
TST:NCD
TST:RATE
```

Output Message(s):

```
EXC:DSTT
TST:BNS
TST:CAS
TST:CAS7
TST:CCRD
TST:INWATS
TST:NCD
TST:RATE
```

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

TST:INWATS

Software Release: 5E10 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
TST INWATS=a ONPA=b DURATION OF TEST=c
  d [e]
```

2. REASON FOR OUTPUT

To report the results of the manual request TST:INWATS which requests that an inward wide area telecommunications service (INWATS) query test be performed.

3. VARIABLE FIELD DEFINITIONS

`ONPA` = Originating numbering plan area.

`a` = The ten-digit INWATS number that was tested, in the form 800NXXXXXX.

`b` = The three-digit area code that was tested, simulating where 800 number is originated.

`c` = Duration of test in milliseconds. Timing starts when the switch receives the input request and ends when the switch receives the result from the network, or times out.

`d` = Results of the test query. Valid value(s):

- `BAD INWATS MESSAGE RECEIVED` = A reply was received but data in the message was mutilated.
- `CCIS FAILURE-DESTINATION NOT EQUIPPED` = A destination in the common channel signaling (CCS) network is unequipped.
- `CCIS FAILURE-NETWORK BLOCKED` = Could not complete test due to blockage in the network.
- `CCIS FAILURE-NETWORK OVERLOAD` = Could not complete test due to an overload in the network.
- `CCIS FAILURE-NO ROUTING DATA` = Could not route to the destination due to an error in or unavailability of routing data in the network.
- `INEFFECTIVE ATTEMPT-ALL LINES BUSY` = All lines are busy.
- `INEFFECTIVE ATTEMPT-DATABASE OVERLOAD` = Could not complete query of 800 number due to overload of database.
- `INEFFECTIVE ATTEMPT-INVALID ORIGINATING NPA` = The database determined that the input ONPA was not a valid number.
- `INEFFECTIVE ATTEMPT-NONPURCHASED NPA` = The database determined that the ONPA input is not purchased for this 800 number.
- `INEFFECTIVE ATTEMPT-VACANT LINE NUMBER` = A query was sent but the database could not translate it because the line number input was not a valid 800 line number.
- `INEFFECTIVE ATTEMPT-VACANT NXX` = The database determined that the NXX of the 800 number is vacant.
- `SUCCESS` = The 800 number was successfully translated to the number given in field '`e`'.
- `TIMEOUT` = A response to the test query was not received within the four-second time limit.

`e` = Number that the database translated the 800 number into, in the form of NPANXXXXXX.

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4. ACTION TO BE TAKEN

Follow the local practice for testing the INWATS databases.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:DSTT
TST:INWATS
TST:NCD
```

Output Message(s):

```
EXC:DSTT
TST:NCD
```

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TST:LAC-A

Software Release: 5E10 only
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
TST LAC=a  [b]  SW=c
  DURATION OF TEST=d      TTYP=e
  f     g
  STD=h           XCAP=i          XMODE=j
  XRATE=k         l               OLS=m
  OST=n           CTYP=o          CSI=p
  RSP=q           NAI=r           LIDB=s      [t]
  RESULT=u        PC=v
  BNS-RSP=w       CCD-RSP=x
  LIDB-RCD=y      COMPANY_ID=z
  COL=a1          3RD=b1
  TREAT=c1        SVC=d1
  INTRCPT=e1      SUB-ACCT=f1
  IC_IND=g1       h1      RAO=i1
  j1              CG-DIGITS=k1
  CG-DUR=l1       CG-INTVL=m1     [n1]
```

2. REASON FOR OUTPUT

To report the results of the manual input (TST:LAC) that requests that a line applications for consumers (LAC) common channel signaling system 7 (CCS7) transaction capabilities application part (TCAP) test query be performed.

3. VARIABLE FIELD DEFINITIONS

a = Billing number that was input. For sent-paid queries and billed number screening (BNS) queries, this will be a phone number. For card queries, this will be a 10-digit calling card account number.

b = Personal identification number (PIN) that was input. This is included for calling card queries only.

c = Switch type that was input. Valid value(s):

4ESS	= *4ESS*® switch.
5ETOLL	= *5ESS*®-2000 toll switch.
OSPS	= Operator services position system (OSPS) switch.

d = Duration of the test in milliseconds. Timing starts when the administrative module (AM) sends the formatted query, and ends when the query response is received from the network.

e = Translation type number that was input. This is a number from 0 to 255.

f = Called number that was input. The label will print as ICLD= for international numbers or CLD= for all other numbers. If no called number was input, CLD=NONE will print.

g = Calling number that was input. The label will print as ICLG= for international numbers or CLG= for

all other numbers. If no calling number was input, CLG=NONE will print.

h = Coding standard that was input. If no input was given for coding standard, transfer capability, transfer mode, or transfer rate, then NONE will print. If no input was given for coding standard, but a value was input for one or more of transfer capability, transfer mode, or transfer rate, then CCITT will print. Valid value(s):

CCITT = International Telecommunication Union - Telecommunication Standardization Sector (ITU-TS) (formerly CCITT) standard.
INTL = Reserved for other international standards.
NATIONAL = National standard.
NONE = No input was entered.

i = Transfer capability that was input. If no input was given for coding standard, transfer capability, transfer mode, or transfer rate, then NONE will print. If no input was given for transfer capability, but a value was input for one or more of coding standard, transfer mode, or transfer rate, then SPEECH will print. Valid value(s):

3.1 kHz AUDIO = 3.1 kHz audio.
7 kHz AUDIO = 7 kHz audio.
15 kHz AUDIO = 15 kHz audio.
DIGITAL = Unrestricted digital information.
NONE = No input was entered.
RESTRICTED DIGITAL = Restricted digital information.
SPEECH = Speech.
VIDEO = Video.

j = Transfer mode that was input. If no input was given for coding standard, transfer capability, transfer mode, or transfer rate, then NONE will print. If no input was given for transfer mode, but a value was input for one or more of coding standard, transfer capability, or transfer rate, then CIRCUIT will print. Valid value(s):

CIRCUIT = Circuit mode.
NONE = No input was entered.
PACKET = Packet mode.

k = Transfer rate that was input. If no input was given for coding standard, transfer capability, transfer mode, or transfer rate, then NONE will print. If no input was given for transfer rate, but a value was input for one or more of coding standard, transfer capability, or transfer mode, then CHANNEL SIZE will print. Valid value(s):

64 KBIT = 64 Kbit/second.
384 KBIT = 384 Kbit/second.
1536 KBIT = 1536 Kbit/second.
1920 KBIT = 1920 Kbit/second.
CHANNEL SIZE = Transfer rate dictated by the size of the channel.
NONE = No input was entered.

l = Originating line information (OLI) or automatic number identification (ANI) information digits (II) that were input. If OLI data was input, the label will print as OLI=. If II data was input, the label will print as II=. If neither OLI nor II data was input, OLI=NONE will print. Valid value(s):

800 CALL = Translated 800 call.
AIOD = Automatic input/output dialing (AIOD) listed directory number sent.

ANI FAIL = ANI failure.
COIN = Coin line.
COIN OR NONCOIN = Identified line (coin or noncoin).
COINLESS = Coinless, hospital, or inmate call.
HOTEL = Hotel without room identification.
IDENTIFIED LINE = Identified line with no special treatment.
INTERLATA RESTRICTED = Interlata restricted.
NONE = No input was entered.
ONI = Operator number identified (multiparty).
OPERATOR HANDLED = Operator handled.
OUTWATS = Outbound wide area transport (OUTWATS) line.
RESTRICTED COINLESS = Interlata restricted coinless line.
RESTRICTED HOTEL = Interlata restricted hotel line.
TEST CALL = Test call.
VIRTUAL PRIVATE NET = Virtual private network line.

m = Originating line screening (OLS) value that was input. This is a number from 0 to 999. If no OLS data was input, NONE will print.

n = Originating station type (OST) value that was input. If no OST data was input, NONE will print. Valid value(s):
ACQS = Automatic charge quotation system (ACQS) phone.
ACQS HOTEL = ACQS hotel phone.
NON-ACQS HOTEL = Non-ACQS hotel phone.
NON-COIN PUBLIC = Non-coin public phone.
NONE = No input was entered.
POST-PAY COIN = Post-pay coin phone.
PRE-PAY COIN = Pre-pay coin phone.
UNKNOWN = Unknown station type.

o = Call type value that was input. If no call type was input, NONE will print. Valid value(s):
COLLECT = BNS collect call.
NONE = No input was entered.
SENT PAID = BNS sent paid call.
THIRD = BNS bill to third number call.

p = Carrier selection information (CSI) that was input. If no CSI data was input, NONE will print. Valid value(s):
INPUT BY CALLER = Selected carrier presubscribed and input by calling party.
NO INDICATION = Selected carrier presubscribed and no indication of input by calling party.
NONE = No input was entered.
NOT INPUT = Selected carrier presubscribed and no input by calling party.
NOT PRESUBSCRIBED = Selected carrier not presubscribed and input by calling party.
UNKNOWN = No indication.

q = 'Response required' indicator that was input. A value of YES indicates that the 2LAC/NCP must always return a reply in response to the test query. A value of NO indicates that the 2LAC/NCP must only return a reply for deny and error cases. If no value was input, YES will print.

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r = Network access interrupt (NAI) indicator that was input. A value of YES indicates that the 2LAC/NCP should apply NAI processing to the query. A value of NO indicates that NAI processing should not be applied. If no value was input, YES will print.

s = Line information database (LIDB) indicator that was input. A value of YES indicates that the 2LAC/NCP should forward the calling card or BNS information contained within the query to a LIDB for processing. A value of NO indicates that the query should not be forwarded to a LIDB. If no input was given for calling card or BNS queries, YES will print. For all other calls, this field will always be NO.

t = Carrier expansion indicator. If the CICEXP keyword was input, then CICEXP will print here. If CICEXP was not entered, nothing will print.

u = Test query result. Valid value(s):

ALLOW CALL = The call is allowed by the 2LAC/NCP.

CALLED NUMBER RESTRICTIONS APPLY = The call is denied because called number restrictions apply in the 2LAC/NCP.

CALLING NUMBER RESTRICTIONS APPLY = The call is denied because calling number restrictions apply in the 2LAC/NCP.

CREDIT RESTRICTED = The call is denied because the billing number is delinquent in payment.

FRAUD RESTRICTED = The call is denied because the billing number is suspected of fraudulent use.

GARBLED MESSAGE = A response was received but the data in the message was mutilated. It is possible that this result may be printed along with a normal response (such as, ALLOW CALL) if the mutilated data is detected after the result has been identified.

GATEWAY ERROR = Communication with a non-AT&T network was unsuccessful.

IMS OR CNI RETURNED MSG = The inter-process message switch (IMS) or the common network interface (CNI) returned the message. This result is not expected for LAC CCS7 test queries.

MISROUTED QUERY = The billing number was not in the range that the 2LAC/NCP expected to receive.

MISSING PARAMETER = A mandatory parameter was absent from the query.

NETWORK CONGESTION = Could not complete the test due to network congestion.

NETWORK FAILURE = Could not complete the test due to failure in the network.

NO TRANSLATION ADDRESS NATURE = No entries exist in routing tables for an address of this nature.

NO TRANSLATION SPECIFIC ADDRESS = No entries exist in routing tables for this specific address.

NONPAYMENT - CALLING PARTY = The call is denied because the calling party is delinquent in payment.

NONPAYMENT - CALLED PARTY = The call is denied because the called party is delinquent in payment.

NONPAYMENT - OTHER PARTY = The call is denied because some other party is delinquent in payment.

P-ABORT - BADLY FORMATTED TRANSACTION PORTION = The transaction portion of the received message did not conform to the encoding rules.

P-ABORT - INCORRECT TRANSACTION PORTION = The elemental structure within the transaction portion of the received message did not conform to the rules for the transaction portion.

P-ABORT - RESOURCE LIMITATION = Sufficient resources were not available.

P-ABORT - UNRECOGNIZED MESSAGE TYPE = The TCAP message type was not defined.

P-ABORT - UNRECOGNIZED TRANSACTION ID = A transaction ID had been received for which a transaction did not exist at the receiving node.

`REJECT - BADLY STRUCTURED COMPONENT` = The contents of the component did not conform to the encoding rules.
`REJECT - DUPLICATE INVOKE ID` = The invoke ID was already in use by a previously invoked operation.
`REJECT - INITIATING RELEASE` = The requested operation could not be invoked because the dialogue was about to be concluded.
`REJECT - MISTYPED COMPONENT` = The elemental structure of a component did not conform to the defined structure of that component.
`REJECT - MISTYPED PARAMETER` = A parameter tag was not one of those associated with the invoked operation.
`REJECT - RESOURCE LIMITATION` = Sufficient resources were not available to perform the requested operation.
`REJECT - UNRECOGNIZED COMPONENT` = The component type was not recognized.
`REJECT - UNRECOGNIZED OPERATION` = The operation code value was not one of those used by the application.
`SUBSYSTEM CONGESTION` = Could not complete the test due to subsystem congestion.
`SUBSYSTEM FAILURE` = Could not complete the test due to subsystem failure.
`TASK REFUSED` = The task was refused because the node could not handle the request at the time (not because the operation was incorrect in any way).
`TIMEOUT` = A response to the test query was not received within the time limit. If the entered switch type parameter is OSPS or *4ESS*®, this time limit is 20 seconds. For 5ETOLL, this time limit is 4 seconds.
`U-ABORT - APPLICATION PROTOCOL VIOLATION` = A protocol violation occurred in relation to the allowed sequences of messages defined for the application service element.
`U-ABORT - REJECT RECEIVED` = An unexpected reject component was received.
`U-ABORT - UNKNOWN USER PROBLEM` = The cause of the transaction abort request is unknown. This request could be the result of an abort in the application specific entry, or application itself.
`UNEQUIPPED USER` = Could not complete the test due to unequipped user.
`UNEXPECTED INPUT, DATA VALUE` = The content of a query parameter was not as expected.
`UNEXPECTED PARAMETER` = A query parameter was received but not recognized.
`UNQUALIFIED` = Unknown failure reason.
`VACANT CODE` = The database determined that the billing number contained in the query was one that has not yet been assigned.

`v` = Point code number of the network node that sent the response. If the test query timed out, `NOT APPLICABLE` is output for the point code.

`w` = LIDB BNS response. This field will contain the result of a BNS query if an encapsulated LIDB reply was received from the 2LAC/NCP. If an encapsulated LIDB BNS reply was not received, `NONE` will print. Valid value(s):
`MISROUTE` = The billing number was not in the range that
`MISSING CUST REC` = The billing number was not found in the LIDB.
`MISSING GROUP` = The group was not found in the LIDB.
`NONE` = An encapsulated LIDB BNS reply was not received.
`NONPARTICIPATE GRP` = The LIDB determined that the billing number belongs to a nonparticipating group.
`RECEIVE REJECT` = The LIDB reply is a reject component.
`RECORD FOUND` = The billing number was successfully found in the LIDB.
`UNAV NET RESOURCE` = The query could not be processed because of network resource limitations.

UNXP DATA VALUE = The content of a query parameter was not as expected. the LIDB expected to receive.
VACANT GROUP = The LIDB determined that the billing number contained in the query was one that has not yet been assigned.

x = LIDB calling card response. This field will contain the result of a calling card query if an encapsulated LIDB reply was received from the 2LAC/NCP. If an encapsulated LIDB calling card reply was not received, NONE will print. Valid value(s):
CCAN SERVICE DENIAL = The calling card number is denied service.
LSA DENY = The calling card number is denied due to restrictions.
MISROUTE = The calling card number was not in the range that the LIDB expected to receive.
MISSING CUST REC = The calling card number was not found in the LIDB.
MISSING GROUP = The group was not found in the LIDB.
NO PIN MATCH = The calling card number and PIN sent in the query do not belong together.
NONE = An encapsulated LIDB calling card reply was not received.
NONPARTICIPATE GRP = The LIDB determined that the calling card number belongs to a nonparticipating group.
PIN NOT ASSIGNED = The PIN contained in the query has not been assigned to this card number.
RECEIVE REJECT = The LIDB reply is a reject component.
RESTRICTED PIN = The calling card is allowed as long as the called number matches the card number.
SPD NONPAYMENT = The calling card number is denied because it is delinquent in payment.
SPD THRESHOLD = The calling card number is denied because a PIN threshold has been exceeded.
UNAV NET RESOURCE = The query could not be processed because of network resource limitations.
UNRESTRICTED PIN = The calling card is allowed for all called numbers.
UNXP DATA VALUE = The content of a query parameter was not as expected.
VACANT GROUP = The LIDB determined that the calling card number contained in the query was one that has not yet been assigned.

y = LIDB record status indicator received in an encapsulated LIDB BNS or calling card reply. If the record status indicator is not received in the reply, NONE will print. Valid value(s):
DEFAULT RECORD = The LIDB determined this to be a default record.
NONE = The record status indicator was not received.
STABLE RECORD = The LIDB determined this to be a stable record.
TRANSIT RECORD = The LIDB determined this to be a transitional record.

z = LIDB company identification received in an encapsulated LIDB BNS or calling card reply. This will print as a 4 digit number, or as NONE if this indicator is not received.

a[1] = LIDB BNS collect acceptance indicator received in an encapsulated LIDB BNS reply. If the collect acceptance indicator is not received in the reply, NONE will print. Valid value(s):
ALW COL = Allow all collect calls without verification.
ALWC INTRA = Allow intralata collect calls without verification. Deny interlata collect calls.
LSA DENY = Deny collect calls due to restrictions.
NOCOL = No collect calls are allowed to this number.
NOCOL-C = No collect calls are allowed to this number by customer request.
NONE = The LIDB collect acceptance indicator was not received in the reply.
VFY COL = Verify all collect calls to this number.

VFYC INTRA = Allow intralata collect calls without verification. Verify interlata collect calls.

b[1] = LIDB BNS third number acceptance indicator received in an encapsulated LIDB BNS reply. If the third number acceptance indicator is not received in the reply, NONE will print. Valid value(s):

ALW 3RD = Allow third number billing without verification.
ALW3 INTRA = Allow intralata third number billing without verification. Deny interlata third number billing.
LSA DENY = Deny third number calls due to restrictions.
NO 3RD = No third number billing to this number.
NO 3RD-C = No third number billing to this number on customer request.
NONE = The LIDB third number acceptance indicator was not received in the reply.
VFY 3RD = Verify third number billing.
VFY3 INTRA = Verify intralata third number billing. Deny interlata third number billing.

c[1] = LIDB BNS treatment indicator received in an encapsulated LIDB BNS reply. If the treatment indicator is not received in the reply, NONE will print. Valid value(s):

AUTO-T = Automated treatment - provide alerting tone only.
AUTO-TP = Automated treatment - provide alerting tone and prompt announcement.
NONE = The treatment indicator was not received in the reply.
OP-STN = Operator treatment because of station limitations.
ST-CUST = Special treatment - operator handling at customer request.
ST-HC1 = Special treatment - handicapped 1.
ST-HC2 = Special treatment - handicapped 2.

d[1] = LIDB BNS service or equipment indicator received in an encapsulated LIDB BNS reply. If the service or equipment indicator is not received in the reply, NONE will print. Valid value(s):

CENTREX = Centrex line.
CO-COIN = Customer owned coin station.
CO-CLESS = Customer owned coinless station.
CO-CR1 = Customer owned card reader station - type 1.
CO-CR2 = Customer owned card reader station - type 2.
DORM = Dormitory line.
HOTMOT = Hotel/motel guest line.
IC-CR1 = Interlata carrier owned card reader station - type 1.
IC-CR2 = Interlata carrier owned card reader station - type 2.
ICP-DTF = Interlata carrier owned public coin - prepay dial-tone-first station.
ICP-CF = Interlata carrier owned public coin - prepay coin-first station.
ICP-CLESS = Interlata carrier owned public coinless station.
ICP-POST = Interlata carrier owned public coin - postpay station.
ICSP-DTF = Interlata carrier owned semi-public coin - prepay dial-tone-first station.
ICSP-CF = Interlata carrier owned semi-public coin - prepay coin-first station.
ICSP-POST = Interlata carrier owned semi-public coin - postpay station.
NONE = No service or equipment indicator was received in the LIDB reply.
OTHER1 = Other 1.
OTHER2 = Other 2.
OTHER3 = Other 3.
OTHER4 = Other 4.
PBX-W = Public branch exchange (PBX) line with automatic input/output dialing.
PBX-WO = PBX line without automatic input/output dialing.

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POTS = Plain old telephone service (POTS) line.
TO-CR1 = Service provider owned card reader station - type 1.
TO-CR2 = Service provider owned card reader station - type 2.
TOP-CF = Service provider owned public coin - prepay coin-first station.
TOP-CLESS = Service provider owned public coinless station.
TOP-DTF = Service provider owned public coin - prepay dial-tone-first station.
TOP-POST = Service provider owned public coin - postpay station.
TOSP-DTF = Service provider owned semi-public coin - prepay dial-tone-first station.
TOSP-CF = Service provider owned semi-public coin - prepay coin-first station.
TOSP-POST = Service provider owned semi-public coin - postpay station.
WATS = WATS line.

e[1] = LIDB BNS intercept indicator received in an encapsulated LIDB BNS reply. If the intercept indicator is not received in the reply, NONE will print. Valid value(s):
CHGING = Being changed; may not be connected yet.
CHGNPN = Changed to nonpublished number.
CHGREF = Changed with referral to new number.
DISC = Disconnected.
DISCNR = Disconnected without referral to new number.
NONE = The intercept indicator was not received in the LIDB reply.
NOTCON = May not be connected yet.
NOTINCP = Not intercepted.
NOTINSV = Not in service for incoming calls.
SPECTRMT = Special intercept treatment required.
TDISC = Temporarily disconnected.
TDISCNR = Temporarily disconnected without referral.
TDISCR = Temporarily disconnected with referral.
TNOTINSV = Temporarily removed from service.
VACNUM = Vacant number.

f[1] = LIDB subaccount number received in an encapsulated LIDB calling card reply. This will print as a two-digit number, or as NONE if a subaccount number was not received in the reply.

g[1] = First LIDB interexchange carrier indicator received in an encapsulated LIDB BNS or calling card reply. This will print as a two-digit number, or as NONE if no interexchange carrier indicators were received in the reply.

h[1] = Second LIDB interexchange carrier indicator received in an encapsulated LIDB BNS or calling card reply. This will print as a two-digit number if two interexchange carrier indicators were received in the reply. If only one interexchange carrier was received, or if none were received, this field will be blank.

i[1] = LIDB regional accounting office (RAO) number received in an encapsulated LIDB reply. This will print as a three-digit number, or as NONE if an RAO was not received in the reply.

j[1] = The call gap present indicator. Valid value(s):
ACG NOT PRESENT = Automatic call gap (ACG) component not present.
ACG PRESENT, CORRECT = Automatic call gap component present, has no errors.
ACG PRESENT, IN ERROR = Automatic call gap component present, has errors.

`k`[1] = The call gap control digits - the digits contained in the ACG component. If no ACG component is present, `NONE` will be output.

`l`[1] = The call gap duration - used to determine the length of time for which controls are to be in effect. The following table lists the call gap duration index number received from the database and the corresponding time (in seconds) that the index represents:

4. ACTIONS TO BE TAKEN

This message is the response to a manual request. It is used as a high-level check on the connection to the LAC database (which is external to the switch), to check out data in the LAC database, or to check out a repeatedly failing query. The response should be examined to see if it indicates proper data in the LAC database.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:DSTT
TST:AT1
TST:BNS
TST:CAS
TST:CAS7
TST:CCRD
TST:ICCV
TST:INWATS
TST:LAC
TST:RATE
```

Output Message(s):

```
EXC:DSTT
TST:AT1
TST:BNS
TST:CAS
TST:CAS7
TST:CCRD
TST:ICCV
TST:INWATS
TST:RATE
```

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

TST:LAC-B

Software Release: 5E11 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
TST LAC=a  [b]  SW=c
  DURATION OF TEST=d      TTYP=e
  f     g
  STD=h           XCAP=i          XMODE=j
  XRATE=k         l               OLS=m
  OST=n           CTYP=o          CSI=p
  RSP=q           NAI=r           LIDB=s      [t]
  RESULT=u        PC=v
  BNS-RSP=w       CCD-RSP=x
  LIDB-RCD=y      COMPANY_ID=z
  COL=a1          3RD=b1
  TREAT=c1        SVC=d1
  INTRCPT=e1      SUB-ACCT=f1
  IC_IND=g1       h1      RAO=i1
  j1              CG-DIGITS=k1
  CG-DUR=l1       CG-INTVL=m1     [n1]
  ACCT-OWNER=o1   BILL-SVC-PROVIDER=p1
```

2. REASON FOR OUTPUT

To report the results of the manual input (TST:LAC) that requests that a line applications for consumers (LAC) common channel signaling system 7 (CCS7) transaction capabilities application part (TCAP) test query be performed.

3. VARIABLE FIELD DEFINITIONS

`a` = Billing number that was input. For sent-paid queries and billed number screening (BNS) queries, this will be a phone number. For card queries, this will be a 10-digit calling card account number.

`b` = Personal identification number (PIN) that was input. This is included for calling card queries only.

`c` = Switch type that was input. Valid value(s):

`4ESS`	= *4ESS*® switch.
`5ETOLL`	= *5ESS*®-2000 toll switch.
`OSPS`	= Operator services position system (OSPS) switch.

`d` = Duration of the test in milliseconds. Timing starts when the administrative module (AM) sends the formatted query, and ends when the query response is received from the network.

`e` = Translation type number that was input. This is a number from 0 to 255.

`f` = Called number that was input. The label will print as `ICLD=` for international numbers or `CLD=` for all other numbers. If no called number was input, `CLD=NONE` will print.

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g = Calling number that was input. The label will print as ICLG= for international numbers or CLG= for all other numbers. If no calling number was input, CLG=NONE will print.

h = Coding standard that was input. If no input was given for coding standard, transfer capability, transfer mode, or transfer rate, then NONE will print. If no input was given for coding standard, but a value was input for one or more of transfer capability, transfer mode, or transfer rate, then CCITT will print. Valid value(s):

CCITT = International Telecommunication Union - Telecommunication Standardization Sector (ITU-TS) (formerly CCITT) standard.
INTL = Reserved for other international standards.
NATIONAL = National standard.
NONE = No input was entered.

i = Transfer capability that was input. If no input was given for coding standard, transfer capability, transfer mode, or transfer rate, then NONE will print. If no input was given for transfer capability, but a value was input for one or more of coding standard, transfer mode, or transfer rate, then SPEECH will print. Valid value(s):

3.1 kHz AUDIO = 3.1 kHz audio.
7 kHz AUDIO = 7 kHz audio.
15 kHz AUDIO = 15 kHz audio.
DIGITAL = Unrestricted digital information.
NONE = No input was entered.
RESTRICTED DIGITAL = Restricted digital information.
SPEECH = Speech.
VIDEO = Video.

j = Transfer mode that was input. If no input was given for coding standard, transfer capability, transfer mode, or transfer rate, then NONE will print. If no input was given for transfer mode, but a value was input for one or more of coding standard, transfer capability, or transfer rate, then CIRCUIT will print. Valid value(s):

CIRCUIT = Circuit mode.
NONE = No input was entered.
PACKET = Packet mode.

k = Transfer rate that was input. If no input was given for coding standard, transfer capability, transfer mode, or transfer rate, then NONE will print. If no input was given for transfer rate, but a value was input for one or more of coding standard, transfer capability, or transfer mode, then CHANNEL SIZE will print. Valid value(s):

64 KBIT = 64 Kbit/second.
384 KBIT = 384 Kbit/second.
1536 KBIT = 1536 Kbit/second.
1920 KBIT = 1920 Kbit/second.
CHANNEL SIZE = Transfer rate dictated by the size of the channel.
NONE = No input was entered.

l = Originating line information (OLI) or automatic number identification (ANI) information digits (II) that were input. If OLI data was input, the label will print as OLI=. If II data was input, the label will print as II=. If neither OLI nor II data was input, OLI=NONE will print. Valid value(s):

800 CALL = Translated 800 call.

AIOD = Automatic input/output dialing (AIOD) listed directory number sent.
ANI FAIL = ANI failure.
COIN = Coin line.
COIN OR NONCOIN = Identified line (coin or noncoin).
COINLESS = Coinless, hospital, or inmate call.
HOTEL = Hotel without room identification.
IDENTIFIED LINE = Identified line with no special treatment.
INTERLATA RESTRICTED = Interlata restricted.
NONE = No input was entered.
ONI = Operator number identified (multiparty).
OPERATOR HANDLED = Operator handled.
OUTWATS = Outbound wide area transport (OUTWATS) line.
RESTRICTED COINLESS = Interlata restricted coinless line.
RESTRICTED HOTEL = Interlata restricted hotel line.
TEST CALL = Test call.
VIRTUAL PRIVATE NET = Virtual private network line.

m = Originating line screening (OLS) value that was input. This is a number from 0 to 999. If no OLS data was input, NONE will print.

n = Originating station type (OST) value that was input. If no OST data was input, NONE will print. Valid value(s):
ACQS = Automatic charge quotation system (ACQS) phone.
ACQS HOTEL = ACQS hotel phone.
NON-ACQS HOTEL = Non-ACQS hotel phone.
NON-COIN PUBLIC = Non-coin public phone.
NONE = No input was entered.
POST-PAY COIN = Post-pay coin phone.
PRE-PAY COIN = Pre-pay coin phone.
UNKNOWN = Unknown station type.

o = Call type value that was input. If no call type was input, NONE will print. Valid value(s):
COLLECT = BNS collect call.
NONE = No input was entered.
SENT PAID = BNS sent paid call.
THIRD = BNS bill to third number call.

p = Carrier selection information (CSI) that was input. If no CSI data was input, NONE will print. Valid value(s):
INPUT BY CALLER = Selected carrier presubscribed and input by calling party.
NO INDICATION = Selected carrier presubscribed and no indication of input by calling party.
NONE = No input was entered.
NOT INPUT = Selected carrier presubscribed and no input by calling party.
NOT PRESUBSCRIBED = Selected carrier not presubscribed and input by calling party.
UNKNOWN = No indication.

q = 'Response required' indicator that was input. A value of YES indicates that the 2LAC/NCP must always return a reply in response to the test query. A value of NO indicates that the 2LAC/NCP must only return a reply for deny and error cases. If no value was input, YES will print.

r = Network access interrupt (NAI) indicator that was input. A value of YES indicates that the 2LAC/NCP should apply NAI processing to the query. A value of NO indicates that NAI processing should not be applied. If no value was input, YES will print.

s = Line information database (LIDB) indicator that was input. A value of YES indicates that the 2LAC/NCP should forward the calling card or BNS information contained within the query to a LIDB for processing. A value of NO indicates that the query should not be forwarded to a LIDB. If no input was given for calling card or BNS queries, YES will print. For all other calls, this field will always be NO.

t = Carrier expansion indicator. If the CICEXP keyword was input, then CICEXP will print here. If CICEXP was not entered, nothing will print.

u = Test query result. Valid value(s):

ALLOW CALL = The call is allowed by the 2LAC/NCP.

CALLED NUMBER RESTRICTIONS APPLY = The call is denied because called number restrictions apply in the 2LAC/NCP.

CALLING NUMBER RESTRICTIONS APPLY = The call is denied because calling number restrictions apply in the 2LAC/NCP.

CREDIT RESTRICTED = The call is denied because the billing number is delinquent in payment.

FRAUD RESTRICTED = The call is denied because the billing number is suspected of fraudulent use.

GARBLED MESSAGE = A response was received but the data in the message was mutilated. It is possible that this result may be printed along with a normal response (such as, ALLOW CALL) if the mutilated data is detected after the result has been identified.

GATEWAY ERROR = Communication with a non-AT&T network was unsuccessful.

IMS OR CNI RETURNED MSG = The inter-process message switch (IMS) or the common network interface (CNI) returned the message. This result is not expected for LAC CCS7 test queries.

MISROUTED QUERY = The billing number was not in the range that the 2LAC/NCP expected to receive.

MISSING PARAMETER = A mandatory parameter was absent from the query.

NETWORK CONGESTION = Could not complete the test due to network congestion.

NETWORK FAILURE = Could not complete the test due to failure in the network.

NO TRANSLATION ADDRESS NATURE = No entries exist in routing tables for an address of this nature.

NO TRANSLATION SPECIFIC ADDRESS = No entries exist in routing tables for this specific address.

NONPAYMENT - CALLING PARTY = The call is denied because the calling party is delinquent in payment.

NONPAYMENT - CALLED PARTY = The call is denied because the called party is delinquent in payment.

NONPAYMENT - OTHER PARTY = The call is denied because some other party is delinquent in payment.

P-ABORT - BADLY FORMATTED TRANSACTION PORTION = The transaction portion of the received message did not conform to the encoding rules.

P-ABORT - INCORRECT TRANSACTION PORTION = The elemental structure within the transaction portion of the received message did not conform to the rules for the transaction portion.

P-ABORT - RESOURCE LIMITATION = Sufficient resources were not available.

P-ABORT - UNRECOGNIZED MESSAGE TYPE = The TCAP message type was not defined.

P-ABORT - UNRECOGNIZED TRANSACTION ID = A transaction ID had been received for which a

transaction did not exist at the receiving node.
REJECT - BADLY STRUCTURED COMPONENT = The contents of the component did not conform to the encoding rules.
REJECT - DUPLICATE INVOKE ID = The invoke ID was already in use by a previously invoked operation.
REJECT - INITIATING RELEASE = The requested operation could not be invoked because the dialogue was about to be concluded.
REJECT - MISTYPED COMPONENT = The elemental structure of a component did not conform to the defined structure of that component.
REJECT - MISTYPED PARAMETER = A parameter tag was not one of those associated with the invoked operation.
REJECT - RESOURCE LIMITATION = Sufficient resources were not available to perform the requested operation.
REJECT - UNRECOGNIZED COMPONENT = The component type was not recognized.
REJECT - UNRECOGNIZED OPERATION = The operation code value was not one of those used by the application.
SUBSYSTEM CONGESTION = Could not complete the test due to subsystem congestion.
SUBSYSTEM FAILURE = Could not complete the test due to subsystem failure.
TASK REFUSED = The task was refused because the node could not handle the request at the time (not because the operation was incorrect in any way).
TIMEOUT = A response to the test query was not received within the time limit. If the entered switch type parameter is OSPS or *4ESS*®, this time limit is 20 seconds. For 5ETOLL, this time limit is 4 seconds.
U-ABORT - APPLICATION PROTOCOL VIOLATION = A protocol violation occurred in relation to the allowed sequences of messages defined for the application service element.
U-ABORT - REJECT RECEIVED = An unexpected reject component was received.
U-ABORT - UNKNOWN USER PROBLEM = The cause of the transaction abort request is unknown. This request could be the result of an abort in the application specific entry, or application itself.
UNEQUIPPED USER = Could not complete the test due to unequipped user.
UNEXPECTED INPUT, DATA VALUE = The content of a query parameter was not as expected.
UNEXPECTED PARAMETER = A query parameter was received but not recognized.
UNQUALIFIED = Unknown failure reason.
VACANT CODE = The database determined that the billing number contained in the query was one that has not yet been assigned.

v = Point code number of the network node that sent the response. If the test query timed out, NOT APPLICABLE is output for the point code.

w = LIDB BNS response. This field will contain the result of a BNS query if an encapsulated LIDB reply was received from the 2LAC/NCP. If an encapsulated LIDB BNS reply was not received, NONE will print. Valid value(s):
MISROUTE = The billing number was not in the range that
MISSING CUST REC = The billing number was not found in the LIDB.
MISSING GROUP = The group was not found in the LIDB.
NONE = An encapsulated LIDB BNS reply was not received.
NONPARTICIPATE GRP = The LIDB determined that the billing number belongs to a nonparticipating group.
RECEIVE REJECT = The LIDB reply is a reject component.
RECORD FOUND = The billing number was successfully found in the LIDB.
UNAV NET RESOURCE = The query could not be processed because of network resource

limitations.
UNXP DATA VALUE = The content of a query parameter was not as expected. the LIDB expected to receive.
VACANT GROUP = The LIDB determined that the billing number contained in the query was one that has not yet been assigned.

x = LIDB calling card response. This field will contain the result of a calling card query if an encapsulated LIDB reply was received from the 2LAC/NCP. If an encapsulated LIDB calling card reply was not received, NONE will print. Valid value(s):
CCAN SERVICE DENIAL = The calling card number is denied service.
LSA DENY = The calling card number is denied due to restrictions.
MISROUTE = The calling card number was not in the range that the LIDB expected to receive.
MISSING CUST REC = The calling card number was not found in the LIDB.
MISSING GROUP = The group was not found in the LIDB.
NO PIN MATCH = The calling card number and PIN sent in the query do not belong together.
NONE = An encapsulated LIDB calling card reply was not received.
NONPARTICIPATE GRP = The LIDB determined that the calling card number belongs to a nonparticipating group.
PIN NOT ASSIGNED = The PIN contained in the query has not been assigned to this card number.
RECEIVE REJECT = The LIDB reply is a reject component.
RESTRICTED PIN = The calling card is allowed as long as the called number matches the card number.
SPD NONPAYMENT = The calling card number is denied because it is delinquent in payment.
SPD THRESHOLD = The calling card number is denied because a PIN threshold has been exceeded.
UNAV NET RESOURCE = The query could not be processed because of network resource limitations.
UNRESTRICTED PIN = The calling card is allowed for all called numbers.
UNXP DATA VALUE = The content of a query parameter was not as expected.
VACANT GROUP = The LIDB determined that the calling card number contained in the query was one that has not yet been assigned.

y = LIDB record status indicator received in an encapsulated LIDB BNS or calling card reply. If the record status indicator is not received in the reply, NONE will print. Valid value(s):
DEFAULT RECORD = The LIDB determined this to be a default record.
NONE = The record status indicator was not received.
STABLE RECORD = The LIDB determined this to be a stable record.
TRANSIT RECORD = The LIDB determined this to be a transitional record.

z = LIDB company identification received in an encapsulated LIDB BNS or calling card reply. This will print as a 4 digit number, or as NONE if this indicator is not received.

a[1] = LIDB BNS collect acceptance indicator received in an encapsulated LIDB BNS reply. If the collect acceptance indicator is not received in the reply, NONE will print. Valid value(s):
ALW COL = Allow all collect calls without verification.
ALWC INTRA = Allow intralata collect calls without verification. Deny interlata collect calls.
LSA DENY = Deny collect calls due to restrictions.
NOCOL = No collect calls are allowed to this number.
NOCOL-C = No collect calls are allowed to this number by customer request.
NONE = The LIDB collect acceptance indicator was not received in the reply.

VFY COL = Verify all collect calls to this number.
VFYC INTRA = Allow intralata collect calls without verification. Verify interlata collect calls.

b[1] = LIDB BNS third number acceptance indicator received in an encapsulated LIDB BNS reply. If the third number acceptance indicator is not received in the reply, NONE will print. Valid value(s):

ALW 3RD = Allow third number billing without verification.
ALW3 INTRA = Allow intralata third number billing without verification. Deny interlata third number billing.
LSA DENY = Deny third number calls due to restrictions.
NO 3RD = No third number billing to this number.
NO 3RD-C = No third number billing to this number on customer request.
NONE = The LIDB third number acceptance indicator was not received in the reply.
VFY 3RD = Verify third number billing.
VFY3 INTRA = Verify intralata third number billing. Deny interlata third number billing.

c[1] = LIDB BNS treatment indicator received in an encapsulated LIDB BNS reply. If the treatment indicator is not received in the reply, NONE will print. Valid value(s):

AUTO-T = Automated treatment - provide alerting tone only.
AUTO-TP = Automated treatment - provide alerting tone and prompt announcement.
NONE = The treatment indicator was not received in the reply.
OP-STN = Operator treatment because of station limitations.
ST-CUST = Special treatment - operator handling at customer request.
ST-HC1 = Special treatment - handicapped 1.
ST-HC2 = Special treatment - handicapped 2.
AUTO_TP2 = Automated treatment - provide alerting tone and prompting announcement 2.
AUTO_TP3 = Automated treatment - provide alerting tone and prompting announcement 3.
OP_FRAUD = Operator treatment - high fraud.
AUTO_T_NOOP = Automated treatment - provide alerting tone only - no operator access.
AUTO_TP4_NOOP = Automated treatment - provide alerting tone and prompting announcement 4 - no operator access.
AUTO_TP5_NOOP
AUTO_TP5_NOOP = Automated treatment - provide alerting tone and prompting announcement 5 - no operator access.
AUTO_TP6_NOOP = Automated treatment - provide alerting tone and prompting announcement 6 - no operator access.
AUTO_TP7 = Automated treatment - provide alerting tone and prompting announcement 7.
AUTO_TP8 = Automated treatment - provide alerting tone and prompting announcement 8.
AUTO_TP9 = Automated treatment - provide alerting tone and prompting announcement 9.
AUTO_TP10_NOOP = Automated treatment - provide alerting tone and prompting announcement 10 - no operator access.
AUTO_TP11_NOOP = Automated treatment - provide alerting tone and prompting announcement 11 - no operator access.
AUTO_TP12_NOOP = Automated treatment - provide alerting tone and prompting announcement 12 - no operator access. operator access.
AUTO_SH1 = Automated treatment - special handling 1.
AUTO_SH2 = Automated treatment - special handling 2.
AUTO_SH3 = Automated treatment - special handling 3.
AUTO_SH4 = Automated treatment - special handling 4.
AUTO_SH5 = Automated treatment - special handling 5.
AUTO_TP13 = Automated treatment - provide alerting tone and prompting announcement 13.

AUTO_TP14_NOOP = Automated treatment - provide alerting tone and prompting announcement 14 - no operator access.

d[1] = LIDB BNS service or equipment indicator received in an encapsulated LIDB BNS reply. If the service or equipment indicator is not received in the reply, NONE will print. Valid value(s):

NONE = No service or equipment indicator was received in the LIDB reply.
SRV1 = (1) POTS Line.
SRV2 = (2) LEC Public - Standard Interface - Postpay Overtime.
SRV3 = (3) POTS Line - Residential - Message Rate 1.
SRV4 = (4) POTS Line - Residential - Message Rate 2.
SRV5 = (5) LEC Semi-Public.
SRV6 = (6) POTS Line - Business - Flat Rate.
SRV7 = (7) POTS Line - Business - Message Rate 1.
SRV8 = (8) Coinless (non-IPP).
SRV9 = (9) Coinless (IPP).
SRV10 = (10) LEC Prepaid Telecommunciations Card Station.
SRV11 = (11) POTS Line - Business - Message Rate 2.
SRV12 = (12) LEC Public - Standard Interface - Prepay Overtime.
SRV13 = (13) LEC Public - Alternate Interface.
SRV14 = (14) IC Public - Standard Interface.
SRV15 = (15) IC Public - Alternate Interface.
SRV16 = (16) POTS Line - Residential - Flat Rate.
SRV17 = (17) Voice Quote - without tax.
SRV18 = (18) Voice Quote - with tax.
SRV19 = (19) IPP - Standard Interface.
SRV20 = (20) IPP - Alternate Interface.
SRV21 = (21) Hospital
SRV22 = (22) Prison (non-IPP).
SRV23 = (23) Auto Quote - without tax.
SRV24 = (24) Auto Quote - with tax.
SRV25 = (25) Dormitory Line.
SRV26 = (26) Centrex Line.
SRV27 = (27) PBX Line.
SRV28 = (28) Prison (IPP).
SRV29 = (29) WATS Line.
SRV30 = (30) Cellular.
SRV31 = (31) Pager.
SRV32 = (32) Personal Communication Service (PCS).
SRV33 = (33) Feature Group A (FGA).
SRV34 = (34) Mobile.
SRV35 = (35) LEC Public - Special Billing - Postpay Overtime.
SRV36 = (36) LEC Public - Special Billing - Prepay Overtime.
SRV37 = (37) Public - Incompatible Network Interface.
SRV38 = (38) Cellular - Rate 1.
SRV39 = (39) Cellular - Rate 2.
SRV40 = (40) POTS Line - Business - Single Line
SRV41 = (41) POTS Line - Business - Multi-Line
SRV42 = (42) Public - Postpay

e[1] = LIDB BNS intercept indicator received in an encapsulated LIDB BNS reply. If the intercept

indicator is not received in the reply, NONE will print. Valid value(s):

CHGING = Being changed; may not be connected yet.
CHGNPN = Changed to nonpublished number.
CHGREF = Changed with referral to new number.
DISC = Disconnected.
DISCNR = Disconnected without referral to new number.
NONE = The intercept indicator was not received in the LIDB reply.
NOTCON = May not be connected yet.
NOTINCP = Not intercepted.
NOTINSV = Not in service for incoming calls.
SPECTRMT = Special intercept treatment required.
TDISC = Temporarily disconnected.
TDISCNR = Temporarily disconnected without referral.
TDISCR = Temporarily disconnected with referral.
TNOTINSV = Temporarily removed from service.
VACNUM = Vacant number.

f[1] = LIDB subaccount number received in an encapsulated LIDB calling card reply. This will print as a two-digit number, or as NONE if a subaccount number was not received in the reply.

g[1] = First LIDB interexchange carrier indicator received in an encapsulated LIDB BNS or calling card reply. This will print as a two-digit number, or as NONE if no interexchange carrier indicators were received in the reply.

h[1] = Second LIDB interexchange carrier indicator received in an encapsulated LIDB BNS or calling card reply. This will print as a two-digit number if two interexchange carrier indicators were received in the reply. If only one interexchange carrier was received, or if none were received, this field will be blank.

i[1] = LIDB regional accounting office (RAO) number received in an encapsulated LIDB reply. This will print as a three-digit number, or as NONE if an RAO was not received in the reply.

j[1] = The call gap present indicator. Valid value(s):
ACG NOT PRESENT = Automatic call gap (ACG) component not present.
ACG PRESENT, CORRECT = Automatic call gap component present, has no errors.
ACG PRESENT, IN ERROR = Automatic call gap component present, has errors.

k[1] = The call gap control digits - the digits contained in the ACG component. If no ACG component is present, NONE will be output.

l[1] = The call gap duration - used to determine the length of time for which controls are to be in effect. The following table lists the call gap duration index number received from the database and the corresponding time (in seconds) that the index represents:

index	gap duration in seconds
0	0
1	1
2	2
3	4
4	8
5	16
6	32
7	64
8	128

9	256
10	512
11	1024
12	2048
13	(block all queries)

If no ACG component is present, NONE will be output.

m[1] = The call gap interval - used to determine the time between allowed queries when controls are in effect. The following table lists the call gap interval index number received from the database and the corresponding time (in seconds) that the index represents:

index	gap interval in seconds
0	0
1	3
2	4
3	6
4	8
5	11
6	16
7	22
8	30
9	42
10	58
11	81
12	112
13	156
14	217
15	300

If no ACG component is present, NONE will be output.

n[1] = The call gap control cause. Valid value(s):

- DBOVLD = Database overload. This is the only cause that is considered valid for LAC CCS7. Any other cause returned will result in the ACG component being ignored.
- MASS = Destination mass calling. This result is not expected; controls will not be installed for this case.
- OUTBND = Out of band. This result is not expected; controls will not be installed for this case.
- SMS = Service Management System (SMS) initiated. This result is not expected; controls will not be installed for this case.
- VACCD = Vacant code. This result is not expected; controls will not be installed for this case.

o[1] = LIDB BNS Account Owner indicator received in an encapsulated LIDB BNS reply.

p[1] = LIDB BNS Billing Service Provider indicator received in an encapsulated LIDB BNS reply. = A

4. ACTIONS TO BE TAKEN

This message is the response to a manual request. It is used as a high-level check on the connection to the LAC database (which is external to the switch), to check out data in the LAC database, or to check out a repeatedly failing query. The response should be examined to see if it indicates proper data in the LAC database.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:DSTT
TST:AT1
TST:BNS
TST:CAS
TST:CAS7
TST:CCRD
TST:ICCV
TST:INWATS
TST:LAC
TST:RATE
```

Output Message(s):

```
EXC:DSTT
TST:AT1
TST:BNS
TST:CAS
TST:CAS7
TST:CCRD
TST:ICCV
TST:INWATS
TST:RATE
```

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

TST:LEN

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      TST LEN a-b-c-d-e-f g h

[2]   ____________________________________________________________
      TST LEN a-b-c-d-e-f g h [PH l] [PASS m n] [REPEAT o p]
      ALINK i BLINK j HLSC k
      q  r  s

[3]   ____________________________________________________________
      TST LEN a-b-c-d-e-f IN PROGRESS h PH l PASS m n REPEAT o p
      ALINK i BLINK j HLSC k
      q  r  s
      P/F tttttttttt tttttttttt
```

2. REASON FOR OUTPUT

To respond to the TST:LEN input message request to run an exercise program on a specific path through a line unit 1 (LU1), line unit 2 (LU2), or line unit 3 (LU3).

Format 1 prints when requested phases are completed, or a resource or required data was unavailable causing no phases to be run, a manual stop or abort had been entered, or when some phases did not run due to a resource failure after one or more phases began.

Format 2 prints when an event occurred during execution that did not cause termination, but a status report was warranted, or a resource or required data is unavailable, causing no phases to be run. Such events include: failure occurrence and the final summary of each phase. The circuit implicated, implication reason, and failing wire represent the last detected event.

Format 3 prints at the completion of a set of 20 repeats of a phase or groups of phases, or phase termination if the repeat is not a multiple of 20. The circuit implicated, implication reason, and failing wire represent the last detected event.

3. VARIABLE FIELD DEFINITIONS

a	= Switching module number.
b	= Line unit (LU) number.
c	= LU grid number.
d	= LU grid board number.
e	= Grid board switch number.
f	= Grid board switch level number.

g = Termination report. Valid value(s):

- ABORTED = Requested action was terminated before completion and the termination was immediate.
- COMPLETED IN PROGRESS = Request has successfully completed.
- STOPPED = Requested action was terminated before a normal completion.

h = Phase result. Valid value(s):

- ATP = All tests passed.
- NTR = No tests run.
- STF = Some tests failed.

i = A-link number.

j = B-link number.

k = HLSC number.

l = Phase number.

m = Number of phases that passed.

n = Number of phases that were completed so far.

o = Number of repeats performed so far.

p = Number of repeats requested.

q = Circuit implicated. Valid value(s):

- ALINK = Line unit A-link.
- BLINK = Line unit B-link.
- GRID = Line unit grid.
- HLSC = Line unit HLSC.
- LEN = Line problem, outside plant.
- NONE = There were no circuits implicated.

r = Implication reason. Valid value(s):

- ALINK-BLINK MISMATCH = A-link has no access to specified B-link, or the A-link and B-link are not in the same state, such as both OOS or both idle.
- ALINK BUSY = A-link is busy.
- BLINK BUSY = B-link is busy.
- CONTROL TO GRID = Test configuration control not properly executed.
- FALSE CROSS = Tip and ring leads are shorted together or to ground, or an internal power source voltage was detected on the A-link or B-link.
- FOREIGN POTENTIAL = Dangerous voltage on LEN or loop, usually DC, or resistive connection to tip and/or ring and/or ground.
- HLSC BUSY = High-level service circuit (HLSC) is busy.
- HLSC ERROR = The HLSC may not be reliable, and therefore test results are undefined.
- HOLD STARTED = Marks the beginning of a 15 minute path hold request.
- LATCH READ = Crosspoint latch, scanner or firmware failure.
- LEN-ALINK MISMATCH = Line has no access to specified A-link.

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`LEN BUSY` = Line is busy or in untestable state (the LEN may be removed from service and the command retried).
`LEN UNTESTABLE` = Request cannot be run on this type of line equipment (private branch exchange (PBX) or incompatible equipment).
`NO FAILURE`
`OFF HOOK RECOGNITION` = Scan circuit failed long loop sensing test.
`OPEN PATH` = The location of a '`STUCK CLOSED`' crosspoint is identified by the test, but not a '`STUCK OPEN`'. A break anywhere in the path produces the same '`OPEN PATH`' message. To pinpoint a '`STUCK OPEN`' crosspoint, identify the crosspoints that open and close properly in the faulty path until the defective one is isolated. The path includes the GDX access pack and all connections between the HLSC and the grid pack. If a crosspoint in the grid is not isolated as a defective '`STUCK OPEN`' investigate the other elements in the path.
`PAGING FAILURE` = Test program failed to be activated.
`POWER ALARM` = Grid power source failure.
`POWER CROSS` = Dangerous AC voltage on loop.
`PRE-CUTOVER` = Cannot access line in pre-cutover state if not in test mode.
`SCANNER CKT` = Scanner circuit.
`SHORTED SCAN XPT` = Scan cutoff crosspoint.
`SHORTED XPT` = Shorted crosspoint.
`NOT SPECIFIED`
`V+ LOW` = Transient error.
`V+ RESTORED` = Verifies "V+ LOW" was automatically restored.
`XPT LEFT ON` = Crosspoint left on and automatically cleared. The test will continue unless clear is not successful.

`s` = Failing wire. Valid value(s):
`NEITHER` = Neither tip nor ring failed.
`RING`
`TIP`
`TIPRING` = Both tip and ring failed.

`t` = Pass/fail map. Each character represents one phase. Valid value(s):
`-` = Not requested.
`.` = Pass.
`B` = Both tip and ring failures.
`O` = Other. The failure is described in a previous failure message, the failure does not apply to tip or ring, or detailed knowledge and/or explanation of the phase is needed.
`R` = Ring failure.
`T` = Tip failure.

4. ACTION TO BE TAKEN

For Format 1, if NTR, idle any suspected resources and note the output message with Format 2, or check office-dependent data (ODD) for proper equipage of resources, before reentering the input. If ATP, proceed in accordance with local practice. If STF, note the output message with Format 2 or 3 and replace faulty circuit pack(s).

For Formats 2 and 3, idle any suspected resources and replace the suspected faulty circuit pack(s), if necessary. In

some circumstances, failures such as power cross or foreign potential may be cleared without replacing circuit packs. These failures may be caused by problems on the outside plant or subscriber lines.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ABT:TST-LEN
STP:TST-LEN
TST:LEN
```

Output Message(s):

```
ABT:TST-LEN
STP:TST-LEN
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

TST:LIDB-BNS-A

Software Release: 5E10 only
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
TST LIDB BNS=a    DURATION OF TEST=b
 [c]   [d]   [e]
  COMPANY-ID=[f]   [g]   [h]
 [i]   [j]   [k]
  IC-IND=[l] [m]   OPC=[n]  RAO=[o]
  p   CG-DIGITS=[q]
  CG-DUR=[r]   CG-INTVL=[s]   [t]   [u]
  DB=v
  w   x
  OLS=y   OST=z   CT=[a1]
```

2. REASON FOR OUTPUT

To report the results of the manual request from the TST:BNS input message that a billing number screening (BNS) query test be performed using the line information database (LIDB). It is used as a high-level check on connections to a LIDB or a LIDB alternate destination (a database external to the switch), to check out data in the database, or to check out a repeatedly failing query.

3. VARIABLE FIELD DEFINITIONS

`a` = Ten-digit billing number that was queried.

`b` = Duration of the test in milliseconds. Timing starts when the switch receives the input request and ends when the switch receives the result from the network or a timeout occurs.

`c` = Results of a failed test. This field prints out only when the test query was not successful. Valid value(s):
`GARBLED MESSAGE` = A response was received but the data in the message was mutilated.
`IMS OR CNI RETURNED MSG` = The inter-process message switch (IMS) or the common network interface (CNI) returned the message.
`NETWORK CONGESTION` = Could not complete the test due to network congestion.
`NETWORK FAILURE` = Could not complete the test due to failure in the network.
`NO TRANSLATION ADDRESS NATURE` = No entries exist in the database for addresses of this nature.
`NO TRANSLATION SPECIFIC ADDRESS` = No entries exist in the database for this specific address.
`SUBSYSTEM CONGESTION` = Could not complete the test due to subsystem congestion.
`SUBSYSTEM FAILURE` = Could not complete the test due to subsystem failure.
`TIMEOUT` = A response to the test query was not received within the eight-second time limit.
`UNEQUIPPED USER` = Could not complete the test due to unequipped user.

`d` = LIDB BNS response. Valid value(s):
`MISROUTE` = Misroute.
`MISSING CUST REC` = Missing customer record.

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MISSING GROUP = Missing group.
NONPARTICIPATE GRP = Nonparticipating group.
RECEIVE REJECT = Received reject message for LIDB BNS query.
RECORD FOUND = LIDB BNS record found.
UNAV NET RESOURCE = Unavailable network resource.
UNXP DATA VALUE = Unexpected data value.
VACANT GROUP = Vacant group.

e = LIDB BNS record status indicator. Valid value(s):
DEFAULT RECORD = Default record.
STABLE RECORD = Stable record.
TRANSIT RECORD = Transitional record.

f = Company identifier (ID) number. Identifies the service provider with which the data is to be associated.

g = Collect number acceptance indicator. Valid value(s):
ALW COL = Allow all collect calls to this number without verification.
ALWC INTRA = Allow without verification all intra local access and transport (LATA) collect calls- reject interLATA.
LSA DENY = The line number services application/network control point (LSA/NCP) denied this call.
NOCOL = No collect calls to this number.
NOCOL-C = No collect calls to this number - customer request.
VFY COL = Verify all collect calls to this number.
VFYC INTRA = Allow without verification all intraLATA collect calls- verify interLATA.

h = Third number acceptance indicator. Valid value(s):
ALW 3RD = Allow without verification third-number billing to this number.
ALW3 INTRA = Allow without verification intraLATA third-number billing - reject interLATA.
LSA DENY = The LSA/NCP denied this call.
NO 3RD = No third-number billing to this number.
NO 3RD-C = No third-number billing to this number - customer request.
VFY 3RD = Verify third-number billing to this number.
VFY3 INTRA = Verify intraLATA third-number billing - reject interLATA.

i = Treatment indicator. Valid value(s):
AUTO-T = Automated treatment - provide alerting tone only.
AUTO-TP = Automated treatment - provide alerting tone and prompting announcement.
OP-STN = Operator treatment - operator handling because of station limitations.
ST-CUST = Special treatment - operator handling at customer request.
ST-HC1 = Special treatment - handicapped 1.
ST-HC2 = Special treatment - handicapped 2.

j = Service or equipment indicator. Valid value(s):
CENTREX = Centrex line.
CO-CLESS = Customer-owned coinless station.
CO-COIN = Customer-owned coin station.

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CO-CR1	= Customer-owned card-reader station - type 1.
CO-CR2	= Customer-owned card-reader station - type 2.
DORM	= Dormitory line.
HOTMOT	= Hotel/motel guest line.
IC-CR1	= InterLATA carrier-owned card reader station - type 1.
IC-CR2	= InterLATA carrier-owned card reader station - type 2.
ICP-CF	= InterLATA carrier-owned public coin - prepay coin-first station.
ICP-CLESS	= InterLATA carrier-owned public coinless station.
ICP-DTF	= InterLATA carrier-owned public coin - prepay dial-tone-first-station.
ICP-POST	= InterLATA carrier-owned public coin - postpay station.
ICSP-CF	= InterLATA carrier-owned semi-public coin - prepay coin-first station.
ICSP-DTF	= InterLATA carrier-owned semi-public coin - prepay dial-tone-first station.
ICSP-POST	= InterLATA carrier-owned semi-public coin - postpay station.
OTHER1	= Other 1.
OTHER2	= Other 2.
OTHER3	= Other 3.
OTHER4	= Other 4.
PBX-W	Private branch exchange (PBX) line with automatic input/output dialing (AIOD).
PBX-WO	= PBX line without AIOD.
POTS	Plain old telephone service (POTS) line.
TO-CR1	= Service provider-owned card reader station - type 1.
TO-CR2	= Service provider-owned card reader station - type 2.
TOP-CF	= Service provider-owned public coin - prepay coin-first station.
TOP-CLESS	= Service provider-owned public coinless station.
TOP-DTF	= Service provider-owned public coin - prepay dial-tone first station.
TOP-POST	= Service provider-owned public coin - postpay station.
TOSP-CF	= Service provider-owned semi-public coin - prepay coin-first station.
TOSP-DTF	= Service provider-owned semi-public coin - prepay dial-tone first station.
TOSP-POST	= Service provider-owned semi-public coin - postpay station.
WATS	Wide area telephone service (WATS) line.

k = Intercept indicator. Valid value(s):

CHGING	= Being changed, may not yet be connected.
CHGNPN	= Changed to nonpublished number.
CHGREF	= Changed with referral to new number.
DISCNR	= Disconnected without referral.
DISC	= Disconnected, call being taken by.
NOTCON	= May not yet be connected.
NOTINCP	= Not intercepted.
NOTINSV	= Not in service for incoming calls.
SPECTRMT	= Special intercept treatment required.
TDISCNR	= Temporarily disconnected without referral to new number.
TDISCR	= Temporarily disconnected with referral to new number.
TDISC	= Temporarily disconnected.
TNOTINSV	= Temporarily removed from service, call being taken by.
VACNUM	= Vacant number.

l = First interLATA carrier (IC) indicator.

m = Second IC indicator.

`n` = Originating point code of the LIDB.

`o` = Three-digit revenue accounting office (RAO) number.

`p` = Call gap present indicator. Valid value(s):
`ACG NOT PRESENT` = Automatic call gap component not present.
`ACG PRESENT, CORRECT` = Automatic call gap component present, has no errors.
`ACG PRESENT, INERROR` = Automatic call gap component present, has errors.

`q` = Call gap control digits - digits to which controls are to be applied.

`r` = The call gap duration - used to determine the length of time for which controls are to be in effect. The following table lists the call gap duration index number received from the database and the corresponding time (in seconds) that the index represents:

index	gap duration in seconds
0	0
1	1
2	2
3	4
4	8
5	16
6	32
7	64
8	128
9	256
10	512
11	1024
12	2048
13	(block all queries)

`s` = The call gap interval - used to determine the time between allowed queries when controls are in effect. The following table lists the call gap interval index number received from the database and the corresponding time (in seconds) that the index represents:

index	gap interval in seconds
0	0
1	3
2	4
3	6
4	8
5	11
6	16
7	22
8	30
9	42
10	58
11	81
12	112
13	156
14	217
15	300

`t` = Call gap indicator. Valid value(s):
`DBOVLD` = Database overload.
`MASS` = Destination mass calling.
`OUTBND` = Out of band.
`SMS` = Service Management System (SMS) initiated.
`VACCD` = Vacant code.

u = Carrier identification code (CIC) expansion (CICEXP) indicator. Presence of the CICEXP keyword indicates that the CIC sent by LIDB in the response message should be in the four-digit format. Absence of the keyword indicates that the CIC should contain three digits.

v = Database indicator. Indicates which database was requested when the manual request was initiated. The possible databases are either the LIDB or the LIDB alternate destination (LALT), which both use the LIDB transaction capability application part (TCAP) interface.

w = Calling number, also known as the automatic number identification (ANI), used in the query.

x = Called number, also known as the forward number, used in the query.
CLG = Identifies a North American numbering plan number.
ICLG = Identifies an international country code or number.

The value NO CALLED NUMBER indicates that no called number was input.

y = Originating line screening code (OLS).

z = Originating station type (OST). Valid value(s):
ACQS = Other ACQS station.
ACQS HOTEL = Automatic charge quotation service (ACQS) hotel station.
NON-ACQS HOTEL = Non-ACQS hotel.
NON-COIN PUBLIC = Non-coin public station.
NONE = No OST specified on input message.
OTHER = Other station.
POST-PAY COIN = Post-paid coin station.
PRE-PAY COIN = Pre-paid coin station.
UNKNOWN = Unknown station.

a[1] = Call type. Valid value(s):
COLLECT = Collect.
NONE = No call type.
THIRD = Bill to third.
PAID = Sent-paid.

4. ACTIONS TO BE TAKEN

This message is the response to a manual request. If variable 'c' prints out, then there is a problem with the connection to the database. Otherwise, the response is from the database. In this case, the response should be examined to see if it indicates proper data in the database. Contact the LIDB administrator for assistance.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:DSTT
TST:AT1
```

```
TST:BNS
TST:CAS
TST:CAS7
TST:CCRD
TST:ICCV
TST:INWATS
TST:NCD
TST:RATE
```

Output Message(s):

```
EXC:DSTT
TST:AT1
TST:BNS
TST:CAS
TST:CAS7
TST:CCRD
TST:ICCV
TST:INWATS
TST:LIDB-CCRD
TST:NCD
TST:RATE
```

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

TST:LIDB-BNS-B

Software Release: 5E11 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
TST LIDB BNS=a    DURATION OF TEST=b
 [c]   [d]   [e]
  COMPANY-ID=[f]   [g]   [h]
 [i]   [j]   [k]
  IC-IND=[l] [m]   OPC=[n]  RAO=[o]
  p   CG-DIGITS=[q]
  CG-DUR=[r]   CG-INTVL=[s]   [t]   [u]
  DB=v
  w   x
  OLS=y   OST=z   CT=[a1]
  ACCT-OWNER=[b1]   BILL-SVC-PROVIDER=[c1]
```

2. REASON FOR OUTPUT

To report the results of the manual request from the TST:BNS input message that a billing number screening (BNS) query test be performed using the line information database (LIDB). It is used as a high-level check on connections to a LIDB or a LIDB alternate destination (a database external to the switch), to check out data in the database, or to check out a repeatedly failing query.

3. VARIABLE FIELD DEFINITIONS

`a` = Ten-digit billing number that was queried.

`b` = Duration of the test in milliseconds. Timing starts when the switch receives the input request and ends when the switch receives the result from the network or a timeout occurs.

`c` = Results of a failed test. This field prints out only when the test query was not successful. Valid value(s):

`GARBLED MESSAGE` = A response was received but the data in the message was mutilated.
`IMS OR CNI RETURNED MSG` = The inter-process message switch (IMS) or the common network interface (CNI) returned the message.
`NETWORK CONGESTION` = Could not complete the test due to network congestion.
`NETWORK FAILURE` = Could not complete the test due to failure in the network.
`NO TRANSLATION ADDRESS NATURE` = No entries exist in the database for addresses of this nature.
`NO TRANSLATION SPECIFIC ADDRESS` = No entries exist in the database for this specific address.
`SUBSYSTEM CONGESTION` = Could not complete the test due to subsystem congestion.
`SUBSYSTEM FAILURE` = Could not complete the test due to subsystem failure.
`TIMEOUT` = A response to the test query was not received within the eight-second time limit.
`UNEQUIPPED USER` = Could not complete the test due to unequipped user.

`d` = LIDB BNS response. Valid value(s):

`MISROUTE` = Misroute.

MISSING CUST REC = Missing customer record.
MISSING GROUP = Missing group.
NONPARTICIPATE GRP = Nonparticipating group.
RECEIVE REJECT = Received reject message for LIDB BNS query.
RECORD FOUND = LIDB BNS record found.
UNAV NET RESOURCE = Unavailable network resource.
UNXP DATA VALUE = Unexpected data value.
VACANT GROUP = Vacant group.

e = LIDB BNS record status indicator. Valid value(s):
DEFAULT RECORD = Default record.
STABLE RECORD = Stable record.
TRANSIT RECORD = Transitional record.

f = Company identifier (ID) number. Identifies the service provider with which the data is to be associated.

g = Collect number acceptance indicator. Valid value(s):
ALW COL = Allow all collect calls to this number without verification.
ALWC INTRA = Allow without verification all intra local access and transport (LATA) collect calls- reject interLATA.
LSA DENY = The line number services application/network control point (LSA/NCP) denied this call.
NOCOL = No collect calls to this number.
NOCOL-C = No collect calls to this number - customer request.
VFY COL = Verify all collect calls to this number.
VFYC INTRA = Allow without verification all intraLATA collect calls- verify interLATA.

h = Third number acceptance indicator. Valid value(s):
ALW 3RD = Allow without verification third-number billing to this number.
ALW3 INTRA = Allow without verification intraLATA third-number billing - reject interLATA.
LSA DENY = The LSA/NCP denied this call.
NO 3RD = No third-number billing to this number.
NO 3RD-C = No third-number billing to this number - customer request.
VFY 3RD = Verify third-number billing to this number.
VFY3 INTRA = Verify intraLATA third-number billing - reject interLATA.

i = Treatment indicator. Valid value(s):
AUTO-T = Automated treatment - provide alerting tone only.
AUTO-TP = Automated treatment - provide alerting tone and prompting announcement.
OP-STN = Operator treatment - operator handling because of station limitations.
ST-CUST = Special treatment - operator handling at customer request.
ST-HC1 = Special treatment - handicapped 1.
ST-HC2 = Special treatment - handicapped 2.
AUTO_TP2 = Automated treatment - provide alerting tone and prompting announcement 2.
AUTO_TP3 = Automated treatment - provide alerting tone and prompting announcement 3.
OP_FRAUD = Operator treatment - high fraud.
AUTO_T_NOOP = Automated treatment - provide alerting tone only - no operator access.
AUTO_TP4_NOOP = Automated treatment - provide alerting tone and prompting announcement 4 -

no operator access.
AUTO_TP5_NOOP = Automated treatment - provide alerting tone and prompting announcement 5 - no operator access.
AUTO_TP6_NOOP = Automated treatment - provide alerting tone and prompting announcement 6 - no operator access.
AUTO_TP7 = Automated treatment - provide alerting tone and prompting announcement 7.
AUTO_TP8 = Automated treatment - provide alerting tone and prompting announcement 8.
AUTO_TP9 = Automated treatment - provide alerting tone and prompting announcement 9.
AUTO_TP10_NOOP = Automated treatment - provide alerting tone and prompting announcement 10 - no operator access.
AUTO_TP11_NOOP = Automated treatment - provide alerting tone and prompting announcement 11 - no operator access.
AUTO_TP12_NOOP = Automated treatment - provide alerting tone and prompting announcement 12 - no operator access.
AUTO_SH1 = Automated treatment - special handling 1.
AUTO_SH2 = Automated treatment - special handling 2.
AUTO_SH3 = Automated treatment - special handling 3.
AUTO_SH4 = Automated treatment - special handling 4.
AUTO_SH5 = Automated treatment - special handling 5.
AUTO_TP13 = Automated treatment - provide alerting tone and prompting announcement 13.
AUTO_TP14_NOOP = Automated treatment - provide alerting tone and prompting announcement 14 - no operator access.

j = Service or equipment indicator. Valid value(s):
SRV1 = (1) POTS Line.
SRV2 = (2) LEC Public - Standard Interface - Postpay Overtime.
SRV3 = (3) POTS Line - Residential - Message Rate 1.
SRV4 = (4) POTS Line - Residential - Message Rate 2.
SRV5 = (5) LEC Semi-Public.
SRV6 = (6) POTS Line - Business - Flat Rate.
SRV7 = (7) POTS Line - Business - Message Rate 1.
SRV8 = (8) Coinless (non-IPP).
SRV9 = (9) Coinless (IPP).
SRV10 = (10) LEC Prepaid Telecommunciations Card Station.
SRV11 = (11) POTS Line - Business - Message Rate 2.
SRV12 = (12) LEC Public - Standard Interface - Prepay Overtime.
SRV13 = (13) LEC Public - Alternate Interface.
SRV14 = (14) IC Public - Standard Interface.
SRV15 = (15) IC Public - Alternate Interface.
SRV16 = (16) POTS Line - Residential - Flat Rate.
SRV17 = (17) Voice Quote - without tax.
SRV18 = (18) Voice Quote - with tax.
SRV19 = (19) IPP - Standard Interface.
SRV20 = (20) IPP - Alternate Interface.
SRV21 = (21) Hospital
SRV22 = (22) Prison (non-IPP).
SRV23 = (23) Auto Quote - without tax.
SRV24 = (24) Auto Quote - with tax.
SRV25 = (25) Dormitory Line.
SRV26 = (26) Centrex Line.
SRV27 = (27) PBX Line.

SRV28 = (28) Prison (IPP).
SRV29 = (29) WATS Line.
SRV30 = (30) Cellular.
SRV31 = (31) Pager.
SRV32 = (32) Personal Communication Service (PCS).
SRV33 = (33) Feature Group A (FGA).
SRV34 = (34) Mobile.
SRV35 = (35) LEC Public - Special Billing - Postpay Overtime.
SRV36 = (36) LEC Public - Special Billing - Prepay Overtime.
SRV37 = (37) Public - Incompatible Network Interface.
SRV38 = (38) Cellular - Rate 1.
SRV39 = (39) Cellular - Rate 2.
SRV40 = (40) POTS Line - Business - Single Line
SRV41 = (41) POTS Line - Business - Multi-Line
SRV42 = (42) Public - Postpay

k = Intercept indicator. Valid value(s):
CHGING = Being changed, may not yet be connected.
CHGNPN = Changed to nonpublished number.
CHGREF = Changed with referral to new number.
DISCNR = Disconnected without referral.
DISC = Disconnected, call being taken by.
NOTCON = May not yet be connected.
NOTINCP = Not intercepted.
NOTINSV = Not in service for incoming calls.
SPECTRMT = Special intercept treatment required.
TDISCNR = Temporarily disconnected without referral to new number.
TDISCR = Temporarily disconnected with referral to new number.
TDISC = Temporarily disconnected.
TNOTINSV = Temporarily removed from service, call being taken by.
VACNUM = Vacant number.

l = First interLATA carrier (IC) indicator.

m = Second IC indicator.

n = Originating point code of the LIDB.

o = Three-digit revenue accounting office (RAO) number.

p = Call gap present indicator. Valid value(s):
ACG NOT PRESENT = Automatic call gap component not present.
ACG PRESENT, CORRECT = Automatic call gap component present, has no errors.
ACG PRESENT, INERROR = Automatic call gap component present, has errors.

q = Call gap control digits - digits to which controls are to be applied.

r = The call gap duration - used to determine the length of time for which controls are to be in effect. The following table lists the call gap duration index number received from the database and the corresponding time (in seconds) that the index represents:

index	gap duration in seconds
0	0
1	1
2	2
3	4
4	8
5	16
6	32
7	64
8	128
9	256
10	512
11	1024
12	2048
13	(block all queries)

`s` = The call gap interval - used to determine the time between allowed queries when controls are in effect. The following table lists the call gap interval index number received from the database and the corresponding time (in seconds) that the index represents:

index	gap interval in seconds
0	0
1	3
2	4
3	6
4	8
5	11
6	16
7	22
8	30
9	42
10	58
11	81
12	112
13	156
14	217
15	300

`t` = Call gap indicator. Valid value(s):

- `DBOVLD` = Database overload.
- `MASS` = Destination mass calling.
- `OUTBND` = Out of band.
- `SMS` = Service Management System (SMS) initiated.
- `VACCD` = Vacant code.

`u` = Carrier identification code (CIC) expansion (CICEXP) indicator. Presence of the CICEXP keyword indicates that the CIC sent by LIDB in the response message should be in the four-digit format. Absence of the keyword indicates that the CIC should contain three digits.

`v` = Database indicator. Indicates which database was requested when the manual request was initiated. The possible databases are either the LIDB or the LIDB alternate destination (LALT), which both use the LIDB transaction capability application part (TCAP) interface.

`w` = Calling number, also known as the automatic number identification (ANI), used in the query.

- `CLG` = Identifies a North American numbering plan number.
- `ICLG` = Identifies an international country code or number.

The value `NO CALLING NUMBER` indicates that no calling number was input.

`x` = Called number, also known as the forward number, used in the query.

CLG = Identifies a North American numbering plan number.
ICLG = Identifies an international country code or number.

The value NO CALLED NUMBER indicates that no called number was input.

y = Originating line screening code (OLS).

z = Originating station type (OST). Valid value(s):
ACQS = Other ACQS station.
ACQS HOTEL = Automatic charge quotation service (ACQS) hotel station.
NON-ACQS HOTEL = Non-ACQS hotel.
NON-COIN PUBLIC = Non-coin public station.
NONE = No OST specified on input message.
OTHER = Other station.
POST-PAY COIN = Post-paid coin station.
PRE-PAY COIN = Pre-paid coin station.
UNKNOWN = Unknown station.

a[1] = Call type. Valid value(s):
COLLECT = Collect.
NONE = No call type.
THIRD = Bill to third.
PAID = Sent-paid.

b[1] = Account Owner indicator.

c[1] = Billing Service Provider indicator.

4. ACTIONS TO BE TAKEN

This message is the response to a manual request. If variable 'c' prints out, then there is a problem with the connection to the database. Otherwise, the response is from the database. In this case, the response should be examined to see if it indicates proper data in the database. Contact the LIDB administrator for assistance.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:DSTT
TST:AT1
TST:BNS
TST:CAS
TST:CAS7
TST:CCRD
TST:ICCV
TST:INWATS
TST:NCD
```

```
TST:RATE
```

Output Message(s):

```
EXC:DSTT
TST:AT1
TST:BNS
TST:CAS
TST:CAS7
TST:CCRD
TST:ICCV
TST:INWATS
TST:LIDB-CCRD
TST:NCD
TST:RATE
```

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

TST:LIDB-CCRD-A

Software Release: 5E10 - 5E12
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
TST LIDB CCRD=a   DURATION OF TEST=c
  b   r
 [d]   [e]   [f]
  COMPANY-ID=[g]   SUB-ACCNT=[h]   IC-IND=[i] [j]
  OPC=[k]   RAO=[l]
  m   CG-DIGITS=n
  CG-DUR=[o]   CG-INTVL=[p]   [q]   [s]
  DB=t
  OLS=u    OST=v
  ACCT-OWNER=[w]   BILL-SVC-PROVIDER=[x]
```

2. REASON FOR OUTPUT

To report the results of the manual request (TST:CCRD) that requests that a calling card (CCRD) query test be performed using the line information database (LIDB) interface. It is used as a high-level check on connections to a LIDB or a LIDB alternate destination (a database external to the switch), to check out data in the database, or to check out a repeatedly failing query.

3. VARIABLE FIELD DEFINITIONS

`a` = CCRD number that was queried.

`b` = Calling number, also known as the automatic number identification (ANI), used in the query.
`CLG` = Identifies a North American numbering plan number.
`ICLG` = Identifies an international country code or number.

The value `NO CALLING NUMBER` indicates that no calling number was input.

`c` = Duration of the test in milliseconds. Timing starts when the switch receives the input request and ends when the switch receives the result from the network or a timeout.

`d` = Results of a failed test. This field prints out only when the test query was not successful. Valid value(s):
`GARBLED MESSAGE` = A response was received but the data in the message was mutilated.
`IMS OR CNI RETURNED MSG` = The inter-process message switch (IMS) or the common network interface (CNI) returned the message.
`NETWORK CONGESTION` = Could not complete the test due to network congestion.
`NETWORK FAILURE` = Could not complete the test due to failure in the network.
`NO TRANSLATION ADDRESS NATURE` = No entries exist in the database for addresses of this nature.
`NO TRANSLATION SPECIFIC ADDRESS` = No entries exist in the database for this specific address.
`SUBSYSTEM CONGESTION` = Could not complete the test due to subsystem congestion.
`SUBSYSTEM FAILURE` = Could not complete the test due to subsystem failure.
`TIMEOUT` = A response to the test query was not received within the eight second time limit.

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UNEQUIPPED USER = Could not complete the test due to unequipped user.

e = LIDB CCRD response. Valid value(s):
CCAN SERVICE DENIAL = Service denial on calling card account number (CCAN).
LSA DENY = Line number services application/network control point (LSA/NCP) denied this call.
MISROUTE = Misroute.
MISSING CUST REC = Missing customer record.
MISSING GROUP = Missing group.
NO PIN MATCH = No personal identification number (PIN) match.
NONPARTICIPATE GRP = Nonparticipating group.
PIN NOT ASSIGNED = No PIN assigned.
RECEIVE REJECT = Received reject message for LIDB CCRD query.
RESTRICTED PIN = Restricted PIN.
SPD NONPAYMENT = Service on PIN denial - nonpayment.
SPD SERVICE RESTRICTION = Service on PIN denial - service restriction.
SPD THRESHOLD = Service on PIN denial - threshold exceeded.
UNAV NET RESOURCE = Unavailable network resource.
UNRESTRICTED PIN = Unrestricted PIN.
UNXP DATA VALUE = Unexpected data value.
VACANT GROUP = Vacant group.

f = LIDB CCRD record status indicator. Valid value(s):
DEFAULT RECORD = Default record.
STABLE RECORD = Stable record.
TRANSIT RECORD = Transitional record.

g = Company identifier (ID) number that identifies the service provider with which the data is to be associated.

h = Subaccount number used on a customer's bill to distinguish various users of a CCAN, each associated with a different PIN.

i = First inter local access and transport area (LATA) interLATA carrier (IC) indicator number.

j = Second IC indicator number.

k = Originating point code number of the LIDB.

l = Three-digit revenue accounting office (RAO) number.

m = Call gap present indicator. Valid value(s):
ACG NOT PRESENT = Automatic call gap (ACG) component not present.
ACG PRESENT, CORRECT = ACG component present, has no errors.
ACG PRESENT, IN ERROR = ACG component present, has errors.

n = Call gap control digits to which controls are to be applied.

o = The call gap duration - used to determine the length of time for which controls are to be in effect. The following table lists the call gap duration index number received from the database and the

corresponding time (in seconds) that the index represents:

index	gap duration in seconds
0	0
1	1
2	2
3	4
4	8
5	16
6	32
7	64
8	128
9	256
10	512
11	1024
12	2048
13	(block all queries)

`p` = The call gap interval - used to determine the time between allowed queries when controls are in effect. The following table lists the call gap interval index number received from the database and the corresponding time (in seconds) that the index represents:

index	gap interval in seconds
0	0
1	3
2	4
3	6
4	8
5	11
6	16
7	22
8	30
9	42
10	58
11	81
12	112
13	156
14	217
15	300

`q` = Call gap indicator. Valid value(s):

- `DBOVLD` = Database overload.
- `MASS` = Destination mass calling.
- `OUTBND` = Out of band.
- `SMS` = Service Management System (SMS) initiated.
- `VACCD` = Vacant code.

`r` = Called number, also known as the forward number, used in the query.

- `CLG` = Identifies a North American numbering plan number.
- `ICLG` = Identifies an international country code or number.

The value `NO CALLED NUMBER` indicates that no called number was input.

`s` = Carrier identification code (CIC) expansion (CICEXP) indicator. Presence of the CICEXP keyword indicates that the CIC sent by LIDB in the response message should be in the four-digit format. Absence of the keyword indicates that the CIC should contain three digits.

`t` = Database indicator. Indicates which database was requested when the manual request was initiated. The possible databases are either the LIDB or the LIDB alternate destination (LALT), which both use the LIDB transaction capability application part (TCAP) interface.

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`u` = Originating line screening (OLS) code.

`v` = Originating station type (OST). Valid value(s):
- `ACQS` = Other ACQS station.
- `ACQS HOTEL` = Automatic charge quotation service (ACQS) hotel station.
- `NON-ACQS HOTEL` = Non-ACQS hotel.
- `NON-COIN PUBLIC` = Non-coin public station.
- `NONE` = No OST specified on input message.
- `OTHER` = Other station.
- `POST-PAY COIN` = Post-paid coin station.
- `PRE-PAY COIN` = Pre-paid coin station.
- `UNKNOWN` = Unknown station.

`w` = Account Owner indicator.

`x` = Billing Service Provider indicator.

4. ACTIONS TO BE TAKEN

If variable '`d`' prints out, then there is a problem with the connection to the database. Otherwise, the response is from the database. In this case, the response should be examined to see if it indicates proper data in the database. Contact the LIDB administrator for assistance.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:DSTT
TST:AT1
TST:BNS
TST:CAS
TST:CAS7
TST:CCRD
TST:ICCV
TST:INWATS
TST:NCD
TST:RATE
```

Output Message(s):

```
EXC:DSTT
TST:AT1
TST:BNS
TST:CAS
TST:CAS7
TST:CCRD
TST:ICCV
TST:INWATS
```

```
TST:LIDB-BNS
TST:NCD
TST:RATE
```

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

TST:LIDB-CCRD-B

Software Release: 5E13 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
TST LIDB CCRD=a   DURATION OF TEST=c
  b   r
 [d]   [e]   [f]
  COMPANY-ID=[g]   SUB-ACCNT=[h]   IC-IND=[i] [j]
  OPC=[k]   RAO=[l]
  m   CG-DIGITS=n
  CG-DUR=[o]   CG-INTVL=[p]   [q]   [s]
  DB=t
  OLS=u    OST=v
```

2. REASON FOR OUTPUT

To report the results of the manual request (TST:CCRD) that requests that a calling card (CCRD) query test be performed using the line information database (LIDB) interface. It is used as a high-level check on connections to a LIDB or a LIDB alternate destination (a database external to the switch), to check out data in the database, or to check out a repeatedly failing query.

3. VARIABLE FIELD DEFINITIONS

`a` = CCRD number that was queried.

`b` = Calling number, also known as the automatic number identification (ANI), used in the query.
`CLG` = Identifies a North American numbering plan number.
`ICLG` = Identifies an international country code or number.

The value `NO CALLING NUMBER` indicates that no calling number was input.

`c` = Duration of the test in milliseconds. Timing starts when the switch receives the input request and ends when the switch receives the result from the network or a timeout.

`d` = Results of a failed test. This field prints out only when the test query was not successful. Valid value(s):
`GARBLED MESSAGE` = A response was received but the data in the message was mutilated.
`IMS OR CNI RETURNED MSG` = The inter-process message switch (IMS) or the common network interface (CNI) returned the message.
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`NETWORK FAILURE` = Could not complete the test due to failure in the network.
`NO TRANSLATION ADDRESS NATURE` = No entries exist in the database for addresses of this nature.
`NO TRANSLATION SPECIFIC ADDRESS` = No entries exist in the database for this specific address.
`SUBSYSTEM CONGESTION` = Could not complete the test due to subsystem congestion.
`SUBSYSTEM FAILURE` = Could not complete the test due to subsystem failure.
`TIMEOUT` = A response to the test query was not received within the eight second time limit.

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UNEQUIPPED USER = Could not complete the test due to unequipped user.

e = LIDB CCRD response. Valid value(s):
CCAN SERVICE DENIAL = Service denial on calling card account number (CCAN).
LSA DENY = Line number services application/network control point (LSA/NCP) denied this call.
MISROUTE = Misroute.
MISSING CUST REC = Missing customer record.
MISSING GROUP = Missing group.
NO PIN MATCH = No personal identification number (PIN) match.
NONPARTICIPATE GRP = Nonparticipating group.
PIN NOT ASSIGNED = No PIN assigned.
RECEIVE REJECT = Received reject message for LIDB CCRD query.
RESTRICTED PIN = Restricted PIN.
SPD NONPAYMENT = Service on PIN denial - nonpayment.
SPD SERVICE RESTRICTION = Service on PIN denial - service restriction.
SPD THRESHOLD = Service on PIN denial - threshold exceeded.
UNAV NET RESOURCE = Unavailable network resource.
UNRESTRICTED PIN = Unrestricted PIN.
UNXP DATA VALUE = Unexpected data value.
VACANT GROUP = Vacant group.

f = LIDB CCRD record status indicator. Valid value(s):
DEFAULT RECORD = Default record.
STABLE RECORD = Stable record.
TRANSIT RECORD = Transitional record.

g = Company identifier (ID) number that identifies the service provider with which the data is to be associated.

h = Subaccount number used on a customer's bill to distinguish various users of a CCAN, each associated with a different PIN.

i = First inter local access and transport area (LATA) interLATA carrier (IC) indicator number.

j = Second IC indicator number.

k = Originating point code number of the LIDB.

l = Three-digit revenue accounting office (RAO) number.

m = Call gap present indicator. Valid value(s):
ACG NOT PRESENT = Automatic call gap (ACG) component not present.
ACG PRESENT, CORRECT = ACG component present, has no errors.
ACG PRESENT, IN ERROR = ACG component present, has errors.

n = Call gap control digits to which controls are to be applied.

o = The call gap duration - used to determine the length of time for which controls are to be in effect. The following table lists the call gap duration index number received from the database and the

corresponding time (in seconds) that the index represents:

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6	32
7	64
8	128
9	256
10	512
11	1024
12	2048
13	(block all queries)

`p` = The call gap interval - used to determine the time between allowed queries when controls are in effect. The following table lists the call gap interval index number received from the database and the corresponding time (in seconds) that the index represents:

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1	3
2	4
3	6
4	8
5	11
6	16
7	22
8	30
9	42
10	58
11	81
12	112
13	156
14	217
15	300

`q` = Call gap indicator. Valid value(s):

- `DBOVLD` = Database overload.
- `MASS` = Destination mass calling.
- `OUTBND` = Out of band.
- `SMS` = Service Management System (SMS) initiated.
- `VACCD` = Vacant code.

`r` = Called number, also known as the forward number, used in the query.

- `CLG` = Identifies a North American numbering plan number.
- `ICLG` = Identifies an international country code or number.

The value `NO CALLED NUMBER` indicates that no called number was input.

`s` = Carrier identification code (CIC) expansion (CICEXP) indicator. Presence of the CICEXP keyword indicates that the CIC sent by LIDB in the response message should be in the four-digit format. Absence of the keyword indicates that the CIC should contain three digits.

`t` = Database indicator. Indicates which database was requested when the manual request was initiated. The possible databases are either the LIDB or the LIDB alternate destination (LALT), which both use the LIDB transaction capability application part (TCAP) interface.

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`u` = Originating line screening (OLS) code.

`v` = Originating station type (OST). Valid value(s):
- `ACQS` = Other ACQS station.
- `ACQS HOTEL` = Automatic charge quotation service (ACQS) hotel station.
- `NON-ACQS HOTEL` = Non-ACQS hotel.
- `NON-COIN PUBLIC` = Non-coin public station.
- `NONE` = No OST specified on input message.
- `OTHER` = Other station.
- `POST-PAY COIN` = Post-paid coin station.
- `PRE-PAY COIN` = Pre-paid coin station.
- `UNKNOWN` = Unknown station.

4. ACTIONS TO BE TAKEN

If variable '`d`' prints out, then there is a problem with the connection to the database. Otherwise, the response is from the database. In this case, the response should be examined to see if it indicates proper data in the database. Contact the LIDB administrator for assistance.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:DSTT
TST:AT1
TST:BNS
TST:CAS
TST:CAS7
TST:CCRD
TST:ICCV
TST:INWATS
TST:NCD
TST:RATE
```

Output Message(s):

```
EXC:DSTT
TST:AT1
TST:BNS
TST:CAS
TST:CAS7
TST:CCRD
TST:ICCV
TST:INWATS
TST:LIDB-BNS
TST:NCD
TST:RATE
```

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

TST:LINE-ELS-A

Software Release: 5E10 only
Message Class: LINE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST LINE ELS DN a[-y][+] LEN=b-c-d-e-f-g [MLHG=h-i] j
         LOOPTYPE=k  ACTION=l

[2]   ____________________________________________________________________
      TST LINE ELS DN a[-y][+] LCEN=b-n-o-p [MLHG=h-i] j
         LOOPTYPE=k  ACTION=l

[3]   ____________________________________________________________________
      TST LINE ELS DN a[-y][+] LCKEN=b-z-a1-b1-c1 [MLHG=h-i] j
         LOOPTYPE=k  ACTION=l

[4]   ____________________________________________________________________
      TST LINE ELS DN a[-y][+] SLEN=b-s-t-u [MLHG=h-i] UNTESTABLE LINE

[5]   ____________________________________________________________________
      TST LINE ELS LEN=b-c-d[-e[-f]]-ALL j
      [TESTS-COMPLETED=v LINES-SKIPPED=w LINES-NOT-STARTED=x]

[6]   ____________________________________________________________________
      TST LINE ELS LCEN=b-n-o-ALL j
      [TESTS-COMPLETED=v LINES-SKIPPED=w LINES-NOT-STARTED=x]

[7]   ____________________________________________________________________
      TST LINE ELS LCKEN=b-z-a1[-b1]-ALL j
      [TESTS-COMPLETED=v LINES-SKIPPED=w LINES-NOT-STARTED=x]
```

2. REASON FOR OUTPUT

To report the results of performing electronic loop segregation (ELS) testing on one or more lines. This message is in response to a TST:LINE-ELS input message or as the result of running the ELS portion of routine exercise in the verbose mode.

Formats 1, 2, and 3 occur when a single line was requested to be tested. Format 4 occurs when an integrated *SLC*® line directory number (DN) or multi-line hunt group (MLHG) number was specified in the input request. Since ELS is not supported for integrated *SLC*® lines, no test was run.

Formats 5, 6, and 7 occur when a group of lines were requested to be tested or when routine exercise (REX) is run in verbose mode. The number of lines which completed the test is given, as is the number of lines which were skipped (not tested), and the number of lines for which the test was not started. If an ELS test is manually stopped or aborts, the reason for the termination is identified.

ELS is used primarily to determine whether the line is loaded. A loaded line has load coils at intervals along the line's outside plant wiring. This information is recorded in office dependent data each time the test is ran (unless the database is locked). It is later used when setting up a call involving the line to select the balance network in the line unit which will provide the best transmission quality.

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3. VARIABLE FIELD DEFINITIONS

NOTE: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`+` = Indicates the line is a party line.

`a` = The directory number of the line which was tested.

`b` = Switching module (SM) number.

`c` = Line unit number.

`d` = Grid number.

`e` = Grid pack number (LU1, LU2, LU3).

`f` = Switch number.

`g` = Level number.

`h` = Multi-line hunt group number.

`i` = Member number.

`j` = Termination report. Valid value(s):

`ACTIVATE FAILURE` = An error occurred while attempting to setup the test configuration. Verify that the line and/or transmission test facility (TTF) or global digital services function (GDSF) is equipped correctly.

`CMP UNAVAILABLE` = The input request could not be completed because a needed communication module (CM) was unable to respond. Retry the request later.

`COMPLETED` = The requested ELS test completed. Results of the test are indicated in the output.

`DATABASE ERROR` = Database read failed, the release of the digital path failed, or there was recent change activity during the database update.

`HARDWARE UNAVAILABLE` = The hardware associated with the group of lines specified to test is unequipped or out-of-service (OOS). The specific OOS/unequipped circuits are grids for analog line units or line groups for integrated services line units.

`INPUT ERROR` = The input request was in some manner invalid. Validate the input request and correct if necessary.

`INVALID LINE` = The single line test was not run because the line specified in the input request to test was incorrect/invalid. This could be due to the hardware associated with the specified line being unequipped and/or a typographical error when entering the line identifier.

`LINE BUSY` = The single line test was not run because the line was busy. A busy condition could be caused either by customer use (phone call) or by another maintenance action within the switch [trunk and line work station (TLWS) testing, for example].

`PROCESS TIMEOUT` = ELS process timed out waiting for a response from either the PC foreground/task or the TTF or GDSF process.

`RELEASE FAILURE` = Cannot release a resource which was allocated to the ELS process while performing the tests.

`RESOURCE FAILURE` = All TTF responders or GDSF guard data guard (GDG) transceivers are busy, the seized TTF responder or GDSF GDG transceiver is bad, or a failure in getting a digital path to the TTF or GDSF occurred.

`STOPPED` = A STP:ELS input message was received which caused the specified ELS test to

be terminated before it could complete.

`SYSTEM BUSY` = The test was not run due to failure to obtain a needed resource, most likely caused by too much activity in the switch. Repeat the test request later.

`SYSTEM ERROR` = An unspecified internal error occurred which prevents continuing.

`UNASSIGNED LINE` = The single line test was not run because the line hardware was equipped but no customer (that is, loop) was currently assigned to it.

`UNTESTABLE LINE` = The line was not a testable line. Currently, integrated *SLC*®96 and digital subscriber lines (DSL) are not ELS testable.

`k` = Loop type. Valid value(s):

```
LOADED
NORMAL
RANGE EXTENDED
```

`l` = Action taken by the system. Valid value(s):

`DBLOCKED` = The database was locked and could not be changed. Whether the database is locked for a line is controlled by the 'CRFTLOCK' field on the associated recent change line view.

`DBUPDATED` = The current loaded value in the office dependent database did not agree with the value obtained from the current test. The database and has been updated with the most recent test results.

`NONE` = The current loaded value in the office dependent database agreed with the value obtained from the current test, or the line was identified as range extended. The database was not changed. The only way to change range extension information for a line is through recent change.

`n` = Integrated services line unit (ISLU) number.

`o` = Line group controller number.

`p` = Line card number.

`s` = Digital carrier line unit (DCLU) number.

`t` = Remote terminal (RT) number.

`u` = RT line number.

`v` = The number of lines that completed the ELS test and for which either the database was originally correct or updated so that it is now correct.

`w` = The number of lines that skipped the ELS test. ELS skips lines which are traffic busy, range-extended, user-locked, unassigned, PBX-CO, or OOS.

`x` = The number of lines for which the ELS test was not started.

`y` = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

`z` = Integrated services line unit-2 (ISLU2) number.

`a`[1] = Line group number.

`b`[1] = Line board number.

`c*`[1] = Line circuit number.

4. ACTION TO BE TAKEN

None, if ELS test completes successfully or was stopped by a manual request. If the ELS test was aborted, investigate the reason for failure and if possible, correct.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:TST-ELS
TST:LINE-ELS
```

TST:LINE-ELS-B

Software Release: 5E11 only
Message Class: LINE
Application: 5
Type: Output

1. FORMAT

```
[1]  ____________________________________________________________________
     TST LINE ELS DN a[-y][+] LEN=b-c-d-e-f-g [MLHG=h-i] j
        LOOPTYPE=k  ACTION=l

[2]  ____________________________________________________________________
     TST LINE ELS DN a[-y][+] LCEN=b-n-o-p [MLHG=h-i] j
        LOOPTYPE=k  ACTION=l

[3]  ____________________________________________________________________
     TST LINE ELS DN a[-y][+] LCKEN=b-z-a1-b1-c1 [MLHG=h-i] j
        LOOPTYPE=k  ACTION=l

[4]  ____________________________________________________________________
     TST LINE ELS DN a[-y][+] AIUEN=b-d1-e1-f1 [MLHG=h-i] j
        LOOPTYPE=k  ACTION=l

[5]  ____________________________________________________________________
     TST LINE ELS DN a[-y][+] SLEN=b-s-t-u [MLHG=h-i] UNTESTABLE LINE

[6]  ____________________________________________________________________
     TST LINE ELS LEN=b-c-d[-e[-f]]-ALL j
     [TESTS-COMPLETED=v LINES-SKIPPED=w LINES-NOT-STARTED=x]

[7]  ____________________________________________________________________
     TST LINE ELS LCEN=b-n-o-ALL j
     [TESTS-COMPLETED=v LINES-SKIPPED=w LINES-NOT-STARTED=x]

[8]  ____________________________________________________________________
     TST LINE ELS LCKEN=b-z-a1[-b1]-ALL j
     [TESTS-COMPLETED=v LINES-SKIPPED=w LINES-NOT-STARTED=x]

[9]  ____________________________________________________________________
     TST LINE ELS AIUEN=b-d1-e1-ALL j
     [TESTS-COMPLETED=v LINES-SKIPPED=w LINES-NOT-STARTED=x]
```

2. REASON FOR OUTPUT

To report the results of performing electronic loop segregation (ELS) testing on one or more lines. This message is in response to a TST:LINE-ELS input message or as the result of running the ELS portion of routine exercise in the verbose mode.

Formats 1, 2, 3 and 4 occur when a single line was requested to be tested. Format 5 occurs when an integrated *SLC*® line directory number (DN) or multi-line hunt group (MLHG) number was specified in the input request. Since ELS is not supported for integrated *SLC*® lines, no test was run.

Formats 6, 7, 8 and 9 occur when a group of lines were requested to be tested or when routine exercise (REX) is

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run in verbose mode. The number of lines which completed the test is given, as is the number of lines which were skipped (not tested), and the number of lines for which the test was not started. If an ELS test is manually stopped or aborts, the reason for the termination is identified.

ELS is used primarily to determine whether the line is loaded. A loaded line has load coils at intervals along the line's outside plant wiring. This information is recorded in office dependent data each time the test is ran (unless the database is locked). It is later used when setting up a call involving the line to select the balance network in the line unit which will provide the best transmission quality.

3. VARIABLE FIELD DEFINITIONS

NOTE: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`+` = Indicates the line is a party line.

`a` = The directory number of the line which was tested.

`b` = Switching module (SM) number.

`c` = Line unit number.

`d` = Grid number.

`e` = Grid pack number (LU1, LU2, LU3).

`f` = Switch number.

`g` = Level number.

`h` = Multi-line hunt group number.

`i` = Member number.

`j` = Termination report. Valid value(s):

`ACTIVATE FAILURE` = An error occurred while attempting to setup the test configuration. Verify that the line and/or transmission test facility (TTF) or global digital services function (GDSF) is equipped correctly.

`CMP UNAVAILABLE` = The input request could not be completed because a needed communication module (CM) was unable to respond. Retry the request later.

`COMPLETED` = The requested ELS test completed. Results of the test are indicated in the output.

`DATABASE ERROR` = Database read failed, the release of the digital path failed, or there was recent change activity during the database update.

`HARDWARE UNAVAILABLE` = The hardware associated with the group of lines specified to test is unequipped or out-of-service (OOS). The specific OOS/unequipped circuits are grids for analog line units or line groups for integrated services line units.

`INPUT ERROR` = The input request was in some manner invalid. Validate the input request and correct if necessary.

`INVALID LINE` = The single line test was not run because the line specified in the input request to test was incorrect/invalid. This could be due to the hardware associated with the specified line being unequipped and/or a typographical error when entering the line identifier.

`LINE BUSY` = The single line test was not run because the line was busy. A busy condition could be caused either by customer use (phone call) or by another maintenance action within the switch [trunk and line work station (TLWS) testing, for example].

`PROCESS TIMEOUT` = ELS process timed out waiting for a response from either the PC foreground/task or the TTF or GDSF process.
`RELEASE FAILURE` = Cannot release a resource which was allocated to the ELS process while performing the tests.
`RESOURCE FAILURE` = All TTF responders or GDSF guard data guard (GDG) transceivers are busy, the seized TTF responder or GDSF GDG transceiver is bad, or a failure in getting a digital path to the TTF or GDSF occurred.
`STOPPED` = A STP:ELS input message was received which caused the specified ELS test to be terminated before it could complete.
`SYSTEM BUSY` = The test was not run due to failure to obtain a needed resource, most likely caused by too much activity in the switch. Repeat the test request later.
`SYSTEM ERROR` = An unspecified internal error occurred which prevents continuing.
`UNASSIGNED LINE` = The single line test was not run because the line hardware was equipped but no customer (that is, loop) was currently assigned to it.
`UNTESTABLE LINE` = The line was not a testable line. Currently, integrated *SLC*®96 and digital subscriber lines (DSL) are not ELS testable.

`k` = Loop type. Valid value(s):

```
LOADED
NORMAL
RANGE EXTENDED
```

`l` = Action taken by the system. Valid value(s):
`DBLOCKED` = The database was locked and could not be changed. Whether the database is locked for a line is controlled by the 'CRFTLOCK' field on the associated recent change line view.
`DBUPDATED` = The current loaded value in the office dependent database did not agree with the value obtained from the current test. The database and has been updated with the most recent test results.
`NONE` = The current loaded value in the office dependent database agreed with the value obtained from the current test, or the line was identified as range extended. The database was not changed. The only way to change range extension information for a line is through recent change.

`n` = Integrated services line unit (ISLU) number.

`o` = Line group controller number.

`p` = Line card number.

`s` = Digital carrier line unit (DCLU) number.

`t` = Remote terminal (RT) number.

`u` = RT line number.

`v` = The number of lines that completed the ELS test and for which either the database was originally correct or updated so that it is now correct.

`w` = The number of lines that skipped the ELS test. ELS skips lines which are traffic busy, range-extended, user-locked, unassigned, PBX-CO, or OOS.

x = The number of lines for which the ELS test was not started.

y = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

z = Integrated services line unit-2 (ISLU2) number.

a[1] = Line group number.

b[1] = Line board number.

c[1] = Line circuit number.

d[1] = Access interface unit equipment number.

e[1] = AIU pack number.

f[1] = AIU circuit number.

4. ACTION TO BE TAKEN

None, if ELS test completes successfully or was stopped by a manual request. If the ELS test was aborted, investigate the reason for failure and if possible, correct.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:TST-ELS
TST:LINE-ELS
```

TST:LINE-ELS-C

Software Release: 5E12 and later
Message Class: LINE
Application: 5
Type: Output

1. FORMAT

```
[1]  ____________________________________________________________________
     TST LINE ELS DN a[-y][+] LEN=b-c-d-e-f-g [MLHG=h-i] j
        LOOPTYPE=k  ACTION=l

[2]  ____________________________________________________________________
     TST LINE ELS DN a[-y][+] LCEN=b-n-o-p [MLHG=h-i] j
        LOOPTYPE=k  ACTION=l

[3]  ____________________________________________________________________
     TST LINE ELS DN a[-y][+] LCKEN=b-z-a1-b1-c1 [MLHG=h-i] j
        LOOPTYPE=k  ACTION=l

[4]  ____________________________________________________________________
     TST LINE ELS DN a[-y][+] AIUEN=b-d1-e1-f1 [MLHG=h-i] j
        LOOPTYPE=k  ACTION=l

[5]  ____________________________________________________________________
     TST LINE ELS DN a[-y][+] SLEN=b-s-t-u [MLHG=h-i] UNTESTABLE LINE

[6]  ____________________________________________________________________
     TST LINE ELS LEN=b-c-d[-e[-f]]-ALL j
     [TESTS-COMPLETED=v LINES-SKIPPED=w LINES-NOT-STARTED=x]

[7]  ____________________________________________________________________
     TST LINE ELS LCEN=b-n-o-ALL j
     [TESTS-COMPLETED=v LINES-SKIPPED=w LINES-NOT-STARTED=x]

[8]  ____________________________________________________________________
     TST LINE ELS LCKEN=b-z-a1[-b1]-ALL j
     [TESTS-COMPLETED=v LINES-SKIPPED=w LINES-NOT-STARTED=x]

[9]  ____________________________________________________________________
     TST LINE ELS AIUEN=b-d1-e1-ALL j
     [TESTS-COMPLETED=v LINES-SKIPPED=w LINES-NOT-STARTED=x]
```

2. REASON FOR OUTPUT

To report the results of performing electronic loop segregation (ELS) testing on one or more lines. This message is in response to a TST:LINE-ELS input message or as the result of running the ELS portion of routine exercise in the verbose mode.

Formats 1, 2, 3 and 4 occur when a single line was requested to be tested. Format 5 occurs when an integrated *SLC*® line directory number (DN) or multi-line hunt group (MLHG) number was specified in the input request. Since ELS is not supported for integrated *SLC*® lines, no test was run.

Formats 6, 7, 8 and 9 occur when a group of lines were requested to be tested or when routine exercise (REX) is

run in verbose mode. The number of lines which completed the test is given, as is the number of lines which were skipped (not tested), and the number of lines for which the test was not started. If an ELS test is manually stopped or aborts, the reason for the termination is identified.

ELS is used primarily to determine whether the line is loaded. A loaded line has load coils at intervals along the line's outside plant wiring. This information is recorded in office dependent data each time the test is ran (unless the database is locked). It is later used when setting up a call involving the line to select the balance network in the line unit which will provide the best transmission quality.

3. VARIABLE FIELD DEFINITIONS

NOTE: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`+` = Indicates the line is a party line.

`a` = The directory number of the line which was tested. The directory number will include NPA for non-unique NXX DN.

`b` = Switching module (SM) number.

`c` = Line unit number.

`d` = Grid number.

`e` = Grid pack number (LU1, LU2, LU3).

`f` = Switch number.

`g` = Level number.

`h` = Multi-line hunt group number.

`i` = Member number.

`j` = Termination report. Valid value(s):

`ACTIVATE FAILURE` = An error occurred while attempting to setup the test configuration. Verify that the line and/or transmission test facility (TTF) or global digital services function (GDSF) is equipped correctly.

`CMP UNAVAILABLE` = The input request could not be completed because a needed communication module (CM) was unable to respond. Retry the request later.

`COMPLETED` = The requested ELS test completed. Results of the test are indicated in the output.

`DATABASE ERROR` = Database read failed, the release of the digital path failed, or there was recent change activity during the database update.

`HARDWARE UNAVAILABLE` = The hardware associated with the group of lines specified to test is unequipped or out-of-service (OOS). The specific OOS/unequipped circuits are grids for analog line units or line groups for integrated services line units.

`INPUT ERROR` = The input request was in some manner invalid. Validate the input request and correct if necessary.

`INVALID LINE` = The single line test was not run because the line specified in the input request to test was incorrect/invalid. This could be due to the hardware associated with the specified line being unequipped and/or a typographical error when entering the line identifier.

`LINE BUSY` = The single line test was not run because the line was busy. A busy condition could be caused either by customer use (phone call) or by another maintenance

action within the switch [trunk and line work station (TLWS) testing, for example].

`NON-UNIQUE NXX DN` = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Renter DN with NPA.

`PROCESS TIMEOUT` = ELS process timed out waiting for a response from either the PC foreground/task or the TTF or GDSF process.

`RELEASE FAILURE` = Cannot release a resource which was allocated to the ELS process while performing the tests.

`RESOURCE FAILURE` = All TTF responders or GDSF guard data guard (GDG) transceivers are busy, the seized TTF responder or GDSF GDG transceiver is bad, or a failure in getting a digital path to the TTF or GDSF occurred.

`STOPPED` = A STP:ELS input message was received which caused the specified ELS test to be terminated before it could complete.

`SYSTEM BUSY` = The test was not run due to failure to obtain a needed resource, most likely caused by too much activity in the switch. Repeat the test request later.

`SYSTEM ERROR` = An unspecified internal error occurred which prevents continuing.

`UNASSIGNED LINE` = The single line test was not run because the line hardware was equipped but no customer (that is, loop) was currently assigned to it.

`UNTESTABLE LINE` = The line was not a testable line. Currently, integrated *SLC*®96 and digital subscriber lines (DSL) are not ELS testable.

`k` = Loop type. Valid value(s):

```
LOADED
NORMAL
RANGE EXTENDED
```

`l` = Action taken by the system. Valid value(s):

`DBLOCKED` = The database was locked and could not be changed. Whether the database is locked for a line is controlled by the 'CRFTLOCK' field on the associated recent change line view.

`DBUPDATED` = The current loaded value in the office dependent database did not agree with the value obtained from the current test. The database and has been updated with the most recent test results.

`NONE` = The current loaded value in the office dependent database agreed with the value obtained from the current test, or the line was identified as range extended. The database was not changed. The only way to change range extension information for a line is through recent change.

`n` = Integrated services line unit (ISLU) number.

`o` = Line group controller number.

`p` = Line card number.

`s` = Digital carrier line unit (DCLU) number.

`t` = Remote terminal (RT) number.

`u` = RT line number.

`v` = The number of lines that completed the ELS test and for which either the database was originally correct or updated so that it is now correct.

w = The number of lines that skipped the ELS test. ELS skips lines which are traffic busy, range-extended, user-locked, unassigned, PBX-CO, or OOS.

x = The number of lines for which the ELS test was not started.

y = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

z = Integrated services line unit-2 (ISLU2) number.

a[1] = Line group number.

b[1] = Line board number.

c[1] = Line circuit number.

d[1] = Access interface unit equipment number.

e[1] = AIU pack number.

f[1] = AIU circuit number.

4. ACTION TO BE TAKEN

None, if ELS test completes successfully or was stopped by a manual request. If the ELS test was aborted, investigate the reason for failure and if possible, correct.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
STP:TST-ELS
TST:LINE-ELS
```

TST:LNP

Software Release: 5E11 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
TST LNP         DURATION OF TEST=a      TTYP=b
  RESULT: [q] [r] [s]
  BLG=c         BLG LRN=d     BLG NSN=i
  CLD=e         CLD LRN=f     CLD NSN=j
  CLG=g         CLG LRN=h
  ORIG PC=k
  l      CG-DIGITS=[m]
  CG-DUR=[n]     CG-INTVL=[o]   [p]
```

2. REASON FOR OUTPUT

To report the results of a manually initiated (TST:LNP) Operator Services Position System (OSPS) local number portability (LNP) common channel signaling system 7 (CCS7) transaction capabilities application part (TCAP) test query.

3. VARIABLE FIELD DEFINITIONS

`a` = The duration of the test query, in milliseconds. Timing starts when the administrative module (AM) sends the formatted query, and ends when the query response is received from the network.

`b` = The translation type entered with the input command. The translation type is used in the TCAP query to indicate to the signal transfer point (STP) which translation tables should be used to obtain routing information for the query. The translation type is a number from 0 to 255.

`c` = The billing number entered with the input command. The 10 digit NANP billing number is populated here when available else the word "NONE" will be used.

`d` = The billing number location route number (LRN) received from the LNP/ network control point (NCP). The 10 digit NANP billing number LRN is populated here when available else the following will be used:
`NONE` = No query was sent, this number is not portable.
`NOT PORTED` = A reply was received and this number was determined to be not ported.
`ERROR - NOT PORTABLE` = A reply was received with a "billing number not portable" error code.

`e` = The called number entered with the input command. The 10 digit NANP called number is populated here when available else the word "NONE" will be used.

`f` = The called number LRN received from the LNP/NCP. The 10 digit NANP called number LRN is populated here when available else the following will be used:
`NONE` = No query was sent, this number is not portable.
`NOT PORTED` = A reply was received and this number was determined to be not ported.
`ERROR - NOT PORTABLE` = A reply was received with a "called number not portable" error code.

`g` = The calling number entered with the input command. The 10 digit NANP calling number is

populated here when available else the word "NONE" will be used.

h = The calling number LRN received from the LNP/NCP. The 10 digit NANP calling number LRN is populated here when available else the following will be used:
NONE = No query was sent, this number is not portable.
NOT PORTED = A reply was received and this number was determined to be not ported.
ERROR - NOT PORTABLE = A reply was received with a "calling number not portable" error code.

i = The billing network switch number (NSN) received from the LNP/NCP. The 6-digit billing NSN is populated here when available else the word "NONE" will be used.

j = The called NSN received from the LNP/NCP. The 6 digit called NSN is populated here when available else the word "NONE" will be used.

k = Point code number of the network node that sent the response. If the test query timed out, 'NOT APPLICABLE' is output for the point code.

l = The call gap present indicator. Valid value(s):
ACG NOT PRESENT = Automatic call gap (ACG) component not present.
ACG PRESENT, CORRECT = Automatic call gap component present, has no errors.
ACG PRESENT, IN ERROR = Automatic call gap component present, has errors.

m = The call gap control digits - the digits contained in the ACG component. Controls will be applied on the first 6 digits for the billing, calling or called number. If no ACG component is present, 'NONE' will be output.

n = The call gap duration - used to determine the length of time for which controls are to be in effect. The following table lists the call gap duration index number received from the database and the corresponding time (in seconds) that the index represents:

index	gap duration in seconds =
0	0
1	1
2	2
3	4
4	8
5	16
6	32
7	64
8	128
9	256
10	512
11	1024
12	2048

If no ACG component is present, 'NONE' will be output.

o = The call gap interval - used to determine the time between allowed queries when controls are in effect. The following table lists the call gap interval index number received from the database and the corresponding time (in seconds) that the index represents:

index	gap interval in seconds =
0	(remove controls)
1	(maintain current controls)
2	
3	
4	
5	1.0

6	2.0
7	5.0
8	10.0
9	15.0
10	30.0
11	60.0
12	120.0
13	300.0
14	600.0
15	(block all queries)

If no ACG component is present, 'NONE' will be output.

p = The call gap control cause. Valid value(s):

DBOVLD = Database overload. This is the only cause that is considered valid for LNP. Any other cause returned will result in the ACG component being ignored.

MASS = Destination mass calling. This result is not expected; controls will not be installed for this case.

OUTBND = Out of band. This result is not expected; controls will not be installed for this case.

SMS = Service management system (SMS) initiated. This result is not expected; controls will not be installed for this case.

VACCD = Vacant code. This result is not expected; controls will not be installed for this case.

q = LNP TCAP query general reply code or error code. This field prints out when a normal reply was received in response to the test query. Valid value(s):

SUCCESSFUL REPLY = A successful reply was received.

UNEXPECTED INPUT, DATA VALUE = The content of a query parameter was not as expected.

TASK REFUSED = The task was refused because the node could not handle the request at the time (not because the operation was incorrect in any way).

GATEWAY ERROR = Communication with an LNP database was unsuccessful.

VACANT CODE = The database determined that the number(s) contained in the query have not been populated.

MISROUTED QUERY = The number was not in the range the database expected.

UNEXPECTED PARAMETER = A query parameter was received but not recognized.

MISSING PARAMETER = A mandatory parameter was absent from the query.

r = The abort cause or reject problem code. This field prints out only when a p-abort, u-abort, invoke problem reject message, or general problem reject message is received in reply to a LNP TCAP test query. Valid value(s):

P-ABORT - BADLY FORMATTED TRANSACTION PORTION = The transaction portion of the received message did not conform to the encoding rules.

P-ABORT - INCORRECT TRANSACTION PORTION = The elemental structure within the transaction portion of the received message did not conform to the rules for the transaction portion.

P-ABORT - RESOURCE LIMITATION = Sufficient resources were not available.

P-ABORT - UNRECOGNIZED MESSAGE TYPE = The TCAP message type was not defined.

P-ABORT - UNRECOGNIZED TRANSACTION ID = A transaction ID had been received for which a transaction did not exist at the receiving node.

REJECT - BADLY STRUCTURED COMPONENT = The contents of the component did not conform to the encoding rules.

REJECT - DUPLICATE INVOKE ID = The invoke ID was already in use by a previously invoked operation.

REJECT - INITIATING RELEASE = The requested operation could not be invoked because the

dialogue was about to be concluded.

`REJECT - MISTYPED COMPONENT` = The elemental structure of a component did not conform to the defined structure of that component.

`REJECT - MISTYPED PARAMETER` = A parameter tag was not one of those associated with the invoked operation.

`REJECT - RESOURCE LIMITATION` = Sufficient resources were not available to perform the requested operation.

`REJECT - UNRECOGNIZED COMPONENT` = The component type was not recognized.

`REJECT - UNRECOGNIZED OPERATION` = The operation code value was not one of those used by the application.

`U-ABORT - APPLICATION PROTOCOL VIOLATION` = A protocol violation occurred in relation to the allowed sequences of messages defined for the application service element.

`U-ABORT - REJECT RECEIVED` = An unexpected reject component was received.

`U-ABORT - UNKNOWN USER PROBLEM` = The cause of the transaction abort request is unknown. This request could be the result of an abort in the application specific entry, or application itself.

`s` The results of a failed test query. This field prints out only when the test query was not successful. Valid value(s):

`BLOCKED BY AM` = The query was blocked by an internal problem on the AM.

`GARBLED MESSAGE` = A response was received but the data in the message was mutilated. The only fields that are populated are what was known when the query was sent.

`IMS OR CNI RETURNED MSG` = The inter-process message switch (IMS) or the common network interface (CNI) returned the message. This result is not expected for LNP test queries.

`NETWORK CONGESTION` = Could not complete the test due to network congestion.

`NETWORK FAILURE` = Could not complete the test due to failure in the network.

`NO TRANSLATION ADDRESS NATURE` = No entries exist in routing tables for addresses of this nature.

`NO TRANSLATION SPECIFIC ADDRESS` = No entries exist in routing tables for this specific address.

`SUBSYSTEM CONGESTION` = Could not complete the test due to subsystem congestion.

`SUBSYSTEM FAILURE` = Could not complete the test due to subsystem failure.

`TIMEOUT` = A response to the test query was not received within the time limit.

`UNEQUIPPED USER` = Could not complete the test due to unequipped user.

`UNQUALIFIED` = Unknown failure reason.

4. ACTION TO BE TAKEN

This message is the response to a manual request. It is used as a high-level check on the connection to the LNP database (which is external to the switch), to check out data in the LNP database, or to check out a repeatedly failing query. If variable '`k`' (results of a failed test) prints out (with the exception of `GARBLED MESSAGE`), then there is a problem with the connection to the database, and the Engineering Network Administration Center (ENAC) should be contacted for assistance. Otherwise (including `GARBLED MESSAGE`), the response is from the database, and the Operations Network Administration Center (ONAC) should be contacted. The response should be examined to see if it indicates proper data in the LNP database.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:DSTT
TST:AT1
TST:BNS
TST:CAS
TST:CAS7
TST:CCRD
TST:ICCV
TST:INWATS
TST:LNP
TST:RATE
```

Output Message(s):

```
EXC:DSTT
TST:AT1
TST:BNS
TST:CAS
TST:CCRD
TST:ICCV
TST:INWATS
TST:RATE
TST:SDAP
```

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

TST:MP

Software Release: 5E10 and later
Message Class: TLWS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST MP MPM a b [TYPE d] g

[2]   ____________________________________________________________________
      TST MP MPG a [TYPE d] g

[3]   ____________________________________________________________________
      TST MP DN h [TYPE d] g

[4]   ____________________________________________________________________
      TST MP MPM a   b MPM a   c [TYPE d] e
           [f]
           [MPM a  i   j       k]
            .  .  .   .       .
            .  .  .   .       .
            .  .  .   .       .
```

2. REASON FOR OUTPUT

To respond to a TST:MP or STP:TST:MP input message and report the outcome of a modem pool (MP) test.

Format 1 reports the result of a test between two modem pool members (MPMs).

Format 2 reports the result of a test when the multi-line hunt group (MLHG) number of the modem pool group (MPG) was specified. Format 2 also reports the result of a test run on a range of MPMs within an MPG.

Format 3 reports the result of a test when the directory number (DN) of the MP access DN was specified (for example, the DN that the analog user would dial to reach an X.25 terminating packet-service through the modem pool). Formats 2 and 3 also report any problems that prevent a test from being run.

Format 4 prints the outcome of the operational and transmission test that has been run on a pair of MPMs. This message will be printed for every test failure.

3. VARIABLE FIELD DEFINITIONS

`LCEN` = Line card equipment number.

`LEN` = Line equipment number on a line unit.

`a` = MLHG number of the MPG involved in this test.

`b` = Member number of the first MPM involved in this test.

`c` = Member number of the second MPM involved in this test.

`d` = Type of test run. Valid value(s):
`ALL` = Origination and termination test.

ORIG = Origination test.
TERM = Termination test.

e = Result of the test. Valid value(s):
ABT = Abort. The test was stopped because of some problem not associated with the modem pool member itself (refer to variable 'f').
ATP = All tests passed.
COMPL = Completed. The test has finished, but there is more information to be given (refer to variable 'f').
FAIL = Failed. The test was run and one of the modem pool members involved was found to be faulty (refer to variable 'f').

f = Expanded reason for the result. Valid value(s):
CANNOT ISOLATE FAULTY MPM = The pair of modem pool members specified on the output line were tested against a third modem pool member and no conclusion could be reached. The equipment numbers of the DSL and analog line of the modem pool members are printed on the following lines.
CPE OUT OF SERVICE = The customer premises equipment (CPE) connected to the multi-point digital subscriber line (DSL) of the modem pool member is currently out-of-service (OOS) and is not available for testing.
DSL SIDE OF MPM OOS = The digital subscriber line (DSL) side of the modem pool member is not available for testing. The equipment number of the DSL and analog line of the modem pool member are printed on the following line.
INTERNAL ERROR RL = An unexpected error condition was encountered. The test was stopped. Retry later.
INVALID MPM = One of the modem pool members specified in the output message is not a legitimate member of the modem pool group. The test was stopped.
MPM BUSY = The modem pool member specified on the output line was not available for testing. The equipment numbers of the DSL and analog line of the busy modem pool member are printed on the following line.
MPM FAULTY = The modem pool member specified on the following output line is faulty. The equipment numbers of DSL and analog line of the faulty modem pool member are printed.
MPM OOS = The analog side of the modem pool member specified on the output line was found to be OOS and could not be automatically restored. The equipment numbers of the DSL and analog line of the OOS modem pool member are printed on the following line.
NO IDLE MPMS = There are no idle modem pool members available to test against. They may be busy, OOS or faulty. The test was stopped.

NOTE: There should be three in-service (IS) idle modem pool members in a group to isolate the faulty modem pool member.

SM UNAVAILABLE = The SM on which the modem pool members reside is not available. The test was stopped.
TIMED OUT = The switching module (SM) did not respond to a command from the administrative module (AM) within the allotted time limit. The test was stopped. Retry later.
g = Status of the test. Valid value(s):
COMPLETED = Test of the group specified on the command line has finished. No further output will be printed.
INPUT ERROR = The test was stopped for one of three reasons. Valid value(s):

- The two MPMs specified on the command line are not members of the same group, as they must be.
- The two MPMs specified on the command line are the same, as they must not be.
- The highest-numbered MPM in the MPG to be tested is below the range specified on the command line.

`INTERNAL ERROR` = An unexpected error condition was encountered. The test was stopped. Retry later.
`INVALID MLHG` = Group specified on the command line is not a legitimate MLHG. The test was stopped.
`NOT MAINTAINED` = Group specified on the command line is not maintained by the operating company. The test was stopped.
`NOT MP ACCESS DN` = The DN specified on the command line is not a directory number to access a modem pool. The test was stopped.
`SM UNAVAILABLE` = SM on which the modem pool members reside is not available. The test was stopped.
`STARTED` = Test of the group specified on the command line has started. Reports of faulty modem pool members may be forthcoming.
`STOPPED` = The modem pool test was stopped by manual intervention.
`TEST ALREADY IN PROGRESS` = There is already a test being run on the modem pool group specified on the command line. The second test was stopped.
`TEST NOT RUNNING` = An attempt was made to stop a modem pool test that currently was not active.

`h` = The modem pool access DN of the MPG involved in the test.
`i` = The possible faulty modem pool member number.
`j` = Equipment number of the digital subscriber line of MPM on an ISLU. Valid value(s):

```
LCEN=l-m-n-o
```

`k` = Equipment number of the analog line of MPM. Valid value(s):

```
LCEN=l-m-n-o
LEN=l-n-p-q-r-s
```

`l` = SM number.
`m` = Integrated service line unit number.
`n` = Line group controller number.
`o` = Line card number.
`p` = Grid number.
`q` = Switch board number.
`r` = Switch number.
`s` = Level number.

4. ACTION TO BE TAKEN

If '`f`' =	Action:
`CANNOT ISOLATE FAULTY MPM`	Test each listed modem pool member against a modem pool member that is

	know to be good.
DSL SIDE OF MPM OOS	Use RST:LINE input message to restore the DSL of the modem pool member to service. Try the test again.
CPE OUT OF SERVICE	Use RST:CPE input message to restore the CPE on the multi-point DSL of the modem pool member to service. Try the test again.
MPM OOS	Restore the analog side of the modem pool member using the RST:LINE input message and try the test again.
MPM FAULTY	Replace the modem pool member and run the test again.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
RMV:CPE
RST:CPE
RST:LINE
STP:TST-MP
TST:MP
```

TST:NCD

Software Release: 5E10 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
TST NCD=a DURATION OF TEST=b
  c [d] [e]
```

2. REASON FOR OUTPUT

To report the results of the manual request (TST:NCD) which requested that a network call denial (NCD) query test be performed.

3. VARIABLE FIELD DEFINITIONS

`a` = Ten-digit billing number that was queried.

`b` = Duration of test in milliseconds. Timing starts when the switch receives the input request and ends when switch receives the result from the network, or times out.

`c` = Result of test. Valid value(s):
`CCIS FAILURE-DESTINATION NOT EQUIPPED` = A destination in the common channel signaling (CCS) network was unequipped.
`CCIS FAILURE-NETWORK BLOCKED` = Could not complete test due to network blockage.
`CCIS FAILURE-NETWORK OVERLOAD` = Could not complete test due to an overload in the network.
`CCIS FAILURE-NO ROUTING DATA` = Could not route to the data base due to an error in or unavailability of routing data in the network.
`DATABASE OVERLOAD` = Could not complete the test due to an NCD/network control point (NCP) data base overload condition.
`INVALID NCD MESSAGE RECEIVED` = A response was received but data in the message was mutilated.
`NUMBER ALLOWED` = Input billing number is valid for AT&T-C calls.
`NUMBER DENIED` = Input billing number is not acceptable for AT&T-C calls.
`TIMEOUT` = A response to the test query was not received within the five second time limit.
`UNABLE TO PROCESS-MISCELLANEOUS` = Database was unable to process.
`UNABLE TO PROCESS-DATABASE OVERLOAD` = Database was unable to process due to overload condition.

`d` = Control level value received. This field is output only if a control level is received in the reply.

Value Reported	Control Level
0	Remove gap control.
1	All calls forwarded.
2	0.1 seconds.
3	0.25 seconds.
4	0.50 seconds.
5	1.0 seconds.
6	2.0 seconds.
7	5.0 seconds.
8	10.0 seconds.
9	15.0 seconds.
10	30.0 seconds.

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11	60.0 seconds.
12	120.0 seconds.
13	300.0 seconds.
14	600.0 seconds.
15	Stop all calls.

`e` = Duration for which the control level given in field '`d`' is applied.

Duration Value Received	Corresponding Duration
1	1 second.
2	2 seconds.
3	4 seconds.
4	8 seconds.
5	16 seconds.
6	32 seconds.
7	64 seconds.
8	128 seconds.
9	256 seconds.
10	512 seconds.
11	1024 seconds.
12	2048 seconds.

4. ACTION TO BE TAKEN

Follow the local practice for handling NCD query tests.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:DSTT
TST:BNS
TST:CAS
TST:CCRD
TST:INWATS
TST:NCD
TST:RATE
```

Output Message(s):

```
EXC:DSTT
TST:BNS
TST:CAS
TST:CCRD
TST:INWATS
TST:RATE
```

TST:NS800-A

Software Release: 5E10 - 5E11
Message Class: CCSTST,CCS
Application: 5
Type: Output

1. FORMAT

```
TST NS800=a          ANI=b          LATA=c          OST=d
  e        [f]      [g]
 [h]       [l]      [i]      [j]
 [k]
```

2. REASON FOR OUTPUT

To respond to a TST:NS800 input message, which requests that an 800 number service (NS800) query test be performed.

3. VARIABLE FIELD DEFINITIONS

a = The ten-digit input service switching point (SSP) number that was tested.

b = Ten-digit automatic number identification (ANI) or the calling number.

c = Three-digit local access transport area (LATA) number.

d = The originating station type. This is an optional parameter indicating the calling station type. Valid value(s):

- CCOSAIOD = Automatic identified outward dialing (AIOD) listed directory number (DN) sent.
- CCOSANIF = Automatic number identification failure.
- CCOSCNLES = Coinless, hospital, inmate, etc.
- CCOSCOIN = Coin call.
- CCOSHOTEL = Hotel without room identification.
- CCOSILCNL = InterLATA restricted - coinless line, etc.
- CCOSILHT = InterLATA restricted - hotel line.
- CCOSILRST = InterLATA restricted.
- CCOSLINE = Identified line - no special treatment.
- CCOSNLINE = Identified line (coin or noncoin).
- CCOSONI = Operator number identification (ONI) (multiparty).
- CCOSTEST = Test call.

e = The type of response received from the test query request. Only one type of response for each request is expected. Valid value(s):

- NORMAL RESPONSE = Routing information provided by external data base.
- PARSING FAILURE = Return failure from parsing function.
- PLAY ANNOUNCEMENT = External database cannot provide routing information.
- QUERY FAIL = Network fail, query not received by external database.
- REJECT = Protocol error in the query message to the external database.
- RETURN ERROR = Improper or invalid data in the query message to the external database.
- TIMEOUT = A response to the test query was not received within the three second time limit.

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f = Error code, problem code specifier or ACG indicator. Valid value(s):

If 'e' =	'f' =
RETURN ERROR	Error code. Valid value(s): 1 = UNEXPECTED COMPONENT SEQUENCE 2 UNEXPECTED DATA VALUE 3 = UNAVAILABLE NETWORK RESOURCE 4 = MISSING CUSTOMER RECORD 5 = REPLY OVERDUE 6 = DATA UNAVAILABLE
REJECT	Problem code specifier. Valid value(s): 1 = UNRECOGNIZED COMPONENT 2 = INCORRECT COMPONENT PORTION 3 = BADLY STRUCTURED COMPONENT PORTION 4 = DUPLICATE INVOKE ID 5 = UNRECOGNIZED OPERATION CODE 6 = INCORRECT INVOKE PARAMETER 7 = UNRECOGNIZED INVOKE CORRELATION ID 8 = UNRECOGNIZED RETURN RESULT CORRELATION ID 9 = UNEXPECTED RETURN RESULT 10 = INCORRECT RETURN RESULT PARAMETER 11 = UNRECOGNIZED RETURN ERROR CORRELATION ID 12 = UNEXPECTED RETURN ERROR 13 = UNRECOGNIZED RETURN ERROR 14 = UNEXPECTED ERROR 15 = INCORRECT RETURN ERROR PARAMETER 16 = UNRECOGNIZED PACKAGE TYPE 17 = INCORRECT TRANSACTION PORTION 18 = BADLY STRUCTURED TRANSACTION PORTION 19 = UNRECOGNIZED TRANSACTION ID
NORMAL RESPONSE	Automatic call gap indicator. Valid value(s): ACG_COMP RECEIVED ACG_COMP NOT RECEIVED

g = Announcement code (if 'e' = PLAY ANNOUNCEMENT).

h = Routing number (if 'e' = NORMAL RESPONSE).

i = Carrier ID associated with type of response (if 'e' = NORMAL RESPONSE).

j = AMA call code data associated with type of response (if 'e' = NORMAL RESPONSE).

k = Carrier identification code expansion indicator (CICEI). Valid value(s):

CICEI PARAMETER IS SET TO NO
CICEI PARAMETER IS SET TO YES

l = Routing nature of number (if 'e' = NORMAL RESPONSE). Valid value(s):

NOT APPLICABLE
INTERNATIONAL

```
NATIONAL
NETWORK SPECIFIC
INTERNATIONAL OPERATOR
INTER-EXCHANGE CARRIER OPERATOR
LOCAL EXCHANGE CARRIER OPERATOR
```

4. ACTION TO BE TAKEN

None. This message is in response to a manual NS800 test query input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
TST:NS800
```

TST:NS800-B

Software Release: 5E12 and later
Message Class: CCSTST,CCS
Application: 5
Type: Output

1. FORMAT

```
TST NS800=a          ANI=b          LATA=c          OST=d
  OPC=m
  e        [f]      [g]
 [h]       [l]      [i]      [j]
 [k]
```

2. REASON FOR OUTPUT

To respond to a TST:NS800 input message, which requests that an 800 number service (NS800) query test be performed.

3. VARIABLE FIELD DEFINITIONS

a = The ten-digit input service switching point (SSP) number that was tested.

b = Ten-digit automatic number identification (ANI) or the calling number.

c = Three-digit local access transport area (LATA) number.

d = The originating station type. This is an optional parameter indicating the calling station type. Valid value(s):

- CCOSAIOD = Automatic identified outward dialing (AIOD) listed directory number (DN) sent.
- CCOSANIF = Automatic number identification failure.
- CCOSCNLES = Coinless, hospital, inmate, etc.
- CCOSCOIN = Coin call.
- CCOSHOTEL = Hotel without room identification.
- CCOSILCNL = InterLATA restricted - coinless line, etc.
- CCOSILHT = InterLATA restricted - hotel line.
- CCOSILRST = InterLATA restricted.
- CCOSLINE = Identified line - no special treatment.
- CCOSNLINE = Identified line (coin or noncoin).
- CCOSONI = Operator number identification (ONI) (multiparty).
- CCOSTEST = Test call.

e = The type of response received from the test query request. Only one type of response for each request is expected. Valid value(s):

- NORMAL RESPONSE = Routing information provided by external data base.
- PARSING FAILURE = Return failure from parsing function.
- PLAY ANNOUNCEMENT = External database cannot provide routing information.
- QUERY FAIL = Network fail, query not received by external database.
- REJECT = Protocol error in the query message to the external database.
- RETURN ERROR = Improper or invalid data in the query message to the external database.
- TIMEOUT = A response to the test query was not received within the three second time limit.

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f = Error code, problem code specifier or ACG indicator. Valid value(s):

If 'e' =	'f' =
RETURN ERROR	Error code. Valid value(s): 1 = UNEXPECTED COMPONENT SEQUENCE 2 = UNEXPECTED DATA VALUE 3 = UNAVAILABLE NETWORK RESOURCE 4 = MISSING CUSTOMER RECORD 5 = REPLY OVERDUE 6 = DATA UNAVAILABLE
REJECT	Problem code specifier. Valid value(s): 1 = UNRECOGNIZED COMPONENT 2 = INCORRECT COMPONENT PORTION 3 = BADLY STRUCTURED COMPONENT PORTION 4 = DUPLICATE INVOKE ID 5 = UNRECOGNIZED OPERATION CODE 6 = INCORRECT INVOKE PARAMETER 7 = UNRECOGNIZED INVOKE CORRELATION ID 8 = UNRECOGNIZED RETURN RESULT CORRELATION ID 9 = UNEXPECTED RETURN RESULT 10 = INCORRECT RETURN RESULT PARAMETER 11 = UNRECOGNIZED RETURN ERROR CORRELATION ID 12 = UNEXPECTED RETURN ERROR 13 = UNRECOGNIZED RETURN ERROR 14 = UNEXPECTED ERROR 15 = INCORRECT RETURN ERROR PARAMETER 16 = UNRECOGNIZED PACKAGE TYPE 17 = INCORRECT TRANSACTION PORTION 18 = BADLY STRUCTURED TRANSACTION PORTION 19 = UNRECOGNIZED TRANSACTION ID
NORMAL RESPONSE	Automatic call gap indicator. Valid value(s): ACG_COMP RECEIVED ACG_COMP NOT RECEIVED

g = Announcement code (if 'e' = PLAY ANNOUNCEMENT).

h = Routing number (if 'e' = NORMAL RESPONSE).

i = Carrier ID associated with type of response (if 'e' = NORMAL RESPONSE).

j = AMA call code data associated with type of response (if 'e' = NORMAL RESPONSE).

k = Carrier identification code expansion indicator (CICEI). Valid value(s):

CICEI PARAMETER IS SET TO NO
CICEI PARAMETER IS SET TO YES

l = Routing nature of number (if 'e' = NORMAL RESPONSE). Valid value(s):

NOT APPLICABLE
INTERNATIONAL

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```
NATIONAL
NETWORK SPECIFIC
INTERNATIONAL OPERATOR
INTER-EXCHANGE CARRIER OPERATOR
LOCAL EXCHANGE CARRIER OPERATOR
```

`m` = Origination point code. Refer to the APP:POINT-CODE appendix in the Appendixes section of the Input Messages manual.

4. ACTION TO BE TAKEN

None. This message is in response to a manual NS800 test query input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
TST:NS800
```

TST:OLNS

Software Release: 5E12 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
TST OLNS=a    DURATION OF TEST=b
  [c]   [d]
  ORIG BILLING SERVICE
     [f]   [g]   [h]   [i]
     [j]   [k]   [l]   [m]
  ADDITIONAL BILLING SERVICE
     [n]   [o]   [p]   [q]
     [r]   [s]
  IC-IND=[t] [u]   OPC=[v]
  w   CG-DIGITS=[x]
  CG-DUR=[y]   CG-INTVL=[z]   [a1]
  GTDIG=cc    [d1]
  GENERIC NAME [e1]    [f1]
  DISALLOWED CARD ISSUER [g1]
  ACCT-OWNER=[h1]   BILL-SVC-PROVIDER=[i1]
```

2. REASON FOR OUTPUT

To report the results of the manual request from the TST:OLNS input message that a originating line number screening (OLNS) query test be performed using the line information database (LIDB). It is used as a high-level check on connections to a LIDB destination (a database external to the switch), to check out data in the database, or to check out a repeatedly failing query.

3. VARIABLE FIELD DEFINITIONS

`a` = Ten-digit calling number that was queried.

`b` = Duration of the test in milliseconds. Timing starts when the switch receives the input request and ends when the switch receives the result from the network or a timeout occurs.

`c` = Results of a failed test. This field prints out only when the test query was not successful. Valid value(s):

`GARBLED MESSAGE` = A response was received but the data in the message was mutilated.
`IMS OR CNI RETURNED MSG` = The inter-process message switch (IMS) or the common network interface (CNI) returned the message.
`NETWORK CONGESTION` = Could not complete the test due to network congestion.
`NETWORK FAILURE` = Could not complete the test due to failure in the network.
`NO TRANSLATION ADDRESS NATURE` = No entries exist in the database for addresses of this nature.
`NO TRANSLATION SPECIFIC ADDRESS` = No entries exist in the database for this specific address.
`SUBSYSTEM CONGESTION` = Could not complete the test due to subsystem congestion.
`SUBSYSTEM FAILURE` = Could not complete the test due to subsystem failure.
`TIMEOUT` = A response to the test query was not received within the eight-second time limit.
`UNEQUIPPED USER` = Could not complete the test due to unequipped user.

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d = LIDB OLNS response. Valid value(s):
MISROUTE = Misroute.
MISSING CUST REC = Missing customer record.
MISSING GROUP = Missing group.
NONPARTICIPATE GRP = Nonparticipating group.
RECEIVE REJECT = Received reject message for LIDB BNS query.
RECORD FOUND = LIDB BNS record found.
UNAV NET RESOURCE = Unavailable network resource.
UNXP DATA VALUE = Unexpected data value.
VACANT GROUP = Vacant group.

f = Originating Collect billing indicator. Valid value(s):
ALW COL = Allowed from this line.
ALWC DOM = Allowed from this line for domestic calls only.
NOCOL = Not allowed from this line.

g = Originating Third Number billing indicator. Valid value(s):
ALW 3RD = Allowed from this line.
ALW3 DOM = Allowed from this line for domestic calls only.
NO 3RD = Not allowed from this line.
OPVFY 3RD = Allowed from this line with operator verification.
VFY 3RD = Allowed from this line with operator or automated verification.

h = Originating Local, Non-Toll indicator. Valid value(s):
ALW LOC = Allowed from this line.
NO LOC = Not allowed from this line.

i = Originating Credit Card indicator. Valid value(s):
ALW CRD = Allowed from this line.
ALWCRD DOM = Allowed from this line for domestic calls only.
NO CRD = Not allowed from this line.
CRDRES LOC = Card Issuer restrictions associated with this line for local calls only.
CRDRES INTRA = Card Issuer restrictions associated with this line for intraLATA, non-local calls only.
CRDRES = Card Issuer restrictions associated with this line.
NO INTL RES LOC = Non-domestic calls not allowed from this line and Card Issuer restrictions associated with this line for local calls only.
NO INTL RES INTRA = Non-domestic calls not allowed from this line and Card Issuer restrictions associated with this line for intraLATA, non-local calls only.
NO INTL RES = Non-domestic calls not allowed from this line and Card Issuer restrictions associated with this line.

j = Originating Free Directory Assistance (DA) indicator. Valid value(s):
ALW FREEDA = Allowed from this line.
NO FREEDA = Not allowed from this line.

k = Originating Special Billing Number Services (BNS) indicator. Valid value(s):
ALW SPECBNS = Allowed from this line.
NO SPECBNS = Not allowed from this line.

l = Originating Special Sent Paid (SP) indicator. Valid value(s):
ALW SP = Allowed from this line.
ALW DOM SP = Allowed from this line for domestic calls only.
INTRA SP NONPAY = Allowed from this line for intraLATA calls only, due to nonpayment.
INTRA SP CUSTREQ = Allowed from this line for intraLATA calls only, due to customer request.
NO SP = Not allowed from this line.

m = Originating DA Call Completion (DACC) indicator. Valid value(s):
ALW DACC = Allowed from this line (for toll and non-toll calls).
NO DACC = Not allowed from this line (for toll and non-toll calls).
ALWDACC RES = Allowed from this line with billing restrictions (for toll and non-toll calls).
ALWDACC LOC = Allowed from this line for local, non-toll calls.
ALWDACC ALT = Allowed from this line with alternate billing restrictions/no sent-paid allowed.

n = Additional Originating Third billing indicator. Valid value(s):
ALW A3RD = Allowed from this line.
NO A3RD = Not allowed from this line.
OPVFY A3RD = Allowed with operator verification.
VFY A3RD = Allowed with operator or automated verification.

o = Additional Originating Credit Card indicator. Valid value(s):
ALW ACRD = Allowed from this line.
NO ACRD = Not allowed from this line.
ACRDRES = Card Issuer restrictions associated with this line.

p = Additional Originating Special BNS indicator. Valid value(s):
ALW ASPECBNS = Allowed from this line.
NO ASPECBNS = Not allowed from this line.

q = Additional Originating SP indicator. Valid value(s):
ALW ASP = Allowed from this line.
NO ASP = Not allowed from this line.

r = Treatment indicator. Valid value(s):
AUTO-T = Automated treatment - provide alerting tone only.
AUTO-TP = Automated treatment - provide alerting tone and prompting announcement.
OP-STN = Operator treatment - operator handling because of station limitations.
ST-CUST = Special treatment - operator handling at customer request.
ST-HC1 = Special treatment - handicapped 1.
ST-HC2 = Special treatment - handicapped 2.
AUTO_TP2 = Automated treatment - provide alerting tone and prompting announcement 2.
AUTO_TP3 = Automated treatment - provide alerting tone and prompting announcement 3.
OP_FRAUD = Operator treatment - high fraud.

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AUTO_T_NOOP = Automated treatment - provide alerting tone only - no operator access.
AUTO_TP4_NOOP = Automated treatment - provide alerting tone and prompting announcement 4 - no operator access.
AUTO_TP5_NOOP = Automated treatment - provide alerting tone and prompting announcement 5 - no operator access.
AUTO_TP6_NOOP = Automated treatment - provide alerting tone and prompting announcement 6 - no operator access.
AUTO_TP7 = Automated treatment - provide alerting tone and prompting announcement 7.
AUTO_TP8 = Automated treatment - provide alerting tone and prompting announcement 8.
AUTO_TP9 = Automated treatment - provide alerting tone and prompting announcement 9.
AUTO_TP10_NOOP = Automated treatment - provide alerting tone and prompting announcement 10 - no operator access.
AUTO_TP11_NOOP = Automated treatment - provide alerting tone and prompting announcement 11 - no operator access.
AUTO_TP12_NOOP = Automated treatment - provide alerting tone and prompting announcement 12 - no operator access.
AUTO_SH1 = Automated treatment - special handling 1.
AUTO_SH2 = Automated treatment - special handling 2.
AUTO_SH3 = Automated treatment - special handling 3.
AUTO_SH4 = Automated treatment - special handling 4.
AUTO_SH5 = Automated treatment - special handling 5.
AUTO_TP13 = Automated treatment - provide alerting tone and prompting announcement 13.
AUTO_TP14_NOOP = Automated treatment - provide alerting tone and prompting announcement 14 - no operator access.

s = Service or equipment indicator. Valid value(s):
SRV1 = (1) POTS Line.
SRV2 = (2) LEC Public - Standard Interface - Postpay Overtime.
SRV3 = (3) POTS Line - Residential - Message Rate 1.
SRV4 = (4) POTS Line - Residential - Message Rate 2.
SRV5 = (5) LEC Semi-Public.
SRV6 = (6) POTS Line - Business - Flat Rate.
SRV7 = (7) POTS Line - Business - Message Rate 1.
SRV8 = (8) Coinless (non-IPP).
SRV9 = (9) Coinless (IPP).
SRV10 = (10) LEC Prepaid Telecommunciations Card Station.
SRV11 = (11) POTS Line - Business - Message Rate 2.
SRV12 = (12) LEC Public - Standard Interface - Prepay Overtime.
SRV13 = (13) LEC Public - Alternate Interface.
SRV14 = (14) IC Public - Standard Interface.
SRV15 = (15) IC Public - Alternate Interface.
SRV16 = (16) POTS Line - Residential - Flat Rate.
SRV17 = (17) Voice Quote - without tax.
SRV18 = (18) Voice Quote - with tax.
SRV19 = (19) IPP - Standard Interface.
SRV20 = (20) IPP - Alternate Interface.
SRV21 = (21) Hospital
SRV22 = (22) Prison (non-IPP).
SRV23 = (23) Auto Quote - without tax.
SRV24 = (24) Auto Quote - with tax.
SRV25 = (25) Dormitory Line.

SRV26 = (26) Centrex Line.
SRV27 = (27) PBX Line.
SRV28 = (28) Prison (IPP).
SRV29 = (29) WATS Line.
SRV30 = (30) Cellular.
SRV31 = (31) Pager.
SRV32 = (32) Personal Communication Service (PCS).
SRV33 = (33) Feature Group A (FGA).
SRV34 = (34) Mobile.
SRV35 = (35) LEC Public - Special Billing - Postpay Overtime.
SRV36 = (36) LEC Public - Special Billing - Prepay Overtime.
SRV37 = (37) Public - Incompatible Network Interface.
SRV38 = (38) Cellular - Rate 1.
SRV39 = (39) Cellular - Rate 2.
SRV40 = (40) POTS Line - Business - Single Line
SRV41 = (41) POTS Line - Business - Multi-Line
SRV42 = (42) Public - Postpay

t = First interLATA carrier (IC) indicator.

u = Second IC indicator.

v = Originating point code of the LIDB.

w = Call gap present indicator. Valid value(s):
ACG NOT PRESENT = Automatic call gap component not present.
ACG PRESENT, CORRECT = Automatic call gap component present, has no errors.
ACG PRESENT, INERROR = Automatic call gap component present, has errors.

z = Call gap control digits - digits to which controls are to be applied.

y = The call gap duration - used to determine the length of time for which controls are to be in effect. The following table lists the call gap duration index number received from the database and the corresponding time (in seconds) that the index represents:

index	gap duration in seconds
0	0
1	1
2	2
3	4
4	8
5	16
6	32
7	64
8	128
9	256
10	512
11	1024
12	2048
13	(block all queries)

z = The call gap interval - used to determine the time between allowed queries when controls are in effect. The following table lists the call gap interval index number received from the database and the corresponding time (in seconds) that the index represents:

index	gap interval in seconds

0	0
1	3
2	4
3	6
4	8
5	11
6	16
7	22
8	30
9	42
10	58
11	81
12	112
13	156
14	217
15	300

a[1] = Call gap indicator. Valid value(s):

- DBOVLD = Database overload.
- MASS = Destination mass calling.
- OUTBND = Out of band.
- SMS = Service Management System (SMS) initiated.
- VACCD = Vacant code.

c[1] = Number of digits used Global Title address.

d[1] = Foreign Language indicator. Valid value(s):

SPANISH
FRENCH
GERMAN
ITALIAN
MANDARIN
TAGALOG
POLISH
KOREAN
VIETNAMESE
PORTUGUESE
JAPANESE
GREEK
ARABIC
HINDI
RUSSIAN
YIDDISH
THAI
PERSIAN
FRENCH CREOLE
ARMENIAN
NAVAHO
HUNGARIAN
HEBREW
DUTCH
CAMBODIAN
GUJARATHI
UKRAINIAN
CZECH

PENNSYLVANIA DUTCH
MAIO
NORWEGIAN
SLOVAK
SWEDISH
SERBO-CROATIAN
KRU
RUMANIAN
LITHUANIAN
FINNISH
PANJABI
FORMOSAN
CROATIAN
TURKISH
ILOCANO
BENGALI
DANISH
SYRIAC
SAMOAN
MALAYALAM
CAJUN
AMHARIC
CANTONESE

e[1] = Generic Name received. Valid value(s):
NONE = Generic Name Identifier was not received in reply.
RECEIVED = Generic Name Identifier was received in reply.

f[1] = Alphanumeric String indicator.

g[1] = Card Issuer Restrictions received. Valid value(s):
NONE = A Disallowed Card Issuer Code was not received in reply.
RECEIVED = A Disallowed Card Issuer Code was received in reply.

h[1] = Account Owner indicator.

i[1] = Billing Service Provider indicator.

4. ACTIONS TO BE TAKEN

This message is the response to a manual request. If variable 'c' prints out, then there is a problem with the connection to the database. Otherwise, the response is from the database. In this case, the response should be examined to see if it indicates proper data in the database. Contact the LIDB administrator for assistance.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:DSTT
TST:AT1
TST:BNS
TST:CAS
TST:CAS7
TST:CCRD
TST:ICCV
TST:INWATS
TST:NCD
TST:RATE
```

Output Message(s):

```
EXC:DSTT
TST:AT1
TST:BNS
TST:CAS
TST:CAS7
TST:CCRD
TST:ICCV
TST:INWATS
TST:LIDB-CCRD
TST:NCD
TST:RATE
```

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

TST:OSPS

Software Release: 5E10 and later
Message Class: TLWS
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      TST OSPS  {HOBIS=a-b | HOBICR=c-d | HOBICV=c-e |
                 LCEN=f-g-h-j}  k>

[2]   ____________________________________________________________
      TST OSPS AQEST=l [AQ=m-n] o p
      q q q q q q q q q q
      q q q q q q q q q q
```

2. REASON FOR OUTPUT

To respond to the TST:OSPS input message requesting tests of hotel billing information system (HOBIS), hotel billing information center (HOBIC), or autoquote hotel/motel lines. Format 1; appears for HOBIS/HOBIC test and Format 2; appears for autoquote test.

3. VARIABLE FIELD DEFINITIONS

`AQ` = Autoquote DSL.

`AQEST` = Autoquote hotel/motel establishment.

`LCEN` = Line card equipment number.

`a` = HOBIS number.

`b` = Relative digital subscriber line (DSL) number assigned to a HOBIS data link DSL.

`c` = HOBIC number.

`d` = Relative DSL number assigned to a HOBICR (HOBIC record TTY) data link DSL.

`e` = Relative DSL number assigned to a HOBICV (HOBIC voice-quote TTY) data link DSL.

`f` = Switching module number.

`g` = Line unit number.

`h` = Line group number.

`j` = Line card ID.

`k` = Completion report. Valid value(s):
- `COMPLETED` = The text string has been printed on the HOBIS/HOBIC TTY.
- `DATABASE ERROR` = The test could not be completed because of data base errors.
- `FAILURE` = The text string could not be printed because the HOBIS/HOBIC service process does not exist.
- `INVALID PORT` = The test could not be completed because the specified port is invalid.

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`LINKBUSY` = The text string could not be printed because the HOBIS/HOBIC TTY link is busy. Retry later.
`UNASSIGNED PORT` = The test was not completed because the port is not assigned.

`l` = AQEST directory (telephone) number.

`m` = AQ group ID.

`n` = AQ relative DSL number.

`o` = Test type. Valid value(s):

```
CARRIER ENQACK PRINT
```

`p` = Completion report. Valid value(s):
`COMPLETED` = The test was successfully completed.
`DSLBUSY` = The test could not be completed because all the AQ-DSLs are busy, or the requested AQ-DSL is busy doing another craft requested TST:OSPS job.
`DSLOOS` = The test failed because the requested AQ-DSL was out-of-service.
`HANDSHAKE PROBLEM` = The test failed because the local and remote modem could not handshake.
`ROUTING FAILURE` = The test failed because the test call could not be routed to the AQEST.

`q` = Interleaved time sequence of "ENQ" characters sent from the switch and characters received from the AQEST printer. The characters received from the printer will be represented as ACK (for "ACK" character), and INV (invalid) for other characters received.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
TST:OSPS
```

TST:PSLNK

Software Release: 5E11 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

[1]
```
TST PSLNK=a-b   [c] [d]

 [HI-PRIORITY VPI=g TO PSLNK FARCA=b]
 [CHANNEL 0: f]
 [CHANNEL 1: f]

 [LO-PRIORITY VPI=h TO PSLNK FARCA=b]
 [CHANNEL 0: f]
 [CHANNEL 1: f]
```

[2]
```
TST PSLNK VPATH=a-d   [c] [d]

 [HI-PRIORITY VPI=g TO VPATH FARCA=e]
 [CHANNEL 0: f]
 [CHANNEL 1: f]

 [LO-PRIORITY VPI=h TO VPATH FARCA=e]
 [CHANNEL 0: f]
 [CHANNEL 1: f]
```

2. REASON FOR OUTPUT

To report the result of a packet switch unit (PSU) link (PSLNK) loop back test as in Format 1 or virtual path (VPATH) loop back test as in Format 2.

There are two virtual paths, one high priority and one low priority, that connect two PSU CAs. Each virtual path is identified with an unique virtual path identifier (VPI) number. Each virtual path is normally duplexed. The report lists the result of the loop back test of both channels of both VPIs individually.

A virtual path connectivity is lost only when both of its channels fail the loop back test.

3. VARIABLE FIELD DEFINITIONS

`a` = Near end community address of the PSU link or virtual path.

`b` = Far end community address of the PSU link.

`c` = Termination status. Valid value(s):
- `ABORTED` = Requested action has aborted.
- `COMPLETED` = Request has successfully completed.
- `STOPPED` = Requested action has stopped.

`d` = Additional information qualifying the termination status. Refer to the APP:PSU-RESP appendix in

the Appendixes section of this Output Messages manual.

`e` Far end community address of the virtual path.

`f` Loop back test result. Refer to the APP:PSU-RESP appendix in the Appendixes section of this Output Messages manual.

`g` = High priority virtual path identifier (VPI) number to the far end of the PSU link or virtual path.

`h` = Low priority VPI number to the far end of the PSU link or virtual path.

4. ACTION TO BE TAKEN

If a virtual path connectivity is lost, identification of the source of the problem and resolution of the problem requires the cooperation of the intermediate office(s), if any, and the far end office.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
TST:PSLNK
```

Output Appendix(es):

```
APP:PSU-RESP
```

MCC Display Page(s):

1187 (PSU LINKS STATUS)

TST:RATE-A

Software Release: 5E10 only
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
TST RATE=a b DURATION OF TEST=c
  d                                  CHARGE=[f]    TEI=[g]
  IPDUR=[h]      NPP=[i]             NCC=[j]       CCI=[k]
  ICHG=[l]       OTDUR=[m]           CHGDUR=[n]
  ALWTM=[o]      CMPCHG=[p]          CMPDUR=[q]
  CMPOCHG=[r]    CMPODUR=[s]         [t]
  AO=[u]         FNE=[v]
 [w]
  SASI=[x]       PCCS=[y]
```

2. REASON FOR OUTPUT

To report the results of the manual request (TST:RATE) that a rate query test be performed.

3. VARIABLE FIELD DEFINITIONS

`a` = The originating ten digit directory number.

`b` = The terminating digit directory number.

`c` = Duration of the test in milliseconds. Timing starts when the switch receives the input request and ends when the switch receives the result from the network or a timeout.

`d` = Results of the test. Valid value(s):

`CHARGE OVERFLOW` = Database unable to process due to charge overflow.

`DENY` = Deny this call due to class of service (coin only) or because:

- The call is a busy line verify (BLV)/ emergency interrupt (EI) and the rate table in Real Time Rating System (RTRS) indicates that BLV/EI calls are not allowed for this call.
- The call is for a certain combination of billing type and automation degree that the rate table in RTRS indicates it is not allowed.
- The call could be a local person coin call. RTRS has the ability to deny or not allow local person coin calls from selected NPA-NXXs.

`FLAT CHARGE` = Call has a flat charge independent of duration.

`FLAT RATED COMPARISON CARD` = The RTRS database has returned a flat rated reply for the comparison calling card, but no data was returned for the customer calling card.

`FLAT RATED-INSUFFICIENT BALANCE` = The RTRS database has returned a flat rated reply for a purchase limits initial query, but the balance in the query was insufficient to cover the charges for the call.

`FLAT RATED REQUESTED CARD` = The RTRS database has returned a flat rated reply for the customer calling card, but no data was returned for the comparison calling card.

`INVALID RATE MESSAGE RECEIVED` = A response was received from the database but the data

in the response was mutilated.
NO RATING DATA = Database unable to process due to no rating data available.
RATED = Database has rated the call.
RATED COMPARISON CARD = The RTRS database has returned a rated reply for a comparison calling card, but no data was returned for the customer calling card.
RATED REQUESTED CARD = The RTRS database has returned a rated reply for a customer calling card, but no data was returned for the comparison calling card.
RATED-INSUFFICIENT BALANCE = The RTRS database has returned a rated reply for a purchase limits initial query, but the balance in the query was insufficient to cover the charges for the call.
RTRS FAILURE-HARDWARE PROBLEM = The RTRS database was unable to return a valid query response due to hardware problems.
RTRS FAILURE-TOO MANY QUERIES = The RTRS database was unable to return a valid query response because no query ID's were available.
SHORT TERM OVERLOAD = Database unable to process due to short term overload.
TIMEOUT = A response to the test query was not received within the eight second time limit.
TRANSIENT ERROR = Database unable to process due to transient error.
UNRECOGNIZED MESSAGE = Database unable to process due to unrecognized message.

f = Initial period charge or flat charge or verification charge or total charge. If initial period charge or flat charge or verification charge or total charge is not returned in the reply, NONE is printed.

g = Tax exempt indicator. Valid value(s):
NO = Rate does include tax. If tax exempt indicator is not returned in the reply, NONE is printed.
YES = Rate does not include tax.

h = Initial period duration - the amount of time (in seconds) for the initial period. If initial period duration is not returned in the reply, NONE is printed.

i = Notification post pay. Valid value(s):
NONE = Notification post pay indicator is not returned in the reply.
YES = Notification post pay is present.

j = Notification coin call. Valid value(s):
NONE = Notification coin call is not returned in the reply.
YES = Notification coin call is present.

k = Collect coin interval - the time interval (in seconds) in which the database must be queried again for new charges. If coin collect interval is not returned in the reply, NONE is printed.

l = Interrupt charge or overtime period charge. If interrupt charge or overtime period charge is not returned in the reply, NONE is printed.

m = Overtime period duration - the amount of time (in seconds) for one overtime period. If overtime period duration is not returned in the reply, NONE is printed.

n = Chargeable duration - the chargeable duration (in seconds) that should be quoted. If chargeable duration is not returned in the reply, NONE is printed.

o = Purchase limits allowable time in tenths of seconds or allowable indicator for BLV calls. If this field is not returned in the reply, NONE is printed.

p = Comparison card initial period charge or flat charge or verification charge or total charge. If comparison card initial period charge or flat charge or verification charge or total charge is not returned in the reply, NONE is printed.

q = Comparison card initial period duration - the amount of time (in seconds) for the initial period for the comparison card. If comparison card initial period duration is not returned in the reply, NONE is printed.

r = Comparison card interrupt charge or overtime period charge. If comparison card interrupt charge or overtime period charge is not returned in the reply, NONE is printed.

s = Comparison card overtime period duration - the amount of time (in seconds) for one overtime period. If if comparison card overtime period duration is not returned in the reply, NONE is printed.

t = Control level value received. This field is output only if a control level is received in the reply. Possible values are 0 - 7 and refer to the number of queries out of eight that are being cut back.

u = Automation offering (AO). This is an optional field used to identify the level of automation (type of treatment) associated with a given OSPS 0-/00- originated call. Valid value(s):
AUTOMATED POSITION = Call handled by the automated position system.
NOT APPLICABLE = Not applicable (not used by call processing at this time).
OPERATOR = Call handled by the operator.
SWITCH = Not applicable (not used by call processing at this time).

v = Forward number entry (FNE). This is an optional field used to identify who entered the forward number associated with a given OSPS 0-/00- originated call. Valid value(s):
CUSTOMER ENTERED = Customer entered the forward number at the APS.
NOT APPLICABLE = Not applicable (not used by call processing at this time).
OPERATOR ENTERED = Operator entered the forward number.
SWITCH = Not applicable (not used by call processing at this time).

w = Results of test. Valid value(s):
(blank) = The pre-paid overtime for coin calls feature has not been purchase (secure feature ID is not on).
POSTPAY EACH OVERTIME = Charges for each overtime interval will be requested at the end of each overtime period.
PREPAY EACH OVERTIME = Charges for each overtime interval will be requested at the start of each overtime period.

x = Special access service identifier that was entered in the query. A number from 1 to 10 or 'NONE' if the field was not entered.

y = Prior call completion status that was entered in the query. Valid value(s):
NEG = Negative prior call completion status.
NONE = Field not entered.
POS = Positive prior call completion status.

4. ACTION TO BE TAKEN

Follow the local practice for handling RATE query tests.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:DSTT
TST:BNS
TST:CAS
TST:CCRD
TST:INWATS
TST:NCD
TST:RATE
```

Output Message(s):

```
EXC:DSTT
TST:BNS
TST:CAS
TST:CCRD
TST:INWATS
TST:NCD
```

TST:RATE-B

Software Release: 5E11 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
TST RATE=a b DURATION OF TEST=c
  d                                  CHARGE=[f]    TEI=[g]
  IPDUR=[h]      NPP=[i]             NCC=[j]       CCI=[k]
  ICHG=[l]       OTDUR=[m]           CHGDUR=[n]
  ALWTM=[o]      CMPCHG=[p]          CMPDUR=[q]
  CMPOCHG=[r]    CMPODUR=[s]         [t]
  AO=[u]         FNE=[v]
 [w]
  SASI=[x]       PCCS=[y]
  DATYPE=[z]
  MEASCHRG=[a1]  MEASDUR=[b1]
  MEASOCHRG=[c1] MEASODUR=[d1]
  FLATRPLYCODE[e1]                      MEASRPLYCODE[f1]
  CHARGES FOR DA SEARCH TYPE 1=[g1]
  CHARGES FOR DA SEARCH TYPE 2=[h1]
```

2. REASON FOR OUTPUT

To report the results of the manual request (TST:RATE) that a rate query test be performed.

3. VARIABLE FIELD DEFINITIONS

`a` = The originating ten-digit directory number.

`b` = The terminating ten-digit directory number.

`c` = Duration of the test in milliseconds. Timing starts when the switch receives the input request and ends when the switch receives the result from the network or a timeout.

`d` = Results of the test. Valid value(s):

`CHARGE OVERFLOW` = Database unable to process due to charge overflow.

`DENY` = Deny this call due to class of service (coin only) or because:

- The call is a busy line verify (BLV)/ emergency interrupt (EI) and the rate table in Real Time Rating System (RTRS) indicates that BLV/EI calls are not allowed for this call.
- The call is for a certain combination of billing type and automation degree that the rate table in RTRS indicates it is not allowed.
- The call could be a local person coin call. RTRS has the ability to deny or not allow local person coin calls from selected NPA-NXXs.

`FLAT CHARGE` = Call has a flat charge independent of duration.

`FLAT RATED COMPARISON CARD` = The RTRS database has returned a flat rated reply for the comparison calling card, but no data was returned for the customer calling card.

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FLAT RATED-INSUFFICIENT BALANCE = The RTRS database has returned a flat rated reply for a purchase limits initial query, but the balance in the query was insufficient to cover the charges for the call.
FLAT RATED REQUESTED CARD = The RTRS database has returned a flat rated reply for the customer calling card, but no data was returned for the comparison calling card.
INVALID RATE MESSAGE RECEIVED = A response was received from the database but the data in the response was mutilated.
NO RATING DATA = Database unable to process due to no rating data available.
RATED = Database has rated the call.
RATED COMPARISON CARD = The RTRS database has returned a rated reply for a comparison calling card, but no data was returned for the customer calling card.
RATED REQUESTED CARD = The RTRS database has returned a rated reply for a customer calling card, but no data was returned for the comparison calling card.
RATED-INSUFFICIENT BALANCE = The RTRS database has returned a rated reply for a purchase limits initial query, but the balance in the query was insufficient to cover the charges for the call.
RTRS FAILURE-HARDWARE PROBLEM = The RTRS database was unable to return a valid query response due to hardware problems.
RTRS FAILURE-TOO MANY QUERIES = The RTRS database was unable to return a valid query response because no query ID's were available.
SHORT TERM OVERLOAD = Database unable to process due to short term overload.
TIMEOUT = A response to the test query was not received within the eight second time limit.
TRANSIENT ERROR = Database unable to process due to transient error.
UNRECOGNIZED MESSAGE = Database unable to process due to unrecognized message.

f = Initial period charge or flat charge or verification charge or total charge. If initial period charge or flat charge or verification charge or total charge is not returned in the reply, NONE is printed.

g = Tax exempt indicator. Valid value(s):
NO = Rate does include tax. If tax exempt indicator is not returned in the reply, NONE is printed.
YES = Rate does not include tax.

h = Initial period duration - the amount of time (in seconds) for the initial period. If initial period duration is not returned in the reply, NONE is printed.

i = Notification post pay. Valid value(s):
NONE = Notification post pay indicator is not returned in the reply.
YES = Notification post pay is present.

j = Notification coin call. Valid value(s):
NONE = Notification coin call is not returned in the reply.
YES = Notification coin call is present.

k = Collect coin interval - the time interval (in seconds) in which the database must be queried again for new charges. If coin collect interval is not returned in the reply, NONE is printed.

l = Interrupt charge or overtime period charge. If interrupt charge or overtime period charge is not returned in the reply, NONE is printed.

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m = Overtime period duration - the amount of time (in seconds) for one overtime period. If overtime period duration is not returned in the reply, NONE is printed.

n = Chargeable duration - the chargeable duration (in seconds) that should be quoted. If chargeable duration is not returned in the reply, NONE is printed.

o = Purchase limits allowable time in tenths of seconds or allowable indicator for BLV calls. If this field is not returned in the reply, NONE is printed.

p = Comparison card initial period charge or flat charge or verification charge or total charge. If comparison card initial period charge or flat charge or verification charge or total charge is not returned in the reply, NONE is printed.

q = Comparison card initial period duration - the amount of time (in seconds) for the initial period for the comparison card. If comparison card initial period duration is not returned in the reply, NONE is printed.

r = Comparison card interrupt charge or overtime period charge. If comparison card interrupt charge or overtime period charge is not returned in the reply, NONE is printed.

s = Comparison card overtime period duration - the amount of time (in seconds) for one overtime period. If if comparison card overtime period duration is not returned in the reply, NONE is printed.

t = Control level value received. This field is output only if a control level is received in the reply. Possible values are 0 - 7 and refer to the number of queries out of eight that are being cut back.

u = Automation offering (AO). This is an optional field used to identify the level of automation (type of treatment) associated with a given OSPS 0-/00- originated call. Valid value(s):
AUTOMATED POSITION = Call handled by the automated position system.
NOT APPLICABLE = Not applicable (not used by call processing at this time).
OPERATOR = Call handled by the operator.
SWITCH = Not applicable (not used by call processing at this time).

v = Forward number entry (FNE). This is an optional field used to identify who entered the forward number associated with a given OSPS 0-/00- originated call. Valid value(s):
CUSTOMER ENTERED = Customer entered the forward number at the APS.
NOT APPLICABLE = Not applicable (not used by call processing at this time).
OPERATOR ENTERED = Operator entered the forward number.
SWITCH = Not applicable (not used by call processing at this time).

w = Results of test. Valid value(s):
(blank) = The pre-paid overtime for coin calls feature has not been purchase (secure feature ID is not on).
POSTPAY EACH OVERTIME = Charges for each overtime interval will be requested at the end of each overtime period.
PREPAY EACH OVERTIME = Charges for each overtime interval will be requested at the start of each overtime period.

x = Special access service identifier that was entered in the query. A number from 1 to 10 or 'NONE' if the field was not entered.

y = Prior call completion status that was entered in the query. Valid value(s):

NEG	= Negative prior call completion status.
NONE	= Field not entered.
POS	= Positive prior call completion status.

z = Directory Assistance Type value. If there is no Directory Assistance Type value specified in the query, then NONE is printed.

a[1] = Measured service initial period charge, rated or flat. If rated or flat charge is not returned in the reply, NONE is printed.

b[1] = Measured service initial duration. If measured service initial duration is not returned in the reply, NONE is printed.

c[1] = Measured service overtime period charge, rated or flat. If overtime period charge is not returned in the reply, NONE is printed.

d[1] = Measured service overtime duration. If overtime duration is not returned in the reply, NONE is printed.

e[1] = Flat reply code for flat and measured services request. If the flat reply code is not returned in the reply, NONE is printed.

f[1] = Measured reply code for flat and measured services request. If the measured reply code is not returned in the reply, NONE is printed.

g[1] = Charges for Directory Assistance Search Type 1. If no charges are returned in the reply, 'NONE' is printed.

h[1] = Charges for Directory Assistance Search Type 2. If no charges are returned in the reply, 'NONE' is printed.

4. ACTION TO BE TAKEN

Follow the local practice for handling RATE query tests.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:DSTT
TST:BNS
TST:CAS
TST:CCRD
TST:INWATS
TST:NCD
TST:RATE
```

Output Message(s):

```
EXC:DSTT
TST:BNS
TST:CAS
TST:CCRD
TST:INWATS
TST:NCD
```

TST:RAU

Software Release: 5E10 and later
Message Class: SM
Application: 5
Type: Output

1. FORMAT

```
TST RAU=a b [c]
```

2. REASON FOR OUTPUT

To report the result of a request to perform an in-service functional test of a remote switching module (RSM) remote alarm unit (RAU).

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = Termination report. Valid value(s):

`ABORTED`	= Requested action was terminated before completion, and the termination was not graceful.
`COMPLETED`	= Request has completed successfully.
`NOT STARTED`	= Requested action was not begun.
`STOPPED`	= Requested action was terminated before completion, and the termination was graceful.

`c` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DGN:RAU
```

Output Appendix(es):

```
APP:MAINT-RESP
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

MCC Display Page(s):

1160 (MISC UNITS)

TST:SDAP

Software Release: 5E10 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
TST SDAP=a   b   c   PART [d] OF [e]
  SDC=f      SDFN=g           [h]
    .          .                .
    .          .                .
    .          .                .
    .          .                .
```

2. REASON FOR OUTPUT

To print a speed dial list in response to the manual input (TST:CAS7) that requests a speed dial auto provisioning (SDAP) test query be performed.

3. VARIABLE FIELD DEFINITIONS

`a` = Issuer identification number of the commercial credit card (CCC) or telecommunications calling card (89C) number that was input.

`b` = Individual account number of the CCC or 89C calling card number that was input. This includes a check number, if present.

`c` = Personal identification number (PIN) that was input.

`d` = The message sequence number. This is part of the total number of messages displayed in the output.

`e` = Total number of messages displayed in the output. Up to 5 messages may be required to print the results of the test query (1 for the TST:CAS7 message and up to 4 for the TST:SDAP messages).

`f` = Speed dial code received in the reply. This is a one to three digit number that may not begin with 0.

`g` = A speed dial forward number (SDFN) received in the reply.

`h` = A forward number type indicator. Valid value(s):
`INTERNATIONAL` = If the forward number is a country code.
`NANP` = If the forward number is a North American numbering plan.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
EXC:DSTT
TST:CAS7
```

Output Message(s):

```
EXC:DSTT
TST:CAS7
```

Other Manual(s):
250-505-100 *OSPS Description and Procedures*

TST:TRK-A

Software Release: 5E10 - 5E11
Message Class: TRK
Application: 5
Type: Output

1. FORMAT

[1]
```
TST TRK {TKGMN a b|TG a} k[OPDN j][TYPE a1][DUR b1][BLKSZ c1] e1>
                  f1...[f1]>
```

[2]
```
TST TRK DN=g[DEN=c-d-e-f][MLHG=h-i][TYPE a1][DUR b1][BLKSZ c1] e1>
                  f1...[f1]>
```

[3]
```
TST TRK {TKGMN a b|TG a} k e1>
                  OPDN j[TYPE a1][DUR b1][BLKSZ c1][RATE d1]>
                  f1...[f1]>
```

[4]
```
TST TRK DN=g DEN=c-h-i-j [MLHG=l-m] w>
                  TYPE a1[DUR b1][BLKSZ c1][RATE d1]>
                  f1...[f1]>
```

2. REASON FOR OUTPUT

To report the results of a manually requested automatic trunk test. This message is in response to a TST:TRK input message.

Formats 1 and 2 are used when an error condition has been detected early (while processing the request). Refer to variables 'f^1' and 'e^1' for additional information. Format 1 reports failures for analog, digital, and packet handler voice (PHV) speech handler trunks, and Format 2 reports failures for X.25 access on T1 (XAT) ports.

Formats 3 and 4 are used to report the results of a test. Format 3 reports the test results on an analog or digital trunk. This includes speech handler trunks. Format 4 reports the test results on a trunk that has a directory number (DN) or multi-line hunt group (MLHG) associated with it. This includes XAT ports.

3. VARIABLE FIELD DEFINITIONS

NOTE: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

a = Trunk group number.

b = Member number.

c = Switching module (SM) number.

d = Digital line and trunk unit (DLTU) number.

e = Digital facility interface number.

f = Channel number.

g = Directory number (DN).

h = MLHG number.

i = MLHG member number.

j = Digits outpulsed for the test call. Note that this field is not applicable for packet switching trunks, and will be omitted.

k = Valid value(s):

```
DEN=c-d-e-f
RAF=c-l-m
TEN=c-n-o-p-q
SAS=c-l-m
SLEN=c-r-s-t
ILEN=c-u-s-t
NEN=c-v-w-x-y-z
PSUEN=c-a[1]-b[1]-c[1]
```

l Exhibit B

Error code:	Explanation:
ACTIVATE FAILURE	Could not activate the trunk. This could be due to hardware problems and/or the trunk's being out of service due to a diagnostic or facility failure. The trunk could also be getting a blocking (off-hook) signal from the far end.
ADDRESS COMPLETE TIMEOUT	The outgoing CCS terminal process port under test (PUT) timed out waiting for a CCS address complete (ADC) message.
ADDRESS INCOMPLETE	The outgoing CCS terminal process PUT received a CCS address incomplete unsuccessful backward setup (UBS) message.
AM ROUTING TRBL	A problem occurred in routing to the trunk in the administrative module (AM). The probable cause is an office-dependent data (ODD) or dynamic data problem in the AM. An assert, which contains specific information, may have been triggered.
ANI TLWSR DN	Calls over trunks requiring ANI digits use the DN from the ODD relation TLWSR or device 'a' for the billing DN. Either no DN was found, it contained other than 7 digits, or the relation could not be read.
ANSWER MESSAGE TIMEOUT	The outgoing CCS terminal process PUT timed out waiting for a CCS answer (ANS) message.
BAD CCB KEY	Internal software error. Could not find the channel control block for the current process.
BAD CCS STATE ENCOUNTERED	The outgoing CCS terminal process PUT entered an invalid state.
BAD TRUNK CLASS	Office data indicates that the trunk type will not handle an outgoing test call. For example, a recorded announcement trunk, an incoming trunk, or a local test desk trunk.
BAD REASON	Internal software error. Program executed for unexpected reason.
BAD TEST CODE	Internal software error. Invalid test codes (such as, not 100 or 102).
BLANK NO. INTERCEPT	Internal software error.
BLOCKED (REORDER)	The call progressed through outpulsing and then received reorder (120 interruptions per minute (IPM)) from the far end indicating that the call could not be completed on that end.
BLOCKING MESSAGE RECEIVED	The outgoing CCS terminal process PUT received a CCS blocking (BLO) message.
BROADBAND OR NOISE	The call progressed through outpulsing and then received continuous

	noise or tone (but not 1004 or 2225 Hz) for 4 seconds or longer.
BUSY TONE	The call progressed through outpulsing and then received a busy signal from the far end (60 IPM).
CALL FAILURE	The outgoing CCS terminal process PUT received a CCS call failure UBS message.
CCS EXTRA ONE	Internal error code reserved for CCS.
CCSENDMSG() FAILED	The outgoing CCS terminal process PUT was unable to send a CCS message.
CCGETMSG() TIMEOUT	The outgoing CCS terminal process PUT timed out waiting for a message.
CIRCUIT GROUP CONGESTION	The outgoing CCS terminal process PUT received a CCS switching equipment congestion UBS message.
CIRCUIT RESET RECEIVED	The outgoing CCS terminal process PUT received a CCS circuit reset (RST) message.
CLEAR BACK	= Recorded announcement facility (RAF) or service announcement system (SAS) unit number.

m = RAF or SAS announcement channel number.

n = Trunk unit number.

o = Service group number.

p = Channel board number.

q = Circuit number.

r = Digital carrier line unit number.

s = Remote terminal number.

t = Remote terminal line number.

u = Integrated digital carrier unit number.

v = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

w = Data group (DG) number.

x = STS number.

y = Virtual tributary 1.5 (VT1.5) number.

z = Digital signal level 0 (DS0) number.

a[1] = PSU community number.

b[1] = PSU channel group number.

v[1] = PSU channel group member number.

d[1] = Transmission tests. Valid value(s):

100	102	104	105	105NT	106
100RL	102LB	105L	105ERL	100ERL	105RN
105SRL	100SRL	105N	105SHI	100SHI	105L4
105GS	105L10	105RL	105L28	105ALL	CONT

NOTE 1: The 105RL (return loss) test includes: 105ERL, 105SRL, and 105SHI.

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NOTE 2: The 105GS (gain slope) test includes: 105L4, 105L10, and 105L28.

NOTE 3: The 105ALL test includes the following 105 tests: 105L, 105RN, 105N, 105L4, 105L10, 105L28, and 105NT.

NOTE 4: 102LB (Only valid for APX BSSAPS2 and IVT trunks) test executes 1004Hz at 0dB transmission and C-message noise filter used in measurement for noise.

NOTE 5: Continuity (CONT) is used for common channel signaling (CCS) trunks.

NOTE 6: The 104 transmission measuring and noise checking feature provides a test termination for two-way loss and one-way far to near (FTON) noise. In addition this test provides a pass/fail signal from the far end that indicates the results of a noise measurement. The output "<=41" is pass and ">41" indicates failure. The actual value of the measurement is not provided.

Digital tests. Valid value(s):

`LBK` = Loopback test line.
`LBKINV` = Inverting loopback test line.
`LBKOCU` = Automatic loopback test to office channel unit (OCU). Valid for packet switching trunks and XAT ports only.
`LBKCSU` = Automatic loopback test to channel service unit (CSU). Valid for packet switching trunks and XAT ports only.
`MANSINK` = Number 1 Packet Switching System (1PSS) originated to *5ESS*®-2000 switch terminated manual loopback test. Valid for packet switching trunks only.
`MANSRCE` = *5ESS*®-2000 switch originated to 1PSS or AMPS packet pipe member (PPM) terminated manual loopback test. Valid for packet switching trunks only.
`SHCT` = Automatic loopback test to PHV speech handler trunk. Valid for AMPS speech handler trunks only.

Operational tests. Valid value(s):

`103` = 103 type test line.
`NSYNC` = Non-synchronous test line.
`PERM` = Permanent busy test line.
`SYNC` = Synchronous test line.

`b`[1] = Duration of a test in seconds.

`c`[1] = Number of test bytes sent per block.

`d`[1] The bit rate of the digital test run. This value is not necessarily the data rate of the trunk. In some cases, the incompatibility of the trunk data rate and the testing equipment will be detected and the test will be run at the appropriate rate. Valid value(s):

`56KPS` = A 56K test was run.
`64CLR` = A 64K clear test was run.
`64RES` = A 64K restricted test was run.
`VOICE` = A voice grade test was run.

`e`[1] = Status of the test. Valid value(s):

`ABT` = The attempted operations were aborted because of a failure not related to the trunk itself. Refer to variable '`f`[1]'.

`ATP` = Request completed. The test call passed.
`COMPL` = Request completed. Refer to variable '`f`[1]'.
`COMPLETED` = Request completed. This status message is returned at the completion of a test on an entire trunk group.
`FAIL` = Request completed. The test call failed. Refer to variable '`f`[1]'.
`STARTED` = Request started. This status message is returned at the beginning of a test on an entire trunk group.

The following are results indicating that no test was attempted:
`CMP UNAVAILABLE` = The input request could not be completed because a needed communication module (CM) is unable to respond. Retry the request later.
`INPUT ERROR` = The input message was in error in some way, most likely invalid data.
`INV PORT` = The trunk specified in the input message was not a valid trunk identifier.
`INV PORT STATUS FOR TEST` = Port status for an Operator Services Position System (OSPS) extended digital subscriber line (EDSL) B-channel, or a PPM trunk is inappropriate for test.
`INV PORT TYPE` = The port type specified is invalid for that particular test.
`INV TEST FOR ANALOG TRUNKS` = Digital LBK and LBKINV tests are invalid for all analog trunks (TENs, SLENs, and ILENs).
`MLHG ACCESS DN` = The DN entered is a multi-line hunt group channel and as such cannot be tested by specifying its DN. An equipment number (that is, DEN) or MLHG and member number must be specified. To obtain the channel equipment number and/or multi-line hunt group and member number, use recent change/verify (RC/V) for the DN or refer to office records.
`MLHG INVALID` = The multi-line hunt group specified is not a valid one.
`NO TEST` = No default test exists for the indicated trunk. A test must be specified.
`PACKAGE NOT LOADED` = The software optioned package needed to run the test has not been loaded.
`SM UNAVAILABLE` = The input request could not be completed because a needed SM is unable to respond. Retry the request later.
`SYSTEM BUSY` = A system resource failure occurred The system was too busy to perform the request or a system resource failure occurred which prevented the request from being processed.
`SYSTEM ERROR` = An unspecified error condition occurred while processing the test request.
`TERMINATING OSPS NOT TESTABLE` = Terminating office in an OSPS interflow configuration is not testable.
`TG INVALID` = The trunk group specified in the input request was invalid. Verify that the correct group number was specified.
`TRUNK BUSY` = The trunk was busy and could not be tested. If the trunk was an OSPS interflow trunk or other nailed-up trunk configuration, the trunk was traffic busy and could not be made maintenance busy and could not be tested. If the trunk is a CCS trunk and is in the OOS MTCE CCSINIT state, the trunk is in the process of being reset and cannot be tested.

`f`[1] = Test results consisting of a character string of 32 bytes that describes measured results. If the tests are completed, the measurement results are described in Exhibit A. If the test failed or aborted, refer to Exhibit B.

TRANSMISSION MEASUREMENTS RESULTS

Abbreviations:	Explanation:

BER	Bit error ratio. Ratio of bits received in error to the total number of bits transmitted during the test. The test is to send data and measure errors in data returned from the trunk under test.
ERBLK	Errored blocks. The total number of errored data blocks sent toward the test line that failed verification upon return.
FTON	Far to near. The measurement was made by the *5ESS*®-2000 switch transmission test facility (TTF) responder or global digital services function (GDSF) guard data guard (GDG) transceiver.
NODAT	No test data was returned from the far end.
NOTST	The far end did not send a test tone when expected.
NRESP	The far end responder is not equipped to make the measurement.
NTOF	Near to far. The measurement was made by the far end and the results sent back to the TTF responder or GDSF GDG transceiver.
OORHI	Out of range high.
OORLO	Out of range low.

Test Group Results:	**Explanation:**
STARTING g^1 TEST CALLS	Starting results given when starting a test with the repeat option. Individual tests will be reported as if individually entered.
g^1 PASSED g^1 FAILED g^1 ABORTED	Final result given when completing a test with the repeat option. Individual test have been reported as if individually entered.
g^1	= Number of tests started, passed, failed or aborted.

Exhibit A: TRANSMISSION MEASUREMENTS RESULTS

MEAS.	**UNITS**	**RANGE**	**TYPICAL**	**IDEAL**
LEVEL	Level expressed in dBm	-52 to +3	-7	Note 1
N	Noise near to far in dBrnC (C weighted relative to -90dBm)	+15 to +55	+25	+15/OORLO
NOISE	Noise far to near in dBrnC (C weighted relative to -90dBm)	+15 to +70	+25	+15/OORLO
L404	Level at 404Hz in dBm	-52 to +3	-23	Note 2
L1004	Level at 1004Hz in dBm	-52 to +3	-23	Note 2
L2804	Level at 2804Hz in dBm	-52 to +3	-23	Note 2
NWT	Noise in the presence of tone (through a notch filter) in dBrnC	+25 to +80	+40	+25/OORLO
ERL	Echo return loss in dB relative to the transmitted signal	-13 to +50	+25	+50/OORLO
SRL	Singing return loss in dB relative to the transmitted signal	-13 to +50	+25	+50/OORLO
SRLHI	High frequency singing return loss in dB relative to the transmitted signal	-13 to +50	+25	+50/OORLO
BER	Bit Error Rate	0 to 1	<=1in10E6	0
ERBLK	Errored Blocks	0 to number of blocks sent	Note 3	0

NOTE 1: Refer to trunk records for expected measured loss (EML). The number printed is the actual level so the sign is opposite from EML.

NOTE 2: Actual level from a -16dBm signal. Add 16dBm to obtain the results in the same perspective as LEVEL. For example, if the measurement = -24dBm, the loss = -1 X (-24 + 16) = 8dB.

NOTE 3: Since BLKSZ can vary greatly, this field can not be typically represented.

NOTE 4: If an internal software error occurs repeatedly, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Exhibit B

Error code:	Explanation:
ACTIVATE FAILURE	Could not activate the trunk. This could be due to hardware problems and/or the trunk's being out of service due to a diagnostic or facility failure. The trunk could also be getting a blocking (off-hook) signal from the far end.
ADDRESS COMPLETE TIMEOUT	The outgoing CCS terminal process port under test (PUT) timed out waiting for a CCS address complete (ADC) message.
ADDRESS INCOMPLETE	The outgoing CCS terminal process PUT received a CCS address incomplete unsuccessful backward setup (UBS) message.
AM ROUTING TRBL	A problem occurred in routing to the trunk in the administrative module (AM). The probable cause is an office-dependent data (ODD) or dynamic data problem in the AM. An assert, which contains specific information, may have been triggered.
ANI TLWSR DN	Calls over trunks requiring ANI digits use the DN from the ODD relation TLWSR or device 'a' for the billing DN. Either no DN was found, it contained other than 7 digits, or the relation could not be read.
ANSWER MESSAGE TIMEOUT	The outgoing CCS terminal process PUT timed out waiting for a CCS answer (ANS) message.
BAD CCB KEY	Internal software error. Could not find the channel control block for the current process.
BAD CCS STATE ENCOUNTERED	The outgoing CCS terminal process PUT entered an invalid state.
BAD TRUNK CLASS	Office data indicates that the trunk type will not handle an outgoing test call. For example, a recorded announcement trunk, an incoming trunk, or a local test desk trunk.
BAD REASON	Internal software error. Program executed for unexpected reason.
BAD TEST CODE	Internal software error. Invalid test codes (such as, not 100 or 102).
BLANK NO. INTERCEPT	Internal software error.
BLOCKED (REORDER)	The call progressed through outpulsing and then received reorder (120 interruptions per minute (IPM)) from the far end indicating that the call could not be completed on that end.
BLOCKING MESSAGE RECEIVED	The outgoing CCS terminal process PUT received a CCS blocking (BLO) message.
BROADBAND OR NOISE	The call progressed through outpulsing and then received continuous noise or tone (but not 1004 or 2225 Hz) for 4 seconds or longer.
BUSY TONE	The call progressed through outpulsing and then received a busy signal from the far end (60 IPM).
CALL FAILURE	The outgoing CCS terminal process PUT received a CCS call failure UBS message.
CCS EXTRA ONE	Internal error code reserved for CCS.
CCSENDMSG() FAILED	The outgoing CCS terminal process PUT was unable to send a CCS message.
CCGETMSG() TIMEOUT	The outgoing CCS terminal process PUT timed out waiting for a message.
CIRCUIT GROUP CONGESTION	The outgoing CCS terminal process PUT received a CCS

	switching equipment congestion UBS message.
CIRCUIT RESET RECEIVED	The outgoing CCS terminal process PUT received a CCS circuit reset (RST) message.
CLEAR BACK	The far end went on-hook unexpectedly during the call.
CLEAR FORWARD GLARE	The outgoing CCS terminal process PUT encountered communications line fault (CLF) glare on the CCS trunk under test.
CONFUSION	The outgoing CCS terminal process PUT received a CCS confusion UBS message.
CONT TEST FAIL	Continuity test failed. Voice path assurance (VPA) is the same as continuity test.
CONT TEST NOT VALID FOR CONN APP	Continuity test is not valid for connection appraisal.
CONT TEST PASS	Continuity test was successful. VPA is the same as continuity test.
CONT TEST VALID ON CCS TRKS ONLY	An attempt was made to run a CONT test on a NON-CCS trunk.
CONTINUITY GLARE	The outgoing CCS terminal process PUT encountered central office terminal (COT) glare on the CCS trunk under test.
CONTINUITY TEST FAILED	The continuity test (CONT) failed.
CONTINUITY TEST PASSED	The continuity test (CONT) passed.
COULD NOT SEND MSG	Internal software error. The operating system failed to send a message.
DATA BASE READ FAILED	The outgoing CCS terminal process PUT was unable to read a database relation.
DATA PROBLEM	Routing to the trunk was not completed because of an ODD or dynamic data problem.
DB FAIL RLFC_TRUNK	An error was detected in the RLfc_trunk relation for the trunk under test. Office data may be populated incorrectly.
DIGITAL PATH PROBLEM	Internal software error. Peripheral control failed to define the initial path definition in the path setup sequence.
DIGITAL PATH RELEASE	Internal software error. The operating system sent a message to release the path while in call disposition analysis routine.
EXCESSIVE BIT ERROR RATE	The digital test found too many errors in returned bit stream to make reliable measurements.
FAIL 1ST RING FWD	No on-hook was received or only an on-hook pulse (flash) was received.
FAIL 2ND RING FWD	Fewer than four supervision changes were received.
FAIL DIG PATH CLOSE	Internal software error. Failed to close the path toward the responder or trunk under test.
FAIL DIG PATH OPEN	Internal software error. Failed to open the path toward trunk under test.
FAIL DIG PATH SET	Internal software error. Failed to close path toward the trunk under test or tone detector, failed path setup message.
FAIL OSTIMER	Internal software error. The operating system failed to set a timer.
FAIL OVERALL TIMER	Overall time of test too long retry.
FAILED TO INITIATE VPA TEST	The outgoing CCS terminal process PUT was unable to obtain or activate a VPA circuit.
FAILED TO RECEIVE LPA FROM FAR END	During the setup of the continuity test, the loop-back acknowledgement (LPA) message was not received from the far end. This could be due to the CCS message link being down or not connected to the far end office, a trunk data mis-match between the near end and far end offices, or the unsuccessful activation of the far end test equipment.
FAILED TO RING LINE	Failure to ring a line in attempting to contact far office.
GLARE	The far office tried to originate on a two-way trunk at the same time the test call was trying to originate.
HDW FAIL INTERRUPT	A test call process received an interrupt message due to a hardware failure (not necessarily the trunk) and has terminated the call.
IAM GLARE	The outgoing CCS terminal process PUT encountered initial address message (IAM) glare on the CCS trunk under test.
INCONSISTENT DATA	The inter-module trunk task (IMTTASK) buffer data does not

	match the inter-module trunk ODD relation (RLIMTRKS or RLRT_TRKG) data.
INTERCEPT	Internal software error.
INTERRUPT MESSAGE	The test was interrupted by a stimulus external to TST:TRK. Could be an internal software error.
INTERRUPT RECEIVED	The outgoing CCS terminal process PUT received an interrupt message.
INTRPT BAD MSG	Internal software error. Unexpected message was sent from the far terminal process.
INVALID DURATION FOR TRUNK	Maximum test duration on *Autoplex*® trunks that require executive cellular processor (ECP) notification is 240 seconds.
INVALID ROTL COMMAND (CCS)	Invalid ROTL command received for CCS trunk.
INVALID TEST FOR CCS TRUNKS	An attempt was made to run a test that is invalid for CCS trunks (103, SYNC, NSYNC, and so forth)
INVALID TEST FOR PACKET TRUNKS	Test type other than LBKOCU or LBKCSU was erroneously requested for a packet switched trunk.
LINE OUT OF SERVICE	The outgoing CCS terminal process PUT received a CCS line out of service UBS message.
LOOPBACK TEST NOT PROVISIONED	Access to the trunk was denied because loopback testing at either the OCU or CSU is not allowed by ODD.
LOW ERROR FREE BLOCKS	Too many blocks in digital testing were found to have errors in bits.
LTP ACTIVATE FAIL	Internal *5ESS*®-2000 switch software error. Could not get a channel control block for the associated port in response to a service request. Failed to initialize the hardware and software appropriately.
LVL NOT ACCEPTABLE	Test tone level not acceptable for code answer test line (CATL) test.
MESSAGE REFUSED	The outgoing CCS terminal process PUT received a CCS message refusal UBS message.
NATIONAL NETWORK CONGESTION	The outgoing CCS terminal process PUT received a CCS national network congestion unsuccessful backward setup (UBS) message.
NETWORK BLOCKED	The test call was blocked in the *5ESS*®-2000 switch network while trying to connect the trunk to a logical test port.
NO ANI OFFHOOK	An offhook should be received within two seconds of outpulsing on automatic number identification (ANI) trunks as an indication to send ANI billing digits. This offhook was not received.
NO ANSWER	No response was received (other than possibly audible rings) after outpulsing was completed.
NO MGDGTLACK	Internal software error. Did not receive test results from SM.
NO MGMEAS_R	An expected measurement result was not received from the TTF responder or GDSF GDG transceiver.
NO MGPHSET	Internal software error. Failed to receive a "path set" message within six seconds from the operating system.
NO MGRLS_GRD	The call tear down sequence at the trunk under test did not complete normally and/or the message indicating this was lost.
NO MGSYN_RSLT	Internal software error. Failed to receive results of synchronous or non-synchronous test call within 40 seconds.
NO MGTMREL_P	Internal software error. Failed to receive release message from the operating system after the test call is complete and the final status has been determined.
NO MGTMSETUP	Internal software error. Failed to receive a path setup complete message.
NO RESPONDER	A TTF responder was not available, probably due to being busy or out-of-service (OOS).
NO SYNC PULSE	Internal software error. Received only one signal change report during a test call analysis.
NO TEST EQ	Either a TTF responder, tone detector, or tone generator or a GDSF tone generator, tone transceiver, or GDG transceiver

	was not available, probably due to being busy or OOS.
NO TEST MADE	Failed to make a measurement, no test made.
NO TONE DET	A TTF tone detector was not available, probably due to being busy or OOS.
NO TONE	The test call was waiting on a tone (either 1004 or 2225 Hz) and it was not received.
OFFHOOK 6TH PULSE	A synchronous test call expects the far end to be on-hook at the end of a train of six pulses and it was found to be off-hook.
OSPS COMM. FAILURE	A failure occurred in communication with the far-end OSPS.
OSRESTART() RETURNED	The outgoing CCS terminal process PUT was unable to restart to another terminal process.
OSSENDMSG() FAILED	The outgoing CCS terminal process PUT was unable to send an OSDS message.
OSWGETMSG FAILURE	Internal software error. OS primitive failed to get a message in the allowed time.
OUT OF SERVICE	Internal software error.
OUTPULSE FAILURE	A failure occurred during outpulsing. This is not likely to be due to the trunk unless it is revertive dial. The problem may be with the equipment used for outpulsing [such as, multi-frequency (MF) sender].
PASS ALONG MSG RECEIVED	The outgoing CCS terminal process PUT received a CCS pass along message.
PATH CLOSURE FAILED	The outgoing CCS terminal process PUT was unable to close the digital path between the test execution control (TEC) and PUT.
PATH DEFINITION FAILED	The outgoing CCS terminal process PUT was unable to establish the digital path between the TEC and PUT.
PORT ACTIVATION FAILED	The outgoing CCS terminal process PUT was unable to activate the CCS trunk under test port.
PREEMPT INTRPT	The test call was preempted for either the logical test port or the trunk under test (most likely) by a higher priority request. Possibilities include a RMV:TRK request. It may also be due to fault recovery requesting the hardware.
PRETRIP FAIL	The trunk received one audible ring followed by 120 IPM (reorder) while making a synchronous test call.
PULSES TOO LONG	The synchronous test call has detected at least one pulse longer than 2.3 seconds.
PUT ROUTE FAILURE	The PUT is inaccessible for trunk testing (that is, trunk hardware is OOS or the PUT SM is unavailable).
PUT TIMEOUT	The outgoing CCS terminal process PUT timed out waiting for an event.
PERMANENT VIRTUAL CIRCUIT ACTIVE	Access to the trunk was denied because the trunk is provisioned for a permanent virtual circuit (PVC).
QUEUING FAIL INTRPT	Queuing for requested resources was interrupted.
RA1-2-3, CB2-3 RECEIVED	The outgoing CCS terminal process PUT received an unexpected CCS reanswer or clearback message.
RELEASE GUARD RECEIVED	The outgoing CCS terminal process PUT received an unexpected CCS release guard message.
RELEASE GUARD TIMEOUT	The outgoing CCS terminal process PUT timed out waiting for a CCS release guard (RLG) message.
RETURNED IAM	The outgoing CCS terminal process PUT received a returned CCS IAM. This indicates that the common network interface (CNI) is in overload.
REVERSE BUSY	The far end has busied the outgoing trunk by going off-hook. A mixup in signaling could also cause this.
RING FORWARD RECEIVED	The outgoing CCS terminal process PUT received a ring forward message.
ROUTE-BUSY	Access was denied to the trunk under test because it was busy.
ROUTE FAIL TO TRK	A failure occurred during routing to the trunk.
ROUTE-OVERLOAD	The test call could not route from the logical test port to the trunk due to an overload condition in *5ESS*®-2000 switch.

ROUTE-REORDER	Failed to route to trunk or test equipment.
SECONDARY START MSG RECEIVED	The outgoing CCS terminal process PUT received a secondary start dial (SSD) message.
SIG CHG REPT FAIL	Internal software error. Special signal change reporting mechanism not turned off by peripheral control.
SM DATA PROBLEM	A problem occurred in routing to the trunk in the SM. The probable cause is an ODD or dynamic data problem in the SM. An assert, which contains specific information, may have been triggered.
SOFTWARE OPTIONED PACKAGE NOT LOADED	The software option package needed to run test was not loaded.
SPP OF SM PROCESS	One of the terminal processes associated with the call has been purged. More information should be available in the resulting REPT message.
SUBSCRIBER BUSY	The outgoing CCS terminal process PUT received a CCS subscriber busy UBS message.
SWITCHING EQUIP CONGESTION	The outgoing CCS terminal process PUT received a CCS switching equipment congestion UBS message.
SYNCHRONIZATION FAILURE	Synchronization was never achieved with data returned from the trunk under test. Failure to synchronize could happen for the following reasons:
TEST EQ FAIL	
TMFOSRES	
TMNALIT	ALIT circuit not available.
TMNDCTU	DCTU port not available.
TMNFL	Failed to receive preemption wink correctly.
TMNJCK	AC jack not available.
TMNMPTH	No metallic path available.
TMNTSTB	Unable to allocate a metallic test bus.
TMOSMGF	
TMRETE0C:	
TMRETESC:	
TMSGER	
TMSGTO	
TMTOANS NO MSG	
TMVANN	Automatic voice announcement heard.
TOO MANY PULSES	
TRIP FAILURE	
TRUNK ERROR	
TRUNK SIG. FAIL	
UNEXPECTED MSG	
VOICE	
WRONG TONE	

4. ACTION TO BE TAKEN

Take the trunk OOS or write a trouble report against a trunk if it is faulty. If an internal software error occurs repeatedly, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:STATUS
RMV:TRK
TST:TRK
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-100-125 *System Description*
235-190-115 *Local and Toll System Features*
235-190-120 *Common Channel Signaling Services Features*
235-900-113 *Product Specification*

RC/V View(s):

5.1 (TRUNK GROUP)
14.1 (AUTO TRUNK TEST)

TST:TRK-B

Software Release: 5E12 only
Message Class: TRK_MON,NULLDEV
Application: 5
Type: Output

1. FORMAT

[1]

```
TST TRK {TKGMN a b|TG a} k[OPDN j][TYPE a1][DUR b1][BLKSZ c1] e1

                    f1...[f1]
```

[2]

```
TST TRK DN=g[DEN=c-d-e-f][MLHG=h-i][TYPE a1][DUR b1][BLKSZ c1] e1

                    f1...[f1]
```

[3]

```
TST TRK {TKGMN a b|TG a} k e1

                    OPDN j[TYPE a1][DUR b1][BLKSZ c1][RATE d1]

                    f1...[f1]
```

[4]

```
TST TRK DN=g DEN=c-h-i-j [MLHG=l-m] w

                    TYPE a1[DUR b1][BLKSZ c1][RATE d1]

                    f1...[f1]
```

[2]

```
TST TRK DN=g[INEN=c-v-s-t][MLHG=h-i][TYPE a1][DUR b1][BLKSZ c1] e1

                    f1...[f1]
```

[4]

```
TST TRK DN=g INEN=c-v-s-t [MLHG=l-m] w

                    TYPE a1[DUR b1][BLKSZ c1][RATE d1]

                    f1...[f1]
```

2. REASON FOR OUTPUT

To report the results of a manually requested automatic trunk test. This message is in response to a TST:TRK input message.

Formats 1 and 2 are used when an error condition has been detected early (while processing the request). Refer to variables 'f^1' and 'e^1' for additional information. Format 1 reports failures for analog, digital, and packet handler voice (PHV) speech handler trunks, and Format 2 reports failures for X.25 access on T1 (XAT) ports. Formats 3 and 4 are used to report the results of a test. Format 3 reports the test results on an analog or digital trunk. This includes

speech handler trunks. Format 4 reports the test results on a trunk that has a directory number (DN) or multi-line hunt group (MLHG) associated with it. This includes XAT ports.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

a = Trunk group number.

b = Member number.

c = Switching module (SM) number.

d = Digital line and trunk unit (DLTU) number.

e = Digital facility interface number.

f = Channel number.

g = Directory number (DN).

h = MLHG number.

i = MLHG member number.

j = Digits outpulsed for the test call. Note that this field is not applicable for packet switching trunks, and will be omitted.

k = Valid value(s):

```
DEN=c-d-e-f
 RAF=c-l-m
 TEN=c-n-o-p-q
 SAS=c-l-m
 SLEN=c-r-s-t
 ILEN=c-u-s-t
 NEN=c-v-w-x-y-z
 PSUEN=c-a1-b1-c1
 INEN=c-v-s-t
```

l = Recorded announcement facility (RAF) or service announcement system (SAS) unit number.

m = RAF or SAS announcement channel number.

n = Trunk unit number.

o = Service group number.

p = Channel board number.

q = Circuit number.

r = Digital carrier line unit number.

s = Remote terminal number.

t = Remote terminal line number.

u = Integrated digital carrier unit number.

v = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

w = Data group (DG) number.

x = STS number.

y = Virtual tributary 1.5 (VT1.5) number.

z = Digital signal level 0 (DS0) number.

a[1] = PSU community number.

b[1] = PSU channel group number.

v[1] = PSU channel group member number.

d[1] = Transmission tests. Valid value(s):
Note:

100	102	104	105	105NT	106
100RL	102LB		105L	105ERL	
100ERL			105RN	105SRL	
100SRL			105N	105SHI	
100SHI			105L4	105GS	
			105L10	105RL	
			105L28	105ALL	
CONT					

Note: The 105RL (return loss) test includes: 105ERL, 105SRL, and 105SHI.
Note: The 105GS (gain slope) test includes: 105L4, 105L10, and 105L28.
Note: The 105ALL test includes the following 105 tests: 105L, 105RN, 105N, 105L4, 105L10, 105L28, and 105NT.
Note: 102LB (Only valid for APX BSSAPS2 and IVT trunks) test executes 1004Hz at 0dB transmission and C-message noise filter used in measurement for noise.
Note: Continuity (CONT) is used for common channel signaling (CCS) trunks.
Note: The 104 transmission measuring and noise checking feature provides a test termination for two-way loss and one-way far to near (FTON) noise. In addition this test provides a pass/fail signal from the far end that indicates the results of a noise measurement. The output "<=41" is pass and ">41" indicates failure. The actual value of the measurement is not provided.

Digital tests. Valid value(s):

LBK = Loopback test line.

LBKINV = Inverting loopback test line.

LBKOCU = Automatic loopback test to office channel unit (OCU). Valid for packet switching trunks and XAT ports only.

LBKCSU = Automatic loopback test to channel service unit (CSU). Valid for packet switching trunks and XAT ports only.

MANSINK = Number 1 Packet Switching System (1PSS) originated to the switch terminated manual loopback test. Valid for packet switching trunks only.

MANSRCE = The switch originated to 1PSS or AMPS packet pipe member (PPM) terminated manual loopback test. Valid for packet switching trunks only.

SHCT = Automatic loopback test to PHV speech handler trunk. Valid for AMPS speech

handler trunks only.

Operational tests. Valid value(s):
`103` = 103 type test line.
`NSYNC` = Non-synchronous test line.
`PERM` = Permanent busy test line.
`SYNC` = Synchronous test line.

`b`[1] = Duration of a test in seconds.

`c`[1] = Number of test bytes sent per block.

`d`[1] The bit rate of the digital test run. This value is not necessarily the data rate of the trunk. In some cases, the incompatibility of the trunk data rate and the testing equipment will be detected and the test will be run at the appropriate rate. Valid value(s):
`56KPS` = A 56K test was run.
`64CLR` = A 64K clear test was run.
`64RES` = A 64K restricted test was run.
`VOICE` = A voice grade test was run.

`e`[1] = Status of the test. Valid value(s):
`ABT` = The attempted operations were aborted because of a failure not related to the trunk itself. Refer to variable '`f`[1]'.
`ATP` = Request completed. The test call passed.
`COMPL` = Request completed. Refer to variable '`f`[1]'.
`COMPLETED` = Request completed. This status message is returned at the completion of a test on an entire trunk group.
`FAIL` = Request completed. The test call failed. Refer to variable '`f`[1]'.
`STARTED` = Request started. This status message is returned at the beginning of a test on an entire trunk group.

The following are results indicating that no test was attempted:
`CMP UNAVAILABLE` = The input request could not be completed because a needed communication module (CM) is unable to respond. Retry the request later.
`INPUT ERROR` = The input message was in error in some way, most likely invalid data.
`INV PORT` = The trunk specified in the input message was not a valid trunk identifier.
`INV PORT STATUS FOR TEST` = Port status for an Operator Services Position System (OSPS) extended digital subscriber line (EDSL) B-channel, or a PPM trunk is inappropriate for test.
`INV PORT TYPE` = The port type specified is invalid for that particular test.
`INV TEST FOR ANALOG TRUNKS` = Digital LBK and LBKINV tests are invalid for all analog trunks (TENs, SLENs, and ILENs).
`MLHG ACCESS DN` = The DN entered is a multi-line hunt group channel and as such cannot be tested by specifying its DN. An equipment number (that is, DEN) or MLHG and member number must be specified. To obtain the channel equipment number and/or multi-line hunt group and member number, use recent change/verify (RC/V) for the DN or refer to office records.
`MLHG INVALID` = The multi-line hunt group specified is not a valid one.
`NO TEST` =This output can be caused by multiple reasons: 1. a TEST TYPE must be specified. No default test exists for the indicated trunk. 2. An INVALID TEST TYPE

was specified. 3. An INVALID TEST is attempted. No OPDN exists for this test.

`PACKAGE NOT LOADED` = The software optioned package needed to run the test has not been loaded.

`SM UNAVAILABLE` = The input request could not be completed because a needed SM is unable to respond. Retry the request later.

`SYSTEM BUSY` = A system resource failure occurred The system was too busy to perform the request or a system resource failure occurred which prevented the request from being processed.

`SYSTEM ERROR` = An unspecified error condition occurred while processing the test request.

`TERMINATING OSPS NOT TESTABLE` = Terminating office in an OSPS interflow configuration is not testable.

`TG INVALID` = The trunk group specified in the input request was invalid. Verify that the correct group number was specified.

`TRUNK BUSY` = The trunk was busy and could not be tested. If the trunk was an OSPS interflow trunk or other nailed-up trunk configuration, the trunk was traffic busy and could not be made maintenance busy and could not be tested. If the trunk is a CCS trunk and is in the OOS MTCE CCSINIT state, the trunk is in the process of being reset and cannot be tested.

`f`[1] = Test results consisting of a character string of 32 bytes that describes measured results. If the tests are completed, the measurement results are described in Exhibit A. If the test failed or aborted, refer to Exhibit B.

TRANSMISSION MEASUREMENTS RESULTS

Abbreviations:	Explanation:
`BER`	Bit error ratio. Ratio of bits received in error to the total number of bits transmitted during the test. The test is to send data and measure errors in data returned from the trunk under test.
`ERBLK`	Errored blocks. The total number of errored data blocks sent toward the test line that failed verification upon return.
`FTON`	Far to near. The measurement was made by the switch transmission test facility (TTF) responder or global digital services function (GDSF) guard data guard (GDG) transceiver.
`NODAT`	No test data was returned from the far end.
`NOTST`	The far end did not send a test tone when expected.
`NRESP`	The far end responder is not equipped to make the measurement.
`NTOF`	Near to far. The measurement was made by the far end and the results sent back to the TTF responder or GDSF GDG transceiver.
`OORHI`	Out of range high.
`OORLO`	Out of range low.

Test Group Results:	Explanation:
`STARTING g`[1] `TEST CALLS`	Starting results given when starting a test with the repeat option. Individual tests will be reported as if individually entered.
`g`[1] `PASSED g`[1] `FAILED g`[1] `ABORTED`	Final result given when completing a test with the repeat option. Individual test have been reported as if individually entered.

`g`[1] = Number of tests started, passed, failed or aborted.

Exhibit A -- TRANSMISSION MEASUREMENTS RESULTS

MEAS.	UNITS	RANGE	TYPICAL	IDEAL
LEVEL	Level expressed in dBm	-52 to +3	-7	Note 1
N	Noise near to far in dBrnC (C weighted	+15 to +55	+25	+15/OORLO

	relative to -90dBm)			
NOISE	Noise far to near in dBrnC (C weighted relative to -90dBm)	+15 to +70	+25	+15/OORLO
L404	Level at 404Hz in dBm	-52 to +3	-23	Note 2
L1004	Level at 1004Hz in dBm	-52 to +3	-23	Note 2
L2804	Level at 2804Hz in dBm	-52 to +3	-23	Note 2
NWT	Noise in the presence of tone (through a notch filter) in dBrnC	+25 to +80	+40	+25/OORLO
ERL	Echo return loss in dB relative to the transmitted signal	-13 to +50	+25	+50/OORLO
SRL	Singing return loss in dB relative to the transmitted signal	-13 to +50	+25	+50/OORLO
SRLHI	High frequency singing return loss in dB relative to the transmitted signal	-13 to +50	+25	+50/OORLO
BER	Bit Error Rate	0 to 1	<=1in10E6	0
ERBLK	Errored Blocks	0 to number of blocks sent	Note 3	

Note 1: Refer to trunk records for expected measured loss (EML). The number printed is the actual level so the sign is opposite from EML.

Note 2: Actual level from a -16dBm signal. Add 16dBm to obtain the results in the same perspective as LEVEL. For example, if the measurement = -24dBm, the loss = -1 X (-24 + 16) = 8dB.

Note 3: Since BLKSZ can vary greatly, this field can not be typically represented.

Note: If an internal software error occurs repeatedly, refer to the TECHNICAL ASSISTANCE section of the INTRODUCTION.

Exhibit B

Error code:	**Explanation:**
ACTIVATE FAILURE	Could not activate the trunk. This could be due to hardware problems and/or the trunk's being out-of-service due to a diagnostic or facility failure. The trunk could also be getting a blocking (off-hook) signal from the far end.
ADDRESS COMPLETE TIMEOUT	The outgoing CCS terminal process port under test (PUT) timed out waiting for a CCS address complete (ADC) message.
ADDRESS INCOMPLETE	The outgoing CCS terminal process PUT received a CCS address incomplete unsuccessful backward setup (UBS) message.
AM ROUTING TRBL	A problem occurred in routing to the trunk in the administrative module (AM). The probable cause is an office-dependent data (ODD) or dynamic data problem in the AM. An assert, which contains specific information, may have been triggered.
ANI TLWSR DN	Calls over trunks requiring ANI digits use the DN from the ODD relation TLWSR or device 'a' for the billing DN. Either no DN was found, it contained other than 7 digits, or the relation could not be read.
ANSWER MESSAGE TIMEOUT	The outgoing CCS terminal process PUT timed out waiting for a CCS answer (ANS) message.
BAD CCB KEY	Internal software error. Could not find the channel control block for the current process.

BAD CCS STATE ENCOUNTERED	The outgoing CCS terminal process PUT entered an invalid state.
BAD TRUNK CLASS	Office data indicates that the trunk type will not handle an outgoing test call. For example, a recorded announcement trunk, an incoming trunk, or a local test desk trunk.
BAD REASON	Internal software error. Program executed for unexpected reason.
BAD TEST CODE	Internal software error. Invalid test codes (such as, not 100 or 102).
BLANK NO. INTERCEPT	Internal software error.
BLOCKED (REORDER)	The call progressed through outpulsing and then received reorder (120 interruptions per minute (IPM)) from the far end indicating that the call could not be completed on that end.
BLOCKING MESSAGE RECEIVED	The outgoing CCS terminal process PUT received a CCS blocking (BLO) message.
BROADBAND OR NOISE	The call progressed through outpulsing and then received continuous noise or tone (but not 1004 or 2225 Hz) for 4 seconds or longer.
BUSY TONE	The call progressed through outpulsing and then received a busy signal from the far end (60 IPM).
CALL FAILURE	The outgoing CCS terminal process PUT received a CCS call failure UBS message.
CCS EXTRA ONE	Internal error code reserved for CCS.
CCSENDMSG() FAILED	The outgoing CCS terminal process PUT was unable to send a CCS message.
CCGETMSG() TIMEOUT	The outgoing CCS terminal process PUT timed out waiting for a message.
CIRCUIT GROUP CONGESTION	The outgoing CCS terminal process PUT received a CCS switching equipment congestion UBS message.
CIRCUIT RESET RECEIVED	The outgoing CCS terminal process PUT received a CCS circuit reset (RST) message.
CLEAR BACK	The far end went on-hook unexpectedly during the call.
CLEAR FORWARD GLARE	The outgoing CCS terminal process PUT encountered communications line fault (CLF) glare on the CCS trunk under test.
CONFUSION	The outgoing CCS terminal process PUT received a CCS confusion UBS message.
CONT TEST FAIL	Continuity test failed. Voice path assurance (VPA) is the same as continuity test.
CONT TEST NOT VALID FOR CONN APP	Continuity test is not valid for connection appraisal.
CONT TEST PASS	Continuity test was successful. VPA is the same as continuity test.
CONT TEST VALID ON CCS TRKS ONLY	An attempt was made to run a CONT test on a NON-CCS trunk.
CONTINUITY GLARE	The outgoing CCS terminal process PUT encountered central office terminal (COT) glare on the CCS trunk under test.
CONTINUITY TEST FAILED	The continuity test (CONT) failed.
CONTINUITY TEST PASSED	The continuity test (CONT) passed.
COULD NOT SEND MSG	Internal software error. The operating system failed to send a message.
DATA BASE READ FAILED	The outgoing CCS terminal process PUT was unable to read a database relation.
DATA PROBLEM	Routing to the trunk was not completed because of an ODD or dynamic data problem.
DB FAIL RLFC_TRUNK	An error was detected in the RLfc_trunk relation for the trunk under test. Office data may be populated incorrectly.
DIGITAL PATH PROBLEM	Internal software error. Peripheral control failed to define the initial path definition in the path setup sequence.
DIGITAL PATH RELEASE	Internal software error. The operating system sent a message to release the path while in call disposition analysis routine.
EXCESSIVE BIT ERROR RATE	The digital test found too many errors in returned bit stream to make reliable measurements.
FAIL 1ST RING FWD	No on-hook was received or only an on-hook pulse (flash) was

	received.
FAIL 2ND RING FWD	Fewer than four supervision changes were received.
FAIL DIG PATH CLOSE	Internal software error. Failed to close the path toward the responder or trunk under test.
FAIL DIG PATH OPEN	Internal software error. Failed to open the path toward trunk under test.
FAIL DIG PATH SET	Internal software error. Failed to close path toward the trunk under test or tone detector, failed path setup message.
FAIL OSTIMER	Internal software error. The operating system failed to set a timer.
FAIL OVERALL TIMER	Overall time of test too long; retry.
FAILED TO INITIATE VPA TEST	The outgoing CCS terminal process PUT was unable to obtain or activate a VPA circuit.
FAILED TO RECEIVE LPA FROM FAR END	During the setup of the continuity test, the loop-back acknowledgement (LPA) message was not received from the far end. This could be due to the CCS message link being down or not connected to the far end office, a trunk data mis-match between the near end and far end offices, or the unsuccessful activation of the far end test equipment.
FAILED TO RING LINE	Failure to ring a line in attempting to contact far office.
GLARE	The far office tried to originate on a two-way trunk at the same time the test call was trying to originate.
HDW FAIL INTERRUPT	A test call process received an interrupt message due to a hardware failure (not necessarily the trunk) and has terminated the call.
IAM GLARE	The outgoing CCS terminal process PUT encountered initial address message (IAM) glare on the CCS trunk under test.
INCONSISTENT DATA	The inter-module trunk task (IMTTASK) buffer data does not match the inter-module trunk ODD relation (RLIMTRKS or RLRT_TRKG) data.
INTERCEPT	Internal software error.
INTERRUPT MESSAGE	The test was interrupted by a stimulus external to TST:TRK. Could be an internal software error.
INTERRUPT RECEIVED	The outgoing CCS terminal process PUT received an interrupt message.
INTRPT BAD MSG	Internal software error. Unexpected message was sent from the far terminal process.
INVALID DURATION FOR TRUNK	Maximum test duration on *Autoplex*™ trunks that require executive cellular processor (ECP) notification is 240 seconds.
INVALID ROTL COMMAND (CCS)	Invalid ROTL command received for CCS trunk.
INVALID TEST FOR CCS TRUNKS	An attempt was made to run a test that is invalid for CCS trunks (103, SYNC, NSYNC, and so forth)
INVALID TEST FOR PACKET TRUNKS	Test type other than LBKOCU or LBKCSU was erroneously requested for a packet switched trunk.
LINE OUT OF SERVICE	The outgoing CCS terminal process PUT received a CCS line out-of-service UBS message.
LOOPBACK TEST NOT PROVISIONED	Access to the trunk was denied because loopback testing at either the OCU or CSU is not allowed by ODD.
LOW ERROR FREE BLOCKS	Too many blocks in digital testing were found to have errors in bits.
LTP ACTIVATE FAIL	Internal *5ESS*™-2000 switch software error. Could not get a channel control block for the associated port in response to a service request. Failed to initialize the hardware and software appropriately.
LVL NOT ACCEPTABLE	Test tone level not acceptable for code answer test line (CATL) test.
MESSAGE REFUSED	The outgoing CCS terminal process PUT received a CCS message refusal UBS message.
NATIONAL NETWORK CONGESTION	The outgoing CCS terminal process PUT received a CCS national network congestion unsuccessful backward setup

	(UBS) message.
NETWORK BLOCKED	The test call was blocked in the *5ESS*™-2000 switch network while trying to connect the trunk to a logical test port.
NO ANI OFFHOOK	An offhook should be received within two seconds of outpulsing on automatic number identification (ANI) trunks as an indication to send ANI billing digits. This offhook was not received.
NO ANSWER	No response was received (other than possibly audible rings) after outpulsing was completed.
NO MGDGTLACK	Internal software error. Did not receive test results from SM.
NO MGMEAS_R	An expected measurement result was not received from the TTF responder or GDSF GDG transceiver.
NO MGPHSET	Internal software error. Failed to receive a "path set" message within six seconds from the operating system.
NO MGRLS_GRD	The call tear down sequence at the trunk under test did not complete normally and/or the message indicating this was lost.
NO MGSYN_RSLT	Internal software error. Failed to receive results of synchronous or non-synchronous test call within 40 seconds.
NO MGTMREL_P	Internal software error. Failed to receive release message from the operating system after the test call is complete and the final status has been determined.
NO MGTMSETUP	Internal software error. Failed to receive a path setup complete message.
NO RESPONDER	A TTF responder was not available, probably due to being busy or out-of-service (OOS).
NO SYNC PULSE	Internal software error. Received only one signal change report during a test call analysis.
NO TEST EQ	Either a TTF responder, tone detector, or tone generator or a GDSF tone generator, tone transceiver, or GDG transceiver was not available, probably due to being busy or OOS.
NO TEST MADE	Failed to make a measurement, no test made.
NO TONE DET	A TTF tone detector was not available, probably due to being busy or OOS.
NO TONE	The test call was waiting on a tone (either 1004 or 2225 Hz) and it was not received.
OFFHOOK 6TH PULSE	A synchronous test call expects the far end to be on-hook at the end of a train of six pulses and it was found to be off-hook.
OSPS COMM. FAILURE	A failure occurred in communication with the far-end OSPS.
OSRESTART() RETURNED	The outgoing CCS terminal process PUT was unable to restart to another terminal process.
OSSENDMSG() FAILED	The outgoing CCS terminal process PUT was unable to send an OSDS message.
OSWGETMSG FAILURE	Internal software error. OS primitive failed to get a message in the allowed time.
OUT OF SERVICE	Internal software error.
OUTPULSE FAILURE	A failure occurred during outpulsing. This is not likely to be due to the trunk unless it is revertive dial. The problem may be with the equipment used for outpulsing [such as, multi-frequency (MF) sender].
PASS ALONG MSG RECEIVED	The outgoing CCS terminal process PUT received a CCS pass along message.
PATH CLOSURE FAILED	The outgoing CCS terminal process PUT was unable to close the digital path between the test execution control (TEC) and PUT.
PATH DEFINITION FAILED	The outgoing CCS terminal process PUT was unable to establish the digital path between the TEC and PUT.
PORT ACTIVATION FAILED	The outgoing CCS terminal process PUT was unable to activate the CCS trunk under test port.
PREEMPT INTRPT	The test call was preempted for either the logical test port or the trunk under test (most likely) by a higher priority request. Possibilities include a RMV:TRK request. It may also be due to fault recovery requesting the hardware.

PRETRIP FAIL	The trunk received one audible ring followed by 120 IPM (reorder) while making a synchronous test call.
PULSES TOO LONG	The synchronous test call has detected at least one pulse longer than 2.3 seconds.
PUT ROUTE FAILURE	The PUT is inaccessible for trunk testing (that is, trunk hardware is OOS or the PUT SM is unavailable).
PUT TIMEOUT	The outgoing CCS terminal process PUT timed out waiting for an event.
PERMANENT VIRTUAL CIRCUIT ACTIVE	Access to the trunk was denied because the trunk is provisioned for a permanent virtual circuit (PVC).
QUEUING FAIL INTRPT	Queuing for requested resources was interrupted.
RA1-2-3, CB2-3 RECEIVED	The outgoing CCS terminal process PUT received an unexpected CCS reanswer or clearback message.
RELEASE GUARD RECEIVED	The outgoing CCS terminal process PUT received an unexpected CCS release guard message.
RELEASE GUARD TIMEOUT	The outgoing CCS terminal process PUT timed out waiting for a CCS release guard (RLG) message.
RETURNED IAM	The outgoing CCS terminal process PUT received a returned CCS IAM. This indicates that the common network interface (CNI) is in overload.
REVERSE BUSY	The far end has busied the outgoing trunk by going off-hook. A mixup in signaling could also cause this.
RING FORWARD RECEIVED	The outgoing CCS terminal process PUT received a ring forward message.
ROUTE-BUSY	Access was denied to the trunk under test because it was busy.
ROUTE FAIL TO TRK	A failure occurred during routing to the trunk.
ROUTE-OVERLOAD	The test call could not route from the logical test port to the trunk due to an overload condition in *5ESS*™-2000 switch.
ROUTE-REORDER	Failed to route to trunk or test equipment.
SECONDARY START MSG RECEIVED	The outgoing CCS terminal process PUT received a secondary start dial (SSD) message.
SIG CHG REPT FAIL	Internal software error. Special signal change reporting mechanism not turned off by peripheral control.
SM DATA PROBLEM	A problem occurred in routing to the trunk in the SM. The probable cause is an ODD or dynamic data problem in the SM. An assert, which contains specific information, may have been triggered.
SOFTWARE OPTIONED PACKAGE NOT LOADED	The software option package needed to run test was not loaded.
SPP OF SM PROCESS	One of the terminal processes associated with the call has been purged. More information should be available in the resulting REPT message.
SUBSCRIBER BUSY	The outgoing CCS terminal process PUT received a CCS subscriber busy UBS message.
SWITCHING EQUIP CONGESTION	The outgoing CCS terminal process PUT received a CCS switching equipment congestion UBS message.
SYNCHRONIZATION FAILURE	Synchronization was never achieved with data returned from the trunk under test. Failure to synchronize could happen for the following reasons: - break or open in the trunk - data rate mis-match between the trunk and the digital facility interface (DFI) - improper loopback termination (such as, wrong test-line) - digital insertion of loss and/or gain

	Synchronization failures may occur while running inverted loopback tests, even though non-inverted loopback tests may synchronize. This is usually due to digital insertion of loss and/or gain on the trunk.
SYNCHRONIZATION LOST	Synchronization with data returned from the trunk under test has been lost.
TEST CALL SETUP FAILURE	Failed to set up an outgoing test call for an EDSL trunk.
TEST DENIED DUE TO PSML	A request to test a packet switching trunk is denied because the packet switch maintenance limit (PSML) for the trunk group has been exceeded.
TEST EQ FAIL	A failure has occurred in either a tone detector, tone generator, responder, or the integrated services test function (ISTF).
TEST PORT NOT AVAIL	All logical test ports in the port group for outgoing test calls are busy, OOS, or otherwise inaccessible to the test call software. A second reason may be printed on the same line indicating why routing failed to the logical test port. This second reason is not related to the trunk.
TEST VALID FOR PACKET TRUNKS ONLY	Test type LBKOCU or LBKCSU was erroneously specified for a non-packet switching trunk.
TIMEOUT WAITING FOR TM_TERM	The outgoing CCS terminal process PUT timed out waiting for the TM_TERM message.
TMDGLCDA INTERNAL ERROR	Internal error has occurred in the function TMdglcda_eo. This does not implicate the ISTF.
TMEO NO MGTM_TERM	Internal software error in the function TMeo. Failed to get a test call message from "OS" within 15 seconds.
TMFOSRES	Internal software error. The operating system did not return after setting a timer.
TMNALIT	ALIT circuit not available.
TMNDCTU	DCTU port not available.
TMNFL	Failed to receive preemption wink correctly.
TMNJCK	AC jack not available.
TMNMPTH	No metallic path available.
TMNTSTB	Unable to allocate a metallic test bus.
TMOSMGF	Internal software error. Timed out waiting for a response from the trunk or had an error in the OSWEG primitive.
TMRETE0C:	Internal software error. Failed to get a message from the operating system to handle pulse measurements for outgoing synchronous or nonsynchronous test calls.
TMRETESC:	Internal software error. Failed to get a message from the operating system after restart to perform call disposition analysis.
TMRSLT10N NO MSG	Internal software error in the function TMrslt10n. Timed out waiting for a message from the operating system while making transmission type test call.
TMRSLTOPER NO MSG	Internal software error in the function TMrsltoper. Timed out waiting for a message from the operating system while making an operational test call.
TMSGER	Internal software error. "PC" failed to release the path after test call was complete or command to the tone detector was not sent during a 105 test call.
TMSGTO	Internal software error. Timed out waiting for a message from the operating system.
TMTERMO NO TM_TERM	Internal software error in the function TMtermo. Failed to receive termination message from the operating system.
TMTOANS NO MSG	Internal software error in the function TMtoans. Entered the function TMtoans() to answer a transmission test call, with invalid reason as argument.
TMTOSIG BAD VALUE	A bad trunk type was retrieved from RLfc_trunk in the function TMtosig. The office data may not have been populated correctly.
TMTOTEST NO MSG	Internal software error in the function TMtotest. Entered the

	function TMtotest() to control the trunk during the stable talking state, with invalid reason as argument.
TMVANN	Automatic voice announcement heard.
TMXXCDA_E NO MSG	Internal software error in the function TMxxcda_e. Entered program to perform call disposition for an outgoing 105 test call for the wrong reason.
TONE TOO LONG	The test call expected the tone sent from the far end to stop within a certain time depending on the test so that remaining measurements could be made, but it did not stop.
TOO FEW PULSES	Failed to receive correct number of pulses.
TOO MANY AUD RINGS	Up to two audible rings are allowed (zero for permanent busy calls) before answer and more than this were received.
TOO MANY PULSES	A synchronous test call expects a train of six pulses and more than this number were received. This could mean that one or more of the six pulses was split and seen as two pulses.
TRIP FAILURE	A synchronous test call received more than two audible rings.
TRK DENIED ACCESS	The test call has been denied access to the trunk due to the trunk service status.
TRUNK ERROR	An unknown error occurred in the terminal process associated with the trunk.
TRUNK SIG. FAIL	During an operational test, the trunk had an undetermined signaling failure.
UBS MESSAGE RECEIVED	The outgoing CCS terminal process PUT received a CCS UBS message.
UNALLOCATED NUMBER	The outgoing CCS terminal process PUT received a CCS unallocated number UBS message.
UNABLE TO INHIBIT INBAND SIGNALING	Failed to inhibit robbed-bit inband signaling at DFI during testing of a packet switching trunk.
UNABLE TO RELEASE PATH TO PH	Failed to release nailed-up path to dedicated link protocol handler during testing of a packet switching trunk.
UNABLE TO REROUTE LINK TRAFFIC	Failed to reroute existing packet calls to other in-service trunk group members during testing of a packet switching trunk.
UNEQUIPPED LABEL	The outgoing CCS terminal process PUT received a CCS unequipped label UBS message.
UNEXPECTED CCS MSG	The outgoing CCS terminal process PUT received an unexpected CCS message on the trunk under test.
UNEXPECTED CCS UPART	The outgoing CCS terminal process PUT encountered an unknown CCS protocol on the trunk under test.
UNEXPECTED MSG	Internal *5ESS*™-2000 switch software error. Got an unknown or unexpected message.
UNEXPECTED OFFHOOK	Trunk went back off-hook.
UNIMPLEMENTED CCS MSG	The outgoing CCS terminal process PUT received an unknown CCS message on the trunk under test.
VOICE	Voice was received over the trunk, probably due to using a DN that reached a customer or recorded announcement.
WINK/SIGNAL FAIL	After seizing the trunk the test waits up to 10 seconds for a start signal from the far end (of the type specified in RLfc_trunk) and it was not received.
WRONG TONE	The test expected 2225 Hz and received 1004 Hz or vice-versa.

4. ACTIONS TO BE TAKEN

Take the trunk OOS or write a trouble report against a trunk if it is faulty. If an internal software error occurs repeatedly, refer to the TECHNICAL ASSISTANCE section of the INTRODUCTON.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:STATUS
RMV:TRK
TST:TRK
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-100-125 *System Description*
235-190-115 *Local and Toll System Features*
235-190-120 *Common Channel Signaling Services Features*
235-900-113 *Product Specification*

RC/V View(s):

5.1 (TRUNK GROUP)
14.1 (AUTO TRUNK TEST)

TST:TRK-C

Software Release: 5E13 and later
Message Class: TRK_MON,NULLDEV
Application: 5
Type: Output

1. FORMAT

[1]

```
TST TRK {TKGMN=a-b|TG=a} k[OPDN j][TYPE f1][DUR g1][BLKSZ h1] j1

                    k1...[k1]
```

[2]

```
TST TRK DN=g[DEN=c-d-e-f|INEN=c-v-s-t][MLHG=h-i][TYPE f1][DUR g1][BLKSZ h1] j1

                    k1...[k1]
```

[3]

```
TST TRK {TKGMN=a-b|TG=a} k j1

                    OPDN j[TYPE f1][DUR g1][BLKSZ h1][RATE i1]

                    k1...[k1]
```

[4]

```
TST TRK DN=g {DEN=c-h-i-j|INEN=c-v-s-t} [MLHG=l-m] w

                    TYPE f1[DUR g1][BLKSZ h1][RATE i1]

                    k1...[k1]
```

2. REASON FOR OUTPUT

To report the results of a manually requested automatic trunk test. This message is in response to a TST:TRK input message.

Formats 1 and 2 are used when an error condition has been detected early (while processing the request). Refer to variables 'k^1' and 'j^1' for additional information. Format 1 reports failures for analog, digital, and packet handler voice (PHV) speech handler trunks, and Format 2 reports failures for X.25 access on T1 (XAT) ports. Formats 3 and 4 are used to report the results of a test. Format 3 reports the test results on an analog or digital trunk. This includes speech handler trunks. Format 4 reports the test results on a trunk that has a directory number (DN) or multi-line hunt group (MLHG) associated with it. This includes XAT ports.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

a = Trunk group number.

b = Member number.

c = Switching module (SM) number.

d = Digital line and trunk unit (DLTU) number.

e = Digital facility interface number.

f = Channel number.

g = Directory number (DN).

h = MLHG number.

i = MLHG member number.

j = Digits outpulsed for the test call. Note that this field is not applicable for packet switching trunks, and will be omitted.

k = Valid value(s):

```
DEN=c-d-e-f
 RAF=c-l-m
 TEN=c-n-o-p-q
 SAS=c-l-m
 SLEN=c-r-s-t
 ILEN=c-u-s-t
 NEN=c-v-w-x-y-z-a1-b1
 PSUEN=c-c1-d1-e1
 INEN=c-v-s-t
```

l = Recorded announcement facility (RAF) or service announcement system (SAS) unit number.

m = RAF or SAS announcement channel number.

n = Trunk unit number.

o = Service group number.

p = Channel board number.

q = Circuit number.

r = Digital carrier line unit number.

s = Remote terminal number.

t = Remote terminal line number.

u = Integrated digital carrier unit number.

v = Digital network unit - SONET (DNU-S) number.

w = Data group (DG) number.

x = SONET terminal equipment (STE) facility number.

y = Synchronous transport signal (STS) facility number.

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z = Virtual tributary group (VTG) number.

a[1] = Virtual tributary member (VTM) number.

b[1] = Digital signal level 0 (DS0) number.

c[1] = PSU community number.

d[1] = PSU channel group number.

e[1] = PSU channel group member number.

f[1] = Transmission tests. Valid value(s):

100	102	104	105	105NT	106
100RL	102LB		105L	105ERL	
100ERL			105RN	105SRL	
100SRL			105N	105SHI	
100SHI			105L4	105GS	
			105L10	105RL	
			105L28	105ALL	
CONT					

Note: The 105RL (return loss) test includes: 105ERL, 105SRL, and 105SHI.
Note: The 105GS (gain slope) test includes: 105L4, 105L10, and 105L28.
Note: The 105ALL test includes the following 105 tests: 105L, 105RN, 105N, 105L4, 105L10, 105L28, and 105NT.
Note: 102LB (Only valid for APX BSSAPS2 and IVT trunks) test executes 1004Hz at 0dB transmission and C-message noise filter used in measurement for noise.
Note: Continuity (CONT) is used for common channel signaling (CCS) trunks.
Note: The 104 transmission measuring and noise checking feature provides a test termination for two-way loss and one-way far to near (FTON) noise. In addition this test provides a pass/fail signal from the far end that indicates the results of a noise measurement. The output "<=41" is pass and ">41" indicates failure. The actual value of the measurement is not provided.

Digital tests. Valid value(s):

LBK = Loopback test line.
LBKINV = Inverting loopback test line.
LBKOCU = Automatic loopback test to office channel unit (OCU). Valid for packet switching trunks and XAT ports only.
LBKCSU = Automatic loopback test to channel service unit (CSU). Valid for packet switching trunks and XAT ports only.
MANSINK = Number 1 Packet Switching System (1PSS) originated to the switch terminated manual loopback test. Valid for packet switching trunks only.
MANSRCE = The switch originated to 1PSS or AMPS packet pipe member (PPM) terminated manual loopback test. Valid for packet switching trunks only.
SHCT = Automatic loopback test to PHV speech handler trunk. Valid for AMPS speech handler trunks only.

Operational tests. Valid value(s):

103 = 103 type test line.
NSYNC = Non-synchronous test line.
PERM = Permanent busy test line.
SYNC = Synchronous test line.

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g^1 = Duration of a test in seconds.

h^1 = Number of test bytes sent per block.

i^1 The bit rate of the digital test run. This value is not necessarily the data rate of the trunk. In some cases, the incompatibility of the trunk data rate and the testing equipment will be detected and the test will be run at the appropriate rate. Valid value(s):

`56KPS` = A 56K test was run.
`64CLR` = A 64K clear test was run.
`64RES` = A 64K restricted test was run.
`VOICE` = A voice grade test was run.

j^1 = Status of the test. Valid value(s):

`ABT` = The attempted operations were aborted because of a failure not related to the trunk itself. Refer to variable 'k^1'.
`ATP` = Request completed. The test call passed.
`COMPL` = Request completed. Refer to variable 'k^1'.
`COMPLETED` = Request completed. This status message is returned at the completion of a test on an entire trunk group.
`FAIL` = Request completed. The test call failed. Refer to variable 'k^1'.
`STARTED` = Request started. This status message is returned at the beginning of a test on an entire trunk group.

The following are results indicating that no test was attempted:

`CMP UNAVAILABLE` = The input request could not be completed because a needed communication module (CM) is unable to respond. Retry the request later.
`INPUT ERROR` = The input message was in error in some way, most likely invalid data.
`INV PORT` = The trunk specified in the input message was not a valid trunk identifier.
`INV PORT STATUS FOR TEST` = Port status for an Operator Services Position System (OSPS) extended digital subscriber line (EDSL) B-channel, or a PPM trunk is inappropriate for test.
`INV PORT TYPE` = The port type specified is invalid for that particular test.
`INV TEST FOR ANALOG TRUNKS` = Digital LBK and LBKINV tests are invalid for all analog trunks (TENs, SLENs, and ILENs).
`MLHG ACCESS DN` = The DN entered is a multi-line hunt group channel and as such cannot be tested by specifying its DN. An equipment number (that is, DEN) or MLHG and member number must be specified. To obtain the channel equipment number and/or multi-line hunt group and member number, use recent change/verify (RC/V) for the DN or refer to office records.
`MLHG INVALID` = The multi-line hunt group specified is not a valid one.
`NO TEST` =This output can be caused by multiple reasons: 1. a TEST TYPE must be specified. No default test exists for the indicated trunk. 2. An INVALID TEST TYPE was specified. 3. An INVALID TEST is attempted. No OPDN exists for this test.
`PACKAGE NOT LOADED` = The software optioned package needed to run the test has not been loaded.
`SM UNAVAILABLE` = The input request could not be completed because a needed SM is unable to respond. Retry the request later.
`SYSTEM BUSY` = A system resource failure occurred The system was too busy to perform the request or a system resource failure occurred which prevented the request from being processed.

SYSTEM ERROR = An unspecified error condition occurred while processing the test request.
TERMINATING OSPS NOT TESTABLE = Terminating office in an OSPS interflow configuration is not testable.
TG INVALID = The trunk group specified in the input request was invalid. Verify that the correct group number was specified.
TRUNK BUSY = The trunk was busy and could not be tested. If the trunk was an OSPS interflow trunk or other nailed-up trunk configuration, the trunk was traffic busy and could not be made maintenance busy and could not be tested. If the trunk is a CCS trunk and is in the OOS MTCE CCSINIT state, the trunk is in the process of being reset and cannot be tested.

k[1] = Test results consisting of a character string of 32 bytes that describes measured results. If the tests are completed, the measurement results are described in Exhibit A. If the test failed or aborted, refer to Exhibit B.

TRANSMISSION MEASUREMENTS RESULTS

Abbreviations:	Explanation:
BER	Bit error ratio. Ratio of bits received in error to the total number of bits transmitted during the test. The test is to send data and measure errors in data returned from the trunk under test.
ERBLK	Errored blocks. The total number of errored data blocks sent toward the test line that failed verification upon return.
FTON	Far to near. The measurement was made by the switch transmission test facility (TTF) responder or global digital services function (GDSF) guard data guard (GDG) transceiver.
NODAT	No test data was returned from the far end.
NOTST	The far end did not send a test tone when expected.
NRESP	The far end responder is not equipped to make the measurement.
NTOF	Near to far. The measurement was made by the far end and the results sent back to the TTF responder or GDSF GDG transceiver.
OORHI	Out of range high.
OORLO	Out of range low.

Test Group Results:	Explanation:
STARTING l[1] TEST CALLS	Starting results given when starting a test with the repeat option. Individual tests will be reported as if individually entered.
l[1] PASSED l[1] FAILED l[1] ABORTED	Final result given when completing a test with the repeat option. Individual test have been reported as if individually entered.

l[1] = Number of tests started, passed, failed or aborted.

Exhibit A -- TRANSMISSION MEASUREMENTS RESULTS

MEAS.	UNITS	RANGE	TYPICAL	IDEAL
LEVEL	Level expressed in dBm	-52 to +3	-7	Note 1
N	Noise near to far in dBrnC (C weighted relative to -90dBm)	+15 to +55	+25	+15/OORLO
NOISE	Noise far to near in dBrnC (C weighted relative to -90dBm)	+15 to +70	+25	+15/OORLO
L404	Level at 404Hz in dBm	-52 to +3	-23	Note 2
L1004	Level at 1004Hz in dBm	-52 to +3	-23	Note 2
L2804	Level at 2804Hz in dBm	-52 to +3	-23	Note 2

NWT	Noise in the presence of tone (through a notch filter) in dBrnC	+25 to +80	+40	+25/OORLO
ERL	Echo return loss in dB relative to the transmitted signal	-13 to +50	+25	+50/OORLO
SRL	Singing return loss in dB relative to the transmitted signal	-13 to +50	+25	+50/OORLO
SRLHI	High frequency singing return loss in dB relative to the transmitted signal	-13 to +50	+25	+50/OORLO
BER		0 to 1	<=1in10E6	0
ERBLK	Errored Blocks	0 to number of blocks sent	Note 3	0

Note 1: Refer to trunk records for expected measured loss (EML). The number printed is the actual level so the sign is opposite from EML.

Note 2: Actual level from a -16dBm signal. Add 16dBm to obtain the results in the same perspective as LEVEL. For example, if the measurement = -24dBm, the loss = -1 X (-24 + 16) = 8dB.

Note 3: Since BLKSZ can vary greatly, this field can not be typically represented.

Note: If an internal software error occurs repeatedly, refer to the TECHNICAL ASSISTANCE section of the INTRODUCTION.

Exhibit B

Error code:	**Explanation:**
ACTIVATE FAILURE	Could not activate the trunk. This could be due to hardware problems and/or the trunk's being out of service due to a diagnostic or facility failure. The trunk could also be getting a blocking (off-hook) signal from the far end.
ADDRESS COMPLETE TIMEOUT	The outgoing CCS terminal process port under test (PUT) timed out waiting for a CCS address complete (ADC) message.
ADDRESS INCOMPLETE	The outgoing CCS terminal process PUT received a CCS address incomplete unsuccessful backward setup (UBS) message.
AM ROUTING TRBL	A problem occurred in routing to the trunk in the administrative module (AM). The probable cause is an office-dependent data (ODD) or dynamic data problem in the AM. An assert, which contains specific information, may have been triggered.
ANI TLWSR DN	Calls over trunks requiring ANI digits use the DN from the ODD relation TLWSR or device 'a' for the billing DN. Either no DN was found, it contained other than 7 digits, or the relation could not be read.
ANSWER MESSAGE TIMEOUT	The outgoing CCS terminal process PUT timed out waiting for a CCS answer (ANS) message.
BAD CCB KEY	Internal software error. Could not find the channel control block for the current process.
BAD CCS STATE ENCOUNTERED	The outgoing CCS terminal process PUT entered an invalid state.
BAD TRUNK CLASS	Office data indicates that the trunk type will not handle an outgoing test call. For example, a recorded announcement trunk, an incoming trunk, or a local test desk trunk.
BAD REASON	Internal software error. Program executed for unexpected reason.
BAD TEST CODE	Internal software error. Invalid test codes (such as, not 100 or 102).

BLANK NO. INTERCEPT	Internal software error.
BLOCKED (REORDER)	The call progressed through outpulsing and then received reorder (120 interruptions per minute (IPM)) from the far end indicating that the call could not be completed on that end.
BLOCKING MESSAGE RECEIVED	The outgoing CCS terminal process PUT received a CCS blocking (BLO) message.
BROADBAND OR NOISE	The call progressed through outpulsing and then received continuous noise or tone (but not 1004 or 2225 Hz) for 4 seconds or longer.
BUSY TONE	The call progressed through outpulsing and then received a busy signal from the far end (60 IPM).
CALL FAILURE	The outgoing CCS terminal process PUT received a CCS call failure UBS message.
CCS EXTRA ONE	Internal error code reserved for CCS.
CCSENDMSG() FAILED	The outgoing CCS terminal process PUT was unable to send a CCS message.
CCGETMSG() TIMEOUT	The outgoing CCS terminal process PUT timed out waiting for a message.
CIRCUIT GROUP CONGESTION	The outgoing CCS terminal process PUT received a CCS switching equipment congestion UBS message.
CIRCUIT RESET RECEIVED	The outgoing CCS terminal process PUT received a CCS circuit reset (RST) message.
CLEAR BACK	The far end went on-hook unexpectedly during the call.
CLEAR FORWARD GLARE	The outgoing CCS terminal process PUT encountered communications line fault (CLF) glare on the CCS trunk under test.
CONFUSION	The outgoing CCS terminal process PUT received a CCS confusion UBS message.
CONT TEST FAIL	Continuity test failed. Voice path assurance (VPA) is the same as continuity test.
CONT TEST NOT VALID FOR CONN APP	Continuity test is not valid for connection appraisal.
CONT TEST PASS	Continuity test was successful. VPA is the same as continuity test.
CONT TEST VALID ON CCS TRKS ONLY	An attempt was made to run a CONT test on a NON-CCS trunk.
CONTINUITY GLARE	The outgoing CCS terminal process PUT encountered central office terminal (COT) glare on the CCS trunk under test.
CONTINUITY TEST FAILED	The continuity test (CONT) failed.
CONTINUITY TEST PASSED	The continuity test (CONT) passed.
COULD NOT SEND MSG	Internal software error. The operating system failed to send a message.
DATA BASE READ FAILED	The outgoing CCS terminal process PUT was unable to read a database relation.
DATA PROBLEM	Routing to the trunk was not completed because of an ODD or dynamic data problem.
DB FAIL RLFC_TRUNK	An error was detected in the RLfc_trunk relation for the trunk under test. Office data may be populated incorrectly.
DIGITAL PATH PROBLEM	Internal software error. Peripheral control failed to define the initial path definition in the path setup sequence.
DIGITAL PATH RELEASE	Internal software error. The operating system sent a message to release the path while in call disposition analysis routine.
EXCESSIVE BIT ERROR RATE	The digital test found too many errors in returned bit stream to make reliable measurements.
FAIL 1ST RING FWD	No on-hook was received or only an on-hook pulse (flash) was received.
FAIL 2ND RING FWD	Fewer than four supervision changes were received.
FAIL DIG PATH CLOSE	Internal software error. Failed to close the path toward the responder or trunk under test.
FAIL DIG PATH OPEN	Internal software error. Failed to open the path toward trunk under test.
FAIL DIG PATH SET	Internal software error. Failed to close path toward the trunk under test or tone detector, failed path setup message.
FAIL OSTIMER	Internal software error. The operating system failed to set a

	timer.
FAIL OVERALL TIMER	Overall time of test too long; retry.
FAILED TO INITIATE VPA TEST	The outgoing CCS terminal process PUT was unable to obtain or activate a VPA circuit.
FAILED TO RECEIVE LPA FROM FAR END	During the setup of the continuity test, the loop-back acknowledgement (LPA) message was not received from the far end. This could be due to the CCS message link being down or not connected to the far end office, a trunk data mis-match between the near end and far end offices, or the unsuccessful activation of the far end test equipment.
FAILED TO RING LINE	Failure to ring a line in attempting to contact far office.
GLARE	The far office tried to originate on a two-way trunk at the same time the test call was trying to originate.
HDW FAIL INTERRUPT	A test call process received an interrupt message due to a hardware failure (not necessarily the trunk) and has terminated the call.
IAM GLARE	The outgoing CCS terminal process PUT encountered initial address message (IAM) glare on the CCS trunk under test.
INCONSISTENT DATA	The inter-module trunk task (IMTTASK) buffer data does not match the inter-module trunk ODD relation (RLIMTRKS or RLRT_TRKG) data.
INTERCEPT	Internal software error.
INTERRUPT MESSAGE	The test was interrupted by a stimulus external to TST:TRK. Could be an internal software error.
INTERRUPT RECEIVED	The outgoing CCS terminal process PUT received an interrupt message.
INTRPT BAD MSG	Internal software error. Unexpected message was sent from the far terminal process.
INVALID DURATION FOR TRUNK	Maximum test duration on *Autoplex*™ trunks that require executive cellular processor (ECP) notification is 240 seconds.
INVALID ROTL COMMAND (CCS)	Invalid ROTL command received for CCS trunk.
INVALID TEST FOR CCS TRUNKS	An attempt was made to run a test that is invalid for CCS trunks (103, SYNC, NSYNC, and so forth)
INVALID TEST FOR PACKET TRUNKS	Test type other than LBKOCU or LBKCSU was erroneously requested for a packet switched trunk.
LINE OUT OF SERVICE	The outgoing CCS terminal process PUT received a CCS line out-of-service UBS message.
LOOPBACK TEST NOT PROVISIONED	Access to the trunk was denied because loopback testing at either the OCU or CSU is not allowed by ODD.
LOW ERROR FREE BLOCKS	Too many blocks in digital testing were found to have errors in bits.
LTP ACTIVATE FAIL	Internal *5ESS*™-2000 switch software error. Could not get a channel control block for the associated port in response to a service request. Failed to initialize the hardware and software appropriately.
LVL NOT ACCEPTABLE	Test tone level not acceptable for code answer test line (CATL) test.
MESSAGE REFUSED	The outgoing CCS terminal process PUT received a CCS message refusal UBS message.
NATIONAL NETWORK CONGESTION	The outgoing CCS terminal process PUT received a CCS national network congestion unsuccessful backward setup (UBS) message.
NETWORK BLOCKED	The test call was blocked in the *5ESS*™-2000 switch network while trying to connect the trunk to a logical test port.
NO ANI OFFHOOK	An offhook should be received within two seconds of outpulsing on automatic number identification (ANI) trunks as an indication to send ANI billing digits. This offhook was not received.
NO ANSWER	No response was received (other than possibly audible rings) after outpulsing was completed.
NO MGDGTLACK	Internal software error. Did not receive test results from SM.

NO MGMEAS_R	An expected measurement result was not received from the TTF responder or GDSF GDG transceiver.
NO MGPHSET	Internal software error. Failed to receive a "path set" message within six seconds from the operating system.
NO MGRLS_GRD	The call tear down sequence at the trunk under test did not complete normally and/or the message indicating this was lost.
NO MGSYN_RSLT	Internal software error. Failed to receive results of synchronous or non-synchronous test call within 40 seconds.
NO MGTMREL_P	Internal software error. Failed to receive release message from the operating system after the test call is complete and the final status has been determined.
NO MGTMSETUP	Internal software error. Failed to receive a path setup complete message.
NO RESPONDER	A TTF responder was not available, probably due to being busy or out-of-service (OOS).
NO SYNC PULSE	Internal software error. Received only one signal change report during a test call analysis.
NO TEST EQ	Either a TTF responder, tone detector, or tone generator or a GDSF tone generator, tone transceiver, or GDG transceiver was not available, probably due to being busy or OOS.
NO TEST MADE	Failed to make a measurement, no test made.
NO TONE DET	A TTF tone detector was not available, probably due to being busy or OOS.
NO TONE	The test call was waiting on a tone (either 1004 or 2225 Hz) and it was not received.
OFFHOOK 6TH PULSE	A synchronous test call expects the far end to be on-hook at the end of a train of six pulses and it was found to be off-hook.
OSPS COMM. FAILURE	A failure occurred in communication with the far-end OSPS.
OSRESTART() RETURNED	The outgoing CCS terminal process PUT was unable to restart to another terminal process.
OSSENDMSG() FAILED	The outgoing CCS terminal process PUT was unable to send an OSDS message.
OSWGETMSG FAILURE	Internal software error. OS primitive failed to get a message in the allowed time.
OUT OF SERVICE	Internal software error.
OUTPULSE FAILURE	A failure occurred during outpulsing. This is not likely to be due to the trunk unless it is revertive dial. The problem may be with the equipment used for outpulsing [such as, multi-frequency (MF) sender].
PASS ALONG MSG RECEIVED	The outgoing CCS terminal process PUT received a CCS pass along message.
PATH CLOSURE FAILED	The outgoing CCS terminal process PUT was unable to close the digital path between the test execution control (TEC) and PUT.
PATH DEFINITION FAILED	The outgoing CCS terminal process PUT was unable to establish the digital path between the TEC and PUT.
PORT ACTIVATION FAILED	The outgoing CCS terminal process PUT was unable to activate the CCS trunk under test port.
PREEMPT INTRPT	The test call was preempted for either the logical test port or the trunk under test (most likely) by a higher priority request. Possibilities include a RMV:TRK request. It may also be due to fault recovery requesting the hardware.
PRETRIP FAIL	The trunk received one audible ring followed by 120 IPM (reorder) while making a synchronous test call.
PULSES TOO LONG	The synchronous test call has detected at least one pulse longer than 2.3 seconds.
PUT ROUTE FAILURE	The PUT is inaccessible for trunk testing (that is, trunk hardware is OOS or the PUT SM is unavailable).
PUT TIMEOUT	The outgoing CCS terminal process PUT timed out waiting for an event.
PERMANENT VIRTUAL CIRCUIT ACTIVE	Access to the trunk was denied because the trunk is

	provisioned for a permanent virtual circuit (PVC).
QUEUING FAIL INTRPT	Queuing for requested resources was interrupted.
RA1-2-3, CB2-3 RECEIVED	The outgoing CCS terminal process PUT received an unexpected CCS reanswer or clearback message.
RELEASE GUARD RECEIVED	The outgoing CCS terminal process PUT received an unexpected CCS release guard message.
RELEASE GUARD TIMEOUT	The outgoing CCS terminal process PUT timed out waiting for a CCS release guard (RLG) message.
RETURNED IAM	The outgoing CCS terminal process PUT received a returned CCS IAM. This indicates that the common network interface (CNI) is in overload.
REVERSE BUSY	The far end has busied the outgoing trunk by going off-hook. A mixup in signaling could also cause this.
RING FORWARD RECEIVED	The outgoing CCS terminal process PUT received a ring forward message.
ROUTE-BUSY	Access was denied to the trunk under test because it was busy.
ROUTE FAIL TO TRK	A failure occurred during routing to the trunk.
ROUTE-OVERLOAD	The test call could not route from the logical test port to the trunk due to an overload condition in *5ESS*™-2000 switch.
ROUTE-REORDER	Failed to route to trunk or test equipment.
SECONDARY START MSG RECEIVED	The outgoing CCS terminal process PUT received a secondary start dial (SSD) message.
SIG CHG REPT FAIL	Internal software error. Special signal change reporting mechanism not turned off by peripheral control.
SM DATA PROBLEM	A problem occurred in routing to the trunk in the SM. The probable cause is an ODD or dynamic data problem in the SM. An assert, which contains specific information, may have been triggered.
SOFTWARE OPTIONED PACKAGE NOT LOADED	The software option package needed to run test was not loaded.
SPP OF SM PROCESS	One of the terminal processes associated with the call has been purged. More information should be available in the resulting REPT message.
SUBSCRIBER BUSY	The outgoing CCS terminal process PUT received a CCS subscriber busy UBS message.
SWITCHING EQUIP CONGESTION	The outgoing CCS terminal process PUT received a CCS switching equipment congestion UBS message.
SYNCHRONIZATION FAILURE	Synchronization was never achieved with data returned from the trunk under test. Failure to synchronize could happen for the following reasons: - break or open in the trunk - data rate mis-match between the trunk and the digital facility interface (DFI) - improper loopback termination (such as, wrong test-line) - digital insertion of loss and/or gain Synchronization failures may occur while running inverted loopback tests, even though non-inverted loopback tests may synchronize. This is usually due to digital insertion of loss and/or gain on the trunk.
SYNCHRONIZATION LOST	Synchronization with data returned from the trunk under test has been lost.
TEST CALL SETUP FAILURE	Failed to set up an outgoing test call for an EDSL trunk.
TEST DENIED DUE TO PSML	A request to test a packet switching trunk is denied because the packet switch maintenance limit (PSML) for the trunk group has been exceeded.
TEST EQ FAIL	A failure has occurred in either a tone detector, tone generator, responder, or the integrated services test function (ISTF).
TEST PORT NOT AVAIL	All logical test ports in the port group for outgoing test calls are

	busy, OOS, or otherwise inaccessible to the test call software. A second reason may be printed on the same line indicating why routing failed to the logical test port. This second reason is not related to the trunk.
TEST VALID FOR PACKET TRUNKS ONLY	Test type LBKOCU or LBKCSU was erroneously specified for a non-packet switching trunk.
TIMEOUT WAITING FOR TM_TERM	The outgoing CCS terminal process PUT timed out waiting for the TM_TERM message.
TMDGLCDA INTERNAL ERROR	Internal error has occurred in the function TMdglcda_eo. This does not implicate the ISTF.
TMEO NO MGTM_TERM	Internal software error in the function TMeo. Failed to get a test call message from "OS" within 15 seconds.
TMFOSRES	Internal software error. The operating system did not return after setting a timer.
TMNALIT	ALIT circuit not available.
TMNDCTU	DCTU port not available.
TMNFL	Failed to receive preemption wink correctly.
TMNJCK	AC jack not available.
TMNMPTH	No metallic path available.
TMNTSTB	Unable to allocate a metallic test bus.
TMOSMGF	Internal software error. Timed out waiting for a response from the trunk or had an error in the OSWEG primitive.
TMRETE0C:	Internal software error. Failed to get a message from the operating system to handle pulse measurements for outgoing synchronous or nonsynchronous test calls.
TMRETESC:	Internal software error. Failed to get a message from the operating system after restart to perform call disposition analysis.
TMRSLT10N NO MSG	Internal software error in the function TMrslt10n. Timed out waiting for a message from the operating system while making transmission type test call.
TMRSLTOPER NO MSG	Internal software error in the function TMrsltoper. Timed out waiting for a message from the operating system while making an operational test call.
TMSGER	Internal software error. "PC" failed to release the path after test call was complete or command to the tone detector was not sent during a 105 test call.
TMSGTO	Internal software error. Timed out waiting for a message from the operating system.
TMTERMO NO TM_TERM	Internal software error in the function TMtermo. Failed to receive termination message from the operating system.
TMTOANS NO MSG	Internal software error in the function TMtoans. Entered the function TMtoans() to answer a transmission test call, with invalid reason as argument.
TMTOSIG BAD VALUE	A bad trunk type was retrieved from RLfc_trunk in the function TMtosig. The office data may not have been populated correctly.
TMTOTEST NO MSG	Internal software error in the function TMtotest. Entered the function TMtotest() to control the trunk during the stable talking state, with invalid reason as argument.
TMVANN	Automatic voice announcement heard.
TMXXCDA_E NO MSG	Internal software error in the function TMxxcda_e. Entered program to perform call disposition for an outgoing 105 test call for the wrong reason.
TONE TOO LONG	The test call expected the tone sent from the far end to stop within a certain time depending on the test so that remaining measurements could be made, but it did not stop.
TOO FEW PULSES	Failed to receive correct number of pulses.
TOO MANY AUD RINGS	Up to two audible rings are allowed (zero for permanent busy calls) before answer and more than this were received.
TOO MANY PULSES	A synchronous test call expects a train of six pulses and more

	than this number were received. This could mean that one or more of the six pulses was split and seen as two pulses.
TRIP FAILURE	A synchronous test call received more than two audible rings.
TRK DENIED ACCESS	The test call has been denied access to the trunk due to the trunk service status.
TRUNK ERROR	An unknown error occurred in the terminal process associated with the trunk.
TRUNK SIG. FAIL	During an operational test, the trunk had an undetermined signaling failure.
UBS MESSAGE RECEIVED	The outgoing CCS terminal process PUT received a CCS UBS message.
UNALLOCATED NUMBER	The outgoing CCS terminal process PUT received a CCS unallocated number UBS message.
UNABLE TO INHIBIT INBAND SIGNALING	Failed to inhibit robbed-bit inband signaling at DFI during testing of a packet switching trunk.
UNABLE TO RELEASE PATH TO PH	Failed to release nailed-up path to dedicated link protocol handler during testing of a packet switching trunk.
UNABLE TO REROUTE LINK TRAFFIC	Failed to reroute existing packet calls to other in-service trunk group members during testing of a packet switching trunk.
UNEQUIPPED LABEL	The outgoing CCS terminal process PUT received a CCS unequipped label UBS message.
UNEXPECTED CCS MSG	The outgoing CCS terminal process PUT received an unexpected CCS message on the trunk under test.
UNEXPECTED CCS UPART	The outgoing CCS terminal process PUT encountered an unknown CCS protocol on the trunk under test.
UNEXPECTED MSG	Internal *5ESS*™-2000 switch software error. Got an unknown or unexpected message.
UNEXPECTED OFFHOOK	Trunk went back off-hook.
UNIMPLEMENTED CCS MSG	The outgoing CCS terminal process PUT received an unknown CCS message on the trunk under test.
VOICE	Voice was received over the trunk, probably due to using a DN that reached a customer or recorded announcement.
WINK/SIGNAL FAIL	After seizing the trunk the test waits up to 10 seconds for a start signal from the far end (of the type specified in RLfc_trunk) and it was not received.
WRONG TONE	The test expected 2225 Hz and received 1004 Hz or vice-versa.

4. ACTIONS TO BE TAKEN

Take the trunk OOS or write a trouble report against a trunk if it is faulty. If an internal software error occurs repeatedly, refer to the TECHNICAL ASSISTANCE section of the INTRODUCTION.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:STATUS
RMV:TRK
TST:TRK
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-100-125 *System Description*
235-190-115 *Local and Toll System Features*
235-190-120 *Common Channel Signaling Services Features*
235-900-113 *Product Specification*

RC/V View(s):

5.1 (TRUNK GROUP)
14.1 (AUTO TRUNK TEST)

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TST:UMBIL

Software Release: 5E13 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
TST UMBIL=a-b-c d [e]
```

2. REASON FOR OUTPUT

To report the result of a test of the connection of a host switching module (HSM) umbilical (UMBIL).

A UMBIL is a host umbilical between a HSM and a remote switching module(RSM). This message is the result of a user TST:UMBIL input message or system action.

3. VARIABLE FIELD DEFINITIONS

`a` = Host switching module (HSM) number.

`b` = Remote switching module (RSM) number.

`c` = Host umbilical (UMBIL) number.

`d` = Termination report. Valid value(s):

- `ABORTED` = Requested action was terminated before completion, and the termination was not graceful.
- `COMPLETED` = Request has successfully completed.
- `NOT STARTED` = Requested action had not begun.
- `STOPPED` = Requested action was terminated before a normal completion. Termination was graceful.

`e` = Additional information qualifying the termination report. Refer to the APP:MAINT-RESP appendix in the Appendixes section of the Output Messages manual.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`TST:UMBIL`

Output Appendix(es):

APP:MAINT-RESP

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1740,xxx,yyy (HOST UMBILICALS (1 - 10))
1741,xxx,yyy (HOST UMBILICALS (11 - 20))

TST:VFL

Software Release: 5E10 and later
Message Class: CCS
Application: 5
Type: Output

1. FORMAT

```
TST VFL      SOURCE = a     STATUS = b [c]
GROUP = d    MEMBER = e     VFLID = f
```

2. REASON FOR OUTPUT

To respond to a voice frequency link (VFL) test requested by the craft. A VFL test can be requested from either the *5ESS*®-2000 switch or from a neighboring 2STP (number 2 signal transfer point). Each 2.4 or 4.8 kbps common channel signaling (CCS) link between the *5ESS*®-2000 switch and a 2STP consists of a pair of VFLs, one active and the other standby. Each VFL in a pair is distinguished by an identifier (A or B). When a VFL test is requested for a specified CCS link, the test is always run for the standby VFL. This message will indicate which VFL is being tested by listing the group and member numbers for the CCS link and the VFL identifier. Also, the status of the test will be given as either passed, failed, or denied. If a test is denied, the reason for denial will be listed.

3. VARIABLE FIELD DEFINITIONS

`a` = Source of the test request. Valid value(s):
- `5ESS` = *5ESS*®-2000 switch.
- `2STP` = Number 2 signal transfer point.

`b` = Status of the test. Valid value(s):

`DENIED`
`FAILED`
`PASSED`

`c` = If '`b`' = `DENIED`, reason for test denial. Valid value(s):
- `1` = VFL test has been preempted.
- `2` = Signaling link minor state is not in-service (IS) or TEST.
- `3` = Unable to test VFL, resubmit request.

`d` = Group number.

`e` = Member number.

`f` = VFL identifier.

4. ACTION TO BE TAKEN

If a test has `PASSED`, no action is necessary.

If a test has `FAILED`, the faulty VFLs should be repaired.

If the test has been `DENIED`, the action to be taken depends on the reason for test denial (variable '`c`'). If variable '`c`'

is 1 or 3, the test may be resubmitted. If variable 'c' is 2, check the signaling link minor state on the CNI display page and resubmit the test once the minor state is IS or TEST.

5. ALARMS

Minor.

6. REFERENCES

Input Message(s):

```
TST:VFL
```

MCC Display Page(s):

(CNI FRAME)
(CCS STATUS)

TST:WLINE

Software Release: 5E11 and later
Message Class: LINE
Application: AEWNC
Type: Output

1. FORMAT

`TST WLINE a b`

2. REASON FOR OUTPUT

To report the result of the TST:WLINE.

3. VARIABLE FIELD DEFINITIONS

`a` = 10 digits of user's analog DN under testing.

`b` = Status. Valid value(s):
`TST:WLINE ATP` = All the line(s) passed the test.
`SYSTEM BUSY -RL` = Testing did not started. Retry later.
`SYSTEM ERROR` = System error occurred during testing.
`INVALID PORT TYPE` = The port is not W-card port.
`TST:WLINE STF` = Test for all the W lines completed but some tests failed.
`TST:WLINE TEST FAILED` = A single W line test failed.
`TST:WLINE,ALL STARTED` = Test for all the W-lines started.
`TST:WLINE,ALL IN PROGRESS` = Test for all the W-lines is still in progress.
`TST:WLINE,ALL IN PROGRESS, STF` = Test for all the W-lines is still in progress and some tests failed.
`INVALID LINE` = The port being tested in not valid.
`SM UNAVAILABLE` = The SM is not available.
`PROCESS TIMEOUT` = The process time out.
`TST:WLINE HARDWARE PROBLEM` = The hardware is out of service.
`TST:WLINE LINE IS BUSY` = The W-line under test is busy.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`TST:WLINE`

Other Manual(s):
230-701-100 *Air Extension^{SM} Reference Guide*

230-701-120 *Air Extension^{SM} User Guide*

TST:WSAUTO-A

Software Release: 5E10 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST WSAUTO TEST POSITION a-b
        ACCESS=c                            T&M=d
        DN=e[-f]   g     [MLHG=h-i]
        PORT HAS BEEN RELEASED
        m TEST HAS BEEN SCHEDULED

[2]   ____________________________________________________________________
      TST WSAUTO TEST POSITION a-b
        ACCESS=c                            T&M=d
        TKGMN=d j-k l
        PORT HAS BEEN RELEASED
        m TEST HAS BEEN SCHEDULED
```

2. REASON FOR OUTPUT

To indicate that the port has been released for automatic testing. Output is produced by the testing processes that actually perform the requested test.

For DGN, a printout of the DGN:TEN or DGN:ISLULC output message follows.

For TSTTRK, a printout of the TST:TRK output message follows.

For LIT, a printout of the EXC:LIT output message follows.

For ALE, a printout of the EXC:ALE output message follows.

For RST, a printout of the RST:LINE or RST:TRK output message follows.

3. VARIABLE FIELD DEFINITIONS

NOTE: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`a` = Test position (TP) number.

`b` = TLWSR tuple identification.

`c` = Access type. Valid value(s):

`AC1 JACK`	= Connection to the AC jack number 1.
`AC2 JACK`	= Connection to the AC jack number 2.
`CAMPED ON`	= Line or trunk is camped on.
`CPE TESTS`	= Test customer premises equipment.
`DC1 JACK`	= Connection to the DC jack number 1.
`DC2 JACK`	= Connection to the DC jack number 2.
`DEN`	= Digital equipment number of the digital trunk or line.

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DIG TRANS = Connection to digital transmission equipment.
IN PROGRESS = Test or test setup is in progress.
METALLIC = Connection to metallic measurement equipment.
MONITOR B&I = Monitor a busy or idle line/trunk.
MONITOR BUSY = Monitor a busy line/trunk.
SEIZED = Line or trunk is seized.
SUPERVISION = Supervisory test running.
TRANSMISSION = Connection to transmission equipment.

d = The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):
H = The T&M phone is ON-HOLD (metallic connections).
M = The T&M phone is in the MONITOR mode (listen-only).
N = No T&M phone in the connection.
T = The T&M phone is in the TALK mode (listen and talk).

e = Telephone number entered.

f = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

g = Valid value(s):

AP=p-q
ILEN=r-n-o-n^1
LCEN=r-s-t-u
LCKEN=r-s-t-s^1-t^1
LEN=r-s-v-w-x-y
SLEN=r-z-a^1-b^1

h = Multi-line hunt group number.

i = Hunt group member number.

j = Trunk group number.

k = Trunk member number.

l = Valid value(s):

DEN=r-c^1-d^1-e^1
NEN=r-i^1-j^1-k^1-l^1-m^1
PSUEN=r-o^1-p^1-q^1-r^1
RAF PORT=r-c^1-e^1
SAS PORT=r-c^1-e^1
TEN=r-c^1-f^1-g^1-h^1

m = Test type requested. Valid value(s):
DIAGNOSTIC = The TEN or ISLULC will be diagnosed.
EXC:ALE = Automatic line evaluation.
EXC:LIT = Line insulation test.

`RST:PORT` = The port will be restored to service.
`TST:DSL` = Digital subscriber line testing.
`TST:TRK` = Automatic test call on the trunk.

`n` = IDCU number.

`o` = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number. Application processor data link.

`p` = Data link group number.

`q` = Relative link member number.

`r` = Switching module (SM) number.

`s` = Line unit number.

`t` = Line group number.

`u` = Line card number.

`v` = Grid number.

`w` = Switch board number (LU1, LU2, LU3) or half-grid number (LU4).

`x` = Switch number.

`y` = Level number.

`z` = Digital carrier line unit number.

`a`[1] = Remote terminal (RT) number.

`b`[1] = RT line number.

`c`[1] = Unit number.

`d`[1] = Digital facility interface (DFI) number.

`e`[1] = Channel number.

`f`[1] = Service group number.

`g`[1] = Channel board number.

`h`[1] = Circuit number.

`i`[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

`j`[1] = Data group (DG) number.

`k`[1] = Synchronous transport signal (STS) number.

`l`[1] = Virtual tributary 1.5 (VT1.5) number.

`m`[1] = DS0 number.

n[1] = RT line number or PUB43801 channel.

o[1] = PSU unit number.

p[1] = PSU shelf number.

q[1] = PSU channel group number.

r[1] = PSU channel group member number.

s[1] = Line board number.

t[1] = Line circuit number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSDATA
OP:WSSTAT
SET:WSPOS
```

Output Message(s):

```
OP:WSDATA
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
14.3 (TRUNK AND LINE WORK STATION)

TST:WSAUTO-B

Software Release: 5E11 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST WSAUTO TEST POSITION a-b
        ACCESS=c                            T&M=d
        DN=e[-f]   g     [MLHG=h-i]
        PORT HAS BEEN RELEASED
        m TEST HAS BEEN SCHEDULED

[2]   ____________________________________________________________________
      TST WSAUTO TEST POSITION a-b
        ACCESS=c                            T&M=d
        TKGMN=d j-k l
        PORT HAS BEEN RELEASED
        m TEST HAS BEEN SCHEDULED
```

2. REASON FOR OUTPUT

To indicate that the port has been released for automatic testing. Output is produced by the testing processes that actually perform the requested test.

For DGN, a printout of the supported DGN output message follows.

For TSTTRK, a printout of the TST:TRK output message follows.

For LIT, a printout of the EXC:LIT output message follows.

For ALE, a printout of the EXC:ALE output message follows.

For RST, a printout of the RST:LINE or RST:TRK output message follows.

3. VARIABLE FIELD DEFINITIONS

NOTE: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`a` = Test position (TP) number.

`b` = TLWSR tuple identification.

`c` = Access type. Valid value(s):

`AC1 JACK`	= Connection to the AC jack number 1.
`AC2 JACK`	= Connection to the AC jack number 2.
`CAMPED ON`	= Line or trunk is camped on.
`CPE TESTS`	= Test customer premises equipment.
`DC1 JACK`	= Connection to the DC jack number 1.
`DC2 JACK`	= Connection to the DC jack number 2.
`DEN`	= Digital equipment number of the digital trunk or line.

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DIG TRANS = Connection to digital transmission equipment.
IN PROGRESS = Test or test setup is in progress.
METALLIC = Connection to metallic measurement equipment.
MONITOR B&I = Monitor a busy or idle line/trunk.
MONITOR BUSY = Monitor a busy line/trunk.
SEIZED = Line or trunk is seized.
SUPERVISION = Supervisory test running.
TRANSMISSION = Connection to transmission equipment.

d = The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):
H = The T&M phone is ON-HOLD (metallic connections).
M = The T&M phone is in the MONITOR mode (listen-only).
N = No T&M phone in the connection.
T = The T&M phone is in the TALK mode (listen and talk).

e = Telephone number entered.

f = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

g = Valid value(s):

AP=p-q
ILEN=r-n-o-n^1
LCEN=r-s-t-u
LCKEN=r-s-t-s^1-t^1
LEN=r-s-v-w-x-y
SLEN=r-z-a^1-b^1
AIUEN=r-u^1-v^1-w^1

h = Multi-line hunt group number.

i = Hunt group member number.

j = Trunk group number.

k = Trunk member number.

l = Valid value(s):

DEN=r-c^1-d^1-e^1
NEN=r-i^1-j^1-k^1-l^1-m^1
PSUEN=r-o^1-p^1-q^1-r^1
RAF PORT=r-c^1-e^1
SAS PORT=r-c^1-e^1
TEN=r-c^1-f^1-g^1-h^1

m = Test type requested. Valid value(s):
DIAGNOSTIC = The circuit will be diagnosed (if supported).
EXC:ALE = Automatic line evaluation.

EXC:LIT	= Line insulation test.
RST:PORT	= The port will be restored to service.
TST:DSL	= Digital subscriber line testing.
TST:TRK	= Automatic test call on the trunk.

n	= IDCU number.
o	= Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number. Application processor data link.
p	= Data link group number.
q	= Relative link member number.
r	= Switching module (SM) number.
s	= Line unit number.
t	= Line group number.
u	= Line card number.
v	= Grid number.
w	= Switch board number (LU1, LU2, or LU3).
x	= Switch number.
y	= Level number.
z	= Digital carrier line unit number.
a[1]	= Remote terminal (RT) number.
b[1]	= RT line number.
c[1]	= Unit number.
d[1]	= Digital facility interface (DFI) number.
e[1]	= Channel number.
f[1]	= Service group number.
g[1]	= Channel board number.
h[1]	= Circuit number.
i[1]	= Digital network unit - synchronous optical network (SONET) (DNU-S) number.
j[1]	= Data group (DG) number.
k[1]	= Synchronous transport signal (STS) number.
l[1]	= Virtual tributary 1.5 (VT1.5) number.

m[1] = DS0 number.

n[1] = RT line number or PUB43801 channel.

o[1] = PSU unit number.

p[1] = PSU shelf number.

q[1] = PSU channel group number.

r[1] = PSU channel group member number.

s[1] = Line board number.

t[1] = Line circuit number.

u[1] = Access interface unit (AIU) number.

v[1] = AIU line pack number.

w[1] = AIU line circuit number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSDATA
OP:WSSTAT
SET:WSPOS
```

Output Message(s):

```
OP:WSDATA
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
14.3 (TRUNK AND LINE WORK STATION)

TST:WSAUTO-C

Software Release: 5E12 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST WSAUTO TEST POSITION a-b
        ACCESS=c                            T&M=d
        DN=e[-f]   g     [MLHG=h-i]
        PORT HAS BEEN RELEASED
        m TEST HAS BEEN SCHEDULED

[2]   ____________________________________________________________________
      TST WSAUTO TEST POSITION a-b
        ACCESS=c                            T&M=d
        TKGMN=d j-k l
        PORT HAS BEEN RELEASED
        m TEST HAS BEEN SCHEDULED
```

2. REASON FOR OUTPUT

To indicate that the port has been released for automatic testing. Output is produced by the testing processes that actually perform the requested test.

For DGN, a printout of the supported DGN output message follows.

For TSTTRK, a printout of the TST:TRK output message follows.

For LIT, a printout of the EXC:LIT output message follows.

For ALE, a printout of the EXC:ALE output message follows.

For RST, a printout of the RST:LINE or RST:TRK output message follows.

3. VARIABLE FIELD DEFINITIONS

NOTE: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`a` = Test position (TP) number.

`b` = TLWSR tuple identification.

`c` = Access type. Valid value(s):

`AC1 JACK`	= Connection to the AC jack number 1.
`AC2 JACK`	= Connection to the AC jack number 2.
`CAMPED ON`	= Line or trunk is camped on.
`CPE TESTS`	= Test customer premises equipment.
`DC1 JACK`	= Connection to the DC jack number 1.
`DC2 JACK`	= Connection to the DC jack number 2.
`DEN`	= Digital equipment number of the digital trunk or line.

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DIG TRANS = Connection to digital transmission equipment.
IN PROGRESS = Test or test setup is in progress.
METALLIC = Connection to metallic measurement equipment.
MONITOR B&I = Monitor a busy or idle line/trunk.
MONITOR BUSY = Monitor a busy line/trunk.
SEIZED = Line or trunk is seized.
SUPERVISION = Supervisory test running.
TRANSMISSION = Connection to transmission equipment.

d = The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):
H = The T&M phone is ON-HOLD (metallic connections).
M = The T&M phone is in the MONITOR mode (listen-only).
N = No T&M phone in the connection.
T = The T&M phone is in the TALK mode (listen and talk).

e = Telephone number entered.

f = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

g = Line equipment number. Valid value(s):

AP=p-q
ILEN=r-n-o-n^1
INEN=r-x^1-o-n^1
LCEN=r-s-t-u
LCKEN=r-s-t-s^1-t^1
LEN=r-s-v-w-x-y
SLEN=r-z-a^1-b^1
AIUEN=r-u^1-v^1-w^1

h = Multi-line hunt group number.

i = Hunt group member number.

j = Trunk group number.

k = Trunk member number.

l = Trunk equipment number. Valid value(s):

DEN=r-c^1-d^1-e^1
INEN=r-x^1-o-n^1
NEN=r-i^1-j^1-k^1-l^1-m^1
PSUEN=r-o^1-p^1-q^1-r^1
RAF PORT=r-c^1-e^1
SAS PORT=r-c^1-e^1
TEN=r-c^1-f^1-g^1-h^1

m = Test type requested. Valid value(s):

DIAGNOSTIC	= The circuit will be diagnosed (if supported).
EXC:ALE	= Automatic line evaluation.
EXC:LIT	= Line insulation test.
RST:PORT	= The port will be restored to service.
TST:DSL	= Digital subscriber line testing.
TST:TRK	= Automatic test call on the trunk.

n = IDCU number.

o = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number. Application processor data link. of the Output Messages manual.

p = Data link group number.

q = Relative link member number.

r = Switching module (SM) number.

s = Line unit number.

t = Line group number.

u = Line card number.

v = Grid number.

w = Switch board number (LU1, LU2, or LU3).

x = Switch number.

y = Level number.

z = Digital carrier line unit number.

a[1] = Remote terminal (RT) number.

b[1] = RT line number.

c[1] = Unit number.

d[1] = Digital facility interface (DFI) number.

e[1] = Channel number.

f[1] = Service group number.

g[1] = Channel board number.

h[1] = Circuit number.

i[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

j[1] = Data group (DG) number.

k[1] = Synchronous transport signal (STS) number.

`l`[1] = Virtual tributary 1.5 (VT1.5) number.

`m`[1] = DS0 number.

`n`[1] = RT line number or PUB43801 channel.

`o`[1] = PSU unit number.

`p`[1] = PSU shelf number.

`q`[1] = PSU channel group number.

`r`[1] = PSU channel group member number.

`s`[1] = Line board number.

`t`[1] = Line circuit number.

`u`[1] = Access interface unit (AIU) number.

`v`[1] = AIU line pack number.

`w`[1] = AIU line circuit number.

`x`[1] = DNU number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSDATA
OP:WSSTAT
SET:WSPOS
```

Output Message(s):

```
OP:WSDATA
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*

235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
14.3 (TRUNK AND LINE WORK STATION)

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TST:WSAUTO-D

Software Release: 5E13 and later
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST WSAUTO TEST POSITION a-b
        ACCESS=c                            T&M=d
        DN=e[-f]   g     [MLHG=h-i]
        PORT HAS BEEN RELEASED
        m TEST HAS BEEN SCHEDULED

[2]   ____________________________________________________________________
      TST WSAUTO TEST POSITION a-b
        ACCESS=c                            T&M=d
        TKGMN=d j-k l
        PORT HAS BEEN RELEASED
        m TEST HAS BEEN SCHEDULED

[3]   ____________________________________________________________________
      TST WSAUTO TEST POSITION a-b

        ACCESS=c                            T&M=d
        DN=e[-f]         z1
        PORT HAS BEEN RELEASED
        m TEST HAS BEEN SCHEDULED
```

2. REASON FOR OUTPUT

To indicate that the port has been released for automatic testing. Output is produced by the testing processes that actually perform the requested test.

For DGN, a printout of the supported DGN output message follows. For TSTTRK, a printout of the TST:TRK output message follows. For LIT, a printout of the EXC:LIT output message follows. For ALE, a printout of the EXC:ALE output message follows. For RST, a printout of the RST:LINE or RST:TRK output message follows.

3. VARIABLE FIELD DEFINITIONS

`a` = Test position (TP) number.

`b` = TLWSR tuple identification.

`c` = Access type. Valid value(s):

`AC1 JACK`	= Connection to the AC jack number 1.
`AC2 JACK`	= Connection to the AC jack number 2.
`CAMPED ON`	= Line or trunk is camped on.
`CPE TESTS`	= Test customer premises equipment.
`DC1 JACK`	= Connection to the DC jack number 1.
`DC2 JACK`	= Connection to the DC jack number 2.
`DEN`	= Digital equipment number of the digital trunk or line.
`DIG TRANS`	= Connection to digital transmission equipment.

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IN PROGRESS = Test or test setup is in progress.
METALLIC = Connection to metallic measurement equipment.
MONITOR B&I = Monitor a busy or idle line/trunk.
MONITOR BUSY = Monitor a busy line/trunk.
SEIZED = Line or trunk is seized.
SUPERVISION = Supervisory test running.
TRANSMISSION = Connection to transmission equipment.

d = The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):
H = The T&M phone is ON-HOLD (metallic connections).
M = The T&M phone is in the MONITOR mode (listen-only).
N = No T&M phone in the connection.
T = The T&M phone is in the TALK mode (listen and talk).

e = Telephone number entered.

f = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

g = Line equipment number. Valid value(s):

```
AP=p-q ILEN=r-n-o-n1
 INEN=r-i1-o-n1
 LCEN=r-s-t-u
 LCKEN=r-s-t-s1-t1
 LEN=r-s-v-w-x-y
 SLEN=r-z-a1-b1
 AIUEN=r-u1-v1-w1
```

h = Multi-line hunt group number.

i = Hunt group member number.

j = Trunk group number.

k = Trunk member number.

l = Trunk equipment number. Valid value(s):

```
DEN=r-c1-d1-e1
 INEN=r-i1-o-n1
 NEN=r-i1-j1-l1-k1-x1-y1-m1
 PSUEN=r-o1-p1-q1-r1
 RAF PORT=r-c1-e1
 SAS PORT=r-c1-e1
 TEN=r-c1-f1-g1-h1
```

m = Test type requested. Valid value(s):
DIAGNOSTIC = The circuit will be diagnosed (if supported).
EXC:ALE = Automatic line evaluation.

`EXC:LIT` = Line insulation test.
`RST:PORT` = The port will be restored to service.
`TST:DSL` = Digital subscriber line testing.
`TST:TRK` = Automatic test call on the trunk.

`n` = IDCU number.

`o` = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number. Application processor data link. of the Output Messages manual.

`p` = Data link group number.

`q` = Relative link member number.

`r` = Switching module (SM) number.

`s` = Line unit number.

`t` = Line group number.

`u` = Line card number.

`v` = Grid number.

`w` = Switch board number (LU1, LU2, or LU3).

`x` = Switch number.

`y` = Level number.

`z` = Digital carrier line unit number.

`a`[1] = Remote terminal (RT) number.

`b`[1] = RT line number.

`c`[1] = Unit number.

`d`[1] = Digital facility interface (DFI) number.

`e`[1] = Channel number.

`f`[1] = Service group number.

`g`[1] = Channel board number.

`h`[1] = Circuit number.

`i`[1] =Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

`j`[1] = Data group (DG) number.

`k`[1] = Synchronous transport signal (STS) facility number.

`l`[1] = SONET termination equipment (STE) facility number.

m^1 = DS0 number.

n^1 = RT line number or PUB43801 channel.

o^1 = PSU unit number.

p^1 = PSU shelf number.

q^1 = PSU channel group number.

r^1 = PSU channel group member number.

s^1 = Line board number.

t^1 = Line circuit number.

u^1 = Access interface unit (AIU) number.

v^1 = AIU line pack number.

w^1 = AIU line circuit number.

x^1 = Virtual tributary group (VTG) number.

y^1 = Virtual tributary member (VTM) number.

z^1 = Line equipment number. Valid value(s):

NEN=r-i^1-j^1-l^1-k^1-x^1-y^1-m^1

4. ACTIONS TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSDATA
OP:WSSTAT
SET:WSPOS
```

Output Message(s):

```
OP:WSDATA
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]
14.3 (TRUNK AND LINE WORK STATION)

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TST:WSDGTL-A

Software Release: 5E10 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST WSDGTL TEST POSITION a-b
        ACCESS=c                            T&M=d
        DN=e[-f]   g     [MLHG=h-i]
       [ELAPSED TIME= m] [BLOCKSIZE= n]
      [{PHEN|ISTFEN}= o] [EQCU= p]
       [CHAN]    [BER] [ERBLK]
       [B1]    [q E -r] [s E t]
       [B2]    [q E -r] [s E t]
       [D]    [PASSING]
       [E=u]

[2]   ____________________________________________________________________
      TST WSDGTL TEST POSITION a-b
        ACCESS=c                            T&M=d
        TKGMN=j-k  l
       [ELAPSED TIME= m] [BLOCKSIZE= n]
       [BER]    [q E -r]
       [ERBLK]    [s E t]
       [E=u]
```

2. REASON FOR OUTPUT

To display the results of a digital test at the trunk and line work station (TLWS) test position (TP).

3. VARIABLE FIELD DEFINITIONS

NOTE: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`E` = Error.

`a` = TP number.

`b` = TLWSR tuple identification.

`c` = Valid value(s):

`AC1 JACK`	= Connection to the AC jack number 1.
`AC2 JACK`	= Connection to the AC jack number 2.
`CAMPED ON`	= Line or trunk is camped on.
`CPE TESTS`	= Test customer premises equipment.
`DC1 JACK`	= Connection to the DC jack number 1.
`DC2 JACK`	= Connection to the DC jack number 2.
`DIG TRANS`	= Connection to digital transmission equipment.
`IN PROGRESS`	= Test or test setup is in progress.
`METALLIC`	= Connection to metallic measurement equipment.

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`MONITOR B&I` = Monitor a busy or idle line/trunk.
`MONITOR BUSY` = Monitor a busy line/trunk.
`SEIZED` = Line or trunk is seized.
`SUPERVISION` = Supervisory test running.
`TRANSMISSION` = Connection to transmission equipment.

`d` = The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):
`H` = The T&M phone is ON-HOLD (metallic connections).
`N` = No T&M phone in the connection.
`M` = The T&M phone is in the MONITOR mode (listen-only).
`T` = The T&M phone is in the TALK mode (listen and talk).

`e` = Telephone number entered.

`f` = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

`g` = Valid value(s):

```
AP=v-w
ILEN=x-y -z -a1
LCEN=x-b1-c1-d1
LCKEN=x-b1-c1-a2-b2
LEN=x1-b1-e1-f1-g1-h1
SLEN=x-t-z-a1
```

`h` = Multi-line hunt group number.

`i` = Hunt group member number.

`j` = Trunk group number.

`k` = Trunk member number.

`l` = Valid value(s):

```
DEN=x-j1-k1-l1
NEN=x-r1-s1-t1-u1-v1
PSUEN=x-w1-x1-y1-z1
RAF PORT x-m1-l1
SAS PORT x-m1-l1
TEN=n1o1p1q1
```

`m` = Elapsed time in seconds since the test started.

`n` = Current block size being used.

`o` = The equipment number of either PH of ISTF.

`p` = The number of channel units equipped on an *ANSI*® U-DSL as determined by directed polling.

q = The value of the bit error rate.

r = Negative exponential value for BER.

s = The value of the number of errored blocks.

t = Positive exponential value for ERBLK.

u = Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

v = Data link (group) number.

w = Relative link (member) number.

x = Switching module (SM) number.

y = IDCU number.

z = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

a[1] = RT line number or PUB43801 channel.

b[1] = Line unit number.

c[1] = Line group number.

d[1] = Line card number.

e[1] = Grid number.

f[1] = Switch board number (LU1, LU2, LU3).

g[1] = Switch number.

h[1] = Level number.

i[1] = Digital carrier line unit number.

j[1] = Digital line and trunk unit (DLTU) number.

k[1] = Digital facility interface (DFI) number.

l[1] = Channel number.

m[1] = Unit number.

n[1] = Trunk unit number.

o[1] = Service group number.

p[1] = Channel board number.

q[1] = Circuit number.

r[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

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s[1] = Data group (DG) number.

t[1] = Synchronous transport signal (STS) number.

u[1] = Virtual tributary 1.5 (VT1.5) number.

v[1] = Digital signal level 0 (DS0) number.

w[1] = PSU unit number.

x[1] = PSU shelf number.

y[1] = PSU channel group number.

z[1] = PSU channel group member number.

a[2] = Line board number.

b[2] = Line circuit number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSSTAT
SET:WSPOS
TST:WSDGTL
```

Output Message(s):

```
TST:WSDGTL
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

TST:WSDGTL-B

Software Release: 5E11 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST WSDGTL TEST POSITION a-b
        ACCESS=c                            T&M=d
        DN=e[-f]   g     [MLHG=h-i]
       [ELAPSED TIME= m] [BLOCKSIZE= n]
      [{PHEN|ISTFEN}= o] [EQCU= p]
       [CHAN]    [BER] [ERBLK]
       [B1]    [q E -r] [s E t]
       [B2]    [q E -r] [s E t]
       [D]    [PASSING]
       [E=u]

[2]   ____________________________________________________________________
      TST WSDGTL TEST POSITION a-b
        ACCESS=c                            T&M=d
        TKGMN=j-k  l
       [ELAPSED TIME= m] [BLOCKSIZE= n]
       [BER]    [q E -r]
       [ERBLK]    [s E t]
       [E=u]
```

2. REASON FOR OUTPUT

To display the results of a digital test at the trunk and line work station (TLWS) test position (TP).

3. VARIABLE FIELD DEFINITIONS

NOTE: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`E` = Error.

`a` = TP number.

`b` = TLWSR tuple identification.

`c` = Valid value(s):

`AC1 JACK`	= Connection to the AC jack number 1.
`AC2 JACK`	= Connection to the AC jack number 2.
`CAMPED ON`	= Line or trunk is camped on.
`CPE TESTS`	= Test customer premises equipment.
`DC1 JACK`	= Connection to the DC jack number 1.
`DC2 JACK`	= Connection to the DC jack number 2.
`DIG TRANS`	= Connection to digital transmission equipment.
`IN PROGRESS`	= Test or test setup is in progress.
`METALLIC`	= Connection to metallic measurement equipment.

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`MONITOR B&I` = Monitor a busy or idle line/trunk.
`MONITOR BUSY` = Monitor a busy line/trunk.
`SEIZED` = Line or trunk is seized.
`SUPERVISION` = Supervisory test running.
`TRANSMISSION` = Connection to transmission equipment.

`d` = The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):
`H` = The T&M phone is ON-HOLD (metallic connections).
`N` = No T&M phone in the connection.
`M` = The T&M phone is in the MONITOR mode (listen-only).
`T` = The T&M phone is in the TALK mode (listen and talk).

`e` = Telephone number entered.

`f` = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

`g` = Valid value(s):

AP=v-w
ILEN=x-y -z $-a^1$
LCEN=x-b^1-c^1-d^1
LCKEN=x-b^1-c^1-a^2-b^2
LEN=x-b^1-e^1-f^1-g^1-h^1
SLEN=x-t-z-a^1
AIUEN=x-c^2-d^2-e^2

`h` = Multi-line hunt group number.

`i` = Hunt group member number.

`j` = Trunk group number.

`k` = Trunk member number.

`l` = Valid value(s):

DEN=x-j^1-k^1-l^1
NEN=x-r^1-s^1-t^1-u^1-v^1
PSUEN=x-w^1-x^1-y^1-z^1
RAF PORT x-m^1-l^1
SAS PORT x-m^1-l^1
TEN=$n^1o^1p^1q^1$

`m` = Elapsed time in seconds since the test started.

`n` = Current block size being used.

`o` = The equipment number of either PH of ISTF.

`p` = The number of channel units equipped on an *ANSI*® U-DSL as determined by directed polling.

q = The value of the bit error rate.

r = Negative exponential value for BER.

s = The value of the number of errored blocks.

t = Positive exponential value for ERBLK.

u = Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

v = Data link (group) number.

w = Relative link (member) number.

x = Switching module (SM) number.

y = IDCU number.

z = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

a[1] = RT line number or PUB43801 channel.

b[1] = Line unit number.

c[1] = Line group number.

d[1] = Line card number.

e[1] = Grid number.

f[1] = Switch board number (LU1, LU2, or LU3).

g[1] = Switch number.

h[1] = Level number.

i[1] = Digital carrier line unit number.

j[1] = Digital line and trunk unit (DLTU) number.

k[1] = Digital facility interface (DFI) number.

l[1] = Channel number.

m[1] = Unit number.

n[1] = Trunk unit number.

o[1] = Service group number.

p[1] = Channel board number.

q[1] = Circuit number.

r[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

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s[1] = Data group (DG) number.

t[1] = Synchronous transport signal (STS) number.

u[1] = Virtual tributary 1.5 (VT1.5) number.

v[1] = Digital signal level 0 (DS0) number.

w[1] = PSU unit number.

x[1] = PSU shelf number.

y[1] = PSU channel group number.

z[1] = PSU channel group member number.

a[2] = Line board number.

b[2] = Line circuit number.

c[2] = Access interface unit (AIU) number.

d[2] = AIU line pack number.

e[2] = AIU line circuit number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSSTAT
SET:WSPOS
TST:WSDGTL
```

Output Message(s):

```
TST:WSDGTL
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*

235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

TST:WSDGTL-C

Software Release: 5E12 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST WSDGTL TEST POSITION a-b
        ACCESS=c                            T&M=d
        DN=e[-f]   g     [MLHG=h-i]
       [ELAPSED TIME= m] [BLOCKSIZE= n]
      [{PHEN|ISTFEN}= o] [EQCU= p]
       [CHAN]    [BER] [ERBLK]
       [B1]    [q E -r] [s E t]
       [B2]    [q E -r] [s E t]
       [D]    [PASSING]
       [E=u]

[2]   ____________________________________________________________________
      TST WSDGTL TEST POSITION a-b
        ACCESS=c                            T&M=d
        TKGMN=j-k  l
       [ELAPSED TIME= m] [BLOCKSIZE= n]
       [BER]    [q E -r]
       [ERBLK]    [s E t]
       [E=u]
```

2. REASON FOR OUTPUT

To display the results of a digital test at the trunk and line work station (TLWS) test position (TP).

3. VARIABLE FIELD DEFINITIONS

NOTE: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`E` = Error.

`a` = TP number.

`b` = TLWSR tuple identification.

`c` = Valid value(s):

`AC1 JACK`	= Connection to the AC jack number 1.
`AC2 JACK`	= Connection to the AC jack number 2.
`CAMPED ON`	= Line or trunk is camped on.
`CPE TESTS`	= Test customer premises equipment.
`DC1 JACK`	= Connection to the DC jack number 1.
`DC2 JACK`	= Connection to the DC jack number 2.
`DIG TRANS`	= Connection to digital transmission equipment.
`IN PROGRESS`	= Test or test setup is in progress.
`METALLIC`	= Connection to metallic measurement equipment.

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MONITOR B&I = Monitor a busy or idle line/trunk.
MONITOR BUSY = Monitor a busy line/trunk.
SEIZED = Line or trunk is seized.
SUPERVISION = Supervisory test running.
TRANSMISSION = Connection to transmission equipment.

d = The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):
H = The T&M phone is ON-HOLD (metallic connections).
N = No T&M phone in the connection.
M = The T&M phone is in the MONITOR mode (listen-only).
T = The T&M phone is in the TALK mode (listen and talk).

e = Telephone number entered.

f = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

g = Line equipment number. Valid value(s):

AP=v-w
ILEN=x-y -z -a^1
INEN=x-f^2-z-a^1
LCEN=x-b^1-c^1-d^1
LCKEN=x-b^1-c^1-a^2-b^2
LEN=x-b^1-e^1-f^1-g^1-h^1
SLEN=x-t-z-a^1
AIUEN=x-c^2-d^2-e^2

h = Multi-line hunt group number.

i = Hunt group member number.

j = Trunk group number.

k = Trunk member number.

l = Trunk equipment number. Valid value(s):

DEN=x-j^1-k^1-l^1
INEN=x-f^2-z-a^1
NEN=x-r^1-s^1-t^1-u^1-v^1
PSUEN=x-w^1-x^1-y^1-z^1
RAF PORT x-m^1-l^1
SAS PORT x-m^1-l^1
TEN=$n^1o^1p^1q^1$

m = Elapsed time in seconds since the test started.

n = Current block size being used.

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o = The equipment number of either PH of ISTF.

p = The number of channel units equipped on an *ANSI*® U-DSL as determined by directed polling.

q = The value of the bit error rate.

r = Negative exponential value for BER.

s = The value of the number of errored blocks.

t = Positive exponential value for ERBLK.

u of the Output Messages manual for an explanation of TLWS error responses.

v = Data link (group) number.

w = Relative link (member) number.

x = Switching module (SM) number.

y = IDCU number.

z = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number. of the Output Messages manual.

a[1] = RT line number or PUB43801 channel.

b[1] = Line unit number.

c[1] = Line group number.

d[1] = Line card number.

e[1] = Grid number.

f[1] = Switch board number (LU1, LU2, or LU3).

g[1] = Switch number.

h[1] = Level number.

i[1] = Digital carrier line unit number.

j[1] = Digital line and trunk unit (DLTU) number.

k[1] = Digital facility interface (DFI) number.

l[1] = Channel number.

m[1] = Unit number.

n[1] = Trunk unit number.

o[1] = Service group number.

p[1] = Channel board number.

q[1] = Circuit number.

r[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

s[1] = Data group (DG) number.

t[1] = Synchronous transport signal (STS) number.

u[1] = Virtual tributary 1.5 (VT1.5) number.

v[1] = Digital signal level 0 (DS0) number.

w[1] = PSU unit number.

x[1] = PSU shelf number.

y[1] = PSU channel group number.

z[1] = PSU channel group member number.

a[2] = Line board number.

b[2] = Line circuit number.

c[2] = Access interface unit (AIU) number.

d[2] = AIU line pack number.

e[2] = AIU line circuit number.

f[2] = DNU number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSSTAT
SET:WSPOS
TST:WSDGTL
```

Output Message(s):

```
TST:WSDGTL
```

Output Appendix(es):

APP:TLWS

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

TST:WSDGTL-D

Software Release: 5E13 and later
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST WSDGTL TEST POSITION a-b
        ACCESS=c                            T&M=d
        DN=e[-f]   g     [MLHG=h-i]
       [ELAPSED TIME= m] [BLOCKSIZE= n]
      [{PHEN|ISTFEN}= o] [EQCU= p]
       [CHAN]    [BER] [ERBLK]
       [B1]    [q E -r] [s E t]
       [B2]    [q E -r] [s E t]
       [D]    [PASSING]
       [E=u]

[2]   ____________________________________________________________________
      TST WSDGTL TEST POSITION a-b
        ACCESS=c                            T&M=d
        TKGMN=j-k  l
       [ELAPSED TIME= m] [BLOCKSIZE= n]
       [BER]    [q E -r]
       [ERBLK]    [s E t]
       [E=u]
```

2. REASON FOR OUTPUT

To display the results of a digital test at the trunk and line work station (TLWS) test position (TP).

3. VARIABLE FIELD DEFINITIONS

E

a = TP number.

b = TLWSR tuple identification.

c = Valid value(s):

AC1 JACK	= Connection to the AC jack number 1.
AC2 JACK	= Connection to the AC jack number 2.
CAMPED ON	= Line or trunk is camped on.
CPE TESTS	= Test customer premises equipment.
DC1 JACK	= Connection to the DC jack number 1.
DC2 JACK	= Connection to the DC jack number 2.
DIG TRANS	= Connection to digital transmission equipment.
IN PROGRESS	= Test or test setup is in progress.
METALLIC	= Connection to metallic measurement equipment.
MONITOR B&I	= Monitor a busy or idle line/trunk.
MONITOR BUSY	= Monitor a busy line/trunk.

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SEIZED = Line or trunk is seized.
SUPERVISION = Supervisory test running.
TRANSMISSION = Connection to transmission equipment.

d = The mode of the talk and monitor (T&M) phone in the test connection. Valid value(s):
- H = The T&M phone is ON-HOLD (metallic connections).
- N = No T&M phone in the connection.
- M = The T&M phone is in the MONITOR mode (listen-only).
- T = The T&M phone is in the TALK mode (listen and talk).

e = Telephone number entered.

f = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

g = Line equipment number. Valid value(s):

```
AP=v-w
 ILEN=x-y -z -a1
 INEN=x-r1-z-a1
 LCEN=x-b1-c1-d1
 LCKEN=x-b1-c1-a2-b2
 LEN=x-b1-e1-f1-g1-h1
 SLEN=x-t-z-a1
 AIUEN=x-c2-d2-e2
```

h = Multi-line hunt group number.

i = Hunt group member number.

j = Trunk group number.

k = Trunk member number.

l = Trunk equipment number. Valid value(s):

```
DEN=x-j1-k1-l1
 INEN=x-r1-z-a1
 NEN=x-r1-s1-u1-t1-f2-g2-v1
 PSUEN=x-w1-x1-y1-z1
 RAF PORT x-m1-l1
 SAS PORT x-m1-l1
 TEN=n1o1p1q1
```

m = Elapsed time in seconds since the test started.

n = Current block size being used.

o = The equipment number of either PH of ISTF.

p = The number of channel units equipped on an *ANSI*® U-DSL as determined by directed polling.

q = The value of the bit error rate.

r = Negative exponential value for BER.

s = The value of the number of errored blocks.

t = Positive exponential value for ERBLK.

u of the Output Messages manual for an explanation of TLWS error responses.

v = Data link (group) number.

w = Relative link (member) number.

x = Switching module (SM) number.

y = IDCU number.

z = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number. of the Output Messages manual.

a^1 = RT line number or PUB43801 channel.

b^1 = Line unit number.

c^1 = Line group number.

d^1 = Line card number.

e^1 = Grid number.

f^1 = Switch board number (LU1, LU2, or LU3).

g^1 = Switch number.

h^1 = Level number.

i^1 = Digital carrier line unit number.

j^1 = Digital line and trunk unit (DLTU) number.

k^1 = Digital facility interface (DFI) number.

l^1 = Channel number.

m^1 = Unit number.

n^1 = Trunk unit number.

o^1 = Service group number.

p^1 = Channel board number.

q^1 = Circuit number.

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r[1] = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

s[1] = Data group (DG) number.

t[1] = Synchronous transport signal (STS) facility number.

u[1] = SONET termination equipment (STE) facility number.

v[1] = Digital signal level 0 (DS0) number.

w[1] = PSU unit number.

x[1] = PSU shelf number.

y[1] = PSU channel group number.

z[1] = PSU channel group member number.

a[2] = Line board number.

b[2] = Line circuit number.

c[2] = Access interface unit (AIU) number.

d[2] = AIU line pack number.

e[2] = AIU line circuit number.

f[2] = Virtual tributary group (VTG) number.

g[2] = Virtual tributary member (VTM) number.

4. ACTIONS TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSSTAT
SET:WSPOS
TST:WSDGTL
```

Output Message(s):

```
TST:WSDGTL
```

Output Appendix(es):

APP:TLWS

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

TST:WSMEAS-A

Software Release: 5E10 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

[1]
```
TST WSMEAS TEST POSITION a-b
  ACCESS=d   ACTION=d                T&M=m
  DN=e[-f]   g     [MLHG=h-i]
 [TONE BEING SENT: FREQ=n    LEVEL=o]
  p FTON q
 [E=r]
```

[2]
```
TST WSMEAS TEST POSITION a-b
  ACCESS=c   ACTION=d                T&M=m
  TKGMN=j-k  l
 [TONE BEING SENT: FREQ=n    LEVEL=o]
  p FTON q
 [E=r]
```

2. REASON FOR OUTPUT

To display the results of a transmission measurement of the port seized at the trunk and line work station (TLWS) test position (TP).

3. VARIABLE FIELD DEFINITIONS

NOTE: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`E` = Error.

`a` = TP number.

`b` = TLWSR tuple identification.

`c` = Valid value(s):

- `AC1 JACK` = Connection to the AC jack number 1.
- `AC2 JACK` = Connection to the AC jack number 2.
- `CAMPED ON` = Line or trunk is camped on.
- `CPE TESTS` = Test customer premises equipment.
- `DC1 JACK` = Connection to the DC jack number 1.
- `DC2 JACK` = Connection to the DC jack number 2.
- `DIG TRANS` = Connection to digital transmission equipment.
- `IN PROGRESS` = Test or test setup is in progress.
- `METALLIC` = Connection to metallic measurement equipment.
- `MONITOR B&I` = Monitor a busy or idle line/trunk.
- `MONITOR BUSY` = Monitor a busy line/trunk.
- `SEIZED` = Line or trunk is seized.

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SUPERVISION = Supervisory test running.
TRANSMISSION = Connection to transmission equipment.

d = Valid value(s):
LOOP BACK PATTERN = A digital loopback test is in progress.
MEASURE = A measure test is being performed on the port.
MONITOR BUSY = The port is busy and currently being monitored with the T&M phone.
MONITOR BUSY/IDLE = The port is busy or idle and currently being monitored with the T&M phone.
OPEN TERMINATION = An open termination is being applied to the port.
PREEMPTTONE = A precedent and preemption tone is being applied to the port.
PLAY ANNOUNCEMENT = An announcement is being played at the RAF or SAS port.
PLAY PHRASE = Phrases are being played at the RAF or SAS port.
QUEUEING HARDWARE = The requested test has not begun, waiting for testing hardware to become available.
QUIET TERMINATION = A quiet termination is being applied to the port.
RING = The line is ringing.
ROH TONE = Receiver off-hook tone being applied to the port.
SENDING = Tone is being sent over the port.
STOPPED = Send activity has been stopped.

e = Telephone number entered.

f = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

g = Valid value(s):

AP=s-t
ILEN=u-v-w-x
LCEN=u-y-z-a^1
LCKEN=u-y-z-v^1-w^1
LEN=u-y-b^1-c^1-d^1-e^1
SLEN=u-f^1-v-w-x

h = Multi-line hunt group number.

i = Hunt group member number.

j = Trunk group number.

k = Trunk member number.

l = Valid value(s):

DEN=u-g^1-h^1-i^1
NEN=u-m^1-n^1-o^1-p^1-q^1
PSUEN=u-r^1-s^1-t^1-u^1
RAF PORT=u-g^1-i^1
SAS PORT=u-g^1-i^1
TEN=u-g^1-j^1-k^1-i^1

m = The mode of the T&M phone in the test connection. Valid value(s):

H	= The T&M phone is ON-HOLD (metallic connections).
M	= The T&M phone is in the MONITOR mode (listen-only).
N	= No T&M phone in the connection.
T	= The T&M phone is in the TALK mode (listen and talk).

n = Frequency of tone being sent simultaneous to measurement being performed.

o = Level of tone being sent simultaneous to measurement being performed.

p = Measured frequency in hertz. Valid value(s):

BBAND	= Broad-band-level test.
ERL	= Echo-return-loss test.
L404	= Frequency test at 404 Hz.
L1004	= Frequency test at 1004 Hz.
L2804	= Frequency test at 2804 Hz.
N	= Noise test.
NWT	= Noise with tone test.
SRL	= Singing-return-loss test.
SRLHI	= Singing-return-loss-high test.

q = Measured level in decibels. Valid value(s):

NOTST	= No test run.
OORHI	= Out-of-range high.
OORLO	= Out-of-range low.

r = Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

s = Data link (group) number.

t = Relative link (member) number.

u = Switching module (SM) number.

v = IDCU number.

w = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

x = RT line number or PUB43801 channel.

y = Line unit number.

z = Line group number.

a[1] = Line card number.

b[1] = Grid number.

c[1] = Switch board number (LU1, LU2, LU3).

d[1] = Switch number.

e[1] = Level number.

f[1] = Digital carrier line unit number.

g[1] = Digital line and trunk unit (DLTU) number.

h[1] = Digital facility interface (DFI) number.

i[1] = Channel number.

j[1] = Service group number.

k[1] = Channel board number.

l[1] = Circuit number.

m[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

n[1] = Data group (DG) number.

o[1] = Synchronous transport signal (STS) number.

p[1] = Virtual tributary 1.5 (VT1.5) number.

q[1] = DS0 number.

r[1] = PSU unit number.

s[1] = PSU shelf number.

t[1] = PSU channel group number.

u[1] = PSU channel group member number.

v[1] = Line board number.

w[1] = Line circuit number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSDATA
OP:WSSTAT
SET:WSPOS
TST:WSMEAS
```

Output Message(s):

```
TST:WSMEAS
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

RC/V View(s):

14.3 (TRUNK AND LINE WORK STATION)

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

TST:WSMEAS-B

Software Release: 5E11 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST WSMEAS TEST POSITION a-b
        ACCESS=d   ACTION=d                T&M=m
        DN=e[-f]   g     [MLHG=h-i]
       [TONE BEING SENT: FREQ=n    LEVEL=o]
        p FTON q
       [E=r]

[2]   ____________________________________________________________________
      TST WSMEAS TEST POSITION a-b
        ACCESS=c   ACTION=d                T&M=m
        TKGMN=j-k  l
       [TONE BEING SENT: FREQ=n    LEVEL=o]
        p FTON q
       [E=r]
```

2. REASON FOR OUTPUT

To display the results of a transmission measurement of the port seized at the trunk and line work station (TLWS) test position (TP).

3. VARIABLE FIELD DEFINITIONS

NOTE: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`E` = Error.

`a` = TP number.

`b` = TLWSR tuple identification.

`c` = Valid value(s):

- `AC1 JACK` = Connection to the AC jack number 1.
- `AC2 JACK` = Connection to the AC jack number 2.
- `CAMPED ON` = Line or trunk is camped on.
- `CPE TESTS` = Test customer premises equipment.
- `DC1 JACK` = Connection to the DC jack number 1.
- `DC2 JACK` = Connection to the DC jack number 2.
- `DIG TRANS` = Connection to digital transmission equipment.
- `IN PROGRESS` = Test or test setup is in progress.
- `METALLIC` = Connection to metallic measurement equipment.
- `MONITOR B&I` = Monitor a busy or idle line/trunk.
- `MONITOR BUSY` = Monitor a busy line/trunk.
- `SEIZED` = Line or trunk is seized.

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SUPERVISION = Supervisory test running.
TRANSMISSION = Connection to transmission equipment.

d = Valid value(s):
LOOP BACK PATTERN = A digital loopback test is in progress.
MEASURE = A measure test is being performed on the port.
MONITOR BUSY = The port is busy and currently being monitored with the T&M phone.
MONITOR BUSY/IDLE = The port is busy or idle and currently being monitored with the T&M phone.
OPEN TERMINATION = An open termination is being applied to the port.
PREEMPTTONE = A precedent and preemption tone is being applied to the port.
PLAY ANNOUNCEMENT = An announcement is being played at the RAF or SAS port.
PLAY PHRASE = Phrases are being played at the RAF or SAS port.
QUEUEING HARDWARE = The requested test has not begun, waiting for testing hardware to become available.
QUIET TERMINATION = A quiet termination is being applied to the port.
RING = The line is ringing.
ROH TONE = Receiver off-hook tone being applied to the port.
SENDING = Tone is being sent over the port.
STOPPED = Send activity has been stopped.

e = Telephone number entered.

f = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

g = Valid value(s):

AP=s-t
ILEN=u-v-w-x
LCEN=u-y-z-a^1
LCKEN=u-y-z-v^1-w^1
LEN=u-y-b^1-c^1-d^1-e^1
SLEN=u-f^1-v-w-x
AIUEN=u-x^1-y^1-z^1

h = Multi-line hunt group number.

i = Hunt group member number.

j = Trunk group number.

k = Trunk member number.

l = Valid value(s):

DEN=u-g^1-h^1-i^1
NEN=u-m^1-n^1-o^1-p^1-q^1
PSUEN=u-r^1-s^1-t^1-u^1
RAF PORT=u-g^1-i^1
SAS PORT=u-g^1-i^1

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TEN=u-g^1-j^1-k^1-i^1

m = The mode of the T&M phone in the test connection. Valid value(s):
- H = The T&M phone is ON-HOLD (metallic connections).
- M = The T&M phone is in the MONITOR mode (listen-only).
- N = No T&M phone in the connection.
- T = The T&M phone is in the TALK mode (listen and talk).

n = Frequency of tone being sent simultaneous to measurement being performed.

o = Level of tone being sent simultaneous to measurement being performed.

p = Measured frequency in hertz. Valid value(s):
- BBAND = Broad-band-level test.
- ERL = Echo-return-loss test.
- L404 = Frequency test at 404 Hz.
- L1004 = Frequency test at 1004 Hz.
- L2804 = Frequency test at 2804 Hz.
- N = Noise test.
- NWT = Noise with tone test.
- SRL = Singing-return-loss test.
- SRLHI = Singing-return-loss-high test.

q = Measured level in decibels. Valid value(s):
- NOTST = No test run.
- OORHI = Out-of-range high.
- OORLO = Out-of-range low.

r = Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

s = Data link (group) number.

t = Relative link (member) number.

u = Switching module (SM) number.

v = IDCU number.

w = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

x = RT line number or PUB43801 channel.

y = Line unit number.

z = Line group number.

a^1 = Line card number.

b^1 = Grid number.

c[1] = Switch board number (LU1, LU2, or LU3).

d[1] = Switch number.

e[1] = Level number.

f[1] = Digital carrier line unit number.

g[1] = Digital line and trunk unit (DLTU) number.

h[1] = Digital facility interface (DFI) number.

i[1] = Channel number.

j[1] = Service group number.

k[1] = Channel board number.

l[1] = Circuit number.

m[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

n[1] = Data group (DG) number.

o[1] = Synchronous transport signal (STS) number.

p[1] = Virtual tributary 1.5 (VT1.5) number.

q[1] = DS0 number.

r[1] = PSU unit number.

s[1] = PSU shelf number.

t[1] = PSU channel group number.

u[1] = PSU channel group member number.

v[1] = Line board number.

w[1] = Line circuit number.

x[1] = Access interface unit (AIU) number.

y[1] = AIU line pack number.

z[1] = AIU line circuit number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
OP:WSDATA
OP:WSSTAT
SET:WSPOS
TST:WSMEAS
```

Output Message(s):

```
TST:WSMEAS
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

RC/V View(s):

14.3 (TRUNK AND LINE WORK STATION)

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

TST:WSMEAS-C

Software Release: 5E12 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

[1]
```
TST WSMEAS TEST POSITION a-b
  ACCESS=c   ACTION=d                T&M=m
  DN=e[-f]   g     [MLHG=h-i]
 [TONE BEING SENT: FREQ=n    LEVEL=o]
  p FTON q
 [E=r]
```

[2]
```
TST WSMEAS TEST POSITION a-b
  ACCESS=c   ACTION=d                T&M=m
  TKGMN=j-k  l
 [TONE BEING SENT: FREQ=n    LEVEL=o]
  p FTON q
 [E=r]
```

2. REASON FOR OUTPUT

To display the results of a transmission measurement of the port seized at the trunk and line work station (TLWS) test position (TP).

3. VARIABLE FIELD DEFINITIONS

NOTE: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`E` = Error.

`a` = TP number.

`b` = TLWSR tuple identification.

`c` = Valid value(s):

- `AC1 JACK` = Connection to the AC jack number 1.
- `AC2 JACK` = Connection to the AC jack number 2.
- `CAMPED ON` = Line or trunk is camped on.
- `CPE TESTS` = Test customer premises equipment.
- `DC1 JACK` = Connection to the DC jack number 1.
- `DC2 JACK` = Connection to the DC jack number 2.
- `DIG TRANS` = Connection to digital transmission equipment.
- `IN PROGRESS` = Test or test setup is in progress.
- `METALLIC` = Connection to metallic measurement equipment.
- `MONITOR B&I` = Monitor a busy or idle line/trunk.
- `MONITOR BUSY` = Monitor a busy line/trunk.
- `SEIZED` = Line or trunk is seized.

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SUPERVISION = Supervisory test running.
TRANSMISSION = Connection to transmission equipment.

d = Valid value(s):
LOOP BACK PATTERN = A digital loopback test is in progress.
MEASURE = A measure test is being performed on the port.
MONITOR BUSY = The port is busy and currently being monitored with the T&M phone.
MONITOR BUSY/IDLE = The port is busy or idle and currently being monitored with the T&M phone.
OPEN TERMINATION = An open termination is being applied to the port.
PREEMPTTONE = A precedent and preemption tone is being applied to the port.
PLAY ANNOUNCEMENT = An announcement is being played at the RAF or SAS port.
PLAY PHRASE = Phrases are being played at the RAF or SAS port.
QUEUEING HARDWARE = The requested test has not begun, waiting for testing hardware to become available.
QUIET TERMINATION = A quiet termination is being applied to the port.
RING = The line is ringing.
ROH TONE = Receiver off-hook tone being applied to the port.
SENDING = Tone is being sent over the port.
STOPPED = Send activity has been stopped.

e = Telephone number entered.

f = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

g = Line equipment number. Valid value(s):

AIUEN=u-x^1-y^1-z^1
AP=s-t
ILEN=u-v-w-x
INEN=u-a^2-w-x
LCEN=u-y-z-a^1
LCKEN=u-y-z-v^1-w^1
LEN=u-y-b^1-c^1-d^1-e^1
SLEN=u-f^1-v-w-x

h = Multi-line hunt group number.

i = Hunt group member number.

j = Trunk group number.

k = Trunk member number.

l = Trunk equipment number. Valid value(s):

DEN=u-g^1-h^1-i^1
INEN=u-a^2-w-x
NEN=u-m^1-n^1-o^1-p^1-q^1
PSUEN=u-r^1-s^1-t^1-u^1

```
RAF PORT=u-g1-i1
SAS PORT=u-g1-i1
TEN=u-g1-j1-k1-i1
```

m = The mode of the T&M phone in the test connection. Valid value(s):

H	= The T&M phone is ON-HOLD (metallic connections).
M	= The T&M phone is in the MONITOR mode (listen-only).
N	= No T&M phone in the connection.
T	= The T&M phone is in the TALK mode (listen and talk).

n = Frequency of tone being sent simultaneous to measurement being performed.

o = Level of tone being sent simultaneous to measurement being performed.

p = Measured frequency in hertz. Valid value(s):

BBAND	= Broad-band-level test.
ERL	= Echo-return-loss test.
L404	= Frequency test at 404 Hz.
L1004	= Frequency test at 1004 Hz.
L2804	= Frequency test at 2804 Hz.
N	= Noise test.
NWT	= Noise with tone test.
SRL	= Singing-return-loss test.
SRLHI	= Singing-return-loss-high test.

q = Measured level in decibels. Valid value(s):

NOTST	= No test run.
OORHI	= Out-of-range high.
OORLO	= Out-of-range low.

r = Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

s = Data link (group) number.

t = Relative link (member) number.

u = Switching module (SM) number.

v = IDCU number.

w = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

x = RT line number or PUB43801 channel.

y = Line unit number.

z = Line group number.

a^1 = Line card number.

b[1] = Grid number.

c[1] = Switch board number (LU1, LU2, or LU3).

d[1] = Switch number.

e[1] = Level number.

f[1] = Digital carrier line unit number.

g[1] = Digital line and trunk unit (DLTU) number.

h[1] = Digital facility interface (DFI) number.

i[1] = Channel number.

j[1] = Service group number.

k[1] = Channel board number.

l[1] = Circuit number.

m[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

n[1] = Data group (DG) number.

o[1] = Synchronous transport signal (STS) number.

p[1] = Virtual tributary 1.5 (VT1.5) number.

q[1] = DS0 number.

r[1] = PSU unit number.

s[1] = PSU shelf number.

t[1] = PSU channel group number.

u[1] = PSU channel group member number.

v[1] = Line board number.

w[1] = Line circuit number.

x[1] = Access interface unit (AIU) number.

y[1] = AIU line pack number.

z[1] = AIU line circuit number.

a[2] = DNU number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSDATA
OP:WSSTAT
SET:WSPOS
TST:WSMEAS
```

Output Message(s):

```
TST:WSMEAS
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

RC/V View(s):

14.3 (TRUNK AND LINE WORK STATION)

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

TST:WSMEAS-D

Software Release: 5E13 and later
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

[1]
```
TST WSMEAS TEST POSITION a-b
  ACCESS=c   ACTION=d                T&M=m
  DN=e[-f]   g     [MLHG=h-i]
 [TONE BEING SENT: FREQ=n    LEVEL=o]
  p FTON q
 [E=r]
```

[2]
```
TST WSMEAS TEST POSITION a-b
  ACCESS=c   ACTION=d                T&M=m
  TKGMN=j-k  l
 [TONE BEING SENT: FREQ=n    LEVEL=o]
  p FTON q
 [E=r]
```

[3]
```
TST WSMEAS TEST POSITION a-b
  ACCESS=c   ACTION=d                T&M=m
  DN=e[-f]          c2
 [TONE BEING SENT: FREQ=n    LEVEL=o]
  p FTON q
 [E=r]
```

2. REASON FOR OUTPUT

To display the results of a transmission measurement of the port seized at the trunk and line work station (TLWS) test position (TP).

3. VARIABLE FIELD DEFINITIONS

`E` = Error.

`a` = TP number.

`b` = TLWSR tuple identification.

`c` = Valid value(s):

`AC1 JACK`	= Connection to the AC jack number 1.
`AC2 JACK`	= Connection to the AC jack number 2.
`CAMPED ON`	= Line or trunk is camped on.
`CPE TESTS`	= Test customer premises equipment.
`DC1 JACK`	= Connection to the DC jack number 1.
`DC2 JACK`	= Connection to the DC jack number 2.
`DIG TRANS`	= Connection to digital transmission equipment.
`IN PROGRESS`	= Test or test setup is in progress.

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METALLIC = Connection to metallic measurement equipment.
MONITOR B&I = Monitor a busy or idle line/trunk.
MONITOR BUSY = Monitor a busy line/trunk.
SEIZED = Line or trunk is seized.
SUPERVISION = Supervisory test running.
TRANSMISSION = Connection to transmission equipment.

d = Valid value(s):
LOOP BACK PATTERN = A digital loopback test is in progress.
MEASURE = A measure test is being performed on the port.
MONITOR BUSY = The port is busy and currently being monitored with the T&M phone.
MONITOR BUSY/IDLE = The port is busy or idle and currently being monitored with the T&M phone.
OPEN TERMINATION = An open termination is being applied to the port.
PREEMPTTONE = A precedent and preemption tone is being applied to the port.
PLAY ANNOUNCEMENT = An announcement is being played at the RAF or SAS port.
PLAY PHRASE = Phrases are being played at the RAF or SAS port.
QUEUEING HARDWARE = The requested test has not begun, waiting for testing hardware to become available.
QUIET TERMINATION = A quiet termination is being applied to the port.
RING = The line is ringing.
ROH TONE = Receiver off-hook tone being applied to the port.
SENDING = Tone is being sent over the port.
STOPPED = Send activity has been stopped.

e = Telephone number entered.

f = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

g = Line equipment number. Valid value(s):

AIUEN=u-x^1-y^1-z^1
AP=s-t
ILEN=u-v-w-x
INEN=u-m^1-w-x
LCEN=u-y-z-a^1
LCKEN=u-y-z-v^1-w^1
LEN=u-y-b^1-c^1-d^1-e^1
SLEN=u-f^1-v-w-x

h = Multi-line hunt group number.

i = Hunt group member number.

j = Trunk group number.

k = Trunk member number.

l = Trunk equipment number. Valid value(s):

DEN=u-g[1]-h[1]-i[1]
INEN=u-m[1]-w-x NEN=u-m[1]-n[1]-p[1]-o[1]-a[2]-b[2]-q[1] PSUEN=u-r[1]-s[1]-t[1]-u[1] RAF PORT=u-g[1]-i[1] SAS PORT=u-g[1]-i[1] TEN=u-g[1]-j[1]-k[1]-i[1]

m = The mode of the T&M phone in the test connection. Valid value(s):

- H = The T&M phone is ON-HOLD (metallic connections).
- M = The T&M phone is in the MONITOR mode (listen-only).
- N = No T&M phone in the connection.
- T = The T&M phone is in the TALK mode (listen and talk).

n = Frequency of tone being sent simultaneous to measurement being performed.

o = Level of tone being sent simultaneous to measurement being performed.

p = Measured frequency in hertz. Valid value(s):

- BBAND = Broad-band-level test.
- ERL = Echo-return-loss test.
- L404 = Frequency test at 404 Hz.
- L1004 = Frequency test at 1004 Hz.
- L2804 = Frequency test at 2804 Hz.
- N = Noise test.
- NWT = Noise with tone test.
- SRL = Singing-return-loss test.
- SRLHI = Singing-return-loss-high test.

q = Measured level in decibels. Valid value(s):

- NOTST = No test run.
- OORHI = Out-of-range high.
- OORLO = Out-of-range low.

r = Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

s = Data link (group) number.

t = Relative link (member) number.

u = Switching module (SM) number.

v = IDCU number.

w = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

x = RT line number or PUB43801 channel.

y = Line unit number.

z = Line group number.

a[1] = Line card number.

b[1] = Grid number.

c[1] = Switch board number (LU1, LU2, or LU3).

d[1] = Switch number.

e[1] = Level number.

f[1] = Digital carrier line unit number.

g[1] = Digital line and trunk unit (DLTU) number.

h[1] = Digital facility interface (DFI) number.

i[1] = Channel number.

j[1] = Service group number.

k[1] = Channel board number.

l[1] = Circuit number.

m[1] = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

n[1] = Data group (DG) number.

o[1] = Synchronous transport signal (STS) facility number.

p[1] = SONET termination equipment (STE) facility number.

q[1] = Digital signal level 0 (DS0) number.

r[1] = PSU unit number.

s[1] = PSU shelf number.

t[1] = PSU channel group number.

u[1] = PSU channel group member number.

v[1] = Line board number.

w[1] = Line circuit number.

x[1] = Access interface unit (AIU) number.

y[1] = AIU line pack number.

z[1] = AIU line circuit number.

a[2] = Virtual tributary group (VTG) number.

b[2] = Virtual tributary member (VTM) number.

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c^2 = Line equipment number. Valid value(s):

NEN=u-m^1-n^1-p^1-o^1-a^2-b^2-q^1

4. ACTIONS TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSDATA
OP:WSSTAT
SET:WSPOS
TST:WSMEAS
```

Output Message(s):

```
TST:WSMEAS
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

RC/V View(s):

14.3 (TRUNK AND LINE WORK STATION)

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

TST:WSMET-A

Software Release: 5E10 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST WSMET TEST POSITION a-b
        ACCESS=c                          T&M=e     TESTEQ=k[1]
        DN=f[-g]   h     [MLHG=i-j]
       [o]
       [E=n]

[2]   ____________________________________________________________________
      TST WSMET TEST POSITION a-b
        ACCESS=c                          T&M=e     TESTEQ=k[1]
        TKGMN=k-l  m
       [o]
       [E=n]
```

2. REASON FOR OUTPUT

To display the results of a metallic test at the trunk and line work station (TLWS) test position (TP).

Format 1 is for the output of line testing. Format 2 is for the output of trunk testing.

3. VARIABLE FIELD DEFINITIONS

NOTE: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`E` = Error.

`a` = TP number.

`b` = TLWSR tuple identification.

`c` = Access type. Valid value(s):
- `METALLIC` = Connection to metallic measurement equipment.

`e` = The mode of the T&M phone in the test connection. Valid value(s):
- `H` = The T&M phone is ON-HOLD (metallic connections).
- `M` = The T&M phone is in the MONITOR mode (listen-only).
- `N` = No T&M phone in the connection.
- `T` = The T&M phone is in the TALK mode (listen and talk).

`f` = Telephone number entered.

`g` = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

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h = Line equipment number. Valid value(s):

```
AP=p-q
ILEN=r-s-t-u
LCEN=r-v-w-x
LCKEN=r-v-w-l1-m1
LEN=r-v-y-z-a1-b1
SLEN=r-c1-t-u
```

i = Multi-line hunt group number.

j = Hunt group member number.

k = Trunk group number.

l = Trunk member number.

m = Trunk equipment number. Valid value(s):

```
DEN=r-d1-e1-f1
RAF PORT=r-g1-f1
SAS PORT=r-g1-f1
TEN=r-g1-h1-i1-j1
```

n = Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

o = The test results. Refer to the OP:WSDATA output message for detailed result formats.

p = Data link (group) number.

q = Relative link (member) number.

r = Switching module (SM) number.

s = IDCU number.

t = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

u = RT line number or PUB43801 channel.

v = Line unit number.

w = Line group number.

x = Line card number.

y = Grid number.

z = Switch board number (LU1, LU2, LU3).

a^1 = Switch number.

b^1 = Level number.

c[1] = Digital carrier line unit number.

d[1] = Digital line and trunk unit (DLTU) number.

e[1] = Digital facility interface (DFI) number.

f[1] = Channel number.

g[1] = Unit number.

h[1] = Service group number.

i[1] = Channel board number.

j[1] = Circuit number.

k[1] = Type of metallic test equipment. Valid type are:
DCTU = Directly connected test unit.
SLIM = Subscriber line and instrument measurement .

l[1] = Line board number.

m[1] = Line circuit number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSSTAT
SET:WSPOS
TST:WSMET
```

Output Message(s):

```
TST:WSMET
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

TST:WSMET-B

Software Release: 5E11 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST WSMET TEST POSITION a-b
        ACCESS=c                          T&M=e     TESTEQ=k[1]
        DN=f[-g]   h     [MLHG=i-j]
       [o]
       [E=n]

[2]   ____________________________________________________________________
      TST WSMET TEST POSITION a-b
        ACCESS=c                          T&M=e     TESTEQ=k[1]
        TKGMN=k-l  m
       [o]
       [E=n]
```

2. REASON FOR OUTPUT

To display the results of a metallic test at the trunk and line work station (TLWS) test position (TP).

Format 1 is for the output of line testing. Format 2 is for the output of trunk testing.

3. VARIABLE FIELD DEFINITIONS

NOTE: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`E` = Error.

`a` = TP number.

`b` = TLWSR tuple identification.

`c` = Access type. Valid value(s):
- `METALLIC` = Connection to metallic measurement equipment.

`e` = The mode of the T&M phone in the test connection. Valid value(s):
- `H` = The T&M phone is ON-HOLD (metallic connections).
- `M` = The T&M phone is in the MONITOR mode (listen-only).
- `N` = No T&M phone in the connection.
- `T` = The T&M phone is in the TALK mode (listen and talk).

`f` = Telephone number entered.

`g` = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

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h = Line equipment number. Valid value(s):

```
AIUEN=r-n1-o1-p1
AP=p-q
ILEN=r-s-t-u
LCEN=r-v-w-x
LCKEN=r-v-w-l1-m1
LEN=r-v-y-z-a1-b1
SLEN=r-c1-t-u
```

i = Multi-line hunt group number.

j = Hunt group member number.

k = Trunk group number.

l = Trunk member number.

m = Trunk equipment number. Valid value(s):

```
DEN=r-d1-e1-f1
RAF PORT=r-g1-f1
SAS PORT=r-g1-f1
TEN=r-g1-h1-i1-j1
```

n = Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

o = The test results. Refer to the OP:WSDATA output message for detailed result formats.

p = Data link (group) number.

q = Relative link (member) number.

r = Switching module (SM) number.

s = IDCU number.

t = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

u = RT line number or PUB43801 channel.

v = Line unit number.

w = Line group number.

x = Line card number.

y = Grid number.

z = Switch board number (LU1, LU2, or LU3).

a^1 = Switch number.

b[1] = Level number.

c[1] = Digital carrier line unit number.

d[1] = Digital line and trunk unit (DLTU) number.

e[1] = Digital facility interface (DFI) number.

f[1] = Channel number.

g[1] = Unit number.

h[1] = Service group number.

i[1] = Channel board number.

j[1] = Circuit number.

k[1] = Type of metallic test equipment. Valid type are:
DCTU = Directly connected test unit.
SLIM = Subscriber line and instrument measurement.

l[1] = Line board number.

m[1] = Line circuit number.

n[1] = Access interface unit (AIU) number.

o[1] = AIU line pack number.

p[1] = AIU line circuit number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSSTAT
SET:WSPOS
TST:WSMET
```

Output Message(s):

```
TST:WSMET
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

TST:WSMET-C

Software Release: 5E12 and later
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST WSMET TEST POSITION a-b
        ACCESS=c                          T&M=e     TESTEQ=k[1]
        DN=f[-g]   h     [MLHG=i-j]
       [o]
       [E=n]

[2]   ____________________________________________________________________
      TST WSMET TEST POSITION a-b
        ACCESS=c                          T&M=e     TESTEQ=k[1]
        TKGMN=k-l  m
       [o]
       [E=n]
```

2. REASON FOR OUTPUT

To display the results of a metallic test at the trunk and line work station (TLWS) test position (TP).

Format 1 is for the output of line testing. Format 2 is for the output of trunk testing.

3. VARIABLE FIELD DEFINITIONS

NOTE: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`E` = Error.

`a` = TP number.

`b` = TLWSR tuple identification.

`c` = Access type. Valid value(s):
- `METALLIC` = Connection to metallic measurement equipment.

`e` = The mode of the T&M phone in the test connection. Valid value(s):
- `H` = The T&M phone is ON-HOLD (metallic connections).
- `M` = The T&M phone is in the MONITOR mode (listen-only).
- `N` = No T&M phone in the connection.
- `T` = The T&M phone is in the TALK mode (listen and talk).

`f` = Telephone number entered.

`g` = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

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h = Line equipment number. Valid value(s):

```
AIUEN=r-n1-o1-p1
AP=p-q
ILEN=r-s-t-u
INEN=r-q1-t-u
LCEN=r-v-w-x
LCKEN=r-v-w-l1-m1
LEN=r-v-y-z-a1-b1
SLEN=r-c1-t-u
```

i = Multi-line hunt group number.

j = Hunt group member number.

k = Trunk group number.

l = Trunk member number.

m = Trunk equipment number. Valid value(s):

```
DEN=r-d1-e1-f1
INEN=r-q1-t-u
RAF PORT=r-g1-f1
SAS PORT=r-g1-f1
TEN=r-g1-h1-i1-j1
```

n = Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

o = The test results. Refer to the OP:WSDATA output message for detailed result formats.

p = Data link (group) number.

q = Relative link (member) number.

r = Switching module (SM) number.

s = IDCU number.

t = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

u = RT line number or PUB43801 channel.

v = Line unit number.

w = Line group number.

x = Line card number.

y = Grid number.

z = Switch board number (LU1, LU2, or LU3).

a[1] = Switch number.

b[1] = Level number.

c[1] = Digital carrier line unit number.

d[1] = Digital line and trunk unit (DLTU) number.

e[1] = Digital facility interface (DFI) number.

f[1] = Channel number.

g[1] = Unit number.

h[1] = Service group number.

i[1] = Channel board number.

j[1] = Circuit number.

k[1] = Type of metallic test equipment. Valid type are:
DCTU = Directly connected test unit.
SLIM = Subscriber line and instrument measurement .

l[1] = Line board number.

m[1] = Line circuit number.

n[1] = Access interface unit (AIU) number.

o[1] = AIU line pack number.

p[1] = AIU line circuit number.

q[1] = DNU number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSSTAT
SET:WSPOS
TST:WSMET
```

Output Message(s):

```
TST:WSMET
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

TST:WSMNTR-A

Software Release: 5E10 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST WSMNTR TEST POSITION a-b
        ACCESS=c   [ACTION=d]              T&M=e
        DN=g[-h]   i     [MLHG=j-k]
       j1
       [E=f]

[2]   ____________________________________________________________________
      TST WSMNTR TEST POSITION a-b
        ACCESS=c   [ACTION=d]              T&M=e
        TKGMN=l-m  n
       j1
       [E=f]
```

2. REASON FOR OUTPUT

To display the results of a monitor busy or monitor idle test at the trunk and line work station (TLWS) test position (TP).

3. VARIABLE FIELD DEFINITIONS

NOTE: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`E` = Error.

`a` = TP number.

`b` = TLWSR tuple identification.

`c` = Access. Valid value(s):

- `AC1 JACK` = Connection to the AC jack number 1.
- `AC2 JACK` = Connection to the AC jack number 2.
- `CAMPED ON` = Line or trunk is camped on.
- `CPE TESTS` = Test customer premises equipment.
- `DC1 JACK` = Connection to the DC jack number 1.
- `DC2 JACK` = Connection to the DC jack number 2.
- `DIG TRANS` = Connection to digital transmission equipment.
- `IN PROGRESS` = Test or test setup is in progress.
- `METALLIC` = Connection to metallic measurement equipment.
- `MONITOR B&I` = Monitor a busy or idle line/trunk.
- `MONITOR BUSY` = Monitor a busy line/trunk.
- `SEIZED` = Line or trunk is seized.
- `SUPERVISION` = Supervisory test running.
- `TRANSMISSION` = Connection to transmission equipment.

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d = Action. Valid value(s):

LOOPBACK PATTERN = A digital loopback test is in progress.
MEASURE = A measure test is being performed on the port.
MONITOR BUSY = The port is busy and currently being monitored with the talk and monitor (T&M) phone.
MONITOR BUSY/IDLE = The port is busy or idle and currently being monitored with the T&M phone.
OPEN TERMINATION = An open termination is being applied to the port.
PREEMPT TONE = A precedent and preemption tone is being applied to the port.
PLAY ANNOUNCEMENT = An announcement is being played at the RAF or SAS port.
PLAY PHRASE = Phrases are being played at the RAF or SAS port.
QUEUEING HARDWARE = The requested test has not begun, waiting for testing hardware to become available.
QUIET TERMINATION = A quiet termination is being applied to the port.
RING = The line is ringing.
ROH TONE = Receiver off-hook tone being applied to the port.
SENDING = Tone is being sent over the port.
STOPPED = Send activity has been stopped.
ADD PGTC = Add pair gain test controller to the port.

e = The mode of the T&M phone in the test connection. Valid value(s):

H = The T&M phone is ON-HOLD (metallic connections).
N = No T&M phone in the connection.
M = The T&M phone is in the MONITOR mode (listen-only).
T = The T&M phone is in the TALK mode (listen and talk).

f = Error Type. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

g = Telephone number entered.

h = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

i = Valid value(s):

AP=o-p
ILEN=q-r-s-t
LCEN=q-u-v-w
LCKEN=q-u-v-t^1-u^1
LEN=q-u-x-y-z-a^1
SLEN=q-b^1-s-t

j = Multi-line hunt group number.

k = Hunt group member number.

l = Trunk group number.

m = Trunk member number.

n = Valid value(s):

DEN=q-c^1-d^1-e^1
NEN=q-k^1-l^1-m^1-n^1-o^1
PSUEN=q-p^1-q^1-r^1-s^1
RAF PORT=q-f^1-e^1
SAS PORT=q-f^1-e^1
TEN=q-f^1-g^1-h^1-i^1

o = Data link (group) number of the AP.

p = Relative link (member) number of the AP.

q = Switching module (SM) number.

r = IDCU number.

s = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

t = RT line number or PUB43801 channel.

u = Line unit number.

v = Line group number.

w = Line card number.

x = Grid number.

y = Switch board number (LU1, LU2, LU3).

z = Switch number.

a^1 = Level number.

b^1 = Digital carrier line unit number.

c^1 = Digital line and trunk unit (DLTU) number.

d^1 = Digital facility interface (DFI) number.

e^1 = Channel number.

f^1 = Unit number.

g^1 = Service group number.

h^1 = Channel board number.

i^1 = Circuit number.

j^1 = The type of the T&M phone in the test connection. Valid value(s):
LOCAL T&M PHONE = The T&M phone type is a local talk and monitor phone.
NO T&M PHONE = No T&M phone in the connection.
REMOTE T&M PHONE = The T&M phone type is a remote talk and monitor phone.

k[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

l[1] = Data group (DG) number.

m[1] = Synchronous transport signal (STS) number.

n[1] = Virtual tributary 1.5 (VT1.5) number.

o[1] = Digital signal level 0 (DS0) number.

p[1] = PSU unit number.

q[1] = PSU shelf number.

r[1] = PSU channel group number.

s[1] = PSU channel group member number.

t[1] = Line board number.

u[1] = Line circuit number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSSTAT
SET:WSPOS
TST:WSMNTR
```

Output Message(s):

```
TST:WSMNTR
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160, (TRUNK & LINE MAINT)

RC/V View(s):

14.3 (TRUNK AND LINE WORK STATION)

TST:WSMNTR-B

Software Release: 5E11 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST WSMNTR TEST POSITION a-b
        ACCESS=c   [ACTION=d]              T&M=e
        DN=g[-h]   i     [MLHG=j-k]
       j1
       [E=f]

[2]   ____________________________________________________________________
      TST WSMNTR TEST POSITION a-b
        ACCESS=c   [ACTION=d]              T&M=e
        TKGMN=l-m  n
       j1
       [E=f]
```

2. REASON FOR OUTPUT

To display the results of a monitor busy or monitor idle test at the trunk and line work station (TLWS) test position (TP).

3. VARIABLE FIELD DEFINITIONS

NOTE: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`E` = Error.

`a` = TP number.

`b` = TLWSR tuple identification.

`c` = Access. Valid value(s):

- `AC1 JACK` = Connection to the AC jack number 1.
- `AC2 JACK` = Connection to the AC jack number 2.
- `CAMPED ON` = Line or trunk is camped on.
- `CPE TESTS` = Test customer premises equipment.
- `DC1 JACK` = Connection to the DC jack number 1.
- `DC2 JACK` = Connection to the DC jack number 2.
- `DIG TRANS` = Connection to digital transmission equipment.
- `IN PROGRESS` = Test or test setup is in progress.
- `METALLIC` = Connection to metallic measurement equipment.
- `MONITOR B&I` = Monitor a busy or idle line/trunk.
- `MONITOR BUSY` = Monitor a busy line/trunk.
- `SEIZED` = Line or trunk is seized.
- `SUPERVISION` = Supervisory test running.
- `TRANSMISSION` = Connection to transmission equipment.

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d = Action. Valid value(s):

LOOPBACK PATTERN = A digital loopback test is in progress.
MEASURE = A measure test is being performed on the port.
MONITOR BUSY = The port is busy and currently being monitored with the talk and monitor (T&M) phone.
MONITOR BUSY/IDLE = The port is busy or idle and currently being monitored with the T&M phone.
OPEN TERMINATION = An open termination is being applied to the port.
PREEMPT TONE = A precedent and preemption tone is being applied to the port.
PLAY ANNOUNCEMENT = An announcement is being played at the RAF or SAS port.
PLAY PHRASE = Phrases are being played at the RAF or SAS port.
QUEUEING HARDWARE = The requested test has not begun, waiting for testing hardware to become available.
QUIET TERMINATION = A quiet termination is being applied to the port.
RING = The line is ringing.
ROH TONE = Receiver off-hook tone being applied to the port.
SENDING = Tone is being sent over the port.
STOPPED = Send activity has been stopped.
ADD PGTC = Add pair gain test controller to the port.

e = The mode of the T&M phone in the test connection. Valid value(s):

H = The T&M phone is ON-HOLD (metallic connections).
N = No T&M phone in the connection.
M = The T&M phone is in the MONITOR mode (listen-only).
T = The T&M phone is in the TALK mode (listen and talk).

f = Error Type. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

g = Telephone number entered.

h = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

i = Valid value(s):

AP=o-p
ILEN=q-r-s-t
LCEN=q-u-v-w
LCKEN=q-u-v-t^1-u^1
LEN=q-u-x-y-z-a^1
SLEN=q-b^1-s-t
AIUEN=q-v^1-w^1-x^1

j = Multi-line hunt group number.

k = Hunt group member number.

l = Trunk group number.

m = Trunk member number.

n = Valid value(s):

```
DEN=q-c1-d1-e1
NEN=q-k1-l1-m1-n1-o1
PSUEN=q-p1-q1-r1-s1
RAF PORT=q-f1-e1
SAS PORT=q-f1-e1
TEN=q-f1-g1-h1-i1
```

o = Data link (group) number of the AP.

p = Relative link (member) number of the AP.

q = Switching module (SM) number.

r = IDCU number.

s = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

t = RT line number or PUB43801 channel.

u = Line unit number.

v = Line group number.

w = Line card number.

x = Grid number.

y = Switch board number (LU1, LU2, or LU3).

z = Switch number.

a^1 = Level number.

b^1 = Digital carrier line unit number.

c^1 = Digital line and trunk unit (DLTU) number.

d^1 = Digital facility interface (DFI) number.

e^1 = Channel number.

f^1 = Unit number.

g^1 = Service group number.

h^1 = Channel board number.

i^1 = Circuit number.

j^1 = The type of the T&M phone in the test connection. Valid value(s):
`LOCAL T&M PHONE` = The T&M phone type is a local talk and monitor phone.

`NO T&M PHONE` = No T&M phone in the connection.
`REMOTE T&M PHONE` = The T&M phone type is a remote talk and monitor phone.

`k`[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

`l`[1] = Data group (DG) number.

`m`[1] = Synchronous transport signal (STS) number.

`n`[1] = Virtual tributary 1.5 (VT1.5) number.

`o`[1] = Digital signal level 0 (DS0) number.

`p`[1] = PSU unit number.

`q`[1] = PSU shelf number.

`r`[1] = PSU channel group number.

`s`[1] = PSU channel group member number.

`t`[1] = Line board number.

`u`[1] = Line circuit number.

`v`[1] = Access interface unit (AIU) number.

`w`[1] = AIU line pack number.

`x`[1] = AIU line circuit number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSSTAT
SET:WSPOS
TST:WSMNTR
```

Output Message(s):

```
TST:WSMNTR
```

Output Appendix(es):

APP:TLWS

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160, (TRUNK & LINE MAINT)

RC/V View(s):

14.3 (TRUNK AND LINE WORK STATION)

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TST:WSMNTR-C

Software Release: 5E12 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST WSMNTR TEST POSITION a-b
        ACCESS=c   [ACTION=d]              T&M=e
        DN=g[-h]   i     [MLHG=j-k]
       j1
       [E=f]

[2]   ____________________________________________________________________
      TST WSMNTR TEST POSITION a-b
        ACCESS=c   [ACTION=d]              T&M=e
        TKGMN=l-m  n
       j1
       [E=f]
```

2. REASON FOR OUTPUT

To display the results of a monitor busy or monitor idle test at the trunk and line work station (TLWS) test position (TP).

3. VARIABLE FIELD DEFINITIONS

NOTE: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`E` = Error.

`a` = TP number.

`b` = TLWSR tuple identification.

`c` = Access. Valid value(s):

- `AC1 JACK` = Connection to the AC jack number 1.
- `AC2 JACK` = Connection to the AC jack number 2.
- `CAMPED ON` = Line or trunk is camped on.
- `CPE TESTS` = Test customer premises equipment.
- `DC1 JACK` = Connection to the DC jack number 1.
- `DC2 JACK` = Connection to the DC jack number 2.
- `DIG TRANS` = Connection to digital transmission equipment.
- `IN PROGRESS` = Test or test setup is in progress.
- `METALLIC` = Connection to metallic measurement equipment.
- `MONITOR B&I` = Monitor a busy or idle line/trunk.
- `MONITOR BUSY` = Monitor a busy line/trunk.
- `SEIZED` = Line or trunk is seized.
- `SUPERVISION` = Supervisory test running.
- `TRANSMISSION` = Connection to transmission equipment.

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d = Action. Valid value(s):

LOOPBACK PATTERN = A digital loopback test is in progress.
MEASURE = A measure test is being performed on the port.
MONITOR BUSY = The port is busy and currently being monitored with the talk and monitor (T&M) phone.
MONITOR BUSY/IDLE = The port is busy or idle and currently being monitored with the T&M phone.
OPEN TERMINATION = An open termination is being applied to the port.
PREEMPT TONE = A precedent and preemption tone is being applied to the port.
PLAY ANNOUNCEMENT = An announcement is being played at the RAF or SAS port.
PLAY PHRASE = Phrases are being played at the RAF or SAS port.
QUEUEING HARDWARE = The requested test has not begun, waiting for testing hardware to become available.
QUIET TERMINATION = A quiet termination is being applied to the port.
RING = The line is ringing.
ROH TONE = Receiver off-hook tone being applied to the port.
SENDING = Tone is being sent over the port.
STOPPED = Send activity has been stopped.
ADD PGTC = Add pair gain test controller to the port.

e = The mode of the T&M phone in the test connection. Valid value(s):

H = The T&M phone is ON-HOLD (metallic connections).
N = No T&M phone in the connection.
M = The T&M phone is in the MONITOR mode (listen-only).
T = The T&M phone is in the TALK mode (listen and talk).

f = Error Type. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

g = Telephone number entered.

h = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

i = Line equipment number. Valid value(s):

AIUEN=q-v^1-w^1-x^1
AP=o-p
ILEN=q-r-s-t
INEN=q-y^1-s-t
LCEN=q-u-v-w
LCKEN=q-u-v-t^1-u^1
LEN=q-u-x-y-z-a^1
SLEN=q-b^1-s-t

j = Multi-line hunt group number.

k = Hunt group member number.

l = Trunk group number.

m = Trunk member number.

n = Trunk equipment number. Valid value(s):

```
DEN=q-c1-d1-e1
INEN=q-y1-s-t
NEN=q-k1-l1-m1-n1-o1
PSUEN=q-p1-q1-r1-s1
RAF PORT=q-f1-e1
SAS PORT=q-f1-e1
TEN=q-f1-g1-h1-i1
```

o = Data link (group) number of the AP.

p = Relative link (member) number of the AP.

q = Switching module (SM) number.

r = IDCU number.

s = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

t = RT line number or PUB43801 channel.

u = Line unit number.

v = Line group number.

w = Line card number.

x = Grid number.

y = Switch board number (LU1, LU2, or LU3).

z = Switch number.

a^1 = Level number.

b^1 = Digital carrier line unit number.

c^1 = Digital line and trunk unit (DLTU) number.

d^1 = Digital facility interface (DFI) number.

e^1 = Channel number.

f^1 = Unit number.

g^1 = Service group number.

h^1 = Channel board number.

i^1 = Circuit number.

`j`[1] = The type of the T&M phone in the test connection. Valid value(s):
`LOCAL T&M PHONE` = The T&M phone type is a local talk and monitor phone.
`NO T&M PHONE` = No T&M phone in the connection.
`REMOTE T&M PHONE` = The T&M phone type is a remote talk and monitor phone.

`k`[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

`l`[1] = Data group (DG) number.

`m`[1] = Synchronous transport signal (STS) number.

`n`[1] = Virtual tributary 1.5 (VT1.5) number.

`o`[1] = Digital signal level 0 (DS0) number.

`p`[1] = PSU unit number.

`q`[1] = PSU shelf number.

`r`[1] = PSU channel group number.

`s`[1] = PSU channel group member number.

`t`[1] = Line board number.

`u`[1] = Line circuit number.

`v`[1] = Access interface unit (AIU) number.

`w`[1] = AIU line pack number.

`x`[1] = AIU line circuit number.

`y`[1] = DNU number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSSTAT
SET:WSPOS
TST:WSMNTR
```

Output Message(s):

```
TST:WSMNTR
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160, (TRUNK & LINE MAINT)

RC/V View(s):

14.3 (TRUNK AND LINE WORK STATION)

TST:WSMNTR-D

Software Release: 5E13 and later
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST WSMNTR TEST POSITION a-b
        ACCESS=c   [ACTION=d]              T&M=e
        DN=g[-h]   i     [MLHG=j-k]
        j1
       [E=f]

[2]   ____________________________________________________________________
      TST WSMNTR TEST POSITION a-b
        ACCESS=c   [ACTION=d]              T&M=e
        TKGMN=l-m  n
        j1
       [E=f]

[3]   ____________________________________________________________________
      TST WSMNTR TEST POSITION a-b

        ACCESS=c   [ACTION=d]              T&M=e
        DN=g[-h]          a2
        j1
       [E=f]
```

2. REASON FOR OUTPUT

To display the results of a monitor busy or monitor idle test at the trunk and line work station (TLWS) test position (TP).

3. VARIABLE FIELD DEFINITIONS

`E` = Error.

`a` = TP number.

`b` = TLWSR tuple identification.

`c` = Access. Valid value(s):

`AC1 JACK`	= Connection to the AC jack number 1.
`AC2 JACK`	= Connection to the AC jack number 2.
`CAMPED ON`	= Line or trunk is camped on.
`CPE TESTS`	= Test customer premises equipment.
`DC1 JACK`	= Connection to the DC jack number 1.
`DC2 JACK`	= Connection to the DC jack number 2.
`DIG TRANS`	= Connection to digital transmission equipment.
`IN PROGRESS`	= Test or test setup is in progress.

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METALLIC = Connection to metallic measurement equipment.
MONITOR B&I = Monitor a busy or idle line/trunk.
MONITOR BUSY = Monitor a busy line/trunk.
SEIZED = Line or trunk is seized.
SUPERVISION = Supervisory test running.
TRANSMISSION = Connection to transmission equipment.

d = Action. Valid value(s):
LOOPBACK PATTERN = A digital loopback test is in progress.
MEASURE = A measure test is being performed on the port.
MONITOR BUSY = The port is busy and currently being monitored with the talk and monitor (T&M) phone.
MONITOR BUSY/IDLE = The port is busy or idle and currently being monitored with the T&M phone.
OPEN TERMINATION = An open termination is being applied to the port.
PREEMPT TONE = A precedent and preemption tone is being applied to the port.
PLAY ANNOUNCEMENT = An announcement is being played at the RAF or SAS port.
PLAY PHRASE = Phrases are being played at the RAF or SAS port.
QUEUEING HARDWARE = The requested test has not begun, waiting for testing hardware to become available.
QUIET TERMINATION = A quiet termination is being applied to the port.
RING = The line is ringing.
ROH TONE = Receiver off-hook tone being applied to the port.
SENDING = Tone is being sent over the port.
STOPPED = Send activity has been stopped.
ADD PGTC = Add pair gain test controller to the port.

e = The mode of the T&M phone in the test connection. Valid value(s):
H = The T&M phone is ON-HOLD (metallic connections).
N = No T&M phone in the connection.
M = The T&M phone is in the MONITOR mode (listen-only).
T = The T&M phone is in the TALK mode (listen and talk).

f = Error Type. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

g = Telephone number entered.

h = Member number of the line time slot bridging (LTSB) line. For LTSB a member number of 1 represents the lead line and a member number of 2 represents the associate line.

i = Line equipment number. Valid value(s):

```
AIUEN=q-v1-w1-x1
 AP=o-p
 ILEN=q-r-s-t
 INEN=q-k1-s-t
 LCEN=q-u-v-w
 LCKEN=q-u-v-t1-u1
 LEN=q-u-x-y-z-a1
```

```
SLEN=q-b1-s-t
```

j = Multi-line hunt group number.

k = Hunt group member number.

l = Trunk group number.

m = Trunk member number.

n = Trunk equipment number. Valid value(s):

```
DEN=q-c1-d1-e1
INEN=q-k1-s-t
NEN=q-k1-l1-n1-m1-y1-z1-o1
PSUEN=q-p1-q1-r1-s1
RAF PORT=q-f1-e1
SAS PORT=q-f1-e1
TEN=q-f1-g1-h1-i1
```

o = Data link (group) number of the AP.

p = Relative link (member) number of the AP.

q = Switching module (SM) number.

r = IDCU number.

s = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

t = RT line number or PUB43801 channel.

u = Line unit number.

v = Line group number.

w = Line card number.

x = Grid number.

y = Switch board number (LU1, LU2, or LU3).

z = Switch number.

a^1 = Level number.

b^1 = Digital carrier line unit number.

c^1 = Digital line and trunk unit (DLTU) number.

d^1 = Digital facility interface (DFI) number.

e^1 = Channel number.

f^1 = Unit number.

g^1 = Service group number.

h^1 = Channel board number.

i^1 = Circuit number.

j^1 = The type of the T&M phone in the test connection. Valid value(s):
`LOCAL T&M PHONE` = The T&M phone type is a local talk and monitor phone.
`NO T&M PHONE` = No T&M phone in the connection.
`REMOTE T&M PHONE` = The T&M phone type is a remote talk and monitor phone.

k^1 = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

l^1 = Data group (DG) number.

m^1 = Synchronous transport signal (STS) facility number.

n^1 = SONET termination equipment (STE) facility number.

o^1 = Digital signal level 0 (DS0) number.

p^1 = PSU unit number.

q^1 = PSU shelf number.

r^1 = PSU channel group number.

s^1 = PSU channel group member number.

t^1 = Line board number.

u^1 = Line circuit number.

v^1 = Access interface unit (AIU) number.

w^1 = AIU line pack number.

x^1 = AIU line circuit number.

y^1 = Virtual tributary group (VTG) number.

z^1 = Virtual tributary member (VTM) number.

a^2 = Line equipment number. Valid value(s):

NEN=q-k^1-l^1-n^1-m^1-y^1-z^1-o^1

4. ACTIONS TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSSTAT
SET:WSPOS
TST:WSMNTR
```

Output Message(s):

```
TST:WSMNTR
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160, (TRUNK & LINE MAINT)

RC/V View(s):

14.3 (TRUNK AND LINE WORK STATION)

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TST:WSSEND-A

Software Release: 5E10 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST WSSEND TEST POSITION a-b
        ACCESS=c      [ACTION=d]            T&M=e
        DN=f[-g]   h     [MLHG=i-j]
       [FREQ=n     LEVEL=o]
       [E=p]

[2]   ____________________________________________________________________
      TST WSSEND TEST POSITION a-b
        ACCESS=c      [ACTION=d]            T&M=e
        TKGMN=k-l  m
       [FREQ=n     LEVEL=o]
       [E=p]
```

2. REASON FOR OUTPUT

To display the result of the TST:WSSEND input request.

3. VARIABLE FIELD DEFINITIONS

NOTE: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`E` = Error.

`a` = Test position (TP) number.

`b` = TLWSR tuple identification.

`c` = Valid value(s):

- `AC1 JACK` = Connection to the AC jack number 1.
- `AC2 JACK` = Connection to the AC jack number 2.
- `CAMPED ON` = Line or trunk is camped on.
- `CPE TESTS` = Test customer premises equipment.
- `DC1 JACK` = Connection to the DC jack number 1.
- `DC2 JACK` = Connection to the DC jack number 2.
- `DIG TRANS` = Connection to digital transmission equipment.
- `IN PROGRESS` = Test or test setup is in progress.
- `METALLIC` = Connection to metallic measurement equipment.
- `MONITOR B&I` = Monitor a busy or idle line/trunk.
- `MONITOR BUSY` = Monitor a busy line/trunk.
- `SEIZED` = Line or trunk is seized.
- `SUPERVISION` = Supervisory test running.
- `TRANSMISSION` = Connection to transmission equipment.

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d = Valid value(s):

ADD PGTC = Add pair gain test controller to the port.
LOOPBACK PATTERN = A digital loopback test is in progress.
MEASURE = A measure test is being performed on the port.
MONITOR BUSY = The port is busy and currently being monitored with the talk and monitor (T&M) phone.
MONITOR BUSY/IDLE = The port is busy or idle and currently being monitored with the T&M phone.
OPEN TERMINATION = An open termination is being applied to the port.
PREEMPT TONE = A precedent and preemption tone is being applied to the port.
PLAY ANNOUNCEMENT = An announcement is being played at the RAF or SAS port.
PLAY PHRASE = Phrases are being played at the RAF or SAS port.
QUEUEING HARDWARE = The requested test has not begun, waiting for testing hardware to become available.
QUIET TERMINATION = A quiet termination is being applied to the port.
RING = The line is ringing.
ROH TONE = Receiver off-hook tone being applied to the port.
SENDING = Tone is being sent over the port.
STOPPED = Send activity has been stopped.

e = The mode of the T&M phone in the test connection. Valid value(s):

H = The T&M phone is ON-HOLD (metallic connections).
M = The T&M phone is in the MONITOR mode (listen-only).
N = No T&M phone in the connection.
T = The T&M phone is in the TALK mode (listen and talk).

f = Telephone number entered.

g = Member number of the line time slot bridging (LTSB) line. For LTSB member number. Valid value(s):

1 = The lead line.
2 = The associate line.

h = Valid value(s):

AP=q-r
ILEN=s-t-u-v
LCEN=s-w-x-y
LCKEN=s-w-x-u^1-v^1
LEN=s-w-z-a^1-b^1-c^1
SLEN=s-d^1-u-v

i = Multi-line hunt group number.

j = Hunt group member number.

k = Trunk group number.

l = Trunk member number.

m = Valid value(s):

```
DEN=s-e1-f1-g1
NEN=s-l1-m1-n1-o1-p1
PSUEN=s-q1-r1-s1-t1
RAF PORT s-h1-g1
SAS PORT s-h1-g1
TEN=s-h1-i1-j1-k1
```

n = Frequency in Hertz of tone being sent. If this is an OPEN or QUIET termination request, this value represents the default stored for the test position.

o = Level in dBm of tone being sent. If this is an OPEN or QUIET termination request, this value represents the default stored for the test position.

p = Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

q = Data link (group) number.

r = Relative link (member) number.

s = Switching module (SM) number.

t = IDCU number.

u = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

v = RT line number or PUB43801 channel.

w = Line unit number.

x = Line group number.

y = Line card number.

z = Grid number.

a^1 = Switch board number (LU1, LU2, LU3).

b^1 = Switch number.

c^1 = Level number.

d^1 = Digital carrier line unit number.

e^1 = Digital line and trunk unit (DLTU) number.

f^1 = Digital facility interface (DFI) number.

g^1 = Channel number.

h^1 = Unit number.

i^1 = Service group number.

j[1] = Channel board number.

k[1] = Circuit number.

l[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

m[1] = Data group (DG) number.

n[1] = Synchronous transport signal (STS) number.

o[1] = Virtual tributary 1.5 (VT1.5) number.

p[1] = Digital signal level 0 (DS0) number.

q[1] = PSU unit number.

r[1] = PSU shelf number.

s[1] = PSU channel group number.

t[1] = PSU channel group member number.

u[1] = Line board number.

v[1] = Line circuit number.

= PSU channel group member number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSDATA
OP:WSSTAT
SET:WSPOS
TST:WSSEND
```

Output Message(s):

```
TST:WSSEND
```

Output Appendix(es):

```
APP:TLWS
```

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Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

RC/V View(s):

14.3 (TRUNK AND LINE WORK STATION)

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

TST:WSSEND-B

Software Release: 5E11 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST WSSEND TEST POSITION a-b
        ACCESS=c      [ACTION=d]            T&M=e
        DN=f[-g]   h     [MLHG=i-j]
       [FREQ=n     LEVEL=o]
       [E=p]

[2]   ____________________________________________________________________
      TST WSSEND TEST POSITION a-b
        ACCESS=c      [ACTION=d]            T&M=e
        TKGMN=k-l  m
       [FREQ=n     LEVEL=o]
       [E=p]
```

2. REASON FOR OUTPUT

To display the result of the TST:WSSEND input request.

3. VARIABLE FIELD DEFINITIONS

NOTE: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`E` = Error.

`a` = Test position (TP) number.

`b` = TLWSR tuple identification.

`c` = Valid value(s):

- `AC1 JACK` = Connection to the AC jack number 1.
- `AC2 JACK` = Connection to the AC jack number 2.
- `CAMPED ON` = Line or trunk is camped on.
- `CPE TESTS` = Test customer premises equipment.
- `DC1 JACK` = Connection to the DC jack number 1.
- `DC2 JACK` = Connection to the DC jack number 2.
- `DIG TRANS` = Connection to digital transmission equipment.
- `IN PROGRESS` = Test or test setup is in progress.
- `METALLIC` = Connection to metallic measurement equipment.
- `MONITOR B&I` = Monitor a busy or idle line/trunk.
- `MONITOR BUSY` = Monitor a busy line/trunk.
- `SEIZED` = Line or trunk is seized.
- `SUPERVISION` = Supervisory test running.
- `TRANSMISSION` = Connection to transmission equipment.

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d = Valid value(s):

ADD PGTC = Add pair gain test controller to the port.
LOOPBACK PATTERN = A digital loopback test is in progress.
MEASURE = A measure test is being performed on the port.
MONITOR BUSY = The port is busy and currently being monitored with the talk and monitor (T&M) phone.
MONITOR BUSY/IDLE = The port is busy or idle and currently being monitored with the T&M phone.
OPEN TERMINATION = An open termination is being applied to the port.
PREEMPT TONE = A precedent and preemption tone is being applied to the port.
PLAY ANNOUNCEMENT = An announcement is being played at the RAF or SAS port.
PLAY PHRASE = Phrases are being played at the RAF or SAS port.
QUEUEING HARDWARE = The requested test has not begun, waiting for testing hardware to become available.
QUIET TERMINATION = A quiet termination is being applied to the port.
RING = The line is ringing.
ROH TONE = Receiver off-hook tone being applied to the port.
SENDING = Tone is being sent over the port.
STOPPED = Send activity has been stopped.

e = The mode of the T&M phone in the test connection. Valid value(s):

H = The T&M phone is ON-HOLD (metallic connections).
M = The T&M phone is in the MONITOR mode (listen-only).
N = No T&M phone in the connection.
T = The T&M phone is in the TALK mode (listen and talk).

f = Telephone number entered.

g = Member number of the line time slot bridging (LTSB) line. For LTSB member number. Valid value(s):

1 = The lead line.
2 = The associate line.

h = Valid value(s):

AP=q-r
ILEN=s-t-u-v
LCEN=s-w-x-y
LCKEN=s-w-x-u^1-v^1
LEN=s-w-z-a^1-b^1-c^1
SLEN=s-d^1-u-v
AIUEN=s-w^1-x^1-y^1

i = Multi-line hunt group number.

j = Hunt group member number.

k = Trunk group number.

l = Trunk member number.

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m = Valid value(s):

```
DEN=s-e1-f1-g1
NEN=s-l1-m1-n1-o1-p1
PSUEN=s-q1-r1-s1-t1
RAF PORT s-h1-g1
SAS PORT s-h1-g1
TEN=s-h1-i1-j1-k1
```

n = Frequency in Hertz of tone being sent. If this is an OPEN or QUIET termination request, this value represents the default stored for the test position.

o = Level in dBm of tone being sent. If this is an OPEN or QUIET termination request, this value represents the default stored for the test position.

p = Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

q = Data link (group) number.

r = Relative link (member) number.

s = Switching module (SM) number.

t = IDCU number.

u = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

v = RT line number or PUB43801 channel.

w = Line unit number.

x = Line group number.

y = Line card number.

z = Grid number.

a^1 = Switch board number (LU1, LU2, or LU3).

b^1 = Switch number.

c^1 = Level number.

d^1 = Digital carrier line unit number.

e^1 = Digital line and trunk unit (DLTU) number.

f^1 = Digital facility interface (DFI) number.

g^1 = Channel number.

h^1 = Unit number.

i^1 = Service group number.

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j[1] = Channel board number.

k[1] = Circuit number.

l[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

m[1] = Data group (DG) number.

n[1] = Synchronous transport signal (STS) number.

o[1] = Virtual tributary 1.5 (VT1.5) number.

p[1] = Digital signal level 0 (DS0) number.

q[1] = PSU unit number.

r[1] = PSU shelf number.

s[1] = PSU channel group number.

t[1] = PSU channel group member number.

u[1] = Line board number.

v[1] = Line circuit number.

w[1] = Access interface unit (AIU) number.

x[1] = AIU line pack number.

y[1] = AIU line circuit number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSDATA
OP:WSSTAT
SET:WSPOS
TST:WSSEND
```

Output Message(s):

```
TST:WSSEND
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

RC/V View(s):

14.3 (TRUNK AND LINE WORK STATION)

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

TST:WSSEND-C

Software Release: 5E12 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST WSSEND TEST POSITION a-b
        ACCESS=c      [ACTION=d]            T&M=e
        DN=f[-g]   h     [MLHG=i-j]
       [FREQ=n     LEVEL=o]
       [E=p]

[2]   ____________________________________________________________________
      TST WSSEND TEST POSITION a-b
        ACCESS=c      [ACTION=d]            T&M=e
        TKGMN=k-l  m
       [FREQ=n     LEVEL=o]
       [E=p]
```

2. REASON FOR OUTPUT

To display the result of the TST:WSSEND input request.

3. VARIABLE FIELD DEFINITIONS

NOTE: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`E` = Error.

`a` =Test position (TP) number.

`b` = TLWSR tuple identification.

`c` = Valid value(s):

- `AC1 JACK` = Connection to the AC jack number 1.
- `AC2 JACK` = Connection to the AC jack number 2.
- `CAMPED ON` = Line or trunk is camped on.
- `CPE TESTS` = Test customer premises equipment.
- `DC1 JACK` = Connection to the DC jack number 1.
- `DC2 JACK` = Connection to the DC jack number 2.
- `DIG TRANS` = Connection to digital transmission equipment.
- `IN PROGRESS` = Test or test setup is in progress.
- `METALLIC` = Connection to metallic measurement equipment.
- `MONITOR B&I` = Monitor a busy or idle line/trunk.
- `MONITOR BUSY` = Monitor a busy line/trunk.
- `SEIZED` = Line or trunk is seized.
- `SUPERVISION` = Supervisory test running.
- `TRANSMISSION` = Connection to transmission equipment.

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d = Valid value(s):

ADD PGTC = Add pair gain test controller to the port.
LOOPBACK PATTERN = A digital loopback test is in progress.
MEASURE = A measure test is being performed on the port.
MONITOR BUSY = The port is busy and currently being monitored with the talk and monitor (T&M) phone.
MONITOR BUSY/IDLE = The port is busy or idle and currently being monitored with the T&M phone.
OPEN TERMINATION = An open termination is being applied to the port.
PREEMPT TONE = A precedent and preemption tone is being applied to the port.
PLAY ANNOUNCEMENT = An announcement is being played at the RAF or SAS port.
PLAY PHRASE = Phrases are being played at the RAF or SAS port.
QUEUEING HARDWARE = The requested test has not begun, waiting for testing hardware to become available.
QUIET TERMINATION = A quiet termination is being applied to the port.
RING = The line is ringing.
ROH TONE = Receiver off-hook tone being applied to the port.
SENDING = Tone is being sent over the port.
STOPPED = Send activity has been stopped.

e = The mode of the T&M phone in the test connection. Valid value(s):

H = The T&M phone is ON-HOLD (metallic connections).
M = The T&M phone is in the MONITOR mode (listen-only).
N = No T&M phone in the connection.
T = The T&M phone is in the TALK mode (listen and talk).

f = Telephone number entered.

g = Member number of the line time slot bridging (LTSB) line. For LTSB member number. Valid value(s):

1 = The lead line.
2 = The associate line.

h = Line equipment number. Valid value(s):

AIUEN=s-w^1-x^1-y^1
AP=q-r
ILEN=s-t-u-v
INEN=s-z^1-u-v
LCEN=s-w-x-y
LCKEN=s-w-x-u^1-v^1
LEN=s-w-z-a^1-b^1-c^1
SLEN=s-d^1-u-v

i = Multi-line hunt group number.

j = Hunt group member number.

k = Trunk group number.

l = Trunk member number.

m = Trunk equipment number. Valid value(s):

```
DEN=s-e1-f1-g1
INEN=s-z1-u-v
NEN=s-l1-m1-n1-o1-p1
PSUEN=s-q1-r1-s1-t1
RAF PORT s-h1-g1
SAS PORT s-h1-g1
TEN=s-h1-i1-j1-k1
```

n = Frequency in Hertz of tone being sent. If this is an OPEN or QUIET termination request, this value represents the default stored for the test position.

o = Level in dBm of tone being sent. If this is an OPEN or QUIET termination request, this value represents the default stored for the test position.

p = Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

q = Data link (group) number.

r = Relative link (member) number.

s = Switching module (SM) number.

t = IDCU number.

u = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

v = RT line number or PUB43801 channel.

w = Line unit number.

x = Line group number.

y = Line card number.

z = Grid number.

a^1 = Switch board number (LU1, LU2, or LU3).

b^1 = Switch number.

c^1 = Level number.

d^1 = Digital carrier line unit number.

e^1 = Digital line and trunk unit (DLTU) number.

f^1 = Digital facility interface (DFI) number.

g^1 = Channel number.

h[1] = Unit number.

i[1] = Service group number.

j[1] = Channel board number.

k[1] = Circuit number.

l[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

m[1] = Data group (DG) number.

n[1] = Synchronous transport signal (STS) number.

o[1] = Virtual tributary 1.5 (VT1.5) number.

p[1] = Digital signal level 0 (DS0) number.

q[1] = PSU unit number.

r[1] = PSU shelf number.

s[1] = PSU channel group number.

t[1] = PSU channel group member number. Output Messages manual.

u[1] = Line board number.

v[1] = Line circuit number.

w[1] = Access interface unit (AIU) number.

x[1] = AIU line pack number.

y[1] = AIU line circuit number.

z[1] = DNU number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSDATA
OP:WSSTAT
SET:WSPOS
TST:WSSEND
```

Output Message(s):

```
TST:WSSEND
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

RC/V View(s):

14.3 (TRUNK AND LINE WORK STATION)

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

TST:WSSEND-D

Software Release: 5E13 and later
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST WSSEND TEST POSITION a-b
        ACCESS=c      [ACTION=d]            T&M=e
        DN=f[-g]   h     [MLHG=i-j]
       [FREQ=n     LEVEL=o]
       [E=p]

[2]   ____________________________________________________________________
      TST WSSEND TEST POSITION a-b
        ACCESS=c      [ACTION=d]            T&M=e
        TKGMN=k-l  m
       [FREQ=n     LEVEL=o]
       [E=p]

[3]   ____________________________________________________________________
      TST WSSEND TEST POSITION a-b
        ACCESS=c      [ACTION=d]            T&M=e
        DN=f[-g]          b2
       [FREQ=n     LEVEL=o]
       [E=p]
```

2. REASON FOR OUTPUT

To display the result of the TST:WSSEND input request.

3. VARIABLE FIELD DEFINITIONS

E

a =Test position (TP) number.

b = TLWSR tuple identification.

c = Valid value(s):

AC1 JACK	= Connection to the AC jack number 1.
AC2 JACK	= Connection to the AC jack number 2.
CAMPED ON	= Line or trunk is camped on.
CPE TESTS	= Test customer premises equipment.
DC1 JACK	= Connection to the DC jack number 1.
DC2 JACK	= Connection to the DC jack number 2.
DIG TRANS	= Connection to digital transmission equipment.
IN PROGRESS	= Test or test setup is in progress.
METALLIC	= Connection to metallic measurement equipment.
MONITOR B&I	= Monitor a busy or idle line/trunk.
MONITOR BUSY	= Monitor a busy line/trunk.
SEIZED	= Line or trunk is seized.

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SUPERVISION = Supervisory test running.
TRANSMISSION = Connection to transmission equipment.

d = Valid value(s):
ADD PGTC = Add pair gain test controller to the port.
LOOPBACK PATTERN = A digital loopback test is in progress.
MEASURE = A measure test is being performed on the port.
MONITOR BUSY = The port is busy and currently being monitored with the talk and monitor (T&M) phone.
MONITOR BUSY/IDLE = The port is busy or idle and currently being monitored with the T&M phone.
OPEN TERMINATION = An open termination is being applied to the port.
PREEMPT TONE = A precedent and preemption tone is being applied to the port.
PLAY ANNOUNCEMENT = An announcement is being played at the RAF or SAS port.
PLAY PHRASE = Phrases are being played at the RAF or SAS port.
QUEUEING HARDWARE = The requested test has not begun, waiting for testing hardware to become available.
QUIET TERMINATION = A quiet termination is being applied to the port.
RING = The line is ringing.
ROH TONE = Receiver off-hook tone being applied to the port.
SENDING = Tone is being sent over the port.
STOPPED = Send activity has been stopped.

e = The mode of the T&M phone in the test connection. Valid value(s):
H = The T&M phone is ON-HOLD (metallic connections).
M = The T&M phone is in the MONITOR mode (listen-only).
N = No T&M phone in the connection.
T = The T&M phone is in the TALK mode (listen and talk).

f = Telephone number entered.

g = Member number of the line time slot bridging (LTSB) line. For LTSB member number. Valid value(s):
1 = The lead line.
2 = The associate line.

h = Line equipment number. Valid value(s):

AIUEN=s-w[1]-x[1]-y[1]
AP=q-r
ILEN=s-t-u-v
INEN=s-l[1]-u-v
LCEN=s-w-x-y
LCKEN=s-w-x-u[1]-v[1]
LEN=s-w-z-a[1]-b[1]-c[1]
SLEN=s-d[1]-u-v

i = Multi-line hunt group number.

j = Hunt group member number.

k = Trunk group number.

l = Trunk member number.

m = Trunk equipment number. Valid value(s):

```
DEN=s-e1-f1-g1
 INEN=s-l1-u-v
 NEN=s-l1-m1-o1-n1-z1-a2-p1
 PSUEN=s-q1-r1-s1-t1
 RAF PORT s-h1-g1
 SAS PORT s-h1-g1
 TEN=s-h1-i1-j1-k1
```

n = Frequency in Hertz of tone being sent. If this is an OPEN or QUIET termination request, this value represents the default stored for the test position.

o = Level in dBm of tone being sent. If this is an OPEN or QUIET termination request, this value represents the default stored for the test position.

p = Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages manual for an explanation of TLWS error responses.

q = Data link (group) number.

r = Relative link (member) number.

s = Switching module (SM) number.

t = IDCU number.

u = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

v = RT line number or PUB43801 channel.

w = Line unit number.

x = Line group number.

y = Line card number.

z = Grid number.

a^1 = Switch board number (LU1, LU2, or LU3).

b^1 = Switch number.

c^1 = Level number.

d^1 = Digital carrier line unit number.

e^1 = Digital line and trunk unit (DLTU) number.

f^1 = Digital facility interface (DFI) number.

g^1 = Channel number.

h^1 = Unit number.

i^1 = Service group number.

j^1 = Channel board number.

k^1 = Circuit number.

l^1 = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

m^1 = Data group (DG) number.

n^1 = Synchronous transport signal (STS) facility number.

o^1 = SONET termination equipment (STE) facility number.

p^1 = Digital signal level 0 (DS0) number.

q^1 = PSU unit number.

r^1 = PSU shelf number.

s^1 = PSU channel group number.

t^1 = PSU channel group member number. Output Messages manual.

u^1 = Line board number.

v^1 = Line circuit number.

w^1 = Access interface unit (AIU) number.

x^1 = AIU line pack number.

y^1 = AIU line circuit number.

z^1 = Virtual tributary group (VTG) number.

a^2 = Virtual tributary member (VTM) number.

b^2 = Line equipment number. Valid value(s):

NEN=s-l^1-m^1-o^1-n^1-z^1-a^2-p^1

4. ACTIONS TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSDATA
OP:WSSTAT
SET:WSPOS
TST:WSSEND
```

Output Message(s):

```
TST:WSSEND
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

RC/V View(s):

14.3 (TRUNK AND LINE WORK STATION)

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

TST:WSSUPV-A

Software Release: 5E10 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST WSSUPV TEST POSITION a-b
        ACCESS=c                          T&M=d
        DN=e[-f]   g     [MLHG=h-i]
       [E=m]
       [test p]
       [fe_sup n]
        q

[2]   ____________________________________________________________________
      TST WSSUPV TEST POSITION a-b
        ACCESS=c                          T&M=d
        TKGMN=j-k  l
       [E=m]
       [test p]
       [fe_sup n]         [ne_sup o]
        q
```

2. REASON FOR OUTPUT

To display the results of a supervision test request at the trunk and line work station (TLWS) test position (TP).

3. VARIABLE FIELD DEFINITIONS

NOTE: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`E` = Error.

`a` = TP number.

`b` = TLWSR tuple identification.

`c` = Access type. Valid value(s):
`SUPERVISION` = Supervisory test running.

`d` = The mode of the T&M phone in the test connection. Valid value(s):
`H` = The T&M phone is ON-HOLD (metallic connections).
`M` = The T&M phone is in the MONITOR mode (listen-only).
`N` = No T&M phone in the connection.
`T` = The T&M phone is in the TALK mode (listen and talk).

`e` = Telephone number entered.

`f` = Member number of the line time slot bridging (LTSB) line. For LTSB member number. Valid

value(s):
1 = The lead line.
2 = The associate line.

g = Line equipment number. Valid value(s):

AP=r-s
ILEN=t-u-v-w
LCEN=t-x-y-z
LCKEN=t-x-y-c^2-d^2
LEN=t-x-a^1-b^1-c^1-d^1
SLEN=t-e^1-v-w

h = Multi-line hunt group number.

i = Hunt group member number.

j = Trunk group number.

k = Trunk member number.

l = Trunk equipment number. Valid value(s):

DEN=t-f-g-h^1
NEN=t-t^1-u^1-v^1-w^1-x^1
PSUEN=t-y^1-z^1-a^2-b^2
RAF t-i^1-h^1
SAS t-i^1-h^1
TEN=t-i^1-j^1-k^1-l^1

m = Error messages. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages Manual for an explanation of TLWS error responses.

n = Far-end supervision. Valid value(s):
FAR=ON-HOOK = The far-end of the trunk is on hook.
FAR=OFF-HOOK = The far-end of the trunk is off hook.

o = Near-end supervision. Valid value(s):
NEAR=ON-HOOK = The near-end of the trunk is on hook.
NEAR=OFF-HOOK = The near-end of the trunk is off hook.

p = Supervision test type. Valid value(s):
COIN COLLECT = An operator coin collect was performed on the port.
COIN COLLECT/OPERATOR RELEASE = An operator coin collect and operator release was performed on the port.
COIN DETECTION = An operator coin detected was performed on the port.
COIN RETURN = An operator coin return was performed on the port.
DISABLE ECHO CANCELER = A request to disable the echo canceler was performed.
ENABLE ECHO CANCELER = A request to enable the echo canceler was performed.
HOME TOTALIZER = An operator home totalizer was performed on the port.

MISMATCH TEST = The results of a line-card mismatch test are provided.
OPERATOR ATTACH = Operator attach was performed on the port.
OPERATOR RELEASE = Operator release was performed on the port.
PLAY DIAL-THROUGH ANNOUNCEMENT = A DTA recorded announcement is being played. The DTA digits may also be provided if present.
PLAY RECORDED ANNOUNCEMENT = A recorded announcement is being played.
PLAY RECORDED PHRASE = A recorded announcement phrase is being played.
QUICK WINK RESULTS = The results of a quick wink are provided. Only one set of results are given for quick winks.
RINGBACK TONE = Ringback tone being applied.
RING LINE = The port is ringing.
SEND PREEMPT TONE = Precedence and preemption tone being sent.
SEND ROH TONE = Receiver off-hook tone being sent.
SHT LOOPBACK COMPLETED = A request to loopback the speech handler trunk was completed.
SHT UNLOOPBACK COMPLETED = A request to un-loopback the speech handler trunk was completed.
SUPERVISION TRANSITION = Near-end and far-end supervision status changes.
WINK RESULTS = Provides a set of wink results. Up to ten sets will be provided.

q = Up to two lines of test results are provided. Valid value(s):
CCS SUPERVISION
Received ACM
Received REL
Received UCIC
Received SUS
Received RSC
Received IAM
Received ANS
Received RLC
Received UNKNOWN
Sent RLC
Sent RLC/BLO
Sent BLO
Sent IAM
Sent REL
Sent UNKNOWN
MISMATCH TEST RESULTS The mismatch test results displayed are:

Text:	Explanation:
m[1] NT1/CU DETECTED NO MISMATCH EXISTS	No mismatch detected. ODD, line card, and NT1 all match.
m[1] NT1/CU DETECTED NT1/CU MISMATCH EXISTS	NT1/CU type (either *ANSI*® or AMI) mismatch between line card and ODD.
n[1] LC DETECTED LC MISMATCH EXISTS	Line card type does not match ODD.
m[1] LC, m[1] NT1/CU DETECTED BOTH LC AND NT1/CU MISMATCH	Line card type does not agree with ODD and NT1/CU does not agree with line card.
AMI NT1 DETECTED TIP/RING REVERSAL	Tip/ring polarity reversal on AMI NT1.
TIP/RING LOOP FAULT	Tip/ground or ring/ground low resistance loop fault.
NT1/CU NOT DETECTABLE TIP TO RING HIGH RESISTANCE	Tip/ring high resistance loop fault (such as, tip/ring open loop or no NT1).
NT1/CU NOT DETECTABLE TIP TO RING LOW RESISTANCE	Tip/ring low resistance loop fault (such as, tip/ring short).
TEST BLOCKED DUE TO LINE CARD SPARING	Mismatch test blocked because ISLU involved in line card sparing.
NT1/CU NOT DETECTABLE FALSE CROSS AND GROUND	False cross and ground failure.

NT1/CU NOT DETECTABLE POWER CROSS DETECTED	Power cross failure
NT1/CU INDETERMINATE	NT1 or CU type can not be determined (possible multiple loop failures).
TEST RESOURCE UNAVAILABLE	Test resources unavailable (such as, equipment busy).

```
PHRASE/ANNOUNCEMENT COMPLETION
ANNOUNCEMENT/PHRASE COMPLETED
DTA TEST COMPLETED
[QUICK] WINK RESULTS o1 p1:q1 r1 = s1 ms
```

r = Data link (group) number.
s = Relative link (member) number.
t = Switching module (SM) number.
u = IDCU number.
v = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.
w = RT line number or PUB43801 channel.
x = Line unit number.
y = Line group number.
z = Line card number.
a^1 = Grid number.
b^1 = Switch board number (LU1, LU2, LU3).
c^1 = Switch number.
d^1 = Level number.
e^1 = Digital carrier line unit number.
f^1 = Digital line and trunk unit (DLTU) number.
g^1 = Digital facility interface (DFI) number.
h^1 = Channel number.
i^1 = Unit number.
j^1 = Service group number.
k^1 = Channel board number.
l^1 = Circuit number.
m^1 = Mismatch test type. Valid value(s):

AMI
ANSI

n^1 = Line card type. Valid value(s):

AMI
ANSI
T
Z

o^1 = Time stamp in milliseconds to the beginning of the wink from the near end signaling off-hook.
p^1 = State of beginning of wink (on or off).
q^1 = Time stamp in milliseconds to the end of the wink from the near end signaling off-hook.
r^1 = State of end of wink (on or off).
s^1 = Duration time of the wink in milliseconds.
t^1 = Digital network unit - synchronous optical network (SONET) (DNU-S) number.
u^1 = Data group (DG) number.
v^1 = Synchronous transport signal (STS) number.
w^1 = Virtual tributary 1.5 (VT1.5) number.
x^1 = Digital signal level 0 (DS0) number.

y[1] = PSU unit number.
z[1] = PSU shelf number.
a[2] = PSU channel group number.
b[2] = PSU channel group member number.
c[2] = Line board number.
d[2] = Line circuit number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSSTAT
SET:WSPOS
TST:WSSUPV
```

Output Message(s):

```
TST:WSSUPV
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

TST:WSSUPV-B

Software Release: 5E11 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST WSSUPV TEST POSITION a-b
        ACCESS=c                          T&M=d
        DN=e[-f]   g     [MLHG=h-i]
       [E=m]
       [test p]
       [fe_sup n]
        q

[2]   ____________________________________________________________________
      TST WSSUPV TEST POSITION a-b
        ACCESS=c                          T&M=d
        TKGMN=j-k  l
       [E=m]
       [test p]
       [fe_sup n]         [ne_sup o]
        q
```

2. REASON FOR OUTPUT

To display the results of a supervision test request at the trunk and line work station (TLWS) test position (TP).

3. VARIABLE FIELD DEFINITIONS

NOTE: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`E` = Error.

`a` = TP number.

`b` = TLWSR tuple identification.

`c` = Access type. Valid value(s):
`SUPERVISION` = Supervisory test running.

`d` = The mode of the T&M phone in the test connection. Valid value(s):
`H` = The T&M phone is ON-HOLD (metallic connections).
`M` = The T&M phone is in the MONITOR mode (listen-only).
`N` = No T&M phone in the connection.
`T` = The T&M phone is in the TALK mode (listen and talk).

`e` = Telephone number entered.

`f` = Member number of the line time slot bridging (LTSB) line. For LTSB member number. Valid

value(s):
1 = The lead line.
2 = The associate line.

g = Line equipment number. Valid value(s):

AIUEN=t-e^2-f^2-g^2
AP=r-s
ILEN=t-u-v-w
LCEN=t-x-y-z
LCKEN=t-x-y-c^2-d^2
LEN=t-x-a^1-b^1-c^1-d^1
SLEN=t-e^1-v-w

h = Multi-line hunt group number.

i = Hunt group member number.

j = Trunk group number.

k = Trunk member number.

l = Trunk equipment number. Valid value(s):

DEN=t-f-g-h^1
NEN=t-t^1-u^1-v^1-w^1-x^1
PSUEN=t-y^1-z^1-a^2-b^2
RAF t-i^1-h^1
SAS t-i^1-h^1
TEN=t-i^1-j^1-k^1-l^1

m = Error messages. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages Manual for an explanation of TLWS error responses.

n = Far-end supervision. Valid value(s):
FAR=ON-HOOK = The far-end of the trunk is on hook.
FAR=OFF-HOOK = The far-end of the trunk is off hook.

o = Near-end supervision. Valid value(s):
NEAR=ON-HOOK = The near-end of the trunk is on hook.
NEAR=OFF-HOOK = The near-end of the trunk is off hook.

p = Supervision test type. Valid value(s):
COIN COLLECT = An operator coin collect was performed on the port.
COIN COLLECT/OPERATOR RELEASE = An operator coin collect and operator release was performed on the port.
COIN DETECTION = An operator coin detected was performed on the port.
COIN RETURN = An operator coin return was performed on the port.
DISABLE ECHO CANCELER = A request to disable the echo canceler was performed.
ENABLE ECHO CANCELER = A request to enable the echo canceler was performed.

HOME TOTALIZER = An operator home totalizer was performed on the port.
MISMATCH TEST = The results of a line-card mismatch test are provided.
OPERATOR ATTACH = Operator attach was performed on the port.
OPERATOR RELEASE = Operator release was performed on the port.
PLAY DIAL-THROUGH ANNOUNCEMENT = A DTA recorded announcement is being played. The DTA digits may also be provided if present.
PLAY RECORDED ANNOUNCEMENT = A recorded announcement is being played.
PLAY RECORDED PHRASE = A recorded announcement phrase is being played.
QUICK WINK RESULTS = The results of a quick wink are provided. Only one set of results are given for quick winks.
RINGBACK TONE = Ringback tone being applied.
RING LINE = The port is ringing.
SEND PREEMPT TONE = Precedence and preemption tone being sent.
SEND ROH TONE = Receiver off-hook tone being sent.
SHT LOOPBACK COMPLETED = A request to loopback the speech handler trunk was completed.
SHT UNLOOPBACK COMPLETED = A request to un-loopback the speech handler trunk was completed.
SUPERVISION TRANSITION = Near-end and far-end supervision status changes.
WINK RESULTS = Provides a set of wink results. Up to ten sets will be provided.

q = Up to two lines of test results are provided. Valid value(s):
CCS SUPERVISION
Received ACM
Received REL
Received UCIC
Received SUS
Received RSC
Received IAM
Received ANS
Received RLC
Received UNKNOWN
Sent RLC
Sent RLC/BLO
Sent BLO
Sent IAM
Sent REL
Sent UNKNOWN
MISMATCH TEST RESULTS The mismatch test results displayed are:

Text:	Explanation:
m[1] NT1/CU DETECTED NO MISMATCH EXISTS	No mismatch detected. ODD, line card, and NT1 all match.
m[1] NT1/CU DETECTED NT1/CU MISMATCH EXISTS	NT1/CU type (either *ANSI*® or AMI) mismatch between line card and ODD.
n[1] LC DETECTED LC MISMATCH EXISTS	Line card type does not match ODD.
m[1] LC, m[1] NT1/CU DETECTED BOTH LC AND NT1/CU MISMATCH	Line card type does not agree with ODD and NT1/CU does not agree with line card.
AMI NT1 DETECTED TIP/RING REVERSAL	Tip/ring polarity reversal on AMI NT1.
TIP/RING LOOP FAULT	Tip/ground or ring/ground low resistance loop fault.
NT1/CU NOT DETECTABLE TIP TO RING HIGH RESISTANCE	Tip/ring high resistance loop fault (such as, tip/ring open loop or no NT1).
NT1/CU NOT DETECTABLE TIP TO RING LOW RESISTANCE	Tip/ring low resistance loop fault (such as, tip/ring short).
TEST BLOCKED DUE TO LINE CARD SPARING	Mismatch test blocked because ISLU involved in line card sparing.
NT1/CU NOT DETECTABLE FALSE CROSS AND	False cross and ground failure.

GROUND	
NT1/CU NOT DETECTABLE POWER CROSS DETECTED	Power cross failure
NT1/CU INDETERMINATE	NT1 or CU type can not be determined (possible multiple loop failures).
TEST RESOURCE UNAVAILABLE	Test resources unavailable (such as, equipment busy).

```
PHRASE/ANNOUNCEMENT COMPLETION
ANNOUNCEMENT/PHRASE COMPLETED
DTA TEST COMPLETED
[QUICK] WINK RESULTS o1 p1:q1 r1 = s1 ms
```

r = Data link (group) number.

s = Relative link (member) number.

t = Switching module (SM) number.

u = IDCU number.

v = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

w = RT line number or PUB43801 channel.

x = Line unit number.

y = Line group number.

z = Line card number.

a^1 = Grid number.

b^1 = Switch board number (LU1, LU2, or LU3).

c^1 = Switch number.

d^1 = Level number.

e^1 = Digital carrier line unit number.

f^1 = Digital line and trunk unit (DLTU) number.

g^1 = Digital facility interface (DFI) number.

h^1 = Channel number.

i^1 = Unit number.

j^1 = Service group number.

k^1 = Channel board number.

l^1 = Circuit number.

m^1 = Mismatch test type. Valid value(s):

```
AMI
ANSI
```

n[1] = Line card type. Valid value(s):

```
AMI
ANSI
T
Z
```

o[1] = Time stamp in milliseconds to the beginning of the wink from the near end signaling off-hook.

p[1] = State of beginning of wink (on or off).

q[1] = Time stamp in milliseconds to the end of the wink from the near end signaling off-hook.

r[1] = State of end of wink (on or off).

s[1] = Duration time of the wink in milliseconds.

t[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

u[1] = Data group (DG) number.

v[1] = Synchronous transport signal (STS) number.

w[1] = Virtual tributary 1.5 (VT1.5) number.

x[1] = Digital signal level 0 (DS0) number.

y[1] = PSU unit number.

z[1] = PSU shelf number.

a[2] = PSU channel group number.

b[2] = PSU channel group member number.

c[2] = Line board number.

d[2] = Line circuit number.

e[2] = Access interface unit (AIU) number.

f[2] = AIU line pack number.

g[2] = AIU line circuit number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSSTAT
SET:WSPOS
TST:WSSUPV
```

Output Message(s):

```
TST:WSSUPV
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):

235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

TST:WSSUPV-C

Software Release: 5E12 only
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST WSSUPV TEST POSITION a-b
        ACCESS=c                            T&M=d
        DN=e[-f]   g     [MLHG=h-i]
       [E=m]
       [test p]
       [fe_sup n]
        q

[2]   ____________________________________________________________________
      TST WSSUPV TEST POSITION a-b
        ACCESS=c                            T&M=d
        TKGMN=j-k  l
       [E=m]
       [test p]
       [fe_sup n]         [ne_sup o]
        q
```

2. REASON FOR OUTPUT

To display the results of a supervision test request at the trunk and line work station (TLWS) test position (TP).

3. VARIABLE FIELD DEFINITIONS

NOTE: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`E` = Error.

`a` = TP number.

`b` = TLWSR tuple identification.

`c` = Access type. Valid value(s):
- `SEIZED` = Line or trunk is seized.
- `SUPERVISION` = Supervisory test running.
- `TRANSMISSION` = Connection to transmission equipment.

`d` = The mode of the T&M phone in the test connection. Valid value(s):
- `H` = The T&M phone is ON-HOLD (metallic connections).
- `M` = The T&M phone is in the MONITOR mode (listen-only).
- `N` = No T&M phone in the connection.
- `T` = The T&M phone is in the TALK mode (listen and talk).

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e = Telephone number entered.

f = Member number of the line time slot bridging (LTSB) line. For LTSB member number. Valid value(s):
1 = The lead line.
2 = The associate line.

g = Line equipment number. Valid value(s):

AIUEN=t-e^2-f^2-g^2
AP=r-s
ILEN=t-u-v-w
INEN=t-h^2-v-w
LCEN=t-x-y-z
LCKEN=t-x-y-c^2-d^2
LEN=t-x-a^1-b^1-c^1-d^1
SLEN=t-e^1-v-w

h = Multi-line hunt group number.

i = Hunt group member number.

j = Trunk group number.

k = Trunk member number.

l = Trunk equipment number. Valid value(s):

DEN=t-f-g-h^1
INEN=t-h^2-v-w
NEN=t-t^1-u^1-v^1-w^1-x^1
PSUEN=t-y^1-z^1-a^2-b^2
RAF t-i^1-h^1
SAS t-i^1-h^1
TEN=t-i^1-j^1-k^1-l^1

m = Error messages. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages Manual for an explanation of TLWS error responses.

n = Far-end supervision. Valid value(s):
FAR=ON-HOOK = The far-end of the trunk is on hook.
FAR=OFF-HOOK = The far-end of the trunk is off hook.

o = Near-end supervision. Valid value(s):
NEAR=ON-HOOK = The near-end of the trunk is on hook.
NEAR=OFF-HOOK = The near-end of the trunk is off hook.

p = Supervision test type. Valid value(s):
COIN COLLECT = An operator coin collect was performed on the port.
COIN COLLECT/OPERATOR RELEASE = An operator coin collect and operator release was

performed on the port.
`COIN DETECTION` = An operator coin detected was performed on the port.
`COIN RETURN` = An operator coin return was performed on the port.
`DISABLE ECHO CANCELER` = A request to disable the echo canceler was performed.
`ENABLE ECHO CANCELER` = A request to enable the echo canceler was performed.
`HOME TOTALIZER` = An operator home totalizer was performed on the port.
`MISMATCH TEST` = The results of a line-card mismatch test are provided.
`OPERATOR ATTACH` = Operator attach was performed on the port.
`OPERATOR RELEASE` = Operator release was performed on the port.
`PLAY DIAL-THROUGH ANNOUNCEMENT` = A DTA recorded announcement is being played. The DTA digits may also be provided if present.
`PLAY RECORDED ANNOUNCEMENT` = A recorded announcement is being played.
`PLAY RECORDED PHRASE` = A recorded announcement phrase is being played.
`QUICK WINK RESULTS` = The results of a quick wink are provided. Only one set of results are given for quick winks.
`RINGBACK TONE` = Ringback tone being applied.
`RING LINE` = The port is ringing.
`SEND PREEMPT TONE` = Precedence and preemption tone being sent.
`SEND ROH TONE` = Receiver off-hook tone being sent.
`SHT LOOPBACK COMPLETED` = A request to loopback the speech handler trunk was completed.
`SHT UNLOOPBACK COMPLETED` = A request to un-loopback the speech handler trunk was completed.
`SUPERVISION TRANSITION` = Near-end and far-end supervision status changes.
`WINK RESULTS` = Provides a set of wink results. Up to ten sets will be provided.

`q` = Up to two lines of test results are provided. Valid value(s):
`CCS SUPERVISION`
`Received ACM`
`Received REL`
`Received UCIC`
`Received SUS`
`Received RSC`
`Received IAM`
`Received ANS`
`Received RLC`
`Received UNKNOWN`
`Sent RLC`
`Sent RLC/BLO`
`Sent BLO`
`Sent IAM`
`Sent REL`
`Sent UNKNOWN`
`MISMATCH TEST RESULTS` The mismatch test results displayed are:

Text:	Explanation:
m^1 `NT1/CU DETECTED NO MISMATCH EXISTS`	No mismatch detected. ODD, line card, and NT1 all match.
m^1 `NT1/CU DETECTED NT1/CU MISMATCH EXISTS`	NT1/CU type (either *ANSI*® or AMI) mismatch between line card and ODD.
n^1 `LC DETECTED LC MISMATCH EXISTS`	Line card type does not match ODD.
m^1 `LC,` m^1 `NT1/CU DETECTED BOTH LC AND NT1/CU MISMATCH`	Line card type does not agree with ODD and NT1/CU does not agree with line card.
`AMI NT1 DETECTED TIP/RING REVERSAL`	Tip/ring polarity reversal on AMI NT1.
`TIP/RING LOOP FAULT`	Tip/ground or ring/ground low resistance loop fault.

NT1/CU NOT DETECTABLE TIP TO RING HIGH RESISTANCE	Tip/ring high resistance loop fault (such as, tip/ring open loop or no NT1).
NT1/CU NOT DETECTABLE TIP TO RING LOW RESISTANCE	Tip/ring low resistance loop fault (such as, tip/ring short).
TEST BLOCKED DUE TO LINE CARD SPARING	Mismatch test blocked because ISLU involved in line card sparing.
NT1/CU NOT DETECTABLE FALSE CROSS AND GROUND	False cross and ground failure.
NT1/CU NOT DETECTABLE POWER CROSS DETECTED	Power cross failure
NT1/CU INDETERMINATE	NT1 or CU type can not be determined (possible multiple loop failures).
TEST RESOURCE UNAVAILABLE	Test resources unavailable (such as, equipment busy).

```
PHRASE/ANNOUNCEMENT COMPLETION
ANNOUNCEMENT/PHRASE COMPLETED
DTA TEST COMPLETED
[QUICK] WINK RESULTS o1 p1:q1 r1 = s1 ms
```

r = Data link (group) number.
s = Relative link (member) number.
t = Switching module (SM) number.
u = IDCU number.
v = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.
w = RT line number or PUB43801 channel.
x = Line unit number.
y = Line group number.
z = Line card number.
a^1 = Grid number.
b^1 = Switch board number (LU1, LU2, or LU3).
c^1 = Switch number.
d^1 = Level number.
e^1 = Digital carrier line unit number.
f^1 = Digital line and trunk unit (DLTU) number.
g^1 = Digital facility interface (DFI) number.
h^1 = Channel number.
i^1 = Unit number.
j^1 = Service group number.
k^1 = Channel board number.
l^1 = Circuit number.
m^1 = Mismatch test type. Valid value(s):

```
AMI
ANSI
```

n^1 = Line card type. Valid value(s):

```
AMI
ANSI
T
Z
```

o^1 = Time stamp in milliseconds to the beginning of the wink from the near end signaling off-hook.
p^1 = State of beginning of wink (on or off).
q^1 = Time stamp in milliseconds to the end of the wink from the near end signaling off-hook.
r^1 = State of end of wink (on or off).

s[1] = Duration time of the wink in milliseconds.
t[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.
u[1] = Data group (DG) number.
v[1] = Synchronous transport signal (STS) number.
w[1] = Virtual tributary 1.5 (VT1.5) number.
x[1] = Digital signal level 0 (DS0) number.
y[1] = PSU unit number.
z[1] = PSU shelf number.
a[2] = PSU channel group number.
b[2] = PSU channel group member number.
c[2] = Line board number.
d[2] = Line circuit number.
e[2] = Access interface unit (AIU) number.
f[2] = AIU line pack number.
g[2] = AIU line circuit number.
h[2] = DNU number.

4. ACTION TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSSTAT
SET:WSPOS
TST:WSSUPV
```

Output Message(s):

```
TST:WSSUPV
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

TST:WSSUPV-D

Software Release: 5E13 and later
Message Class: TLWSRSP
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      TST WSSUPV TEST POSITION a-b
        ACCESS=c                          T&M=d
        DN=e[-f]   g     [MLHG=h-i]
       [E=m]
       [test p]
       [fe_sup n]
        q

[2]   ____________________________________________________________________
      TST WSSUPV TEST POSITION a-b
        ACCESS=c                          T&M=d
        TKGMN=j-k  l
       [E=m]
       [test p]
       [fe_sup n]         [ne_sup o]
        q

[3]   ____________________________________________________________________
      TST WSSUPV TEST POSITION a-b
        ACCESS=c                          T&M=d
        DN=e[-f]          j2
       [E=m]
       [test p]
       [fe_sup n]
        q
```

2. REASON FOR OUTPUT

To display the results of a supervision test request at the trunk and line work station (TLWS) test position (TP).

3. VARIABLE FIELD DEFINITIONS

E

a = TP number.

b = TLWSR tuple identification.

c = Access type. Valid value(s):
SEIZED = Line or trunk is seized.
SUPERVISION = Supervisory test running.
TRANSMISSION = Connection to transmission equipment.

d = The mode of the T&M phone in the test connection. Valid value(s):

H = The T&M phone is ON-HOLD (metallic connections).
M = The T&M phone is in the MONITOR mode (listen-only).
N = No T&M phone in the connection.
T = The T&M phone is in the TALK mode (listen and talk).

e = Telephone number entered.

f = Member number of the line time slot bridging (LTSB) line. For LTSB member number. Valid value(s):
1 = The lead line.
2 = The associate line.

g = Line equipment number. Valid value(s):

```
AIUEN=t-e2-f2-g2
 AP=r-s
 ILEN=t-u-v-w
 INEN=t-t1-v-w
 LCEN=t-x-y-z
 LCKEN=t-x-y-c2-d2
 LEN=t-x-a1-b1-c1-d1
 SLEN=t-e1-v-w
```

h = Multi-line hunt group number.

i = Hunt group member number.

j = Trunk group number.

k = Trunk member number.

l = Trunk equipment number. Valid value(s):

```
DEN=t-f-g-h1
 INEN=t-t1-v-w
 NEN=t-t1-u1-w1-v1-h2-i2-x1
 PSUEN=t-y1-z1-a2-b2
 RAF t-i1-h1
 SAS t-i1-h1
 TEN=t-i1-j1-k1-l1
```

m = Error messages. Refer to the APP:TLWS appendix in the Appendixes section of the Output Messages Manual for an explanation of TLWS error responses.

n = Far-end supervision. Valid value(s):
FAR=ON-HOOK = The far-end of the trunk is on hook.
FAR=OFF-HOOK = The far-end of the trunk is off hook.

o = Near-end supervision. Valid value(s):
NEAR=ON-HOOK = The near-end of the trunk is on hook.

NEAR=OFF-HOOK = The near-end of the trunk is off hook.

p = Supervision test type. Valid value(s):
COIN COLLECT = An operator coin collect was performed on the port.
COIN COLLECT/OPERATOR RELEASE = An operator coin collect and operator release was performed on the port.
COIN DETECTION = An operator coin detected was performed on the port.
COIN RETURN = An operator coin return was performed on the port.
DISABLE ECHO CANCELER = A request to disable the echo canceler was performed.
ENABLE ECHO CANCELER = A request to enable the echo canceler was performed.
HOME TOTALIZER = An operator home totalizer was performed on the port.
MISMATCH TEST = The results of a line-card mismatch test are provided.
OPERATOR ATTACH = Operator attach was performed on the port.
OPERATOR RELEASE = Operator release was performed on the port.
PLAY DIAL-THROUGH ANNOUNCEMENT = A DTA recorded announcement is being played. The DTA digits may also be provided if present.
PLAY RECORDED ANNOUNCEMENT = A recorded announcement is being played.
PLAY RECORDED PHRASE = A recorded announcement phrase is being played.
QUICK WINK RESULTS = The results of a quick wink are provided. Only one set of results are given for quick winks.
RINGBACK TONE = Ringback tone being applied.
RING LINE = The port is ringing.
SEND PREEMPT TONE = Precedence and preemption tone being sent.
SEND ROH TONE = Receiver off-hook tone being sent.
SHT LOOPBACK COMPLETED = A request to loopback the speech handler trunk was completed.
SHT UNLOOPBACK COMPLETED = A request to un-loopback the speech handler trunk was completed.
SUPERVISION TRANSITION = Near-end and far-end supervision status changes.
WINK RESULTS = Provides a set of wink results. Up to ten sets will be provided.

q = Up to two lines of test results are provided. Valid value(s):

```
CCS SUPERVISION
            Received ACM
            Received REL
            Received UCIC
            Received SUS
            Received RSC
            Received IAM
            Received ANS
            Received RLC
            Received UNKNOWN
            Sent RLC
            Sent RLC/BLO
            Sent BLO
            Sent IAM
            Sent REL
            Sent UNKNOWN

MISMATCH TEST RESULTS
```

The mismatch test results displayed are:

Text:	Explanation:
m^1 NT1/CU DETECTED NO MISMATCH EXISTS	No mismatch detected. ODD, line card, and NT1 all match.
m^1 NT1/CU DETECTED NT1/CU MISMATCH EXISTS	NT1/CU type (either *ANSI*® or AMI) mismatch between line card and ODD.
n^1 LC DETECTED LC MISMATCH EXISTS	Line card type does not match ODD.
m^1 LC, m^1 NT1/CU DETECTED BOTH LC AND NT1/CU MISMATCH	Line card type does not agree with ODD and NT1/CU does not agree with line card.
AMI NT1 DETECTED TIP/RING REVERSAL	Tip/ring polarity reversal on AMI NT1.
TIP/RING LOOP FAULT	Tip/ground or ring/ground low resistance loop fault.
NT1/CU NOT DETECTABLE TIP TO RING HIGH RESISTANCE	Tip/ring high resistance loop fault (such as, tip/ring open loop or no NT1).
NT1/CU NOT DETECTABLE TIP TO RING LOW RESISTANCE	Tip/ring low resistance loop fault (such as, tip/ring short).
TEST BLOCKED DUE TO LINE CARD SPARING	Mismatch test blocked because ISLU involved in line card sparing.
NT1/CU NOT DETECTABLE FALSE CROSS AND GROUND	False cross and ground failure.
NT1/CU NOT DETECTABLE POWER CROSS DETECTED	Power cross failure
NT1/CU INDETERMINATE	NT1 or CU type can not be determined (possible multiple loop failures).
TEST RESOURCE UNAVAILABLE	Test resources unavailable (such as, equipment busy).

PHRASE/ANNOUNCEMENT COMPLETION
ANNOUNCEMENT/PHRASE COMPLETED
DTA TEST COMPLETED
[QUICK] WINK RESULTS o^1 p^1:q^1 r^1 = s^1 ms

r = Data link (group) number.

s = Relative link (member) number.

t = Switching module (SM) number.

u = IDCU number.

v = Remote terminal (RT) number or IDCU digital signal level 1 (DS1) serving PUB43801 number.

w = RT line number or PUB43801 channel.

x = Line unit number.

y = Line group number.

z = Line card number.

a^1 = Grid number.

b^1 = Switch board number (LU1, LU2, or LU3).

c^1 = Switch number.

d^1 = Level number.

e^1 = Digital carrier line unit number.

f^1 = Digital line and trunk unit (DLTU) number.

g[1] = Digital facility interface (DFI) number.

h[1] = Channel number.

i[1] = Unit number.

j[1] = Service group number.

k[1] = Channel board number.

l[1] = Circuit number.

m[1] = Mismatch test type. Valid value(s):
AMI
ANSI

n[1] = Line card type. Valid value(s):
AMI
ANSI
T
Z

o[1] = Time stamp in milliseconds to the beginning of the wink from the near end signaling off-hook.

p[1] = State of beginning of wink (on or off).

q[1] = Time stamp in milliseconds to the end of the wink from the near end signaling off-hook.

r[1] = State of end of wink (on or off).

s[1] = Duration time of the wink in milliseconds.

t[1] = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

u[1] = Data group (DG) number.

v[1] = Synchronous transport signal (STS) facility number.

w[1] = SONET termination equipment (STE) facility number.

x[1] = Digital signal level 0 (DS0) number.

y[1] = PSU unit number.

z[1] = PSU shelf number.

a[2] = PSU channel group number.

b[2] = PSU channel group member number.

c[2] = Line board number.

d[2] = Line circuit number.

e[2] = Access interface unit (AIU) number.

f^2 = AIU line pack number.

g^2 = AIU line circuit number.

h^2 = Virtual tributary group (VTG) number.

i^2 = Virtual tributary member (VTM) number.

j^2 = Line equipment number. Valid value(s):

NEN=t-t^1-u^1-w^1-v^1-h^2-i^2-x^1

4. ACTIONS TO BE TAKEN

None. No action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WSSTAT
SET:WSPOS
TST:WSSUPV
```

Output Message(s):

```
TST:WSSUPV
```

Output Appendix(es):

```
APP:TLWS
```

Other Manual(s):
235-100-125 *System Description*
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

160 (TRUNK & LINE MAINT)

109. UPD

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UPD:APPLY

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      UPD APPLY UPNM a
        FN b
        DF c HAS ALREADY BEEN APPLIED

[2]   ____________________________________________________________
      UPD APPLY UPNM a FN b HAS ALREADY BEEN APPLIED

[3]   ____________________________________________________________
      UPD APPLY - NEW FILE TO BE CREATED: b

[4]   ____________________________________________________________
      UPD APPLY CONTINUES

[5]   ____________________________________________________________
      UPD APPLY BWM = a APPLY SECTION COMPLETED

[6]   ____________________________________________________________
      UPD APPLY UPNM a
        FN b
        DF c FINISHED

[7]   ____________________________________________________________
      UPD APPLY UPNM a
        FN b FINISHED

[8]   ____________________________________________________________
      UPD APPLY - d STUBS FUNCTION NEW ADDRESS e

[9]   ____________________________________________________________
      UPD APPLY NEW FUNCTION ADDRESSES:
        d = e

[10]  ____________________________________________________________
      ----------UPD APPLY TARGET CMP f UPDATE STATUS-----------

                         CMP NO.     STATUS
                          g            h

       [FIRST UPDATE FAILED CMP:f=g]

      --------------END OF TARGET UPDATE STATUS-----------------

[11]  ____________________________________________________________
      -----------UPD APPLY TARGET SM UPDATE STATUS--------------

                         SM NO.       STATUS
```

```
                        g             h

        [FIRST UPDATE FAILED SM:g]

       ----------------END OF TARGET UPDATE STATUS---------------

[12]   ________________________________________________________________
       ----UPD APPLY: THE LIST OF AFFECTED PERIPHERALS FOLLOWS---

         SM:g        i
        [UNIT]
        [j]
         .
         .
         .
        [THERE ARE NO AFFECTED PERIPHERALS]
       [COULD NOT COMMUNICATE WITH SM g]


       ----------END OF THE AFFECTED PERIPHERAL LIST-------------

       [-------REMOVE/RESTORE INCONSISTENT PERIPHERALS----------]

[13]   ________________________________________________________________
       UPD APPLY REMOVE/RESTORE k UNIT(S) TO ACTIVATE UPDATE

[14]   ________________________________________________________________
       UPD APPLY SOME AFFECTED {SMs|CMPs} ARE NOT UPDATED

[15]   ________________________________________________________________
       UPD APPLY {ABORTED|PARTIALLY COMPLETED|COMPLETED|STOPPED}
```

2. REASON FOR OUTPUT

To report progression of action requested by the UPD:APPLY input message.

Format 1 indicates the APPLY has already completed for the software update indicated in 'a' for the file name indicated in 'b' and the dependent file name indicated in 'c'. Format 2 indicates the APPLY has already completed for software update indicated in 'a' for the file name indicated in 'b'. Format 3 indicates the new file name created during the APPLY. Format 4 indicates that the APPLY section is in progress. Format 5 indicates that the entire APPLY section has completed for the software update indicated in 'a'. Format 6 indicates the completion of APPLY for software update indicated in 'a' for file name indicated in 'b' with dependent file indicated in 'c'. Format 7 indicates the completion of APPLY for software update indicated in 'a' for file name indicated in 'b'. Format 8 indicates that the stubs function indicated in 'd' has been applied to the new address indicated in 'e'. Format 9 indicates that the function indicated in 'd' has been applied to the new address indicated in 'e'. Format 10 indicates the status of the target communication module processor (CMP) indicated in 'g'. Format 11 indicates the status of the target switching module (SM) indicated in 'g'. Format 12 indicates the list of affected peripherals of the type indicated in 'i'. If an affected SM contains no affected peripherals, then this fact is printed. Format 13 indicates that a remove/restore will be necessary to complete the update. One or more UPD:PMPPERF input messages should appear in the software update messages file to do this automatically. Format 14 indicates that some of the affected SMs or CMPs are not updated. Format 15 indicates that an apply has either aborted, partially completed, completed or stopped.

3. VARIABLE FIELD DEFINITIONS

a = Software update name.

b = File path.

c = Dependent file path.

d = Function name.

e = New address.

f = Processor type. Valid value(s):
- AP = Application processor.
- CMP = Communication module processor.
- MSGH = Message handler.

g = Processor number.

h = Processor status. Valid value(s):
- APPL = Applied and operational.
- BKT = Backed out and operational.
- ISOL = Isolated.
- NAPP = Not applied, but operational.
- NOP = Not operational.
- UPNBKT = Not backed out, but operational.

i = Affected processor type. Valid value(s):
- DNUSCC:SM[l] = Digital networking unit - synchronous optical network (SONET) (DNU-S) common control (CC) when the indicated inconsistency applies to a specific SM's DNU-S CC(s).
- DSC3-GDSF:SM[l] = Digital service circuit - model 3 (DSC3) global digital services function (GDSF) when the indicated inconsistency applies to a specific SM's GDSF.
- DSC3-LDSF:SM[l] = DSC3 local digital services function (LDSF) when the indicated inconsistency applies to a specific SM's LDSF.
- DSU2-ISTF:SM[l] = DSU2 - integrated services test function (ISTF) when the indicated inconsistency applies to a specific SM's ISTF(s).
- DSU2-LDSU:SM[l] = DSU2 - local digital service unit (LDSU) function when the indicated inconsistency applies to a specific SM's LDSU(s).
- DSU2-RAF:SM[l] = DSU2 - recorded announcement function (RAF) when the indicated inconsistency applies to a specific SM's RAF(s).
- DSU2-SAS:SM[l] = DSU2 - service announcement system (SAS) when the indicated inconsistency applies to a specific SM's SAS(s).
- ISLU-CC:SM[l] = Integrated services line unit (ISLU) CC when the indicated inconsistency applies to a specific SM's ISLUCC(s).
- ISLU2-CC:SM[l] = Integrated services line unit 2 (ISLU2) common controller (CC) when the indicated inconsistency applies to a specific SM's ISLU2CC(s).
- IDCU-CCP:SM[l] = Integrated digital carrier unit (IDCU) common control processor (CCP) when the indicated inconsistency applies to a specific SM's IDCU CCP(s).
- IDCU-DLP:SM[l] = IDCU data link processor (DLP) when the indicated inconsistency applies to a specific SM's IDCU DLP(s).
- PSU-IP4I:SM[l] = The operational image for the input/output processor on the PSU PH4 integrated services digital network (ISDN) when the indicated inconsistency applies

to a specific SM's PH4(s).

`IDCU-LSI:SM[l]` = IDCU loop side interface (LSI) when the indicated inconsistency applies to a specific SM's IDCU LSI(s).

`PSU-OIOP:SM[l]` = The operational image for the input/output processor on the PSU PH3 when the indicated inconsistency applies to a specific SM's PH3(s).

`PSU-ODMA:SM[l]` = The operational image for the direct-memory-access processor on the PSU PH2 when the indicated inconsistency applies to a specific SM's PH2(s).

`PSU-PH2A:SM[l]` = PSU PH2 loaded with the ACCESS image when the indicated inconsistency applies to a specific SM's PH2(s).

`PSU-PH2G:SM[l]` = PSU PH2 loaded with the GATEWAY image when the indicated inconsistency applies to a specific SM's PH2G(s).

`PSU-PH3C:SM[l]` = Packet switching unit (PSU) protocol handler 3 (PH3) loaded with the COMMON image when the indicated inconsistency applies to a specific SM's PH3(s).

`PSU-PH4I:SM[l]` = Packet switching unit (PSU) protocol handler 4 (PH4) loaded with the integrated services digital network (ISDN) image when the indicated inconsistency applies to a specific SM's PH4(s).

`TMUX:SM[l]` = Transmission multiplexer when the indicated inconsistency applies to a specific SM's TMUX(s).

`PSU-IP4F:SM[1]` = Operational image for the input/output processor on the PSU PH4 frame relay protocol handler. When the indicated inconsistency applies to a specific SM's IP4F(s).

`PSU-PHV1C:SM[1]` =Protocol handler for voice when the indicated inconsistency applies to a specific SM's PHV1C(s).

`PSU-PHA1A:SM[1]` =Protocol handler for ATM when the indicated inconsistency applies to a specific SM's PHA1A(s).

`ISLU-CC2:SM[1]` = Integrated services line unit (ISLU) commom controller (CC) when the indicated inconsistency applies to a specific SM's ISLUCC2(s).

`PSU-IP4IF:SM[1]` = The operational image for the input/output processor on the PSU PH4 integrated services digital network specific SM's PH4(s).

`PSU-PH3S:SM[1]` =Packet switching unit (PSU) protocol handler 3(PH3) when the indicated inconsistency applies to a specific SM's PH3(s)

`PSU-IP3S:SM[1]` = The operational image for the input/output processor on the PSU PH3 integrated services digital network (ISDN) for common channel signalling when the indicated inconsistency applies to a specific SM's IP3(s).

`PSU-DSP8K:SM[1]` =8k Digital signal processor (DSP) on PHV3 when the indicated inconsistency applies to a specific SM's PHV3(s).

`PSU-DSP13K:SM[1]` = 13K Digital signal processor (DSP) on PHV3 when the indicated inconsistency applies to a specific SM's PHV3(s).

`PSU-PHV3C:SM[1]` = Packet switching unit (PSU) protocol handler for voice 3 (PHV3) loaded with the COMMON image when the indicated inconsistency applies to a specific SM's PHV3C(s).

`PSU-PHV4C:SM[1]` = Packet switching unit (PSU) protocol handler for voice 4 (PHV) loaded with the COMMON image when the indicated inconsistency applies to a specific SM's PHV4C(s).

`PSU-V4D8K:SM[1]` = 8K Digital signal processor (DSP) on PHV4C when the indicated inconsistency applies to a specific SM's V4D(s).

`PSU-V4D13K:SM[1]` = 13K Digital signal processor (DSP) on PHV4C when the indicated inconsistency applies to a specific SM's V4D(s).

`PSU-DDMA:SM[1]` = Diagnostic image for the direct-memory-access processor on the PSU PH2 when the indicated inconsistency applies to a specific SM's PH2(s).

`PSU-DSPEVRC:SM[1]` =EVRC Digital Signal Processor for CDMA protocol Handler for voice when

the inconsistency applies to a specific DSPEVRC(s).

`PSU-V3DACP:SM[1]` = ACELP Digital Signal Processor, for TDMA protocol handler for voice. When the indicated inconsistency applies to a specific SM's V3DACP(s).

`PSU-V3DVSP:SM[1]` = VSELP Digital Signal Processor, for TDMA protocol handler for voice. When the indicated inconsistency applies to specific SM's V3DVSP(s).

`PSU-D4VDVERC:SM[1]` = EVRC DSP, for CDMA Protocol Handler for voice version 4. When the indicated inconsistency applies to specific SM's D4VDVERC(s).

`PSU-V4DACP:SM[1]` = ACELP DSP, for TDMA protocol Handler for voice version 4. When the indicated inconsistency applies to specific SM's V4DACP.

`PSU-V4DVSP:SM[1]` = VSELP, DSP, for TDMA Protocol Handler for voice version 4. When the indicated inconsistency applies to a specific SM's V4DVSP.

`DSU2-HSAS:SM[1]` = DSU2 Service announcement system (SAS) When the indicated inconsistency applies to a specific SM's HSAS(s).

`DSC4-LDSF:SM[1]` = DSC4 Local Digital Service Function (LDSF). When the indicated inconsistency applies to a specific SM's LDSF.

`DSU2-DGN:SM[1]` = DSU2 Diagnostic Image. When the indicated inconsistency applies to a specific SM's DGN.

`j` = The unit names of the affected peripherals.

`k` = The pumpable peripheral type which requires a remove/restore to activate the update. Valid value(s):

`ALL PH2`	= All PH2 circuits, no matter which application processor image.
`ALL PH3`	= All PH3 circuits.
`ALL PH4`	= All PH4 circuits.
`DNUSCC`	= DNU-S common control.
`IDCU`	= Integrated digital carrier unit.
`ISLU`	= Integrated services line unit.
`ISLU2`	= Integrated services line unit #2.
`ISTF`	= Integrated services test function.
`GDSF`	= Global digital services function - model 3.
`LDSF`	= Local digital services function - model 3.
`LDSU`	= Local digital service unit.
`PH2A`	= Protocol handler 2 (PH2) with ACCESS application processor image.
`PH2G`	= PH2 with GATEWAY application processor image.
`PH3C`	= PH3 with COMMON application processor image.
`PH4I`	= PH4 with ISDN application processor image.
`RAF`	= Recorded announcement function.
`SAS`	= Service announcement system operational image.
`TMUX`	= Transmission multiplexer.
`IP4F`	= Frame Relay Protocol Handler version 4 I/O processor
`PHV1C`	= Protocol Handler for voice for CDMA (code division multiple access).
`PHA1A`	= Protocol Handler for ATM (asynchronous transfer mode).
`CC2`	= Common Controler
`IP4IF`	= ISDN Frame Relay Protocol Handler version 4 I/O Processor
`PH3S`	= Protocol Handler version 3
`IP3S`	= operational image for I/O processor.
`DSP8K`	= 8K Digital Signal Processor for CDMA Protocol Handler for Voice
`DSP13K`	= 1313K Digital Signal Processor for CDMA Protocol Handler for voice.
`PHV3C`	= Protocol Handler for voice version 3 for CDMA application
`PHV4C`	= Protocol Handler for voice version 4 for CDMA application.

V4D8K	= 8K DSP, for CDMA protocol Handler for voice version 4.
V4D13K	= 13K DSP, for CDMA protocol handler for voice version 4.
DDMA	= Diagnostic Image for the Direct-Memory-Access
DSPEVRC	= EVRC Digital Signal Processor for CDMA
V3DACP	= ACELP Digital Signal Processor, for TDMA protocol handler for voice.
V3DVSP	= VSELP Digital Signal Processor, for TDMA protocol handler for voice.
D4VDVERC	= EVRC DSP, for CDMA protocol handler for voice.
V4DACP	= ACELP DSP, for TDMA protocol handler for voice version 4.
V4DVSP	= VSELP, DSP, for TDMA Protocol Handler for voice version4.
DGN	= Diagnostic Image.
DLP	= Data link processor.
LSI	= Loop Side Interface.
ODMA	= Operational image for the Direct-Memory-Access
CCP	= Common Control processor

l = SM number.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:APPLY-BYTER
UPD:APPLY-FILER
UPD:APPLY-FUNCR
UPD:PMPPERF
```

Output Message(s):

```
UPD:INTERNAL
UPD:SYSERR
UPD:USRERR
```

MCC Display Page(s):

1950 (BWM MAINTENANCE)
1960 (BWM INSTALLATION)

UPD:AUDITS

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      UPD AUDITS SM a COMPLETED
        TABLE OF UNITS SCHEDULED FOR CORRECTIVE ACTION:
        b SCHEDULED FOR c
        .
        .
        .

[2]   ____________________________________________________________________
      UPD AUDITS SM a COMPLETED
        TABLE OF UNITS SCHEDULED FOR CORRECTIVE ACTION:
        b NOT SCHEDULED FOR NON-CRITICAL ERROR H'd
        .
        .
        .
```

2. REASON FOR OUTPUT

To report corrective actions scheduled as the result of a software update consistency audit. The audit is scheduled routinely for software images of digital networking unit - synchronous optical network (SONET) (DNU-S) units. This includes image residing in common control (CC) and transmission multiplexer (TMUX). The goal of the corrective action is to ensure that the active (ACT) side of a DNU-S CC is always at the same software update level as the TMUX(s).

When the CC image in DNU-S CC is found inconsistent with the image in the switching module processor (SMP), a flag is set in SMP internally and no corrective action is scheduled. A subsequent UPD:PMPPERF input message or manual remove and restore of a DNU-S CC from MCC 1510 page will correct the inconsistency.

When the TMUX image in DNU-S CC or TMUX is found inconsistent with the image in SMP, corrective action(s) would be scheduled through the maintenance request administrator (MRA) maintenance queue. The corrective action can be either CC soft switch or remove and restore of in-service TMUX(s), depending on the software update levels of both sides of a DNU-S CC and all the in-service TMUX(s).

Occasionally, TMUX may not respond to the consistency query issued by DNU-S CC. If the lack of resources is the cause, the TMUXs that do not respond will not be treated as inconsistent. As a result, they will be exempted from any corrective actions. This is because this audit is routinely performed. Most likely the TMUXs failed to respond would succeed in the next cycle. If TMUXs are being reported as lack of resources for consecutive consistency audits, a technical support should be contacted for further investigation.

The following exhibit lists the cases that trigger the corrective action, and their corrective actions. A "Y" denotes that the TMUX image is at the same update level as SMP. A "N" denotes that the TMUX image is at a different update level than SMP.

Case Number	ACT CC	STBY CC	TMUX units	Corrective Action
1	N	Y	all are Y	CC smft switch
2	Y	N	all are N	CC soft switch
3	All the other	All the other	All the other	MUX remove/restore

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	combinations	combinations	combinations	

Format 1 is printed to report the corrective action scheduled.

Format 2 is printed to report the exemption of corrective action because consistency audit could not be performed due to the lack of resources.

3. VARIABLE FIELD DEFINITIONS

`a` = SM number.

`b` = The unit name of the peripheral. Valid value(s):

```
DNUSCC=SM-UNIT-CC
TMUX=SM-UNIT-DG-TMUX
```

`c` = The corrective action scheduled. Valid value(s):

`SWITCH` = Soft switch DNU-S CC.

`REMOVE AND RESTORE` = Remove then restore a DNU-S TMUX unit.

`d` = The resource-related error. Valid value(s):

`2` = There was no free task data block (TDB).

`4` = At least one TMUX responded with null, probably caused by heavy workload.

4. ACTION TO BE TAKEN

For Format 1, verify that a subsequent output message reports successful completion for each of the actions scheduled. For all possible outcomes, refer to the output message page of SW:DNUSCC when a DNU-S CC soft switch is scheduled. Refer to output message pages of RMV:TMUX and RST:TMUX when in-service TMUX(s) are scheduled for remove and restore.

If the scheduled corrective action completes successfully, no further action is needed.

If the scheduled corrective action fails, refer to the pages mentioned above for additional recovery procedures. After the recovery procedures are performed, it is recommended that the inconsistency be corrected by executing the UPD:PMPPERF input message on demand, before the next routine audit starts again.

A report of the current update level inconsistency can also be obtained by executing the UPD:VFYCON input message.

For Format 2, verify that only one of the valid values is printed. If this is being reported persistently, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual for further investigation.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CFGSTAT
OP:SYSSTAT
RMV:TMUX
RST:DNUSCC
RST:TMUX
SW:DNUSCC
UPD:PMPPERF
UPD:VFYCON
```

Output Message(s):

```
OP:CFGSTAT
OP:SYSSTAT-SUM
RMV:TMUX
RST:DNUSCC
RST:TMUX
SW:DNUSCC
UPD:PMPPERF
UPD:VFYCON
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1510

UPD:AUTO

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      UPD AUTO {COMPLETED|ABORTED}

[2]   ____________________________________________________________
      UPD AUTO ERROR a

[3]   ____________________________________________________________
      UPD AUTO INSTALLATION PROCESS COMPLETED

[4]   ____________________________________________________________
      UPD AUTO INSTALLATION TO DESIRED STAGE COMPLETED b

[5]   ____________________________________________________________
      UPD AUTO STATUS ALLOWED

[6]   ____________________________________________________________
      UPD AUTO STATUS INHIBITED c

[7]   ____________________________________________________________
      UPD AUTO WARNING STATUS FILE REINITIALIZED

[8]   ____________________________________________________________
      UPD AUTO BWM AUTOMATION RESCHEDULING FOR 30 MINS

[9]   ____________________________________________________________
      UPD AUTO IN PROGRESS

[10]  ____________________________________________________________
      UPD AUTO BWM AUTOMATION INITIATING BWM INSTALLATION

[11]  ____________________________________________________________
      UPD AUTO BWM AUTOMATION CANCELLED [FOR d]

[12]  ____________________________________________________________
      UPD AUTO BWM AUTOMATION STOPPED BY USER REQUEST

[13]  ____________________________________________________________
      UPD AUTO EXECUTE ANY MANUAL COMMANDS NEEDED
```

2. REASON FOR OUTPUT

To report the progress of the UPD:AUTO input message.

Format 1 indicates when the UPD:AUTO has completed or aborted.

Format 2 indicates the reason that the UPD:AUTO aborted.

Format 3 indicates that the automatic BWM installation to the official stage has completed.

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Format 4 indicates that the automatic BWM installation to the requested stage has completed.

Format 5 indicates that BWM automation is currently allowed (ON).

Format 6 indicates that BWM automation is currently inhibited (OFF).

Format 7 indicates that the BWM automation status file has been reinitialized due to the file being missing or unreadable.

Format 8 indicates that the BWM automated installation process is rescheduling the currently scheduled BWM to be automatically installed 30 minutes from the current time. This occurs when the BWM automation office health check for a previously scheduled automated BWM installation fails.

Format 9 indicates that the BWM automation command requested is in progress.

Format 10 indicates that the automatic BWM installation process has begun.

Format 11 indicates that the BWM scheduled for automatic installation has been cancelled. When the "FOR d" portion is included in the message, it indicates that a specific BWM (d) was cancelled, due to a request to schedule another BWM.

Format 12 indicates that BWM automation has been stopped.

Format 13 indicates that any manual commands necessary to continue with the BWM installation should be executed now, before resuming BWM automation.

3. VARIABLE FIELD DEFINITIONS

a = The cause of failure. Valid value(s):

```
BWM AUTOMATION FEATURE NOT AVAILABLE
BWM AUTOMATION NOT IN PROGRESS
BWM AUTOMATION NOT PREVIOUSLY STOPPED
BWM NOT CURRENTLY SCHEDULED
CALL TO RECVW RETURNED AN ERROR
CANNOT CHANGE DIRECTORIES DURING EXEC
CANNOT CONNECT TO PORT
CANNOT ENABLE MESSAGE RECEPTION
CANNOT SEND MESSAGE TO UPFILERECV d
FILE WRITE
INVALID INSTALL STATE
INVALID INSTALL TIME
INVALID MESSAGE TYPE RECEIVED e
INVALID OPTION
WAIT ON CHILD FAILED d
WAIT ON CHILD RETURNED FAIL STATUS
```

b = The BWM installation stage. Valid value(s):

```
OFC
SOAK
VFY
```

c = The reason BWM automation was inhibited.

`d` = The failure code returned from the system call.

`e` = The message type received

4. ACTION TO BE TAKEN

If Format 1 prints `ABORTED`, refer to variable '`a`' to determine the cause of the failure. To continue the procedure, execute the UPD:AUTO input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:AUTO
UPD:AUTOCHK
UPD:AUTOPROFILE
UPD:AUTOSCHED
```

Output Message(s):

```
UPD:AUTOCHK
UPD:AUTOPROFILE
UPD:AUTOSCHED
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1941 (BWM AUTOMATION SCHEDULING)
1942 (BWM AUTOMATION OFFICE PROFILE)
1943 (BWM AUTOMATION HEALTH CHECK)
1950 (PROGRAM UPDATE MAINTENANCE)
1960 (PROGRAM UPDATE INSTALLATION)

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UPD:AUTOCHK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      UPD AUTOCHK REPORT
        SYSTEM HEALTH CHECK REPORT FOLLOWS
        BEGINNING       Day Month Date hh:mm:ss Year
        ENDING          Day Month Date hh:mm:ss Year
        OVERALL STATUS - {PASSED|FAILED}
        ---------------------------------------------------------------------------
        BREAKPOINTS IN AM              {PASSED|FAILED|NOT CHECKED|UNABLE TO CHECK}
        AM IN DUPLEX MODE              {PASSED|FAILED|NOT CHECKED|UNABLE TO CHECK}
        TEMPORARY UPDATES ON SWITCH    {PASSED|FAILED|NOT CHECKED|UNABLE TO CHECK}
        INCONSISTENCIES                {PASSED|FAILED|NOT CHECKED|UNABLE TO CHECK}
        SCC LINK                       {PASSED|FAILED|NOT CHECKED|UNABLE TO CHECK}
        AM IN OVERLOAD                 {PASSED|FAILED|NOT CHECKED|UNABLE TO CHECK}
        SM IN OVERLOAD                 {PASSED|FAILED|NOT CHECKED|UNABLE TO CHECK}
        CMP IN OVERLOAD                {PASSED|FAILED|NOT CHECKED|UNABLE TO CHECK}
        SM IN HASH SUM ERROR           {PASSED|FAILED|NOT CHECKED|UNABLE TO CHECK}
        CMP IN HASH SUM ERROR          {PASSED|FAILED|NOT CHECKED|UNABLE TO CHECK}
        SM IN ISOLATION                {PASSED|FAILED|NOT CHECKED|UNABLE TO CHECK}
        BREAKPOINTS IN SM              {PASSED|FAILED|NOT CHECKED|UNABLE TO CHECK}
        BREAKPOINTS IN CMP             {PASSED|FAILED|NOT CHECKED|UNABLE TO CHECK}
        TIME SINCE LAST AM INIT        {PASSED|FAILED|NOT CHECKED|UNABLE TO CHECK}
        TIME SINCE LAST SM INIT        {PASSED|FAILED|NOT CHECKED|UNABLE TO CHECK}
        TIME SINCE LAST CMP INIT       {PASSED|FAILED|NOT CHECKED|UNABLE TO CHECK}
        RECENT CHANGE INHIBITED        {PASSED|FAILED|NOT CHECKED|UNABLE TO CHECK}
        AUTO DB REORG INHIBITED        {PASSED|FAILED|NOT CHECKED|UNABLE TO CHECK}
        CORC INHIBITED                 {PASSED|FAILED|NOT CHECKED|UNABLE TO CHECK}
        RETROFIT IN PROGRESS           {PASSED|FAILED|NOT CHECKED|UNABLE TO CHECK}
        ODD BACKUP IN PROGRESS         {PASSED|FAILED|NOT CHECKED|UNABLE TO CHECK}
        RECENT CHANGE IN PROGRESS      {PASSED|FAILED|NOT CHECKED|UNABLE TO CHECK}
        GEN BACKUP IN PROGRESS         {PASSED|FAILED|NOT CHECKED|UNABLE TO CHECK}
        SPARE/OOS PERIPHERALS          {PASSED|FAILED|NOT CHECKED|UNABLE TO CHECK}
        FILE SPACE                     {PASSED|FAILED|NOT CHECKED|UNABLE TO CHECK}
        INVALID DATA DETECTED IN HEALTH CHECK STRUCTURE
        REPORT MAY CONTAIN BAD INFORMATION
        ---------------------------------------------------------------------------
        FAILING SYSTEM HEALTH CHECK ITEMS - ADDITIONAL INFORMATION
        LAST AM INITIALIZATION ON Day Month Date hh:mm:ss Year
        SM a IS IN OVERLOAD
        SM a IS IN HASH SUM ERROR
        SM a HAS BREAKPOINTS
        SM a IS IN ISOLATION
                .
                .
                .
        SM a LAST INITIALIZATION ON Day Month Date hh:mm:ss Year
```

```
  CMP a IS IN OVERLOAD
  CMP a IS IN HASH SUM ERROR
  CMP a HAS BREAKPOINTS
          .
          .
          .
  CMP a LAST INITIALIZATION ON Day Month Date hh:mm:ss Year
  TYPE b INCONSISTENCY DETECTED [IN SM a]
  NO SPARE OR OUT OF SERVICE PERIPHERAL UNIT(s) IN SM a
  ---------------------------------------------------------------------------
  UPD AUTOCHK REPORT COMPLETED
```

[2]

```
UPD AUTOCHK IN PROGRESS
```

[3]

```
UPD AUTOCHK PASSED
```

[4]

```
UPD AUTOCHK FAILED
```

[5]

```
UPD AUTOCHK COMPLETED
```

[6]

```
UPD AUTOCHK ABORTED
```

[7]

```
UPD AUTOCHK HEALTHCHECK HAS NOT YET BEEN RUN
```

2. REASON FOR OUTPUT

Format 1 is in response to the UPD:AUTOCHK input message requesting a report on the status of the "health" of the switch. A short summary is printed indicating the items checked and their status at the time the report was run (that is, `PASSED`, `FAILED`, `NOT CHECKED` or `UNABLE TO CHECK`). If any of the system health check items indicate failure or unable to check, the overall status of the UPD AUTOCHK REPORT is `FAILED`. In addition, if an SM or CMP item indicates failure, inconsistencies are detected, or the time since the last initialization of any processor indicates failure, additional information is provided. The allowable time following an initialization is specified in the office profile.

Format 2 is in response to the UPD:AUTOCHK input message. It indicates that the request is in progress.

Format 3 is in response to the UPD:AUTOCHK input message. It indicates that the requested system health check passed.

Format 4 is in response to the UPD:AUTOCHK input message. It indicates that the requested system health check failed.

Format 5 is in response to the UPD:AUTOCHK input message. It indicates that the request has completed.

Format 6 is in response to the UPD:AUTOCHK input message. It indicates that the request has aborted.

Format 7 is in response to the UPD:AUTOCHK input message. It indicates that the requested report was not available since the system health check has not been run yet.

3. VARIABLE FIELD DEFINITIONS

a = Processor number.

b = Type of inconsistency. Valid value(s):

- 1 = The indicated processor does not contain the indicated temporary update even though it is shown in the update records as having been applied.
- 3 = A temporary switching module (SM) update has been installed but at least one of the associated temporary files in /updtmp is missing.
- 4 = An entry in the update records has been garbled or is missing history file entries.
- 5 = The resident switching module processor (SMP) image associated with the indicated pumpable peripheral type does not contain the indicated update, even though it is shown in the update records as having been applied.
- 6 = The resident SMP image and the pumpable peripheral(s) associated with the indicated processor type do not contain the indicated update, even though it is shown in the update records as having been applied.
- 7 = The pumpable peripheral(s) associated with the indicated processor type do not contain the indicated update, even though it is shown in the update records as having been applied, and the peripheral's SMP resident image contains the update.
- 8 = The update file or product file needed to back out an official software update is missing. It is not possible to recover from this type of inconsistency and the official software update can not be backed out using the 9900 poke on the Master Control Center (MCC) 1950 menu page. This inconsistency type does not prevent recovery from other types of inconsistencies and does not prevent subsequent software updates from being made official. Once a subsequent software update is made official and all the files needed to back out that software update are available, the inconsistency is removed by default.

4. ACTION TO BE TAKEN

This report lists any activities or situations that may interfere with the automatic application of a software update (SU). If the report shows that the overall status is failed, corrective action may be necessary. However, some instances of this report require that no action be taken. These instances are:

- Conflicting switch activity.
- Other processes are in progress.
- The time interval since the last processor initialization.

Wait until the process in question completes or until the proper amount of time, according to the information set in the office profile, has passed.

If the UPD AUTOCHK report lists failures that indicate off-normal situations, request a copy of the off-normal report through the use of the OP:SYSSTAT input message. Refer to the OP:SYSSTAT input message in the Input Messages manual for the correct format and take the appropriate action to correct the situation. Also, any SUs in the temporary state on the switch, must be either made official (9330 poke on the 1960 page) or backed out (9340 poke on the 1960 page). Any breakpoints that exist must be cleared. If no spare units or OOS peripheral units exist, refer to the UPD:PMPPERF output message in the Output Messages manual. If the consistency check fails, refer to the UPD:VFYCON output message in the Output Messages manual for the action to be taken according to the type of inconsistency detected.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ABT:ODDBKUP
CLR:ODDBKUP
INH:UT-CMP
INH:UT-SM
OP:SYSSTAT
OP:UTIL
UPD:AUTOCHK
UPD:BKOUT
UPD:OFC
UPD:PMPPERF
UPD:VFYCON
```

Output Message(s):

```
OP:SYSSTAT-SUM
OP:UTIL
UPD:AUTOCHK-ERR
UPD:BKOUT
UPD:OFC
UPD:PMPPERF
UPD:VFYCON
```

Input Appendix(es):

```
APP:UT-IM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

110 (SYSTEM INHIBITS)
114 (EQUIPPED SM STATUS SUMMARY)
115 (COMMUNICATION MODULE SUMMARY)
116 (MISCELLANEOUS)
1010 (SM STATUS)
1460 (SM DATA LINK DSLS)
1480 (SM AP DATALINK DSLS)
1800 (INH & RCVY CNTL)
1850/1851 (CMP INH & RCVY CNTL)
1941 (BWM AUTOMATION SCHEDULING)
1942 (BWM AUTOMATION OFFICE PROFILE)
1960 (BWM INSTALLATION PAGE)

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UPD:AUTOCHK-ERR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]  ____________________________________________________________
     UPD AUTOCHK ERROR ALL EQUIPPED SM(s) ARE OFF_NORMAL

[2]  ____________________________________________________________
     UPD AUTOCHK ERROR CALL TO ugucbm FAILED

[3]  ____________________________________________________________
     UPD AUTOCHK ERROR CHECK FOR BREAKPOINTS SKIPPING a

[4]  ____________________________________________________________
     UPD AUTOCHK ERROR CHECK FOR BREAKPOINTS WAS NOT DONE ON a
       BECAUSE IT IS {ISOLATED|OFF_NORMAL}

[5]  ____________________________________________________________
     UPD AUTOCHK ERROR FAILED TO ACCESS b

[6]  ____________________________________________________________
     UPD AUTOCHK ERROR FAILED TO FIND LAST CUD ITEM

[7]  ____________________________________________________________
     UPD AUTOCHK ERROR FAILED TO GET UCB RECORD FROM ECD

[8]  ____________________________________________________________
     UPD AUTOCHK ERROR FAILED TO OPEN b

[9]  ____________________________________________________________
     UPD AUTOCHK ERROR FAILED TO READ OFFICE PROFILE

[10] ____________________________________________________________
     UPD AUTOCHK ERROR INVALID SYSTEM HEALTH CHECK ITEM

[11] ____________________________________________________________
     UPD AUTOCHK ERROR UNABLE TO COMMUNICATE WITH SM(s)

[12] ____________________________________________________________
     UPD AUTOCHK ERROR UNABLE TO CONNECT TO PORT c

[13] ____________________________________________________________
     UPD AUTOCHK ERROR PREVIOUS HEALTH CHECK IS STILL IN PROGRESS

[14] ____________________________________________________________
     UPD AUTOCHK ERROR FILE READ

[15] ____________________________________________________________
     UPD AUTOCHK ERROR UPAUTOMGR RECEIVED UNEXPECTED MESSAGE

[16] ____________________________________________________________
     UPD AUTOCHK ERROR BWM AUTOMATION FEATURE NOT AVAILABLE
```

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2. REASON FOR OUTPUT

To report errors that occur following the UPD:AUTOCHK input message. Format 1 is printed when all equipped switching modules (SMs) are off_normal. This is printed during the check for breakpoints in the SMs.

Format 2 is printed when the call to ugucbm fails during the check for the administrative module (AM) in simplex mode.

Format 3 and 4 are printed when off_normal conditions exist in the communication module processor (CMP) during the check for breakpoints in the CMP.

Format 5 is printed when the file that contains the health check structure does not exist.

Format 6 if printed when the central update database (CUD) file exists without entries.

Format 7 is printed when there is a failure in accessing the unit control block (UCB) record during either a check for the AM in simplex mode or a check for the Switching Control Center (SCC) link.

Format 8 is printed when a open fails on the file indicated in '`b`'.

Format 9 is printed when the read of the office profile file fails.

Format 10 is printed when the system health check is invoked with an invalid option.

Format 11 is printed when there is a failure during the attempt to communicate with one or more SMs.

Format 12 is printed when there is a failure during the attempt to connect to the message port. The error code is indicated in '`c`'.

Format 13 is printed when a system health check is requested while a previous request (for a system health check is still in progress).

Format 14 is printed when a failure to read a file occurs.

Format 15 is printed when an unexpected message is received by the UPautomgr process.

Format 16 is printed if a system health check is requested when the feature is not available (was not purchased).

3. VARIABLE FIELD DEFINITIONS

`a` = Processor number.

`b` = Path name.

`c` = Return code.

4. ACTION TO BE TAKEN

For errors that indicate off-normal situations, request a copy of the off-normal report through the use of the OP:SYSSTAT input message. Refer to the OP:SYSSTAT input message in the Input Messages manual for the correct format and take the appropriate action to correct the situation. Failure to access the system health check file is an indication that there was a request to print the results of the last system health check, when the results file either was not saved, or has never been generated.

For all other messages, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the

Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:SYSSTAT
UPD:AUTOCHK
```

Output Message(s):

```
OP:SYSSTAT-SUM
OP:UTIL
UPD:AUTOCHK
```

Input Appendix(es):

```
APP:UT-IM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

110 (SYSTEM INHIBITS)
114 (EQUIPPED SM STATUS SUMMARY)
115 (COMMUNICATION MODULE SUMMARY)
116 (MISCELLANEOUS)
1010 (SM STATUS)
1460 (SM DATA LINK DSLS)
1480 (SM AP DATALINK DSLS)
1800 (INH & RCVY CNTL)
1850/1851 (CMP INH & RCVY CNTL)
1941 (BWM AUTOMATION SCHEDULING)
1942 (BWM AUTOMATION OFFICE PROFILE)
1960 (BWM INSTALLATION PAGE)

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UPD:AUTOPROFILE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      UPD AUTOPROFILE {COMPLETED|ABORTED}

[2]   ____________________________________________________________
      UPD AUTOPROFILE ERROR a

[3]   ____________________________________________________________
      UPD AUTOPROFILE HEALTH CHECK INFORMATION
         c

[4]   ____________________________________________________________
      UPD AUTOPROFILE IN PROGRESS

[5]   ____________________________________________________________
      UPD AUTOPROFILE STATUS IS ALLOWED

[6]   ____________________________________________________________
      UPD AUTOPROFILE STATUS IS INHIBITED b

[7]   ____________________________________________________________
      UPD AUTOPROFILE WARNING INITIALIZING OFFICE PROFILE
```

2. REASON FOR OUTPUT

To report the progress of the UPD:AUTOPROFILE input message.

Format 1 indicates when the UPD:AUTOPROFILE has completed or aborted.

Format 2 indicates the reason that the UPD:AUTOPROFILE aborted.

Format 3 describes the information that is checked for the given office health check condition.

Format 4 indicates that the BWM automation command requested is in progress.

Format 5 indicates that BWM automation is currently allowed (ON).

Format 6 indicates that BWM automation is currently inhibited (OFF).

Format 7 indicates that the BWM automation office profile file has been reinitialized due to the file being missing or unreadable.

3. VARIABLE FIELD DEFINITIONS

`a` = The cause of failure. Valid value(s):

```
BWM AUTOMATION FEATURE NOT AVAILABLE
CANNOT SEND MESSAGE TO UPAUTOMGR
FILE WRITE
```

```
IN UPDATING OFFICE PROFILE
INVALID ARGUMENT
INVALID INSTALL STATE
INVALID INSTALL TIME
INVALID MESSAGE TYPE RECEIVED d
INVALID OPTION
PREVIOUS OFFICE PROFILE UPDATE IS STILL IN PROGRESS
UPAUTOMGR RECEIVED UNEXPECTED MESSAGE
```

`b` = The reason BWM automation was inhibited.

`c` = Information describing the health check condition

`d` = The invalid message type received.

4. ACTION TO BE TAKEN

If Format 1 prints `ABORTED`, refer to variable '`a`' to determine the cause of the failure. To continue the procedure, enter the UPD:AUTOPROFILE input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:AUTO
UPD:AUTOCHK
UPD:AUTOPROFILE
UPD:AUTOSCHED
```

Output Message(s):

```
UPD:AUTO
UPD:AUTOCHK
UPD:AUTOSCHED
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1941 (BWM AUTOMATION SCHEDULING)
1942 (BWM AUTOMATION OFFICE PROFILE)
1943 (BWM AUTOMATION HEALTH CHECK)
1950 (PROGRAM UPDATE MAINTENANCE)
1960 (PROGRAM UPDATE INSTALLATION)

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UPD:AUTOSCHED

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      UPD AUTOSCHED {COMPLETED|ABORTED}

[2]   ____________________________________________________________________
      UPD AUTOSCHED ERROR a

[3]   ____________________________________________________________________
      UPD AUTOSCHED STATUS BWM SCHEDULED b c d

[4]   ____________________________________________________________________
      UPD AUTOSCHED STATUS IS ALLOWED

[5]   ____________________________________________________________________
      UPD AUTOSCHED STATUS IS INHIBITED e

[6]   ____________________________________________________________________
      UPD AUTOSCHED BWM AUTOMATION EXECUTING HEALTHCHECK

[7]   ____________________________________________________________________
      UPD AUTOSCHED BWM AUTOMATION WILL BEGIN IN [f HOURS] g MINUTES
```

2. REASON FOR OUTPUT

To report the progress of the UPD:AUTOSCHED input message.

Format 1 indicates when the UPD:AUTOSCHED has completed or aborted.

Format 2 indicates the reason that the UPD:AUTOSCHED aborted.

Format 3 indicates the BWM '`b`' has been scheduled for automatic installation.

Format 4 indicates that BWM automation is currently allowed (ON).

Format 5 indicates that BWM automation is currently inhibited (OFF).

Format 6 indicates that the BWM automation office health check was just initiated.

Format 7 indicates when BWM Automation will begin in hours and minutes from the current time.

3. VARIABLE FIELD DEFINITIONS

`a` = The cause of failure. Valid value(s):

```
ALL TIMES ARE OFF IN OFFICE PROFILE
BWM AUTOMATION ALREADY IN PROGRESS
BWM AUTOMATION FEATURE IS INHIBITED
BWM AUTOMATION FEATURE NOT AVAILABLE
BWM AUTOMATION NOT ALLOWED FOR BWM b
```

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```
EXCEEDED HEALTH CHECK RETRIES - BWM AUTOMATION CANCELLED
FILE READ
INVALID ARGUMENT h
INVALID INSTALL STATE
INVALID INSTALL TIME
INVALID MESSAGE TYPE RECEIVED i
MISSING REQUIRED BWMNAME ARGUMENT
```

`b` = The BWM name.

`c` = The BWM install stage to which the BWM will be automatically installed. Valid value(s):

`OFC`	= Official.
`SOAK`	= Soak.
`VFY`	= Verify.

`d` = The date and time at which automatic BWM installation will begin (mm/dd/yyyy hh:mm).

`e` = The reason BWM automation was inhibited.

`f` = The number of hours before BWM automation will begin.

`g` = The number of minutes before BWM automation will begin.

`h` = The input value that was out of range.

`i` = The message type received.

4. ACTION TO BE TAKEN

If Format 1 prints `ABORTED`, refer to variable '`a`' to determine the cause of the failure. To continue the procedure, enter the UPD:AUTOSCHED input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:AUTO
UPD:AUTOCHK
UPD:AUTOPROFILE
UPD:AUTOSCHED
```

Output Message(s):

```
UPD:AUTO
UPD:AUTOCHK
UPD:AUTOPROFILE
```

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1941 (BWM AUTOMATION SCHEDULING)
1942 (BWM AUTOMATION OFFICE PROFILE)
1943 (BWM AUTOMATION HEALTH CHECK)
1950 (PROGRAM UPDATE MAINTENANCE)
1960 (PROGRAM UPDATE INSTALLATION)

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UPD:BKOUT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      UPD BKOUT UPNM a
        FN b
       [DF c] d

[2]   ____________________________________________________________
      UPD BKOUT {CONTINUES|PARTIALLY COMPLETED|COMPLETED|ABORTED}

[3]   ____________________________________________________________
      UPD BKOUT BWM = a BKOUT SECTION COMPLETED

[4]   ____________________________________________________________
      UPD BKOUT REMOVE/RESTORE e UNIT(S) TO ACTIVATE BKOUT

[5]   ____________________________________________________________
      UPD BKOUT SOME {CMP|SM}(s) NOT BACKED OUT FOR FN b
```

2. REASON FOR OUTPUT

To report the result of executing a UPD:BKOUT or other input message to back out a specified update from a file.

If three UPD:BKOUT input messages with the same UPNM name are issued to three different processes, then three UPD:BKOUT output messages will be issued, one for each process.

Format 1 indicates that BKOUT has terminated for the software update indicated in '`a`' with a path indicated in '`b`' and a dependent file path, if one exists, as indicated in '`c`' with a termination mode as indicated in '`d`'.

Format 2 indicates that the backout either is in progress, has partially completed, completed or aborted.

Format 3 indicates that the entire BKOUT section has completed for the software update indicated in '`a`'.

Format 4 indicates that a remove/restore will be necessary to complete the update. One or more UPD:PMPPERF input messages should appear in the software update messages file to do this automatically.

Format 5 indicates that the file indicated in '`b`' was not backed out of some communication module processors (CMPs) or switching module (SMs).

3. VARIABLE FIELD DEFINITIONS

`a` = Software update name.

`b` = File path.

`c` = Dependent file path.

`d` = Termination mode. Valid value(s):
`ABORTED` = The backout was abnormally terminated because of a system error or an error in

execution. This message is preceded by a UPD:SYSERR output message that identifies the specific system error.

`COMPLETED` = The backout completed normally.

`FINISHED` = The backout completed normally.

`STOPPED` = The backout was halted because of a user error. This message is preceded by a UPD:USRERR output message that identifies the specific user error.

`e` = The pumpable peripheral type which requires a remove/restore in order to back out the update. Valid value(s):

`ALLPH2` = All PH2 units.
`ALLPH3` = All PH3 units.
`ALLPH4` = All PH4 units.
`DNUSCC` = Digital networking unit - synchronous optical network (SONET) (DNU-S) common control.
`GDSF` = Global digital services function - model 3.
`IDCU` = Integrated digital carrier unit.
`ISLU` = Integrated services line unit.
`ISLU2` = Integrated services line unit 2.
`ISTF` = Integrated services test function.
`LDSF` = Local digital services function - model 3.
`LDSU` = Local digital service unit.
`PH2A` = Protocol handler 2 (PH2) with ACCESS application processor image.
`PH2G` = PH2 with GATEWAY application processor image.
`PH3C` = PH3 with COMMON application processor image.
`PH4I` = PH4 with integrated services digital network (ISDN) application processor image.
`RAF` = Recorded announcement function.
`SAS` = Service announcement system operational image.
`TMUX` = Transmission multiplexer.

4. ACTION TO BE TAKEN

If 'd' =	Action: =
STOPPED	The UPD:BKOUT input message is invalid and should not be retried.
ABORTED	Follow instruction of additional output messages.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:BKOUT
UPD:PMPPERF
```

Output Message(s):

```
UPD:PMPPERF
UPD:RCVRY
UPD:SYSERR
```

UPD:USRERR

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

UPD:BLDBOOT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      UPD BLDBOOT REPT
        a
       [b]

[2]   ____________________________________________________________________
      UPD BLDBOOT c
```

2. REASON FOR OUTPUT

To report the result of executing a UPD:BLDBOOT input message.

Format 1 reports the progress of the bldboot process or reports an error encountered while executing the process.

Format 2 reports that the bldboot process has terminated.

3. VARIABLE FIELD DEFINITIONS

`a` = Information about the progress of an update, or report of an error encountered while processing the update. Valid value(s):

`COFF`	= Reports an error in the internal format of the file.
`database`	= Reports an error in the database.
`filesys`	= Reports an error in the file system.
`internal`	= Reports an error found by the bldboot code.
`system`	= Reports a system error that occurred.
`usage`	= Reports an error using bldboot.

A number may follow the error category as in, for example, '`DATABASE ERROR -1`'.

This error value is simply the value passed to exit() upon termination. It will always be non-zero to show the process's parent that an error has occurred.

Refer to the APP:ERRCODE-FU appendix in the Appendixes section of the Output Messages manual for explanations of error codes which may appear in error messages.

`b` = More information about the error. A field update error code may also be printed. Refer to the APP:ERRCODE-FU appendix in the Appendixes section of the Output Messages manual for explanations of error codes which may appear in these error messages.

`c` = Termination mode of the input message UPD:BLDBOOT. Valid value(s):

`ABORTED`	= Termination with errors.
`COMPLETED`	= Successful completion.

4. ACTION TO BE TAKEN

If a message aborts, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. Otherwise, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:BLDBOOT
```

Output Appendix(es):

```
APP:ERRCODE-FU
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

UPD:BLOCK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      UPD BLOCK OFFICIAL BWM a IS FINISHED

[2]   ____________________________________________________________________
      UPD BLOCK {COMPLETED|ABORTED}
```

2. REASON FOR OUTPUT

To report the result of executing a UPD:BLOCK input message.

3. VARIABLE FIELD DEFINITIONS

`ABORTED` = The block was abnormally terminated because of a system error or an error in execution.

`COMPLETED` = Request has successfully completed.

`a` = Software update name. This message is preceded by a UPD:SYSERR or UPD:USRERR output message that identifies the specific system error.

4. ACTION TO BE TAKEN

If the message has aborted, refer to the related UPD:SYSERR or UPD:USRERR output message in the Output Messages manual to determine the problem and the necessary corrections to be made.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`UPD:BLOCK`

Output Message(s):

`UPD:SYSERR`
`UPD:USRERR`

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

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1950 (PROGRAM UPDATE)
1960 (INSTALLATION PAGE)

UPD:BOLO

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      UPD OFFICIAL BACK OUT SECTION
        UPD EXECUTE ANY MANUAL COMMANDS FOR BWM a
        b
        UPD END OF BACK OUT SECTION FOR BWM a
        UPD BACK OUT OF LAST OFFICIAL BWM c

[2]   ____________________________________________________________________
      UPD BOLO: TEXT/ODD ASSOCIATED BWM
        BACK OUT ODD CHANGES IF APPLIED BEFORE PROCEEDING
        ADDITIONAL DATA FOLLOWS
        b
        UPD USE 9900,UCL TO CONTINUE WITH BACKOUT
        UPD BACK OUT OF LAST OFFICIAL BWM STOPPED
```

2. REASON FOR OUTPUT

To report progression of action requested by the UPD:BOLO input message.

Format 1 displays the back-out section of the software update that indicates any manual commands that may need to be executed.

Format 2 notifies the user of a text/ office-dependent data (ODD) associated software update. When a "backout last official" (BOLO) is done on a text/ODD associated software update, the ODD changes should be removed before the software update is backed out.

3. VARIABLE FIELD DEFINITIONS

`a` = Software update name.

`b` = Contents of the back-out section of the software update.

`c` = Status of software update. Valid value(s):

```
ABORTED
COMPLETED
STOPPED
```

4. ACTION TO BE TAKEN

Follow any instructions listed in the back-out section (variable '`b`') of the software update.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
UPD:BKOUT
UPD:BOLO
```

Output Message(s):

```
UPD:BKOUT
UPD:SYSERR
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 (PROGRAM UPDATE)
1960 (INSTALLATION PAGE)

UPD:CLR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      UPD CLR BWM IP
        a [IP]
        .  .
        .  .
        .  .

[2]   ____________________________________________________________
      UPD CLR COMPLETED

[3]   ____________________________________________________________
      UPD CLR BWM I/O ERROR, errno = b

[4]   ____________________________________________________________
      UPD CLR BWM ERROR COUNT EXCEEDED
```

2. REASON FOR OUTPUT

To report the progress of the UPD:CLR input message.

Format 1 is printed to indicate the removal is in progress for the software update indicated in '`a`'.

Format 2 is printed to indicate the completion of the input message.

Format 3 is printed to indicate an input/output (I/O) error with the error code number indicated in '`b`'.

Format 4 is printed to indicate that there were more than ten software update names included in the UPD:CLR input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Software update name.

`b` = System error code number. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual for definitions.

4. ACTION TO BE TAKEN

If there is an I/O error, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. All other messages require no action.

5. ALARMS

None.

6. REFERENCES

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Input Message(s):

```
UPD:CLR
UPD:VFYBWM
```

Output Appendix(es):

```
APP:SYSERR
```

MCC Display Page(s):

1950 (PROG UPD MAINT)
1960 (INSTALL BWM)

UPD:CSCANS

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      UPD CSCANS : ATTEMPTS TO CONNECT, TIME: hh:ii

[2]   ____________________________________________________________________
      UPD CSCANS : CAN NOT SEND UPLOAD QUERY RETURN MESSAGE TO CSCANS

[3]   ____________________________________________________________________
      UPD CSCANS :
        INVALID FILE NAME FORMAT IN PATHNAME, PATHNAME = a

[4]   ____________________________________________________________________
      UPD CSCANS :
        WARNING: CANNOT SEND MESSAGE TO UPEXPAND PROCESS

[5]   ____________________________________________________________________
      UPD CSCANS :
        CONNECTION ESTABLISHED
        FILES WILL BE STORED IN b
        AVAILABLE SPACE = c BLOCKS

[6]   ____________________________________________________________________
      UPD CSCANS : DATA LINK DISCONNECTED

[7]   ____________________________________________________________________
      UPD CSCANS :
        BWM DOWNLOAD SESSION COMPLETED SUCCESSFULLY
        d FILES RECEIVED UNDER e:
                f
                .
                .
                .
        ELAPSED TIME hh:mm  SPACE REMAINING g
        j ERROR k

[8]   ____________________________________________________________________
      UPD CSCANS :
        NO BWM FILES DOWNLOADED

[9]   ____________________________________________________________________
      UPD CSCANS :
        CSCANS PASSWORD FILE NOT FOUND OR INVALID PASSWORD FORMAT
        NO BWM FILES DOWNLOADED

[10]  ____________________________________________________________________
      UPD CSCANS :
        SECURITY VIOLATION -- PASSWORD MISMATCH
```

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```
[11]  ____________________________________________________________________
      UPD CSCANS :
        UPD CSCANS DETECTED DATA LINK DISCONNECTION

[12]  ____________________________________________________________________
      UPD CSCANS :
        Can't get generic version from ECD

[13]  ____________________________________________________________________
      UPD CSCANS :
        from ECD, invalid generic/issue format

[14]  ____________________________________________________________________
      UPD CSCANS :
        from ECD, invalid release/point format

[15]  ____________________________________________________________________
      UPD CSCANS : NO FILE TRANSFER ACTIVE
```

2. REASON FOR OUTPUT

Format 1 reports that a remote system tried to connect to the switch using CSCANS interface, and reports the time for this attempt.

Format 2 reports that the UPfilerecv process could not send an upload query return message to the remote system. The return message contains the last official broadcast warning message (BWM) number from the switch. UPfilerecv process aborted after this message printed on the receive-only printer (ROP).

Format 3 reports that the UPfilerecv process sent a message with an invalid pathname to the UPexpand process.

Format 4 is a warning message indicating that the UPfilerecv process failed to send a message to UPexpand. No BWM files will be expanded.

Format 5 reports that a remote system connected to the switch successfully using CSCANS interface.

Format 6 reports that a scan data link was disconnected.

Format 7 reports that a BWM download using the CSCANS interface was completed successfully. Files downloaded elapsed time, and the remaining file space were also output.

Format 8 reports that no BWM files were received on the switch.

Format 9 reports that the hidden password file was missing or in an invalid format state. No BWM files will be downloaded.

Format 10 reports that a security violation occurred because the password from the CSCANS system and the switch did not match. UPfilerecv aborted after this message printed.

Format 11 reports that UPfilerecv detected that a data link was disconnected for an unknown reason.

Format 12 reports that UPfilerecv can not read the equipment configuration database (ECD) to get the software release information.

Format 13 reports that the ECD contains invalid software release or issue format.

Format 14 reports that the ECD contains invalid software release or point load format.

Format 15 reports that there is no CSCANS download currently in progress.

3. VARIABLE FIELD DEFINITIONS

`a` = The pathname that UPfilerecv sent to the UPexpand process.

`b` = The pathname where the BWM files were stored in the switch.

`c` = File space, expressed as the number of blocks before BWM download session start.

`d` = Number of files received in current download session.

`e` = Complete pathname for the BWM files received.

`f` = List of files received in current download session.

`g` = File space, in blocks, left after the current download session.

`h` = Hour.

`i` = Minute.

`j` = Pathname of a file issued by the sending end which was not received by the CSCANS file receive process.

`k` = Error code specifying the reason why the file was not received by the CSCANS file receive process. Valid value(s):

- `01` = Insufficient space on disk to store the file.
- `02` = File length exceeds the maximum length permitted.
- `03` = The pathname being processed matches that of a file already on disk.
- `04` = Could not create incoming file on disk.
- `05` = File transmission was interrupted.

4. ACTION TO BE TAKEN

Verify that all files have been received. If required, try to download software update again later.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:CSCANS-REPT
UPD:CSCANS-STOP
```

Output Message(s):

```
UPD:CSCANS
UPD:CSCANS-REPT
UPD:CSCANS-STOP
```

Output Appendix(es):

```
APP:SYSERR
```

UPD:CSCANS-ERROR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]
UPD CSCANS ERROR a [,ERRNO = b]

[2]
UPD CSCANS ERROR:
  Can not allocate space for password, key or attempt
  CSCANS STOPPED

[3]
UPD CSCANS ERROR: -r & -w OPTIONS MUST BE SPECIFIED

[4]
UPD CSCANS ERROR: INCOMING PASSWORD MUST BE SPECIFIED

[5]
UPD CSCANS ERROR, FAILED TO CONNECT TO PORT 21
```

2. REASON FOR OUTPUT

Format 1 is used to report the termination of the UPfilerecv process due to an error unrelated to the actual transmission of files. This message may occur either before, during or after the transmission of files.

Format 2 reports that the UPfilerecv process failed to allocate working space for the password file contents.

Format 3 reports that the upgetty process did not execute UPfilerecv process with correct parameters. UPfilerecv aborted after this message printed on the receive-only printer (ROP).

Format 4 reports that the upgetty process did not execute UPfilerecv process with password as a parameter. UPfilerecv aborted after this message printed on the ROP.

Format 5 reports that the UPfilerecv failed to connect to system port.

3. VARIABLE FIELD DEFINITIONS

`21` = Numeric port number reporting that the system port desired is a Software Change Administration and Notification System (SCANS-2) interface port.

`a` = Reason for termination. Valid value(s):

- `1` = A bad argument was passed to the file receive process.
- `2` = Failed stat call on base directory.
- `3` = Failed ustat call on base directory.
- `4` = Could not enable reception of messages.
- `5` = Failed to read connect message or received invalid connect message from the remote sending system.
- `6` = A UPD:CSCANS request failed because of invalid request message.

`b` = The system error number. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual. The system error number will be printed if '`a`'=2, 3 or 4.

4. ACTION TO BE TAKEN

Inform CSCANS office of the error message. If required, try to download software update later.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:CSCANS-REPT
UPD:CSCANS-STOP
```

Output Message(s):

```
UPD:CSCANS
UPD:CSCANS-REPT
UPD:CSCANS-STOP
```

Output Appendix(es):

```
APP:SYSERR
```

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UPD:CSCANS-REPT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
UPD CSCANS REPORT:
  a FILE RECEIVED UNDER b:
  c
  .
  .
  .
  FILE CURRENTLY DOWNLOADING: c
  ELAPSED TIME dd:dd SPACE REMAINING e
 [f ERROR g]
```

2. REASON FOR OUTPUT

To report the current status of a software update download session through Customer Service Computer Access Network System (CSCANS). This report displays the number of files received, and the name of the file currently downloading. It also displays the total time used for receiving software update files and disk space available for receiving more software update files.

3. VARIABLE FIELD DEFINITIONS

a = The number of files received.

b = Complete path name of the software update files received.

c = The name of the files received.

NOTE: The file names displayed in 'c' may not be consistent with the actual file names seen under the software update directory. This is the result of the software update expansion mechanism which changes the file name from the compressed file name to the original file name.

d = The total number of hours and minutes used for receiving files, in the form of hours:minutes.

e = Amount of space remaining under /etc/bwm that can be used to receive more software update files.

f = Pathname of a file issued by the sending end which was not received by the CSCANS file receive process.

g = Error code specifying the reason why the file was not received by the CSCANS file receive process. Valid value(s):

- 01 = Insufficient space on disk to store the file.
- 02 = File length exceeds the maximum length permitted.
- 03 = The pathname being processed matches that of a file already on disk.
- 04 = Could not create incoming file on disk.
- 05 = File transmission was interrupted.

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4. ACTION TO BE TAKEN

Verify that all files have been received. If the software update expansion mechanism is not turned on, the file names in the software update directory should be consistent with those from CSCANS. If the software update expansion mechanism is turned on, the files in the software update directory should be the expanded version of the files sent through the CSCANS machine.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:CSCANS-REPT
UPD:CSCANS-STOP
```

Output Message(s):

```
UPD:CSCANS-STOP
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 (PROGRAM UPDATE MAINTENANCE)
1960 (PROGRAM UPDATE INSTALLATION)

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UPD:CSCANS-STOP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
UPD CSCANS STOPPED a
```

2. REASON FOR OUTPUT

To report the progress of the UPD:CSCANS-STOP input message.

3. VARIABLE FIELD DEFINITIONS

a	= Code indicating reason for termination. Valid value(s):	
	0	= Successful completion of the file transfer session.
	1	= Time limit to receive messages from the remote system has expired.
	2	= Unable to resynchronize messages with the remote sender.
	3	= Unable to resynchronize files with the remote sender.
	4	= Bad file sequence number.
	5	= Insufficient disk space to store incoming files.
	6	= Too many files interrupted.
	7	= An internal error occurred in the process.
	8	= The file receive process was terminated in response to the UPD:CSCANS-STOP input message.
	9	= An I/O error occurred in writing a file to disk.
	10	= The remote sender aborted transmission.
	11	= A bad disconnect message was received from the sender.
	12	= CSCANS password file does not exist.
	13	= Security violation, too many unauthorized connection attempts.

4. ACTION TO BE TAKEN

Verify that all files have been received. If required, try to download software update later.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:CSCANS-REPT
UPD:CSCANS-STOP
```

Output Message(s):

```
UPD:CSCANS
```

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```
UPD:CSCANS-REPT
UPD:CSCANS-ERROR
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 (PROGRAM UPDATE MAINTENANCE)
1960 (PROGRAM UPDATE INSTALLATION)

UPD:DATABASE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
UPD DATABASE ERROR a
```

2. REASON FOR OUTPUT

To report database errors that occurred as a result of performing a field update activity that accessed the equipment configuration database (ECD). This happens when a file system compaction (FSCMPT) or file system link (FSLINK) audit has been attempted unsuccessfully.

3. VARIABLE FIELD DEFINITIONS

`a` = Text string describing outcome. Valid value(s):

```
CANNOT READ GLOBAL PARAMETER GLAWS
FAILED TO FIND AN ECD AUDINST RECORD FOR THE FSLINK AUDIT FOR b. UPDATE
CONTINUES...
FAILED TO FIND AN ECD AUDINST RECORD FOR THE FSCMPT AUDIT FOR b. NO
AUDIT SCHEDULED
UNABLE TO ATTACH TO THE ECD
UNABLE TO CLOSE ECD SEQUENCE
UNABLE TO GET NEXT ECD RECORD
UNABLE TO LOAD INCORE ECD SEGMENTS
UNABLE TO OPEN ECD SEQUENCE
UNABLE TO READ ECD RECORD
UNABLE TO READ NEXT ECD RECORD
```

`b` = File system device name.

4. ACTION TO BE TAKEN

If the phrase `FAILED TO FIND AN ECD AUDINST RECORD FOR THE FSCMPT AUDIT FOR 'b'. NO AUDIT SCHEDULED` is output, this will not cause the process to abort. However, the benefit of compacting the file system will not be attained. Any other instance of this output message requires technical assistance.

5. ALARMS

None.

6. REFERENCES

Output Message(s):

```
UPD:INFO
UPD:SYSERR
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 (PROGRAM UPDATE MAINTENANCE)
1960 (PROGRAM UPDATE INSTALLATION)

UPD:DISPLAY

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    ____________________________________________________________________
       UPD DISPLAY - PRINT-OUT CONTINUES


         ---------- UPDATE NUMBER  a ----------
         Time & Date Stamp:       bbb bbb bb bb:bb:bb bbbb


         Update Name:c
         Processor Name:d
         [OSsyspatch address:e]
         BWM sequence number:f
         Package sequence number:
           g,   g,   g,   g,   g,   g,   g,   g,   g,   g
           g,   g,   g,   g,   g,   g,   g,   g,   g,   g
           g,   g,   g,   g,   g,   g,   g,   g,   g,   g
           g,   g,   g,   g,   g,   g,   g,   g,   g,   g
           g,   g,   g,   g,   g,   g,   g,   g,   g,   g
           g,   g,   g,   g,   g,   g,   g
        [Configuration:h]
                [LOADED]
                [STANDARD]
                [BASIC]
        [Affected SM  list:i]
        [Affected CMP list:i]
        [Transaction = j]
                [FUNCTION REPLACEMENT]
                [FILE REPLACEMENT]
                [BYTE REPLACEMENT]
                [NEW RELEASE OF FILE]
        [File Update Type = k]
                [KILLABLE PROCESS]
                [NON-KILLABLE PROCESS]
                [CONTIGUOUS FILE]
                [SM PERIPHERAL]
                [CMP]
         Status = l
                [CORE]
                [AUDT]
                [OFC]
                [INSTALLED]
                [OILD]
                [OGEN]
                [SGEN]
                [BOLO]
```

```
        Official Pfile Path = [m]
        Working  Pfile Path= [m]
        Bound Upd File Path =[m]
        New Ofc  Pfile Path = [m]
       [Saved BOLO FN/Upd Path = [m]]
       [Saved BOLO DF File Path = [m]]
       [.m update file path[0] = m]
       [Update function n has new address of o]
        .
        .
        .
        UPD DISPLAY p
```

[2]

```
      ____________________________________________________________________
      UPD DISPLAY - PRINT-OUT CONTINUES

        UPDATE NAME:c
        FN:m
        DF:m
        UPDATE NUMBER:          a
        TIME & DATE STAMP:      bbb bbb bb bb:bb:bb bbbb
        STATUS = l
```

[3]

```
      ____________________________________________________________________
      UPD DISPLAY SUM

        LAST OFFICIAL BWM:{TMPyy-qqqq|NONE}STATE:
                                        {APPLY / SOAK IN PROGRESS|OFFICIAL}
        LAST CRAFT BWM:{CFTyy-qqqq|NONE}STATE:
                                      {APPLY / SOAK IN PROGRESS|OFFICIAL}
        TEMPORARY BWM:{BWMyy-qqqq|NONE}STATE:
                                     {APPLY / SOAK IN PROGRESS|OFFICIAL}
        ACTIVE CRAFT BWM:{CFTyy-qqqq|NONE}STATE:
                                       {APPLY / SOAK IN PROGRESS|OFFICIAL}
        .
        .
        .
```

[4]

```
      ____________________________________________________________________
      UPD DISPLAY - PRINT-OUT CONTINUES qqq(q) qq.qq
        UPDATENAME:c  UPNO:a  BWMSEQNUM:f TRANSACTION=r
        FN=m
        DF=m
        STATUS=l
        TIME DATE STAMP=bbb bbb bb bb:bb:bb bbbb
        UPD DISPLAY COMPLETED
```

2. REASON FOR OUTPUT

Format 1 reports the result of executing the UPD:DISPLAY input message.

Format 2 is printed when there is a backlog.

Format 3 is printed when the SUM option is chosen.

Format 4 is printed when the V (verbose) option is chosen.

3. VARIABLE FIELD DEFINITIONS

`a` = Unique internally assigned update number. It distinguishes this update item from every other update item in this software release. Used internally for update synchronization primitives, where they apply.

`b` = Time and date of creation of this update item, in the form weekday month day hour:minute:second year.

`c` = Update name, specified as `BWMyy-qqqq`, `CFTyy-qqqq` or `TMPyy-qqqq`. Valid value(s):

- `BWM` = Indicates an off-site originated update.
- `CFT` = Indicates an on-site originated update.
- `TMP` = Indicates an off-site originated update.
- `qqqq` = Unique number identifying the update.
- `yy` = Last two digits of the year in which the update is applied.

`d` = Name of the process to which this update item applies.

`e` = OSsyspatch address in hexadecimal notation.

`f` = Software update sequence number identifying which update is being reported. The last software update applied is reported first and continues until the first software update applied is reported.

`g` = Package sequence numbers.

`h` = Switching module (SM) configuration indicates the type of SM that the update is being applied.

`i` = List of affected SMs or communication module processors (CMPs).

`j` = Transaction flag printed in hexadecimal notation with a keyword that indicates what type of update is made.

`k` = File update type.

`l` = Status flag (in hexadecimal notation) and one or more keywords which identify the particular flags that are set. Valid value(s):

- `AUDT` = Update has been audited to reclaim patch space.
- `BOLO` = Update has backed out last official change.
- `CORE` = Update has been applied to core.
- `INSTALLED` = Update has been installed as a file replacement.
- `OFC` = Update has been made permanent or official.
- `OGEN` = Update has been run through the overwrite generator (OGEN) to convert the relocatable .m file(s) into an absolute .u file.
- `OILD` = Update has been run through the overwrite incremental loader (OILD).
- `SGEN` = Update has been run through system generation (SGEN) to recreate the boot image to include this update.

`m` = Pathname of the specific file.

`n` = Updated function name that has been updated.

o = Address of the newly updated function, in hexadecimal notation.

p = Termination mode. Valid value(s):

- ABORTED = The display was abnormally terminated due to a system error or an error in execution. This output message is preceded by a UPD:SYSERR output message identifying the system error that caused the problem.
- COMPLETED = The display completed normally.
- PRINT-OUT CONTINUES = Additional update information follows beginning with UPDATE NUMBER.
- STOPPED = The display was halted by a user error. This output message is preceded by a UPD:USRERR output message identifying the user error that caused the problem. When the display fails in this manner, it is usually because no update items exist that match the specific request.

q = The generic identifier in the form generic (release) version.pointload for the office being displayed.

r = The update transaction type. Valid value(s):

- AMBYTER = AM word overwrite(s).
- AMFILER = Administration module (AM) file replacement.
- AMFUNCR = AM function replacement.
- AMNREL = AM newly released file.
- AMUNIX = A UNIXCMD entry in the APPLY section.
- CMPBYTER = CMP word overwrite(s).
- CMPFILER = CMP file replacement.
- CMPFUNCR = CMP function replacement.
- CMPNREL = CMP newly released file.
- MSGHBYTER = CMP message handler word overwrite(s).
- MSGHFILER = CMP message handler file replacement.
- MSGHFUNCR = CMP message handler function replacement.
- MSGHNREL = CMP message handler newly released file.
- PERBYTER = SM peripheral word overwrite(s).
- PERFILER = SM peripheral file replacement.
- PERFUNCR = SM peripheral function replacement.
- PERNREL = SM peripheral newly released file.
- SMBYTER = SM word overwrite(s).
- SMFILER = SM file replacement.
- SMFUNCR = SM function replacement.
- SMNREL = SM newly released file.

4. ACTION TO BE TAKEN

If 'p' =	Action:
STOPPED	The UPD:DISPLAY input message is invalid and should not be retried unless an appropriate modification is made to the request.
ABORTED	Obtain technical assistance.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:APPLY-BYTER
UPD:APPLY-FILER
UPD:APPLY-FUNCR
UPD:BKOUT
UPD:DISPLAY
UPD:OFC
```

Output Message(s):

```
UPD:APPLY
UPD:BKOUT
UPD:OFC
UPD:SYSERR
UPD:USRERR
```

UPD:DUMPCORE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      UPD DUMPCORE  STARTED: {SM|CMP} = a

        OUTPUT FILE = b
        ADDRESS = c,  LENGTH = d,  [TARGET = g]

[2]   ____________________________________________________________
      UPD DUMPCORE  FINISHED: {SM|CMP} = a

        OUTPUT FILE = b
        ADDRESS = c,  LENGTH = d,  [TARGET = g]

[3]   ____________________________________________________________
      UPD DUMPCORE  FAILED: {SM|CMP} = a

        INSUFFICIENT DISK SPACE for e.
        AVAILABLE f BYTES,   REQUIRE d BYTES

[4]   ____________________________________________________________
      UPD DUMPCORE  j
```

2. REASON FOR OUTPUT

To report the status of the request to dump core memory.

Format 1 is printed to indicate that the data dump is beginning.

Format 2 is printed to report the completion of the data dump.

Format 3 is printed if there is not enough disk space to store the number of bytes that have been requested in the specified output file. Before the dump of core memory begins, the free space in the file system where the output file is to be created is checked. If the free space is less than the number of bytes that is requested to dump, an error message is generated.

Format 4 is prints a text string that provides information about the data dump.

3. VARIABLE FIELD DEFINITIONS

`a` = The SM or CMP number that core memory is being dumped from.

`b` = The full path name of the output file.

`c` = The starting address of the data dump.

`d` = The number of bytes to dump from core memory.

`e` = The name of the output file is to be created.

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f = The number of bytes of free space in the file system where the output file is to be created.

g = The name of the target to dump memory from.

h = Failure error code.

i = The configuration of the target.

j = A text string describing the error. Valid value(s):

```
ADDRESS c IS NOT DEFINED FOR g
DUMP ADDRESS MUST BE SPECIFIED
DUMP LENGTH MUST BE SPECIFIED
FAILED TO DUMP CORE MEMORY BECAUSE g IS NOT AVAILABLE
FAILED TO DUMP CORE MEMORY BECAUSE g IS NOT EQUIPPED
FAILED TO DUMP CORE MEMORY FOR g. CMP IS IN AN OFFNORMAL STATE - h
FAILED TO OPEN OSDS MESSAGE PORT - h
FAILED TO READ CMP SOFT SWITCH DD KEY
FAILED TO SEND DATA TO TARGET - g
FAILED TO TRANSMIT DATA TO i g. ERROR CODE - h
FAILED TO WRITE TO e WITH ERRNO = k
FULL PATHNAME TO OUTPUT FILE MUST BE SPECIFIED
INTERNAL ERROR. INVALID OUTPUT TYPE - h
INVALID ADDRESS = c FOR g
INVALID TARGET SPECIFIED
MAXIMUM DUMP LENGTH FOR TARGET g IS l, REQUESTED d
MESSAGE SEQUENCE ERROR WHILE WRITING FILE
OUTPUT FILE MUST BE SPECIFIED
SM/CMP = a NOT FOUND IN THE OFFICE
SM/CMP NUMBER MUST BE SPECIFIED
TARGET MUST BE CMP OR MSGH
TERMINATED FOR i g DUE TO A CMP SOFT SWITCH
UNKNOWN ACTION = h
VIRTUAL TO PHYSICAL ADDRESS CONVERSION FAILED FOR g, ADDR = c
WARNING: FIELD UPDATE IS IN PROGRESS AND MAY ALTER CORE MEMORY
```

k = The failure error number. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual for an explanation of the error codes.

l = The maximum size of a target file.

4. ACTION TO BE TAKEN

Once the dump of core memory has completed the output file can be examined. This is a data file and cannot be examined with tools or editors that expect ASCII text input.

If the dump from core memory failed because another dump was in progress, wait until the previous dump's completion message is displayed and enter the UPD:DUMPCORE input message.

If the dump from core memory failed because of lack of disk space, either reduce the number of bytes that were requested to dump or change the output file so that it is created in a file system with more space.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:DUMPCORE
```

Output Message(s):

```
UPD:DUMPCORE
UPD:SYSERR
```

UPD:EASY-BWM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
UPD EASY BWM a
```

2. REASON FOR OUTPUT

To report progression of the UPD:START-EASY input message, which provides a simplified procedure for installing software updates (also known as broadcast warning messages or BWMs) into the switch.

3. VARIABLE FIELD DEFINITIONS

`a` Status. Valid value(s):

```
ALREADY EXECUTING
COMPLETED
FAILED BAD BWM NAME
FAILED CANNOT READ /etc/.sktm
FAILED CANNOT READ /etc/.supstat
FAILED CANNOT WRITE /etc/.sktm
FAILED CANNOT WRITE /etc/.supstat
FAILED INVALID CURRENT STATE
FAILED INVALID POKE WAS ENTERED
FAILED INVALID STATUS
FAILED NO INSTALL BWM NAME GIVEN
FAILED OFFICIAL BWM NAME NOT ALLOWED
FAILED RE-ENTER USING 10 CHARACTER BWM NAME
FAILED README FILE NOT DUMPED
FAILED SEE ROP AND 1960 PAGE
FAILED STOPPED BY USER INPUT
FAILED TWO OR MORE BWMS ARE SOAKING
IS IDLE
IS IN PROGRESS
MUST ENTER 9810 POKE BEFORE STARTING
NO FILE NAME GIVEN OR FILE NOT FOUND
STARTED
STOPPED AFTER SOAK, ENTER 9800 POKE TO CONTINUE
STOPPED AFTER SOAK, SEE 1940 PAGE FOR INSTRUCTIONS
```

4. ACTION TO BE TAKEN

If 'a' =	**Action: =**
`CANNOT READ` or `CANNOT WRITE`	Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

All other messages require no action. Re-enter the command using corrected information.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:APPLY-BYTER
UPD:APPLY-FILER
UPD:APPLY-FUNCR
UPD:BKOUT
UPD:OFC
UPD:START-EASY
```

Output Message(s):

```
UPD:APPLY
UPD:BKOUT
UPD:OFC
UPD:SOAK
UPD:SYSERR
UPD:USRERR
```

Output Appendix(es):

```
APP:SYSERR
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1940 (EASY BWM INSTALL)
1950 (PROG UPD MAINT)
1960 (INSTALL BWM)

UPD:EXPAND

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      UPD EXPAND BWM a {COMPLETED|ABORTED}

[2]   ____________________________________________________________________
      UPD EXPAND ERROR b

[3]   ____________________________________________________________________
      UPD EXPAND STOPPED - MANUAL REQUEST

[4]   ____________________________________________________________________
      UPD EXPAND STOP ERROR - NO BWM DOWNLOAD IN PROGRESS
```

2. REASON FOR OUTPUT

To report the progress of the software update expansion process. This may be in response to a UPD:EXPAND input message or it may occur normally as part of the software update download process.

Format 1 reports that the update expansion has completed for the current software update download process, or that the expansion was aborted. If software update expansion was aborted, Format 2 will precede this message.

Format 2 reports that an error has occurred in the software update expansion and gives the reason for the failure as indicated in '`b`'.

Format 3 reports that the expansion process was manually stopped in response to a UPD:EXPAND:STOP input message.

Format 4 reports that the automatic expansion of a software update was not stopped because there was no BWM download in progress. This message is in response to a UPD:EXPAND input message.

3. VARIABLE FIELD DEFINITIONS

`ABORTED` = Requested action was terminated before completion and the termination was immediate.

`COMPLETED` = Request has successfully completed.

`a` = The name of the software update that was being expanded.

`b` = The cause of the expansion failure. Valid value(s):

```
BWM a DOES NOT EXIST
CANNOT CONNECT TO PORT c d
CANNOT ENABLE MESSAGE RECEPTION
CREATE FILE e FAILED
FAILED ON FILE e
INVALID CALLING PROCESS d
ON FILENO e
OPEN FILE e FAILED
```

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```
RECEIVED AN INVALID MESSAGE
SEND MESSAGE TO UPVERIFY FAILED d
WAIT FOR UNCOMPRESS ON FILE e FAILED d
WRITE FILE e FAILED
```

`c` = The message port number.

`d` = The return code of the failed library function call.

`e` = The name of the file that was being expanded when the failure occurred.

4. ACTION TO BE TAKEN

If Format 1 prints `ABORTED`, refer to '`b`' to determine the cause of the failure and the necessary corrections to be made. To continue the software update expansion process, enter the UPD:EXPAND input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:EXPAND
UPD:CSCANS-REPT
```

Output Message(s):

```
UPD:CSCANS-REPT
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 (PROGRAM UPDATE MAINTENANCE)
1960 (PROGRAM UPDATE INSTALLATION)

UPD:FLASH

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      UPD FLASH MEMORY a b c

[2]   ____________________________________________________________________
      UPD FLASH  NOT STARTED
        CONFLICT WITH CURRENT SYSTEM STATUS
```

2. REASON FOR OUTPUT

To report the result of executing the UPD:FLASH input message. Flash is a device designed to be programmed in a system with a standard 5V or 12V supply required for write or erase operations.

3. VARIABLE FIELD DEFINITIONS

`a` = Member name. Valid value(s):

```
HSDC
MTTYC
SCSDC
SDLC
TTYC
```

`b` = Member number (0-255).

`c` = Result or status of input message. Valid value(s):

`ABORTED`	= The input message failed because of an equipment configuration database (ECD) failure, or communication failure with the input/output driver (IODRV) process.
`COMPLETED`	= Update of flash random access memory (RAM) completed.
`FAILED`	= Update of flash RAM could not be completed by the IODRV process.
`IN PROGRESS`	= Flash RAM is in the process of being updated by the IODRV process.

4. ACTION TO BE TAKEN

If 'c' =	**Action:**
`ABORTED` or `FAILED`	Check the ECD for correct settings.
`COMPLETED` or `IN PROGRESS`	No action is required.

For Format 2, verify that the PC is in the out-of-service (OOS) state and its peripheral interface controller (IOP) is in the active (ACT) state. The receive-only printer (ROP) output and IODRV log files can be helpful in determining the problem. IODRV log files are /etc/log/IODRVLOG0 and /etc/log/IODRVLOG1. If necessary, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

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None. This is a manually-requested report. Refer to the APP:OMXB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	746

Input Message(s):

```
UPD:FLASH
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

UPD:FLASH-DFC

Software Release: 5E10 and later
Message Class: DSKUTL
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      UPD FLASH DFC a [CHECKSUM] NOT STARTED b c

[2]   ____________________________________________________________________
      UPD FLASH DFC a [CHECKSUM] STOPPED b c

[3]   ____________________________________________________________________
      UPD FLASH DFC a [CHECKSUM] ERROR b c

[4]   ____________________________________________________________________
      UPD FLASH DFC a [CHECKSUM] ABORTED b

[5]   ____________________________________________________________________
      UPD FLASH DFC a [CHECKSUM] COMPLETED {VALID PUMPCODE | INVALID PUMPCODE}
```

2. REASON FOR OUTPUT

To report the result of a UPD:FLASH-DFC input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Member number of the disk file controller (DFC).

`b` = Process step or reason code. Valid value(s):

- `f03` = Failed to open the equipment configuration database (ECD).
- `f04` = Refer to the disk driver (DKDRV) report on the receive-only printer (ROP).
- `f06` = Failed to get unit control block (UCB) by name.
- `f07` = Invalid disk file controller (DFC) model.
- `f08` = Unable to open the pumpfile..
- `f09` = Failed to open pumpcode file.
- `f0c` = Failed to allocate buffer.
- `f0e` = Failed to read the pumpfile header.
- `f13` = Failed to reserve the UCB.
- `f16` = Failed to assign special device file (SDF) name for DFC.
- `f19` = Failed to open SDF for DFC.
- `f1b` = Failed to enable message reception.
- `f20` = Invalid pumpcode file.
- `f25` = Unable to lseek() to beginning of file.
- `f2a` = DFC auto pump failed.
- `f2e` = DFC pump failed.
- `f31` = DFC pump failed notification.
- `f34` = Process timed out.
- `f37` = Failed to close special device file.
- `f3a` = Failed to release special device file.
- `f3c` = Failed to un-reserve UCB.

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`f3e`	= Failed to close ECD.
`f3f`	= Failed to close pumpfile.
`f41`	= Unable to read pumpfile.
`f44`	= Message to port failure.
`f47`	= Message reception failure.
`f4c`	= Terminated externally with signal.
`f4e`	= Invalid header magic number.
`f51`	= Invalid pump header.
`f54`	= Unused portion of the pump header is not zero.
`f61`	= Failed to read the pumpfile header.
`f63`	= Invalid header magic number.
`f65`	= Unable to open pumpfile.
`f67`	= FW and pumpfile are incompatible - issue.
`f69`	= FW and pumpfile are incompatible - generic.

`c` = System error code number. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

4. ACTION TO BE TAKEN

A termination report specifying noncompletion that provides an error code usually indicates a system resource was not available or became unavailable to perform the requested task. The problem causing the resource limitation should be cleared and the input request retried. The pump failure can also be caused by the incompatibility between the pumpcode and firmware. The pump can also fail due to a corrupted pumpcode file. A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

5. ALARMS

None. This alarm is a manually-requested report.

6. REFERENCES

Input Message(s):

```
UPD:FLASH-DFC
Output Appendix(es):
```

Output Appendix(es):

```
APP:SYSERR
APP:SYSERR
```

UPD:FTRC-3B

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      UPD FTRC REPT
        a
       [b]

[2]   ____________________________________________________________________
      UPD FTRC c
```

2. REASON FOR OUTPUT

To report the result of executing a UPD:FTRC input message.

Format 1 reports the progress of the function trace or reports an error encountered while processing the function trace.

Format 2 reports the termination of the process.

3. VARIABLE FIELD DEFINITIONS

`a` = Information about the progress of a function trace, or report of an error encountered while processing the function trace. Error messages may be one of the following six categories. Valid value(s):

`COFF`	= reports an error in the internal format of a file
`database`	= reports an error in the database
`filesys`	= reports an error in the file system.
`internal`	= reports an error found by the field update code
`system`	= reports a system error that occurred
`usage`	= reports an error using filed update

A number may follow the error category as in, for example, '`DATABASE ERROR -1`'.

This error value is simply the value passed to exit() upon termination. It will always be non-zero to show the process's parent that an error has occurred.

Refer to the APP:ERRCODE-FU appendix in the Appendixes section of the Output Messages manual for explanations of error codes that may appear in error messages.

`b` = Information about the error. A field update error code may also be printed. Refer to the APP:ERRCODE-FU appendix in the Appendixes section of the Output Messages manual for explanations of error codes which may appear with these error messages.

`c` Termination mode of the input message UPD:FTRC. The mode will be either `COMPLETED` for successful completion, or `ABORTED` for termination with errors.

4. ACTION TO BE TAKEN

None. If a command aborts, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:FTRC
```

Output Appendix(es):

```
APP:ERRCODE-FU
```

UPD:FTRC-A

Software Release: 5E10 only
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      UPD FTRC REPORT

        SM=b, CONFIG=c, ENV=d, EVENT=e
        OBJECT_FILE=a

        FUNCTION ADDRESS   SIZE     TV       FILE      SYMINDEX
        -------- ------- -------- ----- -------------- --------
            f       g        h       i         j           k

        UPD FTRC COMPLETED

[2]   ____________________________________________________________________
      UPD FTRC REPORT

        SM=b, CONFIG=c, ENV=d, EVENT=e
        OBJECT_FILE=a

        ADDRESS FUNCTION START  SIZE  OFFSET  TV      FILE      SYMINDEX
        ------- -------- ----- ------ ------ ----- ------------ --------
           g        f      l     h       m     i        j           k

        UPD FTRC COMPLETED
```

2. REASON FOR OUTPUT

To report the results of the UPD:FTRC input message.

Format 1 shows the output received when the UPD:FTRC input message is invoked with the function name parameter. The addresses of the functions listed on the input message are reported.

Format 2 shows the output received when the UPD:FTRC input message is invoked with either the address or event parameter. The functions names of the addresses listed on the input message are reported.

3. VARIABLE FIELD DEFINITIONS

a = Path name of the object file specified in the UPD:FTRC input message file name parameter, or the one calculated by FTRC from the switching module and temporary update input parameters, or the environment parameter.

b = Switching module number. Output only if the switching module input parameter was specified in the UPD:FTRC input message.

c = Indicates the configuration of the switching module specified in the UPD:FTRC input message. Valid value(s):

```
BASIC
LOADED
SM-2000
STANDARD
```

`d` = Message environment. Output only if the environment parameter was specified in the UPD:FTRC input message.

`e` = Event number specified in the UPD:FTRC input message.

`f` = Function names from the symbol table of the specified object file.

`g` = Addresses of functions from the symbol table of the specified object file. Note that switching module addresses are physical addresses, whereas, all other addresses are virtual. All addresses are reported in hexadecimal.

`h` = Size in bytes of the function. All sizes are reported in hexadecimal.

`i` = Transfer vector (TV) slot number of the function. If the function is not called with transfer vectors, the value will be zero. All TV values are reported in decimal.

`j` = Filename that the function's source code resides in.

`k` = Symbol table index for the function. All symbol table indices are reported in decimal. If the temporary update parameter of the UPD:FTRC input message is used, an index surrounded by curly brackets "{}" indicates the symbol was updated in an SU.

`l` = Starting address of the function. Note that switching module addresses are physical addresses, whereas, all other addresses are virtual. All starting addresses are reported in hexadecimal.

`m` = Offset in bytes between the address reported and the function's start address reported. All offsets are reported in hexadecimal.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:FTRC
```

UPD:FTRC-B

Software Release: 5E11 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      UPD FTRC REPT
           SM=b, CONFIG=c, ENV=d, EVENT=e
           OBJECT_FILE=a
           FUNCTION NAME
           --------------
           ADDRESS   SIZE     TV       FILE      SYMINDEX
           ------- -------- ----- -------------- --------
           f
           g              h i     j              k
      UPD FTRC COMPLETED

[2]   ____________________________________________________________________
      UPD FTRC REPT
           SM=b, CONFIG=c, ENV=d, EVENT=e
           OBJECT_FILE=a


           FUNCTION NAME
           --------------
           ADDRESS  START    SIZE   OFFSET   TV       FILE      SYMINDEX
           ------- ------- -------- ------ ----- -------------- --------
           f
           g             l        h      m     i j              k
      UPD FTRC COMPLETED

[3]   ____________________________________________________________________
      UPD FTRC REPT
           FTRC ERROR:
           EVENT "e" NOT FOUND IN LOGFILE FOR ENVIRONMENT "d"
      UPD FTRC STOPPED
```

2. REASON FOR OUTPUT

To report the results of the UPD:FTRC input message.

Format 1 shows the output received when the UPD:FTRC input message is invoked with the function name parameter. The addresses of the functions listed on the input message are reported.

Format 2 shows the output received when the UPD:FTRC input message is invoked with either the address or event parameter. The functions names of the addresses listed on the input message are reported.

Format 3 shows the output received when the UPD:FTRC input message is invoked with the event parameter and the event is not found in the log file.

3. VARIABLE FIELD DEFINITIONS

`a` = Path name of the object file specified in the UPD:FTRC input message file name parameter, or the one calculated by FTRC from the switching module and temporary update input parameters, or the environment parameter.

`b` = Switching module number. Output only if the switching module input parameter was specified in the UPD:FTRC input message.

`c` = Indicates the configuration of the switching module specified in the UPD:FTRC input message. Valid value(s):

```
BASIC
LOADED
SIGNALING
SM-2000
STANDARD
```

`d` = Message environment. Output when the environment parameter is specified in the UPD:FTRC input message or when format 3 is received. The default environment is `OSDSM`, the switching module environment.

`e` = Event number specified in the UPD:FTRC input message.

`f` = Function names from the symbol table of the specified object file.

`g` = Addresses of functions from the symbol table of the specified object file. Note that switching module addresses are physical addresses, whereas, all other addresses are virtual. All addresses are reported in hexadecimal.

`h` = Size in bytes of the function. All sizes are reported in hexadecimal.

`i` = Transfer vector (TV) slot number of the function. If the function is not called with transfer vectors, the value will be zero. All TV values are reported in decimal.

`j` = Filename that the function's source code resides in.

`k` = Symbol table index for the function. All symbol table indices are reported in decimal. If the temporary update parameter of the UPD:FTRC input message is used, an index surrounded by curly brackets "{}" indicates the symbol was updated in an SU.

`l` = Starting address of the function. Note that switching module addresses are physical addresses, whereas, all other addresses are virtual. All starting addresses are reported in hexadecimal.

`m` = Offset in bytes between the address reported and the function's start address reported. All offsets are reported in hexadecimal.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:FTRC
```

UPD:GEN-APPL

Software Release: 5E10 and later
Message Class: GENR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      UPD GEN APPLPROC CANNOT GET THE TERMINAL TYPE

[2]   ____________________________________________________________
      UPD GEN APPLPROC EXECUTING THE FOLLOWING INPUT MESSAGE:
        a

[3]   ____________________________________________________________
      UPD GEN APPLPROC EXECUTING THE FOLLOWING RETROFIT TOOL:
        b

[4]   ____________________________________________________________
      UPD GEN APPLPROC c TOOL FAILED WITH EXIT CODE d

[5]   ____________________________________________________________
      UPD GEN APPLPROC b TOOL REPORT:
        e

[6]   ____________________________________________________________
      UPD:GEN:APPLPROC COMPLETED SUCCESSFULLY

[7]   ____________________________________________________________
      UPD:GEN:APPLPROC COMPLETED WITH ERRORS

[8]   ____________________________________________________________
      ERROR: ARGUMENT NOT FOUND FAILED TO COMPLETE THE UPD:GEN:APPLPROC CMD

[9]   ____________________________________________________________
      ERROR: NO ARGUMENT ASSIGNED FOR UPD:GEN:APPLPROC COMMAND

[10]  ____________________________________________________________
      ERROR: UPD:GEN:APPLPROC,c FAILED TO EXECUTE AN INPUT MESSAGE

[11]  ____________________________________________________________
      ERROR: CANNOT OPEN UPD:GEN:APPLPROC SUMMARY FILE

[12]  ____________________________________________________________
      ERROR: UPD:GEN:APPLPROC CANNOT FORK THE PROCESS

[13]  ____________________________________________________________
      ERROR: UPD:GEN:APPLPROC CANNOT CHANGE TO CFTSHL DIRECTORY
```

2. REASON FOR OUTPUT

To report the execution status of the application process and to report any output generated by a retrofit tool.

For Format 1, the process failed to get the terminal name where the input message was entered. If the error persists try executing the input message from another terminal.

For Format 2, the APPLPROC input message is executing the specified input message.

For Format 3, the APPLPROC input message is executing the specified retrofit tool.

For Format 4, the APPLPROC input message received a non-zero exit code from the retrofit tool.

For Format 5, the output generated from the retrofit tool is printed.

For Format 6, the APPLPROC input message completed successfully.

For Format 7, an error was detected during the execution of the APPLPROC input message.

For Format 8, the argument specified was not found in the APPLPROC input message table.

For Format 9, a null argument was passed to the APPLPROC input message.

For Format 10, the APPLPROC input message received an error while executing the input message.

For Format 11, the print of the APPLPROC input message summary failed when the summary file could not be opened.

For Format 12, the input message could not be executed because the APPLPROC input message could not be forked.

For Format 13, the input message could not be executed because the APPLPROC input message could not change working directories to /cft/shl.

3. VARIABLE FIELD DEFINITIONS

a = Input message being executed by APPLPROC.

b = Name of tool being executed by APPLPROC.

c = Argument being processed by APPLPROC.

d = Exit code returned from the retrofit tool. Refer to the Generic Retrofit manual for more information.

e = The output generated by the retrofit tool. Refer to the Generic Retrofit manual for more information.

4. ACTION TO BE TAKEN

User execution errors can be corrected by examining the procedures used for execution of the message. If any other errors occur, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):

all	362

Input Message(s):

```
OP:G-READLOG
STOP:GEN
UPD:G-BACKOUT
UPD:G-BEGIN
UPD:G-COMMIT
UPD:G-CONTINUE
UPD:G-END
UPD:G-ENTER
UPD:G-PROCEED
UPD:G-RESTORE
UPD:G-SMBKOUT
UPD:G-SMSWITCH
UPD:G-SWITCHBCK
UPD:G-SWITCHFWD
```

Output Message(s):

```
OP:GEN-READLOG
STOP:GEN
UPD:GEN-BACKOUT
UPD:GEN-BEGIN
UPD:GEN-COMMIT
UPD:GEN-CONTINUE
UPD:GEN-END
UPD:GEN-ENTER
UPD:GEN-PROCEED
UPD:GEN-RESTORE
UPD:GEN-SMBKOUT
UPD:GEN-SMSWITCH
UPD:GEN-SWITCHBK
UPD:GEN-SWITCHFW
UPD:GEN-RESTORE
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):

Where 'x' is the release specific version of the specified manual.
235-105-24x *Generic Retrofit*
235-105-34x *Generic Update*
235-105-44x *Large Terminal Growth*

MCC Display Page(s):

124 (RETROFIT)

UPD:GEN-ASW

Software Release: 5E10 and later
Message Class: GENR
Application: 5
Type: Output

1. FORMAT

```
UPD GEN a APP STOPPED WITH ERROR CODE b
```

2. REASON FOR OUTPUT

To report the failure of the application specific steps when the user executes a UPD:G,stage input message. This output message gives the completion code of the application's attempt at a retrofit in any given stage.

3. VARIABLE FIELD DEFINITIONS

a = The stage defined in the input message. Valid value(s):

```
BACKOUT
COMMIT
ENTER
PROCEED
RESTORE
```

b = Error code causing the process to stop. Refer to the APP:APPLHOOK appendix or the APP:SUPR appendix in the Appendixes section of the Output Messages manual. Consult the appropriate software release transition procedures for more information.

4. ACTION TO BE TAKEN

The action expected is to comply with the instructions given in the retrofit procedures (refer to the Software Release Retrofit manual). If any other errors occur, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:G-APPLLOG
OP:G-READLOG
STOP:GEN
STP:GEN
UPD:G-BACKOUT
UPD:G-BEGIN
UPD:G-COMMIT
UPD:G-CONTINUE
UPD:G-END
UPD:G-ENTER
```

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```
UPD:G-PROCEED
UPD:G-RESTORE
UPD:G-SMBKOUT
UPD:G-SMSWITCH
UPD:G-SWITCHBCK
UPD:G-SWITCHFWD
```

Output Message(s):

```
OP:GEN-APPLLOG
OP:GEN-READLOG
STOP:GEN
UPD:GEN-APPL
UPD:GEN-BEGIN
UPD:GEN-BACKOUT
UPD:GEN-COMMIT
UPD:GEN-CONTINUE
UPD:GEN-ENTER
UPD:GEN-END
UPD:GEN-PROCEED
UPD:GEN-RESTORE
UPD:GEN-SMBKOUT
UPD:GEN-SMSWITCH
UPD:GEN-SWITCHBK
UPD:GEN-SWITCHFW
```

Output Appendix(es):

```
APP:APPLHOOK
APP:SUPR
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-105-24x *Software Release Retrofit*
235-105-34x *Software Release Update*
235-105-44x *Large Terminal Growth*

MCC Display Page(s):

116 (MISCELLANEOUS)
124 (RETROFIT)

UPD:GEN-BACKOUT

Software Release: 5E10 and later
Message Class: GENR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      UPD GEN BACKOUT APP AM OFFLINE BOOT STARTED

[2]   ____________________________________________________________________
      UPD GEN BACKOUT APP AM OFFLINE BOOT SUCCESSFUL

[3]   ____________________________________________________________________
      UPD GEN BACKOUT APP AM OFFLINE BOOT FAILED

[4]   ____________________________________________________________________
      UPD GEN BACKOUT APP AM OFFLINE BOOT STOPPED

[5]   ____________________________________________________________________
      UPD GEN BACKOUT AM SWITCH STARTED

[6]   ____________________________________________________________________
      UPD GEN BACKOUT AM SWITCH COMPLETED

[7]   ____________________________________________________________________
      UPD GEN BACKOUT AM SWITCH FAILED

[8]   ____________________________________________________________________
      UPD GEN BACKOUT COMPLETED

[9]   ____________________________________________________________________
      UPD GEN BACKOUT STOPPED WITH ERROR CODE a

[10]  ____________________________________________________________________
      UPD GEN BACKOUT BEFORE GENERIC RETROFIT INITIALIZATION SELECT b

[11]  ____________________________________________________________________
      UPD GEN BACKOUT TRANSFERRING CONTROL TO APPLICATION

[12]  ____________________________________________________________________
      UPD GEN BACKOUT APPLICATION COMPLETION WITHIN c SECONDS

[13]  ____________________________________________________________________
      UPD GEN BACKOUT COMPLETED SUCCESSFULLY

[14]  ____________________________________________________________________
      UPD GEN BACKOUT COMPLETED SUCCESSFULLY
        **** PERFORM GENERIC RETROFIT INITIALIZATION OF AM ****

[15]  ____________________________________________________________________
      UPD GEN BACKOUT COMPLETED SMS IN TRANSIENT STATE

[16]  ____________________________________________________________________
      UPD GEN BACKOUT COMPLETED SMS IN TRANSIENT STATE
```

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```
        **** PERFORM GENERIC RETROFIT INITIALIZATION OF AM ****

[17]  ____________________________________________________________
      UPD GEN APP BACKOUT SM STATUS REQUESTED

[18]  ____________________________________________________________
      UPD GEN BACKOUT APP WARNING COULD NOT SET STAGE COMPLETION FLAG
```

2. REASON FOR OUTPUT

To report the result of executing a UPD:G-BACKOUT input message, and to provide status information and instructions concerning the software release transition such as AM off-line boot status or to inform the user which boot options to use when booting the old software release without AM off-line boot.

For Format 1, the APPLHOOK process has started administrative module (AM) off-line boot.

For Format 2, the APPLHOOK process has successfully completed AM off-line boot.

For Format 3, the APPLHOOK process reports that AM off-line boot has failed.

For Format 4, the APPLHOOK process reports that AM off-line boot has been stopped. Off-line booted AM units are returned to their ROOT ECD state.

For Format 5, the BACKOUT process has started switching to the off-line booted AM.

For Format 6, the BACKOUT process has completed switching the AM to the off-line booted side.

For Format 7, the BACKOUT process has failed to switch the AM to the off-line booted side.

For Format 8, the BACKOUT process completed successfully.

For Format 9, the BACKOUT process terminated with an error.

For Format 10, instruction for moving head disk (MHD) reconfiguration before initialization.

For Format 11, the APPLHOOK process has been called.

For Format 12, the APPLHOOK process will be complete within the amount of time specified.

For Format 13, the BACKOUT process has completed, the status of the switching modules (SM) shows all SMs have switched to the old software release side. Since an AM off-line boot AM side switch completed successfully no additional boot information is provided.

For Format 14, the BACKOUT has completed, the status of the switching modules (SM) shows all SMs have switched to the old software release side. If the AM has not yet been booted on the old software release, the boot should be performed now.

For Format 15, the BACKOUT process has completed, the status of the SMs did not show all SMs were cycling on the old software release. This indication can either mean an SM is initializing, an SM status was slow in updating due to excessive message traffic or processor overload, or the SM did not switch to the old software release. An AM off-line boot AM side switch has been performed. Verify that the switched SMs are cycling on the old software release at the completion of the AM off-line boot AM side switch.

For Format 16, the BACKOUT has completed, but the status of the SMs did not show that all SMs were cycling on the old software release. This indication can either mean the SM is initializing, the SM status was slow in updating due to excessive message traffic or processor overload, or the SM did not switch to the old software release. If the AM has not yet been booted on the old software release, the boot should be performed now. The SMs should be

verified they are cycling on the old software release at the completion of the AM initialization.

For Format 17, an automatic OP:SYSSTAT,SM=1&&192; has been input by the BACKOUT command.

For Format 18, the BACKOUT stage could not be set completed in data delivery. This means that the BACKOUT field on Master Control Center (MCC)i page 124 may not be backlit.

3. VARIABLE FIELD DEFINITIONS

`a` = Error code causing the process to stop. Consult the appropriate software release transition procedures. Refer to the REFERENCES section of this manual page for more information.

`b` = Boot options. Valid value(s):
`BACKUP ROOT` = Backup root was selected on EAI page.
`MHD {0|1}` = Force MHD specified on EAI (off-line disk method only).
`PRIMARY ROOT` = Primary root was selected on emergency action interface (EAI) page.

`c` = Number of seconds available for application processing.

4. ACTION TO BE TAKEN

Comply with instructions given. (The force for MHD should be left in effect until instructions to remove it are output by UPD:GEN-COMMIT or UPD:GEN-RESTORE.) User execution errors can be corrected by following the procedures used for execution of the message. If any other error occurs, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
3	326

Input Message(s):

```
OP:G-APPLLOG
OP:G-READLOG
STOP:GEN
UPD:G-APPLPROC
UPD:G-BACKOUT
UPD:G-BEGIN
UPD:G-COMMIT
UPD:G-CONTINUE
UPD:G-END
UPD:G-ENTER
UPD:G-PROCEED
UPD:G-RESTORE
UPD:G-SMBKOUT
UPD:G-SMSWITCH
UPD:G-SWITCHBCK
```

```
UPD:G-SWITCHFWD
```

Output Message(s):

```
OP:GEN-APPLLOG
OP:GEN-READLOG
STOP:GEN
UPD:GEN-APPL
UPD:GEN-ASW
UPD:GEN-BEGIN
UPD:GEN-COMMIT
UPD:GEN-CONTINUE
UPD:GEN-END
UPD:GEN-ENTER
UPD:GEN-PROCEED
UPD:GEN-RESTORE
UPD:GEN-SMBKOUT
UPD:GEN-SMSWITCH
UPD:GEN-SWITCHBK
UPD:GEN-SWITCHFW
```

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SUPR
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-105-24x *Software Release Retrofit*
235-105-34x *Software Release Update*
235-105-44x *Large Terminal Growth*

MCC Display Page(s):

116 (MISCELLANEOUS)
124 (RETROFIT)

UPD:GEN-BEGIN

Software Release: 5E10 and later
Message Class: GENR
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      UPD GEN BEGIN COMPLETED SUCCESSFULLY

[2]   ____________________________________________________________
      UPD GEN BEGIN STOPPED WITH ERROR CODE a

[3]   ____________________________________________________________
      UPD GEN BEGIN RECENT CHANGE IS INHIBITED

[4]   ____________________________________________________________
      UPD GEN BEGIN REX INHIBIT SENT

[5]   ____________________________________________________________
      UPD GEN BEGIN INH:REORG COMMAND SENT

[6]   ____________________________________________________________
      UPD GEN BEGIN CRAFT ACSR ENQUEUEING/DEQUEUEING INHIBIT SENT

[7]   ____________________________________________________________
      UPD GEN BEGIN AUTO SPARE DISK OFF

[8]   ____________________________________________________________
      UPD GEN BEGIN APP EXECUTING BGNHOOK

[9]   ____________________________________________________________
      UPD GEN BEGIN APP EXECUTING BGNHOOK FAILED WITH EXIT CODE b

[10]  ____________________________________________________________
      UPD GEN BEGIN APP BGNHOOK REPORT c

[11]  ____________________________________________________________
      UPD GEN BEGIN APP WARNING COULD NOT SET STAGE COMPLETION FLAG
```

2. REASON FOR OUTPUT

To report the result of executing a UPD:G-BEGIN input message. This begins the retrofit interval and sets the retrofit in progress indicator on the Master Control Center (MCC) MISC page 116.

Format 1 indicates that the BEGIN is complete.

Format 2 indicates that the BEGIN terminated with an error.

Format 3 indicates that the BEGIN has automatically inhibited recent change.

Format 4 indicates that the BEGIN has automatically inhibited the routine exerciser.

Format 5 indicates that the BEGIN has automatically inhibited automatic office dependent data (ODD) reorganization.

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Format 6 indicates that the BEGIN has automatically inhibited automatic customer station rearrangement (ACSR) enqueueing and dequeueing.

Format 7 indicates that the BEGIN has automatically turned off the auto spare disk feature.

Format 8 indicates that the APPLHOOK process is executing the BGNHOOK retrofit tool.

Format 9 indicates that the BGNHOOK retrofit tool terminated with a non-zero exit code.

Format 10 indicates that the output from the BGNHOOK retrofit tool is displayed.

Format 11 indicates that the BEGIN stage could not be set completed in data delivery. This means that the BEGIN field on Master Control Center (MCC) page 124 may not be backlit. The next retrofit stage may need to be executed unconditionally.

3. VARIABLE FIELD DEFINITIONS

`a` = Error code causing the process to stop. Consult the appropriate software release transition procedures. Refer to the REFERENCES section of this manual page for more information.

`b` = Exit code the retrofit tool BGNHOOK failed with. Consult the appropriate software release transition procedures. Refer to the REFERENCES section of this manual page for more information.

`c` = The standard output of the BGNHOOK retrofit tool. Consult the appropriate software release transition procedures. Refer to the REFERENCES section of this manual page for more information.

4. ACTION TO BE TAKEN

Comply with instructions given in the appropriate software release transition procedures. Refer to the REFERENCES section of this manual page for more information. User execution errors can be corrected by following the software release transition procedures used for execution of the message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:G-APPLLOG
OP:G-READLOG
STOP:GEN
UPD:G-APPLPROC
UPD:G-BACKOUT
UPD:G-BEGIN
UPD:G-COMMIT
UPD:G-CONTINUE
UPD:G-END
UPD:G-ENTER
UPD:G-PROCEED
UPD:G-RESTORE
```

```
UPD:G-SMBKOUT
UPD:G-SMSWITCH
UPD:G-SWITCHBCK
UPD:G-SWITCHFWD
```

Output Message(s):

```
OP:GEN-APPLLOG
OP:GEN-READLOG
STOP:GEN
UPD:GEN-APPL
UPD:GEN-ASW
UPD:GEN-BACKOUT
UPD:GEN-COMMIT
UPD:GEN-CONTINUE
UPD:GEN-ENTER
UPD:GEN-END
UPD:GEN-PROCEED
UPD:GEN-RESTORE
UPD:GEN-SMBKOUT
UPD:GEN-SMSWITCH
UPD:GEN-SWITCHBK
UPD:GEN-SWITCHFW
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-105-24x *Software Release Retrofit*
235-105-34x *Software Release Update*
235-105-44x *Large Terminal Growth*

MCC Display Page(s):

116 (MISCELLANEOUS)
124 (RETROFIT)

UPD:GEN-COMMIT

Software Release: 5E10 and later
Message Class: GENR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      UPD GEN COMMIT COMPLETED

[2]   ____________________________________________________________
      UPD GEN COMMIT STOPPED WITH ERROR CODE a

[3]   ____________________________________________________________
      UPD GEN COMMIT APP STOPPED WITH ERROR CODE b

[4]   ____________________________________________________________
      UPD GEN COMMIT TRANSFERRING CONTROL TO APPLICATION

[5]   ____________________________________________________________
      UPD GEN COMMIT APPLICATION COMPLETION WITHIN c SECONDS

[6]   ____________________________________________________________
      UPD GEN COMMIT APP EXECUTING CMTHOOK

[7]   ____________________________________________________________
      UPD GEN COMMIT APP EXECUTING CMTHOOK FAILED WITH EXIT CODE d

[8]   ____________________________________________________________
      UPD GEN COMMIT APP CMTHOOK REPORT e

[9]   ____________________________________________________________
      UPD GEN COMMIT APP MHD f BEING RESTORED

[10]  ____________________________________________________________
      UPD GEN COMMIT APP WARNING SM OFFLINE PUMP STATUS NOT IN EXPECTED STATE

[11]  ____________________________________________________________
      UPD GEN COMMIT APP WARNING SM(S) NOT IN EXPECTED DUPLEX STATE

[12]  ____________________________________________________________
      UPD GEN COMMIT APP WARNING CMP(S) NOT DUPLEX

[13]  ____________________________________________________________
      UPD GEN COMMIT APP WARNING CMP(S) IN GENERIC DIFFERENCE

[14]  ____________________________________________________________
      UPD GEN COMMIT APP WARNING COULD NOT SET STAGE COMPLETION FLAG
```

2. REASON FOR OUTPUT

To report the result of executing a UPD:G-COMMIT input message.

Format 1 indicates that the COMMIT input message has completed successfully.

Format 2 and 3 indicates that the COMMIT input message has terminated with error.

Format 4 indicates that the APPLHOOK process has been called.

Format 5 indicates that the APPLHOOK process will be complete within the amount of time specified.

Format 6 indicates that the APPLHOOK process is executing the CMTHOOK retrofit tool.

Format 7 indicates that the CMTHOOK retrofit tool terminated with a non-zero exit code.

Format 8 indicates that the output from the CMTHOOK retrofit tool is displayed.

Format 9 indicates that the APPLHOOK process is restoring the moving head disk (MHD) specified.

Format 10 indicates that the status of the switching modules (SMs) indicates that the peripherals are still offline pumped.

Format 11 indicates that some SMs are not duplex.

Format 12 indicates that the communications module processors (CMPs) are not duplex.

Format 13 indicates that the CMPs are still offline-pumped.

Format 14 indicates that the COMMIT stage could not be set completed in data delivery, the next retrofit stage may need to be executed unconditionally.

3. VARIABLE FIELD DEFINITIONS

`a` = Error code causing the process to stop. Consult the appropriate software release transition procedures (refer to the REFERENCES section) for more information.

`b` = Error code causing the process to stop. Consult the appropriate software release transition procedures (refer to the REFERENCES section) for more information.

`c` = Maximum time in seconds for application processing by the APPLHOOK process.

`d` = Exit code the retrofit tool CMTHOOK failed with. Consult the appropriate software release transition procedures (refer to the REFERENCES section) for more information.

`e` = The standard output of the CMTHOOK retrofit tool. Consult the appropriate software release transition procedures (refer to the REFERENCES section) for more information.

`f` = The MHD is being changed from OFFLINE to out of service (OOS) and then to ACTIVE.

4. ACTION TO BE TAKEN

Comply with instructions given. User execution errors can be corrected by following the procedures used for execution of the message. If any other errors occur, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
all	326

Input Message(s):

```
OP:G-APPLLOG
OP:G-READLOG
STOP:GEN
UPD:G-APPLPROC
UPD:G-BACKOUT
UPD:G-BEGIN
UPD:G-COMMIT
UPD:G-CONTINUE
UPD:G-END
UPD:G-ENTER
UPD:G-PROCEED
UPD:G-RESTORE
UPD:G-SMBKOUT
UPD:G-SMSWITCH
UPD:G-SWITCHBCK
UPD:G-SWITCHFWD
```

Output Message(s):

```
OP:GEN-APPLLOG
OP:GEN-READLOG
STOP:GEN
UPD:GEN-APPL
UPD:GEN-ASW
UPD:GEN-BACKOUT
UPD:GEN-BEGIN
UPD:GEN-CONTINUE
UPD:GEN-END
UPD:GEN-ENTER
UPD:GEN-PROCEED
UPD:GEN-RESTORE
UPD:GEN-SMBKOUT
UPD:GEN-SMSWITCH
UPD:GEN-SWITCHBK
UPD:GEN-SWITCHFW
```

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SUPR
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-105-24x *Software Release Retrofit*
235-105-34x *Software Release Update*
235-105-44x *Large Terminal Growth*

MCC Display Page(s):

116 (MISCELLANEOUS)
124 (RETROFIT)

UPD:GEN-CONTINUE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      UPD GEN CONTINUE {COMPLETED | STOPPED WITH ERROR CODE a }

[2]   ____________________________________________________________________
      UPD GEN CONTINUE NOT STARTED
        CONFLICT WITH CURRENT SYSTEM STATUS  b
```

2. REASON FOR OUTPUT

To report the result of executing a UPD:G-CONTINUE input message.

3. VARIABLE FIELD DEFINITIONS

a = Error code causing the process to stop. Refer to the APP:SURP appendix in the Appendixes section of the Output Messages manual.

b = Process not initiated.

4. ACTION TO BE TAKEN

Correct user execution errors by examining the procedures used for execution of the command. If any other error occurs, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	326

Input Message(s):

```
OP:G-READLOG
STOP:GEN
UPD:G-BACKOUT
UPD:G-BEGIN
UPD:G-COMMIT
UPD:G-CONTINUE
UPD:G-END
UPD:G-ENTER
UPD:G-PROCEED
UPD:G-RESTORE
```

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```
UPD:G-SMSWITCH
```

Output Message(s):

```
OP:GEN-READLOG
STOP:GEN
UPD:GEN-ASW
UPD:GEN-BACKOUT
UPD:GEN-BEGIN
UPD:GEN-COMMIT
UPD:GEN-ENTER
UPD:GEN-END
UPD:GEN-PROCEED
UPD:GEN-RESTORE
UPD:GEN-SMSWITCH
```

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SUPR
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-105-24x *Software Release Retrofit*
235-105-34x *Software Release Update*
235-105-44x *Large Terminal Growth*

MCC Display Page(s):

116 (MISCELLANEOUS)
124 (RETROFIT)

UPD:GEN-END

Software Release: 5E10 and later
Message Class: GENR
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      UPD GEN END COMPLETED SUCCESSFULLY

[2]   ____________________________________________________________________
      UPD GEN END STOPPED WITH ERROR CODE a

[3]   ____________________________________________________________________
      UPD GEN END CRAFT ACSR ENQUEUEING/DEQUEUEING ALLOW SENT

[4]   ____________________________________________________________________
      UPD GEN END AUTO SPARE DISK RESTORED

[5]   ____________________________________________________________________
      UPD GEN END APP RECENT CHANGE ALLOW SENT

[6]   ____________________________________________________________________
      UPD GEN END APP REX ALLOW SENT

[7]   ____________________________________________________________________
      UPD GEN END APP ALW:REORG COMMAND SENT

[8]   ____________________________________________________________________
      UPD GEN END APP EXECUTING ENDHOOK

[9]   ____________________________________________________________________
      UPD GEN END APP ENDHOOK FAILED WITH EXIT CODE b

[10]  ____________________________________________________________________
      UPD GEN END APP ENDHOOK REPORT
        c

[11]  ____________________________________________________________________
      UPD GEN END APP APPLLOG REPORT
        d

[12]  ____________________________________________________________________
      UPD GEN END APP WARNING COULD NOT SET STAGE COMPLETION FLAG
```

2. REASON FOR OUTPUT

To report the result of executing a UPD:G-END input message. This ends the retrofit interval and clears the retrofit in progress indicator on the Master Control Center (MCC) MISC page 116.

Format 1 indicates that the END command is complete.

Format 2 indicates that the END command terminated with an error.

Format 3 indicates that the END command has automatically allowed automatic customer station rearrangement

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(ACSR) enqueuing and dequeuing.

Format 4 indicates that the END command has automatically turned on the auto spare disk feature.

Format 5 indicates that the END command has automatically allowed recent change (RC).

Format 6 indicates that the END command has automatically allowed the routine exerciser (REX).

Format 7 indicates that the END command has automatically allowed automatic office-dependent data (ODD) reorganization (REORG).

Format 8 indicates that the APPLHOOK process is executing the ENDHOOK retrofit tool.

Format 9 indicates that the ENDHOOK retrofit tool terminated with a non-zero exit code.

Format 10 indicates that the output from the ENDHOOK retrofit tool is displayed.

Format 11 indicates that the contents of the APPLLOG are printed. Refer to the output manual page OP:GEN:APPLLOG for detailed information.

Format 12 indicates that the END stage could not be set completed in data delivery. The BEGIN, ENTER, PROCEED, or COMMIT field on MCC page 124 may still be backlit.

3. VARIABLE FIELD DEFINITIONS

`a` = Error code causing the process to stop. Consult the appropriate software release transition procedures. Refer to the REFERENCES section of this manual page for more information.

`b` = Exit code the retrofit tool ENDHOOK failed with. Consult the appropriate software release transition procedures. Refer to the REFERENCES section of this manual page for more information.

`c` = The standard output of the retrofit tool. Consult the appropriate software release transition procedures. Refer to the REFERENCES section of this manual page for more information.

`d` = The contents of the APPLLOG. Refer to the output manual page OP:GEN:APPLLOG for detailed information.

4. ACTION TO BE TAKEN

Comply with instructions given in the software release transition procedures. Refer to the REFERENCES section of this manual page for additional information. User execution errors can be corrected by following the software release transition procedures used for execution of the command.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:G-APPLLOG
OP:G-READLOG
STOP:GEN
```

```
UPD:G-APPLPROC
UPD:G-BACKOUT
UPD:G-BEGIN
UPD:G-COMMIT
UPD:G-CONTINUE
UPD:G-END
UPD:G-ENTER
UPD:G-PROCEED
UPD:G-RESTORE
UPD:G-SMBKOUT
UPD:G-SMSWITCH
UPD:G-SWITCHBCK
UPD:G-SWITCHFWD
```

Output Message(s):

```
OP:GEN-APPLLOG
OP:GEN-READLOG
STOP:GEN
UPD:GEN-APPL
UPD:GEN-ASW
UPD:GEN-BACKOUT
UPD:GEN-BEGIN
UPD:GEN-COMMIT
UPD:GEN-CONTINUE
UPD:GEN-ENTER
UPD:GEN-PROCEED
UPD:GEN-RESTORE
UPD:GEN-SMBKOUT
UPD:GEN-SMSWITCH
UPD:GEN-SWITCHBK
UPD:GEN-SWITCHFW
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-105-24x *Software Release Retrofit*
235-105-34x *Software Release Update*
235-105-44x *Large Terminal Growth*

MCC Display Page(s):

116 (MISCELLANEOUS)
124 (RETROFIT)

UPD:GEN-ENTER

Software Release: 5E10 and later
Message Class: GENR
Application: 5,3B
Type: Output

1. FORMAT

[1]
```
UPD GEN ENTER COMPLETED
```

[2]
```
UPD GEN ENTER STOPPED WITH ERROR CODE a
```

[3]
```
UPD GEN ENTER APP STOPPED WITH ERROR CODE b
```

[4]
```
UPD GEN ENTER MOUNT TAPE AND CONTINUE
```

[5]
```
UPD GEN ENTER c BLOCKS WRITTEN
```

[6]
```
UPD GEN ENTER MHD d SELECTED FOR NEW GENERIC
```

[7]
```
UPD GEN ENTER CHANGING MHD d TO OFFLINE
```

[8]
```
UPD GEN ENTER MHD d OFFLINE
```

[9]
```
UPD GEN ENTER TRANSFERRING CONTROL TO APPLICATION
```

[10]
```
UPD GEN ENTER APPLICATION COMPLETION WITHIN e SECONDS
```

[11]
```
UPD GEN ENTER UPDATING PARTITION f IN OFFLINE DISK
```

[12]
```
UPD GEN ENTER APP MHD d BEING REMOVED
```

[13]
```
UPD GEN ENTER APP MHD d BEING MARKED OFFLINE
```

[14]
```
UPD GEN ENTER APP EXECUTING ENTRHOOK
```

[15]
```
UPD GEN ENTER APP ENTRHOOK FAILED WITH EXIT CODE g
```

[16]
```
UPD GEN ENTER APP ENTRHOOK REPORT h
```

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```
[17]  ____________________________________________________________
      UPD GEN ENTER APP WARNING COULD NOT SET STAGE COMPLETION FLAG
```

2. REASON FOR OUTPUT

To report the result of executing a UPD:G-ENTER input message, and to provide status information and instructions concerning the update.

Format 1 indicate that the ENTER command has completed successfully.

Formats 2 and 3 indicate that the ENTER command has terminated with error.

Format 4 indicate that instruction for loading tapes during the retrofit.

Format 5 indicate that information on the progress of disk blocks written from tape.

Format 6 and 7 indicate that the status of the moving head disks (MHDs) as they are taken OFFLINE.

Format 8 indicate that the APPLHOOK process has been called.

Format 9 indicate that the APPLHOOK process will be complete within the amount of time specified.

Format 10 indicate that the ENTER command is copying the specified primary partition to its backup partition.

Format 11 and 12 indicate that the status of the MHD as APPLHOOK takes it from ACTIVE to OFFLINE.

Format 13 indicate that the APPLHOOK process is executing the ENTRHOOK retrofit tool.

Format 14 indicate that the ENTRHOOK retrofit tool terminated with a non-zero exit code.

Format 15 indicate that the output from the ENTRHOOK retrofit tool is displayed.

Format 16 indicate that the ENTER stage could not be set completed in data delivery, the next retrofit stage may need to be executed unconditionally.

3. VARIABLE FIELD DEFINITIONS

a = Error code causing the process to stop. Consult the appropriate software release transition procedures (refer to the REFERENCES section) for more information.

b = Number of additional blocks of data written since last output message of this type.

c = Member number of disk to be forced offline for data entry.

d = Maximum time in seconds for application processing by the APPLHOOK process.

e = Number of a backup partition that needs to be updated from its primary.

f = Error code causing the process to stop. Consult the appropriate software release transition procedures (refer to the REFERENCES section) for more information.

g = Exit code the retrofit tool ENTRHOOK failed with. Consult the appropriate software release transition procedures (refer to the REFERENCES section) for more information.

h = The standard output of the retrofit tool. Consult the appropriate software release transition procedures (refer to the REFERENCES section) for more information.

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4. ACTION TO BE TAKEN

Comply with instructions given. Continuation should be done using the UPD:G-CONTINUE input message. User execution errors can be corrected by following the procedures used for execution of the input message. If any other errors occur, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	326

Input Message(s):

```
OP:G-APPLLOG
OP:G-READLOG
STOP:GEN
UPD:G-APPLPROC
UPD:G-BACKOUT
UPD:G-BEGIN
UPD:G-COMMIT
UPD:G-CONTINUE
UPD:G-END
UPD:G-ENTER
UPD:G-PROCEED
UPD:G-RESTORE
UPD:G-SMBKOUT
UPD:G-SMSWITCH
UPD:G-SWITCHBCK
UPD:G-SWITCHFWD
```

Output Message(s):

```
OP:GEN-APPLLOG
OP:GEN-READLOG
STOP:GEN
UPD:GEN-APPL
UPD:GEN-ASW
UPD:GEN-BACKOUT
UPD:GEN-BEGIN
UPD:GEN-COMMIT
UPD:GEN-CONTINUE
UPD:GEN-END
UPD:GEN-PROCEED
UPD:GEN-RESTORE
UPD:GEN-SMBKOUT
UPD:GEN-SMSWITCH
UPD:GEN-SWITCHBK
UPD:GEN-SWITCHFW
```

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Output Appendix(es):

```
APP:OMDB-X-REF
APP:SUPR
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-105-24x *Software Release Retrofit*
235-105-34x *Software Release Update*
235-105-44x *Large Terminal Growth*

MCC Display Page(s):

116 (MISCELLANEOUS)
124 (RETROFIT)

UPD:GEN-PCC

Software Release: 5E10 and later
Message Class: GENR
Application: 5
Type: Output

1. FORMAT

```
UPD GEN PROCEED COPYING COMPLETE, PROCEEDING TO SWITCH IMS
```

2. REASON FOR OUTPUT

To report that the interface modules (IMs) or switching modules (SMs) in the office are about to be sent a request to switch sides in the MCTSIs and perform a retrofit initialization on that side. When this message is printed out the office can expect to lose call processing in the office. This should only be seen during a retrofit situation.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

The office is expected to lose call processing soon after this message is printed out. The action expected is to comply with the instructions given in the Generic Retrofit Procedures manual. Refer to the REFERENCES section of this manual page for additional information.

5. ALARMS

None.

6. REFERENCES

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-105-24x *Generic Retrofit Procedures*

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UPD:GEN-PERFORM

Software Release: 5E10 and later
Message Class: GENR
Application: 5
Type: Output

1. FORMAT

```
UPD GEN a PERFORM EAI POKES "42!R! BEFORE BOOTING AM
```

2. REASON FOR OUTPUT

To inform the user of the retrofit boot options that the AM goes through before booting the AM on either software release. This message is printed out only successful completion of the application's step for the PROCEED or BACKOUT stage.

3. VARIABLE FIELD DEFINITIONS

`a` = The stage defined in the input message (UPD:G-PROCEED or UPD:G-BACKOUT).

4. ACTION TO BE TAKEN

Comply with instructions given in the Generic Retrofit Procedures manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:G-BACKOUT
UPD:G-PROCEED
```

Output Message(s):

```
UPD:GEN-BACKOUT
UPD:GEN-PCC
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-105-24x *Generic Retrofit Procedures*

UPD:GEN-PROCEED

Software Release: 5E10 and later
Message Class: GENR
Application: 5,3B
Type: Output

1. FORMAT

[1]
```
UPD GEN PROCEED COMPLETED
```

[2]
```
UPD GEN PROCEED APP AM OFFLINE BOOT STARTED
```

[3]
```
UPD GEN PROCEED APP AM OFFLINE BOOT SUCCESSFUL
```

[4]
```
UPD GEN PROCEED APP AM OFFLINE BOOT FAILED
```

[5]
```
UPD GEN PROCEED APP AM OFFLINE BOOT STOPPED
```

[6]
```
UPD GEN PROCEED STOPPED WITH ERROR CODE a
```

[7]
```
UPD GEN PROCEED APP STOPPED WITH ERROR CODE b
```

[8]
```
UPD GEN PROCEED BEFORE GENERIC RETROFIT INITIALIZATION SELECT c
```

[9]
```
UPD GEN PROCEED TRANSFERRING CONTROL TO APPLICATION
```

[10]
```
UPD GEN PROCEED APPLICATION COMPLETION WITHIN d SECONDS
```

[11]
```
UPD GEN PROCEED APP EXECUTING PRCDHOOK
```

[12]
```
UPD GEN PROCEED APP EXECUTING PRCDHOOK FAILED WITH EXIT CODE e
```

[13]
```
UPD GEN PROCEED APP PRCDHOOK REPORT
  f
```

[14]
```
UPD GEN PROCEED APP EXECUTING CORCFLUSH
```

[15]
```
UPD GEN PROCEED APP CORCFLUSH FAILED WITH EXIT CODE g
```

[16]
```
UPD GEN PROCEED CORCS ARE INHIBITED
```

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```
[17]  ____________________________________________________________________
      UPD GEN PROCEED APP WARNING COULD NOT SET STAGE COMPLETION FLAG
```

2. REASON FOR OUTPUT

To report the result of executing an UPD:G-PROCEED input message, and to provide status information and instructions concerning the software release transition such as AM off-line boot status or the boot options to use when booting the new software release without AM off-line boot.

For Format 1, the PROCEED has completed successfully.

For Format 2, the APPLHOOK process has started AM off-line boot.

For Format 3, the APPLHOOK process has successfully completed AM off-line boot.

For Format 4, the APPLHOOK process reports that AM off-line boot has failed.

For Format 5, the APPLHOOK process reports that AM off-line boot has been stopped. Off-line booted AM units are returned to their ROOT ECD state.

For Formats 6 and 7, the PROCEED has terminated with error.

For Format 8, instruction for moving head disk (MHD) reconfiguration before administrative module (AM) initialization. For Format 9, the APPLHOOK process has been called.

For Format 10, the APPLHOOK process will be complete within the amount of time specified.

For Format 11, the APPLHOOK process is executing the PRCDHOOK retrofit tool.

For Format 12, the PRCDHOOK retrofit tool terminated with a non-zero exit code.

For Format 13, the output from the PRCDHOOK retrofit tool is displayed.

For Format 14, the APPLHOOK process is executing the CORCFLUSH process.

For Format 15, the CORCFLUSH process terminated with a non-zero exit code.

For Format 16, the APPLHOOK process has inhibited customer-originated recent changes (CORCs).

For Format 17, the PROCEED stage could not be set completed in data delivery. The next retrofit stage may need to be executed unconditionally.

3. VARIABLE FIELD DEFINITIONS

`a` = Error code causing the process to stop. Consult the appropriate software release transition procedures (refer to the REFERENCES section) for more information.

`b` = Error code causing the process to stop. Consult the appropriate software release transition procedures (refer to the REFERENCES section) for more information.

`c` = Boot options. Valid value(s):
`BACKUP ROOT` = Backup root, was selected on emergency action interface (EAI).
`MHD {0|1}` = Moving head disk (MHD) force specified on EAI (off-line disk method only).
`PRIMARY ROOT` = Primary root was selected on an EAI.

`d` = Maximum time in seconds for application processing by the APPLHOOK process.

`e` = Exit code the retrofit tool PRCDHOOK failed with. Consult the appropriate software release transition procedures for more information.

`f` = The standard output of the retrofit tool. Consult the appropriate software release transition procedures (refer to the REFERENCES section) for more information.

`g` = The exit code from the CORCFLUSH process. Consult the appropriate retrofit procedures (refer to the REFERENCES section) for more information.

4. ACTION TO BE TAKEN

Comply with instructions given. (The force for MHD should be left in effect until instructions to remove it are output by UPD:GEN-COMMIT or UPD:GEN-RESTORE.) User execution errors can be corrected by following the procedures used for execution of the message.

If any other errors occur, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

Input Message(s):

```
OP:G-APPLLOG
OP:G-READLOG
STOP:GEN
STP:GEN
UPD:G-APPLPROC
UPD:G-BACKOUT
UPD:G-BEGIN
UPD:G-COMMIT
UPD:G-CONTINUE
UPD:G-END
UPD:G-ENTER
UPD:G-PROCEED
UPD:G-RESTORE
UPD:G-SMBKOUT
UPD:G-SMSWITCH
UPD:G-SWITCHBCK
UPD:G-SWITCHFWD
```

Output Message(s):

```
OP:GEN-APPLLOG
OP:GEN-READLOG
STOP:GEN
STP:GEN
```

```
UPD:GEN-APPL
UPD:GEN-ASW
UPD:GEN-BACKOUT
UPD:GEN-BEGIN
UPD:GEN-COMMIT
UPD:GEN-CONTINUE
UPD:GEN-ENTER
UPD:GEN-END
UPD:GEN-RESTORE
UPD:GEN-SMBKOUT
UPD:GEN-SMSWITCH
UPD:GEN-SWITCHBK
UPD:GEN-SWITCHFW
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-105-24x *Software Release Retrofit*
235-105-34x *Software Release update*
235-105-44x *Large Terminal Growth*

MCC Display Page(s):

116 (MISCELLANEOUS)
124 (RETROFIT)

UPD:GEN-RESTORE

Software Release: 5E10 and later
Message Class: GENR
Application: 5,3B
Type: Output

1. FORMAT

```
[1]  ____________________________________________________________
     UPD GEN RESTORE COMPLETED

[2]  ____________________________________________________________
     UPD GEN RESTORE STOPPED WITH ERROR CODE a

[3]  ____________________________________________________________
     UPD GEN RESTORE APP STOPPED WITH ERROR CODE b

[4]  ____________________________________________________________
     UPD GEN RESTORE TRANSFERRING CONTROL TO APPLICATION

[5]  ____________________________________________________________
     UPD GEN RESTORE APPLICATION COMPLETION WITHIN c SECONDS

[6]  ____________________________________________________________
     UPD GEN RESTORE CORCS ARE ALLOWED

[7]  ____________________________________________________________
     UPD GEN RESTORE APP EXECUTING RSTHOOK

[8]  ____________________________________________________________
     UPD GEN RESTORE APP EXECUTING RSTHOOK FAILED WITH EXIT CODE d

[9]  ____________________________________________________________
     UPD GEN RESTORE APP RSTHOOK REPORT e

[10] ____________________________________________________________
     UPD GEN RESTORE APP MHD f BEING RESTORED

[11] ____________________________________________________________
     UPD GEN RESTORE APP WARNING SM OFFLINE PUMP STATUS NOT IN
       EXPECTED STATE

[12] ____________________________________________________________
     UPD GEN RESTORE APP WARNING SM(S) NOT IN EXPECTED DUPLEX STATE

[13] ____________________________________________________________
     UPD GEN RESTORE APP WARNING CMP(S) NOT DUPLEX

[14] ____________________________________________________________
     UPD GEN RESTORE APP WARNING CMP(S) IN GENERIC DIFFERENCE

[15] ____________________________________________________________
     UPD GEN RESTORE APP WARNING COULD NOT SET STAGE COMPLETION FLAG
```

2. REASON FOR OUTPUT

To report the result of executing a UPD:G-RESTORE input message. Format 1 indicates that the RESTORE has completed successfully.

Format 2 and 3 indicates that the RESTORE has terminated with error.

Format 4 indicates that the APPLHOOK process has been called.

Format 5 indicates that the APPLHOOK process will be complete within the amount of time specified.

Format 6 indicates that the APPLHOOK process has allowed customer-originated recent changes (CORCs).

Format 7 indicates that the APPLHOOK process is executing the RSTHOOK retrofit tool.

Format 8 indicates that the RSTHOOK retrofit tool terminated with a non-zero exit code.

Format 9 indicates that the output from the RSTHOOK retrofit tool is displayed.

Format 10 indicates that the APPLHOOK process is restoring the moving head disk (MHD) specified.

Format 11 indicates that the status of the switching modules (SMs) indicates that the peripherals are still offline pumped.

Format 12 indicates that some SMs are not duplex.

Format 13 indicates that the communication module processors (CMPs) are not duplex.

Format 14 indicates that the CMPs are still offline pumped.

Format 15 indicates that the RESTORE stage could not be set completed in data delivery; the next retrofit stage may need to be executed unconditionally.

3. VARIABLE FIELD DEFINITIONS

`a` = Error code causing the process to stop. Consult the appropriate software release transition procedures (refer to the REFERENCES section) for more information.

`b` = Error code causing the process to stop. Consult the appropriate software release transition procedures (refer to the REFERENCES section) for more information.

`c` = Maximum time in seconds for application processing by the APPLHOOK process.

`d` = Exit code the retrofit tool RSTHOOK failed with. Consult the appropriate software release transition procedures (refer to the REFERENCES section) for more information.

`e` = The standard output of the retrofit RSTHOOK tool. Consult the appropriate software release transition procedures (refer to the REFERENCES section) for more information.

`f` = The number of the MHD that is being changed from OFFLINE to OOS and then to ACTIVE.

4. ACTION TO BE TAKEN

Comply with instructions given. User execution errors can be corrected by following the procedures used for execution of the message. If any other errors occur, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1, 2, 4, 5	326

Input Message(s):

```
OP:G-APPLLOG
OP:G-READLOG
STOP:GEN
UPD:G-APPLPROC
UPD:G-BACKOUT
UPD:G-BEGIN
UPD:G-COMMIT
UPD:G-CONTINUE
UPD:G-END
UPD:G-ENTER
UPD:G-PROCEED
UPD:G-RESTORE
UPD:G-SMBKOUT
UPD:G-SMSWITCH
UPD:G-SWITCHBCK
UPD:G-SWITCHFWD
```

Output Message(s):

```
OP:GEN-APPLLOG
OP:GEN-READLOG
STOP:GEN
UPD:GEN-APPL
UPD:GEN-ASW
UPD:GEN-BACKOUT
UPD:GEN-BEGIN
UPD:GEN-COMMIT
UPD:GEN-CONTINUE
UPD:GEN-END
UPD:GEN-ENTER
UPD:GEN-PROCEED
UPD:GEN-SMBKOUT
UPD:GEN-SMSWITCH
UPD:GEN-SWITCHBK
UPD:GEN-SWITCHFW
```

Output Appendix(es):

```
APP:OMDB-X-REF
APP:SUPR
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-105-24x *Software Release Retrofit*
235-105-34x *Software Release Update*
235-105-44x *Large Terminal Growth*

MCC Display Page(s):

116 (MISCELLANEOUS)
124 (RETROFIT)

UPD:GEN-SMBKOUT

Software Release: 5E10 and later
Message Class: GENR
Application: 5
Type: Output

1. FORMAT

```
[1]    ____________________________________________________________________
       UPD GEN SMBKOUT COMPLETED

[2]    ____________________________________________________________________
       UPD GEN SMBKOUT APP SM STATUS REQUESTED

[3]    ____________________________________________________________________
       UPD GEN SMBKOUT STOPPED WITH ERROR CODE a
```

2. REASON FOR OUTPUT

To report the result of executing a UPD:G-SMBKOUT input message, and to provide status information and instructions concerning the software release transition. The results of the output indicate that the switching of the switching modules (SM) to module controller time slot interchange (MCTSI) side 0 either failed or succeeded.

3. VARIABLE FIELD DEFINITIONS

`a` = Error code causing the process to stop. Consult the appropriate software release transition procedures for more information.

4. ACTION TO BE TAKEN

Comply with instructions given in Software Release Retrofit for the appropriate software release. User execution errors can be corrected by examining the software release transition procedures used for execution of the command.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:G-APPLLOG
OP:G-READLOG
STOP:GEN
UPD:G-APPLPROC
UPD:G-BACKOUT
UPD:G-BEGIN
UPD:G-COMMIT
UPD:G-CONTINUE
UPD:G-END
UPD:G-ENTER
UPD:G-PROCEED
UPD:G-RESTORE
```

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```
UPD:G-SMBKOUT
UPD:G-SMSWITCH
UPD:G-SWITCHBCK
UPD:G-SWITCHFWD
```

Output Message(s):

```
OP:GEN-APPLLOG
OP:GEN-READLOG
STOP:GEN
UPD:GEN-APPL
UPD:GEN-ASW
UPD:GEN-BACKOUT
UPD:GEN-BEGIN
UPD:GEN-COMMIT
UPD:GEN-CONTINUE
UPD:GEN-END
UPD:GEN-ENTER
UPD:GEN-PROCEED
UPD:GEN-RESTORE
UPD:GEN-SMSWITCH
UPD:GEN-SWITCHBK
UPD:GEN-SWITCHFW
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-105-24x *Software Release Retrofit*
235-105-34x *Software Release Update*
235-105-44x *Large Terminal Growth*

MCC Display Page(s):

116 (MISCELLANEOUS)
124 (RETROFIT)

UPD:GEN-SMSWITCH

Software Release: 5E10 and later
Message Class: GENR
Application: 5
Type: Output

1. FORMAT

```
[1]    ____________________________________________________________________
       UPD GEN SMSWITCH COMPLETED

[2]    ____________________________________________________________________
       UPD GEN SMSWITCH APP SM STATUS REQUESTED

[3]    ____________________________________________________________________
       UPD GEN SMSWITCH STOPPED WITH ERROR CODE a
```

2. REASON FOR OUTPUT

To report the result of executing a UPD:G-SMSWITCH input message, and to provide status information and instructions concerning the software release transition. The results of the output indicate that the switching of the switching modules (SM) to module controller time slot interchange (MCTSI) side 1 either failed or succeeded.

3. VARIABLE FIELD DEFINITIONS

`a` = Error code causing the process to stop. Consult the appropriate software release transition procedures. Refer to the REFERENCES section of this manual page for more information.

4. ACTION TO BE TAKEN

Comply with instructions given in Software Release Retrofit for the appropriate software release. User execution errors can be corrected by examining the software release transition procedures used for execution of the command.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:G-APPLLOG
OP:G-READLOG
STOP:GEN
UPD:G-APPLPROC
UPD:G-BACKOUT
UPD:G-BEGIN
UPD:G-COMMIT
UPD:G-CONTINUE
UPD:G-END
UPD:G-ENTER
UPD:G-PROCEED
UPD:G-RESTORE
```

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```
UPD:G-SMBKOUT
UPD:G-SMSWITCH
UPD:G-SWITCHBCK
UPD:G-SWITCHFWD
```

Output Message(s):

```
OP:GEN-APPLLOG
OP:GEN-READLOG
STOP:GEN
UPD:GEN-APPL
UPD:GEN-ASW
UPD:GEN-BACKOUT
UPD:GEN-BEGIN
UPD:GEN-COMMIT
UPD:GEN-CONTINUE
UPD:GEN-END
UPD:GEN-ENTER
UPD:GEN-PROCEED
UPD:GEN-RESTORE
UPD:GEN-SMBKOUT
UPD:GEN-SWITCHBK
UPD:GEN-SWITCHFW
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-105-24x *Software Release Retrofit*
235-105-34x *Software Release Update*
235-105-44x *Large Terminal Growth*

MCC Display Page(s):

116 (MISCELLANEOUS)
124 (RETROFIT)

UPD:GEN-SUPRINT

Software Release: 5E10 and later
Message Class: GENR
Application: 5
Type: Output

1. FORMAT

```
UPD GEN SUPRINT MESSAGE:
  a
```

2. REASON FOR OUTPUT

To report status or error messages from the retrofit menu page suprint process.

3. VARIABLE FIELD DEFINITIONS

`a` = The status or error message from the Suprint process. Refer to Software Release Retrofit manual for the appropriate software release for associated messages.

4. ACTION TO BE TAKEN

Examine Software Release Retrofit manual for the appropriate software release for any action to be taken.

5. ALARMS

6. REFERENCES

IM/OM References(s):

None.

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-105-24x *Software Release Retrofit*
235-105-34x *Software Release Update*
235-105-44x *Large Terminal Growth*

MCC Display Page(s):

124 (RETROFIT)

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UPD:GEN-SWITCHBK

Software Release: 5E10 and later
Message Class: GENR
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      UPD GEN SWITCHBCK AM SWITCH STARTED

[2]   ____________________________________________________________________
      UPD GEN SWITCHBCK AM SWITCH COMPLETED

[3]   ____________________________________________________________________
      UPD GEN SWITCHBCK AM SWITCH FAILED

[4]   ____________________________________________________________________
      UPD GEN SWITCHBCK COMPLETED SUCCESSFULLY

[5]   ____________________________________________________________________
      UPD GEN SWITCHBCK COMPLETED SUCCESSFULLY
        **** PERFORM GENERIC RETROFIT INITIALIZATION OF AM ****

[6]   ____________________________________________________________________
      UPD GEN SWITCHBCK COMPLETED SMS IN TRANSIENT STATE

[7]   ____________________________________________________________________
      UPD GEN SWITCHBCK COMPLETED SMS IN TRANSIENT STATE
        **** PERFORM GENERIC RETROFIT INITIALIZATION OF AM ****

[8]   ____________________________________________________________________
      UPD GEN SWITCHBCK APP SM STATUS REQUESTED

[9]   ____________________________________________________________________
      UPD GEN SWITCHBCK STOPPED WITH ERROR CODE a

[10]  ____________________________________________________________________
      UPD GEN SWITCHBCK APP WARNING COULD NOT SET STAGE COMPLETION FLAG
```

2. REASON FOR OUTPUT

To report the result of executing a UPD:G-SWITCHBCK input message, and to provide status information and instructions concerning the software release transition.

Format 1 indicates that the SWITCHBCK has started switching to the off-line booted AM.

Format 2 indicates that the SWITCHBCK has completed switching the AM to the off-line booted software release side.

Format 3 indicates that the SWITCHBCK has failed to switch the AM to the off-line booted side.

Format 4 indicates that the SWITCHBCK has completed, the status of the switching modules (SM) shows all SMs have switched to the old software release side. Since an AM off-line boot AM side switch completed successfully no additional boot information is provided.

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Format 5 indicates that the SWITCHBCK has completed, the status of the switching modules (SM) shows all SMs have switched to the old software release side. If the administrative module (AM) has not yet been booted on the old software release, the boot should be performed now.

Format 6 indicates that the SWITCHBCK has completed, the status of the SMs did not show all SMs were cycling on the old software release. This indication can either mean an SM is initializing, an SM status was slow in updating due to excessive message traffic or processor overload, or the SM did not switch to the old software release. An AM off-line boot AM side switch has been performed. Verify that the switched SMs are cycling on the old software release at the completion of the AM off-line boot AM side switch.

Format 7 indicates that the SWITCHBCK has completed, the status of the SMs did not show all SMs were cycling on the old software release. This indication can either mean the SM is initializing, the SM status was slow in updating due to excessive message traffic or processor overload, or the SM did not switch to the old software release. If the AM has not yet been booted on the old software release, the boot should be performed now. Verify that the SMs are cycling on the old software release at the completion of the AM software release retrofit initialization.

Format 8 indicates that an automatic OP:SYSSTAT,SM=1&&192; has been input by the SWITCHBCK command.

Format 9 indicates that the SWITCHBCK process terminated with an error.

Format 10 indicates that the SWITCHBCK stage could not be set completed in data delivery. The SWITCHBCK field on Master Control Center (MCC) page 124 may not be backlit.

3. VARIABLE FIELD DEFINITIONS

`a` = Error code causing the process to stop. Consult the appropriate software release transition procedures. Refer to the REFERENCES section of this manual page for more information.

4. ACTION TO BE TAKEN

Comply with instructions given in Software Release Retrofit for the appropriate software release. User execution errors can be corrected by examining the software release transition procedures used for execution of the command.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:G-APPLLOG
OP:G-READLOG
STOP:GEN
UPD:G-APPLPROC
UPD:G-BACKOUT
UPD:G-BEGIN
UPD:G-COMMIT
UPD:G-CONTINUE
UPD:G-END
UPD:G-ENTER
UPD:G-PROCEED
UPD:G-RESTORE
```

```
UPD:G-SMBKOUT
UPD:G-SMSWITCH
UPD:G-SWITCHBCK
UPD:G-SWITCHFWD
```

Output Message(s):

```
OP:GEN-APPLLOG
OP:GEN-READLOG
STOP:GEN
UPD:GEN-APPL
UPD:GEN-ASW
UPD:GEN-BACKOUT
UPD:GEN-BEGIN
UPD:GEN-COMMIT
UPD:GEN-CONTINUE
UPD:GEN-END
UPD:GEN-ENTER
UPD:GEN-PROCEED
UPD:GEN-RESTORE
UPD:GEN-SMBKOUT
UPD:GEN-SMSWITCH
UPD:GEN-SWITCHFW
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-105-24x *Software Release Retrofit*
235-105-34x *Software Release Update*
235-105-44x *Large Terminal Growth*

MCC Display Page(s):

116 (MISCELLANEOUS)
124 (RETROFIT)

UPD:GEN-SWITCHFW

Software Release: 5E10 and later
Message Class: GENR
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      UPD GEN SWITCHFWD AM SWITCH STARTED

[2]   ____________________________________________________________________
      UPD GEN SWITCHFWD AM SWITCH COMPLETED

[3]   ____________________________________________________________________
      UPD GEN SWITCHFWD AM SWITCH FAILED

[4]   ____________________________________________________________________
      UPD GEN SWITCHFWD COMPLETED SUCCESSFULLY

[5]   ____________________________________________________________________
      UPD GEN SWITCHFWD COMPLETED SUCCESSFULLY
        **** PERFORM GENERIC RETROFIT INITIALIZATION OF AM ****

[6]   ____________________________________________________________________
      UPD GEN SWITCHFWD COMPLETED SMS IN TRANSIENT STATE

[7]   ____________________________________________________________________
      UPD GEN SWITCHFWD COMPLETED SMS IN TRANSIENT STATE
        **** PERFORM GENERIC RETROFIT INITIALIZATION OF AM ****

[8]   ____________________________________________________________________
      UPD GEN SWITCHFWD APP SM STATUS REQUESTED

[9]   ____________________________________________________________________
      UPD GEN SWITCHFWD STOPPED WITH ERROR CODE a

[10]  ____________________________________________________________________
      UPD GEN SWITCHFWD APP WARNING COULD NOT SET STAGE COMPLETION FLAG
```

2. REASON FOR OUTPUT

To report the result of executing a UPD:G-SWITCHFWD input message, and to provide status information and instructions concerning the software release transition.

Format 1 indicates that the SWITCHFWD has started switching to the off-line booted AM.

Format 2 indicates that the SWITCHFWD has completed switching the AM to the off-line booted software release side.

Format 3 indicates that the SWITCHFWD has failed to switch the AM to the off-line booted side.

Format 4 indicates that the SWITCHFWD has completed, the status of the switching modules (SM) shows all SMs have switched to the new software release side. Since an AM off-line boot AM side switch completed successfully no additional boot information is provided.

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Format 5 indicates that the SWITCHFWD has completed, the status of the switching modules (SM) shows all SMs have switched to the new software release side. If the administrative module (AM) has not yet been booted on the new software release, the boot should be performed now.

Format 6 indicates that the SWITCHFWD has completed, the status of the SMs did not show all SMs were cycling on the new software release. This indication can either mean an SM is initializing, an SM status was slow in updating due to excessive message traffic or processor overload, or the SM did not switch to the new software release. An AM off-line boot AM side switch has been performed. Verify that the switched SMs are cycling on the new software release at the completion of the AM off-line boot AM side switch.

Format 7 indicates that the SWITCHFWD has completed, the status of the SMs did not show all SMs were cycling on the new software release. This indication can either mean the SM is initializing, the SM status was slow in updating due to excessive message traffic or processor overload, or the SM did not switch to the new software release. If the AM has not yet been booted on the new software release, the boot should be performed now. Verify that the SMs are cycling on the new software release at the completion of the AM software release retrofit initialization.

Format 8 indicates that an automatic OP:SYSSTAT,SM=1&&192; has been input by the SWITCHFWD command.

Format 9 indicates that the SWITCHFWD process terminated with an error.

Format 10 indicates that the SWITCHFWD stage could not be set completed in data delivery. The SWITCHFWD field on MCC Display Page 124 may not be backlit.

3. VARIABLE FIELD DEFINITIONS

`a` = Error code causing the process to stop. Consult the appropriate software release transition procedures Refer to the REFERENCES section of this manual page for more information.

4. ACTION TO BE TAKEN

Comply with instructions given in Software Release Retrofit for the appropriate software release. User execution errors can be corrected by following the software release transition procedures used for execution of the command.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:G-APPLLOG
OP:G-READLOG
STOP:GEN
UPD:G-APPLPROC
UPD:G-BACKOUT
UPD:G-BEGIN
UPD:G-COMMIT
UPD:G-CONTINUE
UPD:G-END
UPD:G-ENTER
UPD:G-PROCEED
UPD:G-RESTORE
UPD:G-SMBKOUT
```

```
UPD:G-SMSWITCH
UPD:G-SWITCHBCK
UPD:G-SWITCHFWD
```

Output Message(s):

```
OP:GEN-APPLLOG
OP:GEN-READLOG
STOP:GEN
UPD:GEN-APPL
UPD:GEN-ASW
UPD:GEN-BACKOUT
UPD:GEN-BEGIN
UPD:GEN-COMMIT
UPD:GEN-CONTINUE
UPD:GEN-END
UPD:GEN-ENTER
UPD:GEN-PROCEED
UPD:GEN-RESTORE
UPD:GEN-SMBKOUT
UPD:GEN-SMSWITCH
UPD:GEN-SWITCHBK
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-105-24x *Software Release Retrofit*
235-105-34x *Software Release Update*
235-105-44x *Large Terminal Growth*

MCC Display Page(s):

116 (MISCELLANEOUS)
124 (RETROFIT)

UPD:GEN-TSM

Software Release: 5E10 and later
Message Class: GENR
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      UPD GEN TSM  COMPLETED

[2]   ____________________________________________________________
      UPD GEN TSM  FAILED

[3]   ____________________________________________________________
      UPD GEN TSM  IN PROGRESS a TRUNK(S) LOGGED

[4]   ____________________________________________________________
      UPD GEN TSM  STATUS REPORT  NSEGS b

[5]   ____________________________________________________________
      UPD GEN TSM  STATUS REPORT  SEGMENT c d
       [e         [DEN g h i j]   f [f] [f] [f]]
       [e         [LTP g a1]      f [f] [f] [f]]
       [e         [RAF g k l]  f [f] [f] [f]]
       [e         [SLEN g m n o]  f [f] [f] [f]]
       [e         [TEN g p q r s] f [f] [f] [f]]

[6]   ____________________________________________________________
      UPD GEN TSM  STOPPED WITH ERROR CODE t
        u

[7]   ____________________________________________________________
      UPD GEN TSM  {OOS | CADN} SUMMARY  v MISMATCHES DETECTED

[8]   ____________________________________________________________
      UPD GEN TSM  w TRUNKS TO BE REMOVED FROM SERVICE
```

2. REASON FOR OUTPUT

To report the result of executing a UPD:G-TSM input message.

A report will be output if necessary. The report, if long, will be broken into segments as described by Format 5. The end of the list and termination report is indicated by a trailer message described in Format 4.

Format 1 indicates that reports that the trunk status mapping (TSM) command has completed successfully.

Format 2 indicates that reports that the TSM command has failed.

Format 3 indicates that reports that the TSM command is in progress and has logged/not logged trunks.

Format 4 indicates that reports that the TSM report has completed.

Format 5 indicates that prints the TSM status report.

Format 6 indicates that reports that the TSM command has stopped with an error.

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Format 7 indicates that reports the number of out-of-service (OOS) or circuit administration (CADN) mismatches detected.

Format 8 indicates that reports the number of OOS trunks to be removed from service.

3. VARIABLE FIELD DEFINITIONS

`DEN` = The digital equipment number (DEN) of a digital trunk, if available.

`DSLG` = The digital subscriber line (DSL) group (DSLG).

`LTP` = Logical test port.

`RAF` = Recorded announcement function equipment number associated with the announcement port.

`SLEN` = *SLC*® line equipment number (SLEN), if available.

`TEN` = The trunk equipment number (TEN) of an analog trunk.

`TKGMN` = Trunk group and member number for a port if available.

`a` = Number of trunk records logged in the appropriate TSM log file.

`b` = Total number of segments in the status report.

`c` = Segment number of status report.

`d` = Status of report. Valid value(s):

- `STARTED` = Indicates the first segment in the list. This does not necessarily imply that additional segments will be required. The list will be terminated by an 'end-of-list' message.
- `CONTINUED` = Second and subsequent segments of a list too long to be printed in a single segment.

`e` = Valid value(s):

```
DSLG g z
TKGMN x y
```

`f` = The primary status for the trunk. This is the most restrictive status currently on the port. Refer to the APP:PORT-STATUS appendix in the Appendixes section of the Output Messages manual for a detailed explanation of the status.

`g` = SM number.

`h` = Digital line and trunk unit (DLTU) number.

`i` = Digital facility interface (DFI) number.

`j` = DFI channel number.

`k` = RAF unit number.

`l` = RAF announcement channel number.

m = Digital carrier line unit number.

n = Remote terminal number.

o = Remote terminal line number.

p = Trunk unit number.

q = Service group number.

r = Channel board number.

s = Channel circuit number.

t = Exit code number with which TSM failed. Consult the appropriate software release transition procedures. Refer to the REFERENCES section of this manual page for more information.

u = Exit code definition that caused the TSM process to stop. Consult the appropriate software release transition procedures. Refer to the REFERENCES section of this manual page for more information.

v = Number of trunk mismatches detected. For the OOS summary, this indicates the number of trunks which were OOS on the old software release but are in-service on the new software release. For the CADN summary, this indicates the number of trunks which are OOS CADN on the new software release but were in-service on the old software release.

w = Number of trunks which will be taken OOS.

x = Trunk group number.

y = Trunk member number.

z = Channel group number.

a[1] = Logical test port number.

4. ACTION TO BE TAKEN

Comply with instructions given in Software Release Retrofit for the appropriate software release. User execution errors can be corrected by following the software release transition procedures used for execution of the message. If any other errors occur, check the Recovery section in Software Release Retrofit for the appropriate software release and perform the actions for the given error code.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:G-READLOG
STOP:GEN
UPD:G-APPLPROC
```

```
UPD:G-BACKOUT
UPD:G-BEGIN
UPD:G-COMMIT
UPD:G-CONTINUE
UPD:G-END
UPD:G-ENTER
UPD:G-PROCEED
UPD:G-RESTORE
UPD:G-SMBKOUT
UPD:G-SMSWITCH
UPD:G-SWITCHBCK
UPD:G-SWITCHFWD
UPD:G-TSM
```

Output Message(s):

```
OP:GEN-READLOG
STOP:GEN
UPD:GEN-APPL
UPD:GEN-BACKOUT
UPD:GEN-COMMIT
UPD:GEN-CONTINUE
UPD:GEN-END
UPD:GEN-ENTER
UPD:GEN-PROCEED
UPD:GEN-RESTORE
UPD:GEN-SMBKOUT
UPD:GEN-SMSWITCH
UPD:GEN-SWITCHBK
UPD:GEN-SWITCHFW
UPD:GEN-TSM
```

Output Appendix(es):

```
APP:PORT-STATUS
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-105-24x *Software Release Retrofit*
235-105-34x *Software Release Update*
235-105-44x *Large Terminal Growth*

MCC Display Page(s):

124 (RETROFIT)

UPD:GENPCC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
UPD GENPCC a [b]
```

2. REASON FOR OUTPUT

To report errors that occurred during the UPgenpcc process.

3. VARIABLE FIELD DEFINITIONS

`a` = Text string describing error. Valid value(s):

```
CALLOC SYSTEM CALL FAILED
COULD NOT UN-BLOCK FILESYS AUDITS
CUD READ/OPEN FAILED
EXEC SYSTEM CALL FAILED
FAILED ON CLOSE OF /etc/.pfstat
FAILED ON READ OF /etc/.pfstat
FAILED ON SEEK OF /etc/.pfstat
FAILED ON WRITE OF /etc/.pfstat
FAILED TO INHIBIT FILESYS AUDITS
FAILED TO OPEN/CREATE /etc/.pfstat
FAILED TO SEND A MESSAGE
FORK SYSTEM CALL FAILED
HISTORY FILE READ/OPEN FAILED
INTERNAL STATE ERROR
INVALID BWMNAME REQUESTED
INVALID MESSAGE FROM UCNTL
OILD CHILD TERMINATED ABNORMALLY
RECEIVED UNIX SIGNAL
```

`b` = Additional data, for example an errno or pathname.

4. ACTION TO BE TAKEN

The specific action required depends on the type of error that occurred. In the case of `INVALID MESSAGE FROM UCNTL`, re-enter the 9330 poke on MCC Display Page 1960 to make official. If any other error conditions are printed or if the before mentioned procedures do not correct the situation, obtain technical assistance.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:BKOUT
UPD:OFC
UPD:RCVRY
```

Output Message(s):

```
UPD:BKOUT
UPD:RCVRY
UPD:SYSERR
UPD:USRERR
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 (BWM MAINTENANCE)
1960 (BWM INSTALLATION)

UPD:HSCHK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

[1]
```
UPD HSCHK REPORT IN PROGRESS
  TARGET        - a
  TEXT FILE     - b
  HASH SUM FILE - b
  DISK HASH SUM MISMATCH FOUND:
  TEXT VADDR   = d          HASH VADDR   = d
  TEXT PADDR   = d          HASH PADDR   = d
  TEXT SECTION = f          HASH SECTION = f
  CALCULATED                STORED
  HASH VALUE   = e          HASH VALUE   = e
  [THERE WERE l ADDRESS RANGES WHERE MISMATCHES OCCURRED.]
  [USE THE 'OUTFILE' OPTION FOR A COMPLETE LIST OF ERRORS]
```

[2]
```
UPD HSCHK REPORT IN PROGRESS
  TARGET        - a
  TEXT FILE     - b
  HASH SUM FILE - b
  DISK TO CORE HASH SUM MISMATCH:
  TEXT VADDR   = d          HASH VADDR   = d
  TEXT PADDR   = d          HASH PADDR   = d
  TEXT SMPADDR = d          HASH SMPADDR = d
  CALCULATED HASH VALUES    STORED HASH VALUES
  DISK   = e                DISK   = e
  INCORE = e                INCORE = e
  TEXT FILE SECTION - f
  HASH FILE SECTION - f
  TEXT MISMATCH ADDR RANGE: g - h
  [NOTE: HASH SUMS MISMATCH ONLY - NO TEXT MISMATCH]
  [DISK:  i        i        i        i        i ]
  [CORE:  j        j        j        j        j ]
  AFFECTED SM/CMP(S):
  k
  [THERE WERE l ADDRESS RANGES WHERE MISMATCHES OCCURRED.]
  [USE THE 'OUTFILE' OPTION FOR A COMPLETE LIST OF ERRORS]
```

[3]
```
UPD HSCHK SUMMARY IN PROGRESS
  TARGET        - a
  TEXT FILE     - b
  HASH SUM FILE - b
  HASH SUM MISMATCHES WERE FOUND IN THE FOLLOWING PROCESSOR(S):
  k
```

[4]

```
        UPD HSCHK m

[5]     ____________________________________________________________________
        UPD HSCHK USRERR n

[6]     ____________________________________________________________________
        UPD HSCHK SYSERR o
```

2. REASON FOR OUTPUT

To report the status of hash sum checking in response to a UPD:HSCHK input message or in response to a routine hash sum verification.

Format 1 is printed to report a hash sum mismatch between the disk text image and the disk hash sum image. The comparison with core memory is not done if an error is found in the disk image. A maximum of five errors per target is printed in an output message of this type.

Format 2 is printed to report a hash sum mismatch between the disk hash sum file and the hash sums that are stored in core memory. Each output message of this type contains only one error due to the amount of data. A maximum of five error messages of this type are printed per target.

Format 3 is printed only if the UPD:HSCHK is entered with the REPT option and there were errors found from a previous run of the hash sum check. If UPD:HSCHK is run with the report option it DOES NOT DO HASH SUM CHECKING. It only reports on the status of the last run of the hash sum check.

Format 4 is printed to report status or provide additional information for the hash sum check.

Format 5 is printed to report an error in the use of the hash sum check. This is usually due to incorrect data being specified on the command line.

Format 6 is printed to report an error that occurred while the hash sum audit was running that is attributed to internal or system problems.

3. VARIABLE FIELD DEFINITIONS

a	= Target that the hash sum checking was done on. Valid value(s):	
	CMP	= Communication module processor.
	DDMA	= Diagnostic direct memory access.
	DNUSCC	= Digital networking unit - synchronous optical network (SONET) (DNU-S) common control.
	DNUSTMX	= Transmission multiplexer image.
	DSC3	= Digital service circuit - model 3 diagnostic image.
	GDSF	= Global digital services function - model 3.
	HDSU	= Hardware digital service unit.
	HSAS	= Service announcement system diagnostic image.
	IDCUCCP	= Integrated digital carrier unit (IDCU) common control processor.
	IDCUDLP	= IDCU data link processor.
	IDCULSI	= IDCU loop side interface.
	IP4I	= Operational input/output processor image for PH4 ISDN.
	ISLU	= Integrated services line unit.
	ISLU2	= Integrated services line unit 2.
	ISTF	= Integrated services test function.
	LDSF	= Local digital services function - model 3.
	LDSU	= Local digital service unit.

MSGH	= Communication module processor message handler.
ODMA	= Operational direct memory access processor image for PH2.
OIOP	= Operational input/output processor image for PH3.
PH2A	= Protocol handler 2 (PH2) with ACCESS application processor image.
PH2G	= PH2 with GATEWAY application processor image.
PH3C	= PH3 with COMMON application processor image.
PH4I	= PH4 with integrated services digital network (ISDN) application processor image.
RAF	= Recorded announcement function.
SAS	= Service announcement system operational image.
SM	= Switching module.
SM2K	= Switching module 2000.
SMPMH	= Switching module processor (SMP) message handler (MH) operational image.
SMPMHLB	= Switching module processor (SMP) message handler (MH) little boot (LB) image.

b = Full switch path name to a targets text image or hash sum image.

c = Number of errors to be printed in the table below. If more than five errors were found, only the first five errors are printed in the table and the message "`USE 'OUTFILE' OPTION FOR A COMPLETE LIST`" is printed.

d = A 4 byte address value whose meaning is indicated by the corresponding label or column header.

e = A 2 byte hash sum value whose meaning is indicated by the corresponding label or column header.

f = A COFF section name associated with the mismatch being printed.

g = The starting disk physical address where the mismatch occurred.

h = The ending address of the mismatch. If the mismatch overlaps a 2048 memory block boundary, then the ending address will be the ending address of the mismatched block. If the error continues into the next block, it will show up as the next error with a starting address of the next 2048 byte block.

i = Up to five words from the disk text file starting at the mismatch address.

j = Up to five words from core memory starting at the mismatch address.

k = SM/CMP number.

l = The number of hash sum mismatches or hash sum errors that were found.

m = A text string providing hash sum check status. Valid value(s):

```
ABORTING. TOO MANY PRODUCTS WITH HASH SUM MISMATCHES
BEGINNING
COMPLETED WITH ERRORS
INCORE HASH SUM CHECKING FOR a WAS SKIPPED DUE TO FIELD UPDATE ACTIVITY
IN THE OFFICE
INCORE HASH SUM CHECKING SKIPPED FOR a. CMP IS IN AN OFFNORMAL STATE -
p
INCORE HASH SUM CHECKING TERMINATED FOR a BECAUSE OF A CMP SOFTSWITCH
INCORE HASH SUM CHECKING WAS NOT PERFORMED ON a BECAUSE ALL EQUIPPED
SM(s) ARE NOT AVAILABLE
```

```
INCORE HASH SUM CHECKING WAS NOT PERFORMED ON a BECAUSE SM = k IS NOT
AVAILABLE
INCORE HASH SUM CHECKING WAS NOT PERFORMED BECAUSE ALL EQUIPPED CMPS
ARE NOT AVAILABLE
IN PROGRESS. CHECKING a
NO CORE IMAGE FOR a
```

n = A text string describing the user error. Valid value(s):

```
CMP = k NOT FOUND IN THE OFFICE
DUMP LENGTH MUST BE SPECIFIED
FAILED TO CREATE q WITH ERRNO = r
FAILED TO TRANSMIT DATA TO a. ERROR CODE - p
FULL PATHNAME TO OUTPUT FILE MUST BE SPECIFIED
INCORE HASH SUM CHECKING TERMINATED FOR a BECAUSE OF A CMP SOFTSWITCH
INVALID CMP NUMBER = k
INVALID SM NUMBER = k
INVALID TARGET = a
MESSAGE PORT IS BUSY, PID = s. THIS MAY BE CAUSED BY AN IN PROGRESS
UPD:DUMPCORE OR UPD:HSCHK. PLEASE RETRY LATER.
MUST SPECIFY 'ALL', TARGET, SMP/CMP NUMBER, OR FN AND DF
OUTPUT FILE MUST BE SPECIFIED
REQUESTED OUTPUT FILE ALREADY EXISTS
SM/CMP NUMBER MUST BE SPECIFIED
SWITCH MODULE = k NOT FOUND IN THE OFFICE
TARGET OR SMP/CMP NUMBER CANNOT BE USED WITH 'ALL'
TARGET, OR SMP/CMP NUMBER, OR 'ALL' CANNOT BE USED WITH THE FILE NAME
OPTION
THE FILE NAME AND THE DEPENDENT FILE MUST BOTH BE SPECIFIED
```

o = A text string describing the system error. Valid value(s):

```
ADDRESS d OUT OF RANGE FOR a
ADDRESS RANGE ERROR - d
COFF ERROR IN b. SECTIONS NOT ALIGNED ON 2K BOUNDARY
FAILED TO ALLOCATE MEMORY
FAILED TO CALCULATE HASH FROM d TO d
FAILED TO CONNECT TO MESSAGE PORT - r
FAILED TO DETERMINE DEPENDENT FILE NAME FOR b
FAILED TO ENABLE MESSAGE RECEPTION - r
FAILED TO FIND ADDRESS = d IN b
FAILED TO FIND HASH SUM SECTION = f
FAILED TO FIND SECTION - f IN b
FAILED TO FIND SECTION - f IN DEPENDENT FILE
FAILED TO LSEEK t BYTES IN b WITH ERRNO = r
FAILED TO LSEEK FOR b WITH ERRNO = r
FAILED TO LSEEK PAST OPTIONAL HEADER IN b WITH ERRNO = r
FAILED TO LSEEK WITH ERRNO = r
FAILED TO OPEN q FOR APPENDING
FAILED TO OPEN b FOR READING WITH ERRNO = r
FAILED TO OPEN b WITH ERRNO = r
FAILED TO OPEN OSDS MESSAGE PORT - p
FAILED TO READ t BYTES FROM b, ONLY READ t BYTES
FAILED TO READ b WITH ERRNO = r
```

```
FAILED TO READ CMP SOFT SWITCH DD KEY
FAILED TO READ FILE HEADER OF b WITH ERRNO = r
FAILED TO STAT b WITH ERRNO = r
FAILED TO TRANSLATE HASH MEMORY ADDRESS
FAILED TO TRANSLATE TEXT MEMORY ADDRESS
HASH SECTION SIZE ERROR - d - t
HSCHK SM/CMP SYSTEM PROCESS ERROR
INTERNAL ADDRESSING ERROR
INTERNAL DATA STORAGE ERROR
INTERNAL ERROR. FAILED TO GENERATE TARGET LIST
INTERNAL ERROR: BAD HASH SUM ADDRESS - d
INTERNAL ERROR: NULL TEXT FILE NAME
INTERNAL ERROR: PATH NAME IS TOO LONG - b
INTERNAL ERROR: UNKNOWN RETURN FROM flcupth()
INTERNAL ERROR: UNKNOWN SECTION = f
INTERNAL HASH SUM ERROR
INVALID HASH SUM ADDRESS - d
INVALID TARGET SPECIFIED
RECEIVED SIGNAL p
TARGET NAME - a IS TO LONG
UNKNOWN OUTPUT MESSAGE TYPE - p
VIRTUAL TO PHYSICAL ADDRESS CONVERSION FAILED FOR b, ADDR = d
```

`p` = Failure code.

`q` = The output file name.

`r` = The error number that the *UNIX*® system call failed with. Refer to the APP:SYSERR appendix for an explanation of the error codes.

`s` = The process ID.

`t` = The number of bytes.

4. ACTION TO BE TAKEN

Hash sum verification is scheduled to run routinely or it can be run manually in response to an input message. In either case, if an error is detected, corrective action should be taken immediately to prevent potential service impacting problems. Detailed procedures for correcting hash sum error problems are given in the Corrective Maintenance Manual. However, these should only be performed by trained and qualified personnel.

5. ALARMS

If the hash sum check finds errors, maintenance personnel will be notified by the above messages on the ROP. If a hash sum error was found in either the disk image, or in the comparison of disk hash sums with the incore hash sums, then a major alarm will be set and the SM/CMP FILE indicator on MCC Display Page 116 will be changed from NORMAL to HASHERR. In addition, if there is a mismatch between disk and core memory, MCC Display Pages 1800 and 141-144 will show a D/C HASH status.

The only way to clear the off-normal indicator on MCC Display Page 116 is run the check with the 'ALL' option and not find any errors.

6. REFERENCES

Input Message(s):

```
UPD:HSCHK
```

Output Appendix(es):

```
APP:SYSERR
```

Other Manual(s):
235-105-220 *Corrective Maintenance*

MCC Display Page(s):

116 (MISCELLANEOUS)
141-144 (SM 1 THROUGH SM 192 STATUS)
1800 (SM X INHIBIT AND RECOVERY CONTROL)

UPD:INFO

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

[1]
```
UPD INFO: RUNNING FILE SYSTEM AUDITS ON a TO INCREASE
  CONTIGUOUS SPACE.  PASS NUMBER - b
```

[2]
```
UPD INFO: THE c AUDIT TIMED OUT FOR a.  UPDATE CONTINUES....
```

[3]
```
UPD INFO: THE c AUDIT WAS NOT RUN ON a BECAUSE IT IS
 {BLOCKED|INHIBITED}
```

[4]
```
UPD INFO: THE c AUDIT WAS NOT RUN ON a BECAUSE IT WAS
  ALREADY RUNNING
```

[5]
```
UPD INFO: PROGRAM UDPATE DETECTING AM INITIALIZATION
```

[6]
```
UPD INFO: PROGRAM UPDATE WAITING FOR MOUNTING
```

[7]
```
UPD INFO: TEMPORARY AM UPDATES ARE RECORDED AS INCONSISTENT
```

[8]
```
UPD INFO: CANNOT REMOVE TEMPORARY FILE d
```

[9]
```
UPD INFO: FILE PARTITION WITH FILE d IS NOT MOUNTED READ/WRITE
```

[10]
```
UPD INFO: CUD/HISTORY FILE MODIFICATION COMPLETED
```

[11]
```
UPD INFO: SOFTWARE UPDATE IS BUILDING FILES NECESSARY FOR THE OFFICIAL
  SECTION.  PLEASE BE PATIENT.
```

[12]
```
UPD INFO: REALLOWING c AUDIT
```

[13]
```
UPD INFO: UPDATE WAS ON DISK ONLY, NO PROCESS INSTANCE OF d EXISTS
```

[14]
```
UPD INFO: PROCESS PID=e DIED DURING f
```

[15]
```
UPD INFO: NO PROCESS FOUND WITH UTILITY ID=g
```

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```
[16]  ____________________________________________________________________
      UPD INFO: EXECUTE ALL STOPPED

[17]  ____________________________________________________________________
      UPD INFO: EASY BWM {CHANGING|ZEROING} SOAK TIMER

[18]  ____________________________________________________________________
      UPD INFO OFFLINE PUMP FOR SM=h IN PROGRESS

[19]  ____________________________________________________________________
      UPD INFO: UPD REDUCE IS BUILDING NEW SOFTWARE
        UPDATE DATA BASE PLEASE BE PATIENT

[20]  ____________________________________________________________________
      UPD INFO: EXECUTE UPD:INIT:EMULATOR TO {ACTIVATE|DEACTIVATE} UPDATE

[21]  ____________________________________________________________________
      UPD INFO: DIR SW FAILED.  MOST LIKELY FAILURE REASON IS A UNIX
        SESSION WITH USER LOCATED IN /no5text/im DIRECTORY.  PLEASE
        MOVE OFF /no5text/im DIRECTORY.  ATTEMPTING SWITCH AGAIN.
```

2. REASON FOR OUTPUT

To report that file system audits are being scheduled or that a problem was encountered while running the file system audits. This message also gives miscellaneous information during abnormal events which are not error conditions.

Format 1 indicates that a file system audit is being run on the file system indicated by `a`.

Format 2 indicates that the audit indicated by `c` has timed out. The file system is indicated by `a`.

Format 3 indicates that the audit indicated by `c` failed to run on the file system indicated by `a` because the file system is blocked or inhibited.

Format 4 indicates that the audit indicated by `c` failed to run on the file system indicated by `a` because it was already running.

Format 5 through 10 indicate audit instances that occur during an administration module (AM) reboot.

Format 11 indicates that files needed for the official section of the software update process are being built. The official section will begin as soon as the files have completed.

Format 13 indicates that an AM killable process whose disk image path is `d` was not running.

Format 14 indicates that an AM killable process whose process identifier (PID) was `e` died while being updated in stage `f`. This is not an error because any new invocations will be loaded with the updated image.

Format 15 indicates that the process checker called during memory reclamation found no AM process with utility ID of `g`. This means that the update will be to disk only.

Format 16 indicates that the software update application process has been manually stopped.

Format 17 indicates that the soak timer has been changed using Easy BWM. The new soak timer information will be printed immediately after this message prints.

Format 18 indicates that the offline pump is in progress.

Format 19 indicates that new current update database (CUD) and history files are being created as a result of a UPD:REDUCE input message. This can take several minutes if the existing CUD and history files are large.

Format 20 indicates that a request to initialize the administrative workstation is needed to activate or deactivate an update. This message will be printed following the apply or backout of an EMULATOR type update.

Format 21 indicates one possible corrective action for a failed directory switch attempt. This message is preceded by a REPT:FMGR-DIR message. The *UNIX*® file manager will report that a file system's inode is busy when a user is located on that file system's mount point. The most likely cause of this message is due to a user who has changed directory to the /no5text/im directory. The user can correct this problem, within a certain window, by executing a change directory command to move off the directory.

3. VARIABLE FIELD DEFINITIONS

`a` = Name of file system.

`b` = Number of passes.

`c` = Type of file system audit. Valid value(s):

```
FSCMPT        = File system compaction.
FSLINK
```

`d` = File path name.

`e` = Process ID.

`f` = Various update scenarios: Valid value(s):

```
APPLY
BACKOUT
BACKOUT LAST OFFICIAL
RECLAIM
```

`g` = Unique utility ID identifier.

`h` = Switching module (SM) number.

4. ACTION TO BE TAKEN

These messages will not cause the process running to abort.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:PRINT-SKTM
UPD:REDUCE
```

Output Message(s):

```
REPT:FMGR-DIR
UPD:PRINT-SOAK
UPD:REDUCE
UPD:SYSERR
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 (PROGRAM UPDATE MAINTENANCE)
1960 (PROGRAM UPDATE INSTALLATION)

UPD:INITPW

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

[1]
```
UPD INITPW {COMPLETED|ABORTED}
```

[2]
```
UPD INITPW ERROR a
```

2. REASON FOR OUTPUT

To report the progress of the UPD:INITPW input message.

Format 1 indicates when the UPD:INITPW has completed or aborted.

Format 2 indicates the reason that the UPD:INITPW aborted.

3. VARIABLE FIELD DEFINITIONS

a = The cause of failure. Valid value(s):

```
A NEW KEY REQUIRES A NEW PASSWORD
FIRST INITIALIZATION REQUIRES A KEY
IN UPDATING PASSWORD FILE
INVALID CHAR IN KEY b
INVALID CHAR IN PASSWORD b
INVALID KEY LENGTH
INVALID NUMBER FOR LOGIN ATTEMPTS
INVALID OPTION
INVALID PASSWORD LENGTH
MUST SPECIFY AT LEAST ONE PARAMETER
PASSWORD REQUIRES AT LEAST 2 ALPHA AND 1 SPECIAL CHAR
```

b = The invalid character in the key or password.

4. ACTION TO BE TAKEN

If Format 1 prints `ABORTED`, refer to `a` to determine the cause of the failure. To continue the password initialization procedure, enter the UPD:INITPW input message.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

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```
UPD:INITPW
UPD:CSCANS-REPT
```

Output Message(s):

```
UPD:CSCANS-REPT
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 (PROGRAM UPDATE MAINTENANCE)
1960 (PROGRAM UPDATE INSTALLATION)

UPD:INTERNAL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
UPD INTERNAL ERROR a
```

2. REASON FOR OUTPUT

To specify internal errors that occurred as a result of performing a field update activity.

3. VARIABLE FIELD DEFINITIONS

a = Text string describing error: Valid value(s):

```
BAD CMP CONFIGURATION TYPE
BAD DSU2 TARGET TYPE
BAD TARGET TYPE
BAD TEMPLATE NAME
BAD TYPE
BAD TYPE ARGUMENT
BAD UPDATE TRANSACTION REQUEST
BAD UPDATE TYPE
BAD UPDATE TYPE FOR BACKOUT
MORE THAN ONE INVOCATION OF UCNTL
MORE THAN ONE INVOCATION OF UPPMPSTOP
PMPSTOP TIMED OUT BEFORE PMPPERF TERMINATION
PUMPBWM/PUMPOFC CALLED WITH TYPE:b
UNABLE TO CONNECT TO PT_PMPPERF
UNKNOWN RECOVERY TYPE
```

b = Additional data provided by the UPD:PUMPBWM or UPD:PUMPOFC input message.

4. ACTION TO BE TAKEN

The specific action required depends on the type of error that occurs. If more than one invocation of ucntl, UPpmpstop and PMPSTOP timed out before PMPPERF termination, there could have been process restrictions. In these cases, the input message can be re-entered immediately. Otherwise, obtain technical assistance.

5. ALARMS

None

6. REFERENCES

Input Message(s):

```
UPD:BKOUT
UPD:DISPLAY
UPD:PUMPBWM
```

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```
UPD:PUMPOFC
UPD:RCVRY
UPD:UPNAME
```

Output Message(s):

```
UPD:APPLY
UPD:BKOUT
UPD:DISPLAY
UPD:SYSERR
UPD:USRERR
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 (BWM MAINTENANCE)
1960 (BWM INSTALLATION)

UPD:ISG

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
UPD ISG a [b [c|d]] [e]
```

2. REASON FOR OUTPUT

To report any errors encountered in an invocation of incremental system generation (SGEN), and to report the amount of memory needed to boot from the new boot load.

3. VARIABLE FIELD DEFINITIONS

`a` = One of the following descriptions of any unexpected events during processing. Valid value(s):

```
bf_fchk: cannot open file 'b'.
bf_fchk: file 'b' is not a single extent contiguous file.
bf_init: cannot open output file 'b'.
bf_init: output file 'b' does not have exactly 'c' blocks.
bf_write: insufficient space on output file to build system.
bh_put: write failed.
bt_ovrwrt: unable to open output file 'b'.
bt_ovrwrt: unable to overwrite bootab.
bt_ovrwrt: unable to write to file 'b'.
bt_pr_seg: too many segments in boot image.
db_getdev: invalid device type.
db_getlevl: invalid level index.
db_getpth: failed to read sgen2 record.
db_getpth: failed to read sgen3 record.
db_getpth: invalid boot constituent.
db_init: failed to attach to database.
db_init: failed to read header record.
db_init: failed to read sgen1 record.
db_nextbp: failed to read sequence record.
db_opnothr: failed to open process sequence.
db_parm: invalid parameter type.
db_pnum: no available process numbers.
db_shares: could not open shares.
db_shares: failed to read record.
isgen completed: additional boot time data in ECD form 'btparm'.
kpcb_frsn: exceeded maximum number of pfile segments.
kpcb_put: write failed.
kpcb_seglist: segment in 'b' is marked common, but csize is zero.
pf_cpyseg: write failed.
pf_csize:  invalid request.
pf_csize: can't find kboot data.
pf_csize: can't find kboot text.
pf_csize: can't find kernel bss.
pf_csize: can't find kernel data.
pf_csize: can't find kernel text.
pf_csize: can't find tv.
```

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```
pf_fill: write failed.
pf_flags: invalid magic number.
pf_flags: pfile 'b' has more than one share segment.
pf_flags: pfile 'b' has share segment, but not declared as a child.
pf_fndshdr: seek failed.
pf_fsize: can't find data of a.out.
pf_fsize: can't find kernel data.
pf_fsize: can't find kernel text.
pf_fsize: can't find text of a.out.
pf_fsize: can't find tv.
pf_fsize: invalid request.
pf_fstart: can't find data.
pf_fstart: can't find kernel data.
pf_fstart: can't find kernel text.
pf_fstart: can't find text.
pf_fstart: can't find tv.
pf_fstart: invalid request.
pf_getfile: bad magic.
pf_getfile: file 'b' must be 3bswabbed.
pf_getfile: pfile has invalid magic number.
pf_getndx: invalid pfile.
pf_getndx: invalid request.
pf_offset: invalid request.
pf_open: could not find the file 'b'.
pf_segclass: segment 'd' of process 'b' has fsize !=0; csize=0.
pf_segclass: segment 'd' of process 'b' has fsize=csize=0.
pf_segclass: segment 'd' of process 'b' is marked common but core size
= 0.
pf_sgflags: invalid pfile request.
pf_sgflags: invalid request.
reason for error found at beginning of output file /tmp/isgdump.
sgen: size of boot image is 'e' pages.
spcb_firstsn: exceeded maximum number of pfile segments.
spcb_put: write failed.
spcb_seglist: access of child lowered.
spcb_seglist: segment in 'b' is marked common, but csize is zero.
va_putpgt: write failed.
va_putsgt: write failed.
va_resume: out of room in kboot's address space.
va_setseg: segment already in use.
```

`b` = Name of file.

`c` = Number of blocks the file should have.

`d` = Segment number.

`e` = Number of pages.

4. ACTION TO BE TAKEN

A successful run will print a message stating the amount of memory needed to boot the system. Ensure that the system is configured with this amount.

5. ALARMS

None.

6. REFERENCES

IM/OM References:

None.

UPD:OFC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      UPD OFC UPNM a
        FN b FINISHED

[2]   ____________________________________________________________
      UPD OFC CONTINUES

[3]   ____________________________________________________________
      UPD OFC UPNM a
        FN b
        DF c FINISHED

[4]   ____________________________________________________________
      UPD OFC {COMPLETED|ABORTED}

[5]   ____________________________________________________________
      UPD OFC BWM = a OFFICIAL SECTION COMPLETED
```

2. REASON FOR OUTPUT

To report progression of the UPD:OFC input message.

Format 1 indicates the "make official" section has completed for the software update indicated in '`a`' for the file name indicated in '`b`'.

Format 2 indicates that there are more files being made official and update (UPD) official (OFC) is in progress.

Format 3 indicates the OFC has completed for the software update indicated in '`a`' for the file name indicated in '`b`' and the dependent file name indicated in '`c`'.

Format 4 indicates that the UPD:OFC process has completed or aborted for an update.

Format 5 indicates that the entire UPD:OFC section has completed.

3. VARIABLE FIELD DEFINITIONS

`a` = Software update name.

`b` = File path.

`c` = Dependent file path. Valid value(s):

`ABORTED`	= Requested action was terminated before completion and the termination was immediate.
`COMPLETED`	= Request has successfully completed.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:OFC
```

Output Message(s):

```
UPD:SYSERR
UPD:USRERR
```

MCC Display Page(s):

1950 (BWM MAINTENANCE)
1960 (BWM INSTALLATION)

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UPD:OMDB

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      UPD OMDB COMPLETED FOR THE FOLLOWING KEYS:
        a

[2]   ____________________________________________________________________
      UPD OMDB NO DATABASE ENTRY FOUND FOR
        THE FOLLOWING KEYS:
          b

[3]   ____________________________________________________________________
      UPD OMDB FAILED
        UNABLE TO ACCESS /cft/spl/omdb

[4]   ____________________________________________________________________
      UPD OMDB COMPLETED

[5]   ____________________________________________________________________
      UPD OMDB CANNOT OPEN OR CREATE LOGFILE
        UPDATE NOT LOGGED

[6]   ____________________________________________________________________
      UPD OMDB ABORTED
        UNABLE TO SEND REQUEST TO CSOP

[7]   ____________________________________________________________________
      UPD OMDB NOT STARTED
        CONFLICT WITH CURRENT SYSTEM STATUS c
```

2. REASON FOR OUTPUT

To report the result of executing a UPD:OMDB input message.

3. VARIABLE FIELD DEFINITIONS

a = List of message keys for which the UPD:OMDB completed successfully.

b = List of message keys for which the UPD:OMDB failed.

c = Further explanation of error. Valid value(s):

```
INVALID ALARM
INVALID KEY
INVALID MSGCLS
SYNTAX ERROR
TOO MANY KEYS
```

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4. ACTION TO BE TAKEN

For Format 2, verify that the key(s) was entered correctly.

For Format 3, determine if the disk is available. If the disk is available, verify the status of the OMDB disk file by using the OP:ST-LISTDIR input message for /cft/spl/omdb.

Format 5 indicates a possible file system problem, such as lack of available disk space. The update being processed is not saved in the OMDB logfile (/cft/spl/OMDB_LOG).

For Format 6, verify that the coordinator of spooler output process (CSOP) is running.

For Format 7, verify that the input message was entered correctly.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	4
2	3
4	5
5	9
6	118

Input Message(s):

```
ACTV:OMDB
APPLY:OMDB
OP:OMDB
OP:ST-LISTDIR
UPD:OMDB
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

UPD:PMPPERF

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

WARNING: INAPPROPRIATE USE OF THIS MESSAGE MAY INTERRUPT OR DEGRADE SERVICE. READ PURPOSE CAREFULLY.

1. FORMAT

```
[1]   ____________________________________________________________
      UPD PMPPERF a

[2]   ____________________________________________________________
      UPD PMPPERF - ALL PERIPHERALS ARE UPDATED FOR UPNM=b

[3]   ____________________________________________________________
      UPD PMPPERF - ALL PERIPHERALS REQUIRING REMOVE/RESTORE AFTER UPD:OFC
        FOR UPNM=b ARE UPDATED

[4]   ____________________________________________________________
      UPD PMPPERF - ALL PERIPHERALS REQUIRING THE c IMAGE ARE UPDATED

[5]   ____________________________________________________________
      UPD PMPPERF - CONSISTENCY CHECK OF FAILING TARGETS FOLLOWS

[6]   ____________________________________________________________
      UPD PMPPERF - FAILURES DETECTED BUT CONTINUING FOR OTHER TARGETS

[7]   ____________________________________________________________
      UPD PMPPERF - LIST OF INCONSISTENCIES FOR FAILING TARGETS

[8]   ____________________________________________________________
      UPD PMPPERF - LIST OF SWITCHING MODULES STILL IN PROGRESS:
                      d...

[9]   ____________________________________________________________
      UPD PMPPERF - NO INCONSISTENCIES DETECTED FOR FAILING TARGETS,
        CHECK FOR OUT-OF-SERVICE UNITS

[10]  ____________________________________________________________
      UPD PMPPERF - NO PUMPABLE PERIPHERALS IN MSGS FILE FOR UPNM=b

[11]  ____________________________________________________________
      UPD PMPPERF - NO PUMPABLE PERIPHERALS IN MSGS FILE FOR UPNM=b
              REQUIRE REMOVE/RESTORE AFTER UPD:OFC

[12]  ____________________________________________________________
      ----------- UPD PMPPERF OFFNORMAL SM STATUS -----------
                      SM No.  STATUS
                      d       e
      ------------- END OF OFFNORMAL SM STATUS --------------

[13]  ____________________________________________________________
```

```
      UPD PMPPERF - PUMPABLE PERIPHERALS IN MSGS FILE FOR UPNM=b
              c...

[14]  ____________________________________________________________
      UPD PMPPERF - PUMPABLE PERIPHERALS IN MSGS FILE FOR UPNM=b
              WHICH REQUIRE REMOVE/RESTORE AFTER UPD:OFC
              c...

[15]  ____________________________________________________________
      UPD PMPPERF SM d PARTIAL ABORT
      [INCONSISTENT RESIDENT IMAGE FOR THE FOLLOWING TARGET/TARGETS:]
      [FAILURE ENCOUNTERED FOR TARGET/TARGETS:]
      c...   [ON SHELF/SHELVES:]
                 [g]...
      [[PARTIAL] TABLE OF FAILED PERIPHERALS:]
      [h]                  [i]
      TARGETS WHICH ARE STILL IN PROGRESS:
      c...

[16]  ____________________________________________________________
      UPD PMPPERF SM d REQUEST f

[17]  ____________________________________________________________
      UPD PMPPERF SM d REQUEST HALTED
      [INCONSISTENT RESIDENT IMAGE FOR THE FOLLOWING TARGET/TARGETS:]
      [FAILURE ENCOUNTERED FOR TARGET/TARGETS:]
      c...
      [ATTEMPT TO LOCK OPTIONAL DATA REGION FAILED FOR THE FOLLOWING...
        ...TARGET/TARGETS:]
      [c]...
      [[PARTIAL] TABLE OF FAILED PERIPHERALS:]
      [h]                  [i]
      [OTHER TARGETS ABORTED AS A RESULT:]
      [c]...

[18]  ____________________________________________________________
      UPD PMPPERF - STARTING FOR THE j SET OF TARGETS:
              c...

[19]  ____________________________________________________________
      UPD PMPPERF - STARTING IN THE FOLLOWING SWITCHING MODULES:
              d...

[20]  ____________________________________________________________
      UPD PMPPERF - TABLE OF FAILED SWITCHING MODULES:
           SM d - k

[21]  ____________________________________________________________
      UPD PMPPERF WARNING - l
```

2. REASON FOR OUTPUT

To report the status of the UPD:PMPPERF request, in response to a UPD:PMPPERF input message. To report any switching modules or target peripheral units for which the remove/restore attempt failed or was stopped. Switching modules (SMs) that are isolated or out of service are identified, but do not impact the completion status of the

UPD:PMPPERF input message.

Format 1 is printed to report the overall status of the UPD:PMPPERF input message.

Format 2 is printed when the UPNM input option was used and UPD:PMPPERF has successfully completed in all SMs not appearing in the offnormal SM list.

Format 3 is printed when the UPNM and OFC input options were used and UPD:PMPPERF has successfully completed in all SMs not appearing in the offnormal SM list.

Format 4 is printed when the TARGET input option was used and UPD:PMPPERF has successfully completed in all SMs not appearing in the offnormal SM list.

Format 5 is printed when UPD:PMPPERF has completed with one or more failing SMs, and begins to run a consistency check on the failing targets.

Format 6 is printed when the Software Update affects a mix of peripherals as discussed in the Format 18 explanation, and UPD:PMPPERF fails for the first set of peripherals. The fact that the error occurred is printed but UPD:PMPPERF will then proceed on the other set of peripherals.

Format 7 is printed when the list of inconsistencies is printed. Refer to the UPD:VFYCON output manual page for the format of the inconsistency report.

Format 8 is printed every 10 minutes for each iteration of UPD:PMPPERF. Any SMs which are still in progress, or have yet to start UPD:PMPPERF, are listed.

Format 9 is printed when UPD:PMPPERF has failed for one or more SMs but a consistency check detects no inconsistencies. One case where this can happen is when the remove/restore of a peripheral unit fails such that it is left out of service. Therefore use op:cfgstat to look for any out of service units. Another case that can cause this condition is that a failing SM has become off-normal. Use OP:SYSSTAT to detect off-normal SMs.

Format 10 is printed when the UPNM input option was used and the MSGS file in the indicated Software Update package contains no UPD:APPLY input messages for any SM pumpable peripheral targets (refer to variable '`c`'). This does not cause UPD:PMPPERF to fail.

Format 11 is printed when the UPNM and OFC input options were used and the MSGS file in the indicated Software Update package contains no UPD:APPLY input messages for any SM pumpable peripheral targets which require a remove/restore after the UPD:OFC input message. The only targets which require this are ISLU, IDCUCCP, IDCUDLP, IDCULSI, DNUSCC and DNUSTMX. This does not cause UPD:PMPPERF to fail.

Format 12 is printed when the UPD:PMPPERF input message was unable to communicate with the offnormal affected SMs identified in the output.

Format 13 is printed when the UPNM input option was used. The SM pumpable peripheral targets found in the Software Update package are listed.

Format 14 is printed when the UPNM and OFC input options were used. The subset of SM pumpable peripheral targets listed in Format 11 found in the Software Update package are listed.

Format 15 is printed when a failure is detected in an SM but UPD:PMPPERF will continue in that SM. The targets which will still be removed/restored is printed.

If inconsistent resident images are detected for at least one of the UPD:PMPPERF targets, those targets are printed.

If a failure was encountered during the remove/restore of a specific peripheral, that peripheral is printed. Any other

peripherals which will not be removed/restored because of that failure are printed next as 'NOT ATTEMPTED'. If the number of peripherals to be printed exceeds an internal limit (54), the word PARTIAL is printed. It is possible that the target which experienced the failure will still be in progress. This will happen if UPD:PMPPERF will proceed on other units of the target type, or if there are any outstanding remove/restore requests in progress for that target.

In the case of protocol handlers (PHs), the integrated digital carrier unit (IDCU) targets, or digital networking unit - synchronous optical network (SONET) (DNU-S) targets, certain failures for one target can cause other targets to be aborted. Therefore more than one target may be listed as having a failure.

If the failure encountered was the inability to remove a PH, the anticipation is that it was caused by the lack of a spare PH on that PSU shelf. All targets for that PH hardware type are aborted for that PSU shelf. PHs on other packet switch unit (PSU) shelves will still be removed/restored. In this case, the failing shelf numbers are printed.

Format 16 prints the completion status of UPD:PMPPERF in a specific SM.

Format 17 is similar to Format 15, but the failure has cause UPD:PMPPERF to abort in that SM.

If inconsistent resident images are detected for at least one of the UPD:PMPPERF targets, those targets are printed. Some targets are interdependent, so an inconsistent resident image of one type will cause UPD:PMPPERF to abort for other targets. If this happens, the 'OTHER TARGETS ABORTED AS A RESULT' phrase is printed.

If a failure was encountered during the remove/restore of a specific peripheral, that peripheral is printed. Any other peripherals which will not be removed/restored because of that failure are printed next as 'NOT ATTEMPTED'. If the number of peripherals to be printed exceeds an internal limit (54), the word PARTIAL is printed.

In the case of protocol handlers (PHs), the integrated digital carrier unit (IDCU) targets, or digital networking unit - SONET (DNU-S) targets, certain failures for one target can cause other targets to be aborted. Therefore more than one target may be listed as having a failure.

Format 18 is printed when the UPNM input option was used and not all of the targets can be removed/restored together. For most targets, UPD:PMPPERF is run concurrently on all SMs. For the ISTF, RAF, and SAS targets, UPD:PMPPERF is run to completion one SM at a time. This message will print if the software update affects both ISTF and/or RAF as well as some other SM pumpable peripheral target.

Format 19 is printed when the affected SMs are directed to start remove/restores.

Format 20 prints the list of SMs where UPD:PMPPERF failed.

Format 21 prints a warning relating to routine exercise (REX).

3. VARIABLE FIELD DEFINITIONS

CC	= ISLU common controller (CC) number.
DG	= Data group number.
PH	= Protocol handler (PH) number.
SG	= Service group.
SHELF	= Packet switch unit (PSU) shelf number.
SM	= SM number.

UNIT = Unit number.

TMUX = Transmission multiplexer (TMUX) number.

a = Overall UPD:PMPPERF status. Valid value(s):

- ABORTED = UPD:PMPPERF has aborted due to a fatal error. Refer to other UPD:PMPPERF or UPD:SYSERR output messages to determine why.
- COMPLETED = UPD:PMPPERF has completed successfully.
- CONTINUES = This is printed after timing out for an SM if UPD:PMPPERF is still in progress for other SMs.
- STOPPED = UPD:PMPPERF was stopped by the UPD:PMPSTOP input message.

b = Software update name (the UPNM input option was entered).

c = Pumpable SM peripheral target or list of targets. Valid value(s):

- DNUSCC = Digital networking unit - synchronous optical network (SONET) (DNU-S) common control.
- DNUSTMX = Transmission multiplexer image.
- GDSF = Global digital services function - model 3.
- IDCUCCP = Integrated digital carrier unit (IDCU) common control processor.
- IDCUDLP = IDCU data link processor.
- IDCULSI = IDCU loop side interface.
- IP4I = Operational input/output processor image for PH4 ISDN.
- ISLU = Integrated services line unit.
- ISLU2 = Integrated services line unit 2.
- ISTF = Integrated services test function.
- LDSF = Local digital services function - model 3.
- LDSU = Local digital service unit.
- ODMA = Operational direct memory access processor image for PH2.
- OIOP = Operational input/output processor image for PH3.
- PH2A = Protocol handler 2 (PH2) with ACCESS application processor image.
- PH2G = PH2 with GATEWAY application processor image.
- PH3C = PH3 with COMMON application processor image.
- PH4I = PH4 with integrated services digital network (ISDN) application processor image.
- RAF = Recorded announcement function.
- SAS = Service announcement system operational image.
- TMUX = Transmission multiplexer.
- IP4F = Frame Relay Protocol Handler version 4 I/O processor
- PHV1C Protocol Handler for voice for CDMA (code division multiple access).
- PHA1A = Protocol Handler for ATM (asynchronous transfer mode).
- CC2 = Common Controler
- IP4IF = ISDN Frame Relay Protocol Handler version4 I/O Processor
- PH3S = Protocol Handler version 3
- DSP8K = 8K Digital Signal Processor for CDMA Protocol Handler for Voice.
- DSP13K = 1313K Digital Signal Processor for CDMA Protocol Handler for voice.
- PHV3C = Protocol Handler for voice version 3 for CDMA application
- PHV4C = Protocol Handler for voice version 4 for CDMA application.
- V4D8K = 8K DSP, for CDMA protocol Handler for voice version 4.
- V4D13K = 13K DSP, for CDMA protocol handler for voice version 4.
- DDMA = Diagnostic Image for the Direct-Memory-Access
- DSPEVRC = EVRC Digital Signal Processor for CDMA

V3DACP = ACELP Digital Signal Processor, for TDMA protocol
V3DVSP = VSELP Digital Signal Processor, for TDMA protocol handler for voice.
D4VDVERC = EVRC DSP, for CDMA protocol handler for voice.
V4DACP = ACELP DSP, for TDMA protocol handler for voice version 4.
V4DVSP = VSELP, DSP, for TDMA Protocol Handler for voice version4.
DGN = Diagnostic Image.
DLP = Data link processor.
LSI = Loop Side Interface.
ODMA = Operational image for the Direct-Memory-Access
CCP = Common Control processor

d = SM number or list of SM numbers.

e = Offnormal SM status. This is the status of the indicated SM when UPD:PMPPERF was started. Valid value(s):
ISOLATED = The SM is isolated.
NOT OPERATIONAL = The SM is not operational, or is in the special growth state.

f = UPD:PMPPERF final SM status report. Valid value(s):
COMPLETED = The indicated switching module has successfully completed the remove/restore of inconsistent peripherals, if any.
COMPLETED WITH FAILURE = The indicated switching module has successfully completed the remove/restore of some inconsistent peripherals, but there was a prior failure.
NOT ACKNOWLEDGED = The indicated SM has not completed and has not reported any progress for a reasonable amount of time. The amount of time allowed is approximately 20 minutes. UPD:PMPPERF will continue if other SMs are still in progress.
HALTED = Refer to Format 17.
STOPPED = The indicated SM has stopped the remove/restore process because the UPD:PMPSTOP input message was received. This message will not print until the SM has completed any remove/restore requests which were in progress at the time the SM received the UPD:PMPSTOP notification.

g = A list of PSU shelf numbers that experienced a failure. This is printed only if remove/restores will proceed on other shelves.

h = Reason why the peripheral failed. In some cases this is a best guess. Search for other remove (RMV) or restore (RST) messages for additional information.
ABORTED = A maintenance request administrator (MRA) remove/restore job aborted at some point.
DATABASE FAILURE = Some database problem was detected. Any required audits will automatically be scheduled.
INTERNAL ERROR = An internal error was detected. Refer to the TECHNICAL ASSISTANCE section of the INTRODUCTION.
NOT ATTEMPTED = The remove/restore of this peripheral will not be requested because of the failure(s) cited earlier in the list of failing peripherals.
NOT STARTED = An MRA job which UPD:PMPPERF requested did not start the remove/restore operation.
PUMP FAILED = The pump of the unit failed.
REMOVE FAILED = The remove portion of the remove/restore operation failed.
RESOURCE FAILURE = A resource failure was encountered.

`RESTORE FAILED` = The restore portion of the remove/restore operation failed.
`STOPPED` = An MRA remove/restore job was stopped at some point.
`TIMED OUT` = UPD:PMPPERF timed out waiting for MRA to complete the remove/restore request.
`PARALLEL PUMP FAILURE` = A DNU-S CC was successfully removed/restored but the associated broadcast TMUX pump failed on at least one TMUX.
`SOFT SWITCH FAILURE` = A DNU-S CC was successfully removed/pumped but restored to STBY as opposed to the requested ACT. The associated broadcast TMUX pump may have failed on at least one TMUX.
`FLASH UPDATE FAILURE` = A DNU-S CC was successfully removed but stopped at restore due to a FLASH update failure. The associated broadcast TMUX pump was not attempted.
`HARD SWITCHED` = A DNU-S CC was successfully pumped and hard-switched to ACT. The old ACT side ("switch-from" side) is being removed to OOS. The associated broadcast TMUX pump may have failed on at least one TMUX.

`i` = The unit name of the peripheral. Valid value(s):
`DNUSCC=SM-UNIT-CC`
`TMUX=SM-UNIT-DG-TMUX`
`GDSF=SM-UNIT`
`IDCU=SM-UNIT-SG`
`ISLUCC=SM-UNIT-CC`
`ISLU2CC=SM-UNIT-CC`
`ISTF=SM-UNIT`
`LDSF=SM-UNIT`
`LDSU=SM-UNIT-SG`
`PSUPH=SM-0-SHELF-PH`
`RAF=SM-UNIT`
`SAS=SM-UNIT`

`j` = Which set of targets. Valid value(s):
`FIRST` = This is the first set of targets. This set will contain any pumpable targets except RAF, ISTF, and SAS. This is the first phase or iteration of UPD:PMPPERF.
`LAST` = This is the second (last) set of targets. The set will always contain the SAS, RAF or ISTF peripherals, in any combination. This is the last phase or iteration of UPD:PMPPERF.

`k` = Failing SM status. Valid value(s):
`NO REPLY` = The indicated SM was operational and not isolated when UPD:PMPPERF started, but did not reply to the UPD:PMPPERF request.
`PMPPERF FAILED` = UPD:PMPPERF encountered some type of failure(s) in the indicated SM. Refer to other output messages for details.
`PMPPERF STOPPED` = Notification of the UPD:PMPSTOP input messages reached the indicated SM while UPD:PMPPERF was in progress. The SM scheduled no more requests to remove/restore peripherals, but waited for any requests that were in progress at the time.
`PMPPERF STOPPED - REQUEST NOT SENT` = The UPD:PMPSTOP input message was detected so the UPD:PMPPERF request was not sent to the indicated SM.

`l` = Information message about the status of routine exerciser (REX). REX is automatically inhibited by UPD:PMPPERF for all SMs affected by UPD:PMPPERF. This is done because REX can

interfere with UPD:PMPPERF and possibly cause it to fail. Inhibiting REX will prevent REX from starting, but will not stop REX if it has already started. Valid value(s):

`REX HAS BEEN RE-INHIBITED ON SM c` = While UPD:PMPPERF was running in an SM, it was discovered that REX is allowed in that SM. UPD:PMPPERF then automatically re-inhibited REX for that SM.

`REX NOT INHIBITED` = Error encountered when trying to inhibit REX on affected SMs at the start of UPD:PMPPERF.

`UNABLE TO RE-INHIBIT REX ON SM c` = While UPD:PMPPERF was running in an SM, it was discovered that REX is allowed in that SM. UPD:PMPPERF then automatically tried to re-inhibit REX for that SM but encountered an error.

`UNABLE TO REMOVE REX INHIBITS` = When UPD:PMPPERF was complete in all SMs, it was unable to remove the REX inhibits placed on the affected SMs when UPD:PMPPERF started.

4. ACTIONS TO BE TAKEN

If `UPD PMPPERF COMPLETED` prints and no SMs were identified as not acknowledging the request, then all inconsistent target peripherals were pumped successfully and are now consistent. No action need be taken.

Otherwise, some recovery action should be taken. If the UPD:PMPPERF input message aborted due to an inconsistent resident image, the UPD:RCVRY input message may be used to recover the resident image inconsistency, and the UPD:PMPPERF input message may be retried.

If the UPD:PMPPERF input message aborted due to failed peripherals, the units may be removed and restored manually, or the UPD:PMPPERF input message may be retried. The consistency check which UPD:PMPPERF automatically runs may be used to identify inconsistent peripherals remaining in the system.

If all peripherals of one or more target type fail to pump or restore, especially if the problem occurs in multiple switching modules, the software update should be suspected as the source of the problem. Refer to the TECHNICAL ASSISTANCE section of the INTRODUCTION.

If some SM(s) were identified as offnormal, some action must be taken to determine why the SM(s) are offnormal. Additionally, if an SM had timed out, make sure that the SM is not isolated or experiencing some type of overload.

It should be noted that UPD:PMPPERF will not proceed on duplex units (IDCU, ISLU, ISLU2, LDSU, GDSF, LDSF, and DNU-S CC) if one service group is out of service. If this is the case, restore the service group and retry UPD:PMPPERF.

For ISLU and ISLU2, if it is not possible to get both ISLUCCs in service, force the remove/restore either using the input message RST:ISLUCC with the `x-y-z,UCL` option, where `x` is the SM number, `y` is the ISLU or ISLU2 number and `z` is the CC number, or by entering the input message UPD:PMPPERF with the `TARGET=ISLU,UCL` option. This will cause a temporary loss of call processing in the ISLU and ISLU2, but no stable calls will be lost.

For IDCU, if it is not possible to get both service groups in service, the remove/restore may be forced either using the input message RST:IDCU with the `x-y-z,UCL` option, where `x` is the SM number, `y` is the IDCU number and `z` is the CC number, or the input message UPD:PMPPERF with the `TARGET=c,UCL` option. This will cause a temporary loss of call processing in the IDCU, and stable calls will be lost.

For DNU-S CC units, if it is not possible to get both CC in service, the remove/restore may be forced using either the input message RST:DNUSCC with the `x-y-z,UCL` option, where `x` is the SM number, `y` is the DNU-S number and `z` is the CC number, or the input message UPD:PMPPERF with the `TARGET=c,UCL` option, where TARGET can be either DNUSCC or DNUSTMX. This will cause a temporary loss of call processing in the DNU-S, a loss of performance monitor (PM) data (that is, current day intervals and previous day totals), but no stable calls will be lost.

Also, with TMUX being the subtending unit, craft maintenance requests such as RST:DNUSCC, RMV:DNUSCC, and SW:DNUSCC may result in different software update levels between DNU-S CC and TMUX. Therefore the use of craft maintenance requests to DNU-S CC and TMUX between UPD:APPLY and UPD:OFC is strongly discouraged.

If a RST:CC, RMV:CC, or SW:CC request would result in different update levels between the active CC and the TMUXs, it will be denied. However, there is one exception. If a CC restore from duplex failure would result in level-mismatch between active CC and the TMUXs, RST:CC will still be allowed. In addition, TMUXs will be broadcast-pumped as part of RST:CC.

UPD:PMPPERF will not proceed for protocol handlers if there are no standby spare PH(s) of the affected hardware type on a given PSU shelf. The PH2A, PH2G, and ODMA images reside on the PH2 hardware type, while the PH3C and OIOP images reside on the PH3 hardware type and the PH4I and IP4I images reside on the PH4 hardware type. If the standby PHs are out of service, restore them and retry UPD:PMPPERF. If it is not possible to get a spare PH in service, force the pumping manually using either the input message RST:PSUPH with the `x-0-y-z,UCL` option, where `x` is the SM number, `y` is the shelf number and `z` is the PH number, or using the input message UPD:PMPPERF with the `TARGET=x,UCL` option.

WARNING: Either alternative will result in a temporary loss of call processing and lost stable circuit-switched and packet-switched calls.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:CFGSTAT
OP:SYSSTAT
RMV:DNUSCC
RST:DNUSCC
RST:ISLUCC
RST:PSUPH
SW:DNUSCC
UPD:OFC
UPD:PMPPERF
UPD:PMPSTOP
UPD:RCVRY
UPD:VFYCON
```

Output Message(s):

```
OP:CFGSTAT
OP:SYSSTAT-SUM
UPD:PMPSTOP
UPD:RCVRY
UPD:SYSERR
UPD:USRERR
UPD:VFYCON
```

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*

UPD:PMPSTOP

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      UPD PMPSTOP IN PROGRESS
        ANY JOBS IN PROGRESS WILL RUN TO COMPLETION

[2]   ____________________________________________________________________
      ---------- UPD PMPSTOP OFFNORMAL SM STATUS ----------
                     SM No.  STATUS
                     a       b
      ------------ END OF OFFNORMAL SM STATUS -------------

[3]   ____________________________________________________________________
      UPD PMPSTOP COMPLETED

[4]   ____________________________________________________________________
      UPD PMPSTOP ABORTED

[5]   ____________________________________________________________________
      UPD PMPSTOP WARNING - UNABLE TO CONFIRM STOP OF UPD:PMPPERF
```

2. REASON FOR OUTPUT

To report the start or completion status of the UPD:PMPSTOP input message. Switching modules (SMs) that are isolated, out of service, or do not acknowledge the PMPSTOP request are identified. Those SMs do not impact the completion status of the UPD:PMPSTOP input message.

Format 1 is printed when UPD:PMPSTOP starts notifying the SMs that they should stop UPD:PMPPERF.

Format 2 is printed when the UPD:PMPSTOP input message was unable to communicate with the offnormal SMs identified in the output, but completed successfully for all normal SMs.

Format 3 is printed when the UPD:PMPSTOP input message completes successfully.

Format 4 is printed when UPD:PMPPERF aborts.

Format 5 is printed when it appears that UPD:PMPPERF is not running.

3. VARIABLE FIELD DEFINITIONS

`a` = Offnormal switching module number.

`b` = Offnormal SM status. Valid value(s):
- `ISOLATED` = The SM is isolated.
- `NO REPLY` = The SM is operational and not isolated, but did not reply to the UPD:PMPSTOP request.
- `NOT OPERATIONAL` = The SM is not operational, or it is in the special growth state.

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4. ACTION TO BE TAKEN

If `UPD PMPSTOP COMPLETED` prints and no SMs were identified as not acknowledging the request, no action need be taken. If the in-progress UPD:PMPPERF command completes, no matter if successful or not, no action need be taken.

Otherwise, some recovery action should be taken to identify why the input message aborted, or why the SM(s) did not acknowledge. The UPD:PMPSTOP input message may be re-executed.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:PMPPERF
UPD:PMPSTOP
UPD:VFYCON
```

Output Message(s):

```
UPD:PMPPERF
UPD:SYSERR
UPD:USRERR
UPD:VFYCON
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

UPD:PRINT-BWM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
UPD PRINT BWM FILE IN PROGRESS
  PRINTING a FILE FOR BWM b
           c
           .
           .
           .
         END OF FILE
  UPD PRINT BWM FILE COMPLETED
```

2. REASON FOR OUTPUT

To display the associated software update file.

3. VARIABLE FIELD DEFINITIONS

a	= Name of the file that is associated with the software update.
b	= Software update name.
c	= Contents of the file.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

UPD:PRINT-BWM

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-105-34x *Generic Update Procedures*

MCC Display Page(s):

1960 (BWM INSTALLATION)

UPD:PRINT-SOAK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
UPD PRINT SOAK TIMER IN PROGRESS
  BWM SOAK TIMER INFORMATION
  BWM NAME=a REMAINING SOAK PERIOD=b
  PREVIOUS SOAK TIMER
  START    c
  END      d
  DURATION e
  CURRENT SOAK TIMER
  START    f
  END      g
  DURATION h
  END OF BWM SOAK TIMER INFORMATION
  UPD PRINT SOAK TIMER COMPLETED
```

2. REASON FOR OUTPUT

To display soak timer information for the software update that is currently in the soaking stage.

3. VARIABLE FIELD DEFINITIONS

a = Software update name.

b = Remaining soak time, in the form hours:minutes.

c = Start time of the previous timer.

d = End time of the previous timer.

e = Duration of the previous timer.

f = Start time of the current timer.

g = End time of the current timer.

h = Duration of the current timer.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:PRINT-SKTM
```

MCC Display Page(s):

1950 (PROG UPD MAINT)

UPD:PUMPBWM

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      UPD PUMPBWM ALREADY SET FOR a

[2]   ____________________________________________________________________
      UPD PUMPBWM COMPLETED

[3]   ____________________________________________________________________
      UPD PUMPBWM DOES NOT SET FOR a

[4]   ____________________________________________________________________
      UPD PUMPBWM SET FOR a
```

2. REASON FOR OUTPUT

To report the progression of the action requested by the UPD:PUMPBWM input message.

Format 1 is printed when UPD:PUMPBWM input message has already been run and the pump map already exists for this software update.

Formats 2 and 4 are printed upon completion of the PUMPBWM process.

Format 3 is printed when the UPD:PUMPBWM input message is run on a software update that does not have a switching module (SM), communications module processor (CMP) or peripheral update.

3. VARIABLE FIELD DEFINITIONS

`a` = Path name of the pump map.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:PUMPBWM
UPD:PUMPOFC
UPD:PMPPERF
UPD:PMPSTOP
UPD:VFYCON
```

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Output Message(s):

```
UPD:PUMPOFC
UPD:PMPPERF
UPD:PMPSTOP
UPD:SYSERR
UPD:USRERR
UPD:VFYCON
```

Output Appendix(es):

```
APP:SYSERR
```

MCC Display Page(s):

1950 (PROG UPD MAINT)
1960 (INSTALL BWM)

UPD:PUMPOFC

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      UPD PUMPOFC ALREADY SET FOR a

[2]   ____________________________________________________________________
      UPD PUMPOFC COMPLETED

[3]   ____________________________________________________________________
      UPD PUMPOFC DOES NOT SET FOR a

[4]   ____________________________________________________________________
      UPD PUMPOFC SET FOR a
```

2. REASON FOR OUTPUT

To report the progression of the action requested by the UPD:PUMPOFC input message.

Format 1 is printed when UPD:PUMPOFC input message has already been run and the temporary map already exists for this software update.

Formats 2 and 4 are printed upon completion of the PUMPOFC process.

Format 3 is printed when the UPD:PUMPOFC input message is run on a software update that does not have a switching module (SM), communications module processor (CMP) or peripheral update.

3. VARIABLE FIELD DEFINITIONS

`a` = Path name of the pump map.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:PUMPBWM
UPD:PUMPOFC
UPD:PMPPERF
UPD:PMPSTOP
UPD:VFYCON
```

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Output Message(s):

```
UPD:PUMPBWM
UPD:PMPPERF
UPD:PMPSTOP
UPD:SYSERR
UPD:USRERR
UPD:VFYCON
```

Output Appendix(es):

```
APP:SYSERR
```

MCC Display Page(s):

1950 (PROG UPD MAINT)
1960 (INSTALL BWM)

UPD:RCVRY

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      UPD RCVRY {FRWD|BKWD} UPNM a FN b FINISHED

[2]   ____________________________________________________________________
      UPD RCVRY {FRWD|BKWD} {COMPLETED|ABORTED|CONTINUES}

[3]   ____________________________________________________________________
      UPD RCVRY {FRWD|BKWD} REMOVE/RESTORE f UNIT(S) TO ACTIVATE RCVRY

[4]   ____________________________________________________________________
      UPD RCVRY CANNOT RECOVER FROM THE FOLLOWING:
        [RCVRY - DUMP NEW ENTRIES:]
        [RCVRY - DUMP REV/UNCH ENTRIES:]
                 UPNM      UPD NUMBER     TYPE    PROCESSOR

         a           c            d         e

[5]   ____________________________________________________________________
      UPD RCVRY FRWD SOME AFFECTED {CMPs|SMs} ARE NOT UPDATED

[6]   ____________________________________________________________________
      UPD RCVRY {FRWD|BKWD} UPD:INIT:EMULATOR REQUIRED TO ACTIVATE RCVRY
```

2. REASON FOR OUTPUT

To report the results of executing a UPD:RCVRY input command and to report the steps taken in the specified recovery: backouts for a roll backward and installs for a roll forward. In the backout case, some UPD:BKOUT output messages will report the progression of recovery backward. For more information, refer to the UPD:BKOUT output message. Format 1 indicates that recovery forward or backward has successfully finished. Format 2 indicates that recovery forward or backward for software update indicated in '`a`' for the file pathname indicated in '`b`' has completed successfully, been aborted, or is continuing. Format 3 indicates that a REMOVE/RESTORE is necessary for all processor units of the type indicated in '`f`' to activate the recovery forward or backward. Format 4 reports a list of inconsistencies that UPD:RCVRY cannot recover from. There may also be a list of new inconsistencies if they exist. If the message is UPD RCVRY FRWD, there may be a list of inconsistencies in reverse order. Format 5 indicates that some of the affected communications module processors (CMPs) or switching modules (SMs) have not been updated. Format 6 indicates that an inconsistency exists in an update to the EMULATOR that requires an initialization for activation.

3. VARIABLE FIELD DEFINITIONS

`ABORTED` = Update recovery was aborted.

`COMPLETED` = Update recovery was completed.

`a` = Name of software update currently being recovered from.

`b` = Pathname of FN specified in the update install command.

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c = Update number.

d = Type of inconsistency. Valid value(s):

- 1 = The indicated processor does not contain the indicated temporary update even though it is shown in the update records as having been applied.
- 3 = A temporary SM update has been installed but at least one of the associated temporary files in /update is missing.
- 4 = An entry in the update records has been garbled or is missing history file entries.
- 5 = The resident switching module processor (SMP) image associated with the indicated pumpable peripheral type does not contain the indicated update, even though it is shown in the update records as having been applied.
- 6 = The resident SMP image AND the pumpable peripheral(s) associated with the indicated processor type do not contain the indicated update, even though it is shown in the update records as having been applied.
- 7 = The pumpable peripheral(s) associated with the indicated processor type do not contain the indicated update, even though it is shown in the update records as having been applied, and the peripheral's SMP resident image contains the update.
- 8 = The update file or product file needed to back out an official software update is missing. It is not possible to recover from this type of inconsistency and the official software update can not be backed out using the 9900 poke on the 1950 menu page. This inconsistency type does not prevent recovery from other types of inconsistencies and does not prevent subsequent software updates from being made official. Once a subsequent software update is made official and all the files needed to back out that software update are available, the inconsistency is removed by default.

e = Affected processor. Valid value(s):

- AM = Administrative module.
- CMP[=x-y,z] = CMP, where 'x' is the message switch side, y is the CMP number and 'z' is either PRIM (primary processor) or MATE (mate processor) when the indicated inconsistency applies to a specific CMP.
- DNUSCC:SM[x] = Digital Networking Unit - SONET (DNU-S) common control function, where 'x' is the SM number, when the indicated inconsistency applies to a specific SM's DNU-S(s) or an SM's DNU-S CC resident image.
- DSC3-DSC3:SM[x] = Digital service circuit - model 3 (DSC3) hardware digital service circuit diagnostic image, where 'x' is the SM number when the indicated inconsistency applies to a specific SM's LDSF or global digital services function (GDSF).
- DSC3-GDSF:SM[x] = DSC3 GDSF image, where 'x' is the SM number when the indicated inconsistency applies to a specific SM's GDSF.
- DSC3-LDSF:SM[x] = Digital service circuit - model 3 (DSC3) local digital services function (LDSF) image, where 'x' is the SM number when the indicated inconsistency applies to a specific SM's LDSF.
- DSU2-HDSU:SM[x] = Digital service unit model 2 (DSU2) - hardware digital service unit (HDSU) diagnostic (DGN) image, where 'x' is the SM number, when the indicated inconsistency applies to a specific SM's HDSU-resident image.
- DSU2-HSAS:SM[x] = DSU2 - service announcement system diagnostic image (HSAS), where 'x' is the SM number, when the indicated inconsistency applies to a specific SM's HSAS-resident image.
- DSU2-ISTF:SM[x] = DSU2 - integrated services test function (ISTF), where 'x' is the SM number, when the indicated inconsistency applies to a specific SM's ISTF(s) or ISTF-resident image.

`DSU2-LDSU:SM[x]` = DSU2 - local digital service unit (LDSU) function, where '`x`' is the SM number, when the indicated inconsistency applies to a specific SM's LDSU(s) or LDSU-resident image.

`DSU2-RAF:SM[x]` = DSU2 - recorded announcement function (RAF), where '`x`' is the SM number, when the indicated inconsistency applies to a specific SM's RAF(s) or RAF-resident image.

`DSU2-SAS:SM[x]` = DSU2 - service announcement system operational image (SAS), where '`x`' is the SM number, when the indicated inconsistency applies to a specific SM's SAS(s) or SAS-resident image.

`IDCU-CCP:SM[x]` = Integrated digital carrier unit (IDCU) common control processor (CCP), where '`x`' is the SM number, when the indicated inconsistency applies to a specific SM's IDCU CCP(s) or the SM's IDCU CCP resident image.

`IDCU-DLP:SM[x]` = IDCU data link processor (DLP), where '`x`' is the SM number, when the indicated inconsistency applies to a specific SM's IDCU DLP(s) or the SM's IDCU CCP resident image.

`IDCU-LSI:SM[x]` = IDCU loop side interface (LSI), where '`x`' is the SM number, when the indicated inconsistency applies to a specific SM's IDCU LSI(s) or the SM's IDCU CCP resident image.

`ISLU-CC:SM[x]` = Integrated services line unit (ISLU) common controller (CC), where '`x`' is the SM number, when the indicated inconsistency applies to a specific SM's ISLUCC(s) or ISLU-resident image.

`ISLU2-CC:SM[x]` = Integrated services line unit 2 (ISLU2) common controller (CC), where '`x`' is the SM number, when the indicated inconsistency applies to a specific SM's ISLU2CC(s) or ISLU2-resident image.

`MCTSI-MHOP:SM[x]` = MCTSI switching module processor message handler operational image (MHOP), where '`x`' is the SM number when the indicated inconsistency applies to a specific SM's MHOP or an SM's SMP-resident MHOP image.

`MCTSI-MHLB:SM[x]` = MCTSI switching module processor message handler little boot image (MHLB), where '`x`' is the SM number when the indicated inconsistency applies to a specific SM's SMP-resident MHLB image.

`MCTSI-PI:SM[x]` = Module controller time slot interchange (MCTSI) packet interface (PI), where '`x`' is the SM number, when the indicated inconsistency applies to a specific SM's PI or PI-resident image.

`MSGH[=x-y,z]` = CMP message handler, where '`x`' is the message switch side, '`y`' is the CMP number and '`z`' is either PRIME or MATE when the indicated inconsistency applies to a specific CMP.

`PSU-PH3C:SM[x]` = Packet switch unit (PSU) protocol handler 3 (PH3) loaded with the PH3 COMMON application processor image, where '`x`' is the SM number, when the indicated inconsistency applies to a specific SM's PH3(s) or PH3C-resident image.

`PSU-PH4I:SM[x]` = Packet switch unit (PSU) protocol handler 4 (PH4) loaded with the PH4 integrated services digital network (ISDN) application processor image, where '`x`' is the SM number, when the indicated inconsistency applies to a specific SM's PH4(s) or PH4I-resident image.

`PSU-PH2A:SM[x]` = Packet switch unit (PSU) protocol handler 2 (PH2) loaded with the PH2 ACCESS application processor image, where '`x`' is the SM number, when the indicated inconsistency applies to a specific SM's PH2(s) or PH2A-resident image.

`PSU-PH2G:SM[x]` = PSU protocol handler 2 (PH2) loaded with the PH2 GATEWAY application processor image, where '`x`' is the SM number, when the indicated inconsistency applies to a specific SM's PH2(s) or PH2G-resident image.

`PSU-OIOP:SM[x]` = PSU PH3 operational input/output processor (OIOP) image, where '`x`' is the SM number, when the indicated inconsistency applies to a specific SM's PH3(s) or OIOP-resident image.

`PSU-IP4I:SM[x]` = PSU PH4 operational input/output processor (IP4I) image, where '`x`' is the SM number, when the indicated inconsistency applies to a specific SM's PH4(s) or IP4I-resident image.

`PSU-ODMA:SM[x]` = PSU PH2 operational direct memory access (ODMA) processor image, where '`x`' is the SM number, when the indicated inconsistency applies to a specific SM's PH2(s) or ODMA-resident image.

`PSU-DDMA:SM[x]` = PSU PH2 diagnostic direct memory access (DDMA) processor image, where '`x`' is the SM number, when the indicated inconsistency applies to a specific SM's resident DDMA image.

`SM[x]` = Switching module, where '`x`' is the SM number, when the indicated inconsistency applies to a specific SM.

`TMUX:SM[x]` = Transmission multiplexer function, where '`x`' is the SM number, when the indicated inconsistency applies to a specific SM's TMUX(s) or and SM's TMUX resident image.

`PSU-IP4F:SM[x]` = Operational image for the input/output processor on the PSU PH4 frame relay protocol handler. Where'`x`'is the SM number. When the in dicated inconsistency applies to a specific SM's PH2(s) or an SM's SMP-resident IP4F image

`PSU-IP4F:SM[x]` = Protocol handler for voice, where '`x`'is the SM number. When the indicated inconsistency applies to a specific SM's PH2(s) or an SM's SMP-resident IP4F image.

`PSU-PHV1C:SM[x]` = Protocol handler for voice, where '`x`'is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP-resident PHV1C image.

`PSU-PHA1A:SM[x]` = Protocol handler for ATM. where '`x`'is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident PHA1A image.

`ISLU-CC2:SM[x]` = Integrated services line unit (ISLU) commom control (CC) where '`x`'is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident CC2 image.

`PSU-IP4IF:SM[x]` = The operational image for the input/output processor on the PSU PH4 integrated services digital network (ISDN). where '`x`'is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident IP4IF image.

`PSU-PH3S:SM[x]` = Packet switching unit (PSU) protocol handler 3(PH3) where '`x`'is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident PH3S image.

`PSU-IP3S:SM[x]` = The operational image for the input/output processor on the PSU PH3 integrated services digital network (ISDN) for common channel signalling. where '`x`'is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident CC2 ima ge.

`PSU-DSP8K:SM[x]` = 8k Digital signal processor (DSP) on PHV3. where '`x`'is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident DSP8K image.

`PSU-DSP13K:SM[x]` = 13K Digital signal processor (DSP) on PHV3. where '`x`'is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident DSP13K image.

`PSU-PHV3C:SM[x]` = Packet switching unit (PSU) protocol handler for voice 3 (PHV3) loaded with the COMMON image. where '`x`'is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident PHV3C image.

`PSU-PHV4C:SM[x]` = Packet switching unit (PSU) protocol handler for voice 4 (PHV) loaded with the COMMON image. where '`x`'is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident PHV4C image.

`PSU-V4D8K:SM[x]` = 8K Digital signal processor (DSP) on PHV4C. where '`x`'is the SM number.

When the indicated inconsistency applies to a specific SM's or an SMP - resident V4D8K image.

`PSU-V4D13K:SM[x]` = 13K Digital signal processor (DSP) on PHV4C. where '`x`'is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident V4D13K image.

`PSU-DDMA:SM[1]` = Diagnostic image for the direct-memory-access processor on the PSU PH2.When the indicated inconsistency applies to a specific SM's or an SMP - resident DDMA image.

`PSU-DSPEVRC:SM[x]` = EVRC Digital Signal Processor for CDMA protocol Handler for voice. where '`x`'is the SM number. When the indicated inconsistency applies to a specific SM' or an SMP - resident V3DACP image.

`PSU-V3DVSP:SM[x]` = VSELP Digital Signal Processor, for TDMA protocol handler for voice. where '`x`'is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident V3DVSP image.

`PSU-D4VDVERC:SM[x]` = EVRC DSP, for CDMA Protocol Handler for voice version 4. where '`x`'is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident D4VDVERC image.

`PSU-V4DACP:SM[x]` = ACELP DSP, for TDMA protocol Handler for voice version 4. where '`x`'is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident V4DACP image.

`PSU-V4DVSP:SM[x]` = VSELP, DSP, for TDMA Protocol Handler for voice version 4. where '`x`'is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident V4DACP image.

`DSU2-HSAS:SM[x]` = DSU2 Service announcement system (SAS). where '`x`'is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident HSAS image.

`DSC4-LDSF:SM[x]` = DSC4 Local Digital Service Function (LDSF). where '`x`'is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident LDSF image.

`DSU2-DGN:SM[x]` = DSU2 Diagnostic Image. where '`x`'is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident DGN image.

`f` = The pumpable peripheral which must be removed/restored to obtain consistency. Valid value(s):

`ALL PH2`	= All PH2s.
`ALL PH3`	= All PH3s.
`ALL PH4`	= All PH4s.
`GDSF`	= Global digital services function - model 3.
`IDCU`	= Integrated digital carrier unit.
`ISLU`	= Integrated services line unit.
`ISLU2`	= Integrated services line unit 2.
`ISTF`	= Integrated services test function.
`LDSF`	= Local digital services function - model 3.
`LDSU`	= Local digital service unit.
`PH2A`	= Protocol handler 2 (PH2) with ACCESS application processor image.
`PH2G`	= PH2 with GATEWAY application processor image.
`PH3C`	= PH3 with COMMON application processor image.
`PH4I`	= PH4 with ISDN application processor image.
`RAF`	= Recorded announcement function.
`SAS`	= Service announcement system operational image.
`IP4F`	= Frame Relay Protocol Handler version 4 I/O processor.
`PHV1C`	= Protocol Handler for voice for CDMA (code division multiple access).

PHA1A	= Protocol Handler for ATM (asynchronous transfer mode).
PHA1A	= Protocol Handler for ATM (asynchronous transfer mode).
CC2	= Common Controler
IP4IF	= ISDN Frame Relay Protocol Handler version 4 I/O Processor
PH3S	= Protocol Handler version 3
IP3S	= operational image for I/O processor.
DSP8K	= 8K Digital Signal Processor for CDMA Protocol Handler forVoice.
DSP13K	= 1313K Digital Signal Processor for CDMA Protocol Handler for voice.
PHV3C	= Protocol Handler for voice version 3 for CDMA application
PHV4C	= Protocol Handler for voice version 4 for CDMA application.
V4D8K	= 8K DSP, for CDMA protocol Handler for voice version 4.
V4D13K	= 13K DSP, for CDMA protocol handler for voice version 4.
DDMA	= Diagnostic Image for the Direct-Memory-Access
DSPEVRC	= EVRC Digital Signal Processor for CDMA
V3DACP	= ACELP Digital Signal Processor, for TDMA protocol handler for voice.
V3DVSP	= VSELP Digital Signal Processor, for TDMA protocol handler for voice.
D4VDVERC	= EVRC DSP, for CDMA protocol handler for voice.
V4DACP	= ACELP DSP, for TDMA protocol handler for voice version 4.
V4DVSP	= VSELP, DSP, for TDMA Protocol Handler for voice version4.
DGN	= Diagnostic Image.
DLP	= Data link processor.
LSI	

4. ACTIONS TO BE TAKEN

If updates were backed out in a roll backward recovery, some may have to be re-installed.

If the update was ABORTED, a verify of update consistency (UPD:VFYCON) will report any remaining inconsistencies. Reentering the same UPD:RCVRY input message will continue the recovery action. This action will not recover from type 7 or 8 inconsistencies. For a type 7 inconsistency, remove and restore the inconsistent peripherals manually or refer to the UPD:PMPPERF input manual page. If the recovery continues to be aborted, refer to the TECHNICAL ASSISTANCE section of the INTRODUCTION.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:RCVRY
UPD:VFYCON
UPD:PMPPERF
```

Output Message(s):

```
UPD:BKOUT
UPD:SYSERR
UPD:UPNM
UPD:USRERR
```

UPD:VFYCON

UPD:RDTA-A

Software Release: 5E10 - 5E11
Message Class: TM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      UPD RDTA SESSION=a b
        [b] [c] [l] [w] [y]
        [INDN=z ITAP=a1-b1] [OUTDN=c1 OTAP=d1-e1]
       MODE=f1 [QTS=g1]  DURATION=h1  TIME REMAINING=i1

[2]   ____________________________________________________________
      UPD RDTA SESSION=a b FP=j1
```

2. REASON FOR OUTPUT

To respond to a manual request to reinitialize the termination timer for the specified remote digital test access (RDTA) session. To inform the craft that the termination timer will expire and the technician has 30 minutes to respond with a message to keep the active RDTA connection. To send a session reminder to the technician every 24 hours when a session duration (DUR) parameter is longer than 1 day.

Format 1 states that a successful initialization of the termination timer for the requested RDTA session has been accomplished and gives all status information about the updated session. The first line shows the session number and the completion notification of the requested session. The second line describes the port under test (PUT) in the various port identifications which are applicable to the PUT. The third line shows the output facility information defining routing for the RDTA connection and where the protocol analysis equipment is located. The fourth line shows the type of connection and quarter time-slot, if applicable, along with the total session duration and remaining session time.

Format 2 is used to give a failure response pertaining to the input request of updating or resetting the termination timer for the requested RDTA session. The information, as seen by the input message, will be returned along with the reason for failure and a failure point number, used to identify the point in software where failure occurred.

3. VARIABLE FIELD DEFINITIONS

NOTE: Refer to the Acronym section of the Output Messages manual for the full expansion of acronyms shown in the format.

`+` = Assigned to a multipoint interface.

`a` = Session number given to the requested session. Sessions are numbered sequentially from 1 through 99. At 99, the numbers will be recycled starting from 1 again.

`b` = Response to UPD:RDTA input message. Valid value(s):

- `COMPLETED` = The termination timer was successfully reset. The time remaining as displayed on the output may be used as verification.
- `CORRUPTED DYNAMIC DATA` = Dynamic data has been corrupted. Look at the receive-only printer (ROP) for a related assert to give assistance toward correcting the office dependent data (ODD) problem. Audits will correct any RDTA session/data inconsistency.
- `IS STILL ACTIVE 24 HOUR REMINDER` = A reminder that a session has been active for 24

hours, resources are being utilized by the RDTA session.

`SESSION NOT ACTIVE` = The requested RDTA session is not active.

`SM UNAVAILABLE` = The SM containing the PUT, which is needed to retrieve/translate port names, is isolated. This restricts the administrative module (AM) from printing the PUT external identifiers on line 2 of the Format 1 output message. Therefore, this message may also be seen on line 2 of the Format 1 output message in place of these external identifiers.

`SYSTEM ERROR` = Internal system error occurred while attempting to update the termination timer for the requested RDTA session.

`WARNING**SESSION ABORT IN 30 MIN` = The termination timer will expire in approximately 30 minutes. If the RDTA session is to be continued beyond the next 30 minutes, then the UPD:RDTA input message should be used.

`c` = Service group and member numbers. Valid value(s):

```
BST=d-e
MLHG=f-g
OAPO=d
OPT=d-e
RTRS=h-i
TKGMN=j-k
```

`d` = Operator service center number.

`e` = Relative position number.

`f` = Multi-line hunt group number.

`g` = Multi-line hunt group member number.

`h` = Data link relative group number of the RTRS.

`i` = Data link relative member number of the RTRS.

`j` = Trunk group number.

`k` = Trunk group member number.

`l` = Equipment number. Valid value(s):

DEN=m-n-o-p
ILEN=m-q-r-s
LCEN=m-t-u-v
LCKEN=m-t-k^1-l^1-m^1
NEN=m-n^1-o^1-p^1-q^1-r^1

`m` = SM number.

`n` = Digital line and trunk unit (DLTU) number.

`o` = Digital facility interface number.

`p` = Digital channel.

`q` = Integrated digital carrier unit number.

`r` = Remote terminal number.

`s` = Channel unit number.

`t` = Integrated services line unit number.

`u` = Line group controller number.

`v` = Line card number.

`w` = Directory number. Valid value(s):

```
DN=u[+]
PKTDN=u[+]
```

`x` = Seven-digit directory number.

`y` = Channel type (for basic rate interface BRI). Valid value(s):

`B1`	= B1-Channel.
`B2`	= B2-Channel.
`D`	= D-Channel (default).

`z` = DN of the output facility where the protocol analyzer is connected to access the test data sent over the PUT to the switch. This direction will be known as incoming. Data sent from the analysis equipment for interaction with the PUT will therefore originate from INDN for all interactive mode connections excepting the SPLITPH connection.

`a`[1] = SM number of the port which corresponds to the INDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

`b`[1] = Logical port number of the port which corresponds to the INDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

`c`[1] = DN of the output facility where the protocol analyzer is connected to access the test data sent from the switch to the PUT. This direction will be known as outgoing. Data sent from the analysis equipment for interaction with the switch will therefore originate from OUTDN for the SPLIT and SPLITPH connections.

`d`[1] = SM number of the port which corresponds to the OUTDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

`e`[1] = Logical port number of the port which corresponds to the OUTDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

`f`[1] = Connection mode of the RDTA session. Valid value(s):

`DTAC`	= Direct test access connection (DTAC). This is an interactive connection on a port which does not have a path set up on it. The PUT is seized and directly connected to a outgoing port terminating at the protocol analysis equipment.
`MON`	= Monitor. This is a receive-only connection on a busy circuit. A copy of the transmit and receive data being passed over the PUT is transmitted to two individual outgoing ports that terminate at the protocol analysis equipment.

`SPLIT` = Duplex split. This is an interactive connection on a busy circuit. The existing path on the PUT is broken and each half is connected to an outgoing port terminated at the protocol analysis equipment. This allows interactive testing of both sides of the original path.

`SPLITPH` = Simplex split protocol handler (PH) side. This is an interactive connection up on an integrated services digital network (ISDN) channel nailed-up to a PH. The existing path on the ISDN channel is torn down and the PH associated with the channel being tested is directly connected to an outgoing port terminating to the protocol analysis equipment.

`SPLITPUT` = Simplex split PUT side. This is an interactive connection on a busy circuit. The existing path on the PUT is broken and the PUT is directly connected to an outgoing port terminating to the protocol analysis equipment.

`g`[1] = The quarter time-slot (QTS) (16 kb/s section) of a 64 kb/s unrestricted channel. This output facility pseudo BRI D-channel quarter time-slot corresponds to the quarter time-slot carrying the BRI D-channel data, the PUT data, to the PH. The valid range is 0,1,2 or 3.

`h`[1] = This is the total time for which the session has been active in its present state (that is, the time since the start or conversion of the session). The output form, for this length of time, on the output is days (with a space between) hours:minutes:seconds.

`i`[1] = This is the remaining time for which the session will continue operating before the session will be automatically terminated, in the form days (with a space between) hours:minutes:seconds. If the session has been set for an infinite duration, the time field will be printed as INFINITE. The session may be extended by using the UPD:RDTA input message.

`j`[1] = This is a fail point number used to relay the specific point in the software at which a failure occurred. This is used purely for debugging purposes.

`k`[1] = Line group number.

`l`[1] = Line board number.

`m`[1] = Line circuit number.

`n`[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

`o`[1] = Data group (DG) number.

`p`[1] = Synchronous transport signal (STS) number.

`q`[1] = Virtual tributary (VT1.5) number.

`r`[1] = Digital signal level 0 (DS0) number.

4. ACTION TO BE TAKEN

If the completion code indicates a failure in initializing the termination timer, due to an internal software/hardware error, save the printer output. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:RDTA
OP:RDTA
UPD:RDTA
STP:RDTA
VFY:RDTA
```

Output Message(s):

```
EXC:RDTA
OP:RDTA
STP:RDTA
VFY:RDTA
```

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*
235-105-220 *Corrective Maintenance*
235-190-105 *ISDN Feature Descriptions*
235-600-400 *Audits*
235-600-500 *Asserts*
235-900-301 *ISDN Basic Rate Interface Specification*

UPD:RDTA-B

Software Release: 5E12 and later
Message Class: TM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      UPD RDTA SESSION=a b
        [b] [c] [l] [w] [y]
        [INDN=z ITAP=a1-b1] [OUTDN=c1 OTAP=d1-e1]
       MODE=f1 [QTS=g1]  DURATION=h1  TIME REMAINING=i1

[2]   ____________________________________________________________
      UPD RDTA SESSION=a b FP=j1
```

2. REASON FOR OUTPUT

To respond to a manual request to reinitialize the termination timer for the specified remote digital test access (RDTA) session. To inform the craft that the termination timer will expire and the technician has 30 minutes to respond with a message to keep the active RDTA connection. To send a session reminder to the technician every 24 hours when a session duration (DUR) parameter is longer than 1 day.

Format 1 states that a successful initialization of the termination timer for the requested RDTA session has been accomplished and gives all status information about the updated session. The first line shows the session number and the completion notification of the requested session. The second line describes the port under test (PUT) in the various port identifications which are applicable to the PUT. The third line shows the output facility information defining routing for the RDTA connection and where the protocol analysis equipment is located. The fourth line shows the type of connection and quarter time-slot, if applicable, along with the total session duration and remaining session time.

Format 2 is used to give a failure response pertaining to the input request of updating or resetting the termination timer for the requested RDTA session. The information, as seen by the input message, will be returned along with the reason for failure and a failure point number, used to identify the point in software where failure occurred.

3. VARIABLE FIELD DEFINITIONS

`+` = Assigned to a multipoint interface.

`a` = Session number given to the requested session. Sessions are numbered sequentially from 1 through 99. At 99, the numbers will be recycled starting from 1 again.

`b` = Response to UPD:RDTA input message. Valid value(s):

- `COMPLETED` = The termination timer was successfully reset. The time remaining as displayed on the output may be used as verification.
- `CORRUPTED DYNAMIC DATA` = Dynamic data has been corrupted. Look at the receive-only printer (ROP) for a related assert to give assistance toward correcting the office dependent data (ODD) problem. Audits will correct any RDTA session/data inconsistency.
- `IS STILL ACTIVE 24 HOUR REMINDER` = A reminder that a session has been active for 24 hours, resources are being utilized by the RDTA session.
- `SESSION NOT ACTIVE` = The requested RDTA session is not active.
- `SM UNAVAILABLE` = The SM containing the PUT, which is needed to retrieve/translate port names,

is isolated. This restricts the administrative module (AM) from printing the PUT external identifiers on line 2 of the Format 1 output message. Therefore, this message may also be seen on line 2 of the Format 1 output message in place of these external identifiers.

`SYSTEM ERROR` = Internal system error occurred while attempting to update the termination timer for the requested RDTA session.

`WARNING**SESSION ABORT IN 30 MIN` = The termination timer will expire in approximately 30 minutes. If the RDTA session is to be continued beyond the next 30 minutes, then the UPD:RDTA input message should be used.

`c` = Service group and member numbers. Valid value(s):

```
BST=d-e
 MLHG=f-g
 OAPO=d
 OPT=d-e
 RTRS=h-i
 TKGMN=j-k
```

`d` = Operator service center number.

`e` = Relative position number.

`f` = Multi-line hunt group number.

`g` = Multi-line hunt group member number.

`h` = Data link relative group number of the RTRS.

`i` = Data link relative member number of the RTRS.

`j` = Trunk group number.

`k` = Trunk group member number.

`l` = Equipment number. Valid value(s):

```
AIUEN=m-t-l1-m1
 DEN=m-n-o-p
 ILEN=m-q-r-s
 LCEN=m-t-u-v
 LCKEN=m-t-k1-l1-m1
 NEN=m-n1-o1-p1-q1-r1-s1-t1
 INEN=m-n1-r-s
```

`m` = SM number.

`n` = Digital line and trunk unit (DLTU) number.

`o` = Digital facility interface number.

`p` = Digital channel.

`q` = Integrated digital carrier unit number.

`r` = Remote terminal number.

`s` = Channel unit number.

`t` = Integrated services line unit (ISLU) or access interface unit (AIU) number.

`u` = Line group controller number.

`v` = Line card number.

`w` = Directory number. Valid value(s):

```
DN=u[+]
 PKTDN=u[+]
```

`x` = Seven-digit directory number.

`y` = Channel type (for basic rate interface (BRI)). Valid value(s):

- `B1` = B1-Channel.
- `B2` = B2-Channel.
- `D` = D-Channel (default).

`z` = DN of the output facility where the protocol analyzer is connected to access the test data sent over the PUT to the switch. This direction will be known as incoming. Data sent from the analysis equipment for interaction with the PUT will therefore originate from INDN for all interactive mode connections excepting the SPLITPH connection.

`a`[1] = SM number of the port which corresponds to the INDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

`b`[1] = Logical port number of the port which corresponds to the INDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

`c`[1] = DN of the output facility where the protocol analyzer is connected to access the test data sent from the switch to the PUT. This direction will be known as outgoing. Data sent from the analysis equipment for interaction with the switch will therefore originate from OUTDN for the SPLIT and SPLITPH connections.

`d`[1] = SM number of the port which corresponds to the OUTDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

`e`[1] = Logical port number of the port which corresponds to the OUTDN for local access or of the port which connects the session switch (where the session is set up) to the network for remote access.

`f`[1] = Connection mode of the RDTA session. Valid value(s):

- `DTAC` = Direct test access connection (DTAC). This is an interactive connection on a port which does not have a path set up on it. The PUT is seized and directly connected to a outgoing port terminating at the protocol analysis equipment.
- `MON` = Monitor. This is a receive-only connection on a busy circuit. A copy of the transmit and receive data being passed over the PUT is transmitted to two individual outgoing ports that terminate at the protocol analysis equipment.
- `SPLIT` = Duplex split. This is an interactive connection on a busy circuit. The existing path on the PUT is broken and each half is connected to an outgoing port terminated at the protocol analysis equipment. This allows interactive testing of both sides of the

original path.

`SPLITPH` = Simplex split protocol handler (PH) side. This is an interactive connection up on an integrated services digital network (ISDN) channel nailed-up to a PH. The existing path on the ISDN channel is torn down and the PH associated with the channel being tested is directly connected to an outgoing port terminating to the protocol analysis equipment.

`SPLITPUT` = Simplex split PUT side. This is an interactive connection on a busy circuit. The existing path on the PUT is broken and the PUT is directly connected to an outgoing port terminating to the protocol analysis equipment.

`g`[1] = The quarter time-slot (QTS) (16 kb/s section) of a 64 kb/s unrestricted channel. This output facility pseudo BRI D-channel quarter time-slot corresponds to the quarter time-slot carrying the BRI D-channel data, the PUT data, to the PH. The valid range is 0,1,2 or 3.

`h`[1] = This is the total time for which the session has been active in its present state (that is, the time since the start or conversion of the session). The output form, for this length of time, on the output is days (with a space between) hours:minutes:seconds.

`i`[1] = This is the remaining time for which the session will continue operating before the session will be automatically terminated, in the form days (with a space between) hours:minutes:seconds. If the session has been set for an infinite duration, the time field will be printed as INFINITE. The session may be extended by using the UPD:RDTA input message.

`j`[1] = This is a fail point number used to relay the specific point in the software at which a failure occurred. This is used purely for debugging purposes.

`k`[1] = Line group number.

`l`[1] = Line board number.

`m`[1] = Line circuit number.

`n`[1] = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

`o`[1] = Data group (DG) number.

`p`[1] = SONET termination equipment (STE) facility number.

`q`[1] = Synchronous transport signal (STS) facility number.

`r`[1] = Virtual tributary group (VTG) number.

`s`[1] = Virtual tributary member (VTM) number.

`t`[1] = Digital signal level 0 (DS0) number.

4. ACTIONS TO BE TAKEN

If the completion code indicates a failure in initializing the termination timer, due to an internal software/hardware error, save the printer output. Refer to the TECHNICAL ASSISTANCE section of the INTRODUCTION.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:RDTA
OP:RDTA
UPD:RDTA
STP:RDTA
VFY:RDTA
```

Output Message(s):

```
EXC:RDTA
OP:RDTA
STP:RDTA
VFY:RDTA
```

Other Manual(s):

235-105-110	*System Maintenance Requirements and Tools*
235-105-220	*Corrective Maintenance*
235-190-105	*ISDN Feature Descriptions*
235-600-400	*Audits*
235-600-500	*Asserts*
235-900-301	*ISDN Basic Rate Interface Specification*

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UPD:REDUCE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      UPD REDUCE {COMPLETED|ABORTED|STOPPED}

[2]   ____________________________________________________________________
      UPD REDUCE UNLINK FAILED ON a

[3]   ____________________________________________________________________
      UPD REDUCE MOVE THE FOLLOWING FILE(S) TO b MANUALLY
        c
        .
        .
        .

[4]   ____________________________________________________________________
      UPD REDUCE MOVE HISTORY FILES FROM d TO b MANUALLY
```

2. REASON FOR OUTPUT

To report the result of executing the UPD:REDUCE input message. The input message reduces the amount of space needed to maintain field update record keeping files in /etc.

Format 1 is printed to indicate status of command at termination time.

Format 2 is printed to indicate files not removed by command.

Format 3 is printed to indicate some of the files were not moved.

Format 4 is printed when some of the files are not moved and a complete list of the files can not be printed.

3. VARIABLE FIELD DEFINITIONS

`a` = Name of file that must be manually removed.

`b` = Name of the destination directory.

`c` = Name(s) of the files that must be moved manually to the destination directory.

`d` = Name of the source directory.

4. ACTION TO BE TAKEN

If the message reads `ABORTED` or `STOPPED`, obtain technical assistance.

If Format 3 is printed, move all the files listed to the destination directory manually.

If Format 4 is printed, determine names of the files in the source directory and manually move them to the destination directory.

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5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:REDUCE
```

Output Message(s):

```
UPD:SYSERR
UPD:USRERR
```

UPD:REPT

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
UPD a REPT
  b
 [c]
  d
  UPD a c
```

2. REASON FOR OUTPUT

To report the result of executing a UPD message.

3. VARIABLE FIELD DEFINITIONS

a = The identification field of the field update input message producing this output. Valid value(s):

```
APPLY
BLDBOOT
BKOUT
CLR
DISPLAY
FTRC
OMIT
PERM
PURGE
RECLAIM
RESET
VFY
```

b = Messages from the field update processes. These messages may contain information about the progress of an update or report an error encountered while processing the update. Error messages fall into six categories. Valid value(s):

`COFF ERROR` = An error occurred in the internal format of a file.
`DATABASE ERROR` = An error occurred in the data base.
`FILESYS ERROR` = An error occurred in the file system.
`INTERNAL ERROR` = An error was found by the field update code.
`SYSTEM ERROR` = A system error occurred.
`USAGE ERROR` = An error occurred using field update.

c = *UNIX*® system error call number.

d = Termination mode of the input message. Valid value(s):

`ABORTED` = The request terminated with errors.
`COMPLETED` = The request was fulfilled successfully.

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4. ACTION TO BE TAKEN

If a message aborts, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. Otherwise, no action is required.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:APPLY-BYTER
UPD:APPLY-FILER
UPD:APPLY-FUNCR
UPD:BKOUT
UPD:BLDBOOT
UPD:CLR
UPD:DISPLAY
UPD:FTRC
UPD:RESET
UPD:VFY
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

UPD:SOAK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]    ____________________________________________________________________
       UPD SOAK SECTION COMPLETED, BUT NOT TIMED

[2]    ____________________________________________________________________
       UPD SOAK BWM=a SOAK SECTION COMPLETE
```

2. REASON FOR OUTPUT

Format 1 prints information on the receive-only printer (ROP) if the soak timer is occupied by a perviously entered software update. The soak section of the present software update is completed without disturbing the currently occupied timer.

Format 2 prints information on the ROP when the timer for soaking the software update is finished.

3. VARIABLE FIELD DEFINITIONS

`a` = Name of software update being soaked.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:EXALL
UPD:EXNXT
```

Other Manual(s):

Where 'x' is the release-specific version of the document.
235-104-34x *Generic Update Procedures*

UPD:SSD

Software Release: 5E10 and later
Message Class: LINE
Application: AEWNC
Type: Output

1. FORMAT

```
UPD SSD DN=a b
 [c]
```

2. REASON FOR OUTPUT

To report the results from the UPD:SSD input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Wireless directory number.

`b` = Status. Valid value(s):

`ALREADY IN PROGRESS` = A request to update a wireless subscriber's shared secret data (SSD) is already in progress. The SSD update will not occur until the wireless phone attempts to access the system.

`DATA BASE ERROR` = An error occurred in accessing the system's database. Retry the request. If the problem persists, check for any associated asserts and contact a higher level of support.

`IN PROGRESS` = The request to update a wireless subscriber's SSD has been accepted and will be processed when the wireless phone attempts to access the system (that is, register, originate a call). Any system access attempt by the wireless phone following this output message will generate a REPT:AUTH output message, which will indicate if the SSD update succeeded or failed.

`INPUT ERROR` = The wireless directory number (DN) was not entered correctly in the UPD:SSD input message. All 10 digits of a wireless DN must be specified. Verify that a valid ten digit wireless DN was specified in the UPD:SSD input message and retry the request.

`INVALID DN` = The DN specified in the UPD:SSD input message is unknown to the system. Verify that a valid ten digit wireless DN was specified in the UPD:SSD input message and retry the request.

`INVALID PORT TYPE` = The DN specified in the UPD:SSD input message is a valid DN for the system but is not a wireless DN. Verify that a valid ten digit wireless DN was specified in the UPD:SSD input message and retry the request.

`PROCESS TIMEOUT` = The request failed because an internal process timed-out waiting for a response. The system may be too busy to process the request. Retry the request at a later time. If the problem persists, check for any associated asserts and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`SM UNAVAILABLE` = A switching module (SM) required to update the wireless subscriber's SSD is unavailable. Retry the request at a later time.

`SYSTEM ERROR` = The request failed because of a system error. The system may be too busy to process the request. Retry the request at a later time. If the problem persists, check for any associated asserts and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`UNASSIGNED PORT` = The DN specified in the UPD:SSD input message is associated with a port in

the unassigned state. Verify that a valid ten digit wireless DN was specified in the UPD:SSD input message and retry the request.

`C` = Comment. Valid value(s):

`WIRELESS SUBSCRIBER DN MUST BE SPECIFIED` = Only a wireless subscriber DN may be specified in the UPD:SSD input message.

`10 DIGIT WIRELESS DN MUST BE SPECIFIED` = All ten digits of a wireless subscriber's DN must be specified in the UPD:SSD input message. It is possible for the WNC to be provisioned with multiple wireless subscribers having DNs with the same last seven digits.

`COMPLETION REPORT -REPT AUTH MANAGEMENT- PENDING HANDSET REGISTRATION` = The result of the SSD update request will be indicated by the REPT:AUTH output message when the wireless phone attempts to access the system (that is, register, originate a call).

4. ACTION TO BE TAKEN

No action is required. The actual update of the wireless subscriber's SSD will be processed when the wireless phone attempts to access the system. At that time, a REPT:AUTH output message will be generated to indicate if the SSD update succeeded or failed. If the status of an SSD update is unknown because the REPT:AUTH has not been observed, the OP:WCPE input message may be used in some cases to determine if the SSD update has occurred and if it succeeded or failed. Refer to the complete SSD update procedure in the *Air Extension*^{SM} Reference Guide.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:WCPE
UPD:SSD
```

Output Message(s):

```
OP:WCPE
REPT:AUTH
```

Other Manual(s):

230-701-100 *Air Extension*^{SM} *Reference Guide*

230-701-120 *Air Extension*^{SM} *User Guide*

UPD:SUPERPOKE-FB

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
UPD SUPERPOKE FAILED BWM=a STATE=b
```

2. REASON FOR OUTPUT

To report a failure in the execution of the software update superpoke process.

3. VARIABLE FIELD DEFINITIONS

`a` = The name of the software update that superpoke failed on.

`b` = The state that superpoke was in when the failure occurred. Valid value(s):

- `APPAPP` = Execute all the apply section for the apply software update. This is equal to the 9310 poke on page 1960.
- `APPIN` = Execute all the apply section for the install software update. This is equal to the 9310 poke on page 1960.
- `BKOUT` = Backout the software update that is indicated by the backout software update name. This is equal to the 9340 poke on page 1960.
- `OFCIN` = Execute all the official section for the install software update. This is equal to the 9330 poke on page 1960.
- `SKAPP` = Execute all the soak section for the apply software update. This is equal to the 9320 poke on page 1960.
- `SOAKIN` = Execute all the soak section for the install software update. This is equal to the 9320 poke on page 1960.
- `STAPP` = Start the apply software update for the software update name in the apply software update field. This is equal to the 9000 poke on page 1960.
- `STIN` = Start the install software update for the software update name in the install software update field. This is equal to the 9000 poke on page 1960.

4. ACTION TO BE TAKEN

Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. Something has failed in the application of a software update. Give the state of superpoke and the software update name to the person assisting. This will greatly help them.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:VERSION
UPD:VERSION
```

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Output Message(s):

```
OP:VERSION
```

MCC Display Page(s):

1960 (PROG UPD MAINT)

UPD:SYNTAX-CHECK

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
UPD SYNTAX CHECK COMPLETED FOR THE PREVIOUS COMMAND
  ***************************************************
  >>> THIS UPDATE WAS NOT PROCESSED ON THE SWITCH <<<
```

2. REASON FOR OUTPUT

To report that the syntax check mode is activated. The syntax check mode is used to verify the syntax of the command lines in the messages (MSGS) file.

This capability is designed for use in the laboratory testing environment only.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

To de-activate the syntax check mode, remove /tmp/.UPsynchk and the status file in the software update directory. Any *UNIX*® commands existing in the MSGS file that may have been run during the syntax check will have to be rectified by the user. If this message appears on the receive-only printer (ROP) in a non-laboratory environment, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:APPLY-BYTER

UPD:APPLY-FILER

UPD:APPLY-FUNCR

UPD:BKOUT

UPD:DISPLAY

UPD:OFC

UPD:PMPPERF

UPD:PUMPBWM

UPD:PUMPOFC
```

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```
UPD:RCVRY

UPD:REBOOT

UPD:REDUCE

UPD:VFYCON
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 (PROGRAM UPDATE MAINTENANCE)
1960 (PROGRAM UPDATE INSTALLATION)

UPD:SYSERR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
UPD SYSERR {a|b}
```

2. REASON FOR OUTPUT

To report system errors that occurred as a result of performing a field-update activity.

In many cases, the problem cannot be fixed without more sophisticated diagnostics or technical assistance. However, in a few cases, a field site may be able to correct the problem locally. The system errors are described here with these few cases in mind.

Since the errors can result from executing any of several field-update input messages, the input message is identified by a specific UPD message following one or more UPD:SYSERR output messages.

3. VARIABLE FIELD DEFINITIONS

a = Error code: 1-1960. Refer to Exhibit A.

b = Text string describing outcome. Valid value(s):

```
AFFECTED PERIPHERAL LIST FAILED DUE TO INTERNAL ERROR.
AUDIT REPLY MESSAGE RECEIVED WAS NOT FROM SIM.
All {CMP|SM}(s) ARE NOT OPERATIONAL, BUT SOME {CMP|SM}'S UPDATE FLAG
HAS BEEN SET BY THE SYSTEM.
BACK OUT LAST OFFICIAL BWM PROCESS STOPPED
BLOCK SOFTSWITCH FAILED
BWM APPLY PROCESS STOPPED.
CALLED PUMPBWM/PUMPOFC WITH ILLEGAL CONFIGURATION.
CAN NOT CLOSE THE PACKINFO FILE.
CAN NOT FIND THE FN FILE IN PACKINFO FILE.
CAN NOT FIND THE PACKAGE NAME IN THE PACKINFO FILE.
CAN NOT OPEN THE PACKINFO FILE.
CAN NOT RECEIVE MESSAGES.
CANNOT FIND THE FILE SYSTEM MOUNT TABLE ENTRY FOR c.
CANNOT LOCK FILE INTO MEMORY.
CANNOT MAKE UCNTL AN UNSWAPPABLE PROCESS.
CANNOT MALLOC SYSTEM SPACE FOR AUDINFO.
CANNOT RAISE UCNTL'S PRIORITY.
CANNOT READ COFF FILE SECTION HEADER BY NAME.
c
CANNOT READ COFF FILE SECTION HEADER BY NO.
CANNOT READ CUD ENTRY AT SPECIFIED OFFSET.
CANNOT READ PREVIOUS CUD ENTRY.
CANNOT REPLACE CUD UNIXCMD ENTRY AT c. ENDPTR d.
CANNOT SEND MESSAGE TO SIM TO BLOCK THE c AUDIT ON d f.
CANNOT SEND MESSAGE TO SIM TO UNBLOCK THE c AUDIT ON d f.
CLEAR FORCE FAILED FOR SM=c g
CMP PUMP IS ACTIVE.
```

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```
CONFIGURATION c DOES NOT EXIST.
CTS PUMP IS ACTIVE.
CUD LOCK IS SET BUT NO EMULATOR UPDATES EXIST FOR f.
CURRENT OPERATION ABNORMALLY ABORTED
CURRENT PID = c (d) IS NOT RECLAIMED, TRY AGAIN.
CURRENT PID = c (d) IS NOT UPDATED, RE-APPLY THE BWM.
CURRENT PID = c (d) IS NOT UPDATED, TRY AGAIN.
DD READ FAILED FOR OFFLINE PUMP: SM=c h g
DD READ FAILED FOR SM=c h g
DDSWRITE FAILED CMP c, CAN'T UNBLOCK SOFTSWITCH.
DIRECTORY IS NOT MOUNTED WRITABLE.
DIRECTORY SWITCH FAILED
e IS NOT A FILE SYSTEM.
e NOT A BLOCK DEVICE.
EXCEEDED THE MAXIMUM FILE PATH NAME.
FAILED TO BACKOUT EMULATOR UPDATE.
FAILED TO COMMUNICATE WITH UPGENPCC.
FAILED TO CREATE THE DELTA FILE.
FAILED TO FORCE ACTIVE FOR SM=c g
FAILED TO FIND ALL THE FILE SYSTEM AUDITS
FAILED TO MAKE EMULATOR UPDATE OFFICIAL
FAILED TO READ SUPERBLOCK OF e f.
FAILED TO RECEIVE MESSAGE TO BLOCK THE c d AUDIT ON e f
FAILED TO REMOVE DIRECTORY.
FAILED TO REMOVE UPDATE FROM EMULATOR.
FAILED TO SEND A MESSAGE c.
FAILED TO SEND MESSAGE TO PCTL.
FAILED TO UPDATE EMULATOR.
FAST PUMP IS ACTIVE.  [FN c]
HISTORY FILE(S) EXISTS WITHOUT CUD
INCONSISTENCIES BECAUSE OF MEMORY RECLAMATION FAILURE STILL EXIST.
INITIALIZATION FAILED
INTERNAL ERROR: BAD TYPE ARGUMENT.
INVALID ARGUMENT PASSED TO UPTOUP c d.
INVALID DDPCONFIGST VALUE.
LB PUMP IS ACTIVE.
MATE MEMORY COPY FAILED FOR SM=c g
MATE MEMORY COPY FAILED FOR SM=c g - SEEK TECHNICAL ASSISTANCE
IMMEDIATELY
NO MORE SYSTEM SPACE.
NO QUEUE AVAILABLE.
OFFICE SPECIFIC UPDATE ENCOUNTERED
OFFLINE PUMP FAILED FOR SM=c
OFFLINE PUMP TIMED OUT FOR SM=c
OSsyspatch NOT IN SYMBOL TABLE.
PORT I/O TO SM FAILED.
PRE-OFFLINE PUMP CONDITION CHECK FAILED FOR SM=c
PREVIOUS APPLY PARTIALLY COMPLETED
RECEIVED c.
RECLAIM PROCESS STOPPED.
REQUEST DUPLEX RESTORATION FAILED FOR SM=c g
REQUEST OF OFFLINE PUMP FAILED FOR SM=c g
SIM BLOCKED THE AUDIT FOR THE WRONG FILE SYSTEM.
SIM BLOCKED THE WRONG AUDIT.
SIM COULD NOT BLOCK c d AUDIT ON e f.
SIM COULD NOT UNBLOCK c d AUDIT ON e f.
```

```
SIM REPLY MESSAGE NOT RECEIVED WITHIN 30 SECONDS.
SIM UNBLOCKED THE WRONG AUDIT (c d) SHOULD BE (e f)
SIM UNBLOCKED THE AUDIT FOR THE WRONG FILE SYSTEM (c) SHOULD BE (d)
SM DUPLEX RESTORATION TIMED OUT FOR SM=c
SOFTSWITCH IS IN PROGRESS.
STOPPED SOME SM(s) NOT UPDATED.
SOME {CMP|SM}(s) ARE UNDERGOING INIT OR ARE OOS AND BACKOUT IS
INHIBITED, BUT SOME {CMP|SM}'S UPDATE FLAG HAS BEEN SET BY THE SYSTEM.
STOPPING OFFLINE PUMP FAILED FOR SM=c g
SYSTEM CALL CP FAILED c
SYSTEM CALL LSEEK IN CUD FAILED.
SYSTEM CALL MKDIR FAILED c d.
TIMEOUT ON OFFLINE PUMP REQUEST FOR SM=c h
THE PACKINFO FILE HAS A BAD FORMAT.
TOO MANY HISTORY FILES TO SAVE FOR BOLO USE UPD:BLOCK TO REMOVE BOLO
BWM ENTRIES.
UNABLE TO READ MOUNT TABLE.
UNABLE TO RECEIVE MESSAGE FROM SIM.
UNABLE TO RUN c AUDIT ON d e<
UNABLE TO STAT FN c.
UNKNOWN SIGNAL RECEIVED - c.
UPD ONLY TYPE 7 INCONSISTENCY IS ALLOWED TO MAKE OFFICIAL
UNCONDITIONALLY.
UPD PMPSTOP REQUEST IN PROGRESS.
UPDATED PROCESS DID NOT REACH A CLEAR STATE.
UPFALLOC() BAD PATH NAME = c
UPpupci WAIT FAILED ERRNO = c
WARNING: NONE OF THE AFFECTED {CMP|SM}(s) HAS BEEN UPDATED.
```

`c-f` = Additional data.

`g` = Result code. Valid value(s):

- `1` = Request completed.
- `2` = Request started - printout follows.
- `3` = Audit system initialization in progress.
- `4` = Audit system initialization failed.
- `5` = Access to audit record in equipment configuration database (ECD) failed.
- `6` = Requested audit is running.
- `7` = Another kernel process (KP) requested audit is running.
- `8` = Maximum number of supervisor audits is running.
- `9` = Requested audit is blocked.
- `10` = Attempt to initialize or dispatch audit failed.
- `11` = An audit with the same name is running.
- `12` = Audit running in demand mode. Cannot block.
- `13` = Audit running requested. Cannot stop or block.
- `14` = Requested audit or instance is inhibited.
- `15` = System integrity output formatter (SIOF) is dead.
- `19` = Invalid audit specified.
- `20` = Invalid audit instance specified.
- `21` = Mode of request not permitted.
- `22` = Cannot stop an audit that is not running.
- `23` = Cannot stop a non-segmented kernel audit.
- `30` = Request resulted in no change.

g = Error code.

h = Data delivery (DD) key identifier.

4. ACTION TO BE TAKEN

The specific action required depends on the type of error that occurred. An invalid update name (UPNM) or pathname [update file (UF) or file name (FN)] may be the result of an input error. Reenter the input message with the correct update name or pathname. Otherwise, obtain technical assistance.

Explanations of the error codes and any additional data are shown in Exhibit A.

Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual for explanations of error codes listed in columns 'i' and 'j' in Exhibit A.

Exhibit A

'i' =	'j' =	
1 Unable to open the central update database.	--	--
2 Unable to open a specific history file for a particular pfile, 3ba.out, or object file.	History filename.	--
3 Unable to access a particular history file entry.	History filename.	--
4 Unable to access UF entry built from UF keyword entered in a UPD:UPNM input message and attached to the 'owning' history file entry.	--	--
5 Unable to write a UF item into the history file.	History filename.	--
6 Unable to write a history file item into the history file.	History filename. SEEK TECHNICAL ASSISTANCE IMMEDIATELY RESERVE (DEPENDENT) HISTORY ENTRY SPACE Unable to reserve disk space for a (dependent file's) history file entry before installing the update.	(Refer to variable 'j' where variable 'a' = 22)
7 There are 2 possible instances of this error code: Unable to rewrite an existing history file item into the history file. Unable to open a pfile in COFF format. Variable i is	History filename.	--

the filename.		
8 Could not add entry to CUD or BUD.	SEEK TECHNICAL ASSISTANCE IMMEDIATELY RESERVE CUD ENTRY SPACE Unable to reserve disk space for a CUD file entry before installing the update.	-- (Refer to variable 'j' where variable 'a' = 22)
9 Unable to close the history file.	History filename.	--
10 Unable to close the central update database.	--	--
11,12 Call to lla_dbatt failed. Dictionary pathname.	--	
13 Unable to read the header record in the system generation database. Dictionary pathname.	--	
14 Unable to read the system generation 2 record in the system generation database. Dictionary pathname.	--	
15 Unable to open for read the process sequence list attached to the header record in the system generation database. Dictionary pathname.	--	
16 Unable to read the process sequence list attached to the header record in the system generation database. Dictionary pathname	--	
17 Overwrite generator (OGEN) failed.	One of the following OGEN return codes: 0 = Normal end. 1 = Bad arguments passed to internal function. 2 = Can not find name in passwd file. 3 = Bad magic number in aouthdr. 4 = First source file not brnch.tbl in library. 5 = Unknown storage class. 6 = Inconsistent magic number in mfiles. 7 = Illegal mark state. 8 = Illegal build transaction. 9 = Scoping inconsistencies.	--
17 (Cont.) Overwrite generator (OGEN) failed.	One of the following OGEN return codes: 10 = Bad dotype in stclass. 11 = Can not reopen stdout. 12 = Duplicate function symbols. 13 = Duplicate file name in mfiles.	--

	14 = Duplicate .file symbols. 15 = Duplicate transfer vector (TV) reservations. 16 = Illegal scn parity. 17 = Illegal reloc type. 18 = Illegal reloc size. 19 = Illegal state in close.	
17 (Cont.) Overwrite generator (OGEN) failed.	One of the following OGEN return codes: 20 = Can not allocate memory. 21 = Can not ldopen library. 22 = Illegal transaction. 23 = Illegal transaction. 24 = Error transition. 25 = Function maximum exceeded for one UPD message. 26 = Can not close mfile. 27 = Can not read mfile section header. 28 = Can not read mfile linenum. 29 = Can not "seek" to mfile linenum.	--
17 (Cont.) Overwrite generator (OGEN) failed.	One of the following OGEN return codes: 30 = Can not find symbol in mfile. 31 = Can not read mfile segment. 32 = Can not ldopen mfile. 33 = Can not open mfile for relocation. 34 = Can not read aux reloc. 35 = Can not read mscn for reloc. 36 = Can not "seek" to mcontent. 37 = Can not read mfile auxent. 38 = Added function present. The mfile marks the added function. If OGEN finds that the function already exists, it figures that the mfile was not meant for this pfile. 39 = Can not find function in branch table.	--
17 (Cont.) Overwrite generator (OGEN) failed.	One of the following OGEN return codes: 40 = Inconsistent F_NODF flags. An update that suppresses the installation of decision functions must be consistent throughout. 41 = Not enough patch space. 42 = Not enough spare slots. 43 = F_AR32W flag is not set in the filehdr. On the AM, ogen expects the file to look as if it were build on a 32-bit machine with left to right byte ordering. 44 = Can not find text section. 45 = Can not read aouthdr. 46 = Unknown option on command line. 47 = Can not read patch block count. 48 = Can not "seek" to pfile header. 49 = Can not read pfile scn header.	--
17 (Cont.)	One of the following OGEN return codes:	--

Overwrite generator (OGEN) failed.	50 = Can not read pfile linenum. 51 = Can not "seek" to pfile linenum. 52 = Missing pfile name; no -p argument. 53 = Can not read pfile segment. 54 = Can not open pfile. 55 = Can not read pfile optional header. 56 = Can not "seek" to pfile optional header. 57 = Can not read patch entry. 58 = Can not "seek" to patch list. 59 = Can not open pfile for relocation.	
17 (Cont.) Overwrite generator (OGEN) failed.	One of the following OGEN return codes: 60 = Can not read pfile reloc. 61 = Can not "seek" to pfile reloc. 62 = Can not find pscn for virtual address. 63 = Can not read pfile scn. 64 = Can not "seek" to pfile scn. 65 = Can not read pfile auxent. 66 = Illegal state in tm. 67 = Can not read mfile scnhdr for reloc. 68 = Can not read mfile reloc entry. 69 = Can not "seek" to reloc.	--
17 (Cont.) Overwrite generator (OGEN) failed.	One of the following OGEN return codes: 70 = Bad relocation type. 71 = Can not find mscn name in tree. 72 = Can not find symbol in tree. 73 = Can not open temporary file. 74 = Can not read from temporary file. 75 = Tree was null after mfiles. 76 = Can not "seek" in temporary file. 77 = Can not unlink temporary file. 78 = Reserved slot in use. 79 = Can not write to temporary file.	--
17 (Cont.) Overwrite generator (OGEN) failed.	One of the following OGEN return codes: 80 = Can not open ufile to write filehdr. 81 = Can not write ufile header. 82 = Can not "seek" to ufile scnhdr. 83 = Can not write uscnhdr. 84 = Can not open ufile for linenum. 85 = Can not "seek" to ufile linenum. 86 = Can not write ufile linenum. 87 = Missing ufile name; no -u argument. 88 = Unexpected action. 89 = Can not open ufile for new symbols.	--
17 (Cont.) Overwrite generator (OGEN) failed.	One of the following OGEN return codes: 90 = Can not "seek" to new ufile segment. 91 = Can not write new ufile segment. 92 = Symbol not defined. 93 = Can not "seek" for ufile symbols. 94 = Can not write new ufile auxent. 95 = Can not write old ufile scnhdr.	--

	96 = Can not open ufile for old symbols. 97 = Can not "seek" in ufile for old symbols. 98 = Can not write ufile old segment. 99 = Can not open ufile.	
17 (Cont.) Overwrite generator (OGEN) failed.	One of the following OGEN return codes: 100 = Can not "seek" to ufile opthdr. 101 = Can not write ufile opt hdr. 102 = Can not write ufile old auxent. 103 = Can not "seek" in ufile. 104 = Can not open ufile for scn content. 105 = Can not "seek" to ufile scn. 106 = Can not write ufile scn. 108 = Zero-th symbol not .file in pfile. 109 = System patch count is too large for MC68 (MC68PCNT).	--
17 (Cont.) Overwrite generator (OGEN) failed.	One of the following OGEN return codes: 110 = Magic number conflict between .mfile and target file. 111 = Can not "seek" to pfile symbol table. 112 = No decision function in pfile. 113 = One of the files after -m is not a .m file. 114 = TV or BT slot missing in symbol table of mfile for current function. 115 = TV or BT slot mismatch. Assigned slot in mfile for current function does not match the slot in the pfile. 116 = New function in STUBS file has missing tv slot. 117 = TV slot in .mfile and STUBS file are equal, but functions are different. 118 = Found different tv slot in STUBS file. 119 = TV slot in .mfile and STUBS file are not equal, but functions are identical.	--
17 (Cont.) Overwrite generator (OGEN) failed.	One of the following OGEN return codes: 120 = Bad magic number in Pfile header. 125 = System patch count is too large for IAPX20 (IAPX20PCNT). 126 = System patch count is too large for IAPX16 (IAPX16PCNT). 127 = Can not find .text symbol for a C file (NOTEXT). 128 = Can not determine image type for new function. 129 = Mfile not stripped.	--
17 (Cont.) Overwrite generator (OGEN) failed.	One of the following OGEN return codes: 130 = Illegal relocation to label. 131 = Can not find tv symbol in pfile	--
18	One of the following DUFR return codes:	--

Dynamic update function replacer (DUFR) failed.	2 = Bad return from KOP. 3 = More than one segment needs attaching in order to perform overwrite. 4 = DUFR encountered an error when opening or reading the absolute overwrite file, or there is an error in the format of the absolute overwrite file. 5 = More than 50 words need writing in order to perform update. 6 = More than one segment needs attaching in order to perform overwrite. 7 = KOP is unable to attach to one of the segments to be overwritten. 8 = DUFR could not grow the patch segment to write the replacement function. 9 = KOP is unable to release to one of the segments that was overwritten.	
18 (Cont.) Dynamic update function replacer (DUFR) failed.	One of the following DUFR return codes: 10 = DUFR is unable to attach one or more segments to be overwritten. 12 = DUFR discovered a mismatch between the old data in the absolute overwrite file and the old data in the core image of the process. This error is most likely a user error. It can result from incorrect old data in a .m file, pfile, 3ba.out, or object file. 14 = More than 50 words need writing in order to perform update. 16 = DUFR encountered an internal error. 18 = DUFR is unable to release one or more segments that were overwritten. No action needs to be taken, since the link to the attached segments will be broken when DUFR terminates.	--
18 (Cont.) Dynamic update function replacer (DUFR) failed.	One of the following DUFR return codes: 20 = Overwrite attempts to a reference address not in the address space of the process. This error is most likely a user error. It can result from an incorrect pfile, 3ba.out, or object file, or an invalid utility ID. 22 = The address of a transfer vector is not aligned to a full word boundary. 24 = Error in obtaining process ID from the utility manager. This error can be a user error resulting from an incorrect pfile, 3ba.out, or object file, or treating a killable process that is not in core as a nonkillable update. 26 = Error in processing overwrite for multiple invocations of a process. At least one instance of the process was updated	--

	correctly. 28 = Error in p_creating kopf process.	
18 (Cont.) Dynamic update function replacer (DUFR) failed.	One of the following DUFR return codes: 30 = The KOPF process did not send a kopf-init event to KOP. 32 = The KOPF and KOP processes were faulted due to a system-initialization (phase 1), the overwrite has been backed out. 33 = Missing temped file. 34 = The KOP process was faulted, the overwrite/backout was not performed. 36 = DUFR process faulted. 38 = DUFR process externally terminated.	--
18 (Cont.) Dynamic update function replacer (DUFR) failed.	One of the following DUFR return codes: 40 = Bad processing sequence attempted by DUFR. 42 = PFCLRERR segment name has failed. System reasons. 44 = DFPTERM target process died (for KP update).	--
19 Overwrite incremental loader (OILD) failed.	One of the following OILD return codes: 1 = Missing or unknown argument in the OILD call. 2 = Duplicate flags in the OILD call. 3 = *UNIX*® RTR operating system signal caused a program interrupt. 4 = Bad version of OILD being used. 5 = Product built with TV only can be processed.	--
19 (Cont.) Overwrite incremental loader (OILD) failed.	One of the following OILD return codes: 20 = No input pfile, 3ba.out, or object filename given. 22 = Cannot open the input pfile, 3ba.out, or object file. 23 = *UNIX*® RTR operating system memory-allocation failure while building internal data structures. 24 = *UNIX*® RTR operating system read failure for the input pfile, 3ba.out, or object file. 25 = Bad input pfile, 3ba.out, or object file: no header structures present. 26 = Bad input pfile, 3ba.out, or object file: invalid magic number; file is of unknown type. 27 = There are 2 possible instances of this error code. Bad input pfile, 3ba.out, or object file:	--

	not in common object file format. Missing pad section. 28 = *UNIX*® RTR operating system file positioning failure for the input pfile, 3ba.out, or object file.	
19 (Cont.) Overwrite incremental loader (OILD) failed.	One of the following OILD return codes: 40 = No output pfile, 3ba.out, or object filename given. 41 = Output pfile, 3ba.out, or object file already exists. 42 = Cannot open the output pfile, 3ba.out, or object file. 43 = Same as 23. 44 = *UNIX*® RTR operating system read failure for the output pfile, 3ba.out, or object file. 45 = *UNIX*® RTR operating system write failure for the output pfile, 3ba.out, or object file. 48 = *UNIX*® RTR operating system file positioning failure for the output pfile, 3ba.out, or object file.	--
19 (Cont.) Overwrite incremental loader (OILD) failed.	One of the following OILD return codes: 58 = *UNIX*® RTR operating system file close failure for the output pfile, 3ba.out, or object file. 60 = No absolute overwrite filename given. 62 = Cannot open absolute overwrite file. 63 = Same as 23. 64 = *UNIX*® RTR operating system read failure for the absolute overwrite file. 65 = Bad absolute overwrite file: no header structure present. 66 = Bad magic number: absolute overwrite file is of unknown type. 68 = *UNIX*® RTR operating system file positioning failure for the absolute overwrite file. 69 = Bad overwrite.	--
19 (Cont.) Overwrite incremental loader (OILD) failed.	One of the following OILD return codes: 73 = Bad overwrite: old/new data mismatch. 74 = Bad overwrite: unknown .filename. 77 = Bad overwrite: relocation entries not allowed. 83 = Same as 23. 86 = Bad overwrite: absolute overwrite file - input pfile mismatch.	--

19 (Cont.) Overwrite incremental loader (OILD) failed.	One of the following OILD return codes: 90 = Same as 86. 95 = During official back out, patch list could not be restored to its previous state. 100 = No patch list. 103 = Same as 23. 111 = Bad absolute overwrite file. 116 = Same as 111.	--
19 (Cont.) Overwrite incremental loader (OILD) failed.	One of the following OILD return codes: 120 = Missing or duplicate .file symbol. 123 = Same as 23. 124 = Same as 44. 125 = Same as 45. 129 = Missing or duplicate function name.	--
19 (Cont.) Overwrite incremental loader (OILD) failed.	One of the following OILD return codes: 132 = Bad symbol table entry in absolute overwrite file. 134 = Bad symbol table entry in input pfile, 3ba.out, or object file. 135 = Same as 134. 136 = Same as 134. 143 = Same as 23.	--
19 (Cont.) Overwrite incremental loader (OILD) failed.	One of the following OILD return codes: 163 = Same as 23. 177 = Same as 111.	--
20 Incremental system generation (ISGEN) failed.	One of the following ISGEN return codes: 1 = Reason for error found at beginning of output file /tmp/isgdump. 2 = bf_init: cannot open output file `j`. 3 = bf_fchk: cannot open file `j`. 4 = bf_fchk: file `j` is not a single extent contiguous file. 5 = bf_write: insufficient space on output file to build system. 6 = bh_put: write failed. 7 = bt_pr_seg: too many segments in boot image. 8 = bt_ovrwrt: unable to overwrite bootab. 9 = bt_ovrwrt: unable to open output file `j`.	--
20 (Cont.) Incremental system generation (ISGEN) failed.	One of the following ISGEN return codes: 10 = bt_ovrwrt: unable to write to file `j`. 11 = db_init: failed to attach to database. 12 = db_init: failed to read header record. 13 = db_init: failed to read sgen1 record. 14 = db_getpth: failed to read sgen2 record. 15 = db_getpth: failed to read sgen3 record. 16 = db_pnum: no available process numbers.	--

	17 = usage: isgen [-o outputfile] dbname. 18 = kpcb_put: write failed. 19 = kpcb_frsn: exceeded max number of pfile segments.	
20 (Cont.) Incremental system generation (ISGEN) failed.	One of the following ISGEN return codes: 20 = pf_csize: can't find kboot text. 21 = pf_csize: can't find kboot data. 22 = pf_csize: can't find kernel text. 23 = pf_csize: can't find kernel data. 24 = pf_csize: can't find kernel bss. 25 = pf_csize: can't find tv. 26 = pf_fsize: can't find text of a.out. 27 = pf_fsize: can't find data of a.out. 28 = pf_fsize: can't find kernel text. 29 = pf_fsize: can't find kernel data.	--
20 (Cont.) Incremental system generation (ISGEN) failed.	One of the following ISGEN return codes: 30 = pf_fsize: can't find tv. 31 = pf_fstart: can't find text. 32 = pf_fstart: can't find data. 33 = pf_fstart: can't find kernel text. 34 = pf_fstart: can't find kernel data. 35 = pf_fstart: can't find tv. 36 = pf_cpyseg: write failed. 37 = pf_fill: write failed. 38 = spcb_put: write failed. 39 = spcb_firstsn: exceeded max number of pfile segments.	--
20 (Cont.) Incremental system generation (ISGEN) failed.	One of the following ISGEN return codes: 40 = va_resume: out of room in kboot's address space. 41 = va_putsgt: write failed. 42 = va_putpgt: write failed. 43 = va_putpgt: write failed. 44 = pf_getfile: file `j` must be 3bswabbed.	--
21 The file or process that is being updated has the incorrect byte ordering internally. The ordering of the most significant and least significant bytes or words is reversed.	--	--
22 Pcreat of DUFR failed.	Pathname used to pcreat DUFR.	If '`a`' = 22.15, 28-30, 40-43, or 101-108, j = one of the following *UNIX*® RTR operating system error codes: 2 = This error occurs when a filename is specified and the file should exist but doesn't, or when one of the directories in a pathname does not exist. 3 = A system call was given an invalid process ID.

		4 = An asynchronous signal (such as interrupt or quit), which the user has elected to catch, occurred during a system call. If execution is resumed after processing the signal, it will appear as if the interrupted system call returned this error condition.
22(Cont.) Pcreat of DUFR failed.	Pathname used to pcreat DUFR.	If 'a' = 22.15, 28-30, 40-43, or 101-108, j = one of the following *UNIX*® RTR operating system error codes: 5 = Some physical I/O error occurred during a read or write. This error may in some cases occur on a call following the one to which it actually applies. 6 = I/O on a special file refers to a subdevice which does not exist, or beyond the limits of the device. It may also occur when, for example, a tape drive is not online or no disk pack is loaded on a drive. 7 = An argument list longer than 5,120 bytes is presented to a member of the exec family. 8 = A request is made to execute a file which, although it has the appropriate permissions, does not start with a valid magic number. 9 = Either a file descriptor refers to no open file, or a read (respectively writing) request is made to a file which is open only for writing (respectively reading).
22(Cont.) Pcreat of DUFR failed.	Pathname used to pcreat DUFR.	If 'a' = 22.15, 28-30, 40-43, or 101-108, j = one of the following *UNIX*® RTR operating system error codes: 10 = A wait was executed by a process that had no existing or unwaited-for child process. 11 = A fork failed because the system's process table is full or the user is not allowed to create any more processes. 12 = During an exec, a program asks for more space than the system is able to supply. This is not a temporary condition; the maximum space size is a system parameter. The error may also occur if the arrangement of text, data, and stack segments requires too many segmentation registers, or if there is not enough swap space during a fork. 13 = An attempt was made to access a file in a way forbidden by the protection system.

		14 = The system encountered a hardware fault in attempting to use an argument of a system call.
22(Cont.) Pcreat of DUFR failed.	Pathname used to pcreat DUFR.	If 'a' = 22.15, 28-30, 40-43, or 101-108, j = one of the following *UNIX*® RTR operating system error codes: 15 = Valid block device required for system call. 16 = The requested mount device is busy. 17 = An existing file was mentioned in an inappropriate context, such as, link. 18 = An attempt was made to do a link across file systems. 19 = Bad device name for system call.
22(Cont.) Pcreat of DUFR failed.	Pathname used to pcreat DUFR.	If 'a' = 22.15, 28-30, 40-43, or 101-108, j = one of the following *UNIX*® RTR operating system error codes: 20 = A nondirectory file was specified where a directory is required, for example, in a path prefix or as an argument to chdir. 21 = An attempt to write on a directory. 22 = Some invalid argument (such as, dismounting a nonmounted device; mentioning an undefined signal in signal or kill; reading or writing a file for which lseek has generated a negative pointer). 23 = The system's table of open files is full, and temporarily no more opens can be accepted. 24 = No process may have more than 20 file descriptors open at a time.
22(Cont.) Pcreat of DUFR failed.	Pathname used to pcreat DUFR.	If 'a' = 22.15, 28-30, 40-43, or 101-108, j = one of the following *UNIX*® RTR operating system error codes: 25 = An attempt was made to do a tty type read from a non tty device. 26 = An attempt to execute a pure-procedure program which is currently open for writing (or reading). Also an attempt to open for writing a pure-procedure program that is being executed. 27 = The size of a file exceeded the maximum file size. 28 = During a write to an ordinary file, there is no free space left on the device. 29 = An lseek was issued to a pipe.
22(Cont.) Pcreat of DUFR failed.	Pathname used to pcreat DUFR.	If 'a' = 22.15, 28-30, 40-43, or 101-108, j = one of the following *UNIX*® RTR operating system error codes:

		30 = An attempt to modify a file or directory was made on a device mounted read-only. 31 = An attempt to make more than the maximum number of links (1000) to a file. 32 = A write on a pipe for which there is no process to read the data. This condition normally generates a signal; the error is returned if the signal is ignored. 33 = A file was left in the "temped" state. 39 = The first access of a block not in a file. This is not an error on writes for regular files but there is for reads. 41 = No more extents exist for an extent file. 42 = A pathname component is too long. The maximum size of a pathname component is 14 characters (not including null character). 43 = No entries left in system tables. 44 = A request for service was made from a driver which does not perform that request.
23 Send or receive operating system call failed.	Process name.	(Refer to variable '`j`' where variable '`a`' = 22.)
24 Fork *UNIX*® RTR operating system call failed. Path for fork.	(Refer to variable '`j`' where variable '`a`' = 22.)	
25 Exec *UNIX*® RTR operating system call failed. Path being rejected.	(Refer to variable '`j`' where variable '`a`' = 22.)	
26 Wait *UNIX*® RTR operating system call failed.	Path for the process on which wait failed.	Value returned from wait system call.
27 Exceed process was interrupted. Syserr 27 occurs when a running field update process (for example ISGEN) receives a signal and is interrupted. Usually, a second syserr will follow: syserr '20' -1, in the case for ISGEN, indicating that an exceed process was interrupted. Note that the -l is not an ISGEN return code and may be ignored. The -1 indicates the death of a child of an exceed process.	Path of the interrupted process. Interrupt signal.	
28	(Refer to variable '`j`' where variable '`a`' = 22.)	

A read-only access *UNIX*® RTR operating system call failed. Path being accessed.		
29 A read-write access *UNIX*® RTR operating system call failed. Path being accessed.	(Refer to variable '`j`' where variable '`a`' = 22.)	
30 Stat *UNIX*® RTR operating system call failed. Path being stated.	(Refer to variable '`j`' where variable '`a`' = 22.)	
31 A write of n bytes did not return with n bytes having been written. The amount of free space in the file system may be exhausted Source filename.	Target filename. Target is unlinked before field update system terminates.	
when writing the target file.		
32 Mount of /dev/root failed. This occurred during an install into the root file system.		
33 Mount of /dev/broot failed. This occurred during an install into the backup root file system.	--	--
34 Ldopen on filename issued to determine the type of pfile, 3ba.out, or object file failed.	Filename.	--
35 Read of a.out hdr of filename to determine the type of pfile, 3ba.out, or object file failed.	Filename.	--
36 Read of phdr of filename issued to determine the type of pfile, 3ba.out, or object file failed.	Filename.	--
37 Bad magic on filename given in `i`. A read to determine the type of pfile, 3ba.out, or object file failed.	Filename.	--
38 Erroneous system patch count.	--	--
39 Unable to build an absolute overwrite file due to a failure encountered during an open, read, write, or close of the file.	--	--
40	Pathname.	(Refer to variable '`j`' where variable '`a`' = 22.)

Falloc *UNIX*® RTR operating system call failed. Refer to AUD:FSBLK, AUD:FSLINK and AUD:FSCMPT if a lack of contiguous file space exist.		
41 Creat *UNIX*® RTR operating system call failed.	Pathname.	(Refer to variable '`j`' where variable '`a`' = 22.)
42 Malloc *UNIX*® RTR operating system call failed.	Pathname.	(Refer to variable '`j`' where variable '`a`' = 22.)
43 Chown *UNIX*® RTR operating system call failed.	Pathname.	(Refer to variable '`j`' where variable '`a`' = 22.)
50 Failed to create prchk from process path '`i`'. Pathname.	--	--
51 Failed to send message to prchk.	--	
52 Failed to receive message from prchk.	--	--
53 Prchk returned code `i`.	--	--
54 Failed to send terminate message.	--	--
60 Failed to open file '`i`'.	Filename.	--
61 Failed to close file '`i`'.	Filename.	--
64 Unable to read the section header of a pfile. Section number.	--	--
65 Failed to read .tv section header.	Filename.	
66 Failed to read .tv section header in file '`i`'.	Filename.	--
67 There are 2 possible instances of this error code.	Filename.	--
Failed to read .tv, OSsyspat or any symbol in symbol table. Failed to read content of OSsyspat.		
68 Failed to read pfile header in file '`i`'.	Filename.	--
69 Failed to read history file entry.	--	--
70	--	

No processes were found with Utility ID '`i`'. Utility ID.		
71 Unable to find section header which corresponds to the patch list overwrite.	Filename.	--
75 Unable to allocate space for patchlist.	--	--
76 Unable to allocate space for pfile list.	--	--
77 Unable to allocate space for list of audited pfiles.	--	--
80 Failed to write NK update header for update file '`i`'.	Filename.	--
81 Failed to write update file entries for update file '`i`'.	Filename.	--
82 Failed to write K update header for update file '`i`'.	Filename.	--
83 Failed to write null optional header for update file '`i`'.	Filename.	--
90 Failed to "seek" to patch list for file '`i`'.	Filename.	--
91 Failed to "seek" to TV slot for file '`i`'.	Filename.	--
92 Failed to "seek" to history file entry.	--	--
95 Failed to find cud entry for file '`i`'.	Filename.	--
96 Failed to find first cud entry for file '`i`'.	Filename.	--
97 No patchlist entries for file.	Filename.	--
101 Backout operation failed.	(Refer to variable '`j`' where variable '`a`' = 22.)	Filename.
102 Pcreat failed.	Filename.	(Refer to variable '`j`' where variable '`a`' = 22.)
103 Sendw to fufmgr failed.	(Refer to variable '`j`' where variable '`a`' = 22.)	--
105 Full pathname was not supplied.	(Refer to variable '`j`' where variable '`a`' = 22.)	Filename.
106 Perm operation failed.	(Refer to variable '`j`' where variable '`a`' = 22.)	Filename.
107 Mv operation failed. Refer to AUD:FSBLK, AUD:FSLINK	(Refer to variable '`j`' where variable '`a`' = 22.)	Filename.

and AUD:FSCMPT if a lack of contiguous file space exist.		
108 Temp operation failed.	(Refer to variable '`j`' where variable '`a`' = 22.)	Filename.
109 Atomic switch operation failed.	Error code.	Filename.
110 Unable to send msg to process manager. Failure to lock segments of a library in core.	Message type.	Error code.
111 Unable to receive acknowledgment of msg to process manager. Failure to lock segments of a library in core.	Message type.	Error code.
112 Process manager could not lock library segments in core.	Message type.	Error code.
113 The RTR system call atmperm failed to make the update official. Path name.	--	--
114 The checksum for file '`i`' does not match the checksum value stored in the CUD file for the same file prior to saving it. Path name.	--	--
115 The update records indicate a file was saved for a new product. A new product can not have an old.	--	--
file name associated with it.		
116 The address '`i`' is not in the optional header of the update file (ufile). Hex address.	--	--
117 Failed to move the contents of file '`i`' to file '`j`'. Path name.	--	--
118 Failed to remove the temporary file '`i`'. Manually remove this file and retry the transaction. Path name.	--	--
119 Cannot find/open file '`i`' needed to back out an official software update. Path name.	--	--
120 Failed to calculate CRC for	--	--

file 'i'. Path name.		
121 CRC mismatch for file 'i'. Path name.	--	
122 Could not write into file 'i'. Path name.	--	
123 Could not find 'j' in file 'i'; file 'i' is corrupted. Path name.		
125 Error executing system(). 'i' is the command; 'j' is the error.	--	--
130 FTRC failed.	2 = Invalid request. 3 = No function with this name was found in the pfile. 4 = No function encompasses this address. 5 = Failure in reading symbol table for this pfile. 6 = Failure in reading file header of this pfile. 7 = Failure in reading history file for this pfile. 8 = Unable to locate symbol table of this pfile. 9 = Pfile failed to open. 10 = History file for this pfile failed to open. 11 = Central update database failed to open. 12 = Working pfile copy has decision functions and therefore cannot be used. 13 = Official pfile copy cannot be used because it is not audited. 14 = Pfile not swabbed. 15 = Invalid command.	--
132 UPD dispatch failed.	Error code MC. 10 = Bad message size received from UCNTL. 15 = Message received not from UCNTL. 19 = Hash sum buffer overflow. 20 = Bad activity in dispatch vector. 25 = Bad request in UPdispatch sequence. 30 = Call to msgenab() failed. 35 = .u-file not found. 40 = Error reading .u-file. 45 = Too many sections in .u-file.	--
132 (Cont.) UPD dispatch failed.	Error code MC. 50 = .u-file new scn - old scn mismatch.	--

	55 = Error creating LUB file. 60 = LUB file not found. 65 = Generic .u-file not found. 70 = Hashsum .u-file not found. 75 = Section header info error. 80 = Error writing into LUB file. 85 = lseek error. 90 = .u-file read error. 95 = UPdispatch status error.	
132 (Cont.) UPD dispatch failed.	Error code MC. 50 = .u-file new scn - old scn mismatch. 100 = Error in hash sum .u-file. 105 = Port open request error. 110 = Bad port open acknowledgment. 115 = Open port failed. 120 = Error opening LUB. 125 = sendpw error. 130 = sendw error. 135 = Acknowledgment received from SM or CMP was bad. 145 = /* bad activity in message from UCNTL.	--
132 (Cont.) UPD dispatch failed.	Error code MC. 50 = .u-file new scn - old scn mismatch. 150 = /* no ack received from SM or CMP before UPMAXTIME. 200 = ERROR: open file. 210 = ERROR: read file. 220 = ERROR: invalid number of sections in file. 230 = ERROR: address out of range. 240 = ERROR: close file.	--
132 (Cont.) UPD dispatch failed.	Error code MC. 50 = .u-file new scn - old scn mismatch. 250 = ERROR: write file. 260 = ERROR: "seek" file. 270 = ERROR: open hash sum generic file. 280 = ERROR: close hash sum generic file. 290 = ERROR: read hash sum generic file. 295 = ERROR: invalid section name in HSF.	--
132 (Cont.) UPD dispatch failed.	Error code MC. 50 = .u-file new scn - old scn mismatch. 300 = ERROR: open SM or CMP object file. 310 = ERROR: close SM or CMP object file. 320 = ERROR; read SM or CMP object	--

	file. 325 = ERROR: invalid section name in GOF. 328 = ERROR: section in cfg file not match. 330 = ERROR: open hash sum .u file. 335 = ERROR: create hash sum .u file. 340 = ERROR: close hash sum .u file.	
132 (Cont.) UPD dispatch failed.	Error code MC. 50 = .u-file new scn - old scn mismatch. 350 = ERROR: write hash sum .u file. 355 = ERROR: read hash sum .u file. 356 = ERROR: missing section in hs .u file. 360 = ERROR: read SM or CMP .u-file. 370 = ERROR: no section header in SM or CMP .o. 380 = ERROR; no section header in hs generic. 390 = ERROR: no SM or CMP changes found.	--
132 (Cont.) UPD dispatch failed.	Error code MC. 50 = .u-file new scn - old scn mismatch. 400 = ERROR; start address table overflow. 410 = ERROR: SM or CMP .u header info table overflow. 420 = ERROR: bad start address. 430 = ERROR: bad hash sum index. 440 = ERROR: lubfile size exceeds LUB allocated.	--
132 (Cont.) UPD dispatch failed.	Error code MC. 50 = .u-file new scn - old scn mismatch. 450 = ERROR: open PLOF file. 460 = ERROR: read PLOF file. 470 = ERROR: "seek" PLOF file. 480 = ERROR: hashsum section not found in PLOF. 490 = ERROR: bad hashsum section size in PLOF. 491 = ERROR: No Peripheral changes found. 495 = ERROR: invalid target field in msg.	--
132 (Cont.) UPD dispatch failed.	Error code MC. 50 = .u-file new scn - old scn mismatch. 500 = Transfer vector mismatch. 505 = TV addr is not in the pumpable image. 510 = Text mismatch. Failed SM or CMP module number. This error can also be caused by generic utility breakpoints being	--

	in a SM of this type (loaded, standard and basic). Remove all generic utility breakpoints from all SMs (with the `CLR:UT,SM=x,UTIL`; command) before trying any other program update command. After all breakpoints are removed, re-enter the command that failed with this error message.	
132 (Cont.) UPD dispatch failed.	Error code MC. 515 = TX addr is not in the pumpable image. 520 = Data mismatch. 525 = DATA addr is not in the pumpable image. 530 = This error can be caused by generic utility breakpoints being in a SM of this type (loaded, standard and basic). Remove all generic utility breakpoints from all SMs (with the `CLR:UT,SM=x,UTIL`; command) before trying any other program update command. After all breakpoints are removed, re-enter the command that failed with this error message. 535 = HASH addr is not in the pumpable image.	--
132 (Cont.) UPD dispatch failed.	Error code MC. 540 = Block length in msg is bad. 550 = Lub destination not within buffer. 560 = Activity not consistent with program state. 570 = Hash check of memory returned error. 580 = pusv not consistent with program state.	--
132 (Cont.) UPD dispatch failed.	Error code MC. 590 = Transfer vector overwrite complete. 600 = Unexpected data block present for reclaim check. 610 = hashsum address outside of hash table. 620 = Address is not updatable by UP. 625 = Fail to copy text bytes from SMP to DMA type perf.	--
132 (Cont.) UPD dispatch failed.	Error code MC. 630 = Not acknowledgment to be returned. 635 = Fail to move bytes from SMP to DMA type perf. 640 = The SM or CMP took a recovery action.	--

	645 = Fail to move bytes SMP to perf - internal error.	
132 (Cont.) UPD dispatch failed.	Error code MC. 650 = Corrupt lub. 660 = Invalid mode. 665 = Failure to communicate with MSGH. 670 = Invalid peripheral update target. 671 = Image not loaded in SM(not an error).	--
132 (Cont.) UPD dispatch failed.	Error code MC. 675 = The correct addr map not found. 680 = The SMP addr is not in the pumpable image. 681 = WARNING: POSSIBLE SU PH IMAGE CONTENT PROBLEM. Subset of affected PH(s) went OOS during the APPLY-SOAK interval. BACKOUT of the SU is recommended. 682 = Fail to open a Large Packet Connection. 683 = Fail to send a Large Packet from SMP to PH. 685 = Failure to move bytes from SMP to PI. 686 = The MH is in a degraded state and cannot be updated. 687 = Invalid state encountered during MH update. 688 = Fail to move packet from SMP to PHV/PHA.	--
132 (Cont.) UPD dispatch failed.	Error code MC. 690 = No match found in FAT. 695 = Feature not loaded. 696 = Failed to lock Optional Data Region (ODR) for the peripheral image resident in SMP. The failing SM number. 697 = ODR lock failed, bad parameters.	--
132 (Cont.) UPD dispatch failed.	Error code MC. 700 = Transaction completed only in some SMs or CMPs. 710 = Transaction failed in all SMs or CMPs. 720 = DDswrite() call error. The first failed SM or CMP module number. 730 = DDsread() call error. The first failed SM or CMP module number. 740 = SM or CMP is operational and not isolated. 741 = Module is operational but skip update.	--

132 (Cont.) UPD dispatch failed.	Error code MC. 750 = SM or CMP is operational, but isolated. Primary CMP module number. 752 = CMP is operational but in INIT state. 754 = CMP is operational but in OOS state. 755 = CMP is undergoing a soft switch. 760 = SM or CMP is not operational, such as, growth SM. 765 = IM is in hash error.	--
132 (Cont.) UPD dispatch failed.	Error code MC. 770 = Bad MOD ID in module status growth. 780 = No more system space for malloc(). 790 = Error in setting up critical region. 800 = Error in getting out of critical region. 810 = Primary CMP is in INIT or OOS state. Retry when it is in STBY state. 820 = Mate CMP was restored from OOS state while primary CMP was being updated. Process aborts because the update status for mate CMP is unpredictable. Retry the process again when mate CMP is in STBY state or pump the mate CMP. 821 = Dynamic Memory Allocation Failed. 830 = Failed to open AP file. 831 = Failed to read AP object file. 832 = Seek failed for AP object file. 900 = Failed to create delta file. 901 = Failed to "seek" into delta file. 902 = Failed to write into delta file. 903 = Failed to close delta file. 904 = Failed to access ECD. 905 = File compaction audit failed. 906 = Not enough contiguous space in /update.	The first failed SM or CMP module number. The failing SM number. The first failed SM or CMP module number. The first failed SM or CMP module number. Primary CMP module number.
133 Audit requestor failed.	Error code MC. Refer to variable '`i`' where variable '`a`' = 132.	
135 Reduction operation failed.	1 = Open failed on BUD or its working copy. 2 = Close failed on BUD or its working copy. 3 = Temporary updates on system. 4 = UN-AUDITED files on system. 5 = Error in creation of working copy of BUD.	Updated file's pathname. File's pathname. [BUD][working copy].
137 Could not determine if peripheral was loaded.	Switching Module number.	--
140 Requirement for contiguous	Filename.	Filename or (null) - error exists in the global header file where the filename is stored.

files not met. Files do not exist or are not contiguous. Refer to AUD:FSBLK, AUD:FSLINK and AUD:FSCMPT if a lack of contiguous file space exist.		
145 Unable to begin an office-dependent database (ODD) transaction.	--	--
146 Unable to open the AM ODD.	--	--
147 Unable to read a tuple when the end of the ODD relation has not been reached.	--	--
200 Can not communicate with any SMs or CMPs for detection of update inconsistencies. Refer to variable'`i`' where variable '`a`' is 132.	--	--
201 Invalid address of OSsyspatch.	--	--
203 There are 2 possible instances of this error code. Update inconsistencies are detected. Use UPD:RCVRY message to maintain consistencies prior to making official or to installing next SM update. Error opening temp/ofc pumpmap for read '`i`'.	--	--
204 Invalid module number is in the list of inconsistency.	--	--
205 SMddread() or SMpipmate() error.	1 = Invalid unit. 2 = Invalid item. 3 = Key is out of range. 4 = Data base manager failure. 5 = Invalid forced configuration. 127 = RTR LLA access failure with ECD. 255 = Unidentified PCD failure.	--
220 Failed to find sequence number in HDR file for software update '`i`'.	--	--
300 Peripheral object file converter (POC) failure.	11 = POC could not OPEN peripheral library object file (PLOF). 12 = POC could not READ PLOF.	--

	13 = POC could not WRITE to PLOF. 14 = POC could not OPEN the peripheral object file. 15 = POC could not READ the peripheral object file. 16 = POC could not OPEN an input file. 17 = POC could not READ an input file. 18 = POC was invoked with missing or incorrect parameters. 19 = Peripheral object file specified is not in the PLOF.	
300 (Cont.) Peripheral object file converter (POC) failure.	20 = Peripheral object file section is too large for the PLOF. 21 = Could not "seek" to a PLOF section. 22 = Could not "seek" to a peripheral object section. 23 = Bad COFF in the peripheral object file. 24 = Could not "seek" to the PLOF file header. 25 = Could not read the PLOF file header. 26 = Bad section size in PLOF. 27 = Could not "seek" to AP file header. 28 = Could not read AP file header. 29 = Dynamic memory allocation failed.	--
1950 Refer to variable '`i`' where variable '`a`' = 1955.	--	--
1955 Program update user interface controller failed.	10 = Can not open file for reading. 15 = Can not open file for writing. 20 = Can not create file. 25 = Can not write to file. 30 = Can not read from file. 35 = Invalid message type. 40 = Invalid poke number. 45 = Invalid page number.	--
1955 (Cont.) Program update user interface controller failed.	50 = Invalid section number. 55 = Invalid direction for RCVY. 60 = Invalid set or clear page. 65 = Invalid key word. 70 = Invalid software update name. 75 = File does not exist. 76 = Software update exists in CUD. 80 = Bad software update name. 85 = Sequence number error. 90 = Send message failed. 95 = Invalid scope type.	--
1955 (Cont.) Program update user interface controller failed.	100 = Invalid message size. 105 = Can not create pupci. 110 = Unable to kill pupci. 120 = Bad status on killing pupci. 125 = Bad reason in acknowledgment	--

	message. 130 = Bad acknowledgment from HMmccupd. 135 = Message file has a bad or unexpected format. 140 = Bad start line number displayed.	
1955 (Cont.) Program update user interface controller failed.	150 = Bad end line number displayed. 155 = No queue is available. 160 = Bad message is received. 165 = Software update is not official.	--
1960 Program update user interface program failed.	Refer to variable '`i`' where variable '`a`' = 1955.	--

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:APPLY-BYTER
UPD:APPLY-FILER
UPD:APPLY-FUNCR
UPD:CHG-BKOUT
UPD:DISPLAY
```

Output Message(s):

```
UPD:BKOUT
UPD:DISPLAY
UPD:USRERR
```

Output Appendix(es):

```
APP:SYSERR
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

UPD:UPNM

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      UPD UPNM - AUTO BACK-OUT DELAY STARTED

[2]   ____________________________________________________________
      UPD UPNM DUFR WARNING: -2: UPDATE REQUEST ON NAMED
        DATA SEGMENT

[3]   ____________________________________________________________
      UPD UPNM DUFR WARNING: -4: TARGET PROCESS SEGMENT
        NAMES CLEARED
```

2. REASON FOR OUTPUT

To specify an action or provide information outside of the normal field update reporting scheme (through UPD).

Format 1 indicates that the in-core copy of the target process has been overwritten, and the automatic backout delay has started (default is five minutes). Should a phase 1 occur before the delay period completes, the update will be backed out, leaving the update in a pending temp state. A continue may be requested.

Format 2 is provided when a killable kernel processes (KPUPDATE) feature is the target process and a named data segment has been encountered (the name is included in the SDE for the segment, located in the kernel's address space). Normally, any (text) segment DUFR attaches to will have its name cleared to prevent inconsistencies should the target process die. For named data segments, DUFR will attach to the segment and see that it is overwritten, but the name will NOT be cleared.

Format 3 is given to inform the user that during an update on a KPUPDATE type process, one or more (text) segment names were cleared.

3. VARIABLE FIELD DEFINITIONS

None.

4. ACTION TO BE TAKEN

Format 1 tells the user to begin any sanity testing before the update is made temporary, in case sanity degrades to the point where a backout cannot be made manually.

Format 2 informs the user of the named data segments, as there now is added risk of data inconsistencies if the target process dies and is recreated during update.

For Format 3, the user should be aware of the situation in case the target process' segment name is important to other application programming. Otherwise, the warning may be ignored.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
UPD:APPLY-BYTER

UPD:APPLY-FUNCR
```

UPD:UPREPT

Software Release: 5E10 and later
Message Class: MAINT
Application: 5
Type: Output

1. FORMAT

```
UPD UPREPT  a
  b
  [c]
  [PATHNAME: f]
  [VALUES g]
  [TAG=d ERRNO=e]
```

2. REASON FOR OUTPUT

To specify errors or events that occurred as a result of performing a software update activity.

3. VARIABLE FIELD DEFINITIONS

`a` = Category of the report message. Valid value(s):
- `INFORMATION` = Informational message associated with a software update activity.
- `SYSTEM ERROR` = System error encountered during a software update activity.
- `USER ERROR` = User error encountered attempting to execute a software update command. Most often the result of bad input to the command.
- `WARNING` = A non-fatal problem was encountered while executing a software update activity that did not cause the command to abort, but may require attention.

`b` = A brief text phrase describing an error or providing information associated with a software update activity.

`c` = The SU name associated with the report message.

`d` = A tag value which indicates the location where the error message originated from.

`e` = A *UNIX*® system error number.

`f` = Pathnames of the files associated with this report. There is one pathname per line.

`g` = Values associated with the text message in variable '`a`'. There are four values per line. These provide the data which caused the text message to be printed.

4. ACTION TO BE TAKEN

If '`a`' =	Action =
`INFORMATION`	No action is necessary.
`SYSTEM ERROR`, `USER ERROR`, or `WARNING`	The specific action required depends on variable 'b' in the message. most of these reports require technical assistance, however, some can be corrected and are listed below alphabetically. If these actions do not succeed, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

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If `PUMP IS ACTIVE CANNOT PERFORM UPDATE` is output, retry command again once all SM and CMP pumps have completed.

5. ALARMS

None

6. REFERENCES

Input Message(s):

```
UPD:APPLY-BYTER
UPD:APPLY-FILER
UPD:APPLY-FUNCR
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

UPD:USRERR

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
UPD USRERR={a|b} [c] [d]
```

2. REASON FOR OUTPUT

To indicate that the user has made an error in a field update input. These errors are always the result of an invalid parameter on a UPD message. The invalid input message is identified by a specific UPD output message following one or more UPD:USRERR output messages.

3. VARIABLE FIELD DEFINITIONS

a = Error code. Refer to Exhibit A.

b = Text string describing outcome. Valid value(s):

```
94XX,UCL OR 9310,UCL ONLY
ALL OPTION IS NOT PERMITTED FOR OFFICIAL BWMS
BACK OUT OF OFFICIAL UPDATES REQUIRES OFCTAG FOR BWM
BACK OUT SECTION COMPLETED
BACK OUT SECTION HAS NO EXECUTABLE COMMANDS
BAD DISPLAY TYPE c
BAD TYPE ARGUMENT c
BWM c DOES NOT EXIST
BWM DIRECTORY DOES NOT EXIST
BWM NAME REQUIRES 10 CHARACTERS
COMMAND INPUT NAME DOES NOT MATCH A BOLO NAME
Cud DOES NOT NEED TO BE REDUCED / PTLD TAG WILL RESET SEQUENCE NUMBER
TO ZERO
Cud DOES NOT NEED TO BE REDUCED
DEPENDENT FILE MUST BE GIVEN ON COMMAND LINE
EMULATOR UPDATE HAS BEEN APPLIED WITHOUT AN INITIALIZATION
DF c IS OFFICIAL, FN d IS STILL TEMPORARY
INVALID TARGET NAME c
MAXIMUM NUMBER OF ADDRESS-DATA COUPLETS EXCEEDED
MAXIMUM NUMBER OF UPDATE FILES EXCEEDED
MISMATCH OF NEW/OLD ADDRESS-DATA COUPLETS
MISMATCH OF PERIPHERAL TARGET AND DF FILE
NO MSGS FILE FOUND FOR UPNM=c
NOT ENOUGH SPACE ON DEVICE c REQUESTED d
PACKINFO FILE NEEDED
PUMPBWM/PUMPOFC CALLED WITH ILLEGAL TARGET:c
THE FOLLOWING COMMAND IS INCONSISTENT
THE FOLLOWING COMMAND IS NOT COMPLETELY INSTALLED
THE NEXT BWM THAT CAN BE BACKED OUT IS c
THERE ARE NO OFFICIAL UPDATES
```

c,d = Additional data; can be a path name, software update name, address, etc., used to help more

clearly identify the problem indicated by the error code. Refer to Exhibit A.

4. ACTION TO BE TAKEN

The specific action required depends on the type of the error that occurred. An invalid update name (UPNM) or pathname [update file (UF) or file name (FN)] will most often be the cause. When applying a temporary software update, if the UPNM or pathname is invalid, refer to data field 135. In such a case, reapplying the input message with the correct update name or pathname will solve the problem; otherwise, obtain technical assistance.

In some cases (codes 9, 11, and 12), re-specifying the input message with the new release (NREL) keyword will override the file consistency checks that caused the UPD message to be STOPPED.

Exhibit A: ERROR CODES AND THEIR MEANINGS

If 'a' =	**Explanation:**	**'c' =/'d' =**
1	No updates exist in the system.	
2	No updates with the specified update name (UPNM) exist in the system.	c = unknown UPNM name
3	No updates to the specified file name (FN) path exist in the system.	c = FN path
4	No temporary updates exist in the system.	
5	No temporary updates with the specified UPNM name exist in the system.	c = the UPNM name
6	No permanent updates exist in the system.	
7	A pathname for a file that does not exist was supplied in the FN keyword field of an input message.	c = the erroneous pathname
8	A pathname for a file that does not exist was supplied in the update file (UF) keyword field of an input message.	c = the erroneous pathname
9	The name of an existing UPNM was supplied on a UPD:APPLY input message after a UPD:APPLY input message naming another UPNM name was entered. Refer to the UPD:UPNM input message description.	c = the erroneous UPNM name
	Error occurred when closing the history file while checking the temp updates.	c = the filename
10	There are temporary updates still outstanding for the new release (NREL) process. Can't open file for reading.	
11	No pfiles are ready for auditing.	
12	The UPNM named is not the next UPNM that can (and therefore must) be made permanent. Refer to the UPD:DISPLAY input message for information on how to determine the UPNM of the oldest temporary update outstanding.	
13	The file named by the FN keyword is a killable file and already has a temporary update applied to it. Therefore, the old temporary update must either be backed out or made permanent before this new update may be applied.	
14	The FN filename 'c' must be different from the UF filename.	
15	Common object file format (COFF)/ non-COFF file mismatch encountered during an attempt to do file replacement, where 'c' names the non-COFF file. If no spelling error occurred, the NREL keyword may be used to override this restriction.	
16	The file named 'c' either doesn't exist, has a bad pathname component, or doesn't provide access permission.	
17	There was an attempt to do function replacement on a nonexistent file 'c'.	
18	Magic number (signifying processor type) mismatch encountered during attempt to do file replacement or function	c = FN in hex notation d = UF in hex notation

	replacement. The magic numbers of the FN and UF, respectively, are shown in hexadecimal notation in variable 'c' and variable 'd'. An NREL keyword override may be used.	
19	There was an attempt to do function replacement on a non-COFF file named 'c'.	
20	The software update name 'c' has been used; a permanent update already exists on the system with that name.	
21	The software update name &'c' is smaller than the last software update name used &'d'.	c = software update name d = last software update name used
22	Updates applied using the general form of the Software update name - TMPyy-xxxx cannot be made permanent.	
23	No update inconsistencies found while using UPD:RCVRY{BKWD|FRWD}.	
24	Previous update is at temporary state; make it official first.	
25	Previous patch space reclamation failed.	
26	Inconsistencies found while using the UPD:RCVRY {BKWD|FRWD} message cannot be recovered from.	
30	Software update 'c' is out of sequence 'd', where 'd' is either HDR or SEQ, and indicates the source of the sequencing error.	
31	Cannot use manual input messages for software update 'c'.	
32	User requested temporary pump map to be used by pump during an SM initialization when a temporary pump map didn't exist.	
34	Bad PACKINFO file format.	
35	Bad loadable package name in the PACKINFO file.	
36	The number of minimal files (.m) exceeds the maximum number allowed.	
37	Configuration number in the CMP ODD relation SMCONF is incorrect.	
38	The number of byte replacements exceeds the maximum number allowed.	
39	Bad configuration name in the PACKINFO file.	
40	A request was made to print, change or abort the soak timer for a software update that does not exist or has completed the SOAK section. If software update equals 75, the soak section must be executed before the soak timer is set.	
41	Soak period not complete.	
42	The software update displayed on the 1960 page is not the same software update that is being soaked. On the 1960 page enter 9000,(soak-bwmname) then re-execute the previous poke.	
43	A request to change the soak timer is within 30 seconds of the soaking software update's completion.	
50	The software update name on the input message line for backing out an official software update does not match the software update name which is permitted to be backed out. Use the 9103 poke on the 1950 page to determine if any temporary software updates are in the system or the 9102 poke to determine the last official software update name which is permitted to be backed out. Back out any temporary software updates before backing out the official software update.	
51	The last official software update 'c' does not match the software update 'd' supplied on the input message line. Follow the same procedure in 50 to determine the last official software update which is permitted to be backed out.	
52	The software update is still temporary. None of the update transactions have been made official. Use the 9340 poke on the 1960 page to back out temporary software updates.	
53	A reclamation of patch space has failed for file 'c'. The patch space reclamation must be completed for file 'c' before the	

	official software update can be backed out.	
75	File .status does not exist in /etc/bwm/.....	
80	Bad software update name.	
105	Invalid temp file format 'c'.	
135	Message file has a BAD or unexpected format.	
165	Software update is not made official.	
170	The Program Updates data base does not list any official software updates which are permitted to be backed out. Use the 1950 page to display current software updates in the system.	
175	The .status file used to update the 1960 page indicates that the software update is official or back out status is not correct for backing the software update out.	

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:APPLY-BYTER
UPD:APPLY-FILER
UPD:APPLY-FUNCR
UPD:BKOUT
UPD:DISPLAY
UPD:PUMPBWM
UPD:PUMPOFC
UPD:RCVRY
UPD:UPNAME
```

Output Message(s):

```
UPD:APPLY
UPD:BKOUT
UPD:DISPLAY
UPD:SYSERR
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 (PROG UPD MAINT)
1960 (INSTALL BWM)

UPD:VERSION

Software Release: 5E10 and later
Message Class: UPDT,MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
UPD VERSION {APPLY|BKOUT} [MISMATCH]
  PARTITION       VERSION         BWM
  a               b               c
  .               .               .
  .               .               .
  .               .               .
```

2. REASON FOR OUTPUT

To respond to the input message UPD:VERSION.

3. VARIABLE FIELD DEFINITIONS

`APPLY` = The input message used the APPLY keyword.

`BKOUT` = The input message used the BKOUT keyword.

`MISMATCH` = The applied or backed out generic text version and/or software update level does not logically follow from the current generic text versions and/or software update levels.

`a` = Partition name. The pseudo-partition name APPLY or BKOUT refers to the generic text string specified in the UPD:VERSION input message. The pseudo-partition ECD refers to the 'systype' and 'genid' items from the 'eaiopt' form in the equipment configuration database.

`b` = Generic text version of this partition.

`c` = Software update level of this partition. The ECD partition does not have a software update level.

4. ACTION TO BE TAKEN

If a mismatch was indicated, check that the generic text specified on the last UPD:VERSION input message was correct. If incorrect, re-enter with correct information. If it was correct, then check and correct, if need be, the items 'systype' and 'genid' on the 'eaiopt' form using ECD recent change. The key is 'option_name: eaiop0'.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
OP:VERSION
UPD:VERSION
```

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Output Message(s):

```
OP:VERSION
```

UPD:VFY

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      UPD VFY BWM
       {a|g} b {OK|NG} c

[2]   ____________________________________________________________
      UPD VFY {COMPLETED|ABORTED}

[3]   ____________________________________________________________
      UPD VFY BWM ERROR
        d [ERROR, errno = e]

[4]   ____________________________________________________________
      UPD VFY BWM ERROR BWM b NOT COMPLETELY EXPANDED f

[5]   ____________________________________________________________
      UPD VFY BWM ERROR CANNOT {SEND|RECEIVE} MESSAGE {TO|FROM}
        UPEXPAND f

[6]   ____________________________________________________________
      UPD VFY BWM ERROR CANNOT ENABLE MESSAGE RECEPTION

[7]   ____________________________________________________________
      UPD VFY BWM ERROR
        INVALID SOFTWARE UPDATE

[8]   ____________________________________________________________
      UPD VFY BWM ERROR
        OFFICE - SOFTWARE UPDATE MISMATCH
```

2. REASON FOR OUTPUT

To report the progress of the UPD:VFYBWM input message.

Format 1 is printed to indicate the status indicated in '`c`' of the verify process for the software update indicated in '`b`' with the sequence number indicated in '`a`' or the software update range indicated in '`g`'.

Format 2 is printed to indicate the status of the command at termination time.

Format 3 is printed to indicate an error in the system call indicated in '`d`' with the error number indicated in '`e`'.

Format 4 is printed to indicate that the software update indicated in '`b`' is not completely expanded and the return code is indicated '`f`' could not be fully expanded.

Format 5 is printed to indicate that the process failed to send or receive a message from the UPexpand process with the failure code indicated in '`f`'.

Format 6 is printed to indicate a failure due to the message reception.

Format 7 is printed to indicate that the software update either has no .office file included with the software update package or it has more that one such file. The .office file indicates the specific office that the update should be applied to.

Format 8 is printed to indicate that an office specific software update is being applied to the wrong office.

3. VARIABLE FIELD DEFINITIONS

a = Sequence number found in the header file of the software update.

b = Software update name.

c = Error code. Valid value(s):

- 0 = The software update has passed all tests and is considered valid.
- 1 = Either the software update given as an input parameter or the source directory is inaccessible.
- 2 = The software update specified does not have a HDR file within it's directory.
- 3 = An error was found within the header (HDR) file (that is, missing keyword or invalid data field).
- 4 = One of the update files within the software update directory was calculated to have a byte size or check sum value different from the values stated in the HDR file.
- 5 = An error occurred during the UPvfymsgs process. The name of the file being processed at the time is stored in BadFile.
- 6 = This is a special case used with unofficial software updates (that is, the name does not begin with BWM). This does not indicate that an error has occurred, only that there will be no HDR file check.
- 7 = The release information read from the HDR file does not match the information read from the equipment configuration database (ECD).

d = Failed system call or text string. Valid value(s):

```
CALLOC
CREATE
ERROR COUNT EXCEEDED
FFLUSH
FOPEN
I/O
OPEN
SYSTEM
```

e = System error code number. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual for definitions.

f = The return code of the failed library function call.

g = The official software update range in the form of 000000-999999, where this software update must be greater than 000000 and less than 999999.

4. ACTION TO BE TAKEN

If OK is printed along with error code 0 or 6, no action is to be taken. However, if NG (no good) is printed, take

action according to the error code listing in variable 'c'. For all other error indications, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:EXPAND
UPD:UPNAME
UPD:VFYBWM
```

Output Message(s):

```
UPD:EXPAND
```

Output Appendix(es):

```
APP:SYSERR
```

MCC Display Page(s):

1950 (PROG UPD MAINT)
1960 (INSTALL BWM)

UPD:VFYCON

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      UPD VFYCON - TABLE OF [a] INCONSISTENCIES FOLLOWS
        UPNM          UPD NUMBER      TYPE    PROCESSOR
        b             c               d       e
                     [STATUS          UNIT]
                     [f               g]

                     [REMOVE/RESTORE INCONSISTENT PERIPHERALS]

[2]   ____________________________________________________________________
      UPD VFYCON - NO [a] INCONSISTENCIES FOUND IN THE SYSTEM

[3]   ____________________________________________________________________
      UPD VFYCON h
```

2. REASON FOR OUTPUT

To report all update inconsistencies in response to a UPD:VFYCON input message. Inconsistencies, as a rule, are associated with temporary updates in the system. In the case of SM pumpable peripherals, however, inconsistencies can be associated with the official file when there are no temporary updates for that peripheral.

Format 1 is printed when inconsistencies exist to list information on each inconsistency. Format 2 is printed if there are no inconsistencies in the system. Format 3 is printed to report the status of the UPD:VFYCON input message.

3. VARIABLE FIELD DEFINITIONS

`a` = The target, if the target option was used. Valid value(s):

`AM`	= Administrative module.
`CMP`	= Communications module processor (CMP) application processor.
`DDMA`	= The diagnostic image for the PH2 direct memory access processor.
`DNUSCC`	= Digital networking unit - SONET (DNU-S) common control (CC).
`DNUSTMX`	= Transmission multiplexer image.
`DSC3`	= Digital service circuit - model 3 diagnostic image.
`GDSF`	= Global digital services function - model 3.
`HDSU`	= Digital service unit 2 (DSU2) hardware digital service unit (HDSU) diagnostic (DGN) image.
`HSAS`	= DSU2 service announcement system diagnostic image (HSAS).
`IDCUCCP`	= Integrated digital carrier unit (IDCU) common control processor (CCP).
`IDCUDLP`	= IDCU data link processor (DLP).
`IDCULSI`	= IDCU loop side interface (LSI).
`IP4I`	= The operational image for the PH4 Integrated Services Digital Network (ISDN) input/output processor.
`ISLU`	= Integrated services line unit (ISLU) common controller (CC).
`ISLU2`	= Integrated services line unit 2 (ISLU2) common controller (CC).
`ISTF`	= DSU2 integrated services test function (ISTF).

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LDSF	= Local digital services function - model 3.
LDSU	= DSU2 local digital service unit (LDSU) function.
MSGH	= CMP message handler.
ODMA	= The operational image for the PH2 direct memory access processor.
OIOP	= The operational image for the PH3 input/output processor.
PI	= Module control time slot interchange (MCTSI) packet interface (PI).
PH3C	= Packet switching unit (PSU) protocol handler 3 (PH3) with COMMON application processor image.
PH2A	= PSU PH2 with ACCESS application processor image.
PH2G	= PSU PH2 with GATEWAY application processor image.
PH4I	= Packet switching unit (PSU) protocol handler 4 (PH4) with ISDN application processor image.
RAF	= DSU2 recorded announcement function (RAF).
SAS	= DSU2 service announcement system operational image (SAS).
SM	= Switching module
SMPMH	= Switching module processor (SMP) message handler (MH) operational image.
SMPMHLB	= SMP MH little boot (LB) image.

b = Software update name (that is, UPNM=update name), or official file name (such as, LDSU.out) if a pumpable peripheral inconsistency has been generated against the official file rather than a software update in the temporary state.

c = Update number.

d = Type of inconsistency. Valid value(s):

1	= The indicated processor does not contain the indicated temporary update even though it is shown in the update records as having been applied.
3	= A temporary switching module (SM) update has been installed but at least one of the associated temporary files in &/update is missing.
4	= An entry in the update records has been garbled or is missing history file entries.
5	= The resident switching module processor (SMP) image associated with the indicated pumpable peripheral type does not contain the indicated update, even though it is shown in the update records as having been applied.
6	= The resident SMP image AND the pumpable peripheral(s) associated with the indicated processor type do not contain the indicated update, even though it is shown in the update records as having been applied.
7	= The pumpable peripheral(s) associated with the indicated processor type do not contain the indicated update, even though it is shown in the update records as having been applied, and the peripheral's SMP resident image contains the update.
8	= The update file or product file needed to back out an official software update is missing. It is not possible to recover from this type of inconsistency and the official software update can not be backed out using the 9900 poke on the 1950 menu page. This inconsistency type does not prevent recovery from other types of inconsistencies and does not prevent subsequent software updates from being made official. Once a subsequent software update is made official and all the files needed to back out that software update are available, the inconsistency is removed by default.
9	= The patch count values in the text optioned images with temporary updates do not match.
10	= The patch count values in the text optioned images do not match. This type of inconsistency is not recoverable.
14	= Unable to lock the peripheral resident image in optional data regions (ODR).

15 = Attempts to communicate with the administrative workstation was not successful. This type of inconsistency is not recoverable.

e = Affected processor. Valid value(s):

AM = Administrative module.

CMP[=x-y,z] = CMP application processor, where 'x' is the message switch side, 'y' is the CMP number and 'z' is either PRIME or MATE when the indicated inconsistency applies to a specific CMP.

DNUSCC:SM[x] = DNU-S CC image where 'x' is the SM number when the indicated inconsistency applies to a specific SM's DNU-S(s) or an SM's SMP-resident DNU-S CC image.

DSC3-DSC3:SM[x] = Digital service circuit - model 3 (DSC3) hardware digital service circuit (DSC3) diagnostic image, where 'x' is the SM number when the indicated inconsistency applies to a specific SM's LDSF or global digital services function (GDSF).

DSC3-GDSF:SM[x] = DSC3 GDSF image, where 'x' is the SM number when the indicated inconsistency applies to a specific SM's GDSF.

DSC3-LDSF:SM[x] = DSC3 local digital services function (LDSF) image, where 'x' is the SM number when the indicated inconsistency applies to a specific SM's LDSF.

DSU2-HDSU:SM[x] = DSU2 HDSU diagnostic image, where 'x' is the SM number when the indicated inconsistency applies to a specific SM's SMP-resident HDSU image.

DSU2-HSAS:SM[x] = DSU2 service announcement system diagnostic image (HSAS), where 'x' is the SM number when the indicated inconsistency applies to a specific SM's HSAS(s) or an SM's SMP-resident HSAS image.

DSU2-ISTF:SM[x] = DSU2 ISTF, where 'x' is the SM number when the indicated inconsistency applies to a specific SM's ISTF(s) or an SM's SMP-resident ISTF image.

DSU2-LDSU:SM[x] = DSU2 local digital service unit (LDSU) function, where 'x' is the SM number when the indicated inconsistency applies to a specific SM's LDSU(s) or an SM's SMP-resident LDSU image.

DSU2-RAF:SM[x] = DSU2 recorded announcement function (RAF), where 'x' is the SM number when the indicated inconsistency applies to a specific SM's RAF(s) or an SM's SMP-resident RAF image.

DSU2-SAS:SM[x] = DSU2 service announcement system operational image (SAS), where 'x' is the SM number when the indicated inconsistency applies to a specific SM's SAS(s) or an SM's SMP-resident SAS image.

IDCU-CCP:SM[x] = IDCU CCP, where 'x' is the SM number when the indicated inconsistency applies to a specific SM's IDCU CCP(s) or an SM's SMP-resident IDCU CCP image.

IDCU-DLP:SM[x] = IDCU DLP, where 'x' is the SM number when the indicated inconsistency applies to a specific SM's IDCU DLP(s) or an SM's SMP-resident IDCU DLP image.

IDCU-LSI:SM[x] = IDCU loop side interface (LSI), where 'x' is the SM number when the indicated inconsistency applies to a specific SM's IDCU LSI(s) or an SM's SMP-resident IDCU LSI image.

ISLU-CC:SM[x] = ISLU CC, where 'x' is the SM number when the indicated inconsistency applies to a specific SM's ISLUCC(s) or an SM's SMP-resident ISLU image.

ISLU2-CC:SM[x] = ISLU2 CC, where 'x' is the SM number when the indicated inconsistency applies to a specific SM's ISLU2CC(s) or an SM's SMP-resident ISLU2 image.

MCTSI-MHOP:SM[x] = MCTSI switching module processor message handler operational image (MHOP), where 'x' is the SM number when the indicated inconsistency applies to a specific SM's MHOP or an SM's SMP-resident MHOP image.

MCTSI-MHLB:SM[x] = MCTSI switching module processor MHLB image, where 'x' is the SM number when the indicated inconsistency applies to a specific SM's SMP-resident MHLB image.

`MCTSI-PI:SM[x]` = MCTSI PI, where '`x`' is the SM number when the indicated inconsistency applies to a specific SM's PI or an SM's SMP-resident PI image.

`MSGH[=x-y,z]` = CMP message handler, where '`x`' is the message switch side, '`y`' is the CMP number and '`z`' is either PRIME or MATE when the indicated inconsistency applies to a specific CMP.

`PSU-PH3C:SM[x]` = PSU PH3 with COMMON application processor image, where '`x`' is the SM number when the indicated inconsistency applies to a specific SM's PH3(s) or an SM's SMP-resident PH3C image.

`PSU-PH2A:SM[x]` = PSU PH2 with ACCESS application processor image, where '`x`' is the SM number when the indicated inconsistency applies to a specific SM's PH2(s) or an SM's SMP-resident PH2A image.

`PSU-PH2G:SM[x]` = PSU PH2 with GATEWAY application processor image, where '`x`' is the SM number when the indicated inconsistency applies to a specific SM's PH2(s) or an SM's SMP-resident PH2G image.

`PSU-PH4I:SM[x]` = PSU PH4 with ISDN application processor image, where '`x`' is the SM number when the indicated inconsistency applies to a specific SM's PH4(s) or an SM's SMP-resident PH4I image.

`PSU-IP4I:SM[x]` = The operational image for the PH4 input/output processor, where '`x`' is the SM number when the indicated inconsistency applies to a specific SM's PH4(s) or an SM's SMP-resident IP4I image.

`PSU-OIOP:SM[x]` = The operational image for the PH3 input/output processor, where '`x`' is the SM number when the indicated inconsistency applies to a specific SM's PH3(s) or an SM's SMP-resident OIOP image.

`PSU-ODMA:SM[x]` = The operational image for the PH2 direct memory access processor, where '`x`' is the SM number when the indicated inconsistency applies to a specific SM's PH2(s) or an SM's SMP-resident ODMA image.

`PSU-DDMA:SM[x]` = The diagnostic image for the PH2 direct memory access processor, where '`x`' is the SM number when the indicated inconsistency applies to a specific SM's SMP-resident DDMA image.

`SM[x]` = Switching module, where '`x`' is the SM number when the indicated inconsistency applies to a specific SM.

`TMUX:SM[x]` = TMUX image, where '`x`' is the SM number when the indicated inconsistency applies to a specific SM's TMUX(s) or an SM's SMP-resident TMUX image.

`PSU-IP4F:SM[x]` = Operational image for the input/output processor on the PSU PH4 frame relay protocol handler. Where 'x' is the SM number. When the indicated inconsistency applies to a specific SM's PH2(s) or an SM's SMP-resident IP4F image.

`PSU-PHV1C:SM[x]` = Protocol handler for voice, where 'X' is the SM number When the indicated inconsistency applies to a specific SM's or an SMP-resident PHV1C image.

`PSU-PHA1A:SM[x]` = Protocol handler for ATM. Where 'X' is the SM number When the indicated inconsistency applies to a specific SM's or an SMP - resident PHA1A image.

`ISLU-CC2:SM[x]` = Integrated services line unit (ISLU) commom controller (CC). Where 'X' is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident CC2 image.

`PSU-IP4IF:SM[x]` = The operational image for the input/output processor on the PSU PH4 integrated services digital network (ISDN). Where 'X' is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident IP4IF image.

`PSU-PH3S:SM[x]` = Packet switching unit (PSU) protocol handler 3(PH3) Where 'X' is the SM number When the indicated inconsistency applies to a specific SM's or an SMP - resident PH3S image.

`PSU-IP3S:SM[x]` = The operational image for the input/output processor on the PSU PH3 integrated services digital network (ISDN) for common channel signalling. Where

'X' is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident CC2 image.

`PSU-DSP8K:SM[x]` = 8k Digital signal processor (DSP) on PHV3. Where 'X' is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident DSP8K image.

`PSU-DSP13K:SM[x]` = 13K Digital signal processor (DSP) on PHV3. Where 'X' is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident DSP13K image.

`PSU-PHV3C:SM[x]` = Packet switching unit (PSU) protocol handler for voice 3 (PHV3) loaded with the COMMON image. Where 'X' is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident PHV3C image.

`PSU-PHV4C:SM[x]` = Packet switching unit (PSU) protocol handler for voice 4 (PHV) loaded with the COMMON image. Where 'X' is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident PHV4C image.

`PSU-V4D8K:SM[x]` = 8K Digital signal processor (DSP) on PHV4C. Where 'X' is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident V4D8K image.

`PSU-V4D13K:SM[x]` = 13K Digital signal processor (DSP) on PHV4C. Where 'X' is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident V4D13K image.

`PSU-DDMA:SM[1]` = Diagnostic image for the direct-memory-access processor on the PSU PH2. Where 'X' is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident DDMA image.

`PSU-DSPEVRC:SM[x]` = EVRC Digital Signal Processor for CDMA protocol Handler for voice. Where 'X' is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident DSPEVRC image.

`PSU-V3DACP:SM[x]` = ACELP Digital Signal Processor, for TDMA protocol handler for voice. Where 'X' is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident V3DACP image.

`PSU-V3DVSP:SM[x]` = VSELP Digital Signal Processor, for TDMA protocol handler for voice. Where 'X' is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident V3DVSP image.

`PSU-D4VDVERC:SM[x]` = EVRC DSP, for CDMA Protocol Handler for voice version 4. Where 'X' is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident V3DVSP image.

`PSU-D4VDVERC:SM[x]` = EVRC DSP, for CDMA Protocol Handler for voice version 4. Where 'X' is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident D4VDVERC image.

`PSU-V4DACP:SM[x]` = ACELP DSP, for TDMA protocol Handler for voice version 4. Where 'X' is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident V4DACP image.

`PSU-V4DVSP:SM[x]` = VSELP, DSP, for TDMA Protocol Handler for voice version 4. Where 'X' is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident V4DVSP image

`DSU2-HSAS:SM[x]` = DSU2 Service announcement system (SAS). Where 'X' is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident HSAS image.

`DSC4-LDSF:SM[x]` = DSC4 Local Digital Service Function (LDSF). Where 'X' is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident LDSF image.

`DSU2-DGN:SM[x]` = DSU2 Diagnostic Image. Where 'X' is the SM number. When the indicated inconsistency applies to a specific SM's or an SMP - resident DGN image.

f = Pumpable peripheral status. Valid value(s):

INCONSISTENT = The indicated pumpable peripheral image is inconsistent with the updated disk image.

NO REPLY = Failure to communicate with the indicated pumpable peripheral. Consistency status uncertain.

NO RESOURCE = Failure to acquire the resource necessary to perform the consistency check. Consistency status uncertain.

g = Unit name of the peripheral. Valid value(s):

```
DNUSCC=i-j-o
 GDSF=i-j
 IDCU=i-j-k
 ISLUCC=i-j-l
 ISLU2CC=i-j-l
 ISTF=i-j
 LDSU=i-j-k
 LDSF=i-j
 PSUPH=i-0-m-n
 RAF=i-j
 SAS=i-j
 TMUX=i-j-p-q
```

h = Message status. Valid value(s):

ABORTED = The UPD:VFYCON input message aborted prematurely.

COMPLETED = The UPD:VFYCON input message has completed normally.

IN PROGRESS = The UPD:VFYCON input message is starting.

i = SM number.

j = Unit number.

k = Service group.

l = ISLU CC number.

m = PSU shelf number.

n = PH number.

o = DNU-S CC number.

p = DNU-S data group number.

q = TMUX number.

4. ACTIONS TO BE TAKEN

If UPD VFYCON COMPLETED-NO INCONSISTENCIES FOUND IN THE SYSTEM prints, the system has been verified to be completely consistent and no action need be taken.

If 'd' equals 1, 3, ... 15, take action to restore consistency. The normal recovery actions are to roll forward or roll

backward the current temporary updates using a UPD:RCVRY input message. This action will not recover from type 7, 8, 10 or 15 inconsistencies.

For a type 7 inconsistency, remove and restore the inconsistent peripherals manually, or refer to the UPD:PMPPERF input manual page.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:PMPPERF
UPD:RCVRY
UPD:VFYCON
```

Output Message(s):

```
UPD:PMPPERF
UPD:RCVRY
UPD:SYSERR
UPD:USRERR
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

MCC Display Page(s):

1950 (PROGRAM UPDATE MAINTENANCE)
1960 (PROGRAM UPDATE INSTALLATION)

UPD:WARNING

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      UPD WARNING: BUD FILE CORRUPTED - SEEK TECHNICAL ASSISTANCE

[2]   ____________________________________________________________________
      UPD WARNING: a/a FAILED b

[3]   ____________________________________________________________________
      UPD WARNING: FAILED TO c SM/CMP = d f

[4]   ____________________________________________________________________
      UPD WARNING: e WAS MADE NON_CONTIGUOUS f

[5]   ____________________________________________________________________
      UPD WARNING: NOT ALL SPACE REQUESTED WAS ALLOCATED

[6]   ____________________________________________________________________
      UPD WARNING: UPD OFC IGNORING INCONSISTENCIES

[7]   ____________________________________________________________________
      UPD WARNING: EMPTY PUMP MAP FILE

[8]   ____________________________________________________________________
      UPD WARNING: FILE MISSING e

[9]   ____________________________________________________________________
      UPD WARNING: MANUALLY REMOVE e f

[10]  ____________________________________________________________________
      UPD WARNING: USE UPD:REDUCE TO CLEAN UP /etc AFTER THIS BWM IS OFFICIAL

[11]  ____________________________________________________________________
      UPD WARNING
        FN e DF g INCONSISTENT f
        SEEK TECHNICAL ASSISTANCE

[12]  ____________________________________________________________________
      UPD WARNING: TRANSACTION FAILED IN {ALL|SOME} AFFECTED {CMP|SM}(s)

[13]  ____________________________________________________________________
      UPD WARNING MATE MCTSI IS BUSY SM=d

[14]  ____________________________________________________________________
      UPD WARNING MATE MCTSI IS NOT IN STBY STATE SM=d

[15]  ____________________________________________________________________
      UPD WARNING SM=d NOT PROCESSED BECAUSE IT IS FORCED

[16]  ____________________________________________________________________
```

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```
      UPD WARNING SM=d NOT PROCESSED DUE TO HASH ERROR

[17]  ____________________________________________________________
      UPD WARNING RECALCULATING CHECK SUM VALUES
```

2. REASON FOR OUTPUT

To alert the operations personnel of abnormal situations within the switch. The presence of a warning message does not halt the software update application process.

Format 1 is printed to indicate backup update database (BUD) file corruption. This can cause the UPD:DISPLAY output message to print incorrect information. Technical support should be consulted in any instance of this message.

Format 2 is printed when the switching modules (SMs) are being pumped or the office is undergoing initialization. Database primitives listed in '`a`' have returned with the error code listed in '`b`'.

Format 3 is printed when there is a failure operation as indicated in '`c`' for the SM or communications module processor (CMP) listed in '`d`'.

Format 4 is printed when the file listed in e should be created as a contiguous file, but the file system cannot allocate the space required to make this file contiguous.

Format 5 is printed when there is a failure to allocate all the space requested.

Format 6 is printed when inconsistencies exist that could cause generic program mismatches.

Format 7 or 8 is printed when a pump map file is either empty or missing.

Format 9 is printed when an error as indicated in '`f`' is encountered during an attempt to remove a file as indicated in '`e`'. This file has to be manually removed.

Format 10 is printed when file space is critically overloaded. Refer to the UPD:REDUCE input message.

Format 11 is printed when an inconsistency is detected with the error as indicated in '`f`' for the file indicated in '`e`' and dependent file indicated in '`g`'.

Format 12 is printed when some or all of the affected SMs or communication module processors (CMPs) were not updated.

Format 13 is printed when the mate module control time slot interchanger (MCTSI) is not in a stable state to be forced. This usually occurs when the SM is in a transient state. A later re-try usually will succeed.

Format 14 is printed when the mate MCTSI is in a state other than standby, for example out-of-service (OOS).

Format 15 is printed when the software update process detects that an SM is already in the forced state and therefore does not attempt further processing with that SM.

Format 16 is printed when the software update process detects that an SM has a hash sum error and therefore does not attempt further processing with that SM.

Format 17 is printed when a software update is being verified, and the check sum value in the HDR file differs from the check sum value that was calculated when the file was being uncompressed.

3. VARIABLE FIELD DEFINITIONS

a = Name of faulted function. Valid value(s):

```
DBlopnrel
DBlrdfst
DBlrdnxt
DBluplinmsg
DBlxbgntrn
```

b = Error code returned from the database relation listed above.

c = Failed operation. Valid value(s):

```
OPEN AN ENTRY
READ AN ENTRY
RECEIVE MESSAGE FROM
SEND A MESSAGE TO
```

d = SM or CMP number.

e = File pathname.

f = Error number.

g = Dependant file pathname.

4. ACTION TO BE TAKEN

The specific action required depends on the type of warning message printed.

If `UPD OFC IGNORING INCONSISTENCIES` is printed, the UPD:VFYCON input message should be used. Refer to the UPD:VFYCON output manual page for the appropriate action to be taken.

If a warning is printed that indicates that the check sum values are being recalculated, no action is to be taken.

For all other warnings follow the instructions given. If no instructions are given, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
UPD:APPLY-BYTER
UPD:APPLY-FILER
UPD:APPLY-FUNCR
UPD:DISPLAY
UPD:REDUCE
UPD:VFY
UPD:VFYCON
```

Output Message(s):

```
UPD:APPLY
UPD:DISPLAY
UPD:SYSERR
UPD:USRERR
UPD:VFY
UPD:VFYCON
```

Output Appendix(es):

```
APP:SYSERR
```

110. VFY

VFY:AUTH

Software Release: 5E10 and later
Message Class: AUTH
Application: 5
Type: Output

1. FORMAT

```
VFY AUTH
  TERM: a        AUTHORITY LEVEL: b     [USER: c]
 [d]        [d]        [d]        [d]        [d]
  .          .          .          .          .
  .          .          .          .          .
  .          .          .          .          .
```

2. REASON FOR OUTPUT

To report the result of a VFY:AUTH input message.

The following authority information for the current terminal session is provided: authority level, terminal identity, person (user) identity, and command groups permitted. If a user identity and password was not required for system access, then a user identity is not available and therefore not displayed. If the authority level is 'n' (none), then open permission is implied and no command groups are displayed.

This output message is associated with maintenance interface security. Refer to the Routine Operations and Maintenance manual for further information.

3. VARIABLE FIELD DEFINITIONS

a = Terminal identity as defined by the ADD:TAUTH input message.

b = Authority checking level. Valid value(s):
- n = Authority checking is not in effect
- t = Terminal level authority checking is in effect
- u = User level authority checking is in effect

c = Person identity as defined by the ADD:PAUTH input message. This is displayed only if the user provided a login and password for system access.

d = Permitted command group. Valid value(s):

ADMIN	ALARM	AM	AMA	AUDIT	AUTH
CCS	CM	FHADM	MAINT	MEAS	NMOC
ODD	PASS	RCV	SFTMGT	SFTUTIL	SM
SPECRCV	SUPERUSR	SYSRCVY	TRACE	TRKLN	

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ADD:PAUTH
ADD:PCGRP
ADD:TAUTH
ADD:TCGRP
VFY:AUTH
VFY:PAUTH
VFY:PCGRP
VFY:TAUTH
VFY:TCGRP
```

Output Message(s):

```
REPT:LOGIN
VFY:PAUTH
VFY:PCGRP
VFY:TAUTH
VFY:TCGRP
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

VFY:CPU

Software Release: 5E10 and later
Message Class: RCVYMON
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      VFY CPU     CALL PICKUP GROUP #l  REPORT
        MLHG MEMBER TN OE FEATURE(T) CPUT FEATURE(O) CPUG1 CPUG2 CPUG3 CPUG4
        a    b      c  d  e          f    g          h     i     j     k
        .    .      .  .  .          .    .          .     .     .     .
        .    .      .  .  .          .    .          .     .     .     .
        .    .      .  .  .          .    .          .     .     .     .

[2]   ____________________________________________________________________
      VFY CPU     CALL PICKUP GROUP #l  REPORT
        TN OE FEATURE(T) CPUT FEATURE(O) CPUG1 CPUG2 CPUG3 CPUG4
        c  d  e          f    g          h     i     j     k
        .  .  .          .    .          .     .     .     .
        .  .  .          .    .          .     .     .     .
        .  .  .          .    .          .     .     .     .

[3]   ____________________________________________________________________
      VFY CPU     DIRECTED CALL PICKUP REPORT
        MLHG MEMBER TN OE FEATURE(T) FEATURE(O)
        a    b      c  d  e          g
        .    .      .  .  .          .
        .    .      .  .  .          .
        .    .      .  .  .          .

[4]   ____________________________________________________________________
      VFY CPU     DIRECTED CALL PICKUP REPORT
        TN OE FEATURE(T) FEATURE(O)
        c  d  e          g
```

2. REASON FOR OUTPUT

To indicate the results of a VFY:CPU input request for reporting all the lines associated with either directed call pickup with and without "barge-in" or all lines with a specific call pickup group. Each group report is dedicated to listing lines having a single group number. If other CPU groups are found for the line, the additional group information will also be provided on the report line.

Formats 1 and 2 are call pickup group reports and Formats 3 and 4 are directed call pickup reports. Formats 1 and 3 are sorted by MLHG member number while Formats 2 and 4 are sorted by TN. Only one format is used per query.

3. VARIABLE FIELD DEFINITIONS

a

b = MLHG member number.

c = Telephone number (TN).

`d` = Office equipment (OE) number.

`e` = Terminating feature [FEATURE(T)] name.

`f` = Terminating call pickup group (CPUT) number.

`g` = Originating feature [FEATURE(O)] name.

`h` = Originating call pickup group 1 number.

`i` = Originating call pickup group 2 number.

`j` = Originating call pickup group 3 number.

`k` = Originating call pickup group 4 number.

`l` = Call pickup group number.

4. ACTION TO BE TAKEN

The purpose of this message is to report the result of the action requested by the corresponding manually requested input message. No specific action is indicated.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
VFY:CPU
```

Other Manual(s):
235-190-103 *Business and Residence Feature Description*
235-200-100 *BRCS Assignment Guide*

VFY:FILE

Software Release: 5E10 and later
Message Class: MAINT
Application: 5,3B
Type: Output

1. FORMAT

[1]
```
VFY FILE STARTED
```

[2]
```
VFY FILE CRC CALCULATION REPORT
  FILE NAME                              SIZE CRC
  a                                      b    c
```

[3]
```
VFY FILE IN PROGRESS
  d FILES VERIFIED
```

[4]
```
VFY FILE COMPLETED
```

[5]
```
VFY FILE COMPLETED
  d FILES VERIFIED
  e ERRORS
```

[6]
```
VFY FILE STOPPED
```

[7]
```
VFY FILE STOPPED - MOUNT OFF-LINE PARTITION FAILURE
  MOP ERROR = f
```

[8]
```
VFY FILE STOPPED
  SPECIFIED PARTITION IS NOT A FILE SYSTEM
```

[9]
```
VFY FILE CANNOT CALCULATE CRC FOR a
```

[10]
```
VFY FILE CANNOT ACCESS SPECIAL DEVICE FILE FOR a
```

[11]
```
VFY FILE CANNOT EXECUTE a
```

[12]
```
VFY FILE CANNOT MOUNT a
```

[13]
```
VFY FILE CANNOT REDIRECT MOP'S STDERR
```

[14]
```
VFY FILE CREATING FILE g
```

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[15] _____
VFY FILE STOPPED - DATABASE ACCESS ERROR

[16] _____
VFY FILE STOPPED - CANNOT ATTACH TO SG DATABASE

[17] _____
VFY FILE CANNOT FIND STORED CRC VALUES FOR a

[18] _____
VFY FILE CANNOT OPEN a

[19] _____
VFY FILE SPECIFICATION FILE ERROR IN LINE h

[20] _____
VFY FILE STOPPED - CANNOT OPEN SPECFILE a

[21] _____
VFY FILE FLDUPD IN PROGRESS FOR FILE a

[22] _____
VFY FILE CRC UPDATE FAILED FOR a

[23] _____
VFY FILE CANNOT UNMOUNT THE OFF-LINE FILE SYSTEM

[24] _____
VFY FILE UDGNNM COMMAND FAILED FOR MHD i

[25] _____
VFY FILE PATH NAME TOO LONG
a

[26] _____
VFY FILE VERIFICATION FAILURE ON FILE a
STORED CRC VALUE = j CALCULATED CRC VALUE = k

[27] _____
VFY FILE CANNOT ACCESS a

[28] _____
VFY FILE VERIFICATION FAILURE ON FILE a
FILE TYPE CHECK FAILED l EXPECTED

[29] _____
VFY FILE VERIFICATION FAILURE ON FILE a
SPECIFIED FILE IS NOT EXECUTABLE

[30] _____
VFY FILE VERIFICATION FAILURE ON FILE a
SPECIFIED FILE HAS ZERO LENGTH

[31] _____
VFY FILE CANNOT OPEN PIPE TO a

```
[32]  ____________________________________________________________________
      VFY FILE CANNOT READ PIPE FROM a

[33]  ____________________________________________________________________
      VFY FILE IMPROPER DEVICE NAME a

[34]  ____________________________________________________________________
      VFY FILE CANNOT STORE CRC FOR a

[35]  ____________________________________________________________________
      VFY FILE CANNOT PROCESS a
        UPDATE MAY BE IN PROGRESS

[36]  ____________________________________________________________________
      VFY FILE CANNOT ALLOCATE MEMORY FOR a

[37]  ____________________________________________________________________
      VFY FILE READ ERROR FOR SPECFILE a
```

2. REASON FOR OUTPUT

Formats 1 through 5 are printed to inform the user of the message's status.

Formats 6 through 37 are printed to inform the user of various problems which the VFY:FILE message has encountered.

3. VARIABLE FIELD DEFINITIONS

`a` = Name of the file for which the message is printed.

`b` = The size of the essential file (modulo 2^1 R).

`c` = The calculated cyclic redundancy check (CRC) value for the essential file. For files that contain their own CRC information, this value should match the size of the file.

`d` = The number of files verified. This count includes files that failed verification.

`e` = The number of errors encountered during processing.

`f` = The error message reported by /usr/bin/mop.

`g` = The name of the file being used for global CRC values. Normally this is /.crcvalues. This name will be /.crcvalues if the pfile currently being processed is in a temporary state, the /.crclock directory exits, and there is no lock file for the pfile in the /.crclock directory.

`h` = The line number in the specfile that contains the formatting error.

`i` = The off-line disk number specified as the argument to the directory number (DN) keyword on the VFY:FILE message line.

`j` = The stored CRC value for the current file. If the CRC information is stored in /.crcvalues, this field contains both the size of file and the CRC.

`k` = The calculated CRC value for the current file. If the stored CRC information for this file is kept in /.crcvalues, this field contains both the calculated size of the file and the CRC.

`l` = The requested file type that the specified file was checked against.

4. ACTION TO BE TAKEN

If the error count for Formats 3 or 5 is non-zero, examine the receive-only printer (ROP) for other message formats to determine the cause of the error. Otherwise, no user action is necessary for Formats 1-5.

For Format 6, VFY:FILE has terminated.

For Format 7, the mount off-line partition (MOP) process (MOPP) has failed. Examine the MOP error message and take appropriate action.

For Format 8, the user has selected a database partition that does not represent a file system. Find the correct partition number and reenter the input message.

Format 9 is generally printed because the user is attempting to use the GEN option on a file that is not administrative module (AM)- executable and trying to store the CRC internally. These files must have their CRC information stored in /.crcvalues. If this is not the case, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Formats 10, 12, 13, 15, 16, 22, or 30, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 11, a file is missing or does not have execute permission.

For Format 14, a warning message is generated that may be ignored if CRC information is being generated for the first time. If this is not the case, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 17, VFY:FILE cannot find CRC information that is supposed to be in /.crcvalues. If the CRC information was present and has been lost, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 18, VFY:FILE cannot open the file. This is usually an input error. If this is not the case, Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Formats 19 and 20, the specification file supplied to the FLIST parameter. Verify the correctness of the input message and the contents of the specification file.

For Format 21, a field update is in progress for the current file. VFY:FILE will not run the CRC algorithm against this file until the update is made permanent. If this message reoccurs for several days in a row, check the software update status of the file to determine why it has not been made official.

For Format 23, MOP has been terminated unexpectedly and has left the off-line partition mounted. VFY:FILE has attempted to unmount the file system unsuccessfully. Use "mop -u" to unmount the file system.

For Format 24, VFY:FILE is unable to verify /dev/boot, /dev/lboot, and /dev/vtoc from the off-line disk. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 25, the path name of the file to be verified is too long for searching /.crcvalues. Although the maximum allowed length for the arguments to either of the FN or OLMP options is 63 characters, their combined length must not exceed 63 characters.

For Format 26, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. Refer to the Corrective Maintenance manual for help in analyzing and correcting this error.

For Format 27, VFY:FILE cannot get status of the file. This is usually an input error. If this is not the case, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 28, the specified file's actual file type is different than the expected file type. Use the OP:ST-LISTDIR message to examine the existing file type. If the specified file's existing file type does not match the expected file type, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual. Otherwise, verify the correctness of the input message.

For Format 29, execute permission is not set for the owner. Use the ALW:FSYS-ACCESS input message to set the appropriate bit.

For Formats 31, 32, and 34, there are problems with accessing an off partition volume table of contents (VTOC); refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 34, the user has requested that a CRC value be generated for a file and stored in that file. The file is not suitable for storing the CRC value internally. The user should store the generated value globally, that is, use the '`g`' character when specifying the checking type.

For Format 35, the user may be attempting to process a file that is being updated. If file update is in progress, the user must wait until it is completed before attempting to run the VFY:FILE input message, otherwise the user needs to go into the crclock directory and remove the file that has the same name as the file that the VFY:FILE input message will not process.

For Format 36, VFY:FILE is unable to allocate sufficient space to read the specification file into memory. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

For Format 37, VFY:FILE is unable to read the specification into memory. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1, 4, 6, 9, 11, 12, 14, 18, 19, 21, 27, 34	549
2, 5	551
3, 7, 8, 25	550
10, 13, 15-18, 20, 22, 24, 31-33, 37, 37	670
23	660
26	559
28-30	655
35	557

Input Message(s):

```
ALW:FSYS-ACCESS
OP:ST-LISTDIR
UPD:OMDB
VFY:FILE
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

Other Manual(s):
235-105-220 *Corrective Maintenance*
235-105-250 *System Recovery*

VFY:MHD

Software Release: 5E10 and later
Message Class: DSKUTL
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      VFY MHD a { NOT STARTED b c |
        STOPPED b c |
        ERROR b c  |
        ABORTED b c |
        STARTED  |
        COMPLETED |
        IN PROGRESS }

[2]   ____________________________________________________________________
      VFY MHD a EARLY TERM VFY FAILED d
        TRACK/CYL/HD/SC TRACK/CYL/HD/SC TRACK/CYL/HD/SC TRACK/CYL/HD/SC
          e    f  g  h   [e    f  g  h]  [e    f  g  h]  [e    f  g  h]

[3]   ____________________________________________________________________
      VFY MHD a EARLY TERM VFY FAILED d
        BLOCKS   BLOCKS   BLOCKS   BLOCKS
          i       [i]      [i]      [i]

[4]   ____________________________________________________________________
      VFY MHD a ABORTED b
        ERROR DATA j k l m n
```

2. REASON FOR OUTPUT

To report the result of executing an VFY:MHD input message. If the format process was invoked using the VFY MHD poke on the data file system access (DFSA) display page during disk independent operation (DIOP) mode, a REPT:DKDIP output message will precede this one.

Format 4 provides additional error information when an explicit small computer system interface (SCSI) command fails. The additional error data is necessary to determine the exact cause of the error condition.

3. VARIABLE FIELD DEFINITIONS

a = Member number of the moving head disk (MHD) drive.

b = Process step or reason code. Valid value(s):

Code:	Explanation:
f01	Failed to fopen() /tmp file.
f03	fseek() failed on the output file.
f04	Failed to open equipment configuration database (ECD).
f05	Failed to get unit control block (UCB) by name.
f06	Failed to get UCB of controlling unit.
f07	Controlling unit is not active.
f09	MHD size not recognized.
f0a	"TRACK", "BLOCK", or "NEW" are not valid for SCSI MHD.
f0c	"TRACK" is not valid for SCSI MHD.
f12	"BLOCK" is not valid for SMD MHD.

f18	Failed to reserve UCB.
f1b	Failed to assign special device file name.
f1d	Failed to open special device file.
f21	Failed to set I/O mode of device file.
f24	Failed to enable message reception.
f27	Refer to the disk driver (DKDRV) report on the receive-only printer (ROP).
f30	Head universal pointer table (UPT) address is not available.
f36	Refer to the DKDRV report on the ROP.
f37	DKDIP virtual address translation failure.
f39	Refer to the DKDRV report on the ROP.
f42	DFC RAM read failed.
f45	Verify (VFY) data overwritten; repeat input request starting from track number.
f46	Start block greater than the last block address (LBA).
f47	Refer to the DKDRV report on the ROP.
f48	DKDIP virtual address translation failure.
f49	Refer to the DKDRV report on the ROP.
f4c	Read of the DFC head UPT failed.
f4e	Refer to the DKDRV report on the ROP.
f52	Read of the DFC firmware UPT failed.
f55	Failed to get UCB of the MHD's SCSI bus (SBUS) by record identification number (RID).
f58	Refer to the DKDRV report on the ROP.
f5b	Read of the VFY data failed.
f5e	Invalid verify data.
f63	lseek() to "comb" defect table failed.
f64	DKDIP virtual address translation failure.
f66	First read of defect table failed.
f69	lseek() to "comb" defect table failed.
f6a	DKDIP virtual address translation failure.
f6c	Second read of defect table failed.
f6e	Message to port failure.
f71	Message reception failure.
f72	Manual abort requested.
f73	Manual abort requested.
f74	Process timed out.
f78	Failed to close special device file.
f7c	Failed to release special device file.
f7f	Failed to unreserve UCB.
f83	Failed to close ECD.
f86	Terminated externally with signal.
f93	Failed to get the segment number.
f96	SCSI "format" command failed.
f99	Message to port failure.
f9c	Message reception failure.
f9f	Refer to the DKDRV report on ROP.
fa1	Failed to get the segment number.
fa5	SCSI "inquiry" command failed.
fa7	SCSI "inquiry" command data underflow.
fa9	Failed to get the segment number.
fb1	SCSI "mode sense" command failed.
fb2	Data overflow - too many block descriptors.
fb5	Failed to get the segment number.
fb9	SCSI "mode select" command failed.
fc1	Refer to the DKDRV report on ROP.
fc6	Failed to get the segment number.
fc9	SCSI "read capacity" command failed.
ffe	Aborted due to phase 1.

c = System error code. Refer to the APP:SYSERR appendix in the Appendixes section of the Output Messages manual.

d = Number of failures (bad sectors for storage module drive (SMD) MHD or bad disk blocks for SCSI MHD) found during the verify step.

e = Relative track number of the indicated bad sector. The track number is relative to the beginning of the disk. It is calculated using all tracks of the disk excluding those tracks mapped out by defect management. This variable field applies only to an SMD MHD.

f = Physical cylinder number of the indicated bad sector. This number is calculated using all tracks of

the disk including those mapped out by defect management. This variable field applies only to an SMD MHD.

`g` = Physical head number of the indicated bad sector. This number is calculated using all tracks of the disk including those mapped out by defect management. This variable field applies only to an SMD MHD.

`h` = Sector number in use when the failure occurred. It is a relative number. This variable applies only to an SMD MHD.

`i` = Logical disk block number of the bad disk block found on the SCSI disk driver during the verify stage.

`j` = Eight hexadecimal digits in the form: `AAAABBCC`. Valid value(s):

- `AAAA` = SCSI job block(SJB) completion code. Refer to the APP:DFC-K appendix in the Appendixes section of the Output Messages manual.
- `BB` = Status byte. Refer to the APP:DFC-K appendix in the Appendixes section of the Output Messages manual.
- `CC` = Not used.

`k` = First word of extended sense data (ESD); eight hexadecimal digits in the form: `AABBCCDD`. Refer to the APP:DFC-J appendix in the Appendixes section of the Output Messages manual.

- `AA` = Byte 0 of ESD.
- `BB` = Byte 1 of ESD.
- `CC` = Byte 2 of ESD.
- `DD` = Byte 3 of ESD.

`l` = Second word of ESD; eight hexadecimal digits in the form: `AABBCCDD`. Refer to the APP:DFC-J appendix in the Appendixes section of the Output Messages manual.

- `AA` = Byte 4 of ESD.
- `BB` = Byte 5 of ESD.
- `CC` = Byte 6 of ESD.
- `DD` = Byte 7 of ESD.

`m` = Third word of ESD; eight hexadecimal digits in the form: `AABBCCDD`. Refer to the APP:DFC-J appendix in the Appendixes section of the Output Messages manual.

- `AA` = Byte 8 of ESD.
- `BB` = Byte 9 of ESD.
- `CC` = Byte 10 of ESD.
- `DD` = Byte 11 of ESD.

`n` = Fourth word of ESD; eight hexadecimal digits in the form: `AABBCCDD`. Refer to the APP:DFC-J appendix in the Appendixes section of the Output Messages manual.

- `AA` = Byte 12 of ESD.
- `BB` = Byte 13 of ESD.
- `CC` = Byte 14 of ESD.
- `DD` = Byte 15 of ESD.

4. ACTION TO BE TAKEN

A termination report specifying completion indicates that all directives of the input request were done and no failures were encountered.

Noncompletion termination reports that provide an error code usually indicate a system resource was not available or became unavailable to perform the requested task. Clear the problem causing the resource limitation and retry the input request.

A termination report specifying a verification failure means that the indicated disk sectors had uncorrectable data errors or that the format information contained in the sector headers was not as expected. This disk media should NOT be used until the problem is corrected.

For an SMD MHD, the HEAD and TRACK information is output to provide data to help determine if the problem is in the MHD (head alignment) or in the disk media (bad surface).

For an SMD MHD, the CYL, HEAD, and SECT information can be used as input to the LOAD:MHD input message. For a SCSI MHD, the BLOCK information can be used as input to the LOAD:MHD input message.

If Format 4 prints, the SCSI disk drive encountered an internal drive error. Retain a copy of the error data and contact the next level of technical support to aid in determining the cause of the error condition.

5. ALARMS

OMDB Keys:	Alarm type: =
177, 666	Manual alarm.
148	Information alarm.
146, 149, 569	Major alarm.

If a major alarm occurs, it may not be service affecting, but take immediate action as indicated in the report.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	147, 148, 149
2	146
3	569
4	666

Input Message(s):

```
LOAD:MHD
VFY:MHD
```

Output Message(s):

```
REPT:DKDIP
UPD:OMDB
```

Output Appendix(es):

```
APP:DFC-J
APP:DFC-K
APP:OMDB-X-REF
```

```
APP:SYSERR
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

MCC Display Page(s):

123 (DFSA DFC0-1 STATUS)
125 (DFSA DFC2-3 STATUS)
126 (DFSA DFC0-1 PERF)
128 (DFSA DFC2-3 PERF)

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VFY:MLHG-A

Software Release: 5E10 - 5E11
Message Class: RCVYMON
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      VFY  MLHG=a   GROUP REPORT
      ==============================================
        MLHG Feature                          b
        Listed DN                             c
        Subgroup DN 1                        [d]
        Subgroup DN 2                        [e]
        Subgroup DN 3                        [f]
        Subgroup DN 4                        [g]
        Subgroup DN 5                        [h]
        Subgroup DN 6                        [i]
        Subgroup DN 7                        [j]
        Subgroup DN 8                        [k]
        Local or Global Group                 l
        Group Size                            m
        Actual Size                           n
        Hunting Module                        o
        Monitored                             p
        ISAT Group Monitoring This MLHG       q
        Group Make Busy                       r
        Group Make Busy Scan Point           [s]
        Position  1 Make Busy Scan Point     [t]
        Position  2 Make Busy Scan Point     [u]
        Position  3 Make Busy Scan Point     [v]
        Position  4 Make Busy Scan Point     [w]
        Position  5 Make Busy Scan Point     [x]
        Position  6 Make Busy Scan Point     [y]
        Position  7 Make Busy Scan Point     [z]
        Position  8 Make Busy Scan Point     [a1]
        Position  9 Make Busy Scan Point     [b1]
        Position 10 Make Busy Scan Point     [c1]
        Position 11 Make Busy Scan Point     [d1]
        Position 12 Make Busy Scan Point     [e1]
        Position 13 Make Busy Scan Point     [f1]
        Position 14 Make Busy Scan Point     [g1]
        Position 15 Make Busy Scan Point     [h1]
        Position 16 Make Busy Scan Point     [i1]
        Queuing Active                        j1
        Queuing Feature                      [k1]
        Queuing Module                        l1
        Queue Basic Size                      m1
        Queue Extended Size                   n1
        Overflow Message Register            [o1]
```

```
      ================================================

[2]   ____________________________________________________________________
      VFY  MLHG=a   MEMBER REPORT  PAGE #p1
      ================================================================
                                          MEMBER    STOP-HUNT
        TERM MEMBER             BILLING   MAKE      SCAN      TERM
          NO DN     OE  LCC PIC DN        BUSY      POINT     TYPE
          q1 r1     s1  t1  u1  v1        w1        x1        y1
           Flags: [d2][e2][f2][g2][h2][i2][j2][k2][l2][m2]
         [q1 r1     s1  t1  u1  v1        w1        x1        y1
           Flags: [d2][e2][f2][g2][h2][i2][j2][k2][l2][m2]]
                        .                         .
                        .                         .
                        .                         .
                        .                         .

      ================================================================

[3]   ____________________________________________________________________
      VFY  MLHG=a   GROUP REPORT
      ================================================
        MLHG Feature                          b
        Listed DN                             c
        Group Size                            m
        Actual Size                           n
        Last Listed DN                        z1
        Hunting Module                        o
        Local or Global Group                 a2
        Linear Hunt TN                        [n2]
        Linear Count                          o2
        PB Group                              p2
      ================================================

[4]   ____________________________________________________________________
      VFY  MLHG=a   MEMBER REPORT  PAGE #p1
      ================================================
        TERM MEMBER  USER     CHANNEL LINEAR   PH
          NO DN      TYPE LCC CONFIG  HUNT TN  TYPE
          q1 r1      b2   t1  c2      [n2]     q2    Flags: [f2]      [r2]
           [         b2       c2     ]
           [         b2       c2     ]
          .  .       .    .   .      .         .     Flags:  .         .
           [          .        .     ]
           [          .        .     ]
          .  .       .    .   .      .         .     Flags:  .         .
           [          .        .     ]
           [          .        .     ]

      ================================================

[5]   ____________________________________________________________________
```

```
VFY  MLHG=a   MEMBER REPORT  PAGE #p1
================================================================
                                     MEMBER    STOP-HUNT
  TERM MEMBER              BILLING    MAKE      SCAN      TERM
    NO DN     OE  LCC PIC  DN         BUSY      POINT     TYPE
    q1 r1     s1  t1  u1   v1         w1        x1        y1
     Flags: [d2][e2][f2][g2][h2][i2][j2][k2][l2][m2]
   [q1 r1     s1  t1  u1   v1         w1        x1        y1
     Flags: [d2][e2][f2][g2][h2][i2][j2][k2][l2][m2]]
                    .                        .
                    .                        .
                    .                        .
                    .                        .

================================================================
```

[6]

```
VFY  MLHG=a   MEMBER REPORT  PAGE #p1
================================================
  TERM MEMBER  USER     CHANNEL LINEAR
    NO DN      TYPE LCC CONFIG  HUNT TN
    q1 r1        b2   t1  c2      [n2]     Flags: [f2]      [r2]
               [b2       c2]
               [b2       c2]
    .  .        .    .   .      .         Flags:  .         .
               [.        .]
               [.        .]
    .  .        .    .   .      .         Flags:  .         .
               [.        .]
               [.        .]

================================================
```

2. REASON FOR OUTPUT

To report the results of a VFY:MLHG input request for reporting all the lines associated with the specified multi-line hunt group (MLHG).

Formats 1 and 2 are analog MLHG reports and Formats 3 and 4 are integrated services digital network (ISDN) MLHG reports. Formats 1 and 3 are sorted by MLHG while Formats 2 and 4 are sorted by term number.

3. VARIABLE FIELD DEFINITIONS

a = Multi-line hunt group (MLHG) number.

b = MLHG feature name as defined on RC/V View 12.18.

c = Listed directory number (7 digit number).

d = Subgroup directory number 1 (7 digit number).

e = Subgroup directory number 2 (7 digit number).

f = Subgroup directory number 3 (7 digit number).

g = Subgroup directory number 4 (7 digit number).

h = Subgroup directory number 5 (7 digit number).

i = Subgroup directory number 6 (7 digit number).

j = Subgroup directory number 7 (7 digit number).

k = Subgroup directory number 8 (7 digit number).

l = Local or global group (L or G).

m = Group size (the highest term number in the MLHG).

n = Actual size (the actual number of terminals assigned to the MLHG).

o = Hunting module.

p = Monitored. Valid value(s):
N = No
Y = Yes

q = ISDN attendant (ISAT) group monitoring this MLHG.

r = Group make busy. Valid value(s):
N = No
Y = Yes

s = Group make busy scan point number.

t = Position 1 make busy scan point number.

u = Position 2 make busy scan point number.

v = Position 3 make busy scan point number.

w = Position 4 make busy scan point number.

x = Position 5 make busy scan point number.

y = Position 6 make busy scan point number.

z = Position 7 make busy scan point number.

a[1] = Position 8 make busy scan point number.

b[1] = Position 9 make busy scan point number.

c[1] = Position 10 make busy scan point number.

d[1] = Position 11 make busy scan point number.

e[1] = Position 12 make busy scan point number.

f[1] = Position 13 make busy scan point number.

g[1] = Position 14 make busy scan point number.

h[1] = Position 15 make busy scan point number.

i[1] = Position 16 make busy scan point number.

j[1] = Queuing active. Valid value(s):
N = No
Y = Yes

k[1] = Queuing feature 8 character feature name as defined on RC/V View 12.40.

l[1] = Queuing module.

m[1] = Queue basic size (number of calls to queue for this group).

n[1] = Queue extended size [number of additional calls to queue when associated with the incoming side of a foreign exchange (FX) trunk].

o[1] = Overflow message register number.

p[1] = Page number of the report.

q[1] = MLHG terminal number.

r[1] = Member directory number (7 digit number).

s[1] = Office equipment number.

t[1] = Line class code.

u[1] = Primary inter-exchange carrier.

v[1] = Billing directory number (10 digit number).

w[1] = Member make busy scan point number.

x[1] = Stop-hunt scan point number.

y[1] = Terminal type (for example, B or D).

z[1] = Last listed directory number.

a[2] = Local or global group (L or G).

b[2] = User type (PPB, PPD, or XAT).

c[2] = Channel configuration (PPD, PPB1, PPB2 or XAT).

d[2] = Suspend termination (SUST).

e[2] = Suspend origination (SUSO).

f[2] = INTERCEPT (this is member on intercept).

g[2] = NONHUNT (this is a nonhunt member).

h[2] = Ground start (GST).

i[2] = Touch tone (TTONE).

j[2] = SHARED (this is member shared).

k[2] = MULTIDN.

l[2] = BRCS (BRCS features assigned).

m[2] = MULTIPORT.

n[2] = Linear hunt TN (assigned to allow linear hunting).

o[2] = Linear count (number of members in the group that have linear hunt TNs assigned).

p[2] = Packet business (PB) group.

q[2] = Protocol handler (PH) type (PH1, PH2, or PH3).

r[2] = DEACTIVE.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
VFY:MLHG
```

Other Manual(s):
235-190-103 *Business and Residence Feature Description*

RC/V View(s):

12.18 [MULTI-LINE HUNT (FEATURE DEFINITION)]
12.40 [MODULAR QUEUING (FEATURE DEFINITION)]

VFY:MLHG-B

Software Release: 5E12 and later
Message Class: RCVYMON
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      VFY  MLHG=a   GROUP REPORT
      ==============================================
        MLHG Feature                          b
        Listed DN                             c
        Subgroup DN 1                        [d]
        Subgroup DN 2                        [e]
        Subgroup DN 3                        [f]
        Subgroup DN 4                        [g]
        Subgroup DN 5                        [h]
        Subgroup DN 6                        [i]
        Subgroup DN 7                        [j]
        Subgroup DN 8                        [k]
        Local or Global Group                 l
        Group Size                            m
        Actual Size                           n
        Hunting Module                        o
        Monitored                             p
        ISAT Group Monitoring This MLHG       q
        Group Make Busy                       r
        Group Make Busy Scan Point           [s]
        Position  1 Make Busy Scan Point     [t]
        Position  2 Make Busy Scan Point     [u]
        Position  3 Make Busy Scan Point     [v]
        Position  4 Make Busy Scan Point     [w]
        Position  5 Make Busy Scan Point     [x]
        Position  6 Make Busy Scan Point     [y]
        Position  7 Make Busy Scan Point     [z]
        Position  8 Make Busy Scan Point     [a1]
        Position  9 Make Busy Scan Point     [b1]
        Position 10 Make Busy Scan Point     [c1]
        Position 11 Make Busy Scan Point     [d1]
        Position 12 Make Busy Scan Point     [e1]
        Position 13 Make Busy Scan Point     [f1]
        Position 14 Make Busy Scan Point     [g1]
        Position 15 Make Busy Scan Point     [h1]
        Position 16 Make Busy Scan Point     [i1]
        Queuing Active                        j1
        Queuing Feature                      [k1]
        Queuing Module                        l1
        Queue Basic Size                      m1
        Queue Extended Size                   n1
        Overflow Message Register            [o1]
```

```
      ================================================

[2]   ____________________________________________________________________
      VFY  MLHG=a   MEMBER REPORT  PAGE #p1
      ================================================================
                                          MEMBER    STOP-HUNT
        TERM MEMBER             BILLING   MAKE      SCAN      TERM
        NO DN       OE  LCC PIC DN        BUSY      POINT     TYPE
        q1 r1     s1  t1  u1  v1        w1        x1        y1
        Flags: [d2][e2][f2][g2][h2][i2][j2][k2][l2][m2]
       [q1 r1     s1  t1  u1  v1        w1        x1        y1
        Flags: [d2][e2][f2][g2][h2][i2][j2][k2][l2][m2]]
                          .                         .
                          .                         .
                          .                         .
                          .                         .

      ================================================================

[3]   ____________________________________________________________________
      VFY  MLHG=a   GROUP REPORT
      ================================================
        MLHG Feature                          b
        Listed DN                             c
        Group Size                            m
        Actual Size                           n
        Last Listed DN                        z1
        Hunting Module                        o
        Local or Global Group                 a2
        Linear Hunt TN                        [n2]
        Linear Count                          o2
        PB Group                              p2
      ================================================

[4]   ____________________________________________________________________
      VFY  MLHG=a   MEMBER REPORT  PAGE #p1
      ================================================
        TERM MEMBER  USER     CHANNEL LINEAR   PH
        NO   DN      TYPE LCC CONFIG  HUNT TN  TYPE
        q1 r1        b2   t1  c2      [n2]     q2    Flags: [f2]      [r2]
                    [b2       c2]
                    [b2       c2]
       .  .          .    .   .      .         .     Flags:  .         .
                    [.        .]
                    [.        .]
       .  .          .    .   .      .         .     Flags:  .         .
                    [.        .]
                    [.        .]

      ================================================

[5]   ____________________________________________________________________
```

```
VFY  MLHG=a   MEMBER REPORT  PAGE #p1
================================================================
                                     MEMBER    STOP-HUNT
  TERM MEMBER              BILLING    MAKE      SCAN      TERM
  NO DN     OE  LCC PIC  DN         BUSY      POINT     TYPE
  q1 r1     s1  t1  u1   v1         w1        x1        y1
  Flags: [d2][e2][f2][g2][h2][i2][j2][k2][l2][m2]
 [q1 r1     s1  t1  u1   v1         w1        x1        y1
  Flags: [d2][e2][f2][g2][h2][i2][j2][k2][l2][m2]]
                   .                        .
                   .                        .
                   .                        .
                   .                        .

================================================================
```

[6]

```
VFY  MLHG=a   MEMBER REPORT  PAGE #p1
================================================
  TERM MEMBER  USER     CHANNEL LINEAR
    NO DN      TYPE LCC CONFIG  HUNT TN
  q1 r1        b2   t1  c2      [n2]     Flags: [f2]      [r2]
              [b2       c2]
              [b2       c2]
 .  .          .    .   .      .         Flags:  .         .
              [.        .]
              [.        .]
 .  .          .    .   .      .         Flags:  .         .
              [.        .]
              [.        .]

================================================
```

2. REASON FOR OUTPUT

To report the results of a VFY:MLHG input request for reporting all the lines associated with the specified multi-line hunt group (MLHG).

Formats 1 and 2 are analog MLHG reports and Formats 3 and 4 are integrated services digital network (ISDN) MLHG reports. Formats 1 and 3 are sorted by MLHG while Formats 2 and 4 are sorted by term number.

3. VARIABLE FIELD DEFINITIONS

a = Multi-line hunt group (MLHG) number.

b = MLHG feature name as defined on RC/V View 12.18.

c = Listed directory number (10 digit number).

d = Subgroup directory number 1 (10 digit number).

e = Subgroup directory number 2 (10 digit number).

f = Subgroup directory number 3 (10 digit number).

g = Subgroup directory number 4 (10 digit number).

h = Subgroup directory number 5 (10 digit number).

i = Subgroup directory number 6 (10 digit number).

j = Subgroup directory number 7 (10 digit number).

k = Subgroup directory number 8 (10 digit number).

l = Local or global group (L or G).

m = Group size (the highest term number in the MLHG).

n = Actual size (the actual number of terminals assigned to the MLHG).

o = Hunting module.

p = Monitored. Valid value(s):
N = No
Y = Yes

q = ISDN attendant (ISAT) group monitoring this MLHG.

r = Group make busy. Valid value(s):
N = No
Y = Yes

s = Group make busy scan point number.

t = Position 1 make busy scan point number.

u = Position 2 make busy scan point number.

v = Position 3 make busy scan point number.

w = Position 4 make busy scan point number.

x = Position 5 make busy scan point number.

y = Position 6 make busy scan point number.

z = Position 7 make busy scan point number.

a[1] = Position 8 make busy scan point number.

b[1] = Position 9 make busy scan point number.

c[1] = Position 10 make busy scan point number.

d[1] = Position 11 make busy scan point number.

e[1] = Position 12 make busy scan point number.

f[1] = Position 13 make busy scan point number.

g[1] = Position 14 make busy scan point number.

h[1] = Position 15 make busy scan point number.

i[1] = Position 16 make busy scan point number.

j[1] = Queuing active. Valid value(s):
N = No
Y = Yes

k[1] = Queuing feature 8 character feature name as defined on RC/V View 12.40.

l[1] = Queuing module.

m[1] = Queue basic size (number of calls to queue for this group).

n[1] = Queue extended size [number of additional calls to queue when associated with the incoming side of a foreign exchange (FX) trunk].

o[1] = Overflow message register number.

p[1] = Page number of the report.

q[1] = MLHG terminal number.

r[1] = Member directory number (10 digit number).

s[1] = Office equipment number.

t[1] = Line class code.

u[1] = Primary inter-exchange carrier.

v[1] = Billing directory number (10 digit number).

w[1] = Member make busy scan point number.

x[1] = Stop-hunt scan point number.

y[1] = Terminal type (for example, B or D).

z[1] = Last listed directory number.

a[2] = Local or global group (L or G).

b[2] = User type (PPB, PPD, or XAT).

c[2] = Channel configuration (PPD, PPB1, PPB2 or XAT).

d[2] = Suspend termination (SUST).

e[2] = Suspend origination (SUSO).

f[2] = INTERCEPT (this is member on intercept).

g[2] = NONHUNT (this is a nonhunt member).

h[2] = Ground start (GST).

i[2] = Touch tone (TTONE).

j[2] = SHARED (this is member shared).

k[2] = MULTIDN.

l[2] = BRCS (BRCS features assigned).

m[2] = MULTIPORT.

n[2] = Linear hunt TN (assigned to allow linear hunting).

o[2] = Linear count (number of members in the group that have linear hunt TNs assigned).

p[2] = Packet business (PB) group.

q[2] = Protocol handler (PH) type (PH1, PH2, or PH3).

r[2] = DEACTIVE.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
VFY:MLHG
```

Other Manual(s):
235-190-103 *Business and Residence Feature Description*

RC/V View(s):

12.18 [MULTI-LINE HUNT (FEATURE DEFINITION)]
12.40 [MODULAR QUEUING (FEATURE DEFINITION)]

VFY:OFC-A

Software Release: 5E10 only
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
VFY OFC  a  DIG=b EVENT c
  PORT=d-e PARTY=f DAS=g SCR=h COS=i
  DIGITS_USED=j PREFIX=k DEST_IDX=[l]
  DEST_TYP=[m] ACTN=[n] CHG_IDX=[o] CARRIER=[e[1] p] [q]
  FRL=[r] [s] [t] [u]
 [v] [w]
 [NUMBER MAY BE PORTED]
```

2. REASON FOR OUTPUT

To print the results of an VFY:OFC input message to verify office routing translations. The output options reflect different originating ports and different results possible for the verification. Errors detected in the static data are identified with text stating a description of the problem, the area of call processing that found the error, and the relation (and its keys) in question, if any.

This command does not support routing for circuit-switched data (CSD) or packet-switched data (PSD) calls. This includes intra and inter-office data calls. This command also does not support routing for automatic route selection (ARS) CSD calls. This command examines routing of voice calls only. If a CSD call or ARS CSD call uses the same routing as its circuit-switched voice (CSV) counterpart, the output of this command will be correct for the CSD call or ARS CSD call.

3. VARIABLE FIELD DEFINITIONS

`DIALCODE` = Customer feature dial code entered.

`DN` = Directory number (DN).

`MCRI` = Route index for private network for a call that leaves the office.

`MLHG` = Multi-line hunt group.

`NOC` = Normalized office code.

`NUMBER MAY BE PORTED` = The dialed digits are a number that may have been ported into, or out of the office.

`PORT_ENTERED` = When a specific port is entered.

`RI` = Route index for a call that leaves the office.

`TG` = Trunk group.

`a` = The originator for which the call is being verified. Valid value(s):

```
DN=x
MLHG=y-a[1]
PORT_ENTERED
TG=y-a[1]
```

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b = Dialed digits that were verified. Valid value(s):
NONE = No digits were dialed

c = Event number of the request.

d = Number of the switching module (SM) on which the originator is located.

e = Port member number of the originator, in hexadecimal.

f = Specific party associated with the originating directory number. For an explanation of the specific values, refer to the Translations Data manual.

g = Digit analysis selector, or digtree, for the originator.

h = Screening index, automatic route selection (ARS) screening index, or simulated facilities group (SFG) screening index of the originator found in the office data.

i = Class of service, or servclass, for the originator. Refer to the Translations Data manual for definitions.

j = The dialed digits after deletion, and prefix by digit analysis, but prior to any deleting and prefixing resulting from routing to a trunk to leave the office (refer to RC/V View 10.2).

k = Prefix dialed. Valid value(s):
NONE = No prefix was dialed.
0 = "Zero" prefix was dialed.
1 = "One" prefix was dialed.

l = Destination index, code index, or ARS index found in the office data for this call.

m = Destination type found in the office data for this call. Refer to the Recent Change Procedures manual, Digit Analysis Views, for a definition of the values.

n = Specific action defined in the office data for the dialed feature code. This is null unless the "DEST_TYP" field is "FEATURE". Refer to the Recent Change Procedures manual for definitions.

o = Charge index found in the office data for this call.

p = Carrier used for the call, or if none, blank.

q = Termination of the call with respect to this office (if blank, call termination is not determined). Valid value(s):

RI=b[1] TRUNK=d[1]
NOC=c[1]
DIALCODE
MCRI=x TRUNK=d[1]

r = Facility restriction level of the originating port (line or trunk).

s = SFG_GRP=x, where 'x' = SFG group number.

`t` = Error message. Valid value(s):

`Account code` = An account code was detected during digit analysis. Not supported by verify feature.

`AM stand-alone rerouting` = Call from stand-alone test line, reroutes in the administrative module (AM).

`AM stand-alone rerouting to non-emergency number` = Call will route to reorder tone.

`Ad1 call type, 10XX not dialed` = Call will route to tone or announcement.

`Announcement on Alternate Code Treatment` = An alternate code treatment (ACT) with error treatment of announcement encountered.

`ARS call overflowed to DDD` = The ARS digits analyzed overflowed to direct distance dialing (DDD).

`Authorization code` = Authorization code dialed or required. Not supported by verify feature.

`AUTOVON call to operator detected` = Not supported by verify feature.

`Bad dialing state` = An invalid dialing state was encountered during digit analysis. Digit analysis translations should be examined.

`Bad route type in RLARSCRN` = An illegal route type was found in the base relation RLARSCRN.

`Bad route type in RLRT_MCRT` = An illegal route type was found in the base relation RLRT_MCRT. The tuple key is the printed modular constructed route index (MCRI).

`Bad route type in RLRT_ROUTING` = An illegal route type was found in the base relation RLRT_ROUTING. The tuple key is the printed route index (RI).

`Bad Transition Plan FGD carrier specified` = Digits have been enter 950-XXXX to an FGB carrier that is provisioned for transition access. A TRANS CARRIER has been indicated in RLfc_fgbcarr for this FGB carrier, but there is not a corresponding FGD carrier defined in RLfc_carr, or the TRANS CARRIER field has not been filled in. Call cannot be routed, and REORDER treatment will be given. To correct, insert an FGD carrier into the ODD using RC/V View 10.3. Key value must be the same CIC indicated in the TRANS CARRIER field for the FGB carrier.

`Bad type CI call in carrier select` = An invalid parameter was encountered during the carrier selection process. Digit analysis translations should be examined, but the relation name and keys are not available.

`Call not allowed for charge a call line` = Call will route to tone or announcement. Refer to attribute DEST_TYP for the type of treatment.

`Call routed to an Attendant` = Not supported by verify feature.

`Call routed to announcement` = The MC route type of the call is set to announcement.

`Call routed to reorder` = The modular constructed (MC) route type of the call is set to reorder.

`Carrier dialed and also in Speed Call list` = A carrier access code (10XXX or 101XXXX) was followed by a speed call code that expanded into a new dialed digit string that included a second carrier access code.

`COS not allowed IDP and SC1` = call originator is defined in relation RLFC_PORTTYP with a class of service which is not allowed to have individualized dialing plan and a 1-digit speed calling feature, but one was found in relation RLTRM_FEATS.

`COS not allowed IDP and SC2` = Call originator is defined in relation RLFC_PORTTYP with a class of service which is not allowed to have individualized dialing plan and a 2-digit speed calling feature, but one was found in relation RLTRM_FEATS.

`COS not allowed IDP feature` = Call originator is defined in relation RLFC_PORTTYP with a class of service which is not allowed to have an individualized dialing plan (IDP) feature, but one was found in relation RLTRMFEATS.

`COS not allowed IDP, SC1, and SC2` = Call originator is defined in relation RLFC_PORTTYP with a class of service which is not allowed to have individualized

dialing plan, a 1-digit speed calling, and a 2-digit speed calling feature, but one was found in relation RLTRM_FEATS.

`COS not allowed SC1 feature` = Call originator is defined in relation RLFC_PORTTYP with a class of service which is not allowed to have a 1-digit speed calling feature, but one was found in relation RLTRM_FEATS.

`COS not allowed SC1 and SC2` = Call originator is defined in relation RLFC_PORTTYP with a class of service which is not allowed to have a 1-digit speed calling and a 2-digit speed calling feature, but one was found in relation RLTRM_FEATS.

`COS not allowed SC2 feature` = Call originator is defined in relation RLFC_PORTTYP with a class of service which is not allowed to have a 2-digit speed calling feature, but one was found in relation RLTRM_FEATS.

`Country code too long or too short` = Call will route to tone or announcement. Refer to attribute DEST_TYP for the type of treatment.

`Dial plan access treatment (DPAT) error` = A DPAT error was detected during IDP digit analysis. Call will route to announcement or reorder tone.

`Digits analyzed route to IDP error treatment` = IDP error treatment will route the call to tone or announcement.

`DN associated with UCD or MUPH MLHG, no port` = The directory number (DN) associated with the uniform call distribution (UCD) or multiposition hunt (MUPH) MLHG was identified to have no port. Not supported by verify feature.

`Exceeded Maximum IDP Interpretations` = The digits being analyzed has exceeded the maximum of 5 IDP interpretations. Call will route to reorder tone.

`Incorrect access type for incoming FGB trunk call to a tandem switch` = In an FGB tandem switch, a call originated on an incoming trunk is translated to a carrier which is provisioned for TRANSITION access type. Call is routed as a ci call type = INTERIM if possible; if not possible, REORDER treatment will be given. To correct: FGB carriers are allowed to handle only incoming tandem trunk calls which are translated as ci call type INTERIM, and the FGB carrier access type must be INTERIM in the FGB Tandem. Use RC/V View 10.3 to change the access type to INTERIM for this carrier. If this carrier should be handling incoming calls as transition plan calls, then the calls should be using EA signaling. Calls translated in this way will be handled by an FGD carrier, not an FGB carrier.

`Incorrect translation of FGB call origination in End Office or Tandem` = In an end office, if the FGB carrier is provisioned with access type INTERMIM, FGB calls routed through that carrier are translated as ci call type TRANSITION. This call will be routed as a ci call type = INTERMIM if possible; if not possible, REORDER will be given. In an FGB tandem switch, a call originated on an incoming trunk is translated as ci call type TRANSITION (instead of INTERIM). Call is routed as a ci call type = INTERMIM if possible; if not possible, REORDER will be given. To correct: make sure the DAS value for the trunk group is correct (RC/V View 5.1) for FGB calls. From the DAS value, determine the LDIT translation (RC/V View 9.1). Correct the LDIT translation (RC/V View 9.3) for this call. Make sure that all LDIT records for calls for this FGB carrier originating on a line or (tandem) trunk in this office are translated as ci call type INTERIM, not TRANSITION.

`A trunk provisioned for 3 digit CIC was used to route a 4 digit CIC` = A call using a four digit carrier code is terminating over a shared trunk group which does not support expanded (four digit carrier codes). To correct: the route index associated with the outgoing shared trunk group must be updated to send four digit carrier codes and the incoming trunk group at the access tandem must updated to accept four digit carrier codes.

`Invalid destination index and/or route index after carrier selection` = For carrier types other than PSEUDO, the carrier-specific route index and/or code index is zero. This call cannot be routed. REORDER treatment is given. To correct:

probable cause is that digit routing is set to YES, but the RLdi_comp relation does not contain a tuple with proper keys. Either:

- with DIG ROUTING set to DBNO or DBYES, fill in the correct route index and destination index for routing the call on RC/V View 10.3, or
- set dig_route to DBYES and insert at least one tuple in RLdi_comp, using RC/V View 9.7, with keys which will correspond to this carrier as translated in the ODD.

NOTE: The destination index key to RLdi_comp is the regular destination index (determined by digit analysis), not the carrier-specific destination index (determined by carrier selection).

`IDDD over OUTWATS blocked` = An ARS call attempted to go IDDD over an OUTWATS trunk.

`IDP assigned while processing Speed Call` = Speed calling from plain old telephone service (POTS) is only valid if the port has no IDP.

`Illegal DA SAC call type` = A service access code (SAC) type carrier interconnect (CI) call is present in digit analysis (DA) relation, but the call type does not allow the feature.

`Insufficient FRL detected by routing` = The ARS facility restriction level (FRL) of the call was less than the facility restriction level of the route.

`Intercom Call Restriction detected` = Not supported by verify feature.

`Invalid action type found` = An invalid action was encountered during digit analysis by the IDP.

`Invalid authorization code` = Authorization code not supported by verify feature.

`Invalid IDP relation` = An invalid IDP relation was found when expanding a speed call code.

`Invalid data in RLSC_CF tuple` = An invalid speed calling feature identifier was found when processing a speed call code.

`Invalid Speed Calling feature assigned` = Call originator is assigned two speed calling features which is not allowed.

`Lead account code detected` = A lead account code was detected during uniform number plan (UNP) digit analysis. Not supported by verify feature.

`Multiple access attempts` = Multiple access attempts on relation RLUNNSC or RLUNOFFON were encountered. UNP digit analysis translations should be examined.

`Msg format is incorrect` = The format of the input message is not correct. Refer to the VFY:OFC input message.

`No dial code in DA` = A dial code was expected by digit analysis, but none was found in the final tuple.

`No digits specified or found` = No dialed digits specified, and the originator does not have any default ones in the database.

`No error treatment for ACT` = An ACT was encountered with no error treatment.

`No error treatment for DPAT` = A DPAT was encountered with no error treatment.

`NON-UNIQUE NXX DN entered` = Originator DN entered is ambiguous because of the Increased # of NXX's feature. Reenter command using a 10-digit originator DN.

`Not allowed to originate` = Originator may not dial calls.

`Null carrier ID in DA` = The ending digit analysis tuple had a call type that requires a valid carrier identification, but none was present. The relation name and keys are not available.

`Origination has PFA feature active` = Call originator has private facilities access (PFA) active, not supported by verify feature. Deactivate PFA feature.

`Not supported, see customer documentation` = Originator COS, destination type, or ASP/NS800 trigger is not supported by this feature.

The following originator COS values are supported:

LINES

`FC_2PTY` = Two party, multifrequency ringing.
`FC_4PFS` = Four-party fully selective line.
`FC_4PSS` = Four-party semiselective line.
`FC_4WIRE_INDV` = 4 wire subscriber line.
`FC_5PTY` = Five party, multifrequency ringing.
`FC_8PSS` = Multiparty line.
`FC_10PTY` = MFR multiparty line.
`FC_ATTENDANT` = Attendant line (similar to individual).
`FC_CHGACALL` = Charge-a-call origination.
`FC_COIN` = Coin line.
`FC_HOTMOTL` = Special termination at motel equipment.
`FC_INDVDL` = Individual line.
`FC_ISDN` = ISDN Line, allowed for analog lines.
`FC_PBX` = PBX line origination.
`FC_SATSTLN` = Stand alone test line.
`FC_TWOPTY` = Two-party line.
`PBXHOTMOT` = Special termination to a motel.

TRUNKS

`FC_BSYVFY` = Busy verify trunk.
`FC_IEC` = Carrier trunk.
`FC_ISPOPR` = Intermediate switching point (ISP) trunk.
`FC_LATA_CONN` = Toll end of LATA connecting trunk.
`FC_LTOLL_CONN` = Local end of toll connect trunk.
`FC_PF` = Private facility trunk.
`FC_PFITT` = Private facility trunk intertandem tie trunk.
`FC_PFLASH` = Private facility trunk with flash repeating.
`FC_PRI_INTOLL` = Primary intertoll trunk.
`FC_SEC_INTOLL` = Secondary intertoll trunk.
`FC_SPAMEG` = Special access *MEGACOM*™ trunk.
`FC_SPAWATS` = Special access WATS trunk.
`FC_TTOLL_CONN` = Toll end of toll connecting trunk.
`FCEDSL` = PRI trunk.
`FCEDSLHM` = Hotel/motel PRI trunk.

The following destination types are not supported:

`FCNS800` = Number services (800) type call.
`FCSTG1FCA` = Dial 011+PCC or 18X - fully coded addressing.
`FCIDDFCA` = Dial CC+NN - fully coded addressing.
`FCAPSDN` = Software defined network at an action point.
`FCSPAM800` = *MEGACOM*™-800 (special access).
`OAD2VDT` = DA call to VDT.
`OAOPNIT` = Non-ISP call to VDT.

`Partial dial treatment` = Call will route to tone or announcement. Refer to attribute DEST_TYP for the type of treatment.
`Port is not assigned` = Originating port is not assigned.

`Advanced Services Platform feature detected` = Call originator has advanced services platform active, not supported by verify office feature.

`Reorder on insufficient FRL` = The FRL of the call was less than the required FRL indicated in the dialing plan. Error treatment is reorder tone.

`Routing to tone or announcement` = Call will route to tone or announcement. Refer to attribute DEST_TYP for the type of treatment.

`Routing to tone or announcement, Carrier access denied by BLK 1PLUS` = Call will route to DEST_TYP NO10XX error treatment because the user is not allowed to access a carrier as dialed. The user is assigned either SPLIT or FULL BLOCKING with the BLK 1PLUS feature.

`Reorder on Alternate Code Treatment` = An ACT with error treatment of reorder encountered.

`SM is not equipped or operational` = An SM is not available for examination.

`SM stand alone rerouting` = Stand alone test line routing within an SM.

`SM stand alone rerouting to non-emergency number` = Call will route to tone or announcement.

`SM stand alone rerouting to trunk` = Call will route to tone or announcement. Refer to attribute DEST_TYP for the type of treatment.

`SM stand alone rerouting to wrong SM or party line` = Call will route to tone or announcement. Refer to attribute DEST_TYP for the type of treatment.

`Speed call code in Speed Call list` = A speed call code was dialed that expanded into new address digits which contains another speed call code.

`Speed call feature not assigned` = Speed call code entered, but no speed call feature is assigned.

`TIMEOUT IN AM WAITING FOR SM RESULTS` = No verify results have been received from the SM on which the originator resides. This is probably due to temporary conditions. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`Traveling class mark (TCM) out of range` = The value of the retrieved TCM was found to be out of range.

`Try later, can not create process in SM` = Switch resource problem. This is probably due to temporary conditions. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`Try later, can not send message in SM` = Switch resource problem. This is probably due to temporary conditions. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`Tuple missing` = The base relation and the tuple keys follow.

`UNABLE TO SEND MESSAGE FROM AM` = Switch resource problem. This is probably due to temporary conditions. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`Unable to delete specified digits` = During digit conversion, a request was made to delete more digits than dialed. The relation identified should be checked.

`Unexpected destination type found` = An unexpected destination type was encountered by the IDP during feature transition processing.

`Unexpected error treatment` = An unexpected error treatment was encountered during digit analysis.

`Unexpected error treatment for ACT detected` = An unexpected error treatment was detected for the ACT.

`Unexpected error treatment for DPAT detected` = An unexpected error treatment was detected for the DPAT.

`Unexpected UNP route type` = An unexpected UNP route type was encountered during digit analysis.

`UNKNOWN ERROR` = An undefined error was present. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.
`Unknown DA row encountered` = An illegal value for the row attribute was found in the indicated tuple.
`UNP error treatment detected` = Error detected during UNP digit analysis. Call will route to tone or announcement.
`UNP route to attendant` = Error detected during UNP digit analysis. Call routed to attendant.
`Unsuccessful conversion to port` = The originator specification does not identify a valid port.

`u` = Relation name and key fields, in the format:

```
RELATION_NAME  KEY1 KEY2 ...
```

The relation keys are shown as either a field name printed in this output message or an attribute name and value. For example, "DEST_TYP" or "PREVIOUS 5". Refer to the Translations Data manual for definitions.

`v` = Additional key to relation in variable '`u`'.

`w` = Additional key to relation in variable '`u`'.

`x` = DN of a line.

`y` = Group number.

`a`[1] = Member number.

`b`[1] = RI number.

`c`[1] = NOC for a local line termination.

`d`[1] = Trunk group.

`e`[1] = Carrier feature group indicator. Valid value(s):
`B`
`D`
(blank) = None.

4. ACTION TO BE TAKEN

In the cases where an explicit translations error is found, or if the call routes to an incorrect line or trunk, follow local provisioning procedures to correct the situation.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`VFY:OFC`

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-118-25x *Recent Change Reference*
235-118-25x *Recent Change Procedures*
235-600-10x *Translations Data*

RC/V View(s):

5.1 (TRUNK GROUP)
9.1 (DAS)
9.3 (LDIT)
9.7 [CARRIER DESTINATION (OFFICE DIALING)]
10.2 (ROUTE INDEX)
10.3 (INTERLATA CARRIER FEATURE)

VFY:OFC-B

Software Release: 5E11 - 5E13
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
VFY OFC  [f1] a [g1] DIG=b EVENT c
  PORT=d-e PARTY=f DAS=[g] SCR=h COS=i
  DIGITS_USED=[j] [t1] PREFIX=k DEST_IDX=[l]
  DEST_TYP=[m] ACTN=[n] CHG_IDX=[o]
  CARRIER=[e1 p] [h1] [k1] [p1] [q] [m1] [q1]
  FRL=[r] [s] [t]
  [u] [v] [w]
  [PORTED_IN] [r1] [s1]
```

2. REASON FOR OUTPUT

To print the results of an VFY:OFC input message to verify office routing translations. The output options reflect different originating ports and different results possible for the verification. Errors detected in the static data are identified with text stating a description of the problem, the area of call processing that found the error, and the relation (and its keys) in question, if any. This command supports routing for voice (CSV), Local Number Portability (LNP), Circuit-Switched data (CSD) and packet-switched data (PSD) calls. This includes intra and inter-office calls. This command does not support routing for automatic route selection (ARS) CSD calls.

3. VARIABLE FIELD DEFINITIONS

`DATARATE` = Datarate for a Circuit Switched Data call. Valid values, which map into the CSD bearer capabilities, are:

- `56` = 64-kbps, unrestricted digital information, circuit-mode, rate adapted from 56-kbps.
- `64` = 64-kbps, unrestricted digital information, circuit-mode.
- `R64` = 64-kbps, restricted digital information, circuit-mode, rate adapted from 56-kbps.

`D_PSN` = Destination Packet Switch Number, a number between 1 and 255, inclusive, used in Internal Protocol packet routing as the destination of the call.

`DIALCODE` = Customer feature dial code entered.

`DEST_NPA` = Destination numbering plan area code. For packet vfy:ofc commands, DEST_NPA will contain the implied numbering plan area (i.e. the area code) used to route the call. The area code is derived for line originated calls. The NPA can be provisioned on RC/V view 8.1 (IMPLD NPA field) or RC/V view 9.3 (NPA field).

`DN` = Directory number (DN). For packet vfy:ofc commands, if the calling address in the input message is an international E.164 address, the DN= field will contain the expanded full E.164 address (Country Code + NPA + NXX + XXXX).

`DIRECTORY NUMBER TRANSLATIONS EXIST` (Used for Local Number Portability)

`DNIC` = Data Network Interexchange Carrier.

`DR_ALT_RI` = Datarate alternate route index for a CSD call that leaves the office.

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HOMELRN = The LRN returned is home to this switch.

ICPI = Interexchange Carrier Preselect.

IECP = Interexchange Carrier Preselect.

LNPTRIG = Local Number Portability Trigger Number.

MCRI = Route index for private network for a call that leaves the office.

MLHG = Multi-line hunt group.

N_PSN = Next Packet Switch Number, a number between 1 and 255, inclusive, used in Internal Protocol packet routing as the destination of the call.

NOC = Normalized office code.

NO DIRECTORY NUMBER TRANSLATIONS EXIST (Used for Local Number Portability)

PORTED_IN = The dialed digits are a number that may have been ported into, or out of the office.

PORT_ENTERED = When a specific port is entered.

PSN = Packet Switch Number, a number between 1 and 255, inclusive, used in Internal Protocol packet routing as the destination of the call.

RI = Route index for a call that leaves the office.

RPOA = Registered Private Operating Agency, a four-digit Data Network Interexchange Carrier (DNIC) used with packet routing.

TG = Trunk group.

TYPE = Call Type for this verification request. Valid values are:
- CSV = Circuit Switched Voice (default)
- CSD = Circuit Switched Data
- PKT = Packet Switched Data

a = The originator for which the call is being verified. Valid value(s):

DN=x
MLHG=y-a[1]
DN=x MLHG=y-a[1]
PORT_ENTERED
TG=y-a[1]

b = Dialed digits that were verified which could also be an LRN. Valid value(s):
- NONE = No digits were dialed

c = Event number of the request.

d = Number of the switching module (SM) on which the originator is located.

e = Port member number of the originator, in hexadecimal.

f = Specific party associated with the originating directory number. For an explanation of the specific values, refer to the Translations Data manual.

g = Digit analysis selector, or digtree could be either the originator's DAS, Post Query DAS, SCP DAS, or an LRN DAS off of the trunk. For packet vfy:ofc commands, the DIG= field contains the digit sequence that is passed to digit analysis after the addition or deletion of digits by pre-digit analysis code in the vfy:ofc output message. For abbreviated dialing or intercom calls, the expanded seven digit number will be output in the DIG= field. On a trunk call, if E.164 digits are input in the DIG= field, the full E.164 format address (Country Code + NPA + NXX + XXXX) will be output in the DIG= field. If the country code is two through nine, the pre-digit analysis code prepends a "011" prefix prior to performing digit analysis. In this case, 011 + Country Code + NPA + NXX + XXXX is output. If the called address (i.e. DIG= input field) begins with "09001", pre-digit analysis code removes "0900" and 1 + NPA + NXX + XXXX is output in the DIG= field.

h = Screening index, Post Query SCR, automatic route selection (ARS) SCR, Simulated Facilities Group (SFG) SCR, or the originator's SCR found in the office data.

i = Class of service, or servclass, for the originator. Refer to the Translations Data manual for definitions.

j = The dialed digits after deletion, and prefix by digit analysis, but prior to any deleting and prefixing resulting from routing to a trunk to leave the office (refer to RC/V View 10.2).

k = Prefix dialed. Valid value(s):

NONE	= No prefix was dialed.
0	= "Zero" prefix was dialed.
1	= "One" prefix was dialed.

l = Destination index, code index, or ARS index found in the office data for this call.

m = Destination type found in the office data for this call. Refer to the Recent Change Procedures manual, Digit Analysis Views, for a definition of the values.

n = Specific action defined in the office data for the dialed feature code. This is null unless the "DEST_TYP" field is "FEATURE". Refer to the Recent Change Procedures manual for definitions.

o = Charge index found in the office data for this call.

p = Carrier used for the call, or if none, blank. For packet vfy:ofc commands, if RPOA is input and it is used to route the call, CARRIER should equal RPOA. When ICPI is input, CARRIER will be blank if the ICPI was not used or CARRIER will equal ICPI if the carrier was required for the call.

q = Termination of the call with respect to this office (if blank, call termination is not determined). Valid value(s):

```
DR_ALT_RI=l[1]
 RI=b[1]
 NOC=c[1]
 DIALCODE
 MCRI=x
 TRUNK=d[1]
```

r = Facility restriction level of the originating port (line or trunk).

s = SFG_GRP=x, where 'x' = SFG group number.

t = Error message. Valid value(s):

ACCESS BARRED FOR LINE CLASS CODE

ACCOUNT CODE = An account code was detected during digit analysis. Not supported by verify feature.

AM STAND-ALONE REROUTING = Call from stand-alone test line, reroutes in the administrative module (AM).

AM STAND-ALONE REROUTING TO NON-EMERGENCY NUMBER = Call will route to reorder tone.

AD1 CALL TYPE, 10XX NOT DIALED = Call will route to tone or announcement.

ANNOUNCEMENT ON ALTERNATE CODE TREATMENT = An alternate code treatment (ACT) with error treatment of announcement encountered.

ASP PRE-QUERY SCREENING FAILED, NO QUERY WILL BE DONE = SFID 152 (ASP DNT Pre-query Screening) is turned on and screening overrode the route index returned from digit analysis (LDIT/RDIT). This message serves as a warning to indicate that the ASP/LNP query will not be sent.

ASP TRIGGER ENCOUNTERED, NO FURTHER VERIFICATION = ASP (non-LNP) triggers are not supported by the VFY:OFC input command. Only limited support of ASP LNP triggers is provided.

ARS CALL OVERFLOWED TO DDD = The ARS digits analyzed overflowed to direct distance dialing (DDD).

AUTHORIZATION CODE = Authorization code dialed or required. Not supported by verify feature.

AUTO ARS FOR CSD IS NOT SUPPORTED FOR VFY:OFC

AUTOVON CALL TO OPERATOR DETECTED = Not supported by verify feature.

BAD DIALING STATE = An invalid dialing state was encountered during digit analysis. Digit analysis translations should be examined.

BAD ROUTE TYPE IN RLARSCRN = An illegal route type was found in the base relation RLARSCRN.

BAD ROUTE TYPE IN RLRT_MCRT = An illegal route type was found in the base relation RLRT_MCRT. The tuple key is the printed modular constructed route index (MCRI).

BAD ROUTE TYPE IN RLRT_ROUTING = An illegal route type was found in the base relation RLRT_ROUTING. The tuple key is the printed route index (RI).

BAD TRANSITION PLAN FGD CARRIER SPECIFIED = Digits have been enter 950-XXXX to an FGB carrier that is provisioned for transition access. A TRANS CARRIER has been indicated in RLfc_fgbcarr for this FGB carrier, but there is not a corresponding FGD carrier defined in RLfc_carr, or the TRANS CARRIER field has not been filled in. Call cannot be routed, and REORDER treatment will be given. To correct, insert an FGD carrier into the ODD using RC/V View 10.3. Key value must be the same CIC indicated in the TRANS CARRIER field for the FGB carrier.

BAD TYPE CI CALL IN CARRIER SELECT = An invalid parameter was encountered during the carrier selection process. Digit analysis translations should be examined, but the relation name and keys are not available.

CALL NOT ALLOWED FOR CHARGE A CALL LINE = Call will route to tone or announcement. Refer to attribute DEST_TYP for the type of treatment.

CALL ROUTED TO AN ATTENDANT = Not supported by verify feature.

CALL ROUTED TO ANNOUNCEMENT = The MC route type of the call is set to announcement.

CALL ROUTED TO REORDER = The modular constructed (MC) route type of the call is set to reorder.

CARRIER DIALED AND ALSO IN SPEED CALL LIST = A carrier access code (10XXX or 101XXXX) was followed by a speed call code that expanded into a new dialed digit

string that included a second carrier access code.

`CI TYPE IS INTERLATA BUT NO RPOA WAS RECEIVED` = The carrier interconnect type returned by Digit Analysis is inter-lata. This means that a carrier is required to complete the packet call. RPOA should be entered in the VFY:OFC input message.

`CI TYPE RETURNED BY DA NOT APPLICABLE TO PKT` = The carrier interconnect type returned by Digit Analysis is not applicable to packet.

`CMP UNAVAILABLE` = During processing of VFY:OFC input message, the port corresponding to the originator is determined. During this processing, it was determined that the CMP was not linked to the AM and processing could not continue.

`CSD CALL CANNOT ORIGINATE FROM THIS DN/MLHG` = The ISDN DN/MLHG specified as the originator is not capable of making CSD calls.

`COS NOT ALLOWED IDP AND SC1` = call originator is defined in relation RLFC_PORTTYP with a class of service which is not allowed to have individualized dialing plan and a 1-digit speed calling feature, but one was found in relation RLTRM_FEATS.

`COS NOT ALLOWED IDP AND SC2` = Call originator is defined in relation RLFC_PORTTYP with a class of service which is not allowed to have individualized dialing plan and a 2-digit speed calling feature, but one was found in relation RLTRM_FEATS.

`COS NOT ALLOWED IDP FEATURE` = Call originator is defined in relation RLFC_PORTTYP with a class of service which is not allowed to have an individualized dialing plan (IDP) feature, but one was found in relation RLTRMFEATS.

`COS NOT ALLOWED IDP, SC1, AND SC2` = Call originator is defined in relation RLFC_PORTTYP with a class of service which is not allowed to have individualized dialing plan, a 1-digit speed calling, and a 2-digit speed calling feature, but one was found in relation RLTRM_FEATS.

`COS NOT ALLOWED SC1 FEATURE` = Call originator is defined in relation RLFC_PORTTYP with a class of service which is not allowed to have a 1-digit speed calling feature, but one was found in relation RLTRM_FEATS.

`COS NOT ALLOWED SC1 AND SC2` = Call originator is defined in relation RLFC_PORTTYP with a class of service which is not allowed to have a 1-digit speed calling and a 2-digit speed calling feature, but one was found in relation RLTRM_FEATS.

`COS NOT ALLOWED SC2 FEATURE` = Call originator is defined in relation RLFC_PORTTYP with a class of service which is not allowed to have a 2-digit speed calling feature, but one was found in relation RLTRM_FEATS.

`COUNTRY CODE TOO LONG OR TOO SHORT` = Call will route to tone or announcement. Refer to attribute DEST_TYP for the type of treatment.

`DEST SWITCH MUST BE DIFFERENT FROM ORIG SWITCH` = The PSN cannot be the packet switch number of the originator.

`DEST TYPE RETURNED BY DA NOT APPLICABLE TO PKT` = The destination type returned by Digit Analysis is not applicable to packet.

`DIAL PLAN ACCESS TREATMENT (DPAT) ERROR` = A DPAT error was detected during IDP digit analysis. Call will route to announcement or reorder tone.

`DIGIT ANALYSIS RETURNED VACANT` = Digint Analysis returned vacant for the packet call.

`DIGITS ANALYZED ROUTE TO IDP ERROR TREATMENT` = IDP error treatment will route the call to tone or announcement.

`DN ASSOCIATED WITH UCD OR MUPH MLHG, NO PORT` = The directory number (DN) associated with the uniform call distribution (UCD) or multiposition hunt (MUPH) MLHG was identified to have no port. Not supported by verify feature.

`EXCEEDED MAXIMUM IDP INTERPRETATIONS` = The digits being analyzed has exceeded the maximum of 5 IDP interpretations. Call will route to reorder tone.

`FEATURE INVOKED IS NOT SUPPORTED FOR VFY:OFC CSD` = No features e.g. IDP, ARS etc. are being supported for CSD calls.

`ICPI REQUIRED BUT NOT INPUT` = This X.75/X.75' trunk originated call is an inter-lata call which requires an Interexchange Carrier Preselect Indication (ICPI). The ICPI was

not entered in the VFY:OFC input message.

`IDDD CALLS REQUIRE A CARRIER; DA RETURNED NO CARRIER REQUIRED` = Packet inter station to station calls require a carrier but Digit Analysis returned no carrier required.

`IF ICPI IS SPECIFIED, ORIGINATOR MUST BE X.75 OR X.75' TRUNK` = The packet trunk specified as the originator must be an X.75 or X.75' trunk if ICPI is specified.

`IF PSN IS SPECIFIED, THE ORIGINATOR MUST BE AN IP TRUNK` = The packet trunk specified as the originator must be an IP trunk if PSN is specified as the destination.

`INCOMING FACILITY MUST BE SS7 TRUNK GROUP` = LNP error - When an LRN is entered without a DIG parameter the incoming facility must be a SS7 trunk group.

`INCORRECT ACCESS TYPE FOR INCOMING FGB TRUNK CALL TO A TANDEM SWITCH` = In an FGB tandem switch, a call originated on an incoming trunk is translated to a carrier which is provisioned for TRANSITION access type. Call is routed as a ci call type = INTERIM if possible; if not possible, REORDER treatment will be given. To correct: FGB carriers are allowed to handle only incoming tandem trunk calls which are translated as ci call type INTERIM, and the FGB carrier access type must be INTERIM in the FGB Tandem. Use RC/V View 10.3 to change the access type to INTERIM for this carrier. If this carrier should be handling incoming calls as transition plan calls, then the calls should be using EA signaling. Calls translated in this way will be handled by an FGD carrier, not an FGB carrier.

`INCORRECT TRANSLATION OF FGB CALL ORIGINATION IN End OFFICE OR TANDEM` = In an end office, if the FGB carrier is provisioned with access type INTERMIM, FGB calls routed through that carrier are translated as ci call type TRANSITION. This call will be routed as a ci call type = INTERMIM if possible; if not possible, REORDER will be given. In an FGB tandem switch, a call originated on an incoming trunk is translated as ci call type TRANSITION (instead of INTERIM). Call is routed as a ci call type = INTERMIM if possible; if not possible, REORDER will be given. To correct: make sure the DAS value for the trunk group is correct (RC/V View 5.1) for FGB calls. From the DAS value, determine the LDIT translation (RC/V View 9.1). Correct the LDIT translation (RC/V View 9.3) for this call. Make sure that all LDIT records for calls for this FGB carrier originating on a line or (tandem) trunk in this office are translated as ci call type INTERIM, not TRANSITION.

`ISDNPCKT PACKAGE IS NOT ON THE SM`

`A TRUNK PROVISIONED FOR 3 DIGIT CIC WAS USED TO ROUTE A 4 DIGIT CIC` = A call using a four digit carrier code is terminating over a shared trunk group which does not support expanded (four digit carrier codes). To correct: the route index associated with the outgoing shared trunk group must be updated to send four digit carrier codes and the incoming trunk group at the access tandem must updated to accept four digit carrier codes.

`INVALID DESTINATION INDEX AND/OR ROUTE INDEX AFTER CARRIER SELECTION` = For carrier types other than PSEUDO, the carrier-specific route index and/or code index is zero. This call cannot be routed. REORDER treatment is given. To correct: probable cause is that digit routing is set to YES, but the RLdi_comp relation does not contain a tuple with proper keys. Either:

- with DIG ROUTING set to DBNO or DBYES, fill in the correct route index and destination index for routing the call on RC/V View 10.3, or
- set dig_route to DBYES and insert at least one tuple in RLdi_comp, using RC/V View 9.7, with keys which will correspond to this carrier as translated in the ODD.

Note: The destination index key to RLdi_comp is the regular destination

index (determined by digit analysis), not the carrier-specific destination index (determined by carrier selection).

`IDDD OVER OUTWATS BLOCKED` = An ARS call attempted to go IDDD over an OUTWATS trunk.

`IDP ASSIGNED WHILE PROCESSING SPEED CALL` = Speed calling from plain old telephone service (POTS) is only valid if the port has no IDP.

`ILLEGAL DA SAC CALL TYPE` = A service access code (SAC) type carrier interconnect (CI) call is present in digit analysis (DA) relation, but the call type does not allow the feature.

`IMPLIED NPA COULD NOT BE DERIVED` = The implied NPA for the packet called address could not be derived due to a database error.

`INSUFFICIENT FRL DETECTED BY ROUTING` = The ARS facility restriction level (FRL) of the call was less than the facility restriction level of the route.

`INTERCOM CALL RESTRICTION DETECTED` = Not supported by verify feature.

`INVALID ACTION TYPE FOUND` = An invalid action was encountered during digit analysis by the IDP.

`INVALID AUTHORIZATION CODE` = Authorization code not supported by verify feature.

`INVALID CALLED ADDRESS` = The packet called address entered in the VFY:OFC input message is invalid. The length of the packet called address is invalid or for international E. 164 calls, 0110 cannot be the specified as the first four digits of the packet called address.

`INVALID CALLING ADDRESS` = The calling address specified in the VFY:OFC input message was found to be invalid due to one of the following reasons: 1. invalid address length, 2. if this is MLHG, the specified MLHG number does not match the dd_number in RLpsx25ln calling address, 3. The specified NOC is invalid, or 4. the calling address does not match the MLHG linear DN of the MLHG group.

`INVALID COS FOR TYPE OF CALL` = The originator has a class of service that is supported for VFY:OFC but is invalid for CSD or PKT.

`INVALID IDP RELATION` = An invalid IDP relation was found when expanding a speed call code.

`INVALID DATA IN RLSC_CF TUPLE` = An invalid speed calling feature identifier was found when processing a speed call code.

`INVALID DATA IN ODD`

`INVALID DATARATE` = The datarate requested is either not supported or not valid.

`INVALID RPOA` = The RPOA entered in the input message is not valid RPOA in the ODD. A tuple with the specified RPOA as key was not found during the read operation of RLpsdnicri.

`INVALID SERVICE ORDER PROFILE`

`INVALID SPEED CALLING FEATURE ASSIGNED` = Call originator is assigned two speed calling features which is not allowed.

`LEAD ACCOUNT CODE DETECTED` = A lead account code was detected during uniform number plan (UNP) digit analysis. Not supported by verify feature.

`LNP TRIGGER NUMBER NOT FOUND` = LNP error - An LRN was provided on the input message, but no LNP trigger was found when the incoming digits (DIG parameter) was analyzed.

`LNP TRIGGER NOT HONORED` = LNP Warning - A LNP trigger number was encountered when analyzing the incoming digits, but will not be honored because 1) the LNP SFID (DGIF174) is not on, 2) the incoming digits contained a 0+ prefix, or 3) the carrier for the call was invalid (must be the LEC).

`LNP TRIGGER NOT HONORED - LRN PARAMETER IGNORED` = LNP Warning - A LNP trigger number was encountered when analyzing the incoming digits, but will not be honored because 1) the LNP SFID (DGIF174) is not on, 2) the incoming digits contained a 0+ prefix, or 3) the carrier for the call was invalid (must be the LEC). In this case an LRN was entered, but will not be analyzed.

`MODEM POOL ACCESS DN ENTERED; MP NOT SUPPORTED FOR VFY:OFC PKT` = The

specified originator is a modem pooling access DN. Modem Pooling is not supported by packet VFY:OFC.

`MULTIPLE ACCESS ATTEMPTS` = Multiple access attempts on relation RLUNNSC or RLUNOFFON were encountered. UNP digit analysis translations should be examined.

`MSG FORMAT IS INCORRECT` = The format of the input message is not correct. Refer to the VFY:OFC input message.

`NO CALLED ADDRESS/ VACANT CODE`

`NO DIAL CODE IN DA` = A dial code was expected by digit analysis, but none was found in the final tuple.

`NO DIGITS SPECIFIED OR FOUND` = No dialed digits specified, and the originator does not have any default ones in the database.

`NO ERROR TREATMENT FOR ACT` = An ACT was encountered with no error treatment.

`NO ERROR TREATMENT FOR DPAT` = A DPAT was encountered with no error treatment.

`NO IECP FACILITY SUBSCRIBED WHEN NEEDED` = The packet line specified as the originator is not provisioned with an Interexchange Carrier Preselect (IECP) although digit analysis has returned that this is an inter-lata call requiring a carrier. In this case, RPOA has also not been entered. The IECP should be provisioned in the ODD for this call or RPOA should be specified.

`NO NOC DERIVED WHEN PORTED-IN WITHOUT A LNP TRIGGER` = LNP Error - The ported-in indicator for the incoming digits was set to yes, but the switch was unable to derive a NOC for the NPA-NXX or NXX from the incoming digits (tuple not found in relation RLNOCCODE).

`NON-UNIQUE NXX DN ENTERED` = Originator DN entered is ambiguous because of the Increased # of NXX's feature. Reenter command using a 10-digit originator DN.

`NOT ALLOWED TO ORIGINATE` = Originator may not dial calls.

`NULL CARRIER ID IN DA` = The ending digit analysis tuple had a call type that requires a valid carrier identification, but none was present. The relation name and keys are not available.

`ORIGINATION HAS PFA FEATURE ACTIVE` = Call originator has private facilities access (PFA) active, not supported by verify feature. Deactivate PFA feature.

`NOT SUPPORTED, SEE CUSTOMER DOCUMENTATION` = Originator COS, destination type, or ASP/NS800 trigger is not supported by this feature.

The following originator COS values are supported for voice:

LINES

`FC_2PTY` = Two party, multifrequency ringing.
`FC_4PFS` = Four-party fully selective line.
`FC_4PSS` = Four-party semiselective line.
`FC_4WIRE_INDV` = 4 wire subscriber line.
`FC_5PTY` = Five party, multifrequency ringing.
`FC_8PSS` = Multiparty line.
`FC_10PTY` = MFR multiparty line.
`FC_ATTENDANT` = Attendant line (similar to individual).
`FC_CHGACALL` = Charge-a-call origination.
`FC_COIN` = Coin line.
`FC_HOTMOTL` = Special termination at motel equipment.
`FC_INDVDL` = Individual line.
`FC_ISDN` = ISDN Line, allowed for analog lines.
`FC_PBX` = PBX line origination.
`FC_SATSTLN` = Stand alone test line.
`FC_TWOPTY` = Two-party line.

PBXHOTMOT = Special termination to a motel.

TRUNKS
FC_BSYVFY = Busy verify trunk.
FC_IEC = Carrier trunk.
FC_ISPOPR = Intermediate switching point (ISP) trunk.
FC_LATA_CONN = Toll end of LATA connecting trunk.
FC_LTOLL_CONN = Local end of toll connect trunk.
FC_PF = Private facility trunk.
FC_PFITT = Private facility trunk intertandem tie trunk.
FC_PFLASH = Private facility trunk with flash repeating.
FC_PRI_INTOLL = Primary intertoll trunk.
FC_SEC_INTOLL = Secondary intertoll trunk.
FC_SPAMEG = Special access *MEGACOM*™ trunk.
FC_SPAWATS = Special access WATS trunk.
FC_TTOLL_CONN = Toll end of toll connecting trunk.
FCEDSL = PRI trunk.
FCEDSLHM = Hotel/motel PRI trunk.

The following destination types are not supported:
FCNS800 = Number services (800) type call.
FCSTG1FCA = Dial 011+PCC or 18X - fully coded addressing.
FCIDDFCA = Dial CC+NN - fully coded addressing.
FCAPSDN = Software defined network at an action point.
FCSPAM800 = *MEGACOM*™-800 (special access).
OAD2VDT = DA call to VDT.
OAOPNIT = Non-ISP call to VDT.

The following originator COS values are supported for CSD:

LINES
FC_ISDN = ISDN line.

TRUNKS
FC_IEC = Carrier trunk.
FC_LATA_CONN = Toll end of LATA connecting trunk.
FC_LTOLL_CONN = Local end of toll connect trunk.
FC_PF = Private facility trunk.
FC_PFLASH = Private facility trunk with flash repeating.
FC_PRI_INTOLL = Primary intertoll trunk.
FC_SEC_INTOLL = Secondary intertoll trunk.
FC_TTOLL_CONN = Toll end of toll connecting trunk.
FCEDSL = PRI trunk.
FCEDSLHM = Hotel/motel PRI trunk.

The following COS values are supported for CSD:

LINES
FC_ISDN = ISDN line.

PSX25_T1 = X25 access on a T! facility.

TRUNKS

PSX75_TK = Packet Switching on X.75.

PSX75P_TK = Packet Switching on X.75'.

PSPKT_TRK = Packet Switching on Inter-Switch Trunks.

PARTIAL DIAL TREATMENT = Call will route to tone or announcement. Refer to attribute DEST_TYP for the type of treatment.

PORT IS NOT ASSIGNED = Originating port is not assigned.

PORTED-IN BUT NO ROUTE-INDEX FOUND = LNP error - Route Type must be hunted for ported-in cases and a route index must be populated on the LDIT/RDIT view.

ADVANCED SERVICES PLATFORM FEATURE DETECTED = Call originator has advanced services platform active, not supported by verify office feature.

REORDER ON INSUFFICIENT FRL = The FRL of the call was less than the required FRL indicated in the dialing plan. Error treatment is reorder tone.

ROUTE INDEX REQUIRED WHEN HOMELRN=N = LNP error - Route Type must be hunted when HOMELRN=N and a route index must be populated on the LDIT/RDIT view.

ROUTING TO TONE OR ANNOUNCEMENT = Call will route to tone or announcement. Refer to attribute DEST_TYP for the type of treatment.

ROUTING TO TONE OR ANNOUNCEMENT, CARRIER ACCESS DENIED BY BLK 1PLUS
= Call will route to DEST_TYP NO10XX error treatment because the user is not allowed to access a carrier as dialed. The user is assigned either SPLIT or FULL BLOCKING with the BLK 1PLUS feature.

RPOA INPUT BUT INTRA-LATA COMPETITION NOT ALLOWED = Inter-Lata competition is not allowed in this office. Hence, the packet call cannot be routed via the RPOA entered in the VFY:OFC input message.

RPOA PROVIDED WAS NOT ALLOWED

REORDER ON ALTERNATE CODE TREATMENT = An ACT with error treatment of reorder encountered.

SM IS NOT EQUIPPED OR OPERATIONAL = An SM is not available for examination.

SM STAND ALONE REROUTING = Stand alone test line routing within an SM.

SM STAND ALONE REROUTING TO NON-EMERGENCY NUMBER = Call will route to tone or announcement.

SM STAND ALONE REROUTING TO TRUNK = Call will route to tone or announcement. Refer to attribute DEST_TYP for the type of treatment.

SM STAND ALONE REROUTING TO WRONG SM OR PARTY LINE = Call will route to tone or announcement. Refer to attribute DEST_TYP for the type of treatment.

SPEED CALL CODE IN SPEED CALL LIST = A speed call code was dialed that expanded into new address digits which contains another speed call code.

SPEED CALL FEATURE NOT ASSIGNED = Speed call code entered, but no speed

call feature is assigned.

`TG IS NOT EQUIPPED TO HANDLE DATARATE` = The trunk specified as the originator does not have the DATARATE field on RC/V 5.1 set or the trunk's DATARATE is set but the trunk cannot support the datarate requested.

`TIMEOUT IN AM WAITING FOR SM RESULTS` = No verify results have been received from the SM on which the originator resides. This is probably due to temporary conditions. Refer to the TECHNICAL ASSISTANCE section of the INTRODUCTION.

`TOO FEW DIGITS IN CALLED ADDRESS` = There are too few digits specified in the VFY:OFC input message called address (i.e. DIG field).

`TRAVELING CLASS MARK (TCM) OUT OF RANGE` = The value of the retrieved TCM was found to be out of range.

`TRIGGER NUMBER NOT FOUND` = LNP error - An LRN was provided in the input message, but no tuple was found in the NS_TRIG relation for the LNP trigger derived from the incoming digits (DIG parameter).

`TRY LATER, CAN NOT CREATE PROCESS IN SM` = Switch resource problem. This is probably due to temporary conditions. Refer to the TECHNICAL ASSISTANCE section of the INTRODUCTION.

`TRY LATER, CAN NOT SEND MESSAGE IN SM` = Switch resource problem. This is probably due to temporary conditions. Refer to the TECHNICAL ASSISTANCE section of the INTRODUCTION.

`TUPLE MISSING OR DATABASE ERROR DETECTED` = The base relation and the tuple keys follow.

`TYPE CI-CALL IS NOT VALID FOR ROUTING THIS LRN` = LNP error - When an LRN is entered without a DIG parameter the carrier for the call must be the LEC. Verify office does not support LRN SCREENING.

`UNABLE TO SEND MESSAGE FROM AM` = Switch resource problem. This is probably due to temporary conditions. Refer to the TECHNICAL ASSISTANCE section of the INTRODUCTION.

`UNABLE TO DELETE SPECIFIED DIGITS` = During digit conversion, a request was made to delete more digits than dialed. The relation identified should be checked.

`UNEXPECTED DESTINATION TYPE FOUND` = An unexpected destination type was encountered by the IDP during feature transition processing.

`UNEXPECTED ERROR TREATMENT` = An unexpected error treatment was encountered during digit analysis.

`UNEXPECTED ERROR TREATMENT FOR ACT DETECTED` = An unexpected error treatment was detected for the ACT.

`UNEXPECTED ERROR TREATMENT FOR DPAT DETECTED` = An unexpected error treatment was detected for the DPAT.

`UNEXPECTED UNP ROUTE TYPE` = An unexpected UNP route type was encountered during digit analysis.

`UNKNOWN ERROR` = An undefined error was present. Refer to the TECHNICAL ASSISTANCE section of the INTRODUCTION.

`UNKNOWN CALLED ADDRESS` =

`UNKNOWN DA ROW ENCOUNTERED` = An illegal value for the row attribute was found in the indicated tuple.

`UNKNOWN ROUTE TYPE`

`UNP ERROR TREATMENT DETECTED` = Error detected during UNP digit analysis. Call will route to tone or announcement.

`UNP ROUTE TO ATTENDANT` = Error detected during UNP digit analysis. Call routed to attendant.

`UNSUCCESSFUL CONVERSION TO PORT` = The originator specification does not identify a valid port.

`u` = Relation name and key fields, in the format:

```
RELATION_NAME  KEY1 KEY2 ...
```

The relation keys are shown as either a field name printed in this output message or an attribute name and value. For example, "DEST_TYP" or "PREVIOUS 5". Refer to the Translations Data manual for definitions.

`v` = Additional key to relation in variable '`u`'.

`w` = Additional key to relation in variable '`u`'.

`x` = DN of a line.

`y` = Group number.

`a`[1] = Member number.

`b`[1] = RI number.

`c`[1] = NOC for a local line termination.

`d`[1] = Trunk group.

`e`[1] = Carrier feature group indicator. Valid value(s):
`B`
`D`
(blank) = None.

`f`[1] = TYPE

`g`[1] = DATARATE

`h`[1] = DNIC. Valid value(s):

`RPOA=i`[1] `ICPI=j`[1]

`i`[1] = RPOA

`j`[1] = ICPI

`k`[1] = PSN

`l`[1] = DR_ALT_RI number.

`m`[1] = Packet switch number. Valid value(s):

`N_PSN=n`[1] `D_PSN=0`[1]

p[1] = IECP

q[1] = HOMELRN. Valid value(s):

```
HOMELRN=Y
 HOMELRN=N
```

r[1] =LNPTRIG

s[1] Valid value(s):

```
DIRECTORY NUMBER TRANSLATIONS EXIST
 NO DIRECTORY NUMBER TRANSLATIONS EXIST
```

t[1] = DEST_NPA

4. ACTIONS TO BE TAKEN

In the cases where an explicit translations error is found, or if the call routes to an incorrect line or trunk, follow local provisioning procedures to correct the situation.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

VFY:OFC

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-118-25x *Recent Change Reference*
235-118-25x *Recent Change Procedures*
235-600-10x *Translations Data*

RC/V View(s):

5.1 (TRUNK GROUP)
9.1 (DAS)
9.3 (LDIT)
9.7 [CARRIER DESTINATION (OFFICE DIALING)]
10.2 (ROUTE INDEX)
10.3 (INTERLATA CARRIER FEATURE)

VFY:OFC-C

Software Release: 5E14 and later
Message Class: TRCE
Application: 5
Type: Output

1. FORMAT

```
[1]    VFY OFC  [f1] EVENT c SEGMENT u1
         DIG=b a [g1]
         PORT=d-e PARTY=f [v1|NONPORTED|z]
         DAS=[g] DAS_SRC=[z1] SCR=h COS=i
         [DIGITS_USED=j] [t1] PREFIX=k DEST_IDX=[l]
         DEST_TYP=[m] ACTN=[n] CHG_IDX=[o] CONTEXT_ID=k3
         CARRIER=[e1 p] [h1] [h1] [k1] [p1] [q][q][q][q] [m1] [m1]
         FRL=[r] [SFG_GRP=s]
         [m3] [LNPTRIG=l3] [x1] [y1]
         [q1] [TCI=b2] [c2] [d2]
         VFY OFC:COMPLETED|VFY OFC:CONTINUING
       ____________________________________________________________________________

[2]    VFY OFC SCP QUERY EVENT c SEGMENT u1
         [e2]=[f2] ST=[g2] TT=[h2] SRVALWD=[i2] VPN=[j2]
         APPL=[k2] PROTOCOL=[l2] SERVKEY=[m2] TOLLFREE=[n2]

         [s1]

         [v2]=[w2]
         BEARER CAPABILITY=[o2]
         GLOBAL TITLE ADDR=[p2]
         LRN INDEX=[q2]
         DEST POINT CODE=[r2]
         TRANSLATION TYPE=[s2]
         TRIG CRITERIA=[t2]

         [u2]

         VFY OFC: COMPLETED|VFY OFC: CONTINUING
       ____________________________________________________________________________

[3]    VFY OFC ASSERT SM=[x2] EVENT c SEGMENT u1
         MANUAL ACTION ASSERT=[y2] ASSERT_EVENT=z2
         [a3] AT [b3] [c3]
         [d3]
         VFY OFC: COMPLETED|VFY OFC: CONTINUING
       ____________________________________________________________________________

[4]    VFY OFC ASSERT SM=[x2] EVENT c SEGMENT u1
         DEF-CHK-FAIL=[e3]
         FAILING-ADDR=H'[f3]
```

```
        ASSERT_EVENT=z2
        VFY OFC: COMPLETED|VFY OFC: CONTINUING
```

```
[5]     VFY OFC ASSERT SM=[x2] EVENT c SEGMENT u1
        MANUAL ACTION ASSERT=[y2] ASSERT_EVENT=z2
        [a3] AT [b3] [c3]
        [g3]
        VFY OFC: COMPLETED|VFY OFC: CONTINUING
```

```
[6]     VFY OFC ADDITIONAL DATA EVENT c SEGMENT=u1
        [t] [t]
        [h3]
        [u] [v] [w]
        [i3=j3]
        VFY OFC: COMPLETED|VFY OFC: CONTINUING
```

```
[7]     VFY OFC CONTINUE EVENT c SEGMENT=u1
        [n3=o3] [p3=q3|r3=s3] [t3=u3]
        [v3=w3] [x3=y3] [z3=a4-b4] [c4=d4] [e4]
        [f4=g4] [h4=i4] [j4] [k4=l4|m4=n4] [o4=p4]
        [q4=r4] [s4=t4]
        [u4=v4] [w4=x4]
        VFY OFC: COMPLETED|VFY OFC: CONTINUING
```

---

2. REASON FOR OUTPUT

To print the routing translations results of an VFY:OFC input request. The output may be presented in multiple messages. The last line of each message indicates if verify office has completed or if additional messages are expected. The messages will be in one of the six output formats.

Format 1 echoes the input message parameters and provides digit analysis results.

Format 2 provides LNP trigger information (if available), SCP query related information and status, and indication on the existence of the terminating directory numbers' translation. Format 2 will not be used to provide data pertaining to ASP or network services triggers since only LNP triggers are supported by verify office.

Formats 3, 4, and 5 provide information on errors which result in an assert message output to the read only printer (ROP). Assert activity will cause termination of the verify office request. Assert activity encountered during processing of a verify office request is not suppressed by brevity control.

Format 6 provides additional information related to the request processing. The additional information may be useful information about a successful request, or describe an error condition which does not result in an assert message output.

3. VARIABLE FIELD DEFINITIONS

a = The originator for which the call is being verified. Valid value(s):
DN=x
MLHG=y-a1

PORT_ENTERED
TG=y-a[1]

The value of PORT_ENTERED is output when a specific port was specified in the input message.

b = Verified digits that were specified in the input message. A value of NONE will be returned if no digits were specified in the input message.

c = Event number of the request.

d = Number of the switching module (SM) on which the originator is located.

e = Port member number of the originator, in hexadecimal.

f = Specific party associated with the originating directory number. For an explanation of the specific values, refer to the Translations Data manual.

g = Digit analysis selector, used for digit analysis. Refer to variable 'z[1]'for the source of the DAS value.

h = Screening index; post query screening, automatic route selection (ARS) screening, simulated facilities group (SFG) screening, or the originator's screening found in the office data.

i = Class of service for the originator. Refer to the Translations Data manual for definitions.

j = The digits used to determine routing data after deleting and prefixing by digit analysis, but prior to any deleting and prefixing resulting from routing to a trunk to leave the office. Refer to RC/V View 10.2.

k = Prefix dialed. Valid value(s):

NULL or BLANK

NONE	= No prefix was dialed.
0(0+)	= entered "0" plus prefix
1+	= entered "1" plus prefix
01+	= entered "01" international prefix
011+	= entered "011" international prefix

l = Destination index or code index found in the office data for this call.

m = Destination type found in the office data for this call. Refer to the Recent Change Procedures manual, Digit Analysis Views, for a definition of the values.

n = Specific action defined in the office data for the dialed feature code. This is null unless the value of variable 'm' is FEATURE. Refer to the Recent Change Procedures manual for definitions.

o = Charge index found in the office data for this call.

p = Carrier used for the call. If no carrier was specified or if the specified carrier was not used, this field will be blank.

q = Termination of the call with respect to this office (if blank, call termination is not determined). Valid value(s):

DIALCODE = The customer feature dial code was entered.

DR_ALT_RI=l[1]

MCRI=a[2]

NOC=c[1]

RI=b[1]

TRUNK=d[1]

r = Facility restriction level of the originating port (line or trunk). This is for automatic route selection, if applicable.

s = SFG group number.

t = Information field. Valid value(s):

ADVANCED SERVICES PLATFORM FEATURE DETECTED = Call originator has advanced services platform active (ASP) or has encountered an ASP route in an ARS route list. Neither are supported by verify office feature.

ANI CANNOT BE ENTERED WITH LINE ORIGINATOR = ANI can only be entered for trunk origination.

ANI COLLECTION NOT SUPPORTED = Automatic number identification (ANI) is needed for the SCP query. ANI collection is not supported by VFY:OFC.

ANI IS REQUIRED FOR LDP LATA TRUNKS

ANNOUNCEMENT ON ALTERNATE CODE TREATMENT = An alternate code treatment (ACT) with error treatment of announcement encountered.

ARS CALL OVERFLOWED TO DDD = The ARS digits analyzed overflowed to direct distance dialing (DDD) on the office dialing plan.

ASI_CF DATABASE READ FAILED = The advanced service interface feature information cannot be found. Check the feature assigned to the port.

ASI_GP DATABASE READ FAILED = The advanced service interface group information cannot be found. Check the group assigned to the port.

ASI FEATURE NOT ASSIGNED OR NOT ACTIVE = An advanced service interface feature dialed code was entered but the originating port does not have an active ASI feature assigned.

ASI_PORT DATABASE READ FAILED = The advanced service interface port information cannot be found. Check the port parameters.

ASP TRIGGER ENCOUNTERED, NO FURTHER VERIFICATION = ASP (non-LNP) triggers are not supported by VFY:OFC.

`ASSERT 911 OCCURRED` = An error occurred while getting E911 data. VFY:OFC does not support E911 queries.

`AUTHORIZATION CODE OR ACCOUNT CODE REQUIRED` = An authorization code or account code is required for this call or was entered in the input message. Authorization or account codes are not support by VFY:OFC.

`AUTO ARS FOR CSD IS NOT SUPPORTED FOR VFY:OFC` = Automatic route selection is not supported for circuit switched data by VFY:OFC.

`AUTOMATIC ROUTE SELECTION CALL ROUTED TO ANNOUNCEMENT` = An ARS call was routed to the designated MC route type of announcement.

`AUTOMATIC ROUTE SELECTION CALL ROUTED TO REORDER` = An ARS call was routed to reorder because the designated route type was `REORDER` or because an error was encountered while processing the ARS call.

`BAD DIALING STATE` = An invalid dialing state was encountered during digit analysis. Digit analysis translations should be examined.

`BAD ROUTE TYPE IN RLARSCRN` = An illegal route type was found in the base relation RLARSCRN.

`BAD ROUTE TYPE IN RLRT_MCRT` = An illegal route type was found in the base relation RLRT_MCRT. The tuple key is the printed modular constructed route index (MCRI).

`BAD ROUTE TYPE IN RLRT_ROUTING` = An illegal route type was found in the base relation RLRT_ROUTING. The tuple key is the printed route index (RI).

`BEARER CAPABILITY NOT SUPPORTED` = The LNP trigger does not support bearer capability for VFY:OFC. For example, the trigger is marked to allow only voice and this is a circuit switched data request.

`CALL IS BEING ROUTED TO TONE OR ANNOUNCEMENT` = An error has been encountered which will cause a route to reorder, tone, or an error announcement.

`CALL NOT ALLOWED FOR CHARGE A CALL LINE` = Call has been routed to tone or announcement. Refer to variable '`m`' for the type of treatment.

`CALL ROUTED TO AN ATTENDANT` = The call was routed to the specified terminal group attendant. Refer to variable '`j`' for the attendant directory number.

`CALLTYPE CANNOT BE ENTERED WITH LINE ORIGINATOR` = CALLTYPE can only be entered for trunk origination.

`CALLTYPE IS 011 OR 01M - CIC OR CC MISSING` = For an MF international 011 or 01P call, both CIC and CC are required.

`CALLTYPE IS 1P, 0P, OR 01M - CC MUST NOT BE SPECIFIED` = For an MF world zone 1 (1P, 0P) or international 01M call, specifying CC is an error.

`CANNOT SEND ACM AND PLAY TONE OR ANNOUNCEMENT` = The call is terminated because of network control point (NCP) action.

`CARRIER DIALED TWICE NOT ALLOWED` = A carrier access code is may not be entered twice.

`CC CANNOT BE ENTERED WITH LINE ORIGINATOR` = CC can only be entered for trunk origination.

`CIC CANNOT BE ENTERED WITH LINE ORIGINATOR` = CIC can only be entered for trunk origination.

`CI TYPE IS INTERLATA BUT NO RPOA WAS RECEIVED` = The carrier interconnect type returned by digit analysis is inter-lata. This means that a carrier is required to complete the packet call. RPOA should be entered as the carrier in the VFY:OFC input message.

`CI TYPE RETURNED BY DA NOT APPLICABLE TO PKT` = The carrier interconnect type returned by digit analysis is not applicable to a packet.

`CMP UNAVAILABLE` = During processing of the VFY:OFC input message, it was determined that the CMP was not linked to the AM and processing could not continue.

`COS NOT ALLOWED IDP AND SC1` = The call originator is defined in relation RLFC_PORTTYP with a class of service which is not allowed to have an individualized dialing plan and a 1-digit speed calling feature; but, these options were found in relation RLTRM_FEATS.

`COS NOT ALLOWED IDP AND SC2` = The call originator is defined in relation RLFC_PORTTYP with a class of service which is not allowed to have an individualized dialing plan and a 2-digit speed calling feature; but, these options were found in relation RLTRM_FEATS.

`COS NOT ALLOWED ID FEATURE` = The call originator is defined in relation RLFC_PORTTYP with a class of service which is not allowed to have an individualized dialing plan (IDP) feature; but, this option was found in relation RLTRMFEATS.

`COS NOT ALLOWED IDP, SC1, AND SC2` = The call originator is defined in relation RLFC_PORTTYP with a class of service which is not allowed to have an individualized dialing plan, a 1-digit speed calling, and a 2-digit speed calling feature; but, these options were found in relation RLTRM_FEATS.

`COS NOT ALLOWED SC1 AND SC2` = The call originator is defined in relation RLFC_PORTTYP with a class of service which is not allowed to have a 1-digit speed calling and a 2-digit speed calling feature; but, one of these options was found in relation RLTRM_FEATS.

`COS NOT ALLOWED SC1 FEATURE` = The call originator is defined in relation RLFC_PORTTYP with a class of service which is not allowed to have a 1-digit speed calling feature; but, this option was found in relation RLTRM_FEATS.

`COS NOT ALLOWED SC2 FEATURE` = The call originator is defined in relation RLFC_PORTTYP with a class of service which is not allowed to have a 2-digit speed calling feature; but, this option was found in relation RLTRM_FEATS.

`CUTTHRU CALL NOT SUPPORTED FOR VFY:OFC`

`CUTTHRU TRIGGER ENCOUNTERED, NO FURTHER VERIFICATION` = This is warning message to indicate that no further verification will be done when a CUTTHRU trigger is

encountered.

`DATABASE ERROR OR SOFTWARE INCONSISTENCY DETECTED` = Some data or code has detected an inconsistent result. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`DEDICATED SDN TRUNKS ARE NOT SUPPORTED` = Attempted to access the software defined network (SDN) that is not supported.

`DEST SWITCH MUST BE DIFFERENT FROM ORIG SWITCH` = The PSN cannot be the packet switch number of the originator.

`DEST TYPE RETURNED BY DA NOT APPLICABLE TO PKT` = The destination type returned by digit analysis is not applicable to a packet.

`DIAL PLAN ACCESS TREATMENT (DPAT) ERROR` = A DPAT error was detected during IDP digit analysis. The call was routed to announcement or reorder tone.

`DIG IS OPTIONAL OR 9500000 FOR CALLTYPE=FGB/FGBPS ON MF TRUNK` = An invalid digit string is entered for CALLTYPE FGB or FGBPS on MF Trunk. DIG is not required for MF FGB/FGBPS. If entered, digit string must be 9500000.

`DIGIT ANALYSIS FAILED` = A failure occurred while analyzing the digits.

`DIGIT ANALYSIS RETURNED VACANT` = Digit Analysis returned vacant code treatment for the packet call.

`DIGIT STRING CANNOT BE LONGER THAN 18 FOR SS7 TRUNKS` = Trunks that use ISUP7 signaling cannot have more that 18 digits in variable '`b`'.

`DIGITS ANALYZED ROUTE TO IDP ERROR TREATMENT` = IDP error treatment will route the call to tone or announcement.

`DN ASSOCIATED WITH UCD OR MUPH MLHG, NO PORT` = The directory number (DN) associated with the uniform call distribution (UCD) or multiposition hunt (MUPH) multi line hunt group (MLHG) was identified to have no port. These are not supported by VFY:OFC.

`EMERGENCY STAND ALONE REROUTING FAILURE` = There was a stand alone test line failure during the attempt to route. Some reasons could be:

- The digits entered in variable '`b`' are not the specified emergency number
- There is a feature assigned that is not supported for test lines.

Check the test line attributes and/or the entered VFY:OFC input message.

`EMERGENCY STAND ALONE REROUTING TO LINE` = The stand alone test line routing went to the emergency line specified on RC/V View 4.9.

`EMERGENCY STAND ALONE REROUTING TO TRUNK` = The stand alone test line routing went to the emergency trunk specified on RC/V View 4.9.

`EXCEEDED MAXIMUM IDP INTERPRETATIONS` = The digits being analyzed has exceeded the

maximum of 5 IDP interpretations. Call was routed to a reorder tone.

`EXTRA DIGITS DETECTED BY DIGIT ANALYSIS` = Digit analysis tables were populated for an expected number of digits. More digits appeared in variable '`b`' or were analyzed as a result of a query response.

`FAILED TO GET TERMINAL PARAMETERS` = The trunk or line data could not be read to get digit analysis information. Check the originating port.

`FAILURE RETURNED FROM TCAP` = A failure occurred when sending a TCAP message.

`FEATURE GROUP B CALLS ARE NOT SUPPORTED` = Feature Group B calls not supported on ISUP trunks.

`FEATURE INVOKED IS NOT SUPPORTED FOR VFY:OFC CSD` = No features are being supported for CSD calls.

`FEATURE IS NOT ACTIVATED` = Refer to variable '`h`^{3}' for an explanation.

`FUNCTIONALITY NOT SUPPORTED` = An attempt was made to send a route request from a function that has not been modified to support VFY:OFC. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`FX/TIE TRUNK ERROR ENCOUNTERED` = Refer to variable '`h`^{3}' for an explanation.

`ICPI REQUIRED BUT NOT INPUT` = This X.75/X.75' trunk originated call is an inter-lata call that requires an interexchange carrier preselect indication (ICPI). The ICPI was not entered in the VFY:OFC input message.

`IDDD CALLS REQUIRE A CARRIER; DA RETURNED NO CARRIER REQUIRED` = Packet inter station to station calls require a carrier but digit analysis indicated that no carrier is required.

`IDDD OVER OUTWATS BLOCKED` = An ARS call attempted to go IDDD over an OUTWATS trunk.

`IDP ASSIGNED WHILE PROCESSING SPEED CALL` = Speed calling from plain old telephone service (POTS) is only valid if the port has no IDP.

`IF ICPI IS SPECIFIED, ORIGINATOR MUST BE X.75 OR X.75' TRUNK` = The packet trunk specified as the originator must be an X.75 or X.75' trunk if ICPI is specified.

`IF PSN IS SPECIFIED, THE ORIGINATOR MUST BE AN IP TRUNK` = The packet trunk specified as the originator must be an IP trunk if PSN is specified as the destination.

`II CANNOT BE ENTERED FOR ISUP TRUNK` = Invalid input combination. `II` can only be entered for MF trunk.

`II CANNOT BE ENTERED WITH LINE ORIGINATOR` = `II` can only be entered for trunk origination.

`ILLEGAL DA SAC CALL TYPE` = A service access code (SAC) type carrier interconnect (CI) call is present in digit analysis relation, but the call type does not allow this feature.

`IMPLIED NPA COULD NOT BE DERIVED` = The implied NPA for the packet called address could

not be derived because of a database error.

`INCOMING FACILITY MUST BE SS7 TRUNK GROUP` = LNP error. When an LRN is entered without a `DIG` argument, the incoming facility must be a SS7 trunk group.

`INSUFFICIENT FRL DETECTED BY ROUTING` = The ARS facility restriction level (FRL) of the call was less than the facility restriction level of the route.

`INTERCOM CALL RESTRICTION DETECTED` = ICR simulated facilities group is not supported by VFY:OFC.

`INTERNAL FAILURE DETECTED` = A failure condition was detected. Refer to variable '`h\3`' for more details. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`INVALID ACTION TYPE FOUND` = An invalid action was encountered during digit analysis by the IDP.

`INVALID AUTHORIZATION CODE` = Authorization code is not supported in VFY:OFC.

`INVALID CALLED ADDRESS` = The packet called address entered in the VFY:OFC input message is invalid. The length of the packet called address is invalid or for international E.164 calls, 0110 cannot be the specified as the first four digits of the packet called address.

`INVALID CALLING ADDRESS` = The calling address specified in the VFY:OFC input message was found to be invalid. Some reasons could be:

- Invalid address length.
- If this is MLHG, the specified MLHG number does not match the dd_number in RLpsx25ln calling address.
- The specified NOC is invalid.
- The calling address does not match the MLHG linear DN of the MLHG group.

`INVALID COS FOR TYPE OF CALL` = The originator has a class of service that is supported for VFY:OFC but is invalid for CSD or PKT.

`INVALID DATA IN TUPLE` = Invalid data was found in an existing tuple in the ODD. Refer to rest of message for details.

`INVALID DATARATE` = The datarate requested is either not supported or not valid. This could also occur when the data rate entered is incompatible with the datarate of the destination trunk.

`INVALID ID RELATION` = An invalid IDP relation was found when expanding a speed call code.

`INVALID RPOA` = The RPOA entered in the input message is not valid RPOA in the ODD. A tuple with the specified RPOA as key was not found during the read operation of the RLPSDNICRI relation.

`LDP LATA TRUNKS ARE NOT SUPPORTED` = The VFY:OFC for LDP is not active so LDP on

LATA trunks is not supported by VFY:OFC.

`LDP MINT TRUNKS ARE NOT SUPPORTED` = The VFY:OFC for LDP is not active so LDP on MINT trunks is not supported by VFY:OFC.

`LEAD ACCOUNT CODE DETECTED` = A lead account code was detected during uniform number plan (UNP) digit analysis. This is not supported by VFY:OFC.

`LEASED NETWORK QUERY NOT SUPPORTED` = LN TCAP queries are not supported by VFY:OFC and an LN query is required to complete routing.

`LNP on LDP NOT PURCHASED` = LNP on LDP is not activated. LNP processing can not be done for this VFY:OFC request.

`LRN, PORTEDDN OR NONPORTED ARE INVALID FOR ISUP INTERNATIONAL CALL`

`MDII OCCURRED` = The value of the MDII code is shown. Refer to rest of message for details.

`MODEM POOL ACCESS DN ENTERED, MP NOT SUPPORTED FOR VFY:OFC PKT` = The specified originator is a modem pooling access DN. Modem pooling is not supported by packet VFY:OFC.

`MORE DIGITS REQUIRED TO GET ROUTING INFORMATION` = Not enough digits were entered in the input message to determine routing information.

`MSG FORMAT IS INCORRECT` = The format of the input message is not correct. Refer to the VFY:OFC input message.

`NETWORK CALL DENIAL IS SET, CALL IS DENIED` = Network call denial (NCD) indicator is set to "Y" in the ANI table. The VFY:OFC request is denied.

`NETWORK SERVICES TRIGGER NOT SUPPORTED` = Network services triggers are not supported by VFY:OFC.

`NO DIAL CODE IN DA` = A dial code was not detected by digit analysis. If the destination type is not a dialed code or this is not a BRCS line, the input originating port is restricted from use.

`NO DIGITS SPECIFIED OR FOUND` = No dialed digits were specified and the originator does not have any default ones in the database.

`NO DIRECTORY NUMBER TRANSLATION, HUNDREDS GROUP ROUTING APPLIES` = The DN is not assigned in this office; however, routing using hundreds group applies.

`NO ERROR TREATMENT FOR ACT` = Alternate code treatment (ACT) was encountered with no error treatment specified.

`NO ERROR TREATMENT FOR DPAT` = Dialing plan access treatment (DPAT) was encountered with no error treatment specified.

`NO IECP FACILITY SUBSCRIBED WHEN NEEDED` = The packet line specified as the originator is not provisioned with an interexchange carrier preselect (IECP) although digit analysis has returned that this is an inter-lata call requiring a carrier. In this case, RPOA has also not been entered. The IECP should be provisioned in the ODD for this call or RPOA should be specified.

`NON-DNT ORIGINATION` = The originating port is not allowed to access ASP triggers.

`NON-UNIQUE NXX DN ENTERED` = The entered originator DN is ambiguous because of the increased number of NXX's. Reenter the input message using a 10-digit originator DN.

`NOT ALLOWED TO ORIGINATE` = The originator may not dial calls.

`NOT SUPPORTED, SEE CUSTOMER DOCUMENTATION` = The originator COS or destination type is not supported by VFY:OFC.

The following originator COS values are supported for voice:

LINES

`FC_2PTY` = Two party, multifrequency ringing.

`FC_4PFS` = Four-party fully selective line.

`FC_4PSS` = Four-party semiselective line.

`FC_4WIRE_INDV` = 4 wire subscriber line.

`FC_5PTY` = Five party, multifrequency ringing.

`FC_8PSS` = Multiparty line.

`FC_10PTY` = MFR multiparty line.

`FC_ATTENDANT` = Attendant line (similar to individual).

`FC_CHGACALL` = Charge-a-call origination.

`FC_COIN` = Coin line.

`FC_HOTMOTL` = Special termination at motel equipment.

`FC_INDVDL` = Individual line.

`FC_ISDN` = ISDN Line, allowed for analog lines.

`FC_PBX` = PBX line origination.

`FC_SATSTLN` = Stand alone test line.

`FC_TWOPTY` = Two-party line.

`PBXHOTMOT` = Special termination to a motel.

TRUNKS

`FC_BSYVFY` = Busy verify trunk.

`FC_IEC` = Carrier trunk.

`FC_LATA_CONN` = Toll end of LATA connecting trunk.

FC_LTOLL_CONN = Local end of toll connect trunk.

FC_PF = Private facility trunk.

FC_PFITT = Private facility trunk intertandem tie trunk.

FC_PFLASH = Private facility trunk with flash repeating.

FC_PRI_INTOLL = Primary intertoll trunk.

FC_SEC_INTOLL = Secondary intertoll trunk.

FC_SPAMEG = Special access MEGACOM trunk.

FC_SPAWATS = Special access WATS trunk.

FC_TTOLL_CONN = Toll end of toll connecting trunk.

FCEDSL = PRI trunk.

FCEDSLHM = Hotel/motel PRI trunk.

The following originator COS values are supported for CSD:

LINES

FC_ISDN = ISDN line.

PSX25_T1 = X25 access on a T1 facility.

TRUNKS

FC_IEC = Carrier trunk.

FC_LATA_CONN = Toll end of LATA connecting trunk.

FC_LTOLL_CONN = Local end of toll connect trunk.

FC_PF = Private facility trunk.

FC_PFITT = Private facility trunk intertandem tie trunk.

FC_PFLASH = Private facility trunk with flash repeating.

FC_PRI_INTOLL = Primary intertoll trunk.

FC_SEC_INTOLL = Secondary intertoll trunk.

FC_TTOLL_CONN = Toll end of toll connecting trunk.

FCEDSL = PRI trunk.

FCEDSLHM = Hotel/motel PRI trunk.

PSX75_TK = Packet Switching on X.75.

PSX75P_TK = Packet Switching on X.75'.

PSPKT_TRK = Packet Switching on Inter-Switch Trunks.

The following destination types are not supported:

FCNS800 = Number services (800) type call.

FCSTG1FCA = Dial 011+PCC or 18X - fully coded addressing.

FCIDDFCA = Dial CC+NN - fully coded addressing.

FCAPSDN = Software defined network at an action point.

FCSPAM800 = MEGACOM 800 (special access).

OAD2VDT = DA call to VDT.

OAOPNIT = Non-ISP call to VDT.

OLI CANNOT BE ENTERED FOR MF TRUNK = Invalid input combination. OLI can only be entered for an ISUP trunk.

OLI CANNOT BE ENTERED WITH LINE ORIGINATOR = OLI can only be entered for a trunk origination.

PARTIAL DIAL TREATMENT = The call will route to tone or announcement. Refer to variable 'm' for the type of treatment.

PFA FEATURE NOT SUPPORTED = The input digits contained a private facilities access code that is not supported by VFY:OFC.

PFA MC ROUTING IS NOT SUPPORTED = Private facilities access is not supported by VFY:OFC.

PORT IS NOT ASSIGNED = The originating port is not assigned.

PORTED NUMBER ROUTING ERROR = The number was expected to be ported into the switch but no directory number translations exist for this DN. Possible problems are the SCP query response, the directory number assignment, or digit analysis ported-in flag.

PRECEDENCE AND PREEMPTION CALL DETECTED = Precedence and preemption calls are not supported by VFY:OFC.

PRESUBSC CANNOT BE ENTERED WITH LINE = PRESUBSC can only be entered for trunk origination.

QUERY TIMEOUT = A query was sent to the SCP and the response was not received before timing out.

QUERY/RESPONSE SIMULATION FAILURE = An LRN was entered on the input

message line which has not been processed correctly. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`REORDER ON ALTERNATE CODE TREATMENT` = Individualized dialing plan, alternate code treatment (ACT) with error treatment of reorder encountered.

`REORDER ON INSUFFICIENT FRL` = The facility restriction level (FRL) of the call was less than the required FRL indicated in the dialing plan. Error treatment is reorder tone.

`RESPONSE NOT SUPPORTED` = The SCP responded with a message that is not supported by VFY:OFC. Verify processing stopped when this message was received.

`RLRTDNMOD: Routing Module and Route Index are 0` = Retrieved the rlRTDNMOD tuple, but the routing module is set to zero and hundreds group routing does not apply.

`ROUTE FAILURE ENCOUNTERED` = The route request resulted in a failure. Refer to variable '`h`[3]' to determine the cause of the failure. Not all routing failure cases are supported by VFY:OFC. and additional data would not be available in those cases.

`ROUTING ERROR` = A non-HOME LRN was detected and a route index must be defined for this condition. Check digit analysis data. .LI"`ROUTING SP MAXED OUT, DATA MAY BE INCORRECT` = The routing system process reached a maximum running limit or state limit before completion of the routing process. The output reflects the information gathered up to that point. However, it does not show the completed routing information and is not guaranteed to be correct.

`ROUTING TO TONE OR ANNOUNCEMENT` = The call will route to tone or announcement. Refer to variable '`m`' for the type of treatment.

`RPOA INPUT BUT INTRA-LATA COMPETITION NOT ALLOWED` = Inter-lata competition is not allowed in this office. The packet call cannot be routed by the RPOA entered in the VFY:OFC input message.

`SAT CANNOT BE ENTERED WITH LINE ORIGINATOR` = SAT can only be entered for a trunk origination.

`SAT(SATELLITE) IS INVAILD FOR NON-MINT MF TRUNKS`

`SCREENING FAILURE` = This error can indicate carrier blocking (CBLK) is active for the screening (charging) from RC/V View 10.10. The ccall will route to reorder if `RTI=REGL` on the row entry that is marked for carrier blocking.

`SEND TO RESOURCE NOT SUPPORTED` = Verify does not support send-to-resource responses from the SCP. Verify processing was stopped when this message was received.

`SENDING RELEASE MESSAGE` = Call processing encountered an error event and populated a RELEASE message for the ISUP7 trunk. This signaling message is not actually sent but contains a cause code which is displayed in variable '`i`[3]'.

`SERVICE TYPE NOT SUPPORTED` = Number services type not supported by VFY:OFC. Refer to variable '`h`[3]' for more details.

`SM IS NOT EQUIPPED OR OPERATIONAL` = An SM is not available for examination.

`SPEED CALL FEATURE NOT ASSIGNED` = A speed call code was entered but no speed call feature is assigned.

`TDX DATA CALLS FEATURE NOT ACTIVE` = TDX data calls feature is not active. The VFY:OFC request for the LDP trunk is denied.

`TG IS NOT EQUIPPED TO HANDLE DATARATE` = The trunk specified as the originator does not have the DATARATE field on RC/V 5.1 set or the trunk's DATARATE is set but the trunk cannot support the datarate requested.

`TG IS NOT EQUIPPED TO HANDLE VOICE CALL` = This trunk group is equipped for data calls instead of voice calls.

`TIMEOUT IN AM WAITING FOR SM RESULTS` = No verify results have been received from the SM on which the originator resides. This is probably a temporary condition. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`TNS AND CIC CANNOT BE ENTERED AT SAME TIME FOR DOMESTIC ISUP CALL`
= For a VFY:OFC request on ISUP trunk, TNS and CIC can not be entered at the same time when CALLTYPE=DOM.

`TNS CANNOT BE ENTERED WITH LINE ORIGINATOR` = TNS can only be entered for a trunk origination.

`TNS IS INVALID FOR MF TRUNKS` = TNS is valid only for an ISUP trunk.

`TNSC CANNOT BE ENTERED WITH LINE ORIGINATOR` = TNSC can only be entered for a trunk origination.

`TNSC CAN BE SPECIFIED ONLY FOR MINT TRUNKS` = TNSC is invalid for the specified trunk if MINT_SIG=NULL.

`TOO FEW DIGITS IN CALLED ADDRESS` = Digit analysis tables were populated for an expected number of digits. Fewer digits appeared in variable '`b`' or were analyzed as a result of a query response.

`TRIGGER NUMBER NOT FOUND IN NS_TRIG` = The trigger number was not populated in the RLNS_TRIG relation. Check the data associated with trigger numbers. The output message contains the trigger number.

`TRIGGER TYPE NOT SUPPORTED` = An invalid trigger type has been encountered.

`TRY LATER, CAN NOT CREATE PROCESS IN SM` = Switch resource problem. This is probably a temporary condition. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`TRY LATER, CAN NOT SEND MESSAGE IN SM` = Switch resource problem. This is probably a temporary condition. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`TRY LATER, RESOURCES FOR FEATURE EXECUTION ENVIRONMENT UNAVAILABLE`
= When trying to start a FEX environment, the necessary data blocks (MDB, CLDB) were not available. Try again later.

`TUPLE MISSING OR DATABASE ERROR DETECTED` = The base relation and the tuple keys follow.

`UNABLE TO DELETE SPECIFIED DIGITS` = During digit conversion, a request was made to delete more digits than dialed. The relation identified should be checked.

`UNABLE TO SEND MESSAGE FROM AM` = Switch resource problem. This is probably a temporary condition. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`UNEXPECTED DESTINATION TYPE FOUND` = An unexpected destination type was encountered by the IDP during feature transition processing.

`UNEXPECTED ERROR TREATMENT FOR ACT DETECTED` = An unexpected error treatment was detected for the alternate code treatment (ACT).

`UNEXPECTED ERROR TREATMENT FOR DPAT DETECTED` = An unexpected error treatment was detected for the dialing plan access treatment (DPAT).

`UNEXPECTED RESULTS FOR DEDICATED E911 TRUNK` = The input port or trunk group is a dedicated E911 trunk and an MDII occurred. The MDII value has also been output.

`UNKNOWN DA ROW ENCOUNTERED` = An illegal value for the row attribute was found in the indicated tuple.

`UNKNOWN ERROR` = An undefined error was present. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`UNKNOWN ROUTE TYPE` = The route type found in RT_SCRNING or RT_ROUTING is not expected by packet routing.

`UNSUCCESSFUL CONVERSION TO PORT` = The originator specification does not identify a valid port.

`USER NOT ALLOWED TO USE EXPLICIT ASI SERVICE CODE` = The advanced service interface assigned to the port is for implicit service only and an explicit dialed code was entered.

`USER NOT ALLOWED TO USE IMPLICIT ASI SERVICE CODE` =The advanced service interface assigned to the port is for explicit service only and an implicit dialed code was entered.

`WBCHANNEL CANNOT BE ENTERED WITH LINE ORIGINATOR` = WBCHANNEL can only be entered for a trunk origination.

`WBRATE CANNOT BE ENTERED WITH LINE ORIGINATOR` = WBRATE can only be entered for a trunk origination.

`WIDEBAND DATARATE IS NOT VALID FOR NON-ISUP TRUNKS` = WBRATE and WBCHANNEL are valid only for an ISUP trunks. An error is output if they are entered for other signal types.

`u` = Relation name and key fields, in the format:

```
RELATION_NAME  KEY1 KEY2 ...
```

The relation keys are shown as either a field name printed in this output message or an attribute name and value. For example, "DEST_TYP" or "PREVIOUS 5". Refer to the Translations Data manual for definitions.

`v` = Additional key to relation in variable '`u`'.

`w` = Additional key to relation in variable '`u`'.

`x` = Directory number (DN) of a line. For packet call type, if the calling address in the input message is an international E.164 address, the DN= variable will contain the expanded full E.164 address (country code + NPA + NXX + XXXX).

`y` = Group number.

`z` = Location routing number (LRN).

`a`[1] = Member number.

`b`[1] = Route index (RI) number or automatic route selection index (ARSIDX). RI for a call that leaves the office or ARSIDX in the case of an ARS call. The ARSIDX can be replaced by a route index value if the call is directed to an announcement trunk.

`c`[1] = Normalized office code (NOC) for a local line termination.

`d`[1] = Trunk group.

`e`[1] = Carrier feature group indicator. Valid value(s):

`B` = Feature group B plus carrier identifier.

`D` = Feature group D plus carrier identifier.

(blank) = None. A carrier was not used to route the call.

f[1] = Call type for this verification request. Valid value(s):

CSV = Circuit switched voice (default).

CSD = Circuit switched data.

PKT = Packet switched data.

g[1] = Datarate for a circuit switched data call and its corresponding CSD bearer capability. Valid value(s):

56 = 56-kbps, unrestricted digital information, circuit-mode, rate adapted from 56-kbps.

64 = 64-kbps, unrestricted digital information, circuit-mode.

R64 = 64-kbps, restricted digital information, circuit-mode, rate adapted from 56-kbps.

h[1] = Data network interexchange carrier. Valid value(s):
RPOA=i[1]
ICPI=j[1]

i[1] = Registered private operating agency, a four-digit data network interexchange carrier (DNIC) used with packet routing.

j[1] = Interexchange carrier preselect.

k[1] = Packet switch number, a number between 1 and 255, inclusive, used in internal protocol packet routing as the destination of the call.

l[1] = Datarate alternate route index for a CSD call that leaves the office.

m[1] = Packet switch number. Valid value(s):
D_PSN=o[1]
N_PSN=n[1]

n[1] = Next packet switch number, a number between 1 and 255, inclusive, used in internal protocol packet routing as the destination of the call.

o[1] = Destination packet switch number, a number between 1 and 255, inclusive, used in internal protocol packet routing as the destination of the call.

p[1] = Interexchange carrier preselect.

q[1] = The LRN returned is home to this switch. Valid value(s):
HOMELRN=N
HOMELRN=Y

r[1] = Local number portability trigger number.

s[1] = Existence indicator. This provides information on the existence of the DN translation and assignment of the "non-conditional 10-digit trigger for LRN". Valid value(s):

DIRECTORY NUMBER TRANSLATIONS EXIST

DIRECTORY NUMBER TRANSLATIONS EXIST WITH NON COND TRIG

NO DIRECTORY NUMBER TRANSLATIONS EXIST

t[1] = Destination numbering plan area code. For packet VFY:OFC input messages, this variable will contain the implied numbering plan area (such as, the area code) used to route the call. The area code is derived for line originated calls. The NPA can be provisioned on RC/V View 8.1 or RC/V View 9.3.

u[1] = Output can occur as one message or multiple messages. Each output message is referred to as a segment and marked with an event number and a segment indicator. All messages associated with one request will have the same event number. Segment numbers are used to represent a sequence.

For example: VFY OFC EVENT 3 SEGMENT 1

At the end of each segment, a marker is printed showing if another segment is expected.

VFY OFC: CONTINUING = Another segment will be printed.

VFY OFC: COMPLETED = No more segments are expected.

v[1] = Generic address parameter (SS7 ISUP).

w[1] = The location routing number digits.

x[1] = The value for ASP default routing. Valid value(s):

ANNC = Default Route to 13A Terminating Announcement.

DLDN = Default Route to Dialed DN.

NONE = No default routing to be applied.

y[1] = Geographic portability. Valid value(s):

GEOPORT=N

GEOPORT=Y

z[1] = This field indicates the proper text to represent the source of the DAS in the variable 'g'. Valid value(s):

ORIGINATORS_DAS = The DAS assigned to the originating port will be used for digit analysis.

POST_QUERY_DAS = The DAS associated with the trigger number will be used for digit analysis.

CURRENT_DAS = Indicates that the current DAS will be used for digit analysis.

SCP_DAS = The office defined SCP DAS will be used for digit analysis.

LRN_DAS = The LRN DAS assigned to the originating trunk will be used for digit analysis.

SFG_DAS = The DAS defined for the accessed simulated facilities group will be used for digit analysis.

SDN_DAS = The call has requested SDN and the DAS assigned to the EDSL trunk will be used for digit analysis.

IDDDTC_DAS = The DAS defined for international outbound will be used for digit analysis.

a^2 = Route index used for automatic route selection private network.

b^2 = Type of carrier interconnect call.

c^2 = Inhibit dialed number trigger (DNT), indicates whether to look for DNTs following LRN analysis. Valid value(s):

INHDNT=N

INHDNT=Y

d^2 = Location routing number screening. Valid value(s):

LRNSCR=N

LRNSCR=Y

e^2 = Trigger type. Used to define variable 'f^2'. Valid value(s):

LNPTRIG = Local number portability trigger.

TRIG = Non-LNP trigger.

f^2 = A number between 1 and 255 associated with the trigger type in variable 'e^2'.

g^2 = The administrative state code state. Valid value(s):

LOCKED

UNLOCKED

h^2 = Defines the signaling transfer point translation type number associated with the trigger.

i^2 = The trigger is allowed for voice calls, data calls or both. Valid value(s):

BOTH

CSD

VOICE

j[2] = Virtual private network (VPN) trigger. Valid value(s):

N

Y

k[2] = Application type. Valid value(s)

800

ASP

E911

l[2] = Advanced intelligent network release. Valid value(s):

R0

R0D1

m[2] = Source of the service key for query formulation. It is only valid for R0 protocol. Valid value(s):

ANI

CDPN

n[2] = Advance intelligent network (AIN) toll-free service allowed. Valid value(s):

N

Y

o[2] = The bearer capability associated with the call that encountered the trigger. Valid value(s):

3.1 KHZ AUDIO

56 KBPS

64 KBPS

SPEECH

p[2] = Global title number, a unique 10 digit number used by the SCP.

q[2] = Local routing number index assigned to the directory number translation.

r[2] = Destination point code number. A unique 9 digit number that identifies the receiving entity of the SCP query.

s[2] = The signaling transfer point translation type number used in the query of the SCP. This will be the value assigned to the trigger or the office (if one is not assigned to the trigger).

t[2] = The event that caused the trigger to occur. Valid value(s):

CHANNEL SETUP PRI

COUNTRY CODE NPA-NXX-XXXX

CUSTOMIZED ACCESS

FEATURE ACTIVATOR

N11

NETWORK BUSY

NPA

NPA-N

NPA-NXX

NPA-NXX-X

NPA-NXX-XX

NPA-NXX-XXX

NPA-NXX-XXXX

OFF HOOK DELAY

OFF HOOK IMMEDIATE

ORIG CALLED PARTY BUSY

ORIG NO ANSWER

SHARED INTER OFFICE TRUNK

TERMINATION ATTEMPT

VERTICAL SERVICE CODE

u[2] = Query status. Used to indicate result of SCP query. Valid value(s):

NO DATA POPULATED, FEATURE NOT ACTIVATED

NO QUERY PERFORMED

NO QUERY PERFORMED, OVERRIDING HRI FOUND

QUERY BLOCKED

QUERY FAILED

QUERY SUCCEEDED

v^2 = Type of number returned by the SCP. Valid value(s):

LRN = The DN has been ported to another switch identified by this location routing number.

NON_PORTED_DN = The DN has not been ported.

w^2 = The called party directory number returned by the SCP. This number may be the original called number which has not been ported or an LRN. It is associated with variable 'v^2'.

x^2 = Switch module (SM). Identifies where the failing (also called asserting) code resides.

y^2 = The assert number. Refer to the Asserts manual for attitional information.

z^2 = Event number associated with the assert. This allows a correlation of the summary output provided by VFY:OFC with the assert output provided on the ROP.

a^3 = Name of the source file where the defensive check failed.

b^3 = Indicates the scope of variable c^3. Valid value(s): .TS l l. If b^3 = then c^3 = LINE T{ A source file line number indicating the location where the assert was called or printed. T} REF T{ A programmer defined reference number. T} .TE

c^3 = Line or reference number.

d^3 = A brief description of the problem that caused the assert failure.

e^3 = The assert error code. Refer to the Assert manual for additional information.

f^3 = Failing address. The virtual address of execution at the time the assert failed.

g^3 = Two column output consisting of data and an associated descriptive string.

h^3 = Additional information. Multiple comments may be concatenated together.

To determine the meaning of the output comment field, start at the beginning of the comment string and find the matching string below. If there are additional characters, start from that point and find the next matching string. Continue until there are no more characters in the comment field. There is a limit on the total number of characters which means that the last comment may be truncated.

Valid value(s):

Account Code override of toll diversion possible. = The user has an account code feature assigned. This can be used to override the user's screening index (SI) used for RC/V View 10.10. VFY:OFC does not support entry of an ACCT code.

ACVT not supported = Attendant control of voice terminals is not supported by VFY:OFC.

ACCESS OR USER INFO IE DISCARDED = Refer to the cause value definition in the ISUP/TCAP Related Feature Description.

ANI NEEDED FOR FEATURE USE = The two party class of service is not allowed the entered feature if the two-party line does not have ANI or if the calling party number presentation (CPNP) is not activated.

`ARS CARRIER SELECTION ERROR.` = An error has occurred while processing the carrier access for an ARS call. An example of an error is the specified automatic route selection (ARS) SFG carrier is a LEC carrier and the digits are INTERLATA. Examine the attributes associated with the output `CARRIER=` and the input message.

`ARS ERRTRT ANNCE USED` = An automatic route selection (ARS) uniform number plan dialing error was encountered and the ARS group error treatment is announcement. This error is also used when an ARS call is made with the ODP, an ARS filtering error occurs, and `FLTRERR` is set to `ANN` for the ARS.

`ARS ERRTRT ATDN USED` = An ARS uniform number plan dialing error was encountered and the ARS group error treatment is route to attendant. This error is also used when an ARS call is made with the ODP, an ARS filtering error occurs, and `FLTRERR` is set to `ATDN` for the ARS.

`ARS ERRTRT TONE USED` = An ARS uniform number plan dialing error was encountered and the ARS group error treatment is reorder tone. This error is also used when an ARS call is made with the ODP, ARS filtering occurs, and `FLTRERR` is set to `REORD` for the ARS.

`ARS UNEXPECTED INVLD PORT` = This type of port is not supported by ARS. The call will route to reorder.

`ARS UNEXPECTED RTE TYPE FROM DIGANAL` = An unexpected route type was returned from digit analysis for ARS. The call will route to reorder.

`ASP R0D1 feature has not been purchased.` = The inidicated ASP realease is not activated.

`ASP Release 0 is inactive.` = The inidicated ASP release is not activated.

`ATNDS CANNOT ACCESS FEATURE ENTERED` = An attendant that is not assigned features cannot access the generally available feature that was entered.

`Authorization and Account Code override of toll diversion possible.` = The user has an authorization code feature and an account code feature assigned. Either one of these features can be used to override the user's screening index (SI) used for RC/V View 10.10. VFY:OFC does not support entry of these codes.

`Authorization Code override of toll diversion possible.` = The user has an authorization code feature assigned. This feature can be used to override the user's screening index (SI) used for RC/V View 10.10. VFY:OFC does not support entry of an authorization code.

`Authorization Code override possible.` = The user has an authorization code feature assigned. This feature can be used to override the user's automatic route selection facility restriction level (FRL). VFY:OFC does not support entry of an authorization code.

`Bad Data found during ARS routing.` = Bad data was encountered while getting the routing information on an automatic route selection call.

`Bad Data found during routing.` = Bad data was encountered while getting the routing information.

`Basic LRN feature has not been purchased` = Encountered an LNP trigger. However, number portability-LRN is not activated.

`Bearcap data incorrect.` = In setting up for a BRI request, the bearer capability was not set up correctly in an internal message. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`Bearcap data not setup.` = In setting up for a BRI request, the bearer capability was not set up in an internal message. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`BEARER CAPABILITY INCOMPATIBLE WITH SERVICE REQUEST` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`BEARER CAPABILITY NOT AUTHORIZED` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`BEARER CAPABILITY NOT PRESENTLY AVAILABLE` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`BEARER SERVICE NOT IMPLEMENTED` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`BFG TRMFEATS TUPLE MISSING.` = The port is in a BFG but the expected rlTRMFEATS tuple was not found.

`BRI Keypad invalid.` = The keypad area of an internal message was not setup correctly. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`BRI setup msg bad.` = An error has occurred setting up an internal message. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`CALL AWARDED AND DELIVERED` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`CALL HAS BEEN QUEUED` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`Call is being Toll Diverted (TDV).` = The user's screening index (SI), the code index (CDI) of the entered digits, and the prefix value of the entered digits used from RC/V 10.10 are set up to toll divert to the attendant.

`CALL REJECTED` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`CARRIER ACCESS DENIED BY BLK 1PLUS.` = Call will route to DEST_TYP NO10xx error treatment because the user is not allowed to access a carrier as dialed. The user is assigned either SPLIT or FULL BLOCKING with the BLK 1PLUS feature.

`CHANNEL CONGESTION OR UNAVAILABLE` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`CHANNEL TYPE NOT AVAILABLE` = Refer to the cause code value definition in the ISUP/TCAP

Related Feature Description.

`CHANNEL UNACCEPTABLE` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`COS NOT ALLOWED TO ACCESS FEATURE.` = This class of service is not allowed to access the entered feature.

`CPNP SFID 50 NOT PURCHASED` = The calling party number presentation is not activated.

`DATABASE READ FAILURE IN MCidprel` = An IDP digit analysis tuple is missing.

`Dial Plan Access Treatment (DPAT) error.` = A DPAT error was encountered which requires an authorization code to continue. VFY:OFC does not support authorization codes.

`DESTINATION OUT OF ORDER` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`DIRECT ACCESS LINK.` = Indicates that direct access links (DAL) access is allowed for this trunk group.

`EXCESSIVE DIGITS RECEIVED` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`Expected FEX environment not found.` = Internal error. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`Facility number should be specified for FX trunk origination.` = FACILITY NBR in RC/V View 5.1 needs to be set for the origination trunk.

`FAILED TO FIND FEX CC MODEL FOR ARS` = Internal error. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`Failed To Get Data Pointers` = Failed to retrieve pointers to structures within the routing message.

`Failed To Populate BEARER CAPABILITY Parameter` = Failed to populate the mandatory BEARER CAPABILITY parameter in the query message.

`Failed To Populate GLOBAL TITLE ADDRESS` = Failed to populate the mandatory GLOBAL TITLE ADDRESS parameter in the query message.

`Failed To Populate USERID Parameter` = Failed to populate the mandatory USERID parameter in the query message.

`FAILED TO REPLACE TO FEX FOR ARS` = Internal error. Try again later. If it still doesn't work, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual for additional assistance.

`Failed To Send Message To TCAP` = The attempt to send the query message to the TCAP system process failed.

`FC_create() ERR1` = An error occurred while trying to get the head of the CLDB list.

`FC_create() ERR2` = An error occurred while trying to get an idle CLDB.

`FC_create() ERR3` = An error occurred while trying to get and link an MDB to the CLDB.

`FCfex_init() ERR1` = An error occurred while trying to get an idle CLDB.

`FCto_fs: Internal error` = VFY:OFC processing encountered unexpected code. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`FCfex_init() ERR2` = An error occurred while trying to get an idle MDB.

`FEATURE 228 NOT PURCHASED.` = ISDN personal communication is not activated.

`IDENTIFIED CHANNEL DOES NOT EXIST` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`IE NONEXISTENT OR NOT IMPLEMENTED` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`INCOMING CALLS BARRED` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`INCOMPATIBLE DESTINATION DIRECT CALL NOT SUBSCRIBED` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`INTERCEPT TREATMENT ON.` = Originating line is on intercept service and is denied origination.

`INTERNAL ERROR: FEX COMING DOWN UNEXPECTEDLY.` = An internal error has occurred in the feature execution environment interface with verify office. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`INTERCEPT TREATMENT ON.` = Originating line is on intercept service and is denied origination.

`INTERCOM RANGE HAD NO DIGITS TO PREFIX.` = An IDP intercom (extension) was entered and the range accessed has no digits to prefix as expected.

`Interrupt Message Received` = An MGINTERRUPT message was received while waiting for the SCP to respond.

`INTERWORKING-UNSPECIFIED` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`INVALID ACTION IN MCspicarr` = Expected dialed code action was for carrier access but a non-carrier access code was received.

`Invalid Assert Message Type Detected By RTvfy_send()` = Internal error. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`INVALID CALL REFERENCE VALUE` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`Invalid Data Collection State Detected By RTvfy_send()` = Internal error. Refer to

the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`Invalid Digits Encountered` = LNP queries are only allowed to contain dialed digits in the range of 0-9.

`INVALID DIGIT VALUE FOR NUMBER` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`Invalid Error Code Received By RTvfy_rpt()` = Internal error. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`Invalid Error Code Received By RTvfy_send()` = Internal error. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`INVALID INFO ELEMENT CONTENTS` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`INVALID NUMBER FORMAT` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`INVALID OR UNSPECIFIED MESSAGE` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`Invalid two-party party value` = Expected either TIP or RING but neither was found. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`ISDNFAIL Message Received` = An MGISDNFAIL message was received while waiting for the SCP to respond.

`ISDN PODS CANNOT USE FEATURES` = ISDN PODS terminals do not have access to any BRCS features.

`ISDN CANNOT ACCESS USTWC` = Usage sensitive three-way calling is not allowed on ISDN terminals.

`LASS NOT LOADED` = Custom local area signaling services (CLASS) is not loaded on the switch. CLASS features cannot be used.

`LRN was not entered on input message line` = This VFY:OFC request is attempting to do an LNP query. NP-verify office for LRN is not activated. NP-test query for LRN is activated but requires an LRN to be specified on the input message line.

`LTSB CANNOT DEACT MAN EXCLUSION` = Deactivation of manual exclusion is not available for LTSB lines.

`MANDATORY IE MISSING` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`Message could not be sent to routing process` = The route request message could not be sent. Try again later.

`MESSAGE NOT COMPATIBLE WITH CALL STATE` = Refer to the cause code value definition in

the ISUP/TCAP Related Feature Description.

`MESSAGE TYPE NONEXISTENT OR NOT IMPLEMENTED` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`MGRT_FAIL REASON NOT HANDLED BY VFYOFC` = Route failure reason invalid for VFY:OFC processing. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`NETWORK CONGESTION` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`NO ASSOCIATED DIGITS FOR SPEED CALL DIGIT(S)` = A speed call digit(s) was entered and there are no associated digits to analyze.

`NON SELECTED USER CLEARING` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`NORMAL CALL CLEARING` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`Normalized Office Code Must Be Defined for Home LRNs` = LNP error - An NPA and OFFCODE must be populated on the LDIT/RDIT view when HOMELRN=Y.

`NORMAL-UNSPECIFIED` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`NO ROUTE TO DESTINATION` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`NO ROUTE TO SPECIFIED TRANSIT NET` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`NO USER RESPONDING` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`NUMBER CHANGED` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`OSPS not supported.` = Request will be treated as if non-OSPS.

`OSREPLACE Is Not supported By RTvfy_rpt()` = Entry into RTvfy_rpt() using an OSREPLACE is not currently supported.

`OUTGOING CALLS BARRED` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`OVLP attempted on non-ovlp route.` = Overlap outpulsing would be attempted on a trunk that does not support overlap outpulsing.

`PKT keyword must be entered for the originator specified` = The port identified from the input message is used for packet switch data (PSD), so the keyword PKT needs to be included in the input message line.

`PORTEDDN or NONPORTED parameter is not supported with non-CCS trunk` = PORTEDDN or NONPORTED are only supported for ISUP trunks.

`PORT NOT ALLOWED FEATURE` = The input originating port is not allowed to access the entered feature.

`PORT NOT ASSIGNED FEATURE` = The input originating port is not assigned the entered feature.

`PORT TRMFEATS TUPLE MISSING.` = Port has terminal features assigned but expected TRMFEATS tuple not found.

`Pots access not allowed` = Access to the office dialing plan is not allowed for this type of call.

`PRECEDENCE CALL BLOCKED` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`PREEMPTION-CIRCUIT RESERVED FOR REUSE/PREFIX 1 DIALED IN ERROR` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`PREEMPTION/PREFIX 0 DIALED IN ERROR` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`PREFIX 1 NOT DIALED` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`PROTOCOL ERROR-UNSPECIFIED` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`RECOVERY UPON TIMER EXPIRATION` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`REQUESTED CHANNEL NOT AVAILABLE` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`REQUESTED FACILITY NOT IMPLEMENTED` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`REQUESTED FACILITY NOT SUBSCRIBED` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`REQUESTED FACILITY REJECTED` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`RESOURCE UNAVAILABLE OR UNSPECIFIED` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`RESPONSE TO STATUS ENQUIRY` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`Route Index Must Be Defined for Non-Home LRNs` = LNP error - A route index must be populated on the LDIT/RDIT view when HOMELRN=N.

`Routing Module Tuple Missing.` = Unable to retrieve the rlRTDNMOD tuple. The accompanying data provides the key information.

`ROUTING TO REORDER` = A route failure has occurred with the general reason of REORDER. The failure reason is not more specific. If there was an assert output, the error can be determined from the assert failure indicated. The call will route to reorder.

`RTvfyasi entered with invalid ASI action. Internal error.` = Advanced services interface function expected either action ASITOG or ASIUSE. A different action was encountered. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`RTv_brichks() BRI_ERR1.` = Unable to get the TEDB.

`RTv_brichks() BRI_ERR2.` = TEDB contains invalid information.

`RTv_brichks() BRI_ERR3.` = Unable to access the DALB.

`RTv_brichks() BRI_ERR4.` = Cannot link DALB to TEDB.

`RTv_brichks() BRI_ERR5.` = Could not link the BRCSDB to the DALB.

`RTv_brichks() BRI_ERR6.` = Could not link DALB to DPB.

`RTv_brichks() BRI_ERR7.` = Could not link DALB to PCBLA.

`RTvdalb_init() PRI_ERR1.` = Failed to get a PRISTAT pointer.

`RTvdalb_init() PRI_ERR2.` = Could not get a DALB.

`RTvdalb_init() PRI_ERR3.` = Could not link DALB to PRISTAT.

`RTvdalb_init() PRI_ERR4.` = Could not link DALB to PCBLA.

`RTvfy_rpt() Was Entered With Unknown Reason` = Internal error. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`RTvfy_rsp() Specified An Invalid Maxtime.` = An internal error was encountered while waiting for routing data. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`RTvfy_rsp() Received An Invalid Return Value.` = An internal error was encountered while waiting for routing data. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`RTvfy_rsp() Received a Truncated Message.` = An internal error was encountered while waiting for routing data. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`RTvfy_rsp() Timed Out Waiting For RSP.` = A timeout occurred while waiting for the routing data. Try again later.

`SEGMENTATION ERROR` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`SERVICE DENIED` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`SERVICE OPERATION VIOLATED-W/DIAG` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`SERVICE OR OPTION NOT AVAILABLE` = Refer to the cause code value definition in the

ISUP/TCAP Related Feature Description.

`SERVICE OR OPTION NOT IMPLEMENTED` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`Signal type of the trunk is not supported by Verify Office` = The signal type for this trunk on RC view 5.1 is not supported for VFY:OFC.

`TEMPORARY FAILURE` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`TG IS NOT EQUIPPED TO HANDLE DATARATE` = The trunk specified as the originator does not have the DATARATE field on RC/V View 5.1 set or the trunk's DATARATE is set but the trunk cannot support the datarate requested.

`The class of service of the originator is not supported by verify office.` = Refer to variable '`t`' for supported classes of service.

`The Finite State Machine Failed` = An attempt to query the SCP has failed for an unknown reason.

`The tone or announcement type is X.` = Where X is the type of tone or announcement that the call would be routed to.

`This type of trunk can't be used for FX or Tie service` = The class of service of the trunk is not proper for FX/TIE services.

`TOO MANY STORED DIGITS` = There are too many digits for digit analysis to handle. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`TRANSIT NETWORK DOES NOT EXIST` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`UCR SFID 47 NOT PURCHASED` = Unidentified call rejection is not activated.

`Unable To Communicate With The Routing Module.` = Need to retrieve the rlRTDN_TRAN tuple from the routing module; however, the routing module is not operational.

`UNALLOCATED NUMBER` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`UNASSIGNED DN, NO LRN` = An unallocated directory number has been encountered and there was not an location routing number.

`UNASSIGNED DN, LRN PRESENT` = An unallocated directory number has been encountered and there was an location routing number.

`Unexpected Data Collection State In RTvfy_send()` = Internal error. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`Unexpected Message` = Attempting to access a message with an invalid message type.

`UNEXPECTED RETURN CODE FROM MCgetdig IN MCidprel.` = Internal error. Refer to the

TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`UNEXPECTED RETURN CODE FROM MCgetdig IN MCidcont.` = Internal error. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`UNEXPECTED ROUTE FAILURE REASON` = Code for route failure unexpectedly entered for a reason that VFY:OFC does not handle. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`Unknown Message Was received By RTvfy_rsp().` = An unknown message was received while waiting for routing data. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

`USER ALERTING NO ANSWER` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`USER BUSY` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`User Has Authorization Code First feature. Continuing VFYOFC` = The user has an authorization code feature assigned that has ATH FIRST Y. This is being ignored and the verify is continuing. VFY:OFC does not support an authorization Code.

WARNING: Ignoring the authorization code data may result in invalid routing information if the authorization code data overrides, for example, the screening index (SI) to be used, the facility restriction level (FRL) to be used, etc. Check the user's feature and group information to determine if the results of the verify are valid.

`Utility Telementry Service is not activated` = UTT feature is not active but the originating port is marked for UTT service.

`VACANT CODE` = Refer to the cause code value definition in the ISUP/TCAP Related Feature Description.

`Verify Office for LRN feature is inactive` = This VFY:OFC request is attempting to do an LNP query; however, both NP-test query for LRN and NP-verify office for LRN are inactive.

`VFYOFC ARS NOT SUPPORTED FOR CCS.` = Verify of ARS feature is not supported on ISUP/CCS trunks.

`VFYOFC ARS NOT SUPPORTED FOR SERVICE CLASS.` = The input port has a class of service that cannot have ARS.

`VIRTUAL PRIVATE NETWORK CALL.` = Indicates that this is an origination virtual private network (VPN) call.

`WIRELESS CALL ORIGINATION` = Wireless call originations are not supported by VFY:OFC.

i^3 = Value type. Used to define type of value indicated in variable 'j^3'. Valid value(s):

CAUSE = Cause code value. Refer to the ISUP/TCAP Related Feature Description for a complete list of cause codes and their meanings.

MDII CODE = Number mapped internally in the DMMDII domain. Refer to the APP:MDII appendix in the Appendixes section of the Output Messages manual.

ASSERT NUMBER = Assert number.

TRIGGER TYPE = Trigger type.

TRIGGER NUMBER = Trigger number.

SERVICE TYPE = Service type.

MESSAGE TYPE = Message type.

ERROR CODE = error code.

DCSTATE = The data collection state.

REASON = Reason.

RETURN CODE = Return code.

ROUTE INDEX = Route index.

j^3 = Value definition associated with value type as indicated in variable 'i^3'.

k^3 = Context identifier. This field is associated with the AMA Recording for unbundled and resold feature. Valid value(s):

NATIVE = This is the default value if the SFID is inactive. This port is native to the switch.

UNBUNDLED = This port has been unbundled from the switch.

RESOLD = This port has been resold.

l^3 = LNP trigger number.

m^3 = The dialed digits are a number that may have been ported into, or out of the office. Valid value(s):

PORTED_IN =Y

PORTED_IN =N

n^3 = Automatic number identification (ANI) contains the calling party number or charge number. Used for LDP ANI processing. ANI is a required field for LDP LATA trunks.

o^3 = ANI digits. Valid value(s):

10 digit NPA-NXX-XXXX

3 digit NPA

NULL = The NULL value shall be valid only when DIG=950-XXXX for CALLTYPE=FGB or FGBPS calls.

p^3 = For a MF trunk this field represents the ANI information digits (II).

q^3 = Values associated with II (variable 'p^3'). Valid value(s):

00 = Identified line with no special treatment.

01 = Operator number identified (multiparty).

02 = ANI failure.

06 = Hotel without room identification.

07 = Coinless, hospital, or inmate call.

08 = Interlata restricted.

10 = Test call.

20 = Automatic input/output dialing (AIOD) listed directory number sent.

23 = Identified line (coin or noncoin).

24 = Translated 800 call.

27 = Coin line.

34 = Operator handled.

52 = Outbound wide area transport (OUTWATS) line.

68 = Interlata restricted hotel line.

78 = Interlata restricted coinless line.

93 = Virtual private network line.

NULL = NULL input, valid only when DIG=950-XXXX for CALLTYPE=FGB or FGBPS calls.

r^3 = Originating line information (OLI) for a CCS7 trunk.

s^3 = Values associated with OLI (variable 'r^3'). Valid value(s):

IDLINE = Identified line with no special treatment.

01 = Operator number identified (multiparty).

02 = ANI failure.

06 = Hotel without room identification.

07 = Coinless, hospital, or inmate call.

08	= Interlata restricted.
10	= Test call.
20	= Automatic input/output dialing (AIOD) listed directory number sent.
23	= Identified line (coin or noncoin).
24	= Translated 800 call.
27	= Coin line.
34	= Operator handled.
52	= Outbound wide area transport (OUTWATS) line.
68	= Interlata restricted hotel line.
78	= Interlata restricted coinless line.
93	= Virtual private network line.
NULL	= NULL input, valid only when DIG=950-XXXX for CALLTYPE=FGB or FGBPS calls.

t^3 = First table matched in LDP processing.

u^3 = Values associated with the table matched for LDP processing (variable 't^3'). Valid value(s):

LDP_ANI	= ANI table matched.
LDP_CAR	= LDP carrier matched.
DEFAULT_ANI	= Default ANI table matched.
DEFAULT_CIC	= Default LDP carrier matched.

v^3 = Calltype prefix of the dialed number. This also corresponds to the nature of number value for CCS7 signaling.

w^3 = Values associated with calltype (variable 'v^3'). Valid value(s):

1P	= World zone 1, non-operator.
0P	= World zone 1, zero plus.
011	= International, non-operator.
01P	= International 01 plus (dialed as 01+CC+NN).
01M	= International 01 minus.
DOM	= Domestic (United States).

FGB = FGB (950-xxxx) calls from transition EAEO/AT.

FGBPS = FGB (950-xxxx) calls from public station during and after the transition.

FGDCT = Feature group D cutthrough calls.

x^3 = Carrier identification code (CIC).

y^3 = Values associated with CIC (variable 'x^3'). Valid value(s):

3 digit(0-999) carrier ID

4 digit(0-9999) carrier ID

z^3 = Transit network selector (TNS).

a^4 = Circuit code for TNS (variable 'z^3'). Valid values are defined in the input message.

b^4 = Carrier code for TNS (variable 'z^3'). Valid values(s):

3 digit(0-999) carrier ID

4 digit(0-9999) carrier ID

c^4 = Country code (CC) for the called number.

d^4 = Values associated with CC (variable 'c^4').

e^4 = Keyword to indicate if the called party is presubscribed to the carrier associated with this call.

f^4 = Terminating network selection code (TNSC). This is relevant only for specified MINT trunks.

g^4 = Values associated with TNSC (variable 'f^4').

h^4 = Terminating network selection code sent out with the call.

i^4 = Values associated with egress TNSC (variable 'h^4').

j^4 = Keyword to indicate if the call has been routed using a satellite.

k^4 = Wide band (WB) data rate for CSD calls.

l^4 = Values associated with WB datarate (variable 'k^4'). Valid values(s):

384 = 384 kbps.

384_1536 = 384 or 1536 kbps.

1536 = 1536 kbps.

m^4 = WB data rate channel for CSD calls.

n^4 = Values associated with WB data rate channel (variable 'm^4').

o^4 = WB datarate alternate route index for a CSD call that leaves the office.

p^4 = Values associated with WB_ALT_RI number (variable 'o^4').

q^4 = ASP trigger type.

r^4 = Values associated with ASP trigger type (variable 'q^4'). Valid values(s):

DIALED_NUMBER_TRIGGER

OFF_HOOK_DELAY

s^4 = ASP trigger number.

t^4 = Values associated with ASP trigger number (variable 's^4').

u^4 = Tandem cutthrough CDI.

v^4 = Values associated with tandem cutthrough CDI (variable 'u^4').

w^4 = Tandem cutthrough RTI.

x^4 = Values associated with tandem cutthrough RTI (variable 'w^4").

NONPORTED = Presence of this key indicates that variable 'b' value is known to be non-ported.

4. ACTIONS TO BE TAKEN

In the cases where an explicit translations error is found, or if the call routes to an incorrect line or trunk, follow local provisioning procedures to correct the situation.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

VFY:OFC

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.

235-118-21x Recent Change Attribute Definitions
235-118-24x Recent Change Procedures
235-190-120 ISUP/TCAP Related Feature Description
235-600-113 Translations Data
235-600-500 Asserts Manual
781-610-300 Number Portability Roadmap

RC/V View(s):

5.1 (TRUNK GROUP)
9.1 (DAS)
9.2 (PDIT)
9.3 (LDIT)
9.5 (INCDIT)
9.7 [CARRIER DESTINATION (OFFICE DIALING)]
10.2 (ROUTE INDEX)
10.3 (INTERLATA CARRIER FEATURE)

VFY:PAUTH

Software Release: 5E10 and later
Message Class: AUTH
Application: 5,3B
Type: Output

1. FORMAT

```
VFY PAUTH
  IDENT         LAST LOGIN
  a             b
  .             .
  .             .
  .             .
```

2. REASON FOR OUTPUT

To report the result of a VFY:PAUTH input message.

If the requesting input message was VFY:PAUTH (no arguments), then the last login date and time for all person identities are listed.

If the requesting input message was VFY:PAUTH,IDENT="a", then the last login date and time for person identity '`a`' is listed.

If the requesting input message was VFY:PAUTH,DORMANT=a, then the last login date and time for all person identities with the following characteristics are listed:

Those that surpass '`a`' days since last logging in.

Those that surpass '`a`' days for a single login session. Those that have never logged in.

This output message is used in administering security of the maintenance interface. Refer to the Routine Operations and Maintenance manual for authority administration information.

3. VARIABLE FIELD DEFINITIONS

`a` = Person identity as defined by the ADD:PAUTH input message.

`b` = Date and time of last login, with format YY-MM-DDHH:MM.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`ADD:PAUTH`

```
CHG:PAUTH
DEL:PAUTH
VFY:PAUTH
```

Output Message(s):

```
REPT:LOGIN
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

VFY:PCGRP

Software Release: 5E10 and later
Message Class: AUTH
Application: 5,3B
Type: Output

1. FORMAT

```
VFY PCGRP
  IDENT        PROFILE      COMGR
  a             b           c
  .             .           .
  .             .           .
  .             .           .
```

2. REASON FOR OUTPUT

To report the result of entering a VFY:PCGRP input message. The person-command group (PCGRP) relation for the person identity (IDENT) is listed. The PCGRP for an IDENT consists of command groups (COMGRs) and/or profiles (PROFILEs) assigned to IDENT by the ADD:PCGRP input message.

This output message is used in administering security of the maintenance interface. Refer to the Routine Operations and Maintenance manual for authority administration information.

3. VARIABLE FIELD DEFINITIONS

`a` = Person identity as defined by the ADD:PAUTH input message.

`b` = A profile identity as defined by the ADD:PROFL and CHG:PROFL input messages and assigned to the person identity by the ADD:PCGRP input message.

`c` = Command group. Valid value(s):

`ADMIN`	= System administrator only activities.
`ALARM`	= Alarm manipulation.
`AM`	= Administrative module maintenance.
`AMA`	= Automatic message accounting.
`AUDIT`	= Audits.
`AUTH`	= Command and authority administration.
`CCS`	= Common channel signaling.
`CM`	= Communications module maintenance.
`FHADM`	= File handling and administration.
`MAINT`	= Routine maintenance activities.
`MEAS`	= Measurements.
`NMOC`	= Network management and overload control.
`ODD`	= Office dependent data activities.
`PASS`	= Personal password modification.
`RCV`	= Recent change and verify activities.
`SM`	= Switching module maintenance.
`SPECRCV`	= Special RC/V input messages.
`SFTMGT`	= Software management (update, software release retrofit).
`SFTUTIL`	= Software utilities.
`SUPERUSR`	= Super user authority (bypass terminal authority).
`SYSRCVY`	= System recovery activities.

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`TRACE` = Call trace.
`TRKLN` = Trunk and line maintenance.

Refer to the APP:COMMAND-GRP appendix in the Appendixes section of the Input Messages manual for more details.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ADD:PAUTH
ADD:PCGRP
ADD:PROFL
CHG:PROFL
DEL:PAUTH
DEL:PCGRP
DEL:PROFL
VFY:PCGRP
VFY:PROFL
```

Output Message(s):

```
VFY:PAUTH
VFY:PROFL
```

Input Appendix(es):

```
APP:COMMAND-GRP
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

VFY:PROFL

Software Release: 5E10 and later
Message Class: AUTH
Application: 5,3B
Type: Output

1. FORMAT

```
[1]    ____________________________________________________________________
       VFY PROFL

          PROFL

          a
          .
          .
          .

[2]    ____________________________________________________________________
       VFY PROFL

          PROFL                    COMGR

          a                        b
          .                        .
          .                        .
          .                        .
```

2. REASON FOR OUTPUT

To report the result of a VFY:PROFL input message.

Format 1 outputs the list of all command profile names in the profile authority database (PROFL). This is the result of the VFY:PROFL input message.

Format 2 outputs the command groups (COMGRs) belonging to a particular command profile as defined in the profile authority (PROFL) database.

This is the result of the VFY:PROFL:IDENT input message. This output message is used in administering security of the maintenance interface. Refer to the Routine Operations and Maintenance manual for authority administration information.

3. VARIABLE FIELD DEFINITIONS

`a` = Profile identity as defined previously by the ADD:PROFL input message.

`b` = Command group. Valid value(s):

`ADMIN`	= System administrator only activities.
`ALARM`	= Alarm manipulation.
`AM`	= Administrative module maintenance.
`AMA`	= Automatic message accounting.
`AUDIT`	= Audits.
`AUTH`	= Command and authority administration.
`CCS`	= Common channel signaling.

CM	= Communications module maintenance.
FHADM	= File handling and administration.
MAINT	= Routine maintenance activities.
MEAS	= Measurements.
NMOC	= Network management and overload control.
ODD	= Office dependent data activities.
PASS	= Personal password modification.
RCV	= Recent change and verify activities.
SM	= Switching module maintenance.
SPECRCV	= Special RCV commands.
SFTMGT	= Software management (update, software release retrofit).
SFTUTIL	= Software utilities.
SUPERUSR	= Super user authority (bypass terminal authority).
SYSRCVY	= System recovery activities.
TRACE	= Call trace.
TRKLN	= Trunk and line maintenance.

Refer to the APP:COMMAND-GRP appendix in the Appendixes section of the Input Messages manual for more details.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ADD:PROFL
CHG:PROFL
DEL:PROFL
VFY:PROFL
```

Output Message(s):

```
VFY:PROFL
```

Input Appendix(es):

```
APP:COMMAND-GRP
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

VFY:RDTA-A

Software Release: 5E10 - 5E11
Message Class: TM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      VFY RDTA {a|j|v} [x] [MODE=y] COMPLETED
        z  [x]  d1   j  [x]
       [z] [x] [d1] [j] [x]

[2]   ____________________________________________________________________
      VFY RDTA {a|j|v} [x] c1 FP=e1
```

2. REASON FOR OUTPUT

To report that a session verification request has been processed for a remote digital test access (RDTA) session.

Format 1 is used to display a successful session verification. This means that the port specified in the input request is active as the port under test (PUT) in an RDTA session and that the administrative module (AM) data agrees completely with this physical RDTA connection. The first port identifier (line 1 of Format 1) echos the PUT as given on the VFY:RDTA input request. The mode is provided as additional information to aid in representing the connection. The first port identifier of line two is the PUT as well, but is translated to print the equipment number with the exception of the PUT as a port on the protocol handler (PH). In this case, the PUT is identified by a digital subscriber line group and member (DSLGM) number. The second port identifier of line two is the test access port (connected to the output facility) which is monitoring or interacting with the PUT. This line two will always appear since there must be at least one connection for an RDTA session to exist. The first port identifier of line three is the secondary port (also identified by equipment number), which is indirectly involved in this session because it is (in the case of monitor) or was originally (in the case of duplex split) connected to the PUT. The second port identifier of line three then is the test access port (connected to the output facility) which is monitoring or interacting with this secondary PUT. This line will only appear for monitors and duplex splits where more than one output facility port is needed.

Format 2 is used to represent a session verification failure. If there is a discrepancy between the physical RDTA connection and the AM RDTA session data an audit will be scheduled. An STP:RDTA output message will follow to notify the user of session termination. The PUT as given on the input request is echoed along with a failure reason and a failure point number to identify the point in software where failure occurred.

3. VARIABLE FIELD DEFINITIONS

NOTE: Refer to the Acronym section in the Output Messages manual for the full expansion of acronyms shown in the format.

`+` = Assigned to a multipoint interface.

`a` = PUT identification as seen on the input request. Valid value(s):

```
BST=b-c
MLHG=d-e
OAPO=b
OPT=b-c
RTRS=f-g
```

```
TKGMN=h-i
```

b = Operator service center number.

c = Relative position number.

d = Multi-line hunt group number.

e = Multi-line hunt group member number.

f = Data link relative group number.

g = Data link relative member number.

h = Trunk group number.

i = Trunk group member number.

j = Equipment number. Valid value(s):

```
DEN=k-l-m-n
ILEN=k-o-p-q
LCEN=k-s-t-u
LCKEN=k-s-m1-f1-g1
NEN=k-h1-i1-j1-k1-l1
```

k = Switching module (SM) number.

l = Digital line and trunk unit (DLTU) number.

m = Digital facility interface number.

n = Digital channel.

o = Integrated digital carrier unit number.

p = Remote terminal number.

q = Channel unit number.

s = Integrated services line unit number.

t = Line group controller number.

u = Line card number.

v = Directory number. Valid value(s):

```
DN=v[+]
PKTDN=v[+]
```

x = Channel type (for basic rate interface BRI). Valid value(s):

B1 = B1-Channel.
B2 = B2-Channel.

D = D-Channel (default).

y = Connection mode of the RDTA session. Valid value(s):

DTAC = Direct test access connection (DTAC). This is an interactive connection on a port which does not have a path set up on it. The port under test (PUT) is seized and directly connected to a outgoing port terminating at the protocol analysis equipment.

MON = Monitor. This is a receive-only connection on a busy circuit. A copy of the transmit and receive data being passed over the PUT is transmitted to two individual outgoing ports that terminate at the protocol analysis equipment.

SPLIT = Duplex split. This is an interactive connection on a busy circuit. The existing path on the PUT is broken and each half is connected to an outgoing port terminated at the protocol analysis equipment. This allows interactive testing of both sides of the original path.

SPLITPH = Simplex split PH side. This is an interactive connection up on an integrated services digital network (ISDN) channel nailed-up to a PH. The existing path on the ISDN channel is torn down and the PH associated with the channel being tested is directly connected to an outgoing port terminating to the protocol analysis equipment.

SPLITPUT = Simplex split PUT side. This is an interactive connection on a busy circuit. The existing path on the PUT is broken and the PUT is directly connected to an outgoing port terminating to the protocol analysis equipment.

z = Equipment number or PH identifier of PUT. Valid value(s):

DSLGM=k-a^1-b^1
DEN=k-l-m-n
LCEN=k-s-t-u
LCKEN=k-s-t-f^1-g^1
NEN=k-h^1-i^1-j^1-k^1-l^1

a^1 = PH channel group number.

b^1 = PH channel member number.

c^1 = Response to VFY:RDTA input message. Valid value(s):

AM DATA BUT NO SM CONNECTION = There is no physical RDTA connection in the SM of the PUT but there is data in the AM describing an SM connection for the session described on the input request. An audit is being scheduled to clean up this AM data. An STP:RDTA message will follow describing this condition and that the session has been terminated.

CMP UNAVAILABLE =The communications module (CM) containing the PUT, which is needed verify the requested RDTA session, is isolated.

COMPLETED = The VFY:RDTA input message was accepted and a successful verification of an RDTA session has been completed. This is to say that the physical RDTA connection in the SM agrees with the AM data describing the connection.

CORRUPTED DYNAMIC DATA = Dynamic data has been corrupted. Look at receive-only printer (ROP) for a related assert to give assistance toward correcting the office-dependent data (ODD) problem. Audits will correct any RDTA session/data inconsistency.

CORRUPTED STATIC DATA = Static data has been corrupted. Look at ROP for a related assert to

give assistance toward correcting the ODD problem. Audits will correct any RDTA session/data inconsistency.

`INVALID PUT` = The port could not be located in the data base. The port identifier used in the input message was found to be invalid or incorrect.

`NON-UNIQUE NXX DN` = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.

`PROCESS TIMEOUT-` = An RDTA AM or SM process timed-out after waiting for an SM process to respond. This condition has occurred because of an SM overload condition, an SM isolation, or an internal software error.

`SESSION NOT ACTIVE` = The requested RDTA session is not active. The AM and the SM of the PUT are in agreement with this.

`SM CONNECTION BUT NO AM DATA` = A physical RDTA connection has been found in the SM of the PUT but there is no data describing the SM connection within the AM. An audit is being scheduled to remove this physical RDTA connection in the SM. An STP:RDTA message will follow describing this condition and that the session has been terminated.

`SM UNAVAILABLE` = The SM containing the PUT, which is needed verify the requested RDTA session, is isolated.

`SYSTEM BUSY` = System resources are not available to verify the requested connection. The AM or SM may be in an overload condition.

`SYSTEM ERROR` = Internal system error occurred while attempting to verify the requested RDTA session.

`d`[1] = This is a phrase that describes the relationship of the PUT or secondary PUT to its output facility. Valid value(s):

`IS TRANSMITTING DATA TO` = For a monitor.

`IS INTERACTING WITH` = For splits or a direct test access connection.

`e`[1] = This is a fail point number used to relay the specific point in the software at which a failure occurred. This is used purely for debugging purposes.

`f`[1] = Line board number.

`g`[1] = Line circuit number.

`h`[1] = Digital network unit - synchronous optical network (SONET) (DNU-S) number.

`i`[1] = Data group (DG) number.

`j`[1] = Synchronous transport signal (STS) number.

`k`[1] = Virtual tributary (VT1.5) number.

`l`[1] = Digital signal level 0 (DS0) number.

`m`[1] = Line group number.

4. ACTION TO BE TAKEN

If this message fails to print due to an internal software/hardware error, save the printer output and refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual further investigation.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:RDTA
OP:RDTA
UPD:RDTA
STP:RDTA
VFY:RDTA
```

Output Message(s):

```
EXC:RDTA
OP:RDTA
STP:RDTA
UPD:RDTA
```

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*
235-190-105 *ISDN Feature Descriptions*
235-190-115 *Local and Toll System Features*
235-190-120 *Common Channel Signaling Services Features*
235-135-220 *Corrective Maintenance*

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VFY:RDTA-B

Software Release: 5E12 and later
Message Class: TM
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      VFY RDTA {a|j|v} [x] [MODE=y] COMPLETED
        z  [x]  d1   j  [x]
       [z] [x] [d1] [j] [x]

[2]   ____________________________________________________________________
      VFY RDTA {a|j|v} [x] c1 FP=e1
```

2. REASON FOR OUTPUT

To report that a session verification request has been processed for a remote digital test access (RDTA) session.

Format 1 is used to display a successful session verification. This means that the port specified in the input request is active as the port under test (PUT) in an RDTA session and that the administrative module (AM) data agrees completely with this physical RDTA connection. The first port identifier (line 1 of Format 1) echos the PUT as given on the VFY:RDTA input request. The mode is provided as additional information to aid in representing the connection. The first port identifier of line two is the PUT as well, but is translated to print the equipment number with the exception of the PUT as a port on the protocol handler (PH). In this case, the PUT is identified by a digital subscriber line group and member (DSLGM) number. The second port identifier of line two is the test access port (connected to the output facility) which is monitoring or interacting with the PUT. This line two will always appear since there must be at least one connection for an RDTA session to exist. The first port identifier of line three is the secondary port (also identified by equipment number), which is indirectly involved in this session because it is (in the case of monitor) or was originally (in the case of duplex split) connected to the PUT. The second port identifier of line three then is the test access port (connected to the output facility) which is monitoring or interacting with this secondary PUT. This line will only appear for monitors and duplex splits where more than one output facility port is needed. Format 2 is used to represent a session verification failure. If there is a discrepancy between the physical RDTA connection and the AM RDTA session data an audit will be scheduled. An STP:RDTA output message will follow to notify the user of session termination. The PUT as given on the input request is echoed along with a failure reason and a failure point number to identify the point in software where failure occurred.

3. VARIABLE FIELD DEFINITIONS

Note: Refer to the Acronym section in the Output Messages manual for the full expansion of acronyms shown in the format.

`+` = Assigned to a multipoint interface.

`a` = PUT identification as seen on the input request. Valid value(s):

```
BST=b-c
 MLHG=d-e
 OAPO=b
 OPT=b-c
 RTRS=f-g
 TKGMN=h-i
```

b = Operator service center number.

c = Relative position number.

d = Multi-line hunt group number.

e = Multi-line hunt group member number.

f = Data link relative group number.

g = Data link relative member number.

h = Trunk group number.

i = Trunk group member number.

j = Equipment number. Valid value(s):

```
AIUEN=k-s-f1-g1
 DEN=k-l-m-n
 ILEN=k-o-p-q
 LCEN=k-s-t-u
 LCKEN=k-s-o1-f1-g1
 NEN=k-h1-i1-j1-k1-l1-m1-n1
 INEN=k-h1-p-q
```

k = Switching module (SM) number.

l = Digital line and trunk unit (DLTU) number.

m = Digital facility interface number.

n = Digital channel.

o = Integrated digital carrier unit number.

p = Remote terminal number.

q = Channel unit number.

s = Integrated services line unit (ISLU) or access interface unit (AIU) number.

t = Line group controller number.

u = Line card number.

v = Directory number. Valid value(s):

```
DN=v[+]
 PKTDN=v[+]
```

x = Channel type (for basic rate interface (BRI)). Valid value(s):

- B1 = B1-Channel.
- B2 = B2-Channel.
- D = D-Channel (default).

y = Connection mode of the RDTA session. Valid value(s):

- DTAC = Direct test access connection (DTAC). This is an interactive connection on a port which does not have a path set up on it. The PUT is seized and directly connected to a outgoing port terminating at the protocol analysis equipment.
- MON = Monitor. This is a receive-only connection on a busy circuit. A copy of the transmit and receive data being passed over the PUT is transmitted to two individual outgoing ports that terminate at the protocol analysis equipment.
- SPLIT = Duplex split. This is an interactive connection on a busy circuit. The existing path on the PUT is broken and each half is connected to an outgoing port terminated at the protocol analysis equipment. This allows interactive testing of both sides of the original path.
- SPLITPH = Simplex split PH side. This is an interactive connection up on an integrated services digital network (ISDN) channel nailed-up to a PH. The existing path on the ISDN channel is torn down and the PH associated with the channel being tested is directly connected to an outgoing port terminating to the protocol analysis equipment.
- SPLITPUT = Simplex split PUT side. This is an interactive connection on a busy circuit. The existing path on the PUT is broken and the PUT is directly connected to an outgoing port terminating to the protocol analysis equipment.

z = Equipment number or PH identifier of PUT. Valid value(s):

```
AIUEN=k-s-f1-g1
 DSLGM=k-a1-b1
 DEN=k-l-m-n
 LCEN=k-s-t-u
 LCKEN=k-s-t-f1-g1
 NEN=k-h1-i1-j1-k1-l1-m1-n1
 INEN=k-h1-p-q
```

a^1 = PH channel group number.

b^1 = PH channel member number.

c^1 = Response to VFY:RDTA input message. Valid value(s):

- AM DATA BUT NO SM CONNECTION = There is no physical RDTA connection in the SM of the PUT but there is data in the AM describing an SM connection for the session described on the input request. An audit is being scheduled to clean up this AM data. An STP:RDTA message will follow describing this condition and that the session has been terminated.
- CMP UNAVAILABLE = The communications module (CM) containing the PUT, which is needed verify the requested RDTA session, is isolated.
- COMPLETED = The VFY:RDTA input message was accepted and a successful verification of an RDTA session has been completed. This is to say that the physical RDTA connection in the SM agrees with the AM data describing the connection.
- CORRUPTED DYNAMIC DATA = Dynamic data has been corrupted. Look at receive-only printer (ROP) for a related assert to give assistance toward correcting the office-dependent data (ODD) problem. Audits will correct any RDTA session/data inconsistency.
- CORRUPTED STATIC DATA = Static data has been corrupted. Look at ROP for a related assert to give assistance toward correcting the ODD problem. Audits will correct any RDTA

session/data inconsistency.

`INVALID PUT` = The port could not be located in the data base. The port identifier used in the input message was found to be invalid or incorrect.

`NON-UNIQUE NXX DN` = A non-unique NXX DN was entered. The NXX is in multiple NPAs. Reenter DN with NPA.

`PROCESS TIMEOUT-` = An RDTA AM or SM process timed-out after waiting for an SM process to respond. This condition has occurred because of an SM overload condition, an SM isolation, or an internal software error.

`SESSION NOT ACTIVE` = The requested RDTA session is not active. The AM and the SM of the PUT are in agreement with this.

`SM CONNECTION BUT NO AM DATA` = A physical RDTA connection has been found in the SM of the PUT but there is no data describing the SM connection within the AM. An audit is being scheduled to remove this physical RDTA connection in the SM. An STP:RDTA message will follow describing this condition and that the session has been terminated.

`SM UNAVAILABLE` = The SM containing the PUT, which is needed verify the requested RDTA session, is isolated.

`SYSTEM BUSY` = System resources are not available to verify the requested connection. The AM or SM may be in an overload condition.

`SYSTEM ERROR` = Internal system error occurred while attempting to verify the requested RDTA session.

`d`[1] = This is a phrase that describes the relationship of the PUT or secondary PUT to its output facility. Valid value(s):

`IS TRANSMITTING DATA TO` = For a monitor.

`IS INTERACTING WITH` = For splits or a direct test access connection.

`e`[1] = This is a fail point number used to relay the specific point in the software at which a failure occurred. This is used purely for debugging purposes.

`f`[1] = Line board number.

`g`[1] = Line circuit number.

`h`[1] = Digital networking unit - synchronous optical network (SONET) (DNU-S) number.

`i`[1] = Data group (DG) number.

`j`[1] = SONET termination equipment (STE) facility number.

`k`[1] = Synchronous transport signal (STS) facility number.

`l`[1] = Virtual tributary group (VTG) number.

`m`[1] = Virtual tributary member (VTM) number.

`n`[1] = Digital signal level 0 (DS0) number.

`o`[1] = Line group number.

4. ACTIONS TO BE TAKEN

If this message fails to print due to an internal software/hardware error, save the printer output and refer to TECHNICAL ASSISTANCE [REF. .RM 1.1.6/]. further investigation.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
EXC:RDTA
OP:RDTA
UPD:RDTA
STP:RDTA
VFY:RDTA
```

Output Message(s):

```
EXC:RDTA
OP:RDTA
STP:RDTA
UPD:RDTA
```

Other Manual(s):

235-105-210 *Routine Operations and Maintenance*
235-190-105 *ISDN Feature Descriptions*
235-190-115 *Local and Toll System Features*
235-190-120 *Common Channel Signaling Services Features*
235-135-220 *Corrective Maintenance*

VFY:RTBM-A

Software Release: 5E10 - 5E11
Message Class: OFR_MON
Application: 5
Type: Output

1. FORMAT

```
VFY RTBM a b REAL TIME BILLING MEMORY SIZE:H'c, IN USE:H'd  (e PERCENT)
```

2. REASON FOR OUTPUT

To verify the size of Real Time Billing Memory (RTBM) and the amount of RTBM currently in use. This message is in response to the VFY:RTBM input message. To verify the size of Real Time Billing Memory (RTBM) and the amount of RTBM currently in use. This message is in response to the VFY:RTBM input message.

3. VARIABLE FIELD DEFINITIONS

a = Switching module type. Valid value(s):
- HSM = Host switching module.
- LSM = Local switching module.
- ORM = Optical remote switching module.
- RSM = Remote switching module.
- TRM = Two-mile optical remote switching module.

b = Switching module number.

c = Number of bytes (in hexadecimal) configured for RTBM usage. If the memory is not configured, the size will be zero.

d = Amount of RTBM (in hexadecimal) currently in use.

e = Percent of memory in use.

a = Switching module type. Valid value(s):
- HSM = Host switching module.
- LSM = Local switching module.
- ORM = Optical remote switching module.
- RSM = Remote switching module.
- TRM = Two-mile optical remote switching module.

b = Switching module number.
c = Number of bytes (in hexadecimal) configured for RTBM usage. If the memory is not configured, the size will be zero.
d = Amount of RTBM (in hexadecimal) currently in use.
e = Percent of memory in use.

4. ACTION TO BE TAKEN

None. None.

5. ALARMS

None. None.

6. REFERENCES

Input Message(s):

```
CFR:RTBM
VFY:RTBM
```

Output Message(s):

```
CFR:RTBM
```

Other Manual(s):
235-190-100 *Feature Descriptions*
235-190-104 *ISDN Feature Descriptions*

Input Message(s):

```
CFR:RTBM
VFY:RTBM
```

Output Message(s):

```
CFR:RTBM
```

Other Manual(s):
235-190-100 *Feature Descriptions*
235-190-104 *ISDN Feature Descriptions*

VFY:RTBM-B

Software Release: 5E12 only
Message Class: OFR_MON
Application: 5
Type: Output

1. FORMAT

```
VFY RTBM a b REAL TIME BILLING MEMORY SIZE:c, IN USE:d  (e PERCENT)
```

2. REASON FOR OUTPUT

To verify the size of Real Time Billing Memory (RTBM) and the amount of RTBM currently in use. This message is in response to the VFY:RTBM input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module type. Valid value(s):

`HSM`	= Host switching module.
`LSM`	= Local switching module.
`ORM`	= Optical remote switching module.
`RSM`	= Remote switching module.
`TRM`	= Two-mile optical remote switching module.

`b` = Switching module number.

`c` = Number of bytes (in kilobytes) configured for RTBM usage. If the memory is not configured, the size will be zero.

`d` = Amount of RTBM (in kilobytes) currently in use.

`e` = Percent of memory in use.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CFR:RTBM
VFY:RTBM
```

Output Message(s):

```
CFR:RTBM
```

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Other Manual(s):
235-200-110 *Long Distance Platform*
235-190-104 *ISDN Feature Descriptions*

VFY:RTBM-C

Software Release: 5E13 only
Message Class: OFR_MON
Application: 5
Type: Output

1. FORMAT

```
VFY RTBM a b REAL TIME BILLING MEMORY SIZE:c, IN USE:d  (e PERCENT)
```

2. REASON FOR OUTPUT

To verify the size of Real Time Billing Memory (RTBM) and the amount of RTBM currently in use. This message is in response to the VFY:RTBM input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module type. Valid value(s):

`HSM`	= Host switching module.
`LSM`	= Local switching module.
`ORM`	= Optical remote switching module.
`RSM`	= Remote switching module.
`TRM`	= Two-mile optical remote switching module.

`b` = Switching module number.

`c` = Number of bytes (in kilobytes) configured for RTBM usage. If the memory is not configured, the size will be zero.

`d` = Amount of RTBM (in kilobytes) currently in use.

`e` = Percent of memory in use.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CFR:RTBM
VFY:RTBM
```

Output Message(s):

```
CFR:RTBM
```

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Other Manual(s):
235-200-110 *Long Distance Platform*
235-190-104 *ISDN Feature Descriptions*

VFY:RTBM-D

Software Release: 5E14 and later
Message Class: OFR_MON
Application: 5
Type: Output

1. FORMAT

```
VFY RTBM a b REAL TIME BILLING MEMORY SIZE:c, IN USE:d  (e PERCENT)
```

2. REASON FOR OUTPUT

To verify the size of Real Time Billing Memory (RTBM) and the amount of RTBM currently in use. This message is in response to the VFY:RTBM input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module type. Valid value(s):

`HSM`	= Host switching module.
`LSM`	= Local switching module.
`ORM`	= Optical remote switching module.
`RSM`	= Remote switching module.
`TRM`	= Two-mile optical remote switching module.

`b` = Switching module number.

`c` = Number of bytes (in kilobytes) configured for RTBM usage. If the memory is not configured, the size will be zero.

`d` = Amount of RTBM (in kilobytes) currently in use.

`e` = Percent of memory in use.

4. ACTIONS TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CFR:RTBM
VFY:RTBM
```

Output Message(s):

```
CFR:RTBM
```

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Other Manual(s):
235-200-110 *Long Distance Platform*
235-190-104 *ISDN Feature Descriptions*

VFY:SAMEM-A

Software Release: 5E10 - 5E11
Message Class: OFR_MON
Application: 5
Type: Output

1. FORMAT

```
VFY SAMEM a b STANDALONE MEMORY SIZE:H'c, IN USE:H'd  (e PERCENT)
```

2. REASON FOR OUTPUT

To verify the size of Stand Alone Billing Memory (SABM) and the amount of SABM currently in use. This message is in response to the VFY:SAMEM input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module type. Valid value(s):

`HSM`	= Host switching module.
`LSM`	= Local switching module.
`ORM`	= Optical remote switching module.
`RSM`	= Remote switching module.
`TRM`	= Two-mile optical remote switching module.

`b` = Switching module number.

`c` = Number of bytes (in hexadecimal) configured for SABM usage. If the memory is not configured, the size will be zero.

`d` = Amount of SABM (in hexadecimal) currently in use.

`e` = Percent of SABM in use.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CFR:SAMEM
VFY:SAMEM
```

Output Message(s):

```
CFR:SAMEM
```

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Other Manual(s):
235-190-100 *Feature Descriptions*
235-190-104 *Product Specification*

VFY:SAMEM-B

Software Release: 5E12 and later
Message Class: OFR_MON
Application: 5
Type: Output

1. FORMAT

```
VFY SAMEM a b STANDALONE MEMORY SIZE:H'c, IN USE:H'd  (e PERCENT)
```

2. REASON FOR OUTPUT

To verify the size of Stand Alone Billing Memory (SABM) and the amount of SABM currently in use. This message is in response to the VFY:SAMEM input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module type. Valid value(s):

`HSM`	= Host switching module.
`LSM`	= Local switching module.
`ORM`	= Optical remote switching module.
`RSM`	= Remote switching module.
`TRM`	= Two-mile optical remote switching module.

`b` = Switching module number.

`c` = Number of bytes (in hexadecimal) configured for SABM usage. If the memory is not configured, the size will be zero.

`d` = Amount of SABM (in hexadecimal) currently in use.

`e` = Percent of SABM in use.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CFR:SAMEM
VFY:SAMEM
```

Output Message(s):

```
CFR:SAMEM
```

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Other Manual(s):
235-190-100 *Feature Descriptions*
235-190-104 *Product Specification*

VFY:TAPE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      VFY TAPE STARTED

[2]   ____________________________________________________________________
      VFY TAPE ABORTED
        OPEN ERROR

[3]   ____________________________________________________________________
      VFY TAPE STOPPED {UNABLE TO READ HEADER a  |
        DATA READ ERROR - BLOCK TOO LARGE - HEADER a  |
        DATA READ ERROR - HEADER a, RECORD b  |
        EOF ON INPUT - HEADER a, RECORD b |
        UNABLE TO POSITION TAPE AT BEGINNING OF SESSION g |
        UNABLE TO POSITION TAPE AT BEGINNING OF SESSION g VOLUME h |
        DATA READ ERROR - HEADER a, RECORD b IN SESSION g VOLUME h |
        EOF ON INPUT - HEADER a, RECORD b IN SESSION g VOLUME h |
        UNEXPECTED END OF DATA - HEADER a}

[4]   ____________________________________________________________________
      VFY TAPE STOPPED
        {LSEEK FAILED |
        CLOSE ERROR |
        CANNOT POSITION TAPE AT BEGINNING OF TAPE |
        CANNOT SPECIFY MULTI-VOLUME OPTIONS WITH A SINGLE VOLUME TAPE |
        ECD ACCESS FAILED - CANNOT DETERMINE TAPE DRIVE TYPE |
        UNLINK OF TEMPORARY NOREWIND TAPE SPECIAL DEVICE FILE FAILED |
        UNABLE TO CREATE TEMPORARY NOREWIND TAPE SPECIAL DEVICE FILE |
        MULTI-VOLUME TAPES ARE ONLY SUPPORTED ON THE 3B21D |
        UNABLE TO READ HEADER a IN SESSION g VOLUME h |
        DATA READ ERROR - BLOCK TOO LARGE - HEADER a IN SESSION g VOLUME h |
        UNEXPECTED END OF DATA - HEADER a IN SESSION g VOLUME h}

[5]   ____________________________________________________________________
      VFY TAPE IN PROGRESS {HEADER HASH SUM MATCH - HEADER a  |
        HEADER HASH SUM MISMATCH - HEADER a  |
        DATA HASH SUM MISMATCH - HEADER a  |
        c RETRIES NEEDED TO READ HEADER a  |
        c RETRIES NEEDED TO READ DATA a, RECORD b |
        MORE THAN TWO TOP VOLUMES ON TAPE |
        SESSION g VOLUME h COMPLETED |
        SESSION g VOLUME h OUT OF SEQUENCE}

[6]   ____________________________________________________________________
      VFY TAPE IN PROGRESS
        {HEADER HASH SUM MATCH - HEADER a IN SESSION g VOLUME h |
        HEADER HASH SUM MISMATCH - HEADER a IN SESSION g VOLUME h  |
```

```
        DATA HASH SUM MISMATCH - HEADER a IN SESSION g VOLUME h  |
        c RETRIES NEEDED TO READ HEADER a IN SESSION g VOLUME h  |
        c RETRIES NEEDED TO READ DATA a, RECORD b IN SESSION g VOLUME h}

[7]   ____________________________________________________________
      VFY TAPE COMPLETED RETRIES = d, HEADER MISMATCHES = e,
        DATA MISMATCHES = f
```

2. REASON FOR OUTPUT

To output information concerning the condition of a system tape which is being verified in response to the VFY:TAPE input message.

3. VARIABLE FIELD DEFINITIONS

`a` = Number of header (a count that identifies the header within a logical volume).

`b` = Number of data record following a given header.

`c` = Number of retries needed to read successfully (0-9).

`d` = Total number of retries needed in reading system tape.

`e` = Total number of header hash sum mismatches found on tape.

`f` = Total number of data hash sum mismatches found on tape.

`g` = Number of backup session on tape (1-9).

`h` = Number of logical volume within a backup session (0-9).

4. ACTION TO BE TAKEN

A `STOPPED` output message indicates probable physical damage to the tape or an improper end of tape marker. `HASH SUM MISMATCH` output messages indicate an inconsistency between the data being read and that which was originally written. A `RETRIES NEEDED` output message implies difficulty with reading a certain spot on the tape. An `LSEEK FAILED` output message indicates difficulty when trying to find the offset to re-read the tape when initial read has failed. All of these messages imply that the spot on the tape being read when the message occurred may be unusable.

For Format 6, a `COMPLETED` message with zero retries, zero header mismatches, and zero data mismatches indicates a completely verified tape.

5. ALARMS

None.

Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1, 2	181

3	182, 183, 752, 755
4	181, 745
5	182, 320, 321, 753
6	181, 754, 756, 757
7	184

Input Message(s):

```
VFY:TAPE
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

VFY:TAUTH

Software Release: 5E10 and later
Message Class: AUTH
Application: 5,3B
Type: Output

1. FORMAT

```
VFY TAUTH
  TERM
  a
  .
  .
  .
```

2. REASON FOR OUTPUT

To verify the requested terminal (TERM) identities in the terminal authority (TAUTH) database resulting from the VFY:TAUTH input message.

This output message is used in administering security of the maintenance interface. Refer to the Routine Operations and Maintenance manual for authority administration information.

3. VARIABLE FIELD DEFINITIONS

`a` = Terminal identity in four characters, starting with "tty".

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ADD:TAUTH
DEL:TAUTH
VFY:TAUTH
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

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VFY:TCGRP

Software Release: 5E10 and later
Message Class: AUTH
Application: 5,3B
Type: Output

1. FORMAT

```
VFY TCGRP
  TERM        PROFILE     COMGR
  a           b           c
              .           .
              .           .
              .           .
```

2. REASON FOR OUTPUT

To report the result of the VFY:TCGRP input message. The terminal-command group (TCGRP) relation for the terminal identity (TERM) is listed. The TCGRP for a TERm consists of command groups (COMGRs) and/or profiles (PROFILEs) assigned to TERM by the ADD:TCGRP input message.

This output message is used in administering security of the maintenance interface. Refer to the Routine Operations and Maintenance manual for authority administration information.

3. VARIABLE FIELD DEFINITIONS

`a` = Terminal identity in four characters as defined by the ADD:TAUTH input message.

`b` = A profile identity as defined by the ADD:PROFL and CHG:PROFL input messages and assigned to the terminal identity by the ADD:TCGRP input message.

`c` = Command group. Valid value(s):

`ADMIN`	= System administrator only activities.
`ALARM`	= Alarm manipulation.
`AM`	= Administrative module maintenance.
`AMA`	= Automatic message accounting.
`AUDIT`	= Audits.
`AUTH`	= Command and authority administration.
`CCS`	= Common channel signaling.
`CM`	= Communications module maintenance.
`FHADM`	= File handling and administration.
`MAINT`	= Routine maintenance activities.
`MEAS`	= Measurements.
`NMOC`	= Network management and overload control.
`ODD`	= Office dependent data activities.
`PASS`	= Personal password modification.
`RCV`	= Recent change and verify (RC/V) activities.
`SM`	= Switching module maintenance.
`SPECRCV`	= Special RCV commands.
`SFTMGT`	= Software management (update, software release retrofit).
`SFTUTIL`	= Software utilities.
`SUPERUSR`	= Super user authority (bypass terminal authority).
`SYSRCVY`	= System recovery activities.

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`TRACE`	= Call trace.
`TRKLN`	= Trunk and line maintenance.

Refer to the APP:COMMAND-GRP appendix in the Appendixes section of the Input Messages manual for more details.

4. ACTION TO BE TAKEN

None.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ADD:PROFL
ADD:TAUTH
ADD:TCGRP
CHG:PROFL
DEL:PROFl
DEL:TAUTH
DEL:TCGRP
VFY:PROFL
VFY:TCGRP
```

Output Message(s):

```
VFY:PROFL
VFY:TAUTH
```

Input Appendix(es):

```
APP:COMMAND-GRP
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*

VFY:UPDT-MSGS

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
VFY UPDT MSGS
  a
```

2. REASON FOR OUTPUT

To provide the input messages needed to install the software updates being verified. To obtain this report, the MSGS option must be included in the VFY:UPDT input message. If the software update is not correct, the VFY UPDT REPT message will be printed.

3. VARIABLE FIELD DEFINITIONS

a	= Commands to install updates. A maximum of 80 characters per line. These input messages must be entered exactly as is allowed. They are provided in this message.

4. ACTION TO BE TAKEN

If the message is missing, check the input message format and run the verification again. If there is a second failure, request the retransmission of the software update.

5. ALARMS

None.

6. REFERENCES

IM/OM References:

None.

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111. VFYTXT

VFYTXT:POKE

Software Release: 5E10 and later
Message Class: MTCE
Application: 5
Type: Output

1. FORMAT

```
VFYTXT POKE 193: a
```

2. REASON FOR OUTPUT

To report progress of a request for verification of tape or disk backups. These messages are printed only in response to the input message poke 193 from a display terminal.

3. VARIABLE FIELD DEFINITIONS

`a` = A phrase reporting the progress or an error condition. It is usually self explanatory.

In the phrases below, "x" is a numeric expression and "<>" denotes a variable string with a brief explanation inside the brackets.
Manual Action Required.

- `MHD x MUST BE ACTIVE FOR THIS PROCEDURE` = Restore moving head disk (MHD) x (RST:MHD=x).
- `MHD x WAS NOT REMOVED SUCCESSFULLY!` = Remove MHD x (RMV:MHD=x).
- `MHD x IS NOT ACCESSIBLE AT THIS TIME` = Select another MHD.
- `ODD BACKUP IN PROGRESS. VFYTXT ABORTING` = Retry when office-dependent data (ODD) backup is complete.
- `ODD MEMORY GROWTH IN PROGRESS. VFYTXT ABORTING` = Retry when memory growth process is complete.
- `UNINTERPRETABLE ODIN TPREAD RETURN!` = Retry entering last input.
- `USAGE OF VFYTXT NOT ALLOWED FROM THE MCC` = As vfytxt blocks other usages of the terminal. It must not be run from the Master Control Center (MCC). Use some other terminal.
- `VFYTXT TIMED OUT WAITING FOR LAST CMD TO COMPLETE - CMD FOLLOWS`
  = The vfytxt process was waiting for a message to complete, but did not receive the completion message within a specified time. This could be caused by the message taking longer than usual time in completing the task. Retry poke 193 input message later. If the same problem persists, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

Seek Technical Assistance. The following messages may indicate serious system problems. If the following messages appear, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

- `AN UNRECOGNIZED CMPR:DISK TO CORE COMMAND WAS ENCOUNTERED! VFYTXT ABORTING!`
  = An input message for audit or for compare disk to core was issued by vfytxt, but it was not recognized by the system for some reason.

- `CAN NOT CREATE LINKFILE.  VFYTXT ABORTING!` = Vfytxt cannot create linkfile (/tmp/.vfytxtLINK), which is used as a flag.
- `CAN NOT CREATE LOCKFILE.  VFYTXT ABORTING!` = Vfytxt cannot create lockfile (/tmp/.vfytxtLOCK), which is used as a flag. Linkfile and lockfile are linked together (same file with different names).
- `CAN NOT FOPEN LOCKFILE FOR APPENDING!  VFYTXT ABORTING!!` = Vfytxt cannot open lockfile for append mode.
- `CAN NOT FOPEN LOCKFILE FOR WRITING!  VFYTXT ABORTING!!` = Vfytxt cannot open lockfile for write mode.
- `CAN'T BYTE SEEK IN CURRENT MTCLOG!` = Access to maintenance log failed. Maintenance log (named MTCLOG0 or MTCLOG1) is located in /etc/log or /log/log.
- `CAN'T BYTE SEEK IN MTCLOG0!`
- `CAN'T BYTE SEEK IN MTCLOG1!`
- `CAN'T CHANGE DIRECTORY TO /cft/shl`
- `CAN'T CREATE TMP FILE FOR SCREEN DUMP!` = Vfytxt cannot create a temporary file in /tmp.
- `CAN'T STAT CURRENT MTCLOG!` = Stat() of the current maintenance log failed.
- `COULD NOT EXEC LAST CMD FROM UAexec_row()!` = Vfytxt failed to execute the last message (refer to the last message on screen).
- `LAST COMMAND ATTEMPTED WAS:` = Vfytxt detected a problem while executing where 'x' is the specific input message.
- `COULD NOT KILL CURRENT COPY:BKDISK RELIABLY!` = Vfytxt attempted to kill currently running COPY:BKDISK, but is unsure of the result due to unclear return code.
- `CURRENT MTCLOG SIZE LESS THAN ZERO BYTES!` = There is something wrong with the maintenance log.
- `POSSIBLY SERIOUS CMPR:DISK:CORE OR VFY FILE INCONSISTENCIES!` = There were inconsistencies in the results of audit and compare disk.
- `PREVIOUS COPY:BKDISK MAY STILL BE RUNNING` = Vfytxt was unable to identify the process identity of the currently running COPY:BKDISK.
- `UAgreplog() ABORTED DUE TO ILLEGAL GREP TYPE!` = Internal program error - vfytxt is looking for a message type that is not in the program.
- `UNRECOVERABLE LOGIC ERROR IN UAsetlog()` = Possible internal program error.
- `VFYTXT INTERNAL ERROR EXPRESSION -><- RETURNED ERROR: x` = Possible internal program error.
- `WRITE AT END OF LOCKFILE FAILED!  VFYTXT ABORTING!!` = Vfytxt cannot write to lockfile (/tmp/.vfytxtLOCK), which is used as a flag.
- `WRITE AT START OF LOCKFILE FAILED!  VFYTXT ABORTING!!` = Vfytxt cannot write to lockfile (/tmp/.vfytxtLOCK), which is used as a flag.

For Information Only.

- `ABORTED` = Before this message appears, a message explaining the cause will appear. Look for that message and check the list above.
- `ALLOWING OTHER VFYTXT PROCESS TO CONTINUE ( PID = x ON  )!`
- `COMPLETED`
- `STARTING`
- `SCREEN DUMP <>` = .
- `VFYTXT (pid = x) is ALREADY running on terminal  !!`

4. ACTION TO BE TAKEN

When the process terminates normally, no action is required.

When the process terminates abnormally (for example, "`ABORTED`"), take the corrective action suggested in the list above for error state phrases or refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
CMPR:DISK-CORE
COPY:BKDISK
RMV:MHD
RST:MHD
VFY:FILE
```

Other Manual(s):
235-105-210 *Routine Operations and Maintenance*
235-105-220 *Corrective Maintenance*

112. WHEN

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WHEN:COND

Software Release: 5E10 and later
Message Class: COND
Application: 5,3B
Type: Output

1. FORMAT

```
WHEN COND E a b c #d
```

2. REASON FOR OUTPUT

To report the status of processing a breakpoint definition.

3. VARIABLE FIELD DEFINITIONS

a = Termination or progress report. Valid value(s):

- COMPLETED = The breakpoint was successfully 'planted'. Supplementary information is also supplied.
- STARTED = The operation has begun. Some information on the breakpoint is available and is supplied here. Expect another message indicating the termination status.
- STOPPED = The operation could not be completed. The cause of the error is also printed. The breakpoint definition has been removed.

b = Valid value(s):

If 'a' =	**'b' =**
COMPLETED	Stae of the breakpoint. Valid value(s): DISABLED The breakpoint's action list will not be executed at all unless the breakpoint is allowed with an ALW:UTIL or ALW:UTILFLAG input message. ENABLED The breakpoint's action list will be executed as soon as the breakpoint conditions occur.
STARTED	H = Hard breakpoint implementation.
STOPPED	Ype of error that was encountered. Valid value(s): TOOMANY = Only 20 breakpoints are allowed to be defined at one time. UCERR = The utility circuit either does not respond or does not match the circuit present earlier in the debugging session. UCFNAV = The particular utility circuit function requested is not available.

4. ACTION TO BE TAKEN

If 'b' =	**Action: =**
TOOMANY, NGBPT, or UCFNAV	Another breakpoint will have to be cleared with the CLR:UTILFLAG input message before this one can be processed.
UCERR	The utility circuit hardware may be faulty. After it is fixed, use the INIT:UC input message to reinitialize the circuit.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
ALW:UTIL
ALW:UTILFLAG
CLR:UTIL
CLR:UTILFLAG
INIT:UC
OP:ST-PROC
OP:UTIL
WHEN:PID
WHEN:UID
```

Output Message(s):

```
OP:UTIL
```

WHEN:PID

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
WHEN PID a ADDR b c d e #f
```

2. REASON FOR OUTPUT

To report the status of processing a breakpoint definition.

3. VARIABLE FIELD DEFINITIONS

a = Process ID (PID) of the target process.

b = Address of the breakpoint.

c = Termination or progress report. Valid value(s):

- COMPLETED = The breakpoint was successfully 'planted'. Supplementary information is also supplied.
- STARTED = The operation has begun. Some information on the breakpoint is available and is supplied here. Expect another message indicating the termination status.
- STOPPED = The operation could not be completed. The cause of the error is also printed. The breakpoint definition has been removed.

d = Valid value(s):

If 'c'=	**'d' =**
COMPLETED	State of the breakpoint. Valid value(s): DISABLED = The breakpoint's action list will not be executed at all unless the breakpoint is allowed with an ALW:UTIL or ALW:UTILFLAG input message. ENABLED = The breakpoint's action list will be executed as soon as the breakpoint conditions occur.
STARTED	Breakpoint implementation. Valid value(s): HARD = Hardware implementation. SOFT = Software implementation.
STOPPED	Type of error that was encountered. Valid value(s): NGADDR = The address specified is not valid for the specified process. NGBPT = There is already a breakpoint defined for the same address of the same process. NGOPC = The first byte of the specified opcode does not agree with that specified on the WHEN: input message. NGPID = The process ID specified is not that of a running process. TOOMANY = Only 20 breakpoints are allowed to be defined at one time. UCERR = The utility circuit either does not respond or does not match the circuit present earlier in the debugging session. UCFNAV = The particular utility circuit function requested is not available. PLNTFAIL = Attempt to plant software breakpoint failed.

e = Breakpoint number. This is used in all future references to the breakpoint.

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f = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If 'd' =	Action:
NGADDR or NGOPC	
UCERR	

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

OMDB Key(s):

Format(s):	Key(s):
1	493, 503

Input Message(s):

```
CLR:UTIL
CLR:UTILFLAG
INIT:UC
OP:ST-PROC
OP:UTIL
WHEN:PID
WHEN:UID
```

Output Message(s):

```
OP:UTIL
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

WHEN:RUTIL

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________
      WHEN RUTIL ABT
        o

[2]   ____________________________________________________________
      WHEN RUTIL STOPPED
        LN aa b ADDR H' c BP = d eeee

[3]   ____________________________________________________________
      WHEN RUTIL COMPL
        LN aa b ADDR H' c BP = d DISABLED

[4]   ____________________________________________________________
      WHEN RUTIL ABT
        TOO MANY INSTRUCTIONS f

[5]   ____________________________________________________________
      WHEN RUTIL ABT
        INCONSISTENT RNA; PREV g CURR h

[6]   ____________________________________________________________
      WHEN RUTIL ABT
        INCONSISTENT NTYP; PREV i CURR j

[7]   ____________________________________________________________
      WHEN RUTIL ABT
        SEND2KERN MKNODE() FAILED k

[8]   ____________________________________________________________
      WHEN RUTIL ABT
        SEND2KERN OPEN() FAILED k

[9]   ____________________________________________________________
      WHEN RUTIL ABT
        SEND2KERN KERNEL RETURNED ERROR l

[10]  ____________________________________________________________
      WHEN RUTIL ABT
        KERNEL RESPONSE TIMEOUT m
```

2. REASON FOR OUTPUT

Prints in response to the WHEN:RUTIL input message.

Format 1 indicates that the input message has been aborted.

Format 2 indicates that the input message has been rejected by the kernel or by the concerned node itself.

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Format 3 indicates the successful setting of a break point.

Format 4 prints when the input message has been rejected by the craft process itself. There are too many instructions being attempted by the user.

Format 5 prints because input messages within an action-list must have consistent ring node addresses.

Format 6 prints because input messages within an action-list must have consistent node types.

Format 7 prints when creating the special file for the kernel has failed.

Format 8 prints when attempting to open the file for kernel processing has failed.

Format 9 indicates the kernel has returned a failing return code.

Format 10 indicates the kernel has not responded to the craft process.

3. VARIABLE FIELD DEFINITIONS

`a` = Group number of the concerned node.

`b` = Member number of the concerned node.

`c` = Address of the break point.

`d` = Break point number

`e` = Explanation of why the set-breakpoint operation was stopped. Valid value(s):

- `TOOMANY` = Currently a user is only allowed five breakpoints in a node.
- `NGADDR` = An invalid address for the break point was provided.
- `NGSPACE` = There is no data space left to store indicated break point(s).
- `NGOPC` = An invalid opcode has been provided.
- `NGBCMD` = One of the action-list input messages is invalid.
- `NGRETURN` = Current node type being specified. The node has returned a code that is not recognized.
- `VECTOR MEMORY PROTECTION ERROR CODE = n`

`f` = Number of craft instructions attempted.

`g` = Previous ring node address provided.

`h` = Current ring node address being specified.

`i` = Previous node type provided.

`j` = Current node type being specified.

`k` = Value of the global variable "errno".

`l` = Kernel's return value.

`m` = Maximum time allotted to await a kernel response.

`n` = Error return value from memory write request.

○ = Explanatory message. Valid value(s):

`TOO MANY CMDS IN WHEN ACTION LIST` = Currently the user is only allowed to specify a maximum of 24 action list items in total over all break points at a given node.

`UNSUPPORTED COMMAND` = Currently this input message is unsupported.

`OP NOT ALLOWED` = The OP:RUTIL input message is not allowed in an action-list.

`NESTED 'WHEN' NOT ALLOWED` = Nested break point action lists are not permitted.

`RING NODE ADDRESS REQUIRED` = A node address was expected.

4. ACTION TO BE TAKEN

For Formats 1 through 6, 11, and 12, review the current input message to determine the error.

For Formats 7 through 10, refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Output Messages manual.

In addition to the actions already specified, refer to the individual output messages placed within the WHEN:RUTIL .

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
ALW:RUTIL
ALW:RUTILFLAG
CLR:RUTIL
CLR:RUTILFLAG
DUMP:RUTIL
INH:RUTIL
INH:RUTILFLAG
LOAD:RUTIL
OP:RUTIL
OP:RUTILFLAG
WHEN:RUTIL
```

Output Message(s):

```
ALW:RUTIL
ALW:RUTILFLAG
CLR:RUTIL
CLR:RUTILFLAG
DUMP:RUTIL
INH:RUTIL
INH:RUTILFLAG
LOAD:RUTIL
OP:RUTIL
OP:RUTILFLAG
REPT:RUTIL
```

Other Manual(s):

235-105-110 *System Maintenance Requirements and Tools*

WHEN:UID

Software Release: 5E10 and later
Message Class: MTCE
Application: 5,3B
Type: Output

1. FORMAT

```
WHEN UID a ADDR b c d e #f
```

2. REASON FOR OUTPUT

To report the status of processing a breakpoint definition.

3. VARIABLE FIELD DEFINITIONS

a = Utility ID of the target process.

b = Address of the breakpoint.

c = Termination or progress report. Valid value(s):

- COMPLETED = The breakpoint was successfully planted. Supplementary information is also supplied.
- STARTED = The operation has begun. Some information on the breakpoint is available and is supplied here. Expect another message indicating the termination status.
- STOPPED = The operation could not be completed. The cause of the error is also printed. The breakpoint definition has been removed.

d = Valid value(s):

If 'c'=	**'d' =**
COMPLETED	State of the breakpoint. Valid value(s): DISABLED = The breakpoint's action list will not be executed at all unless the breakpoint is allowed with an ALW:UTIL or ALW:UTILFLAG input message. ENABLED = The breakpoint's action list will be executed as soon as the breakpoint conditions occur.
STARTED	Breakpoint implementation. Valid value(s): HARD = Hardware implementation. SOFT = Software implementation.
STOPPED	Type of error that was encountered. Valid value(s): NGADDR = The address specified is not valid for the specified process. NGBPT = There is already a breakpoint defined for the same address of the same process. NGOPC = The first byte of the specified opcode does not agree with that specified on the WHEN: input message. NGPID = The process ID specified is not that of a running process. TOOMANY = Only 20 breakpoints are allowed to be defined at one time. UCERR = The utility circuit either does not respond or does not match the circuit present earlier in the debugging session. UCFNAV = The particular utility circuit function requested is not available. PLNTFAIL = Attempt to plant software breakpoint failed.

e = Breakpoint number. This is used in all future references to the breakpoint.

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`f` = Generic access package (GRASP) execution sequence number.

4. ACTION TO BE TAKEN

If 'd' =	Action: =
TOOMANY, NGBPT, or UCFNAV	Another breakpoint will have to be cleared with CLR:UTILFLAG before this one can be processed.
NGADDR or NGOPC	Recheck the address or opcode used against the program listing. Consider that the listings themselves might be in error.
UCERR	The utility circuit hardware may be faulty. After it is fixed, use the INIT:UC input message to reinitialize the circuit.

5. ALARMS

None. Refer to the APP:OMDB-X-REF appendix in the Appendixes section of the Output Messages manual.

6. REFERENCES

Input Message(s):

```
CLR:UTIL
CLR:UTILFLAG
INIT:UC
OP:ST-PROC
OP:UTIL
WHEN:PID
WHEN:UID
```

Output Message(s):

```
OP:UTIL
```

Output Appendix(es):

```
APP:OMDB-X-REF
```

WHEN:UT-CMP-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
WHEN UT CMP=a-b {MATE|PRIM} UTILFLAG c d
  {ADDR e|FUNC f OFF g|TIME h}
```

2. REASON FOR OUTPUT

To report the status of the WHEN:UT-CMP input message in the communication module processor (CMP).

3. VARIABLE FIELD DEFINITIONS

MATE	= Message was executed in the standby CMP.
PRIM	= Message was executed in the active CMP.
UTILFLAG	= Designates one specific WHEN clause in this processor.
a	= Message switch side.
b	= CMP number.
c	= WHEN clause identification number. If an invalid input message is entered, the number is 255.
d	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages Manual.
e	= Absolute address specified in the input message.
f	= Symbolic name specified in the input message.
g	= Offset specified in the input message.
h	= Time specified in the input message (in milliseconds).

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

WHEN:UT-CMP

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Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

WHEN:UT-CMP-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      WHEN UT CMP=a-b {MATE|PRIM} UTILFLAG c d
        ADDR e

[2]   ____________________________________________________________________
      WHEN UT CMP=a-b {MATE|PRIM} UTILFLAG c d
        SYMIDX f FUNC g OFF h

[3]   ____________________________________________________________________
      WHEN UT CMP=a-b {MATE|PRIM} UTILFLAG c d
        TIME i
```

2. REASON FOR OUTPUT

To report the status of the WHEN:UT-CMP input message in the communication module processor (CMP).

Format 1 reports the status of a WHEN breakpoint input message defined by a physical address.

Format 2 reports the status of a WHEN breakpoint input message defined by a symbolic reference and an optional offset.

Format 3 reports the status of a timed WHEN input message.

3. VARIABLE FIELD DEFINITIONS

`MATE` = Message was executed in the standby CMP.

`PRIM` = Message was executed in the active CMP.

`UTILFLAG` = Designates one specific WHEN clause in this processor.

`a` = Message switch side.

`b` = CMP number.

`c` = WHEN clause identification number. If an invalid input message is entered, the number is 255.

`d` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages Manual.

`e` = Absolute address specified in the input message.

`f` = Symbol index number of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`g`'. If an invalid input message is entered, the symbol index number will be "-1".

`g` = Symbolic name specified in the input message or determined by the UT code based on the

symbol index number '`f`'. The symbol name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`h` = Offset specified in the input message.

`i` = Time specified in the input message (in milliseconds).

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-SYMID
WHEN:UT-CMP
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-600-400 *Audits Manual*

WHEN:UT-MCTSI-PI-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

[1]
```
WHEN UT MCTSI=a-b PI UTILFLAG c d
  ADDR e
```

[2]
```
WHEN UT MCTSI=a-b PI UTILFLAG c d
  FUNC f OFF g
```

[3]
```
WHEN UT MCTSI=a-b PI UTILFLAG c d
  TIME h
```

2. REASON FOR OUTPUT

To report the status of the WHEN:UT-MCTSI-PI input message used in the packet interface (PI) unit.

3. VARIABLE FIELD DEFINITIONS

UTILFLAG	= Designates one specific WHEN clause.
a	= Switching module (SM) number.
b	= Side of the module controller/time-slot interchange (MCTSI).
c	= WHEN message identification number, in decimal. If an invalid input message is entered, the number is 255.
d	= Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.
e	= Absolute address specified in the input message.
f	= Symbolic name specified in the input message.
g	= Offset specified in the input message.
h	= Time interval specified in the WHEN message (in milliseconds).

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

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6. REFERENCES

Input Message(s):

```
WHEN:UT-MCTSI-PI
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements And Tools*
235-600-400 *Audits Manual*

WHEN:UT-MCTSI-PI-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      WHEN UT MCTSI=a-b PI UTILFLAG c d
        ADDR e

[2]   ____________________________________________________________________
      WHEN UT MCTSI=a-b PI UTILFLAG c d
        SYMIDX f FUNC g OFF h

[3]   ____________________________________________________________________
      WHEN UT MCTSI=a-b PI UTILFLAG c d
        TIME i
```

2. REASON FOR OUTPUT

To report the status of the WHEN:UT-MCTSI-PI input message used in the packet interface (PI) unit.

Format 1 reports the status of a WHEN breakpoint input message defined by a physical address.

Format 2 reports the status of a WHEN breakpoint input message defined by a symbolic reference and an optional offset.

Format 3 reports the status of a timed WHEN input message.

3. VARIABLE FIELD DEFINITIONS

`UTILFLAG` = Designates one specific WHEN clause.

`a` = Switching module (SM) number.

`b` = Side of the module controller/time-slot interchange (MCTSI).

`c` = WHEN message identification number, in decimal. If an invalid input message is entered, the number is 255.

`d` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

`e` = Absolute address specified in the input message.

`f` = Symbol index number of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`g`'. If an invalid input message is entered, the symbol index number will be "-1".

`g` = Symbolic name specified in the input message or determined by the UT code based on the symbol index number '`f`'. The symbol name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '`*`' to indicate this. The full name of these symbols can be

determined by using the DUMP:UT-SYMID input message.

`h` = Offset specified in the input message.

`i` = Time interval specified in the WHEN message (in milliseconds).

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-SYMID
WHEN:UT-MCTSI-PI
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements And Tools*
235-600-400 *Audits Manual*

WHEN:UT-PSUPH-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
WHEN UT PSUPH=a-b-c-d UTILFLAG e f
 {ADDR g|FUNC h OFF i|TIME j}
```

2. REASON FOR OUTPUT

To report the status of the WHEN:UT-PSUPH input message in the packet switch unit protocol handler (PSUPH).

3. VARIABLE FIELD DEFINITIONS

`UTILFLAG` = Designates one specific WHEN clause in this processor.

`a` = Switching module (SM) number.

`b` = Unit number.

`c` = Shelf number.

`d` = Slot number.

`e` = WHEN clause identification number. If an invalid input message is entered, the number is 255.

`f` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages Manual.

`g` = Absolute address specified in the input message.

`h` = Symbolic name specified in the input message.

`i` = Offset specified in the input message.

`j` = Time specified in the input message (in milliseconds).

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

`WHEN:UT-PSUPH`

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Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-600-400 *Audits*

WHEN:UT-PSUPH-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

[1]
```
WHEN UT PSUPH=a-b-c-d UTILFLAG e f
  ADDR g
```

[2]
```
WHEN UT PSUPH=a-b-c-d UTILFLAG e f
  SYMIDX h FUNC i OFF j
```

[3]
```
WHEN UT PSUPH=a-b-c-d UTILFLAG e f
  TIME k
```

2. REASON FOR OUTPUT

To report the status of the WHEN:UT-PSUPH input message in the packet switch unit protocol handler (PSUPH).

Format 1 reports the status of a WHEN breakpoint input message defined by a physical address.

Format 2 reports the status of a WHEN breakpoint input message defined by a symbolic reference and an optional offset.

Format 3 reports the status of a timed WHEN input message.

3. VARIABLE FIELD DEFINITIONS

`UTILFLAG` = Designates one specific WHEN clause in this processor.

`a` = Switching module (SM) number.

`b` = Unit number.

`c` = Shelf number.

`d` = Slot number.

`e` = WHEN clause identification number. If an invalid input message is entered, the number is 255.

`f` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages Manual.

`g` = Absolute address specified in the input message.

`h` = Symbol index number of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`i`'. If an invalid input message is entered, the symbol index number will be "-1".

`i` = Symbolic name specified in the input message or determined by the UT code based on the

symbol index number 'h'. The symbol name is limited to 15 characters in length. If the symbol is longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '*' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

j = Offset specified in the input message.

k = Time specified in the input message (in milliseconds).

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-SYMID
WHEN:UT-PSUPH
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-600-400 *Audits*

WHEN:UT-SM-A

Software Release: 5E10 only
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      WHEN UT SM=a UTILFLAG b c
        ADDR d

[2]   ____________________________________________________________________
      WHEN UT SM=a UTILFLAG b c
        FUNC e OFF f

[3]   ____________________________________________________________________
      WHEN UT SM=a UTILFLAG b c
        TIME g

[4]   ____________________________________________________________________
      WHEN UT SM=a UTILFLAG b c
        DATA k ADRS i OPER m
        DMSK l AMSK j OMSK n
```

2. REASON FOR OUTPUT

To report the status of the WHEN:UT-SM input message.

Format 1 reports the status of a WHEN breakpoint message which has been defined with a physical address.

Format 2 reports the status of a WHEN breakpoint message which has been defined with a symbolic reference and an optional offset.

Format 3 reports the status of a timed WHEN message.

Format 4 reports the status of a matching WHEN message for an SM-2000.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = WHEN clause identification number. If an invalid input message is entered, the number is 255.

`c` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

`d` = Absolute address specified in the input message.

`e` = Global symbol specified in the input message.

`f` = Offset specified in the input message.

`g` = Time specified in the input message (in milliseconds).

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`i` = The value of the address field specified in the input message.

`j` = The mask value for the address field specified in the input message.

`k` = The value of the data field specified in the input message.

`l` = The mask value for the data field specified in the input message.

`m` = The type of bus operation specified in the input message.

`n` = The mask value for the bus operation field specified in the input message.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
WHEN:UT-SM
```

Input Appendix(es):

```
APP:UT-IM-REASON
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*

WHEN:UT-SM-B

Software Release: 5E11 and later
Message Class: UT
Application: 5
Type: Output

1. FORMAT

```
[1]   ____________________________________________________________________
      WHEN UT SM=a UTILFLAG b c
        ADDR d

[2]   ____________________________________________________________________
      WHEN UT SM=a UTILFLAG b c
        SYMIDX e FUNC f OFF g

[3]   ____________________________________________________________________
      WHEN UT SM=a UTILFLAG b c
        TIME h

[4]   ____________________________________________________________________
      WHEN UT SM=a UTILFLAG b c
        DATA i ADRS k OPER m
        DMSK j AMSK l OMSK n
```

2. REASON FOR OUTPUT

To report the status of the WHEN:UT-SM input message.

Format 1 reports the status of a WHEN breakpoint input message defined by a physical address.

Format 2 reports the status of a WHEN breakpoint input message defined by a symbolic reference and an optional offset.

Format 3 reports the status of a timed WHEN input message.

Format 4 reports the status of a matching WHEN input message for an SM-2000.

3. VARIABLE FIELD DEFINITIONS

`a` = Switching module (SM) number.

`b` = WHEN clause identification number. If an invalid input message is entered, the number is 255.

`c` = Termination report. Refer to the APP:UT-OM-REASON appendix in the Appendixes section of the Output Messages manual.

`d` = Absolute address specified in the input message.

`e` = Symbol index number of the specified symbol either specified in the input message or determined by the UT code based on the symbol name '`f`'. If an invalid input message is entered, the symbol index number will be "-1".

`f` = Symbolic name specified in the input message or determined by the UT code based on the symbol index number '`e`'. The symbol name is limited to 15 characters in length. If the symbol is

longer that 15 characters, the symbol name will be truncated to 14 characters and the 15th character will be replaced with a '*' to indicate this. The full name of these symbols can be determined by using the DUMP:UT-SYMID input message.

`g` = Offset specified in the input message.

`h` = Time specified in the input message (in milliseconds).

`i` = The value of the data field specified in the input message.

`j` = The mask value for the data field specified in the input message.

`k` = The value of the address field specified in the input message.

`l` = The mask value for the address field specified in the input message.

`m` = The type of bus operation specified in the input message.

`n` = The mask value for the bus operation field specified in the input message.

4. ACTION TO BE TAKEN

If appropriate, correct the specified input message and repeat.

5. ALARMS

None.

6. REFERENCES

Input Message(s):

```
DUMP:UT-SYMID
WHEN:UT-SM
```

Input Appendix(es):

```
APP:UT-IM-REASON
```

Output Appendix(es):

```
APP:UT-OM-REASON
```

Other Manual(s):
235-105-110 *System Maintenance Requirements and Tools*
235-600-400 *Audits Manual*

113. WRT

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WRT:AMA-DATA

Software Release: 5E10 and later
Message Class: GENR
Application: 5
Type: Output

1. FORMAT

```
WRT AMA DATA HAS BEEN WRITTEN TO DISK
  READY TO TRANSFER DATA FROM DISK TO OUTPUT MEDIUM
```

2. REASON FOR OUTPUT

To indicate that internal billing data buffers have been written to disk. This message is a response to input message WRT:AMADATA.

3. VARIABLE FIELD DEFINITIONS

No variables.

4. ACTION TO BE TAKEN

The data on the disk can now be transferred.

5. ALARMS

This message itself does not cause any alarms, but is accompanied by critical and minor alarmed messages from the AMA disk writer. The purpose of the alarms is to alert the user that the AMA diskwriter has been killed as a result of the WRT:AMADATA input message. Since killing the AMA disk writer may result in a delay in writing AMA data to the disk, the user must be notified.

6. REFERENCES

Input Message(s):

```
ALW:AMA-SESSION
WRT:AMADATA
```

Other Manual(s):

Where 'x' is the release-specific version of the specified manual.
235-105-24x *Generic Retrofit Procedures*
235-600-500 *Asserts*